Final Garden Soil Sampling Report

Defense Depot Memphis, Tennessee
TN4210020570

December 2019

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Department of the Army

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Acronyms and Abbreviations

µg/kg	micrograms per kilogram
bgs	below ground surface
BRAC	Base Realignment and Closure
CVOC	chlorinated volatile organic compound
DDMT	Defense Depot Memphis, Tennessee
DQE	data quality evaluation
DQO	data quality objective
EPP	Environmental Protection Provision
ft	foot/feet
FU	functional unit
LUC	Land Use Controls
LUCIP	Land Use Control Implementation Plan
MCL	maximum contaminant level
MI	main installation
MS	matrix spike
MSD	matrix spike duplicate
NLUR	Notice of Land Use Restrictions
OU	operating unit
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
PCE	tetrachloroethene
QA	quality assurance
QC	quality control
ROD	record of decision
RSL	regional screening level
SCROD	Shelby County Register of Deeds
SVOC	semi-volatile organic compound
TCE	trichloroethene
TDEC	Tennessee Department of Environment and Conservation
TIC	tentatively identified compound
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
VOC	volatile organic compound

1 Introduction

This *Final Garden Soil Sampling Report* (Report) was prepared by HDR, Inc. under Contract Number W91278-16-D-0061-W9127819F0090 to the United States Army Corps of Engineers (USACE). This Report documents garden soil sampling and analytical results for an area on the Main Installation (MI) of the former Defense Depot Memphis, Tennessee (DDMT). The area was temporarily used for a garden by the current owner, Barnhart Crane & Rigging Company (Barnhart). Soil sampling was conducted to evaluate whether the soil may contain contaminants resulting from past Army activities that could present a risk to human health. Soil sampling was conducted in accordance with the Statement of Work (USACE 2019) and the *Final Garden Soil Sampling Work Plan* (Work Plan) (HDR 2019a).

1.1 Location and Site History

DDMT is located in southeastern Memphis, Tennessee, and consists of approximately 634 acres at the MI and Dunn Field. The MI contains approximately 567 acres with open storage areas, warehouses, former military family housing, and outdoor recreational areas. Dunn Field, which is located across Dunn Avenue from the northwest section of the MI, contains approximately 67 acres with former mineral storage and waste disposal areas.

DDMT originated as a military facility in the early 1940s to provide stock control, material storage, and maintenance services for the United States (U.S.) Army. DDMT was selected for closure under Base Realignment and Closure (BRAC) in 1995; storage and distribution activities ceased in September 1997.

During operations from 1942 to 1997, DDMT received, warehoused, and distributed supplies to U.S. military services and civilian agencies. The supplies included hazardous substances; textile products; food products; electronic equipment; construction materials; and industrial, medical, and general supplies.

1.2 Geology and Hydrogeology

The geologic units of interest at DDMT are (from youngest to oldest): loess, including surface soil; fluvial deposits; Jackson Formation/Upper Claiborne Group (Jackson/Upper Claiborne); and Memphis Sand.

Sampling was limited to the loess and fill placed since the property was purchased by the federal government. The loess consists of wind-blown and deposited brown to reddish-brown, low-plasticity clayey silt to silty clay. The loess deposits are about 20 to 30 feet (ft) thick and are continuous throughout the DDMT.

1.3 Contaminants and Remedial Action

Site investigations from 1989 to 2001 identified contamination in surface soil and ground water (CH2MHILL 2000). Surface soil contamination consisted primarily of metals, pentachlorophenol, polychlorinated biphenyls, polyaromatic hydrocarbons, and a pesticide, dieldrin. Groundwater

contamination was limited to chlorinated volatile organic compounds (CVOCs) primarily tetrachloroethene (PCE), trichloroethene (TCE), carbon tetrachloride, and chloroform.

The remedial action objectives established in the Main Installation Record of Decision (MI ROD) (CH2MHILL 2001) were to prevent contact/ingestion of surface soil contaminated with lead, dieldrin and/or arsenic above risk based criteria, to prevent ingestion of water contaminated with volatile organic compounds (VOCs) in excess of maximum contaminant levels (MCLs), to reduce concentrations of VOCs in groundwater to MCLs or lower, and to prevent horizontal and vertical off-site migration of groundwater contaminants in excess of MCLs. The selected remedy consisted of excavation and offsite disposal of lead-contaminated surface soil near Building 949, deed restrictions and land use controls for the MI, enhanced bioremediation treatment of CVOCs in groundwater, long-term groundwater monitoring and five-year reviews of the selected remedy.

The garden area is located along the property boundary in the northwest quadrant of the MI (see Figure 1); it is within Operating Unit (OU) 4, North Central Area MI and Functional Unit (FU) 4, Northern and Open Area. Figures 3 and 8 from the *2019 Site Management Plan* (HDR 2019b) show no removal actions or environmental sites located in close proximity to the garden area. The figures were included in Appendix A of the Work Plan.

1.4 Recent Activity

In 2017, Barnhart partnered with Landmark Training and Development Company to start a job skills/ employability program for young adult and working age youth. A Barnhart representative stated the program's goal is to improve the participants' employment opportunities and that the program conforms to labor practices and guidelines allowed by the U.S. Department of Labor and the Tennessee Department of Labor and Workforce Development. The program participants are temporary employees of and paid by Landmark using grant funding. The participants, aged 13 to 17, worked under supervision in and around Barnhart property at the MI for 4 hours per day, up to 5 days per week for up to 10 weeks from late May to early August.

One of the program activities was work in the garden area where an assortment of vegetables were planted in above-grade concrete containers; the containers held a commercial soil mix purchased from Lowe's Home Improvement store. Roses and sunflowers were planted in the ground near the containers. Cabbage was also planted in the ground. Potable water from Memphis Light, Gas & Water was used to water the garden. Barnhart discontinued activities in the community garden area in June 2018. None of the vegetables were harvested; they were removed in May 2018 and discarded. The garden area is shown on Figure 1.

Land use restrictions at the MI were established in accordance with the MI ROD through the *Land Use Control Implementation Plan* (LUCIP) in Appendix C of *Main Installation Final Remedial Design, Revision 1* (CH2MHILL 2004). The restrictions are summarized as follows:

- No residential land use or other child-occupied facilities, including daycare, on the MI (except Parcels 1 and 2 of FU6).
- No production/consumptive use of groundwater or drilling groundwater wells on the MI.

- Notice of Land Use Restrictions (NLUR) filed with Shelby County Register of Deeds (SCROD). Leases and deeds for MI property must include the Land Use Controls (LUC) and Environmental Protection Provisions (EPP).

An annual site inspection is conducted to verify that the restrictions are being maintained and that the restrictions remain effective. The 2019 site inspection report (HDR 2019c) noted that Barnhart stated they did not participate in the Landmark program in 2019 and the garden program has been inactive since June 2018. U.S. Environmental Protection Agency (USEPA) has stated the garden activities are consistent with residential use and thus are not allowed on the MI, unless the LUCIP is revised by Army and approved by USEPA and Tennessee Department of Environment and Conservation (TDEC).

2 Sampling and Analysis Methods

2.1 Garden Access and Utility Clearance

HDR contacted the Barnhart site manager approximately one week before mobilization to review the planned activities and arrange site access. The sampling activities were discussed with Barnhart personnel and access was granted.

The planned soil sampling locations were marked by HDR on 20 August 2019 and Tennessee 811 was notified (Ticket No. 192325463). Underground utilities were marked before sampling was performed.

2.2 Soil Sampling

The garden area is approximately 0.6 acre with dimensions of approximately 120 ft by 210 ft. The area was divided into eight sample cells ranging from approximately 2170 to 3050 square feet using a tape measure and wooden stakes. Each cell was visually inspected to select a representative sample location. The sample locations for the garden included ‘disturbed’ areas that were used for planting (01, 02, 03 and 04), a ‘disturbed’ area that appeared to be a soil stockpile (08), and ‘undisturbed’ areas (05, 06 and 07) where planting was limited to containers. The sample locations were measured from the southwest corner of the chain link fence that surrounds the garden area; the sample grid and coordinates are listed on Table 1. Sample locations are depicted on Figure 2 and photographs of the locations are provided in Appendix A.

Soil samples were collected on 26 August 2019. A clean stainless-steel hand auger was used to collect two soil samples from each of the eight grids (Figure 2). The shallow soil samples were collected by advancing a cleaned stainless steel hand auger from ground surface to approximately 6 inches below ground surface (bgs). A soil sample for VOC analysis was immediately collected from the hand auger barrel using Terracore samplers. The remaining soil from the hand auger was placed into a clean stainless steel bowl, rocks and debris were removed, and the soil was homogenized with a new nitrile-gloved hand until thoroughly mixed. Samples were collected from the stainless steel bowl and placed in laboratory supplied containers.

The hand auger was advanced to 12 inches bgs and the excavated soil was placed adjacent to the boring. After reaching 12 inches bgs, the hand auger was removed from the boring and decontaminated by scrubbing with an Alconox solution, rinsing with potable water, and drying with new paper towels.

The cleaned hand auger was then advanced from approximately 12 to 18 inches bgs. A deep soil sample for VOC analysis was immediately collected from the hand auger barrel using Terracore samplers. The remaining soil from the hand auger was placed into a clean stainless steel bowl, rocks and debris were removed, and the soil was homogenized with a new nitrile gloved hand until thoroughly mixed. Samples were collected from the stainless steel bowl and placed in laboratory supplied containers for non-volatile analyses.

One soil sample (S09) was also collected from a planter box located immediately south of the garden area. The sample was collected from 6 to 12 inches below grade using a cleaned hand auger and stainless steel bowl, consistent with the methods presented above.

The soil samples consisted of light brown, sandy silt fill soil. Most samples were weakly cemented with fine rounded gravel or subangular, medium-sized gravel.

Samples collected from 0 to 6 inches bgs are identified by “1” as the final number in the sample identification and samples collected from 12 to 18 inches bgs are identified by “2” (e.g., GN-SO-02-1 and GN-SO-02-2). Two duplicate soil samples GN-SO-DUP 1 and GN-SO-DUP 2 were collected from parent samples GN-SO-02-1 and GN-S0-05-2, respectively.

After the samples were collected, each boring was backfilled with the excavated soil and lightly compacted.

2.3 Laboratory Analysis

The soil samples were submitted to DOD-ELAP certified laboratories, CT Laboratories and APPL Labs, for analysis as listed below.

- CT Laboratories
    - VOCs by SW-846 Method 8260C.
    - Semi-volatile organic compounds (SVOCs) including pentachlorophenol by SW-846 Method 8270D.
    - Polycyclic aromatic hydrocarbons (PAHs) by SW-846 Method 8270D-SIM.
    - Organochlorine pesticides by SW-846 Method 8081B and polychlorinated biphenyls (PCBs) by SW-846 Method 8082A.
    - Total metals by SW-846 Methods 6010C, 6020 and 7471B series.
- APPL Labs
    - Hexavalent chromium (Cr6) by SW-846 Method 7199.

3 Results

3.1 Data Quality Evaluation

Analytical data from the August 2019 garden soil sampling event were reviewed by the HDR Project Chemist using guidelines in the Work Plan and the *DDMT Uniform Federal Policy-Quality Assurance Project Plan, Revision 1* (HDR 2018). The complete analytical results for field samples, including data quality evaluation (DQE) flags, are presented for each analyte group in Appendix B, Tables B-1, B-2, B-3, B-4, and B-5. Tentatively identified compounds (TICs) for VOCs and SVOCs are presented in Appendix B, Tables B-6 and B-7, respectively. Results for quality control (QC) samples are presented in Table B-8.

The laboratory analytical reports are included in Appendix C (electronic copies only). The complete DQE for the sample results is provided in Appendix D. The main findings from the DQE for the analytical data are summarized below.

Four SVOC analytes (2,4-dimethylphenol, 3,3'-dichlorobenzidine, aniline, and benzyl alcohol) in one soil sample (GN-SO-04-1) were rejected due to very low matrix spike / matrix spike duplicate (MS/MSD) recoveries. The remaining laboratory data met project data quality objectives (DQOs) with minor qualification and were determined to be sufficient to support the project objectives. The main findings from the DQE for the Garden Soil analytical data are summarized below.

3.1.1 VOCs

- Thirteen VOCs had MS recoveries below the control limits but had MSD recoveries within the control limits. These analytes were qualified as non-detect estimated (UJ) in the parent sample (GN-SO-04-1). The MS recoveries of 17 analytes were above control limits. Of these analytes, acetone was the only detection and was qualified as estimated (J) in the parent sample. The other analytes were not detected in the parent sample and were not qualified.
- Acetone in one parent sample / field duplicate pair had an RPD above the control limit and was qualified as estimated (J).
- The areas of one internal standard in two samples were below the required limit, and the associated analytes were qualified as non-detect estimated (UJ) or estimated (J).

3.1.2 SVOCs

- Benzyl alcohol in six samples was qualified as non-detect estimated (UJ) due to low recovery of the continuing calibration standard.
- Two analytes (3,3'-dichlorobenzidine and aniline) were qualified as non-detect estimated (UJ) in all soils due to low laboratory control sample (LCS) recoveries.
- All phenols and benzoic acid in five samples were qualified as non-detect estimated (UJ) due to low recoveries of two of the three acid fraction surrogates.

- Four analytes (2,4-dimethylphenol, 3,3'-dichlorobenzidine, aniline, and benzyl alcohol) had MS and MSD recoveries below 10%, and these non-detect results in the parent sample (GN-SO-04-1) have been rejected (R).
- Four analytes had MS and/or MSD recoveries below the control limits. These analytes were qualified as non-detect estimated (UJ) in the parent sample (GN-SO-04-1).
- The MSD recovery of carbazole was above the control limits, and the RPD was above the control limit of 20%. Carbazole was detected in the parent sample and was qualified as estimated (J).
- Carbazole in one parent sample / field duplicate pair had an RPD above the control limit and was qualified as estimated (J).

3.1.3 PAHs

- Pyrene in the rinse blank was qualified as non-detect at the limit of quantitation (LOQ) due to pyrene detected in the associated method blank.
- All 18 PAHs in sample GN-SO-DUP-2 were detected and qualified as estimated with a possible high bias (J+) due to one surrogate recovery above control limits and the other surrogate recovery just within the upper control limit.
- Five PAHs had MS or MSD recoveries above or below the control limits and RPDs above the control limit. These analytes were qualified as estimated (J) in the parent sample (GN-SO-04-1).
- All 18 PAHs in one parent sample / field duplicate pair and 13 PAHs in the other parent sample / field duplicate pair had RPDs above the control limit and were qualified as estimated (J).

3.1.4 Pesticides

- Three pesticides had MS and/or MSD recoveries below the control limits. These analytes were qualified as non-detect estimated (UJ) in the parent sample (GN-SO-04-1).
- The MSD recovery of 4,4'-DDE was below the control limits. 4,4'-DDE was detected in the parent sample and was qualified as estimated (J).
- Three pesticides in one parent sample / field duplicate pair had RPDs above the control limit and were qualified as estimated (J). Two pesticides in these samples were not detected in the field duplicate but were detected in the parent sample, and these results were qualified as non-detect estimated (UJ) and estimated (J) respectively.
- Some detected results had RPDs between the primary (reported) results and the secondary (confirmation) results that were greater than the required limit and were qualified as estimated (J).

3.1.5 Metals

- The MSD recovery of arsenic was below the control limits. Arsenic was qualified as estimated (J) in the parent sample (GN-SO-04-1).

- The MS and MSD recoveries of lead were above the control limits. Lead was detected in the parent sample and was qualified as estimated (J).
- Fifteen metals in one parent sample / field duplicate pair and two metals in the other parent sample / field duplicate pair had RPDs above the control limit and were qualified as estimated (J).

3.1.6 Hexavalent Chromium

- Hexavalent chromium was detected in the method blank at a trace level and in most samples, also at trace levels. Normally for this project, the sample results would be qualified as non-detect at the LOQ of 0.6 mg/kg, but the residential soil screening level (SSL) for hexavalent chromium is 0.3 mg/kg, so the non-detect at the LOQ would not provide the needed information. The sample results have been qualified as estimated (J).

3.1.7 All Analyses

- Any result reported below the LOQ but above the detection limit was flagged “J” and considered an estimated result (unless overridden by other quality control [QC] flags).

3.2 Sample Results

Soil samples were collected at nine locations as described in Section 2.2. The complete analytical results for the garden soil samples are listed in Tables B-1 to B-7. The USEPA regional screening levels (RSLs) (USEPA 2019) for industrial and residential exposure with a target cancer risk of 1E-06 and target hazard quotient of 1 are also shown on the tables.

The analytical results are summarized in the following sections for each analyte group; summary tables are provided listing analytes detected above the LOQ in at least one sample or where analyte concentrations exceeded a USEPA RSL; VOCs are shown on Table 2, PAHs on Table 3, Pesticides /PCBs on Table 4 and Metals on Table 5. The RSLs are also listed on the tables.

RSLs are not available for the TICs reported on Tables B-6 and B-7, and TICs are not typically evaluated in risk assessments unless they are known to be site-related. Since none of the TICs are considered to be site-related, they are not discussed in the following sections.

3.2.1 VOCs

The complete results for VOCs are shown on Table B-1. There were no exceedances of RSLs for VOCs. The four VOC analytes detected above the LOQ in at least one samples are shown on Table 2.

3.2.2 SVOCs

The complete results for SVOCs are shown on Table B-2. A summary table is not provided for SVOCs because there were no exceedances of RSLs and no SVOCs were detected above the LOQs.

3.2.3 PAHs

The complete results for PAHs are shown on Table B-3. Four PAHs exceeded RSLs for residential exposure: Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene and Dibenzo(a,h)anthracene. There were no exceedances for industrial exposure. All the PAH analytes were detected above the LOQs and are shown on Table 3.

3.2.4 Pesticides and PCBs

The complete results for pesticides and PCBs are shown on Table B-4. There was one exceedance of a pesticide RSL for residential exposure; 4,4-DDE at 2,440 µg/kg in the duplicate for sample GN-SO-02-1, exceeded the RSL of 2,000 µg/kg. The concentration of 4,4-DDE in the parent sample (82.8 µg/kg) is well below the RSL. There were no other exceedances of RSLs for pesticides and PCBs. PCBs were not detected above the LOQ in any samples. The five pesticides detected above the LOQ are shown on Table 4.

3.2.5 Metals

The complete results for metals are shown on Table B-5. Arsenic was reported in all samples at concentration of 3,340 to 16,900 µg/kg; the concentrations exceed both the residential and industrial RSLs, of 680 and 3,000 µg/kg, respectively. Only the highest reported concentration for arsenic, 16,900 µg/kg at GN-SO-04-1, exceeds the reported background concentration for arsenic at DDMT, 16,500 µg/Kg (CH2MHILL 1998).

Hexavalent chromium concentrations of 320 to 620 µg/kg in seven samples exceed the residential RSL (300 µg/kg). All the metal analytes, except silver, were detected above the LOQs and are shown on Table 5.

4 Conclusions

Residential RSLs were exceeded for four PAHs (Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene and Dibenzo(a,h)anthracene), one pesticide (4,4-DDE) and for two metals (arsenic and hexavalent chromium).

Arsenic was the only analyte to exceed an industrial RSL. However, all but one of the sample concentrations were below the arsenic background concentration (16,500 µg/kg) established for DDMT in 1998.

5 References

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Tables

TABLE 1
SAMPLE LOCATION COORDINATES
GARDEN SOIL SAMPLING REPORT
Main Installation - Defense Depot Memphis, Tennessee

Boring Identification	Condition	Feet East	Feet North
S01	Disturbed	47.4	14.3
S02	Disturbed	25.6	31.0
S03	Disturbed	39.5	58.7
S04	Disturbed	63.1	80.8
S05	Undisturbed	126.5	69.6
S06	Undisturbed	143.8	57.1
S07	Undisturbed	138.6	26.1
S08	Disturbed	165.3	7.7
S09	Container	140.1	-69.0

Note: Boring location distances were measured in feet from the southwest corner of the chain link fence surrounding the garden area.

TABLE 2
ANALYTICAL RESULTS SUMMARY, VOCS
GARDEN SOIL SAMPLING REPORT
Main Installation - Defense Depot Memphis, Tennessee

		USEPA Soil RSLs, May 2019 (TR 1E-06, THQ 1)		GN-SO-01-1	GN-SO-01-2	GN-SO-02-1	GN-SO-02-1-DUP-1	GN-SO-02-2	GN-SO-03-1
		Residential	Industrial	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019
Analyte	Units	Value	Value	Result	Result	Result	Result	Result	Result
2-Butanone	µg/Kg	27,000,000	190,000,000	18.6 J	25 J	< 24 U	< 25 U	< 19 U	14.1 J
Acetone	µg/Kg	61,000,000	670,000,000	399	331	162	174	110	258
Benzene	µg/Kg	1,200	5,100	1.01 J	0.427 J	0.365 J	0.499 J	< 0.94 U	0.957 J
Carbon disulfide	µg/Kg	770,000	3,500,000	1.78 J	1.28 J	1.46 J	1.5 J	< 1.9 U	2.27 J

Notes:

The USEPA Regional Screening Levels (RSLs) with a target cancer risk of 1E-06 and target hazard quotient of 1 (May 2019) are applied as screening criteria.

The USEPA RSLs for 1,3-dichloropropene are applied for its cis- and trans-isomers and m-xylenes for m,p-xylenes.

Concentrations greater than the Residential RSL are shaded bold.

Concentrations greater than the Industrial RSL are shaded bold and underlined.

µg/Kg: micrograms per Kilogram

DQE Flags:

J: Estimated

U: Not Detected

UJ: Not Detected, estimated

Method:

8260C: Volatile Organic Compounds (VOCs)

TABLE 2
ANALYTICAL RESULTS SUMMARY, VOCS
GARDEN SOIL SAMPLING REPORT
Main Installation - Defense Depot Memphis, Tennessee

		USEPA Soil RSLs, May 2019 (TR 1E-06, THQ 1)		GN-SO-03-2	GN-SO-04-1	GN-SO-04-2	GN-SO-05-1	GN-SO-05-2	GN-SO-05-2-DUP-2
		Residential	Industrial	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019
Analyte	Units	Value	Value	Result	Result	Result	Result	Result	Result
2-Butanone	µg/Kg	27,000,000	190,000,000	34.2	< 24 UJ	14.1 J	< 20 U	< 22 U	< 19 U
Acetone	µg/Kg	61,000,000	670,000,000	302	173 J	188	135	156 J	86.3 J
Benzene	µg/Kg	1,200	5,100	0.588 J	< 1.2 U	< 0.99 U	1.79 J	0.674 J	0.389 J
Carbon disulfide	µg/Kg	770,000	3,500,000	1.68 J	5.72	1.19 J	4.17	1.91 J	2.82 J

Notes:

The USEPA Regional Screening Levels (RSLs) with a target cancer risk of 1E-06 and target hazard quotient of 1 (May 2019) are applied as screening criteria.

The USEPA RSLs for 1,3-dichloropropene are applied for its cis- and trans-isomers and m-xylenes for m,p-xylenes.

Concentrations greater than the Residential RSL are shaded bold.

Concentrations greater than the Industrial RSL are shaded bold and underlined.

µg/Kg: micrograms per Kilogram

DQE Flags:

J: Estimated

U: Not Detected

UJ: Not Detected, estimated

Method:

8260C: Volatile Organic Compounds (VOCs)

TABLE 2
ANALYTICAL RESULTS SUMMARY, VOCS
GARDEN SOIL SAMPLING REPORT
Main Installation - Defense Depot Memphis, Tennessee

		USEPA Soil RSLs, May 2019 (TR 1E-06, THQ 1)		GN-SO-06-1	GN-SO-06-2	GN-SO-07-1	GN-SO-07-2	GN-SO-08-1	GN-SO-08-2	GN-SO-09C-1
		Residential	Industrial	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019
Analyte	Units	Value	Value	Result	Result	Result	Result	Result	Result	Result
2-Butanone	µg/Kg	27,000,000	190,000,000	< 23 U	19.5 J	< 23 U	< 24 U	< 22 U	< 22 U	19.3 J
Acetone	µg/Kg	61,000,000	670,000,000	104	186	51.2	117	17.6 J	134	357
Benzene	µg/Kg	1,200	5,100	2.93	0.511 J	2.58	1.31 J	< 1.1 U	1.4 J	< 1.2 U
Carbon disulfide	µg/Kg	770,000	3,500,000	1.69 J	1.33 J	2.47 J	10.3	< 2.2 U	6.35	< 2.5 U

Notes:

The USEPA Regional Screening Levels (RSLs) with a target cancer risk of 1E-06 and target hazard quotient of 1 (May 2019) are applied as screening criteria.

The USEPA RSLs for 1,3-dichloropropene are applied for its cis- and trans-isomers and m-xylenes for m,p-xylenes.

Concentrations greater than the Residential RSL are shaded bold.

Concentrations greater than the Industrial RSL are shaded bold and underlined.

µg/Kg: micrograms per Kilogram

DQE Flags:

J: Estimated

U: Not Detected

UJ: Not Detected, estimated

Method:

8260C: Volatile Organic Compounds (VOCs)

TABLE 3
ANALYTICAL RESULTS SUMMARY, PAHS
GARDEN SOIL SAMPLING REPORT
Main Installation - Defense Depot Memphis, Tennessee

		USEPA Soil RSLs, May 2019 (TR 1E-06, THQ 1)		GN-SO-01-1	GN-SO-01-2	GN-SO-02-1	GN-SO-02-1-DUP-1	GN-SO-02-2	GN-SO-03-1	GN-SO-03-2	GN-SO-04-1	GN-SO-04-2	GN-SO-05-1	GN-SO-05-2	GN-SO-05-2-DUP-2	GN-SO-06-1	GN-SO-06-2
		Residential	Industrial	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019
Analyte	Units	Value	Value	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
1-Methylnaphthalene	µg/Kg	18,000	73,000	1.58 J	< 1.1 UJ	6.12 J	14.4 J	3.15 J	2.57 J	3.97 J	6.97	4.07 J	62	4.94 J	9.79 J+	2.26 J	1.79 J
2-Methylnaphthalene	µg/Kg	240,000	3,000,000	2.13 J	< 1.1 UJ	7.34 J	16.2 J	3.24 J	2.13 J	4.19 J	8.67	4.71 J	50.8	4.81 J	14.6 J+	2.71 J	2.17 J
Acenaphthene	µg/Kg	3,600,000	45,000,000	3.62 J	0.913 J	64.1 J	170 J	4.12 J	2.87 J	38.9	16.4	4.54 J	6.08	2.07 J	1.44 J+	1.67 J	1.53 J
Acenaphthylene	µg/Kg	NA	NA	3.69 J	0.594 J	4.36 J	6.82 J	3.7 J	2.4 J	2.8 J	7.89	7.11	9.57	2.79 J	1.77 J+	3.87 J	2.83 J
Anthracene	µg/Kg	18,000,000	230,000,000	9.24	2.55 J	237 J	521 J	16.3	9.62	103	44.8	18.1	16.7	6.63 J	2.7 J+	4.47 J	5.41
Benzo(a)anthracene	µg/Kg	1,100	21,000	90.3	19.3	688 J	**1480 J**	87.1	85.7	432	225 J	126	124	56.9 J	25.1 J+	39.9	47.8
Benzo(a)pyrene	µg/Kg	110	2,100	75.1	14.7	**456 J**	**943 J**	72.9	62.3	**308**	**177**	99.8	98.3	42.8 J	20.4 J+	33.5	43.2
Benzo(b)fluoranthene	µg/Kg	1,100	21,000	111	19.7	670 J	**1390 J**	119	91.8	492	335	169	183	70.9 J	31.8 J+	61.7	63.6
Benzo(g,h,i)perylene	µg/Kg	NA	NA	66.3	13.6	230 J	483 J	62.3	48.6	190	63.3 J	77.5	48.8	23.5 J	12.8 J+	20.7	23.4
Benzo(k)fluoranthene	µg/Kg	11,000	210,000	40.4	6.69	174 J	445 J	37.6	29.4	119	77.6	39.2	44.6	18.2 J	9.05 J+	17.6	21
Chrysene	µg/Kg	110,000	2,100,000	75.8	13.4	492 J	1050 J	82.3	63.8	337	198	108	116	43.8 J	18.6 J+	36.8	40.7
Dibenzo(a,h)anthracene	µg/Kg	110	2,100	15.9	5.97	69.8 J	**133 J**	17.3	13.8	49	19 J	19.1	15.1	8.26	7.06 J+	6.83	7.9
Fluoranthene	µg/Kg	2,400,000	30,000,000	142	26.8	1150 J	2540 J	162	128	753	547	250	219	101 J	40.7 J+	71.6	88.2
Fluorene	µg/Kg	2,400,000	30,000,000	3.4 J	1.26 J	70.6 J	173 J	5.71	2.77 J	39.9	15.2	6.22	6.51	2.79 J	1.53 J+	1.89 J	2.12 J
Indeno(1,2,3-cd)pyrene	µg/Kg	1,100	21,000	60.4	12.7	243 J	511 J	58.1	45.9	187	70.3 J	74	45.2	24.1 J	13.2 J+	19	24.4
Naphthalene	µg/Kg	3,800	17,000	1.31 J	< 1.1 UJ	8.31 J	16.2 J	1.98 J	1.32 J	5.45	4.36 J	3.41 J	15.5	1.87 J	3.76 J+	1.31 J	1.51 J
Phenanthrene	µg/Kg	NA	NA	50.6	9.57	649 J	1190 J	82.8	45.5	361	222	108	160	51.1 J	19.3 J+	27.9	33.3
Pyrene	µg/Kg	1,800,000	23,000,000	117	21.2	801 J	1700 J	124	97.6	510	410 J	194	178	79.8 J	29.3 J+	57.5	69.4

Notes:

The USEPA Regional Screening Levels (RSLs) with a target cancer risk of 1E-06 and target hazard quotient of 1 (May 2019) are applied as screening criteria.

Concentrations greater than the Residential RSL are shaded bold.

Concentrations greater than the Industrial RSL are shaded bold and underlined.

µg/Kg: micrograms per Kilogram

DQE Flags:

J: Estimated

J+: Estimated, biased high

U: Not Detected

UJ: Not Detected, estimated

Method:

8270D-SIM: Polycyclic Aromatic Hydrocarbons (PAHs)

TABLE 3
ANALYTICAL RESULTS SUMMARY, PAHS
GARDEN SOIL SAMPLING REPORT
Main Installation - Defense Depot Memphis, Tennessee

		USEPA Soil RSLs, May 2019 (TR 1E-06, THQ 1)		GN-SO-07-1	GN-SO-07-2	GN-SO-08-1	GN-SO-08-2	GN-SO-09C-1
		Residential	Industrial	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019
Analyte	Units	Value	Value	Result	Result	Result	Result	Result
1-Methylnaphthalene	µg/Kg	18,000	73,000	6.81	13.9	3.55 J	5.61	0.956 J
2-Methylnaphthalene	µg/Kg	240,000	3,000,000	8.14	8.72	4.6 J	7.25	< 1.1 UJ
Acenaphthene	µg/Kg	3,600,000	45,000,000	4.72 J	5.92	6.47	2.64 J	1.73 J
Acenaphthylene	µg/Kg	NA	NA	7.98	6.39	7.66	5.72	2.2 J
Anthracene	µg/Kg	18,000,000	230,000,000	12.3	27.5	18.4	9.28	3.25 J
Benzo(a)anthracene	µg/Kg	1,100	21,000	110	162	158	52	32.5
Benzo(a)pyrene	µg/Kg	110	2,100	93	**130**	**118**	44.3	21.9
Benzo(b)fluoranthene	µg/Kg	1,100	21,000	173	218	201	93.2	41.5
Benzo(g,h,i)perylene	µg/Kg	NA	NA	47.1	52.5	50	18	10.3
Benzo(k)fluoranthene	µg/Kg	11,000	210,000	42.4	54.5	49.2	24.7	12.7
Chrysene	µg/Kg	110,000	2,100,000	97.6	143	128	44	20.3
Dibenzo(a,h)anthracene	µg/Kg	110	2,100	14.5	16.9	16.3	7.37	5.9
Fluoranthene	µg/Kg	2,400,000	30,000,000	179	361	284	82.4	40.8
Fluorene	µg/Kg	2,400,000	30,000,000	4.43 J	10	6.06	2.43 J	1.39 J
Indeno(1,2,3-cd)pyrene	µg/Kg	1,100	21,000	46.8	57.9	55	21.2	11.1
Naphthalene	µg/Kg	3,800	17,000	3.48 J	3.77 J	2 J	4.01 J	0.803 J
Phenanthrene	µg/Kg	NA	NA	73	181	118	35.1	13.5
Pyrene	µg/Kg	1,800,000	23,000,000	142	262	217	65.2	36

Notes:

The USEPA Regional Screening Levels (RSLs) with a target cancer risk of 1E-06 and target hazard quotient of 1 (May 2019) are applied as screening criteria.

Concentrations greater than the Residential RSL are shaded bold.

Concentrations greater than the Industrial RSL are shaded bold and underlined.

µg/Kg: micrograms per Kilogram

DQE Flags:

J: Estimated

J+: Estimated, biased high

U: Not Detected

UJ: Not Detected, estimated

Method:

8270D-SIM: Polycyclic Aromatic Hydrocarbons (PAHs)

TABLE 4
ANALYTICAL RESULTS SUMMARY, PESTICIDES
GARDEN SOIL SAMPLING REPORT
Main Installation - Defense Depot Memphis, Tennessee

			USEPA Soil RSLs, May 2019 (TR 1E-06,		GN-SO-01-1	GN-SO-01-2	GN-SO-02-1	GN-SO-02-1-DUP-1	GN-SO-02-2	GN-SO-03-1	GN-SO-03-2	GN-SO-04-1	GN-SO-04-2	GN-SO-05-1	GN-SO-05-2	GN-SO-05-2-DUP-2	GN-SO-06-1	GN-SO-06-2
			Residential	Industrial	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019
Analyte	CASRN	Units	Value	Value	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
4,4'-DDD	72-54-8	µg/Kg	1,900	9,600	1.46 J	0.847 J	11.7 J	472 J	1.37 J	2.3	2.73	*< 1.1 U*	*< 1.0 U*	0.824 J	*< 1.1 U*	*< 1.2 U*	*< 0.99 U*	*< 1.0 U*
4,4'-DDE	72-55-9	µg/Kg	2,000	9,300	5.32	1.91 J	82.2 J	**2440 J**	8.13	16.3	18.5	5.12 J	2.61	6.49	0.677 J	0.697 J	8.18	*< 1.0 U*
4,4'-DDT	50-29-3	µg/Kg	1,900	8,500	2.71	2.01 J	42.2	51	5.39	6.46	6.24	6.46	4.9	10.9	1.47 J	1.16 J	3.06	1.12 J
gamma-Chlordane	5103-74-2	µg/Kg	1,700	7,700	2.61 J	2.12 J	4.66 J	*< 1.0 UJ*	1.9 J	2.19 J	*< 1.1 U*	2.78 J	2.19 J	2.37	*< 1.1 U*	*< 1.2 U*	2.37 J	*< 1.0 U*
Dieldrin	60-57-1	µg/Kg	34	140	0.522 J	*< 1.1 U*	0.571 J	*< 1.0 U*	*< 1.1 U*	6.46	4.16	0.89 J	1.36 J	6.9	1.24 J	1.05 J	1.68 J	*< 1.0 U*
Heptachlor epoxide	1024-57-3	µg/Kg	70	330	1.36 J	*< 1.1 U*	9.41 J	*< 52 UJ*	1.37 J	*< 1.1 U*	*< 1.1 U*	*< 1.1 U*	*< 1.0 U*	*< 1.0 U*	*< 1.1 U*	*< 1.2 U*	*< 0.99 U*	*< 1.0 U*

Notes:

The USEPA Regional Screening Levels (RSLs) with a target cancer risk of 1E-06 and target hazard quotient of 1 (May 2019) are applied as screening criteria.

The RSLs for endosulfan are applied to endosulfan I and II, endrin to endrin aldehyde and endrin ketone, and chlordane to alpha and gamma chlordane.

Concentrations greater than the Residential RSL are shaded bold.

Concentrations greater than the Industrial RSL are shaded bold and underlined.

µg/Kg: micrograms per Kilogram

DQE Flags:

J: Estimated

U: Not Detected

UJ: Not Detected, estimated

Method:

8081B: Pesticides

TABLE 4
ANALYTICAL RESULTS SUMMARY, PESTICIDES
GARDEN SOIL SAMPLING REPORT
Main Installation - Defense Depot Memphis, Tennessee

			USEPA Soil RSLs, May 2019 (TR 1E-06,		GN-SO-07-1	GN-SO-07-2	GN-SO-08-1	GN-SO-08-2	GN-SO-09C-1
			Residential	Industrial	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019
Analyte	CASRN	Units	Value	Value	Result	Result	Result	Result	Result
4,4'-DDD	72-54-8	µg/Kg	1,900	9,600	*< 1.1 U*	0.428 J	0.415 J	0.618 J	8.29
4,4'-DDE	72-55-9	µg/Kg	2,000	9,300	3.55	2.14	4.26	8.24	243
4,4'-DDT	50-29-3	µg/Kg	1,900	8,500	3.87	4.82	3.32	16.1	497
gamma-Chlordane	5103-74-2	µg/Kg	1,700	7,700	11	5.14 J	4.57 J	4.22	2.29 J
Dieldrin	60-57-1	µg/Kg	34	140	4.09	1.28 J	*< 1.0 U*	0.824 J	21.3
Heptachlor epoxide	1024-57-3	µg/Kg	70	330	2.37	1.18 J	1.66 J	*< 1.0 U*	*< 1.1 U*

Notes:

The USEPA Regional Screening Levels (RSLs) with a target cancer risk of 1E-06 and target hazard quotient of 1 (May 2019) are applied as screening criteria.

The RSLs for endosulfan are applied to endosulfan I and II, endrin to endrin aldehyde and endrin ketone, and chlordane to alpha and gamma chlordane.

Concentrations greater than the Residential RSL are shaded bold.

Concentrations greater than the Industrial RSL are shaded bold and underlined.

µg/Kg: micrograms per Kilogram

DQE Flags:

J: Estimated

U: Not Detected

UJ: Not Detected, estimated

Method:

8081B: Pesticides

TABLE 5
ANALYTICAL RESULTS SUMMARY, METALS
GARDEN SOIL SAMPLING REPORT
Main Installation - Defense Depot Memphis, Tennessee

		Location		USEPA Soil RSLs, May 2019 (TR 1E-06, THQ 1)		GN-SO-01-1	GN-SO-01-2	GN-SO-02-1	GN-SO-02-1-DUP-1	GN-SO-02-2	GN-SO-03-1	GN-SO-03-2	GN-SO-04-1	GN-SO-04-2	GN-SO-05-1	GN-SO-05-2	GN-SO-05-2-DUP-2	GN-SO-06-1
		Date		Residential	Industrial	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019
Analyte	CASRN	Method	Units	Value	Value	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Aluminum	7429-90-5	6010C	µg/Kg	77,000,000	1,100,000,000	1950000	3200000	754000 J	1540000 J	6380000	4330000	4940000	9220000	5060000	4380000	10900000	10400000	1500000
Antimony	7440-36-0	6020	µg/Kg	31,000	470,000	452	693	223 J	182 J	471	415	543	871	688	331 J	640	791	182 J
Arsenic	7440-38-2	6020	µg/Kg	680	3,000	**6870**	**11000**	**5220**	**4880**	**7560**	**7760**	**9470**	**16900 J**	**11100**	**9110**	**11100**	**11300**	**3340**
Barium	7440-39-3	6010C	µg/Kg	15,000,000	220,000,000	22900	32600	9700 J	23700 J	71600	52800	94200	119000	65600	64800	135000	128000	15800
Beryllium	7440-41-7	6010C	µg/Kg	160,000	2,300,000	31 J	57	26 J	74 J	130	75	91	160	98	160	150	160	88
Cadmium	7440-43-9	6010C	µg/Kg	71,000	980,000	62	22 J	< 21 U	< 21 U	< 23 U	< 23 U	< 23 U	< 24 U	< 23 U	260	160	160	20 J
Calcium	7440-70-2	6010C	µg/Kg	NA	NA	10100000	12600000	2130000 J	3230000 J	2070000	8290000	2470000	4690000	1830000	87000000	7490000 J	17200000 J	108000000
Chromium	7440-47-3	6010C	µg/Kg	NA	NA	6300	8600	3600 J	8100 J	9400	7700	9000	9700	8600	7000	9000	10300	5300
Hexavalent Chromium	18540-29-9	3060A	µg/Kg	300	6,300	< 400 U	**330 J**	< 400 U	**430 J**	280 J	240 J	270 J	**450 J**	**620**	< 400 U	240 J	**320 J**	< 400 U
Cobalt	7440-48-4	6010C	µg/Kg	23,000	350,000	2500	2500	1600 J	2600 J	5600	3400	4200	7700	3900	4000	8200	6800	930
Copper	7440-50-8	6010C	µg/Kg	3,100,000	47,000,000	4400	5900	2300 J	4000 J	9400	7700	9200	10300	6700	12600	13400	13200	3000
Iron	7439-89-6	6010C	µg/Kg	55,000,000	820,000,000	4870000	6990000	1690000 J	3830000 J	12400000	8490000	9680000	12600000	9930000	6400000	17300000	16200000	4270000
Lead	7439-92-1	6020	µg/Kg	400,000	800,000	12300	15900	7060 J	5640 J	13800	18500	12900	28000 J	35700	20900	12900	13300	8310
Magnesium	7439-95-4	6010C	µg/Kg	NA	NA	635000	990000	178000 J	312000 J	1420000	849000	1100000	1370000	581000	3090000	2120000	2240000	2080000
Manganese	7439-96-5	6010C	µg/Kg	1,800,000	26,000,000	146000	185000	53300 J	159000 J	521000	301000	442000	576000	374000	282000	863000	703000	65200
Nickel	7440-02-0	6010C	µg/Kg	1,500,000	22,000,000	3300	4900	1900 J	3400 J	9500	5200	7700	9500	5800	7500	14000	13300	2400
Potassium	7440-09-7	6010C	µg/Kg	NA	NA	130000	266000	54900 J	93100 J	472000	236000	300000	642000	305000	547000	687000	722000	207000
Selenium	7782-49-2	6020	µg/Kg	390,000	5,800,000	1130	2250	742	436	1790	1210	1980	1890	1790	1280	1820	1830	638
Sodium	7440-23-5	6010C	µg/Kg	NA	NA	394000	382000	301000	286000	32300	16900 J	22000 J	25400 J	13400 J	295000	239000 J	355000 J	332000
Thallium	7440-28-0	6020	µg/Kg	780	12,000	42.1 J	211	29.1 J	24.9 J	137	39.5 J	137	197	106	71.8 J	232	233	38.9 J
Vanadium	7440-62-2	6010C	µg/Kg	390,000	5,800,000	9000	11600	6500 J	12100 J	18500	13700	13400	19300	15900	10800	22300	21700	4900
Zinc	7440-66-6	6010C	µg/Kg	23,000,000	350,000,000	22900	28600	8700 J	18100 J	37900	41300	44800	49500	33400	48700	52900	52300	23100
Mercury	7439-97-6	7471B	µg/Kg	11,000	46,000	< 4.6 U	30	15	9.4	25	29	35	39	29	29	33	33	12

Notes:

The USEPA Regional Screening Levels (RSLs) with a target cancer risk of 1E-06 and target hazard quotient of 1 (May 2019) are applied as screening criteria.

Concentrations greater than the Residential RSL are shaded bold.

Concentrations greater than the Industrial RSL are shaded bold and underlined.

µg/Kg: micrograms per Kilogram

DQE Flags:

J: Estimated

U: Not Detected

TABLE 5
ANALYTICAL RESULTS SUMMARY, METALS
GARDEN SOIL SAMPLING REPORT
Main Installation - Defense Depot Memphis, Tennessee

		Location		USEPA Soil RSLs, May 2019 (TR 1E-06, THQ 1)		GN-SO-06-2	GN-SO-07-1	GN-SO-07-2	GN-SO-08-1	GN-SO-08-2	GN-SO-09C-1
		Date		Residential	Industrial	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019
Analyte	CASRN	Method	Units	Value	Value	Result	Result	Result	Result	Result	Result
Aluminum	7429-90-5	6010C	µg/Kg	77,000,000	1,100,000,000	8540000	2800000	7050000	1920000	3830000	7460000
Antimony	7440-36-0	6020	µg/Kg	31,000	470,000	626	424	519	277 J	476	971
Arsenic	7440-38-2	6020	µg/Kg	680	3,000	**10200**	**9140**	**9410**	**6880**	**7830**	**11800**
Barium	7440-39-3	6010C	µg/Kg	15,000,000	220,000,000	116000	49100	85300	20300	46600	91500
Beryllium	7440-41-7	6010C	µg/Kg	160,000	2,300,000	180	40 J	150	10 J	71	170
Cadmium	7440-43-9	6010C	µg/Kg	71,000	980,000	230	320	170	230	230	94
Calcium	7440-70-2	6010C	µg/Kg	NA	NA	10800000	110000000	23100000	163000000	24300000	1690000
Chromium	7440-47-3	6010C	µg/Kg	NA	NA	8500	6700	8400	5300	6600	10000
Hexavalent Chromium	18540-29-9	3060A	µg/Kg	300	6,300	**470 J**	**320 J**	< 400 U	< 400 U	220 J	260 J
Cobalt	7440-48-4	6010C	µg/Kg	23,000	350,000	6800	1500	7700	1800	3000	7500
Copper	7440-50-8	6010C	µg/Kg	3,100,000	47,000,000	12400	6000	10200	5500	8700	13200
Iron	7439-89-6	6010C	µg/Kg	55,000,000	820,000,000	13400000	4710000	12000000	3410000	7560000	16000000
Lead	7439-92-1	6020	µg/Kg	400,000	800,000	12700	27300	16600	10300	21100	13400
Magnesium	7439-95-4	6010C	µg/Kg	NA	NA	1910000	2670000	1730000	2920000	1370000	2060000
Manganese	7439-96-5	6010C	µg/Kg	1,800,000	26,000,000	635000	99000	516000	117000	241000	623000
Nickel	7440-02-0	6010C	µg/Kg	1,500,000	22,000,000	11900	4600	9600	4000	7900	11200
Potassium	7440-09-7	6010C	µg/Kg	NA	NA	633000	349000	465000	227000	295000	485000
Selenium	7782-49-2	6020	µg/Kg	390,000	5,800,000	1770	992	1690	788	1930	2550
Sodium	7440-23-5	6010C	µg/Kg	NA	NA	37400	524000	39700	439000	49200	43600
Thallium	7440-28-0	6020	µg/Kg	780	12,000	201	56.8 J	120	55.3 J	102	193
Vanadium	7440-62-2	6010C	µg/Kg	390,000	5,800,000	19200	7300	17700	6000	11800	20900
Zinc	7440-66-6	6010C	µg/Kg	23,000,000	350,000,000	47000	37400	38500	34100	35400	45600
Mercury	7439-97-6	7471B	µg/Kg	11,000	46,000	36	19	29	8.5 J	18	32

Notes:

The USEPA Regional Screening Levels (RSLs) with a target cancer risk of 1E-06 and target hazard quotient of 1 (May 2019) are applied as screening criteria.
Concentrations greater than the Residential RSL are shaded bold.
Concentrations greater than the Industrial RSL are shaded bold and underlined.
µg/Kg: micrograms per Kilogram
DQE Flags:
J: Estimated
U: Not Detected

Figures



Figure 1

Barnhart Crane Garden Area

Garden Soil Sampling Report

Defense Depot
Memphis, Tennessee

Legend

- Property Boundary
- Garden Area

Aerial Date : March 2019

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S

0 200 400
Feet

Projection: NAD 1927 StatePlane Tennessee
Units: Feet, Elevation Units: Feet, NAVD88

Date: 10/25/2019
Edition: Rev 0

Document Path: W:\GardenSampling\Report\01_BarnhartCraneGardenArea11x17.mxd



Note:
Above ground containers for planting were moved out of the fenced area after the aerial photograph was taken.
Sample S09 is at the location of the container sampled in August 2019.

Document Path: W:\GardenSampling\Report\02_Grid.mxd

Figure 2

Sample Location Map

Garden Soil Sampling Report

Defense Depot
Memphis, Tennessee

Legend

- Container Sample Location
- Hand Auger Sample Location
- Sample Grid

Area

- Aboveground Container Area
- In-Ground Planting

Aerial Date : March 2019

N
W E
S

0 25 50
Feet

Projection: NAD 1927 StatePlane Tennessee
Units: Feet, Elevation Units: Feet, NAVD88

Date: 10/25/2019
Edition: Rev 0

A

Appendix A.

Sample Location Photographs

Garden Soil Sampling Photographic Log



Photo 1. Location S01, facing west, sample grid delineated by white twine.



Photo 2. Location S01, facing west, close-up view.



Photo 3. Location S02, facing west, sample grid delineated by white twine.



Photo 4. Location S02, facing west, close-up view.



Photo 5. Location S03, facing west.



Photo 6. Location S03, facing west, close-up view.



Photo 7. Location S04, facing west, with sample grid delineated by white twine.



Photo 8. Location S04, facing west, close-up view.



Photo 9. Location S05, facing east, with white twine and stake visible.



Photo 10. Location S05, facing east, close-up view.



Photo 11. Location S06, facing east.



Photo 12. Location S06, facing east, close-up view.



Photo 13. Location S07, facing south east.



Photo 14. Location S07, facing east, close-up view.



Photo 15. Location S08, facing east.



Photo 16. Location S08, facing east, close-up view.



Photo 17. Location S09, facing south. Sample was collected from the northernmost planter.

B

Appendix B.
Complete Analytical Results

TABLE B-1
ANALYTICAL RESULTS, VOCS
GARDEN SOIL SAMPLING REPORT
Main Installation - Defense Depot Memphis, Tennessee

			USEPA Soil RSLs, May 2019 (TR 1E-06, THQ 1)		GN-SO-01-1	GN-SO-01-2	GN-SO-02-1	GN-SO-02-1-DUP-1	GN-SO-02-2	GN-SO-03-1	GN-SO-03-2
			Residential	Industrial	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019
Analyte	CASRN	Units	Value	Value	Result	Result	Result	Result	Result	Result	Result
1,1,1,2-Tetrachloroethane	630-20-6	µg/Kg	2,000	8,800	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.94 U	< 1.2 U	< 0.84 U
1,1,1-Trichloroethane	71-55-6	µg/Kg	8,100,000	36,000,000	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.94 U	< 1.2 U	< 0.84 U
1,1,2,2-Tetrachloroethane	79-34-5	µg/Kg	600	2,700	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.94 U	< 1.2 U	< 0.84 U
1,1,2-Trichloroethane	79-00-5	µg/Kg	1,100	5,000	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.94 U	< 1.2 U	< 0.84 U
1,1-Dichloroethane	75-34-3	µg/Kg	3,600	16,000	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.94 U	< 1.2 U	< 0.84 U
1,1-Dichloroethene	75-35-4	µg/Kg	230,000	1,000,000	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.94 U	< 1.2 U	< 0.84 U
1,1-Dichloropropene	563-58-6	µg/Kg	NA	NA	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.94 U	< 1.2 U	< 0.84 U
1,2,3-Trichlorobenzene	87-61-6	µg/Kg	63,000	930,000	< 2.5 U	< 2.1 U	< 2.4 U	< 2.5 U	< 1.9 U	< 2.4 U	< 1.7 U
1,2,3-Trichloropropane	96-18-4	µg/Kg	5.1	110	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.94 U	< 1.2 U	< 0.84 U
1,2,4-Trichlorobenzene	120-82-1	µg/Kg	24,000	110,000	< 2.5 U	< 2.1 U	< 2.4 U	< 2.5 U	< 1.9 U	< 2.4 U	< 1.7 U
1,2,4-Trimethylbenzene	95-63-6	µg/Kg	300,000	1,800,000	3.04 J	2.35 J	< 2.4 U	< 2.5 U	< 1.9 U	1.08 J	3.11 J
1,2-Dibromo-3-chloropropane	96-12-8	µg/Kg	5.3	64	< 2.5 U	< 2.1 U	< 2.4 U	< 2.5 U	< 1.9 U	< 2.4 U	< 1.7 U
1,2-Dibromoethane	106-93-4	µg/Kg	36	160	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.94 U	< 1.2 U	< 0.84 U
1,2-Dichlorobenzene	95-50-1	µg/Kg	1,800,000	9,300,000	< 2.5 U	< 2.1 U	< 2.4 U	< 2.5 U	< 1.9 U	< 2.4 U	< 1.7 U
1,2-Dichloroethane	107-06-2	µg/Kg	460	2,000	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.94 U	< 1.2 U	< 0.84 U
1,2-Dichloropropane	78-87-5	µg/Kg	2,500	11,000	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.94 U	< 1.2 U	< 0.84 U
1,3,5-Trimethylbenzene	108-67-8	µg/Kg	270,000	1,500,000	< 2.5 U	< 2.1 U	< 2.4 U	< 2.5 U	< 1.9 U	< 2.4 U	< 1.7 U
1,3-Dichlorobenzene	541-73-1	µg/Kg	NA	NA	< 2.5 U	< 2.1 U	< 2.4 U	< 2.5 U	< 1.9 U	< 2.4 U	< 1.7 U
1,3-Dichloropropane	142-28-9	µg/Kg	1,600,000	23,000,000	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.94 U	< 1.2 U	< 0.84 U
1,4-Dichlorobenzene	106-46-7	µg/Kg	2,600	11,000	< 2.5 U	< 2.1 U	< 2.4 U	< 2.5 U	< 1.9 U	< 2.4 U	< 1.7 U
2,2-Dichloropropane	594-20-7	µg/Kg	NA	NA	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.94 U	< 1.2 U	< 0.84 U
2-Butanone	78-93-3	µg/Kg	27,000,000	190,000,000	18.6 J	25 J	< 24 U	< 25 U	< 19 U	14.1 J	34.2
2-Chlorotoluene	95-49-8	µg/Kg	1,600,000	23,000,000	< 2.5 U	< 2.1 U	< 2.4 U	< 2.5 U	< 1.9 U	< 2.4 U	< 1.7 U
2-Hexanone	591-78-6	µg/Kg	200,000	1,300,000	< 25 U	< 21 U	< 24 U	< 25 U	< 19 U	< 24 U	< 17 U
4-Chlorotoluene	106-43-4	µg/Kg	1,600,000	23,000,000	< 2.5 U	< 2.1 U	< 2.4 U	< 2.5 U	< 1.9 U	< 2.4 U	< 1.7 U
4-Methyl-2-pentanone	108-10-1	µg/Kg	33,000,000	140,000,000	< 25 U	< 21 U	< 24 U	< 25 U	< 19 U	< 24 U	< 17 U
Acetone	67-64-1	µg/Kg	61,000,000	670,000,000	399	331	162	174	110	258	302
Benzene	71-43-2	µg/Kg	1,200	5,100	1.01 J	0.427 J	0.365 J	0.499 J	< 0.94 U	0.957 J	0.588 J
Bromobenzene	108-86-1	µg/Kg	290,000	1,800,000	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.94 U	< 1.2 U	< 0.84 U
Bromochloromethane	74-97-5	µg/Kg	150,000	630,000	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.94 U	< 1.2 U	< 0.84 U
Bromodichloromethane	75-27-4	µg/Kg	290	1,300	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.94 U	< 1.2 U	< 0.84 U
Bromoform	75-25-2	µg/Kg	19,000	86,000	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.94 U	< 1.2 U	< 0.84 U
Bromomethane	74-83-9	µg/Kg	6,800	30,000	< 2.5 U	< 2.1 U	< 2.4 U	< 2.5 U	< 1.9 U	< 2.4 U	< 1.7 U
Carbon disulfide	75-15-0	µg/Kg	770,000	3,500,000	1.78 J	1.28 J	1.46 J	1.5 J	< 1.9 U	2.27 J	1.68 J
Carbon tetrachloride	56-23-5	µg/Kg	650	2,900	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.94 U	< 1.2 U	< 0.84 U
Chlorobenzene	108-90-7	µg/Kg	280,000	1,300,000	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.94 U	< 1.2 U	< 0.84 U
Chloroethane	75-00-3	µg/Kg	14,000,000	57,000,000	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.94 U	< 1.2 U	< 0.84 U
Chloroform	67-66-3	µg/Kg	320	1,400	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.94 U	< 1.2 U	< 0.84 U
Chloromethane	74-87-3	µg/Kg	110,000	460,000	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.94 U	< 1.2 U	< 0.84 U
cis-1,2-Dichloroethene	156-59-2	µg/Kg	160,000	2,300,000	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.94 U	< 1.2 U	< 0.84 U
cis-1,3-Dichloropropene	10061-1-5	µg/Kg	1,800	8,200	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.94 U	< 1.2 U	< 0.84 U
Dibromochloromethane	124-48-1	µg/Kg	8,300	39,000	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.94 U	< 1.2 U	< 0.84 U
Dibromomethane	74-95-3	µg/Kg	24,000	99,000	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.94 U	< 1.2 U	< 0.84 U
Dichlorodifluoromethane	75-71-8	µg/Kg	87,000	370,000	< 2.5 U	< 2.1 U	< 2.4 U	< 2.5 U	< 1.9 U	< 2.4 U	< 1.7 U

TABLE B-1
ANALYTICAL RESULTS, VOCS
GARDEN SOIL SAMPLING REPORT
Main Installation - Defense Depot Memphis, Tennessee

			USEPA Soil RSLs, May 2019 (TR 1E-06, THQ 1)		GN-SO-01-1	GN-SO-01-2	GN-SO-02-1	GN-SO-02-1-DUP-1	GN-SO-02-2	GN-SO-03-1	GN-SO-03-2
			Residential	Industrial	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019
Analyte	CASRN	Units	Value	Value	Result	Result	Result	Result	Result	Result	Result
Ethylbenzene	100-41-4	µg/Kg	5,800	25,000	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.94 U	< 1.2 U	< 0.84 U
Freon 113	76-13-1	µg/Kg	6,700,000	28,000,000	< 2.5 U	< 2.1 U	< 2.4 U	< 2.5 U	< 1.9 U	< 2.4 U	< 1.7 U
Hexachlorobutadiene	87-68-3	µg/Kg	1,200	5,300	< 2.5 U	< 2.1 U	< 2.4 U	< 2.5 U	< 1.9 U	< 2.4 U	< 1.7 U
Isopropylbenzene	98-82-8	µg/Kg	1,900,000	9,900,000	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.94 U	< 1.2 U	< 0.84 U
m,p-Xylenes	179601-23-1	µg/Kg	550,000	2,400,000	2.66 J	< 2.1 U	0.973 J	0.874 J	< 1.9 U	1.08 J	< 1.7 U
Methylene chloride	75-09-2	µg/Kg	57,000	1,000,000	< 2.5 U	< 2.1 U	< 2.4 U	< 2.5 U	< 1.9 U	< 2.4 U	< 1.7 U
Naphthalene	91-20-3	µg/Kg	3,800	17,000	< 2.5 U	< 2.1 U	< 2.4 U	< 2.5 U	< 1.9 U	< 2.4 U	< 1.7 U
n-Butylbenzene	104-51-8	µg/Kg	3,900,000	58,000,000	< 2.5 U	< 2.1 U	< 2.4 U	< 2.5 U	< 1.9 U	< 2.4 U	< 1.7 U
n-Propylbenzene	103-65-1	µg/Kg	3,800,000	24,000,000	< 2.5 U	< 2.1 U	< 2.4 U	< 2.5 U	< 1.9 U	< 2.4 U	< 1.7 U
o-Xylene	95-47-6	µg/Kg	650,000	2,800,000	0.888 J	< 1.1 U	< 1.2 U	< 1.2 U	< 0.94 U	< 1.2 U	< 0.84 U
p-Isopropyltoluene	99-87-6	µg/Kg	NA	NA	1.78 J	< 2.1 U	< 2.4 U	< 2.5 U	< 1.9 U	< 2.4 U	< 1.7 U
sec-Butylbenzene	135-98-8	µg/Kg	7,800,000	120,000,000	< 2.5 U	< 2.1 U	< 2.4 U	< 2.5 U	< 1.9 U	< 2.4 U	< 1.7 U
Styrene	100-42-5	µg/Kg	6,000,000	35,000,000	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.94 U	< 1.2 U	< 0.84 U
tert-Butylbenzene	98-06-6	µg/Kg	7,800,000	120,000,000	< 2.5 U	< 2.1 U	< 2.4 U	< 2.5 U	< 1.9 U	< 2.4 U	< 1.7 U
Tetrachloroethene	127-18-4	µg/Kg	24,000	100,000	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.94 U	< 1.2 U	< 0.84 U
Toluene	108-88-3	µg/Kg	4,900,000	47,000,000	5.2	1.28 J	1.82 J	2.25 J	< 0.94 U	2.15 J	1.93
trans-1,2-Dichloroethene	156-60-5	µg/Kg	1,600,000	23,000,000	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.94 U	< 1.2 U	< 0.84 U
trans-1,3-Dichloropropene	10061-02-6	µg/Kg	1,800	8,200	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.94 U	< 1.2 U	< 0.84 U
Trichloroethene	79-01-6	µg/Kg	940	6,000	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.94 U	< 1.2 U	< 0.84 U
Trichlorofluoromethane	75-69-4	µg/Kg	23,000,000	350,000,000	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	1.03 J	< 1.2 U	< 0.84 U
Vinyl acetate	108-05-4	µg/Kg	910,000	3,800,000	< 25 U	< 21 U	< 24 U	< 25 U	< 19 U	< 24 U	< 17 U
Vinyl chloride	75-01-4	µg/Kg	59	1,700	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.94 U	< 1.2 U	< 0.84 U

Notes:

The USEPA Regional Screening Levels (RSLs) with a target cancer risk of 1E-06 and target hazard quotient of 1 (May 2019) are applied as screening criteria.

The USEPA RSLs for 1,3-dichloropropene are applied for its cis- and trans-isomers and m-xylenes for m,p-xylenes.

Concentrations greater than the Residential RSL are shaded bold.

Concentrations greater than the Industrial RSL are shaded bold and underlined.

µg/Kg: micrograms per Kilogram

DQE Flags:

J: Estimated

U: Not Detected

UJ: Not Detected, estimated

Method:

8260C: Volatile Organic Compounds (VOCs)

TABLE B-1
ANALYTICAL RESULTS, VOCS
GARDEN SOIL SAMPLING REPORT
Main Installation - Defense Depot Memphis, Tennessee

			USEPA Soil RSLs, May 2019 (TR 1E-06, THQ 1)		GN-SO-04-1	GN-SO-04-2	GN-SO-05-1	GN-SO-05-2	GN-SO-05-2-DUP-2	GN-SO-06-1	GN-SO-06-2
			Residential	Industrial	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019
Analyte	CASRN	Units	Value	Value	Result	Result	Result	Result	Result	Result	Result
1,1,1,2-Tetrachloroethane	630-20-6	µg/Kg	2,000	8,800	< 1.2 U	< 0.99 U	< 0.99 U	< 1.1 U	< 0.97 U	< 1.1 U	< 1.0 U
1,1,1-Trichloroethane	71-55-6	µg/Kg	8,100,000	36,000,000	< 1.2 U	< 0.99 U	< 0.99 U	< 1.1 U	< 0.97 U	< 1.1 U	< 1.0 U
1,1,2,2-Tetrachloroethane	79-34-5	µg/Kg	600	2,700	< 1.2 U	< 0.99 U	< 0.99 UJ	< 1.1 U	< 0.97 U	< 1.1 UJ	< 1.0 U
1,1,2-Trichloroethane	79-00-5	µg/Kg	1,100	5,000	< 1.2 U	< 0.99 U	< 0.99 U	< 1.1 U	< 0.97 U	< 1.1 U	< 1.0 U
1,1-Dichloroethane	75-34-3	µg/Kg	3,600	16,000	< 1.2 U	< 0.99 U	< 0.99 U	< 1.1 U	< 0.97 U	< 1.1 U	< 1.0 U
1,1-Dichloroethene	75-35-4	µg/Kg	230,000	1,000,000	< 1.2 U	< 0.99 U	< 0.99 U	< 1.1 U	< 0.97 U	< 1.1 U	< 1.0 U
1,1-Dichloropropene	563-58-6	µg/Kg	NA	NA	< 1.2 U	< 0.99 U	< 0.99 U	< 1.1 U	< 0.97 U	< 1.1 U	< 1.0 U
1,2,3-Trichlorobenzene	87-61-6	µg/Kg	63,000	930,000	< 2.4 UJ	< 2.0 U	< 2.0 UJ	< 2.2 U	< 1.9 U	< 2.3 UJ	< 2.0 U
1,2,3-Trichloropropane	96-18-4	µg/Kg	5.1	110	< 1.2 U	< 0.99 U	< 0.99 UJ	< 1.1 U	< 0.97 U	< 1.1 UJ	< 1.0 U
1,2,4-Trichlorobenzene	120-82-1	µg/Kg	24,000	110,000	< 2.4 UJ	< 2.0 U	< 2.0 UJ	< 2.2 U	< 1.9 U	< 2.3 UJ	< 2.0 U
1,2,4-Trimethylbenzene	95-63-6	µg/Kg	300,000	1,800,000	< 2.4 U	1.49 J	3.37 J	1.91 J	0.971 J	10.3 J	1.74 J
1,2-Dibromo-3-chloropropane	96-12-8	µg/Kg	5.3	64	< 2.4 U	< 2.0 U	< 2.0 UJ	< 2.2 U	< 1.9 U	< 2.3 UJ	< 2.0 U
1,2-Dibromoethane	106-93-4	µg/Kg	36	160	< 1.2 U	< 0.99 U	< 0.99 U	< 1.1 U	< 0.97 U	< 1.1 U	< 1.0 U
1,2-Dichlorobenzene	95-50-1	µg/Kg	1,800,000	9,300,000	< 2.4 UJ	< 2.0 U	< 2.0 UJ	< 2.2 U	< 1.9 U	< 2.3 UJ	< 2.0 U
1,2-Dichloroethane	107-06-2	µg/Kg	460	2,000	< 1.2 U	< 0.99 U	< 0.99 U	< 1.1 U	< 0.97 U	< 1.1 U	< 1.0 U
1,2-Dichloropropane	78-87-5	µg/Kg	2,500	11,000	< 1.2 U	< 0.99 U	< 0.99 U	< 1.1 U	< 0.97 U	< 1.1 U	< 1.0 U
1,3,5-Trimethylbenzene	108-67-8	µg/Kg	270,000	1,500,000	< 2.4 U	< 2.0 U	1.88 J	< 2.2 U	< 1.9 U	4.73 J	< 2.0 U
1,3-Dichlorobenzene	541-73-1	µg/Kg	NA	NA	< 2.4 UJ	< 2.0 U	< 2.0 UJ	< 2.2 U	< 1.9 U	< 2.3 UJ	< 2.0 U
1,3-Dichloropropane	142-28-9	µg/Kg	1,600,000	23,000,000	< 1.2 U	< 0.99 U	< 0.99 U	< 1.1 U	< 0.97 U	< 1.1 U	< 1.0 U
1,4-Dichlorobenzene	106-46-7	µg/Kg	2,600	11,000	< 2.4 UJ	< 2.0 U	< 2.0 UJ	< 2.2 U	< 1.9 U	< 2.3 UJ	< 2.0 U
2,2-Dichloropropane	594-20-7	µg/Kg	NA	NA	< 1.2 U	< 0.99 U	< 0.99 U	< 1.1 U	< 0.97 U	< 1.1 U	< 1.0 U
2-Butanone	78-93-3	µg/Kg	27,000,000	190,000,000	< 24 UJ	14.1 J	< 20 U	< 22 U	< 19 U	< 23 U	19.5 J
2-Chlorotoluene	95-49-8	µg/Kg	1,600,000	23,000,000	< 2.4 U	< 2.0 U	< 2.0 UJ	< 2.2 U	< 1.9 U	< 2.3 UJ	< 2.0 U
2-Hexanone	591-78-6	µg/Kg	200,000	1,300,000	< 24 U	< 20 U	< 20 U	< 22 U	< 19 U	< 23 U	< 20 U
4-Chlorotoluene	106-43-4	µg/Kg	1,600,000	23,000,000	< 2.4 U	< 2.0 U	< 2.0 UJ	< 2.2 U	< 1.9 U	< 2.3 UJ	< 2.0 U
4-Methyl-2-pentanone	108-10-1	µg/Kg	33,000,000	140,000,000	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019
Acetone	67-64-1	µg/Kg	61,000,000	670,000,000	Result	Result	Result	Result	Result	Result	Result
Benzene	71-43-2	µg/Kg	1,200	5,100	< 1.2 U	< 0.99 U	< 0.99 U	< 1.1 U	< 0.97 U	< 1.1 U	< 1.0 U
Bromobenzene	108-86-1	µg/Kg	290,000	1,800,000	< 1.2 U	< 0.99 U	< 0.99 U	< 1.1 U	< 0.97 U	< 1.1 U	< 1.0 U
Bromochloromethane	74-97-5	µg/Kg	150,000	630,000	< 1.2 U	< 0.99 U	< 0.99 UJ	< 1.1 U	< 0.97 U	< 1.1 UJ	< 1.0 U
Bromodichloromethane	75-27-4	µg/Kg	290	1,300	< 1.2 U	< 0.99 U	< 0.99 U	< 1.1 U	< 0.97 U	< 1.1 U	< 1.0 U
Bromoform	75-25-2	µg/Kg	19,000	86,000	< 1.2 U	< 0.99 U	< 0.99 U	< 1.1 U	< 0.97 U	< 1.1 U	< 1.0 U
Bromomethane	74-83-9	µg/Kg	6,800	30,000	< 1.2 U	< 0.99 U	< 0.99 U	< 1.1 U	< 0.97 U	< 1.1 U	< 1.0 U
Carbon disulfide	75-15-0	µg/Kg	770,000	3,500,000	< 1.2 U	< 0.99 U	< 0.99 U	< 1.1 U	< 0.97 U	< 1.1 U	< 1.0 U
Carbon tetrachloride	56-23-5	µg/Kg	650	2,900	< 2.4 UJ	< 2.0 U	< 2.0 UJ	< 2.2 U	< 1.9 U	< 2.3 UJ	< 2.0 U
Chlorobenzene	108-90-7	µg/Kg	280,000	1,300,000	< 1.2 U	< 0.99 U	< 0.99 UJ	< 1.1 U	< 0.97 U	< 1.1 UJ	< 1.0 U
Chloroethane	75-00-3	µg/Kg	14,000,000	57,000,000	< 2.4 UJ	< 2.0 U	< 2.0 UJ	< 2.2 U	< 1.9 U	< 2.3 UJ	< 2.0 U
Chloroform	67-66-3	µg/Kg	320	1,400	< 2.4 U	1.49 J	3.37 J	1.91 J	0.971 J	10.3 J	1.74 J
Chloromethane	74-87-3	µg/Kg	110,000	460,000	< 2.4 U	< 2.0 U	< 2.0 UJ	< 2.2 U	< 1.9 U	< 2.3 UJ	< 2.0 U
cis-1,2-Dichloroethene	156-59-2	µg/Kg	160,000	2,300,000	< 1.2 U	< 0.99 U	< 0.99 U	< 1.1 U	< 0.97 U	< 1.1 U	< 1.0 U
cis-1,3-Dichloropropene	10061-1-5	µg/Kg	1,800	8,200	< 2.4 UJ	< 2.0 U	< 2.0 UJ	< 2.2 U	< 1.9 U	< 2.3 UJ	< 2.0 U
Dibromochloromethane	124-48-1	µg/Kg	8,300	39,000	< 1.2 U	< 0.99 U	< 0.99 U	< 1.1 U	< 0.97 U	< 1.1 U	< 1.0 U
Dibromomethane	74-95-3	µg/Kg	24,000	99,000	< 1.2 U	< 0.99 U	< 0.99 U	< 1.1 U	< 0.97 U	< 1.1 U	< 1.0 U
Dichlorodifluoromethane	75-71-8	µg/Kg	87,000	370,000	< 2.4 U	< 2.0 U	1.88 J	< 2.2 U	< 1.9 U	4.73 J	< 2.0 U

TABLE B-1
ANALYTICAL RESULTS, VOCS
GARDEN SOIL SAMPLING REPORT
Main Installation - Defense Depot Memphis, Tennessee

			USEPA Soil RSLs, May 2019 (TR 1E-06, THQ 1)		GN-SO-04-1	GN-SO-04-2	GN-SO-05-1	GN-SO-05-2	GN-SO-05-2-DUP-2	GN-SO-06-1	GN-SO-06-2
			Residential	Industrial	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019
Analyte	CASRN	Units	Value	Value	Result	Result	Result	Result	Result	Result	Result
Ethylbenzene	100-41-4	µg/Kg	5,800	25,000	< 1.2 U	< 0.99 U	0.893 J	< 1.1 U	< 0.97 U	2.25 J	< 1.0 U
Freon 113	76-13-1	µg/Kg	6,700,000	28,000,000	< 2.4 U	< 2.0 U	< 2.0 U	< 2.2 U	< 1.9 U	< 2.3 U	< 2.0 U
Hexachlorobutadiene	87-68-3	µg/Kg	1,200	5,300	< 2.4 UJ	< 2.0 U	< 2.0 UJ	< 2.2 U	< 1.9 U	< 2.3 UJ	< 2.0 U
Isopropylbenzene	98-82-8	µg/Kg	1,900,000	9,900,000	< 1.2 U	< 0.99 U	< 0.99 U	< 1.1 U	< 0.97 U	< 1.1 U	< 1.0 U
m,p-Xylenes	179601-23-1	µg/Kg	550,000	2,400,000	< 2.4 U	< 2.0 U	3.67 J	0.898 J	< 1.9 U	10.6	< 2.0 U
Methylene chloride	75-09-2	µg/Kg	57,000	1,000,000	< 2.4 U	< 2.0 U	< 2.0 U	< 2.2 U	< 1.9 U	< 2.3 U	< 2.0 U
Naphthalene	91-20-3	µg/Kg	3,800	17,000	< 2.4 UJ	< 2.0 U	< 2.0 UJ	< 2.2 U	< 1.9 U	< 2.3 UJ	< 2.0 U
n-Butylbenzene	104-51-8	µg/Kg	3,900,000	58,000,000	< 2.4 UJ	< 2.0 U	< 2.0 UJ	< 2.2 U	< 1.9 U	< 2.3 UJ	< 2.0 U
n-Propylbenzene	103-65-1	µg/Kg	3,800,000	24,000,000	< 2.4 U	< 2.0 U	< 2.0 UJ	< 2.2 U	< 1.9 U	< 2.3 UJ	< 2.0 U
o-Xylene	95-47-6	µg/Kg	650,000	2,800,000	< 1.2 U	< 0.99 U	1.19 J	< 1.1 U	< 0.97 U	3.6	< 1.0 U
p-Isopropyltoluene	99-87-6	µg/Kg	NA	NA	< 2.4 UJ	< 2.0 U	< 2.0 UJ	< 2.2 U	< 1.9 U	< 2.3 UJ	< 2.0 U
sec-Butylbenzene	135-98-8	µg/Kg	7,800,000	120,000,000	< 2.4 UJ	< 2.0 U	< 2.0 UJ	< 2.2 U	< 1.9 U	< 2.3 UJ	< 2.0 U
Styrene	100-42-5	µg/Kg	6,000,000	35,000,000	< 1.2 UJ	< 0.99 U	< 0.99 U	< 1.1 U	< 0.97 U	< 1.1 U	< 1.0 U
tert-Butylbenzene	98-06-6	µg/Kg	7,800,000	120,000,000	< 2.4 U	< 2.0 U	< 2.0 UJ	< 2.2 U	< 1.9 U	< 2.3 UJ	< 2.0 U
Tetrachloroethene	127-18-4	µg/Kg	24,000	100,000	< 1.2 U	< 0.99 U	< 0.99 U	< 1.1 U	< 0.97 U	< 1.1 U	< 1.0 U
Toluene	108-88-3	µg/Kg	4,900,000	47,000,000	0.835 J	0.496 J	4.07	1.46 J	1.07 J	9.46	0.613 J
trans-1,2-Dichloroethene	156-60-5	µg/Kg	1,600,000	23,000,000	< 1.2 U	< 0.99 U	< 0.99 U	< 1.1 U	< 0.97 U	< 1.1 U	< 1.0 U
trans-1,3-Dichloropropene	10061-02-6	µg/Kg	1,800	8,200	< 1.2 U	< 0.99 U	< 0.99 U	< 1.1 U	< 0.97 U	< 1.1 U	< 1.0 U
Trichloroethene	79-01-6	µg/Kg	940	6,000	< 1.2 U	< 0.99 U	< 0.99 U	< 1.1 U	< 0.97 U	< 1.1 U	< 1.0 U
Trichlorofluoromethane	75-69-4	µg/Kg	23,000,000	350,000,000	< 1.2 U	< 0.99 U	< 0.99 U	< 1.1 U	< 0.97 U	< 1.1 U	< 1.0 U
Vinyl acetate	108-05-4	µg/Kg	910,000	3,800,000	< 24 U	< 20 U	< 20 U	< 22 U	< 19 U	< 23 U	< 20 U
Vinyl chloride	75-01-4	µg/Kg	59	1,700	< 1.2 U	< 0.99 U	< 0.99 U	< 1.1 U	< 0.97 U	< 1.1 U	< 1.0 U

Notes:

The USEPA Regional Screening Levels (RSLs) with a target cancer risk of 1E-06 and target hazard quotient of 1 (May 2019) are applied as screening criteria.

The USEPA RSLs for 1,3-dichloropropene are applied for its cis- and trans-isomers and m-xylenes for m,p-xylenes.

Concentrations greater than the Residential RSL are shaded bold.

Concentrations greater than the Industrial RSL are shaded bold and underlined.

µg/Kg: micrograms per Kilogram

DQE Flags:

J: Estimated

U: Not Detected

UJ: Not Detected, estimated

Method:

8260C: Volatile Organic Compounds (VOCs)

TABLE B-1
ANALYTICAL RESULTS, VOCS
GARDEN SOIL SAMPLING REPORT
Main Installation - Defense Depot Memphis, Tennessee

			USEPA Soil RSLs, May 2019 (TR 1E-06, THQ 1)		GN-SO-07-1	GN-SO-07-2	GN-SO-08-1	GN-SO-08-2	GN-SO-09C-1
			Residential	Industrial	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019
Analyte	CASRN	Units	Value	Value	Result	Result	Result	Result	Result
1,1,1,2-Tetrachloroethane	630-20-6	µg/Kg	2,000	8,800	< 1.2 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U
1,1,1-Trichloroethane	71-55-6	µg/Kg	8,100,000	36,000,000	< 1.2 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U
1,1,2,2-Tetrachloroethane	79-34-5	µg/Kg	600	2,700	< 1.2 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U
1,1,2-Trichloroethane	79-00-5	µg/Kg	1,100	5,000	< 1.2 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U
1,1-Dichloroethane	75-34-3	µg/Kg	3,600	16,000	< 1.2 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U
1,1-Dichloroethene	75-35-4	µg/Kg	230,000	1,000,000	< 1.2 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U
1,1-Dichloropropene	563-58-6	µg/Kg	NA	NA	< 1.2 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U
1,2,3-Trichlorobenzene	87-61-6	µg/Kg	63,000	930,000	< 2.3 U	< 2.4 U	< 2.2 U	< 2.2 U	< 2.5 U
1,2,3-Trichloropropane	96-18-4	µg/Kg	5.1	110	< 1.2 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U
1,2,4-Trichlorobenzene	120-82-1	µg/Kg	24,000	110,000	< 2.3 U	< 2.4 U	< 2.2 U	< 2.2 U	< 2.5 U
1,2,4-Trimethylbenzene	95-63-6	µg/Kg	300,000	1,800,000	2.93 J	1.79 J	2.91 J	3.01 J	2.09 J
1,2-Dibromo-3-chloropropane	96-12-8	µg/Kg	5.3	64	< 2.3 U	< 2.4 U	< 2.2 U	< 2.2 U	< 2.5 U
1,2-Dibromoethane	106-93-4	µg/Kg	36	160	< 1.2 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U
1,2-Dichlorobenzene	95-50-1	µg/Kg	1,800,000	9,300,000	< 2.3 U	< 2.4 U	< 2.2 U	< 2.2 U	< 2.5 U
1,2-Dichloroethane	107-06-2	µg/Kg	460	2,000	< 1.2 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U
1,2-Dichloropropane	78-87-5	µg/Kg	2,500	11,000	< 1.2 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U
1,3,5-Trimethylbenzene	108-67-8	µg/Kg	270,000	1,500,000	1.41 J	< 2.4 U	1.34 J	1.18 J	< 2.5 U
1,3-Dichlorobenzene	541-73-1	µg/Kg	NA	NA	< 2.3 U	< 2.4 U	< 2.2 U	< 2.2 U	< 2.5 U
1,3-Dichloropropane	142-28-9	µg/Kg	1,600,000	23,000,000	< 1.2 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U
1,4-Dichlorobenzene	106-46-7	µg/Kg	2,600	11,000	< 2.3 U	< 2.4 U	< 2.2 U	< 2.2 U	< 2.5 U
2,2-Dichloropropane	594-20-7	µg/Kg	NA	NA	< 1.2 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U
2-Butanone	78-93-3	µg/Kg	27,000,000	190,000,000	< 23 U	< 24 U	< 22 U	< 22 U	19.3 J
2-Chlorotoluene	95-49-8	µg/Kg	1,600,000	23,000,000	< 2.3 U	< 2.4 U	< 2.2 U	< 2.2 U	< 2.5 U
2-Hexanone	591-78-6	µg/Kg	200,000	1,300,000	< 23 U	< 24 U	< 22 U	< 22 U	< 25 U
4-Chlorotoluene	106-43-4	µg/Kg	1,600,000	23,000,000	< 2.3 U	< 2.4 U	< 2.2 U	< 2.2 U	< 2.5 U
4-Methyl-2-pentanone	108-10-1	µg/Kg	33,000,000	140,000,000	< 23 U	< 24 U	< 22 U	< 22 U	< 25 U
Acetone	67-64-1	µg/Kg	61,000,000	670,000,000	51.2	117	17.6 J	134	357
Benzene	71-43-2	µg/Kg	1,200	5,100	2.58	1.31 J	< 1.1 U	1.4 J	< 1.2 U
Bromobenzene	108-86-1	µg/Kg	290,000	1,800,000	< 1.2 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U
Bromochloromethane	74-97-5	µg/Kg	150,000	630,000	< 1.2 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U
Bromodichloromethane	75-27-4	µg/Kg	290	1,300	< 1.2 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U
Bromoform	75-25-2	µg/Kg	19,000	86,000	< 1.2 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U
Bromomethane	74-83-9	µg/Kg	6,800	30,000	< 2.3 U	< 2.4 U	< 2.2 U	< 2.2 U	< 2.5 U
Carbon disulfide	75-15-0	µg/Kg	770,000	3,500,000	2.47 J	10.3	< 2.2 U	6.35	< 2.5 U
Carbon tetrachloride	56-23-5	µg/Kg	650	2,900	< 1.2 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U
Chlorobenzene	108-90-7	µg/Kg	280,000	1,300,000	< 1.2 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U
Chloroethane	75-00-3	µg/Kg	14,000,000	57,000,000	< 1.2 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U
Chloroform	67-66-3	µg/Kg	320	1,400	< 1.2 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U
Chloromethane	74-87-3	µg/Kg	110,000	460,000	< 1.2 U	< 1.2 U	< 1.1 U	0.646 J	< 1.2 U
cis-1,2-Dichloroethene	156-59-2	µg/Kg	160,000	2,300,000	< 1.2 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U
cis-1,3-Dichloropropene	10061-1-5	µg/Kg	1,800	8,200	< 1.2 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U
Dibromochloromethane	124-48-1	µg/Kg	8,300	39,000	< 1.2 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U
Dibromomethane	74-95-3	µg/Kg	24,000	99,000	< 1.2 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U
Dichlorodifluoromethane	75-71-8	µg/Kg	87,000	370,000	< 2.3 U	< 2.4 U	< 2.2 U	< 2.2 U	< 2.5 U

TABLE B-1
ANALYTICAL RESULTS, VOCS
GARDEN SOIL SAMPLING REPORT
Main Installation - Defense Depot Memphis, Tennessee

			USEPA Soil RSLs, May 2019 (TR 1E-06, THQ 1)		GN-SO-07-1	GN-SO-07-2	GN-SO-08-1	GN-SO-08-2	GN-SO-09C-1
			Residential	Industrial	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019
Analyte	CASRN	Units	Value	Value	Result	Result	Result	Result	Result
Ethylbenzene	100-41-4	µg/Kg	5,800	25,000	1.06 J	0.597 J	< 1.1 U	0.646 J	< 1.2 U
Freon 113	76-13-1	µg/Kg	6,700,000	28,000,000	< 2.3 U	< 2.4 U	< 2.2 U	< 2.2 U	< 2.5 U
Hexachlorobutadiene	87-68-3	µg/Kg	1,200	5,300	< 2.3 U	< 2.4 U	< 2.2 U	< 2.2 U	< 2.5 U
Isopropylbenzene	98-82-8	µg/Kg	1,900,000	9,900,000	< 1.2 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U
m,p-Xylenes	179601-23-1	µg/Kg	550,000	2,400,000	5.16	2.39 J	2.24 J	3.34 J	< 2.5 U
Methylene chloride	75-09-2	µg/Kg	57,000	1,000,000	< 2.3 U	< 2.4 U	5.82	< 2.2 U	< 2.5 U
Naphthalene	91-20-3	µg/Kg	3,800	17,000	< 2.3 U	< 2.4 U	< 2.2 U	< 2.2 U	< 2.5 U
n-Butylbenzene	104-51-8	µg/Kg	3,900,000	58,000,000	< 2.3 U	< 2.4 U	< 2.2 U	< 2.2 U	< 2.5 U
n-Propylbenzene	103-65-1	µg/Kg	3,800,000	24,000,000	< 2.3 U	< 2.4 U	< 2.2 U	< 2.2 U	< 2.5 U
o-Xylene	95-47-6	µg/Kg	650,000	2,800,000	1.53 J	0.836 J	0.671 J	1.18 J	< 1.2 U
p-Isopropyltoluene	99-87-6	µg/Kg	NA	NA	< 2.3 U	< 2.4 U	< 2.2 U	< 2.2 U	< 2.5 U
sec-Butylbenzene	135-98-8	µg/Kg	7,800,000	120,000,000	< 2.3 U	< 2.4 U	< 2.2 U	< 2.2 U	< 2.5 U
Styrene	100-42-5	µg/Kg	6,000,000	35,000,000	< 1.2 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U
tert-Butylbenzene	98-06-6	µg/Kg	7,800,000	120,000,000	< 2.3 U	< 2.4 U	< 2.2 U	< 2.2 U	< 2.5 U
Tetrachloroethene	127-18-4	µg/Kg	24,000	100,000	< 1.2 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U
Toluene	108-88-3	µg/Kg	4,900,000	47,000,000	6.57	3.46	1.12 J	3.98	0.492 J
trans-1,2-Dichloroethene	156-60-5	µg/Kg	1,600,000	23,000,000	< 1.2 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U
trans-1,3-Dichloropropene	10061-02-6	µg/Kg	1,800	8,200	< 1.2 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U
Trichloroethene	79-01-6	µg/Kg	940	6,000	< 1.2 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U
Trichlorofluoromethane	75-69-4	µg/Kg	23,000,000	350,000,000	< 1.2 U	< 1.2 U	4.48	< 1.1 U	< 1.2 U
Vinyl acetate	108-05-4	µg/Kg	910,000	3,800,000	< 23 U	< 24 U	< 22 U	< 22 U	< 25 U
Vinyl chloride	75-01-4	µg/Kg	59	1,700	< 1.2 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U

Notes:

The USEPA Regional Screening Levels (RSLs) with a target cancer risk of 1E-06 and target hazard quotient of 1 (May 2019) are applied as screening criteria.

The USEPA RSLs for 1,3-dichloropropene are applied for its cis- and trans-isomers and m-xylenes for m,p-xylenes.

Concentrations greater than the Residential RSL are shaded bold.

Concentrations greater than the Industrial RSL are shaded bold and underlined.

µg/Kg: micrograms per Kilogram

DQE Flags:

J: Estimated

U: Not Detected

UJ: Not Detected, estimated

Method:

8260C: Volatile Organic Compounds (VOCs)

TABLE B-2
ANALYTICAL RESULTS, SVOCS
GARDEN SOIL SAMPLING REPORT
Main Installation - Defense Depot Memphis, Tennessee

			USEPA Soil RSLs, May 2019 (TR 1E-06, THQ 1)		GN-SO-01-1	GN-SO-01-2	GN-SO-02-1	GN-SO-02-1-DUP-1	GN-SO-02-2	GN-SO-03-1	GN-SO-03-2	GN-SO-04-1	GN-SO-04-2	GN-SO-05-1	GN-SO-05-2	GN-SO-05-2-DUP-2	GN-SO-06-1	GN-SO-06-2
			Residential	Industrial	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019
Analyte	CASRN	Units	Value	Value	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
1,2,4,5-Tetrachlorobenzene	95-94-3	µg/Kg	23,000	350,000	< 60 U	< 64 U	< 62 U	< 59 U	< 63 U	< 64 U	< 64 U	< 68 U	< 64 U	< 61 U	< 68 U	< 69 U	< 58 U	< 63 U
1,2,4-Trichlorobenzene	120-82-1	µg/Kg	24,000	110,000	< 60 U	< 64 U	< 62 U	< 59 U	< 63 U	< 64 U	< 64 U	< 68 U	< 64 U	< 61 U	< 68 U	< 69 U	< 58 U	< 63 U
1,2-Dichlorobenzene	95-50-1	µg/Kg	1,800,000	9,300,000	< 60 U	< 64 U	< 62 U	< 59 U	< 63 U	< 64 U	< 64 U	< 68 U	< 64 U	< 61 U	< 68 U	< 69 U	< 58 U	< 63 U
1,2-Diphenylhydrazine	122-66-7	µg/Kg	680	2,900	< 120 U	< 130 U	< 120 U	< 120 U	< 130 U	< 130 U	< 130 U	< 140 U	< 130 U	< 120 U	< 140 U	< 140 U	< 120 U	< 130 U
1,3-Dichlorobenzene	541-73-1	µg/Kg	NA	NA	< 60 U	< 64 U	< 62 U	< 59 U	< 63 U	< 64 U	< 64 U	< 68 U	< 64 U	< 61 U	< 68 U	< 69 U	< 58 U	< 63 U
1,4-Dichlorobenzene	106-46-7	µg/Kg	2,600	11,000	< 60 U	< 64 U	< 62 U	< 59 U	< 63 U	< 64 U	< 64 U	< 68 U	< 64 U	< 61 U	< 68 U	< 69 U	< 58 U	< 63 U
2,3,4,6-Tetrachlorophenol	58-90-2	µg/Kg	1,900,000	25,000,000	< 300 U	< 320 U	< 310 U	< 290 U	< 320 U	< 320 U	< 320 U	< 340 U	< 320 UJ	< 300 U	< 340 UJ	< 350 U	< 290 UJ	< 310 UJ
2,4,5-Trichlorophenol	95-95-4	µg/Kg	6,300,000	82,000,000	< 300 U	< 320 U	< 310 U	< 290 U	< 320 U	< 320 U	< 320 U	< 340 U	< 320 UJ	< 300 U	< 340 UJ	< 350 U	< 290 UJ	< 310 UJ
2,4,6-Trichlorophenol	88-06-2	µg/Kg	49,000	210,000	< 300 U	< 320 U	< 310 U	< 290 U	< 320 U	< 320 U	< 320 U	< 340 U	< 320 UJ	< 300 U	< 340 UJ	< 350 U	< 290 UJ	< 310 UJ
2,4-Dichlorophenol	120-83-2	µg/Kg	190,000	2,500,000	< 300 U	< 320 U	< 310 U	< 290 U	< 320 U	< 320 U	< 320 U	< 340 U	< 320 UJ	< 300 U	< 340 UJ	< 350 U	< 290 UJ	< 310 UJ
2,4-Dimethylphenol	105-67-9	µg/Kg	1,300,000	16,000,000	< 300 U	< 320 U	< 310 U	< 290 U	< 320 U	< 320 U	< 320 U	< 340 R	< 320 UJ	< 300 U	< 340 UJ	< 350 U	< 290 UJ	< 310 UJ
2,4-Dinitrophenol	51-28-5	µg/Kg	130,000	1,600,000	< 600 U	< 640 U	< 620 U	< 590 U	< 630 U	< 640 U	< 640 U	< 680 U	< 640 UJ	< 610 U	< 680 UJ	< 690 U	< 580 UJ	< 630 UJ
2,4-Dinitrotoluene	121-14-2	µg/Kg	1,700	7,400	< 60 U	< 64 U	< 62 U	< 59 U	< 63 U	< 64 U	< 64 U	< 68 U	< 64 U	< 61 U	< 68 U	< 69 U	< 58 U	< 63 U
2,6-Dichlorophenol	87-65-0	µg/Kg	NA	NA	< 300 U	< 320 U	< 310 U	< 290 U	< 320 U	< 320 U	< 320 U	< 340 U	< 320 UJ	< 300 U	< 340 UJ	< 350 U	< 290 UJ	< 310 UJ
2,6-Dinitrotoluene	606-20-2	µg/Kg	360	1,500	< 60 U	< 64 U	< 62 U	< 59 U	< 63 U	< 64 U	< 64 U	< 68 U	< 64 U	< 61 U	< 68 U	< 69 U	< 58 U	< 63 U
2-Chloronaphthalene	91-58-7	µg/Kg	4,800,000	60,000,000	< 60 U	< 64 U	< 62 U	< 59 U	< 63 U	< 64 U	< 64 U	< 68 U	< 64 U	< 61 U	< 68 U	< 69 U	< 58 U	< 63 U
2-Chlorophenol	95-57-8	µg/Kg	390,000	5,800,000	< 600 U	< 640 U	< 620 U	< 590 U	< 630 U	< 640 U	< 640 U	< 680 U	< 640 UJ	< 610 U	< 680 UJ	< 690 U	< 580 UJ	< 630 UJ
2-Methyl-4,6-dinitrophenol	534-52-1	µg/Kg	5,100	66,000	< 300 U	< 320 U	< 310 U	< 290 U	< 320 U	< 320 U	< 320 U	< 340 U	< 320 UJ	< 300 U	< 340 UJ	< 350 U	< 290 UJ	< 310 UJ
2-Methylphenol	95-48-7	µg/Kg	3,200,000	41,000,000	< 600 U	< 640 U	< 620 U	< 590 U	< 630 U	< 640 U	< 640 U	< 680 UJ	< 640 UJ	< 610 U	< 680 UJ	< 690 U	< 580 UJ	< 630 UJ
2-Nitroaniline	88-74-4	µg/Kg	630,000	8,000,000	< 60 U	< 64 U	< 62 U	< 59 U	< 63 U	< 64 U	< 64 U	< 68 U	< 64 U	< 61 U	< 68 U	< 69 U	< 58 U	< 63 U
2-Nitrophenol	88-75-5	µg/Kg	NA	NA	< 300 U	< 320 U	< 310 U	< 290 U	< 320 U	< 320 U	< 320 U	< 340 U	< 320 UJ	< 300 U	< 340 UJ	< 350 U	< 290 UJ	< 310 UJ
3,3'-Dichlorobenzidine	91-94-1	µg/Kg	1,200	5,100	< 300 UJ	< 320 UJ	< 310 UJ	< 290 UJ	< 320 UJ	< 320 UJ	< 320 UJ	< 340 R	< 320 UJ	< 300 UJ	< 340 UJ	< 350 UJ	< 290 UJ	< 310 UJ
3-Nitroaniline	99-09-2	µg/Kg	NA	NA	< 120 U	< 130 U	< 120 U	< 120 U	< 130 U	< 130 U	< 130 U	< 140 UJ	< 130 U	< 120 U	< 140 U	< 140 U	< 120 U	< 130 U
4-Bromophenyl phenyl ether	101-55-3	µg/Kg	NA	NA	< 60 U	< 64 U	< 62 U	< 59 U	< 63 U	< 64 U	< 64 U	< 68 U	< 64 U	< 61 U	< 68 U	< 69 U	< 58 U	< 63 U
4-Chloro-3-methylphenol	59-50-7	µg/Kg	6,300,000	82,000,000	< 600 U	< 640 U	< 620 U	< 590 U	< 630 U	< 640 U	< 640 U	< 680 U	< 640 UJ	< 610 U	< 680 UJ	< 690 U	< 580 UJ	< 630 UJ
4-Chloroaniline	106-47-8	µg/Kg	2,700	11,000	< 60 U	< 64 U	< 62 U	< 59 U	< 63 U	< 64 U	< 64 U	< 68 UJ	< 64 U	< 61 U	< 68 U	< 69 U	< 58 U	< 63 U
4-Chlorophenyl phenyl ether	7005-72-3	µg/Kg	NA	NA	< 60 U	< 64 U	< 62 U	< 59 U	< 63 U	< 64 U	< 64 U	< 68 U	< 64 U	< 61 U	< 68 U	< 69 U	< 58 U	< 63 U
4-Methylphenol	106-44-5	µg/Kg	6,300,000	82,000,000	< 1100 U	< 1100 U	< 1100 U	< 1100 U	< 1100 U	< 1100 U	< 1200 U	< 1200 U	< 1200 UJ	< 1100 U	< 1200 UJ	< 1200 U	< 1000 UJ	< 1100 UJ
4-Nitroaniline	100-01-6	µg/Kg	27,000	110,000	< 60 U	< 64 U	< 62 U	< 59 U	< 63 U	< 64 U	< 64 U	< 68 U	< 64 U	< 61 U	< 68 U	< 69 U	< 58 U	< 63 U
4-Nitrophenol	100-02-7	µg/Kg	NA	NA	< 600 U	< 640 U	< 620 U	< 590 U	< 630 U	< 640 U	< 640 U	< 680 U	< 640 UJ	< 610 U	< 680 UJ	< 690 U	< 580 UJ	< 630 UJ
Acetophenone	98-86-2	µg/Kg	7,800,000	120,000,000	< 120 U	< 130 U	< 120 U	< 120 U	< 130 U	< 130 U	< 130 U	< 140 U	< 130 U	< 120 U	< 140 U	< 140 U	< 120 U	< 130 U
Aniline	62-53-3	µg/Kg	95,000	400,000	< 60 UJ	< 64 UJ	< 62 UJ	< 59 UJ	< 63 UJ	< 64 UJ	< 64 UJ	< 68 R	< 64 UJ	< 61 UJ	< 68 UJ	< 69 UJ	< 58 UJ	< 63 UJ
Atrazine	1912-24-9	µg/Kg	2,400	10,000	< 60 U	< 64 U	< 62 U	< 59 U	< 63 U	< 64 U	< 64 U	< 68 U	< 64 U	< 61 U	< 68 U	< 69 U	< 58 U	< 63 U
Benzaldehyde	100-52-7	µg/Kg	170,000	820,000	113 J	< 64 U	99 J	87.5 J	< 63 U	< 64 U	< 64 U	< 68 U	< 64 U	91.6 J	< 68 U	< 69 U	< 58 U	< 63 U
Benzidine	92-87-5	µg/Kg	0.53	10	< 1500 U	< 1600 U	< 1500 U	< 1500 U	< 1600 U	< 1600 U	< 1600 U	< 1700 U	< 1600 U	< 1500 U	< 1700 U	< 1700 U	< 1400 U	< 1600 U
Benzoic acid	65-85-0	µg/Kg	250,000,000	3,300,000,000	575 J	< 1600 U	< 1500 U	< 1500 U	< 1600 U	< 1600 U	< 1600 U	< 1700 U	< 1600 UJ	< 1500 U	< 1700 UJ	< 1700 U	< 1400 UJ	< 1600 UJ
Benzyl alcohol	100-51-6	µg/Kg	6,300,000	82,000,000	< 200 U	< 210 U	< 210 U	< 200 U	< 210 U	< 210 U	< 210 U	< 230 R	< 210 U	< 200 U	< 230 U	< 230 U	< 190 U	< 210 U
Biphenyl	92-52-4	µg/Kg	47,000	200,000	< 60 U	< 64 U	< 62 U	< 59 U	< 63 U	< 64 U	< 64 U	< 68 U	< 64 U	< 61 U	< 68 U	< 69 U	< 58 U	< 63 U
Bis(2-chloroethoxy)methane	111-91-1	µg/Kg	190,000	2,500,000	< 60 U	< 64 U	< 62 U	< 59 U	< 63 U	< 64 U	< 64 U	< 68 U	< 64 U	< 61 U	< 68 U	< 69 U	< 58 U	< 63 U
Bis(2-chloroethyl) ether	111-44-4	µg/Kg	230	1,000	< 60 U	< 64 U	< 62 U	< 59 U	< 63 U	< 64 U	< 64 U	< 68 U	< 64 U	< 61 U	< 68 U	< 69 U	< 58 U	< 63 U
Bis(2-chloroisopropyl) ether	108-60-1	µg/Kg	3,100,000	47,000,000	< 60 U	< 64 U	< 62 U	< 59 U	< 63 U	< 64 U	< 64 U	< 68 U	< 64 U	< 61 U	< 68 U	< 69 U	< 58 U	< 63 U
Bis(2-ethylhexyl)phthalate	117-81-7	µg/Kg	39,000	160,000	< 120 U	< 130 U	< 120 U	< 120 U	< 130 U	< 130 U	< 130 U	< 140 U	< 130 U	< 120 U	< 140 U	< 140 U	< 120 U	< 130 U
Butylbenzyl phthalate	85-68-7	µg/Kg	290,000	1,200,000	< 120 U	< 130 U	< 120 U	< 120 U	< 130 U	< 130 U	< 130 U	< 140 U	< 130 U	< 120 U	< 140 U	< 140 U	< 120 U	< 130 U
Caprolactam	105-60-2	µg/Kg	31,000,000	400,000,000	< 200 U	< 210 U	< 210 U	< 200 U	< 210 U	< 210 U	< 210 U	< 230 U	< 210 U	< 200 U	< 230 U	< 230 U	< 190 U	< 210 U
Carbazole	86-74-8	µg/Kg	NA	NA	< 60 U	< 64 U	82.9 J	250 J	< 63 U	< 64 U	105 J	34.2 J	< 64 U	< 61 U	< 68 U	< 69 U	< 58 U	< 63 U
Dibenzofuran	132-64-9	µg/Kg	73,000	1,000,000	< 60 U	< 64 U	26.2 J	58.3 J	< 63 U	< 64 U	< 64 U	< 68 U	< 64 U	27.3 J	< 68 U	< 69 U	< 58 U	< 63 U
Diethyl phthalate	84-66-2	µg/Kg	51,000,000	660,000,000	< 120 U	< 130 U	< 120 U	< 120 U	< 130 U	< 130 U	< 130 U	< 140 U	< 130 U	< 120 U	< 140 U	< 140 U	< 120 U	< 130 U
Dimethyl phthalate	131-11-3	µg/Kg	NA	NA	< 120 U	< 130 U	< 120 U	< 120 U	< 130 U	< 130 U	< 130 U	< 140 U	< 130 U	< 120 U	< 140 U	< 140 U	< 120 U	< 130 U
Di-n-butyl phthalate	84-74-2	µg/Kg	6,300,000	82,000,000	< 120 U	< 130 U	< 120 U	< 120 U	< 130 U	< 130 U	< 130 U	< 140 U	< 130 U	< 120 U	< 140 U	< 140 U	< 120 U	< 130 U
Di-n-octyl phthalate	117-84-0	µg/Kg	630,000	8,200,000	< 60 U	< 64 U	< 62 U	< 59 U	< 63 U	< 64 U	< 64 U	< 68 U	< 64 U	< 61 U	< 68 U	< 69 U	< 58 U	< 63 U
Hexachlorobenzene	118-74-1	µg/Kg	210	960	< 60 U	< 64 U	< 62 U	< 59 U	< 63 U	< 64 U	< 64 U	< 68 U	< 64 U	< 61 U	< 68 U	< 69 U	< 58 U	< 63 U
Hexachlorobutadiene	87-68-3	µg/Kg	1,200	5,300	< 120 U	< 130 U	< 120 U	< 120 U	< 130 U	< 130 U	< 130 U	< 140 U	< 130 U	< 120 U	< 140 U	< 140 U	< 120 U	< 130 U
Hexachlorocyclopentadiene	77-47-4	µg/Kg	1,800	7,500	< 120 U	< 130 U	< 120 U	< 120 U	< 130 U	< 130 U	< 130 U	< 140 UJ	< 130 U	< 120 U	< 140 U	< 140 U	< 120 U	< 130 U
Hexachloroethane	67-72-1	µg/Kg	1,800	8,000	< 60 U	< 64 U	< 62 U	< 59 U	< 63 U	< 64 U	< 64 U	< 68 U	< 64 U	< 61 U	< 68 U	< 69 U	< 58 U	< 63 U
Isophorone	78-59-1	µg/Kg	570,000	2,400,000	< 60 U	< 64 U	< 62 U	< 59 U	< 63 U	< 64 U	< 64 U	< 68 U	< 64 U	< 61 U	< 68 U	< 69 U	< 58 U	< 63 U
Nitrobenzene	98-95-3	µg/Kg	5,100	22,000	< 60 U	< 64 U	< 62 U	< 59 U	< 63 U	< 64 U	< 64 U	< 68 U	< 64 U	< 61 U	< 68 U	< 69 U	< 58 U	< 63 U
N-Nitrosodimethylamine	62-75-9	µg/Kg	2	34	< 120 U	< 130 U	< 120 U	< 120 U	< 130 U	< 130 U	< 130 U	< 140 U	< 130 U	< 120 U	< 140 U	< 140 U	< 120 U	< 130 U
N-Nitroso-di-n-propylamine	621-64-7	µg/Kg	78	330	< 120 U	< 130 U	< 120 U	< 120 U	< 130 U	< 130 U	< 130 U	< 140 U	< 130 U	< 120 U	< 140 U	< 140 U	< 120 U	< 130 U
N-Nitrosodiphenylamine	86-30-6	µg/Kg	110,000	470,000	< 120 U	< 130 U	< 120 U	< 120 U	< 130 U	< 130 U	< 130 U	< 140 U	< 130 U	< 120 U	< 140 U	< 140 U	< 120 U	< 130 U
N-Nitrosopyrrolidine	930-55-2	µg/Kg	260	1,100	< 60 U	< 64 U	< 62 U	< 59 U	< 63 U	< 64 U	< 64 U	< 68 U	< 64 U	< 61 U	< 68 U	< 69 U	< 58 U	< 63 U
Pentachlorophenol	87-86-5	µg/Kg	1,000	4,000	< 300 U	< 320 U	< 310 U	< 290 U	< 320 U	< 320 U	< 320 U	< 340 U	< 320 UJ	< 300 U	< 340 UJ	< 350 U	< 290 UJ	< 310 UJ
Phenol	108-95-2	µg/Kg	19,000,000	250,000,000	< 300 U	< 320 U	< 310 U	< 290 U	< 320 U	< 320 U	< 320 U	< 340 U	< 320 UJ	< 300 U	< 340 UJ	< 350 U	< 290 UJ	< 310 UJ

TABLE B-2
ANALYTICAL RESULTS, SVOCS
GARDEN SOIL SAMPLING REPORT
Main Installation - Defense Depot Memphis, Tennessee

			USEPA Soil RSLs, May 2019 (TR 1E-06, THQ 1)		GN-SO-01-1	GN-SO-01-2	GN-SO-02-1	GN-SO-02-1-DUP-1	GN-SO-02-2	GN-SO-03-1	GN-SO-03-2	GN-SO-04-1	GN-SO-04-2	GN-SO-05-1	GN-SO-05-2	GN-SO-05-2-DUP-2	GN-SO-06-1	GN-SO-06-2
			Residential	Industrial	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019
Analyte	CASRN	Units	Value	Value	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Pyridine	110-86-1	µg/Kg	78,000	1,200,000	< 200 U	< 210 U	< 210 U	< 200 U	< 210 U	< 210 U	< 210 U	< 230 U	< 210 U	< 200 U	< 230 U	< 230 U	< 190 U	< 210 U

Notes:

The USEPA Regional Screening Levels (RSLs) with a target cancer risk of 1E-06 and target hazard quotient of 1 (May 2019) are applied as screening criteria.
Concentrations greater than the Residential RSL are shaded bold.
Concentrations greater than the Industrial RSL are shaded bold and underlined.
µg/Kg: micrograms per Kilogram
DQE Flags:
J: Estimated
U: Not Detected
UJ: Not Detected, estimated
Method:
8270D: Semi-Volatile Organic Compounds (SVOCs)

TABLE B-2
ANALYTICAL RESULTS, SVOCS
GARDEN SOIL SAMPLING REPORT
Main Installation - Defense Depot Memphis, Tennessee

			USEPA Soil RSLs, May 2019 (TR 1E-06, THQ 1)		GN-SO-07-1	GN-SO-07-2	GN-SO-08-1	GN-SO-08-2	GN-SO-09C-1
			Residential	Industrial	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019
Analyte	CASRN	Units	Value	Value	Result	Result	Result	Result	Result
1,2,4,5-Tetrachlorobenzene	95-94-3	µg/Kg	23,000	350,000	< 64 U	< 66 U	< 62 U	< 64 U	< 66 U
1,2,4-Trichlorobenzene	120-82-1	µg/Kg	24,000	110,000	< 64 U	< 66 U	< 62 U	< 64 U	< 66 U
1,2-Dichlorobenzene	95-50-1	µg/Kg	1,800,000	9,300,000	< 64 U	< 66 U	< 62 U	< 64 U	< 66 U
1,2-Diphenylhydrazine	122-66-7	µg/Kg	680	2,900	< 130 U	< 130 U	< 120 U	< 130 U	< 130 U
1,3-Dichlorobenzene	541-73-1	µg/Kg	NA	NA	< 64 U	< 66 U	< 62 U	< 64 U	< 66 U
1,4-Dichlorobenzene	106-46-7	µg/Kg	2,600	11,000	< 64 U	< 66 U	< 62 U	< 64 U	< 66 U
2,3,4,6-Tetrachlorophenol	58-90-2	µg/Kg	1,900,000	25,000,000	< 320 U	< 330 UJ	< 310 U	< 320 U	< 330 U
2,4,5-Trichlorophenol	95-95-4	µg/Kg	6,300,000	82,000,000	< 320 U	< 330 UJ	< 310 U	< 320 U	< 330 U
2,4,6-Trichlorophenol	88-06-2	µg/Kg	49,000	210,000	< 320 U	< 330 UJ	< 310 U	< 320 U	< 330 U
2,4-Dichlorophenol	120-83-2	µg/Kg	190,000	2,500,000	< 320 U	< 330 UJ	< 310 U	< 320 U	< 330 U
2,4-Dimethylphenol	105-67-9	µg/Kg	1,300,000	16,000,000	< 320 U	< 330 UJ	< 310 U	< 320 U	< 330 U
2,4-Dinitrophenol	51-28-5	µg/Kg	130,000	1,600,000	< 640 U	< 660 UJ	< 620 U	< 640 U	< 660 U
2,4-Dinitrotoluene	121-14-2	µg/Kg	1,700	7,400	< 64 U	< 66 U	< 62 U	< 64 U	< 66 U
2,6-Dichlorophenol	87-65-0	µg/Kg	NA	NA	< 320 U	< 330 UJ	< 310 U	< 320 U	< 330 U
2,6-Dinitrotoluene	606-20-2	µg/Kg	360	1,500	< 64 U	< 66 U	< 62 U	< 64 U	< 66 U
2-Chloronaphthalene	91-58-7	µg/Kg	4,800,000	60,000,000	< 64 U	< 66 U	< 62 U	< 64 U	< 66 U
2-Chlorophenol	95-57-8	µg/Kg	390,000	5,800,000	< 640 U	< 660 UJ	< 620 U	< 640 U	< 660 U
2-Methyl-4,6-dinitrophenol	534-52-1	µg/Kg	5,100	66,000	< 320 U	< 330 UJ	< 310 U	< 320 U	< 330 U
2-Methylphenol	95-48-7	µg/Kg	3,200,000	41,000,000	< 640 U	< 660 UJ	< 620 U	< 640 U	< 660 U
2-Nitroaniline	88-74-4	µg/Kg	630,000	8,000,000	< 64 U	< 66 U	< 62 U	< 64 U	< 66 U
2-Nitrophenol	88-75-5	µg/Kg	NA	NA	< 320 U	< 330 UJ	< 310 U	< 320 U	< 330 U
3,3'-Dichlorobenzidine	91-94-1	µg/Kg	1,200	5,100	< 320 UJ	< 330 UJ	< 310 UJ	< 320 UJ	< 330 UJ
3-Nitroaniline	99-09-2	µg/Kg	NA	NA	< 130 U	< 130 U	< 120 U	< 130 U	< 130 U
4-Bromophenyl phenyl ether	101-55-3	µg/Kg	NA	NA	< 64 U	< 66 U	< 62 U	< 64 U	< 66 U
4-Chloro-3-methylphenol	59-50-7	µg/Kg	6,300,000	82,000,000	< 640 U	< 660 UJ	< 620 U	< 640 U	< 660 U
4-Chloroaniline	106-47-8	µg/Kg	2,700	11,000	< 64 U	< 66 U	< 62 U	< 64 U	< 66 U
4-Chlorophenyl phenyl ether	7005-72-3	µg/Kg	NA	NA	< 64 U	< 66 U	< 62 U	< 64 U	< 66 U
4-Methylphenol	106-44-5	µg/Kg	6,300,000	82,000,000	< 1100 U	< 1200 UJ	< 1100 U	< 1100 U	< 1200 U
4-Nitroaniline	100-01-6	µg/Kg	27,000	110,000	< 64 U	< 66 U	< 62 U	< 64 U	< 66 U
4-Nitrophenol	100-02-7	µg/Kg	NA	NA	< 640 U	< 660 UJ	< 620 U	< 640 U	< 660 U
4-Nitrophenol	100-02-7	µg/Kg	NA	NA	< 130 U	< 130 U	< 120 U	< 130 U	< 130 U
Acetophenone	98-86-2	µg/Kg	7,800,000	120,000,000	< 64 UJ	< 66 UJ	< 62 UJ	< 64 UJ	< 66 UJ
Aniline	62-53-3	µg/Kg	95,000	400,000	< 64 U	< 66 U	< 62 U	< 64 U	< 66 U
Atrazine	1912-24-9	µg/Kg	2,400	10,000	< 64 U	< 66 U	< 62 U	< 64 U	< 66 U
Benzaldehyde	100-52-7	µg/Kg	170,000	820,000	< 1600 U	< 1600 U	< 1600 U	< 1600 U	< 1600 U
Benzidine	92-87-5	µg/Kg	0.53	10	< 1600 U	< 1600 UJ	< 1600 U	< 1600 U	< 1600 U
Benzoic acid	65-85-0	µg/Kg	250,000,000	3,300,000,000	< 210 UJ	< 220 UJ	< 210 UJ	< 210 UJ	< 220 UJ
Benzyl alcohol	100-51-6	µg/Kg	6,300,000	82,000,000	< 64 U	< 66 U	< 62 U	< 64 U	< 66 U
Biphenyl	92-52-4	µg/Kg	47,000	200,000	< 64 U	< 66 U	< 62 U	< 64 U	< 66 U
Bis(2-chloroethoxy)methane	111-91-1	µg/Kg	190,000	2,500,000	< 64 U	< 66 U	< 62 U	< 64 U	< 66 U
Bis(2-chloroethyl) ether	111-44-4	µg/Kg	230	1,000	< 64 U	< 66 U	< 62 U	< 64 U	< 66 U
Bis(2-chloroisopropyl) ether	108-60-1	µg/Kg	3,100,000	47,000,000	< 130 U	< 130 U	< 120 U	< 130 U	< 130 U
Bis(2-ethylhexyl)phthalate	117-81-7	µg/Kg	39,000	160,000	< 130 U	< 130 U	< 120 U	< 130 U	< 130 U
Butylbenzyl phthalate	85-68-7	µg/Kg	290,000	1,200,000	< 210 U	< 220 U	< 210 U	< 210 U	< 220 U
Caprolactam	105-60-2	µg/Kg	31,000,000	400,000,000	< 64 U	< 66 U	< 62 U	< 64 U	< 66 U
Carbazole	86-74-8	µg/Kg	NA	NA	< 64 U	< 66 U	< 62 U	< 64 U	< 66 U
Dibenzofuran	132-64-9	µg/Kg	73,000	1,000,000	< 130 U	< 130 U	< 120 U	< 130 U	< 130 U
Diethyl phthalate	84-66-2	µg/Kg	51,000,000	660,000,000	< 130 U	< 130 U	< 120 U	< 130 U	< 130 U
Dimethyl phthalate	131-11-3	µg/Kg	NA	NA	< 130 U	< 130 U	< 120 U	< 130 U	< 130 U
Di-n-butyl phthalate	84-74-2	µg/Kg	6,300,000	82,000,000	< 64 U	< 66 U	< 62 U	< 64 U	< 66 U
Di-n-octyl phthalate	117-84-0	µg/Kg	630,000	8,200,000	< 64 U	< 66 U	< 62 U	< 64 U	< 66 U
Hexachlorobenzene	118-74-1	µg/Kg	210	960	< 130 U	< 130 U	< 120 U	< 130 U	< 130 U
Hexachlorobutadiene	87-68-3	µg/Kg	1,200	5,300	< 130 U	< 130 U	< 120 U	< 130 U	< 130 U
Hexachlorocyclopentadiene	77-47-4	µg/Kg	1,800	7,500	< 64 U	< 66 U	< 62 U	< 64 U	< 66 U
Hexachloroethane	67-72-1	µg/Kg	1,800	8,000	< 64 U	< 66 U	< 62 U	< 64 U	< 66 U
Isophorone	78-59-1	µg/Kg	570,000	2,400,000	< 64 U	< 66 U	< 62 U	< 64 U	< 66 U
Nitrobenzene	98-95-3	µg/Kg	5,100	22,000	< 130 U	< 130 U	< 120 U	< 130 U	< 130 U
N-Nitrosodimethylamine	62-75-9	µg/Kg	2	34	< 130 U	< 130 U	< 120 U	< 130 U	< 130 U
N-Nitroso-di-n-propylamine	621-64-7	µg/Kg	78	330	< 130 U	< 130 U	< 120 U	< 130 U	< 130 U
N-Nitrosodiphenylamine	86-30-6	µg/Kg	110,000	470,000	< 64 U	< 66 U	< 62 U	< 64 U	< 66 U
N-Nitrosopyrrolidine	930-55-2	µg/Kg	260	1,100	< 320 U	< 330 UJ	< 310 U	751 J	< 330 U
Pentachlorophenol	87-86-5	µg/Kg	1,000	4,000	< 320 U	< 330 UJ	< 310 U	< 320 U	< 330 U

TABLE B-2
ANALYTICAL RESULTS, SVOCS
GARDEN SOIL SAMPLING REPORT
Main Installation - Defense Depot Memphis, Tennessee

			USEPA Soil RSLs, May 2019 (TR 1E-06, THQ 1)		GN-SO-07-1	GN-SO-07-2	GN-SO-08-1	GN-SO-08-2	GN-SO-09C-1
			Residential	Industrial	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019
Analyte	CASRN	Units	Value	Value	Result	Result	Result	Result	Result
Pyridine	110-86-1	µg/Kg	78,000	1,200,000	< 210 U	< 220 U	< 210 U	< 210 U	< 220 U

Notes:

The USEPA Regional Screening Levels (RSLs) with a target cancer risk of 1E-06 and target hazard quotient of 1 (May 2019) are applied as screening criteria.
Concentrations greater than the Residential RSL are shaded bold.
Concentrations greater than the Industrial RSL are shaded bold and underlined.
µg/Kg: micrograms per Kilogram
DQE Flags:
J: Estimated
U: Not Detected
UJ: Not Detected, estimated
Method:
8270D: Semi-Volatile Organic Compounds (SVOCs)

TABLE B-3
ANALYTICAL RESULTS, PAHS
GARDEN SOIL SAMPLING REPORT
Main Installation - Defense Depot Memphis, Tennessee

			USEPA Soil RSLs, May 2019 (TR 1E-06, THQ 1)		GN-SO-01-1	GN-SO-01-2	GN-SO-02-1	GN-SO-02-1-DUP-1	GN-SO-02-2	GN-SO-03-1	GN-SO-03-2	GN-SO-04-1	GN-SO-04-2	GN-SO-05-1	GN-SO-05-2	GN-SO-05-2-DUP-2	GN-SO-06-1	GN-SO-06-2	GN-SO-07-1
			Residential	Industrial	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019
Analyte	CASRN	Units	Value	Value	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
1-Methylnaphthalene	90-12-0	µg/Kg	18,000	73,000	1.58 J	< 1.1 UJ	6.12 J	14.4 J	3.15 J	2.57 J	3.97 J	6.97	4.07 J	62	4.94 J	9.79 J+	2.26 J	1.79 J	6.81
2-Methylnaphthalene	91-57-6	µg/Kg	240,000	3,000,000	2.13 J	< 1.1 UJ	7.34 J	16.2 J	3.24 J	2.13 J	4.19 J	8.67	4.71 J	50.8	4.81 J	14.6 J+	2.71 J	2.17 J	8.14
Acenaphthene	83-32-9	µg/Kg	3,600,000	45,000,000	3.62 J	0.913 J	64.1 J	170 J	4.12 J	2.87 J	38.9	16.4	4.54 J	6.08	2.07 J	1.44 J+	1.67 J	1.53 J	4.72 J
Acenaphthylene	208-96-8	µg/Kg	NA	NA	3.69 J	0.594 J	4.36 J	6.82 J	3.7 J	2.4 J	2.8 J	7.89	7.11	9.57	2.79 J	1.77 J+	3.87 J	2.83 J	7.98
Anthracene	120-12-7	µg/Kg	18,000,000	230,000,000	9.24	2.55 J	237 J	521 J	16.3	9.62	103	44.8	18.1	16.7	6.63 J	2.7 J+	4.47 J	5.41	12.3
Benzo(a)anthracene	56-55-3	µg/Kg	1,100	21,000	90.3	19.3	688 J	**1480 J**	87.1	85.7	432	225 J	126	124	56.9 J	25.1 J+	39.9	47.8	110
Benzo(a)pyrene	50-32-8	µg/Kg	110	2,100	75.1	14.7	**456 J**	**943 J**	72.9	62.3	**308**	**177**	99.8	98.3	42.8 J	20.4 J+	33.5	43.2	93
Benzo(b)fluoranthene	205-99-2	µg/Kg	1,100	21,000	111	19.7	670 J	**1390 J**	119	91.8	492	335	169	183	70.9 J	31.8 J+	61.7	63.6	173
Benzo(g,h,i)perylene	191-24-2	µg/Kg	NA	NA	66.3	13.6	230 J	483 J	62.3	48.6	190	63.3 J	77.5	48.8	23.5 J	12.8 J+	20.7	23.4	47.1
Benzo(k)fluoranthene	207-08-9	µg/Kg	11,000	210,000	40.4	6.69	174 J	445 J	37.6	29.4	119	77.6	39.2	44.6	18.2 J	9.05 J+	17.6	21	42.4
Chrysene	218-01-9	µg/Kg	110,000	2,100,000	75.8	13.4	492 J	1050 J	82.3	63.8	337	198	108	116	43.8 J	18.6 J+	36.8	40.7	97.6
Dibenzo(a,h)anthracene	53-70-3	µg/Kg	110	2,100	15.9	5.97	69.8 J	**133 J**	17.3	13.8	49	19 J	19.1	15.1	8.26	7.06 J+	6.83	7.9	14.5
Fluoranthene	206-44-0	µg/Kg	2,400,000	30,000,000	142	26.8	1150 J	2540 J	162	128	753	547	250	219	101 J	40.7 J+	71.6	88.2	179
Fluorene	86-73-7	µg/Kg	2,400,000	30,000,000	3.4 J	1.26 J	70.6 J	173 J	5.71	2.77 J	39.9	15.2	6.22	6.51	2.79 J	1.53 J+	1.89 J	2.12 J	4.43 J
Indeno(1,2,3-cd)pyrene	193-39-5	µg/Kg	1,100	21,000	60.4	12.7	243 J	511 J	58.1	45.9	187	70.3 J	74	45.2	24.1 J	13.2 J+	19	24.4	46.8
Naphthalene	91-20-3	µg/Kg	3,800	17,000	1.31 J	< 1.1 UJ	8.31 J	16.2 J	1.98 J	1.32 J	5.45	4.36 J	3.41 J	15.5	1.87 J	3.76 J+	1.31 J	1.51 J	3.48 J
Phenanthrene	85-01-8	µg/Kg	NA	NA	50.6	9.57	649 J	1190 J	82.8	45.5	361	222	108	160	51.1 J	19.3 J+	27.9	33.3	73
Pyrene	129-00-0	µg/Kg	1,800,000	23,000,000	117	21.2	801 J	1700 J	124	97.6	510	410 J	194	178	79.8 J	29.3 J+	57.5	69.4	142

Notes:

The USEPA Regional Screening Levels (RSLs) with a target cancer risk of 1E-06 and target hazard quotient of 1 (May 2019) are applied as screening criteria.

Concentrations greater than the Residential RSL are shaded bold.

Concentrations greater than the Industrial RSL are shaded bold and underlined.

µg/Kg: micrograms per Kilogram

DQE Flags:

J: Estimated

J+: Estimated, biased high

U: Not Detected

UJ: Not Detected, estimated

Method:

8270D-SIM: Polycyclic Aromatic Hydrocarbons (PAHs)

TABLE B-3
ANALYTICAL RESULTS, PAHS
GARDEN SOIL SAMPLING REPORT
Main Installation - Defense Depot Memphis, Tennessee

			USEPA Soil RSLs, May 2019 (TR 1E-06, THQ 1)		GN-SO-07-2	GN-SO-08-1	GN-SO-08-2	GN-SO-09C-1
			Residential	Industrial	8/26/2019	8/26/2019	8/26/2019	8/26/2019
Analyte	CASRN	Units	Value	Value	Result	Result	Result	Result
1-Methylnaphthalene	90-12-0	µg/Kg	18,000	73,000	13.9	3.55 J	5.61	0.956 J
2-Methylnaphthalene	91-57-6	µg/Kg	240,000	3,000,000	8.72	4.6 J	7.25	< 1.1 UJ
Acenaphthene	83-32-9	µg/Kg	3,600,000	45,000,000	5.92	6.47	2.64 J	1.73 J
Acenaphthylene	208-96-8	µg/Kg	NA	NA	6.39	7.66	5.72	2.2 J
Anthracene	120-12-7	µg/Kg	18,000,000	230,000,000	27.5	18.4	9.28	3.25 J
Benzo(a)anthracene	56-55-3	µg/Kg	1,100	21,000	162	158	52	32.5
Benzo(a)pyrene	50-32-8	µg/Kg	110	2,100	**130**	**118**	44.3	21.9
Benzo(b)fluoranthene	205-99-2	µg/Kg	1,100	21,000	218	201	93.2	41.5
Benzo(g,h,i)perylene	191-24-2	µg/Kg	NA	NA	52.5	50	18	10.3
Benzo(k)fluoranthene	207-08-9	µg/Kg	11,000	210,000	54.5	49.2	24.7	12.7
Chrysene	218-01-9	µg/Kg	110,000	2,100,000	143	128	44	20.3
Dibenzo(a,h)anthracene	53-70-3	µg/Kg	110	2,100	16.9	16.3	7.37	5.9
Fluoranthene	206-44-0	µg/Kg	2,400,000	30,000,000	361	284	82.4	40.8
Fluorene	86-73-7	µg/Kg	2,400,000	30,000,000	10	6.06	2.43 J	1.39 J
Indeno(1,2,3-cd)pyrene	193-39-5	µg/Kg	1,100	21,000	57.9	55	21.2	11.1
Naphthalene	91-20-3	µg/Kg	3,800	17,000	3.77 J	2 J	4.01 J	0.803 J
Phenanthrene	85-01-8	µg/Kg	NA	NA	181	118	35.1	13.5
Pyrene	129-00-0	µg/Kg	1,800,000	23,000,000	262	217	65.2	36

Notes:

The USEPA Regional Screening Levels (RSLs) with a target cancer risk of 1E-06 and target hazard quotient of 1 (May 2019) are applied as screening criteria.

Concentrations greater than the Residential RSL are shaded bold.

Concentrations greater than the Industrial RSL are shaded bold and underlined.

µg/Kg: micrograms per Kilogram

DQE Flags:

J: Estimated

J+: Estimated, biased high

U: Not Detected

UJ: Not Detected, estimated

Method:

8270D-SIM: Polycyclic Aromatic Hydrocarbons (PAHs)

TABLE B-4
ANALYTICAL RESULTS, PESTICIDES AND PCBS
GARDEN SOIL SAMPLING REPORT
Main Installation - Defense Depot Memphis, Tennessee

			USEPA Soil RSLs, May 2019 (TR 1E-06, THQ 1)		GN-SO-01-1	GN-SO-01-2	GN-SO-02-1	GN-SO-02-1-DUP-1	GN-SO-02-2	GN-SO-03-1	GN-SO-03-2	GN-SO-04-1	GN-SO-04-2	GN-SO-05-1	GN-SO-05-2	GN-SO-05-2-DUP-2	GN-SO-06-1	GN-SO-06-2	GN-SO-07-1
			Residential	Industrial	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019
Analyte	CASRN	Units	Value	Value	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
4,4'-DDD	72-54-8	µg/Kg	1,900	9,600	1.46 J	0.847 J	11.7 J	472 J	1.37 J	2.3	2.73	< 1.1 U	< 1.0 U	0.824 J	< 1.1 U	< 1.2 U	< 0.99 U	< 1.0 U	< 1.1 U
4,4'-DDE	72-55-9	µg/Kg	2,000	9,300	5.32	1.91 J	82.2 J	**2440 J**	8.13	16.3	18.5	5.12 J	2.61	6.49	0.677 J	0.697 J	8.18	< 1.0 U	3.55
4,4'-DDT	50-29-3	µg/Kg	1,900	8,500	2.71	2.01 J	42.2	51	5.39	6.46	6.24	6.46	4.9	10.9	1.47 J	1.16 J	3.06	1.12 J	3.87
Aldrin	309-00-2	µg/Kg	39	180	< 1.0 U	< 1.1 U	< 0.95 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.2 U	< 0.99 U	< 1.0 U	< 1.1 U
alpha-BHC	319-84-6	µg/Kg	86	360	< 2.1 U	< 2.1 U	< 1.9 U	1.24 J	< 2.1 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.1 U	3.71 J	< 2.3 U	< 2.3 U	< 2.0 U	< 2.0 U	< 2.2 U
beta-BHC	319-85-7	µg/Kg	300	1,300	< 2.1 U	< 2.1 U	< 1.9 U	< 2.1 U	< 2.1 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.1 U	< 2.1 U	< 2.3 U	< 2.3 U	< 2.0 U	< 2.0 U	< 2.2 U
delta-BHC	319-86-8	µg/Kg	NA	NA	< 1.0 U	< 1.1 U	0.571 J	0.933 J	< 1.1 U	< 1.1 U	< 1.1 U	0.334 J	< 1.0 U	< 1.0 U	< 1.1 U	< 1.2 U	< 0.99 U	< 1.0 U	< 1.1 U
gamma-BHC	58-89-9	µg/Kg	570	2,500	0.522 J	< 1.1 U	0.571 J	< 1.0 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.2 U	< 0.99 U	< 1.0 U	< 1.1 U
Chlordane (Technical)	12789-03-6	µg/Kg	1,700	7,700	< 21 U	< 21 U	< 19 U	< 21 U	< 21 U	< 22 U	< 22 U	< 22 U	< 21 U	< 21 U	< 23 U	< 23 U	< 20 U	< 20 U	< 22 U
alpha-Chlordane	5103-71-9	µg/Kg	1,700	7,700	< 1.0 U	< 1.1 U	< 0.95 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.2 U	< 0.99 U	< 1.0 U	< 1.1 U
gamma-Chlordane	5103-74-2	µg/Kg	1,700	7,700	2.61 J	2.12 J	4.66 J	< 1.0 UJ	1.9 J	2.19 J	< 1.1 U	2.78 J	2.19 J	2.37	< 1.1 U	< 1.2 U	2.37 J	< 1.0 U	11
Dieldrin	60-57-1	µg/Kg	34	140	0.522 J	< 1.1 U	0.571 J	< 1.0 U	< 1.1 U	6.46	4.16	0.89 J	1.36 J	6.9	1.24 J	1.05 J	1.68 J	< 1.0 U	4.09
Endosulfan I	959-98-8	µg/Kg	470,000	7,000,000	< 2.1 U	< 2.1 U	< 1.9 U	< 2.1 U	< 2.1 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.1 U	< 2.1 U	< 2.3 U	< 2.3 U	< 2.0 U	< 2.0 U	< 2.2 U
Endosulfan II	33213-65-9	µg/Kg	470,000	7,000,000	0.834 J	< 1.1 U	0.571 J	3.42 J	< 1.1 U	1.2 J	0.766 J	0.779 J	0.939 J	< 1.0 U	< 1.1 U	< 1.2 U	< 0.99 U	< 1.0 U	< 1.1 U
Endosulfan sulfate	1031-07-8	µg/Kg	380,000	4,900,000	< 2.1 U	< 2.1 U	< 1.9 U	2.38 J	< 2.1 U	< 2.2 U	< 2.2 U	< 2.2 UJ	< 2.1 U	< 2.1 U	< 2.3 U	< 2.3 U	< 2.0 U	< 2.0 U	< 2.2 U
Endrin	72-20-8	µg/Kg	19,000	250,000	< 1.0 U	< 1.1 U	< 0.95 U	28.1 J	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.0 U	4.64 J	< 1.1 U	1.05 J	< 0.99 U	< 1.0 U	< 1.1 U
Endrin aldehyde	7421-93-4	µg/Kg	19,000	250,000	< 2.1 U	< 2.1 U	< 1.9 U	< 2.1 U	< 2.1 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.1 U	< 2.1 U	< 2.3 U	< 2.3 U	< 2.0 U	< 2.0 U	< 2.2 U
Endrin ketone	543494-70-5	µg/Kg	19,000	250,000	< 2.1 U	< 2.1 U	< 1.9 U	14.3 J	< 2.1 U	< 2.2 U	< 2.2 U	< 2.2 UJ	< 2.1 U	1.13 J	< 2.3 U	< 2.3 U	0.986 J	< 2.0 U	< 2.2 U
Heptachlor	76-44-8	µg/Kg	130	630	< 1.0 U	< 1.1 U	< 0.95 U	0.933 J	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.2 U	< 0.99 U	< 1.0 U	0.645 J
Heptachlor epoxide	1024-57-3	µg/Kg	70	330	1.36 J	< 1.1 U	9.41 J	< 52 UJ	1.37 J	< 1.1 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.2 U	< 0.99 U	< 1.0 U	2.37
Methoxychlor	72-43-5	µg/Kg	320,000	4,100,000	< 2.1 U	< 2.1 U	< 1.9 U	< 2.1 U	< 2.1 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.1 U	< 2.1 U	< 2.3 U	< 2.3 U	< 2.0 U	< 2.0 U	< 2.2 U
Toxaphene	8001-35-2	µg/Kg	490	2,100	< 21 U	< 21 U	< 19 U	< 21 U	< 21 U	< 22 U	< 22 U	< 22 U	< 21 U	< 21 U	< 23 U	< 23 U	< 20 U	< 20 U	< 22 U
Aroclor 1016	12674-11-2	µg/Kg	4,100	27,000	< 21 U	< 21 U	< 19 U	< 21 U	< 21 U	< 22 U	< 22 U	< 22 U	< 21 U	< 21 U	< 23 U	< 23 U	< 20 U	< 20 U	< 22 U
Aroclor 1221	11104-28-2	µg/Kg	200	830	< 21 U	< 21 U	< 19 U	< 21 U	< 21 U	< 22 U	< 22 U	< 22 U	< 21 U	< 21 U	< 23 U	< 23 U	< 20 U	< 20 U	< 22 U
Aroclor 1232	11141-16-5	µg/Kg	170	720	< 21 U	< 21 U	< 19 U	< 21 U	< 21 U	< 22 U	< 22 U	< 22 U	< 21 U	< 21 U	< 23 U	< 23 U	< 20 U	< 20 U	< 22 U
Aroclor 1242	53469-21-9	µg/Kg	230	950	< 21 U	< 21 U	< 19 U	< 21 U	< 21 U	< 22 U	< 22 U	< 22 U	< 21 U	< 21 U	< 23 U	< 23 U	< 20 U	< 20 U	< 22 U
Aroclor 1248	12672-29-6	µg/Kg	230	950	< 21 U	< 21 U	< 19 U	< 21 U	< 21 U	< 22 U	< 22 U	< 22 U	< 21 U	< 21 U	< 23 U	< 23 U	< 20 U	< 20 U	< 22 U
Aroclor 1254	11097-69-1	µg/Kg	240	970	< 21 U	< 21 U	< 19 U	< 21 U	< 21 U	< 22 U	< 22 U	< 22 U	< 21 U	< 21 U	< 23 U	< 23 U	< 20 U	< 20 U	< 22 U
Aroclor 1260	11096-82-5	µg/Kg	240	990	< 21 U	< 21 U	< 19 U	< 21 U	< 21 U	< 22 U	< 22 U	< 22 U	< 21 U	< 21 U	< 23 U	< 23 U	< 20 U	< 20 U	< 22 U
Aroclor 1262	37324-23-5	µg/Kg	NA	NA	< 21 U	< 21 U	< 19 U	< 21 U	< 21 U	< 22 U	< 22 U	< 22 U	< 21 U	< 21 U	< 23 U	< 23 U	< 20 U	< 20 U	< 22 U
Aroclor 1268	11100-14-4	µg/Kg	NA	NA	< 21 U	< 21 U	< 19 U	< 21 U	< 21 U	< 22 U	< 22 U	< 22 U	< 21 U	< 21 U	< 23 U	< 23 U	< 20 U	< 20 U	< 22 U

Notes:
The USEPA Regional Screening Levels (RSLs) with a target cancer risk of 1E-06 and target hazard quotient of 1 (May 2019) are applied as screening criteria.
The RSLs for endosulfan are applied to endosulfan I and II, endrin to endrin aldehyde and endrin ketone, and chlordane to alpha and gamma chlordane.
Concentrations greater than the Residential RSL are shaded bold.
Concentrations greater than the Industrial RSL are shaded bold and
µg/Kg: micrograms per Kilogram
DQE Flags:
J: Estimated
U: Not Detected
UJ: Not Detected, estimated
Method:
8081B: Pesticides
8082A: Polychorinated biphenyl (PCB)

TABLE B-4
ANALYTICAL RESULTS, PESTICIDES AND PCBS
GARDEN SOIL SAMPLING REPORT
Main Installation - Defense Depot Memphis, Tennessee

			USEPA Soil RSLs, May 2019 (TR 1E-06, THQ 1)		GN-SO-07-2	GN-SO-08-1	GN-SO-08-2	GN-SO-09C-1
			Residential	Industrial	8/26/2019	8/26/2019	8/26/2019	8/26/2019
Analyte	CASRN	Units	Value	Value	Result	Result	Result	Result
4,4'-DDD	72-54-8	µg/Kg	1,900	9,600	0.428 J	0.415 J	0.618 J	8.29
4,4'-DDE	72-55-9	µg/Kg	2,000	9,300	2.14	4.26	8.24	243
4,4'-DDT	50-29-3	µg/Kg	1,900	8,500	4.82	3.32	16.1	497
Aldrin	309-00-2	µg/Kg	39	180	*< 1.1 U*	*< 1.0 U*	*< 1.0 U*	*< 1.1 U*
alpha-BHC	319-84-6	µg/Kg	86	360	*< 2.1 U*	*< 2.1 U*	*< 2.1 U*	*< 2.2 U*
beta-BHC	319-85-7	µg/Kg	300	1,300	*< 2.1 U*	*< 2.1 U*	0.721 J	*< 2.2 U*
delta-BHC	319-86-8	µg/Kg	NA	NA	*< 1.1 U*	*< 1.0 U*	*< 1.0 U*	*< 1.1 U*
gamma-BHC	58-89-9	µg/Kg	570	2,500	*< 1.1 U*	0.727 J	*< 1.0 U*	*< 1.1 U*
Chlordane (Technical)	12789-03-6	µg/Kg	1,700	7,700	*< 21 U*	*< 21 U*	*< 21 U*	*< 22 U*
alpha-Chlordane	5103-71-9	µg/Kg	1,700	7,700	*< 1.1 U*	*< 1.0 U*	*< 1.0 U*	*< 1.1 U*
gamma-Chlordane	5103-74-2	µg/Kg	1,700	7,700	5.14 J	4.57 J	4.22	2.29 J
Dieldrin	60-57-1	µg/Kg	34	140	1.28 J	*< 1.0 U*	0.824 J	21.3
Endosulfan I	959-98-8	µg/Kg	470,000	7,000,000	*< 2.1 U*	*< 2.1 U*	*< 2.1 U*	*< 2.2 U*
Endosulfan II	33213-65-9	µg/Kg	470,000	7,000,000	0.428 J	*< 1.0 U*	*< 1.0 U*	*< 1.1 U*
Endosulfan sulfate	1031-07-8	µg/Kg	380,000	4,900,000	*< 2.1 U*	*< 2.1 U*	*< 2.1 U*	*< 2.2 U*
Endrin	72-20-8	µg/Kg	19,000	250,000	*< 1.1 U*	*< 1.0 U*	*< 1.0 U*	*< 1.1 U*
Endrin aldehyde	7421-93-4	µg/Kg	19,000	250,000	*< 2.1 U*	*< 2.1 U*	*< 2.1 U*	*< 2.2 U*
Endrin ketone	543494-70-5	µg/Kg	19,000	250,000	*< 2.1 U*	*< 2.1 U*	*< 2.1 U*	*< 2.2 U*
Heptachlor	76-44-8	µg/Kg	130	630	*< 1.1 U*	*< 1.0 U*	*< 1.0 U*	*< 1.1 U*
Heptachlor epoxide	1024-57-3	µg/Kg	70	330	1.18 J	1.66 J	*< 1.0 U*	*< 1.1 U*
Methoxychlor	72-43-5	µg/Kg	320,000	4,100,000	*< 2.1 U*	*< 2.1 U*	*< 2.1 U*	2.07 J
Toxaphene	8001-35-2	µg/Kg	490	2,100	*< 21 U*	*< 21 U*	*< 21 U*	*< 22 U*
Aroclor 1016	12674-11-2	µg/Kg	4,100	27,000	*< 21 U*	*< 21 U*	*< 21 U*	*< 22 U*
Aroclor 1221	11104-28-2	µg/Kg	200	830	*< 21 U*	*< 21 U*	*< 21 U*	*< 22 U*
Aroclor 1232	11141-16-5	µg/Kg	170	720	*< 21 U*	*< 21 U*	*< 21 U*	*< 22 U*
Aroclor 1242	53469-21-9	µg/Kg	230	950	*< 21 U*	*< 21 U*	*< 21 U*	*< 22 U*
Aroclor 1248	12672-29-6	µg/Kg	230	950	*< 21 U*	*< 21 U*	*< 21 U*	*< 22 U*
Aroclor 1254	11097-69-1	µg/Kg	240	970	*< 21 U*	*< 21 U*	*< 21 U*	*< 22 U*
Aroclor 1260	11096-82-5	µg/Kg	240	990	*< 21 U*	*< 21 U*	*< 21 U*	*< 22 U*
Aroclor 1262	37324-23-5	µg/Kg	NA	NA	*< 21 U*	*< 21 U*	*< 21 U*	*< 22 U*
Aroclor 1268	11100-14-4	µg/Kg	NA	NA	*< 21 U*	*< 21 U*	*< 21 U*	*< 22 U*

Notes:
The USEPA Regional Screening Levels (RSLs) with a target cancer risk of 1E-06 and target hazard quotient of 1 (May 2019) are applied as screening criteria.
The RSLs for endosulfan are applied to endosulfan I and II, endrin to endrin aldehyde and endrin ketone, and chlordane to alpha and gamma chlordane.
Concentrations greater than the Residential RSL are shaded bold.
Concentrations greater than the Industrial RSL are shaded bold and
µg/Kg: micrograms per Kilogram
DQE Flags:
J: Estimated
U: Not Detected
UJ: Not Detected, estimated
Method:
8081B: Pesticides
8082A: Polychorinated biphenyl (PCB)

TABLE B-5
ANALYTICAL RESULTS, METALS
GARDEN SOIL SAMPLING REPORT
Main Installation - Defense Depot Memphis, Tennessee

		Location		USEPA Soil RSLs, May 2019 (TR 1E-06, THQ 1)		GN-SO-01-1	GN-SO-01-2	GN-SO-02-1	GN-SO-02-1-DUP-1	GN-SO-02-2	GN-SO-03-1	GN-SO-03-2	GN-SO-04-1	GN-SO-04-2	GN-SO-05-1	GN-SO-05-2	GN-SO-05-2-DUP-2	GN-SO-06-1	GN-SO-06-2
		Date		Residential	Industrial	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019
Analyte	CASRN	Method	Units	Value	Value	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Total Solids	--	2540	%	NA	NA	95.2	93.2	97.2	95.8	89.9	91.3	90.6	86.8	89.1	96.2	86.8	84.1	96.7	90.5
Aluminum	7429-90-5	6010C	µg/Kg	77,000,000	1,100,000,000	1950000	3200000	754000 J	1540000 J	6380000	4330000	4940000	9220000	5060000	4380000	10900000	10400000	1500000	8540000
Antimony	7440-36-0	6020	µg/Kg	31,000	470,000	452	693	223 J	182 J	471	415	543	871	688	331 J	640	791	182 J	626
Arsenic	7440-38-2	6020	µg/Kg	680	3,000	**6870**	**11000**	**5220**	**4880**	**7560**	**7760**	**9470**	**16900 J**	**11100**	**9110**	**11100**	**11300**	**3340**	**10200**
Barium	7440-39-3	6010C	µg/Kg	15,000,000	220,000,000	22900	32600	9700 J	23700 J	71600	52800	94200	119000	65600	64800	135000	128000	15800	116000
Beryllium	7440-41-7	6010C	µg/Kg	160,000	2,300,000	31 J	57	26 J	74 J	130	75	91	160	98	160	150	160	88	180
Cadmium	7440-43-9	6010C	µg/Kg	71,000	980,000	62	22 J	< 21 U	< 21 U	< 23 U	< 23 U	< 23 U	< 24 U	< 23 U	260	160	160	20 J	230
Calcium	7440-70-2	6010C	µg/Kg	NA	NA	10100000	12600000	2130000 J	3230000 J	2070000	8290000	2470000	4690000	1830000	87000000	7490000 J	17200000 J	108000000	10800000
Chromium	7440-47-3	6010C	µg/Kg	NA	NA	6300	8600	3600 J	8100 J	9400	7700	9000	9700	8600	7000	9000	10300	5300	8500
Hexavalent Chromium	18540-29-9	3060A	µg/Kg	300	6,300	< 400 U	**330 J**	< 400 U	**430 J**	280 J	240 J	270 J	**450 J**	**620**	< 400 U	240 J	**320 J**	< 400 U	**470 J**
Cobalt	7440-48-4	6010C	µg/Kg	23,000	350,000	2500	2500	1600 J	2600 J	5600	3400	4200	7700	3900	4000	8200	6800	930	6800
Copper	7440-50-8	6010C	µg/Kg	3,100,000	47,000,000	4400	5900	2300 J	4000 J	9400	7700	9200	10300	6700	12600	13400	13200	3000	12400
Iron	7439-89-6	6010C	µg/Kg	55,000,000	820,000,000	4870000	6990000	1690000 J	3830000 J	12400000	8490000	9680000	12600000	9930000	6400000	17300000	16200000	4270000	13400000
Lead	7439-92-1	6020	µg/Kg	400,000	800,000	12300	15900	7060 J	5640 J	13800	18500	12900	28000 J	35700	20900	12900	13300	8310	12700
Magnesium	7439-95-4	6010C	µg/Kg	NA	NA	635000	990000	178000 J	312000 J	1420000	849000	1100000	1370000	581000	3090000	2120000	2240000	2080000	1910000
Manganese	7439-96-5	6010C	µg/Kg	1,800,000	26,000,000	146000	185000	53300 J	159000 J	521000	301000	442000	576000	374000	282000	863000	703000	65200	635000
Nickel	7440-02-0	6010C	µg/Kg	1,500,000	22,000,000	3300	4900	1900 J	3400 J	9500	5200	7700	9500	5800	7500	14000	13300	2400	11900
Potassium	7440-09-7	6010C	µg/Kg	NA	NA	130000	266000	54900 J	93100 J	472000	236000	300000	642000	305000	547000	687000	722000	207000	633000
Selenium	7782-49-2	6020	µg/Kg	390,000	5,800,000	1130	2250	742	436	1790	1210	1980	1890	1790	1280	1820	1830	638	1770
Silver	7440-22-4	6020	µg/Kg	390,000	5,800,000	< 214 U	< 248 U	< 248 U	< 210 U	< 222 U	< 226 U	< 228 U	< 254 U	< 246 U	< 220 U	< 228 U	< 250 U	< 202 U	< 232 U
Sodium	7440-23-5	6010C	µg/Kg	NA	NA	394000	382000	301000	286000	32300	16900 J	22000 J	25400 J	13400 J	295000	239000 J	355000 J	332000	37400
Thallium	7440-28-0	6020	µg/Kg	780	12,000	42.1 J	211	29.1 J	24.9 J	137	39.5 J	137	197	106	71.8 J	232	233	38.9 J	201
Vanadium	7440-62-2	6010C	µg/Kg	390,000	5,800,000	9000	11600	6500 J	12100 J	18500	13700	13400	19300	15900	10800	22300	21700	4900	19200
Zinc	7440-66-6	6010C	µg/Kg	23,000,000	350,000,000	22900	28600	8700 J	18100 J	37900	41300	44800	49500	33400	48700	52900	52300	23100	47000
Mercury	7439-97-6	7471B	µg/Kg	11,000	46,000	< 4.6 U	30	15	9.4	25	29	35	39	29	29	33	33	12	36

Notes:

The USEPA Regional Screening Levels (RSLs) with a target cancer risk of 1E-06 and target hazard quotient of 1 (May 2019) are applied as screening criteria.
Concentrations greater than the Residential RSL are shaded bold.
Concentrations greater than the Industrial RSL are shaded bold and underlined.
µg/Kg: micrograms per Kilogram
DQE Flags:
J: Estimated
J+: Estimated, biased high
J-: Estimated, biased low
U: Not Detected
UJ: Not Detected, estimated

TABLE B-5
ANALYTICAL RESULTS, METALS
GARDEN SOIL SAMPLING REPORT
Main Installation - Defense Depot Memphis, Tennessee

		Location		USEPA Soil RSLs, May 2019 (TR 1E-06, THQ 1)		GN-SO-07-1	GN-SO-07-2	GN-SO-08-1	GN-SO-08-2	GN-SO-09C-1
		Date		Residential	Industrial	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019
Analyte	CASRN	Method	Units	Value	Value	Result	Result	Result	Result	Result
Total Solids	--	2540	%	NA	NA	92	90.8	95.9	93.5	90
Aluminum	7429-90-5	6010C	µg/Kg	77,000,000	1,100,000,000	2800000	7050000	1920000	3830000	7460000
Antimony	7440-36-0	6020	µg/Kg	31,000	470,000	424	519	277 J	476	971
Arsenic	7440-38-2	6020	µg/Kg	680	3,000	**9140**	**9410**	**6880**	**7830**	**11800**
Barium	7440-39-3	6010C	µg/Kg	15,000,000	220,000,000	49100	85300	20300	46600	91500
Beryllium	7440-41-7	6010C	µg/Kg	160,000	2,300,000	40 J	150	10 J	71	170
Cadmium	7440-43-9	6010C	µg/Kg	71,000	980,000	320	170	230	230	94
Calcium	7440-70-2	6010C	µg/Kg	NA	NA	110000000	23100000	163000000	24300000	1690000
Chromium	7440-47-3	6010C	µg/Kg	NA	NA	6700	8400	5300	6600	10000
Hexavalent Chromium	18540-29-9	3060A	µg/Kg	300	6,300	**320 J**	< 400 U	< 400 U	220 J	260 J
Cobalt	7440-48-4	6010C	µg/Kg	23,000	350,000	1500	7700	1800	3000	7500
Copper	7440-50-8	6010C	µg/Kg	3,100,000	47,000,000	6000	10200	5500	8700	13200
Iron	7439-89-6	6010C	µg/Kg	55,000,000	820,000,000	4710000	12000000	3410000	7560000	16000000
Lead	7439-92-1	6020	µg/Kg	400,000	800,000	27300	16600	10300	21100	13400
Magnesium	7439-95-4	6010C	µg/Kg	NA	NA	2670000	1730000	2920000	1370000	2060000
Manganese	7439-96-5	6010C	µg/Kg	1,800,000	26,000,000	99000	516000	117000	241000	623000
Nickel	7440-02-0	6010C	µg/Kg	1,500,000	22,000,000	4600	9600	4000	7900	11200
Potassium	7440-09-7	6010C	µg/Kg	NA	NA	349000	465000	227000	295000	485000
Selenium	7782-49-2	6020	µg/Kg	390,000	5,800,000	992	1690	788	1930	2550
Silver	7440-22-4	6020	µg/Kg	390,000	5,800,000	< 226 U	< 220 U	< 220 U	< 226 U	< 246 U
Sodium	7440-23-5	6010C	µg/Kg	NA	NA	524000	39700	439000	49200	43600
Thallium	7440-28-0	6020	µg/Kg	780	12,000	56.8 J	120	55.3 J	102	193
Vanadium	7440-62-2	6010C	µg/Kg	390,000	5,800,000	7300	17700	6000	11800	20900
Zinc	7440-66-6	6010C	µg/Kg	23,000,000	350,000,000	37400	38500	34100	35400	45600
Mercury	7439-97-6	7471B	µg/Kg	11,000	46,000	19	29	8.5 J	18	32

Notes:

The USEPA Regional Screening Levels (RSLs) with a target cancer risk of 1E-06 and target hazard quotient of 1 (May 2019) are applied as screening criteria.
Concentrations greater than the Residential RSL are shaded bold.
Concentrations greater than the Industrial RSL are shaded bold and underlined.
µg/Kg: micrograms per Kilogram
DQE Flags:
J: Estimated
J+: Estimated, biased high
J-: Estimated, biased low
U: Not Detected
UJ: Not Detected, estimated

TABLE B-6
ANALYTICAL RESULTS, VOC-TICS
GARDEN SOIL SAMPLING REPORT
Main Installation - Defense Depot Memphis, Tennessee

		GN-SO-01-1	GN-SO-01-2	GN-SO-02-1	GN-SO-02-1-DUP-1	GN-SO-02-2	GN-SO-03-1	GN-SO-03-2	GN-SO-04-1	GN-SO-04-2	GN-SO-05-1
		8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019
Analyte	Units										
1,1,1,3,5,5,5-Heptamethyltrisilo...	µg/Kg			10 J							
1,2-Bis(trimethylsilyl)benzene	µg/Kg										
1-Benzopyrylium, 2-phenyl-	µg/Kg										
1-Hexanol, 2-ethyl-	µg/Kg	10 J									
2-Furancarboxaldehyde	µg/Kg			10 J							
2-Nonanone	µg/Kg		10 J								
2-Nonynoic acid	µg/Kg										
2-Phenyl-1,2-bis(trimethylsilylo...	µg/Kg										
2-Propanone, 1,3-dichloro-	µg/Kg					10 J					
2-Propen-1-one, 1,3-diphenyl-	µg/Kg										10 J
5-(p-Acetylaminophenylsulphonyl)...	µg/Kg										
Acetaldehyde	µg/Kg	10 J	10 J			10 J	10 J	10 J		10 J	10 J
Acetoacetic acid, 1-thio-, S-all...	µg/Kg										
Arsenous acid, tris(trimethylsil...	µg/Kg										
Benzene, 1-phenyl-4-(2-cyano-2-p...	µg/Kg										
Benzene-1,2,3,4-d4-, 5,6-dichloro-	µg/Kg		20 J	20 J	20 J	20 J			20 J		20 J
Benzeneethanamine, N-[(pentafluo...	µg/Kg	10 J									
Butanal	µg/Kg		10 J				10 J				
Butane	µg/Kg						10 J				20 J
Butane, 2-methyl-	µg/Kg						10 J				20 J
Cyclotetrasiloxane, octamethyl-	µg/Kg	30 J	10 J	10 J	10 J	10 J		10 J	10 J	10 J	10 J
Cyclotrisiloxane, hexamethyl-	µg/Kg	20 J					20 J	10 J	10 J	10 J	10 J
Heptanal	µg/Kg	10 J					10 J	10 J			
Hexahydropyridine, 1-methyl-4-[4...	µg/Kg										
Hexanal	µg/Kg	60 J	20 J	70 J	50 J		100 J	40 J	20 J	10 J	30 J
Isobutane	µg/Kg										20 J
Limonene	µg/Kg						10 J				
Nonanal	µg/Kg										
Octanal	µg/Kg	10 J						10 J			
Pentanal	µg/Kg	10 J		10 J	10 J		20 J	10 J			
Pentane	µg/Kg	10 J					10 J				10 J
Pentane, 2-methyl-	µg/Kg										10 J
Propane	µg/Kg								10 J		
Propiophenone, 2'-(trimethylsilo...	µg/Kg										
Silane, fluorotrimethyl-	µg/Kg	10 J		10 J			10 J				
Silanol, trimethyl-	µg/Kg										

Notes:

µg/Kg: micrograms per Kilogram

DQE Flags:

J: Estimated

Method:

8260C: Volatile Organic Compounds-
Tentatively Identified Compounds (VOC-TICs)

TABLE B-6
ANALYTICAL RESULTS, VOC-TICS
GARDEN SOIL SAMPLING REPORT
Main Installation - Defense Depot Memphis, Tennessee

		GN-SO-05-2	GN-SO-05-2-DUP-2	GN-SO-06-1	GN-SO-06-2	GN-SO-07-1	GN-SO-07-2	GN-SO-08-1	GN-SO-08-2	GN-SO-09C-1
		8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019
Analyte	Units									
1,1,1,3,5,5,5-Heptamethyltrisilo...	µg/Kg									
1,2-Bis(trimethylsilyl)benzene	µg/Kg				10 J					
1-Benzopyrylium, 2-phenyl-	µg/Kg							10 J		
1-Hexanol, 2-ethyl-	µg/Kg									
2-Furancarboxaldehyde	µg/Kg									
2-Nonanone	µg/Kg									
2-Nonynoic acid	µg/Kg						20 J			
2-Phenyl-1,2-bis(trimethylsilylo...	µg/Kg								10 J	
2-Propanone, 1,3-dichloro-	µg/Kg									
2-Propen-1-one, 1,3-diphenyl-	µg/Kg									
5-(p-Acetylaminophenylsulphonyl)...	µg/Kg							10 J		
Acetaldehyde	µg/Kg	10 J			10 J		10 J			10 J
Acetoacetic acid, 1-thio-, S-all...	µg/Kg	10 J								
Arsenous acid, tris(trimethylsil...	µg/Kg	10 J			10 J	10 J				
Benzene, 1-phenyl-4-(2-cyano-2-p...	µg/Kg			10 J				10 J		
Benzene-1,2,3,4-d4-, 5,6-dichloro-	µg/Kg	20 J					20 J		20 J	
Benzeneethanamine, N-[(pentafluo...	µg/Kg									
Butanal	µg/Kg				10 J		10 J			
Butane	µg/Kg			20 J	10 J	20 J	10 J		10 J	
Butane, 2-methyl-	µg/Kg			10 J		20 J	10 J		10 J	
Cyclotetrasiloxane, octamethyl-	µg/Kg	10 J	10 J		10 J	10 J	10 J			10 J
Cyclotrisiloxane, hexamethyl-	µg/Kg		10 J	10 J				10 J	10 J	
Heptanal	µg/Kg						10 J			10 J
Hexahydropyridine, 1-methyl-4-[4...	µg/Kg						10 J			
Hexanal	µg/Kg	10 J	10 J		10 J		50 J		20 J	60 J
Isobutane	µg/Kg					20 J				
Limonene	µg/Kg									
Nonanal	µg/Kg									10 J
Octanal	µg/Kg									10 J
Pentanal	µg/Kg				10 J		10 J			
Pentane	µg/Kg			10 J		10 J	10 J		10 J	
Pentane, 2-methyl-	µg/Kg			10 J		10 J			10 J	
Propane	µg/Kg									
Propiophenone, 2'-(trimethylsilo...	µg/Kg			10 J						
Silane, fluorotrimethyl-	µg/Kg								10 J	
Silanol, trimethyl-	µg/Kg							10 J		

Notes:

µg/Kg: micrograms per Kilogram

DQE Flags:

J: Estimated

Method:

8260C: Volatile Organic Compounds-
Tentatively Identified Compounds (VOC-TICs)

TABLE B-7
ANALYTICAL RESULTS, SVOC-TICS
GARDEN SOIL SAMPLING REPORT
Main Installation - Defense Depot Memphis, Tennessee

		GN-SO-01-1	GN-SO-01-2	GN-SO-02-1	GN-SO-02-1-DUP-1	GN-SO-02-2	GN-SO-03-1	GN-SO-03-2	GN-SO-04-1	GN-SO-04-2	GN-SO-05-1	GN-SO-05-2	GN-SO-05-2-DUP-2	GN-SO-06-1	GN-SO-06-2	GN-SO-07-1	GN-SO-07-2	GN-SO-08-1
		8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019	8/26/2019
Analyte	Units																	
.gamma.-Sitosterol	µg/Kg	11.2 J																
16-Octadecenal	µg/Kg								4.09 J									
17-Octadecenal	µg/Kg								5.5 J							4.22 J		
2(3H)-Furanone, 5-ethyldihydro-	µg/Kg											10.5 J				22.1 J		
2,3-Butanedione, monooxime	µg/Kg									4.71 J								
2-Pentanone, 4-hydroxy-4-methyl-	µg/Kg	489 J	471 J	454 J	526 J	353 J	439 J	391 J	399 J	444 J	472 J	433 J	539 J	455 J	478 J	410 J	486 J	436 J
2-Pentanone, 5-(acetyloxy)-	µg/Kg	7.09 J				11.1 J						12.1 J			15.1 J			
3,5-Nonadien-7-yn-2-ol, (E,E)-	µg/Kg							4.18 J										
3-Buten-2-ol, 2,3-dimethyl-	µg/Kg				6.17 J					4.92 J				6.39 J		7.68 J		
3-Penten-2-one, 4-methyl-	µg/Kg	6.48 J	15.9 J	6.92 J	6.41 J	117 J	5.49 J	4.15 J	6.77 J	5.38 J	6.63 J	5.46 J	7.04 J	5.61 J	6.27 J	9.74 J	6.35 J	6.27 J
5-Hexen-2-one	µg/Kg					8.14 J												
Acetic acid, 1-methylethyl ester	µg/Kg								10.7 J		8.36 J			14.5 J		13.7 J		
Acetic acid, hexyl ester	µg/Kg		14.3 J															
Benzene, 1-bromo-3-chloro-	µg/Kg													4.66 J				
Cyclobutylamine	µg/Kg																	
Decane, 2-methyl-	µg/Kg										3.86 J							
Dotriacontane	µg/Kg								3.6 J									
Eicosane	µg/Kg										3.8 J					3.06 J		
Heneicosane	µg/Kg										4.22 J							
Heptadecane	µg/Kg															8.6 J		
Hexane, 2,3,3-trimethyl-	µg/Kg															5.91 J		
Hexane, 2,3,5-trimethyl-	µg/Kg															4.18 J		
Hexanoic acid, hydroxy-, methyl ...	µg/Kg				19.4 J													
Hexatriacontane	µg/Kg						4.35 J							4.95 J				6.17 J
Hexylene Glycol	µg/Kg										8.26 J							
Hydroperoxide, 1-methylethyl	µg/Kg			15.8 J						14.4 J			6.17 J				13.9 J	13 J
Methacrylamide	µg/Kg	6.95 J		6.44 J	14.6 J				11.7 J		24.7 J				7.18 J			7.94 J
Monomethylnitrosamine	µg/Kg							7.03 J		11.7 J				16.1 J				
Nonadecane	µg/Kg						3.16 J									5.1 J		
Octadecanal	µg/Kg															3.85 J		
Oleic Acid	µg/Kg															6.45 J		
Oxirane, 3-ethyl-2,2-dimethyl-	µg/Kg								4.89 J									
Oxirane, trimethyl-	µg/Kg						6.56 J											
Pentadecane	µg/Kg										5.09 J							
Pregn-4-ene-3,20-dione, (9.beta....	µg/Kg															4.46 J		
Propane, 1-(1-methylethoxy)-	µg/Kg							12.2 J										
Pyrene, 2-methyl-	µg/Kg				2.96 J													
Stigmast-4-en-3-one	µg/Kg	5.01 J																
Tetracosane	µg/Kg							3.53 J										
Tetratetracontane	µg/Kg	5.62 J																
Thiazole	µg/Kg						5.61 J						5.73 J				9.38 J	

Notes:
µg/Kg: micrograms per Kilogram
DQE Flags:
J: Estimated
U: Not Detected
UJ: Not Detected, estimated
Method:
8270D: Semi-Volatile Organic Compounds Tentatively Identified Compounds (SVOC-TICs)

TABLE B-7
ANALYTICAL RESULTS, SVOC-TICS
GARDEN SOIL SAMPLING REPORT
Main Installation - Defense Depot Memphis, Tennessee

		GN-SO-08-2	GN-SO-09C-1
		8/26/2019	8/26/2019
Analyte	Units		
.gamma.-Sitosterol	µg/Kg		
16-Octadecenal	µg/Kg		
17-Octadecenal	µg/Kg		
2(3H)-Furanone, 5-ethyldihydro-	µg/Kg	7.22 J	
2,3-Butanedione, monooxime	µg/Kg		
2-Pentanone, 4-hydroxy-4-methyl-	µg/Kg	482 J	438 J
2-Pentanone, 5-(acetyloxy)-	µg/Kg		
3,5-Nonadien-7-yn-2-ol, (E,E)-	µg/Kg		
3-Buten-2-ol, 2,3-dimethyl-	µg/Kg		
3-Penten-2-one, 4-methyl-	µg/Kg	5.93 J	5.17 J
5-Hexen-2-one	µg/Kg		
Acetic acid, 1-methylethyl ester	µg/Kg		
Acetic acid, hexyl ester	µg/Kg	14.4 J	
Benzene, 1-bromo-3-chloro-	µg/Kg		
Cyclobutylamine	µg/Kg		10.6 J
Decane, 2-methyl-	µg/Kg		
Dotriacontane	µg/Kg		
Eicosane	µg/Kg		
Heneicosane	µg/Kg		
Heptadecane	µg/Kg		
Hexane, 2,3,3-trimethyl-	µg/Kg		
Hexane, 2,3,5-trimethyl-	µg/Kg		
Hexanoic acid, hydroxy-, methyl ...	µg/Kg		
Hexatriacontane	µg/Kg		3.42 J
Hexylene Glycol	µg/Kg		
Hydroperoxide, 1-methylethyl	µg/Kg		
Methacrylamide	µg/Kg		
Monomethylnitrosamine	µg/Kg		
Nonadecane	µg/Kg		
Octadecanal	µg/Kg		
Oleic Acid	µg/Kg		
Oxirane, 3-ethyl-2,2-dimethyl-	µg/Kg		
Oxirane, trimethyl-	µg/Kg		
Pentadecane	µg/Kg		
Pregn-4-ene-3,20-dione, (9.beta....	µg/Kg		
Propane, 1-(1-methylethoxy)-	µg/Kg		
Pyrene, 2-methyl-	µg/Kg		
Stigmast-4-en-3-one	µg/Kg		
Tetracosane	µg/Kg		
Tetratetracontane	µg/Kg		
Thiazole	µg/Kg		

Notes:
µg/Kg: micrograms per Kilogram
DQE Flags:
J: Estimated
U: Not Detected
UJ: Not Detected, estimated
Method:
8270D: Semi-Volatile Organic Compounds Tentatively Identified Compounds (SVOC-TICs)

TABLE B-8
QUALITY CONTROL SAMPLE ANALYTICAL RESULTS
GARDEN SOIL SAMPLING REPORT
Main Installation - Defense Depot Memphis, Tennessee

		Sample ID	GN-W-TB-01	GN-W-RB-01
		Lab ID	321156	321173
		Date	8/26/2019	8/27/2019
Analyte-VOCs	Method	Units		
1,1,1,2-Tetrachloroethane	8260C	µg/L	< 0.10 U	< 0.10 U
1,1,1-Trichloroethane	8260C	µg/L	< 0.050 U	< 0.050 U
1,1,2,2-Tetrachloroethane	8260C	µg/L	< 0.050 U	< 0.050 U
1,1,2-Trichloroethane	8260C	µg/L	< 0.10 U	< 0.10 U
1,1-Dichloroethane	8260C	µg/L	< 0.050 U	< 0.050 U
1,1-Dichloroethene	8260C	µg/L	< 0.10 U	< 0.10 U
1,1-Dichloropropene	8260C	µg/L	< 0.10 U	< 0.10 U
1,2,3-Trichlorobenzene	8260C	µg/L	< 0.020 U	< 0.020 U
1,2,3-Trichloropropane	8260C	µg/L	< 0.10 U	< 0.10 U
1,2,4-Trichlorobenzene	8260C	µg/L	< 0.020 U	< 0.020 U
1,2,4-Trimethylbenzene	8260C	µg/L	< 0.050 U	< 0.050 U
1,2-Dibromo-3-chloropropane	8260C	µg/L	< 0.10 U	< 0.10 U
1,2-Dibromoethane	8260C	µg/L	< 0.10 U	< 0.10 U
1,2-Dichlorobenzene	8260C	µg/L	< 0.050 U	< 0.050 U
1,2-Dichloroethane	8260C	µg/L	< 0.050 U	< 0.050 U
1,2-Dichloropropane	8260C	µg/L	< 0.050 U	< 0.050 U
1,3,5-Trimethylbenzene	8260C	µg/L	< 0.050 U	< 0.050 U
1,3-Dichlorobenzene	8260C	µg/L	< 0.050 U	< 0.050 U
1,3-Dichloropropane	8260C	µg/L	< 0.050 U	< 0.050 U
1,4-Dichlorobenzene	8260C	µg/L	< 0.050 U	< 0.050 U
2,2-Dichloropropane	8260C	µg/L	< 0.050 U	< 0.050 U
2-Butanone	8260C	µg/L	< 1.0 U	7.1
2-Chlorotoluene	8260C	µg/L	< 0.050 U	< 0.050 U
2-Hexanone	8260C	µg/L	< 1.0 U	< 1.0 U
4-Chlorotoluene	8260C	µg/L	< 0.050 U	< 0.050 U
4-Methyl-2-pentanone	8260C	µg/L	< 0.50 U	< 0.50 U
Acetone	8260C	µg/L	< 1.0 U	1.4 J
Benzene	8260C	µg/L	< 0.050 U	< 0.050 U
Bromobenzene	8260C	µg/L	< 0.050 U	< 0.050 U
Bromochloromethane	8260C	µg/L	< 0.10 U	< 0.10 U
Bromodichloromethane	8260C	µg/L	< 0.050 U	< 0.050 U
Bromoform	8260C	µg/L	< 0.050 U	< 0.050 U
Bromomethane	8260C	µg/L	< 0.10 U	< 0.10 U
Carbon disulfide	8260C	µg/L	< 0.040 U	< 0.040 U
Carbon tetrachloride	8260C	µg/L	< 0.050 U	< 0.050 U
Chlorobenzene	8260C	µg/L	< 0.050 U	< 0.050 U
Chloroethane	8260C	µg/L	< 0.050 U	< 0.050 U
Chloroform	8260C	µg/L	< 0.050 U	< 0.050 U
Chloromethane	8260C	µg/L	0.045 J	0.63
cis-1,2-Dichloroethene	8260C	µg/L	< 0.050 U	< 0.050 U
cis-1,3-Dichloropropene	8260C	µg/L	< 0.050 U	< 0.050 U
Dibromochloromethane	8260C	µg/L	< 0.050 U	< 0.050 U
Dibromomethane	8260C	µg/L	< 0.050 U	< 0.050 U
Dichlorodifluoromethane	8260C	µg/L	< 0.050 U	< 0.050 U
Ethylbenzene	8260C	µg/L	< 0.050 U	0.027 J
Freon 113	8260C	µg/L	< 0.10 U	< 0.10 U
Hexachlorobutadiene	8260C	µg/L	< 0.050 U	< 0.050 U
Isopropylbenzene	8260C	µg/L	< 0.050 U	< 0.050 U
m,p-Xylenes	8260C	µg/L	< 0.10 U	0.15 J
Methylene chloride	8260C	µg/L	0.13 J	< 0.10 U

			GN-W-RB-01
			321513
			8/27/2019
Analyte-SVOCs	Method	Units	
1,2,4,5-Tetrachlorobenzene	8270D	µg/L	< 0.42 U
1,2,4-Trichlorobenzene	8270D	µg/L	< 0.42 U
1,2-Dichlorobenzene	8270D	µg/L	< 0.42 U
1,2-Diphenylhydrazine	8270D	µg/L	< 0.83 U
1,3-Dichlorobenzene	8270D	µg/L	< 0.42 U
1,4-Dichlorobenzene	8270D	µg/L	< 0.42 U
1-Methylnaphthalene	8270D	µg/L	< 0.42 U
2,3,4,6-Tetrachlorophenol	8270D	µg/L	< 2.1 U
2,4,5-Trichlorophenol	8270D	µg/L	< 2.1 U
2,4,6-Trichlorophenol	8270D	µg/L	< 2.1 U
2,4-Dichlorophenol	8270D	µg/L	< 2.1 U
2,4-Dimethylphenol	8270D	µg/L	< 2.1 U
2,4-Dinitrophenol	8270D	µg/L	< 5.2 U
2,4-Dinitrotoluene	8270D	µg/L	< 0.42 U
2,6-Dichlorophenol	8270D	µg/L	< 2.1 U
2,6-Dinitrotoluene	8270D	µg/L	< 0.42 U
2-Chloronaphthalene	8270D	µg/L	< 0.42 U
2-Chlorophenol	8270D	µg/L	< 2.1 U
2-Methyl-4,6-dinitrophenol	8270D	µg/L	< 5.2 U
2-Methylnaphthalene	8270D	µg/L	< 0.42 U
2-Methylphenol	8270D	µg/L	< 2.1 U
2-Nitroaniline	8270D	µg/L	< 0.42 U
2-Nitrophenol	8270D	µg/L	< 2.1 U
3,3'-Dichlorobenzidine	8270D	µg/L	< 1.0 U
3-Nitroaniline	8270D	µg/L	< 1.0 U
4-Bromophenyl phenyl ether	8270D	µg/L	< 0.42 U
4-Chloro-3-methylphenol	8270D	µg/L	< 2.1 U
4-Chloroaniline	8270D	µg/L	< 0.42 U
4-Chlorophenyl phenyl ether	8270D	µg/L	< 0.42 U
4-Methylphenol	8270D	µg/L	< 3.8 U
4-Nitroaniline	8270D	µg/L	< 1.0 U
4-Nitrophenol	8270D	µg/L	< 5.2 U
Acenaphthene	8270D	µg/L	< 0.42 U
Acenaphthylene	8270D	µg/L	< 0.42 U
Acetophenone	8270D	µg/L	< 0.42 U
Aniline	8270D	µg/L	< 2.1 U
Anthracene	8270D	µg/L	< 0.42 U
Atrazine	8270D	µg/L	< 0.42 U
Benzaldehyde	8270D	µg/L	< 0.42 U
Benzidine	8270D	µg/L	< 52 U
Benzo(a)anthracene	8270D	µg/L	< 0.42 U
Benzo(a)pyrene	8270D	µg/L	< 0.42 U
Benzo(b)fluoranthene	8270D	µg/L	< 0.42 U
Benzo(g,h,i)perylene	8270D	µg/L	< 0.42 U
Benzo(k)fluoranthene	8270D	µg/L	< 0.42 U
Benzoic acid	8270D	µg/L	< 26 U
Benzyl alcohol	8270D	µg/L	< 1.0 U
Biphenyl	8270D	µg/L	< 0.42 U
Bis(2-chloroethoxy)methane	8270D	µg/L	< 0.42 U
Bis(2-chloroethyl) ether	8270D	µg/L	< 0.42 U

TABLE B-8
QUALITY CONTROL SAMPLE ANALYTICAL RESULTS
GARDEN SOIL SAMPLING REPORT
Main Installation - Defense Depot Memphis, Tennessee

			GN-W-RB-01
			321513
			8/27/2019
Analyte-PAHs	Method	Units	
1-Methylnaphthalene	8270D-SIM	µg/L	< 0.021 UJ
2-Methylnaphthalene	8270D-SIM	µg/L	< 0.021 UJ
Acenaphthene	8270D-SIM	µg/L	< 0.021 UJ
Acenaphthylene	8270D-SIM	µg/L	< 0.021 UJ
Anthracene	8270D-SIM	µg/L	< 0.021 UJ
Benzo(a)anthracene	8270D-SIM	µg/L	< 0.021 UJ
Benzo(a)pyrene	8270D-SIM	µg/L	< 0.021 UJ
Benzo(b)fluoranthene	8270D-SIM	µg/L	< 0.021 UJ
Benzo(g,h,i)perylene	8270D-SIM	µg/L	< 0.021 UJ
Benzo(k)fluoranthene	8270D-SIM	µg/L	< 0.021 UJ
Chrysene	8270D-SIM	µg/L	< 0.021 UJ
Dibenzo(a,h)anthracene	8270D-SIM	µg/L	< 0.021 UJ
Fluoranthene	8270D-SIM	µg/L	< 0.021 UJ
Fluorene	8270D-SIM	µg/L	< 0.021 UJ
Indeno(1,2,3-cd)pyrene	8270D-SIM	µg/L	< 0.021 UJ
Naphthalene	8270D-SIM	µg/L	0.014 J
Phenanthrene	8270D-SIM	µg/L	< 0.021 UJ
Pyrene	8270D-SIM	µg/L	< 0.021 UJ

			GN-W-RB-01
			321513
			8/27/2019
Analyte-Pesticide/PCBs	Method	Units	
4,4'-DDD	8081B	µg/L	< 0.010 U
4,4'-DDE	8081B	µg/L	< 0.010 U
4,4'-DDT	8081B	µg/L	< 0.010 U
Aldrin	8081B	µg/L	0.0021 J
alpha-BHC	8081B	µg/L	< 0.010 U
alpha-Chlordane	8081B	µg/L	< 0.010 U
beta-BHC	8081B	µg/L	< 0.010 U
Chlordane (Technical)	8081B	µg/L	< 0.21 U
delta-BHC	8081B	µg/L	< 0.010 U
Dieldrin	8081B	µg/L	< 0.0041 U
Endosulfan I	8081B	µg/L	< 0.010 U
Endosulfan II	8081B	µg/L	< 0.010 U
Endosulfan sulfate	8081B	µg/L	< 0.010 U
Endrin	8081B	µg/L	< 0.010 U
Endrin aldehyde	8081B	µg/L	< 0.010 U
Endrin ketone	8081B	µg/L	< 0.010 U
GAMMA-BHC	8081B	µg/L	< 0.010 U
gamma-Chlordane	8081B	µg/L	< 0.010 U
Heptachlor	8081B	µg/L	< 0.010 U
Heptachlor epoxide	8081B	µg/L	< 0.010 U
Methoxychlor	8081B	µg/L	< 0.010 U
Toxaphene	8081B	µg/L	< 0.21 U
Aroclor 1016	8082A	µg/L	< 0.31 U
Aroclor 1221	8082A	µg/L	< 0.31 U
Aroclor 1232	8082A	µg/L	< 0.31 U
Aroclor 1242	8082A	µg/L	< 0.31 U
Aroclor 1248	8082A	µg/L	< 0.31 U
Aroclor 1254	8082A	µg/L	< 0.31 U
Aroclor 1260	8082A	µg/L	< 0.31 U
Aroclor 1262	8082A	µg/L	< 0.31 U
Aroclor 1268	8082A	µg/L	< 0.31 U

	Sample ID		GN-W-RB-01
	Lab ID		321513
	Date		8/27/2019
Analyte-Metals	Method	Units	
Aluminum	6010C	µg/L	< 18 U
Barium	6010C	µg/L	< 0.90 U
Beryllium	6010C	µg/L	< 0.30 U
Cadmium	6010C	µg/L	< 1.0 U
Calcium	6010C	µg/L	55.1 J
Chromium	6010C	µg/L	< 2.0 U
Hexavalent Chromium	7199	µg/L	< 0.40 U
Cobalt	6010C	µg/L	< 2.0 U
Copper	6010C	µg/L	< 3.5 U
Iron	6010C	µg/L	< 50 U
Magnesium	6010C	µg/L	< 20 U
Manganese	6010C	µg/L	< 2.0 U
Nickel	6010C	µg/L	< 3.0 U
Potassium	6010C	µg/L	< 250 U
Sodium	6010C	µg/L	371 J
Vanadium	6010C	µg/L	< 2.5 U
Zinc	6010C	µg/L	< 5.0 U
Mercury	7470A	µg/L	< 0.060 U

TABLE B-8
QUALITY CONTROL SAMPLE ANALYTICAL RESULTS
GARDEN SOIL SAMPLING REPORT
Main Installation - Defense Depot Memphis, Tennessee

		Sample ID	GN-W-TB-01	GN-W-RB-01
		Lab ID	321156	321173
		Date	8/26/2019	8/27/2019
Analyte-VOCs	Method	Units		
Naphthalene	8260C	µg/L	< 0.050 U	< 0.050 U
n-Butylbenzene	8260C	µg/L	< 0.050 U	< 0.050 U
n-Propylbenzene	8260C	µg/L	< 0.050 U	< 0.050 U
o-Xylene	8260C	µg/L	< 0.050 U	0.06 J
p-Isopropyltoluene	8260C	µg/L	< 0.050 U	< 0.050 U
sec-Butylbenzene	8260C	µg/L	< 0.050 U	< 0.050 U
Styrene	8260C	µg/L	< 0.020 U	0.081 J
tert-Butylbenzene	8260C	µg/L	< 0.020 U	< 0.020 U
Tetrachloroethene	8260C	µg/L	< 0.050 U	< 0.050 U
Toluene	8260C	µg/L	< 0.050 U	0.67
trans-1,2-Dichloroethene	8260C	µg/L	< 0.050 U	< 0.050 U
trans-1,3-Dichloropropene	8260C	µg/L	< 0.050 U	< 0.050 U
Trichloroethene	8260C	µg/L	< 0.050 U	< 0.050 U
Trichlorofluoromethane	8260C	µg/L	< 0.050 U	< 0.050 U
Vinyl acetate	8260C	µg/L	< 1.0 U	< 1.0 U
Vinyl chloride	8260C	µg/L	< 0.020 U	< 0.020 U
Analyte-TICs				
1,2-Diborane(4)diamine, N,N,N',N...	8260C	µg/L	2.4 J	
1,4-Dichlorobenzene-d4	8260C	µg/L	3.5 J	
1-Propanamine, 2-methyl-	8260C	µg/L		0.22 J
2-Indolizinemethanol	8260C	µg/L	0.2 J	
3,3-Diethoxy-1,1,1,5,5,5-hexamet...	8260C	µg/L	0.23 J	
Benzene, 2-azido-1-methyl-3-nitro-	8260C	µg/L		0.24 J
Cyclopentane	8260C	µg/L		1 J
Ethane, 1,1,2-trimethoxy-	8260C	µg/L		0.3 J
Quinoline, 2-chloro-6-methoxy-4-...	8260C	µg/L	0.46 J	

			GN-W-RB-01
			321513
			8/27/2019
Analyte-SVOCs	Method	Units	
Bis(2-chloroisopropyl) ether	8270D	µg/L	< 0.42 U
Bis(2-ethylhexyl)phthalate	8270D	µg/L	< 1.0 U
Butylbenzyl phthalate	8270D	µg/L	< 1.0 U
Caprolactam	8270D	µg/L	< 1.0 U
Carbazole	8270D	µg/L	< 0.42 U
Chrysene	8270D	µg/L	< 0.42 U
Dibenzo(a,h)anthracene	8270D	µg/L	< 0.42 U
Dibenzofuran	8270D	µg/L	< 0.42 U
Diethyl phthalate	8270D	µg/L	< 1.0 U
Dimethyl phthalate	8270D	µg/L	< 1.0 U
Di-n-butyl phthalate	8270D	µg/L	< 2.1 U
Di-n-octyl phthalate	8270D	µg/L	< 1.0 U
Fluoranthene	8270D	µg/L	< 0.42 U
Fluorene	8270D	µg/L	< 0.42 U
Hexachlorobenzene	8270D	µg/L	< 0.42 U
Hexachlorobutadiene	8270D	µg/L	< 0.42 U
Hexachlorocyclopentadiene	8270D	µg/L	< 1.0 U
Hexachloroethane	8270D	µg/L	< 0.42 U
Indeno(1,2,3-cd)pyrene	8270D	µg/L	< 0.42 U
Isophorone	8270D	µg/L	< 0.42 U
Naphthalene	8270D	µg/L	< 0.42 U
Nitrobenzene	8270D	µg/L	< 0.42 U
N-Nitrosodimethylamine	8270D	µg/L	< 1.0 U
N-Nitroso-di-n-propylamine	8270D	µg/L	< 0.42 U
N-Nitrosodiphenylamine	8270D	µg/L	< 0.83 U
N-Nitrosopyrrolidine	8270D	µg/L	< 1.0 U
Pentachlorophenol	8270D	µg/L	< 2.1 U
Phenanthrene	8270D	µg/L	< 0.42 U
Phenol	8270D	µg/L	< 2.1 U
Pyrene	8270D	µg/L	< 0.42 U
Pyridine	8270D	µg/L	< 1.0 U

Notes:
µg/L: micrograms per Liter
TIC: Tentatively Identified Compound
DQE Flags:
J: Estimated
U: Not Detected
UJ: Not Detected, estimated

C

Appendix C.
Laboratory Analytical Reports

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ANALYTICAL RESULTS FOR:

LYNN LUTZ
HDR
9563 S. KINGSTON COURT
ENGLEWOOD, CO 80112

PROJECT SITE:	Memphis Depot, FU4 Garden, Memphis, TN
WORK ORDER/CONTRACT #:	W91278-16-D-0061(0003)
PROJECT #:	
SDG:	147664 (147687)
PREPARED:	September 19, 2019
DOCUMENT PAGES:	4874

The data contained in the following report have been reviewed by the appropriate CT Laboratories' LLC staff members. In addition, CT Laboratories LLC certifies that to the best of our knowledge that the analyses reported herein are true, complete and correct within the limits of the methods employed and that they follow the applicable requirements as specified by the project plan, state-specific, NELAC or DOD QSM requirements. The estimated uncertainty of measurement is only available upon request. The reported results relate only to the tested samples. This report shall not be reproduced, except in full, without written approval of CT Laboratories LLC.

APPROVED BY: _____ LABORATORY DIRECTOR

APPROVED BY: _____ PROJECT MANAGER

Certifications: IL (NELAP 002413), KS (NELAP E-10368), KY (0023), WI (157066030), DOD ELAP (A2LA 3806.01), VA (7608), MD (344), LA (NELAP 115843), ISO17025 (A2LA 3806.01, GA EDP Stipulation (Accreditor: LA NELAP, ACC#: E971111, Scope: Non-potable water solid and chemical materials, biological tissue, Effective: 12/10/2014, Expires: annually), PA (68-04201) #008

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Case Narrative

Client: HDR, Englewood, CO
Project: Memphis Depot, FU4 Garden, Memphis, TN
Sample Receipt Date(s): 08-28 and 08-29-2019
SDG #: 147664 (folders 147664 and 147687)

Nineteen solid samples and two aqueous rinse blanks were analyzed for a variety of parameters, including: metals, pesticides, PCBs, PAHs, SVOCs and VOC's. A trip blank was also included with the VOC analyses. Select metals (i.e., Sb, As, Pb, Se, Ag) were analyzed by ICP/MS. The ICP/MS metals analyses were sub-contracted to Microbac Laboratories, Marietta, OH. The assigned sample ID numbers, date sampled, and date received are indicated in the attached Project Summary. The samples were received intact and at a temperature within method specified acceptance limits. Any exceptions are noted below. The analyses were performed following DOD QSM 5.1

Manual integrations may have been performed on the data provided with this package. If manual integrations were performed, Reason #(s) were included on the raw data that corresponds to the "Index Key for Manual Integration Rationale." The raw data includes a "Before" and "After" manual integration illustration. The manual integrations were initialed and dated by the analyst, as well as, by the person reviewing the data.

Sample Analysis and Quality Control

Volatile Analysis:

The samples were analyzed using US EPA Method 8260C (VOCs). All samples were analyzed within the holding time. The following summaries of quality control procedures are included:

Surrogate Recovery Data
Matrix Spike/Matrix Spike Duplicate Recovery Data
Laboratory Control Spike Data
Method Blank Data
Initial Calibration Summary
Calibration Check Summary
Analysis Run Log
Prep Log
Chromatograms

All analysis results met the method specified quality control criteria with the following exceptions:

Detailed reports were provided for the 8260 data for all detected compounds, as well as, for those compounds manually integrated (if applicable). Compounds not reported on the form 1's were either not detected or did not meet identification criteria so they were reported as non-detects.

Compounds that may not meet the recommended minimum average response factor (ARF) criteria for 8260C (such as several of the ketones) are analyzed at concentrations 2 to 50 times higher than normal to

make up for their lack of response. However, the ARF on the response factor (RF) forms do not reflect this change in concentration. These compounds may be "flagged" on RF forms as a result.

CCV compounds are calibrated using either response factor (with acceptance criteria <20%deviation, or <50% deviation for CCVF) or quadratic regression (with acceptance criteria <20% drift, or <50% drift for CCVF). Non-conformances were qualified with a "Z" flag unless otherwise noted.

Some samples may have been analyzed and/or reanalyzed diluted to obtain results for all target compounds within the calibration range of the instrument.

VOC (8260C) Low-level Aqueous Analyses

Analytical Run # 163976/164066

Chloromethane and carbon disulfide were present in the Initial Calibration Blank (ICB) for calibration curve LW082519.

CCV1 had a low recovery outside specified criteria for bromomethane.

The Laboratory Control Sample Duplicate (LCSD) had high recoveries for n-butylbenzene, s-butylbenzene, and vinyl acetate. The result for these compounds in the associated samples was qualified with a "Q" flag. The Laboratory Control Sample (LCS)/LCSD also had Relative Percent Difference (RPD) failures for bromomethane and vinyl acetate. The result for these compounds in the associated samples was qualified with a "Y" flag.

VOC (8260C) Low-level Solid Analyses

Analytical Run # 163979/163980

Sample #'s 321163 & 321166 were reported with a low Internal Standard (ISTD) response for 1,4-dichlorobenzened4. The second vial provided did not contain any liquid and these samples could not be reanalyzed. The compounds affected by this low ISTD were qualified with an "S" flag.

Sample #'s 321149, 321163, 321166 & 321170 were reported with a high surrogate standard (SSTD) recovery for 4-bromofluorobenzene (BFB). This SSTD was qualified with an "S" flag.

The Matrix Spike (MS) and the Matrix Spike Duplicate (MSD) for sample # 321161 contained a number of compounds with recovery failures (high and low). The parent sample result for these compounds was qualified with an "M" flag. The MS/MSD also had a number of Relative Percent Difference (RPD) failures. The parent sample result for these compounds was qualified with a "Y" flag.

Semi-Volatile Organic Analysis:

The samples were analyzed using US EPA Method 8270D in SIM (PAHs) and standard (SVOCs) modes. All samples were analyzed within the holding time. The following summaries of quality control procedures are included:

Surrogate Recovery Data
Matrix Spike/Matrix Spike Duplicate Recovery Data
Laboratory Control Spike Data
Method Blank Data
Initial Calibration Summary
Calibration Check Summary
Analysis Run Log Prep Log

All analyses met the method specified quality control criteria with the following exceptions:

Detailed reports were provided for the 8270 data for all detected compounds, as well as, for those compounds manually integrated (if applicable).

Some samples may have been analyzed and/or reanalyzed diluted to obtain results for all target compounds within the calibration range of the instrument.

PAHs (8270D-SIM) Solid Analyses

Analytical Run # 164274

The MS analyzed on sample 321161 had a high recovery of 1 analyte and low recoveries of 3 analytes. The MSD had a high recovery of one analyte and low recoveries of 2 analytes. Analytes with recoveries outside the QC limits were qualified with “M” in the parent sample. RPDs between the MS and MSD were high for 3 analytes. These analytes were qualified with “Y” in the parent sample.

Sample 321165 had a high recovery of surrogate standard fluotanthene-d10. This surrogate was qualified with “S”.

PAHs (8270D-SIM) Aqueous Analyses

Analytical Run # 164170

Pyridine was detected in method blank 321835 at a concentration less than ½ the reporting limit. This analyte was qualified with “B” in the associated sample.

SVOCs (8270D) Solid Analyses

Analytical Run # 164275

Ending CCV 1CCV611 had low responses for 4 analytes: benzyl alcohol, benzidine, 3,3’-dichlorobenzidine, and benzo(g,h,i)perylene. These analytes were qualified with “Z” in the associated samples.

LCS 321439 had low recoveries of aniline and 3,3’-dichlorobenzidine and high recoveries of 2,4-dinitrophenol and pyridine. These analytes were qualified with “Q” in the associated samples.

The MS and MSD analyzed on sample 321161 had low recoveries for multiple analytes and high recoveries for multiple analytes. Analytes with recoveries outside the QC limits were qualified with “M”

in the parent sample. RPDs between the MS and MSD were high for 22 analytes. These analytes were qualified with “Y” in the parent sample.

Samples 321162, 321164, 321166, 321167, 321168, and 321169 had low recoveries for one or more surrogate standards. Surrogates with low recoveries were qualified with “S”.

SVOCs (8270D) Aqueous Analyses

Analytical Run # 164171

All analytical results met the method/project specified quality control criteria.

Pesticide Analysis:

The samples were analyzed using US EPA Method 8081B. All samples were analyzed within the holding time. The following summaries of quality control procedures are included:

Surrogate Recovery Data
Matrix Spike/Matrix Spike Duplicate Recovery Data
Laboratory Control Spike Data
Method Blank Data
Initial Calibration Summary
Calibration Check Summary
Analysis Run Log
Prep Log

All analysis results met the method specified quality control criteria with the following exceptions:

Pesticides (8081B) Solid Analyses

Analytical Run #’s 164272

The MS and MSD had failures for low recovery of multiple analytes. The failing analytes were 4,4-DDE, Endosulfan sulfate, Endrin keytone and Gamma chlordane. The MS and MSD were reported and failing analytes were qualified with an "M" flag in the parent sample #321161.

All surrogates passed on channel A and were reported. Sample #s 321157 and 321171 had a large peak co-elute with DCB on channel B causing the detection to be high. The results were reported from channel A and no qualifiers were used.

Pesticides (8081B) Aqueous Analyses

Analytical Run # 164709

All analysis results for this SDG met the method/project specified quality control criteria.

PCB Analysis:

The samples were analyzed using US EPA Method 8082A. All samples were analyzed within the holding time. The following summaries of quality control procedures are included:

Surrogate Recovery Data
Matrix Spike/Matrix Spike Duplicate Recovery Data
Laboratory Control Spike Data
Method Blank Data
Initial Calibration Summary
Calibration Check Summary
Analysis Run Log
Prep Log

All analysis results met the method specified quality control criteria with the following exceptions:

PCB (8082A) Solid Analyses

Analytical Run #'s 164273

Single point failures occurred on channel B in the ending CCV for 1016 on 09/13/2019. The totals on both channels for all CCVs were within program limits and the data was not qualified.

PCB (8082A) Water Analyses

Analytical Run # 164078

All analysis results for this SDG met the method/project specified quality control criteria.

Metals Analysis:

The samples were analyzed using US EPA Methods 6010C (ICP) and 7470A/7471B (Hg) and Standard Methods 2340B (hardness). All samples were analyzed within the holding time. The following summaries of quality control procedures are included:

Initial and Continuing Calibration Verification
Blanks Summary
ICP Interference Check Data
Spike Sample Recovery
Duplicates Data
Laboratory Control Sample Data
Analysis Run Log

All analysis results met the method specified quality control criteria with the following exceptions:

Continuing Calibration Verifications standards were analyzed at two levels (CCV1 & CCV2) with potentially differing wavelengths. Data associated with CCV's were evaluated based on the concentration of the element in the samples and compared to the appropriate CCV level/wavelength.

Some samples may have been analyzed and/or reanalyzed diluted to obtain results for all target analytes within the calibration range of the instrument.

ICP Metals (6010C) Solid Analyses

Analytical Run # 164036

Calcium was detected in the Continuing Calibration Blank (CCB) standard greater than the Method Detection Limit (MDL). The affected samples were reported and qualified with a "B" flag and not reanalyzed because the CCB result was less than $1/10^{th}$ of the sample results.

Aluminum and copper were detected in the Method Blank (MB) greater than the MDL but less than ½ the Reporting Limit (RL). The samples were reported and not qualified because the MB results were less than $1/10^{th}$ of the sample results.

The Matrix Spike (MS) and/or Matrix Spike Duplicate (MSD) for sample # 321161 had failing recoveries for aluminum, cobalt, iron, manganese, and zinc. A Serial Dilution (L) was analyzed and was not applicable for cobalt because the parent sample raw result was less than 50 times the Limit of Quantitation (LOQ). The L was not acceptable for aluminum, iron, and manganese because the results exceeded the Relative Percent Difference (RPD) limit. A Post Digestion Spike (PDS) was analyzed and was not acceptable for aluminum, iron, and manganese. The parent sample was reported and qualified with an "M" flag for the failing elements. The parent sample was reported and not qualified for zinc because the L was acceptable.

The Duplicate (DUP) for sample # 321161 was not applicable for beryllium and cadmium because the parent sample results were less than five times the LOQ. An MSD was analyzed to demonstrate precision and was acceptable. The parent sample was reported and not qualified.

Analytical Run # 164035

The DUP for sample # 321161 was not applicable for sodium because the parent sample result was less than five times the LOQ. An MSD was analyzed to demonstrate precision and was acceptable. The parent sample was reported and not qualified.

ICP Metals (6010C) Aqueous Analyses

Analytical Run # 164046

The DUP for sample # 321513 was not applicable because the parent sample results were less than five times the LOQ. An MSD was analyzed to demonstrate precision and was acceptable. The parent sample was reported and not qualified.

Analytical Run # 164047

The DUP for sample # 321513 was not applicable for sodium and potassium because the parent sample results were less than five times the LOQ. An MSD was analyzed to demonstrate precision and was acceptable. The parent sample was reported and not qualified.

CVAA Mercury (7471B) Solid Analyses

Analytical Run # 164151

The CCV standard had outside recoveries for mercury because the CCV was not spiked. The CCV was reanalyzed twice and were acceptable.

The software stopped running while analyzing the CCV standard at 11:16 & 11:24 which produced no signal. The software was restarted and CCV was reanalyzed and was acceptable.

The DUP for sample # 321161 was not applicable for mercury because the parent sample result was less than five times the LOQ. An MSD was analyzed to demonstrate precision and was acceptable. The parent sample was reported and not qualified.

CVAA Mercury (7470A) Aqueous Analyses

Analytical Run # 164096

The DUP for sample # 321513 was not applicable for mercury because the parent sample result was less than five times the LOQ. An MSD was analyzed to demonstrate precision and was acceptable. The parent sample was reported and not qualified.

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Data Qualifiers

Code	Description
A	Analyte averaged calibration criteria within acceptable limits.
B	Analyte detected in associated Method Blank.
C	Toxicity present in BOD sample.
D	Diluted Out.
E	Safe, No Total Coliform detected.
F	Unsafe, Total Coliform detected, no E. Coli detected.
G	Unsafe, Total Coliform detected and E. Coli detected.
H	Holding time exceeded.
J	Estimated value.
L	Significant peaks were detected outside the chromatographic window.
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.
N	Insufficient BOD oxygen depletion.
O	Complete BOD oxygen depletion.
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.
Q	Laboratory Control Sample outside acceptance limits.
R	See Narrative at end of report.
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.
T	Sample received with improper preservation or temperature.
U	Analyte concentration was not above the detection level.
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.
W	Sample amount received was below program minimum.
X	Analyte exceeded calibration range.
Y	Replicate/Duplicate precision outside acceptance limits.
Z	Calibration criteria exceeded.

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MANUAL INTEGRATION REASON CODES

CTLaboratories has identified four general cases with valid reasons supporting the use of manual integration techniques. These codes are used on chromatograms in this data package to document the reasons for manual integrations per CTLaboratories' SOP SS-10 current revision.

#1: **Data system failed to select the correct peak or missed the peak entirely.**
In some cases the chromatography system selects and integrates the "wrong peak". In this case the analyst must correct the selection and force the system to integrate the proper peak. In other instances the system may miss the peak completely. In this case the analyst manually integrated the peak

#2: **Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak.**
This phenomenon is common at low concentrations where the signal to noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low or high area counts for the target compound.

#3: Improperly Integrated Isomers and/or coeluting compounds.
For when the system fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations may be inaccurate, and they must be corrected by manual integration. Prime examples are compounds that are unresolved and integrated improperly when present at low concentrations in standards or samples.

#4: System Established Incorrect Baseline.
There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and may be corrected via manual procedures.

#5: Miscellaneous.
Some situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the group supervisor. If the form of manual integration is not clearly covered by these four cases, then review and approval by the group supervisor or the *QA/QC* Supervisor will be required.

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www.ctlaboratories.com

Sample Delivery Group

147664

HDR, INC
LYNN LUTZ
9781 S. MERIDIAN BLVD.
SUITE 400
ENGLEWOOD, CO 80112

Project Name: MEMPHIS DEPOT
Project #:

	CT Sample #	Folder #	Client Sample #	Sample Description	Matrix	Date Sampled	Date Received
1	321149	147664		GN-SO-01-1	SOIL	08/26/2019	08/28/2019
2	321154	147664		GN-SO-01-2	SOIL	08/26/2019	08/28/2019
3	321155	147664		GN-SO-02-1	SOIL	08/26/2019	08/28/2019
4	321156	147664		GN-W-TB-01	TRIP BLANK	08/26/2019	08/28/2019
5	321157	147664		GN-SO-DUP-1	SOIL	08/26/2019	08/28/2019
6	321158	147664		GN-SO-02-2	SOIL	08/26/2019	08/28/2019
7	321159	147664		GNSO-03-1	SOIL	08/26/2019	08/28/2019
8	321160	147664		GN-SO-03-2	SOIL	08/26/2019	08/28/2019
9	321161	147664		GN-SO-04-1	SOIL	08/26/2019	08/28/2019
10	321162	147664		GN-SO-04-2	SOIL	08/26/2019	08/28/2019
11	321163	147664		GN-SO-05-1	SOIL	08/26/2019	08/28/2019
12	321164	147664		GN-SO-05-2	SOIL	08/26/2019	08/28/2019
13	321165	147664		GN-SO-DUP-2	SOIL	08/26/2019	08/28/2019
14	321166	147664		GN-SO-06-1	SOIL	08/26/2019	08/28/2019
15	321167	147664		GN-SO-06-2	SOIL	08/26/2019	08/28/2019
16	321168	147664		GN-SO-07-1	SOIL	08/26/2019	08/28/2019
17	321169	147664		GN-SO-07-2	SOIL	08/26/2019	08/28/2019
18	321170	147664		GN-SO-08-1	SOIL	08/26/2019	08/28/2019
19	321171	147664		GN-SO-08-2	SOIL	08/26/2019	08/28/2019
20	321172	147664		GN-SO-09C-1	SOIL	08/26/2019	08/28/2019
21	321173	147664		GN-W-RB-01	GROUND WATER	08/27/2019	08/28/2019
22	321513	147687		GN-W-RB-01	GROUND WATER	08/27/2019	08/29/2019

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QC Batch Cross Reference Summary

HDR, INC
LYNN LUTZ
9781 S. MERIDIAN BLVD.
SUITE 400
ENGLEWOOD, CO 80112

Project Name: MEMPHIS DEPOT
Project #:
Report Date: 09/19/2019
Date Received: 08/28/2019
SDG #: 147664

Inorganic Parameters

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
321149	Solids, Percent	EPA 8000C	SOIL		164110
321154	Solids, Percent	EPA 8000C	SOIL		164110
321155	Solids, Percent	EPA 8000C	SOIL		164110
321157	Solids, Percent	EPA 8000C	SOIL		164110
321158	Solids, Percent	EPA 8000C	SOIL		164110
321159	Solids, Percent	EPA 8000C	SOIL		164110
321160	Solids, Percent	EPA 8000C	SOIL		164110
321161	Solids, Percent	EPA 8000C	SOIL		164110
321162	Solids, Percent	EPA 8000C	SOIL		164110
321163	Solids, Percent	EPA 8000C	SOIL		164110
321164	Solids, Percent	EPA 8000C	SOIL		164110
321165	Solids, Percent	EPA 8000C	SOIL		164110
321166	Solids, Percent	EPA 8000C	SOIL		164110
321167	Solids, Percent	EPA 8000C	SOIL		164110
321168	Solids, Percent	EPA 8000C	SOIL		164110
321169	Solids, Percent	EPA 8000C	SOIL		164110
321170	Solids, Percent	EPA 8000C	SOIL		164110
321171	Solids, Percent	EPA 8000C	SOIL		164110
321172	Solids, Percent	EPA 8000C	SOIL		164110

Metal Parameters

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
321149	Potassium QSM 5.0	EPA 6010C	SOIL	73351	164035
321154	Potassium QSM 5.0	EPA 6010C	SOIL	73351	164035

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Project Name: MEMPHIS DEPOT
Project #:
SDG #: 147664

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
321155	Potassium QSM 5.0	EPA 6010C	SOIL	73351	164035
321157	Potassium QSM 5.0	EPA 6010C	SOIL	73351	164035
321158	Potassium QSM 5.0	EPA 6010C	SOIL	73351	164035
321159	Potassium QSM 5.0	EPA 6010C	SOIL	73351	164035
321160	Potassium QSM 5.0	EPA 6010C	SOIL	73351	164035
321161	Potassium QSM 5.0	EPA 6010C	SOIL	73351	164035
321162	Potassium QSM 5.0	EPA 6010C	SOIL	73351	164035
321163	Potassium QSM 5.0	EPA 6010C	SOIL	73351	164035
321164	Potassium QSM 5.0	EPA 6010C	SOIL	73351	164035
321165	Potassium QSM 5.0	EPA 6010C	SOIL	73351	164035
321166	Potassium QSM 5.0	EPA 6010C	SOIL	73351	164035
321167	Potassium QSM 5.0	EPA 6010C	SOIL	73351	164035
321168	Potassium QSM 5.0	EPA 6010C	SOIL	73351	164035
321169	Potassium QSM 5.0	EPA 6010C	SOIL	73351	164035
321170	Potassium QSM 5.0	EPA 6010C	SOIL	73351	164035
321171	Potassium QSM 5.0	EPA 6010C	SOIL	73351	164035
321172	Potassium QSM 5.0	EPA 6010C	SOIL	73351	164035

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
321513	Potassium, Total QSM 5.0	EPA 6010C	GROUND WATER	73360	164047

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
321149	Sodium QSM 5.0	EPA 6010C	SOIL	73351	164035
321154	Sodium QSM 5.0	EPA 6010C	SOIL	73351	164035
321155	Sodium QSM 5.0	EPA 6010C	SOIL	73351	164035
321157	Sodium QSM 5.0	EPA 6010C	SOIL	73351	164035
321158	Sodium QSM 5.0	EPA 6010C	SOIL	73351	164035
321159	Sodium QSM 5.0	EPA 6010C	SOIL	73351	164035
321160	Sodium QSM 5.0	EPA 6010C	SOIL	73351	164035
321161	Sodium QSM 5.0	EPA 6010C	SOIL	73351	164035
321162	Sodium QSM 5.0	EPA 6010C	SOIL	73351	164035
321163	Sodium QSM 5.0	EPA 6010C	SOIL	73351	164035
321164	Sodium QSM 5.0	EPA 6010C	SOIL	73351	164035
321165	Sodium QSM 5.0	EPA 6010C	SOIL	73351	164035
321166	Sodium QSM 5.0	EPA 6010C	SOIL	73351	164035
321167	Sodium QSM 5.0	EPA 6010C	SOIL	73351	164035
321168	Sodium QSM 5.0	EPA 6010C	SOIL	73351	164035
321169	Sodium QSM 5.0	EPA 6010C	SOIL	73351	164035
321170	Sodium QSM 5.0	EPA 6010C	SOIL	73351	164035
321171	Sodium QSM 5.0	EPA 6010C	SOIL	73351	164035
321172	Sodium QSM 5.0	EPA 6010C	SOIL	73351	164035

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #

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Project Name: MEMPHIS DEPOT
Project #:
SDG #: 147664

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
321513	Sodium, Total QSM 5.0	EPA 6010C	GROUND WATER	73360	164047

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
321149	ICP Metals QSM 5.0	EPA 6010C	SOIL	73351	164036
321154	ICP Metals QSM 5.0	EPA 6010C	SOIL	73351	164036
321155	ICP Metals QSM 5.0	EPA 6010C	SOIL	73351	164036
321157	ICP Metals QSM 5.0	EPA 6010C	SOIL	73351	164036
321158	ICP Metals QSM 5.0	EPA 6010C	SOIL	73351	164036
321159	ICP Metals QSM 5.0	EPA 6010C	SOIL	73351	164036
321160	ICP Metals QSM 5.0	EPA 6010C	SOIL	73351	164036
321161	ICP Metals QSM 5.0	EPA 6010C	SOIL	73351	164036
321162	ICP Metals QSM 5.0	EPA 6010C	SOIL	73351	164036
321163	ICP Metals QSM 5.0	EPA 6010C	SOIL	73351	164036
321164	ICP Metals QSM 5.0	EPA 6010C	SOIL	73351	164036
321165	ICP Metals QSM 5.0	EPA 6010C	SOIL	73351	164036
321166	ICP Metals QSM 5.0	EPA 6010C	SOIL	73351	164036
321167	ICP Metals QSM 5.0	EPA 6010C	SOIL	73351	164036
321168	ICP Metals QSM 5.0	EPA 6010C	SOIL	73351	164036
321169	ICP Metals QSM 5.0	EPA 6010C	SOIL	73351	164036
321170	ICP Metals QSM 5.0	EPA 6010C	SOIL	73351	164036
321171	ICP Metals QSM 5.0	EPA 6010C	SOIL	73351	164036
321172	ICP Metals QSM 5.0	EPA 6010C	SOIL	73351	164036
321163	ICP Metals QSM 5.0	EPA 6010C	SOIL	73351	164036
321166	ICP Metals QSM 5.0	EPA 6010C	SOIL	73351	164036
321168	ICP Metals QSM 5.0	EPA 6010C	SOIL	73351	164036
321170	ICP Metals QSM 5.0	EPA 6010C	SOIL	73351	164036

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
321513	ICP Metals, Total QSM 5.0	EPA 6010C	GROUND WATER	73360	164046

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
321149	Mercury QSM 5.0	EPA 7471B	SOIL	73320	164151
321154	Mercury QSM 5.0	EPA 7471B	SOIL	73320	164151
321155	Mercury QSM 5.0	EPA 7471B	SOIL	73320	164151
321157	Mercury QSM 5.0	EPA 7471B	SOIL	73320	164151
321158	Mercury QSM 5.0	EPA 7471B	SOIL	73320	164151
321159	Mercury QSM 5.0	EPA 7471B	SOIL	73320	164151
321160	Mercury QSM 5.0	EPA 7471B	SOIL	73320	164151
321161	Mercury QSM 5.0	EPA 7471B	SOIL	73320	164151
321162	Mercury QSM 5.0	EPA 7471B	SOIL	73320	164151
321163	Mercury QSM 5.0	EPA 7471B	SOIL	73320	164151
321164	Mercury QSM 5.0	EPA 7471B	SOIL	73320	164151
321165	Mercury QSM 5.0	EPA 7471B	SOIL	73320	164151

CT LABORATORIES
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Project Name: MEMPHIS DEPOT
Project #:
SDG #: 147664

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
321166	Mercury QSM 5.0	EPA 7471B	SOIL	73320	164151
321167	Mercury QSM 5.0	EPA 7471B	SOIL	73320	164151
321168	Mercury QSM 5.0	EPA 7471B	SOIL	73320	164151
321169	Mercury QSM 5.0	EPA 7471B	SOIL	73320	164151
321170	Mercury QSM 5.0	EPA 7471B	SOIL	73320	164151
321171	Mercury QSM 5.0	EPA 7471B	SOIL	73320	164151
321172	Mercury QSM 5.0	EPA 7471B	SOIL	73320	164151

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
321513	Mercury, Total QSM	EPA 7470A	GROUND WATER	73342	164096

Organic Parameters

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
321149	VOC TICS	EPA 8260C	SOIL		163980
321154	VOC TICS	EPA 8260C	SOIL		163980
321155	VOC TICS	EPA 8260C	SOIL		163980
321156	VOC TICS	EPA 8260C	TRIP BLANK		164066
321157	VOC TICS	EPA 8260C	SOIL		163980
321158	VOC TICS	EPA 8260C	SOIL		163980
321159	VOC TICS	EPA 8260C	SOIL		163980
321160	VOC TICS	EPA 8260C	SOIL		163980
321161	VOC TICS	EPA 8260C	SOIL		163980
321162	VOC TICS	EPA 8260C	SOIL		163980
321163	VOC TICS	EPA 8260C	SOIL		163980
321164	VOC TICS	EPA 8260C	SOIL		163980
321165	VOC TICS	EPA 8260C	SOIL		163980
321166	VOC TICS	EPA 8260C	SOIL		163980
321167	VOC TICS	EPA 8260C	SOIL		163980
321168	VOC TICS	EPA 8260C	SOIL		163980
321169	VOC TICS	EPA 8260C	SOIL		163980
321170	VOC TICS	EPA 8260C	SOIL		163980
321171	VOC TICS	EPA 8260C	SOIL		163980
321172	VOC TICS	EPA 8260C	SOIL		163980
321173	VOC TICS	EPA 8260C	GROUND WATER		164066

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
321149	SVOC TICS	EPA 8270D	SOIL		164485
321154	SVOC TICS	EPA 8270D	SOIL		164485
321155	SVOC TICS	EPA 8270D	SOIL		164485

CT LABORATORIES
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Project Name: MEMPHIS DEPOT
Project #:
SDG #: 147664

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
321157	SVOC TICS	EPA 8270D	SOIL		164485
321158	SVOC TICS	EPA 8270D	SOIL		164485
321159	SVOC TICS	EPA 8270D	SOIL		164485
321160	SVOC TICS	EPA 8270D	SOIL		164485
321161	SVOC TICS	EPA 8270D	SOIL		164485
321162	SVOC TICS	EPA 8270D	SOIL		164485
321163	SVOC TICS	EPA 8270D	SOIL		164485
321164	SVOC TICS	EPA 8270D	SOIL		164485
321165	SVOC TICS	EPA 8270D	SOIL		164485
321166	SVOC TICS	EPA 8270D	SOIL		164485
321167	SVOC TICS	EPA 8270D	SOIL		164485
321168	SVOC TICS	EPA 8270D	SOIL		164485
321169	SVOC TICS	EPA 8270D	SOIL		164485
321170	SVOC TICS	EPA 8270D	SOIL		164485
321171	SVOC TICS	EPA 8270D	SOIL		164485
321172	SVOC TICS	EPA 8270D	SOIL		164485

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
321149	VOC 8260 QSM Low Level 5.0	EPA 8260C	SOIL	73327	163979
321154	VOC 8260 QSM Low Level 5.0	EPA 8260C	SOIL	73327	163979
321155	VOC 8260 QSM Low Level 5.0	EPA 8260C	SOIL	73327	163979
321156	VOC 8260 QSM Low Level 5.0	EPA 8260C	TRIP BLANK		163976
321157	VOC 8260 QSM Low Level 5.0	EPA 8260C	SOIL	73327	163979
321158	VOC 8260 QSM Low Level 5.0	EPA 8260C	SOIL	73327	163979
321159	VOC 8260 QSM Low Level 5.0	EPA 8260C	SOIL	73327	163979
321160	VOC 8260 QSM Low Level 5.0	EPA 8260C	SOIL	73327	163979
321161	VOC 8260 QSM Low Level 5.0	EPA 8260C	SOIL	73327	163979
321162	VOC 8260 QSM Low Level 5.0	EPA 8260C	SOIL	73327	163979
321163	VOC 8260 QSM Low Level 5.0	EPA 8260C	SOIL	73327	163979
321164	VOC 8260 QSM Low Level 5.0	EPA 8260C	SOIL	73327	163979
321165	VOC 8260 QSM Low Level 5.0	EPA 8260C	SOIL	73327	163979
321166	VOC 8260 QSM Low Level 5.0	EPA 8260C	SOIL	73327	163979
321167	VOC 8260 QSM Low Level 5.0	EPA 8260C	SOIL	73327	163979
321168	VOC 8260 QSM Low Level 5.0	EPA 8260C	SOIL	73327	163979
321169	VOC 8260 QSM Low Level 5.0	EPA 8260C	SOIL	73327	163979
321170	VOC 8260 QSM Low Level 5.0	EPA 8260C	SOIL	73327	163979
321171	VOC 8260 QSM Low Level 5.0	EPA 8260C	SOIL	73327	163979
321172	VOC 8260 QSM Low Level 5.0	EPA 8260C	SOIL	73327	163979
321173	VOC 8260 QSM Low Level 5.0	EPA 8260C	GROUND WATER		163976

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
321149	PCB	EPA 8082A	SOIL	73337	164273

CT LABORATORIES
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Project Name: MEMPHIS DEPOT
Project #:
SDG #: 147664

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
321154	PCB	EPA 8082A	SOIL	73337	164273
321155	PCB	EPA 8082A	SOIL	73337	164273
321157	PCB	EPA 8082A	SOIL	73337	164273
321158	PCB	EPA 8082A	SOIL	73337	164273
321159	PCB	EPA 8082A	SOIL	73337	164273
321160	PCB	EPA 8082A	SOIL	73337	164273
321161	PCB	EPA 8082A	SOIL	73337	164273
321162	PCB	EPA 8082A	SOIL	73337	164273
321163	PCB	EPA 8082A	SOIL	73337	164273
321164	PCB	EPA 8082A	SOIL	73337	164273
321165	PCB	EPA 8082A	SOIL	73337	164273
321166	PCB	EPA 8082A	SOIL	73337	164273
321167	PCB	EPA 8082A	SOIL	73337	164273
321168	PCB	EPA 8082A	SOIL	73337	164273
321169	PCB	EPA 8082A	SOIL	73337	164273
321170	PCB	EPA 8082A	SOIL	73337	164273
321171	PCB	EPA 8082A	SOIL	73337	164273
321172	PCB	EPA 8082A	SOIL	73337	164273
321513	PCB	EPA 8082A	GROUND WATER	73350	164078

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
321149	Pesticides	EPA 8081B	SOIL	73335	164272
321154	Pesticides	EPA 8081B	SOIL	73335	164272
321155	Pesticides	EPA 8081B	SOIL	73335	164272
321157	Pesticides	EPA 8081B	SOIL	73335	164272
321158	Pesticides	EPA 8081B	SOIL	73335	164272
321159	Pesticides	EPA 8081B	SOIL	73335	164272
321160	Pesticides	EPA 8081B	SOIL	73335	164272
321161	Pesticides	EPA 8081B	SOIL	73335	164272
321162	Pesticides	EPA 8081B	SOIL	73335	164272
321163	Pesticides	EPA 8081B	SOIL	73335	164272
321164	Pesticides	EPA 8081B	SOIL	73335	164272
321165	Pesticides	EPA 8081B	SOIL	73335	164272
321166	Pesticides	EPA 8081B	SOIL	73335	164272
321167	Pesticides	EPA 8081B	SOIL	73335	164272
321168	Pesticides	EPA 8081B	SOIL	73335	164272
321169	Pesticides	EPA 8081B	SOIL	73335	164272
321170	Pesticides	EPA 8081B	SOIL	73335	164272
321171	Pesticides	EPA 8081B	SOIL	73335	164272
321172	Pesticides	EPA 8081B	SOIL	73335	164272
321513	Pesticides	EPA 8081B	GROUND WATER	73349	164079
321155	Pesticides	EPA 8081B	SOIL	73335	164272

CT LABORATORIES
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Project Name: MEMPHIS DEPOT
Project #:
SDG #: 147664

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
321157	Pesticides	EPA 8081B	SOIL	73335	164272
321172	Pesticides	EPA 8081B	SOIL	73335	164272
321157	Pesticides	EPA 8081B	SOIL	73335	164272

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
321149	SVOC 8270 QSM	EPA 8270D	SOIL	73331	164275
321154	SVOC 8270 QSM	EPA 8270D	SOIL	73331	164275
321155	SVOC 8270 QSM	EPA 8270D	SOIL	73331	164275
321157	SVOC 8270 QSM	EPA 8270D	SOIL	73331	164275
321158	SVOC 8270 QSM	EPA 8270D	SOIL	73331	164275
321159	SVOC 8270 QSM	EPA 8270D	SOIL	73331	164275
321160	SVOC 8270 QSM	EPA 8270D	SOIL	73331	164275
321161	SVOC 8270 QSM	EPA 8270D	SOIL	73331	164275
321162	SVOC 8270 QSM	EPA 8270D	SOIL	73331	164275
321163	SVOC 8270 QSM	EPA 8270D	SOIL	73331	164275
321164	SVOC 8270 QSM	EPA 8270D	SOIL	73331	164275
321165	SVOC 8270 QSM	EPA 8270D	SOIL	73331	164275
321166	SVOC 8270 QSM	EPA 8270D	SOIL	73331	164275
321167	SVOC 8270 QSM	EPA 8270D	SOIL	73331	164275
321168	SVOC 8270 QSM	EPA 8270D	SOIL	73331	164275
321169	SVOC 8270 QSM	EPA 8270D	SOIL	73331	164275
321170	SVOC 8270 QSM	EPA 8270D	SOIL	73331	164275
321171	SVOC 8270 QSM	EPA 8270D	SOIL	73331	164275
321172	SVOC 8270 QSM	EPA 8270D	SOIL	73331	164275
321513	SVOC 8270 QSM	EPA 8270D	GROUND WATER	73348	164171

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
321149	PAH by 8270 SIM	EPA 8270D-SIM	SOIL	73329	164274
321154	PAH by 8270 SIM	EPA 8270D-SIM	SOIL	73329	164274
321155	PAH by 8270 SIM	EPA 8270D-SIM	SOIL	73329	164274
321157	PAH by 8270 SIM	EPA 8270D-SIM	SOIL	73329	164274
321158	PAH by 8270 SIM	EPA 8270D-SIM	SOIL	73329	164274
321159	PAH by 8270 SIM	EPA 8270D-SIM	SOIL	73329	164274
321160	PAH by 8270 SIM	EPA 8270D-SIM	SOIL	73329	164274
321161	PAH by 8270 SIM	EPA 8270D-SIM	SOIL	73329	164274
321162	PAH by 8270 SIM	EPA 8270D-SIM	SOIL	73329	164274
321163	PAH by 8270 SIM	EPA 8270D-SIM	SOIL	73329	164274
321164	PAH by 8270 SIM	EPA 8270D-SIM	SOIL	73329	164274
321165	PAH by 8270 SIM	EPA 8270D-SIM	SOIL	73329	164274
321166	PAH by 8270 SIM	EPA 8270D-SIM	SOIL	73329	164274
321167	PAH by 8270 SIM	EPA 8270D-SIM	SOIL	73329	164274
321168	PAH by 8270 SIM	EPA 8270D-SIM	SOIL	73329	164274

CT LABORATORIES
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Project Name: MEMPHIS DEPOT
Project #:
SDG #: 147664

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
321169	PAH by 8270 SIM	EPA 8270D-SIM	SOIL	73329	164274
321170	PAH by 8270 SIM	EPA 8270D-SIM	SOIL	73329	164274
321171	PAH by 8270 SIM	EPA 8270D-SIM	SOIL	73329	164274
321172	PAH by 8270 SIM	EPA 8270D-SIM	SOIL	73329	164274
321513	PAH by 8270 SIM	EPA 8270D-SIM	GROUND WATER	73347	164170
321155	PAH by 8270 SIM	EPA 8270D-SIM	SOIL	73329	164274
321157	PAH by 8270 SIM	EPA 8270D-SIM	SOIL	73329	164274
321160	PAH by 8270 SIM	EPA 8270D-SIM	SOIL	73329	164274
321161	PAH by 8270 SIM	EPA 8270D-SIM	SOIL	73329	164274
321162	PAH by 8270 SIM	EPA 8270D-SIM	SOIL	73329	164274
321163	PAH by 8270 SIM	EPA 8270D-SIM	SOIL	73329	164274
321169	PAH by 8270 SIM	EPA 8270D-SIM	SOIL	73329	164274
321170	PAH by 8270 SIM	EPA 8270D-SIM	SOIL	73329	164274

VOLATILE ORGANIC ANALYSIS
QUALITY CONTROL SUMMARY
DOCUMENTS

CT LABORATORIES
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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-01-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/mL)	CTL Sample ID:	321149
% Solids:	95.2	Date Received:	08/28/2019
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	163980	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 21:52	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	mg/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 000066-25-1	Hexanal	0.0600	J	N/A	N/A	N/A	N/A
TIC 000109-66-0	Pentane	0.0100	J	N/A	N/A	N/A	N/A
TIC 000104-76-7	1-Hexanol, 2-ethyl-	0.0100	J	N/A	N/A	N/A	N/A
TIC 000124-13-0	Octanal	0.0100	J	N/A	N/A	N/A	N/A
TIC 000556-67-2	Cyclotetrasiloxane, octamethyl-	0.0300	J	N/A	N/A	N/A	N/A
TIC 000541-05-9	Cyclotrisiloxane, hexamethyl-	0.0200	J	N/A	N/A	N/A	N/A
TIC 003855-82-1	1,4-Dichlorobenzene-d4	0.0200	J	N/A	N/A	N/A	N/A
TIC 000110-62-3	Pentanal	0.0100	J	N/A	N/A	N/A	N/A
TIC 000420-56-4	Silane, fluorotrimethyl-	0.0100	J	N/A	N/A	N/A	N/A
TIC 055429-85-1	Benzeneethanamine, N-[(pentafluo...	0.0100	J	N/A	N/A	N/A	N/A
TIC 000111-71-7	Heptanal	0.0100	J	N/A	N/A	N/A	N/A
TIC 000075-07-0	Acetaldehyde	0.0100	J	N/A	N/A	N/A	N/A

CT LABORATORIES
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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-01-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	4.14 (g/mL)	CTL Sample ID:	321149
% Solids:	95.2	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 21:52	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
630-20-6	1,1,1,2-Tetrachloroethane	1.3	U	0.38	1.3	2.5	2.5
71-55-6	1,1,1-Trichloroethane	1.3	U	0.38	1.3	2.5	2.5
79-34-5	1,1,2,2-Tetrachloroethane	1.3	U	0.63	1.3	2.5	2.5
79-00-5	1,1,2-Trichloroethane	1.3	U	0.51	1.3	2.5	2.5
75-34-3	1,1-Dichloroethane	1.3	U	0.51	1.3	2.5	2.5
75-35-4	1,1-Dichloroethene	1.3	U	0.51	1.3	2.5	2.5
563-58-6	1,1-Dichloropropene	1.3	U	0.51	1.3	2.5	2.5
87-61-6	1,2,3-Trichlorobenzene	2.5	U	1.1	2.5	5.1	5.1
96-18-4	1,2,3-Trichloropropane	1.3	U	0.63	1.3	2.5	2.5
120-82-1	1,2,4-Trichlorobenzene	2.5	U	1.1	2.5	5.1	5.1
95-63-6	1,2,4-Trimethylbenzene	3.04	J	1.0	2.5	5.1	5.1
96-12-8	1,2-Dibromo-3-chloropropane	2.5	U	1.6	2.5	5.1	5.1
106-93-4	1,2-Dibromoethane	1.3	U	0.51	1.3	2.5	2.5
95-50-1	1,2-Dichlorobenzene	2.5	U	1.1	2.5	5.1	5.1
107-06-2	1,2-Dichloroethane	1.3	U	0.63	1.3	2.5	2.5
78-87-5	1,2-Dichloropropane	1.3	U	0.51	1.3	2.5	2.5
108-67-8	1,3,5-Trimethylbenzene	2.5	U	1.1	2.5	5.1	5.1
541-73-1	1,3-Dichlorobenzene	2.5	U	1.1	2.5	5.1	5.1
142-28-9	1,3-Dichloropropane	1.3	U	0.51	1.3	2.5	2.5
106-46-7	1,4-Dichlorobenzene	2.5	U	1.1	2.5	5.1	5.1
594-20-7	2,2-Dichloropropane	1.3	U	0.51	1.3	2.5	2.5
78-93-3	2-Butanone	18.6	J	13	25	51	51
95-49-8	2-Chlorotoluene	2.5	U	1.3	2.5	5.1	5.1
591-78-6	2-Hexanone	25	U	14	25	51	51

CT LABORATORIES
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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-01-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	4.14 (g/mL)	CTL Sample ID:	321149
% Solids:	95.2	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 21:52	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
106-43-4	4-Chlorotoluene	2.5	U	1.1	2.5	5.1	5.1
108-10-1	4-Methyl-2-pentanone	25	U	13	25	51	51
67-64-1	Acetone	399		13	25	51	51
71-43-2	Benzene	1.01	J	0.38	1.3	2.5	2.5
108-86-1	Bromobenzene	1.3	U	0.63	1.3	2.5	2.5
74-97-5	Bromochloromethane	1.3	U	0.51	1.3	2.5	2.5
75-27-4	Bromodichloromethane	1.3	U	0.51	1.3	2.5	2.5
75-25-2	Bromoform	1.3	U	0.51	1.3	2.5	2.5
74-83-9	Bromomethane	2.5	U	0.89	2.5	5.1	5.1
75-15-0	Carbon disulfide	1.78	J	1.1	2.5	5.1	5.1
56-23-5	Carbon tetrachloride	1.3	U	0.38	1.3	2.5	2.5
108-90-7	Chlorobenzene	1.3	U	0.51	1.3	2.5	2.5
75-00-3	Chloroethane	1.3	U	0.63	1.3	2.5	2.5
67-66-3	Chloroform	1.3	U	0.51	1.3	2.5	2.5
74-87-3	Chloromethane	1.3	U	0.51	1.3	2.5	2.5
156-59-2	cis-1,2-Dichloroethene	1.3	U	0.51	1.3	2.5	2.5
10061-01-5	cis-1,3-Dichloropropene	1.3	U	0.38	1.3	2.5	2.5
124-48-1	Dibromochloromethane	1.3	U	0.51	1.3	2.5	2.5
74-95-3	Dibromomethane	1.3	U	0.51	1.3	2.5	2.5
75-71-8	Dichlorodifluoromethane	2.5	U	1.3	2.5	5.1	5.1
100-41-4	Ethylbenzene	1.3	U	0.51	1.3	2.5	2.5
76-13-1	Freon 113	2.5	U	1.3	2.5	5.1	5.1
87-68-3	Hexachlorobutadiene	2.5	U	1.3	2.5	5.1	5.1
98-82-8	Isopropylbenzene	1.3	U	0.38	1.3	2.5	2.5

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-01-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	4.14 (g/mL)	CTL Sample ID:	321149
% Solids:	95.2	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 21:52	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
179601-23-1	m & p-Xylene	2.66	J	0.89	2.5	5.1	5.1
75-09-2	Methylene chloride	2.5	U	2.2	2.5	5.1	5.1
91-20-3	Naphthalene	2.5	U	1.3	2.5	5.1	5.1
104-51-8	n-Butylbenzene	2.5	U	1.1	2.5	5.1	5.1
103-65-1	n-Propylbenzene	2.5	U	1.1	2.5	5.1	5.1
95-47-6	o-Xylene	0.888	J	0.51	1.3	2.5	2.5
99-87-6	p-Isopropyltoluene	1.78	J	1.3	2.5	5.1	5.1
135-98-8	sec-Butylbenzene	2.5	U	1.1	2.5	5.1	5.1
100-42-5	Styrene	1.3	U	0.38	1.3	2.5	2.5
98-06-6	tert-Butylbenzene	2.5	U	1.1	2.5	5.1	5.1
127-18-4	Tetrachloroethene	1.3	U	0.51	1.3	2.5	2.5
108-88-3	Toluene	5.20		0.51	1.3	2.5	2.5
156-60-5	trans-1,2-Dichloroethene	1.3	U	0.51	1.3	2.5	2.5
10061-02-6	trans-1,3-Dichloropropene	1.3	U	0.51	1.3	2.5	2.5
79-01-6	Trichloroethene	1.3	U	0.38	1.3	2.5	2.5
75-69-4	Trichlorofluoromethane	1.3	U	0.63	1.3	2.5	2.5
108-05-4	Vinyl acetate	25	U	15	25	51	51
75-01-4	Vinyl chloride	1.3	U	0.63	1.3	2.5	2.5

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-01-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/mL)	CTL Sample ID:	321154
% Solids:	93.2	Date Received:	08/28/2019
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	163980	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 10:36	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	mg/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 000066-25-1	Hexanal	0.0200	J	N/A	N/A	N/A	N/A
TIC 002199-69-1	Benzene-1,2,3,4-d4-, 5,6-dichloro-	0.0200	J	N/A	N/A	N/A	N/A
TIC 000075-07-0	Acetaldehyde	0.0100	J	N/A	N/A	N/A	N/A
TIC 000821-55-6	2-Nonanone	0.0100	J	N/A	N/A	N/A	N/A
TIC 000556-67-2	Cyclotetrasiloxane, octamethyl-	0.0100	J	N/A	N/A	N/A	N/A
TIC 000123-72-8	Butanal	0.0100	J	N/A	N/A	N/A	N/A

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-01-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	5.03 (g/mL)	CTL Sample ID:	321154
% Solids:	93.2	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 10:36	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
630-20-6	1,1,1,2-Tetrachloroethane	1.1	U	0.32	1.1	2.1	2.1
71-55-6	1,1,1-Trichloroethane	1.1	U	0.32	1.1	2.1	2.1
79-34-5	1,1,2,2-Tetrachloroethane	1.1	U	0.53	1.1	2.1	2.1
79-00-5	1,1,2-Trichloroethane	1.1	U	0.43	1.1	2.1	2.1
75-34-3	1,1-Dichloroethane	1.1	U	0.43	1.1	2.1	2.1
75-35-4	1,1-Dichloroethene	1.1	U	0.43	1.1	2.1	2.1
563-58-6	1,1-Dichloropropene	1.1	U	0.43	1.1	2.1	2.1
87-61-6	1,2,3-Trichlorobenzene	2.1	U	0.96	2.1	4.3	4.3
96-18-4	1,2,3-Trichloropropane	1.1	U	0.53	1.1	2.1	2.1
120-82-1	1,2,4-Trichlorobenzene	2.1	U	0.96	2.1	4.3	4.3
95-63-6	1,2,4-Trimethylbenzene	2.35	J	0.85	2.1	4.3	4.3
96-12-8	1,2-Dibromo-3-chloropropane	2.1	U	1.4	2.1	4.3	4.3
106-93-4	1,2-Dibromoethane	1.1	U	0.43	1.1	2.1	2.1
95-50-1	1,2-Dichlorobenzene	2.1	U	0.96	2.1	4.3	4.3
107-06-2	1,2-Dichloroethane	1.1	U	0.53	1.1	2.1	2.1
78-87-5	1,2-Dichloropropane	1.1	U	0.43	1.1	2.1	2.1
108-67-8	1,3,5-Trimethylbenzene	2.1	U	0.96	2.1	4.3	4.3
541-73-1	1,3-Dichlorobenzene	2.1	U	0.96	2.1	4.3	4.3
142-28-9	1,3-Dichloropropane	1.1	U	0.43	1.1	2.1	2.1
106-46-7	1,4-Dichlorobenzene	2.1	U	0.96	2.1	4.3	4.3
594-20-7	2,2-Dichloropropane	1.1	U	0.43	1.1	2.1	2.1
78-93-3	2-Butanone	25.0	J	11	21	43	43
95-49-8	2-Chlorotoluene	2.1	U	1.1	2.1	4.3	4.3
591-78-6	2-Hexanone	21	U	12	21	43	43

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-01-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	5.03 (g/mL)	CTL Sample ID:	321154
% Solids:	93.2	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 10:36	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
106-43-4	4-Chlorotoluene	2.1	U	0.96	2.1	4.3	4.3
108-10-1	4-Methyl-2-pentanone	21	U	11	21	43	43
67-64-1	Acetone	331		11	21	43	43
71-43-2	Benzene	0.427	J	0.32	1.1	2.1	2.1
108-86-1	Bromobenzene	1.1	U	0.53	1.1	2.1	2.1
74-97-5	Bromochloromethane	1.1	U	0.43	1.1	2.1	2.1
75-27-4	Bromodichloromethane	1.1	U	0.43	1.1	2.1	2.1
75-25-2	Bromoform	1.1	U	0.43	1.1	2.1	2.1
74-83-9	Bromomethane	2.1	U	0.75	2.1	4.3	4.3
75-15-0	Carbon disulfide	1.28	J	0.96	2.1	4.3	4.3
56-23-5	Carbon tetrachloride	1.1	U	0.32	1.1	2.1	2.1
108-90-7	Chlorobenzene	1.1	U	0.43	1.1	2.1	2.1
75-00-3	Chloroethane	1.1	U	0.53	1.1	2.1	2.1
67-66-3	Chloroform	1.1	U	0.43	1.1	2.1	2.1
74-87-3	Chloromethane	1.1	U	0.43	1.1	2.1	2.1
156-59-2	cis-1,2-Dichloroethene	1.1	U	0.43	1.1	2.1	2.1
10061-01-5	cis-1,3-Dichloropropene	1.1	U	0.32	1.1	2.1	2.1
124-48-1	Dibromochloromethane	1.1	U	0.43	1.1	2.1	2.1
74-95-3	Dibromomethane	1.1	U	0.43	1.1	2.1	2.1
75-71-8	Dichlorodifluoromethane	2.1	U	1.1	2.1	4.3	4.3
100-41-4	Ethylbenzene	1.1	U	0.43	1.1	2.1	2.1
76-13-1	Freon 113	2.1	U	1.1	2.1	4.3	4.3
87-68-3	Hexachlorobutadiene	2.1	U	1.1	2.1	4.3	4.3
98-82-8	Isopropylbenzene	1.1	U	0.32	1.1	2.1	2.1

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-01-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	5.03 (g/mL)	CTL Sample ID:	321154
% Solids:	93.2	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 10:36	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
179601-23-1	m & p-Xylene	2.1	U	0.75	2.1	4.3	4.3
75-09-2	Methylene chloride	2.1	U	1.8	2.1	4.3	4.3
91-20-3	Naphthalene	2.1	U	1.1	2.1	4.3	4.3
104-51-8	n-Butylbenzene	2.1	U	0.96	2.1	4.3	4.3
103-65-1	n-Propylbenzene	2.1	U	0.96	2.1	4.3	4.3
95-47-6	o-Xylene	1.1	U	0.43	1.1	2.1	2.1
99-87-6	p-Isopropyltoluene	2.1	U	1.1	2.1	4.3	4.3
135-98-8	sec-Butylbenzene	2.1	U	0.96	2.1	4.3	4.3
100-42-5	Styrene	1.1	U	0.32	1.1	2.1	2.1
98-06-6	tert-Butylbenzene	2.1	U	0.96	2.1	4.3	4.3
127-18-4	Tetrachloroethene	1.1	U	0.43	1.1	2.1	2.1
108-88-3	Toluene	1.28	J	0.43	1.1	2.1	2.1
156-60-5	trans-1,2-Dichloroethene	1.1	U	0.43	1.1	2.1	2.1
10061-02-6	trans-1,3-Dichloropropene	1.1	U	0.43	1.1	2.1	2.1
79-01-6	Trichloroethene	1.1	U	0.32	1.1	2.1	2.1
75-69-4	Trichlorofluoromethane	1.1	U	0.53	1.1	2.1	2.1
108-05-4	Vinyl acetate	21	U	13	21	43	43
75-01-4	Vinyl chloride	1.1	U	0.53	1.1	2.1	2.1

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-02-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/mL)	CTL Sample ID:	321155
% Solids:	97.2	Date Received:	08/28/2019
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	163980	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 11:05	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	mg/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 000066-25-1	Hexanal	0.0700	J	N/A	N/A	N/A	N/A
TIC 002199-69-1	Benzene-1,2,3,4-d4-, 5,6-dichloro-	0.0200	J	N/A	N/A	N/A	N/A
TIC 000110-62-3	Pentanal	0.0100	J	N/A	N/A	N/A	N/A
TIC 001873-88-7	1,1,1,3,5,5,5-Heptamethyltrisilo...	0.0100	J	N/A	N/A	N/A	N/A
TIC 000098-01-1	2-Furancarboxaldehyde	0.0100	J	N/A	N/A	N/A	N/A
TIC 000556-67-2	Cyclotetrasiloxane, octamethyl-	0.0100	J	N/A	N/A	N/A	N/A
TIC 000420-56-4	Silane, fluorotrimethyl-	0.0100	J	N/A	N/A	N/A	N/A

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-02-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	4.23 (g/mL)	CTL Sample ID:	321155
% Solids:	97.2	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 11:05	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
630-20-6	1,1,1,2-Tetrachloroethane	1.2	U	0.36	1.2	2.4	2.4
71-55-6	1,1,1-Trichloroethane	1.2	U	0.36	1.2	2.4	2.4
79-34-5	1,1,2,2-Tetrachloroethane	1.2	U	0.61	1.2	2.4	2.4
79-00-5	1,1,2-Trichloroethane	1.2	U	0.49	1.2	2.4	2.4
75-34-3	1,1-Dichloroethane	1.2	U	0.49	1.2	2.4	2.4
75-35-4	1,1-Dichloroethene	1.2	U	0.49	1.2	2.4	2.4
563-58-6	1,1-Dichloropropene	1.2	U	0.49	1.2	2.4	2.4
87-61-6	1,2,3-Trichlorobenzene	2.4	U	1.1	2.4	4.9	4.9
96-18-4	1,2,3-Trichloropropane	1.2	U	0.61	1.2	2.4	2.4
120-82-1	1,2,4-Trichlorobenzene	2.4	U	1.1	2.4	4.9	4.9
95-63-6	1,2,4-Trimethylbenzene	2.4	U	0.97	2.4	4.9	4.9
96-12-8	1,2-Dibromo-3-chloropropane	2.4	U	1.6	2.4	4.9	4.9
106-93-4	1,2-Dibromoethane	1.2	U	0.49	1.2	2.4	2.4
95-50-1	1,2-Dichlorobenzene	2.4	U	1.1	2.4	4.9	4.9
107-06-2	1,2-Dichloroethane	1.2	U	0.61	1.2	2.4	2.4
78-87-5	1,2-Dichloropropane	1.2	U	0.49	1.2	2.4	2.4
108-67-8	1,3,5-Trimethylbenzene	2.4	U	1.1	2.4	4.9	4.9
541-73-1	1,3-Dichlorobenzene	2.4	U	1.1	2.4	4.9	4.9
142-28-9	1,3-Dichloropropane	1.2	U	0.49	1.2	2.4	2.4
106-46-7	1,4-Dichlorobenzene	2.4	U	1.1	2.4	4.9	4.9
594-20-7	2,2-Dichloropropane	1.2	U	0.49	1.2	2.4	2.4
78-93-3	2-Butanone	24	U	12	24	49	49
95-49-8	2-Chlorotoluene	2.4	U	1.2	2.4	4.9	4.9
591-78-6	2-Hexanone	24	U	13	24	49	49

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-02-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	4.23 (g/mL)	CTL Sample ID:	321155
% Solids:	97.2	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 11:05	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
106-43-4	4-Chlorotoluene	2.4	U	1.1	2.4	4.9	4.9
108-10-1	4-Methyl-2-pentanone	24	U	12	24	49	49
67-64-1	Acetone	162		12	24	49	49
71-43-2	Benzene	0.365	J	0.36	1.2	2.4	2.4
108-86-1	Bromobenzene	1.2	U	0.61	1.2	2.4	2.4
74-97-5	Bromochloromethane	1.2	U	0.49	1.2	2.4	2.4
75-27-4	Bromodichloromethane	1.2	U	0.49	1.2	2.4	2.4
75-25-2	Bromoform	1.2	U	0.49	1.2	2.4	2.4
74-83-9	Bromomethane	2.4	U	0.85	2.4	4.9	4.9
75-15-0	Carbon disulfide	1.46	J	1.1	2.4	4.9	4.9
56-23-5	Carbon tetrachloride	1.2	U	0.36	1.2	2.4	2.4
108-90-7	Chlorobenzene	1.2	U	0.49	1.2	2.4	2.4
75-00-3	Chloroethane	1.2	U	0.61	1.2	2.4	2.4
67-66-3	Chloroform	1.2	U	0.49	1.2	2.4	2.4
74-87-3	Chloromethane	1.2	U	0.49	1.2	2.4	2.4
156-59-2	cis-1,2-Dichloroethene	1.2	U	0.49	1.2	2.4	2.4
10061-01-5	cis-1,3-Dichloropropene	1.2	U	0.36	1.2	2.4	2.4
124-48-1	Dibromochloromethane	1.2	U	0.49	1.2	2.4	2.4
74-95-3	Dibromomethane	1.2	U	0.49	1.2	2.4	2.4
75-71-8	Dichlorodifluoromethane	2.4	U	1.2	2.4	4.9	4.9
100-41-4	Ethylbenzene	1.2	U	0.49	1.2	2.4	2.4
76-13-1	Freon 113	2.4	U	1.2	2.4	4.9	4.9
87-68-3	Hexachlorobutadiene	2.4	U	1.2	2.4	4.9	4.9
98-82-8	Isopropylbenzene	1.2	U	0.36	1.2	2.4	2.4

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-02-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	4.23 (g/mL)	CTL Sample ID:	321155
% Solids:	97.2	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 11:05	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
179601-23-1	m & p-Xylene	0.973	J	0.85	2.4	4.9	4.9
75-09-2	Methylene chloride	2.4	U	2.1	2.4	4.9	4.9
91-20-3	Naphthalene	2.4	U	1.2	2.4	4.9	4.9
104-51-8	n-Butylbenzene	2.4	U	1.1	2.4	4.9	4.9
103-65-1	n-Propylbenzene	2.4	U	1.1	2.4	4.9	4.9
95-47-6	o-Xylene	1.2	U	0.49	1.2	2.4	2.4
99-87-6	p-Isopropyltoluene	2.4	U	1.2	2.4	4.9	4.9
135-98-8	sec-Butylbenzene	2.4	U	1.1	2.4	4.9	4.9
100-42-5	Styrene	1.2	U	0.36	1.2	2.4	2.4
98-06-6	tert-Butylbenzene	2.4	U	1.1	2.4	4.9	4.9
127-18-4	Tetrachloroethene	1.2	U	0.49	1.2	2.4	2.4
108-88-3	Toluene	1.82	J	0.49	1.2	2.4	2.4
156-60-5	trans-1,2-Dichloroethene	1.2	U	0.49	1.2	2.4	2.4
10061-02-6	trans-1,3-Dichloropropene	1.2	U	0.49	1.2	2.4	2.4
79-01-6	Trichloroethene	1.2	U	0.36	1.2	2.4	2.4
75-69-4	Trichlorofluoromethane	1.2	U	0.61	1.2	2.4	2.4
108-05-4	Vinyl acetate	24	U	15	24	49	49
75-01-4	Vinyl chloride	1.2	U	0.61	1.2	2.4	2.4

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-02-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/mL)	CTL Sample ID:	321158
% Solids:	89.9	Date Received:	08/28/2019
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	163980	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 12:03	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	mg/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 002199-69-1	Benzene-1,2,3,4-d4-, 5,6-dichloro-	0.0200	J	N/A	N/A	N/A	N/A
TIC 000534-07-6	2-Propanone, 1,3-dichloro-	0.0100	J	N/A	N/A	N/A	N/A
TIC 000556-67-2	Cyclotetrasiloxane, octamethyl-	0.0100	J	N/A	N/A	N/A	N/A
TIC 000075-07-0	Acetaldehyde	0.0100	J	N/A	N/A	N/A	N/A

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-02-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	5.92 (g/mL)	CTL Sample ID:	321158
% Solids:	89.9	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 12:03	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
630-20-6	1,1,1,2-Tetrachloroethane	0.94	U	0.28	0.94	1.9	1.9
71-55-6	1,1,1-Trichloroethane	0.94	U	0.28	0.94	1.9	1.9
79-34-5	1,1,2,2-Tetrachloroethane	0.94	U	0.47	0.94	1.9	1.9
79-00-5	1,1,2-Trichloroethane	0.94	U	0.38	0.94	1.9	1.9
75-34-3	1,1-Dichloroethane	0.94	U	0.38	0.94	1.9	1.9
75-35-4	1,1-Dichloroethene	0.94	U	0.38	0.94	1.9	1.9
563-58-6	1,1-Dichloropropene	0.94	U	0.38	0.94	1.9	1.9
87-61-6	1,2,3-Trichlorobenzene	1.9	U	0.85	1.9	3.8	3.8
96-18-4	1,2,3-Trichloropropane	0.94	U	0.47	0.94	1.9	1.9
120-82-1	1,2,4-Trichlorobenzene	1.9	U	0.85	1.9	3.8	3.8
95-63-6	1,2,4-Trimethylbenzene	1.9	U	0.75	1.9	3.8	3.8
96-12-8	1,2-Dibromo-3-chloropropane	1.9	U	1.2	1.9	3.8	3.8
106-93-4	1,2-Dibromoethane	0.94	U	0.38	0.94	1.9	1.9
95-50-1	1,2-Dichlorobenzene	1.9	U	0.85	1.9	3.8	3.8
107-06-2	1,2-Dichloroethane	0.94	U	0.47	0.94	1.9	1.9
78-87-5	1,2-Dichloropropane	0.94	U	0.38	0.94	1.9	1.9
108-67-8	1,3,5-Trimethylbenzene	1.9	U	0.85	1.9	3.8	3.8
541-73-1	1,3-Dichlorobenzene	1.9	U	0.85	1.9	3.8	3.8
142-28-9	1,3-Dichloropropane	0.94	U	0.38	0.94	1.9	1.9
106-46-7	1,4-Dichlorobenzene	1.9	U	0.85	1.9	3.8	3.8
594-20-7	2,2-Dichloropropane	0.94	U	0.38	0.94	1.9	1.9
78-93-3	2-Butanone	19	U	9.4	19	38	38
95-49-8	2-Chlorotoluene	1.9	U	0.94	1.9	3.8	3.8
591-78-6	2-Hexanone	19	U	10	19	38	38

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-02-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	5.92 (g/mL)	CTL Sample ID:	321158
% Solids:	89.9	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 12:03	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
106-43-4	4-Chlorotoluene	1.9	U	0.85	1.9	3.8	3.8
108-10-1	4-Methyl-2-pentanone	19	U	9.4	19	38	38
67-64-1	Acetone	110		9.4	19	38	38
71-43-2	Benzene	0.94	U	0.28	0.94	1.9	1.9
108-86-1	Bromobenzene	0.94	U	0.47	0.94	1.9	1.9
74-97-5	Bromochloromethane	0.94	U	0.38	0.94	1.9	1.9
75-27-4	Bromodichloromethane	0.94	U	0.38	0.94	1.9	1.9
75-25-2	Bromoform	0.94	U	0.38	0.94	1.9	1.9
74-83-9	Bromomethane	1.9	U	0.66	1.9	3.8	3.8
75-15-0	Carbon disulfide	1.9	U	0.85	1.9	3.8	3.8
56-23-5	Carbon tetrachloride	0.94	U	0.28	0.94	1.9	1.9
108-90-7	Chlorobenzene	0.94	U	0.38	0.94	1.9	1.9
75-00-3	Chloroethane	0.94	U	0.47	0.94	1.9	1.9
67-66-3	Chloroform	0.94	U	0.38	0.94	1.9	1.9
74-87-3	Chloromethane	0.94	U	0.38	0.94	1.9	1.9
156-59-2	cis-1,2-Dichloroethene	0.94	U	0.38	0.94	1.9	1.9
10061-01-5	cis-1,3-Dichloropropene	0.94	U	0.28	0.94	1.9	1.9
124-48-1	Dibromochloromethane	0.94	U	0.38	0.94	1.9	1.9
74-95-3	Dibromomethane	0.94	U	0.38	0.94	1.9	1.9
75-71-8	Dichlorodifluoromethane	1.9	U	0.94	1.9	3.8	3.8
100-41-4	Ethylbenzene	0.94	U	0.38	0.94	1.9	1.9
76-13-1	Freon 113	1.9	U	0.94	1.9	3.8	3.8
87-68-3	Hexachlorobutadiene	1.9	U	0.94	1.9	3.8	3.8
98-82-8	Isopropylbenzene	0.94	U	0.28	0.94	1.9	1.9

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Sample Description

GN-SO-02-2

VOLATILE ORGANICS ANALYSIS

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	5.92 (g/mL)	CTL Sample ID:	321158
% Solids:	89.9	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 12:03	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
179601-23-1	m & p-Xylene	1.9	U	0.66	1.9	3.8	3.8
75-09-2	Methylene chloride	1.9	U	1.6	1.9	3.8	3.8
91-20-3	Naphthalene	1.9	U	0.94	1.9	3.8	3.8
104-51-8	n-Butylbenzene	1.9	U	0.85	1.9	3.8	3.8
103-65-1	n-Propylbenzene	1.9	U	0.85	1.9	3.8	3.8
95-47-6	o-Xylene	0.94	U	0.38	0.94	1.9	1.9
99-87-6	p-Isopropyltoluene	1.9	U	0.94	1.9	3.8	3.8
135-98-8	sec-Butylbenzene	1.9	U	0.85	1.9	3.8	3.8
100-42-5	Styrene	0.94	U	0.28	0.94	1.9	1.9
98-06-6	tert-Butylbenzene	1.9	U	0.85	1.9	3.8	3.8
127-18-4	Tetrachloroethene	0.94	U	0.38	0.94	1.9	1.9
108-88-3	Toluene	0.94	U	0.38	0.94	1.9	1.9
156-60-5	trans-1,2-Dichloroethene	0.94	U	0.38	0.94	1.9	1.9
10061-02-6	trans-1,3-Dichloropropene	0.94	U	0.38	0.94	1.9	1.9
79-01-6	Trichloroethene	0.94	U	0.28	0.94	1.9	1.9
75-69-4	Trichlorofluoromethane	1.03	J	0.47	0.94	1.9	1.9
108-05-4	Vinyl acetate	19	U	11	19	38	38
75-01-4	Vinyl chloride	0.94	U	0.47	0.94	1.9	1.9

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VOLATILE ORGANICS ANALYSIS

Sample Description

GNSO-03-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/mL)	CTL Sample ID:	321159
% Solids:	91.3	Date Received:	08/28/2019
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	163980	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 22:21	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	mg/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 000066-25-1	Hexanal	0.100	J	N/A	N/A	N/A	N/A
TIC 000420-56-4	Silane, fluorotrimethyl-	0.0100	J	N/A	N/A	N/A	N/A
TIC 000123-72-8	Butanal	0.0100	J	N/A	N/A	N/A	N/A
TIC 000078-78-4	Butane, 2-methyl-	0.0100	J	N/A	N/A	N/A	N/A
TIC 003855-82-1	1,4-Dichlorobenzene-d4	0.0200	J	N/A	N/A	N/A	N/A
TIC 000541-05-9	Cyclotrisiloxane, hexamethyl-	0.0200	J	N/A	N/A	N/A	N/A
TIC 000110-62-3	Pentanal	0.0200	J	N/A	N/A	N/A	N/A
TIC 000106-97-8	Butane	0.0100	J	N/A	N/A	N/A	N/A
TIC 000109-66-0	Pentane	0.0100	J	N/A	N/A	N/A	N/A
TIC 000138-86-3	Limonene	0.0100	J	N/A	N/A	N/A	N/A
TIC 000075-07-0	Acetaldehyde	0.0100	J	N/A	N/A	N/A	N/A
TIC 000111-71-7	Heptanal	0.0100	J	N/A	N/A	N/A	N/A

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VOLATILE ORGANICS ANALYSIS

Sample Description

GNSO-03-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	4.58 (g/mL)	CTL Sample ID:	321159
% Solids:	91.3	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 22:21	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
630-20-6	1,1,1,2-Tetrachloroethane	1.2	U	0.36	1.2	2.4	2.4
71-55-6	1,1,1-Trichloroethane	1.2	U	0.36	1.2	2.4	2.4
79-34-5	1,1,2,2-Tetrachloroethane	1.2	U	0.60	1.2	2.4	2.4
79-00-5	1,1,2-Trichloroethane	1.2	U	0.48	1.2	2.4	2.4
75-34-3	1,1-Dichloroethane	1.2	U	0.48	1.2	2.4	2.4
75-35-4	1,1-Dichloroethene	1.2	U	0.48	1.2	2.4	2.4
563-58-6	1,1-Dichloropropene	1.2	U	0.48	1.2	2.4	2.4
87-61-6	1,2,3-Trichlorobenzene	2.4	U	1.1	2.4	4.8	4.8
96-18-4	1,2,3-Trichloropropane	1.2	U	0.60	1.2	2.4	2.4
120-82-1	1,2,4-Trichlorobenzene	2.4	U	1.1	2.4	4.8	4.8
95-63-6	1,2,4-Trimethylbenzene	1.08	J	0.96	2.4	4.8	4.8
96-12-8	1,2-Dibromo-3-chloropropane	2.4	U	1.6	2.4	4.8	4.8
106-93-4	1,2-Dibromoethane	1.2	U	0.48	1.2	2.4	2.4
95-50-1	1,2-Dichlorobenzene	2.4	U	1.1	2.4	4.8	4.8
107-06-2	1,2-Dichloroethane	1.2	U	0.60	1.2	2.4	2.4
78-87-5	1,2-Dichloropropane	1.2	U	0.48	1.2	2.4	2.4
108-67-8	1,3,5-Trimethylbenzene	2.4	U	1.1	2.4	4.8	4.8
541-73-1	1,3-Dichlorobenzene	2.4	U	1.1	2.4	4.8	4.8
142-28-9	1,3-Dichloropropane	1.2	U	0.48	1.2	2.4	2.4
106-46-7	1,4-Dichlorobenzene	2.4	U	1.1	2.4	4.8	4.8
594-20-7	2,2-Dichloropropane	0.717	J	0.48	1.2	2.4	2.4
78-93-3	2-Butanone	14.1	J	12	24	48	48
95-49-8	2-Chlorotoluene	2.4	U	1.2	2.4	4.8	4.8
591-78-6	2-Hexanone	24	U	13	24	48	48

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VOLATILE ORGANICS ANALYSIS

Sample Description

GNSO-03-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	4.58 (g/mL)	CTL Sample ID:	321159
% Solids:	91.3	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 22:21	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
106-43-4	4-Chlorotoluene	2.4	U	1.1	2.4	4.8	4.8
108-10-1	4-Methyl-2-pentanone	24	U	12	24	48	48
67-64-1	Acetone	258		12	24	48	48
71-43-2	Benzene	0.957	J	0.36	1.2	2.4	2.4
108-86-1	Bromobenzene	1.2	U	0.60	1.2	2.4	2.4
74-97-5	Bromochloromethane	1.2	U	0.48	1.2	2.4	2.4
75-27-4	Bromodichloromethane	1.2	U	0.48	1.2	2.4	2.4
75-25-2	Bromoform	1.2	U	0.48	1.2	2.4	2.4
74-83-9	Bromomethane	2.4	U	0.84	2.4	4.8	4.8
75-15-0	Carbon disulfide	2.27	J	1.1	2.4	4.8	4.8
56-23-5	Carbon tetrachloride	1.2	U	0.36	1.2	2.4	2.4
108-90-7	Chlorobenzene	1.2	U	0.48	1.2	2.4	2.4
75-00-3	Chloroethane	1.2	U	0.60	1.2	2.4	2.4
67-66-3	Chloroform	1.2	U	0.48	1.2	2.4	2.4
74-87-3	Chloromethane	1.2	U	0.48	1.2	2.4	2.4
156-59-2	cis-1,2-Dichloroethene	1.2	U	0.48	1.2	2.4	2.4
10061-01-5	cis-1,3-Dichloropropene	1.2	U	0.36	1.2	2.4	2.4
124-48-1	Dibromochloromethane	1.2	U	0.48	1.2	2.4	2.4
74-95-3	Dibromomethane	1.2	U	0.48	1.2	2.4	2.4
75-71-8	Dichlorodifluoromethane	2.4	U	1.2	2.4	4.8	4.8
100-41-4	Ethylbenzene	1.2	U	0.48	1.2	2.4	2.4
76-13-1	Freon 113	2.4	U	1.2	2.4	4.8	4.8
87-68-3	Hexachlorobutadiene	2.4	U	1.2	2.4	4.8	4.8
98-82-8	Isopropylbenzene	1.2	U	0.36	1.2	2.4	2.4

CT LABORATORIES
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VOLATILE ORGANICS ANALYSIS

Sample Description

GNSO-03-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	4.58 (g/mL)	CTL Sample ID:	321159
% Solids:	91.3	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 22:21	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
179601-23-1	m & p-Xylene	1.08	J	0.84	2.4	4.8	4.8
75-09-2	Methylene chloride	2.4	U	2.0	2.4	4.8	4.8
91-20-3	Naphthalene	2.4	U	1.2	2.4	4.8	4.8
104-51-8	n-Butylbenzene	2.4	U	1.1	2.4	4.8	4.8
103-65-1	n-Propylbenzene	2.4	U	1.1	2.4	4.8	4.8
95-47-6	o-Xylene	1.2	U	0.48	1.2	2.4	2.4
99-87-6	p-Isopropyltoluene	2.4	U	1.2	2.4	4.8	4.8
135-98-8	sec-Butylbenzene	2.4	U	1.1	2.4	4.8	4.8
100-42-5	Styrene	1.2	U	0.36	1.2	2.4	2.4
98-06-6	tert-Butylbenzene	2.4	U	1.1	2.4	4.8	4.8
127-18-4	Tetrachloroethene	1.2	U	0.48	1.2	2.4	2.4
108-88-3	Toluene	2.15	J	0.48	1.2	2.4	2.4
156-60-5	trans-1,2-Dichloroethene	1.2	U	0.48	1.2	2.4	2.4
10061-02-6	trans-1,3-Dichloropropene	1.2	U	0.48	1.2	2.4	2.4
79-01-6	Trichloroethene	1.2	U	0.36	1.2	2.4	2.4
75-69-4	Trichlorofluoromethane	1.2	U	0.60	1.2	2.4	2.4
108-05-4	Vinyl acetate	24	U	14	24	48	48
75-01-4	Vinyl chloride	1.2	U	0.60	1.2	2.4	2.4

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-03-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/mL)	CTL Sample ID:	321160
% Solids:	90.6	Date Received:	08/28/2019
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	163980	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 13:02	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	mg/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 000066-25-1	Hexanal	0.0400	J	N/A	N/A	N/A	N/A
TIC 003855-82-1	1,4-Dichlorobenzene-d4	0.0200	J	N/A	N/A	N/A	N/A
TIC 000110-62-3	Pentanal	0.0100	J	N/A	N/A	N/A	N/A
TIC 000075-07-0	Acetaldehyde	0.0100	J	N/A	N/A	N/A	N/A
TIC 000556-67-2	Cyclotetrasiloxane, octamethyl-	0.0100	J	N/A	N/A	N/A	N/A
TIC 000111-71-7	Heptanal	0.0100	J	N/A	N/A	N/A	N/A
TIC 000541-05-9	Cyclotrisiloxane, hexamethyl-	0.0100	J	N/A	N/A	N/A	N/A
TIC 000124-13-0	Octanal	0.0100	J	N/A	N/A	N/A	N/A

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-03-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	6.57 (g/mL)	CTL Sample ID:	321160
% Solids:	90.6	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 13:02	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
630-20-6	1,1,1,2-Tetrachloroethane	0.84	U	0.25	0.84	1.7	1.7
71-55-6	1,1,1-Trichloroethane	0.84	U	0.25	0.84	1.7	1.7
79-34-5	1,1,2,2-Tetrachloroethane	0.84	U	0.42	0.84	1.7	1.7
79-00-5	1,1,2-Trichloroethane	0.84	U	0.34	0.84	1.7	1.7
75-34-3	1,1-Dichloroethane	0.84	U	0.34	0.84	1.7	1.7
75-35-4	1,1-Dichloroethene	0.84	U	0.34	0.84	1.7	1.7
563-58-6	1,1-Dichloropropene	0.84	U	0.34	0.84	1.7	1.7
87-61-6	1,2,3-Trichlorobenzene	1.7	U	0.76	1.7	3.4	3.4
96-18-4	1,2,3-Trichloropropane	0.84	U	0.42	0.84	1.7	1.7
120-82-1	1,2,4-Trichlorobenzene	1.7	U	0.76	1.7	3.4	3.4
95-63-6	1,2,4-Trimethylbenzene	3.11	J	0.67	1.7	3.4	3.4
96-12-8	1,2-Dibromo-3-chloropropane	1.7	U	1.1	1.7	3.4	3.4
106-93-4	1,2-Dibromoethane	0.84	U	0.34	0.84	1.7	1.7
95-50-1	1,2-Dichlorobenzene	1.7	U	0.76	1.7	3.4	3.4
107-06-2	1,2-Dichloroethane	0.84	U	0.42	0.84	1.7	1.7
78-87-5	1,2-Dichloropropane	0.84	U	0.34	0.84	1.7	1.7
108-67-8	1,3,5-Trimethylbenzene	1.7	U	0.76	1.7	3.4	3.4
541-73-1	1,3-Dichlorobenzene	1.7	U	0.76	1.7	3.4	3.4
142-28-9	1,3-Dichloropropane	0.84	U	0.34	0.84	1.7	1.7
106-46-7	1,4-Dichlorobenzene	1.7	U	0.76	1.7	3.4	3.4
594-20-7	2,2-Dichloropropane	0.84	U	0.34	0.84	1.7	1.7
78-93-3	2-Butanone	34.2		8.4	17	34	34
95-49-8	2-Chlorotoluene	1.7	U	0.84	1.7	3.4	3.4
591-78-6	2-Hexanone	17	U	9.2	17	34	34

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-03-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	6.57 (g/mL)	CTL Sample ID:	321160
% Solids:	90.6	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 13:02	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
106-43-4	4-Chlorotoluene	1.7	U	0.76	1.7	3.4	3.4
108-10-1	4-Methyl-2-pentanone	17	U	8.4	17	34	34
67-64-1	Acetone	302		8.4	17	34	34
71-43-2	Benzene	0.588	J	0.25	0.84	1.7	1.7
108-86-1	Bromobenzene	0.84	U	0.42	0.84	1.7	1.7
74-97-5	Bromochloromethane	0.84	U	0.34	0.84	1.7	1.7
75-27-4	Bromodichloromethane	0.84	U	0.34	0.84	1.7	1.7
75-25-2	Bromoform	0.84	U	0.34	0.84	1.7	1.7
74-83-9	Bromomethane	1.7	U	0.59	1.7	3.4	3.4
75-15-0	Carbon disulfide	1.68	J	0.76	1.7	3.4	3.4
56-23-5	Carbon tetrachloride	0.84	U	0.25	0.84	1.7	1.7
108-90-7	Chlorobenzene	0.84	U	0.34	0.84	1.7	1.7
75-00-3	Chloroethane	0.84	U	0.42	0.84	1.7	1.7
67-66-3	Chloroform	0.84	U	0.34	0.84	1.7	1.7
74-87-3	Chloromethane	0.84	U	0.34	0.84	1.7	1.7
156-59-2	cis-1,2-Dichloroethene	0.84	U	0.34	0.84	1.7	1.7
10061-01-5	cis-1,3-Dichloropropene	0.84	U	0.25	0.84	1.7	1.7
124-48-1	Dibromochloromethane	0.84	U	0.34	0.84	1.7	1.7
74-95-3	Dibromomethane	0.84	U	0.34	0.84	1.7	1.7
75-71-8	Dichlorodifluoromethane	1.7	U	0.84	1.7	3.4	3.4
100-41-4	Ethylbenzene	0.84	U	0.34	0.84	1.7	1.7
76-13-1	Freon 113	1.7	U	0.84	1.7	3.4	3.4
87-68-3	Hexachlorobutadiene	1.7	U	0.84	1.7	3.4	3.4
98-82-8	Isopropylbenzene	0.84	U	0.25	0.84	1.7	1.7

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-03-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	6.57 (g/mL)	CTL Sample ID:	321160
% Solids:	90.6	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 13:02	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
179601-23-1	m & p-Xylene	1.7	U	0.59	1.7	3.4	3.4
75-09-2	Methylene chloride	1.7	U	1.4	1.7	3.4	3.4
91-20-3	Naphthalene	1.7	U	0.84	1.7	3.4	3.4
104-51-8	n-Butylbenzene	1.7	U	0.76	1.7	3.4	3.4
103-65-1	n-Propylbenzene	1.7	U	0.76	1.7	3.4	3.4
95-47-6	o-Xylene	0.84	U	0.34	0.84	1.7	1.7
99-87-6	p-Isopropyltoluene	1.7	U	0.84	1.7	3.4	3.4
135-98-8	sec-Butylbenzene	1.7	U	0.76	1.7	3.4	3.4
100-42-5	Styrene	0.84	U	0.25	0.84	1.7	1.7
98-06-6	tert-Butylbenzene	1.7	U	0.76	1.7	3.4	3.4
127-18-4	Tetrachloroethene	0.84	U	0.34	0.84	1.7	1.7
108-88-3	Toluene	1.93		0.34	0.84	1.7	1.7
156-60-5	trans-1,2-Dichloroethene	0.84	U	0.34	0.84	1.7	1.7
10061-02-6	trans-1,3-Dichloropropene	0.84	U	0.34	0.84	1.7	1.7
79-01-6	Trichloroethene	0.84	U	0.25	0.84	1.7	1.7
75-69-4	Trichlorofluoromethane	0.84	U	0.42	0.84	1.7	1.7
108-05-4	Vinyl acetate	17	U	10	17	34	34
75-01-4	Vinyl chloride	0.84	U	0.42	0.84	1.7	1.7

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-04-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/mL)	CTL Sample ID:	321161
% Solids:	86.8	Date Received:	08/28/2019
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	163980	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 13:31	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	mg/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 000066-25-1	Hexanal	0.0200	J	N/A	N/A	N/A	N/A
TIC 002199-69-1	Benzene-1,2,3,4-d4-, 5,6-dichloro-	0.0200	J	N/A	N/A	N/A	N/A
TIC 000556-67-2	Cyclotetrasiloxane, octamethyl-	0.0100	J	N/A	N/A	N/A	N/A
TIC 000541-05-9	Cyclotrisiloxane, hexamethyl-	0.0100	J	N/A	N/A	N/A	N/A
TIC 000074-98-6	Propane	0.0100	J	N/A	N/A	N/A	N/A

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-04-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	4.83 (g/mL)	CTL Sample ID:	321161
% Solids:	86.8	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 13:31	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
630-20-6	1,1,1,2-Tetrachloroethane	1.2	U	0.36	1.2	2.4	2.4
71-55-6	1,1,1-Trichloroethane	1.2	U	0.36	1.2	2.4	2.4
79-34-5	1,1,2,2-Tetrachloroethane	1.2	U M	0.60	1.2	2.4	2.4
79-00-5	1,1,2-Trichloroethane	1.2	U	0.48	1.2	2.4	2.4
75-34-3	1,1-Dichloroethane	1.2	U	0.48	1.2	2.4	2.4
75-35-4	1,1-Dichloroethene	1.2	U	0.48	1.2	2.4	2.4
563-58-6	1,1-Dichloropropene	1.2	U	0.48	1.2	2.4	2.4
87-61-6	1,2,3-Trichlorobenzene	2.4	U M,Y	1.1	2.4	4.8	4.8
96-18-4	1,2,3-Trichloropropane	1.2	U Y	0.60	1.2	2.4	2.4
120-82-1	1,2,4-Trichlorobenzene	2.4	U M,Y	1.1	2.4	4.8	4.8
95-63-6	1,2,4-Trimethylbenzene	2.4	U Y	0.95	2.4	4.8	4.8
96-12-8	1,2-Dibromo-3-chloropropane	2.4	U Y	1.6	2.4	4.8	4.8
106-93-4	1,2-Dibromoethane	1.2	U Y	0.48	1.2	2.4	2.4
95-50-1	1,2-Dichlorobenzene	2.4	U M	1.1	2.4	4.8	4.8
107-06-2	1,2-Dichloroethane	1.2	U	0.60	1.2	2.4	2.4
78-87-5	1,2-Dichloropropane	1.2	U	0.48	1.2	2.4	2.4
108-67-8	1,3,5-Trimethylbenzene	2.4	U Y	1.1	2.4	4.8	4.8
541-73-1	1,3-Dichlorobenzene	2.4	U M,Y	1.1	2.4	4.8	4.8
142-28-9	1,3-Dichloropropane	1.2	U	0.48	1.2	2.4	2.4
106-46-7	1,4-Dichlorobenzene	2.4	U M	1.1	2.4	4.8	4.8
594-20-7	2,2-Dichloropropane	1.2	U Y	0.48	1.2	2.4	2.4
78-93-3	2-Butanone	24	U M	12	24	48	48
95-49-8	2-Chlorotoluene	2.4	U Y	1.2	2.4	4.8	4.8
591-78-6	2-Hexanone	24	U Y	13	24	48	48

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-04-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	4.83 (g/mL)	CTL Sample ID:	321161
% Solids:	86.8	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 13:31	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
106-43-4	4-Chlorotoluene	2.4	U Y	1.1	2.4	4.8	4.8
108-10-1	4-Methyl-2-pentanone	24	U M,Y	12	24	48	48
67-64-1	Acetone	173	M	12	24	48	48
71-43-2	Benzene	1.2	U	0.36	1.2	2.4	2.4
108-86-1	Bromobenzene	1.2	U	0.60	1.2	2.4	2.4
74-97-5	Bromochloromethane	1.2	U	0.48	1.2	2.4	2.4
75-27-4	Bromodichloromethane	1.2	U	0.48	1.2	2.4	2.4
75-25-2	Bromoform	1.2	U	0.48	1.2	2.4	2.4
74-83-9	Bromomethane	2.4	U	0.83	2.4	4.8	4.8
75-15-0	Carbon disulfide	5.72		1.1	2.4	4.8	4.8
56-23-5	Carbon tetrachloride	1.2	U	0.36	1.2	2.4	2.4
108-90-7	Chlorobenzene	1.2	U M	0.48	1.2	2.4	2.4
75-00-3	Chloroethane	1.2	U	0.60	1.2	2.4	2.4
67-66-3	Chloroform	1.2	U	0.48	1.2	2.4	2.4
74-87-3	Chloromethane	1.2	U	0.48	1.2	2.4	2.4
156-59-2	cis-1,2-Dichloroethene	1.2	U	0.48	1.2	2.4	2.4
10061-01-5	cis-1,3-Dichloropropene	1.2	U	0.36	1.2	2.4	2.4
124-48-1	Dibromochloromethane	1.2	U	0.48	1.2	2.4	2.4
74-95-3	Dibromomethane	1.2	U	0.48	1.2	2.4	2.4
75-71-8	Dichlorodifluoromethane	2.4	U	1.2	2.4	4.8	4.8
100-41-4	Ethylbenzene	1.2	U Y	0.48	1.2	2.4	2.4
76-13-1	Freon 113	2.4	U	1.2	2.4	4.8	4.8
87-68-3	Hexachlorobutadiene	2.4	U M,Y	1.2	2.4	4.8	4.8
98-82-8	Isopropylbenzene	1.2	U Y	0.36	1.2	2.4	2.4

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-04-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	4.83 (g/mL)	CTL Sample ID:	321161
% Solids:	86.8	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 13:31	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
179601-23-1	m & p-Xylene	2.4	U Y	0.83	2.4	4.8	4.8
75-09-2	Methylene chloride	2.4	U	2.0	2.4	4.8	4.8
91-20-3	Naphthalene	2.4	U M,Y	1.2	2.4	4.8	4.8
104-51-8	n-Butylbenzene	2.4	U Y	1.1	2.4	4.8	4.8
103-65-1	n-Propylbenzene	2.4	U Y	1.1	2.4	4.8	4.8
95-47-6	o-Xylene	1.2	U Y	0.48	1.2	2.4	2.4
99-87-6	p-Isopropyltoluene	2.4	U Y	1.2	2.4	4.8	4.8
135-98-8	sec-Butylbenzene	2.4	U Y	1.1	2.4	4.8	4.8
100-42-5	Styrene	1.2	U Y,M	0.36	1.2	2.4	2.4
98-06-6	tert-Butylbenzene	2.4	U Y	1.1	2.4	4.8	4.8
127-18-4	Tetrachloroethene	1.2	U Y	0.48	1.2	2.4	2.4
108-88-3	Toluene	0.835	J	0.48	1.2	2.4	2.4
156-60-5	trans-1,2-Dichloroethene	1.2	U	0.48	1.2	2.4	2.4
10061-02-6	trans-1,3-Dichloropropene	1.2	U	0.48	1.2	2.4	2.4
79-01-6	Trichloroethene	1.2	U	0.36	1.2	2.4	2.4
75-69-4	Trichlorofluoromethane	1.2	U	0.60	1.2	2.4	2.4
108-05-4	Vinyl acetate	24	U	14	24	48	48
75-01-4	Vinyl chloride	1.2	U	0.60	1.2	2.4	2.4

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-04-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/mL)	CTL Sample ID:	321162
% Solids:	89.1	Date Received:	08/28/2019
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	163980	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 14:00	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	mg/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 003855-82-1	1,4-Dichlorobenzene-d4	0.0200	J	N/A	N/A	N/A	N/A
TIC 000066-25-1	Hexanal	0.0100	J	N/A	N/A	N/A	N/A
TIC 000075-07-0	Acetaldehyde	0.0100	J	N/A	N/A	N/A	N/A
TIC 000556-67-2	Cyclotetrasiloxane, octamethyl-	0.0100	J	N/A	N/A	N/A	N/A
TIC 000541-05-9	Cyclotrisiloxane, hexamethyl-	0.0100	J	N/A	N/A	N/A	N/A

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-04-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	5.66 (g/mL)	CTL Sample ID:	321162
% Solids:	89.1	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 14:00	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
630-20-6	1,1,1,2-Tetrachloroethane	0.99	U	0.30	0.99	2.0	2.0
71-55-6	1,1,1-Trichloroethane	0.99	U	0.30	0.99	2.0	2.0
79-34-5	1,1,2,2-Tetrachloroethane	0.99	U	0.50	0.99	2.0	2.0
79-00-5	1,1,2-Trichloroethane	0.99	U	0.40	0.99	2.0	2.0
75-34-3	1,1-Dichloroethane	0.99	U	0.40	0.99	2.0	2.0
75-35-4	1,1-Dichloroethene	0.99	U	0.40	0.99	2.0	2.0
563-58-6	1,1-Dichloropropene	0.99	U	0.40	0.99	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	2.0	U	0.89	2.0	4.0	4.0
96-18-4	1,2,3-Trichloropropane	0.99	U	0.50	0.99	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	2.0	U	0.89	2.0	4.0	4.0
95-63-6	1,2,4-Trimethylbenzene	1.49	J	0.79	2.0	4.0	4.0
96-12-8	1,2-Dibromo-3-chloropropane	2.0	U	1.3	2.0	4.0	4.0
106-93-4	1,2-Dibromoethane	0.99	U	0.40	0.99	2.0	2.0
95-50-1	1,2-Dichlorobenzene	2.0	U	0.89	2.0	4.0	4.0
107-06-2	1,2-Dichloroethane	0.99	U	0.50	0.99	2.0	2.0
78-87-5	1,2-Dichloropropane	0.99	U	0.40	0.99	2.0	2.0
108-67-8	1,3,5-Trimethylbenzene	2.0	U	0.89	2.0	4.0	4.0
541-73-1	1,3-Dichlorobenzene	2.0	U	0.89	2.0	4.0	4.0
142-28-9	1,3-Dichloropropane	0.99	U	0.40	0.99	2.0	2.0
106-46-7	1,4-Dichlorobenzene	2.0	U	0.89	2.0	4.0	4.0
594-20-7	2,2-Dichloropropane	0.99	U	0.40	0.99	2.0	2.0
78-93-3	2-Butanone	14.1	J	9.9	20	40	40
95-49-8	2-Chlorotoluene	2.0	U	0.99	2.0	4.0	4.0
591-78-6	2-Hexanone	20	U	11	20	40	40

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-04-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	5.66 (g/mL)	CTL Sample ID:	321162
% Solids:	89.1	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 14:00	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
106-43-4	4-Chlorotoluene	2.0	U	0.89	2.0	4.0	4.0
108-10-1	4-Methyl-2-pentanone	20	U	9.9	20	40	40
67-64-1	Acetone	188		9.9	20	40	40
71-43-2	Benzene	0.99	U	0.30	0.99	2.0	2.0
108-86-1	Bromobenzene	0.99	U	0.50	0.99	2.0	2.0
74-97-5	Bromochloromethane	0.99	U	0.40	0.99	2.0	2.0
75-27-4	Bromodichloromethane	0.99	U	0.40	0.99	2.0	2.0
75-25-2	Bromoform	0.99	U	0.40	0.99	2.0	2.0
74-83-9	Bromomethane	2.0	U	0.69	2.0	4.0	4.0
75-15-0	Carbon disulfide	1.19	J	0.89	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	0.99	U	0.30	0.99	2.0	2.0
108-90-7	Chlorobenzene	0.99	U	0.40	0.99	2.0	2.0
75-00-3	Chloroethane	0.99	U	0.50	0.99	2.0	2.0
67-66-3	Chloroform	0.99	U	0.40	0.99	2.0	2.0
74-87-3	Chloromethane	0.99	U	0.40	0.99	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	0.99	U	0.40	0.99	2.0	2.0
10061-01-5	cis-1,3-Dichloropropene	0.99	U	0.30	0.99	2.0	2.0
124-48-1	Dibromochloromethane	0.99	U	0.40	0.99	2.0	2.0
74-95-3	Dibromomethane	0.99	U	0.40	0.99	2.0	2.0
75-71-8	Dichlorodifluoromethane	2.0	U	0.99	2.0	4.0	4.0
100-41-4	Ethylbenzene	0.99	U	0.40	0.99	2.0	2.0
76-13-1	Freon 113	2.0	U	0.99	2.0	4.0	4.0
87-68-3	Hexachlorobutadiene	2.0	U	0.99	2.0	4.0	4.0
98-82-8	Isopropylbenzene	0.99	U	0.30	0.99	2.0	2.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-04-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	5.66 (g/mL)	CTL Sample ID:	321162
% Solids:	89.1	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 14:00	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
179601-23-1	m & p-Xylene	2.0	U	0.69	2.0	4.0	4.0
75-09-2	Methylene chloride	2.0	U	1.7	2.0	4.0	4.0
91-20-3	Naphthalene	2.0	U	0.99	2.0	4.0	4.0
104-51-8	n-Butylbenzene	2.0	U	0.89	2.0	4.0	4.0
103-65-1	n-Propylbenzene	2.0	U	0.89	2.0	4.0	4.0
95-47-6	o-Xylene	0.99	U	0.40	0.99	2.0	2.0
99-87-6	p-Isopropyltoluene	2.0	U	0.99	2.0	4.0	4.0
135-98-8	sec-Butylbenzene	2.0	U	0.89	2.0	4.0	4.0
100-42-5	Styrene	0.99	U	0.30	0.99	2.0	2.0
98-06-6	tert-Butylbenzene	2.0	U	0.89	2.0	4.0	4.0
127-18-4	Tetrachloroethene	0.99	U	0.40	0.99	2.0	2.0
108-88-3	Toluene	0.496	J	0.40	0.99	2.0	2.0
156-60-5	trans-1,2-Dichloroethene	0.99	U	0.40	0.99	2.0	2.0
10061-02-6	trans-1,3-Dichloropropene	0.99	U	0.40	0.99	2.0	2.0
79-01-6	Trichloroethene	0.99	U	0.30	0.99	2.0	2.0
75-69-4	Trichlorofluoromethane	0.99	U	0.50	0.99	2.0	2.0
108-05-4	Vinyl acetate	20	U	12	20	40	40
75-01-4	Vinyl chloride	0.99	U	0.50	0.99	2.0	2.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-05-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/mL)	CTL Sample ID:	321163
% Solids:	96.2	Date Received:	08/28/2019
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	163980	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 16:32	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	mg/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 000066-25-1	Hexanal	0.0300	J	N/A	N/A	N/A	N/A
TIC 000107-83-5	Pentane, 2-methyl-	0.0100	J	N/A	N/A	N/A	N/A
TIC 000075-07-0	Acetaldehyde	0.0100	J	N/A	N/A	N/A	N/A
TIC 000075-28-5	Isobutane	0.0200	J	N/A	N/A	N/A	N/A
TIC 000106-97-8	Butane	0.0200	J	N/A	N/A	N/A	N/A
TIC 002199-69-1	Benzene-1,2,3,4-d4-, 5,6-dichloro-	0.0200	J	N/A	N/A	N/A	N/A
TIC 000078-78-4	Butane, 2-methyl-	0.0200	J	N/A	N/A	N/A	N/A
TIC 000109-66-0	Pentane	0.0100	J	N/A	N/A	N/A	N/A
TIC 000556-67-2	Cyclotetrasiloxane, octamethyl-	0.0100	J	N/A	N/A	N/A	N/A
TIC 000541-05-9	Cyclotrisiloxane, hexamethyl-	0.0100	J	N/A	N/A	N/A	N/A
TIC 000094-41-7	2-Propen-1-one, 1,3-diphenyl-	0.0100	J	N/A	N/A	N/A	N/A

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-05-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	5.24 (g/mL)	CTL Sample ID:	321163
% Solids:	96.2	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 16:32	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
630-20-6	1,1,1,2-Tetrachloroethane	0.99	U	0.30	0.99	2.0	2.0
71-55-6	1,1,1-Trichloroethane	0.99	U	0.30	0.99	2.0	2.0
79-34-5	1,1,2,2-Tetrachloroethane	0.99	U S	0.50	0.99	2.0	2.0
79-00-5	1,1,2-Trichloroethane	0.99	U	0.40	0.99	2.0	2.0
75-34-3	1,1-Dichloroethane	0.99	U	0.40	0.99	2.0	2.0
75-35-4	1,1-Dichloroethene	0.99	U	0.40	0.99	2.0	2.0
563-58-6	1,1-Dichloropropene	0.99	U	0.40	0.99	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	2.0	U S	0.89	2.0	4.0	4.0
96-18-4	1,2,3-Trichloropropane	0.99	U S	0.50	0.99	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	2.0	U S	0.89	2.0	4.0	4.0
95-63-6	1,2,4-Trimethylbenzene	3.37	J S	0.79	2.0	4.0	4.0
96-12-8	1,2-Dibromo-3-chloropropane	2.0	U S	1.3	2.0	4.0	4.0
106-93-4	1,2-Dibromoethane	0.99	U	0.40	0.99	2.0	2.0
95-50-1	1,2-Dichlorobenzene	2.0	U S	0.89	2.0	4.0	4.0
107-06-2	1,2-Dichloroethane	0.99	U	0.50	0.99	2.0	2.0
78-87-5	1,2-Dichloropropane	0.99	U	0.40	0.99	2.0	2.0
108-67-8	1,3,5-Trimethylbenzene	1.88	J S	0.89	2.0	4.0	4.0
541-73-1	1,3-Dichlorobenzene	2.0	U S	0.89	2.0	4.0	4.0
142-28-9	1,3-Dichloropropane	0.99	U	0.40	0.99	2.0	2.0
106-46-7	1,4-Dichlorobenzene	2.0	U S	0.89	2.0	4.0	4.0
594-20-7	2,2-Dichloropropane	0.99	U	0.40	0.99	2.0	2.0
78-93-3	2-Butanone	20	U	9.9	20	40	40
95-49-8	2-Chlorotoluene	2.0	U S	0.99	2.0	4.0	4.0
591-78-6	2-Hexanone	20	U	11	20	40	40

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-05-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	5.24 (g/mL)	CTL Sample ID:	321163
% Solids:	96.2	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 16:32	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
106-43-4	4-Chlorotoluene	2.0	U S	0.89	2.0	4.0	4.0
108-10-1	4-Methyl-2-pentanone	20	U	9.9	20	40	40
67-64-1	Acetone	135		9.9	20	40	40
71-43-2	Benzene	1.79	J	0.30	0.99	2.0	2.0
108-86-1	Bromobenzene	0.99	U S	0.50	0.99	2.0	2.0
74-97-5	Bromochloromethane	0.99	U	0.40	0.99	2.0	2.0
75-27-4	Bromodichloromethane	0.99	U	0.40	0.99	2.0	2.0
75-25-2	Bromoform	0.99	U	0.40	0.99	2.0	2.0
74-83-9	Bromomethane	2.0	U	0.69	2.0	4.0	4.0
75-15-0	Carbon disulfide	4.17		0.89	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	0.99	U	0.30	0.99	2.0	2.0
108-90-7	Chlorobenzene	0.99	U	0.40	0.99	2.0	2.0
75-00-3	Chloroethane	0.99	U	0.50	0.99	2.0	2.0
67-66-3	Chloroform	0.99	U	0.40	0.99	2.0	2.0
74-87-3	Chloromethane	0.99	U	0.40	0.99	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	0.99	U	0.40	0.99	2.0	2.0
10061-01-5	cis-1,3-Dichloropropene	0.99	U	0.30	0.99	2.0	2.0
124-48-1	Dibromochloromethane	0.99	U	0.40	0.99	2.0	2.0
74-95-3	Dibromomethane	0.99	U	0.40	0.99	2.0	2.0
75-71-8	Dichlorodifluoromethane	2.0	U	0.99	2.0	4.0	4.0
100-41-4	Ethylbenzene	0.893	J	0.40	0.99	2.0	2.0
76-13-1	Freon 113	2.0	U	0.99	2.0	4.0	4.0
87-68-3	Hexachlorobutadiene	2.0	U S	0.99	2.0	4.0	4.0
98-82-8	Isopropylbenzene	0.99	U	0.30	0.99	2.0	2.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-05-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	5.24 (g/mL)	CTL Sample ID:	321163
% Solids:	96.2	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 16:32	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
179601-23-1	m & p-Xylene	3.67	J	0.69	2.0	4.0	4.0
75-09-2	Methylene chloride	2.0	U	1.7	2.0	4.0	4.0
91-20-3	Naphthalene	2.0	U S	0.99	2.0	4.0	4.0
104-51-8	n-Butylbenzene	2.0	U S	0.89	2.0	4.0	4.0
103-65-1	n-Propylbenzene	2.0	U S	0.89	2.0	4.0	4.0
95-47-6	o-Xylene	1.19	J	0.40	0.99	2.0	2.0
99-87-6	p-Isopropyltoluene	2.0	U S	0.99	2.0	4.0	4.0
135-98-8	sec-Butylbenzene	2.0	U S	0.89	2.0	4.0	4.0
100-42-5	Styrene	0.99	U	0.30	0.99	2.0	2.0
98-06-6	tert-Butylbenzene	2.0	U S	0.89	2.0	4.0	4.0
127-18-4	Tetrachloroethene	0.99	U	0.40	0.99	2.0	2.0
108-88-3	Toluene	4.07		0.40	0.99	2.0	2.0
156-60-5	trans-1,2-Dichloroethene	0.99	U	0.40	0.99	2.0	2.0
10061-02-6	trans-1,3-Dichloropropene	0.99	U	0.40	0.99	2.0	2.0
79-01-6	Trichloroethene	0.99	U	0.30	0.99	2.0	2.0
75-69-4	Trichlorofluoromethane	0.99	U	0.50	0.99	2.0	2.0
108-05-4	Vinyl acetate	20	U	12	20	40	40
75-01-4	Vinyl chloride	0.99	U	0.50	0.99	2.0	2.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-05-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/mL)	CTL Sample ID:	321164
% Solids:	86.8	Date Received:	08/28/2019
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	163980	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 17:01	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	mg/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 002199-69-1	Benzene-1,2,3,4-d4-, 5,6-dichloro-	0.0200	J	N/A	N/A	N/A	N/A
TIC 000066-25-1	Hexanal	0.0100	J	N/A	N/A	N/A	N/A
TIC 000556-67-2	Cyclotetrasiloxane, octamethyl-	0.0100	J	N/A	N/A	N/A	N/A
TIC 055429-29-3	Arsenous acid, tris(trimethylsil...	0.0100	J	N/A	N/A	N/A	N/A
TIC 000075-07-0	Acetaldehyde	0.0100	J	N/A	N/A	N/A	N/A
TIC 015780-65-1	Acetoacetic acid, 1-thio-, S-all...	0.0100	J	N/A	N/A	N/A	N/A

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-05-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	5.13 (g/mL)	CTL Sample ID:	321164
% Solids:	86.8	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 17:01	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
630-20-6	1,1,1,2-Tetrachloroethane	1.1	U	0.34	1.1	2.2	2.2
71-55-6	1,1,1-Trichloroethane	1.1	U	0.34	1.1	2.2	2.2
79-34-5	1,1,2,2-Tetrachloroethane	1.1	U	0.56	1.1	2.2	2.2
79-00-5	1,1,2-Trichloroethane	1.1	U	0.45	1.1	2.2	2.2
75-34-3	1,1-Dichloroethane	1.1	U	0.45	1.1	2.2	2.2
75-35-4	1,1-Dichloroethene	1.1	U	0.45	1.1	2.2	2.2
563-58-6	1,1-Dichloropropene	1.1	U	0.45	1.1	2.2	2.2
87-61-6	1,2,3-Trichlorobenzene	2.2	U	1.0	2.2	4.5	4.5
96-18-4	1,2,3-Trichloropropane	1.1	U	0.56	1.1	2.2	2.2
120-82-1	1,2,4-Trichlorobenzene	2.2	U	1.0	2.2	4.5	4.5
95-63-6	1,2,4-Trimethylbenzene	1.91	J	0.90	2.2	4.5	4.5
96-12-8	1,2-Dibromo-3-chloropropane	2.2	U	1.5	2.2	4.5	4.5
106-93-4	1,2-Dibromoethane	1.1	U	0.45	1.1	2.2	2.2
95-50-1	1,2-Dichlorobenzene	2.2	U	1.0	2.2	4.5	4.5
107-06-2	1,2-Dichloroethane	1.1	U	0.56	1.1	2.2	2.2
78-87-5	1,2-Dichloropropane	1.1	U	0.45	1.1	2.2	2.2
108-67-8	1,3,5-Trimethylbenzene	2.2	U	1.0	2.2	4.5	4.5
541-73-1	1,3-Dichlorobenzene	2.2	U	1.0	2.2	4.5	4.5
142-28-9	1,3-Dichloropropane	1.1	U	0.45	1.1	2.2	2.2
106-46-7	1,4-Dichlorobenzene	2.2	U	1.0	2.2	4.5	4.5
594-20-7	2,2-Dichloropropane	1.1	U	0.45	1.1	2.2	2.2
78-93-3	2-Butanone	22	U	11	22	45	45
95-49-8	2-Chlorotoluene	2.2	U	1.1	2.2	4.5	4.5
591-78-6	2-Hexanone	22	U	12	22	45	45

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-05-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	5.13 (g/mL)	CTL Sample ID:	321164
% Solids:	86.8	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 17:01	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
106-43-4	4-Chlorotoluene	2.2	U	1.0	2.2	4.5	4.5
108-10-1	4-Methyl-2-pentanone	22	U	11	22	45	45
67-64-1	Acetone	156		11	22	45	45
71-43-2	Benzene	0.674	J	0.34	1.1	2.2	2.2
108-86-1	Bromobenzene	1.1	U	0.56	1.1	2.2	2.2
74-97-5	Bromochloromethane	1.1	U	0.45	1.1	2.2	2.2
75-27-4	Bromodichloromethane	1.1	U	0.45	1.1	2.2	2.2
75-25-2	Bromoform	1.1	U	0.45	1.1	2.2	2.2
74-83-9	Bromomethane	2.2	U	0.79	2.2	4.5	4.5
75-15-0	Carbon disulfide	1.91	J	1.0	2.2	4.5	4.5
56-23-5	Carbon tetrachloride	1.1	U	0.34	1.1	2.2	2.2
108-90-7	Chlorobenzene	1.1	U	0.45	1.1	2.2	2.2
75-00-3	Chloroethane	1.1	U	0.56	1.1	2.2	2.2
67-66-3	Chloroform	1.1	U	0.45	1.1	2.2	2.2
74-87-3	Chloromethane	1.1	U	0.45	1.1	2.2	2.2
156-59-2	cis-1,2-Dichloroethene	1.1	U	0.45	1.1	2.2	2.2
10061-01-5	cis-1,3-Dichloropropene	1.1	U	0.34	1.1	2.2	2.2
124-48-1	Dibromochloromethane	1.1	U	0.45	1.1	2.2	2.2
74-95-3	Dibromomethane	1.1	U	0.45	1.1	2.2	2.2
75-71-8	Dichlorodifluoromethane	2.2	U	1.1	2.2	4.5	4.5
100-41-4	Ethylbenzene	1.1	U	0.45	1.1	2.2	2.2
76-13-1	Freon 113	2.2	U	1.1	2.2	4.5	4.5
87-68-3	Hexachlorobutadiene	2.2	U	1.1	2.2	4.5	4.5
98-82-8	Isopropylbenzene	1.1	U	0.34	1.1	2.2	2.2

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-05-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	5.13 (g/mL)	CTL Sample ID:	321164
% Solids:	86.8	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 17:01	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
179601-23-1	m & p-Xylene	0.898	J	0.79	2.2	4.5	4.5
75-09-2	Methylene chloride	2.2	U	1.9	2.2	4.5	4.5
91-20-3	Naphthalene	2.2	U	1.1	2.2	4.5	4.5
104-51-8	n-Butylbenzene	2.2	U	1.0	2.2	4.5	4.5
103-65-1	n-Propylbenzene	2.2	U	1.0	2.2	4.5	4.5
95-47-6	o-Xylene	1.1	U	0.45	1.1	2.2	2.2
99-87-6	p-Isopropyltoluene	2.2	U	1.1	2.2	4.5	4.5
135-98-8	sec-Butylbenzene	2.2	U	1.0	2.2	4.5	4.5
100-42-5	Styrene	1.1	U	0.34	1.1	2.2	2.2
98-06-6	tert-Butylbenzene	2.2	U	1.0	2.2	4.5	4.5
127-18-4	Tetrachloroethene	1.1	U	0.45	1.1	2.2	2.2
108-88-3	Toluene	1.46	J	0.45	1.1	2.2	2.2
156-60-5	trans-1,2-Dichloroethene	1.1	U	0.45	1.1	2.2	2.2
10061-02-6	trans-1,3-Dichloropropene	1.1	U	0.45	1.1	2.2	2.2
79-01-6	Trichloroethene	1.1	U	0.34	1.1	2.2	2.2
75-69-4	Trichlorofluoromethane	1.1	U	0.56	1.1	2.2	2.2
108-05-4	Vinyl acetate	22	U	13	22	45	45
75-01-4	Vinyl chloride	1.1	U	0.56	1.1	2.2	2.2

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-06-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/mL)	CTL Sample ID:	321166
% Solids:	96.7	Date Received:	08/28/2019
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	163980	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 17:59	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	mg/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 003855-82-1	1,4-Dichlorobenzene-d4	0.0200	J	N/A	N/A	N/A	N/A
TIC 000106-97-8	Butane	0.0200	J	N/A	N/A	N/A	N/A
TIC 000078-78-4	Butane, 2-methyl-	0.0100	J	N/A	N/A	N/A	N/A
TIC 027869-56-3	Benzene, 1-phenyl-4-(2-cyano-2-p...	0.0100	J	N/A	N/A	N/A	N/A
TIC 033342-87-9	Propiophenone, 2'-(trimethylsilo...	0.0100	J	N/A	N/A	N/A	N/A
TIC 000109-66-0	Pentane	0.0100	J	N/A	N/A	N/A	N/A
TIC 000541-05-9	Cyclotrisiloxane, hexamethyl-	0.0100	J	N/A	N/A	N/A	N/A
TIC 000107-83-5	Pentane, 2-methyl-	0.0100	J	N/A	N/A	N/A	N/A

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-06-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	4.59 (g/mL)	CTL Sample ID:	321166
% Solids:	96.7	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 17:59	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
630-20-6	1,1,1,2-Tetrachloroethane	1.1	U	0.34	1.1	2.3	2.3
71-55-6	1,1,1-Trichloroethane	1.1	U	0.34	1.1	2.3	2.3
79-34-5	1,1,2,2-Tetrachloroethane	1.1	U S	0.56	1.1	2.3	2.3
79-00-5	1,1,2-Trichloroethane	1.1	U	0.45	1.1	2.3	2.3
75-34-3	1,1-Dichloroethane	1.1	U	0.45	1.1	2.3	2.3
75-35-4	1,1-Dichloroethene	1.1	U	0.45	1.1	2.3	2.3
563-58-6	1,1-Dichloropropene	1.1	U	0.45	1.1	2.3	2.3
87-61-6	1,2,3-Trichlorobenzene	2.3	U S	1.0	2.3	4.5	4.5
96-18-4	1,2,3-Trichloropropane	1.1	U S	0.56	1.1	2.3	2.3
120-82-1	1,2,4-Trichlorobenzene	2.3	U S	1.0	2.3	4.5	4.5
95-63-6	1,2,4-Trimethylbenzene	10.3	S	0.90	2.3	4.5	4.5
96-12-8	1,2-Dibromo-3-chloropropane	2.3	U S	1.5	2.3	4.5	4.5
106-93-4	1,2-Dibromoethane	1.1	U	0.45	1.1	2.3	2.3
95-50-1	1,2-Dichlorobenzene	2.3	U S	1.0	2.3	4.5	4.5
107-06-2	1,2-Dichloroethane	1.1	U	0.56	1.1	2.3	2.3
78-87-5	1,2-Dichloropropane	1.1	U	0.45	1.1	2.3	2.3
108-67-8	1,3,5-Trimethylbenzene	4.73	S	1.0	2.3	4.5	4.5
541-73-1	1,3-Dichlorobenzene	2.3	U S	1.0	2.3	4.5	4.5
142-28-9	1,3-Dichloropropane	1.1	U	0.45	1.1	2.3	2.3
106-46-7	1,4-Dichlorobenzene	2.3	U S	1.0	2.3	4.5	4.5
594-20-7	2,2-Dichloropropane	1.1	U	0.45	1.1	2.3	2.3
78-93-3	2-Butanone	23	U	11	23	45	45
95-49-8	2-Chlorotoluene	2.3	U S	1.1	2.3	4.5	4.5
591-78-6	2-Hexanone	23	U	12	23	45	45

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-06-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	4.59 (g/mL)	CTL Sample ID:	321166
% Solids:	96.7	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 17:59	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
106-43-4	4-Chlorotoluene	2.3	U S	1.0	2.3	4.5	4.5
108-10-1	4-Methyl-2-pentanone	23	U	11	23	45	45
67-64-1	Acetone	104		11	23	45	45
71-43-2	Benzene	2.93		0.34	1.1	2.3	2.3
108-86-1	Bromobenzene	1.1	U S	0.56	1.1	2.3	2.3
74-97-5	Bromochloromethane	1.1	U	0.45	1.1	2.3	2.3
75-27-4	Bromodichloromethane	1.1	U	0.45	1.1	2.3	2.3
75-25-2	Bromoform	1.1	U	0.45	1.1	2.3	2.3
74-83-9	Bromomethane	2.3	U	0.79	2.3	4.5	4.5
75-15-0	Carbon disulfide	1.69	J	1.0	2.3	4.5	4.5
56-23-5	Carbon tetrachloride	1.1	U	0.34	1.1	2.3	2.3
108-90-7	Chlorobenzene	1.1	U	0.45	1.1	2.3	2.3
75-00-3	Chloroethane	1.1	U	0.56	1.1	2.3	2.3
67-66-3	Chloroform	1.1	U	0.45	1.1	2.3	2.3
74-87-3	Chloromethane	1.1	U	0.45	1.1	2.3	2.3
156-59-2	cis-1,2-Dichloroethene	1.1	U	0.45	1.1	2.3	2.3
10061-01-5	cis-1,3-Dichloropropene	1.1	U	0.34	1.1	2.3	2.3
124-48-1	Dibromochloromethane	1.1	U	0.45	1.1	2.3	2.3
74-95-3	Dibromomethane	1.1	U	0.45	1.1	2.3	2.3
75-71-8	Dichlorodifluoromethane	2.3	U	1.1	2.3	4.5	4.5
100-41-4	Ethylbenzene	2.25	J	0.45	1.1	2.3	2.3
76-13-1	Freon 113	2.3	U	1.1	2.3	4.5	4.5
87-68-3	Hexachlorobutadiene	2.3	U S	1.1	2.3	4.5	4.5
98-82-8	Isopropylbenzene	1.1	U	0.34	1.1	2.3	2.3

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-06-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	4.59 (g/mL)	CTL Sample ID:	321166
% Solids:	96.7	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 17:59	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
179601-23-1	m & p-Xylene	10.6		0.79	2.3	4.5	4.5
75-09-2	Methylene chloride	2.3	U	1.9	2.3	4.5	4.5
91-20-3	Naphthalene	2.3	U S	1.1	2.3	4.5	4.5
104-51-8	n-Butylbenzene	2.3	U S	1.0	2.3	4.5	4.5
103-65-1	n-Propylbenzene	2.3	U S	1.0	2.3	4.5	4.5
95-47-6	o-Xylene	3.60		0.45	1.1	2.3	2.3
99-87-6	p-Isopropyltoluene	2.3	U S	1.1	2.3	4.5	4.5
135-98-8	sec-Butylbenzene	2.3	U S	1.0	2.3	4.5	4.5
100-42-5	Styrene	1.1	U	0.34	1.1	2.3	2.3
98-06-6	tert-Butylbenzene	2.3	U S	1.0	2.3	4.5	4.5
127-18-4	Tetrachloroethene	1.1	U	0.45	1.1	2.3	2.3
108-88-3	Toluene	9.46		0.45	1.1	2.3	2.3
156-60-5	trans-1,2-Dichloroethene	1.1	U	0.45	1.1	2.3	2.3
10061-02-6	trans-1,3-Dichloropropene	1.1	U	0.45	1.1	2.3	2.3
79-01-6	Trichloroethene	1.1	U	0.34	1.1	2.3	2.3
75-69-4	Trichlorofluoromethane	1.1	U	0.56	1.1	2.3	2.3
108-05-4	Vinyl acetate	23	U	14	23	45	45
75-01-4	Vinyl chloride	1.1	U	0.56	1.1	2.3	2.3

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-06-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/mL)	CTL Sample ID:	321167
% Solids:	90.5	Date Received:	08/28/2019
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	163980	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 18:28	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	mg/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 003855-82-1	1,4-Dichlorobenzene-d4	0.0200	J	N/A	N/A	N/A	N/A
TIC 000066-25-1	Hexanal	0.0100	J	N/A	N/A	N/A	N/A
TIC 000075-07-0	Acetaldehyde	0.0100	J	N/A	N/A	N/A	N/A
TIC 017151-09-6	1,2-Bis(trimethylsilyl)benzene	0.0100	J	N/A	N/A	N/A	N/A
TIC 000110-62-3	Pentanal	0.0100	J	N/A	N/A	N/A	N/A
TIC 000556-67-2	Cyclotetrasiloxane, octamethyl-	0.0100	J	N/A	N/A	N/A	N/A
TIC 000106-97-8	Butane	0.0100	J	N/A	N/A	N/A	N/A
TIC 055429-29-3	Arsenous acid, tris(trimethylsil...	0.0100	J	N/A	N/A	N/A	N/A
TIC 000123-72-8	Butanal	0.0100	J	N/A	N/A	N/A	N/A

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-06-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	5.41 (g/mL)	CTL Sample ID:	321167
% Solids:	90.5	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 18:28	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	0.31	1.0	2.0	2.0
71-55-6	1,1,1-Trichloroethane	1.0	U	0.31	1.0	2.0	2.0
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.51	1.0	2.0	2.0
79-00-5	1,1,2-Trichloroethane	1.0	U	0.41	1.0	2.0	2.0
75-34-3	1,1-Dichloroethane	1.0	U	0.41	1.0	2.0	2.0
75-35-4	1,1-Dichloroethene	1.0	U	0.41	1.0	2.0	2.0
563-58-6	1,1-Dichloropropene	1.0	U	0.41	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	2.0	U	0.92	2.0	4.1	4.1
96-18-4	1,2,3-Trichloropropane	1.0	U	0.51	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	2.0	U	0.92	2.0	4.1	4.1
95-63-6	1,2,4-Trimethylbenzene	1.74	J	0.82	2.0	4.1	4.1
96-12-8	1,2-Dibromo-3-chloropropane	2.0	U	1.3	2.0	4.1	4.1
106-93-4	1,2-Dibromoethane	1.0	U	0.41	1.0	2.0	2.0
95-50-1	1,2-Dichlorobenzene	2.0	U	0.92	2.0	4.1	4.1
107-06-2	1,2-Dichloroethane	1.0	U	0.51	1.0	2.0	2.0
78-87-5	1,2-Dichloropropane	1.0	U	0.41	1.0	2.0	2.0
108-67-8	1,3,5-Trimethylbenzene	2.0	U	0.92	2.0	4.1	4.1
541-73-1	1,3-Dichlorobenzene	2.0	U	0.92	2.0	4.1	4.1
142-28-9	1,3-Dichloropropane	1.0	U	0.41	1.0	2.0	2.0
106-46-7	1,4-Dichlorobenzene	2.0	U	0.92	2.0	4.1	4.1
594-20-7	2,2-Dichloropropane	1.0	U	0.41	1.0	2.0	2.0
78-93-3	2-Butanone	19.5	J	10	20	41	41
95-49-8	2-Chlorotoluene	2.0	U	1.0	2.0	4.1	4.1
591-78-6	2-Hexanone	20	U	11	20	41	41

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-06-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	5.41 (g/mL)	CTL Sample ID:	321167
% Solids:	90.5	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 18:28	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
106-43-4	4-Chlorotoluene	2.0	U	0.92	2.0	4.1	4.1
108-10-1	4-Methyl-2-pentanone	20	U	10	20	41	41
67-64-1	Acetone	186		10	20	41	41
71-43-2	Benzene	0.511	J	0.31	1.0	2.0	2.0
108-86-1	Bromobenzene	1.0	U	0.51	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.41	1.0	2.0	2.0
75-27-4	Bromodichloromethane	1.0	U	0.41	1.0	2.0	2.0
75-25-2	Bromoform	1.0	U	0.41	1.0	2.0	2.0
74-83-9	Bromomethane	2.0	U	0.71	2.0	4.1	4.1
75-15-0	Carbon disulfide	1.33	J	0.92	2.0	4.1	4.1
56-23-5	Carbon tetrachloride	1.0	U	0.31	1.0	2.0	2.0
108-90-7	Chlorobenzene	1.0	U	0.41	1.0	2.0	2.0
75-00-3	Chloroethane	1.0	U	0.51	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.41	1.0	2.0	2.0
74-87-3	Chloromethane	1.0	U	0.41	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	2.0	2.0
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.31	1.0	2.0	2.0
124-48-1	Dibromochloromethane	1.0	U	0.41	1.0	2.0	2.0
74-95-3	Dibromomethane	1.0	U	0.41	1.0	2.0	2.0
75-71-8	Dichlorodifluoromethane	2.0	U	1.0	2.0	4.1	4.1
100-41-4	Ethylbenzene	1.0	U	0.41	1.0	2.0	2.0
76-13-1	Freon 113	2.0	U	1.0	2.0	4.1	4.1
87-68-3	Hexachlorobutadiene	2.0	U	1.0	2.0	4.1	4.1
98-82-8	Isopropylbenzene	1.0	U	0.31	1.0	2.0	2.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-06-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	5.41 (g/mL)	CTL Sample ID:	321167
% Solids:	90.5	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 18:28	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
179601-23-1	m & p-Xylene	2.0	U	0.71	2.0	4.1	4.1
75-09-2	Methylene chloride	2.0	U	1.7	2.0	4.1	4.1
91-20-3	Naphthalene	2.0	U	1.0	2.0	4.1	4.1
104-51-8	n-Butylbenzene	2.0	U	0.92	2.0	4.1	4.1
103-65-1	n-Propylbenzene	2.0	U	0.92	2.0	4.1	4.1
95-47-6	o-Xylene	1.0	U	0.41	1.0	2.0	2.0
99-87-6	p-Isopropyltoluene	2.0	U	1.0	2.0	4.1	4.1
135-98-8	sec-Butylbenzene	2.0	U	0.92	2.0	4.1	4.1
100-42-5	Styrene	1.0	U	0.31	1.0	2.0	2.0
98-06-6	tert-Butylbenzene	2.0	U	0.92	2.0	4.1	4.1
127-18-4	Tetrachloroethene	1.0	U	0.41	1.0	2.0	2.0
108-88-3	Toluene	0.613	J	0.41	1.0	2.0	2.0
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.41	1.0	2.0	2.0
10061-02-6	trans-1,3-Dichloropropene	1.0	U	0.41	1.0	2.0	2.0
79-01-6	Trichloroethene	1.0	U	0.31	1.0	2.0	2.0
75-69-4	Trichlorofluoromethane	1.0	U	0.51	1.0	2.0	2.0
108-05-4	Vinyl acetate	20	U	12	20	41	41
75-01-4	Vinyl chloride	1.0	U	0.51	1.0	2.0	2.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-07-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/mL)	CTL Sample ID:	321168
% Solids:	92.0	Date Received:	08/28/2019
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	163980	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 18:57	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	mg/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 003855-82-1	1,4-Dichlorobenzene-d4	0.0200	J	N/A	N/A	N/A	N/A
TIC 000075-28-5	Isobutane	0.0200	J	N/A	N/A	N/A	N/A
TIC 000106-97-8	Butane	0.0200	J	N/A	N/A	N/A	N/A
TIC 000078-78-4	Butane, 2-methyl-	0.0200	J	N/A	N/A	N/A	N/A
TIC 000109-66-0	Pentane	0.0100	J	N/A	N/A	N/A	N/A
TIC 000107-83-5	Pentane, 2-methyl-	0.0100	J	N/A	N/A	N/A	N/A
TIC 055429-29-3	Arsenous acid, tris(trimethylsil...	0.0100	J	N/A	N/A	N/A	N/A
TIC 000556-67-2	Cyclotetrasiloxane, octamethyl-	0.0100	J	N/A	N/A	N/A	N/A

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-07-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	4.63 (g/mL)	CTL Sample ID:	321168
% Solids:	92.0	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 18:57	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
630-20-6	1,1,1,2-Tetrachloroethane	1.2	U	0.35	1.2	2.3	2.3
71-55-6	1,1,1-Trichloroethane	1.2	U	0.35	1.2	2.3	2.3
79-34-5	1,1,2,2-Tetrachloroethane	1.2	U	0.59	1.2	2.3	2.3
79-00-5	1,1,2-Trichloroethane	1.2	U	0.47	1.2	2.3	2.3
75-34-3	1,1-Dichloroethane	1.2	U	0.47	1.2	2.3	2.3
75-35-4	1,1-Dichloroethene	1.2	U	0.47	1.2	2.3	2.3
563-58-6	1,1-Dichloropropene	1.2	U	0.47	1.2	2.3	2.3
87-61-6	1,2,3-Trichlorobenzene	2.3	U	1.1	2.3	4.7	4.7
96-18-4	1,2,3-Trichloropropane	1.2	U	0.59	1.2	2.3	2.3
120-82-1	1,2,4-Trichlorobenzene	2.3	U	1.1	2.3	4.7	4.7
95-63-6	1,2,4-Trimethylbenzene	2.93	J	0.94	2.3	4.7	4.7
96-12-8	1,2-Dibromo-3-chloropropane	2.3	U	1.5	2.3	4.7	4.7
106-93-4	1,2-Dibromoethane	1.2	U	0.47	1.2	2.3	2.3
95-50-1	1,2-Dichlorobenzene	2.3	U	1.1	2.3	4.7	4.7
107-06-2	1,2-Dichloroethane	1.2	U	0.59	1.2	2.3	2.3
78-87-5	1,2-Dichloropropane	1.2	U	0.47	1.2	2.3	2.3
108-67-8	1,3,5-Trimethylbenzene	1.41	J	1.1	2.3	4.7	4.7
541-73-1	1,3-Dichlorobenzene	2.3	U	1.1	2.3	4.7	4.7
142-28-9	1,3-Dichloropropane	1.2	U	0.47	1.2	2.3	2.3
106-46-7	1,4-Dichlorobenzene	2.3	U	1.1	2.3	4.7	4.7
594-20-7	2,2-Dichloropropane	1.2	U	0.47	1.2	2.3	2.3
78-93-3	2-Butanone	23	U	12	23	47	47
95-49-8	2-Chlorotoluene	2.3	U	1.2	2.3	4.7	4.7
591-78-6	2-Hexanone	23	U	13	23	47	47

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-07-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	4.63 (g/mL)	CTL Sample ID:	321168
% Solids:	92.0	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 18:57	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
106-43-4	4-Chlorotoluene	2.3	U	1.1	2.3	4.7	4.7
108-10-1	4-Methyl-2-pentanone	23	U	12	23	47	47
67-64-1	Acetone	51.2		12	23	47	47
71-43-2	Benzene	2.58		0.35	1.2	2.3	2.3
108-86-1	Bromobenzene	1.2	U	0.59	1.2	2.3	2.3
74-97-5	Bromochloromethane	1.2	U	0.47	1.2	2.3	2.3
75-27-4	Bromodichloromethane	1.2	U	0.47	1.2	2.3	2.3
75-25-2	Bromoform	1.2	U	0.47	1.2	2.3	2.3
74-83-9	Bromomethane	2.3	U	0.82	2.3	4.7	4.7
75-15-0	Carbon disulfide	2.47	J	1.1	2.3	4.7	4.7
56-23-5	Carbon tetrachloride	1.2	U	0.35	1.2	2.3	2.3
108-90-7	Chlorobenzene	1.2	U	0.47	1.2	2.3	2.3
75-00-3	Chloroethane	1.2	U	0.59	1.2	2.3	2.3
67-66-3	Chloroform	1.2	U	0.47	1.2	2.3	2.3
74-87-3	Chloromethane	1.2	U	0.47	1.2	2.3	2.3
156-59-2	cis-1,2-Dichloroethene	1.2	U	0.47	1.2	2.3	2.3
10061-01-5	cis-1,3-Dichloropropene	1.2	U	0.35	1.2	2.3	2.3
124-48-1	Dibromochloromethane	1.2	U	0.47	1.2	2.3	2.3
74-95-3	Dibromomethane	1.2	U	0.47	1.2	2.3	2.3
75-71-8	Dichlorodifluoromethane	2.3	U	1.2	2.3	4.7	4.7
100-41-4	Ethylbenzene	1.06	J	0.47	1.2	2.3	2.3
76-13-1	Freon 113	2.3	U	1.2	2.3	4.7	4.7
87-68-3	Hexachlorobutadiene	2.3	U	1.2	2.3	4.7	4.7
98-82-8	Isopropylbenzene	1.2	U	0.35	1.2	2.3	2.3

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-07-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	4.63 (g/mL)	CTL Sample ID:	321168
% Solids:	92.0	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 18:57	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
179601-23-1	m & p-Xylene	5.16		0.82	2.3	4.7	4.7
75-09-2	Methylene chloride	2.3	U	2.0	2.3	4.7	4.7
91-20-3	Naphthalene	2.3	U	1.2	2.3	4.7	4.7
104-51-8	n-Butylbenzene	2.3	U	1.1	2.3	4.7	4.7
103-65-1	n-Propylbenzene	2.3	U	1.1	2.3	4.7	4.7
95-47-6	o-Xylene	1.53	J	0.47	1.2	2.3	2.3
99-87-6	p-Isopropyltoluene	2.3	U	1.2	2.3	4.7	4.7
135-98-8	sec-Butylbenzene	2.3	U	1.1	2.3	4.7	4.7
100-42-5	Styrene	1.2	U	0.35	1.2	2.3	2.3
98-06-6	tert-Butylbenzene	2.3	U	1.1	2.3	4.7	4.7
127-18-4	Tetrachloroethene	1.2	U	0.47	1.2	2.3	2.3
108-88-3	Toluene	6.57		0.47	1.2	2.3	2.3
156-60-5	trans-1,2-Dichloroethene	1.2	U	0.47	1.2	2.3	2.3
10061-02-6	trans-1,3-Dichloropropene	1.2	U	0.47	1.2	2.3	2.3
79-01-6	Trichloroethene	1.2	U	0.35	1.2	2.3	2.3
75-69-4	Trichlorofluoromethane	1.2	U	0.59	1.2	2.3	2.3
108-05-4	Vinyl acetate	23	U	14	23	47	47
75-01-4	Vinyl chloride	1.2	U	0.59	1.2	2.3	2.3

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-07-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/mL)	CTL Sample ID:	321169
% Solids:	90.8	Date Received:	08/28/2019
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	163980	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 19:26	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	mg/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 000066-25-1	Hexanal	0.0500	J	N/A	N/A	N/A	N/A
TIC 000111-71-7	Heptanal	0.0100	J	N/A	N/A	N/A	N/A
TIC 000123-72-8	Butanal	0.0100	J	N/A	N/A	N/A	N/A
TIC 000556-67-2	Cyclotetrasiloxane, octamethyl-	0.0100	J	N/A	N/A	N/A	N/A
TIC 002199-69-1	Benzene-1,2,3,4-d4-, 5,6-dichloro-	0.0200	J	N/A	N/A	N/A	N/A
TIC 001846-70-4	2-Nonynoic acid	0.0200	J	N/A	N/A	N/A	N/A
TIC 000110-62-3	Pentanal	0.0100	J	N/A	N/A	N/A	N/A
TIC 000106-97-8	Butane	0.0100	J	N/A	N/A	N/A	N/A
TIC 000109-66-0	Pentane	0.0100	J	N/A	N/A	N/A	N/A
TIC 000078-78-4	Butane, 2-methyl-	0.0100	J	N/A	N/A	N/A	N/A
TIC 000000-00-0	Hexahydropyridine, 1-methyl-4-[4...	0.0100	J	N/A	N/A	N/A	N/A
TIC 000075-07-0	Acetaldehyde	0.0100	J	N/A	N/A	N/A	N/A

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-07-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	4.61 (g/mL)	CTL Sample ID:	321169
% Solids:	90.8	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 19:26	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
630-20-6	1,1,1,2-Tetrachloroethane	1.2	U	0.36	1.2	2.4	2.4
71-55-6	1,1,1-Trichloroethane	1.2	U	0.36	1.2	2.4	2.4
79-34-5	1,1,2,2-Tetrachloroethane	1.2	U	0.60	1.2	2.4	2.4
79-00-5	1,1,2-Trichloroethane	1.2	U	0.48	1.2	2.4	2.4
75-34-3	1,1-Dichloroethane	1.2	U	0.48	1.2	2.4	2.4
75-35-4	1,1-Dichloroethene	1.2	U	0.48	1.2	2.4	2.4
563-58-6	1,1-Dichloropropene	1.2	U	0.48	1.2	2.4	2.4
87-61-6	1,2,3-Trichlorobenzene	2.4	U	1.1	2.4	4.8	4.8
96-18-4	1,2,3-Trichloropropane	1.2	U	0.60	1.2	2.4	2.4
120-82-1	1,2,4-Trichlorobenzene	2.4	U	1.1	2.4	4.8	4.8
95-63-6	1,2,4-Trimethylbenzene	1.79	J	0.96	2.4	4.8	4.8
96-12-8	1,2-Dibromo-3-chloropropane	2.4	U	1.6	2.4	4.8	4.8
106-93-4	1,2-Dibromoethane	1.2	U	0.48	1.2	2.4	2.4
95-50-1	1,2-Dichlorobenzene	2.4	U	1.1	2.4	4.8	4.8
107-06-2	1,2-Dichloroethane	1.2	U	0.60	1.2	2.4	2.4
78-87-5	1,2-Dichloropropane	1.2	U	0.48	1.2	2.4	2.4
108-67-8	1,3,5-Trimethylbenzene	2.4	U	1.1	2.4	4.8	4.8
541-73-1	1,3-Dichlorobenzene	2.4	U	1.1	2.4	4.8	4.8
142-28-9	1,3-Dichloropropane	1.2	U	0.48	1.2	2.4	2.4
106-46-7	1,4-Dichlorobenzene	2.4	U	1.1	2.4	4.8	4.8
594-20-7	2,2-Dichloropropane	1.2	U	0.48	1.2	2.4	2.4
78-93-3	2-Butanone	24	U	12	24	48	48
95-49-8	2-Chlorotoluene	2.4	U	1.2	2.4	4.8	4.8
591-78-6	2-Hexanone	24	U	13	24	48	48

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-07-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	4.61 (g/mL)	CTL Sample ID:	321169
% Solids:	90.8	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 19:26	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
106-43-4	4-Chlorotoluene	2.4	U	1.1	2.4	4.8	4.8
108-10-1	4-Methyl-2-pentanone	24	U	12	24	48	48
67-64-1	Acetone	117		12	24	48	48
71-43-2	Benzene	1.31	J	0.36	1.2	2.4	2.4
108-86-1	Bromobenzene	1.2	U	0.60	1.2	2.4	2.4
74-97-5	Bromochloromethane	1.2	U	0.48	1.2	2.4	2.4
75-27-4	Bromodichloromethane	1.2	U	0.48	1.2	2.4	2.4
75-25-2	Bromoform	1.2	U	0.48	1.2	2.4	2.4
74-83-9	Bromomethane	2.4	U	0.84	2.4	4.8	4.8
75-15-0	Carbon disulfide	10.3		1.1	2.4	4.8	4.8
56-23-5	Carbon tetrachloride	1.2	U	0.36	1.2	2.4	2.4
108-90-7	Chlorobenzene	1.2	U	0.48	1.2	2.4	2.4
75-00-3	Chloroethane	1.2	U	0.60	1.2	2.4	2.4
67-66-3	Chloroform	1.2	U	0.48	1.2	2.4	2.4
74-87-3	Chloromethane	1.2	U	0.48	1.2	2.4	2.4
156-59-2	cis-1,2-Dichloroethene	1.2	U	0.48	1.2	2.4	2.4
10061-01-5	cis-1,3-Dichloropropene	1.2	U	0.36	1.2	2.4	2.4
124-48-1	Dibromochloromethane	1.2	U	0.48	1.2	2.4	2.4
74-95-3	Dibromomethane	1.2	U	0.48	1.2	2.4	2.4
75-71-8	Dichlorodifluoromethane	2.4	U	1.2	2.4	4.8	4.8
100-41-4	Ethylbenzene	0.597	J	0.48	1.2	2.4	2.4
76-13-1	Freon 113	2.4	U	1.2	2.4	4.8	4.8
87-68-3	Hexachlorobutadiene	2.4	U	1.2	2.4	4.8	4.8
98-82-8	Isopropylbenzene	1.2	U	0.36	1.2	2.4	2.4

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-07-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	4.61 (g/mL)	CTL Sample ID:	321169
% Solids:	90.8	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 19:26	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
179601-23-1	m & p-Xylene	2.39	J	0.84	2.4	4.8	4.8
75-09-2	Methylene chloride	2.4	U	2.0	2.4	4.8	4.8
91-20-3	Naphthalene	2.4	U	1.2	2.4	4.8	4.8
104-51-8	n-Butylbenzene	2.4	U	1.1	2.4	4.8	4.8
103-65-1	n-Propylbenzene	2.4	U	1.1	2.4	4.8	4.8
95-47-6	o-Xylene	0.836	J	0.48	1.2	2.4	2.4
99-87-6	p-Isopropyltoluene	2.4	U	1.2	2.4	4.8	4.8
135-98-8	sec-Butylbenzene	2.4	U	1.1	2.4	4.8	4.8
100-42-5	Styrene	1.2	U	0.36	1.2	2.4	2.4
98-06-6	tert-Butylbenzene	2.4	U	1.1	2.4	4.8	4.8
127-18-4	Tetrachloroethene	1.2	U	0.48	1.2	2.4	2.4
108-88-3	Toluene	3.46		0.48	1.2	2.4	2.4
156-60-5	trans-1,2-Dichloroethene	1.2	U	0.48	1.2	2.4	2.4
10061-02-6	trans-1,3-Dichloropropene	1.2	U	0.48	1.2	2.4	2.4
79-01-6	Trichloroethene	1.2	U	0.36	1.2	2.4	2.4
75-69-4	Trichlorofluoromethane	1.2	U	0.60	1.2	2.4	2.4
108-05-4	Vinyl acetate	24	U	14	24	48	48
75-01-4	Vinyl chloride	1.2	U	0.60	1.2	2.4	2.4

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-08-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/mL)	CTL Sample ID:	321170
% Solids:	95.9	Date Received:	08/28/2019
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	163980	Dilution Factor:	1.00
Date & Time Analyzed:	09/06/2019 / 10:00	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	mg/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 003855-82-1	1,4-Dichlorobenzene-d4	0.0200	J	N/A	N/A	N/A	N/A
TIC 000541-05-9	Cyclotrisiloxane, hexamethyl-	0.0100	J	N/A	N/A	N/A	N/A
TIC 027869-56-3	Benzene, 1-phenyl-4-(2-cyano-2-p...	0.0100	J	N/A	N/A	N/A	N/A
TIC 001066-40-6	Silanol, trimethyl-	0.0100	J	N/A	N/A	N/A	N/A
TIC 056221-11-5	5-(p-Acetylaminophenylsulphonyl)...	0.0100	J	N/A	N/A	N/A	N/A
TIC 014051-53-7	1-Benzopyrylium, 2-phenyl-	0.0100	J	N/A	N/A	N/A	N/A

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-08-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	4.66 (g/mL)	CTL Sample ID:	321170
% Solids:	95.9	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/06/2019 / 10:00	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
630-20-6	1,1,1,2-Tetrachloroethane	1.1	U	0.34	1.1	2.2	2.2
71-55-6	1,1,1-Trichloroethane	1.1	U	0.34	1.1	2.2	2.2
79-34-5	1,1,2,2-Tetrachloroethane	1.1	U	0.56	1.1	2.2	2.2
79-00-5	1,1,2-Trichloroethane	1.1	U	0.45	1.1	2.2	2.2
75-34-3	1,1-Dichloroethane	1.1	U	0.45	1.1	2.2	2.2
75-35-4	1,1-Dichloroethene	1.1	U	0.45	1.1	2.2	2.2
563-58-6	1,1-Dichloropropene	1.1	U	0.45	1.1	2.2	2.2
87-61-6	1,2,3-Trichlorobenzene	2.2	U	1.0	2.2	4.5	4.5
96-18-4	1,2,3-Trichloropropane	1.1	U	0.56	1.1	2.2	2.2
120-82-1	1,2,4-Trichlorobenzene	2.2	U	1.0	2.2	4.5	4.5
95-63-6	1,2,4-Trimethylbenzene	2.91	J	0.90	2.2	4.5	4.5
96-12-8	1,2-Dibromo-3-chloropropane	2.2	U	1.5	2.2	4.5	4.5
106-93-4	1,2-Dibromoethane	1.1	U	0.45	1.1	2.2	2.2
95-50-1	1,2-Dichlorobenzene	2.2	U	1.0	2.2	4.5	4.5
107-06-2	1,2-Dichloroethane	1.1	U	0.56	1.1	2.2	2.2
78-87-5	1,2-Dichloropropane	1.1	U	0.45	1.1	2.2	2.2
108-67-8	1,3,5-Trimethylbenzene	1.34	J	1.0	2.2	4.5	4.5
541-73-1	1,3-Dichlorobenzene	2.2	U	1.0	2.2	4.5	4.5
142-28-9	1,3-Dichloropropane	1.1	U	0.45	1.1	2.2	2.2
106-46-7	1,4-Dichlorobenzene	2.2	U	1.0	2.2	4.5	4.5
594-20-7	2,2-Dichloropropane	1.1	U	0.45	1.1	2.2	2.2
78-93-3	2-Butanone	22	U	11	22	45	45
95-49-8	2-Chlorotoluene	2.2	U	1.1	2.2	4.5	4.5
591-78-6	2-Hexanone	22	U	12	22	45	45

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-08-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	4.66 (g/mL)	CTL Sample ID:	321170
% Solids:	95.9	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/06/2019 / 10:00	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
106-43-4	4-Chlorotoluene	2.2	U	1.0	2.2	4.5	4.5
108-10-1	4-Methyl-2-pentanone	22	U	11	22	45	45
67-64-1	Acetone	17.6	J	11	22	45	45
71-43-2	Benzene	1.1	U	0.34	1.1	2.2	2.2
108-86-1	Bromobenzene	1.1	U	0.56	1.1	2.2	2.2
74-97-5	Bromochloromethane	1.1	U	0.45	1.1	2.2	2.2
75-27-4	Bromodichloromethane	1.1	U	0.45	1.1	2.2	2.2
75-25-2	Bromoform	1.1	U	0.45	1.1	2.2	2.2
74-83-9	Bromomethane	2.2	U	0.78	2.2	4.5	4.5
75-15-0	Carbon disulfide	2.2	U	1.0	2.2	4.5	4.5
56-23-5	Carbon tetrachloride	1.1	U	0.34	1.1	2.2	2.2
108-90-7	Chlorobenzene	1.1	U	0.45	1.1	2.2	2.2
75-00-3	Chloroethane	1.1	U	0.56	1.1	2.2	2.2
67-66-3	Chloroform	1.1	U	0.45	1.1	2.2	2.2
74-87-3	Chloromethane	1.1	U	0.45	1.1	2.2	2.2
156-59-2	cis-1,2-Dichloroethene	1.1	U	0.45	1.1	2.2	2.2
10061-01-5	cis-1,3-Dichloropropene	1.1	U	0.34	1.1	2.2	2.2
124-48-1	Dibromochloromethane	1.1	U	0.45	1.1	2.2	2.2
74-95-3	Dibromomethane	1.1	U	0.45	1.1	2.2	2.2
75-71-8	Dichlorodifluoromethane	2.2	U	1.1	2.2	4.5	4.5
100-41-4	Ethylbenzene	1.1	U	0.45	1.1	2.2	2.2
76-13-1	Freon 113	2.2	U	1.1	2.2	4.5	4.5
87-68-3	Hexachlorobutadiene	2.2	U	1.1	2.2	4.5	4.5
98-82-8	Isopropylbenzene	1.1	U	0.34	1.1	2.2	2.2

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-08-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	4.66 (g/mL)	CTL Sample ID:	321170
% Solids:	95.9	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/06/2019 / 10:00	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
179601-23-1	m & p-Xylene	2.24	J	0.78	2.2	4.5	4.5
75-09-2	Methylene chloride	5.82		1.9	2.2	4.5	4.5
91-20-3	Naphthalene	2.2	U	1.1	2.2	4.5	4.5
104-51-8	n-Butylbenzene	2.2	U	1.0	2.2	4.5	4.5
103-65-1	n-Propylbenzene	2.2	U	1.0	2.2	4.5	4.5
95-47-6	o-Xylene	0.671	J	0.45	1.1	2.2	2.2
99-87-6	p-Isopropyltoluene	2.2	U	1.1	2.2	4.5	4.5
135-98-8	sec-Butylbenzene	2.2	U	1.0	2.2	4.5	4.5
100-42-5	Styrene	1.1	U	0.34	1.1	2.2	2.2
98-06-6	tert-Butylbenzene	2.2	U	1.0	2.2	4.5	4.5
127-18-4	Tetrachloroethene	1.1	U	0.45	1.1	2.2	2.2
108-88-3	Toluene	1.12	J	0.45	1.1	2.2	2.2
156-60-5	trans-1,2-Dichloroethene	1.1	U	0.45	1.1	2.2	2.2
10061-02-6	trans-1,3-Dichloropropene	1.1	U	0.45	1.1	2.2	2.2
79-01-6	Trichloroethene	1.1	U	0.34	1.1	2.2	2.2
75-69-4	Trichlorofluoromethane	4.48		0.56	1.1	2.2	2.2
108-05-4	Vinyl acetate	22	U	13	22	45	45
75-01-4	Vinyl chloride	1.1	U	0.56	1.1	2.2	2.2

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-08-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/mL)	CTL Sample ID:	321171
% Solids:	93.5	Date Received:	08/28/2019
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	163980	Dilution Factor:	1.00
Date & Time Analyzed:	09/06/2019 / 10:29	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	mg/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 002199-69-1	Benzene-1,2,3,4-d4-, 5,6-dichloro-	0.0200	J	N/A	N/A	N/A	N/A
TIC 000066-25-1	Hexanal	0.0200	J	N/A	N/A	N/A	N/A
TIC 000106-97-8	Butane	0.0100	J	N/A	N/A	N/A	N/A
TIC 000541-05-9	Cyclotrisiloxane, hexamethyl-	0.0100	J	N/A	N/A	N/A	N/A
TIC 000078-78-4	Butane, 2-methyl-	0.0100	J	N/A	N/A	N/A	N/A
TIC 000000-00-0	2-Phenyl-1,2-bis(trimethylsilylo...	0.0100	J	N/A	N/A	N/A	N/A
TIC 000109-66-0	Pentane	0.0100	J	N/A	N/A	N/A	N/A
TIC 000420-56-4	Silane, fluorotrimethyl-	0.0100	J	N/A	N/A	N/A	N/A
TIC 000107-83-5	Pentane, 2-methyl-	0.0100	J	N/A	N/A	N/A	N/A

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-08-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	4.97 (g/mL)	CTL Sample ID:	321171
% Solids:	93.5	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/06/2019 / 10:29	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
630-20-6	1,1,1,2-Tetrachloroethane	1.1	U	0.32	1.1	2.2	2.2
71-55-6	1,1,1-Trichloroethane	1.1	U	0.32	1.1	2.2	2.2
79-34-5	1,1,2,2-Tetrachloroethane	1.1	U	0.54	1.1	2.2	2.2
79-00-5	1,1,2-Trichloroethane	1.1	U	0.43	1.1	2.2	2.2
75-34-3	1,1-Dichloroethane	1.1	U	0.43	1.1	2.2	2.2
75-35-4	1,1-Dichloroethene	1.1	U	0.43	1.1	2.2	2.2
563-58-6	1,1-Dichloropropene	1.1	U	0.43	1.1	2.2	2.2
87-61-6	1,2,3-Trichlorobenzene	2.2	U	0.97	2.2	4.3	4.3
96-18-4	1,2,3-Trichloropropane	1.1	U	0.54	1.1	2.2	2.2
120-82-1	1,2,4-Trichlorobenzene	2.2	U	0.97	2.2	4.3	4.3
95-63-6	1,2,4-Trimethylbenzene	3.01	J	0.86	2.2	4.3	4.3
96-12-8	1,2-Dibromo-3-chloropropane	2.2	U	1.4	2.2	4.3	4.3
106-93-4	1,2-Dibromoethane	1.1	U	0.43	1.1	2.2	2.2
95-50-1	1,2-Dichlorobenzene	2.2	U	0.97	2.2	4.3	4.3
107-06-2	1,2-Dichloroethane	1.1	U	0.54	1.1	2.2	2.2
78-87-5	1,2-Dichloropropane	1.1	U	0.43	1.1	2.2	2.2
108-67-8	1,3,5-Trimethylbenzene	1.18	J	0.97	2.2	4.3	4.3
541-73-1	1,3-Dichlorobenzene	2.2	U	0.97	2.2	4.3	4.3
142-28-9	1,3-Dichloropropane	1.1	U	0.43	1.1	2.2	2.2
106-46-7	1,4-Dichlorobenzene	2.2	U	0.97	2.2	4.3	4.3
594-20-7	2,2-Dichloropropane	0.753	J	0.43	1.1	2.2	2.2
78-93-3	2-Butanone	22	U	11	22	43	43
95-49-8	2-Chlorotoluene	2.2	U	1.1	2.2	4.3	4.3
591-78-6	2-Hexanone	22	U	12	22	43	43

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-08-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	4.97 (g/mL)	CTL Sample ID:	321171
% Solids:	93.5	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/06/2019 / 10:29	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
106-43-4	4-Chlorotoluene	2.2	U	0.97	2.2	4.3	4.3
108-10-1	4-Methyl-2-pentanone	22	U	11	22	43	43
67-64-1	Acetone	134		11	22	43	43
71-43-2	Benzene	1.40	J	0.32	1.1	2.2	2.2
108-86-1	Bromobenzene	1.1	U	0.54	1.1	2.2	2.2
74-97-5	Bromochloromethane	1.1	U	0.43	1.1	2.2	2.2
75-27-4	Bromodichloromethane	1.1	U	0.43	1.1	2.2	2.2
75-25-2	Bromoform	1.1	U	0.43	1.1	2.2	2.2
74-83-9	Bromomethane	2.2	U	0.75	2.2	4.3	4.3
75-15-0	Carbon disulfide	6.35		0.97	2.2	4.3	4.3
56-23-5	Carbon tetrachloride	1.1	U	0.32	1.1	2.2	2.2
108-90-7	Chlorobenzene	1.1	U	0.43	1.1	2.2	2.2
75-00-3	Chloroethane	1.1	U	0.54	1.1	2.2	2.2
67-66-3	Chloroform	1.1	U	0.43	1.1	2.2	2.2
74-87-3	Chloromethane	0.646	J	0.43	1.1	2.2	2.2
156-59-2	cis-1,2-Dichloroethene	1.1	U	0.43	1.1	2.2	2.2
10061-01-5	cis-1,3-Dichloropropene	1.1	U	0.32	1.1	2.2	2.2
124-48-1	Dibromochloromethane	1.1	U	0.43	1.1	2.2	2.2
74-95-3	Dibromomethane	1.1	U	0.43	1.1	2.2	2.2
75-71-8	Dichlorodifluoromethane	2.2	U	1.1	2.2	4.3	4.3
100-41-4	Ethylbenzene	0.646	J	0.43	1.1	2.2	2.2
76-13-1	Freon 113	2.2	U	1.1	2.2	4.3	4.3
87-68-3	Hexachlorobutadiene	2.2	U	1.1	2.2	4.3	4.3
98-82-8	Isopropylbenzene	1.1	U	0.32	1.1	2.2	2.2

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-08-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	4.97 (g/mL)	CTL Sample ID:	321171
% Solids:	93.5	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/06/2019 / 10:29	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
179601-23-1	m & p-Xylene	3.34	J	0.75	2.2	4.3	4.3
75-09-2	Methylene chloride	2.2	U	1.8	2.2	4.3	4.3
91-20-3	Naphthalene	2.2	U	1.1	2.2	4.3	4.3
104-51-8	n-Butylbenzene	2.2	U	0.97	2.2	4.3	4.3
103-65-1	n-Propylbenzene	2.2	U	0.97	2.2	4.3	4.3
95-47-6	o-Xylene	1.18	J	0.43	1.1	2.2	2.2
99-87-6	p-Isopropyltoluene	2.2	U	1.1	2.2	4.3	4.3
135-98-8	sec-Butylbenzene	2.2	U	0.97	2.2	4.3	4.3
100-42-5	Styrene	1.1	U	0.32	1.1	2.2	2.2
98-06-6	tert-Butylbenzene	2.2	U	0.97	2.2	4.3	4.3
127-18-4	Tetrachloroethene	1.1	U	0.43	1.1	2.2	2.2
108-88-3	Toluene	3.98		0.43	1.1	2.2	2.2
156-60-5	trans-1,2-Dichloroethene	1.1	U	0.43	1.1	2.2	2.2
10061-02-6	trans-1,3-Dichloropropene	1.1	U	0.43	1.1	2.2	2.2
79-01-6	Trichloroethene	1.1	U	0.32	1.1	2.2	2.2
75-69-4	Trichlorofluoromethane	1.1	U	0.54	1.1	2.2	2.2
108-05-4	Vinyl acetate	22	U	13	22	43	43
75-01-4	Vinyl chloride	1.1	U	0.54	1.1	2.2	2.2

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-09C-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/mL)	CTL Sample ID:	321172
% Solids:	90.0	Date Received:	08/28/2019
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	163980	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 20:54	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	mg/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 000066-25-1	Hexanal	0.0600	J	N/A	N/A	N/A	N/A
TIC 003855-82-1	1,4-Dichlorobenzene-d4	0.0200	J	N/A	N/A	N/A	N/A
TIC 000075-07-0	Acetaldehyde	0.0100	J	N/A	N/A	N/A	N/A
TIC 000111-71-7	Heptanal	0.0100	J	N/A	N/A	N/A	N/A
TIC 000124-13-0	Octanal	0.0100	J	N/A	N/A	N/A	N/A
TIC 000556-67-2	Cyclotetrasiloxane, octamethyl-	0.0100	J	N/A	N/A	N/A	N/A
TIC 000124-19-6	Nonanal	0.0100	J	N/A	N/A	N/A	N/A

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-09C-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	4.52 (g/mL)	CTL Sample ID:	321172
% Solids:	90.0	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 20:54	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
630-20-6	1,1,1,2-Tetrachloroethane	1.2	U	0.37	1.2	2.5	2.5
71-55-6	1,1,1-Trichloroethane	1.2	U	0.37	1.2	2.5	2.5
79-34-5	1,1,2,2-Tetrachloroethane	1.2	U	0.61	1.2	2.5	2.5
79-00-5	1,1,2-Trichloroethane	1.2	U	0.49	1.2	2.5	2.5
75-34-3	1,1-Dichloroethane	1.2	U	0.49	1.2	2.5	2.5
75-35-4	1,1-Dichloroethene	1.2	U	0.49	1.2	2.5	2.5
563-58-6	1,1-Dichloropropene	1.2	U	0.49	1.2	2.5	2.5
87-61-6	1,2,3-Trichlorobenzene	2.5	U	1.1	2.5	4.9	4.9
96-18-4	1,2,3-Trichloropropane	1.2	U	0.61	1.2	2.5	2.5
120-82-1	1,2,4-Trichlorobenzene	2.5	U	1.1	2.5	4.9	4.9
95-63-6	1,2,4-Trimethylbenzene	2.09	J	0.98	2.5	4.9	4.9
96-12-8	1,2-Dibromo-3-chloropropane	2.5	U	1.6	2.5	4.9	4.9
106-93-4	1,2-Dibromoethane	1.2	U	0.49	1.2	2.5	2.5
95-50-1	1,2-Dichlorobenzene	2.5	U	1.1	2.5	4.9	4.9
107-06-2	1,2-Dichloroethane	1.2	U	0.61	1.2	2.5	2.5
78-87-5	1,2-Dichloropropane	1.2	U	0.49	1.2	2.5	2.5
108-67-8	1,3,5-Trimethylbenzene	2.5	U	1.1	2.5	4.9	4.9
541-73-1	1,3-Dichlorobenzene	2.5	U	1.1	2.5	4.9	4.9
142-28-9	1,3-Dichloropropane	1.2	U	0.49	1.2	2.5	2.5
106-46-7	1,4-Dichlorobenzene	2.5	U	1.1	2.5	4.9	4.9
594-20-7	2,2-Dichloropropane	1.2	U	0.49	1.2	2.5	2.5
78-93-3	2-Butanone	19.3	J	12	25	49	49
95-49-8	2-Chlorotoluene	2.5	U	1.2	2.5	4.9	4.9
591-78-6	2-Hexanone	25	U	14	25	49	49

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-09C-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	4.52 (g/mL)	CTL Sample ID:	321172
% Solids:	90.0	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 20:54	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
106-43-4	4-Chlorotoluene	2.5	U	1.1	2.5	4.9	4.9
108-10-1	4-Methyl-2-pentanone	25	U	12	25	49	49
67-64-1	Acetone	357		12	25	49	49
71-43-2	Benzene	1.2	U	0.37	1.2	2.5	2.5
108-86-1	Bromobenzene	1.2	U	0.61	1.2	2.5	2.5
74-97-5	Bromochloromethane	1.2	U	0.49	1.2	2.5	2.5
75-27-4	Bromodichloromethane	1.2	U	0.49	1.2	2.5	2.5
75-25-2	Bromoform	1.2	U	0.49	1.2	2.5	2.5
74-83-9	Bromomethane	2.5	U	0.86	2.5	4.9	4.9
75-15-0	Carbon disulfide	2.5	U	1.1	2.5	4.9	4.9
56-23-5	Carbon tetrachloride	1.2	U	0.37	1.2	2.5	2.5
108-90-7	Chlorobenzene	1.2	U	0.49	1.2	2.5	2.5
75-00-3	Chloroethane	1.2	U	0.61	1.2	2.5	2.5
67-66-3	Chloroform	1.2	U	0.49	1.2	2.5	2.5
74-87-3	Chloromethane	1.2	U	0.49	1.2	2.5	2.5
156-59-2	cis-1,2-Dichloroethene	1.2	U	0.49	1.2	2.5	2.5
10061-01-5	cis-1,3-Dichloropropene	1.2	U	0.37	1.2	2.5	2.5
124-48-1	Dibromochloromethane	1.2	U	0.49	1.2	2.5	2.5
74-95-3	Dibromomethane	1.2	U	0.49	1.2	2.5	2.5
75-71-8	Dichlorodifluoromethane	2.5	U	1.2	2.5	4.9	4.9
100-41-4	Ethylbenzene	1.2	U	0.49	1.2	2.5	2.5
76-13-1	Freon 113	2.5	U	1.2	2.5	4.9	4.9
87-68-3	Hexachlorobutadiene	2.5	U	1.2	2.5	4.9	4.9
98-82-8	Isopropylbenzene	1.2	U	0.37	1.2	2.5	2.5

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-09C-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	4.52 (g/mL)	CTL Sample ID:	321172
% Solids:	90.0	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 20:54	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
179601-23-1	m & p-Xylene	2.5	U	0.86	2.5	4.9	4.9
75-09-2	Methylene chloride	2.5	U	2.1	2.5	4.9	4.9
91-20-3	Naphthalene	2.5	U	1.2	2.5	4.9	4.9
104-51-8	n-Butylbenzene	2.5	U	1.1	2.5	4.9	4.9
103-65-1	n-Propylbenzene	2.5	U	1.1	2.5	4.9	4.9
95-47-6	o-Xylene	1.2	U	0.49	1.2	2.5	2.5
99-87-6	p-Isopropyltoluene	2.5	U	1.2	2.5	4.9	4.9
135-98-8	sec-Butylbenzene	2.5	U	1.1	2.5	4.9	4.9
100-42-5	Styrene	1.2	U	0.37	1.2	2.5	2.5
98-06-6	tert-Butylbenzene	2.5	U	1.1	2.5	4.9	4.9
127-18-4	Tetrachloroethene	1.2	U	0.49	1.2	2.5	2.5
108-88-3	Toluene	0.492	J	0.49	1.2	2.5	2.5
156-60-5	trans-1,2-Dichloroethene	1.2	U	0.49	1.2	2.5	2.5
10061-02-6	trans-1,3-Dichloropropene	1.2	U	0.49	1.2	2.5	2.5
79-01-6	Trichloroethene	1.2	U	0.37	1.2	2.5	2.5
75-69-4	Trichlorofluoromethane	1.2	U	0.61	1.2	2.5	2.5
108-05-4	Vinyl acetate	25	U	15	25	49	49
75-01-4	Vinyl chloride	1.2	U	0.61	1.2	2.5	2.5

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-DUP-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/mL)	CTL Sample ID:	321157
% Solids:	95.8	Date Received:	08/28/2019
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	163980	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 11:34	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	mg/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 000066-25-1	Hexanal	0.0500	J	N/A	N/A	N/A	N/A
TIC 002199-69-1	Benzene-1,2,3,4-d4-, 5,6-dichloro-	0.0200	J	N/A	N/A	N/A	N/A
TIC 000110-62-3	Pentanal	0.0100	J	N/A	N/A	N/A	N/A
TIC 000556-67-2	Cyclotetrasiloxane, octamethyl-	0.0100	J	N/A	N/A	N/A	N/A

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-DUP-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	4.18 (g/mL)	CTL Sample ID:	321157
% Solids:	95.8	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 11:34	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
630-20-6	1,1,1,2-Tetrachloroethane	1.2	U	0.37	1.2	2.5	2.5
71-55-6	1,1,1-Trichloroethane	1.2	U	0.37	1.2	2.5	2.5
79-34-5	1,1,2,2-Tetrachloroethane	1.2	U	0.62	1.2	2.5	2.5
79-00-5	1,1,2-Trichloroethane	1.2	U	0.50	1.2	2.5	2.5
75-34-3	1,1-Dichloroethane	1.2	U	0.50	1.2	2.5	2.5
75-35-4	1,1-Dichloroethene	1.2	U	0.50	1.2	2.5	2.5
563-58-6	1,1-Dichloropropene	1.2	U	0.50	1.2	2.5	2.5
87-61-6	1,2,3-Trichlorobenzene	2.5	U	1.1	2.5	5.0	5.0
96-18-4	1,2,3-Trichloropropane	1.2	U	0.62	1.2	2.5	2.5
120-82-1	1,2,4-Trichlorobenzene	2.5	U	1.1	2.5	5.0	5.0
95-63-6	1,2,4-Trimethylbenzene	2.5	U	1.0	2.5	5.0	5.0
96-12-8	1,2-Dibromo-3-chloropropane	2.5	U	1.6	2.5	5.0	5.0
106-93-4	1,2-Dibromoethane	1.2	U	0.50	1.2	2.5	2.5
95-50-1	1,2-Dichlorobenzene	2.5	U	1.1	2.5	5.0	5.0
107-06-2	1,2-Dichloroethane	1.2	U	0.62	1.2	2.5	2.5
78-87-5	1,2-Dichloropropane	1.2	U	0.50	1.2	2.5	2.5
108-67-8	1,3,5-Trimethylbenzene	2.5	U	1.1	2.5	5.0	5.0
541-73-1	1,3-Dichlorobenzene	2.5	U	1.1	2.5	5.0	5.0
142-28-9	1,3-Dichloropropane	1.2	U	0.50	1.2	2.5	2.5
106-46-7	1,4-Dichlorobenzene	2.5	U	1.1	2.5	5.0	5.0
594-20-7	2,2-Dichloropropane	1.2	U	0.50	1.2	2.5	2.5
78-93-3	2-Butanone	25	U	12	25	50	50
95-49-8	2-Chlorotoluene	2.5	U	1.2	2.5	5.0	5.0
591-78-6	2-Hexanone	25	U	14	25	50	50

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-DUP-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	4.18 (g/mL)	CTL Sample ID:	321157
% Solids:	95.8	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 11:34	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
106-43-4	4-Chlorotoluene	2.5	U	1.1	2.5	5.0	5.0
108-10-1	4-Methyl-2-pentanone	25	U	12	25	50	50
67-64-1	Acetone	174		12	25	50	50
71-43-2	Benzene	0.499	J	0.37	1.2	2.5	2.5
108-86-1	Bromobenzene	1.2	U	0.62	1.2	2.5	2.5
74-97-5	Bromochloromethane	1.2	U	0.50	1.2	2.5	2.5
75-27-4	Bromodichloromethane	1.2	U	0.50	1.2	2.5	2.5
75-25-2	Bromoform	1.2	U	0.50	1.2	2.5	2.5
74-83-9	Bromomethane	2.5	U	0.87	2.5	5.0	5.0
75-15-0	Carbon disulfide	1.50	J	1.1	2.5	5.0	5.0
56-23-5	Carbon tetrachloride	1.2	U	0.37	1.2	2.5	2.5
108-90-7	Chlorobenzene	1.2	U	0.50	1.2	2.5	2.5
75-00-3	Chloroethane	1.2	U	0.62	1.2	2.5	2.5
67-66-3	Chloroform	1.2	U	0.50	1.2	2.5	2.5
74-87-3	Chloromethane	1.2	U	0.50	1.2	2.5	2.5
156-59-2	cis-1,2-Dichloroethene	1.2	U	0.50	1.2	2.5	2.5
10061-01-5	cis-1,3-Dichloropropene	1.2	U	0.37	1.2	2.5	2.5
124-48-1	Dibromochloromethane	1.2	U	0.50	1.2	2.5	2.5
74-95-3	Dibromomethane	1.2	U	0.50	1.2	2.5	2.5
75-71-8	Dichlorodifluoromethane	2.5	U	1.2	2.5	5.0	5.0
100-41-4	Ethylbenzene	1.2	U	0.50	1.2	2.5	2.5
76-13-1	Freon 113	2.5	U	1.2	2.5	5.0	5.0
87-68-3	Hexachlorobutadiene	2.5	U	1.2	2.5	5.0	5.0
98-82-8	Isopropylbenzene	1.2	U	0.37	1.2	2.5	2.5

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-DUP-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	4.18 (g/mL)	CTL Sample ID:	321157
% Solids:	95.8	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 11:34	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
179601-23-1	m & p-Xylene	0.874	J	0.87	2.5	5.0	5.0
75-09-2	Methylene chloride	2.5	U	2.1	2.5	5.0	5.0
91-20-3	Naphthalene	2.5	U	1.2	2.5	5.0	5.0
104-51-8	n-Butylbenzene	2.5	U	1.1	2.5	5.0	5.0
103-65-1	n-Propylbenzene	2.5	U	1.1	2.5	5.0	5.0
95-47-6	o-Xylene	1.2	U	0.50	1.2	2.5	2.5
99-87-6	p-Isopropyltoluene	2.5	U	1.2	2.5	5.0	5.0
135-98-8	sec-Butylbenzene	2.5	U	1.1	2.5	5.0	5.0
100-42-5	Styrene	1.2	U	0.37	1.2	2.5	2.5
98-06-6	tert-Butylbenzene	2.5	U	1.1	2.5	5.0	5.0
127-18-4	Tetrachloroethene	1.2	U	0.50	1.2	2.5	2.5
108-88-3	Toluene	2.25	J	0.50	1.2	2.5	2.5
156-60-5	trans-1,2-Dichloroethene	1.2	U	0.50	1.2	2.5	2.5
10061-02-6	trans-1,3-Dichloropropene	1.2	U	0.50	1.2	2.5	2.5
79-01-6	Trichloroethene	1.2	U	0.37	1.2	2.5	2.5
75-69-4	Trichlorofluoromethane	1.2	U	0.62	1.2	2.5	2.5
108-05-4	Vinyl acetate	25	U	15	25	50	50
75-01-4	Vinyl chloride	1.2	U	0.62	1.2	2.5	2.5

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-DUP-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/mL)	CTL Sample ID:	321165
% Solids:	84.1	Date Received:	08/28/2019
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	163980	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 17:30	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	mg/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 003855-82-1	1,4-Dichlorobenzene-d4	0.0200	J	N/A	N/A	N/A	N/A
TIC 000066-25-1	Hexanal	0.0100	J	N/A	N/A	N/A	N/A
TIC 000556-67-2	Cyclotetrasiloxane, octamethyl-	0.0100	J	N/A	N/A	N/A	N/A
TIC 000541-05-9	Cyclotrisiloxane, hexamethyl-	0.0100	J	N/A	N/A	N/A	N/A

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-DUP-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	6.12 (g/mL)	CTL Sample ID:	321165
% Solids:	84.1	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 17:30	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
630-20-6	1,1,1,2-Tetrachloroethane	0.97	U	0.29	0.97	1.9	1.9
71-55-6	1,1,1-Trichloroethane	0.97	U	0.29	0.97	1.9	1.9
79-34-5	1,1,2,2-Tetrachloroethane	0.97	U	0.49	0.97	1.9	1.9
79-00-5	1,1,2-Trichloroethane	0.97	U	0.39	0.97	1.9	1.9
75-34-3	1,1-Dichloroethane	0.97	U	0.39	0.97	1.9	1.9
75-35-4	1,1-Dichloroethene	0.97	U	0.39	0.97	1.9	1.9
563-58-6	1,1-Dichloropropene	0.97	U	0.39	0.97	1.9	1.9
87-61-6	1,2,3-Trichlorobenzene	1.9	U	0.87	1.9	3.9	3.9
96-18-4	1,2,3-Trichloropropane	0.97	U	0.49	0.97	1.9	1.9
120-82-1	1,2,4-Trichlorobenzene	1.9	U	0.87	1.9	3.9	3.9
95-63-6	1,2,4-Trimethylbenzene	0.971	J	0.78	1.9	3.9	3.9
96-12-8	1,2-Dibromo-3-chloropropane	1.9	U	1.3	1.9	3.9	3.9
106-93-4	1,2-Dibromoethane	0.97	U	0.39	0.97	1.9	1.9
95-50-1	1,2-Dichlorobenzene	1.9	U	0.87	1.9	3.9	3.9
107-06-2	1,2-Dichloroethane	0.97	U	0.49	0.97	1.9	1.9
78-87-5	1,2-Dichloropropane	0.97	U	0.39	0.97	1.9	1.9
108-67-8	1,3,5-Trimethylbenzene	1.9	U	0.87	1.9	3.9	3.9
541-73-1	1,3-Dichlorobenzene	1.9	U	0.87	1.9	3.9	3.9
142-28-9	1,3-Dichloropropane	0.97	U	0.39	0.97	1.9	1.9
106-46-7	1,4-Dichlorobenzene	1.9	U	0.87	1.9	3.9	3.9
594-20-7	2,2-Dichloropropane	0.97	U	0.39	0.97	1.9	1.9
78-93-3	2-Butanone	19	U	9.7	19	39	39
95-49-8	2-Chlorotoluene	1.9	U	0.97	1.9	3.9	3.9
591-78-6	2-Hexanone	19	U	11	19	39	39

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-DUP-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	6.12 (g/mL)	CTL Sample ID:	321165
% Solids:	84.1	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 17:30	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
106-43-4	4-Chlorotoluene	1.9	U	0.87	1.9	3.9	3.9
108-10-1	4-Methyl-2-pentanone	19	U	9.7	19	39	39
67-64-1	Acetone	86.3		9.7	19	39	39
71-43-2	Benzene	0.389	J	0.29	0.97	1.9	1.9
108-86-1	Bromobenzene	0.97	U	0.49	0.97	1.9	1.9
74-97-5	Bromochloromethane	0.97	U	0.39	0.97	1.9	1.9
75-27-4	Bromodichloromethane	0.97	U	0.39	0.97	1.9	1.9
75-25-2	Bromoform	0.97	U	0.39	0.97	1.9	1.9
74-83-9	Bromomethane	1.9	U	0.68	1.9	3.9	3.9
75-15-0	Carbon disulfide	2.82	J	0.87	1.9	3.9	3.9
56-23-5	Carbon tetrachloride	0.97	U	0.29	0.97	1.9	1.9
108-90-7	Chlorobenzene	0.97	U	0.39	0.97	1.9	1.9
75-00-3	Chloroethane	0.97	U	0.49	0.97	1.9	1.9
67-66-3	Chloroform	0.97	U	0.39	0.97	1.9	1.9
74-87-3	Chloromethane	0.97	U	0.39	0.97	1.9	1.9
156-59-2	cis-1,2-Dichloroethene	0.97	U	0.39	0.97	1.9	1.9
10061-01-5	cis-1,3-Dichloropropene	0.97	U	0.29	0.97	1.9	1.9
124-48-1	Dibromochloromethane	0.97	U	0.39	0.97	1.9	1.9
74-95-3	Dibromomethane	0.97	U	0.39	0.97	1.9	1.9
75-71-8	Dichlorodifluoromethane	1.9	U	0.97	1.9	3.9	3.9
100-41-4	Ethylbenzene	0.97	U	0.39	0.97	1.9	1.9
76-13-1	Freon 113	1.9	U	0.97	1.9	3.9	3.9
87-68-3	Hexachlorobutadiene	1.9	U	0.97	1.9	3.9	3.9
98-82-8	Isopropylbenzene	0.97	U	0.29	0.97	1.9	1.9

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-DUP-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	6.12 (g/mL)	CTL Sample ID:	321165
% Solids:	84.1	Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 17:30	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
179601-23-1	m & p-Xylene	1.9	U	0.68	1.9	3.9	3.9
75-09-2	Methylene chloride	1.9	U	1.7	1.9	3.9	3.9
91-20-3	Naphthalene	1.9	U	0.97	1.9	3.9	3.9
104-51-8	n-Butylbenzene	1.9	U	0.87	1.9	3.9	3.9
103-65-1	n-Propylbenzene	1.9	U	0.87	1.9	3.9	3.9
95-47-6	o-Xylene	0.97	U	0.39	0.97	1.9	1.9
99-87-6	p-Isopropyltoluene	1.9	U	0.97	1.9	3.9	3.9
135-98-8	sec-Butylbenzene	1.9	U	0.87	1.9	3.9	3.9
100-42-5	Styrene	0.97	U	0.29	0.97	1.9	1.9
98-06-6	tert-Butylbenzene	1.9	U	0.87	1.9	3.9	3.9
127-18-4	Tetrachloroethene	0.97	U	0.39	0.97	1.9	1.9
108-88-3	Toluene	1.07	J	0.39	0.97	1.9	1.9
156-60-5	trans-1,2-Dichloroethene	0.97	U	0.39	0.97	1.9	1.9
10061-02-6	trans-1,3-Dichloropropene	0.97	U	0.39	0.97	1.9	1.9
79-01-6	Trichloroethene	0.97	U	0.29	0.97	1.9	1.9
75-69-4	Trichlorofluoromethane	0.97	U	0.49	0.97	1.9	1.9
108-05-4	Vinyl acetate	19	U	12	19	39	39
75-01-4	Vinyl chloride	0.97	U	0.49	0.97	1.9	1.9

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-W-RB-01

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	GROUND WATER	SDG No.:	147664
Sample wt/vol:	(g/mL)	CTL Sample ID:	321173
% Solids:		Date Received:	08/28/2019
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	163976	Dilution Factor:	1.00
Date & Time Analyzed:	09/06/2019 / 20:44	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LW082519	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
630-20-6	1,1,1,2-Tetrachloroethane	0.10	U	0.018	0.10	0.20	0.20
71-55-6	1,1,1-Trichloroethane	0.050	U	0.018	0.050	0.10	0.10
79-34-5	1,1,2,2-Tetrachloroethane	0.050	U	0.014	0.050	0.10	0.10
79-00-5	1,1,2-Trichloroethane	0.10	U	0.019	0.10	0.20	0.20
75-34-3	1,1-Dichloroethane	0.050	U	0.015	0.050	0.10	0.10
75-35-4	1,1-Dichloroethene	0.10	U	0.040	0.10	0.20	0.20
563-58-6	1,1-Dichloropropene	0.10	U	0.030	0.10	0.20	0.20
87-61-6	1,2,3-Trichlorobenzene	0.020	U	0.012	0.020	0.20	0.20
96-18-4	1,2,3-Trichloropropane	0.10	U	0.070	0.10	0.20	0.20
120-82-1	1,2,4-Trichlorobenzene	0.020	U	0.012	0.020	0.10	0.10
95-63-6	1,2,4-Trimethylbenzene	0.050	U	0.020	0.050	0.10	0.10
96-12-8	1,2-Dibromo-3-chloropropane	0.10	U	0.070	0.10	0.20	0.20
106-93-4	1,2-Dibromoethane	0.10	U	0.040	0.10	0.20	0.20
95-50-1	1,2-Dichlorobenzene	0.050	U	0.022	0.050	0.10	0.10
107-06-2	1,2-Dichloroethane	0.050	U	0.024	0.050	0.10	0.10
78-87-5	1,2-Dichloropropane	0.050	U	0.024	0.050	0.10	0.10
108-67-8	1,3,5-Trimethylbenzene	0.050	U	0.016	0.050	0.10	0.10
541-73-1	1,3-Dichlorobenzene	0.050	U	0.020	0.050	0.10	0.10
142-28-9	1,3-Dichloropropane	0.050	U	0.030	0.050	0.10	0.10
106-46-7	1,4-Dichlorobenzene	0.050	U	0.017	0.050	0.10	0.10
594-20-7	2,2-Dichloropropane	0.050	U	0.015	0.050	0.10	0.10
78-93-3	2-Butanone	7.1		0.50	1.0	2.0	2.0
95-49-8	2-Chlorotoluene	0.050	U	0.024	0.050	0.10	0.10
591-78-6	2-Hexanone	1.0	U	0.30	1.0	2.0	2.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-W-RB-01

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	GROUND WATER	SDG No.:	147664
Sample wt/vol:	(g/mL)	CTL Sample ID:	321173
% Solids:		Date Received:	08/28/2019
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	163976	Dilution Factor:	1.00
Date & Time Analyzed:	09/06/2019 / 20:44	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LW082519	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
106-43-4	4-Chlorotoluene	0.050	U	0.017	0.050	0.10	0.10
108-10-1	4-Methyl-2-pentanone	0.50	U	0.22	0.50	1.0	1.0
67-64-1	Acetone	1.4	J	0.80	1.0	2.0	2.0
71-43-2	Benzene	0.050	U	0.019	0.050	0.10	0.10
108-86-1	Bromobenzene	0.050	U	0.018	0.050	0.10	0.10
74-97-5	Bromochloromethane	0.10	U	0.040	0.10	0.20	0.20
75-27-4	Bromodichloromethane	0.050	U	0.028	0.050	0.10	0.10
75-25-2	Bromoform	0.050	U	0.030	0.050	0.20	0.20
74-83-9	Bromomethane	0.10	U Z,Y	0.060	0.10	0.20	0.20
75-15-0	Carbon disulfide	0.040	U	0.014	0.040	0.20	0.20
56-23-5	Carbon tetrachloride	0.050	U	0.029	0.050	0.10	0.10
108-90-7	Chlorobenzene	0.050	U	0.015	0.050	0.10	0.10
75-00-3	Chloroethane	0.050	U	0.023	0.050	0.20	0.20
67-66-3	Chloroform	0.050	U	0.023	0.050	0.10	0.10
74-87-3	Chloromethane	0.63		0.030	0.050	0.10	0.10
156-59-2	cis-1,2-Dichloroethene	0.050	U	0.027	0.050	0.10	0.10
10061-01-5	cis-1,3-Dichloropropene	0.050	U	0.020	0.050	0.10	0.10
124-48-1	Dibromochloromethane	0.050	U	0.030	0.050	0.10	0.10
74-95-3	Dibromomethane	0.050	U	0.030	0.050	0.10	0.10
75-71-8	Dichlorodifluoromethane	0.050	U	0.030	0.050	0.10	0.10
100-41-4	Ethylbenzene	0.027	J	0.016	0.050	0.10	0.10
76-13-1	Freon 113	0.10	U	0.050	0.10	0.20	0.20
87-68-3	Hexachlorobutadiene	0.050	U	0.030	0.050	0.10	0.10
98-82-8	Isopropylbenzene	0.050	U	0.018	0.050	0.10	0.10

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-W-RB-01

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	GROUND WATER	SDG No.:	147664
Sample wt/vol:	(g/mL)	CTL Sample ID:	321173
% Solids:		Date Received:	08/28/2019
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	163976	Dilution Factor:	1.00
Date & Time Analyzed:	09/06/2019 / 20:44	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LW082519	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
179601-23-1	m & p-Xylene	0.15	J	0.030	0.10	0.20	0.20
75-09-2	Methylene chloride	0.10	U	0.030	0.10	0.40	0.40
91-20-3	Naphthalene	0.050	U	0.022	0.050	0.10	0.10
104-51-8	n-Butylbenzene	0.050	U Q	0.014	0.050	0.10	0.10
103-65-1	n-Propylbenzene	0.050	U	0.020	0.050	0.10	0.10
95-47-6	o-Xylene	0.060	J	0.017	0.050	0.10	0.10
99-87-6	p-Isopropyltoluene	0.050	U	0.018	0.050	0.10	0.10
135-98-8	sec-Butylbenzene	0.050	U Q	0.014	0.050	0.10	0.10
100-42-5	Styrene	0.081	J	0.011	0.020	0.10	0.10
98-06-6	tert-Butylbenzene	0.020	U	0.013	0.020	0.10	0.10
127-18-4	Tetrachloroethene	0.050	U	0.023	0.050	0.10	0.10
108-88-3	Toluene	0.67		0.017	0.050	0.10	0.10
156-60-5	trans-1,2-Dichloroethene	0.050	U	0.029	0.050	0.10	0.10
10061-02-6	trans-1,3-Dichloropropene	0.050	U	0.030	0.050	0.20	0.20
79-01-6	Trichloroethene	0.050	U	0.025	0.050	0.10	0.10
75-69-4	Trichlorofluoromethane	0.050	U	0.029	0.050	0.20	0.20
108-05-4	Vinyl acetate	1.0	U Q,Y	0.40	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.020	U	0.013	0.020	0.10	0.10

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-W-RB-01

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	GROUND WATER	SDG No.:	147664
Sample wt/vol:	(g/mL)	CTL Sample ID:	321173
% Solids:		Date Received:	08/28/2019
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	164066	Dilution Factor:	1.00
Date & Time Analyzed:	09/06/2019 / 20:44	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 000287-92-3	Cyclopentane	1.0	J	N/A	N/A	N/A	N/A
TIC 024332-20-5	Ethane, 1,1,2-trimethoxy-	0.30	J	N/A	N/A	N/A	N/A
TIC 016714-18-4	Benzene, 2-azido-1-methyl-3-nitro-	0.24	J	N/A	N/A	N/A	N/A
	No Hits From C:\DATABASE\NBS75K.	0.23	J	N/A	N/A	N/A	N/A
TIC 000078-81-9	1-Propanamine, 2-methyl-	0.22	J	N/A	N/A	N/A	N/A

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-W-TB-01

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	TRIP BLANK	SDG No.:	147664
Sample wt/vol:	(g/mL)	CTL Sample ID:	321156
% Solids:		Date Received:	08/28/2019
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	163976	Dilution Factor:	1.00
Date & Time Analyzed:	09/06/2019 / 14:44	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LW082519	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
630-20-6	1,1,1,2-Tetrachloroethane	0.10	U	0.018	0.10	0.20	0.20
71-55-6	1,1,1-Trichloroethane	0.050	U	0.018	0.050	0.10	0.10
79-34-5	1,1,2,2-Tetrachloroethane	0.050	U	0.014	0.050	0.10	0.10
79-00-5	1,1,2-Trichloroethane	0.10	U	0.019	0.10	0.20	0.20
75-34-3	1,1-Dichloroethane	0.050	U	0.015	0.050	0.10	0.10
75-35-4	1,1-Dichloroethene	0.10	U	0.040	0.10	0.20	0.20
563-58-6	1,1-Dichloropropene	0.10	U	0.030	0.10	0.20	0.20
87-61-6	1,2,3-Trichlorobenzene	0.020	U	0.012	0.020	0.20	0.20
96-18-4	1,2,3-Trichloropropane	0.10	U	0.070	0.10	0.20	0.20
120-82-1	1,2,4-Trichlorobenzene	0.020	U	0.012	0.020	0.10	0.10
95-63-6	1,2,4-Trimethylbenzene	0.050	U	0.020	0.050	0.10	0.10
96-12-8	1,2-Dibromo-3-chloropropane	0.10	U	0.070	0.10	0.20	0.20
106-93-4	1,2-Dibromoethane	0.10	U	0.040	0.10	0.20	0.20
95-50-1	1,2-Dichlorobenzene	0.050	U	0.022	0.050	0.10	0.10
107-06-2	1,2-Dichloroethane	0.050	U	0.024	0.050	0.10	0.10
78-87-5	1,2-Dichloropropane	0.050	U	0.024	0.050	0.10	0.10
108-67-8	1,3,5-Trimethylbenzene	0.050	U	0.016	0.050	0.10	0.10
541-73-1	1,3-Dichlorobenzene	0.050	U	0.020	0.050	0.10	0.10
142-28-9	1,3-Dichloropropane	0.050	U	0.030	0.050	0.10	0.10
106-46-7	1,4-Dichlorobenzene	0.050	U	0.017	0.050	0.10	0.10
594-20-7	2,2-Dichloropropane	0.050	U	0.015	0.050	0.10	0.10
78-93-3	2-Butanone	1.0	U	0.50	1.0	2.0	2.0
95-49-8	2-Chlorotoluene	0.050	U	0.024	0.050	0.10	0.10
591-78-6	2-Hexanone	1.0	U	0.30	1.0	2.0	2.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-W-TB-01

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	TRIP BLANK	SDG No.:	147664
Sample wt/vol:	(g/mL)	CTL Sample ID:	321156
% Solids:		Date Received:	08/28/2019
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	163976	Dilution Factor:	1.00
Date & Time Analyzed:	09/06/2019 / 14:44	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LW082519	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
106-43-4	4-Chlorotoluene	0.050	U	0.017	0.050	0.10	0.10
108-10-1	4-Methyl-2-pentanone	0.50	U	0.22	0.50	1.0	1.0
67-64-1	Acetone	1.0	U	0.80	1.0	2.0	2.0
71-43-2	Benzene	0.050	U	0.019	0.050	0.10	0.10
108-86-1	Bromobenzene	0.050	U	0.018	0.050	0.10	0.10
74-97-5	Bromochloromethane	0.10	U	0.040	0.10	0.20	0.20
75-27-4	Bromodichloromethane	0.050	U	0.028	0.050	0.10	0.10
75-25-2	Bromoform	0.050	U	0.030	0.050	0.20	0.20
74-83-9	Bromomethane	0.10	U Z,Y	0.060	0.10	0.20	0.20
75-15-0	Carbon disulfide	0.040	U	0.014	0.040	0.20	0.20
56-23-5	Carbon tetrachloride	0.050	U	0.029	0.050	0.10	0.10
108-90-7	Chlorobenzene	0.050	U	0.015	0.050	0.10	0.10
75-00-3	Chloroethane	0.050	U	0.023	0.050	0.20	0.20
67-66-3	Chloroform	0.050	U	0.023	0.050	0.10	0.10
74-87-3	Chloromethane	0.045	J	0.030	0.050	0.10	0.10
156-59-2	cis-1,2-Dichloroethene	0.050	U	0.027	0.050	0.10	0.10
10061-01-5	cis-1,3-Dichloropropene	0.050	U	0.020	0.050	0.10	0.10
124-48-1	Dibromochloromethane	0.050	U	0.030	0.050	0.10	0.10
74-95-3	Dibromomethane	0.050	U	0.030	0.050	0.10	0.10
75-71-8	Dichlorodifluoromethane	0.050	U	0.030	0.050	0.10	0.10
100-41-4	Ethylbenzene	0.050	U	0.016	0.050	0.10	0.10
76-13-1	Freon 113	0.10	U	0.050	0.10	0.20	0.20
87-68-3	Hexachlorobutadiene	0.050	U	0.030	0.050	0.10	0.10
98-82-8	Isopropylbenzene	0.050	U	0.018	0.050	0.10	0.10

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-W-TB-01

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	TRIP BLANK	SDG No.:	147664
Sample wt/vol:	(g/mL)	CTL Sample ID:	321156
% Solids:		Date Received:	08/28/2019
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	163976	Dilution Factor:	1.00
Date & Time Analyzed:	09/06/2019 / 14:44	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LW082519	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
179601-23-1	m & p-Xylene	0.10	U	0.030	0.10	0.20	0.20
75-09-2	Methylene chloride	0.13	J	0.030	0.10	0.40	0.40
91-20-3	Naphthalene	0.050	U	0.022	0.050	0.10	0.10
104-51-8	n-Butylbenzene	0.050	U Q	0.014	0.050	0.10	0.10
103-65-1	n-Propylbenzene	0.050	U	0.020	0.050	0.10	0.10
95-47-6	o-Xylene	0.050	U	0.017	0.050	0.10	0.10
99-87-6	p-Isopropyltoluene	0.050	U	0.018	0.050	0.10	0.10
135-98-8	sec-Butylbenzene	0.050	U Q	0.014	0.050	0.10	0.10
100-42-5	Styrene	0.020	U	0.011	0.020	0.10	0.10
98-06-6	tert-Butylbenzene	0.020	U	0.013	0.020	0.10	0.10
127-18-4	Tetrachloroethene	0.050	U	0.023	0.050	0.10	0.10
108-88-3	Toluene	0.050	U	0.017	0.050	0.10	0.10
156-60-5	trans-1,2-Dichloroethene	0.050	U	0.029	0.050	0.10	0.10
10061-02-6	trans-1,3-Dichloropropene	0.050	U	0.030	0.050	0.20	0.20
79-01-6	Trichloroethene	0.050	U	0.025	0.050	0.10	0.10
75-69-4	Trichlorofluoromethane	0.050	U	0.029	0.050	0.20	0.20
108-05-4	Vinyl acetate	1.0	U Q,Y	0.40	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.020	U	0.013	0.020	0.10	0.10

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VOLATILE ORGANICS ANALYSIS

Sample Description

GN-W-TB-01

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	TRIP BLANK	SDG No.:	147664
Sample wt/vol:	(g/mL)	CTL Sample ID:	321156
% Solids:		Date Received:	08/28/2019
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	164066	Dilution Factor:	1.00
Date & Time Analyzed:	09/06/2019 / 14:44	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 003855-82-1	1,4-Dichlorobenzene-d4	3.5	J	N/A	N/A	N/A	N/A
TIC 019127-90-3	1,2-Diborane(4)diamine, N,N,N',N...	2.4	J	N/A	N/A	N/A	N/A
TIC 006340-55-2	Quinoline, 2-chloro-6-methoxy-4-...	0.46	J	N/A	N/A	N/A	N/A
TIC 000000-00-0	3,3-Diethoxy-1,1,1,5,5,5-hexamet...	0.23	J	N/A	N/A	N/A	N/A
TIC 022320-21-4	2-Indolizinemethanol	0.20	J	N/A	N/A	N/A	N/A

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VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description

METHOD BLANK

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:		SDG No.:	147664
Sample wt/vol:	5.00 (g/mL)	CTL Sample ID:	321324
% Solids:		Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
630-20-6	1,1,1,2-Tetrachloroethane	09/05/2019	09:38	0.3	U	0.3	2.0	***1.0***
71-55-6	1,1,1-Trichloroethane	09/05/2019	09:38	0.3	U	0.3	2.0	***1.0***
79-34-5	1,1,2,2-Tetrachloroethane	09/05/2019	09:38	0.5	U	0.5	2.0	***1.0***
79-00-5	1,1,2-Trichloroethane	09/05/2019	09:38	0.4	U	0.4	2.0	***1.0***
75-34-3	1,1-Dichloroethane	09/05/2019	09:38	0.4	U	0.4	2.0	***1.0***
75-35-4	1,1-Dichloroethene	09/05/2019	09:38	0.4	U	0.4	2.0	***1.0***
563-58-6	1,1-Dichloropropene	09/05/2019	09:38	0.4	U	0.4	2.0	***1.0***
87-61-6	1,2,3-Trichlorobenzene	09/05/2019	09:38	0.9	U	0.9	4.0	***2.0***
96-18-4	1,2,3-Trichloropropane	09/05/2019	09:38	0.5	U	0.5	2.0	***1.0***
120-82-1	1,2,4-Trichlorobenzene	09/05/2019	09:38	0.9	U	0.9	4.0	***2.0***
95-63-6	1,2,4-Trimethylbenzene	09/05/2019	09:38	0.8	U	0.8	4.0	***2.0***
96-12-8	1,2-Dibromo-3-chloropropane	09/05/2019	09:38	1.3	U	1.3	4.0	***2.0***
106-93-4	1,2-Dibromoethane	09/05/2019	09:38	0.4	U	0.4	2.0	***1.0***
95-50-1	1,2-Dichlorobenzene	09/05/2019	09:38	0.9	U	0.9	4.0	***2.0***
107-06-2	1,2-Dichloroethane	09/05/2019	09:38	0.5	U	0.5	2.0	***1.0***
78-87-5	1,2-Dichloropropane	09/05/2019	09:38	0.4	U	0.4	2.0	***1.0***
108-67-8	1,3,5-Trimethylbenzene	09/05/2019	09:38	0.9	U	0.9	4.0	***2.0***
541-73-1	1,3-Dichlorobenzene	09/05/2019	09:38	0.9	U	0.9	4.0	***2.0***
142-28-9	1,3-Dichloropropane	09/05/2019	09:38	0.4	U	0.4	2.0	***1.0***
106-46-7	1,4-Dichlorobenzene	09/05/2019	09:38	0.9	U	0.9	4.0	***2.0***
594-20-7	2,2-Dichloropropane	09/05/2019	09:38	0.4	U	0.4	2.0	***1.0***
78-93-3	2-Butanone	09/05/2019	09:38	10	U	10	40	***20***
95-49-8	2-Chlorotoluene	09/05/2019	09:38	1.0	U	1.0	4.0	***2.0***

CT LABORATORIES
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VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **METHOD BLANK**

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:		SDG No.:	147664
Sample wt/vol:	5.00 (g/mL)	CTL Sample ID:	321324
% Solids:		Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
591-78-6	2-Hexanone	09/05/2019	09:38	11	U	11	40	***20***
106-43-4	4-Chlorotoluene	09/05/2019	09:38	0.9	U	0.9	4.0	***2.0***
108-10-1	4-Methyl-2-pentanone	09/05/2019	09:38	10	U	10	40	***20***
67-64-1	Acetone	09/05/2019	09:38	10	U	10	40	***20***
71-43-2	Benzene	09/05/2019	09:38	0.3	U	0.3	2.0	***1.0***
108-86-1	Bromobenzene	09/05/2019	09:38	0.5	U	0.5	2.0	***1.0***
74-97-5	Bromochloromethane	09/05/2019	09:38	0.4	U	0.4	2.0	***1.0***
75-27-4	Bromodichloromethane	09/05/2019	09:38	0.4	U	0.4	2.0	***1.0***
75-25-2	Bromoform	09/05/2019	09:38	0.4	U	0.4	2.0	***1.0***
74-83-9	Bromomethane	09/05/2019	09:38	0.7	U	0.7	4.0	***2.0***
75-15-0	Carbon disulfide	09/05/2019	09:38	0.9	U	0.9	4.0	***2.0***
56-23-5	Carbon tetrachloride	09/05/2019	09:38	0.3	U	0.3	2.0	***1.0***
108-90-7	Chlorobenzene	09/05/2019	09:38	0.4	U	0.4	2.0	***1.0***
75-00-3	Chloroethane	09/05/2019	09:38	0.5	U	0.5	2.0	***1.0***
67-66-3	Chloroform	09/05/2019	09:38	0.4	U	0.4	2.0	***1.0***
74-87-3	Chloromethane	09/05/2019	09:38	0.4	U	0.4	2.0	***1.0***
156-59-2	cis-1,2-Dichloroethene	09/05/2019	09:38	0.4	U	0.4	2.0	***1.0***
10061-01-5	cis-1,3-Dichloropropene	09/05/2019	09:38	0.3	U	0.3	2.0	***1.0***
124-48-1	Dibromochloromethane	09/05/2019	09:38	0.4	U	0.4	2.0	***1.0***
74-95-3	Dibromomethane	09/05/2019	09:38	0.4	U	0.4	2.0	***1.0***
75-71-8	Dichlorodifluoromethane	09/05/2019	09:38	1.0	U	1.0	4.0	***2.0***
100-41-4	Ethylbenzene	09/05/2019	09:38	0.4	U	0.4	2.0	***1.0***
76-13-1	Freon 113	09/05/2019	09:38	1.0	U	1.0	4.0	***2.0***

CT LABORATORIES
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VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description

METHOD BLANK

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:		SDG No.:	147664
Sample wt/vol:	5.00 (g/mL)	CTL Sample ID:	321324
% Solids:		Date Received:	08/28/2019
Soil Extract Vol:	5.0 (mL)	Date/Time Prepared:	09/02/2019 / 09:05
Analytical Method:	EPA 8260C	Analytical Prep Batch #	73327
Analytical Run #:	163979	Dilution Factor:	1.00
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	ug/kg

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
87-68-3	Hexachlorobutadiene	09/05/2019	09:38	1.0	U	1.0	4.0	***2.0***
98-82-8	Isopropylbenzene	09/05/2019	09:38	0.3	U	0.3	2.0	***1.0***
179601-23-1	m & p-Xylene	09/05/2019	09:38	0.7	U	0.7	4.0	***2.0***
75-09-2	Methylene chloride	09/05/2019	09:38	1.7	U	1.7	4.0	***2.0***
91-20-3	Naphthalene	09/05/2019	09:38	1.0	U	1.0	4.0	***2.0***
104-51-8	n-Butylbenzene	09/05/2019	09:38	0.9	U	0.9	4.0	***2.0***
103-65-1	n-Propylbenzene	09/05/2019	09:38	0.9	U	0.9	4.0	***2.0***
95-47-6	o-Xylene	09/05/2019	09:38	0.4	U	0.4	2.0	***1.0***
99-87-6	p-Isopropyltoluene	09/05/2019	09:38	1.0	U	1.0	4.0	***2.0***
135-98-8	sec-Butylbenzene	09/05/2019	09:38	0.9	U	0.9	4.0	***2.0***
100-42-5	Styrene	09/05/2019	09:38	0.3	U	0.3	2.0	***1.0***
98-06-6	tert-Butylbenzene	09/05/2019	09:38	0.9	U	0.9	4.0	***2.0***
127-18-4	Tetrachloroethene	09/05/2019	09:38	0.4	U	0.4	2.0	***1.0***
108-88-3	Toluene	09/05/2019	09:38	0.4	U	0.4	2.0	***1.0***
156-60-5	trans-1,2-Dichloroethene	09/05/2019	09:38	0.4	U	0.4	2.0	***1.0***
10061-02-6	trans-1,3-Dichloropropene	09/05/2019	09:38	0.4	U	0.4	2.0	***1.0***
79-01-6	Trichloroethene	09/05/2019	09:38	0.3	U	0.3	2.0	***1.0***
75-69-4	Trichlorofluoromethane	09/05/2019	09:38	0.5	U	0.5	2.0	***1.0***
108-05-4	Vinyl acetate	09/05/2019	09:38	12	U	12	40	***20***
75-01-4	Vinyl chloride	09/05/2019	09:38	0.5	U	0.5	2.0	***1.0***

CT LABORATORIES
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VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **CCB**

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:		SDG No.:	147664
Sample wt/vol:	(g/mL)	CTL Sample ID:	323579
% Solids:		Date Received:	08/28/2019
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	0
Analytical Run #:	163979	Dilution Factor:	1.00
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	mg/kg

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
630-20-6	1,1,1,2-Tetrachloroethane	09/05/2019	16:03	0.0003	U	0.0003	0.0020	***0.0010***
71-55-6	1,1,1-Trichloroethane	09/05/2019	16:03	0.0003	U	0.0003	0.0020	***0.0010***
79-34-5	1,1,2,2-Tetrachloroethane	09/05/2019	16:03	0.0005	U	0.0005	0.0020	***0.0010***
79-00-5	1,1,2-Trichloroethane	09/05/2019	16:03	0.0004	U	0.0004	0.0020	***0.0010***
75-34-3	1,1-Dichloroethane	09/05/2019	16:03	0.0004	U	0.0004	0.0020	***0.0010***
75-35-4	1,1-Dichloroethene	09/05/2019	16:03	0.0004	U	0.0004	0.0020	***0.0010***
563-58-6	1,1-Dichloropropene	09/05/2019	16:03	0.0004	U	0.0004	0.0020	***0.0010***
87-61-6	1,2,3-Trichlorobenzene	09/05/2019	16:03	0.0009	U	0.0009	0.0040	***0.0020***
96-18-4	1,2,3-Trichloropropane	09/05/2019	16:03	0.0005	U	0.0005	0.0020	***0.0010***
120-82-1	1,2,4-Trichlorobenzene	09/05/2019	16:03	0.0009	U	0.0009	0.0040	***0.0020***
95-63-6	1,2,4-Trimethylbenzene	09/05/2019	16:03	0.0008	U	0.0008	0.0040	***0.0020***
96-12-8	1,2-Dibromo-3-chloropropane	09/05/2019	16:03	0.0013	U	0.0013	0.0040	***0.0020***
106-93-4	1,2-Dibromoethane	09/05/2019	16:03	0.0004	U	0.0004	0.0020	***0.0010***
95-50-1	1,2-Dichlorobenzene	09/05/2019	16:03	0.0009	U	0.0009	0.0040	***0.0020***
107-06-2	1,2-Dichloroethane	09/05/2019	16:03	0.0005	U	0.0005	0.0020	***0.0010***
78-87-5	1,2-Dichloropropane	09/05/2019	16:03	0.0004	U	0.0004	0.0020	***0.0010***
108-67-8	1,3,5-Trimethylbenzene	09/05/2019	16:03	0.0009	U	0.0009	0.0040	***0.0020***
541-73-1	1,3-Dichlorobenzene	09/05/2019	16:03	0.0009	U	0.0009	0.0040	***0.0020***
142-28-9	1,3-Dichloropropane	09/05/2019	16:03	0.0004	U	0.0004	0.0020	***0.0010***
106-46-7	1,4-Dichlorobenzene	09/05/2019	16:03	0.0009	U	0.0009	0.0040	***0.0020***
594-20-7	2,2-Dichloropropane	09/05/2019	16:03	0.0004	U	0.0004	0.0020	***0.0010***
78-93-3	2-Butanone	09/05/2019	16:03	0.010	U	0.010	0.040	***0.020***
95-49-8	2-Chlorotoluene	09/05/2019	16:03	0.0010	U	0.0010	0.0040	***0.0020***

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VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **CCB**

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:		SDG No.:	147664
Sample wt/vol:	(g/mL)	CTL Sample ID:	323579
% Solids:		Date Received:	08/28/2019
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	0
Analytical Run #:	163979	Dilution Factor:	1.00
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	mg/kg

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
591-78-6	2-Hexanone	09/05/2019	16:03	0.011	U	0.011	0.040	***0.020***
106-43-4	4-Chlorotoluene	09/05/2019	16:03	0.0009	U	0.0009	0.0040	***0.0020***
108-10-1	4-Methyl-2-pentanone	09/05/2019	16:03	0.010	U	0.010	0.040	***0.020***
67-64-1	Acetone	09/05/2019	16:03	0.010	U	0.010	0.040	***0.020***
71-43-2	Benzene	09/05/2019	16:03	0.0003	U	0.0003	0.0020	***0.0010***
108-86-1	Bromobenzene	09/05/2019	16:03	0.0005	U	0.0005	0.0020	***0.0010***
74-97-5	Bromochloromethane	09/05/2019	16:03	0.0004	U	0.0004	0.0020	***0.0010***
75-27-4	Bromodichloromethane	09/05/2019	16:03	0.0004	U	0.0004	0.0020	***0.0010***
75-25-2	Bromoform	09/05/2019	16:03	0.0004	U	0.0004	0.0020	***0.0010***
74-83-9	Bromomethane	09/05/2019	16:03	0.0007	U	0.0007	0.0040	***0.0020***
75-15-0	Carbon disulfide	09/05/2019	16:03	0.0009	U	0.0009	0.0040	***0.0020***
56-23-5	Carbon tetrachloride	09/05/2019	16:03	0.0003	U	0.0003	0.0020	***0.0010***
108-90-7	Chlorobenzene	09/05/2019	16:03	0.0004	U	0.0004	0.0020	***0.0010***
75-00-3	Chloroethane	09/05/2019	16:03	0.0005	U	0.0005	0.0020	***0.0010***
67-66-3	Chloroform	09/05/2019	16:03	0.0004	U	0.0004	0.0020	***0.0010***
74-87-3	Chloromethane	09/05/2019	16:03	0.0004	U	0.0004	0.0020	***0.0010***
156-59-2	cis-1,2-Dichloroethene	09/05/2019	16:03	0.0004	U	0.0004	0.0020	***0.0010***
10061-01-5	cis-1,3-Dichloropropene	09/05/2019	16:03	0.0003	U	0.0003	0.0020	***0.0010***
124-48-1	Dibromochloromethane	09/05/2019	16:03	0.0004	U	0.0004	0.0020	***0.0010***
74-95-3	Dibromomethane	09/05/2019	16:03	0.0004	U	0.0004	0.0020	***0.0010***
75-71-8	Dichlorodifluoromethane	09/05/2019	16:03	0.0010	U	0.0010	0.0040	***0.0020***
100-41-4	Ethylbenzene	09/05/2019	16:03	0.0004	U	0.0004	0.0020	***0.0010***
76-13-1	Freon 113	09/05/2019	16:03	0.0010	U	0.0010	0.0040	***0.0020***

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VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **CCB**

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:		SDG No.:	147664
Sample wt/vol:	(g/mL)	CTL Sample ID:	323579
% Solids:		Date Received:	08/28/2019
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	0
Analytical Run #:	163979	Dilution Factor:	1.00
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	mg/kg

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
87-68-3	Hexachlorobutadiene	09/05/2019	16:03	0.0010	U	0.0010	0.0040	***0.0020***
98-82-8	Isopropylbenzene	09/05/2019	16:03	0.0003	U	0.0003	0.0020	***0.0010***
179601-23-1	m & p-Xylene	09/05/2019	16:03	0.0007	U	0.0007	0.0040	***0.0020***
75-09-2	Methylene chloride	09/05/2019	16:03	0.0017	U	0.0017	0.004	***0.002***
91-20-3	Naphthalene	09/05/2019	16:03	0.0010	U	0.0010	0.0040	***0.0020***
104-51-8	n-Butylbenzene	09/05/2019	16:03	0.0009	U	0.0009	0.0040	***0.0020***
103-65-1	n-Propylbenzene	09/05/2019	16:03	0.0009	U	0.0009	0.0040	***0.0020***
95-47-6	o-Xylene	09/05/2019	16:03	0.0004	U	0.0004	0.0020	***0.0010***
99-87-6	p-Isopropyltoluene	09/05/2019	16:03	0.0010	U	0.0010	0.0040	***0.0020***
135-98-8	sec-Butylbenzene	09/05/2019	16:03	0.0009	U	0.0009	0.0040	***0.0020***
100-42-5	Styrene	09/05/2019	16:03	0.0003	U	0.0003	0.0020	***0.0010***
98-06-6	tert-Butylbenzene	09/05/2019	16:03	0.0009	U	0.0009	0.0040	***0.0020***
127-18-4	Tetrachloroethene	09/05/2019	16:03	0.0004	U	0.0004	0.0020	***0.0010***
108-88-3	Toluene	09/05/2019	16:03	0.0004	U	0.0004	0.0020	***0.0010***
156-60-5	trans-1,2-Dichloroethene	09/05/2019	16:03	0.0004	U	0.0004	0.0020	***0.0010***
10061-02-6	trans-1,3-Dichloropropene	09/05/2019	16:03	0.0004	U	0.0004	0.0020	***0.0010***
79-01-6	Trichloroethene	09/05/2019	16:03	0.0003	U	0.0003	0.0020	***0.0010***
75-69-4	Trichlorofluoromethane	09/05/2019	16:03	0.0005	U	0.0005	0.0020	***0.0010***
108-05-4	Vinyl acetate	09/05/2019	16:03	0.012	U	0.012	0.040	***0.020***
75-01-4	Vinyl chloride	09/05/2019	16:03	0.0005	U	0.0005	0.0020	***0.0010***

CT LABORATORIES
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VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **CCB**

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:		SDG No.:	147664
Sample wt/vol:	(g/mL)	CTL Sample ID:	323688
% Solids:		Date Received:	08/28/2019
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	0
Analytical Run #:	163979	Dilution Factor:	1.00
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	mg/kg

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
630-20-6	1,1,1,2-Tetrachloroethane	09/06/2019	09:31	0.0003	U	0.0003	0.0020	***0.0010***
71-55-6	1,1,1-Trichloroethane	09/06/2019	09:31	0.0003	U	0.0003	0.0020	***0.0010***
79-34-5	1,1,2,2-Tetrachloroethane	09/06/2019	09:31	0.0005	U	0.0005	0.0020	***0.0010***
79-00-5	1,1,2-Trichloroethane	09/06/2019	09:31	0.0004	U	0.0004	0.0020	***0.0010***
75-34-3	1,1-Dichloroethane	09/06/2019	09:31	0.0004	U	0.0004	0.0020	***0.0010***
75-35-4	1,1-Dichloroethene	09/06/2019	09:31	0.0004	U	0.0004	0.0020	***0.0010***
563-58-6	1,1-Dichloropropene	09/06/2019	09:31	0.0004	U	0.0004	0.0020	***0.0010***
87-61-6	1,2,3-Trichlorobenzene	09/06/2019	09:31	0.0009	U	0.0009	0.0040	***0.0020***
96-18-4	1,2,3-Trichloropropane	09/06/2019	09:31	0.0005	U	0.0005	0.0020	***0.0010***
120-82-1	1,2,4-Trichlorobenzene	09/06/2019	09:31	0.0009	U	0.0009	0.0040	***0.0020***
95-63-6	1,2,4-Trimethylbenzene	09/06/2019	09:31	0.0008	U	0.0008	0.0040	***0.0020***
96-12-8	1,2-Dibromo-3-chloropropane	09/06/2019	09:31	0.0013	U	0.0013	0.0040	***0.0020***
106-93-4	1,2-Dibromoethane	09/06/2019	09:31	0.0004	U	0.0004	0.0020	***0.0010***
95-50-1	1,2-Dichlorobenzene	09/06/2019	09:31	0.0009	U	0.0009	0.0040	***0.0020***
107-06-2	1,2-Dichloroethane	09/06/2019	09:31	0.0005	U	0.0005	0.0020	***0.0010***
78-87-5	1,2-Dichloropropane	09/06/2019	09:31	0.0004	U	0.0004	0.0020	***0.0010***
108-67-8	1,3,5-Trimethylbenzene	09/06/2019	09:31	0.0009	U	0.0009	0.0040	***0.0020***
541-73-1	1,3-Dichlorobenzene	09/06/2019	09:31	0.0009	U	0.0009	0.0040	***0.0020***
142-28-9	1,3-Dichloropropane	09/06/2019	09:31	0.0004	U	0.0004	0.0020	***0.0010***
106-46-7	1,4-Dichlorobenzene	09/06/2019	09:31	0.0009	U	0.0009	0.0040	***0.0020***
594-20-7	2,2-Dichloropropane	09/06/2019	09:31	0.0004	U	0.0004	0.0020	***0.0010***
78-93-3	2-Butanone	09/06/2019	09:31	0.010	U	0.010	0.040	***0.020***
95-49-8	2-Chlorotoluene	09/06/2019	09:31	0.0010	U	0.0010	0.0040	***0.0020***

CT LABORATORIES
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VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **CCB**

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:		SDG No.:	147664
Sample wt/vol:	(g/mL)	CTL Sample ID:	323688
% Solids:		Date Received:	08/28/2019
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	0
Analytical Run #:	163979	Dilution Factor:	1.00
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	mg/kg

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
591-78-6	2-Hexanone	09/06/2019	09:31	0.011	U	0.011	0.040	***0.020***
106-43-4	4-Chlorotoluene	09/06/2019	09:31	0.0009	U	0.0009	0.0040	***0.0020***
108-10-1	4-Methyl-2-pentanone	09/06/2019	09:31	0.010	U	0.010	0.040	***0.020***
67-64-1	Acetone	09/06/2019	09:31	0.010	U	0.010	0.040	***0.020***
71-43-2	Benzene	09/06/2019	09:31	0.0003	U	0.0003	0.0020	***0.0010***
108-86-1	Bromobenzene	09/06/2019	09:31	0.0005	U	0.0005	0.0020	***0.0010***
74-97-5	Bromochloromethane	09/06/2019	09:31	0.0004	U	0.0004	0.0020	***0.0010***
75-27-4	Bromodichloromethane	09/06/2019	09:31	0.0004	U	0.0004	0.0020	***0.0010***
75-25-2	Bromoform	09/06/2019	09:31	0.0004	U	0.0004	0.0020	***0.0010***
74-83-9	Bromomethane	09/06/2019	09:31	0.0007	U	0.0007	0.0040	***0.0020***
75-15-0	Carbon disulfide	09/06/2019	09:31	0.0009	U	0.0009	0.0040	***0.0020***
56-23-5	Carbon tetrachloride	09/06/2019	09:31	0.0003	U	0.0003	0.0020	***0.0010***
108-90-7	Chlorobenzene	09/06/2019	09:31	0.0004	U	0.0004	0.0020	***0.0010***
75-00-3	Chloroethane	09/06/2019	09:31	0.0005	U	0.0005	0.0020	***0.0010***
67-66-3	Chloroform	09/06/2019	09:31	0.0004	U	0.0004	0.0020	***0.0010***
74-87-3	Chloromethane	09/06/2019	09:31	0.0004	U	0.0004	0.0020	***0.0010***
156-59-2	cis-1,2-Dichloroethene	09/06/2019	09:31	0.0004	U	0.0004	0.0020	***0.0010***
10061-01-5	cis-1,3-Dichloropropene	09/06/2019	09:31	0.0003	U	0.0003	0.0020	***0.0010***
124-48-1	Dibromochloromethane	09/06/2019	09:31	0.0004	U	0.0004	0.0020	***0.0010***
74-95-3	Dibromomethane	09/06/2019	09:31	0.0004	U	0.0004	0.0020	***0.0010***
75-71-8	Dichlorodifluoromethane	09/06/2019	09:31	0.0010	U	0.0010	0.0040	***0.0020***
100-41-4	Ethylbenzene	09/06/2019	09:31	0.0004	U	0.0004	0.0020	***0.0010***
76-13-1	Freon 113	09/06/2019	09:31	0.0010	U	0.0010	0.0040	***0.0020***

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VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **CCB**

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:		SDG No.:	147664
Sample wt/vol:	(g/mL)	CTL Sample ID:	323688
% Solids:		Date Received:	08/28/2019
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	0
Analytical Run #:	163979	Dilution Factor:	1.00
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LS090419	Concentration Units:	mg/kg

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
87-68-3	Hexachlorobutadiene	09/06/2019	09:31	0.0010	U	0.0010	0.0040	***0.0020***
98-82-8	Isopropylbenzene	09/06/2019	09:31	0.0003	U	0.0003	0.0020	***0.0010***
179601-23-1	m & p-Xylene	09/06/2019	09:31	0.0007	U	0.0007	0.0040	***0.0020***
75-09-2	Methylene chloride	09/06/2019	09:31	0.0017	U	0.0017	0.004	***0.002***
91-20-3	Naphthalene	09/06/2019	09:31	0.0010	U	0.0010	0.0040	***0.0020***
104-51-8	n-Butylbenzene	09/06/2019	09:31	0.0009	U	0.0009	0.0040	***0.0020***
103-65-1	n-Propylbenzene	09/06/2019	09:31	0.0009	U	0.0009	0.0040	***0.0020***
95-47-6	o-Xylene	09/06/2019	09:31	0.0004	U	0.0004	0.0020	***0.0010***
99-87-6	p-Isopropyltoluene	09/06/2019	09:31	0.0010	U	0.0010	0.0040	***0.0020***
135-98-8	sec-Butylbenzene	09/06/2019	09:31	0.0009	U	0.0009	0.0040	***0.0020***
100-42-5	Styrene	09/06/2019	09:31	0.0003	U	0.0003	0.0020	***0.0010***
98-06-6	tert-Butylbenzene	09/06/2019	09:31	0.0009	U	0.0009	0.0040	***0.0020***
127-18-4	Tetrachloroethene	09/06/2019	09:31	0.0004	U	0.0004	0.0020	***0.0010***
108-88-3	Toluene	09/06/2019	09:31	0.0004	U	0.0004	0.0020	***0.0010***
156-60-5	trans-1,2-Dichloroethene	09/06/2019	09:31	0.0004	U	0.0004	0.0020	***0.0010***
10061-02-6	trans-1,3-Dichloropropene	09/06/2019	09:31	0.0004	U	0.0004	0.0020	***0.0010***
79-01-6	Trichloroethene	09/06/2019	09:31	0.0003	U	0.0003	0.0020	***0.0010***
75-69-4	Trichlorofluoromethane	09/06/2019	09:31	0.0005	U	0.0005	0.0020	***0.0010***
108-05-4	Vinyl acetate	09/06/2019	09:31	0.012	U	0.012	0.040	***0.020***
75-01-4	Vinyl chloride	09/06/2019	09:31	0.0005	U	0.0005	0.0020	***0.0010***

CT LABORATORIES
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VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description

METHOD BLANK

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:		SDG No.:	147664
Sample wt/vol:	(g/mL)	CTL Sample ID:	324028
% Solids:		Date Received:	08/28/2019
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	0
Analytical Run #:	163976	Dilution Factor:	1.00
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LW082519	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
630-20-6	1,1,1,2-Tetrachloroethane	09/06/2019	13:47	0.018	U	0.018	0.200	***0.100***
71-55-6	1,1,1-Trichloroethane	09/06/2019	13:47	0.018	U	0.018	0.100	***0.050***
79-34-5	1,1,2,2-Tetrachloroethane	09/06/2019	13:47	0.014	U	0.014	0.100	***0.050***
79-00-5	1,1,2-Trichloroethane	09/06/2019	13:47	0.019	U	0.019	0.200	***0.100***
75-34-3	1,1-Dichloroethane	09/06/2019	13:47	0.015	U	0.015	0.100	***0.050***
75-35-4	1,1-Dichloroethene	09/06/2019	13:47	0.04	U	0.04	0.20	***0.10***
563-58-6	1,1-Dichloropropene	09/06/2019	13:47	0.03	U	0.03	0.20	***0.10***
87-61-6	1,2,3-Trichlorobenzene	09/06/2019	13:47	0.012	U	0.012	0.200	***0.100***
96-18-4	1,2,3-Trichloropropane	09/06/2019	13:47	0.07	U	0.07	0.20	***0.10***
120-82-1	1,2,4-Trichlorobenzene	09/06/2019	13:47	0.012	U	0.012	0.100	***0.050***
95-63-6	1,2,4-Trimethylbenzene	09/06/2019	13:47	0.020	U	0.020	0.100	***0.050***
96-12-8	1,2-Dibromo-3-chloropropane	09/06/2019	13:47	0.07	U	0.07	0.20	***0.10***
106-93-4	1,2-Dibromoethane	09/06/2019	13:47	0.04	U	0.04	0.20	***0.10***
95-50-1	1,2-Dichlorobenzene	09/06/2019	13:47	0.022	U	0.022	0.100	***0.050***
107-06-2	1,2-Dichloroethane	09/06/2019	13:47	0.024	U	0.024	0.100	***0.050***
78-87-5	1,2-Dichloropropane	09/06/2019	13:47	0.024	U	0.024	0.100	***0.050***
108-67-8	1,3,5-Trimethylbenzene	09/06/2019	13:47	0.016	U	0.016	0.100	***0.050***
541-73-1	1,3-Dichlorobenzene	09/06/2019	13:47	0.020	U	0.020	0.10	***0.05***
142-28-9	1,3-Dichloropropane	09/06/2019	13:47	0.03	U	0.03	0.10	***0.10***
106-46-7	1,4-Dichlorobenzene	09/06/2019	13:47	0.017	U	0.017	0.100	***0.050***
594-20-7	2,2-Dichloropropane	09/06/2019	13:47	0.015	U	0.015	0.100	***0.050***
78-93-3	2-Butanone	09/06/2019	13:47	0.5	U	0.5	2.0	***1.0***
95-49-8	2-Chlorotoluene	09/06/2019	13:47	0.024	U	0.024	0.100	***0.050***

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VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description

METHOD BLANK

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:		SDG No.:	147664
Sample wt/vol:	(g/mL)	CTL Sample ID:	324028
% Solids:		Date Received:	08/28/2019
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	0
Analytical Run #:	163976	Dilution Factor:	1.00
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LW082519	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
591-78-6	2-Hexanone	09/06/2019	13:47	0.3	U	0.3	2.0	***1.0***
106-43-4	4-Chlorotoluene	09/06/2019	13:47	0.017	U	0.017	0.100	***0.050***
108-10-1	4-Methyl-2-pentanone	09/06/2019	13:47	0.22	U	0.22	1.00	***0.50***
67-64-1	Acetone	09/06/2019	13:47	0.8	U	0.8	2.0	***1.0***
71-43-2	Benzene	09/06/2019	13:47	0.019	U	0.019	0.100	***0.050***
108-86-1	Bromobenzene	09/06/2019	13:47	0.018	U	0.018	0.100	***0.050***
74-97-5	Bromochloromethane	09/06/2019	13:47	0.04	U	0.04	0.20	***0.10***
75-27-4	Bromodichloromethane	09/06/2019	13:47	0.028	U	0.028	0.100	***0.050***
75-25-2	Bromoform	09/06/2019	13:47	0.03	U	0.03	0.20	***0.10***
74-83-9	Bromomethane	09/06/2019	13:47	0.06	U	0.06	0.20	***0.10***
75-15-0	Carbon disulfide	09/06/2019	13:47	0.014	U	0.014	0.20	***0.10***
56-23-5	Carbon tetrachloride	09/06/2019	13:47	0.029	U	0.029	0.100	***0.050***
108-90-7	Chlorobenzene	09/06/2019	13:47	0.015	U	0.015	0.100	***0.050***
75-00-3	Chloroethane	09/06/2019	13:47	0.023	U	0.023	0.200	***0.100***
67-66-3	Chloroform	09/06/2019	13:47	0.023	U	0.023	0.100	***0.050***
74-87-3	Chloromethane	09/06/2019	13:47	0.03	U	0.03	0.10	***0.05***
156-59-2	cis-1,2-Dichloroethene	09/06/2019	13:47	0.027	U	0.027	0.100	***0.050***
10061-01-5	cis-1,3-Dichloropropene	09/06/2019	13:47	0.020	U	0.020	0.100	***0.050***
124-48-1	Dibromochloromethane	09/06/2019	13:47	0.03	U	0.03	0.10	***0.05***
74-95-3	Dibromomethane	09/06/2019	13:47	0.03	U	0.03	0.10	***0.05***
75-71-8	Dichlorodifluoromethane	09/06/2019	13:47	0.03	U	0.03	0.10	***0.05***
100-41-4	Ethylbenzene	09/06/2019	13:47	0.016	U	0.016	0.100	***0.050***
76-13-1	Freon 113	09/06/2019	13:47	0.05	U	0.05	0.20	***0.10***

CT LABORATORIES
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VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **METHOD BLANK**

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:		SDG No.:	147664
Sample wt/vol:	(g/mL)	CTL Sample ID:	324028
% Solids:		Date Received:	08/28/2019
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	0
Analytical Run #:	163976	Dilution Factor:	1.00
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	LW082519	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
87-68-3	Hexachlorobutadiene	09/06/2019	13:47	0.03	U	0.03	0.10	***0.05***
98-82-8	Isopropylbenzene	09/06/2019	13:47	0.018	U	0.018	0.100	***0.050***
179601-23-1	m & p-Xylene	09/06/2019	13:47	0.03	U	0.03	0.20	***0.10***
75-09-2	Methylene chloride	09/06/2019	13:47	0.03	U	0.03	0.40	***0.20***
91-20-3	Naphthalene	09/06/2019	13:47	0.022	U	0.022	0.100	***0.050***
104-51-8	n-Butylbenzene	09/06/2019	13:47	0.014	U	0.014	0.100	***0.050***
103-65-1	n-Propylbenzene	09/06/2019	13:47	0.020	U	0.020	0.100	***0.050***
95-47-6	o-Xylene	09/06/2019	13:47	0.017	U	0.017	0.100	***0.050***
99-87-6	p-Isopropyltoluene	09/06/2019	13:47	0.018	U	0.018	0.100	***0.050***
135-98-8	sec-Butylbenzene	09/06/2019	13:47	0.014	U	0.014	0.100	***0.050***
100-42-5	Styrene	09/06/2019	13:47	0.011	U	0.011	0.100	***0.050***
98-06-6	tert-Butylbenzene	09/06/2019	13:47	0.013	U	0.013	0.100	***0.050***
127-18-4	Tetrachloroethene	09/06/2019	13:47	0.023	U	0.023	0.100	***0.050***
108-88-3	Toluene	09/06/2019	13:47	0.017	U	0.017	0.100	***0.050***
156-60-5	trans-1,2-Dichloroethene	09/06/2019	13:47	0.029	U	0.029	0.100	***0.050***
10061-02-6	trans-1,3-Dichloropropene	09/06/2019	13:47	0.03	U	0.03	0.20	***0.10***
79-01-6	Trichloroethene	09/06/2019	13:47	0.025	U	0.025	0.100	***0.050***
75-69-4	Trichlorofluoromethane	09/06/2019	13:47	0.029	U	0.029	0.200	***0.100***
108-05-4	Vinyl acetate	09/06/2019	13:47	0.4	U	0.4	2.0	***1.0***
75-01-4	Vinyl chloride	09/06/2019	13:47	0.019	U	0.019	0.100	***0.050***

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WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Analytical Method:	EPA 8260C	SDG:	147664
Analytical Run #:	163976	ICAL Calibration #:	LW082519

CTLab #	321156				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	110	81	118	
Bromofluorobenzene	100	105	85	114	
d8-Toluene	100	102	89	112	
Dibromofluoromethane	100	104	80	119	

CTLab #	321173				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	107	81	118	
Bromofluorobenzene	100	102	85	114	
d8-Toluene	100	102	89	112	
Dibromofluoromethane	100	103	80	119	

CTLab #	324028	Sample Type:	Method Blank		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	100	70	120	
Bromofluorobenzene	100	102	75	120	
d8-Toluene	100	103	85	120	
Dibromofluoromethane	100	102	85	115	

CTLab #	324034	Sample Type:	Lab Control Spike		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	101	81	118	
Bromofluorobenzene	100	100	85	114	
d8-Toluene	100	100	89	112	
Dibromofluoromethane	100	99.0	80	119	

CTLab #	324035	Sample Type:	Continuing Calibration Verification		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	101	80	120	
Bromofluorobenzene	100	100	80	120	
d8-Toluene	100	100	80	120	
Dibromofluoromethane	100	99.0	80	120	

CTLab #	327414	Sample Type:	Lab Control Spike Duplicate		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	104	81	118	
Bromofluorobenzene	100	104	85	114	
d8-Toluene	100	102	89	112	
Dibromofluoromethane	100	101	80	119	

CT LABORATORIES
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WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Analytical Method:	EPA 8260C	SDG:	147664
Analytical Run #:	163976	ICAL Calibration #:	LW082519

CTLab #	327415	Sample Type:	Continuing Calibration Verification		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	104	50	150	
Bromofluorobenzene	100	104	50	150	
d8-Toluene	100	102	50	150	
Dibromofluoromethane	100	101	50	150	

CT LABORATORIES
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2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CT Laboratories | Contract: HDR, INC-MEMPHIS DEPOT

Analytical Method: EPA 8260C | SDG: 147664

Analytical Run #: 163979 | ICAL Calibration #: LS090419

CTLab #	321149				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	110	71	136	
Bromofluorobenzene	100	120	79	119	*FAIL*
d8-Toluene	100	100	85	116	
Dibromofluoromethane	100	105	78	119	

CTLab #	321154				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	100	71	136	
Bromofluorobenzene	100	105	79	119	
d8-Toluene	100	100	85	116	
Dibromofluoromethane	100	105	78	119	

CTLab #	321155				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	110	71	136	
Bromofluorobenzene	100	110	79	119	
d8-Toluene	100	95	85	116	
Dibromofluoromethane	100	105	78	119	

CTLab #	321157				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	110	71	136	
Bromofluorobenzene	100	110	79	119	
d8-Toluene	100	100	85	116	
Dibromofluoromethane	100	105	78	119	

CTLab #	321158				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	115	71	136	
Bromofluorobenzene	100	100	79	119	
d8-Toluene	100	100	85	116	
Dibromofluoromethane	100	110	78	119	

CTLab #	321159				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	115	71	136	
Bromofluorobenzene	100	105	79	119	
d8-Toluene	100	100	85	116	
Dibromofluoromethane	100	110	78	119	

CT LABORATORIES
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2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CT Laboratories | Contract: HDR, INC-MEMPHIS DEPOT

Analytical Method: EPA 8260C | SDG: 147664

Analytical Run #: 163979 | ICAL Calibration #: LS090419

CTLab #	321160				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	105	71	136	
Bromofluorobenzene	100	110	79	119	
d8-Toluene	100	100	85	116	
Dibromofluoromethane	100	105	78	119	
CTLab #	**321161**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	110	71	136	
Bromofluorobenzene	100	105	79	119	
d8-Toluene	100	100	85	116	
Dibromofluoromethane	100	110	78	119	
CTLab #	**321162**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	105	71	136	
Bromofluorobenzene	100	105	79	119	
d8-Toluene	100	100	85	116	
Dibromofluoromethane	100	105	78	119	
CTLab #	**321163**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	120	71	136	
Bromofluorobenzene	100	125	79	119	*FAIL*
d8-Toluene	100	95	85	116	
Dibromofluoromethane	100	110	78	119	
CTLab #	**321164**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	110	71	136	
Bromofluorobenzene	100	100	79	119	
d8-Toluene	100	100	85	116	
Dibromofluoromethane	100	105	78	119	
CTLab #	**321165**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	115	71	136	
Bromofluorobenzene	100	100	79	119	
d8-Toluene	100	100	85	116	
Dibromofluoromethane	100	105	78	119	

CT LABORATORIES
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2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CT Laboratories | Contract: HDR, INC-MEMPHIS DEPOT

Analytical Method: EPA 8260C | SDG: 147664

Analytical Run #: 163979 | ICAL Calibration #: LS090419

CTLab #	321166				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	110	71	136	
Bromofluorobenzene	100	130	79	119	*FAIL*
d8-Toluene	100	95	85	116	
Dibromofluoromethane	100	105	78	119	

CTLab #	321167				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	115	71	136	
Bromofluorobenzene	100	105	79	119	
d8-Toluene	100	100	85	116	
Dibromofluoromethane	100	105	78	119	

CTLab #	321168				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	105	71	136	
Bromofluorobenzene	100	105	79	119	
d8-Toluene	100	100	85	116	
Dibromofluoromethane	100	100	78	119	

CTLab #	321169				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	120	71	136	
Bromofluorobenzene	100	105	79	119	
d8-Toluene	100	100	85	116	
Dibromofluoromethane	100	105	78	119	

CTLab #	321170				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	100	71	136	
Bromofluorobenzene	100	120	79	119	*FAIL*
d8-Toluene	100	100	85	116	
Dibromofluoromethane	100	110	78	119	

CTLab #	321171				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	110	71	136	
Bromofluorobenzene	100	110	79	119	
d8-Toluene	100	100	85	116	
Dibromofluoromethane	100	105	78	119	

CT LABORATORIES
delivering more than data from your environmental analyses

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CT Laboratories | Contract: HDR, INC-MEMPHIS DEPOT

Analytical Method: EPA 8260C | SDG: 147664

Analytical Run #: 163979 | ICAL Calibration #: LS090419

CTLab #	321172				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	105	71	136	
Bromofluorobenzene	100	110	79	119	
d8-Toluene	100	100	85	116	
Dibromofluoromethane	100	105	78	119	
CTLab #	**321188**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	95	71	136	
Bromofluorobenzene	100	100	79	119	
d8-Toluene	100	100	85	116	
Dibromofluoromethane	100	100	78	119	
CTLab #	**321324**	Sample Type:		Method Blank	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	105	71	136	
Bromofluorobenzene	100	100	79	119	
d8-Toluene	100	100	85	116	
Dibromofluoromethane	100	100	78	119	
CTLab #	**321325**	Sample Type:		Lab Control Spike	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	110	71	136	
Bromofluorobenzene	100	100	79	119	
d8-Toluene	100	105	85	116	
Dibromofluoromethane	100	100	78	119	
CTLab #	**321327**	Sample Type:		Matrix Spike	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	100	71	136	
Bromofluorobenzene	100	120	79	119	*FAIL*
d8-Toluene	100	100	85	116	
Dibromofluoromethane	100	100	78	119	
CTLab #	**321328**	Sample Type:		Matrix Spike Duplicate	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	110	71	136	
Bromofluorobenzene	100	120	79	119	*FAIL*
d8-Toluene	100	100	85	116	
Dibromofluoromethane	100	105	78	119	

CT LABORATORIES
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SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Analytical Method:	EPA 8260C	SDG:	147664
Analytical Run #:	163979	ICAL Calibration #:	LS090419

CTLab #	323091	Sample Type:		Continuing Calibration Verification	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	100	80	120	
Bromofluorobenzene	100	100	80	120	
d8-Toluene	100	100	80	120	
Dibromofluoromethane	100	100	80	120	

CTLab #	323375	Sample Type:		Continuing Calibration Verification	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	100	50	150	
Bromofluorobenzene	100	100	50	150	
d8-Toluene	100	100	50	150	
Dibromofluoromethane	100	105	50	150	

CTLab #	323576	Sample Type:		Continuing Calibration Verification	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	100	80	120	
Bromofluorobenzene	100	100	80	120	
d8-Toluene	100	100	80	120	
Dibromofluoromethane	100	100	80	120	

CTLab #	323578	Sample Type:		Continuing Calibration Verification	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	100	50	150	
Bromofluorobenzene	100	100	50	150	
d8-Toluene	100	100	50	150	
Dibromofluoromethane	100	100	50	150	

CTLab #	323579	Sample Type:		Normal Field Sample	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	90.0	52	115	
Bromofluorobenzene	100	100	85	120	
d8-Toluene	100	100	85	115	
Dibromofluoromethane	100	100	54	117	

CTLab #	323659	Sample Type:		Continuing Calibration Verification	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	100	80	120	
Bromofluorobenzene	100	100	80	120	
d8-Toluene	100	100	80	120	
Dibromofluoromethane	100	105	80	120	

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2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Analytical Method:	EPA 8260C	SDG:	147664
Analytical Run #:	163979	ICAL Calibration #:	LS090419

CTLab #	323688	Sample Type:	Normal Field Sample		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	95.0	52	115	
Bromofluorobenzene	100	100	85	120	
d8-Toluene	100	105	85	115	
Dibromofluoromethane	100	105	54	117	

CTLab #	323824	Sample Type:	Continuing Calibration Verification		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	95.0	50	150	
Bromofluorobenzene	100	100	50	150	
d8-Toluene	100	100	50	150	
Dibromofluoromethane	100	105	50	150	

CT LABORATORIES
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3A

Sample Description

LCS

WATER VOLATILE LAB CONTROL SAMPLE

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT
Sample No.: 324034
SDG No.: 147664
Analytical Method: EPA 8260C
Concentration Units: ug/L

Sample No.: 324034
Parent Sample No.: 0
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 163976
ICAL Calibration #: LW082519

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
1,1,1,2-Tetrachloroethane	09/06/2019	12:22	78-124	4.34		4.00	108
1,1,1-Trichloroethane	09/06/2019	12:22	74-131	4.54		4.00	114
1,1,2,2-Tetrachloroethane	09/06/2019	12:22	71-121	4.42		4.00	110
1,1,2-Trichloroethane	09/06/2019	12:22	80-119	4.43		4.00	111
1,1-Dichloroethane	09/06/2019	12:22	77-125	4.26		4.00	106
1,1-Dichloroethene	09/06/2019	12:22	71-131	4.37		4.00	109
1,1-Dichloropropene	09/06/2019	12:22	79-125	4.53		4.00	113
1,2,3-Trichlorobenzene	09/06/2019	12:22	69-129	4.26		4.00	106
1,2,3-Trichloropropane	09/06/2019	12:22	73-122	4.24		4.00	106
1,2,4-Trichlorobenzene	09/06/2019	12:22	69-130	4.56		4.00	114
1,2,4-Trimethylbenzene	09/06/2019	12:22	76-124	4.55		4.00	114
1,2-Dibromo-3-chloropropane	09/06/2019	12:22	62-128	4.14		4.00	104
1,2-Dibromoethane	09/06/2019	12:22	77-121	4.37		4.00	109
1,2-Dichlorobenzene	09/06/2019	12:22	80-119	4.41		4.00	110
1,2-Dichloroethane	09/06/2019	12:22	73-128	4.13		4.00	103
1,2-Dichloropropane	09/06/2019	12:22	78-122	4.38		4.00	110
1,3,5-Trimethylbenzene	09/06/2019	12:22	75-124	4.52		4.00	113
1,3-Dichlorobenzene	09/06/2019	12:22	80-119	4.47		4.00	112
1,3-Dichloropropane	09/06/2019	12:22	80-119	4.34		4.00	108
1,4-Dichlorobenzene	09/06/2019	12:22	79-118	4.19		4.00	105
2,2-Dichloropropane	09/06/2019	12:22	60-139	4.70		4.00	118
2-Butanone	09/06/2019	12:22	56-143	42.0		40.0	105
2-Chlorotoluene	09/06/2019	12:22	79-122	4.52		4.00	113
2-Hexanone	09/06/2019	12:22	57-139	41.1		40.0	103
4-Chlorotoluene	09/06/2019	12:22	78-122	4.46		4.00	112
4-Methyl-2-pentanone	09/06/2019	12:22	67-130	45.8		40.0	114
Acetone	09/06/2019	12:22	39-160	40.4		40.0	101
Benzene	09/06/2019	12:22	79-120	4.34		4.00	108

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3A

Sample Description

WATER VOLATILE LAB CONTROL SAMPLE

LCS

Lab Name: CT Laboratories | Contract: HDR, INC-MEMPHIS DEPOT

Sample No.: 324034 | SDG No.: 147664

Analytical Method: EPA 8260C | Concentration Units: ug/L

Sample No.: 324034 | Parent Sample No.: 0

Analytical Prep Batch #: 0 | Analytical Preparation Date/Time:

Analytical Run #: 163976 | ICAL Calibration #: LW082519

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
Bromobenzene	09/06/2019	12:22	80-120	4.22		4.00	106
Bromochloromethane	09/06/2019	12:22	78-123	4.16		4.00	104
Bromodichloromethane	09/06/2019	12:22	79-125	4.74		4.00	118
Bromoform	09/06/2019	12:22	66-130	4.57		4.00	114
Bromomethane	09/06/2019	12:22	53-141	2.74		4.00	68
Carbon disulfide	09/06/2019	12:22	64-133	9.27		8.00	116
Carbon tetrachloride	09/06/2019	12:22	72-136	4.66		4.00	116
Chlorobenzene	09/06/2019	12:22	82-118	4.38		4.00	110
Chloroethane	09/06/2019	12:22	60-138	4.46		4.00	112
Chloroform	09/06/2019	12:22	79-124	4.38		4.00	110
Chloromethane	09/06/2019	12:22	50-139	4.20		4.00	105
cis-1,2-Dichloroethene	09/06/2019	12:22	78-123	4.30		4.00	108
cis-1,3-Dichloropropene	09/06/2019	12:22	75-124	4.42		4.00	110
Dibromochloromethane	09/06/2019	12:22	74-126	4.70		4.00	118
Dibromomethane	09/06/2019	12:22	79-123	4.21		4.00	105
Dichlorodifluoromethane	09/06/2019	12:22	32-152	4.63		4.00	116
Ethylbenzene	09/06/2019	12:22	79-121	4.44		4.00	111
Freon 113	09/06/2019	12:22	70-136	9.00		8.00	112
Hexachlorobutadiene	09/06/2019	12:22	66-134	4.77		4.00	119
Isopropylbenzene	09/06/2019	12:22	72-131	4.65		4.00	116
m & p-Xylene	09/06/2019	12:22	80-121	8.94		8.00	112
Methylene chloride	09/06/2019	12:22	74-124	3.93		4.00	98
Naphthalene	09/06/2019	12:22	61-128	4.74		4.00	118
n-Butylbenzene	09/06/2019	12:22	75-128	4.69		4.00	117
n-Propylbenzene	09/06/2019	12:22	76-126	4.61		4.00	115
o-Xylene	09/06/2019	12:22	78-122	4.54		4.00	114
p-Isopropyltoluene	09/06/2019	12:22	77-127	4.28		4.00	107
sec-Butylbenzene	09/06/2019	12:22	77-126	4.47		4.00	112

CT LABORATORIES
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3A

Sample Description

LCS

WATER VOLATILE LAB CONTROL SAMPLE

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT
Sample No.: 324034
SDG No.: 147664
Analytical Method: EPA 8260C
Concentration Units: ug/L

Sample No.: 324034
Parent Sample No.: 0
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 163976
ICAL Calibration #: LW082519

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
Styrene	09/06/2019	12:22	78-123	4.71		4.00	118
tert-Butylbenzene	09/06/2019	12:22	78-124	4.55		4.00	114
Tetrachloroethene	09/06/2019	12:22	74-129	4.62		4.00	116
Toluene	09/06/2019	12:22	80-121	4.43		4.00	111
trans-1,2-Dichloroethene	09/06/2019	12:22	75-124	4.32		4.00	108
trans-1,3-Dichloropropene	09/06/2019	12:22	73-127	4.53		4.00	113
Trichloroethene	09/06/2019	12:22	79-123	4.27		4.00	107
Trichlorofluoromethane	09/06/2019	12:22	65-141	4.55		4.00	114
Vinyl acetate	09/06/2019	12:22	54-146	46.4		40.0	116
Vinyl chloride	09/06/2019	12:22	58-137	4.20		4.00	105

Spike Recovery: 0 out of 66 outside limits

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3A

WATER VOLATILE LAB CONTROL SAMPLE

Sample Description: **LCSD**

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT
Sample No.: 327414
SDG No.: 147664
Analytical Method: EPA 8260C
Concentration Units: ug/L

Analytical Run #: 163976 Sample No.: 327414 Parent Sample No.: 324034
Analytical Prep Batch #: 0 Analytical Preparation Date/Time:
ICAL Calibration #: LW082519

Analyte	Analysis Date/Time	Spike Result	Parent Result	Spike Amount	%R	%RPD	Control Limit (%R)	Control Limit (%RPD)
1,1,1,2-Tetrachloroethane	09/06/2019 23:05	4.46	4.34	4.00	112	3	78-124	20
1,1,1-Trichloroethane	09/06/2019 23:05	4.79	4.54	4.00	120	5	74-131	20
1,1,2,2-Tetrachloroethane	09/06/2019 23:05	4.57	4.42	4.00	114	3	71-121	20
1,1,2-Trichloroethane	09/06/2019 23:05	4.57	4.43	4.00	114	3	80-119	20
1,1-Dichloroethane	09/06/2019 23:05	4.36	4.26	4.00	109	2	77-125	20
1,1-Dichloroethene	09/06/2019 23:05	4.65	4.37	4.00	116	6	71-131	20
1,1-Dichloropropene	09/06/2019 23:05	4.82	4.53	4.00	120	6	79-125	20
1,2,3-Trichlorobenzene	09/06/2019 23:05	4.64	4.26	4.00	116	9	69-129	20
1,2,3-Trichloropropane	09/06/2019 23:05	4.33	4.24	4.00	108	2	73-122	20
1,2,4-Trichlorobenzene	09/06/2019 23:05	4.72	4.56	4.00	118	3	69-130	20
1,2,4-Trimethylbenzene	09/06/2019 23:05	4.74	4.55	4.00	118	4	76-124	20
1,2-Dibromo-3-chloropropane	09/06/2019 23:05	4.21	4.14	4.00	105	2	62-128	20
1,2-Dibromoethane	09/06/2019 23:05	4.37	4.37	4.00	109	0	77-121	20
1,2-Dichlorobenzene	09/06/2019 23:05	4.63	4.41	4.00	116	5	80-119	20
1,2-Dichloroethane	09/06/2019 23:05	4.29	4.13	4.00	107	4	73-128	20
1,2-Dichloropropane	09/06/2019 23:05	4.44	4.38	4.00	111	1	78-122	20
1,3,5-Trimethylbenzene	09/06/2019 23:05	4.81	4.52	4.00	120	6	75-124	20
1,3-Dichlorobenzene	09/06/2019 23:05	4.61	4.47	4.00	115	3	80-119	20
1,3-Dichloropropane	09/06/2019 23:05	4.32	4.34	4.00	108	0	80-119	20
1,4-Dichlorobenzene	09/06/2019 23:05	4.30	4.19	4.00	108	3	79-118	20
2,2-Dichloropropane	09/06/2019 23:05	4.48	4.70	4.00	112	5	60-139	20
2-Butanone	09/06/2019 23:05	42.6	42.0	40.0	106	1	56-143	20
2-Chlorotoluene	09/06/2019 23:05	4.76	4.52	4.00	119	5	79-122	20
2-Hexanone	09/06/2019 23:05	44.7	41.1	40.0	112	8	57-139	20
4-Chlorotoluene	09/06/2019 23:05	4.73	4.46	4.00	118	6	78-122	20
4-Methyl-2-pentanone	09/06/2019 23:05	49.9	45.8	40.0	125	9	67-130	20
Acetone	09/06/2019 23:05	38.3	40.4	40.0	96	5	39-160	20
Benzene	09/06/2019 23:05	4.50	4.34	4.00	112	4	79-120	20

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3A

Sample Description

LCSD

WATER VOLATILE LAB CONTROL SAMPLE

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT
Sample No.: 327414
SDG No.: 147664
Analytical Method: EPA 8260C
Concentration Units: ug/L

Analytical Run #: 163976 Sample No.: 327414 Parent Sample No.: 324034
Analytical Prep Batch #: 0 Analytical Preparation Date/Time:
ICAL Calibration #: LW082519

Analyte	Analysis Date/Time		Spike Result	Parent Result	Spike Amount	%R	%RPD	Control Limit (%R)	Control Limit (%RPD)	
Bromobenzene	09/06/2019	23:05	4.63	4.22	4.00	116	9	80-120	20	
Bromochloromethane	09/06/2019	23:05	4.11	4.16	4.00	103	1	78-123	20	
Bromodichloromethane	09/06/2019	23:05	4.79	4.74	4.00	120	1	79-125	20	
Bromoform	09/06/2019	23:05	4.29	4.57	4.00	107	6	66-130	20	
Bromomethane	09/06/2019	23:05	3.85	2.74	4.00	96	34	53-141	20	*FAIL*
Carbon disulfide	09/06/2019	23:05	9.43	9.27	8.00	118	2	64-133	20	
Carbon tetrachloride	09/06/2019	23:05	5.08	4.66	4.00	127	9	72-136	20	
Chlorobenzene	09/06/2019	23:05	4.43	4.38	4.00	111	1	82-118	20	
Chloroethane	09/06/2019	23:05	4.48	4.46	4.00	112	0	60-138	20	
Chloroform	09/06/2019	23:05	4.48	4.38	4.00	112	2	79-124	20	
Chloromethane	09/06/2019	23:05	4.32	4.20	4.00	108	3	50-139	20	
cis-1,2-Dichloroethene	09/06/2019	23:05	4.28	4.30	4.00	107	0	78-123	20	
cis-1,3-Dichloropropene	09/06/2019	23:05	4.58	4.42	4.00	114	4	75-124	20	
Dibromochloromethane	09/06/2019	23:05	4.73	4.70	4.00	118	1	74-126	20	
Dibromomethane	09/06/2019	23:05	4.28	4.21	4.00	107	2	79-123	20	
Dichlorodifluoromethane	09/06/2019	23:05	4.84	4.63	4.00	121	4	32-152	20	
Ethylbenzene	09/06/2019	23:05	4.55	4.44	4.00	114	2	79-121	20	
Freon 113	09/06/2019	23:05	10.2	9.00	8.00	128	12	70-136	20	
Hexachlorobutadiene	09/06/2019	23:05	5.32	4.77	4.00	133	11	66-134	20	
Isopropylbenzene	09/06/2019	23:05	4.83	4.65	4.00	121	4	72-131	20	
m & p-Xylene	09/06/2019	23:05	9.01	8.94	8.00	113	1	80-121	20	
Methylene chloride	09/06/2019	23:05	4.06	3.93	4.00	102	3	74-124	20	
Naphthalene	09/06/2019	23:05	5.09	4.74	4.00	127	7	61-128	20	
n-Butylbenzene	09/06/2019	23:05	5.20	4.69	4.00	130	10	75-128	20	*FAIL*
n-Propylbenzene	09/06/2019	23:05	5.04	4.61	4.00	126	9	76-126	20	
o-Xylene	09/06/2019	23:05	4.47	4.54	4.00	112	2	78-122	20	
p-Isopropyltoluene	09/06/2019	23:05	5.04	4.28	4.00	126	16	77-127	20	
sec-Butylbenzene	09/06/2019	23:05	5.23	4.47	4.00	131	16	77-126	20	*FAIL*

CT LABORATORIES
delivering more than data from your environmental analyses

3A

Sample Description: LCSD

WATER VOLATILE LAB CONTROL SAMPLE

Lab Name: CT Laboratories | Contract: HDR, INC-MEMPHIS DEPOT

Sample No.: 327414 | SDG No.: 147664

Analytical Method: EPA 8260C | Concentration Units: ug/L

Analytical Run #: 163976 | Sample No.: 327414 | Parent Sample No.: 324034

Analytical Prep Batch #: 0 | Analytical Preparation Date/Time:

ICAL Calibration #: LW082519

Analyte	Analysis Date/Time		Spike Result	Parent Result	Spike Amount	%R	%RPD	Control Limit (%R)	Control Limit (%RPD)	
Styrene	09/06/2019	23:05	4.81	4.71	4.00	120	2	78-123	20	
tert-Butylbenzene	09/06/2019	23:05	4.98	4.55	4.00	124	9	78-124	20	
Tetrachloroethene	09/06/2019	23:05	4.85	4.62	4.00	121	5	74-129	20	
Toluene	09/06/2019	23:05	4.56	4.43	4.00	114	3	80-121	20	
trans-1,2-Dichloroethene	09/06/2019	23:05	4.59	4.32	4.00	115	6	75-124	20	
trans-1,3-Dichloropropene	09/06/2019	23:05	4.53	4.53	4.00	113	0	73-127	20	
Trichloroethene	09/06/2019	23:05	4.42	4.27	4.00	110	3	79-123	20	
Trichlorofluoromethane	09/06/2019	23:05	5.36	4.55	4.00	134	16	65-141	20	
Vinyl acetate	09/06/2019	23:05	58.8	46.4	40.0	147	24	54-146	20	*FAIL*
Vinyl chloride	09/06/2019	23:05	4.70	4.20	4.00	118	11	58-137	20	

RPD or Spike Recovery: 4 out of 66 outside QC limits

CT LABORATORIES
delivering more than data from your environmental analyses

3B

SOIL VOLATILE MATRIX SPIKE RECOVERY

Sample Description: **GN-SO-04-1**

Lab Name: CT Laboratories | Contract: HDR, INC-MEMPHIS DEPOT

Matrix: SOIL | SDG No.: 147664

Analytical Method: EPA 8260C | Concentration Units: ug/kg

Analytical Run #: 163979 | Sample No.: 321327 | Parent Sample No.: 321161

Analytical Prep Batch #: 73327 | Analytical Preparation Date/Time: 09/02/2019 09:05

ICAL Calibration #: LS090419

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R	
1,1,1,2-Tetrachloroethane	09/05/2019	22:50	78-125	9.29	BDL	11.8	79	
1,1,1-Trichloroethane	09/05/2019	22:50	73-130	11.3	BDL	11.8	96	
1,1,2,2-Tetrachloroethane	09/05/2019	22:50	70-124	12.6	BDL	11.8	107	
1,1,2-Trichloroethane	09/05/2019	22:50	78-121	11.1	BDL	11.8	94	
1,1-Dichloroethane	09/05/2019	22:50	76-125	11.4	BDL	11.8	97	
1,1-Dichloroethene	09/05/2019	22:50	70-131	12.0	BDL	11.8	102	
1,1-Dichloropropene	09/05/2019	22:50	76-125	11.1	BDL	11.8	94	
1,2,3-Trichlorobenzene	09/05/2019	22:50	66-130	3.41	BDL	11.8	29	*FAIL*
1,2,3-Trichloropropane	09/05/2019	22:50	73-125	13.8	BDL	11.8	117	
1,2,4-Trichlorobenzene	09/05/2019	22:50	67-129	3.53	BDL	11.8	30	*FAIL*
1,2,4-Trimethylbenzene	09/05/2019	22:50	75-123	10.5	BDL	11.8	89	
1,2-Dibromo-3-chloropropane	09/05/2019	22:50	61-132	9.87	BDL	11.8	84	
1,2-Dibromoethane	09/05/2019	22:50	78-122	10.3	BDL	11.8	87	
1,2-Dichlorobenzene	09/05/2019	22:50	78-121	7.41	BDL	11.8	63	*FAIL*
1,2-Dichloroethane	09/05/2019	22:50	73-128	11.5	BDL	11.8	97	
1,2-Dichloropropane	09/05/2019	22:50	76-123	10.6	BDL	11.8	90	
1,3,5-Trimethylbenzene	09/05/2019	22:50	73-124	9.52	BDL	11.8	81	
1,3-Dichlorobenzene	09/05/2019	22:50	77-121	7.64	BDL	11.8	65	*FAIL*
1,3-Dichloropropane	09/05/2019	22:50	77-121	10.3	BDL	11.8	87	
1,4-Dichlorobenzene	09/05/2019	22:50	75-120	8.35	BDL	11.8	71	*FAIL*
2,2-Dichloropropane	09/05/2019	22:50	67-133	10.3	BDL	11.8	87	
2-Butanone	09/05/2019	22:50	51-148	158	BDL	118	134	
2-Chlorotoluene	09/05/2019	22:50	75-122	10.1	BDL	11.8	86	
2-Hexanone	09/05/2019	22:50	53-145	124	BDL	118	105	
4-Chlorotoluene	09/05/2019	22:50	72-124	9.87	BDL	11.8	84	
4-Methyl-2-pentanone	09/05/2019	22:50	65-135	136	BDL	118	115	
Acetone	09/05/2019	22:50	36-164	385	173	118	180	*FAIL*
Benzene	09/05/2019	22:50	77-121	11.5	BDL	11.8	97	
Bromobenzene	09/05/2019	22:50	78-121	10.3	BDL	11.8	87	
Bromochloromethane	09/05/2019	22:50	78-125	11.4	BDL	11.8	97	
Bromodichloromethane	09/05/2019	22:50	75-127	10.7	BDL	11.8	91	

CT LABORATORIES
delivering more than data from your environmental analyses

3B

Sample Description

GN-SO-04-1

SOIL VOLATILE MATRIX SPIKE RECOVERY

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

Matrix: SOIL SDG No.: 147664

Analytical Method: EPA 8260C Concentration Units: ug/kg

Analytical Run #: 163979 Sample No.: 321327 Parent Sample No.: 321161

Analytical Prep Batch #: 73327 Analytical Preparation Date/Time: 09/02/2019 09:05

ICAL Calibration #: LS090419

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R	
Bromoform	09/05/2019	22:50	67-132	9.52	BDL	11.8	81	
Bromomethane	09/05/2019	22:50	53-143	9.64	BDL	11.8	82	
Carbon disulfide	09/05/2019	22:50	63-132	28.9	5.72	23.5	99	
Carbon tetrachloride	09/05/2019	22:50	70-135	10.7	BDL	11.8	91	
Chlorobenzene	09/05/2019	22:50	79-120	8.93	BDL	11.8	76	*FAIL*
Chloroethane	09/05/2019	22:50	59-139	11.6	BDL	11.8	98	
Chloroform	09/05/2019	22:50	78-123	10.8	BDL	11.8	92	
Chloromethane	09/05/2019	22:50	50-136	11.5	BDL	11.8	97	
cis-1,2-Dichloroethene	09/05/2019	22:50	77-123	10.7	BDL	11.8	91	
cis-1,3-Dichloropropene	09/05/2019	22:50	74-126	10.5	BDL	11.8	89	
Dibromochloromethane	09/05/2019	22:50	74-126	10.3	BDL	11.8	87	
Dibromomethane	09/05/2019	22:50	78-125	11.1	BDL	11.8	94	
Dichlorodifluoromethane	09/05/2019	22:50	29-149	12.3	BDL	11.8	104	
Ethylbenzene	09/05/2019	22:50	76-122	9.64	BDL	11.8	82	
Freon 113	09/05/2019	22:50	66-136	23.3	BDL	23.5	99	
Hexachlorobutadiene	09/05/2019	22:50	61-135	3.41	BDL	11.8	29	*FAIL*
Isopropylbenzene	09/05/2019	22:50	68-134	8.23	BDL	11.8	70	
m & p-Xylene	09/05/2019	22:50	77-124	18.7	BDL	23.5	80	
Methylene chloride	09/05/2019	22:50	70-128	11.8	BDL	11.8	100	
Naphthalene	09/05/2019	22:50	62-129	4.00	BDL	11.8	34	*FAIL*
n-Butylbenzene	09/05/2019	22:50	70-128	7.05	BDL	11.8	60	*FAIL*
n-Propylbenzene	09/05/2019	22:50	73-125	10.1	BDL	11.8	86	
o-Xylene	09/05/2019	22:50	77-123	9.17	BDL	11.8	78	
p-Isopropyltoluene	09/05/2019	22:50	73-127	7.88	BDL	11.8	67	*FAIL*
sec-Butylbenzene	09/05/2019	22:50	73-126	7.99	BDL	11.8	68	*FAIL*
Styrene	09/05/2019	22:50	76-124	5.06	BDL	11.8	43	*FAIL*
tert-Butylbenzene	09/05/2019	22:50	73-125	8.70	BDL	11.8	74	
Tetrachloroethene	09/05/2019	22:50	73-128	9.29	BDL	11.8	79	
Toluene	09/05/2019	22:50	77-121	11.3	0.835	11.8	89	
trans-1,2-Dichloroethene	09/05/2019	22:50	74-125	10.3	BDL	11.8	87	
trans-1,3-Dichloropropene	09/05/2019	22:50	71-130	9.64	BDL	11.8	82	

CT LABORATORIES
delivering more than data from your environmental analyses

3B

Sample Description

SOIL VOLATILE MATRIX SPIKE RECOVERY

GN-SO-04-1

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

Matrix: SOIL SDG No.: 147664

Analytical Method: EPA 8260C Concentration Units: ug/kg

Analytical Run #: 163979 Sample No.: 321327 Parent Sample No.: 321161

Analytical Prep Batch #: 73327 Analytical Preparation Date/Time: 09/02/2019 09:05

ICAL Calibration #: LS090419

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
Trichloroethene	09/05/2019	22:50	77-123	10.2	BDL	11.8	86
Trichlorofluoromethane	09/05/2019	22:50	62-140	11.5	BDL	11.8	97
Vinyl acetate	09/05/2019	22:50	50-151	82.1	BDL	118	70
Vinyl chloride	09/05/2019	22:50	56-135	12.0	BDL	11.8	102

Spike Recovery: 13 out of 66 outside QC limits

CT LABORATORIES
delivering more than data from your environmental analyses

3B

Sample Description

SOIL VOLATILE MATRIX SPIKE DUPLICATE RECOVERY

GN-SO-04-1

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

Matrix: SOIL SDG No.: 147664

Analytical Method: EPA 8260C Concentration Units: ug/kg

Analytical Run #: 163979 Sample No.: 321328 Parent Sample No.: 321327

Analytical Prep Batch #: 73327 Analytical Preparation Date/Time: 09/02/2019 09:05

ICAL Calibration #: LS090419

Analyte	Analysis Date/Time		Spike Result	Spike Amount	%R	%RPD	Control Limits (%R)	Control Limits (%RPD)	
1,1,1,2-Tetrachloroethane	09/05/2019	23:19	10.7	11.6	92	15	78-125	20	
1,1,1-Trichloroethane	09/05/2019	23:19	13.3	11.6	115	17	73-130	20	
1,1,2,2-Tetrachloroethane	09/05/2019	23:19	14.7	11.6	127	16	70-124	20	*FAIL*
1,1,2-Trichloroethane	09/05/2019	23:19	12.5	11.6	108	13	78-121	20	
1,1-Dichloroethane	09/05/2019	23:19	12.2	11.6	105	8	76-125	20	
1,1-Dichloroethene	09/05/2019	23:19	13.4	11.6	116	12	70-131	20	
1,1-Dichloropropene	09/05/2019	23:19	12.9	11.6	111	17	76-125	20	
1,2,3-Trichlorobenzene	09/05/2019	23:19	4.77	11.6	41	34	66-130	20	*FAIL*
1,2,3-Trichloropropane	09/05/2019	23:19	15.8	11.6	136	15	73-125	20	*FAIL*
1,2,4-Trichlorobenzene	09/05/2019	23:19	5.59	11.6	48	46	67-129	20	*FAIL*
1,2,4-Trimethylbenzene	09/05/2019	23:19	13.4	11.6	116	25	75-123	20	*FAIL*
1,2-Dibromo-3-chloropropane	09/05/2019	23:19	12.8	11.6	110	27	61-132	20	*FAIL*
1,2-Dibromoethane	09/05/2019	23:19	13.0	11.6	112	24	78-122	20	*FAIL*
1,2-Dichlorobenzene	09/05/2019	23:19	8.96	11.6	77	20	78-121	20	*FAIL*
1,2-Dichloroethane	09/05/2019	23:19	13.5	11.6	116	17	73-128	20	
1,2-Dichloropropane	09/05/2019	23:19	12.0	11.6	103	13	76-123	20	
1,3,5-Trimethylbenzene	09/05/2019	23:19	12.8	11.6	110	30	73-124	20	*FAIL*
1,3-Dichlorobenzene	09/05/2019	23:19	9.78	11.6	84	26	77-121	20	*FAIL*
1,3-Dichloropropane	09/05/2019	23:19	12.3	11.6	106	19	77-121	20	
1,4-Dichlorobenzene	09/05/2019	23:19	9.78	11.6	84	17	75-120	20	
2,2-Dichloropropane	09/05/2019	23:19	12.9	11.6	111	23	67-133	20	*FAIL*
2-Butanone	09/05/2019	23:19	173	116	149	10	51-148	20	*FAIL*
2-Chlorotoluene	09/05/2019	23:19	12.5	11.6	108	22	75-122	20	*FAIL*
2-Hexanone	09/05/2019	23:19	157	116	135	25	53-145	20	*FAIL*
4-Chlorotoluene	09/05/2019	23:19	12.2	11.6	105	22	72-124	20	*FAIL*
4-Methyl-2-pentanone	09/05/2019	23:19	166	116	143	21	65-135	20	*FAIL*
Acetone	09/05/2019	23:19	361	116	162	5	36-164	20	
Benzene	09/05/2019	23:19	12.6	11.6	109	10	77-121	20	
Bromobenzene	09/05/2019	23:19	12.0	11.6	103	16	78-121	20	
Bromochloromethane	09/05/2019	23:19	12.8	11.6	110	13	78-125	20	
Bromodichloromethane	09/05/2019	23:19	11.6	11.6	100	9	75-127	20	

CT LABORATORIES
delivering more than data from your environmental analyses

3B

Sample Description

GN-SO-04-1

SOIL VOLATILE MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

Matrix: SOIL SDG No.: 147664

Analytical Method: EPA 8260C Concentration Units: ug/kg

Analytical Run #: 163979 Sample No.: 321328 Parent Sample No.: 321327

Analytical Prep Batch #: 73327 Analytical Preparation Date/Time: 09/02/2019 09:05

ICAL Calibration #: LS090419

Analyte	Analysis Date/Time		Spike Result	Spike Amount	%R	%RPD	Control Limits (%R)	Control Limits (%RPD)	
Bromoform	09/05/2019	23:19	10.7	11.6	92	13	67-132	20	
Bromomethane	09/05/2019	23:19	10.1	11.6	87	6	53-143	20	
Carbon disulfide	09/05/2019	23:19	32.1	23.3	113	11	63-132	20	
Carbon tetrachloride	09/05/2019	23:19	12.3	11.6	106	15	70-135	20	
Chlorobenzene	09/05/2019	23:19	10.5	11.6	91	17	79-120	20	
Chloroethane	09/05/2019	23:19	12.3	11.6	106	7	59-139	20	
Chloroform	09/05/2019	23:19	11.9	11.6	103	10	78-123	20	
Chloromethane	09/05/2019	23:19	12.8	11.6	110	12	50-136	20	
cis-1,2-Dichloroethene	09/05/2019	23:19	12.0	11.6	103	12	77-123	20	
cis-1,3-Dichloropropene	09/05/2019	23:19	11.8	11.6	102	13	74-126	20	
Dibromochloromethane	09/05/2019	23:19	12.3	11.6	106	19	74-126	20	
Dibromomethane	09/05/2019	23:19	12.6	11.6	109	14	78-125	20	
Dichlorodifluoromethane	09/05/2019	23:19	14.2	11.6	122	15	29-149	20	
Ethylbenzene	09/05/2019	23:19	11.8	11.6	102	21	76-122	20	*FAIL*
Freon 113	09/05/2019	23:19	27.6	23.3	118	18	66-136	20	
Hexachlorobutadiene	09/05/2019	23:19	8.84	11.6	76	90	61-135	20	*FAIL*
Isopropylbenzene	09/05/2019	23:19	11.5	11.6	99	34	68-134	20	*FAIL*
m & p-Xylene	09/05/2019	23:19	23.6	23.3	101	24	77-124	20	*FAIL*
Methylene chloride	09/05/2019	23:19	13.5	11.6	116	15	70-128	20	
Naphthalene	09/05/2019	23:19	5.35	11.6	46	30	62-129	20	*FAIL*
n-Butylbenzene	09/05/2019	23:19	12.1	11.6	104	54	70-128	20	*FAIL*
n-Propylbenzene	09/05/2019	23:19	13.8	11.6	119	32	73-125	20	*FAIL*
o-Xylene	09/05/2019	23:19	11.4	11.6	98	23	77-123	20	*FAIL*
p-Isopropyltoluene	09/05/2019	23:19	12.6	11.6	109	47	73-127	20	*FAIL*
sec-Butylbenzene	09/05/2019	23:19	13.5	11.6	116	52	73-126	20	*FAIL*
Styrene	09/05/2019	23:19	8.73	11.6	75	54	76-124	20	*FAIL*
tert-Butylbenzene	09/05/2019	23:19	13.1	11.6	113	42	73-125	20	*FAIL*
Tetrachloroethene	09/05/2019	23:19	12.1	11.6	104	27	73-128	20	*FAIL*
Toluene	09/05/2019	23:19	12.8	11.6	103	14	77-121	20	
trans-1,2-Dichloroethene	09/05/2019	23:19	12.0	11.6	103	16	74-125	20	
trans-1,3-Dichloropropene	09/05/2019	23:19	11.2	11.6	97	16	71-130	20	

CT LABORATORIES
delivering more than data from your environmental analyses

3B

Sample Description

GN-SO-04-1

SOIL VOLATILE MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

Matrix: SOIL SDG No.: 147664

Analytical Method: EPA 8260C Concentration Units: ug/kg

Analytical Run #: 163979 Sample No.: 321328 Parent Sample No.: 321327

Analytical Prep Batch #: 73327 Analytical Preparation Date/Time: 09/02/2019 09:05

ICAL Calibration #: LS090419

Analyte	Analysis Date/Time		Spike Result	Spike Amount	%R	%RPD	Control Limits (%R)	Control Limits (%RPD)
Trichloroethene	09/05/2019	23:19	12.1	11.6	104	18	77-123	20
Trichlorofluoromethane	09/05/2019	23:19	13.1	11.6	113	14	62-140	20
Vinyl acetate	09/05/2019	23:19	90.1	116	78	10	50-151	20
Vinyl chloride	09/05/2019	23:19	13.5	11.6	116	13	56-135	20

RPD or Spike Recovery: 29 out of 66 outside QC limits

CT LABORATORIES
delivering more than data from your environmental analyses

3B

Sample Description

LCS

SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: CT Laboratories | Contract: HDR, INC-MEMPHIS DEPOT

Sample No.: 321325 | SDG No.: 147664

Analytical Method: EPA 8260C | Concentration Units: ug/kg

Sample No.: 321325 | Parent Sample No.: 0

Analytical Prep Batch #: 73327 | Analytical Preparation Date/Time: 09/02/2019 09:05

Analytical Run #: 163979 | ICAL Calibration #: LS090419

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
1,1,1,2-Tetrachloroethane	09/05/2019	08:40	78-125	8.60		10.0	86
1,1,1-Trichloroethane	09/05/2019	08:40	73-130	8.90		10.0	89
1,1,2,2-Tetrachloroethane	09/05/2019	08:40	70-124	9.40		10.0	94
1,1,2-Trichloroethane	09/05/2019	08:40	78-121	9.80		10.0	98
1,1-Dichloroethane	09/05/2019	08:40	76-125	8.60		10.0	86
1,1-Dichloroethene	09/05/2019	08:40	70-131	8.90		10.0	89
1,1-Dichloropropene	09/05/2019	08:40	76-125	9.00		10.0	90
1,2,3-Trichlorobenzene	09/05/2019	08:40	66-130	9.50		10.0	95
1,2,3-Trichloropropane	09/05/2019	08:40	73-125	9.60		10.0	96
1,2,4-Trichlorobenzene	09/05/2019	08:40	67-129	9.80		10.0	98
1,2,4-Trimethylbenzene	09/05/2019	08:40	75-123	8.70		10.0	87
1,2-Dibromo-3-chloropropane	09/05/2019	08:40	61-132	9.60		10.0	96
1,2-Dibromoethane	09/05/2019	08:40	78-122	9.50		10.0	95
1,2-Dichlorobenzene	09/05/2019	08:40	78-121	9.00		10.0	90
1,2-Dichloroethane	09/05/2019	08:40	73-128	9.70		10.0	97
1,2-Dichloropropane	09/05/2019	08:40	76-123	9.10		10.0	91
1,3,5-Trimethylbenzene	09/05/2019	08:40	73-124	8.60		10.0	86
1,3-Dichlorobenzene	09/05/2019	08:40	77-121	8.70		10.0	87
1,3-Dichloropropane	09/05/2019	08:40	77-121	9.50		10.0	95
1,4-Dichlorobenzene	09/05/2019	08:40	75-120	9.50		10.0	95
2,2-Dichloropropane	09/05/2019	08:40	67-133	8.60		10.0	86
2-Butanone	09/05/2019	08:40	51-148	92.9		100	93
2-Chlorotoluene	09/05/2019	08:40	75-122	8.50		10.0	85
2-Hexanone	09/05/2019	08:40	53-145	92.8		100	93
4-Chlorotoluene	09/05/2019	08:40	72-124	8.90		10.0	89
4-Methyl-2-pentanone	09/05/2019	08:40	65-135	102		100	102
Acetone	09/05/2019	08:40	36-164	101		100	101
Benzene	09/05/2019	08:40	77-121	8.70		10.0	87

CT LABORATORIES
delivering more than data from your environmental analyses

3B

Sample Description

LCS

SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: CT Laboratories | Contract: HDR, INC-MEMPHIS DEPOT

Sample No.: 321325 | SDG No.: 147664

Analytical Method: EPA 8260C | Concentration Units: ug/kg

Sample No.: 321325 | Parent Sample No.: 0

Analytical Prep Batch #: 73327 | Analytical Preparation Date/Time: 09/02/2019 09:05

Analytical Run #: 163979 | ICAL Calibration #: LS090419

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
Bromobenzene	09/05/2019	08:40	78-121	8.60		10.0	86
Bromochloromethane	09/05/2019	08:40	78-125	8.40		10.0	84
Bromodichloromethane	09/05/2019	08:40	75-127	9.30		10.0	93
Bromoform	09/05/2019	08:40	67-132	8.90		10.0	89
Bromomethane	09/05/2019	08:40	53-143	8.00		10.0	80
Carbon disulfide	09/05/2019	08:40	63-132	17.7		20.0	88
Carbon tetrachloride	09/05/2019	08:40	70-135	8.60		10.0	86
Chlorobenzene	09/05/2019	08:40	79-120	8.60		10.0	86
Chloroethane	09/05/2019	08:40	59-139	8.30		10.0	83
Chloroform	09/05/2019	08:40	78-123	9.00		10.0	90
Chloromethane	09/05/2019	08:40	50-136	8.30		10.0	83
cis-1,2-Dichloroethene	09/05/2019	08:40	77-123	8.80		10.0	88
cis-1,3-Dichloropropene	09/05/2019	08:40	74-126	9.20		10.0	92
Dibromochloromethane	09/05/2019	08:40	74-126	9.50		10.0	95
Dibromomethane	09/05/2019	08:40	78-125	9.60		10.0	96
Dichlorodifluoromethane	09/05/2019	08:40	29-149	9.10		10.0	91
Ethylbenzene	09/05/2019	08:40	76-122	8.80		10.0	88
Freon 113	09/05/2019	08:40	66-136	18.2		20.0	91
Hexachlorobutadiene	09/05/2019	08:40	61-135	8.80		10.0	88
Isopropylbenzene	09/05/2019	08:40	68-134	9.00		10.0	90
m & p-Xylene	09/05/2019	08:40	77-124	17.3		20.0	86
Methylene chloride	09/05/2019	08:40	70-128	8.80		10.0	88
Naphthalene	09/05/2019	08:40	62-129	9.80		10.0	98
n-Butylbenzene	09/05/2019	08:40	70-128	9.10		10.0	91
n-Propylbenzene	09/05/2019	08:40	73-125	8.80		10.0	88
o-Xylene	09/05/2019	08:40	77-123	8.40		10.0	84
p-Isopropyltoluene	09/05/2019	08:40	73-127	8.90		10.0	89
sec-Butylbenzene	09/05/2019	08:40	73-126	9.10		10.0	91

CT LABORATORIES
delivering more than data from your environmental analyses

3B

Sample Description

LCS

SOIL VOLATILE LAB CONTROL SAMPLE

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

Sample No.: 321325 SDG No.: 147664

Analytical Method: EPA 8260C Concentration Units: ug/kg

Sample No.: 321325 Parent Sample No.: 0

Analytical Prep Batch #: 73327 Analytical Preparation Date/Time: 09/02/2019 09:05

Analytical Run #: 163979 ICAL Calibration #: LS090419

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
Styrene	09/05/2019	08:40	76-124	8.90		10.0	89
tert-Butylbenzene	09/05/2019	08:40	73-125	8.50		10.0	85
Tetrachloroethene	09/05/2019	08:40	73-128	9.00		10.0	90
Toluene	09/05/2019	08:40	77-121	8.50		10.0	85
trans-1,2-Dichloroethene	09/05/2019	08:40	74-125	8.50		10.0	85
trans-1,3-Dichloropropene	09/05/2019	08:40	71-130	9.60		10.0	96
Trichloroethene	09/05/2019	08:40	77-123	8.70		10.0	87
Trichlorofluoromethane	09/05/2019	08:40	62-140	8.80		10.0	88
Vinyl acetate	09/05/2019	08:40	50-151	99.9		100	100
Vinyl chloride	09/05/2019	08:40	78-124	8.80		10.0	88

Spike Recovery: 0 out of 66 outside limits

CT LABORATORIES
delivering more than data from your environmental analyses

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Sample ID:	321324	SDG No.:	147664
Matrix:	SOLID	Date Extracted:	09/02/2019
Date Analyzed:	09/05/2019	Time Analyzed:	09:38
Analytical Method:	EPA 8260C	Extraction Method:	SW5035
Analytical Run #:	163979	Extraction Batch #:	73327
		ICAL Calibration #:	LS090419

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC:

SEQUENCE	SAMPLE DESCRIPTION	SAMPLE ID	DATE/TIME ANALYZED	CALIBRATION # ID
1	BFB	323096	09/05/2019 07:27	
2	CCV	323091	09/05/2019 08:11	LS090419
3	LCSS	321325	09/05/2019 08:40	LS090419
4	MBS	321324	09/05/2019 09:38	LS090419
5	GN-SO-01-2	321154	09/05/2019 10:36	LS090419
6	GN-SO-02-1	321155	09/05/2019 11:05	LS090419
7	GN-SO-DUP-1	321157	09/05/2019 11:34	LS090419
8	GN-SO-02-2	321158	09/05/2019 12:03	LS090419
9	GN-SO-03-2	321160	09/05/2019 13:02	LS090419
10	GN-SO-04-1	321161	09/05/2019 13:31	LS090419
11	GN-SO-04-2	321162	09/05/2019 14:00	LS090419
12	CCVF	323375	09/05/2019 14:29	LS090419
13	BFB	323382	09/05/2019 14:52	
14	CCV	323576	09/05/2019 15:05	LS090419
15	CCB	323579	09/05/2019 16:03	LS090419
16	GN-SO-05-1	321163	09/05/2019 16:32	LS090419
17	GN-SO-05-2	321164	09/05/2019 17:01	LS090419
18	GN-SO-DUP-2	321165	09/05/2019 17:30	LS090419
19	GN-SO-06-1	321166	09/05/2019 17:59	LS090419
20	GN-SO-06-2	321167	09/05/2019 18:28	LS090419
21	GN-SO-07-1	321168	09/05/2019 18:57	LS090419
22	GN-SO-07-2	321169	09/05/2019 19:26	LS090419
23	GN-SO-09C-1	321172	09/05/2019 20:54	LS090419
24	GN-SO-01-1	321149	09/05/2019 21:52	LS090419
25	GNSO-03-1	321159	09/05/2019 22:21	LS090419
26	GN-SO-04-1MSS	321327	09/05/2019 22:50	LS090419
27	GN-SO-04-1MSDS	321328	09/05/2019 23:19	LS090419
28	CCVF	323578	09/05/2019 23:48	LS090419
29	BFB	323582	09/06/2019 07:19	
30	CCV	323659	09/06/2019 08:33	LS090419

CT LABORATORIES
delivering more than data from your environmental analyses

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Sample ID:	321324	SDG No.:	147664
Matrix:	SOLID	Date Extracted:	09/02/2019
Date Analyzed:	09/05/2019	Time Analyzed:	09:38
Analytical Method:	EPA 8260C	Extraction Method:	SW5035
Analytical Run #:	163979	Extraction Batch #:	73327
		ICAL Calibration #:	LS090419

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC:

SEQUENCE	SAMPLE DESCRIPTION	SAMPLE ID	DATE/TIME ANALYZED	CALIBRATION # ID
31	CCB	323688	09/06/2019 09:31	LS090419
32	GN-SO-08-1	321170	09/06/2019 10:00	LS090419
33	GN-SO-08-2	321171	09/06/2019 10:29	LS090419
34	CCVF	323824	09/06/2019 10:58	LS090419

CT LABORATORIES
delivering more than data from your environmental analyses

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Sample ID:	324028	SDG No.:	147664
Matrix:	LIQUID	Date Extracted:	
Date Analyzed:	09/06/2019	Time Analyzed:	13:47
Analytical Method:	EPA 8260C	Extraction Method:	NONE
Analytical Run #:	163976	Extraction Batch #:	0
		ICAL Calibration #:	LW082519

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC:

SEQUENCE	SAMPLE DESCRIPTION	SAMPLE ID	DATE/TIME ANALYZED	CALIBRATION # ID
1	BFB	324031	09/06/2019 11:39	
2	LCSW	324034	09/06/2019 12:22	LW082519
3	CCV	324035	09/06/2019 12:22	LW082519
4	MBW	324028	09/06/2019 13:47	LW082519
5	GN-W-TB-01	321156	09/06/2019 14:44	LW082519
6	GN-W-RB-01	321173	09/06/2019 20:44	LW082519
7	LCSDW	327414	09/06/2019 23:05	LW082519
8	CCVF	327415	09/06/2019 23:05	LW082519

BFB

Data File : C:\Instarch\Data\SEP0419\BFB1.D Vial: 1
Acq On : 4 Sep 2019 12:40 Operator: RLD-DGS
Sample : 163978,BFB, Inst : VMS4
Misc : 50 ng Injection Multiplr: 1.00
Integration File: VOC1.P

Method : C:\INSTARCH\METHODS\LS090419.M
Title : 8260C Low Level Soils Method

Spectrum Information: Average of 4.640 to 4.653 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.3	17324	PASS
75	95	30	60	53.3	53283	PASS
95	95	100	100	100.0	100000	PASS
96	95	5	9	7.1	7107	PASS
173	174	0.00	2	0.3	257	PASS
174	95	50	100	80.3	80341	PASS
175	174	5	9	5.6	4486	PASS
176	174	95	101	99.4	79882	PASS
177	176	5	9	6.5	5188	PASS

LS090419.M Tue Sep 10 13:56:50 2019

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Injection Log Summary Report

Method : C:\INSTARCH\METHODS\LS090419.M
Title : 8260C Low Level Soils Method
Start (Tune) File ID : C:\INSTARCH\DATA\SEP0419\BFB1.D
Injection Date : 4 Sep 2019 Log Time Period (hrs) : ALL
Injection Time : 12:40 Total files within period : 20
Sample Directory : C:\INSTARCH\DATA\SEP0419\

Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name Misc Info	Date	Time
LLCALS1	1.00	1.00	1.00	CALIB. PT. 1 0.001/0.010 mg/kg, 1	4 Sep 2019	14:23
LLCALS2	1.00	1.00	1.00	CALIB. PT. 2 0.002/0.020 mg/kg, 1	4 Sep 2019	14:52
LLCALS3	1.00	1.00	1.00	CALIB. PT. 3 0.005/0.050 mg/kg, 1	4 Sep 2019	15:21
LLCALS4	1.00	1.00	1.00	CALIB. PT. 4 0.010/0.100 mg/kg, 1	4 Sep 2019	15:50
LLCALS5	1.00	1.00	1.00	CALIB. PT. 5 0.020/0.200 mg/kg, 1	4 Sep 2019	16:19
LLCALS6	1.00	1.00	1.00	CALIB. PT. 6 0.030/0.300 mg/kg, 1	4 Sep 2019	16:48
LLCALS7	1.00	1.00	1.00	CALIB. PT. 7 0.040/0.400 mg/kg, 1	4 Sep 2019	17:17
LLCALS8	1.00	1.00	1.00	CALIB. PT. 8 0.080/0.800 mg/kg, 1	4 Sep 2019	17:47
ICV1	1.00	1.00	1.00	INITIAL CALIB. VERIF 0.010/0.10 mg/kg, 15	4 Sep 2019	18:45
ICV2	1.00	1.00	1.00	INITIAL CALIB. VERIF 0.030/0.30 mg/kg, 15	4 Sep 2019	19:14
ICB-MB1	1.00	1.00	1.00	163978,MBS, 5.00g, 15.0 ml Purge	4 Sep 2019	20:41

BFB

Data File : C:\Instarch\Data\SEP0519\BFB1.D Vial: 1
Acq On : 5 Sep 2019 7:27 Operator: RLD-DGS
Sample : 163979,BFB, Inst : VMS4
Misc : 50 ng Injection Multiplr: 1.00
Integration File: VOC1.P

Method : C:\INSTARCH\METHODS\LS090419.M
Title : 8260C Low Level Soils Method

Spectrum Information: Average of 4.617 to 4.627 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.4	5893	PASS
75	95	30	60	52.2	18781	PASS
95	95	100	100	100.0	35948	PASS
96	95	5	9	7.6	2745	PASS
173	174	0.00	2	1.0	267	PASS
174	95	50	100	77.2	27746	PASS
175	174	5	9	5.6	1550	PASS
176	174	95	101	98.0	27192	PASS
177	176	5	9	7.3	1994	PASS

LS090419.M Mon Sep 09 11:34:52 2019

BFB

Data File : C:\Instarch\Data\SEP0519\BFB2.D Vial: 17
Acq On : 5 Sep 2019 14:52 Operator: RLD-DGS
Sample : 163979,BFB, Inst : VMS4
Misc : 50 ng Injection Multiplr: 1.00
Integration File: VOC1.P

Method : C:\INSTARCH\METHODS\LS090419.M
Title : 8260C Low Level Soils Method

Spectrum Information: Average of 4.617 to 4.633 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.3	18288	PASS
75	95	30	60	50.4	50360	PASS
95	95	100	100	100.0	100000	PASS
96	95	5	9	5.3	5265	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	79.6	79573	PASS
175	174	5	9	8.7	6914	PASS
176	174	95	101	99.6	79220	PASS
177	176	5	9	5.2	4125	PASS

LS090419.M Mon Sep 09 11:35:10 2019

BFB

Data File : C:\Instarch\Data\SEP0519\BFB3.D Vial: 37
Acq On : 6 Sep 2019 7:19 Operator: RLD-DGS
Sample : 163979,BFB, Inst : VMS4
Misc : 50 ng Injection Multiplr: 1.00
Integration File: VOC1.P

Method : C:\INSTARCH\METHODS\LS090419.M
Title : 8260C Low Level Soils Method

Spectrum Information: Average of 4.627 to 4.640 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.9	19865	PASS
75	95	30	60	54.5	54347	PASS
95	95	100	100	100.0	99744	PASS
96	95	5	9	7.3	7277	PASS
173	174	0.00	2	1.0	788	PASS
174	95	50	100	75.4	75163	PASS
175	174	5	9	7.9	5975	PASS
176	174	95	101	99.2	74537	PASS
177	176	5	9	6.2	4641	PASS

LS090419.M Mon Sep 09 11:35:38 2019

Injection Log Summary Report

Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Start (Tune) File ID : C:\INSTARCH\DATA\SEP0519\BFB1.D
Injection Date : 5 Sep 2019 Log Time Period (hrs) : ALL
Injection Time : 07:27 Total files within period : 43
Sample Directory : C:\INSTARCH\DATA\SEP0519\

Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name / Misc Info	Date	Time
CCV1	1.00	1.00	1.00	163979,CCV, 0.010/0.10 mg/kg, 15.0 ml	5 Sep 2019	08:11
LCS1	1.00	1.00	1.00	163979,LCSS, 5.00g, 0.010/0.10 mg/kg,	5 Sep 2019	08:40
MB1	1.00	1.00	1.00	163979,MBS, 5.00g, 15.0 ml Purged + I	5 Sep 2019	09:38
321149	1.00	1.00	1.00	163979,321149, 4.14g, 15.0 ml Purged + I	5 Sep 2019	10:07
321154	1.00	1.00	1.00	163979,321154, 5.03g, 15.0 ml Purged + I	5 Sep 2019	10:36
321155	1.00	1.00	1.00	163979,321155, 4.23g, 15.0 ml Purged + I	5 Sep 2019	11:05
321157	1.00	1.00	1.00	163979,321157, 4.18g, 15.0 ml Purged + I	5 Sep 2019	11:34
321158	1.00	1.00	1.00	163979,321158, 5.92g, 15.0 ml Purged + I	5 Sep 2019	12:03
321159	1.00	1.00	1.00	163979,321159, 4.51g, 15.0 ml Purged + I	5 Sep 2019	12:33
321160	1.00	1.00	1.00	163979,321160, 6.57g, 15.0 ml Purged + I	5 Sep 2019	13:02
321161	1.00	1.00	1.00	163979,321161, 4.83g, 15.0 ml Purged + I	5 Sep 2019	13:31
321162	1.00	1.00	1.00	163979,321162, 5.66g, 15.0 ml Purged + I	5 Sep 2019	14:00
CCVF1	1.00	1.00	1.00	163979,CCVF, 0.010/0.10 mg/kg, 15.0 ml	5 Sep 2019	14:29
BFB2	1.00	1.00	1.00	163979,BFB, 50 ng Injection	5 Sep 2019	14:52
CCV2	1.00	1.00	1.00	163979,CCV, 0.010/0.10 mg/kg, 15.0 ml	5 Sep 2019	15:05
CCB1	1.00	1.00	1.00	163979,CCB, 5.00g, 15.0 ml Purged + I	5 Sep 2019	16:03
321163	1.00	1.00	1.00	163979,321163, 5.24g, 15.0 ml Purged + I	5 Sep 2019	16:32
321164	1.00	1.00	1.00	163979,321164, 5.13g, 15.0 ml Purged + I	5 Sep 2019	17:01
321165	1.00	1.00	1.00	163979,321165, 6.12g, 15.0 ml Purged + I	5 Sep 2019	17:30

Injection Log Summary Report

Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Start (Tune) File ID : C:\INSTARCH\DATA\SEP0519\BFB1.D
Injection Date : 5 Sep 2019 Log Time Period (hrs) : ALL
Injection Time : 07:27 Total files within period : 43
Sample Directory : C:\INSTARCH\DATA\SEP0519\

Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name Misc Info	Date Time
321166	1.00	1.00	1.00	163979,321166, 4.59g, 15.0 ml Purged + I	5 Sep 2019 17:59
321167	1.00	1.00	1.00	163979,321167, 5.41g, 15.0 ml Purged + I	5 Sep 2019 18:28
321168	1.00	1.00	1.00	163979,321168, 4.63g, 15.0 ml Purged + I	5 Sep 2019 18:57
321169	1.00	1.00	1.00	163979,321169, 4.61g, 15.0 ml Purged + I	5 Sep 2019 19:26
321170	1.00	1.00	1.00	163979,321170, 5.42g, 15.0 ml Purged + I	5 Sep 2019 19:55
321171	1.00	1.00	1.00	163979,321171, 5.62g, 15.0 ml Purged + I	5 Sep 2019 20:24
321172	1.00	1.00	1.00	163979,321172, 4.52g, 15.0 ml Purged + I	5 Sep 2019 20:54
321149R	1.00	1.00	1.00	163979,321149, 4.14g, 15.0 ml Purged + I	5 Sep 2019 21:52
321159R	1.00	1.00	1.00	163979,321159, 4.97g, 15.0 ml Purged + I	5 Sep 2019 22:21
321161MS	1.00	1.00	1.00	163979,MSS321161, 4.58g, 0.010/0.10 mg/kg,	5 Sep 2019 22:50
321161SD	1.00	1.00	1.00	163979,MSDS321161, 4.95g, 0.010/0.10 mg/kg,	5 Sep 2019 23:19
CCVF2	1.00	1.00	1.00	163979,CCVF, 0.010/0.10 mg/kg, 15.0 ml	5 Sep 2019 23:48
BFB3	1.00	1.00	1.00	163979,BFB, 50 ng Injection	6 Sep 2019 07:19
CCV3	1.00	1.00	1.00	163979,CCV, 0.010/0.10 mg/kg, 15.0 ml	6 Sep 2019 08:33
CCB2	1.00	1.00	1.00	163979,CCB, 5.00g, 15.0 ml Purged + I	6 Sep 2019 09:31
321170R	1.00	1.00	1.00	163979,321170, 4.66g, 15.0 ml Purged + I	6 Sep 2019 10:00
321171R	1.00	1.00	1.00	163979,321171, 4.97g, 15.0 ml Purged + I	6 Sep 2019 10:29
CCVF3	1.00	1.00	1.00	163979,CCVF, 0.010/0.10 mg/kg, 15.0 ml	6 Sep 2019 10:58

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : CT Laboratories, LLC Contract :
Project : Site : Location : Group :
Lab File ID (Standard): LLCALS4.D Date Analyzed : 4 Sep 2019
Instrument ID : VMS4 Time Analyzed : 15:50
GC Column : DB-624 UI ID : VMS4(mm) Heated Purge (Y:N) : Y

	IS1		IS2		IS3	
	Area #	RT #	Area #	RT #	Area #	RT #
12 HOUR STD	1105461	7.67	847393	11.59	446496	14.89
UPPER LIMIT	2210922	8.17	1694786	12.09	892992	15.39
LOWER LIMIT	552731	7.17	423697	11.09	223248	14.39
File ID Sample						
321149 163979,32	1135172	7.66	772306	11.59	294062	14.90
321149R 163979,32	990528	7.66	700889	11.59	269076	14.90
321154 163979,32	1117411	7.66	877100	11.59	423922	14.89
321155 163979,32	1075133	7.66	795568	11.59	355907	14.89
321157 163979,32	1054506	7.66	808295	11.59	367838	14.89
321158 163979,32	1087596	7.66	883773	11.59	473797	14.89
321159 163979,32	855130	7.66	617568	11.59	269352	14.89
321159R 163979,32	837908	7.66	655956	11.59	314135	14.89
321160 163979,32	1094035	7.66	838775	11.59	372921	14.89
321161 163979,32	948883	7.67	740000	11.59	363231	14.89
321161MS 163979,MS	1023798	7.66	759260	11.59	298467	14.89
321161SD 163979,MS	994644	7.67	747592	11.59	314483	14.90
321162 163979,32	962086	7.66	746908	11.59	366705	14.90
321163 163979,32	795843	7.66	527320	11.59	192984 *	14.89
321164 163979,32	906959	7.66	730610	11.59	372306	14.89
321165 163979,32	1096841	7.67	885752	11.59	470510	14.89
321166 163979,32	907218	7.66	584872	11.59	197328 *	14.90
321167 163979,32	898663	7.67	719780	11.59	377555	14.89
321168 163979,32	916162	7.66	700170	11.59	353351	14.90
321169 163979,32	1034340	7.66	851045	11.59	430534	14.90
321170 163979,32	0 *	0.00 *	0 *	0.00 *	0 *	0.00 *
321170R 163979,32	889063	7.67	642395	11.59	258783	14.90
321171 163979,32	12241 *	7.68	9913 *	11.61	4321 *	14.93
321171R 163979,32	795493	7.66	624540	11.59	283847	14.89
321172 163979,32	1102631	7.66	853873	11.59	387235	14.90

IS1 = FLUOROBENZENE**ISTD**
IS2 = d5-CHLOROBENZENE**ISTD**
IS3 = d4-1,4-DICHLOROBENZENE**IS

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : CT Laboratories, LLC Contract :
Project : Site : Location : Group :
Lab File ID (Standard): LLCALS4.D Date Analyzed : 4 Sep 2019
Instrument ID : VMS4 Time Analyzed : 15:50
GC Column : DB-624 UI ID : VMS4(mm) Heated Purge (Y:N) : Y

	IS1		IS2		IS3	
	Area #	RT #	Area #	RT #	Area #	RT #
12 HOUR STD	1105461	7.67	847393	11.59	446496	14.89
UPPER LIMIT	2210922	8.17	1694786	12.09	892992	15.39
LOWER LIMIT	552731	7.17	423697	11.09	223248	14.39
File ID Sample						
CCB1 163979,CC	1016790	7.66	808168	11.59	419520	14.89
CCB2 163979,CC	942041	7.66	757375	11.59	396483	14.89
CCV1 163979,CC	1216346	7.66	948387	11.59	499360	14.89
CCV2 163979,CC	1110524	7.66	852379	11.59	460404	14.89
CCV3 163979,CC	1058886	7.66	824480	11.59	446626	14.90
CCVF1 163979,CC	1064274	7.66	851641	11.59	442701	14.89
CCVF2 163979,CC	1037360	7.66	812204	11.59	435744	14.89
CCVF3 163979,CC	1048977	7.66	829257	11.59	450252	14.89
LCS1 163979,LC	1127735	7.66	898147	11.59	481468	14.89
MB1 163979,MB	1124960	7.66	889620	11.59	465204	14.89

IS1 = FLUOROBENZENE**ISTD**
IS2 = d5-CHLOROBENZENE**ISTD**
IS3 = d4-1,4-DICHLOROBENZENE**IS

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

BFB

Data File : C:\Instarch\Data\AUG2519\BFB1.D Vial: 1
Acq On : 25 Aug 2019 20:04 Operator: RLD-DGS
Sample : BFB DIRECT INJ. Inst : VMS4
Misc : 50 ng Injection Multiplr: 1.00
Integration File: VOC.P

Method : C:\INSTARCH\METHODS\LW082519.M
Title : 8260C Waters Method

Spectrum Information: Average of 4.614 to 4.630 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	26.4	6677	PASS
75	95	30	60	46.3	11742	PASS
95	95	100	100	100.0	25337	PASS
96	95	5	9	6.5	1649	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	78.4	19871	PASS
175	174	5	9	5.6	1120	PASS
176	174	95	101	99.0	19676	PASS
177	176	5	9	8.0	1580	PASS

LW082519.M Wed Aug 28 13:06:44 2019

pl_ilog
Injection Log Summary Report

Method : C:\INSTARCH\METHODS\LW082519.M
Title : 8260C Waters Method
Start (Tune) File ID : C:\INSTARCH\DATA\AUG2519\BFB1.D
Injection Date : 25 Aug 2019 Log Time Period (hrs) : ALL
Injection Time : 20:04 Total files within period : 18
Sample Directory : C:\INSTARCH\DATA\AUG2519\

Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name Misc Info	Date	Time
LLCALW1	1.00	1.00	1.00	CALIB. PT. 1 0.10/1.00 ug/L, 25.0	25 Aug 2019	21:42
LLCALW2	1.00	1.00	1.00	CALIB. PT. 2 0.20/2.00 ug/L, 25.0	25 Aug 2019	22:10
LLCALW3	1.00	1.00	1.00	CALIB. PT. 3 0.50/5.00 ug/L, 25.0	25 Aug 2019	22:39
LLCALW4	1.00	1.00	1.00	CALIB. PT. 4 1.00/10.00 ug/L, 25.	25 Aug 2019	23:07
LLCALW5	1.00	1.00	1.00	CALIB. PT. 5 2.00/20.00 ug/L, 25.	25 Aug 2019	23:35
LLCALW6	1.00	1.00	1.00	CALIB. PT. 6 4.00/40.0000 ug/L, 2	26 Aug 2019	00:04
LLCALW7	1.00	1.00	1.00	CALIB. PT. 7 6.00/60.00 ug/L, 25.	26 Aug 2019	00:32
LLCALW8	1.00	1.00	1.00	CALIB. PT. 8 8.00/80.00 ug/L, 25.	26 Aug 2019	01:00
LLCALW9	1.00	1.00	1.00	CALIB. PT. 9 16.00/160 ug/L, 25.0	26 Aug 2019	01:28
ICV1	1.00	1.00	1.00	INITIAL CALIB. VERIF 4.00/40.00 ug/L, 25.	26 Aug 2019	02:25
ICV2	1.00	1.00	1.00	INITIAL CALIB. VERIF 8.00/80.00 ug/L, 25.	26 Aug 2019	02:53
ICB1	1.00	1.00	1.00	INITIAL CALIB. BLANK pH<2, 25.0 ml DI H2O	26 Aug 2019	04:18

BFB

Data File : C:\Instarch\Data\SEP0619\BFB1.D Vial: 1
Acq On : 6 Sep 2019 11:39 Operator: RLD-DGS
Sample : 164175,BFB, Inst : VMS4
Misc : 50 ng Injection Multiplr: 1.00
Integration File: VOC.P

Method : C:\INSTARCH\METHODS\LW082519.M
Title : 8260C Waters Method

Spectrum Information: Average of 4.624 to 4.633 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	31.6	31610	PASS
75	95	30	60	49.1	49076	PASS
95	95	100	100	100.0	100000	PASS
96	95	5	9	6.4	6421	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	85.9	85907	PASS
175	174	5	9	8.1	6947	PASS
176	174	95	101	95.2	81754	PASS
177	176	5	9	7.0	5686	PASS

LW082519.M Mon Sep 16 10:57:34 2019

Injection Log Summary Report

Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Start (Tune) File ID : C:\INSTARCH\DATA\SEP0619\BFB1.D
Injection Date : 6 Sep 2019 Log Time Period (hrs) : ALL
Injection Time : 11:39 Total files within period : 24
Sample Directory : C:\INSTARCH\DATA\SEP0619\

Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name / Misc Info	Date	Time
CCV-LCS1	1.00	1.00	1.00	164175,LCSW, 4.00/40.00 ug/L, 25.0 ml	6 Sep 2019	12:22
MB1	1.00	1.00	1.00	164175,MBW, pH<2, 25.0 ml DI H2O Purg	6 Sep 2019	13:47
321156	1.00	1.00	1.00	163976,321156, pH<2, 25.0 ml Purged + IS	6 Sep 2019	14:44
321173	1.00	1.00	1.00	163976,321173, pH<2, 25.0 ml Purged + IS	6 Sep 2019	20:44
CCVF-L~1	1.00	1.00	1.00	164175,LCSDW, 4.00/40.00 ug/L, 25.0 ml	6 Sep 2019	23:05

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : CT Laboratories, LLC Contract :
Project : Site : Location : Group :
Lab File ID (Standard): LLCALW6.D Date Analyzed : 26 Aug 2019
Instrument ID : VMS4 Time Analyzed : 00:04
GC Column : DB-624 UI ID : VMS4(mm) Heated Purge (Y:N) : N

	IS1		IS2		IS3	
	Area #	RT #	Area #	RT #	Area #	RT #
12 HOUR STD	1382516	7.66	1078242	11.58	610923	14.89
UPPER LIMIT	2765032	8.16	2156484	12.08	1221846	15.39
LOWER LIMIT	691258	7.16	539121	11.08	305462	14.39
File ID Sample						
321156 163976,32	1037018	7.66	884465	11.59	468298	14.89
321173 163976,32	1018358	7.66	848296	11.59	444347	14.89
CCV-LCS1 164175,LC	1099006	7.66	881494	11.58	507450	14.89
CCVF-L~1 164175,LC	1112495	7.66	909904	11.59	495327	14.89
MB1 164175,MB	1060946	7.67	879565	11.59	473439	14.89

IS1 = FLUOROBENZENE**ISTD**
IS2 = d5-CHLOROBENZENE**ISTD**
IS3 = d4-1,4-DICHLOROBENZENE**IS

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

VOLATILE ORGANIC ANALYSIS
SAMPLE DATA
DOCUMENTS

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321149.D Vial: 7
Acq On : 5 Sep 2019 10:07 Operator: RLD-DGS
Sample : 163979,321149, Inst : VMS4
Misc : 4.14g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

NOT USED

Quant Time: Sep 05 10:28:18 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1135172	0.02 mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	772306	0.02 mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.90	152	294062	0.02 mg/kg	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.83	113	290692	0.021 mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 105 %		
45) SURR12DCAd4	7.24	102	62865	0.022 mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 110 %		
60) SURRd8Tolule	9.67	98	1082411	0.019 mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 95 %		
82) SURR4BrFBenz	13.23	95	344473	0.025 mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 125 %#		
Target Compounds					Qvalue
2) Dichlorodi	1.82	85	2309	0.0011 mg/kg#	44
3) Chloromethan	2.06	50	3234	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	2.68	94	3118	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	3.66	67	14629	0.0008 mg/kg#	29
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	3.85	56	1064	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.03	43	1036662	0.3110 mg/kg	98
16) Iodomethane	4.13	142	5032	0.0025 mg/kg#	80
17) Carbon Dislf	4.20	76	79145	0.0016 mg/kg	96
18) allylchloride	4.51	41	4191	N.D.	
19) methylacetate	4.51	74	17604	0.0041 mg/kg	96
20) Methylchlorid	4.60	84	35231	N.D.	
21) Acrylonitrile	4.96	53	1128	N.D.	
22) t12dichlorte	0.00	96	0	N.D.	
23) tbutylalcohol	4.79	59	30473	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	5.33	57	60473	0.0044 mg/kg	95
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	5.60	43	1687	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	6.19	59	5113	N.D.	
31) 22dichloropr	6.19	77	13144	0.0005 mg/kg#	46
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	6.29	72	16521	0.0117 mg/kg	86
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	6.62	42	6844	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321149.D Vial: 7
Acq On : 5 Sep 2019 10:07 Operator: RLD-DGS
Sample : 163979,321149, Inst : VMS4
Misc : 4.14g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 10:28:18 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	0.00	83	0	N.D.	
40) 111trichlota	0.00	97	0	N.D.	
42) Cyclohexane	6.92	56	33836	0.0023 mg/kg	85
43) Carbtetraclo	0.00	119	0	N.D.	
44) 11dicloprope	0.00	110	0	N.D.	
46) Benzene	7.32	78	47516	0.0007 mg/kg#	82
47) 12dichlorota	0.00	62	0	N.D.	
48) TAME	7.34	73	2799	N.D.	
49) trichloroete	0.00	95	0	N.D.	
50) methylcyclohexane	8.36	83	46525	0.0026 mg/kg	88
51) 12dicloropra	8.47	63	1499	N.D.	
52) 23dicl1propene	8.35	75	1027	N.D.	
53) Dibromometha	0.00	93	0	N.D.	
54) methylmethacrylate	8.59	69	1379	0.0011 mg/kg#	46
55) 14dioxane	0.00	88	0	N.D.	
56) Bromodiclrma	0.00	83	0	N.D.	
57) 2Nitropropane	9.02	43	4857	N.D.	
58) c13dicloproe	0.00	75	0	N.D.	
59) 4Meth2Pentan	9.52	43	10189	N.D.	
61) Toluene	9.76	92	160793	0.0035 mg/kg	96
62) t13Dicloprop	0.00	75	0	N.D.	
63) ethylmethacrylate	10.12	69	1481	N.D.	
64) 112Triclotha	10.29	83	2798	N.D.	
65) Tetrachlorte	0.00	166	0	N.D.	
66) 13Diclorpropa	0.00	76	0	N.D.	
68) 2Hexanone	10.63	43	11110	N.D.	
69) Clorodibrmta	0.00	129	0	N.D.	
70) 12Dibrometha	10.97	107	2284	N.D.	
71) Chlorobenzen	0.00	112	0	N.D.	
72) 1Clhexane	11.59	91	1961	0.0010 mg/kg#	1
73) 1112Tetclota	0.00	131	0	N.D.	
74) Ethylbenzene	11.78	91	23326	N.D.	
75) m p-Xylene	11.95	106	51529	0.0020 mg/kg	100
76) o-Xylene	12.51	106	15527	0.0006 mg/kg	92
77) Styrene	12.53	104	1273	N.D.	
78) Bromoform	0.00	173	0	N.D.	
79) Isopropylben	13.01	105	2585	N.D.	
81) cyclohexanone	13.13	55	1707	N.D.	
83) Bromobenzene	0.00	156	0	N.D.	
84) 1122Tetrclta	0.00	83	0	N.D.	
85) 123Triclproa	13.56	75	2890	N.D.	
86) 14dichloro2butene	0.00	53	0	N.D.	
87) n-Propylbenz	13.61	91	5019	N.D.	
88) 2chlorotolue	13.75	91	2089	N.D.	
89) 4chlorotolue	13.86	91	4265	N.D.	
90) 135Trimebenz	13.86	105	20197	N.D.	
91) tbutylbenzen	14.40	119	6562	N.D.	
92) 124Trimetben	14.41	105	87392	0.0021 mg/kg	81
93) sbutylbenzen	14.65	105	2019	N.D.	
94) 13Diclorbenz	0.00	146	0	N.D.	
95) pIsopropylto	14.86	119	32164	N.D.	
96) 14dichlorobe	0.00	146	0	N.D.	
97) 12dichlorobe	0.00	146	0	N.D.	
98) nButylbenzen	15.48	91	4665	N.D.	
99) 12dibromo3cl	0.00	157	0	N.D.	
100) 135Trichlorobenzene	16.88	180	1111	N.D.	
101) 124Trichlobe	17.72	180	1365	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321149.D Vial: 7
Acq On : 5 Sep 2019 10:07 Operator: RLD-DGS
Sample : 163979,321149, Inst : VMS4
Misc : 4.14g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 10:28:18 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) Hexachlorobu	0.00	225	0	N.D.	
103) Naphthalene	18.03	128	11068	N.D.	
104) 123Trichlben	18.32	180	1279	N.D.	

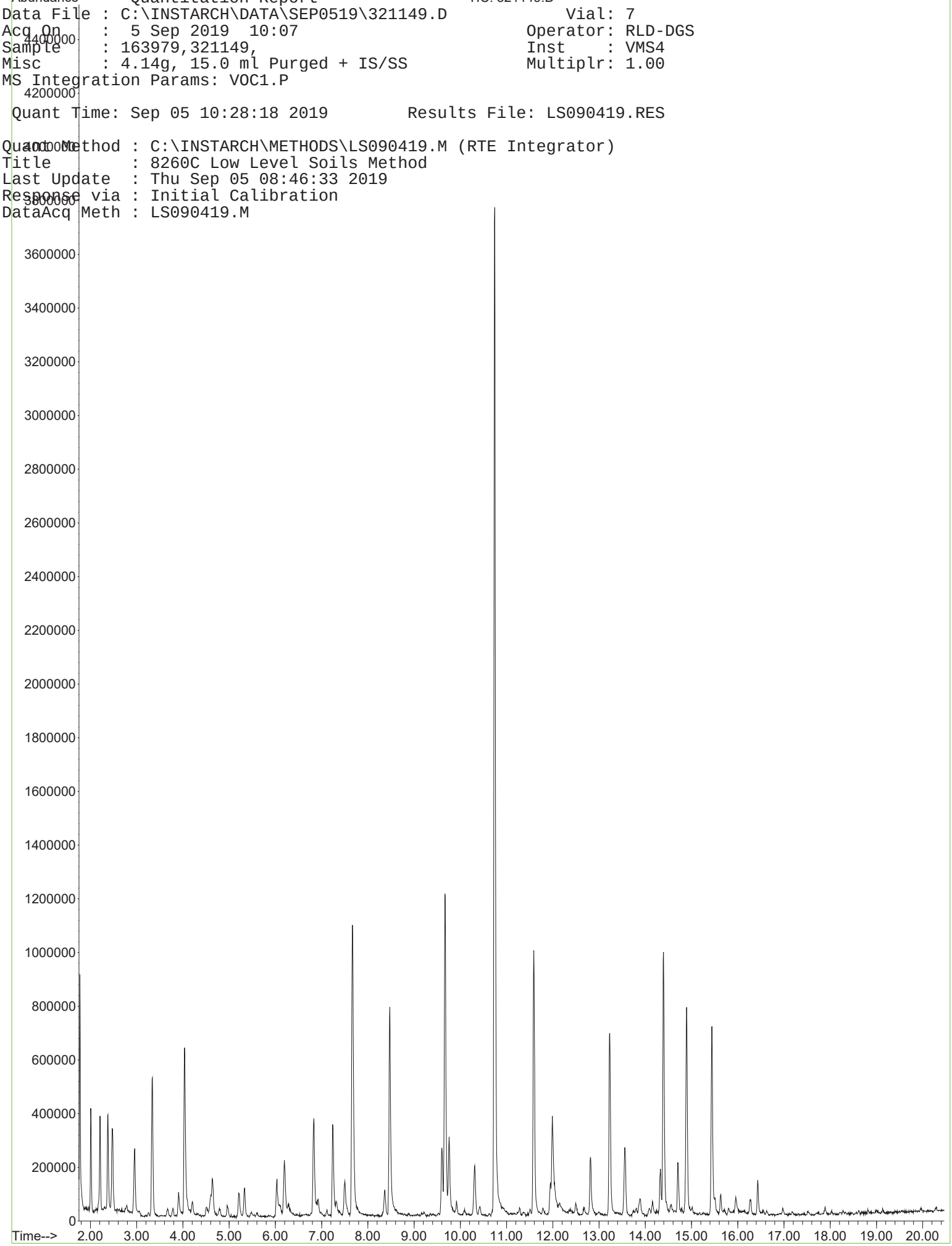
(#) = qualifier out of range (m) = manual integration

Abundance Quantitation Report TIC: 321149.D

Data File : C:\INSTARCH\DATA\SEP0519\321149.D Vial: 7
Acq On : 5 Sep 2019 10:07 Operator: RLD-DGS
Sample : 163979,321149, Inst : VMS4
Misc : 4.14g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 10:28:18 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M



Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321154.D Vial: 8
Acq On : 5 Sep 2019 10:36 Operator: RLD-DGS
Sample : 163979,321154, Inst : VMS4
Misc : 5.03g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 10:57:24 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1117411	0.02	mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	877100	0.02	mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.89	152	423922	0.02	mg/kg	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	286886	0.021	mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 105 %			
45) SURR12DCAd4	7.25	102	57350	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 100 %			
60) SURRd8Tolule	9.67	98	1161237	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %			
82) SURR4BrFBenz	13.23	95	417929	0.021	mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 105 %			
Target Compounds						Qvalue
2) Dichlorodi	1.81	85	3234	0.0012	mg/kg#	44
3) Chloromethan	2.06	50	2019	N.D.		
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	2.67	94	4223	N.D.		
6) Chloroethane	0.00	64	0	N.D.		
7) dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	3.68	67	2048	N.D.		
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	3.84	56	5438	0.0025	mg/kg#	67
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	4.03	43	1017508	0.3101	mg/kg	100
16) Iodomethane	4.12	142	6881	0.0026	mg/kg	88
17) Carbon Dislf	4.20	76	55603	0.0012	mg/kg	97
18) allylchloride	4.43	41	1249	N.D.		
19) methylacetate	4.51	74	15680	0.0038	mg/kg	84
20) Methylchlorid	4.60	84	32959	N.D.		
21) Acrylonitrile	0.00	53	0	N.D.		
22) t12dichlorte	0.00	96	0	N.D.		
23) tbutylalcohol	4.80	59	36553	N.D.		
24) MtBE	0.00	73	0	N.D.		
25) Hexane	5.33	57	43207	0.0037	mg/kg	97
26) 11dichlorota	0.00	63	0	N.D.		
27) Vinylacetate	0.00	43	0	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	0.00	59	0	N.D.		
31) 22dichloropr	6.19	77	12354	0.0004	mg/kg#	46
32) c12dichlorte	0.00	96	0	N.D.		
33) 2Butanone	6.28	72	32619	0.0234	mg/kg	86
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	6.64	42	4761	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321154.D Vial: 8
Acq On : 5 Sep 2019 10:36 Operator: RLD-DGS
Sample : 163979,321154, Inst : VMS4
Misc : 5.03g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 10:57:24 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	0.00	83	0	N.D.	
40) 111trichlota	0.00	97	0	N.D.	
42) Cyclohexane	6.90	56	7773	0.0014 mg/kg#	66
43) Carbtetraclo	0.00	119	0	N.D.	
44) 11dicloprope	0.00	110	0	N.D.	
46) Benzene	7.32	78	28215	0.0004 mg/kg#	73
47) 12dichlorota	0.00	62	0	N.D.	
48) TAME	7.36	73	1158	N.D.	
49) trichloroete	0.00	95	0	N.D.	
50) methylcyclohexane	8.36	83	7990	0.0015 mg/kg	80
51) 12dicloropra	0.00	63	0	N.D.	
52) 23dicl1propene	0.00	75	0	N.D.	
53) Dibromometha	0.00	93	0	N.D.	
54) methylmethacrylate	8.47	69	1974	0.0012 mg/kg#	46
55) 14dioxane	0.00	88	0	N.D.	
56) Bromodiclrma	0.00	83	0	N.D.	
57) 2Nitropropane	8.99	43	1112	N.D.	
58) c13dicloproe	0.00	75	0	N.D.	
59) 4Meth2Pentan	9.53	43	8437	N.D.	
61) Toluene	9.75	92	53439	0.0012 mg/kg	94
62) t13Dicloprop	0.00	75	0	N.D.	
63) ethylmethacrylate	0.00	69	0	N.D.	
64) 112Triclotha	0.00	83	0	N.D.	
65) Tetrachlorte	0.00	166	0	N.D.	
66) 13Diclorpropa	0.00	76	0	N.D.	
68) 2Hexanone	10.65	43	8477	N.D.	
69) Clorodibrmta	0.00	129	0	N.D.	
70) 12Dibrometha	0.00	107	0	N.D.	
71) Chlorobenzen	0.00	112	0	N.D.	
72) 1Clhexane	11.59	91	1408	0.0010 mg/kg#	1
73) 1112Tetclota	0.00	131	0	N.D.	
74) Ethylbenzene	11.80	91	4524	N.D.	
75) m p-Xylene	11.95	106	10677	N.D.	
76) o-Xylene	12.51	106	2300	N.D.	
77) Styrene	0.00	104	0	N.D.	
78) Bromoform	0.00	173	0	N.D.	
79) Isopropylben	0.00	105	0	N.D.	
81) cyclohexanone	13.12	55	2293	N.D.	
83) Bromobenzene	0.00	156	0	N.D.	
84) 1122Tetrclta	0.00	83	0	N.D.	
85) 123Triclproa	13.47	75	1534	N.D.	
86) 14dichloro2butene	0.00	53	0	N.D.	
87) n-Propylbenz	13.61	91	2962	N.D.	
88) 2chlorotolue	13.72	91	1071	N.D.	
89) 4chlorotolue	13.88	91	1421	N.D.	
90) 135Trimebenz	13.86	105	4007	N.D.	
91) tbutylbenzen	14.40	119	1170	N.D.	
92) 124Trimetben	14.41	105	127258	0.0022 mg/kg#	38
93) sbutylbenzen	14.64	105	3193	N.D.	
94) 13Diclorbenz	14.80	146	1135	N.D.	
95) pIsopropylto	14.86	119	6906	N.D.	
96) 14dichlorobe	14.92	146	1884	N.D.	
97) 12dichlorobe	15.48	146	1141	N.D.	
98) nButylbenzen	15.48	91	2282	N.D.	
99) 12dibromo3cl	0.00	157	0	N.D.	
100) 135Trichlorobenzene	0.00	180	0	N.D.	
101) 124Trichlobe	17.71	180	1171	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321154.D Vial: 8
Acq On : 5 Sep 2019 10:36 Operator: RLD-DGS
Sample : 163979,321154, Inst : VMS4
Misc : 5.03g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 10:57:24 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) Hexachlorobu	0.00	225	0	N.D.	
103) Naphthalene	18.03	128	10319	N.D.	
104) 123Trichlben	18.32	180	1167	N.D.	

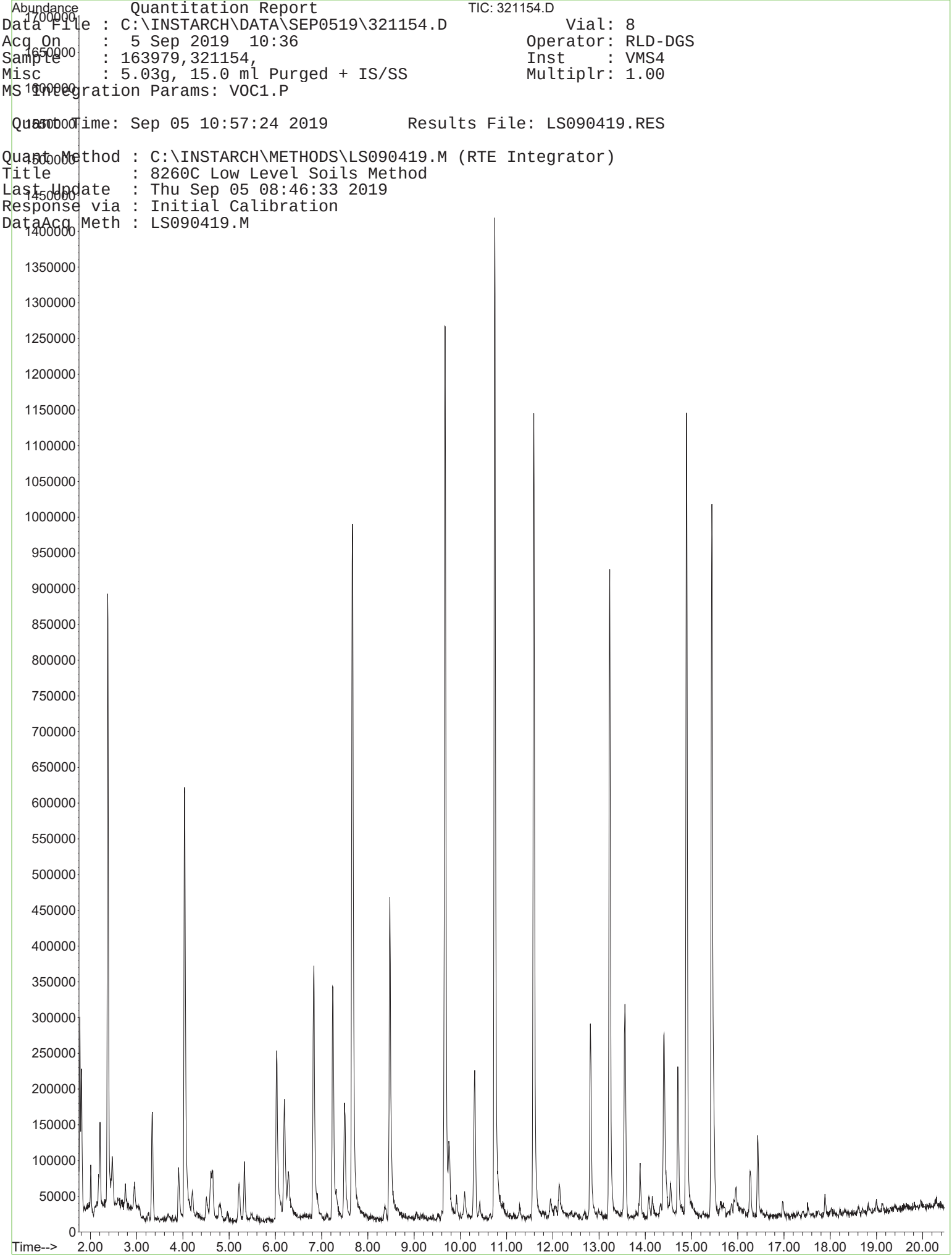
(#) = qualifier out of range (m) = manual integration

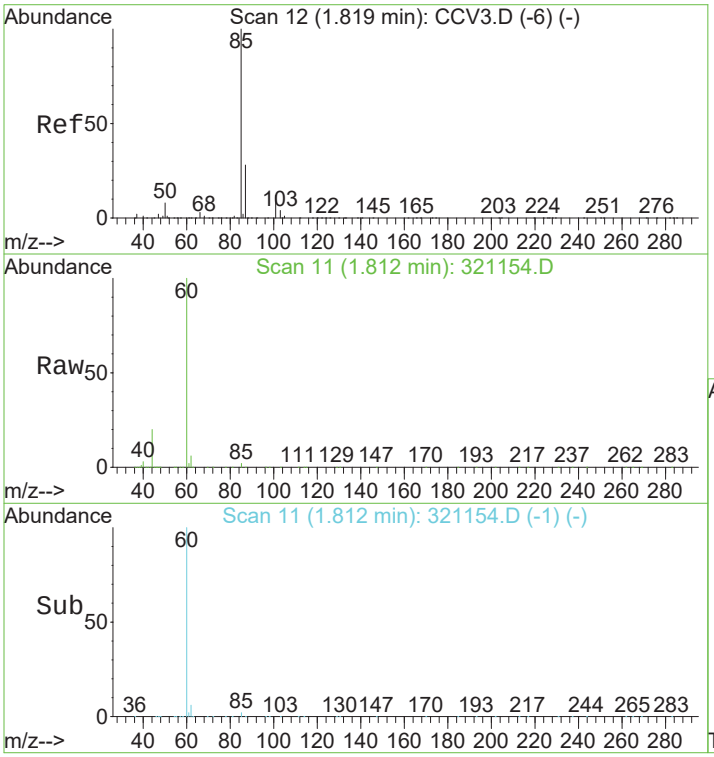
Quantitation Report (TIC: 321154.D)

Data File : C:\INSTARCH\DATA\SEP0519\321154.D Vial: 8
Acq On : 5 Sep 2019 10:36 Operator: RLD-DGS
Sample : 163979,321154, Inst : VMS4
Misc : 5.03g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 10:57:24 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

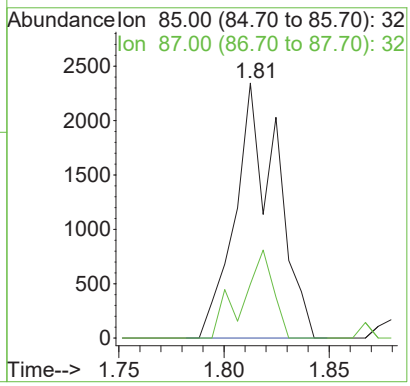




#2
Dichlorodi
Concen: 0.00 mg/kg
RT: 1.81 min Scan# 11
Delta R.T. -0.01 min
Lab File: 321154.D
Acq: 5 Sep 2019 10:36

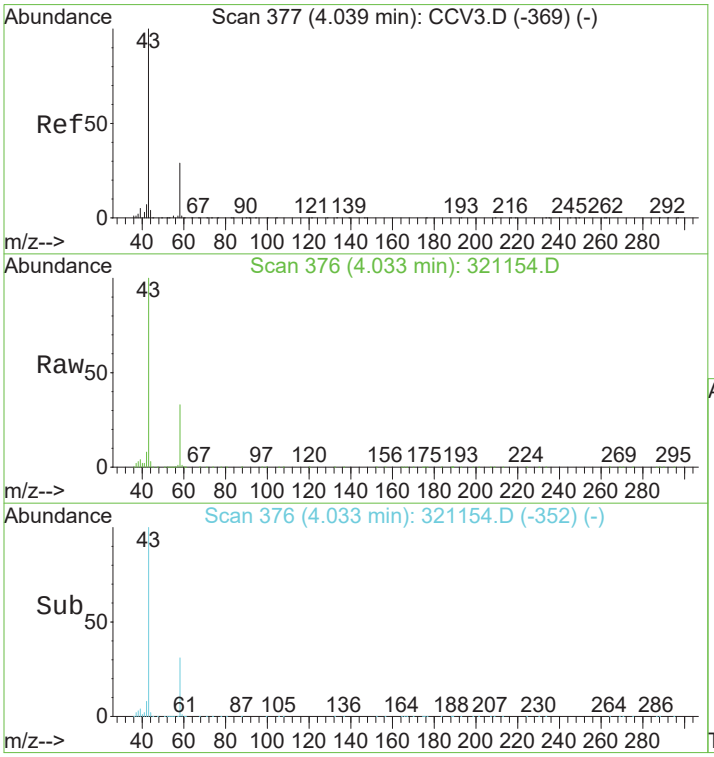
Tgt Ion: 85 Resp: 3234

Ion	Ratio	Lower	Upper
85	100		
87	0.0	10.8	50.8#



Negative Library Identification

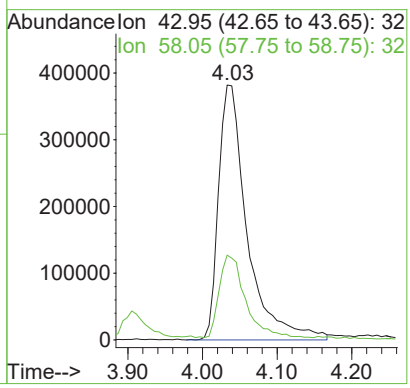
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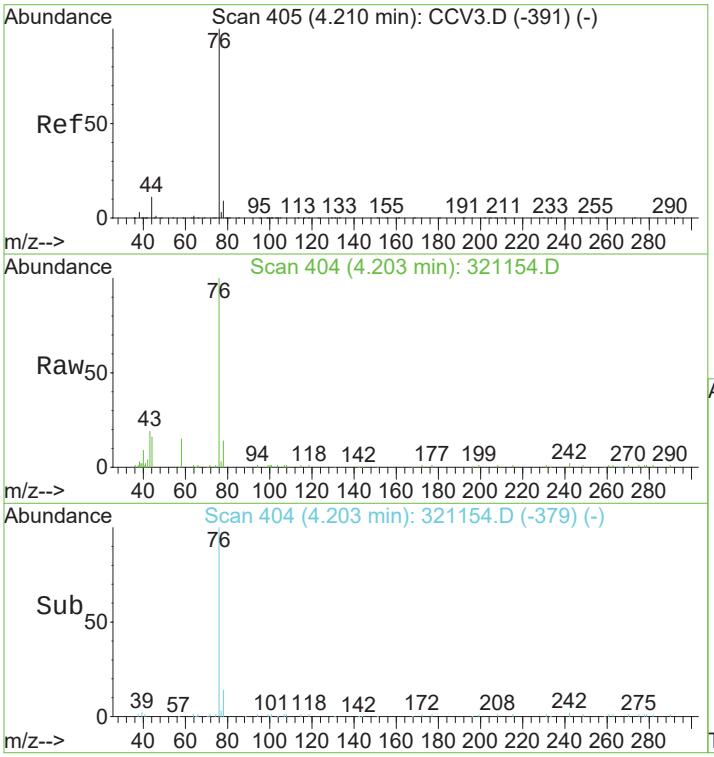


#15
Acetone
Concen: 0.31 mg/kg
RT: 4.03 min Scan# 376
Delta R.T. -0.01 min
Lab File: 321154.D
Acq: 5 Sep 2019 10:36

Tgt Ion: 43 Resp: 1017508

Ion	Ratio	Lower	Upper
43	100		
58	29.4	9.4	49.4

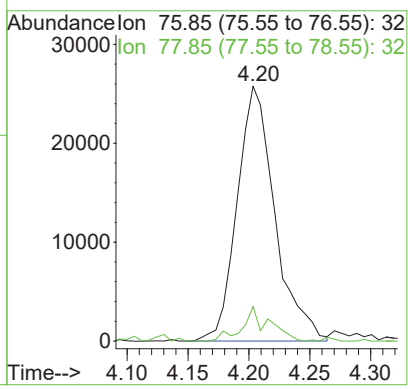


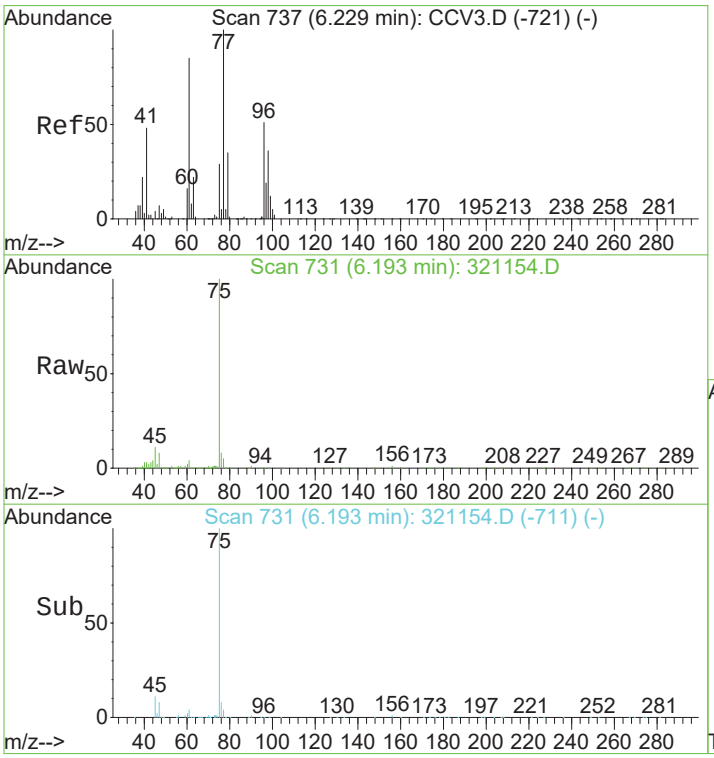


#17
Carbon Dislf
Concen: 0.00 mg/kg
RT: 4.20 min Scan# 404
Delta R.T. -0.00 min
Lab File: 321154.D
Acq: 5 Sep 2019 10:36

Tgt Ion: 76 Resp: 55603

Ion	Ratio	Lower	Upper
76	100		
78	9.4	0.0	28.5

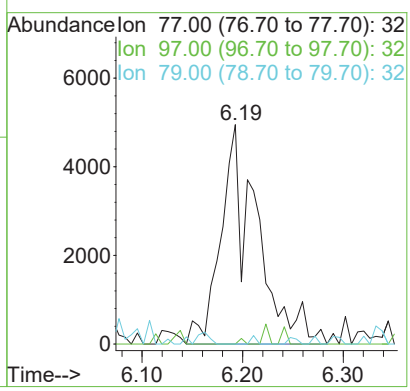




#31
22dichloropr
Concen: 0.00 mg/kg
RT: 6.19 min Scan# 731
Delta R.T. -0.03 min
Lab File: 321154.D
Acq: 5 Sep 2019 10:36

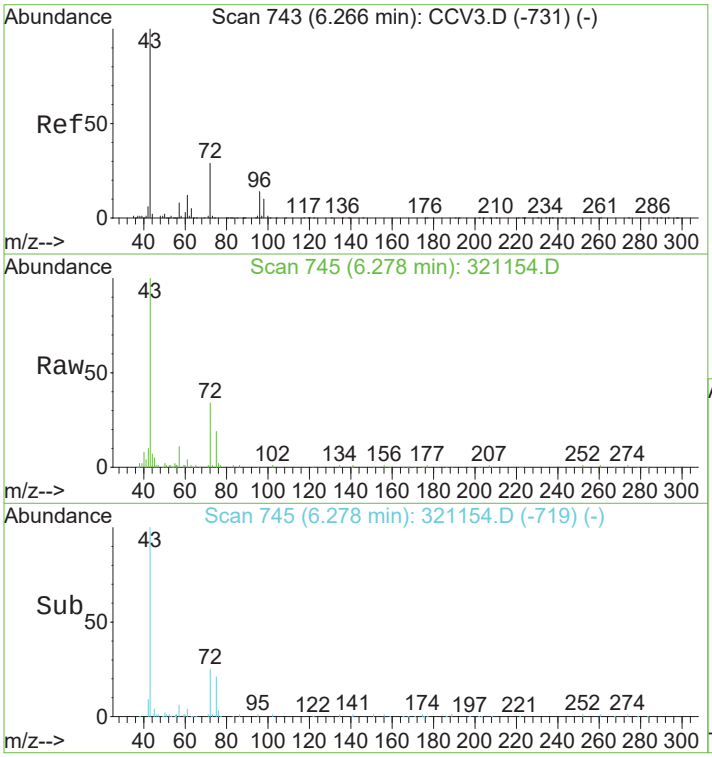
Tgt Ion: 77 Resp: 12354

Ion	Ratio	Lower	Upper
77	100		
97	0.0	1.8	41.8#
79	0.0	13.2	53.2#



Negative Library Identification

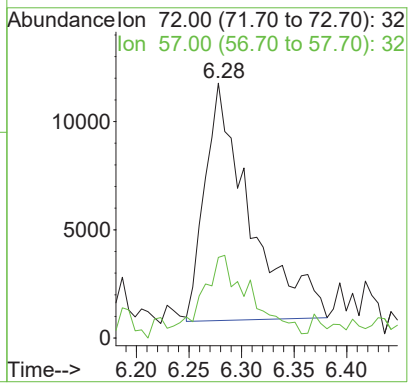
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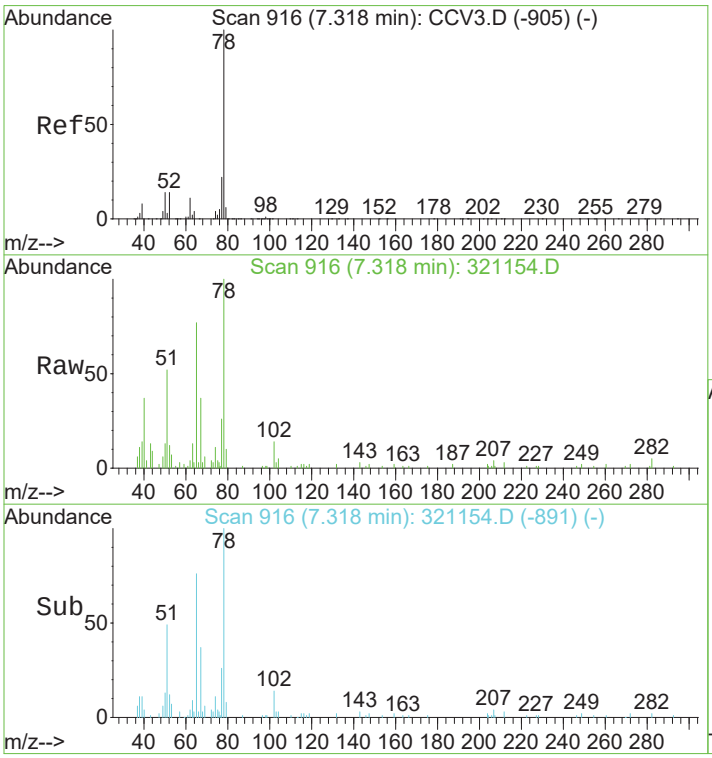


#33
2Butanone
Concen: 0.02 mg/kg
RT: 6.28 min Scan# 745
Delta R.T. 0.01 min
Lab File: 321154.D
Acq: 5 Sep 2019 10:36

Tgt Ion: 72 Resp: 32619

Ion	Ratio	Lower	Upper
72	100		
57	34.1	6.8	46.8

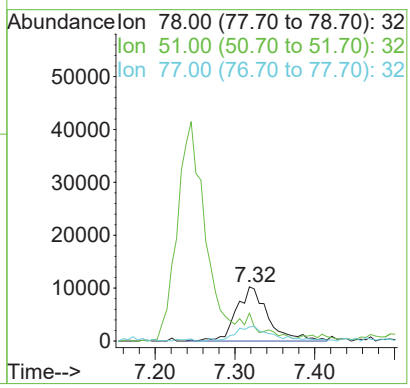


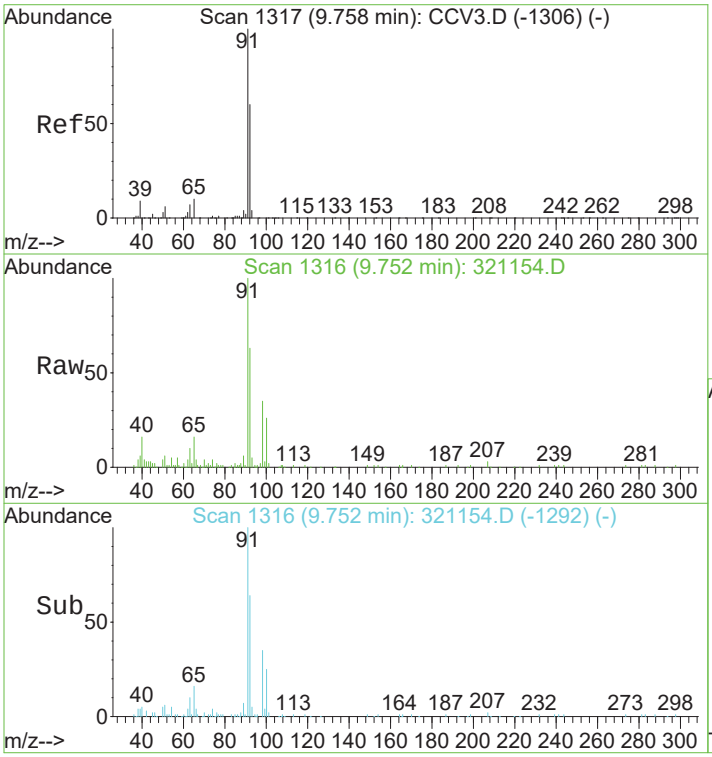


#46
Benzene
Concen: 0.00 mg/kg
RT: 7.32 min Scan# 916
Delta R.T. -0.00 min
Lab File: 321154.D
Acq: 5 Sep 2019 10:36

Tgt Ion: 78 Resp: 28215

Ion	Ratio	Lower	Upper
78	100		
51	0.0	0.0	36.9
77	31.4	3.0	43.0

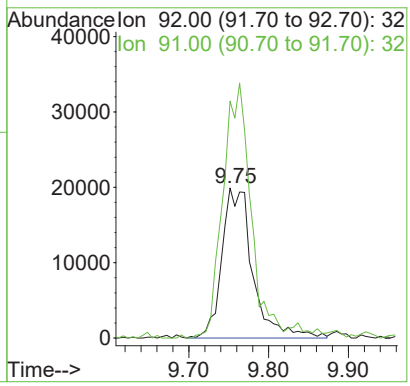


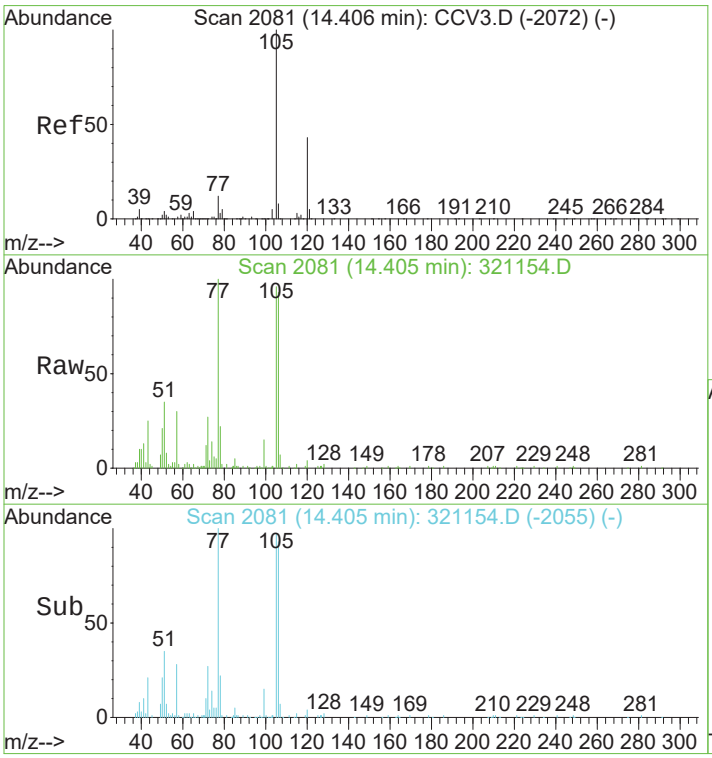


#61
Toluene
Concen: 0.00 mg/kg
RT: 9.75 min Scan# 1316
Delta R.T. -0.01 min
Lab File: 321154.D
Acq: 5 Sep 2019 10:36

Tgt Ion: 92 Resp: 53439

Ion	Ratio	Lower	Upper
92	100		
91	159.9	148.0	188.0

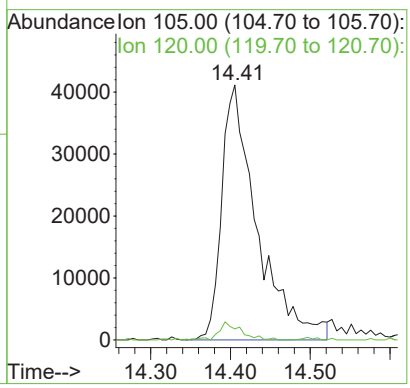




#92
124Trimetben
Concen: 0.00 mg/kg
RT: 14.41 min Scan# 2081
Delta R.T. 0.01 min
Lab File: 321154.D
Acq: 5 Sep 2019 10:36

Tgt Ion:105 Resp: 127258

Ion	Ratio	Lower	Upper
105	100		
120	4.4	24.5	64.5#



Library Search Compound Report

Data Path : C:\Instarch\Data\SEP0519\
Data File : 321154.D
Acq On : 5 Sep 2019 10:36
Operator : RLD-DGS
Sample : 163979,321154,
Misc : 5.03g, 15.0 ml Purged + IS/SS
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHODS\LS090419.M
Quant Title : 8260C Low Level Soils Method

TIC Library : C:\DATABASE\NBS75K.L
TIC Integration Parameters: VOC.P

****

Peak Number 1 Butane Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.21	0.00 mg/kg	267230	FLUOROBENZENE**IS	2879370	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane	58	C4H10	000106-97-8	53
2	Butane	58	C4H10	000106-97-8	53
3	1-Propen-2-ol, acetate	100	C5H8O2	000108-22-5	9
4	Propanal, 2-methyl-	72	C4H8O	000078-84-2	9
5	1-Butanol	74	C4H10O	000071-36-3	5

****

Peak Number 2 Acetaldehyde Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.37	0.01 mg/kg	1861260	FLUOROBENZENE**IS	2879370	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetaldehyde	44	C2H4O	000075-07-0	86
2	Acetaldehyde	44	C2H4O	000075-07-0	64
3	Acetaldehyde	44	C2H4O	000075-07-0	56
4	Propane	44	C3H8	000074-98-6	5
5	Ethylene oxide	44	C2H4O	000075-21-8	5

****

Peak Number 3 Butane, 2-methyl- Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.96	0.00 mg/kg	281185	FLUOROBENZENE**IS	2879370	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2-methyl-	72	C5H12	000078-78-4	58
2	Hexane, 2-methyl-	100	C7H16	000591-76-4	53
3	Imidazole, 5-bromo-4-nitro-2-met...	205	C4H4BrN3O2	000000-00-0	42
4	Butane, 2-methyl-	72	C5H12	000078-78-4	42
5	1-(4-Tolylsylfonyl)pyrrolidin-3-one	239	C11H13NO3S	073696-28-3	42

****

Peak Number 4 Pentane Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
3.34	0.00 mg/kg	343514	FLUOROBENZENE**IS	2879370	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane	72	C5H12	000109-66-0	80
2	Pentane	72	C5H12	000109-66-0	80
3	Pentane	72	C5H12	000109-66-0	72
4	Oxirane, ethyl-	72	C4H8O	000106-88-7	50
5	3-Buten-1-ol	72	C4H8O	000627-27-0	9

****

Peak Number 5 Propylhexedrine Concentration Rank 20

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
3.91	0.00 mg/kg	200114	FLUOROBENZENE**IS	2879370	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propylhexedrine	155	C10H21N	000101-40-6	9
2	Propanal	58	C3H6O	000123-38-6	9
3	Propylene oxide	58	C3H6O	000075-56-9	7
4	Trimethylene oxide	58	C3H6O	000503-30-0	7
5	Propanal	58	C3H6O	000123-38-6	7

****

Peak Number 6 Pentane, 2-methyl- Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
4.63	0.00 mg/kg	303483	FLUOROBENZENE**IS	2879370	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2-methyl-	86	C6H14	000107-83-5	12
2	Furan, tetrahydro-2-methyl-	86	C5H10O	000096-47-9	12
3	1-Butanol, 2,3-dimethyl-	102	C6H14O	019550-30-2	10
4	Heptane	100	C7H16	000142-82-5	10
5	1-Propene, 1-methoxy-2-methyl-	86	C5H10O	017574-84-4	9

****

Peak Number 7 Butanal Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
6.03	0.01 mg/kg	735099	FLUOROBENZENE**IS	2879370	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanal	72	C4H8O	000123-72-8	91
2	Butanal	72	C4H8O	000123-72-8	90
3	Butanal	72	C4H8O	000123-72-8	64
4	Butanal	72	C4H8O	000123-72-8	64
5	Butanal	72	C4H8O	000123-72-8	59

****

Peak Number 8 Butanal, 3-methyl- Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
7.49	0.00 mg/kg	449412	FLUOROBENZENE**IS	2879370	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanal, 3-methyl-	86	C5H10O	000590-86-3	91
2	Butanal, 3-methyl-	86	C5H10O	000590-86-3	83
3	Pentanal	86	C5H10O	000110-62-3	46

4	Butanal, 3-methyl-	86	C5H10O	000590-86-3	42
5	Butanal, 3-methyl-	86	C5H10O	000590-86-3	42

****

Peak Number 9 Arsenous acid, tris(trimeth... Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.31	0.00 mg/kg	550324	d5-CHLOROBENZENE*	2777270	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Arsenous acid, tris(trimethylsil...	342	C9H27AsO3Si3	055429-29-3	56
2	Tetrasiloxane, decamethyl-	310	C10H30O3Si4	000141-62-8	56
3	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	43
4	2-(Acetoxymethyl)-3-(methoxycarb...	282	C17H14O4	093103-70-9	39
5	Silane, trimethyl[5-methyl-2-(1-...	222	C13H22OSi	055012-80-1	39

****

Peak Number 10 Hexanal Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.74	0.02 mg/kg	3469820	d5-CHLOROBENZENE*	2777270	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexanal	100	C6H12O	000066-25-1	90
2	Hexanal	100	C6H12O	000066-25-1	90
3	Hexanal	100	C6H12O	000066-25-1	78
4	Hexanal	100	C6H12O	000066-25-1	64
5	Hexanal	100	C6H12O	000066-25-1	64

****

Peak Number 11 Heptanal Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
12.14	0.00 mg/kg	341930	d5-CHLOROBENZENE*	2777270	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptanal	114	C7H14O	000111-71-7	35
2	Heptanal	114	C7H14O	000111-71-7	35
3	Heptane, 4-methyl-	114	C8H18	000589-53-7	27
4	Heptane, 4-methyl-	114	C8H18	000589-53-7	27
5	1-Pentanol, 2-methyl-	102	C6H14O	000105-30-6	27

****

Peak Number 12 Heptanal Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
12.81	0.00 mg/kg	688107	d5-CHLOROBENZENE*	2777270	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptanal	114	C7H14O	000111-71-7	90
2	Heptanal	114	C7H14O	000111-71-7	78
3	Heptanal	114	C7H14O	000111-71-7	76
4	Heptanal	114	C7H14O	000111-71-7	64
5	Heptanal	114	C7H14O	000111-71-7	64

****

Peak Number 13 Cyclotetrasiloxane, octamet... Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
13.56	0.01 mg/kg	826593	d4-1,4-DICHLOROBE	2756360	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	80
2	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	72
3	Ethanethioic acid, S-[8-(diethyl...	324	C14H29O4PS	000000-00-0	42
4	3,6-Bis(N-dimethylamino)-9-ethyl...	281	C18H23N3	057103-04-5	42
5	2-Oxo-4-phenyl-6-(4-chlorophenyl...	282	C16H11ClN2O	000000-00-0	10

****

Peak Number 14 2-Isopropyl-5-oxohexanal Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
13.89	0.00 mg/kg	199187	d4-1,4-DICHLOROBE	2756360	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Isopropyl-5-oxohexanal	156	C9H16O2	015303-46-5	50
2	2-Heptanone, 6-methyl-	128	C8H16O	000928-68-7	45
3	2-Heptanone, 6-methyl-	128	C8H16O	000928-68-7	45
4	2-Octanone	128	C8H16O	000111-13-7	43
5	2-Octanone	128	C8H16O	000111-13-7	43

****

Peak Number 15 Octanal Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
14.70	0.00 mg/kg	481303	d4-1,4-DICHLOROBE	2756360	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octanal	128	C8H16O	000124-13-0	86
2	Octanal	128	C8H16O	000124-13-0	83
3	Piperidine, 3-methyl-	99	C6H13N	000626-56-2	38
4	Piperidine	85	C5H11N	000110-89-4	35
5	Homopiperazine	100	C5H12N2	000505-66-8	27

****

Peak Number 16 Benzene-1,2,3,4-d4-, 5,6-di... Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
15.44	0.02 mg/kg	2641460	d4-1,4-DICHLOROBE	2756360	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene-1,2,3,4-d4-, 5,6-dichloro-	150	C6Cl2D4	002199-69-1	87
2	1,4-Dichlorobenzene-d4	150	C6Cl2D4	003855-82-1	58
3	JP 60	151	C10H17N	013074-39-0	9
4	9-Borabicyclo[3.3.1]nonane, 9-et...	150	C10H19B	052102-17-7	9
5	Benzoic acid, 2,3-dimethyl-	150	C9H10O2	000603-79-2	9

****

Peak Number 17 2-Nonenal, (E)- Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
15.96	0.00 mg/kg	223255	d4-1,4-DICHLOROBE	2756360	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual

1	2-Nonenal, (E)-	140	C9H16O	018829-56-6 47
2	2-Nonenal, (E)-	140	C9H16O	018829-56-6 47
3	2-Decene, 4-methyl-, (Z)-	154	C11H22	074630-30-1 43
4	Bicyclo[3.1.1]heptan-3-ol, 2,6,6...	154	C10H18O	027779-29-9 38
5	1,2-Cyclohexanediol, trans-	116	C6H12O2	001460-57-7 38

****

Peak Number 18 Nonanal Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
16.43	0.00 mg/kg	353932	d4-1,4-DICHLOROBE	2756360	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Nonanal	142	C9H18O	000124-19-6	59
2	Nonanal	142	C9H18O	000124-19-6	59
3	Nonanal	142	C9H18O	000124-19-6	47
4	Cyclohexanol	100	C6H12O	000108-93-0	38
5	Cyclohexanol	100	C6H12O	000108-93-0	27

****

Peak Number 19 1,10-Phenanthroline, 2,9-di... Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
18.60	0.00 mg/kg	208367	d4-1,4-DICHLOROBE	2756360	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,10-Phenanthroline, 2,9-dimethyl-	208	C14H12N2	000484-11-7	25
2	1H-Pyrrolo[2,3-b]pyridine, 4-met...	208	C14H12N2	023688-50-8	18
3	4,7-Dimethyl-1,10-phenanthroline	208	C14H12N2	003248-05-3	16
4	Benzaldehyde, (phenylmethylene)h...	208	C14H12N2	000588-68-1	12
5	1,10-Phenanthroline, 2,9-dimethyl-	208	C14H12N2	000484-11-7	12

****

Peak Number 20 2-Nonanone Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
19.00	0.01 mg/kg	988149	d4-1,4-DICHLOROBE	2756360	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Nonanone	142	C9H18O	000821-55-6	50
2	2-Hexanone, 5-methyl-	114	C7H14O	000110-12-3	49
3	2-Hexanone, 5-methyl-	114	C7H14O	000110-12-3	47
4	2-Nonanone	142	C9H18O	000821-55-6	47
5	11-Dodecen-2-one	182	C12H22O	005009-33-6	46

LS090419.M Tue Sep 10 12:25:11 2019

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321155.D Vial: 9
Acq On : 5 Sep 2019 11:05 Operator: RLD-DGS
Sample : 163979,321155, Inst : VMS4
Misc : 4.23g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 11:26:21 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1075133	0.02	mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	795568	0.02	mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.89	152	355907	0.02	mg/kg	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	278369	0.021	mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 105 %			
45) SURR12DCAd4	7.25	102	59289	0.022	mg/kg	0.01
Spiked Amount 0.020	Range 71 - 136		Recovery = 110 %			
60) SURRd8Tolule	9.67	98	1053183	0.019	mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 95 %			
82) SURR4BrFBenz	13.23	95	378240	0.022	mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 110 %			
Target Compounds						Qvalue
2) Dichlorodi	1.82	85	1694	0.0011	mg/kg#	44
3) Chloromethan	2.06	50	1367	N.D.		
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	2.68	94	2676	N.D.		
6) Chloroethane	0.00	64	0	N.D.		
7) dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	3.67	67	11915	0.0007	mg/kg#	29
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	3.83	56	4140	N.D.		
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	4.04	43	419962	0.1330	mg/kg	96
16) Iodomethane	4.13	142	1927	0.0024	mg/kg#	47
17) Carbon Dislf	4.21	76	54596	0.0012	mg/kg	99
18) allylchloride	4.48	41	1210	N.D.		
19) methylacetate	4.54	74	1909	0.0012	mg/kg#	43
20) Methylchlorid	4.60	84	31077	N.D.		
21) Acrylonitrile	0.00	53	0	N.D.		
22) t12dichlorte	0.00	96	0	N.D.		
23) tbutylalcohol	4.81	59	28356	N.D.		
24) MtBE	0.00	73	0	N.D.		
25) Hexane	5.33	57	32201	0.0033	mg/kg	95
26) 11dichlorota	0.00	63	0	N.D.		
27) Vinylacetate	5.55	43	1438	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	0.00	59	0	N.D.		
31) 22dichloropr	6.20	77	12997	0.0005	mg/kg#	46
32) c12dichlorte	0.00	96	0	N.D.		
33) 2Butanone	6.30	72	6958	N.D.		
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	6.62	42	3758	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321155.D Vial: 9
Acq On : 5 Sep 2019 11:05 Operator: RLD-DGS
Sample : 163979,321155, Inst : VMS4
Misc : 4.23g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 11:26:21 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	0.00	83	0	N.D.	
40) 111trichlota	0.00	97	0	N.D.	
42) Cyclohexane	6.93	56	15173	0.0017 mg/kg#	70
43) Carbtetraclo	0.00	119	0	N.D.	
44) 11dicloprope	0.00	110	0	N.D.	
46) Benzene	7.32	78	22225	0.0003 mg/kg	94
47) 12dichlorota	0.00	62	0	N.D.	
48) TAME	0.00	73	0	N.D.	
49) trichloroete	8.12	95	1095	N.D.	
50) methylcyclohexane	8.36	83	25213	0.0021 mg/kg	91
51) 12dicloropra	0.00	63	0	N.D.	
52) 23dicl1propene	0.00	75	0	N.D.	
53) Dibromometha	0.00	93	0	N.D.	
54) methylmethacrylate	8.61	69	1913	0.0012 mg/kg#	46
55) 14dioxane	0.00	88	0	N.D.	
56) Bromodiclrma	0.00	83	0	N.D.	
57) 2Nitropropane	9.00	43	3157	N.D.	
58) c13dicloproe	0.00	75	0	N.D.	
59) 4Meth2Pentan	9.53	43	8160	N.D.	
61) Toluene	9.76	92	67283	0.0015 mg/kg	95
62) t13Dicloprop	0.00	75	0	N.D.	
63) ethylmethacrylate	10.10	69	1609	N.D.	
64) 112Triclotha	10.29	83	2295	N.D.	
65) Tetrachlorte	0.00	166	0	N.D.	
66) 13Diclorpropa	0.00	76	0	N.D.	
68) 2Hexanone	10.62	43	6830	N.D.	
69) Clorodibrmta	0.00	129	0	N.D.	
70) 12Dibrometha	10.97	107	2004	N.D.	
71) Chlorobenzen	11.63	112	1463	N.D.	
72) 1Clhexane	11.59	91	2048	0.0010 mg/kg#	1
73) 1112Tetclota	0.00	131	0	N.D.	
74) Ethylbenzene	11.78	91	15044	N.D.	
75) m p-Xylene	11.95	106	22208	0.0008 mg/kg	98
76) o-Xylene	12.50	106	6622	N.D.	
77) Styrene	12.54	104	1096	N.D.	
78) Bromoform	0.00	173	0	N.D.	
79) Isopropylben	13.01	105	1429	N.D.	
81) cyclohexanone	13.13	55	1331	N.D.	
83) Bromobenzene	0.00	156	0	N.D.	
84) 1122Tetrclta	0.00	83	0	N.D.	
85) 123Triclproa	13.56	75	4066	N.D.	
86) 14dichloro2butene	0.00	53	0	N.D.	
87) n-Propylbenz	13.60	91	4685	N.D.	
88) 2chlorotolue	13.60	91	4549	N.D.	
89) 4chlorotolue	13.86	91	2578	N.D.	
90) 135Trimebenz	13.86	105	11039	N.D.	
91) tbutylbenzen	14.41	119	4930	N.D.	
92) 124Trimetben	14.40	105	37385	N.D.	
93) sbutylbenzen	14.65	105	1302	N.D.	
94) 13Diclorbenz	14.88	146	1057	N.D.	
95) pIsopropylto	14.86	119	9643	N.D.	
96) 14dichlorobe	14.94	146	1156	N.D.	
97) 12dichlorobe	15.48	146	1150	N.D.	
98) nButylbenzen	15.46	91	2742	N.D.	
99) 12dibromo3cl	0.00	157	0	N.D.	
100) 135Trichlorobenzene	0.00	180	0	N.D.	
101) 124Trichlobe	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321155.D Vial: 9
Acq On : 5 Sep 2019 11:05 Operator: RLD-DGS
Sample : 163979,321155, Inst : VMS4
Misc : 4.23g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 11:26:21 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) Hexachlorobu	0.00	225	0	N.D.	
103) Naphthalene	18.02	128	11186	N.D.	
104) 123Trichlben	0.00	180	0	N.D.	

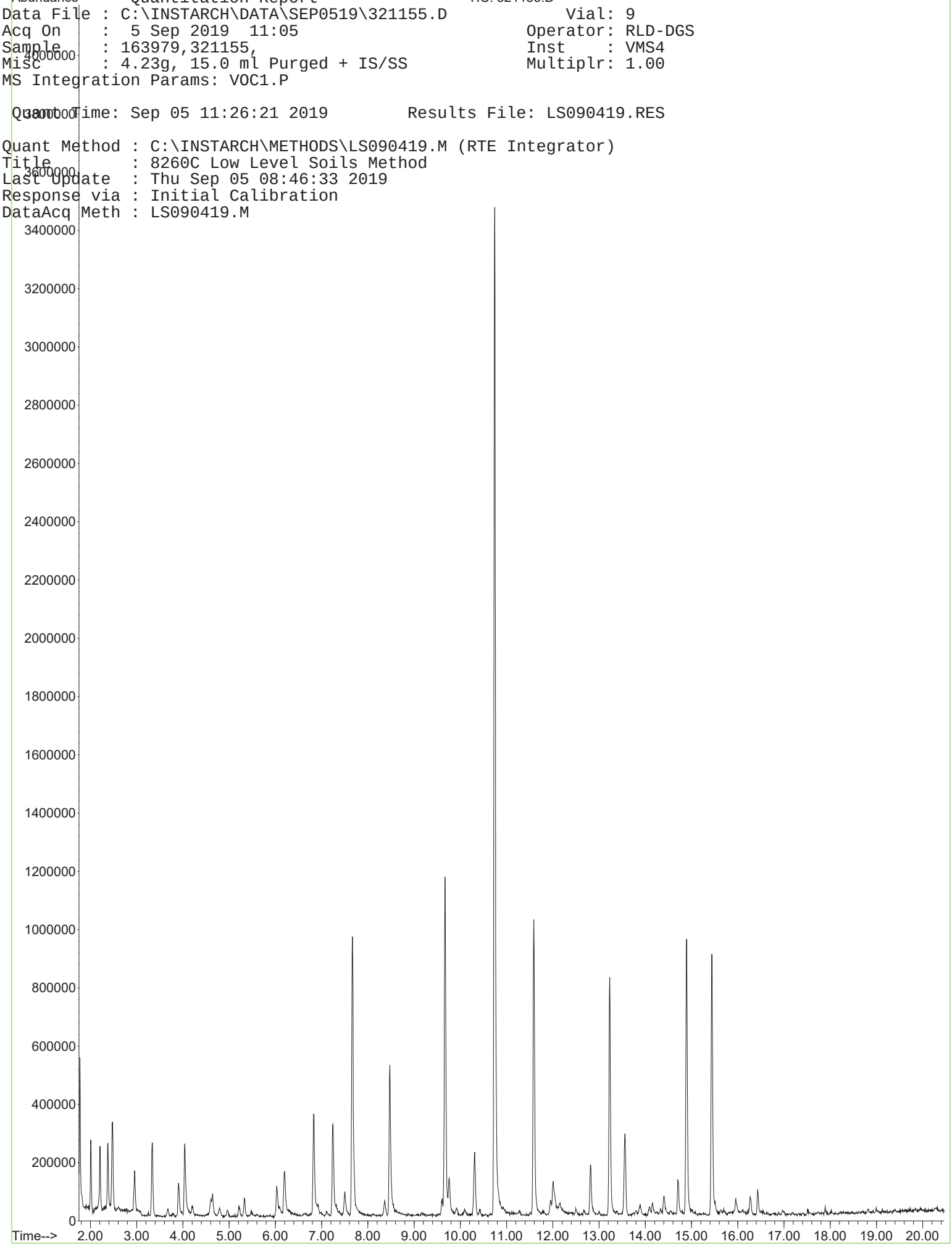
(#) = qualifier out of range (m) = manual integration

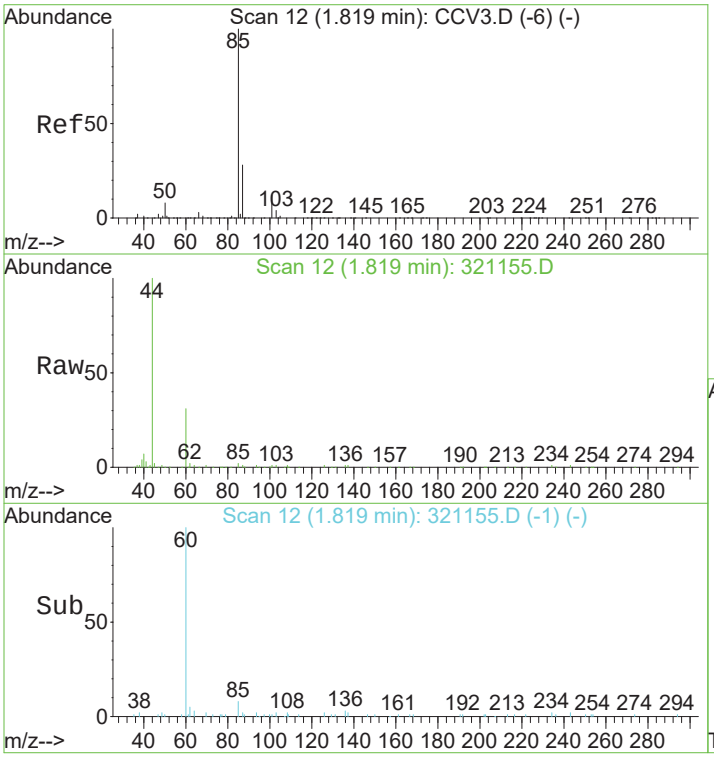
Abundance Quantitation Report TIC: 321155.D

Data File : C:\INSTARCH\DATA\SEP0519\321155.D Vial: 9
Acq On : 5 Sep 2019 11:05 Operator: RLD-DGS
Sample : 163979,321155, Inst : VMS4
Misc : 4.23g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 11:26:21 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

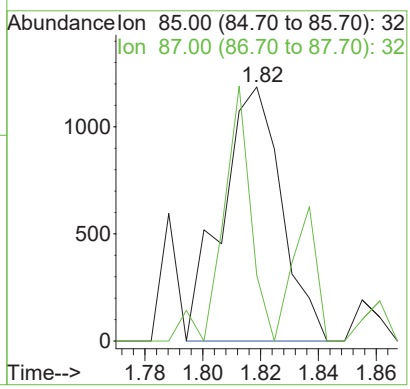




#2
Dichlorodi
Concen: 0.00 mg/kg
RT: 1.82 min Scan# 12
Delta R.T. 0.00 min
Lab File: 321155.D
Acq: 5 Sep 2019 11:05

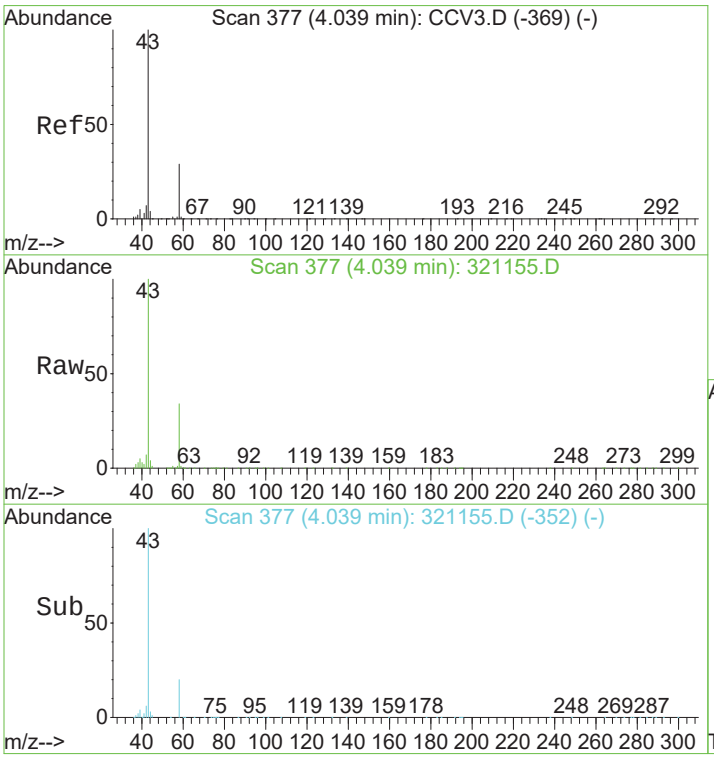
Tgt Ion: 85 Resp: 1694

Ion	Ratio	Lower	Upper
85	100		
87	0.0	10.8	50.8#



Negative Library Identification

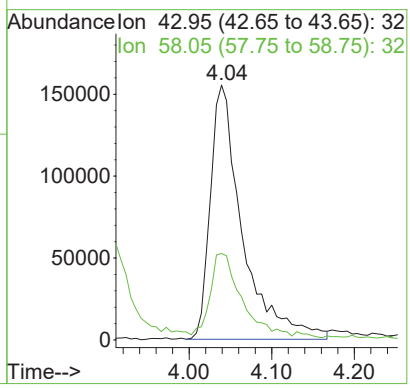
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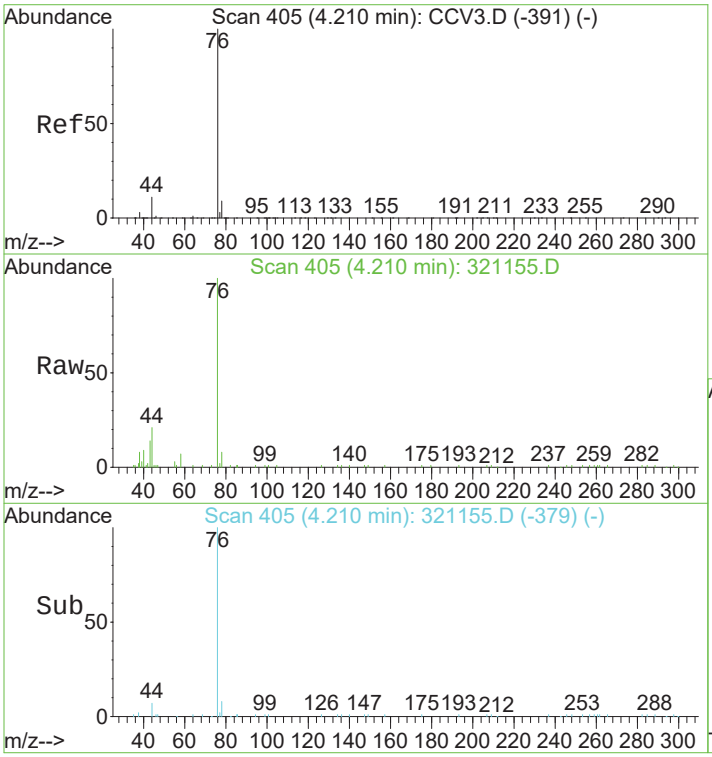


#15
Acetone
Concen: 0.13 mg/kg
RT: 4.04 min Scan# 377
Delta R.T. -0.00 min
Lab File: 321155.D
Acq: 5 Sep 2019 11:05

Tgt Ion: 43 Resp: 419962

Ion	Ratio	Lower	Upper
43	100		
58	31.6	9.4	49.4

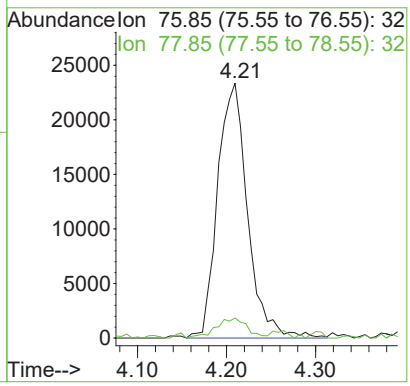


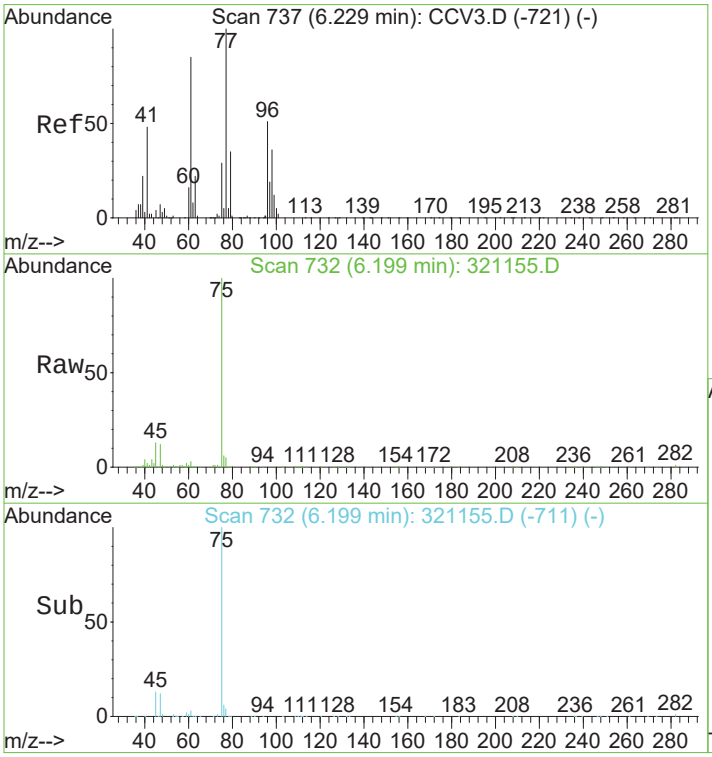


#17
Carbon Dislf
Concen: 0.00 mg/kg
RT: 4.21 min Scan# 405
Delta R.T. 0.01 min
Lab File: 321155.D
Acq: 5 Sep 2019 11:05

Tgt Ion: 76 Resp: 54596

Ion	Ratio	Lower	Upper
76	100		
78	8.2	0.0	28.5

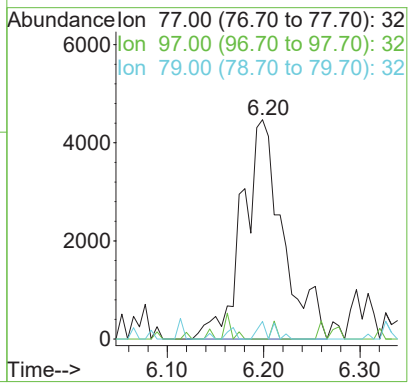




#31
22dichloropr
Concen: 0.00 mg/kg
RT: 6.20 min Scan# 732
Delta R.T. -0.02 min
Lab File: 321155.D
Acq: 5 Sep 2019 11:05

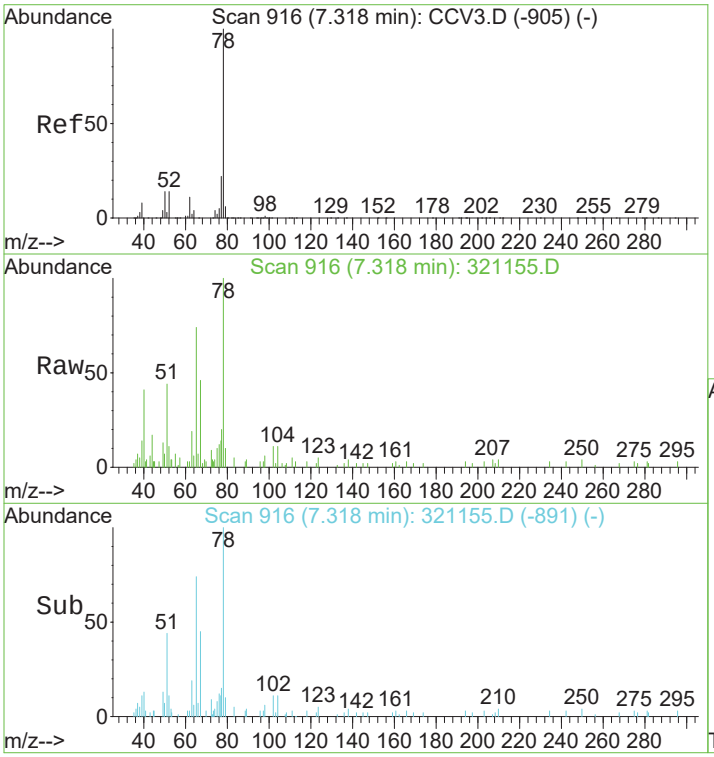
Tgt Ion: 77 Resp: 12997

Ion	Ratio	Lower	Upper
77	100		
97	0.0	1.8	41.8#
79	0.0	13.2	53.2#



Negative Library Identification

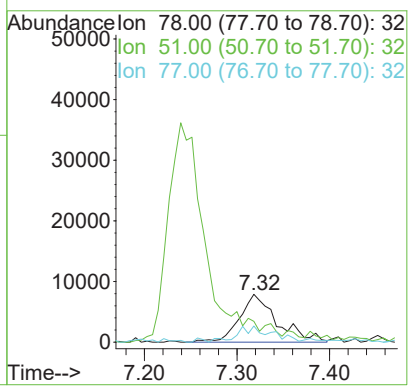
[redacted]

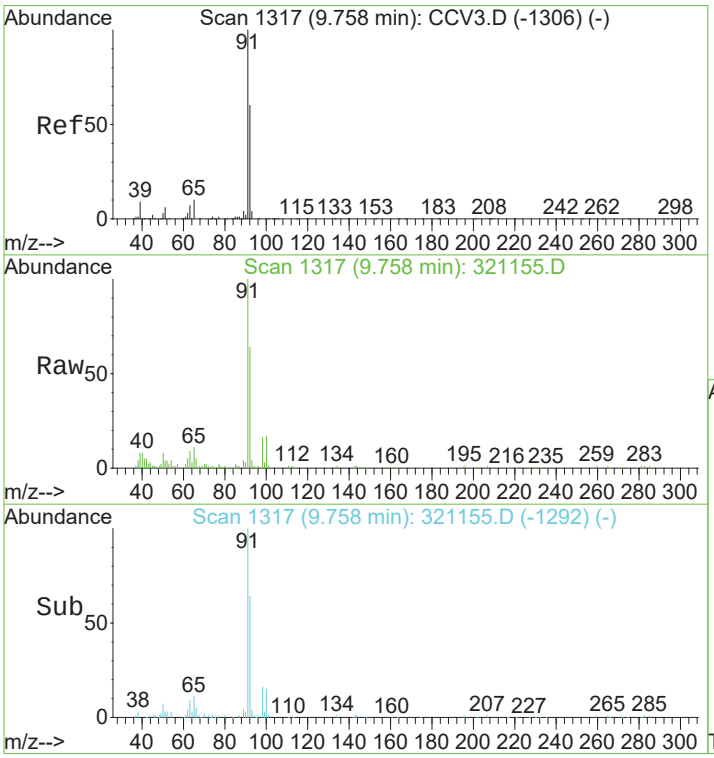


#46
Benzene
Concen: 0.00 mg/kg
RT: 7.32 min Scan# 916
Delta R.T. -0.00 min
Lab File: 321155.D
Acq: 5 Sep 2019 11:05

Tgt Ion: 78 Resp: 22225

Ion	Ratio	Lower	Upper
78	100		
51	12.0	0.0	36.9
77	24.1	3.0	43.0

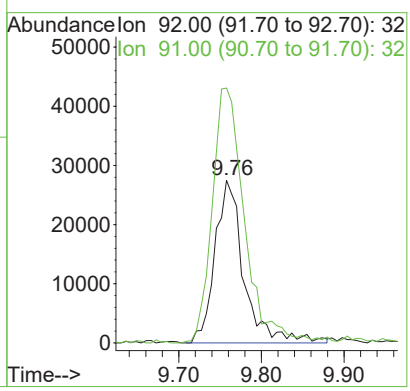


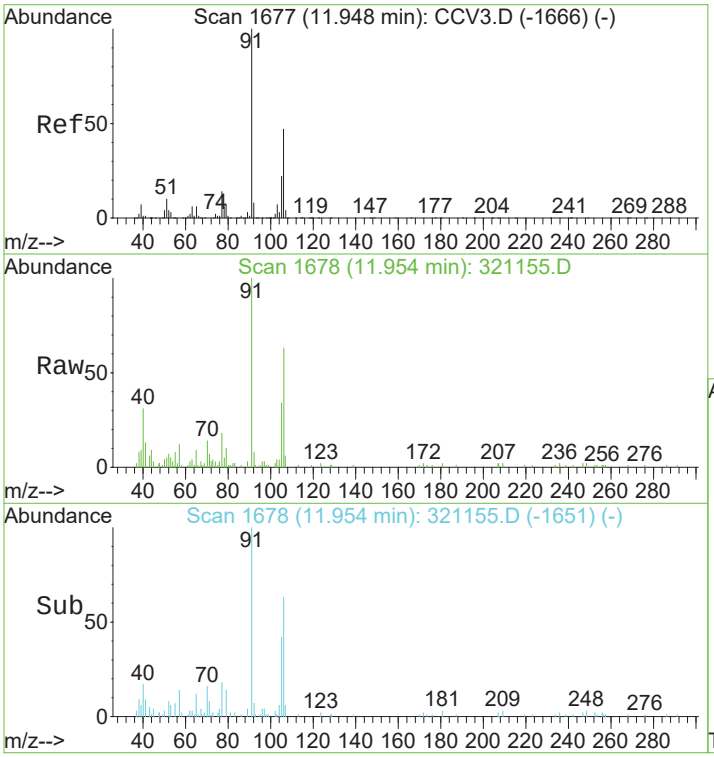


#61
Toluene
Concen: 0.00 mg/kg
RT: 9.76 min Scan# 1317
Delta R.T. -0.00 min
Lab File: 321155.D
Acq: 5 Sep 2019 11:05

Tgt Ion: 92 Resp: 67283

Ion	Ratio	Lower	Upper
92	100		
91	174.5	148.0	188.0

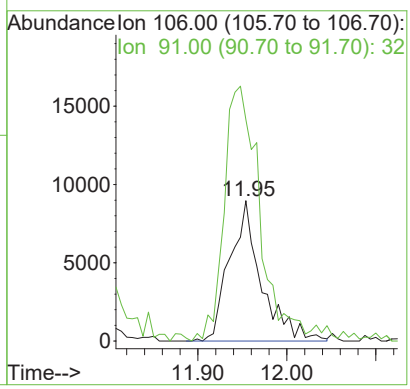




#75
m p-Xylene
Concen: 0.00 mg/kg
RT: 11.95 min Scan# 1678
Delta R.T. 0.01 min
Lab File: 321155.D
Acq: 5 Sep 2019 11:05

Tgt Ion:106 Resp: 22208

Ion	Ratio	Lower	Upper
106	100		
91	208.2	184.6	224.6



Library Search Compound Report

Data Path : C:\Instarch\Data\SEP0519\
Data File : 321155.D
Acq On : 5 Sep 2019 11:05
Operator : RLD-DGS
Sample : 163979,321155,
Misc : 4.23g, 15.0 ml Purged + IS/SS
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHODS\LS090419.M
Quant Title : 8260C Low Level Soils Method

TIC Library : C:\DATABASE\NBS75K.L
TIC Integration Parameters: VOC.P

****

Peak Number 1 Isobutane Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.01	0.00 mg/kg	377351	FLUOROBENZENE**IS	2615060	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Isobutane	58	C4H10	000075-28-5	59
2	Isobutane	58	C4H10	000075-28-5	45
3	2(3H)-Furanone, 3-bromodihydro-	164	C4H5BrO2	005061-21-2	4
4	Propene	42	C3H6	000115-07-1	4
5	1-Hexanamine, N-nitro-	146	C6H14N2O2	000000-00-0	4

****

Peak Number 2 Butane Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.21	0.00 mg/kg	369786	FLUOROBENZENE**IS	2615060	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane	58	C4H10	000106-97-8	59
2	Butane	58	C4H10	000106-97-8	45
3	Isobutane	58	C4H10	000075-28-5	9
4	1-Butanol	74	C4H10O	000071-36-3	4
5	Diazene, dimethyl-	58	C2H6N2	000503-28-6	4

****

Peak Number 3 Acetaldehyde Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.38	0.00 mg/kg	442880	FLUOROBENZENE**IS	2615060	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetaldehyde	44	C2H4O	000075-07-0	56
2	Acetaldehyde	44	C2H4O	000075-07-0	9
3	Acetaldehyde	44	C2H4O	000075-07-0	9
4	2-Hexanamine, 4-methyl-	115	C7H17N	000105-41-9	5
5	Tuaminoheptane	115	C7H17N	000123-82-0	5

****

Peak Number 4 Silane, fluorotrimethyl- Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.48	0.01 mg/kg	685359	FLUOROBENZENE**IS	2615060	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Silane, fluorotrimethyl-	92	C3H9FSi	000420-56-4	49
2	Silane, (2,2-difluoroethyl)trime...	138	C5H12F2Si	000000-00-0	4
3	Propane, 1,2-dichloro-2-methyl-	126	C4H8Cl2	000594-37-6	4
4	Acetyl chloride, chloro-	112	C2H2Cl2O	000079-04-9	4
5	Ethyl fluoroformate	92	C3H5FO2	000461-64-3	3

****

Peak Number 5 Butane, 2-methyl- Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.96	0.00 mg/kg	474743	FLUOROBENZENE**IS	2615060	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2-methyl-	72	C5H12	000078-78-4	80
2	Butane, 2-methyl-	72	C5H12	000078-78-4	80
3	Butane, 2-methyl-	72	C5H12	000078-78-4	72
4	Germacyclohexane, 1,1-dichloro-	214	C5H10Cl2Ge	056438-28-9	23
5	Propane, 2-methyl-1-nitro-	103	C4H9NO2	000625-74-1	14

****

Peak Number 6 Pentane Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
3.34	0.00 mg/kg	561046	FLUOROBENZENE**IS	2615060	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane	72	C5H12	000109-66-0	90
2	Pentane	72	C5H12	000109-66-0	90
3	Pentane	72	C5H12	000109-66-0	86
4	Oxirane, ethyl-	72	C4H8O	000106-88-7	52
5	1-Propanol, 2-methyl-	74	C4H10O	000078-83-1	39

****

Peak Number 7 Trimethylene oxide Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
3.91	0.00 mg/kg	290402	FLUOROBENZENE**IS	2615060	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Trimethylene oxide	58	C3H6O	000503-30-0	50
2	Propanal	58	C3H6O	000123-38-6	38
3	Propanal	58	C3H6O	000123-38-6	38
4	Propanal	58	C3H6O	000123-38-6	9
5	Methanediamine, N,N,N',N'-tetram...	102	C5H14N2	000051-80-9	9

****

Peak Number 8 Butanal Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
6.03	0.00 mg/kg	428632	FLUOROBENZENE**IS	2615060	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanal	72	C4H8O	000123-72-8	90
2	Butanal	72	C4H8O	000123-72-8	74
3	Butanal	72	C4H8O	000123-72-8	72

4 Butanal	72	C4H8O	000123-72-8	72
5 Butanal	72	C4H8O	000123-72-8	72

****

Peak Number 9 Pentanal Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
8.47	0.01 mg/kg	1554140	FLUOROBENZENE**IS	2615060	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentanal	86	C5H10O	000110-62-3	78
2	Pentanal	86	C5H10O	000110-62-3	78
3	Butanal, 3-methyl-	86	C5H10O	000590-86-3	74
4	Pentanal	86	C5H10O	000110-62-3	74
5	Butanal, 3-methyl-	86	C5H10O	000590-86-3	64

****

Peak Number 10 Arsenous acid, tris(trimeth... Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.31	0.00 mg/kg	547941	d5-CHLOROBENZENE*	2455480	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Arsenous acid, tris(trimethylsil...	342	C9H27AsO3Si3	055429-29-3	72
2	Stannane, tetraethyl-	236	C8H20Sn	000597-64-8	50
3	2-Methyl-7-phenylindole	207	C15H13N	000000-00-0	45
4	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	43
5	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	38

****

Peak Number 11 Hexanal Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.74	0.07 mg/kg	8437260	d5-CHLOROBENZENE*	2455480	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexanal	100	C6H12O	000066-25-1	81
2	Hexanal	100	C6H12O	000066-25-1	74
3	Hexanal	100	C6H12O	000066-25-1	64
4	Hexanal	100	C6H12O	000066-25-1	58
5	Hexanal	100	C6H12O	000066-25-1	49

****

Peak Number 12 2-Furancarboxaldehyde Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
12.01	0.01 mg/kg	859548	d5-CHLOROBENZENE*	2455480	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Furancarboxaldehyde	96	C5H4O2	000098-01-1	90
2	2-Furancarboxaldehyde	96	C5H4O2	000098-01-1	90
3	2-Furancarboxaldehyde	96	C5H4O2	000098-01-1	83
4	2-Furancarboxaldehyde	96	C5H4O2	000098-01-1	74
5	Furyl hydroxymethyl ketone	126	C6H6O3	017678-19-2	53

****

Peak Number 13 Heptanal Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
12.82	0.00 mg/kg	438329	d5-CHLOROBENZENE*	2455480	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptanal	114	C7H14O	000111-71-7	64
2	Heptanal	114	C7H14O	000111-71-7	58
3	Heptanal	114	C7H14O	000111-71-7	56
4	1-Heptanol	116	C7H16O	000111-70-6	43
5	1-Heptanol	116	C7H16O	000111-70-6	38

****

Peak Number 14 Cyclotetrasiloxane, octamet... Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
13.56	0.01 mg/kg	781731	d4-1,4-DICHLOROBE	2292040	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	72
2	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	32
3	2-Oxo-4-phenyl-6-(4-chlorophenyl...	282	C16H11ClN2O	000000-00-0	9
4	6,7-Benzo-phenothiazine-5,5-dioxide	281	C16H11NO2S	000000-00-0	9
5	2(1H)-Pyrimidinone, 5-chloro-4,6...	282	C16H11ClN2O	028567-83-1	7

****

Peak Number 15 Benzene, 1,2,4-trimethyl- Concentration Rank 20

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
14.41	0.00 mg/kg	244421	d4-1,4-DICHLOROBE	2292040	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	41
2	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	38
3	1-Pentanone, 1-phenyl-	162	C11H14O	001009-14-9	38
4	1,2,4-Trimethylbenzene	120	C9H12	000095-36-3	38
5	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	38

****

Peak Number 16 Octanal Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
14.70	0.00 mg/kg	318291	d4-1,4-DICHLOROBE	2292040	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octanal	128	C8H16O	000124-13-0	93
2	Octanal	128	C8H16O	000124-13-0	72
3	Octanal	128	C8H16O	000124-13-0	70
4	1,2-Cyclopentanediol, trans-	102	C5H10O2	005057-99-8	42
5	Cyclopropane, 1-ethyl-2-methyl-,...	84	C6H12	019781-68-1	35

****

Peak Number 17 Benzene-1,2,3,4-d4-, 5,6-di... Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
15.44	0.02 mg/kg	2337960	d4-1,4-DICHLOROBE	2292040	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual

1	Benzene-1,2,3,4-d4-, 5,6-dichloro-	150	C6Cl2D4	002199-69-1	91
2	1,4-Dichlorobenzene-d4	150	C6Cl2D4	003855-82-1	90
3	Biphenylene	152	C12H8	000259-79-0	9
4	2H-1-Benzopyran-3-ol, 3,4-dihydro-	150	C9H10O2	021834-60-6	9
5	2-Cyclopenten-1-one, 2-(2-buteny...	150	C10H14O	017190-71-5	9

****

Peak Number 18 Nonanal Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
16.43	0.00 mg/kg	340182	d4-1,4-DICHLOROBE	2292040	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Nonanal	142	C9H18O	000124-19-6	59
2	Nonanal	142	C9H18O	000124-19-6	53
3	Nonanal	142	C9H18O	000124-19-6	53
4	Oxacyclotetradecan-2-one, 13-met...	226	C14H26O2	057092-32-7	52
5	1-Heptene	98	C7H14	000592-76-7	43

****

Peak Number 19 3-Pyridazinamine, 6-chloro- Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
17.89	0.00 mg/kg	259587	d4-1,4-DICHLOROBE	2292040	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Pyridazinamine, 6-chloro-	129	C4H4ClN3	005469-69-2	38
2	2-Cyclopentene-1-nonanol, acetat...	252	C16H28O2	067886-20-8	25
3	3,10-Dioxatricyclo[4.3.1.02,4]de...	138	C8H10O2	050267-08-8	12
4	4-Hydrazono-5-hydroxyimino-4,5,6...	181	C6H7N5O2	000000-00-0	12
5	Formamide, N-(3-methyl-5-isoxazo...	126	C5H6N2O2	053907-67-8	12

****

Peak Number 20 1,1,1,3,5,5,5-Heptamethyltr... Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
19.95	0.01 mg/kg	835141	d4-1,4-DICHLOROBE	2292040	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,1,1,3,5,5,5-Heptamethyltrisilo...	222	C7H22O2Si3	001873-88-7	25
2	3,3-Diethoxy-1,1,1,5,5,5-hexamet...	296	C10H28O4Si3	000000-00-0	25
3	1H-Pyrrolo[2,3-b]pyridine, 3-(mo...	293	C18H19N3O	027257-23-4	17
4	Phenanthridinium, 5,6-dimethyl-,...	335	C15H14IN	016511-48-1	16
5	1H-Indole, 5-methyl-2-phenyl-	207	C15H13N	013228-36-9	16

LS090419.M Tue Sep 10 12:30:48 2019

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321157.D Vial: 10
Acq On : 5 Sep 2019 11:34 Operator: RLD-DGS
Sample : 163979,321157, Inst : VMS4
Misc : 4.18g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 11:55:25 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1054506	0.02	mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	808295	0.02	mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.89	152	367838	0.02	mg/kg	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	278957	0.021	mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 105 %			
45) SURR12DCAd4	7.24	102	58518	0.022	mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 110 %			
60) SURRd8Tolule	9.67	98	1064074	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %			
82) SURR4BrFBenz	13.23	95	389574	0.022	mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 110 %			
Target Compounds						Qvalue
2) Dichlorodi	1.81	85	2182	0.0011	mg/kg#	44
3) Chloromethan	2.06	50	1414	N.D.		
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	2.69	94	2130	N.D.		
6) Chloroethane	0.00	64	0	N.D.		
7) dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	3.67	67	10079	0.0006	mg/kg#	29
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	3.83	56	1548	N.D.		
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	4.04	43	431473	0.1394	mg/kg	96
16) Iodomethane	4.12	142	2055	0.0024	mg/kg#	41
17) Carbon Dislf	4.20	76	53995	0.0012	mg/kg	99
18) allylchloride	0.00	41	0	N.D.		
19) methylacetate	0.00	74	0	N.D.		
20) Methylchlorid	4.60	84	33085	N.D.		
21) Acrylonitrile	0.00	53	0	N.D.		
22) t12dichlorte	0.00	96	0	N.D.		
23) tbutylalcohol	4.80	59	19819	N.D.		
24) MtBE	0.00	73	0	N.D.		
25) Hexane	5.33	57	28528	0.0032	mg/kg	92
26) 11dichlorota	0.00	63	0	N.D.		
27) Vinylacetate	5.58	43	1881	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	6.19	59	2171	N.D.		
31) 22dichloropr	6.20	77	9400	N.D.		
32) c12dichlorte	0.00	96	0	N.D.		
33) 2Butanone	6.29	72	4128	N.D.		
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	6.62	42	1928	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321157.D Vial: 10
Acq On : 5 Sep 2019 11:34 Operator: RLD-DGS
Sample : 163979,321157, Inst : VMS4
Misc : 4.18g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 11:55:25 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	0.00	83	0	N.D.	
40) 111trichlota	0.00	97	0	N.D.	
42) Cyclohexane	6.91	56	17478	0.0018 mg/kg#	80
43) Carbtetraclo	0.00	119	0	N.D.	
44) 11dicloprope	0.00	110	0	N.D.	
46) Benzene	7.32	78	23109	0.0004 mg/kg	92
47) 12dichlorota	0.00	62	0	N.D.	
48) TAME	0.00	73	0	N.D.	
49) trichloroete	0.00	95	0	N.D.	
50) methylcyclohexane	8.36	83	20414	0.0019 mg/kg	94
51) 12dicloropra	0.00	63	0	N.D.	
52) 23dicl1propene	0.00	75	0	N.D.	
53) Dibromometha	0.00	93	0	N.D.	
54) methylmethacrylate	8.63	69	1164	0.0011 mg/kg#	46
55) 14dioxane	0.00	88	0	N.D.	
56) Bromodiclrma	0.00	83	0	N.D.	
57) 2Nitropropane	9.09	43	2233	N.D.	
58) c13dicloproe	0.00	75	0	N.D.	
59) 4Meth2Pentan	9.53	43	8288	N.D.	
61) Toluene	9.77	92	75428	0.0018 mg/kg	97
62) t13Dicloprop	0.00	75	0	N.D.	
63) ethylmethacrylate	10.06	69	1354	N.D.	
64) 112Triclotha	0.00	83	0	N.D.	
65) Tetrachlorte	0.00	166	0	N.D.	
66) 13Diclorpropa	0.00	76	0	N.D.	
68) 2Hexanone	10.65	43	7201	N.D.	
69) Clorodibrmta	0.00	129	0	N.D.	
70) 12Dibrometha	10.96	107	2251	N.D.	
71) Chlorobenzen	0.00	112	0	N.D.	
72) 1Clhexane	11.58	91	1588	0.0010 mg/kg#	1
73) 1112Tetclota	0.00	131	0	N.D.	
74) Ethylbenzene	11.78	91	12630	N.D.	
75) m p-Xylene	11.96	106	20326	0.0007 mg/kg	93
76) o-Xylene	12.50	106	6072	N.D.	
77) Styrene	0.00	104	0	N.D.	
78) Bromoform	0.00	173	0	N.D.	
79) Isopropylben	13.01	105	2340	N.D.	
81) cyclohexanone	13.13	55	1006	N.D.	
83) Bromobenzene	0.00	156	0	N.D.	
84) 1122Tetrclta	0.00	83	0	N.D.	
85) 123Triclproa	13.45	75	2653	N.D.	
86) 14dichloro2butene	0.00	53	0	N.D.	
87) n-Propylbenz	13.61	91	3651	N.D.	
88) 2chlorotolue	13.61	91	2538	N.D.	
89) 4chlorotolue	13.89	91	1389	N.D.	
90) 135Trimebenz	13.86	105	10977	N.D.	
91) tbutylbenzen	14.39	119	3392	N.D.	
92) 124Trimetben	14.41	105	38603	N.D.	
93) sbutylbenzen	14.66	105	1136	N.D.	
94) 13Diclorbenz	0.00	146	0	N.D.	
95) pIsopropylto	14.85	119	15038	N.D.	
96) 14dichlorobe	0.00	146	0	N.D.	
97) 12dichlorobe	0.00	146	0	N.D.	
98) nButylbenzen	15.47	91	4932	N.D.	
99) 12dibromo3cl	0.00	157	0	N.D.	
100) 135Trichlorobenzene	0.00	180	0	N.D.	
101) 124Trichlobe	17.68	180	1525	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

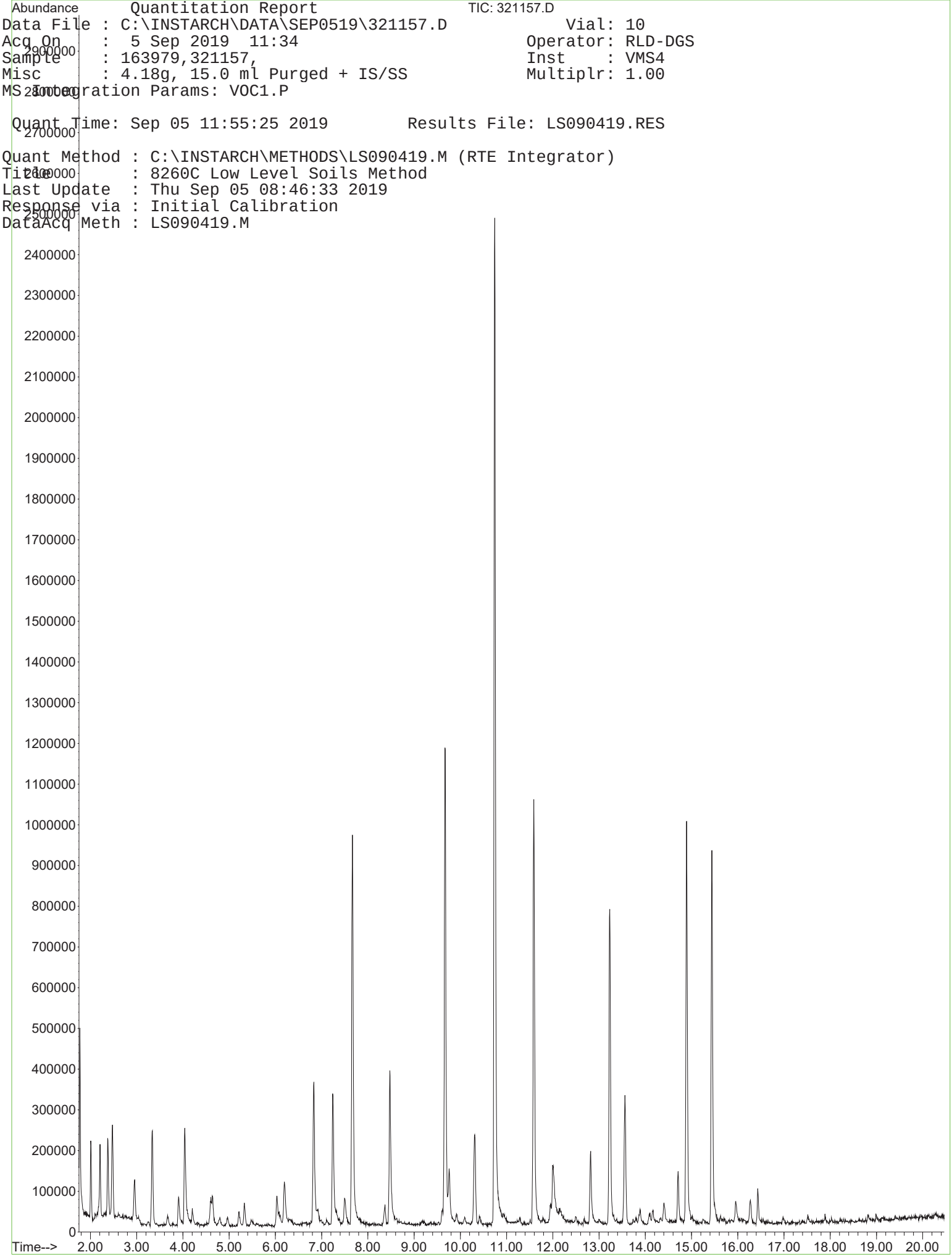
Data File : C:\INSTARCH\DATA\SEP0519\321157.D Vial: 10
Acq On : 5 Sep 2019 11:34 Operator: RLD-DGS
Sample : 163979,321157, Inst : VMS4
Misc : 4.18g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

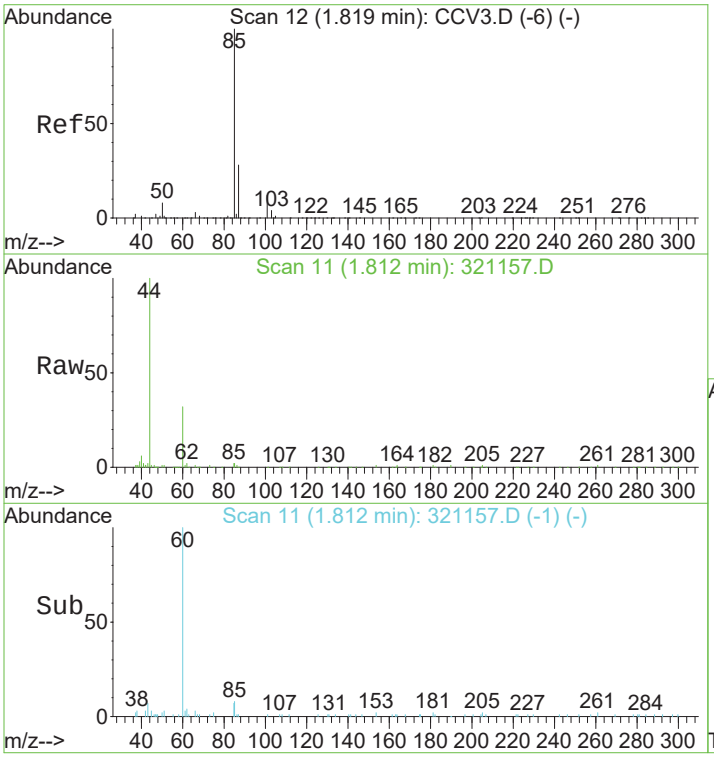
Quant Time: Sep 05 11:55:25 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) Hexachlorobu	0.00	225	0	N.D.	
103) Naphthalene	18.04	128	9263	N.D.	
104) 123Trichlben	18.32	180	1330	N.D.	

(#) = qualifier out of range (m) = manual integration

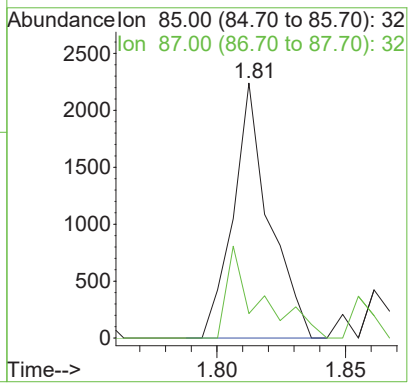

Abundance
Quantitation Report
TIC: 321157.D
Data File : C:\INSTARCH\DATA\SEP0519\321157.D
Vial: 10
Acq On : 5 Sep 2019 11:34
Operator: RLD-DGS
Sample : 163979,321157,
Inst : VMS4
Misc : 4.18g, 15.0 ml Purged + IS/SS
Multiplr: 1.00
MS Integration Params: VOC1.P
Quant Time: Sep 05 11:55:25 2019
Results File: LS090419.RES
Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
Time-->



#2
Dichlorodi
Concen: 0.00 mg/kg
RT: 1.81 min Scan# 11
Delta R.T. -0.01 min
Lab File: 321157.D
Acq: 5 Sep 2019 11:34

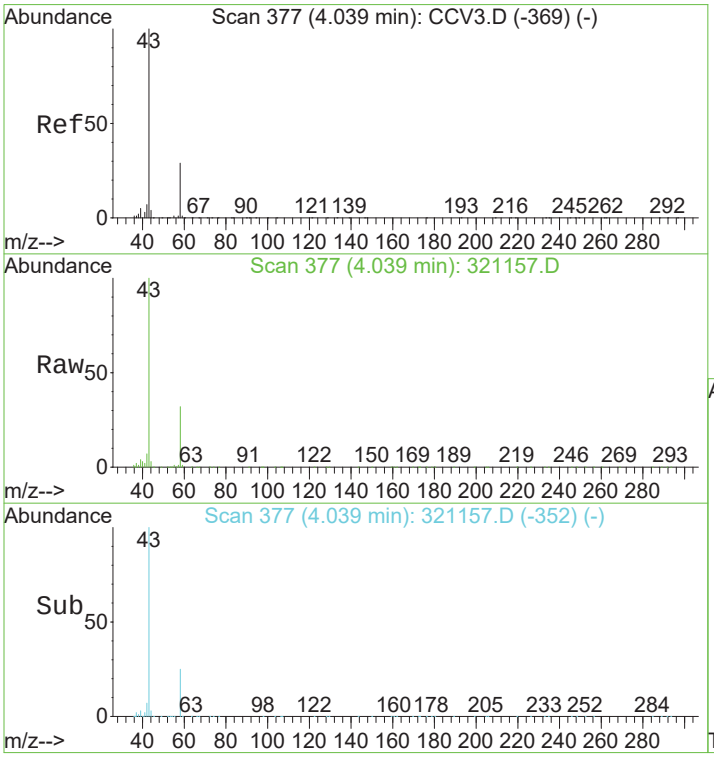
Tgt Ion: 85 Resp: 2182

Ion	Ratio	Lower	Upper
85	100		
87	0.0	10.8	50.8#



Negative Library Identification

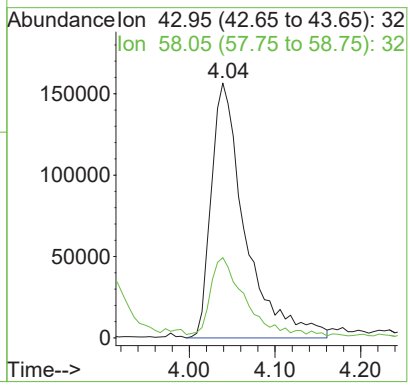
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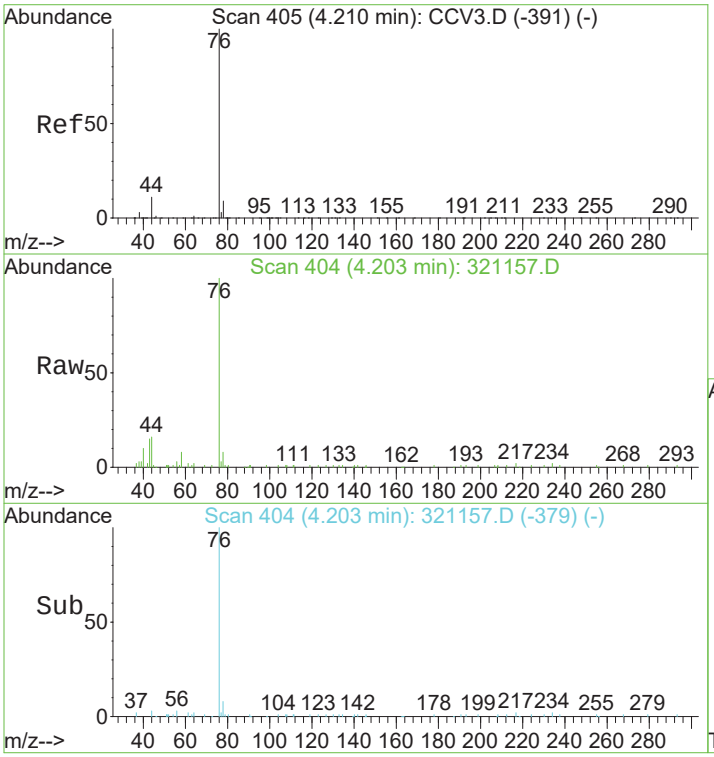


#15
Acetone
Concen: 0.14 mg/kg
RT: 4.04 min Scan# 377
Delta R.T. -0.00 min
Lab File: 321157.D
Acq: 5 Sep 2019 11:34

Tgt Ion: 43 Resp: 431473

Ion	Ratio	Lower	Upper
43	100		
58	31.4	9.4	49.4

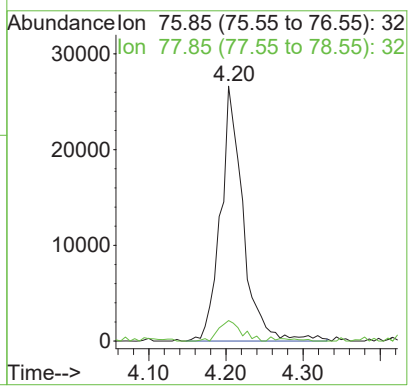


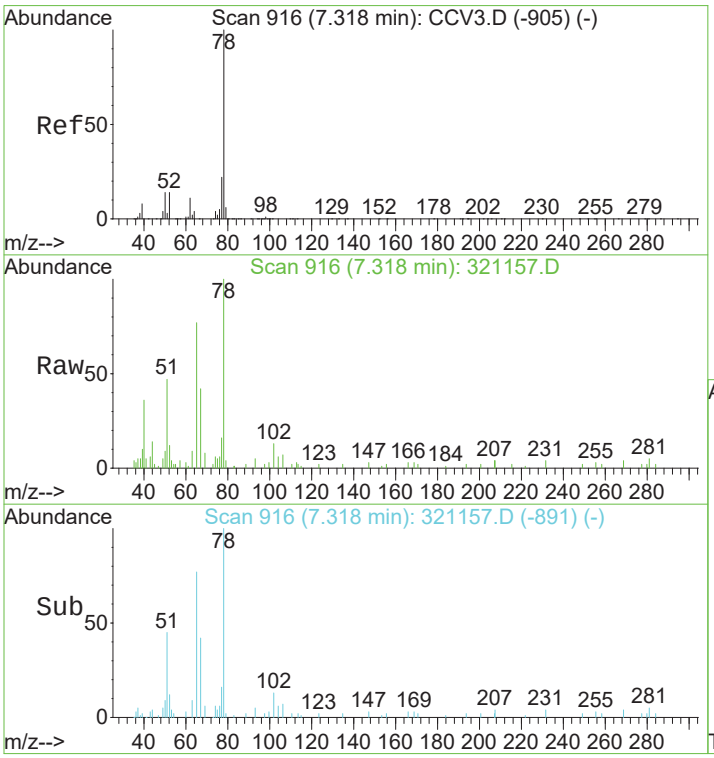


#17
Carbon Dislf
Concen: 0.00 mg/kg
RT: 4.20 min Scan# 404
Delta R.T. -0.00 min
Lab File: 321157.D
Acq: 5 Sep 2019 11:34

Tgt Ion: 76 Resp: 53995

Ion	Ratio	Lower	Upper
76	100		
78	8.1	0.0	28.5

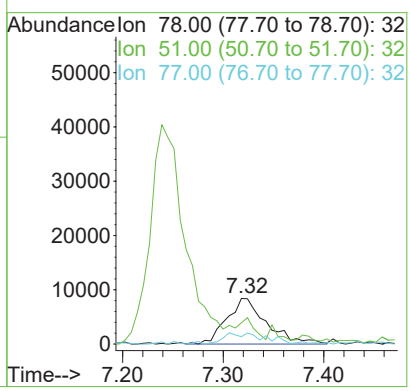


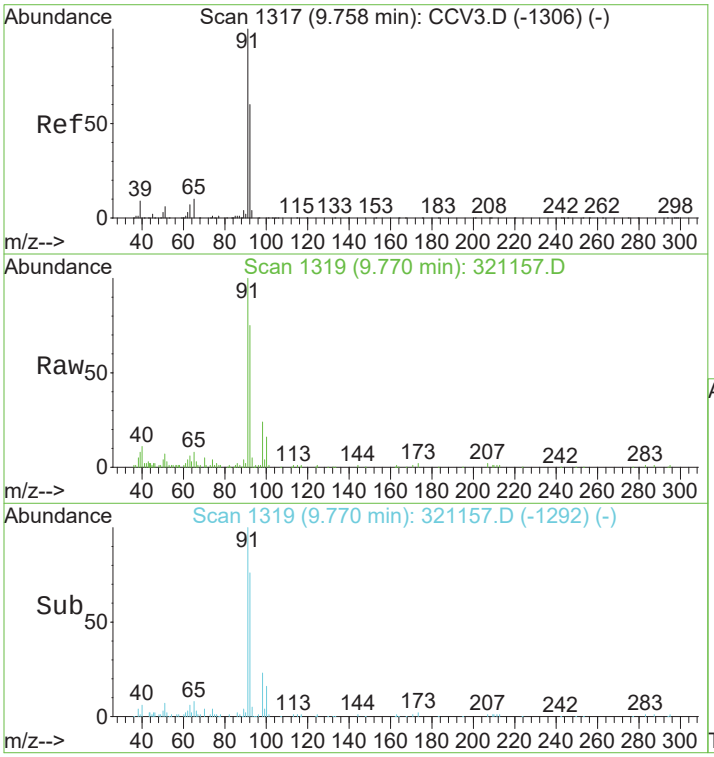


#46
Benzene
Concen: 0.00 mg/kg
RT: 7.32 min Scan# 916
Delta R.T. -0.00 min
Lab File: 321157.D
Acq: 5 Sep 2019 11:34

Tgt Ion: 78 Resp: 23109

Ion	Ratio	Lower	Upper
78	100		
51	11.0	0.0	36.9
77	24.7	3.0	43.0

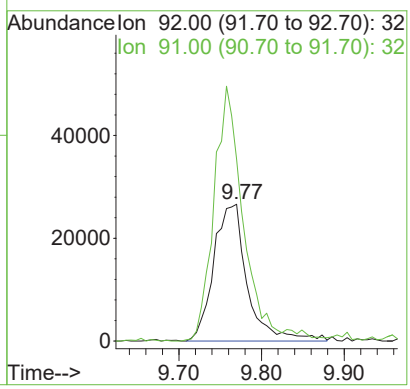


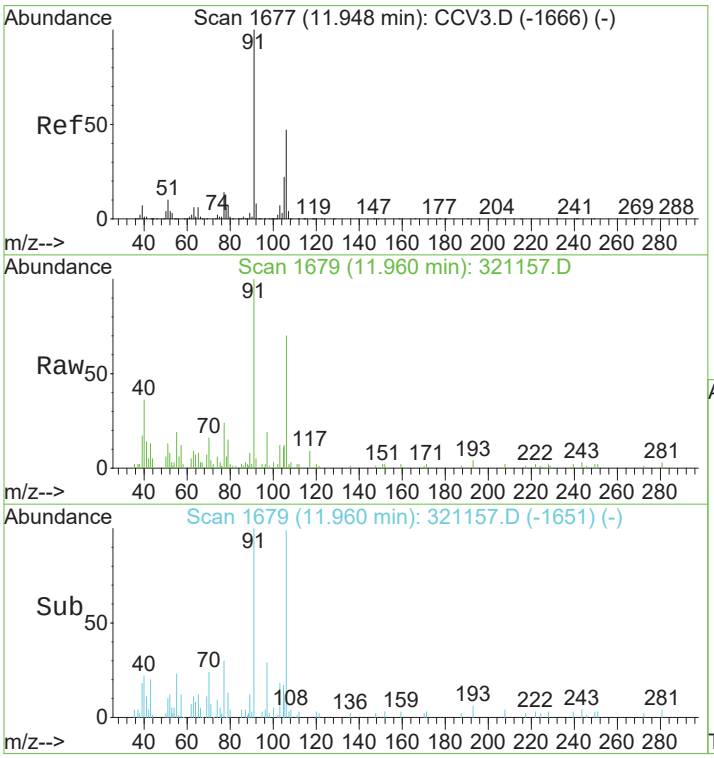


#61
Toluene
Concen: 0.00 mg/kg
RT: 9.77 min Scan# 1319
Delta R.T. 0.01 min
Lab File: 321157.D
Acq: 5 Sep 2019 11:34

Tgt Ion: 92 Resp: 75428

Ion	Ratio	Lower	Upper
92	100		
91	164.2	148.0	188.0

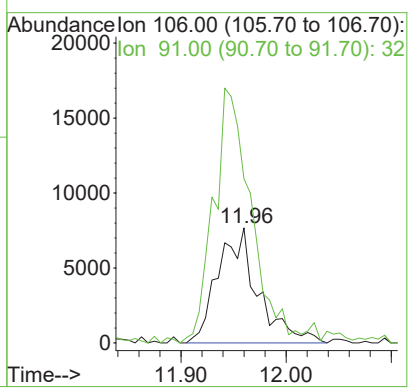




#75
m p-Xylene
Concen: 0.00 mg/kg
RT: 11.96 min Scan# 1679
Delta R.T. 0.02 min
Lab File: 321157.D
Acq: 5 Sep 2019 11:34

Tgt Ion:106 Resp: 20326

Ion	Ratio	Lower	Upper
106	100		
91	215.3	184.6	224.6



Library Search Compound Report

Data Path : C:\Instarch\Data\SEP0519\
Data File : 321157.D
Acq On : 5 Sep 2019 11:34
Operator : RLD-DGS
Sample : 163979,321157,
Misc : 4.18g, 15.0 ml Purged + IS/SS
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHODS\LS090419.M
Quant Title : 8260C Low Level Soils Method

TIC Library : C:\DATABASE\NBS75K.L
TIC Integration Parameters: VOC.P

****

Peak Number 1 Isobutane Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.01	0.00 mg/kg	291658	FLUOROBENZENE**IS	2516470	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Isobutane	58	C4H10	000075-28-5	59
2	Isobutane	58	C4H10	000075-28-5	38
3	Isobutane	58	C4H10	000075-28-5	9
4	1-Hexanamine, N-nitro-	146	C6H14N2O2	000000-00-0	4
5	1-Propanol, 2-methyl-	74	C4H10O	000078-83-1	4

****

Peak Number 2 Butane Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.21	0.00 mg/kg	317618	FLUOROBENZENE**IS	2516470	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane	58	C4H10	000106-97-8	59
2	Butane	58	C4H10	000106-97-8	9
3	1-Butanol	74	C4H10O	000071-36-3	9
4	Propane, 1-chloro-2-methyl-	92	C4H9Cl	000513-36-0	9
5	Tridecane, 3-ethyl-	212	C15H32	013286-73-2	4

****

Peak Number 3 Acetaldehyde Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.37	0.00 mg/kg	369877	FLUOROBENZENE**IS	2516470	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetaldehyde	44	C2H4O	000075-07-0	56
2	Acetaldehyde	44	C2H4O	000075-07-0	56
3	Acetaldehyde	44	C2H4O	000075-07-0	56
4	Ethylene oxide	44	C2H4O	000075-21-8	5
5	Ethylene oxide	44	C2H4O	000075-21-8	5

****

Peak Number 4 Silane, fluorotrimethyl- Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.48	0.00 mg/kg	428115	FLUOROBENZENE**IS	2516470	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Silane, fluorotrimethyl-	92	C3H9FSi	000420-56-4	49
2	Propane, 1,2-dichloro-2-methyl-	126	C4H8Cl2	000594-37-6	9
3	Acetic acid, chloro-, 1-methyl-1...	228	C7H10Cl2O4	042831-64-1	5
4	Propane, 2-bromo-1-chloro-	156	C3H6BrCl	003017-95-6	4
5	Propane, 2-chloro-2-nitro-	123	C3H6ClNO2	000594-71-8	4

****

Peak Number 5 Butane, 2-methyl- Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.96	0.00 mg/kg	377579	FLUOROBENZENE**IS	2516470	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2-methyl-	72	C5H12	000078-78-4	86
2	Butane, 2-methyl-	72	C5H12	000078-78-4	78
3	1-Propanamine, N,2-dimethyl-N-ni...	116	C5H12N2O	034419-76-6	40
4	3-Buten-1-ol	72	C4H8O	000627-27-0	38
5	3-Buten-1-ol	72	C4H8O	000627-27-0	38

****

Peak Number 6 Pentane Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
3.34	0.00 mg/kg	562991	FLUOROBENZENE**IS	2516470	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane	72	C5H12	000109-66-0	80
2	Pentane	72	C5H12	000109-66-0	80
3	Pentane	72	C5H12	000109-66-0	80
4	Butane, 2-methyl-	72	C5H12	000078-78-4	59
5	1-Propanol, 2-methyl-	74	C4H10O	000078-83-1	36

****

Peak Number 7 Propanal Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
3.91	0.00 mg/kg	213697	FLUOROBENZENE**IS	2516470	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propanal	58	C3H6O	000123-38-6	59
2	Propanal	58	C3H6O	000123-38-6	45
3	Propanal	58	C3H6O	000123-38-6	38
4	Propanal	58	C3H6O	000123-38-6	9
5	Pentanal, 2,3-dimethyl-	114	C7H14O	032749-94-3	9

****

Peak Number 8 Pentane, 2-methyl- Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
4.64	0.00 mg/kg	339265	FLUOROBENZENE**IS	2516470	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2-methyl-	86	C6H14	000107-83-5	68
2	Pentane, 2-methyl-	86	C6H14	000107-83-5	64
3	Pentane, 2-methyl-	86	C6H14	000107-83-5	59

4	Pentane, 2-methyl-	86	C6H14	000107-83-5 46
5	Pentane, 2-methyl-	86	C6H14	000107-83-5 43

****

Peak Number 9 Butanal Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
6.03	0.00 mg/kg	313196	FLUOROBENZENE**IS	2516470	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanal	72	C4H8O	000123-72-8	87
2	1-Butanamine, N-(1-methylethyl)-	115	C7H17N	039099-23-5	64
3	Butanal	72	C4H8O	000123-72-8	64
4	Butanal	72	C4H8O	000123-72-8	58
5	Butanal	72	C4H8O	000123-72-8	58

****

Peak Number 10 Silanol, trimethyl- Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
6.19	0.00 mg/kg	450110	FLUOROBENZENE**IS	2516470	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	78
2	Acetic acid, (trimethylsilyl)-	132	C5H12O2Si	002345-38-2	56
3	Ethanol, 2-(trimethylsilyl)-	118	C5H14OSi	002916-68-9	39
4	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	9
5	1,1-Dimethoxyoctane	174	C10H22O2	000000-00-0	9

****

Peak Number 11 Butanal, 3-methyl- Concentration Rank 20

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
7.49	0.00 mg/kg	209445	FLUOROBENZENE**IS	2516470	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanal, 3-methyl-	86	C5H10O	000590-86-3	58
2	Butanal, 3-methyl-	86	C5H10O	000590-86-3	58
3	Pentanal	86	C5H10O	000110-62-3	50
4	Pentanal	86	C5H10O	000110-62-3	50
5	Butanal, 3-methyl-	86	C5H10O	000590-86-3	40

****

Peak Number 12 Pentanal Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
8.47	0.01 mg/kg	1174940	FLUOROBENZENE**IS	2516470	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentanal	86	C5H10O	000110-62-3	90
2	Pentanal	86	C5H10O	000110-62-3	83
3	Pentanal	86	C5H10O	000110-62-3	78
4	Pentanal	86	C5H10O	000110-62-3	64
5	Butanal, 3-methyl-	86	C5H10O	000590-86-3	64

****

Peak Number 13 Arsenous acid, tris(trimeth... Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.31	0.00 mg/kg	613086	d5-CHLOROBENZENE*	2505510	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Arsenous acid, tris(trimethylsil...	342	C9H27AsO3Si3	055429-29-3	64
2	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	49
3	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	38
4	1H-Indole, 1-methyl-2-phenyl-	207	C15H13N	003558-24-5	9
5	Propiophenone, 2'-(trimethylsilo...	222	C12H18O2Si	033342-87-9	9

****

Peak Number 14 Hexanal Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.74	0.05 mg/kg	6329990	d5-CHLOROBENZENE*	2505510	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexanal	100	C6H12O	000066-25-1	91
2	Hexanal	100	C6H12O	000066-25-1	90
3	Hexanal	100	C6H12O	000066-25-1	83
4	Hexanal	100	C6H12O	000066-25-1	72
5	Hexanal	100	C6H12O	000066-25-1	47

****

Peak Number 15 Heptanal Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
12.82	0.00 mg/kg	490292	d5-CHLOROBENZENE*	2505510	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptanal	114	C7H14O	000111-71-7	90
2	Heptanal	114	C7H14O	000111-71-7	80
3	Heptanal	114	C7H14O	000111-71-7	80
4	Heptanal	114	C7H14O	000111-71-7	59
5	Hexanal, 3-methyl-	114	C7H14O	019269-28-4	47

****

Peak Number 16 Cyclotetrasiloxane, octamet... Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
13.56	0.01 mg/kg	794037	d4-1,4-DICHLOROBE	2369810	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	72
2	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	43
3	2-Oxo-4-phenyl-6-(4-chlorophenyl...	282	C16H11ClN2O	000000-00-0	9
4	6,7-Benzo-phenothiazine-5,5-dioxide	281	C16H11NO2S	000000-00-0	9
5	4,5-Ethylene-8,9-dimethoxy-6-phe...	281	C17H15NO3	000000-00-0	7

****

Peak Number 17 Octanal Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
14.71	0.00 mg/kg	287550	d4-1,4-DICHLOROBE	2369810	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual

1	Octanal	128	C8H16O	000124-13-0 64
2	1,1-Dodecanediol, diacetate	286	C16H30O4	056438-07-4 43
3	Dodecanal	184	C12H24O	000112-54-9 43
4	Cyclohexane	84	C6H12	000110-82-7 38
5	Hexanal	100	C6H12O	000066-25-1 35

****

Peak Number 18 Benzene-1,2,3,4-d4-, 5,6-di... Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
15.44	0.02 mg/kg	2225170	d4-1,4-DICHLOROBE	2369810	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene-1,2,3,4-d4-, 5,6-dichloro-	150	C6Cl2D4	002199-69-1	94
2	1,4-Dichlorobenzene-d4	150	C6Cl2D4	003855-82-1	94
3	Benzaldehyde, 2-hydroxy-5-methoxy-	152	C8H8O3	000672-13-9	9
4	Acenaphthylene	152	C12H8	000208-96-8	9
5	Vanillin	152	C8H8O3	000121-33-5	9

****

Peak Number 19 Nonanal Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
16.43	0.00 mg/kg	321783	d4-1,4-DICHLOROBE	2369810	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Nonanal	142	C9H18O	000124-19-6	38
2	Oxacyclotetradecan-2-one, 13-met...	226	C14H26O2	057092-32-7	32
3	3-Tetradecene, (Z)-	196	C14H28	041446-67-7	30
4	Cycloheptanol	114	C7H14O	000502-41-0	30
5	Heptanal, 3,4,5-trimethyl-	156	C10H20O	054308-66-6	25

****

Peak Number 20 2-Undecanone Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
18.99	0.00 mg/kg	310274	d4-1,4-DICHLOROBE	2369810	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Undecanone	170	C11H22O	000112-12-9	10
2	3,4,5-Trimethoxy-N,N-dimethylphe...	255	C13H21NO4	000000-00-0	10
3	3-Azabicyclo[3.3.1]nonan-9-ol, 3...	155	C9H17NO	013493-40-8	10
4	3-Bromo-2,5-dihydro-4,5-dimethyl...	247	C9H14BrNO2	000000-00-0	9
5	Tripelennamine	255	C16H21N3	000091-81-6	9

LS090419.M Tue Sep 10 12:31:25 2019

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321158.D Vial: 11
Acq On : 5 Sep 2019 12:03 Operator: RLD-DGS
Sample : 163979,321158, Inst : VMS4
Misc : 5.92g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 12:24:33 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1087596	0.02	mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	883773	0.02	mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.89	152	473797	0.02	mg/kg	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	294935	0.022	mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 110 %			
45) SURR12DCAd4	7.25	102	64092	0.023	mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 115 %			
60) SURRd8Tolule	9.67	98	1130860	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %			
82) SURR4BrFBenz	13.23	95	448565	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 100 %			
Target Compounds						Qvalue
2) Dichlorodi	1.82	85	3490	0.0012	mg/kg	98
3) Chloromethan	2.06	50	2245	N.D.		
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	2.69	94	3134	N.D.		
6) Chloroethane	0.00	64	0	N.D.		
7) dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	3.22	101	5426	0.0011	mg/kg#	85
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	3.67	67	1486	N.D.		
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	0.00	56	0	N.D.		
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	4.04	43	373821	0.1171	mg/kg	99
16) Iodomethane	4.12	142	5013	0.0025	mg/kg#	82
17) Carbon Dislf	4.20	76	36448	N.D.		
18) allylchloride	0.00	41	0	N.D.		
19) methylacetate	0.00	74	0	N.D.		
20) Methylchlorid	4.61	84	26609	N.D.		
21) Acrylonitrile	0.00	53	0	N.D.		
22) t12dichlorte	0.00	96	0	N.D.		
23) tbutylalcohol	4.81	59	14200	N.D.		
24) MtBE	0.00	73	0	N.D.		
25) Hexane	5.33	57	20577	0.0028	mg/kg	88
26) 11dichlorota	0.00	63	0	N.D.		
27) Vinylacetate	5.58	43	2148	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	6.19	59	1341	N.D.		
31) 22dichloropr	6.19	77	3852	N.D.		
32) c12dichlorte	0.00	96	0	N.D.		
33) 2Butanone	6.30	72	5806	N.D.		
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	6.61	42	1160	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321158.D Vial: 11
Acq On : 5 Sep 2019 12:03 Operator: RLD-DGS
Sample : 163979,321158, Inst : VMS4
Misc : 5.92g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 12:24:33 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	6.92	56	3123	0.0013 mg/kg#	25
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	7.32	78	12699	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	8.37	83	6068	0.0015 mg/kg#	47
51)	12dicloropra	0.00	63	0	N.D.	
52)	23dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	8.98	43	1703	N.D.	
58)	c13dicloproe	0.00	75	0	N.D.	
59)	4Meth2Pentan	9.52	43	3750	N.D.	
61)	Toluene	9.76	92	14386	N.D.	
62)	t13Dicloprop	0.00	75	0	N.D.	
63)	ethylmethacrylate	0.00	69	0	N.D.	
64)	112Triclotha	0.00	83	0	N.D.	
65)	Tetrachlorte	0.00	166	0	N.D.	
66)	13Diclorpropa	0.00	76	0	N.D.	
68)	2Hexanone	10.63	43	4256	N.D.	
69)	Clorodibrmta	0.00	129	0	N.D.	
70)	12Dibrometha	0.00	107	0	N.D.	
71)	Chlorobenzen	0.00	112	0	N.D.	
72)	1Clhexane	11.59	91	1309	0.0010 mg/kg#	1
73)	1112Tetclota	0.00	131	0	N.D.	
74)	Ethylbenzene	11.80	91	3205	N.D.	
75)	m p-Xylene	11.95	106	3275	N.D.	
76)	o-Xylene	12.50	106	1257	N.D.	
77)	Styrene	0.00	104	0	N.D.	
78)	Bromoform	0.00	173	0	N.D.	
79)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	13.12	55	2580	N.D.	
83)	Bromobenzene	0.00	156	0	N.D.	
84)	1122Tetrclta	0.00	83	0	N.D.	
85)	123Triclproa	13.55	75	4403	N.D.	
86)	14dichloro2butene	0.00	53	0	N.D.	
87)	n-Propylbenz	13.61	91	1663	N.D.	
88)	2chlorotolue	13.75	91	1137	N.D.	
89)	4chlorotolue	0.00	91	0	N.D.	
90)	135Trimebenz	13.87	105	1942	N.D.	
91)	tbutylbenzen	0.00	119	0	N.D.	
92)	124Trimetben	14.42	105	33282	N.D.	
93)	sbutylbenzen	14.66	105	2065	N.D.	
94)	13Diclorbenz	14.90	146	1245	N.D.	
95)	pIsopropylto	14.86	119	3485	N.D.	
96)	14dichlorobe	14.93	146	1154	N.D.	
97)	12dichlorobe	15.45	146	1342	N.D.	
98)	nButylbenzen	15.46	91	2005	N.D.	
99)	12dibromo3cl	0.00	157	0	N.D.	
100)	135Trichlorobenzene	0.00	180	0	N.D.	
101)	124Trichlobe	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

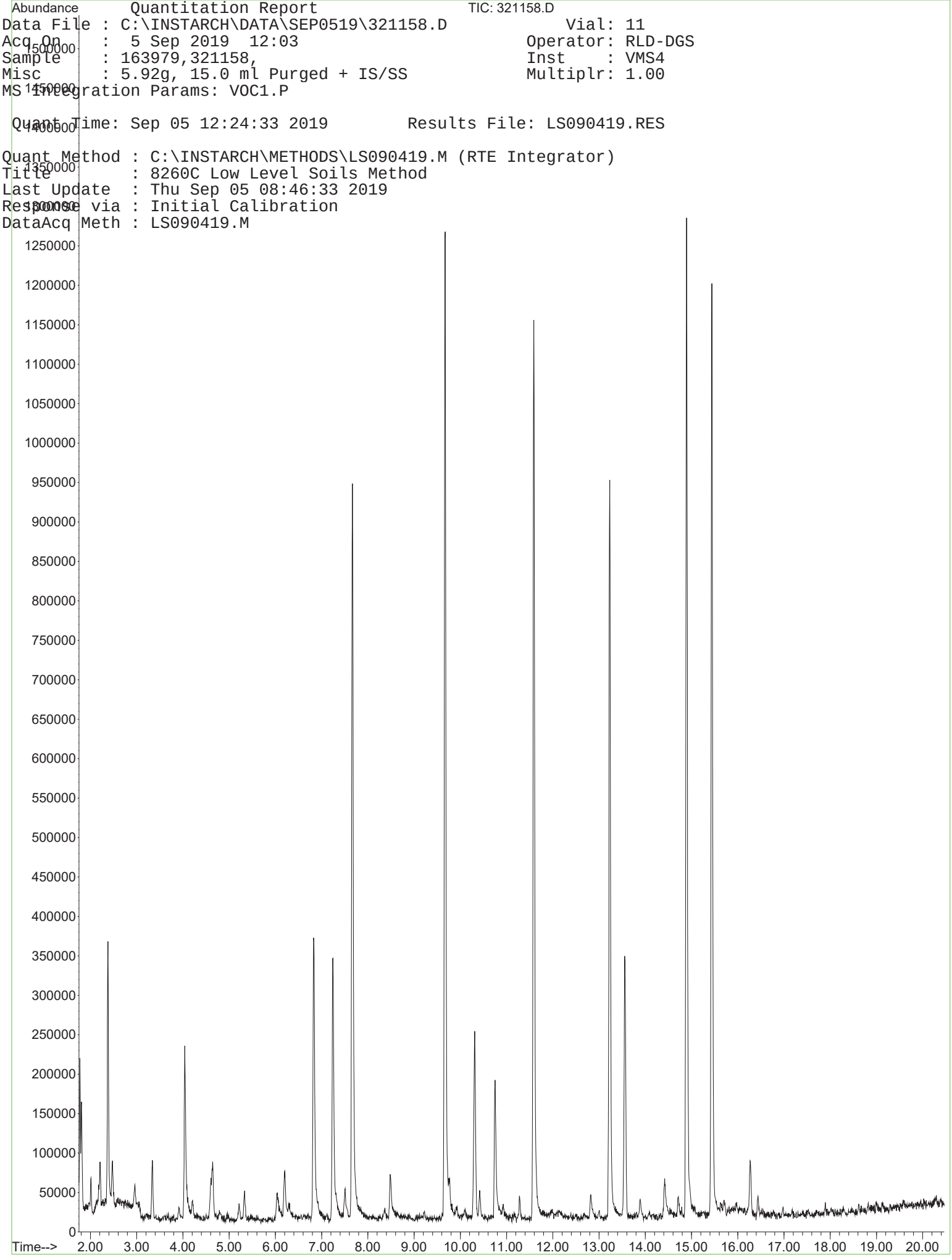
Data File : C:\INSTARCH\DATA\SEP0519\321158.D Vial: 11
Acq On : 5 Sep 2019 12:03 Operator: RLD-DGS
Sample : 163979,321158, Inst : VMS4
Misc : 5.92g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

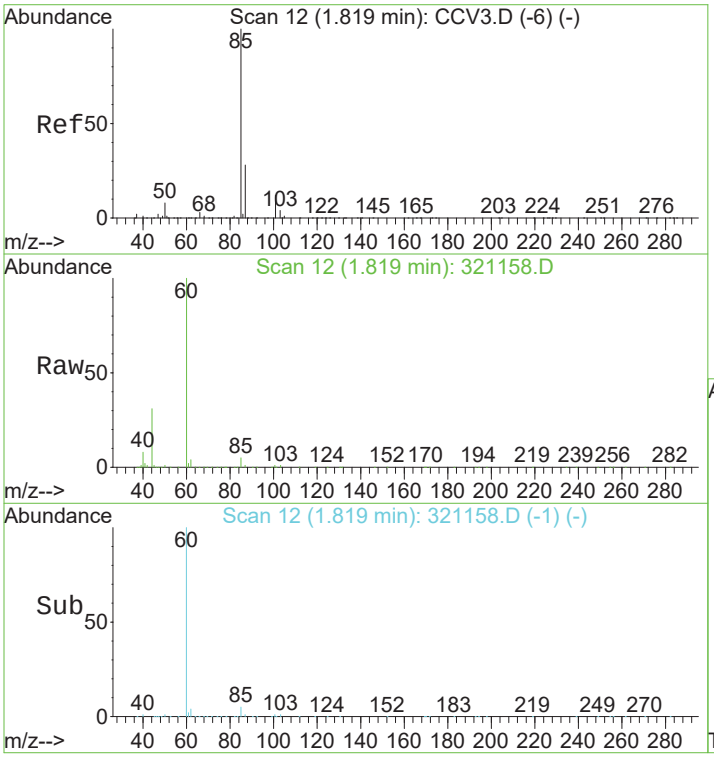
Quant Time: Sep 05 12:24:33 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) Hexachlorobu	0.00	225	0	N.D.	
103) Naphthalene	18.03	128	6742	N.D.	
104) 123Trichlben	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

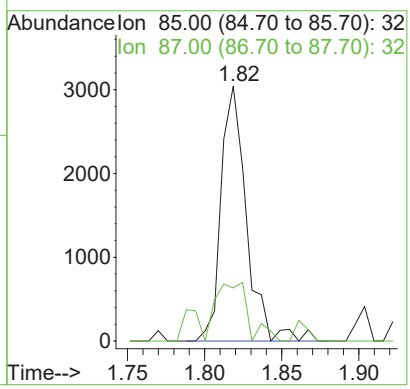

Abundance
Quantitation Report
TIC: 321158.D
Data File : C:\INSTARCH\DATA\SEP0519\321158.D
Vial: 11
Acq On : 5 Sep 2019 12:03
Operator: RLD-DGS
Sample : 163979,321158,
Inst : VMS4
Misc : 5.92g, 15.0 ml Purged + IS/SS
Multiplr: 1.00
MS Integration Params: VOC1.P
Quant Time: Sep 05 12:24:33 2019
Results File: LS090419.RES
Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
1500000
1450000
1400000
1350000
1300000
1250000
1200000
1150000
1100000
1050000
1000000
950000
900000
850000
800000
750000
700000
650000
600000
550000
500000
450000
400000
350000
300000
250000
200000
150000
100000
50000
0
Time-->
2.00
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.00
11.00
12.00
13.00
14.00
15.00
16.00
17.00
18.00
19.00
20.00



#2
Dichlorodi
Concen: 0.00 mg/kg
RT: 1.82 min Scan# 12
Delta R.T. 0.00 min
Lab File: 321158.D
Acq: 5 Sep 2019 12:03

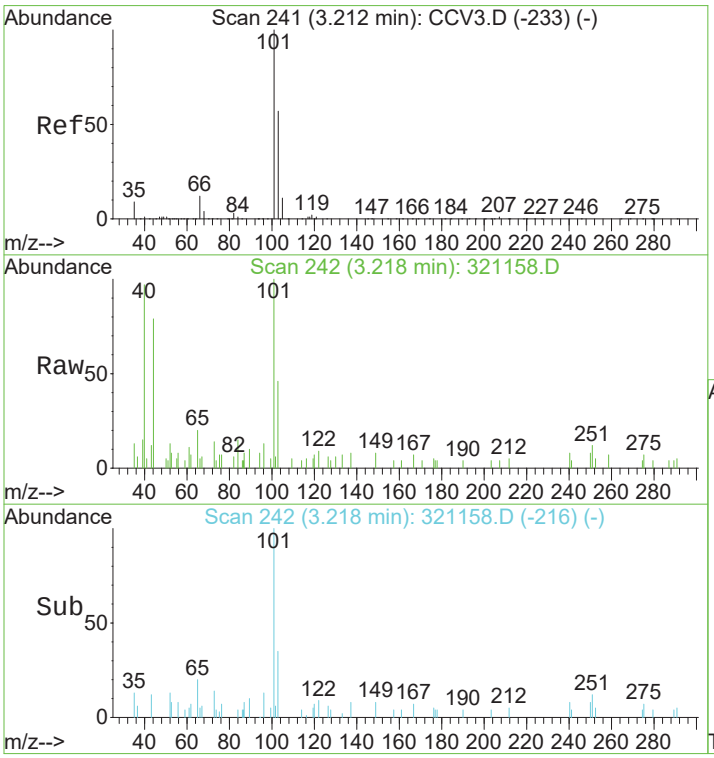
Tgt Ion: 85 Resp: 3490

Ion	Ratio	Lower	Upper
85	100		
87	29.7	10.8	50.8



Negative Library Identification

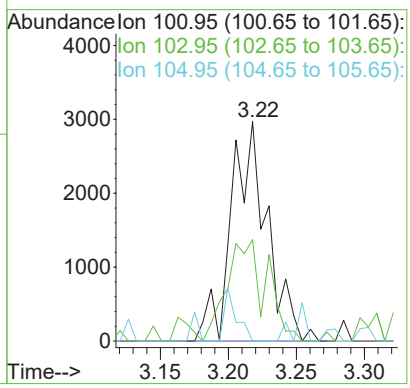
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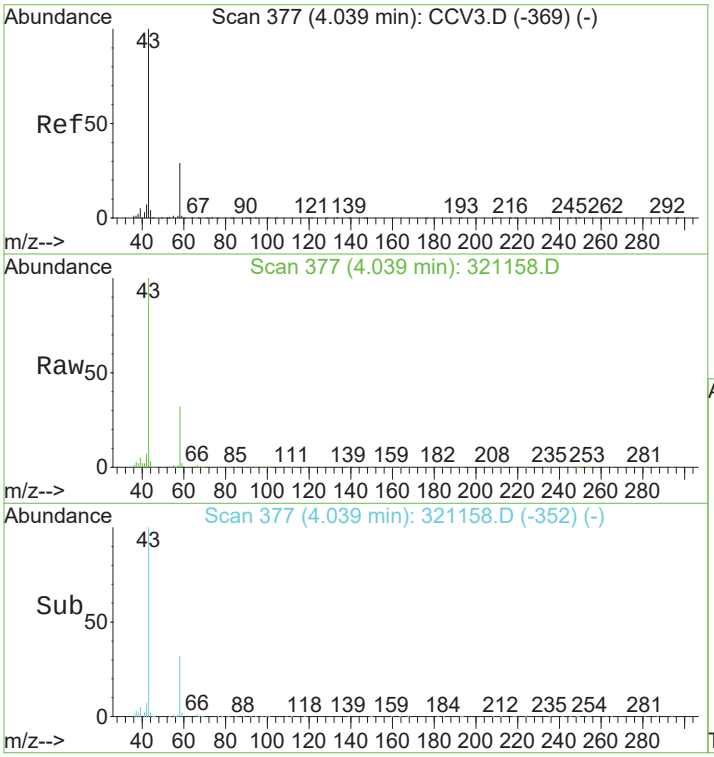


#8
Trichlorofma
Concen: 0.00 mg/kg
RT: 3.22 min Scan# 242
Delta R.T. 0.01 min
Lab File: 321158.D
Acq: 5 Sep 2019 12:03

Tgt Ion:101 Resp: 5426

Ion	Ratio	Lower	Upper
101	100		
103	51.2	41.7	81.7
105	0.0	0.0	29.6

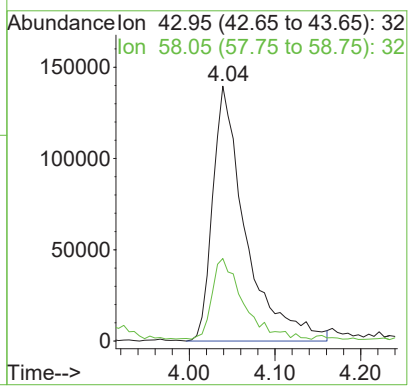




#15
Acetone
Concen: 0.12 mg/kg
RT: 4.04 min Scan# 377
Delta R.T. -0.00 min
Lab File: 321158.D
Acq: 5 Sep 2019 12:03

Tgt Ion: 43 Resp: 373821

Ion	Ratio	Lower	Upper
43	100		
58	30.1	9.4	49.4



Library Search Compound Report

Data Path : C:\Instarch\Data\SEP0519\
Data File : 321158.D
Acq On : 5 Sep 2019 12:03
Operator : RLD-DGS
Sample : 163979,321158,
Misc : 5.92g, 15.0 ml Purged + IS/SS
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHODS\LS090419.M
Quant Title : 8260C Low Level Soils Method

TIC Library : C:\DATABASE\NBS75K.L
TIC Integration Parameters: VOC.P

****

Peak Number 1 Butane Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.21	0.00 mg/kg	139736	FLUOROBENZENE**IS	2487010	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane	58	C4H10	000106-97-8	53
2	Butane	58	C4H10	000106-97-8	42
3	3-(p-Chlorophenyl)-4-methyl-4-(p...	348	C18H18Cl2N2O	075478-75-0	9
4	1-Propen-2-ol, acetate	100	C5H8O2	000108-22-5	9
5	Pentane, 2-iodo-	198	C5H11I	000637-97-8	9

****

Peak Number 2 Acetaldehyde Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.38	0.01 mg/kg	634793	FLUOROBENZENE**IS	2487010	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetaldehyde	44	C2H4O	000075-07-0	86
2	Acetaldehyde	44	C2H4O	000075-07-0	64
3	Acetaldehyde	44	C2H4O	000075-07-0	9
4	Propane, 1-chloro-2-methyl-	92	C4H9Cl	000513-36-0	5
5	Ethylene oxide	44	C2H4O	000075-21-8	5

****

Peak Number 3 2-Propanone, 1,3-dichloro- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.48	0.01 mg/kg	910430	FLUOROBENZENE**IS	2487010	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Propanone, 1,3-dichloro-	126	C3H4Cl2O	000534-07-6	34
2	Silane, (2,2-difluoroethyl)trime...	138	C5H12F2Si	000000-00-0	9
3	Propane, 2-chloro-2-nitro-	123	C3H6ClNO2	000594-71-8	9
4	Silane, fluorotrimethyl-	92	C3H9FSi	000420-56-4	9
5	1-Triazene, 3,3-dimethyl-1-phenyl-	149	C8H11N3	007227-91-0	9

****

Peak Number 4 Pentane Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
3.34	0.00 mg/kg	163115	FLUOROBENZENE**IS	2487010	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane	72	C5H12	000109-66-0	72
2	Pentane	72	C5H12	000109-66-0	72
3	Pentane	72	C5H12	000109-66-0	72
4	1-Propanol, 2-methyl-	74	C4H10O	000078-83-1	33
5	1-Propanol, 2-methyl-	74	C4H10O	000078-83-1	33

****

Peak Number 5 Pentane, 2-methyl- Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
4.64	0.00 mg/kg	404452	FLUOROBENZENE**IS	2487010	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2-methyl-	86	C6H14	000107-83-5	80
2	Pentane, 2-methyl-	86	C6H14	000107-83-5	72
3	Pentane, 2-methyl-	86	C6H14	000107-83-5	72
4	Pentane, 2-methyl-	86	C6H14	000107-83-5	58
5	Propanoic acid, 2-methyl-, anhyd...	158	C8H14O3	000097-72-3	43

****

Peak Number 6 Butanal Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
6.04	0.00 mg/kg	128828	FLUOROBENZENE**IS	2487010	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanal	72	C4H8O	000123-72-8	78
2	Butanal	72	C4H8O	000123-72-8	78
3	Butanal	72	C4H8O	000123-72-8	78
4	Butanal	72	C4H8O	000123-72-8	78
5	Urea, N,N-dimethyl-N'-[3-(triflu...	232	C10H11F3N2O	002164-17-2	64

****

Peak Number 7 Silanol, trimethyl- Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
6.20	0.00 mg/kg	274113	FLUOROBENZENE**IS	2487010	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	78
2	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	78
3	Silanol, trimethyl-, propanoate	146	C6H14O2Si	016844-98-7	78
4	Butanoic acid, trimethylsilyl ester	160	C7H16O2Si	016844-99-8	64
5	Acetic acid, (trimethylsilyl)-	132	C5H12O2Si	002345-38-2	56

****

Peak Number 8 Butanal, 3-methyl- Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
8.48	0.00 mg/kg	342665	FLUOROBENZENE**IS	2487010	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanal, 3-methyl-	86	C5H10O	000590-86-3	72
2	Butanal, 3-methyl-	86	C5H10O	000590-86-3	64
3	Pentanal	86	C5H10O	000110-62-3	64

4	Butanal, 3-methyl-	86	C5H10O	000590-86-3	42
5	Benzeneethanamine, 3-benzyloxy-2...	275	C16H18FNO2	000000-00-0	39

****

Peak Number 9 Arsenous acid, tris(trimeth... Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.31	0.00 mg/kg	612121	d5-CHLOROBENZENE*	2959900	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Arsenous acid, tris(trimethylsil...	342	C9H27AsO3Si3	055429-29-3	56
2	1,3,5-Triazine, 2-chloro-4,6-bis...	207	C5H6ClN3S2	004407-40-3	52
3	1H-Isoindole-1,3(2H)-dione, 2-bu...	207	C12H17NO2	054934-85-9	40
4	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	38
5	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	37

****

Peak Number 10 Hexanal Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.75	0.00 mg/kg	625903	d5-CHLOROBENZENE*	2959900	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexanal	100	C6H12O	000066-25-1	80
2	Hexanal	100	C6H12O	000066-25-1	72
3	Hexanal	100	C6H12O	000066-25-1	64
4	Hexanal	100	C6H12O	000066-25-1	50
5	Hexanal	100	C6H12O	000066-25-1	50

****

Peak Number 11 Cyclotetrasiloxane, octamet... Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
13.55	0.01 mg/kg	876225	d4-1,4-DICHLOROBE	3071450	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	56
2	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	37
3	4-Amino-5-(4-acetylphenylazo)ben...	281	C14H11N5O2	000000-00-0	28
4	2(1H)-Pyrimidinone, 5-chloro-4,6...	282	C16H11ClN2O	028567-83-1	9
5	6,7-Benzo-phenothiazine-5,5-dioxide	281	C16H11NO2S	000000-00-0	9

****

Peak Number 12 Benzaldehyde Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
14.42	0.00 mg/kg	210984	d4-1,4-DICHLOROBE	3071450	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzaldehyde	106	C7H6O	000100-52-7	87
2	Benzaldehyde	106	C7H6O	000100-52-7	87
3	Benzaldehyde	106	C7H6O	000100-52-7	87
4	Benzaldehyde	106	C7H6O	000100-52-7	86
5	Benzaldehyde	106	C7H6O	000100-52-7	80

****

Peak Number 13 Benzene-1,2,3,4-d4-, 5,6-di... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
15.44	0.02 mg/kg	2757910	d4-1,4-DICHLOROBE	3071450	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene-1,2,3,4-d4-, 5,6-dichloro-	150	C6Cl2D4	002199-69-1	94
2	1,4-Dichlorobenzene-d4	150	C6Cl2D4	003855-82-1	91
3	Acenaphthylene	152	C12H8	000208-96-8	10
4	Benzaldehyde, 2-hydroxy-3-methoxy-	152	C8H8O3	000148-53-8	9
5	Benzonitrile, 2-amino-5-chloro-	152	C7H5ClN2	005922-60-1	9

****

Peak Number 14 4-Trimethylsilyl-9,9-dimeth... Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
16.27	0.00 mg/kg	233805	d4-1,4-DICHLOROBE	3071450	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4-Trimethylsilyl-9,9-dimethyl-9-...	282	C17H22Si2	058263-56-2	50
2	Benzaldehyde, 2,4-bis(trimethyls...	282	C13H22O3Si2	033617-38-8	50
3	3-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	000000-00-0	45
4	2-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	000000-00-0	45
5	Butanamide, 2,2,3,3,4,4,4-heptaf...	493	C18H26F7NO3Si2	055471-01-7	45

****

Peak Number 15 Nonanal Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
16.44	0.00 mg/kg	238278	d4-1,4-DICHLOROBE	3071450	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Nonanal	142	C9H18O	000124-19-6	35
2	Glycine, N-(3-methyl-1-oxobutyl)...	173	C8H15NO3	056009-37-1	17
3	Butane, 1-nitro-	103	C4H9NO2	000627-05-4	16
4	Acecarbromal	278	C9H15BrN2O3	000077-66-7	16
5	Cyanazine	240	C9H13ClN6	021725-46-2	12

****

Peak Number 16 p-Benzoquinone, 2-methoxy-5... Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
18.82	0.00 mg/kg	280577	d4-1,4-DICHLOROBE	3071450	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	p-Benzoquinone, 2-methoxy-5-(met...	184	C8H8O3S	019349-06-5	32
2	Phenanthridinium, 5,6-dimethyl-,...	335	C15H14IN	016511-48-1	27
3	2-(1-Piperidino)-5-nitropyridine	207	C10H13N3O2	026820-61-1	11
4	Trichothec-9-ene-4,15-diol, 12,1...	266	C15H22O4	002198-92-7	10
5	Propanamide, N-(3-methoxyphenyl)...	207	C12H17NO2	056619-93-3	10

****

Peak Number 17 Cyclotrisiloxane, hexamethyl- Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
19.96	0.00 mg/kg	517469	d4-1,4-DICHLOROBE	3071450	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual

1	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	43
2	1,1,1,3,5,7,7,7-Octamethyltetras...	282	C8H26O3Si4	000000-00-0	37
3	2-(Acetoxymethyl)-3-(methoxycarb...	282	C17H14O4	093103-70-9	35
4	1H-Pyrrolo[2,3-b]pyridine, 3-(mo...	293	C18H19N3O	027257-23-4	35
5	Tetrasiloxane, decamethyl-	310	C10H30O3Si4	000141-62-8	25

LS090419.M Tue Sep 10 12:32:08 2019

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321159.D Vial: 12
Acq On : 5 Sep 2019 12:33 Operator: RLD-DGS
Sample : 163979,321159, Inst : VMS4
Misc : 4.51g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

NOT USED

Quant Time: Sep 05 12:53:38 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	855130	0.02 mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	617568	0.02 mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.89	152	269352	0.02 mg/kg	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.83	113	227556	0.021 mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 105 %		
45) SURR12DCAd4	7.24	102	52252	0.024 mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 120 %		
60) SURRd8Tolule	9.67	98	821429	0.019 mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 95 %		
82) SURR4BrFBenz	13.23	95	282396	0.022 mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 110 %		
Target Compounds					Qvalue
2) Dichlorodi	1.82	85	2162	0.0012 mg/kg#	44
3) Chloromethan	2.08	50	2137	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	2.69	94	2002	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) dichloroflmethane	3.15	67	4967	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	3.66	67	24862	0.0019 mg/kg#	29
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	3.83	56	2187	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.04	43	641004	0.2553 mg/kg	96
16) Iodomethane	4.12	142	3140	0.0025 mg/kg#	41
17) Carbon Dislf	4.21	76	87312	0.0024 mg/kg	97
18) allylchloride	4.50	41	34678	0.0018 mg/kg#	57
19) methylacetate	4.51	74	11173	0.0036 mg/kg	94
20) Methylchlorid	4.60	84	29120	N.D.	
21) Acrylonitrile	4.99	53	3892	N.D.	
22) t12dichlorte	0.00	96	0	N.D.	
23) tbutylalcohol	4.81	59	28032	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	5.33	57	99423	0.0073 mg/kg	100
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	5.54	43	6301	N.D.	
28) chloroprene	5.62	53	1104	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	6.25	77	1898	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	6.30	72	13644	0.0128 mg/kg	74
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	6.51	67	1191	0.0017 mg/kg#	1
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	6.61	42	5468	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321159.D Vial: 12
Acq On : 5 Sep 2019 12:33 Operator: RLD-DGS
Sample : 163979,321159, Inst : VMS4
Misc : 4.51g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 12:53:38 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	6.62	83	2813	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	6.93	56	53034	0.0036 mg/kg#	72
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	7.32	78	70821	0.0013 mg/kg#	80
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	7.42	73	1086	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	8.36	83	56041	0.0034 mg/kg	92
51)	12dicloropra	8.46	63	1091	N.D.	
52)	23dicl1propene	8.39	75	2366	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	8.60	69	5130	0.0016 mg/kg#	46
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	8.78	83	2929	N.D.	
57)	2Nitropropane	8.98	43	1109	N.D.	
58)	c13dicloproe	0.00	75	0	N.D.	
59)	4Meth2Pentan	9.53	43	6404	N.D.	
61)	Toluene	9.76	92	98526	0.0028 mg/kg	91
62)	t13Dicloprop	9.95	75	1057	N.D.	
63)	ethylmethacrylate	10.21	69	1318	N.D.	
64)	112Triclotha	10.32	83	1636	N.D.	
65)	Tetrachlorte	0.00	166	0	N.D.	
66)	13Diclorpropa	0.00	76	0	N.D.	
68)	2Hexanone	10.63	43	5934	N.D.	
69)	Clorodibrmta	0.00	129	0	N.D.	
70)	12Dibrometha	10.96	107	4272	0.0005 mg/kg#	3
71)	Chlorobenzen	0.00	112	0	N.D.	
72)	1Clhexane	11.58	91	1637	0.0010 mg/kg#	1
73)	1112Tetclota	0.00	131	0	N.D.	
74)	Ethylbenzene	11.78	91	27824	0.0005 mg/kg	98
75)	m p-Xylene	11.95	106	35421	0.0017 mg/kg	98
76)	o-Xylene	12.50	106	10935	0.0005 mg/kg#	75
77)	Styrene	0.00	104	0	N.D.	
78)	Bromoform	0.00	173	0	N.D.	
79)	Isopropylben	13.01	105	2936	N.D.	
81)	cyclohexanone	13.13	55	4668	N.D.	
83)	Bromobenzene	0.00	156	0	N.D.	
84)	1122Tetrclta	0.00	83	0	N.D.	
85)	123Triclproa	13.49	75	1311	N.D.	
86)	14dichloro2butene	0.00	53	0	N.D.	
87)	n-Propylbenz	13.61	91	6905	N.D.	
88)	2chlorotolue	13.77	91	1921	N.D.	
89)	4chlorotolue	13.86	91	3840	N.D.	
90)	135Trimebenz	13.86	105	17519	N.D.	
91)	tbutylbenzen	14.41	119	5429	N.D.	
92)	124Trimetben	14.40	105	52012	0.0014 mg/kg	82
93)	sbutylbenzen	14.66	105	2780	N.D.	
94)	13Diclorbenz	0.00	146	0	N.D.	
95)	pIsopropylto	14.86	119	2541	N.D.	
96)	14dichlorobe	0.00	146	0	N.D.	
97)	12dichlorobe	15.46	146	1057	N.D.	
98)	nButylbenzen	15.46	91	4896	N.D.	
99)	12dibromo3cl	0.00	157	0	N.D.	
100)	135Trichlorobenzene	0.00	180	0	N.D.	
101)	124Trichlobe	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321159.D Vial: 12
Acq On : 5 Sep 2019 12:33 Operator: RLD-DGS
Sample : 163979,321159, Inst : VMS4
Misc : 4.51g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 12:53:38 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) Hexachlorobu	0.00	225	0	N.D.	
103) Naphthalene	18.03	128	9128	N.D.	
104) 123Trichlben	0.00	180	0	N.D.	

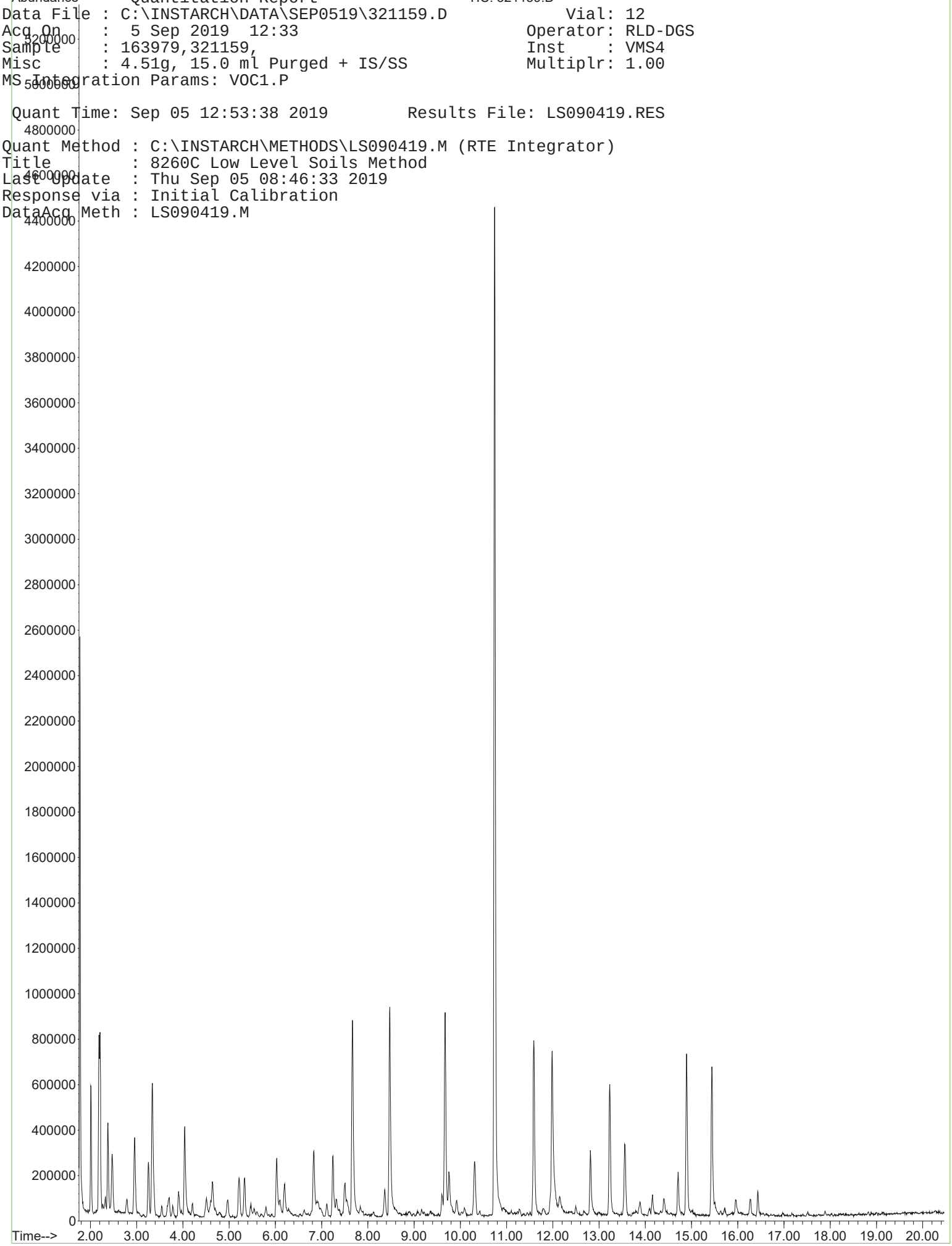
(#) = qualifier out of range (m) = manual integration

Abundance Quantitation Report TIC: 321159.D

Data File : C:\INSTARCH\DATA\SEP0519\321159.D Vial: 12
Acq On : 5 Sep 2019 12:33 Operator: RLD-DGS
Sample : 163979,321159, Inst : VMS4
Misc : 4.51g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 12:53:38 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M



Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321160.D Vial: 13
Acq On : 5 Sep 2019 13:02 Operator: RLD-DGS
Sample : 163979,321160, Inst : VMS4
Misc : 6.57g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 13:22:47 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1094035	0.02	mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	838775	0.02	mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.89	152	372921	0.02	mg/kg	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	280584	0.021	mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 105 %			
45) SURR12DCAd4	7.25	102	57375	0.021	mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 105 %			
60) SURRd8Tolule	9.67	98	1116363	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %			
82) SURR4BrFBenz	13.23	95	395491	0.022	mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 110 %			
Target Compounds						Qvalue
2) Dichlorodi	1.81	85	2800	0.0012	mg/kg	85
3) Chloromethan	2.06	50	2791	N.D.		
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	2.66	94	4709	N.D.		
6) Chloroethane	0.00	64	0	N.D.		
7) dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	3.67	67	4126	N.D.		
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	3.83	56	9256	0.0043	mg/kg	84
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	4.04	43	1156244	0.3600	mg/kg	99
16) Iodomethane	4.12	142	7500	0.0027	mg/kg#	90
17) Carbon Dislf	4.20	76	92911	0.0020	mg/kg	100
18) allylchloride	4.36	41	1395	N.D.		
19) methylacetate	4.50	74	381791	0.0776	mg/kg	96
20) Methylchlorid	4.60	84	33261	N.D.		
21) Acrylonitrile	0.00	53	0	N.D.		
22) t12dichlorte	0.00	96	0	N.D.		
23) tbutylalcohol	4.80	59	45786	0.0304	mg/kg	85
24) MtBE	4.99	73	1484	N.D.		
25) Hexane	5.33	57	60307	0.0045	mg/kg	99
26) 11dichlorota	0.00	63	0	N.D.		
27) Vinylacetate	5.61	43	5639	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	6.19	59	1737	N.D.		
31) 22dichloropr	6.20	77	7271	N.D.		
32) c12dichlorte	0.00	96	0	N.D.		
33) 2Butanone	6.28	72	55585	0.0407	mg/kg	91
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	6.62	42	3499	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321160.D Vial: 13
Acq On : 5 Sep 2019 13:02 Operator: RLD-DGS
Sample : 163979,321160, Inst : VMS4
Misc : 6.57g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 13:22:47 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	6.66	83	1008	N.D.	
40) 111trichlota	0.00	97	0	N.D.	
42) Cyclohexane	6.92	56	9887	0.0015 mg/kg	89
43) Carbtetraclo	0.00	119	0	N.D.	
44) 11dicloprope	0.00	110	0	N.D.	
46) Benzene	7.32	78	47528	0.0007 mg/kg#	83
47) 12dichlorota	0.00	62	0	N.D.	
48) TAME	7.35	73	1369	N.D.	
49) trichloroete	0.00	95	0	N.D.	
50) methylcyclohexane	8.37	83	16298	0.0018 mg/kg#	71
51) 12dicloropra	0.00	63	0	N.D.	
52) 23dicl1propene	0.00	75	0	N.D.	
53) Dibromometha	0.00	93	0	N.D.	
54) methylmethacrylate	8.63	69	1177	0.0011 mg/kg#	46
55) 14dioxane	0.00	88	0	N.D.	
56) Bromodiclrma	0.00	83	0	N.D.	
57) 2Nitropropane	9.01	43	1123	N.D.	
58) c13dicloproe	0.00	75	0	N.D.	
59) 4Meth2Pentan	9.51	43	14306	N.D.	
61) Toluene	9.76	92	103158	0.0023 mg/kg	99
62) t13Dicloprop	0.00	75	0	N.D.	
63) ethylmethacrylate	10.10	69	1130	N.D.	
64) 112Triclotha	10.30	83	1532	N.D.	
65) Tetrachlorte	0.00	166	0	N.D.	
66) 13Diclorpropa	0.00	76	0	N.D.	
68) 2Hexanone	10.64	43	17384	N.D.	
69) Clorodibrmta	0.00	129	0	N.D.	
70) 12Dibrometha	0.00	107	0	N.D.	
71) Chlorobenzen	0.00	112	0	N.D.	
72) 1Clhexane	11.59	91	1656	0.0010 mg/kg#	1
73) 1112Tetclota	0.00	131	0	N.D.	
74) Ethylbenzene	11.79	91	9292	N.D.	
75) m p-Xylene	11.95	106	13455	N.D.	
76) o-Xylene	12.50	106	4247	N.D.	
77) Styrene	0.00	104	0	N.D.	
78) Bromoform	0.00	173	0	N.D.	
79) Isopropylben	13.01	105	1447	N.D.	
81) cyclohexanone	13.16	55	4940	N.D.	
83) Bromobenzene	0.00	156	0	N.D.	
84) 1122Tetrclta	0.00	83	0	N.D.	
85) 123Triclproa	13.49	75	1321	N.D.	
86) 14dichloro2butene	13.61	53	1028	N.D.	
87) n-Propylbenz	13.60	91	3770	N.D.	
88) 2chlorotolue	13.60	91	3691	N.D.	
89) 4chlorotolue	13.88	91	1213	N.D.	
90) 135Trimebenz	13.87	105	6765	N.D.	
91) tbutylbenzen	14.40	119	2735	N.D.	
92) 124Trimetben	14.41	105	190911	0.0037 mg/kg#	39
93) sbutylbenzen	14.65	105	5724	N.D.	
94) 13Diclorbenz	0.00	146	0	N.D.	
95) pIsopropylto	14.87	119	5924	N.D.	
96) 14dichlorobe	0.00	146	0	N.D.	
97) 12dichlorobe	0.00	146	0	N.D.	
98) nButylbenzen	15.46	91	2406	N.D.	
99) 12dibromo3cl	0.00	157	0	N.D.	
100) 135Trichlorobenzene	0.00	180	0	N.D.	
101) 124Trichlobe	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321160.D Vial: 13
Acq On : 5 Sep 2019 13:02 Operator: RLD-DGS
Sample : 163979,321160, Inst : VMS4
Misc : 6.57g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 13:22:47 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) Hexachlorobu	0.00	225	0	N.D.	
103) Naphthalene	18.04	128	8016	N.D.	
104) 123Trichlben	0.00	180	0	N.D.	

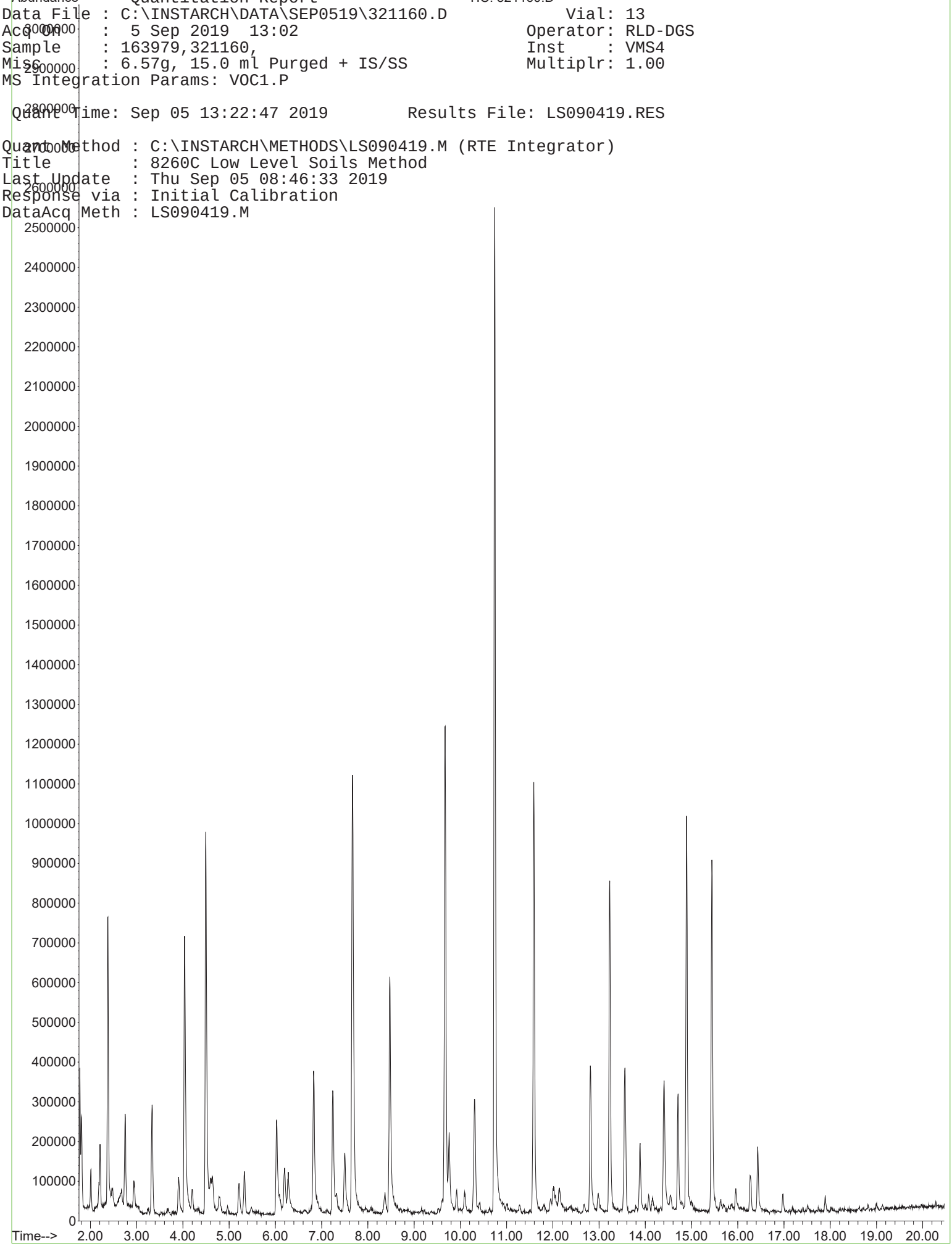
(#) = qualifier out of range (m) = manual integration

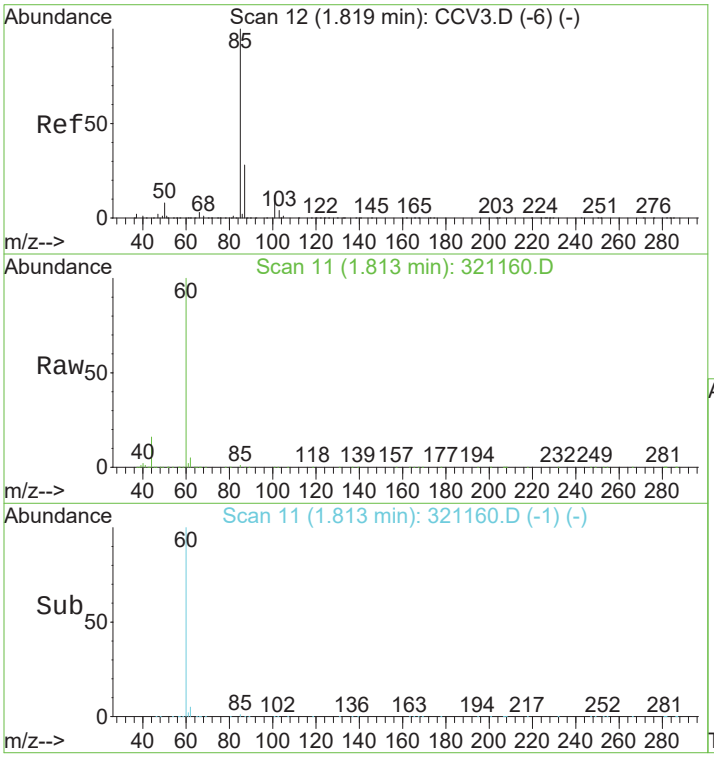
Abundance Quantitation Report TIC: 321160.D

Data File : C:\INSTARCH\DATA\SEP0519\321160.D Vial: 13
Acq On : 5 Sep 2019 13:02 Operator: RLD-DGS
Sample : 163979,321160, Inst : VMS4
Misc : 6.57g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 13:22:47 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

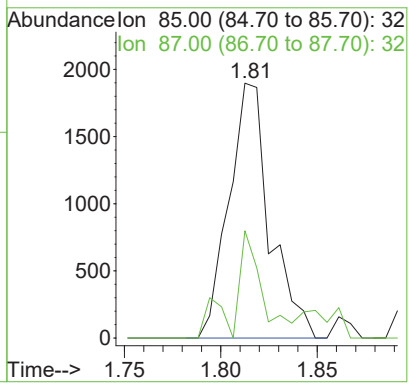




#2
Dichlorodi
Concen: 0.00 mg/kg
RT: 1.81 min Scan# 11
Delta R.T. -0.01 min
Lab File: 321160.D
Acq: 5 Sep 2019 13:02

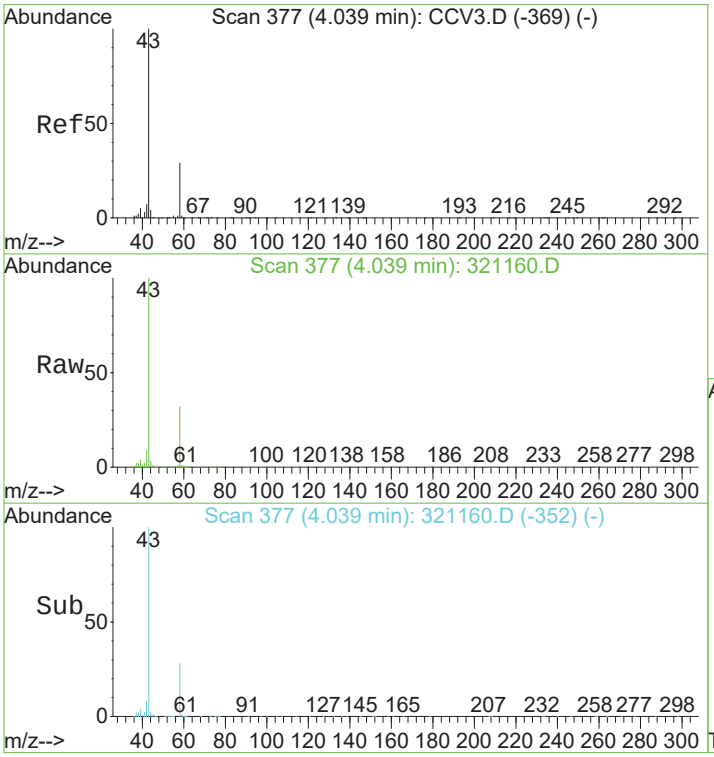
Tgt Ion: 85 Resp: 2800

Ion	Ratio	Lower	Upper
85	100		
87	39.1	10.8	50.8



Negative Library Identification

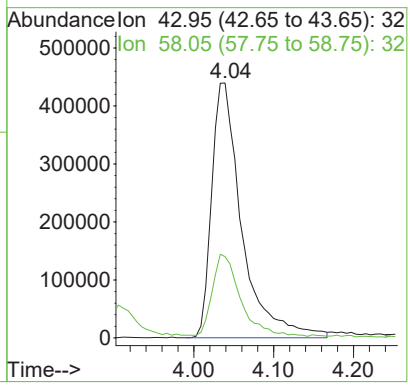
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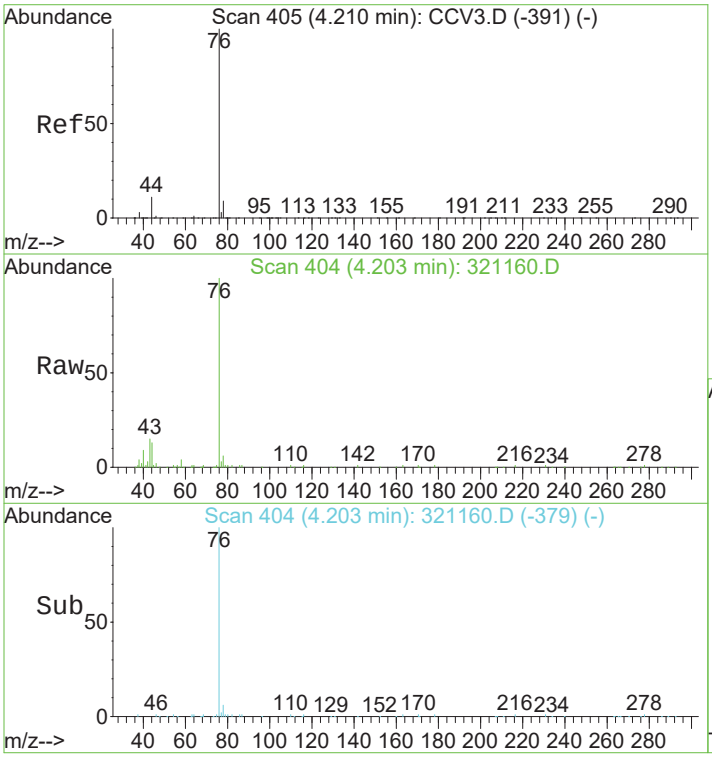


#15
Acetone
Concen: 0.36 mg/kg
RT: 4.04 min Scan# 377
Delta R.T. -0.00 min
Lab File: 321160.D
Acq: 5 Sep 2019 13:02

Tgt Ion: 43 Resp: 1156244

Ion	Ratio	Lower	Upper
43	100		
58	29.8	9.4	49.4

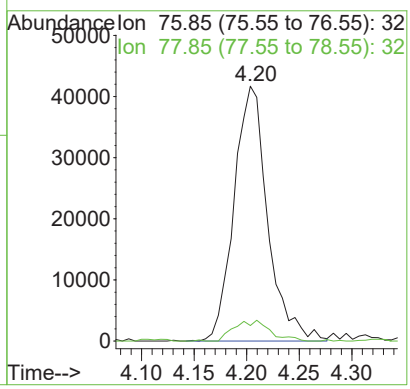


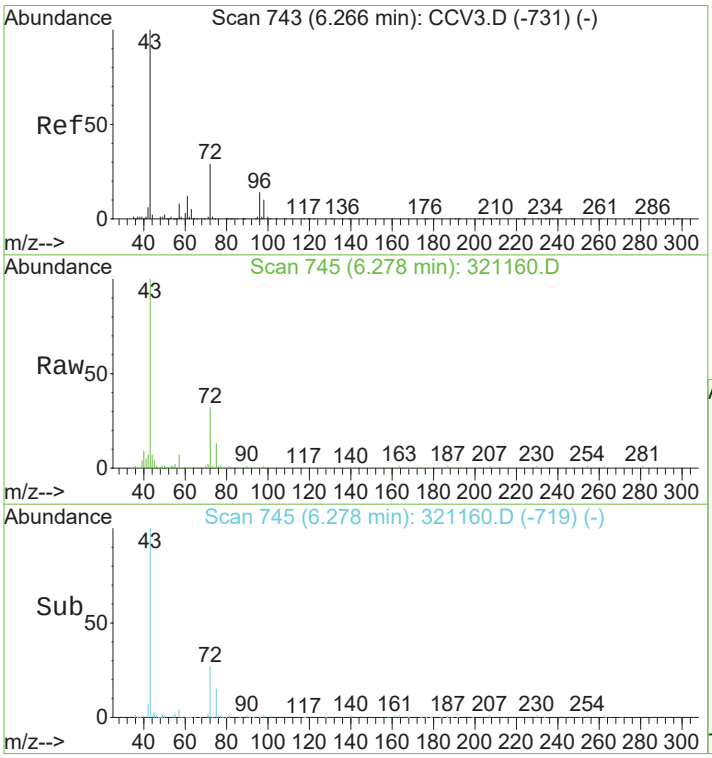


#17
Carbon Dislf
Concen: 0.00 mg/kg
RT: 4.20 min Scan# 404
Delta R.T. -0.00 min
Lab File: 321160.D
Acq: 5 Sep 2019 13:02

Tgt Ion: 76 Resp: 92911

Ion	Ratio	Lower	Upper
76	100		
78	8.6	0.0	28.5

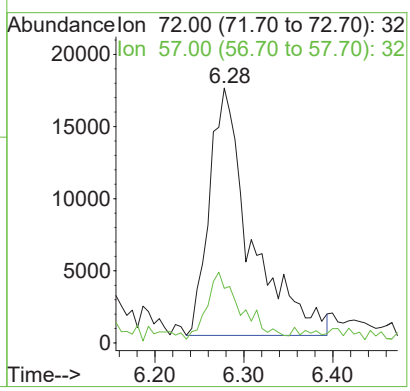


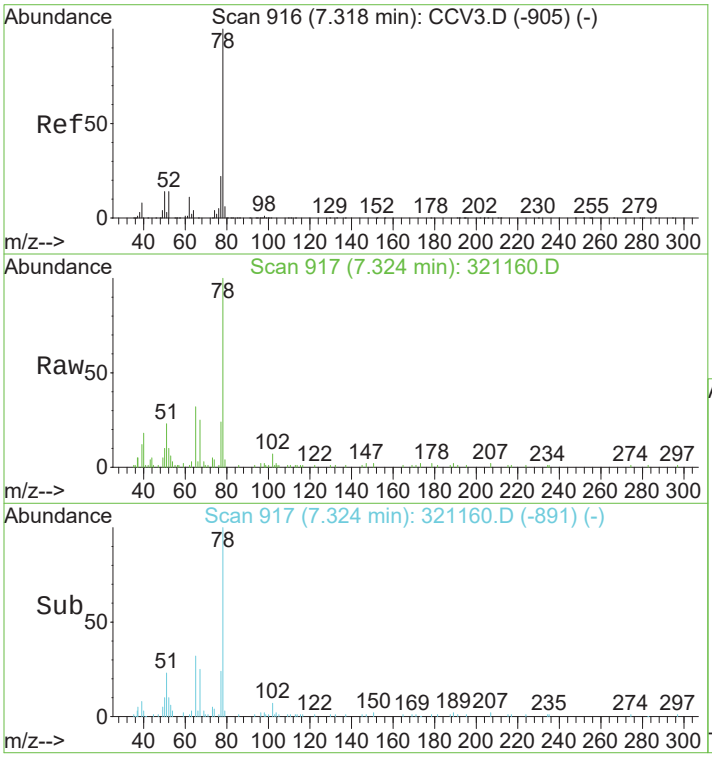


#33
2Butanone
Concen: 0.04 mg/kg
RT: 6.28 min Scan# 745
Delta R.T. 0.01 min
Lab File: 321160.D
Acq: 5 Sep 2019 13:02

Tgt Ion: 72 Resp: 55585

Ion	Ratio	Lower	Upper
72	100		
57	22.1	6.8	46.8

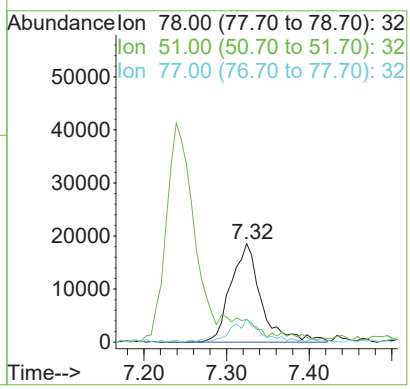


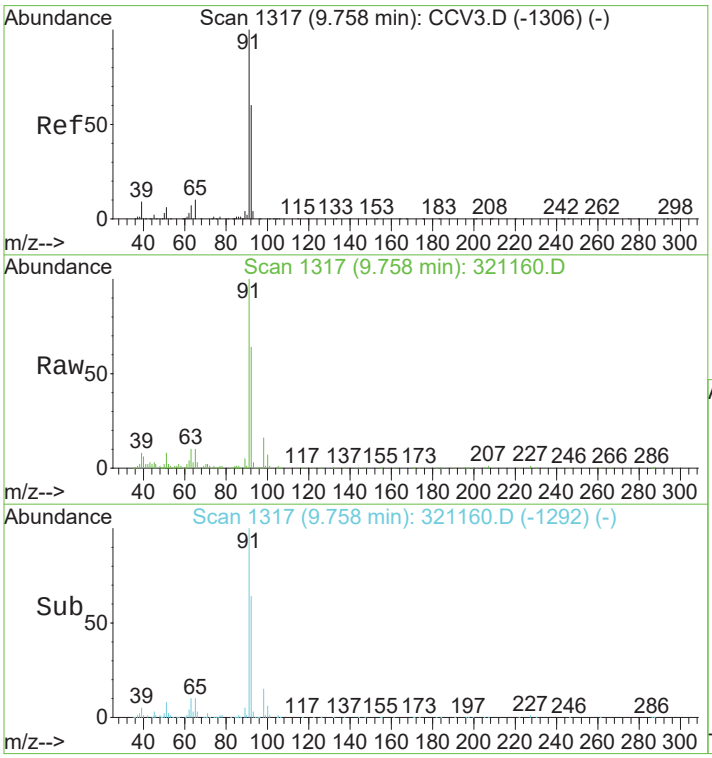


#46
Benzene
Concen: 0.00 mg/kg
RT: 7.32 min Scan# 917
Delta R.T. 0.01 min
Lab File: 321160.D
Acq: 5 Sep 2019 13:02

Tgt Ion: 78 Resp: 47528

Ion	Ratio	Lower	Upper
78	100		
51	0.0	0.0	36.9
77	22.4	3.0	43.0

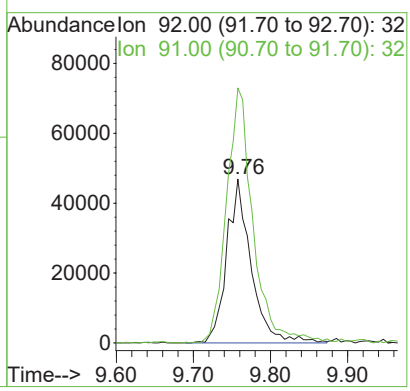


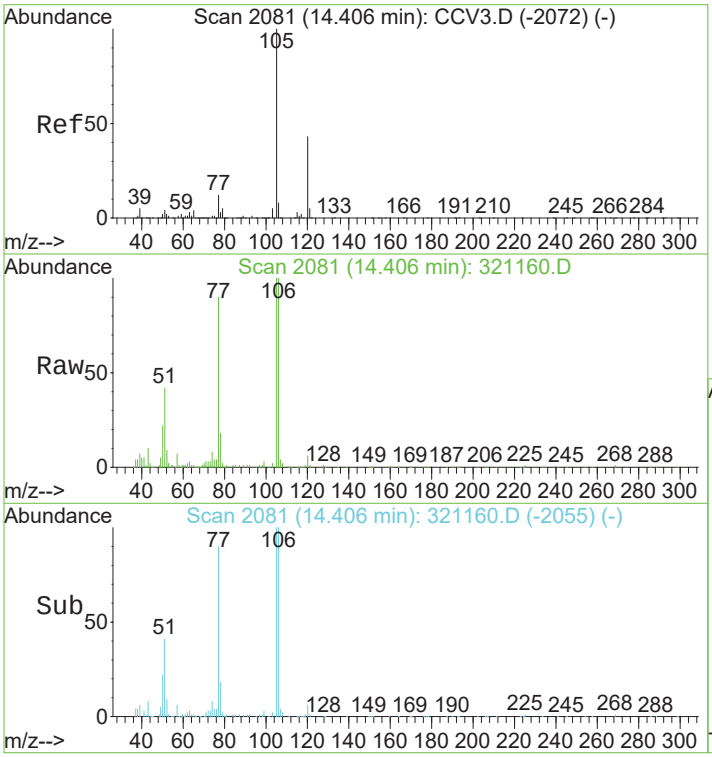


#61
Toluene
Concen: 0.00 mg/kg
RT: 9.76 min Scan# 1317
Delta R.T. -0.00 min
Lab File: 321160.D
Acq: 5 Sep 2019 13:02

Tgt Ion: 92 Resp: 103158

Ion	Ratio	Lower	Upper
92	100		
91	169.4	148.0	188.0

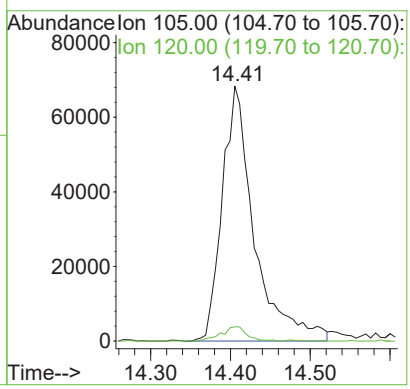




#92
124Trimetben
Concen: 0.00 mg/kg
RT: 14.41 min Scan# 2081
Delta R.T. 0.01 min
Lab File: 321160.D
Acq: 5 Sep 2019 13:02

Tgt Ion:105 Resp: 190911

Ion	Ratio	Lower	Upper
105	100		
120	4.5	24.5	64.5#



Library Search Compound Report

Data Path : C:\Instarch\Data\SEP0519\
Data File : 321160.D
Acq On : 5 Sep 2019 13:02
Operator : RLD-DGS
Sample : 163979,321160,
Misc : 6.57g, 15.0 ml Purged + IS/SS
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHODS\LS090419.M
Quant Title : 8260C Low Level Soils Method

TIC Library : C:\DATABASE\NBS75K.L
TIC Integration Parameters: VOC.P

****

Peak Number 1 Butane Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.21	0.00 mg/kg	334896	FLUOROBENZENE**IS	3505180	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane	58	C4H10	000106-97-8	53
2	Butane	58	C4H10	000106-97-8	53
3	1-Butanol	74	C4H10O	000071-36-3	7
4	Acetic acid, 2-propenyl ester	100	C5H8O2	000591-87-7	5
5	4H-Pyran-4-one, 5-hydroxy-2-(iod...	252	C6H5IO3	016065-34-2	5

****

Peak Number 2 Acetaldehyde Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.38	0.01 mg/kg	1741170	FLUOROBENZENE**IS	3505180	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetaldehyde	44	C2H4O	000075-07-0	86
2	Acetaldehyde	44	C2H4O	000075-07-0	64
3	Acetaldehyde	44	C2H4O	000075-07-0	64
4	Propane	44	C3H8	000074-98-6	5
5	Ethylene oxide	44	C2H4O	000075-21-8	5

****

Peak Number 3 Methyl formate Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.75	0.00 mg/kg	487671	FLUOROBENZENE**IS	3505180	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Methyl formate	60	C2H4O2	000107-31-3	7
2	Methyl formate	60	C2H4O2	000107-31-3	7
3	Methyl formate	60	C2H4O2	000107-31-3	7
4	Carbonyl sulfide	60	COS	000463-58-1	5
5	Methyl formate	60	C2H4O2	000107-31-3	5

****

Peak Number 4 Oxirane, trimethyl- Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.94	0.00 mg/kg	332669	FLUOROBENZENE**IS	3505180	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Oxirane, trimethyl-	86	C5H10O	005076-19-7	64
2	Butane, 2-methyl-	72	C5H12	000078-78-4	64
3	Butane, 2-methyl-	72	C5H12	000078-78-4	59
4	Aziridine, 1-methyl-	57	C3H7N	001072-44-2	45
5	Oxirane, 2,2-dimethyl-	72	C4H8O	000558-30-5	38

****

Peak Number 5 Pentane Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
3.33	0.00 mg/kg	680227	FLUOROBENZENE**IS	3505180	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane	72	C5H12	000109-66-0	86
2	Pentane	72	C5H12	000109-66-0	78
3	Pentane	72	C5H12	000109-66-0	78
4	Oxirane, ethyl-	72	C4H8O	000106-88-7	53
5	Butane, 2-methyl-	72	C5H12	000078-78-4	9

****

Peak Number 6 Butanal Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
6.03	0.00 mg/kg	773066	FLUOROBENZENE**IS	3505180	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanal	72	C4H8O	000123-72-8	91
2	Butanal	72	C4H8O	000123-72-8	68
3	Butanal	72	C4H8O	000123-72-8	64
4	Butanal	72	C4H8O	000123-72-8	64
5	Butanal	72	C4H8O	000123-72-8	64

****

Peak Number 7 Butanal, 3-methyl- Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
7.50	0.00 mg/kg	438301	FLUOROBENZENE**IS	3505180	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanal, 3-methyl-	86	C5H10O	000590-86-3	87
2	Butanal, 3-methyl-	86	C5H10O	000590-86-3	58
3	Butanal, 3-methyl-	86	C5H10O	000590-86-3	53
4	Butanal, 3-methyl-	86	C5H10O	000590-86-3	50
5	Pentanal	86	C5H10O	000110-62-3	47

****

Peak Number 8 Pentanal Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
8.47	0.01 mg/kg	1881900	FLUOROBENZENE**IS	3505180	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentanal	86	C5H10O	000110-62-3	90
2	Pentanal	86	C5H10O	000110-62-3	78
3	Pentanal	86	C5H10O	000110-62-3	74

4	Butanal, 3-methyl-	86	C5H10O	000590-86-3	64
5	Butanal, 3-methyl-	86	C5H10O	000590-86-3	53

****

Peak Number 9 Cyclotrisiloxane, hexamethyl- Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.31	0.01 mg/kg	762878	d5-CHLOROBENZENE*	2656550	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	86
2	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	64
3	1H-Isoindole-1,3(2H)-dione, 2-bu...	207	C12H17NO2	054934-85-9	42
4	7-Acetoxy-7,8,9,10-tetramethyl-7...	294	C20H22O2	000000-00-0	38
5	1H-Indole, 1-methyl-2-phenyl-	207	C15H13N	003558-24-5	9

****

Peak Number 10 Hexanal Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.74	0.04 mg/kg	5889630	d5-CHLOROBENZENE*	2656550	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexanal	100	C6H12O	000066-25-1	91
2	Hexanal	100	C6H12O	000066-25-1	91
3	Hexanal	100	C6H12O	000066-25-1	83
4	Hexanal	100	C6H12O	000066-25-1	78
5	Hexanal	100	C6H12O	000066-25-1	60

****

Peak Number 11 Hexanal, 5-methyl- Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
12.14	0.00 mg/kg	318399	d5-CHLOROBENZENE*	2656550	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexanal, 5-methyl-	114	C7H14O	001860-39-5	40
2	Hydroxylamine, O-pentyl-	103	C5H13NO	005963-74-6	36
3	Heptanal	114	C7H14O	000111-71-7	28
4	Hexane, 1,1-dichloro-3-methyl-	168	C7H14Cl2	016703-32-5	25
5	2-Propenamide	71	C3H5NO	000079-06-1	25

****

Peak Number 12 Heptanal Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
12.81	0.01 mg/kg	906721	d5-CHLOROBENZENE*	2656550	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptanal	114	C7H14O	000111-71-7	78
2	Heptanal	114	C7H14O	000111-71-7	53
3	Heptanal	114	C7H14O	000111-71-7	53
4	Heptanal	114	C7H14O	000111-71-7	42
5	Heptanal	114	C7H14O	000111-71-7	38

****

Peak Number 13 Cyclotetrasiloxane, octamet... Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
13.56	0.01 mg/kg	978257	d4-1,4-DICHLOROBE	2524550	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	78
2	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	25
3	6,7-Benzo-phenothiazine-5,5-dioxide	281	C16H11NO2S	000000-00-0	9
4	4-(1-Benzimidazyl)-7-nitro-2,1,3...	281	C13H7N5O3	091485-32-4	9
5	Benzene, 1-phenyl-4-(2-cyano-2-p...	281	C21H15N	027869-56-3	9

****

Peak Number 14 2-Heptanone, 6-methyl- Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
13.89	0.00 mg/kg	409482	d4-1,4-DICHLOROBE	2524550	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Heptanone, 6-methyl-	128	C8H16O	000928-68-7	78
2	2-Heptanone, 6-methyl-	128	C8H16O	000928-68-7	78
3	2-Heptanone, 6-methyl-	128	C8H16O	000928-68-7	78
4	5-Hepten-2-amine, N,6-dimethyl-	141	C9H19N	000503-01-5	72
5	2-Octanone	128	C8H16O	000111-13-7	59

****

Peak Number 15 Octanal Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
14.71	0.01 mg/kg	684865	d4-1,4-DICHLOROBE	2524550	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octanal	128	C8H16O	000124-13-0	91
2	Octanal	128	C8H16O	000124-13-0	91
3	Octanal	128	C8H16O	000124-13-0	59
4	2-Propanone, dimethylhydrazone	100	C5H12N2	013483-31-3	50
5	Cyclopentanol, 2-methyl-, trans-	100	C6H12O	025144-04-1	43

****

Peak Number 16 1,4-Dichlorobenzene-d4 Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
15.44	0.02 mg/kg	2187370	d4-1,4-DICHLOROBE	2524550	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,4-Dichlorobenzene-d4	150	C6Cl2D4	003855-82-1	95
2	Benzene-1,2,3,4-d4-, 5,6-dichloro-	150	C6Cl2D4	002199-69-1	94
3	Benzaldehyde, 2-hydroxy-3-methoxy-	152	C8H8O3	000148-53-8	32
4	Biphenylene	152	C12H8	000259-79-0	9
5	2H-1-Benzopyran-3-ol, 3,4-dihydro-	150	C9H10O2	021834-60-6	9

****

Peak Number 17 2-Octenal, (E)- Concentration Rank 20

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
15.96	0.00 mg/kg	223642	d4-1,4-DICHLOROBE	2524550	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual

1	2-Octenal, (E)-	126	C8H14O	002548-87-0 53
2	Cyclopropane, 1-methyl-1-(1-meth...	224	C16H32	041977-40-6 50
3	2-Decene, 8-methyl-, (Z)-	154	C11H22	074630-25-4 47
4	2-Octenal, (E)-	126	C8H14O	002548-87-0 47
5	2-Nonenal, (E)-	140	C9H16O	018829-56-6 38

****

Peak Number 18 Benzoic acid, 2-[(trimethyl... Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
16.27	0.00 mg/kg	245142	d4-1,4-DICHLOROBE	2524550	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	45
2	11H-Dibenzo[b,E][1,4]diazepin-11...	267	C16H17N3O	013450-73-2	35
3	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	33
4	Benzeneethanamine, N-[(pentafluo...	475	C21H26F5NO2Si2	055429-85-1	10
5	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	9

****

Peak Number 19 Nonanal Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
16.43	0.00 mg/kg	491384	d4-1,4-DICHLOROBE	2524550	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Nonanal	142	C9H18O	000124-19-6	80
2	Nonanal	142	C9H18O	000124-19-6	64
3	2-Nonen-1-ol, (E)-	142	C9H18O	031502-14-4	38
4	Cycloheptane	98	C7H14	000291-64-5	27
5	2-Heptene	98	C7H14	000592-77-8	22

****

Peak Number 20 Ethaneperoxoic acid, 1-cyan... Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
19.00	0.00 mg/kg	609642	d4-1,4-DICHLOROBE	2524550	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethaneperoxoic acid, 1-cyano-1-m...	213	C11H19NO3	062623-57-8	35
2	7-Tridecanone	198	C13H26O	000462-18-0	27
3	2-Heptadecanone	254	C17H34O	002922-51-2	27
4	5-Undecanone, 2-methyl-	184	C12H24O	050639-02-6	25
5	4-Decanone	156	C10H20O	000624-16-8	25

LS090419.M Tue Sep 10 12:33:21 2019

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321161.D Vial: 14
Acq On : 5 Sep 2019 13:31 Operator: RLD-DGS
Sample : 163979,321161, Inst : VMS4
Misc : 4.83g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 13:51:53 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.67	96	948883	0.02	mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	740000	0.02	mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.89	152	363231	0.02	mg/kg	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	258896	0.022	mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 110 %			
45) SURR12DCAd4	7.25	102	54081	0.022	mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 110 %			
60) SURRd8Tolule	9.67	98	976668	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %			
82) SURR4BrFBenz	13.23	95	367447	0.021	mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 105 %			
Target Compounds						Qvalue
2) Dichlorodi	1.83	85	2798	0.0012	mg/kg#	44
3) Chloromethan	2.06	50	1684	N.D.		
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	0.00	94	0	N.D.		
6) Chloroethane	0.00	64	0	N.D.		
7) dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	3.67	67	3874	N.D.		
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	3.84	56	2761	N.D.		
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	4.04	43	403187	0.1447	mg/kg	96
16) Iodomethane	4.12	142	4385	0.0025	mg/kg#	69
17) Carbon Dislf	4.20	76	198403	0.0048	mg/kg	99
18) allylchloride	4.49	41	3699	N.D.		
19) methylacetate	4.50	74	1206	0.0011	mg/kg#	43
20) Methylchlorid	4.60	84	28508	N.D.		
21) Acrylonitrile	0.00	53	0	N.D.		
22) t12dichlorte	0.00	96	0	N.D.		
23) tbutylalcohol	4.82	59	13855	N.D.		
24) MtBE	0.00	73	0	N.D.		
25) Hexane	5.34	57	27029	0.0032	mg/kg	94
26) 11dichlorota	0.00	63	0	N.D.		
27) Vinylacetate	5.57	43	1361	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	0.00	59	0	N.D.		
31) 22dichloropr	6.21	77	7182	N.D.		
32) c12dichlorte	0.00	96	0	N.D.		
33) 2Butanone	6.35	72	10574	N.D.		
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	6.62	42	2521	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321161.D Vial: 14
Acq On : 5 Sep 2019 13:31 Operator: RLD-DGS
Sample : 163979,321161, Inst : VMS4
Misc : 4.83g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 13:51:53 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	0.00	83	0	N.D.	
40) 111trichlota	0.00	97	0	N.D.	
42) Cyclohexane	6.92	56	12360	0.0017 mg/kg	86
43) Carbtetraclo	0.00	119	0	N.D.	
44) 11dicloprope	0.00	110	0	N.D.	
46) Benzene	7.32	78	20421	0.0003 mg/kg	86
47) 12dichlorota	0.00	62	0	N.D.	
48) TAME	0.00	73	0	N.D.	
49) trichloroete	0.00	95	0	N.D.	
50) methylcyclohexane	8.37	83	18323	0.0019 mg/kg	95
51) 12dicloropra	0.00	63	0	N.D.	
52) 23dicl1propene	0.00	75	0	N.D.	
53) Dibromometha	0.00	93	0	N.D.	
54) methylmethacrylate	8.59	69	1202	0.0011 mg/kg#	46
55) 14dioxane	0.00	88	0	N.D.	
56) Bromodiclrma	0.00	83	0	N.D.	
57) 2Nitropropane	0.00	43	0	N.D.	
58) c13dicloproe	0.00	75	0	N.D.	
59) 4Meth2Pentan	9.53	43	7003	N.D.	
61) Toluene	9.76	92	26587	0.0007 mg/kg	98
62) t13Dicloprop	0.00	75	0	N.D.	
63) ethylmethacrylate	0.00	69	0	N.D.	
64) 112Triclotha	0.00	83	0	N.D.	
65) Tetrachlorte	0.00	166	0	N.D.	
66) 13Diclorpropa	0.00	76	0	N.D.	
68) 2Hexanone	10.64	43	1791	N.D.	
69) Clorodibrmta	0.00	129	0	N.D.	
70) 12Dibrometha	0.00	107	0	N.D.	
71) Chlorobenzen	0.00	112	0	N.D.	
72) 1Clhexane	11.59	91	1817	0.0010 mg/kg#	1
73) 1112Tetclota	0.00	131	0	N.D.	
74) Ethylbenzene	11.79	91	5776	N.D.	
75) m p-Xylene	11.95	106	8876	N.D.	
76) o-Xylene	12.50	106	2305	N.D.	
77) Styrene	0.00	104	0	N.D.	
78) Bromoform	0.00	173	0	N.D.	
79) Isopropylben	0.00	105	0	N.D.	
81) cyclohexanone	13.06	55	1636	N.D.	
83) Bromobenzene	0.00	156	0	N.D.	
84) 1122Tetrclta	0.00	83	0	N.D.	
85) 123Triclproa	13.53	75	1402	N.D.	
86) 14dichloro2butene	0.00	53	0	N.D.	
87) n-Propylbenz	13.60	91	1815	N.D.	
88) 2chlorotolue	13.60	91	1675	N.D.	
89) 4chlorotolue	0.00	91	0	N.D.	
90) 135Trimebenz	13.87	105	4115	N.D.	
91) tbutylbenzen	14.40	119	2462	N.D.	
92) 124Trimetben	14.41	105	35250	N.D.	
93) sbutylbenzen	14.63	105	2204	N.D.	
94) 13Diclorbenz	0.00	146	0	N.D.	
95) pIsopropylto	14.84	119	1251	N.D.	
96) 14dichlorobe	0.00	146	0	N.D.	
97) 12dichlorobe	0.00	146	0	N.D.	
98) nButylbenzen	15.43	91	2335	N.D.	
99) 12dibromo3cl	0.00	157	0	N.D.	
100) 135Trichlorobenzene	0.00	180	0	N.D.	
101) 124Trichlobe	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

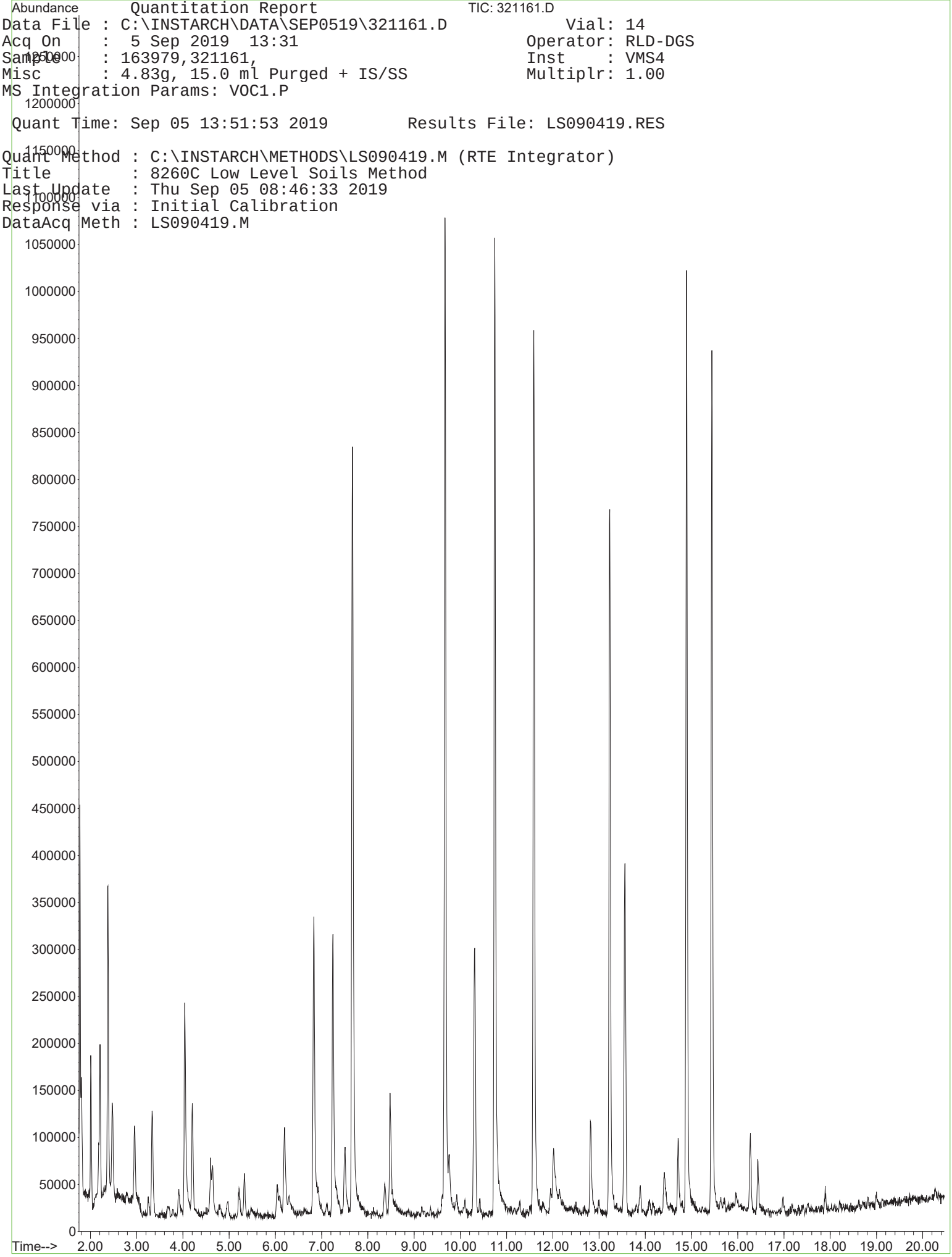
Data File : C:\INSTARCH\DATA\SEP0519\321161.D Vial: 14
Acq On : 5 Sep 2019 13:31 Operator: RLD-DGS
Sample : 163979,321161, Inst : VMS4
Misc : 4.83g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

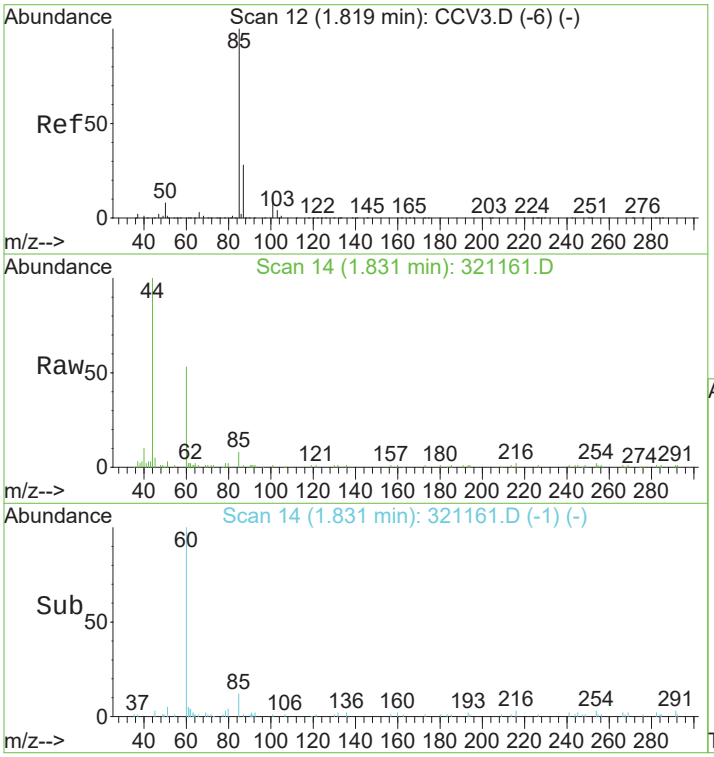
Quant Time: Sep 05 13:51:53 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) Hexachlorobu	0.00	225	0	N.D.	
103) Naphthalene	18.04	128	6085	N.D.	
104) 123Trichlben	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

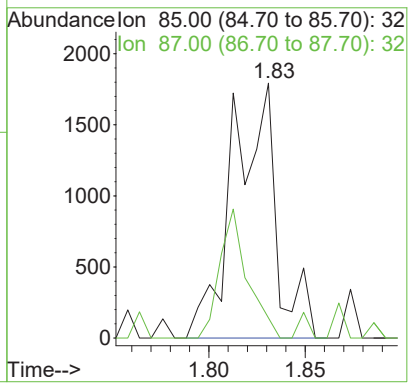

Abundance
Quantitation Report
TIC: 321161.D
Data File : C:\INSTARCH\DATA\SEP0519\321161.D
Vial: 14
Acq On : 5 Sep 2019 13:31
Operator: RLD-DGS
Sample : 163979,321161,
Inst : VMS4
Misc : 4.83g, 15.0 ml Purged + IS/SS
Multiplr: 1.00
MS Integration Params: VOC1.P
Quant Time: Sep 05 13:51:53 2019
Results File: LS090419.RES
Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
1250000
1200000
1150000
1100000
1050000
1000000
950000
900000
850000
800000
750000
700000
650000
600000
550000
500000
450000
400000
350000
300000
250000
200000
150000
100000
50000
0
Time-->
2.00
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.00
11.00
12.00
13.00
14.00
15.00
16.00
17.00
18.00
19.00
20.00



#2
Dichlorodi
Concen: 0.00 mg/kg
RT: 1.83 min Scan# 14
Delta R.T. 0.01 min
Lab File: 321161.D
Acq: 5 Sep 2019 13:31

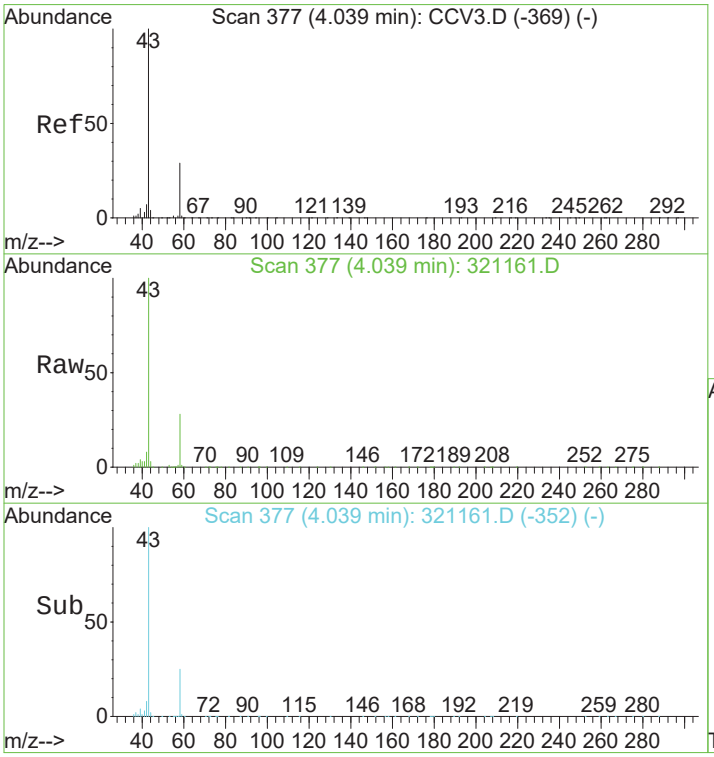
Tgt Ion: 85 Resp: 2798

Ion	Ratio	Lower	Upper
85	100		
87	0.0	10.8	50.8#



Negative Library Identification

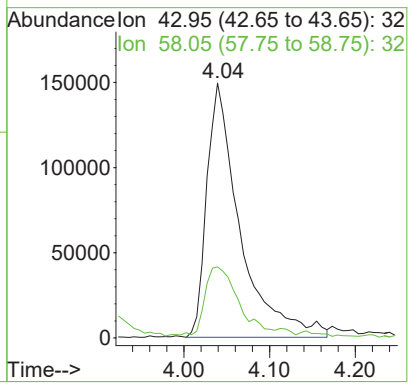
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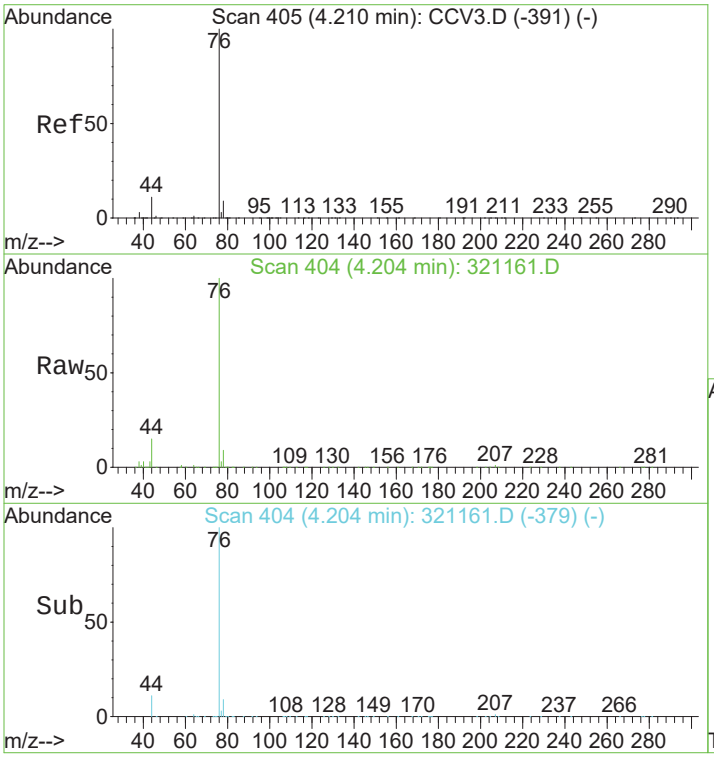


#15
Acetone
Concen: 0.14 mg/kg
RT: 4.04 min Scan# 377
Delta R.T. 0.00 min
Lab File: 321161.D
Acq: 5 Sep 2019 13:31

Tgt Ion: 43 Resp: 403187

Ion	Ratio	Lower	Upper
43	100		
58	27.2	9.4	49.4

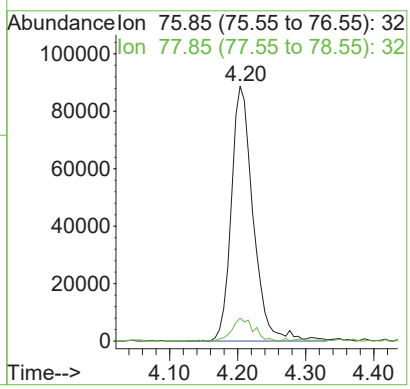


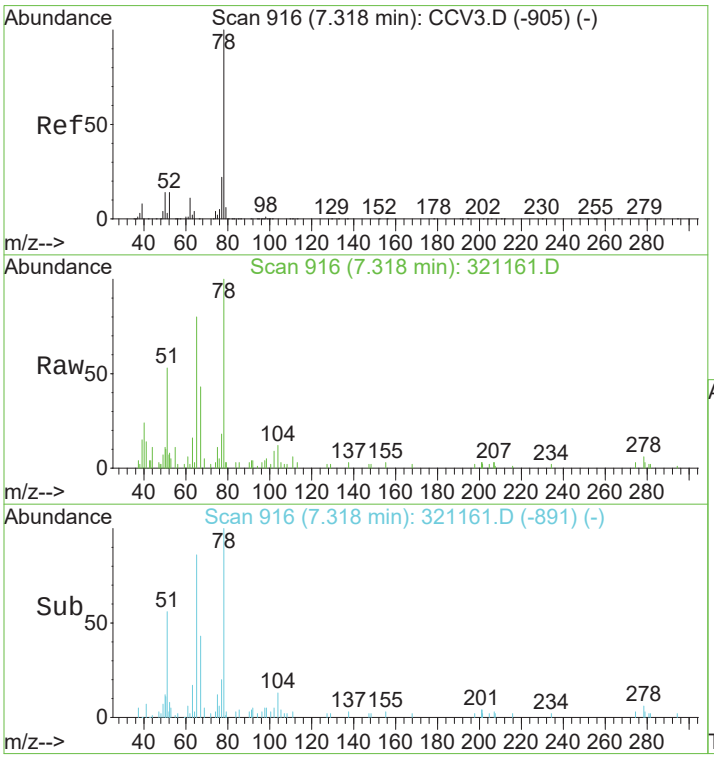


#17
Carbon Dislf
Concen: 0.00 mg/kg
RT: 4.20 min Scan# 404
Delta R.T. 0.00 min
Lab File: 321161.D
Acq: 5 Sep 2019 13:31

Tgt Ion: 76 Resp: 198403

Ion	Ratio	Lower	Upper
76	100		
78	8.9	0.0	28.5

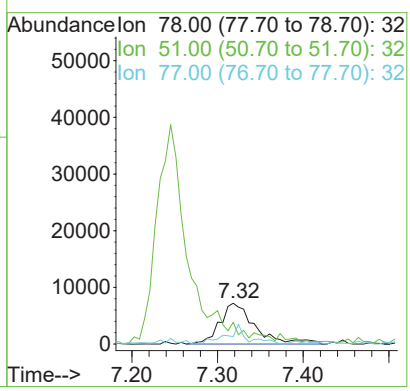


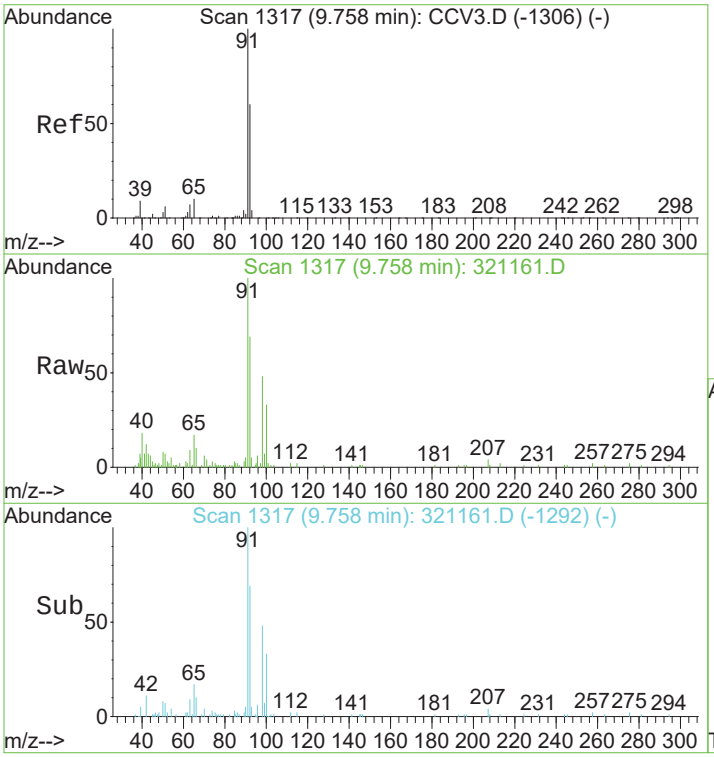


#46
Benzene
Concen: 0.00 mg/kg
RT: 7.32 min Scan# 916
Delta R.T. 0.00 min
Lab File: 321161.D
Acq: 5 Sep 2019 13:31

Tgt Ion: 78 Resp: 20421

Ion	Ratio	Lower	Upper
78	100		
51	9.2	0.0	36.9
77	28.4	3.0	43.0

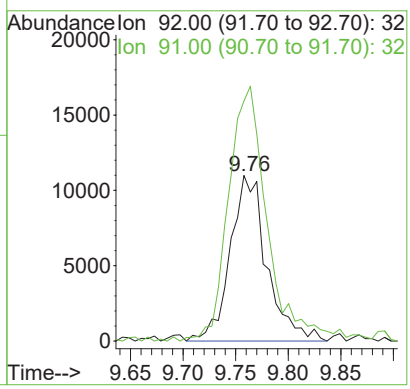




#61
Toluene
Concen: 0.00 mg/kg
RT: 9.76 min Scan# 1317
Delta R.T. 0.00 min
Lab File: 321161.D
Acq: 5 Sep 2019 13:31

Tgt Ion: 92 Resp: 26587

Ion	Ratio	Lower	Upper
92	100		
91	164.8	148.0	188.0



Library Search Compound Report

Data Path : C:\Instarch\Data\SEP0519\
Data File : 321161.D
Acq On : 5 Sep 2019 13:31
Operator : RLD-DGS
Sample : 163979,321161,
Misc : 4.83g, 15.0 ml Purged + IS/SS
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHODS\LS090419.M
Quant Title : 8260C Low Level Soils Method

TIC Library : C:\DATABASE\NBS75K.L
TIC Integration Parameters: VOC.P

****

Peak Number 1 Propane Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
1.77	0.01 mg/kg	673089	FLUOROBENZENE**IS	2332560	7.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propane	44	C3H8	000074-98-6	64
2	Acetoacetic acid, 1-thio-, S-all...	158	C7H10O2S	015780-65-1	47
3	Isocrotonic acid	86	C4H6O2	000503-64-0	43
4	2-Butenal	70	C4H6O	004170-30-3	40
5	2-Butenal	70	C4H6O	004170-30-3	38

****

Peak Number 2 Isobutane Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.01	0.00 mg/kg	247594	FLUOROBENZENE**IS	2332560	7.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Isobutane	58	C4H10	000075-28-5	36
2	Isobutane	58	C4H10	000075-28-5	36
3	Propane, 1-chloro-2-methyl-	92	C4H9Cl	000513-36-0	9
4	4-Penten-2-one	84	C5H8O	013891-87-7	9
5	Isobutane	58	C4H10	000075-28-5	9

****

Peak Number 3 4H-Pyran-4-one, 5-hydroxy-2... Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.21	0.00 mg/kg	257153	FLUOROBENZENE**IS	2332560	7.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4H-Pyran-4-one, 5-hydroxy-2-(iod...	252	C6H5IO3	016065-34-2	9
2	Butane	58	C4H10	000106-97-8	9
3	3-Hexanone, 2-methyl-	114	C7H14O	007379-12-6	9
4	Butane	58	C4H10	000106-97-8	7
5	3-Aminopropionitrile	70	C3H6N2	000151-18-8	5

****

Peak Number 4 Acetaldehyde Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.38	0.00 mg/kg	574752	FLUOROBENZENE**IS	2332560	7.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetaldehyde	44	C2H4O	000075-07-0	9
2	Acetaldehyde	44	C2H4O	000075-07-0	9
3	Acetaldehyde	44	C2H4O	000075-07-0	9
4	Ethylene oxide	44	C2H4O	000075-21-8	5
5	Propane	44	C3H8	000074-98-6	4

****

Peak Number 5 Silane, fluorotrimethyl- Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.47	0.00 mg/kg	278666	FLUOROBENZENE**IS	2332560	7.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Silane, fluorotrimethyl-	92	C3H9FSi	000420-56-4	83
2	Propane, 1,2-dichloro-2-methyl-	126	C4H8Cl2	000594-37-6	45
3	1,5-Hexadiene, 3,3,4,4-tetrafluoro-	154	C6H6F4	001763-21-9	7
4	Propane, 2-chloro-2-nitro-	123	C3H6ClNO2	000594-71-8	4
5	Acetic acid, chloro-, anhydride	170	C4H4Cl2O3	000541-88-8	4

****

Peak Number 6 Butane, 2-methyl- Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.96	0.00 mg/kg	355058	FLUOROBENZENE**IS	2332560	7.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2-methyl-	72	C5H12	000078-78-4	72
2	Butane, 2-methyl-	72	C5H12	000078-78-4	72
3	Butane, 2-methyl-	72	C5H12	000078-78-4	56
4	3-Buten-1-ol	72	C4H8O	000627-27-0	9
5	1,3-Dioxolane, 4-ethyl-	102	C5H10O2	029921-38-8	9

****

Peak Number 7 Pentane Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
3.33	0.00 mg/kg	279494	FLUOROBENZENE**IS	2332560	7.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane	72	C5H12	000109-66-0	72
2	Pentane	72	C5H12	000109-66-0	72
3	Pentane	72	C5H12	000109-66-0	45
4	trans-2,3-Epoxynonane	142	C9H18O	056820-01-0	42
5	Butane, 2-methyl-	72	C5H12	000078-78-4	38

****

Peak Number 8 Methylene Chloride Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
4.60	0.00 mg/kg	253150	FLUOROBENZENE**IS	2332560	7.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Methylene Chloride	84	CH2Cl2	000075-09-2	94
2	Methylene Chloride	84	CH2Cl2	000075-09-2	91
3	Methylene Chloride	84	CH2Cl2	000075-09-2	91

4 Methane, bromochloro-	128	CH2BrCl	000074-97-5	53
5 Methane, bromochloro-	128	CH2BrCl	000074-97-5	42

****

Peak Number 9 Silanol, trimethyl- Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
6.20	0.00 mg/kg	380382	FLUOROBENZENE**IS	2332560	7.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	83
2	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	64
3	1,1-Dimethoxy-2-phenylpropane	180	C11H16O2	000090-87-9	38
4	Cyclohexene, 4-(dimethoxymethyl)-	156	C9H16O2	007560-65-8	9
5	Acetic acid, (trimethylsilyl)-	132	C5H12O2Si	002345-38-2	9

****

Peak Number 10 Pentanal Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
8.48	0.00 mg/kg	499453	FLUOROBENZENE**IS	2332560	7.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentanal	86	C5H10O	000110-62-3	80
2	Pentanal	86	C5H10O	000110-62-3	56
3	Pentanal	86	C5H10O	000110-62-3	56
4	Butanal, 3-methyl-	86	C5H10O	000590-86-3	40
5	Butanal, 3-methyl-	86	C5H10O	000590-86-3	38

****

Peak Number 11 Cyclotrisiloxane, hexamethyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.31	0.01 mg/kg	798400	d5-CHLOROBENZENE*	2301230	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	64
2	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	47
3	1H-Indole, 5-methyl-2-phenyl-	207	C15H13N	013228-36-9	38
4	N-Cyano-N',N',N'',N''-tetramethy...	207	C8H13N7	074150-88-2	9
5	1H-Isoindole-1,3(2H)-dione, 2-bu...	207	C12H17NO2	054934-85-9	9

****

Peak Number 12 Hexanal Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.74	0.02 mg/kg	2636080	d5-CHLOROBENZENE*	2301230	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexanal	100	C6H12O	000066-25-1	90
2	Hexanal	100	C6H12O	000066-25-1	90
3	Hexanal	100	C6H12O	000066-25-1	83
4	Hexanal	100	C6H12O	000066-25-1	78
5	Cyclobutanol, 2-ethyl-	100	C6H12O	035301-43-0	50

****

Peak Number 13 3-Furaldehyde Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
12.01	0.00 mg/kg	489102	d5-CHLOROBENZENE*	2301230	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Furaldehyde	96	C5H4O2	000498-60-2	91
2	2-Furancarboxaldehyde	96	C5H4O2	000098-01-1	72
3	2-Furancarboxaldehyde	96	C5H4O2	000098-01-1	64
4	2-Furancarboxaldehyde	96	C5H4O2	000098-01-1	64
5	2-Furancarboxaldehyde	96	C5H4O2	000098-01-1	59

****

Peak Number 14 Heptanal Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
12.81	0.00 mg/kg	258515	d5-CHLOROBENZENE*	2301230	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptanal	114	C7H14O	000111-71-7	78
2	Heptanal	114	C7H14O	000111-71-7	45
3	Heptanal	114	C7H14O	000111-71-7	45
4	Heptanal	114	C7H14O	000111-71-7	38
5	Pentane, 2-chloro-	106	C5H11Cl	000625-29-6	38

****

Peak Number 15 Cyclotetrasiloxane, octamet... Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
13.56	0.01 mg/kg	1007040	d4-1,4-DICHLOROBE	2334830	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	50
2	Ethanethioic acid, S-[8-(diethyl...	324	C14H29O4PS	000000-00-0	36
3	2-Oxo-4-phenyl-6-(4-chlorophenyl...	282	C16H11ClN2O	000000-00-0	23
4	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	16
5	1,2-Dihydroanthra[1,2-d]thiazole...	281	C15H7NO3S	000000-00-0	5

****

Peak Number 16 Benzaldehyde Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
14.41	0.00 mg/kg	232322	d4-1,4-DICHLOROBE	2334830	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzaldehyde	106	C7H6O	000100-52-7	64
2	Benzaldehyde	106	C7H6O	000100-52-7	58
3	Benzaldehyde	106	C7H6O	000100-52-7	58
4	Benzaldehyde	106	C7H6O	000100-52-7	52
5	Benzaldehyde	106	C7H6O	000100-52-7	49

****

Peak Number 17 Benzene-1,2,3,4-d4-, 5,6-di... Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
15.44	0.02 mg/kg	2277710	d4-1,4-DICHLOROBE	2334830	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual

1	Benzene-1,2,3,4-d4-, 5,6-dichloro-	150	C6Cl2D4	002199-69-1 91
2	1,4-Dichlorobenzene-d4	150	C6Cl2D4	003855-82-1 91
3	Benzo[b]thiophene-4-ol	150	C8H6OS	003610-02-4 25
4	JP 60	151	C10H17N	013074-39-0 9
5	2-Cyclopenten-1-one, 2-(2-buteny...	150	C10H14O	017190-71-5 9

****

Peak Number 18 3-Hydroxymandelic acid, eth... Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
16.27	0.00 mg/kg	230457	d4-1,4-DICHLOROBE	2334830	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	000000-00-0	50
2	p-Trimethylsilyloxyphenyl-(trime...	398	C18H34O4Si3	000000-00-0	43
3	1,5-Diphenyl-3-methylthio-1,2,4-...	267	C15H13N3S	072234-23-2	43
4	3,6-Bis(N,N-dimethylamino)-9-met...	267	C17H21N3	000000-00-0	38
5	Plumbane, diethyldimethyl-	296	C6H16Pb	001762-27-2	38

****

Peak Number 19 (4H)1,3,2-Dioxaborin, 4-eth... Concentration Rank 20

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
18.82	0.00 mg/kg	222084	d4-1,4-DICHLOROBE	2334830	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	(4H)1,3,2-Dioxaborin, 4-ethenyl-...	208	C12H21BO2	000000-00-0	9
2	4,7-Ethanoisobenzofuran-1,3-dion...	264	C14H16O5	052918-82-8	9
3	Propane, 1,2-dibromo-3-chloro-	234	C3H5Br2Cl	000096-12-8	9
4	Endosulfan II	404	C9H6Cl6O3S	033213-65-9	9
5	Acetic acid, chloro-, 1,1-dimeth...	150	C6H11ClO2	000107-59-5	9

****

Peak Number 20 3,3-Diethoxy-1,1,1,5,5,5-he... Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
19.72	0.00 mg/kg	347153	d4-1,4-DICHLOROBE	2334830	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3,3-Diethoxy-1,1,1,5,5,5-hexamet...	296	C10H28O4Si3	000000-00-0	25
2	Corydaldine	207	C11H13NO3	000493-49-2	18
3	7-Hydroxy-7,8,9,10-tetramethyl-7...	252	C18H20O	000000-00-0	17
4	1H-Indole, 2-methyl-3-phenyl-	207	C15H13N	004757-69-1	14
5	2,4-Cyclohexadien-1-one, 3,5-bis...	222	C14H22O2	054965-43-4	10

LS090419.M Tue Sep 10 12:33:55 2019

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321162.D Vial: 15
Acq On : 5 Sep 2019 14:00 Operator: RLD-DGS
Sample : 163979,321162, Inst : VMS4
Misc : 5.66g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 14:20:56 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	962086	0.02 mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	746908	0.02 mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.90	152	366705	0.02 mg/kg	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.83	113	256145	0.021 mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 105 %		
45) SURR12DCAd4	7.25	102	52257	0.021 mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 105 %		
60) SURRd8Tolule	9.67	98	977243	0.020 mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %		
82) SURR4BrFBenz	13.23	95	367167	0.021 mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 105 %		
Target Compounds					Qvalue
2) Dichlorodi	1.82	85	2569	0.0012 mg/kg#	44
3) Chloromethan	2.07	50	2441	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	2.68	94	3143	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	3.67	67	1594	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	3.84	56	6638	0.0035 mg/kg#	48
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.04	43	536838	0.1901 mg/kg	98
16) Iodomethane	4.12	142	7249	0.0027 mg/kg#	89
17) Carbon Dislf	4.20	76	51844	0.0012 mg/kg	98
18) allylchloride	4.49	41	2282	N.D.	
19) methylacetate	4.57	74	1885	0.0012 mg/kg#	43
20) Methylchlorid	4.60	84	29812	N.D.	
21) Acrylonitrile	0.00	53	0	N.D.	
22) t12dichlorte	0.00	96	0	N.D.	
23) tbutylalcohol	4.80	59	21558	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	5.33	57	22612	0.0030 mg/kg	98
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	5.52	43	1265	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	6.20	77	11392	0.0005 mg/kg#	46
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	6.28	72	17043	0.0142 mg/kg	86
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	6.63	42	5087	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321162.D Vial: 15
Acq On : 5 Sep 2019 14:00 Operator: RLD-DGS
Sample : 163979,321162, Inst : VMS4
Misc : 5.66g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 14:20:56 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	6.92	56	4316	0.0014 mg/kg#	51
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	7.32	78	18057	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	8.37	83	5354	0.0015 mg/kg#	63
51)	12dicloropra	0.00	63	0	N.D.	
52)	23dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	9.02	43	2233	N.D.	
58)	c13dicloproe	0.00	75	0	N.D.	
59)	4Meth2Pentan	9.52	43	6439	N.D.	
61)	Toluene	9.77	92	18248	0.0005 mg/kg	91
62)	t13Dicloprop	0.00	75	0	N.D.	
63)	ethylmethacrylate	0.00	69	0	N.D.	
64)	112Triclotha	0.00	83	0	N.D.	
65)	Tetrachlorte	0.00	166	0	N.D.	
66)	13Diclorpropa	0.00	76	0	N.D.	
68)	2Hexanone	10.66	43	6516	N.D.	
69)	Clorodibrmta	0.00	129	0	N.D.	
70)	12Dibrometha	0.00	107	0	N.D.	
71)	Chlorobenzen	0.00	112	0	N.D.	
72)	1Clhexane	11.59	91	1671	0.0010 mg/kg#	1
73)	1112Tetclota	0.00	131	0	N.D.	
74)	Ethylbenzene	11.79	91	2078	N.D.	
75)	m p-Xylene	11.96	106	2966	N.D.	
76)	o-Xylene	12.50	106	2007	N.D.	
77)	Styrene	0.00	104	0	N.D.	
78)	Bromoform	0.00	173	0	N.D.	
79)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	13.14	55	1019	N.D.	
83)	Bromobenzene	0.00	156	0	N.D.	
84)	1122Tetrclta	0.00	83	0	N.D.	
85)	123Triclproa	13.47	75	1027	N.D.	
86)	14dichloro2butene	0.00	53	0	N.D.	
87)	n-Propylbenz	13.62	91	2005	N.D.	
88)	2chlorotolue	13.62	91	1678	N.D.	
89)	4chlorotolue	0.00	91	0	N.D.	
90)	135Trimebenz	13.88	105	2747	N.D.	
91)	tbutylbenzen	0.00	119	0	N.D.	
92)	124Trimetben	14.41	105	74671	0.0015 mg/kg#	37
93)	sbutylbenzen	14.70	105	1805	N.D.	
94)	13Diclorbenz	0.00	146	0	N.D.	
95)	pIsopropylto	0.00	119	0	N.D.	
96)	14dichlorobe	0.00	146	0	N.D.	
97)	12dichlorobe	0.00	146	0	N.D.	
98)	nButylbenzen	15.46	91	2499	N.D.	
99)	12dibromo3cl	0.00	157	0	N.D.	
100)	135Trichlorobenzene	0.00	180	0	N.D.	
101)	124Trichlobe	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321162.D Vial: 15
Acq On : 5 Sep 2019 14:00 Operator: RLD-DGS
Sample : 163979,321162, Inst : VMS4
Misc : 5.66g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 14:20:56 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) Hexachlorobu	0.00	225	0	N.D.	
103) Naphthalene	18.03	128	6682	N.D.	
104) 123Trichlben	0.00	180	0	N.D.	

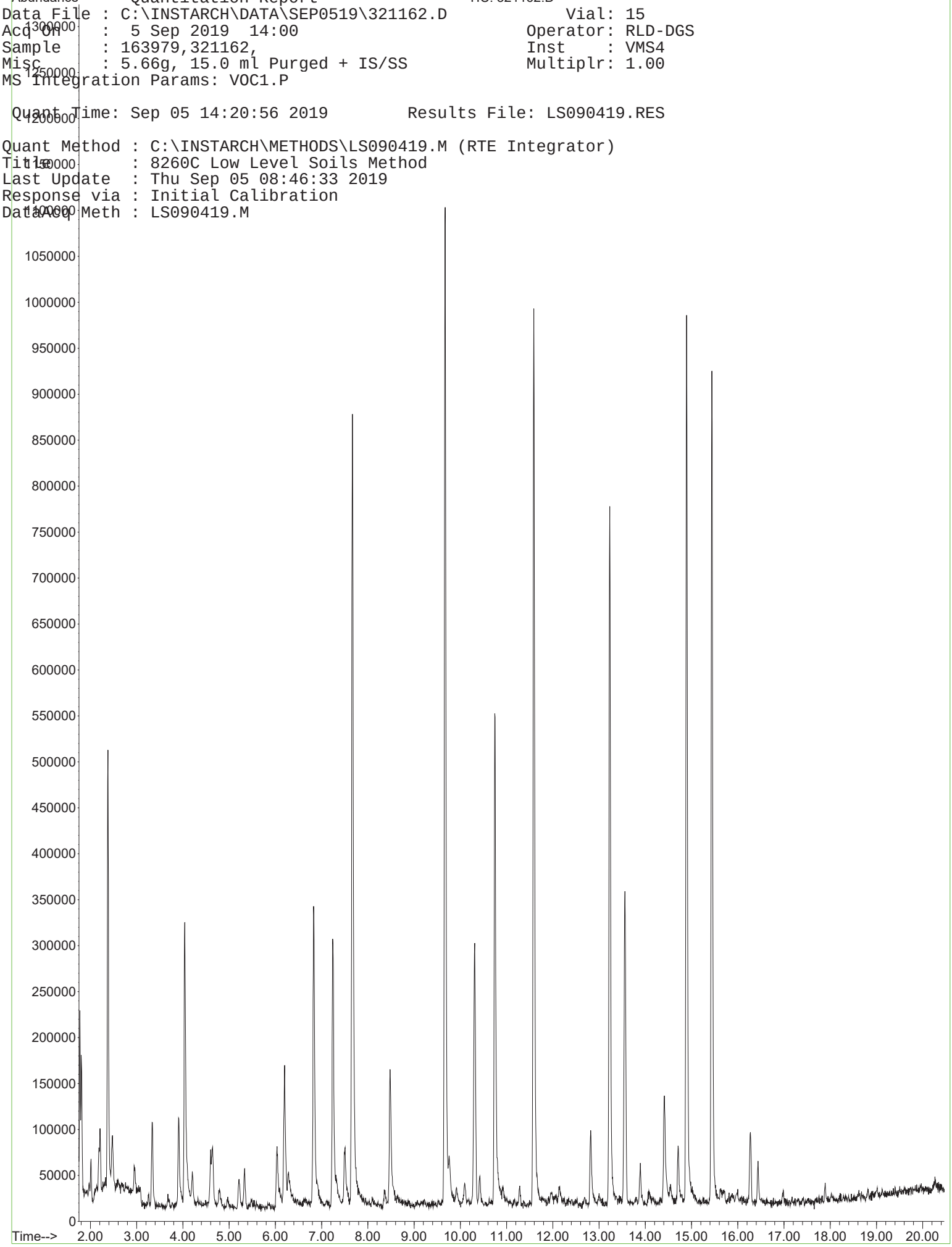
(#) = qualifier out of range (m) = manual integration

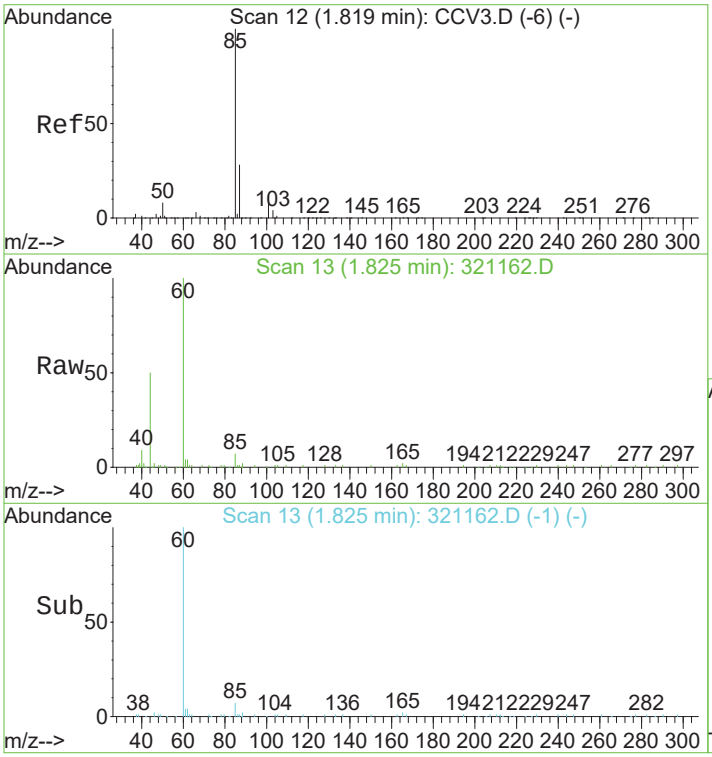
Abundance Quantitation Report TIC: 321162.D

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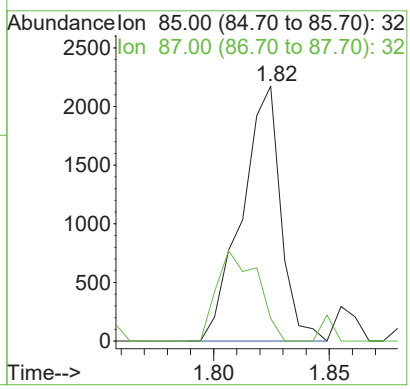




#2
Dichlorodi
Concen: 0.00 mg/kg
RT: 1.82 min Scan# 13
Delta R.T. 0.01 min
Lab File: 321162.D
Acq: 5 Sep 2019 14:00

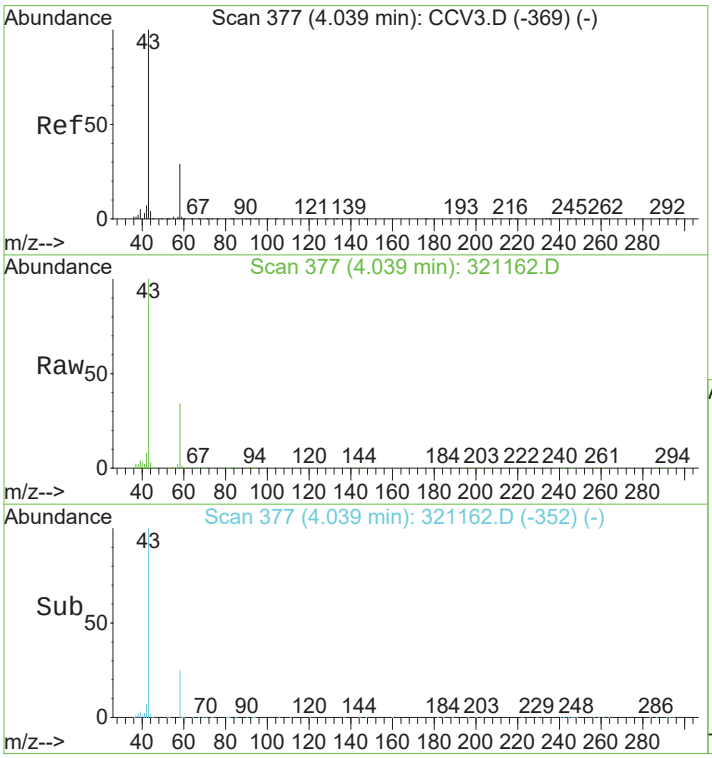
Tgt Ion: 85 Resp: 2569

Ion	Ratio	Lower	Upper
85	100		
87	0.0	10.8	50.8#



Negative Library Identification

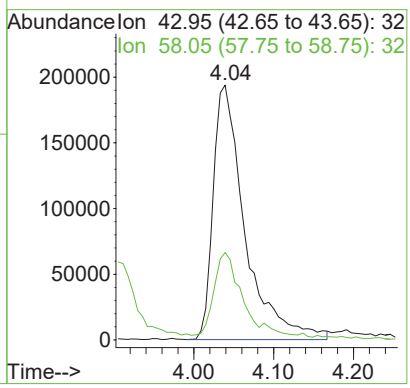
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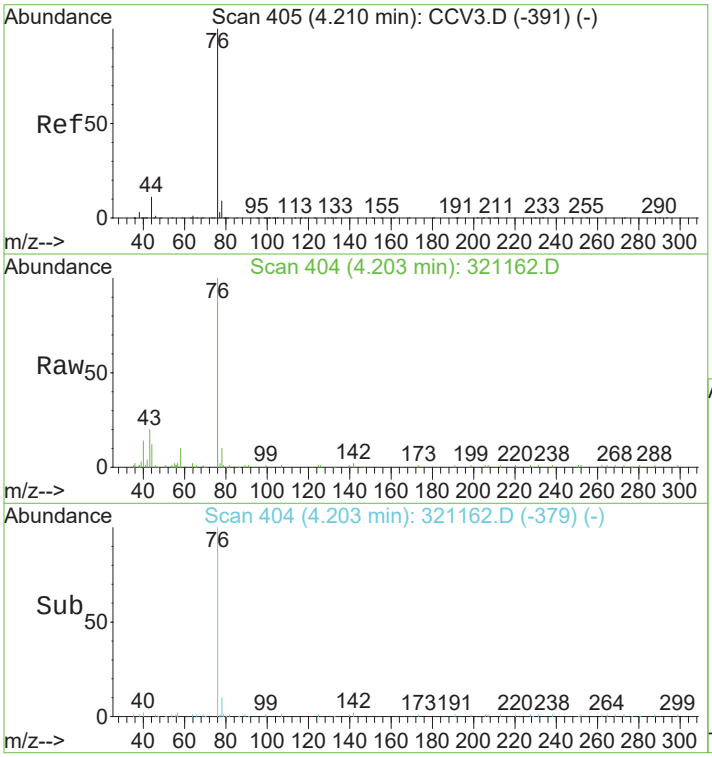


#15
Acetone
Concen: 0.19 mg/kg
RT: 4.04 min Scan# 377
Delta R.T. -0.00 min
Lab File: 321162.D
Acq: 5 Sep 2019 14:00

Tgt Ion: 43 Resp: 536838

Ion	Ratio	Lower	Upper
43	100		
58	30.4	9.4	49.4

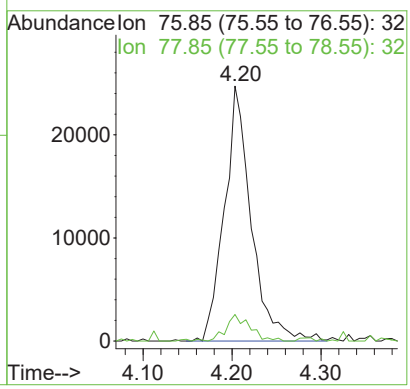


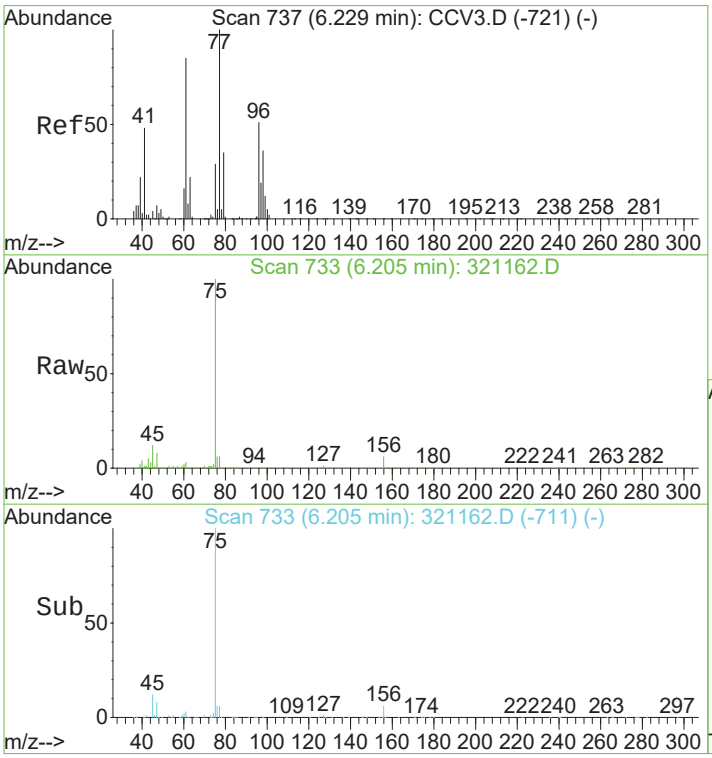


#17
Carbon Dislf
Concen: 0.00 mg/kg
RT: 4.20 min Scan# 404
Delta R.T. -0.00 min
Lab File: 321162.D
Acq: 5 Sep 2019 14:00

Tgt Ion: 76 Resp: 51844

Ion	Ratio	Lower	Upper
76	100		
78	9.2	0.0	28.5

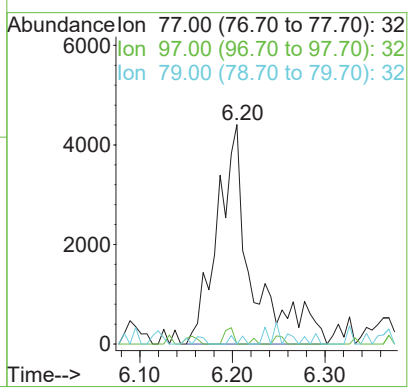




#31
22dichloropr
Concen: 0.00 mg/kg
RT: 6.20 min Scan# 733
Delta R.T. -0.02 min
Lab File: 321162.D
Acq: 5 Sep 2019 14:00

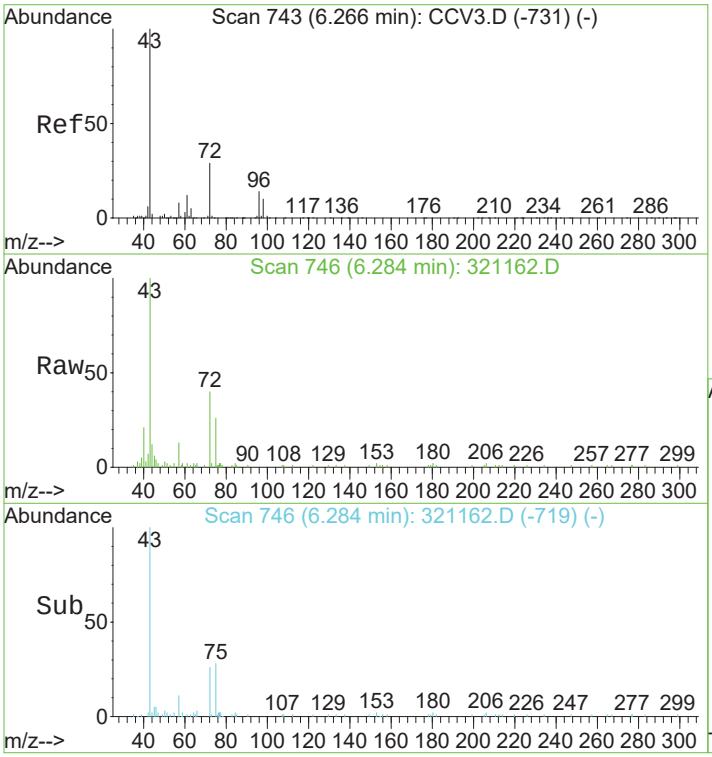
Tgt Ion: 77 Resp: 11392

Ion	Ratio	Lower	Upper
77	100		
97	0.0	1.8	41.8#
79	0.0	13.2	53.2#



Negative Library Identification

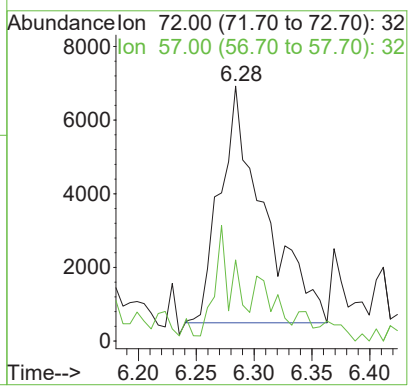
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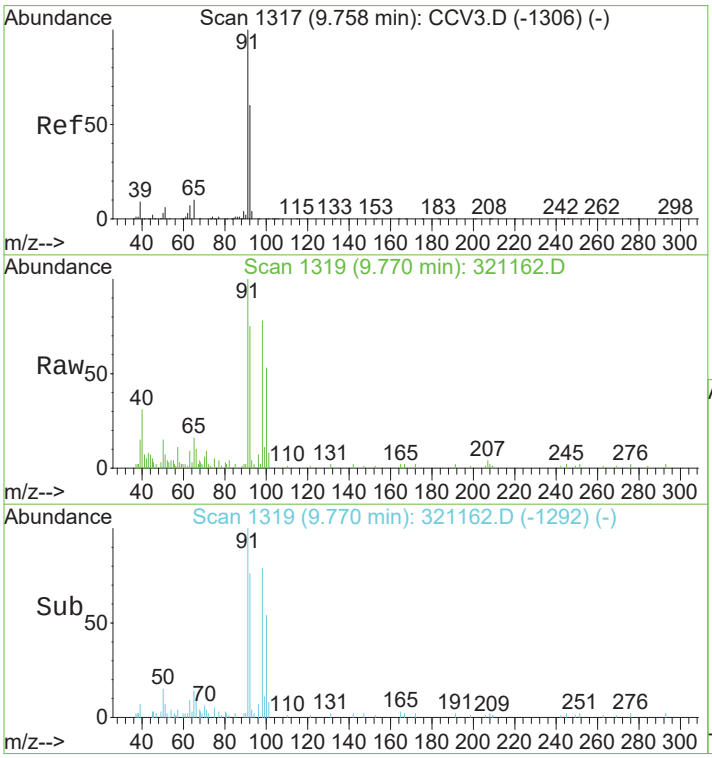


#33
2Butanone
Concen: 0.01 mg/kg
RT: 6.28 min Scan# 746
Delta R.T. 0.01 min
Lab File: 321162.D
Acq: 5 Sep 2019 14:00

Tgt Ion: 72 Resp: 17043

Ion	Ratio	Lower	Upper
72	100		
57	19.7	6.8	46.8

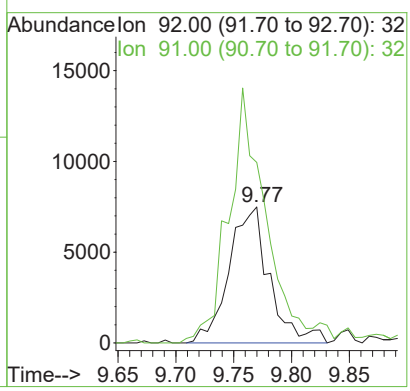


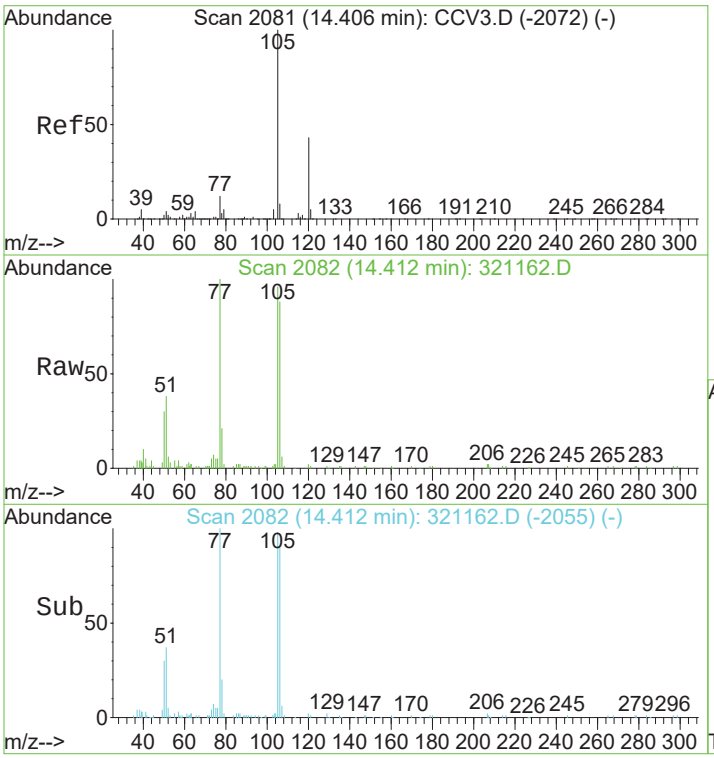


#61
Toluene
Concen: 0.00 mg/kg
RT: 9.77 min Scan# 1319
Delta R.T. 0.01 min
Lab File: 321162.D
Acq: 5 Sep 2019 14:00

Tgt Ion: 92 Resp: 18248

Ion	Ratio	Lower	Upper
92	100		
91	180.6	148.0	188.0

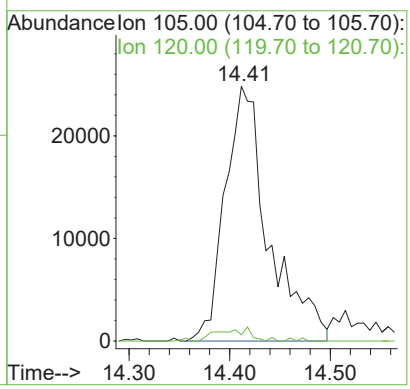




#92
124Trimetben
Concen: 0.00 mg/kg
RT: 14.41 min Scan# 2082
Delta R.T. 0.01 min
Lab File: 321162.D
Acq: 5 Sep 2019 14:00

Tgt Ion:105 Resp: 74671

Ion	Ratio	Lower	Upper
105	100		
120	3.7	24.5	64.5#



Library Search Compound Report

Data Path : C:\Instarch\Data\SEP0519\
Data File : 321162.D
Acq On : 5 Sep 2019 14:00
Operator : RLD-DGS
Sample : 163979,321162,
Misc : 5.66g, 15.0 ml Purged + IS/SS
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHODS\LS090419.M
Quant Title : 8260C Low Level Soils Method

TIC Library : C:\DATABASE\NBS75K.L
TIC Integration Parameters: VOC.P

****

Peak Number 1 1-Propyne, 3-chloro- Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
1.77	0.00 mg/kg	425263	FLUOROBENZENE**IS	2387460	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Propyne, 3-chloro-	74	C3H3Cl	000624-65-7	9
2	Furan, 2,5-dihydro-	70	C4H6O	001708-29-8	4
3	Acetoacetic acid, 1-thio-, S-all...	158	C7H10O2S	015780-65-1	4
4	2-Propenenitrile, 2-methyl-	67	C4H5N	000126-98-7	4
5	Cyclopropanecarboxylic acid	86	C4H6O2	001759-53-1	4

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Peak Number 2 Butane Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.21	0.00 mg/kg	216006	FLUOROBENZENE**IS	2387460	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane	58	C4H10	000106-97-8	38
2	Butane	58	C4H10	000106-97-8	9
3	Diisopropyl carbonotrithioate	194	C7H14S3	002314-51-4	9
4	2-Pentanone, 5-chloro-	120	C5H9ClO	005891-21-4	9
5	1-Propen-2-ol, acetate	100	C5H8O2	000108-22-5	9

****

Peak Number 3 Acetaldehyde Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.38	0.01 mg/kg	1168060	FLUOROBENZENE**IS	2387460	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetaldehyde	44	C2H4O	000075-07-0	86
2	Acetaldehyde	44	C2H4O	000075-07-0	64
3	Acetaldehyde	44	C2H4O	000075-07-0	9
4	Ethylene oxide	44	C2H4O	000075-21-8	5
5	Ethylene oxide	44	C2H4O	000075-21-8	5

****

Peak Number 4 1,4-Dioxane, 2,6-dimethyl- Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.94	0.00 mg/kg	274825	FLUOROBENZENE**IS	2387460	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,4-Dioxane, 2,6-dimethyl-	116	C6H12O2	010138-17-7	35
2	1-Heptanamine, N-heptyl-N-nitro-	258	C14H30N2O2	055030-32-5	17
3	Hexahydropyridine, 1-acetyl-4-[4...	235	C13H17NO3	000000-00-0	17
4	Pyrazine, 2,6-dimethyl-	108	C6H8N2	000108-50-9	17
5	2-Butanone, ethylhydrazone	114	C6H14N2	016713-35-2	17

****

Peak Number 5 Pentane Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
3.33	0.00 mg/kg	239098	FLUOROBENZENE**IS	2387460	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane	72	C5H12	000109-66-0	80
2	Pentane	72	C5H12	000109-66-0	80
3	Pentane	72	C5H12	000109-66-0	80
4	Oxirane, ethyl-	72	C4H8O	000106-88-7	50
5	3-Buten-1-ol	72	C4H8O	000627-27-0	37

****

Peak Number 6 Propanal Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
3.91	0.00 mg/kg	233813	FLUOROBENZENE**IS	2387460	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propanal	58	C3H6O	000123-38-6	56
2	Cyclopropyl methyl carbinol	86	C5H10O	000765-42-4	43
3	Oxirane, methyl-, (S)-	58	C3H6O	016088-62-3	9
4	Trimethylene oxide	58	C3H6O	000503-30-0	9
5	Propylene oxide	58	C3H6O	000075-56-9	9

****

Peak Number 7 Pentane, 2-methyl- Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
4.64	0.00 mg/kg	256544	FLUOROBENZENE**IS	2387460	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2-methyl-	86	C6H14	000107-83-5	64
2	Pentane, 2-methyl-	86	C6H14	000107-83-5	64
3	Pentane, 2-methyl-	86	C6H14	000107-83-5	53
4	Pentane, 2-methyl-	86	C6H14	000107-83-5	42
5	trans-2,3-Epoxynonane	142	C9H18O	056820-01-0	40

****

Peak Number 8 Butanal Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
6.03	0.00 mg/kg	262521	FLUOROBENZENE**IS	2387460	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanal	72	C4H8O	000123-72-8	83
2	Butanal	72	C4H8O	000123-72-8	80
3	Butanal	72	C4H8O	000123-72-8	50

4	Butanal	72	C4H8O	000123-72-8	50
5	Butanal	72	C4H8O	000123-72-8	50

****

Peak Number 9 Butanal, 3-methyl- Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
7.51	0.00 mg/kg	207050	FLUOROBENZENE**IS	2387460	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanal, 3-methyl-	86	C5H10O	000590-86-3	81
2	Butanal, 3-methyl-	86	C5H10O	000590-86-3	58
3	Butanal, 3-methyl-	86	C5H10O	000590-86-3	52
4	Butanal, 3-methyl-	86	C5H10O	000590-86-3	49
5	Pentanal	86	C5H10O	000110-62-3	46

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Peak Number 10 Pentanal Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
8.48	0.00 mg/kg	558295	FLUOROBENZENE**IS	2387460	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentanal	86	C5H10O	000110-62-3	72
2	Pentanal	86	C5H10O	000110-62-3	50
3	Pentanal	86	C5H10O	000110-62-3	50
4	Butanal, 3-methyl-	86	C5H10O	000590-86-3	47
5	Pentanal	86	C5H10O	000110-62-3	40

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Peak Number 11 Cyclotrisiloxane, hexamethyl- Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.31	0.01 mg/kg	759186	d5-CHLOROBENZENE*	2355540	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	72
2	Arsenous acid, tris(trimethylsil...	342	C9H27AsO3Si3	055429-29-3	50
3	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	47
4	1,3,5-Triazine, 2-chloro-4,6-bis...	207	C5H6ClN3S2	004407-40-3	43
5	1H-Indole, 1-methyl-2-phenyl-	207	C15H13N	003558-24-5	38

****

Peak Number 12 Hexanal Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.74	0.01 mg/kg	1481890	d5-CHLOROBENZENE*	2355540	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexanal	100	C6H12O	000066-25-1	80
2	Hexanal	100	C6H12O	000066-25-1	72
3	Hexanal	100	C6H12O	000066-25-1	64
4	Hexanal	100	C6H12O	000066-25-1	62
5	Hexanal	100	C6H12O	000066-25-1	56

****

Peak Number 13 Heptanal Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
12.82	0.00 mg/kg	296597	d5-CHLOROBENZENE*	2355540	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptanal	114	C7H14O	000111-71-7	72
2	Heptanal	114	C7H14O	000111-71-7	64
3	Heptanal	114	C7H14O	000111-71-7	56
4	Heptanal	114	C7H14O	000111-71-7	50
5	2-Piperidinone, 6-methyl-	113	C6H11NO	004775-98-8	43

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Peak Number 14 Cyclotetrasiloxane, octamet... Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
13.56	0.01 mg/kg	884587	d4-1,4-DICHLOROBE	2367670	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	86
2	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	80
3	Ethanethioic acid, S-[8-(diethyl...	324	C14H29O4PS	000000-00-0	36
4	Benzene, 1-phenyl-4-(2-cyano-2-p...	281	C21H15N	027869-56-3	9
5	Morphinan, 7,8-didehydro-3-metho...	281	C19H23NO	001816-06-4	5

****

Peak Number 15 1,4-Dichlorobenzene-d4 Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
15.44	0.02 mg/kg	2147870	d4-1,4-DICHLOROBE	2367670	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,4-Dichlorobenzene-d4	150	C6Cl2D4	003855-82-1	95
2	Benzene-1,2,3,4-d4-, 5,6-dichloro-	150	C6Cl2D4	002199-69-1	91
3	Benzaldehyde, 2-hydroxy-3-methoxy-	152	C8H8O3	000148-53-8	35
4	2-Cyclopenten-1-one, 2-(2-buteny...	150	C10H14O	017190-71-5	9
5	Acenaphthylene	152	C12H8	000208-96-8	9

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Peak Number 16 3-Cyclohexen-1-ol Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
15.63	0.00 mg/kg	293521	d4-1,4-DICHLOROBE	2367670	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Cyclohexen-1-ol	98	C6H10O	000822-66-2	10
2	Nonane, 4-methyl-	142	C10H22	017301-94-9	10
3	2-Propene-1,1-diol, 2-methyl-, d...	172	C8H12O4	010476-95-6	9
4	Ethanethiol, 2-amino-, hydrochlo...	113	C2H8ClNS	000156-57-0	9
5	Acetic acid, octyl ester	172	C10H20O2	000112-14-1	9

****

Peak Number 17 11H-Dibenzo[b,E][1,4]diazep... Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
16.27	0.00 mg/kg	199401	d4-1,4-DICHLOROBE	2367670	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual

1	11H-Dibenzo[b,E][1,4]diazepin-11...	267	C16H17N3O	013450-73-2	43
2	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	38
3	Benzeneethanamine, N-[(pentafluo...	475	C21H26F5NO2Si2	055429-85-1	37
4	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	36
5	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	28

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Peak Number 18 Phenol, 2,4-dichloro-6-nitro- Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
17.17	0.00 mg/kg	270440	d4-1,4-DICHLOROBE	2367670	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenol, 2,4-dichloro-6-nitro-	207	C6H3Cl2NO3	000609-89-2	9
2	Peroxide, diethyl	90	C4H10O2	000628-37-5	9
3	1-Butanamine, N-nitro-N-propyl-	160	C7H16N2O2	054340-76-0	9
4	Hydrazinecarboxylic acid, butyli...	158	C7H14N2O2	007400-28-4	9
5	1H-Pyrazole, 3-chloro-5-methyl-4...	161	C4H4ClN3O2	006814-58-0	9

****

Peak Number 19 Undecanal Concentration Rank 20

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
17.89	0.00 mg/kg	171405	d4-1,4-DICHLOROBE	2367670	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Undecanal	170	C11H22O	000112-44-7	35
2	2H-Cyclopentacycloocten-2-one, d...	180	C12H20O	055103-65-6	25
3	2-Methyl-7-nonadecene	280	C20H40	000000-00-0	25
4	2-Hexadecene, 2,6,10,14-tetramet...	280	C20H40	056554-34-8	22
5	1-Nonene	126	C9H18	000124-11-8	14

****

Peak Number 20 1H-Pyrrolo[2,3-b]pyridine-1... Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
19.87	0.00 mg/kg	582210	d4-1,4-DICHLOROBE	2367670	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Pyrrolo[2,3-b]pyridine-1-prop...	247	C16H13N3	023616-60-6	25
2	1,2,4-Benzenetricarboxylic acid,...	238	C11H10O6	054699-35-3	25
3	Corydaldine	207	C11H13NO3	000493-49-2	25
4	Brallobarbital	286	C10H11BrN2O3	000561-86-4	23
5	1H-Indole, 5-methyl-2-phenyl-	207	C15H13N	013228-36-9	23

LS090419.M Tue Sep 10 12:34:35 2019

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321163.D Vial: 21
Acq On : 5 Sep 2019 16:32 Operator: RLD-DGS
Sample : 163979,321163, Inst : VMS4
Misc : 5.24g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 16:53:16 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	795843	0.02 mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	527320	0.02 mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.89	152	192984	0.02 mg/kg	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.83	113	215497	0.022 mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 110 %		
45) SURR12DCAd4	7.24	102	49060	0.024 mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 120 %		
60) SURRd8Tolule	9.67	98	781491	0.019 mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 95 %		
82) SURR4BrFBenz	13.23	95	227282	0.025 mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 125 %#		
Target Compounds					Qvalue
2) Dichlorodi	1.81	85	1852	0.0012 mg/kg#	44
3) Chloromethan	2.11	50	1097	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	2.69	94	3115	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) dichloroflmethane	3.14	67	1031	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	3.66	67	2416	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	3.83	56	1626	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.05	43	318808	0.1364 mg/kg	100
16) Iodomethane	4.12	142	2640	0.0025 mg/kg#	41
17) Carbon Dislf	4.21	76	143934	0.0042 mg/kg	98
18) allylchloride	4.50	41	6680	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	4.60	84	25847	N.D.	
21) Acrylonitrile	4.98	53	4662	0.0020 mg/kg#	20
22) t12dichlorte	0.00	96	0	N.D.	
23) tbutylalcohol	4.81	59	20010	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	5.33	57	186688	0.0128 mg/kg	96
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	5.58	43	1205	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	6.08	59	1016	N.D.	
31) 22dichloropr	6.20	77	10826	0.0005 mg/kg#	46
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	6.29	72	9575	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	6.62	42	1429	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321163.D Vial: 21
Acq On : 5 Sep 2019 16:32 Operator: RLD-DGS
Sample : 163979,321163, Inst : VMS4
Misc : 5.24g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 16:53:16 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	0.00	83	0	N.D.	
40) 111trichlota	0.00	97	0	N.D.	
42) Cyclohexane	6.92	56	113703	0.0068 mg/kg	93
43) Carbtetraclo	0.00	119	0	N.D.	
44) 11dicloprope	0.00	110	0	N.D.	
46) Benzene	7.32	78	91764	0.0018 mg/kg#	8
47) 12dichlorota	0.00	62	0	N.D.	
48) TAME	7.34	73	1052	N.D.	
49) trichloroete	8.10	95	1310	N.D.	
50) methylcyclohexane	8.36	83	206325	0.0098 mg/kg	96
51) 12dicloropra	8.35	63	2576	N.D.	
52) 23dicl1propene	0.00	75	0	N.D.	
53) Dibromometha	0.00	93	0	N.D.	
54) methylmethacrylate	8.60	69	8972	0.0022 mg/kg#	46
55) 14dioxane	0.00	88	0	N.D.	
56) Bromodiclrma	8.69	83	1700	N.D.	
57) 2Nitropropane	9.03	43	1519	N.D.	
58) c13dicloproe	9.24	75	1325	N.D.	
59) 4Meth2Pentan	9.52	43	2389	N.D.	
61) Toluene	9.76	92	132837	0.0041 mg/kg	97
62) t13Dicloprop	0.00	75	0	N.D.	
63) ethylmethacrylate	10.24	69	1679	N.D.	
64) 112Triclotha	10.31	83	1993	N.D.	
65) Tetrachlorte	0.00	166	0	N.D.	
66) 13Diclorpropa	0.00	76	0	N.D.	
68) 2Hexanone	10.62	43	1442	N.D.	
69) Clorodibrmta	0.00	129	0	N.D.	
70) 12Dibrometha	0.00	107	0	N.D.	
71) Chlorobenzen	0.00	112	0	N.D.	
72) 1Clhexane	0.00	91	0	N.D.	
73) 1112Tetclota	0.00	131	0	N.D.	
74) Ethylbenzene	11.78	91	42642	0.0009 mg/kg	100
75) m p-Xylene	11.94	106	66458	0.0037 mg/kg	92
76) o-Xylene	12.50	106	21442	0.0012 mg/kg	91
77) Styrene	12.51	104	5079	N.D.	
78) Bromoform	0.00	173	0	N.D.	
79) Isopropylben	13.02	105	4742	N.D.	
81) cyclohexanone	13.07	55	1707	N.D.	
83) Bromobenzene	0.00	156	0	N.D.	
84) 1122Tetrclta	13.47	83	1428	N.D.	
85) 123Triclproa	13.51	75	1330	N.D.	
86) 14dichloro2butene	0.00	53	0	N.D.	
87) n-Propylbenz	13.60	91	6979	N.D.	
88) 2chlorotolue	13.74	91	3818	N.D.	
89) 4chlorotolue	13.86	91	5969	N.D.	
90) 135Trimebenz	13.86	105	49273	0.0019 mg/kg	92
91) tbutylbenzen	14.40	119	9188	N.D.	
92) 124Trimetben	14.40	105	90377	0.0034 mg/kg	98
93) sbutylbenzen	14.67	105	3989	N.D.	
94) 13Diclorbenz	0.00	146	0	N.D.	
95) pIsopropylto	14.86	119	2747	N.D.	
96) 14dichlorobe	0.00	146	0	N.D.	
97) 12dichlorobe	15.46	146	1207	N.D.	
98) nButylbenzen	15.46	91	2482	N.D.	
99) 12dibromo3cl	0.00	157	0	N.D.	
100) 135Trichlorobenzene	0.00	180	0	N.D.	
101) 124Trichlobe	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321163.D Vial: 21
Acq On : 5 Sep 2019 16:32 Operator: RLD-DGS
Sample : 163979,321163, Inst : VMS4
Misc : 5.24g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 16:53:16 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) Hexachlorobu	0.00	225	0	N.D.	
103) Naphthalene	18.03	128	6170	N.D.	
104) 123Trichlben	18.33	180	1310	N.D.	

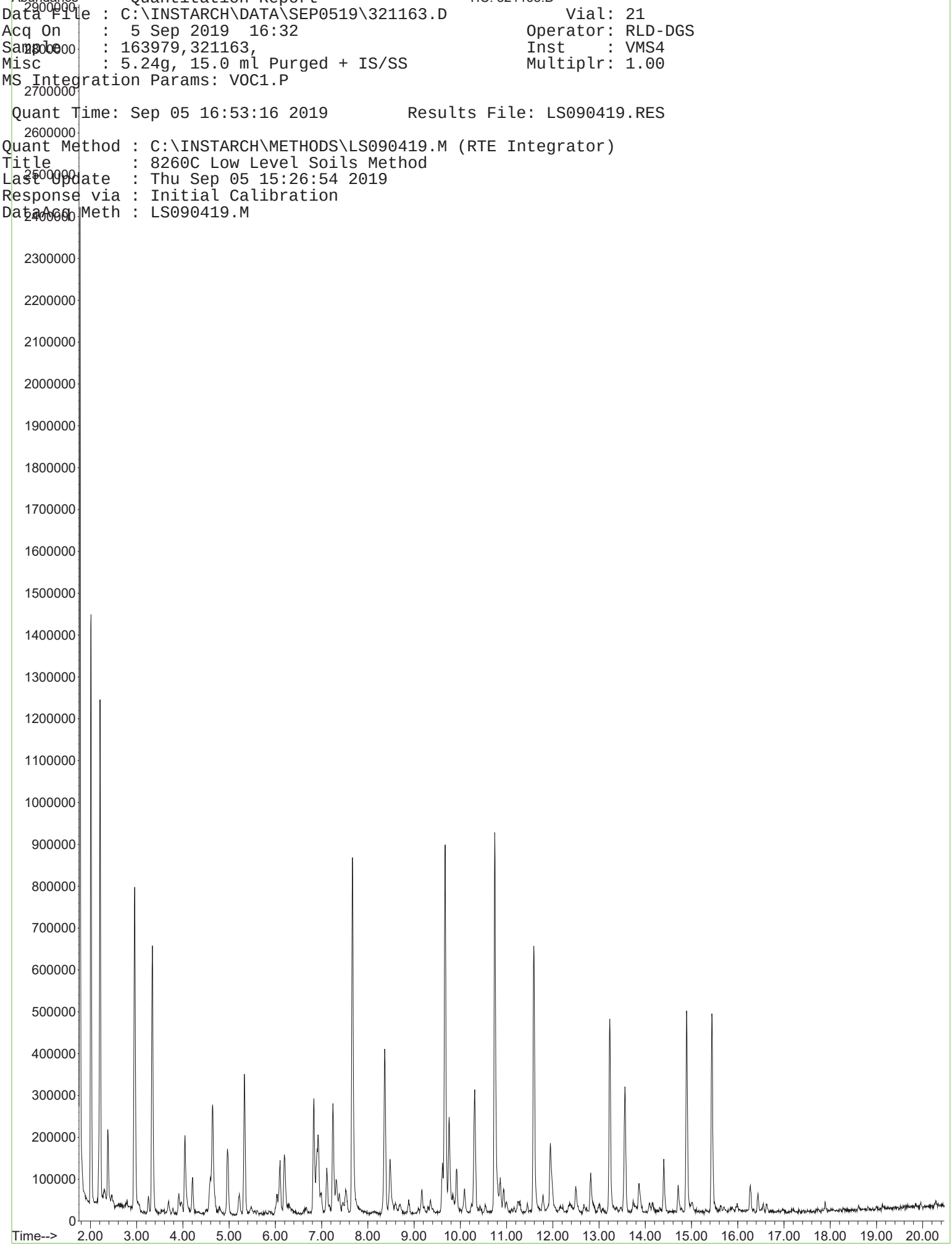
(#) = qualifier out of range (m) = manual integration

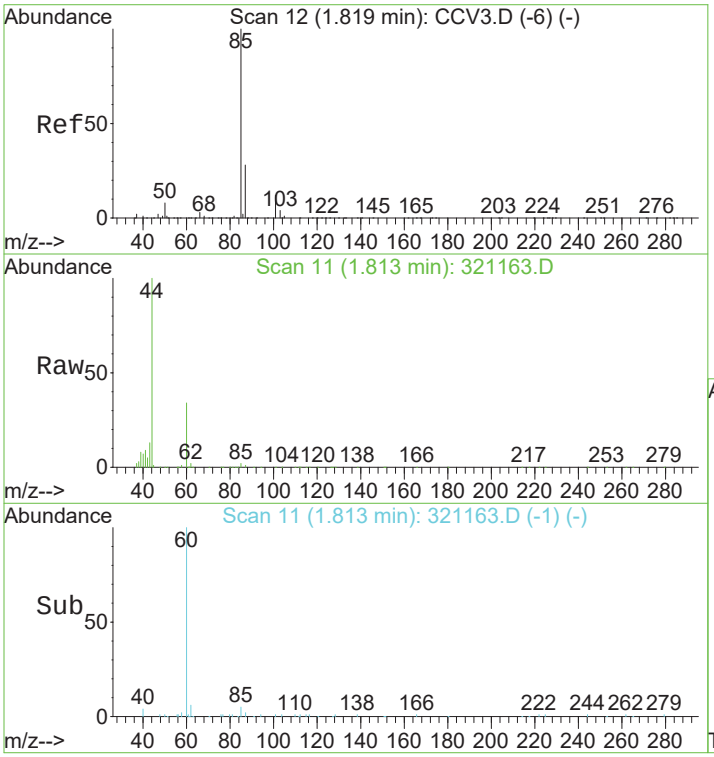
Quantitation Report (TIC: 321163.D)

Data File : C:\INSTARCH\DATA\SEP0519\321163.D Vial: 21
Acq On : 5 Sep 2019 16:32 Operator: RLD-DGS
Sample : 163979,321163, Inst : VMS4
Misc : 5.24g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 16:53:16 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

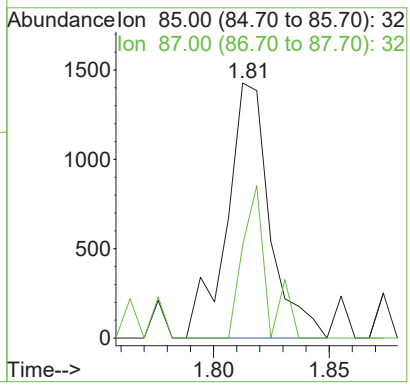




#2
Dichlorodi
Concen: 0.00 mg/kg
RT: 1.81 min Scan# 11
Delta R.T. -0.01 min
Lab File: 321163.D
Acq: 5 Sep 2019 16:32

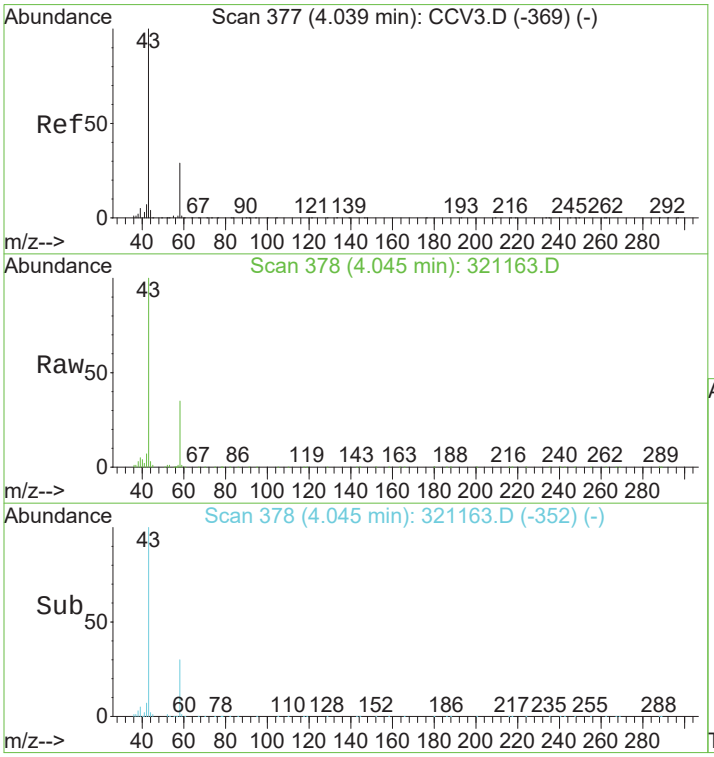
Tgt Ion: 85 Resp: 1852

Ion	Ratio	Lower	Upper
85	100		
87	0.0	10.8	50.8#



Negative Library Identification

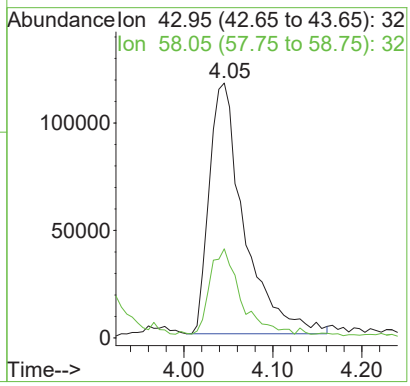
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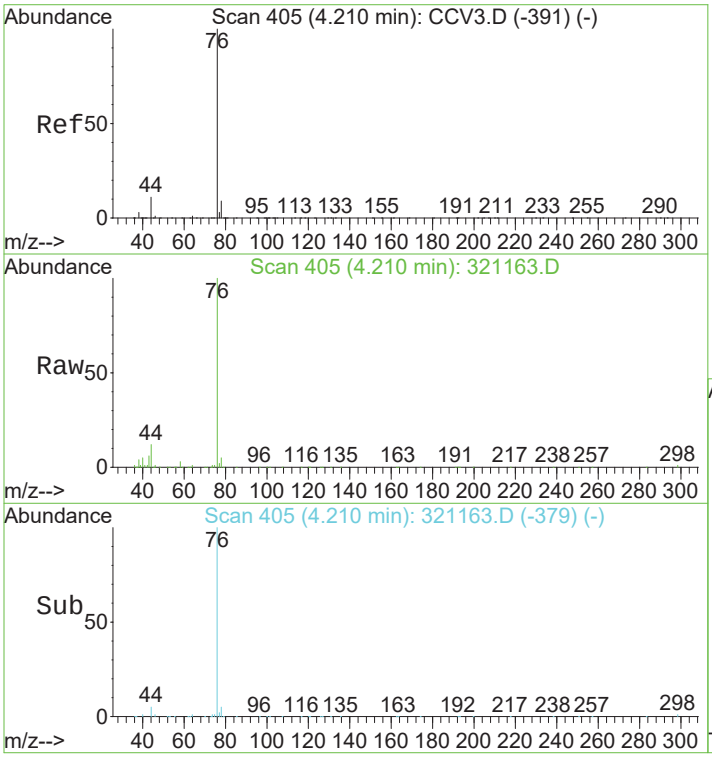


#15
Acetone
Concen: 0.14 mg/kg
RT: 4.05 min Scan# 378
Delta R.T. 0.01 min
Lab File: 321163.D
Acq: 5 Sep 2019 16:32

Tgt Ion: 43 Resp: 318808

Ion	Ratio	Lower	Upper
43	100		
58	29.7	9.4	49.4

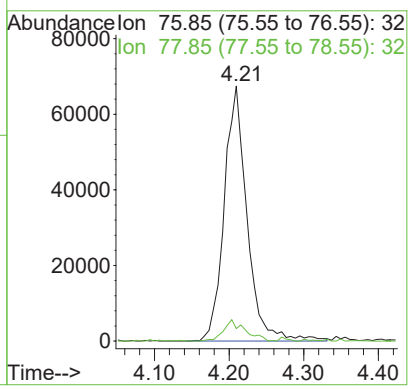


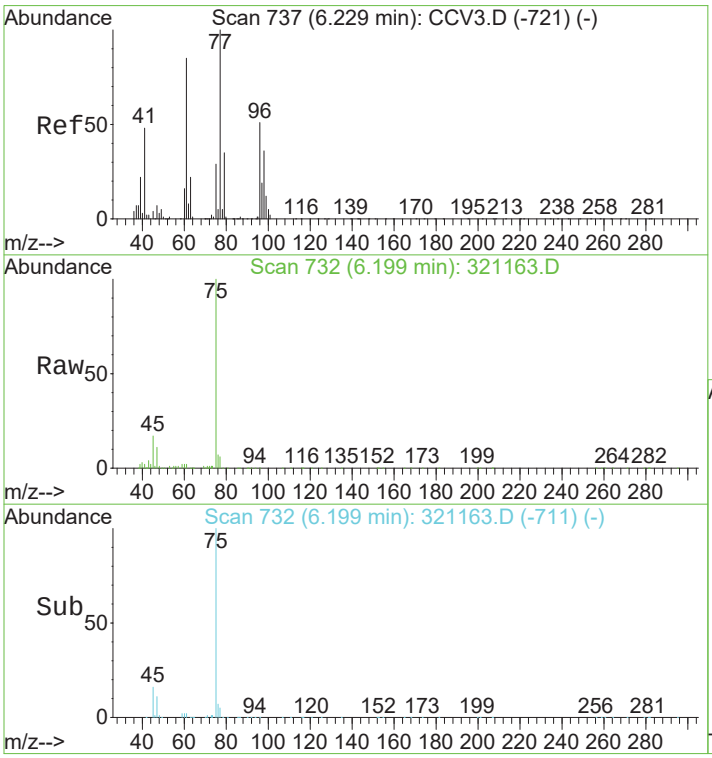


#17
Carbon Dislf
Concen: 0.00 mg/kg
RT: 4.21 min Scan# 405
Delta R.T. 0.01 min
Lab File: 321163.D
Acq: 5 Sep 2019 16:32

Tgt Ion: 76 Resp: 143934

Ion	Ratio	Lower	Upper
76	100		
78	7.9	0.0	28.5

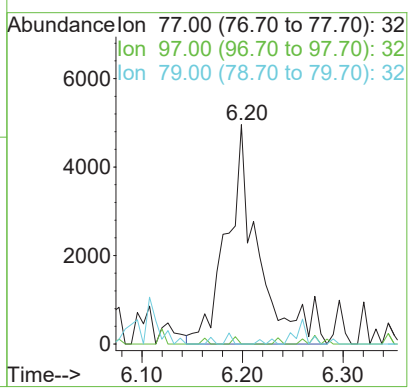




#31
22dichloropr
Concen: 0.00 mg/kg
RT: 6.20 min Scan# 732
Delta R.T. -0.02 min
Lab File: 321163.D
Acq: 5 Sep 2019 16:32

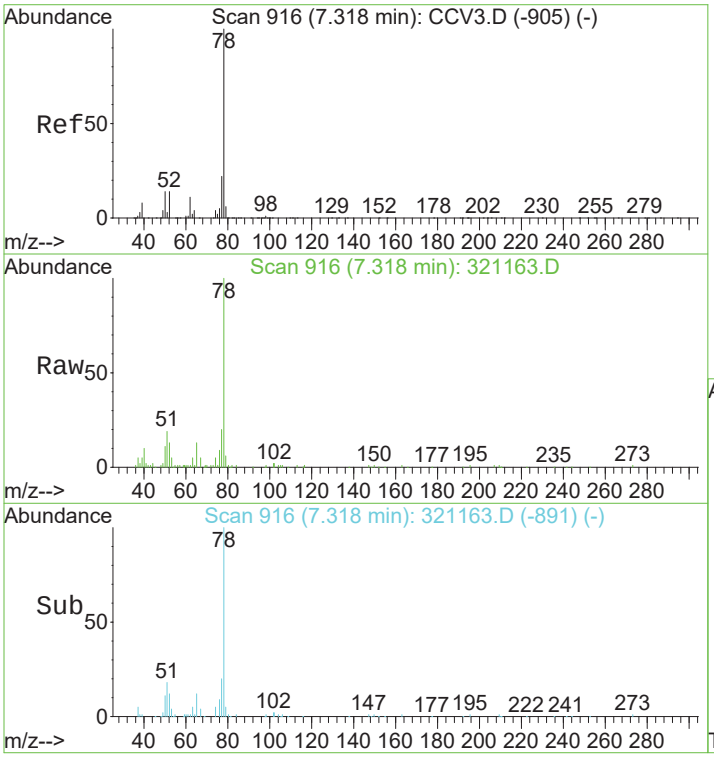
Tgt Ion: 77 Resp: 10826

Ion	Ratio	Lower	Upper
77	100		
97	0.0	1.8	41.8#
79	0.0	13.2	53.2#



Negative Library Identification

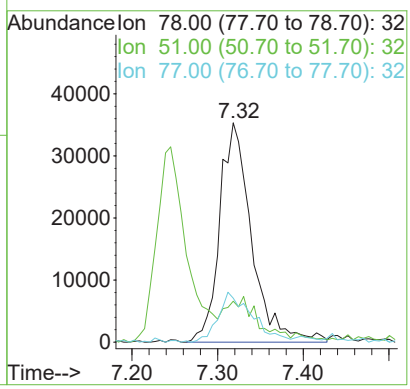
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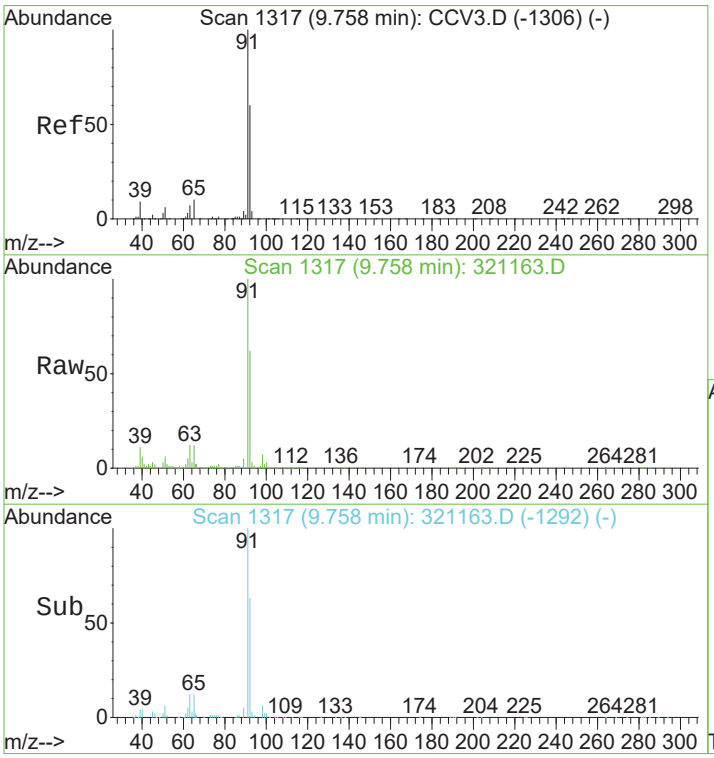


#46
Benzene
Concen: 0.00 mg/kg
RT: 7.32 min Scan# 916
Delta R.T. -0.00 min
Lab File: 321163.D
Acq: 5 Sep 2019 16:32

Tgt Ion: 78 Resp: 91764

Ion	Ratio	Lower	Upper
78	100		
51	107.3	0.0	36.9#
77	25.6	3.0	43.0

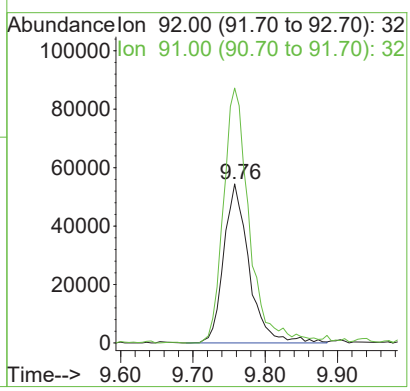


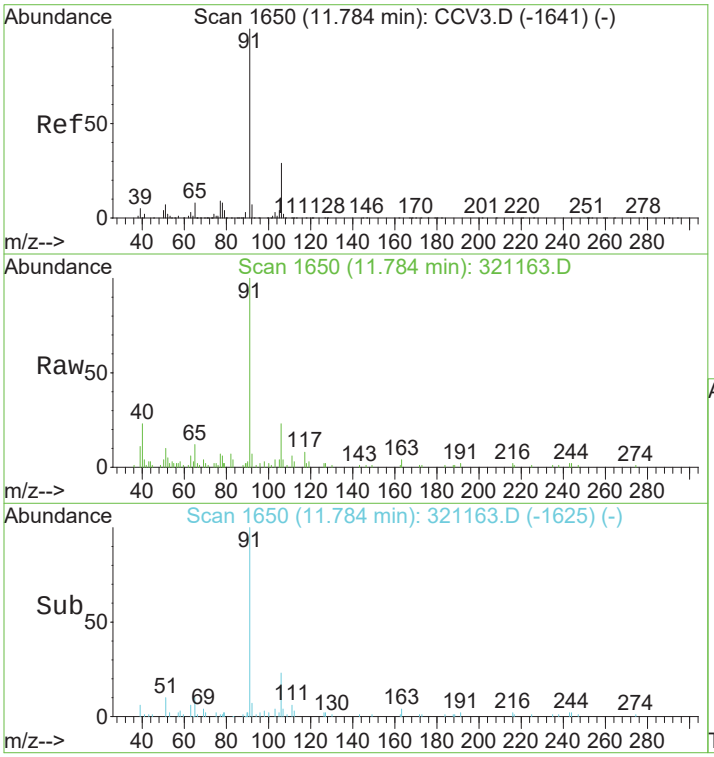


#61
Toluene
Concen: 0.00 mg/kg
RT: 9.76 min Scan# 1317
Delta R.T. -0.00 min
Lab File: 321163.D
Acq: 5 Sep 2019 16:32

Tgt Ion: 92 Resp: 132837

Ion	Ratio	Lower	Upper
92	100		
91	163.4	148.0	188.0

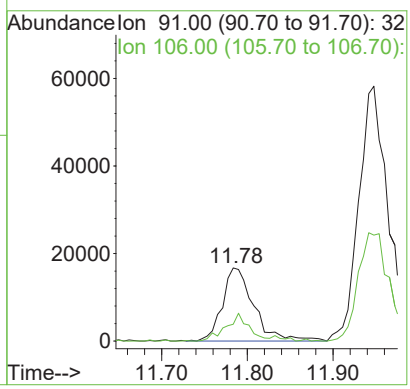


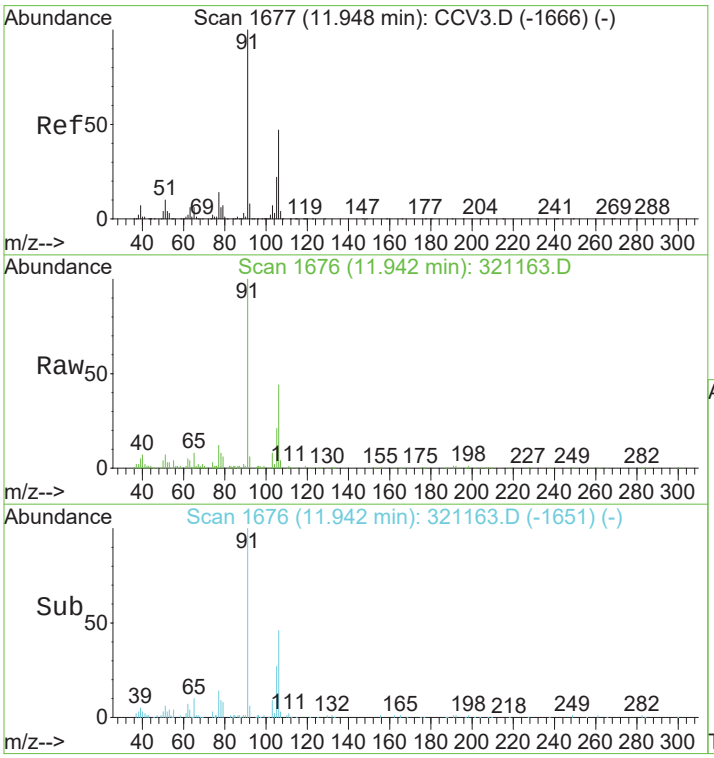


#74
Ethylbenzene
Concen: 0.00 mg/kg
RT: 11.78 min Scan# 1650
Delta R.T. -0.00 min
Lab File: 321163.D
Acq: 5 Sep 2019 16:32

Tgt Ion: 91 Resp: 42642

Ion	Ratio	Lower	Upper
91	100		
106	30.4	10.3	50.3

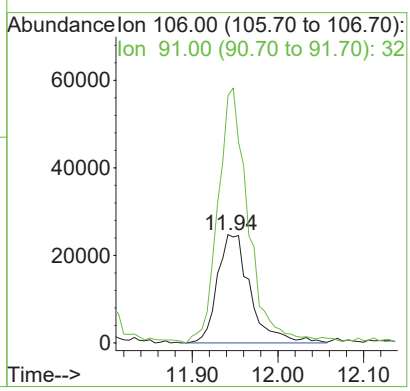


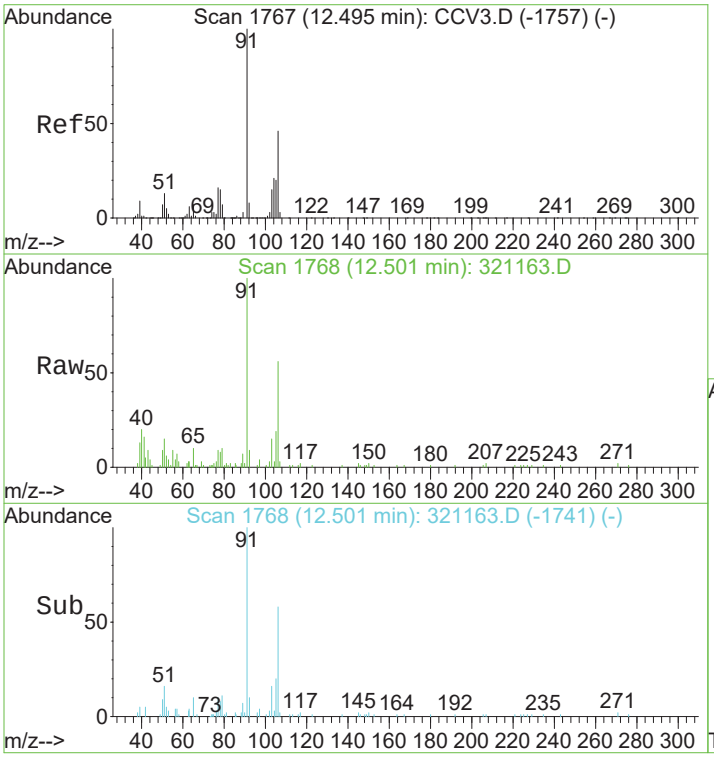


#75
m p-Xylene
Concen: 0.00 mg/kg
RT: 11.94 min Scan# 1676
Delta R.T. -0.00 min
Lab File: 321163.D
Acq: 5 Sep 2019 16:32

Tgt Ion:106 Resp: 66458

Ion	Ratio	Lower	Upper
106	100		
91	217.4	184.6	224.6

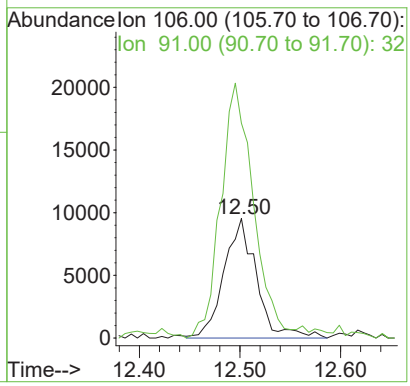


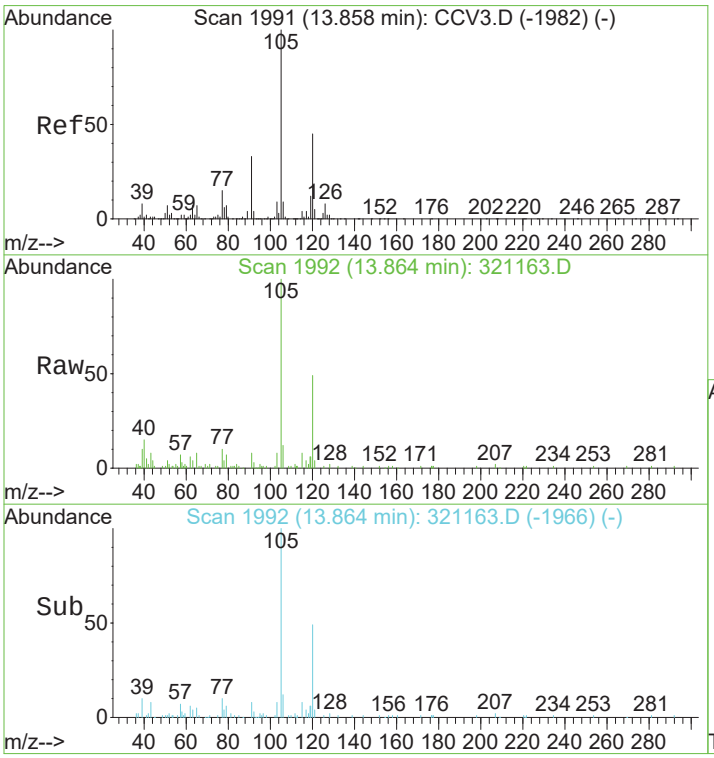


#76
o-Xylene
Concen: 0.00 mg/kg
RT: 12.50 min Scan# 1768
Delta R.T. 0.01 min
Lab File: 321163.D
Acq: 5 Sep 2019 16:32

Tgt Ion:106 Resp: 21442

Ion	Ratio	Lower	Upper
106	100		
91	225.4	191.1	231.1

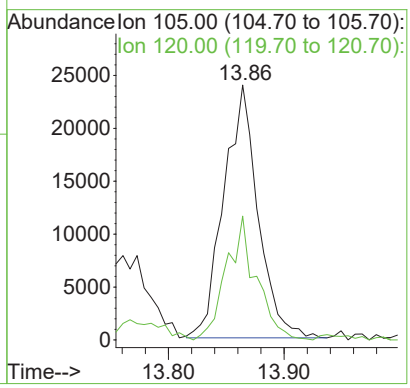


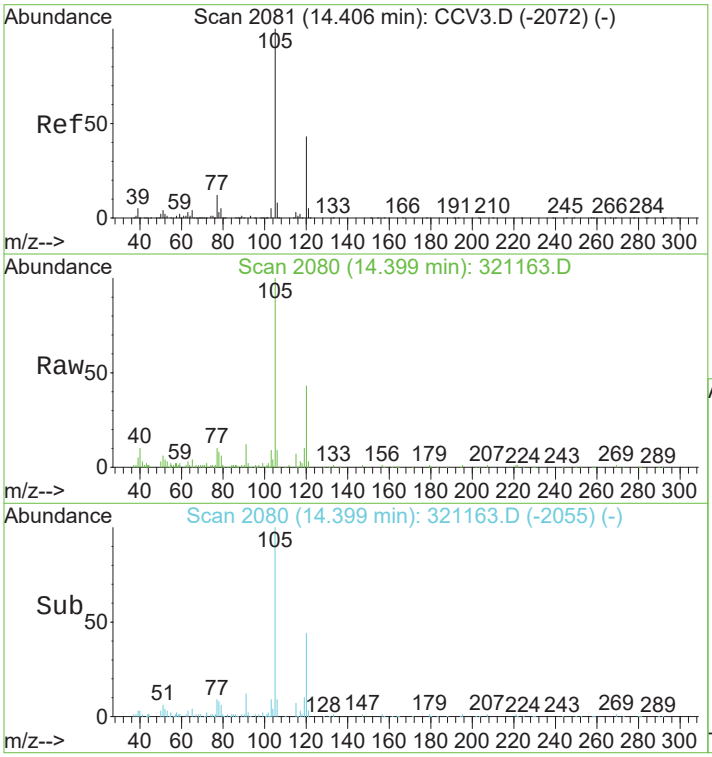


#90
135Trimebenz
Concen: 0.00 mg/kg
RT: 13.86 min Scan# 1992
Delta R.T. 0.01 min
Lab File: 321163.D
Acq: 5 Sep 2019 16:32

Tgt Ion:105 Resp: 49273

Ion	Ratio	Lower	Upper
105	100		
120	42.7	28.3	68.3

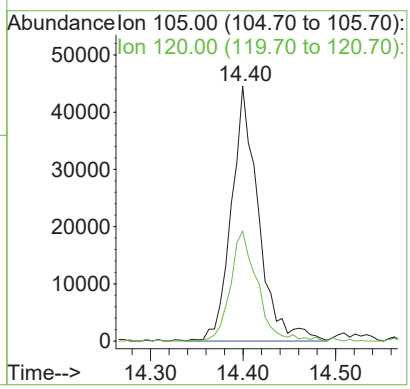




#92
124Trimetben
Concen: 0.00 mg/kg
RT: 14.40 min Scan# 2080
Delta R.T. -0.00 min
Lab File: 321163.D
Acq: 5 Sep 2019 16:32

Tgt Ion:105 Resp: 90377

Ion	Ratio	Lower	Upper
105	100		
120	43.0	24.5	64.5



Library Search Compound Report

Data Path : C:\Instarch\Data\SEP0519\
Data File : 321163.D
Acq On : 5 Sep 2019 16:32
Operator : RLD-DGS
Sample : 163979,321163,
Misc : 5.24g, 15.0 ml Purged + IS/SS
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHODS\LS090419.M
Quant Title : 8260C Low Level Soils Method

TIC Library : C:\DATABASE\NBS75K.L
TIC Integration Parameters: VOC.P

****

Peak Number 1 Isobutane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.01	0.02 mg/kg	2277540	FLUOROBENZENE**IS	2225170	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Isobutane	58	C4H10	000075-28-5	86
2	Isobutane	58	C4H10	000075-28-5	64
3	Isobutane	58	C4H10	000075-28-5	59
4	Cyclobutylamine	71	C4H9N	002516-34-9	4
5	Propane, 2-nitro-	89	C3H7NO2	000079-46-9	4

****

Peak Number 2 Butane Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.21	0.02 mg/kg	2186910	FLUOROBENZENE**IS	2225170	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane	58	C4H10	000106-97-8	64
2	Butane	58	C4H10	000106-97-8	64
3	Isobutane	58	C4H10	000075-28-5	9
4	Diazene, dimethyl-	58	C2H6N2	000503-28-6	5
5	Hydrogen azide	43	HN3	007782-79-8	4

****

Peak Number 3 Acetaldehyde Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.37	0.01 mg/kg	659491	FLUOROBENZENE**IS	2225170	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetaldehyde	44	C2H4O	000075-07-0	9
2	Acetaldehyde	44	C2H4O	000075-07-0	9
3	Acetaldehyde	44	C2H4O	000075-07-0	9
4	Ethylene oxide	44	C2H4O	000075-21-8	5
5	Propane	44	C3H8	000074-98-6	4

****

Peak Number 4 Butane, 2-methyl- Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.96	0.02 mg/kg	1882620	FLUOROBENZENE**IS	2225170	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2-methyl-	72	C5H12	000078-78-4	91
2	Butane, 2-methyl-	72	C5H12	000078-78-4	80
3	Butane, 2-methyl-	72	C5H12	000078-78-4	80
4	3-Buten-1-ol	72	C4H8O	000627-27-0	25
5	Butane, 1-chloro-2-methyl-	106	C5H11Cl	000616-13-7	10

****

Peak Number 5 Pentane Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
3.34	0.01 mg/kg	1481400	FLUOROBENZENE**IS	2225170	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane	72	C5H12	000109-66-0	86
2	Pentane	72	C5H12	000109-66-0	86
3	Pentane	72	C5H12	000109-66-0	80
4	Oxirane, ethyl-	72	C4H8O	000106-88-7	42
5	Butane, 2,3-dimethyl-	86	C6H14	000079-29-8	36

****

Peak Number 6 Pentane, 2-methyl- Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
4.64	0.01 mg/kg	678987	FLUOROBENZENE**IS	2225170	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2-methyl-	86	C6H14	000107-83-5	90
2	Pentane, 2-methyl-	86	C6H14	000107-83-5	86
3	Pentane, 2-methyl-	86	C6H14	000107-83-5	86
4	Pentane, 2-methyl-	86	C6H14	000107-83-5	86
5	Pentane, 2-methyl-	86	C6H14	000107-83-5	64

****

Peak Number 7 Pentanal Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
8.48	0.00 mg/kg	398286	FLUOROBENZENE**IS	2225170	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentanal	86	C5H10O	000110-62-3	72
2	Butanal, 3-methyl-	86	C5H10O	000590-86-3	72
3	Pentanal	86	C5H10O	000110-62-3	56
4	Pentanal	86	C5H10O	000110-62-3	50
5	Pentanal	86	C5H10O	000110-62-3	47

****

Peak Number 8 Cyclohexane, 1,3-dimethyl-,... Concentration Rank 20

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
9.61	0.00 mg/kg	259550	FLUOROBENZENE**IS	2225170	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, 1,3-dimethyl-, cis-	112	C8H16	000638-04-0	93
2	Cyclohexane, 1,3-dimethyl-, cis-	112	C8H16	000638-04-0	90
3	2-Pentene, 2,4,4-trimethyl-	112	C8H16	000107-40-4	80

4	Cyclohexane, 1,4-dimethyl-, trans-	112	C8H16	002207-04-7	80
5	Cyclohexane, 1,3-dimethyl-	112	C8H16	000591-21-9	80

****

Peak Number 9 Octane Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
9.92	0.00 mg/kg	248520	d5-CHLOROBENZENE*	1625960	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octane	114	C8H18	000111-65-9	83
2	Octane	114	C8H18	000111-65-9	80
3	Hexane, 2,3,5-trimethyl-	128	C9H20	001069-53-0	53
4	Hexane, 1-(hexyloxy)-2-methyl-	200	C13H28O	074421-17-3	50
5	Hexane, 2-methyl-	100	C7H16	000591-76-4	50

****

Peak Number 10 Cyclotrisiloxane, hexamethyl- Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.31	0.01 mg/kg	767754	d5-CHLOROBENZENE*	1625960	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	64
2	Arsenous acid, tris(trimethylsil...	342	C9H27AsO3Si3	055429-29-3	56
3	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	52
4	Silane, trimethyl[5-methyl-2-(1-...	222	C13H22OSi	055012-80-1	40
5	7-Acetoxy-7,8,9,10-tetramethyl-7...	294	C20H22O2	000000-00-0	38

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Peak Number 11 Hexanal Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.74	0.03 mg/kg	2397670	d5-CHLOROBENZENE*	1625960	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexanal	100	C6H12O	000066-25-1	91
2	Hexanal	100	C6H12O	000066-25-1	90
3	Hexanal	100	C6H12O	000066-25-1	78
4	Hexanal	100	C6H12O	000066-25-1	64
5	Hexanal	100	C6H12O	000066-25-1	49

****

Peak Number 12 p-Fluoroaniline Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.94	0.00 mg/kg	191944	d5-CHLOROBENZENE*	1625960	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	p-Fluoroaniline	111	C6H6FN	000371-40-4	59
2	Cyclopentane, (2-methylbutyl)-	140	C10H20	053366-38-4	56
3	Cyclohexane, 1,1,3-trimethyl-	126	C9H18	003073-66-3	53
4	Cyclohexane, 1,1,3-trimethyl-	126	C9H18	003073-66-3	47
5	2-Aminopyrimidin-1-oxide	111	C4H5N3O	035034-15-2	43

****

Peak Number 13 Heptanal Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
12.82	0.00 mg/kg	278503	d5-CHLOROBENZENE*	1625960	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptanal	114	C7H14O	000111-71-7	59
2	Heptanal	114	C7H14O	000111-71-7	45
3	Heptanal	114	C7H14O	000111-71-7	40
4	1-Heptanol	116	C7H16O	000111-70-6	38
5	1-Heptanol	116	C7H16O	000111-70-6	38

****

Peak Number 14 Cyclotetrasiloxane, octamet... Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
13.56	0.01 mg/kg	775044	d4-1,4-DICHLOROBE	1279860	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	72
2	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	38
3	6,7-Benzo-phenothiazine-5,5-dioxide	281	C16H11NO2S	000000-00-0	9
4	1,2-Dihydroanthra[1,2-d]thiazole...	281	C15H7NO3S	000000-00-0	9
5	4-(1-Benzimidazyl)-7-nitro-2,1,3...	281	C13H7N5O3	091485-32-4	9

****

Peak Number 15 Octanal Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
14.71	0.00 mg/kg	184177	d4-1,4-DICHLOROBE	1279860	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octanal	128	C8H16O	000124-13-0	52
2	Cyclopentanol, 2-methyl-, trans-	100	C6H12O	025144-04-1	46
3	Cyclopentanol, 2-methyl-, cis-	100	C6H12O	025144-05-2	46
4	Cyclopentanol, 2-methyl-	100	C6H12O	024070-77-7	38
5	Piperazine, 1-[(4,5-dichlorophen...	272	C12H14Cl2N2O	000000-00-0	35

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Peak Number 16 Benzene-1,2,3,4-d4-, 5,6-di... Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
15.44	0.02 mg/kg	1166430	d4-1,4-DICHLOROBE	1279860	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene-1,2,3,4-d4-, 5,6-dichloro-	150	C6Cl2D4	002199-69-1	94
2	1,4-Dichlorobenzene-d4	150	C6Cl2D4	003855-82-1	94
3	Benzo[b]thiophene-4-ol	150	C8H6OS	003610-02-4	10
4	Biphenylene	152	C12H8	000259-79-0	9
5	4,5-Diaminobenzofurazan	150	C6H6N4O	000000-00-0	9

****

Peak Number 17 Benzoic acid, 4-[(trimethyl... Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
16.27	0.00 mg/kg	196753	d4-1,4-DICHLOROBE	1279860	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual

1	Benzoic acid, 4-[(trimethylsilyl...	282	C13H22O3Si2	002078-13-9	47
2	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	40
3	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	36
4	11H-Dibenzo[b,E][1,4]diazepin-11...	267	C16H17N3O	013450-73-2	35
5	Silane, trimethyl[[p-(trimethyls...	268	C13H24O2Si2	018401-58-6	12

****

Peak Number 18 5H-5-Methyl-6,7-dihydrocycl... Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
16.63	0.00 mg/kg	239456	d4-1,4-DICHLOROBE	1279860	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	5H-5-Methyl-6,7-dihydrocyclopent...	134	C8H10N2	023747-48-0	76
2	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	68
3	5-Methyl-6,7-dihydro-(5H)-cyclop...	134	C8H10N2	000000-00-0	68
4	Benzene, 4-ethyl-1,2-dimethyl-	134	C10H14	000934-80-5	62
5	Ethanone, 1-(4-methylphenyl)-	134	C9H10O	000122-00-9	58

****

Peak Number 19 Cyclohexane, 1,2-dimethyl-,... Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
17.89	0.00 mg/kg	259082	d4-1,4-DICHLOROBE	1279860	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, 1,2-dimethyl-, cis-	112	C8H16	002207-01-4	49
2	2-Nonenal, (E)-	140	C9H16O	018829-56-6	43
3	Cyclooctane	112	C8H16	000292-64-8	38
4	2H-Pyran-2-one	96	C5H4O2	000504-31-4	38
5	Cyclooctane	112	C8H16	000292-64-8	27

****

Peak Number 20 2-Propen-1-one, 1,3-diphenyl- Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
19.96	0.01 mg/kg	486703	d4-1,4-DICHLOROBE	1279860	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Propen-1-one, 1,3-diphenyl-	208	C15H12O	000094-41-7	14
2	Bendazol	208	C14H12N2	000621-72-7	14
3	Crinan, 1,2-didehydro-3,11-epoxy...	269	C16H15NO3	006900-81-8	10
4	9(10H)-Acridinone, 1,3-dimethoxy...	269	C16H15NO3	013082-10-5	10
5	Dibenzo[b,e]-1,4-diazabicyclo[2....	208	C14H12N2	000000-00-0	10

LS090419.M Tue Sep 10 12:35:18 2019

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321164.D Vial: 22
Acq On : 5 Sep 2019 17:01 Operator: RLD-DGS
Sample : 163979,321164, Inst : VMS4
Misc : 5.13g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 17:22:08 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	906959	0.02 mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	730610	0.02 mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.89	152	372306	0.02 mg/kg	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.84	113	238032	0.021 mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 105 %		
45) SURR12DCAd4	7.25	102	50737	0.022 mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 110 %		
60) SURRd8Tolule	9.67	98	937664	0.020 mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %		
82) SURR4BrFBenz	13.23	95	355354	0.020 mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 100 %		
Target Compounds					Qvalue
2) Dichlorodi	1.82	85	2199	0.0012 mg/kg	72
3) Chloromethan	2.07	50	1656	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	2.68	94	4998	0.0007 mg/kg	80
6) Chloroethane	0.00	64	0	N.D.	
7) dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.04	43	370248	0.1390 mg/kg	100
16) Iodomethane	4.12	142	9903	0.0030 mg/kg	93
17) Carbon Dislf	4.20	76	66620	0.0017 mg/kg	98
18) allylchloride	4.43	41	1018	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	4.60	84	32010	N.D.	
21) Acrylonitrile	0.00	53	0	N.D.	
22) t12dichlorte	0.00	96	0	N.D.	
23) tbutylalcohol	4.81	59	10787	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	5.33	57	42560	0.0041 mg/kg	96
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	5.59	43	1467	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	6.22	77	3744	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	6.30	72	6139	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	6.65	42	3904	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321164.D Vial: 22
Acq On : 5 Sep 2019 17:01 Operator: RLD-DGS
Sample : 163979,321164, Inst : VMS4
Misc : 5.13g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 17:22:08 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	0.00	83	0	N.D.	
40) 111trichlota	0.00	97	0	N.D.	
42) Cyclohexane	6.92	56	23862	0.0022 mg/kg	96
43) Carbtetraclo	0.00	119	0	N.D.	
44) 11dicloprope	0.00	110	0	N.D.	
46) Benzene	7.32	78	34362	0.0006 mg/kg	95
47) 12dichlorota	0.00	62	0	N.D.	
48) TAME	0.00	73	0	N.D.	
49) trichloroete	0.00	95	0	N.D.	
50) methylcyclohexane	8.36	83	39090	0.0027 mg/kg	88
51) 12dicloropra	0.00	63	0	N.D.	
52) 23dicl1propene	0.00	75	0	N.D.	
53) Dibromometha	0.00	93	0	N.D.	
54) methylmethacrylate	8.61	69	2271	0.0012 mg/kg#	46
55) 14dioxane	0.00	88	0	N.D.	
56) Bromodiclrma	0.00	83	0	N.D.	
57) 2Nitropropane	9.06	43	2314	N.D.	
58) c13dicloproe	0.00	75	0	N.D.	
59) 4Meth2Pentan	9.53	43	4895	N.D.	
61) Toluene	9.76	92	49086	0.0013 mg/kg	99
62) t13Dicloprop	0.00	75	0	N.D.	
63) ethylmethacrylate	10.09	69	1295	N.D.	
64) 112Triclotha	0.00	83	0	N.D.	
65) Tetrachlorte	0.00	166	0	N.D.	
66) 13Diclorpropa	0.00	76	0	N.D.	
68) 2Hexanone	10.64	43	3595	N.D.	
69) Clorodibrmta	0.00	129	0	N.D.	
70) 12Dibrometha	0.00	107	0	N.D.	
71) Chlorobenzen	0.00	112	0	N.D.	
72) 1Clhexane	11.59	91	1719	0.0010 mg/kg#	1
73) 1112Tetclota	0.00	131	0	N.D.	
74) Ethylbenzene	11.78	91	16931	N.D.	
75) m p-Xylene	11.95	106	19926	0.0008 mg/kg	97
76) o-Xylene	12.49	106	7691	N.D.	
77) Styrene	0.00	104	0	N.D.	
78) Bromoform	0.00	173	0	N.D.	
79) Isopropylben	0.00	105	0	N.D.	
81) cyclohexanone	13.15	55	1789	N.D.	
83) Bromobenzene	0.00	156	0	N.D.	
84) 1122Tetrclta	0.00	83	0	N.D.	
85) 123Triclproa	13.55	75	5153	N.D.	
86) 14dichloro2butene	0.00	53	0	N.D.	
87) n-Propylbenz	13.60	91	3342	N.D.	
88) 2chlorotolue	13.73	91	1204	N.D.	
89) 4chlorotolue	13.86	91	1891	N.D.	
90) 135Trimebenz	13.87	105	9731	N.D.	
91) tbutylbenzen	14.41	119	2651	N.D.	
92) 124Trimetben	14.41	105	87148	0.0017 mg/kg#	49
93) sbutylbenzen	14.69	105	1103	N.D.	
94) 13Diclorbenz	0.00	146	0	N.D.	
95) pIsopropylto	0.00	119	0	N.D.	
96) 14dichlorobe	0.00	146	0	N.D.	
97) 12dichlorobe	0.00	146	0	N.D.	
98) nButylbenzen	15.43	91	3277	N.D.	
99) 12dibromo3cl	0.00	157	0	N.D.	
100) 135Trichlorobenzene	0.00	180	0	N.D.	
101) 124Trichlobe	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321164.D Vial: 22
Acq On : 5 Sep 2019 17:01 Operator: RLD-DGS
Sample : 163979,321164, Inst : VMS4
Misc : 5.13g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 17:22:08 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) Hexachlorobu	0.00	225	0	N.D.	
103) Naphthalene	18.03	128	6752	N.D.	
104) 123Trichlben	0.00	180	0	N.D.	

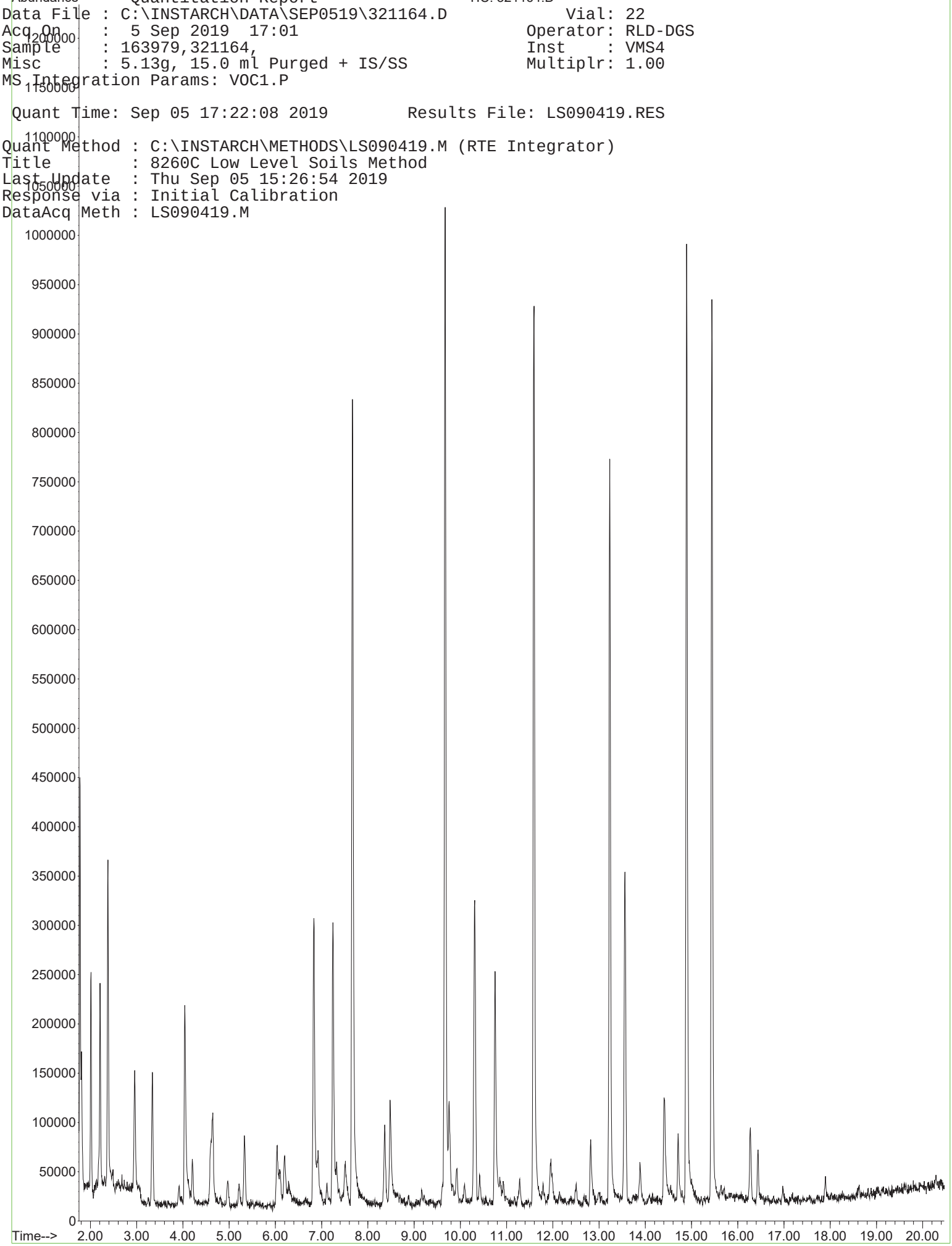
(#) = qualifier out of range (m) = manual integration

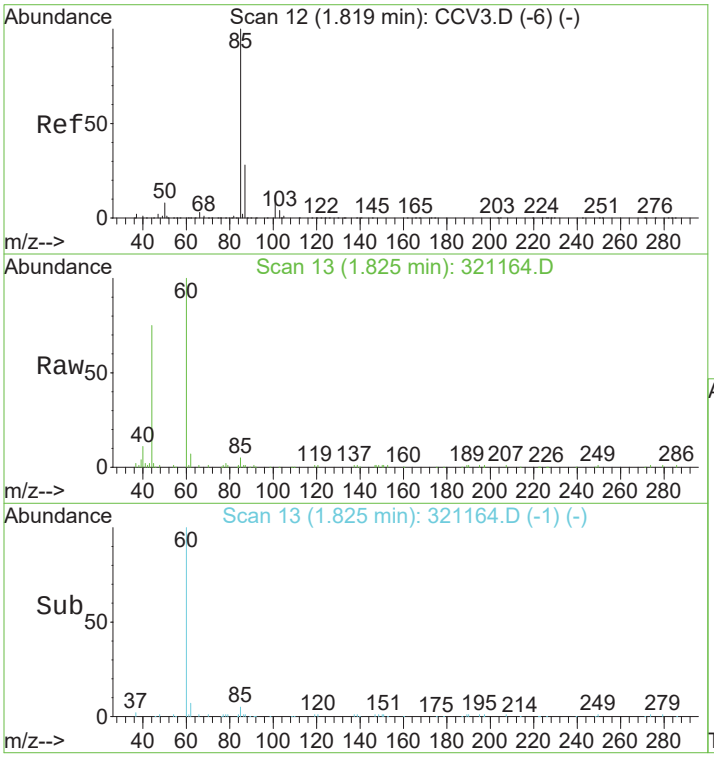
Abundance Quantitation Report TIC: 321164.D

Data File : C:\INSTARCH\DATA\SEP0519\321164.D Vial: 22
Acq On : 5 Sep 2019 17:01 Operator: RLD-DGS
Sample : 163979,321164, Inst : VMS4
Misc : 5.13g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 17:22:08 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

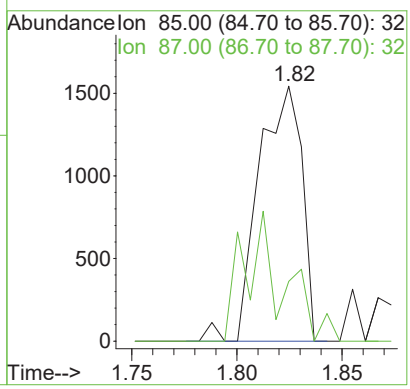




#2
Dichlorodi
Concen: 0.00 mg/kg
RT: 1.82 min Scan# 13
Delta R.T. 0.01 min
Lab File: 321164.D
Acq: 5 Sep 2019 17:01

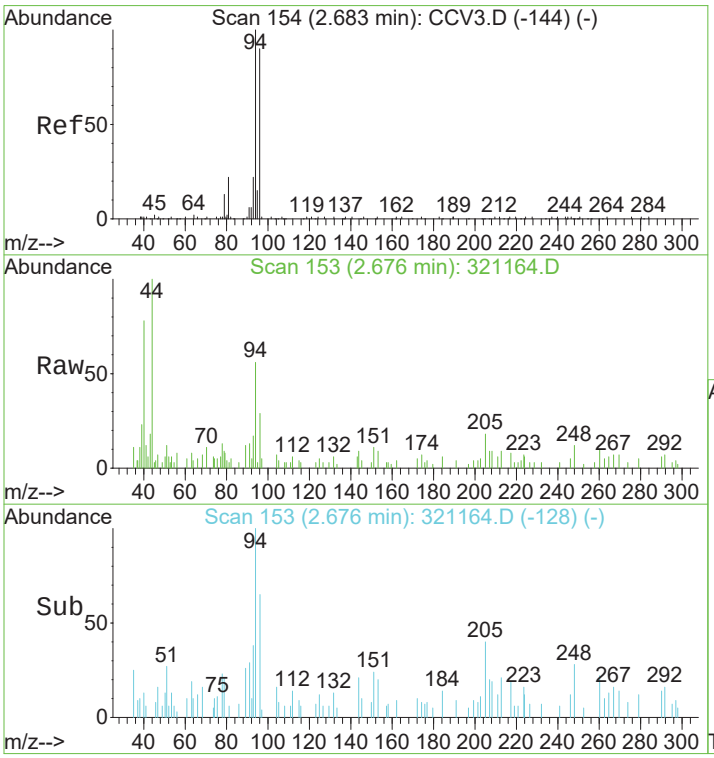
Tgt Ion: 85 Resp: 2199

Ion	Ratio	Lower	Upper
85	100		
87	46.3	10.8	50.8



Negative Library Identification

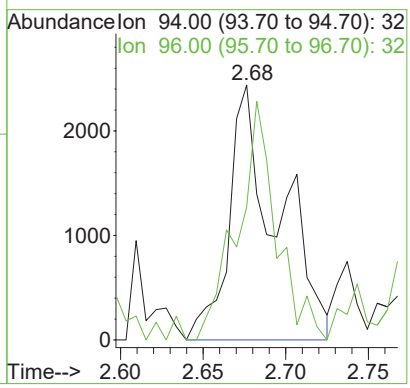
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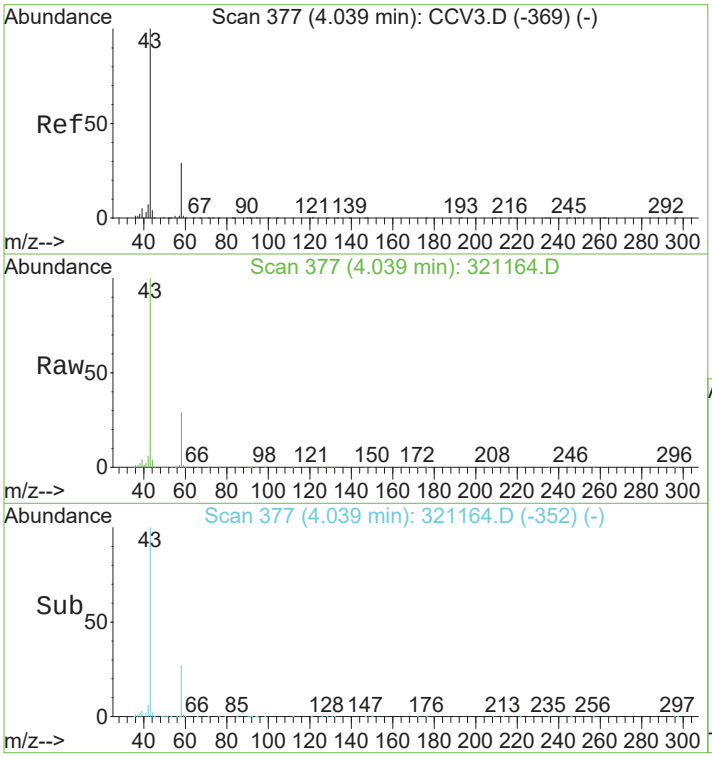


#5
Bromomethane
Concen: 0.00 mg/kg
RT: 2.68 min Scan# 153
Delta R.T. 0.00 min
Lab File: 321164.D
Acq: 5 Sep 2019 17:01

Tgt Ion: 94 Resp: 4998

Ion	Ratio	Lower	Upper
94	100		
96	74.8	74.0	114.0

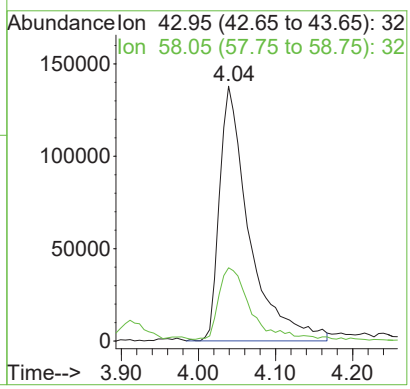


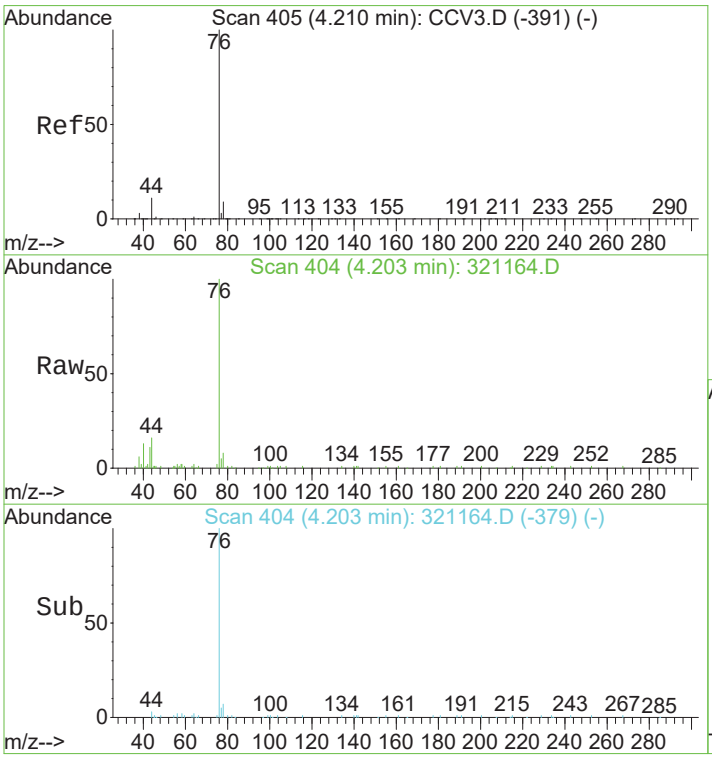


#15
Acetone
Concen: 0.14 mg/kg
RT: 4.04 min Scan# 377
Delta R.T. -0.00 min
Lab File: 321164.D
Acq: 5 Sep 2019 17:01

Tgt Ion: 43 Resp: 370248

Ion	Ratio	Lower	Upper
43	100		
58	29.5	9.4	49.4

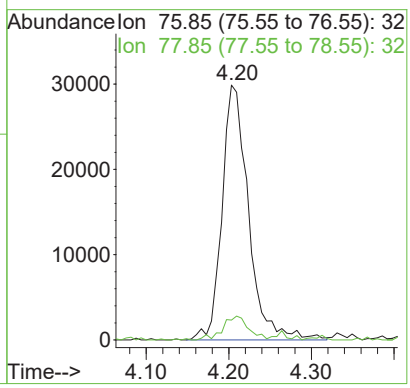


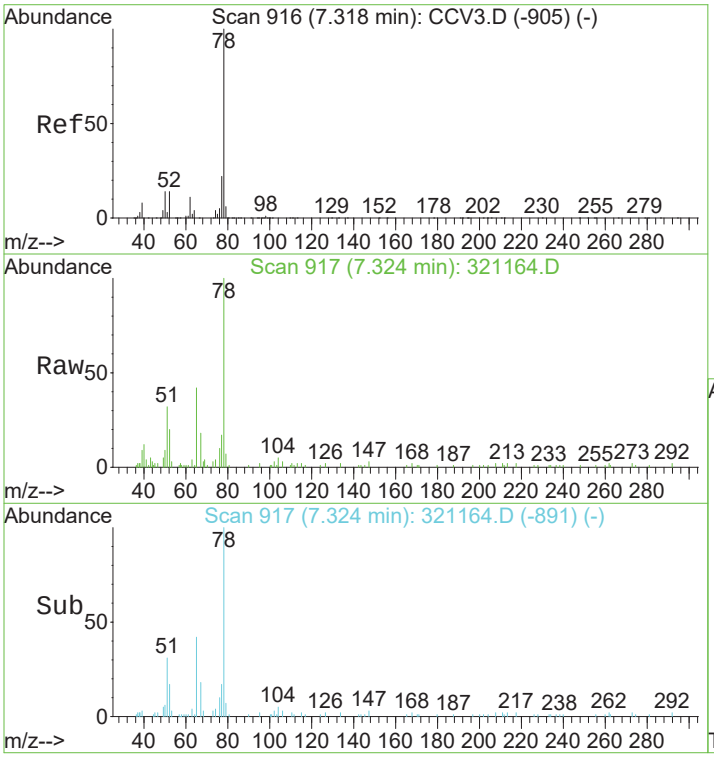


#17
Carbon Dislf
Concen: 0.00 mg/kg
RT: 4.20 min Scan# 404
Delta R.T. -0.00 min
Lab File: 321164.D
Acq: 5 Sep 2019 17:01

Tgt Ion: 76 Resp: 66620

Ion	Ratio	Lower	Upper
76	100		
78	9.1	0.0	28.5

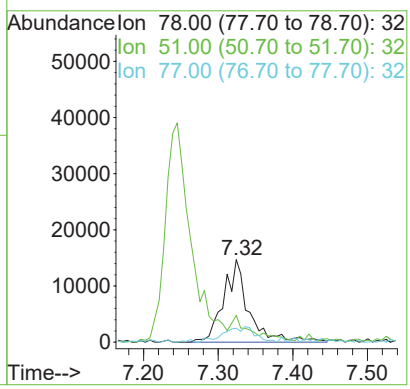


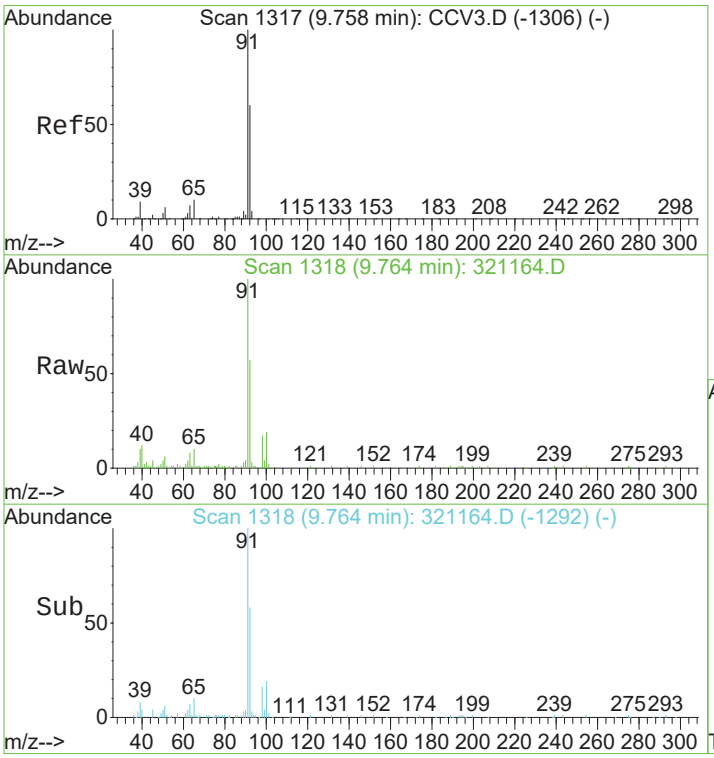


#46
Benzene
Concen: 0.00 mg/kg
RT: 7.32 min Scan# 917
Delta R.T. 0.01 min
Lab File: 321164.D
Acq: 5 Sep 2019 17:01

Tgt Ion: 78 Resp: 34362

Ion	Ratio	Lower	Upper
78	100		
51	22.3	0.0	36.9
77	22.9	3.0	43.0

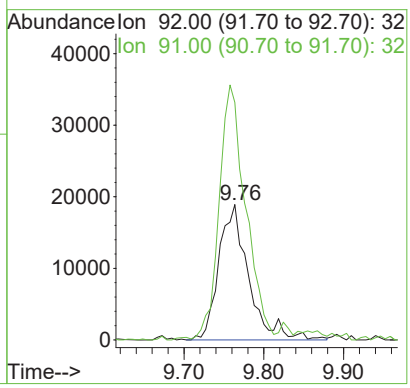


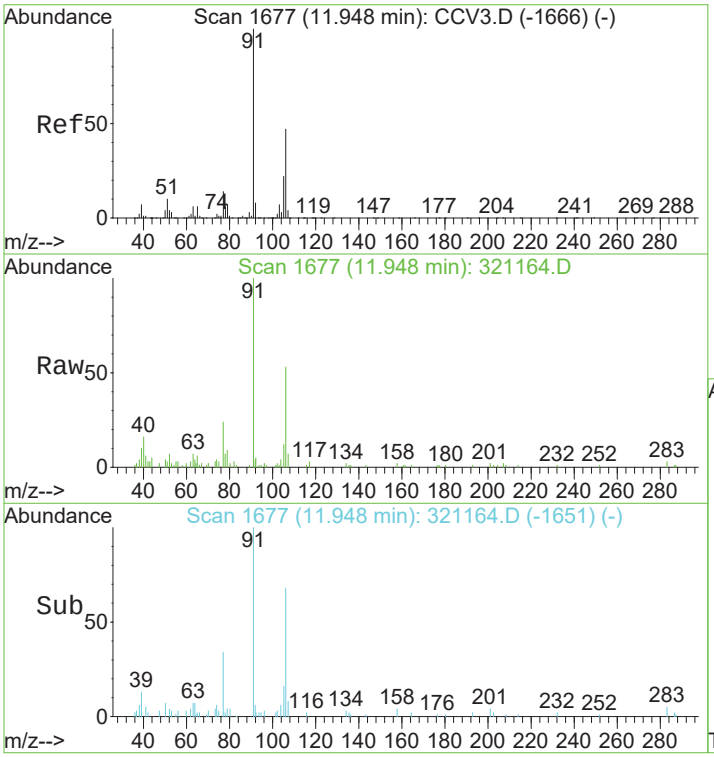


#61
Toluene
Concen: 0.00 mg/kg
RT: 9.76 min Scan# 1318
Delta R.T. 0.01 min
Lab File: 321164.D
Acq: 5 Sep 2019 17:01

Tgt Ion: 92 Resp: 49086

Ion	Ratio	Lower	Upper
92	100		
91	168.7	148.0	188.0

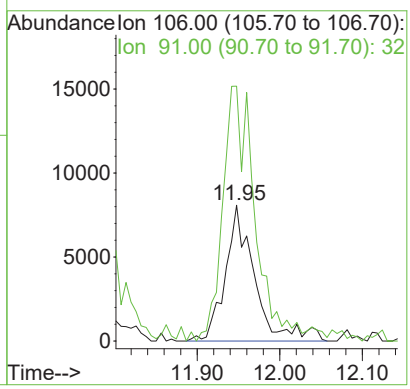


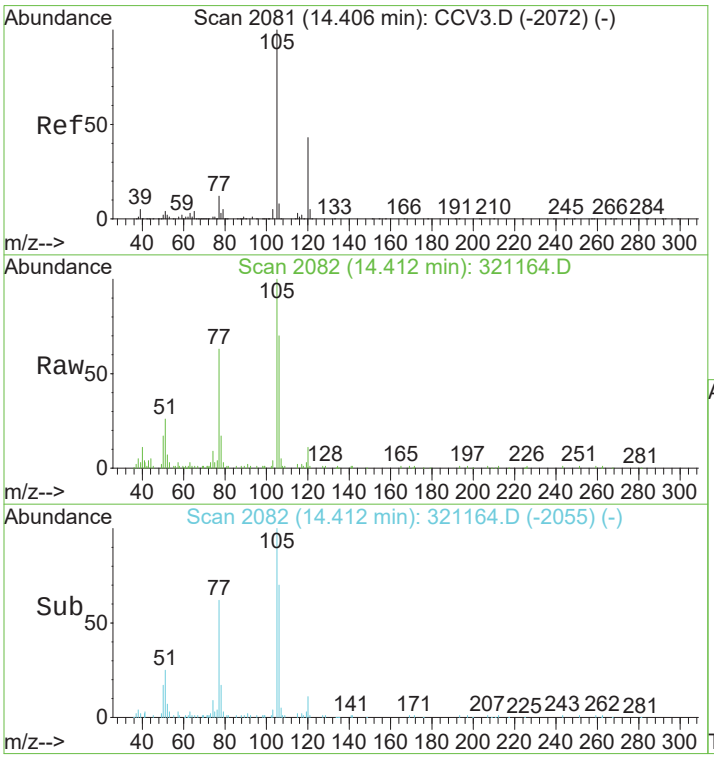


#75
m p-Xylene
Concen: 0.00 mg/kg
RT: 11.95 min Scan# 1677
Delta R.T. 0.01 min
Lab File: 321164.D
Acq: 5 Sep 2019 17:01

Tgt Ion:106 Resp: 19926

Ion	Ratio	Lower	Upper
106	100		
91	208.5	184.6	224.6

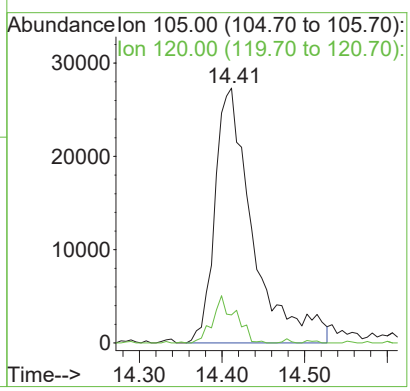




#92
124Trimetben
Concen: 0.00 mg/kg
RT: 14.41 min Scan# 2082
Delta R.T. 0.01 min
Lab File: 321164.D
Acq: 5 Sep 2019 17:01

Tgt Ion:105 Resp: 87148

Ion	Ratio	Lower	Upper
105	100		
120	11.2	24.5	64.5#



Library Search Compound Report

Data Path : C:\Instarch\Data\SEP0519\
Data File : 321164.D
Acq On : 5 Sep 2019 17:01
Operator : RLD-DGS
Sample : 163979,321164,
Misc : 5.13g, 15.0 ml Purged + IS/SS
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHODS\LS090419.M
Quant Title : 8260C Low Level Soils Method

TIC Library : C:\DATABASE\NBS75K.L
TIC Integration Parameters: VOC.P

****

Peak Number 1 Acetoacetic acid, 1-thio-, ... Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
1.77	0.01 mg/kg	680338	FLUOROBENZENE**IS	2309900	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetoacetic acid, 1-thio-, S-all...	158	C7H10O2S	015780-65-1	39
2	Propane	44	C3H8	000074-98-6	9
3	2-Butenal	70	C4H6O	004170-30-3	9
4	Propane	44	C3H8	000074-98-6	7
5	Propane	44	C3H8	000074-98-6	7

****

Peak Number 2 Isobutane Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.01	0.00 mg/kg	317201	FLUOROBENZENE**IS	2309900	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Isobutane	58	C4H10	000075-28-5	42
2	Isobutane	58	C4H10	000075-28-5	9
3	trans-2,3-Epoxynonane	142	C9H18O	056820-01-0	9
4	Isobutane	58	C4H10	000075-28-5	7
5	1-Propanol, 2-methyl-	74	C4H10O	000078-83-1	4

****

Peak Number 3 Butane Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.21	0.00 mg/kg	388295	FLUOROBENZENE**IS	2309900	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane	58	C4H10	000106-97-8	53
2	Butane	58	C4H10	000106-97-8	53
3	1-Propen-2-ol, acetate	100	C5H8O2	000108-22-5	42
4	Isobutane	58	C4H10	000075-28-5	9
5	Bethanechol Chloride	196	C7H17ClN2O2	000590-63-6	9

****

Peak Number 4 Acetaldehyde Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.38	0.01 mg/kg	733745	FLUOROBENZENE**IS	2309900	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetaldehyde	44	C2H4O	000075-07-0	9
2	Acetaldehyde	44	C2H4O	000075-07-0	9
3	Acetaldehyde	44	C2H4O	000075-07-0	9
4	Ethylene oxide	44	C2H4O	000075-21-8	5
5	Propane	44	C3H8	000074-98-6	4

****

Peak Number 5 Butane, 2-methyl- Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.96	0.00 mg/kg	468937	FLUOROBENZENE**IS	2309900	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2-methyl-	72	C5H12	000078-78-4	83
2	Butane, 2-methyl-	72	C5H12	000078-78-4	80
3	Butane, 2-methyl-	72	C5H12	000078-78-4	80
4	3-Buten-1-ol	72	C4H8O	000627-27-0	40
5	1-Propanol, 2-methyl-	74	C4H10O	000078-83-1	33

****

Peak Number 6 Pentane Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
3.34	0.00 mg/kg	328082	FLUOROBENZENE**IS	2309900	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane	72	C5H12	000109-66-0	72
2	Pentane	72	C5H12	000109-66-0	72
3	Pentane	72	C5H12	000109-66-0	72
4	1-Propanol, 2-methyl-	74	C4H10O	000078-83-1	53
5	1-Propanol, 2-methyl-	74	C4H10O	000078-83-1	42

****

Peak Number 7 Pentane, 2-methyl- Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
4.65	0.00 mg/kg	412845	FLUOROBENZENE**IS	2309900	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2-methyl-	86	C6H14	000107-83-5	90
2	Pentane, 2-methyl-	86	C6H14	000107-83-5	87
3	Pentane, 2-methyl-	86	C6H14	000107-83-5	68
4	Pentane, 2-methyl-	86	C6H14	000107-83-5	64
5	Pentane, 2-methyl-	86	C6H14	000107-83-5	53

****

Peak Number 8 Butanal Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
6.04	0.00 mg/kg	311127	FLUOROBENZENE**IS	2309900	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanal	72	C4H8O	000123-72-8	80
2	Butanal	72	C4H8O	000123-72-8	50
3	Butanal	72	C4H8O	000123-72-8	50

4	Butanal	72	C4H8O	000123-72-8	50
5	Butanal	72	C4H8O	000123-72-8	50

****

Peak Number 9 Silanol, trimethyl- Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
6.20	0.00 mg/kg	387222	FLUOROBENZENE**IS	2309900	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	45
2	Pentanoic acid, 4-oxo-, trimethy...	188	C8H16O3Si	055557-12-5	45
3	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	38
4	Acetic acid, (trimethylsilyl)-	132	C5H12O2Si	002345-38-2	9
5	3-(Methylthio)-2-butanone	118	C5H10OS	053475-15-3	9

****

Peak Number 10 Butanal, 3-methyl- Concentration Rank 20

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
7.51	0.00 mg/kg	171641	FLUOROBENZENE**IS	2309900	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanal, 3-methyl-	86	C5H10O	000590-86-3	43
2	Butanal, 3-methyl-	86	C5H10O	000590-86-3	43
3	Butanal, 3-methyl-	86	C5H10O	000590-86-3	38
4	Oxirane, trimethyl-	86	C5H10O	005076-19-7	38
5	Pentanal	86	C5H10O	000110-62-3	37

****

Peak Number 11 Pentanal Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
8.48	0.00 mg/kg	383001	FLUOROBENZENE**IS	2309900	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentanal	86	C5H10O	000110-62-3	50
2	Pentanal	86	C5H10O	000110-62-3	50
3	Butanal, 3-methyl-	86	C5H10O	000590-86-3	43
4	Urea, trimethyl-	102	C4H10N2O	000632-14-4	39
5	Butanal, 3-methyl-	86	C5H10O	000590-86-3	38

****

Peak Number 12 Arsenous acid, tris(trimeth... Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.31	0.01 mg/kg	810105	d5-CHLOROBENZENE*	2256920	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Arsenous acid, tris(trimethylsil...	342	C9H27AsO3Si3	055429-29-3	56
2	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	50
3	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	47
4	1H-Indole, 1-methyl-2-phenyl-	207	C15H13N	003558-24-5	39
5	1H-Indole, 5-methyl-2-phenyl-	207	C15H13N	013228-36-9	38

****

Peak Number 13 Hexanal Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.75	0.01 mg/kg	844499	d5-CHLOROBENZENE*	2256920	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexanal	100	C6H12O	000066-25-1	81
2	Hexanal	100	C6H12O	000066-25-1	76
3	Hexanal	100	C6H12O	000066-25-1	64
4	Hexanal	100	C6H12O	000066-25-1	53
5	Hexanal	100	C6H12O	000066-25-1	50

****

Peak Number 14 Heptanal Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
12.82	0.00 mg/kg	311683	d5-CHLOROBENZENE*	2256920	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptanal	114	C7H14O	000111-71-7	95
2	Heptanal	114	C7H14O	000111-71-7	93
3	Heptanal	114	C7H14O	000111-71-7	86
4	Heptanal	114	C7H14O	000111-71-7	72
5	Cyclobutanone, 2,3,3,4-tetramethyl-	126	C8H14O	053907-62-3	47

****

Peak Number 15 Cyclotetrasiloxane, octamet... Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
13.56	0.01 mg/kg	881962	d4-1,4-DICHLOROBE	2429660	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	90
2	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	50
3	Benzene, 1-phenyl-4-(2-cyano-2-p...	281	C21H15N	027869-56-3	9
4	1,3,5,7-Tetraethylbicyclo[3.3.1]...	310	C8H22O5Si4	073420-21-0	9
5	4-Nitro-4'-chlorodiphenylsulphoxide	281	C12H8ClNO3S	024535-53-3	9

****

Peak Number 16 4-Heptenal, (Z)- Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
14.71	0.00 mg/kg	191180	d4-1,4-DICHLOROBE	2429660	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4-Heptenal, (Z)-	112	C7H12O	006728-31-0	50
2	Cyclopropanecarboxylic acid	86	C4H6O2	001759-53-1	50
3	4-Heptenal, (Z)-	112	C7H12O	006728-31-0	42
4	2-Ethylacrolein	84	C5H8O	000922-63-4	40
5	2-Penten-1-ol, (Z)-	86	C5H10O	001576-95-0	37

****

Peak Number 17 Benzene-1,2,3,4-d4-, 5,6-di... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
15.44	0.02 mg/kg	2419300	d4-1,4-DICHLOROBE	2429660	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual

1	Benzene-1,2,3,4-d4-, 5,6-dichloro-	150	C6Cl2D4	002199-69-1	91
2	1,4-Dichlorobenzene-d4	150	C6Cl2D4	003855-82-1	91
3	Benzaldehyde, 2-hydroxy-3-methoxy-	152	C8H8O3	000148-53-8	25
4	Acenaphthylene	152	C12H8	000208-96-8	10
5	9-Borabicyclo[3.3.1]nonane, 9-et...	150	C10H19B	052102-17-7	9

****

Peak Number 18 4-Hydroxymandelic acid, eth... Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
16.27	0.00 mg/kg	204545	d4-1,4-DICHLOROBE	2429660	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	000000-00-0	64
2	Butanamide, 2,2,3,3,4,4,4-heptaf...	493	C18H26F7NO3Si2	055471-01-7	64
3	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	50
4	11H-Dibenzo[b,E][1,4]diazepin-11...	267	C16H17N3O	013450-73-2	46
5	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	45

****

Peak Number 19 Trimethylsilyl ether of gly... Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
18.63	0.00 mg/kg	501155	d4-1,4-DICHLOROBE	2429660	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Trimethylsilyl ether of glycerol	308	C12H32O3Si3	006787-10-6	10
2	Butanoic acid, 3-methyl-2-[(trim...	262	C11H26O3Si2	055124-92-0	10
3	Trimethylsilyl ether of glycerol	308	C12H32O3Si3	006787-10-6	10
4	3-Trimethylsiloxyvaleric acid, t...	262	C11H26O3Si2	079628-62-9	10
5	2,3,4-Trihydroxybutyric acid, te...	424	C16H40O5Si4	000000-00-0	10

****

Peak Number 20 Pyrimido[1,6-a]indole, 7-ch... Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
19.80	0.00 mg/kg	319040	d4-1,4-DICHLOROBE	2429660	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pyrimido[1,6-a]indole, 7-chloro-...	234	C13H15ClN2	022106-14-5	14
2	5-Methoxy-.alpha.,.alpha.,.alpha...	191	C8H8F3NO	000349-55-3	10
3	2-Methylpyrazolo[3,4-d]tetrazolo...	191	C6H5N7O	000000-00-0	10
4	5-Nitro-2-furaldoxime	156	C5H4N2O4	000555-15-7	10
5	2-Ethoxy-1-methyl-6-oxo-1,2-azap...	191	C7H14NO3P	093989-00-5	10

LS090419.M Tue Sep 10 12:35:58 2019

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321165.D Vial: 23
Acq On : 5 Sep 2019 17:30 Operator: RLD-DGS
Sample : 163979,321165, Inst : VMS4
Misc : 6.12g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 17:51:12 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.67	96	1096841	0.02 mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	885752	0.02 mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.89	152	470510	0.02 mg/kg	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.83	113	290623	0.021 mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 105 %		
45) SURR12DCAd4	7.25	102	63747	0.023 mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 115 %		
60) SURRd8Tolule	9.67	98	1137359	0.020 mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %		
82) SURR4BrFBenz	13.23	95	455478	0.020 mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 100 %		
Target Compounds					Qvalue
2) Dichlorodi	1.81	85	3081	0.0012 mg/kg#	44
3) Chloromethan	2.07	50	1142	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	2.69	94	3554	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.04	43	285856	0.0888 mg/kg	94
16) Iodomethane	4.14	142	4512	0.0025 mg/kg	89
17) Carbon Dislf	4.20	76	137751	0.0029 mg/kg	99
18) allylchloride	4.50	41	1782	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	4.61	84	28678	N.D.	
21) Acrylonitrile	0.00	53	0	N.D.	
22) t12dichlorte	0.00	96	0	N.D.	
23) tbutylalcohol	4.81	59	24149	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	5.34	57	52247	0.0041 mg/kg	91
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	5.59	43	1147	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	6.19	59	2183	N.D.	
31) 22dichloropr	6.20	77	5931	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	6.30	72	8938	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	6.64	42	3009	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321165.D Vial: 23
Acq On : 5 Sep 2019 17:30 Operator: RLD-DGS
Sample : 163979,321165, Inst : VMS4
Misc : 6.12g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 17:51:12 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	0.00	83	0	N.D.	
40) 111trichlota	0.00	97	0	N.D.	
42) Cyclohexane	6.93	56	28651	0.0022 mg/kg	93
43) Carbtetraclo	0.00	119	0	N.D.	
44) 11dicloprope	0.00	110	0	N.D.	
46) Benzene	7.32	78	26680	0.0004 mg/kg#	80
47) 12dichlorota	0.00	62	0	N.D.	
48) TAME	0.00	73	0	N.D.	
49) trichloroete	0.00	95	0	N.D.	
50) methylcyclohexane	8.37	83	53030	0.0029 mg/kg	95
51) 12dicloropra	0.00	63	0	N.D.	
52) 23dicl1propene	0.00	75	0	N.D.	
53) Dibromometha	0.00	93	0	N.D.	
54) methylmethacrylate	8.58	69	1182	0.0011 mg/kg#	46
55) 14dioxane	0.00	88	0	N.D.	
56) Bromodiclrma	0.00	83	0	N.D.	
57) 2Nitropropane	9.00	43	1443	N.D.	
58) c13dicloproe	0.00	75	0	N.D.	
59) 4Meth2Pentan	9.51	43	1169	N.D.	
61) Toluene	9.76	92	48902	0.0011 mg/kg	99
62) t13Dicloprop	0.00	75	0	N.D.	
63) ethylmethacrylate	10.07	69	2099	N.D.	
64) 112Triclotha	10.30	83	1268	N.D.	
65) Tetrachlorte	0.00	166	0	N.D.	
66) 13Diclorpropa	0.00	76	0	N.D.	
68) 2Hexanone	10.64	43	3851	N.D.	
69) Clorodibrmta	0.00	129	0	N.D.	
70) 12Dibrometha	0.00	107	0	N.D.	
71) Chlorobenzen	0.00	112	0	N.D.	
72) 1Clhexane	11.58	91	2409	0.0010 mg/kg#	1
73) 1112Tetclota	0.00	131	0	N.D.	
74) Ethylbenzene	11.80	91	11727	N.D.	
75) m p-Xylene	11.95	106	20573	N.D.	
76) o-Xylene	12.50	106	7495	N.D.	
77) Styrene	0.00	104	0	N.D.	
78) Bromoform	0.00	173	0	N.D.	
79) Isopropylben	13.01	105	2003	N.D.	
81) cyclohexanone	13.12	55	1494	N.D.	
83) Bromobenzene	0.00	156	0	N.D.	
84) 1122Tetrclta	0.00	83	0	N.D.	
85) 123Triclproa	13.57	75	5562	N.D.	
86) 14dichloro2butene	0.00	53	0	N.D.	
87) n-Propylbenz	13.61	91	4122	N.D.	
88) 2chlorotolue	13.72	91	1351	N.D.	
89) 4chlorotolue	13.87	91	1984	N.D.	
90) 135Trimebenz	13.85	105	13646	N.D.	
91) tbutylbenzen	14.42	119	2771	N.D.	
92) 124Trimetben	14.41	105	67191	0.0010 mg/kg#	54
93) sbutylbenzen	14.66	105	1898	N.D.	
94) 13Diclorbenz	14.89	146	1455	N.D.	
95) pIsopropylto	14.88	119	1011	N.D.	
96) 14dichlorobe	14.89	146	1455	N.D.	
97) 12dichlorobe	15.45	146	1288	N.D.	
98) nButylbenzen	15.46	91	3437	N.D.	
99) 12dibromo3cl	0.00	157	0	N.D.	
100) 135Trichlorobenzene	0.00	180	0	N.D.	
101) 124Trichlobe	17.72	180	1065	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321165.D Vial: 23
Acq On : 5 Sep 2019 17:30 Operator: RLD-DGS
Sample : 163979,321165, Inst : VMS4
Misc : 6.12g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 17:51:12 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) Hexachlorobu	0.00	225	0	N.D.	
103) Naphthalene	18.02	128	5173	N.D.	
104) 123Trichlben	18.34	180	1019	N.D.	

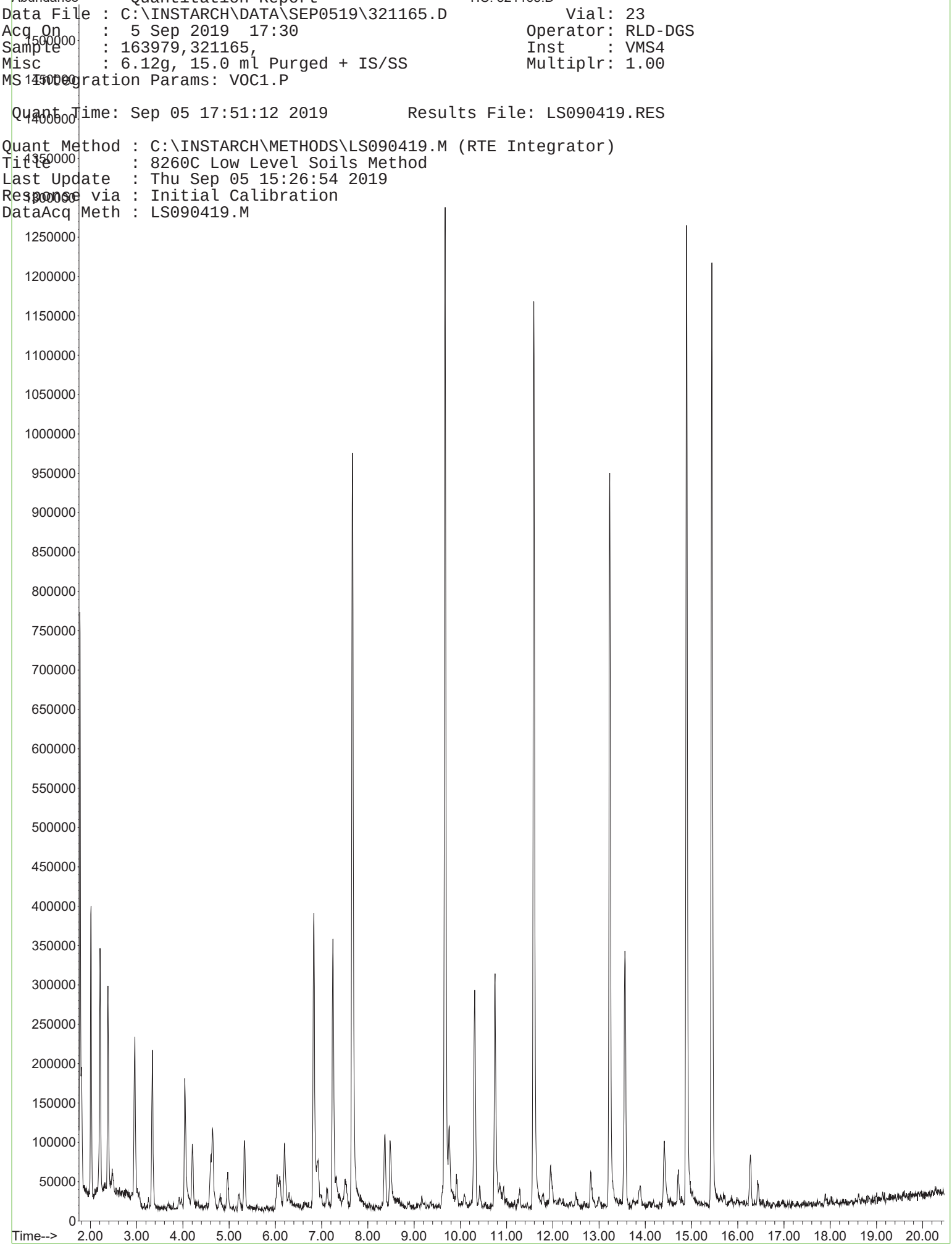
(#) = qualifier out of range (m) = manual integration

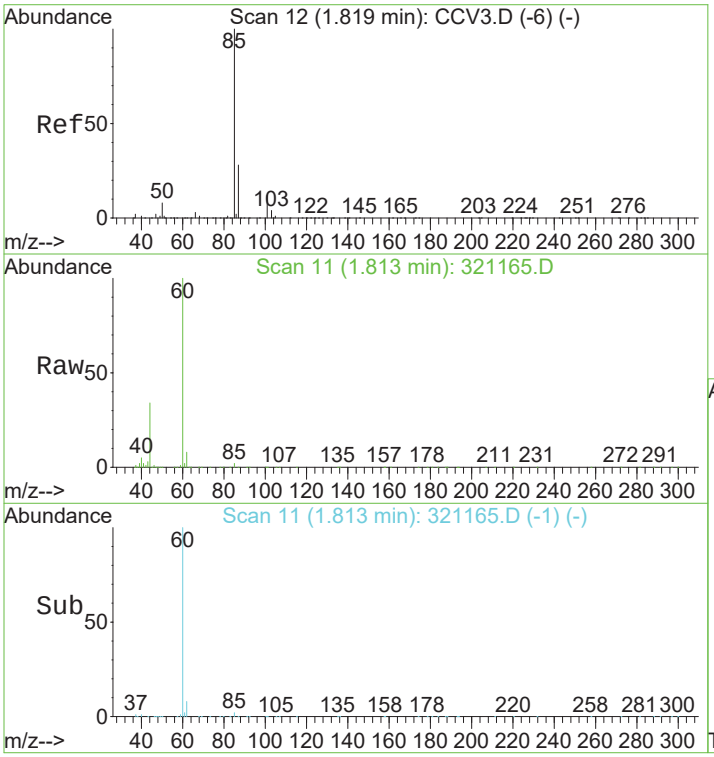
Abundance Quantitation Report TIC: 321165.D

Data File : C:\INSTARCH\DATA\SEP0519\321165.D Vial: 23
Acq On : 5 Sep 2019 17:30 Operator: RLD-DGS
Sample : 163979,321165, Inst : VMS4
Misc : 6.12g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 17:51:12 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

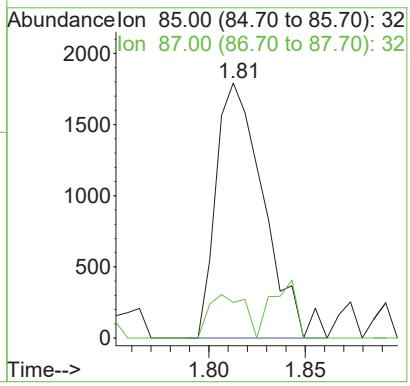




#2
Dichlorodi
Concen: 0.00 mg/kg
RT: 1.81 min Scan# 11
Delta R.T. -0.01 min
Lab File: 321165.D
Acq: 5 Sep 2019 17:30

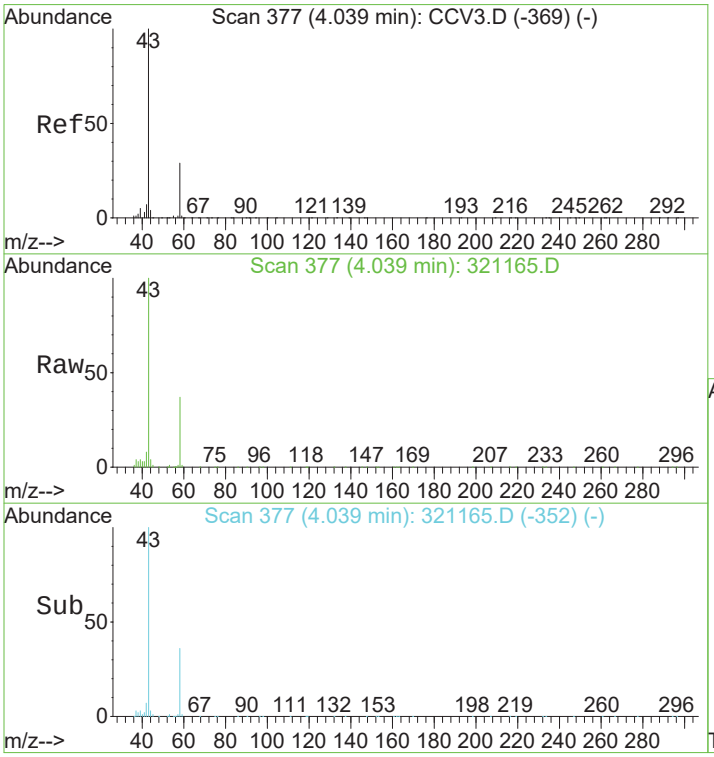
Tgt Ion: 85 Resp: 3081

Ion	Ratio	Lower	Upper
85	100		
87	0.0	10.8	50.8#



Negative Library Identification

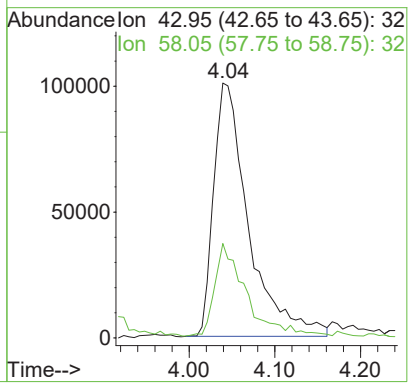
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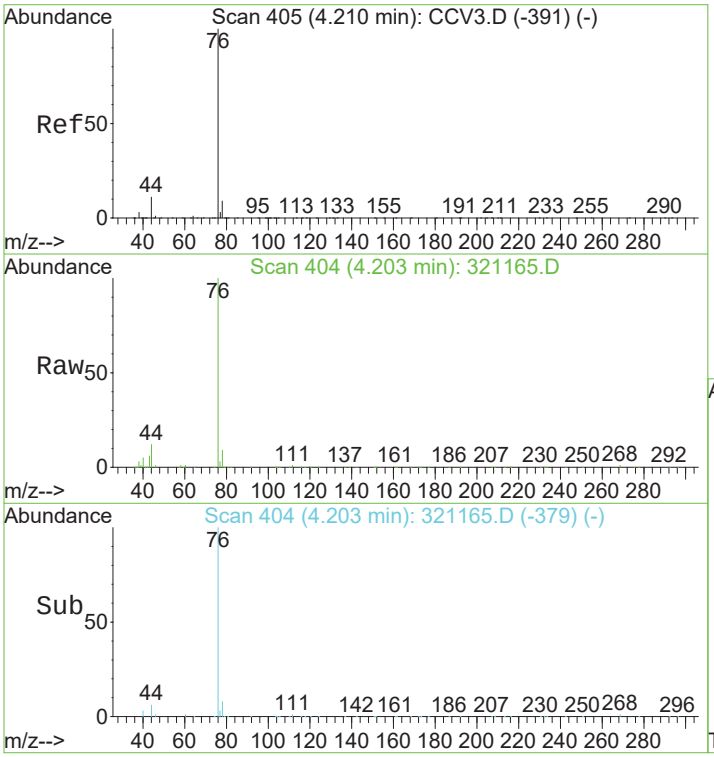


#15
Acetone
Concen: 0.09 mg/kg
RT: 4.04 min Scan# 377
Delta R.T. 0.00 min
Lab File: 321165.D
Acq: 5 Sep 2019 17:30

Tgt Ion: 43 Resp: 285856

Ion	Ratio	Lower	Upper
43	100		
58	32.4	9.4	49.4

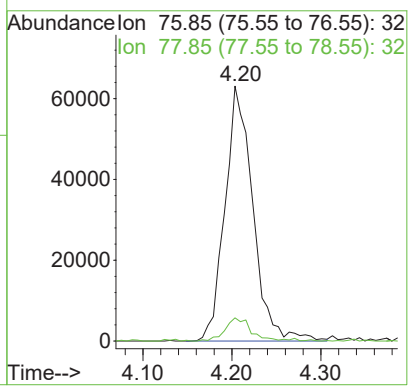


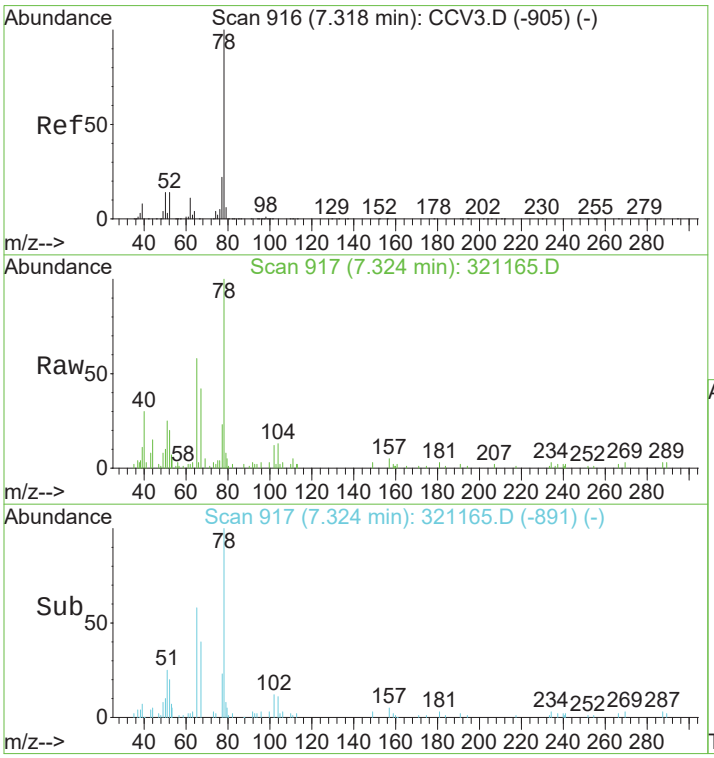


#17
Carbon Dislf
Concen: 0.00 mg/kg
RT: 4.20 min Scan# 404
Delta R.T. -0.00 min
Lab File: 321165.D
Acq: 5 Sep 2019 17:30

Tgt Ion: 76 Resp: 137751

Ion	Ratio	Lower	Upper
76	100		
78	8.8	0.0	28.5

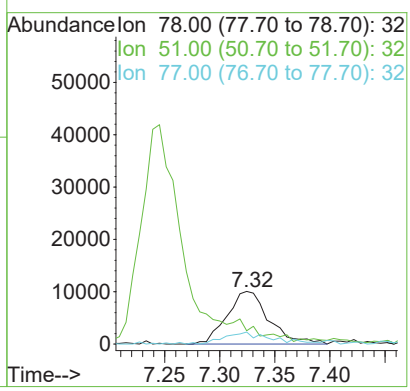


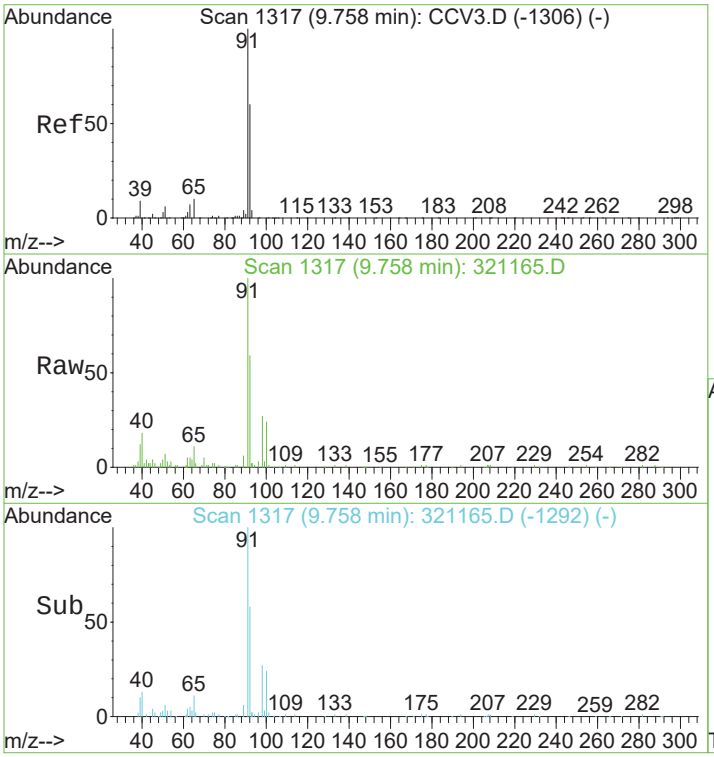


#46
Benzene
Concen: 0.00 mg/kg
RT: 7.32 min Scan# 917
Delta R.T. 0.01 min
Lab File: 321165.D
Acq: 5 Sep 2019 17:30

Tgt Ion: 78 Resp: 26680

Ion	Ratio	Lower	Upper
78	100		
51	0.0	0.0	36.9
77	25.6	3.0	43.0

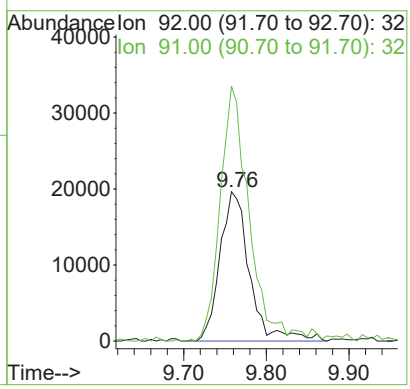


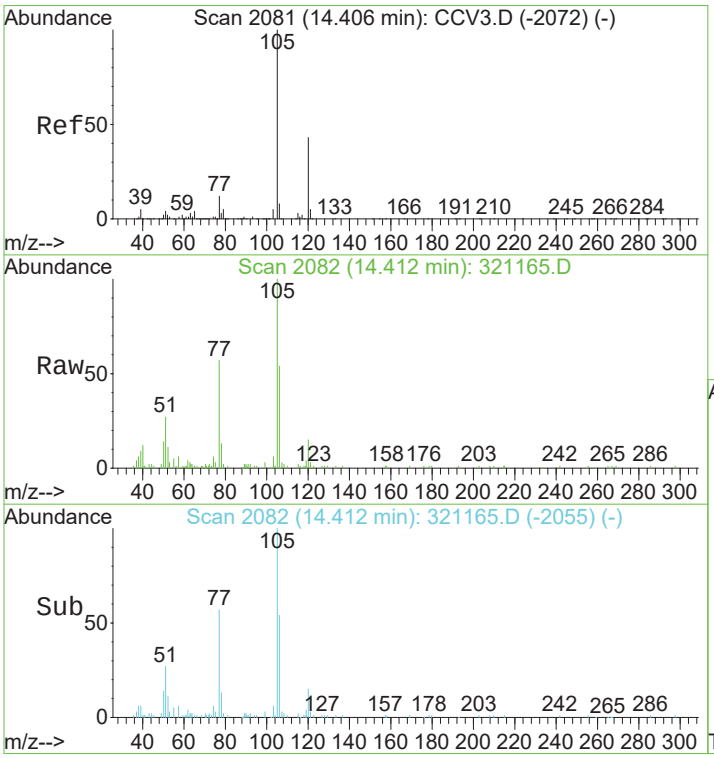


#61
Toluene
Concen: 0.00 mg/kg
RT: 9.76 min Scan# 1317
Delta R.T. -0.00 min
Lab File: 321165.D
Acq: 5 Sep 2019 17:30

Tgt Ion: 92 Resp: 48902

Ion	Ratio	Lower	Upper
92	100		
91	169.4	148.0	188.0

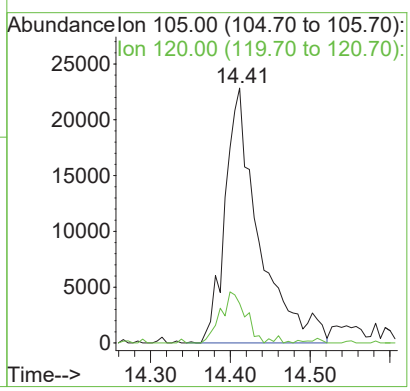




#92
124Trimetben
Concen: 0.00 mg/kg
RT: 14.41 min Scan# 2082
Delta R.T. 0.01 min
Lab File: 321165.D
Acq: 5 Sep 2019 17:30

Tgt Ion:105 Resp: 67191

Ion	Ratio	Lower	Upper
105	100		
120	14.7	24.5	64.5#



Library Search Compound Report

Data Path : C:\Instarch\Data\SEP0519\
Data File : 321165.D
Acq On : 5 Sep 2019 17:30
Operator : RLD-DGS
Sample : 163979,321165,
Misc : 6.12g, 15.0 ml Purged + IS/SS
ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHODS\LS090419.M
Quant Title : 8260C Low Level Soils Method

TIC Library : C:\DATABASE\NBS75K.L
TIC Integration Parameters: VOC.P

****

Peak Number 1 Isobutane Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.01	0.00 mg/kg	562978	FLUOROBENZENE**IS	2598370	7.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Isobutane	58	C4H10	000075-28-5	64
2	Isobutane	58	C4H10	000075-28-5	42
3	Propane, 1-chloro-2-methyl-	92	C4H9Cl	000513-36-0	9
4	Propane, 1-chloro-2-methyl-	92	C4H9Cl	000513-36-0	9
5	Isobutane	58	C4H10	000075-28-5	9

****

Peak Number 2 Butane Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.21	0.00 mg/kg	593630	FLUOROBENZENE**IS	2598370	7.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane	58	C4H10	000106-97-8	53
2	Butane	58	C4H10	000106-97-8	53
3	1-Propen-2-ol, acetate	100	C5H8O2	000108-22-5	42
4	Propane, 1-chloro-2-methyl-	92	C4H9Cl	000513-36-0	9
5	1-Propen-2-ol, acetate	100	C5H8O2	000108-22-5	9

****

Peak Number 3 Acetaldehyde Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.38	0.00 mg/kg	633547	FLUOROBENZENE**IS	2598370	7.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetaldehyde	44	C2H4O	000075-07-0	9
2	Acetaldehyde	44	C2H4O	000075-07-0	9
3	Acetaldehyde	44	C2H4O	000075-07-0	9
4	Nordoxepin	265	C18H19NO	000000-00-0	5
5	Ethylene oxide	44	C2H4O	000075-21-8	5

****

Peak Number 4 Butane, 2-methyl- Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.96	0.00 mg/kg	596323	FLUOROBENZENE**IS	2598370	7.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2-methyl-	72	C5H12	000078-78-4	87
2	Butane, 2-methyl-	72	C5H12	000078-78-4	80
3	Butane, 2-methyl-	72	C5H12	000078-78-4	78
4	3-Buten-2-one, 4-(dimethylamino)...	142	C7H14N2O	049582-63-0	33
5	3-Buten-1-ol	72	C4H8O	000627-27-0	28

****

Peak Number 5 Pentane Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
3.34	0.00 mg/kg	414386	FLUOROBENZENE**IS	2598370	7.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane	72	C5H12	000109-66-0	80
2	Pentane	72	C5H12	000109-66-0	80
3	Pentane	72	C5H12	000109-66-0	80
4	Oxirane, ethyl-	72	C4H8O	000106-88-7	50
5	Butane, 2-methyl-	72	C5H12	000078-78-4	33

****

Peak Number 6 Pentane, 2-methyl- Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
4.64	0.00 mg/kg	437878	FLUOROBENZENE**IS	2598370	7.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2-methyl-	86	C6H14	000107-83-5	76
2	Pentane, 2-methyl-	86	C6H14	000107-83-5	64
3	Pentane, 2-methyl-	86	C6H14	000107-83-5	64
4	Pentane, 2-methyl-	86	C6H14	000107-83-5	59
5	Pentane, 2-methyl-	86	C6H14	000107-83-5	59

****

Peak Number 7 Butanal Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
6.03	0.00 mg/kg	244478	FLUOROBENZENE**IS	2598370	7.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanal	72	C4H8O	000123-72-8	59
2	Butanal	72	C4H8O	000123-72-8	58
3	N-Formylamphetamine	163	C10H13NO	000000-00-0	56
4	Butanal	72	C4H8O	000123-72-8	53
5	Butanal	72	C4H8O	000123-72-8	53

****

Peak Number 8 Silanol, trimethyl- Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
6.19	0.00 mg/kg	365664	FLUOROBENZENE**IS	2598370	7.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	78
2	Acetic acid, (trimethylsilyl)-	132	C5H12O2Si	002345-38-2	64
3	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	56

4	Pentanoic acid, 4-oxo-, trimethy...	188	C8H16O3Si	055557-12-5	43
5	Dimexano	214	C4H6O2S4	001468-37-7	9

****

Peak Number 9 Butanal, 3-methyl- Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
7.51	0.00 mg/kg	162370	FLUOROBENZENE**IS	2598370	7.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanal, 3-methyl-	86	C5H10O	000590-86-3	70
2	Butanal, 3-methyl-	86	C5H10O	000590-86-3	62
3	Butanal, 3-methyl-	86	C5H10O	000590-86-3	52
4	Pentanal	86	C5H10O	000110-62-3	50
5	Pentanal	86	C5H10O	000110-62-3	50

****

Peak Number 10 Pentanal Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
8.48	0.00 mg/kg	367652	FLUOROBENZENE**IS	2598370	7.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentanal	86	C5H10O	000110-62-3	78
2	Pentanal	86	C5H10O	000110-62-3	78
3	Pentanal	86	C5H10O	000110-62-3	72
4	Butanal, 3-methyl-	86	C5H10O	000590-86-3	64
5	Pentanal	86	C5H10O	000110-62-3	64

****

Peak Number 11 Octane Concentration Rank 20

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
9.92	0.00 mg/kg	172803	d5-CHLOROBENZENE*	2817560	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octane	114	C8H18	000111-65-9	70
2	Octane	114	C8H18	000111-65-9	58
3	Octane	114	C8H18	000111-65-9	58
4	Octane	114	C8H18	000111-65-9	52
5	Heptane, 2,4-dimethyl-	128	C9H20	002213-23-2	43

****

Peak Number 12 Cyclotrisiloxane, hexamethyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.31	0.01 mg/kg	705267	d5-CHLOROBENZENE*	2817560	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	90
2	Arsenous acid, tris(trimethylsil...	342	C9H27AsO3Si3	055429-29-3	56
3	1H-Indole, 1-methyl-2-phenyl-	207	C15H13N	003558-24-5	38
4	2H-3,9a-Methano-1-benzoxepin, oc...	222	C15H26O	005956-09-2	37
5	2,4-Cyclohexadien-1-one, 3,5-bis...	222	C14H22O2	054965-43-4	36

****

Peak Number 13 Hexanal Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.75	0.01 mg/kg	1020760	d5-CHLOROBENZENE*	2817560	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexanal	100	C6H12O	000066-25-1	91
2	Hexanal	100	C6H12O	000066-25-1	90
3	Hexanal	100	C6H12O	000066-25-1	78
4	Hexanal	100	C6H12O	000066-25-1	78
5	Cyclobutanol, 2-ethyl-	100	C6H12O	035301-43-0	64

****

Peak Number 14 Benzene, 1,3-dimethyl- Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
11.95	0.00 mg/kg	222428	d5-CHLOROBENZENE*	2817560	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,3-dimethyl-	106	C8H10	000108-38-3	76
2	p-Xylene	106	C8H10	000106-42-3	68
3	Benzene, 1,3-dimethyl-	106	C8H10	000108-38-3	62
4	Ethylbenzene	106	C8H10	000100-41-4	58
5	p-Xylene	106	C8H10	000106-42-3	58

****

Peak Number 15 Heptanal Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
12.82	0.00 mg/kg	227788	d5-CHLOROBENZENE*	2817560	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptanal	114	C7H14O	000111-71-7	64
2	Heptanal	114	C7H14O	000111-71-7	40
3	Heptanal	114	C7H14O	000111-71-7	40
4	Heptanal	114	C7H14O	000111-71-7	38
5	cis-1,2-Cyclohexanediol	116	C6H12O2	001792-81-0	33

****

Peak Number 16 Cyclotetrasiloxane, octamet... Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
13.56	0.01 mg/kg	876731	d4-1,4-DICHLOROBE	3048440	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	83
2	Benzene, 1-phenyl-4-(2-cyano-2-p...	281	C21H15N	027869-56-3	59
3	3,6-Bis(N-dimethylamino)-9-ethyl...	281	C18H23N3	057103-04-5	42
4	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	37
5	6,7-Benzo-phenothiazine-5,5-dioxide	281	C16H11NO2S	000000-00-0	9

****

Peak Number 17 1,4-Dichlorobenzene-d4 Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
15.44	0.02 mg/kg	2952520	d4-1,4-DICHLOROBE	3048440	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual

1	1,4-Dichlorobenzene-d4	150	C6Cl2D4	003855-82-1 95
2	Benzene-1,2,3,4-d4-, 5,6-dichloro-	150	C6Cl2D4	002199-69-1 91
3	Biphenylene	152	C12H8	000259-79-0 9
4	9-Borabicyclo[3.3.1]nonane, 9-et...	150	C10H19B	052102-17-7 9
5	2H-1-Benzopyran-3-ol, 3,4-dihydro-	150	C9H10O2	021834-60-6 9

****

Peak Number 18 Hexane, 1-(hexyloxy)-3-methyl- Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
16.43	0.00 mg/kg	229053	d4-1,4-DICHLOROBE	3048440	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexane, 1-(hexyloxy)-3-methyl-	200	C13H28O	074421-18-4	50
2	Nonanal	142	C9H18O	000124-19-6	43
3	Heptane, 3,4-dimethyl-	128	C9H20	000922-28-1	43
4	2-Heptene	98	C7H14	000592-77-8	38
5	1H-Azepin-1-amine, hexahydro-	114	C6H14N2	005906-35-4	35

****

Peak Number 19 2-Keto-3-methylvalerate oxi... Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
18.61	0.00 mg/kg	350676	d4-1,4-DICHLOROBE	3048440	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Keto-3-methylvalerate oxime, b...	289	C12H27NO3Si2	074173-63-0	12
2	N-Cyano-N',N',N'',N''-tetramethy...	207	C8H13N7	074150-88-2	10
3	Phenanthridinium, 5,6-dimethyl-,...	335	C15H14IN	016511-48-1	10
4	N-(2-Acetylcyclopentylidene)cycl...	207	C13H21NO	000000-00-0	9
5	1-Benzopyrylium, 2-phenyl-	207	C15H11O	014051-53-7	9

****

Peak Number 20 Pyrido[2,3-d]pyrimidine, 4-... Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
19.60	0.00 mg/kg	546124	d4-1,4-DICHLOROBE	3048440	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pyrido[2,3-d]pyrimidine, 4-phenyl-	207	C13H9N3	028732-75-4	25
2	3,3-Diethoxy-1,1,1,5,5,5-hexamet...	296	C10H28O4Si3	000000-00-0	25
3	Phenanthridinium, 5,6-dimethyl-,...	335	C15H14IN	016511-48-1	23
4	Ethyl 4-(p-chloro-p-ethoxyphosph...	242	C8H16ClO4P	093938-97-7	23
5	Ethyl 4-(p-chloro-p-ethoxyphosph...	242	C8H16ClO4P	093938-97-7	23

LS090419.M Tue Sep 10 12:36:38 2019

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321166.D Vial: 24
Acq On : 5 Sep 2019 17:59 Operator: RLD-DGS
Sample : 163979,321166, Inst : VMS4
Misc : 4.59g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 18:20:13 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	907218	0.02 mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	584872	0.02 mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.90	152	197328	0.02 mg/kg	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.83	113	237780	0.021 mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 105 %		
45) SURR12DCAd4	7.25	102	51583	0.022 mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 110 %		
60) SURRd8Tolule	9.67	98	880234	0.019 mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 95 %		
82) SURR4BrFBenz	13.23	95	246526	0.026 mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 130 %#		
Target Compounds					Qvalue
2) Dichlorodi	1.82	85	1241	0.0011 mg/kg#	44
3) Chloromethan	2.01	50	13912	0.0010 mg/kg#	63
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	2.67	94	2091	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	3.83	56	1009	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.04	43	245476	0.0922 mg/kg	94
16) Iodomethane	4.13	142	2239	0.0024 mg/kg#	41
17) Carbon Dislf	4.21	76	60612	0.0015 mg/kg	95
18) allylchloride	4.48	41	1321	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	4.60	84	25689	N.D.	
21) Acrylonitrile	4.95	53	1542	N.D.	
22) t12dichlorte	0.00	96	0	N.D.	
23) tbutylalcohol	4.79	59	65003	0.0521 mg/kg	84
24) MtBE	0.00	73	0	N.D.	
25) Hexane	5.33	57	166575	0.0104 mg/kg	96
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	5.60	43	2516	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	6.06	59	1282	N.D.	
31) 22dichloropr	6.20	77	43036	0.0019 mg/kg#	46
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	6.30	72	4533	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	6.61	42	3566	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321166.D Vial: 24
Acq On : 5 Sep 2019 17:59 Operator: RLD-DGS
Sample : 163979,321166, Inst : VMS4
Misc : 4.59g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 18:20:13 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	6.93	56	133772	0.0070 mg/kg#	80
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	7.32	78	149200	0.0026 mg/kg#	80
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	7.34	73	2120	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	8.36	83	209214	0.0088 mg/kg	95
51)	12dicloropra	8.36	63	2254	N.D.	
52)	23dicl1propene	8.49	75	1076	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	8.61	69	10335	0.0022 mg/kg#	46
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	9.06	43	1067	N.D.	
58)	c13dicloproe	0.00	75	0	N.D.	
59)	4Meth2Pentan	9.54	43	6112	N.D.	
61)	Toluene	9.75	92	310294	0.0084 mg/kg	98
62)	t13Dicloprop	10.04	75	1180	N.D.	
63)	ethylmethacrylate	10.24	69	2920	N.D.	
64)	112Triclotha	10.30	83	1489	N.D.	
65)	Tetrachlorte	0.00	166	0	N.D.	
66)	13Diclorpropa	0.00	76	0	N.D.	
68)	2Hexanone	10.60	43	1382	N.D.	
69)	Clorodibrmta	0.00	129	0	N.D.	
70)	12Dibrometha	0.00	107	0	N.D.	
71)	Chlorobenzen	0.00	112	0	N.D.	
72)	1Clhexane	11.59	91	1383	0.0010 mg/kg#	1
73)	1112Tetclota	0.00	131	0	N.D.	
74)	Ethylbenzene	11.78	91	107750	0.0020 mg/kg	99
75)	m p-Xylene	11.94	106	186668	0.0094 mg/kg	97
76)	o-Xylene	12.50	106	64746	0.0032 mg/kg	94
77)	Styrene	12.51	104	4001	N.D.	
78)	Bromoform	0.00	173	0	N.D.	
79)	Isopropylben	13.02	105	10259	N.D.	
81)	cyclohexanone	13.15	55	1005	N.D.	
83)	Bromobenzene	0.00	156	0	N.D.	
84)	1122Tetrclta	0.00	83	0	N.D.	
85)	123Triclproa	13.51	75	1365	N.D.	
86)	14dichloro2butene	0.00	53	0	N.D.	
87)	n-Propylbenz	13.61	91	15545	N.D.	
88)	2chlorotolue	13.73	91	11162	N.D.	
89)	4chlorotolue	13.86	91	14078	N.D.	
90)	135Trimebenz	13.86	105	112816	0.0042 mg/kg	96
91)	tbutylbenzen	14.41	119	28920	0.0013 mg/kg#	67
92)	124Trimetben	14.40	105	249728	0.0091 mg/kg	98
93)	sbutylbenzen	14.65	105	4174	N.D.	
94)	13Diclorbenz	0.00	146	0	N.D.	
95)	pIsopropylto	14.87	119	5479	N.D.	
96)	14dichlorobe	0.00	146	0	N.D.	
97)	12dichlorobe	0.00	146	0	N.D.	
98)	nButylbenzen	15.45	91	9578	N.D.	
99)	12dibromo3cl	0.00	157	0	N.D.	
100)	135Trichlorobenzene	0.00	180	0	N.D.	
101)	124Trichlobe	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321166.D Vial: 24
Acq On : 5 Sep 2019 17:59 Operator: RLD-DGS
Sample : 163979,321166, Inst : VMS4
Misc : 4.59g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 18:20:13 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) Hexachlorobu	0.00	225	0	N.D.	
103) Naphthalene	18.02	128	6608	N.D.	
104) 123Trichlben	0.00	180	0	N.D.	

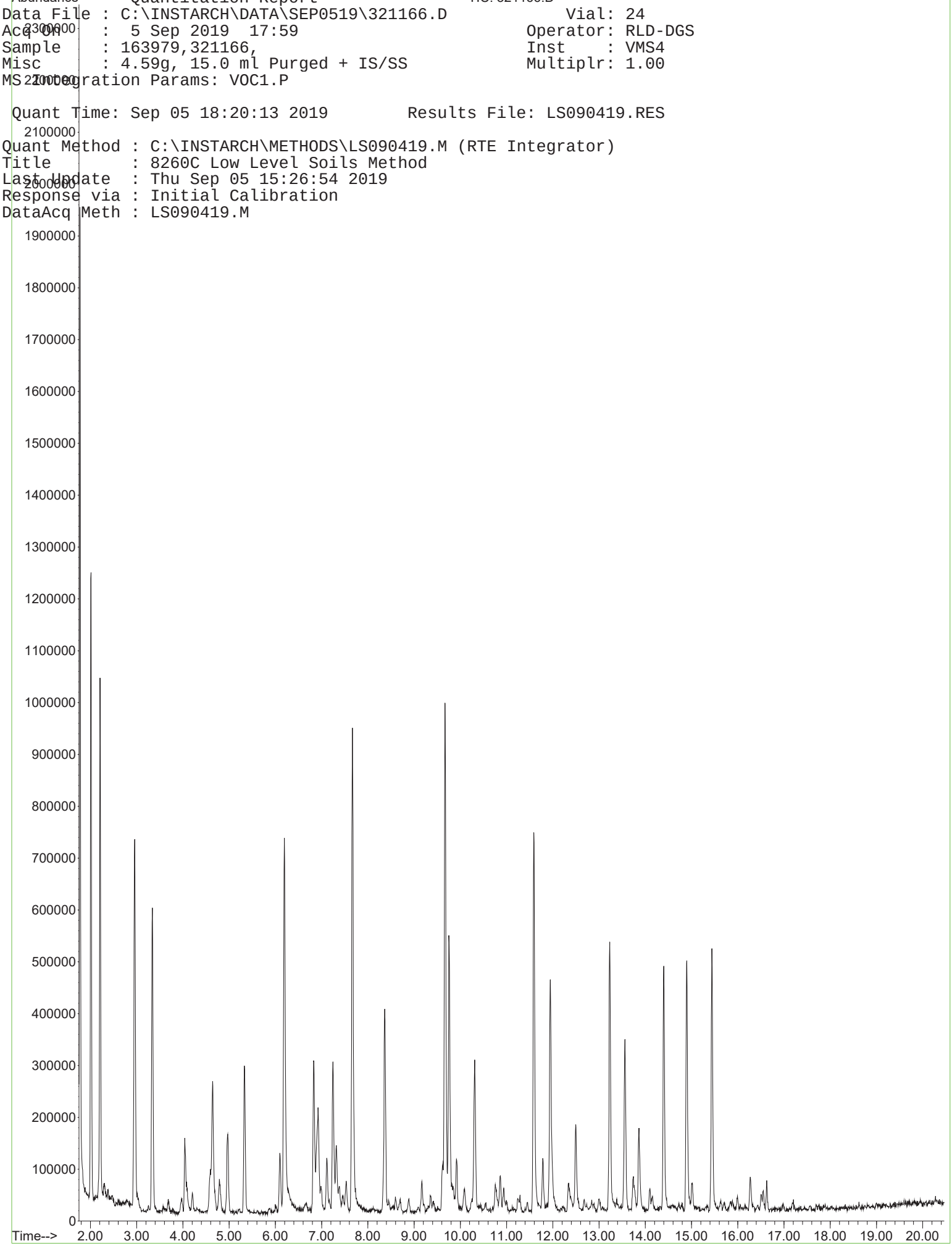
(#) = qualifier out of range (m) = manual integration

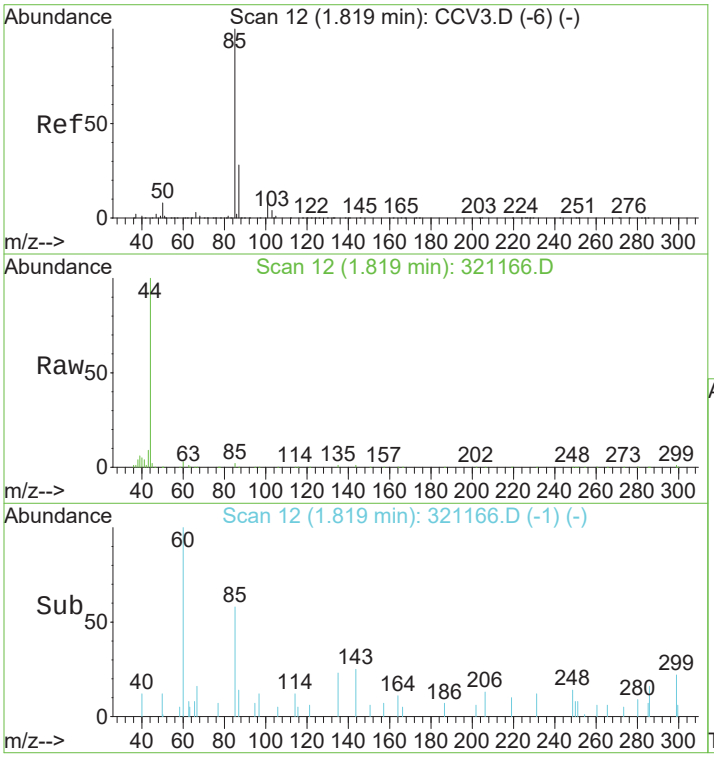
Abundance Quantitation Report TIC: 321166.D

Data File : C:\INSTARCH\DATA\SEP0519\321166.D Vial: 24
Acq On : 5 Sep 2019 17:59 Operator: RLD-DGS
Sample : 163979,321166, Inst : VMS4
Misc : 4.59g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 18:20:13 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

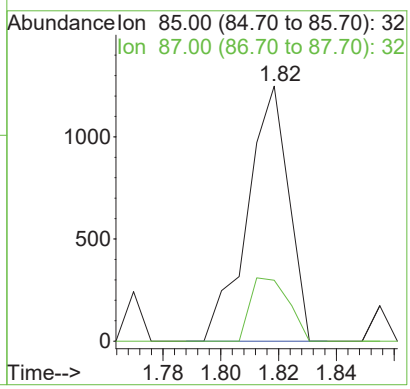




#2
Dichlorodi
Concen: 0.00 mg/kg
RT: 1.82 min Scan# 12
Delta R.T. 0.00 min
Lab File: 321166.D
Acq: 5 Sep 2019 17:59

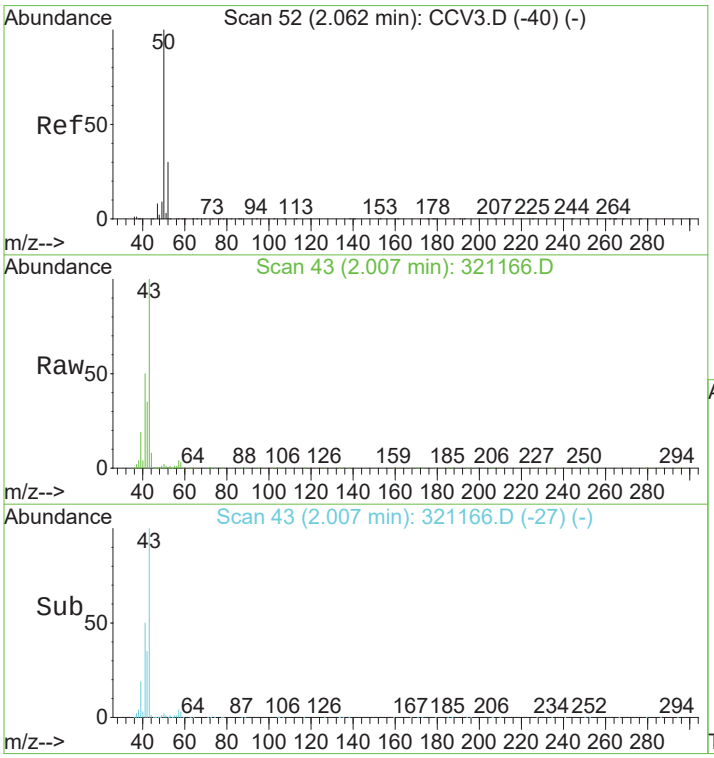
Tgt Ion: 85 Resp: 1241

Ion	Ratio	Lower	Upper
85	100		
87	0.0	10.8	50.8#



Negative Library Identification

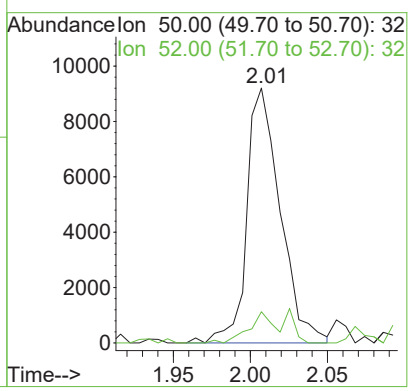
[redacted]



#3
Chloromethan
Concen: 0.00 mg/kg
RT: 2.01 min Scan# 43
Delta R.T. -0.05 min
Lab File: 321166.D
Acq: 5 Sep 2019 17:59

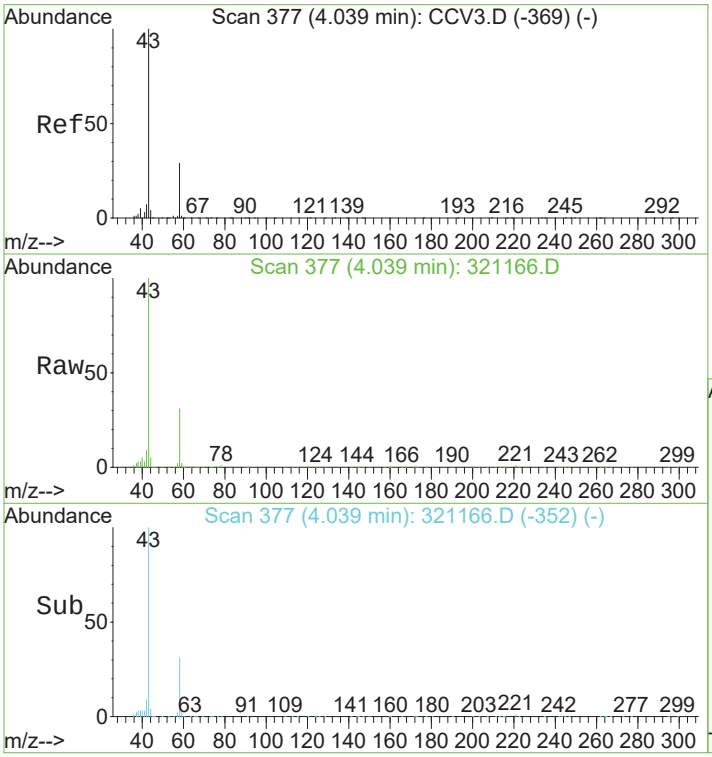
Tgt Ion: 50 Resp: 13912

Ion	Ratio	Lower	Upper
50	100		
52	12.9	13.9	53.9#



Negative Library Identification

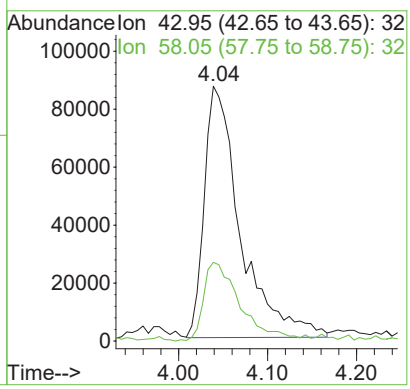
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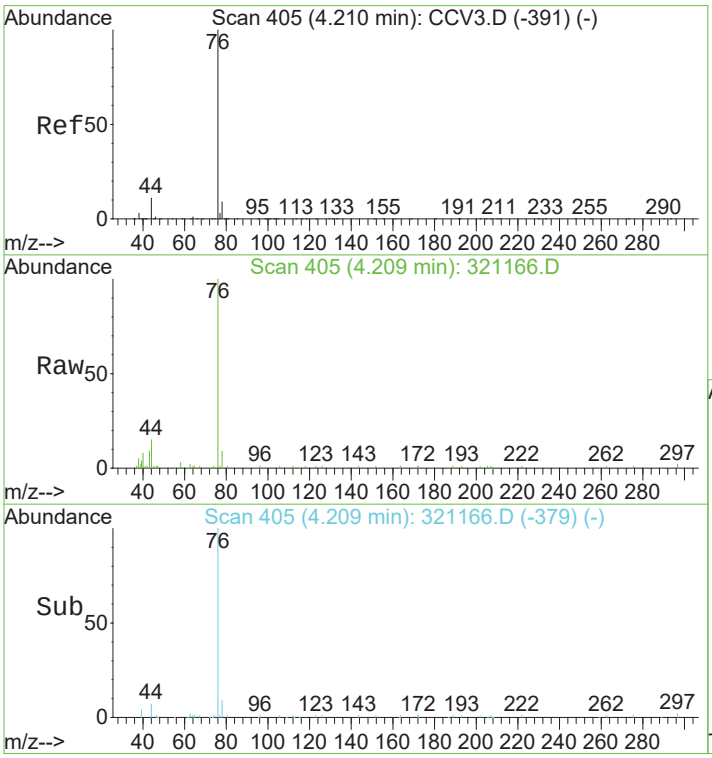


#15
Acetone
Concen: 0.09 mg/kg
RT: 4.04 min Scan# 377
Delta R.T. -0.00 min
Lab File: 321166.D
Acq: 5 Sep 2019 17:59

Tgt Ion: 43 Resp: 245476

Ion	Ratio	Lower	Upper
43	100		
58	32.9	9.4	49.4

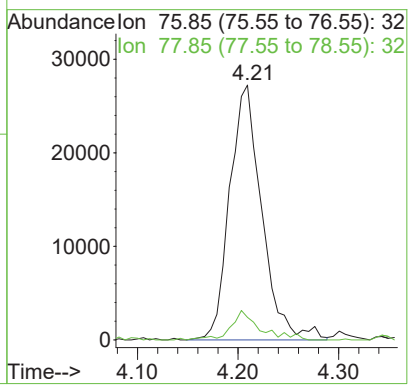


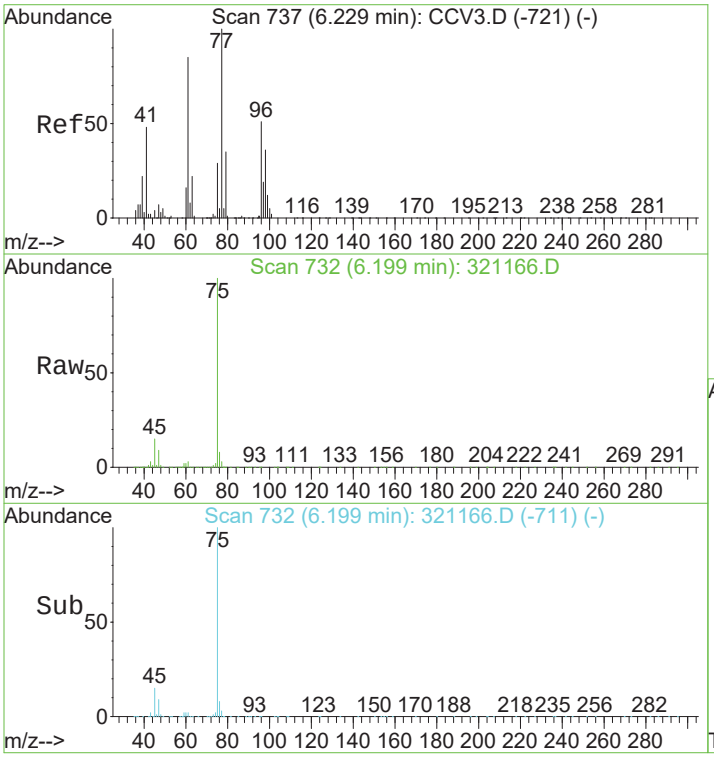


#17
Carbon Dislf
Concen: 0.00 mg/kg
RT: 4.21 min Scan# 405
Delta R.T. 0.01 min
Lab File: 321166.D
Acq: 5 Sep 2019 17:59

Tgt Ion: 76 Resp: 60612

Ion	Ratio	Lower	Upper
76	100		
78	10.4	0.0	28.5

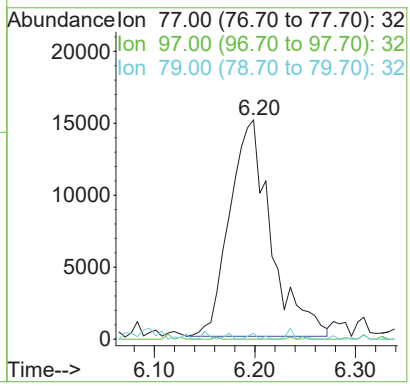




#31
22dichloropr
Concen: 0.00 mg/kg
RT: 6.20 min Scan# 732
Delta R.T. -0.02 min
Lab File: 321166.D
Acq: 5 Sep 2019 17:59

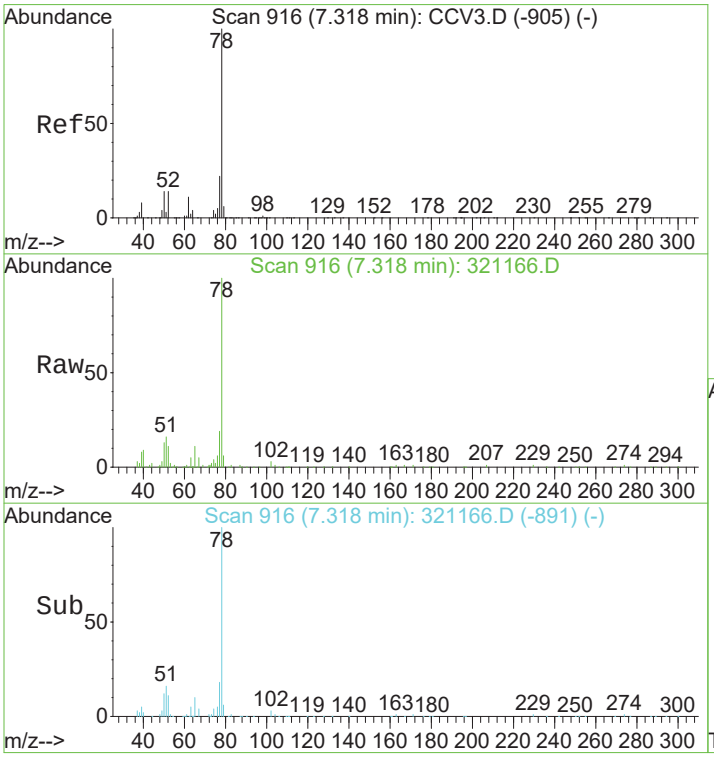
Tgt Ion: 77 Resp: 43036

Ion	Ratio	Lower	Upper
77	100		
97	0.0	1.8	41.8#
79	0.0	13.2	53.2#



Negative Library Identification

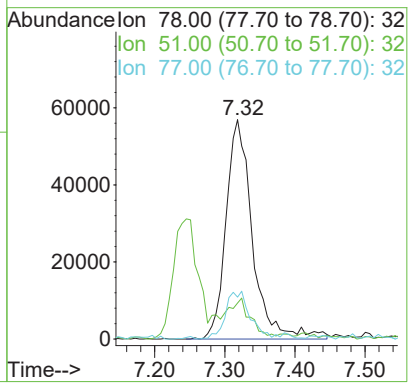
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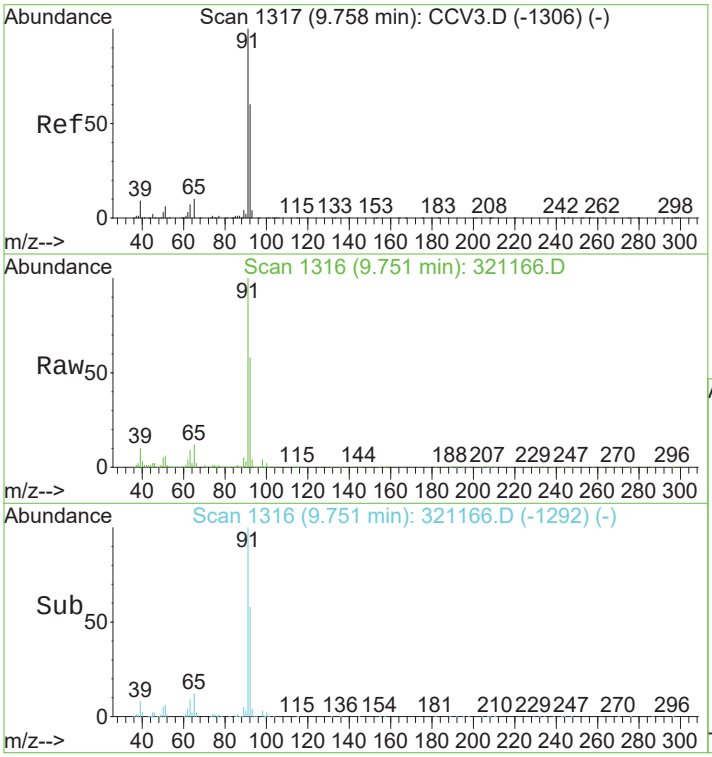


#46
Benzene
Concen: 0.00 mg/kg
RT: 7.32 min Scan# 916
Delta R.T. -0.00 min
Lab File: 321166.D
Acq: 5 Sep 2019 17:59

Tgt Ion: 78 Resp: 149200

Ion	Ratio	Lower	Upper
78	100		
51	0.0	0.0	36.9
77	20.4	3.0	43.0

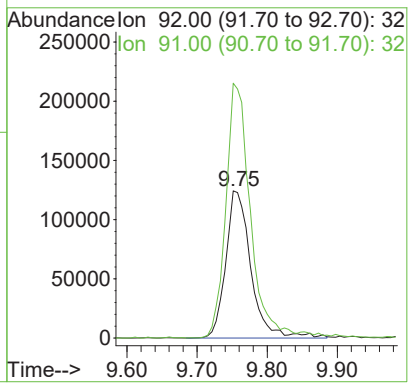


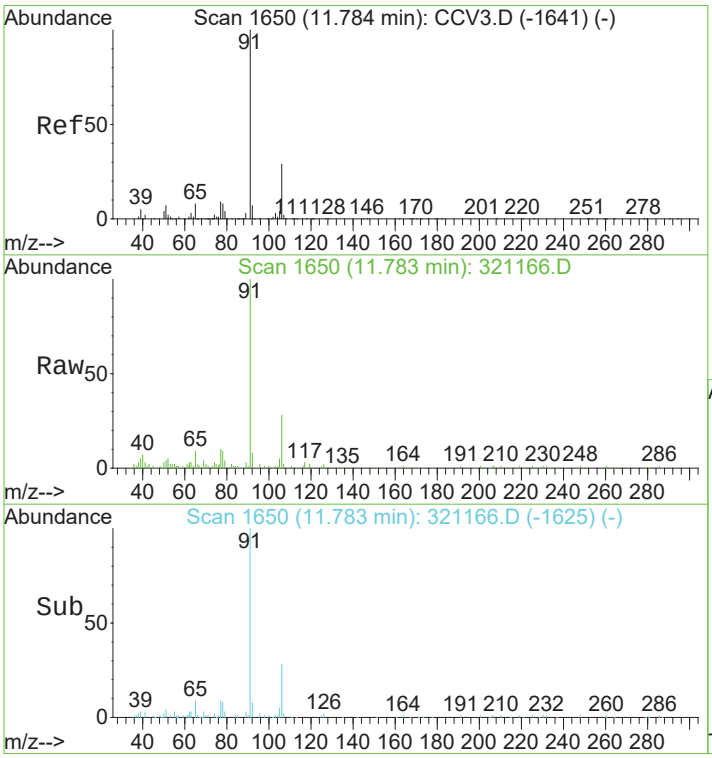


#61
Toluene
Concen: 0.01 mg/kg
RT: 9.75 min Scan# 1316
Delta R.T. -0.01 min
Lab File: 321166.D
Acq: 5 Sep 2019 17:59

Tgt Ion: 92 Resp: 310294

Ion	Ratio	Lower	Upper
92	100		
91	170.2	148.0	188.0

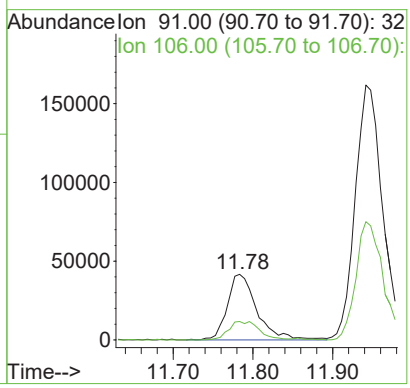


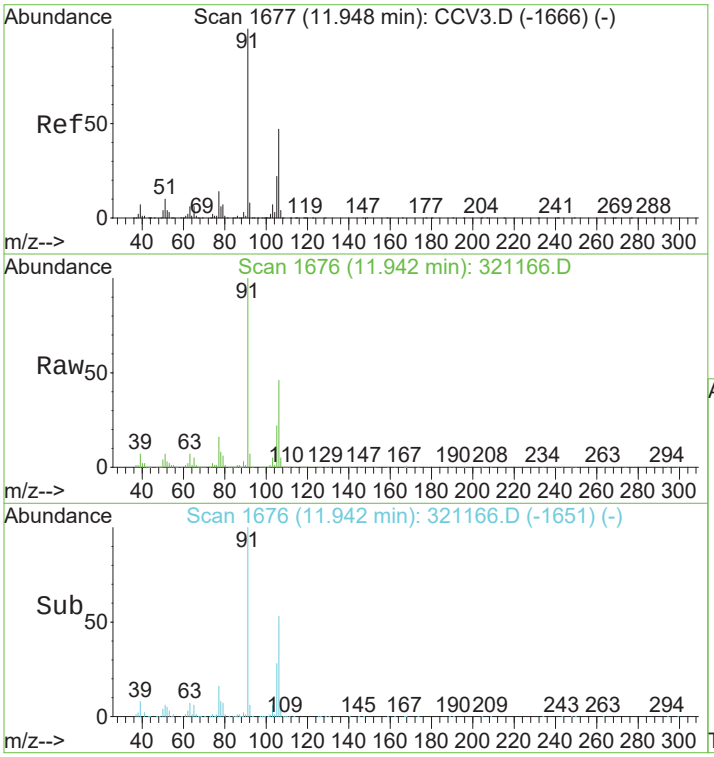


#74
Ethylbenzene
Concen: 0.00 mg/kg
RT: 11.78 min Scan# 1650
Delta R.T. -0.00 min
Lab File: 321166.D
Acq: 5 Sep 2019 17:59

Tgt Ion: 91 Resp: 107750

Ion	Ratio	Lower	Upper
91	100		
106	30.6	10.3	50.3

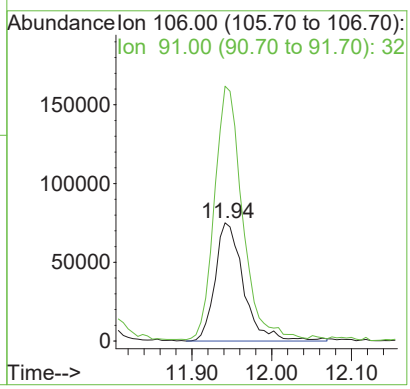


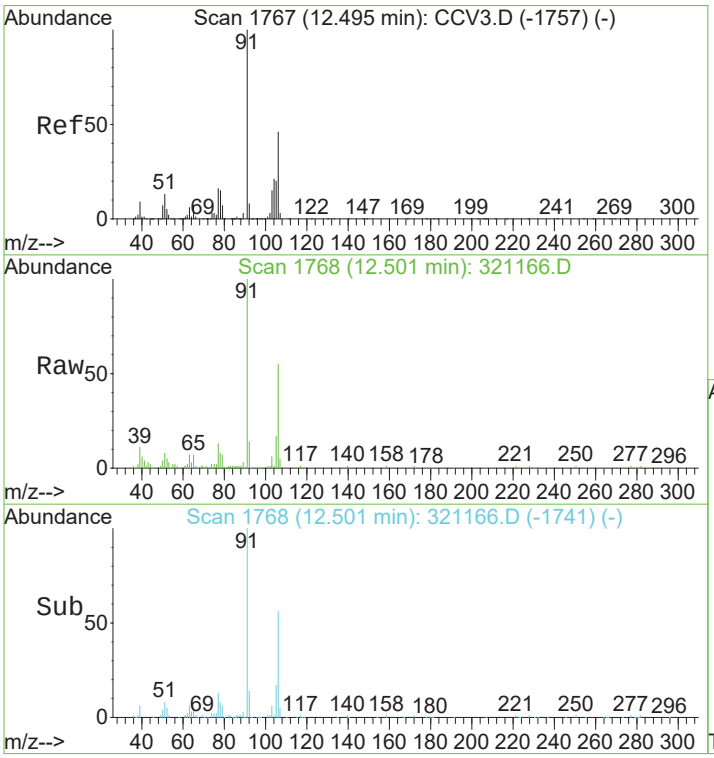


#75
m p-Xylene
Concen: 0.01 mg/kg
RT: 11.94 min Scan# 1676
Delta R.T. -0.00 min
Lab File: 321166.D
Acq: 5 Sep 2019 17:59

Tgt Ion:106 Resp: 186668

Ion	Ratio	Lower	Upper
106	100		
91	209.4	184.6	224.6

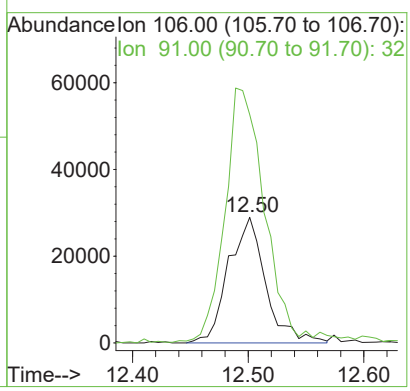


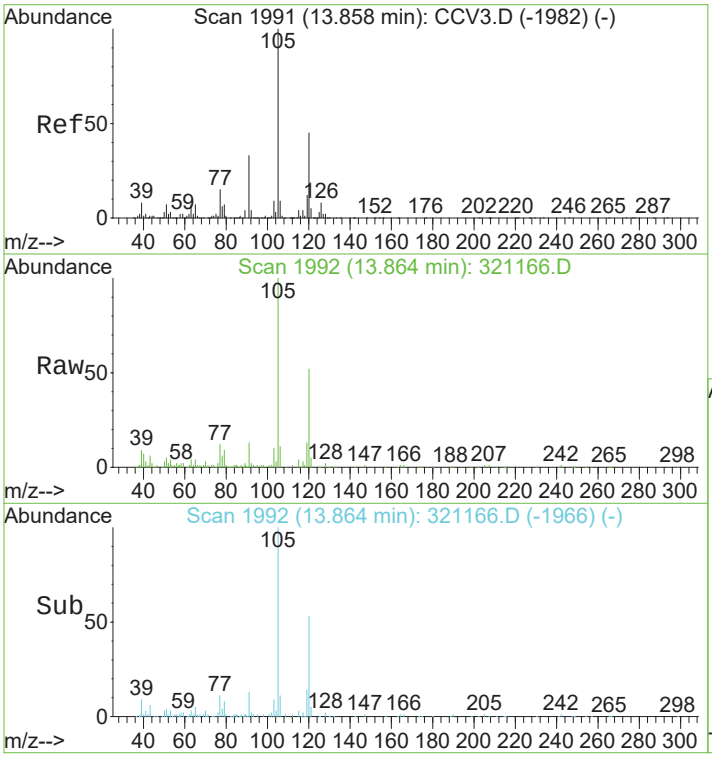


#76
o-Xylene
Concen: 0.00 mg/kg
RT: 12.50 min Scan# 1768
Delta R.T. 0.01 min
Lab File: 321166.D
Acq: 5 Sep 2019 17:59

Tgt Ion:106 Resp: 64746

Ion	Ratio	Lower	Upper
106	100		
91	220.6	191.1	231.1

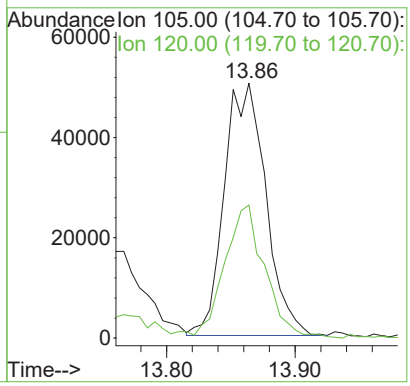


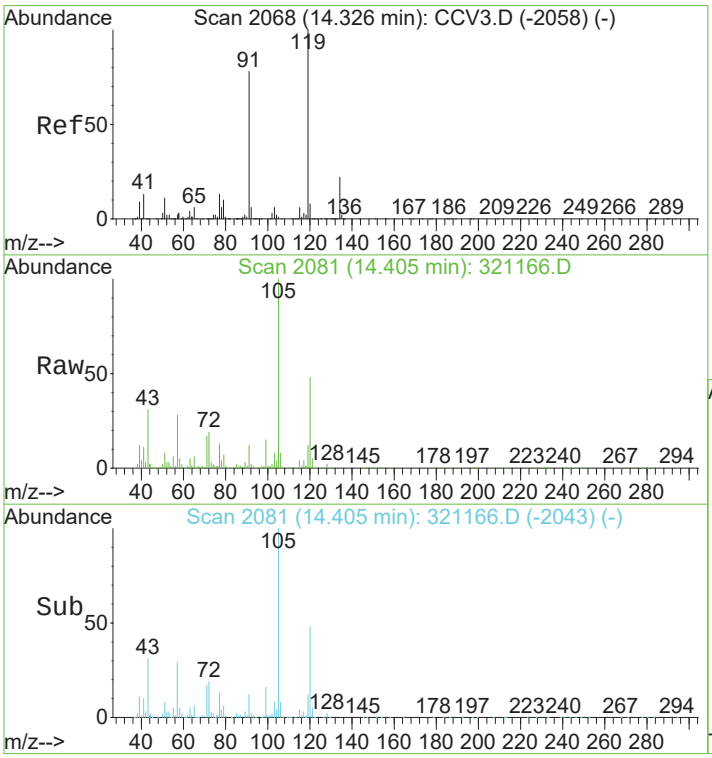


#90
135Trimebenz
Concen: 0.00 mg/kg
RT: 13.86 min Scan# 1992
Delta R.T. 0.01 min
Lab File: 321166.D
Acq: 5 Sep 2019 17:59

Tgt Ion:105 Resp: 112816

Ion	Ratio	Lower	Upper
105	100		
120	50.9	28.3	68.3

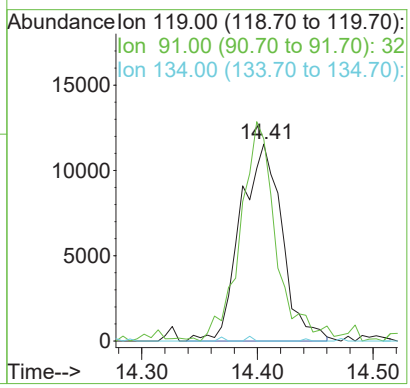




#91
tbutylbenzen
Concen: 0.00 mg/kg
RT: 14.41 min Scan# 2081
Delta R.T. 0.08 min
Lab File: 321166.D
Acq: 5 Sep 2019 17:59

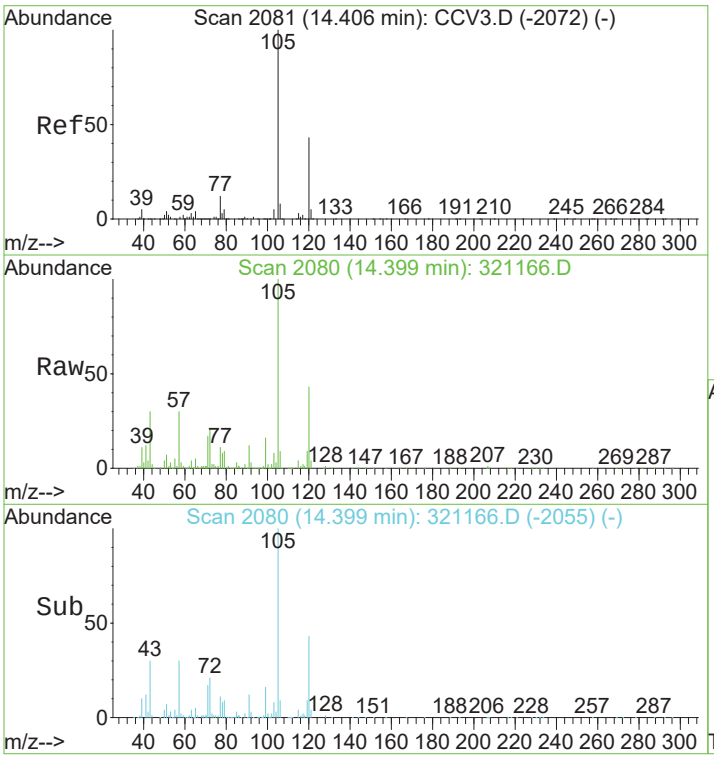
Tgt Ion:119 Resp: 28920

Ion	Ratio	Lower	Upper
119	100		
91	93.7	50.4	90.4#
134	0.0	2.3	42.3#



Negative Library Identification

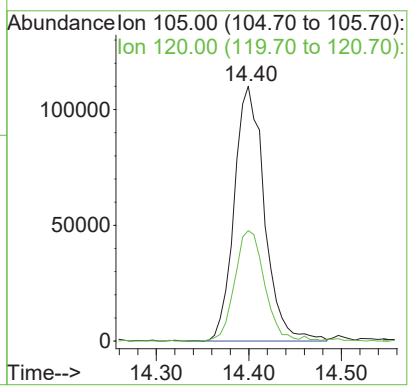
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#92
124Trimetben
Concen: 0.01 mg/kg
RT: 14.40 min Scan# 2080
Delta R.T. -0.00 min
Lab File: 321166.D
Acq: 5 Sep 2019 17:59

Tgt Ion:105 Resp: 249728

Ion	Ratio	Lower	Upper
105	100		
120	43.0	24.5	64.5



Library Search Compound Report

Data Path : C:\Instarch\Data\SEP0519\
Data File : 321166.D
Acq On : 5 Sep 2019 17:59
Operator : RLD-DGS
Sample : 163979,321166,
Misc : 4.59g, 15.0 ml Purged + IS/SS
ALS Vial : 24 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHODS\LS090419.M
Quant Title : 8260C Low Level Soils Method

TIC Library : C:\DATABASE\NBS75K.L
TIC Integration Parameters: VOC.P

****

Peak Number 1 Butane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.21	0.02 mg/kg	2059250	FLUOROBENZENE**IS	2401480	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane	58	C4H10	000106-97-8	72
2	Butane	58	C4H10	000106-97-8	72
3	Isobutane	58	C4H10	000075-28-5	9
4	Diazene, dimethyl-	58	C2H6N2	000503-28-6	5
5	Acetic acid, 2-propenyl ester	100	C5H8O2	000591-87-7	4

****

Peak Number 2 Butane, 2-methyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.96	0.01 mg/kg	1765560	FLUOROBENZENE**IS	2401480	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2-methyl-	72	C5H12	000078-78-4	90
2	Butane, 2-methyl-	72	C5H12	000078-78-4	86
3	Butane, 2-methyl-	72	C5H12	000078-78-4	72
4	3-Buten-1-ol	72	C4H8O	000627-27-0	37
5	Butane, 1-chloro-2-methyl-	106	C5H11Cl	000616-13-7	12

****

Peak Number 3 Pentane Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
3.34	0.01 mg/kg	1328200	FLUOROBENZENE**IS	2401480	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane	72	C5H12	000109-66-0	90
2	Pentane	72	C5H12	000109-66-0	86
3	Pentane	72	C5H12	000109-66-0	86
4	Oxirane, ethyl-	72	C4H8O	000106-88-7	53
5	Furan, tetrahydro-	72	C4H8O	000109-99-9	9

****

Peak Number 4 Pentane, 2-methyl- Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
4.64	0.01 mg/kg	657138	FLUOROBENZENE**IS	2401480	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2-methyl-	86	C6H14	000107-83-5	72
2	Pentane, 2-methyl-	86	C6H14	000107-83-5	56
3	Pentane, 2-methyl-	86	C6H14	000107-83-5	56
4	1,4-Pentanediol	104	C5H12O2	000626-95-9	36
5	Pentane, 2-bromo-	150	C5H11Br	000107-81-3	33

****

Peak Number 5 Pentane, 3-methyl- Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
4.97	0.00 mg/kg	415685	FLUOROBENZENE**IS	2401480	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 3-methyl-	86	C6H14	000096-14-0	87
2	Pentane, 3-methyl-	86	C6H14	000096-14-0	86
3	Pentane, 3-methyl-	86	C6H14	000096-14-0	86
4	Oxetane, 3,3-dimethyl-	86	C5H10O	006921-35-3	45
5	Hexane, 2,2,3-trimethyl-	128	C9H20	016747-25-4	45

****

Peak Number 6 Cyclopentane, methyl- Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
6.10	0.00 mg/kg	280459	FLUOROBENZENE**IS	2401480	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentane, methyl-	84	C6H12	000096-37-7	72
2	Cyclopentane, methyl-	84	C6H12	000096-37-7	50
3	1H-Tetrazole, 5-methyl-	84	C2H4N4	004076-36-2	45
4	Cyclopentane, 1,1-dimethyl-	98	C7H14	001638-26-2	40
5	1-Heptene, 2-methyl-	112	C8H16	015870-10-7	39

****

Peak Number 7 Hexane, 3-methyl- Concentration Rank 20

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
7.11	0.00 mg/kg	262169	FLUOROBENZENE**IS	2401480	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexane, 3-methyl-	100	C7H16	000589-34-4	86
2	Hexane, 3-methyl-	100	C7H16	000589-34-4	80
3	Hexane, 3-methyl-	100	C7H16	000589-34-4	80
4	Hexane, 3-methyl-	100	C7H16	000589-34-4	78
5	Heptane, 4-methyl-	114	C8H18	000589-53-7	50

****

Peak Number 8 Octane Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
9.92	0.00 mg/kg	252324	d5-CHLOROBENZENE*	1832610	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octane	114	C8H18	000111-65-9	83
2	Octane	114	C8H18	000111-65-9	80
3	Octane	114	C8H18	000111-65-9	72

4	Heptane, 2,4-dimethyl-	128	C9H20	002213-23-2	59
5	Heptane, 2,4-dimethyl-	128	C9H20	002213-23-2	59

****

Peak Number 9 Cyclotrisiloxane, hexamethyl- Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.31	0.01 mg/kg	927669	d5-CHLOROBENZENE*	1832610	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	64
2	Arsenous acid, tris(trimethylsil...	342	C9H27AsO3Si3	055429-29-3	56
3	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	46
4	1H-Isoindole-1,3(2H)-dione, 2-bu...	207	C12H17NO2	054934-85-9	45
5	1H-Indole, 1-methyl-2-phenyl-	207	C15H13N	003558-24-5	39

****

Peak Number 10 Cyclohexane, 1,1,3-trimethyl- Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.94	0.00 mg/kg	212492	d5-CHLOROBENZENE*	1832610	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, 1,1,3-trimethyl-	126	C9H18	003073-66-3	72
2	Cyclohexane, 1,1,3-trimethyl-	126	C9H18	003073-66-3	64
3	Cyclohexane, 1,3,5-trimethyl-	126	C9H18	001839-63-0	64
4	Cyclohexane, (1,2-dimethylpropyl)-	154	C11H22	051284-29-8	56
5	Cyclohexane, 1,1,3-trimethyl-	126	C9H18	003073-66-3	50

****

Peak Number 11 1-Pentanol, 4-methyl- Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
12.34	0.00 mg/kg	247784	d5-CHLOROBENZENE*	1832610	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Pentanol, 4-methyl-	102	C6H14O	000626-89-1	72
2	1-Hexanol	102	C6H14O	000111-27-3	64
3	Cyclobutane, ethyl-	84	C6H12	004806-61-5	59
4	Cyclopropane, (1-methylethyl)-	84	C6H12	003638-35-5	59
5	1-Butanol	74	C4H10O	000071-36-3	59

****

Peak Number 12 1-Dodecanethiol Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
12.68	0.00 mg/kg	208734	d5-CHLOROBENZENE*	1832610	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Dodecanethiol	202	C12H26S	000112-55-0	35
2	Dihexyl monoselenide	250	C12H26Se	007732-99-2	17
3	2-Oxazoleoctanoic acid, 4,5-dihy...	255	C14H25NO3	042550-30-1	16
4	4-Decanone	156	C10H20O	000624-16-8	14
5	4-Decanone	156	C10H20O	000624-16-8	14

****

Peak Number 13 Benzene, 1-phenyl-4-(2-cyan... Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
13.56	0.01 mg/kg	832892	d4-1,4-DICHLOROBE	1190970	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-phenyl-4-(2-cyano-2-p...	281	C21H15N	027869-56-3	50
2	1,3,5,7-Tetraethylbicyclo[3.3.1]...	310	C8H22O5Si4	073420-21-0	38
3	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	35
4	3,6-Bis(N-dimethylamino)-9-ethyl...	281	C18H23N3	057103-04-5	33
5	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	32

****

Peak Number 14 Benzene, 1-ethyl-3-methyl- Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
13.74	0.00 mg/kg	230155	d4-1,4-DICHLOROBE	1190970	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	83
2	Benzene, 1-ethyl-4-methyl-	120	C9H12	000622-96-8	83
3	1,2,4-Trimethylbenzene	120	C9H12	000095-36-3	81
4	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	72
5	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	72

****

Peak Number 15 Furan, 2-pentyl- Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
14.10	0.00 mg/kg	188021	d4-1,4-DICHLOROBE	1190970	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Furan, 2-pentyl-	138	C9H14O	003777-69-3	64
2	Furan, 2-pentyl-	138	C9H14O	003777-69-3	45
3	Cyclopentene, 4,4-dimethyl-	96	C7H12	019037-72-0	36
4	Cyclohexane,1,2-dibromo-,trans-	240	C6H10Br2	007429-37-0	36
5	2,3-Dimethyl-1,4-pentadiene	96	C7H12	000758-86-1	9

****

Peak Number 16 Benzene, 1,3,5-trimethyl- Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
15.01	0.00 mg/kg	212041	d4-1,4-DICHLOROBE	1190970	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	83
2	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	81
3	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	80
4	Benzene, 1-ethyl-4-methyl-	120	C9H12	000622-96-8	72
5	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	72

****

Peak Number 17 1,4-Dichlorobenzene-d4 Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
15.44	0.02 mg/kg	1333130	d4-1,4-DICHLOROBE	1190970	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual

1	1,4-Dichlorobenzene-d4	150	C6Cl2D4	003855-82-1 95
2	Benzene-1,2,3,4-d4-, 5,6-dichloro-	150	C6Cl2D4	002199-69-1 94
3	Benzaldehyde, 2-hydroxy-3-methoxy-	152	C8H8O3	000148-53-8 35
4	Biphenylene	152	C12H8	000259-79-0 9
5	Benzoic acid, 2,5-dimethyl-	150	C9H10O2	000610-72-0 9

****

Peak Number 18 Benzoic acid, 2-[(trimethyl... Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
16.27	0.00 mg/kg	217042	d4-1,4-DICHLOROBE	1190970	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	38
2	Benzeneethanamine, N-[(pentafluo...	475	C21H26F5NO2Si2	055429-85-1	32
3	11H-Dibenzo[b,E][1,4]diazepin-11...	267	C16H17N3O	013450-73-2	27
4	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	9
5	1,3-Propanediamine, N-phenyl-N,N...	294	C15H30N2Si2	054550-15-1	9

****

Peak Number 19 Benzene, 1,2,3,5-tetramethyl- Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
16.55	0.00 mg/kg	147974	d4-1,4-DICHLOROBE	1190970	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	81
2	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	81
3	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	81
4	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	81
5	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	81

****

Peak Number 20 Propiophenone, 2'-(trimethy... Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
19.95	0.01 mg/kg	782682	d4-1,4-DICHLOROBE	1190970	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propiophenone, 2'-(trimethylsilo...	222	C12H18O2Si	033342-87-9	35
2	1,1,1,3,5,7,7,7-Octamethyltetras...	282	C8H26O3Si4	000000-00-0	25
3	3,3-Diethoxy-1,1,1,5,5,5-hexamet...	296	C10H28O4Si3	000000-00-0	17
4	Brallobarbital	286	C10H11BrN2O3	000561-86-4	16
5	Cyclobarbital	236	C12H16N2O3	000052-31-3	12

LS090419.M Tue Sep 10 12:37:13 2019

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321167.D Vial: 25
Acq On : 5 Sep 2019 18:28 Operator: RLD-DGS
Sample : 163979,321167, Inst : VMS4
Misc : 5.41g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 18:49:19 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.67	96	898663	0.02 mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	719780	0.02 mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.89	152	377555	0.02 mg/kg	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.83	113	240335	0.021 mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 105 %		
45) SURR12DCAd4	7.25	102	52181	0.023 mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 115 %		
60) SURRd8Tolule	9.67	98	936962	0.020 mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %		
82) SURR4BrFBenz	13.23	95	368706	0.021 mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 105 %		
Target Compounds					Qvalue
2) Dichlorodi	1.82	85	1542	0.0011 mg/kg#	44
3) Chloromethan	2.06	50	1886	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	2.68	94	3756	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	3.84	56	2258	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.04	43	480484	0.1821 mg/kg	100
16) Iodomethane	4.12	142	5969	0.0027 mg/kg#	87
17) Carbon Dislf	4.21	76	50444	0.0013 mg/kg	97
18) allylchloride	4.48	41	2911	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	4.60	84	21354	N.D.	
21) Acrylonitrile	0.00	53	0	N.D.	
22) t12dichlorte	0.00	96	0	N.D.	
23) tbutylalcohol	4.80	59	17287	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	5.34	57	35364	0.0037 mg/kg	93
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	5.60	43	2681	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	6.19	59	1767	N.D.	
31) 22dichloropr	6.19	77	4701	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	6.28	72	21464	0.0191 mg/kg	96
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	6.62	42	3580	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321167.D Vial: 25
Acq On : 5 Sep 2019 18:28 Operator: RLD-DGS
Sample : 163979,321167, Inst : VMS4
Misc : 5.41g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 18:49:19 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	0.00	83	0	N.D.	
40) 111trichlota	0.00	97	0	N.D.	
42) Cyclohexane	6.93	56	4180	0.0014 mg/kg#	28
43) Carbtetraclo	0.00	119	0	N.D.	
44) 11dicloprope	0.00	110	0	N.D.	
46) Benzene	7.32	78	25359	0.0005 mg/kg#	83
47) 12dichlorota	0.00	62	0	N.D.	
48) TAME	0.00	73	0	N.D.	
49) trichloroete	0.00	95	0	N.D.	
50) methylcyclohexane	8.36	83	16779	0.0019 mg/kg	94
51) 12dicloropra	0.00	63	0	N.D.	
52) 23dicl1propene	0.00	75	0	N.D.	
53) Dibromometha	0.00	93	0	N.D.	
54) methylmethacrylate	8.60	69	1682	0.0012 mg/kg#	46
55) 14dioxane	0.00	88	0	N.D.	
56) Bromodiclrma	0.00	83	0	N.D.	
57) 2Nitropropane	9.05	43	1057	N.D.	
58) c13dicloproe	0.00	75	0	N.D.	
59) 4Meth2Pentan	9.51	43	4906	N.D.	
61) Toluene	9.76	92	21271	0.0006 mg/kg	95
62) t13Dicloprop	0.00	75	0	N.D.	
63) ethylmethacrylate	10.12	69	1056	N.D.	
64) 112Triclotha	0.00	83	0	N.D.	
65) Tetrachlorte	0.00	166	0	N.D.	
66) 13Diclorpropa	0.00	76	0	N.D.	
68) 2Hexanone	10.63	43	4468	N.D.	
69) Clorodibrmta	0.00	129	0	N.D.	
70) 12Dibrometha	0.00	107	0	N.D.	
71) Chlorobenzen	0.00	112	0	N.D.	
72) 1Clhexane	11.59	91	1098	0.0010 mg/kg#	1
73) 1112Tetclota	0.00	131	0	N.D.	
74) Ethylbenzene	11.79	91	5157	N.D.	
75) m p-Xylene	11.95	106	7907	N.D.	
76) o-Xylene	12.51	106	3076	N.D.	
77) Styrene	0.00	104	0	N.D.	
78) Bromoform	0.00	173	0	N.D.	
79) Isopropylben	0.00	105	0	N.D.	
81) cyclohexanone	13.23	55	1084	N.D.	
83) Bromobenzene	0.00	156	0	N.D.	
84) 1122Tetrclta	0.00	83	0	N.D.	
85) 123Triclproa	13.46	75	1178	N.D.	
86) 14dichloro2butene	0.00	53	0	N.D.	
87) n-Propylbenz	13.61	91	2028	N.D.	
88) 2chlorotolue	13.71	91	1125	N.D.	
89) 4chlorotolue	0.00	91	0	N.D.	
90) 135Trimebenz	13.86	105	4661	N.D.	
91) tbutylbenzen	14.40	119	1349	N.D.	
92) 124Trimetben	14.41	105	90630	0.0017 mg/kg#	38
93) sbutylbenzen	14.61	105	1327	N.D.	
94) 13Diclorbenz	0.00	146	0	N.D.	
95) pIsopropylto	14.87	119	1397	N.D.	
96) 14dichlorobe	0.00	146	0	N.D.	
97) 12dichlorobe	15.46	146	1099	N.D.	
98) nButylbenzen	15.48	91	1442	N.D.	
99) 12dibromo3cl	0.00	157	0	N.D.	
100) 135Trichlorobenzene	0.00	180	0	N.D.	
101) 124Trichlobe	17.72	180	1006	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321167.D Vial: 25
Acq On : 5 Sep 2019 18:28 Operator: RLD-DGS
Sample : 163979,321167, Inst : VMS4
Misc : 5.41g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 18:49:19 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) Hexachlorobu	0.00	225	0	N.D.	
103) Naphthalene	18.03	128	4979	N.D.	
104) 123Trichlben	0.00	180	0	N.D.	

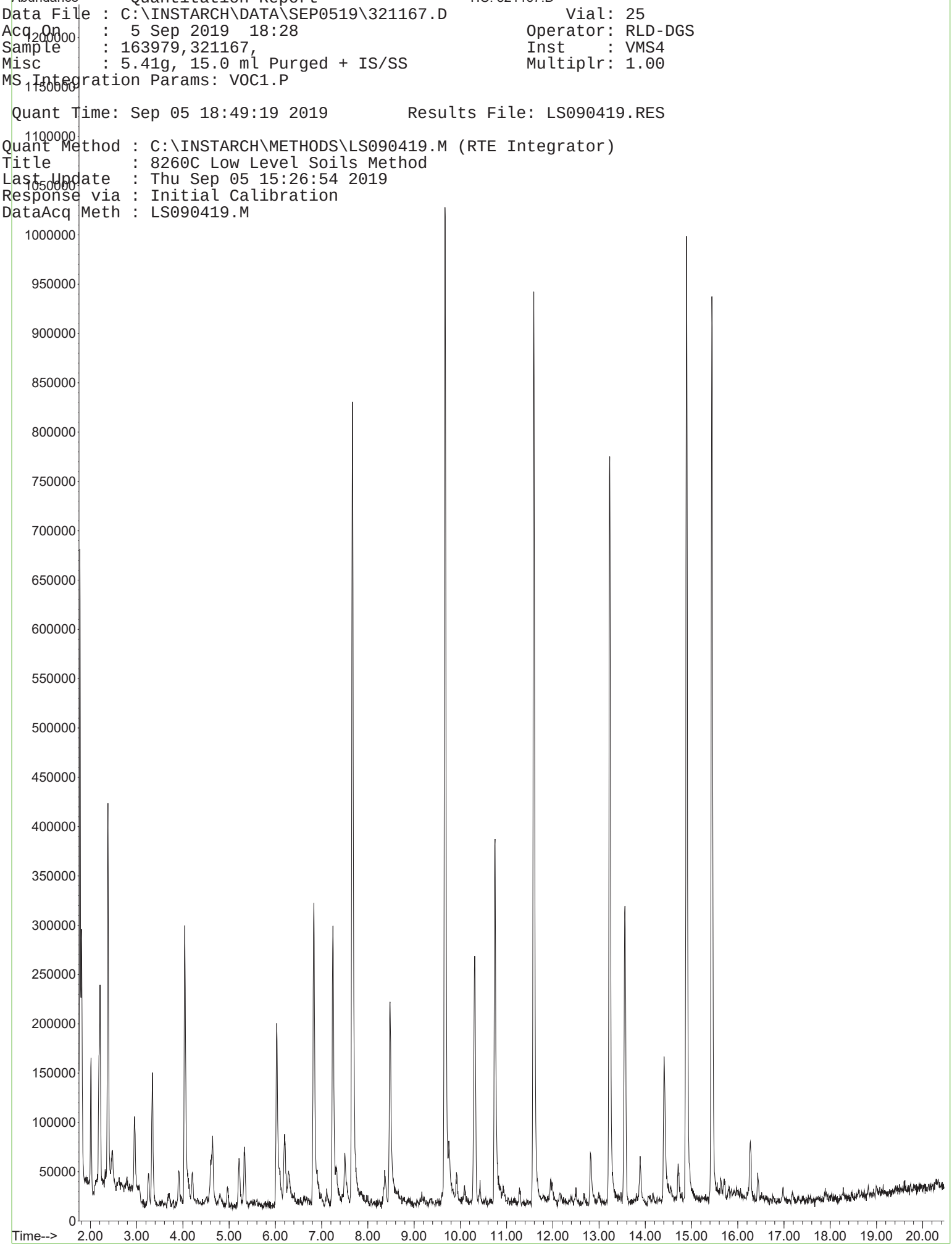
(#) = qualifier out of range (m) = manual integration

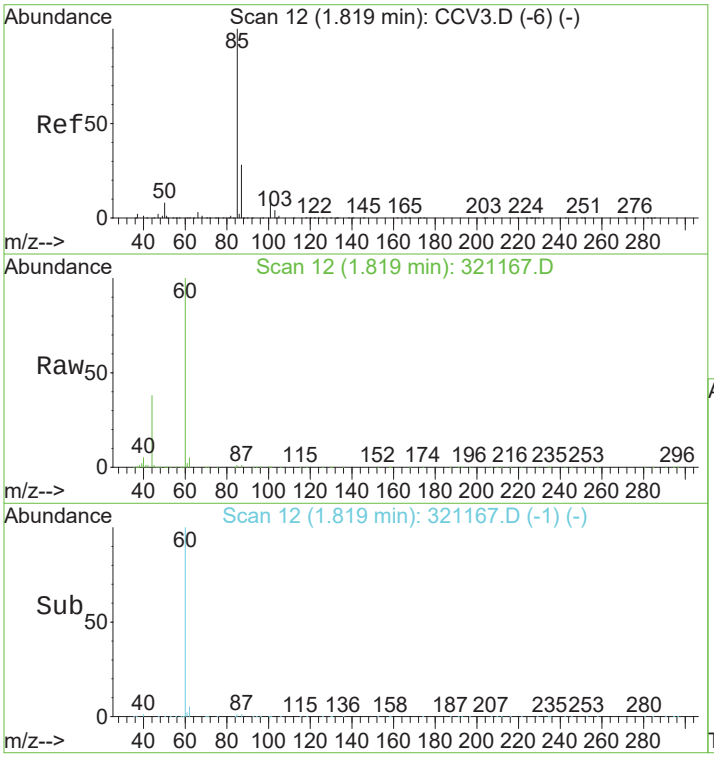
Abundance Quantitation Report TIC: 321167.D

Data File : C:\INSTARCH\DATA\SEP0519\321167.D Vial: 25
Acq On : 5 Sep 2019 18:28 Operator: RLD-DGS
Sample : 163979,321167, Inst : VMS4
Misc : 5.41g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 18:49:19 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

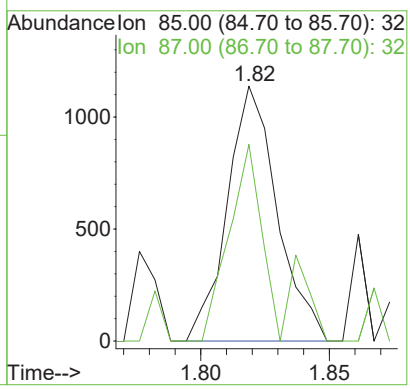




#2
Dichlorodi
Concen: 0.00 mg/kg
RT: 1.82 min Scan# 12
Delta R.T. 0.00 min
Lab File: 321167.D
Acq: 5 Sep 2019 18:28

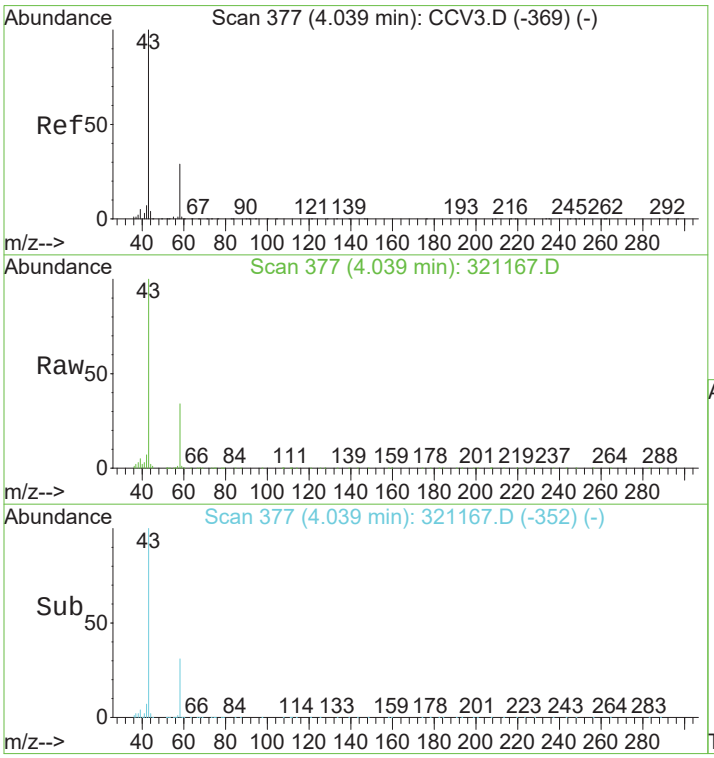
Tgt Ion: 85 Resp: 1542

Ion	Ratio	Lower	Upper
85	100		
87	0.0	10.8	50.8#



Negative Library Identification

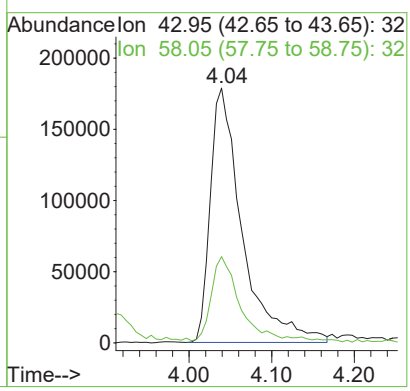
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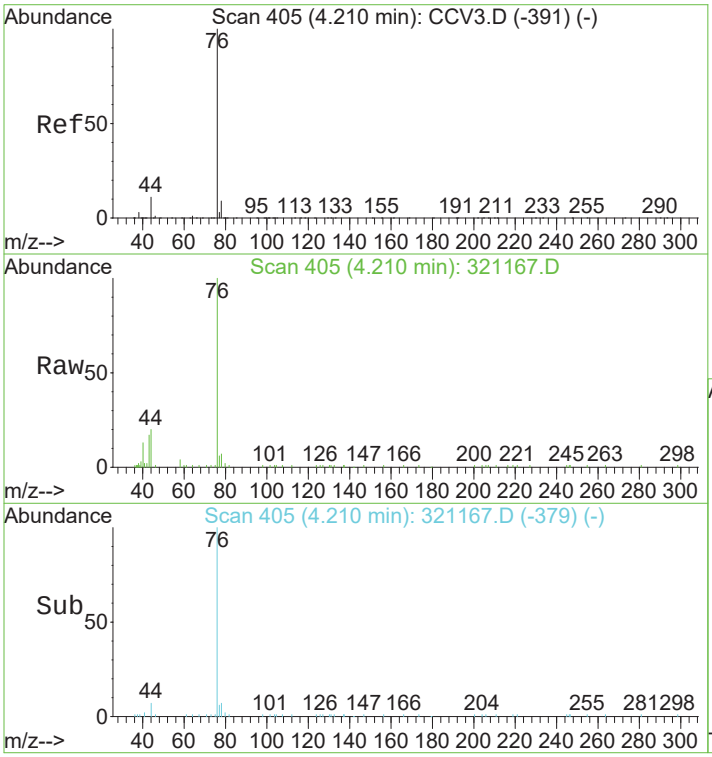


#15
Acetone
Concen: 0.18 mg/kg
RT: 4.04 min Scan# 377
Delta R.T. -0.00 min
Lab File: 321167.D
Acq: 5 Sep 2019 18:28

Tgt Ion: 43 Resp: 480484

Ion	Ratio	Lower	Upper
43	100		
58	29.2	9.4	49.4

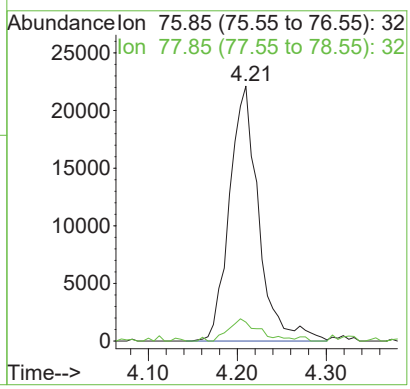


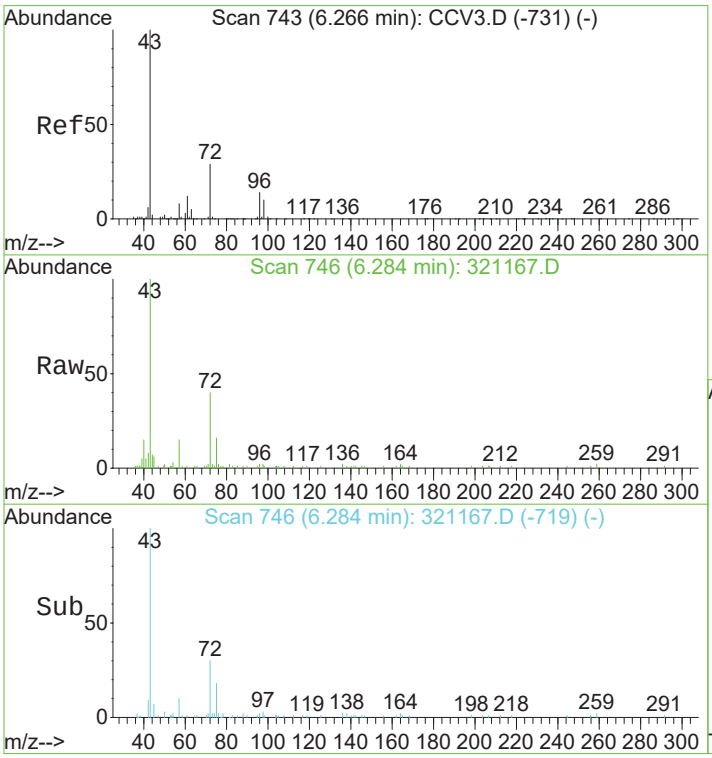


#17
Carbon Dislf
Concen: 0.00 mg/kg
RT: 4.21 min Scan# 405
Delta R.T. 0.01 min
Lab File: 321167.D
Acq: 5 Sep 2019 18:28

Tgt Ion: 76 Resp: 50444

Ion	Ratio	Lower	Upper
76	100		
78	9.5	0.0	28.5

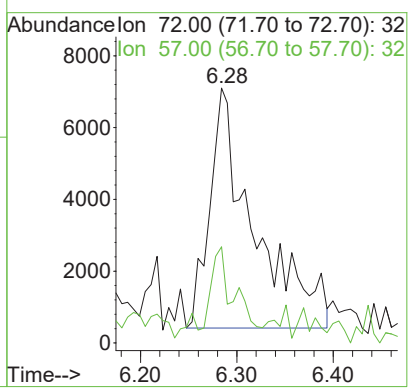


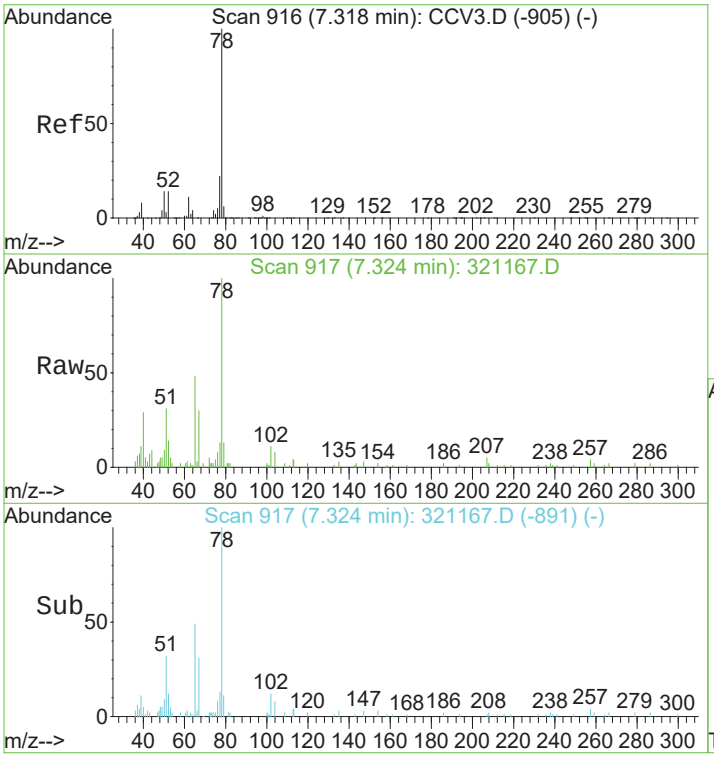


#33
2Butanone
Concen: 0.02 mg/kg
RT: 6.28 min Scan# 746
Delta R.T. 0.01 min
Lab File: 321167.D
Acq: 5 Sep 2019 18:28

Tgt Ion: 72 Resp: 21464

Ion	Ratio	Lower	Upper
72	100		
57	24.9	6.8	46.8

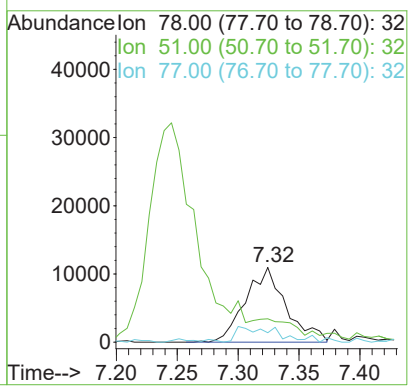


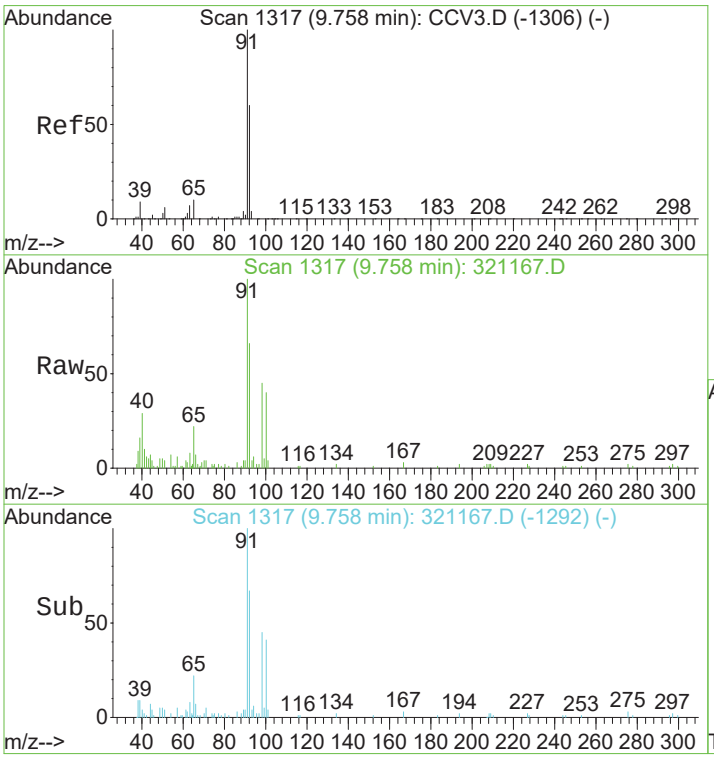


#46
Benzene
Concen: 0.00 mg/kg
RT: 7.32 min Scan# 917
Delta R.T. 0.01 min
Lab File: 321167.D
Acq: 5 Sep 2019 18:28

Tgt Ion: 78 Resp: 25359

Ion	Ratio	Lower	Upper
78	100		
51	0.0	0.0	36.9
77	22.5	3.0	43.0

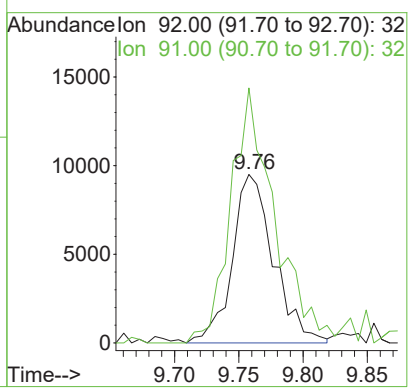


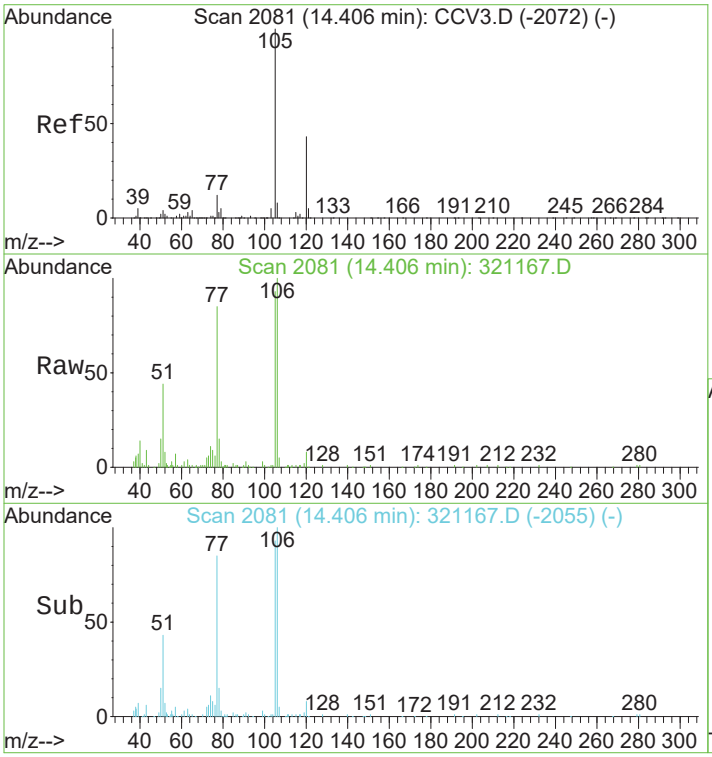


#61
Toluene
Concen: 0.00 mg/kg
RT: 9.76 min Scan# 1317
Delta R.T. -0.00 min
Lab File: 321167.D
Acq: 5 Sep 2019 18:28

Tgt Ion: 92 Resp: 21271

Ion	Ratio	Lower	Upper
92	100		
91	160.6	148.0	188.0

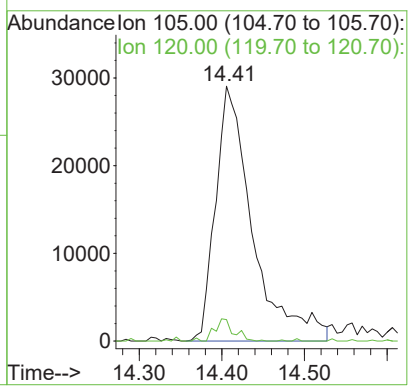




#92
124Trimetben
Concen: 0.00 mg/kg
RT: 14.41 min Scan# 2081
Delta R.T. 0.01 min
Lab File: 321167.D
Acq: 5 Sep 2019 18:28

Tgt Ion:105 Resp: 90630

Ion	Ratio	Lower	Upper
105	100		
120	4.5	24.5	64.5#



Library Search Compound Report

Data Path : C:\Instarch\Data\SEP0519\
Data File : 321167.D
Acq On : 5 Sep 2019 18:28
Operator : RLD-DGS
Sample : 163979,321167,
Misc : 5.41g, 15.0 ml Purged + IS/SS
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHODS\LS090419.M
Quant Title : 8260C Low Level Soils Method

TIC Library : C:\DATABASE\NBS75K.L
TIC Integration Parameters: VOC.P

****

Peak Number 1 Isobutane Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.01	0.00 mg/kg	218169	FLUOROBENZENE**IS	2164820	7.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Isobutane	58	C4H10	000075-28-5	50
2	Isobutane	58	C4H10	000075-28-5	9
3	Isobutane	58	C4H10	000075-28-5	9
4	Propane, 1-chloro-2-methyl-	92	C4H9Cl	000513-36-0	9
5	trans-2,3-Epoxynonane	142	C9H18O	056820-01-0	9

****

Peak Number 2 Butane Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.21	0.01 mg/kg	698859	FLUOROBENZENE**IS	2164820	7.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane	58	C4H10	000106-97-8	40
2	Butane	58	C4H10	000106-97-8	9
3	Isobutane	58	C4H10	000075-28-5	9
4	1-Propen-2-ol, acetate	100	C5H8O2	000108-22-5	9
5	1-Butanol	74	C4H10O	000071-36-3	5

****

Peak Number 3 Acetaldehyde Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.38	0.01 mg/kg	880198	FLUOROBENZENE**IS	2164820	7.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetaldehyde	44	C2H4O	000075-07-0	64
2	Acetaldehyde	44	C2H4O	000075-07-0	9
3	Acetaldehyde	44	C2H4O	000075-07-0	9
4	Propane	44	C3H8	000074-98-6	5
5	Ethylene oxide	44	C2H4O	000075-21-8	5

****

Peak Number 4 Butane, 2-methyl- Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.95	0.00 mg/kg	356455	FLUOROBENZENE**IS	2164820	7.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2-methyl-	72	C5H12	000078-78-4	80
2	Butane, 2-methyl-	72	C5H12	000078-78-4	72
3	Aziridine, 1-methyl-	57	C3H7N	001072-44-2	50
4	Germacyclohexane, 1,1-dichloro-	214	C5H10Cl2Ge	056438-28-9	46
5	Propane, 1-chloro-2-methyl-	92	C4H9Cl	000513-36-0	45

****

Peak Number 5 Pentane Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
3.34	0.00 mg/kg	309916	FLUOROBENZENE**IS	2164820	7.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane	72	C5H12	000109-66-0	80
2	Pentane	72	C5H12	000109-66-0	80
3	Pentane	72	C5H12	000109-66-0	80
4	Oxirane, ethyl-	72	C4H8O	000106-88-7	50
5	1-Propanol, 2-methyl-	74	C4H10O	000078-83-1	36

****

Peak Number 6 Pentane, 2-methyl- Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
4.64	0.00 mg/kg	275067	FLUOROBENZENE**IS	2164820	7.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2-methyl-	86	C6H14	000107-83-5	68
2	Pentane, 2-methyl-	86	C6H14	000107-83-5	59
3	Pentane, 2-methyl-	86	C6H14	000107-83-5	43
4	Pentane, 2-methyl-	86	C6H14	000107-83-5	43
5	Butane, 2,3-dimethyl-	86	C6H14	000079-29-8	35

****

Peak Number 7 4-(2'-Hydroxy-3'-isopropyla... Concentration Rank 20

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
5.21	0.00 mg/kg	147811	FLUOROBENZENE**IS	2164820	7.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4-(2'-Hydroxy-3'-isopropylaminop...	267	C14H21NO4	000000-00-0	28
2	Propanal, 2-methyl-	72	C4H8O	000078-84-2	16
3	4-Pentenal, 2-methyl-	98	C6H10O	005187-71-3	12
4	Hexanedioic acid, bis(2-ethoxyet...	290	C14H26O6	000109-44-4	12
5	N-Acetyl-4-hydroxypropranolol	317	C18H23NO4	000000-00-0	12

****

Peak Number 8 Butanal Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
6.03	0.01 mg/kg	596549	FLUOROBENZENE**IS	2164820	7.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanal	72	C4H8O	000123-72-8	68
2	Butanal	72	C4H8O	000123-72-8	64
3	Butanal	72	C4H8O	000123-72-8	64

4	Butanal	72	C4H8O	000123-72-8	50
5	Butanal	72	C4H8O	000123-72-8	45

****

Peak Number 9 Silanol, trimethyl- Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
6.20	0.00 mg/kg	392682	FLUOROBENZENE**IS	2164820	7.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	50
2	1,1-Dimethoxyoctane	174	C10H22O2	000000-00-0	9
3	Silane, trimethyl(1-methylethoxy)-	132	C6H16OSi	001825-64-5	9
4	3-(Methylthio)butanoic acid	134	C5H10O2S	000000-00-0	9
5	Hexanoic acid, trimethylsilyl ester	188	C9H20O2Si	014246-15-2	9

****

Peak Number 10 Butanal, 3-methyl- Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
7.50	0.00 mg/kg	151724	FLUOROBENZENE**IS	2164820	7.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanal, 3-methyl-	86	C5H10O	000590-86-3	81
2	Butanal, 3-methyl-	86	C5H10O	000590-86-3	72
3	Pentanal	86	C5H10O	000110-62-3	47
4	Butanal, 3-methyl-	86	C5H10O	000590-86-3	38
5	Butanal, 3-methyl-	86	C5H10O	000590-86-3	35

****

Peak Number 11 Pentanal Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
8.48	0.01 mg/kg	840123	FLUOROBENZENE**IS	2164820	7.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentanal	86	C5H10O	000110-62-3	64
2	Pentanal	86	C5H10O	000110-62-3	64
3	Pentanal	86	C5H10O	000110-62-3	64
4	Butanal, 3-methyl-	86	C5H10O	000590-86-3	64
5	Cyclobutanol	72	C4H8O	002919-23-5	28

****

Peak Number 12 Arsenous acid, tris(trimeth... Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.31	0.01 mg/kg	661487	d5-CHLOROBENZENE*	2350300	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Arsenous acid, tris(trimethylsil...	342	C9H27AsO3Si3	055429-29-3	72
2	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	38
3	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	38
4	1H-Indole, 5-methyl-2-phenyl-	207	C15H13N	013228-36-9	38
5	7-Acetoxy-7,8,9,10-tetramethyl-7...	294	C20H22O2	000000-00-0	38

****

Peak Number 13 Hexanal Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.75	0.01 mg/kg	1059890	d5-CHLOROBENZENE*	2350300	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexanal	100	C6H12O	000066-25-1	87
2	Hexanal	100	C6H12O	000066-25-1	86
3	Hexanal	100	C6H12O	000066-25-1	72
4	Hexanal	100	C6H12O	000066-25-1	72
5	Hexanal	100	C6H12O	000066-25-1	43

****

Peak Number 14 Vinyl Ether Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
12.81	0.00 mg/kg	176080	d5-CHLOROBENZENE*	2350300	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Vinyl Ether	70	C4H6O	000109-93-3	59
2	Pentane, 2-chloro-	106	C5H11Cl	000625-29-6	38
3	Oxirane, 2-(1,1-dimethylethyl)-3...	114	C7H14O	053897-30-6	32
4	1-Heptanol	116	C7H16O	000111-70-6	32
5	2-Pentene	70	C5H10	000109-68-2	32

****

Peak Number 15 Cyclotetrasiloxane, octamet... Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
13.56	0.01 mg/kg	807171	d4-1,4-DICHLOROBE	2348570	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	64
2	Ethanethioic acid, S-[8-(diethyl...	324	C14H29O4PS	000000-00-0	42
3	Benzene, 1-phenyl-4-(2-cyano-2-p...	281	C21H15N	027869-56-3	38
4	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	37
5	3,6-Bis(N-dimethylamino)-9-ethyl...	281	C18H23N3	057103-04-5	36

****

Peak Number 16 1,4-Dichlorobenzene-d4 Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
15.44	0.02 mg/kg	2254820	d4-1,4-DICHLOROBE	2348570	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,4-Dichlorobenzene-d4	150	C6Cl2D4	003855-82-1	97
2	Benzene-1,2,3,4-d4-, 5,6-dichloro-	150	C6Cl2D4	002199-69-1	94
3	9-Borabicyclo[3.3.1]nonane, 9-et...	150	C10H19B	052102-17-7	9
4	Benzaldehyde, 2-hydroxy-3-methoxy-	152	C8H8O3	000148-53-8	9
5	2-Cyclopenten-1-one, 2-(2-buteny...	150	C10H14O	017190-71-5	9

****

Peak Number 17 Propane, 1-iodo-2,2-dimethyl- Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
15.63	0.00 mg/kg	399910	d4-1,4-DICHLOROBE	2348570	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual

1	Propane, 1-iodo-2,2-dimethyl-	198	C5H11I	015501-33-4 22
2	Dodecane, 2,6,11-trimethyl-	212	C15H32	031295-56-4 14
3	2-Nonadecanone	282	C19H38O	000629-66-3 14
4	Furan, tetrahydro-2-methyl-	86	C5H10O	000096-47-9 14
5	Dodecane, 4,6-dimethyl-	198	C14H30	061141-72-8 14

****

Peak Number 18 7H-Dibenzo[c,g]carbazole Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
16.27	0.00 mg/kg	198681	d4-1,4-DICHLOROBE	2348570	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	7H-Dibenzo[c,g]carbazole	267	C20H13N	000194-59-2	43
2	7H-Dibenzo[c,g]carbazole	267	C20H13N	000194-59-2	43
3	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	42
4	Hexanedioic acid, .alpha.-keto o...	391	C15H33NO5Si3	000000-00-0	42
5	3-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	000000-00-0	42

****

Peak Number 19 1,2-Propadiene Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
18.28	0.00 mg/kg	177772	d4-1,4-DICHLOROBE	2348570	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,2-Propadiene	40	C3H4	000463-49-0	9
2	5-Nitro-2-furaldoxime	156	C5H4N2O4	000555-15-7	9
3	Ethyl 3-hydroxy-3-methylbutanoate	146	C7H14O3	018267-36-2	9
4	1,2-Desoxy-1-(4-toluidino)-2-(et...	354	C17H26N2O6	000000-00-0	9
5	Octadecanoic acid, octadecyl ester	537	C36H72O2	002778-96-3	9

****

Peak Number 20 1,2-Bis(trimethylsilyl)benzene Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
19.61	0.01 mg/kg	918147	d4-1,4-DICHLOROBE	2348570	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,2-Bis(trimethylsilyl)benzene	222	C12H22Si2	017151-09-6	18
2	Dibenzo[b,e]-1,4-diazabicyclo[2....	208	C14H12N2	000000-00-0	12
3	Phenanthrene, 4-methoxy-	208	C15H12O	015638-06-9	10
4	Ethanone, 1-[5-ethyl-3-(5-nitro-...	250	C10H10N4O4	035732-76-4	10
5	Thiocyanic acid, (4-cyano-1,3,6,...	266	C12H6N6S	051080-11-6	10

LS090419.M Tue Sep 10 12:37:57 2019

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321168.D Vial: 26
Acq On : 5 Sep 2019 18:57 Operator: RLD-DGS
Sample : 163979,321168, Inst : VMS4
Misc : 4.63g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 19:18:20 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	916162	0.02	mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	700170	0.02	mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.90	152	353351	0.02	mg/kg	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	233808	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 100 %			
45) SURR12DCAd4	7.24	102	49311	0.021	mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 105 %			
60) SURRd8Tolule	9.67	98	927943	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %			
82) SURR4BrFBenz	13.23	95	350009	0.021	mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 105 %			
Target Compounds						Qvalue
2) Dichlorodi	1.81	85	1475	0.0011	mg/kg#	11
3) Chloromethan	2.08	50	1104	N.D.		
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	2.68	94	2626	N.D.		
6) Chloroethane	0.00	64	0	N.D.		
7) dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	0.00	56	0	N.D.		
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	4.05	43	117273	0.0436	mg/kg	94
16) Iodomethane	4.12	142	1025	0.0023	mg/kg#	41
17) Carbon Dislf	4.20	76	82043	0.0021	mg/kg	94
18) allylchloride	4.44	41	1086	N.D.		
19) methylacetate	0.00	74	0	N.D.		
20) Methylchlorid	4.60	84	21178	Below Cal #		75
21) Acrylonitrile	4.96	53	4894	0.0018	mg/kg#	22
22) t12dichlorte	0.00	96	0	N.D.		
23) tbutylalcohol	4.78	59	25227	N.D.		
24) MtBE	0.00	73	0	N.D.		
25) Hexane	5.33	57	181099	0.0111	mg/kg	98
26) 11dichlorota	0.00	63	0	N.D.		
27) Vinylacetate	5.62	43	1645	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	0.00	59	0	N.D.		
31) 22dichloropr	6.19	77	13529	0.0006	mg/kg#	46
32) c12dichlorte	0.00	96	0	N.D.		
33) 2Butanone	6.29	72	1648	N.D.		
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	6.62	42	1537	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321168.D Vial: 26
Acq On : 5 Sep 2019 18:57 Operator: RLD-DGS
Sample : 163979,321168, Inst : VMS4
Misc : 4.63g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 19:18:20 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	0.00	83	0	N.D.	
40) 111trichlota	0.00	97	0	N.D.	
42) Cyclohexane	6.93	56	130501	0.0068 mg/kg	95
43) Carbtetraclo	0.00	119	0	N.D.	
44) 11dicloprope	0.00	110	0	N.D.	
46) Benzene	7.32	78	128290	0.0022 mg/kg	97
47) 12dichlorota	0.00	62	0	N.D.	
48) TAME	0.00	73	0	N.D.	
49) trichloroete	0.00	95	0	N.D.	
50) methylcyclohexane	8.36	83	233561	0.0096 mg/kg	92
51) 12dicloropra	8.38	63	3036	N.D.	
52) 23dicl1propene	8.38	75	1570	N.D.	
53) Dibromometha	0.00	93	0	N.D.	
54) methylmethacrylate	8.61	69	9403	0.0021 mg/kg#	46
55) 14dioxane	0.00	88	0	N.D.	
56) Bromodiclrma	8.68	83	1309	N.D.	
57) 2Nitropropane	9.03	43	1260	N.D.	
58) c13dicloproe	0.00	75	0	N.D.	
59) 4Meth2Pentan	9.53	43	3297	N.D.	
61) Toluene	9.76	92	209303	0.0056 mg/kg	95
62) t13Dicloprop	0.00	75	0	N.D.	
63) ethylmethacrylate	10.23	69	1221	N.D.	
64) 112Triclotha	10.26	83	1070	N.D.	
65) Tetrachlorte	0.00	166	0	N.D.	
66) 13Diclorpropa	0.00	76	0	N.D.	
68) 2Hexanone	10.54	43	12956	N.D.	
69) Clorodibrmta	0.00	129	0	N.D.	
70) 12Dibrometha	0.00	107	0	N.D.	
71) Chlorobenzen	0.00	112	0	N.D.	
72) 1Clhexane	11.59	91	1389	0.0010 mg/kg#	1
73) 1112Tetclota	0.00	131	0	N.D.	
74) Ethylbenzene	11.78	91	56490	0.0009 mg/kg	98
75) m p-Xylene	11.95	106	104787	0.0044 mg/kg	98
76) o-Xylene	12.50	106	31341	0.0013 mg/kg#	82
77) Styrene	12.49	104	2245	N.D.	
78) Bromoform	0.00	173	0	N.D.	
79) Isopropylben	13.00	105	10270	N.D.	
81) cyclohexanone	13.11	55	1342	N.D.	
83) Bromobenzene	0.00	156	0	N.D.	
84) 1122Tetrclta	13.46	83	1478	N.D.	
85) 123Triclproa	13.49	75	1625	N.D.	
86) 14dichloro2butene	0.00	53	0	N.D.	
87) n-Propylbenz	13.63	91	9298	N.D.	
88) 2chlorotolue	13.74	91	7937	N.D.	
89) 4chlorotolue	13.85	91	6909	N.D.	
90) 135Trimebenz	13.86	105	57047	0.0012 mg/kg	99
91) tbutylbenzen	14.40	119	12933	N.D.	
92) 124Trimetben	14.40	105	121988	0.0025 mg/kg	97
93) sbutylbenzen	14.66	105	3360	N.D.	
94) 13Diclorbenz	0.00	146	0	N.D.	
95) pIsopropylto	14.87	119	4652	N.D.	
96) 14dichlorobe	0.00	146	0	N.D.	
97) 12dichlorobe	0.00	146	0	N.D.	
98) nButylbenzen	15.45	91	7445	N.D.	
99) 12dibromo3cl	0.00	157	0	N.D.	
100) 135Trichlorobenzene	0.00	180	0	N.D.	
101) 124Trichlobe	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321168.D Vial: 26
Acq On : 5 Sep 2019 18:57 Operator: RLD-DGS
Sample : 163979,321168, Inst : VMS4
Misc : 4.63g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 19:18:20 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) Hexachlorobu	0.00	225	0	N.D.	
103) Naphthalene	18.03	128	6372	N.D.	
104) 123Trichlben	0.00	180	0	N.D.	

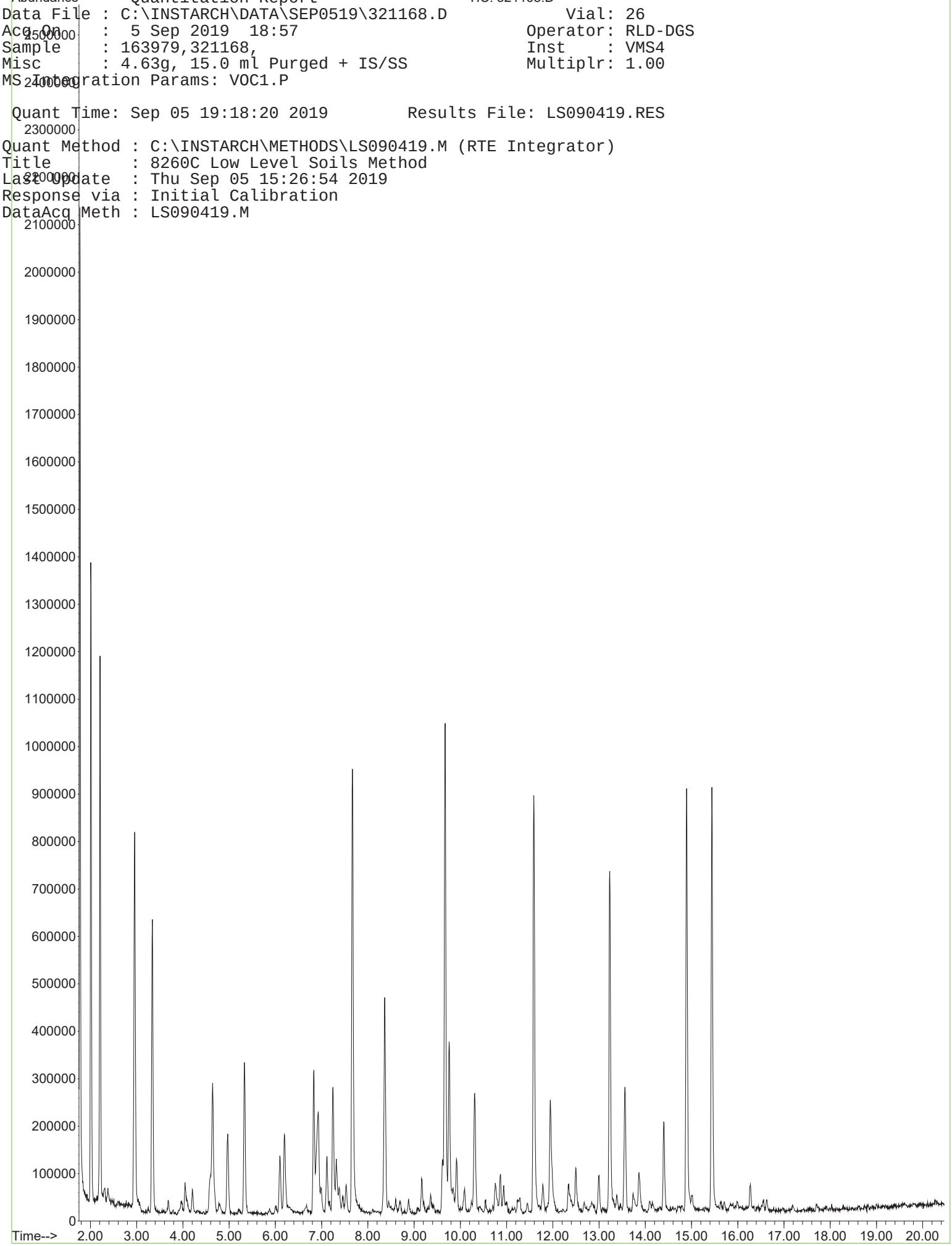
(#) = qualifier out of range (m) = manual integration

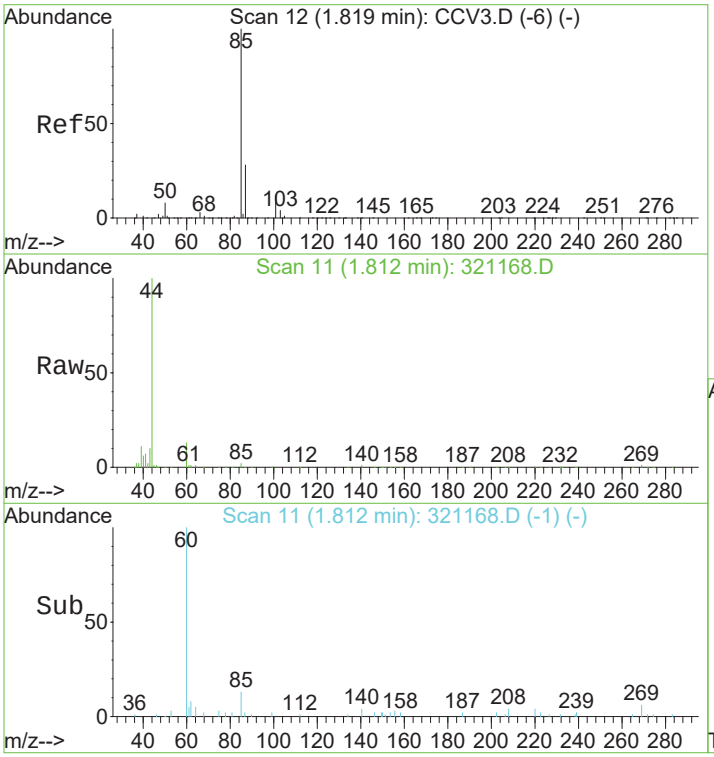
Abundance Quantitation Report TIC: 321168.D

Data File : C:\INSTARCH\DATA\SEP0519\321168.D Vial: 26
Acq On : 5 Sep 2019 18:57 Operator: RLD-DGS
Sample : 163979,321168, Inst : VMS4
Misc : 4.63g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 19:18:20 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

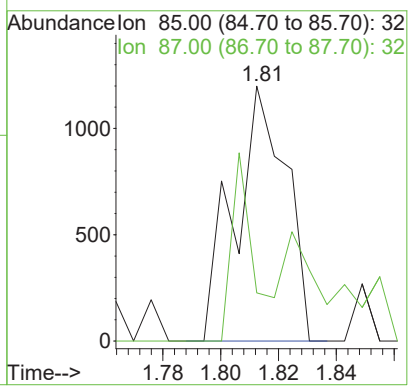




#2
Dichlorodi
Concen: 0.00 mg/kg
RT: 1.81 min Scan# 11
Delta R.T. -0.01 min
Lab File: 321168.D
Acq: 5 Sep 2019 18:57

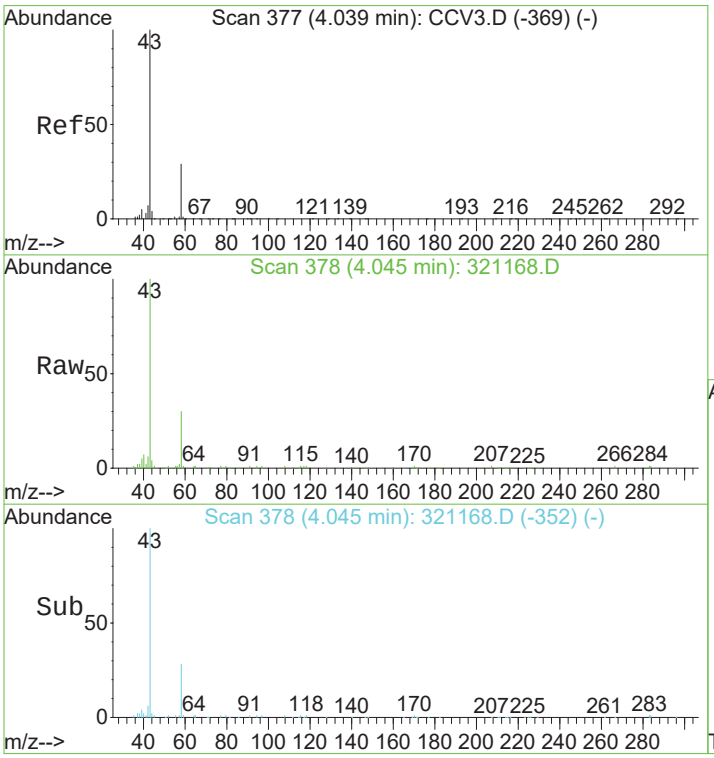
Tgt Ion: 85 Resp: 1475

Ion	Ratio	Lower	Upper
85	100		
87	79.5	10.8	50.8#



Negative Library Identification

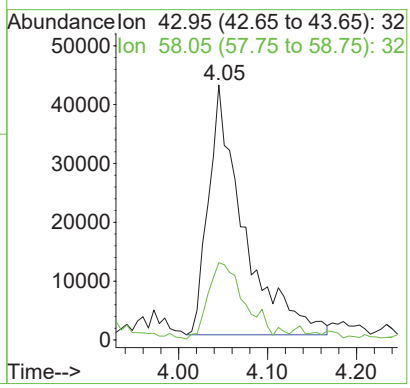
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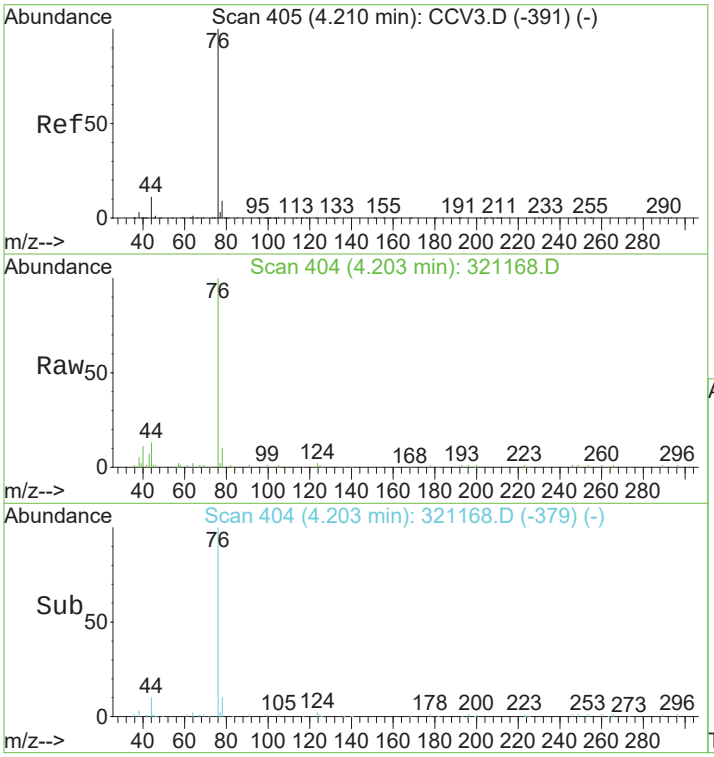


#15
Acetone
Concen: 0.04 mg/kg
RT: 4.05 min Scan# 378
Delta R.T. 0.01 min
Lab File: 321168.D
Acq: 5 Sep 2019 18:57

Tgt Ion: 43 Resp: 117273

Ion	Ratio	Lower	Upper
43	100		
58	32.5	9.4	49.4

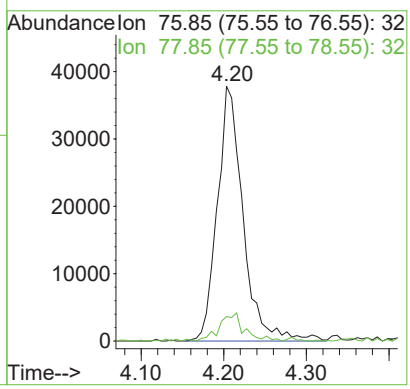


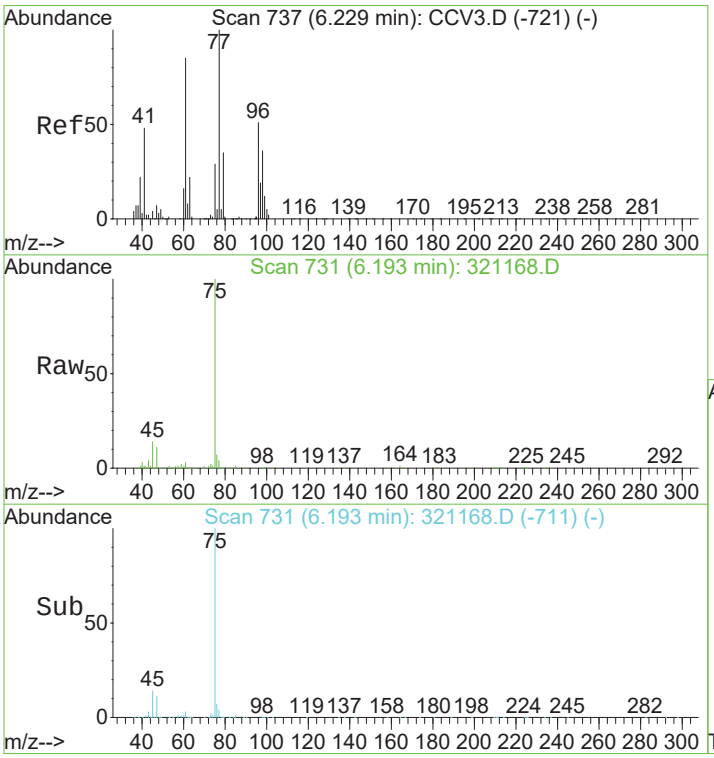


#17
Carbon Dislf
Concen: 0.00 mg/kg
RT: 4.20 min Scan# 404
Delta R.T. -0.00 min
Lab File: 321168.D
Acq: 5 Sep 2019 18:57

Tgt Ion: 76 Resp: 82043

Ion	Ratio	Lower	Upper
76	100		
78	10.5	0.0	28.5

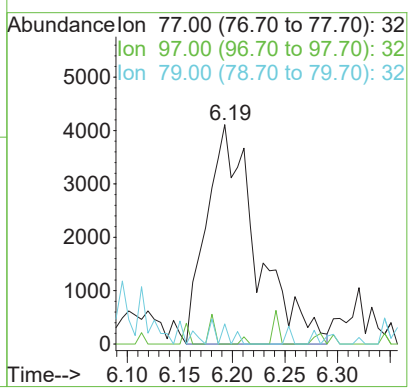




#31
22dichloropr
Concen: 0.00 mg/kg
RT: 6.19 min Scan# 731
Delta R.T. -0.03 min
Lab File: 321168.D
Acq: 5 Sep 2019 18:57

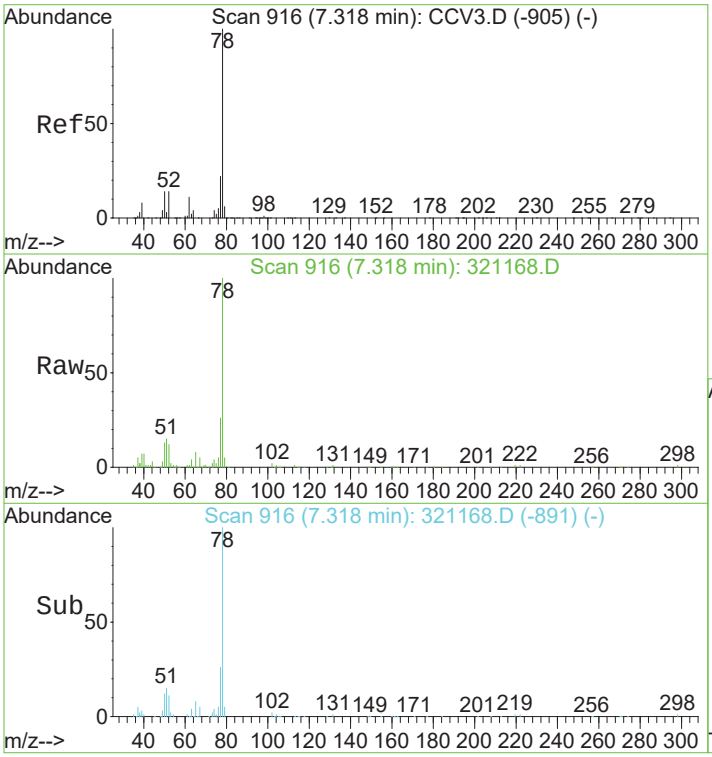
Tgt Ion: 77 Resp: 13529

Ion	Ratio	Lower	Upper
77	100		
97	0.0	1.8	41.8#
79	0.0	13.2	53.2#



Negative Library Identification

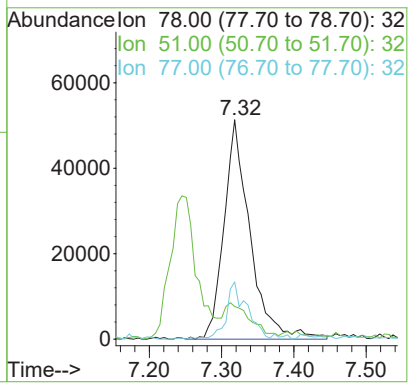
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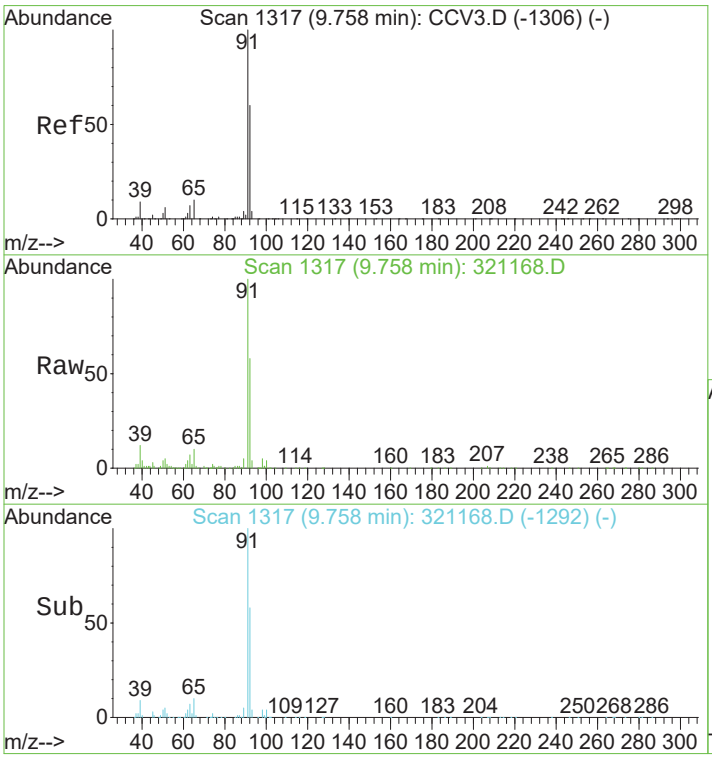


#46
Benzene
Concen: 0.00 mg/kg
RT: 7.32 min Scan# 916
Delta R.T. -0.00 min
Lab File: 321168.D
Acq: 5 Sep 2019 18:57

Tgt Ion: 78 Resp: 128290

Ion	Ratio	Lower	Upper
78	100		
51	17.3	0.0	36.9
77	20.6	3.0	43.0

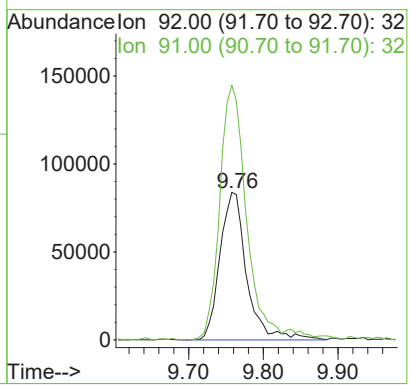


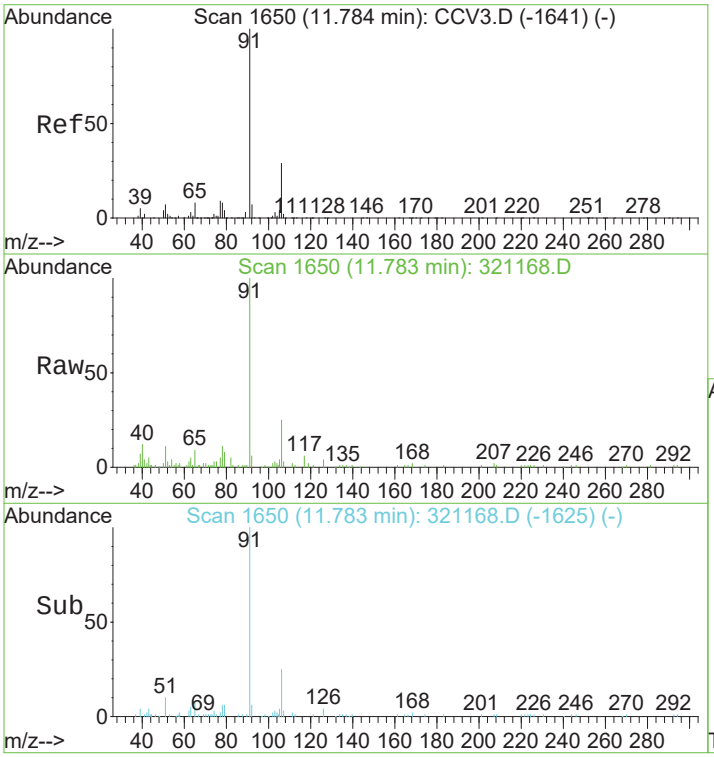


#61
Toluene
Concen: 0.01 mg/kg
RT: 9.76 min Scan# 1317
Delta R.T. -0.00 min
Lab File: 321168.D
Acq: 5 Sep 2019 18:57

Tgt Ion: 92 Resp: 209303

Ion	Ratio	Lower	Upper
92	100		
91	174.1	148.0	188.0

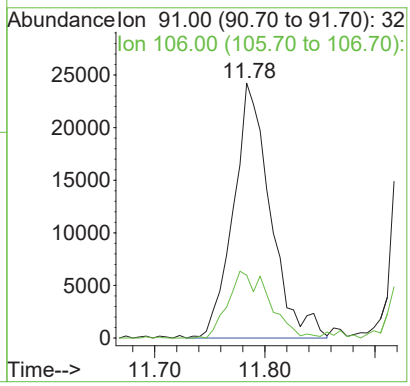


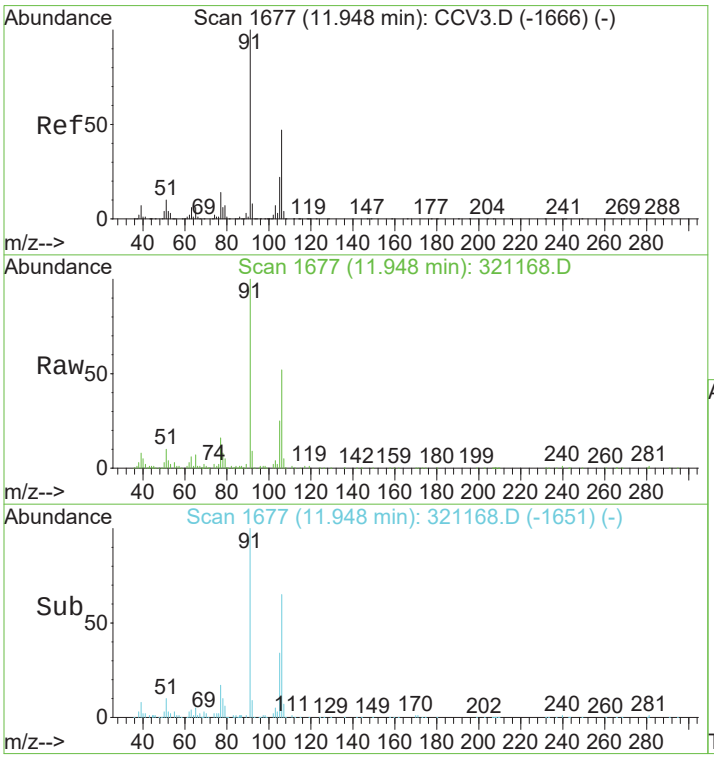


#74
Ethylbenzene
Concen: 0.00 mg/kg
RT: 11.78 min Scan# 1650
Delta R.T. -0.00 min
Lab File: 321168.D
Acq: 5 Sep 2019 18:57

Tgt Ion: 91 Resp: 56490

Ion	Ratio	Lower	Upper
91	100		
106	29.3	10.3	50.3

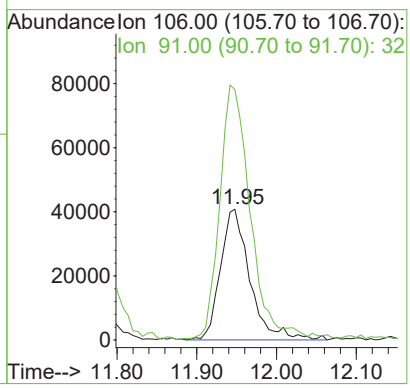


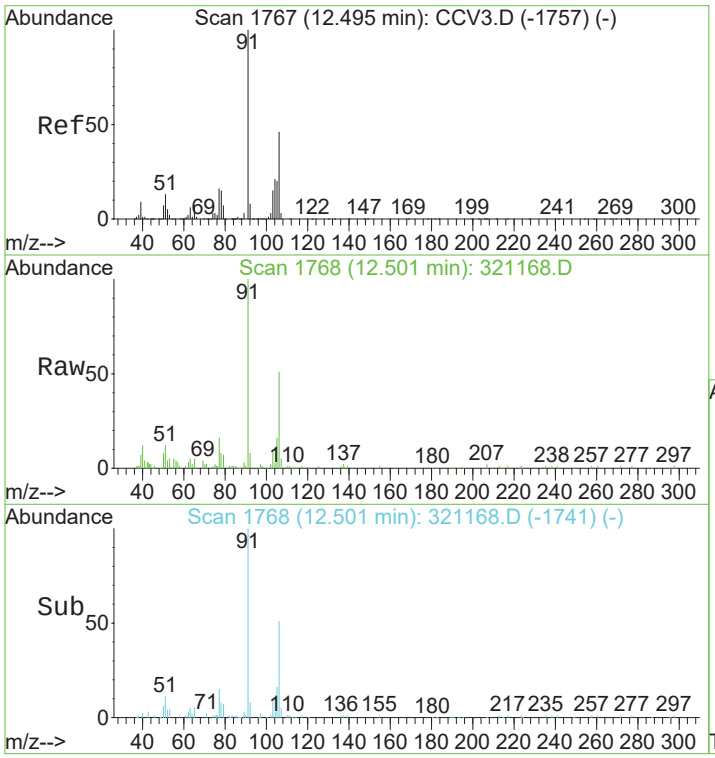


#75
m p-Xylene
Concen: 0.00 mg/kg
RT: 11.95 min Scan# 1677
Delta R.T. 0.01 min
Lab File: 321168.D
Acq: 5 Sep 2019 18:57

Tgt Ion:106 Resp: 104787

Ion	Ratio	Lower	Upper
106	100		
91	201.0	184.6	224.6

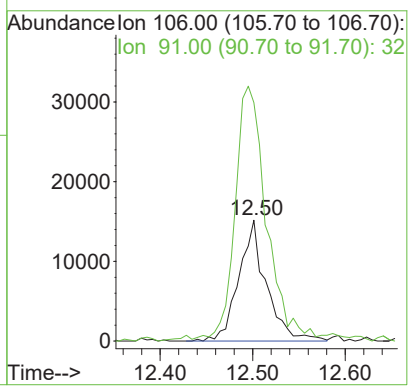


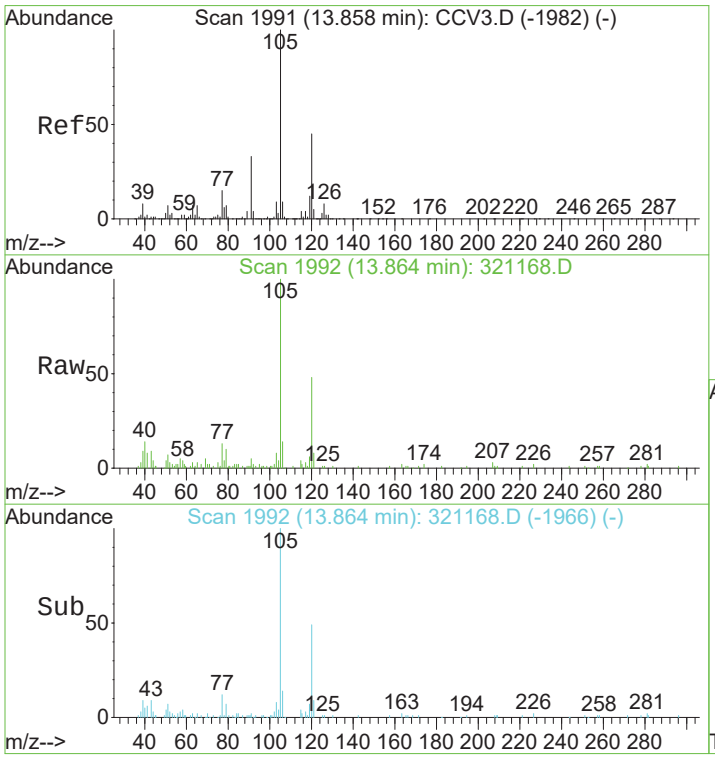


#76
o-Xylene
Concen: 0.00 mg/kg
RT: 12.50 min Scan# 1768
Delta R.T. 0.01 min
Lab File: 321168.D
Acq: 5 Sep 2019 18:57

Tgt Ion:106 Resp: 31341

Ion	Ratio	Lower	Upper
106	100		
91	238.8	191.1	231.1#

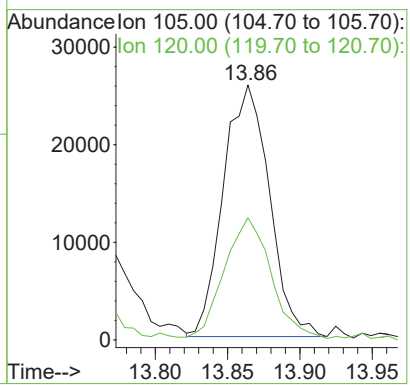


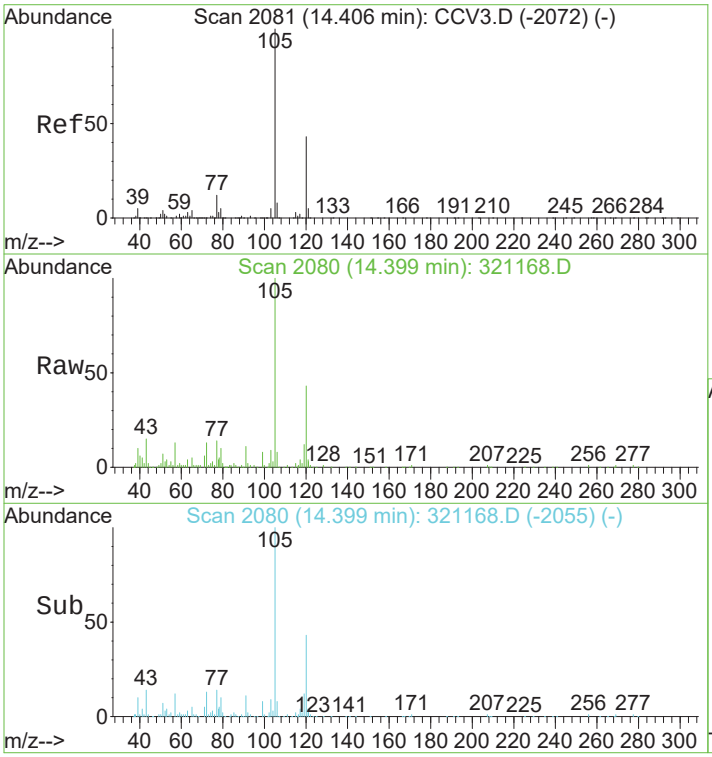


#90
135Trimebenz
Concen: 0.00 mg/kg
RT: 13.86 min Scan# 1992
Delta R.T. 0.01 min
Lab File: 321168.D
Acq: 5 Sep 2019 18:57

Tgt Ion:105 Resp: 57047

Ion	Ratio	Lower	Upper
105	100		
120	47.5	28.3	68.3

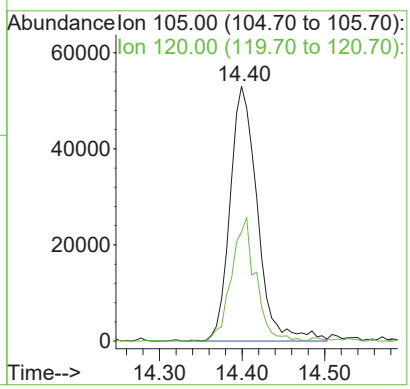




#92
124Trimetben
Concen: 0.00 mg/kg
RT: 14.40 min Scan# 2080
Delta R.T. -0.00 min
Lab File: 321168.D
Acq: 5 Sep 2019 18:57

Tgt Ion:105 Resp: 121988

Ion	Ratio	Lower	Upper
105	100		
120	42.7	24.5	64.5



Library Search Compound Report

Data Path : C:\Instarch\Data\SEP0519\
Data File : 321168.D
Acq On : 5 Sep 2019 18:57
Operator : RLD-DGS
Sample : 163979,321168,
Misc : 4.63g, 15.0 ml Purged + IS/SS
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHODS\LS090419.M
Quant Title : 8260C Low Level Soils Method

TIC Library : C:\DATABASE\NBS75K.L
TIC Integration Parameters: VOC.P

****

Peak Number 1 Isobutane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.01	0.02 mg/kg	2162810	FLUOROBENZENE**IS	2538910	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Isobutane	58	C4H10	000075-28-5	64
2	Isobutane	58	C4H10	000075-28-5	64
3	Isobutane	58	C4H10	000075-28-5	9
4	Propane, 1-chloro-2-methyl-	92	C4H9Cl	000513-36-0	9
5	Propane, 1-chloro-2-methyl-	92	C4H9Cl	000513-36-0	9

****

Peak Number 2 Butane Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.21	0.02 mg/kg	2036420	FLUOROBENZENE**IS	2538910	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane	58	C4H10	000106-97-8	64
2	Butane	58	C4H10	000106-97-8	52
3	Diazene, dimethyl-	58	C2H6N2	000503-28-6	5
4	Acetic acid, 2-propenyl ester	100	C5H8O2	000591-87-7	4
5	Acetone	58	C3H6O	000067-64-1	4

****

Peak Number 3 Butane, 2-methyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.96	0.02 mg/kg	1931960	FLUOROBENZENE**IS	2538910	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2-methyl-	72	C5H12	000078-78-4	87
2	Butane, 2-methyl-	72	C5H12	000078-78-4	80
3	Butane, 2-methyl-	72	C5H12	000078-78-4	72
4	3-Buten-1-ol	72	C4H8O	000627-27-0	47
5	1-Propanol, 2-methyl-	74	C4H10O	000078-83-1	38

****

Peak Number 4 Pentane Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
3.34	0.01 mg/kg	1381990	FLUOROBENZENE**IS	2538910	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane	72	C5H12	000109-66-0	90
2	Pentane	72	C5H12	000109-66-0	90
3	Pentane	72	C5H12	000109-66-0	86
4	Oxirane, ethyl-	72	C4H8O	000106-88-7	59
5	Butane, 2-methyl-	72	C5H12	000078-78-4	38

****

Peak Number 5 Pentane, 2-methyl- Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
4.64	0.01 mg/kg	966398	FLUOROBENZENE**IS	2538910	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2-methyl-	86	C6H14	000107-83-5	90
2	Pentane, 2-methyl-	86	C6H14	000107-83-5	90
3	Pentane, 2-methyl-	86	C6H14	000107-83-5	86
4	Pentane, 2-methyl-	86	C6H14	000107-83-5	86
5	Pentane, 2-methyl-	86	C6H14	000107-83-5	58

****

Peak Number 6 Cyclohexane Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
6.10	0.00 mg/kg	301866	FLUOROBENZENE**IS	2538910	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane	84	C6H12	000110-82-7	72
2	Cyclopentane, methyl-	84	C6H12	000096-37-7	64
3	Cyclopentane, methyl-	84	C6H12	000096-37-7	64
4	1-Pentene, 2-methyl-	84	C6H12	000763-29-1	64
5	Cyclobutane, ethyl-	84	C6H12	004806-61-5	59

****

Peak Number 7 Hexane, 3-methyl- Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
7.12	0.00 mg/kg	312802	FLUOROBENZENE**IS	2538910	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexane, 3-methyl-	100	C7H16	000589-34-4	68
2	Hexane, 3-methyl-	100	C7H16	000589-34-4	64
3	Decane, 3,3,4-trimethyl-	184	C13H28	049622-18-6	59
4	Hexane, 3-methyl-	100	C7H16	000589-34-4	58
5	Pentane, 3-ethyl-	100	C7H16	000617-78-7	50

****

Peak Number 8 Cyclohexane, 1,3-dimethyl-,... Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
9.61	0.00 mg/kg	250013	FLUOROBENZENE**IS	2538910	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, 1,3-dimethyl-, cis-	112	C8H16	000638-04-0	90
2	Cyclohexane, 1,3-dimethyl-, cis-	112	C8H16	000638-04-0	87
3	Cyclohexane, 1,3-dimethyl-, cis-	112	C8H16	000638-04-0	87

4	Cyclohexane, 1,3-dimethyl-, cis-	112	C8H16	000638-04-0	87
5	Cyclohexane, 1,3-dimethyl-	112	C8H16	000591-21-9	87

****

Peak Number 9 Hexane, 3-ethyl- Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
9.92	0.00 mg/kg	302123	d5-CHLOROBENZENE*	2174040	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexane, 3-ethyl-	114	C8H18	000619-99-8	59
2	Hexane, 2,4-dimethyl-	114	C8H18	000589-43-5	53
3	Heptane, 2,4-dimethyl-	128	C9H20	002213-23-2	53
4	Octane	114	C8H18	000111-65-9	50
5	Octane	114	C8H18	000111-65-9	45

****

Peak Number 10 Arsenous acid, tris(trimeth... Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.31	0.01 mg/kg	674966	d5-CHLOROBENZENE*	2174040	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Arsenous acid, tris(trimethylsil...	342	C9H27AsO3Si3	055429-29-3	64
2	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	49
3	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	47
4	1,2-Benzenediol, 3,5-bis(1,1-dim...	222	C14H22O2	001020-31-1	39
5	1H-Indole, 2-methyl-3-phenyl-	207	C15H13N	004757-69-1	9

****

Peak Number 11 1H-1,2,4-Triazole-3-carboxa... Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.76	0.00 mg/kg	200698	d5-CHLOROBENZENE*	2174040	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-1,2,4-Triazole-3-carboxaldehy...	111	C4H5N3O	056804-98-9	50
2	2-Oxetanone, 4,4-dimethyl-	100	C5H8O2	001823-52-5	47
3	Hexanal	100	C6H12O	000066-25-1	43
4	Hexanal	100	C6H12O	000066-25-1	43
5	Hexanal	100	C6H12O	000066-25-1	43

****

Peak Number 12 Cyclopentane, (2-methylbutyl)- Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.94	0.00 mg/kg	204805	d5-CHLOROBENZENE*	2174040	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentane, (2-methylbutyl)-	140	C10H20	053366-38-4	64
2	2-Cyclopenten-1-one, 3-amino-2-m...	111	C6H9NO	069687-85-0	50
3	Cyclooctane, butyl-	168	C12H24	016538-93-5	50
4	Cyclohexane, 1-ethyl-2,3-dimethyl-	140	C10H20	007058-05-1	38
5	3-Undecene, 2-methyl-, (Z)-	168	C12H24	074630-48-1	38

****

Peak Number 13 1-Butanol Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
12.34	0.00 mg/kg	231392	d5-CHLOROBENZENE*	2174040	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Butanol	74	C4H10O	000071-36-3	72
2	Cyclopentane, 1,1-dimethyl-	98	C7H14	001638-26-2	64
3	1-Hexene	84	C6H12	000592-41-6	64
4	1-Pentanol, 4-methyl-	102	C6H14O	000626-89-1	64
5	1-Hexene, 5-methyl-	98	C7H14	003524-73-0	59

****

Peak Number 14 .alpha.-Pinene Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
13.00	0.00 mg/kg	223842	d5-CHLOROBENZENE*	2174040	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	.alpha.-Pinene	136	C10H16	000080-56-8	90
2	.alpha.-Pinene	136	C10H16	000080-56-8	87
3	.alpha.-Pinene	136	C10H16	000080-56-8	87
4	.alpha.-Pinene	136	C10H16	000080-56-8	87
5	.beta.-Pinene	136	C10H16	000127-91-3	81

****

Peak Number 15 Cyclotetrasiloxane, octamet... Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
13.56	0.01 mg/kg	698005	d4-1,4-DICHLOROBE	2306440	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	72
2	Ethanethioic acid, S-[8-(diethyl...	324	C14H29O4PS	000000-00-0	40
3	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	38
4	6,7-Benzo-phenothiazine-5,5-dioxide	281	C16H11NO2S	000000-00-0	9
5	Benzene, 1-phenyl-4-(2-cyano-2-p...	281	C21H15N	027869-56-3	9

****

Peak Number 16 Furan, 2-pentyl- Concentration Rank 20

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
14.10	0.00 mg/kg	188184	d4-1,4-DICHLOROBE	2306440	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Furan, 2-pentyl-	138	C9H14O	003777-69-3	64
2	Furan, 2-pentyl-	138	C9H14O	003777-69-3	53
3	2-n-Heptylfuran	166	C11H18O	003777-71-7	40
4	Furan, 2-pentyl-	138	C9H14O	003777-69-3	39
5	2-Octylfuran	180	C12H20O	000000-00-0	39

****

Peak Number 17 1,4-Dichlorobenzene-d4 Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
15.44	0.02 mg/kg	2124120	d4-1,4-DICHLOROBE	2306440	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual

1	1,4-Dichlorobenzene-d4	150	C6Cl2D4	003855-82-1 95
2	Benzene-1,2,3,4-d4-, 5,6-dichloro-	150	C6Cl2D4	002199-69-1 90
3	p-Nitrophenacyl bromide	243	C8H6BrNO3	000099-81-0 17
4	Benzaldehyde, 2-hydroxy-5-methoxy-	152	C8H8O3	000672-13-9 9
5	9-Borabicyclo[3.3.1]nonane, 9-et...	150	C10H19B	052102-17-7 9

****

Peak Number 18 3-Hydroxymandelic acid, eth... Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
16.27	0.00 mg/kg	243109	d4-1,4-DICHLOROBE	2306440	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	000000-00-0	72
2	Benzeneethanamine, N-[(pentafluo...	475	C21H26F5NO2Si2	055429-85-1	64
3	7H-Dibenzo[c,g]carbazole	267	C20H13N	000194-59-2	50
4	Butanamide, 2,2,3,3,4,4,4-heptaf...	493	C18H26F7NO3Si2	055471-01-7	50
5	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	50

****

Peak Number 19 Phenol, 2-chloro- Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
18.03	0.00 mg/kg	299599	d4-1,4-DICHLOROBE	2306440	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenol, 2-chloro-	128	C6H5ClO	000095-57-8	53
2	Phenol, 2-chloro-	128	C6H5ClO	000095-57-8	42
3	Quinoline, 2-iodo-	255	C9H6IN	006560-83-4	10
4	2-Propenal, 3-(dimethylamino)-2-...	128	C6H12N2O	049582-62-9	10
5	1,3-Benzenedicarbonitrile	128	C8H4N2	000626-17-5	10

****

Peak Number 20 Bendazol Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
19.56	0.00 mg/kg	356639	d4-1,4-DICHLOROBE	2306440	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Bendazol	208	C14H12N2	000621-72-7	25
2	Quinoline, 2-chloro-6-methoxy-4-...	207	C11H10ClNO	006340-55-2	22
3	Acetic acid, [4-(1,1-dimethyleth...	222	C13H18O3	088530-52-3	22
4	1,3,5-Triazine, 2-chloro-4,6-bis...	207	C5H6ClN3S2	004407-40-3	18
5	Corydaldine	207	C11H13NO3	000493-49-2	18

LS090419.M Tue Sep 10 12:38:35 2019

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321169.D Vial: 27
Acq On : 5 Sep 2019 19:26 Operator: RLD-DGS
Sample : 163979,321169, Inst : VMS4
Misc : 4.61g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 19:47:21 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1034340	0.02 mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	851045	0.02 mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.90	152	430534	0.02 mg/kg	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.83	113	274434	0.021 mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 105 %		
45) SURR12DCAd4	7.25	102	63690	0.024 mg/kg	0.01
Spiked Amount 0.020	Range 71 - 136		Recovery = 120 %		
60) SURRd8Tolule	9.67	98	1070618	0.020 mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %		
82) SURR4BrFBenz	13.23	95	426563	0.021 mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 105 %		
Target Compounds					Qvalue
2) Dichlorodi	1.82	85	2330	0.0012 mg/kg#	44
3) Chloromethan	2.01	50	11910	0.0008 mg/kg	70
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	2.67	94	1075	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	3.67	67	1716	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	3.85	56	2034	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.04	43	298426	0.0983 mg/kg	91
16) Iodomethane	4.12	142	2765	0.0024 mg/kg#	84
17) Carbon Dislf	4.20	76	384482	0.0086 mg/kg	97
18) allylchloride	4.48	41	5254	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	4.60	84	22736	Below Cal #	88
21) Acrylonitrile	4.96	53	2787	N.D.	
22) t12dichlorte	0.00	96	0	N.D.	
23) tbutylalcohol	4.80	59	9095	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	5.33	57	140430	0.0082 mg/kg	95
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	5.62	43	1530	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	6.19	77	5715	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	6.28	72	2553	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321169.D Vial: 27
Acq On : 5 Sep 2019 19:26 Operator: RLD-DGS
Sample : 163979,321169, Inst : VMS4
Misc : 4.61g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 19:47:21 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	6.64	83	1015	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	6.92	56	85744	0.0044 mg/kg#	81
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	7.32	78	68436	0.0011 mg/kg#	82
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	7.35	73	1720	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	8.37	83	123849	0.0052 mg/kg	95
51)	12dicloropra	8.36	63	1122	N.D.	
52)	23dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	8.60	69	5109	0.0015 mg/kg#	46
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	9.01	43	1072	N.D.	
58)	c13dicloproe	0.00	75	0	N.D.	
59)	4Meth2Pentan	9.53	43	2169	N.D.	
61)	Toluene	9.76	92	124634	0.0029 mg/kg	99
62)	t13Dicloprop	0.00	75	0	N.D.	
63)	ethylmethacrylate	10.21	69	1264	N.D.	
64)	112Triclotha	10.23	83	2105	N.D.	
65)	Tetrachlorte	0.00	166	0	N.D.	
66)	13Diclorpropa	0.00	76	0	N.D.	
68)	2Hexanone	10.65	43	1483	N.D.	
69)	Clorodibrmta	0.00	129	0	N.D.	
70)	12Dibrometha	0.00	107	0	N.D.	
71)	Chlorobenzen	0.00	112	0	N.D.	
72)	1Clhexane	11.58	91	1775	0.0010 mg/kg#	1
73)	1112Tetclota	0.00	131	0	N.D.	
74)	Ethylbenzene	11.79	91	35716	0.0005 mg/kg	96
75)	m p-Xylene	11.95	106	58016	0.0020 mg/kg	97
76)	o-Xylene	12.50	106	19573	0.0007 mg/kg	100
77)	Styrene	12.50	104	1073	N.D.	
78)	Bromoform	0.00	173	0	N.D.	
79)	Isopropylben	13.01	105	4011	N.D.	
81)	cyclohexanone	13.13	55	1833	N.D.	
83)	Bromobenzene	0.00	156	0	N.D.	
84)	1122Tetrclta	13.47	83	1133	N.D.	
85)	123Triclproa	13.47	75	1507	N.D.	
86)	14dichloro2butene	0.00	53	0	N.D.	
87)	n-Propylbenz	13.60	91	7814	N.D.	
88)	2chlorotolue	13.73	91	3495	N.D.	
89)	4chlorotolue	13.86	91	3369	N.D.	
90)	135Trimebenz	13.87	105	33457	N.D.	
91)	tbutylbenzen	14.41	119	7606	N.D.	
92)	124Trimetben	14.40	105	89297	0.0015 mg/kg	80
93)	sbutylbenzen	14.64	105	1698	N.D.	
94)	13Diclorbenz	0.00	146	0	N.D.	
95)	pIsopropylto	14.87	119	2848	N.D.	
96)	14dichlorobe	0.00	146	0	N.D.	
97)	12dichlorobe	0.00	146	0	N.D.	
98)	nButylbenzen	15.49	91	1874	N.D.	
99)	12dibromo3cl	0.00	157	0	N.D.	
100)	135Trichlorobenzene	0.00	180	0	N.D.	
101)	124Trichlobe	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321169.D Vial: 27
Acq On : 5 Sep 2019 19:26 Operator: RLD-DGS
Sample : 163979,321169, Inst : VMS4
Misc : 4.61g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 19:47:21 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) Hexachlorobu	0.00	225	0	N.D.	
103) Naphthalene	18.02	128	5393	N.D.	
104) 123Trichlben	0.00	180	0	N.D.	

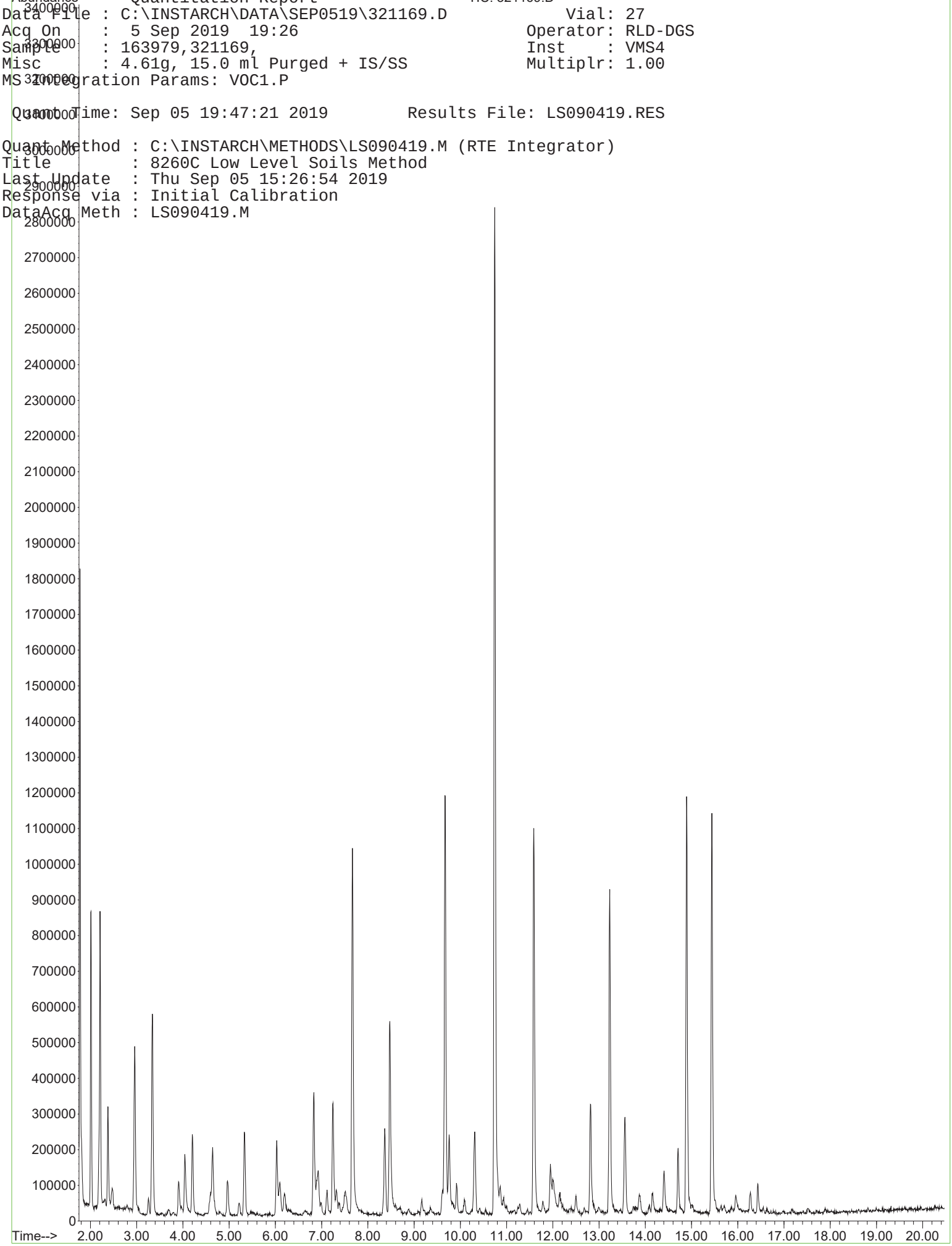
(#) = qualifier out of range (m) = manual integration

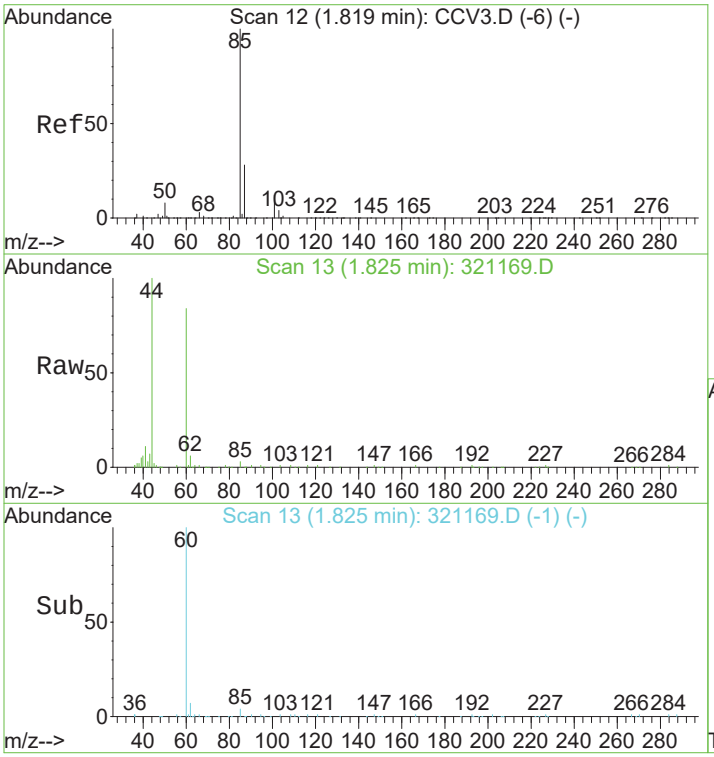
Quantitation Report (RTE Integrator) TIC: 321169.D

Data File : C:\INSTARCH\DATA\SEP0519\321169.D Vial: 27
Acq On : 5 Sep 2019 19:26 Operator: RLD-DGS
Sample : 163979,321169, Inst : VMS4
Misc : 4.61g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 19:47:21 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

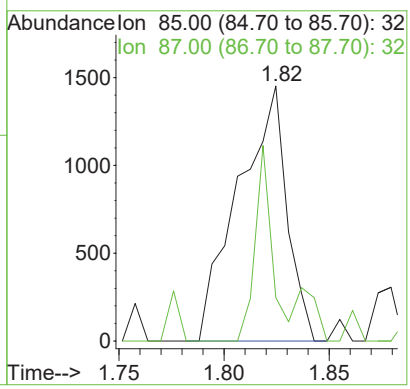




#2
Dichlorodi
Concen: 0.00 mg/kg
RT: 1.82 min Scan# 13
Delta R.T. 0.01 min
Lab File: 321169.D
Acq: 5 Sep 2019 19:26

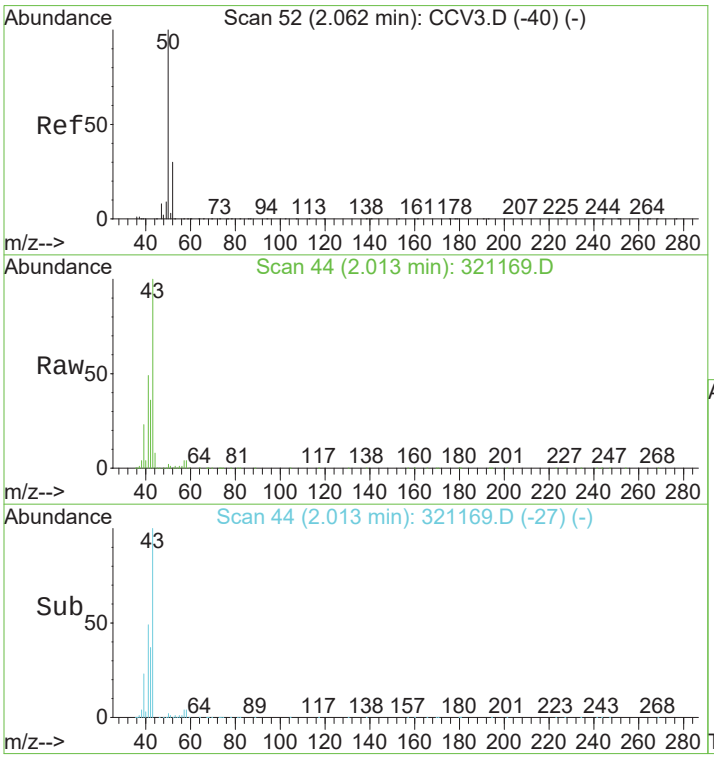
Tgt Ion: 85 Resp: 2330

Ion	Ratio	Lower	Upper
85	100		
87	0.0	10.8	50.8#



Negative Library Identification

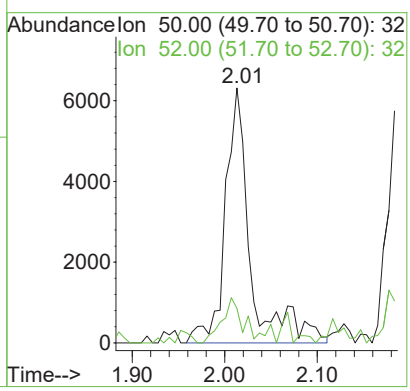
[redacted]



#3
Chloromethan
Concen: 0.00 mg/kg
RT: 2.01 min Scan# 44
Delta R.T. -0.05 min
Lab File: 321169.D
Acq: 5 Sep 2019 19:26

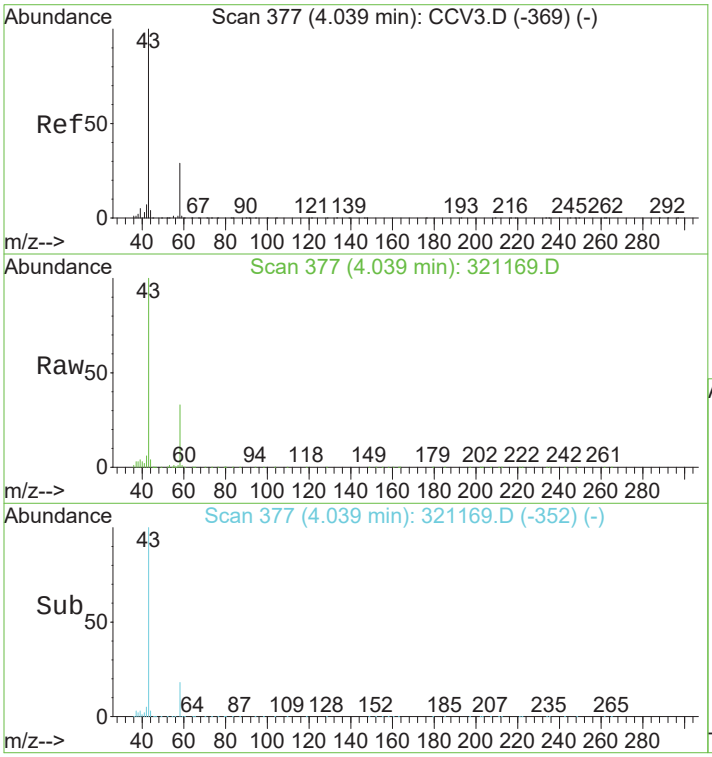
Tgt Ion: 50 Resp: 11910

Ion	Ratio	Lower	Upper
50	100		
52	16.9	13.9	53.9



Negative Library Identification

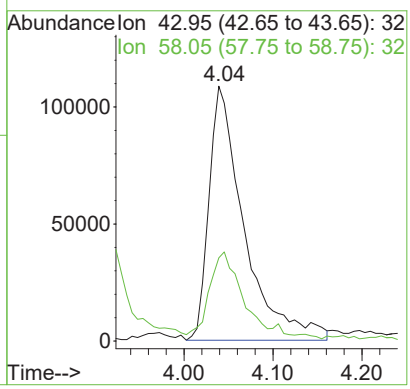
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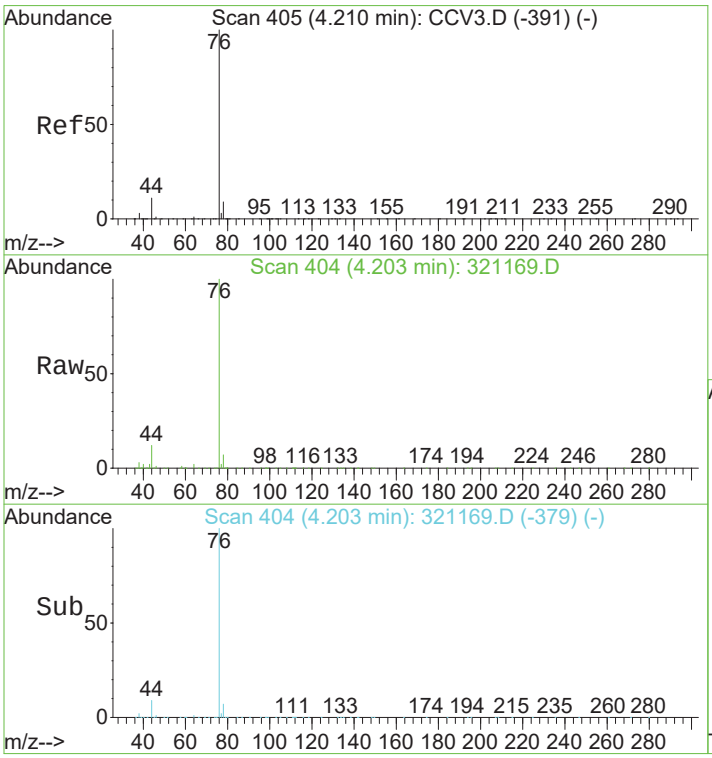


#15
Acetone
Concen: 0.10 mg/kg
RT: 4.04 min Scan# 377
Delta R.T. -0.00 min
Lab File: 321169.D
Acq: 5 Sep 2019 19:26

Tgt Ion: 43 Resp: 298426

Ion	Ratio	Lower	Upper
43	100		
58	34.1	9.4	49.4

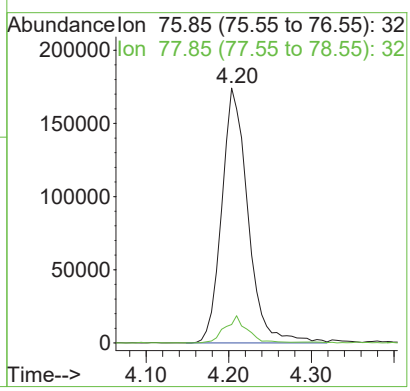


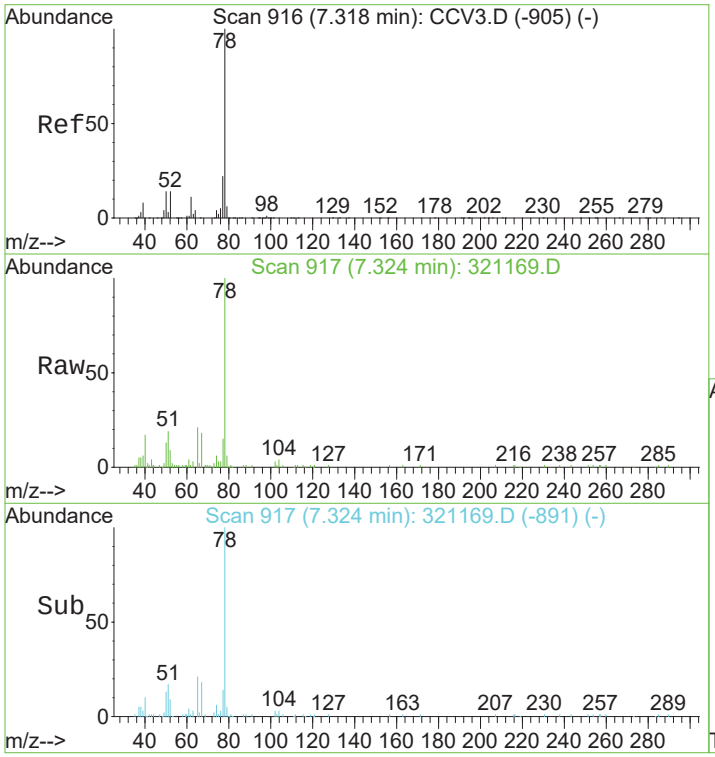


#17
Carbon Dislf
Concen: 0.01 mg/kg
RT: 4.20 min Scan# 404
Delta R.T. -0.00 min
Lab File: 321169.D
Acq: 5 Sep 2019 19:26

Tgt Ion: 76 Resp: 384482

Ion	Ratio	Lower	Upper
76	100		
78	9.5	0.0	28.5

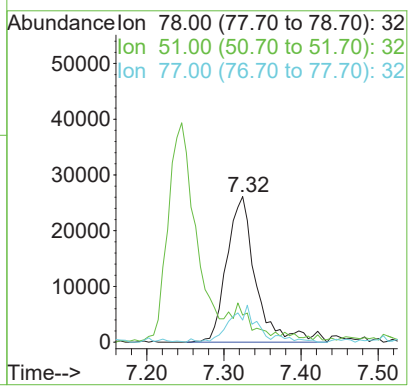


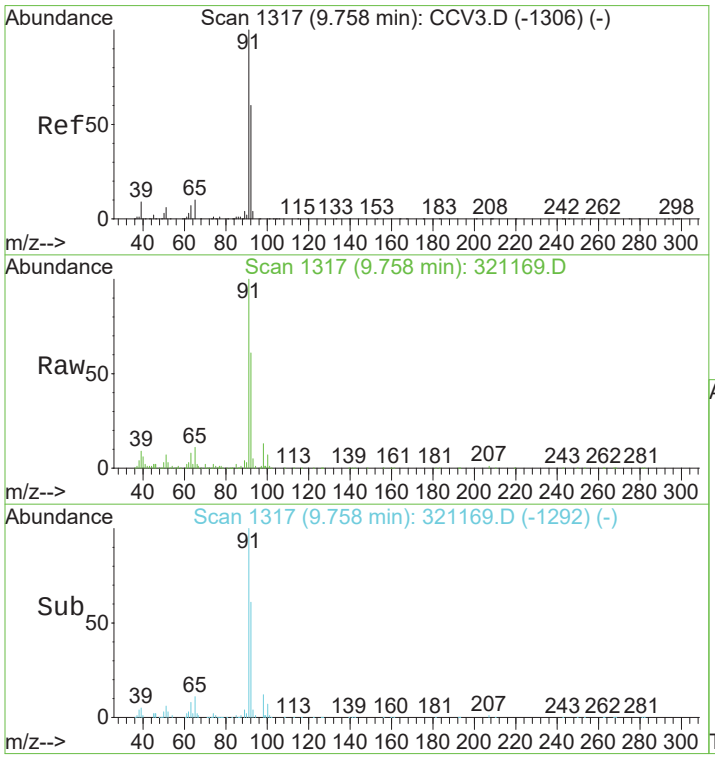


#46
Benzene
Concen: 0.00 mg/kg
RT: 7.32 min Scan# 917
Delta R.T. 0.01 min
Lab File: 321169.D
Acq: 5 Sep 2019 19:26

Tgt Ion: 78 Resp: 68436

Ion	Ratio	Lower	Upper
78	100		
51	0.0	0.0	36.9
77	21.4	3.0	43.0

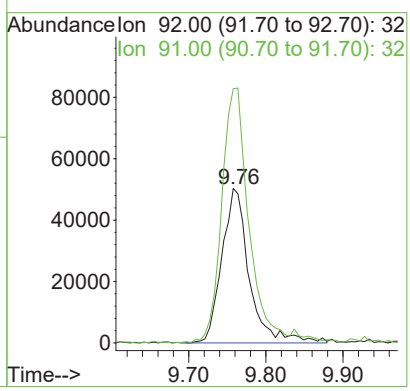


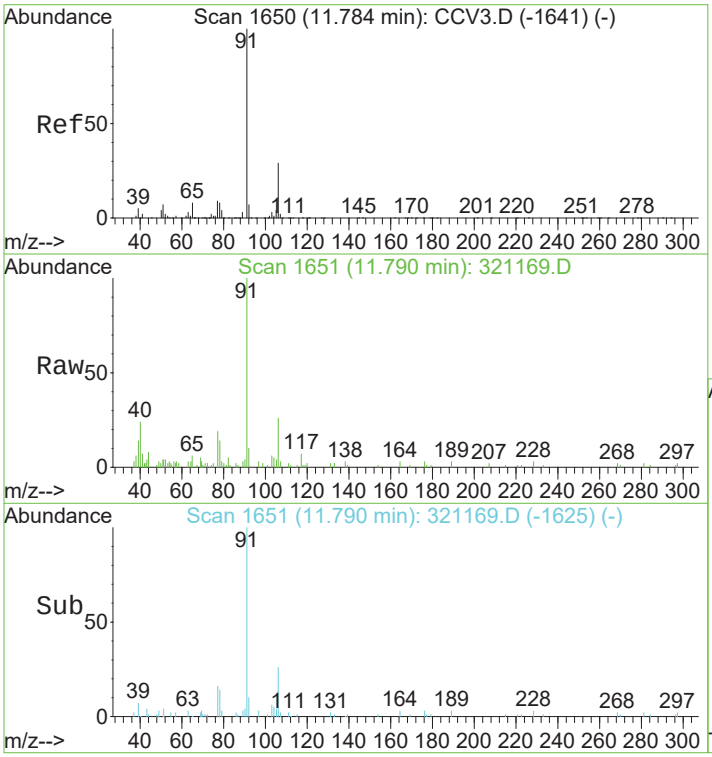


#61
Toluene
Concen: 0.00 mg/kg
RT: 9.76 min Scan# 1317
Delta R.T. -0.00 min
Lab File: 321169.D
Acq: 5 Sep 2019 19:26

Tgt Ion: 92 Resp: 124634

Ion	Ratio	Lower	Upper
92	100		
91	167.0	148.0	188.0

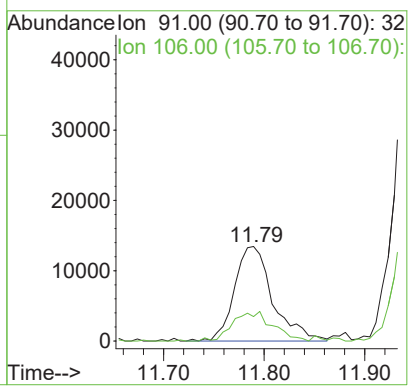


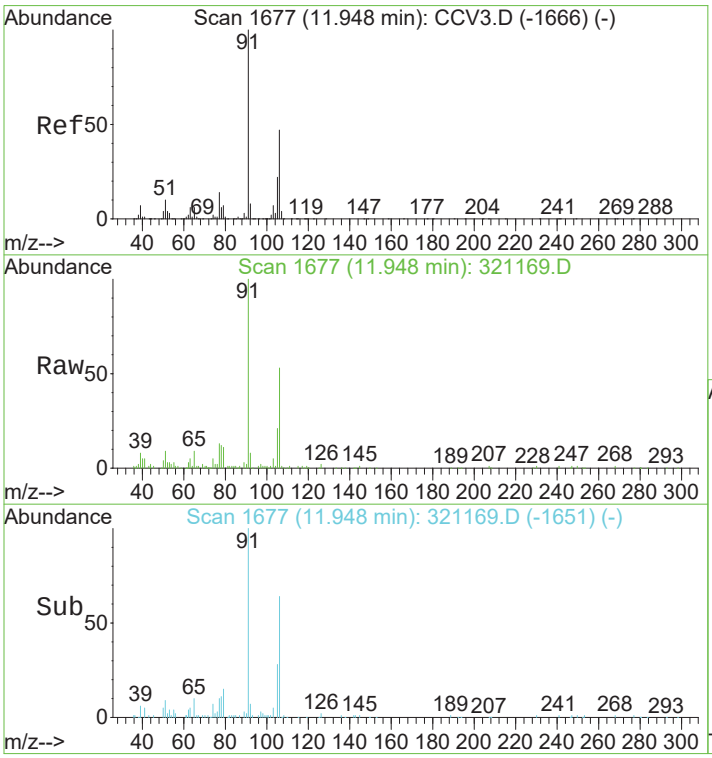


#74
Ethylbenzene
Concen: 0.00 mg/kg
RT: 11.79 min Scan# 1651
Delta R.T. 0.01 min
Lab File: 321169.D
Acq: 5 Sep 2019 19:26

Tgt Ion: 91 Resp: 35716

Ion	Ratio	Lower	Upper
91	100		
106	32.4	10.3	50.3

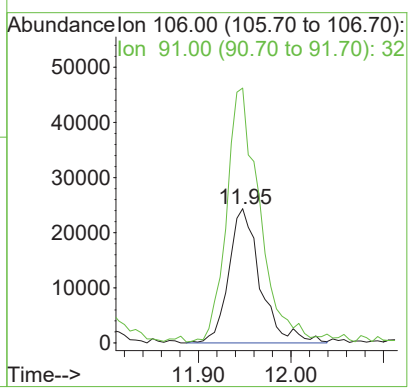


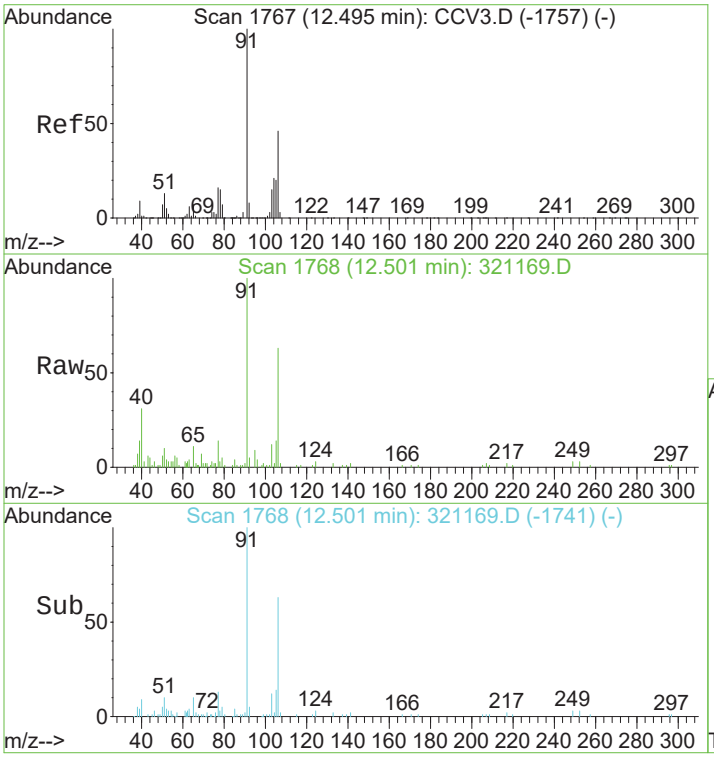


#75
m p-Xylene
Concen: 0.00 mg/kg
RT: 11.95 min Scan# 1677
Delta R.T. 0.01 min
Lab File: 321169.D
Acq: 5 Sep 2019 19:26

Tgt Ion:106 Resp: 58016

Ion	Ratio	Lower	Upper
106	100		
91	200.1	184.6	224.6

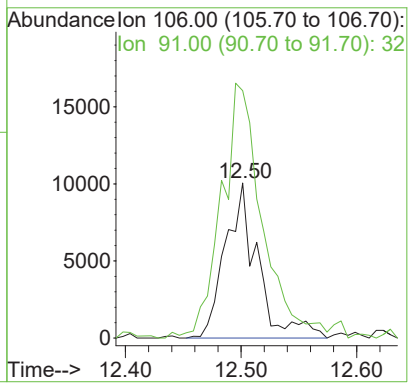


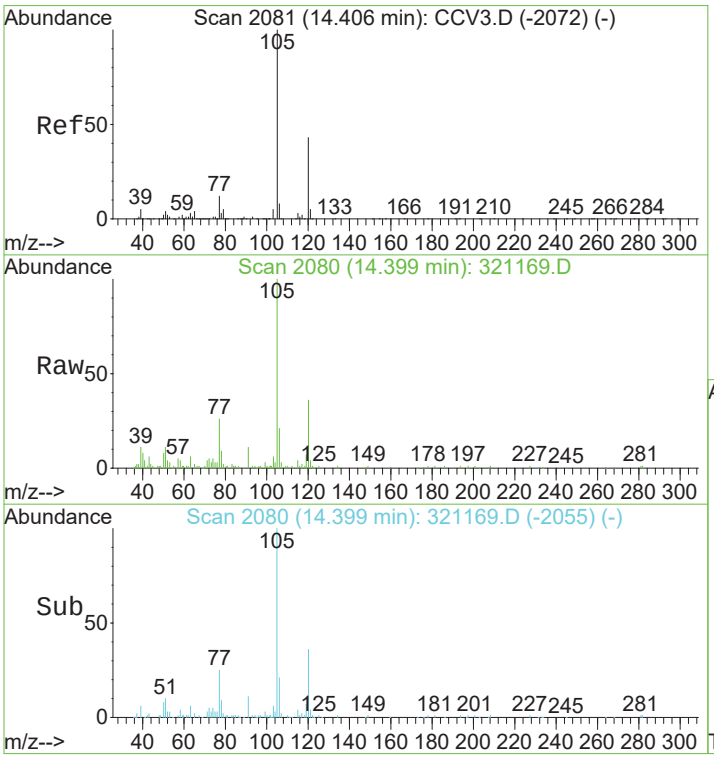


#76
o-Xylene
Concen: 0.00 mg/kg
RT: 12.50 min Scan# 1768
Delta R.T. 0.01 min
Lab File: 321169.D
Acq: 5 Sep 2019 19:26

Tgt Ion:106 Resp: 19573

Ion	Ratio	Lower	Upper
106	100		
91	211.7	191.1	231.1

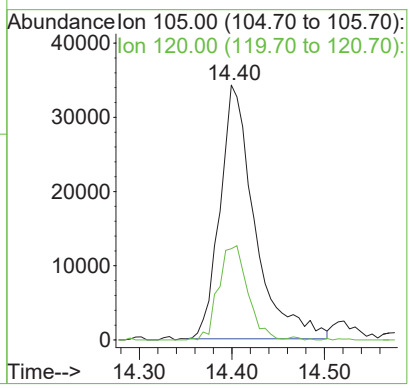




#92
124Trimetben
Concen: 0.00 mg/kg
RT: 14.40 min Scan# 2080
Delta R.T. -0.00 min
Lab File: 321169.D
Acq: 5 Sep 2019 19:26

Tgt Ion:105 Resp: 89297

Ion	Ratio	Lower	Upper
105	100		
120	31.2	24.5	64.5



Library Search Compound Report

Data Path : C:\Instarch\Data\SEP0519\
Data File : 321169.D
Acq On : 5 Sep 2019 19:26
Operator : RLD-DGS
Sample : 163979,321169,
Misc : 4.61g, 15.0 ml Purged + IS/SS
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHODS\LS090419.M
Quant Title : 8260C Low Level Soils Method

TIC Library : C:\DATABASE\NBS75K.L
TIC Integration Parameters: VOC.P

****

Peak Number 1 2-Nonynoic acid Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
1.77	0.02 mg/kg	2300060	FLUOROBENZENE**IS	2695690	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Nonynoic acid	154	C9H14O2	001846-70-4	45
2	3-Butenoic acid	86	C4H6O2	000625-38-7	36
3	2H-Pyrano[3,2-b]pyridine	133	C8H7NO	004767-91-3	9
4	2-Butenal	70	C4H6O	004170-30-3	9
5	Propane	44	C3H8	000074-98-6	9

****

Peak Number 2 Butane Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.21	0.01 mg/kg	1517020	FLUOROBENZENE**IS	2695690	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane	58	C4H10	000106-97-8	80
2	Butane	58	C4H10	000106-97-8	72
3	Isobutane	58	C4H10	000075-28-5	9
4	Diazene, dimethyl-	58	C2H6N2	000503-28-6	5
5	Acetic acid, 2-propenyl ester	100	C5H8O2	000591-87-7	4

****

Peak Number 3 Acetaldehyde Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.38	0.01 mg/kg	976260	FLUOROBENZENE**IS	2695690	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetaldehyde	44	C2H4O	000075-07-0	56
2	Acetaldehyde	44	C2H4O	000075-07-0	9
3	Acetaldehyde	44	C2H4O	000075-07-0	9
4	Ethylene oxide	44	C2H4O	000075-21-8	9
5	Diazenedicarboxamide	116	C2H4N4O2	000123-77-3	9

****

Peak Number 4 Butane, 2-methyl- Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.96	0.01 mg/kg	1217140	FLUOROBENZENE**IS	2695690	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2-methyl-	72	C5H12	000078-78-4	90
2	Butane, 2-methyl-	72	C5H12	000078-78-4	80
3	Butane, 2-methyl-	72	C5H12	000078-78-4	80
4	3-Buten-1-ol	72	C4H8O	000627-27-0	47
5	3-Buten-1-ol	72	C4H8O	000627-27-0	28

****

Peak Number 5 Pentane Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
3.34	0.01 mg/kg	1315650	FLUOROBENZENE**IS	2695690	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane	72	C5H12	000109-66-0	90
2	Pentane	72	C5H12	000109-66-0	90
3	Pentane	72	C5H12	000109-66-0	86
4	Butane, 2-methyl-	72	C5H12	000078-78-4	64
5	Oxirane, ethyl-	72	C4H8O	000106-88-7	53

****

Peak Number 6 Propanal Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
3.91	0.00 mg/kg	315328	FLUOROBENZENE**IS	2695690	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propanal	58	C3H6O	000123-38-6	39
2	Propanal	58	C3H6O	000123-38-6	9
3	Pentanal, 2,3-dimethyl-	114	C7H14O	032749-94-3	9
4	Pseudoephedrine, (+)-	165	C10H15NO	000090-82-4	9
5	Cyclopropyl methyl carbinol	86	C5H10O	000765-42-4	9

****

Peak Number 7 Pentane, 2-methyl- Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
4.64	0.00 mg/kg	647290	FLUOROBENZENE**IS	2695690	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2-methyl-	86	C6H14	000107-83-5	90
2	Pentane, 2-methyl-	86	C6H14	000107-83-5	90
3	Pentane, 2-methyl-	86	C6H14	000107-83-5	86
4	Pentane, 2-methyl-	86	C6H14	000107-83-5	80
5	Pentane, 2-methyl-	86	C6H14	000107-83-5	78

****

Peak Number 8 Pentane, 3-methyl- Concentration Rank 20

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
4.96	0.00 mg/kg	276190	FLUOROBENZENE**IS	2695690	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 3-methyl-	86	C6H14	000096-14-0	58
2	Pentane, 3-methyl-	86	C6H14	000096-14-0	53
3	Pentane, 3-methyl-	86	C6H14	000096-14-0	53

4	Cyclobutane, ethyl-	84	C6H12	004806-61-5	47
5	1-Hexene, 3,4-dimethyl-	112	C8H16	016745-94-1	38

****

Peak Number 9 Butanal Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
6.03	0.01 mg/kg	776569	FLUOROBENZENE**IS	2695690	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanal	72	C4H8O	000123-72-8	91
2	Butanal	72	C4H8O	000123-72-8	90
3	Butanal	72	C4H8O	000123-72-8	64
4	Butanal	72	C4H8O	000123-72-8	53
5	Butanal	72	C4H8O	000123-72-8	45

****

Peak Number 10 Butanoic acid, trimethylsil... Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
6.19	0.00 mg/kg	331009	FLUOROBENZENE**IS	2695690	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanoic acid, trimethylsilyl ester	160	C7H16O2Si	016844-99-8	56
2	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	56
3	Silanol, trimethyl-, propanoate	146	C6H14O2Si	016844-98-7	56
4	Ethanol, 2-(trimethylsilyl)-	118	C5H14OSi	002916-68-9	45
5	Silane, (1,1-dimethylethoxy)trim...	146	C7H18OSi	013058-24-7	40

****

Peak Number 11 Butanal, 3-methyl- Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
7.51	0.00 mg/kg	287956	FLUOROBENZENE**IS	2695690	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanal, 3-methyl-	86	C5H10O	000590-86-3	76
2	Butanal, 3-methyl-	86	C5H10O	000590-86-3	70
3	2,4,6-Trimethyl-5H-1,3,5-dithiazine	163	C6H13NS2	086241-90-9	56
4	Butanal, 3-methyl-	86	C5H10O	000590-86-3	49
5	2-Oxetanone, 4,4-dimethyl-	100	C5H8O2	001823-52-5	47

****

Peak Number 12 Pentanal Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
8.47	0.01 mg/kg	1574390	FLUOROBENZENE**IS	2695690	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentanal	86	C5H10O	000110-62-3	90
2	Pentanal	86	C5H10O	000110-62-3	74
3	Pentanal	86	C5H10O	000110-62-3	56
4	Pentanal	86	C5H10O	000110-62-3	50
5	Urea, trimethyl-	102	C4H10N2O	000632-14-4	40

****

Peak Number 13 Cyclotrisiloxane, hexamethyl- Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.31	0.00 mg/kg	623434	d5-CHLOROBENZENE*	2621310	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	86
2	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	72
3	Silane, trimethyl[5-methyl-2-(1-...	222	C13H22OSi	055012-80-1	40
4	Arsenous acid, tris(trimethylsil...	342	C9H27AsO3Si3	055429-29-3	39
5	7-Acetoxy-7,8,9,10-tetramethyl-7...	294	C20H22O2	000000-00-0	39

****

Peak Number 14 Hexanal Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.74	0.05 mg/kg	6941730	d5-CHLOROBENZENE*	2621310	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexanal	100	C6H12O	000066-25-1	91
2	Hexanal	100	C6H12O	000066-25-1	90
3	Hexanal	100	C6H12O	000066-25-1	90
4	Hexanal	100	C6H12O	000066-25-1	83
5	Hexanal	100	C6H12O	000066-25-1	60

****

Peak Number 15 Cyclopropane, 1,1-dichloro-... Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
12.15	0.00 mg/kg	319975	d5-CHLOROBENZENE*	2621310	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopropane, 1,1-dichloro-2-(1,...	194	C9H16Cl2	054824-03-2	56
2	2-Ethyl-trans-2-butenal	98	C6H10O	063883-69-2	45
3	2-Hexenal, (E)-	98	C6H10O	006728-26-3	42
4	3-Butenoic acid	86	C4H6O2	000625-38-7	38
5	2-Hexenal, (E)-	98	C6H10O	006728-26-3	14

****

Peak Number 16 Heptanal Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
12.81	0.01 mg/kg	882639	d5-CHLOROBENZENE*	2621310	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptanal	114	C7H14O	000111-71-7	50
2	Heptanal	114	C7H14O	000111-71-7	50
3	Heptanal	114	C7H14O	000111-71-7	49
4	Heptanal	114	C7H14O	000111-71-7	47
5	Heptanal	114	C7H14O	000111-71-7	38

****

Peak Number 17 Cyclotetrasiloxane, octamet... Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
13.56	0.01 mg/kg	725895	d4-1,4-DICHLOROBE	2819020	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual

1	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	87
2	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	43
3	Benzene, 1-phenyl-4-(2-cyano-2-p...	281	C21H15N	027869-56-3	38
4	2-Oxo-4-phenyl-6-(4-chlorophenyl...	282	C16H11ClN2O	000000-00-0	9
5	6,7-Benzo-phenothiazine-5,5-dioxide	281	C16H11NO2S	000000-00-0	9

****

Peak Number 18 Octanal Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
14.71	0.00 mg/kg	454634	d4-1,4-DICHLOROBE	2819020	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octanal	128	C8H16O	000124-13-0	91
2	Octanal	128	C8H16O	000124-13-0	86
3	Octanal	128	C8H16O	000124-13-0	64
4	Piperidine	85	C5H11N	000110-89-4	47
5	1,1-Dodecanediol, diacetate	286	C16H30O4	056438-07-4	38

****

Peak Number 19 Benzene-1,2,3,4-d4-, 5,6-di... Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
15.44	0.02 mg/kg	2859310	d4-1,4-DICHLOROBE	2819020	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene-1,2,3,4-d4-, 5,6-dichloro-	150	C6Cl2D4	002199-69-1	97
2	1,4-Dichlorobenzene-d4	150	C6Cl2D4	003855-82-1	97
3	9-Borabicyclo[3.3.1]nonane, 9-et...	150	C10H19B	052102-17-7	9
4	Biphenylene	152	C12H8	000259-79-0	9
5	2-Methyl-6-nitroaniline	152	C7H8N2O2	000570-24-1	9

****

Peak Number 20 Hexahydropyridine, 1-methyl... Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
19.31	0.01 mg/kg	1101840	d4-1,4-DICHLOROBE	2819020	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexahydropyridine, 1-methyl-4-[4...	207	C12H17NO2	000000-00-0	18
2	4-Bromo-3-chloroaniline	205	C6H5BrClN	021402-26-6	14
3	N-(2-Acetylcyclopentylidene)cycl...	207	C13H21NO	000000-00-0	12
4	Corydaldine	207	C11H13NO3	000493-49-2	11
5	1H-Indole, 5-methyl-2-phenyl-	207	C15H13N	013228-36-9	9

LS090419.M Tue Sep 10 12:39:09 2019

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321170.D Vial: 28
Acq On : 5 Sep 2019 19:55 Operator: RLD-DGS
Sample : 163979,321170, Inst : VMS4
Misc : 5.42g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

NOT USED

Quant Time: Sep 05 20:16:29 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	0.00	96	0	0.00	mg/kg	-7.67 NA%
67) d5-CHLOROBENZENE**ISTD**	0.00	117	0	0.00	mg/kg	-11.59 NA%
80) d4-1,4-DICHLOROBENZENE**IS	0.00	152	0	0.00	mg/kg	-14.89 NA%

System Monitoring Compounds						
41) SURRDibrflma	0.00	113	0	0.000	mg/kg	
Spiked Amount 0.020	Range 78 - 119		Recovery = 0		%#	
45) SURR12DCAd4	0.00	102	0	0.000	mg/kg	
Spiked Amount 0.020	Range 71 - 136		Recovery = 0		%#	
60) SURRd8Tolule	0.00	98	0	0.000	mg/kg	
Spiked Amount 0.020	Range 85 - 116		Recovery = 0		%#	
82) SURR4BrFBenz	0.00	95	0	0.000	mg/kg	
Spiked Amount 0.020	Range 79 - 119		Recovery = 0		%#	

Target Compounds				Qvalue
2) Dichlorodi	0.00	85	0	N.D.
3) Chloromethan	0.00	50	0	N.D.
4) VinylChlorid	0.00	62	0	N.D.
5) Bromomethane	0.00	94	0	N.D.
6) Chloroethane	0.00	64	0	N.D.
7) dichloroflmethane	0.00	67	0	N.D.
8) Trichlorofma	0.00	101	0	N.D.
9) Ethylether	0.00	59	0	N.D.
10) dichlorotfluoroethan	0.00	67	0	N.D.
11) propyleneoxide	0.00	58	0	N.D.
12) Acrolein	0.00	56	0	N.D.
13) 11dichlorthe	0.00	96	0	N.D.
14) Trichlorotfluoroeth	0.00	101	0	N.D.
15) Acetone	0.00	43	0	N.D.
16) Iodomethane	0.00	142	0	N.D.
17) Carbon Dislf	0.00	76	0	N.D.
18) allylchloride	0.00	41	0	N.D.
19) methylacetate	0.00	74	0	N.D.
20) Methylchlorid	0.00	84	0	N.D.
21) Acrylonitrile	0.00	53	0	N.D.
22) t12dichlorte	0.00	96	0	N.D.
23) tbutylalcohol	0.00	59	0	N.D.
24) MtBE	0.00	73	0	N.D.
25) Hexane	0.00	57	0	N.D.
26) 11dichlorota	0.00	63	0	N.D.
27) Vinylacetate	0.00	43	0	N.D.
28) chloroprene	0.00	53	0	N.D.
29) Diisopether	0.00	45	0	N.D.
30) ETBE	0.00	59	0	N.D.
31) 22dichloropr	0.00	77	0	N.D.
32) c12dichlorte	0.00	96	0	N.D.
33) 2Butanone	0.00	72	0	N.D.
34) propionitrile	0.00	54	0	N.D.
35) Ethylacetate	0.00	88	0	N.D.
36) methacrylonitrile	0.00	67	0	N.D.
37) Bromochlorma	0.00	128	0	N.D.
38) Tetrahydofur	0.00	42	0	N.D.

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321170.D Vial: 28
Acq On : 5 Sep 2019 19:55 Operator: RLD-DGS
Sample : 163979,321170, Inst : VMS4
Misc : 5.42g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 20:16:29 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	c13dicloproe	0.00	75	0	N.D.	
59)	4Meth2Pentan	0.00	43	0	N.D.	
61)	Toluene	0.00	92	0	N.D.	
62)	t13Dicloprop	0.00	75	0	N.D.	
63)	ethylmethacrylate	0.00	69	0	N.D.	
64)	112Triclotha	0.00	83	0	N.D.	
65)	Tetrachlorte	0.00	166	0	N.D.	
66)	13Diclorpropa	0.00	76	0	N.D.	
68)	2Hexanone	0.00	43	0	N.D.	
69)	Clorodibrmta	0.00	129	0	N.D.	
70)	12Dibrometha	0.00	107	0	N.D.	
71)	Chlorobenzen	0.00	112	0	N.D.	
72)	1Clhexane	0.00	91	0	N.D.	
73)	1112Tetclota	0.00	131	0	N.D.	
74)	Ethylbenzene	0.00	91	0	N.D.	
75)	m p-Xylene	0.00	106	0	N.D.	
76)	o-Xylene	0.00	106	0	N.D.	
77)	Styrene	0.00	104	0	N.D.	
78)	Bromoform	0.00	173	0	N.D.	
79)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
83)	Bromobenzene	0.00	156	0	N.D.	
84)	1122Tetrclta	0.00	83	0	N.D.	
85)	123Triclproa	0.00	75	0	N.D.	
86)	14dichloro2butene	0.00	53	0	N.D.	
87)	n-Propylbenz	0.00	91	0	N.D.	
88)	2chlorotolue	0.00	91	0	N.D.	
89)	4chlorotolue	0.00	91	0	N.D.	
90)	135Trimebenz	0.00	105	0	N.D.	
91)	tbutylbenzen	0.00	119	0	N.D.	
92)	124Trimetben	0.00	105	0	N.D.	
93)	sbutylbenzen	0.00	105	0	N.D.	
94)	13Diclorbenz	0.00	146	0	N.D.	
95)	pIsopropylto	0.00	119	0	N.D.	
96)	14dichlorobe	0.00	146	0	N.D.	
97)	12dichlorobe	0.00	146	0	N.D.	
98)	nButylbenzen	0.00	91	0	N.D.	
99)	12dibromo3cl	0.00	157	0	N.D.	
100)	135Trichlorobenzene	0.00	180	0	N.D.	
101)	124Trichlobe	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321170.D Vial: 28
Acq On : 5 Sep 2019 19:55 Operator: RLD-DGS
Sample : 163979,321170, Inst : VMS4
Misc : 5.42g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 20:16:29 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) Hexachlorobu	0.00	225	0	N.D.	
103) Naphthalene	0.00	128	0	N.D.	
104) 123Trichlben	0.00	180	0	N.D.	

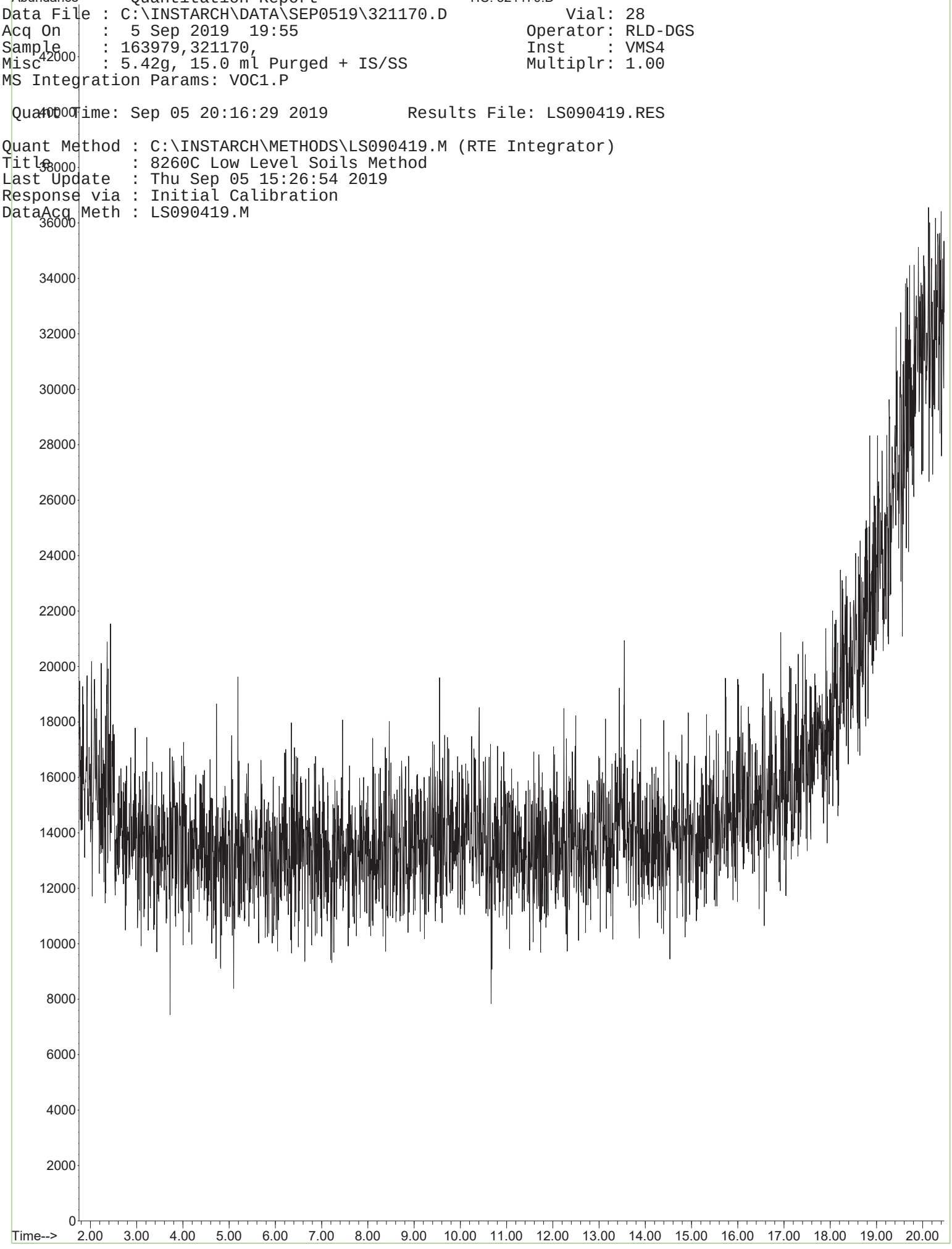
(#) = qualifier out of range (m) = manual integration

Abundance Quantitation Report TIC: 321170.D

Data File : C:\INSTARCH\DATA\SEP0519\321170.D Vial: 28
Acq On : 5 Sep 2019 19:55 Operator: RLD-DGS
Sample : 163979,321170, Inst : VMS4
Misc : 5.42g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 20:16:29 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M



Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321171.D Vial: 29
Acq On : 5 Sep 2019 20:24 Operator: RLD-DGS
Sample : 163979,321171, Inst : VMS4
Misc : 5.62g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

NOT USED

Quant Time: Sep 05 20:45:32 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.68	96	12241	0.02 mg/kg	0.01 NA%
67) d5-CHLOROBENZENE**ISTD**	11.61	117	9913	0.02 mg/kg	0.02 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.93	152	4321	0.02 mg/kg	0.04 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.86	113	2766	0.018 mg/kg	0.03
Spiked Amount 0.020	Range 78 - 119		Recovery = 90 %		
45) SURR12DCAd4	0.00	102	0	0.000 mg/kg	
Spiked Amount 0.020	Range 71 - 136		Recovery = 0 %#		
60) SURRd8Tolule	9.68	98	12176	0.020 mg/kg	0.02
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %		
82) SURR4BrFBenz	13.25	95	4730	0.023 mg/kg	0.02
Spiked Amount 0.020	Range 79 - 119		Recovery = 115 %		
Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.06	43	1346	0.0375 mg/kg#	45
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	4.22	76	1137	0.0021 mg/kg#	76
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) Acrylonitrile	0.00	53	0	N.D.	
22) t12dichlorte	0.00	96	0	N.D.	
23) tbutylalcohol	0.00	59	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321171.D Vial: 29
Acq On : 5 Sep 2019 20:24 Operator: RLD-DGS
Sample : 163979,321171, Inst : VMS4
Misc : 5.62g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 20:45:32 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	0.00	83	0	N.D.	
40) 111trichlota	0.00	97	0	N.D.	
42) Cyclohexane	0.00	56	0	N.D.	
43) Carbtetraclo	0.00	119	0	N.D.	
44) 11dicloprope	0.00	110	0	N.D.	
46) Benzene	0.00	78	0	N.D.	
47) 12dichlorota	0.00	62	0	N.D.	
48) TAME	0.00	73	0	N.D.	
49) trichloroete	0.00	95	0	N.D.	
50) methylcyclohexane	0.00	83	0	N.D.	
51) 12dicloropra	0.00	63	0	N.D.	
52) 23dicl1propene	0.00	75	0	N.D.	
53) Dibromometha	0.00	93	0	N.D.	
54) methylmethacrylate	0.00	69	0	N.D.	
55) 14dioxane	0.00	88	0	N.D.	
56) Bromodiclrma	0.00	83	0	N.D.	
57) 2Nitropropane	0.00	43	0	N.D.	
58) c13dicloproe	0.00	75	0	N.D.	
59) 4Meth2Pentan	0.00	43	0	N.D.	
61) Toluene	0.00	92	0	N.D.	
62) t13Dicloprop	0.00	75	0	N.D.	
63) ethylmethacrylate	0.00	69	0	N.D.	
64) 112Triclotha	0.00	83	0	N.D.	
65) Tetrachlorte	0.00	166	0	N.D.	
66) 13Diclorpropa	0.00	76	0	N.D.	
68) 2Hexanone	0.00	43	0	N.D.	
69) Clorodibrmta	0.00	129	0	N.D.	
70) 12Dibrometha	0.00	107	0	N.D.	
71) Chlorobenzen	0.00	112	0	N.D.	
72) 1Clhexane	0.00	91	0	N.D.	
73) 1112Tetclota	0.00	131	0	N.D.	
74) Ethylbenzene	0.00	91	0	N.D.	
75) m p-Xylene	0.00	106	0	N.D.	
76) o-Xylene	0.00	106	0	N.D.	
77) Styrene	0.00	104	0	N.D.	
78) Bromoform	0.00	173	0	N.D.	
79) Isopropylben	0.00	105	0	N.D.	
81) cyclohexanone	0.00	55	0	N.D.	
83) Bromobenzene	0.00	156	0	N.D.	
84) 1122Tetrclta	0.00	83	0	N.D.	
85) 123Triclproa	0.00	75	0	N.D.	
86) 14dichloro2butene	0.00	53	0	N.D.	
87) n-Propylbenz	0.00	91	0	N.D.	
88) 2chlorotolue	0.00	91	0	N.D.	
89) 4chlorotolue	0.00	91	0	N.D.	
90) 135Trimebenz	0.00	105	0	N.D.	
91) tbutylbenzen	0.00	119	0	N.D.	
92) 124Trimetben	14.41	105	1860	0.0031 mg/kg#	32
93) sbutylbenzen	0.00	105	0	N.D.	
94) 13Diclorbenz	0.00	146	0	N.D.	
95) pIsopropylto	0.00	119	0	N.D.	
96) 14dichlorobe	0.00	146	0	N.D.	
97) 12dichlorobe	0.00	146	0	N.D.	
98) nButylbenzen	0.00	91	0	N.D.	
99) 12dibromo3cl	0.00	157	0	N.D.	
100) 135Trichlorobenzene	0.00	180	0	N.D.	
101) 124Trichlobe	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321171.D Vial: 29
Acq On : 5 Sep 2019 20:24 Operator: RLD-DGS
Sample : 163979,321171, Inst : VMS4
Misc : 5.62g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 20:45:32 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) Hexachlorobu	0.00	225	0	N.D.	
103) Naphthalene	0.00	128	0	N.D.	
104) 123Trichlben	0.00	180	0	N.D.	

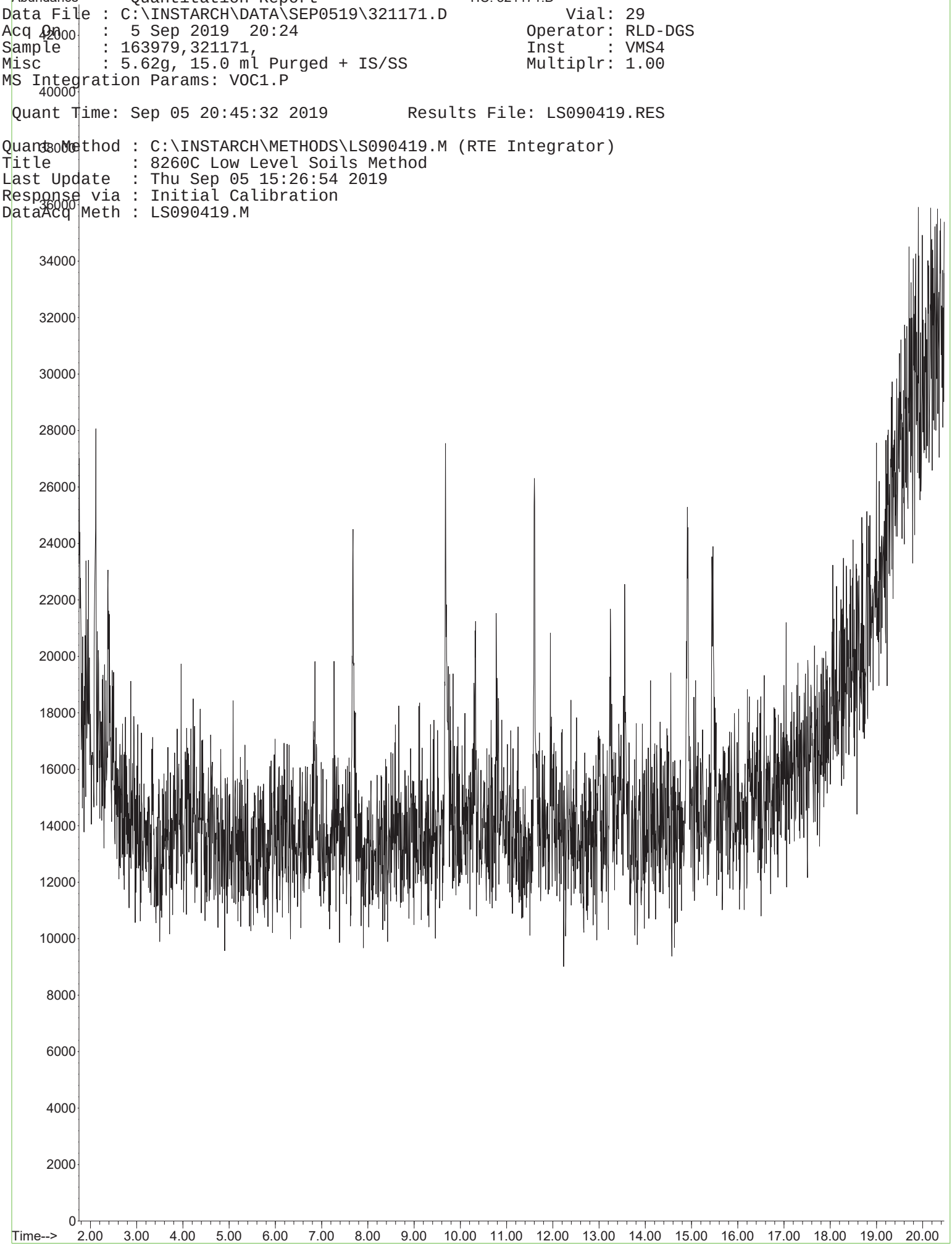
(#) = qualifier out of range (m) = manual integration

Abundance Quantitation Report TIC: 321171.D

Data File : C:\INSTARCH\DATA\SEP0519\321171.D Vial: 29
Acq On : 5 Sep 2019 20:24 Operator: RLD-DGS
Sample : 163979,321171, Inst : VMS4
Misc : 5.62g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 20:45:32 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M



Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321172.D Vial: 30
Acq On : 5 Sep 2019 20:54 Operator: RLD-DGS
Sample : 163979,321172, Inst : VMS4
Misc : 4.52g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 21:14:38 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1102631	0.02 mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	853873	0.02 mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.90	152	387235	0.02 mg/kg	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.83	113	286970	0.021 mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 105 %		
45) SURR12DCAd4	7.25	102	60303	0.021 mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 105 %		
60) SURRd8Tolule	9.67	98	1114362	0.020 mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %		
82) SURR4BrFBenz	13.23	95	404955	0.022 mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 110 %		
Target Compounds					Qvalue
2) Dichlorodi	1.82	85	1985	0.0011 mg/kg#	44
3) Chloromethan	2.06	50	1879	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	2.68	94	1809	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	3.67	67	1971	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	3.83	56	8676	0.0040 mg/kg#	57
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.03	43	939680	0.2903 mg/kg	100
16) Iodomethane	4.12	142	3358	0.0024 mg/kg#	84
17) Carbon Dislf	4.20	76	13852	N.D.	
18) allylchloride	4.36	41	1413	N.D.	
19) methylacetate	4.54	74	3082	0.0014 mg/kg#	62
20) Methylchlorid	4.59	84	32455	N.D.	
21) Acrylonitrile	0.00	53	0	N.D.	
22) t12dichlorte	0.00	96	0	N.D.	
23) tbutylalcohol	4.81	59	15489	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	5.33	57	21732	0.0028 mg/kg	93
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	5.59	43	1669	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	6.20	77	4751	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	6.28	72	21587	0.0157 mg/kg	89
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	6.61	42	2243	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321172.D Vial: 30
Acq On : 5 Sep 2019 20:54 Operator: RLD-DGS
Sample : 163979,321172, Inst : VMS4
Misc : 4.52g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 21:14:38 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	0.00	83	0	N.D.	
40) 111trichlota	0.00	97	0	N.D.	
42) Cyclohexane	0.00	56	0	N.D.	
43) Carbtetraclo	0.00	119	0	N.D.	
44) 11dicloprope	0.00	110	0	N.D.	
46) Benzene	7.31	78	8642	N.D.	
47) 12dichlorota	0.00	62	0	N.D.	
48) TAME	0.00	73	0	N.D.	
49) trichloroete	0.00	95	0	N.D.	
50) methylcyclohexane	0.00	83	0	N.D.	
51) 12dicloropra	0.00	63	0	N.D.	
52) 23dicl1propene	0.00	75	0	N.D.	
53) Dibromometha	0.00	93	0	N.D.	
54) methylmethacrylate	8.47	69	2301	0.0012 mg/kg#	46
55) 14dioxane	0.00	88	0	N.D.	
56) Bromodiclrma	0.00	83	0	N.D.	
57) 2Nitropropane	9.03	43	1615	N.D.	
58) c13dicloproe	0.00	75	0	N.D.	
59) 4Meth2Pentan	9.51	43	4815	N.D.	
61) Toluene	9.76	92	19547	0.0004 mg/kg	89
62) t13Dicloprop	0.00	75	0	N.D.	
63) ethylmethacrylate	10.08	69	1010	N.D.	
64) 112Triclotha	0.00	83	0	N.D.	
65) Tetrachlorte	0.00	166	0	N.D.	
66) 13Diclorpropa	0.00	76	0	N.D.	
68) 2Hexanone	10.63	43	3397	N.D.	
69) Clorodibrmta	0.00	129	0	N.D.	
70) 12Dibrometha	0.00	107	0	N.D.	
71) Chlorobenzen	0.00	112	0	N.D.	
72) 1Clhexane	11.58	91	3025	0.0011 mg/kg#	1
73) 1112Tetclota	0.00	131	0	N.D.	
74) Ethylbenzene	11.79	91	1821	N.D.	
75) m p-Xylene	11.97	106	2048	N.D.	
76) o-Xylene	12.51	106	1078	N.D.	
77) Styrene	0.00	104	0	N.D.	
78) Bromoform	0.00	173	0	N.D.	
79) Isopropylben	0.00	105	0	N.D.	
81) cyclohexanone	13.12	55	1479	N.D.	
83) Bromobenzene	0.00	156	0	N.D.	
84) 1122Tetrclta	0.00	83	0	N.D.	
85) 123Triclproa	13.56	75	2932	N.D.	
86) 14dichloro2butene	0.00	53	0	N.D.	
87) n-Propylbenz	0.00	91	0	N.D.	
88) 2chlorotolue	0.00	91	0	N.D.	
89) 4chlorotolue	0.00	91	0	N.D.	
90) 135Trimebenz	13.86	105	1597	N.D.	
91) tbutylbenzen	0.00	119	0	N.D.	
92) 124Trimetben	14.41	105	91241	0.0017 mg/kg#	36
93) sbutylbenzen	14.69	105	1017	N.D.	
94) 13Diclorbenz	0.00	146	0	N.D.	
95) pIsopropylto	14.87	119	5591	N.D.	
96) 14dichlorobe	14.94	146	1057	N.D.	
97) 12dichlorobe	0.00	146	0	N.D.	
98) nButylbenzen	15.46	91	1959	N.D.	
99) 12dibromo3cl	0.00	157	0	N.D.	
100) 135Trichlorobenzene	0.00	180	0	N.D.	
101) 124Trichlobe	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321172.D Vial: 30
Acq On : 5 Sep 2019 20:54 Operator: RLD-DGS
Sample : 163979,321172, Inst : VMS4
Misc : 4.52g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 21:14:38 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) Hexachlorobu	0.00	225	0	N.D.	
103) Naphthalene	18.03	128	7699	N.D.	
104) 123Trichlben	0.00	180	0	N.D.	

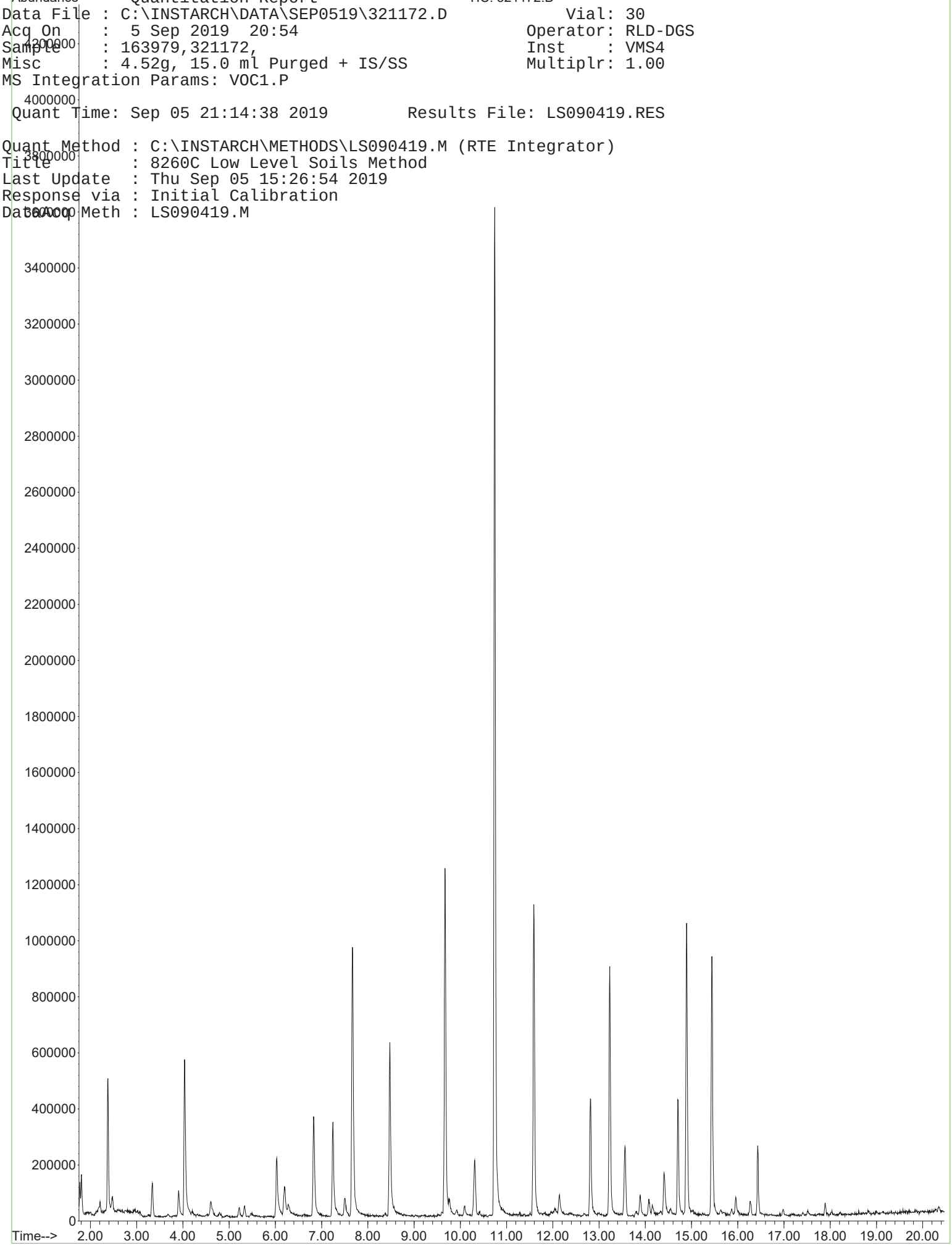
(#) = qualifier out of range (m) = manual integration

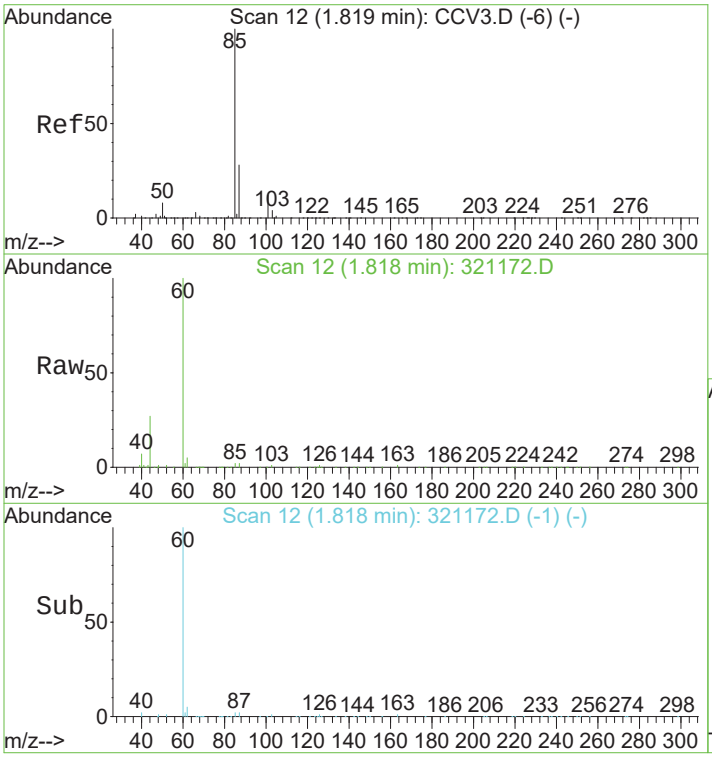
Abundance Quantitation Report TIC: 321172.D

Data File : C:\INSTARCH\DATA\SEP0519\321172.D Vial: 30
Acq On : 5 Sep 2019 20:54 Operator: RLD-DGS
Sample : 163979,321172, Inst : VMS4
Misc : 4.52g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 21:14:38 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

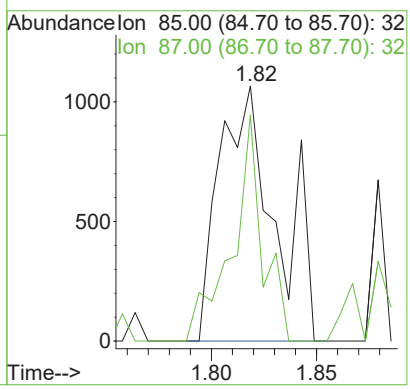




#2
Dichlorodi
Concen: 0.00 mg/kg
RT: 1.82 min Scan# 12
Delta R.T. 0.00 min
Lab File: 321172.D
Acq: 5 Sep 2019 20:54

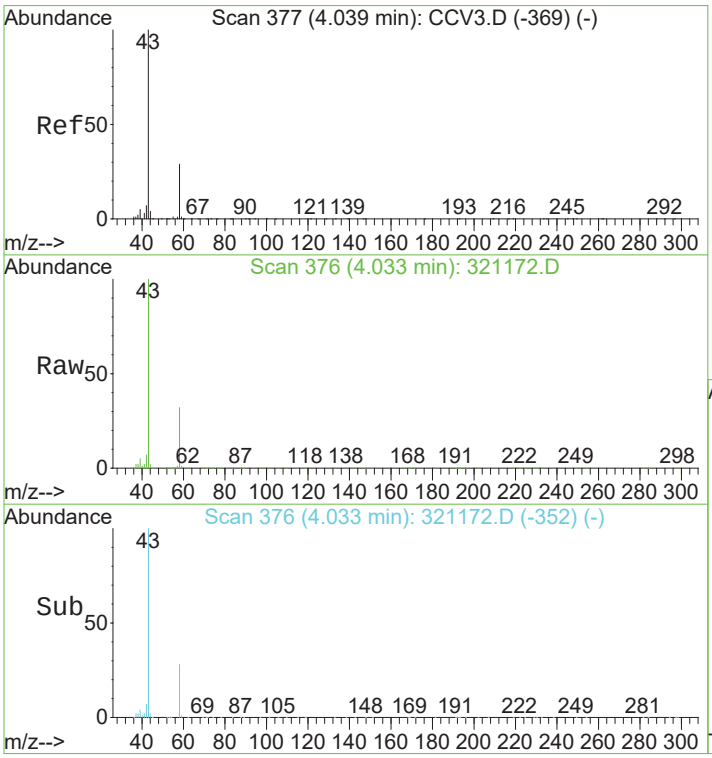
Tgt Ion: 85 Resp: 1985

Ion	Ratio	Lower	Upper
85	100		
87	0.0	10.8	50.8#



Negative Library Identification

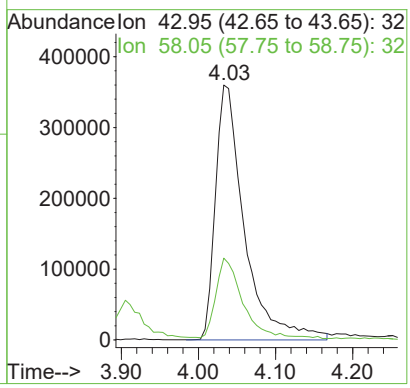
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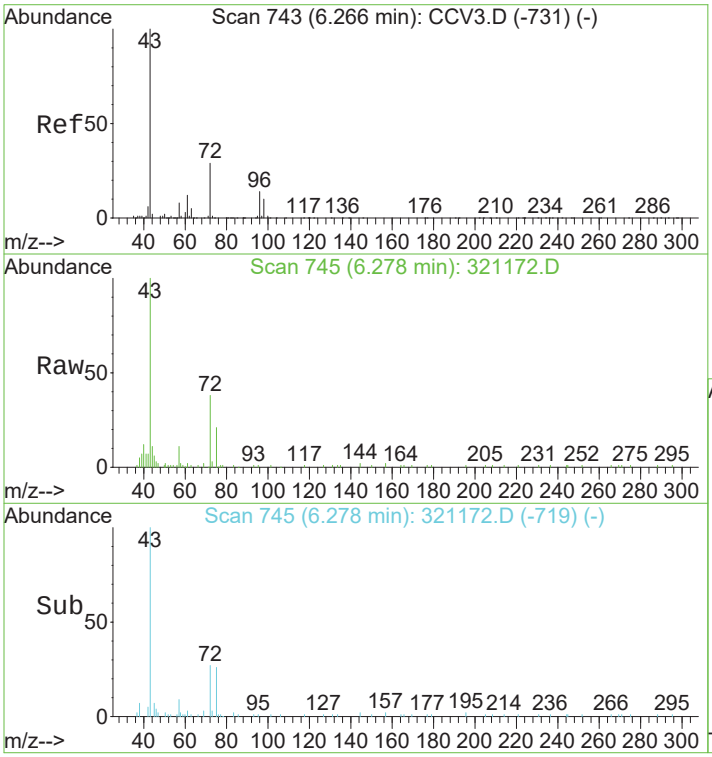


#15
Acetone
Concen: 0.29 mg/kg
RT: 4.03 min Scan# 376
Delta R.T. -0.01 min
Lab File: 321172.D
Acq: 5 Sep 2019 20:54

Tgt Ion: 43 Resp: 939680

Ion	Ratio	Lower	Upper
43	100		
58	29.2	9.4	49.4

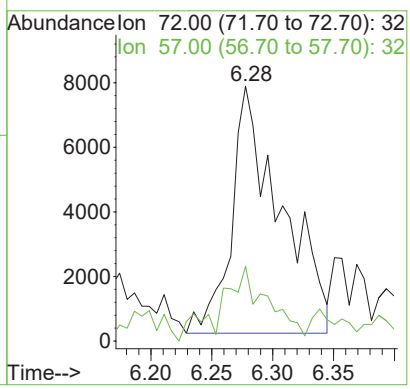


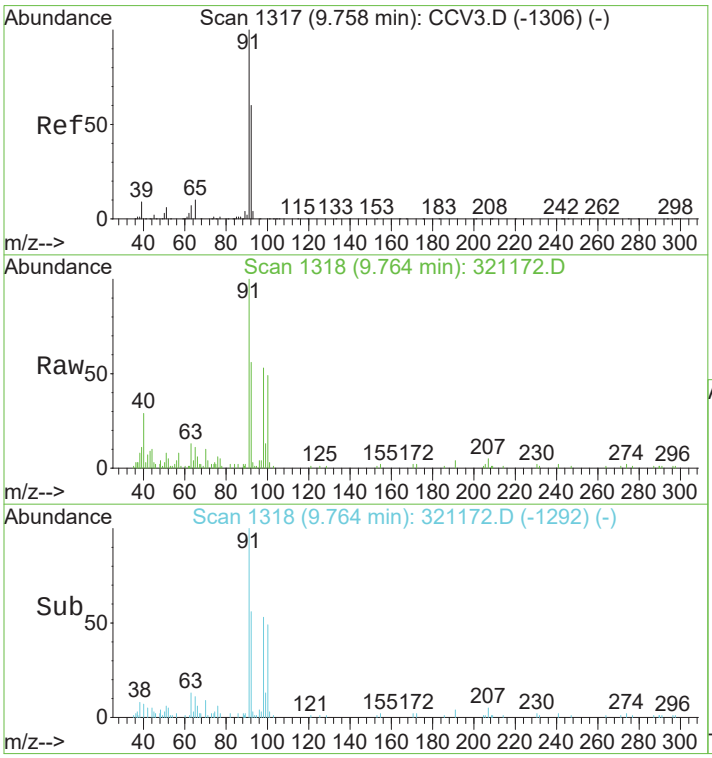


#33
2Butanone
Concen: 0.02 mg/kg
RT: 6.28 min Scan# 745
Delta R.T. 0.01 min
Lab File: 321172.D
Acq: 5 Sep 2019 20:54

Tgt Ion: 72 Resp: 21587

Ion	Ratio	Lower	Upper
72	100		
57	21.0	6.8	46.8

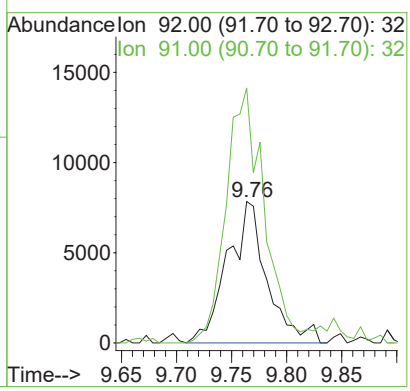


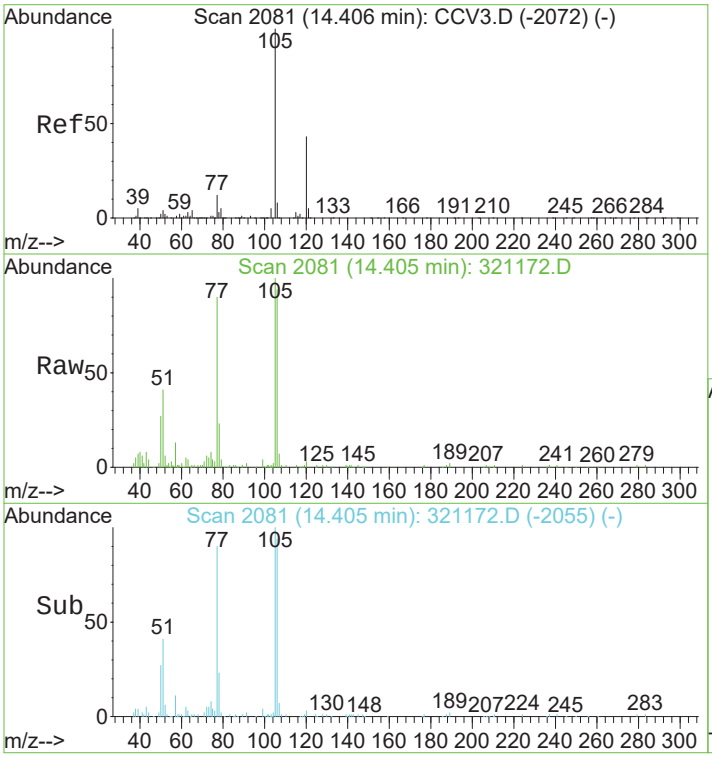


#61
Toluene
Concen: 0.00 mg/kg
RT: 9.76 min Scan# 1318
Delta R.T. 0.01 min
Lab File: 321172.D
Acq: 5 Sep 2019 20:54

Tgt Ion: 92 Resp: 19547

Ion	Ratio	Lower	Upper
92	100		
91	182.7	148.0	188.0

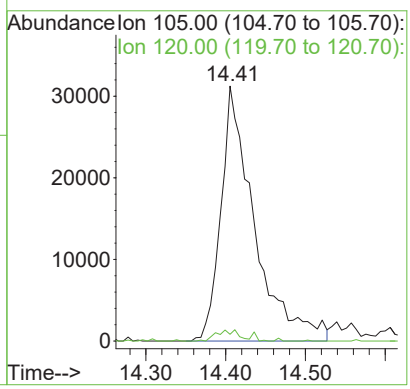




#92
124Trimetben
Concen: 0.00 mg/kg
RT: 14.41 min Scan# 2081
Delta R.T. 0.01 min
Lab File: 321172.D
Acq: 5 Sep 2019 20:54

Tgt Ion:105 Resp: 91241

Ion	Ratio	Lower	Upper
105	100		
120	2.8	24.5	64.5#



Library Search Compound Report

Data Path : C:\Instarch\Data\SEP0519\
Data File : 321172.D
Acq On : 5 Sep 2019 20:54
Operator : RLD-DGS
Sample : 163979,321172,
Misc : 4.52g, 15.0 ml Purged + IS/SS
ALS Vial : 30 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHODS\LS090419.M
Quant Title : 8260C Low Level Soils Method

TIC Library : C:\DATABASE\NBS75K.L
TIC Integration Parameters: VOC.P

****

Peak Number 1 Acetaldehyde Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.38	0.01 mg/kg	1948250	FLUOROBENZENE**IS	2722450	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetaldehyde	44	C2H4O	000075-07-0	86
2	Acetaldehyde	44	C2H4O	000075-07-0	64
3	Acetaldehyde	44	C2H4O	000075-07-0	9
4	Ethylene oxide	44	C2H4O	000075-21-8	5
5	Propane	44	C3H8	000074-98-6	4

****

Peak Number 2 Pentane Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
3.34	0.00 mg/kg	280133	FLUOROBENZENE**IS	2722450	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane	72	C5H12	000109-66-0	80
2	Pentane	72	C5H12	000109-66-0	80
3	Pentane	72	C5H12	000109-66-0	80
4	Oxirane, ethyl-	72	C4H8O	000106-88-7	9
5	Propanal, 2-methyl-	72	C4H8O	000078-84-2	9

****

Peak Number 3 Propanal Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
3.91	0.00 mg/kg	241168	FLUOROBENZENE**IS	2722450	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propanal	58	C3H6O	000123-38-6	59
2	Propanal	58	C3H6O	000123-38-6	38
3	2-Propanamine, 2-methyl-	73	C4H11N	000075-64-9	38
4	Trimethylene oxide	58	C3H6O	000503-30-0	9
5	Propanal	58	C3H6O	000123-38-6	9

****

Peak Number 4 Methylene Chloride Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
4.60	0.00 mg/kg	196864	FLUOROBENZENE**IS	2722450	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Methylene Chloride	84	CH2Cl2	000075-09-2	96
2	Methylene Chloride	84	CH2Cl2	000075-09-2	94
3	Methylene Chloride	84	CH2Cl2	000075-09-2	91
4	Methylene Chloride	84	CH2Cl2	000075-09-2	47
5	Ethanol, 2,2,2-trichloro-, dihyd...	228	C2H4Cl3O4P	000306-52-5	9

****

Peak Number 5 Butanal Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
6.03	0.00 mg/kg	648543	FLUOROBENZENE**IS	2722450	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanal	72	C4H8O	000123-72-8	86
2	Butanal	72	C4H8O	000123-72-8	72
3	Butanal	72	C4H8O	000123-72-8	64
4	Butanal	72	C4H8O	000123-72-8	59
5	Ethene, ethoxy-	72	C4H8O	000109-92-2	58

****

Peak Number 6 Acetic acid, (trimethylsilyl)- Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
6.19	0.00 mg/kg	316655	FLUOROBENZENE**IS	2722450	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetic acid, (trimethylsilyl)-	132	C5H12O2Si	002345-38-2	64
2	Silanol, trimethyl-, propanoate	146	C6H14O2Si	016844-98-7	64
3	Butanoic acid, trimethylsilyl ester	160	C7H16O2Si	016844-99-8	64
4	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	46
5	Cyclohexanol, 2-(trimethylsilyl)...	172	C9H20OSi	020584-43-4	43

****

Peak Number 7 Butanal, 3-methyl- Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
7.50	0.00 mg/kg	211626	FLUOROBENZENE**IS	2722450	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanal, 3-methyl-	86	C5H10O	000590-86-3	52
2	Butanal, 3-methyl-	86	C5H10O	000590-86-3	35
3	Benzeneethanamine, 3-benzyloxy-2...	275	C16H18FNO2	000000-00-0	33
4	11-Dodecen-2-one	182	C12H22O	005009-33-6	32
5	1-Octadecanamine, N-methyl-	283	C19H41N	002439-55-6	32

****

Peak Number 8 Cyclotrisiloxane, hexamethyl- Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.31	0.00 mg/kg	578285	d5-CHLOROBENZENE*	2724840	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	83
2	2,4-Cyclohexadien-1-one, 3,5-bis...	222	C14H22O2	054965-43-4	45
3	1H-Indole, 1-methyl-2-phenyl-	207	C15H13N	003558-24-5	39

4 Silane, trimethyl[5-methyl-2-(1-...	222	C13H22OSi	055012-80-1	39
5 Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	32

****

Peak Number 9 Hexanal Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.74	0.06 mg/kg	8503800	d5-CHLOROBENZENE*	2724840	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexanal	100	C6H12O	000066-25-1	74
2	Hexanal	100	C6H12O	000066-25-1	72
3	Hexanal	100	C6H12O	000066-25-1	70
4	Hexanal	100	C6H12O	000066-25-1	64
5	Hexanal	100	C6H12O	000066-25-1	47

****

Peak Number 10 Hexanal, 5-methyl- Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
12.14	0.00 mg/kg	404008	d5-CHLOROBENZENE*	2724840	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexanal, 5-methyl-	114	C7H14O	001860-39-5	72
2	Heptanal	114	C7H14O	000111-71-7	38
3	2-Nonenal, (E)-	140	C9H16O	018829-56-6	25
4	Trifluoroacetyl-citronellol	252	C12H19F3O2	000000-00-0	25
5	1-Octanol, 3,7-dimethyl-	158	C10H22O	000106-21-8	25

****

Peak Number 11 Heptanal Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
12.81	0.01 mg/kg	1107450	d5-CHLOROBENZENE*	2724840	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptanal	114	C7H14O	000111-71-7	87
2	Heptanal	114	C7H14O	000111-71-7	78
3	Heptanal	114	C7H14O	000111-71-7	59
4	Heptanal	114	C7H14O	000111-71-7	50
5	3-Hydroxy-2,2,4-trimethyl-3-pent...	140	C8H12O2	003173-79-3	43

****

Peak Number 12 Cyclotetrasiloxane, octamet... Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
13.56	0.01 mg/kg	701932	d4-1,4-DICHLOROBE	2485210	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	64
2	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	32
3	2,4,6,8-Tetrathiatricyclo[3.3.1....	282	C9H14S5	057274-35-8	9
4	3,6-Bis(N-dimethylamino)-9-ethyl...	281	C18H23N3	057103-04-5	9
5	2(1H)-Pyrimidinone, 5-chloro-4,6...	282	C16H11ClN2O	028567-83-1	7

****

Peak Number 13 2-Heptanone, 6-methyl- Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
13.88	0.00 mg/kg	192256	d4-1,4-DICHLOROBE	2485210	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Heptanone, 6-methyl-	128	C8H16O	000928-68-7	64
2	2-Decanone	156	C10H20O	000693-54-9	53
3	2-Tridecanone	198	C13H26O	000593-08-8	53
4	2-Heptanone, 6-methyl-	128	C8H16O	000928-68-7	52
5	2-Heptanone, 6-methyl-	128	C8H16O	000928-68-7	52

****

Peak Number 14 Cyclopentanol, 2-methyl- Concentration Rank 20

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
14.08	0.00 mg/kg	145855	d4-1,4-DICHLOROBE	2485210	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentanol, 2-methyl-	100	C6H12O	024070-77-7	43
2	Cyclopentanol, 2-methyl-	100	C6H12O	024070-77-7	43
3	Hexane, 2-methyl-	100	C7H16	000591-76-4	25
4	Pyrrolidine, 3-methyl-	85	C5H11N	034375-89-8	22
5	Hexane, 2-methyl-	100	C7H16	000591-76-4	22

****

Peak Number 15 Octanal Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
14.70	0.01 mg/kg	944742	d4-1,4-DICHLOROBE	2485210	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octanal	128	C8H16O	000124-13-0	87
2	Octanal	128	C8H16O	000124-13-0	80
3	Octanal	128	C8H16O	000124-13-0	59
4	Cyclohexanol	100	C6H12O	000108-93-0	41
5	Pentane, 3-methylene-	84	C6H12	000760-21-4	38

****

Peak Number 16 1,4-Dichlorobenzene-d4 Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
15.44	0.02 mg/kg	2180910	d4-1,4-DICHLOROBE	2485210	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,4-Dichlorobenzene-d4	150	C6Cl2D4	003855-82-1	94
2	Benzene-1,2,3,4-d4-, 5,6-dichloro-	150	C6Cl2D4	002199-69-1	91
3	Acenaphthylene	152	C12H8	000208-96-8	10
4	Benzoic acid, 2,5-dimethyl-	150	C9H10O2	000610-72-0	9
5	Acenaphthylene	152	C12H8	000208-96-8	9

****

Peak Number 17 2-Cyclohexen-1-ol Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
15.96	0.00 mg/kg	218321	d4-1,4-DICHLOROBE	2485210	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual

1	2-Cyclohexen-1-ol	98	C6H10O	000822-67-3	43
2	2-Decenal, (Z)-	154	C10H18O	002497-25-8	43
3	trans-2-Undecenal	168	C11H20O	000000-00-0	43
4	Furan, 2,3-dihydro-	70	C4H6O	001191-99-7	43
5	1-Decene	140	C10H20	000872-05-9	42

****

Peak Number 18 Nonanal Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
16.43	0.01 mg/kg	677930	d4-1,4-DICHLOROBE	2485210	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Nonanal	142	C9H18O	000124-19-6	72
2	Nonanal	142	C9H18O	000124-19-6	64
3	2-Nonen-1-ol, (Z)-	142	C9H18O	041453-56-9	43
4	Cyclooctyl alcohol	128	C8H16O	000696-71-9	35
5	2-Penten-1-ol, (Z)-	86	C5H10O	001576-95-0	27

****

Peak Number 19 Cyclohexanone, 2-methyl- Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
17.89	0.00 mg/kg	172155	d4-1,4-DICHLOROBE	2485210	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexanone, 2-methyl-	112	C7H12O	000583-60-8	35
2	2H-1,3-Benzoxazine, 6-chloro-3-c...	251	C14H18ClNO	035183-44-9	27
3	3-Octene, (E)-	112	C8H16	014919-01-8	25
4	3-Octene, (Z)-	112	C8H16	014850-22-7	18
5	2-Octene, (E)-	112	C8H16	013389-42-9	18

****

Peak Number 20 1H-Indole, 5-methyl-2-phenyl- Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
19.57	0.00 mg/kg	426924	d4-1,4-DICHLOROBE	2485210	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indole, 5-methyl-2-phenyl-	207	C15H13N	013228-36-9	38
2	Methyl (7-hydroxy(1H)benzimidazo...	207	C9H9N3O3	000000-00-0	35
3	1,1,1,3,5,5,5-Heptamethyltrisilo...	222	C7H22O2Si3	001873-88-7	35
4	Phenanthridinium, 5,6-dimethyl-,...	335	C15H14IN	016511-48-1	32
5	1H-Purine-2,6-dione, 7-ethyl-3,7...	279	C11H13N5O2S	027042-75-7	32

LS090419.M Tue Sep 10 12:41:11 2019

Library Search Compound Report

Data Path : C:\Instarch\Data\SEP0519\
Data File : 321188.D
Acq On : 5 Sep 2019 21:23
Operator : RLD-DGS
Sample : 163979,321188,
Misc : 5.27g, 15.0 ml Purged + IS/SS
ALS Vial : 31 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHODS\LS090419.M
Quant Title : 8260C Low Level Soils Method

TIC Library : C:\DATABASE\NBS75K.L
TIC Integration Parameters: VOC.P

****

Peak Number 1 Isobutane Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.01	0.00 mg/kg	345333	FLUOROBENZENE**IS	2464140	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Isobutane	58	C4H10	000075-28-5	45
2	Isobutane	58	C4H10	000075-28-5	9
3	trans-2,3-Epoxynonane	142	C9H18O	056820-01-0	9
4	Formic acid, propyl ester	88	C4H8O2	000110-74-7	4
5	Formic acid, propyl ester	88	C4H8O2	000110-74-7	4

****

Peak Number 2 Butane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.21	0.02 mg/kg	2346530	FLUOROBENZENE**IS	2464140	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane	58	C4H10	000106-97-8	59
2	Butane	58	C4H10	000106-97-8	45
3	1-Propanol, 2-methyl-	74	C4H10O	000078-83-1	9
4	Diazene, dimethyl-	58	C2H6N2	000503-28-6	4
5	Propanal	58	C3H6O	000123-38-6	4

****

Peak Number 3 Silane, fluorotrimethyl- Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.47	0.01 mg/kg	742800	FLUOROBENZENE**IS	2464140	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Silane, fluorotrimethyl-	92	C3H9FSi	000420-56-4	38
2	Propane, 2-bromo-1-chloro-	156	C3H6BrCl	003017-95-6	33
3	Silane, (2,2-difluoroethyl)trime...	138	C5H12F2Si	000000-00-0	4
4	Hydrazine, phenylsulfinyl-	154	C6H6N2OS	017420-03-0	4
5	Propane, 3-chloro-1,1,1-trifluoro-	132	C3H4ClF3	000460-35-5	4

****

Peak Number 4 Cyclopropane, 1,1-dimethyl- Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.80	0.00 mg/kg	165798	FLUOROBENZENE**IS	2464140	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopropane, 1,1-dimethyl-	70	C5H10	001630-94-0	47
2	Cyclopropane, 1,1-dimethyl-	70	C5H10	001630-94-0	47
3	1-Butene, 2-methyl-	70	C5H10	000563-46-2	38
4	2-Butene, 2-methyl-	70	C5H10	000513-35-9	38
5	2-Butene, 2-methyl-	70	C5H10	000513-35-9	35

****

Peak Number 5 Butane, 2-methyl- Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.96	0.00 mg/kg	536407	FLUOROBENZENE**IS	2464140	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2-methyl-	72	C5H12	000078-78-4	72
2	Butane, 2-methyl-	72	C5H12	000078-78-4	72
3	Methane, isocyanato-	57	C2H3NO	000624-83-9	9
4	3-Buten-1-ol	72	C4H8O	000627-27-0	9
5	3-Buten-1-ol	72	C4H8O	000627-27-0	9

****

Peak Number 6 Cyclobutane, methyl- Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
3.25	0.00 mg/kg	440483	FLUOROBENZENE**IS	2464140	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclobutane, methyl-	70	C5H10	000598-61-8	83
2	Cyclopropane, ethyl-	70	C5H10	001191-96-4	83
3	Cyclopentane	70	C5H10	000287-92-3	80
4	1-Pentene	70	C5H10	000109-67-1	80
5	1-Pentene	70	C5H10	000109-67-1	80

****

Peak Number 7 Pentane Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
3.34	0.01 mg/kg	689238	FLUOROBENZENE**IS	2464140	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane	72	C5H12	000109-66-0	86
2	Pentane	72	C5H12	000109-66-0	86
3	Pentane	72	C5H12	000109-66-0	86
4	Oxirane, ethyl-	72	C4H8O	000106-88-7	33
5	Oxirane, ethyl-	72	C4H8O	000106-88-7	9

****

Peak Number 8 Cyclopropane, 1,2-dimethyl-... Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
3.70	0.00 mg/kg	214804	FLUOROBENZENE**IS	2464140	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopropane, 1,2-dimethyl-, trans-	70	C5H10	002402-06-4	72
2	1-Butene, 2-methyl-	70	C5H10	000563-46-2	72
3	Cyclopropane, 1,2-dimethyl-, cis-	70	C5H10	000930-18-7	72

4	1-Butene, 2-methyl-	70	C5H10	000563-46-2	72
5	Cyclopropane, 1,2-dimethyl-, trans-	70	C5H10	002402-06-4	72

****

Peak Number 9 Pentane, 2-methyl- Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
4.64	0.00 mg/kg	454305	FLUOROBENZENE**IS	2464140	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2-methyl-	86	C6H14	000107-83-5	80
2	Pentane, 2-methyl-	86	C6H14	000107-83-5	45
3	Pentane, 2-methyl-	86	C6H14	000107-83-5	45
4	Pentane, 2-methyl-	86	C6H14	000107-83-5	45
5	Pentane, 2-bromo-	150	C5H11Br	000107-81-3	42

****

Peak Number 10 Pentanal, 3-methyl- Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
4.96	0.00 mg/kg	186880	FLUOROBENZENE**IS	2464140	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentanal, 3-methyl-	100	C6H12O	015877-57-3	59
2	4-Penten-2-ol, 4-methyl-	100	C6H12O	002004-67-3	53
3	Octane, 2,2-dimethyl-	142	C10H22	015869-87-1	50
4	Decane, 2,2,3-trimethyl-	184	C13H28	062338-09-4	39
5	Pentane, 3-methyl-	86	C6H14	000096-14-0	39

****

Peak Number 11 1-Pentene, 2-methyl- Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
5.21	0.00 mg/kg	206259	FLUOROBENZENE**IS	2464140	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Pentene, 2-methyl-	84	C6H12	000763-29-1	86
2	1-Hexene	84	C6H12	000592-41-6	59
3	1-Pentene, 2-methyl-	84	C6H12	000763-29-1	59
4	1-Hexene	84	C6H12	000592-41-6	45
5	1-Pentene, 2-methyl-	84	C6H12	000763-29-1	42

****

Peak Number 12 2-Hexene, (Z)- Concentration Rank 20

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
5.79	0.00 mg/kg	146776	FLUOROBENZENE**IS	2464140	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Hexene, (Z)-	84	C6H12	007688-21-3	50
2	2-Pentenal, (E)-	84	C5H8O	001576-87-0	50
3	2-Hexene	84	C6H12	000592-43-8	43
4	3-Hexene, (E)-	84	C6H12	013269-52-8	42
5	2-Hexene, (E)-	84	C6H12	004050-45-7	38

****

Peak Number 13 Arsenous acid, tris(trimeth... Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.31	0.01 mg/kg	782805	d5-CHLOROBENZENE*	2705380	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Arsenous acid, tris(trimethylsil...	342	C9H27AsO3Si3	055429-29-3	56
2	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	47
3	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	46
4	1H-Indole, 2-methyl-3-phenyl-	207	C15H13N	004757-69-1	9
5	1H-Isoindole-1,3(2H)-dione, 2-bu...	207	C12H17NO2	054934-85-9	9

****

Peak Number 14 Hexanal Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.76	0.00 mg/kg	173423	d5-CHLOROBENZENE*	2705380	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexanal	100	C6H12O	000066-25-1	64
2	Hexanal	100	C6H12O	000066-25-1	64
3	Hexanal	100	C6H12O	000066-25-1	64
4	Hexanal	100	C6H12O	000066-25-1	47
5	Ethene, ethoxy-	72	C4H8O	000109-92-2	35

****

Peak Number 15 Cyclotetrasiloxane, octamet... Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
13.56	0.01 mg/kg	939452	d4-1,4-DICHLOROBE	2847250	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	83
2	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	78
3	Benzene, 1-phenyl-4-(2-cyano-2-p...	281	C21H15N	027869-56-3	25
4	2-Oxo-4-phenyl-6-(4-chlorophenyl...	282	C16H11ClN2O	000000-00-0	9
5	2(1H)-Pyrimidinone, 5-chloro-4,6...	282	C16H11ClN2O	028567-83-1	7

****

Peak Number 16 3-Undecanone Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
13.79	0.00 mg/kg	197380	d4-1,4-DICHLOROBE	2847250	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Undecanone	170	C11H22O	002216-87-7	42
2	3-Undecanone	170	C11H22O	002216-87-7	40
3	Formamide, N,N-dibutyl-	157	C9H19NO	000761-65-9	38
4	2-Propanol, 1-(isopropylamino)-3...	273	C17H23NO2	019343-21-6	38
5	3-Undecanone	170	C11H22O	002216-87-7	38

****

Peak Number 17 1-Hexanol, 2-ethyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
15.24	0.01 mg/kg	1605210	d4-1,4-DICHLOROBE	2847250	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual

1	1-Hexanol, 2-ethyl-	130	C8H18O	000104-76-7	78
2	1-Hexanol, 2-ethyl-	130	C8H18O	000104-76-7	74
3	1-Hexanol, 2-ethyl-	130	C8H18O	000104-76-7	64
4	1-Hexanol, 2-ethyl-	130	C8H18O	000104-76-7	64
5	1-Hexanol, 2-ethyl-	130	C8H18O	000104-76-7	59

****

Peak Number 18 1,4-Dichlorobenzene-d4 Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
15.44	0.02 mg/kg	2732190	d4-1,4-DICHLOROBE	2847250	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,4-Dichlorobenzene-d4	150	C6Cl2D4	003855-82-1	95
2	Benzene-1,2,3,4-d4-, 5,6-dichloro-	150	C6Cl2D4	002199-69-1	90
3	4-Amino-2-chlorobenzonitrile	152	C7H5ClN2	020925-27-3	9
4	Biphenylene	152	C12H8	000259-79-0	9
5	9-Borabicyclo[3.3.1]nonane, 9-et...	150	C10H19B	052102-17-7	9

****

Peak Number 19 Benzeneethanamine, N-[(pent... Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
16.27	0.00 mg/kg	228854	d4-1,4-DICHLOROBE	2847250	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzeneethanamine, N-[(pentafluo...	475	C21H26F5NO2Si2	055429-85-1	59
2	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	38
3	Benzenemethanol, 4-[(1-ethylprop...	297	C13H19N3O5	056750-76-6	9
4	Hydrocinnamic acid, .alpha.-(tri...	252	C13H20O3Si	027854-49-5	9
5	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	9

****

Peak Number 20 9-Decen-2-one Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
19.00	0.01 mg/kg	1072780	d4-1,4-DICHLOROBE	2847250	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	9-Decen-2-one	154	C10H18O	035194-30-0	37
2	2-Hexanone, 5-methyl-	114	C7H14O	000110-12-3	27
3	2-Nonanone	142	C9H18O	000821-55-6	27
4	2-Pentadecanone, 6,10,14-trimethyl-	268	C18H36O	000502-69-2	25
5	2-Dodecanone	184	C12H24O	006175-49-1	25

LS090419.M Tue Sep 10 12:41:48 2019

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321149R.D Vial: 32
Acq On : 5 Sep 2019 21:52 Operator: RLD-DGS
Sample : 163979,321149, Inst : VMS4
Misc : 4.14g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 22:12:39 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Report

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	990528	0.02	mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	700889	0.02	mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.90	152	269076	0.02	mg/kg	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	255361	0.021	mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 105 %			
45) SURR12DCAd4	7.24	102	55635	0.022	mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 110 %			
60) SURRd8Tolule	9.67	98	986363	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %			
82) SURR4BrFBenz	13.23	95	308053	0.024	mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 120 %#			
Target Compounds						Qvalue
2) Dichlorodi	1.82	85	2346	0.0012	mg/kg#	44
3) Chloromethan	2.07	50	2063	N.D.		
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	2.68	94	2531	N.D.		
6) Chloroethane	0.00	64	0	N.D.		
7) dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	3.67	67	12972	0.0008	mg/kg#	29
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	3.84	56	4278	N.D.		
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	4.03	43	914580	0.3145	mg/kg	100
16) Iodomethane	4.13	142	1673	0.0023	mg/kg#	41
17) Carbon Dislf	4.21	76	58899	0.0014	mg/kg	91
18) allylchloride	4.32	41	2014	N.D.		
19) methylacetate	4.52	74	1624	0.0012	mg/kg#	43
20) Methylchlorid	4.60	84	46726	N.D.		
21) Acrylonitrile	4.98	53	1044	N.D.		
22) t12dichlorte	0.00	96	0	N.D.		
23) tbutylalcohol	4.81	59	28850	N.D.		
24) MtBE	0.00	73	0	N.D.		
25) Hexane	5.33	57	52067	0.0043	mg/kg	97
26) 11dichlorota	0.00	63	0	N.D.		
27) Vinylacetate	5.55	43	1976	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	6.19	59	6122	N.D.		
31) 22dichloropr	6.19	77	16850	0.0007	mg/kg#	46
32) c12dichlorte	0.00	96	0	N.D.		
33) 2Butanone	6.29	72	18182	0.0147	mg/kg	98
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	6.61	67	1414	0.0017	mg/kg#	22
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	6.61	42	3130	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321149R.D Vial: 32
Acq On : 5 Sep 2019 21:52 Operator: RLD-DGS
Sample : 163979,321149, Inst : VMS4
Misc : 4.14g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 22:12:39 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	0.00	83	0	N.D.	
40) 111trichlota	0.00	97	0	N.D.	
42) Cyclohexane	6.92	56	26732	0.0022 mg/kg	93
43) Carbtetraclo	0.00	119	0	N.D.	
44) 11dicloprope	0.00	110	0	N.D.	
46) Benzene	7.32	78	49557	0.0008 mg/kg	85
47) 12dichlorota	0.00	62	0	N.D.	
48) TAME	0.00	73	0	N.D.	
49) trichloroete	0.00	95	0	N.D.	
50) methylcyclohexane	8.36	83	44192	0.0027 mg/kg	89
51) 12dicloropra	8.36	63	1043	N.D.	
52) 23dicl1propene	0.00	75	0	N.D.	
53) Dibromometha	0.00	93	0	N.D.	
54) methylmethacrylate	8.61	69	2792	0.0013 mg/kg#	46
55) 14dioxane	0.00	88	0	N.D.	
56) Bromodiclrma	0.00	83	0	N.D.	
57) 2Nitropropane	9.05	43	1094	N.D.	
58) c13dicloproe	9.37	75	1237	N.D.	
59) 4Meth2Pentan	9.53	43	10539	N.D.	
61) Toluene	9.76	92	165672	0.0041 mg/kg	99
62) t13Dicloprop	0.00	75	0	N.D.	
63) ethylmethacrylate	10.10	69	1767	N.D.	
64) 112Triclotha	10.29	83	1833	N.D.	
65) Tetrachlorte	0.00	166	0	N.D.	
66) 13Diclorpropa	0.00	76	0	N.D.	
68) 2Hexanone	10.63	43	10622	N.D.	
69) Clorodibrmta	0.00	129	0	N.D.	
70) 12Dibrometha	10.96	107	1745	N.D.	
71) Chlorobenzen	0.00	112	0	N.D.	
72) 1Clhexane	11.59	91	2368	0.0011 mg/kg#	1
73) 1112Tetclota	0.00	131	0	N.D.	
74) Ethylbenzene	11.78	91	23305	N.D.	
75) m p-Xylene	11.95	106	51023	0.0021 mg/kg	92
76) o-Xylene	12.50	106	16269	0.0007 mg/kg	99
77) Styrene	12.52	104	1100	N.D.	
78) Bromoform	0.00	173	0	N.D.	
79) Isopropylben	13.01	105	3580	N.D.	
81) cyclohexanone	13.13	55	1325	N.D.	
83) Bromobenzene	0.00	156	0	N.D.	
84) 1122Tetrclta	0.00	83	0	N.D.	
85) 123Triclproa	13.43	75	1178	N.D.	
86) 14dichloro2butene	0.00	53	0	N.D.	
87) n-Propylbenz	13.62	91	6379	N.D.	
88) 2chlorotolue	13.74	91	1534	N.D.	
89) 4chlorotolue	13.88	91	3627	N.D.	
90) 135Trimebenz	13.86	105	24571	N.D.	
91) tbutylbenzen	14.40	119	8268	N.D.	
92) 124Trimetben	14.40	105	90117	0.0024 mg/kg	77
93) sbutylbenzen	14.66	105	1729	N.D.	
94) 13Diclorbenz	14.90	146	1065	N.D.	
95) pIsopropylto	14.86	119	51639	0.0014 mg/kg	94
96) 14dichlorobe	14.90	146	1066	N.D.	
97) 12dichlorobe	0.00	146	0	N.D.	
98) nButylbenzen	15.43	91	3413	N.D.	
99) 12dibromo3cl	0.00	157	0	N.D.	
100) 135Trichlorobenzene	0.00	180	0	N.D.	
101) 124Trichlobe	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321149R.D Vial: 32
Acq On : 5 Sep 2019 21:52 Operator: RLD-DGS
Sample : 163979,321149, Inst : VMS4
Misc : 4.14g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 22:12:39 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) Hexachlorobu	0.00	225	0	N.D.	
103) Naphthalene	18.02	128	5614	N.D.	
104) 123Trichlben	0.00	180	0	N.D.	

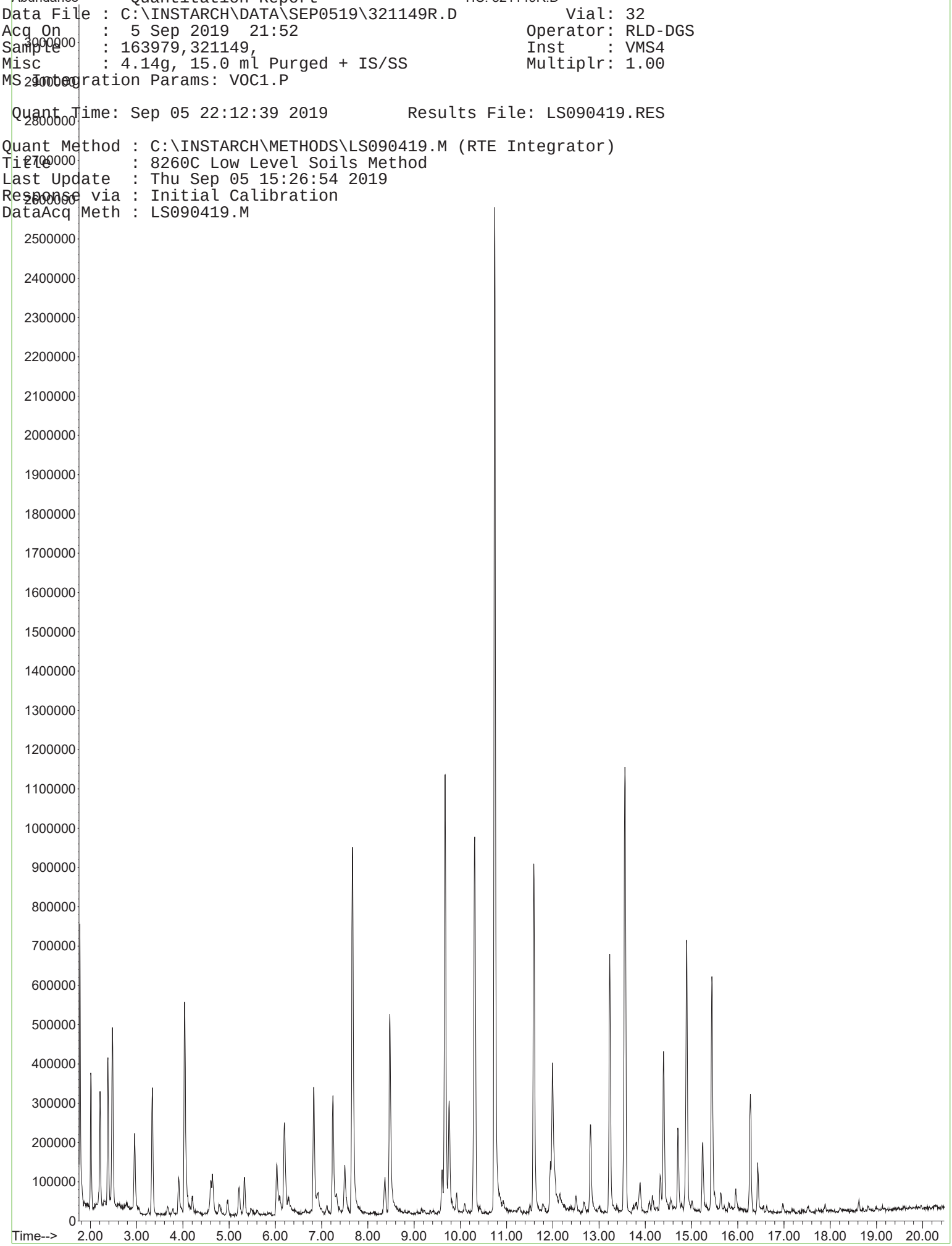
(#) = qualifier out of range (m) = manual integration

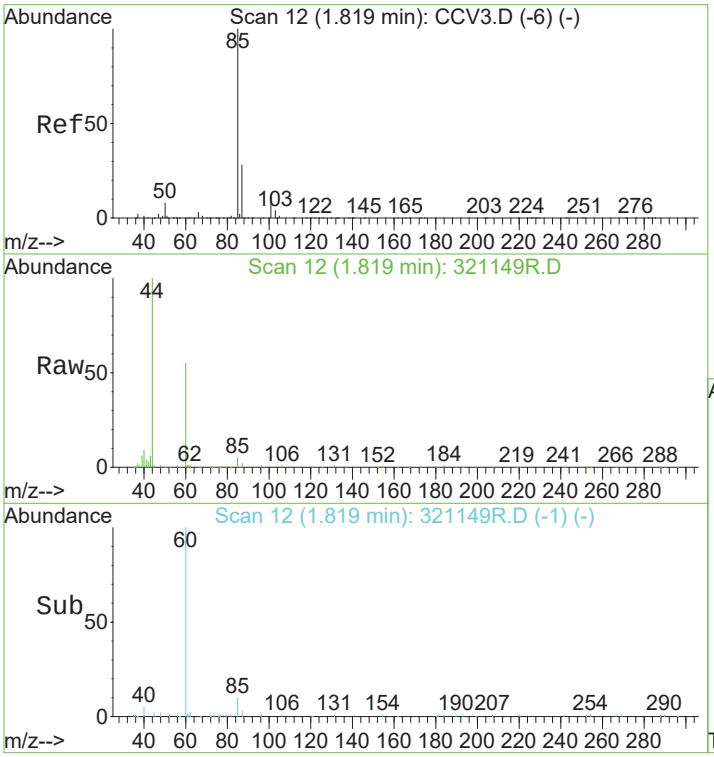
Abundance Quantitation Report TIC: 321149R.D

Data File : C:\INSTARCH\DATA\SEP0519\321149R.D Vial: 32
Acq On : 5 Sep 2019 21:52 Operator: RLD-DGS
Sample : 163979,321149, Inst : VMS4
Misc : 4.14g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 22:12:39 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

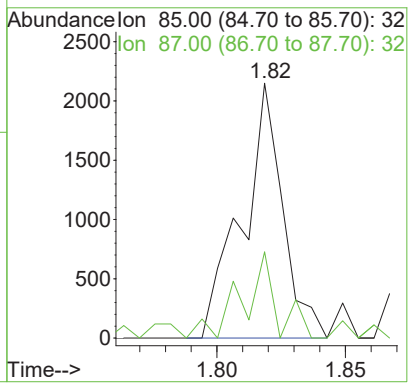




#2
Dichlorodi
Concen: 0.00 mg/kg
RT: 1.82 min Scan# 12
Delta R.T. 0.00 min
Lab File: 321149R.D
Acq: 5 Sep 2019 21:52

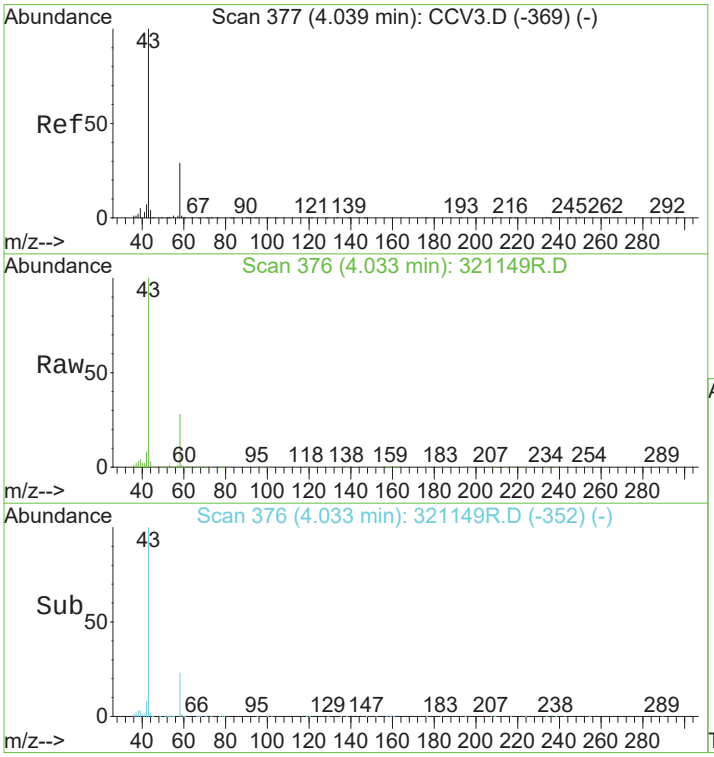
Tgt Ion: 85 Resp: 2346

Ion	Ratio	Lower	Upper
85	100		
87	0.0	10.8	50.8#



Negative Library Identification

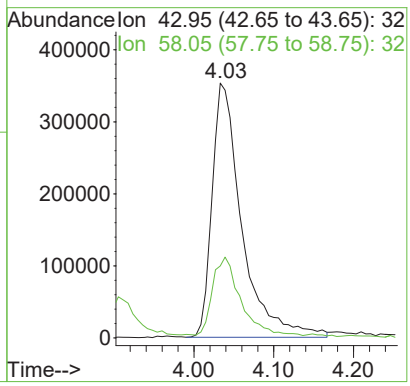
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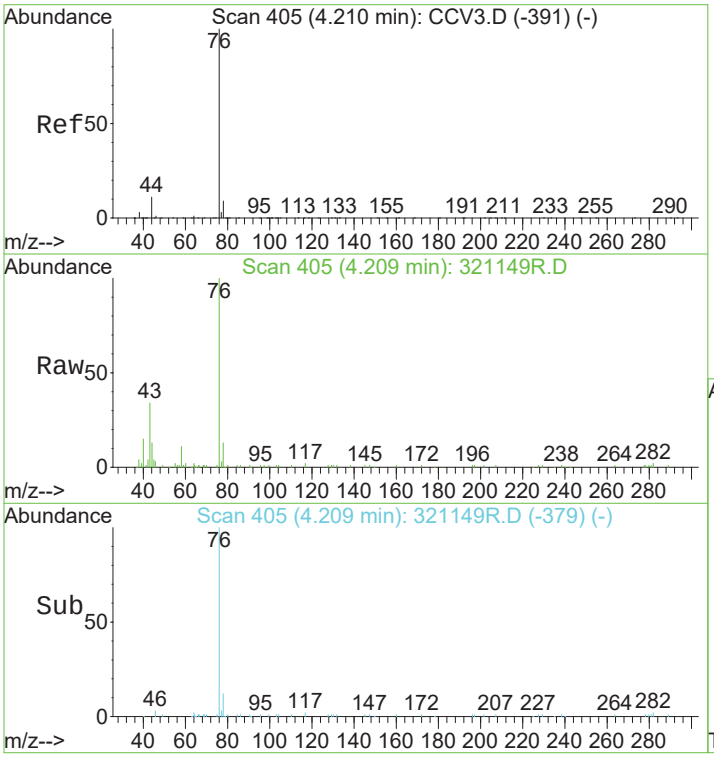


#15
Acetone
Concen: 0.31 mg/kg
RT: 4.03 min Scan# 376
Delta R.T. -0.01 min
Lab File: 321149R.D
Acq: 5 Sep 2019 21:52

Tgt Ion: 43 Resp: 914580

Ion	Ratio	Lower	Upper
43	100		
58	29.4	9.4	49.4

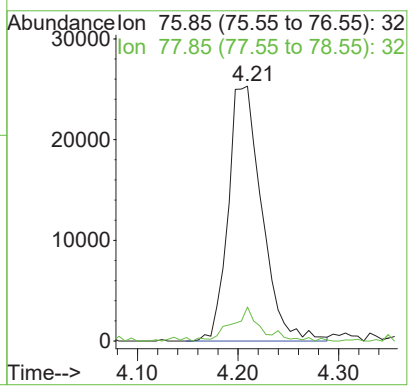


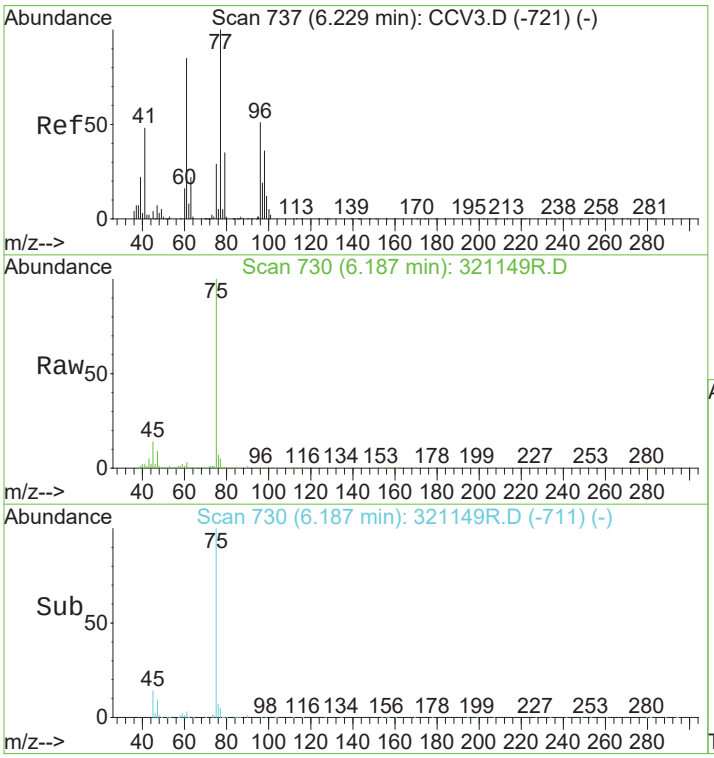


#17
Carbon Dislf
Concen: 0.00 mg/kg
RT: 4.21 min Scan# 405
Delta R.T. 0.01 min
Lab File: 321149R.D
Acq: 5 Sep 2019 21:52

Tgt Ion: 76 Resp: 58899

Ion	Ratio	Lower	Upper
76	100		
78	11.8	0.0	28.5

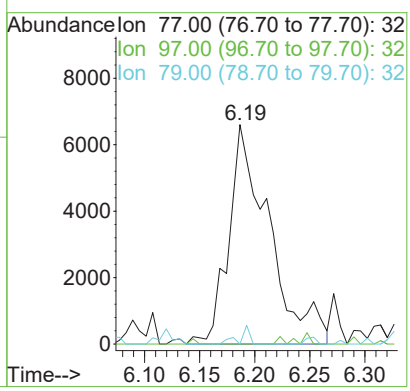




#31
22dichloropr
Concen: 0.00 mg/kg
RT: 6.19 min Scan# 730
Delta R.T. -0.04 min
Lab File: 321149R.D
Acq: 5 Sep 2019 21:52

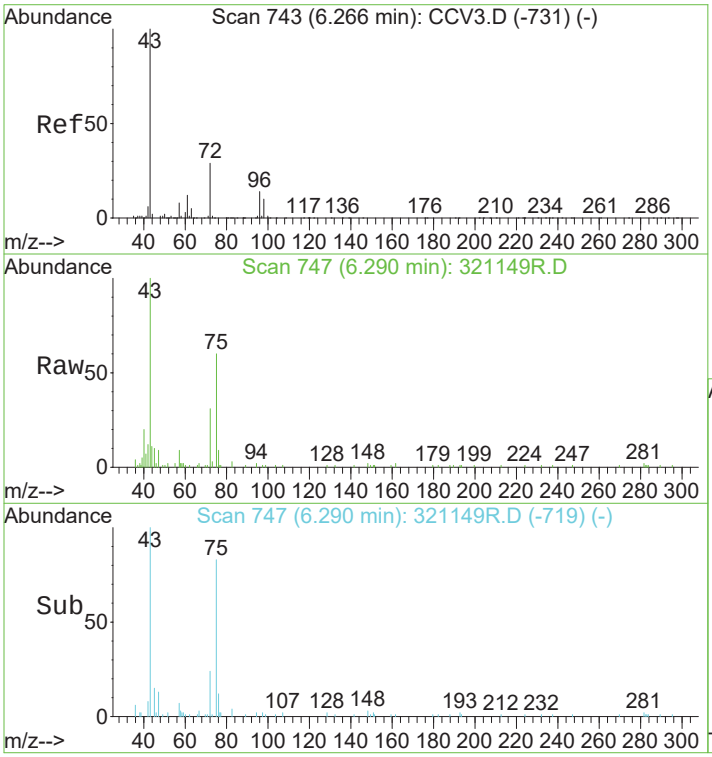
Tgt Ion: 77 Resp: 16850

Ion	Ratio	Lower	Upper
77	100		
97	0.0	1.8	41.8#
79	0.0	13.2	53.2#



Negative Library Identification

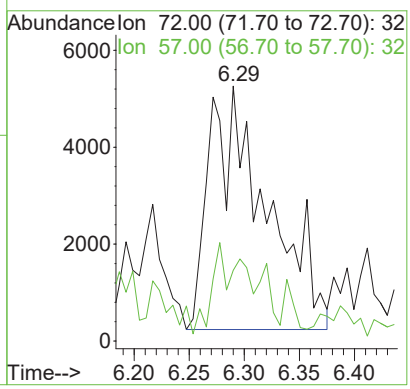
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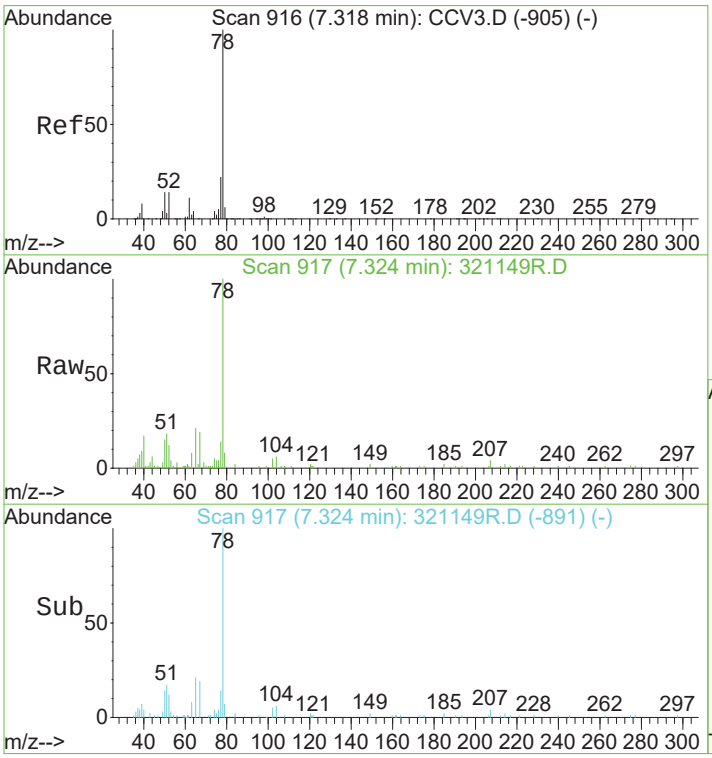


#33
2Butanone
Concen: 0.01 mg/kg
RT: 6.29 min Scan# 747
Delta R.T. 0.02 min
Lab File: 321149R.D
Acq: 5 Sep 2019 21:52

Tgt Ion: 72 Resp: 18182

Ion	Ratio	Lower	Upper
72	100		
57	25.6	6.8	46.8

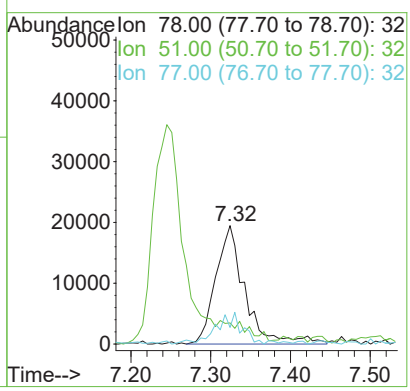


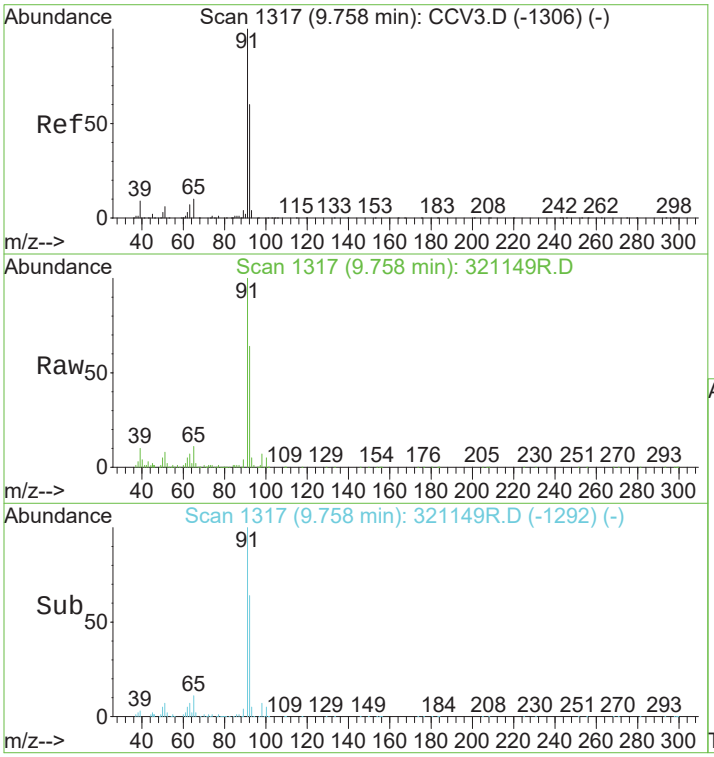


#46
Benzene
Concen: 0.00 mg/kg
RT: 7.32 min Scan# 917
Delta R.T. 0.01 min
Lab File: 321149R.D
Acq: 5 Sep 2019 21:52

Tgt Ion: 78 Resp: 49557

Ion	Ratio	Lower	Upper
78	100		
51	3.0	0.0	36.9
77	21.7	3.0	43.0

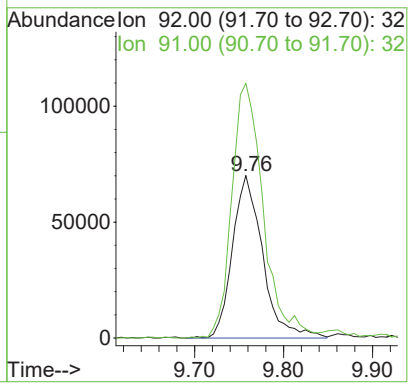


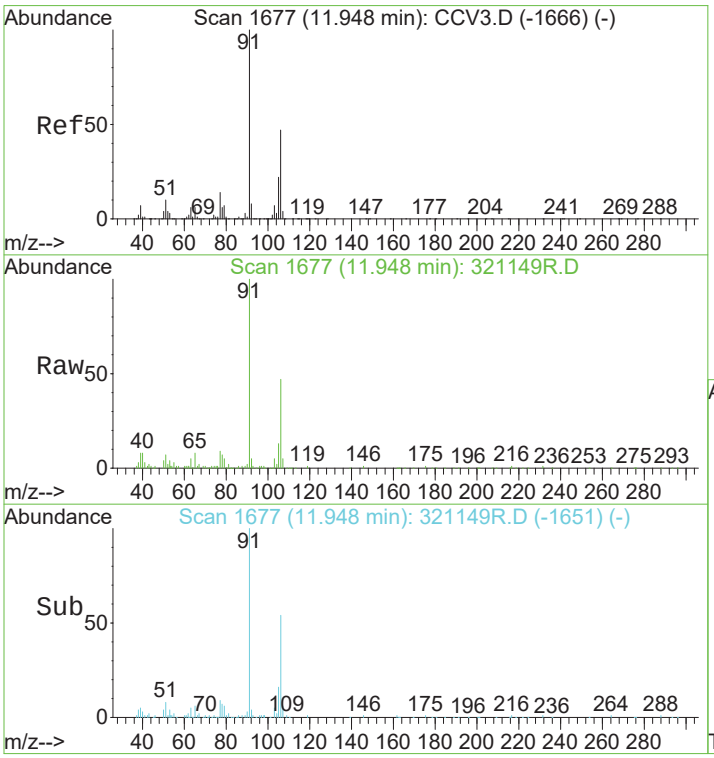


#61
Toluene
Concen: 0.00 mg/kg
RT: 9.76 min Scan# 1317
Delta R.T. -0.00 min
Lab File: 321149R.D
Acq: 5 Sep 2019 21:52

Tgt Ion: 92 Resp: 165672

Ion	Ratio	Lower	Upper
92	100		
91	167.0	148.0	188.0

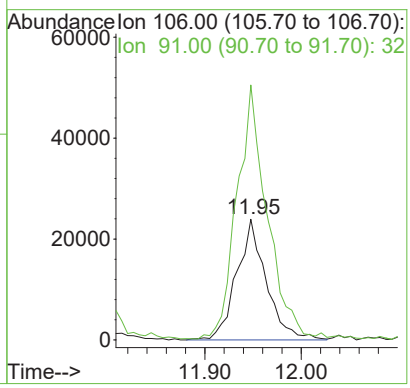


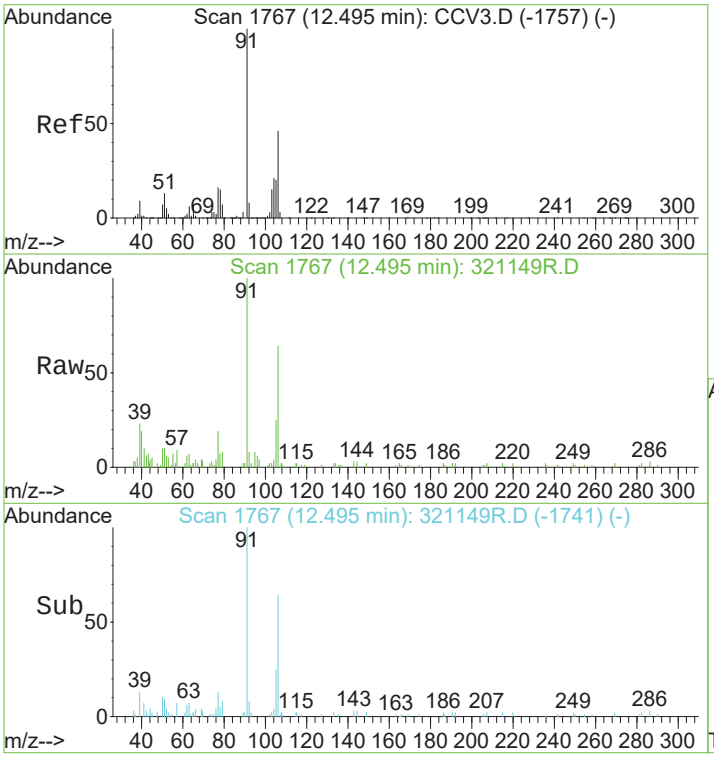


#75
m p-Xylene
Concen: 0.00 mg/kg
RT: 11.95 min Scan# 1677
Delta R.T. 0.01 min
Lab File: 321149R.D
Acq: 5 Sep 2019 21:52

Tgt Ion:106 Resp: 51023

Ion	Ratio	Lower	Upper
106	100		
91	216.4	184.6	224.6

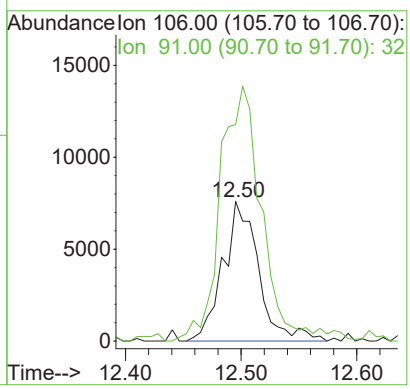


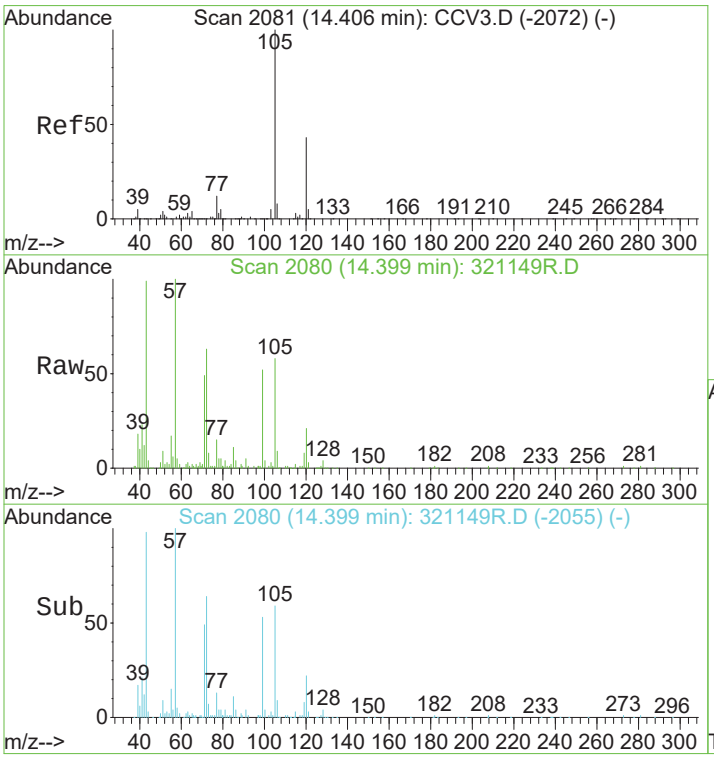


#76
o-Xylene
Concen: 0.00 mg/kg
RT: 12.50 min Scan# 1767
Delta R.T. 0.01 min
Lab File: 321149R.D
Acq: 5 Sep 2019 21:52

Tgt Ion:106 Resp: 16269

Ion	Ratio	Lower	Upper
106	100		
91	213.1	191.1	231.1

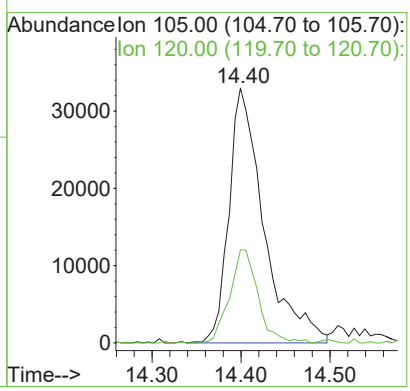


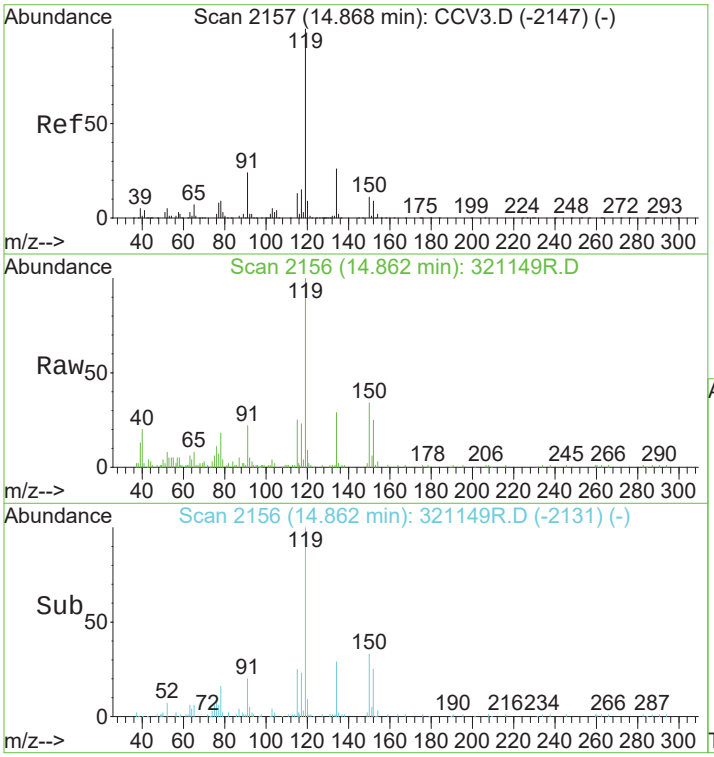


#92
124Trimetben
Concen: 0.00 mg/kg
RT: 14.40 min Scan# 2080
Delta R.T. -0.00 min
Lab File: 321149R.D
Acq: 5 Sep 2019 21:52

Tgt Ion:105 Resp: 90117

Ion	Ratio	Lower	Upper
105	100		
120	29.7	24.5	64.5

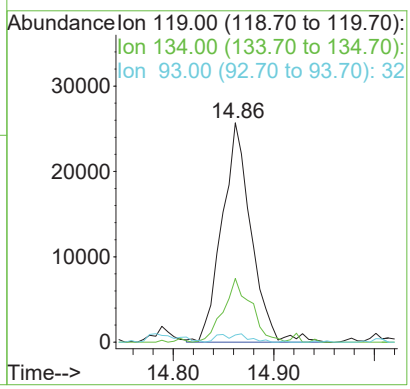




#95
pIsopropylto
Concen: 0.00 mg/kg
RT: 14.86 min Scan# 2156
Delta R.T. -0.00 min
Lab File: 321149R.D
Acq: 5 Sep 2019 21:52

Tgt Ion:119 Resp: 51639

Ion	Ratio	Lower	Upper
119	100		
134	27.6	4.8	44.8
93	3.7	0.0	22.3



Library Search Compound Report

Data Path : C:\Instarch\Data\SEP0519\
Data File : 321149R.D
Acq On : 5 Sep 2019 21:52
Operator : RLD-DGS
Sample : 163979,321149,
Misc : 4.14g, 15.0 ml Purged + IS/SS
ALS Vial : 32 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHODS\LS090419.M
Quant Title : 8260C Low Level Soils Method

TIC Library : C:\DATABASE\NBS75K.L
TIC Integration Parameters: VOC.P

****

Peak Number 1 Isobutane Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.01	0.00 mg/kg	592123	FLUOROBENZENE**IS	2571490	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Isobutane	58	C4H10	000075-28-5	42
2	Isobutane	58	C4H10	000075-28-5	9
3	Oxirane, ethyl-	72	C4H8O	000106-88-7	9
4	Propane, 1-chloro-2-methyl-	92	C4H9Cl	000513-36-0	9
5	Isobutane	58	C4H10	000075-28-5	7

****

Peak Number 2 Butane Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.21	0.00 mg/kg	614811	FLUOROBENZENE**IS	2571490	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane	58	C4H10	000106-97-8	53
2	Butane	58	C4H10	000106-97-8	53
3	1-Propen-2-ol, acetate	100	C5H8O2	000108-22-5	9
4	Isobutane	58	C4H10	000075-28-5	4
5	Diazene, dimethyl-	58	C2H6N2	000503-28-6	4

****

Peak Number 3 Acetaldehyde Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.38	0.01 mg/kg	769912	FLUOROBENZENE**IS	2571490	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetaldehyde	44	C2H4O	000075-07-0	64
2	Acetaldehyde	44	C2H4O	000075-07-0	9
3	Acetaldehyde	44	C2H4O	000075-07-0	9
4	Ethylene oxide	44	C2H4O	000075-21-8	5
5	Carbon dioxide	44	CO2	000124-38-9	4

****

Peak Number 4 Silane, fluorotrimethyl- Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.48	0.01 mg/kg	1162490	FLUOROBENZENE**IS	2571490	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Silane, fluorotrimethyl-	92	C3H9FSi	000420-56-4	91
2	Propane, 1-chloro-2-nitro-	123	C3H6ClNO2	002425-66-3	4
3	Acetyl chloride, chloro-	112	C2H2Cl2O	000079-04-9	4
4	Propane, 2-chloro-2-nitro-	123	C3H6ClNO2	000594-71-8	2
5	Acetyl chloride, chloro-	112	C2H2Cl2O	000079-04-9	2

****

Peak Number 5 Butane, 2-methyl- Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.96	0.00 mg/kg	528499	FLUOROBENZENE**IS	2571490	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2-methyl-	72	C5H12	000078-78-4	86
2	Butane, 2-methyl-	72	C5H12	000078-78-4	72
3	Butane, 2-methyl-	72	C5H12	000078-78-4	50
4	1-Toluenesulfonylazacyclopropane	197	C9H11NO2S	000000-00-0	37
5	2-Butanone, oxime	87	C4H9NO	000096-29-7	23

****

Peak Number 6 Pentane Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
3.34	0.01 mg/kg	729522	FLUOROBENZENE**IS	2571490	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane	72	C5H12	000109-66-0	90
2	Pentane	72	C5H12	000109-66-0	86
3	Pentane	72	C5H12	000109-66-0	78
4	Oxirane, ethyl-	72	C4H8O	000106-88-7	40
5	1-Propanol, 2-methyl-	74	C4H10O	000078-83-1	39

****

Peak Number 7 Pentane, 2-methyl- Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
4.64	0.00 mg/kg	465709	FLUOROBENZENE**IS	2571490	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2-methyl-	86	C6H14	000107-83-5	81
2	Pentane, 2-methyl-	86	C6H14	000107-83-5	59
3	Pentane, 2-methyl-	86	C6H14	000107-83-5	59
4	Pentane, 2-methyl-	86	C6H14	000107-83-5	52
5	Pentane, 2-methyl-	86	C6H14	000107-83-5	52

****

Peak Number 8 Butanal Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
6.03	0.00 mg/kg	494396	FLUOROBENZENE**IS	2571490	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanal	72	C4H8O	000123-72-8	64
2	Butanal	72	C4H8O	000123-72-8	64
3	Butanal	72	C4H8O	000123-72-8	58

4 Butanal	72	C4H8O	000123-72-8	53
5 Butanal	72	C4H8O	000123-72-8	52

****

Peak Number 9 Butanal, 3-methyl- Concentration Rank 20

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
7.50	0.00 mg/kg	359905	FLUOROBENZENE**IS	2571490	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanal, 3-methyl-	86	C5H10O	000590-86-3	87
2	Butanal, 3-methyl-	86	C5H10O	000590-86-3	62
3	Pentanal	86	C5H10O	000110-62-3	59
4	Butanal, 3-methyl-	86	C5H10O	000590-86-3	53
5	Butanal	72	C4H8O	000123-72-8	43

****

Peak Number 10 Pentanal Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
8.47	0.01 mg/kg	1647720	FLUOROBENZENE**IS	2571490	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentanal	86	C5H10O	000110-62-3	80
2	Pentanal	86	C5H10O	000110-62-3	64
3	Pentanal	86	C5H10O	000110-62-3	64
4	Pentanal	86	C5H10O	000110-62-3	56
5	Butanal, 3-methyl-	86	C5H10O	000590-86-3	40

****

Peak Number 11 Cyclotrisiloxane, hexamethyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.31	0.02 mg/kg	2700580	d5-CHLOROBENZENE*	2170870	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	80
2	Arsenous acid, tris(trimethylsil...	342	C9H27AsO3Si3	055429-29-3	56
3	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	49
4	1H-Indole, 1-methyl-2-phenyl-	207	C15H13N	003558-24-5	38
5	N-Cyano-N',N',N'',N''-tetramethy...	207	C8H13N7	074150-88-2	9

****

Peak Number 12 Hexanal Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.74	0.06 mg/kg	6380600	d5-CHLOROBENZENE*	2170870	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexanal	100	C6H12O	000066-25-1	91
2	Hexanal	100	C6H12O	000066-25-1	90
3	Hexanal	100	C6H12O	000066-25-1	78
4	Hexanal	100	C6H12O	000066-25-1	72
5	Hexanal	100	C6H12O	000066-25-1	58

****

Peak Number 13 Heptanal Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
12.81	0.01 mg/kg	656313	d5-CHLOROBENZENE*	2170870	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptanal	114	C7H14O	000111-71-7	64
2	Heptanal	114	C7H14O	000111-71-7	59
3	Heptanal	114	C7H14O	000111-71-7	50
4	Heptanal	114	C7H14O	000111-71-7	49
5	Heptanal	114	C7H14O	000111-71-7	47

****

Peak Number 14 Cyclotetrasiloxane, octamet... Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
13.56	0.03 mg/kg	3018240	d4-1,4-DICHLOROBE	1892570	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	86
2	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	72
3	Benzene, 1-phenyl-4-(2-cyano-2-p...	281	C21H15N	027869-56-3	59
4	3,6-Bis(N-dimethylamino)-9-ethyl...	281	C18H23N3	057103-04-5	36
5	2-Oxo-4-phenyl-6-(4-chlorophenyl...	282	C16H11ClN2O	000000-00-0	9

****

Peak Number 15 Octanal Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
14.70	0.01 mg/kg	500097	d4-1,4-DICHLOROBE	1892570	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octanal	128	C8H16O	000124-13-0	72
2	Octanal	128	C8H16O	000124-13-0	53
3	Octanal	128	C8H16O	000124-13-0	47
4	Hexanal	100	C6H12O	000066-25-1	37
5	Piperazine, 2-methyl-	100	C5H12N2	000109-07-9	32

****

Peak Number 16 1-Hexanol, 2-ethyl- Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
15.24	0.01 mg/kg	504737	d4-1,4-DICHLOROBE	1892570	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Hexanol, 2-ethyl-	130	C8H18O	000104-76-7	64
2	1-Hexanol, 2-ethyl-	130	C8H18O	000104-76-7	64
3	1-Hexanol, 2-ethyl-	130	C8H18O	000104-76-7	59
4	1-Hexanol, 2-ethyl-	130	C8H18O	000104-76-7	56
5	1-Hexanol, 2-ethyl-	130	C8H18O	000104-76-7	56

****

Peak Number 17 1,4-Dichlorobenzene-d4 Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
15.44	0.02 mg/kg	1517510	d4-1,4-DICHLOROBE	1892570	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual

1	1,4-Dichlorobenzene-d4	150	C6Cl2D4	003855-82-1 94
2	Benzene-1,2,3,4-d4-, 5,6-dichloro-	150	C6Cl2D4	002199-69-1 91
3	Benzaldehyde, 2-hydroxy-3-methoxy-	152	C8H8O3	000148-53-8 25
4	Acenaphthylene	152	C12H8	000208-96-8 9
5	Biphenylene	152	C12H8	000259-79-0 9

****

Peak Number 18 Benzeneethanamine, N-[(pent... Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
16.27	0.01 mg/kg	717558	d4-1,4-DICHLOROBE	1892570	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzeneethanamine, N-[(pentafluo...	475	C21H26F5NO2Si2	055429-85-1	64
2	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	58
3	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	50
4	11H-Dibenzo[b,E][1,4]diazepin-11...	267	C16H17N3O	013450-73-2	49
5	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	39

****

Peak Number 19 Nonanal Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
16.43	0.00 mg/kg	299905	d4-1,4-DICHLOROBE	1892570	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Nonanal	142	C9H18O	000124-19-6	91
2	Nonanal	142	C9H18O	000124-19-6	78
3	Cyclohexanol	100	C6H12O	000108-93-0	35
4	Azetidine, 2-methyl-1-(1-methyle...	113	C7H15N	055683-32-4	30
5	2-Nonen-1-ol, (E)-	142	C9H18O	031502-14-4	27

****

Peak Number 20 Cyclotrisiloxane, hexamethyl- Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
19.97	0.00 mg/kg	323118	d4-1,4-DICHLOROBE	1892570	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	38
2	1,1,1,3,5,7,7,7-Octamethyltetras...	282	C8H26O3Si4	000000-00-0	37
3	2-(Acetoxymethyl)-3-(methoxycarb...	282	C17H14O4	093103-70-9	25
4	4-Bromo-3-chloroaniline	205	C6H5BrClN	021402-26-6	22
5	Methyl (7-hydroxy(1H)benzimidazo...	207	C9H9N3O3	000000-00-0	17

LS090419.M Tue Sep 10 12:18:36 2019

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321159R.D Vial: 33
Acq On : 5 Sep 2019 22:21 Operator: RLD-DGS
Sample : 163979,321159, Inst : VMS4
Misc : 4.97g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 22:41:47 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Report

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	837908	0.02 mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	655956	0.02 mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.89	152	314135	0.02 mg/kg	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.83	113	225005	0.022 mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 110 %		
45) SURR12DCAd4	7.25	102	49049	0.023 mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 115 %		
60) SURRd8Tolule	9.67	98	865350	0.020 mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %		
82) SURR4BrFBenz	13.23	95	317296	0.021 mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 105 %		
Target Compounds					Qvalue
2) Dichlorodi	1.82	85	2912	0.0012 mg/kg#	44
3) Chloromethan	2.06	50	1672	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	2.68	94	1325	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) dichloroflmethane	3.15	67	1560	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	3.67	67	25496	0.0020 mg/kg#	29
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	3.83	56	1802	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.04	43	529822	0.2154 mg/kg	97
16) Iodomethane	4.11	142	2759	0.0025 mg/kg#	88
17) Carbon Dislf	4.20	76	70297	0.0019 mg/kg	95
18) allylchloride	4.49	41	6062	N.D.	
19) methylacetate	4.52	74	1360	0.0012 mg/kg#	43
20) Methylchlorid	4.60	84	31651	N.D.	
21) Acrylonitrile	0.00	53	0	N.D.	
22) t12dichlorte	0.00	96	0	N.D.	
23) tbutylalcohol	4.82	59	23317	N.D.	
24) MtBE	4.98	73	1044	N.D.	
25) Hexane	5.33	57	61683	0.0053 mg/kg	98
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	5.60	43	2442	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	6.20	77	12221	0.0006 mg/kg#	46
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	6.30	72	12332	0.0118 mg/kg	100
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	6.59	67	1141	0.0017 mg/kg#	65
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	6.65	42	2582	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321159R.D Vial: 33
Acq On : 5 Sep 2019 22:21 Operator: RLD-DGS
Sample : 163979,321159, Inst : VMS4
Misc : 4.97g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 22:41:47 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	6.65	83	1033	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	6.92	56	24341	0.0023 mg/kg#	83
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	7.32	78	42504	0.0008 mg/kg	85
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	8.37	83	33737	0.0026 mg/kg	85
51)	12dicloropra	8.49	63	1276	N.D.	
52)	23dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	8.60	69	3640	0.0015 mg/kg#	46
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	9.09	43	4957	N.D.	
58)	c13dicloproe	0.00	75	0	N.D.	
59)	4Meth2Pentan	9.52	43	6863	N.D.	
61)	Toluene	9.76	92	60993	0.0018 mg/kg	98
62)	t13Dicloprop	0.00	75	0	N.D.	
63)	ethylmethacrylate	10.09	69	4642	N.D.	
64)	112Triclotha	10.31	83	1830	N.D.	
65)	Tetrachlorte	0.00	166	0	N.D.	
66)	13Diclorpropa	0.00	76	0	N.D.	
68)	2Hexanone	10.63	43	4205	N.D.	
69)	Clorodibrmta	0.00	129	0	N.D.	
70)	12Dibrometha	10.96	107	3557	N.D.	
71)	Chlorobenzen	0.00	112	0	N.D.	
72)	1Clhexane	11.58	91	1524	0.0010 mg/kg#	1
73)	1112Tetclota	0.00	131	0	N.D.	
74)	Ethylbenzene	11.79	91	18213	N.D.	
75)	m p-Xylene	11.95	106	21219	0.0009 mg/kg	97
76)	o-Xylene	12.48	106	5889	N.D.	
77)	Styrene	0.00	104	0	N.D.	
78)	Bromoform	0.00	173	0	N.D.	
79)	Isopropylben	13.02	105	1859	N.D.	
81)	cyclohexanone	13.12	55	2132	N.D.	
83)	Bromobenzene	0.00	156	0	N.D.	
84)	1122Tetrclta	13.54	83	1720	N.D.	
85)	123Triclproa	13.55	75	11011	0.0007 mg/kg#	51
86)	14dichloro2butene	0.00	53	0	N.D.	
87)	n-Propylbenz	13.61	91	4003	N.D.	
88)	2chlorotolue	13.74	91	1182	N.D.	
89)	4chlorotolue	0.00	91	0	N.D.	
90)	135Trimebenz	13.86	105	10184	N.D.	
91)	tbutylbenzen	14.39	119	2486	N.D.	
92)	124Trimetben	14.40	105	38305	0.0009 mg/kg	70
93)	sbutylbenzen	14.64	105	2425	N.D.	
94)	13Diclorbenz	0.00	146	0	N.D.	
95)	pIsopropylto	14.86	119	10510	N.D.	
96)	14dichlorobe	0.00	146	0	N.D.	
97)	12dichlorobe	15.43	146	1044	N.D.	
98)	nButylbenzen	15.45	91	1903	N.D.	
99)	12dibromo3cl	0.00	157	0	N.D.	
100)	135Trichlorobenzene	0.00	180	0	N.D.	
101)	124Trichlobe	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321159R.D Vial: 33
Acq On : 5 Sep 2019 22:21 Operator: RLD-DGS
Sample : 163979,321159, Inst : VMS4
Misc : 4.97g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 22:41:47 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) Hexachlorobu	0.00	225	0	N.D.	
103) Naphthalene	18.03	128	5256	N.D.	
104) 123Trichlben	0.00	180	0	N.D.	

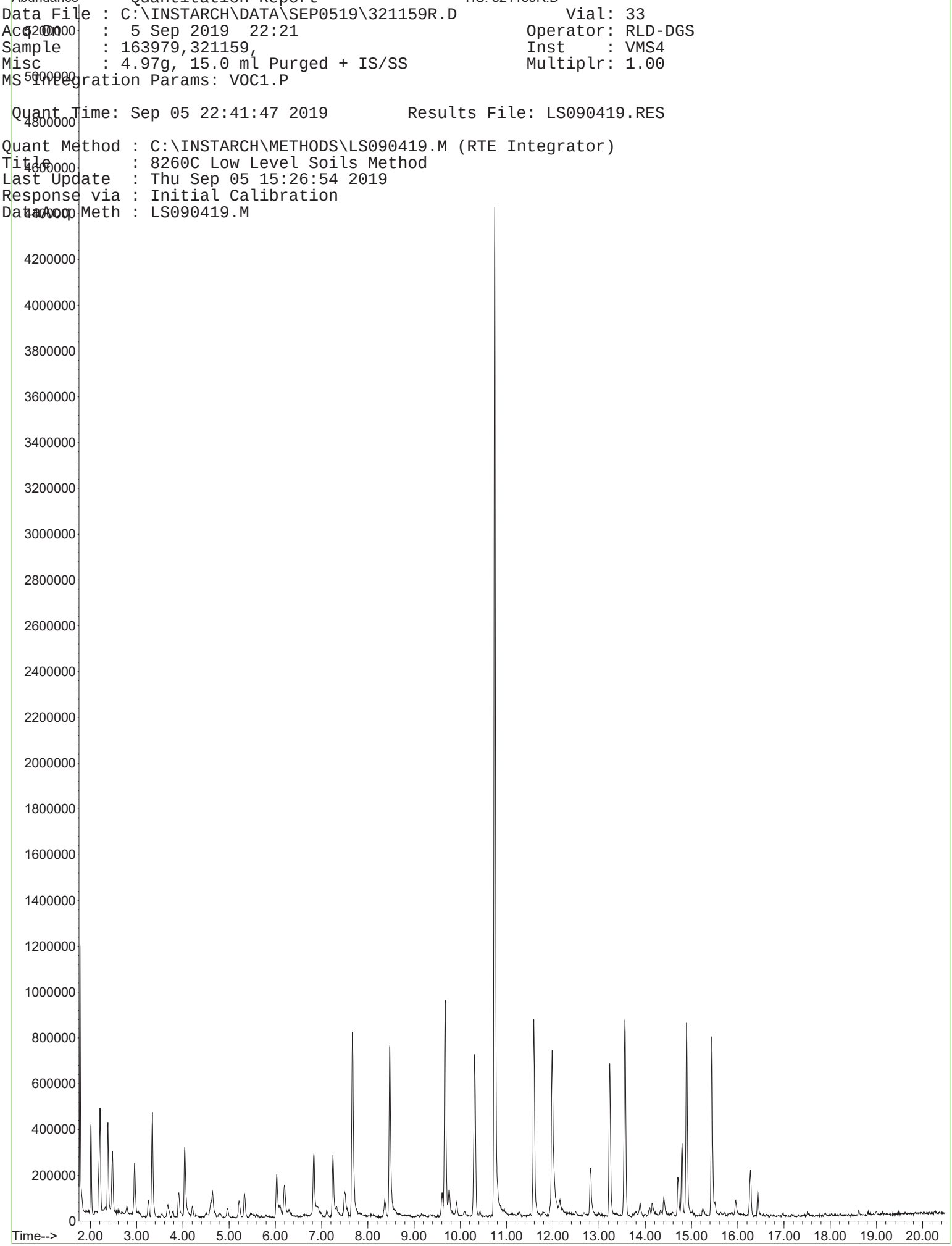
(#) = qualifier out of range (m) = manual integration

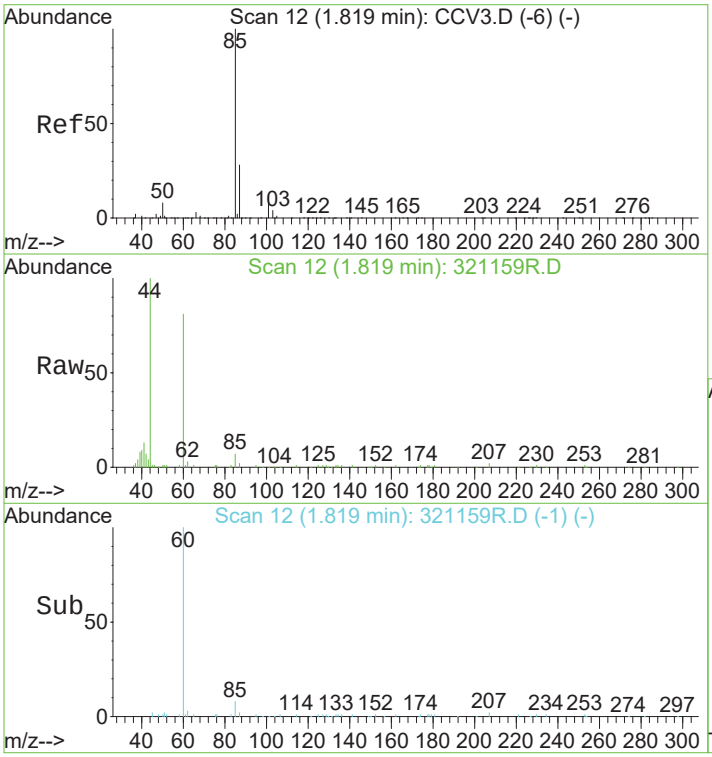
Abundance Quantitation Report TIC: 321159R.D

Data File : C:\INSTARCH\DATA\SEP0519\321159R.D Vial: 33
Acq On : 5 Sep 2019 22:21 Operator: RLD-DGS
Sample : 163979,321159, Inst : VMS4
Misc : 4.97g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 22:41:47 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

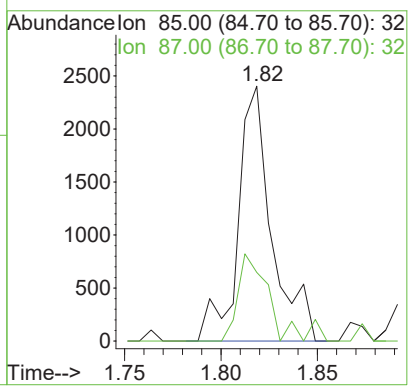




#2
Dichlorodi
Concen: 0.00 mg/kg
RT: 1.82 min Scan# 12
Delta R.T. 0.00 min
Lab File: 321159R.D
Acq: 5 Sep 2019 22:21

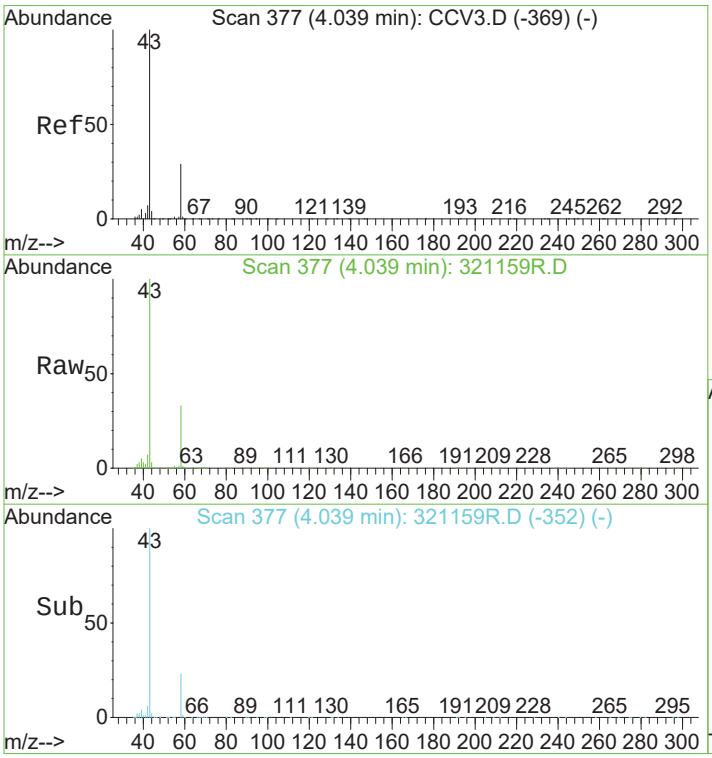
Tgt Ion: 85 Resp: 2912

Ion	Ratio	Lower	Upper
85	100		
87	0.0	10.8	50.8#



Negative Library Identification

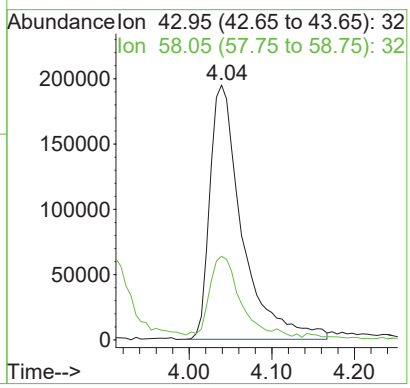
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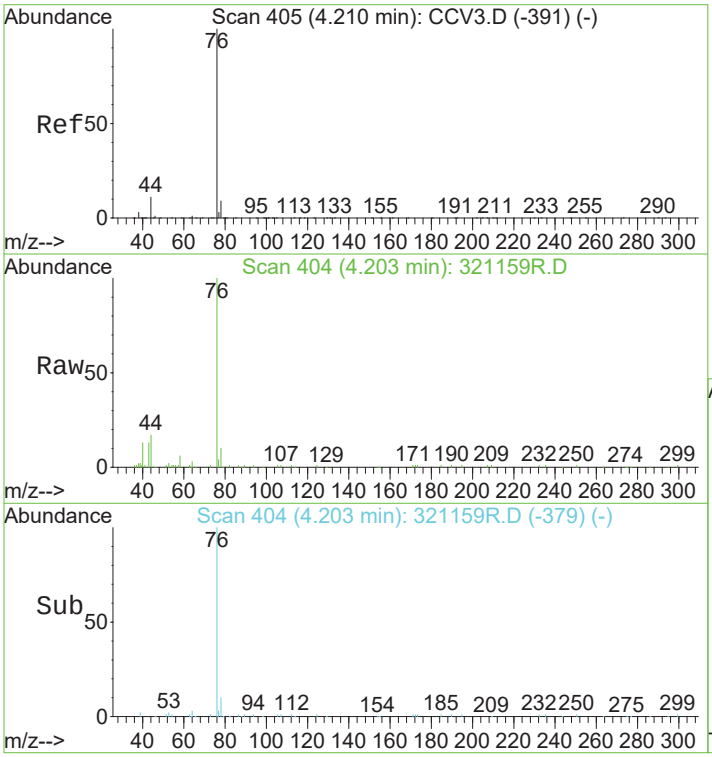


#15
Acetone
Concen: 0.22 mg/kg
RT: 4.04 min Scan# 377
Delta R.T. -0.00 min
Lab File: 321159R.D
Acq: 5 Sep 2019 22:21

Tgt Ion: 43 Resp: 529822

Ion	Ratio	Lower	Upper
43	100		
58	30.9	9.4	49.4

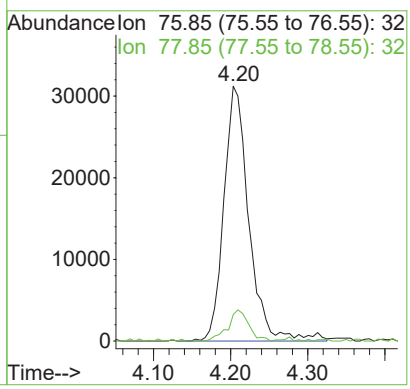


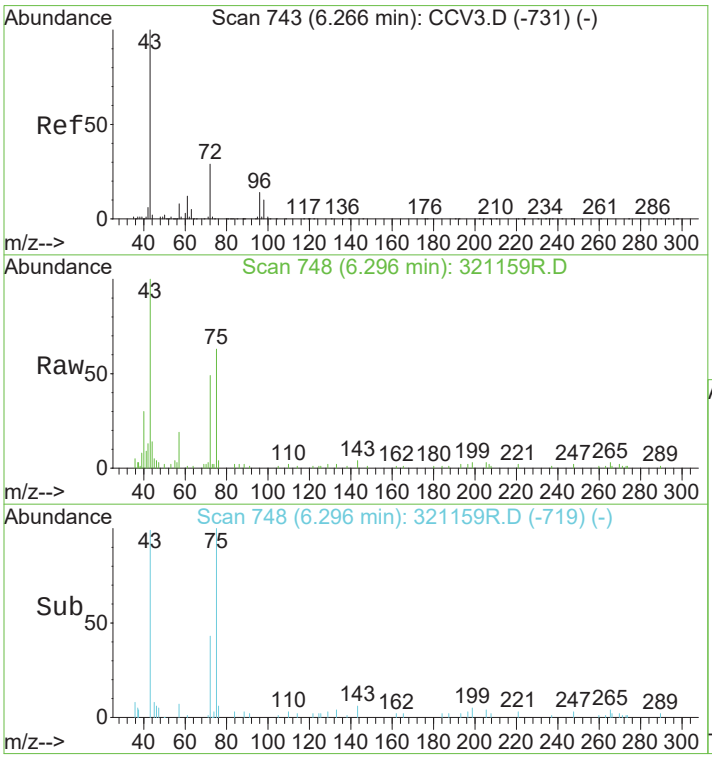


#17
Carbon Dislf
Concen: 0.00 mg/kg
RT: 4.20 min Scan# 404
Delta R.T. -0.00 min
Lab File: 321159R.D
Acq: 5 Sep 2019 22:21

Tgt Ion: 76 Resp: 70297

Ion	Ratio	Lower	Upper
76	100		
78	10.4	0.0	28.5

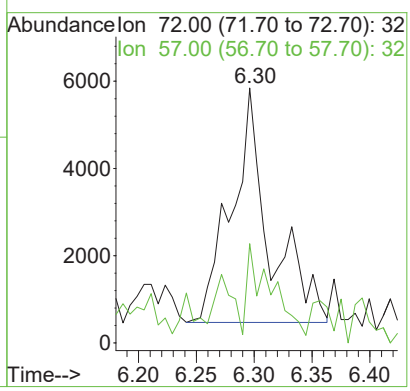


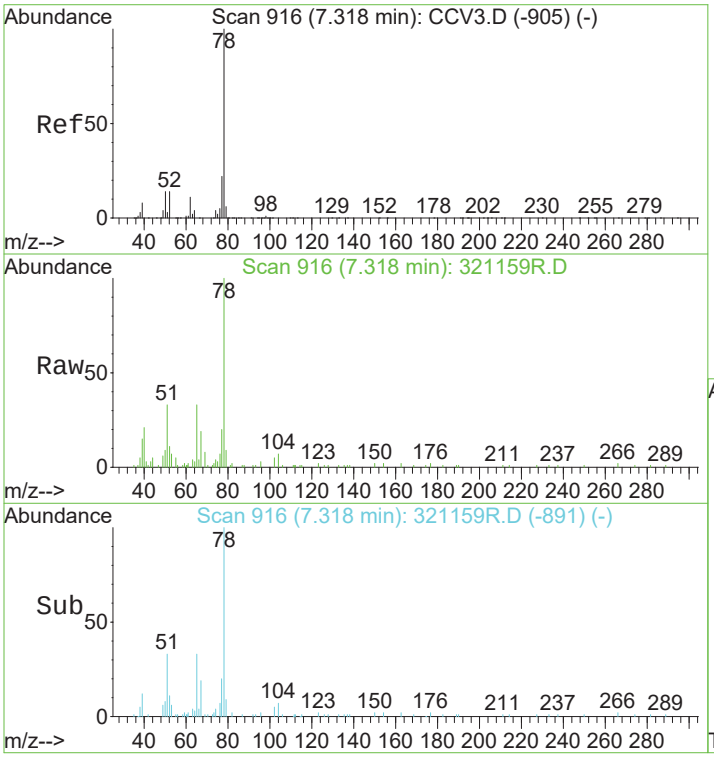


#33
2Butanone
Concen: 0.01 mg/kg
RT: 6.30 min Scan# 748
Delta R.T. 0.02 min
Lab File: 321159R.D
Acq: 5 Sep 2019 22:21

Tgt Ion: 72 Resp: 12332

Ion	Ratio	Lower	Upper
72	100		
57	26.7	6.8	46.8

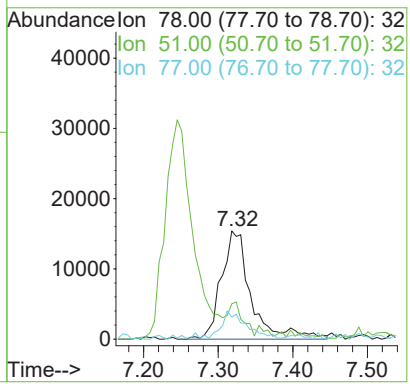


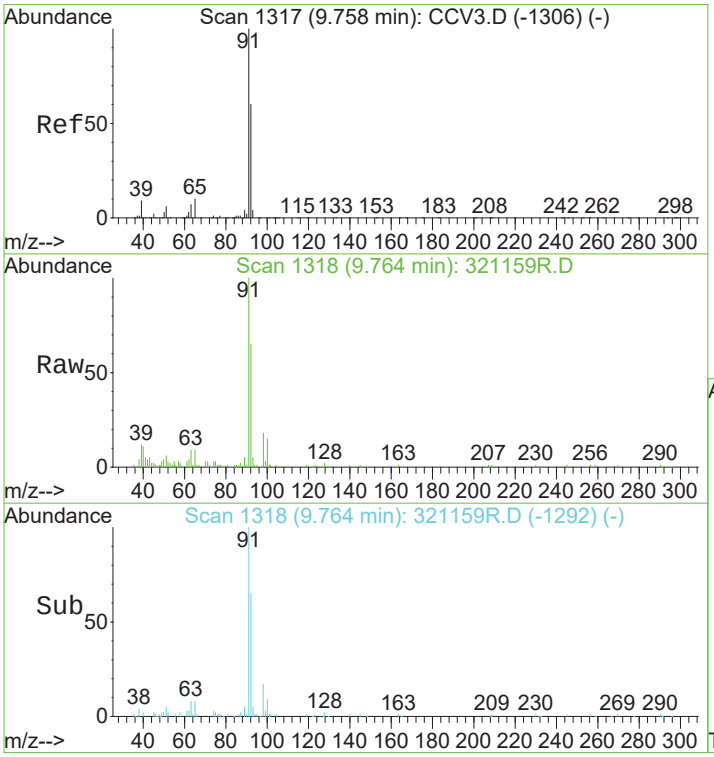


#46
Benzene
Concen: 0.00 mg/kg
RT: 7.32 min Scan# 916
Delta R.T. -0.00 min
Lab File: 321159R.D
Acq: 5 Sep 2019 22:21

Tgt Ion: 78 Resp: 42504

Ion	Ratio	Lower	Upper
78	100		
51	5.3	0.0	36.9
77	20.0	3.0	43.0

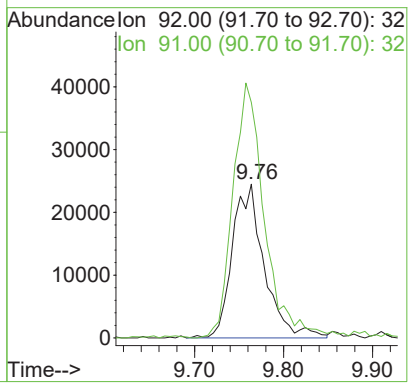


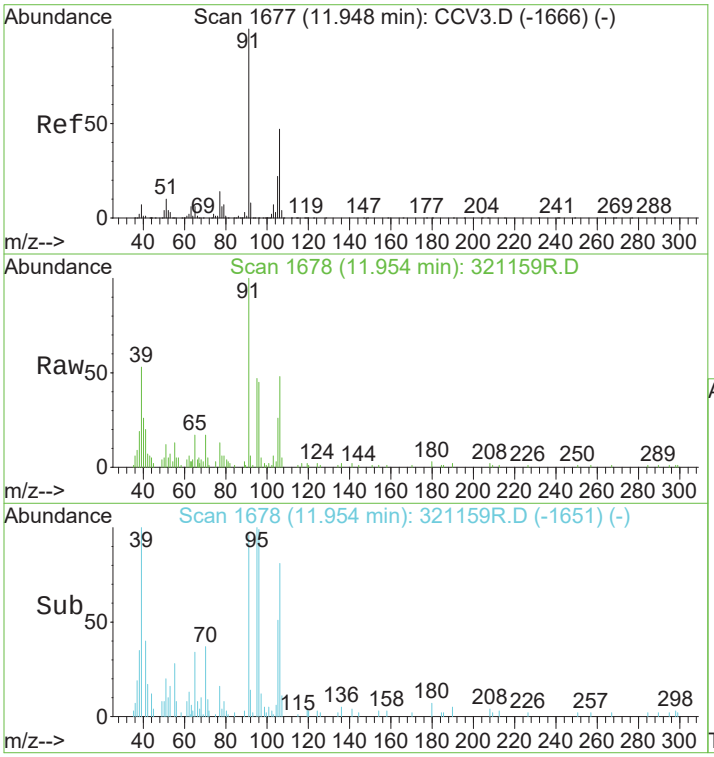


#61
Toluene
Concen: 0.00 mg/kg
RT: 9.76 min Scan# 1318
Delta R.T. 0.01 min
Lab File: 321159R.D
Acq: 5 Sep 2019 22:21

Tgt Ion: 92 Resp: 60993

Ion	Ratio	Lower	Upper
92	100		
91	164.8	148.0	188.0

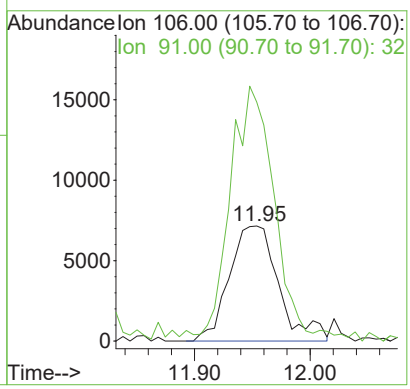


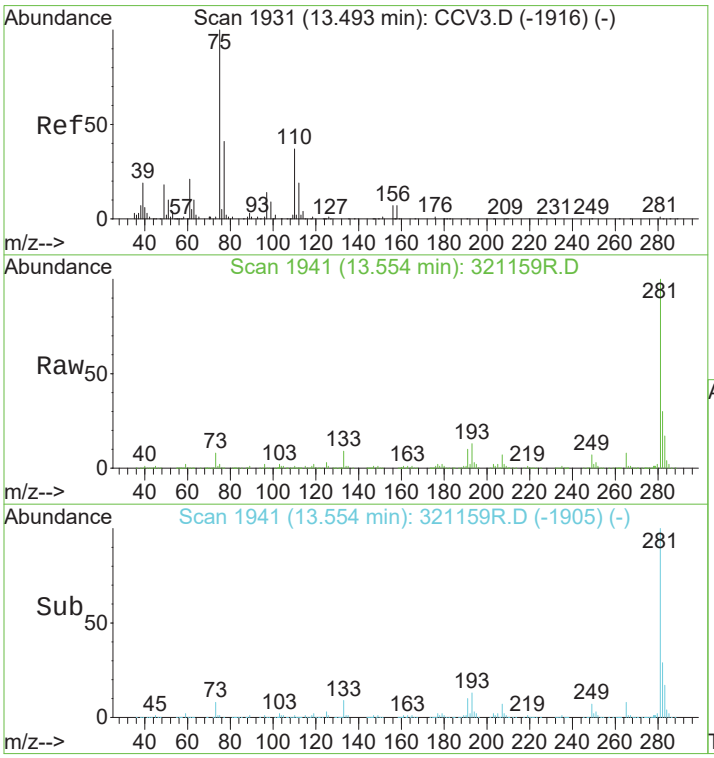


#75
m p-Xylene
Concen: 0.00 mg/kg
RT: 11.95 min Scan# 1678
Delta R.T. 0.01 min
Lab File: 321159R.D
Acq: 5 Sep 2019 22:21

Tgt Ion:106 Resp: 21219

Ion	Ratio	Lower	Upper
106	100		
91	200.1	184.6	224.6

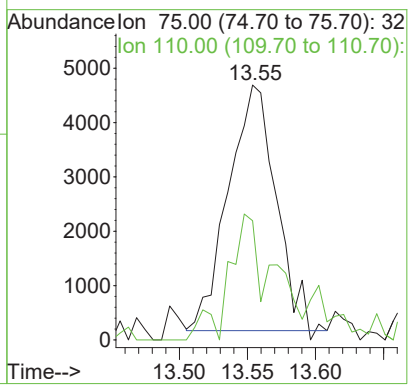




#85
123Triclproa
Concen: 0.00 mg/kg
RT: 13.55 min Scan# 1941
Delta R.T. 0.07 min
Lab File: 321159R.D
Acq: 5 Sep 2019 22:21

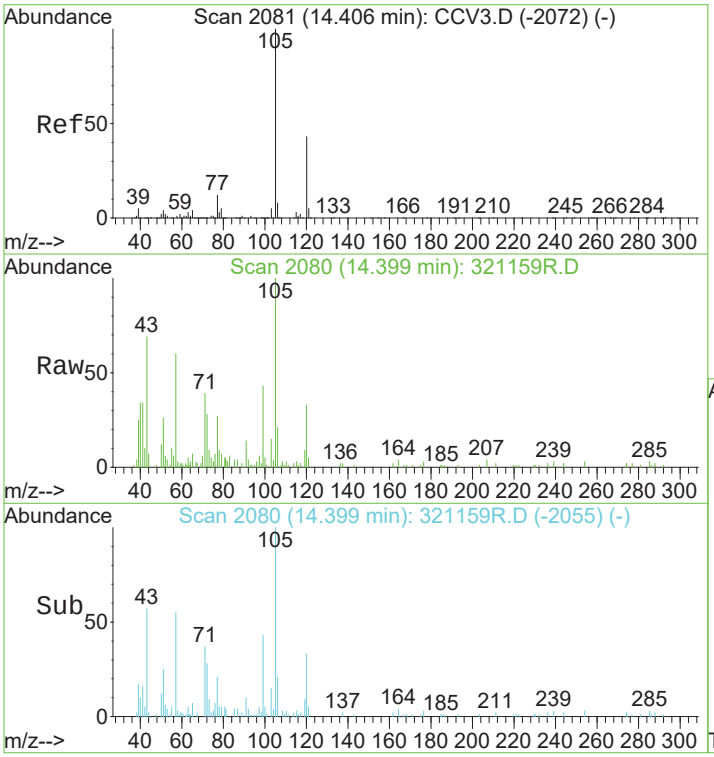
Tgt Ion: 75 Resp: 11011

Ion	Ratio	Lower	Upper
75	100		
110	47.8	3.7	43.7#



Negative Library Identification

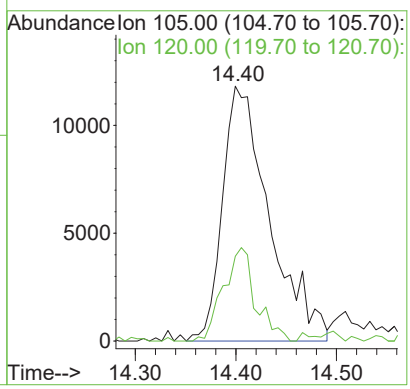
[redacted]



#92
124Trimetben
Concen: 0.00 mg/kg
RT: 14.40 min Scan# 2080
Delta R.T. -0.00 min
Lab File: 321159R.D
Acq: 5 Sep 2019 22:21

Tgt Ion:105 Resp: 38305

Ion	Ratio	Lower	Upper
105	100		
120	25.2	24.5	64.5



Library Search Compound Report

Data Path : C:\Instarch\Data\SEP0519\
Data File : 321159R.D
Acq On : 5 Sep 2019 22:21
Operator : RLD-DGS
Sample : 163979,321159,
Misc : 4.97g, 15.0 ml Purged + IS/SS
ALS Vial : 33 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHODS\LS090419.M
Quant Title : 8260C Low Level Soils Method

TIC Library : C:\DATABASE\NBS75K.L
TIC Integration Parameters: VOC.P

****

Peak Number 1 Isobutane Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.01	0.00 mg/kg	620252	FLUOROBENZENE**IS	2513170	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Isobutane	58	C4H10	000075-28-5	72
2	Isobutane	58	C4H10	000075-28-5	64
3	Isobutane	58	C4H10	000075-28-5	9
4	Oxirane, trimethyl-	86	C5H10O	005076-19-7	9
5	Butane	58	C4H10	000106-97-8	2

****

Peak Number 2 Butane Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.21	0.01 mg/kg	1108470	FLUOROBENZENE**IS	2513170	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane	58	C4H10	000106-97-8	59
2	Butane	58	C4H10	000106-97-8	45
3	1-Propen-2-ol, acetate	100	C5H8O2	000108-22-5	9
4	1-Propanol, 2-methyl-	74	C4H10O	000078-83-1	9
5	1-Propen-2-ol, acetate	100	C5H8O2	000108-22-5	9

****

Peak Number 3 Acetaldehyde Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.38	0.01 mg/kg	735683	FLUOROBENZENE**IS	2513170	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetaldehyde	44	C2H4O	000075-07-0	64
2	Acetaldehyde	44	C2H4O	000075-07-0	64
3	Acetaldehyde	44	C2H4O	000075-07-0	9
4	Ethylene oxide	44	C2H4O	000075-21-8	5
5	Ethylene oxide	44	C2H4O	000075-21-8	5

****

Peak Number 4 Silane, fluorotrimethyl- Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.48	0.01 mg/kg	667140	FLUOROBENZENE**IS	2513170	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Silane, fluorotrimethyl-	92	C3H9FSi	000420-56-4	47
2	Propane, 2-chloro-2-nitro-	123	C3H6ClNO2	000594-71-8	9
3	Ethanol, 2,2,2-trichloro-	148	C2H3Cl3O	000115-20-8	4
4	Silane, (2,2-difluoroethyl)trime...	138	C5H12F2Si	000000-00-0	2
5	Propane, 1,2-dichloro-2-methyl-	126	C4H8Cl2	000594-37-6	2

****

Peak Number 5 Butane, 2-methyl- Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.96	0.01 mg/kg	652909	FLUOROBENZENE**IS	2513170	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2-methyl-	72	C5H12	000078-78-4	86
2	Butane, 2-methyl-	72	C5H12	000078-78-4	72
3	Butane, 2-methyl-	72	C5H12	000078-78-4	72
4	3-Buten-1-ol	72	C4H8O	000627-27-0	43
5	1-Propanol, 2-methyl-	74	C4H10O	000078-83-1	38

****

Peak Number 6 Pentane Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
3.34	0.01 mg/kg	1036230	FLUOROBENZENE**IS	2513170	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane	72	C5H12	000109-66-0	86
2	Pentane	72	C5H12	000109-66-0	72
3	Pentane	72	C5H12	000109-66-0	72
4	Oxirane, ethyl-	72	C4H8O	000106-88-7	53
5	Oxirane, ethyl-	72	C4H8O	000106-88-7	40

****

Peak Number 7 Propanal Concentration Rank 20

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
3.91	0.00 mg/kg	306686	FLUOROBENZENE**IS	2513170	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propanal	58	C3H6O	000123-38-6	50
2	Propanal	58	C3H6O	000123-38-6	38
3	2-Propanamine, 2-methyl-	73	C4H11N	000075-64-9	38
4	Propanal	58	C3H6O	000123-38-6	9
5	Trimethylene oxide	58	C3H6O	000503-30-0	9

****

Peak Number 8 Pentane, 2-methyl- Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
4.64	0.00 mg/kg	430635	FLUOROBENZENE**IS	2513170	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2-methyl-	86	C6H14	000107-83-5	87
2	Pentane, 2-methyl-	86	C6H14	000107-83-5	87
3	Pentane, 2-methyl-	86	C6H14	000107-83-5	86

4 Pentane, 2-methyl-	86	C6H14	000107-83-5	72
5 Butane, 2,3-dimethyl-	86	C6H14	000079-29-8	43

****

Peak Number 9 Butanal Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
6.03	0.01 mg/kg	665429	FLUOROBENZENE**IS	2513170	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanal	72	C4H8O	000123-72-8	91
2	Butanal	72	C4H8O	000123-72-8	81
3	Butanal	72	C4H8O	000123-72-8	74
4	Butanal	72	C4H8O	000123-72-8	74
5	Butanal	72	C4H8O	000123-72-8	74

****

Peak Number 10 Butanal, 3-methyl- Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
7.49	0.00 mg/kg	389295	FLUOROBENZENE**IS	2513170	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanal, 3-methyl-	86	C5H10O	000590-86-3	90
2	Butanal, 3-methyl-	86	C5H10O	000590-86-3	74
3	Hexanal	100	C6H12O	000066-25-1	53
4	Butanal, 3-methyl-	86	C5H10O	000590-86-3	42
5	Pentanal	86	C5H10O	000110-62-3	38

****

Peak Number 11 Pentanal Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
8.47	0.02 mg/kg	2231260	FLUOROBENZENE**IS	2513170	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentanal	86	C5H10O	000110-62-3	86
2	Pentanal	86	C5H10O	000110-62-3	80
3	Pentanal	86	C5H10O	000110-62-3	78
4	Butanal, 3-methyl-	86	C5H10O	000590-86-3	78
5	Pentanal	86	C5H10O	000110-62-3	74

****

Peak Number 12 Cyclotrisiloxane, hexamethyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.31	0.02 mg/kg	1841990	d5-CHLOROBENZENE*	2011650	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	64
2	Arsenous acid, tris(trimethylsil...	342	C9H27AsO3Si3	055429-29-3	56
3	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	43
4	1H-Indole, 5-methyl-2-phenyl-	207	C15H13N	013228-36-9	38
5	1H-Indole, 1-methyl-2-phenyl-	207	C15H13N	003558-24-5	38

****

Peak Number 13 Hexanal Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.74	0.10 mg/kg	10536500	d5-CHLOROBENZENE*	2011650	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexanal	100	C6H12O	000066-25-1	90
2	Hexanal	100	C6H12O	000066-25-1	90
3	Hexanal	100	C6H12O	000066-25-1	78
4	Hexanal	100	C6H12O	000066-25-1	72
5	Hexanal	100	C6H12O	000066-25-1	60

****

Peak Number 14 Heptanal Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
12.81	0.01 mg/kg	588183	d5-CHLOROBENZENE*	2011650	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptanal	114	C7H14O	000111-71-7	64
2	Heptanal	114	C7H14O	000111-71-7	53
3	Heptanal	114	C7H14O	000111-71-7	50
4	Heptanal	114	C7H14O	000111-71-7	50
5	Hexanal, 5-methyl-	114	C7H14O	001860-39-5	38

****

Peak Number 15 Octanal Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
14.70	0.00 mg/kg	400211	d4-1,4-DICHLOROBE	2079570	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octanal	128	C8H16O	000124-13-0	64
2	Octanal	128	C8H16O	000124-13-0	45
3	1-Pentene, 3-methyl-	84	C6H12	000760-20-3	43
4	Octanal	128	C8H16O	000124-13-0	42
5	Dodecanal	184	C12H24O	000112-54-9	42

****

Peak Number 16 Limonene Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
14.79	0.01 mg/kg	632588	d4-1,4-DICHLOROBE	2079570	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Limonene	136	C10H16	000138-86-3	91
2	Limonene	136	C10H16	000138-86-3	91
3	Cyclohexene, 1-methyl-4-(1-methy...	136	C10H16	005989-54-8	86
4	D-Limonene	136	C10H16	005989-27-5	81
5	D-Limonene	136	C10H16	005989-27-5	81

****

Peak Number 17 1,4-Dichlorobenzene-d4 Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
15.44	0.02 mg/kg	2052740	d4-1,4-DICHLOROBE	2079570	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual

1	1,4-Dichlorobenzene-d4	150	C6Cl2D4	003855-82-1 95
2	Benzene-1,2,3,4-d4-, 5,6-dichloro-	150	C6Cl2D4	002199-69-1 90
3	Benzaldehyde, 2-hydroxy-3-methoxy-	152	C8H8O3	000148-53-8 27
4	Acenaphthylene	152	C12H8	000208-96-8 9
5	9-Borabicyclo[3.3.1]nonane, 9-et...	150	C10H19B	052102-17-7 9

****

Peak Number 18 Benzoic acid, 2-[(trimethyl... Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
16.27	0.00 mg/kg	492658	d4-1,4-DICHLOROBE	2079570	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	64
2	Benzeneethanamine, N-[(pentafluo...	475	C21H26F5NO2Si2	055429-85-1	50
3	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	39
4	11H-Dibenzo[b,E][1,4]diazepin-11...	267	C16H17N3O	013450-73-2	38
5	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	38

****

Peak Number 19 Hexadecane, 1,1-bis(dodecyl... Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
16.43	0.00 mg/kg	275734	d4-1,4-DICHLOROBE	2079570	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecane, 1,1-bis(dodecyloxy)-	595	C40H82O2	056554-64-4	58
2	1-Hexanol, 2-ethyl-	130	C8H18O	000104-76-7	35
3	1-Undecene	154	C11H22	000821-95-4	25
4	1-Octene, 3,7-dimethyl-	140	C10H20	004984-01-4	22
5	Aziridine, 2-ethyl-	71	C4H9N	002549-67-9	22

****

Peak Number 20 Acetic acid, [4-(1,1-dimeth... Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
19.48	0.00 mg/kg	415185	d4-1,4-DICHLOROBE	2079570	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetic acid, [4-(1,1-dimethyleth...	222	C13H18O3	088530-52-3	38
2	1H-Indole, 1-methyl-2-phenyl-	207	C15H13N	003558-24-5	27
3	1H-Indole, 2-methyl-3-phenyl-	207	C15H13N	004757-69-1	25
4	3,3-Diethoxy-1,1,1,5,5,5-hexamet...	296	C10H28O4Si3	000000-00-0	23
5	Propiophenone, 2'-(trimethylsilo...	222	C12H18O2Si	033342-87-9	20

LS090419.M Tue Sep 10 12:32:49 2019

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321170R.D Vial: 42
Acq On : 6 Sep 2019 10:00 Operator: RLD-DGS
Sample : 163979,321170, Inst : VMS4
Misc : 4.66g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 06 10:20:49 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Fri Sep 06 08:54:58 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Report

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.67	96	889063	0.02	mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	642395	0.02	mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.90	152	258783	0.02	mg/kg	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	238387	0.022	mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 110 %			
45) SURR12DCAd4	7.25	102	44880	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 100 %			
60) SURRd8Tolule	9.67	98	891432	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %			
82) SURR4BrFBenz	13.23	95	299498	0.024	mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 120 %#			
Target Compounds						Qvalue
2) Dichlorodi	1.82	85	24974	0.0028	mg/kg	99
3) Chloromethan	2.05	50	1036	N.D.		
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	2.68	94	1672	N.D.		
6) Chloroethane	0.00	64	0	N.D.		
7) dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	3.22	101	70590	0.0040	mg/kg	94
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	3.66	67	1038	N.D.		
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	0.00	56	0	N.D.		
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	4.05	43	41110	0.0157	mg/kg	98
16) Iodomethane	4.11	142	1262	0.0023	mg/kg#	41
17) Carbon Dislf	4.21	76	7508	N.D.		
18) allylchloride	0.00	41	0	N.D.		
19) methylacetate	0.00	74	0	N.D.		
20) Methylchlorid	4.60	84	96042	0.0052	mg/kg	96
21) Acrylonitrile	0.00	53	0	N.D.		
22) t12dichlorte	0.00	96	0	N.D.		
23) tbutylalcohol	4.79	59	60638	0.0496	mg/kg	84
24) MtBE	4.98	73	1346	N.D.		
25) Hexane	5.34	57	49528	0.0045	mg/kg	93
26) 11dichlorota	0.00	63	0	N.D.		
27) Vinylacetate	0.00	43	0	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	6.07	59	2296	N.D.		
31) 22dichloropr	6.24	77	4704	N.D.		
32) c12dichlorte	0.00	96	0	N.D.		
33) 2Butanone	6.19	72	1912	N.D.		
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	6.61	42	1360	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321170R.D Vial: 42
Acq On : 6 Sep 2019 10:00 Operator: RLD-DGS
Sample : 163979,321170, Inst : VMS4
Misc : 4.66g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 06 10:20:49 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Fri Sep 06 08:54:58 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	0.00	83	0	N.D.	
40) 111trichlota	0.00	97	0	N.D.	
42) Cyclohexane	6.93	56	9651	0.0016 mg/kg	93
43) Carbtetraclo	0.00	119	0	N.D.	
44) 11dicloprope	0.00	110	0	N.D.	
46) Benzene	7.32	78	8629	N.D.	
47) 12dichlorota	0.00	62	0	N.D.	
48) TAME	0.00	73	0	N.D.	
49) trichloroete	0.00	95	0	N.D.	
50) methylcyclohexane	8.37	83	23355	0.0021 mg/kg	78
51) 12dicloropra	0.00	63	0	N.D.	
52) 23dicl1propene	8.36	75	2321	N.D.	
53) Dibromometha	0.00	93	0	N.D.	
54) methylmethacrylate	0.00	69	0	N.D.	
55) 14dioxane	0.00	88	0	N.D.	
56) Bromodiclrma	0.00	83	0	N.D.	
57) 2Nitropropane	9.05	43	2002	N.D.	
58) c13dicloproe	0.00	75	0	N.D.	
59) 4Meth2Pentan	9.53	43	3096	N.D.	
61) Toluene	9.77	92	34576	0.0010 mg/kg	97
62) t13Dicloprop	0.00	75	0	N.D.	
63) ethylmethacrylate	10.07	69	2400	N.D.	
64) 112Triclotha	0.00	83	0	N.D.	
65) Tetrachlorte	0.00	166	0	N.D.	
66) 13Diclorpropa	0.00	76	0	N.D.	
68) 2Hexanone	10.54	43	4787	N.D.	
69) Clorodibrmta	0.00	129	0	N.D.	
70) 12Dibrometha	0.00	107	0	N.D.	
71) Chlorobenzen	11.63	112	1113	N.D.	
72) 1Clhexane	11.59	91	1399	0.0010 mg/kg#	1
73) 1112Tetclota	0.00	131	0	N.D.	
74) Ethylbenzene	11.78	91	17599	N.D.	
75) m p-Xylene	11.95	106	43583	0.0020 mg/kg	99
76) o-Xylene	12.50	106	13196	0.0006 mg/kg	88
77) Styrene	12.51	104	2053	N.D.	
78) Bromoform	0.00	173	0	N.D.	
79) Isopropylben	13.01	105	3297	N.D.	
81) cyclohexanone	13.09	55	1530	N.D.	
83) Bromobenzene	0.00	156	0	N.D.	
84) 1122Tetrclta	13.44	83	1093	N.D.	
85) 123Triclproa	13.52	75	1465	N.D.	
86) 14dichloro2butene	0.00	53	0	N.D.	
87) n-Propylbenz	13.61	91	4197	N.D.	
88) 2chlorotolue	13.74	91	1821	N.D.	
89) 4chlorotolue	13.86	91	5921	N.D.	
90) 135Trimebenz	13.86	105	40780	0.0012 mg/kg	99
91) tbutylbenzen	14.41	119	10339	N.D.	
92) 124Trimetben	14.40	105	93328	0.0026 mg/kg	100
93) sbutylbenzen	14.66	105	1268	N.D.	
94) 13Diclorbenz	0.00	146	0	N.D.	
95) pIsopropylto	14.86	119	2639	N.D.	
96) 14dichlorobe	14.94	146	1778	N.D.	
97) 12dichlorobe	0.00	146	0	N.D.	
98) nButylbenzen	15.45	91	3830	N.D.	
99) 12dibromo3cl	0.00	157	0	N.D.	
100) 135Trichlorobenzene	0.00	180	0	N.D.	
101) 124Trichlobe	17.70	180	1295	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321170R.D Vial: 42
Acq On : 6 Sep 2019 10:00 Operator: RLD-DGS
Sample : 163979,321170, Inst : VMS4
Misc : 4.66g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 06 10:20:49 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Fri Sep 06 08:54:58 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102)	Hexachlorobu	0.00	225	0	N.D.	
103)	Naphthalene	18.03	128	5400	N.D.	
104)	123Trichlben	18.34	180	1720	N.D.	

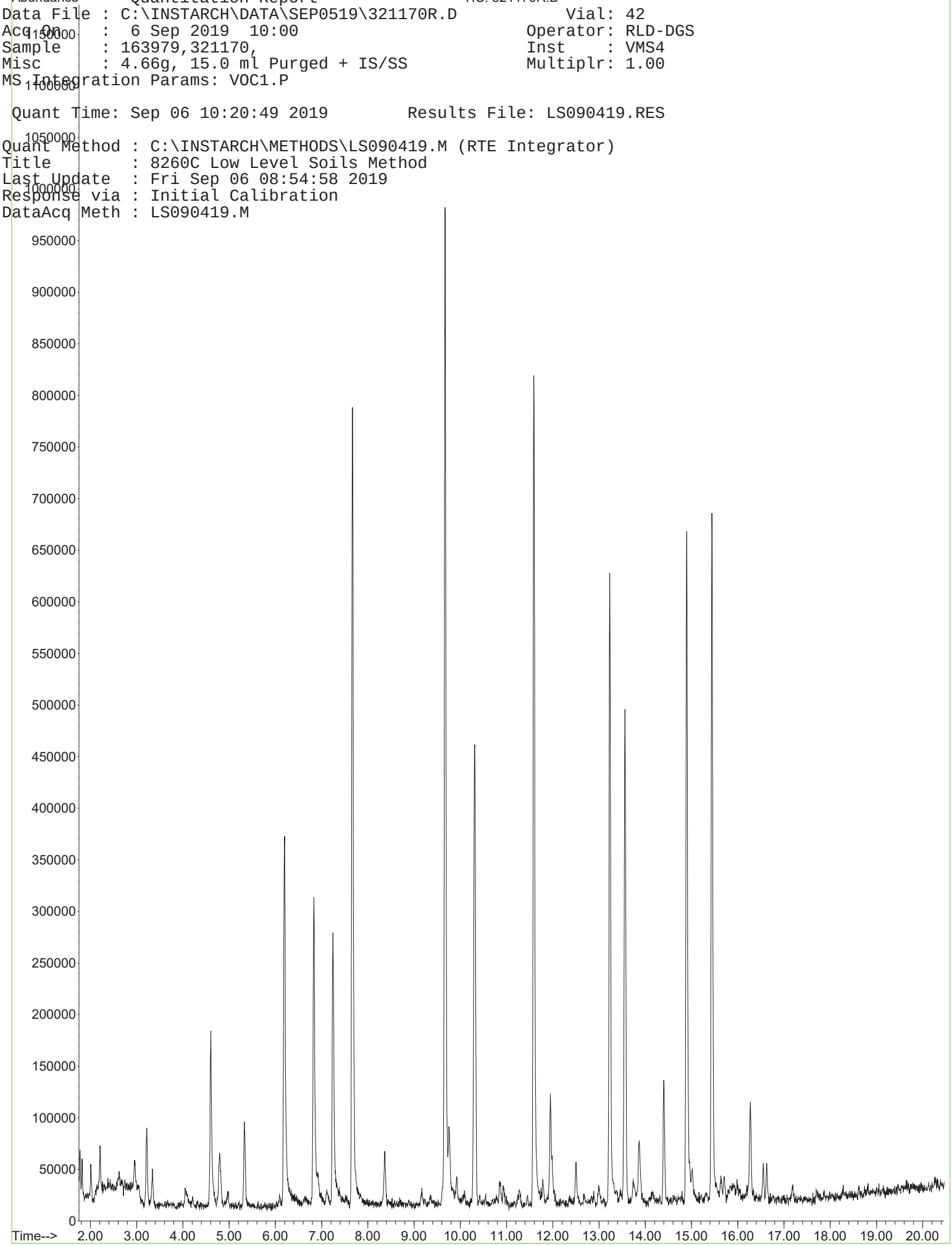
(#) = qualifier out of range (m) = manual integration

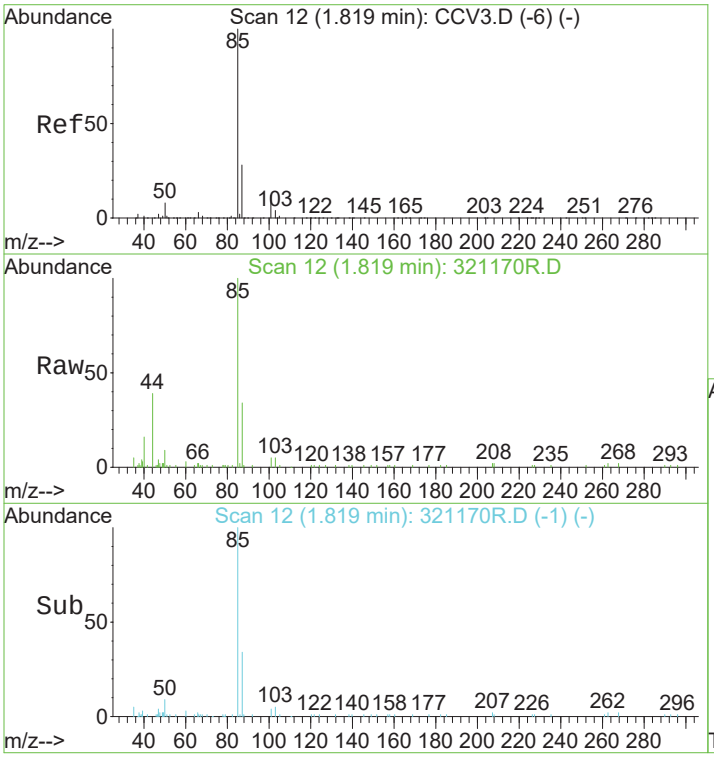
Abundance Quantitation Report TIC: 321170R.D

Data File : C:\INSTARCH\DATA\SEP0519\321170R.D Vial: 42
Acq On : 6 Sep 2019 10:00 Operator: RLD-DGS
Sample : 163979,321170, Inst : VMS4
Misc : 4.66g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 06 10:20:49 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Fri Sep 06 08:54:58 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

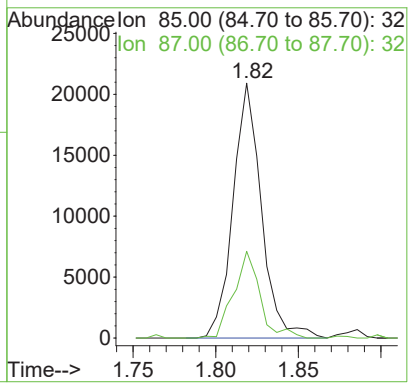




#2
Dichlorodi
Concen: 0.00 mg/kg
RT: 1.82 min Scan# 12
Delta R.T. 0.00 min
Lab File: 321170R.D
Acq: 6 Sep 2019 10:00

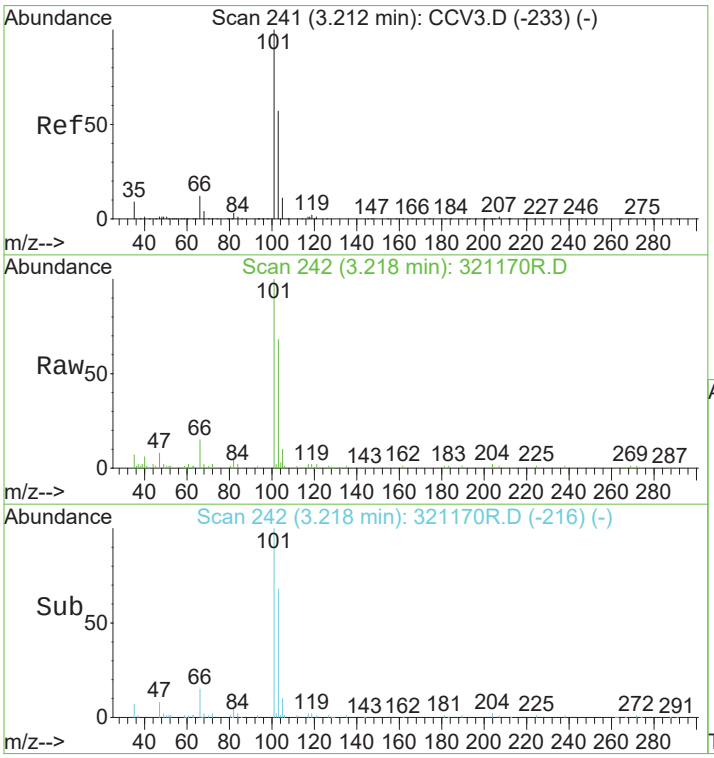
Tgt Ion: 85 Resp: 24974

Ion	Ratio	Lower	Upper
85	100		
87	31.3	10.8	50.8



Negative Library Identification

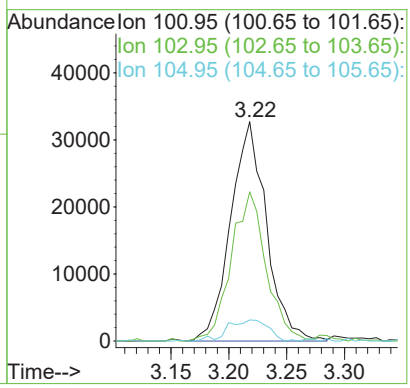
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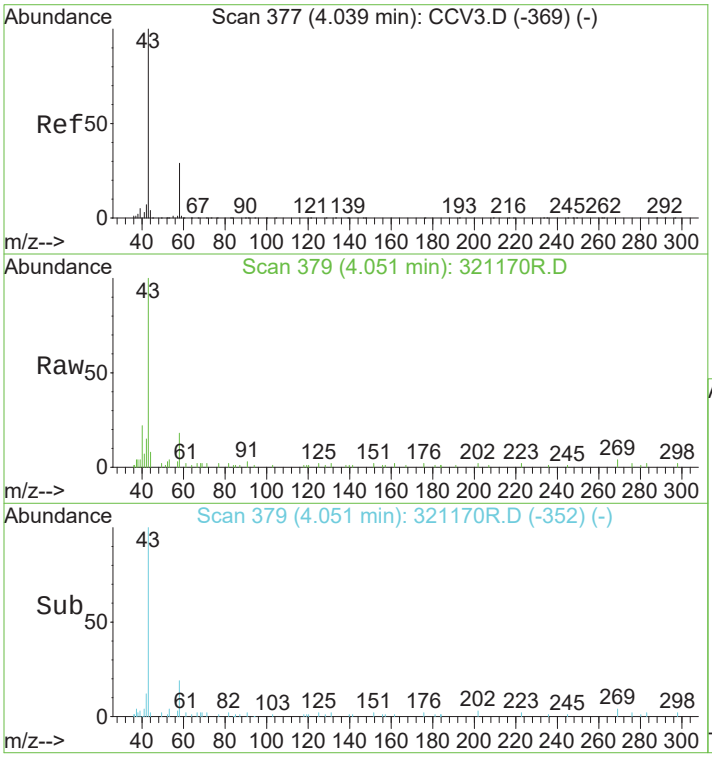


#8
Trichlorofma
Concen: 0.00 mg/kg
RT: 3.22 min Scan# 242
Delta R.T. 0.01 min
Lab File: 321170R.D
Acq: 6 Sep 2019 10:00

Tgt Ion:101 Resp: 70590

Ion	Ratio	Lower	Upper
101	100		
103	66.4	41.7	81.7
105	10.9	0.0	29.6

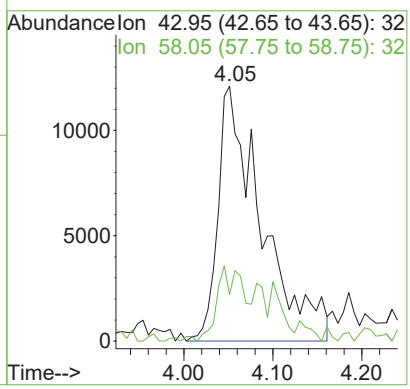


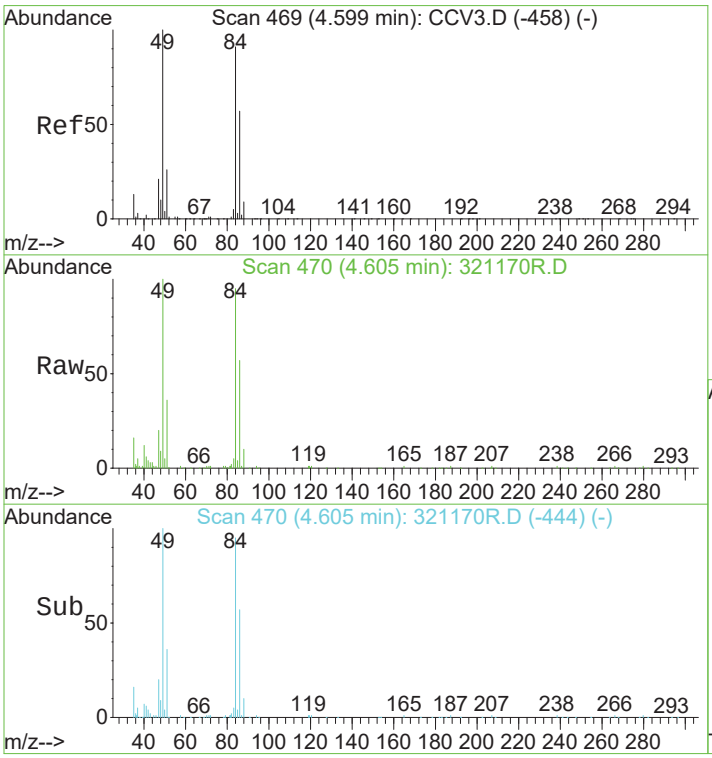


#15
Acetone
Concen: 0.02 mg/kg
RT: 4.05 min Scan# 379
Delta R.T. 0.01 min
Lab File: 321170R.D
Acq: 6 Sep 2019 10:00

Tgt Ion: 43 Resp: 41110

Ion	Ratio	Lower	Upper
43	100		
58	30.2	9.4	49.4

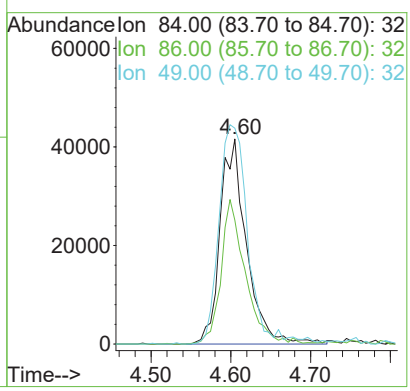


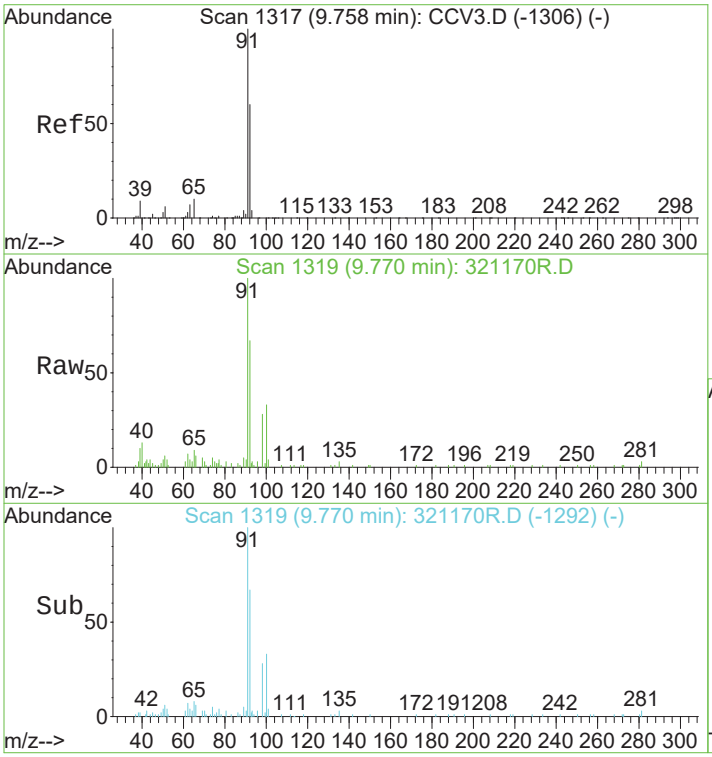


#20
Methylchlorid
Concen: 0.01 mg/kg
RT: 4.60 min Scan# 470
Delta R.T. 0.01 min
Lab File: 321170R.D
Acq: 6 Sep 2019 10:00

Tgt Ion: 84 Resp: 96042

Ion	Ratio	Lower	Upper
84	100		
86	65.3	43.5	83.5
49	116.8	91.2	131.2

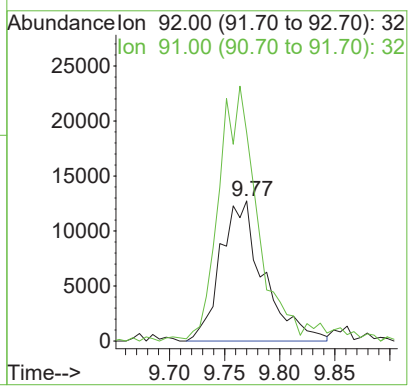


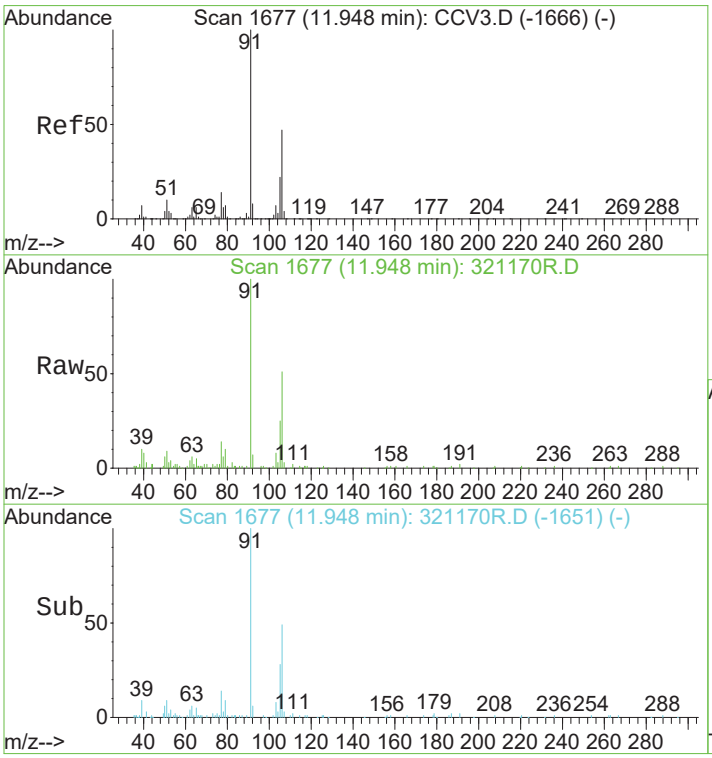


#61
Toluene
Concen: 0.00 mg/kg
RT: 9.77 min Scan# 1319
Delta R.T. 0.01 min
Lab File: 321170R.D
Acq: 6 Sep 2019 10:00

Tgt Ion: 92 Resp: 34576

Ion	Ratio	Lower	Upper
92	100		
91	172.6	148.0	188.0

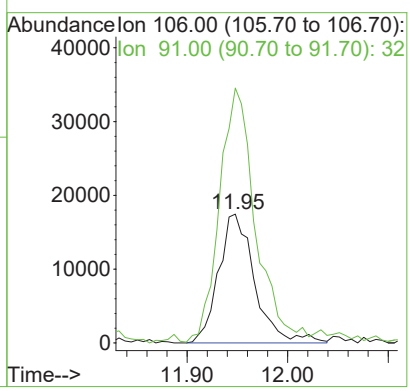


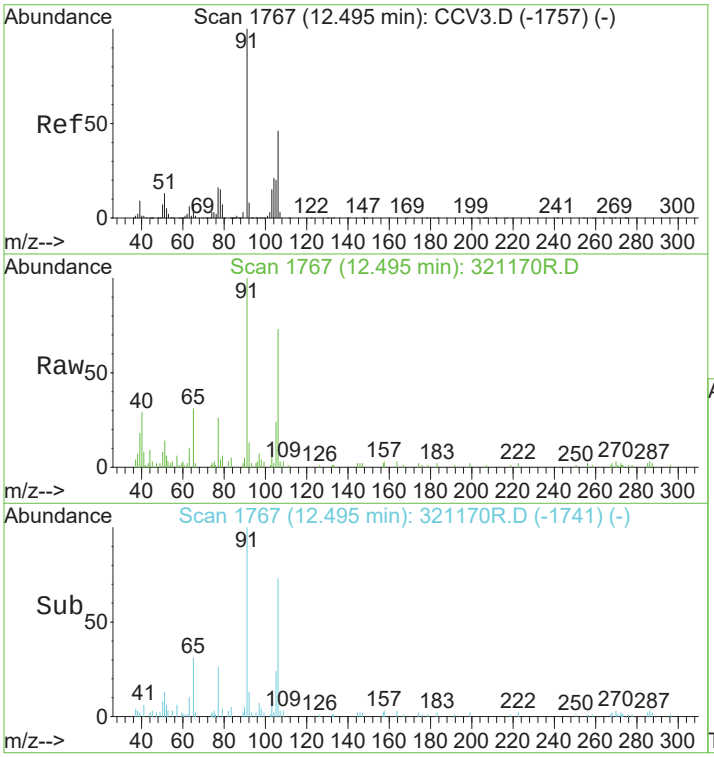


#75
m p-Xylene
Concen: 0.00 mg/kg
RT: 11.95 min Scan# 1677
Delta R.T. 0.01 min
Lab File: 321170R.D
Acq: 6 Sep 2019 10:00

Tgt Ion:106 Resp: 43583

Ion	Ratio	Lower	Upper
106	100		
91	202.4	184.6	224.6

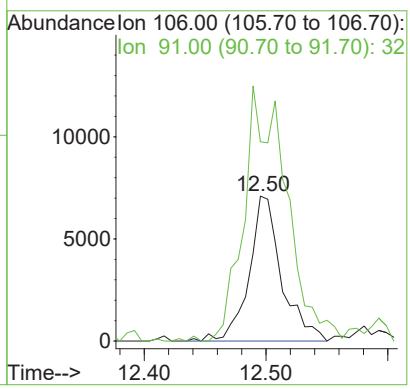


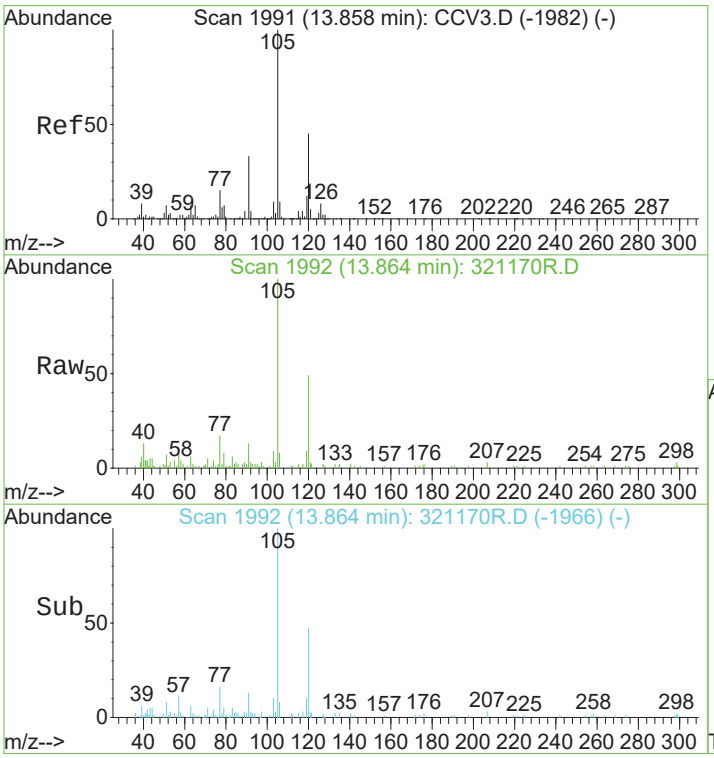


#76
o-Xylene
Concen: 0.00 mg/kg
RT: 12.50 min Scan# 1767
Delta R.T. 0.01 min
Lab File: 321170R.D
Acq: 6 Sep 2019 10:00

Tgt Ion:106 Resp: 13196

Ion	Ratio	Lower	Upper
106	100		
91	229.2	191.1	231.1

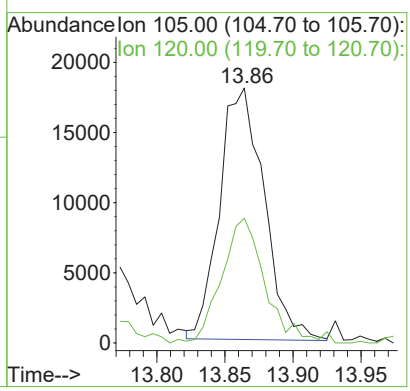


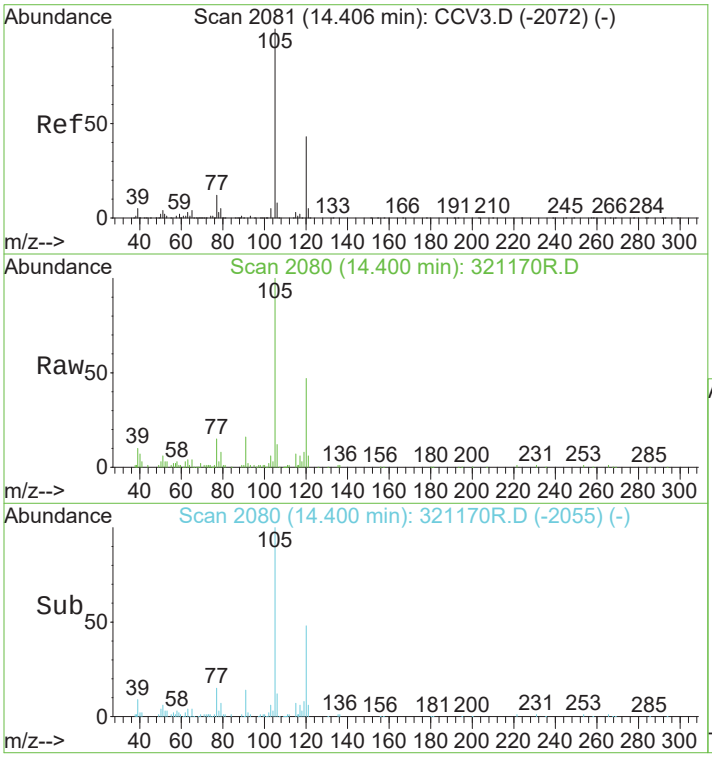


#90
135Trimebenz
Concen: 0.00 mg/kg
RT: 13.86 min Scan# 1992
Delta R.T. 0.01 min
Lab File: 321170R.D
Acq: 6 Sep 2019 10:00

Tgt Ion:105 Resp: 40780

Ion	Ratio	Lower	Upper
105	100		
120	48.6	28.3	68.3

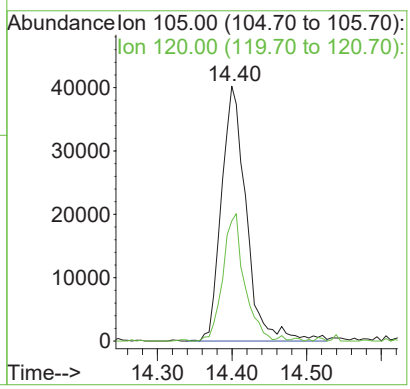




#92
124Trimetben
Concen: 0.00 mg/kg
RT: 14.40 min Scan# 2080
Delta R.T. -0.00 min
Lab File: 321170R.D
Acq: 6 Sep 2019 10:00

Tgt Ion:105 Resp: 93328

Ion	Ratio	Lower	Upper
105	100		
120	44.2	24.5	64.5



Library Search Compound Report

Data Path : C:\Instarch\Data\SEP0519\
Data File : 321170R.D
Acq On : 6 Sep 2019 10:00
Operator : RLD-DGS
Sample : 163979,321170,
Misc : 4.66g, 15.0 ml Purged + IS/SS
ALS Vial : 42 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHODS\LS090419.M
Quant Title : 8260C Low Level Soils Method

TIC Library : C:\DATABASE\NBS75K.L
TIC Integration Parameters: VOC.P

****

Peak Number 1 5-(p-Acetylaminophenylsulph... Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.21	0.01 mg/kg	1061790	FLUOROBENZENE**IS	2063900	7.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	5-(p-Acetylaminophenylsulphonyl)...	286	C11H14N2O5S	056221-11-5	16
2	1-Butanol	74	C4H10O	000071-36-3	12
3	Acetamide, N-acetyl-N-propyl-	143	C7H13NO2	001563-84-4	12
4	1-Butanol	74	C4H10O	000071-36-3	9
5	Butane	58	C4H10	000106-97-8	9

****

Peak Number 2 Silanol, trimethyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
6.20	0.01 mg/kg	1075010	FLUOROBENZENE**IS	2063900	7.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	49
2	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	38
3	Aminoacetaldehyde dimethyl acetal	105	C4H11NO2	022483-09-6	4
4	1,5-Hexadiene, 3-chloro-	116	C6H9Cl	028374-86-9	4
5	1,2,4-Butanetriol	106	C4H10O3	003068-00-6	2

****

Peak Number 3 Cyclotrisiloxane, hexamethyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.31	0.01 mg/kg	1286350	d5-CHLOROBENZENE*	2033260	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	72
2	Arsenous acid, tris(trimethylsil...	342	C9H27AsO3Si3	055429-29-3	56
3	1H-Indole, 5-methyl-2-phenyl-	207	C15H13N	013228-36-9	38
4	1H-Indole, 1-methyl-2-phenyl-	207	C15H13N	003558-24-5	38
5	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	38

****

Peak Number 4 Benzene, 1-phenyl-4-(2-cyan... Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
13.56	0.01 mg/kg	1157590	d4-1,4-DICHLOROBE	1833070	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-phenyl-4-(2-cyano-2-p...	281	C21H15N	027869-56-3	59
2	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	50
3	3,6-Bis(N-dimethylamino)-9-ethyl...	281	C18H23N3	057103-04-5	45
4	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	38
5	2-Oxo-4-phenyl-6-(4-chlorophenyl...	282	C16H11ClN2O	000000-00-0	9

****

Peak Number 5 1,5-Bis(ethoxycarbonylmethy... Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
14.16	0.00 mg/kg	116897	d4-1,4-DICHLOROBE	1833070	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,5-Bis(ethoxycarbonylmethylene)...	280	C16H24O4	000000-00-0	9
2	2-Butene-1,4-dione, 1,4-diphenyl-	236	C16H12O2	004070-75-1	7
3	Hydroxypethidine	263	C15H21NO3	000468-56-4	2
4	Mercury, chloroethyl-	266	C2H5ClHg	000107-27-7	2
5	2(3H)-Thiazolimine, 4-(4-chlorop...	262	C9H8Cl2N2OS	058275-67-5	2

****

Peak Number 6 1,4-Dichlorobenzene-d4 Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
15.44	0.02 mg/kg	1670750	d4-1,4-DICHLOROBE	1833070	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,4-Dichlorobenzene-d4	150	C6Cl2D4	003855-82-1	95
2	Benzene-1,2,3,4-d4-, 5,6-dichloro-	150	C6Cl2D4	002199-69-1	94
3	2-Bromo-3'-nitroacetophenone	243	C8H6BrNO3	002227-64-7	10
4	Acenaphthylene	152	C12H8	000208-96-8	10
5	2H-1-Benzopyran-3-ol, 3,4-dihydro-	150	C9H10O2	021834-60-6	9

****

Peak Number 7 Dodecane, 4,6-dimethyl- Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
15.71	0.00 mg/kg	284814	d4-1,4-DICHLOROBE	1833070	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dodecane, 4,6-dimethyl-	198	C14H30	061141-72-8	25
2	Dodecane, 2,6,11-trimethyl-	212	C15H32	031295-56-4	25
3	Nonadecane, 2,3-dimethyl-	296	C21H44	075163-99-4	16
4	1,3-Dimethyl cyclopentanol	114	C7H14O	019550-46-0	16
5	Tetradecane, 4-methyl-	212	C15H32	025117-24-2	16

****

Peak Number 8 Benzoic acid, 2-[(trimethyl... Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
16.27	0.00 mg/kg	217440	d4-1,4-DICHLOROBE	1833070	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	36
2	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	33
3	Hexanedioic acid, .alpha.-keto o...	391	C15H33NO5Si3	000000-00-0	28

4	1,3-Diphenyl-5-methylthio-1,2,4-...	267	C15H13N3S	051384-17-9 25
5	7H-Dibenzo[c,g]carbazole	267	C20H13N	000194-59-2 25

****

Peak Number 9 Benzene, 1-ethyl-2,4-dimethyl- Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
16.63	0.00 mg/kg	111679	d4-1,4-DICHLOROBE	1833070	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-41-9	91
2	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	83
3	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	64
4	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	64
5	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	64

****

Peak Number 10 Naphtho[1,2-b]furan-2,8(3H)... Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
17.36	0.00 mg/kg	107735	d4-1,4-DICHLOROBE	1833070	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphtho[1,2-b]furan-2,8(3H)-dion...	280	C15H17ClO3	028136-94-9	38
2	2-Furanmethanol, tetrahydro-.alp...	280	C17H28O3	055712-54-4	14
3	3H-3-Benzazepine-3-carboxylic ac...	211	C12H21NO2	056701-09-8	10
4	Ethanone, 1-(2-methylphenyl)-	134	C9H10O	000577-16-2	9
5	1H-Indene-1,2-diol, 2,3-dihydro-...	150	C9H10O2	004647-43-2	9

****

Peak Number 11 Isoxazole Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
18.28	0.00 mg/kg	329105	d4-1,4-DICHLOROBE	1833070	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Isoxazole	69	C3H3NO	000288-14-2	17
2	2H-Pyran-2-one, 4-hydroxy-6-methyl-	126	C6H6O3	000675-10-5	12
3	Boron, dichloro[2,2,2-trifluoro-...	288	C4HBCl2F6N2O	070613-03-5	10
4	1,2,3-Thiadiazole, 5-methyl-	100	C3H4N2S	050406-54-7	10
5	2-Butenal, (E)-	70	C4H6O	000123-73-9	10

****

Peak Number 12 1-Benzopyrylium, 2-phenyl- Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
19.66	0.01 mg/kg	776437	d4-1,4-DICHLOROBE	1833070	14.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Benzopyrylium, 2-phenyl-	207	C15H11O	014051-53-7	38
2	7-Hydroxy-7,8,9,10-tetramethyl-7...	252	C18H20O	000000-00-0	25
3	2-Methyl-5,5-diphenyl-4-(methylt...	280	C17H16N2S	024133-96-8	16
4	Silane, trimethyl[5-methyl-2-(1-...	222	C13H22OSi	055012-80-1	12
5	Propiophenone, 2'-(trimethylsilo...	222	C12H18O2Si	033342-87-9	10

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321171R.D Vial: 43
Acq On : 6 Sep 2019 10:29 Operator: RLD-DGS
Sample : 163979,321171, Inst : VMS4
Misc : 4.97g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 06 10:49:52 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Fri Sep 06 08:54:58 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Report

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	795493	0.02	mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	624540	0.02	mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.89	152	283847	0.02	mg/kg	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	212266	0.021	mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 105 %			
45) SURR12DCAd4	7.25	102	45105	0.022	mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 110 %			
60) SURRd8Tolule	9.67	98	807574	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %			
82) SURR4BrFBenz	13.23	95	300053	0.022	mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 110 %			
Target Compounds						Qvalue
2) Dichlorodi	1.82	85	1890	0.0012	mg/kg#	44
3) Chloromethan	2.01	50	6923	0.0006	mg/kg	79
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	2.69	94	1881	N.D.		
6) Chloroethane	0.00	64	0	N.D.		
7) dichloroflmethane	3.14	67	1004	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	3.65	67	1067	N.D.		
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	3.92	56	1159	N.D.		
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	4.05	43	290947	0.1246	mg/kg	94
16) Iodomethane	4.11	142	2398	0.0024	mg/kg#	50
17) Carbon Dislf	4.21	76	203292	0.0059	mg/kg	99
18) allylchloride	4.47	41	1256	N.D.		
19) methylacetate	0.00	74	0	N.D.		
20) Methylchlorid	4.60	84	25496	N.D.		
21) Acrylonitrile	4.96	53	2817	N.D.		
22) t12dichlorte	0.00	96	0	N.D.		
23) tbutylalcohol	4.81	59	27194	N.D.		
24) MtBE	4.99	73	1086	N.D.		
25) Hexane	5.33	57	84674	0.0068	mg/kg	98
26) 11dichlorota	0.00	63	0	N.D.		
27) Vinylacetate	5.62	43	2110	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	6.18	59	2994	N.D.		
31) 22dichloropr	6.20	77	14182	0.0007	mg/kg#	46
32) c12dichlorte	0.00	96	0	N.D.		
33) 2Butanone	6.24	72	1517	N.D.		
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	6.63	42	2554	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321171R.D Vial: 43
Acq On : 6 Sep 2019 10:29 Operator: RLD-DGS
Sample : 163979,321171, Inst : VMS4
Misc : 4.97g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 06 10:49:52 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Fri Sep 06 08:54:58 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	6.64	83	1057	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	6.92	56	72990	0.0048 mg/kg	82
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	7.32	78	66584	0.0013 mg/kg#	82
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	8.36	83	116485	0.0061 mg/kg	95
51)	12dicloropra	8.35	63	1500	N.D.	
52)	23dicl1propene	8.42	75	1002	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	8.60	69	4735	0.0016 mg/kg#	46
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	9.08	43	3480	N.D.	
58)	c13dicloproe	9.39	75	1068	N.D.	
59)	4Meth2Pentan	9.50	43	2212	N.D.	
61)	Toluene	9.76	92	119173	0.0037 mg/kg	99
62)	t13Dicloprop	0.00	75	0	N.D.	
63)	ethylmethacrylate	10.23	69	1833	N.D.	
64)	112Triclotha	10.31	83	1672	N.D.	
65)	Tetrachlorte	0.00	166	0	N.D.	
66)	13Diclorpropa	0.00	76	0	N.D.	
68)	2Hexanone	10.65	43	3495	N.D.	
69)	Clorodibrmta	0.00	129	0	N.D.	
70)	12Dibrometha	0.00	107	0	N.D.	
71)	Chlorobenzen	0.00	112	0	N.D.	
72)	1Clhexane	11.60	91	1684	0.0010 mg/kg#	1
73)	1112Tetclota	0.00	131	0	N.D.	
74)	Ethylbenzene	11.78	91	33238	0.0006 mg/kg	99
75)	m p-Xylene	11.95	106	65662	0.0031 mg/kg	95
76)	o-Xylene	12.50	106	22838	0.0011 mg/kg	95
77)	Styrene	12.50	104	1097	N.D.	
78)	Bromoform	0.00	173	0	N.D.	
79)	Isopropylben	13.04	105	4953	N.D.	
81)	cyclohexanone	13.09	55	1473	N.D.	
83)	Bromobenzene	0.00	156	0	N.D.	
84)	1122Tetrclta	0.00	83	0	N.D.	
85)	123Triclproa	13.57	75	6919	0.0005 mg/kg	74
86)	14dichloro2butene	0.00	53	0	N.D.	
87)	n-Propylbenz	13.61	91	8138	N.D.	
88)	2chlorotolue	13.74	91	4803	N.D.	
89)	4chlorotolue	13.86	91	5656	N.D.	
90)	135Trimebenz	13.86	105	41191	0.0011 mg/kg	95
91)	tbutylbenzen	14.40	119	9873	N.D.	
92)	124Trimetben	14.40	105	111544	0.0028 mg/kg	87
93)	sbutylbenzen	14.66	105	4043	N.D.	
94)	13Diclorbenz	14.90	146	1072	N.D.	
95)	pIsopropylto	14.86	119	3803	N.D.	
96)	14dichlorobe	14.90	146	1672	N.D.	
97)	12dichlorobe	0.00	146	0	N.D.	
98)	nButylbenzen	15.46	91	4398	N.D.	
99)	12dibromo3cl	0.00	157	0	N.D.	
100)	135Trichlorobenzene	0.00	180	0	N.D.	
101)	124Trichlobe	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321171R.D Vial: 43
Acq On : 6 Sep 2019 10:29 Operator: RLD-DGS
Sample : 163979,321171, Inst : VMS4
Misc : 4.97g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 06 10:49:52 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Fri Sep 06 08:54:58 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) Hexachlorobu	0.00	225	0	N.D.	
103) Naphthalene	18.03	128	8983	N.D.	
104) 123Trichlben	18.32	180	1042	N.D.	

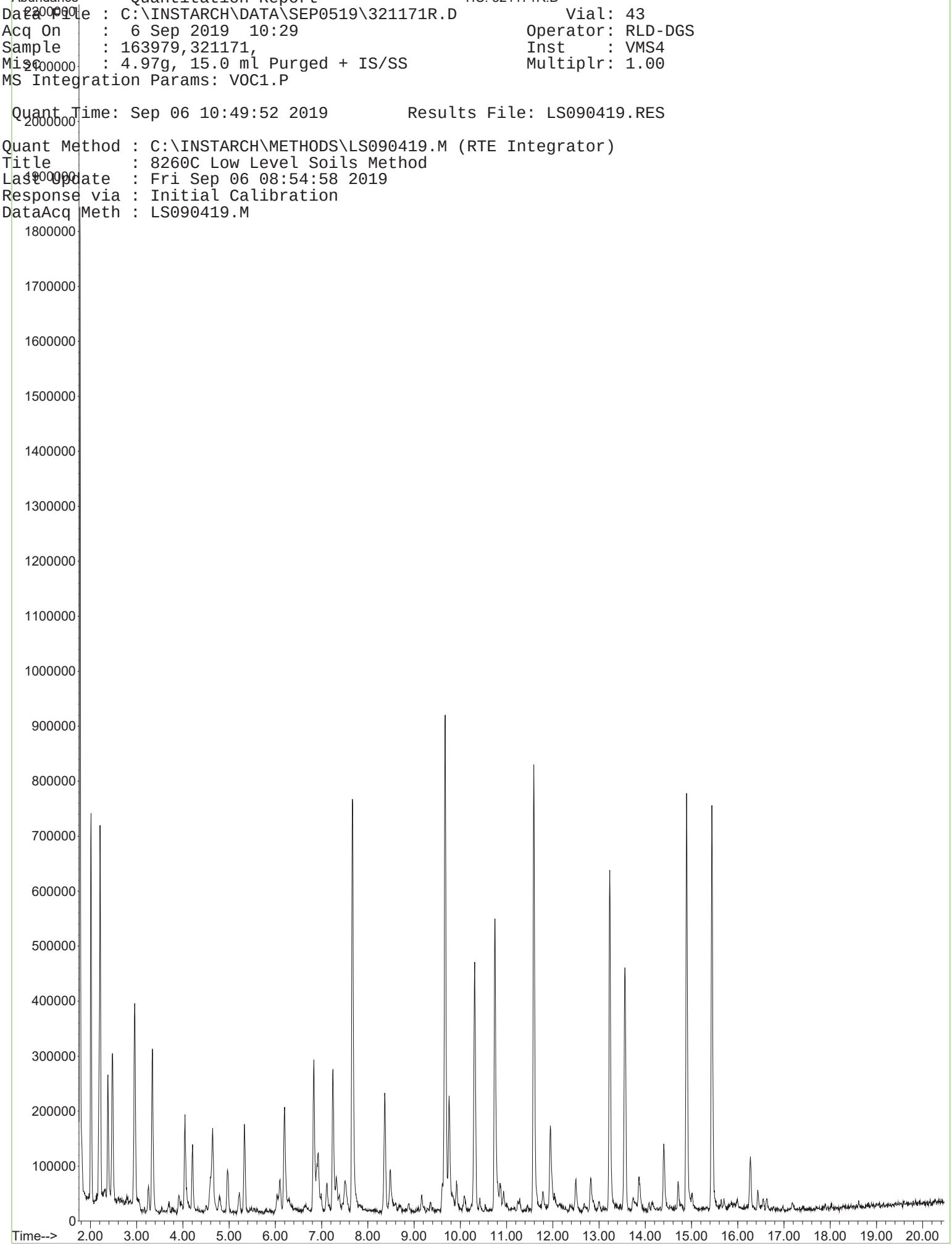
(#) = qualifier out of range (m) = manual integration

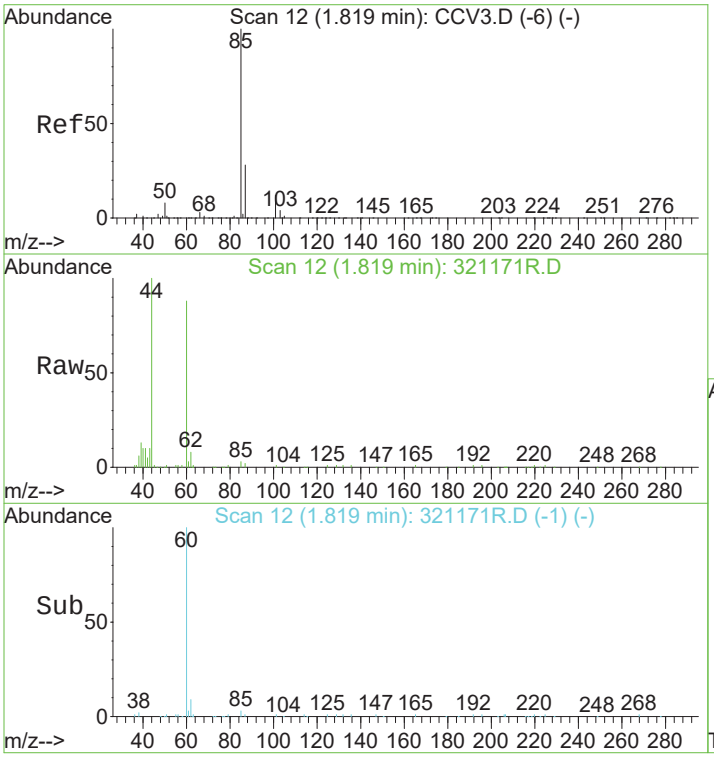
Abundance Quantitation Report TIC: 321171R.D

Data File : C:\INSTARCH\DATA\SEP0519\321171R.D Vial: 43
Acq On : 6 Sep 2019 10:29 Operator: RLD-DGS
Sample : 163979,321171, Inst : VMS4
Misc : 4.97g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 06 10:49:52 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Fri Sep 06 08:54:58 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

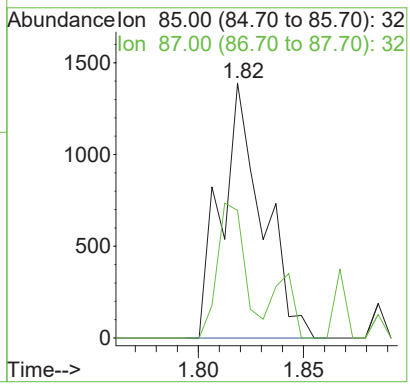




#2
Dichlorodi
Concen: 0.00 mg/kg
RT: 1.82 min Scan# 12
Delta R.T. 0.00 min
Lab File: 321171R.D
Acq: 6 Sep 2019 10:29

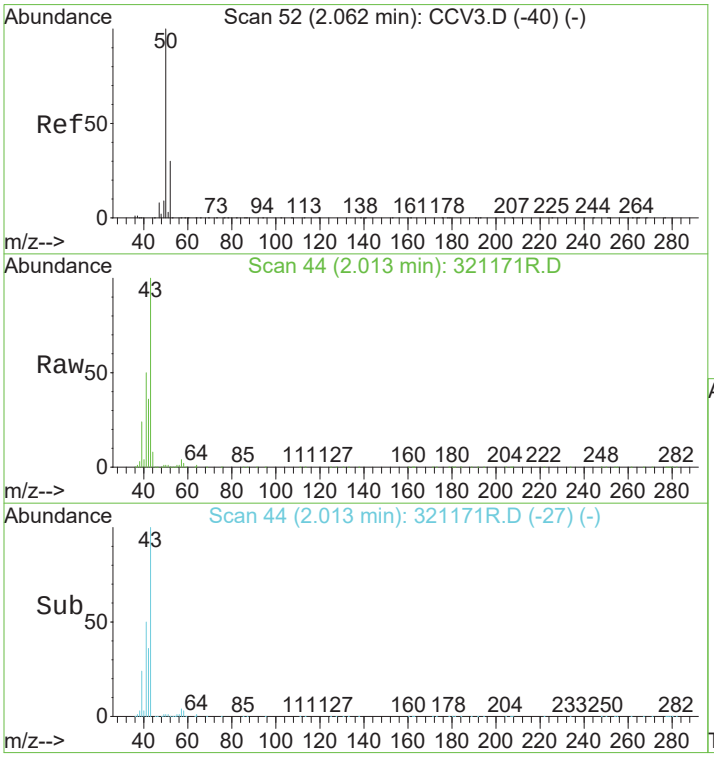
Tgt Ion: 85 Resp: 1890

Ion	Ratio	Lower	Upper
85	100		
87	0.0	10.8	50.8#



Negative Library Identification

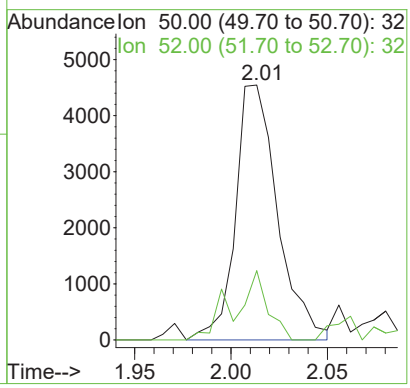
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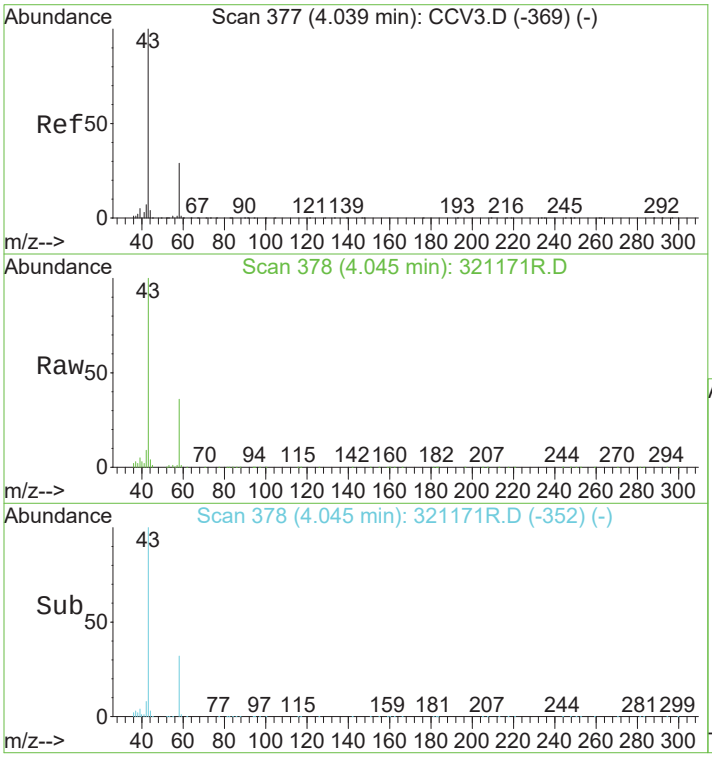


#3
Chloromethan
Concen: 0.00 mg/kg
RT: 2.01 min Scan# 44
Delta R.T. -0.05 min
Lab File: 321171R.D
Acq: 6 Sep 2019 10:29

Tgt Ion: 50 Resp: 6923

Ion	Ratio	Lower	Upper
50	100		
52	21.9	13.9	53.9

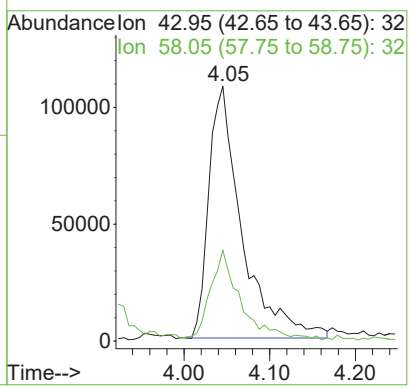


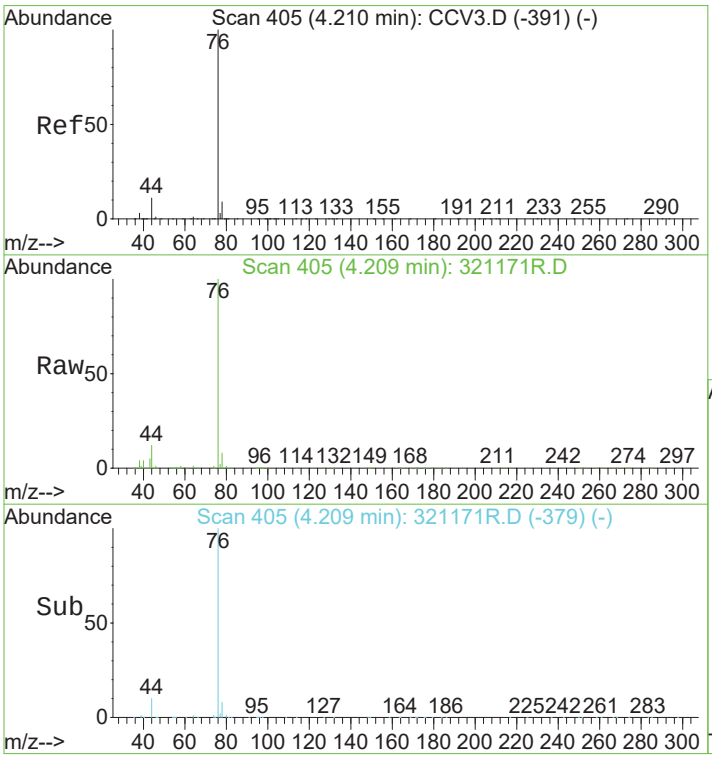


#15
Acetone
Concen: 0.12 mg/kg
RT: 4.05 min Scan# 378
Delta R.T. 0.01 min
Lab File: 321171R.D
Acq: 6 Sep 2019 10:29

Tgt Ion: 43 Resp: 290947

Ion	Ratio	Lower	Upper
43	100		
58	32.7	9.4	49.4

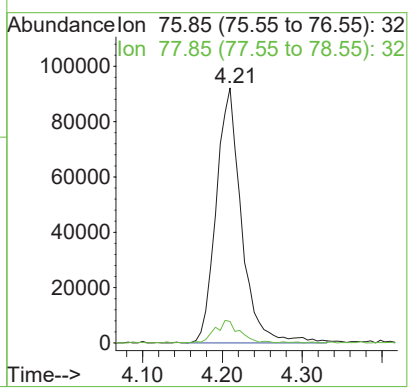


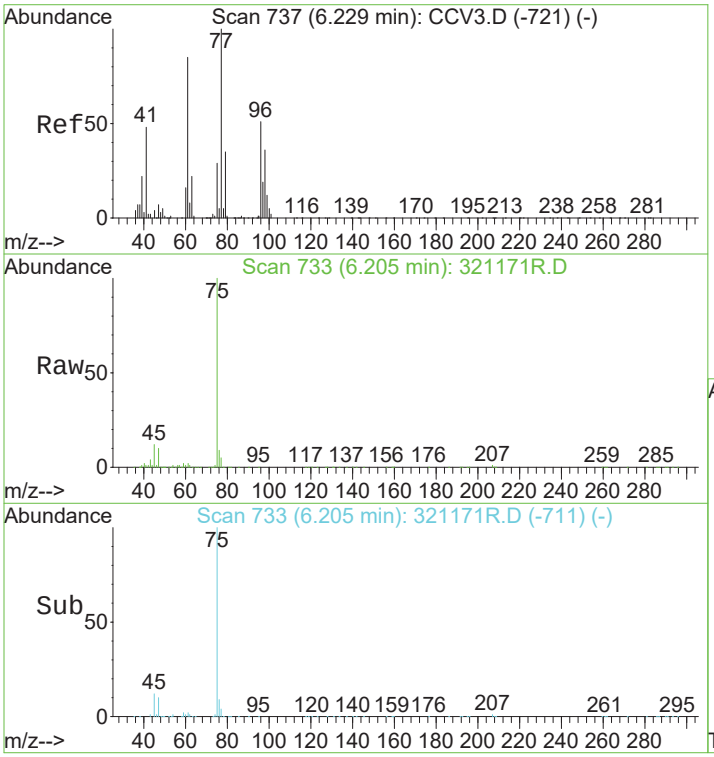


#17
Carbon Dislf
Concen: 0.01 mg/kg
RT: 4.21 min Scan# 405
Delta R.T. 0.01 min
Lab File: 321171R.D
Acq: 6 Sep 2019 10:29

Tgt Ion: 76 Resp: 203292

Ion	Ratio	Lower	Upper
76	100		
78	8.2	0.0	28.5

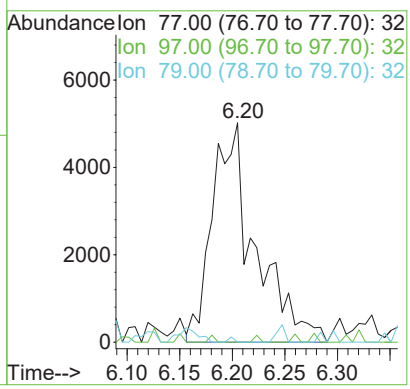


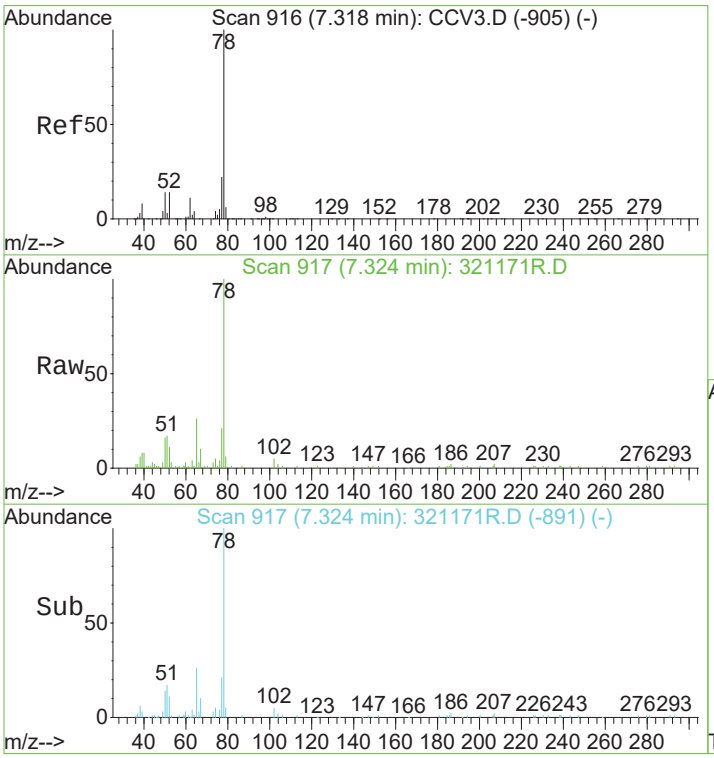


#31
22dichloropr
Concen: 0.00 mg/kg
RT: 6.20 min Scan# 733
Delta R.T. -0.02 min
Lab File: 321171R.D
Acq: 6 Sep 2019 10:29

Tgt Ion: 77 Resp: 14182

Ion	Ratio	Lower	Upper
77	100		
97	0.0	1.8	41.8#
79	0.0	13.2	53.2#

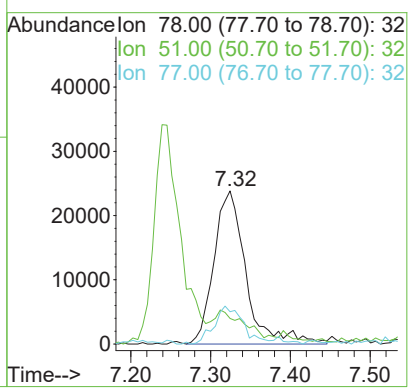


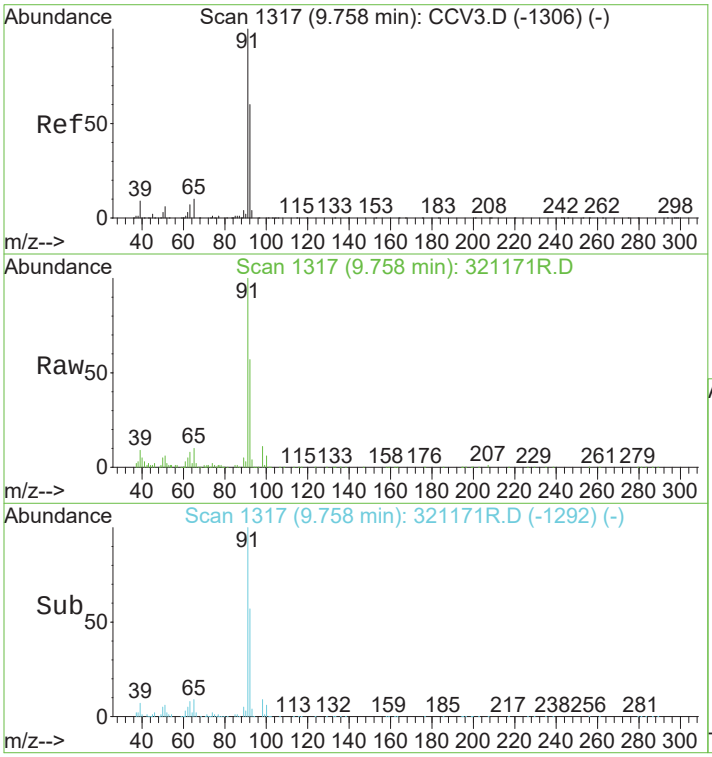


#46
Benzene
Concen: 0.00 mg/kg
RT: 7.32 min Scan# 917
Delta R.T. 0.01 min
Lab File: 321171R.D
Acq: 6 Sep 2019 10:29

Tgt Ion: 78 Resp: 66584

Ion	Ratio	Lower	Upper
78	100		
51	0.0	0.0	36.9
77	24.4	3.0	43.0

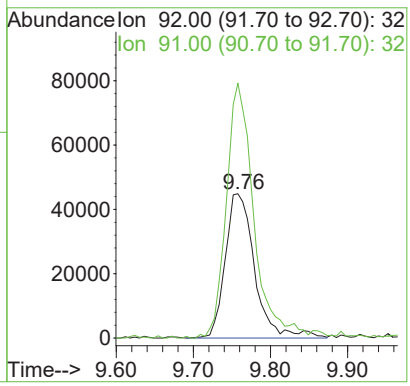


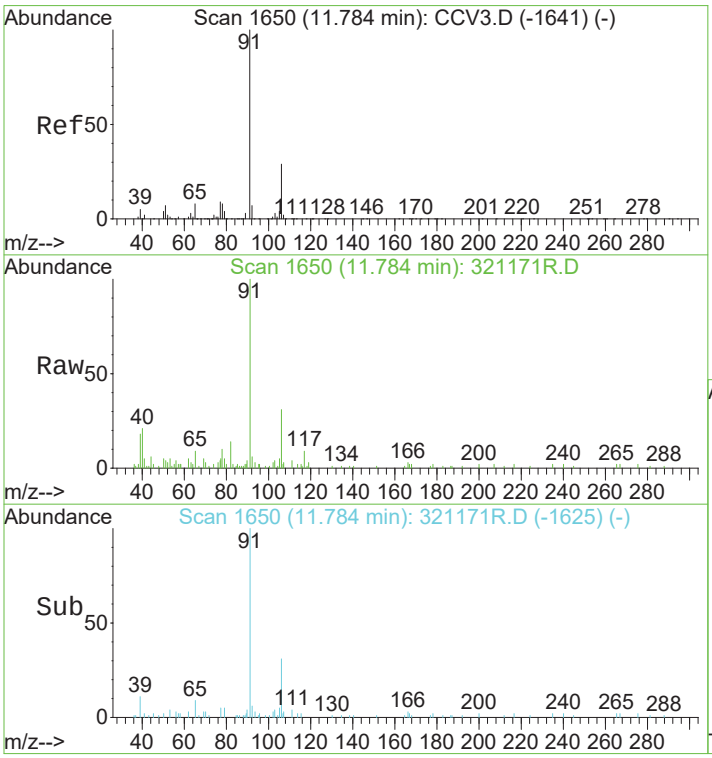


#61
Toluene
Concen: 0.00 mg/kg
RT: 9.76 min Scan# 1317
Delta R.T. -0.00 min
Lab File: 321171R.D
Acq: 6 Sep 2019 10:29

Tgt Ion: 92 Resp: 119173

Ion	Ratio	Lower	Upper
92	100		
91	166.9	148.0	188.0

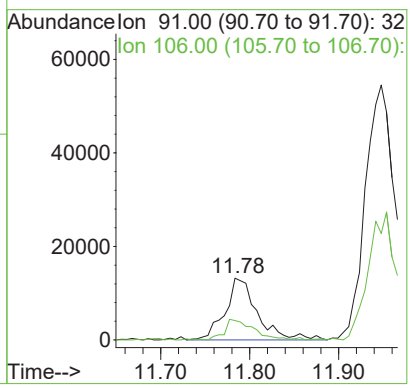


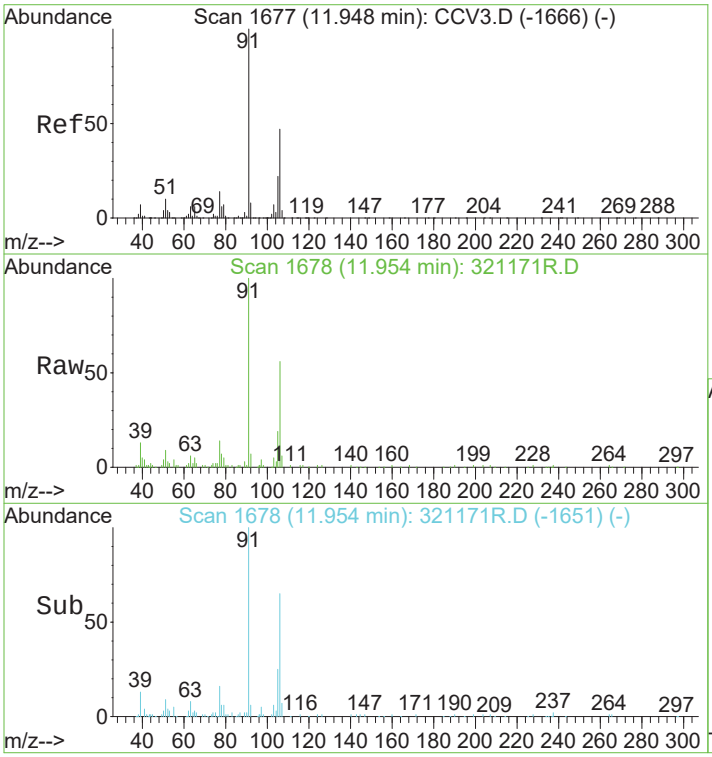


#74
Ethylbenzene
Concen: 0.00 mg/kg
RT: 11.78 min Scan# 1650
Delta R.T. -0.00 min
Lab File: 321171R.D
Acq: 6 Sep 2019 10:29

Tgt Ion: 91 Resp: 33238

Ion	Ratio	Lower	Upper
91	100		
106	30.8	10.3	50.3

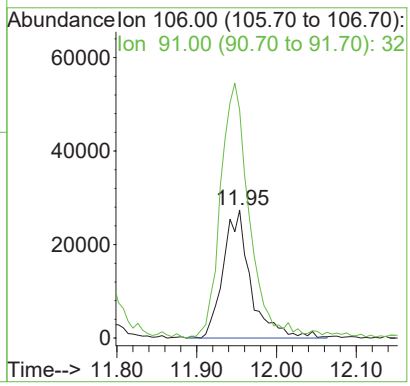


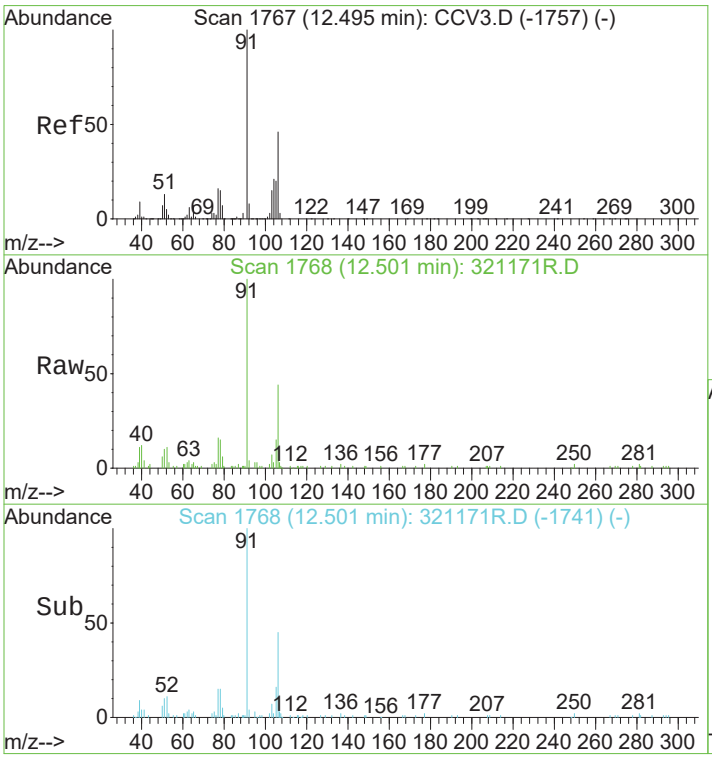


#75
m p-Xylene
Concen: 0.00 mg/kg
RT: 11.95 min Scan# 1678
Delta R.T. 0.01 min
Lab File: 321171R.D
Acq: 6 Sep 2019 10:29

Tgt Ion:106 Resp: 65662

Ion	Ratio	Lower	Upper
106	100		
91	211.8	184.6	224.6

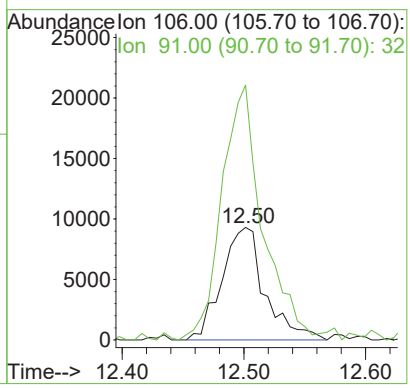


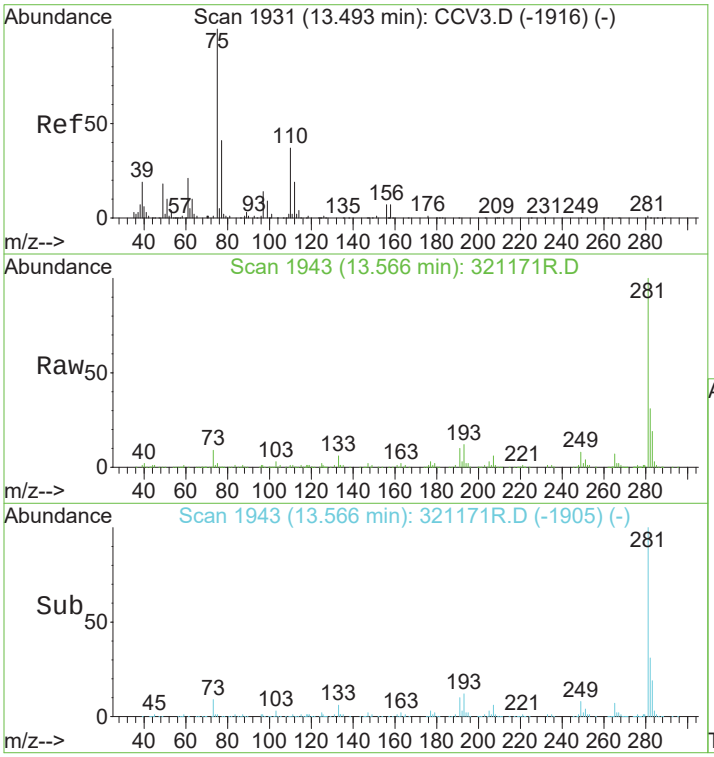


#76
o-Xylene
Concen: 0.00 mg/kg
RT: 12.50 min Scan# 1768
Delta R.T. 0.01 min
Lab File: 321171R.D
Acq: 6 Sep 2019 10:29

Tgt Ion:106 Resp: 22838

Ion	Ratio	Lower	Upper
106	100		
91	219.3	191.1	231.1

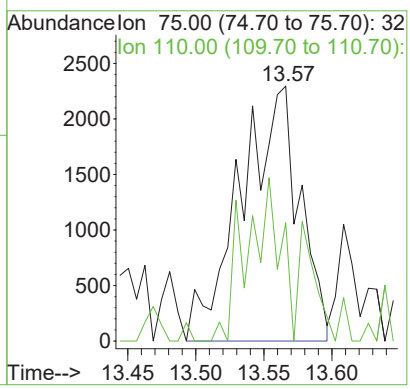




#85
123Triclproa
Concen: 0.00 mg/kg
RT: 13.57 min Scan# 1943
Delta R.T. 0.08 min
Lab File: 321171R.D
Acq: 6 Sep 2019 10:29

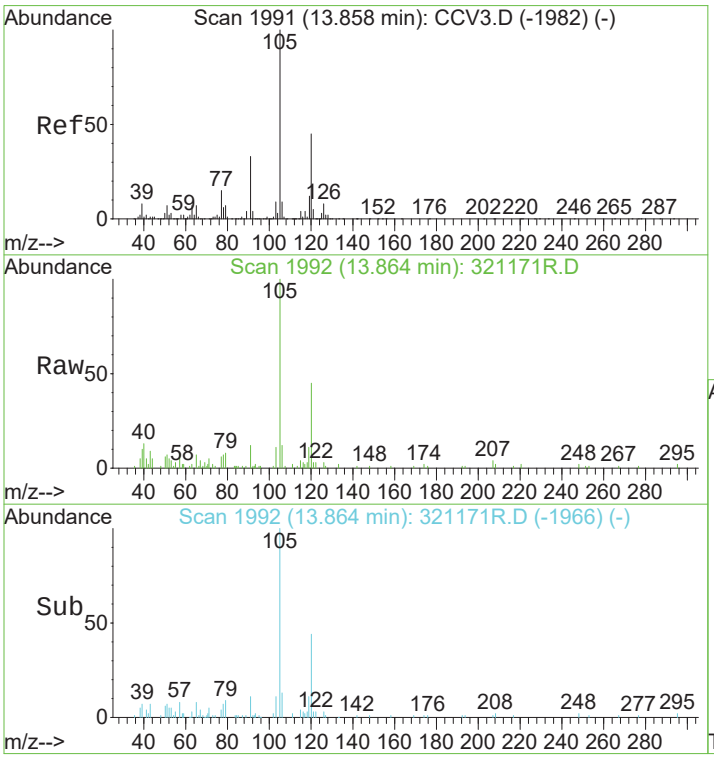
Tgt Ion: 75 Resp: 6919

Ion	Ratio	Lower	Upper
75	100		
110	36.6	3.7	43.7



Negative Library Identification

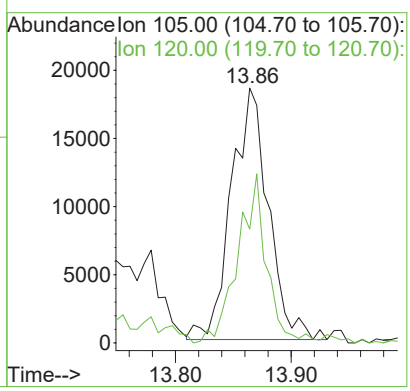
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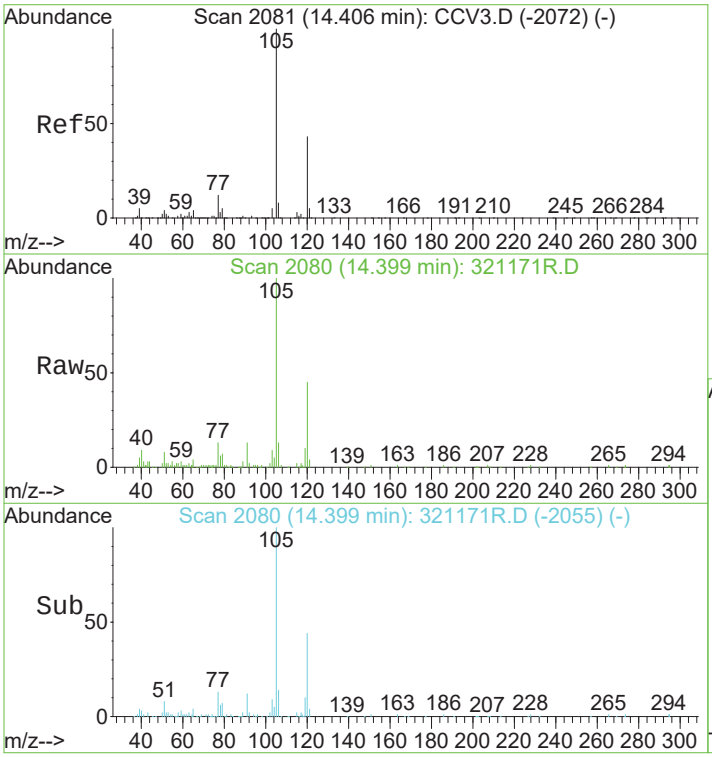


#90
135Trimebenz
Concen: 0.00 mg/kg
RT: 13.86 min Scan# 1992
Delta R.T. 0.01 min
Lab File: 321171R.D
Acq: 6 Sep 2019 10:29

Tgt Ion:105 Resp: 41191

Ion	Ratio	Lower	Upper
105	100		
120	51.7	28.3	68.3

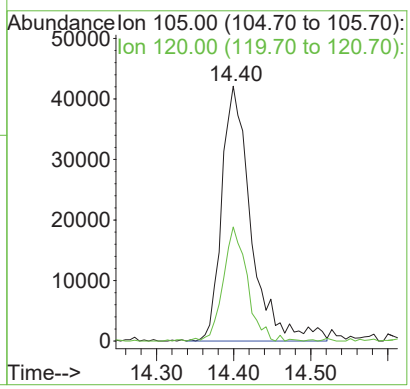




#92
124Trimetben
Concen: 0.00 mg/kg
RT: 14.40 min Scan# 2080
Delta R.T. -0.00 min
Lab File: 321171R.D
Acq: 6 Sep 2019 10:29

Tgt Ion:105 Resp: 111544

Ion	Ratio	Lower	Upper
105	100		
120	36.2	24.5	64.5



Library Search Compound Report

Data Path : C:\Instarch\Data\SEP0519\
Data File : 321171R.D
Acq On : 6 Sep 2019 10:29
Operator : RLD-DGS
Sample : 163979,321171,
Misc : 4.97g, 15.0 ml Purged + IS/SS
ALS Vial : 43 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHODS\LS090419.M
Quant Title : 8260C Low Level Soils Method

TIC Library : C:\DATABASE\NBS75K.L
TIC Integration Parameters: VOC.P

****

Peak Number 1 Butane Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.21	0.01 mg/kg	1392690	FLUOROBENZENE**IS	2129600	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane	58	C4H10	000106-97-8	72
2	Butane	58	C4H10	000106-97-8	72
3	Isobutane	58	C4H10	000075-28-5	4
4	Acetic acid, 2-propenyl ester	100	C5H8O2	000591-87-7	4
5	Diazene, dimethyl-	58	C2H6N2	000503-28-6	3

****

Peak Number 2 Acetaldehyde Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.38	0.00 mg/kg	415930	FLUOROBENZENE**IS	2129600	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetaldehyde	44	C2H4O	000075-07-0	56
2	Acetaldehyde	44	C2H4O	000075-07-0	56
3	Acetaldehyde	44	C2H4O	000075-07-0	9
4	Diazenedicarboxamide	116	C2H4N4O2	000123-77-3	9
5	Propane	44	C3H8	000074-98-6	5

****

Peak Number 3 Silane, fluorotrimethyl- Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.48	0.01 mg/kg	711358	FLUOROBENZENE**IS	2129600	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Silane, fluorotrimethyl-	92	C3H9FSi	000420-56-4	86
2	Propane, 1,2-dichloro-2-methyl-	126	C4H8Cl2	000594-37-6	4
3	Propane, 2-bromo-1-chloro-	156	C3H6BrCl	003017-95-6	4
4	Propane, 2-chloro-2-nitro-	123	C3H6ClNO2	000594-71-8	2
5	Propane, 2-bromo-1-chloro-	156	C3H6BrCl	003017-95-6	2

****

Peak Number 4 Butane, 2-methyl- Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.96	0.01 mg/kg	1035030	FLUOROBENZENE**IS	2129600	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2-methyl-	72	C5H12	000078-78-4	86
2	Butane, 2-methyl-	72	C5H12	000078-78-4	80
3	Butane, 2-methyl-	72	C5H12	000078-78-4	80
4	3-Buten-1-ol	72	C4H8O	000627-27-0	47
5	3-Buten-1-ol	72	C4H8O	000627-27-0	9

****

Peak Number 5 Pentane Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
3.34	0.01 mg/kg	748809	FLUOROBENZENE**IS	2129600	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane	72	C5H12	000109-66-0	90
2	Pentane	72	C5H12	000109-66-0	86
3	Pentane	72	C5H12	000109-66-0	86
4	Oxirane, ethyl-	72	C4H8O	000106-88-7	50
5	Oxirane, ethyl-	72	C4H8O	000106-88-7	47

****

Peak Number 6 Pentane, 2-methyl- Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
4.64	0.01 mg/kg	553063	FLUOROBENZENE**IS	2129600	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2-methyl-	86	C6H14	000107-83-5	86
2	Pentane, 2-methyl-	86	C6H14	000107-83-5	78
3	Pentane, 2-methyl-	86	C6H14	000107-83-5	59
4	Pentane, 2-methyl-	86	C6H14	000107-83-5	59
5	Pentane, 2-methyl-	86	C6H14	000107-83-5	58

****

Peak Number 7 Pentane, 3-methyl- Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
4.96	0.00 mg/kg	204259	FLUOROBENZENE**IS	2129600	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 3-methyl-	86	C6H14	000096-14-0	72
2	Butane, 1-chloro-	92	C4H9Cl	000109-69-3	53
3	Pentane, 3-methyl-	86	C6H14	000096-14-0	50
4	Decane, 2,2,3-trimethyl-	184	C13H28	062338-09-4	50
5	Cyclopropane, (1-methylethyl)-	84	C6H12	003638-35-5	40

****

Peak Number 8 Cyclopentane, methyl- Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
6.10	0.00 mg/kg	296102	FLUOROBENZENE**IS	2129600	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentane, methyl-	84	C6H12	000096-37-7	59
2	Cyclopentane, methyl-	84	C6H12	000096-37-7	59
3	Cyclobutane, ethyl-	84	C6H12	004806-61-5	52

4	Cyclobutane	56	C4H8	000287-23-0	43
5	Cyclobutane	56	C4H8	000287-23-0	43

****

Peak Number 9 Butanal, 3-methyl- Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
7.51	0.00 mg/kg	236305	FLUOROBENZENE**IS	2129600	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanal, 3-methyl-	86	C5H10O	000590-86-3	47
2	Butanal, 3-methyl-	86	C5H10O	000590-86-3	47
3	Pentanal	86	C5H10O	000110-62-3	43
4	Butanal, 3-methyl-	86	C5H10O	000590-86-3	37
5	5-Azulenemethanol, 1,2,3,3a,4,5,...	222	C15H26O	055255-90-8	27

****

Peak Number 10 Pentanal Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
8.49	0.00 mg/kg	256496	FLUOROBENZENE**IS	2129600	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentanal	86	C5H10O	000110-62-3	87
2	Pentanal	86	C5H10O	000110-62-3	72
3	Pentanal	86	C5H10O	000110-62-3	64
4	Pentanal	86	C5H10O	000110-62-3	64
5	Butanal, 3-methyl-	86	C5H10O	000590-86-3	43

****

Peak Number 11 Cyclotrisiloxane, hexamethyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.31	0.01 mg/kg	1161220	d5-CHLOROBENZENE*	1957500	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	86
2	1H-Isoindole-1,3(2H)-dione, 2-bu...	207	C12H17NO2	054934-85-9	53
3	Arsenous acid, tris(trimethylsil...	342	C9H27AsO3Si3	055429-29-3	50
4	Stannane, tetraethyl-	236	C8H20Sn	000597-64-8	50
5	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	43

****

Peak Number 12 Hexanal Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.74	0.02 mg/kg	1530450	d5-CHLOROBENZENE*	1957500	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexanal	100	C6H12O	000066-25-1	74
2	Hexanal	100	C6H12O	000066-25-1	74
3	Hexanal	100	C6H12O	000066-25-1	64
4	Hexanal	100	C6H12O	000066-25-1	64
5	Hexanal	100	C6H12O	000066-25-1	59

****

Peak Number 13 Heptanal Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
12.82	0.00 mg/kg	230689	d5-CHLOROBENZENE*	1957500	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptanal	114	C7H14O	000111-71-7	78
2	Pyrrolidine	71	C4H9N	000123-75-1	43
3	Octane, 3-methyl-6-methylene-	140	C10H20	074630-07-2	43
4	Nonane, 3-methylene-	140	C10H20	051655-64-2	38
5	Octane, 4-chloro-	148	C8H17Cl	000999-07-5	38

****

Peak Number 14 Cyclopentanol, 2-methyl- Concentration Rank 20

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
14.71	0.00 mg/kg	167777	d4-1,4-DICHLOROBE	1895780	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentanol, 2-methyl-	100	C6H12O	024070-77-7	49
2	Heptanal	114	C7H14O	000111-71-7	22
3	3-Buten-1-ol, 3-methyl-	86	C5H10O	000763-32-6	22
4	1-Pentene, 3-methyl-	84	C6H12	000760-20-3	22
5	2-Pentanol, 4-chloro-2-methyl-	136	C6H13ClO	074685-50-0	14

****

Peak Number 15 Benzene-1,2,3,4-d4-, 5,6-di... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
15.44	0.02 mg/kg	1833800	d4-1,4-DICHLOROBE	1895780	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene-1,2,3,4-d4-, 5,6-dichloro-	150	C6Cl2D4	002199-69-1	94
2	1,4-Dichlorobenzene-d4	150	C6Cl2D4	003855-82-1	91
3	Benzaldehyde, 2-hydroxy-3-methoxy-	152	C8H8O3	000148-53-8	35
4	p-Nitrophenacyl bromide	243	C8H6BrNO3	000099-81-0	10
5	9-Borabicyclo[3.3.1]nonane, 9-et...	150	C10H19B	052102-17-7	9

****

Peak Number 16 Benzene, 4-ethyl-1,2-dimethyl- Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
15.99	0.00 mg/kg	211680	d4-1,4-DICHLOROBE	1895780	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 4-ethyl-1,2-dimethyl-	134	C10H14	000934-80-5	68
2	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-04-4	64
3	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-41-9	64
4	Benzene, 1-ethyl-2,3-dimethyl-	134	C10H14	000933-98-2	64
5	Benzene, 1-ethyl-3,5-dimethyl-	134	C10H14	000934-74-7	64

****

Peak Number 17 11H-Dibenzo[b,E][1,4]diazep... Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
16.27	0.00 mg/kg	261059	d4-1,4-DICHLOROBE	1895780	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual

1	11H-Dibenzo[b,E][1,4]diazepin-11...	267	C16H17N3O	013450-73-2	43
2	4-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	000000-00-0	42
3	Benzaldehyde, 2,5-bis[(trimethyl...	282	C13H22O3Si2	056114-69-3	40
4	3-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	000000-00-0	40
5	Plumbane, diethyldimethyl-	296	C6H16Pb	001762-27-2	38

****

Peak Number 18 Formamide, N,N-diphenyl- Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
17.89	0.00 mg/kg	196893	d4-1,4-DICHLOROBE	1895780	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Formamide, N,N-diphenyl-	197	C13H11NO	000607-00-1	14
2	3-Azabicyclo[3.3.1]nonan-9-ol, 3...	169	C10H19NO	054411-15-3	10
3	(Eta(5)-formylcyclopentadienyl)(...	284	C10H10ClORh	101076-32-8	9
4	(Z)-2-Methylimino-4,5-tetramethy...	168	C9H16N2O	000000-00-0	9
5	Morphinan-3,14-diol, 4,5-epoxy-,...	273	C16H19NO3	055255-50-0	9

****

Peak Number 19 2-Phenyl-1,2-bis(trimethyls... Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
18.62	0.01 mg/kg	875671	d4-1,4-DICHLOROBE	1895780	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Phenyl-1,2-bis(trimethylsilylo...	296	C15H28O2Si2	000000-00-0	14
2	N,O,O-Tris(trimethylsilyl)-L-thr...	335	C13H33NO3Si3	007537-02-2	14
3	Silanamine, N-[2,6-dimethyl-4-[(...	281	C14H27NOSi2	072088-09-6	10
4	Erythro-Pentonic acid, 2-deoxy-3...	438	C17H42O5Si4	074742-30-6	10
5	Silane, trimethyl[1-methyl-2-oxo...	218	C9H22O2Si2	055255-93-1	9

****

Peak Number 20 Quinoline, 2-(1-methyl-1H-i... Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
19.84	0.00 mg/kg	182878	d4-1,4-DICHLOROBE	1895780	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Quinoline, 2-(1-methyl-1H-imidaz...	209	C13H11N3	002552-97-8	18
2	Morphinan, 6,7,8,14-tetradehydro...	267	C18H21NO	055000-51-6	16
3	1H-Pyrrole, 1,1',1''-borylidynet...	209	C12H12BN3	018899-90-6	11
4	1-Methyl-2-phenylbenzimidazole	208	C14H12N2	002622-63-1	11
5	Thiourea, N-(1,1-dimethylethyl)-...	208	C11H16N2S	014327-04-9	9

LS090419.M Tue Sep 10 12:40:27 2019

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0619\321156.D Vial: 8
Acq On : 6 Sep 2019 14:44 Operator: RLD-DGS
Sample : 163976,321156, Inst : VMS4
Misc : pH<2, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Sep 06 15:04:49 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Sep 06 12:49:16 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1037018	4.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.59	117	884465	4.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.89	152	468298	4.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	286781	4.151	ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 104	%		
45) SURR12DCAd4	7.25	102	51035	4.413	ug/L	0.00
Spiked Amount 4.000	Range 86 - 106		Recovery = 110	%#		
61) SURRd8Tolule	9.67	98	1074073	4.083	ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 102	%		
83) SURR4BrFBenz	13.23	95	428240	4.217	ug/L	0.00
Spiked Amount 4.000	Range 75 - 124		Recovery = 105	%		
Target Compounds						Qvalue
2) Dichlorodi	0.00	85	0	N.D.		
3) Chloromethan	2.06	50	5626	0.0453	ug/L #	43
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	0.00	94	0	N.D.		
6) Chloroethane	0.00	64	0	N.D.		
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	0.00	56	0	N.D.		
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	4.06	43	3297	N.D.		
16) Iodomethane	0.00	142	0	N.D.		
17) Carbon Dislf	0.00	76	0	N.D.		
18) allylchloride	0.00	41	0	N.D.		
19) methylacetate	0.00	74	0	N.D.		
20) Methylchlorid	4.60	84	23114	0.1265	ug/L	92
21) tbutylalcohol	4.81	59	2998	N.D.		
22) Acrylonitrile	0.00	53	0	N.D.		
23) t12dichlorte	0.00	96	0	N.D.		
24) MtBE	0.00	73	0	N.D.		
25) Hexane	0.00	57	0	N.D.		
26) 11dichlorota	0.00	63	0	N.D.		
27) Vinylacetate	0.00	43	0	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	0.00	59	0	N.D.		
31) 22dichloropr	0.00	77	0	N.D.		
32) c12dichlorte	0.00	96	0	N.D.		
33) 2Butanone	0.00	72	0	N.D.		
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	6.64	42	2536	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0619\321156.D Vial: 8
Acq On : 6 Sep 2019 14:44 Operator: RLD-DGS
Sample : 163976,321156, Inst : VMS4
Misc : pH<2, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Sep 06 15:04:49 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Sep 06 12:49:16 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	0.00	91	0	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0619\321156.D Vial: 8
Acq On : 6 Sep 2019 14:44 Operator: RLD-DGS
Sample : 163976,321156, Inst : VMS4
Misc : pH<2, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Sep 06 15:04:49 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Sep 06 12:49:16 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	0.00	128	0	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

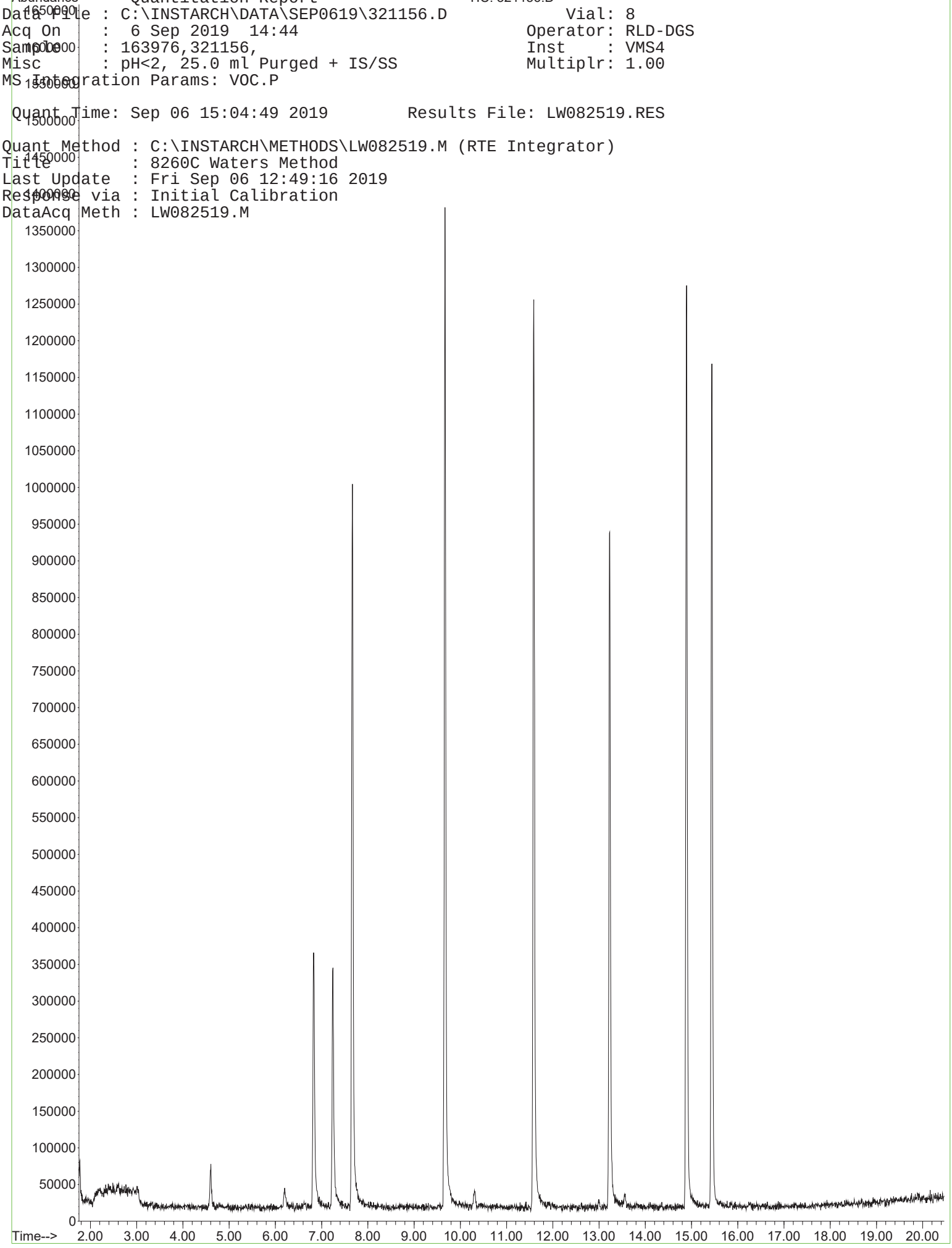
(#) = qualifier out of range (m) = manual integration

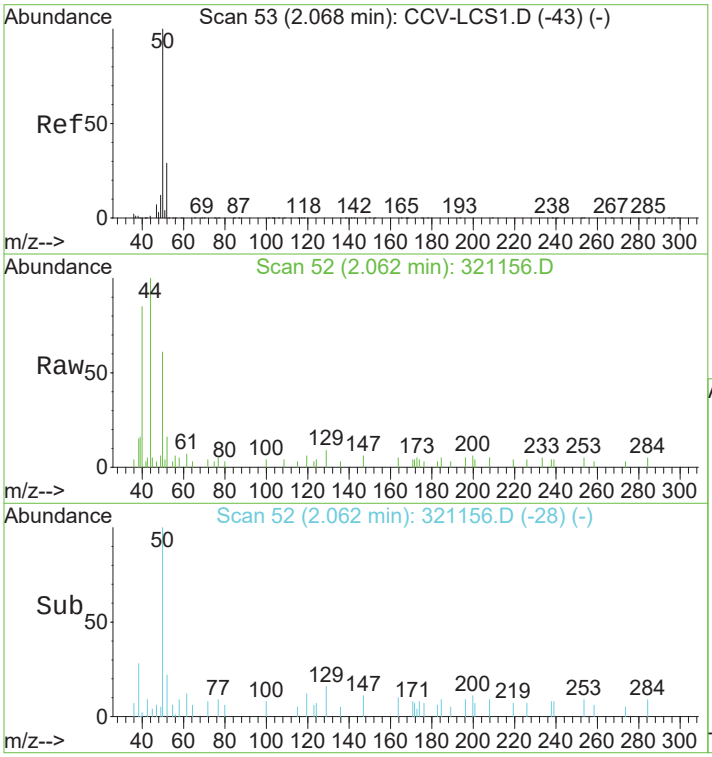
Abundance Quantitation Report TIC: 321156.D

Data File : C:\INSTARCH\DATA\SEP0619\321156.D Vial: 8
Acq On : 6 Sep 2019 14:44 Operator: RLD-DGS
Sample : 163976,321156, Inst : VMS4
Misc : pH<2, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Sep 06 15:04:49 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Sep 06 12:49:16 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

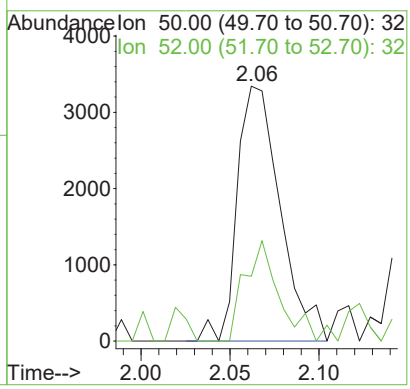


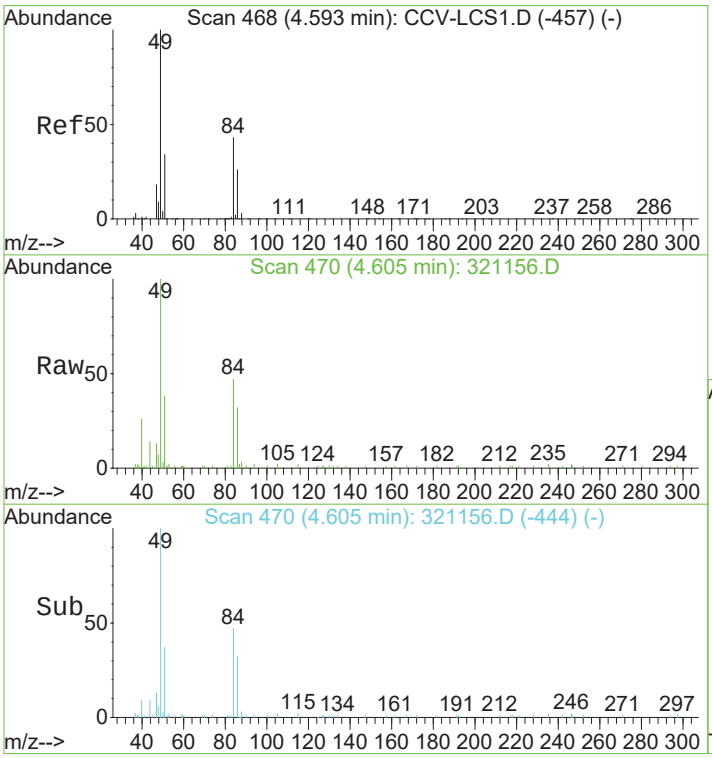


#3
Chloromethan
Concen: 0.05 ug/L
RT: 2.06 min Scan# 52
Delta R.T. -0.01 min
Lab File: 321156.D
Acq: 6 Sep 2019 14:44

Tgt Ion: 50 Resp: 5626

Ion	Ratio	Lower	Upper
50	100		
52	0.0	11.5	51.5#

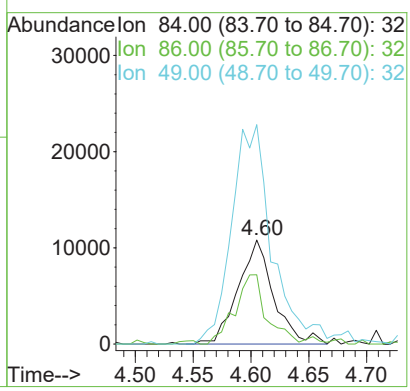




#20
Methylchlorid
Concen: 0.13 ug/L
RT: 4.60 min Scan# 470
Delta R.T. 0.01 min
Lab File: 321156.D
Acq: 6 Sep 2019 14:44

Tgt Ion: 84 Resp: 23114

Ion	Ratio	Lower	Upper
84	100		
86	62.0	44.4	84.4
49	246.8	211.1	251.1



Library Search Compound Report

Data Path : C:\INSTARCH\DATA\SEP0619\
Data File : 321156.D
Acq On : 6 Sep 2019 14:44
Operator : RLD-DGS
Sample : 163976,321156,
Misc : pH<2, 25.0 ml Purged + IS/SS
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHODS\LW082519.M
Quant Title : 8260C Waters Method

TIC Library : C:\DATABASE\NBS75K.L
TIC Integration Parameters: VOC.P

****

Peak Number 1 2-Indolizinemethanol Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
1.77	0.20 ug/L	135553	FLUOROBENZENE**IS	2660060	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Indolizinemethanol	147	C9H9NO	022320-21-4	2
2	5-Nonanone, (p-nitrophenyl)hydra...	277	C15H23N3O2	014090-63-2	2
3	2-Butenenitrile	67	C4H5N	004786-20-3	2
4	3(2H)-Pyridazinone, 4,5-dihydro-...	112	C5H8N2O	005157-08-4	2
5	2-Butenenitrile	67	C4H5N	004786-20-3	2

****

Peak Number 2 1,2-Diborane(4)diamine, N,N... Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
2.48	2.38 ug/L	1582520	FLUOROBENZENE**IS	2660060	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,2-Diborane(4)diamine, N,N,N',N...	264	C16H22B2N2	019127-90-3	28
2	2,4(1H,3H)-Pyrimidinedione, 5-ni...	157	C4H3N3O4	000611-08-5	27
3	Morphinan-6-one, 4,5-epoxy-2-hyd...	271	C16H17NO3	000000-00-0	25
4	Phosphorodiamidothioic chloride,...	186	C4H12ClN2PS	003732-81-8	25
5	dl-3-Aminobutyric acid	103	C4H9NO2	002835-82-7	17

****

Peak Number 3 3,3-Diethoxy-1,1,1,5,5,5-he... Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.31	0.23 ug/L	183803	d5-CHLOROBENZENE*	3184750	11.59

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3,3-Diethoxy-1,1,1,5,5,5-hexamet...	296	C10H28O4Si3	000000-00-0	64
2	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	47
3	4-Bromo-3-chloroaniline	205	C6H5BrClN	021402-26-6	38
4	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	37
5	1,2,4-Benzenetricarboxylic acid,...	238	C11H10O6	054699-35-3	37

****

Peak Number 4 1,4-Dichlorobenzene-d4 Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
15.44	3.53 ug/L	2736450	d4-1,4-DICHLOROBE	3099440	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,4-Dichlorobenzene-d4	150	C6Cl2D4	003855-82-1	96
2	Benzene-1,2,3,4-d4-, 5,6-dichloro-	150	C6Cl2D4	002199-69-1	94
3	Acenaphthylene	152	C12H8	000208-96-8	10
4	2-Adamantanone	150	C10H14O	000700-58-3	10
5	2H-1-Benzopyran-3-ol, 3,4-dihydro-	150	C9H10O2	021834-60-6	9

****

Peak Number 5 Quinoline, 2-chloro-6-metho... Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
19.89	0.46 ug/L	355981	d4-1,4-DICHLOROBE	3099440	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Quinoline, 2-chloro-6-methoxy-4-...	207	C11H10ClNO	006340-55-2	30
2	1,1,1,3,5,5,5-Heptamethyltrisilo...	222	C7H22O2Si3	001873-88-7	17
3	7a,9c-(Iminoethano)phenanthro[4,...	281	C18H19NO2	024695-70-3	10
4	3-Pyridinecarboxamide, 1,6-dihyd...	224	C10H16N2O2Si	072403-08-8	9
5	1H-Indole, 5-methyl-2-phenyl-	207	C15H13N	013228-36-9	9

LW082519.M Mon Sep 16 11:09:45 2019

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0619\321173.D Vial: 20
Acq On : 6 Sep 2019 20:44 Operator: RLD-DGS
Sample : 163976,321173, Inst : VMS4
Misc : pH<2, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Sep 06 21:05:10 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Sep 06 12:49:16 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1018358	4.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.59	117	848296	4.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.89	152	444347	4.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	278322	4.102	ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 103	%		
45) SURR12DCAd4	7.25	102	48786	4.295	ug/L	0.00
Spiked Amount 4.000	Range 86 - 106		Recovery = 107	%#		
61) SURRd8Tolule	9.67	98	1051733	4.072	ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 102	%		
83) SURR4BrFBenz	13.23	95	391567	4.064	ug/L	0.00
Spiked Amount 4.000	Range 75 - 124		Recovery = 102	%		
Target Compounds						Qvalue
2) Dichlorodi	0.00	85	0	N.D.		
3) Chloromethan	2.07	50	76240	0.6254	ug/L	98
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	0.00	94	0	N.D.		
6) Chloroethane	0.00	64	0	N.D.		
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	0.00	56	0	N.D.		
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	4.07	43	14909	1.3500	ug/L #	47
16) Iodomethane	0.00	142	0	N.D.		
17) Carbon Dislf	0.00	76	0	N.D.		
18) allylchloride	0.00	41	0	N.D.		
19) methylacetate	0.00	74	0	N.D.		
20) Methylchlorid	4.59	84	13181	Below Cal	#	85
21) tbutylalcohol	0.00	59	0	N.D.		
22) Acrylonitrile	0.00	53	0	N.D.		
23) t12dichlorte	0.00	96	0	N.D.		
24) MtBE	0.00	73	0	N.D.		
25) Hexane	0.00	57	0	N.D.		
26) 11dichlorota	0.00	63	0	N.D.		
27) Vinylacetate	0.00	43	0	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	0.00	59	0	N.D.		
31) 22dichloropr	0.00	77	0	N.D.		
32) c12dichlorte	0.00	96	0	N.D.		
33) 2Butanone	6.27	72	18020	7.0831	ug/L	96
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	6.63	42	5781	0.4940	ug/L #	50

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0619\321173.D Vial: 20
Acq On : 6 Sep 2019 20:44 Operator: RLD-DGS
Sample : 163976,321173, Inst : VMS4
Misc : pH<2, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Sep 06 21:05:10 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Sep 06 12:49:16 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	9.16	63	4815	0.7944 ug/L #	49
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	9.75	92	105442	0.6716 ug/L	97
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	11.63	112	3678	0.0214 ug/L #	1
73)	1Clhexane	0.00	91	0	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	11.78	91	7866	0.0267 ug/L	69
76)	m p-Xylene	11.95	106	16148	0.1468 ug/L	90
77)	o-Xylene	12.50	106	6545	0.0595 ug/L	92
78)	Styrene	12.52	104	13364	0.0805 ug/L	99
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	14.40	105	3273	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	14.94	146	3948	0.0312 ug/L #	1
98)	12dichlorobe	15.46	146	8723	0.0789 ug/L #	41
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0619\321173.D Vial: 20
Acq On : 6 Sep 2019 20:44 Operator: RLD-DGS
Sample : 163976,321173, Inst : VMS4
Misc : pH<2, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Sep 06 21:05:10 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Sep 06 12:49:16 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	0.00	128	0	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

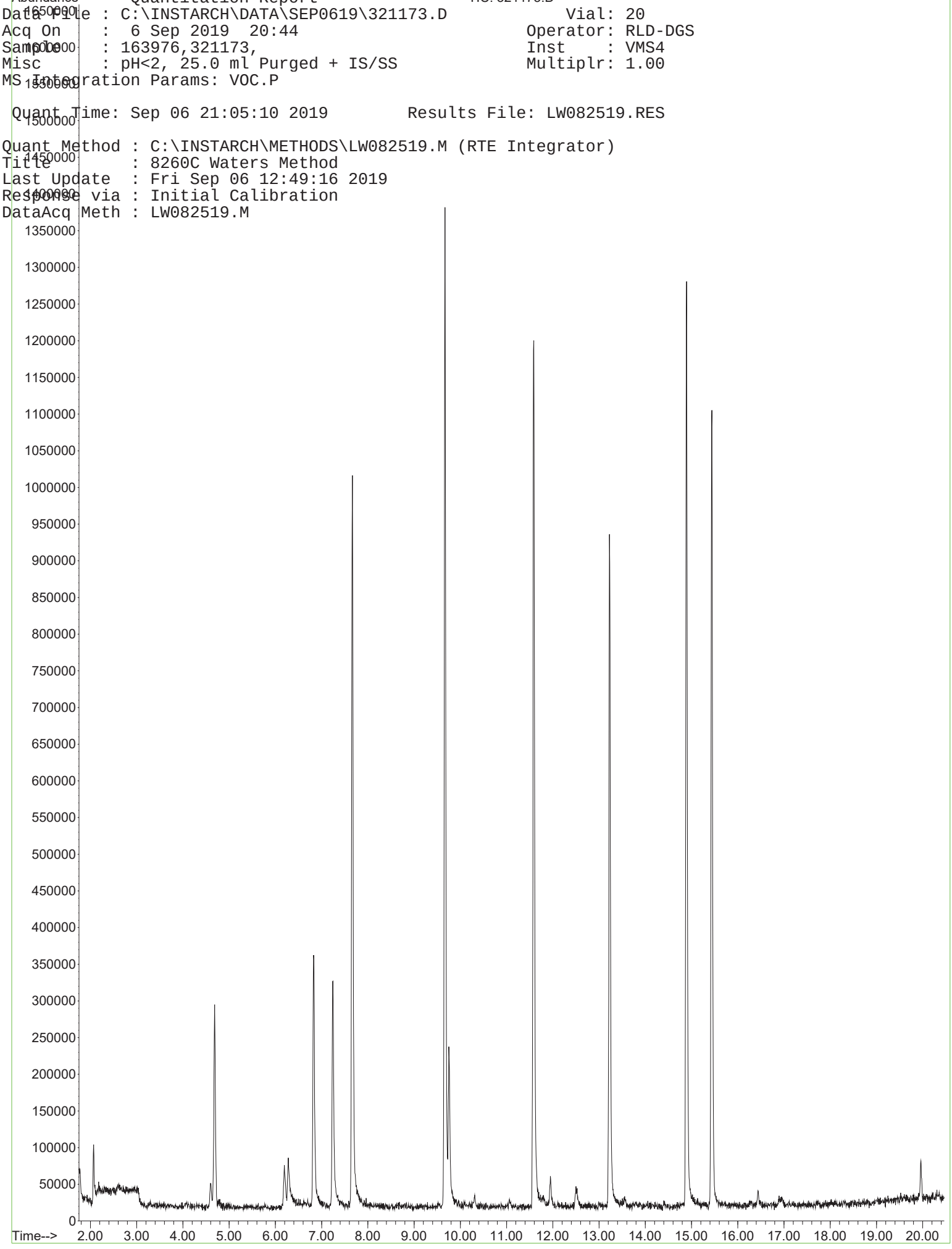
(#) = qualifier out of range (m) = manual integration

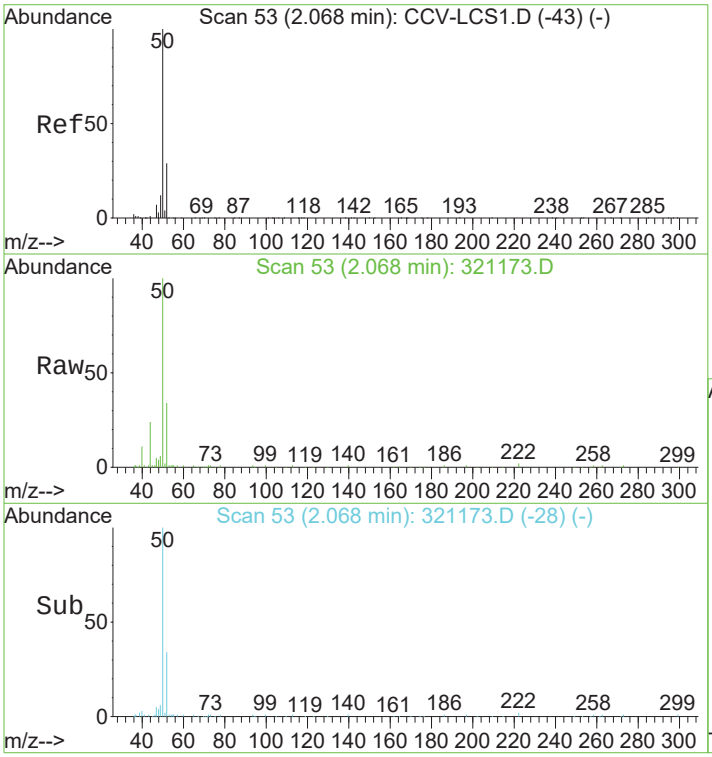
Abundance Quantitation Report TIC: 321173.D

Data File : C:\INSTARCH\DATA\SEP0619\321173.D Vial: 20
Acq On : 6 Sep 2019 20:44 Operator: RLD-DGS
Sample : 163976,321173, Inst : VMS4
Misc : pH<2, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Sep 06 21:05:10 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Sep 06 12:49:16 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

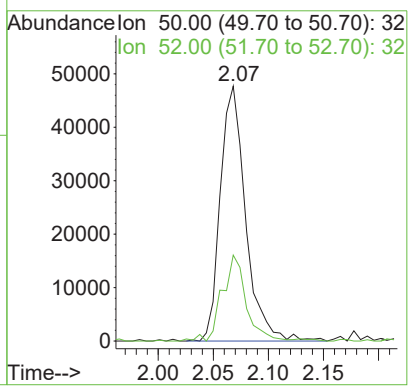


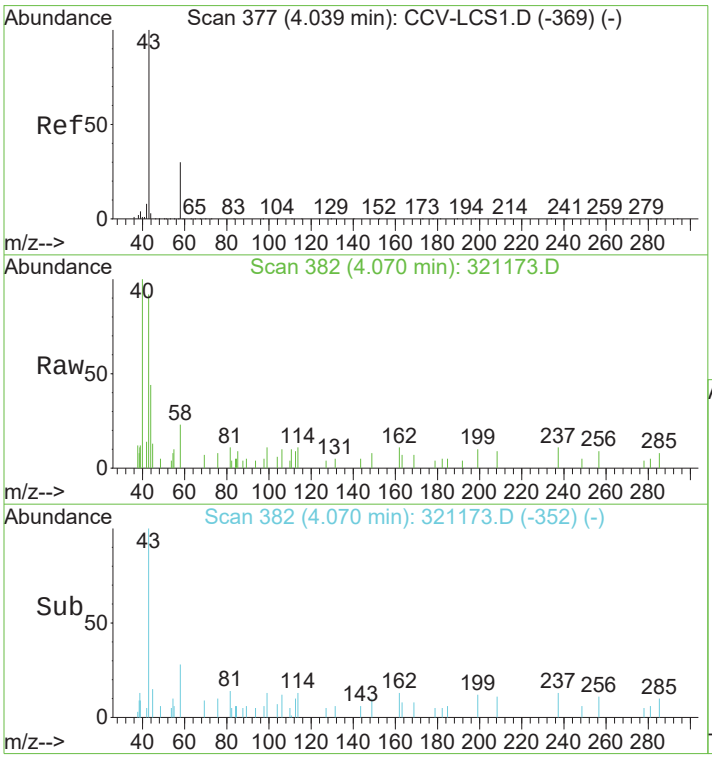


#3
Chloromethan
Concen: 0.63 ug/L
RT: 2.07 min Scan# 53
Delta R.T. 0.00 min
Lab File: 321173.D
Acq: 6 Sep 2019 20:44

Tgt Ion: 50 Resp: 76240

Ion	Ratio	Lower	Upper
50	100		
52	32.5	11.5	51.5

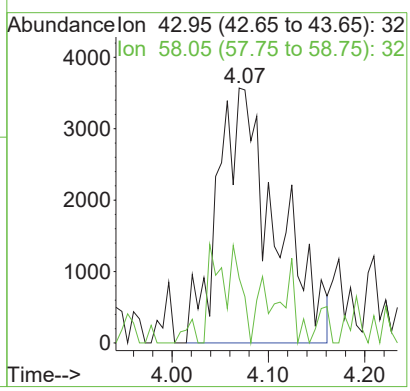


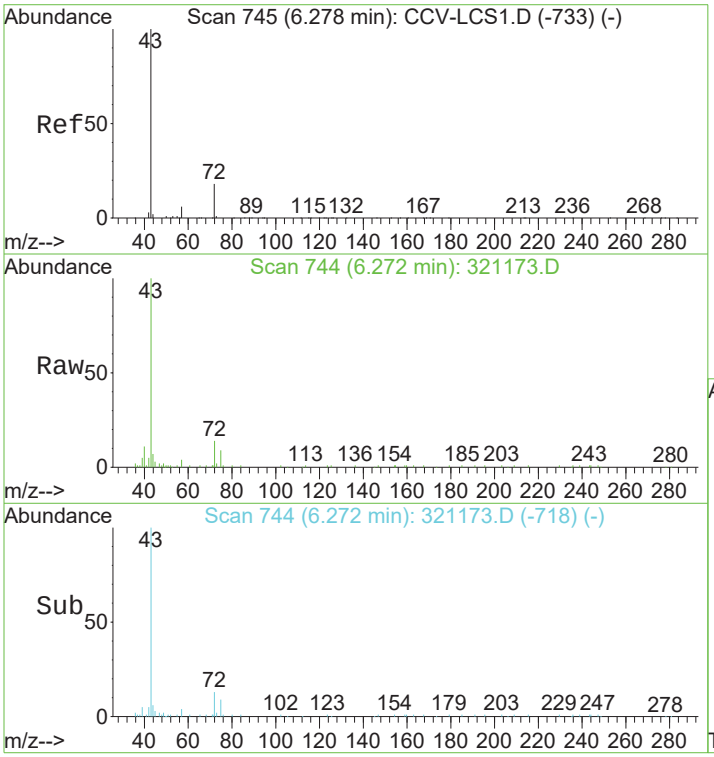


#15
Acetone
Concen: 1.35 ug/L
RT: 4.07 min Scan# 382
Delta R.T. 0.03 min
Lab File: 321173.D
Acq: 6 Sep 2019 20:44

Tgt Ion: 43 Resp: 14909

Ion	Ratio	Lower	Upper
43	100		
58	0.0	7.6	47.6#

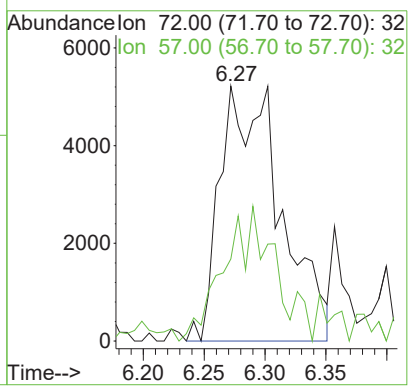


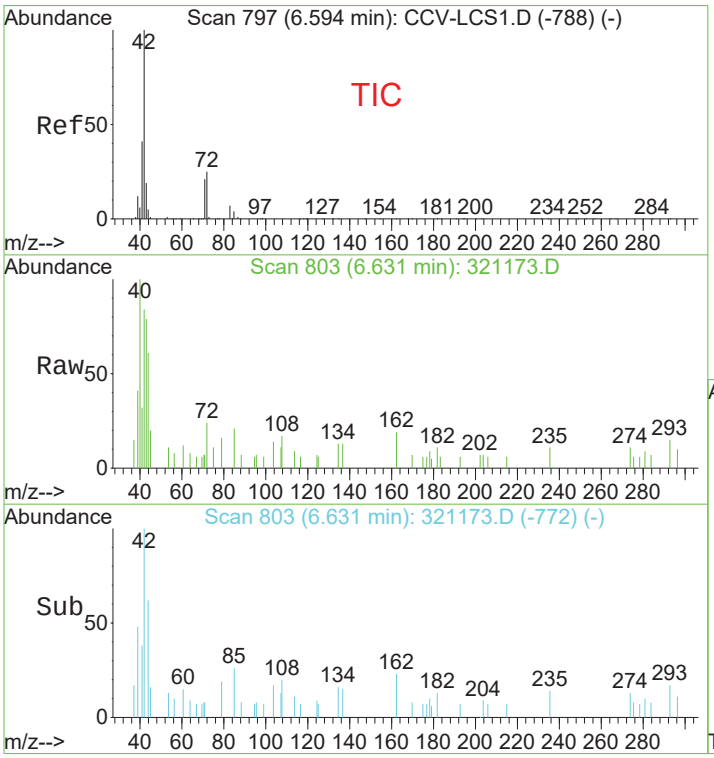


#33
2Butanone
Concen: 7.08 ug/L
RT: 6.27 min Scan# 744
Delta R.T. 0.01 min
Lab File: 321173.D
Acq: 6 Sep 2019 20:44

Tgt Ion: 72 Resp: 18020

Ion	Ratio	Lower	Upper
72	100		
57	44.3	21.5	61.5

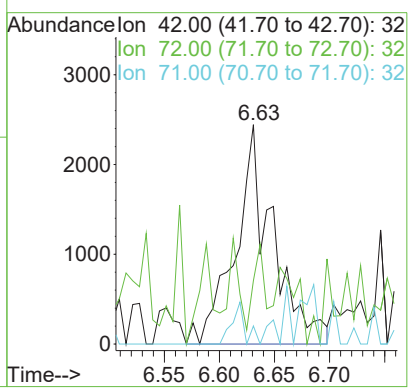




#38
Tetrahydofur
Concen: 0.49 ug/L
RT: 6.63 min Scan# 803
Delta R.T. 0.04 min
Lab File: 321173.D
Acq: 6 Sep 2019 20:44

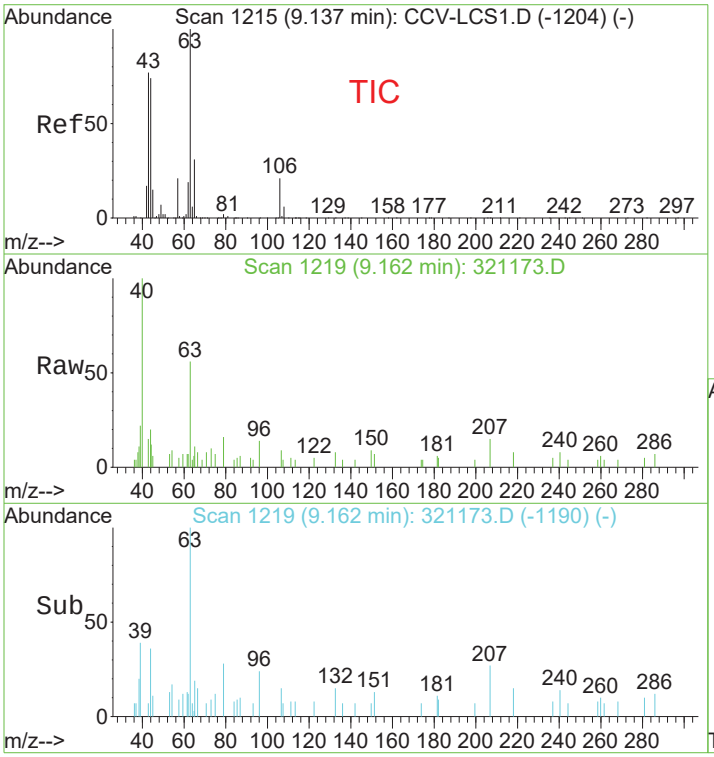
Tgt Ion: 42 Resp: 5781

Ion	Ratio	Lower	Upper
42	100		
72	0.0	6.2	46.2#
71	0.0	3.7	43.7#



Negative Library Identification

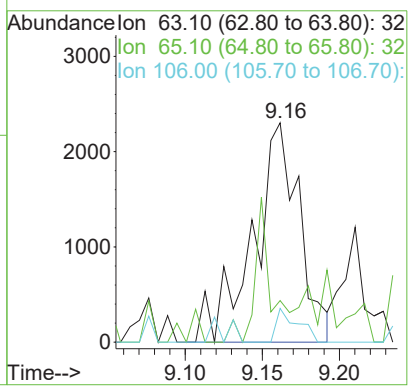
[redacted]



#58
2CLEVE
Concen: 0.79 ug/L
RT: 9.16 min Scan# 1219
Delta R.T. 0.02 min
Lab File: 321173.D
Acq: 6 Sep 2019 20:44

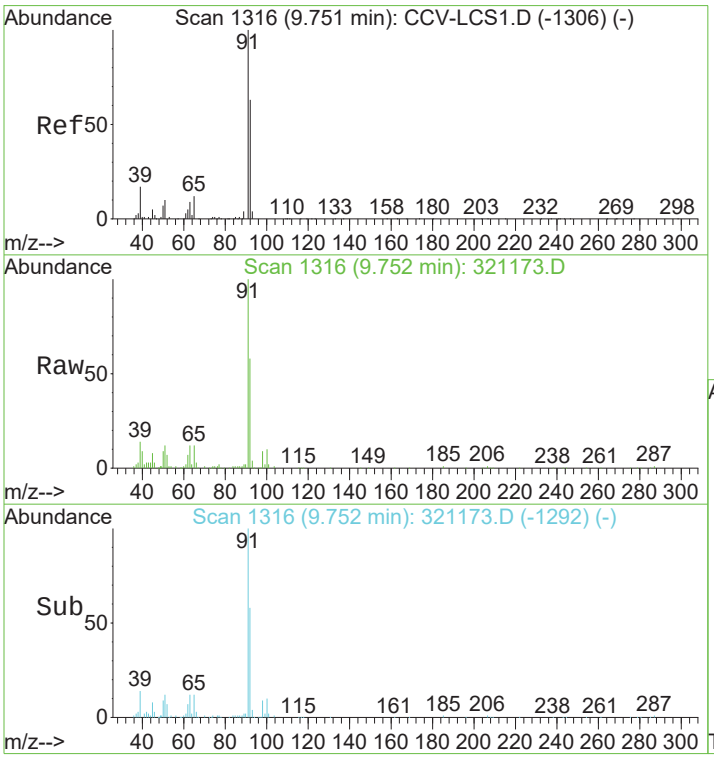
Tgt Ion: 63 Resp: 4815

Ion	Ratio	Lower	Upper
63	100		
65	0.0	10.8	50.8#
106	0.0	0.0	40.0



Negative Library Identification

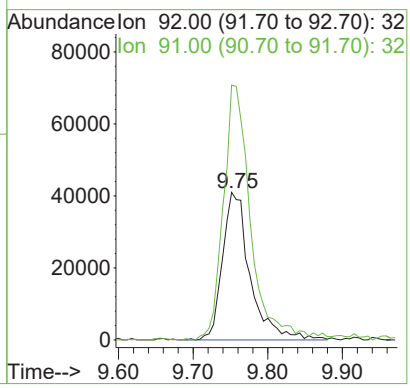
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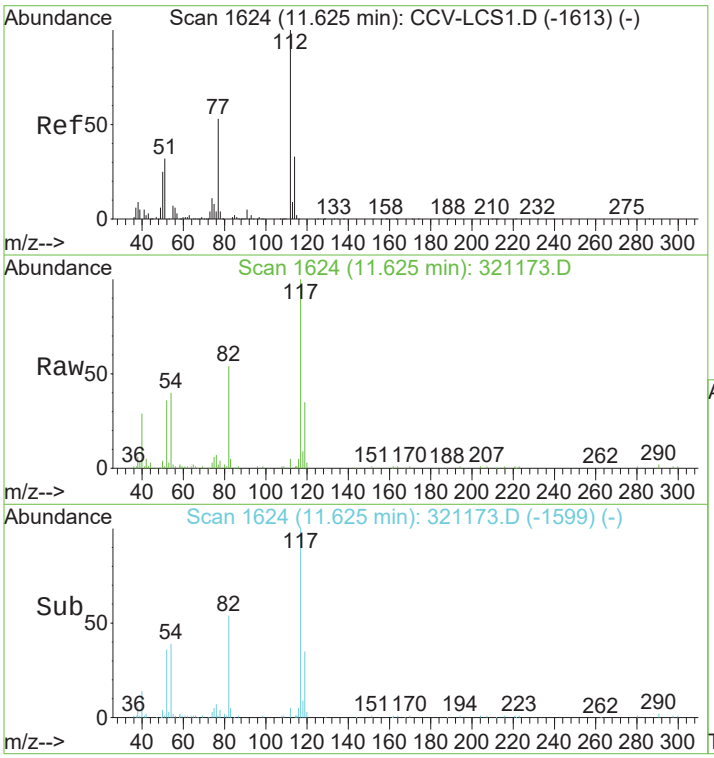


#62
Toluene
Concen: 0.67 ug/L
RT: 9.75 min Scan# 1316
Delta R.T. -0.01 min
Lab File: 321173.D
Acq: 6 Sep 2019 20:44

Tgt Ion: 92 Resp: 105442

Ion	Ratio	Lower	Upper
92	100		
91	171.9	147.4	187.4

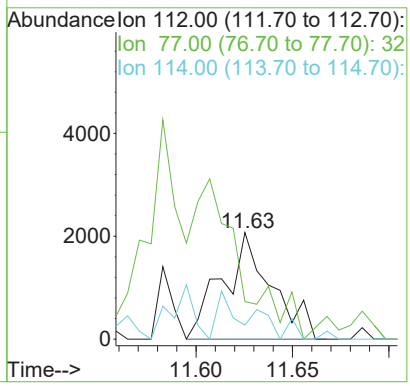




#72
Chlorobenzen
Concen: 0.02 ug/L
RT: 11.63 min Scan# 1624
Delta R.T. 0.00 min
Lab File: 321173.D
Acq: 6 Sep 2019 20:44

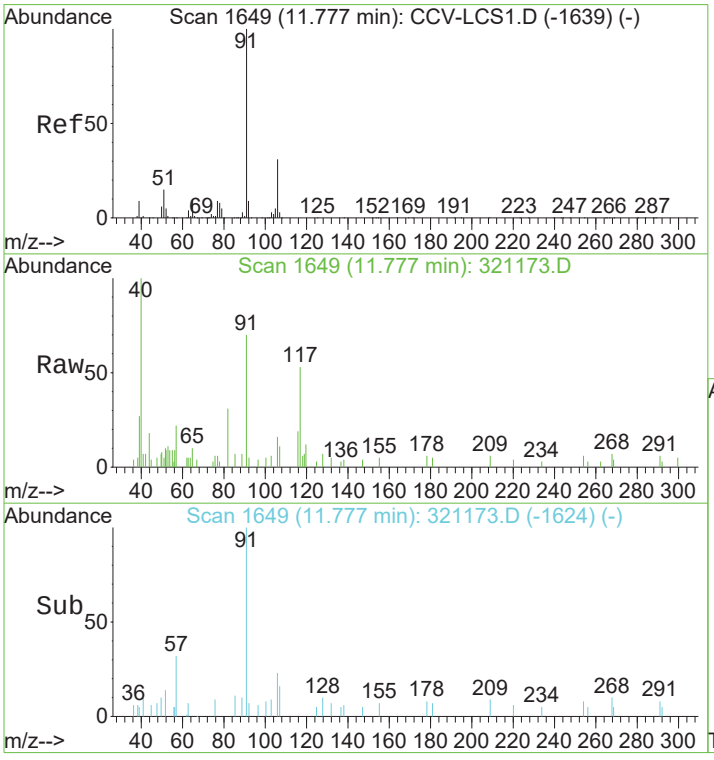
Tgt Ion:112 Resp: 3678

Ion	Ratio	Lower	Upper
112	100		
77	277.2	37.9	77.9#
114	0.0	12.4	52.4#



Negative Library Identification

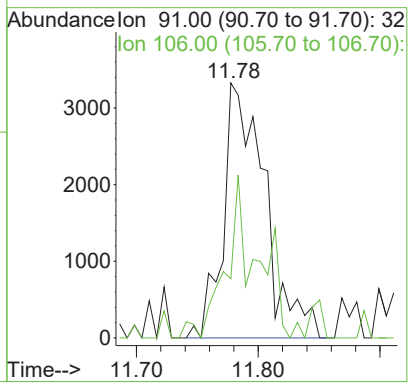
[redacted]

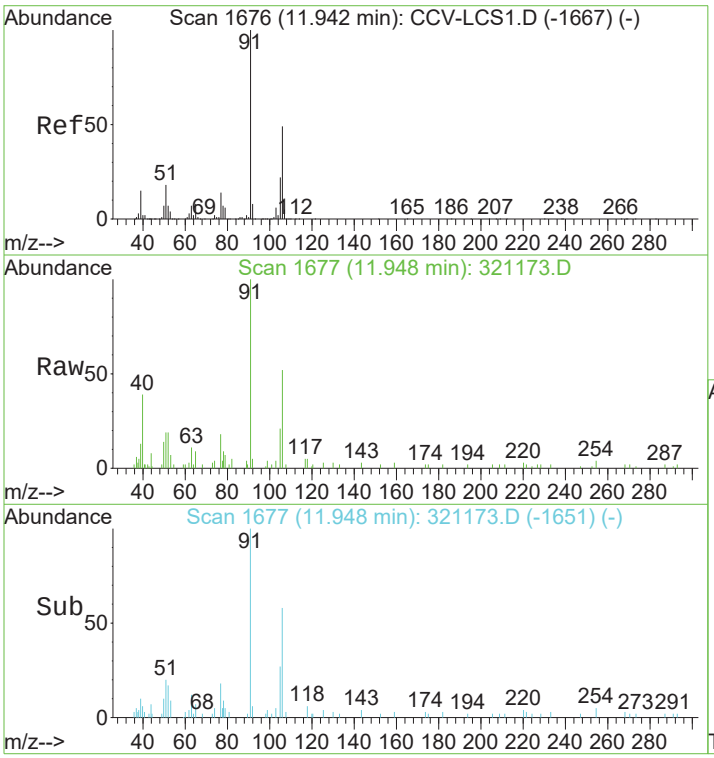


#75
Ethylbenzene
Concen: 0.03 ug/L
RT: 11.78 min Scan# 1649
Delta R.T. 0.00 min
Lab File: 321173.D
Acq: 6 Sep 2019 20:44

Tgt Ion: 91 Resp: 7866

Ion	Ratio	Lower	Upper
91	100		
106	47.9	11.0	51.0

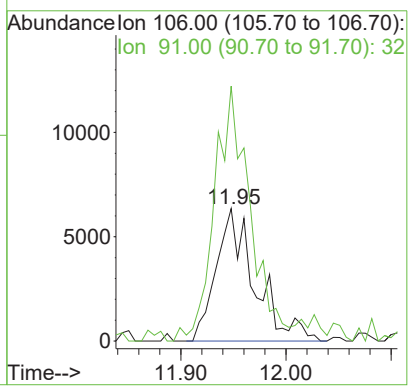


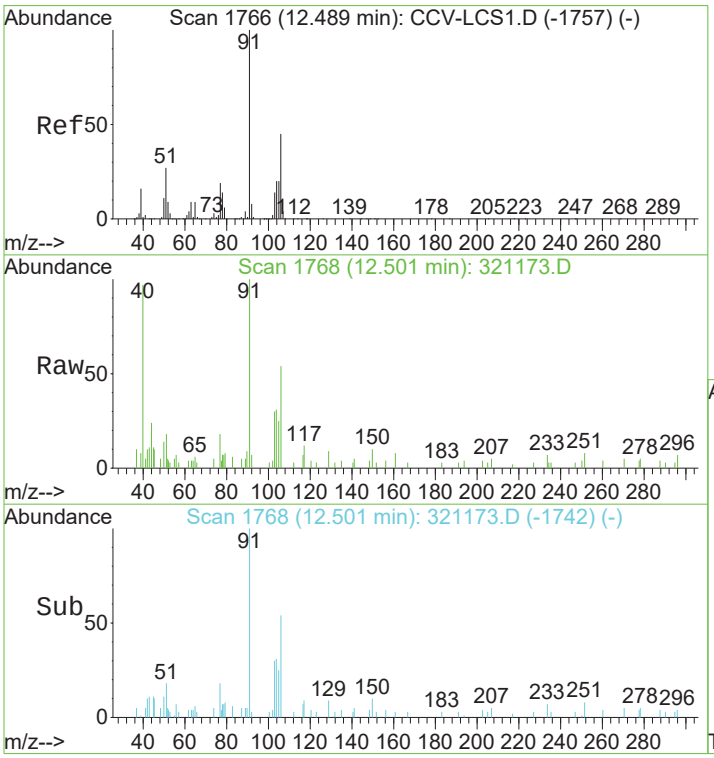


#76
m p-Xylene
Concen: 0.15 ug/L
RT: 11.95 min Scan# 1677
Delta R.T. 0.01 min
Lab File: 321173.D
Acq: 6 Sep 2019 20:44

Tgt Ion:106 Resp: 16148

Ion	Ratio	Lower	Upper
106	100		
91	187.3	182.2	222.2

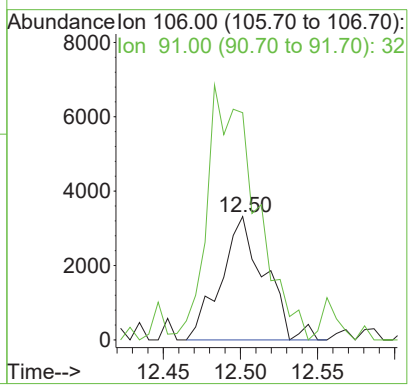


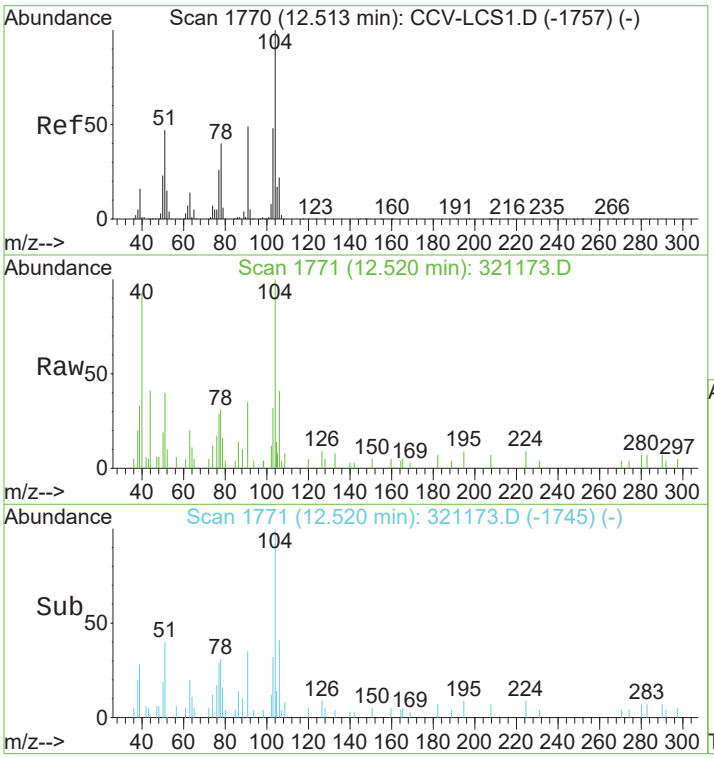


#77
o-Xylene
Concen: 0.06 ug/L
RT: 12.50 min Scan# 1768
Delta R.T. 0.01 min
Lab File: 321173.D
Acq: 6 Sep 2019 20:44

Tgt Ion:106 Resp: 6545

Ion	Ratio	Lower	Upper
106	100		
91	227.0	194.0	234.0

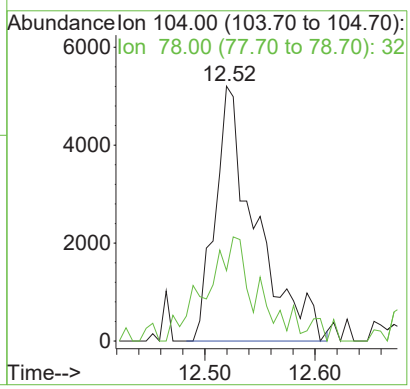


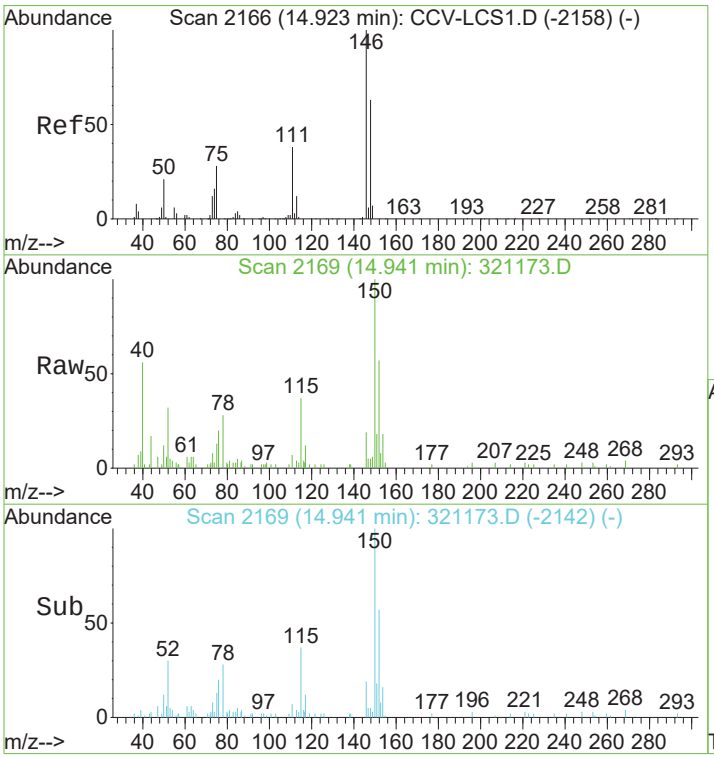


#78
Styrene
Concen: 0.08 ug/L
RT: 12.52 min Scan# 1771
Delta R.T. 0.01 min
Lab File: 321173.D
Acq: 6 Sep 2019 20:44

Tgt Ion:104 Resp: 13364

Ion	Ratio	Lower	Upper
104	100		
78	51.5	31.1	71.1

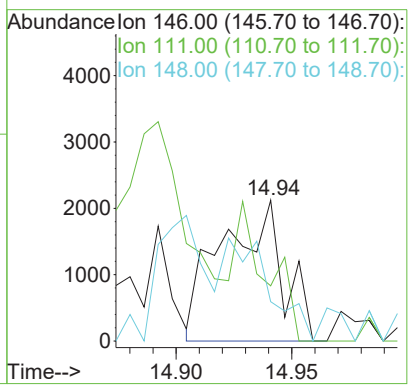




#97
14dichlorobe
Concen: 0.03 ug/L
RT: 14.94 min Scan# 2169
Delta R.T. 0.01 min
Lab File: 321173.D
Acq: 6 Sep 2019 20:44

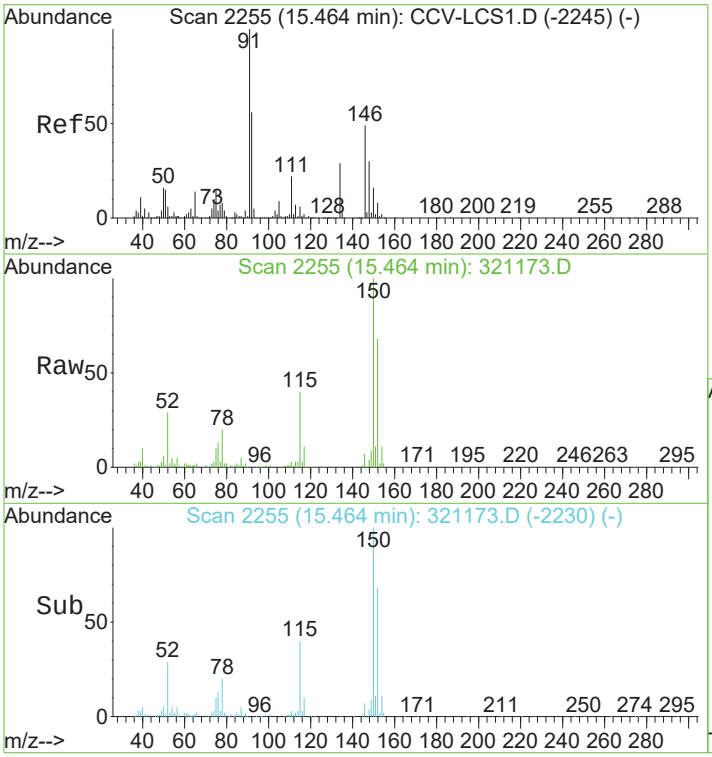
Tgt Ion:146 Resp: 3948

Ion	Ratio	Lower	Upper
146	100		
111	226.4	19.1	59.1#
148	68.2	42.0	82.0



Negative Library Identification

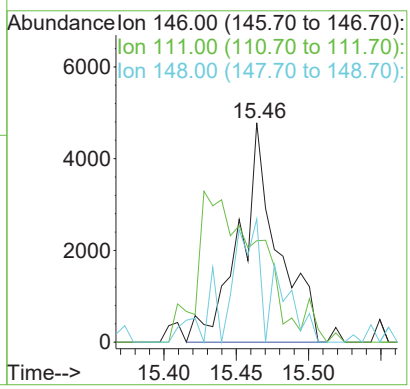
[redacted]



#98
12dichlorobe
Concen: 0.08 ug/L
RT: 15.46 min Scan# 2255
Delta R.T. 0.00 min
Lab File: 321173.D
Acq: 6 Sep 2019 20:44

Tgt Ion:146 Resp: 8723

Ion	Ratio	Lower	Upper
146	100		
111	113.3	23.0	63.0#
148	46.1	48.0	88.0#



Negative Library Identification

[redacted]

Library Search Compound Report

Data Path : C:\INSTARCH\DATA\SEP0619\
Data File : 321173.D
Acq On : 6 Sep 2019 20:44
Operator : RLD-DGS
Sample : 163976,321173,
Misc : pH<2, 25.0 ml Purged + IS/SS
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHODS\LW082519.M
Quant Title : 8260C Waters Method

TIC Library : C:\DATABASE\NBS75K.L
TIC Integration Parameters: VOC.P

****
Peak Number 1 Benzene, 2-azido-1-methyl-3... Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
1.77	0.24 ug/L	156712	FLUOROBENZENE**IS	2566600	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2-azido-1-methyl-3-nitro-	178	C7H6N4O2	016714-18-4	4
2	3-Picoline, 6-nitro-	138	C6H6N2O2	001074-38-0	4
3	Propiolonitrile	51	C3HN	001070-71-9	3
4	Carbonic acid, thio-, O-methyl O...	168	C8H8O2S	001007-37-0	2
5	Ethanamine, N-chloro-N,1,1-trifl...	133	C2H3ClF3N	016276-45-2	2

****
Peak Number 2 Cyclopentane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
4.68	1.02 ug/L	654826	FLUOROBENZENE**IS	2566600	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentane	70	C5H10	000287-92-3	80
2	1-Pentene	70	C5H10	000109-67-1	25
3	1-Pentene	70	C5H10	000109-67-1	23
4	Cyclopropane, ethyl-	70	C5H10	001191-96-4	23
5	Cyclopropane, ethyl-	70	C5H10	001191-96-4	23

****
Peak Number 3 Ethane, 1,1,2-trimethoxy- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
6.19	0.30 ug/L	189988	FLUOROBENZENE**IS	2566600	7.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethane, 1,1,2-trimethoxy-	120	C5H12O3	024332-20-5	45
2	Phorate	260	C7H17O2PS3	000298-02-2	40
3	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	39
4	Butane, 2-methyl-3-(methylthio)-	118	C6H14S	053897-51-1	39
5	Ethane, 2-chloro-1,1-dimethoxy-	124	C4H9ClO2	000097-97-2	38

****
Peak Number 4 Unknown Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
19.18	0.23 ug/L	168977	d4-1,4-DICHLOROBE	2923170	14.89

Hit# of 1	Tentative ID	MW	MolForm	CAS#	Qual
1	No Hits From C:\DATABASE\NBS75K.L	0			0

****

Peak Number 5 1-Propanamine, 2-methyl- Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
19.52	0.22 ug/L	161238	d4-1,4-DICHLOROBE	2923170	14.89

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Propanamine, 2-methyl-	73	C4H11N	000078-81-9	5
2	1-Butanamine	73	C4H11N	000109-73-9	4
3	2H-Azonin-2-one, octahydro-6-hyd...	157	C8H15NO2	023435-07-6	3
4	Acetamide, N-butyl-	115	C6H13NO	001119-49-9	3
5	Urea, propyl-	102	C4H10N2O	000627-06-5	3

LW082519.M Mon Sep 16 11:13:07 2019

VOLATILE ORGANIC ANALYSIS
INITIAL CALIBRATION
DOCUMENTS

Method Path : C:\INSTARCH\METHODS\
Method File : LS090419.M
Title : 8260C Low Level Soils Method
Last Update : Fri Sep 06 08:54:58 2019
Response Via : Initial Calibration

RJ 09/10/2019

Calibration Files mg/kg
1 0.001/0.010 =LLCALS1.D 2 0.002/0.020 =LLCALS2.D 3 0.005/0.050 =LLCALS3.D
4 0.010/0.100 =LLCALS4.D 5 0.020/0.020 =LLCALS5.D 6 0.030/0.300 =LLCALS6.D
7 0.040/0.400 =LLCALS7.D 8 0.080/0.800 =LLCALS8.D

	Compound	1	2	3	4	5	6	7	8	Avg	%RSD
1) I	FLUOROBENZENE**ISTD**	----------ISTD----------									
2) T	Dichlorodi	0.198	0.169	0.204	0.306	0.293	0.280	0.316	0.290	-----	
										Q A= -0.007 R=0.998 B= 0.322 C= -0.016	
3) PT	Chloromethan	0.337	0.298	0.335	0.292	0.293	0.286	0.305	0.280	0.303	7.08
4) CT	VinylChlorid	0.230	0.250	0.294	0.309	0.303	0.303	0.346	0.309	0.293	12.45
5) T	Bromomethane	0.182	0.159	0.154	0.136	0.136	0.132	0.145	0.143	0.148	10.97
6) T	Chloroethane	0.187	0.151	0.182	0.188	0.178	0.171	0.193	0.172	0.178	7.49
7) T	dichloroflmetha	0.507	0.523	0.610	0.589	0.581	0.575	0.610	0.550	0.568	6.74
8) T	Trichlorofma	0.315	0.273	0.366	0.487	0.482	0.448	0.509	0.460	-----	
										Q A= -0.014 R=0.998 B= 0.523 C= -0.025	
9) T	Ethylether	0.175	0.210	0.202	0.208	0.219	0.217	0.210	0.204	0.206	6.65
10) T	dichlorotfluoro	0.243	0.241	0.293	0.349	0.342	0.323	0.356	0.324	0.309	14.73
11) T	propyleneoxide	0.019	0.024	0.022	0.024	0.028	0.025	0.025	0.025	0.024	10.23
12) T	Acrolein	0.038	0.038	0.037	0.040	0.040	0.039	0.042	0.041	0.039	4.40
13) CT	11dichlorthe	0.198	0.199	0.258	0.267	0.268	0.264	0.290	0.265	0.251	13.43
14) T	Trichlorotfluor	0.128	0.121	0.173	0.257	0.257	0.239	0.268	0.245	-----	
										Q A= -0.004 R=0.998 B= 0.278 C= -0.031	
15) T	Acetone	0.069	0.059	0.059	0.056	0.059	0.055	0.058	0.054	0.059	7.65
16) T	Iodomethane	0.164	0.157	0.225	0.240	0.280	0.288	0.301	0.305	-----	
										Q A= 0.002 R=1.000 B= 0.297 C= -0.033	
17) T	Carbon Dislf	0.787	0.791	0.890	0.922	0.907	0.875	0.946	0.796	0.864	7.37
18) T	allylchloride	0.437	0.426	0.488	0.464	0.469	0.457	0.486	0.433	0.457	5.18
19) T	methylacetate	0.062	0.062	0.083	0.075	0.090	0.091	0.092	0.090	-----	
										Q A= -0.001 R=1.000 B= 0.094 C= -0.004	

```
20) T   Methylchlorid   0.778 0.573 0.458 0.354 0.344 0.326 0.331 -----
                        0.306
                                                    Q  A= -0.007 R=1.000
                                                       B=  0.327
                                                       C=  0.024
21) T   Acrylonitrile   0.046 0.052 0.061 0.057 0.064 0.063 0.067 0.059  12.07
                        0.064
22) T   t12dichlorte    0.234 0.280 0.329 0.309 0.303 0.288 0.315 0.294   9.73
                        0.292
23) T   tbutylalcohol   0.025 0.030 0.030 0.027 0.030 0.026 0.027 0.028   7.13
                        0.025
24) T   MtBE            0.684 0.803 0.795 0.777 0.809 0.791 0.776 0.773   5.25
                        0.748
25) T   Hexane          0.281 0.222 0.293 0.401 0.410 0.375 0.419 -----
                        0.380
                                                    Q  A= -0.006 R=0.998
                                                       B=  0.437
                                                       C= -0.042
26) PT  11dichlorota    0.560 0.504 0.603 0.538 0.551 0.538 0.573 0.548   5.71
                        0.518
27) T   Vinylacetate    0.262 0.329 0.366 0.372 0.393 0.369 0.367 0.343  13.58
                        0.284
28) T   chloroprene     0.320 0.334 0.398 0.434 0.435 0.423 0.460 0.402  12.42
                        0.412
29) T   Diisopether     0.799 0.871 0.910 0.872 0.893 0.860 0.861 0.857   4.83
                        0.793
30) T   ETBE            0.720 0.792 0.811 0.798 0.810 0.801 0.779 0.784   3.95
                        0.760
31) T   22dichloropr    0.497 0.487 0.507 0.486 0.495 0.490 0.522 0.495   2.73
                        0.479
32) T   c12dichlorte    0.296 0.311 0.337 0.323 0.342 0.329 0.345 0.326   5.01
                        0.326
33) T   2Butanone       0.024 0.018 0.025 0.024 0.028 0.026 0.028 0.025  13.05
                        0.026
34) T   propionitrile   0.007 0.016 0.022 0.024 0.026 0.026 0.027 -----
                        0.026
                                                    Q  A= -0.000 R=1.000
                                                       B=  0.028
                                                       C= -0.014
35) T   Ethylacetate    0.003 0.003 0.005 0.007 0.008 0.008 0.008 ----- #
                        0.008
                                                    Q  A= -0.000 R=0.999
                                                       B=  0.008
                                                       C= -0.003
36) T   methacrylonitri 0.023 0.081 0.086 0.083 0.095 0.092 0.096 -----
                        0.094
                                                    Q  A= -0.000 R=1.000
                                                       B=  0.098
                                                       C= -0.007
37) T   Bromochlorma    0.098 0.143 0.120 0.128 0.134 0.130 0.135 0.127  10.67
                        0.126
38) T   Tetrahydofur    0.051 0.059 0.057 0.058 0.063 0.058 0.060 0.058   5.82
                        0.056
39) CT  Chloroform      0.510 0.529 0.625 0.567 0.582 0.561 0.585 0.563   6.42
                        0.541
40) T   111trichlota    0.369 0.392 0.485 0.508 0.517 0.497 0.540 0.476  12.89
                        0.500
41) S   SURRDibrflma    0.252 0.251 0.257 0.252 0.246 0.247 0.244 0.249   1.82
                        0.244
42) T   Cyclohexane     0.283 0.204 0.324 0.465 0.469 0.446 0.498 -----
                        0.456
                                                    Q  A= -0.013 R=0.998
                                                       B=  0.516
                                                       C= -0.030
43) T   Carbtetraclo    0.263 0.276 0.344 0.407 0.406 0.390 0.437 -----
                        0.412
                                                    Q  A= -0.004 R=0.998
                                                       B=  0.434
                                                       C= -0.017
44) T   11dicloprope    0.107 0.109 0.132 0.143 0.148 0.141 0.156 0.135  13.53
```

```
                    0.145
45) S   SURR12DCAd4     0.052 0.054 0.053 0.050 0.051 0.049 0.048 0.051   4.01
                    0.052
46) T   Benzene         1.172 1.230 1.328 1.267 1.293 1.244 1.306 1.252   4.58
                    1.178
47) T   12dichlorota    0.258 0.360 0.370 0.360 0.378 0.385 0.381 0.357  11.53
                    0.361
48) T   TAME            0.701 0.738 0.769 0.756 0.789 0.764 0.756 0.753   3.40
                    0.750
49) T   trichloroete    0.265 0.282 0.320 0.311 0.320 0.308 0.329 0.306   7.04
                    0.310
50) T   methylcyclohexa 0.286 0.243 0.362 0.554 0.562 0.519 0.604 -----
                    0.545
                                                      Q  A= -0.016 R=0.997
                                                         B=  0.620
                                                         C= -0.040
51) CT  12dicloropra    0.271 0.336 0.341 0.317 0.325 0.317 0.330 0.318   6.92
                    0.309
52) T   23dicl1propene  0.395 0.438 0.498 0.486 0.494 0.490 0.507 0.474   7.99
                    0.484
53) T   Dibromometha    0.121 0.168 0.168 0.163 0.169 0.166 0.173 0.161  10.27
                    0.164
54) T   methylmethacryl 0.096 0.117 0.132 0.145 0.173 0.171 0.176 -----
                    0.176
                                                      Q  A=  0.000 R=1.000
                                                         B=  0.178
                                                         C= -0.009
55) T   14dioxane       0.002 0.002 0.003 0.002 0.003 0.002 0.003 0.003# 12.65
                    0.003
56) T   Bromodiclrma    0.378 0.378 0.420 0.414 0.437 0.428 0.436 0.414   5.67
                    0.417
57) T   2Nitropropane   0.043 0.052 0.056 0.054 0.063 0.061 0.065 0.057  12.94
                    0.062
58) T   c13dicloproe    0.419 0.475 0.479 0.486 0.510 0.506 0.515 0.485   6.29
                    0.491
59) T   4Meth2Pentan    0.170 0.193 0.207 0.197 0.214 0.196 0.199 0.194   7.98
                    0.171
60) S   SURRd8Tolule    1.024 1.016 1.037 1.027 1.008 1.024 1.006 1.019   1.02
                    1.013
61) CT  Toluene         0.767 0.796 0.901 0.805 0.835 0.813 0.839 0.817   5.07
                    0.784
62) T   t13Dicloprop    0.345 0.377 0.412 0.399 0.442 0.443 0.442 0.412   8.81
                    0.434
63) T   ethylmethacryla 0.240 0.288 0.309 0.321 0.344 0.337 0.346 0.314  11.36
                    0.331
64) T   112Triclotha    0.192 0.214 0.207 0.213 0.218 0.208 0.212 0.209   3.70
                    0.207
65) T   Tetrachlorte    0.276 0.250 0.289 0.322 0.322 0.309 0.343 0.304   9.94
                    0.321
66) T   13Diclorpropa   0.395 0.427 0.451 0.421 0.444 0.433 0.437 0.428   4.12
                    0.416

67) I   d5-CHLOROBENZENE**IST ----------------ISTD---------------------
68) T   2Hexanone       0.108 0.159 0.173 0.179 0.193 0.177 0.190 -----
                    0.165
                                                      Q  A= -0.001 R=0.999
                                                         B=  0.207
                                                         C= -0.071
69) T   Clorodibrmta    0.264 0.313 0.323 0.340 0.354 0.360 0.365 0.334  10.09
                    0.355
70) T   12Dibrometha    0.248 0.275 0.292 0.307 0.314 0.301 0.320 0.295   7.97
                    0.302
71) PT  Chlorobenzen    1.036 0.999 1.114 1.010 1.045 1.014 1.060 1.030   4.46
                    0.960
72) T   1Clhexane       0.418 0.317 0.476 0.552 0.564 0.522 0.605 -----
                    0.537
                                                      Q  A= -0.018 R=0.997
                                                         B=  0.618
                                                         C= -0.029
73) T   1112Tetclota    0.355 0.338 0.359 0.359 0.365 0.359 0.382 0.359   3.37
```

			0.357								
74)	CT	Ethylbenzene	1.624	1.698	1.961	1.865	1.941	1.835	1.971	1.823	7.44
			1.693								
75)	T	m p-Xylene	0.646	0.624	0.727	0.680	0.707	0.694	0.733	0.683	5.82
			0.650								
76)	T	o-Xylene	0.650	0.626	0.707	0.696	0.710	0.688	0.732	0.685	5.06
			0.668								
77)	T	Styrene	0.963	1.093	1.108	1.124	1.204	1.136	1.189	1.113	6.67
			1.086								
78)	PT	Bromoform	0.202	0.211	0.232	0.208	0.237	0.235	0.253	0.228	8.36
			0.249								
79)	T	Isopropylben	1.364	1.394	1.760	1.779	1.831	1.736	1.901	1.676	11.81
			1.644								
80)	I	d4-1,4-DICHLOROBENZEN	----------ISTD----------								
81)	T	cyclohexanone	0.021	0.020	0.021	0.022	0.023	0.019	0.021	0.021	5.84
			0.020								
82)	S	SURR4BrFBenz	0.941	0.956	0.939	0.943	0.971	0.954	0.922	0.949	1.74
			0.969								
83)	T	Bromobenzene	0.761	0.789	0.874	0.803	0.900	0.830	0.861	0.832	5.57
			0.841								
84)	PT	1122Tetrclta	0.671	0.775	0.805	0.832	0.851	0.796	0.815	0.789	6.97
			0.770								
85)	T	123Triclproa	0.996	1.208	0.864	0.849	1.035	0.965	1.011	0.973	12.35
			0.859								
86)	T	14dichloro2bute	0.183	0.171	0.182	0.159	0.189	0.171	0.176	0.177	5.56
			0.186								
87)	T	n-Propylbenz	3.580	3.486	4.046	4.022	4.174	3.864	4.121	3.859	7.11
			3.576								
88)	T	2chlorotolue	2.190	2.268	2.477	2.307	2.456	2.344	2.438	2.340	4.60
			2.238								
89)	T	4chlorotolue	2.512	2.503	2.765	2.708	2.827	2.655	2.774	2.659	4.88
			2.529								
90)	T	135Trimebenz	2.394	2.610	2.984	2.756	2.889	2.712	2.839	2.724	6.88
			2.604								
91)	T	tbutylbenzen	1.931	2.085	2.406	2.464	2.496	2.336	2.540	2.321	9.13
			2.314								
92)	T	124Trimetben	2.658	2.730	2.969	2.815	2.935	2.732	2.864	2.790	4.53
			2.621								
93)	T	sbutylbenzen	2.767	2.971	3.465	3.647	3.794	3.494	3.829	3.414	11.07
			3.346								
94)	T	13Diclorbenz	1.517	1.487	1.551	1.470	1.539	1.467	1.479	1.490	3.04
			1.410								
95)	T	pIsopropylto	2.354	2.341	2.835	2.968	3.045	2.820	3.073	2.772	10.30
			2.740								
96)	T	14dichlorobe	1.384	1.581	1.562	1.445	1.477	1.474	1.465	1.475	4.59
			1.412								
97)	T	12dichlorobe	1.415	1.500	1.445	1.383	1.451	1.380	1.400	1.413	3.76
			1.327								
98)	T	nButylbenzen	2.295	2.293	2.766	2.843	2.967	2.739	2.932	2.688	9.76
			2.668								
99)	T	12dibromo3cl	0.108	0.137	0.140	0.135	0.156	0.151	0.166	0.144	12.46
			0.158								
100)	T	135Trichloroben	1.115	1.130	1.188	1.141	1.187	1.129	1.133	1.140	2.85
			1.095								
101)	T	124Trichlobe	1.047	1.048	1.049	0.997	1.031	0.978	0.983	1.011	3.76
			0.952								
102)	T	Hexachlorobu	0.563	0.551	0.616	0.671	0.719	0.667	0.767	0.658	11.65
			0.714								
103)	T	Naphthalene	1.879	2.006	2.130	1.953	2.168	1.990	2.103	2.025	4.90
			1.969								
104)	T	123Trichlben	1.012	0.995	0.966	0.958	1.003	0.946	0.937	0.969	3.19
			0.932								

Total Average %RSD 7.46

L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range

BFB

Data File : C:\Instarch\Data\SEP0419\BFB1.D Vial: 1
Acq On : 4 Sep 2019 12:40 Operator: RLD-DGS
Sample : 163978,BFB, Inst : VMS4
Misc : 50 ng Injection Multiplr: 1.00
Integration File: VOC1.P

Method : C:\INSTARCH\METHODS\LS090419.M
Title : 8260C Low Level Soils Method

Spectrum Information: Average of 4.640 to 4.653 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.3	17324	PASS
75	95	30	60	53.3	53283	PASS
95	95	100	100	100.0	100000	PASS
96	95	5	9	7.1	7107	PASS
173	174	0.00	2	0.3	257	PASS
174	95	50	100	80.3	80341	PASS
175	174	5	9	5.6	4486	PASS
176	174	95	101	99.4	79882	PASS
177	176	5	9	6.5	5188	PASS

LS090419.M Tue Sep 10 13:56:50 2019

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0419\LLCALS1.D Vial: 5
Acq On : 4 Sep 2019 14:23 Operator: RLD-DGS
Sample : CALIB. PT. 1 Inst : VMS4
Misc : 0.001/0.010 mg/kg, 15.0 ml Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:06:25 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:02:44 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.67	96	1234541	0.02 mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	963666	0.02 mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.89	152	496635	0.02 mg/kg	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.83	113	311325	0.020 mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 100 %		
45) SURR12DCAd4	7.24	102	64076	0.020 mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 100 %		
60) SURRd8Tolule	9.67	98	1264193	0.020 mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %		
82) SURR4BrFBenz	13.23	95	467528	0.020 mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 100 %		
Target Compounds					Qvalue
2) Dichlorodi	1.81	85	12194	0.0008 mg/kg	80
3) Chloromethan	2.06	50	20785	0.0011 mg/kg	93
4) VinylChlorid	2.21	62	14194	0.0008 mg/kg	91
5) Bromomethane	2.69	94	11206	0.0012 mg/kg	86
6) Chloroethane	2.83	64	11567	0.0011 mg/kg	93
7) dichloroflmethane	3.15	67	31289	0.0009 mg/kg	98
8) Trichlorofma	3.21	101	19460	0.0008 mg/kg	98
9) Ethylether	3.67	59	10796	0.0009 mg/kg	92
10) dichlorotfluoroethan	3.68	67	15012	0.0008 mg/kg	92
11) propyleneoxide	3.73	58	11826	0.0080 mg/kg#	76
12) Acrolein	3.83	56	11630m	0.0051 mg/kg	18
13) 11dichlorthe	3.94	96	12244	0.0008 mg/kg	95
14) Trichlorotfluoroeth	3.96	101	15813	0.0012 mg/kg	87
15) Acetone	4.06	43	42482	0.0117 mg/kg	93
16) Iodomethane	4.13	142	20271	0.0013 mg/kg	91
17) Carbon Dislf	4.20	76	97215	0.0018 mg/kg	93
18) allylchloride	4.43	41	53900	0.0019 mg/kg	99
19) methylacetate	4.51	74	3824	0.0008 mg/kg	96
20) Methylchlorid	4.60	84	48033	0.0018 mg/kg	93
21) Acrylonitrile	4.96	53	14146m	0.0040 mg/kg#	59
22) t12dichlorte	4.96	96	14471	0.0008 mg/kg#	80
23) tbutylalcohol	4.82	59	76815	0.0452 mg/kg	95
24) MtBE	4.98	73	42238	0.0009 mg/kg	96
25) Hexane	5.32	57	34741	0.0016 mg/kg	97
26) 11dichlorota	5.50	63	34550	0.0010 mg/kg	95
27) Vinylacetate	5.61	43	161946	0.0077 mg/kg	97
28) chloroprene	5.62	53	39467	0.0016 mg/kg	98
29) Diisopether	5.61	45	49341	0.0009 mg/kg#	67
30) ETBE	6.08	59	44430	0.0009 mg/kg	94
31) 22dichloropr	6.22	77	30673	0.0010 mg/kg	86
32) c12dichlorte	6.24	96	18294	0.0009 mg/kg	88
33) 2Butanone	6.30	72	14926m	0.0102 mg/kg	92
34) propionitrile	6.38	54	4440	0.0033 mg/kg#	61
35) Ethylacetate	6.38	88	977m	0.0025 mg/kg#	0
36) methacrylonitrile	6.54	67	2835	0.0006 mg/kg#	58
37) Bromochlorma	6.54	128	6042	0.0008 mg/kg#	79
38) Tetrahydofur	6.61	42	31670	0.0089 mg/kg	81

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0419\LLCALS1.D Vial: 5
Acq On : 4 Sep 2019 14:23 Operator: RLD-DGS
Sample : CALIB. PT. 1 Inst : VMS4
Misc : 0.001/0.010 mg/kg, 15.0 ml Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:06:25 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:02:44 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	6.64	83	31473	0.0009 mg/kg	99
40) 111trichlota	6.84	97	22793	0.0008 mg/kg	94
42) Cyclohexane	6.92	56	17480	0.0007 mg/kg	88
43) Carbtetraclo	7.07	119	16206	0.0007 mg/kg	94
44) 11dicloprope	7.07	110	6595	0.0008 mg/kg	94
46) Benzene	7.32	78	72321	0.0009 mg/kg	92
47) 12dichlorota	7.36	62	15907	0.0007 mg/kg	84
48) TAME	7.47	73	43277	0.0009 mg/kg	94
49) trichloroete	8.12	95	16328	0.0009 mg/kg	91
50) methylcyclohexane	8.36	83	17654	0.0006 mg/kg	99
51) 12dicloropra	8.39	63	16709	0.0009 mg/kg#	98
52) 23dicl1propene	8.47	75	24396	0.0008 mg/kg	94
53) Dibromometha	8.56	93	7478	0.0008 mg/kg#	65
54) methylmethacrylate	8.58	69	5922	0.0006 mg/kg	79
55) 14dioxane	8.64	88	6826	0.0442 mg/kg#	59
56) Bromodiclrma	8.74	83	23337	0.0009 mg/kg	91
57) 2Nitropropane	9.03	43	26292	0.0075 mg/kg	88
58) c13dicloproe	9.34	75	25854	0.0009 mg/kg	99
59) 4Meth2Pentan	9.51	43	105107	0.0088 mg/kg	92
61) Toluene	9.76	92	47355	0.0009 mg/kg	98
62) t13Dicloprop	10.04	75	21266	0.0008 mg/kg#	68
63) ethylmethacrylate	10.18	69	29654	0.0015 mg/kg	94
64) 112Triclotha	10.27	83	11879	0.0009 mg/kg#	78
65) Tetrachlorte	10.48	166	17022	0.0009 mg/kg	96
66) 13Diclorpropa	10.51	76	24369	0.0009 mg/kg	95
68) 2Hexanone	10.62	43	51967	0.0064 mg/kg	88
69) Clorodibrmta	10.80	129	12714	0.0008 mg/kg	98
70) 12Dibrometha	10.96	107	11950	0.0008 mg/kg	98
71) Chlorobenzen	11.63	112	49914	0.0010 mg/kg	90
72) 1Clhexane	11.61	91	20126	0.0008 mg/kg#	62
73) 1112Tetclota	11.73	131	17092	0.0010 mg/kg#	86
74) Ethylbenzene	11.78	91	78244	0.0009 mg/kg	99
75) m p-Xylene	11.95	106	62239	0.0019 mg/kg	100
76) o-Xylene	12.50	106	31320	0.0009 mg/kg	99
77) Styrene	12.53	104	46383	0.0009 mg/kg	100
78) Bromoform	12.76	173	9747	0.0009 mg/kg	89
79) Isopropylben	13.01	105	65706	0.0008 mg/kg	97
81) cyclohexanone	13.13	55	10555	0.0204 mg/kg#	89
83) Bromobenzene	13.45	156	18893	0.0009 mg/kg	97
84) 1122Tetrclta	13.43	83	16653	0.0008 mg/kg	97
85) 123Triclproa	13.49	75	24732	0.0010 mg/kg	94
86) 14dichloro2butene	13.55	53	4542	0.0010 mg/kg#	82
87) n-Propylbenz	13.60	91	88902	0.0009 mg/kg	96
88) 2chlorotolue	13.73	91	54393	0.0009 mg/kg	99
89) 4chlorotolue	13.89	91	62384	0.0009 mg/kg	94
90) 135Trimebenz	13.86	105	59444	0.0009 mg/kg	99
91) tbutylbenzen	14.33	119	47942	0.0008 mg/kg	95
92) 124Trimetben	14.41	105	66012	0.0010 mg/kg	99
93) sbutylbenzen	14.65	105	68714	0.0008 mg/kg	100
94) 13Diclorbenz	14.80	146	37679	0.0010 mg/kg	90
95) pIsopropylto	14.86	119	58454	0.0008 mg/kg	95
96) 14dichlorobe	14.93	146	34372	0.0009 mg/kg	76
97) 12dichlorobe	15.47	146	35130	0.0010 mg/kg	87
98) nButylbenzen	15.46	91	56978	0.0009 mg/kg	97
99) 12dibromo3cl	16.57	157	2693	0.0008 mg/kg#	58
100) 135Trichlorobenzene	16.89	180	27679	0.0010 mg/kg	96
101) 124Trichlobe	17.72	180	26002	0.0010 mg/kg	94

(#) = qualifier out of range (m) = manual integration

Quantitation Report
Data File : C:\INSTARCH\DATA\SEP0419\LLCALS1.D Vial: 5
Acq On : 4 Sep 2019 14:23 Operator: RLD-DGS
Sample : CALIB. PT. 1 Inst : VMS4
Misc : 0.001/0.010 mg/kg, 15.0 ml Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:06:25 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:02:44 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102)	Hexachlorobu	17.93	225	13969	0.0009	mg/kg	91
103)	Naphthalene	18.01	128	46652	0.0009	mg/kg	99
104)	123Trichlben	18.32	180	25127	0.0010	mg/kg	94

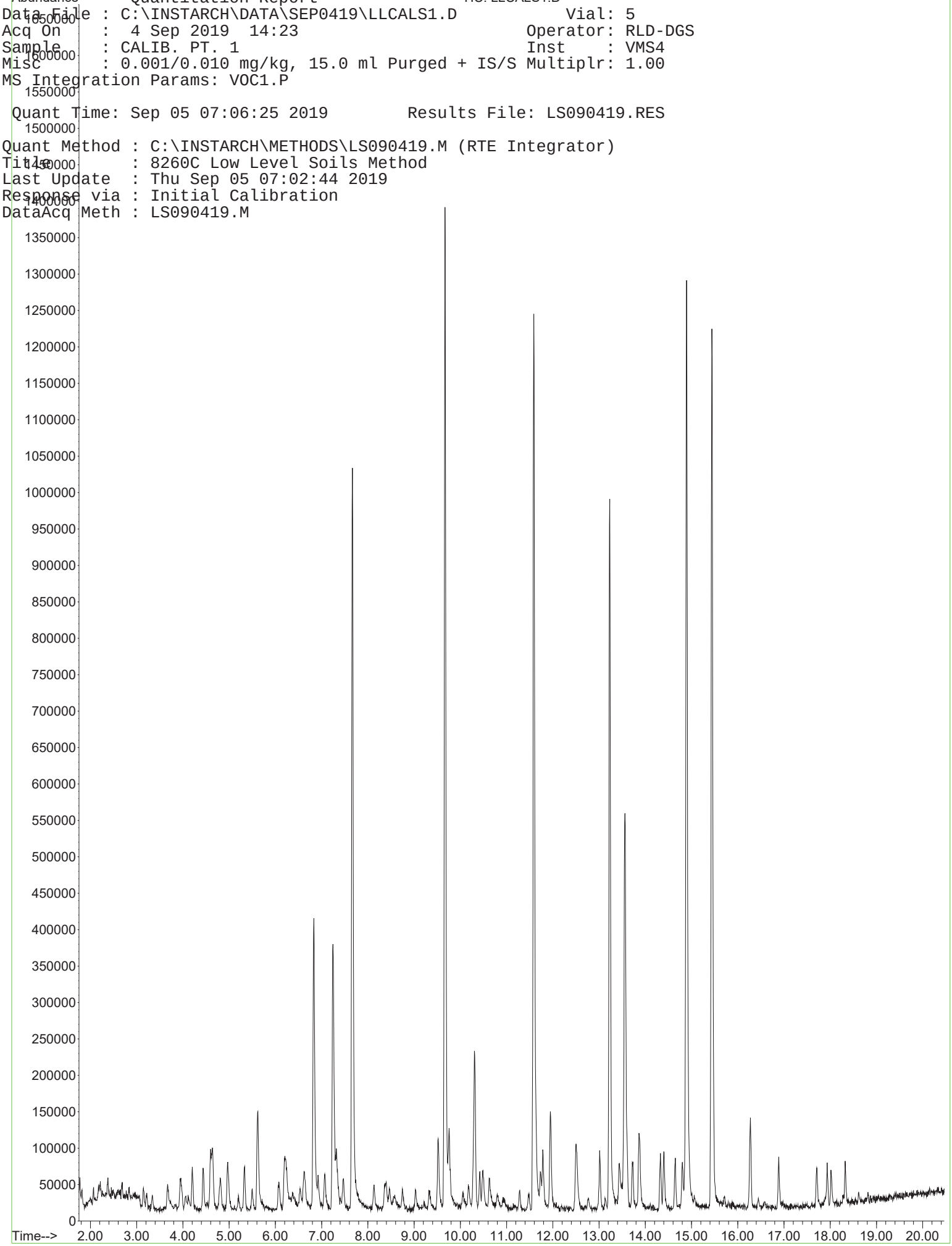
(#) = qualifier out of range (m) = manual integration

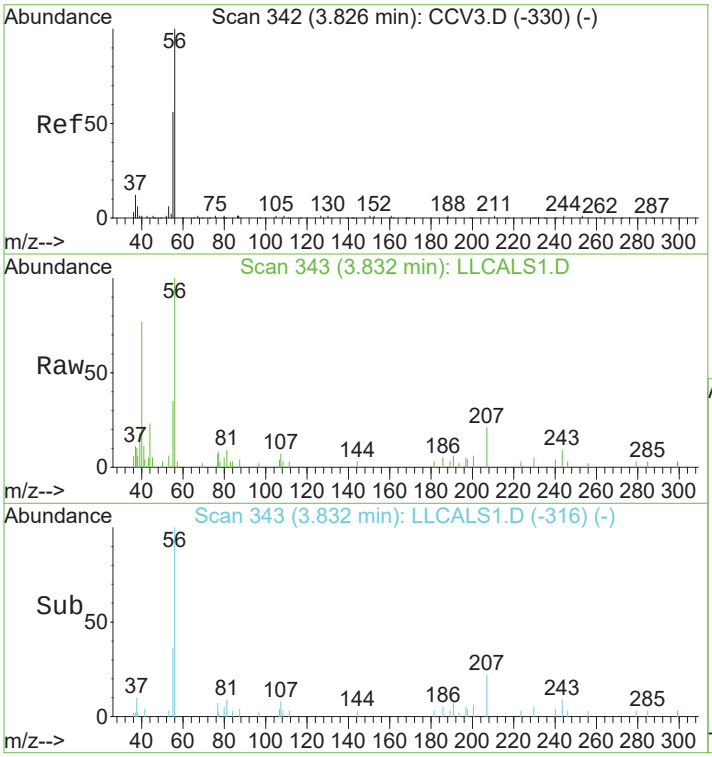
Abundance Quantitation Report TIC: LLCALS1.D

Data File : C:\INSTARCH\DATA\SEP0419\LLCALS1.D Vial: 5
Acq On : 4 Sep 2019 14:23 Operator: RLD-DGS
Sample : CALIB. PT. 1 Inst : VMS4
Misc : 0.001/0.010 mg/kg, 15.0 ml Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:06:25 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:02:44 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

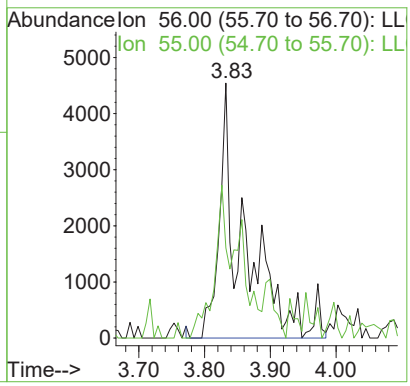




#12
Acrolein
Concen: 0.01 mg/kg m
RT: 3.83 min Scan# 343
Delta R.T. 0.01 min
Lab File: LLCALS1.D
Acq: 4 Sep 2019 14:23

Tgt Ion: 56 Resp: 11630

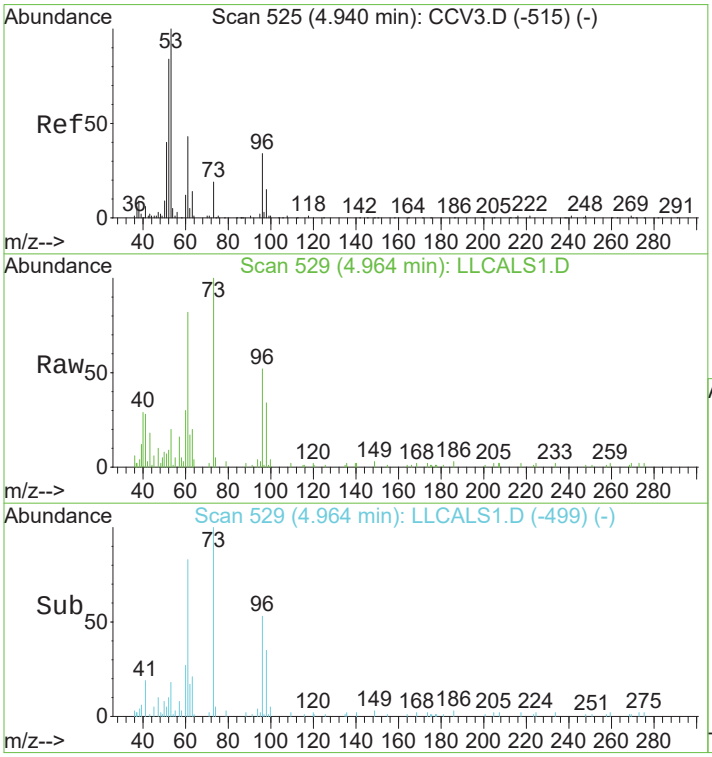
Ion	Ratio	Lower	Upper
56	100		
55	59.2	53.2	93.2



After Manual Integration

RJ 09/10/2019

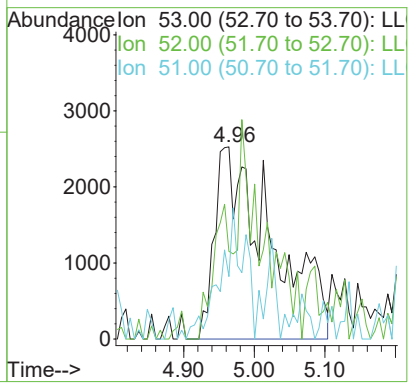
DGS 09/18/2019

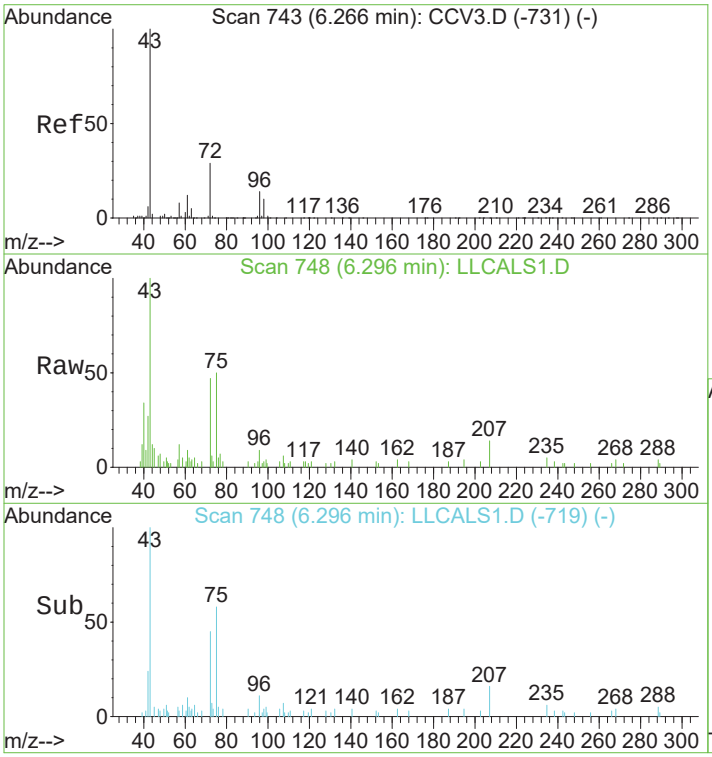


#21
Acrylonitrile
Concen: 0.00 mg/kg m
RT: 4.96 min Scan# 529
Delta R.T. 0.03 min
Lab File: LLCALS1.D
Acq: 4 Sep 2019 14:23

Tgt Ion: 53 Resp: 14146

Ion	Ratio	Lower	Upper
53	100		
52	22.3	63.4	103.4#
51	28.6	16.7	56.7

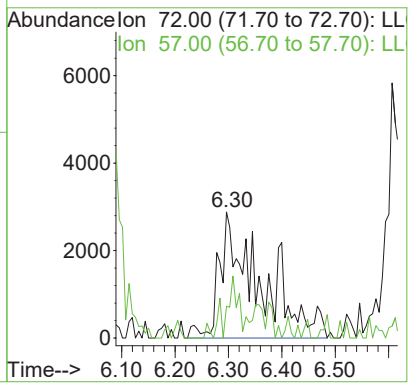




#33
2Butanone
Concen: 0.01 mg/kg m
RT: 6.30 min Scan# 748
Delta R.T. 0.02 min
Lab File: LLCALS1.D
Acq: 4 Sep 2019 14:23

Tgt Ion: 72 Resp: 14926

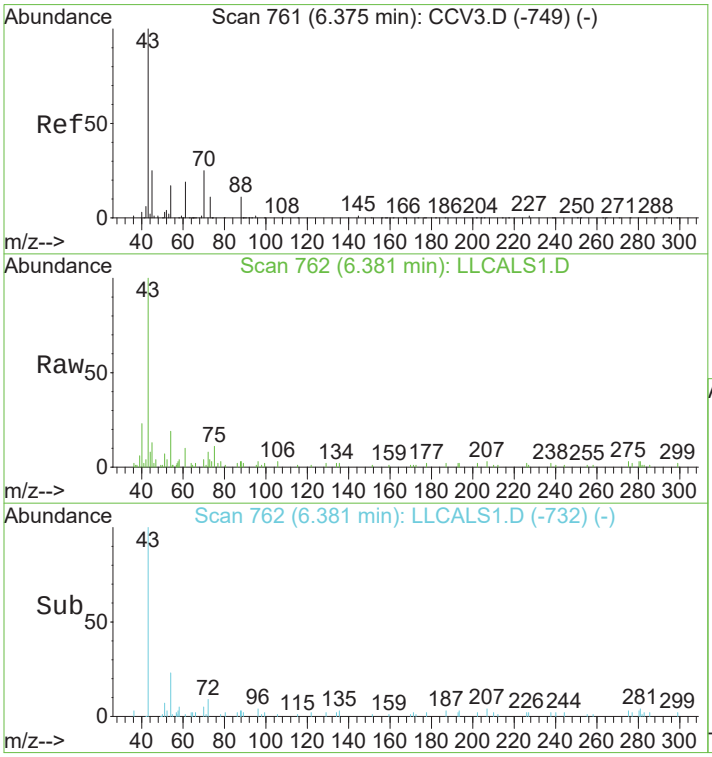
Ion	Ratio	Lower	Upper
72	100		
57	13.6	6.8	46.8



After Manual Integration

RJ 09/10/2019

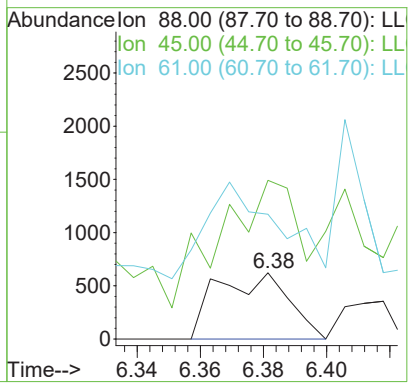
DGS 09/18/2019

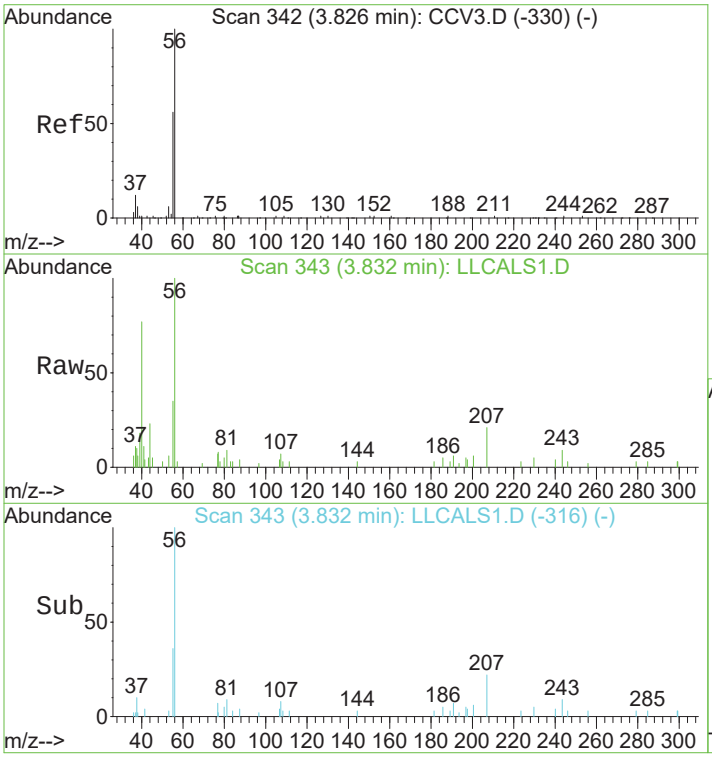


#35
Ethylacetate
Concen: 0.00 mg/kg m
RT: 6.38 min Scan# 762
Delta R.T. 0.03 min
Lab File: LLCALS1.D
Acq: 4 Sep 2019 14:23

Tgt Ion: 88 Resp: 977

Ion	Ratio	Lower	Upper
88	100		
45	0.0	323.2	363.2#
61	0.0	352.6	392.6#

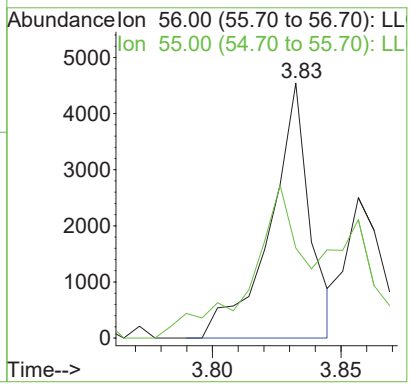




#12
Acrolein
Concen: 0.00 mg/kg
RT: 3.83 min Scan# 343
Delta R.T. 0.01 min
Lab File: LLCALS1.D
Acq: 4 Sep 2019 14:23

Tgt Ion: 56 Resp: 4854

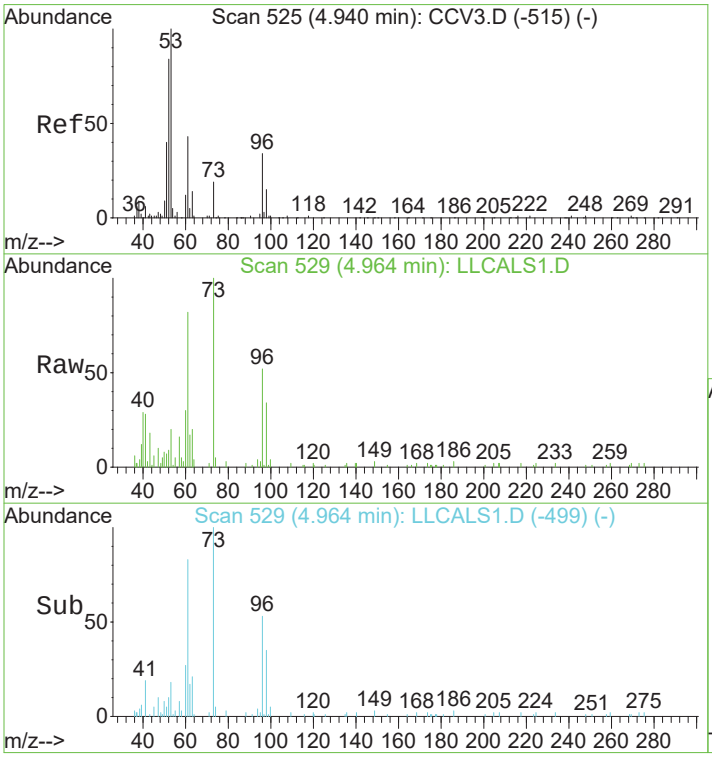
Ion	Ratio	Lower	Upper
56	100		
55	141.8	53.2	93.2#



Before Manual Integration

09/10/2019

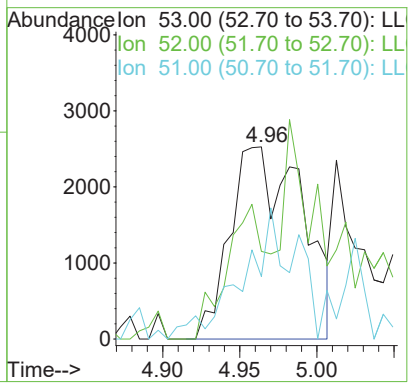
REASON # 2



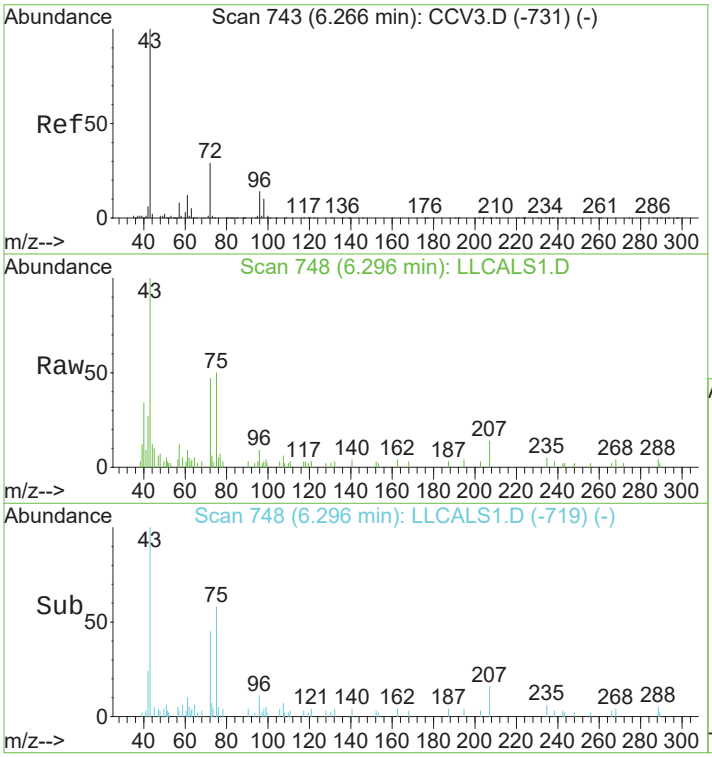
#21
Acrylonitrile
Concen: 0.00 mg/kg
RT: 4.96 min Scan# 529
Delta R.T. 0.03 min
Lab File: LLCALS1.D
Acq: 4 Sep 2019 14:23

Tgt Ion: 53 Resp: 8223

Ion	Ratio	Lower	Upper
53	100		
52	38.4	63.4	103.4#
51	49.2	16.7	56.7



REASON # 2



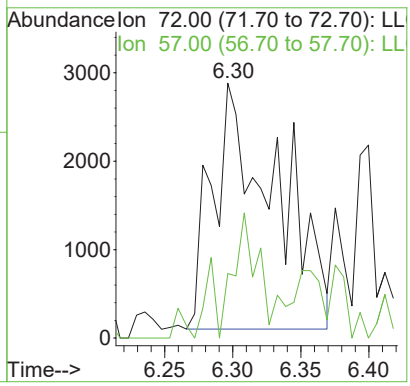
#33
2Butanone
Concen: 0.01 mg/kg
RT: 6.30 min Scan# 748
Delta R.T. 0.02 min
Lab File: LLCALS1.D
Acq: 4 Sep 2019 14:23

Tgt Ion: 72 Resp: 8985

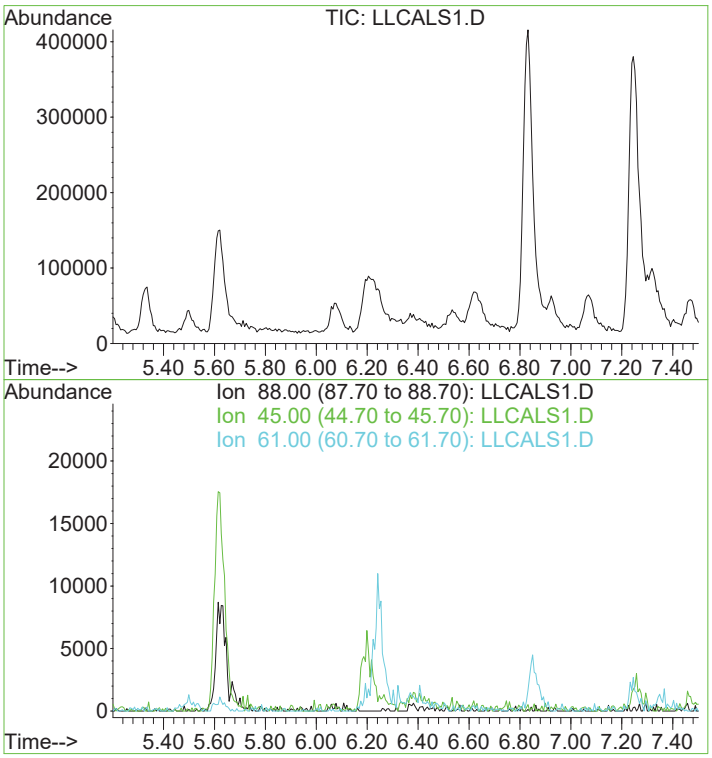
Ion	Ratio	Lower	Upper
72	100		
57	22.5	6.8	46.8

Before Manual Integration

RJ 09/10/2019



REASON # 2



#35
Ethylacetate
Concen: N.D.
Expected RT: 6.35 min

Lab File: LLCALS1.D
Acq: 4 Sep 2019 14:23

Tgt Ion: 88

Sig	Exp Ratio
88	100
45	343.2
61	372.6

REASON # 1

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0419\LLCALS2.D Vial: 6
Acq On : 4 Sep 2019 14:52 Operator: RLD-DGS
Sample : CALIB. PT. 2 Inst : VMS4
Misc : 0.002/0.020 mg/kg, 15.0 ml Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:02:37 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:02:30 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.67	96	1137523	0.02	mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	884110	0.02	mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.89	152	453212	0.02	mg/kg	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	285655	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 100 %			
45) SURR12DCAd4	7.25	102	61639	0.021	mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 105 %			
60) SURRd8Tolule	9.67	98	1155601	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %			
82) SURR4BrFBenz	13.23	95	433477	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 100 %			
Target Compounds						Qvalue
2) Dichlorodi	1.82	85	19211	0.0013	mg/kg	99
3) Chloromethan	2.06	50	33938	0.0020	mg/kg	99
4) VinylChlorid	2.21	62	28424	0.0017	mg/kg	98
5) Bromomethane	2.68	94	18130	0.0021	mg/kg	95
6) Chloroethane	2.84	64	17170	0.0017	mg/kg	100
7) dichloroflmethane	3.15	67	59469	0.0018	mg/kg	97
8) Trichlorofma	3.22	101	31099	0.0013	mg/kg	94
9) Ethylether	3.66	59	23871	0.0020	mg/kg	97
10) dichlorotfluoroethan	3.69	67	27451	0.0016	mg/kg	95
11) propyleneoxide	3.73	58	26904	0.0197	mg/kg	98
12) Acrolein	3.84	56	21335	0.0103	mg/kg#	72
13) 11dichlorthe	3.95	96	22616	0.0016	mg/kg	97
14) Trichlorotfluoroeth	3.97	101	27454	0.0023	mg/kg	93
15) Acetone	4.05	43	67099	0.0201	mg/kg	99
16) Iodomethane	4.12	142	35798	0.0026	mg/kg	97
17) Carbon Dislf	4.20	76	180038	0.0037	mg/kg	97
18) allylchloride	4.43	41	96880	0.0037	mg/kg	98
19) methylacetate	4.51	74	7075	0.0015	mg/kg	84
20) Methylchlorid	4.60	84	65192	0.0026	mg/kg	95
21) Acrylonitrile	4.95	53	29772	0.0092	mg/kg	90
22) t12dichlorte	4.96	96	31901	0.0019	mg/kg	97
23) tbutylalcohol	4.81	59	168166	0.1074	mg/kg	100
24) MtBE	4.98	73	91292	0.0021	mg/kg	97
25) Hexane	5.33	57	50471	0.0026	mg/kg	98
26) 11dichlorota	5.50	63	57286	0.0018	mg/kg	97
27) Vinylacetate	5.60	43	374783	0.0192	mg/kg	99
28) chloroprene	5.62	53	75969	0.0033	mg/kg	97
29) Diisopether	5.61	45	99026	0.0020	mg/kg#	85
30) ETBE	6.07	59	90087	0.0020	mg/kg	97
31) 22dichloropr	6.22	77	55446	0.0020	mg/kg	95
32) c12dichlorte	6.24	96	35328	0.0019	mg/kg	98
33) 2Butanone	6.28	72	20166	0.0149	mg/kg	91
34) propionitrile	6.37	54	18379	0.0148	mg/kg	96
35) Ethylacetate	6.37	88	1933	0.0054	mg/kg#	1
36) methacrylonitrile	6.52	67	18511	0.0040	mg/kg#	78
37) Bromochlorma	6.53	128	16297	0.0023	mg/kg	91
38) Tetrahydofur	6.60	42	67073	0.0204	mg/kg	94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0419\LLCALS2.D Vial: 6
Acq On : 4 Sep 2019 14:52 Operator: RLD-DGS
Sample : CALIB. PT. 2 Inst : VMS4
Misc : 0.002/0.020 mg/kg, 15.0 ml Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:02:37 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:02:30 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	6.63	83	60151	0.0019 mg/kg	94
40) 111trichlota	6.86	97	44567	0.0016 mg/kg	98
42) Cyclohexane	6.93	56	23211	0.0010 mg/kg#	79
43) Carbtetraclo	7.07	119	31356	0.0015 mg/kg	91
44) 11dicloprope	7.07	110	12357	0.0016 mg/kg#	89
46) Benzene	7.32	78	139953	0.0020 mg/kg#	80
47) 12dichlorota	7.34	62	40999	0.0020 mg/kg	98
48) TAME	7.47	73	83941	0.0020 mg/kg	94
49) trichloroete	8.13	95	32107	0.0018 mg/kg	96
50) methylcyclohexane	8.37	83	27642	0.0011 mg/kg	93
51) 12dicloropra	8.40	63	38232	0.0021 mg/kg	89
52) 23dicl1propene	8.47	75	49869	0.0018 mg/kg	99
53) Dibromometha	8.56	93	19069	0.0021 mg/kg	95
54) methylmethacrylate	8.58	69	13327	0.0016 mg/kg	92
55) 14dioxane	8.60	88	11406	0.0802 mg/kg#	76
56) Bromodiclrma	8.75	83	43015	0.0018 mg/kg	97
57) 2Nitropropane	9.02	43	59383	0.0183 mg/kg	99
58) c13dicloproe	9.33	75	54060	0.0020 mg/kg	91
59) 4Meth2Pentan	9.51	43	219888	0.0200 mg/kg	97
61) Toluene	9.76	92	90506	0.0019 mg/kg	95
62) t13Dicloprop	10.05	75	42870	0.0018 mg/kg	97
63) ethylmethacrylate	10.18	69	65483	0.0037 mg/kg	94
64) 112Triclotha	10.28	83	24335	0.0020 mg/kg	91
65) Tetrachlorte	10.49	166	28471	0.0016 mg/kg	97
66) 13Diclorpropa	10.49	76	48551	0.0020 mg/kg	97
68) 2Hexanone	10.62	43	140589	0.0189 mg/kg	99
69) Clorodibrmta	10.80	129	27701	0.0019 mg/kg	93
70) 12Dibrometha	10.96	107	24298	0.0019 mg/kg	96
71) Chlorobenzen	11.63	112	88285	0.0019 mg/kg	92
72) 1Clhexane	11.60	91	28015	0.0013 mg/kg#	72
73) 1112Tetclota	11.73	131	29909	0.0019 mg/kg	95
74) Ethylbenzene	11.79	91	150132	0.0019 mg/kg	95
75) m p-Xylene	11.94	106	110396	0.0037 mg/kg	99
76) o-Xylene	12.51	106	55374	0.0018 mg/kg	92
77) Styrene	12.53	104	96604	0.0020 mg/kg	98
78) Bromoform	12.76	173	18622	0.0018 mg/kg	96
79) Isopropylben	13.02	105	123268	0.0017 mg/kg	98
81) cyclohexanone	13.15	55	18007	0.0380 mg/kg	97
83) Bromobenzene	13.44	156	35747	0.0019 mg/kg	95
84) 1122Tetrclta	13.43	83	35143	0.0020 mg/kg	83
85) 123Triclproa	13.49	75	54739	0.0025 mg/kg	85
86) 14dichloro2butene	13.53	53	7739	0.0019 mg/kg	93
87) n-Propylbenz	13.60	91	157983	0.0018 mg/kg	100
88) 2chlorotolue	13.72	91	102781	0.0019 mg/kg	99
89) 4chlorotolue	13.88	91	113427	0.0019 mg/kg	98
90) 135Trimebenz	13.86	105	118291	0.0019 mg/kg	98
91) tbutylbenzen	14.33	119	94501	0.0018 mg/kg	98
92) 124Trimetben	14.40	105	123710	0.0020 mg/kg	99
93) sbutylbenzen	14.64	105	134653	0.0017 mg/kg	99
94) 13Diclorbenz	14.80	146	67385	0.0020 mg/kg	97
95) pIsopropylto	14.87	119	106100	0.0017 mg/kg	97
96) 14dichlorobe	14.93	146	71659	0.0021 mg/kg	97
97) 12dichlorobe	15.47	146	68002	0.0021 mg/kg	94
98) nButylbenzen	15.46	91	103919	0.0017 mg/kg	96
99) 12dibromo3cl	16.58	157	6207	0.0019 mg/kg	90
100) 135Trichlorobenzene	16.88	180	51234	0.0020 mg/kg	97
101) 124Trichlobe	17.70	180	47499	0.0021 mg/kg	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report
Data File : C:\INSTARCH\DATA\SEP0419\LLCALS2.D Vial: 6
Acq On : 4 Sep 2019 14:52 Operator: RLD-DGS
Sample : CALIB. PT. 2 Inst : VMS4
Misc : 0.002/0.020 mg/kg, 15.0 ml Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:02:37 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:02:30 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102)	Hexachlorobu	17.93	225	24989	0.0017 mg/kg	94
103)	Naphthalene	18.02	128	90895	0.0020 mg/kg	99
104)	123Trichlben	18.32	180	45072	0.0021 mg/kg	98

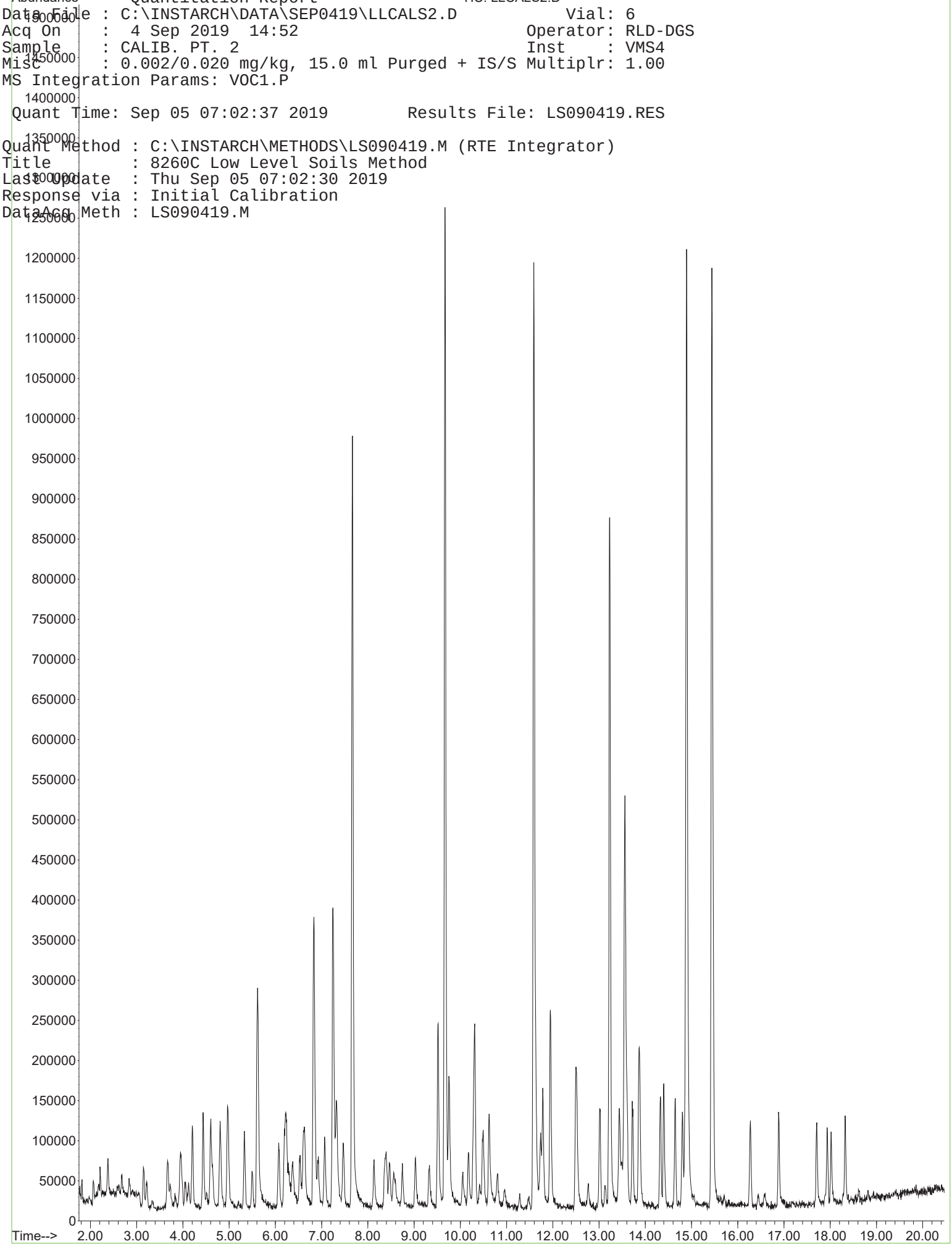
(#) = qualifier out of range (m) = manual integration

Abundance Quantitation Report TIC: LLCALS2.D

Data File : C:\INSTARCH\DATA\SEP0419\LLCALS2.D Vial: 6
Acq On : 4 Sep 2019 14:52 Operator: RLD-DGS
Sample : CALIB. PT. 2 Inst : VMS4
Misc : 0.002/0.020 mg/kg, 15.0 ml Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:02:37 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:02:30 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M



Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0419\LLCALS3.D Vial: 7
Acq On : 4 Sep 2019 15:21 Operator: RLD-DGS
Sample : CALIB. PT. 3 Inst : VMS4
Misc : 0.005/0.050 mg/kg, 15.0 ml Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:01:10 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:01:03 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1117627	0.02	mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	875664	0.02	mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.89	152	456645	0.02	mg/kg	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	286760	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 100 %			
45) SURR12DCAd4	7.25	102	59340	0.020	mg/kg	0.01
Spiked Amount 0.020	Range 71 - 136		Recovery = 100 %			
60) SURRd8Tolule	9.67	98	1158711	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %			
82) SURR4BrFBenz	13.23	95	428726	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 100 %			
Target Compounds						Qvalue
2) Dichlorodi	1.82	85	57073	0.0046	mg/kg	99
3) Chloromethan	2.07	50	93682	0.0054	mg/kg	99
4) VinylChlorid	2.21	62	82257	0.0056	mg/kg	97
5) Bromomethane	2.68	94	43119	0.0049	mg/kg	95
6) Chloroethane	2.83	64	50873	0.0052	mg/kg	99
7) dichloroflmethane	3.15	67	170430	0.0057	mg/kg	97
8) Trichlorofma	3.22	101	102291	0.0051	mg/kg	97
9) Ethylether	3.66	59	56487	0.0051	mg/kg	93
10) dichlorotfluoroethan	3.68	67	81769	0.0053	mg/kg	94
11) propyleneoxide	3.73	58	62800	0.0502	mg/kg	94
12) Acrolein	3.83	56	52225	0.0302	mg/kg	96
13) 11dichlorthe	3.94	96	72129	0.0058	mg/kg	94
14) Trichlorotfluoroeth	3.97	101	96562	0.0103	mg/kg	98
15) Acetone	4.05	43	164431	0.0480	mg/kg	100
16) Iodomethane	4.13	142	125499	0.0120	mg/kg	96
17) Carbon Dislf	4.20	76	497542	0.0107	mg/kg	97
18) allylchloride	4.44	41	272661	0.0110	mg/kg	98
19) methylacetate	4.51	74	23052	0.0062	mg/kg	91
20) Methylchlorid	4.60	84	127912	0.0040	mg/kg	96
21) Acrylonitrile	4.93	53	85836	0.0340	mg/kg	89
22) t12dichlorte	4.96	96	91919	0.0060	mg/kg	96
23) tbutylalcohol	4.80	59	413526	0.2722	mg/kg	98
24) MtBE	4.98	73	222026	0.0053	mg/kg	98
25) Hexane	5.33	57	163651	0.0097	mg/kg	96
26) 11dichlorota	5.50	63	168452	0.0057	mg/kg	97
27) Vinylacetate	5.60	43	1022422	0.0570	mg/kg	99
28) chloroprene	5.62	53	222444	0.0110	mg/kg	100
29) Diisopether	5.61	45	254298	0.0054	mg/kg#	92
30) ETBE	6.08	59	226634	0.0053	mg/kg	97
31) 22dichloropr	6.22	77	141652	0.0052	mg/kg	96
32) c12dichlorte	6.24	96	94235	0.0055	mg/kg	97
33) 2Butanone	6.28	72	70433	0.0673	mg/kg	97
34) propionitrile	6.34	54	60405	0.0690	mg/kg	92
35) Ethylacetate	6.37	88	7080	0.0283	mg/kg#	65
36) methacrylonitrile	6.53	67	48296	0.0138	mg/kg	88
37) Bromochlorma	6.53	128	33506	0.0049	mg/kg#	87
38) Tetrahydofur	6.60	42	160043	0.0512	mg/kg	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0419\LLCALS3.D Vial: 7
Acq On : 4 Sep 2019 15:21 Operator: RLD-DGS
Sample : CALIB. PT. 3 Inst : VMS4
Misc : 0.005/0.050 mg/kg, 15.0 ml Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:01:10 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:01:03 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.63	83	174628	0.0058	mg/kg	98
40)	111trichlota	6.86	97	135477	0.0057	mg/kg	99
42)	Cyclohexane	6.92	56	90407	0.0051	mg/kg	98
43)	Carbtetraclo	7.07	119	96020	0.0055	mg/kg	100
44)	11dicloprope	7.08	110	36787	0.0055	mg/kg	99
46)	Benzene	7.32	78	370914	0.0054	mg/kg	98
47)	12dichlorota	7.34	62	103445	0.0057	mg/kg	98
48)	TAME	7.46	73	214818	0.0053	mg/kg	99
49)	trichloroete	8.13	95	89388	0.0056	mg/kg	99
50)	methylcyclohexane	8.37	83	101144	0.0050	mg/kg	96
51)	12dicloropra	8.39	63	95387	0.0056	mg/kg	95
52)	23dicl1propene	8.47	75	139176	0.0057	mg/kg	97
53)	Dibromometha	8.55	93	46827	0.0056	mg/kg	98
54)	methylmethacrylate	8.57	69	36974	0.0056	mg/kg	95
55)	14dioxane	8.59	88	35014	0.2835	mg/kg	88
56)	Bromodiclrma	8.75	83	117350	0.0054	mg/kg	95
57)	2Nitropropane	9.02	43	156557	0.0566	mg/kg	97
58)	c13dicloproe	9.33	75	133790	0.0052	mg/kg	99
59)	4Meth2Pentan	9.51	43	578819	0.0555	mg/kg	98
61)	Toluene	9.75	92	251681	0.0057	mg/kg	96
62)	t13Dicloprop	10.04	75	115044	0.0055	mg/kg	96
63)	ethylmethacrylate	10.17	69	172531	0.0109	mg/kg	98
64)	112Triclotha	10.27	83	57923	0.0050	mg/kg	93
65)	Tetrachlorte	10.48	166	80615	0.0051	mg/kg	91
66)	13Diclorpropa	10.50	76	125957	0.0054	mg/kg	97
68)	2Hexanone	10.62	43	379581	0.0583	mg/kg	99
69)	Clorodibrmta	10.80	129	70706	0.0053	mg/kg	100
70)	12Dibrometha	10.96	107	63844	0.0053	mg/kg	96
71)	Chlorobenzen	11.63	112	243938	0.0055	mg/kg	96
72)	1Clhexane	11.59	91	104201	0.0055	mg/kg	98
73)	1112Tetclota	11.73	131	78597	0.0051	mg/kg	97
74)	Ethylbenzene	11.78	91	429240	0.0057	mg/kg	100
75)	m p-Xylene	11.95	106	318222	0.0112	mg/kg	99
76)	o-Xylene	12.50	106	154680	0.0054	mg/kg	91
77)	Styrene	12.52	104	242546	0.0052	mg/kg	98
78)	Bromoform	12.76	173	50699	0.0056	mg/kg	92
79)	Isopropylben	13.02	105	385347	0.0058	mg/kg	99
81)	cyclohexanone	13.13	55	47621	0.0991	mg/kg	95
83)	Bromobenzene	13.44	156	99755	0.0056	mg/kg	91
84)	1122Tetrclta	13.43	83	91940	0.0053	mg/kg	90
85)	123Triclproa	13.49	75	98684	0.0042	mg/kg	96
86)	14dichloro2butene	13.52	53	20794	0.0053	mg/kg	91
87)	n-Propylbenz	13.60	91	461887	0.0055	mg/kg	100
88)	2chlorotolue	13.72	91	282754	0.0055	mg/kg	97
89)	4chlorotolue	13.88	91	315654	0.0054	mg/kg	100
90)	135Trimebenz	13.86	105	340709	0.0058	mg/kg	100
91)	tbutylbenzen	14.33	119	274628	0.0056	mg/kg	99
92)	124Trimetben	14.40	105	338993	0.0054	mg/kg	98
93)	sbutylbenzen	14.65	105	395512	0.0055	mg/kg	99
94)	13Diclorbenz	14.80	146	177117	0.0052	mg/kg	99
95)	pIsopropylto	14.86	119	323623	0.0055	mg/kg	99
96)	14dichlorobe	14.93	146	178305	0.0053	mg/kg	97
97)	12dichlorobe	15.47	146	164990	0.0050	mg/kg	98
98)	nButylbenzen	15.46	91	315800	0.0056	mg/kg	97
99)	12dibromo3cl	16.58	157	15979	0.0055	mg/kg	90
100)	135Trichlorobenzene	16.88	180	135583	0.0053	mg/kg	96
101)	124Trichlobe	17.70	180	119740	0.0051	mg/kg	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0419\LLCALS3.D Vial: 7
Acq On : 4 Sep 2019 15:21 Operator: RLD-DGS
Sample : CALIB. PT. 3 Inst : VMS4
Misc : 0.005/0.050 mg/kg, 15.0 ml Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:01:10 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:01:03 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) Hexachlorobu	17.93	225	70377	0.0052 mg/kg	94
103) Naphthalene	18.02	128	243112	0.0055 mg/kg	98
104) 123Trichlben	18.32	180	110295	0.0049 mg/kg	95

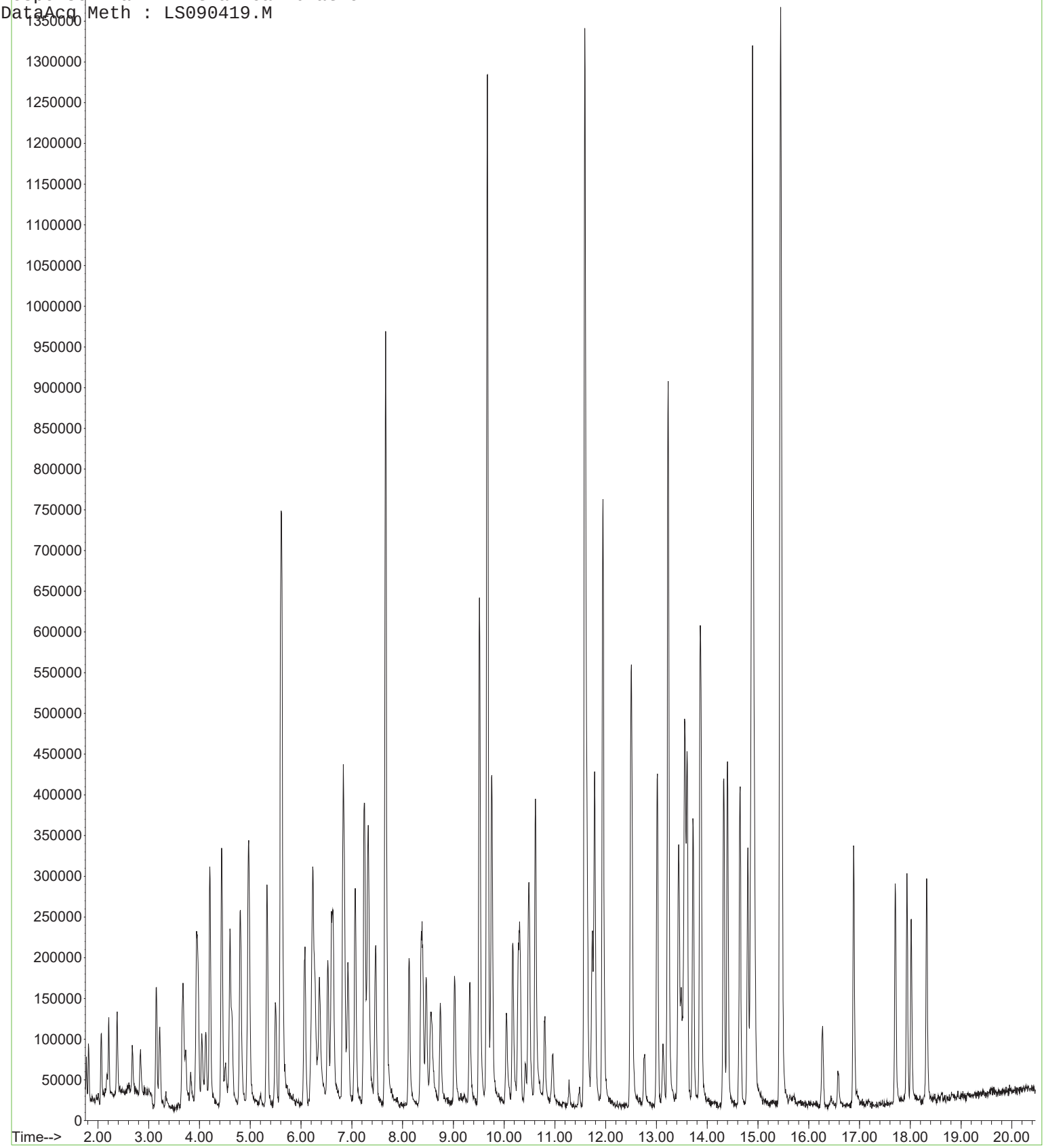
(#) = qualifier out of range (m) = manual integration

Abundance Quantitation Report TIC: LLCALS3.D

Data File : C:\INSTARCH\DATA\SEP0419\LLCALS3.D Vial: 7
Acq On : 4 Sep 2019 15:21 Operator: RLD-DGS
Sample : CALIB. PT. 3 Inst : VMS4
Misc : 0.005/0.050 mg/kg, 15.0 ml Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:01:10 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:01:03 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M



Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0419\LLCALS4.D Vial: 8
Acq On : 4 Sep 2019 15:50 Operator: RLD-DGS
Sample : CALIB. PT. 4 Inst : VMS4
Misc : 0.010/0.100 mg/kg, 15.0 ml Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:01:23 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:01:17 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.67	96	1105461	0.02	mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	847393	0.02	mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.89	152	446496	0.02	mg/kg	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	278185	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 100 %			
45) SURR12DCAd4	7.24	102	55068	0.019	mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 95 %			
60) SURRd8Tolule	9.67	98	1135522	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %			
82) SURR4BrFBenz	13.23	95	421215	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 100 %			
Target Compounds						Qvalue
2) Dichlorodi	1.82	85	168882	0.0140	mg/kg	100
3) Chloromethan	2.06	50	161344	0.0093	mg/kg	100
4) VinylChlorid	2.21	62	170860	0.0114	mg/kg	100
5) Bromomethane	2.68	94	75389	0.0086	mg/kg	100
6) Chloroethane	2.84	64	104056	0.0106	mg/kg	100
7) dichloroflmethane	3.14	67	325487	0.0106	mg/kg	100
8) Trichlorofma	3.21	101	269184	0.0135	mg/kg	99
9) Ethylether	3.66	59	114991	0.0105	mg/kg	100
10) dichlorotfluoroethan	3.68	67	192819	0.0124	mg/kg	100
11) propyleneoxide	3.72	58	134828	0.1089	mg/kg	100
12) Acrolein	3.82	56	109996	0.0611	mg/kg	100
13) 11dichlorthe	3.94	96	147478	0.0116	mg/kg	100
14) Trichlorotfluoroeth	3.97	101	284598	0.0304	mg/kg	100
15) Acetone	4.04	43	310505	0.0926	mg/kg	100
16) Iodomethane	4.12	142	265093	0.0244	mg/kg	100
17) Carbon Dislf	4.20	76	1018933	0.0218	mg/kg	100
18) allylchloride	4.43	41	513363	0.0205	mg/kg	100
19) methylacetate	4.51	74	41650	0.0107	mg/kg	100
20) Methylchlorid	4.60	84	195701	0.0065	mg/kg	100
21) Acrylonitrile	4.93	53	157335	0.0578	mg/kg	99
22) t12dichlorte	4.96	96	170642	0.0107	mg/kg	100
23) tbutylalcohol	4.81	59	754633	0.4913	mg/kg	100
24) MtBE	4.98	73	429457	0.0102	mg/kg	100
25) Hexane	5.33	57	442760	0.0268	mg/kg	100
26) 11dichlorota	5.50	63	297337	0.0098	mg/kg	100
27) Vinylacetate	5.59	43	2054951	0.1119	mg/kg	100
28) chloroprene	5.62	53	479276	0.0234	mg/kg	100
29) Diisopether	5.62	45	481978	0.0101	mg/kg	100
30) ETBE	6.07	59	441286	0.0102	mg/kg	100
31) 22dichloropr	6.22	77	268363	0.0098	mg/kg	100
32) c12dichlorte	6.24	96	178392	0.0102	mg/kg	99
33) 2Butanone	6.27	72	133874	0.1190	mg/kg	100
34) propionitrile	6.34	54	132264	0.1395	mg/kg	100
35) Ethylacetate	6.35	88	19008	0.0744	mg/kg	99
36) methacrylonitrile	6.52	67	92207	0.0244	mg/kg	99
37) Bromochlorma	6.53	128	70608	0.0105	mg/kg	100
38) Tetrahydofur	6.60	42	319218	0.1026	mg/kg	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0419\LLCALS4.D Vial: 8
Acq On : 4 Sep 2019 15:50 Operator: RLD-DGS
Sample : CALIB. PT. 4 Inst : VMS4
Misc : 0.010/0.100 mg/kg, 15.0 ml Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:01:23 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:01:17 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	6.63	83	313671	0.0102 mg/kg	100
40) 111trichlota	6.86	97	280756	0.0116 mg/kg	100
42) Cyclohexane	6.92	56	256964	0.0146 mg/kg	100
43) Carbtetraclo	7.07	119	224979	0.0126 mg/kg	100
44) 11dicloprope	7.07	110	79298	0.0117 mg/kg	100
46) Benzene	7.32	78	700165	0.0101 mg/kg	100
47) 12dichlorota	7.34	62	199052	0.0107 mg/kg	100
48) TAME	7.47	73	417641	0.0102 mg/kg	100
49) trichloroete	8.12	95	172166	0.0106 mg/kg	100
50) methylcyclohexane	8.36	83	306114	0.0154 mg/kg	100
51) 12dicloropra	8.40	63	175055	0.0100 mg/kg	100
52) 23dicl1propene	8.46	75	268600	0.0107 mg/kg	99
53) Dibromometha	8.55	93	89943	0.0105 mg/kg	99
54) methylmethacrylate	8.57	69	80120	0.0119 mg/kg	99
55) 14dioxane	8.58	88	66818	0.5292 mg/kg	100
56) Bromodiclrma	8.75	83	228629	0.0104 mg/kg	100
57) 2Nitropropane	9.02	43	297550	0.1053 mg/kg	100
58) c13dicloproe	9.32	75	268760	0.0105 mg/kg	100
59) 4Meth2Pentan	9.51	43	1091038	0.1029 mg/kg	100
61) Toluene	9.76	92	444844	0.0099 mg/kg	100
62) t13Dicloprop	10.04	75	220390	0.0104 mg/kg	100
63) ethylmethacrylate	10.17	69	354615	0.0222 mg/kg	99
64) 112Triclotha	10.27	83	117663	0.0103 mg/kg	100
65) Tetrachlorte	10.48	166	177912	0.0113 mg/kg	100
66) 13Diclorpropa	10.50	76	232753	0.0100 mg/kg	100
68) 2Hexanone	10.61	43	757970	0.1156 mg/kg	100
69) Clorodibrmta	10.80	129	143866	0.0110 mg/kg	100
70) 12Dibrometha	10.96	107	130263	0.0110 mg/kg	100
71) Chlorobenzen	11.63	112	427884	0.0097 mg/kg	100
72) 1Clhexane	11.60	91	233854	0.0125 mg/kg	100
73) 1112Tetclota	11.74	131	152074	0.0102 mg/kg	100
74) Ethylbenzene	11.78	91	790247	0.0104 mg/kg	100
75) m p-Xylene	11.94	106	576404	0.0203 mg/kg	100
76) o-Xylene	12.49	106	294715	0.0104 mg/kg	100
77) Styrene	12.52	104	476429	0.0105 mg/kg	100
78) Bromoform	12.76	173	88181	0.0098 mg/kg	100
79) Isopropylben	13.01	105	753911	0.0113 mg/kg	100
81) cyclohexanone	13.13	55	98232	0.2096 mg/kg	100
83) Bromobenzene	13.44	156	179314	0.0100 mg/kg	100
84) 1122Tetrclta	13.43	83	185806	0.0108 mg/kg	100
85) 123Triclproa	13.49	75	189502	0.0087 mg/kg	100
86) 14dichloro2butene	13.52	53	35493	0.0092 mg/kg	100
87) n-Propylbenz	13.60	91	897945	0.0106 mg/kg	100
88) 2chlorotolue	13.72	91	514946	0.0100 mg/kg	100
89) 4chlorotolue	13.88	91	604645	0.0103 mg/kg	100
90) 135Trimebenz	13.86	105	615281	0.0103 mg/kg	100
91) tbutylbenzen	14.33	119	550157	0.0111 mg/kg	100
92) 124Trimetben	14.40	105	628363	0.0101 mg/kg	100
93) sbutylbenzen	14.64	105	814153	0.0114 mg/kg	100
94) 13Diclorbenz	14.80	146	328094	0.0098 mg/kg	100
95) pIsopropylto	14.86	119	662625	0.0113 mg/kg	100
96) 14dichlorobe	14.93	146	322514	0.0097 mg/kg	100
97) 12dichlorobe	15.47	146	308742	0.0096 mg/kg	100
98) nButylbenzen	15.46	91	634742	0.0112 mg/kg	100
99) 12dibromo3cl	16.58	157	30167	0.0104 mg/kg	100
100) 135Trichlorobenzene	16.89	180	254787	0.0100 mg/kg	100
101) 124Trichlobe	17.70	180	222678	0.0096 mg/kg	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0419\LLCALS4.D Vial: 8
Acq On : 4 Sep 2019 15:50 Operator: RLD-DGS
Sample : CALIB. PT. 4 Inst : VMS4
Misc : 0.010/0.100 mg/kg, 15.0 ml Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:01:23 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:01:17 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

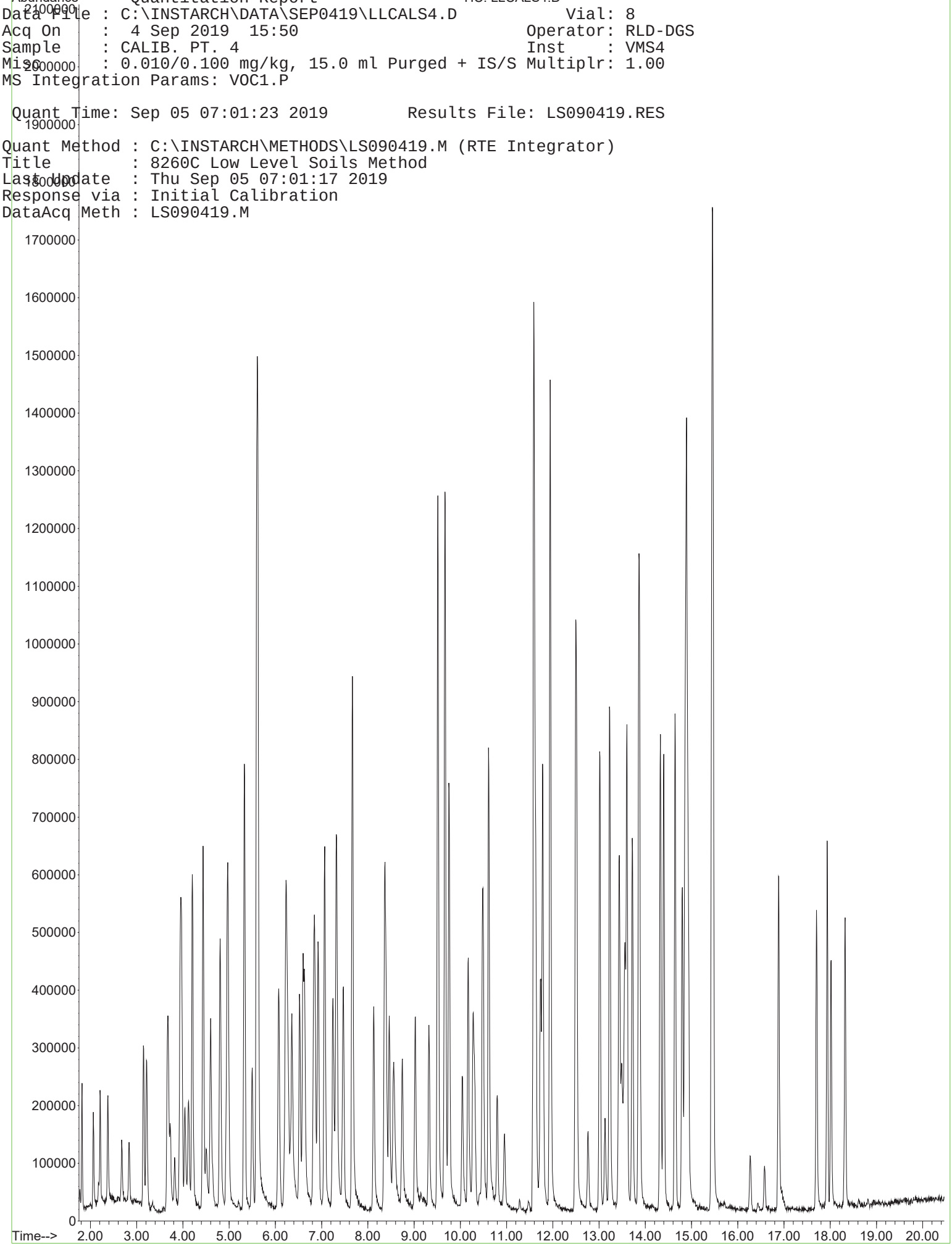
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) Hexachlorobu	17.93	225	149798	0.0112 mg/kg	100
103) Naphthalene	18.01	128	435925	0.0098 mg/kg	100
104) 123Trichlben	18.32	180	213800	0.0097 mg/kg	100

(#) = qualifier out of range (m) = manual integration

Data File : C:\INSTARCH\DATA\SEP0419\LLCALS4.D Vial: 8
Acq On : 4 Sep 2019 15:50 Operator: RLD-DGS
Sample : CALIB. PT. 4 Inst : VMS4
Misc : 0.010/0.100 mg/kg, 15.0 ml Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:01:23 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:01:17 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M



Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0419\LLCALS5.D Vial: 9
Acq On : 4 Sep 2019 16:19 Operator: RLD-DGS
Sample : CALIB. PT. 5 Inst : VMS4
Misc : 0.020/0.200 mg/kg, 15.0 ml Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:01:35 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:01:29 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.67	96	1160719	0.02	mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	889086	0.02	mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.89	152	468187	0.02	mg/kg	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	285795	0.019	mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 95 %			
45) SURR12DCAd4	7.25	102	59149	0.020	mg/kg	0.01
Spiked Amount 0.020	Range 71 - 136		Recovery = 100 %			
60) SURRd8Tolule	9.67	98	1170139	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %			
82) SURR4BrFBenz	13.23	95	454785	0.021	mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 105 %			
Target Compounds						Qvalue
2) Dichlorodi	1.82	85	340267	0.0268	mg/kg	97
3) Chloromethan	2.06	50	340429	0.0186	mg/kg	96
4) VinylChlorid	2.21	62	351704	0.0224	mg/kg	100
5) Bromomethane	2.68	94	157486	0.0172	mg/kg	99
6) Chloroethane	2.83	64	206682	0.0201	mg/kg	97
7) dichloroflmethane	3.14	67	673829	0.0208	mg/kg	99
8) Trichlorofma	3.21	101	559618	0.0268	mg/kg	96
9) Ethylether	3.66	59	254306	0.0220	mg/kg	97
10) dichlorotfluoroethan	3.68	67	396663	0.0243	mg/kg	98
11) propyleneoxide	3.73	58	319994	0.2459	mg/kg	96
12) Acrolein	3.81	56	234541	0.1239	mg/kg	93
13) 11dichlorthe	3.94	96	311044	0.0232	mg/kg	98
14) Trichlorotfluoroeth	3.97	101	597436	0.0606	mg/kg	99
15) Acetone	4.04	43	688439	0.1954	mg/kg	98
16) Iodomethane	4.12	142	650621	0.0571	mg/kg	99
17) Carbon Dislf	4.20	76	2105288	0.0428	mg/kg	98
18) allylchloride	4.43	41	1087906	0.0413	mg/kg	100
19) methylacetate	4.50	74	104761	0.0256	mg/kg	95
20) Methylchlorid	4.60	84	399561	0.0127	mg/kg	99
21) Acrylonitrile	4.93	53	373030	0.1303	mg/kg	99
22) t12dichlorte	4.96	96	351876	0.0210	mg/kg	97
23) tbutylalcohol	4.81	59	1728294	1.0697	mg/kg	99
24) MtBE	4.98	73	939336	0.0212	mg/kg	100
25) Hexane	5.33	57	950671	0.0548	mg/kg	96
26) 11dichlorota	5.50	63	639741	0.0200	mg/kg	99
27) Vinylacetate	5.59	43	4555982	0.2362	mg/kg	100
28) chloroprene	5.62	53	1009422	0.0468	mg/kg	99
29) Diisopether	5.61	45	1036059	0.0207	mg/kg	96
30) ETBE	6.07	59	940428	0.0208	mg/kg	99
31) 22dichloropr	6.22	77	574823	0.0200	mg/kg	99
32) c12dichlorte	6.24	96	397057	0.0216	mg/kg	97
33) 2Butanone	6.26	72	322213	0.2718	mg/kg	99
34) propionitrile	6.33	54	307434	0.3075	mg/kg	99
35) Ethylacetate	6.36	88	46650	0.1737	mg/kg	97
36) methacrylonitrile	6.52	67	221113	0.0556	mg/kg	99
37) Bromochlorma	6.53	128	154991	0.0219	mg/kg	97
38) Tetrahydofur	6.59	42	734153	0.2246	mg/kg	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0419\LLCALS5.D Vial: 9
Acq On : 4 Sep 2019 16:19 Operator: RLD-DGS
Sample : CALIB. PT. 5 Inst : VMS4
Misc : 0.020/0.200 mg/kg, 15.0 ml Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:01:35 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:01:29 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	6.63	83	675143	0.0209 mg/kg	96
40) 111trichlota	6.85	97	600164	0.0236 mg/kg	98
42) Cyclohexane	6.93	56	544410	0.0294 mg/kg	98
43) Carbtetraclo	7.07	119	471661	0.0252 mg/kg	99
44) 11dicloprope	7.07	110	172019	0.0242 mg/kg	97
46) Benzene	7.32	78	1500346	0.0207 mg/kg	99
47) 12dichlorota	7.34	62	438845	0.0224 mg/kg	97
48) TAME	7.47	73	915639	0.0213 mg/kg	99
49) trichloroete	8.12	95	371027	0.0217 mg/kg	98
50) methylcyclohexane	8.36	83	652631	0.0311 mg/kg	99
51) 12dicloropra	8.40	63	377299	0.0206 mg/kg	99
52) 23dicl1propene	8.46	75	573962	0.0218 mg/kg	96
53) Dibromometha	8.55	93	196528	0.0219 mg/kg	94
54) methylmethacrylate	8.57	69	200298	0.0282 mg/kg	98
55) 14dioxane	8.58	88	175162	1.3207 mg/kg	91
56) Bromodiclrma	8.74	83	507600	0.0220 mg/kg	98
57) 2Nitropropane	9.02	43	731278	0.2463 mg/kg	95
58) c13dicloproe	9.32	75	591828	0.0219 mg/kg	100
59) 4Meth2Pentan	9.51	43	2479403	0.2225 mg/kg	100
61) Toluene	9.75	92	969403	0.0204 mg/kg	97
62) t13Dicloprop	10.04	75	513322	0.0231 mg/kg	99
63) ethylmethacrylate	10.17	69	797514	0.0475 mg/kg	99
64) 112Triclotha	10.27	83	253519	0.0211 mg/kg	98
65) Tetrachlorte	10.48	166	373331	0.0226 mg/kg	98
66) 13Diclorpropa	10.49	76	515206	0.0210 mg/kg	97
68) 2Hexanone	10.61	43	1718996	0.2498 mg/kg	97
69) Clorodibrmta	10.80	129	314835	0.0229 mg/kg	96
70) 12Dibrometha	10.95	107	279456	0.0224 mg/kg	97
71) Chlorobenzen	11.63	112	929117	0.0201 mg/kg	98
72) 1Clhexane	11.59	91	501580	0.0256 mg/kg	97
73) 1112Tetclota	11.73	131	324363	0.0207 mg/kg	96
74) Ethylbenzene	11.78	91	1725418	0.0217 mg/kg	99
75) m p-Xylene	11.94	106	1256608	0.0422 mg/kg	98
76) o-Xylene	12.49	106	631129	0.0212 mg/kg	96
77) Styrene	12.51	104	1070419	0.0225 mg/kg	99
78) Bromoform	12.76	173	210890	0.0223 mg/kg	98
79) Isopropylben	13.01	105	1628292	0.0233 mg/kg	98
81) cyclohexanone	13.13	55	215389	0.4383 mg/kg	90
83) Bromobenzene	13.44	156	421368	0.0223 mg/kg#	90
84) 1122Tetrclta	13.43	83	398235	0.0221 mg/kg	97
85) 123Triclproa	13.49	75	484639	0.0211 mg/kg	98
86) 14dichloro2butene	13.52	53	88332	0.0217 mg/kg	93
87) n-Propylbenz	13.60	91	1954446	0.0221 mg/kg	98
88) 2chlorotolue	13.72	91	1149969	0.0213 mg/kg	99
89) 4chlorotolue	13.88	91	1323579	0.0216 mg/kg	100
90) 135Trimebenz	13.86	105	1352604	0.0215 mg/kg	100
91) tbutylbenzen	14.33	119	1168444	0.0225 mg/kg	100
92) 124Trimetben	14.40	105	1373982	0.0210 mg/kg	100
93) sbutylbenzen	14.64	105	1776504	0.0236 mg/kg	99
94) 13Diclorbenz	14.80	146	720537	0.0204 mg/kg	98
95) pIsopropylto	14.86	119	1425493	0.0232 mg/kg	100
96) 14dichlorobe	14.93	146	691597	0.0198 mg/kg	97
97) 12dichlorobe	15.47	146	679222	0.0202 mg/kg	97
98) nButylbenzen	15.46	91	1389327	0.0233 mg/kg	98
99) 12dibromo3cl	16.58	157	73103	0.0240 mg/kg	99
100) 135Trichlorobenzene	16.88	180	555582	0.0208 mg/kg	99
101) 124Trichlobe	17.70	180	482522	0.0199 mg/kg	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0419\LLCALS5.D Vial: 9
Acq On : 4 Sep 2019 16:19 Operator: RLD-DGS
Sample : CALIB. PT. 5 Inst : VMS4
Misc : 0.020/0.200 mg/kg, 15.0 ml Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:01:35 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:01:29 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102)	Hexachlorobu	17.94	225	336678	0.0240	mg/kg	95
103)	Naphthalene	18.02	128	1014814	0.0218	mg/kg	100
104)	123Trichlben	18.32	180	469547	0.0204	mg/kg	97

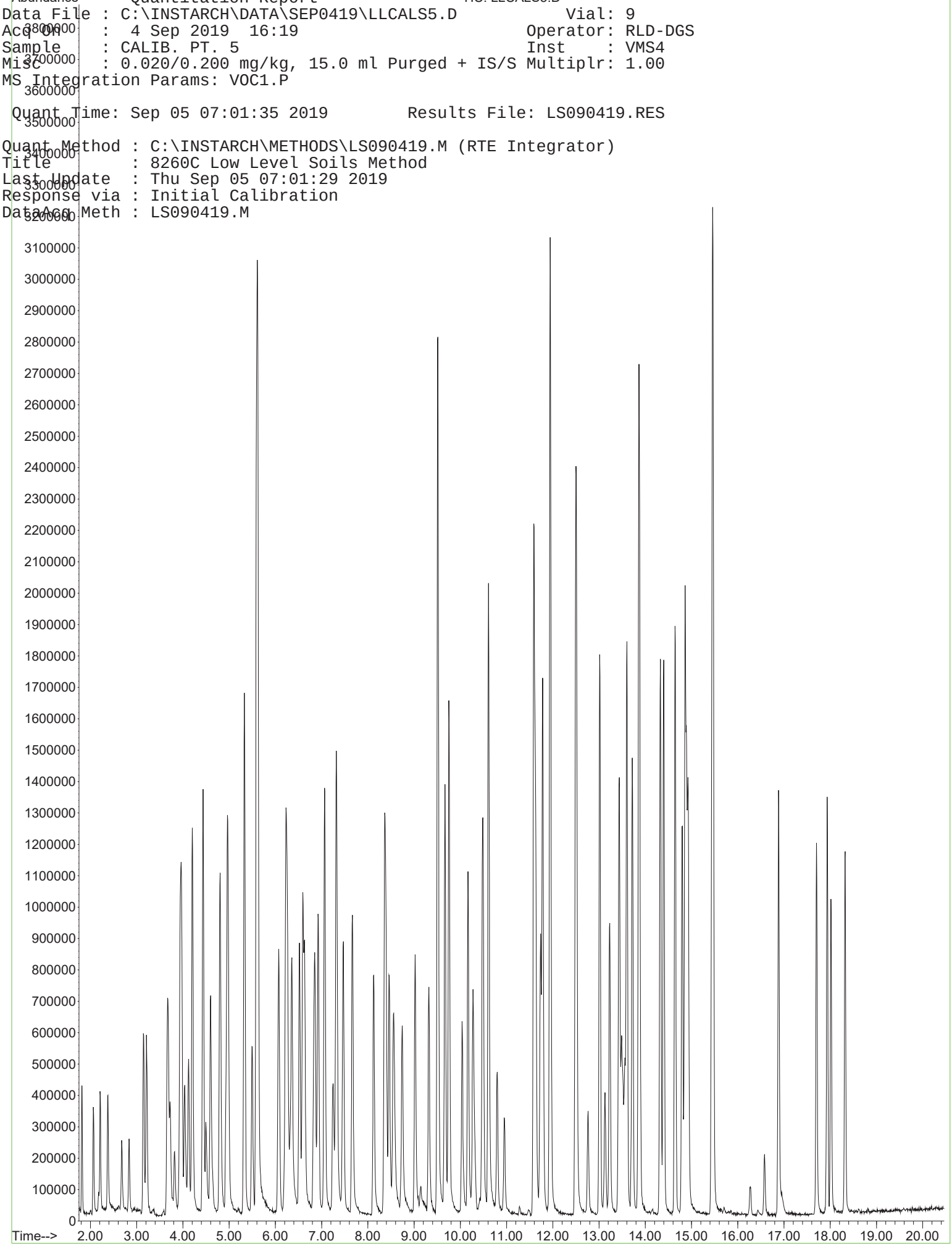
(#) = qualifier out of range (m) = manual integration

Abundance Quantitation Report TIC: LLCALS5.D

Data File : C:\INSTARCH\DATA\SEP0419\LLCALS5.D Vial: 9
Acq On : 4 Sep 2019 16:19 Operator: RLD-DGS
Sample : CALIB. PT. 5 Inst : VMS4
Misc : 0.020/0.200 mg/kg, 15.0 ml Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:01:35 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:01:29 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M



Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0419\LLCALS6.D Vial: 10
Acq On : 4 Sep 2019 16:48 Operator: RLD-DGS
Sample : CALIB. PT. 6 Inst : VMS4
Misc : 0.030/0.300 mg/kg, 15.0 ml Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:01:52 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:01:45 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1185612	0.02	mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	923945	0.02	mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.89	152	500315	0.02	mg/kg	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	293037	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 100 %			
45) SURR12DCAd4	7.25	102	58299	0.019	mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 95 %			
60) SURRd8Tolule	9.67	98	1214270	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %			
82) SURR4BrFBenz	13.23	95	477173	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 100 %			
Target Compounds						Qvalue
2) Dichlorodi	1.82	85	497917	0.0359	mg/kg	95
3) Chloromethan	2.06	50	509226	0.0276	mg/kg	98
4) VinylChlorid	2.21	62	538440	0.0328	mg/kg	100
5) Bromomethane	2.68	94	235531	0.0259	mg/kg	100
6) Chloroethane	2.84	64	304517	0.0290	mg/kg	99
7) dichloroflmethane	3.14	67	1022212	0.0307	mg/kg	99
8) Trichlorofma	3.22	101	797081	0.0349	mg/kg	96
9) Ethylether	3.66	59	385984	0.0321	mg/kg	96
10) dichlorotfluoroethan	3.68	67	574275	0.0330	mg/kg	97
11) propyleneoxide	3.73	58	441837	0.3178	mg/kg	91
12) Acrolein	3.81	56	345653	0.1707	mg/kg	94
13) 11dichlorthe	3.94	96	469758	0.0333	mg/kg	95
14) Trichlorotfluoroeth	3.97	101	848595	0.0764	mg/kg	99
15) Acetone	4.04	43	977389	0.2728	mg/kg	98
16) Iodomethane	4.12	142	1024459	0.0810	mg/kg	99
17) Carbon Dislf	4.20	76	3110764	0.0610	mg/kg	97
18) allylchloride	4.43	41	1625197	0.0600	mg/kg	99
19) methylacetate	4.50	74	160981	0.0365	mg/kg	96
20) Methylchlorid	4.60	84	579861	0.0195	mg/kg	99
21) Acrylonitrile	4.93	53	559557	0.1804	mg/kg	99
22) t12dichlorte	4.96	96	512102	0.0297	mg/kg	96
23) tbutylalcohol	4.80	59	2351096	1.4050	mg/kg	100
24) MtBE	4.98	73	1407482	0.0307	mg/kg	100
25) Hexane	5.33	57	1333139	0.0700	mg/kg	97
26) 11dichlorota	5.50	63	956797	0.0293	mg/kg	99
27) Vinylacetate	5.59	43	6555152	0.3211	mg/kg	99
28) chloroprene	5.62	53	1503533	0.0660	mg/kg	99
29) Diisopether	5.62	45	1529945	0.0297	mg/kg	99
30) ETBE	6.07	59	1425110	0.0306	mg/kg	99
31) 22dichloropr	6.22	77	871937	0.0297	mg/kg	98
32) c12dichlorte	6.24	96	584623	0.0306	mg/kg	97
33) 2Butanone	6.26	72	469315	0.3616	mg/kg	99
34) propionitrile	6.33	54	468688	0.4144	mg/kg	96
35) Ethylacetate	6.35	88	67453	0.2143	mg/kg#	94
36) methacrylonitrile	6.51	67	326449	0.0745	mg/kg	99
37) Bromochlorma	6.53	128	231669	0.0314	mg/kg	96
38) Tetrahydofur	6.59	42	1038355	0.3035	mg/kg	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0419\LLCALS6.D Vial: 10
Acq On : 4 Sep 2019 16:48 Operator: RLD-DGS
Sample : CALIB. PT. 6 Inst : VMS4
Misc : 0.030/0.300 mg/kg, 15.0 ml Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:01:52 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:01:45 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	6.63	83	998484	0.0299 mg/kg	94
40)	111trichlota	6.86	97	883831	0.0328 mg/kg	99
42)	Cyclohexane	6.93	56	792579	0.0383 mg/kg	99
43)	Carbtetraclo	7.06	119	692951	0.0345 mg/kg	98
44)	11dicloprope	7.06	110	250613	0.0331 mg/kg	100
46)	Benzene	7.32	78	2212009	0.0297 mg/kg	99
47)	12dichlorota	7.33	62	684133	0.0334 mg/kg	99
48)	TAME	7.46	73	1358182	0.0305 mg/kg	99
49)	trichloroete	8.13	95	547666	0.0308 mg/kg	98
50)	methylcyclohexane	8.36	83	923534	0.0388 mg/kg	99
51)	12dicloropra	8.39	63	563136	0.0299 mg/kg	91
52)	23dicl1propene	8.46	75	871304	0.0318 mg/kg	97
53)	Dibromometha	8.54	93	295052	0.0316 mg/kg	95
54)	methylmethacrylate	8.56	69	303502	0.0386 mg/kg	98
55)	14dioxane	8.58	88	220905	1.5323 mg/kg	92
56)	Bromodiclrma	8.74	83	760320	0.0316 mg/kg	98
57)	2Nitropropane	9.02	43	1080122	0.3404 mg/kg	94
58)	c13dicloproe	9.32	75	900513	0.0321 mg/kg	99
59)	4Meth2Pentan	9.51	43	3484407	0.2994 mg/kg	99
61)	Toluene	9.75	92	1445758	0.0297 mg/kg	98
62)	t13Dicloprop	10.04	75	787122	0.0336 mg/kg	99
63)	ethylmethacrylate	10.17	69	1200029	0.0674 mg/kg	99
64)	112Triclotha	10.27	83	369469	0.0298 mg/kg	97
65)	Tetrachlorte	10.48	166	549487	0.0318 mg/kg	98
66)	13Diclorpropa	10.49	76	770523	0.0304 mg/kg	99
68)	2Hexanone	10.61	43	2456716	0.3273 mg/kg	97
69)	Clorodibrmta	10.80	129	499078	0.0339 mg/kg	98
70)	12Dibrometha	10.96	107	417031	0.0314 mg/kg	99
71)	Chlorobenzen	11.63	112	1405745	0.0292 mg/kg	98
72)	1Clhexane	11.59	91	723025	0.0336 mg/kg	98
73)	1112Tetclota	11.74	131	497854	0.0303 mg/kg	94
74)	Ethylbenzene	11.78	91	2542558	0.0303 mg/kg	99
75)	m p-Xylene	11.94	106	1922550	0.0615 mg/kg	95
76)	o-Xylene	12.50	106	954202	0.0305 mg/kg	97
77)	Styrene	12.51	104	1574273	0.0310 mg/kg	97
78)	Bromoform	12.76	173	325908	0.0324 mg/kg	98
79)	Isopropylben	13.01	105	2405678	0.0320 mg/kg	98
81)	cyclohexanone	13.13	55	286896	0.5360 mg/kg	91
83)	Bromobenzene	13.44	156	623121	0.0302 mg/kg	94
84)	1122Tetrclta	13.43	83	597393	0.0303 mg/kg	100
85)	123Triclproa	13.49	75	724253	0.0292 mg/kg	97
86)	14dichloro2butene	13.52	53	128146	0.0290 mg/kg	97
87)	n-Propylbenz	13.60	91	2899670	0.0300 mg/kg	98
88)	2chlorotolue	13.72	91	1759068	0.0301 mg/kg	98
89)	4chlorotolue	13.88	91	1992863	0.0299 mg/kg	100
90)	135Trimebenz	13.86	105	2035191	0.0298 mg/kg	98
91)	tbutylbenzen	14.33	119	1753016	0.0308 mg/kg	97
92)	124Trimetben	14.40	105	2050051	0.0290 mg/kg	98
93)	sbutylbenzen	14.64	105	2622287	0.0315 mg/kg	98
94)	13Diclorbenz	14.80	146	1100784	0.0291 mg/kg	99
95)	pIsopropylto	14.86	119	2116238	0.0312 mg/kg	99
96)	14dichlorobe	14.93	146	1106273	0.0297 mg/kg	98
97)	12dichlorobe	15.47	146	1035842	0.0288 mg/kg	96
98)	nButylbenzen	15.46	91	2055350	0.0312 mg/kg	99
99)	12dibromo3cl	16.58	157	113026	0.0334 mg/kg	92
100)	135Trichlorobenzene	16.88	180	847311	0.0294 mg/kg	97
101)	124Trichlobe	17.70	180	733859	0.0284 mg/kg	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0419\LLCALS6.D Vial: 10
Acq On : 4 Sep 2019 16:48 Operator: RLD-DGS
Sample : CALIB. PT. 6 Inst : VMS4
Misc : 0.030/0.300 mg/kg, 15.0 ml Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:01:52 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:01:45 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102)	Hexachlorobu	17.93	225	500302	0.0320	mg/kg	97
103)	Naphthalene	18.01	128	1493525	0.0295	mg/kg	98
104)	123Trichlben	18.32	180	709845	0.0288	mg/kg	99

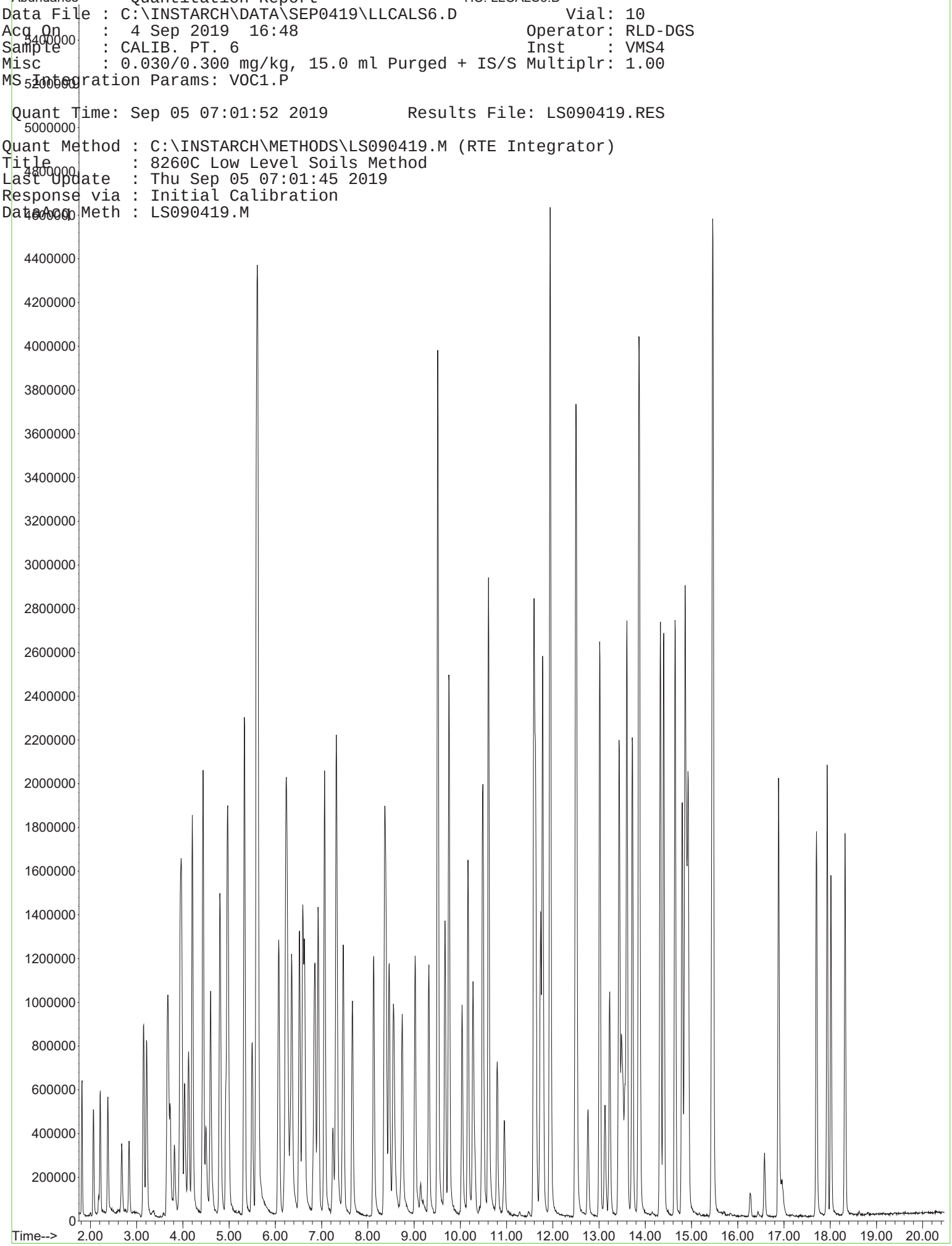
(#) = qualifier out of range (m) = manual integration

Abundance Quantitation Report TIC: LLCALS6.D

Data File : C:\INSTARCH\DATA\SEP0419\LLCALS6.D Vial: 10
Acq On : 4 Sep 2019 16:48 Operator: RLD-DGS
Sample : CALIB. PT. 6 Inst : VMS4
Misc : 0.030/0.300 mg/kg, 15.0 ml Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:01:52 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:01:45 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M



Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0419\LLCALS7.D Vial: 11
Acq On : 4 Sep 2019 17:17 Operator: RLD-DGS
Sample : CALIB. PT. 7 Inst : VMS4
Misc : 0.040/0.400 mg/kg, 15.0 ml Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:02:07 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:02:00 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1049200	0.02	mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	801186	0.02	mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.89	152	441224	0.02	mg/kg	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	255519	0.019	mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 95 %			
45) SURR12DCAd4	7.25	102	50380	0.019	mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 95 %			
60) SURRd8Tolule	9.67	98	1055841	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %			
82) SURR4BrFBenz	13.23	95	406667	0.019	mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 95 %			
Target Compounds						Qvalue
2) Dichlorodi	1.82	85	662944	0.0523	mg/kg	96
3) Chloromethan	2.06	50	638989	0.0397	mg/kg	99
4) VinylChlorid	2.21	62	725172	0.0491	mg/kg	97
5) Bromomethane	2.68	94	304678	0.0387	mg/kg	99
6) Chloroethane	2.83	64	404404	0.0437	mg/kg	97
7) dichloroflmethane	3.15	67	1279672	0.0433	mg/kg	98
8) Trichlorofma	3.21	101	1067634	0.0515	mg/kg	96
9) Ethylether	3.66	59	439615	0.0408	mg/kg	96
10) dichlorotfluoroethan	3.68	67	747518	0.0477	mg/kg	96
11) propyleneoxide	3.72	58	528893	0.4257	mg/kg	92
12) Acrolein	3.81	56	438294	0.2390	mg/kg	95
13) 11dichlorthe	3.94	96	608209	0.0478	mg/kg	96
14) Trichlorotfluoroeth	3.97	101	1126130	0.1096	mg/kg	98
15) Acetone	4.03	43	1220549	0.3909	mg/kg	97
16) Iodomethane	4.12	142	1264607	0.1068	mg/kg	99
17) Carbon Dislf	4.20	76	3969991	0.0878	mg/kg	98
18) allylchloride	4.43	41	2038636	0.0851	mg/kg	99
19) methylacetate	4.50	74	192071	0.0475	mg/kg	98
20) Methylchlorid	4.60	84	694905	0.0281	mg/kg	99
21) Acrylonitrile	4.93	53	703108	0.2478	mg/kg	98
22) t12dichlorte	4.96	96	660276	0.0433	mg/kg	97
23) tbutylalcohol	4.81	59	2872025	1.9601	mg/kg	99
24) MtBE	4.98	73	1627747	0.0400	mg/kg	99
25) Hexane	5.33	57	1759330	0.1016	mg/kg	97
26) 11dichlorota	5.50	63	1202417	0.0418	mg/kg	99
27) Vinylacetate	5.59	43	7699148	0.4212	mg/kg	97
28) chloroprene	5.62	53	1932439	0.0943	mg/kg	100
29) Diisopether	5.62	45	1806871	0.0397	mg/kg	99
30) ETBE	6.07	59	1635274	0.0395	mg/kg	98
31) 22dichloropr	6.22	77	1094720	0.0423	mg/kg	99
32) c12dichlorte	6.23	96	723154	0.0427	mg/kg	97
33) 2Butanone	6.26	72	585432	0.4928	mg/kg	100
34) propionitrile	6.33	54	561195	0.5272	mg/kg	96
35) Ethylacetate	6.35	88	83674	0.2804	mg/kg#	93
36) methacrylonitrile	6.52	67	404752	0.1004	mg/kg	96
37) Bromochlorma	6.52	128	283154	0.0430	mg/kg	96
38) Tetrahydofur	6.59	42	1249624	0.4120	mg/kg	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0419\LLCALS7.D Vial: 11
Acq On : 4 Sep 2019 17:17 Operator: RLD-DGS
Sample : CALIB. PT. 7 Inst : VMS4
Misc : 0.040/0.400 mg/kg, 15.0 ml Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:02:07 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:02:00 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.63	83	1226884	0.0416	mg/kg	94
40)	111trichlota	6.86	97	1132608	0.0468	mg/kg	99
42)	Cyclohexane	6.92	56	1045463	0.0546	mg/kg	98
43)	Carbtetraclo	7.06	119	917524	0.0503	mg/kg	99
44)	11dicloprope	7.06	110	328384	0.0482	mg/kg	96
46)	Benzene	7.31	78	2741077	0.0416	mg/kg	98
47)	12dichlorota	7.33	62	798497	0.0433	mg/kg	97
48)	TAME	7.47	73	1585849	0.0402	mg/kg	99
49)	trichloroete	8.12	95	690233	0.0437	mg/kg	97
50)	methylcyclohexane	8.36	83	1267653	0.0574	mg/kg	98
51)	12dicloropra	8.39	63	693031	0.0416	mg/kg	99
52)	23dicl1propene	8.46	75	1063013	0.0434	mg/kg	96
53)	Dibromometha	8.55	93	363216	0.0435	mg/kg	95
54)	methylmethacrylate	8.56	69	368660	0.0506	mg/kg	97
55)	14dioxane	8.58	88	294490	2.3001	mg/kg	90
56)	Bromodiclrma	8.74	83	915510	0.0427	mg/kg	98
57)	2Nitropropane	9.02	43	1357994	0.4730	mg/kg	93
58)	c13dicloproe	9.32	75	1080454	0.0430	mg/kg	100
59)	4Meth2Pentan	9.51	43	4182177	0.4062	mg/kg	98
61)	Toluene	9.75	92	1759560	0.0409	mg/kg	99
62)	t13Dicloprop	10.04	75	926680	0.0439	mg/kg	99
63)	ethylmethacrylate	10.17	69	1451817	0.0903	mg/kg	99
64)	112Triclotha	10.27	83	444913	0.0406	mg/kg	98
65)	Tetrachlorte	10.48	166	719862	0.0466	mg/kg	98
66)	13Diclorpropa	10.49	76	916177	0.0408	mg/kg	99
68)	2Hexanone	10.61	43	3041402	0.4602	mg/kg	97
69)	Clorodibrmta	10.80	129	584476	0.0448	mg/kg	99
70)	12Dibrometha	10.95	107	513012	0.0442	mg/kg	100
71)	Chlorobenzen	11.63	112	1698702	0.0409	mg/kg	97
72)	1Clhexane	11.59	91	969256	0.0510	mg/kg	96
73)	1112Tetclota	11.73	131	612547	0.0430	mg/kg	95
74)	Ethylbenzene	11.78	91	3158557	0.0433	mg/kg	99
75)	m p-Xylene	11.94	106	2350662	0.0863	mg/kg	94
76)	o-Xylene	12.49	106	1173503	0.0431	mg/kg	99
77)	Styrene	12.51	104	1905324	0.0431	mg/kg	98
78)	Bromoform	12.76	173	404613	0.0457	mg/kg	96
79)	Isopropylben	13.01	105	3046585	0.0463	mg/kg	98
81)	cyclohexanone	13.13	55	365280	0.7879	mg/kg	90
83)	Bromobenzene	13.44	156	759599	0.0417	mg/kg	92
84)	1122Tetrclta	13.43	83	719530	0.0414	mg/kg	98
85)	123Triclproa	13.49	75	891729	0.0410	mg/kg	96
86)	14dichloro2butene	13.52	53	155018	0.0400	mg/kg	98
87)	n-Propylbenz	13.60	91	3636276	0.0427	mg/kg	97
88)	2chlorotolue	13.72	91	2151695	0.0417	mg/kg	100
89)	4chlorotolue	13.88	91	2447731	0.0417	mg/kg	100
90)	135Trimebenz	13.86	105	2505537	0.0417	mg/kg	98
91)	tbutylbenzen	14.33	119	2241068	0.0444	mg/kg	98
92)	124Trimetben	14.40	105	2527335	0.0408	mg/kg	99
93)	sbutylbenzen	14.65	105	3378643	0.0456	mg/kg	98
94)	13Diclorbenz	14.79	146	1305217	0.0393	mg/kg	98
95)	pIsopropylto	14.86	119	2711689	0.0451	mg/kg	99
96)	14dichlorobe	14.93	146	1293121	0.0394	mg/kg	96
97)	12dichlorobe	15.47	146	1235538	0.0392	mg/kg	97
98)	nButylbenzen	15.46	91	2587662	0.0443	mg/kg	98
99)	12dibromo3cl	16.58	157	146124	0.0480	mg/kg	94
100)	135Trichlorobenzene	16.89	180	999989	0.0395	mg/kg	98
101)	124Trichlobe	17.70	180	867026	0.0383	mg/kg	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0419\LLCALS7.D Vial: 11
Acq On : 4 Sep 2019 17:17 Operator: RLD-DGS
Sample : CALIB. PT. 7 Inst : VMS4
Misc : 0.040/0.400 mg/kg, 15.0 ml Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:02:07 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:02:00 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) Hexachlorobu	17.94	225	676956	0.0486	mg/kg	94
103) Naphthalene	18.01	128	1856167	0.0416	mg/kg	99
104) 123Trichlben	18.32	180	826957	0.0383	mg/kg	97

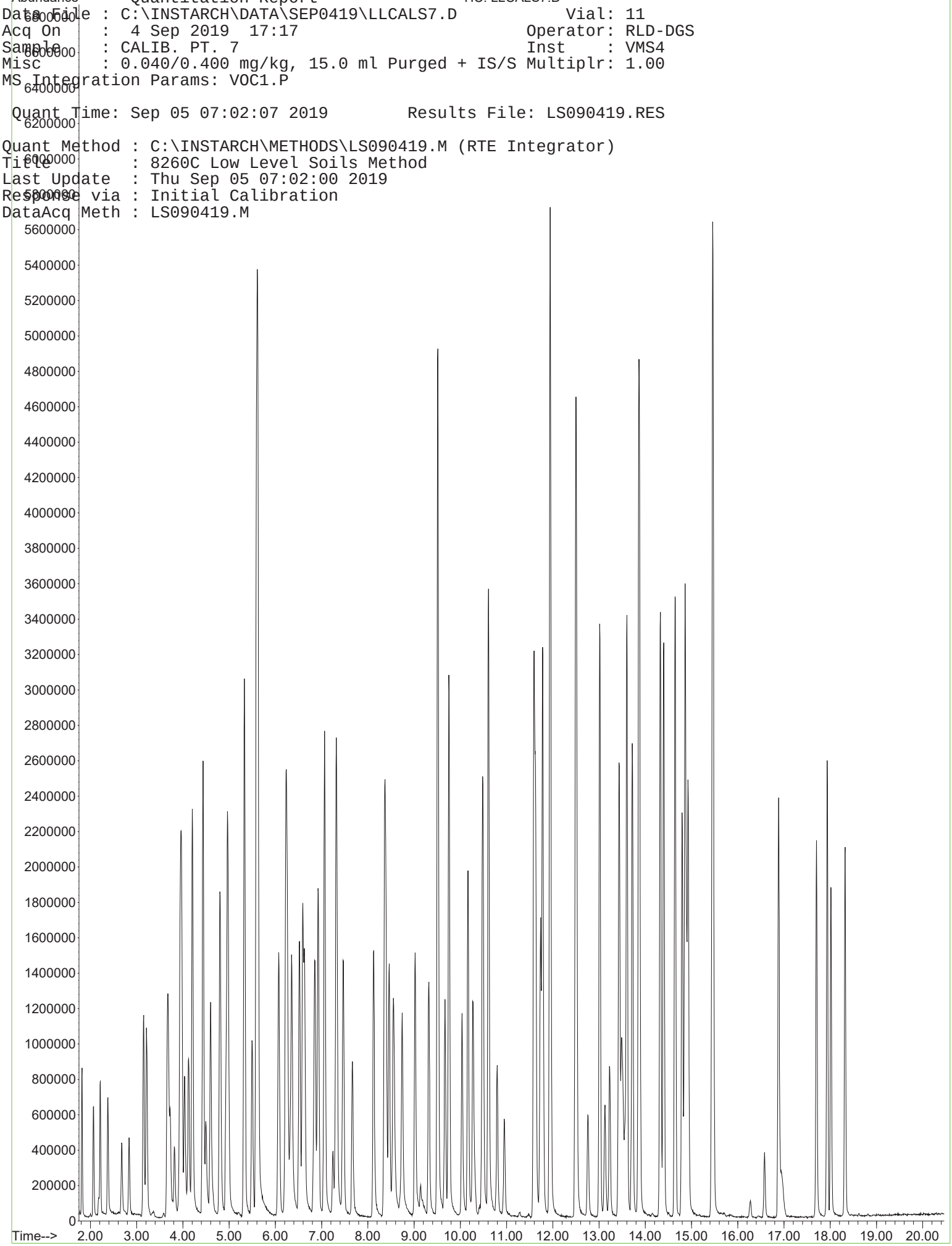
(#) = qualifier out of range (m) = manual integration

Quantitation Report TIC: LLCALS7.D

Data File : C:\INSTARCH\DATA\SEP0419\LLCALS7.D Vial: 11
Acq On : 4 Sep 2019 17:17 Operator: RLD-DGS
Sample : CALIB. PT. 7 Inst : VMS4
Misc : 0.040/0.400 mg/kg, 15.0 ml Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:02:07 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:02:00 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M



Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0419\LLCALS8.D Vial: 12
Acq On : 4 Sep 2019 17:47 Operator: RLD-DGS
Sample : CALIB. PT. 8 Inst : VMS4
Misc : 0.080/0.800 mg/kg, 15.0 ml Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:02:22 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:02:15 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1163003	0.02	mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	924327	0.02	mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.89	152	491061	0.02	mg/kg	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	283899	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 100 %			
45) SURR12DCAd4	7.24	102	60155	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 100 %			
60) SURRd8Tolule	9.67	98	1178605	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %			
82) SURR4BrFBenz	13.23	95	475856	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 100 %			
Target Compounds						Qvalue
2) Dichlorodi	1.82	85	1348842	0.0920	mg/kg	97
3) Chloromethan	2.06	50	1302098	0.0730	mg/kg	98
4) VinylChlorid	2.21	62	1437105	0.0850	mg/kg	99
5) Bromomethane	2.68	94	663851	0.0765	mg/kg	99
6) Chloroethane	2.83	64	800067	0.0770	mg/kg	97
7) dichloroflmethane	3.15	67	2556946	0.0771	mg/kg	97
8) Trichlorofma	3.21	101	2141118	0.0895	mg/kg	96
9) Ethylether	3.66	59	951253	0.0795	mg/kg	96
10) dichlorotfluoroethan	3.68	67	1506492	0.0845	mg/kg	97
11) propyleneoxide	3.72	58	1173585	0.8445	mg/kg	92
12) Acrolein	3.81	56	958699	0.4589	mg/kg	99
13) 11dichlorthe	3.94	96	1232342	0.0851	mg/kg	95
14) Trichlorotfluoroeth	3.97	101	2282390	0.1904	mg/kg	97
15) Acetone	4.03	43	2534865	0.7348	mg/kg	95
16) Iodomethane	4.12	142	2839305	0.2065	mg/kg	99
17) Carbon Dislf	4.20	76	7407807	0.1457	mg/kg	95
18) allylchloride	4.43	41	4030519	0.1504	mg/kg	98
19) methylacetate	4.50	74	417577	0.0907	mg/kg	100
20) Methylchlorid	4.60	84	1421665	0.0541	mg/kg	98
21) Acrylonitrile	4.92	53	1488251	0.4575	mg/kg	98
22) t12dichlorte	4.96	96	1360255	0.0796	mg/kg	98
23) tbutylalcohol	4.80	59	5873203	3.6265	mg/kg	98
24) MtBE	4.98	73	3477492	0.0770	mg/kg	99
25) Hexane	5.33	57	3534488	0.1773	mg/kg	99
26) 11dichlorota	5.49	63	2409813	0.0750	mg/kg	98
27) Vinylacetate	5.58	43	13227191	0.6479	mg/kg	91
28) chloroprene	5.61	53	3828783	0.1644	mg/kg	99
29) Diisopether	5.61	45	3687487	0.0732	mg/kg#	74
30) ETBE	6.07	59	3536602	0.0772	mg/kg	98
31) 22dichloropr	6.22	77	2228691	0.0770	mg/kg	100
32) c12dichlorte	6.23	96	1516609	0.0800	mg/kg	95
33) 2Butanone	6.26	72	1231993	0.9056	mg/kg	99
34) propionitrile	6.32	54	1207309	0.9788	mg/kg	96
35) Ethylacetate	6.35	88	184000	0.5260	mg/kg#	91
36) methacrylonitrile	6.52	67	875960	0.1891	mg/kg	99
37) Bromochlorma	6.53	128	585989	0.0795	mg/kg	95
38) Tetrahydofur	6.59	42	2614744	0.7743	mg/kg	95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0419\LLCALS8.D Vial: 12
Acq On : 4 Sep 2019 17:47 Operator: RLD-DGS
Sample : CALIB. PT. 8 Inst : VMS4
Misc : 0.080/0.800 mg/kg, 15.0 ml Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:02:22 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:02:15 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	6.63	83	2518496	0.0766 mg/kg	92
40) 111trichlota	6.86	97	2325858	0.0846 mg/kg	99
42) Cyclohexane	6.92	56	2122975	0.0951 mg/kg	97
43) Carbtetraclo	7.07	119	1915985	0.0914 mg/kg	97
44) 11dicloprope	7.06	110	674193	0.0867 mg/kg	97
46) Benzene	7.32	78	5480021	0.0746 mg/kg	98
47) 12dichlorota	7.34	62	1680833	0.0812 mg/kg	97
48) TAME	7.46	73	3487959	0.0796 mg/kg	99
49) trichloroete	8.12	95	1442966	0.0814 mg/kg	98
50) methylcyclohexane	8.36	83	2536439	0.0975 mg/kg	98
51) 12dicloropra	8.39	63	1438906	0.0774 mg/kg	98
52) 23dicl1propene	8.46	75	2253753	0.0820 mg/kg	95
53) Dibromometha	8.55	93	760885	0.0812 mg/kg	92
54) methylmethacrylate	8.56	69	820062	0.0978 mg/kg	98
55) 14dioxane	8.58	88	594345	4.1000 mg/kg	94
56) Bromodiclrma	8.74	83	1941025	0.0808 mg/kg	97
57) 2Nitropropane	9.02	43	2901337	0.8884 mg/kg	94
58) c13dicloproe	9.32	75	2285564	0.0812 mg/kg	97
59) 4Meth2Pentan	9.51	43	7977869	0.6974 mg/kg	94
61) Toluene	9.75	92	3645313	0.0762 mg/kg	93
62) t13Dicloprop	10.04	75	2021078	0.0851 mg/kg	98
63) ethylmethacrylate	10.17	69	3081869	0.1698 mg/kg	99
64) 112Triclotha	10.27	83	963740	0.0792 mg/kg	99
65) Tetrachlorte	10.48	166	1493224	0.0852 mg/kg	97
66) 13Diclorpropa	10.49	76	1934773	0.0774 mg/kg	98
68) 2Hexanone	10.61	43	6089613	0.7819 mg/kg	93
69) Clorodibrmta	10.80	129	1310937	0.0856 mg/kg	98
70) 12Dibrometha	10.95	107	1115747	0.0821 mg/kg	99
71) Chlorobenzen	11.63	112	3551151	0.0739 mg/kg	96
72) 1Clhexane	11.59	91	1986051	0.0871 mg/kg	98
73) 1112Tetclota	11.73	131	1320857	0.0795 mg/kg	96
74) Ethylbenzene	11.78	91	6259744	0.0735 mg/kg	94
75) m p-Xylene	11.94	106	4805718	0.1513 mg/kg#	85
76) o-Xylene	12.49	106	2470207	0.0778 mg/kg	96
77) Styrene	12.51	104	4013430	0.0778 mg/kg	98
78) Bromoform	12.76	173	920659	0.0884 mg/kg	97
79) Isopropylben	13.01	105	6078827	0.0783 mg/kg	95
81) cyclohexanone	13.13	55	797835	1.5496 mg/kg	88
83) Bromobenzene	13.44	156	1651100	0.0809 mg/kg	91
84) 1122Tetrclta	13.42	83	1512923	0.0778 mg/kg	97
85) 123Triclproa	13.49	75	1687503	0.0694 mg/kg	97
86) 14dichloro2butene	13.52	53	364669	0.0845 mg/kg	98
87) n-Propylbenz	13.60	91	7025021	0.0734 mg/kg	93
88) 2chlorotolue	13.72	91	4395311	0.0760 mg/kg	98
89) 4chlorotolue	13.88	91	4967599	0.0756 mg/kg	97
90) 135Trimebenz	13.86	105	5114005	0.0760 mg/kg	96
91) tbutylbenzen	14.33	119	4545713	0.0797 mg/kg	96
92) 124Trimetben	14.40	105	5148785	0.0745 mg/kg	96
93) sbutylbenzen	14.64	105	6571849	0.0782 mg/kg	94
94) 13Diclorbenz	14.79	146	2770089	0.0751 mg/kg	97
95) pIsopropylto	14.86	119	5382083	0.0789 mg/kg	96
96) 14dichlorobe	14.93	146	2772613	0.0761 mg/kg	96
97) 12dichlorobe	15.46	146	2605613	0.0745 mg/kg	97
98) nButylbenzen	15.46	91	5240678	0.0793 mg/kg	95
99) 12dibromo3cl	16.58	157	309404	0.0888 mg/kg	97
100) 135Trichlorobenzene	16.88	180	2150689	0.0764 mg/kg	97
101) 124Trichlobe	17.70	180	1869717	0.0747 mg/kg	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0419\LLCALS8.D Vial: 12
Acq On : 4 Sep 2019 17:47 Operator: RLD-DGS
Sample : CALIB. PT. 8 Inst : VMS4
Misc : 0.080/0.800 mg/kg, 15.0 ml Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:02:22 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:02:15 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102)	Hexachlorobu	17.93	225	1401702	0.0877	mg/kg	97
103)	Naphthalene	18.01	128	3866689	0.0775	mg/kg	99
104)	123Trichlben	18.32	180	1830831	0.0766	mg/kg	98

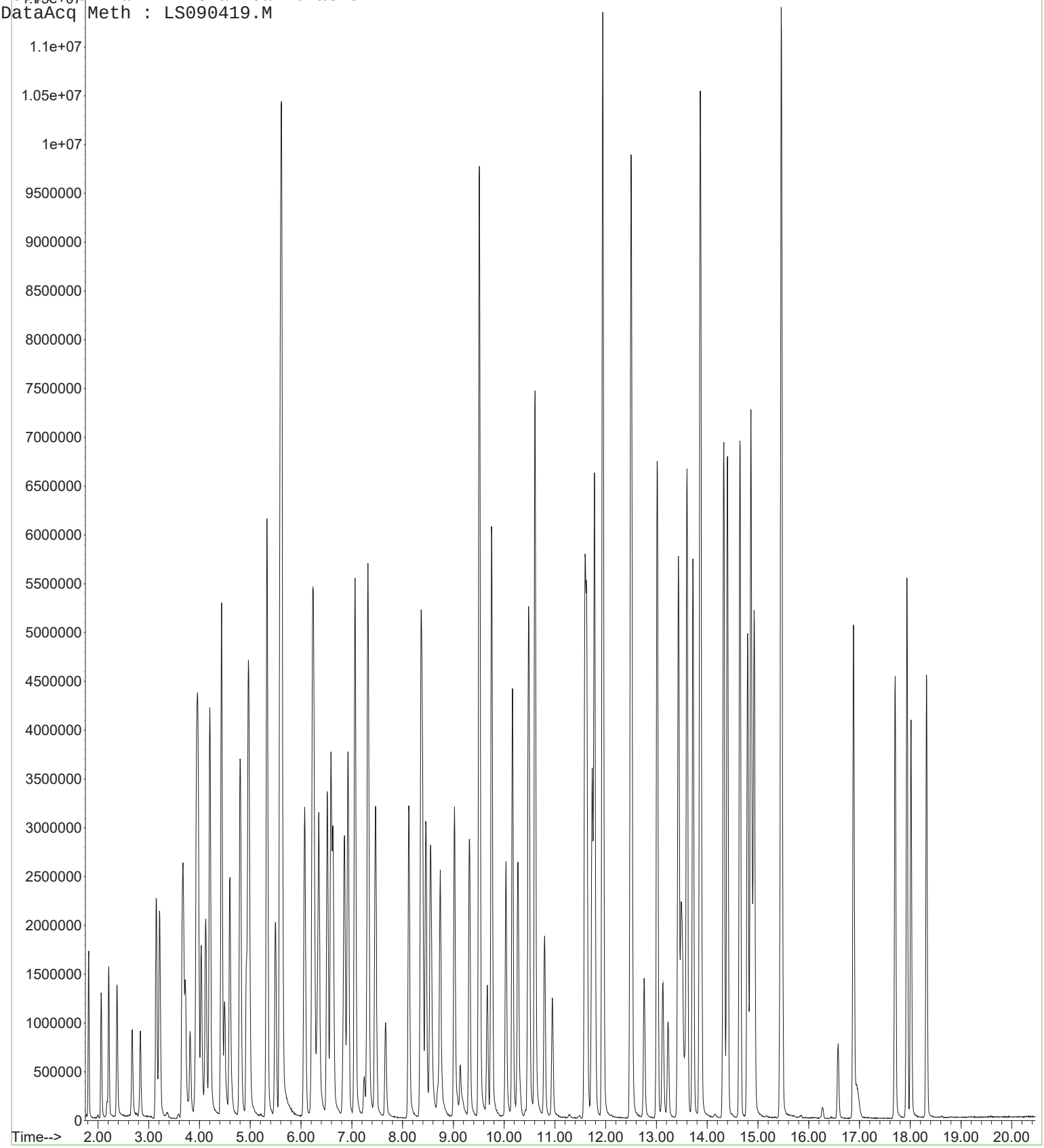
(#) = qualifier out of range (m) = manual integration

Abundance Quantitation Report TIC: LLCALS8.D

Data File : C:\INSTARCH\DATA\SEP0419\LLCALS8.D Vial: 12
Acq On : 4 Sep 2019 17:47 Operator: RLD-DGS
Sample : CALIB. PT. 8 Inst : VMS4
Misc : 0.080/0.800 mg/kg, 15.0 ml Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:02:22 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:02:15 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M



Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\SEP0419\ICV1.D Vial: 14
Acq On : 4 Sep 2019 18:45 Operator: RLD-DGS
Sample : INITIAL CALIB. VERIF. Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Sep 05 07:09:52 2019

Quant Method : C:\INSTARCH\METHODS\LS090419.M
Quant Title : 8260C Low Level Soils Method
Response via : Initial Calibration
DataAcq Meth:LS090419.M

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	1.0000	1.0000	0.00	107	0.00
2	T	Dichlorodi	0.2569	0.3218	-25.26#	113	0.00
3	PT	Chloromethan	0.3033	0.3128	-3.13	115	0.00
4	CT	VinylChlorid	0.2930	0.3113	-6.25	108	0.00
5	T	Bromomethane	0.1485	0.1690	-13.80	132	0.00
6	T	Chloroethane	0.1778	0.1857	-4.44	105	0.00
7	T	dichloroflmethane	0.5679	0.5976	-5.23	109	0.00
8	T	Trichlorofma	0.4176	0.4552	-9.00	100	0.00
9	T	Ethylether	0.2056	0.2140	-4.09	110	0.00
10	T	dichlorotfluoroethan	0.3088	0.3463	-12.14	106	0.00
11	T	propyleneoxide	0.0241	0.0231	4.15	101	0.00
12	T	Acrolein	0.0393	0.0382	2.80	103	0.00
13	CT	11dichlorthe	0.2511	0.2777	-10.59	111	0.00
14	T	Trichlorotfluoroeth	0.2111	0.2632	-24.68#	109	0.00
15	T	Acetone	0.0587	0.0602	-2.56	115	0.00
16	T	Iodomethane	0.2451	0.2290	6.57	102	0.00
17	T	Carbon Dislf	0.8643	0.9383	-8.56	109	0.00
18	T	allylchloride	0.4574	0.4687	-2.47	108	0.00
19	T	methylacetate	0.0805	0.0795	1.24	113	0.00
20	T	Methylchlorid	0.4338	0.3483	19.71	105	0.00
21	T	Acrylonitrile	0.0593	0.0582	1.85	109	0.00
22	T	t12dichlorte	0.2938	0.3023	-2.89	105	0.00
23	T	tbutylalcohol	0.0275	0.0266	3.27	104	0.00
24	T	MtBE	0.7728	0.7930	-2.61	109	0.00
25	T	Hexane	0.3475	0.4030	-15.97	108	0.00
26	PT	11dichlorota	0.5480	0.5454	0.47	108	0.00
27	T	Vinylacetate	0.3427	0.3678	-7.32	106	0.00
28	T	chloroprene	0.4018	0.4394	-9.36	108	0.00
29	T	Diisopether	0.8573	0.8776	-2.37	108	0.00
30	T	ETBE	0.7840	0.8134	-3.75	109	0.00
31	T	22dichloropr	0.4954	0.4846	2.18	107	0.00
32	T	c12dichlorte	0.3260	0.3203	1.75	106	0.00
33	T	2Butanone	0.0250	0.0251	-0.40	111	0.00
34	T	propionitrile	0.0218	0.0219	-0.46	98	0.00
35	T	Ethylacetate	0.0063	0.0072#	-14.29	112	0.00
36	T	methacrylonitrile	0.0815	0.0876	-7.48	112	0.00
37	T	Bromochlorma	0.1267	0.1249	1.42	105	0.00
38	T	Tetrahydofur	0.0578	0.0567	1.90	105	0.00
39	CT	Chloroform	0.5625	0.5530	1.69	104	0.00
40	T	111trichlota	0.4760	0.4907	-3.09	103	0.00
41	S	SURRDibrflma	0.2491	0.2504	-0.52	106	0.00
42	T	Cyclohexane	0.3931	0.4562	-16.05	105	0.00
43	T	Carbtetraclo	0.3667	0.3854	-5.10	101	0.00
44	T	11dicloprope	0.1351	0.1385	-2.52	103	0.00
45	S	SURR12DCAd4	0.0511	0.0477	6.65	102	0.00
46	T	Benzene	1.2521	1.2591	-0.56	106	0.00
47	T	12dichlorota	0.3566	0.3580	-0.39	106	0.00
48	T	TAME	0.7527	0.7830	-4.03	111	0.00

49	T	trichloroete	0.3056	0.3122	-2.16	107	0.00
50	T	methylcyclohexane	0.4595	0.5412	-17.78	104	0.00
51	CT	12dicloropra	0.3183	0.3037	4.59	103	0.00
52	T	23dicl1propene	0.4741	0.4709	0.67	104	0.00
53	T	Dibromometha	0.1614	0.1519	5.89	100	0.00
54	T	methylmethacrylate	0.1482	0.1519	-2.50	112	0.00
55	T	14dioxane	0.0025	0.0024#	4.00	107	0.00
56	T	Bromodiclrma	0.4135	0.4032	2.49	104	0.00
57	T	2Nitropropane	0.0569	0.0554	2.64	110	0.00
58	T	c13dicloproe	0.4852	0.4893	-0.85	108	0.00
59	T	4Meth2Pentan	0.1936	0.2021	-4.39	109	0.00
60	S	SURRd8Tolule	1.0195	1.0200	-0.05	106	0.00
61	CT	Toluene	0.8173	0.7996	2.17	106	0.00
62	T	t13Dicloprop	0.4116	0.3970	3.55	106	0.00
63	T	ethylmethacrylate	0.3145	0.3159	-0.45	105	0.00
64	T	112Triclotha	0.2090	0.1988	4.88	100	0.00
65	T	Tetrachlorte	0.3039	0.2941	3.22	98	0.00
66	T	13Diclorpropa	0.4279	0.4170	2.55	106	0.00
67	I	d5-CHLOROBENZENE**ISTD**	1.0000	1.0000	0.00	107	0.00
68	T	2Hexanone	0.1680	0.1783	-6.13	107	0.00
69	T	Clorodibrmta	0.3342	0.3266	2.27	103	0.00
70	T	12Dibrometha	0.2949	0.2876	2.48	100	0.00
71	PT	Chlorobenzen	1.0298	0.9899	3.87	105	0.00
72	T	1Clhexane	0.4988	0.5441	-9.08	105	0.00
73	T	1112Tetclota	0.3593	0.3386	5.76	101	0.00
74	CT	Ethylbenzene	1.8234	1.8282	-0.26	105	0.00
75	T	m p-Xylene	0.6826	0.6826	0.00	107	0.00
76	T	o-Xylene	0.6847	0.6794	0.77	104	0.00
77	T	Styrene	1.1128	1.0906	1.99	104	0.00
78	PT	Bromoform	0.2283	0.2098	8.10	108	0.00
79	T	Isopropylben	1.6763	1.7223	-2.74	103	0.00
80	I	d4-1,4-DICHLOROBENZENE**IS	1.0000	1.0000	0.00	109	0.00
81	T	cyclohexanone	0.0209	0.0203	2.87	100	0.00
82	S	SURR4BrFBenz	0.9495	0.9447	0.51	109	0.00
83	T	Bromobenzene	0.8323	0.7721	7.23	105	0.00
84	PT	1122Tetrclta	0.7895	0.7612	3.58	99	0.00
85	T	123Triclproa	0.9734	0.8942	8.14	115	0.00
86	T	14dichloro2butene	0.1769	0.1499	15.26	103	0.00
87	T	n-Propylbenz	3.8587	3.8434	0.40	104	0.00
88	T	2chlorotolue	2.3397	2.2674	3.09	107	0.00
89	T	4chlorotolue	2.6592	2.5986	2.28	104	0.00
90	T	135Trimebenz	2.7235	2.6876	1.32	106	0.00
91	T	tbutylbenzen	2.3214	2.2926	1.24	101	0.00
92	T	124Trimetben	2.7905	2.6685	4.37	103	0.00
93	T	sbutylbenzen	3.4141	3.4831	-2.02	104	0.00
94	T	13Diclorbenz	1.4901	1.3999	6.05	104	0.00
95	T	pIsopropylto	2.7719	2.7519	0.72	101	0.00
96	T	14dichlorobe	1.4750	1.3919	5.63	105	0.00
97	T	12dichlorobe	1.4126	1.3047	7.64	103	0.00
98	T	nButylbenzen	2.6879	2.7251	-1.38	104	0.00
99	T	12dibromo3cl	0.1438	0.1317	8.41	106	0.00
100	T	135Trichlorobenzene	1.1397	1.1002	3.47	105	0.00
101	T	124Trichlobe	1.0105	0.9269	8.27	101	0.00
102	T	Hexachlorobu	0.6585	0.6559	0.39	106	0.00
103	T	Naphthalene	2.0245	1.9792	2.24	110	0.00
104	T	123Trichlben	0.9685	0.8720	9.96	99	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

LS090419.M Tue Sep 10 13:59:27 2019

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\SEP0419\ICV1.D Vial: 14
Acq On : 4 Sep 2019 18:45 Operator: RLD-DGS
Sample : INITIAL CALIB. VERIF. Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Sep 05 07:09:52 2019

Quant Method : C:\INSTARCH\METHODS\LS090419.M
Quant Title : 8260C Low Level Soils Method
Response via : Initial Calibration
DataAcq Meth:LS090419.M

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	0.0200	0.0200	0.00	107	0.00
2	T	Dichlorodi	0.0100	0.0111	-11.00	113	0.00
3	PT	Chloromethan	0.0100	0.0103	-3.00	115	0.00
4	CT	VinylChlorid	0.0100	0.0106	-6.00	108	0.00
5	T	Bromomethane	0.0100	0.0114	-14.00	132	0.00
6	T	Chloroethane	0.0100	0.0104	-4.00	105	0.00
7	T	dichloroflmethane	0.0100	0.0105	-5.00	109	0.00
8	T	Trichlorofma	0.0100	0.0098	2.00	100	0.00
9	T	Ethylether	0.0100	0.0104	-4.00	110	0.00
10	T	dichlorotfluoroethan	0.0100	0.0112	-12.00	106	0.00
11	T	propyleneoxide	0.1000	0.0961	3.90	101	0.00
12	T	Acrolein	0.0500	0.0486	2.80	103	0.00
13	CT	11dichlorthe	0.0100	0.0111	-11.00	111	0.00
14	T	Trichlorotfluoroeth	0.0200	0.0214	-7.00	109	0.00
15	T	Acetone	0.1000	0.1025	-2.50	115	0.00
16	T	Iodomethane	0.0200	0.0176	12.00	102	0.00
17	T	Carbon Dislf	0.0200	0.0217	-8.50	109	0.00
18	T	allylchloride	0.0200	0.0205	-2.50	108	0.00
19	T	methylacetate	0.0100	0.0093	7.00	113	0.00
20	T	Methylchlorid	0.0100	0.0093	7.00	105	0.00
21	T	Acrylonitrile	0.0500	0.0490	2.00	109	0.00
22	T	t12dichlorte	0.0100	0.0103	-3.00	105	0.00
23	T	tbutylalcohol	0.5000	0.4832	3.36	104	0.00
24	T	MtBE	0.0100	0.0103	-3.00	109	0.00
25	T	Hexane	0.0200	0.0207	-3.50	108	0.00
26	PT	11dichlorota	0.0100	0.0100	0.00	108	0.00
27	T	Vinylacetate	0.1000	0.1073	-7.30	106	0.00
28	T	chloroprene	0.0200	0.0219	-9.50	108	0.00
29	T	Diisopether	0.0100	0.0102	-2.00	108	0.00
30	T	ETBE	0.0100	0.0104	-4.00	109	0.00
31	T	22dichloropr	0.0100	0.0098	2.00	107	0.00
32	T	c12dichlorte	0.0100	0.0098	2.00	106	0.00
33	T	2Butanone	0.1000	0.1004	-0.40	111	0.00
34	T	propionitrile	0.1000	0.0884	11.60	98	0.00
35	T	Ethylacetate	0.0500	0.0502	-0.40	112	0.00
36	T	methacrylonitrile	0.0200	0.0194	3.00	112	0.00
37	T	Bromochlorma	0.0100	0.0099	1.00	105	0.00
38	T	Tetrahydofur	0.1000	0.0981	1.90	105	0.00
39	CT	Chloroform	0.0100	0.0098	2.00	104	0.00
40	T	111trichlota	0.0100	0.0103	-3.00	103	0.00
41	S	SURRDibrflma	0.0200	0.0201	-0.50	106	0.00
42	T	Cyclohexane	0.0100	0.0101	-1.00	105	0.00
43	T	Carbtetraclo	0.0100	0.0097	3.00	101	0.00
44	T	11dicloprope	0.0100	0.0102	-2.00	103	0.00
45	S	SURR12DCAd4	0.0200	0.0187	6.50	102	0.00
46	T	Benzene	0.0100	0.0101	-1.00	106	0.00
47	T	12dichlorota	0.0100	0.0100	0.00	106	0.00
48	T	TAME	0.0100	0.0104	-4.00	111	0.00

49	T	trichloroete	0.0100	0.0102	-2.00	107	0.00
50	T	methylcyclohexane	0.0100	0.0102	-2.00	104	0.00
51	CT	12dicloropra	0.0100	0.0095	5.00	103	0.00
52	T	23dicl1propene	0.0100	0.0099	1.00	104	0.00
53	T	Dibromometha	0.0100	0.0094	6.00	100	0.00
54	T	methylmethacrylate	0.0100	0.0095	5.00	112	0.00
55	T	14dioxane	0.5000	0.4836	3.28	107	0.00
56	T	Bromodiclrma	0.0100	0.0098	2.00	104	0.00
57	T	2Nitropropane	0.1000	0.0973	2.70	110	0.00
58	T	c13dicloproe	0.0100	0.0101	-1.00	108	0.00
59	T	4Meth2Pentan	0.1000	0.1044	-4.40	109	0.00
60	S	SURRd8Tolule	0.0200	0.0200	0.00	106	0.00
61	CT	Toluene	0.0100	0.0098	2.00	106	0.00
62	T	t13Dicloprop	0.0100	0.0096	4.00	106	0.00
63	T	ethylmethacrylate	0.0200	0.0201	-0.50	105	0.00
64	T	112Triclotha	0.0100	0.0095	5.00	100	0.00
65	T	Tetrachlorte	0.0100	0.0097	3.00	98	0.00
66	T	13Diclorpropa	0.0100	0.0097	3.00	106	0.00
67	I	d5-CHLOROBENZENE**ISTD**	0.0200	0.0200	0.00	107	0.00
68	T	2Hexanone	0.1000	0.0953	4.70	107	0.00
69	T	Clorodibrmta	0.0100	0.0098	2.00	103	0.00
70	T	12Dibrometha	0.0100	0.0098	2.00	100	0.00
71	PT	Chlorobenzen	0.0100	0.0096	4.00	105	0.00
72	T	1Clhexane	0.0100	0.0099	1.00	105	0.00
73	T	1112Tetclota	0.0100	0.0094	6.00	101	0.00
74	CT	Ethylbenzene	0.0100	0.0100	0.00	105	0.00
75	T	m p-Xylene	0.0200	0.0200	0.00	107	0.00
76	T	o-Xylene	0.0100	0.0099	1.00	104	0.00
77	T	Styrene	0.0100	0.0098	2.00	104	0.00
78	PT	Bromoform	0.0100	0.0092	8.00	108	0.00
79	T	Isopropylben	0.0100	0.0103	-3.00	103	0.00
80	I	d4-1,4-DICHLOROBENZENE**IS	0.0200	0.0200	0.00	109	0.00
81	T	cyclohexanone	0.2000	0.1945	2.75	100	0.00
82	S	SURR4BrFBenz	0.0200	0.0199	0.50	109	0.00
83	T	Bromobenzene	0.0100	0.0093	7.00	105	0.00
84	PT	1122Tetrclta	0.0100	0.0096	4.00	99	0.00
85	T	123Triclproa	0.0100	0.0092	8.00	115	0.00
86	T	14dichloro2butene	0.0100	0.0085	15.00	103	0.00
87	T	n-Propylbenz	0.0100	0.0100	0.00	104	0.00
88	T	2chlorotolue	0.0100	0.0097	3.00	107	0.00
89	T	4chlorotolue	0.0100	0.0098	2.00	104	0.00
90	T	135Trimebenz	0.0100	0.0099	1.00	106	0.00
91	T	tbutylbenzen	0.0100	0.0099	1.00	101	0.00
92	T	124Trimetben	0.0100	0.0096	4.00	103	0.00
93	T	sbutylbenzen	0.0100	0.0102	-2.00	104	0.00
94	T	13Diclorbenz	0.0100	0.0094	6.00	104	0.00
95	T	pIsopropylto	0.0100	0.0099	1.00	101	0.00
96	T	14dichlorobe	0.0100	0.0094	6.00	105	0.00
97	T	12dichlorobe	0.0100	0.0092	8.00	103	0.00
98	T	nButylbenzen	0.0100	0.0101	-1.00	104	0.00
99	T	12dibromo3cl	0.0100	0.0092	8.00	106	0.00
100	T	135Trichlorobenzene	0.0100	0.0097	3.00	105	0.00
101	T	124Trichlobe	0.0100	0.0092	8.00	101	0.00
102	T	Hexachlorobu	0.0100	0.0100	0.00	106	0.00
103	T	Naphthalene	0.0100	0.0098	2.00	110	0.00
104	T	123Trichlben	0.0100	0.0090	10.00	99	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

LS090419.M Tue Sep 10 13:59:06 2019

Quantitation Report

Data File : C:\Instarch\Data\SEP0419\ICV1.D Vial: 14
Acq On : 4 Sep 2019 18:45 Operator: RLD-DGS
Sample : INITIAL CALIB. VERIF. Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:09:52 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:09:30 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.67	96	1182115	0.02	mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	905980	0.02	mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.89	152	485735	0.02	mg/kg	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	295962	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 100 %			
45) SURR12DCAd4	7.25	102	56341	0.019	mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 95 %			
60) SURRd8Tolule	9.67	98	1205711	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %			
82) SURR4BrFBenz	13.23	95	458862	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 100 %			
Target Compounds						Qvalue
2) Dichlorodi	1.82	85	190189	0.0111	mg/kg	98
3) Chloromethan	2.06	50	184879	0.0103	mg/kg	95
4) VinylChlorid	2.21	62	183969	0.0106	mg/kg	99
5) Bromomethane	2.68	94	99875	0.0114	mg/kg	99
6) Chloroethane	2.84	64	109756	0.0104	mg/kg	95
7) dichloroflmethane	3.15	67	353211	0.0105	mg/kg	97
8) Trichlorofma	3.22	101	269047	0.0098	mg/kg	94
9) Ethylether	3.66	59	126511	0.0104	mg/kg	98
10) dichlorotfluoroethan	3.68	67	204698	0.0112	mg/kg	97
11) propyleneoxide	3.72	58	136663	0.0961	mg/kg	93
12) Acrolein	3.82	56	112969	0.0486	mg/kg	99
13) 11dichlorthe	3.94	96	164120	0.0111	mg/kg	91
14) Trichlorotfluoroeth	3.97	101	311118	0.0214	mg/kg	99
15) Acetone	4.04	43	355762	0.1025	mg/kg	97
16) Iodomethane	4.12	142	270717	0.0176	mg/kg	97
17) Carbon Dislf	4.20	76	1109148	0.0217	mg/kg	98
18) allylchloride	4.43	41	554041	0.0205	mg/kg	99
19) methylacetate	4.51	74	46983	0.0093	mg/kg	99
20) Methylchlorid	4.60	84	205865	0.0093	mg/kg	95
21) Acrylonitrile	4.94	53	172039	0.0490	mg/kg	96
22) t12dichlorte	4.96	96	178678	0.0103	mg/kg	97
23) tbutylalcohol	4.81	59	786116	0.4832	mg/kg	99
24) MtBE	4.98	73	468682	0.0103	mg/kg	99
25) Hexane	5.33	57	476354	0.0207	mg/kg	96
26) 11dichlorota	5.50	63	322370	0.0100	mg/kg	100
27) Vinylacetate	5.59	43	2173912	0.1073	mg/kg	100
28) chloroprene	5.61	53	519410	0.0219	mg/kg	98
29) Diisopether	5.62	45	518703	0.0102	mg/kg	98
30) ETBE	6.07	59	480792	0.0104	mg/kg	100
31) 22dichloropr	6.23	77	286416	0.0098	mg/kg	99
32) c12dichlorte	6.24	96	189336	0.0098	mg/kg	98
33) 2Butanone	6.27	72	148301	0.1004	mg/kg	98
34) propionitrile	6.34	54	129518	0.0884	mg/kg	97
35) Ethylacetate	6.36	88	21367	0.0502	mg/kg#	87
36) methacrylonitrile	6.52	67	103499	0.0194	mg/kg	96
37) Bromochlorma	6.53	128	73840	0.0099	mg/kg	93
38) Tetrahydofur	6.59	42	335289	0.0981	mg/kg	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\SEP0419\ICV1.D Vial: 14
Acq On : 4 Sep 2019 18:45 Operator: RLD-DGS
Sample : INITIAL CALIB. VERIF. Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:09:52 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:09:30 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	6.63	83	326849	0.0098 mg/kg	94
40)	111trichlota	6.86	97	290012	0.0103 mg/kg	98
42)	Cyclohexane	6.92	56	269639	0.0101 mg/kg	95
43)	Carbtetraclo	7.07	119	227786	0.0097 mg/kg	98
44)	11dicloprope	7.07	110	81869	0.0102 mg/kg	95
46)	Benzene	7.32	78	744216	0.0101 mg/kg	98
47)	12dichlorota	7.34	62	211580	0.0100 mg/kg	99
48)	TAME	7.47	73	462801	0.0104 mg/kg	99
49)	trichloroete	8.13	95	184534	0.0102 mg/kg	98
50)	methylcyclohexane	8.36	83	319886	0.0102 mg/kg	97
51)	12dicloropra	8.40	63	179478	0.0095 mg/kg	99
52)	23dicl1propene	8.46	75	278311	0.0099 mg/kg	94
53)	Dibromometha	8.55	93	89800	0.0094 mg/kg	90
54)	methylmethacrylate	8.57	69	89791	0.0095 mg/kg	94
55)	14dioxane	8.59	88	71475	0.4836 mg/kg	94
56)	Bromodiclrma	8.74	83	238310	0.0098 mg/kg	100
57)	2Nitropropane	9.02	43	327534	0.0973 mg/kg	99
58)	c13dicloproe	9.33	75	289231	0.0101 mg/kg	98
59)	4Meth2Pentan	9.51	43	1194636	0.1044 mg/kg	97
61)	Toluene	9.76	92	472603	0.0098 mg/kg	98
62)	t13Dicloprop	10.04	75	234654	0.0096 mg/kg	99
63)	ethylmethacrylate	10.17	69	373372	0.0201 mg/kg	98
64)	112Triclotha	10.27	83	117506	0.0095 mg/kg	98
65)	Tetrachlorte	10.48	166	173856	0.0097 mg/kg	95
66)	13Diclorpropa	10.49	76	246473	0.0097 mg/kg	98
68)	2Hexanone	10.61	43	807761	0.0953 mg/kg	99
69)	Clorodibrmta	10.80	129	147952	0.0098 mg/kg	97
70)	12Dibrometha	10.96	107	130263	0.0098 mg/kg	96
71)	Chlorobenzen	11.63	112	448424	0.0096 mg/kg	98
72)	1Clhexane	11.60	91	246476	0.0099 mg/kg	98
73)	1112Tetclota	11.74	131	153386	0.0094 mg/kg	94
74)	Ethylbenzene	11.78	91	828139	0.0100 mg/kg	100
75)	m p-Xylene	11.94	106	618465	0.0200 mg/kg	97
76)	o-Xylene	12.50	106	307743	0.0099 mg/kg	99
77)	Styrene	12.51	104	494019	0.0098 mg/kg	99
78)	Bromoform	12.76	173	95050	0.0092 mg/kg	97
79)	Isopropylben	13.01	105	780178	0.0103 mg/kg	99
81)	cyclohexanone	13.13	55	98646	0.1945 mg/kg	91
83)	Bromobenzene	13.44	156	187529	0.0093 mg/kg	95
84)	1122Tetrclta	13.43	83	184867	0.0096 mg/kg	99
85)	123Triclproa	13.48	75	217170	0.0092 mg/kg	93
86)	14dichloro2butene	13.52	53	36397	0.0085 mg/kg	96
87)	n-Propylbenz	13.60	91	933447	0.0100 mg/kg	97
88)	2chlorotolue	13.72	91	550680	0.0097 mg/kg	98
89)	4chlorotolue	13.88	91	631116	0.0098 mg/kg	99
90)	135Trimebenz	13.86	105	652722	0.0099 mg/kg	99
91)	tbutylbenzen	14.33	119	556801	0.0099 mg/kg	99
92)	124Trimetben	14.40	105	648090	0.0096 mg/kg	100
93)	sbutylbenzen	14.65	105	845922	0.0102 mg/kg	99
94)	13Diclorbenz	14.80	146	339987	0.0094 mg/kg	98
95)	pIsopropylto	14.86	119	668336	0.0099 mg/kg	98
96)	14dichlorobe	14.93	146	338044	0.0094 mg/kg	98
97)	12dichlorobe	15.46	146	316863	0.0092 mg/kg	98
98)	nButylbenzen	15.46	91	661836	0.0101 mg/kg	99
99)	12dibromo3cl	16.58	157	31977	0.0092 mg/kg	91
100)	135Trichlorobenzene	16.89	180	267191	0.0097 mg/kg	98
101)	124Trichlobe	17.70	180	225124	0.0092 mg/kg	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\SEP0419\ICV1.D Vial: 14
Acq On : 4 Sep 2019 18:45 Operator: RLD-DGS
Sample : INITIAL CALIB. VERIF. Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:09:52 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:09:30 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) Hexachlorobu	17.93	225	159305	0.0100 mg/kg	96
103) Naphthalene	18.02	128	480677	0.0098 mg/kg	98
104) 123Trichlben	18.32	180	211777	0.0090 mg/kg	97

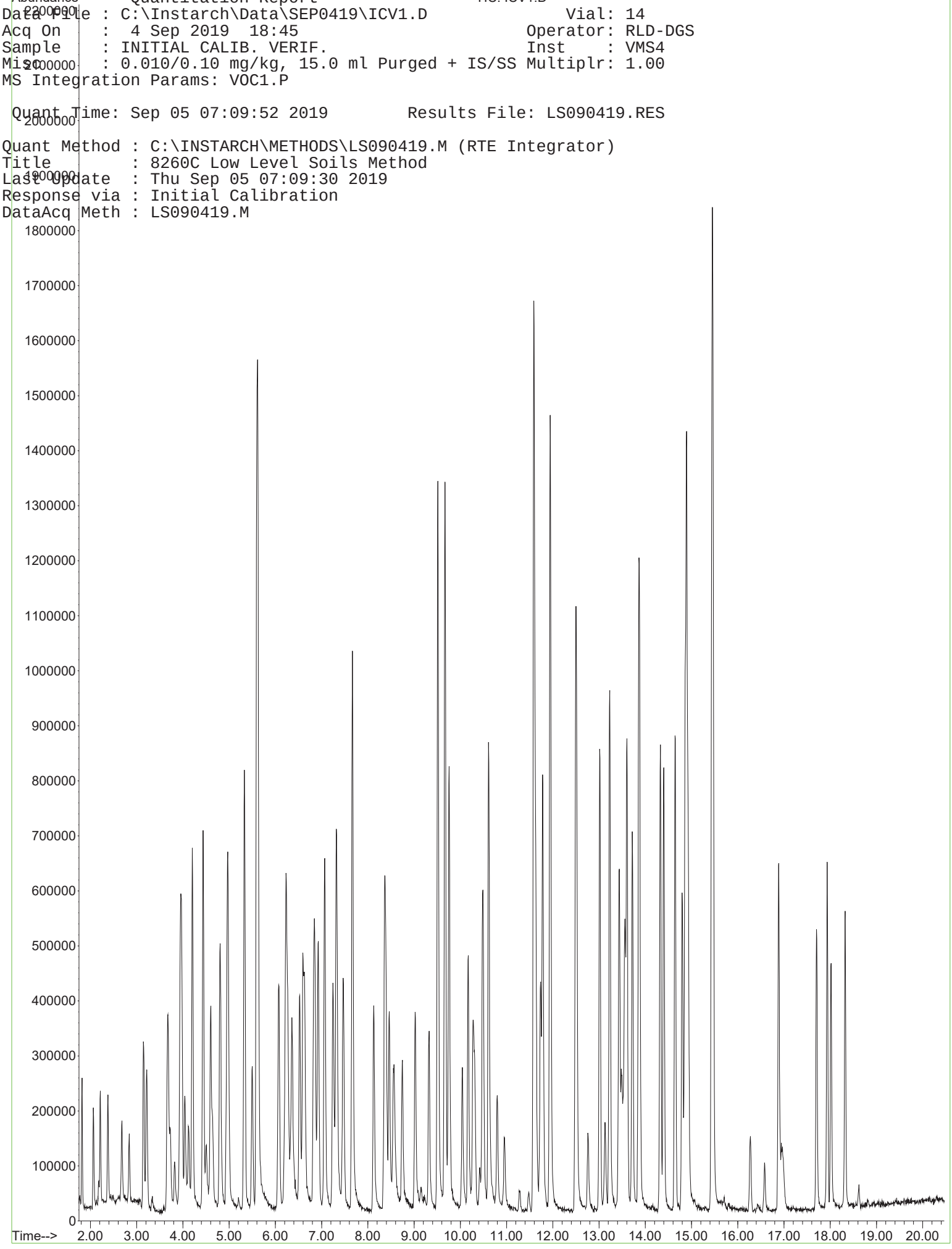
(#) = qualifier out of range (m) = manual integration

Abundance Quantitation Report TIC: ICV1.D

Data File : C:\Instarch\Data\SEP0419\ICV1.D Vial: 14
Acq On : 4 Sep 2019 18:45 Operator: RLD-DGS
Sample : INITIAL CALIB. VERIF. Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:09:52 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:09:30 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M



Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\SEP0419\ICV2.D Vial: 15
Acq On : 4 Sep 2019 19:14 Operator: RLD-DGS
Sample : INITIAL CALIB. VERIF. Inst : VMS4
Misc : 0.030/0.30 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Sep 05 07:10:46 2019

Quant Method : C:\INSTARCH\METHODS\LS090419.M
Quant Title : 8260C Low Level Soils Method
Response via : Initial Calibration
DataAcq Meth:LS090419.M

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	0.0200	0.0200	0.00	97	0.00
2	T	Dichlorodi	0.0300	0.0303	-1.00	106	0.00
3	PT	Chloromethan	0.0300	0.0296	1.33	102	0.00
4	CT	VinylChlorid	0.0300	0.0324	-8.00	102	0.00
5	T	Bromomethane	0.0300	0.0263	12.33	96	0.00
6	T	Chloroethane	0.0300	0.0298	0.67	101	0.00
7	T	dichloroflmethane	0.0300	0.0309	-3.00	99	0.00
8	T	Trichlorofma	0.0300	0.0285	5.00	100	0.00
9	T	Ethylether	0.0300	0.0318	-6.00	98	0.00
10	T	dichlorotfluoroethan	0.0300	0.0334	-11.33	104	0.00
11	T	propyleneoxide	0.3000	0.3364	-12.13	106	0.00
12	T	Acrolein	0.1500	0.1578	-5.20	104	0.00
13	CT	11dichlorthe	0.0300	0.0316	-5.33	98	0.00
14	T	Trichlorotfluoroeth	0.0600	0.0608	-1.33	107	0.00
15	T	Acetone	0.3000	0.3009	-0.30	104	0.00
16	T	Iodomethane	0.0600	0.0584	2.67	96	0.00
17	T	Carbon Dislf	0.0600	0.0631	-5.17	101	0.00
18	T	allylchloride	0.0600	0.0616	-2.67	100	0.00
19	T	methylacetate	0.0300	0.0289	3.67	94	-0.01
20	T	Methylchlorid	0.0300	0.0290	3.33	96	0.00
21	T	Acrylonitrile	0.1500	0.1630	-8.67	100	0.00
22	T	t12dichlorte	0.0300	0.0295	1.67	98	0.00
23	T	tbutylalcohol	1.5000	1.4451	3.66	98	0.00
24	T	MtBE	0.0300	0.0314	-4.67	100	0.00
25	T	Hexane	0.0600	0.0591	1.50	104	0.00
26	PT	11dichlorota	0.0300	0.0290	3.33	96	0.00
27	T	Vinylacetate	0.3000	0.3330	-11.00	101	0.00
28	T	chloroprene	0.0600	0.0654	-9.00	101	0.00
29	T	Diisopether	0.0300	0.0303	-1.00	98	0.00
30	T	ETBE	0.0300	0.0310	-3.33	98	0.00
31	T	22dichloropr	0.0300	0.0287	4.33	94	0.00
32	T	c12dichlorte	0.0300	0.0301	-0.33	97	0.00
33	T	2Butanone	0.3000	0.3240	-8.00	100	-0.01
34	T	propionitrile	0.3000	0.2862	4.60	94	-0.01
35	T	Ethylacetate	0.1500	0.1508	-0.53	101	0.00
36	T	methacrylonitrile	0.0600	0.0604	-0.67	101	0.00
37	T	Bromochlorma	0.0300	0.0309	-3.00	98	0.00
38	T	Tetrahydofur	0.3000	0.3084	-2.80	99	0.00
39	CT	Chloroform	0.0300	0.0293	2.33	96	0.00
40	T	111trichlota	0.0300	0.0312	-4.00	97	0.00
41	S	SURRDibrflma	0.0200	0.0201	-0.50	99	0.00
42	T	Cyclohexane	0.0300	0.0292	2.67	101	0.00
43	T	Carbtetraclo	0.0300	0.0286	4.67	99	0.00
44	T	11dicloprope	0.0300	0.0305	-1.67	95	0.00
45	S	SURR12DCAd4	0.0200	0.0221	-10.50	112	0.00
46	T	Benzene	0.0300	0.0295	1.67	97	0.00
47	T	12dichlorota	0.0300	0.0304	-1.33	92	0.00
48	T	TAME	0.0300	0.0318	-6.00	102	0.00

49	T	trichloroete	0.0300	0.0298	0.67	96	0.00
50	T	methylcyclohexane	0.0300	0.0292	2.67	104	0.00
51	CT	12dicloropra	0.0300	0.0292	2.67	95	0.00
52	T	23dicl1propene	0.0300	0.0312	-4.00	98	0.00
53	T	Dibromometha	0.0300	0.0299	0.33	95	0.00
54	T	methylmethacrylate	0.0300	0.0293	2.33	96	0.00
55	T	14dioxane	1.5000	1.5437	-2.91	101	0.00
56	T	Bromodiclrma	0.0300	0.0297	1.00	93	0.00
57	T	2Nitropropane	0.3000	0.3244	-8.13	99	0.00
58	T	c13dicloproe	0.0300	0.0296	1.33	92	0.00
59	T	4Meth2Pentan	0.3000	0.3038	-1.27	98	0.00
60	S	SURRd8Tolule	0.0200	0.0203	-1.50	99	0.00
61	CT	Toluene	0.0300	0.0293	2.33	96	0.00
62	T	t13Dicloprop	0.0300	0.0305	-1.67	92	0.00
63	T	ethylmethacrylate	0.0600	0.0642	-7.00	97	0.00
64	T	112Triclotha	0.0300	0.0292	2.67	96	0.00
65	T	Tetrachlorte	0.0300	0.0300	0.00	96	0.00
66	T	13Diclorpropa	0.0300	0.0292	2.67	94	0.00
67	I	d5-CHLOROBENZENE**ISTD**	0.0200	0.0200	0.00	99	0.00
68	T	2Hexanone	0.3000	0.2871	4.30	100	0.00
69	T	Clorodibrmta	0.0300	0.0299	0.33	91	0.00
70	T	12Dibrometha	0.0300	0.0297	1.00	96	0.00
71	PT	Chlorobenzen	0.0300	0.0276	8.00	92	0.00
72	T	1Clhexane	0.0300	0.0272	9.33	98	0.00
73	T	1112Tetclota	0.0300	0.0287	4.33	95	0.00
74	CT	Ethylbenzene	0.0300	0.0287	4.33	94	0.00
75	T	m p-Xylene	0.0600	0.0556	7.33	90	0.00
76	T	o-Xylene	0.0300	0.0288	4.00	94	0.00
77	T	Styrene	0.0300	0.0288	4.00	93	0.00
78	PT	Bromoform	0.0300	0.0296	1.33	95	0.00
79	T	Isopropylben	0.0300	0.0295	1.67	94	0.00
80	I	d4-1,4-DICHLOROBENZENE**IS	0.0200	0.0200	0.00	98	0.00
81	T	cyclohexanone	0.6000	0.5579	7.02	100	0.00
82	S	SURR4BrFBenz	0.0200	0.0198	1.00	97	0.00
83	T	Bromobenzene	0.0300	0.0284	5.33	93	0.00
84	PT	1122Tetrclta	0.0300	0.0288	4.00	94	0.00
85	T	123Triclproa	0.0300	0.0284	5.33	94	0.00
86	T	14dichloro2butene	0.0300	0.0287	4.33	97	0.00
87	T	n-Propylbenz	0.0300	0.0277	7.67	91	0.00
88	T	2chlorotolue	0.0300	0.0280	6.67	91	0.00
89	T	4chlorotolue	0.0300	0.0277	7.67	91	0.00
90	T	135Trimebenz	0.0300	0.0278	7.33	91	0.00
91	T	tbutylbenzen	0.0300	0.0288	4.00	94	0.00
92	T	124Trimetben	0.0300	0.0269	10.33	90	0.00
93	T	sbutylbenzen	0.0300	0.0291	3.00	93	0.00
94	T	13Diclorbenz	0.0300	0.0261	13.00	87	0.00
95	T	pIsopropylto	0.0300	0.0284	5.33	92	0.00
96	T	14dichlorobe	0.0300	0.0264	12.00	86	0.00
97	T	12dichlorobe	0.0300	0.0269	10.33	90	0.00
98	T	nButylbenzen	0.0300	0.0279	7.00	90	0.00
99	T	12dibromo3cl	0.0300	0.0295	1.67	92	0.00
100	T	135Trichlorobenzene	0.0300	0.0266	11.33	88	0.00
101	T	124Trichlobe	0.0300	0.0252	16.00	85	0.00
102	T	Hexachlorobu	0.0300	0.0290	3.33	94	0.00
103	T	Naphthalene	0.0300	0.0273	9.00	91	0.00
104	T	123Trichlben	0.0300	0.0261	13.00	88	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

LS090419.M Tue Sep 10 14:00:14 2019

Quantitation Report

Data File : C:\Instarch\Data\SEP0419\ICV2.D Vial: 15
Acq On : 4 Sep 2019 19:14 Operator: RLD-DGS
Sample : INITIAL CALIB. VERIF. Inst : VMS4
Misc : 0.030/0.30 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:10:46 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:10:10 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.67	96	1155818	0.02	mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	913829	0.02	mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.89	152	491873	0.02	mg/kg	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	289339	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 100 %			
45) SURR12DCAd4	7.24	102	65297	0.022	mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 110 %			
60) SURRd8Tolule	9.67	98	1197405	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %			
82) SURR4BrFBenz	13.23	95	462948	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 100 %			
Target Compounds						Qvalue
2) Dichlorodi	1.82	85	526360	0.0303	mg/kg	97
3) Chloromethan	2.06	50	518112	0.0296	mg/kg	99
4) VinylChlorid	2.21	62	547854	0.0324	mg/kg	98
5) Bromomethane	2.68	94	225454	0.0263	mg/kg	99
6) Chloroethane	2.83	64	306619	0.0298	mg/kg	96
7) dichloroflmethane	3.15	67	1014253	0.0309	mg/kg	99
8) Trichlorofma	3.21	101	799064	0.0285	mg/kg	97
9) Ethylether	3.66	59	378426	0.0318	mg/kg	97
10) dichlorotfluoroethan	3.68	67	595621	0.0334	mg/kg	97
11) propyleneoxide	3.73	58	467892	0.3364	mg/kg	98
12) Acrolein	3.81	56	358780	0.1578	mg/kg	99
13) 11dichlorthe	3.94	96	459328	0.0316	mg/kg	97
14) Trichlorotfluoroeth	3.97	101	904394	0.0608	mg/kg	98
15) Acetone	4.04	43	1020940	0.3009	mg/kg	99
16) Iodomethane	4.12	142	979895	0.0584	mg/kg	99
17) Carbon Dislf	4.20	76	3151251	0.0631	mg/kg	98
18) allylchloride	4.43	41	1629233	0.0616	mg/kg	99
19) methylacetate	4.50	74	150959	0.0289	mg/kg	95
20) Methylchlorid	4.60	84	559264	0.0290	mg/kg	99
21) Acrylonitrile	4.93	53	559174	0.1630	mg/kg	98
22) t12dichlorte	4.96	96	500325	0.0295	mg/kg	96
23) tbutylalcohol	4.80	59	2298784	1.4451	mg/kg	100
24) MtBE	4.98	73	1402545	0.0314	mg/kg	98
25) Hexane	5.33	57	1380768	0.0591	mg/kg	97
26) 11dichlorota	5.49	63	919543	0.0290	mg/kg	100
27) Vinylacetate	5.59	43	6596118	0.3330	mg/kg	98
28) chloroprene	5.61	53	1518084	0.0654	mg/kg	99
29) Diisopether	5.61	45	1502846	0.0303	mg/kg	95
30) ETBE	6.07	59	1402448	0.0310	mg/kg	99
31) 22dichloropr	6.22	77	820299	0.0287	mg/kg	99
32) c12dichlorte	6.24	96	566251	0.0301	mg/kg	96
33) 2Butanone	6.26	72	467746	0.3240	mg/kg	99
34) propionitrile	6.33	54	438849	0.2862	mg/kg	97
35) Ethylacetate	6.35	88	68184	0.1508	mg/kg#	91
36) methacrylonitrile	6.52	67	329269	0.0604	mg/kg	99
37) Bromochlorma	6.53	128	226247	0.0309	mg/kg	97
38) Tetrahydofur	6.59	42	1030819	0.3084	mg/kg	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\SEP0419\ICV2.D Vial: 15
Acq On : 4 Sep 2019 19:14 Operator: RLD-DGS
Sample : INITIAL CALIB. VERIF. Inst : VMS4
Misc : 0.030/0.30 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:10:46 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:10:10 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	6.63	83	953849	0.0293 mg/kg	94
40)	111trichlota	6.86	97	858056	0.0312 mg/kg	99
42)	Cyclohexane	6.92	56	802776	0.0292 mg/kg	98
43)	Carbtetraclo	7.06	119	687215	0.0286 mg/kg	99
44)	11dicloprope	7.06	110	238049	0.0305 mg/kg	99
46)	Benzene	7.32	78	2135643	0.0295 mg/kg	98
47)	12dichlorota	7.34	62	626243	0.0304 mg/kg	97
48)	TAME	7.47	73	1381667	0.0318 mg/kg	99
49)	trichloroete	8.13	95	525594	0.0298 mg/kg	98
50)	methylcyclohexane	8.36	83	962609	0.0292 mg/kg	99
51)	12dicloropra	8.40	63	536764	0.0292 mg/kg	100
52)	23dicl1propene	8.46	75	855636	0.0312 mg/kg	97
53)	Dibromometha	8.54	93	278883	0.0299 mg/kg	92
54)	methylmethacrylate	8.56	69	291487	0.0293 mg/kg	99
55)	14dioxane	8.58	88	223093	1.5437 mg/kg	92
56)	Bromodiclrma	8.74	83	710883	0.0297 mg/kg	98
57)	2Nitropropane	9.02	43	1067508	0.3244 mg/kg	93
58)	c13dicloproe	9.32	75	829081	0.0296 mg/kg	98
59)	4Meth2Pentan	9.51	43	3398331	0.3038 mg/kg	99
61)	Toluene	9.75	92	1383201	0.0293 mg/kg	96
62)	t13Dicloprop	10.04	75	724969	0.0305 mg/kg	98
63)	ethylmethacrylate	10.17	69	1165915	0.0642 mg/kg	99
64)	112Triclotha	10.27	83	352987	0.0292 mg/kg	98
65)	Tetrachlorte	10.48	166	526030	0.0300 mg/kg	98
66)	13Diclorpropa	10.50	76	721319	0.0292 mg/kg	100
68)	2Hexanone	10.61	43	2460443	0.2871 mg/kg	98
69)	Clorodibrmta	10.80	129	456329	0.0299 mg/kg	98
70)	12Dibrometha	10.96	107	400090	0.0297 mg/kg	100
71)	Chlorobenzen	11.63	112	1297327	0.0276 mg/kg	97
72)	1Clhexane	11.60	91	711801	0.0272 mg/kg	97
73)	1112Tetclota	11.73	131	470489	0.0287 mg/kg	97
74)	Ethylbenzene	11.78	91	2390181	0.0287 mg/kg	98
75)	m p-Xylene	11.94	106	1734483	0.0556 mg/kg	99
76)	o-Xylene	12.49	106	900542	0.0288 mg/kg	100
77)	Styrene	12.51	104	1462283	0.0288 mg/kg	100
78)	Bromoform	12.76	173	308615	0.0296 mg/kg	96
79)	Isopropylben	13.01	105	2263199	0.0295 mg/kg	99
81)	cyclohexanone	13.13	55	286617	0.5579 mg/kg	91
83)	Bromobenzene	13.44	156	580842	0.0284 mg/kg	91
84)	1122Tetrclta	13.43	83	558746	0.0288 mg/kg	97
85)	123Triclproa	13.49	75	680525	0.0284 mg/kg	95
86)	14dichloro2butene	13.52	53	124676	0.0287 mg/kg	98
87)	n-Propylbenz	13.60	91	2629319	0.0277 mg/kg	98
88)	2chlorotolue	13.72	91	1608526	0.0280 mg/kg	99
89)	4chlorotolue	13.88	91	1811240	0.0277 mg/kg	99
90)	135Trimebenz	13.86	105	1859781	0.0278 mg/kg	99
91)	tbutylbenzen	14.33	119	1643212	0.0288 mg/kg	99
92)	124Trimetben	14.40	105	1847994	0.0269 mg/kg	98
93)	sbutylbenzen	14.64	105	2439798	0.0291 mg/kg	97
94)	13Diclorbenz	14.79	146	956002	0.0261 mg/kg	97
95)	pIsopropylto	14.86	119	1937894	0.0284 mg/kg	98
96)	14dichlorobe	14.93	146	956076	0.0264 mg/kg	95
97)	12dichlorobe	15.47	146	935196	0.0269 mg/kg	97
98)	nButylbenzen	15.46	91	1846044	0.0279 mg/kg	98
99)	12dibromo3cl	16.58	157	104429	0.0295 mg/kg	98
100)	135Trichlorobenzene	16.89	180	745279	0.0266 mg/kg	99
101)	124Trichlobe	17.70	180	626226	0.0252 mg/kg	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\SEP0419\ICV2.D Vial: 15
Acq On : 4 Sep 2019 19:14 Operator: RLD-DGS
Sample : INITIAL CALIB. VERIF. Inst : VMS4
Misc : 0.030/0.30 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:10:46 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:10:10 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) Hexachlorobu	17.93	225	470227	0.0290 mg/kg	95
103) Naphthalene	18.01	128	1361043	0.0273 mg/kg	99
104) 123Trichlben	18.32	180	621571	0.0261 mg/kg	99

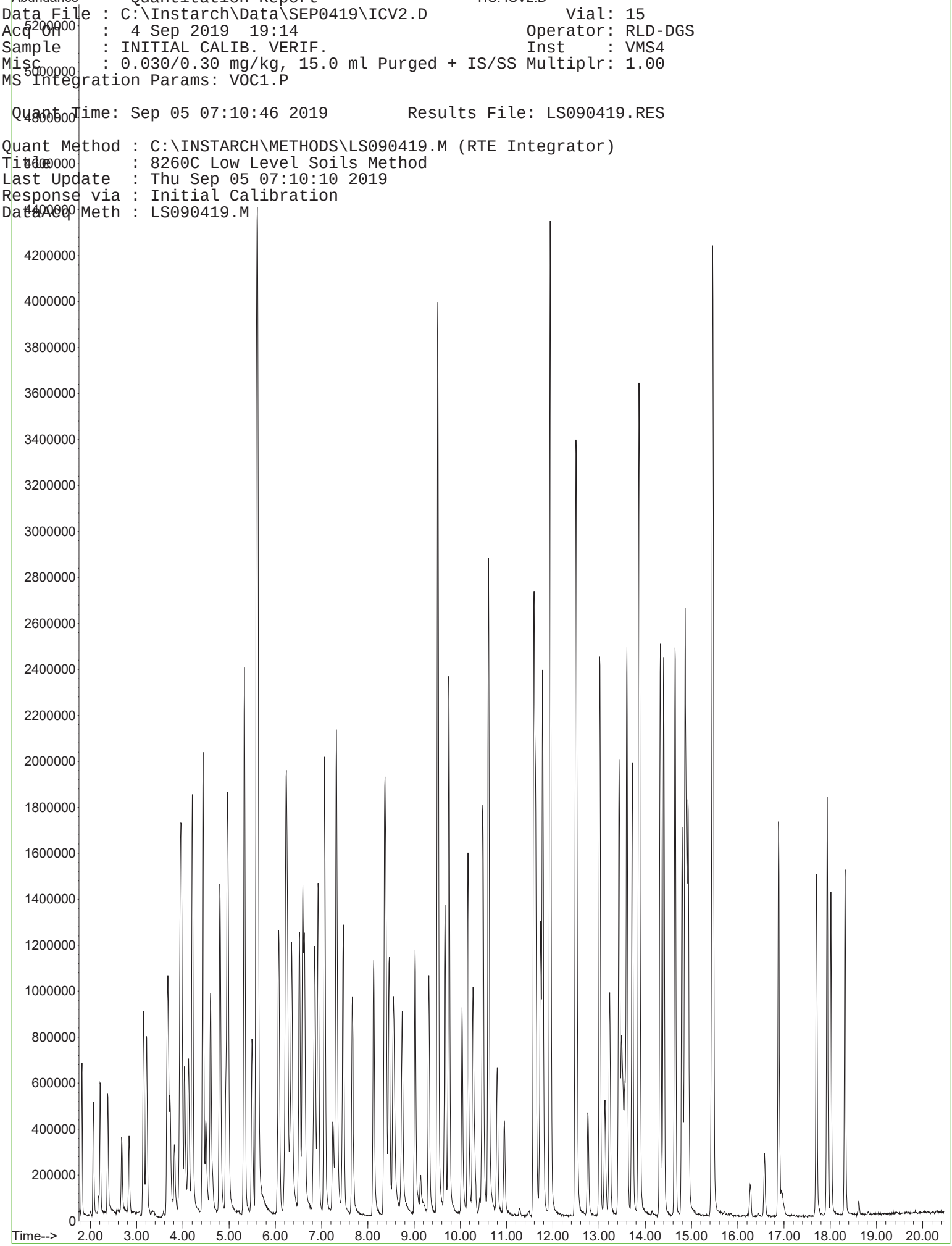
(#) = qualifier out of range (m) = manual integration

Abundance Quantitation Report TIC: ICV2.D

Data File : C:\Instarch\Data\SEP0419\ICV2.D Vial: 15
Acq On : 4 Sep 2019 19:14 Operator: RLD-DGS
Sample : INITIAL CALIB. VERIF. Inst : VMS4
Misc : 0.030/0.30 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:10:46 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:10:10 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M



Quantitation Report

Data File : C:\Instarch\Data\SEP0419\ICB-MB1.D Vial: 18
Acq On : 4 Sep 2019 20:41 Operator: RLD-DGS
Sample : 163978,MBS, Inst : VMS4
Misc : 5.00g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:11:05 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:10:10 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1192765	0.02 mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	926285	0.02 mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.90	152	488881	0.02 mg/kg	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.83	113	307114	0.021 mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 105 %		
45) SURR12DCAd4	7.25	102	59327	0.019 mg/kg	0.01
Spiked Amount 0.020	Range 71 - 136		Recovery = 95 %		
60) SURRd8Tolule	9.67	98	1226842	0.020 mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %		
82) SURR4BrFBenz	13.23	95	462428	0.020 mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 100 %		
Target Compounds					Qvalue
2) Dichlorodi	1.81	85	2460	0.0011 mg/kg#	44
3) Chloromethan	2.07	50	2849	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	2.70	94	2563	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.06	43	23670	N.D.	
16) Iodomethane	4.14	142	6537	0.0026 mg/kg#	90
17) Carbon Dislf	4.21	76	8737	N.D.	
18) allylchloride	4.48	41	1472	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	4.60	84	35432	N.D.	
21) Acrylonitrile	0.00	53	0	N.D.	
22) t12dichlorte	0.00	96	0	N.D.	
23) tbutylalcohol	4.80	59	19976	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	5.33	57	13239	0.0024 mg/kg	96
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	6.19	59	3419	N.D.	
31) 22dichloropr	6.18	77	12990	0.0004 mg/kg#	46
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	6.62	42	2066	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\SEP0419\ICB-MB1.D Vial: 18
Acq On : 4 Sep 2019 20:41 Operator: RLD-DGS
Sample : 163978,MBS, Inst : VMS4
Misc : 5.00g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:11:05 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:10:10 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.		
40)	111trichlota	0.00	97	0	N.D.		
42)	Cyclohexane	0.00	56	0	N.D.		
43)	Carbtetraclo	0.00	119	0	N.D.		
44)	11dicloprope	0.00	110	0	N.D.		
46)	Benzene	0.00	78	0	N.D.		
47)	12dichlorota	0.00	62	0	N.D.		
48)	TAME	0.00	73	0	N.D.		
49)	trichloroete	0.00	95	0	N.D.		
50)	methylcyclohexane	0.00	83	0	N.D.		
51)	12dicloropra	0.00	63	0	N.D.		
52)	23dicl1propene	8.41	75	1054	N.D.		
53)	Dibromometha	0.00	93	0	N.D.		
54)	methylmethacrylate	0.00	69	0	N.D.		
55)	14dioxane	0.00	88	0	N.D.		
56)	Bromodiclrma	0.00	83	0	N.D.		
57)	2Nitropropane	9.04	43	1797	N.D.		
58)	c13dicloproe	0.00	75	0	N.D.		
59)	4Meth2Pentan	9.52	43	11783	N.D.		
61)	Toluene	9.76	92	2435	N.D.		
62)	t13Dicloprop	0.00	75	0	N.D.		
63)	ethylmethacrylate	10.21	69	1081	N.D.		
64)	112Triclotha	0.00	83	0	N.D.		
65)	Tetrachlorte	0.00	166	0	N.D.		
66)	13Diclorpropa	0.00	76	0	N.D.		
68)	2Hexanone	10.63	43	4129	N.D.		
69)	Clorodibrmta	0.00	129	0	N.D.		
70)	12Dibrometha	0.00	107	0	N.D.		
71)	Chlorobenzen	0.00	112	0	N.D.		
72)	1Clhexane	11.59	91	2840	0.0010	mg/kg#	1
73)	1112Tetclota	0.00	131	0	N.D.		
74)	Ethylbenzene	11.80	91	3943	N.D.		
75)	m p-Xylene	11.94	106	3544	N.D.		
76)	o-Xylene	12.50	106	1055	N.D.		
77)	Styrene	12.53	104	7580	N.D.		
78)	Bromoform	0.00	173	0	N.D.		
79)	Isopropylben	13.02	105	2571	N.D.		
81)	cyclohexanone	13.13	55	4833	N.D.		
83)	Bromobenzene	0.00	156	0	N.D.		
84)	1122Tetrclta	0.00	83	0	N.D.		
85)	123Triclproa	13.46	75	1714	N.D.		
86)	14dichloro2butene	0.00	53	0	N.D.		
87)	n-Propylbenz	13.61	91	3896	N.D.		
88)	2chlorotolue	13.74	91	2323	N.D.		
89)	4chlorotolue	13.90	91	2177	N.D.		
90)	135Trimebenz	13.86	105	2179	N.D.		
91)	tbutylbenzen	0.00	119	0	N.D.		
92)	124Trimetben	14.40	105	7920	N.D.		
93)	sbutylbenzen	14.65	105	3372	N.D.		
94)	13Diclorbenz	14.82	146	3104	N.D.		
95)	pIsopropylto	14.86	119	4533	N.D.		
96)	14dichlorobe	14.94	146	4708	N.D.		
97)	12dichlorobe	15.46	146	2237	N.D.		
98)	nButylbenzen	15.47	91	7174	N.D.		
99)	12dibromo3cl	0.00	157	0	N.D.		
100)	135Trichlorobenzene	16.90	180	1478	N.D.		
101)	124Trichlobe	17.71	180	3688	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\SEP0419\ICB-MB1.D Vial: 18
Acq On : 4 Sep 2019 20:41 Operator: RLD-DGS
Sample : 163978,MBS, Inst : VMS4
Misc : 5.00g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:11:05 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:10:10 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) Hexachlorobu	17.94	225	1185	N.D.	
103) Naphthalene	18.02	128	19872	N.D.	
104) 123Trichlben	18.33	180	3276	N.D.	

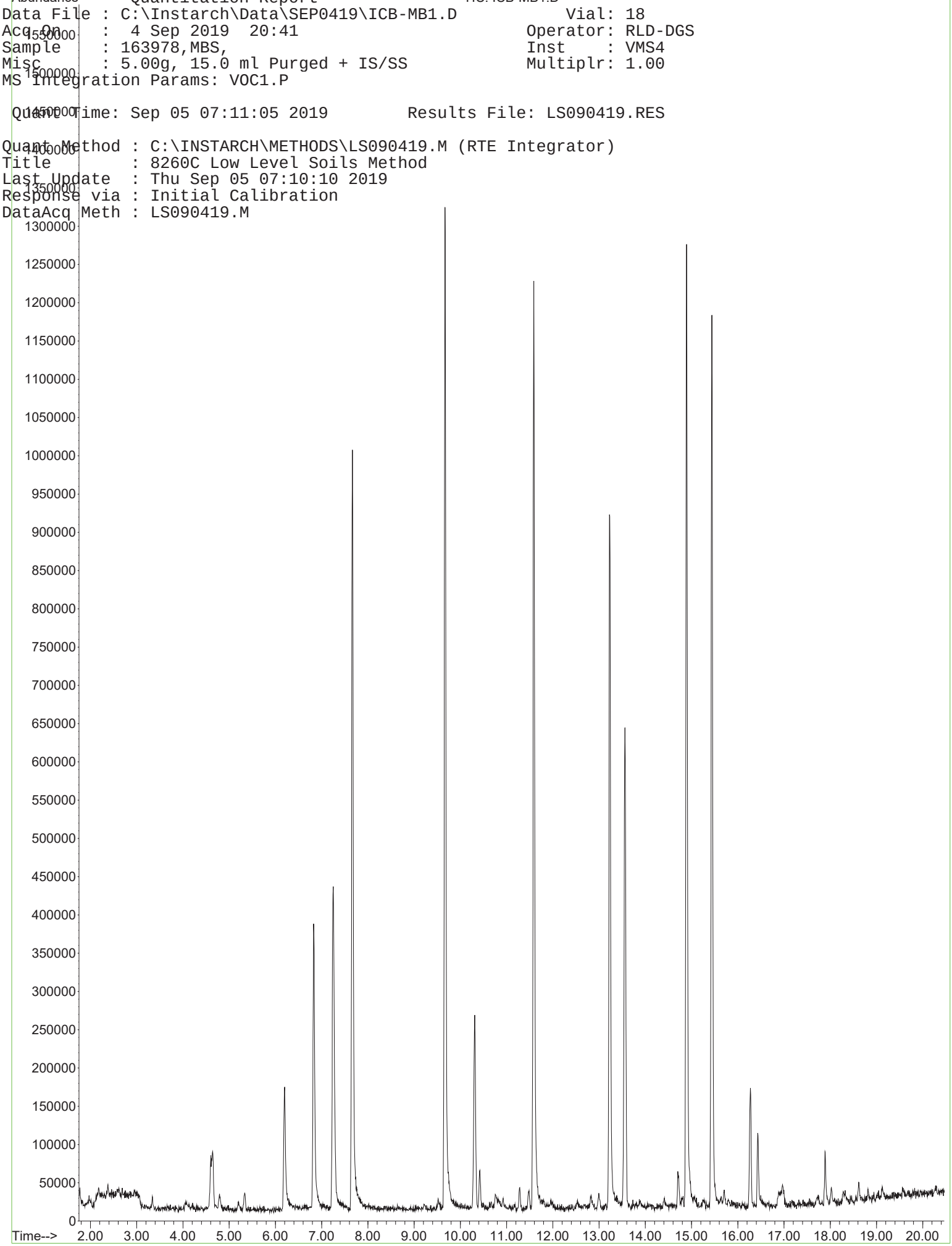
(#) = qualifier out of range (m) = manual integration

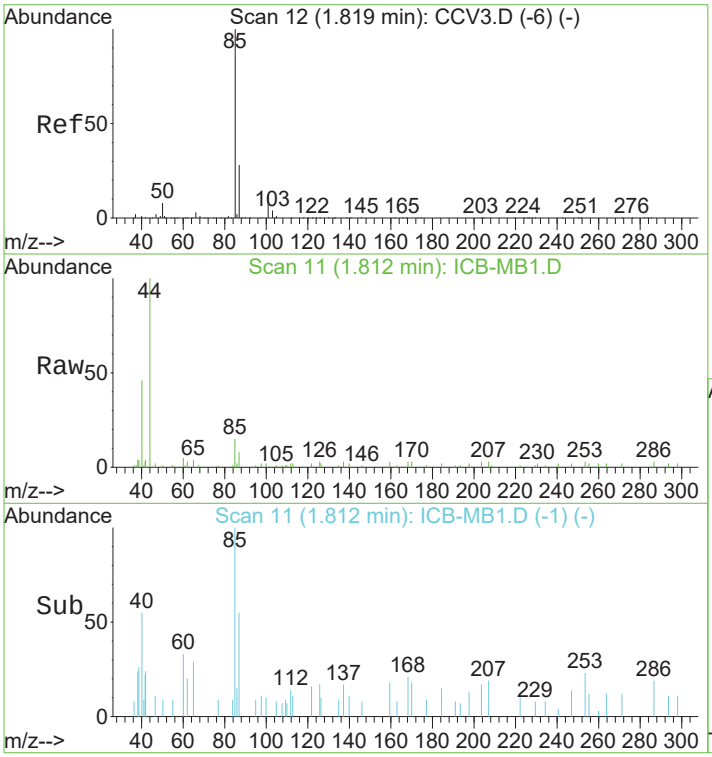
Abundance Quantitation Report TIC: ICB-MB1.D

Data File : C:\Instarch\Data\SEP0419\ICB-MB1.D Vial: 18
Acq On : 4 Sep 2019 20:41 Operator: RLD-DGS
Sample : 163978,MBS, Inst : VMS4
Misc : 5.00g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 07:11:05 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:10:10 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

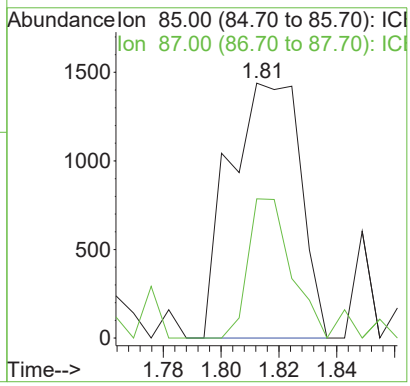




#2
Dichlorodi
Concen: 0.00 mg/kg
RT: 1.81 min Scan# 11
Delta R.T. -0.01 min
Lab File: ICB-MB1.D
Acq: 4 Sep 2019 20:41

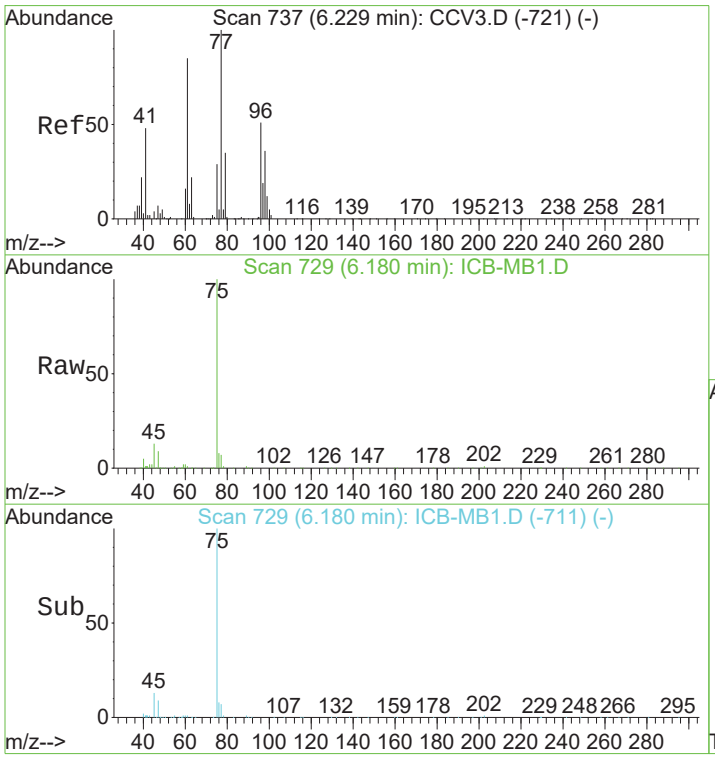
Tgt Ion: 85 Resp: 2460

Ion	Ratio	Lower	Upper
85	100		
87	0.0	10.8	50.8#



Negative Library Identification

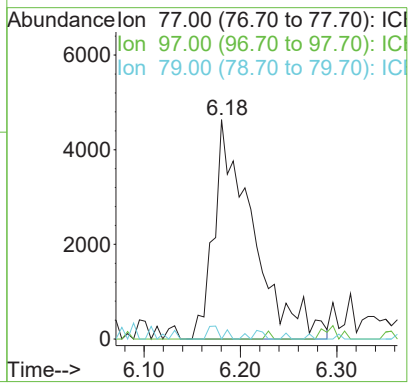
[redacted]



#31
22dichloropr
Concen: 0.00 mg/kg
RT: 6.18 min Scan# 729
Delta R.T. -0.04 min
Lab File: ICB-MB1.D
Acq: 4 Sep 2019 20:41

Tgt Ion: 77 Resp: 12990

Ion	Ratio	Lower	Upper
77	100		
97	0.0	1.8	41.8#
79	0.0	13.2	53.2#



Negative Library Identification

[redacted]

Method Path : C:\INSTARCH\METHODS\
Method File : LW082519.M
Title : 8260C Waters Method
Last Update : Tue Aug 27 21:12:32 2019
Response Via : Initial Calibration

RJ 08/29/2019

Calibration Files ug/L
1 0.100/1.00 =LLCALW1.D 2 0.200/2.00 =LLCALW2.D 3 0.500/5.00 =LLCALW3.D
4 1.00/10.00 =LLCALW4.D 5 2.00/20.00 =LLCALW5.D 6 4.00/40.00 =LLCALW6.D
7 6.00/60.00 =LLCALW7.D 8 8.00/80.00 =LLCALW8.D 9 16.00/160 =LLCALW9.D

	Compound	1	2	3	4	5	6	7	Avg	%RSD
		8	9							
1) I	FLUOROBENZENE**ISTD**	----------ISTD----------								
2) PT	Dichlorodi	0.253	0.290	0.213	0.184	0.231	0.235	0.209	0.229	13.45
		0.208	0.239							
3) PT	Chloromethan	0.494	0.549	0.452	0.494	0.477	0.497	0.445	0.479	7.18
		0.463	0.439							
4) PT	VinylChlorid	0.308	0.383	0.292	0.257	0.285	0.313	0.269	0.299	12.08
		0.284	0.297							
5) PT	Bromomethane		0.130	0.140	0.106	0.104	0.106	0.099	0.112	13.07
		0.104	0.106							
6) PT	Chloroethane		0.172	0.140	0.148	0.149	0.165	0.152	0.154	6.50
		0.153	0.156							
7) T	Dichloroflmetha	0.395	0.485	0.426	0.433	0.443	0.468	0.417	0.434	6.44
		0.424	0.415							
8) PT	Trichlorofma	0.232	0.499	0.350	0.273	0.335	0.359	0.316	-----	
		0.315	0.356							
							Q A= 0.015 R=0.998			
							B= 0.293			
							C= 0.008			
9) T	Ethylether	0.185	0.159	0.173	0.152	0.191	0.190	0.181	0.178	7.83
		0.188	0.180							
10) T	dichlorotfluoro	0.253	0.331	0.237	0.218	0.246	0.267	0.231	0.252	12.99
		0.236	0.250							
11) T	propyleneoxide		0.020	0.022	0.022	0.025	0.025	0.023	0.023#	6.71
		0.023	0.023							
12) T	Acrolein		0.015	0.024	0.025	0.026	0.028	0.025	----- #	
		0.027	0.027							
							Q A= 0.000 R=0.999			
							B= 0.027			
							C= -0.002			
13) PT	11dichlorthe	0.224	0.223	0.176	0.169	0.181	0.207	0.175	0.192	10.87
		0.184	0.195							
14) PT	Trichlorotfluor	0.158	0.218	0.169	0.138	0.174	0.184	0.162	0.173	12.92
		0.169	0.187							
15) PT	Acetone	0.048	0.042	0.042	0.039	0.042	0.047	0.042	0.043#	6.48
		0.044	0.043							
16) T	Iodomethane	0.257	0.241	0.225	0.231	0.265	0.288	0.283	0.262	9.57
		0.288	0.281							
17) PT	Carbon Dislf	0.458	0.554	0.475	0.432	0.470	0.483	0.433	0.465	8.20
		0.443	0.439							
18) T	allylchloride	0.582	0.634	0.603	0.572	0.593	0.628	0.577	0.591	4.90
		0.592	0.539							
19) PT	methylacetate		0.015	0.007	0.017	0.023	0.027	0.027	----- #	
		0.029	0.028							
							Q A= -0.000 R=0.999			
							B= 0.030			
							C= -0.003			
20) PT	Methylchlorid	0.699	0.440	0.370	0.295	0.262	0.245	0.227	-----	
		0.225	0.212							
							Q A= -0.005 R=1.000			
							B= 0.229			
							C= 0.015			
21) T	tbutylalcohol	0.013	0.013	0.013	0.012	0.012	0.014	0.012	0.013#	4.12

```
                    0.013 0.013
22) T   Acrylonitrile       0.032 0.032 0.044 0.047 0.053 0.050 -----
                    0.052 0.050
                                                  Q  A= -0.000 R=1.000
                                                     B=  0.054
                                                     C= -0.011
23) PT  t12dichlorte    0.090 0.245 0.198 0.198 0.203 0.223 0.201 -----
                    0.212 0.204
                                                  Q  A= -0.003 R=0.999
                                                     B=  0.216
                                                     C= -0.002
24) PT  MtBE            0.471 0.476 0.444 0.464 0.464 0.485 0.458 0.462   3.08
                    0.459 0.440
25) T   Hexane          0.342 0.483 0.332 0.276 0.377 0.411 0.372 -----
                    0.368 0.408
                                                  Q  A=  0.007 R=0.999
                                                     B=  0.353
                                                     C=  0.004
26) PT  11dichlorota    0.517 0.571 0.555 0.535 0.546 0.559 0.520 0.537   4.21
                    0.531 0.500
27) T   Vinylacetate    0.263 0.303 0.302 0.317 0.312 0.313 0.332 0.295  11.01
                    0.290 0.225
28) T   chloroprene     0.401 0.536 0.454 0.407 0.473 0.506 0.452 0.462   9.20
                    0.462 0.466
29) T   Diisopether     1.161 1.232 1.169 1.271 1.273 1.287 1.214 1.214   5.25
                    1.226 1.091
30) T   ETBE            0.784 0.832 0.780 0.801 0.813 0.834 0.794 0.800   3.14
                    0.802 0.755
31) T   22dichloropr    0.446 0.422 0.348 0.313 0.355 0.349 0.316 0.356  13.17
                    0.323 0.333
32) PT  c12dichlorte    0.288 0.240 0.238 0.246 0.258 0.266 0.246 0.254   6.26
                    0.260 0.242
33) PT  2Butanone           0.009 0.008 0.009 0.010 0.012 0.010 0.010# 12.35
                    0.011 0.011
34) T   propionitrile       0.012 0.003 0.010 0.015 0.018 0.017 ----- #
                    0.018 0.017
                                                  Q  A= -0.000 R=0.999
                                                     B=  0.019
                                                     C= -0.015
35) T   Ethylacetate        0.001 0.001 0.002 0.002 0.003 0.003 ----- #
                    0.004 0.003
                                                  Q  A= -0.000 R=0.998
                                                     B=  0.004
                                                     C= -0.002
36) T   methacrylonitri     0.030 0.038 0.033 0.041 0.043 0.042 0.039  13.46
                    0.043 0.044
37) T   Bromochlorma    0.052 0.112 0.091 0.090 0.090 0.100 0.094 -----
                    0.092 0.087
                                                  Q  A= -0.003 R=1.000
                                                     B=  0.100
                                                     C= -0.001
38) T   Tetrahydofur    0.047 0.044 0.044 0.043 0.046 0.049 0.046 0.046   3.97
                    0.047 0.046
39) PT  Chloroform      0.407 0.419 0.436 0.443 0.442 0.453 0.418 0.428   3.88
                    0.427 0.406
40) PT  111trichlota    0.361 0.427 0.359 0.324 0.367 0.388 0.358 0.369   7.45
                    0.364 0.374
41) S   SURRDibrflma    0.264 0.269 0.269 0.274 0.263 0.272 0.267 0.267   1.96
                    0.265 0.257
42) PT  Cyclohexane     0.488 0.580 0.434 0.361 0.472 0.510 0.453 0.477  12.88
                    0.468 0.528
43) PT  Carbtetraclo    0.296 0.334 0.268 0.252 0.304 0.320 0.285 0.298   8.96
                    0.296 0.324
44) T   11dicloprope       0.106 0.079 0.088 0.092 0.101 0.091 0.095   9.52
                    0.097 0.104
45) S   SURR12DCAd4     0.042 0.044 0.045 0.045 0.047 0.045 0.044 0.045   2.68
                    0.045 0.044
46) PT  Benzene         0.802 1.022 0.924 0.953 0.970 0.962 0.901 0.922   7.12
                    0.910 0.854
47) PT  12dichlorota    0.121 0.271 0.335 0.299 0.317 0.324 0.302 -----
```

```
                    0.308 0.294
                                                    Q  A= -0.007 R=1.000
                                                       B=  0.321
                                                       C= -0.002
48) T   TAME        0.418 0.565 0.468 0.528 0.517 0.543 0.507 0.505   8.59
                    0.514 0.489
49) PT  trichloroete 0.223 0.271 0.235 0.239 0.239 0.255 0.228 0.242   5.95
                    0.241 0.243
50) PT  methylcyclohexa 0.303 0.408 0.324 0.267 0.338 0.388 0.341 0.346  13.57
                    0.346 0.404
51) PT  12dicloropra 0.299 0.312 0.298 0.293 0.324 0.318 0.307 0.306   3.26
                    0.305 0.302
52) T   23Dicl1propene 0.221 0.330 0.348 0.353 0.338 0.377 0.351 0.338  13.58
                    0.368 0.355
53) T   Dibromometha 0.044 0.030 0.116 0.093 0.108 0.110 0.102 -----
                    0.104 0.103
                                                    Q  A= -0.001 R=0.999
                                                       B=  0.106
                                                       C= -0.001
54) T   methylmethacryl     0.013 0.017 0.026 0.031 0.038 0.040 -----
                    0.041 0.041
                                                    Q  A=  0.000 R=1.000
                                                       B=  0.042
                                                       C= -0.007
55) T   14dioxane           0.000 0.001 0.001 0.001 0.001 0.001 ----- #
                    0.001 0.001
                                                    Q  A=  0.000 R=0.997
                                                       B=  0.001
                                                       C= -0.002
56) PT  Bromodiclrma 0.244 0.256 0.272 0.301 0.307 0.319 0.294 0.289   8.81
                    0.305 0.301
57) T   2Nitropropane       0.029 0.033 0.033 0.036 0.039 0.040 0.037  11.97
                    0.041 0.041
58) T   2CLEVE              0.034 0.059 0.074 0.077 0.082 0.079 -----
                    0.081 0.082
                                                    Q  A=  0.000 R=1.000
                                                       B=  0.082
                                                       C= -0.012
59) PT  c13dicloproe 0.259 0.277 0.332 0.327 0.354 0.360 0.345 0.328  10.86
                    0.351 0.344
60) PT  4Meth2Pentan 0.125 0.158 0.155 0.165 0.177 0.181 0.171 0.161  10.72
                    0.169 0.148
61) S   SURRd8Tolule 1.019 1.020 1.016 1.028 1.003 1.027 1.003 1.015   1.04
                    1.015 1.000
62) PT  Toluene      0.500 0.670 0.662 0.601 0.625 0.659 0.605 0.617   8.32
                    0.626 0.600
63) PT  t13Dicloprop        0.241 0.223 0.250 0.253 0.277 0.265 0.257   7.42
                    0.278 0.270
64) T   ethylmethacryla      0.142 0.137 0.153 0.161 0.186 0.177 0.163  11.19
                    0.176 0.177
65) PT  112Triclotha        0.118 0.120 0.126 0.129 0.130 0.126 0.125   3.42
                    0.126 0.123
66) PT  Tetrachlorte 0.205 0.279 0.233 0.229 0.254 0.268 0.241 0.247   9.29
                    0.252 0.266
67) T   13Diclorpropa 0.231 0.294 0.227 0.265 0.272 0.277 0.258 0.260   8.05
                    0.261 0.258

68) I   d5-CHLOROBENZENE**IST ----------------ISTD---------------------
69) PT  2Hexanone    0.074 0.103 0.112 0.129 0.149 0.161 0.151 -----
                    0.150 0.144
                                                    Q  A= -0.000 R=1.000
                                                       B=  0.162
                                                       C= -0.041
70) PT  Clorodibrmta 0.154 0.206 0.201 0.195 0.214 0.234 0.220 0.209  11.86
                    0.229 0.231
71) PT  12Dibrometha 0.151 0.156 0.173 0.153 0.174 0.188 0.171 0.169   7.33
                    0.177 0.173
72) PT  Chlorobenzen 0.716 0.830 0.798 0.812 0.862 0.870 0.810 0.812   5.54
                    0.821 0.789
73) T   1Clhexane   0.378 0.479 0.357 0.319 0.390 0.410 0.370 0.388  11.72
```

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                    0.368 0.422
 74) T   1112Tetclota          0.251 0.239 0.268 0.299 0.315 0.280 0.279   9.07
                    0.292 0.290
 75) PT  Ethylbenzene    1.363 1.449 1.358 1.315 1.460 1.497 1.354 1.391   4.63
                    1.401 1.321
 76) PT  m p-Xylene      0.484 0.509 0.506 0.506 0.542 0.561 0.522 0.519   4.39
                    0.529 0.509
 77) PT  o-Xylene        0.426 0.553 0.493 0.499 0.541 0.570 0.526 0.518   8.15
                    0.536 0.522
 78) PT  Styrene         0.599 0.707 0.685 0.743 0.859 0.910 0.844 0.783  13.19
                    0.864 0.832
 79) PT  Bromoform             0.057 0.082 0.067 0.112 0.131 0.124 -----
                    0.131 0.139
                                                    Q  A=  0.003 R=0.999
                                                       B=  0.127
                                                       C= -0.007
 80) PT  Isopropylben    1.125 1.505 1.212 1.164 1.349 1.412 1.261 1.288   9.32
                    1.297 1.263
 81) T   cyclohexanone         0.007 0.004 0.005 0.006 0.007 0.006 ----- #
                    0.006 0.006
                                                    Q  A=  0.000 R=0.999
                                                       B=  0.006
                                                       C= -0.004

 82) I   d4-1,4-DICHLOROBENZEN ----------------ISTD---------------------
 83) S   SURR4BrFBenz    0.866 0.894 0.879 0.859 0.868 0.901 0.827 0.867   2.70
                    0.841 0.872
 84) T   Bromobenzene    0.392 0.636 0.554 0.566 0.599 0.637 0.590 0.574  12.90
                    0.611 0.582
 85) PT  1122Tetrclta    0.276 0.383 0.380 0.356 0.372 0.394 0.370 0.359   9.70
                    0.353 0.345
 86) T   123Triclproa          0.446 0.418 0.332 0.348 0.360 0.364 0.375  10.06
                    0.368 0.364
 87) T   14dichloro2bute       0.088 0.007 0.088 0.101 0.100 0.098 -----
                    0.098 0.107
                                                    Q  A=  0.003 R=0.999
                                                       B=  0.096
                                                       C= -0.003
 88) T   n-Propylbenz    2.632 2.982 2.774 2.591 2.882 3.049 2.730 2.781   5.94
                    2.795 2.594
 89) T   2chlorotolue    1.526 1.711 1.789 1.583 1.724 1.829 1.675 1.686   5.73
                    1.718 1.621
 90) T   4chlorotolue    1.898 2.122 1.823 1.854 1.988 2.083 1.933 1.945   5.43
                    1.966 1.840
 91) T   135Trimebenz    1.931 1.887 1.955 1.826 2.023 2.194 1.924 1.955   5.45
                    1.979 1.877
 92) T   tbutylbenzen    1.691 1.981 1.642 1.502 1.653 1.867 1.629 1.703   8.25
                    1.681 1.676
 93) T   124Trimetben    1.757 2.055 1.954 1.880 2.054 2.166 1.969 1.972   6.09
                    2.021 1.891
 94) T   sbutylbenzen    2.044 2.512 2.381 2.154 2.450 2.689 2.362 2.376   7.93
                    2.423 2.370
 95) PT  13Diclorbenz    0.883 1.065 1.114 1.116 1.147 1.188 1.095 1.091   7.92
                    1.135 1.080
 96) T   pIsopropylto    1.882 2.123 1.979 1.817 2.158 2.332 2.050 2.057   7.42
                    2.094 2.077
 97) PT  14dichlorobe    1.201 1.143 1.175 1.115 1.112 1.195 1.100 1.138   3.77
                    1.120 1.082
 98) PT  12dichlorobe    0.971 1.024 0.907 0.996 1.029 1.061 1.003 0.996   4.42
                    1.006 0.966
 99) T   nButylbenzen    1.698 2.139 1.876 1.690 1.957 2.150 1.942 1.930   8.37
                    1.969 1.948
100) PT  12dibromo3cl          0.029 0.058 0.062 0.058 0.056 0.064 -----
                    0.071 0.066
                                                    Q  A= -0.000 R=0.997
                                                       B=  0.069
                                                       C= -0.003
101) T   135Trichloroben 0.853 0.872 0.800 0.786 0.892 0.930 0.883 0.869   5.54
                    0.911 0.890
102) PT  124Trichlobe   0.537 0.611 0.621 0.588 0.668 0.757 0.725 0.666  12.04
```

```
                        0.743 0.744
103) T   Hexachlorobu    0.206 0.335 0.350 0.326 0.381 0.445 0.393 0.365  19.98
                        0.408 0.437
104) T   Naphthalene     0.774 0.858 0.786 0.892 0.969 1.085 1.035 0.946  12.82
                        1.064 1.046
105) T   123Trichlben    0.571 0.540 0.554 0.554 0.619 0.662 0.621 0.599   7.42
                        0.642 0.629
 ------------------------------------------------------------------------------
                                                  Total Average %RSD   8.22
 ------------------------------------------------------------------------------
 L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
 (#) = Out of Range

           LW082519.M        Thu Aug 29 08:55:07 2019
```

BFB

Data File : C:\Instarch\Data\AUG2519\BFB1.D Vial: 1
Acq On : 25 Aug 2019 20:04 Operator: RLD-DGS
Sample : BFB DIRECT INJ. Inst : VMS4
Misc : 50 ng Injection Multiplr: 1.00
Integration File: VOC.P

Method : C:\INSTARCH\METHODS\LW082519.M
Title : 8260C Waters Method

Spectrum Information: Average of 4.614 to 4.630 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	26.4	6677	PASS
75	95	30	60	46.3	11742	PASS
95	95	100	100	100.0	25337	PASS
96	95	5	9	6.5	1649	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	78.4	19871	PASS
175	174	5	9	5.6	1120	PASS
176	174	95	101	99.0	19676	PASS
177	176	5	9	8.0	1580	PASS

LW082519.M Wed Aug 28 13:06:44 2019

Quantitation Report

Data File : C:\INSTARCH\DATA\AUG2519\LLCALW1.D Vial: 5
Acq On : 25 Aug 2019 21:42 Operator: RLD-DGS
Sample : CALIB. PT. 1 Inst : VMS4
Misc : 0.10/1.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 07:03:06 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 06:58:50 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1375496	4.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.59	117	1056130	4.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.89	152	586428	4.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	363795	3.970	ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 99 %			
45) SURR12DCAd4	7.24	102	58079	3.786	ug/L	0.00
Spiked Amount 4.000	Range 86 - 106		Recovery = 95 %			
61) SURRd8Tolule	9.67	98	1401489	4.017	ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 100 %			
83) SURR4BrFBenz	13.23	95	507827	3.994	ug/L	0.00
Spiked Amount 4.000	Range 75 - 124		Recovery = 100 %			
Target Compounds						Qvalue
2) Dichlorodi	1.82	85	8701	0.1071	ug/L	93
3) Chloromethan	2.07	50	16973	0.1031	ug/L	93
4) VinylChlorid	2.22	62	10599	0.1032	ug/L	91
5) Bromomethane	2.68	94	6191	0.1610	ug/L	83
6) Chloroethane	2.84	64	6266	0.1181	ug/L	82
7) Dichloroflmethane	3.14	67	13575	0.0910	ug/L	89
8) Trichlorofma	3.22	101	7965	0.0687	ug/L	99
9) Ethylether	3.66	59	6354	0.1040	ug/L	93
10) dichlorotfluoroethan	3.70	67	8703	0.1004	ug/L	88
11) propyleneoxide	3.73	58	7709	0.9758	ug/L #	17
12) Acrolein	3.81	56	818	0.0968	ug/L #	68
13) 11dichlorthe	3.94	96	7704	0.1164	ug/L #	69
14) Trichlorotfluoroeth	3.95	101	10834	0.1820	ug/L #	28
15) Acetone	4.04	43	16553	1.1097	ug/L	87
16) Iodomethane	4.12	142	17663	0.1961	ug/L	87
17) Carbon Dislf	4.20	76	31508	0.1970	ug/L	98
18) allylchloride	4.45	41	40026	0.1969	ug/L	96
19) methylacetate	4.46	74	657	0.0884	ug/L #	26
20) Methylchlorid	4.59	84	24038	0.2115	ug/L	88
21) tbutylalcohol	4.81	59	22821	5.2197	ug/L	88
22) Acrylonitrile	4.99	53	3783	0.2440	ug/L	86
23) t12dichlorte	4.96	96	3089	0.0456	ug/L #	1
24) MtBE	4.98	73	16185	0.1018	ug/L	85
25) Hexane	5.33	57	23488	0.1826	ug/L #	97
26) 11dichlorota	5.51	63	17789	0.0963	ug/L	92
27) Vinylacetate	5.62	43	90342m	1.0013	ug/L	86
28) chloroprene	5.62	53	27580	0.1736	ug/L	88
29) Diisopether	5.62	45	39926	0.0957	ug/L	87
30) ETBE	6.07	59	26950	0.0980	ug/L	99
31) 22dichloropr	6.22	77	15338	0.1253	ug/L	84
32) c12dichlorte	6.25	96	9887	0.1134	ug/L #	57
33) 2Butanone	6.22	72	641	0.1982	ug/L #	34
34) propionitrile	6.51	54	2475m	0.5882	ug/L #	58
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	6.56	67	718	0.0572	ug/L #	1
37) Bromochlorma	6.54	128	1795	0.0582	ug/L #	1
38) Tetrahydofur	6.62	42	16148	1.1405	ug/L	83

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\AUG2519\LLCALW1.D Vial: 5
Acq On : 25 Aug 2019 21:42 Operator: RLD-DGS
Sample : CALIB. PT. 1 Inst : VMS4
Misc : 0.10/1.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 07:03:06 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 06:58:50 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
39)	Chloroform	6.63	83	13995	0.0951 ug/L		90
40)	111trichlota	6.84	97	12397	0.0977 ug/L		90
42)	Cyclohexane	6.93	56	16790	0.1023 ug/L	#	73
43)	Carbtetraclo	7.06	119	10173	0.0993 ug/L		84
44)	11dicloprope	7.06	110	1688	0.0518 ug/L	#	24
46)	Benzene	7.31	78	27574	0.0870 ug/L	#	1
47)	12dichlorota	7.33	62	4171	0.0425 ug/L	#	53
48)	TAME	7.47	73	14374	0.0827 ug/L		92
49)	trichloroete	8.14	95	7680	0.0924 ug/L	#	88
50)	methylcyclohexane	8.36	83	10408	0.0874 ug/L	#	81
51)	12dicloropra	8.40	63	10270	0.0975 ug/L	#	91
52)	23Dicl1propene	8.48	75	7616	0.0655 ug/L		84
53)	Dibromometha	8.55	93	1504	0.0486 ug/L	#	18
54)	methylmethacrylate	8.61	69	732	0.0689 ug/L	#	23
55)	14dioxane	8.69	88	568	2.6077 ug/L	#	1
56)	Bromodiclrma	8.75	83	8382	0.0845 ug/L	#	85
57)	2Nitropropane	9.04	43	7723	0.6149 ug/L	#	68
58)	2CLEVE	9.18	63	7695	0.3153 ug/L	#	62
59)	c13dicloproe	9.33	75	8913	0.0791 ug/L		86
60)	4Meth2Pentan	9.52	43	42846	0.7747 ug/L		94
62)	Toluene	9.76	92	17208	0.0812 ug/L	#	70
63)	t13Dicloprop	10.06	75	2985	0.0338 ug/L	#	63
64)	ethylmethacrylate	10.18	69	8712	0.1551 ug/L	#	67
65)	112Triclotha	10.28	83	2274	0.0530 ug/L	#	33
66)	Tetrachlorte	10.48	166	7040	0.0828 ug/L	#	81
67)	13Diclorpropa	10.52	76	7957	0.0888 ug/L	#	64
69)	2Hexanone	10.65	43	19470	0.5652 ug/L		75
70)	Clorodibrmta	10.81	129	4071	0.0736 ug/L	#	73
71)	12Dibrometha	10.96	107	3999	0.0898 ug/L		87
72)	Chlorobenzen	11.63	112	18905	0.0882 ug/L		80
73)	1Clhexane	11.59	91	9973	0.0973 ug/L	#	18
74)	1112Tetclota	11.75	131	7119	0.0966 ug/L	#	52
75)	Ethylbenzene	11.78	91	35993	0.0980 ug/L		94
76)	m p-Xylene	11.94	106	25542	0.1865 ug/L		97
77)	o-Xylene	12.50	106	11249	0.0822 ug/L		91
78)	Styrene	12.54	104	15819	0.0766 ug/L		85
79)	Bromoform	12.77	173	1597	0.0574 ug/L	#	63
80)	Isopropylben	13.02	105	29716	0.0874 ug/L		97
81)	cyclohexanone	13.13	55	3447	2.2085 ug/L	#	88
84)	Bromobenzene	13.44	156	5743	0.0682 ug/L	#	51
85)	1122Tetrclta	13.43	83	4047	0.0769 ug/L		83
86)	123Triclproa	13.48	75	2909	0.0529 ug/L	#	54
87)	14dichloro2butene	13.54	53	1128	0.0895 ug/L	#	59
88)	n-Propylbenz	13.61	91	38587	0.0946 ug/L		98
89)	2chlorotolue	13.74	91	22376	0.0905 ug/L		92
90)	4chlorotolue	13.88	91	27824	0.0976 ug/L		91
91)	135Trimebenz	13.86	105	28309	0.0988 ug/L		82
92)	tbutylbenzen	14.33	119	24795	0.0993 ug/L		85
93)	124Trimetben	14.41	105	25752	0.0891 ug/L		95
94)	sbutylbenzen	14.65	105	29965	0.0860 ug/L		96
95)	13Diclorbenz	14.81	146	12941	0.0809 ug/L		88
96)	pIsopropylto	14.86	119	27597	0.0915 ug/L	#	97
97)	14dichlorobe	14.94	146	17611	0.1055 ug/L		92
98)	12dichlorobe	15.46	146	14234	0.0975 ug/L	#	60
99)	nButylbenzen	15.46	91	24897	0.0880 ug/L		93
100)	12dibromo3cl	16.57	157	610	0.0717 ug/L	#	7
101)	135Trichlorobenzene	16.89	180	12511	0.0983 ug/L	#	21

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\AUG2519\LLCALW1.D Vial: 5
Acq On : 25 Aug 2019 21:42 Operator: RLD-DGS
Sample : CALIB. PT. 1 Inst : VMS4
Misc : 0.10/1.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 07:03:06 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 06:58:50 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	17.70	180	7877	0.0807 ug/L	91
103) Hexachlorobu	17.93	225	3025	0.0566 ug/L	82
104) Naphthalene	18.02	128	11350	0.0819 ug/L	89
105) 123Trichlben	18.32	180	8375	0.0953 ug/L #	82

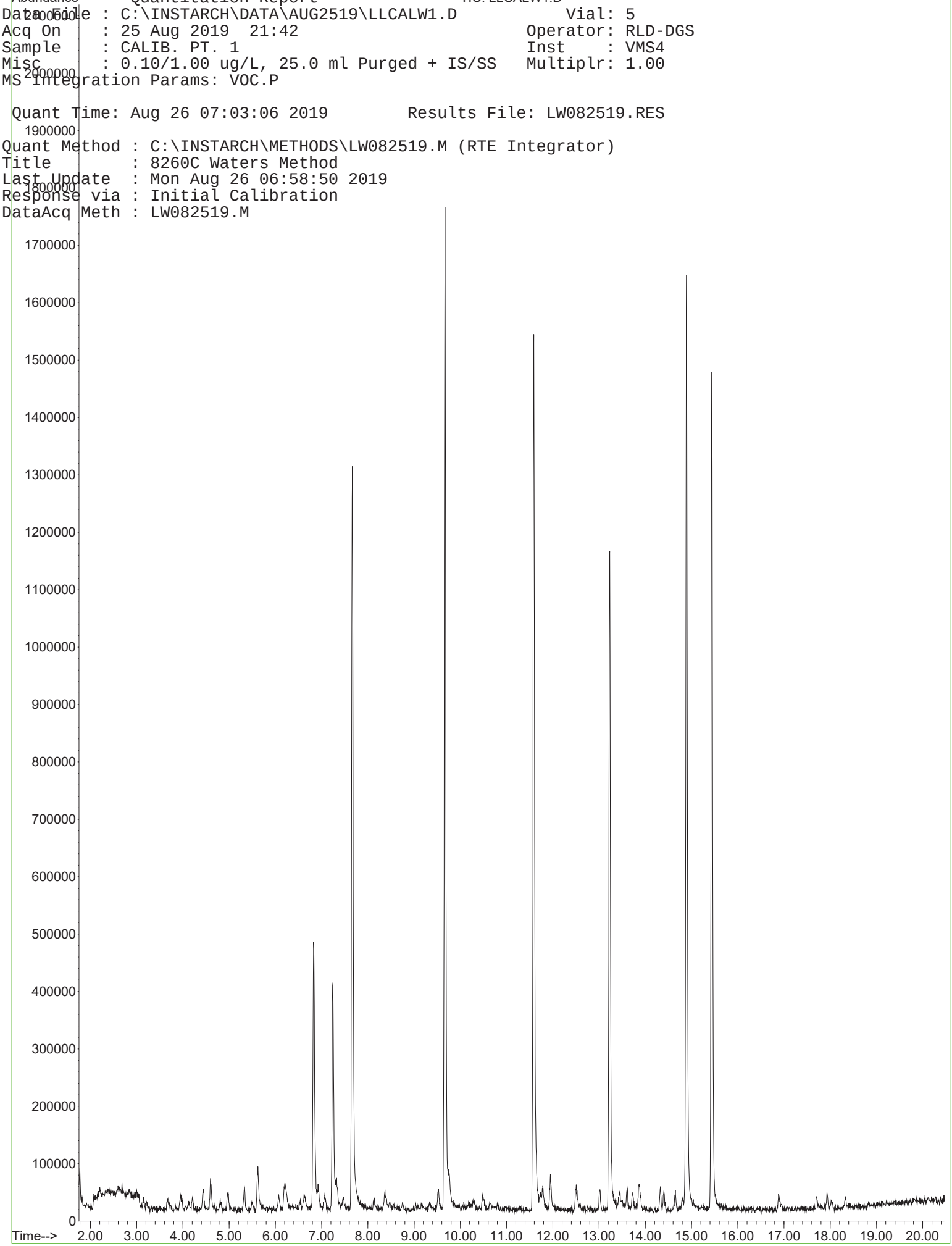
(#) = qualifier out of range (m) = manual integration

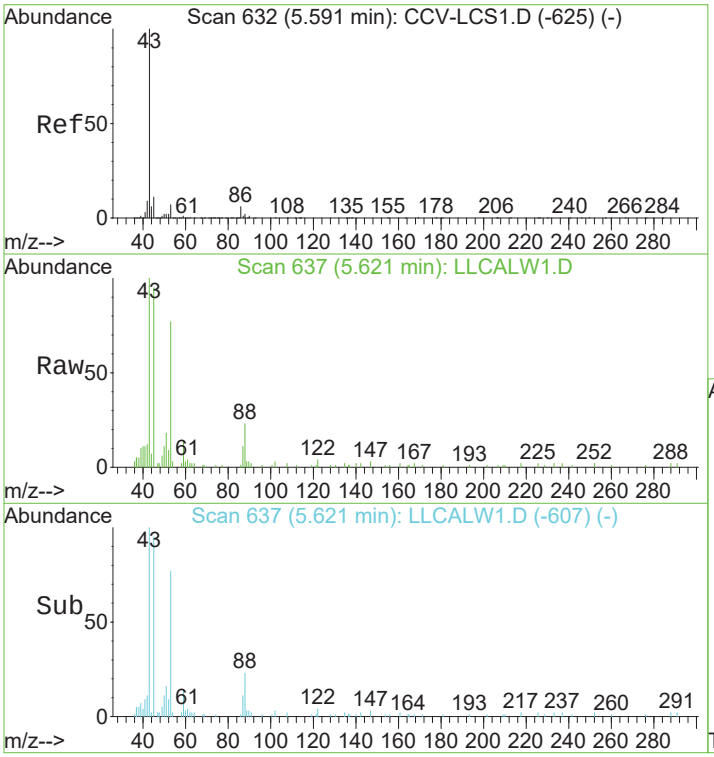
Quantitation Report (TIC: LLCALW1.D)

Data File : C:\INSTARCH\DATA\AUG2519\LLCALW1.D Vial: 5
Acq On : 25 Aug 2019 21:42 Operator: RLD-DGS
Sample : CALIB. PT. 1 Inst : VMS4
Misc : 0.10/1.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 07:03:06 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 06:58:50 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M





#27
Vinylacetate
Concen: 1.00 ug/L m
RT: 5.62 min Scan# 637
Delta R.T. 0.03 min
Lab File: LLCALW1.D
Acq: 25 Aug 2019 21:42

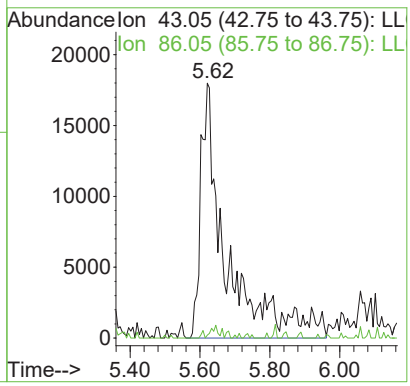
Tgt Ion: 43 Resp: 90342

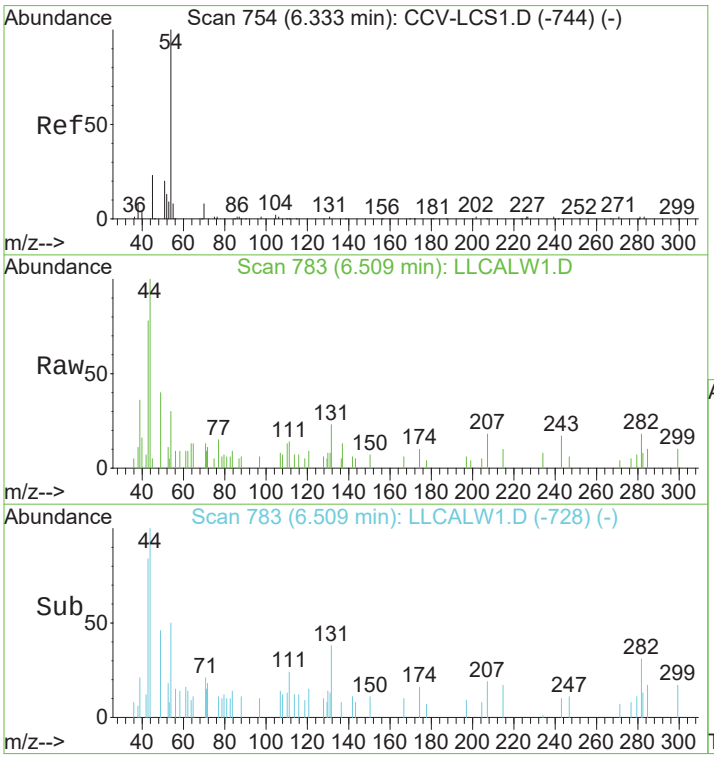
Ion	Ratio	Lower	Upper
43	100		
86	0.0	0.0	24.6

After Manual Integration

RJ 08/29/2019

DGS 08/29/2019

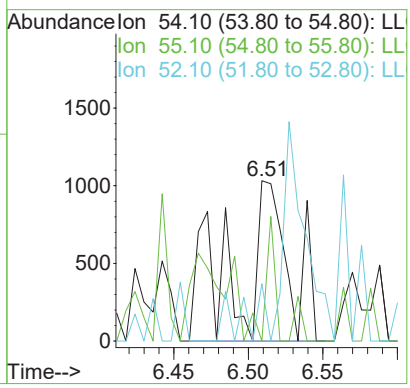




#34
propionitrile
Concen: 0.59 ug/L m
RT: 6.51 min Scan# 783
Delta R.T. 0.18 min
Lab File: LLCALW1.D
Acq: 25 Aug 2019 21:42

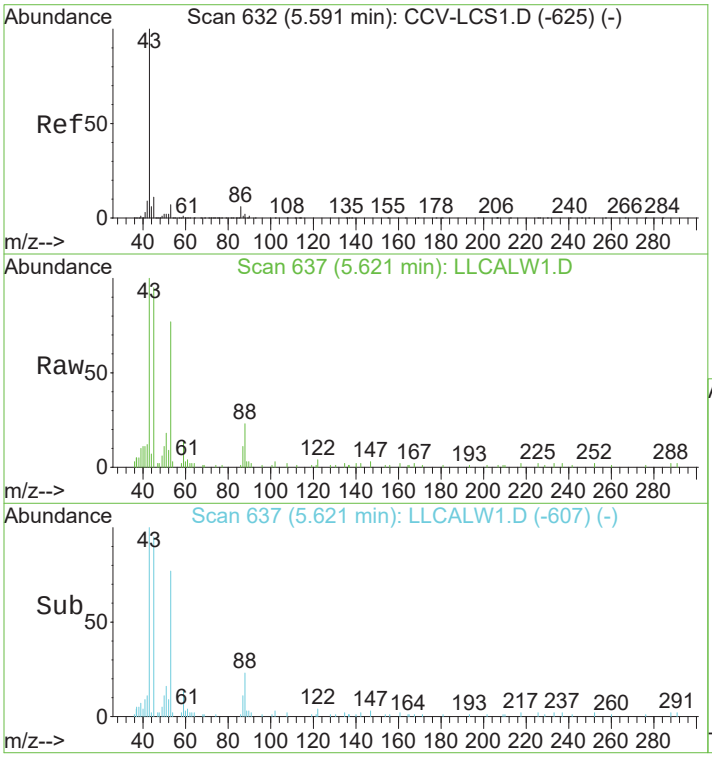
Tgt Ion: 54 Resp: 2475

Ion	Ratio	Lower	Upper
54	100		
55	0.0	0.0	35.6
52	0.0	1.2	41.2#



Before Manual Integration

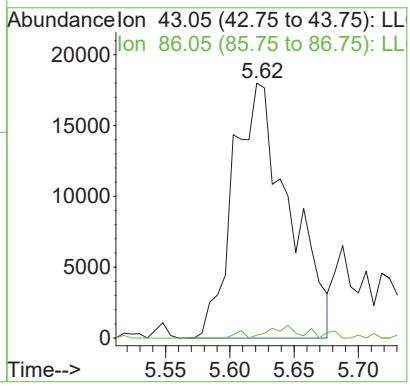
RJ 08/29/2019



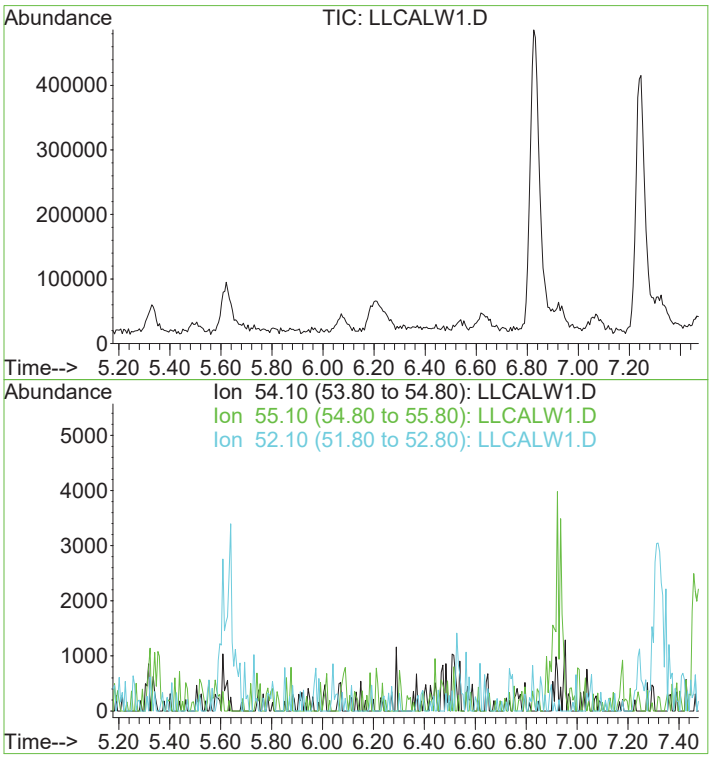
#27
Vinylacetate
Concen: 0.54 ug/L
RT: 5.62 min Scan# 637
Delta R.T. 0.03 min
Lab File: LLCALW1.D
Acq: 25 Aug 2019 21:42

Tgt Ion: 43 Resp: 54407

Ion	Ratio	Lower	Upper
43	100		
86	2.1	0.0	24.6



REASON # 2



#34
propionitrile
Concen: N.D.
Expected RT: 6.33 min

Lab File: LLCALW1.D
Acq: 25 Aug 2019 21:42

Tgt Ion: 54

Sig	Exp Ratio
54	100
55	15.6
52	21.2

REASON # 1

Quantitation Report

Data File : C:\INSTARCH\DATA\AUG2519\LLCALW2.D Vial: 6
Acq On : 25 Aug 2019 22:10 Operator: RLD-DGS
Sample : CALIB. PT. 2 Inst : VMS4
Misc : 0.20/2.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 07:05:28 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 07:01:02 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1362471	4.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.59	117	1083966	4.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.89	152	590642	4.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	366166	4.034	ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 101 %			
45) SURR12DCAd4	7.24	102	60330	3.970	ug/L	0.00
Spiked Amount 4.000	Range 86 - 106		Recovery = 99 %			
61) SURRd8Tolule	9.67	98	1389439	4.020	ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 100 %			
83) SURR4BrFBenz	13.23	95	528076	4.123	ug/L	0.00
Spiked Amount 4.000	Range 75 - 124		Recovery = 103 %			
Target Compounds						Qvalue
2) Dichlorodi	1.81	85	19784	0.2499	ug/L	96
3) Chloromethan	2.06	50	37409	0.2294	ug/L	99
4) VinylChlorid	2.21	62	26065	0.2562	ug/L	95
5) Bromomethane	2.68	94	8858	0.2326	ug/L	95
6) Chloroethane	2.84	64	11684	0.2222	ug/L	72
7) Dichloroflmethane	3.14	67	33055	0.2237	ug/L	97
8) Trichlorofma	3.21	101	33961	0.2957	ug/L	96
9) Ethylether	3.65	59	10804	0.1786	ug/L	91
10) dichlorotfluoroethan	3.69	67	22547	0.2626	ug/L	91
11) propyleneoxide	3.73	58	13923	1.7793	ug/L	83
12) Acrolein	3.86	56	4941	0.5903	ug/L #	1
13) 11dichlorthe	3.94	96	15175	0.2314	ug/L #	86
14) Trichlorotfluoroeth	3.97	101	29757	0.5048	ug/L	96
15) Acetone	4.08	43	28851	1.9527	ug/L	89
16) Iodomethane	4.12	142	32777	0.3673	ug/L	95
17) Carbon Dislf	4.20	76	75435	0.4761	ug/L	99
18) allylchloride	4.44	41	86317	0.4287	ug/L	97
19) methylacetate	4.57	74	1001	0.1359	ug/L	100
20) Methylchlorid	4.60	84	29994	0.2664	ug/L	94
21) tbutylalcohol	4.81	59	42691	9.8577	ug/L	91
22) Acrylonitrile	4.97	53	11038	0.7188	ug/L	87
23) t12dichlorte	4.96	96	16658	0.2481	ug/L	91
24) MtBE	4.98	73	32443	0.2060	ug/L	94
25) Hexane	5.33	57	65772	0.5161	ug/L	100
26) 11dichlorota	5.51	63	38885	0.2125	ug/L	96
27) Vinylacetate	5.62	43	206215m	2.3075	ug/L	96
28) chloroprene	5.63	53	73048	0.4643	ug/L	98
29) Diisopether	5.62	45	83921	0.2030	ug/L	98
30) ETBE	6.07	59	56702	0.2082	ug/L	90
31) 22dichloropr	6.23	77	28736	0.2369	ug/L	97
32) c12dichlorte	6.24	96	16370	0.1895	ug/L	93
33) 2Butanone	6.38	72	6297m	1.9660	ug/L #	63
34) propionitrile	6.41	54	7901m	1.8955	ug/L	1
35) Ethylacetate	6.39	88	434m	0.5048	ug/L #	0
36) methacrylonitrile	6.55	67	4096m	0.3296	ug/L #	1
37) Bromochlorma	6.53	128	7614	0.2490	ug/L #	74
38) Tetrahydofur	6.62	42	30163m	2.1508	ug/L	1

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\AUG2519\LLCALW2.D Vial: 6
Acq On : 25 Aug 2019 22:10 Operator: RLD-DGS
Sample : CALIB. PT. 2 Inst : VMS4
Misc : 0.20/2.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 07:05:28 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 07:01:02 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
39)	Chloroform	6.63	83	28516	0.1957 ug/L		96
40)	111trichlota	6.86	97	29081	0.2313 ug/L		97
42)	Cyclohexane	6.92	56	39481	0.2429 ug/L		94
43)	Carbtetraclo	7.07	119	22782	0.2246 ug/L		89
44)	11dicloprope	7.08	110	7229	0.2239 ug/L		95
46)	Benzene	7.32	78	69595	0.2216 ug/L	#	67
47)	12dichlorota	7.35	62	18434	0.1894 ug/L		94
48)	TAME	7.48	73	38520	0.2237 ug/L		95
49)	trichloroete	8.12	95	18476	0.2245 ug/L		91
50)	methylcyclohexane	8.35	83	27793	0.2355 ug/L		86
51)	12dicloropra	8.40	63	21251	0.2037 ug/L	#	89
52)	23Dicl1propene	8.47	75	22460	0.1951 ug/L		81
53)	Dibromometha	8.55	93	2058	0.0671 ug/L	#	1
54)	methylmethacrylate	8.60	69	1772	0.1683 ug/L	#	76
55)	14dioxane	8.59	88	1465	6.7902 ug/L	#	70
56)	Bromodiclrma	8.75	83	17449	0.1775 ug/L		96
57)	2Nitropropane	9.04	43	20032	1.6103 ug/L	#	88
58)	2CLEVE	9.15	63	11623	0.4808 ug/L		92
59)	c13dicloproe	9.33	75	18842	0.1689 ug/L		94
60)	4Meth2Pentan	9.52	43	107375	1.9600 ug/L		94
62)	Toluene	9.76	92	45624	0.2172 ug/L		97
63)	t13Dicloprop	10.06	75	16399	0.1873 ug/L		83
64)	ethylmethacrylate	10.18	69	19320	0.3472 ug/L		96
65)	112Triclotha	10.27	83	8015	0.1887 ug/L	#	82
66)	Tetrachlorte	10.49	166	18988	0.2254 ug/L		86
67)	13Diclorpropa	10.51	76	20034	0.2258 ug/L		84
69)	2Hexanone	10.62	43	55945	1.5823 ug/L		83
70)	Clorodibrmta	10.79	129	11141	0.1963 ug/L		91
71)	12Dibrometha	10.95	107	8480	0.1856 ug/L	#	79
72)	Chlorobenzen	11.63	112	44984	0.2044 ug/L		94
73)	1Clhexane	11.59	91	25978	0.2470 ug/L	#	68
74)	1112Tetclota	11.73	131	13609	0.1799 ug/L		90
75)	Ethylbenzene	11.78	91	78507	0.2083 ug/L		100
76)	m p-Xylene	11.95	106	55160	0.3925 ug/L		97
77)	o-Xylene	12.50	106	29949	0.2132 ug/L		91
78)	Styrene	12.51	104	38345	0.1808 ug/L		85
79)	Bromoform	12.76	173	3074	0.1077 ug/L		77
80)	Isopropylben	13.02	105	81548	0.2337 ug/L		98
81)	cyclohexanone	13.16	55	7186	4.4859 ug/L	#	87
84)	Bromobenzene	13.45	156	18777	0.2215 ug/L		96
85)	1122Tetrclta	13.42	83	11319	0.2136 ug/L		91
86)	123Triclproa	13.49	75	13168	0.2378 ug/L		84
87)	14dichloro2butene	13.54	53	2595	0.2043 ug/L	#	35
88)	n-Propylbenz	13.60	91	88054	0.2144 ug/L		98
89)	2chlorotolue	13.72	91	50529	0.2029 ug/L		93
90)	4chlorotolue	13.89	91	62654	0.2181 ug/L		92
91)	135Trimebenz	13.86	105	55737	0.1931 ug/L		91
92)	tbutylbenzen	14.32	119	58516	0.2327 ug/L		98
93)	124Trimetben	14.40	105	60682	0.2084 ug/L		97
94)	sbutylbenzen	14.65	105	74189	0.2114 ug/L		96
95)	13Diclorbenz	14.80	146	31439	0.1951 ug/L		99
96)	pIsopropylto	14.86	119	62689	0.2064 ug/L		94
97)	14dichlorobe	14.92	146	33757	0.2009 ug/L	#	82
98)	12dichlorobe	15.47	146	30239	0.2056 ug/L	#	78
99)	nButylbenzen	15.46	91	63169	0.2217 ug/L		98
100)	12dibromo3cl	16.58	157	847	0.0989 ug/L		80
101)	135Trichlorobenzene	16.89	180	25760	0.2009 ug/L		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\AUG2519\LLCALW2.D Vial: 6
Acq On : 25 Aug 2019 22:10 Operator: RLD-DGS
Sample : CALIB. PT. 2 Inst : VMS4
Misc : 0.20/2.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 07:05:28 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 07:01:02 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	17.70	180	18042	0.1835 ug/L	94
103) Hexachlorobu	17.94	225	9880	0.1836 ug/L #	58
104) Naphthalene	18.01	128	25348	0.1815 ug/L	97
105) 123Trichlben	18.33	180	15952	0.1803 ug/L	96

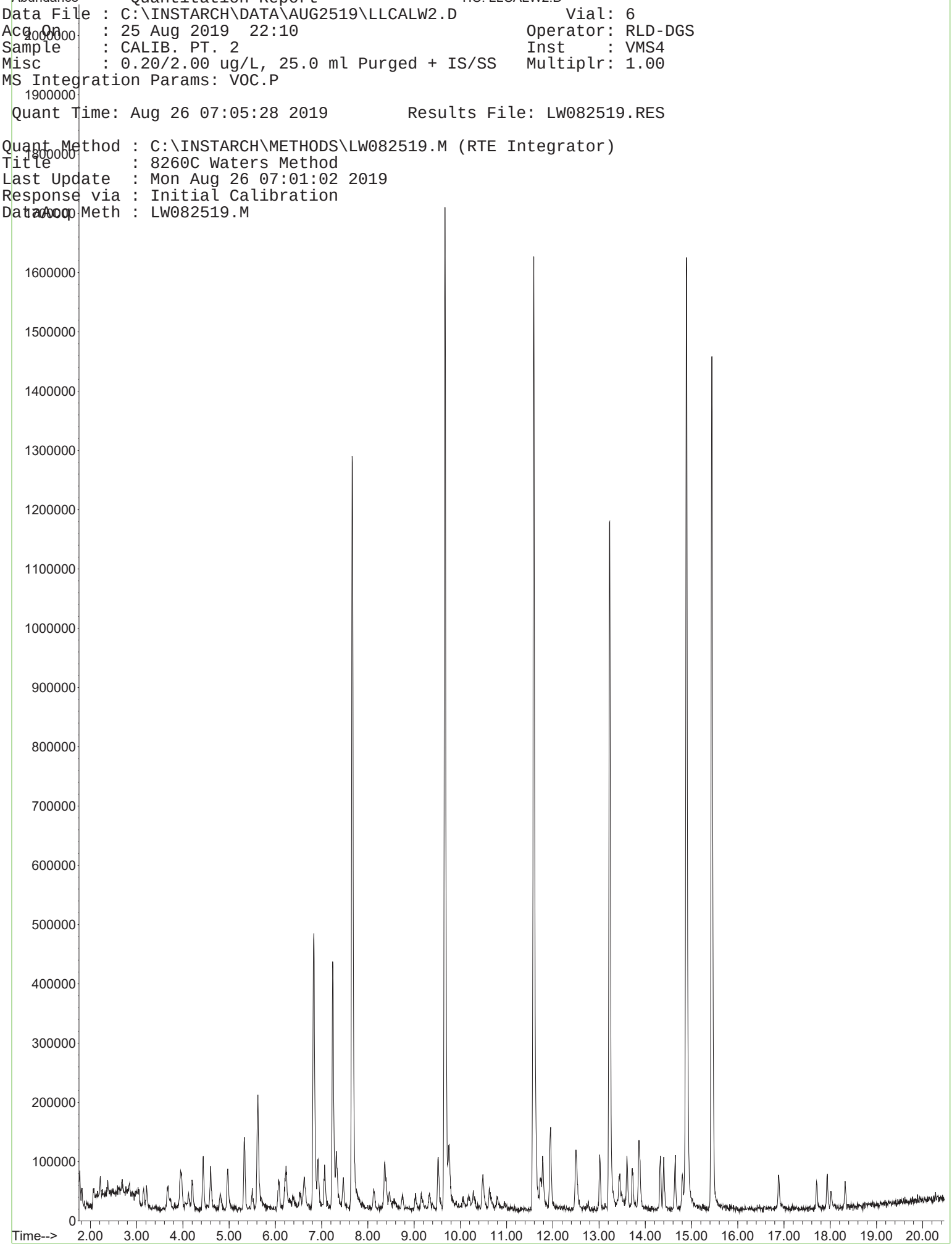
(#) = qualifier out of range (m) = manual integration

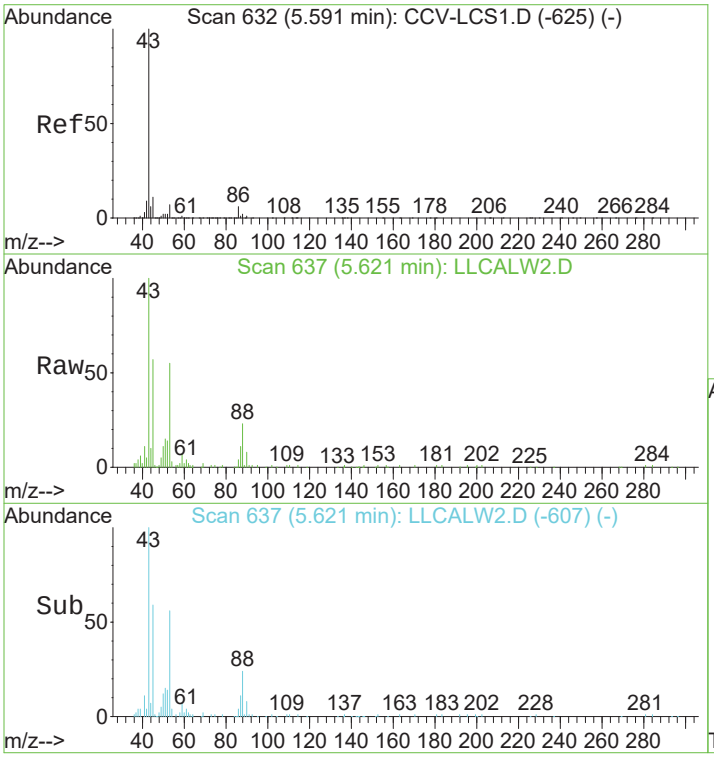
Abundance Quantitation Report TIC: LLCALW2.D

Data File : C:\INSTARCH\DATA\AUG2519\LLCALW2.D Vial: 6
Acq On : 25 Aug 2019 22:10 Operator: RLD-DGS
Sample : CALIB. PT. 2 Inst : VMS4
Misc : 0.20/2.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 07:05:28 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 07:01:02 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M





#27
Vinylacetate
Concen: 2.31 ug/L m
RT: 5.62 min Scan# 637
Delta R.T. 0.03 min
Lab File: LLCALW2.D
Acq: 25 Aug 2019 22:10

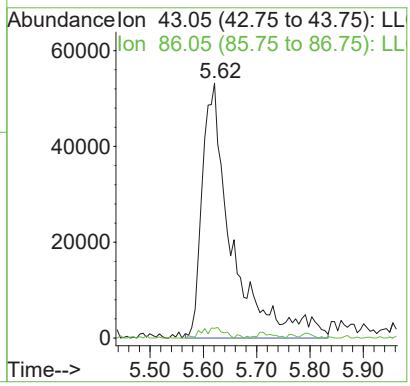
Tgt Ion: 43 Resp: 206215

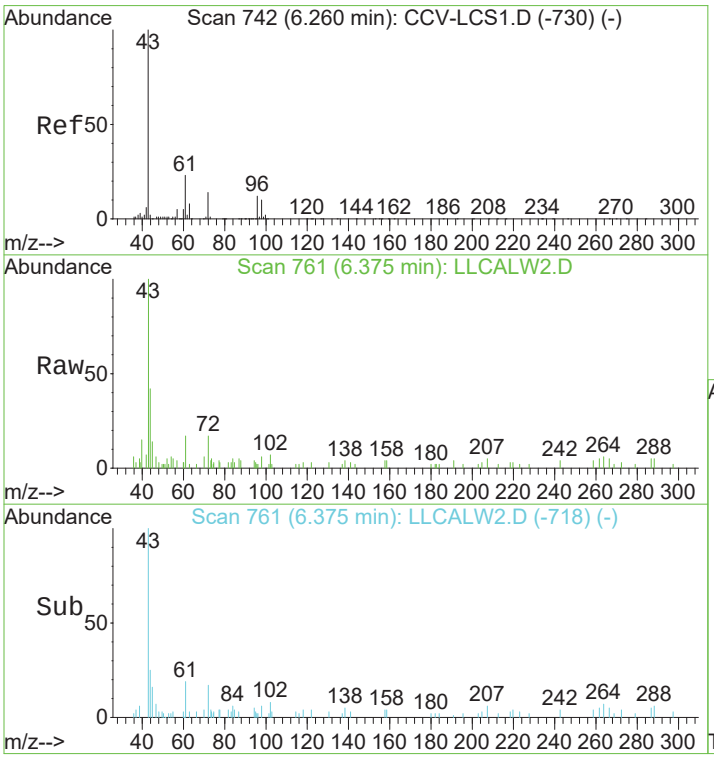
Ion	Ratio	Lower	Upper
43	100		
86	3.0	0.0	24.6

After Manual Integration

RJ 08/29/2019

DGS 08/29/2019

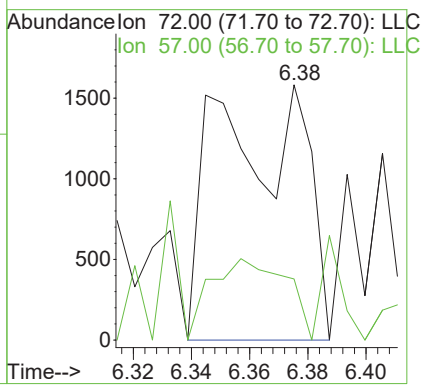


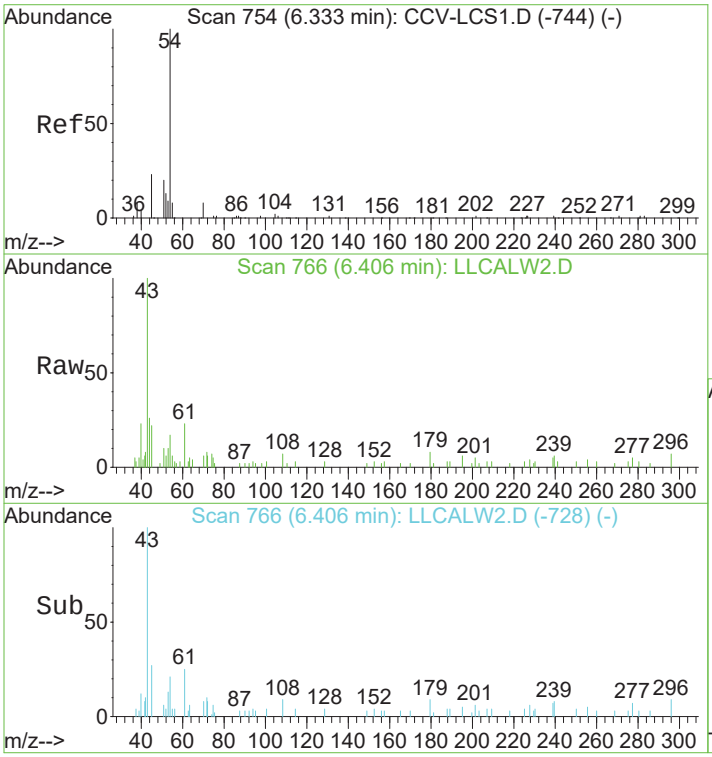


#33
2Butanone
Concen: 1.97 ug/L m
RT: 6.38 min Scan# 761
Delta R.T. 0.11 min
Lab File: LLCALW2.D
Acq: 25 Aug 2019 22:10

Tgt Ion: 72 Resp: 6297

Ion	Ratio	Lower	Upper
72	100		
57	17.7	21.5	61.5#

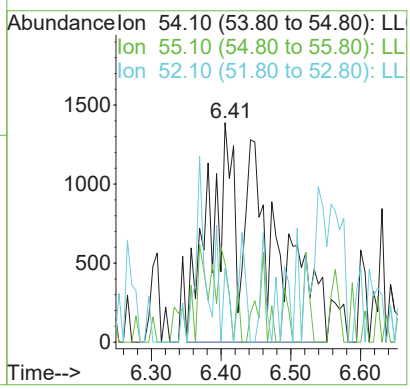




#34
propionitrile
Concen: 1.90 ug/L m
RT: 6.41 min Scan# 766
Delta R.T. 0.08 min
Lab File: LLCALW2.D
Acq: 25 Aug 2019 22:10

Tgt Ion: 54 Resp: 7901

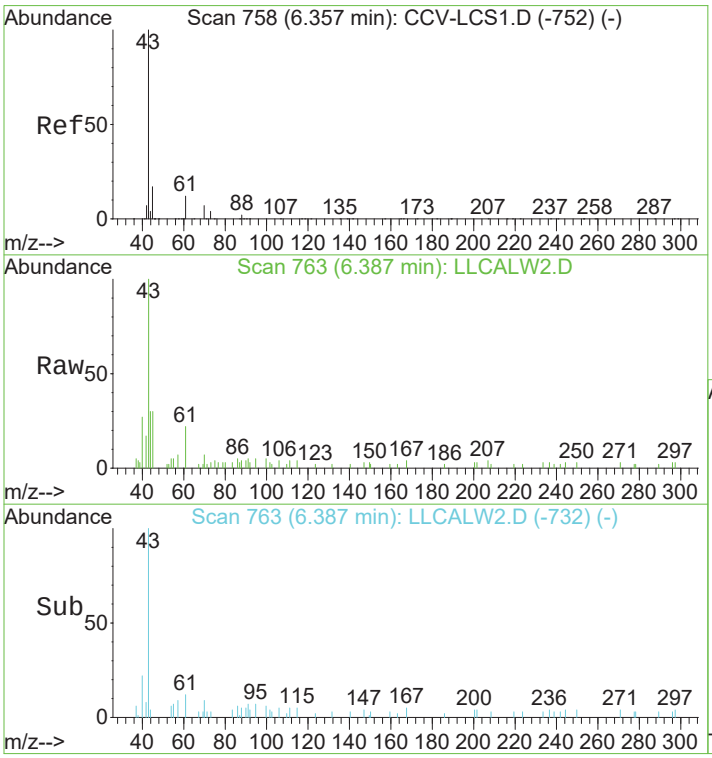
Ion	Ratio	Lower	Upper
54	100		
55	0.0	0.0	35.6
52	7.6	1.2	41.2



After Manual Integration

RJ 08/29/2019

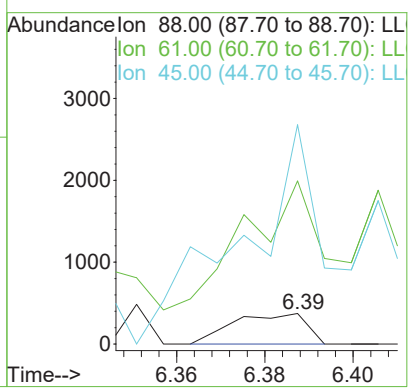
DGS 08/29/2019



#35
Ethylacetate
Concen: 0.50 ug/L m
RT: 6.39 min Scan# 763
Delta R.T. 0.04 min
Lab File: LLCALW2.D
Acq: 25 Aug 2019 22:10

Tgt Ion: 88 Resp: 434

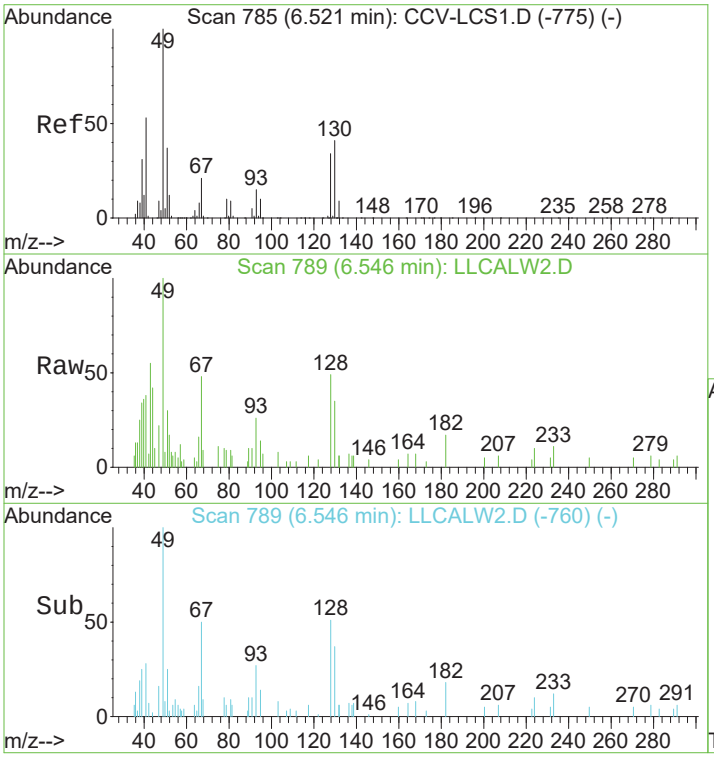
Ion	Ratio	Lower	Upper
88	100		
61	0.0	540.7	580.7#
45	0.0	751.6	791.6#



After Manual Integration

RJ 08/29/2019

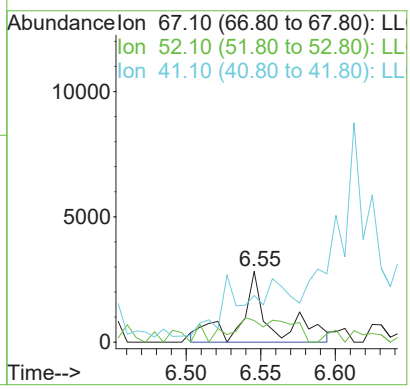
DGS 08/29/2019

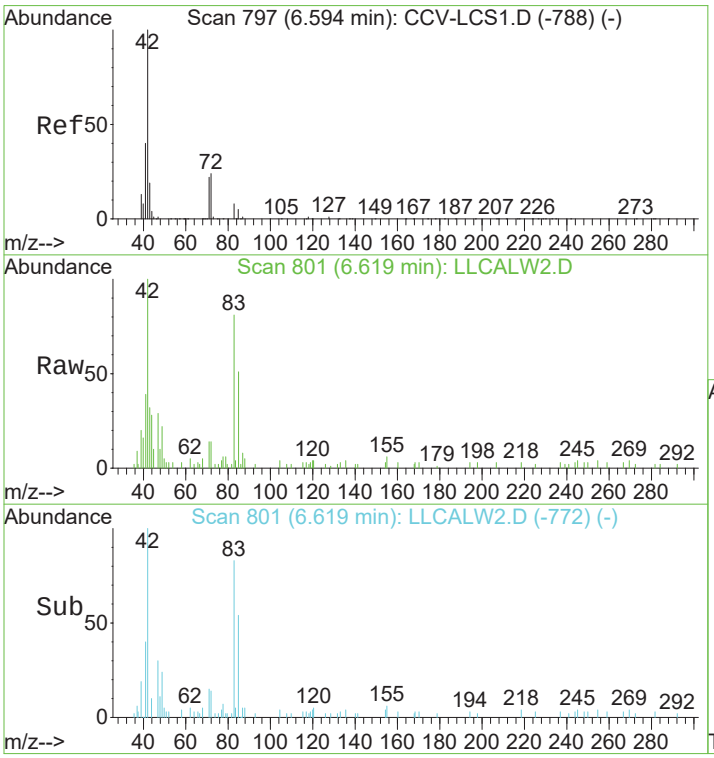


#36
methacrylonitrile
Concen: 0.33 ug/L m
RT: 6.55 min Scan# 789
Delta R.T. 0.02 min
Lab File: LLCALW2.D
Acq: 25 Aug 2019 22:10

Tgt Ion: 67 Resp: 4096

Ion	Ratio	Lower	Upper
67	100		
52	0.0	43.6	83.6#
41	146.0	189.7	229.7#

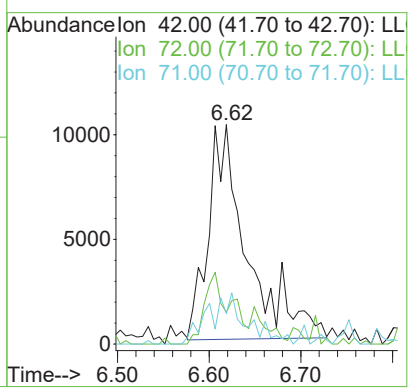


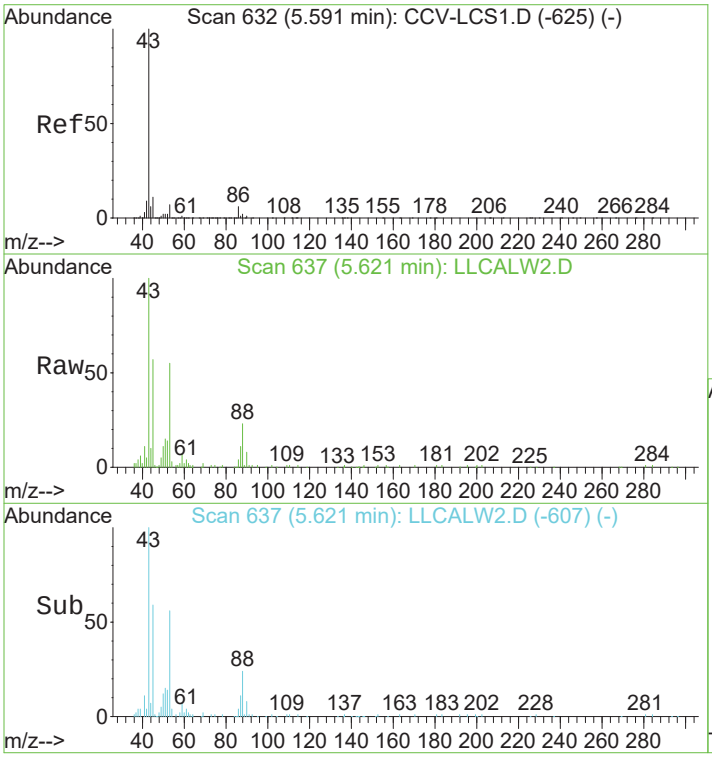


#38
Tetrahydofur
Concen: 2.15 ug/L m
RT: 6.62 min Scan# 801
Delta R.T. 0.02 min
Lab File: LLCALW2.D
Acq: 25 Aug 2019 22:10

Tgt Ion: 42 Resp: 30163

Ion	Ratio	Lower	Upper
42	100		
72	22.3	6.2	46.2
71	7.3	3.7	43.7

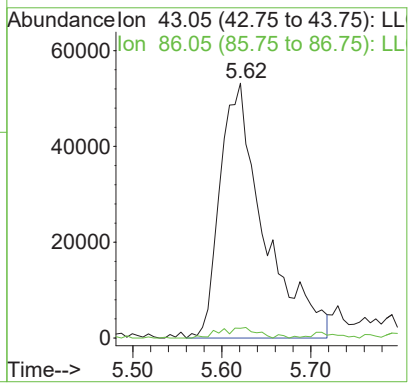




#27
Vinylacetate
Concen: 1.83 ug/L
RT: 5.62 min Scan# 637
Delta R.T. 0.03 min
Lab File: LLCALW2.D
Acq: 25 Aug 2019 22:10

Tgt Ion: 43 Resp: 182868

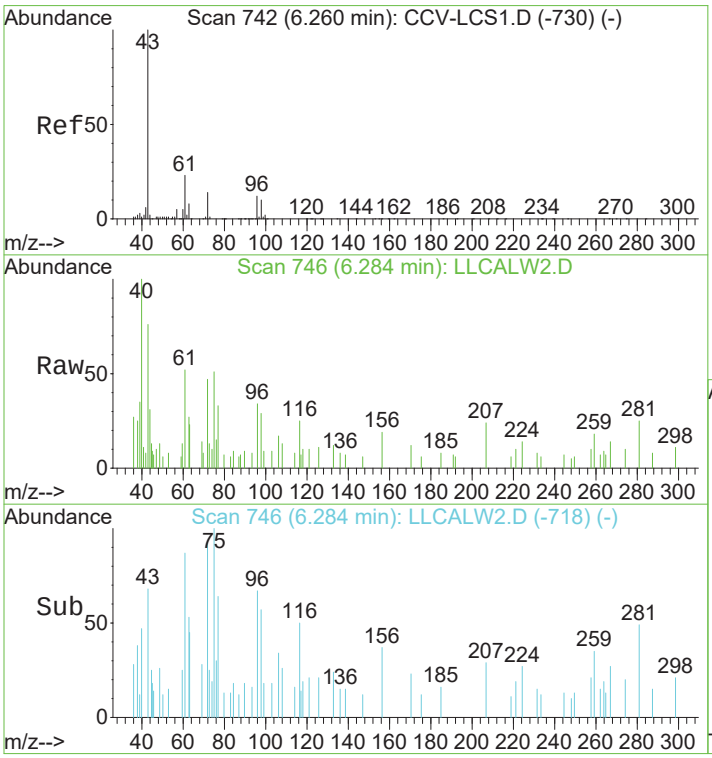
Ion	Ratio	Lower	Upper
43	100		
86	3.4	0.0	24.6



Before Manual Integration

08/29/2019

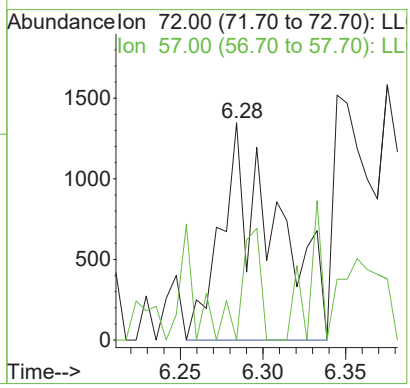
REASON # 2



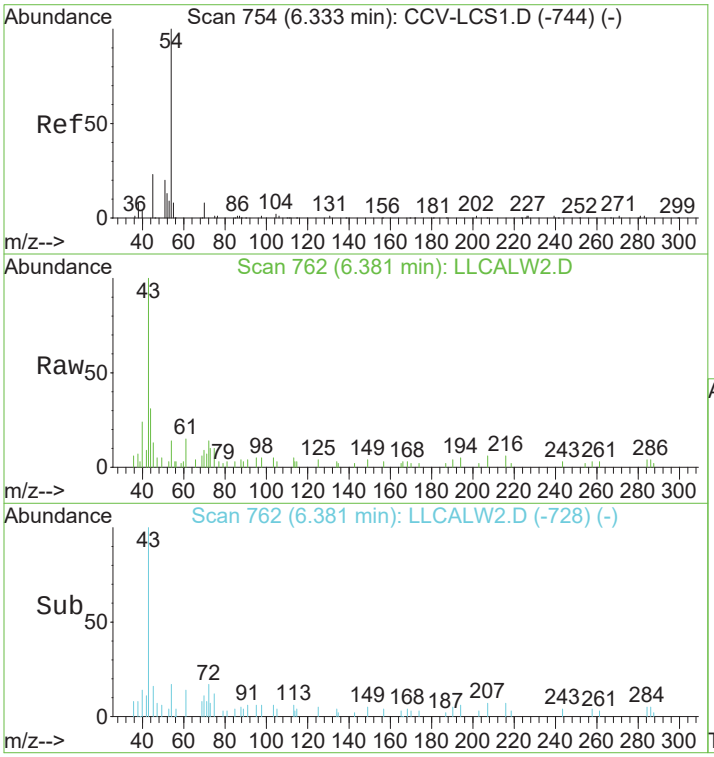
#33
2Butanone
Concen: 0.91 ug/L
RT: 6.28 min Scan# 746
Delta R.T. 0.02 min
Lab File: LLCALW2.D
Acq: 25 Aug 2019 22:10

Tgt Ion: 72 Resp: 3085

Ion	Ratio	Lower	Upper
72	100		
57	0.0	21.5	61.5#



REASON # 2



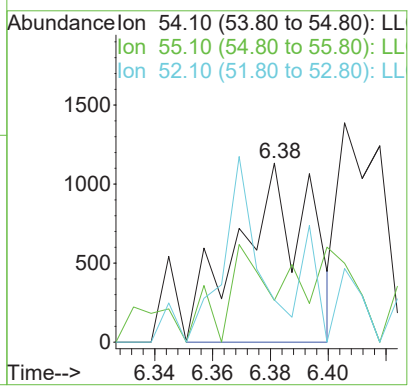
#34
propionitrile
Concen: 3.53 ug/L
RT: 6.38 min Scan# 762
Delta R.T. 0.06 min
Lab File: LLCALW2.D
Acq: 25 Aug 2019 22:10

Tgt Ion: 54 Resp: 1918

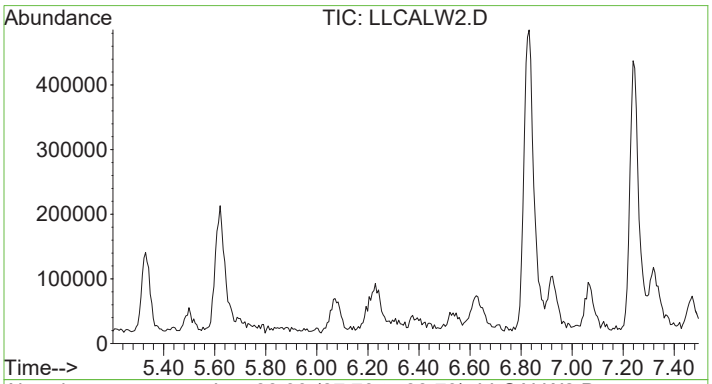
Ion	Ratio	Lower	Upper
54	100		
55	0.0	0.0	35.6
52	56.1	1.2	41.2#

Before Manual Integration

08/29/2019



REASON # 2

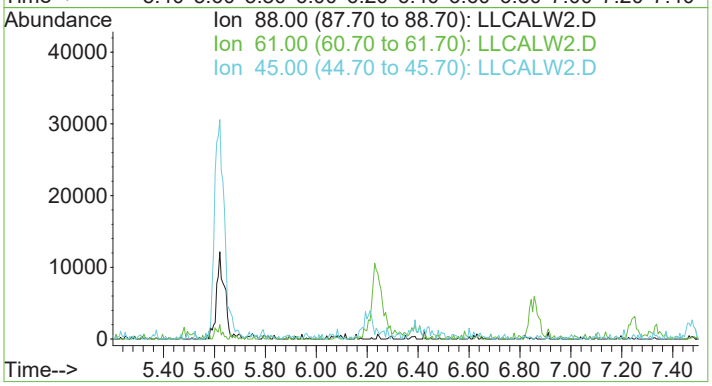


#35
Ethylacetate
Concen: N.D.
Expected RT: 6.35 min

Lab File: LLCALW2.D
Acq: 25 Aug 2019 22:10

Tgt Ion: 88

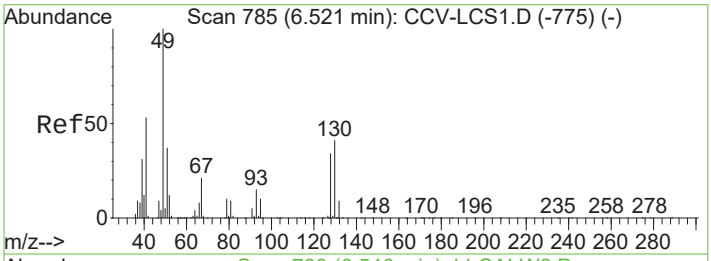
Sig	Exp Ratio
88	100
61	560.7
45	771.6

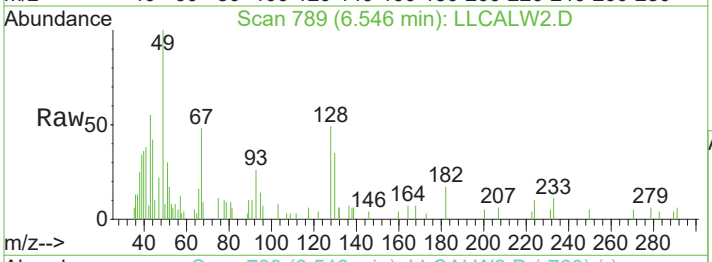


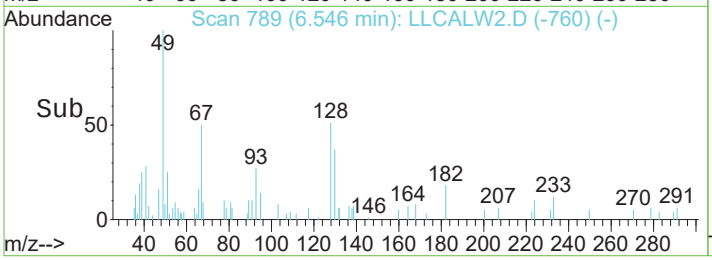
REASON # 1

Before Manual Integration

RJ 08/29/2019



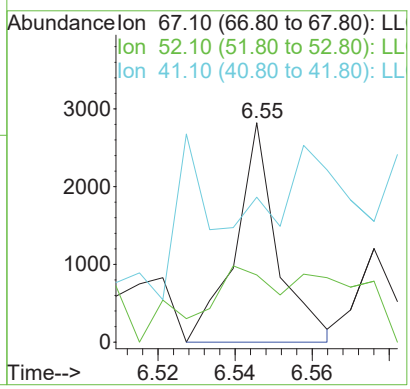




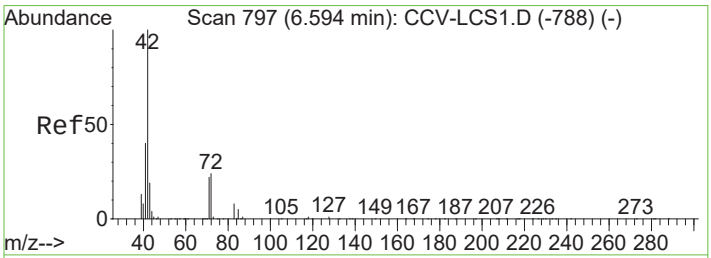
#36
methacrylonitrile
Concen: 0.16 ug/L
RT: 6.55 min Scan# 789
Delta R.T. 0.02 min
Lab File: LLCALW2.D
Acq: 25 Aug 2019 22:10

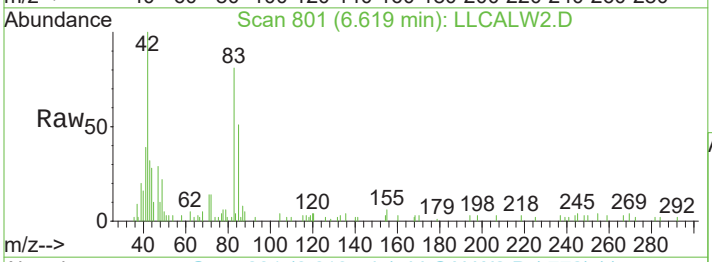
Tgt Ion: 67 Resp: 2120

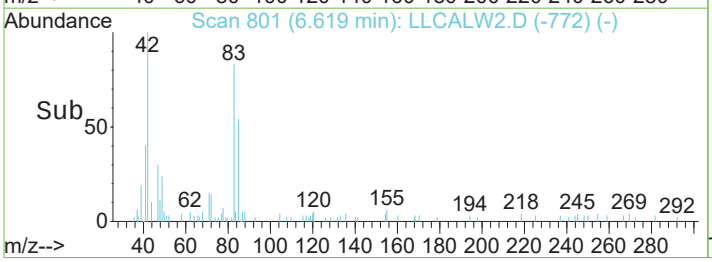
Ion	Ratio	Lower	Upper
67	100		
52	119.2	43.6	83.6#
41	282.1	189.7	229.7#



REASON # 2



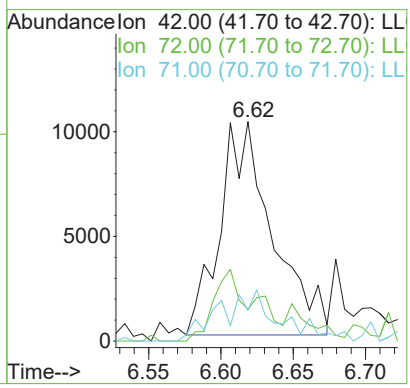




#38
Tetrahydofur
Concen: 1.66 ug/L
RT: 6.62 min Scan# 801
Delta R.T. 0.02 min
Lab File: LLCALW2.D
Acq: 25 Aug 2019 22:10

Tgt Ion: 42 Resp: 25888

Ion	Ratio	Lower	Upper
42	100		
72	0.0	6.2	46.2#
71	18.2	3.7	43.7



REASON # 2

Quantitation Report

Data File : C:\INSTARCH\DATA\AUG2519\LLCALW3.D Vial: 7
Acq On : 25 Aug 2019 22:39 Operator: RLD-DGS
Sample : CALIB. PT. 3 Inst : VMS4
Misc : 0.50/5.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 06:56:32 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 06:56:24 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1351527	4.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.59	117	1084951	4.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.89	152	578489	4.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	363485	4.003	ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 100	%		
45) SURR12DCAd4	7.25	102	60766	4.088	ug/L	0.00
Spiked Amount 4.000	Range 86 - 106		Recovery = 102	%		
61) SURRd8Tolule	9.67	98	1372856	3.973	ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 99	%		
83) SURR4BrFBenz	13.23	95	508456	3.964	ug/L	0.00
Spiked Amount 4.000	Range 75 - 124		Recovery = 99	%		
Target Compounds						Qvalue
2) Dichlorodi	1.81	85	36031	0.3795	ug/L	94
3) Chloromethan	2.07	50	76442	0.4405	ug/L	94
4) VinylChlorid	2.21	62	49363	0.4363	ug/L	100
5) Bromomethane	2.68	94	23587	0.5914	ug/L	91
6) Chloroethane	2.84	64	23609	0.4146	ug/L	83
7) Dichloroflmethane	3.14	67	71896	0.4731	ug/L	93
8) Trichlorofma	3.21	101	59129	0.4821	ug/L	90
9) Ethylether	3.66	59	29158	0.4847	ug/L	90
10) dichlorotfluoroethan	3.69	67	39978	0.4168	ug/L	93
11) propyleneoxide	3.73	58	36612	4.7712	ug/L	90
12) Acrolein	3.82	56	19999	2.7478	ug/L	96
13) 11dichlorthe	3.94	96	29658	0.4026	ug/L	94
14) Trichlorotfluoroeth	3.97	101	57268	0.9080	ug/L	95
15) Acetone	4.05	43	70467	4.5412	ug/L	98
16) Iodomethane	4.12	142	75971	0.8580	ug/L	99
17) Carbon Dislf	4.20	76	160379	0.9522	ug/L	100
18) allylchloride	4.43	41	203887	0.9813	ug/L	98
19) methylacetate	4.50	74	1187	0.1670	ug/L	95
20) Methylchlorid	4.60	84	62479	0.4006	ug/L	94
21) tbutylalcohol	4.80	59	107938	24.2500	ug/L	100
22) Acrylonitrile	4.96	53	26765	1.8718	ug/L #	73
23) t12dichlorte	4.96	96	33464	0.5324	ug/L	90
24) MtBE	4.98	73	75047	0.4652	ug/L	95
25) Hexane	5.33	57	112174	0.8058	ug/L	97
26) 11dichlorota	5.49	63	93768	0.5052	ug/L	99
27) Vinylacetate	5.60	43	509697	7.7451	ug/L	98
28) chloroprene	5.62	53	153397	0.9431	ug/L	97
29) Diisopether	5.62	45	197435	0.4759	ug/L	97
30) ETBE	6.08	59	131840	0.4770	ug/L	98
31) 22dichloropr	6.23	77	58710	0.4281	ug/L	96
32) c12dichlorte	6.24	96	40292	0.4506	ug/L	95
33) 2Butanone	6.31	72	13644	4.9381	ug/L	87
34) propionitrile	6.34	54	4902	1.5495	ug/L #	72
35) Ethylacetate	6.34	88	955	1.2522	ug/L #	1
36) methacrylonitrile	6.53	67	12927	1.5265	ug/L #	51
37) Bromochlorma	6.53	128	15414	0.5170	ug/L	98
38) Tetrahydofur	6.61	42	74910	6.8142	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\AUG2519\LLCALW3.D Vial: 7
Acq On : 25 Aug 2019 22:39 Operator: RLD-DGS
Sample : CALIB. PT. 3 Inst : VMS4
Misc : 0.50/5.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 06:56:32 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 06:56:24 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
39)	Chloroform	6.63	83	73626	0.5108 ug/L		98
40)	111trichlota	6.86	97	60689	0.4577 ug/L		96
42)	Cyclohexane	6.92	56	73403	0.4128 ug/L		96
43)	Carbtetraclo	7.06	119	45326	0.4235 ug/L		99
44)	11dicloprope	7.07	110	13410	0.3829 ug/L	#	80
46)	Benzene	7.32	78	156093	0.4971 ug/L		96
47)	12dichlorota	7.34	62	56550	0.7008 ug/L		95
48)	TAME	7.47	73	79028	0.4593 ug/L		95
49)	trichloroete	8.13	95	39627	0.4687 ug/L		92
50)	methylcyclohexane	8.36	83	54669	0.4415 ug/L		97
51)	12dicloropra	8.40	63	50370	0.4813 ug/L		100
52)	23Dicl1propene	8.46	75	58856	0.5628 ug/L		89
53)	Dibromometha	8.55	93	19552	0.9404 ug/L	#	10
54)	methylmethacrylate	8.58	69	5591	0.6452 ug/L	#	70
55)	14dioxane	8.61	88	5390	28.6642 ug/L		84
56)	Bromodiclrma	8.74	83	45907	0.4976 ug/L		85
57)	2Nitropropane	9.03	43	55883	4.8311 ug/L		97
58)	2CLEVE	9.14	63	50250	2.5615 ug/L		98
59)	c13dicloproe	9.33	75	56144	0.5565 ug/L		98
60)	4Meth2Pentan	9.52	43	261908	5.0168 ug/L		99
62)	Toluene	9.75	92	111923	0.5430 ug/L		89
63)	t13Dicloprop	10.05	75	37672	0.4300 ug/L		94
64)	ethylmethacrylate	10.18	69	46169	0.8310 ug/L		90
65)	112Triclotha	10.28	83	20315	0.4845 ug/L		97
66)	Tetrachlorte	10.48	166	39366	0.4648 ug/L		96
67)	13Diclorpropa	10.49	76	38367	0.4242 ug/L		82
69)	2Hexanone	10.62	43	152481	4.9868 ug/L		97
70)	Clorodibrmta	10.81	129	27316	0.5085 ug/L		97
71)	12Dibrometha	10.96	107	23496	0.5238 ug/L		87
72)	Chlorobenzen	11.62	112	108251	0.4956 ug/L		88
73)	1Clhexane	11.59	91	48442	0.4228 ug/L	#	84
74)	1112Tetclota	11.73	131	32407	0.4222 ug/L		81
75)	Ethylbenzene	11.78	91	184144	0.4727 ug/L		98
76)	m p-Xylene	11.95	106	137370	0.9783 ug/L		95
77)	o-Xylene	12.50	106	66904	0.4778 ug/L		100
78)	Styrene	12.51	104	92860	0.4633 ug/L		89
79)	Bromoform	12.76	173	11172	0.4395 ug/L	#	68
80)	Isopropylben	13.02	105	164315	0.4497 ug/L		100
81)	cyclohexanone	13.13	55	12031	6.6075 ug/L		96
84)	Bromobenzene	13.44	156	40048	0.4990 ug/L		88
85)	1122Tetrclta	13.43	83	27464	0.5407 ug/L		96
86)	123Triclproa	13.49	75	30223	0.5188 ug/L		86
87)	14dichloro2butene	13.50	53	529	0.0390 ug/L	#	35
88)	n-Propylbenz	13.61	91	200555	0.4802 ug/L		99
89)	2chlorotolue	13.72	91	129377	0.5297 ug/L		97
90)	4chlorotolue	13.88	91	131797	0.4480 ug/L		98
91)	135Trimebenz	13.86	105	141357	0.4877 ug/L		95
92)	tbutylbenzen	14.33	119	118771	0.4447 ug/L		95
93)	124Trimetben	14.40	105	141326	0.4897 ug/L		97
94)	sbutylbenzen	14.65	105	172191	0.4930 ug/L		98
95)	13Diclorbenz	14.81	146	80529	0.5329 ug/L		95
96)	pIsopropylto	14.86	119	143092	0.4684 ug/L		99
97)	14dichlorobe	14.93	146	84962	0.4980 ug/L		91
98)	12dichlorobe	15.47	146	65606	0.4454 ug/L		89
99)	nButylbenzen	15.46	91	135672	0.4701 ug/L		98
100)	12dibromo3cl	16.58	157	4192	0.6823 ug/L	#	32
101)	135Trichlorobenzene	16.89	180	57841	0.4518 ug/L		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\AUG2519\LLCALW3.D Vial: 7
Acq On : 25 Aug 2019 22:39 Operator: RLD-DGS
Sample : CALIB. PT. 3 Inst : VMS4
Misc : 0.50/5.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 06:56:32 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 06:56:24 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	17.72	180	44931	0.4893 ug/L	99
103) Hexachlorobu	17.93	225	25273	0.5317 ug/L	92
104) Naphthalene	18.02	128	56842	0.4339 ug/L	97
105) 123Trichlben	18.32	180	40076	0.4687 ug/L	98

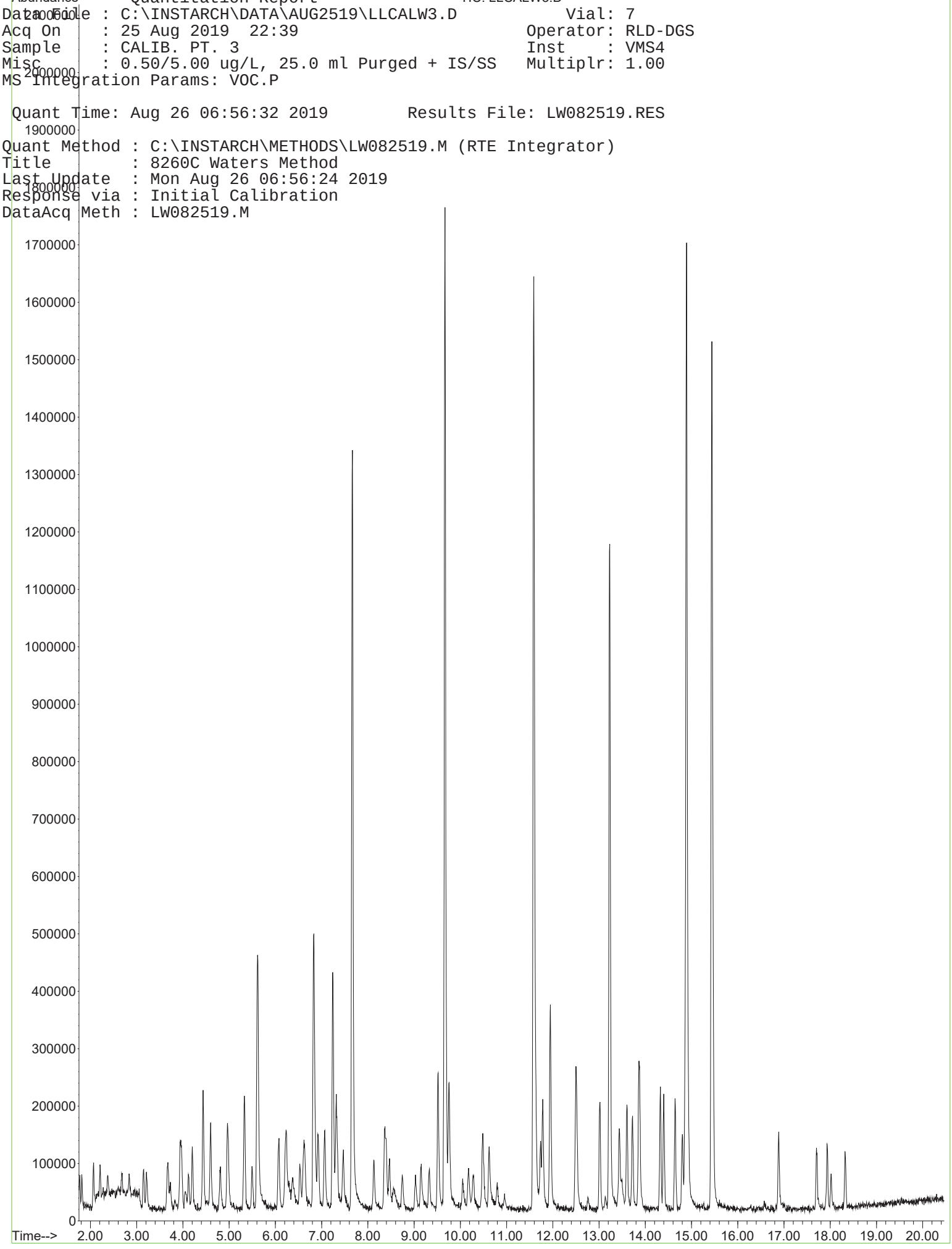
(#) = qualifier out of range (m) = manual integration

Quantitation Report (TIC: LLCALW3.D)

Data File : C:\INSTARCH\DATA\AUG2519\LLCALW3.D Vial: 7
Acq On : 25 Aug 2019 22:39 Operator: RLD-DGS
Sample : CALIB. PT. 3 Inst : VMS4
Misc : 0.50/5.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 06:56:32 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 06:56:24 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M



Quantitation Report

Data File : C:\INSTARCH\DATA\AUG2519\LLCALW4.D Vial: 8
Acq On : 25 Aug 2019 23:07 Operator: RLD-DGS
Sample : CALIB. PT. 4 Inst : VMS4
Misc : 1.00/10.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 06:56:48 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 06:56:40 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.67	96	1391297	4.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.59	117	1113504	4.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.89	152	623249	4.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	381255	4.078	ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 102 %			
45) SURR12DCAd4	7.24	102	62109	4.037	ug/L	0.00
Spiked Amount 4.000	Range 86 - 106		Recovery = 101 %			
61) SURRd8Tolule	9.67	98	1430940	4.029	ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 101 %			
83) SURR4BrFBenz	13.23	95	535515	3.884	ug/L	0.00
Spiked Amount 4.000	Range 75 - 124		Recovery = 97 %			
Target Compounds						Qvalue
2) Dichlorodi	1.82	85	64031	0.6971	ug/L	99
3) Chloromethan	2.07	50	171805	0.9912	ug/L	92
4) VinylChlorid	2.21	62	89484	0.7935	ug/L	97
5) Bromomethane	2.68	94	36990	0.8492	ug/L	80
6) Chloroethane	2.83	64	51503	0.9316	ug/L	93
7) Dichloroflmethane	3.14	67	150630	0.9760	ug/L	98
8) Trichlorofma	3.21	101	95004	0.7592	ug/L	93
9) Ethylether	3.66	59	52928	0.8613	ug/L	89
10) dichlorotfluoroethan	3.69	67	75839	0.8014	ug/L	98
11) propyleneoxide	3.73	58	77509	9.9641	ug/L	94
12) Acrolein	3.83	56	43115	5.5704	ug/L	96
13) 11dichlorthe	3.94	96	58673	0.8133	ug/L	99
14) Trichlorotfluoroeth	3.96	101	95755	1.5096	ug/L	97
15) Acetone	4.05	43	136429	8.7413	ug/L	95
16) Iodomethane	4.12	142	160443	1.8250	ug/L	98
17) Carbon Dislf	4.20	76	300373	1.7533	ug/L	98
18) allylchloride	4.43	41	397796	1.8686	ug/L	99
19) methylacetate	4.51	74	5935	1.0426	ug/L #	37
20) Methylchlorid	4.61	84	102551	0.6722	ug/L	97
21) tbutylalcohol	4.81	59	209873	46.1496	ug/L	92
22) Acrylonitrile	4.95	53	77374	5.7369	ug/L	97
23) t12dichlorte	4.96	96	68926	1.0482	ug/L	93
24) MtBE	4.98	73	161341	0.9887	ug/L	97
25) Hexane	5.34	57	191837	1.4069	ug/L	98
26) 11dichlorota	5.49	63	186000	0.9710	ug/L	98
27) Vinylacetate	5.60	43	1102410	14.3089	ug/L	98
28) chloroprene	5.62	53	283338	1.7166	ug/L	99
29) Diisopether	5.61	45	441926	1.0474	ug/L	98
30) ETBE	6.07	59	278536	0.9904	ug/L	99
31) 22dichloropr	6.22	77	109041	0.8012	ug/L	99
32) c12dichlorte	6.24	96	85613	0.9536	ug/L	93
33) 2Butanone	6.28	72	30455	10.7517	ug/L	98
34) propionitrile	6.34	54	34127	13.6094	ug/L	96
35) Ethylacetate	6.36	88	3081	4.7076	ug/L #	1
36) methacrylonitrile	6.55	67	22793	2.2242	ug/L	94
37) Bromochlorma	6.52	128	31237	1.0093	ug/L #	86
38) Tetrahydofur	6.61	42	150902	12.2254	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\AUG2519\LLCALW4.D Vial: 8
Acq On : 25 Aug 2019 23:07 Operator: RLD-DGS
Sample : CALIB. PT. 4 Inst : VMS4
Misc : 1.00/10.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 06:56:48 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 06:56:40 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
39)	Chloroform	6.62	83	154054	1.0326 ug/L		95
40)	111trichlota	6.85	97	112807	0.8443 ug/L		99
42)	Cyclohexane	6.92	56	125606	0.7175 ug/L		97
43)	Carbtetraclo	7.06	119	87580	0.8265 ug/L		98
44)	11dicloprope	7.07	110	30538	0.9187 ug/L		93
46)	Benzene	7.31	78	331625	1.0274 ug/L		98
47)	12dichlorota	7.34	62	104149	1.1394 ug/L		91
48)	TAME	7.47	73	183671	1.0585 ug/L		97
49)	trichloroete	8.13	95	83277	0.9721 ug/L		91
50)	methylcyclohexane	8.37	83	92803	0.7500 ug/L		98
51)	12dicloropra	8.40	63	101814	0.9539 ug/L		94
52)	23Dicl1propene	8.46	75	122703	1.1050 ug/L		98
53)	Dibromometha	8.55	93	32289	1.2364 ug/L		92
54)	methylmethacrylate	8.57	69	18161	2.3090 ug/L		92
55)	14dioxane	8.58	88	10299	50.7265 ug/L	#	22
56)	Bromodiclrma	8.74	83	104566	1.1023 ug/L		96
57)	2Nitropropane	9.03	43	114614	9.7348 ug/L		95
58)	2CLEVE	9.14	63	128100	6.2916 ug/L		99
59)	c13dicloproe	9.32	75	113595	1.0637 ug/L		100
60)	4Meth2Pentan	9.51	43	574415	10.6793 ug/L		99
62)	Toluene	9.75	92	209073	0.9645 ug/L		97
63)	t13Dicloprop	10.04	75	87020	1.0122 ug/L		96
64)	ethylmethacrylate	10.17	69	106100	1.9658 ug/L		90
65)	112Triclotha	10.27	83	43755	1.0243 ug/L		97
66)	Tetrachlorte	10.48	166	79617	0.9295 ug/L		96
67)	13Diclorpropa	10.50	76	92277	1.0302 ug/L		93
69)	2Hexanone	10.62	43	359732	11.4708 ug/L		96
70)	Clorodibrmta	10.79	129	54354	0.9817 ug/L		99
71)	12Dibrometha	10.96	107	42544	0.9133 ug/L		96
72)	Chlorobenzen	11.63	112	226175	1.0111 ug/L		95
73)	1Clhexane	11.60	91	88731	0.7849 ug/L		97
74)	1112Tetclota	11.73	131	74515	0.9977 ug/L		94
75)	Ethylbenzene	11.78	91	366187	0.9286 ug/L		100
76)	m p-Xylene	11.94	106	281459	1.9636 ug/L		97
77)	o-Xylene	12.49	106	138824	0.9768 ug/L		92
78)	Styrene	12.51	104	206956	1.0249 ug/L		97
79)	Bromoform	12.76	173	18535	0.7404 ug/L	#	83
80)	Isopropylben	13.02	105	324036	0.8863 ug/L		97
81)	cyclohexanone	13.14	55	25824	15.5810 ug/L		96
84)	Bromobenzene	13.44	156	88184	1.0204 ug/L		96
85)	1122Tetrclta	13.43	83	55502	0.9940 ug/L		98
86)	123Triclproa	13.49	75	51754	0.8144 ug/L		93
87)	14dichloro2butene	13.52	53	13727	1.3557 ug/L		85
88)	n-Propylbenz	13.60	91	403787	0.9064 ug/L		99
89)	2chlorotolue	13.72	91	246676	0.9237 ug/L		98
90)	4chlorotolue	13.88	91	288837	0.9356 ug/L		98
91)	135Trimebenz	13.86	105	284561	0.9169 ug/L		99
92)	tbutylbenzen	14.32	119	234042	0.8365 ug/L		99
93)	124Trimetben	14.39	105	292878	0.9468 ug/L		97
94)	sbutylbenzen	14.64	105	335649	0.8951 ug/L		99
95)	13Diclorbenz	14.80	146	173882	1.0507 ug/L		95
96)	pIsopropylto	14.86	119	283177	0.8741 ug/L		99
97)	14dichlorobe	14.92	146	173708	0.9460 ug/L		99
98)	12dichlorobe	15.47	146	155256	1.0058 ug/L		97
99)	nButylbenzen	15.46	91	263314	0.8597 ug/L		98
100)	12dibromo3cl	16.57	157	9695	1.3060 ug/L	#	64
101)	135Trichlorobenzene	16.88	180	122494	0.9101 ug/L		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\AUG2519\LLCALW4.D Vial: 8
Acq On : 25 Aug 2019 23:07 Operator: RLD-DGS
Sample : CALIB. PT. 4 Inst : VMS4
Misc : 1.00/10.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 06:56:48 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 06:56:40 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	17.70	180	91572	0.9306 ug/L	92
103) Hexachlorobu	17.93	225	50776	0.9761 ug/L	96
104) Naphthalene	18.02	128	138958	1.0182 ug/L	98
105) 123Trichlben	18.32	180	86366	0.9524 ug/L	97

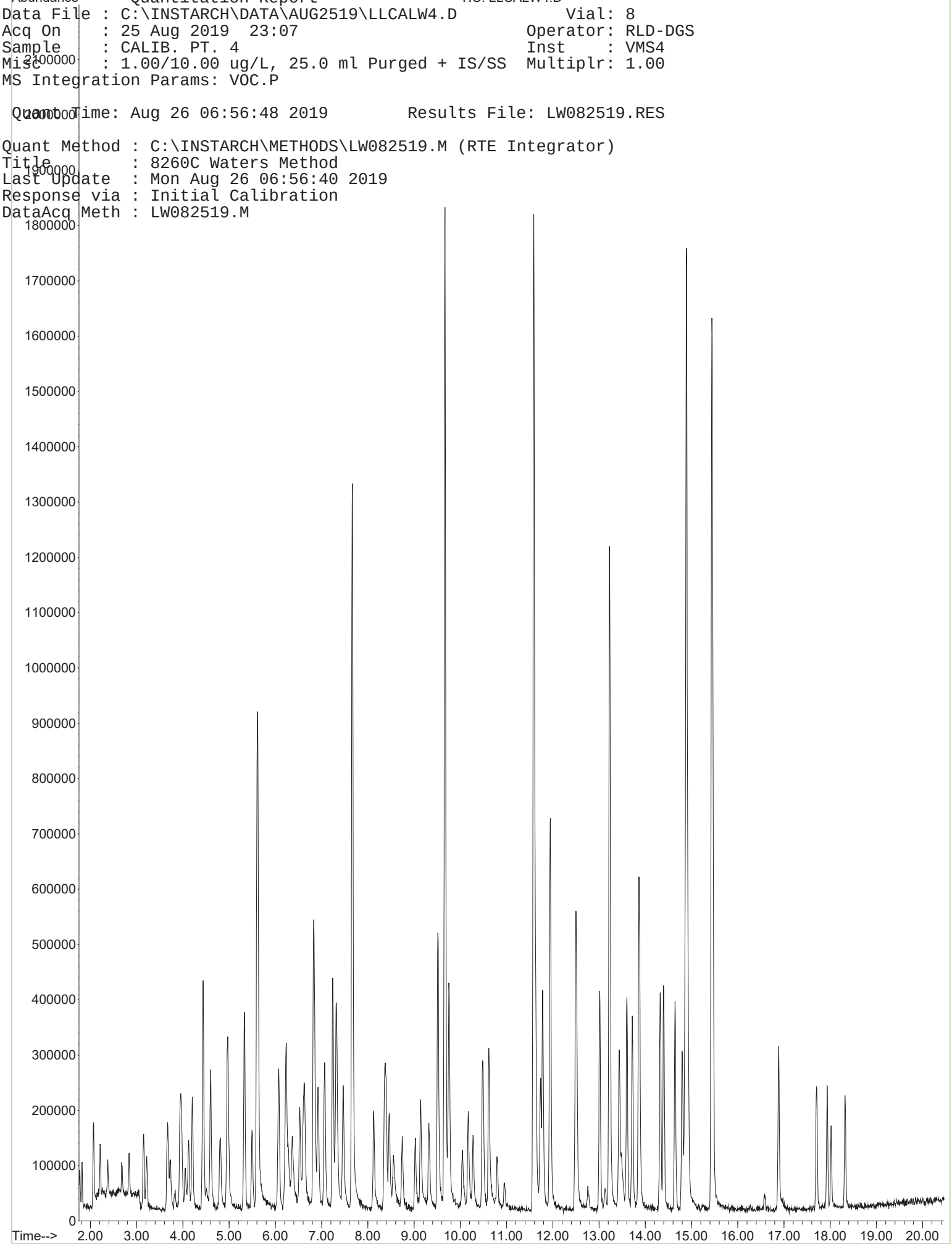
(#) = qualifier out of range (m) = manual integration

Abundance Quantitation Report TIC: LLCALW4.D

Data File : C:\INSTARCH\DATA\AUG2519\LLCALW4.D Vial: 8
Acq On : 25 Aug 2019 23:07 Operator: RLD-DGS
Sample : CALIB. PT. 4 Inst : VMS4
Misc : 1.00/10.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 06:56:48 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 06:56:40 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M



Quantitation Report

Data File : C:\INSTARCH\DATA\AUG2519\LLCALW5.D Vial: 9
Acq On : 25 Aug 2019 23:35 Operator: RLD-DGS
Sample : CALIB. PT. 5 Inst : VMS4
Misc : 2.00/20.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 06:57:02 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 06:56:55 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1420892	4.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.59	117	1099935	4.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.89	152	625111	4.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.83	113	373058	3.892 ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 97 %		
45) SURR12DCAd4	7.25	102	66393	4.218 ug/L	0.00
Spiked Amount 4.000	Range 86 - 106		Recovery = 105 %		
61) SURRd8Tolule	9.67	98	1425549	3.925 ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 98 %		
83) SURR4BrFBenz	13.23	95	542388	3.945 ug/L	0.00
Spiked Amount 4.000	Range 75 - 124		Recovery = 99 %		
Target Compounds					Qvalue
2) Dichlorodi	1.82	85	164158	1.8628 ug/L	93
3) Chloromethan	2.07	50	338531	1.9158 ug/L	98
4) VinylChlorid	2.21	62	202211	1.8314 ug/L	95
5) Bromomethane	2.68	94	73538	1.7178 ug/L	95
6) Chloroethane	2.84	64	105950	1.9091 ug/L	100
7) Dichloroflmethane	3.15	67	314590	2.0056 ug/L	96
8) Trichlorofma	3.22	101	238125	1.9576 ug/L	98
9) Ethylether	3.66	59	135496	2.2206 ug/L	91
10) dichlorotfluoroethan	3.68	67	174807	1.8835 ug/L	98
11) propyleneoxide	3.73	58	176924	22.2906 ug/L	97
12) Acrolein	3.83	56	92231	11.3444 ug/L	96
13) 11dichlorthe	3.94	96	128820	1.8163 ug/L	94
14) Trichlorotfluoroeth	3.97	101	246589	4.0028 ug/L	99
15) Acetone	4.04	43	298070	19.1832 ug/L	99
16) Iodomethane	4.12	142	376189	4.2645 ug/L	97
17) Carbon Dislf	4.20	76	668158	3.9155 ug/L	99
18) allylchloride	4.43	41	842142	3.9251 ug/L	98
19) methylacetate	4.50	74	16234	2.7630 ug/L	96
20) Methylchlorid	4.59	84	186343	1.2799 ug/L	95
21) tbutylalcohol	4.81	59	428979	93.8096 ug/L	97
22) Acrylonitrile	4.94	53	167640	11.7384 ug/L	98
23) t12dichlorte	4.96	96	144454	2.1305 ug/L	91
24) MtBE	4.98	73	329965	1.9845 ug/L	98
25) Hexane	5.33	57	535880	4.0909 ug/L	100
26) 11dichlorota	5.49	63	388238	1.9962 ug/L	97
27) Vinylacetate	5.60	43	2214823	25.9155 ug/L	99
28) chloroprene	5.61	53	672565	4.1063 ug/L	99
29) Diisopether	5.62	45	904635	2.0797 ug/L	98
30) ETBE	6.07	59	577370	2.0140 ug/L	99
31) 22dichloropr	6.23	77	252213	1.8897 ug/L	96
32) c12dichlorte	6.24	96	182954	2.0142 ug/L	96
33) 2Butanone	6.27	72	71047	24.1067 ug/L	96
34) propionitrile	6.34	54	103878	37.2052 ug/L	98
35) Ethylacetate	6.36	88	8585	13.0347 ug/L #	80
36) methacrylonitrile	6.53	67	58319	5.4206 ug/L	90
37) Bromochlorma	6.52	128	63898	2.0178 ug/L	98
38) Tetrahydofur	6.59	42	327820	24.8973 ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\AUG2519\LLCALW5.D Vial: 9
Acq On : 25 Aug 2019 23:35 Operator: RLD-DGS
Sample : CALIB. PT. 5 Inst : VMS4
Misc : 2.00/20.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 06:57:02 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 06:56:55 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	6.63	83	314042	2.0478 ug/L	96
40) 111trichlota	6.86	97	260585	1.9711 ug/L	97
42) Cyclohexane	6.92	56	335252	1.9875 ug/L	98
43) Carbtetraclo	7.07	119	216071	2.0684 ug/L	99
44) 11dicloprope	7.06	110	65150	1.9590 ug/L	92
46) Benzene	7.32	78	689117	2.0791 ug/L	99
47) 12dichlorota	7.34	62	225379	2.3488 ug/L	96
48) TAME	7.46	73	367312	2.0487 ug/L	99
49) trichloroete	8.13	95	169900	1.9529 ug/L	99
50) methylcyclohexane	8.36	83	240450	2.0030 ug/L	95
51) 12dicloropra	8.39	63	230007	2.1297 ug/L	98
52) 23Dicl1propene	8.46	75	240231	2.0748 ug/L	97
53) Dibromometha	8.54	93	76959	2.7552 ug/L	95
54) methylmethacrylate	8.57	69	44250	5.3040 ug/L	93
55) 14dioxane	8.59	88	20898	100.4219 ug/L #	81
56) Bromodiclrma	8.74	83	217861	2.2037 ug/L	98
57) 2Nitropropane	9.03	43	254819	21.3339 ug/L	98
58) 2CLEVE	9.13	63	273060	12.3353 ug/L	98
59) c13dicloproe	9.32	75	251341	2.2755 ug/L	96
60) 4Meth2Pentan	9.51	43	1258780	22.6081 ug/L	98
62) Toluene	9.75	92	444132	2.0206 ug/L	98
63) t13Dicloprop	10.04	75	179591	2.0392 ug/L	95
64) ethylmethacrylate	10.17	69	228298	4.1596 ug/L	95
65) 112Triclotha	10.27	83	91532	2.0855 ug/L	94
66) Tetrachlorte	10.48	166	180671	2.0949 ug/L	98
67) 13Diclorpropa	10.50	76	193044	2.0976 ug/L	95
69) 2Hexanone	10.61	43	821810	25.7703 ug/L	99
70) Clorodibrmta	10.79	129	117881	2.1633 ug/L	95
71) 12Dibrometha	10.96	107	95892	2.1207 ug/L	96
72) Chlorobenzen	11.63	112	473962	2.1402 ug/L	97
73) 1Clhexane	11.60	91	214605	2.0082 ug/L	97
74) 1112Tetclota	11.73	131	164651	2.2330 ug/L	98
75) Ethylbenzene	11.78	91	802815	2.0907 ug/L	98
76) m p-Xylene	11.94	106	596288	4.2268 ug/L	98
77) o-Xylene	12.50	106	297408	2.1284 ug/L	96
78) Styrene	12.51	104	472292	2.3560 ug/L	100
79) Bromoform	12.76	173	61728	2.6694 ug/L	84
80) Isopropylben	13.01	105	741978	2.1023 ug/L	99
81) cyclohexanone	13.13	55	64889	41.9512 ug/L	98
84) Bromobenzene	13.44	156	187218	2.1511 ug/L	98
85) 1122Tetrclta	13.42	83	116116	2.0758 ug/L	94
86) 123Triclproa	13.49	75	108748	1.7891 ug/L	95
87) 14dichloro2butene	13.52	53	31712	2.8677 ug/L	91
88) n-Propylbenz	13.60	91	900802	2.0545 ug/L	98
89) 2chlorotolue	13.72	91	538881	2.0431 ug/L	97
90) 4chlorotolue	13.87	91	621272	2.0327 ug/L	100
91) 135Trimebenz	13.86	105	632255	2.0656 ug/L	98
92) tbutylbenzen	14.33	119	516642	1.9033 ug/L	96
93) 124Trimetben	14.39	105	642089	2.0918 ug/L	99
94) sbutylbenzen	14.64	105	765914	2.0801 ug/L	97
95) 13Diclorbenz	14.79	146	358553	2.1384 ug/L	95
96) pIsopropylto	14.86	119	674599	2.1298 ug/L	99
97) 14dichlorobe	14.92	146	347602	1.9080 ug/L	97
98) 12dichlorobe	15.47	146	321498	2.0742 ug/L	95
99) nButylbenzen	15.46	91	611574	2.0482 ug/L	99
100) 12dibromo3cl	16.58	157	18139	2.2630 ug/L	88
101) 135Trichlorobenzene	16.89	180	278701	2.1022 ug/L	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\AUG2519\LLCALW5.D Vial: 9
Acq On : 25 Aug 2019 23:35 Operator: RLD-DGS
Sample : CALIB. PT. 5 Inst : VMS4
Misc : 2.00/20.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 06:57:02 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 06:56:55 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	17.70	180	208865	2.1460 ug/L	100
103) Hexachlorobu	17.93	225	118947	2.2907 ug/L	98
104) Naphthalene	18.02	128	303007	2.2055 ug/L	98
105) 123Trichlben	18.32	180	193573	2.1488 ug/L	92

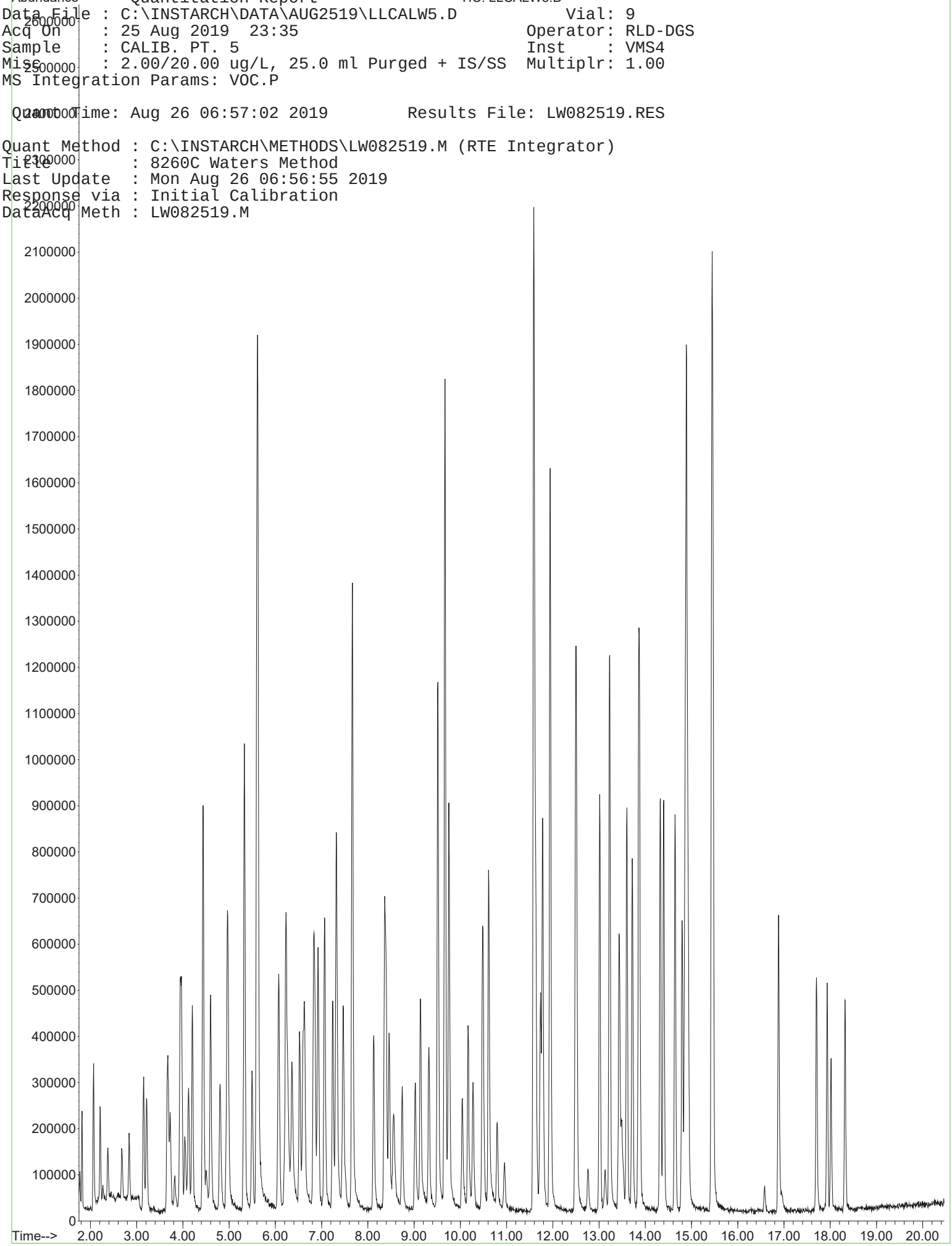
(#) = qualifier out of range (m) = manual integration

Abundance Quantitation Report TIC: LLCALW5.D

Data File : C:\INSTARCH\DATA\AUG2519\LLCALW5.D Vial: 9
Acq On : 25 Aug 2019 23:35 Operator: RLD-DGS
Sample : CALIB. PT. 5 Inst : VMS4
Misc : 2.00/20.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 06:57:02 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 06:56:55 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M



Quantitation Report

Data File : C:\INSTARCH\DATA\AUG2519\LLCALW6.D Vial: 10
Acq On : 26 Aug 2019 00:04 Operator: RLD-DGS
Sample : CALIB. PT. 6 Inst : VMS4
Misc : 4.00/40.0000 ug/L, 25.0 ml Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 06:57:18 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 06:57:10 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1382516	4.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.58	117	1078242	4.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.89	152	610923	4.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	375683	4.046	ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 101	%		
45) SURR12DCAd4	7.24	102	62756	4.061	ug/L	0.00
Spiked Amount 4.000	Range 86 - 106		Recovery = 102	%		
61) SURRd8Tolule	9.67	98	1420450	4.032	ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 101	%		
83) SURR4BrFBenz	13.23	95	550270	4.105	ug/L	0.00
Spiked Amount 4.000	Range 75 - 124		Recovery = 103	%		
Target Compounds						Qvalue
2) Dichlorodi	1.82	85	324395	3.8270	ug/L	100
3) Chloromethan	2.07	50	687480	4.0269	ug/L	100
4) VinylChlorid	2.21	62	433197	4.0898	ug/L	100
5) Bromomethane	2.68	94	146406	3.6170	ug/L	100
6) Chloroethane	2.84	64	228568	4.2718	ug/L	100
7) Dichloroflmethane	3.14	67	647148	4.2383	ug/L	100
8) Trichlorofma	3.21	101	496868	4.2130	ug/L	100
9) Ethylether	3.66	59	263260	4.3543	ug/L	100
10) dichlorotfluoroethan	3.68	67	368946	4.1258	ug/L	100
11) propyleneoxide	3.72	58	345468	43.7318	ug/L	100
12) Acrolein	3.81	56	196193	24.1522	ug/L	100
13) 11dichlorthe	3.94	96	286300	4.2132	ug/L	100
14) Trichlorotfluoroeth	3.97	101	508123	8.4761	ug/L	100
15) Acetone	4.04	43	652731	43.4704	ug/L	100
16) Iodomethane	4.12	142	797261	9.1875	ug/L	100
17) Carbon Dislf	4.20	76	1335414	8.0713	ug/L	100
18) allylchloride	4.43	41	1737012	8.3468	ug/L	100
19) methylacetate	4.51	74	37792	6.1420	ug/L	100
20) Methylchlorid	4.60	84	338637	2.5431	ug/L	100
21) tbutylalcohol	4.80	59	944274	214.4392	ug/L	100
22) Acrylonitrile	4.93	53	364850	25.3742	ug/L	100
23) t12dichlorte	4.96	96	308866	4.6315	ug/L	100
24) MtBE	4.98	73	670242	4.1482	ug/L	100
25) Hexane	5.33	57	1136903	8.8863	ug/L	100
26) 11dichlorota	5.50	63	772607	4.0840	ug/L	100
27) Vinylacetate	5.59	43	4333716	49.6677	ug/L	100
28) chloroprene	5.61	53	1398395	8.7360	ug/L	100
29) Diisopether	5.61	45	1779388	4.1766	ug/L	100
30) ETBE	6.06	59	1153112	4.1292	ug/L	100
31) 22dichloropr	6.22	77	482820	3.7524	ug/L	100
32) c12dichlorte	6.24	96	367311	4.1511	ug/L	100
33) 2Butanone	6.27	72	163247	54.6826	ug/L	100
34) propionitrile	6.33	54	243335	76.4238	ug/L	100
35) Ethylacetate	6.35	88	22363	32.8997	ug/L	99
36) methacrylonitrile	6.52	67	119521	10.6603	ug/L	100
37) Bromochlorma	6.52	128	138464	4.4872	ug/L	99
38) Tetrahydofur	6.59	42	683025	51.2238	ug/L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\AUG2519\LLCALW6.D Vial: 10
Acq On : 26 Aug 2019 00:04 Operator: RLD-DGS
Sample : CALIB. PT. 6 Inst : VMS4
Misc : 4.00/40.0000 ug/L, 25.0 ml Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 06:57:18 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 06:57:10 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	6.63	83	626343	4.1809 ug/L	100
40)	111trichlota	6.85	97	536359	4.1798 ug/L	100
42)	Cyclohexane	6.92	56	705128	4.3008 ug/L	100
43)	Carbtetraclo	7.07	119	441790	4.3219 ug/L	100
44)	11dicloprope	7.07	110	139687	4.3346 ug/L	100
46)	Benzene	7.31	78	1329300	4.0950 ug/L	100
47)	12dichlorota	7.34	62	447380	4.6565 ug/L	100
48)	TAME	7.46	73	750843	4.2867 ug/L	100
49)	trichloroete	8.12	95	352516	4.1808 ug/L	100
50)	methylcyclohexane	8.36	83	536515	4.5921 ug/L	100
51)	12dicloropra	8.39	63	439079	4.1338 ug/L	100
52)	23Dicl1propene	8.46	75	520998	4.5959 ug/L	100
53)	Dibromometha	8.54	93	152736	5.2872 ug/L	99
54)	methylmethacrylate	8.56	69	105349	12.1837 ug/L	100
55)	14dioxane	8.59	88	47136	232.5954 ug/L	100
56)	Bromodiclrma	8.74	83	440745	4.5055 ug/L	100
57)	2Nitropropane	9.02	43	539225	45.7872 ug/L	100
58)	2CLEVE	9.14	63	565938	25.1031 ug/L	100
59)	c13dicloproe	9.32	75	497020	4.5208 ug/L	100
60)	4Meth2Pentan	9.51	43	2502854	45.2171 ug/L	100
62)	Toluene	9.76	92	911216	4.2534 ug/L	100
63)	t13Dicloprop	10.04	75	382437	4.4456 ug/L	100
64)	ethylmethacrylate	10.17	69	515427	9.5754 ug/L	100
65)	112Triclotha	10.27	83	180159	4.1830 ug/L	100
66)	Tetrachlorte	10.48	166	370680	4.3828 ug/L	100
67)	13Diclorpropa	10.49	76	382777	4.2402 ug/L	100
69)	2Hexanone	10.61	43	1738415	53.0585 ug/L	100
70)	Clorodibrmta	10.80	129	252738	4.6679 ug/L	100
71)	12Dibrometha	10.96	107	202894	4.5318 ug/L	100
72)	Chlorobenzen	11.63	112	938039	4.2711 ug/L	100
73)	1Clhexane	11.59	91	442176	4.2182 ug/L	100
74)	1112Tetclota	11.73	131	339467	4.5896 ug/L	100
75)	Ethylbenzene	11.78	91	1614161	4.2561 ug/L	100
76)	m p-Xylene	11.94	106	1208856	8.6595 ug/L	100
77)	o-Xylene	12.50	106	614764	4.4405 ug/L	100
78)	Styrene	12.51	104	981406	4.8503 ug/L	100
79)	Bromoform	12.76	173	140924	5.8267 ug/L	100
80)	Isopropylben	13.02	105	1522827	4.3644 ug/L	100
81)	cyclohexanone	13.13	55	146962	95.9871 ug/L	100
84)	Bromobenzene	13.44	156	389299	4.5200 ug/L	100
85)	1122Tetrclta	13.43	83	240935	4.3795 ug/L	100
86)	123Triclproa	13.49	75	219776	3.7795 ug/L	100
87)	14dichloro2butene	13.52	53	60947	5.1891 ug/L	100
88)	n-Propylbenz	13.60	91	1862968	4.3280 ug/L	100
89)	2chlorotolue	13.72	91	1117389	4.3194 ug/L	100
90)	4chlorotolue	13.88	91	1272569	4.2487 ug/L	100
91)	135Trimebenz	13.86	105	1340224	4.4558 ug/L	100
92)	tbutylbenzen	14.33	119	1140801	4.3353 ug/L	100
93)	124Trimetben	14.39	105	1323083	4.3769 ug/L	100
94)	sbutylbenzen	14.64	105	1642986	4.5354 ug/L	100
95)	13Diclorbenz	14.79	146	725571	4.3773 ug/L	100
96)	pIsopropylto	14.86	119	1424942	4.5540 ug/L	100
97)	14dichlorobe	14.93	146	729919	4.1312 ug/L	100
98)	12dichlorobe	15.46	146	647884	4.2508 ug/L	100
99)	nButylbenzen	15.46	91	1313253	4.4824 ug/L	100
100)	12dibromo3cl	16.58	157	34383	4.2768 ug/L	100
101)	135Trichlorobenzene	16.88	180	568107	4.3477 ug/L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\AUG2519\LLCALW6.D Vial: 10
Acq On : 26 Aug 2019 00:04 Operator: RLD-DGS
Sample : CALIB. PT. 6 Inst : VMS4
Misc : 4.00/40.0000 ug/L, 25.0 ml Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 06:57:18 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 06:57:10 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

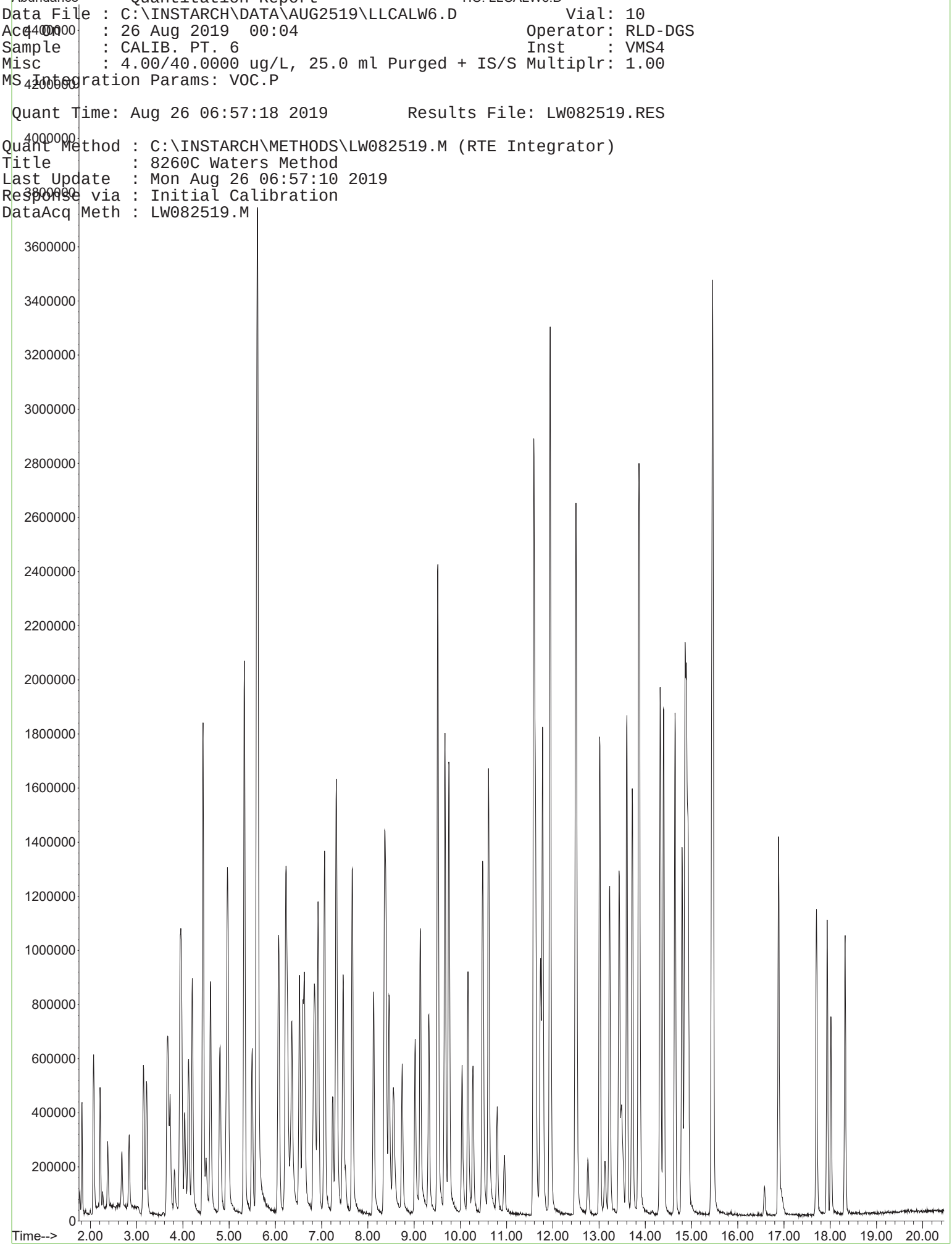
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.70	180	462230	4.8012	ug/L	100
103) Hexachlorobu	17.93	225	271903	5.2312	ug/L	100
104) Naphthalene	18.02	128	663143	4.8558	ug/L	100
105) 123Trichlben	18.32	180	404617	4.5395	ug/L	100

(#) = qualifier out of range (m) = manual integration

Data File : C:\INSTARCH\DATA\AUG2519\LLCALW6.D Vial: 10
Acq On : 26 Aug 2019 00:04 Operator: RLD-DGS
Sample : CALIB. PT. 6 Inst : VMS4
Misc : 4.00/40.0000 ug/L, 25.0 ml Purged + IS/S Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 06:57:18 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 06:57:10 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M



Quantitation Report

Data File : C:\INSTARCH\DATA\AUG2519\LLCALW7.D Vial: 11
Acq On : 26 Aug 2019 00:32 Operator: RLD-DGS
Sample : CALIB. PT. 7 Inst : VMS4
Misc : 6.00/60.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 06:57:35 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 06:57:27 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.67	96	1433870	4.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.59	117	1134205	4.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.89	152	653369	4.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	382590	3.976	ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 99 %			
45) SURR12DCAd4	7.23	102	63596	3.969	ug/L	0.00
Spiked Amount 4.000	Range 86 - 106		Recovery = 99 %			
61) SURRd8Tolule	9.67	98	1437883	3.937	ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 98 %			
83) SURR4BrFBenz	13.23	95	540083	3.767	ug/L	0.00
Spiked Amount 4.000	Range 75 - 124		Recovery = 94 %			
Target Compounds						Qvalue
2) Dichlorodi	1.82	85	449066	5.1093	ug/L	96
3) Chloromethan	2.07	50	957549	5.4093	ug/L	99
4) VinylChlorid	2.21	62	577881	5.2618	ug/L	100
5) Bromomethane	2.68	94	212926	5.0734	ug/L	98
6) Chloroethane	2.84	64	327832	5.9095	ug/L	100
7) Dichloroflmethane	3.15	67	896384	5.6628	ug/L	97
8) Trichlorofma	3.21	101	679481	5.5537	ug/L	99
9) Ethylether	3.66	59	390361	6.2270	ug/L	98
10) dichlorotfluoroethan	3.67	67	496904	5.3602	ug/L	98
11) propyleneoxide	3.72	58	503015	61.3921	ug/L	99
12) Acrolein	3.81	56	272639	32.4145	ug/L	92
13) 11dichlorthe	3.94	96	375351	5.3268	ug/L	94
14) Trichlorotfluoroeth	3.97	101	697388	11.2197	ug/L	99
15) Acetone	4.03	43	903808	58.0521	ug/L	98
16) Iodomethane	4.12	142	1215791	13.5128	ug/L	99
17) Carbon Dislf	4.20	76	1862495	10.8566	ug/L	99
18) allylchloride	4.43	41	2482510	11.5049	ug/L	98
19) methylacetate	4.50	74	58411	9.1574	ug/L	97
20) Methylchlorid	4.60	84	488604	3.5385	ug/L	96
21) tbutylalcohol	4.81	59	1337388	293.0415	ug/L	100
22) Acrylonitrile	4.93	53	533910	35.7081	ug/L	96
23) t12dichlorte	4.96	96	432998	6.2622	ug/L	98
24) MtBE	4.98	73	985885	5.8846	ug/L	97
25) Hexane	5.33	57	1599844	12.0604	ug/L	99
26) 11dichlorota	5.50	63	1119437	5.7069	ug/L	100
27) Vinylacetate	5.59	43	7132107	78.8373	ug/L	99
28) chloroprene	5.61	53	1943155	11.7098	ug/L	99
29) Diisopether	5.61	45	2611455	5.9127	ug/L	99
30) ETBE	6.07	59	1708452	5.9034	ug/L	99
31) 22dichloropr	6.22	77	679865	5.0958	ug/L	99
32) c12dichlorte	6.23	96	528228	5.7574	ug/L	99
33) 2Butanone	6.26	72	222895	72.0194	ug/L	93
34) propionitrile	6.33	54	367026	112.0277	ug/L	97
35) Ethylacetate	6.35	88	34706	49.2549	ug/L #	81
36) methacrylonitrile	6.52	67	181181	15.5875	ug/L	96
37) Bromochlorma	6.53	128	201475	6.3021	ug/L	99
38) Tetrahydofur	6.59	42	993933	71.8948	ug/L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\AUG2519\LLCALW7.D Vial: 11
Acq On : 26 Aug 2019 00:32 Operator: RLD-DGS
Sample : CALIB. PT. 7 Inst : VMS4
Misc : 6.00/60.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 06:57:35 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 06:57:27 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	6.63	83	899653	5.7931 ug/L	99
40) 111trichlota	6.86	97	770328	5.7931 ug/L	98
42) Cyclohexane	6.92	56	975072	5.7359 ug/L	100
43) Carbtetraclo	7.06	119	613652	5.7898 ug/L	97
44) 11dicloprope	7.07	110	195704	5.8574 ug/L	93
46) Benzene	7.32	78	1937789	5.7586 ug/L	99
47) 12dichlorota	7.34	62	648559	6.5125 ug/L	98
48) TAME	7.46	73	1090616	6.0060 ug/L	99
49) trichloroete	8.13	95	489368	5.6001 ug/L	98
50) methylcyclohexane	8.36	83	732892	6.0501 ug/L	98
51) 12dicloropra	8.40	63	659639	5.9914 ug/L	94
52) 23Dicl1propene	8.46	75	755407	6.4270 ug/L	99
53) Dibromometha	8.54	93	218704	7.3021 ug/L	96
54) methylmethacrylate	8.56	69	173518	19.3773 ug/L	96
55) 14dioxane	8.58	88	68877	327.8237 ug/L	89
56) Bromodiclrma	8.74	83	633021	6.2410 ug/L	97
57) 2Nitropropane	9.02	43	852337	69.8074 ug/L	95
58) 2CLEVE	9.13	63	846182	36.2037 ug/L	98
59) c13dicloproe	9.32	75	741855	6.5080 ug/L	99
60) 4Meth2Pentan	9.51	43	3668586	63.9225 ug/L	100
62) Toluene	9.75	92	1301995	5.8614 ug/L	98
63) t13Dicloprop	10.04	75	569780	6.3922 ug/L	99
64) ethylmethacrylate	10.17	69	759665	13.6188 ug/L	96
65) 112Triclotha	10.27	83	270711	6.0624 ug/L	95
66) Tetrachlorte	10.48	166	517355	5.8996 ug/L	99
67) 13Diclorpropa	10.49	76	555396	5.9345 ug/L	99
69) 2Hexanone	10.61	43	2570137	74.5732 ug/L	99
70) Clorodibrmta	10.80	129	374481	6.5752 ug/L	98
71) 12Dibrometha	10.95	107	291117	6.1815 ug/L	100
72) Chlorobenzen	11.63	112	1378407	5.9666 ug/L	99
73) 1Clhexane	11.59	91	628934	5.7037 ug/L	97
74) 1112Tetclota	11.73	131	476996	6.1308 ug/L	95
75) Ethylbenzene	11.78	91	2303146	5.7731 ug/L	99
76) m p-Xylene	11.94	106	1775863	12.0936 ug/L	98
77) o-Xylene	12.50	106	894654	6.1433 ug/L	97
78) Styrene	12.51	104	1435910	6.7464 ug/L	98
79) Bromoform	12.76	173	210873	8.2887 ug/L	96
80) Isopropylben	13.01	105	2144613	5.8426 ug/L	97
81) cyclohexanone	13.13	55	203987	126.5770 ug/L	98
84) Bromobenzene	13.44	156	577786	6.2726 ug/L	99
85) 1122Tetrclta	13.43	83	362997	6.1696 ug/L	97
86) 123Triclproa	13.49	75	356810	5.7374 ug/L	98
87) 14dichloro2butene	13.52	53	95869	7.6321 ug/L	97
88) n-Propylbenz	13.60	91	2675704	5.8122 ug/L	99
89) 2chlorotolue	13.72	91	1641211	5.9321 ug/L	99
90) 4chlorotolue	13.88	91	1894873	5.9154 ug/L	99
91) 135Trimebenz	13.86	105	1885560	5.8617 ug/L	94
92) tbutylbenzen	14.33	119	1596905	5.6743 ug/L	98
93) 124Trimetben	14.40	105	1929728	5.9740 ug/L	100
94) sbutylbenzen	14.64	105	2314694	5.9745 ug/L	100
95) 13Diclorbenz	14.79	146	1073135	6.0536 ug/L	98
96) pIsopropylto	14.86	119	2009428	6.0048 ug/L	98
97) 14dichlorobe	14.92	146	1078330	5.7067 ug/L	98
98) 12dichlorobe	15.47	146	982994	6.0304 ug/L	94
99) nButylbenzen	15.46	91	1903037	6.0735 ug/L	98
100) 12dibromo3cl	16.58	157	62737	7.2967 ug/L	92
101) 135Trichlorobenzene	16.88	180	864980	6.1896 ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\AUG2519\LLCALW7.D Vial: 11
Acq On : 26 Aug 2019 00:32 Operator: RLD-DGS
Sample : CALIB. PT. 7 Inst : VMS4
Misc : 6.00/60.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 06:57:35 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 06:57:27 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

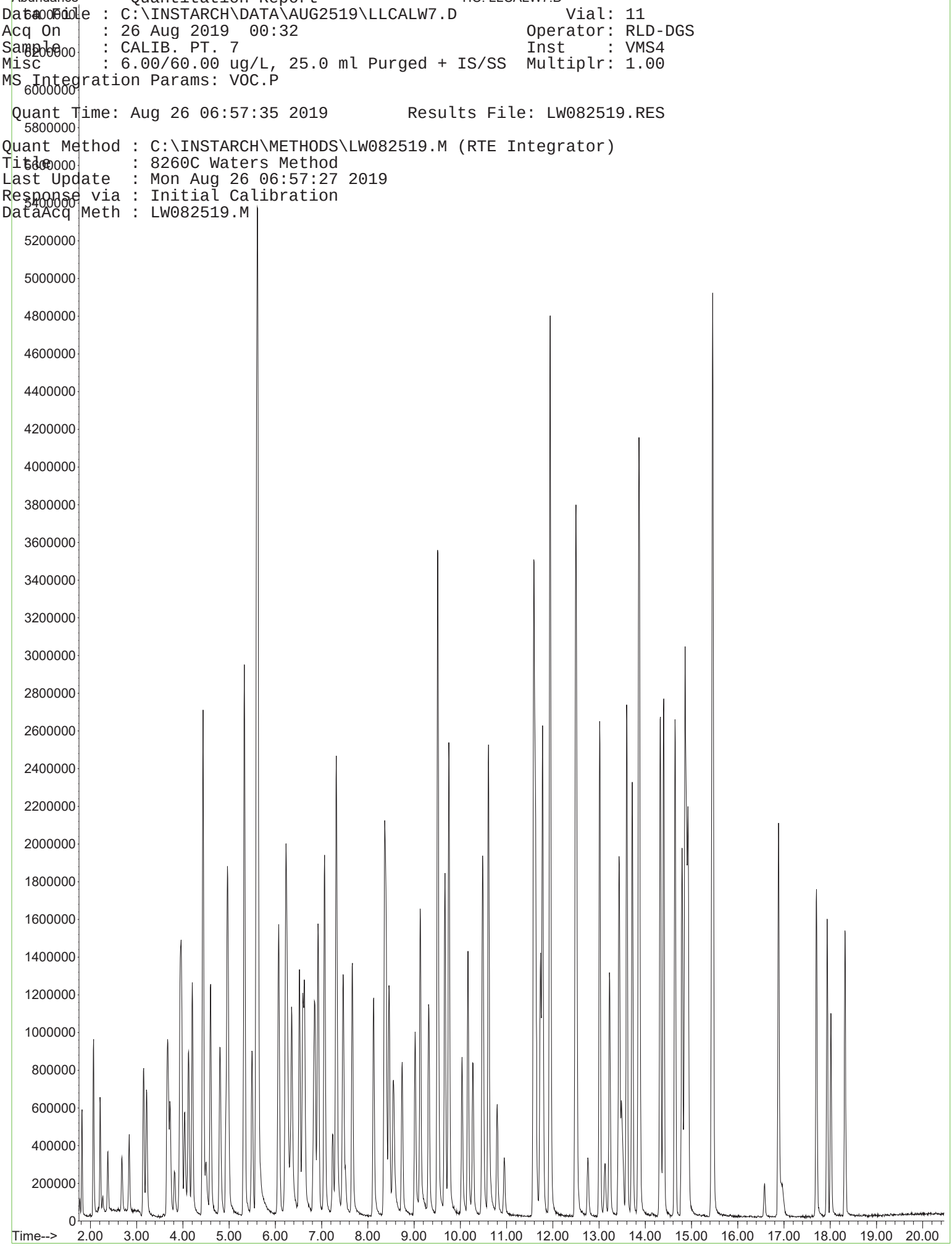
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	17.70	180	710562	6.9011 ug/L	99
103) Hexachlorobu	17.93	225	385291	6.9312 ug/L	96
104) Naphthalene	18.02	128	1014466	6.9453 ug/L	99
105) 123Trichlben	18.32	180	608761	6.3861 ug/L	97

(#) = qualifier out of range (m) = manual integration

Data File : C:\INSTARCH\DATA\AUG2519\LLCALW7.D Vial: 11
Acq On : 26 Aug 2019 00:32 Operator: RLD-DGS
Sample : CALIB. PT. 7 Inst : VMS4
Misc : 6.00/60.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 06:57:35 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 06:57:27 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M



Quantitation Report

Data File : C:\INSTARCH\DATA\AUG2519\LLCALW8.D Vial: 12
Acq On : 26 Aug 2019 1:00 Operator: RLD-DGS
Sample : CALIB. PT. 8 Inst : VMS4
Misc : 8.00/80.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 06:57:49 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 06:57:43 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1452907	4.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.58	117	1155247	4.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.89	152	660325	4.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	384526	3.947	ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 99 %			
45) SURR12DCAd4	7.25	102	65174	4.018	ug/L	0.00
Spiked Amount 4.000	Range 86 - 106		Recovery = 100 %			
61) SURRd8Tolule	9.67	98	1474954	3.994	ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 100 %			
83) SURR4BrFBenz	13.23	95	555555	3.866	ug/L	0.00
Spiked Amount 4.000	Range 75 - 124		Recovery = 97 %			
Target Compounds						Qvalue
2) Dichlorodi	1.82	85	604016	6.9292	ug/L	99
3) Chloromethan	2.06	50	1344667	7.6036	ug/L	99
4) VinylChlorid	2.21	62	826392	7.5588	ug/L	100
5) Bromomethane	2.68	94	302093	7.2913	ug/L	92
6) Chloroethane	2.84	64	443465	7.9090	ug/L	99
7) Dichloroflmethane	3.15	67	1232281	7.7449	ug/L	96
8) Trichlorofma	3.21	101	915219	7.4617	ug/L	99
9) Ethylether	3.66	59	546055	8.5503	ug/L	91
10) dichlorotfluoroethan	3.68	67	686215	7.4183	ug/L	96
11) propyleneoxide	3.73	58	665179	79.8116	ug/L	100
12) Acrolein	3.82	56	393010	45.5030	ug/L	95
13) 11dichlorthe	3.94	96	534132	7.6026	ug/L	99
14) Trichlorotfluoroeth	3.97	101	980123	15.7077	ug/L	99
15) Acetone	4.03	43	1287860	82.0166	ug/L	98
16) Iodomethane	4.12	142	1675833	18.0566	ug/L	99
17) Carbon Dislf	4.20	76	2576399	15.0258	ug/L	100
18) allylchloride	4.43	41	3439912	15.8263	ug/L	98
19) methylacetate	4.50	74	83689	11.9044	ug/L	95
20) Methylchlorid	4.59	84	653531	4.9617	ug/L	97
21) tbutylalcohol	4.81	59	1878867	407.6441	ug/L	97
22) Acrylonitrile	4.93	53	755904	48.3592	ug/L	99
23) t12dichlorte	4.96	96	615147	8.7255	ug/L	99
24) MtBE	4.98	73	1334809	7.8845	ug/L	99
25) Hexane	5.33	57	2136275	15.8818	ug/L	99
26) 11dichlorota	5.49	63	1541669	7.8110	ug/L	99
27) Vinylacetate	5.59	43	8429679	88.0122	ug/L	98
28) chloroprene	5.61	53	2684371	16.0199	ug/L	99
29) Diisopether	5.61	45	3562068	7.9760	ug/L	100
30) ETBE	6.07	59	2330280	7.9649	ug/L	99
31) 22dichloropr	6.22	77	937727	7.0891	ug/L	100
32) c12dichlorte	6.23	96	754446	8.1625	ug/L	96
33) 2Butanone	6.26	72	316521	97.6699	ug/L	96
34) propionitrile	6.33	54	512586	134.9097	ug/L	95
35) Ethylacetate	6.36	88	52923	66.9615	ug/L #	62
36) methacrylonitrile	6.52	67	251827	20.3667	ug/L	96
37) Bromochlorma	6.53	128	268266	8.2222	ug/L	99
38) Tetrahydofur	6.59	42	1371594	95.2158	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\AUG2519\LLCALW8.D Vial: 12
Acq On : 26 Aug 2019 1:00 Operator: RLD-DGS
Sample : CALIB. PT. 8 Inst : VMS4
Misc : 8.00/80.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 06:57:49 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 06:57:43 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.63	83	1239915	7.9185	ug/L	100
40)	111trichlota	6.86	97	1057424	7.8868	ug/L	99
42)	Cyclohexane	6.92	56	1360187	7.9465	ug/L	98
43)	Carbtetraclo	7.06	119	861445	8.0615	ug/L	99
44)	11dicloprope	7.06	110	283068	8.3944	ug/L	97
46)	Benzene	7.31	78	2644347	7.8002	ug/L	99
47)	12dichlorota	7.33	62	895933	8.7715	ug/L	97
48)	TAME	7.47	73	1492861	8.1123	ug/L	99
49)	trichloroete	8.12	95	701032	7.9932	ug/L	99
50)	methylcyclohexane	8.36	83	1006172	8.1875	ug/L	97
51)	12dicloropra	8.39	63	887421	7.9563	ug/L	93
52)	23Dicl1propene	8.46	75	1069838	8.8925	ug/L	98
53)	Dibromometha	8.55	93	301432	9.6337	ug/L	97
54)	methylmethacrylate	8.56	69	235824	23.5747	ug/L	96
55)	14dioxane	8.58	88	110836	512.6927	ug/L	95
56)	Bromodiclrma	8.74	83	886394	8.5754	ug/L	98
57)	2Nitropropane	9.02	43	1189936	93.6294	ug/L	95
58)	2CLEVE	9.14	63	1181641	48.2315	ug/L	98
59)	c13dicloproe	9.32	75	1019072	8.7173	ug/L	99
60)	4Meth2Pentan	9.51	43	4900775	83.4939	ug/L	98
62)	Toluene	9.75	92	1819948	8.1126	ug/L	97
63)	t13Dicloprop	10.04	75	807975	8.8492	ug/L	98
64)	ethylmethacrylate	10.17	69	1021982	17.6838	ug/L	98
65)	112Triclotha	10.27	83	366403	8.0838	ug/L	96
66)	Tetrachlorte	10.48	166	732285	8.2609	ug/L	98
67)	13Diclorpropa	10.49	76	759071	8.0170	ug/L	98
69)	2Hexanone	10.61	43	3470148	95.5383	ug/L	97
70)	Clorodibrmta	10.79	129	529494	9.0042	ug/L	98
71)	12Dibrometha	10.96	107	408121	8.4715	ug/L	97
72)	Chlorobenzen	11.63	112	1897046	8.0684	ug/L	100
73)	1Clhexane	11.59	91	850969	7.6306	ug/L	99
74)	1112Tetclota	11.73	131	674335	8.4785	ug/L	98
75)	Ethylbenzene	11.78	91	3237904	8.0116	ug/L	100
76)	m p-Xylene	11.94	106	2444370	16.3247	ug/L	96
77)	o-Xylene	12.49	106	1239146	8.3254	ug/L	99
78)	Styrene	12.51	104	1995594	9.0445	ug/L	99
79)	Bromoform	12.76	173	303001	10.9940	ug/L	97
80)	Isopropylben	13.01	105	2996587	8.0451	ug/L	98
81)	cyclohexanone	13.13	55	297224	179.4336	ug/L	100
84)	Bromobenzene	13.44	156	807320	8.6162	ug/L	97
85)	1122Tetrclta	13.42	83	466041	7.8060	ug/L	91
86)	123Triclproa	13.48	75	486312	7.7942	ug/L	98
87)	14dichloro2butene	13.51	53	130008	9.7967	ug/L	92
88)	n-Propylbenz	13.60	91	3691746	7.9705	ug/L	99
89)	2chlorotolue	13.72	91	2268349	8.1256	ug/L	100
90)	4chlorotolue	13.88	91	2596405	8.0362	ug/L	99
91)	135Trimebenz	13.86	105	2613464	8.0655	ug/L	97
92)	tbutylbenzen	14.33	119	2220138	7.8668	ug/L	98
93)	124Trimetben	14.39	105	2669317	8.1816	ug/L	99
94)	sbutylbenzen	14.64	105	3200477	8.1787	ug/L	100
95)	13Diclorbenz	14.79	146	1499114	8.3568	ug/L	99
96)	pIsopropylto	14.86	119	2765176	8.1752	ug/L	97
97)	14dichlorobe	14.93	146	1478960	7.7989	ug/L	99
98)	12dichlorobe	15.46	146	1328130	8.0561	ug/L	97
99)	nButylbenzen	15.46	91	2600968	8.1991	ug/L	98
100)	12dibromo3cl	16.58	157	93494	10.3853	ug/L	91
101)	135Trichlorobenzene	16.88	180	1202748	8.4777	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\AUG2519\LLCALW8.D Vial: 12
Acq On : 26 Aug 2019 1:00 Operator: RLD-DGS
Sample : CALIB. PT. 8 Inst : VMS4
Misc : 8.00/80.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 06:57:49 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 06:57:43 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	17.70	180	981653	9.2354 ug/L	99
103) Hexachlorobu	17.93	225	539086	9.3876 ug/L	98
104) Naphthalene	18.01	128	1405143	9.3092 ug/L	99
105) 123Trichlben	18.32	180	847232	8.7141 ug/L	99

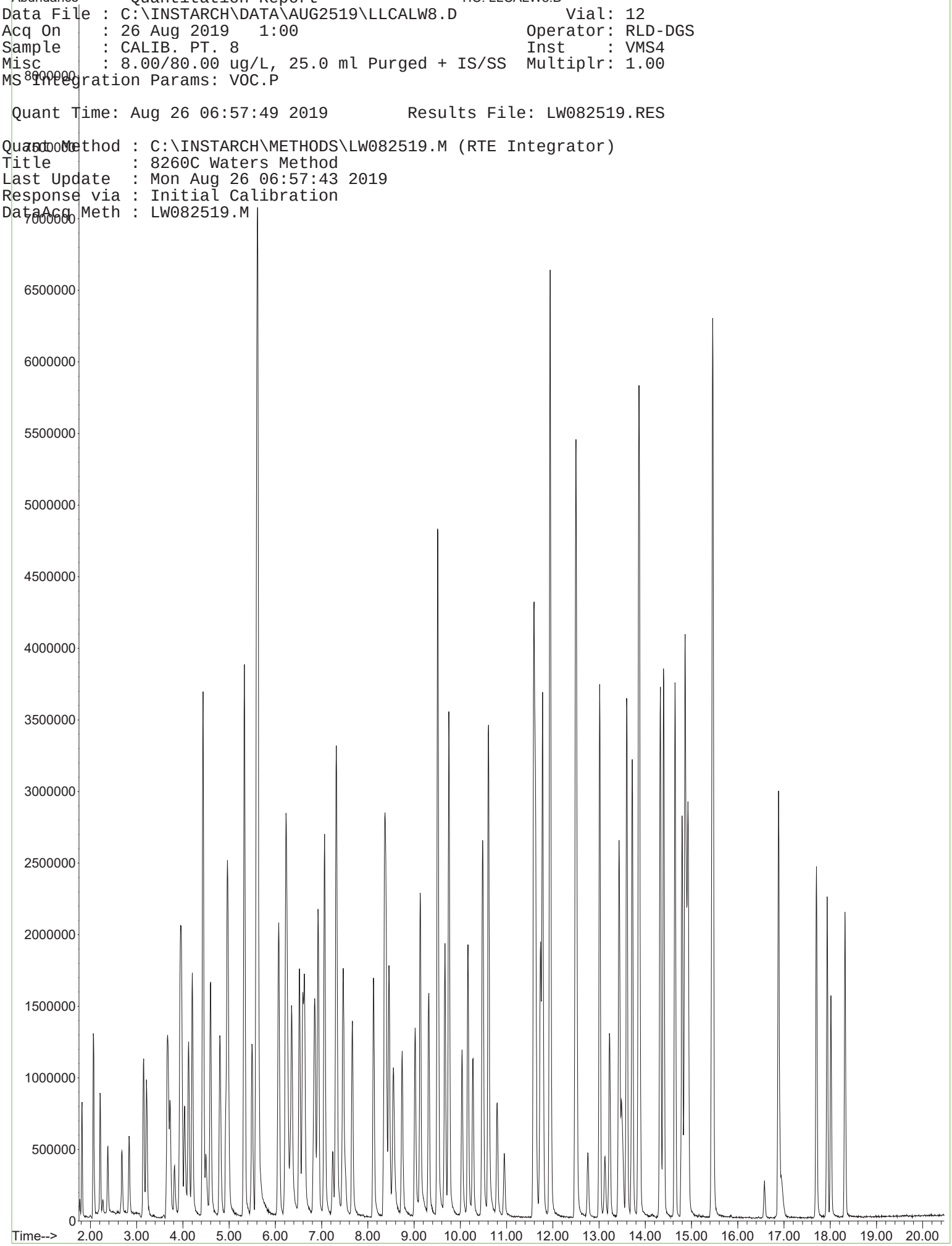
(#) = qualifier out of range (m) = manual integration

Abundance Quantitation Report TIC: LLCALW8.D

Data File : C:\INSTARCH\DATA\AUG2519\LLCALW8.D Vial: 12
Acq On : 26 Aug 2019 1:00 Operator: RLD-DGS
Sample : CALIB. PT. 8 Inst : VMS4
Misc : 8.00/80.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 06:57:49 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 06:57:43 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M



Quantitation Report

Data File : C:\INSTARCH\DATA\AUG2519\LLCALW9.D Vial: 13
Acq On : 26 Aug 2019 1:28 Operator: RLD-DGS
Sample : CALIB. PT. 9 Inst : VMS4
Misc : 16.00/160 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 06:58:06 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 06:57:56 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1500337	4.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.59	117	1184999	4.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.89	152	688786	4.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	384910	3.833	ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 96 %			
45) SURR12DCAd4	7.24	102	66124	3.946	ug/L	0.00
Spiked Amount 4.000	Range 86 - 106		Recovery = 99 %			
61) SURRd8Tolule	9.67	98	1499937	3.934	ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 98 %			
83) SURR4BrFBenz	13.23	95	600443	4.023	ug/L	0.00
Spiked Amount 4.000	Range 75 - 124		Recovery = 101 %			
Target Compounds						Qvalue
2) Dichlorodi	1.82	85	1432892	16.1891	ug/L	99
3) Chloromethan	2.07	50	2631681	14.5006	ug/L	98
4) VinylChlorid	2.21	62	1784343	15.9147	ug/L	98
5) Bromomethane	2.68	94	637641	15.0946	ug/L	96
6) Chloroethane	2.83	64	936315	16.1972	ug/L	98
7) Dichloroflmethane	3.15	67	2487810	15.2022	ug/L	96
8) Trichlorofma	3.22	101	2138338	17.0258	ug/L	99
9) Ethylether	3.66	59	1080266	16.2407	ug/L	94
10) dichlorotfluoroethan	3.68	67	1497391	15.8196	ug/L	96
11) propyleneoxide	3.72	58	1393653	161.9858	ug/L	98
12) Acrolein	3.81	56	806669	88.7009	ug/L	93
13) 11dichlorthe	3.94	96	1168016	16.2001	ug/L	99
14) Trichlorotfluoroeth	3.97	101	2239123	34.8299	ug/L	99
15) Acetone	4.03	43	2608160	160.3429	ug/L	99
16) Iodomethane	4.12	142	3370636	34.6134	ug/L	99
17) Carbon Dislf	4.20	76	5264273	29.9592	ug/L	100
18) allylchloride	4.43	41	6468399	28.8581	ug/L	99
19) methylacetate	4.50	74	168146	21.6523	ug/L	95
20) Methylchlorid	4.59	84	1270290	9.8048	ug/L	94
21) tbutylalcohol	4.80	59	3802374	796.9899	ug/L	98
22) Acrylonitrile	4.92	53	1513254	91.0328	ug/L	96
23) t12dichlorte	4.96	96	1222306	16.6014	ug/L	99
24) MtBE	4.98	73	2641298	15.1358	ug/L	98
25) Hexane	5.33	57	4892629	35.2562	ug/L	99
26) 11dichlorota	5.49	63	3001557	14.7705	ug/L	99
27) Vinylacetate	5.58	43	13528027	135.0865	ug/L	97
28) chloroprene	5.61	53	5591047	32.3066	ug/L	98
29) Diisopether	5.61	45	6548392	14.2046	ug/L	97
30) ETBE	6.07	59	4533403	15.0135	ug/L	99
31) 22dichloropr	6.22	77	1997120	14.8318	ug/L	99
32) c12dichlorte	6.23	96	1449573	15.1490	ug/L	99
33) 2Butanone	6.25	72	648332	187.8075	ug/L	94
34) propionitrile	6.32	54	1049986	243.7170	ug/L	98
35) Ethylacetate	6.35	88	104808	117.1381	ug/L #	75
36) methacrylonitrile	6.51	67	531795	40.0868	ug/L	97
37) Bromochlorma	6.52	128	520353	15.3909	ug/L	99
38) Tetrahydofur	6.59	42	2745346	180.2707	ug/L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\AUG2519\LLCALW9.D Vial: 13
Acq On : 26 Aug 2019 1:28 Operator: RLD-DGS
Sample : CALIB. PT. 9 Inst : VMS4
Misc : 16.00/160 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 06:58:06 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 06:57:56 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
39)	Chloroform	6.63	83	2437756	15.0953	ug/L		99
40)	111trichlota	6.86	97	2244738	16.2418	ug/L		99
42)	Cyclohexane	6.92	56	3168857	17.9429	ug/L		98
43)	Carbtetraclo	7.06	119	1945732	17.6159	ug/L		96
44)	11dicloprope	7.06	110	624308	17.8033	ug/L		95
46)	Benzene	7.32	78	5122344	14.6779	ug/L		99
47)	12dichlorota	7.33	62	1766064	16.5444	ug/L		97
48)	TAME	7.46	73	2933559	15.4101	ug/L		99
49)	trichloroete	8.12	95	1460423	16.1272	ug/L		99
50)	methylcyclohexane	8.36	83	2422717	19.0353	ug/L		99
51)	12dicloropra	8.39	63	1809455	15.7208	ug/L		95
52)	23Dicl1propene	8.46	75	2129802	16.9075	ug/L		97
53)	Dibromometha	8.54	93	619470	18.6951	ug/L		96
54)	methylmethacrylate	8.56	69	496934	45.0592	ug/L		97
55)	14dioxane	8.58	88	220065	947.6318	ug/L		98
56)	Bromodiclrma	8.74	83	1803527	16.7460	ug/L		100
57)	2Nitropropane	9.02	43	2477788	184.3141	ug/L		93
58)	2CLEVE	9.13	63	2452042	94.1540	ug/L		98
59)	c13dicloproe	9.31	75	2066283	16.9269	ug/L		99
60)	4Meth2Pentan	9.51	43	8862195	145.4172	ug/L		92
62)	Toluene	9.75	92	3602352	15.5229	ug/L		94
63)	t13Dicloprop	10.03	75	1621128	16.9370	ug/L		98
64)	ethylmethacrylate	10.17	69	2119009	34.9811	ug/L		98
65)	112Triclotha	10.27	83	735378	15.6880	ug/L		96
66)	Tetrachlorte	10.48	166	1593434	17.3366	ug/L		98
67)	13Diclorpropa	10.49	76	1548977	15.8383	ug/L		97
69)	2Hexanone	10.61	43	6810895	178.4730	ug/L		94
70)	Clorodibrmta	10.80	129	1093505	17.8485	ug/L		99
71)	12Dibrometha	10.95	107	821635	16.5052	ug/L		100
72)	Chlorobenzen	11.63	112	3739562	15.4890	ug/L		99
73)	1Clhexane	11.59	91	1998764	17.5743	ug/L		94
74)	1112Tetclota	11.73	131	1372315	16.6786	ug/L		98
75)	Ethylbenzene	11.78	91	6263883	15.1070	ug/L		96
76)	m p-Xylene	11.94	106	4829904	31.3670	ug/L	#	87
77)	o-Xylene	12.49	106	2472435	16.1125	ug/L		94
78)	Styrene	12.51	104	3943717	17.1453	ug/L		98
79)	Bromoform	12.76	173	659186	22.1339	ug/L		95
80)	Isopropylben	13.01	105	5986926	15.6588	ug/L		94
81)	cyclohexanone	13.12	55	611082	353.5128	ug/L		98
84)	Bromobenzene	13.44	156	1602931	16.2442	ug/L		99
85)	1122Tetrclta	13.42	83	950022	15.3014	ug/L		95
86)	123Triclproa	13.49	75	1003048	15.4686	ug/L		93
87)	14dichloro2butene	13.52	53	295637	20.6932	ug/L		94
88)	n-Propylbenz	13.60	91	7147037	14.7997	ug/L		95
89)	2chlorotolue	13.72	91	4466058	15.3071	ug/L		99
90)	4chlorotolue	13.88	91	5068277	15.0303	ug/L		97
91)	135Trimebenz	13.86	105	5172712	15.2884	ug/L		94
92)	tbutylbenzen	14.33	119	4618663	15.7221	ug/L		98
93)	124Trimetben	14.40	105	5210121	15.2661	ug/L		96
94)	sbutylbenzen	14.64	105	6529767	15.9526	ug/L		98
95)	13Diclorbenz	14.79	146	2975057	15.8110	ug/L		99
96)	pIsopropylto	14.86	119	5723404	16.1777	ug/L		95
97)	14dichlorobe	14.92	146	2980872	15.1167	ug/L		98
98)	12dichlorobe	15.46	146	2662740	15.4705	ug/L		97
99)	nButylbenzen	15.46	91	5366507	16.1677	ug/L		95
100)	12dibromo3cl	16.57	157	182388	18.6290	ug/L		93
101)	135Trichlorobenzene	16.88	180	2453200	16.4543	ug/L		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\AUG2519\LLCALW9.D Vial: 13
Acq On : 26 Aug 2019 1:28 Operator: RLD-DGS
Sample : CALIB. PT. 9 Inst : VMS4
Misc : 16.00/160 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 06:58:06 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 06:57:56 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	17.70	180	2048982	18.1303 ug/L	99
103) Hexachlorobu	17.93	225	1204892	19.6880 ug/L	97
104) Naphthalene	18.01	128	2880860	17.9305 ug/L	97
105) 123Trichlben	18.32	180	1731753	16.8872 ug/L	99

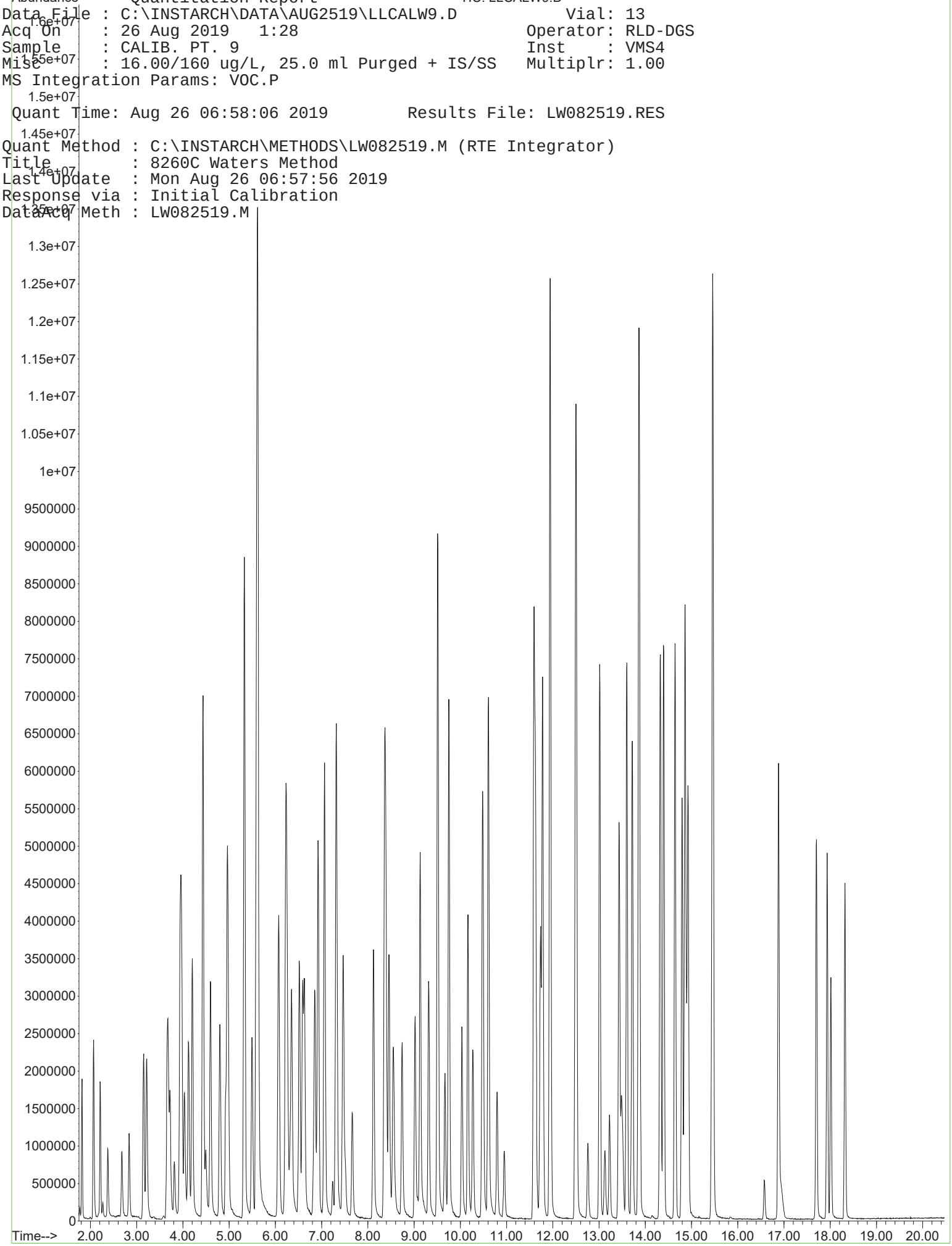
(#) = qualifier out of range (m) = manual integration

Abundance Quantitation Report TIC: LLCALW9.D

Data File : C:\INSTARCH\DATA\AUG2519\LLCALW9.D Vial: 13
Acq On : 26 Aug 2019 1:28 Operator: RLD-DGS
Sample : CALIB. PT. 9 Inst : VMS4
Misc : 16.00/160 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 06:58:06 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 06:57:56 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M



Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\AUG2519\ICV1.D Vial: 15
Acq On : 26 Aug 2019 2:25 Operator: RLD-DGS
Sample : INITIAL CALIB. VERIF. Inst : VMS4
Misc : 4.00/40.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Aug 29 08:39:00 2019

Quant Method : C:\INSTARCH\METHODS\LW082519.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:LW082519.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	1.0000	1.0000	0.00	99	0.00
2	PT	Dichlorodi	0.2291	0.1894	17.33	80	0.00
3	PT	Chloromethan	0.4788	0.5020	-4.85	100	0.00
4	PT	VinylChlorid	0.2987	0.2661	10.91	84	0.00
5	PT	Bromomethane	0.1118	0.1256	-12.34	118	0.00
6	PT	Chloroethane	0.1544	0.1573	-1.88	94	0.00
7	T	Dichloroflmethane	0.4339	0.4467	-2.95	95	0.00
8	PT	Trichlorofma	0.3372	0.2784	17.44	77	0.00
9	T	Ethylether	0.1776	0.1990	-12.05	104	0.00
10	T	dichlorotfluoroethan	0.2520	0.2273	9.80	85	0.00
11	T	propyleneoxide	0.0230	0.0241#	-4.78	96	0.00
12	T	Acrolein	0.0246	0.0277#	-12.60	97	0.00
13	PT	11dichlorthe	0.1925	0.1799	6.55	86	-0.01
14	PT	Trichlorotfluoroeth	0.1731	0.1421	17.91	77	0.00
15	PT	Acetone	0.0434	0.0431#	0.69	90	0.00
16	T	Iodomethane	0.2620	0.2494	4.81	86	0.00
17	PT	Carbon Dislf	0.4651	0.4518	2.86	93	0.00
18	T	allylchloride	0.5911	0.6134	-3.77	97	0.00
19	PT	methylacetate	0.0216	0.0264#	-22.22#	96	0.00
20	PT	Methylchlorid	0.3306	0.2442	26.13#	99	0.00
21	T	tbutylalcohol	0.0127	0.0126#	0.79	91	0.00
22	T	Acrylonitrile	0.0451	0.0504	-11.75	95	0.00
23	PT	t12dichlorte	0.1971	0.2120	-7.56	94	0.00
24	PT	MtBE	0.4625	0.4776	-3.26	98	0.00
25	T	Hexane	0.3742	0.3122	16.57	75	0.00
26	PT	11dichlorota	0.5372	0.5498	-2.35	98	0.00
27	T	Vinylacetate	0.2952	0.3539	-19.88	112	0.00
28	T	chloroprene	0.4619	0.4618	0.02	91	0.00
29	T	Diisopether	1.2137	1.3485	-11.11	104	0.00
30	T	ETBE	0.7995	0.8648	-8.17	103	0.00
31	T	22dichloropr	0.3561	0.3213	9.77	91	0.00
32	PT	c12dichlorte	0.2536	0.2630	-3.71	98	0.00
33	PT	2Butanone	0.0100	0.0100#	0.00	84	0.00
34	T	propionitrile	0.0136	0.0161#	-18.38	91	0.00
35	T	Ethylacetate	0.0025	0.0032#	-28.00#	97	0.00
36	T	methacrylonitrile	0.0394	0.0442	-12.18	102	0.00
37	T	Bromochlorma	0.0898	0.0955	-6.35	95	0.00
38	T	Tetrahydofur	0.0460	0.0477	-3.70	96	0.00
39	PT	Chloroform	0.4278	0.4534	-5.98	99	0.00
40	PT	111trichlota	0.3691	0.3435	6.94	88	0.00
41	S	SURRDibrflma	0.2665	0.2821	-5.85	103	0.00
42	PT	Cyclohexane	0.4772	0.4007	16.03	78	0.00
43	PT	Carbtetraclo	0.2978	0.2717	8.76	84	0.00
44	T	11dicloprope	0.0948	0.0885	6.65	87	0.00
45	S	SURR12DCAd4	0.0446	0.0424	4.93	93	0.00
46	PT	Benzene	0.9219	0.9616	-4.31	99	0.00
47	PT	12dichlorota	0.2857	0.3123	-9.31	96	0.00
48	T	TAME	0.5054	0.5436	-7.56	99	0.00

49	PT	trichloroete	0.2416	0.2368	1.99	92	0.00
50	PT	methylcyclohexane	0.3465	0.2919	15.76	75	0.00
51	PT	12dicloropra	0.3063	0.3209	-4.77	100	0.00
52	T	23Dicl1propene	0.3380	0.3723	-10.15	98	0.00
53	T	Dibromometha	0.0900	0.1074	-19.33	96	0.01
54	T	methylmethacrylate	0.0309	0.0419	-35.60#	109	0.00
55	T	14dioxane	0.0006	0.0006#	0.00	90	-0.01
56	PT	Bromodiclrma	0.2886	0.3090	-7.07	96	0.00
57	T	2Nitropropane	0.0365	0.0393	-7.67	100	0.00
58	T	2CLEVE	0.0710	0.0823	-15.92	100	0.00
59	PT	c13dicloproe	0.3275	0.3548	-8.34	98	0.00
60	PT	4Meth2Pentan	0.1608	0.1766	-9.83	97	0.00
61	S	SURRd8Tolule	1.0146	1.0681	-5.27	103	0.00
62	PT	Toluene	0.6167	0.6468	-4.88	97	0.00
63	PT	t13Dicloprop	0.2571	0.2696	-4.86	97	0.00
64	T	ethylmethacrylate	0.1634	0.1733	-6.06	92	0.00
65	PT	112Triclotha	0.1247	0.1239	0.64	94	0.00
66	PT	Tetrachlorte	0.2473	0.2373	4.04	88	0.00
67	T	13Diclorpropa	0.2604	0.2709	-4.03	97	0.00
68	I	d5-CHLOROBENZENE**ISTD**	1.0000	1.0000	0.00	104	0.00
69	PT	2Hexanone	0.1305	0.1456	-11.57	94	0.00
70	PT	Clorodibrmta	0.2095	0.2177	-3.91	97	0.00
71	PT	12Dibrometha	0.1686	0.1694	-0.47	94	0.00
72	PT	Chlorobenzen	0.8121	0.8247	-1.55	99	0.00
73	T	1Clhexane	0.3881	0.3425	11.75	87	0.00
74	T	1112Tetclota	0.2792	0.2925	-4.76	97	0.00
75	PT	Ethylbenzene	1.3909	1.3987	-0.56	97	0.00
76	PT	m p-Xylene	0.5186	0.5144	0.81	95	0.00
77	PT	o-Xylene	0.5184	0.5368	-3.55	98	0.00
78	PT	Styrene	0.7826	0.8470	-8.23	97	0.00
79	PT	Bromoform	0.1053	0.1168	-10.92	93	0.00
80	PT	Isopropylben	1.2875	1.2633	1.88	93	0.00
81	T	cyclohexanone	0.0059	0.0058#	1.69	88	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	1.0000	1.0000	0.00	104	0.00
83	S	SURR4BrFBenz	0.8674	0.8613	0.70	100	0.00
84	T	Bromobenzene	0.5740	0.5889	-2.60	96	0.00
85	PT	1122Tetrclta	0.3588	0.3480	3.01	92	0.00
86	T	123Triclproa	0.3750	0.3387	9.68	98	0.00
87	T	14dichloro2butene	0.0860	0.0944	-9.77	99	0.00
88	T	n-Propylbenz	2.7811	2.6811	3.60	92	0.00
89	T	2chlorotolue	1.6862	1.6879	-0.10	96	0.00
90	T	4chlorotolue	1.9451	1.9199	1.30	96	0.00
91	T	135Trimebenz	1.9552	1.9300	1.29	92	0.00
92	T	tbutylbenzen	1.7027	1.6031	5.85	90	0.00
93	T	124Trimetben	1.9719	2.0095	-1.91	97	0.00
94	T	sbutylbenzen	2.3763	2.2648	4.69	88	0.00
95	PT	13Diclorbenz	1.0913	1.0965	-0.48	96	0.00
96	T	pIsopropylto	2.0571	1.9788	3.81	89	0.00
97	PT	14dichlorobe	1.1381	1.0727	5.75	94	0.00
98	PT	12dichlorobe	0.9959	0.9653	3.07	95	0.00
99	T	nButylbenzen	1.9299	1.8112	6.15	88	0.00
100	PT	12dibromo3cl	0.0580	0.0606	-4.48	112	0.00
101	T	135Trichlorobenzene	0.8686	0.9024	-3.89	101	0.00
102	PT	124Trichlobe	0.6660	0.6951	-4.37	96	0.00
103	T	Hexachlorobu	0.3645	0.3455	5.21	81	0.00
104	T	Naphthalene	0.9456	0.9607	-1.60	92	0.00
105	T	123Trichlben	0.5992	0.5986	0.10	94	0.00

(#) = Out of Range SPCC's out = 3 CCC's out = 0

LW082519.M Thu Aug 29 08:40:12 2019

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\AUG2519\ICV1.D Vial: 15
Acq On : 26 Aug 2019 2:25 Operator: RLD-DGS
Sample : INITIAL CALIB. VERIF. Inst : VMS4
Misc : 4.00/40.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Aug 29 08:39:00 2019

Quant Method : C:\INSTARCH\METHODS\LW082519.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:LW082519.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	4.0000	4.0000	0.00	99	0.00
2	PT	Dichlorodi	4.0000	3.3074	17.32	80	0.00
3	PT	Chloromethan	4.0000	4.1938	-4.85	100	0.00
4	PT	VinylChlorid	4.0000	3.5625	10.94	84	0.00
5	PT	Bromomethane	4.0000	4.4929	-12.32	118	0.00
6	PT	Chloroethane	4.0000	4.0774	-1.93	94	0.00
7	T	Dichloroflmethane	4.0000	4.1183	-2.96	95	0.00
8	PT	Trichlorofma	4.0000	3.5251	11.87	77	0.00
9	T	Ethylether	4.0000	4.4819	-12.05	104	0.00
10	T	dichlorotfluoroethan	4.0000	3.6079	9.80	85	0.00
11	T	propyleneoxide	40.0000	41.9803	-4.95	96	0.00
12	T	Acrolein	20.0000	20.8890	-4.44	97	0.00
13	PT	11dichlorthe	4.0000	3.7388	6.53	86	-0.01
14	PT	Trichlorotfluoroeth	8.0000	6.5664	17.92	77	0.00
15	PT	Acetone	40.0000	39.7003	0.75	90	0.00
16	T	Iodomethane	8.0000	7.6166	4.79	86	0.00
17	PT	Carbon Dislf	8.0000	7.7698	2.88	93	0.00
18	T	allylchloride	8.0000	8.3018	-3.77	97	0.00
19	PT	methylacetate	4.0000	3.8942	2.64	96	0.00
20	PT	Methylchlorid	4.0000	4.1064	-2.66	99	0.00
21	T	tbutylalcohol	200.0000	197.7508	1.12	91	0.00
22	T	Acrylonitrile	20.0000	19.7960	1.02	95	0.00
23	PT	t12dichlorte	4.0000	4.0180	-0.45	94	0.00
24	PT	MtBE	4.0000	4.1314	-3.29	98	0.00
25	T	Hexane	8.0000	6.8112	14.86	75	0.00
26	PT	11dichlorota	4.0000	4.0943	-2.36	98	0.00
27	T	Vinylacetate	40.0000	47.9548	-19.89	112	0.00
28	T	chloroprene	8.0000	7.9979	0.03	91	0.00
29	T	Diisopether	4.0000	4.4441	-11.10	104	0.00
30	T	ETBE	4.0000	4.3265	-8.16	103	0.00
31	T	22dichloropr	4.0000	3.6096	9.76	91	0.00
32	PT	c12dichlorte	4.0000	4.1488	-3.72	98	0.00
33	PT	2Butanone	40.0000	39.9317	0.17	84	0.00
34	T	propionitrile	40.0000	38.2191	4.45	91	0.00
35	T	Ethylacetate	20.0000	19.3641	3.18	97	0.00
36	T	methacrylonitrile	8.0000	8.9848	-12.31	102	0.00
37	T	Bromochlorma	4.0000	3.9962	0.10	95	0.00
38	T	Tetrahydofur	40.0000	41.5330	-3.83	96	0.00
39	PT	Chloroform	4.0000	4.2387	-5.97	99	0.00
40	PT	111trichlota	4.0000	3.7229	6.93	88	0.00
41	S	SURRDibrflma	4.0000	4.2342	-5.86	103	0.00
42	PT	Cyclohexane	4.0000	3.3590	16.02	78	0.00
43	PT	Carbtetraclo	4.0000	3.6502	8.75	84	0.00
44	T	11dicloprope	4.0000	3.7319	6.70	87	0.00
45	S	SURR12DCAd4	4.0000	3.7978	5.05	93	0.00
46	PT	Benzene	4.0000	4.1726	-4.32	99	0.00
47	PT	12dichlorota	4.0000	3.9981	0.05	96	0.00
48	T	TAME	4.0000	4.3016	-7.54	99	0.00

49	PT	trichloroete	4.0000	3.9201	2.00	92	0.00
50	PT	methylcyclohexane	4.0000	3.3702	15.74	75	0.00
51	PT	12dicloropra	4.0000	4.1906	-4.76	100	0.00
52	T	23Dicl1propene	4.0000	4.4068	-10.17	98	0.00
53	T	Dibromometha	4.0000	4.1100	-2.75	96	0.01
54	T	methylmethacrylate	8.0000	8.6260	-7.82	109	0.00
55	T	14dioxane	200.0000	180.6746	9.66	90	-0.01
56	PT	Bromodiclrma	4.0000	4.2821	-7.05	96	0.00
57	T	2Nitropropane	40.0000	43.0048	-7.51	100	0.00
58	T	2CLEVE	20.0000	20.6444	-3.22	100	0.00
59	PT	c13dicloproe	4.0000	4.3323	-8.31	98	0.00
60	PT	4Meth2Pentan	40.0000	43.9290	-9.82	97	0.00
61	S	SURRd8Tolule	4.0000	4.2108	-5.27	103	0.00
62	PT	Toluene	4.0000	4.1956	-4.89	97	0.00
63	PT	t13Dicloprop	4.0000	4.1960	-4.90	97	0.00
64	T	ethylmethacrylate	8.0000	8.4874	-6.09	92	0.00
65	PT	112Triclotha	4.0000	3.9756	0.61	94	0.00
66	PT	Tetrachlorte	4.0000	3.8384	4.04	88	0.00
67	T	13Diclorpropa	4.0000	4.1605	-4.01	97	0.00
68	I	d5-CHLOROBENZENE**ISTD**	4.0000	4.0000	0.00	104	0.00
69	PT	2Hexanone	40.0000	37.9520	5.12	94	0.00
70	PT	Clorodibrmta	4.0000	4.1577	-3.94	97	0.00
71	PT	12Dibrometha	4.0000	4.0184	-0.46	94	0.00
72	PT	Chlorobenzen	4.0000	4.0620	-1.55	99	0.00
73	T	1Clhexane	4.0000	3.5303	11.74	87	0.00
74	T	1112Tetclota	4.0000	4.1903	-4.76	97	0.00
75	PT	Ethylbenzene	4.0000	4.0223	-0.56	97	0.00
76	PT	m p-Xylene	8.0000	7.9346	0.82	95	0.00
77	PT	o-Xylene	4.0000	4.1424	-3.56	98	0.00
78	PT	Styrene	4.0000	4.3290	-8.22	97	0.00
79	PT	Bromoform	4.0000	3.8058	4.85	93	0.00
80	PT	Isopropylben	4.0000	3.9246	1.89	93	0.00
81	T	cyclohexanone	80.0000	73.9027	7.62	88	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	4.0000	4.0000	0.00	104	0.00
83	S	SURR4BrFBenz	4.0000	3.9720	0.70	100	0.00
84	T	Bromobenzene	4.0000	4.1034	-2.58	96	0.00
85	PT	1122Tetrclta	4.0000	3.8791	3.02	92	0.00
86	T	123Triclproa	4.0000	3.6129	9.68	98	0.00
87	T	14dichloro2butene	4.0000	3.9433	1.42	99	0.00
88	T	n-Propylbenz	4.0000	3.8562	3.60	92	0.00
89	T	2chlorotolue	4.0000	4.0040	-0.10	96	0.00
90	T	4chlorotolue	4.0000	3.9483	1.29	96	0.00
91	T	135Trimebenz	4.0000	3.9486	1.29	92	0.00
92	T	tbutylbenzen	4.0000	3.7660	5.85	90	0.00
93	T	124Trimetben	4.0000	4.0764	-1.91	97	0.00
94	T	sbutylbenzen	4.0000	3.8123	4.69	88	0.00
95	PT	13Diclorbenz	4.0000	4.0190	-0.48	96	0.00
96	T	pIsopropylto	4.0000	3.8478	3.81	89	0.00
97	PT	14dichlorobe	4.0000	3.7701	5.75	94	0.00
98	PT	12dichlorobe	4.0000	3.8772	3.07	95	0.00
99	T	nButylbenzen	4.0000	3.7540	6.15	88	0.00
100	PT	12dibromo3cl	4.0000	3.7496	6.26	112	0.00
101	T	135Trichlorobenzene	4.0000	4.1558	-3.90	101	0.00
102	PT	124Trichlobe	4.0000	4.1745	-4.36	96	0.00
103	T	Hexachlorobu	4.0000	3.7910	5.23	81	0.00
104	T	Naphthalene	4.0000	4.0640	-1.60	92	0.00
105	T	123Trichlben	4.0000	3.9961	0.10	94	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

LW082519.M Thu Aug 29 08:39:49 2019

Quantitation Report

Data File : C:\Instarch\Data\AUG2519\ICV1.D Vial: 15
Acq On : 26 Aug 2019 2:25 Operator: RLD-DGS
Sample : INITIAL CALIB. VERIF. Inst : VMS4
Misc : 4.00/40.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 29 08:39:00 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 07:10:13 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.67	96	1371878	4.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.59	117	1121849	4.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.89	152	637418	4.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	387015	4.234	ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 106		%#	
45) SURR12DCAd4	7.24	102	58108	3.798	ug/L	0.00
Spiked Amount 4.000	Range 86 - 106		Recovery = 95		%	
61) SURRd8Tolule	9.67	98	1465256	4.211	ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 105		%#	
83) SURR4BrFBenz	13.23	95	549010	3.972	ug/L	0.00
Spiked Amount 4.000	Range 75 - 124		Recovery = 99		%	
Target Compounds						Qvalue
2) Dichlorodi	1.82	85	259880	3.3074	ug/L	95
3) Chloromethan	2.07	50	688707	4.1938	ug/L	100
4) VinylChlorid	2.21	62	365007	3.5625	ug/L	97
5) Bromomethane	2.68	94	172315	4.4929	ug/L	95
6) Chloroethane	2.83	64	215856	4.0774	ug/L	98
7) Dichloroflmethane	3.15	67	612829	4.1183	ug/L	97
8) Trichlorofma	3.21	101	381933	3.5251	ug/L	99
9) Ethylether	3.66	59	273046	4.4819	ug/L	92
10) dichlorotfluoroethan	3.67	67	311875	3.6079	ug/L	98
11) propyleneoxide	3.72	58	330768	41.9803	ug/L	97
12) Acrolein	3.82	56	190322	20.8890	ug/L	98
13) 11dichlorthe	3.93	96	246829	3.7388	ug/L	96
14) Trichlorotfluoroeth	3.96	101	389789	6.5664	ug/L	98
15) Acetone	4.04	43	590620	39.7003	ug/L	99
16) Iodomethane	4.12	142	684348	7.6166	ug/L	100
17) Carbon Dislf	4.20	76	1239524	7.7698	ug/L	99
18) allylchloride	4.43	41	1682929	8.3018	ug/L	99
19) methylacetate	4.50	74	36215	3.8942	ug/L	88
20) Methylchlorid	4.60	84	335065	4.1064	ug/L	96
21) tbutylalcohol	4.81	59	862314	197.7508	ug/L	98
22) Acrylonitrile	4.93	53	345746	19.7960	ug/L	97
23) t12dichlorte	4.96	96	290811	4.0180	ug/L	96
24) MtBE	4.98	73	655273	4.1314	ug/L	98
25) Hexane	5.33	57	856667	6.8112	ug/L	99
26) 11dichlorota	5.50	63	754286	4.0943	ug/L	98
27) Vinylacetate	5.59	43	4854445	47.9548	ug/L	99
28) chloroprene	5.61	53	1266976	7.9979	ug/L	100
29) Diisopether	5.61	45	1849974	4.4441	ug/L	100
30) ETBE	6.07	59	1186381	4.3265	ug/L	99
31) 22dichloropr	6.22	77	440823	3.6096	ug/L	100
32) c12dichlorte	6.23	96	360857	4.1488	ug/L	97
33) 2Butanone	6.26	72	136856	39.9317	ug/L	93
34) propionitrile	6.33	54	221281	38.2191	ug/L	96
35) Ethylacetate	6.36	88	21711	19.3641	ug/L #	90
36) methacrylonitrile	6.52	67	121379	8.9848	ug/L	92
37) Bromochlorma	6.53	128	130949	3.9962	ug/L	96
38) Tetrahydofur	6.59	42	654724	41.5330	ug/L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\AUG2519\ICV1.D Vial: 15
Acq On : 26 Aug 2019 2:25 Operator: RLD-DGS
Sample : INITIAL CALIB. VERIF. Inst : VMS4
Misc : 4.00/40.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 29 08:39:00 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 07:10:13 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.63	83	621971	4.2387	ug/L	99
40)	111trichlota	6.85	97	471262	3.7229	ug/L	98
42)	Cyclohexane	6.92	56	549751	3.3590	ug/L	99
43)	Carbtetraclo	7.06	119	372788	3.6502	ug/L	98
44)	11dicloprope	7.06	110	121348	3.7319	ug/L	96
46)	Benzene	7.32	78	1319261	4.1726	ug/L	99
47)	12dichlorota	7.34	62	428485	3.9981	ug/L	99
48)	TAME	7.46	73	745702	4.3016	ug/L	98
49)	trichloroete	8.13	95	324884	3.9201	ug/L	99
50)	methylcyclohexane	8.36	83	400480	3.3702	ug/L	96
51)	12dicloropra	8.39	63	440183	4.1906	ug/L	95
52)	23Dicl1propene	8.46	75	510780	4.4068	ug/L	98
53)	Dibromometha	8.55	93	147314	4.1100	ug/L	89
54)	methylmethacrylate	8.56	69	114864	8.6260	ug/L	95
55)	14dioxane	8.58	88	42369	180.6746	ug/L	92
56)	Bromodiclrma	8.75	83	423881	4.2821	ug/L	98
57)	2Nitropropane	9.02	43	538668	43.0048	ug/L	96
58)	2CLEVE	9.14	63	564265	20.6444	ug/L	98
59)	c13dicloproe	9.32	75	486683	4.3323	ug/L	100
60)	4Meth2Pentan	9.51	43	2423165	43.9290	ug/L	99
62)	Toluene	9.75	92	887353	4.1956	ug/L	99
63)	t13Dicloprop	10.04	75	369918	4.1960	ug/L	98
64)	ethylmethacrylate	10.17	69	475587	8.4874	ug/L	96
65)	112Triclotha	10.27	83	169985	3.9756	ug/L	97
66)	Tetrachlorte	10.48	166	325580	3.8384	ug/L	98
67)	13Diclorpropa	10.49	76	371637	4.1605	ug/L	98
69)	2Hexanone	10.61	43	1633647	37.9520	ug/L	99
70)	Clorodibrmta	10.80	129	244247	4.1577	ug/L	97
71)	12Dibrometha	10.95	107	190044	4.0184	ug/L	100
72)	Chlorobenzen	11.63	112	925141	4.0620	ug/L	99
73)	1Clhexane	11.60	91	384268	3.5303	ug/L	96
74)	1112Tetclota	11.73	131	328136	4.1903	ug/L	98
75)	Ethylbenzene	11.78	91	1569107	4.0223	ug/L	99
76)	m p-Xylene	11.94	106	1154118	7.9346	ug/L	100
77)	o-Xylene	12.49	106	602238	4.1424	ug/L	99
78)	Styrene	12.51	104	950189	4.3290	ug/L	99
79)	Bromoform	12.76	173	131075	3.8058	ug/L	96
80)	Isopropylben	13.02	105	1417187	3.9246	ug/L	100
81)	cyclohexanone	13.13	55	129271	73.9027	ug/L	99
84)	Bromobenzene	13.44	156	375350	4.1034	ug/L	99
85)	1122Tetrclta	13.43	83	221798	3.8791	ug/L	97
86)	123Triclproa	13.48	75	215901	3.6129	ug/L	96
87)	14dichloro2butene	13.51	53	60173	3.9433	ug/L	96
88)	n-Propylbenz	13.60	91	1708966	3.8562	ug/L	98
89)	2chlorotolue	13.72	91	1075898	4.0040	ug/L	99
90)	4chlorotolue	13.88	91	1223792	3.9483	ug/L	100
91)	135Trimebenz	13.86	105	1230240	3.9486	ug/L	97
92)	tbutylbenzen	14.33	119	1021856	3.7660	ug/L	98
93)	124Trimetben	14.40	105	1280916	4.0764	ug/L	100
94)	sbutylbenzen	14.64	105	1443612	3.8123	ug/L	97
95)	13Diclorbenz	14.79	146	698920	4.0190	ug/L	99
96)	pIsopropylto	14.86	119	1261313	3.8478	ug/L	97
97)	14dichlorobe	14.93	146	683759	3.7701	ug/L	96
98)	12dichlorobe	15.46	146	615292	3.8772	ug/L	97
99)	nButylbenzen	15.46	91	1154462	3.7540	ug/L	100
100)	12dibromo3cl	16.58	157	38630	3.7496	ug/L	90
101)	135Trichlorobenzene	16.89	180	575200	4.1558	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\AUG2519\ICV1.D Vial: 15
Acq On : 26 Aug 2019 2:25 Operator: RLD-DGS
Sample : INITIAL CALIB. VERIF. Inst : VMS4
Misc : 4.00/40.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 29 08:39:00 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 07:10:13 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	17.70	180	443055	4.1745 ug/L	99
103) Hexachlorobu	17.93	225	220200	3.7910 ug/L	94
104) Naphthalene	18.02	128	612359	4.0640 ug/L	99
105) 123Trichlben	18.32	180	381567	3.9961 ug/L	97

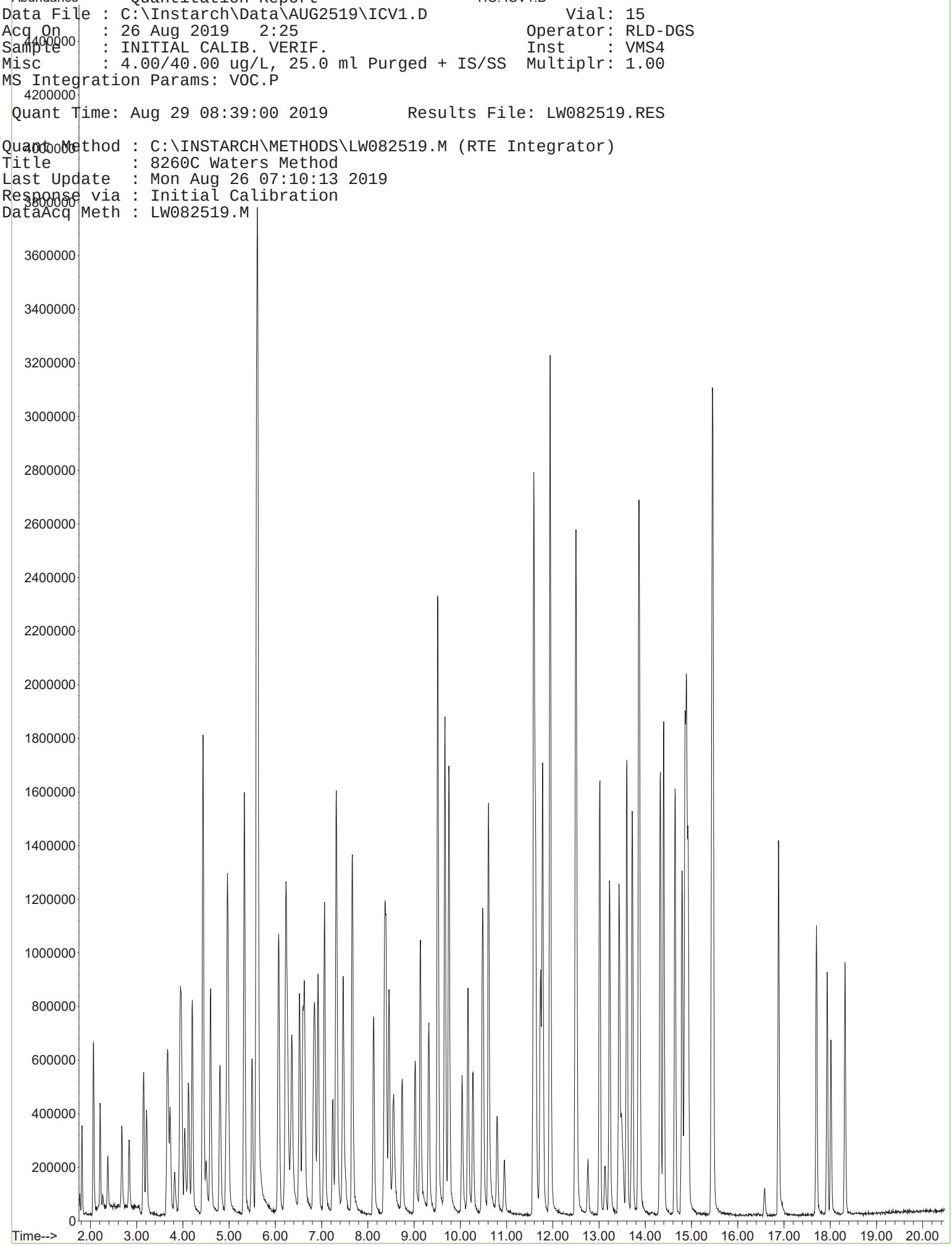
(#) = qualifier out of range (m) = manual integration

Abundance Quantitation Report TIC: ICV1.D

Data File : C:\Instarch\Data\AUG2519\ICV1.D Vial: 15
Acq On : 26 Aug 2019 2:25 Operator: RLD-DGS
Sample : INITIAL CALIB. VERIF. Inst : VMS4
Misc : 4.00/40.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 29 08:39:00 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 07:10:13 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M



Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\AUG2519\ICV2.D Vial: 16
Acq On : 26 Aug 2019 2:53 Operator: RLD-DGS
Sample : INITIAL CALIB. VERIF. Inst : VMS4
Misc : 8.00/80.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Aug 26 07:12:11 2019

Quant Method : C:\INSTARCH\METHODS\LW082519.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:LW082519.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	4.0000	4.0000	0.00	101	0.00
2	PT	Dichlorodi	8.0000	6.9805	12.74	97	0.00
3	PT	Chloromethan	8.0000	7.7009	3.74	101	0.00
4	PT	VinylChlorid	8.0000	7.2272	9.66	96	0.00
5	PT	Bromomethane	8.0000	8.5020	-6.28	116	0.00
6	PT	Chloroethane	8.0000	7.7623	2.97	99	0.00
7	T	Dichloroflmethane	8.0000	7.8392	2.01	101	0.00
8	PT	Trichlorofma	8.0000	7.0211	12.24	91	0.00
9	T	Ethylether	8.0000	8.6362	-7.95	103	0.00
10	T	dichlorotfluoroethan	8.0000	7.0442	11.95	95	0.00
11	T	propyleneoxide	80.0000	82.5654	-3.21	105	0.00
12	T	Acrolein	40.0000	40.6980	-1.75	102	0.00
13	PT	11dichlorthe	8.0000	7.3485	8.14	97	0.00
14	PT	Trichlorotfluoroeth	16.0000	13.5602	15.25	88	0.00
15	PT	Acetone	80.0000	80.4850	-0.61	100	0.00
16	T	Iodomethane	16.0000	16.6843	-4.28	96	0.00
17	PT	Carbon Dislf	16.0000	15.0264	6.08	100	0.00
18	T	allylchloride	16.0000	15.5099	3.06	98	0.00
19	PT	methylacetate	8.0000	8.4775	-5.97	105	0.00
20	PT	Methylchlorid	8.0000	7.9115	1.11	100	0.00
21	T	tbutylalcohol	400.0000	392.6963	1.83	98	0.00
22	T	Acrylonitrile	40.0000	39.7373	0.66	99	0.00
23	PT	t12dichlorte	8.0000	7.8250	2.19	98	0.00
24	PT	MtBE	8.0000	8.1295	-1.62	103	0.00
25	T	Hexane	16.0000	14.9766	6.40	98	0.00
26	PT	11dichlorota	8.0000	7.5725	5.34	97	0.00
27	T	Vinylacetate	80.0000	92.7027	-15.88	119	0.00
28	T	chloroprene	16.0000	15.5146	3.03	98	0.00
29	T	Diisopether	8.0000	8.1353	-1.69	102	0.00
30	T	ETBE	8.0000	8.3054	-3.82	105	0.00
31	T	22dichloropr	8.0000	6.8567	14.29	96	0.00
32	PT	c12dichlorte	8.0000	7.8454	1.93	97	0.00
33	PT	2Butanone	80.0000	87.6287	-9.54	102	-0.01
34	T	propionitrile	80.0000	79.9661	0.04	100	0.00
35	T	Ethylacetate	40.0000	41.0740	-2.68	98	0.00
36	T	methacrylonitrile	16.0000	17.7356	-10.85	102	0.00
37	T	Bromochlorma	8.0000	7.7911	2.61	99	0.00
38	T	Tetrahydofur	80.0000	84.1653	-5.21	104	0.00
39	PT	Chloroform	8.0000	7.6753	4.06	97	0.00
40	PT	111trichlota	8.0000	7.3938	7.58	95	0.00
41	S	SURRDibrflma	4.0000	3.9133	2.17	100	0.00
42	PT	Cyclohexane	8.0000	7.4093	7.38	95	0.00
43	PT	Carbtetraclo	8.0000	7.3779	7.78	94	0.00
44	T	11dicloprope	8.0000	7.8476	1.91	96	0.00
45	S	SURR12DCAd4	4.0000	3.8693	3.27	97	0.00
46	PT	Benzene	8.0000	7.7495	3.13	99	0.00
47	PT	12dichlorota	8.0000	7.8401	2.00	99	0.00
48	T	TAME	8.0000	8.2492	-3.12	103	0.00

49	PT	trichloroete	8.0000	7.4479	6.90	94	0.00
50	PT	methylcyclohexane	8.0000	7.7434	3.21	98	0.00
51	PT	12dicloropra	8.0000	8.0471	-0.59	102	0.00
52	T	23Dicl1propene	8.0000	8.5987	-7.48	100	0.00
53	T	Dibromometha	8.0000	7.9645	0.44	101	0.00
54	T	methylmethacrylate	16.0000	16.5397	-3.37	104	0.00
55	T	14dioxane	400.0000	370.4841	7.38	87	-0.01
56	PT	Bromodiclrma	8.0000	8.3130	-3.91	99	0.00
57	T	2Nitropropane	80.0000	90.4852	-13.11	102	0.00
58	T	2CLEVE	40.0000	40.9452	-2.36	103	0.00
59	PT	c13dicloproe	8.0000	8.4102	-5.13	99	0.00
60	PT	4Meth2Pentan	80.0000	83.2184	-4.02	100	0.00
61	S	SURRd8Tolule	4.0000	4.0813	-2.03	103	0.00
62	PT	Toluene	8.0000	7.8586	1.77	98	0.00
63	PT	t13Dicloprop	8.0000	8.1191	-1.49	95	0.00
64	T	ethylmethacrylate	16.0000	17.2388	-7.74	101	0.00
65	PT	112Triclotha	8.0000	7.9598	0.50	99	0.00
66	PT	Tetrachlorte	8.0000	7.6386	4.52	95	0.00
67	T	13Diclorpropa	8.0000	8.0070	-0.09	101	0.00
68	I	d5-CHLOROBENZENE**ISTD**	4.0000	4.0000	0.00	101	0.00
69	PT	2Hexanone	80.0000	80.7555	-0.94	102	0.00
70	PT	Clorodibrmta	8.0000	8.6078	-7.60	99	0.00
71	PT	12Dibrometha	8.0000	8.2859	-3.57	100	0.00
72	PT	Chlorobenzen	8.0000	7.8622	1.72	98	0.00
73	T	1Clhexane	8.0000	7.4742	6.57	99	0.00
74	T	1112Tetclota	8.0000	8.1451	-1.81	98	0.00
75	PT	Ethylbenzene	8.0000	7.6884	3.90	96	0.00
76	PT	m p-Xylene	16.0000	15.5366	2.90	96	0.00
77	PT	o-Xylene	8.0000	7.9655	0.43	97	0.00
78	PT	Styrene	8.0000	8.4540	-5.68	96	0.00
79	PT	Bromoform	8.0000	7.9179	1.03	99	0.00
80	PT	Isopropylben	8.0000	7.6593	4.26	96	0.00
81	T	cyclohexanone	160.0000	149.7593	6.40	93	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	4.0000	4.0000	0.00	101	0.00
83	S	SURR4BrFBenz	4.0000	4.1331	-3.33	107	0.00
84	T	Bromobenzene	8.0000	8.1935	-2.42	97	0.00
85	PT	1122Tetrclta	8.0000	7.9892	0.13	102	0.00
86	T	123Triclproa	8.0000	7.4427	6.97	95	0.00
87	T	14dichloro2butene	8.0000	8.5991	-7.49	111	0.00
88	T	n-Propylbenz	8.0000	7.7023	3.72	96	0.00
89	T	2chlorotolue	8.0000	7.8156	2.31	96	0.00
90	T	4chlorotolue	8.0000	7.8082	2.40	97	0.00
91	T	135Trimebenz	8.0000	7.7954	2.56	97	0.00
92	T	tbutylbenzen	8.0000	7.6434	4.46	97	0.00
93	T	124Trimetben	8.0000	7.8912	1.36	97	0.00
94	T	sbutylbenzen	8.0000	7.8586	1.77	97	0.00
95	PT	13Diclorbenz	8.0000	7.9588	0.51	96	0.00
96	T	pIsopropylto	8.0000	8.0102	-0.13	99	0.00
97	PT	14dichlorobe	8.0000	7.5802	5.25	97	0.00
98	PT	12dichlorobe	8.0000	7.8274	2.16	97	0.00
99	T	nButylbenzen	8.0000	7.8614	1.73	97	0.00
100	PT	12dibromo3cl	8.0000	7.2151	9.81	85	0.00
101	T	135Trichlorobenzene	8.0000	8.3379	-4.22	100	0.00
102	PT	124Trichlobe	8.0000	8.6218	-7.77	97	0.00
103	T	Hexachlorobu	8.0000	8.9490	-11.86	101	0.00
104	T	Naphthalene	8.0000	8.6078	-7.60	96	0.00
105	T	123Trichlben	8.0000	8.2357	-2.95	97	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

LW082519.M Thu Aug 29 08:43:48 2019

Quantitation Report

Data File : C:\Instarch\Data\AUG2519\ICV2.D Vial: 16
Acq On : 26 Aug 2019 2:53 Operator: RLD-DGS
Sample : INITIAL CALIB. VERIF. Inst : VMS4
Misc : 8.00/80.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 07:12:11 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 07:11:04 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1468196	4.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.58	117	1163923	4.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.89	152	664376	4.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	382794	3.913	ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 98 %			
45) SURR12DCAd4	7.25	102	63359	3.869	ug/L	0.00
Spiked Amount 4.000	Range 86 - 106		Recovery = 97 %			
61) SURRd8Tolule	9.67	98	1519892	4.081	ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 102 %			
83) SURR4BrFBenz	13.23	95	595438	4.133	ug/L	0.00
Spiked Amount 4.000	Range 75 - 124		Recovery = 103 %			
Target Compounds						Qvalue
2) Dichlorodi	1.82	85	587007	6.9805	ug/L	98
3) Chloromethan	2.07	50	1353443	7.7009	ug/L	98
4) VinylChlorid	2.21	62	792482	7.2272	ug/L	99
5) Bromomethane	2.68	94	348971	8.5020	ug/L	97
6) Chloroethane	2.83	64	439783	7.7623	ug/L	98
7) Dichloroflmethane	3.15	67	1248426	7.8392	ug/L	96
8) Trichlorofma	3.21	101	835738	7.0211	ug/L	100
9) Ethylether	3.66	59	563076	8.6362	ug/L	96
10) dichlorotfluoroethan	3.68	67	651666	7.0442	ug/L	97
11) propyleneoxide	3.72	58	696216	82.5654	ug/L	99
12) Acrolein	3.82	56	399789	40.6980	ug/L	94
13) 11dichlorthe	3.94	96	519195	7.3485	ug/L	98
14) Trichlorotfluoroeth	3.97	101	861457	13.5602	ug/L	97
15) Acetone	4.03	43	1281439	80.4850	ug/L	97
16) Iodomethane	4.12	142	1604335	16.6843	ug/L	99
17) Carbon Dislf	4.20	76	2565485	15.0264	ug/L	100
18) allylchloride	4.43	41	3364874	15.5099	ug/L	98
19) methylacetate	4.50	74	87527	8.4775	ug/L	98
20) Methylchlorid	4.60	84	655959	7.9115	ug/L	97
21) tbutylalcohol	4.80	59	1832620	392.6963	ug/L	99
22) Acrylonitrile	4.93	53	748427	39.7373	ug/L	97
23) t12dichlorte	4.96	96	600779	7.8250	ug/L	98
24) MtBE	4.98	73	1379920	8.1295	ug/L	99
25) Hexane	5.33	57	2083485	14.9766	ug/L	100
26) 11dichlorota	5.49	63	1493009	7.5725	ug/L	99
27) Vinylacetate	5.59	43	10043100	92.7027	ug/L	97
28) chloroprene	5.61	53	2630264	15.5146	ug/L	100
29) Diisopether	5.61	45	3624320	8.1353	ug/L	98
30) ETBE	6.07	59	2437315	8.3054	ug/L	99
31) 22dichloropr	6.22	77	896160	6.8567	ug/L	99
32) c12dichlorte	6.23	96	730285	7.8454	ug/L	96
33) 2Butanone	6.25	72	321411	87.6287	ug/L	94
34) propionitrile	6.33	54	513815	79.9661	ug/L	95
35) Ethylacetate	6.35	88	52074	41.0740	ug/L #	78
36) methacrylonitrile	6.52	67	256418	17.7356	ug/L	98
37) Bromochlorma	6.53	128	265948	7.7911	ug/L	99
38) Tetrahydofur	6.59	42	1419929	84.1653	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\AUG2519\ICV2.D Vial: 16
Acq On : 26 Aug 2019 2:53 Operator: RLD-DGS
Sample : INITIAL CALIB. VERIF. Inst : VMS4
Misc : 8.00/80.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 07:12:11 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 07:11:04 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	6.63	83	1205316	7.6753 ug/L	100
40)	111trichlota	6.85	97	1001665	7.3938 ug/L	98
42)	Cyclohexane	6.92	56	1297785	7.4093 ug/L	99
43)	Carbtetraclo	7.06	119	806398	7.3779 ug/L	99
44)	11dicloprope	7.06	110	273092	7.8476 ug/L	95
46)	Benzene	7.31	78	2622205	7.7495 ug/L	99
47)	12dichlorota	7.33	62	883652	7.8401 ug/L	96
48)	TAME	7.46	73	1530435	8.2492 ug/L	99
49)	trichloroete	8.12	95	660593	7.4479 ug/L	100
50)	methylcyclohexane	8.36	83	984752	7.7434 ug/L	99
51)	12dicloropra	8.39	63	904619	8.0471 ug/L	95
52)	23Dicl1propene	8.46	75	1066638	8.5987 ug/L	98
53)	Dibromometha	8.54	93	304894	7.9645 ug/L	97
54)	methylmethacrylate	8.56	69	245361	16.5397 ug/L	96
55)	14dioxane	8.58	88	96470	370.4841 ug/L	93
56)	Bromodiclrma	8.74	83	880659	8.3130 ug/L	99
57)	2Nitropropane	9.02	43	1212972	90.4852 ug/L	93
58)	2CLEVE	9.13	63	1216209	40.9452 ug/L	98
59)	c13dicloproe	9.31	75	1011122	8.4102 ug/L	99
60)	4Meth2Pentan	9.51	43	4912692	83.2184 ug/L	97
62)	Toluene	9.75	92	1778734	7.8586 ug/L	97
63)	t13Dicloprop	10.04	75	766040	8.1191 ug/L	99
64)	ethylmethacrylate	10.17	69	1033787	17.2388 ug/L	96
65)	112Triclotha	10.27	83	364232	7.9598 ug/L	93
66)	Tetrachlorte	10.48	166	693412	7.6386 ug/L	98
67)	13Diclorpropa	10.49	76	765445	8.0070 ug/L	97
69)	2Hexanone	10.60	43	3551870	80.7555 ug/L	97
70)	Clorodibrmta	10.80	129	524636	8.6078 ug/L	99
71)	12Dibrometha	10.95	107	406562	8.2859 ug/L	97
72)	Chlorobenzen	11.63	112	1857808	7.8622 ug/L	100
73)	1Clhexane	11.59	91	844064	7.4742 ug/L	96
74)	1112Tetclota	11.73	131	661748	8.1451 ug/L	99
75)	Ethylbenzene	11.78	91	3111776	7.6884 ug/L	98
76)	m p-Xylene	11.94	106	2344615	15.5366 ug/L	98
77)	o-Xylene	12.50	106	1201483	7.9655 ug/L	99
78)	Styrene	12.51	104	1925174	8.4540 ug/L	98
79)	Bromoform	12.76	173	300275	7.9179 ug/L	97
80)	Isopropylben	13.01	105	2869523	7.6593 ug/L	96
81)	cyclohexanone	13.13	55	276954	149.7593 ug/L	98
84)	Bromobenzene	13.44	156	781183	8.1935 ug/L	97
85)	1122Tetrclta	13.43	83	476126	7.9892 ug/L	96
86)	123Triclproa	13.49	75	463579	7.4427 ug/L	95
87)	14dichloro2butene	13.51	53	144051	8.5991 ug/L	95
88)	n-Propylbenz	13.60	91	3557855	7.7023 ug/L	99
89)	2chlorotolue	13.72	91	2188920	7.8156 ug/L	99
90)	4chlorotolue	13.88	91	2522551	7.8082 ug/L	99
91)	135Trimebenz	13.86	105	2531463	7.7954 ug/L	96
92)	tbutylbenzen	14.33	119	2161645	7.6434 ug/L	99
93)	124Trimetben	14.39	105	2584468	7.8912 ug/L	99
94)	sbutylbenzen	14.64	105	3101683	7.8586 ug/L	99
95)	13Diclorbenz	14.79	146	1442599	7.9588 ug/L	97
96)	pIsopropylto	14.86	119	2736838	8.0102 ug/L	99
97)	14dichlorobe	14.93	146	1432931	7.5802 ug/L	98
98)	12dichlorobe	15.46	146	1294699	7.8274 ug/L	96
99)	nButylbenzen	15.46	91	2519893	7.8614 ug/L	98
100)	12dibromo3cl	16.58	157	79269	7.2151 ug/L	99
101)	135Trichlorobenzene	16.88	180	1202837	8.3379 ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\AUG2519\ICV2.D Vial: 16
Acq On : 26 Aug 2019 2:53 Operator: RLD-DGS
Sample : INITIAL CALIB. VERIF. Inst : VMS4
Misc : 8.00/80.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 07:12:11 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 07:11:04 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	17.70	180	953753	8.6218 ug/L	99
103) Hexachlorobu	17.93	225	541791	8.9490 ug/L	98
104) Naphthalene	18.01	128	1351871	8.6078 ug/L	99
105) 123Trichlben	18.32	180	819640	8.2357 ug/L	98

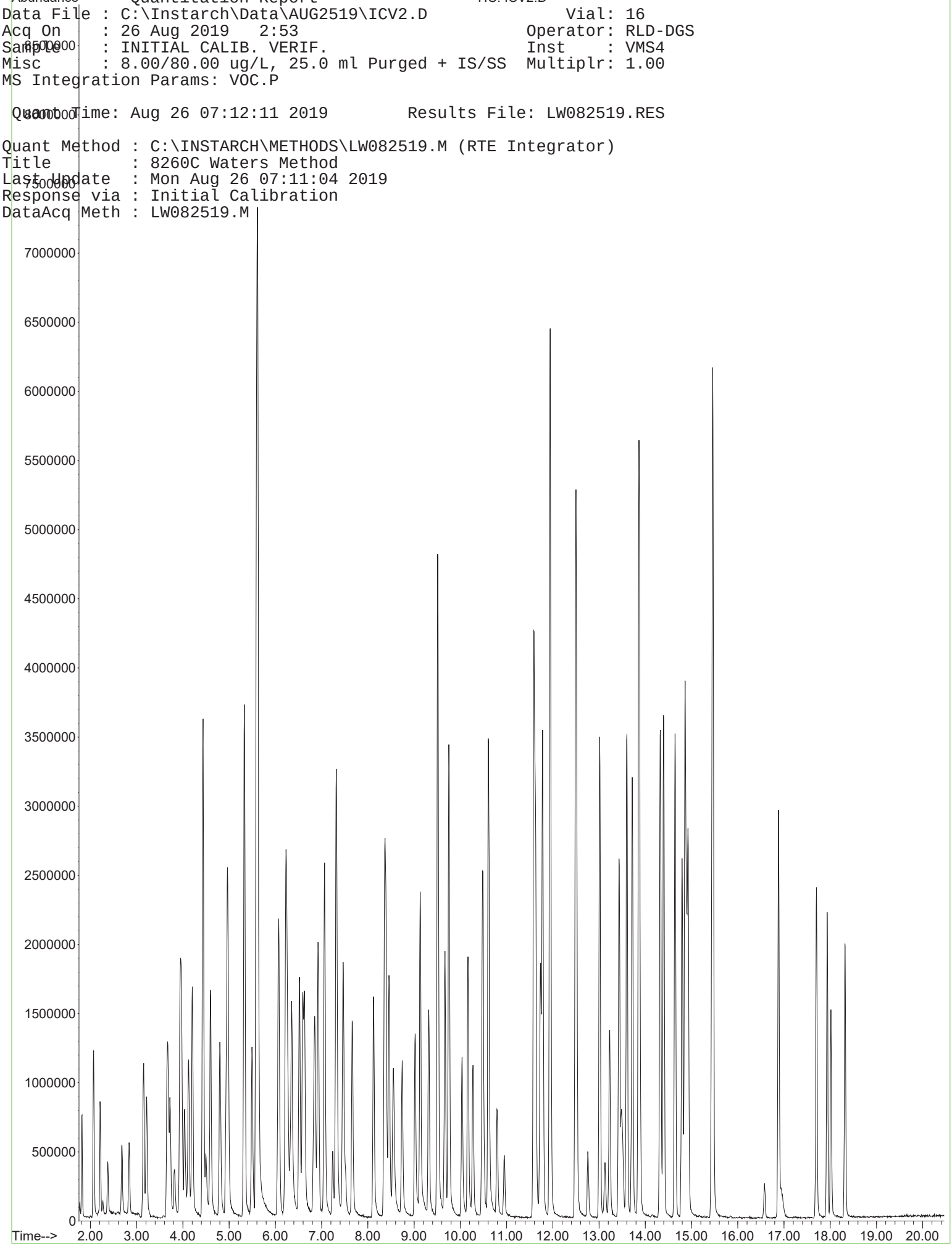
(#) = qualifier out of range (m) = manual integration

Abundance Quantitation Report TIC: ICV2.D

Data File : C:\Instarch\Data\AUG2519\ICV2.D Vial: 16
Acq On : 26 Aug 2019 2:53 Operator: RLD-DGS
Sample : INITIAL CALIB. VERIF. Inst : VMS4
Misc : 8.00/80.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 26 07:12:11 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Aug 26 07:11:04 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M



Quantitation Report

Data File : C:\Instarch\Data\AUG2519\ICB1.D Vial: 19
Acq On : 26 Aug 2019 4:18 Operator: RLD-DGS
Sample : INITIAL CALIB. BLANK Inst : VMS4
Misc : pH<2, 25.0 ml DI H2O Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 29 08:44:31 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Tue Aug 27 21:12:32 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1424108	4.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.59	117	1139007	4.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.89	152	610102	4.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	371701	3.917	ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 98 %			
45) SURR12DCAd4	7.25	102	59940	3.774	ug/L	0.01
Spiked Amount 4.000	Range 86 - 106		Recovery = 94 %			
61) SURRd8Tolule	9.67	98	1460130	4.042	ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 101 %			
83) SURR4BrFBenz	13.23	95	549133	4.151	ug/L	0.00
Spiked Amount 4.000	Range 75 - 124		Recovery = 104 %			
Target Compounds						Qvalue
2) Dichlorodi	1.82	85	3373	0.0414	ug/L #	42
3) Chloromethan	2.07	50	5471	0.0321	ug/L	87
4) VinylChlorid	2.21	62	1411	0.0133	ug/L #	46
5) Bromomethane	2.69	94	2683	0.0674	ug/L #	65
6) Chloroethane	0.00	64	0	N.D.		
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	0.00	56	0	N.D.		
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	4.06	43	10942	N.D.		
16) Iodomethane	4.11	142	4341	N.D.		
17) Carbon Dislf	4.20	76	3913	0.0236	ug/L #	74
18) allylchloride	4.44	41	1289	N.D.		
19) methylacetate	0.00	74	0	N.D.		
20) Methylchlorid	4.60	84	21061	Below Cal	#	82
21) tbutylalcohol	4.81	59	4422	N.D.		
22) Acrylonitrile	0.00	53	0	N.D.		
23) t12dichlorte	0.00	96	0	N.D.		
24) MtBE	0.00	73	0	N.D.		
25) Hexane	0.00	57	0	N.D.		
26) 11dichlorota	0.00	63	0	N.D.		
27) Vinylacetate	5.48	43	1175	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	6.19	59	8064	0.0283	ug/L #	43
31) 22dichloropr	6.19	77	21397	0.1688	ug/L #	46
32) c12dichlorte	0.00	96	0	N.D.		
33) 2Butanone	6.20	72	1741	N.D.		
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	6.62	42	3407	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\AUG2519\ICB1.D Vial: 19
Acq On : 26 Aug 2019 4:18 Operator: RLD-DGS
Sample : INITIAL CALIB. BLANK Inst : VMS4
Misc : pH<2, 25.0 ml DI H2O Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 29 08:44:31 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Tue Aug 27 21:12:32 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	9.09	43	1256	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	9.50	43	1077	N.D.	
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	11.59	91	1900	0.0172 ug/L #	1
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	13.23	55	3018	3.9714 ug/L #	55
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	13.57	75	1698	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	14.44	105	1025	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	14.88	146	1256	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	14.88	146	1256	N.D.	
98)	12dichlorobe	15.44	146	1010	N.D.	
99)	nButylbenzen	15.47	91	1567	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\AUG2519\ICB1.D Vial: 19
Acq On : 26 Aug 2019 4:18 Operator: RLD-DGS
Sample : INITIAL CALIB. BLANK Inst : VMS4
Misc : pH<2, 25.0 ml DI H2O Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 29 08:44:31 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Tue Aug 27 21:12:32 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	18.03	128	1768	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

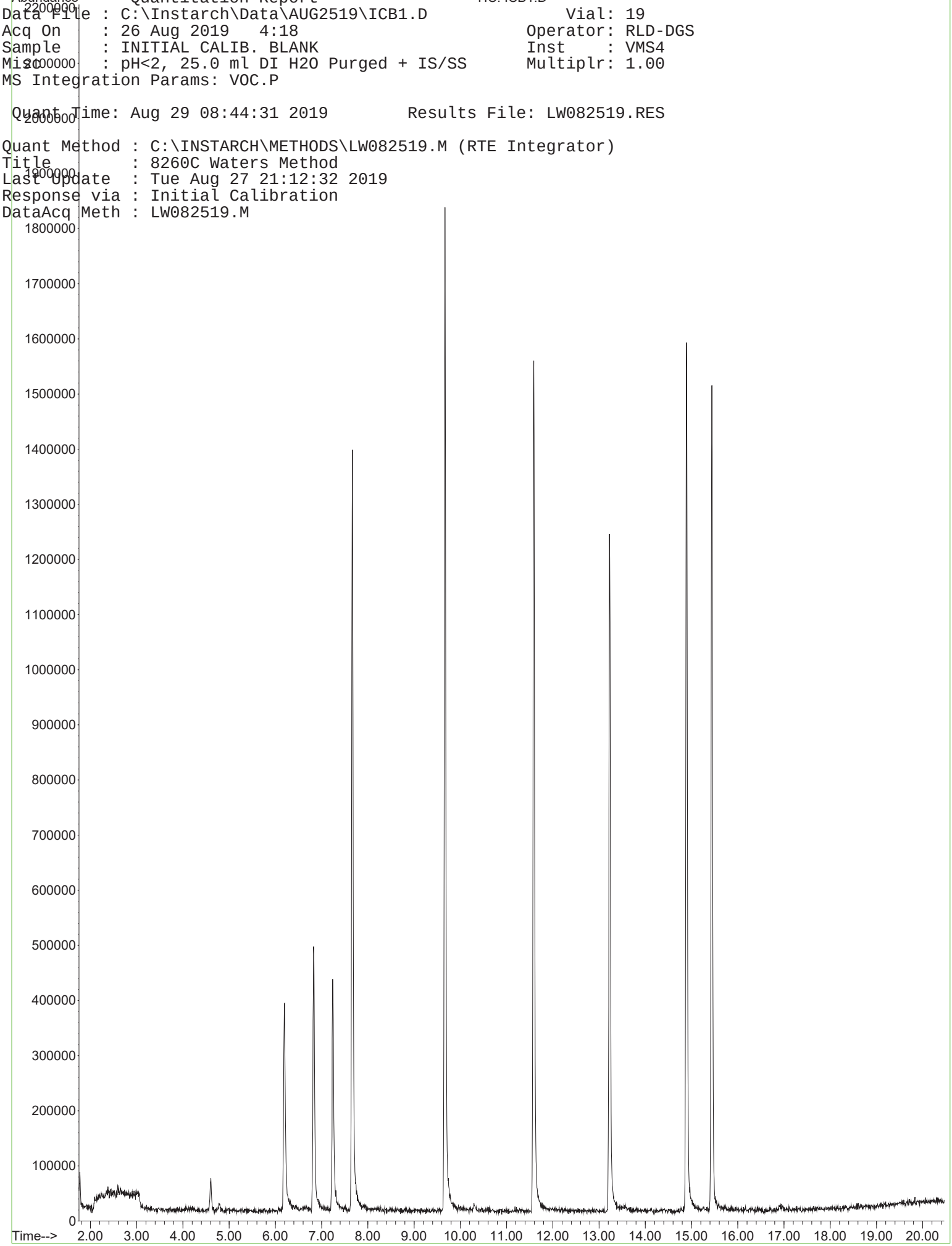
(#) = qualifier out of range (m) = manual integration

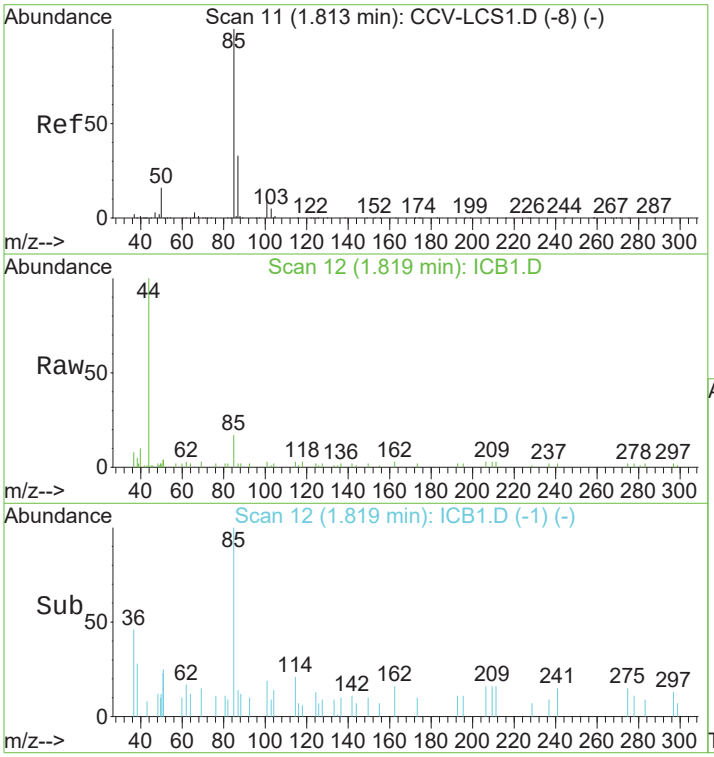
Quantitation Report (TIC: ICB1.D)

Data File : C:\Instarch\Data\AUG2519\ICB1.D Vial: 19
Acq On : 26 Aug 2019 4:18 Operator: RLD-DGS
Sample : INITIAL CALIB. BLANK Inst : VMS4
Misc : pH<2, 25.0 ml DI H2O Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Aug 29 08:44:31 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Tue Aug 27 21:12:32 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

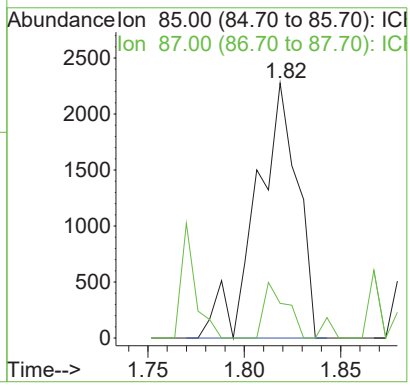




#2
Dichlorodi
Concen: 0.04 ug/L
RT: 1.82 min Scan# 12
Delta R.T. 0.00 min
Lab File: ICB1.D
Acq: 26 Aug 2019 4:18

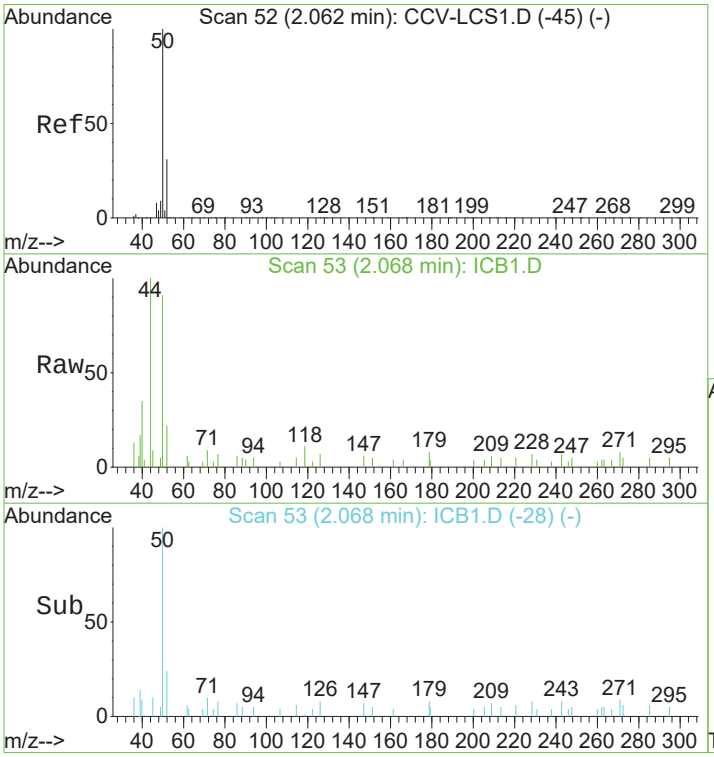
Tgt Ion: 85 Resp: 3373

Ion	Ratio	Lower	Upper
85	100		
87	0.0	13.0	53.0#



Negative Library Identification

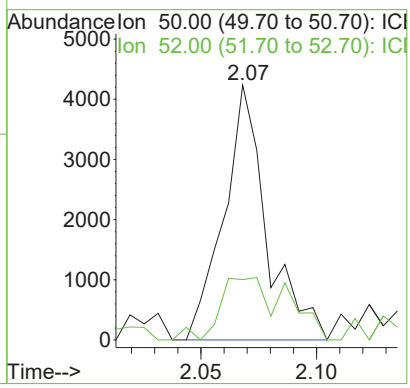
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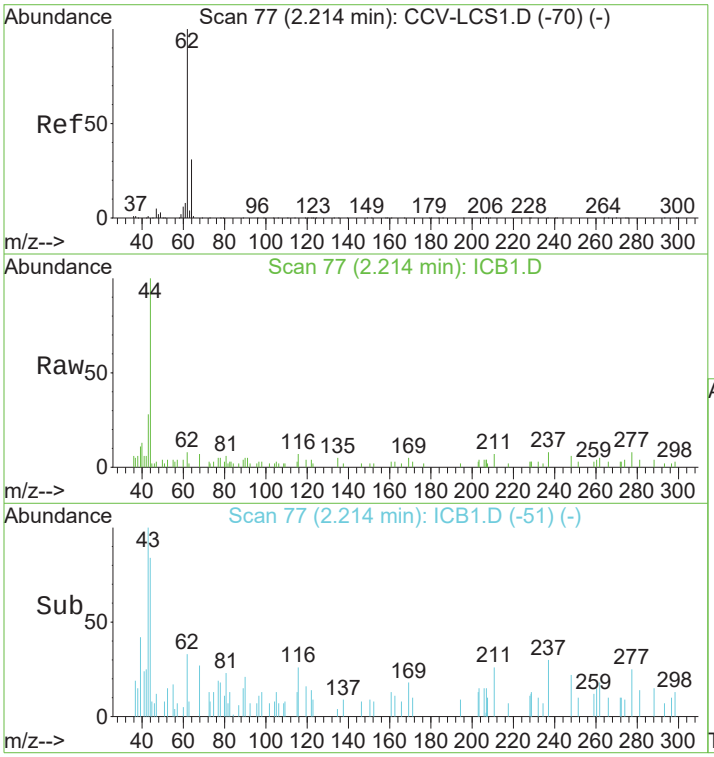


#3
Chloromethan
Concen: 0.03 ug/L
RT: 2.07 min Scan# 53
Delta R.T. 0.00 min
Lab File: ICB1.D
Acq: 26 Aug 2019 4:18

Tgt Ion: 50 Resp: 5471

Ion	Ratio	Lower	Upper
50	100		
52	38.5	11.5	51.5

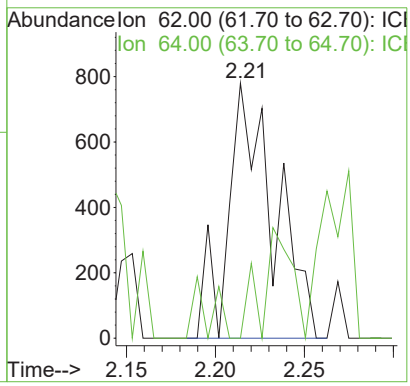




#4
VinylChlorid
Concen: 0.01 ug/L
RT: 2.21 min Scan# 77
Delta R.T. 0.01 min
Lab File: ICB1.D
Acq: 26 Aug 2019 4:18

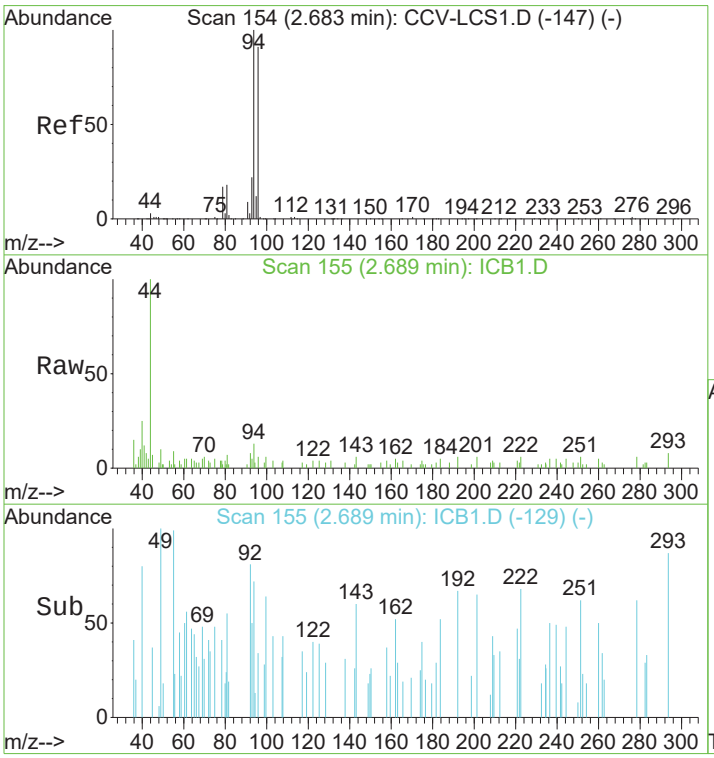
Tgt Ion: 62 Resp: 1411

Ion	Ratio	Lower	Upper
62	100		
64	0.0	8.7	48.7#



Negative Library Identification

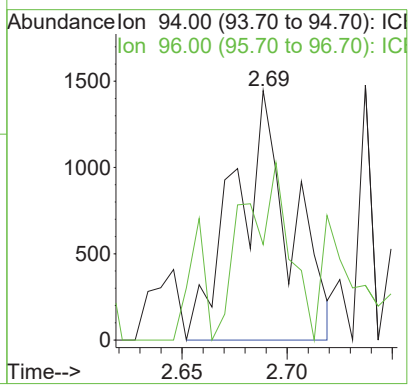
[redacted]



#5
Bromomethane
Concen: 0.07 ug/L
RT: 2.69 min Scan# 155
Delta R.T. 0.01 min
Lab File: ICB1.D
Acq: 26 Aug 2019 4:18

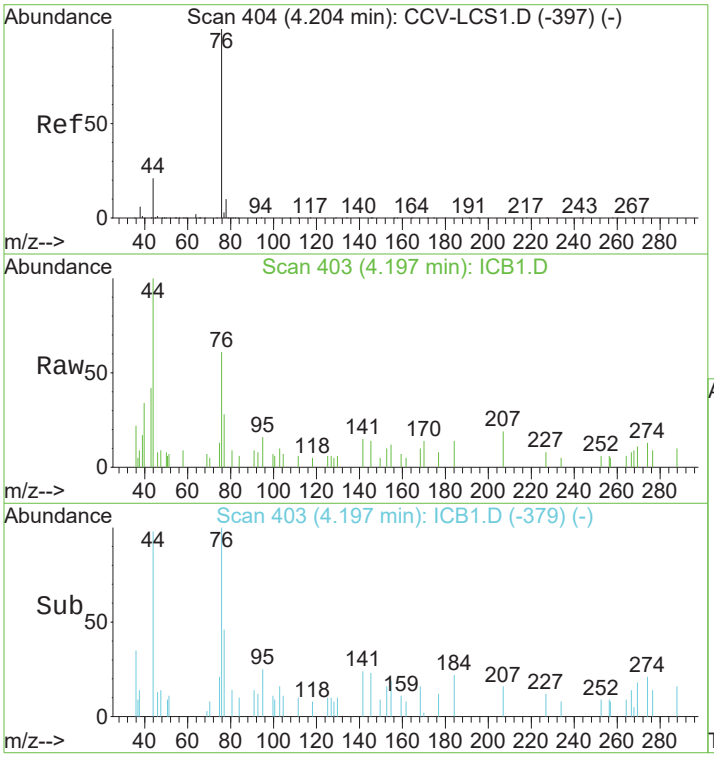
Tgt Ion: 94 Resp: 2683

Ion	Ratio	Lower	Upper
94	100		
96	56.8	69.8	109.8#



Negative Library Identification

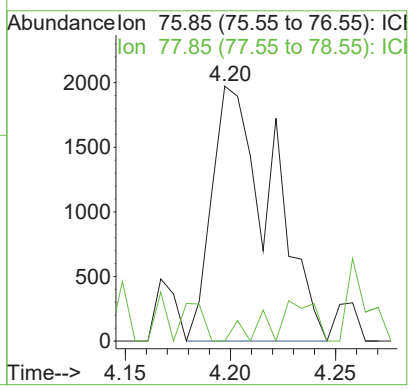
[redacted]

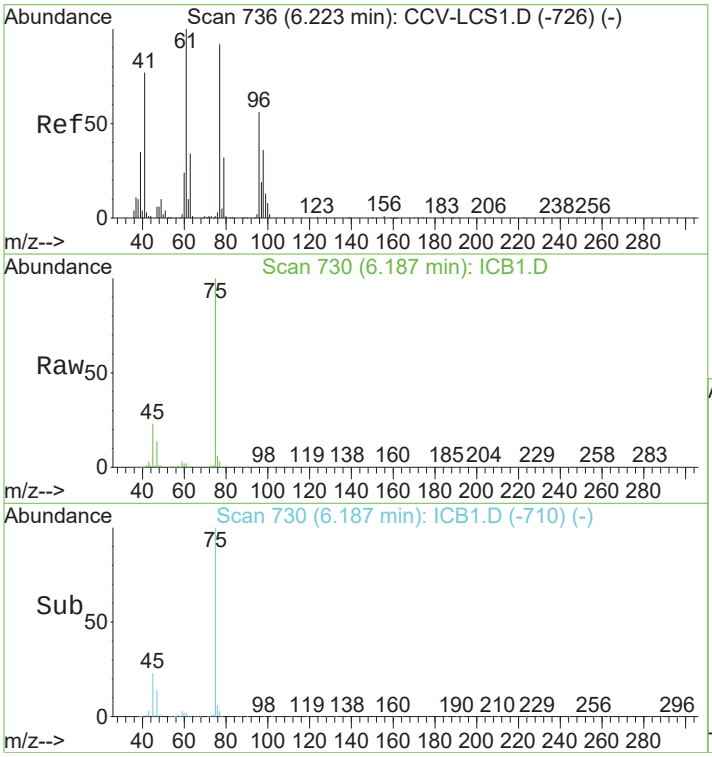


#17
Carbon Dislf
Concen: 0.02 ug/L
RT: 4.20 min Scan# 403
Delta R.T. -0.01 min
Lab File: ICB1.D
Acq: 26 Aug 2019 4:18

Tgt Ion: 76 Resp: 3913

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	29.7

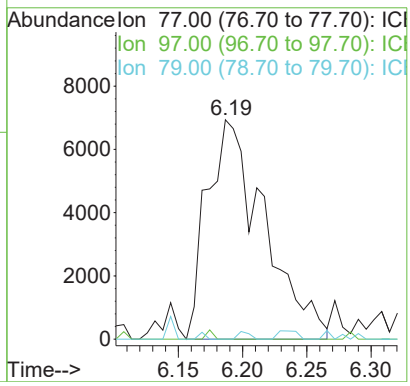




#31
22dichloropr
Concen: 0.17 ug/L
RT: 6.19 min Scan# 730
Delta R.T. -0.03 min
Lab File: ICB1.D
Acq: 26 Aug 2019 4:18

Tgt Ion: 77 Resp: 21397

Ion	Ratio	Lower	Upper
77	100		
97	0.0	2.4	42.4#
79	0.0	12.8	52.8#



Negative Library Identification

[redacted]

VOLATILE ORGANIC ANALYSIS
CONTINUING CALIBRATION
DOCUMENTS

Data File : C:\Instarch\Data\SEP0519\BFB1.D Vial: 1
Acq On : 5 Sep 2019 7:27 Operator: RLD-DGS
Sample : 163979,BFB, Inst : VMS4
Misc : 50 ng Injection Multiplr: 1.00
Integration File: VOC1.P

Method : C:\INSTARCH\METHODS\LS090419.M
Title : 8260C Low Level Soils Method

Spectrum Information: Average of 4.617 to 4.627 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.4	5893	PASS
75	95	30	60	52.2	18781	PASS
95	95	100	100	100.0	35948	PASS
96	95	5	9	7.6	2745	PASS
173	174	0.00	2	1.0	267	PASS
174	95	50	100	77.2	27746	PASS
175	174	5	9	5.6	1550	PASS
176	174	95	101	98.0	27192	PASS
177	176	5	9	7.3	1994	PASS

LS090419.M Mon Sep 09 11:34:52 2019

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\SEP0519\CCV1.D Vial: 3
Acq On : 5 Sep 2019 8:11 Operator: RLD-DGS
Sample : 163979,CCV, Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Sep 05 08:31:55 2019

Quant Method : C:\INSTARCH\METHODS\LS090419.M
Quant Title : 8260C Low Level Soils Method
Response via : Initial Calibration
DataAcq Meth:LS090419.M

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	1.0000	1.0000	0.00	110	0.00
2	T	Dichlorodi	0.2569	0.2761	-7.47	99	0.00
3	PT	Chloromethan	0.3033	0.2877	5.14	108	0.00
4	CT	VinylChlorid	0.2930	0.2828	3.48	101	0.00
5	T	Bromomethane	0.1485	0.1289	13.20	104	0.00
6	T	Chloroethane	0.1778	0.1704	4.16	100	0.00
7	T	dichloroflmethane	0.5679	0.5347	5.85	100	0.00
8	T	Trichlorofma	0.4176	0.4390	-5.12	99	0.00
9	T	Ethylether	0.2056	0.1958	4.77	104	0.00
10	T	dichlorotfluoroethan	0.3088	0.3193	-3.40	101	0.00
11	T	propyleneoxide	0.0241	0.0251	-4.15	113	0.00
12	T	Acrolein	0.0393	0.0378	3.82	104	0.00
13	CT	11dichlorthe	0.2511	0.2388	4.90	98	0.00
14	T	Trichlorotfluoroeth	0.2111	0.2374	-12.46	101	0.00
15	T	Acetone	0.0587	0.0505	13.97	99	0.00
16	T	Iodomethane	0.2451	0.1961	19.99	90	0.00
17	T	Carbon Dislf	0.8643	0.8432	2.44	101	0.00
18	T	allylchloride	0.4574	0.4323	5.49	102	0.00
19	T	methylacetate	0.0805	0.0777	3.48	114	-0.01
20	T	Methylchlorid	0.4338	0.3403	21.55#	106	0.00
21	T	Acrylonitrile	0.0593	0.0566	4.55	109	0.00
22	T	t12dichlorte	0.2938	0.2797	4.80	100	0.00
23	T	tbutylalcohol	0.0275	0.0251	8.73	101	0.00
24	T	MtBE	0.7728	0.7679	0.63	109	0.00
25	T	Hexane	0.3475	0.3760	-8.20	103	0.00
26	PT	11dichlorota	0.5480	0.4935	9.95	101	0.00
27	T	Vinylacetate	0.3427	0.3633	-6.01	108	0.00
28	T	chloroprene	0.4018	0.4012	0.15	102	0.00
29	T	Diisopether	0.8573	0.8303	3.15	105	0.00
30	T	ETBE	0.7840	0.7688	1.94	106	0.00
31	T	22dichloropr	0.4954	0.4831	2.48	109	0.00
32	T	c12dichlorte	0.3260	0.3145	3.53	107	0.00
33	T	2Butanone	0.0250	0.0225	10.00	102	-0.01
34	T	propionitrile	0.0218	0.0214	1.83	99	0.00
35	T	Ethylacetate	0.0063	0.0068#	-7.94	109	0.00
36	T	methacrylonitrile	0.0815	0.0790	3.07	104	0.00
37	T	Bromochlorma	0.1267	0.1258	0.71	108	0.00
38	T	Tetrahydofur	0.0578	0.0535	7.44	102	0.00
39	CT	Chloroform	0.5625	0.5274	6.24	102	0.00
40	T	111trichlota	0.4760	0.4756	0.08	103	0.00
41	S	SURRDibrflma	0.2491	0.2470	0.84	108	0.00
42	T	Cyclohexane	0.3931	0.4370	-11.17	103	0.00
43	T	Carbtetraclo	0.3667	0.3734	-1.83	101	0.00
44	T	11dicloprope	0.1351	0.1297	4.00	99	0.00
45	S	SURR12DCAd4	0.0511	0.0509	0.39	112	0.00
46	T	Benzene	1.2521	1.1723	6.37	102	0.00
47	T	12dichlorota	0.3566	0.3607	-1.15	110	0.00
48	T	TAME	0.7527	0.7418	1.45	108	0.00

49	T	trichloroete	0.3056	0.2865	6.25	101	0.01
50	T	methylcyclohexane	0.4595	0.5124	-11.51	102	0.00
51	CT	12dicloropra	0.3183	0.2986	6.19	104	0.00
52	T	23dicl1propene	0.4741	0.4520	4.66	102	0.00
53	T	Dibromometha	0.1614	0.1608	0.37	109	0.00
54	T	methylmethacrylate	0.1482	0.1426	3.78	108	0.00
55	T	14dioxane	0.0025	0.0022#	12.00	102	0.00
56	T	Bromodiclrma	0.4135	0.3933	4.89	105	0.00
57	T	2Nitropropane	0.0569	0.0541	4.92	111	0.00
58	T	c13dicloproe	0.4852	0.4740	2.31	107	0.00
59	T	4Meth2Pentan	0.1936	0.1881	2.84	105	0.00
60	S	SURRd8Tolule	1.0195	1.0086	1.07	108	0.00
61	CT	Toluene	0.8173	0.7495	8.30	102	0.00
62	T	t13Dicloprop	0.4116	0.3908	5.05	108	0.00
63	T	ethylmethacrylate	0.3145	0.3010	4.29	103	0.00
64	T	112Triclotha	0.2090	0.2001	4.26	103	0.00
65	T	Tetrachlorte	0.3039	0.2789	8.23	95	0.00
66	T	13Diclorpropa	0.4279	0.4053	5.28	106	0.00
67	I	d5-CHLOROBENZENE**ISTD**	1.0000	1.0000	0.00	112	0.00
68	T	2Hexanone	0.1680	0.1677	0.18	105	0.00
69	T	Clorodibrmta	0.3342	0.3183	4.76	105	0.00
70	T	12Dibrometha	0.2949	0.2916	1.12	106	0.00
71	PT	Chlorobenzen	1.0298	0.9135	11.29	101	0.00
72	T	1Clhexane	0.4988	0.4814	3.49	98	0.00
73	T	1112Tetclota	0.3593	0.3224	10.27	101	0.00
74	CT	Ethylbenzene	1.8234	1.6805	7.84	101	0.00
75	T	m p-Xylene	0.6826	0.6217	8.92	102	0.00
76	T	o-Xylene	0.6847	0.6149	10.19	99	0.00
77	T	Styrene	1.1128	1.0126	9.00	101	0.00
78	PT	Bromoform	0.2283	0.2134	6.53	115	0.00
79	T	Isopropylben	1.6763	1.5963	4.77	100	0.00
80	I	d4-1,4-DICHLOROBENZENE**IS	1.0000	1.0000	0.00	112	0.00
81	T	cyclohexanone	0.0209	0.0191	8.61	97	0.00
82	S	SURR4BrFBenz	0.9495	0.9494	0.01	113	0.00
83	T	Bromobenzene	0.8323	0.7754	6.84	108	0.00
84	PT	1122Tetrclta	0.7895	0.7803	1.17	105	0.00
85	T	123Triclproa	0.9734	0.9344	4.01	123	0.00
86	T	14dichloro2butene	0.1769	0.1582	10.57	111	0.00
87	T	n-Propylbenz	3.8587	3.4923	9.50	97	0.00
88	T	2chlorotolue	2.3397	2.1478	8.20	104	0.00
89	T	4chlorotolue	2.6592	2.3640	11.10	98	0.00
90	T	135Trimebenz	2.7235	2.5337	6.97	103	0.00
91	T	tbutylbenzen	2.3214	2.1982	5.31	100	0.00
92	T	124Trimetben	2.7905	2.4820	11.06	99	0.00
93	T	sbutylbenzen	3.4141	3.3242	2.63	102	0.00
94	T	13Diclorbenz	1.4901	1.2533	15.89	95	0.00
95	T	pIsopropylto	2.7719	2.5229	8.98	95	0.00
96	T	14dichlorobe	1.4750	1.2721	13.76	98	0.00
97	T	12dichlorobe	1.4126	1.2751	9.73	103	0.00
98	T	nButylbenzen	2.6879	2.3396	12.96	92	0.00
99	T	12dibromo3cl	0.1438	0.1277	11.20	106	0.00
100	T	135Trichlorobenzene	1.1397	0.9188	19.38	90	0.00
101	T	124Trichlobe	1.0105	0.8083	20.01#	91	0.00
102	T	Hexachlorobu	0.6585	0.5887	10.60	98	0.00
103	T	Naphthalene	2.0245	1.7795	12.10	102	0.00
104	T	123Trichlben	0.9685	0.8229	15.03	96	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

LS090419.M Mon Sep 09 11:40:57 2019

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\SEP0519\CCV1.D Vial: 3
Acq On : 5 Sep 2019 8:11 Operator: RLD-DGS
Sample : 163979,CCV, Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Sep 05 08:31:55 2019

Quant Method : C:\INSTARCH\METHODS\LS090419.M
Quant Title : 8260C Low Level Soils Method
Response via : Initial Calibration
DataAcq Meth:LS090419.M

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	0.0200	0.0200	0.00	110	0.00
2	T	Dichlorodi	0.0100	0.0097	3.00	99	0.00
3	PT	Chloromethan	0.0100	0.0095	5.00	108	0.00
4	CT	VinylChlorid	0.0100	0.0097	3.00	101	0.00
5	T	Bromomethane	0.0100	0.0087	13.00	104	0.00
6	T	Chloroethane	0.0100	0.0096	4.00	100	0.00
7	T	dichloroflmethane	0.0100	0.0094	6.00	100	0.00
8	T	Trichlorofma	0.0100	0.0095	5.00	99	0.00
9	T	Ethylether	0.0100	0.0095	5.00	104	0.00
10	T	dichlorotfluoroethan	0.0100	0.0103	-3.00	101	0.00
11	T	propyleneoxide	0.1000	0.1043	-4.30	113	0.00
12	T	Acrolein	0.0500	0.0480	4.00	104	0.00
13	CT	11dichlorthe	0.0100	0.0095	5.00	98	0.00
14	T	Trichlorotfluoroeth	0.0200	0.0195	2.50	101	0.00
15	T	Acetone	0.1000	0.0860	14.00	99	0.00
16	T	Iodomethane	0.0200	0.0154	23.00#	90	0.00
17	T	Carbon Dislf	0.0200	0.0195	2.50	101	0.00
18	T	allylchloride	0.0200	0.0189	5.50	102	0.00
19	T	methylacetate	0.0100	0.0091	9.00	114	-0.01
20	T	Methylchlorid	0.0100	0.0090	10.00	106	0.00
21	T	Acrylonitrile	0.0500	0.0477	4.60	109	0.00
22	T	t12dichlorte	0.0100	0.0095	5.00	100	0.00
23	T	tbutylalcohol	0.5000	0.4558	8.84	101	0.00
24	T	MtBE	0.0100	0.0099	1.00	109	0.00
25	T	Hexane	0.0200	0.0194	3.00	103	0.00
26	PT	11dichlorota	0.0100	0.0090	10.00	101	0.00
27	T	Vinylacetate	0.1000	0.1060	-6.00	108	0.00
28	T	chloroprene	0.0200	0.0200	0.00	102	0.00
29	T	Diisopether	0.0100	0.0097	3.00	105	0.00
30	T	ETBE	0.0100	0.0098	2.00	106	0.00
31	T	22dichloropr	0.0100	0.0098	2.00	109	0.00
32	T	c12dichlorte	0.0100	0.0096	4.00	107	0.00
33	T	2Butanone	0.1000	0.0900	10.00	102	-0.01
34	T	propionitrile	0.1000	0.0866	13.40	99	0.00
35	T	Ethylacetate	0.0500	0.0476	4.80	109	0.00
36	T	methacrylonitrile	0.0200	0.0177	11.50	104	0.00
37	T	Bromochlorma	0.0100	0.0099	1.00	108	0.00
38	T	Tetrahydofur	0.1000	0.0925	7.50	102	0.00
39	CT	Chloroform	0.0100	0.0094	6.00	102	0.00
40	T	111trichlota	0.0100	0.0100	0.00	103	0.00
41	S	SURRDibrflma	0.0200	0.0198	1.00	108	0.00
42	T	Cyclohexane	0.0100	0.0098	2.00	103	0.00
43	T	Carbtetraclo	0.0100	0.0094	6.00	101	0.00
44	T	11dicloprope	0.0100	0.0096	4.00	99	0.00
45	S	SURR12DCAd4	0.0200	0.0199	0.50	112	0.00
46	T	Benzene	0.0100	0.0094	6.00	102	0.00
47	T	12dichlorota	0.0100	0.0101	-1.00	110	0.00
48	T	TAME	0.0100	0.0099	1.00	108	0.00

49	T	trichloroete	0.0100	0.0094	6.00	101	0.01
50	T	methylcyclohexane	0.0100	0.0097	3.00	102	0.00
51	CT	12dicloropra	0.0100	0.0094	6.00	104	0.00
52	T	23dicl1propene	0.0100	0.0095	5.00	102	0.00
53	T	Dibromometha	0.0100	0.0100	0.00	109	0.00
54	T	methylmethacrylate	0.0100	0.0090	10.00	108	0.00
55	T	14dioxane	0.5000	0.4493	10.14	102	0.00
56	T	Bromodiclrma	0.0100	0.0095	5.00	105	0.00
57	T	2Nitropropane	0.1000	0.0951	4.90	111	0.00
58	T	c13dicloproe	0.0100	0.0098	2.00	107	0.00
59	T	4Meth2Pentan	0.1000	0.0972	2.80	105	0.00
60	S	SURRd8Tolule	0.0200	0.0198	1.00	108	0.00
61	CT	Toluene	0.0100	0.0092	8.00	102	0.00
62	T	t13Dicloprop	0.0100	0.0095	5.00	108	0.00
63	T	ethylmethacrylate	0.0200	0.0191	4.50	103	0.00
64	T	112Triclotha	0.0100	0.0096	4.00	103	0.00
65	T	Tetrachlorte	0.0100	0.0092	8.00	95	0.00
66	T	13Diclorpropa	0.0100	0.0095	5.00	106	0.00
67	I	d5-CHLOROBENZENE**ISTD**	0.0200	0.0200	0.00	112	0.00
68	T	2Hexanone	0.1000	0.0899	10.10	105	0.00
69	T	Clorodibrmta	0.0100	0.0095	5.00	105	0.00
70	T	12Dibrometha	0.0100	0.0099	1.00	106	0.00
71	PT	Chlorobenzen	0.0100	0.0089	11.00	101	0.00
72	T	1Clhexane	0.0100	0.0089	11.00	98	0.00
73	T	1112Tetclota	0.0100	0.0090	10.00	101	0.00
74	CT	Ethylbenzene	0.0100	0.0092	8.00	101	0.00
75	T	m p-Xylene	0.0200	0.0182	9.00	102	0.00
76	T	o-Xylene	0.0100	0.0090	10.00	99	0.00
77	T	Styrene	0.0100	0.0091	9.00	101	0.00
78	PT	Bromoform	0.0100	0.0093	7.00	115	0.00
79	T	Isopropylben	0.0100	0.0095	5.00	100	0.00
80	I	d4-1,4-DICHLOROBENZENE**IS	0.0200	0.0200	0.00	112	0.00
81	T	cyclohexanone	0.2000	0.1828	8.60	97	0.00
82	S	SURR4BrFBenz	0.0200	0.0200	0.00	113	0.00
83	T	Bromobenzene	0.0100	0.0093	7.00	108	0.00
84	PT	1122Tetrclta	0.0100	0.0099	1.00	105	0.00
85	T	123Triclproa	0.0100	0.0096	4.00	123	0.00
86	T	14dichloro2butene	0.0100	0.0089	11.00	111	0.00
87	T	n-Propylbenz	0.0100	0.0091	9.00	97	0.00
88	T	2chlorotolue	0.0100	0.0092	8.00	104	0.00
89	T	4chlorotolue	0.0100	0.0089	11.00	98	0.00
90	T	135Trimebenz	0.0100	0.0093	7.00	103	0.00
91	T	tbutylbenzen	0.0100	0.0095	5.00	100	0.00
92	T	124Trimetben	0.0100	0.0089	11.00	99	0.00
93	T	sbutylbenzen	0.0100	0.0097	3.00	102	0.00
94	T	13Diclorbenz	0.0100	0.0084	16.00	95	0.00
95	T	pIsopropylto	0.0100	0.0091	9.00	95	0.00
96	T	14dichlorobe	0.0100	0.0086	14.00	98	0.00
97	T	12dichlorobe	0.0100	0.0090	10.00	103	0.00
98	T	nButylbenzen	0.0100	0.0087	13.00	92	0.00
99	T	12dibromo3cl	0.0100	0.0089	11.00	106	0.00
100	T	135Trichlorobenzene	0.0100	0.0081	19.00	90	0.00
101	T	124Trichlobe	0.0100	0.0080	20.00	91	0.00
102	T	Hexachlorobu	0.0100	0.0089	11.00	98	0.00
103	T	Naphthalene	0.0100	0.0088	12.00	102	0.00
104	T	123Trichlben	0.0100	0.0085	15.00	96	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

LS090419.M Mon Sep 09 11:41:23 2019

Quantitation Report

Data File : C:\Instarch\Data\SEP0519\CCV1.D Vial: 3
Acq On : 5 Sep 2019 8:11 Operator: RLD-DGS
Sample : 163979,CCV, Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 08:31:55 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:53:04 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1216346	0.02	mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	948387	0.02	mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.89	152	499360	0.02	mg/kg	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	300493	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 100 %			
45) SURR12DCAd4	7.24	102	61922	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 100 %			
60) SURRd8Tolule	9.67	98	1226850	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %			
82) SURR4BrFBenz	13.23	95	474112	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 100 %			
Target Compounds						Qvalue
2) Dichlorodi	1.81	85	167927	0.0097	mg/kg	96
3) Chloromethan	2.06	50	174993	0.0095	mg/kg	99
4) VinylChlorid	2.21	62	171983	0.0097	mg/kg	97
5) Bromomethane	2.68	94	78406	0.0087	mg/kg	91
6) Chloroethane	2.83	64	103614	0.0096	mg/kg	98
7) dichloroflmethane	3.14	67	325199	0.0094	mg/kg	99
8) Trichlorofma	3.22	101	267004	0.0095	mg/kg	96
9) Ethylether	3.66	59	119104	0.0095	mg/kg	98
10) dichlorotfluoroethan	3.68	67	194200	0.0103	mg/kg	98
11) propyleneoxide	3.72	58	152724	0.1043	mg/kg	95
12) Acrolein	3.82	56	114935	0.0480	mg/kg	96
13) 11dichlorthe	3.94	96	145236	0.0095	mg/kg	97
14) Trichlorotfluoroeth	3.97	101	288729	0.0195	mg/kg	99
15) Acetone	4.04	43	307016	0.0860	mg/kg	98
16) Iodomethane	4.12	142	238522	0.0154	mg/kg	99
17) Carbon Dislf	4.20	76	1025617	0.0195	mg/kg	98
18) allylchloride	4.43	41	525843	0.0189	mg/kg	99
19) methylacetate	4.50	74	47279	0.0091	mg/kg	97
20) Methylchlorid	4.60	84	206959	0.0090	mg/kg	99
21) Acrylonitrile	4.93	53	172164	0.0477	mg/kg	96
22) t12dichlorte	4.96	96	170085	0.0095	mg/kg	98
23) tbutylalcohol	4.81	59	763006	0.4558	mg/kg	98
24) MtBE	4.98	73	467004	0.0099	mg/kg	98
25) Hexane	5.33	57	457317	0.0194	mg/kg	95
26) 11dichlorota	5.50	63	300137	0.0090	mg/kg	97
27) Vinylacetate	5.59	43	2209434	0.1060	mg/kg	99
28) chloroprene	5.61	53	487950	0.0200	mg/kg	99
29) Diisopether	5.62	45	504991	0.0097	mg/kg	95
30) ETBE	6.07	59	467543	0.0098	mg/kg	99
31) 22dichloropr	6.23	77	293836	0.0098	mg/kg	96
32) c12dichlorte	6.24	96	191244	0.0096	mg/kg	96
33) 2Butanone	6.26	72	136718	0.0900	mg/kg	96
34) propionitrile	6.34	54	130285	0.0866	mg/kg	93
35) Ethylacetate	6.36	88	20708	0.0476	mg/kg#	77
36) methacrylonitrile	6.52	67	96143	0.0177	mg/kg	98
37) Bromochlorma	6.52	128	76481	0.0099	mg/kg	98
38) Tetrahydofur	6.59	42	325297	0.0925	mg/kg	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\SEP0519\CCV1.D Vial: 3
Acq On : 5 Sep 2019 8:11 Operator: RLD-DGS
Sample : 163979,CCV, Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 08:31:55 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:53:04 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	6.63	83	320729	0.0094 mg/kg	95
40)	111trichlota	6.85	97	289238	0.0100 mg/kg	99
42)	Cyclohexane	6.92	56	265776	0.0098 mg/kg	100
43)	Carbtetraclo	7.06	119	227079	0.0094 mg/kg	99
44)	11dicloprope	7.07	110	78852	0.0096 mg/kg	97
46)	Benzene	7.32	78	712950	0.0094 mg/kg	99
47)	12dichlorota	7.34	62	219370	0.0101 mg/kg	99
48)	TAME	7.47	73	451141	0.0099 mg/kg	99
49)	trichloroete	8.13	95	174215	0.0094 mg/kg	98
50)	methylcyclohexane	8.36	83	311609	0.0097 mg/kg	99
51)	12dicloropra	8.39	63	181594	0.0094 mg/kg	98
52)	23dicl1propene	8.47	75	274878	0.0095 mg/kg	97
53)	Dibromometha	8.55	93	97787	0.0100 mg/kg	97
54)	methylmethacrylate	8.57	69	86713	0.0090 mg/kg	91
55)	14dioxane	8.59	88	68337	0.4493 mg/kg	94
56)	Bromodiclrma	8.74	83	239215	0.0095 mg/kg	97
57)	2Nitropropane	9.02	43	329205	0.0951 mg/kg	96
58)	c13dicloproe	9.33	75	288262	0.0098 mg/kg	99
59)	4Meth2Pentan	9.51	43	1143739	0.0972 mg/kg	98
61)	Toluene	9.76	92	455848	0.0092 mg/kg	100
62)	t13Dicloprop	10.04	75	237665	0.0095 mg/kg	97
63)	ethylmethacrylate	10.17	69	366092	0.0191 mg/kg	99
64)	112Triclotha	10.27	83	121698	0.0096 mg/kg	97
65)	Tetrachlorte	10.48	166	169642	0.0092 mg/kg	96
66)	13Diclorpropa	10.49	76	246489	0.0095 mg/kg	96
68)	2Hexanone	10.61	43	795219	0.0899 mg/kg	100
69)	Clorodibrmta	10.80	129	150949	0.0095 mg/kg	99
70)	12Dibrometha	10.96	107	138287	0.0099 mg/kg	99
71)	Chlorobenzen	11.63	112	433185	0.0089 mg/kg	99
72)	1Clhexane	11.59	91	228268	0.0089 mg/kg	96
73)	1112Tetclota	11.74	131	152878	0.0090 mg/kg	94
74)	Ethylbenzene	11.78	91	796892	0.0092 mg/kg	99
75)	m p-Xylene	11.95	106	589626	0.0182 mg/kg	97
76)	o-Xylene	12.50	106	291561	0.0090 mg/kg	92
77)	Styrene	12.51	104	480175	0.0091 mg/kg	99
78)	Bromoform	12.77	173	101210	0.0093 mg/kg	97
79)	Isopropylben	13.02	105	756978	0.0095 mg/kg	99
81)	cyclohexanone	13.13	55	95309	0.1828 mg/kg	92
83)	Bromobenzene	13.44	156	193607	0.0093 mg/kg	93
84)	1122Tetrclta	13.43	83	194835	0.0099 mg/kg	99
85)	123Triclproa	13.49	75	233289	0.0096 mg/kg	95
86)	14dichloro2butene	13.52	53	39491	0.0089 mg/kg	96
87)	n-Propylbenz	13.60	91	871965	0.0091 mg/kg	99
88)	2chlorotolue	13.72	91	536252	0.0092 mg/kg	98
89)	4chlorotolue	13.88	91	590256	0.0089 mg/kg	100
90)	135Trimebenz	13.86	105	632611	0.0093 mg/kg	99
91)	tbutylbenzen	14.33	119	548849	0.0095 mg/kg	99
92)	124Trimetben	14.40	105	619707	0.0089 mg/kg	98
93)	sbutylbenzen	14.64	105	829991	0.0097 mg/kg	99
94)	13Diclorbenz	14.79	146	312919	0.0084 mg/kg	99
95)	pIsopropylto	14.86	119	629929	0.0091 mg/kg	98
96)	14dichlorobe	14.93	146	317628	0.0086 mg/kg	95
97)	12dichlorobe	15.46	146	318369	0.0090 mg/kg	98
98)	nButylbenzen	15.46	91	584158	0.0087 mg/kg	100
99)	12dibromo3cl	16.58	157	31876	0.0089 mg/kg	100
100)	135Trichlorobenzene	16.88	180	229408	0.0081 mg/kg	98
101)	124Trichlobe	17.71	180	201806	0.0080 mg/kg	94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\SEP0519\CCV1.D Vial: 3
Acq On : 5 Sep 2019 8:11 Operator: RLD-DGS
Sample : 163979,CCV, Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 08:31:55 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:53:04 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) Hexachlorobu	17.93	225	146981	0.0089 mg/kg	96
103) Naphthalene	18.01	128	444317	0.0088 mg/kg	99
104) 123Trichlben	18.32	180	205463	0.0085 mg/kg	99

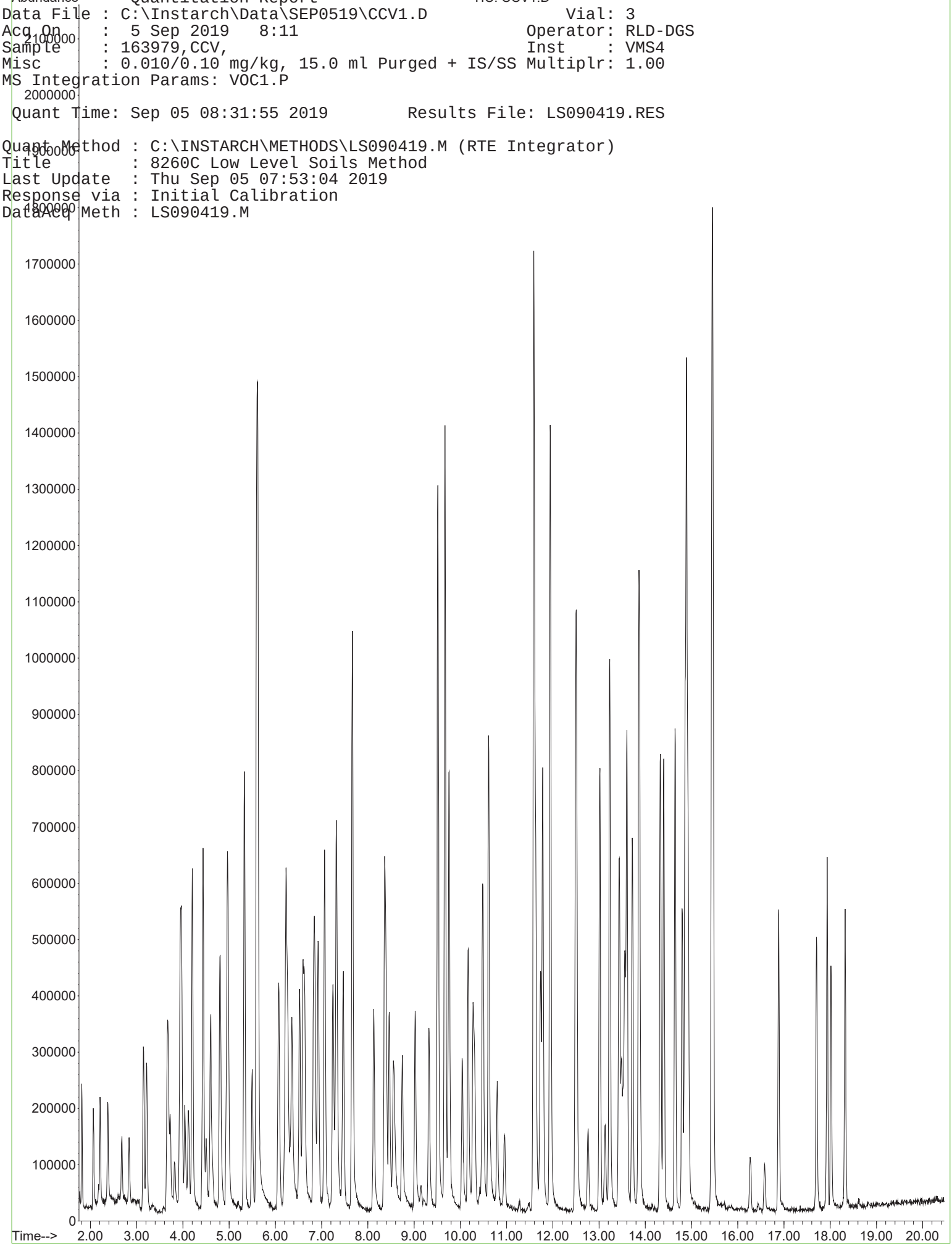
(#) = qualifier out of range (m) = manual integration

Abundance Quantitation Report TIC: CCV1.D

Data File : C:\Instarch\Data\SEP0519\CCV1.D Vial: 3
Acq On : 5 Sep 2019 8:11 Operator: RLD-DGS
Sample : 163979,CCV, Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 08:31:55 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 07:53:04 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M



Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\SEP0519\CCVF1.D Vial: 16
Acq On : 5 Sep 2019 14:29 Operator: RLD-DGS
Sample : 163979,CCVF, Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Sep 05 14:49:53 2019

Quant Method : C:\INSTARCH\METHODS\LS090419.M
Quant Title : 8260C Low Level Soils Method
Response via : Initial Calibration
DataAcq Meth:LS090419.M

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	1.0000	1.0000	0.00	96	0.00
2	T	Dichlorodi	0.2569	0.2946	-14.67	93	0.00
3	PT	Chloromethan	0.3033	0.3025	0.26	100	0.00
4	CT	VinylChlorid	0.2930	0.2954	-0.82	92	0.00
5	T	Bromomethane	0.1485	0.1256	15.42	89	0.00
6	T	Chloroethane	0.1778	0.1741	2.08	89	0.00
7	T	dichloroflmethane	0.5679	0.5774	-1.67	94	0.00
8	T	Trichlorofma	0.4176	0.4568	-9.39	90	0.00
9	T	Ethylether	0.2056	0.2158	-4.96	100	0.00
10	T	dichlorotfluoroethan	0.3088	0.3410	-10.43	94	0.00
11	T	propyleneoxide	0.0241	0.0263	-9.13	104	0.00
12	T	Acrolein	0.0393	0.0391	0.51	95	0.00
13	CT	11dichlorthe	0.2511	0.2648	-5.46	96	0.00
14	T	Trichlorotfluoroeth	0.2111	0.2506	-18.71	94	0.00
15	T	Acetone	0.0587	0.0534	9.03	91	0.00
16	T	Iodomethane	0.2451	0.2371	3.26	95	0.00
17	T	Carbon Dislf	0.8643	0.8801	-1.83	92	0.00
18	T	allylchloride	0.4574	0.4652	-1.71	96	0.00
19	T	methylacetate	0.0805	0.0867	-7.70	111	-0.01
20	T	Methylchlorid	0.4338	0.3770	13.09	103	0.00
21	T	Acrylonitrile	0.0593	0.0596	-0.51	101	0.00
22	T	t12dichlorte	0.2938	0.3031	-3.17	95	0.00
23	T	tbutylalcohol	0.0275	0.0269	2.18	95	0.00
24	T	MtBE	0.7728	0.8478	-9.70	105	0.00
25	T	Hexane	0.3475	0.3659	-5.29	88	0.00
26	PT	11dichlorota	0.5480	0.5469	0.20	98	0.00
27	T	Vinylacetate	0.3427	0.3905	-13.95	101	0.00
28	T	chloroprene	0.4018	0.4287	-6.69	95	0.00
29	T	Diisopether	0.8573	0.9207	-7.40	102	0.00
30	T	ETBE	0.7840	0.8557	-9.15	103	0.00
31	T	22dichloropr	0.4954	0.4774	3.63	95	0.00
32	T	c12dichlorte	0.3260	0.3441	-5.55	103	0.00
33	T	2Butanone	0.0250	0.0249	0.40	99	0.00
34	T	propionitrile	0.0218	0.0237	-8.72	95	0.00
35	T	Ethylacetate	0.0063	0.0075#	-19.05	104	0.01
36	T	methacrylonitrile	0.0815	0.0867	-6.38	100	0.00
37	T	Bromochlorma	0.1267	0.1389	-9.63	105	0.00
38	T	Tetrahydofur	0.0578	0.0597	-3.29	100	0.00
39	CT	Chloroform	0.5625	0.5713	-1.56	97	0.00
40	T	111trichlota	0.4760	0.5003	-5.11	95	0.00
41	S	SURRDibrflma	0.2491	0.2583	-3.69	99	0.00
42	T	Cyclohexane	0.3931	0.4608	-17.22	95	0.00
43	T	Carbtetraclo	0.3667	0.3871	-5.56	92	0.00
44	T	11dicloprope	0.1351	0.1303	3.55	87	0.00
45	S	SURR12DCAd4	0.0511	0.0519	-1.57	100	0.00
46	T	Benzene	1.2521	1.2734	-1.70	97	0.00
47	T	12dichlorota	0.3566	0.3884	-8.92	104	0.00
48	T	TAME	0.7527	0.8471	-12.54	108	0.00

49	T	trichloroete	0.3056	0.3102	-1.51	96	0.00
50	T	methylcyclohexane	0.4595	0.5333	-16.06	93	0.00
51	CT	12dicloropra	0.3183	0.3308	-3.93	101	0.00
52	T	23dicl1propene	0.4741	0.4881	-2.95	97	0.00
53	T	Dibromometha	0.1614	0.1676	-3.84	99	0.00
54	T	methylmethacrylate	0.1482	0.1607	-8.43	107	0.00
55	T	14dioxane	0.0025	0.0023#	8.00	91	0.00
56	T	Bromodiclrma	0.4135	0.4348	-5.15	101	0.00
57	T	2Nitropropane	0.0569	0.0552	2.99	99	0.00
58	T	c13dicloproe	0.4852	0.5049	-4.06	100	0.00
59	T	4Meth2Pentan	0.1936	0.2091	-8.01	102	0.00
60	S	SURRd8Tolule	1.0195	1.0266	-0.70	96	0.00
61	CT	Toluene	0.8173	0.8049	1.52	96	0.00
62	T	t13Dicloprop	0.4116	0.4274	-3.84	103	0.00
63	T	ethylmethacrylate	0.3145	0.3305	-5.09	99	0.00
64	T	112Triclotha	0.2090	0.2160	-3.35	98	0.00
65	T	Tetrachlorte	0.3039	0.2971	2.24	89	0.00
66	T	13Diclorpropa	0.4279	0.4463	-4.30	102	0.00
67	I	d5-CHLOROBENZENE**ISTD**	1.0000	1.0000	0.00	101	0.00
68	T	2Hexanone	0.1680	0.1734	-3.21	97	0.00
69	T	Clorodibrmta	0.3342	0.3417	-2.24	101	0.00
70	T	12Dibrometha	0.2949	0.3076	-4.31	101	0.00
71	PT	Chlorobenzen	1.0298	0.9750	5.32	97	0.00
72	T	1Clhexane	0.4988	0.4846	2.85	88	0.00
73	T	1112Tetclota	0.3593	0.3387	5.73	95	0.00
74	CT	Ethylbenzene	1.8234	1.7916	1.74	97	0.00
75	T	m p-Xylene	0.6826	0.6672	2.26	99	0.00
76	T	o-Xylene	0.6847	0.6791	0.82	98	0.00
77	T	Styrene	1.1128	1.1035	0.84	99	0.00
78	PT	Bromoform	0.2283	0.2243	1.75	108	0.00
79	T	Isopropylben	1.6763	1.6801	-0.23	95	0.00
80	I	d4-1,4-DICHLOROBENZENE**IS	1.0000	1.0000	0.00	99	0.00
81	T	cyclohexanone	0.0209	0.0204	2.39	92	0.00
82	S	SURR4BrFBenz	0.9495	0.9691	-2.06	102	0.00
83	T	Bromobenzene	0.8323	0.8369	-0.55	103	0.00
84	PT	1122Tetrclta	0.7895	0.8128	-2.95	97	0.00
85	T	123Triclproa	0.9734	0.8448	13.21	99	0.00
86	T	14dichloro2butene	0.1769	0.1662	6.05	104	0.00
87	T	n-Propylbenz	3.8587	3.8046	1.40	94	0.00
88	T	2chlorotolue	2.3397	2.3273	0.53	100	0.00
89	T	4chlorotolue	2.6592	2.6937	-1.30	99	0.00
90	T	135Trimebenz	2.7235	2.7363	-0.47	98	0.00
91	T	tbutylbenzen	2.3214	2.3630	-1.79	95	0.00
92	T	124Trimetben	2.7905	2.7111	2.85	96	0.00
93	T	sbutylbenzen	3.4141	3.4985	-2.47	95	0.00
94	T	13Diclorbenz	1.4901	1.3863	6.97	94	0.00
95	T	pIsopropylto	2.7719	2.7456	0.95	92	0.00
96	T	14dichlorobe	1.4750	1.3819	6.31	95	0.00
97	T	12dichlorobe	1.4126	1.3752	2.65	99	0.00
98	T	nButylbenzen	2.6879	2.5523	5.04	89	0.00
99	T	12dibromo3cl	0.1438	0.1424	0.97	104	0.00
100	T	135Trichlorobenzene	1.1397	1.0393	8.81	90	0.00
101	T	124Trichlobe	1.0105	0.8867	12.25	88	0.00
102	T	Hexachlorobu	0.6585	0.6523	0.94	96	0.00
103	T	Naphthalene	2.0245	1.9150	5.41	97	0.00
104	T	123Trichlben	0.9685	0.8938	7.71	93	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

LS090419.M Mon Sep 09 11:46:49 2019

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\SEP0519\CCVF1.D Vial: 16
Acq On : 5 Sep 2019 14:29 Operator: RLD-DGS
Sample : 163979,CCVF, Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Sep 05 14:49:53 2019

Quant Method : C:\INSTARCH\METHODS\LS090419.M
Quant Title : 8260C Low Level Soils Method
Response via : Initial Calibration
DataAcq Meth:LS090419.M

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	0.0200	0.0200	0.00	96	0.00
2	T	Dichlorodi	0.0100	0.0103	-3.00	93	0.00
3	PT	Chloromethan	0.0100	0.0100	0.00	100	0.00
4	CT	VinylChlorid	0.0100	0.0101	-1.00	92	0.00
5	T	Bromomethane	0.0100	0.0085	15.00	89	0.00
6	T	Chloroethane	0.0100	0.0098	2.00	89	0.00
7	T	dichloroflmethane	0.0100	0.0102	-2.00	94	0.00
8	T	Trichlorofma	0.0100	0.0098	2.00	90	0.00
9	T	Ethylether	0.0100	0.0105	-5.00	100	0.00
10	T	dichlorotfluoroethan	0.0100	0.0110	-10.00	94	0.00
11	T	propyleneoxide	0.1000	0.1092	-9.20	104	0.00
12	T	Acrolein	0.0500	0.0497	0.60	95	0.00
13	CT	11dichlorthe	0.0100	0.0105	-5.00	96	0.00
14	T	Trichlorotfluoroeth	0.0200	0.0205	-2.50	94	0.00
15	T	Acetone	0.1000	0.0909	9.10	91	0.00
16	T	Iodomethane	0.0200	0.0181	9.50	95	0.00
17	T	Carbon Dislf	0.0200	0.0204	-2.00	92	0.00
18	T	allylchloride	0.0200	0.0203	-1.50	96	0.00
19	T	methylacetate	0.0100	0.0100	0.00	111	-0.01
20	T	Methylchlorid	0.0100	0.0102	-2.00	103	0.00
21	T	Acrylonitrile	0.0500	0.0502	-0.40	101	0.00
22	T	t12dichlorte	0.0100	0.0103	-3.00	95	0.00
23	T	tbutylalcohol	0.5000	0.4884	2.32	95	0.00
24	T	MtBE	0.0100	0.0110	-10.00	105	0.00
25	T	Hexane	0.0200	0.0189	5.50	88	0.00
26	PT	11dichlorota	0.0100	0.0100	0.00	98	0.00
27	T	Vinylacetate	0.1000	0.1139	-13.90	101	0.00
28	T	chloroprene	0.0200	0.0213	-6.50	95	0.00
29	T	Diisopether	0.0100	0.0107	-7.00	102	0.00
30	T	ETBE	0.0100	0.0109	-9.00	103	0.00
31	T	22dichloropr	0.0100	0.0096	4.00	95	0.00
32	T	c12dichlorte	0.0100	0.0106	-6.00	103	0.00
33	T	2Butanone	0.1000	0.0997	0.30	99	0.00
34	T	propionitrile	0.1000	0.0949	5.10	95	0.00
35	T	Ethylacetate	0.0500	0.0516	-3.20	104	0.01
36	T	methacrylonitrile	0.0200	0.0193	3.50	100	0.00
37	T	Bromochlorma	0.0100	0.0110	-10.00	105	0.00
38	T	Tetrahydofur	0.1000	0.1032	-3.20	100	0.00
39	CT	Chloroform	0.0100	0.0102	-2.00	97	0.00
40	T	111trichlota	0.0100	0.0105	-5.00	95	0.00
41	S	SURRDibrflma	0.0200	0.0207	-3.50	99	0.00
42	T	Cyclohexane	0.0100	0.0102	-2.00	95	0.00
43	T	Carbtetraclo	0.0100	0.0098	2.00	92	0.00
44	T	11dicloprope	0.0100	0.0096	4.00	87	0.00
45	S	SURR12DCAd4	0.0200	0.0203	-1.50	100	0.00
46	T	Benzene	0.0100	0.0102	-2.00	97	0.00
47	T	12dichlorota	0.0100	0.0109	-9.00	104	0.00
48	T	TAME	0.0100	0.0113	-13.00	108	0.00

49	T	trichloroete	0.0100	0.0101	-1.00	96	0.00
50	T	methylcyclohexane	0.0100	0.0100	0.00	93	0.00
51	CT	12dicloropra	0.0100	0.0104	-4.00	101	0.00
52	T	23dicl1propene	0.0100	0.0103	-3.00	97	0.00
53	T	Dibromometha	0.0100	0.0104	-4.00	99	0.00
54	T	methylmethacrylate	0.0100	0.0100	0.00	107	0.00
55	T	14dioxane	0.5000	0.4557	8.86	91	0.00
56	T	Bromodiclrma	0.0100	0.0105	-5.00	101	0.00
57	T	2Nitropropane	0.1000	0.0970	3.00	99	0.00
58	T	c13dicloproe	0.0100	0.0104	-4.00	100	0.00
59	T	4Meth2Pentan	0.1000	0.1080	-8.00	102	0.00
60	S	SURRd8Tolule	0.0200	0.0201	-0.50	96	0.00
61	CT	Toluene	0.0100	0.0098	2.00	96	0.00
62	T	t13Dicloprop	0.0100	0.0104	-4.00	103	0.00
63	T	ethylmethacrylate	0.0200	0.0210	-5.00	99	0.00
64	T	112Triclotha	0.0100	0.0103	-3.00	98	0.00
65	T	Tetrachlorte	0.0100	0.0098	2.00	89	0.00
66	T	13Diclorpropa	0.0100	0.0104	-4.00	102	0.00
67	I	d5-CHLOROBENZENE**ISTD**	0.0200	0.0200	0.00	101	0.00
68	T	2Hexanone	0.1000	0.0927	7.30	97	0.00
69	T	Clorodibrmta	0.0100	0.0102	-2.00	101	0.00
70	T	12Dibrometha	0.0100	0.0104	-4.00	101	0.00
71	PT	Chlorobenzen	0.0100	0.0095	5.00	97	0.00
72	T	1Clhexane	0.0100	0.0089	11.00	88	0.00
73	T	1112Tetclota	0.0100	0.0094	6.00	95	0.00
74	CT	Ethylbenzene	0.0100	0.0098	2.00	97	0.00
75	T	m p-Xylene	0.0200	0.0195	2.50	99	0.00
76	T	o-Xylene	0.0100	0.0099	1.00	98	0.00
77	T	Styrene	0.0100	0.0099	1.00	99	0.00
78	PT	Bromoform	0.0100	0.0098	2.00	108	0.00
79	T	Isopropylben	0.0100	0.0100	0.00	95	0.00
80	I	d4-1,4-DICHLOROBENZENE**IS	0.0200	0.0200	0.00	99	0.00
81	T	cyclohexanone	0.2000	0.1952	2.40	92	0.00
82	S	SURR4BrFBenz	0.0200	0.0204	-2.00	102	0.00
83	T	Bromobenzene	0.0100	0.0101	-1.00	103	0.00
84	PT	1122Tetrclta	0.0100	0.0103	-3.00	97	0.00
85	T	123Triclproa	0.0100	0.0087	13.00	99	0.00
86	T	14dichloro2butene	0.0100	0.0094	6.00	104	0.00
87	T	n-Propylbenz	0.0100	0.0099	1.00	94	0.00
88	T	2chlorotolue	0.0100	0.0099	1.00	100	0.00
89	T	4chlorotolue	0.0100	0.0101	-1.00	99	0.00
90	T	135Trimebenz	0.0100	0.0100	0.00	98	0.00
91	T	tbutylbenzen	0.0100	0.0102	-2.00	95	0.00
92	T	124Trimetben	0.0100	0.0097	3.00	96	0.00
93	T	sbutylbenzen	0.0100	0.0102	-2.00	95	0.00
94	T	13Diclorbenz	0.0100	0.0093	7.00	94	0.00
95	T	pIsopropylto	0.0100	0.0099	1.00	92	0.00
96	T	14dichlorobe	0.0100	0.0094	6.00	95	0.00
97	T	12dichlorobe	0.0100	0.0097	3.00	99	0.00
98	T	nButylbenzen	0.0100	0.0095	5.00	89	0.00
99	T	12dibromo3cl	0.0100	0.0099	1.00	104	0.00
100	T	135Trichlorobenzene	0.0100	0.0091	9.00	90	0.00
101	T	124Trichlobe	0.0100	0.0088	12.00	88	0.00
102	T	Hexachlorobu	0.0100	0.0099	1.00	96	0.00
103	T	Naphthalene	0.0100	0.0095	5.00	97	0.00
104	T	123Trichlben	0.0100	0.0092	8.00	93	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

LS090419.M Mon Sep 09 11:47:38 2019

Quantitation Report

Data File : C:\Instarch\Data\SEP0519\CCVF1.D Vial: 16
Acq On : 5 Sep 2019 14:29 Operator: RLD-DGS
Sample : 163979,CCVF, Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 14:49:53 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1064274	0.02	mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	851641	0.02	mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.89	152	442701	0.02	mg/kg	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	274907	0.021	mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 105 %			
45) SURR12DCAd4	7.25	102	55254	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 100 %			
60) SURRd8Tolule	9.67	98	1092592	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %			
82) SURR4BrFBenz	13.23	95	429019	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 100 %			
Target Compounds						Qvalue
2) Dichlorodi	1.82	85	156762	0.0103	mg/kg	98
3) Chloromethan	2.06	50	160976	0.0100	mg/kg	98
4) VinylChlorid	2.21	62	157213	0.0101	mg/kg	98
5) Bromomethane	2.68	94	66814	0.0085	mg/kg	98
6) Chloroethane	2.83	64	92632	0.0098	mg/kg	95
7) dichloroflmethane	3.15	67	307249	0.0102	mg/kg	99
8) Trichlorofma	3.21	101	243083	0.0098	mg/kg	96
9) Ethylether	3.66	59	114847	0.0105	mg/kg	97
10) dichlorotfluoroethan	3.69	67	181482	0.0110	mg/kg	98
11) propyleneoxide	3.73	58	139790	0.1092	mg/kg	90
12) Acrolein	3.83	56	103991	0.0497	mg/kg	98
13) 11dichlorthe	3.94	96	140885	0.0105	mg/kg	94
14) Trichlorotfluoroeth	3.97	101	266656	0.0205	mg/kg	98
15) Acetone	4.05	43	284049	0.0909	mg/kg	96
16) Iodomethane	4.12	142	252321	0.0181	mg/kg	99
17) Carbon Dislf	4.20	76	936665	0.0204	mg/kg	97
18) allylchloride	4.43	41	495093	0.0203	mg/kg	99
19) methylacetate	4.50	74	46129	0.0100	mg/kg	99
20) Methylchlorid	4.60	84	200599	0.0102	mg/kg	98
21) Acrylonitrile	4.94	53	158502	0.0502	mg/kg	97
22) t12dichlorte	4.96	96	161315	0.0103	mg/kg	97
23) tbutylalcohol	4.81	59	715420	0.4884	mg/kg	99
24) MtBE	4.98	73	451166	0.0110	mg/kg	96
25) Hexane	5.33	57	389458	0.0189	mg/kg	96
26) 11dichlorota	5.50	63	291027	0.0100	mg/kg	99
27) Vinylacetate	5.60	43	2078140	0.1139	mg/kg	99
28) chloroprene	5.62	53	456270	0.0213	mg/kg	96
29) Diisopether	5.62	45	489921	0.0107	mg/kg	100
30) ETBE	6.07	59	455353	0.0109	mg/kg	98
31) 22dichloropr	6.22	77	254016	0.0096	mg/kg	99
32) c12dichlorte	6.24	96	183100	0.0106	mg/kg	94
33) 2Butanone	6.27	72	132575	0.0997	mg/kg	96
34) propionitrile	6.33	54	126253	0.0949	mg/kg	94
35) Ethylacetate	6.36	88	19863	0.0516	mg/kg#	87
36) methacrylonitrile	6.53	67	92264	0.0193	mg/kg	99
37) Bromochlorma	6.53	128	73935	0.0110	mg/kg	98
38) Tetrahydofur	6.59	42	317770	0.1032	mg/kg	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\SEP0519\CCVF1.D Vial: 16
Acq On : 5 Sep 2019 14:29 Operator: RLD-DGS
Sample : 163979,CCVF, Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 14:49:53 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	6.63	83	304008	0.0102 mg/kg	94
40) 111trichlota	6.85	97	266226	0.0105 mg/kg	99
42) Cyclohexane	6.92	56	245193	0.0102 mg/kg	98
43) Carbtetraclo	7.07	119	206015	0.0098 mg/kg	99
44) 11dicloprope	7.06	110	69336	0.0096 mg/kg	92
46) Benzene	7.32	78	677602	0.0102 mg/kg	98
47) 12dichlorota	7.34	62	206705	0.0109 mg/kg	99
48) TAME	7.47	73	450757	0.0113 mg/kg	99
49) trichloroete	8.13	95	165062	0.0101 mg/kg	97
50) methylcyclohexane	8.36	83	283790	0.0100 mg/kg	98
51) 12dicloropra	8.40	63	176049	0.0104 mg/kg	97
52) 23dicl1propene	8.46	75	259747	0.0103 mg/kg	97
53) Dibromometha	8.55	93	89184	0.0104 mg/kg	95
54) methylmethacrylate	8.57	69	85491	0.0100 mg/kg	99
55) 14dioxane	8.58	88	60644	0.4557 mg/kg	90
56) Bromodiclrma	8.74	83	231393	0.0105 mg/kg	100
57) 2Nitropropane	9.03	43	293808	0.0970 mg/kg	96
58) c13dicloproe	9.33	75	268676	0.0104 mg/kg	99
59) 4Meth2Pentan	9.51	43	1112898	0.1080 mg/kg	97
61) Toluene	9.76	92	428338	0.0098 mg/kg	100
62) t13Dicloprop	10.04	75	227427	0.0104 mg/kg	99
63) ethylmethacrylate	10.17	69	351742	0.0210 mg/kg	99
64) 112Triclotha	10.28	83	114957	0.0103 mg/kg	95
65) Tetrachlorte	10.48	166	158086	0.0098 mg/kg	97
66) 13Diclorpropa	10.49	76	237475	0.0104 mg/kg	96
68) 2Hexanone	10.61	43	738181	0.0927 mg/kg	99
69) Clorodibrmta	10.80	129	145497	0.0102 mg/kg	97
70) 12Dibrometha	10.96	107	131003	0.0104 mg/kg	99
71) Chlorobenzen	11.63	112	415184	0.0095 mg/kg	99
72) 1Clhexane	11.59	91	206349	0.0089 mg/kg	97
73) 1112Tetclota	11.73	131	144245	0.0094 mg/kg	96
74) Ethylbenzene	11.78	91	762912	0.0098 mg/kg	99
75) m p-Xylene	11.94	106	568243	0.0195 mg/kg	96
76) o-Xylene	12.50	106	289157	0.0099 mg/kg	99
77) Styrene	12.52	104	469877	0.0099 mg/kg	100
78) Bromoform	12.76	173	95492	0.0098 mg/kg	97
79) Isopropylben	13.02	105	715428	0.0100 mg/kg	99
81) cyclohexanone	13.13	55	90270	0.1952 mg/kg	96
83) Bromobenzene	13.44	156	185256	0.0101 mg/kg	95
84) 1122Tetrclta	13.43	83	179921	0.0103 mg/kg	96
85) 123Triclproa	13.49	75	186998	0.0087 mg/kg	98
86) 14dichloro2butene	13.52	53	36795	0.0094 mg/kg	97
87) n-Propylbenz	13.60	91	842153	0.0099 mg/kg	99
88) 2chlorotolue	13.72	91	515156	0.0099 mg/kg	100
89) 4chlorotolue	13.88	91	596259	0.0101 mg/kg	98
90) 135Trimebenz	13.86	105	605686	0.0100 mg/kg	96
91) tbutylbenzen	14.33	119	523045	0.0102 mg/kg	99
92) 124Trimetben	14.40	105	600113	0.0097 mg/kg	99
93) sbutylbenzen	14.65	105	774388	0.0102 mg/kg	100
94) 13Diclorbenz	14.80	146	306864	0.0093 mg/kg	97
95) pIsopropylto	14.86	119	607739	0.0099 mg/kg	100
96) 14dichlorobe	14.93	146	305890	0.0094 mg/kg	96
97) 12dichlorobe	15.47	146	304412	0.0097 mg/kg	97
98) nButylbenzen	15.46	91	564954	0.0095 mg/kg	97
99) 12dibromo3cl	16.58	157	31519	0.0099 mg/kg	92
100) 135Trichlorobenzene	16.88	180	230046	0.0091 mg/kg	99
101) 124Trichlobe	17.70	180	196275	0.0088 mg/kg	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\SEP0519\CCVF1.D Vial: 16
Acq On : 5 Sep 2019 14:29 Operator: RLD-DGS
Sample : 163979,CCVF, Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 14:49:53 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) Hexachlorobu	17.94	225	144379	0.0099	mg/kg	95
103) Naphthalene	18.02	128	423891	0.0095	mg/kg	99
104) 123Trichlben	18.32	180	197851	0.0092	mg/kg	99

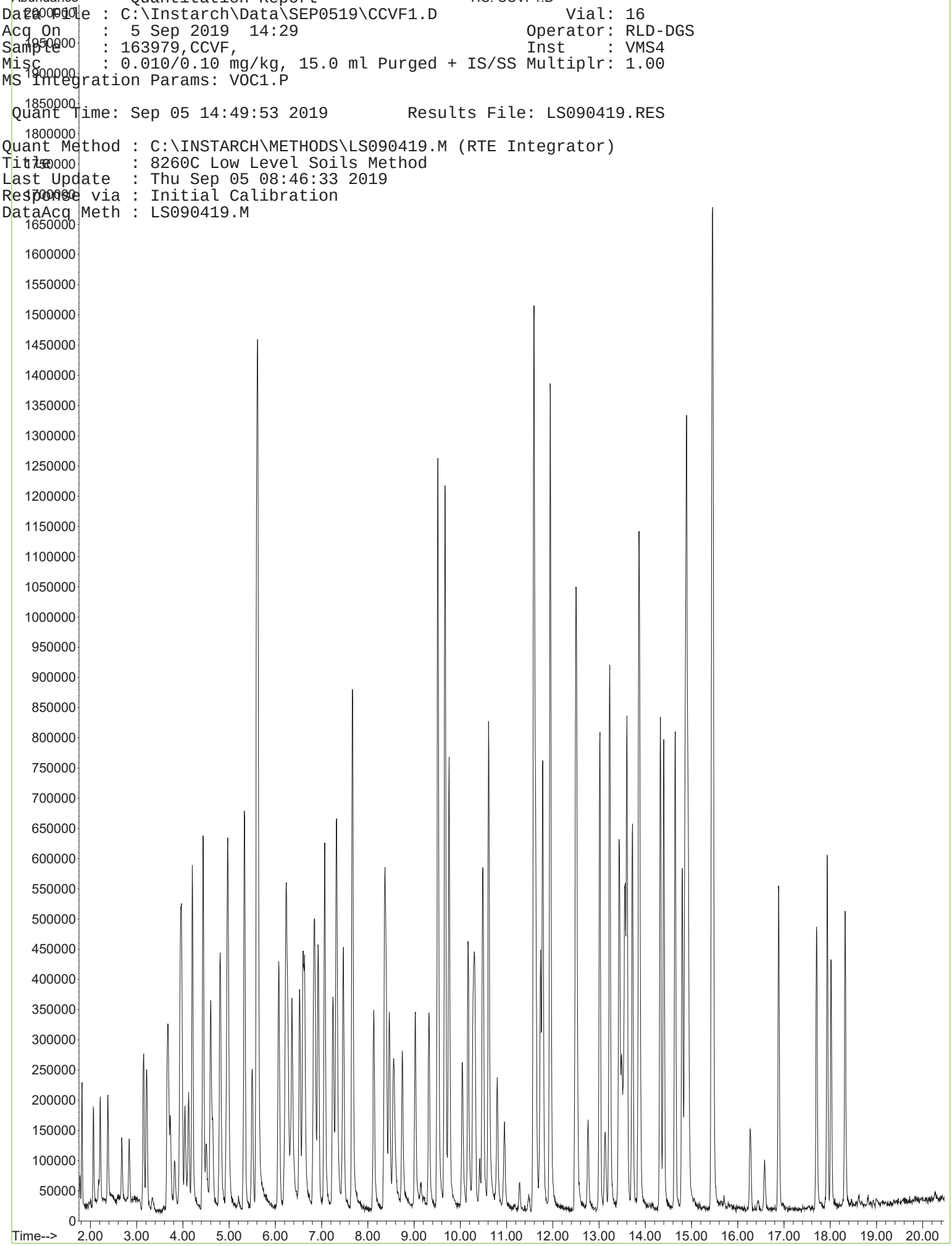
(#) = qualifier out of range (m) = manual integration

Quantitation Report (TIC: CCVF1.D)

Data File : C:\Instarch\Data\SEP0519\CCVF1.D Vial: 16
Acq On : 5 Sep 2019 14:29 Operator: RLD-DGS
Sample : 163979,CCVF, Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 14:49:53 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M



BFB

Data File : C:\Instarch\Data\SEP0519\BFB2.D Vial: 17
Acq On : 5 Sep 2019 14:52 Operator: RLD-DGS
Sample : 163979,BFB, Inst : VMS4
Misc : 50 ng Injection Multiplr: 1.00
Integration File: VOC1.P

Method : C:\INSTARCH\METHODS\LS090419.M
Title : 8260C Low Level Soils Method

Spectrum Information: Average of 4.617 to 4.633 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.3	18288	PASS
75	95	30	60	50.4	50360	PASS
95	95	100	100	100.0	100000	PASS
96	95	5	9	5.3	5265	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	79.6	79573	PASS
175	174	5	9	8.7	6914	PASS
176	174	95	101	99.6	79220	PASS
177	176	5	9	5.2	4125	PASS

LS090419.M Mon Sep 09 11:35:10 2019

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\SEP0519\CCV2.D Vial: 18
Acq On : 5 Sep 2019 15:05 Operator: RLD-DGS
Sample : 163979,CCV, Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Sep 05 15:26:09 2019

Quant Method : C:\INSTARCH\METHODS\LS090419.M
Quant Title : 8260C Low Level Soils Method
Response via : Initial Calibration
DataAcq Meth:LS090419.M

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	1.0000	1.0000	0.00	100	0.00
2	T	Dichlorodi	0.2569	0.2729	-6.23	90	0.00
3	PT	Chloromethan	0.3033	0.2745	9.50	94	0.00
4	CT	VinylChlorid	0.2930	0.2791	4.74	91	0.00
5	T	Bromomethane	0.1485	0.1198	19.33	88	0.00
6	T	Chloroethane	0.1778	0.1612	9.34	86	0.00
7	T	dichloroflmethane	0.5679	0.5472	3.65	93	0.00
8	T	Trichlorofma	0.4176	0.4351	-4.19	90	0.00
9	T	Ethylether	0.2056	0.2031	1.22	98	0.00
10	T	dichlorotfluoroethan	0.3088	0.2981	3.47	86	0.00
11	T	propyleneoxide	0.0241	0.0242	-0.41	100	0.00
12	T	Acrolein	0.0393	0.0371	5.60	94	0.00
13	CT	11dichlorthe	0.2511	0.2463	1.91	93	0.00
14	T	Trichlorotfluoroeth	0.2111	0.2309	-9.38	90	0.00
15	T	Acetone	0.0587	0.0547	6.81	98	0.00
16	T	Iodomethane	0.2451	0.2172	11.38	91	0.00
17	T	Carbon Dislf	0.8643	0.8257	4.47	90	0.00
18	T	allylchloride	0.4574	0.4348	4.94	94	0.00
19	T	methylacetate	0.0805	0.0711	11.68	95	0.00
20	T	Methylchlorid	0.4338	0.3641	16.07	103	0.00
21	T	Acrylonitrile	0.0593	0.0547	7.76	97	0.00
22	T	t12dichlorte	0.2938	0.2813	4.25	92	0.00
23	T	tbutylalcohol	0.0275	0.0254	7.64	94	0.00
24	T	MtBE	0.7728	0.7549	2.32	98	0.00
25	T	Hexane	0.3475	0.3498	-0.66	88	0.00
26	PT	11dichlorota	0.5480	0.5032	8.18	94	0.00
27	T	Vinylacetate	0.3427	0.3615	-5.49	98	0.00
28	T	chloroprene	0.4018	0.4035	-0.42	93	0.00
29	T	Diisopether	0.8573	0.8468	1.22	98	0.00
30	T	ETBE	0.7840	0.7783	0.73	98	0.00
31	T	22dichloropr	0.4954	0.4649	6.16	96	0.00
32	T	c12dichlorte	0.3260	0.3054	6.32	95	0.00
33	T	2Butanone	0.0250	0.0246	1.60	102	0.00
34	T	propionitrile	0.0218	0.0224	-2.75	94	0.00
35	T	Ethylacetate	0.0063	0.0072#	-14.29	105	0.02
36	T	methacrylonitrile	0.0815	0.0839	-2.94	101	0.00
37	T	Bromochlorma	0.1267	0.1181	6.79	93	0.00
38	T	Tetrahydofur	0.0578	0.0564	2.42	98	0.00
39	CT	Chloroform	0.5625	0.5366	4.60	95	0.00
40	T	111trichlota	0.4760	0.4725	0.74	93	0.00
41	S	SURRDibrflma	0.2491	0.2494	-0.12	100	0.00
42	T	Cyclohexane	0.3931	0.4306	-9.54	93	0.00
43	T	Carbtetraclo	0.3667	0.3657	0.27	90	0.00
44	T	11dicloprope	0.1351	0.1297	4.00	91	0.00
45	S	SURR12DCAd4	0.0511	0.0523	-2.35	105	0.00
46	T	Benzene	1.2521	1.1913	4.86	94	0.00
47	T	12dichlorota	0.3566	0.3681	-3.22	103	0.00
48	T	TAME	0.7527	0.7484	0.57	99	0.00

49	T	trichloroete	0.3056	0.2918	4.52	94	0.00
50	T	methylcyclohexane	0.4595	0.5109	-11.19	93	0.00
51	CT	12dicloropra	0.3183	0.2966	6.82	94	0.00
52	T	23dicl1propene	0.4741	0.4546	4.11	94	0.00
53	T	Dibromometha	0.1614	0.1606	0.50	99	0.00
54	T	methylmethacrylate	0.1482	0.1561	-5.33	108	0.00
55	T	14dioxane	0.0025	0.0023#	8.00	96	0.00
56	T	Bromodiclrma	0.4135	0.3912	5.39	95	0.00
57	T	2Nitropropane	0.0569	0.0519	8.79	97	0.00
58	T	c13dicloproe	0.4852	0.4671	3.73	96	0.00
59	T	4Meth2Pentan	0.1936	0.1948	-0.62	99	0.00
60	S	SURRd8Tolule	1.0195	1.0203	-0.08	100	0.00
61	CT	Toluene	0.8173	0.7618	6.79	95	0.00
62	T	t13Dicloprop	0.4116	0.3913	4.93	99	0.00
63	T	ethylmethacrylate	0.3145	0.3141	0.13	98	0.00
64	T	112Triclotha	0.2090	0.2089	0.05	99	0.00
65	T	Tetrachlorte	0.3039	0.2904	4.44	91	0.00
66	T	13Diclorpropa	0.4279	0.4186	2.17	100	0.00
67	I	d5-CHLOROBENZENE**ISTD**	1.0000	1.0000	0.00	101	0.00
68	T	2Hexanone	0.1680	0.1756	-4.52	99	0.00
69	T	Clorodibrmta	0.3342	0.3256	2.57	96	0.00
70	T	12Dibrometha	0.2949	0.2842	3.63	93	0.00
71	PT	Chlorobenzen	1.0298	0.9451	8.22	94	0.00
72	T	1Clhexane	0.4988	0.4790	3.97	87	0.00
73	T	1112Tetclota	0.3593	0.3330	7.32	93	0.00
74	CT	Ethylbenzene	1.8234	1.7281	5.23	93	0.00
75	T	m p-Xylene	0.6826	0.6311	7.54	93	0.00
76	T	o-Xylene	0.6847	0.6380	6.82	92	0.00
77	T	Styrene	1.1128	1.0575	4.97	95	0.00
78	PT	Bromoform	0.2283	0.2142	6.18	104	0.00
79	T	Isopropylben	1.6763	1.6661	0.61	94	0.00
80	I	d4-1,4-DICHLOROBENZENE**IS	1.0000	1.0000	0.00	103	0.00
81	T	cyclohexanone	0.0209	0.0201	3.83	94	0.00
82	S	SURR4BrFBenz	0.9495	0.9434	0.64	103	0.00
83	T	Bromobenzene	0.8323	0.7897	5.12	101	0.00
84	PT	1122Tetrclta	0.7895	0.7624	3.43	94	0.00
85	T	123Triclproa	0.9734	0.9757	-0.24	119	0.00
86	T	14dichloro2butene	0.1769	0.1875	-5.99	122	0.00
87	T	n-Propylbenz	3.8587	3.6850	4.50	94	0.00
88	T	2chlorotolue	2.3397	2.2183	5.19	99	0.00
89	T	4chlorotolue	2.6592	2.4980	6.06	95	0.00
90	T	135Trimebenz	2.7235	2.6077	4.25	98	0.00
91	T	tbutylbenzen	2.3214	2.1602	6.94	90	0.00
92	T	124Trimetben	2.7905	2.6003	6.82	95	0.00
93	T	sbutylbenzen	3.4141	3.4254	-0.33	97	0.00
94	T	13Diclorbenz	1.4901	1.3352	10.40	94	0.00
95	T	pIsopropylto	2.7719	2.6755	3.48	93	0.00
96	T	14dichlorobe	1.4750	1.3419	9.02	96	0.00
97	T	12dichlorobe	1.4126	1.3116	7.15	98	0.00
98	T	nButylbenzen	2.6879	2.5916	3.58	94	0.00
99	T	12dibromo3cl	0.1438	0.1356	5.70	103	0.00
100	T	135Trichlorobenzene	1.1397	1.0617	6.84	96	0.00
101	T	124Trichlobe	1.0105	0.9526	5.73	98	0.00
102	T	Hexachlorobu	0.6585	0.6230	5.39	96	0.00
103	T	Naphthalene	2.0245	1.9431	4.02	103	0.00
104	T	123Trichlben	0.9685	0.8955	7.54	96	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

LS090419.M Mon Sep 09 11:42:29 2019

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\SEP0519\CCV2.D Vial: 18
Acq On : 5 Sep 2019 15:05 Operator: RLD-DGS
Sample : 163979,CCV, Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Sep 05 15:26:09 2019

Quant Method : C:\INSTARCH\METHODS\LS090419.M
Quant Title : 8260C Low Level Soils Method
Response via : Initial Calibration
DataAcq Meth:LS090419.M

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	0.0200	0.0200	0.00	100	0.00
2	T	Dichlorodi	0.0100	0.0096	4.00	90	0.00
3	PT	Chloromethan	0.0100	0.0090	10.00	94	0.00
4	CT	VinylChlorid	0.0100	0.0095	5.00	91	0.00
5	T	Bromomethane	0.0100	0.0081	19.00	88	0.00
6	T	Chloroethane	0.0100	0.0091	9.00	86	0.00
7	T	dichloroflmethane	0.0100	0.0096	4.00	93	0.00
8	T	Trichlorofma	0.0100	0.0094	6.00	90	0.00
9	T	Ethylether	0.0100	0.0099	1.00	98	0.00
10	T	dichlorotfluoroethan	0.0100	0.0097	3.00	86	0.00
11	T	propyleneoxide	0.1000	0.1005	-0.50	100	0.00
12	T	Acrolein	0.0500	0.0472	5.60	94	0.00
13	CT	11dichlorthe	0.0100	0.0098	2.00	93	0.00
14	T	Trichlorotfluoroeth	0.0200	0.0191	4.50	90	0.00
15	T	Acetone	0.1000	0.0931	6.90	98	0.00
16	T	Iodomethane	0.0200	0.0168	16.00	91	0.00
17	T	Carbon Dislf	0.0200	0.0191	4.50	90	0.00
18	T	allylchloride	0.0200	0.0190	5.00	94	0.00
19	T	methylacetate	0.0100	0.0084	16.00	95	0.00
20	T	Methylchlorid	0.0100	0.0098	2.00	103	0.00
21	T	Acrylonitrile	0.0500	0.0461	7.80	97	0.00
22	T	t12dichlorte	0.0100	0.0096	4.00	92	0.00
23	T	tbutylalcohol	0.5000	0.4622	7.56	94	0.00
24	T	MtBE	0.0100	0.0098	2.00	98	0.00
25	T	Hexane	0.0200	0.0182	9.00	88	0.00
26	PT	11dichlorota	0.0100	0.0092	8.00	94	0.00
27	T	Vinylacetate	0.1000	0.1055	-5.50	98	0.00
28	T	chloroprene	0.0200	0.0201	-0.50	93	0.00
29	T	Diisopether	0.0100	0.0099	1.00	98	0.00
30	T	ETBE	0.0100	0.0099	1.00	98	0.00
31	T	22dichloropr	0.0100	0.0094	6.00	96	0.00
32	T	c12dichlorte	0.0100	0.0094	6.00	95	0.00
33	T	2Butanone	0.1000	0.0983	1.70	102	0.00
34	T	propionitrile	0.1000	0.0903	9.70	94	0.00
35	T	Ethylacetate	0.0500	0.0501	-0.20	105	0.02
36	T	methacrylonitrile	0.0200	0.0187	6.50	101	0.00
37	T	Bromochlorma	0.0100	0.0093	7.00	93	0.00
38	T	Tetrahydofur	0.1000	0.0975	2.50	98	0.00
39	CT	Chloroform	0.0100	0.0095	5.00	95	0.00
40	T	111trichlota	0.0100	0.0099	1.00	93	0.00
41	S	SURRDibrflma	0.0200	0.0200	0.00	100	0.00
42	T	Cyclohexane	0.0100	0.0096	4.00	93	0.00
43	T	Carbtetraclo	0.0100	0.0093	7.00	90	0.00
44	T	11dicloprope	0.0100	0.0096	4.00	91	0.00
45	S	SURR12DCAd4	0.0200	0.0205	-2.50	105	0.00
46	T	Benzene	0.0100	0.0095	5.00	94	0.00
47	T	12dichlorota	0.0100	0.0103	-3.00	103	0.00
48	T	TAME	0.0100	0.0099	1.00	99	0.00

49	T	trichloroete	0.0100	0.0095	5.00	94	0.00
50	T	methylcyclohexane	0.0100	0.0097	3.00	93	0.00
51	CT	12dicloropra	0.0100	0.0093	7.00	94	0.00
52	T	23dicl1propene	0.0100	0.0096	4.00	94	0.00
53	T	Dibromometha	0.0100	0.0100	0.00	99	0.00
54	T	methylmethacrylate	0.0100	0.0097	3.00	108	0.00
55	T	14dioxane	0.5000	0.4637	7.26	96	0.00
56	T	Bromodiclrma	0.0100	0.0095	5.00	95	0.00
57	T	2Nitropropane	0.1000	0.0911	8.90	97	0.00
58	T	c13dicloproe	0.0100	0.0096	4.00	96	0.00
59	T	4Meth2Pentan	0.1000	0.1006	-0.60	99	0.00
60	S	SURRd8Tolule	0.0200	0.0200	0.00	100	0.00
61	CT	Toluene	0.0100	0.0093	7.00	95	0.00
62	T	t13Dicloprop	0.0100	0.0095	5.00	99	0.00
63	T	ethylmethacrylate	0.0200	0.0200	0.00	98	0.00
64	T	112Triclotha	0.0100	0.0100	0.00	99	0.00
65	T	Tetrachlorte	0.0100	0.0096	4.00	91	0.00
66	T	13Diclorpropa	0.0100	0.0098	2.00	100	0.00
67	I	d5-CHLOROBENZENE**ISTD**	0.0200	0.0200	0.00	101	0.00
68	T	2Hexanone	0.1000	0.0939	6.10	99	0.00
69	T	Clorodibrmta	0.0100	0.0097	3.00	96	0.00
70	T	12Dibrometha	0.0100	0.0096	4.00	93	0.00
71	PT	Chlorobenzen	0.0100	0.0092	8.00	94	0.00
72	T	1Clhexane	0.0100	0.0088	12.00	87	0.00
73	T	1112Tetclota	0.0100	0.0093	7.00	93	0.00
74	CT	Ethylbenzene	0.0100	0.0095	5.00	93	0.00
75	T	m p-Xylene	0.0200	0.0185	7.50	93	0.00
76	T	o-Xylene	0.0100	0.0093	7.00	92	0.00
77	T	Styrene	0.0100	0.0095	5.00	95	0.00
78	PT	Bromoform	0.0100	0.0094	6.00	104	0.00
79	T	Isopropylben	0.0100	0.0099	1.00	94	0.00
80	I	d4-1,4-DICHLOROBENZENE**IS	0.0200	0.0200	0.00	103	0.00
81	T	cyclohexanone	0.2000	0.1920	4.00	94	0.00
82	S	SURR4BrFBenz	0.0200	0.0199	0.50	103	0.00
83	T	Bromobenzene	0.0100	0.0095	5.00	101	0.00
84	PT	1122Tetrclta	0.0100	0.0097	3.00	94	0.00
85	T	123Triclproa	0.0100	0.0100	0.00	119	0.00
86	T	14dichloro2butene	0.0100	0.0106	-6.00	122	0.00
87	T	n-Propylbenz	0.0100	0.0095	5.00	94	0.00
88	T	2chlorotolue	0.0100	0.0095	5.00	99	0.00
89	T	4chlorotolue	0.0100	0.0094	6.00	95	0.00
90	T	135Trimebenz	0.0100	0.0096	4.00	98	0.00
91	T	tbutylbenzen	0.0100	0.0093	7.00	90	0.00
92	T	124Trimetben	0.0100	0.0093	7.00	95	0.00
93	T	sbutylbenzen	0.0100	0.0100	0.00	97	0.00
94	T	13Diclorbenz	0.0100	0.0090	10.00	94	0.00
95	T	pIsopropylto	0.0100	0.0097	3.00	93	0.00
96	T	14dichlorobe	0.0100	0.0091	9.00	96	0.00
97	T	12dichlorobe	0.0100	0.0093	7.00	98	0.00
98	T	nButylbenzen	0.0100	0.0096	4.00	94	0.00
99	T	12dibromo3cl	0.0100	0.0094	6.00	103	0.00
100	T	135Trichlorobenzene	0.0100	0.0093	7.00	96	0.00
101	T	124Trichlobe	0.0100	0.0094	6.00	98	0.00
102	T	Hexachlorobu	0.0100	0.0095	5.00	96	0.00
103	T	Naphthalene	0.0100	0.0096	4.00	103	0.00
104	T	123Trichlben	0.0100	0.0092	8.00	96	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

LS090419.M Mon Sep 09 11:42:53 2019

Quantitation Report

Data File : C:\Instarch\Data\SEP0519\CCV2.D Vial: 18
Acq On : 5 Sep 2019 15:05 Operator: RLD-DGS
Sample : 163979,CCV, Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 15:26:09 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:17:47 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1110524	0.02	mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	852379	0.02	mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.89	152	460404	0.02	mg/kg	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	276933	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 100 %			
45) SURR12DCAd4	7.24	102	58065	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 100 %			
60) SURRd8Tolule	9.67	98	1133107	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %			
82) SURR4BrFBenz	13.23	95	434358	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 100 %			
Target Compounds						Qvalue
2) Dichlorodi	1.82	85	151551	0.0096	mg/kg	96
3) Chloromethan	2.06	50	152398	0.0090	mg/kg	99
4) VinylChlorid	2.21	62	154994	0.0095	mg/kg	97
5) Bromomethane	2.68	94	66508	0.0081	mg/kg	100
6) Chloroethane	2.83	64	89522	0.0091	mg/kg	98
7) dichloroflmethane	3.15	67	303855	0.0096	mg/kg	98
8) Trichlorofma	3.21	101	241618	0.0094	mg/kg	94
9) Ethylether	3.66	59	112751	0.0099	mg/kg	99
10) dichlorotfluoroethan	3.67	67	165498	0.0097	mg/kg	93
11) propyleneoxide	3.73	58	134317	0.1005	mg/kg	90
12) Acrolein	3.82	56	102983	0.0472	mg/kg	99
13) 11dichlorthe	3.94	96	136769	0.0098	mg/kg	96
14) Trichlorotfluoroeth	3.97	101	256399	0.0191	mg/kg	98
15) Acetone	4.04	43	303452	0.0931	mg/kg	98
16) Iodomethane	4.12	142	241239	0.0168	mg/kg	98
17) Carbon Dislf	4.20	76	916967	0.0191	mg/kg	99
18) allylchloride	4.43	41	482817	0.0190	mg/kg	98
19) methylacetate	4.51	74	39494	0.0084	mg/kg	97
20) Methylchlorid	4.60	84	202157	0.0098	mg/kg	98
21) Acrylonitrile	4.93	53	151895	0.0461	mg/kg	98
22) t12dichlorte	4.96	96	156214	0.0096	mg/kg	98
23) tbutylalcohol	4.81	59	706368	0.4622	mg/kg	100
24) MtBE	4.98	73	419159	0.0098	mg/kg	99
25) Hexane	5.33	57	388451	0.0182	mg/kg	97
26) 11dichlorota	5.50	63	279417	0.0092	mg/kg	99
27) Vinylacetate	5.59	43	2007157	0.1055	mg/kg	99
28) chloroprene	5.62	53	448117	0.0201	mg/kg	98
29) Diisopether	5.61	45	470192	0.0099	mg/kg	100
30) ETBE	6.08	59	432159	0.0099	mg/kg	98
31) 22dichloropr	6.22	77	258114	0.0094	mg/kg	96
32) c12dichlorte	6.24	96	169564	0.0094	mg/kg	99
33) 2Butanone	6.27	72	136395	0.0983	mg/kg	96
34) propionitrile	6.34	54	124566	0.0903	mg/kg	95
35) Ethylacetate	6.37	88	20022	0.0501	mg/kg#	80
36) methacrylonitrile	6.52	67	93196	0.0187	mg/kg	96
37) Bromochlorma	6.53	128	65578	0.0093	mg/kg	93
38) Tetrahydofur	6.60	42	313241	0.0975	mg/kg	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\SEP0519\CCV2.D Vial: 18
Acq On : 5 Sep 2019 15:05 Operator: RLD-DGS
Sample : 163979,CCV, Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 15:26:09 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:17:47 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	6.63	83	297943	0.0095 mg/kg	96
40) 111trichlota	6.85	97	262347	0.0099 mg/kg	98
42) Cyclohexane	6.93	56	239082	0.0096 mg/kg	97
43) Carbtetraclo	7.06	119	203050	0.0093 mg/kg	97
44) 11dicloprope	7.07	110	72024	0.0096 mg/kg	95
46) Benzene	7.32	78	661469	0.0095 mg/kg	99
47) 12dichlorota	7.34	62	204419	0.0103 mg/kg	99
48) TAME	7.47	73	415540	0.0099 mg/kg	98
49) trichloroete	8.13	95	162052	0.0095 mg/kg	100
50) methylcyclohexane	8.36	83	283672	0.0097 mg/kg	99
51) 12dicloropra	8.39	63	164666	0.0093 mg/kg	97
52) 23dicl1propene	8.46	75	252448	0.0096 mg/kg	98
53) Dibromometha	8.55	93	89162	0.0100 mg/kg	99
54) methylmethacrylate	8.57	69	86675	0.0097 mg/kg	97
55) 14dioxane	8.59	88	64393	0.4637 mg/kg	94
56) Bromodiclrma	8.75	83	217196	0.0095 mg/kg	98
57) 2Nitropropane	9.02	43	287954	0.0911 mg/kg	100
58) c13dicloproe	9.33	75	259350	0.0096 mg/kg	99
59) 4Meth2Pentan	9.51	43	1081474	0.1006 mg/kg	98
61) Toluene	9.76	92	423000	0.0093 mg/kg	99
62) t13Dicloprop	10.04	75	217265	0.0095 mg/kg	98
63) ethylmethacrylate	10.17	69	348819	0.0200 mg/kg	100
64) 112Triclotha	10.27	83	116009	0.0100 mg/kg	98
65) Tetrachlorte	10.48	166	161259	0.0096 mg/kg	99
66) 13Diclorpropa	10.50	76	232439	0.0098 mg/kg	98
68) 2Hexanone	10.61	43	748404	0.0939 mg/kg	98
69) Clorodibrmta	10.80	129	138787	0.0097 mg/kg	98
70) 12Dibrometha	10.96	107	121119	0.0096 mg/kg	95
71) Chlorobenzen	11.63	112	402791	0.0092 mg/kg	99
72) 1Clhexane	11.59	91	204147	0.0088 mg/kg	96
73) 1112Tetclota	11.73	131	141921	0.0093 mg/kg	96
74) Ethylbenzene	11.78	91	736501	0.0095 mg/kg	100
75) m p-Xylene	11.94	106	537953	0.0185 mg/kg	98
76) o-Xylene	12.49	106	271929	0.0093 mg/kg	95
77) Styrene	12.51	104	450707	0.0095 mg/kg	99
78) Bromoform	12.76	173	91285	0.0094 mg/kg	98
79) Isopropylben	13.02	105	710070	0.0099 mg/kg	99
81) cyclohexanone	13.13	55	92318	0.1920 mg/kg	95
83) Bromobenzene	13.44	156	181799	0.0095 mg/kg	94
84) 1122Tetrclta	13.43	83	175515	0.0097 mg/kg	97
85) 123Triclproa	13.49	75	224616	0.0100 mg/kg	98
86) 14dichloro2butene	13.52	53	43172	0.0106 mg/kg	94
87) n-Propylbenz	13.60	91	848286	0.0095 mg/kg	100
88) 2chlorotolue	13.72	91	510661	0.0095 mg/kg	98
89) 4chlorotolue	13.88	91	575043	0.0094 mg/kg	99
90) 135Trimebenz	13.86	105	600309	0.0096 mg/kg	99
91) tbutylbenzen	14.33	119	497288	0.0093 mg/kg	96
92) 124Trimetben	14.40	105	598597	0.0093 mg/kg	99
93) sbutylbenzen	14.64	105	788524	0.0100 mg/kg	99
94) 13Diclorbenz	14.80	146	307370	0.0090 mg/kg	97
95) pIsopropylto	14.86	119	615911	0.0097 mg/kg	98
96) 14dichlorobe	14.93	146	308908	0.0091 mg/kg	93
97) 12dichlorobe	15.46	146	301936	0.0093 mg/kg	95
98) nButylbenzen	15.46	91	596587	0.0096 mg/kg	99
99) 12dibromo3cl	16.57	157	31207	0.0094 mg/kg	97
100) 135Trichlorobenzene	16.89	180	244409	0.0093 mg/kg	99
101) 124Trichlobe	17.71	180	219279	0.0094 mg/kg	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\SEP0519\CCV2.D Vial: 18
Acq On : 5 Sep 2019 15:05 Operator: RLD-DGS
Sample : 163979,CCV, Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 15:26:09 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:17:47 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) Hexachlorobu	17.93	225	143419	0.0095	mg/kg	96
103) Naphthalene	18.02	128	447296	0.0096	mg/kg	99
104) 123Trichlben	18.32	180	206139	0.0092	mg/kg	99

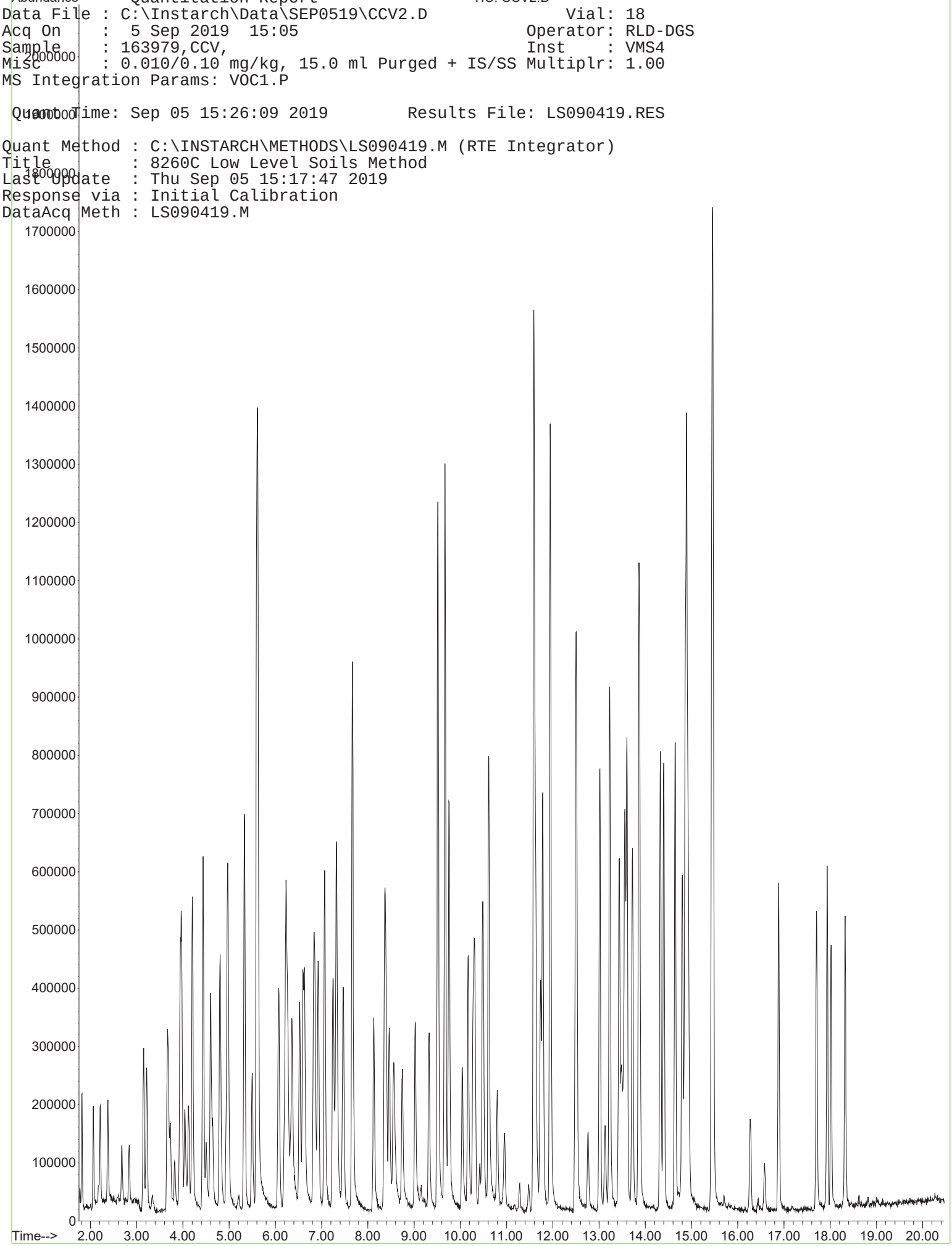
(#) = qualifier out of range (m) = manual integration

Abundance Quantitation Report TIC: CCV2.D

Data File : C:\Instarch\Data\SEP0519\CCV2.D Vial: 18
Acq On : 5 Sep 2019 15:05 Operator: RLD-DGS
Sample : 163979,CCV, Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 15:26:09 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:17:47 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M



Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\CCB1.D Vial: 20
Acq On : 5 Sep 2019 16:03 Operator: RLD-DGS
Sample : 163979,CCB, Inst : VMS4
Misc : 5.00g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 16:24:08 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1016790	0.02	mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	808168	0.02	mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.89	152	419520	0.02	mg/kg	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	254066	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 100 %			
45) SURR12DCAd4	7.25	102	47384	0.018	mg/kg	0.01
Spiked Amount 0.020	Range 71 - 136		Recovery = 90 %			
60) SURRd8Tolule	9.67	98	1050948	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %			
82) SURR4BrFBenz	13.23	95	397491	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 100 %			
Target Compounds						Qvalue
2) Dichlorodi	1.81	85	3347	0.0012	mg/kg#	44
3) Chloromethan	2.06	50	1631	N.D.		
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	2.67	94	1034	N.D.		
6) Chloroethane	0.00	64	0	N.D.		
7) dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	3.67	67	1204	N.D.		
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	0.00	56	0	N.D.		
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	4.07	43	11817	N.D.		
16) Iodomethane	4.15	142	3935	0.0025	mg/kg#	41
17) Carbon Dislf	4.21	76	3196	N.D.		
18) allylchloride	4.46	41	1023	N.D.		
19) methylacetate	0.00	74	0	N.D.		
20) Methylchlorid	4.60	84	19411	Below	Cal	85
21) Acrylonitrile	0.00	53	0	N.D.		
22) t12dichlorte	0.00	96	0	N.D.		
23) tbutylalcohol	4.80	59	8091	N.D.		
24) MtBE	0.00	73	0	N.D.		
25) Hexane	5.33	57	8239	0.0023	mg/kg	82
26) 11dichlorota	0.00	63	0	N.D.		
27) Vinylacetate	0.00	43	0	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	6.06	59	1014	N.D.		
31) 22dichloropr	6.19	77	5441	N.D.		
32) c12dichlorte	0.00	96	0	N.D.		
33) 2Butanone	0.00	72	0	N.D.		
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	6.63	42	1990	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\CCB1.D Vial: 20
Acq On : 5 Sep 2019 16:03 Operator: RLD-DGS
Sample : 163979,CCB, Inst : VMS4
Misc : 5.00g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 16:24:08 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	0.00	83	0	N.D.	
40) 111trichlota	0.00	97	0	N.D.	
42) Cyclohexane	0.00	56	0	N.D.	
43) Carbtetraclo	0.00	119	0	N.D.	
44) 11dicloprope	0.00	110	0	N.D.	
46) Benzene	7.34	78	1547	N.D.	
47) 12dichlorota	0.00	62	0	N.D.	
48) TAME	0.00	73	0	N.D.	
49) trichloroete	0.00	95	0	N.D.	
50) methylcyclohexane	0.00	83	0	N.D.	
51) 12dicloropra	0.00	63	0	N.D.	
52) 23dicl1propene	0.00	75	0	N.D.	
53) Dibromometha	0.00	93	0	N.D.	
54) methylmethacrylate	0.00	69	0	N.D.	
55) 14dioxane	0.00	88	0	N.D.	
56) Bromodiclrma	0.00	83	0	N.D.	
57) 2Nitropropane	0.00	43	0	N.D.	
58) c13dicloproe	0.00	75	0	N.D.	
59) 4Meth2Pentan	9.52	43	5821	N.D.	
61) Toluene	9.76	92	2586	N.D.	
62) t13Dicloprop	0.00	75	0	N.D.	
63) ethylmethacrylate	0.00	69	0	N.D.	
64) 112Triclotha	0.00	83	0	N.D.	
65) Tetrachlorte	0.00	166	0	N.D.	
66) 13Diclorpropa	0.00	76	0	N.D.	
68) 2Hexanone	10.54	43	1944	N.D.	
69) Clorodibrmta	0.00	129	0	N.D.	
70) 12Dibrometha	0.00	107	0	N.D.	
71) Chlorobenzen	0.00	112	0	N.D.	
72) 1Clhexane	11.58	91	2636	0.0011 mg/kg#	1
73) 1112Tetclota	0.00	131	0	N.D.	
74) Ethylbenzene	11.80	91	2524	N.D.	
75) m p-Xylene	11.96	106	1859	N.D.	
76) o-Xylene	0.00	106	0	N.D.	
77) Styrene	12.53	104	5741	N.D.	
78) Bromoform	0.00	173	0	N.D.	
79) Isopropylben	13.02	105	1053	N.D.	
81) cyclohexanone	13.15	55	1414	N.D.	
83) Bromobenzene	0.00	156	0	N.D.	
84) 1122Tetrclta	0.00	83	0	N.D.	
85) 123Triclproa	13.55	75	4634	N.D.	
86) 14dichloro2butene	0.00	53	0	N.D.	
87) n-Propylbenz	13.59	91	1207	N.D.	
88) 2chlorotolue	0.00	91	0	N.D.	
89) 4chlorotolue	0.00	91	0	N.D.	
90) 135Trimebenz	13.88	105	1529	N.D.	
91) tbutylbenzen	0.00	119	0	N.D.	
92) 124Trimetben	14.40	105	4869	N.D.	
93) sbutylbenzen	14.64	105	1226	N.D.	
94) 13Diclorbenz	14.89	146	1258	N.D.	
95) pIsopropylto	14.86	119	2704	N.D.	
96) 14dichlorobe	14.89	146	1419	N.D.	
97) 12dichlorobe	15.46	146	2058	N.D.	
98) nButylbenzen	15.46	91	5185	N.D.	
99) 12dibromo3cl	0.00	157	0	N.D.	
100) 135Trichlorobenzene	0.00	180	0	N.D.	
101) 124Trichlobe	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\CCB1.D Vial: 20
Acq On : 5 Sep 2019 16:03 Operator: RLD-DGS
Sample : 163979,CCB, Inst : VMS4
Misc : 5.00g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 16:24:08 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) Hexachlorobu	0.00	225	0	N.D.	
103) Naphthalene	18.01	128	11768	N.D.	
104) 123Trichlben	18.32	180	1941	N.D.	

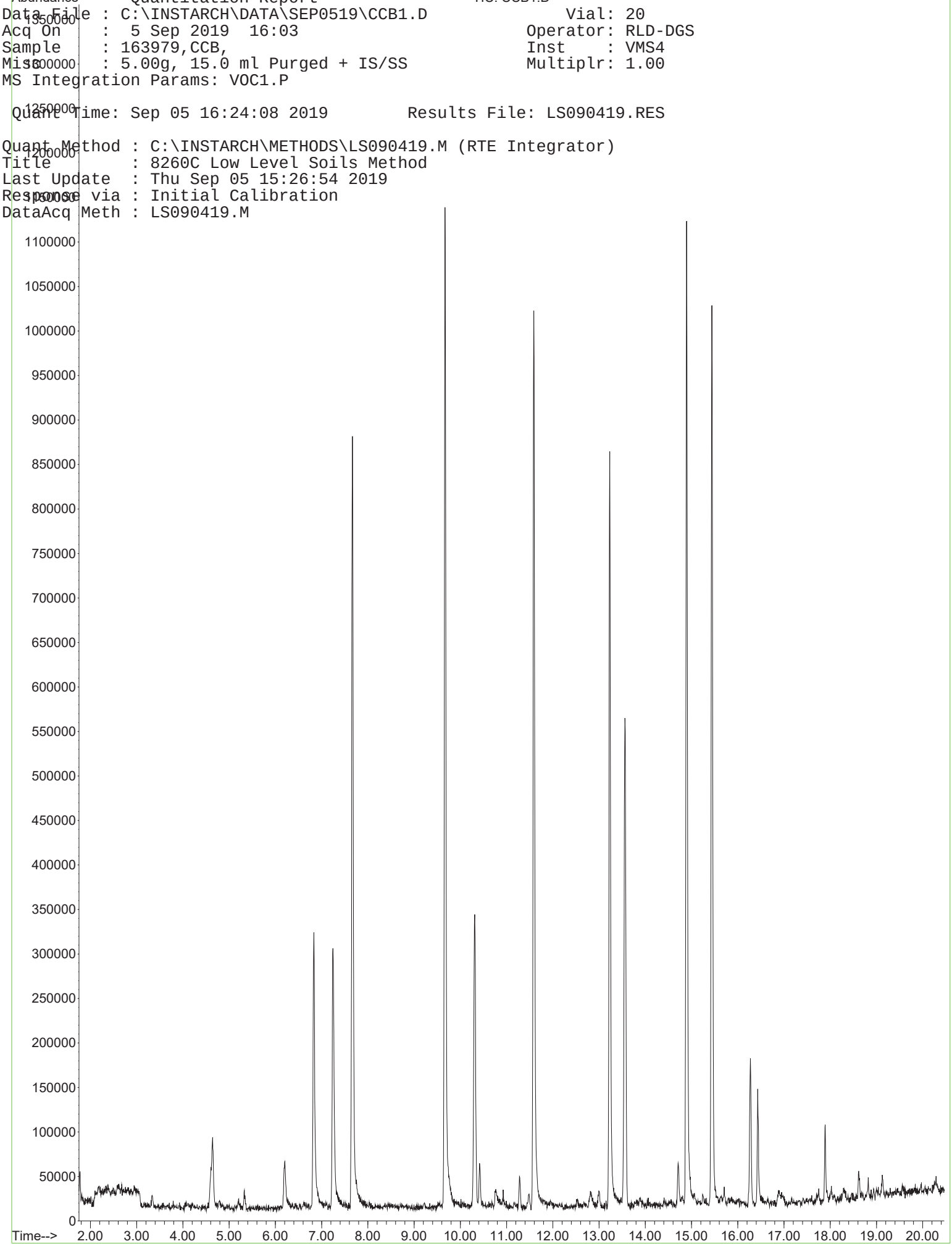
(#) = qualifier out of range (m) = manual integration

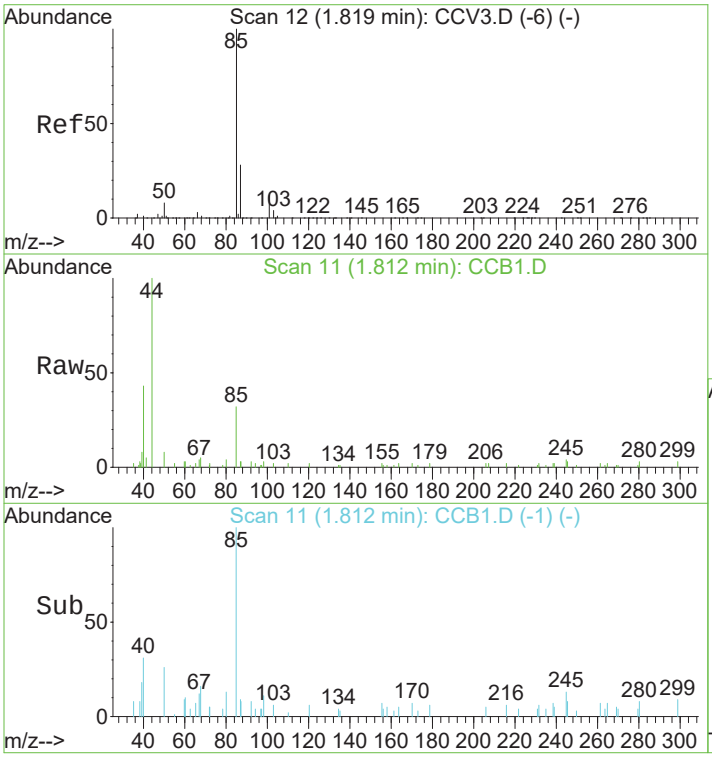
Abundance Quantitation Report TIC: CCB1.D

Data File : C:\INSTARCH\DATA\SEP0519\CCB1.D Vial: 20
Acq On : 5 Sep 2019 16:03 Operator: RLD-DGS
Sample : 163979,CCB, Inst : VMS4
Misc : 5.00g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 16:24:08 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

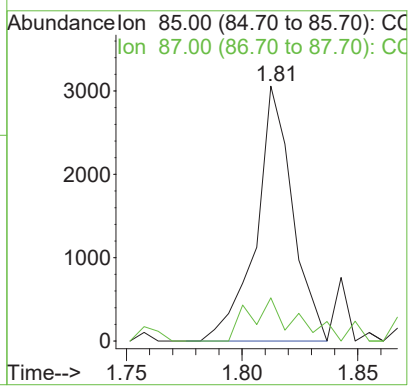




#2
Dichlorodi
Concen: 0.00 mg/kg
RT: 1.81 min Scan# 11
Delta R.T. -0.01 min
Lab File: CCB1.D
Acq: 5 Sep 2019 16:03

Tgt Ion: 85 Resp: 3347

Ion	Ratio	Lower	Upper
85	100		
87	0.0	10.8	50.8#



Negative Library Identification

[redacted]

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\SEP0519\CCVF2.D Vial: 36
Acq On : 5 Sep 2019 23:48 Operator: RLD-DGS
Sample : 163979,CCVF, Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Sep 06 00:08:52 2019

Quant Method : C:\INSTARCH\METHODS\LS090419.M
Quant Title : 8260C Low Level Soils Method
Response via : Initial Calibration
DataAcq Meth:LS090419.M

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	1.0000	1.0000	0.00	94	0.00
2	T	Dichlorodi	0.2569	0.2596	-1.05	80	0.00
3	PT	Chloromethan	0.3033	0.2533	16.49	81	0.00
4	CT	VinylChlorid	0.2930	0.2568	12.35	78	0.00
5	T	Bromomethane	0.1485	0.1210	18.52	83	0.00
6	T	Chloroethane	0.1778	0.1458	18.00	73	0.00
7	T	dichloroflmethane	0.5679	0.4985	12.22	79	0.00
8	T	Trichlorofma	0.4176	0.3891	6.82	75	0.00
9	T	Ethylether	0.2056	0.2184	-6.23	99	0.00
10	T	dichlorotfluoroethan	0.3088	0.2803	9.23	75	0.00
11	T	propyleneoxide	0.0241	0.0250	-3.73	96	0.00
12	T	Acrolein	0.0393	0.0391	0.51	92	0.00
13	CT	11dichlorthe	0.2511	0.2289	8.84	81	0.00
14	T	Trichlorotfluoroeth	0.2111	0.2023	4.17	74	0.00
15	T	Acetone	0.0587	0.0544	7.33	91	0.00
16	T	Iodomethane	0.2451	0.2178	11.14	85	0.00
17	T	Carbon Dislf	0.8643	0.7515	13.05	77	0.00
18	T	allylchloride	0.4574	0.4009	12.35	81	0.00
19	T	methylacetate	0.0805	0.0756	6.09	94	-0.01
20	T	Methylchlorid	0.4338	0.3725	14.13	99	0.00
21	T	Acrylonitrile	0.0593	0.0591	0.34	97	0.00
22	T	t12dichlorte	0.2938	0.2447	16.71	74	0.00
23	T	tbutylalcohol	0.0275	0.0279	-1.45	96	0.00
24	T	MtBE	0.7728	0.8014	-3.70	97	0.00
25	T	Hexane	0.3475	0.3050	12.23	71	0.00
26	PT	11dichlorota	0.5480	0.4888	10.80	85	0.00
27	T	Vinylacetate	0.3427	0.3753	-9.51	95	0.00
28	T	chloroprene	0.4018	0.3737	6.99	81	0.00
29	T	Diisopether	0.8573	0.8644	-0.83	93	0.00
30	T	ETBE	0.7840	0.8154	-4.01	96	0.00
31	T	22dichloropr	0.4954	0.4367	11.85	84	0.00
32	T	c12dichlorte	0.3260	0.2930	10.12	85	0.00
33	T	2Butanone	0.0250	0.0249	0.40	96	0.00
34	T	propionitrile	0.0218	0.0237	-8.72	93	0.00
35	T	Ethylacetate	0.0063	0.0071#	-12.70	97	0.02
36	T	methacrylonitrile	0.0815	0.0820	-0.61	92	0.00
37	T	Bromochlorma	0.1267	0.1230	2.92	90	0.00
38	T	Tetrahydofur	0.0578	0.0607	-5.02	99	0.00
39	CT	Chloroform	0.5625	0.5177	7.96	86	0.00
40	T	111trichlota	0.4760	0.4300	9.66	79	0.00
41	S	SURRDibrflma	0.2491	0.2509	-0.72	94	0.00
42	T	Cyclohexane	0.3931	0.3767	4.17	76	0.00
43	T	Carbtetraclo	0.3667	0.3402	7.23	78	0.00
44	T	11dicloprope	0.1351	0.1235	8.59	81	0.00
45	S	SURR12DCAd4	0.0511	0.0503	1.57	95	0.00
46	T	Benzene	1.2521	1.1340	9.43	84	0.00
47	T	12dichlorota	0.3566	0.3786	-6.17	99	0.00
48	T	TAME	0.7527	0.7934	-5.41	99	0.00

49	T	trichloroete	0.3056	0.2646	13.42	80	0.01
50	T	methylcyclohexane	0.4595	0.4318	6.03	73	0.00
51	CT	12dicloropra	0.3183	0.2878	9.58	85	0.00
52	T	23dicl1propene	0.4741	0.4444	6.26	86	0.00
53	T	Dibromometha	0.1614	0.1677	-3.90	97	0.00
54	T	methylmethacrylate	0.1482	0.1563	-5.47	101	0.00
55	T	14dioxane	0.0025	0.0025#	0.00	98	0.00
56	T	Bromodiclrma	0.4135	0.4192	-1.38	95	0.00
57	T	2Nitropropane	0.0569	0.0572	-0.53	100	0.00
58	T	c13dicloproe	0.4852	0.4689	3.36	90	0.00
59	T	4Meth2Pentan	0.1936	0.2105	-8.73	100	0.00
60	S	SURRd8Tolule	1.0195	1.0307	-1.10	94	0.00
61	CT	Toluene	0.8173	0.7089	13.26	83	0.00
62	T	t13Dicloprop	0.4116	0.4045	1.72	95	0.00
63	T	ethylmethacrylate	0.3145	0.3296	-4.80	96	0.00
64	T	112Triclotha	0.2090	0.2132	-2.01	94	0.00
65	T	Tetrachlorte	0.3039	0.2576	15.24	75	0.00
66	T	13Diclorpropa	0.4279	0.4164	2.69	93	0.00
67	I	d5-CHLOROBENZENE**ISTD**	1.0000	1.0000	0.00	96	0.00
68	T	2Hexanone	0.1680	0.1841	-9.58	99	0.00
69	T	Clorodibrmta	0.3342	0.3339	0.09	94	0.00
70	T	12Dibrometha	0.2949	0.2975	-0.88	93	0.00
71	PT	Chlorobenzen	1.0298	0.9020	12.41	86	0.00
72	T	1Clhexane	0.4988	0.4395	11.89	76	0.00
73	T	1112Tetclota	0.3593	0.3292	8.38	88	0.00
74	CT	Ethylbenzene	1.8234	1.6023	12.13	82	0.00
75	T	m p-Xylene	0.6826	0.5811	14.87	82	0.00
76	T	o-Xylene	0.6847	0.6047	11.68	83	0.00
77	T	Styrene	1.1128	1.0138	8.90	86	0.00
78	PT	Bromoform	0.2283	0.2147	5.96	99	0.00
79	T	Isopropylben	1.6763	1.5141	9.68	82	0.00
80	I	d4-1,4-DICHLOROBENZENE**IS	1.0000	1.0000	0.00	98	0.00
81	T	cyclohexanone	0.0209	0.0187	10.53	83	0.00
82	S	SURR4BrFBenz	0.9495	0.9553	-0.61	99	0.00
83	T	Bromobenzene	0.8323	0.7661	7.95	93	0.00
84	PT	1122Tetrclta	0.7895	0.8033	-1.75	94	0.00
85	T	123Triclproa	0.9734	1.0266	-5.47	118	0.00
86	T	14dichloro2butene	0.1769	0.1787	-1.02	110	0.00
87	T	n-Propylbenz	3.8587	3.2683	15.30	79	0.00
88	T	2chlorotolue	2.3397	2.0558	12.13	87	0.00
89	T	4chlorotolue	2.6592	2.2797	14.27	82	0.00
90	T	135Trimebenz	2.7235	2.4211	11.10	86	0.00
91	T	tbutylbenzen	2.3214	2.0413	12.07	81	0.00
92	T	124Trimetben	2.7905	2.3642	15.28	82	0.00
93	T	sbutylbenzen	3.4141	2.9751	12.86	80	0.00
94	T	13Diclorbenz	1.4901	1.2710	14.70	84	0.00
95	T	pIsopropylto	2.7719	2.3448	15.41	77	0.00
96	T	14dichlorobe	1.4750	1.2439	15.67	84	0.00
97	T	12dichlorobe	1.4126	1.3250	6.20	93	0.00
98	T	nButylbenzen	2.6879	2.1230	21.02	73	0.00
99	T	12dibromo3cl	0.1438	0.1379	4.10	100	0.00
100	T	135Trichlorobenzene	1.1397	0.8376	26.51	72	0.00
101	T	124Trichlobe	1.0105	0.7917	21.65	77	0.00
102	T	Hexachlorobu	0.6585	0.5408	17.87	79	0.00
103	T	Naphthalene	2.0245	1.9003	6.13	95	0.00
104	T	123Trichlben	0.9685	0.7754	19.94	79	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

LS090419.M Mon Sep 09 11:54:10 2019

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\SEP0519\CCVF2.D Vial: 36
Acq On : 5 Sep 2019 23:48 Operator: RLD-DGS
Sample : 163979,CCVF, Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Sep 06 00:08:52 2019

Quant Method : C:\INSTARCH\METHODS\LS090419.M
Quant Title : 8260C Low Level Soils Method
Response via : Initial Calibration
DataAcq Meth:LS090419.M

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	0.0200	0.0200	0.00	94	0.00
2	T	Dichlorodi	0.0100	0.0092	8.00	80	0.00
3	PT	Chloromethan	0.0100	0.0084	16.00	81	0.00
4	CT	VinylChlorid	0.0100	0.0088	12.00	78	0.00
5	T	Bromomethane	0.0100	0.0082	18.00	83	0.00
6	T	Chloroethane	0.0100	0.0082	18.00	73	0.00
7	T	dichloroflmethane	0.0100	0.0088	12.00	79	0.00
8	T	Trichlorofma	0.0100	0.0085	15.00	75	0.00
9	T	Ethylether	0.0100	0.0106	-6.00	99	0.00
10	T	dichlorotfluoroethan	0.0100	0.0091	9.00	75	0.00
11	T	propyleneoxide	0.1000	0.1040	-4.00	96	0.00
12	T	Acrolein	0.0500	0.0497	0.60	92	0.00
13	CT	11dichlorthe	0.0100	0.0091	9.00	81	0.00
14	T	Trichlorotfluoroeth	0.0200	0.0170	15.00	74	0.00
15	T	Acetone	0.1000	0.0927	7.30	91	0.00
16	T	Iodomethane	0.0200	0.0168	16.00	85	0.00
17	T	Carbon Dislf	0.0200	0.0174	13.00	77	0.00
18	T	allylchloride	0.0200	0.0175	12.50	81	0.00
19	T	methylacetate	0.0100	0.0088	12.00	94	-0.01
20	T	Methylchlorid	0.0100	0.0100	0.00	99	0.00
21	T	Acrylonitrile	0.0500	0.0498	0.40	97	0.00
22	T	t12dichlorte	0.0100	0.0083	17.00	74	0.00
23	T	tbutylalcohol	0.5000	0.5061	-1.22	96	0.00
24	T	MtBE	0.0100	0.0104	-4.00	97	0.00
25	T	Hexane	0.0200	0.0161	19.50	71	0.00
26	PT	11dichlorota	0.0100	0.0089	11.00	85	0.00
27	T	Vinylacetate	0.1000	0.1095	-9.50	95	0.00
28	T	chloroprene	0.0200	0.0186	7.00	81	0.00
29	T	Diisopether	0.0100	0.0101	-1.00	93	0.00
30	T	ETBE	0.0100	0.0104	-4.00	96	0.00
31	T	22dichloropr	0.0100	0.0088	12.00	84	0.00
32	T	c12dichlorte	0.0100	0.0090	10.00	85	0.00
33	T	2Butanone	0.1000	0.0995	0.50	96	0.00
34	T	propionitrile	0.1000	0.0947	5.30	93	0.00
35	T	Ethylacetate	0.0500	0.0493	1.40	97	0.02
36	T	methacrylonitrile	0.0200	0.0183	8.50	92	0.00
37	T	Bromochlorma	0.0100	0.0097	3.00	90	0.00
38	T	Tetrahydofur	0.1000	0.1049	-4.90	99	0.00
39	CT	Chloroform	0.0100	0.0092	8.00	86	0.00
40	T	111trichlota	0.0100	0.0090	10.00	79	0.00
41	S	SURRDibrflma	0.0200	0.0201	-0.50	94	0.00
42	T	Cyclohexane	0.0100	0.0086	14.00	76	0.00
43	T	Carbtetraclo	0.0100	0.0087	13.00	78	0.00
44	T	11dicloprope	0.0100	0.0091	9.00	81	0.00
45	S	SURR12DCAd4	0.0200	0.0197	1.50	95	0.00
46	T	Benzene	0.0100	0.0091	9.00	84	0.00
47	T	12dichlorota	0.0100	0.0106	-6.00	99	0.00
48	T	TAME	0.0100	0.0105	-5.00	99	0.00

49	T	trichloroete	0.0100	0.0087	13.00	80	0.01
50	T	methylcyclohexane	0.0100	0.0083	17.00	73	0.00
51	CT	12dicloropra	0.0100	0.0090	10.00	85	0.00
52	T	23dicl1propene	0.0100	0.0094	6.00	86	0.00
53	T	Dibromometha	0.0100	0.0104	-4.00	97	0.00
54	T	methylmethacrylate	0.0100	0.0098	2.00	101	0.00
55	T	14dioxane	0.5000	0.5054	-1.08	98	0.00
56	T	Bromodiclrma	0.0100	0.0101	-1.00	95	0.00
57	T	2Nitropropane	0.1000	0.1005	-0.50	100	0.00
58	T	c13dicloproe	0.0100	0.0097	3.00	90	0.00
59	T	4Meth2Pentan	0.1000	0.1087	-8.70	100	0.00
60	S	SURRd8Tolule	0.0200	0.0202	-1.00	94	0.00
61	CT	Toluene	0.0100	0.0087	13.00	83	0.00
62	T	t13Dicloprop	0.0100	0.0098	2.00	95	0.00
63	T	ethylmethacrylate	0.0200	0.0210	-5.00	96	0.00
64	T	112Triclotha	0.0100	0.0102	-2.00	94	0.00
65	T	Tetrachlorte	0.0100	0.0085	15.00	75	0.00
66	T	13Diclorpropa	0.0100	0.0097	3.00	93	0.00
67	I	d5-CHLOROBENZENE**ISTD**	0.0200	0.0200	0.00	96	0.00
68	T	2Hexanone	0.1000	0.0982	1.80	99	0.00
69	T	Clorodibrmta	0.0100	0.0100	0.00	94	0.00
70	T	12Dibrometha	0.0100	0.0101	-1.00	93	0.00
71	PT	Chlorobenzen	0.0100	0.0088	12.00	86	0.00
72	T	1Clhexane	0.0100	0.0082	18.00	76	0.00
73	T	1112Tetclota	0.0100	0.0092	8.00	88	0.00
74	CT	Ethylbenzene	0.0100	0.0088	12.00	82	0.00
75	T	m p-Xylene	0.0200	0.0170	15.00	82	0.00
76	T	o-Xylene	0.0100	0.0088	12.00	83	0.00
77	T	Styrene	0.0100	0.0091	9.00	86	0.00
78	PT	Bromoform	0.0100	0.0094	6.00	99	0.00
79	T	Isopropylben	0.0100	0.0090	10.00	82	0.00
80	I	d4-1,4-DICHLOROBENZENE**IS	0.0200	0.0200	0.00	98	0.00
81	T	cyclohexanone	0.2000	0.1788	10.60	83	0.00
82	S	SURR4BrFBenz	0.0200	0.0201	-0.50	99	0.00
83	T	Bromobenzene	0.0100	0.0092	8.00	93	0.00
84	PT	1122Tetrclta	0.0100	0.0102	-2.00	94	0.00
85	T	123Triclproa	0.0100	0.0105	-5.00	118	0.00
86	T	14dichloro2butene	0.0100	0.0101	-1.00	110	0.00
87	T	n-Propylbenz	0.0100	0.0085	15.00	79	0.00
88	T	2chlorotolue	0.0100	0.0088	12.00	87	0.00
89	T	4chlorotolue	0.0100	0.0086	14.00	82	0.00
90	T	135Trimebenz	0.0100	0.0089	11.00	86	0.00
91	T	tbutylbenzen	0.0100	0.0088	12.00	81	0.00
92	T	124Trimetben	0.0100	0.0085	15.00	82	0.00
93	T	sbutylbenzen	0.0100	0.0087	13.00	80	0.00
94	T	13Diclorbenz	0.0100	0.0085	15.00	84	0.00
95	T	pIsopropylto	0.0100	0.0085	15.00	77	0.00
96	T	14dichlorobe	0.0100	0.0084	16.00	84	0.00
97	T	12dichlorobe	0.0100	0.0094	6.00	93	0.00
98	T	nButylbenzen	0.0100	0.0079	21.00	73	0.00
99	T	12dibromo3cl	0.0100	0.0096	4.00	100	0.00
100	T	135Trichlorobenzene	0.0100	0.0073	27.00	72	0.00
101	T	124Trichlobe	0.0100	0.0078	22.00	77	0.00
102	T	Hexachlorobu	0.0100	0.0082	18.00	79	0.00
103	T	Naphthalene	0.0100	0.0094	6.00	95	0.00
104	T	123Trichlben	0.0100	0.0080	20.00	79	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

LS090419.M Mon Sep 09 11:54:44 2019

Quantitation Report

Data File : C:\Instarch\Data\SEP0519\CCVF2.D Vial: 36
Acq On : 5 Sep 2019 23:48 Operator: RLD-DGS
Sample : 163979,CCVF, Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 06 00:08:52 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1037360	0.02	mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	812204	0.02	mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.89	152	435744	0.02	mg/kg	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	260233	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 100 %			
45) SURR12DCAd4	7.25	102	52138	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 100 %			
60) SURRd8Tolule	9.67	98	1069186	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %			
82) SURR4BrFBenz	13.23	95	416270	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 100 %			
Target Compounds						Qvalue
2) Dichlorodi	1.82	85	134668	0.0092	mg/kg	97
3) Chloromethan	2.07	50	131359	0.0084	mg/kg	98
4) VinylChlorid	2.21	62	133204	0.0088	mg/kg	97
5) Bromomethane	2.68	94	62759	0.0082	mg/kg	97
6) Chloroethane	2.83	64	75647	0.0082	mg/kg	96
7) dichloroflmethane	3.15	67	258543	0.0088	mg/kg	99
8) Trichlorofma	3.22	101	201801	0.0085	mg/kg	96
9) Ethylether	3.66	59	113282	0.0106	mg/kg	96
10) dichlorotfluoroethan	3.68	67	145388	0.0091	mg/kg	96
11) propyleneoxide	3.72	58	129852	0.1040	mg/kg	90
12) Acrolein	3.83	56	101361	0.0497	mg/kg	99
13) 11dichlorthe	3.94	96	118745	0.0091	mg/kg	95
14) Trichlorotfluoroeth	3.97	101	209818	0.0170	mg/kg	97
15) Acetone	4.04	43	282329	0.0927	mg/kg	97
16) Iodomethane	4.12	142	225901	0.0168	mg/kg	97
17) Carbon Dislf	4.21	76	779584	0.0174	mg/kg	100
18) allylchloride	4.44	41	415924	0.0175	mg/kg	98
19) methylacetate	4.50	74	39201	0.0088	mg/kg	88
20) Methylchlorid	4.60	84	193207	0.0100	mg/kg	97
21) Acrylonitrile	4.94	53	153295	0.0498	mg/kg	99
22) t12dichlorte	4.96	96	126940	0.0083	mg/kg	93
23) tbutylalcohol	4.81	59	722583	0.5061	mg/kg	99
24) MtBE	4.98	73	415657	0.0104	mg/kg	99
25) Hexane	5.33	57	316430	0.0161	mg/kg	100
26) 11dichlorota	5.50	63	253521	0.0089	mg/kg	99
27) Vinylacetate	5.59	43	1946860	0.1095	mg/kg	99
28) chloroprene	5.62	53	387668	0.0186	mg/kg	97
29) Diisopether	5.62	45	448353	0.0101	mg/kg	97
30) ETBE	6.07	59	422926	0.0104	mg/kg	99
31) 22dichloropr	6.22	77	226489	0.0088	mg/kg	96
32) c12dichlorte	6.24	96	151954	0.0090	mg/kg	96
33) 2Butanone	6.27	72	128973	0.0995	mg/kg	98
34) propionitrile	6.34	54	122789	0.0947	mg/kg	98
35) Ethylacetate	6.37	88	18387	0.0493	mg/kg	95
36) methacrylonitrile	6.53	67	85036	0.0183	mg/kg	95
37) Bromochlorma	6.53	128	63808	0.0097	mg/kg	96
38) Tetrahydofur	6.60	42	314825	0.1049	mg/kg	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\SEP0519\CCVF2.D Vial: 36
Acq On : 5 Sep 2019 23:48 Operator: RLD-DGS
Sample : 163979,CCVF, Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 06 00:08:52 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.63	83	268495	0.0092	mg/kg	94
40)	111trichlota	6.86	97	223051	0.0090	mg/kg	98
42)	Cyclohexane	6.92	56	195362	0.0086	mg/kg	98
43)	Carbtetraclo	7.06	119	176447	0.0087	mg/kg	95
44)	11dicloprope	7.06	110	64074	0.0091	mg/kg	94
46)	Benzene	7.32	78	588193	0.0091	mg/kg	99
47)	12dichlorota	7.34	62	196371	0.0106	mg/kg	99
48)	TAME	7.47	73	411515	0.0105	mg/kg	97
49)	trichloroete	8.13	95	137226	0.0087	mg/kg	99
50)	methylcyclohexane	8.37	83	223941	0.0083	mg/kg	97
51)	12dicloropra	8.40	63	149267	0.0090	mg/kg	99
52)	23dicl1propene	8.46	75	230491	0.0094	mg/kg	98
53)	Dibromometha	8.55	93	86965	0.0104	mg/kg	96
54)	methylmethacrylate	8.56	69	81085	0.0098	mg/kg	96
55)	14dioxane	8.58	88	65560	0.5054	mg/kg	88
56)	Bromodiclrma	8.75	83	217416	0.0101	mg/kg	99
57)	2Nitropropane	9.03	43	296898	0.1005	mg/kg	99
58)	c13dicloproe	9.33	75	243196	0.0097	mg/kg	98
59)	4Meth2Pentan	9.51	43	1091766	0.1087	mg/kg	98
61)	Toluene	9.76	92	367681	0.0087	mg/kg	98
62)	t13Dicloprop	10.04	75	209820	0.0098	mg/kg	98
63)	ethylmethacrylate	10.17	69	341923	0.0210	mg/kg	97
64)	112Triclotha	10.27	83	110565	0.0102	mg/kg	97
65)	Tetrachlorte	10.48	166	133587	0.0085	mg/kg	97
66)	13Diclorpropa	10.50	76	215966	0.0097	mg/kg	99
68)	2Hexanone	10.61	43	747558	0.0982	mg/kg	98
69)	Clorodibrmta	10.80	129	135584	0.0100	mg/kg	98
70)	12Dibrometha	10.95	107	120812	0.0101	mg/kg	98
71)	Chlorobenzen	11.63	112	366290	0.0088	mg/kg	100
72)	1Clhexane	11.60	91	178479	0.0082	mg/kg	95
73)	1112Tetclota	11.74	131	133682	0.0092	mg/kg	98
74)	Ethylbenzene	11.78	91	650690	0.0088	mg/kg	100
75)	m p-Xylene	11.95	106	471975	0.0170	mg/kg	99
76)	o-Xylene	12.50	106	245561	0.0088	mg/kg	98
77)	Styrene	12.52	104	411719	0.0091	mg/kg	99
78)	Bromoform	12.76	173	87195	0.0094	mg/kg	97
79)	Isopropylben	13.02	105	614895	0.0090	mg/kg	98
81)	cyclohexanone	13.13	55	81354	0.1788	mg/kg	91
83)	Bromobenzene	13.44	156	166908	0.0092	mg/kg	94
84)	1122Tetrclta	13.43	83	175012	0.0102	mg/kg	98
85)	123Triclproa	13.49	75	223677	0.0105	mg/kg	93
86)	14dichloro2butene	13.52	53	38931	0.0101	mg/kg	99
87)	n-Propylbenz	13.60	91	712074	0.0085	mg/kg	100
88)	2chlorotolue	13.72	91	447897	0.0088	mg/kg	97
89)	4chlorotolue	13.88	91	496681	0.0086	mg/kg	98
90)	135Trimebenz	13.86	105	527499	0.0089	mg/kg	97
91)	tbutylbenzen	14.33	119	444736	0.0088	mg/kg	99
92)	124Trimetben	14.40	105	515087	0.0085	mg/kg	99
93)	sbutylbenzen	14.65	105	648190	0.0087	mg/kg	98
94)	13Diclorbenz	14.80	146	276926	0.0085	mg/kg	98
95)	pIsopropylto	14.86	119	510874	0.0085	mg/kg	99
96)	14dichlorobe	14.93	146	271019	0.0084	mg/kg	99
97)	12dichlorobe	15.46	146	288673	0.0094	mg/kg	98
98)	nButylbenzen	15.46	91	462535	0.0079	mg/kg	98
99)	12dibromo3cl	16.57	157	30049	0.0096	mg/kg	93
100)	135Trichlorobenzene	16.89	180	182488	0.0073	mg/kg	97
101)	124Trichlobe	17.70	180	172494	0.0078	mg/kg	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\SEP0519\CCVF2.D Vial: 36
Acq On : 5 Sep 2019 23:48 Operator: RLD-DGS
Sample : 163979,CCVF, Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 06 00:08:52 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102)	Hexachlorobu	17.94	225	117830	0.0082	mg/kg	94
103)	Naphthalene	18.02	128	414017	0.0094	mg/kg	100
104)	123Trichlben	18.32	180	168942	0.0080	mg/kg	95

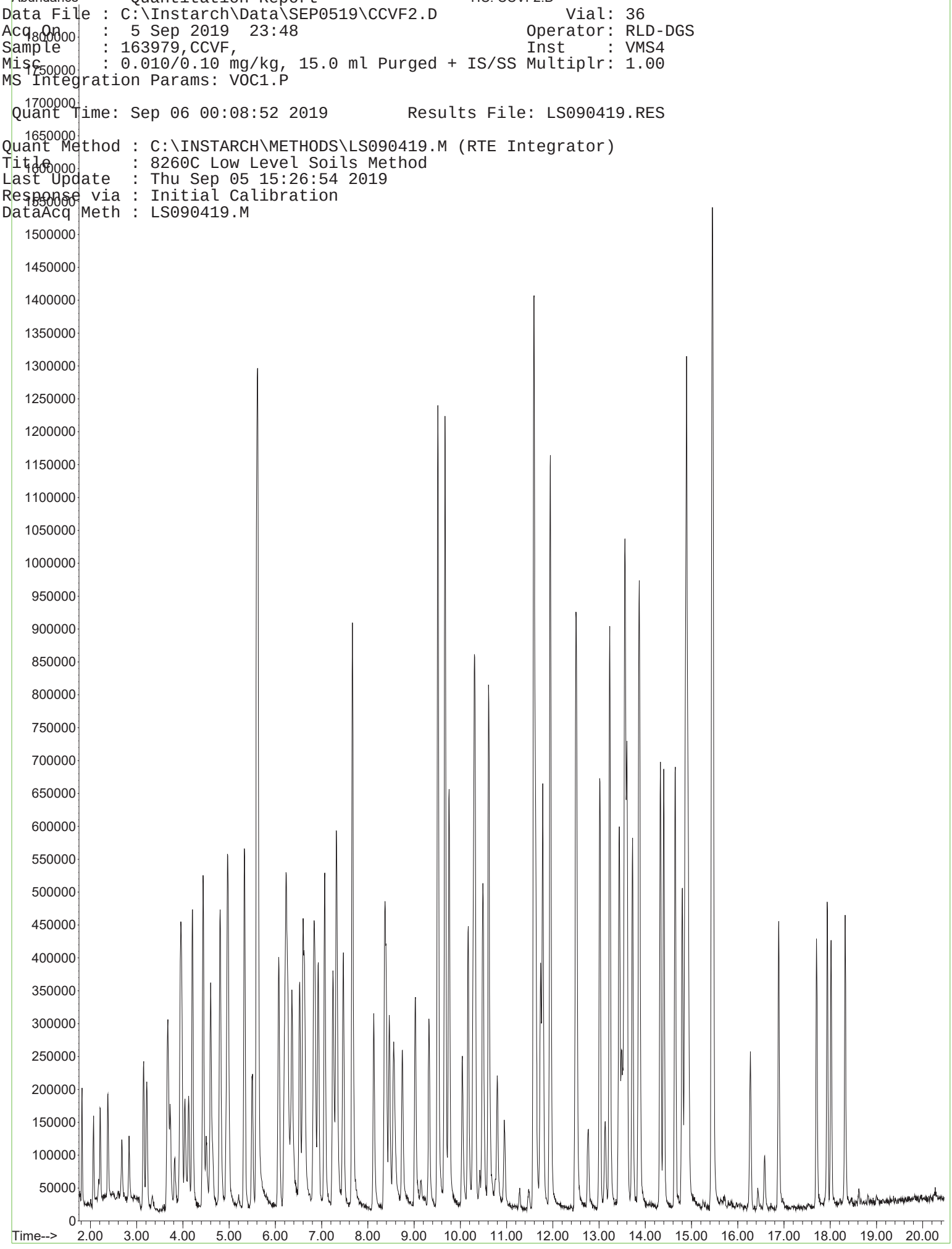
(#) = qualifier out of range (m) = manual integration

Abundance Quantitation Report TIC: CCVF2.D

Data File : C:\Instarch\Data\SEP0519\CCVF2.D Vial: 36
Acq On : 5 Sep 2019 23:48 Operator: RLD-DGS
Sample : 163979,CCVF, Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 06 00:08:52 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M



BFB

Data File : C:\Instarch\Data\SEP0519\BFB3.D Vial: 37
Acq On : 6 Sep 2019 7:19 Operator: RLD-DGS
Sample : 163979,BFB, Inst : VMS4
Misc : 50 ng Injection Multiplr: 1.00
Integration File: VOC1.P

Method : C:\INSTARCH\METHODS\LS090419.M
Title : 8260C Low Level Soils Method

Spectrum Information: Average of 4.627 to 4.640 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.9	19865	PASS
75	95	30	60	54.5	54347	PASS
95	95	100	100	100.0	99744	PASS
96	95	5	9	7.3	7277	PASS
173	174	0.00	2	1.0	788	PASS
174	95	50	100	75.4	75163	PASS
175	174	5	9	7.9	5975	PASS
176	174	95	101	99.2	74537	PASS
177	176	5	9	6.2	4641	PASS

LS090419.M Mon Sep 09 11:35:38 2019

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\SEP0519\CCV3.D Vial: 39
Acq On : 6 Sep 2019 8:33 Operator: RLD-DGS
Sample : 163979,CCV, Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Sep 06 08:53:40 2019

Quant Method : C:\INSTARCH\METHODS\LS090419.M
Quant Title : 8260C Low Level Soils Method
Response via : Initial Calibration
DataAcq Meth:LS090419.M

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	1.0000	1.0000	0.00	96	0.00
2	T	Dichlorodi	0.2569	0.3050	-18.72	96	0.00
3	PT	Chloromethan	0.3033	0.3027	0.20	99	0.00
4	CT	VinylChlorid	0.2930	0.3002	-2.46	93	0.00
5	T	Bromomethane	0.1485	0.1376	7.34	97	0.00
6	T	Chloroethane	0.1778	0.1617	9.06	82	0.00
7	T	dichloroflmethane	0.5679	0.5854	-3.08	95	0.00
8	T	Trichlorofma	0.4176	0.4432	-6.13	87	0.00
9	T	Ethylether	0.2056	0.2205	-7.25	102	0.00
10	T	dichlorotfluoroethan	0.3088	0.3283	-6.31	90	0.00
11	T	propyleneoxide	0.0241	0.0265	-9.96	104	0.00
12	T	Acrolein	0.0393	0.0388	1.27	93	0.00
13	CT	11dichlorthe	0.2511	0.2487	0.96	89	0.00
14	T	Trichlorotfluoroeth	0.2111	0.2489	-17.91	93	0.00
15	T	Acetone	0.0587	0.0578	1.53	98	0.00
16	T	Iodomethane	0.2451	0.2451	0.00	98	0.00
17	T	Carbon Dislf	0.8643	0.9038	-4.57	94	0.00
18	T	allylchloride	0.4574	0.4617	-0.94	95	0.00
19	T	methylacetate	0.0805	0.0811	-0.75	103	0.00
20	T	Methylchlorid	0.4338	0.3864	10.93	105	0.00
21	T	Acrylonitrile	0.0593	0.0583	1.69	98	0.00
22	T	t12dichlorte	0.2938	0.2819	4.05	87	0.00
23	T	tbutylalcohol	0.0275	0.0262	4.73	92	0.00
24	T	MtBE	0.7728	0.8206	-6.19	101	0.00
25	T	Hexane	0.3475	0.3725	-7.19	89	0.00
26	PT	11dichlorota	0.5480	0.5189	5.31	92	0.00
27	T	Vinylacetate	0.3427	0.3881	-13.25	100	0.00
28	T	chloroprene	0.4018	0.4380	-9.01	97	0.00
29	T	Diisopether	0.8573	0.9224	-7.59	101	0.00
30	T	ETBE	0.7840	0.8218	-4.82	99	0.00
31	T	22dichloropr	0.4954	0.4795	3.21	95	0.00
32	T	c12dichlorte	0.3260	0.3217	1.32	95	0.00
33	T	2Butanone	0.0250	0.0251	-0.40	99	0.00
34	T	propionitrile	0.0218	0.0221	-1.38	88	0.00
35	T	Ethylacetate	0.0063	0.0065#	-3.17	91	0.02
36	T	methacrylonitrile	0.0815	0.0889	-9.08	102	0.00
37	T	Bromochlorma	0.1267	0.1269	-0.16	95	0.00
38	T	Tetrahydofur	0.0578	0.0591	-2.25	98	0.00
39	CT	Chloroform	0.5625	0.5385	4.27	91	0.00
40	T	111trichlota	0.4760	0.4826	-1.39	91	0.00
41	S	SURRDibrflma	0.2491	0.2577	-3.45	98	0.00
42	T	Cyclohexane	0.3931	0.4580	-16.51	94	0.00
43	T	Carbtetraclo	0.3667	0.3859	-5.24	91	0.00
44	T	11dicloprope	0.1351	0.1307	3.26	87	0.00
45	S	SURR12DCAd4	0.0511	0.0511	0.00	98	0.00
46	T	Benzene	1.2521	1.1854	5.33	90	0.00
47	T	12dichlorota	0.3566	0.3773	-5.80	100	0.00
48	T	TAME	0.7527	0.8012	-6.44	102	0.00

49	T	trichloroete	0.3056	0.2956	3.27	91	0.00
50	T	methylcyclohexane	0.4595	0.5121	-11.45	89	0.00
51	CT	12dicloropra	0.3183	0.3109	2.32	94	0.00
52	T	23dicl1propene	0.4741	0.4881	-2.95	96	0.00
53	T	Dibromometha	0.1614	0.1519	5.89	89	0.00
54	T	methylmethacrylate	0.1482	0.1468	0.94	97	0.00
55	T	14dioxane	0.0025	0.0018#	28.00#	71	0.01
56	T	Bromodiclrma	0.4135	0.4002	3.22	93	0.00
57	T	2Nitropropane	0.0569	0.0565	0.70	100	0.00
58	T	c13dicloproe	0.4852	0.4808	0.91	95	0.00
59	T	4Meth2Pentan	0.1936	0.1993	-2.94	97	0.00
60	S	SURRd8Tolule	1.0195	1.0385	-1.86	97	0.00
61	CT	Toluene	0.8173	0.7735	5.36	92	0.00
62	T	t13Dicloprop	0.4116	0.4096	0.49	98	0.00
63	T	ethylmethacrylate	0.3145	0.3217	-2.29	96	0.00
64	T	112Triclotha	0.2090	0.2027	3.01	91	0.00
65	T	Tetrachlorte	0.3039	0.2826	7.01	84	0.00
66	T	13Diclorpropa	0.4279	0.4035	5.70	92	0.00
67	I	d5-CHLOROBENZENE**ISTD**	1.0000	1.0000	0.00	97	0.00
68	T	2Hexanone	0.1680	0.1764	-5.00	96	0.00
69	T	Clorodibrmta	0.3342	0.3288	1.62	94	0.00
70	T	12Dibrometha	0.2949	0.2843	3.59	90	0.00
71	PT	Chlorobenzen	1.0298	0.9717	5.64	94	0.00
72	T	1Clhexane	0.4988	0.4991	-0.06	88	0.00
73	T	1112Tetclota	0.3593	0.3285	8.57	89	0.00
74	CT	Ethylbenzene	1.8234	1.7843	2.14	93	0.00
75	T	m p-Xylene	0.6826	0.6394	6.33	91	0.00
76	T	o-Xylene	0.6847	0.6455	5.73	90	0.00
77	T	Styrene	1.1128	1.0804	2.91	93	0.00
78	PT	Bromoform	0.2283	0.2044	10.47	96	0.00
79	T	Isopropylben	1.6763	1.6499	1.57	90	0.00
80	I	d4-1,4-DICHLOROBENZENE**IS	1.0000	1.0000	0.00	100	0.00
81	T	cyclohexanone	0.0209	0.0179	14.35	82	0.00
82	S	SURR4BrFBenz	0.9495	0.9379	1.22	99	0.00
83	T	Bromobenzene	0.8323	0.7902	5.06	98	0.00
84	PT	1122Tetrclta	0.7895	0.7118	9.84	86	0.00
85	T	123Triclproa	0.9734	0.9651	0.85	114	0.00
86	T	14dichloro2butene	0.1769	0.1895	-7.12	119	0.00
87	T	n-Propylbenz	3.8587	3.6270	6.00	90	0.00
88	T	2chlorotolue	2.3397	2.2305	4.67	97	0.00
89	T	4chlorotolue	2.6592	2.5764	3.11	95	0.00
90	T	135Trimebenz	2.7235	2.5525	6.28	93	0.00
91	T	tbutylbenzen	2.3214	2.1820	6.00	89	0.00
92	T	124Trimetben	2.7905	2.6184	6.17	93	0.00
93	T	sbutylbenzen	3.4141	3.3441	2.05	92	0.00
94	T	13Diclorbenz	1.4901	1.3999	6.05	95	0.00
95	T	pIsopropylto	2.7719	2.7161	2.01	92	0.00
96	T	14dichlorobe	1.4750	1.3634	7.57	94	0.00
97	T	12dichlorobe	1.4126	1.3446	4.81	97	0.00
98	T	nButylbenzen	2.6879	2.6630	0.93	94	0.00
99	T	12dibromo3cl	0.1438	0.1259	12.45	93	0.00
100	T	135Trichlorobenzene	1.1397	1.1759	-3.18	103	0.00
101	T	124Trichlobe	1.0105	0.9778	3.24	98	0.00
102	T	Hexachlorobu	0.6585	0.6418	2.54	96	0.00
103	T	Naphthalene	2.0245	1.7513	13.49	90	0.00
104	T	123Trichlben	0.9685	0.9133	5.70	95	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

LS090419.M Mon Sep 09 11:45:12 2019

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\SEP0519\CCV3.D Vial: 39
Acq On : 6 Sep 2019 8:33 Operator: RLD-DGS
Sample : 163979,CCV, Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Sep 06 08:53:40 2019

Quant Method : C:\INSTARCH\METHODS\LS090419.M
Quant Title : 8260C Low Level Soils Method
Response via : Initial Calibration
DataAcq Meth:LS090419.M

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	0.0200	0.0200	0.00	96	0.00
2	T	Dichlorodi	0.0100	0.0106	-6.00	96	0.00
3	PT	Chloromethan	0.0100	0.0100	0.00	99	0.00
4	CT	VinylChlorid	0.0100	0.0102	-2.00	93	0.00
5	T	Bromomethane	0.0100	0.0093	7.00	97	0.00
6	T	Chloroethane	0.0100	0.0091	9.00	82	0.00
7	T	dichloroflmethane	0.0100	0.0103	-3.00	95	0.00
8	T	Trichlorofma	0.0100	0.0095	5.00	87	0.00
9	T	Ethylether	0.0100	0.0107	-7.00	102	0.00
10	T	dichlorotfluoroethan	0.0100	0.0106	-6.00	90	0.00
11	T	propyleneoxide	0.1000	0.1100	-10.00	104	0.00
12	T	Acrolein	0.0500	0.0493	1.40	93	0.00
13	CT	11dichlorthe	0.0100	0.0099	1.00	89	0.00
14	T	Trichlorotfluoroeth	0.0200	0.0204	-2.00	93	0.00
15	T	Acetone	0.1000	0.0984	1.60	98	0.00
16	T	Iodomethane	0.0200	0.0186	7.00	98	0.00
17	T	Carbon Dislf	0.0200	0.0209	-4.50	94	0.00
18	T	allylchloride	0.0200	0.0202	-1.00	95	0.00
19	T	methylacetate	0.0100	0.0094	6.00	103	0.00
20	T	Methylchlorid	0.0100	0.0105	-5.00	105	0.00
21	T	Acrylonitrile	0.0500	0.0491	1.80	98	0.00
22	T	t12dichlorte	0.0100	0.0096	4.00	87	0.00
23	T	tbutylalcohol	0.5000	0.4768	4.64	92	0.00
24	T	MtBE	0.0100	0.0106	-6.00	101	0.00
25	T	Hexane	0.0200	0.0192	4.00	89	0.00
26	PT	11dichlorota	0.0100	0.0095	5.00	92	0.00
27	T	Vinylacetate	0.1000	0.1132	-13.20	100	0.00
28	T	chloroprene	0.0200	0.0218	-9.00	97	0.00
29	T	Diisopether	0.0100	0.0108	-8.00	101	0.00
30	T	ETBE	0.0100	0.0105	-5.00	99	0.00
31	T	22dichloropr	0.0100	0.0097	3.00	95	0.00
32	T	c12dichlorte	0.0100	0.0099	1.00	95	0.00
33	T	2Butanone	0.1000	0.1005	-0.50	99	0.00
34	T	propionitrile	0.1000	0.0890	11.00	88	0.00
35	T	Ethylacetate	0.0500	0.0460	8.00	91	0.02
36	T	methacrylonitrile	0.0200	0.0197	1.50	102	0.00
37	T	Bromochlorma	0.0100	0.0100	0.00	95	0.00
38	T	Tetrahydofur	0.1000	0.1021	-2.10	98	0.00
39	CT	Chloroform	0.0100	0.0096	4.00	91	0.00
40	T	111trichlota	0.0100	0.0101	-1.00	91	0.00
41	S	SURRDibrflma	0.0200	0.0207	-3.50	98	0.00
42	T	Cyclohexane	0.0100	0.0102	-2.00	94	0.00
43	T	Carbtetraclo	0.0100	0.0097	3.00	91	0.00
44	T	11dicloprope	0.0100	0.0097	3.00	87	0.00
45	S	SURR12DCAd4	0.0200	0.0200	0.00	98	0.00
46	T	Benzene	0.0100	0.0095	5.00	90	0.00
47	T	12dichlorota	0.0100	0.0106	-6.00	100	0.00
48	T	TAME	0.0100	0.0106	-6.00	102	0.00

49	T	trichloroete	0.0100	0.0097	3.00	91	0.00
50	T	methylcyclohexane	0.0100	0.0097	3.00	89	0.00
51	CT	12dicloropra	0.0100	0.0098	2.00	94	0.00
52	T	23dicl1propene	0.0100	0.0103	-3.00	96	0.00
53	T	Dibromometha	0.0100	0.0094	6.00	89	0.00
54	T	methylmethacrylate	0.0100	0.0092	8.00	97	0.00
55	T	14dioxane	0.5000	0.3608	27.84#	71	0.01
56	T	Bromodiclrma	0.0100	0.0097	3.00	93	0.00
57	T	2Nitropropane	0.1000	0.0992	0.80	100	0.00
58	T	c13dicloproe	0.0100	0.0099	1.00	95	0.00
59	T	4Meth2Pentan	0.1000	0.1030	-3.00	97	0.00
60	S	SURRd8Tolule	0.0200	0.0204	-2.00	97	0.00
61	CT	Toluene	0.0100	0.0095	5.00	92	0.00
62	T	t13Dicloprop	0.0100	0.0100	0.00	98	0.00
63	T	ethylmethacrylate	0.0200	0.0205	-2.50	96	0.00
64	T	112Triclotha	0.0100	0.0097	3.00	91	0.00
65	T	Tetrachlorte	0.0100	0.0093	7.00	84	0.00
66	T	13Diclorpropa	0.0100	0.0094	6.00	92	0.00
67	I	d5-CHLOROBENZENE**ISTD**	0.0200	0.0200	0.00	97	0.00
68	T	2Hexanone	0.1000	0.0943	5.70	96	0.00
69	T	Clorodibrmta	0.0100	0.0098	2.00	94	0.00
70	T	12Dibrometha	0.0100	0.0096	4.00	90	0.00
71	PT	Chlorobenzen	0.0100	0.0094	6.00	94	0.00
72	T	1Clhexane	0.0100	0.0091	9.00	88	0.00
73	T	1112Tetclota	0.0100	0.0091	9.00	89	0.00
74	CT	Ethylbenzene	0.0100	0.0098	2.00	93	0.00
75	T	m p-Xylene	0.0200	0.0187	6.50	91	0.00
76	T	o-Xylene	0.0100	0.0094	6.00	90	0.00
77	T	Styrene	0.0100	0.0097	3.00	93	0.00
78	PT	Bromoform	0.0100	0.0090	10.00	96	0.00
79	T	Isopropylben	0.0100	0.0098	2.00	90	0.00
80	I	d4-1,4-DICHLOROBENZENE**IS	0.0200	0.0200	0.00	100	0.00
81	T	cyclohexanone	0.2000	0.1717	14.15	82	0.00
82	S	SURR4BrFBenz	0.0200	0.0198	1.00	99	0.00
83	T	Bromobenzene	0.0100	0.0095	5.00	98	0.00
84	PT	1122Tetrclta	0.0100	0.0090	10.00	86	0.00
85	T	123Triclproa	0.0100	0.0099	1.00	114	0.00
86	T	14dichloro2butene	0.0100	0.0107	-7.00	119	0.00
87	T	n-Propylbenz	0.0100	0.0094	6.00	90	0.00
88	T	2chlorotolue	0.0100	0.0095	5.00	97	0.00
89	T	4chlorotolue	0.0100	0.0097	3.00	95	0.00
90	T	135Trimebenz	0.0100	0.0094	6.00	93	0.00
91	T	tbutylbenzen	0.0100	0.0094	6.00	89	0.00
92	T	124Trimetben	0.0100	0.0094	6.00	93	0.00
93	T	sbutylbenzen	0.0100	0.0098	2.00	92	0.00
94	T	13Diclorbenz	0.0100	0.0094	6.00	95	0.00
95	T	pIsopropylto	0.0100	0.0098	2.00	92	0.00
96	T	14dichlorobe	0.0100	0.0092	8.00	94	0.00
97	T	12dichlorobe	0.0100	0.0095	5.00	97	0.00
98	T	nButylbenzen	0.0100	0.0099	1.00	94	0.00
99	T	12dibromo3cl	0.0100	0.0088	12.00	93	0.00
100	T	135Trichlorobenzene	0.0100	0.0103	-3.00	103	0.00
101	T	124Trichlobe	0.0100	0.0097	3.00	98	0.00
102	T	Hexachlorobu	0.0100	0.0097	3.00	96	0.00
103	T	Naphthalene	0.0100	0.0087	13.00	90	0.00
104	T	123Trichlben	0.0100	0.0094	6.00	95	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

LS090419.M Mon Sep 09 11:45:53 2019

Quantitation Report

Data File : C:\Instarch\Data\SEP0519\CCV3.D Vial: 39
Acq On : 6 Sep 2019 8:33 Operator: RLD-DGS
Sample : 163979,CCV, Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 06 08:53:40 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1058886	0.02	mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	824480	0.02	mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.90	152	446626	0.02	mg/kg	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	272882	0.021	mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 105 %			
45) SURR12DCAd4	7.25	102	54135	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 100 %			
60) SURRd8Tolule	9.67	98	1099625	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %			
82) SURR4BrFBenz	13.23	95	418886	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 100 %			
Target Compounds						Qvalue
2) Dichlorodi	1.82	85	161497	0.0106	mg/kg	100
3) Chloromethan	2.06	50	160260	0.0100	mg/kg	96
4) VinylChlorid	2.21	62	158940	0.0102	mg/kg	100
5) Bromomethane	2.68	94	72864	0.0093	mg/kg	93
6) Chloroethane	2.83	64	85630	0.0091	mg/kg	94
7) dichloroflmethane	3.15	67	309934	0.0103	mg/kg	97
8) Trichlorofma	3.21	101	234650	0.0095	mg/kg	96
9) Ethylether	3.66	59	116727	0.0107	mg/kg	96
10) dichlorotfluoroethan	3.69	67	173801	0.0106	mg/kg	97
11) propyleneoxide	3.72	58	140145	0.1100	mg/kg	90
12) Acrolein	3.83	56	102625	0.0493	mg/kg	97
13) 11dichlorthe	3.94	96	131678	0.0099	mg/kg	96
14) Trichlorotfluoroeth	3.97	101	263523	0.0204	mg/kg	99
15) Acetone	4.04	43	305777	0.0984	mg/kg	98
16) Iodomethane	4.12	142	259550	0.0186	mg/kg	98
17) Carbon Dislf	4.21	76	957003	0.0209	mg/kg	97
18) allylchloride	4.43	41	488922	0.0202	mg/kg	99
19) methylacetate	4.51	74	42949	0.0094	mg/kg	92
20) Methylchlorid	4.60	84	204572	0.0105	mg/kg	98
21) Acrylonitrile	4.94	53	154370	0.0491	mg/kg	98
22) t12dichlorte	4.96	96	149232	0.0096	mg/kg	96
23) tbutylalcohol	4.81	59	694781	0.4768	mg/kg	100
24) MtBE	4.98	73	434442	0.0106	mg/kg	98
25) Hexane	5.33	57	394392	0.0192	mg/kg	96
26) 11dichlorota	5.49	63	274733	0.0095	mg/kg	99
27) Vinylacetate	5.60	43	2054944	0.1132	mg/kg	99
28) chloroprene	5.62	53	463767	0.0218	mg/kg	95
29) Diisopether	5.61	45	488354	0.0108	mg/kg	98
30) ETBE	6.07	59	435072	0.0105	mg/kg	99
31) 22dichloropr	6.23	77	253849	0.0097	mg/kg	97
32) c12dichlorte	6.24	96	170333	0.0099	mg/kg	98
33) 2Butanone	6.27	72	132892	0.1005	mg/kg	97
34) propionitrile	6.33	54	116890	0.0890	mg/kg	90
35) Ethylacetate	6.38	88	17328	0.0460	mg/kg	97
36) methacrylonitrile	6.52	67	94098	0.0197	mg/kg	97
37) Bromochlorma	6.53	128	67166	0.0100	mg/kg	98
38) Tetrahydofur	6.59	42	312728	0.1021	mg/kg	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\SEP0519\CCV3.D Vial: 39
Acq On : 6 Sep 2019 8:33 Operator: RLD-DGS
Sample : 163979,CCV, Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 06 08:53:40 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.63	83	285103	0.0096	mg/kg	92
40)	111trichlota	6.86	97	255530	0.0101	mg/kg	99
42)	Cyclohexane	6.93	56	242470	0.0102	mg/kg	99
43)	Carbtetraclo	7.07	119	204303	0.0097	mg/kg	99
44)	11dicloprope	7.06	110	69176	0.0097	mg/kg	92
46)	Benzene	7.32	78	627607	0.0095	mg/kg	99
47)	12dichlorota	7.34	62	199768	0.0106	mg/kg	98
48)	TAME	7.47	73	424186	0.0106	mg/kg	98
49)	trichloroete	8.13	95	156519	0.0097	mg/kg	99
50)	methylcyclohexane	8.36	83	271112	0.0097	mg/kg	98
51)	12dicloropra	8.40	63	164612	0.0098	mg/kg	97
52)	23dicl1propene	8.46	75	258425	0.0103	mg/kg	98
53)	Dibromometha	8.55	93	80410	0.0094	mg/kg	92
54)	methylmethacrylate	8.57	69	77719	0.0092	mg/kg	100
55)	14dioxane	8.60	88	47771	0.3608	mg/kg	89
56)	Bromodiclrma	8.75	83	211894	0.0097	mg/kg	97
57)	2Nitropropane	9.02	43	299003	0.0992	mg/kg	97
58)	c13dicloproe	9.32	75	254538	0.0099	mg/kg	99
59)	4Meth2Pentan	9.51	43	1055277	0.1030	mg/kg	97
61)	Toluene	9.76	92	409548	0.0095	mg/kg	98
62)	t13Dicloprop	10.04	75	216881	0.0100	mg/kg	99
63)	ethylmethacrylate	10.17	69	340617	0.0205	mg/kg	99
64)	112Triclotha	10.28	83	107294	0.0097	mg/kg	97
65)	Tetrachlorte	10.48	166	149629	0.0093	mg/kg	95
66)	13Diclorpropa	10.50	76	213630	0.0094	mg/kg	95
68)	2Hexanone	10.62	43	727376	0.0943	mg/kg	98
69)	Clorodibrmta	10.80	129	135530	0.0098	mg/kg	99
70)	12Dibrometha	10.96	107	117220	0.0096	mg/kg	100
71)	Chlorobenzen	11.63	112	400564	0.0094	mg/kg	99
72)	1Clhexane	11.59	91	205748	0.0091	mg/kg	97
73)	1112Tetclota	11.74	131	135422	0.0091	mg/kg	97
74)	Ethylbenzene	11.78	91	735554	0.0098	mg/kg	99
75)	m p-Xylene	11.95	106	527142	0.0187	mg/kg	100
76)	o-Xylene	12.50	106	266088	0.0094	mg/kg	96
77)	Styrene	12.52	104	445391	0.0097	mg/kg	99
78)	Bromoform	12.77	173	84244	0.0090	mg/kg	99
79)	Isopropylben	13.02	105	680151	0.0098	mg/kg	99
81)	cyclohexanone	13.13	55	80091	0.1717	mg/kg	90
83)	Bromobenzene	13.44	156	176462	0.0095	mg/kg	93
84)	1122Tetrclta	13.43	83	158964	0.0090	mg/kg	95
85)	123Triclproa	13.49	75	215511	0.0099	mg/kg	93
86)	14dichloro2butene	13.52	53	42327	0.0107	mg/kg	95
87)	n-Propylbenz	13.60	91	809954	0.0094	mg/kg	99
88)	2chlorotolue	13.72	91	498103	0.0095	mg/kg	99
89)	4chlorotolue	13.88	91	575336	0.0097	mg/kg	100
90)	135Trimebenz	13.86	105	570000	0.0094	mg/kg	99
91)	tbutylbenzen	14.33	119	487277	0.0094	mg/kg	99
92)	124Trimetben	14.41	105	584717	0.0094	mg/kg	99
93)	sbutylbenzen	14.65	105	746779	0.0098	mg/kg	99
94)	13Diclorbenz	14.80	146	312626	0.0094	mg/kg	99
95)	pIsopropylto	14.87	119	606544	0.0098	mg/kg	99
96)	14dichlorobe	14.93	146	304468	0.0092	mg/kg	96
97)	12dichlorobe	15.47	146	300262	0.0095	mg/kg	98
98)	nButylbenzen	15.46	91	594674	0.0099	mg/kg	99
99)	12dibromo3cl	16.58	157	28123	0.0088	mg/kg	99
100)	135Trichlorobenzene	16.89	180	262593	0.0103	mg/kg	98
101)	124Trichlobe	17.71	180	218358	0.0097	mg/kg	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\SEP0519\CCV3.D Vial: 39
Acq On : 6 Sep 2019 8:33 Operator: RLD-DGS
Sample : 163979,CCV, Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 06 08:53:40 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102)	Hexachlorobu	17.94	225	143313	0.0097	mg/kg	90
103)	Naphthalene	18.02	128	391078	0.0087	mg/kg	97
104)	123Trichlben	18.32	180	203956	0.0094	mg/kg	96

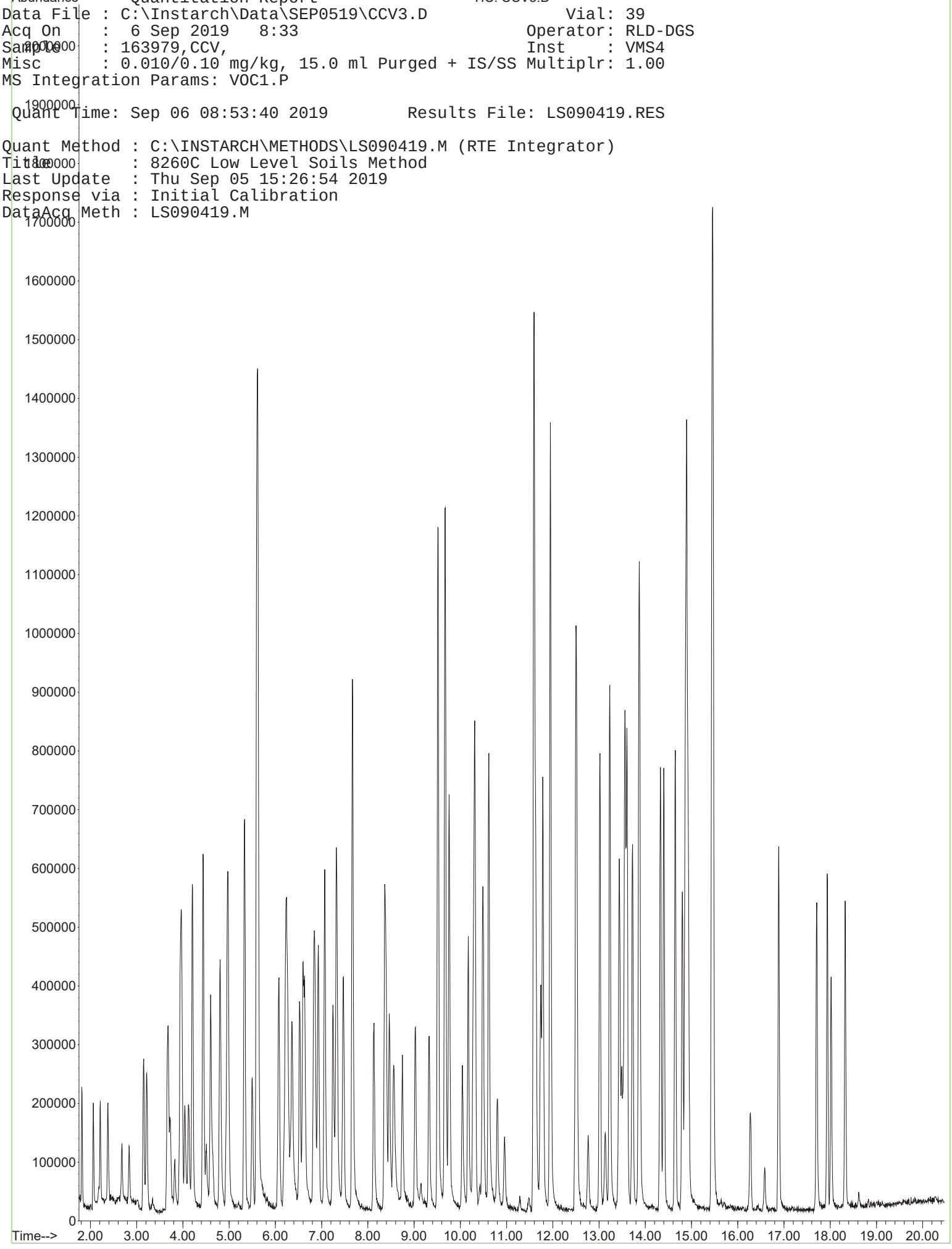
(#) = qualifier out of range (m) = manual integration

Abundance Quantitation Report TIC: CCV3.D

Data File : C:\Instarch\Data\SEP0519\CCV3.D Vial: 39
Acq On : 6 Sep 2019 8:33 Operator: RLD-DGS
Sample : 163979,CCV, Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 06 08:53:40 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M



Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\CCB2.D Vial: 41
Acq On : 6 Sep 2019 9:31 Operator: RLD-DGS
Sample : 163979,CCB, Inst : VMS4
Misc : 5.00g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 06 09:51:46 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Fri Sep 06 08:54:58 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	942041	0.02	mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	757375	0.02	mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.89	152	396483	0.02	mg/kg	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	241170	0.021	mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 105 %			
45) SURR12DCAd4	7.24	102	44967	0.019	mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 95 %			
60) SURRd8Tolule	9.67	98	992747	0.021	mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 105 %			
82) SURR4BrFBenz	13.23	95	373337	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 100 %			
Target Compounds						Qvalue
2) Dichlorodi	1.81	85	2706	0.0012	mg/kg	85
3) Chloromethan	2.06	50	1132	N.D.		
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	2.69	94	2227	N.D.		
6) Chloroethane	0.00	64	0	N.D.		
7) dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	3.22	101	1254	0.0010	mg/kg#	27
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	0.00	56	0	N.D.		
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	4.08	43	4771	N.D.		
16) Iodomethane	4.12	142	4059	0.0025	mg/kg#	71
17) Carbon Dislf	4.21	76	3930	N.D.		
18) allylchloride	0.00	41	0	N.D.		
19) methylacetate	0.00	74	0	N.D.		
20) Methylchlorid	4.60	84	34972	N.D.		
21) Acrylonitrile	0.00	53	0	N.D.		
22) t12dichlorte	0.00	96	0	N.D.		
23) tbutylalcohol	4.80	59	7590	N.D.		
24) MtBE	4.99	73	1313	N.D.		
25) Hexane	5.32	57	10454	0.0024	mg/kg	91
26) 11dichlorota	0.00	63	0	N.D.		
27) Vinylacetate	0.00	43	0	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	6.19	59	2202	N.D.		
31) 22dichloropr	6.24	77	1303	N.D.		
32) c12dichlorte	0.00	96	0	N.D.		
33) 2Butanone	0.00	72	0	N.D.		
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	6.62	42	1576	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\CCB2.D Vial: 41
Acq On : 6 Sep 2019 9:31 Operator: RLD-DGS
Sample : 163979,CCB, Inst : VMS4
Misc : 5.00g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 06 09:51:46 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Fri Sep 06 08:54:58 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	9.09	43	1279	N.D.	
58)	c13dicloproe	0.00	75	0	N.D.	
59)	4Meth2Pentan	9.52	43	1245	N.D.	
61)	Toluene	9.76	92	1247	N.D.	
62)	t13Dicloprop	0.00	75	0	N.D.	
63)	ethylmethacrylate	0.00	69	0	N.D.	
64)	112Triclotha	0.00	83	0	N.D.	
65)	Tetrachlorte	0.00	166	0	N.D.	
66)	13Diclorpropa	0.00	76	0	N.D.	
68)	2Hexanone	10.63	43	1574	N.D.	
69)	Clorodibrmta	0.00	129	0	N.D.	
70)	12Dibrometha	0.00	107	0	N.D.	
71)	Chlorobenzen	0.00	112	0	N.D.	
72)	1Clhexane	11.58	91	1064	0.0010 mg/kg#	1
73)	1112Tetclota	0.00	131	0	N.D.	
74)	Ethylbenzene	11.79	91	1423	N.D.	
75)	m p-Xylene	11.96	106	1761	N.D.	
76)	o-Xylene	0.00	106	0	N.D.	
77)	Styrene	12.54	104	1136	N.D.	
78)	Bromoform	0.00	173	0	N.D.	
79)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	13.13	55	1111	N.D.	
83)	Bromobenzene	0.00	156	0	N.D.	
84)	1122Tetrclta	0.00	83	0	N.D.	
85)	123Triclproa	13.46	75	1615	N.D.	
86)	14dichloro2butene	0.00	53	0	N.D.	
87)	n-Propylbenz	13.61	91	1205	N.D.	
88)	2chlorotolue	13.61	91	1205	N.D.	
89)	4chlorotolue	0.00	91	0	N.D.	
90)	135Trimebenz	13.88	105	1924	N.D.	
91)	tbutylbenzen	0.00	119	0	N.D.	
92)	124Trimetben	14.42	105	3874	N.D.	
93)	sbutylbenzen	0.00	105	0	N.D.	
94)	13Diclorbenz	0.00	146	0	N.D.	
95)	pIsopropylto	14.85	119	1511	N.D.	
96)	14dichlorobe	0.00	146	0	N.D.	
97)	12dichlorobe	15.43	146	1069	N.D.	
98)	nButylbenzen	15.47	91	1444	N.D.	
99)	12dibromo3cl	0.00	157	0	N.D.	
100)	135Trichlorobenzene	0.00	180	0	N.D.	
101)	124Trichlobe	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\CCB2.D Vial: 41
Acq On : 6 Sep 2019 9:31 Operator: RLD-DGS
Sample : 163979,CCB, Inst : VMS4
Misc : 5.00g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 06 09:51:46 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Fri Sep 06 08:54:58 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) Hexachlorobu	0.00	225	0	N.D.	
103) Naphthalene	18.01	128	7528	N.D.	
104) 123Trichlben	0.00	180	0	N.D.	

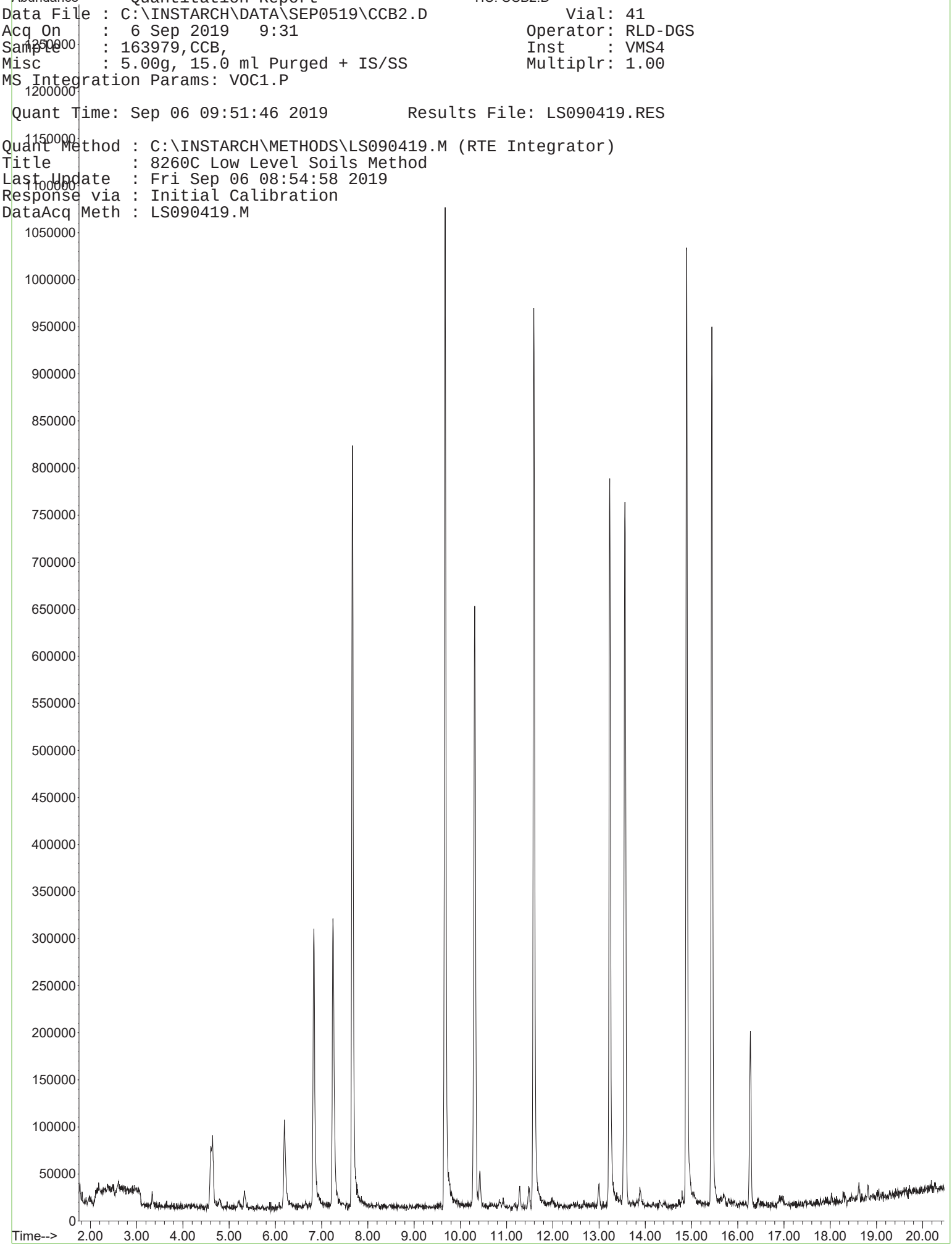
(#) = qualifier out of range (m) = manual integration

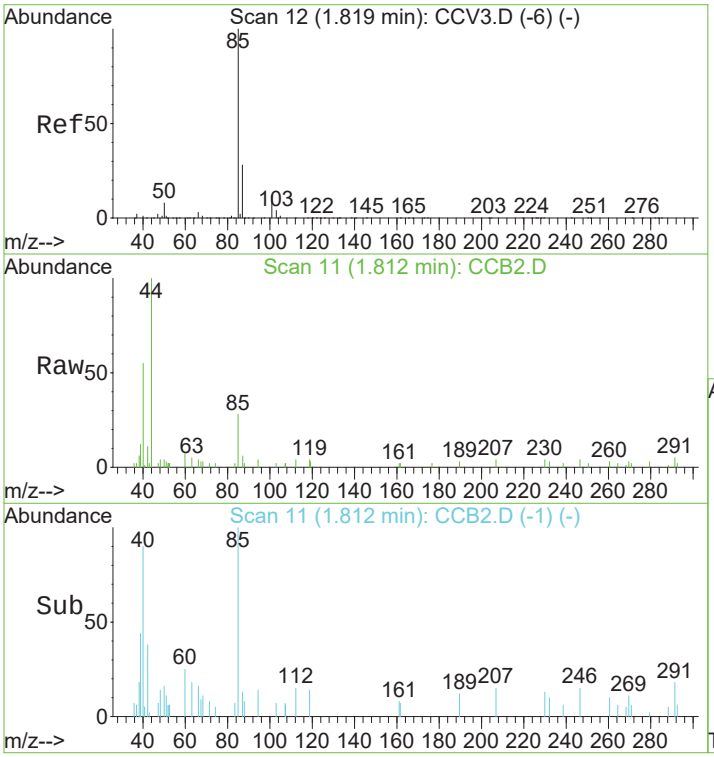
Abundance Quantitation Report TIC: CCB2.D

Data File : C:\INSTARCH\DATA\SEP0519\CCB2.D Vial: 41
Acq On : 6 Sep 2019 9:31 Operator: RLD-DGS
Sample : 163979,CCB, Inst : VMS4
Misc : 5.00g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 06 09:51:46 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Fri Sep 06 08:54:58 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

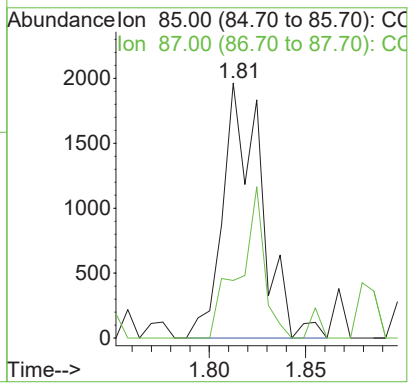




#2
Dichlorodi
Concen: 0.00 mg/kg
RT: 1.81 min Scan# 11
Delta R.T. -0.01 min
Lab File: CCB2.D
Acq: 6 Sep 2019 9:31

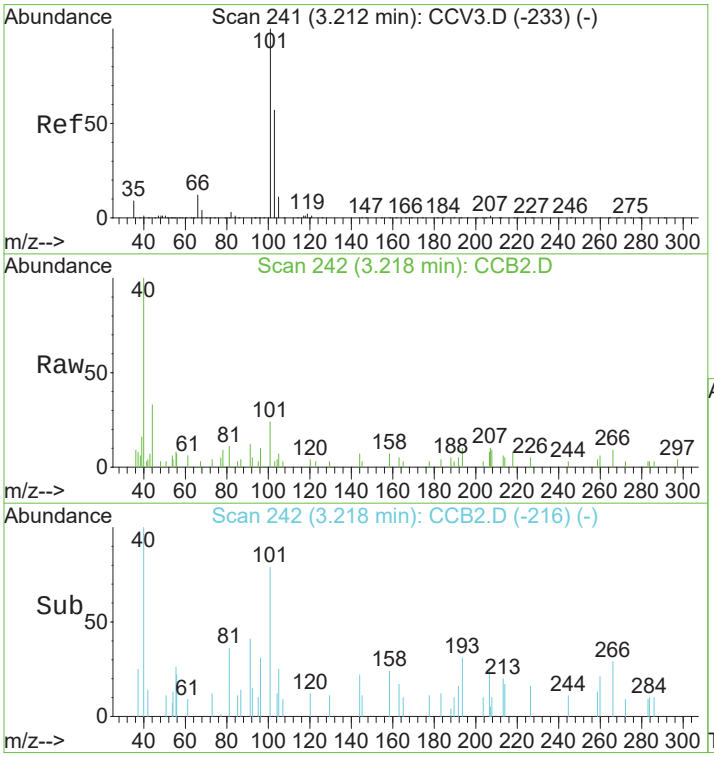
Tgt Ion: 85 Resp: 2706

Ion	Ratio	Lower	Upper
85	100		
87	39.2	10.8	50.8



Negative Library Identification

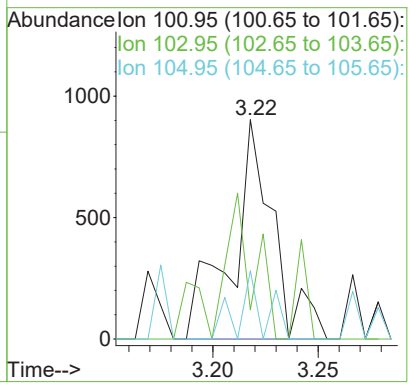
[redacted]



#8
Trichlorofma
Concen: 0.00 mg/kg
RT: 3.22 min Scan# 242
Delta R.T. 0.01 min
Lab File: CCB2.D
Acq: 6 Sep 2019 9:31

Tgt Ion:101 Resp: 1254

Ion	Ratio	Lower	Upper
101	100		
103	0.0	41.7	81.7#
105	0.0	0.0	29.6



Negative Library Identification

[redacted]

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\SEP0519\CCVF3.D Vial: 44
Acq On : 6 Sep 2019 10:58 Operator: RLD-DGS
Sample : 163979,CCVF, Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Sep 06 11:19:00 2019

Quant Method : C:\INSTARCH\METHODS\LS090419.M
Quant Title : 8260C Low Level Soils Method
Response via : Initial Calibration
DataAcq Meth:LS090419.M

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	1.0000	1.0000	0.00	95	0.00
2	T	Dichlorodi	0.2569	0.2730	-6.27	85	0.00
3	PT	Chloromethan	0.3033	0.2699	11.01	88	0.00
4	CT	VinylChlorid	0.2930	0.2941	-0.38	90	0.00
5	T	Bromomethane	0.1485	0.1134	23.64	79	0.00
6	T	Chloroethane	0.1778	0.1643	7.59	83	0.00
7	T	dichloroflmethane	0.5679	0.5606	1.29	90	0.00
8	T	Trichlorofma	0.4176	0.4379	-4.86	85	0.00
9	T	Ethylether	0.2056	0.2091	-1.70	95	0.00
10	T	dichlorotfluoroethan	0.3088	0.3010	2.53	82	0.00
11	T	propyleneoxide	0.0241	0.0222	7.88	86	0.00
12	T	Acrolein	0.0393	0.0391	0.51	93	0.00
13	CT	11dichlorthe	0.2511	0.2340	6.81	83	0.00
14	T	Trichlorotfluoroeth	0.2111	0.2234	-5.83	82	0.00
15	T	Acetone	0.0587	0.0562	4.26	95	0.00
16	T	Iodomethane	0.2451	0.2214	9.67	88	0.00
17	T	Carbon Dislf	0.8643	0.8569	0.86	88	0.00
18	T	allylchloride	0.4574	0.4434	3.06	91	0.00
19	T	methylacetate	0.0805	0.0744	7.58	94	0.00
20	T	Methylchlorid	0.4338	0.3470	20.01	93	0.00
21	T	Acrylonitrile	0.0593	0.0588	0.84	98	0.00
22	T	t12dichlorte	0.2938	0.2665	9.29	82	0.00
23	T	tbutylalcohol	0.0275	0.0249	9.45	87	0.00
24	T	MtBE	0.7728	0.7926	-2.56	97	0.00
25	T	Hexane	0.3475	0.3304	4.92	78	0.00
26	PT	11dichlorota	0.5480	0.5129	6.41	90	0.00
27	T	Vinylacetate	0.3427	0.3836	-11.93	98	0.00
28	T	chloroprene	0.4018	0.4075	-1.42	89	0.00
29	T	Diisopether	0.8573	0.8834	-3.04	96	0.00
30	T	ETBE	0.7840	0.8181	-4.35	97	0.00
31	T	22dichloropr	0.4954	0.4380	11.59	86	0.00
32	T	c12dichlorte	0.3260	0.3206	1.66	94	0.00
33	T	2Butanone	0.0250	0.0234	6.40	92	0.00
34	T	propionitrile	0.0218	0.0210	3.67	83	0.00
35	T	Ethylacetate	0.0063	0.0073#	-15.87	100	0.02
36	T	methacrylonitrile	0.0815	0.0864	-6.01	98	0.00
37	T	Bromochlorma	0.1267	0.1216	4.03	90	0.00
38	T	Tetrahydofur	0.0578	0.0576	0.35	95	0.00
39	CT	Chloroform	0.5625	0.5324	5.35	89	0.00
40	T	111trichlota	0.4760	0.4566	4.08	85	0.00
41	S	SURRDibrflma	0.2491	0.2579	-3.53	97	0.00
42	T	Cyclohexane	0.3931	0.4237	-7.78	86	0.00
43	T	Carbtetraclo	0.3667	0.3577	2.45	83	0.00
44	T	11dicloprope	0.1351	0.1237	8.44	82	0.00
45	S	SURR12DCAd4	0.0511	0.0487	4.70	93	0.00
46	T	Benzene	1.2521	1.1725	6.36	88	0.00
47	T	12dichlorota	0.3566	0.3747	-5.08	99	0.00
48	T	TAME	0.7527	0.8074	-7.27	101	0.00

49	T	trichloroete	0.3056	0.2842	7.00	87	0.00
50	T	methylcyclohexane	0.4595	0.4706	-2.42	81	0.00
51	CT	12dicloropra	0.3183	0.2983	6.28	89	0.00
52	T	23dicl1propene	0.4741	0.4546	4.11	89	0.00
53	T	Dibromometha	0.1614	0.1566	2.97	91	0.00
54	T	methylmethacrylate	0.1482	0.1563	-5.47	102	0.00
55	T	14dioxane	0.0025	0.0023#	8.00	91	0.00
56	T	Bromodiclrma	0.4135	0.4003	3.19	92	0.00
57	T	2Nitropropane	0.0569	0.0541	4.92	95	0.00
58	T	c13dicloproe	0.4852	0.4721	2.70	92	0.00
59	T	4Meth2Pentan	0.1936	0.1955	-0.98	94	0.00
60	S	SURRd8Tolule	1.0195	1.0313	-1.16	95	0.00
61	CT	Toluene	0.8173	0.7367	9.86	87	0.00
62	T	t13Dicloprop	0.4116	0.3909	5.03	93	0.00
63	T	ethylmethacrylate	0.3145	0.3167	-0.70	94	0.00
64	T	112Triclotha	0.2090	0.2006	4.02	89	0.00
65	T	Tetrachlorte	0.3039	0.2772	8.79	82	0.00
66	T	13Diclorpropa	0.4279	0.4105	4.07	93	0.00
67	I	d5-CHLOROBENZENE**ISTD**	1.0000	1.0000	0.00	98	0.00
68	T	2Hexanone	0.1680	0.1675	0.30	92	0.00
69	T	Clorodibrmta	0.3342	0.3087	7.63	89	0.00
70	T	12Dibrometha	0.2949	0.2734	7.29	87	0.00
71	PT	Chlorobenzen	1.0298	0.9095	11.68	88	0.00
72	T	1Clhexane	0.4988	0.4568	8.42	81	0.00
73	T	1112Tetclota	0.3593	0.3225	10.24	88	0.00
74	CT	Ethylbenzene	1.8234	1.6517	9.42	87	0.00
75	T	m p-Xylene	0.6826	0.6109	10.50	88	0.00
76	T	o-Xylene	0.6847	0.6220	9.16	88	0.00
77	T	Styrene	1.1128	1.0103	9.21	88	0.00
78	PT	Bromoform	0.2283	0.2053	10.07	97	0.00
79	T	Isopropylben	1.6763	1.5644	6.68	86	0.00
80	I	d4-1,4-DICHLOROBENZENE**IS	1.0000	1.0000	0.00	101	0.00
81	T	cyclohexanone	0.0209	0.0173	17.22	79	0.00
82	S	SURR4BrFBenz	0.9495	0.9463	0.34	101	0.00
83	T	Bromobenzene	0.8323	0.7318	12.07	92	0.00
84	PT	1122Tetrclta	0.7895	0.7090	10.20	86	0.00
85	T	123Triclproa	0.9734	0.7894	18.90	94	0.00
86	T	14dichloro2butene	0.1769	0.1415	20.01	90	0.00
87	T	n-Propylbenz	3.8587	3.4410	10.82	86	0.00
88	T	2chlorotolue	2.3397	2.0550	12.17	90	0.00
89	T	4chlorotolue	2.6592	2.3800	10.50	89	0.00
90	T	135Trimebenz	2.7235	2.4134	11.39	88	0.00
91	T	tbutylbenzen	2.3214	2.0519	11.61	84	0.00
92	T	124Trimetben	2.7905	2.3608	15.40	85	0.00
93	T	sbutylbenzen	3.4141	3.0868	9.59	85	0.00
94	T	13Diclorbenz	1.4901	1.2459	16.39	85	0.00
95	T	pIsopropylto	2.7719	2.4452	11.79	83	0.00
96	T	14dichlorobe	1.4750	1.2735	13.66	89	0.00
97	T	12dichlorobe	1.4126	1.2271	13.13	89	0.00
98	T	nButylbenzen	2.6879	2.3549	12.39	84	0.00
99	T	12dibromo3cl	0.1438	0.1167	18.85	87	0.00
100	T	135Trichlorobenzene	1.1397	1.0168	10.78	90	0.00
101	T	124Trichlobe	1.0105	0.8458	16.30	86	0.00
102	T	Hexachlorobu	0.6585	0.5743	12.79	86	0.00
103	T	Naphthalene	2.0245	1.6359	19.19	84	0.00
104	T	123Trichlben	0.9685	0.8429	12.97	89	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

LS090419.M Mon Sep 09 11:52:17 2019

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\SEP0519\CCVF3.D Vial: 44
Acq On : 6 Sep 2019 10:58 Operator: RLD-DGS
Sample : 163979,CCVF, Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Sep 06 11:19:00 2019

Quant Method : C:\INSTARCH\METHODS\LS090419.M
Quant Title : 8260C Low Level Soils Method
Response via : Initial Calibration
DataAcq Meth:LS090419.M

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	0.0200	0.0200	0.00	95	0.00
2	T	Dichlorodi	0.0100	0.0096	4.00	85	0.00
3	PT	Chloromethan	0.0100	0.0089	11.00	88	0.00
4	CT	VinylChlorid	0.0100	0.0100	0.00	90	0.00
5	T	Bromomethane	0.0100	0.0076	24.00	79	0.00
6	T	Chloroethane	0.0100	0.0092	8.00	83	0.00
7	T	dichloroflmethane	0.0100	0.0099	1.00	90	0.00
8	T	Trichlorofma	0.0100	0.0094	6.00	85	0.00
9	T	Ethylether	0.0100	0.0102	-2.00	95	0.00
10	T	dichlorotfluoroethan	0.0100	0.0097	3.00	82	0.00
11	T	propyleneoxide	0.1000	0.0920	8.00	86	0.00
12	T	Acrolein	0.0500	0.0498	0.40	93	0.00
13	CT	11dichlorthe	0.0100	0.0093	7.00	83	0.00
14	T	Trichlorotfluoroeth	0.0200	0.0185	7.50	82	0.00
15	T	Acetone	0.1000	0.0957	4.30	95	0.00
16	T	Iodomethane	0.0200	0.0170	15.00	88	0.00
17	T	Carbon Dislf	0.0200	0.0198	1.00	88	0.00
18	T	allylchloride	0.0200	0.0194	3.00	91	0.00
19	T	methylacetate	0.0100	0.0087	13.00	94	0.00
20	T	Methylchlorid	0.0100	0.0092	8.00	93	0.00
21	T	Acrylonitrile	0.0500	0.0495	1.00	98	0.00
22	T	t12dichlorte	0.0100	0.0091	9.00	82	0.00
23	T	tbutylalcohol	0.5000	0.4527	9.46	87	0.00
24	T	MtBE	0.0100	0.0103	-3.00	97	0.00
25	T	Hexane	0.0200	0.0173	13.50	78	0.00
26	PT	11dichlorota	0.0100	0.0094	6.00	90	0.00
27	T	Vinylacetate	0.1000	0.1119	-11.90	98	0.00
28	T	chloroprene	0.0200	0.0203	-1.50	89	0.00
29	T	Diisopether	0.0100	0.0103	-3.00	96	0.00
30	T	ETBE	0.0100	0.0104	-4.00	97	0.00
31	T	22dichloropr	0.0100	0.0088	12.00	86	0.00
32	T	c12dichlorte	0.0100	0.0098	2.00	94	0.00
33	T	2Butanone	0.1000	0.0937	6.30	92	0.00
34	T	propionitrile	0.1000	0.0849	15.10	83	0.00
35	T	Ethylacetate	0.0500	0.0505	-1.00	100	0.02
36	T	methacrylonitrile	0.0200	0.0192	4.00	98	0.00
37	T	Bromochlorma	0.0100	0.0096	4.00	90	0.00
38	T	Tetrahydofur	0.1000	0.0996	0.40	95	0.00
39	CT	Chloroform	0.0100	0.0095	5.00	89	0.00
40	T	111trichlota	0.0100	0.0096	4.00	85	0.00
41	S	SURRDibrflma	0.0200	0.0207	-3.50	97	0.00
42	T	Cyclohexane	0.0100	0.0095	5.00	86	0.00
43	T	Carbtetraclo	0.0100	0.0091	9.00	83	0.00
44	T	11dicloprope	0.0100	0.0091	9.00	82	0.00
45	S	SURR12DCAd4	0.0200	0.0190	5.00	93	0.00
46	T	Benzene	0.0100	0.0094	6.00	88	0.00
47	T	12dichlorota	0.0100	0.0105	-5.00	99	0.00
48	T	TAME	0.0100	0.0107	-7.00	101	0.00

49	T	trichloroete	0.0100	0.0093	7.00	87	0.00
50	T	methylcyclohexane	0.0100	0.0090	10.00	81	0.00
51	CT	12dicloropra	0.0100	0.0094	6.00	89	0.00
52	T	23dicl1propene	0.0100	0.0096	4.00	89	0.00
53	T	Dibromometha	0.0100	0.0097	3.00	91	0.00
54	T	methylmethacrylate	0.0100	0.0098	2.00	102	0.00
55	T	14dioxane	0.5000	0.4630	7.40	91	0.00
56	T	Bromodiclrma	0.0100	0.0097	3.00	92	0.00
57	T	2Nitropropane	0.1000	0.0950	5.00	95	0.00
58	T	c13dicloproe	0.0100	0.0097	3.00	92	0.00
59	T	4Meth2Pentan	0.1000	0.1010	-1.00	94	0.00
60	S	SURRd8Tolule	0.0200	0.0202	-1.00	95	0.00
61	CT	Toluene	0.0100	0.0090	10.00	87	0.00
62	T	t13Dicloprop	0.0100	0.0095	5.00	93	0.00
63	T	ethylmethacrylate	0.0200	0.0201	-0.50	94	0.00
64	T	112Triclotha	0.0100	0.0096	4.00	89	0.00
65	T	Tetrachlorte	0.0100	0.0091	9.00	82	0.00
66	T	13Diclorpropa	0.0100	0.0096	4.00	93	0.00
67	I	d5-CHLOROBENZENE**ISTD**	0.0200	0.0200	0.00	98	0.00
68	T	2Hexanone	0.1000	0.0898	10.20	92	0.00
69	T	Clorodibrmta	0.0100	0.0092	8.00	89	0.00
70	T	12Dibrometha	0.0100	0.0093	7.00	87	0.00
71	PT	Chlorobenzen	0.0100	0.0088	12.00	88	0.00
72	T	1Clhexane	0.0100	0.0084	16.00	81	0.00
73	T	1112Tetclota	0.0100	0.0090	10.00	88	0.00
74	CT	Ethylbenzene	0.0100	0.0091	9.00	87	0.00
75	T	m p-Xylene	0.0200	0.0179	10.50	88	0.00
76	T	o-Xylene	0.0100	0.0091	9.00	88	0.00
77	T	Styrene	0.0100	0.0091	9.00	88	0.00
78	PT	Bromoform	0.0100	0.0090	10.00	97	0.00
79	T	Isopropylben	0.0100	0.0093	7.00	86	0.00
80	I	d4-1,4-DICHLOROBENZENE**IS	0.0200	0.0200	0.00	101	0.00
81	T	cyclohexanone	0.2000	0.1658	17.10	79	0.00
82	S	SURR4BrFBenz	0.0200	0.0199	0.50	101	0.00
83	T	Bromobenzene	0.0100	0.0088	12.00	92	0.00
84	PT	1122Tetrclta	0.0100	0.0090	10.00	86	0.00
85	T	123Triclproa	0.0100	0.0081	19.00	94	0.00
86	T	14dichloro2butene	0.0100	0.0080	20.00	90	0.00
87	T	n-Propylbenz	0.0100	0.0089	11.00	86	0.00
88	T	2chlorotolue	0.0100	0.0088	12.00	90	0.00
89	T	4chlorotolue	0.0100	0.0089	11.00	89	0.00
90	T	135Trimebenz	0.0100	0.0089	11.00	88	0.00
91	T	tbutylbenzen	0.0100	0.0088	12.00	84	0.00
92	T	124Trimetben	0.0100	0.0085	15.00	85	0.00
93	T	sbutylbenzen	0.0100	0.0090	10.00	85	0.00
94	T	13Diclorbenz	0.0100	0.0084	16.00	85	0.00
95	T	pIsopropylto	0.0100	0.0088	12.00	83	0.00
96	T	14dichlorobe	0.0100	0.0086	14.00	89	0.00
97	T	12dichlorobe	0.0100	0.0087	13.00	89	0.00
98	T	nButylbenzen	0.0100	0.0088	12.00	84	0.00
99	T	12dibromo3cl	0.0100	0.0081	19.00	87	0.00
100	T	135Trichlorobenzene	0.0100	0.0089	11.00	90	0.00
101	T	124Trichlobe	0.0100	0.0084	16.00	86	0.00
102	T	Hexachlorobu	0.0100	0.0087	13.00	86	0.00
103	T	Naphthalene	0.0100	0.0081	19.00	84	0.00
104	T	123Trichlben	0.0100	0.0087	13.00	89	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

LS090419.M Mon Sep 09 11:52:53 2019

Quantitation Report

Data File : C:\Instarch\Data\SEP0519\CCVF3.D Vial: 44
Acq On : 6 Sep 2019 10:58 Operator: RLD-DGS
Sample : 163979,CCVF, Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 06 11:19:00 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Fri Sep 06 08:54:58 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1048977	0.02	mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	829257	0.02	mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.89	152	450252	0.02	mg/kg	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	270535	0.021	mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 105 %			
45) SURR12DCAd4	7.24	102	51051	0.019	mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 95 %			
60) SURRd8Tolule	9.67	98	1081775	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %			
82) SURR4BrFBenz	13.23	95	426093	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 100 %			
Target Compounds						Qvalue
2) Dichlorodi	1.82	85	143173	0.0096	mg/kg	99
3) Chloromethan	2.07	50	141541	0.0089	mg/kg	99
4) VinylChlorid	2.21	62	154239	0.0100	mg/kg	98
5) Bromomethane	2.68	94	59499	0.0076	mg/kg	97
6) Chloroethane	2.84	64	86195	0.0092	mg/kg	93
7) dichloroflmethane	3.15	67	294003	0.0099	mg/kg	100
8) Trichlorofma	3.21	101	229663	0.0094	mg/kg	98
9) Ethylether	3.66	59	109687	0.0102	mg/kg	95
10) dichlorotfluoroethan	3.68	67	157857	0.0097	mg/kg	97
11) propyleneoxide	3.72	58	116186	0.0920	mg/kg	86
12) Acrolein	3.83	56	102631	0.0498	mg/kg	97
13) 11dichlorthe	3.94	96	122744	0.0093	mg/kg	96
14) Trichlorotfluoroeth	3.97	101	234392	0.0185	mg/kg	97
15) Acetone	4.04	43	294824	0.0957	mg/kg	99
16) Iodomethane	4.12	142	232200	0.0170	mg/kg	98
17) Carbon Dislf	4.20	76	898861	0.0198	mg/kg	97
18) allylchloride	4.43	41	465138	0.0194	mg/kg	97
19) methylacetate	4.51	74	39012	0.0087	mg/kg	99
20) Methylchlorid	4.60	84	182020	0.0092	mg/kg	99
21) Acrylonitrile	4.94	53	154084	0.0495	mg/kg	94
22) t12dichlorte	4.96	96	139796	0.0091	mg/kg	97
23) tbutylalcohol	4.81	59	653526	0.4527	mg/kg	98
24) MtBE	4.98	73	415690	0.0103	mg/kg	99
25) Hexane	5.33	57	346584	0.0173	mg/kg	98
26) 11dichlorota	5.50	63	269006	0.0094	mg/kg	99
27) Vinylacetate	5.60	43	2011914	0.1119	mg/kg	99
28) chloroprene	5.62	53	427472	0.0203	mg/kg	98
29) Diisopether	5.62	45	463348	0.0103	mg/kg	97
30) ETBE	6.07	59	429079	0.0104	mg/kg	99
31) 22dichloropr	6.23	77	229710	0.0088	mg/kg	97
32) c12dichlorte	6.24	96	168150	0.0098	mg/kg	92
33) 2Butanone	6.27	72	122724	0.0937	mg/kg	97
34) propionitrile	6.33	54	109900	0.0849	mg/kg	99
35) Ethylacetate	6.38	88	19084	0.0505	mg/kg#	74
36) methacrylonitrile	6.53	67	90679	0.0192	mg/kg	94
37) Bromochlorma	6.53	128	63786	0.0096	mg/kg	96
38) Tetrahydofur	6.59	42	302131	0.0996	mg/kg	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\SEP0519\CCVF3.D Vial: 44
Acq On : 6 Sep 2019 10:58 Operator: RLD-DGS
Sample : 163979,CCVF, Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 06 11:19:00 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Fri Sep 06 08:54:58 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	6.63	83	279248	0.0095 mg/kg	93
40) 111trichlota	6.86	97	239496	0.0096 mg/kg	99
42) Cyclohexane	6.92	56	222234	0.0095 mg/kg	99
43) Carbtetraclo	7.06	119	187629	0.0091 mg/kg	98
44) 11dicloprope	7.06	110	64854	0.0091 mg/kg	96
46) Benzene	7.32	78	614983	0.0094 mg/kg	99
47) 12dichlorota	7.34	62	196545	0.0105 mg/kg	98
48) TAME	7.47	73	423456	0.0107 mg/kg	97
49) trichloroete	8.13	95	149079	0.0093 mg/kg	96
50) methylcyclohexane	8.36	83	246834	0.0090 mg/kg	98
51) 12dicloropra	8.40	63	156438	0.0094 mg/kg	93
52) 23dicl1propene	8.47	75	238426	0.0096 mg/kg	96
53) Dibromometha	8.55	93	82116	0.0097 mg/kg	96
54) methylmethacrylate	8.57	69	81998	0.0098 mg/kg	93
55) 14dioxane	8.59	88	60731	0.4630 mg/kg	81
56) Bromodiclrma	8.74	83	209958	0.0097 mg/kg	99
57) 2Nitropropane	9.03	43	283577	0.0950 mg/kg	97
58) c13dicloproe	9.32	75	247597	0.0097 mg/kg	99
59) 4Meth2Pentan	9.51	43	1025440	0.1010 mg/kg	96
61) Toluene	9.76	92	386394	0.0090 mg/kg	99
62) t13Dicloprop	10.04	75	205013	0.0095 mg/kg	97
63) ethylmethacrylate	10.17	69	332189	0.0201 mg/kg	99
64) 112Triclotha	10.28	83	105207	0.0096 mg/kg	96
65) Tetrachlorte	10.48	166	145363	0.0091 mg/kg	97
66) 13Diclorpropa	10.50	76	215305	0.0096 mg/kg	98
68) 2Hexanone	10.61	43	694422	0.0898 mg/kg	99
69) Clorodibrmta	10.80	129	127993	0.0092 mg/kg	96
70) 12Dibrometha	10.95	107	113365	0.0093 mg/kg	99
71) Chlorobenzen	11.63	112	377112	0.0088 mg/kg	99
72) 1Clhexane	11.60	91	189395	0.0084 mg/kg	96
73) 1112Tetclota	11.74	131	133714	0.0090 mg/kg	98
74) Ethylbenzene	11.78	91	684822	0.0091 mg/kg	100
75) m p-Xylene	11.94	106	506612	0.0179 mg/kg	100
76) o-Xylene	12.49	106	257888	0.0091 mg/kg	95
77) Styrene	12.51	104	418908	0.0091 mg/kg	100
78) Bromoform	12.76	173	85122	0.0090 mg/kg	93
79) Isopropylben	13.02	105	648663	0.0093 mg/kg	99
81) cyclohexanone	13.13	55	77942	0.1658 mg/kg	84
83) Bromobenzene	13.44	156	164750	0.0088 mg/kg	95
84) 1122Tetrclta	13.43	83	159620	0.0090 mg/kg	100
85) 123Triclproa	13.49	75	177714	0.0081 mg/kg	95
86) 14dichloro2butene	13.52	53	31846	0.0080 mg/kg	87
87) n-Propylbenz	13.60	91	774653	0.0089 mg/kg	99
88) 2chlorotolue	13.72	91	462624	0.0088 mg/kg	98
89) 4chlorotolue	13.88	91	535795	0.0089 mg/kg	96
90) 135Trimebenz	13.86	105	543310	0.0089 mg/kg	99
91) tbutylbenzen	14.33	119	461938	0.0088 mg/kg	100
92) 124Trimetben	14.40	105	531477	0.0085 mg/kg	100
93) sbutylbenzen	14.64	105	694922	0.0090 mg/kg	98
94) 13Diclorbenz	14.80	146	280479	0.0084 mg/kg	98
95) pIsopropylto	14.86	119	550468	0.0088 mg/kg	99
96) 14dichlorobe	14.93	146	286703	0.0086 mg/kg	94
97) 12dichlorobe	15.47	146	276244	0.0087 mg/kg	96
98) nButylbenzen	15.46	91	530152	0.0088 mg/kg	100
99) 12dibromo3cl	16.58	157	26275	0.0081 mg/kg	92
100) 135Trichlorobenzene	16.89	180	228918	0.0089 mg/kg	97
101) 124Trichlobe	17.70	180	190414	0.0084 mg/kg	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\SEP0519\CCVF3.D Vial: 44
Acq On : 6 Sep 2019 10:58 Operator: RLD-DGS
Sample : 163979,CCVF, Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 06 11:19:00 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Fri Sep 06 08:54:58 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) Hexachlorobu	17.94	225	129301	0.0087 mg/kg	93
103) Naphthalene	18.02	128	368294	0.0081 mg/kg	99
104) 123Trichlben	18.32	180	189755	0.0087 mg/kg	98

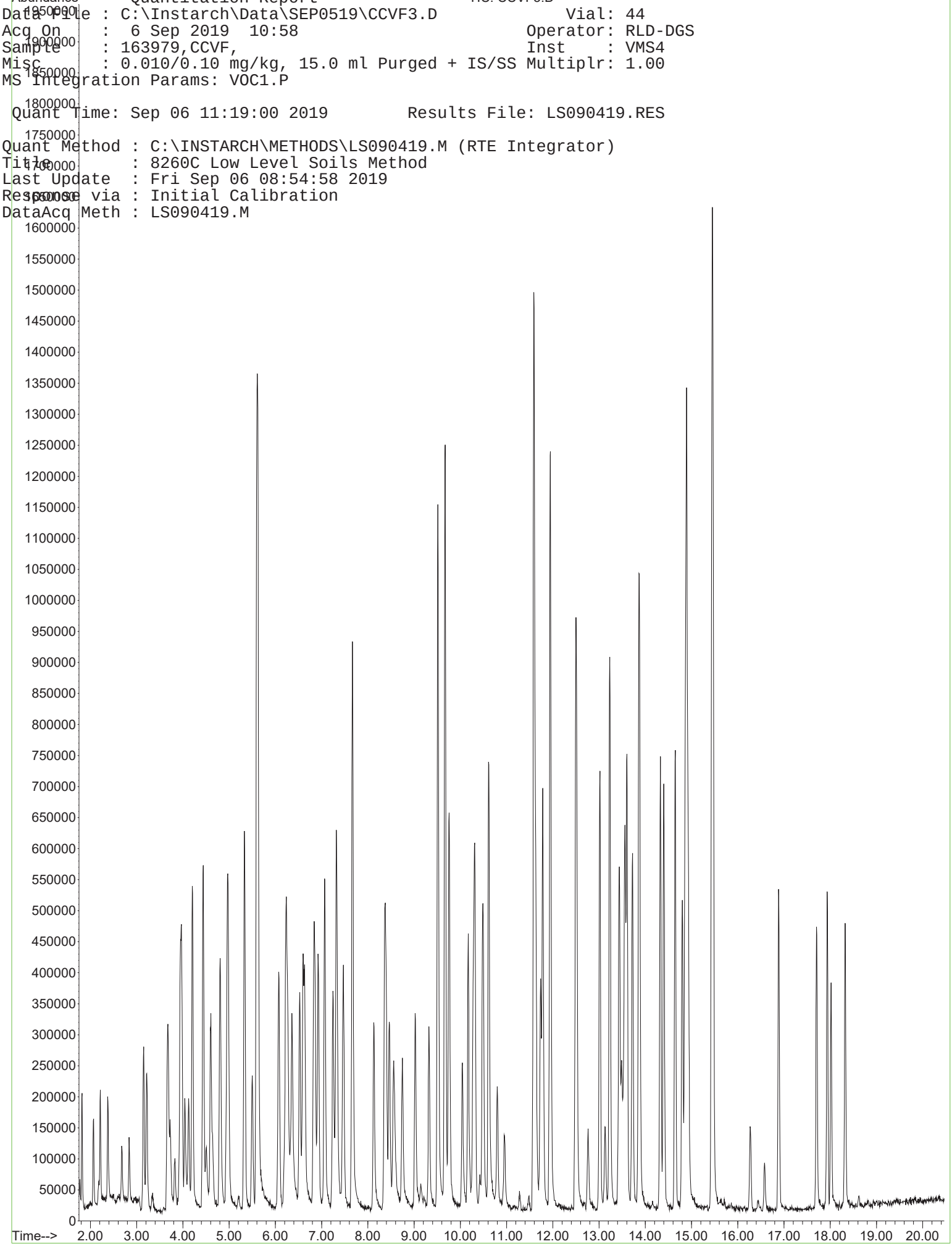
(#) = qualifier out of range (m) = manual integration

Quantitation Report (RTE Integrator)

Data File : C:\Instarch\Data\SEP0519\CCVF3.D Vial: 44
Acq On : 6 Sep 2019 10:58 Operator: RLD-DGS
Sample : 163979,CCVF, Inst : VMS4
Misc : 0.010/0.10 mg/kg, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 06 11:19:00 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Fri Sep 06 08:54:58 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M



BFB

Data File : C:\Instarch\Data\SEP0619\BFB1.D Vial: 1
Acq On : 6 Sep 2019 11:39 Operator: RLD-DGS
Sample : 164175,BFB, Inst : VMS4
Misc : 50 ng Injection Multiplr: 1.00
Integration File: VOC.P

Method : C:\INSTARCH\METHODS\LW082519.M
Title : 8260C Waters Method

Spectrum Information: Average of 4.624 to 4.633 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	31.6	31610	PASS
75	95	30	60	49.1	49076	PASS
95	95	100	100	100.0	100000	PASS
96	95	5	9	6.4	6421	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	85.9	85907	PASS
175	174	5	9	8.1	6947	PASS
176	174	95	101	95.2	81754	PASS
177	176	5	9	7.0	5686	PASS

LW082519.M Mon Sep 16 10:57:34 2019

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\SEP0619\CCV-LCS1.D Vial: 3
Acq On : 6 Sep 2019 12:22 Operator: RLD-DGS
Sample : 164175,LCSW, Inst : VMS4
Misc : 4.00/40.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Sep 06 12:48:02 2019

Quant Method : C:\INSTARCH\METHODS\LW082519.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:LW082519.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	1.0000	1.0000	0.00	79	0.00
2	PT	Dichlorodi	0.2291	0.2651	-15.71	90	0.00
3	PT	Chloromethan	0.4788	0.5023	-4.91	80	0.00
4	PT	VinylChlorid	0.2987	0.3134	-4.92	80	0.00
5	PT	Bromomethane	0.1118	0.0765#	31.57#	57	0.00
6	PT	Chloroethane	0.1544	0.1722	-11.53	83	0.00
7	T	Dichloroflmethane	0.4339	0.4810	-10.86	82	0.00
8	PT	Trichlorofma	0.3372	0.3613	-7.15	80	0.00
9	T	Ethylether	0.1776	0.1938	-9.12	81	0.00
10	T	dichlorotfluoroethan	0.2520	0.2917	-15.75	87	0.00
11	T	propyleneoxide	0.0230	0.0252#	-9.57	80	0.00
12	T	Acrolein	0.0246	0.0251#	-2.03	70	0.00
13	PT	11dichlorthe	0.1925	0.2102	-9.19	81	0.00
14	PT	Trichlorotfluoroeth	0.1731	0.1947	-12.48	84	0.00
15	PT	Acetone	0.0434	0.0438#	-0.92	74	0.00
16	T	Iodomethane	0.2620	0.2271	13.32	63	0.00
17	PT	Carbon Dislf	0.4651	0.5389	-15.87	89	0.00
18	T	allylchloride	0.5911	0.7036	-19.03	89	0.00
19	PT	methylacetate	0.0216	0.0273#	-26.39#	79	0.00
20	PT	Methylchlorid	0.3306	0.2344	29.10#	76	0.00
21	T	tbutylalcohol	0.0127	0.0135#	-6.30	78	0.00
22	T	Acrylonitrile	0.0451	0.0518	-14.86	78	0.00
23	PT	t12dichlorte	0.1971	0.2280	-15.68	81	0.00
24	PT	MtBE	0.4625	0.4619	0.13	76	0.00
25	T	Hexane	0.3742	0.4476	-19.62	87	0.00
26	PT	11dichlorota	0.5372	0.5724	-6.55	81	0.00
27	T	Vinylacetate	0.2952	0.3426	-16.06	87	0.00
28	T	chloroprene	0.4619	0.5205	-12.69	82	0.00
29	T	Diisopether	1.2137	1.3207	-8.82	82	0.00
30	T	ETBE	0.7995	0.8306	-3.89	79	0.00
31	T	22dichloropr	0.3561	0.4187	-17.58	95	0.00
32	PT	c12dichlorte	0.2536	0.2724	-7.41	82	0.00
33	PT	2Butanone	0.0100	0.0105#	-5.00	71	0.01
34	T	propionitrile	0.0136	0.0177#	-30.15#	80	0.00
35	T	Ethylacetate	0.0025	0.0034#	-36.00#	84	0.00
36	T	methacrylonitrile	0.0394	0.0430	-9.14	79	0.00
37	T	Bromochlorma	0.0898	0.0992	-10.47	79	0.00
38	T	Tetrahydofur	0.0460	0.0499	-8.48	80	0.00
39	PT	Chloroform	0.4278	0.4688	-9.58	82	0.00
40	PT	111trichlota	0.3691	0.4186	-13.41	86	0.00
41	S	SURRDibrflma	0.2665	0.2647	0.68	77	0.00
42	PT	Cyclohexane	0.4772	0.5489	-15.03	86	0.00
43	PT	Carbtetraclo	0.2978	0.3472	-16.59	86	0.00
44	T	11dicloprope	0.0948	0.1074	-13.29	84	0.00
45	S	SURR12DCAd4	0.0446	0.0451	-1.12	79	0.00
46	PT	Benzene	0.9219	0.9991	-8.37	83	0.00
47	PT	12dichlorota	0.2857	0.3228	-12.99	79	0.00
48	T	TAME	0.5054	0.5350	-5.86	78	0.00

49	PT	trichloroete	0.2416	0.2580	-6.79	80	0.00
50	PT	methylcyclohexane	0.3465	0.3830	-10.53	78	0.00
51	PT	12dicloropra	0.3063	0.3351	-9.40	84	0.00
52	T	23Dicl1propene	0.3380	0.3769	-11.51	79	0.00
53	T	Dibromometha	0.0900	0.1099	-22.11#	79	0.00
54	T	methylmethacrylate	0.0309	0.0411	-33.01#	86	0.00
55	T	14dioxane	0.0006	0.0007#	-16.67	77	0.00
56	PT	Bromodiclrma	0.2886	0.3417	-18.40	85	0.00
57	T	2Nitropropane	0.0365	0.0419	-14.79	85	0.00
58	T	2CLEVE	0.0710	0.0928	-30.70#	90	0.00
59	PT	c13dicloproe	0.3275	0.3622	-10.60	80	0.00
60	PT	4Meth2Pentan	0.1608	0.1840	-14.43	81	0.00
61	S	SURRd8Tolule	1.0146	1.0102	0.43	78	0.00
62	PT	Toluene	0.6167	0.6830	-10.75	82	0.00
63	PT	t13Dicloprop	0.2571	0.2910	-13.19	84	0.00
64	T	ethylmethacrylate	0.1634	0.1891	-15.73	81	0.00
65	PT	112Triclotha	0.1247	0.1380	-10.67	84	0.00
66	PT	Tetrachlorte	0.2473	0.2858	-15.57	85	0.00
67	T	13Diclorpropa	0.2604	0.2823	-8.41	81	0.00
68	I	d5-CHLOROBENZENE**ISTD**	1.0000	1.0000	0.00	82	0.00
69	PT	2Hexanone	0.1305	0.1578	-20.92#	80	0.00
70	PT	Clorodibrmta	0.2095	0.2463	-17.57	86	0.00
71	PT	12Dibrometha	0.1686	0.1841	-9.19	80	0.00
72	PT	Chlorobenzen	0.8121	0.8890	-9.47	84	0.00
73	T	1Clhexane	0.3881	0.4643	-19.63	93	0.00
74	T	1112Tetclota	0.2792	0.3028	-8.45	79	0.00
75	PT	Ethylbenzene	1.3909	1.5426	-10.91	84	0.00
76	PT	m p-Xylene	0.5186	0.5798	-11.80	85	0.00
77	PT	o-Xylene	0.5184	0.5881	-13.45	84	0.00
78	PT	Styrene	0.7826	0.9207	-17.65	83	0.00
79	PT	Bromoform	0.1053	0.1424	-35.23#	89	0.00
80	PT	Isopropylben	1.2875	1.4973	-16.30	87	0.00
81	T	cyclohexanone	0.0059	0.0084#	-42.37#	101	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	1.0000	1.0000	0.00	83	0.00
83	S	SURR4BrFBenz	0.8674	0.8689	-0.17	80	0.00
84	T	Bromobenzene	0.5740	0.6062	-5.61	79	0.00
85	PT	1122Tetrclta	0.3588	0.3963	-10.45	83	0.00
86	T	123Triclproa	0.3750	0.3975	-6.00	92	0.00
87	T	14dichloro2butene	0.0860	0.1214	-41.16#	101	0.00
88	T	n-Propylbenz	2.7811	3.2076	-15.34	87	0.00
89	T	2chlorotolue	1.6862	1.9043	-12.93	86	0.00
90	T	4chlorotolue	1.9451	2.1710	-11.61	87	0.00
91	T	135Trimebenz	1.9552	2.2073	-12.89	84	0.00
92	T	tbutylbenzen	1.7027	1.9379	-13.81	86	0.00
93	T	124Trimetben	1.9719	2.2437	-13.78	86	0.00
94	T	sbutylbenzen	2.3763	2.6530	-11.64	82	0.00
95	PT	13Diclorbenz	1.0913	1.2188	-11.68	85	0.00
96	T	pIsopropylto	2.0571	2.2010	-7.00	78	0.00
97	PT	14dichlorobe	1.1381	1.1917	-4.71	83	0.00
98	PT	12dichlorobe	0.9959	1.0969	-10.14	86	0.00
99	T	nButylbenzen	1.9299	2.2614	-17.18	87	0.00
100	PT	12dibromo3cl	0.0580	0.0672	-15.86	99	0.00
101	T	135Trichlorobenzene	0.8686	0.9730	-12.02	87	0.00
102	PT	124Trichlobe	0.6660	0.7589	-13.95	83	0.00
103	T	Hexachlorobu	0.3645	0.4344	-19.18	81	0.00
104	T	Naphthalene	0.9456	1.1201	-18.45	86	0.00
105	T	123Trichlben	0.5992	0.6380	-6.48	80	0.00

(#) = Out of Range SPCC's out = 4 CCC's out = 0

LW082519.M Mon Sep 16 10:59:03 2019

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\SEP0619\CCV-LCS1.D Vial: 3
Acq On : 6 Sep 2019 12:22 Operator: RLD-DGS
Sample : 164175,LCSW, Inst : VMS4
Misc : 4.00/40.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Sep 06 12:48:02 2019

Quant Method : C:\INSTARCH\METHODS\LW082519.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:LW082519.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	4.0000	4.0000	0.00	79	0.00
2	PT	Dichlorodi	4.0000	4.6290	-15.72	90	0.00
3	PT	Chloromethan	4.0000	4.1961	-4.90	80	0.00
4	PT	VinylChlorid	4.0000	4.1966	-4.92	80	0.00
5	PT	Bromomethane	4.0000	2.7380	31.55#	57	0.00
6	PT	Chloroethane	4.0000	4.4620	-11.55	83	0.00
7	T	Dichloroflmethane	4.0000	4.4348	-10.87	82	0.00
8	PT	Trichlorofma	4.0000	4.5499	-13.75	80	0.00
9	T	Ethylether	4.0000	4.3640	-9.10	81	0.00
10	T	dichlorotfluoroethan	4.0000	4.6299	-15.75	87	0.00
11	T	propyleneoxide	40.0000	43.8796	-9.70	80	0.00
12	T	Acrolein	20.0000	18.9217	5.39	70	0.00
13	PT	11dichlorthe	4.0000	4.3675	-9.19	81	0.00
14	PT	Trichlorotfluoroeth	8.0000	8.9980	-12.47	84	0.00
15	PT	Acetone	40.0000	40.4015	-1.00	74	0.00
16	T	Iodomethane	8.0000	6.9352	13.31	63	0.00
17	PT	Carbon Dislf	8.0000	9.2684	-15.85	89	0.00
18	T	allylchloride	8.0000	9.5235	-19.04	89	0.00
19	PT	methylacetate	4.0000	4.0182	-0.46	79	0.00
20	PT	Methylchlorid	4.0000	3.9262	1.84	76	0.00
21	T	tbutylalcohol	200.0000	211.6137	-5.81	78	0.00
22	T	Acrylonitrile	20.0000	20.3237	-1.62	78	0.00
23	PT	t12dichlorte	4.0000	4.3242	-8.11	81	0.00
24	PT	MtBE	4.0000	3.9954	0.11	76	0.00
25	T	Hexane	8.0000	9.6579	-20.72#	87	0.00
26	PT	11dichlorota	4.0000	4.2627	-6.57	81	0.00
27	T	Vinylacetate	40.0000	46.4234	-16.06	87	0.00
28	T	chloroprene	8.0000	9.0160	-12.70	82	0.00
29	T	Diisopether	4.0000	4.3526	-8.81	82	0.00
30	T	ETBE	4.0000	4.1555	-3.89	79	0.00
31	T	22dichloropr	4.0000	4.7034	-17.59	95	0.00
32	PT	c12dichlorte	4.0000	4.2967	-7.42	82	0.00
33	PT	2Butanone	40.0000	41.9787	-4.95	71	0.01
34	T	propionitrile	40.0000	41.6244	-4.06	80	0.00
35	T	Ethylacetate	20.0000	20.8370	-4.18	84	0.00
36	T	methacrylonitrile	8.0000	8.7253	-9.07	79	0.00
37	T	Bromochlorma	4.0000	4.1586	-3.96	79	0.00
38	T	Tetrahydofur	40.0000	43.3947	-8.49	80	0.00
39	PT	Chloroform	4.0000	4.3825	-9.56	82	0.00
40	PT	111trichlota	4.0000	4.5369	-13.42	86	0.00
41	S	SURRDibrflma	4.0000	3.9732	0.67	77	0.00
42	PT	Cyclohexane	4.0000	4.6007	-15.02	86	0.00
43	PT	Carbtetraclo	4.0000	4.6640	-16.60	86	0.00
44	T	11dicloprope	4.0000	4.5296	-13.24	84	0.00
45	S	SURR12DCAd4	4.0000	4.0410	-1.03	79	0.00
46	PT	Benzene	4.0000	4.3350	-8.38	83	0.00
47	PT	12dichlorota	4.0000	4.1338	-3.34	79	0.00
48	T	TAME	4.0000	4.2336	-5.84	78	0.00

49	PT	trichloroete	4.0000	4.2709	-6.77	80	0.00
50	PT	methylcyclohexane	4.0000	4.4220	-10.55	78	0.00
51	PT	12dicloropra	4.0000	4.3767	-9.42	84	0.00
52	T	23Dicl1propene	4.0000	4.4605	-11.51	79	0.00
53	T	Dibromometha	4.0000	4.2065	-5.16	79	0.00
54	T	methylmethacrylate	8.0000	8.4767	-5.96	86	0.00
55	T	14dioxane	200.0000	192.4298	3.79	77	0.00
56	PT	Bromodiclrma	4.0000	4.7353	-18.38	85	0.00
57	T	2Nitropropane	40.0000	45.8685	-14.67	85	0.00
58	T	2CLEVE	20.0000	23.2122	-16.06	90	0.00
59	PT	c13dicloproe	4.0000	4.4230	-10.58	80	0.00
60	PT	4Meth2Pentan	40.0000	45.7632	-14.41	81	0.00
61	S	SURRd8Tolule	4.0000	3.9828	0.43	78	0.00
62	PT	Toluene	4.0000	4.4303	-10.76	82	0.00
63	PT	t13Dicloprop	4.0000	4.5283	-13.21	84	0.00
64	T	ethylmethacrylate	8.0000	9.2577	-15.72	81	0.00
65	PT	112Triclotha	4.0000	4.4265	-10.66	84	0.00
66	PT	Tetrachlorte	4.0000	4.6223	-15.56	85	0.00
67	T	13Diclorpropa	4.0000	4.3361	-8.40	81	0.00
68	I	d5-CHLOROBENZENE**ISTD**	4.0000	4.0000	0.00	82	0.00
69	PT	2Hexanone	40.0000	41.1355	-2.84	80	0.00
70	PT	Clorodibrmta	4.0000	4.7035	-17.59	86	0.00
71	PT	12Dibrometha	4.0000	4.3666	-9.17	80	0.00
72	PT	Chlorobenzen	4.0000	4.3788	-9.47	84	0.00
73	T	1Clhexane	4.0000	4.7851	-19.63	93	0.00
74	T	1112Tetclota	4.0000	4.3378	-8.44	79	0.00
75	PT	Ethylbenzene	4.0000	4.4362	-10.91	84	0.00
76	PT	m p-Xylene	8.0000	8.9441	-11.80	85	0.00
77	PT	o-Xylene	4.0000	4.5379	-13.45	84	0.00
78	PT	Styrene	4.0000	4.7057	-17.64	83	0.00
79	PT	Bromoform	4.0000	4.5669	-14.17	89	0.00
80	PT	Isopropylben	4.0000	4.6518	-16.29	87	0.00
81	T	cyclohexanone	80.0000	106.8108	-33.51#	101	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	4.0000	4.0000	0.00	83	0.00
83	S	SURR4BrFBenz	4.0000	4.0073	-0.18	80	0.00
84	T	Bromobenzene	4.0000	4.2239	-5.60	79	0.00
85	PT	1122Tetrclta	4.0000	4.4175	-10.44	83	0.00
86	T	123Triclproa	4.0000	4.2401	-6.00	92	0.00
87	T	14dichloro2butene	4.0000	4.9992	-24.98#	101	0.00
88	T	n-Propylbenz	4.0000	4.6134	-15.34	87	0.00
89	T	2chlorotolue	4.0000	4.5173	-12.93	86	0.00
90	T	4chlorotolue	4.0000	4.4647	-11.62	87	0.00
91	T	135Trimebenz	4.0000	4.5158	-12.89	84	0.00
92	T	tbutylbenzen	4.0000	4.5524	-13.81	86	0.00
93	T	124Trimetben	4.0000	4.5514	-13.79	86	0.00
94	T	sbutylbenzen	4.0000	4.4658	-11.64	82	0.00
95	PT	13Diclorbenz	4.0000	4.4674	-11.68	85	0.00
96	T	pIsopropylto	4.0000	4.2799	-7.00	78	0.00
97	PT	14dichlorobe	4.0000	4.1885	-4.71	83	0.00
98	PT	12dichlorobe	4.0000	4.4060	-10.15	86	0.00
99	T	nButylbenzen	4.0000	4.6872	-17.18	87	0.00
100	PT	12dibromo3cl	4.0000	4.1372	-3.43	99	0.00
101	T	135Trichlorobenzene	4.0000	4.4809	-12.02	87	0.00
102	PT	124Trichlobe	4.0000	4.5578	-13.95	83	0.00
103	T	Hexachlorobu	4.0000	4.7668	-19.17	81	0.00
104	T	Naphthalene	4.0000	4.7385	-18.46	86	0.00
105	T	123Trichlben	4.0000	4.2591	-6.48	80	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

LW082519.M Mon Sep 16 10:59:25 2019

Quantitation Report

Data File : C:\Instarch\Data\SEP0619\CCV-LCS1.D Vial: 3
Acq On : 6 Sep 2019 12:22 Operator: RLD-DGS
Sample : 164175,LCSW, Inst : VMS4
Misc : 4.00/40.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Sep 06 12:48:02 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Sep 06 12:47:58 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1099006	4.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.58	117	881494	4.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.89	152	507450	4.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	290928	3.973	ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 99 %			
45) SURR12DCAd4	7.24	102	49532	4.041	ug/L	0.00
Spiked Amount 4.000	Range 86 - 106		Recovery = 101 %			
61) SURRd8Tolule	9.67	98	1110266	3.983	ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 100 %			
83) SURR4BrFBenz	13.23	95	440948	4.007	ug/L	0.00
Spiked Amount 4.000	Range 75 - 124		Recovery = 100 %			
Target Compounds						Qvalue
2) Dichlorodi	1.81	85	291378	4.6290	ug/L	99
3) Chloromethan	2.07	50	552030	4.1961	ug/L	99
4) VinylChlorid	2.21	62	344451	4.1966	ug/L	96
5) Bromomethane	2.68	94	84124	2.7380	ug/L	91
6) Chloroethane	2.83	64	189232	4.4620	ug/L	98
7) Dichloroflmethane	3.14	67	528672	4.4348	ug/L	96
8) Trichlorofma	3.21	101	397056	4.5499	ug/L	97
9) Ethylether	3.66	59	212983	4.3640	ug/L	95
10) dichlorotfluoroethan	3.69	67	320614	4.6299	ug/L	97
11) propyleneoxide	3.72	58	276965	43.8796	ug/L	95
12) Acrolein	3.81	56	137893	18.9217	ug/L	88
13) 11dichlorthe	3.94	96	230984	4.3675	ug/L	94
14) Trichlorotfluoroeth	3.97	101	427890	8.9980	ug/L	97
15) Acetone	4.04	43	481500	40.4015	ug/L	99
16) Iodomethane	4.12	142	499185	6.9352	ug/L	99
17) Carbon Dislf	4.20	76	1184504	9.2684	ug/L	98
18) allylchloride	4.43	41	1546581	9.5235	ug/L	98
19) methylacetate	4.51	74	30012	4.0182	ug/L	91
20) Methylchlorid	4.59	84	257620	3.9262	ug/L	93
21) tbutylalcohol	4.80	59	739223	211.6137	ug/L	98
22) Acrylonitrile	4.93	53	284569	20.3237	ug/L	95
23) t12dichlorte	4.96	96	250613	4.3242	ug/L	97
24) MtBE	4.98	73	507657	3.9954	ug/L	95
25) Hexane	5.33	57	983882	9.6579	ug/L	100
26) 11dichlorota	5.49	63	629103	4.2627	ug/L	99
27) Vinylacetate	5.59	43	3764683	46.4234	ug/L	99
28) chloroprene	5.61	53	1144171	9.0160	ug/L	99
29) Diisopether	5.61	45	1451493	4.3526	ug/L	98
30) ETBE	6.07	59	912826	4.1555	ug/L	99
31) 22dichloropr	6.22	77	460150	4.7034	ug/L	98
32) c12dichlorte	6.24	96	299383	4.2967	ug/L	98
33) 2Butanone	6.28	72	115255	41.9787	ug/L	100
34) propionitrile	6.33	54	194349	41.6244	ug/L	98
35) Ethylacetate	6.36	88	18865	20.8370	ug/L #	69
36) methacrylonitrile	6.52	67	94428	8.7253	ug/L	94
37) Bromochlorma	6.53	128	109063	4.1586	ug/L	96
38) Tetrahydofur	6.59	42	548007	43.3947	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\SEP0619\CCV-LCS1.D Vial: 3
Acq On : 6 Sep 2019 12:22 Operator: RLD-DGS
Sample : 164175,LCSW, Inst : VMS4
Misc : 4.00/40.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Sep 06 12:48:02 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Sep 06 12:47:58 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.63	83	515165	4.3825	ug/L	99
40)	111trichlota	6.85	97	460075	4.5369	ug/L	98
42)	Cyclohexane	6.92	56	603210	4.6007	ug/L	98
43)	Carbtetraclo	7.06	119	381588	4.6640	ug/L	99
44)	11dicloprope	7.06	110	117989	4.5296	ug/L	95
46)	Benzene	7.32	78	1097993	4.3350	ug/L	98
47)	12dichlorota	7.34	62	354725	4.1338	ug/L	97
48)	TAME	7.46	73	587934	4.2336	ug/L	97
49)	trichloroete	8.12	95	283550	4.2709	ug/L	98
50)	methylcyclohexane	8.36	83	420955	4.4220	ug/L	96
51)	12dicloropra	8.39	63	368290	4.3767	ug/L	93
52)	23Dicl1propene	8.46	75	414171	4.4605	ug/L	99
53)	Dibromometha	8.54	93	120790	4.2065	ug/L	97
54)	methylmethacrylate	8.57	69	90294	8.4767	ug/L	98
55)	14dioxane	8.58	88	36288	192.4298	ug/L	96
56)	Bromodiclrma	8.74	83	375503	4.7353	ug/L	100
57)	2Nitropropane	9.02	43	460260	45.8685	ug/L	94
58)	2CLEVE	9.14	63	509931	23.2122	ug/L	98
59)	c13dicloproe	9.32	75	398042	4.4230	ug/L	94
60)	4Meth2Pentan	9.51	43	2022239	45.7632	ug/L	97
62)	Toluene	9.75	92	750605	4.4303	ug/L	96
63)	t13Dicloprop	10.04	75	319811	4.5283	ug/L	98
64)	ethylmethacrylate	10.17	69	415567	9.2577	ug/L	95
65)	112Triclotha	10.27	83	151619	4.4265	ug/L	93
66)	Tetrachlorte	10.48	166	314088	4.6223	ug/L	98
67)	13Diclorpropa	10.50	76	310286	4.3361	ug/L	98
69)	2Hexanone	10.61	43	1391245	41.1355	ug/L	98
70)	Clorodibrmta	10.79	129	217111	4.7035	ug/L	97
71)	12Dibrometha	10.95	107	162264	4.3666	ug/L	99
72)	Chlorobenzen	11.63	112	783630	4.3788	ug/L	99
73)	1Clhexane	11.59	91	409263	4.7851	ug/L	100
74)	1112Tetclota	11.73	131	266907	4.3378	ug/L	97
75)	Ethylbenzene	11.78	91	1359813	4.4362	ug/L	98
76)	m p-Xylene	11.94	106	1022225	8.9441	ug/L	98
77)	o-Xylene	12.49	106	518386	4.5379	ug/L	98
78)	Styrene	12.51	104	811569	4.7057	ug/L	100
79)	Bromoform	12.76	173	125546	4.5669	ug/L	99
80)	Isopropylben	13.01	105	1319889	4.6518	ug/L	97
81)	cyclohexanone	13.13	55	148436	106.8108	ug/L	97
84)	Bromobenzene	13.44	156	307596	4.2239	ug/L	93
85)	1122Tetrclta	13.43	83	201083	4.4175	ug/L	90
86)	123Triclproa	13.48	75	201719	4.2401	ug/L	93
87)	14dichloro2butene	13.52	53	61624	4.9992	ug/L	97
88)	n-Propylbenz	13.60	91	1627679	4.6134	ug/L	99
89)	2chlorotolue	13.72	91	966325	4.5173	ug/L	99
90)	4chlorotolue	13.88	91	1101694	4.4647	ug/L	98
91)	135Trimebenz	13.86	105	1120076	4.5158	ug/L	96
92)	tbutylbenzen	14.33	119	983362	4.5524	ug/L	98
93)	124Trimetben	14.40	105	1138542	4.5514	ug/L	99
94)	sbutylbenzen	14.64	105	1346260	4.4658	ug/L	97
95)	13Diclorbenz	14.80	146	618480	4.4674	ug/L	96
96)	pIsopropylto	14.86	119	1116906	4.2799	ug/L	99
97)	14dichlorobe	14.92	146	604752	4.1885	ug/L	98
98)	12dichlorobe	15.46	146	556646	4.4060	ug/L	96
99)	nButylbenzen	15.46	91	1147549	4.6872	ug/L	99
100)	12dibromo3cl	16.58	157	34097	4.1372	ug/L	96
101)	135Trichlorobenzene	16.88	180	493733	4.4809	ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\SEP0619\CCV-LCS1.D Vial: 3
Acq On : 6 Sep 2019 12:22 Operator: RLD-DGS
Sample : 164175,LCSW, Inst : VMS4
Misc : 4.00/40.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Sep 06 12:48:02 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Sep 06 12:47:58 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	17.70	180	385102	4.5578 ug/L	99
103) Hexachlorobu	17.93	225	220425	4.7668 ug/L	97
104) Naphthalene	18.01	128	568416	4.7385 ug/L	97
105) 123Trichlben	18.32	180	323762	4.2591 ug/L	98

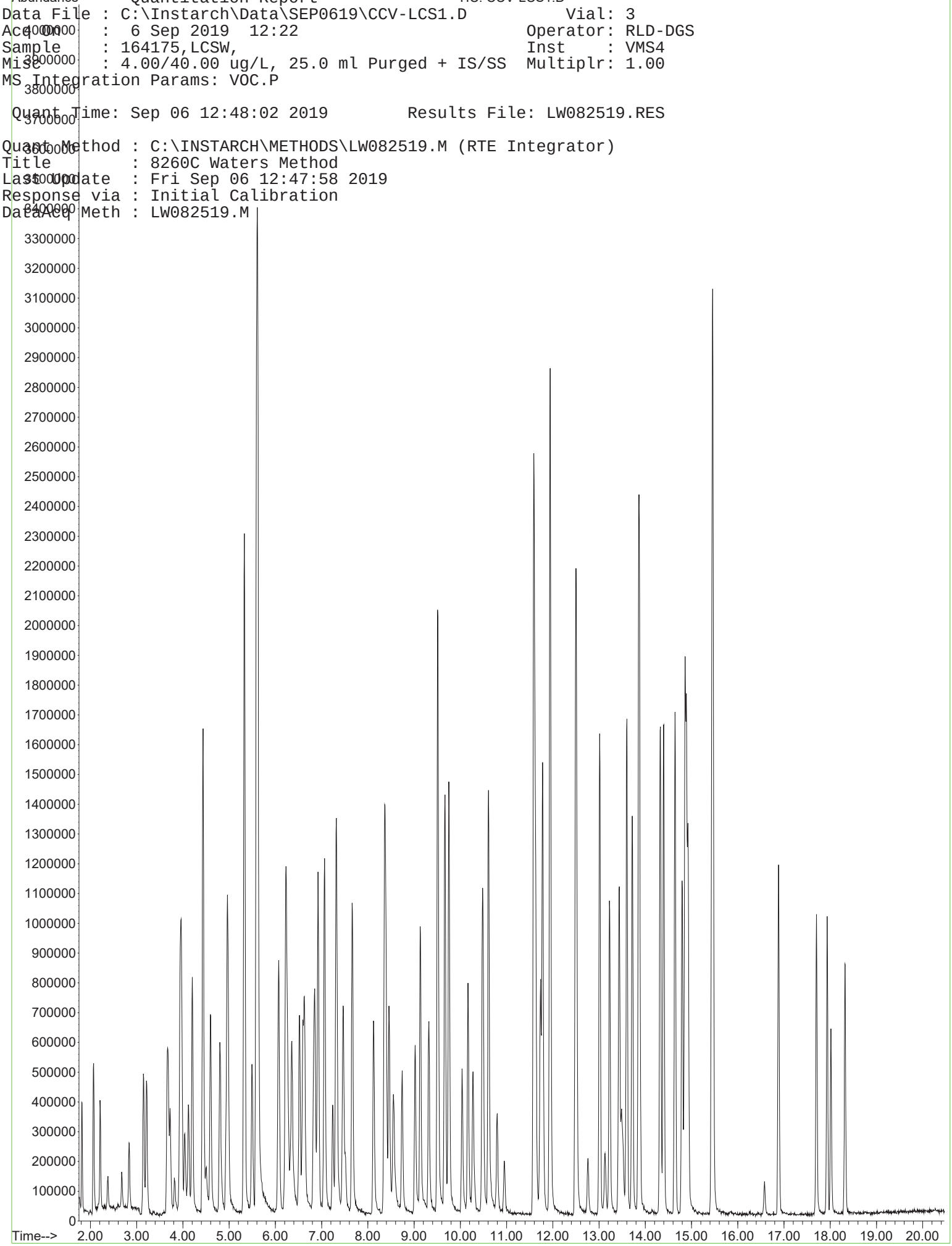
(#) = qualifier out of range (m) = manual integration

Quantitation Report (TIC: CCV-LCS1.D)

Data File : C:\Instarch\Data\SEP0619\CCV-LCS1.D Vial: 3
Acq On : 6 Sep 2019 12:22 Operator: RLD-DGS
Sample : 164175,LCSW, Inst : VMS4
Misc : 4.00/40.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Sep 06 12:48:02 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Sep 06 12:47:58 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M



Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\SEP0619\CCVF-LCSD1.D Vial: 25
Acq On : 6 Sep 2019 23:05 Operator: RLD-DGS
Sample : 164175,LCSDW, Inst : VMS4
Misc : 4.00/40.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Sep 06 23:26:02 2019

Quant Method : C:\INSTARCH\METHODS\LW082519.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:LW082519.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	1.0000	1.0000	0.00	80	0.00
2	PT	Dichlorodi	0.2291	0.2772	-21.00	95	0.00
3	PT	Chloromethan	0.4788	0.5173	-8.04	84	0.00
4	PT	VinylChlorid	0.2987	0.3507	-17.41	90	0.00
5	PT	Bromomethane	0.1118	0.1075	3.85	82	0.00
6	PT	Chloroethane	0.1544	0.1730	-12.05	84	0.00
7	T	Dichloroflmethane	0.4339	0.4971	-14.57	85	0.00
8	PT	Trichlorofma	0.3372	0.4278	-26.87	96	0.00
9	T	Ethylether	0.1776	0.1843	-3.77	78	0.00
10	T	dichlorotfluoroethan	0.2520	0.3020	-19.84	91	0.00
11	T	propyleneoxide	0.0230	0.0245#	-6.52	79	0.00
12	T	Acrolein	0.0246	0.0233#	5.28	66	0.00
13	PT	11dichlorthe	0.1925	0.2239	-16.31	87	0.00
14	PT	Trichlorotfluoroeth	0.1731	0.2211	-27.73	97	0.00
15	PT	Acetone	0.0434	0.0416#	4.15	71	0.00
16	T	Iodomethane	0.2620	0.2053	21.64	57	0.00
17	PT	Carbon Dislf	0.4651	0.5480	-17.82	91	0.00
18	T	allylchloride	0.5911	0.7110	-20.28	91	0.00
19	PT	methylacetate	0.0216	0.0299#	-38.43	88	0.00
20	PT	Methylchlorid	0.3306	0.2417	26.89	79	0.00
21	T	tbutylalcohol	0.0127	0.0160#	-25.98	94	0.00
22	T	Acrylonitrile	0.0451	0.0506	-12.20	77	0.00
23	PT	t12dichlorte	0.1971	0.2422	-22.88	87	0.00
24	PT	MtBE	0.4625	0.4857	-5.02	81	0.00
25	T	Hexane	0.3742	0.5276	-40.99	103	0.00
26	PT	11dichlorota	0.5372	0.5860	-9.08	84	0.00
27	T	Vinylacetate	0.2952	0.4339	-46.99	111	0.00
28	T	chloroprene	0.4619	0.5885	-27.41	94	0.00
29	T	Diisopether	1.2137	1.3875	-14.32	87	0.00
30	T	ETBE	0.7995	0.8628	-7.92	83	0.00
31	T	22dichloropr	0.3561	0.3986	-11.93	92	0.00
32	PT	c12dichlorte	0.2536	0.2713	-6.98	82	0.00
33	PT	2Butanone	0.0100	0.0106#	-6.00	73	0.00
34	T	propionitrile	0.0136	0.0185#	-36.03	85	0.00
35	T	Ethylacetate	0.0025	0.0032#	-28.00	79	0.00
36	T	methacrylonitrile	0.0394	0.0445	-12.94	83	0.00
37	T	Bromochlorma	0.0898	0.0981	-9.24	79	0.00
38	T	Tetrahydofur	0.0460	0.0523	-13.70	85	0.00
39	PT	Chloroform	0.4278	0.4788	-11.92	85	0.00
40	PT	111trichlota	0.3691	0.4419	-19.72	92	0.00
41	S	SURRDibrflma	0.2665	0.2686	-0.79	80	0.00
42	PT	Cyclohexane	0.4772	0.6442	-35.00	102	0.00
43	PT	Carbtetraclo	0.2978	0.3783	-27.03	95	0.00
44	T	11dicloprope	0.0948	0.1143	-20.57	91	-0.01
45	S	SURR12DCAd4	0.0446	0.0463	-3.81	82	0.00
46	PT	Benzene	0.9219	1.0380	-12.59	87	0.00
47	PT	12dichlorota	0.2857	0.3346	-17.12	83	0.00
48	T	TAME	0.5054	0.5667	-12.13	84	0.00

49	PT	trichloroete	0.2416	0.2672	-10.60	84	0.00
50	PT	methylcyclohexane	0.3465	0.4649	-34.17	96	0.00
51	PT	12dicloropra	0.3063	0.3403	-11.10	86	0.00
52	T	23Dicl1propene	0.3380	0.3976	-17.63	85	0.00
53	T	Dibromometha	0.0900	0.1119	-24.33	82	0.00
54	T	methylmethacrylate	0.0309	0.0400	-29.45	84	0.00
55	T	14dioxane	0.0006	0.0009#	-50.00#	109	0.00
56	PT	Bromodiclrma	0.2886	0.3458	-19.82	87	0.00
57	T	2Nitropropane	0.0365	0.0457	-25.21	94	0.00
58	T	2CLEVE	0.0710	0.0979	-37.89	96	0.00
59	PT	c13dicloproe	0.3275	0.3749	-14.47	84	0.00
60	PT	4Meth2Pentan	0.1608	0.2005	-24.69	89	0.00
61	S	SURRd8Tolule	1.0146	1.0339	-1.90	81	0.00
62	PT	Toluene	0.6167	0.7032	-14.03	86	0.00
63	PT	t13Dicloprop	0.2571	0.2910	-13.19	85	0.00
64	T	ethylmethacrylate	0.1634	0.1887	-15.48	81	0.00
65	PT	112Triclotha	0.1247	0.1423	-14.11	88	0.00
66	PT	Tetrachlorte	0.2473	0.2999	-21.27	90	0.00
67	T	13Diclorpropa	0.2604	0.2815	-8.10	82	0.00
68	I	d5-CHLOROBENZENE**ISTD**	1.0000	1.0000	0.00	84	0.00
69	PT	2Hexanone	0.1305	0.1715	-31.42	90	0.00
70	PT	Clorodibrmta	0.2095	0.2474	-18.09	89	0.00
71	PT	12Dibrometha	0.1686	0.1843	-9.31	83	0.00
72	PT	Chlorobenzen	0.8121	0.8996	-10.77	87	0.00
73	T	1Clhexane	0.3881	0.4704	-21.21	97	0.00
74	T	1112Tetclota	0.2792	0.3111	-11.43	83	0.00
75	PT	Ethylbenzene	1.3909	1.5820	-13.74	89	0.00
76	PT	m p-Xylene	0.5186	0.5839	-12.59	88	0.00
77	PT	o-Xylene	0.5184	0.5790	-11.69	86	0.00
78	PT	Styrene	0.7826	0.9407	-20.20	87	0.00
79	PT	Bromoform	0.1053	0.1332	-26.50	86	0.00
80	PT	Isopropylben	1.2875	1.5533	-20.64	93	0.00
81	T	cyclohexanone	0.0059	0.0082#	-38.98	101	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	1.0000	1.0000	0.00	81	0.00
83	S	SURR4BrFBenz	0.8674	0.9059	-4.44	82	0.00
84	T	Bromobenzene	0.5740	0.6642	-15.71	85	0.00
85	PT	1122Tetrclta	0.3588	0.4103	-14.35	84	0.00
86	T	123Triclproa	0.3750	0.4056	-8.16	91	0.00
87	T	14dichloro2butene	0.0860	0.1281	-48.95	104	0.00
88	T	n-Propylbenz	2.7811	3.5076	-26.12	93	0.00
89	T	2chlorotolue	1.6862	2.0077	-19.07	89	0.00
90	T	4chlorotolue	1.9451	2.2979	-18.14	89	0.00
91	T	135Trimebenz	1.9552	2.3532	-20.36	87	0.00
92	T	tbutylbenzen	1.7027	2.1208	-24.56	92	0.00
93	T	124Trimetben	1.9719	2.3343	-18.38	87	0.00
94	T	sbutylbenzen	2.3763	3.1085	-30.81	94	0.00
95	PT	13Diclorbenz	1.0913	1.2574	-15.22	86	0.00
96	T	pIsopropylto	2.0571	2.5927	-26.04	90	0.00
97	PT	14dichlorobe	1.1381	1.2241	-7.56	83	0.00
98	PT	12dichlorobe	0.9959	1.1538	-15.86	88	0.00
99	T	nButylbenzen	1.9299	2.5088	-30.00	95	0.00
100	PT	12dibromo3cl	0.0580	0.0685	-18.10	99	0.00
101	T	135Trichlorobenzene	0.8686	0.9961	-14.68	87	0.00
102	PT	124Trichlobe	0.6660	0.7863	-18.06	84	0.00
103	T	Hexachlorobu	0.3645	0.4845	-32.92	88	0.00
104	T	Naphthalene	0.9456	1.2033	-27.25	90	0.00
105	T	123Trichlben	0.5992	0.6947	-15.94	85	0.00

(#) = Out of Range SPCC's out = 3 CCC's out = 0

LW082519.M Mon Sep 16 11:00:24 2019

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\SEP0619\CCVF-LCSD1.D Vial: 25
Acq On : 6 Sep 2019 23:05 Operator: RLD-DGS
Sample : 164175,LCSDW, Inst : VMS4
Misc : 4.00/40.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Sep 06 23:26:02 2019

Quant Method : C:\INSTARCH\METHODS\LW082519.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:LW082519.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	4.0000	4.0000	0.00	80	0.00
2	PT	Dichlorodi	4.0000	4.8403	-21.01	95	0.00
3	PT	Chloromethan	4.0000	4.3213	-8.03	84	0.00
4	PT	VinylChlorid	4.0000	4.6961	-17.40	90	0.00
5	PT	Bromomethane	4.0000	3.8463	3.84	82	0.00
6	PT	Chloroethane	4.0000	4.4838	-12.09	84	0.00
7	T	Dichloroflmethane	4.0000	4.5825	-14.56	85	0.00
8	PT	Trichlorofma	4.0000	5.3555	-33.89	96	0.00
9	T	Ethylether	4.0000	4.1491	-3.73	78	0.00
10	T	dichlorotfluoroethan	4.0000	4.7926	-19.82	91	0.00
11	T	propyleneoxide	40.0000	42.6198	-6.55	79	0.00
12	T	Acrolein	20.0000	17.5559	12.22	66	0.00
13	PT	11dichlorthe	4.0000	4.6517	-16.29	87	0.00
14	PT	Trichlorotfluoroeth	8.0000	10.2187	-27.73	97	0.00
15	PT	Acetone	40.0000	38.3456	4.14	71	0.00
16	T	Iodomethane	8.0000	6.2701	21.62	57	0.00
17	PT	Carbon Dislf	8.0000	9.4253	-17.82	91	0.00
18	T	allylchloride	8.0000	9.6226	-20.28	91	0.00
19	PT	methylacetate	4.0000	4.3738	-9.35	88	0.00
20	PT	Methylchlorid	4.0000	4.0602	-1.51	79	0.00
21	T	tbutylalcohol	200.0000	251.3454	-25.67	94	0.00
22	T	Acrylonitrile	20.0000	19.8665	0.67	77	0.00
23	PT	t12dichlorte	4.0000	4.5940	-14.85	87	0.00
24	PT	MtBE	4.0000	4.2011	-5.03	81	0.00
25	T	Hexane	8.0000	11.3079	-41.35	103	0.00
26	PT	11dichlorota	4.0000	4.3638	-9.10	84	0.00
27	T	Vinylacetate	40.0000	58.8093	-47.02	111	0.00
28	T	chloroprene	8.0000	10.1925	-27.41	94	0.00
29	T	Diisopether	4.0000	4.5727	-14.32	87	0.00
30	T	ETBE	4.0000	4.3168	-7.92	83	0.00
31	T	22dichloropr	4.0000	4.4781	-11.95	92	0.00
32	PT	c12dichlorte	4.0000	4.2784	-6.96	82	0.00
33	PT	2Butanone	40.0000	42.5945	-6.49	73	0.00
34	T	propionitrile	40.0000	43.3850	-8.46	85	0.00
35	T	Ethylacetate	20.0000	19.3482	3.26	79	0.00
36	T	methacrylonitrile	8.0000	9.0390	-12.99	83	0.00
37	T	Bromochlorma	4.0000	4.1119	-2.80	79	0.00
38	T	Tetrahydofur	40.0000	45.5149	-13.79	85	0.00
39	PT	Chloroform	4.0000	4.4769	-11.92	85	0.00
40	PT	111trichlota	4.0000	4.7895	-19.74	92	0.00
41	S	SURRDibrflma	4.0000	4.0319	-0.80	80	0.00
42	PT	Cyclohexane	4.0000	5.3998	-34.99	102	0.00
43	PT	Carbtetraclo	4.0000	5.0820	-27.05	95	0.00
44	T	11dicloprope	4.0000	4.8221	-20.55	91	-0.01
45	S	SURR12DCAd4	4.0000	4.1550	-3.88	82	0.00
46	PT	Benzene	4.0000	4.5040	-12.60	87	0.00
47	PT	12dichlorota	4.0000	4.2875	-7.19	83	0.00
48	T	TAME	4.0000	4.4851	-12.13	84	0.00

49	PT	trichloroete	4.0000	4.4228	-10.57	84	0.00
50	PT	methylcyclohexane	4.0000	5.3677	-34.19	96	0.00
51	PT	12dicloropra	4.0000	4.4449	-11.12	86	0.00
52	T	23Dicl1propene	4.0000	4.7055	-17.64	85	0.00
53	T	Dibromometha	4.0000	4.2841	-7.10	82	0.00
54	T	methylmethacrylate	8.0000	8.2661	-3.33	84	0.00
55	T	14dioxane	200.0000	264.4913	-32.25	109	0.00
56	PT	Bromodiclrma	4.0000	4.7925	-19.81	87	0.00
57	T	2Nitropropane	40.0000	50.0768	-25.19	94	0.00
58	T	2CLEVE	20.0000	24.4466	-22.23	96	0.00
59	PT	c13dicloproe	4.0000	4.5777	-14.44	84	0.00
60	PT	4Meth2Pentan	40.0000	49.8698	-24.67	89	0.00
61	S	SURRd8Tolule	4.0000	4.0760	-1.90	81	0.00
62	PT	Toluene	4.0000	4.5615	-14.04	86	0.00
63	PT	t13Dicloprop	4.0000	4.5282	-13.21	85	0.00
64	T	ethylmethacrylate	8.0000	9.2403	-15.50	81	0.00
65	PT	112Triclotha	4.0000	4.5660	-14.15	88	0.00
66	PT	Tetrachlorte	4.0000	4.8507	-21.27	90	0.00
67	T	13Diclorpropa	4.0000	4.3231	-8.08	82	0.00
68	I	d5-CHLOROBENZENE**ISTD**	4.0000	4.0000	0.00	84	0.00
69	PT	2Hexanone	40.0000	44.7190	-11.80	90	0.00
70	PT	Clorodibrmta	4.0000	4.7253	-18.13	89	0.00
71	PT	12Dibrometha	4.0000	4.3728	-9.32	83	0.00
72	PT	Chlorobenzen	4.0000	4.4310	-10.78	87	0.00
73	T	1Clhexane	4.0000	4.8479	-21.20	97	0.00
74	T	1112Tetclota	4.0000	4.4568	-11.42	83	0.00
75	PT	Ethylbenzene	4.0000	4.5496	-13.74	89	0.00
76	PT	m p-Xylene	8.0000	9.0074	-12.59	88	0.00
77	PT	o-Xylene	4.0000	4.4682	-11.71	86	0.00
78	PT	Styrene	4.0000	4.8078	-20.20	87	0.00
79	PT	Bromoform	4.0000	4.2940	-7.35	86	0.00
80	PT	Isopropylben	4.0000	4.8257	-20.64	93	0.00
81	T	cyclohexanone	80.0000	103.8496	-29.81	101	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	4.0000	4.0000	0.00	81	0.00
83	S	SURR4BrFBenz	4.0000	4.1775	-4.44	82	0.00
84	T	Bromobenzene	4.0000	4.6282	-15.70	85	0.00
85	PT	1122Tetrclta	4.0000	4.5739	-14.35	84	0.00
86	T	123Triclproa	4.0000	4.3260	-8.15	91	0.00
87	T	14dichloro2butene	4.0000	5.2584	-31.46	104	0.00
88	T	n-Propylbenz	4.0000	5.0449	-26.12	93	0.00
89	T	2chlorotolue	4.0000	4.7626	-19.06	89	0.00
90	T	4chlorotolue	4.0000	4.7257	-18.14	89	0.00
91	T	135Trimebenz	4.0000	4.8144	-20.36	87	0.00
92	T	tbutylbenzen	4.0000	4.9822	-24.55	92	0.00
93	T	124Trimetben	4.0000	4.7352	-18.38	87	0.00
94	T	sbutylbenzen	4.0000	5.2325	-30.81	94	0.00
95	PT	13Diclorbenz	4.0000	4.6089	-15.22	86	0.00
96	T	pIsopropylto	4.0000	5.0415	-26.04	90	0.00
97	PT	14dichlorobe	4.0000	4.3021	-7.55	83	0.00
98	PT	12dichlorobe	4.0000	4.6346	-15.86	88	0.00
99	T	nButylbenzen	4.0000	5.2000	-30.00	95	0.00
100	PT	12dibromo3cl	4.0000	4.2127	-5.32	99	0.00
101	T	135Trichlorobenzene	4.0000	4.5874	-14.68	87	0.00
102	PT	124Trichlobe	4.0000	4.7223	-18.06	84	0.00
103	T	Hexachlorobu	4.0000	5.3171	-32.93	88	0.00
104	T	Naphthalene	4.0000	5.0904	-27.26	90	0.00
105	T	123Trichlben	4.0000	4.6375	-15.94	85	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

LW082519.M Mon Sep 16 11:00:04 2019

Quantitation Report

Data File : C:\Instarch\Data\SEP0619\CCVF-LCSD1.D Vial: 25
Acq On : 6 Sep 2019 23:05 Operator: RLD-DGS
Sample : 164175,LCSDW, Inst : VMS4
Misc : 4.00/40.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Sep 06 23:26:02 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Sep 06 12:49:16 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1112495	4.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.59	117	909904	4.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.89	152	495327	4.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	298850	4.032	ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 101	%		
45) SURR12DCAd4	7.24	102	51554	4.155	ug/L	0.00
Spiked Amount 4.000	Range 86 - 106		Recovery = 104	%		
61) SURRd8Tolule	9.67	98	1150183	4.076	ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 102	%		
83) SURR4BrFBenz	13.23	95	448696	4.178	ug/L	0.00
Spiked Amount 4.000	Range 75 - 124		Recovery = 104	%		
Target Compounds						Qvalue
2) Dichlorodi	1.82	85	308418	4.8403	ug/L	99
3) Chloromethan	2.07	50	575475	4.3213	ug/L	99
4) VinylChlorid	2.21	62	390183	4.6961	ug/L	99
5) Bromomethane	2.68	94	119627	3.8463	ug/L	98
6) Chloroethane	2.84	64	192489	4.4838	ug/L	98
7) Dichloroflmethane	3.15	67	552983	4.5825	ug/L	96
8) Trichlorofma	3.21	101	475953	5.3555	ug/L	98
9) Ethylether	3.66	59	204983	4.1491	ug/L	98
10) dichlorotfluoroethan	3.68	67	335953	4.7926	ug/L	98
11) propyleneoxide	3.72	58	272315	42.6198	ug/L	95
12) Acrolein	3.82	56	129344	17.5559	ug/L	93
13) 11dichlorthe	3.94	96	249034	4.6517	ug/L	94
14) Trichlorotfluoroeth	3.97	101	491901	10.2187	ug/L	99
15) Acetone	4.04	43	462607	38.3456	ug/L	99
16) Iodomethane	4.12	142	456851	6.2701	ug/L	99
17) Carbon Dislf	4.20	76	1219339	9.4253	ug/L	98
18) allylchloride	4.43	41	1581860	9.6226	ug/L	98
19) methylacetate	4.51	74	33280	4.3738	ug/L	96
20) Methylchlorid	4.59	84	268910	4.0602	ug/L	97
21) tbutylalcohol	4.80	59	888793	251.3454	ug/L	96
22) Acrylonitrile	4.93	53	281403	19.8665	ug/L	94
23) t12dichlorte	4.96	96	269398	4.5940	ug/L	97
24) MtBE	4.98	73	540345	4.2011	ug/L	97
25) Hexane	5.33	57	1173973	11.3079	ug/L	99
26) 11dichlorota	5.50	63	651933	4.3638	ug/L	99
27) Vinylacetate	5.59	43	4827651	58.8093	ug/L	100
28) chloroprene	5.61	53	1309348	10.1925	ug/L	97
29) Diisopether	5.62	45	1543604	4.5727	ug/L	98
30) ETBE	6.07	59	959902	4.3168	ug/L	100
31) 22dichloropr	6.22	77	443486	4.4781	ug/L	98
32) c12dichlorte	6.24	96	301771	4.2784	ug/L	95
33) 2Butanone	6.27	72	118381	42.5945	ug/L	91
34) propionitrile	6.33	54	205662	43.3850	ug/L	99
35) Ethylacetate	6.36	88	17590	19.3482	ug/L	95
36) methacrylonitrile	6.52	67	99023	9.0390	ug/L	99
37) Bromochlorma	6.53	128	109191	4.1119	ug/L	97
38) Tetrahydofur	6.59	42	581837	45.5149	ug/L	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\SEP0619\CCVF-LCSD1.D Vial: 25
Acq On : 6 Sep 2019 23:05 Operator: RLD-DGS
Sample : 164175,LCSDW, Inst : VMS4
Misc : 4.00/40.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Sep 06 23:26:02 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Sep 06 12:49:16 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	6.63	83	532716	4.4769 ug/L	99
40)	111trichlota	6.85	97	491653	4.7895 ug/L	97
42)	Cyclohexane	6.92	56	716662	5.3998 ug/L	99
43)	Carbtetraclo	7.06	119	420887	5.0820 ug/L	99
44)	11dicloprope	7.06	110	127151	4.8221 ug/L	96
46)	Benzene	7.31	78	1154788	4.5040 ug/L	99
47)	12dichlorota	7.34	62	372202	4.2875 ug/L	97
48)	TAME	7.46	73	630501	4.4851 ug/L	98
49)	trichloroete	8.13	95	297241	4.4228 ug/L	99
50)	methylcyclohexane	8.36	83	517246	5.3677 ug/L	92
51)	12dicloropra	8.39	63	378615	4.4449 ug/L	98
52)	23Dicl1propene	8.46	75	442290	4.7055 ug/L	95
53)	Dibromometha	8.55	93	124533	4.2841 ug/L	95
54)	methylmethacrylate	8.57	69	88941	8.2661 ug/L	95
55)	14dioxane	8.58	88	51363	264.4913 ug/L	98
56)	Bromodiclrma	8.74	83	384704	4.7925 ug/L	100
57)	2Nitropropane	9.02	43	508655	50.0768 ug/L	98
58)	2CLEVE	9.14	63	544373	24.4466 ug/L	98
59)	c13dicloproe	9.32	75	417023	4.5777 ug/L	97
60)	4Meth2Pentan	9.51	43	2230755	49.8698 ug/L	98
62)	Toluene	9.75	92	782323	4.5615 ug/L	97
63)	t13Dicloprop	10.04	75	323730	4.5282 ug/L	99
64)	ethylmethacrylate	10.17	69	419879	9.2403 ug/L	90
65)	112Triclotha	10.27	83	158319	4.5660 ug/L	93
66)	Tetrachlorte	10.48	166	333655	4.8507 ug/L	97
67)	13Diclorpropa	10.50	76	313154	4.3231 ug/L	99
69)	2Hexanone	10.61	43	1560520	44.7190 ug/L	98
70)	Clorodibrmta	10.80	129	225147	4.7253 ug/L	95
71)	12Dibrometha	10.95	107	167731	4.3728 ug/L	96
72)	Chlorobenzen	11.63	112	818516	4.4310 ug/L	99
73)	1Clhexane	11.59	91	427994	4.8479 ug/L	98
74)	1112Tetclota	11.73	131	283067	4.4568 ug/L	98
75)	Ethylbenzene	11.78	91	1439513	4.5496 ug/L	99
76)	m p-Xylene	11.94	106	1062645	9.0074 ug/L	98
77)	o-Xylene	12.50	106	526877	4.4682 ug/L	99
78)	Styrene	12.51	104	855910	4.8078 ug/L	99
79)	Bromoform	12.76	173	121218	4.2940 ug/L	98
80)	Isopropylben	13.01	105	1413359	4.8257 ug/L	99
81)	cyclohexanone	13.13	55	148863	103.8496 ug/L	98
84)	Bromobenzene	13.44	156	328980	4.6282 ug/L	98
85)	1122Tetrclta	13.43	83	203227	4.5739 ug/L	91
86)	123Triclproa	13.49	75	200888	4.3260 ug/L	95
87)	14dichloro2butene	13.52	53	63471	5.2584 ug/L	91
88)	n-Propylbenz	13.60	91	1737399	5.0449 ug/L	98
89)	2chlorotolue	13.72	91	994460	4.7626 ug/L	99
90)	4chlorotolue	13.87	91	1138231	4.7257 ug/L	99
91)	135Trimebenz	13.86	105	1165621	4.8144 ug/L	97
92)	tbutylbenzen	14.33	119	1050505	4.9822 ug/L	99
93)	124Trimetben	14.40	105	1156236	4.7352 ug/L	98
94)	sbutylbenzen	14.64	105	1539709	5.2325 ug/L	97
95)	13Diclorbenz	14.80	146	622832	4.6089 ug/L	97
96)	pIsopropylto	14.86	119	1284219	5.0415 ug/L	99
97)	14dichlorobe	14.92	146	606322	4.3021 ug/L	95
98)	12dichlorobe	15.46	146	571533	4.6346 ug/L	96
99)	nButylbenzen	15.46	91	1242687	5.2000 ug/L	99
100)	12dibromo3cl	16.58	157	33918	4.2127 ug/L	96
101)	135Trichlorobenzene	16.88	180	493400	4.5874 ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\SEP0619\CCVF-LCSD1.D Vial: 25
Acq On : 6 Sep 2019 23:05 Operator: RLD-DGS
Sample : 164175,LCSDW, Inst : VMS4
Misc : 4.00/40.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Sep 06 23:26:02 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Sep 06 12:49:16 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102)	124Trichlobe	17.70	180	389467	4.7223	ug/L	96
103)	Hexachlorobu	17.93	225	239998	5.3171	ug/L	98
104)	Naphthalene	18.01	128	596038	5.0904	ug/L	99
105)	123Trichlben	18.32	180	344098	4.6375	ug/L	99

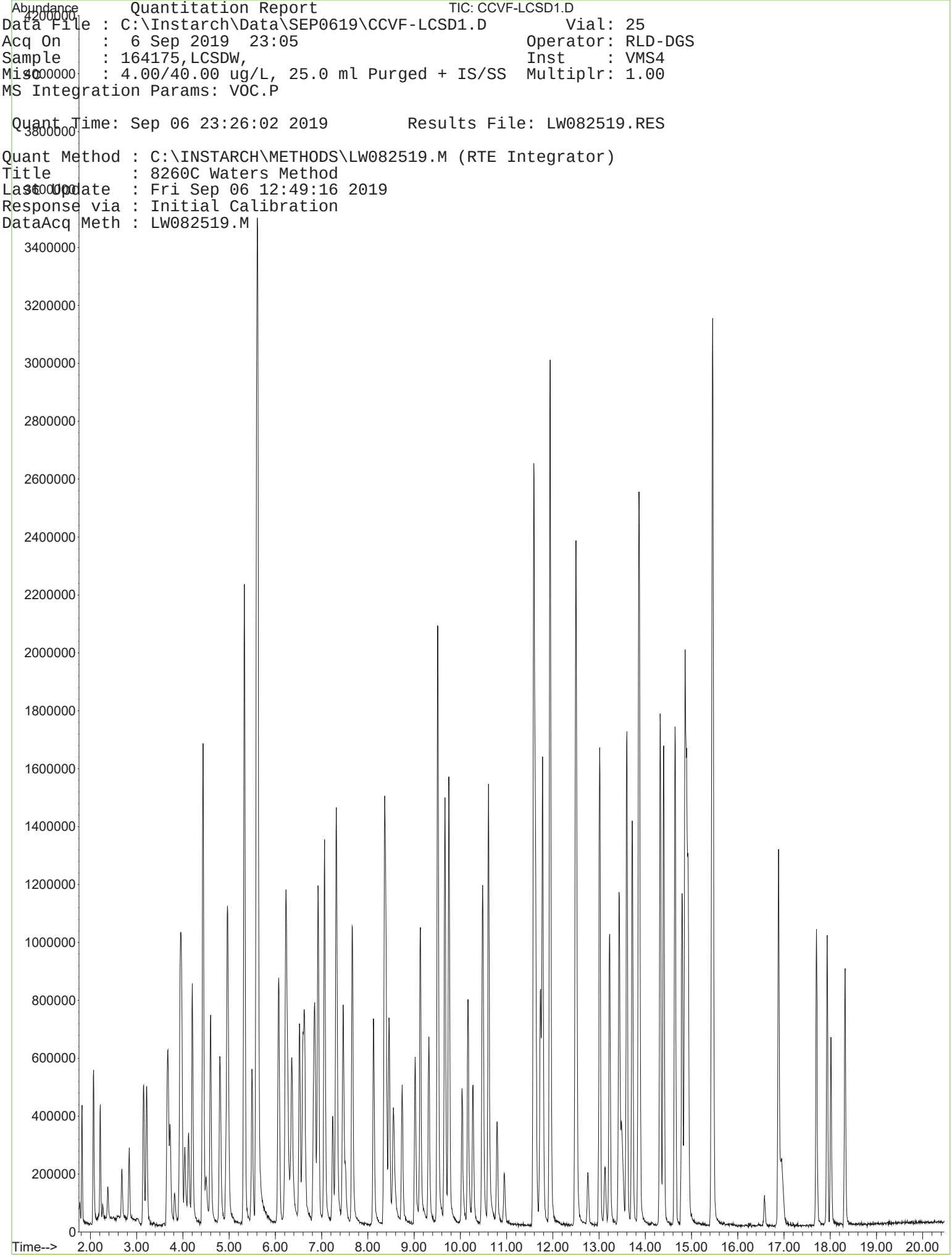
(#) = qualifier out of range (m) = manual integration

Quantitation Report (TIC: CCVF-LCSD1.D)

Data File : C:\Instarch\Data\SEP0619\CCVF-LCSD1.D Vial: 25
Acq On : 6 Sep 2019 23:05 Operator: RLD-DGS
Sample : 164175,LCSDW, Inst : VMS4
Misc : 4.00/40.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Sep 06 23:26:02 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Sep 06 12:49:16 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M



VOLATILE ORGANIC ANALYSIS
QUALITY CONTROL
DOCUMENTS

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\LCS1.D Vial: 4
Acq On : 5 Sep 2019 8:40 Operator: RLD-DGS
Sample : 163979,LCSS, Inst : VMS4
Misc : 5.00g, 0.010/0.10 mg/kg, 15.0 ml Purged Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 09:01:06 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1127735	0.02	mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	898147	0.02	mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.89	152	481468	0.02	mg/kg	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	287030	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 100 %			
45) SURR12DCAd4	7.24	102	62815	0.022	mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 110 %			
60) SURRd8Tolule	9.67	98	1182904	0.021	mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 105 %			
82) SURR4BrFBenz	13.23	95	446601	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 100 %			
Target Compounds						Qvalue
2) Dichlorodi	1.82	85	144687	0.0091	mg/kg	95
3) Chloromethan	2.06	50	142708	0.0083	mg/kg	99
4) VinylChlorid	2.21	62	145561	0.0088	mg/kg	99
5) Bromomethane	2.68	94	66796	0.0080	mg/kg	97
6) Chloroethane	2.83	64	83251	0.0083	mg/kg	98
7) dichloroflmethane	3.15	67	278318	0.0087	mg/kg	98
8) Trichlorofma	3.22	101	229480	0.0088	mg/kg	96
9) Ethylether	3.66	59	110673	0.0095	mg/kg	97
10) dichlorotfluoroethan	3.68	67	160644	0.0092	mg/kg	99
11) propyleneoxide	3.73	58	122488	0.0903	mg/kg	93
12) Acrolein	3.82	56	106819	0.0482	mg/kg	94
13) 11dichlorthe	3.94	96	125793	0.0089	mg/kg	98
14) Trichlorotfluoroeth	3.97	101	247246	0.0182	mg/kg	99
15) Acetone	4.04	43	333093	0.1006	mg/kg	95
16) Iodomethane	4.12	142	205757	0.0145	mg/kg	98
17) Carbon Dislf	4.20	76	861419	0.0177	mg/kg	100
18) allylchloride	4.43	41	447417	0.0173	mg/kg	99
19) methylacetate	4.50	74	41610	0.0087	mg/kg	93
20) Methylchlorid	4.60	84	187508	0.0088	mg/kg	98
21) Acrylonitrile	4.93	53	161660	0.0483	mg/kg	99
22) t12dichlorte	4.96	96	141282	0.0085	mg/kg	96
23) tbutylalcohol	4.81	59	730139	0.4704	mg/kg	100
24) MtBE	4.98	73	425798	0.0098	mg/kg	99
25) Hexane	5.33	57	374563	0.0173	mg/kg	99
26) 11dichlorota	5.50	63	266258	0.0086	mg/kg	100
27) Vinylacetate	5.59	43	1931465	0.0999	mg/kg	100
28) chloroprene	5.61	53	406177	0.0179	mg/kg	100
29) Diisopether	5.61	45	450670	0.0093	mg/kg	99
30) ETBE	6.07	59	436503	0.0099	mg/kg	99
31) 22dichloropr	6.22	77	240429	0.0086	mg/kg	96
32) c12dichlorte	6.24	96	162039	0.0088	mg/kg	99
33) 2Butanone	6.27	72	130893	0.0929	mg/kg	97
34) propionitrile	6.33	54	123400	0.0883	mg/kg	94
35) Ethylacetate	6.36	88	20342	0.0501	mg/kg#	80
36) methacrylonitrile	6.52	67	93302	0.0184	mg/kg	95
37) Bromochlorma	6.53	128	60283	0.0084	mg/kg	89
38) Tetrahydofur	6.60	42	316414	0.0970	mg/kg	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\LCS1.D Vial: 4
Acq On : 5 Sep 2019 8:40 Operator: RLD-DGS
Sample : 163979,LCSS, Inst : VMS4
Misc : 5.00g, 0.010/0.10 mg/kg, 15.0 ml Purged Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 09:01:06 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	6.63	83	284691	0.0090 mg/kg	92
40) 111trichlota	6.86	97	239766	0.0089 mg/kg	97
42) Cyclohexane	6.93	56	226804	0.0091 mg/kg	97
43) Carbtetraclo	7.06	119	190813	0.0086 mg/kg	96
44) 11dicloprope	7.07	110	68574	0.0090 mg/kg	99
46) Benzene	7.32	78	617198	0.0087 mg/kg	98
47) 12dichlorota	7.34	62	195794	0.0097 mg/kg	99
48) TAME	7.47	73	409182	0.0096 mg/kg	97
49) trichloroete	8.13	95	149941	0.0087 mg/kg	96
50) methylcyclohexane	8.36	83	266657	0.0090 mg/kg	99
51) 12dicloropra	8.39	63	162653	0.0091 mg/kg	99
52) 23dicl1propene	8.46	75	241119	0.0090 mg/kg	95
53) Dibromometha	8.55	93	87645	0.0096 mg/kg	98
54) methylmethacrylate	8.57	69	83987	0.0093 mg/kg	91
55) 14dioxane	8.59	88	63953	0.4535 mg/kg	93
56) Bromodiclrma	8.74	83	217156	0.0093 mg/kg	95
57) 2Nitropropane	9.02	43	305321	0.0951 mg/kg	97
58) c13dicloproe	9.33	75	252573	0.0092 mg/kg	98
59) 4Meth2Pentan	9.51	43	1114367	0.1021 mg/kg	98
61) Toluene	9.76	92	393291	0.0085 mg/kg	99
62) t13Dicloprop	10.04	75	223486	0.0096 mg/kg	97
63) ethylmethacrylate	10.17	69	354433	0.0200 mg/kg	98
64) 112Triclotha	10.27	83	115921	0.0098 mg/kg	96
65) Tetrachlorte	10.48	166	153465	0.0090 mg/kg	98
66) 13Diclorpropa	10.50	76	229622	0.0095 mg/kg	100
68) 2Hexanone	10.61	43	779281	0.0928 mg/kg	99
69) Clorodibrmta	10.79	129	142201	0.0095 mg/kg	97
70) 12Dibrometha	10.95	107	125432	0.0095 mg/kg	97
71) Chlorobenzen	11.63	112	398264	0.0086 mg/kg	97
72) 1Clhexane	11.60	91	203914	0.0084 mg/kg	97
73) 1112Tetclota	11.73	131	138629	0.0086 mg/kg	97
74) Ethylbenzene	11.78	91	718408	0.0088 mg/kg	100
75) m p-Xylene	11.94	106	529882	0.0173 mg/kg	98
76) o-Xylene	12.50	106	258292	0.0084 mg/kg	91
77) Styrene	12.51	104	443668	0.0089 mg/kg	98
78) Bromoform	12.76	173	90962	0.0089 mg/kg	98
79) Isopropylben	13.02	105	677091	0.0090 mg/kg	97
81) cyclohexanone	13.13	55	90920	0.1808 mg/kg	94
83) Bromobenzene	13.44	156	173144	0.0086 mg/kg	97
84) 1122Tetrclta	13.43	83	178169	0.0094 mg/kg	95
85) 123Triclproa	13.49	75	225776	0.0096 mg/kg	97
86) 14dichloro2butene	13.52	53	37638	0.0088 mg/kg	97
87) n-Propylbenz	13.60	91	817774	0.0088 mg/kg	99
88) 2chlorotolue	13.72	91	476926	0.0085 mg/kg	99
89) 4chlorotolue	13.88	91	569099	0.0089 mg/kg	99
90) 135Trimebenz	13.86	105	564125	0.0086 mg/kg	99
91) tbutylbenzen	14.33	119	475231	0.0085 mg/kg	97
92) 124Trimetben	14.40	105	587717	0.0087 mg/kg	100
93) sbutylbenzen	14.65	105	749707	0.0091 mg/kg	100
94) 13Diclorbenz	14.80	146	311457	0.0087 mg/kg	98
95) pIsopropylto	14.86	119	596424	0.0089 mg/kg	100
96) 14dichlorobe	14.93	146	337252	0.0095 mg/kg	99
97) 12dichlorobe	15.47	146	307673	0.0090 mg/kg	98
98) nButylbenzen	15.46	91	590601	0.0091 mg/kg	97
99) 12dibromo3cl	16.58	157	33151	0.0096 mg/kg	95
100) 135Trichlorobenzene	16.89	180	266614	0.0097 mg/kg	98
101) 124Trichlobe	17.70	180	238314	0.0098 mg/kg	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\LCS1.D Vial: 4
Acq On : 5 Sep 2019 8:40 Operator: RLD-DGS
Sample : 163979,LCSS, Inst : VMS4
Misc : 5.00g, 0.010/0.10 mg/kg, 15.0 ml Purged Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 09:01:06 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) Hexachlorobu	17.94	225	140220	0.0088 mg/kg	99
103) Naphthalene	18.02	128	478113	0.0098 mg/kg	100
104) 123Trichlben	18.32	180	220345	0.0095 mg/kg	98

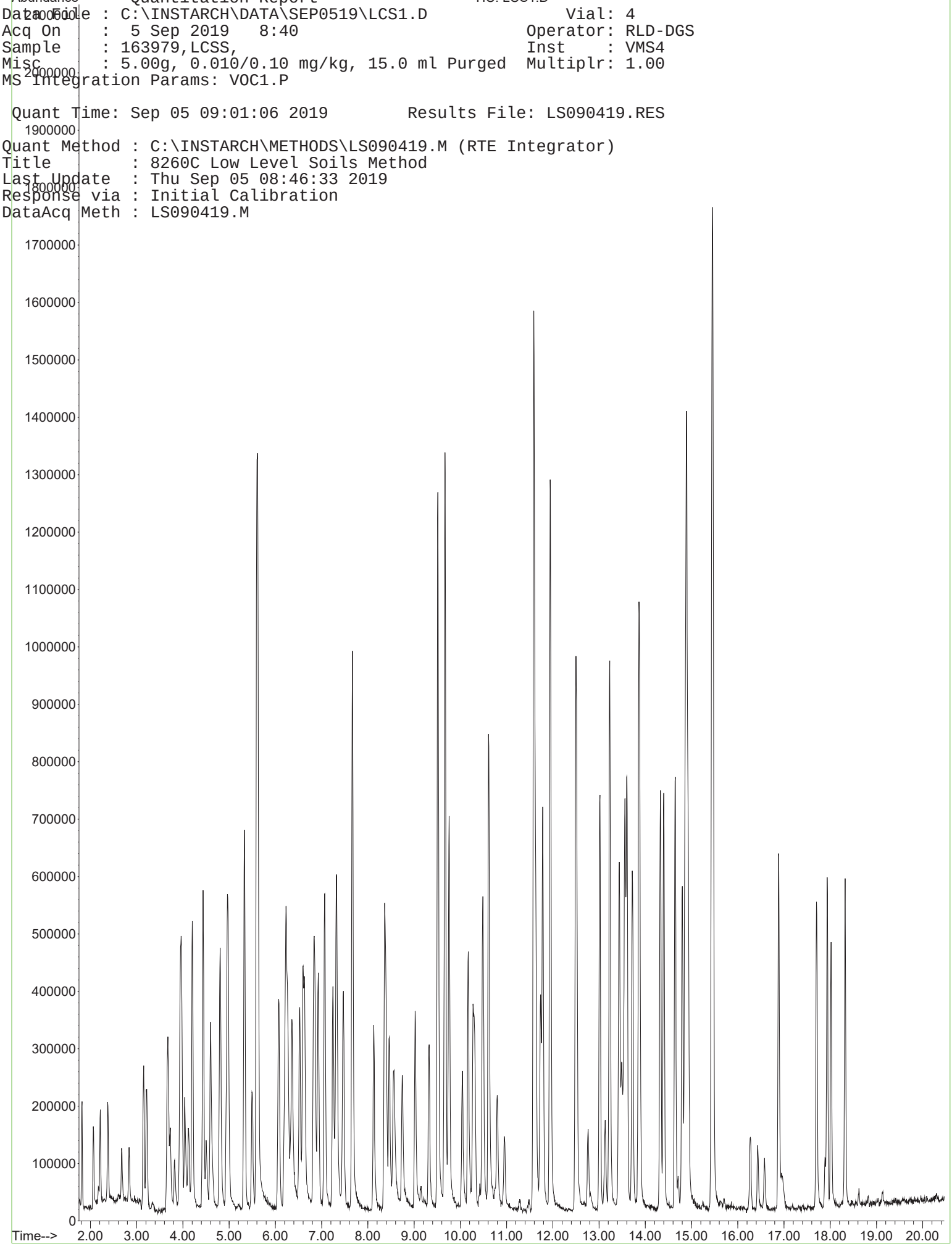
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\LCS1.D Vial: 4
Acq On : 5 Sep 2019 8:40 Operator: RLD-DGS
Sample : 163979,LCSS, Inst : VMS4
Misc : 5.00g, 0.010/0.10 mg/kg, 15.0 ml Purged Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 09:01:06 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M



Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\MB1.D Vial: 6
Acq On : 5 Sep 2019 9:38 Operator: RLD-DGS
Sample : 163979,MBS, Inst : VMS4
Misc : 5.00g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 09:59:10 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1124960	0.02	mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	889620	0.02	mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.89	152	465204	0.02	mg/kg	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	283602	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 100 %			
45) SURR12DCAd4	7.25	102	59976	0.021	mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 105 %			
60) SURRd8Tolule	9.67	98	1154456	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %			
82) SURR4BrFBenz	13.23	95	446853	0.020	mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 100 %			
Target Compounds						Qvalue
2) Dichlorodi	1.81	85	2172	0.0011	mg/kg	69
3) Chloromethan	2.06	50	2589	N.D.		
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	2.69	94	1965	N.D.		
6) Chloroethane	0.00	64	0	N.D.		
7) dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	0.00	56	0	N.D.		
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	4.08	43	19663	N.D.		
16) Iodomethane	4.12	142	4503	0.0025	mg/kg#	67
17) Carbon Dislf	4.20	76	8706	N.D.		
18) allylchloride	4.47	41	1007	N.D.		
19) methylacetate	0.00	74	0	N.D.		
20) Methylchlorid	4.60	84	24047	Below	Cal	82
21) Acrylonitrile	0.00	53	0	N.D.		
22) t12dichlorte	0.00	96	0	N.D.		
23) tbutylalcohol	4.79	59	11283	N.D.		
24) MtBE	0.00	73	0	N.D.		
25) Hexane	5.33	57	12601	0.0024	mg/kg	89
26) 11dichlorota	0.00	63	0	N.D.		
27) Vinylacetate	0.00	43	0	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	6.08	59	1720	N.D.		
31) 22dichloropr	6.20	77	7586	N.D.		
32) c12dichlorte	0.00	96	0	N.D.		
33) 2Butanone	6.19	72	1131	N.D.		
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	6.61	42	1322	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\MB1.D Vial: 6
Acq On : 5 Sep 2019 9:38 Operator: RLD-DGS
Sample : 163979,MBS, Inst : VMS4
Misc : 5.00g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 09:59:10 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	0.00	83	0	N.D.	
40) 111trichlota	0.00	97	0	N.D.	
42) Cyclohexane	0.00	56	0	N.D.	
43) Carbtetraclo	0.00	119	0	N.D.	
44) 11dicloprope	0.00	110	0	N.D.	
46) Benzene	7.32	78	2131	N.D.	
47) 12dichlorota	0.00	62	0	N.D.	
48) TAME	0.00	73	0	N.D.	
49) trichloroete	0.00	95	0	N.D.	
50) methylcyclohexane	0.00	83	0	N.D.	
51) 12dicloropra	0.00	63	0	N.D.	
52) 23dicl1propene	8.41	75	1186	N.D.	
53) Dibromometha	0.00	93	0	N.D.	
54) methylmethacrylate	0.00	69	0	N.D.	
55) 14dioxane	0.00	88	0	N.D.	
56) Bromodiclrma	0.00	83	0	N.D.	
57) 2Nitropropane	9.08	43	1386	N.D.	
58) c13dicloproe	0.00	75	0	N.D.	
59) 4Meth2Pentan	9.53	43	10105	N.D.	
61) Toluene	9.77	92	3573	N.D.	
62) t13Dicloprop	0.00	75	0	N.D.	
63) ethylmethacrylate	0.00	69	0	N.D.	
64) 112Triclotha	0.00	83	0	N.D.	
65) Tetrachlorte	0.00	166	0	N.D.	
66) 13Diclorpropa	0.00	76	0	N.D.	
68) 2Hexanone	10.66	43	6600	N.D.	
69) Clorodibrmta	0.00	129	0	N.D.	
70) 12Dibrometha	0.00	107	0	N.D.	
71) Chlorobenzen	0.00	112	0	N.D.	
72) 1Clhexane	11.59	91	2118	0.0010 mg/kg#	1
73) 1112Tetclota	0.00	131	0	N.D.	
74) Ethylbenzene	11.80	91	2113	N.D.	
75) m p-Xylene	11.96	106	2877	N.D.	
76) o-Xylene	0.00	106	0	N.D.	
77) Styrene	12.53	104	8164	N.D.	
78) Bromoform	0.00	173	0	N.D.	
79) Isopropylben	13.04	105	2319	N.D.	
81) cyclohexanone	13.16	55	1862	N.D.	
83) Bromobenzene	0.00	156	0	N.D.	
84) 1122Tetrclta	0.00	83	0	N.D.	
85) 123Triclproa	13.56	75	5670	N.D.	
86) 14dichloro2butene	0.00	53	0	N.D.	
87) n-Propylbenz	13.60	91	2511	N.D.	
88) 2chlorotolue	13.60	91	2355	N.D.	
89) 4chlorotolue	13.89	91	1894	N.D.	
90) 135Trimebenz	13.85	105	1525	N.D.	
91) tbutylbenzen	0.00	119	0	N.D.	
92) 124Trimetben	14.40	105	5387	N.D.	
93) sbutylbenzen	14.65	105	1557	N.D.	
94) 13Diclorbenz	0.00	146	0	N.D.	
95) pIsopropylto	14.86	119	2954	N.D.	
96) 14dichlorobe	0.00	146	0	N.D.	
97) 12dichlorobe	15.48	146	1878	N.D.	
98) nButylbenzen	15.44	91	5291	N.D.	
99) 12dibromo3cl	0.00	157	0	N.D.	
100) 135Trichlorobenzene	0.00	180	0	N.D.	
101) 124Trichlobe	17.71	180	2117	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\MB1.D Vial: 6
Acq On : 5 Sep 2019 9:38 Operator: RLD-DGS
Sample : 163979,MBS, Inst : VMS4
Misc : 5.00g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 09:59:10 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) Hexachlorobu	0.00	225	0	N.D.	
103) Naphthalene	18.03	128	11131	N.D.	
104) 123Trichlben	18.34	180	2767	N.D.	

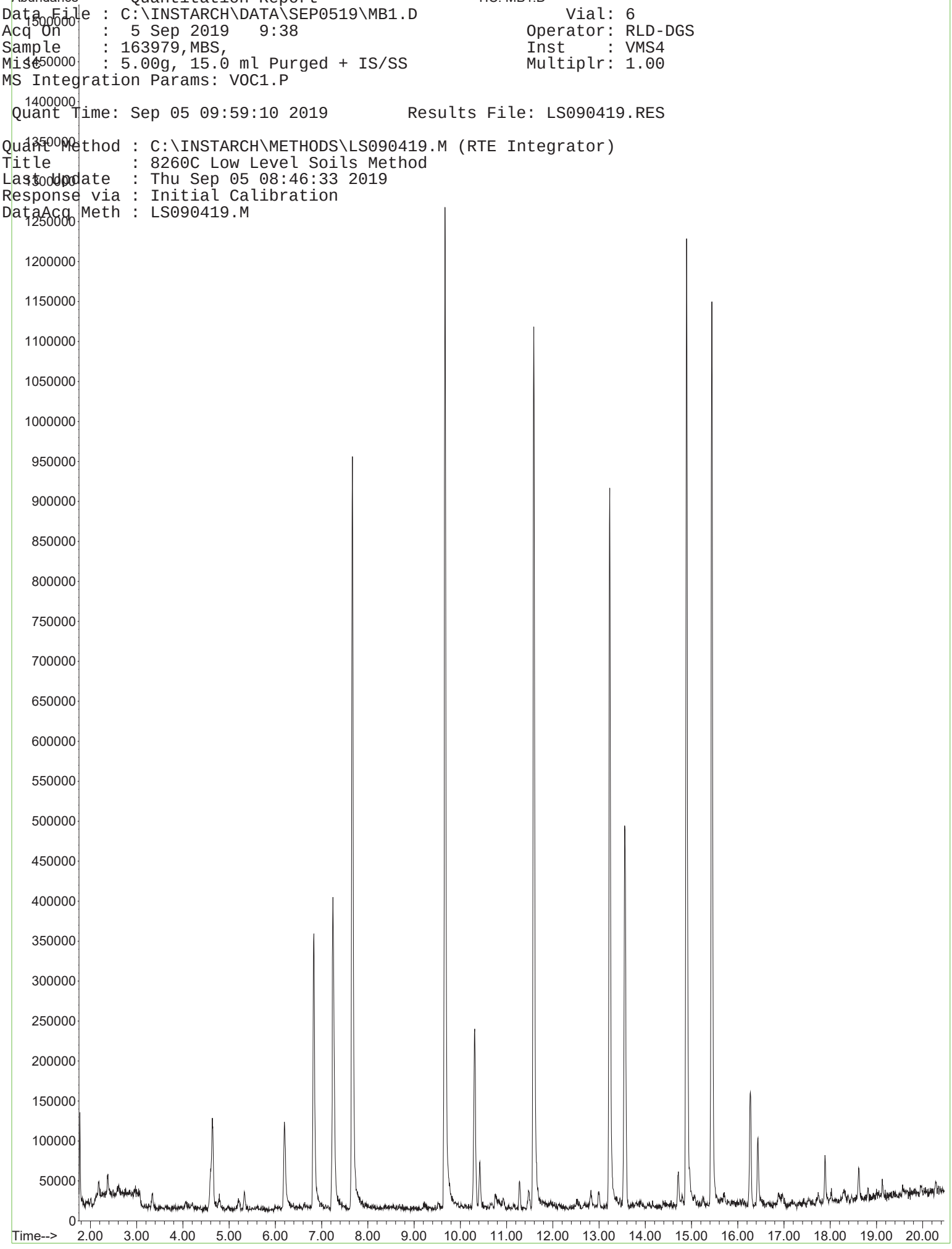
(#) = qualifier out of range (m) = manual integration

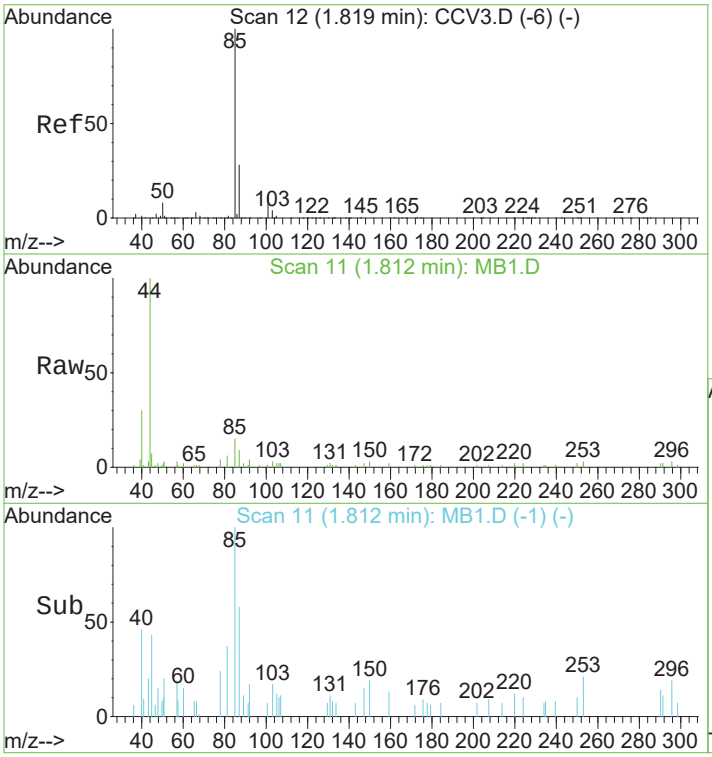
Abundance Quantitation Report TIC: MB1.D

Data File : C:\INSTARCH\DATA\SEP0519\MB1.D Vial: 6
Acq On : 5 Sep 2019 9:38 Operator: RLD-DGS
Sample : 163979,MBS, Inst : VMS4
Misc : 5.00g, 15.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 09:59:10 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 08:46:33 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

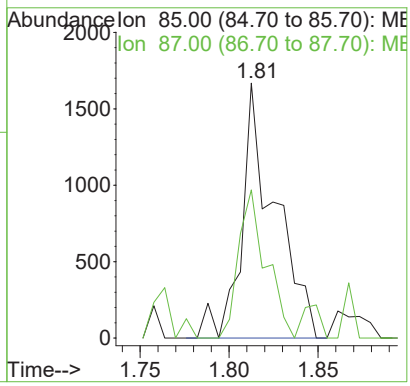




#2
Dichlorodi
Concen: 0.00 mg/kg
RT: 1.81 min Scan# 11
Delta R.T. -0.01 min
Lab File: MB1.D
Acq: 5 Sep 2019 9:38

Tgt Ion: 85 Resp: 2172

Ion	Ratio	Lower	Upper
85	100		
87	48.0	10.8	50.8



Negative Library Identification

[redacted]

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321161MS.D Vial: 34
Acq On : 5 Sep 2019 22:50 Operator: RLD-DGS
Sample : 163979,MSS321161, Inst : VMS4
Misc : 4.58g, 0.010/0.10 mg/kg, 15.0 ml Purged Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 23:10:47 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1023798	0.02 mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	759260	0.02 mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.89	152	298467	0.02 mg/kg	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.83	113	258929	0.020 mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 100 %		
45) SURR12DCAd4	7.25	102	52822	0.020 mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 100 %		
60) SURRd8Tolule	9.67	98	1029243	0.020 mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %		
82) SURR4BrFBenz	13.23	95	342411	0.024 mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 120 %#		
Target Compounds					Qvalue
2) Dichlorodi	1.82	85	154080	0.0105 mg/kg	90
3) Chloromethan	2.06	50	151907	0.0098 mg/kg	97
4) VinylChlorid	2.21	62	152341	0.0102 mg/kg	99
5) Bromomethane	2.68	94	62178	0.0082 mg/kg	90
6) Chloroethane	2.83	64	90557	0.0099 mg/kg	98
7) dichloroflmethane	3.15	67	304097	0.0105 mg/kg	98
8) Trichlorofma	3.21	101	234331	0.0098 mg/kg	97
9) Ethylether	3.66	59	106562	0.0101 mg/kg	96
10) dichlorotfluoroethan	3.68	67	177035	0.0112 mg/kg	97
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	3.83	56	24116	0.0120 mg/kg#	22
13) 11dichlorthe	3.94	96	131303	0.0102 mg/kg	95
14) Trichlorotfluoroeth	3.96	101	247349	0.0198 mg/kg	99
15) Acetone	4.03	43	984269	0.3274 mg/kg	97
16) Iodomethane	4.12	142	243868	0.0182 mg/kg	98
17) Carbon Dislf	4.20	76	1086618	0.0246 mg/kg	99
18) allylchloride	4.43	41	478105	0.0204 mg/kg	98
19) methylacetate	4.50	74	33506	0.0078 mg/kg	90
20) Methylchlorid	4.60	84	189525	0.0100 mg/kg	95
21) Acrylonitrile	4.93	53	156867	0.0516 mg/kg	97
22) t12dichlorte	4.96	96	132452	0.0088 mg/kg	93
23) tbutylalcohol	4.80	59	812191	0.5764 mg/kg	99
24) MtBE	4.98	73	412220	0.0104 mg/kg	89
25) Hexane	5.33	57	343577	0.0175 mg/kg	98
26) 11dichlorota	5.50	63	271958	0.0097 mg/kg	98
27) Vinylacetate	5.60	43	1224703	0.0698 mg/kg	95
28) chloroprene	5.62	53	262221	0.0127 mg/kg	95
29) Diisopether	5.61	45	435223	0.0099 mg/kg#	46
30) ETBE	6.07	59	404939	0.0101 mg/kg	94
31) 22dichloropr	6.22	77	223492	0.0088 mg/kg	98
32) c12dichlorte	6.24	96	151315	0.0091 mg/kg	95
33) 2Butanone	6.26	72	171754	0.1343 mg/kg	98
34) propionitrile	6.34	54	125761	0.0980 mg/kg	98
35) Ethylacetate	6.36	88	13543	0.0383 mg/kg#	76
36) methacrylonitrile	6.52	67	89333	0.0194 mg/kg	99
37) Bromochlorma	6.53	128	62648	0.0097 mg/kg	99
38) Tetrahydofur	6.60	42	326702	0.1103 mg/kg	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321161MS.D Vial: 34
Acq On : 5 Sep 2019 22:50 Operator: RLD-DGS
Sample : 163979,MSS321161, Inst : VMS4
Misc : 4.58g, 0.010/0.10 mg/kg, 15.0 ml Purged Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 23:10:47 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.63	83	265603	0.0092	mg/kg	92
40)	111trichlota	6.86	97	235046	0.0096	mg/kg	98
42)	Cyclohexane	6.93	56	222831	0.0097	mg/kg	95
43)	Carbtetraclo	7.07	119	183861	0.0091	mg/kg	97
44)	11dicloprope	7.07	110	65211	0.0094	mg/kg	98
46)	Benzene	7.32	78	626766	0.0098	mg/kg	99
47)	12dichlorota	7.34	62	178753	0.0098	mg/kg	96
48)	TAME	7.47	73	384729	0.0100	mg/kg	91
49)	trichloroete	8.13	95	135489	0.0087	mg/kg	97
50)	methylcyclohexane	8.36	83	199719	0.0077	mg/kg	99
51)	12dicloropra	8.40	63	147322	0.0090	mg/kg	98
52)	23dicl1propene	8.46	75	213152	0.0088	mg/kg	95
53)	Dibromometha	8.54	93	77959	0.0094	mg/kg	97
54)	methylmethacrylate	8.57	69	87418	0.0106	mg/kg	97
55)	14dioxane	8.58	88	75416	0.5891	mg/kg	93
56)	Bromodiclrma	8.74	83	193338	0.0091	mg/kg	96
57)	2Nitropropane	9.03	43	303116	0.1040	mg/kg	98
58)	c13dicloproe	9.33	75	220427	0.0089	mg/kg	95
59)	4Meth2Pentan	9.51	43	1146764	0.1157	mg/kg	98
61)	Toluene	9.76	92	400476	0.0096	mg/kg	99
62)	t13Dicloprop	10.05	75	173451	0.0082	mg/kg	98
63)	ethylmethacrylate	10.17	69	308023	0.0191	mg/kg	99
64)	112Triclotha	10.27	83	100389	0.0094	mg/kg	92
65)	Tetrachlorte	10.48	166	123483	0.0079	mg/kg	96
66)	13Diclorpropa	10.50	76	192305	0.0088	mg/kg	95
68)	2Hexanone	10.61	43	752319	0.1053	mg/kg	98
69)	Clorodibrmta	10.80	129	111113	0.0088	mg/kg	98
70)	12Dibrometha	10.95	107	98201	0.0088	mg/kg	96
71)	Chlorobenzen	11.63	112	295189	0.0076	mg/kg	99
72)	1Clhexane	11.59	91	143709	0.0071	mg/kg	94
73)	1112Tetclota	11.73	131	108329	0.0079	mg/kg	95
74)	Ethylbenzene	11.78	91	571065	0.0082	mg/kg	99
75)	m p-Xylene	11.94	106	410855	0.0159	mg/kg	96
76)	o-Xylene	12.50	106	201462	0.0078	mg/kg	95
77)	Styrene	12.52	104	179875	0.0043	mg/kg	92
78)	Bromoform	12.76	173	70056	0.0081	mg/kg	94
79)	Isopropylben	13.02	105	447783	0.0070	mg/kg	98
81)	cyclohexanone	13.13	55	105500	0.3385	mg/kg	93
83)	Bromobenzene	13.44	156	109650	0.0088	mg/kg	97
84)	1122Tetrclta	13.43	83	125728	0.0107	mg/kg	100
85)	123Triclproa	13.49	75	169890	0.0117	mg/kg	96
86)	14dichloro2butene	13.52	53	30838	0.0117	mg/kg	91
87)	n-Propylbenz	13.60	91	493790	0.0086	mg/kg	100
88)	2chlorotolue	13.72	91	301902	0.0086	mg/kg	98
89)	4chlorotolue	13.88	91	333087	0.0084	mg/kg	98
90)	135Trimebenz	13.86	105	328599	0.0081	mg/kg	98
91)	tbutylbenzen	14.33	119	258074	0.0074	mg/kg	97
92)	124Trimetben	14.40	105	371048	0.0089	mg/kg	94
93)	sbutylbenzen	14.64	105	348436	0.0068	mg/kg	100
94)	13Diclorbenz	14.80	146	145491	0.0065	mg/kg	99
95)	pIsopropylto	14.86	119	278324	0.0067	mg/kg	100
96)	14dichlorobe	14.93	146	155544	0.0071	mg/kg	97
97)	12dichlorobe	15.47	146	133360	0.0063	mg/kg	96
98)	nButylbenzen	15.46	91	242272	0.0060	mg/kg	100
99)	12dibromo3cl	16.58	157	18049	0.0084	mg/kg	97
100)	135Trichlorobenzene	16.89	180	72381	0.0043	mg/kg	98
101)	124Trichlobe	17.71	180	45567	0.0030	mg/kg	90

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321161MS.D Vial: 34
Acq On : 5 Sep 2019 22:50 Operator: RLD-DGS
Sample : 163979,MSS321161, Inst : VMS4
Misc : 4.58g, 0.010/0.10 mg/kg, 15.0 ml Purged Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 23:10:47 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) Hexachlorobu	17.93	225	28899	0.0029 mg/kg	96
103) Naphthalene	18.01	128	102765	0.0034 mg/kg	97
104) 123Trichlben	18.32	180	42345	0.0029 mg/kg	95

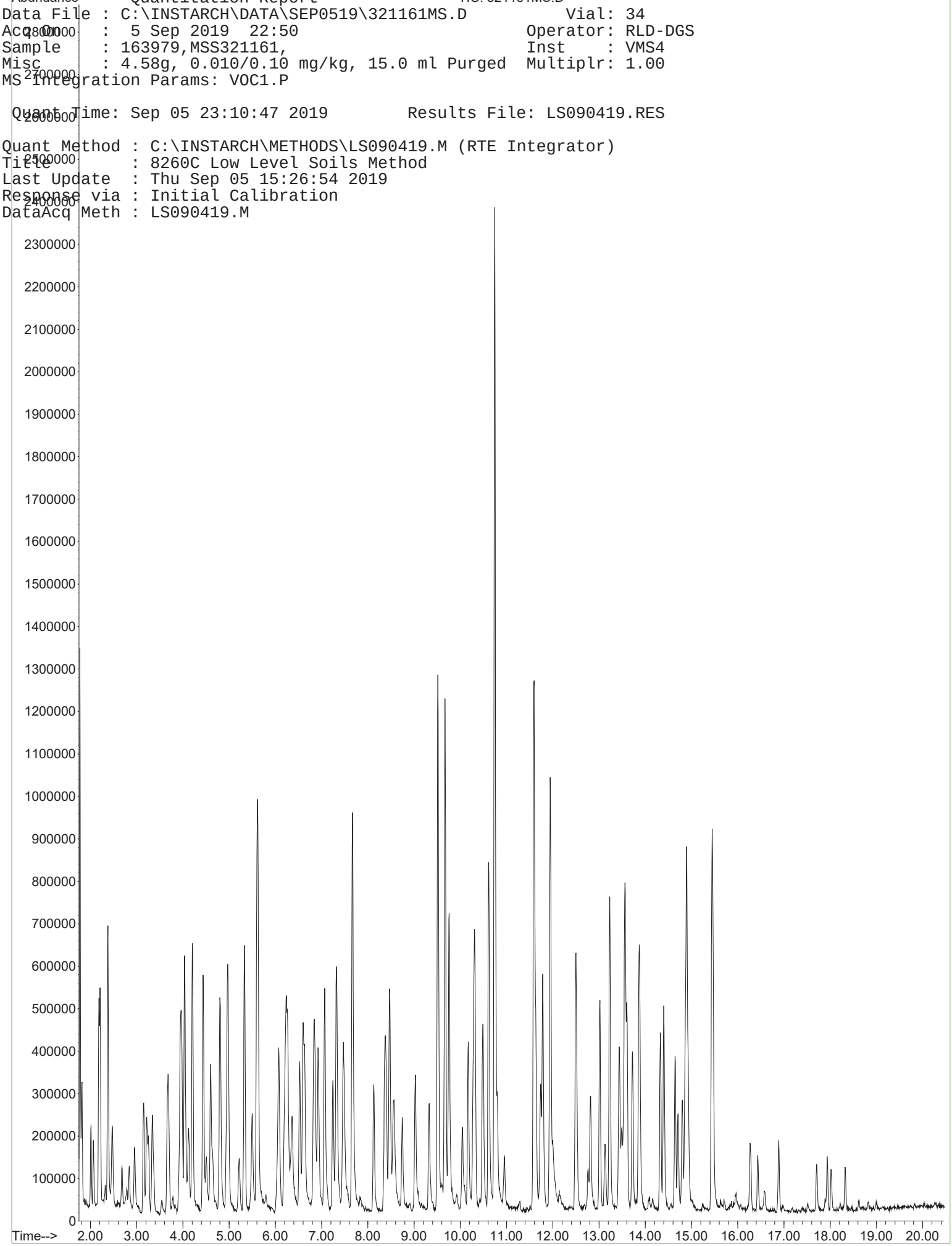
(#) = qualifier out of range (m) = manual integration

Abundance Quantitation Report TIC: 321161MS.D

Data File : C:\INSTARCH\DATA\SEP0519\321161MS.D Vial: 34
Acq On : 5 Sep 2019 22:50 Operator: RLD-DGS
Sample : 163979,MSS321161, Inst : VMS4
Misc : 4.58g, 0.010/0.10 mg/kg, 15.0 ml Purged Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 23:10:47 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M



Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321161SD.D Vial: 35
Acq On : 5 Sep 2019 23:19 Operator: RLD-DGS
Sample : 163979,MSDS321161, Inst : VMS4
Misc : 4.95g, 0.010/0.10 mg/kg, 15.0 ml Purged Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 23:39:52 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.67	96	994644	0.02 mg/kg	0.00 NA%
67) d5-CHLOROBENZENE**ISTD**	11.59	117	747592	0.02 mg/kg	0.00 NA%
80) d4-1,4-DICHLOROBENZENE**IS	14.90	152	314483	0.02 mg/kg	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.83	113	257516	0.021 mg/kg	0.00
Spiked Amount 0.020	Range 78 - 119		Recovery = 105 %		
45) SURR12DCAd4	7.25	102	55729	0.022 mg/kg	0.00
Spiked Amount 0.020	Range 71 - 136		Recovery = 110 %		
60) SURRd8Tolule	9.67	98	1006728	0.020 mg/kg	0.00
Spiked Amount 0.020	Range 85 - 116		Recovery = 100 %		
82) SURR4BrFBenz	13.23	95	351767	0.024 mg/kg	0.00
Spiked Amount 0.020	Range 79 - 119		Recovery = 120 %#		
Target Compounds					Qvalue
2) Dichlorodi	1.82	85	176517	0.0122 mg/kg	92
3) Chloromethan	2.07	50	165468	0.0110 mg/kg	98
4) VinylChlorid	2.21	62	168886	0.0116 mg/kg	99
5) Bromomethane	2.68	94	64244	0.0087 mg/kg	92
6) Chloroethane	2.84	64	93908	0.0106 mg/kg	96
7) dichloroflmethane	3.15	67	317852	0.0113 mg/kg	97
8) Trichlorofma	3.22	101	265781	0.0113 mg/kg	98
9) Ethylether	3.66	59	116976	0.0114 mg/kg	95
10) dichlorotfluoroethan	3.68	67	197410	0.0129 mg/kg	94
11) propyleneoxide	3.65	58	1457	N.D.	
12) Acrolein	3.84	56	23852	0.0122 mg/kg	90
13) 11dichlorthe	3.94	96	143606	0.0115 mg/kg	97
14) Trichlorotfluoroeth	3.97	101	291872	0.0237 mg/kg	97
15) Acetone	4.03	43	905626	0.3101 mg/kg	99
16) Iodomethane	4.12	142	259659	0.0197 mg/kg	99
17) Carbon Dislf	4.20	76	1185490	0.0276 mg/kg	99
18) allylchloride	4.44	41	492547	0.0217 mg/kg	98
19) methylacetate	4.50	74	34722	0.0082 mg/kg	94
20) Methylchlorid	4.60	84	209952	0.0116 mg/kg	100
21) Acrylonitrile	4.93	53	186681	0.0633 mg/kg	96
22) t12dichlorte	4.96	96	150732	0.0103 mg/kg	94
23) tbutylalcohol	4.80	59	1051640	0.7682 mg/kg	99
24) MtBE	4.98	73	477885	0.0124 mg/kg	95
25) Hexane	5.33	57	529792	0.0268 mg/kg	97
26) 11dichlorota	5.49	63	287116	0.0105 mg/kg	99
27) Vinylacetate	5.60	43	1319394	0.0774 mg/kg	98
28) chloroprene	5.62	53	429687	0.0215 mg/kg	98
29) Diisopether	5.62	45	482742	0.0113 mg/kg#	43
30) ETBE	6.07	59	441255	0.0113 mg/kg	95
31) 22dichloropr	6.22	77	272451	0.0111 mg/kg	98
32) c12dichlorte	6.24	96	167312	0.0103 mg/kg	95
33) 2Butanone	6.27	72	184321	0.1483 mg/kg	99
34) propionitrile	6.33	54	154688	0.1216 mg/kg	93
35) Ethylacetate	6.36	88	11013	0.0331 mg/kg#	88
36) methacrylonitrile	6.52	67	110412	0.0243 mg/kg	95
37) Bromochlorma	6.53	128	69584	0.0110 mg/kg	100
38) Tetrahydofur	6.59	42	379162	0.1318 mg/kg	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321161SD.D Vial: 35
Acq On : 5 Sep 2019 23:19 Operator: RLD-DGS
Sample : 163979,MSDS321161, Inst : VMS4
Misc : 4.95g, 0.010/0.10 mg/kg, 15.0 ml Purged Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 23:39:52 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Chloroform	6.63	83	286566	0.0102 mg/kg	90
40) 111trichlota	6.85	97	270243	0.0114 mg/kg	95
42) Cyclohexane	6.92	56	272318	0.0120 mg/kg	99
43) Carbtetraclo	7.07	119	211287	0.0106 mg/kg	100
44) 11dicloprope	7.06	110	74490	0.0111 mg/kg	96
46) Benzene	7.32	78	674838	0.0108 mg/kg	99
47) 12dichlorota	7.34	62	206325	0.0116 mg/kg	98
48) TAME	7.47	73	439933	0.0118 mg/kg	96
49) trichloroete	8.13	95	158215	0.0104 mg/kg	100
50) methylcyclohexane	8.36	83	330875	0.0122 mg/kg	99
51) 12dicloropra	8.40	63	163700	0.0103 mg/kg	96
52) 23dicl1propene	8.46	75	248491	0.0105 mg/kg	96
53) Dibromometha	8.54	93	86622	0.0108 mg/kg	98
54) methylmethacrylate	8.56	69	92219	0.0114 mg/kg	93
55) 14dioxane	8.58	88	119325	0.9595 mg/kg	92
56) Bromodiclrma	8.74	83	205260	0.0100 mg/kg	93
57) 2Nitropropane	9.03	43	361869	0.1278 mg/kg	95
58) c13dicloproe	9.33	75	244503	0.0101 mg/kg	99
59) 4Meth2Pentan	9.51	43	1369399	0.1423 mg/kg	99
61) Toluene	9.76	92	448174	0.0110 mg/kg	99
62) t13Dicloprop	10.04	75	197368	0.0096 mg/kg	99
63) ethylmethacrylate	10.17	69	372307	0.0238 mg/kg	99
64) 112Triclotha	10.28	83	110968	0.0107 mg/kg	93
65) Tetrachlorte	10.48	166	157118	0.0104 mg/kg	94
66) 13Diclorpropa	10.50	76	226241	0.0106 mg/kg	100
68) 2Hexanone	10.61	43	957072	0.1350 mg/kg	99
69) Clorodibrmta	10.80	129	132689	0.0106 mg/kg	98
70) 12Dibrometha	10.96	107	123656	0.0112 mg/kg	100
71) Chlorobenzen	11.63	112	348050	0.0090 mg/kg	98
72) 1Clhexane	11.60	91	212681	0.0103 mg/kg	99
73) 1112Tetclota	11.73	131	123390	0.0092 mg/kg	94
74) Ethylbenzene	11.78	91	689730	0.0101 mg/kg	98
75) m p-Xylene	11.94	106	518934	0.0203 mg/kg	99
76) o-Xylene	12.50	106	250960	0.0098 mg/kg	98
77) Styrene	12.51	104	310376	0.0075 mg/kg	98
78) Bromoform	12.76	173	78564	0.0092 mg/kg	98
79) Isopropylben	13.02	105	623071	0.0099 mg/kg	100
81) cyclohexanone	13.13	55	148807	0.4531 mg/kg	92
83) Bromobenzene	13.44	156	134381	0.0103 mg/kg	96
84) 1122Tetrclta	13.43	83	156275	0.0126 mg/kg	94
85) 123Triclproa	13.49	75	208835	0.0136 mg/kg	94
86) 14dichloro2butene	13.51	53	32596	0.0117 mg/kg	94
87) n-Propylbenz	13.60	91	719303	0.0119 mg/kg	99
88) 2chlorotolue	13.72	91	393967	0.0107 mg/kg	99
89) 4chlorotolue	13.88	91	439521	0.0105 mg/kg	98
90) 135Trimebenz	13.86	105	469429	0.0110 mg/kg	100
91) tbutylbenzen	14.32	119	413885	0.0113 mg/kg	98
92) 124Trimetben	14.40	105	505649	0.0115 mg/kg	97
93) sbutylbenzen	14.65	105	621875	0.0116 mg/kg	98
94) 13Diclorbenz	14.80	146	197133	0.0084 mg/kg	97
95) pIsopropylto	14.86	119	472314	0.0108 mg/kg	98
96) 14dichlorobe	14.93	146	193820	0.0084 mg/kg	94
97) 12dichlorobe	15.47	146	170377	0.0077 mg/kg	97
98) nButylbenzen	15.46	91	440728	0.0104 mg/kg	99
99) 12dibromo3cl	16.58	157	24894	0.0110 mg/kg	97
100) 135Trichlorobenzene	16.89	180	114912	0.0064 mg/kg	98
101) 124Trichlobe	17.70	180	76071	0.0048 mg/kg	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0519\321161SD.D Vial: 35
Acq On : 5 Sep 2019 23:19 Operator: RLD-DGS
Sample : 163979,MSDS321161, Inst : VMS4
Misc : 4.95g, 0.010/0.10 mg/kg, 15.0 ml Purged Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 23:39:52 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) Hexachlorobu	17.93	225	78840	0.0076 mg/kg	96
103) Naphthalene	18.02	128	147001	0.0046 mg/kg	97
104) 123Trichlben	18.32	180	61873	0.0041 mg/kg	99

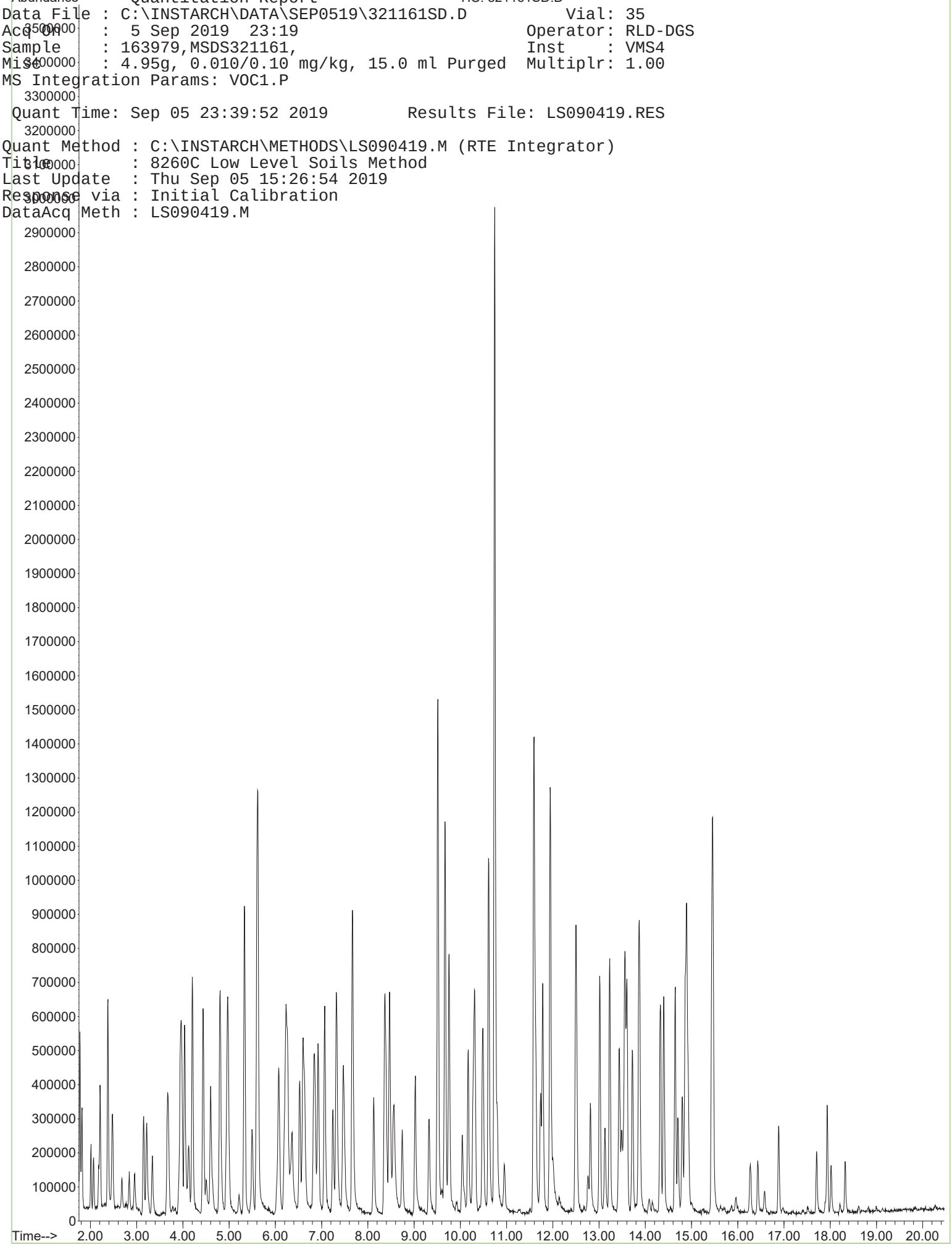
(#) = qualifier out of range (m) = manual integration

Abundance Quantitation Report TIC: 321161SD.D

Data File : C:\INSTARCH\DATA\SEP0519\321161SD.D Vial: 35
Acq On : 5 Sep 2019 23:19 Operator: RLD-DGS
Sample : 163979,MSDS321161, Inst : VMS4
Misc : 4.95g, 0.010/0.10 mg/kg, 15.0 ml Purged Multiplr: 1.00
MS Integration Params: VOC1.P

Quant Time: Sep 05 23:39:52 2019 Results File: LS090419.RES

Quant Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Last Update : Thu Sep 05 15:26:54 2019
Response via : Initial Calibration
DataAcq Meth : LS090419.M



Quantitation Report

Data File : C:\Instarch\Data\SEP0619\CCV-LCS1.D Vial: 3
Acq On : 6 Sep 2019 12:22 Operator: RLD-DGS
Sample : 164175,LCSW, Inst : VMS4
Misc : 4.00/40.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Sep 06 12:48:02 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Sep 06 12:47:58 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1099006	4.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.58	117	881494	4.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.89	152	507450	4.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	290928	3.973	ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 99	%		
45) SURR12DCAd4	7.24	102	49532	4.041	ug/L	0.00
Spiked Amount 4.000	Range 86 - 106		Recovery = 101	%		
61) SURRd8Tolule	9.67	98	1110266	3.983	ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 100	%		
83) SURR4BrFBenz	13.23	95	440948	4.007	ug/L	0.00
Spiked Amount 4.000	Range 75 - 124		Recovery = 100	%		
Target Compounds						Qvalue
2) Dichlorodi	1.81	85	291378	4.6290	ug/L	99
3) Chloromethan	2.07	50	552030	4.1961	ug/L	99
4) VinylChlorid	2.21	62	344451	4.1966	ug/L	96
5) Bromomethane	2.68	94	84124	2.7380	ug/L	91
6) Chloroethane	2.83	64	189232	4.4620	ug/L	98
7) Dichloroflmethane	3.14	67	528672	4.4348	ug/L	96
8) Trichlorofma	3.21	101	397056	4.5499	ug/L	97
9) Ethylether	3.66	59	212983	4.3640	ug/L	95
10) dichlorotfluoroethan	3.69	67	320614	4.6299	ug/L	97
11) propyleneoxide	3.72	58	276965	43.8796	ug/L	95
12) Acrolein	3.81	56	137893	18.9217	ug/L	88
13) 11dichlorthe	3.94	96	230984	4.3675	ug/L	94
14) Trichlorotfluoroeth	3.97	101	427890	8.9980	ug/L	97
15) Acetone	4.04	43	481500	40.4015	ug/L	99
16) Iodomethane	4.12	142	499185	6.9352	ug/L	99
17) Carbon Dislf	4.20	76	1184504	9.2684	ug/L	98
18) allylchloride	4.43	41	1546581	9.5235	ug/L	98
19) methylacetate	4.51	74	30012	4.0182	ug/L	91
20) Methylchlorid	4.59	84	257620	3.9262	ug/L	93
21) tbutylalcohol	4.80	59	739223	211.6137	ug/L	98
22) Acrylonitrile	4.93	53	284569	20.3237	ug/L	95
23) t12dichlorte	4.96	96	250613	4.3242	ug/L	97
24) MtBE	4.98	73	507657	3.9954	ug/L	95
25) Hexane	5.33	57	983882	9.6579	ug/L	100
26) 11dichlorota	5.49	63	629103	4.2627	ug/L	99
27) Vinylacetate	5.59	43	3764683	46.4234	ug/L	99
28) chloroprene	5.61	53	1144171	9.0160	ug/L	99
29) Diisopether	5.61	45	1451493	4.3526	ug/L	98
30) ETBE	6.07	59	912826	4.1555	ug/L	99
31) 22dichloropr	6.22	77	460150	4.7034	ug/L	98
32) c12dichlorte	6.24	96	299383	4.2967	ug/L	98
33) 2Butanone	6.28	72	115255	41.9787	ug/L	100
34) propionitrile	6.33	54	194349	41.6244	ug/L	98
35) Ethylacetate	6.36	88	18865	20.8370	ug/L #	69
36) methacrylonitrile	6.52	67	94428	8.7253	ug/L	94
37) Bromochlorma	6.53	128	109063	4.1586	ug/L	96
38) Tetrahydofur	6.59	42	548007	43.3947	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\SEP0619\CCV-LCS1.D Vial: 3
Acq On : 6 Sep 2019 12:22 Operator: RLD-DGS
Sample : 164175,LCSW, Inst : VMS4
Misc : 4.00/40.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Sep 06 12:48:02 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Sep 06 12:47:58 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.63	83	515165	4.3825	ug/L	99
40)	111trichlota	6.85	97	460075	4.5369	ug/L	98
42)	Cyclohexane	6.92	56	603210	4.6007	ug/L	98
43)	Carbtetraclo	7.06	119	381588	4.6640	ug/L	99
44)	11dicloprope	7.06	110	117989	4.5296	ug/L	95
46)	Benzene	7.32	78	1097993	4.3350	ug/L	98
47)	12dichlorota	7.34	62	354725	4.1338	ug/L	97
48)	TAME	7.46	73	587934	4.2336	ug/L	97
49)	trichloroete	8.12	95	283550	4.2709	ug/L	98
50)	methylcyclohexane	8.36	83	420955	4.4220	ug/L	96
51)	12dicloropra	8.39	63	368290	4.3767	ug/L	93
52)	23Dicl1propene	8.46	75	414171	4.4605	ug/L	99
53)	Dibromometha	8.54	93	120790	4.2065	ug/L	97
54)	methylmethacrylate	8.57	69	90294	8.4767	ug/L	98
55)	14dioxane	8.58	88	36288	192.4298	ug/L	96
56)	Bromodiclrma	8.74	83	375503	4.7353	ug/L	100
57)	2Nitropropane	9.02	43	460260	45.8685	ug/L	94
58)	2CLEVE	9.14	63	509931	23.2122	ug/L	98
59)	c13dicloproe	9.32	75	398042	4.4230	ug/L	94
60)	4Meth2Pentan	9.51	43	2022239	45.7632	ug/L	97
62)	Toluene	9.75	92	750605	4.4303	ug/L	96
63)	t13Dicloprop	10.04	75	319811	4.5283	ug/L	98
64)	ethylmethacrylate	10.17	69	415567	9.2577	ug/L	95
65)	112Triclotha	10.27	83	151619	4.4265	ug/L	93
66)	Tetrachlorte	10.48	166	314088	4.6223	ug/L	98
67)	13Diclorpropa	10.50	76	310286	4.3361	ug/L	98
69)	2Hexanone	10.61	43	1391245	41.1355	ug/L	98
70)	Clorodibrmta	10.79	129	217111	4.7035	ug/L	97
71)	12Dibrometha	10.95	107	162264	4.3666	ug/L	99
72)	Chlorobenzen	11.63	112	783630	4.3788	ug/L	99
73)	1Clhexane	11.59	91	409263	4.7851	ug/L	100
74)	1112Tetclota	11.73	131	266907	4.3378	ug/L	97
75)	Ethylbenzene	11.78	91	1359813	4.4362	ug/L	98
76)	m p-Xylene	11.94	106	1022225	8.9441	ug/L	98
77)	o-Xylene	12.49	106	518386	4.5379	ug/L	98
78)	Styrene	12.51	104	811569	4.7057	ug/L	100
79)	Bromoform	12.76	173	125546	4.5669	ug/L	99
80)	Isopropylben	13.01	105	1319889	4.6518	ug/L	97
81)	cyclohexanone	13.13	55	148436	106.8108	ug/L	97
84)	Bromobenzene	13.44	156	307596	4.2239	ug/L	93
85)	1122Tetrclta	13.43	83	201083	4.4175	ug/L	90
86)	123Triclproa	13.48	75	201719	4.2401	ug/L	93
87)	14dichloro2butene	13.52	53	61624	4.9992	ug/L	97
88)	n-Propylbenz	13.60	91	1627679	4.6134	ug/L	99
89)	2chlorotolue	13.72	91	966325	4.5173	ug/L	99
90)	4chlorotolue	13.88	91	1101694	4.4647	ug/L	98
91)	135Trimebenz	13.86	105	1120076	4.5158	ug/L	96
92)	tbutylbenzen	14.33	119	983362	4.5524	ug/L	98
93)	124Trimetben	14.40	105	1138542	4.5514	ug/L	99
94)	sbutylbenzen	14.64	105	1346260	4.4658	ug/L	97
95)	13Diclorbenz	14.80	146	618480	4.4674	ug/L	96
96)	pIsopropylto	14.86	119	1116906	4.2799	ug/L	99
97)	14dichlorobe	14.92	146	604752	4.1885	ug/L	98
98)	12dichlorobe	15.46	146	556646	4.4060	ug/L	96
99)	nButylbenzen	15.46	91	1147549	4.6872	ug/L	99
100)	12dibromo3cl	16.58	157	34097	4.1372	ug/L	96
101)	135Trichlorobenzene	16.88	180	493733	4.4809	ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\SEP0619\CCV-LCS1.D Vial: 3
Acq On : 6 Sep 2019 12:22 Operator: RLD-DGS
Sample : 164175,LCSW, Inst : VMS4
Misc : 4.00/40.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Sep 06 12:48:02 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Sep 06 12:47:58 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	17.70	180	385102	4.5578 ug/L	99
103) Hexachlorobu	17.93	225	220425	4.7668 ug/L	97
104) Naphthalene	18.01	128	568416	4.7385 ug/L	97
105) 123Trichlben	18.32	180	323762	4.2591 ug/L	98

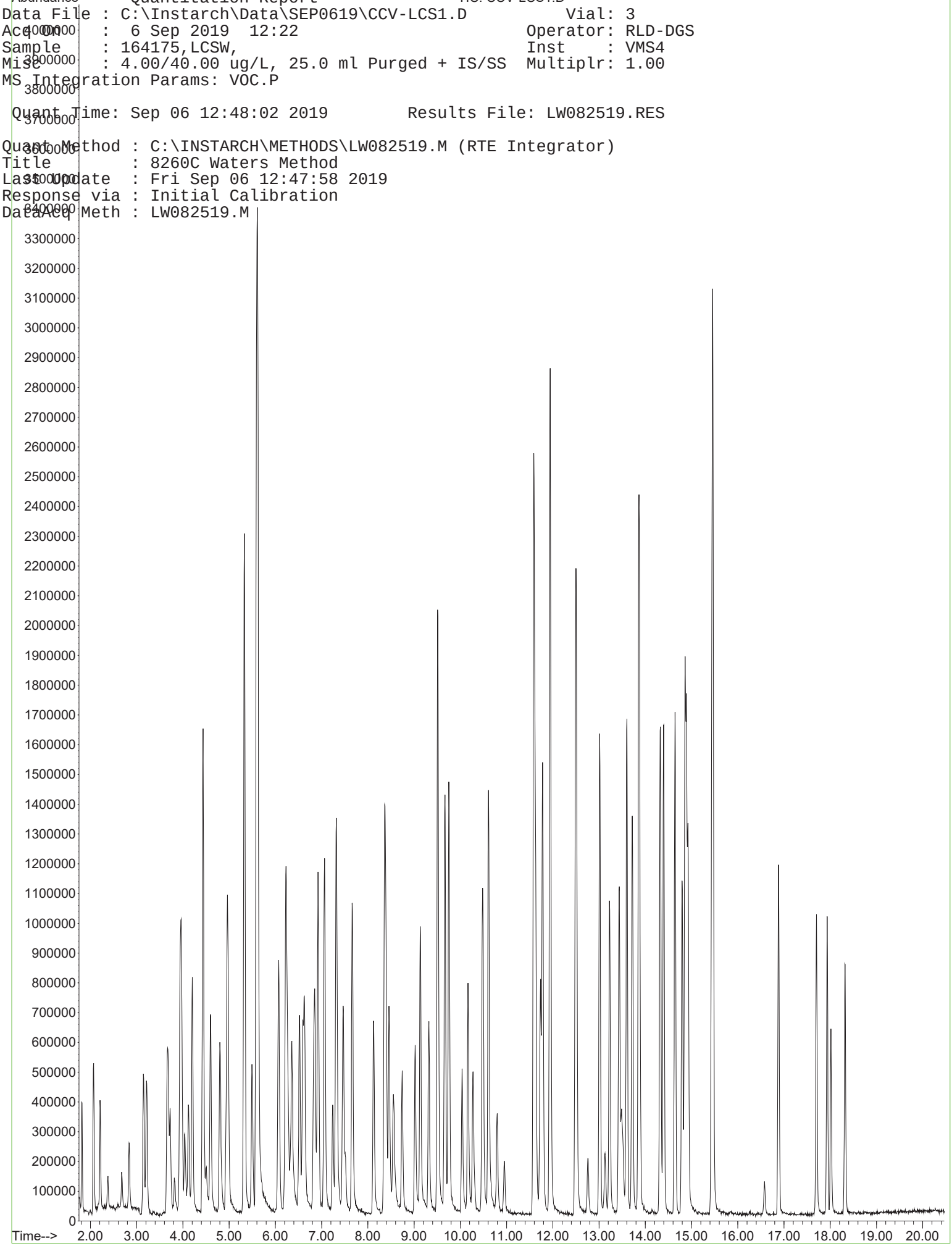
(#) = qualifier out of range (m) = manual integration

Quantitation Report (TIC: CCV-LCS1.D)

Data File : C:\Instarch\Data\SEP0619\CCV-LCS1.D Vial: 3
Acq On : 6 Sep 2019 12:22 Operator: RLD-DGS
Sample : 164175,LCSW, Inst : VMS4
Misc : 4.00/40.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Sep 06 12:48:02 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Sep 06 12:47:58 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M



Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0619\MB1.D Vial: 6
Acq On : 6 Sep 2019 13:47 Operator: RLD-DGS
Sample : 164175,MBW, Inst : VMS4
Misc : pH<2, 25.0 ml DI H2O Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Sep 06 14:08:10 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Sep 06 12:49:16 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.67	96	1060946	4.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.59	117	879565	4.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.89	152	473439	4.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	287646	4.069	ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 102	%		
45) SURR12DCAd4	7.24	102	47498	4.014	ug/L	0.00
Spiked Amount 4.000	Range 86 - 106		Recovery = 100	%		
61) SURRd8Tolule	9.67	98	1107119	4.114	ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 103	%		
83) SURR4BrFBenz	13.23	95	420376	4.095	ug/L	0.00
Spiked Amount 4.000	Range 75 - 124		Recovery = 102	%		
Target Compounds						Qvalue
2) Dichlorodi	0.00	85	0	N.D.		
3) Chloromethan	0.00	50	0	N.D.		
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	0.00	94	0	N.D.		
6) Chloroethane	0.00	64	0	N.D.		
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	0.00	56	0	N.D.		
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	4.06	43	3482	N.D.		
16) Iodomethane	0.00	142	0	N.D.		
17) Carbon Dislf	0.00	76	0	N.D.		
18) allylchloride	0.00	41	0	N.D.		
19) methylacetate	0.00	74	0	N.D.		
20) Methylchlorid	4.60	84	8636	Below	Cal	87
21) tbutylalcohol	4.79	59	6607	N.D.		
22) Acrylonitrile	0.00	53	0	N.D.		
23) t12dichlorte	0.00	96	0	N.D.		
24) MtBE	0.00	73	0	N.D.		
25) Hexane	0.00	57	0	N.D.		
26) 11dichlorota	0.00	63	0	N.D.		
27) Vinylacetate	0.00	43	0	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	0.00	59	0	N.D.		
31) 22dichloropr	6.20	77	7130	0.0755	ug/L #	46
32) c12dichlorte	0.00	96	0	N.D.		
33) 2Butanone	0.00	72	0	N.D.		
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	6.64	42	2974	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0619\MB1.D Vial: 6
Acq On : 6 Sep 2019 13:47 Operator: RLD-DGS
Sample : 164175,MBW, Inst : VMS4
Misc : pH<2, 25.0 ml DI H2O Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Sep 06 14:08:10 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Sep 06 12:49:16 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	0.00	91	0	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	13.23	55	2604	4.1649 ug/L #	55
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\SEP0619\MB1.D Vial: 6
Acq On : 6 Sep 2019 13:47 Operator: RLD-DGS
Sample : 164175,MBW, Inst : VMS4
Misc : pH<2, 25.0 ml DI H2O Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Sep 06 14:08:10 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Sep 06 12:49:16 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	0.00	128	0	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

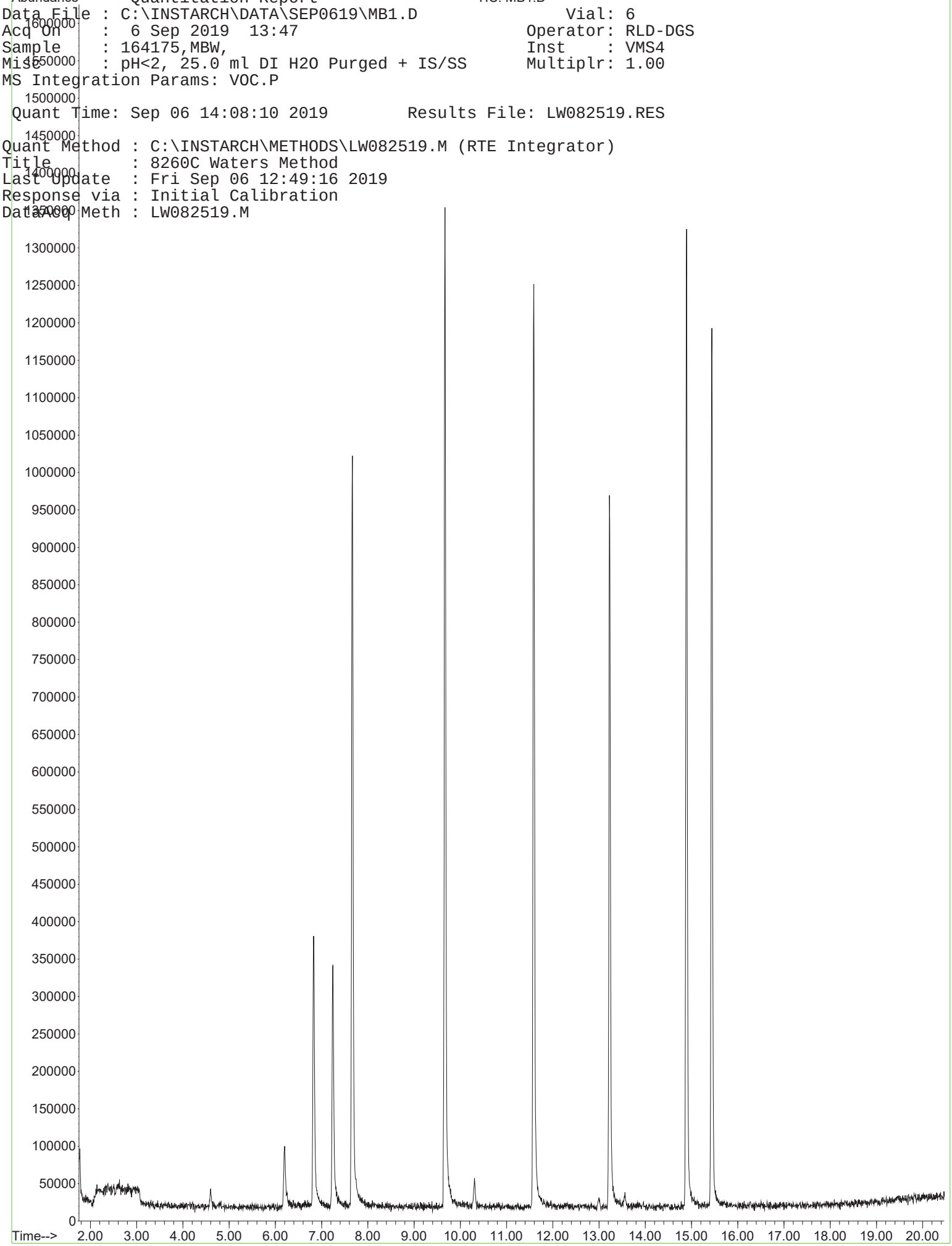
(#) = qualifier out of range (m) = manual integration

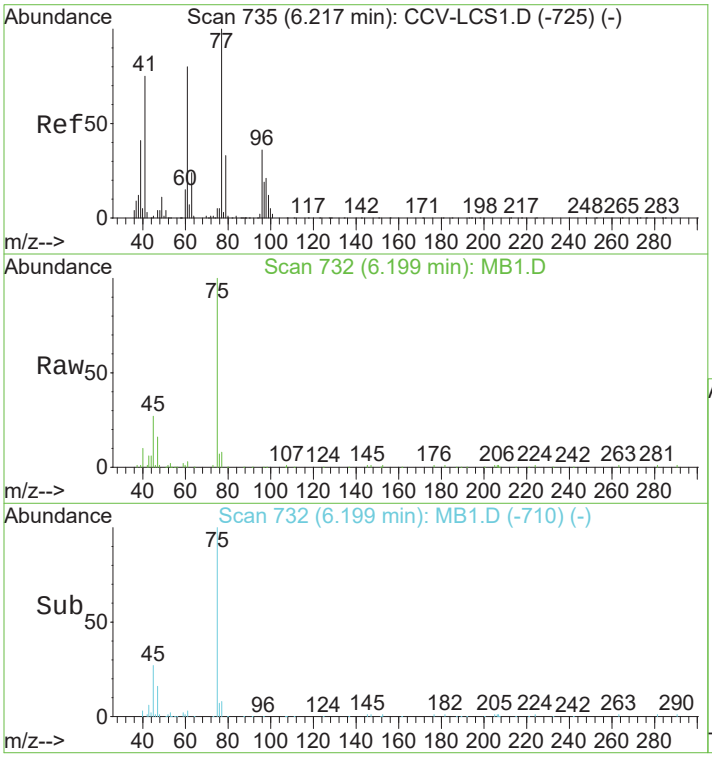
Abundance Quantitation Report TIC: MB1.D

Data File : C:\INSTARCH\DATA\SEP0619\MB1.D Vial: 6
Acq On : 6 Sep 2019 13:47 Operator: RLD-DGS
Sample : 164175,MBW, Inst : VMS4
Misc : pH<2, 25.0 ml DI H2O Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Sep 06 14:08:10 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Sep 06 12:49:16 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

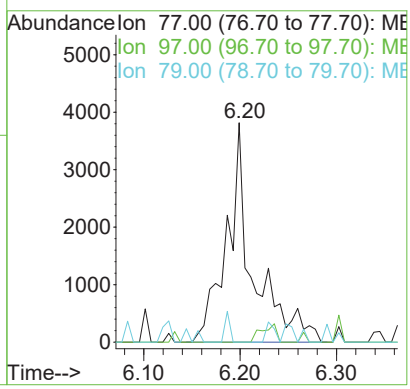




#31
22dichloropr
Concen: 0.08 ug/L
RT: 6.20 min Scan# 732
Delta R.T. -0.02 min
Lab File: MB1.D
Acq: 6 Sep 2019 13:47

Tgt Ion: 77 Resp: 7130

Ion	Ratio	Lower	Upper
77	100		
97	0.0	2.4	42.4#
79	0.0	12.8	52.8#



Negative Library Identification

[redacted]

Quantitation Report

Data File : C:\Instarch\Data\SEP0619\CCVF-LCSD1.D Vial: 25
Acq On : 6 Sep 2019 23:05 Operator: RLD-DGS
Sample : 164175,LCSDW, Inst : VMS4
Misc : 4.00/40.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Sep 06 23:26:02 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Sep 06 12:49:16 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.66	96	1112495	4.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.59	117	909904	4.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.89	152	495327	4.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.83	113	298850	4.032	ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 101	%		
45) SURR12DCAd4	7.24	102	51554	4.155	ug/L	0.00
Spiked Amount 4.000	Range 86 - 106		Recovery = 104	%		
61) SURRd8Tolule	9.67	98	1150183	4.076	ug/L	0.00
Spiked Amount 4.000	Range 94 - 105		Recovery = 102	%		
83) SURR4BrFBenz	13.23	95	448696	4.178	ug/L	0.00
Spiked Amount 4.000	Range 75 - 124		Recovery = 104	%		
Target Compounds						Qvalue
2) Dichlorodi	1.82	85	308418	4.8403	ug/L	99
3) Chloromethan	2.07	50	575475	4.3213	ug/L	99
4) VinylChlorid	2.21	62	390183	4.6961	ug/L	99
5) Bromomethane	2.68	94	119627	3.8463	ug/L	98
6) Chloroethane	2.84	64	192489	4.4838	ug/L	98
7) Dichloroflmethane	3.15	67	552983	4.5825	ug/L	96
8) Trichlorofma	3.21	101	475953	5.3555	ug/L	98
9) Ethylether	3.66	59	204983	4.1491	ug/L	98
10) dichlorotfluoroethan	3.68	67	335953	4.7926	ug/L	98
11) propyleneoxide	3.72	58	272315	42.6198	ug/L	95
12) Acrolein	3.82	56	129344	17.5559	ug/L	93
13) 11dichlorthe	3.94	96	249034	4.6517	ug/L	94
14) Trichlorotfluoroeth	3.97	101	491901	10.2187	ug/L	99
15) Acetone	4.04	43	462607	38.3456	ug/L	99
16) Iodomethane	4.12	142	456851	6.2701	ug/L	99
17) Carbon Dislf	4.20	76	1219339	9.4253	ug/L	98
18) allylchloride	4.43	41	1581860	9.6226	ug/L	98
19) methylacetate	4.51	74	33280	4.3738	ug/L	96
20) Methylchlorid	4.59	84	268910	4.0602	ug/L	97
21) tbutylalcohol	4.80	59	888793	251.3454	ug/L	96
22) Acrylonitrile	4.93	53	281403	19.8665	ug/L	94
23) t12dichlorte	4.96	96	269398	4.5940	ug/L	97
24) MtBE	4.98	73	540345	4.2011	ug/L	97
25) Hexane	5.33	57	1173973	11.3079	ug/L	99
26) 11dichlorota	5.50	63	651933	4.3638	ug/L	99
27) Vinylacetate	5.59	43	4827651	58.8093	ug/L	100
28) chloroprene	5.61	53	1309348	10.1925	ug/L	97
29) Diisopether	5.62	45	1543604	4.5727	ug/L	98
30) ETBE	6.07	59	959902	4.3168	ug/L	100
31) 22dichloropr	6.22	77	443486	4.4781	ug/L	98
32) c12dichlorte	6.24	96	301771	4.2784	ug/L	95
33) 2Butanone	6.27	72	118381	42.5945	ug/L	91
34) propionitrile	6.33	54	205662	43.3850	ug/L	99
35) Ethylacetate	6.36	88	17590	19.3482	ug/L	95
36) methacrylonitrile	6.52	67	99023	9.0390	ug/L	99
37) Bromochlorma	6.53	128	109191	4.1119	ug/L	97
38) Tetrahydofur	6.59	42	581837	45.5149	ug/L	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\SEP0619\CCVF-LCSD1.D Vial: 25
Acq On : 6 Sep 2019 23:05 Operator: RLD-DGS
Sample : 164175,LCSDW, Inst : VMS4
Misc : 4.00/40.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Sep 06 23:26:02 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Sep 06 12:49:16 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	6.63	83	532716	4.4769 ug/L	99
40)	111trichlota	6.85	97	491653	4.7895 ug/L	97
42)	Cyclohexane	6.92	56	716662	5.3998 ug/L	99
43)	Carbtetraclo	7.06	119	420887	5.0820 ug/L	99
44)	11dicloprope	7.06	110	127151	4.8221 ug/L	96
46)	Benzene	7.31	78	1154788	4.5040 ug/L	99
47)	12dichlorota	7.34	62	372202	4.2875 ug/L	97
48)	TAME	7.46	73	630501	4.4851 ug/L	98
49)	trichloroete	8.13	95	297241	4.4228 ug/L	99
50)	methylcyclohexane	8.36	83	517246	5.3677 ug/L	92
51)	12dicloropra	8.39	63	378615	4.4449 ug/L	98
52)	23Dicl1propene	8.46	75	442290	4.7055 ug/L	95
53)	Dibromometha	8.55	93	124533	4.2841 ug/L	95
54)	methylmethacrylate	8.57	69	88941	8.2661 ug/L	95
55)	14dioxane	8.58	88	51363	264.4913 ug/L	98
56)	Bromodiclrma	8.74	83	384704	4.7925 ug/L	100
57)	2Nitropropane	9.02	43	508655	50.0768 ug/L	98
58)	2CLEVE	9.14	63	544373	24.4466 ug/L	98
59)	c13dicloproe	9.32	75	417023	4.5777 ug/L	97
60)	4Meth2Pentan	9.51	43	2230755	49.8698 ug/L	98
62)	Toluene	9.75	92	782323	4.5615 ug/L	97
63)	t13Dicloprop	10.04	75	323730	4.5282 ug/L	99
64)	ethylmethacrylate	10.17	69	419879	9.2403 ug/L	90
65)	112Triclotha	10.27	83	158319	4.5660 ug/L	93
66)	Tetrachlorte	10.48	166	333655	4.8507 ug/L	97
67)	13Diclorpropa	10.50	76	313154	4.3231 ug/L	99
69)	2Hexanone	10.61	43	1560520	44.7190 ug/L	98
70)	Clorodibrmta	10.80	129	225147	4.7253 ug/L	95
71)	12Dibrometha	10.95	107	167731	4.3728 ug/L	96
72)	Chlorobenzen	11.63	112	818516	4.4310 ug/L	99
73)	1Clhexane	11.59	91	427994	4.8479 ug/L	98
74)	1112Tetclota	11.73	131	283067	4.4568 ug/L	98
75)	Ethylbenzene	11.78	91	1439513	4.5496 ug/L	99
76)	m p-Xylene	11.94	106	1062645	9.0074 ug/L	98
77)	o-Xylene	12.50	106	526877	4.4682 ug/L	99
78)	Styrene	12.51	104	855910	4.8078 ug/L	99
79)	Bromoform	12.76	173	121218	4.2940 ug/L	98
80)	Isopropylben	13.01	105	1413359	4.8257 ug/L	99
81)	cyclohexanone	13.13	55	148863	103.8496 ug/L	98
84)	Bromobenzene	13.44	156	328980	4.6282 ug/L	98
85)	1122Tetrclta	13.43	83	203227	4.5739 ug/L	91
86)	123Triclproa	13.49	75	200888	4.3260 ug/L	95
87)	14dichloro2butene	13.52	53	63471	5.2584 ug/L	91
88)	n-Propylbenz	13.60	91	1737399	5.0449 ug/L	98
89)	2chlorotolue	13.72	91	994460	4.7626 ug/L	99
90)	4chlorotolue	13.87	91	1138231	4.7257 ug/L	99
91)	135Trimebenz	13.86	105	1165621	4.8144 ug/L	97
92)	tbutylbenzen	14.33	119	1050505	4.9822 ug/L	99
93)	124Trimetben	14.40	105	1156236	4.7352 ug/L	98
94)	sbutylbenzen	14.64	105	1539709	5.2325 ug/L	97
95)	13Diclorbenz	14.80	146	622832	4.6089 ug/L	97
96)	pIsopropylto	14.86	119	1284219	5.0415 ug/L	99
97)	14dichlorobe	14.92	146	606322	4.3021 ug/L	95
98)	12dichlorobe	15.46	146	571533	4.6346 ug/L	96
99)	nButylbenzen	15.46	91	1242687	5.2000 ug/L	99
100)	12dibromo3cl	16.58	157	33918	4.2127 ug/L	96
101)	135Trichlorobenzene	16.88	180	493400	4.5874 ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\SEP0619\CCVF-LCSD1.D Vial: 25
Acq On : 6 Sep 2019 23:05 Operator: RLD-DGS
Sample : 164175,LCSDW, Inst : VMS4
Misc : 4.00/40.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Sep 06 23:26:02 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Sep 06 12:49:16 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102)	124Trichlobe	17.70	180	389467	4.7223	ug/L	96
103)	Hexachlorobu	17.93	225	239998	5.3171	ug/L	98
104)	Naphthalene	18.01	128	596038	5.0904	ug/L	99
105)	123Trichlben	18.32	180	344098	4.6375	ug/L	99

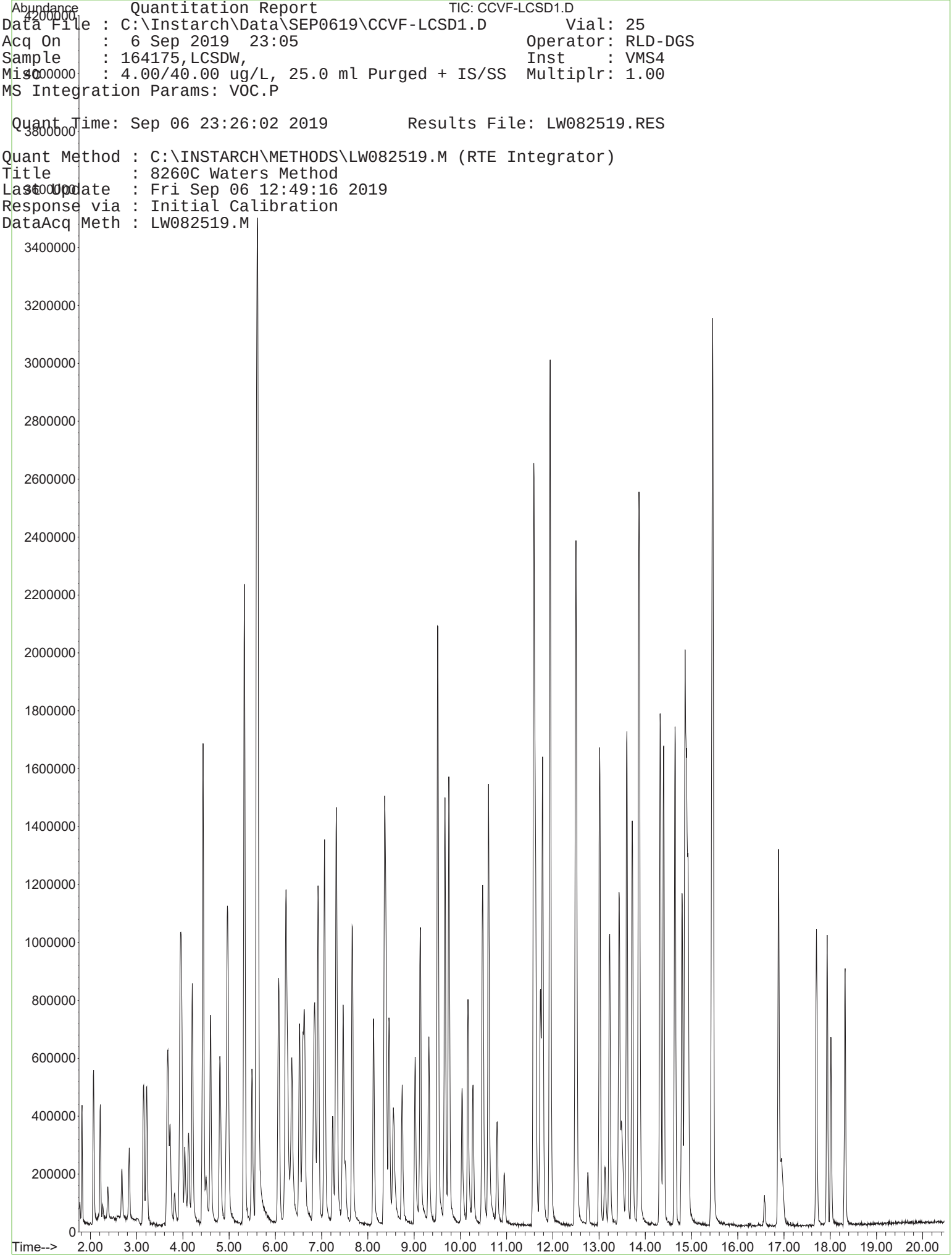
(#) = qualifier out of range (m) = manual integration

Quantitation Report (TIC: CCVF-LCSD1.D)

Data File : C:\Instarch\Data\SEP0619\CCVF-LCSD1.D Vial: 25
Acq On : 6 Sep 2019 23:05 Operator: RLD-DGS
Sample : 164175,LCSDW, Inst : VMS4
Misc : 4.00/40.00 ug/L, 25.0 ml Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Sep 06 23:26:02 2019 Results File: LW082519.RES

Quant Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Sep 06 12:49:16 2019
Response via : Initial Calibration
DataAcq Meth : LW082519.M



VOLATILE ORGANIC ANALYSIS
LOGBOOK
DOCUMENTS

V 8260 QSM LL SOIL 5.0 Analytical Run
163979 on 09/10/2019

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	323096						V 8260 QSM LL SOIL 5.0				
				BFB				0			
	323091						V 8260 QSM LL SOIL 5.0				
				CCV				0			
	321325						VOC 8260 QSM LL 5.0				
				LCSS				73327			
	321324						VOC 8260 QSM LL 5.0				
				MBS				73327			
147664	321154		08/26/2019 1115		HDR, INC	MEMPHIS DEPOT	VOC 8260 QSM LL 5.0		S	4	
		GN-SO-01-2						73327			
147664	321155		08/26/2019 1130		HDR, INC	MEMPHIS DEPOT	VOC 8260 QSM LL 5.0		S	4	
		GN-SO-02-1						73327			
147664	321157		08/26/2019 1100		HDR, INC	MEMPHIS DEPOT	VOC 8260 QSM LL 5.0		S	4	
		GN-SO-DUP-1						73327			
147664	321158		08/26/2019 1153		HDR, INC	MEMPHIS DEPOT	VOC 8260 QSM LL 5.0		S	4	
		GN-SO-02-2						73327			
147664	321160		08/26/2019 1334		HDR, INC	MEMPHIS DEPOT	VOC 8260 QSM LL 5.0		S	4	
		GN-SO-03-2						73327			
147664	321161		08/26/2019 1348		HDR, INC	MEMPHIS DEPOT	VOC 8260 QSM LL 5.0		S	4	
		GN-SO-04-1		Designated MS/MSD				73327			
147664	321162		08/26/2019 1400		HDR, INC	MEMPHIS DEPOT	VOC 8260 QSM LL 5.0		S	4	
		GN-SO-04-2						73327			
	323375						V 8260 QSM LL SOIL 5.0				
				CCVF				0			
	323382						V 8260 QSM LL SOIL 5.0				
				BFB				0			
	323576						V 8260 QSM LL SOIL 5.0				
				CCV				0			
	323579						V 8260 QSM LL SOIL 5.0				
				CCB				0			
147664	321163		08/26/2019 1410		HDR, INC	MEMPHIS DEPOT	VOC 8260 QSM LL 5.0		S	4	
		GN-SO-05-1						73327			
147664	321164		08/26/2019 1428		HDR, INC	MEMPHIS DEPOT	VOC 8260 QSM LL 5.0		S	4	
		GN-SO-05-2						73327			
147664	321165		08/26/2019 1422		HDR, INC	MEMPHIS DEPOT	VOC 8260 QSM LL 5.0		S	4	
		GN-SO-DUP-2						73327			
147664	321166		08/26/2019 1442		HDR, INC	MEMPHIS DEPOT	VOC 8260 QSM LL 5.0		S	4	
		GN-SO-06-1						73327			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

V 8260 QSM LL SOIL 5.0 Analytical Run
163979 on 09/10/2019

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
147664	321167		08/26/2019 1505			HDR, INC	MEMPHIS DEPOT	VOC 8260 QSM LL 5.0		S	**4**	
		GN-SO-06-2							73327			
147664	321168		08/26/2019 1513			HDR, INC	MEMPHIS DEPOT	VOC 8260 QSM LL 5.0		S	**4**	
		GN-SO-07-1							73327			
147664	321169		08/26/2019 1528			HDR, INC	MEMPHIS DEPOT	VOC 8260 QSM LL 5.0		S	**4**	
		GN-SO-07-2							73327			
147664	321172		08/26/2019 1601			HDR, INC	MEMPHIS DEPOT	VOC 8260 QSM LL 5.0		S	**4**	
		GN-SO-09C-1							73327			
	321188		08/27/2019 1045					VOC 8260 QSM LL 5.0		S	**2**	
		PT-S-IDW-2							73327			
147664	321149		08/26/2019 1023			HDR, INC	MEMPHIS DEPOT	VOC 8260 QSM LL 5.0		S	**4**	
		GN-SO-01-1							73327			
147664	321159		08/26/2019 1320			HDR, INC	MEMPHIS DEPOT	VOC 8260 QSM LL 5.0		S	**4**	
		GNSO-03-1							73327			
	321327		08/26/2019 1348					VOC 8260 QSM LL 5.0				
		GN-SO-04-1		MSS	321161				73327			
	321328		08/26/2019 1348					VOC 8260 QSM LL 5.0				
		GN-SO-04-1		MSDS	321327				73327			
	323578							V 8260 QSM LL SOIL 5.0				
				CCVF					0			
	323582							V 8260 QSM LL SOIL 5.0				
				BFB					0			
	323659							V 8260 QSM LL SOIL 5.0				
				CCV					0			
	323688							V 8260 QSM LL SOIL 5.0				
				CCB					0			
147664	321170		08/26/2019 1539			HDR, INC	MEMPHIS DEPOT	VOC 8260 QSM LL 5.0		S	**4**	
		GN-SO-08-1							73327			
147664	321171		08/26/2019 1550			HDR, INC	MEMPHIS DEPOT	VOC 8260 QSM LL 5.0		S	**4**	
		GN-SO-08-2							73327			
	323824							V 8260 QSM LL SOIL 5.0				
				CCVF					0			

35 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

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Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

VOC TICS Analytical Run
163980 on 09/10/2019

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
147664	321154		08/26/2019 1115		HDR, INC	MEMPHIS DEPOT	VOC TICS		S	4	
		GN-SO-01-2									
147664	321155		08/26/2019 1130		HDR, INC	MEMPHIS DEPOT	VOC TICS		S	4	
		GN-SO-02-1									
147664	321157		08/26/2019 1100		HDR, INC	MEMPHIS DEPOT	VOC TICS		S	4	
		GN-SO-DUP-1									
147664	321158		08/26/2019 1153		HDR, INC	MEMPHIS DEPOT	VOC TICS		S	4	
		GN-SO-02-2									
147664	321160		08/26/2019 1334		HDR, INC	MEMPHIS DEPOT	VOC TICS		S	4	
		GN-SO-03-2									
147664	321161		08/26/2019 1348		HDR, INC	MEMPHIS DEPOT	VOC TICS		S	4	
		GN-SO-04-1		Designated MS/MSD							
147664	321162		08/26/2019 1400		HDR, INC	MEMPHIS DEPOT	VOC TICS		S	4	
		GN-SO-04-2									
147664	321163		08/26/2019 1410		HDR, INC	MEMPHIS DEPOT	VOC TICS		S	4	
		GN-SO-05-1									
147664	321164		08/26/2019 1428		HDR, INC	MEMPHIS DEPOT	VOC TICS		S	4	
		GN-SO-05-2									
147664	321165		08/26/2019 1422		HDR, INC	MEMPHIS DEPOT	VOC TICS		S	4	
		GN-SO-DUP-2									
147664	321166		08/26/2019 1442		HDR, INC	MEMPHIS DEPOT	VOC TICS		S	4	
		GN-SO-06-1									
147664	321167		08/26/2019 1505		HDR, INC	MEMPHIS DEPOT	VOC TICS		S	4	
		GN-SO-06-2									
147664	321168		08/26/2019 1513		HDR, INC	MEMPHIS DEPOT	VOC TICS		S	4	
		GN-SO-07-1									
147664	321169		08/26/2019 1528		HDR, INC	MEMPHIS DEPOT	VOC TICS		S	4	
		GN-SO-07-2									
147664	321172		08/26/2019 1601		HDR, INC	MEMPHIS DEPOT	VOC TICS		S	4	
		GN-SO-09C-1									
	321188		08/27/2019 1045				VOC TICS		S	2	
		PT-S-IDW-2									
147664	321149		08/26/2019 1023		HDR, INC	MEMPHIS DEPOT	VOC TICS		S	4	
		GN-SO-01-1									
147664	321159		08/26/2019 1320		HDR, INC	MEMPHIS DEPOT	VOC TICS		S	4	
		GNSO-03-1									
147664	321170		08/26/2019 1539		HDR, INC	MEMPHIS DEPOT	VOC TICS		S	4	
		GN-SO-08-1									

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

PREP WORKSHEET
on 09/18/2019

Prep Batch **73,327** Date Prepped: 09/02/2019 Prepped By RLD

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	321324	MBS		VOC 8260 QSM LL 5.0	SOLID	5.0	5.00			
	321325	LCSS		VOC 8260 QSM LL 5.0	SOLID	5.0	5.00			
147664	321149			VOC 8260 QSM LL 5.0	SOIL	5.0	4.14		4	
	321154			VOC 8260 QSM LL 5.0	SOIL	5.0	5.03		4	
	321155			VOC 8260 QSM LL 5.0	SOIL	5.0	4.23		4	
	321157			VOC 8260 QSM LL 5.0	SOIL	5.0	4.18		4	
	321158			VOC 8260 QSM LL 5.0	SOIL	5.0	5.92		4	
	321159			VOC 8260 QSM LL 5.0	SOIL	5.0	4.58		4	
	321160			VOC 8260 QSM LL 5.0	SOIL	5.0	6.57		4	
	321161	sample designated for QC		VOC 8260 QSM LL 5.0	SOIL	5.0	4.83		4	
	321162			VOC 8260 QSM LL 5.0	SOIL	5.0	5.66		4	
	321163			VOC 8260 QSM LL 5.0	SOIL	5.0	5.24		4	
	321164			VOC 8260 QSM LL 5.0	SOIL	5.0	5.13		4	
	321165			VOC 8260 QSM LL 5.0	SOIL	5.0	6.12		4	
	321166			VOC 8260 QSM LL 5.0	SOIL	5.0	4.59		4	
	321167			VOC 8260 QSM LL 5.0	SOIL	5.0	5.41		4	
	321168			VOC 8260 QSM LL 5.0	SOIL	5.0	4.63		4	

PREP WORKSHEET
on 09/18/2019

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
147664	321169			VOC 8260 QSM LL 5.0	SOIL	5.0	4.61		4	
	321170			VOC 8260 QSM LL 5.0	SOIL	5.0	4.66		4	
	321171			VOC 8260 QSM LL 5.0	SOIL	5.0	4.97		4	
	321172			VOC 8260 QSM LL 5.0	SOIL	5.0	4.52		4	
	321188			VOC 8260 QSM LL 5.0	SOIL	5.0	5.27		2	
	321327	MSS	321161	VOC 8260 QSM LL 5.0	SOIL	5.0	4.90			
	321328	MSDS	321327	VOC 8260 QSM LL 5.0	SOIL	5.0	4.95			

Notes:_____

FVO3,4-08

VOC SOILS LOW LEVEL - PREP BENCHSHEET

Prep Batch #:	73327
Method:	8260C
Analyst:	RLD
Date:	09/04/2019
Start Time:	08:05

NON-LUST
Balance# VOB01

	Sample ID	Sample Weight B (g)	Sample Weight C (g)	Sample Weight A (g)		Sodium Bisulfate Solution (mL)
1	321149	4.97		4.14		5.0
2	321154	5.49		5.03		5.0
3	321155	4.78		4.23		5.0
4	321157	4.30		4.18		5.0
5	321158	7.36		5.92		5.0
6	321159	4.58		4.51		5.0
7	321160	6.36		6.57		5.0
8	321161	5.33		4.83		5.0
9	321162	5.86		5.66		5.0
** 10	321163	1.06		5.24		5.0
11	321164	5.25		5.13		5.0
12	321165	5.49		6.12		5.0
** 13	321166	1.51		4.59		5.0
14	321167	5.88		5.41		5.0
15	321168	4.11		4.63		5.0
16	321169	4.42		4.61		5.0
17	321170	4.66		5.42		5.0
18	321171	4.97		5.62		5.0
19	321172	4.54		4.52		5.0
20	321188	4.94		5.27		5.0
	MSS321161	3.89		4.90		5.0
	MSDS321161	4.63		4.95		5.0

Stop Time:	08:30

** Little to No liquid present

Sodium Bisulfate Solution (0.5g NaHSO4 / 5.0mL of DI H2O):	VOC0526

Sample Wt = Total Wt - Jar Wt - 0.25 (Label Wt.)

Injection Log Summary Report

Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Start (Tune) File ID : C:\INSTARCH\DATA\SEP0519\BFB1.D
Injection Date : 5 Sep 2019 Log Time Period (hrs) : ALL
Injection Time : 07:27 Total files within period : 43
Sample Directory : C:\INSTARCH\DATA\SEP0519\

Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name / Misc Info	Date	Time
IB1	1.00	1.00	1.00	INSTRUMENT BLANK 15.0 ml DI H2O Purged + I	5 Sep 2019	07:42
CCV1	1.00	1.00	1.00	163979,CCV, 0.010/0.10 mg/kg, 15.0 ml	5 Sep 2019	08:11
LCS1	1.00	1.00	1.00	163979,LCSS, 5.00g, 0.010/0.10 mg/kg,	5 Sep 2019	08:40
IB2	1.00	1.00	1.00	INSTRUMENT BLANK 15.0 ml DI H2O Purged + I	5 Sep 2019	09:09
MB1	1.00	1.00	1.00	163979,MBS, 5.00g, 15.0 ml Purged + I	5 Sep 2019	09:38
321149	1.00	1.00	1.00	163979,321149, 4.14g, 15.0 ml Purged + I	5 Sep 2019	10:07
321154	1.00	1.00	1.00	163979,321154, 5.03g, 15.0 ml Purged + I	5 Sep 2019	10:36
321155	1.00	1.00	1.00	163979,321155, 4.23g, 15.0 ml Purged + I	5 Sep 2019	11:05
321157	1.00	1.00	1.00	163979,321157, 4.18g, 15.0 ml Purged + I	5 Sep 2019	11:34
321158	1.00	1.00	1.00	163979,321158, 5.92g, 15.0 ml Purged + I	5 Sep 2019	12:03
321159	1.00	1.00	1.00	163979,321159, 4.51g, 15.0 ml Purged + I	5 Sep 2019	12:33
321160	1.00	1.00	1.00	163979,321160, 6.57g, 15.0 ml Purged + I	5 Sep 2019	13:02
321161	1.00	1.00	1.00	163979,321161, 4.83g, 15.0 ml Purged + I	5 Sep 2019	13:31
321162	1.00	1.00	1.00	163979,321162, 5.66g, 15.0 ml Purged + I	5 Sep 2019	14:00
CCVF1	1.00	1.00	1.00	163979,CCVF, 0.010/0.10 mg/kg, 15.0 ml	5 Sep 2019	14:29
BFB2	1.00	1.00	1.00	163979,BFB, 50 ng Injection	5 Sep 2019	14:52
CCV2	1.00	1.00	1.00	163979,CCV, 0.010/0.10 mg/kg, 15.0 ml	5 Sep 2019	15:05
IB3	1.00	1.00	1.00	INSTRUMENT BLANK 15.0 ml DI H2O Purged + I	5 Sep 2019	15:34
CCB1	1.00	1.00	1.00	163979,CCB, 5.00g, 15.0 ml Purged + I	5 Sep 2019	16:03
321163	1.00	1.00	1.00	163979,321163, 5.24g, 15.0 ml Purged + I	5 Sep 2019	16:32
321164	1.00	1.00	1.00	163979,321164, 5.13g, 15.0 ml Purged + I	5 Sep 2019	17:01
321165	1.00	1.00	1.00	163979,321165, 6.12g, 15.0 ml Purged + I	5 Sep 2019	17:30

Injection Log Summary Report

Method : C:\INSTARCH\METHODS\LS090419.M (RTE Integrator)
Title : 8260C Low Level Soils Method
Start (Tune) File ID : C:\INSTARCH\DATA\SEP0519\BFB1.D
Injection Date : 5 Sep 2019 Log Time Period (hrs) : ALL
Injection Time : 07:27 Total files within period : 43
Sample Directory : C:\INSTARCH\DATA\SEP0519\

Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name Misc Info	Date	Time
321166	1.00	1.00	1.00	163979,321166, 4.59g, 15.0 ml Purged + I	5 Sep 2019	17:59
321167	1.00	1.00	1.00	163979,321167, 5.41g, 15.0 ml Purged + I	5 Sep 2019	18:28
321168	1.00	1.00	1.00	163979,321168, 4.63g, 15.0 ml Purged + I	5 Sep 2019	18:57
321169	1.00	1.00	1.00	163979,321169, 4.61g, 15.0 ml Purged + I	5 Sep 2019	19:26
321170	1.00	1.00	1.00	163979,321170, 5.42g, 15.0 ml Purged + I	5 Sep 2019	19:55
321171	1.00	1.00	1.00	163979,321171, 5.62g, 15.0 ml Purged + I	5 Sep 2019	20:24
321172	1.00	1.00	1.00	163979,321172, 4.52g, 15.0 ml Purged + I	5 Sep 2019	20:54
321149R	1.00	1.00	1.00	163979,321149, 4.14g, 15.0 ml Purged + I	5 Sep 2019	21:52
321159R	1.00	1.00	1.00	163979,321159, 4.97g, 15.0 ml Purged + I	5 Sep 2019	22:21
321161MS	1.00	1.00	1.00	163979,MSS321161, 4.58g, 0.010/0.10 mg/kg,	5 Sep 2019	22:50
321161SD	1.00	1.00	1.00	163979,MSDS321161, 4.95g, 0.010/0.10 mg/kg,	5 Sep 2019	23:19
CCVF2	1.00	1.00	1.00	163979,CCVF, 0.010/0.10 mg/kg, 15.0 ml	5 Sep 2019	23:48
BFB3	1.00	1.00	1.00	163979,BFB, 50 ng Injection	6 Sep 2019	07:19
IB4	1.00	1.00	1.00	INSTRUMENT BLANK 15.0 ml DI H2O Purged + I	6 Sep 2019	07:33
CCV3	1.00	1.00	1.00	163979,CCV, 0.010/0.10 mg/kg, 15.0 ml	6 Sep 2019	08:33
IB5	1.00	1.00	1.00	INSTRUMENT BLANK 15.0 ml DI H2O Purged + I	6 Sep 2019	09:02
CCB2	1.00	1.00	1.00	163979,CCB, 5.00g, 15.0 ml Purged + I	6 Sep 2019	09:31
321170R	1.00	1.00	1.00	163979,321170, 4.66g, 15.0 ml Purged + I	6 Sep 2019	10:00
321171R	1.00	1.00	1.00	163979,321171, 4.97g, 15.0 ml Purged + I	6 Sep 2019	10:29
CCVF3	1.00	1.00	1.00	163979,CCVF, 0.010/0.10 mg/kg, 15.0 ml	6 Sep 2019	10:58

8260 ISTD/SSTD 20ug/ml VOC0612
8260 BFB STD. 50ug/ml VOC0611
8260 ICV STD. 100ug/ml VOC0621
8260 CCV/CALIB. 100ug/ml VOC0622

pl_ilog
Injection Log Summary Report

Method : C:\INSTARCH\METHODS\LS090419.M
Title : 8260C Low Level Soils Method
Start (Tune) File ID : C:\INSTARCH\DATA\SEP0419\BFB1.D
Injection Date : 4 Sep 2019 Log Time Period (hrs) : ALL
Injection Time : 12:40 Total files within period : 20
Sample Directory : C:\INSTARCH\DATA\SEP0419\

Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name Misc Info	Date	Time
LLCALS1	1.00	1.00	1.00	CALIB. PT. 1 0.001/0.010 mg/kg, 1	4 Sep 2019	14:23
LLCALS2	1.00	1.00	1.00	CALIB. PT. 2 0.002/0.020 mg/kg, 1	4 Sep 2019	14:52
LLCALS3	1.00	1.00	1.00	CALIB. PT. 3 0.005/0.050 mg/kg, 1	4 Sep 2019	15:21
LLCALS4	1.00	1.00	1.00	CALIB. PT. 4 0.010/0.100 mg/kg, 1	4 Sep 2019	15:50
LLCALS5	1.00	1.00	1.00	CALIB. PT. 5 0.020/0.200 mg/kg, 1	4 Sep 2019	16:19
LLCALS6	1.00	1.00	1.00	CALIB. PT. 6 0.030/0.300 mg/kg, 1	4 Sep 2019	16:48
LLCALS7	1.00	1.00	1.00	CALIB. PT. 7 0.040/0.400 mg/kg, 1	4 Sep 2019	17:17
LLCALS8	1.00	1.00	1.00	CALIB. PT. 8 0.080/0.800 mg/kg, 1	4 Sep 2019	17:47
ICV1	1.00	1.00	1.00	INITIAL CALIB. VERIF 0.010/0.10 mg/kg, 15	4 Sep 2019	18:45
ICV2	1.00	1.00	1.00	INITIAL CALIB. VERIF 0.030/0.30 mg/kg, 15	4 Sep 2019	19:14
ICB-MB1	1.00	1.00	1.00	163978,MBS, 5.00g, 15.0 ml Purge	4 Sep 2019	20:41

8260 ISTD/SSTD 20ug/ml VOC0612
8260 BFB STD. 50ug/ml VOC0611
8260 ICV STD. 100ug/ml VOC0621
8260 CCV/CALIB. 100ug/ml VOC0622

FVO4-01 Data Review Checklist

FORM #: FVO4-01
Rev. #: 2.1
Effective Date: 07/16/18

INDEPENDENT DATA REVIEW CHECKLIST			Method: GCMS (EPA SW-846 8260C)					
Analysis Date	**LIMS Run #(s):**	**Analyst/Data Interpreter**	**Independent Reviewer**	**Date of Review**	**Approved?**			**Instrument**
					Yes	No		
09/05/2019	163979 163980	DGS/RLD	RLD	09/11/2019	Yes			VMS4

Instructions: Complete one checklist per *analytical sequence* . Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section and may require the initiation of a Nonconformance Report.

Requirement	Acceptance Criteria	Analyst Review		Independent Review		Comments
		Yes	No	Yes	No	
I. BFB Tune Check						
Was a BFB tune check analyzed with acceptable results?	Relative abundance criteria met?	Yes		Yes		
II. Initial Calibration Verification (ICV)						
Was initial calibration performed using a minimum of five standard concentration levels (minimum of 6 levels for quadratic curves)?	Lowest standard at or below RL?	Yes		Yes		
Were the Average Relative Response Factors (ARRF) acceptable?	ARRF<or= specified limits (<15%D.)see SOP)	Yes		Yes		
Was a second-source ICV(s) analyzed (for Quadratic Curve)?	Required before sample analyses.	Yes		Yes		
Were all target compound %Deviation or %Drift acceptable?	%D < 20% or project/program specific	Yes		Yes		
Was Initial Calibration Blank (ICB) analyzed?	Required before sample analyses.	Yes		Yes		
Were the ICB results for all target analytes less than the limit of detection (LOD).	<LOD or < project/program specific limits		No		No	
III. Continuing Calibration Verification (CCV)						
Was an acceptable BFB tune check run at the beginning of every twelve hour shift?	Relative abundance criteria met?	Yes		Yes		
Was a CCV analyzed after every 12 hour tune check?	Required before sample analyses.	Yes		Yes		
Was a second CCV (CCV2) for compounds calibrated using quadratic curves analyzed after every 12 hour tune check?	Required before analyses of WI samples (above the inflection point of the curve).					
Were all target compound %Deviation or %Drift acceptable?	%D < 20% or project/program specific	Yes		Yes		
If necessary, were the results for outlying compounds qualified?						

IV. Blanks						
Was a Method Blank (MB) analyzed prior to analysis of samples?	1 per 20 samples or project/program specific.	Yes		Yes		
Were the MB results for all target analytes less than the limit of detection (LOD)?	*All target analytes <LOD or < project/program specific limits (<1/2 RL for DoD-QSM)	Yes		Yes		
If analytes were detected in the MB with no associated positives in the samples, no further action is needed. If the analyte detects in the MB were greater than the acceptance criteria and there were detects in the samples, was the data qualified.?						
V. Laboratory Control Spike (LCS)						
Was a LCS (and LCSD if needed) analyzed at the required frequency?	1 per 20 samples or project/program specific.	Yes		Yes		
Were the LCS (LCSD) recoveries for all analytes within acceptance criteria?	Default 70-130%, or see internally generated limits, or project/program specified limits.	Yes		Yes		
If applicable, were associated sample detects (and non-detects for low recoveries) qualified?						
Is the relative percent difference (RPD) for each analyte between the LCS and LSCD (if applicable) acceptable?	Default 20%, or see internally generated limits, or client specific limits.					
VI. Matrix Spike/Matrix Spike Duplicate (MS/MSD)						
Was a Martrix Spike (MS) and a Matrix Spike Duplicate (MSD) analyzed at the required frequency?	1 per 20 samples or project/program specific.	Yes		Yes		
Were the MS/MSD recoveries for all analytes within acceptance criteria?	Default 70-130%, or see internally generated limits, or project/program specified limits.		No		No	
Is the relative percent difference (RPD) for each analyte between the MS and MSD acceptable?	Default 20%, or see internally generated limits, or client specific limits.		No		No	
VII. Sample Analyses						
Are chromatogram characteristics, including peak shapes and areas, consistent with those of the CCV?		Yes		Yes		
Were surrogate recoveries for all samples and QC within acceptance criteria?	Default 70-130%, or see internally generated program limits, or client specified limits.		No		No	
If possible, were the affected samples reanalyzed?			No		No	
**Were reported sample results with failing surrogate recoveries qualified?		Yes		Yes		
Were all samples having analytes detected in amounts exceeding the calibration range diluted and reanalyzed? If not qualify (X).	Target upper middle range of calibration curve.	Yes		Yes		
Did all samples meet hold time and preservation criteria as defined by method/program?	H2O sample: pH < 2 = 14 days, pH >2 = 7 days. Soil samples: 14 days (other criteria may apply)	Yes		Yes		
Were all samples and QC injected within 12 hours of BFB tune check?		Yes		Yes		
Were internal standard recoveries acceptable relevant to associated ICAL?	Response = -50 to +200%; Ret. time = +/- 30 sec.		No		No	

VIII. Records and Reporting						
Is sequence file / injection log present in the data package?		Yes		Yes		
Were all data, calculations, and values verified in LIMS (including removal of non-detections) upon completion of data capture?		Yes		Yes		
Were manual integrations performed correctly?	Manual integration must be initialed, dated, and reason given, along with before & after chromatograms.	Yes		Yes		
Was the rational for the manual integration verified?		Yes		Yes		
Are reported results whose amounts exceeded the acceptance criteria flagged with an appropriate qualifier and, if needed, were any non-matrix related nonconformities documented in the NCR spreadsheet?		Yes		Yes		

ᵏNon-Applicable Yes/No Cells Are Left Blank*

Comments:

VOC TICS Analytical Run
164066 on 09/17/2019

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
147664	321156	GN-W-TB-01	08/26/2019 1000		HDR, INC	MEMPHIS DEPOT	VOC TICS		M	4	
147664	321173	GN-W-RB-01	08/27/2019 1400		HDR, INC	MEMPHIS DEPOT	VOC TICS		GW	4	

2 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

V 8260 QSM LL H2O 5.0 Analytical Run
163976 on 09/17/2019

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	324031						V 8260 QSM LL H2O 5.0				
				BFB				0			
	324034						V 8260 QSM LL H2O 5.0				
				LCSW				0			
	324035						V 8260 QSM LL H2O 5.0				
				CCV				0			
	324028						V 8260 QSM LL H2O 5.0				
				MBW				0			
147664	321156	GN-W-TB-01	08/26/2019 1000		HDR, INC	MEMPHIS DEPOT	VOC 8260 QSM LL 5.0		M	**4**	
147664	321173	GN-W-RB-01	08/27/2019 1400		HDR, INC	MEMPHIS DEPOT	VOC 8260 QSM LL 5.0		GW	**4**	
	327414						V 8260 QSM LL H2O 5.0				
				LCSDW 324034				0			
	327415						V 8260 QSM LL H2O 5.0				
				CCVF				0			

8 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Injection Log Summary Report

Method : C:\INSTARCH\METHODS\LW082519.M (RTE Integrator)
Title : 8260C Waters Method
Start (Tune) File ID : C:\INSTARCH\DATA\SEP0619\BFB1.D
Injection Date : 6 Sep 2019 Log Time Period (hrs) : ALL
Injection Time : 11:39 Total files within period : 24
Sample Directory : C:\INSTARCH\DATA\SEP0619\

Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name / Misc Info	Date	Time
IB1	1.00	1.00	1.00	INSTRUMENT BLANK 25.0 ml DI H2O Purged + I	6 Sep 2019	11:53
CCV-LCS1	1.00	1.00	1.00	164175,LCSW, 4.00/40.00 ug/L, 25.0 ml	6 Sep 2019	12:22
IB2	1.00	1.00	1.00	INSTRUMENT BLANK 25.0 ml DI H2O Purged + I	6 Sep 2019	12:50
IB3	1.00	1.00	1.00	INSTRUMENT BLANK 25.0 ml DI H2O Purged + I	6 Sep 2019	13:18
MB1	1.00	1.00	1.00	164175,MBW, pH<2, 25.0 ml DI H2O Purg	6 Sep 2019	13:47
321156	1.00	1.00	1.00	163976,321156, pH<2, 25.0 ml Purged + IS	6 Sep 2019	14:44
321173	1.00	1.00	1.00	163976,321173, pH<2, 25.0 ml Purged + IS	6 Sep 2019	20:44
CCVF-L~1	1.00	1.00	1.00	164175,LCSDW, 4.00/40.00 ug/L, 25.0 ml	6 Sep 2019	23:05

8260 ISTD/SSTD 20ug/ml VOC0624
8260 BFB STD. 50ug/ml VOC0623
8260 ICV STD. 100ug/ml VOC0625
8260 CCV/CALIB. 100ug/ml VOC0626

pl_ilog
Injection Log Summary Report

Method : C:\INSTARCH\METHODS\LW082519.M
Title : 8260C Waters Method
Start (Tune) File ID : C:\INSTARCH\DATA\AUG2519\BFB1.D
Injection Date : 25 Aug 2019 Log Time Period (hrs) : ALL
Injection Time : 20:04 Total files within period : 18
Sample Directory : C:\INSTARCH\DATA\AUG2519\

Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name Misc Info	Date Time
LLCALW1	1.00	1.00	1.00	CALIB. PT. 1 0.10/1.00 ug/L, 25.0	25 Aug 2019 21:42
LLCALW2	1.00	1.00	1.00	CALIB. PT. 2 0.20/2.00 ug/L, 25.0	25 Aug 2019 22:10
LLCALW3	1.00	1.00	1.00	CALIB. PT. 3 0.50/5.00 ug/L, 25.0	25 Aug 2019 22:39
LLCALW4	1.00	1.00	1.00	CALIB. PT. 4 1.00/10.00 ug/L, 25.	25 Aug 2019 23:07
LLCALW5	1.00	1.00	1.00	CALIB. PT. 5 2.00/20.00 ug/L, 25.	25 Aug 2019 23:35
LLCALW6	1.00	1.00	1.00	CALIB. PT. 6 4.00/40.0000 ug/L, 2	26 Aug 2019 00:04
LLCALW7	1.00	1.00	1.00	CALIB. PT. 7 6.00/60.00 ug/L, 25.	26 Aug 2019 00:32
LLCALW8	1.00	1.00	1.00	CALIB. PT. 8 8.00/80.00 ug/L, 25.	26 Aug 2019 01:00
LLCALW9	1.00	1.00	1.00	CALIB. PT. 9 16.00/160 ug/L, 25.0	26 Aug 2019 01:28
ICV1	1.00	1.00	1.00	INITIAL CALIB. VERIF 4.00/40.00 ug/L, 25.	26 Aug 2019 02:25
ICV2	1.00	1.00	1.00	INITIAL CALIB. VERIF 8.00/80.00 ug/L, 25.	26 Aug 2019 02:53
ICB1	1.00	1.00	1.00	INITIAL CALIB. BLANK pH<2, 25.0 ml DI H2O	26 Aug 2019 04:18

8260 ISTD/SSTD 20ug/ml VOC0612
8260 BFB STD. 50ug/ml VOC0611
8260 ICV STD. 100ug/ml VOC0615
8260 CCV/CALIB. 100ug/ml VOC0616

FVO4-01 Data Review Checklist

INDEPENDENT DATA REVIEW CHECKLIST			Method: GCMS (EPA SW-846 8260C)					
Analysis Date	**LIMS Run #(s):**	**Analyst/Data Interpreter**	**Independent Reviewer**	**Date of Review**	**Approved?**			**Instrument**
					Yes	No		
09/06/2019	164177 164176 164175 164174 164066 163976	DGS/RLD	RLD	09/18/2019	Yes			VMS4

Instructions: Complete one checklist per *analytical sequence* . Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section and may require the initiation of a Nonconformance Report.

Requirement	Acceptance Criteria	Analyst Review		Independent Review		Comments
		Yes	No	Yes	No	
I. BFB Tune Check						
Was a BFB tune check analyzed with acceptable results?	Relative abundance criteria met?	Yes		Yes		
II. Initial Calibration Verification (ICV)						
Was initial calibration performed using a minimum of five standard concentration levels (minimum of 6 levels for quadratic curves)?	Lowest standard at or below RL?	Yes		Yes		
Were the Average Relative Response Factors (ARRF) acceptable?	ARRF<or= specified limits (<15%D.)see SOP)	Yes		Yes		
Was a second-source ICV(s) analyzed (for Quadratic Curve)?	Required before sample analyses.	Yes		Yes		
Were all target compound %Deviation or %Drift acceptable?	%D < 20% or project/program specific	Yes		Yes		
Was Initial Calibration Blank (ICB) analyzed?	Required before sample analyses.	Yes		Yes		
Were the ICB results for all target analytes less than the limit of detection (LOD).	<LOD or < project/program specific limits	Yes		Yes		
III. Continuing Calibration Verification (CCV)						
Was an acceptable BFB tune check run at the beginning of every twelve hour shift?	Relative abundance criteria met?	Yes		Yes		
Was a CCV analyzed after every 12 hour tune check?	Required before sample analyses.	Yes		Yes		
Was a second CCV (CCV2) for compounds calibrated using quadratic curves analyzed after every 12 hour tune check?	Required before analyses of WI samples (above the inflection point of the curve).					
Were all target compound %Deviation or %Drift acceptable?	%D < 20% or project/program specific		No		No	
If necessary, were the results for outlying compounds qualified?		Yes		Yes		

IV. Blanks						
Was a Method Blank (MB) analyzed prior to analysis of samples?	1 per 20 samples or project/program specific.	Yes		Yes		
Were the MB results for all target analytes less than the limit of detection (LOD)?	*All target analytes <LOD or < project/program specific limits (<1/2 RL for DoD-QSM)	Yes		Yes		
If analytes were detected in the MB with no associated positives in the samples, no further action is needed. If the analyte detects in the MB were greater than the acceptance criteria and there were detects in the samples, was the data qualified.?						
V. Laboratory Control Spike (LCS)						
Was a LCS (and LCSD if needed) analyzed at the required frequency?	1 per 20 samples or project/program specific.	Yes		Yes		
Were the LCS (LCSD) recoveries for all analytes within acceptance criteria?	Default 70-130%, or see internally generated limits, or project/program specified limits.		No		No	
If applicable, were associated sample detects (and non-detects for low recoveries) qualified?		Yes		Yes		
Is the relative percent difference (RPD) for each analyte between the LCS and LSCD (if applicable) acceptable?	Default 20%, or see internally generated limits, or client specific limits.		No		No	
VI. Matrix Spike/Matrix Spike Duplicate (MS/MSD)						
Was a Martrix Spike (MS) and a Matrix Spike Duplicate (MSD) analyzed at the required frequency?	1 per 20 samples or project/program specific.	Yes		Yes		
Were the MS/MSD recoveries for all analytes within acceptance criteria?	Default 70-130%, or see internally generated limits, or project/program specified limits.		No		No	
Is the relative percent difference (RPD) for each analyte between the MS and MSD acceptable?	Default 20%, or see internally generated limits, or client specific limits.		No		No	
VII. Sample Analyses						
Are chromatogram characteristics, including peak shapes and areas, consistent with those of the CCV?		Yes		Yes		
Were surrogate recoveries for all samples and QC within acceptance criteria?	Default 70-130%, or see internally generated program limits, or client specified limits.	Yes		Yes		
If possible, were the affected samples reanalyzed?						
**Were reported sample results with failing surrogate recoveries qualified?						
Were all samples having analytes detected in amounts exceeding the calibration range diluted and reanalyzed? If not qualify (X).	Target upper middle range of calibration curve.	Yes		Yes		
Did all samples meet hold time and preservation criteria as defined by method/program?	H2O sample: pH < 2 = 14 days, pH >2 = 7 days. Soil samples: 14 days (other criteria may apply)	Yes		Yes		
Were all samples and QC injected within 12 hours of BFB tune check?		Yes		Yes		
Were internal standard recoveries acceptable relevant to associated ICAL?	Response = -50 to +200%; Ret. time = +/- 30 sec.	Yes		Yes		

VIII. Records and Reporting						
Is sequence file / injection log present in the data package?		Yes		Yes		
Were all data, calculations, and values verified in LIMS (including removal of non-detections) upon completion of data capture?		Yes		Yes		
Were manual integrations performed correctly?	Manual integration must be initialed, dated, and reason given, along with before & after chromatograms.	Yes		Yes		
Was the rational for the manual integration verified?		Yes		Yes		
Are reported results whose amounts exceeded the acceptance criteria flagged with an appropriate qualifier and, if needed, were any non-matrix related nonconformities documented in the NCR spreadsheet?		Yes		Yes		

ᵏNon-Applicable Yes/No Cells Are Left Blank*

Comments:

LPVO1-03-VOC
Volatiles Standard Prep Logbook
Logbook Created: 06/18/18

NOTEBOOK VIEW: LTN_LPVO1_03_VOC_Default, NOTEBOOK: LPVO1_03_VOC, PAGE: 63
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Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0623	8260 BFB Std.	75uL of 2,000 ug/mL 4-Bromofluorobenzene Std. V0896 into 2925uL of MeOH.	MeOH / B&J / DU783-U	50 ug/mL	09/10/2019	10/10/2019	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0624	8260 ISTD/SSTD	200uL of 2,500 ug/mL 8260 Istd./Sstd. Mix V0906 and 250uL of 2000 ug/mL 1,2-Dichlorobenzene-$_{d4}$ Std. V0894 into 25mL of MeOH.	MeOH / B&J / DU783-U	20 ug/mL	09/10/2019	10/10/2019	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0625	8260 ICV/Spiking Std.	150uL of 2,000 ug/mL VOC Mix V0914, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V0929, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V0931 into 2250uL of MeOH.	MeOH / B&J / DU783-U	100 ug/mL	09/10/2019	09/17/2019	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst

VOC0626	8260 CCV/Calib. Std.	150uL of 2,000 ug/mL VOC Mix V0926, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V0930, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V0932 into 2250uL of MeOH.	MeOH / B&J / DU783-U	100 ug/mL	09/10/2019	09/17/2019	RLD

1

CT Laboratories, LLC

LPVO1-03-VOC
Volatiles Standard Prep Logbook
Logbook Created: 06/18/18

NOTEBOOK VIEW: LTN_LPVO1_03_VOC_Default, NOTEBOOK: LPVO1_03_VOC, PAGE: 62
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Author: rdigmann on: 8/29/2019 9:57:01 AM
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Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0621	8260 ICV/Spiking Std.	150uL of 2,000 ug/mL VOC Mix V0914, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V0929, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V0931 into 2250uL of MeOH.	MeOH / B&J / DT961	100 ug/mL	08/28/2019	09/04/2019	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0622	8260 CCV/Calib. Std.	150uL of 2,000 ug/mL VOC Mix V0926, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V0930, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V0932 into 2250uL of MeOH.	MeOH / B&J / DT961	100 ug/mL	08/28/2019	09/04/2019	RLD

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Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0615	8260 ICV/Spiking Std.	150uL of 2,000 ug/mL VOC Mix V0914, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V0917, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V0931 into 2250uL of MeOH.	MeOH / B&J / DT961	100 ug/mL	08/18/2019	08/25/2019	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0616	8260 CCV/Calib. Std.	150uL of 2,000 ug/mL VOC Mix V0926, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V0918, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V0932 into 2250uL of MeOH.	MeOH / B&J / DT961	100 ug/mL	08/18/2019	08/25/2019	RLD

LPVO1-03-VOC
Volatiles Standard Prep Logbook
Logbook Created: 06/18/18

NOTEBOOK VIEW: LTN_LPVO1_03_VOC_Default, NOTEBOOK: LPVO1_03_VOC, PAGE: 58
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Page Title: 080919

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0611	8260 BFB Std.	75uL of 2,000 ug/mL 4-Bromofluorobenzene Std. V0896 into 2925uL of MeOH.	MeOH / B&J / DT961	50 ug/mL	08/09/2019	09/09/2019	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0612	8260 ISTD/SSTD	200uL of 2,500 ug/mL 8260 Istd./Sstd. Mix V0906 and 250uL of 2000 ug/mL 1,2-Dichlorobenzene-$_{d4}$ Std. V0894 into 25mL of MeOH.	MeOH / B&J / DT961	20 ug/mL	08/09/2019	09/09/2019	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0613	8260 ICV/Spiking Std.	150uL of 2,000 ug/mL VOC Mix V0914, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V0917, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V0931 into 2250uL of MeOH.	MeOH / B&J / DT961	100 ug/mL	08/09/2019	08/16/2019	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst

VOC0614	8260 CCV/Calib. Std.	150uL of 2,000 ug/mL VOC Mix V0926, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V0918, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V0932 into 2250uL of MeOH.	MeOH / B&J / DT961	100 ug/mL	08/09/2019	08/16/2019	RLD

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CT Laboratories, LLC

LSVO1-01
Volatiles Standards Logbook
Logbook Created: 12/08/2015
NOTEBOOK VIEW: LTN_LSVO1_01_VOC_Default, NOTEBOOK: LSVO1_01_VOC, PAGE: 80
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Author: rdigmann on: 6/10/2019 6:39:33 AM
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Page Title: 052019

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0915	VOC 8260 Special Additions	SPEX CertiPrep	VO-CTWI-5	EN190513003
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 50,000 ug/mL	MeOH	11/09/2019	05/17/2019	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 ICV/Spiking Std. preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0916	VOC 8260 Special Additions	SPEX CertiPrep	VO-CTWI-5	EN190513011
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 50,000 ug/mL	MeOH	11/09/2019	5/17/2019	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 CCV/Calib. Std. preparation.	

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CT Laboratories, LLC

LSVO1-01
Volatiles Standards Logbook
Logbook Created: 12/08/2015
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Page Title: 043019

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0914	8260 VOC Mix	AccuStandard	M-502-10X-PAK	218101050
Concentration	**Neat (% purity) or Solvent**	**Expiration Date**	**Date Received**	**Analyst**
2,000 ug/mL	MeOH	10/08/2021	04/25/2019	RLD
# of Ampules/Units:	5	Comments:	Used for 8260 ICV/Spiking Standard preparation.	

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LSVO1-01
Volatiles Standards Logbook
Logbook Created: 12/08/2015
NOTEBOOK VIEW: LTN_LSVO1_01_VOC_Default, NOTEBOOK: LSVO1_01_VOC, PAGE: 78
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Page Title: 032019

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0912	VOC 8260 Additions	SPEX CertiPrep	VO-CTWI-12	EN190314005
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 10,000 ug/mL	MeOH	06/12/2019	03/20/2019	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 ICV/Spiking Std. preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0913	VOC 8260 Additions	SPEX CertiPrep	VO-CTWI-12	EN190314023
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 10,000 ug/mL	MeOH	06/12/2019	03/20/2019	RLD
# of Ampules/Units:		Comments:	Used for 8260 CCV/Calb. Std. preparation.	

LSVO1-01
Volatiles Standards Logbook
Logbook Created: 12/08/2015
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Page Title: 030419

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0910	VOC 8260 Special Additions	SPEX CertiPrep	VO-CTWI-5	EN190225014
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 50,000 ug/mL	MeOH	08/24/2019	03/04/2019	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 ICV/Spiking Std. preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0911	VOC 8260 Special Additions	SPEX CertiPrep	VO-CTWI-5	EN190221023
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 50,000 ug/mL	MeOH	08/20/2019	03/04/2019	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 CCV/Calib. Std. preparation.	

LSVO1-01
Volatiles Standards Logbook
Logbook Created: 12/08/2015
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Project: Unassigned
Page Title: 020419

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0906	8260 ISTD/SSTD Mix	Agilent	STM-540	CT-0055
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
2,500 ug/mL	MeOH	02/28/2022	02/04/2019	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 ISTD/SSTD preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0907	8260 VOC Mix	Agilent	DWM-588-1	CS-3889
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
2,000 ug/mL	MeOH	08/31/2021	02/04/2019	RLD
# of Ampules/Units:	4	Comments:	Used for 8260 CCV/Calib. Standard preparation.	

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Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0904	VOC 8260 Additions	SPEX CertiPrep	VO-CTWI-12	EN190110017
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 10,000 ug/mL	MeOH	04/10/2019	01/29/2019	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 ICV/Spiking standard preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0905	VOC 8260 Additions	SPEX CertiPrep	VO-CTWI-12	EN190122018
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 10,000 ug/mL	MeOH	04/22/2019	01/29/2019	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 CCV/Calib. standard preparation.	

V0902	VOC 8260 Special Additions	SPEX CertiPrep	VO-CTWI-5	EN181024007
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 50,000 ug/mL	MeOH	04/22/2019	10/30/2018	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 ICV/Spiking standard preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0903	VOC 8260 Special Additions	SPEX CertiPrep	VO-CTWI-5	AA181024011
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 50,000 ug/mL	MeOH	04/22/2019	10/30/2018	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 CCV/Calib. standard preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0896	4-Bromofluorobenzene	Ultra Scientific	STS-110N	CM-3263A
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
2,000 ug/mL	MeOH	06/30/2020	10/15/2018	RLD
# of Ampules/Units:	4	Comments:	Used for 8260 BFB Std. and PVOC/GRO SSTD & ISTD/SSTD preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0894	1,2-Dichlorobenzene-$_{d4}$	Ultra Scientific	STS-210-1	CM-4301A
Concentration	**Neat (% purity) or Solvent**	**Expiration Date**	**Date Received**	**Analyst**
2,000 ug/mL	MeOH	07/31/2021	09/19/2018	RLD
# of Ampules/Units:	4	Comments:	Used for GRO-8015 and SDWA 524.2 surrogate standard preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0879	4-Bromofluorobenzene	Ultra Scientific	STS-110N	CM-3263
Concentration	**Neat (% purity) or Solvent**	**Expiration Date**	**Date Received**	**Analyst**
2,000 ug/mL	MeOH	07/31/2019	04/24/2018	RLD
# of Ampules/Units:	2	Comments:	Used for PVOC/8015 SSTD and ISTD/SSTD preparation.	

SEMI-VOLATILE ORGANIC ANALYSIS
QUALITY CONTROL SUMMARY
DOCUMENTS

CT LABORATORIES
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1B

SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-01-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.58 (g/L)	CTL Sample ID:	321149
% Solids:	95.2	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D-SIM	Analytical Prep Batch #	73329
Analytical Run #:	164274	Dilution Factor:	1.00
Date & Time Analyzed:	09/09/2019 / 19:15	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1P082619	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
90-12-0	1-Methylnaphthalene	1.58	J	0.40	0.99	2.0	2.0
91-57-6	2-Methylnaphthalene	2.13		0.50	0.99	2.0	2.0
83-32-9	Acenaphthene	3.62		0.50	0.99	2.0	2.0
208-96-8	Acenaphthylene	3.69		0.30	0.99	2.0	2.0
120-12-7	Anthracene	9.24		0.40	0.99	2.0	2.0
56-55-3	Benzo(a)anthracene	90.3		0.50	0.99	2.0	2.0
50-32-8	Benzo(a)pyrene	75.1		0.30	0.99	2.0	2.0
205-99-2	Benzo(b)fluoranthene	111		0.40	0.99	2.0	2.0
191-24-2	Benzo(g,h,i)perylene	66.3		0.26	0.99	2.0	2.0
207-08-9	Benzo(k)fluoranthene	40.4		0.60	2.0	4.0	4.0
218-01-9	Chrysene	75.8		0.22	0.99	2.0	2.0
53-70-3	Dibenzo(a,h)anthracene	15.9		0.21	0.99	2.0	2.0
206-44-0	Fluoranthene	142		0.69	2.0	4.0	4.0
86-73-7	Fluorene	3.40		0.40	0.99	2.0	2.0
193-39-5	Indeno(1,2,3-cd)pyrene	60.4		0.40	0.99	2.0	2.0
91-20-3	Naphthalene	1.31	J	0.50	0.99	2.0	2.0
85-01-8	Phenanthrene	50.6		1.1	2.0	4.0	4.0
129-00-0	Pyrene	117		0.60	2.0	4.0	4.0

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-01-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/L)	CTL Sample ID:	321149
% Solids:	95.2	Date Received:	08/28/2019
Conc. Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8270D	Analytical Prep Batch #	
Analytical Run #:	164485	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 20:05	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	489	J	N/A	N/A	N/A	N/A
TIC 000083-47-6	.gamma.-Sitosterol	11.2	J	N/A	N/A	N/A	N/A
TIC 005185-97-7	2-Pentanone, 5-(acetyloxy)-	7.09	J	N/A	N/A	N/A	N/A
TIC 000079-39-0	Methacrylamide	6.95	J	N/A	N/A	N/A	N/A
TIC 000141-79-7	3-Penten-2-one, 4-methyl-	6.48	J	N/A	N/A	N/A	N/A
TIC 007098-22-8	Tetratetracontane	5.62	J	N/A	N/A	N/A	N/A
TIC 001058-61-3	Stigmast-4-en-3-one	5.01	J	N/A	N/A	N/A	N/A

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-01-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.58 (g/L)	CTL Sample ID:	321149
% Solids:	95.2	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 20:05	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
92-52-4	1,1'-Biphenyl	60	U	14	60	120	120
95-94-3	1,2,4,5-Tetrachlorobenzene	60	U	22	60	120	120
120-82-1	1,2,4-Trichlorobenzene	60	U	21	60	120	120
95-50-1	1,2-Dichlorobenzene	60	U	24	60	120	120
541-73-1	1,3-Dichlorobenzene	60	U	20	60	120	120
106-46-7	1,4-Dichlorobenzene	60	U	19	60	120	120
90-12-0	1-Methylnaphthalene	60	U	25	60	120	120
58-90-2	2,3,4,6-Tetrachlorophenol	300	U	130	300	600	600
95-95-4	2,4,5-Trichlorophenol	300	U	130	300	600	600
88-06-2	2,4,6-Trichlorophenol	300	U	130	300	600	600
120-83-2	2,4-Dichlorophenol	300	U	130	300	600	600
105-67-9	2,4-Dimethylphenol	300	U	98	300	600	600
51-28-5	2,4-Dinitrophenol	600	U Q	270	600	990	990
121-14-2	2,4-Dinitrotoluene	60	U	24	60	120	120
87-65-0	2,6-Dichlorophenol	300	U	140	300	600	600
606-20-2	2,6-Dinitrotoluene	60	U	24	60	120	120
91-58-7	2-Chloronaphthalene	60	U	23	60	120	120
95-57-8	2-Chlorophenol	600	U	340	600	2000	2000
91-57-6	2-Methylnaphthalene	60	U	25	60	120	120
95-48-7	2-Methylphenol	600	U	420	600	2000	2000
88-74-4	2-Nitroaniline	60	U	23	60	120	120
88-75-5	2-Nitrophenol	300	U	280	300	990	990
1319-77-3	3 & 4-Methylphenol	1100	U	650	1100	3600	3600
91-94-1	3,3'-Dichlorobenzidine	300	U Q,Z	150	300	500	500

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1B

SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-01-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.58 (g/L)	CTL Sample ID:	321149
% Solids:	95.2	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 20:05	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
99-09-2	3-Nitroaniline	120	U	22	120	200	200
534-52-1	4,6-Dinitro-2-methylphenol	300	U	270	300	990	990
101-55-3	4-Bromophenyl-phenyl ether	60	U	25	60	120	120
59-50-7	4-Chloro-3-methylphenol	600	U	380	600	2000	2000
106-47-8	4-Chloroaniline	60	U	39	60	200	200
7005-72-3	4-Chlorophenyl-phenyl ether	60	U	26	60	120	120
100-01-6	4-Nitroaniline	60	U	30	60	120	120
100-02-7	4-Nitrophenol	600	U	400	600	2000	2000
83-32-9	Acenaphthene	60	U	24	60	120	120
208-96-8	Acenaphthylene	60	U	24	60	120	120
98-86-2	Acetophenone	120	U	74	120	400	400
62-53-3	Aniline	60	U Q	31	60	120	120
120-12-7	Anthracene	60	U	24	60	120	120
1912-24-9	Atrazine	60	U	14	60	120	120
103-33-3/122-66-7	Azobenzene & 1,2-Diphenylhydra	120	U	55	120	240	240
100-52-7	Benzaldehyde	113	J	19	60	120	120
92-87-5	Benzidine	1500	U Z	940	1500	5000	5000
56-55-3	Benzo(a)anthracene	80.5	J	25	60	120	120
50-32-8	Benzo(a)pyrene	85.9	J	15	60	120	120
205-99-2	Benzo(b)fluoranthene	146		25	60	120	120
191-24-2	Benzo(g,h,i)perylene	75.0	J Z	22	60	120	120
207-08-9	Benzo(k)fluoranthene	36.7	J	25	60	120	120
65-85-0	Benzoic acid	575	J	290	1500	3000	3000
100-51-6	Benzyl alcohol	200	U Z	82	200	400	400

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description: **GN-SO-01-1**

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.58 (g/L)	CTL Sample ID:	321149
% Solids:	95.2	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 20:05	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
111-91-1	Bis(2-chloroethoxy)methane	60	U	23	60	120	120
111-44-4	Bis(2-chloroethyl)ether	60	U	25	60	120	120
108-60-1	Bis(2-chloroisopropyl)ether	60	U	30	60	120	120
117-81-7	Bis(2-ethylhexyl)phthalate	120	U	86	120	400	400
85-68-7	Butylbenzylphthalate	120	U	72	120	400	400
105-60-2	Caprolactam	200	U	74	200	400	400
86-74-8	Carbazole	60	U	28	60	120	120
218-01-9	Chrysene	90.4	J	25	60	120	120
53-70-3	Dibenzo(a,h)anthracene	14.7	J	13	60	120	120
132-64-9	Dibenzofuran	60	U	24	60	120	120
84-66-2	Diethylphthalate	120	U	64	120	400	400
131-11-3	Dimethylphthalate	120	U	63	120	400	400
84-74-2	Di-n-butylphthalate	120	U	78	120	400	400
117-84-0	Di-n-octylphthalate	60	U	59	60	200	200
206-44-0	Fluoranthene	176		26	60	120	120
86-73-7	Fluorene	60	U	25	60	120	120
118-74-1	Hexachlorobenzene	60	U	28	60	120	120
87-68-3	Hexachlorobutadiene	120	U	62	120	400	400
77-47-4	Hexachlorocyclopentadiene	120	U	52	120	200	200
67-72-1	Hexachloroethane	60	U	33	60	120	120
193-39-5	Indeno(1,2,3-cd)pyrene	68.6	J	23	60	120	120
78-59-1	Isophorone	60	U	50	60	200	200
91-20-3	Naphthalene	60	U	21	60	120	120
98-95-3	Nitrobenzene	60	U	59	60	200	200

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1B

SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-01-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.58 (g/L)	CTL Sample ID:	321149
% Solids:	95.2	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 20:05	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
62-75-9	N-Nitrosodimethylamine	120	U	77	120	400	400
621-64-7	N-Nitroso-di-n-propylamine	120	U	69	120	400	400
86-30-6/122-39-4	N-Nitrosodiphenylamine & Diphn	120	U	50	120	240	240
930-55-2	N-Nitrosopyrrolidine	60	U	56	60	200	200
87-86-5	Pentachlorophenol	300	U	240	300	990	990
85-01-8	Phenanthrene	50.5	J	26	60	120	120
108-95-2	Phenol	300	U	160	300	600	600
129-00-0	Pyrene	131		26	60	120	120
110-86-1	Pyridine	200	U Q	39	200	400	400

CT LABORATORIES
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1B

Sample Description: **GN-SO-01-2**

SEMIVOLATILE ORGANICS ANALYSIS

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.10 (g/L)	CTL Sample ID:	321154
% Solids:	93.2	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D-SIM	Analytical Prep Batch #	73329
Analytical Run #:	164274	Dilution Factor:	1.00
Date & Time Analyzed:	09/09/2019 / 19:35	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1P082619	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
90-12-0	1-Methylnaphthalene	1.1	U	0.42	1.1	2.1	2.1
91-57-6	2-Methylnaphthalene	1.1	U	0.53	1.1	2.1	2.1
83-32-9	Acenaphthene	0.913	J	0.53	1.1	2.1	2.1
208-96-8	Acenaphthylene	0.594	J	0.32	1.1	2.1	2.1
120-12-7	Anthracene	2.55		0.42	1.1	2.1	2.1
56-55-3	Benzo(a)anthracene	19.3		0.53	1.1	2.1	2.1
50-32-8	Benzo(a)pyrene	14.7		0.32	1.1	2.1	2.1
205-99-2	Benzo(b)fluoranthene	19.7		0.42	1.1	2.1	2.1
191-24-2	Benzo(g,h,i)perylene	13.6		0.28	1.1	2.1	2.1
207-08-9	Benzo(k)fluoranthene	6.69		0.64	2.1	4.2	4.2
218-01-9	Chrysene	13.4		0.23	1.1	2.1	2.1
53-70-3	Dibenzo(a,h)anthracene	5.97		0.22	1.1	2.1	2.1
206-44-0	Fluoranthene	26.8		0.74	2.1	4.2	4.2
86-73-7	Fluorene	1.26	J	0.42	1.1	2.1	2.1
193-39-5	Indeno(1,2,3-cd)pyrene	12.7		0.42	1.1	2.1	2.1
91-20-3	Naphthalene	1.1	U	0.53	1.1	2.1	2.1
85-01-8	Phenanthrene	9.57		1.2	2.1	4.2	4.2
129-00-0	Pyrene	21.2		0.64	2.1	4.2	4.2

CT LABORATORIES
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1B

SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-01-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/L)	CTL Sample ID:	321154
% Solids:	93.2	Date Received:	08/28/2019
Conc. Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8270D	Analytical Prep Batch #	
Analytical Run #:	164485	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 20:24	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	471	J	N/A	N/A	N/A	N/A
TIC 000141-79-7	3-Penten-2-one, 4-methyl-	15.9	J	N/A	N/A	N/A	N/A
TIC 000142-92-7	Acetic acid, hexyl ester	14.3	J	N/A	N/A	N/A	N/A

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-01-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.10 (g/L)	CTL Sample ID:	321154
% Solids:	93.2	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 20:24	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
92-52-4	1,1'-Biphenyl	64	U	15	64	130	130
95-94-3	1,2,4,5-Tetrachlorobenzene	64	U	23	64	130	130
120-82-1	1,2,4-Trichlorobenzene	64	U	22	64	130	130
95-50-1	1,2-Dichlorobenzene	64	U	25	64	130	130
541-73-1	1,3-Dichlorobenzene	64	U	21	64	130	130
106-46-7	1,4-Dichlorobenzene	64	U	20	64	130	130
90-12-0	1-Methylnaphthalene	64	U	27	64	130	130
58-90-2	2,3,4,6-Tetrachlorophenol	320	U	140	320	640	640
95-95-4	2,4,5-Trichlorophenol	320	U	140	320	640	640
88-06-2	2,4,6-Trichlorophenol	320	U	140	320	640	640
120-83-2	2,4-Dichlorophenol	320	U	140	320	640	640
105-67-9	2,4-Dimethylphenol	320	U	110	320	640	640
51-28-5	2,4-Dinitrophenol	640	U Q	290	640	1100	1100
121-14-2	2,4-Dinitrotoluene	64	U	25	64	130	130
87-65-0	2,6-Dichlorophenol	320	U	150	320	640	640
606-20-2	2,6-Dinitrotoluene	64	U	25	64	130	130
91-58-7	2-Chloronaphthalene	64	U	24	64	130	130
95-57-8	2-Chlorophenol	640	U	360	640	2100	2100
91-57-6	2-Methylnaphthalene	64	U	27	64	130	130
95-48-7	2-Methylphenol	640	U	450	640	2100	2100
88-74-4	2-Nitroaniline	64	U	24	64	130	130
88-75-5	2-Nitrophenol	320	U	300	320	1100	1100
1319-77-3	3 & 4-Methylphenol	1100	U	690	1100	3800	3800
91-94-1	3,3'-Dichlorobenzidine	320	U Q,Z	160	320	530	530

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-01-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.10 (g/L)	CTL Sample ID:	321154
% Solids:	93.2	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 20:24	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
99-09-2	3-Nitroaniline	130	U	23	130	210	210
534-52-1	4,6-Dinitro-2-methylphenol	320	U	290	320	1100	1100
101-55-3	4-Bromophenyl-phenyl ether	64	U	27	64	130	130
59-50-7	4-Chloro-3-methylphenol	640	U	400	640	2100	2100
106-47-8	4-Chloroaniline	64	U	41	64	210	210
7005-72-3	4-Chlorophenyl-phenyl ether	64	U	28	64	130	130
100-01-6	4-Nitroaniline	64	U	32	64	130	130
100-02-7	4-Nitrophenol	640	U	420	640	2100	2100
83-32-9	Acenaphthene	64	U	25	64	130	130
208-96-8	Acenaphthylene	64	U	25	64	130	130
98-86-2	Acetophenone	130	U	80	130	420	420
62-53-3	Aniline	64	U Q	33	64	130	130
120-12-7	Anthracene	64	U	25	64	130	130
1912-24-9	Atrazine	64	U	15	64	130	130
103-33-3/122-66-7	Azobenzene & 1,2-Diphenylhydra	130	U	58	130	250	250
100-52-7	Benzaldehyde	64	U	20	64	130	130
92-87-5	Benzidine	1600	U Z	1000	1600	5300	5300
56-55-3	Benzo(a)anthracene	64	U	27	64	130	130
50-32-8	Benzo(a)pyrene	64	U	16	64	130	130
205-99-2	Benzo(b)fluoranthene	64	U	27	64	130	130
191-24-2	Benzo(g,h,i)perylene	64	U Z	23	64	130	130
207-08-9	Benzo(k)fluoranthene	64	U	27	64	130	130
65-85-0	Benzoic acid	1600	U	310	1600	3200	3200
100-51-6	Benzyl alcohol	210	U Z	88	210	420	420

CT LABORATORIES
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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description: **GN-SO-01-2**

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.10 (g/L)	CTL Sample ID:	321154
% Solids:	93.2	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 20:24	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
111-91-1	Bis(2-chloroethoxy)methane	64	U	24	64	130	130
111-44-4	Bis(2-chloroethyl)ether	64	U	27	64	130	130
108-60-1	Bis(2-chloroisopropyl)ether	64	U	32	64	130	130
117-81-7	Bis(2-ethylhexyl)phthalate	130	U	92	130	420	420
85-68-7	Butylbenzylphthalate	130	U	78	130	420	420
105-60-2	Caprolactam	210	U	80	210	420	420
86-74-8	Carbazole	64	U	30	64	130	130
218-01-9	Chrysene	64	U	27	64	130	130
53-70-3	Dibenzo(a,h)anthracene	64	U	14	64	130	130
132-64-9	Dibenzofuran	64	U	25	64	130	130
84-66-2	Diethylphthalate	130	U	68	130	420	420
131-11-3	Dimethylphthalate	130	U	67	130	420	420
84-74-2	Di-n-butylphthalate	130	U	84	130	420	420
117-84-0	Di-n-octylphthalate	64	U	63	64	210	210
206-44-0	Fluoranthene	31.1	J	28	64	130	130
86-73-7	Fluorene	64	U	27	64	130	130
118-74-1	Hexachlorobenzene	64	U	30	64	130	130
87-68-3	Hexachlorobutadiene	130	U	66	130	420	420
77-47-4	Hexachlorocyclopentadiene	130	U	55	130	210	210
67-72-1	Hexachloroethane	64	U	35	64	130	130
193-39-5	Indeno(1,2,3-cd)pyrene	64	U	24	64	130	130
78-59-1	Isophorone	64	U	53	64	210	210
91-20-3	Naphthalene	64	U	22	64	130	130
98-95-3	Nitrobenzene	64	U	63	64	210	210

CT LABORATORIES
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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-01-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.10 (g/L)	CTL Sample ID:	321154
% Solids:	93.2	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 20:24	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
62-75-9	N-Nitrosodimethylamine	130	U	83	130	420	420
621-64-7	N-Nitroso-di-n-propylamine	130	U	74	130	420	420
86-30-6/122-39-4	N-Nitrosodiphenylamine & Diphn	130	U	53	130	250	250
930-55-2	N-Nitrosopyrrolidine	64	U	59	64	210	210
87-86-5	Pentachlorophenol	320	U	250	320	1100	1100
85-01-8	Phenanthrene	64	U	28	64	130	130
108-95-2	Phenol	320	U	170	320	640	640
129-00-0	Pyrene	64	U	28	64	130	130
110-86-1	Pyridine	210	U Q	41	210	420	420

CT LABORATORIES
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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-02-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.00 (g/L)	CTL Sample ID:	321155
% Solids:	97.2	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D-SIM	Analytical Prep Batch #	73329
Analytical Run #:	164274	Dilution Factor:	10.00
Date & Time Analyzed:	09/10/2019 / 16:10	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1P082619	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
120-12-7	Anthracene	237		4.1	10	21	21
56-55-3	Benzo(a)anthracene	688		5.1	10	21	21
50-32-8	Benzo(a)pyrene	456		3.1	10	21	21
205-99-2	Benzo(b)fluoranthene	670		4.1	10	21	21
191-24-2	Benzo(g,h,i)perylene	230		2.7	10	21	21
218-01-9	Chrysene	492		2.3	10	21	21
206-44-0	Fluoranthene	1150		7.2	21	41	41
193-39-5	Indeno(1,2,3-cd)pyrene	243		4.1	10	21	21
85-01-8	Phenanthrene	649		11	21	41	41
129-00-0	Pyrene	801		6.2	21	41	41

CT LABORATORIES
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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-02-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.00 (g/L)	CTL Sample ID:	321155
% Solids:	97.2	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D-SIM	Analytical Prep Batch #	73329
Analytical Run #:	164274	Dilution Factor:	1.00
Date & Time Analyzed:	09/09/2019 / 19:55	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1P082619	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
90-12-0	1-Methylnaphthalene	6.12		0.41	1.0	2.1	2.1
91-57-6	2-Methylnaphthalene	7.34		0.51	1.0	2.1	2.1
83-32-9	Acenaphthene	64.1		0.51	1.0	2.1	2.1
208-96-8	Acenaphthylene	4.36		0.31	1.0	2.1	2.1
207-08-9	Benzo(k)fluoranthene	174		0.62	2.1	4.1	4.1
53-70-3	Dibenzo(a,h)anthracene	69.8		0.22	1.0	2.1	2.1
86-73-7	Fluorene	70.6		0.41	1.0	2.1	2.1
91-20-3	Naphthalene	8.31		0.51	1.0	2.1	2.1

CT LABORATORIES
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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-02-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/L)	CTL Sample ID:	321155
% Solids:	97.2	Date Received:	08/28/2019
Conc. Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8270D	Analytical Prep Batch #	
Analytical Run #:	164485	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 20:43	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	454	J	N/A	N/A	N/A	N/A
TIC 003031-75-2	Hydroperoxide, 1-methylethyl	15.8	J	N/A	N/A	N/A	N/A
TIC 000141-79-7	3-Penten-2-one, 4-methyl-	6.92	J	N/A	N/A	N/A	N/A
TIC 000079-39-0	Methacrylamide	6.44	J	N/A	N/A	N/A	N/A

CT LABORATORIES
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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-02-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.00 (g/L)	CTL Sample ID:	321155
% Solids:	97.2	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 20:43	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
92-52-4	1,1'-Biphenyl	62	U	14	62	120	120
95-94-3	1,2,4,5-Tetrachlorobenzene	62	U	23	62	120	120
120-82-1	1,2,4-Trichlorobenzene	62	U	22	62	120	120
95-50-1	1,2-Dichlorobenzene	62	U	25	62	120	120
541-73-1	1,3-Dichlorobenzene	62	U	21	62	120	120
106-46-7	1,4-Dichlorobenzene	62	U	20	62	120	120
90-12-0	1-Methylnaphthalene	62	U	26	62	120	120
58-90-2	2,3,4,6-Tetrachlorophenol	310	U	130	310	620	620
95-95-4	2,4,5-Trichlorophenol	310	U	130	310	620	620
88-06-2	2,4,6-Trichlorophenol	310	U	130	310	620	620
120-83-2	2,4-Dichlorophenol	310	U	130	310	620	620
105-67-9	2,4-Dimethylphenol	310	U	100	310	620	620
51-28-5	2,4-Dinitrophenol	620	U Q	280	620	1000	1000
121-14-2	2,4-Dinitrotoluene	62	U	25	62	120	120
87-65-0	2,6-Dichlorophenol	310	U	140	310	620	620
606-20-2	2,6-Dinitrotoluene	62	U	25	62	120	120
91-58-7	2-Chloronaphthalene	62	U	24	62	120	120
95-57-8	2-Chlorophenol	620	U	350	620	2100	2100
91-57-6	2-Methylnaphthalene	62	U	26	62	120	120
95-48-7	2-Methylphenol	620	U	430	620	2100	2100
88-74-4	2-Nitroaniline	62	U	24	62	120	120
88-75-5	2-Nitrophenol	310	U	290	310	1000	1000
1319-77-3	3 & 4-Methylphenol	1100	U	670	1100	3700	3700
91-94-1	3,3'-Dichlorobenzidine	310	U Q,Z	150	310	510	510

CT LABORATORIES
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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-02-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.00 (g/L)	CTL Sample ID:	321155
% Solids:	97.2	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 20:43	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
99-09-2	3-Nitroaniline	120	U	23	120	210	210
534-52-1	4,6-Dinitro-2-methylphenol	310	U	280	310	1000	1000
101-55-3	4-Bromophenyl-phenyl ether	62	U	26	62	120	120
59-50-7	4-Chloro-3-methylphenol	620	U	390	620	2100	2100
106-47-8	4-Chloroaniline	62	U	40	62	210	210
7005-72-3	4-Chlorophenyl-phenyl ether	62	U	27	62	120	120
100-01-6	4-Nitroaniline	62	U	31	62	120	120
100-02-7	4-Nitrophenol	620	U	410	620	2100	2100
83-32-9	Acenaphthene	64.6	J	25	62	120	120
208-96-8	Acenaphthylene	62	U	25	62	120	120
98-86-2	Acetophenone	120	U	77	120	410	410
62-53-3	Aniline	62	U Q	32	62	120	120
120-12-7	Anthracene	206		25	62	120	120
1912-24-9	Atrazine	62	U	14	62	120	120
103-33-3/122-66-7	Azobenzene & 1,2-Diphenylhydra	120	U	57	120	250	250
100-52-7	Benzaldehyde	99.0	J	20	62	120	120
92-87-5	Benzidine	1500	U Z	980	1500	5100	5100
56-55-3	Benzo(a)anthracene	668		26	62	120	120
50-32-8	Benzo(a)pyrene	486		15	62	120	120
205-99-2	Benzo(b)fluoranthene	810		26	62	120	120
191-24-2	Benzo(g,h,i)perylene	319	Z	23	62	120	120
207-08-9	Benzo(k)fluoranthene	197		26	62	120	120
65-85-0	Benzoic acid	1500	U	300	1500	3100	3100
100-51-6	Benzyl alcohol	210	U Z	85	210	410	410

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description: **GN-SO-02-1**

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.00 (g/L)	CTL Sample ID:	321155
% Solids:	97.2	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 20:43	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
111-91-1	Bis(2-chloroethoxy)methane	62	U	24	62	120	120
111-44-4	Bis(2-chloroethyl)ether	62	U	26	62	120	120
108-60-1	Bis(2-chloroisopropyl)ether	62	U	31	62	120	120
117-81-7	Bis(2-ethylhexyl)phthalate	120	U	90	120	410	410
85-68-7	Butylbenzylphthalate	120	U	75	120	410	410
105-60-2	Caprolactam	210	U	77	210	410	410
86-74-8	Carbazole	82.9	J	29	62	120	120
218-01-9	Chrysene	550		26	62	120	120
53-70-3	Dibenzo(a,h)anthracene	99.9	J	13	62	120	120
132-64-9	Dibenzofuran	26.2	J	25	62	120	120
84-66-2	Diethylphthalate	120	U	66	120	410	410
131-11-3	Dimethylphthalate	120	U	65	120	410	410
84-74-2	Di-n-butylphthalate	120	U	81	120	410	410
117-84-0	Di-n-octylphthalate	62	U	61	62	210	210
206-44-0	Fluoranthene	1280		27	62	120	120
86-73-7	Fluorene	59.5	J	26	62	120	120
118-74-1	Hexachlorobenzene	62	U	29	62	120	120
87-68-3	Hexachlorobutadiene	120	U	64	120	410	410
77-47-4	Hexachlorocyclopentadiene	120	U	53	120	210	210
67-72-1	Hexachloroethane	62	U	34	62	120	120
193-39-5	Indeno(1,2,3-cd)pyrene	315		24	62	120	120
78-59-1	Isophorone	62	U	51	62	210	210
91-20-3	Naphthalene	62	U	22	62	120	120
98-95-3	Nitrobenzene	62	U	61	62	210	210

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-02-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.00 (g/L)	CTL Sample ID:	321155
% Solids:	97.2	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 20:43	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
62-75-9	N-Nitrosodimethylamine	120	U	80	120	410	410
621-64-7	N-Nitroso-di-n-propylamine	120	U	72	120	410	410
86-30-6/122-39-4	N-Nitrosodiphenylamine & Diphn	120	U	51	120	250	250
930-55-2	N-Nitrosopyrrolidine	62	U	58	62	210	210
87-86-5	Pentachlorophenol	310	U	250	310	1000	1000
85-01-8	Phenanthrene	712		27	62	120	120
108-95-2	Phenol	310	U	160	310	620	620
129-00-0	Pyrene	910		27	62	120	120
110-86-1	Pyridine	210	U Q	40	210	410	410

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1B

SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-02-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.54 (g/L)	CTL Sample ID:	321158
% Solids:	89.9	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D-SIM	Analytical Prep Batch #	73329
Analytical Run #:	164274	Dilution Factor:	1.00
Date & Time Analyzed:	09/09/2019 / 20:35	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1P082619	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
90-12-0	1-Methylnaphthalene	3.15		0.42	1.1	2.1	2.1
91-57-6	2-Methylnaphthalene	3.24		0.53	1.1	2.1	2.1
83-32-9	Acenaphthene	4.12		0.53	1.1	2.1	2.1
208-96-8	Acenaphthylene	3.70		0.32	1.1	2.1	2.1
120-12-7	Anthracene	16.3		0.42	1.1	2.1	2.1
56-55-3	Benzo(a)anthracene	87.1		0.53	1.1	2.1	2.1
50-32-8	Benzo(a)pyrene	72.9		0.32	1.1	2.1	2.1
205-99-2	Benzo(b)fluoranthene	119		0.42	1.1	2.1	2.1
191-24-2	Benzo(g,h,i)perylene	62.3		0.27	1.1	2.1	2.1
207-08-9	Benzo(k)fluoranthene	37.6		0.63	2.1	4.2	4.2
218-01-9	Chrysene	82.3		0.23	1.1	2.1	2.1
53-70-3	Dibenzo(a,h)anthracene	17.3		0.22	1.1	2.1	2.1
206-44-0	Fluoranthene	162		0.74	2.1	4.2	4.2
86-73-7	Fluorene	5.71		0.42	1.1	2.1	2.1
193-39-5	Indeno(1,2,3-cd)pyrene	58.1		0.42	1.1	2.1	2.1
91-20-3	Naphthalene	1.98	J	0.53	1.1	2.1	2.1
85-01-8	Phenanthrene	82.8		1.2	2.1	4.2	4.2
129-00-0	Pyrene	124		0.63	2.1	4.2	4.2

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-02-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/L)	CTL Sample ID:	321158
% Solids:	89.9	Date Received:	08/28/2019
Conc. Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8270D	Analytical Prep Batch #	
Analytical Run #:	164485	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 21:20	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	353	J	N/A	N/A	N/A	N/A
TIC 000141-79-7	3-Penten-2-one, 4-methyl-	117	J	N/A	N/A	N/A	N/A
TIC 005185-97-7	2-Pentanone, 5-(acetyloxy)-	11.1	J	N/A	N/A	N/A	N/A
TIC 000109-49-9	5-Hexen-2-one	8.14	J	N/A	N/A	N/A	N/A

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description: **GN-SO-02-2**

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.54 (g/L)	CTL Sample ID:	321158
% Solids:	89.9	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 21:20	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
92-52-4	1,1'-Biphenyl	63	U	15	63	130	130
95-94-3	1,2,4,5-Tetrachlorobenzene	63	U	23	63	130	130
120-82-1	1,2,4-Trichlorobenzene	63	U	22	63	130	130
95-50-1	1,2-Dichlorobenzene	63	U	25	63	130	130
541-73-1	1,3-Dichlorobenzene	63	U	21	63	130	130
106-46-7	1,4-Dichlorobenzene	63	U	20	63	130	130
90-12-0	1-Methylnaphthalene	63	U	26	63	130	130
58-90-2	2,3,4,6-Tetrachlorophenol	320	U	140	320	630	630
95-95-4	2,4,5-Trichlorophenol	320	U	140	320	630	630
88-06-2	2,4,6-Trichlorophenol	320	U	140	320	630	630
120-83-2	2,4-Dichlorophenol	320	U	140	320	630	630
105-67-9	2,4-Dimethylphenol	320	U	100	320	630	630
51-28-5	2,4-Dinitrophenol	630	U Q	280	630	1100	1100
121-14-2	2,4-Dinitrotoluene	63	U	25	63	130	130
87-65-0	2,6-Dichlorophenol	320	U	150	320	630	630
606-20-2	2,6-Dinitrotoluene	63	U	25	63	130	130
91-58-7	2-Chloronaphthalene	63	U	24	63	130	130
95-57-8	2-Chlorophenol	630	U	360	630	2100	2100
91-57-6	2-Methylnaphthalene	63	U	26	63	130	130
95-48-7	2-Methylphenol	630	U	440	630	2100	2100
88-74-4	2-Nitroaniline	63	U	24	63	130	130
88-75-5	2-Nitrophenol	320	U	300	320	1100	1100
1319-77-3	3 & 4-Methylphenol	1100	U	690	1100	3800	3800
91-94-1	3,3'-Dichlorobenzidine	320	U Q,Z	160	320	530	530

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-02-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.54 (g/L)	CTL Sample ID:	321158
% Solids:	89.9	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 21:20	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
99-09-2	3-Nitroaniline	130	U	23	130	210	210
534-52-1	4,6-Dinitro-2-methylphenol	320	U	280	320	1100	1100
101-55-3	4-Bromophenyl-phenyl ether	63	U	26	63	130	130
59-50-7	4-Chloro-3-methylphenol	630	U	400	630	2100	2100
106-47-8	4-Chloroaniline	63	U	41	63	210	210
7005-72-3	4-Chlorophenyl-phenyl ether	63	U	27	63	130	130
100-01-6	4-Nitroaniline	63	U	32	63	130	130
100-02-7	4-Nitrophenol	630	U	420	630	2100	2100
83-32-9	Acenaphthene	63	U	25	63	130	130
208-96-8	Acenaphthylene	63	U	25	63	130	130
98-86-2	Acetophenone	130	U	79	130	420	420
62-53-3	Aniline	63	U Q	33	63	130	130
120-12-7	Anthracene	63	U	25	63	130	130
1912-24-9	Atrazine	63	U	15	63	130	130
103-33-3/122-66-7	Azobenzene & 1,2-Diphenylhydra	130	U	58	130	250	250
100-52-7	Benzaldehyde	63	U	20	63	130	130
92-87-5	Benzidine	1600	U Z	1000	1600	5300	5300
56-55-3	Benzo(a)anthracene	89.0	J	26	63	130	130
50-32-8	Benzo(a)pyrene	72.7	J	16	63	130	130
205-99-2	Benzo(b)fluoranthene	148		26	63	130	130
191-24-2	Benzo(g,h,i)perylene	59.4	J Z	23	63	130	130
207-08-9	Benzo(k)fluoranthene	36.9	J	26	63	130	130
65-85-0	Benzoic acid	1600	U	310	1600	3200	3200
100-51-6	Benzyl alcohol	210	U Z	88	210	420	420

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description: **GN-SO-02-2**

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.54 (g/L)	CTL Sample ID:	321158
% Solids:	89.9	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 21:20	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
111-91-1	Bis(2-chloroethoxy)methane	63	U	24	63	130	130
111-44-4	Bis(2-chloroethyl)ether	63	U	26	63	130	130
108-60-1	Bis(2-chloroisopropyl)ether	63	U	32	63	130	130
117-81-7	Bis(2-ethylhexyl)phthalate	130	U	92	130	420	420
85-68-7	Butylbenzylphthalate	130	U	77	130	420	420
105-60-2	Caprolactam	210	U	79	210	420	420
86-74-8	Carbazole	63	U	30	63	130	130
218-01-9	Chrysene	87.0	J	26	63	130	130
53-70-3	Dibenzo(a,h)anthracene	19.3	J	14	63	130	130
132-64-9	Dibenzofuran	63	U	25	63	130	130
84-66-2	Diethylphthalate	130	U	68	130	420	420
131-11-3	Dimethylphthalate	130	U	66	130	420	420
84-74-2	Di-n-butylphthalate	130	U	83	130	420	420
117-84-0	Di-n-octylphthalate	63	U	62	63	210	210
206-44-0	Fluoranthene	196		27	63	130	130
86-73-7	Fluorene	63	U	26	63	130	130
118-74-1	Hexachlorobenzene	63	U	30	63	130	130
87-68-3	Hexachlorobutadiene	130	U	65	130	420	420
77-47-4	Hexachlorocyclopentadiene	130	U	55	130	210	210
67-72-1	Hexachloroethane	63	U	35	63	130	130
193-39-5	Indeno(1,2,3-cd)pyrene	58.0	J	24	63	130	130
78-59-1	Isophorone	63	U	53	63	210	210
91-20-3	Naphthalene	63	U	22	63	130	130
98-95-3	Nitrobenzene	63	U	62	63	210	210

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-02-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.54 (g/L)	CTL Sample ID:	321158
% Solids:	89.9	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 21:20	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
62-75-9	N-Nitrosodimethylamine	130	U	82	130	420	420
621-64-7	N-Nitroso-di-n-propylamine	130	U	74	130	420	420
86-30-6/122-39-4	N-Nitrosodiphenylamine & Diphn	130	U	53	130	250	250
930-55-2	N-Nitrosopyrrolidine	63	U	59	63	210	210
87-86-5	Pentachlorophenol	320	U	250	320	1100	1100
85-01-8	Phenanthrene	87.1	J	27	63	130	130
108-95-2	Phenol	320	U	170	320	630	630
129-00-0	Pyrene	143		27	63	130	130
110-86-1	Pyridine	210	U Q	41	210	420	420

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GNSO-03-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.33 (g/L)	CTL Sample ID:	321159
% Solids:	91.3	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D-SIM	Analytical Prep Batch #	73329
Analytical Run #:	164274	Dilution Factor:	1.00
Date & Time Analyzed:	09/09/2019 / 20:56	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1P082619	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
90-12-0	1-Methylnaphthalene	2.57		0.42	1.1	2.1	2.1
91-57-6	2-Methylnaphthalene	2.13		0.53	1.1	2.1	2.1
83-32-9	Acenaphthene	2.87		0.53	1.1	2.1	2.1
208-96-8	Acenaphthylene	2.40		0.32	1.1	2.1	2.1
120-12-7	Anthracene	9.62		0.42	1.1	2.1	2.1
56-55-3	Benzo(a)anthracene	85.7		0.53	1.1	2.1	2.1
50-32-8	Benzo(a)pyrene	62.3		0.32	1.1	2.1	2.1
205-99-2	Benzo(b)fluoranthene	91.8		0.42	1.1	2.1	2.1
191-24-2	Benzo(g,h,i)perylene	48.6		0.28	1.1	2.1	2.1
207-08-9	Benzo(k)fluoranthene	29.4		0.64	2.1	4.2	4.2
218-01-9	Chrysene	63.8		0.23	1.1	2.1	2.1
53-70-3	Dibenzo(a,h)anthracene	13.8		0.22	1.1	2.1	2.1
206-44-0	Fluoranthene	128		0.74	2.1	4.2	4.2
86-73-7	Fluorene	2.77		0.42	1.1	2.1	2.1
193-39-5	Indeno(1,2,3-cd)pyrene	45.9		0.42	1.1	2.1	2.1
91-20-3	Naphthalene	1.32	J	0.53	1.1	2.1	2.1
85-01-8	Phenanthrene	45.5		1.2	2.1	4.2	4.2
129-00-0	Pyrene	97.6		0.64	2.1	4.2	4.2

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GNSO-03-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/L)	CTL Sample ID:	321159
% Solids:	91.3	Date Received:	08/28/2019
Conc. Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8270D	Analytical Prep Batch #	
Analytical Run #:	164485	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 21:39	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	439	J	N/A	N/A	N/A	N/A
TIC 005076-19-7	Oxirane, trimethyl-	6.56	J	N/A	N/A	N/A	N/A
TIC 000288-47-1	Thiazole	5.61	J	N/A	N/A	N/A	N/A
TIC 000141-79-7	3-Penten-2-one, 4-methyl-	5.49	J	N/A	N/A	N/A	N/A
TIC 000630-06-8	Hexatriacontane	4.35	J	N/A	N/A	N/A	N/A
TIC 000629-92-5	Nonadecane	3.16	J	N/A	N/A	N/A	N/A

CT LABORATORIES
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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GNSO-03-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.33 (g/L)	CTL Sample ID:	321159
% Solids:	91.3	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 21:39	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
92-52-4	1,1'-Biphenyl	64	U	15	64	130	130
95-94-3	1,2,4,5-Tetrachlorobenzene	64	U	23	64	130	130
120-82-1	1,2,4-Trichlorobenzene	64	U	22	64	130	130
95-50-1	1,2-Dichlorobenzene	64	U	25	64	130	130
541-73-1	1,3-Dichlorobenzene	64	U	21	64	130	130
106-46-7	1,4-Dichlorobenzene	64	U	20	64	130	130
90-12-0	1-Methylnaphthalene	64	U	27	64	130	130
58-90-2	2,3,4,6-Tetrachlorophenol	320	U	140	320	640	640
95-95-4	2,4,5-Trichlorophenol	320	U	140	320	640	640
88-06-2	2,4,6-Trichlorophenol	320	U	140	320	640	640
120-83-2	2,4-Dichlorophenol	320	U	140	320	640	640
105-67-9	2,4-Dimethylphenol	320	U	100	320	640	640
51-28-5	2,4-Dinitrophenol	640	U Q	290	640	1100	1100
121-14-2	2,4-Dinitrotoluene	64	U	25	64	130	130
87-65-0	2,6-Dichlorophenol	320	U	150	320	640	640
606-20-2	2,6-Dinitrotoluene	64	U	25	64	130	130
91-58-7	2-Chloronaphthalene	64	U	24	64	130	130
95-57-8	2-Chlorophenol	640	U	360	640	2100	2100
91-57-6	2-Methylnaphthalene	64	U	27	64	130	130
95-48-7	2-Methylphenol	640	U	450	640	2100	2100
88-74-4	2-Nitroaniline	64	U	24	64	130	130
88-75-5	2-Nitrophenol	320	U	300	320	1100	1100
1319-77-3	3 & 4-Methylphenol	1100	U	690	1100	3800	3800
91-94-1	3,3'-Dichlorobenzidine	320	U Q,Z	160	320	530	530

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GNSO-03-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.33 (g/L)	CTL Sample ID:	321159
% Solids:	91.3	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 21:39	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
99-09-2	3-Nitroaniline	130	U	23	130	210	210
534-52-1	4,6-Dinitro-2-methylphenol	320	U	290	320	1100	1100
101-55-3	4-Bromophenyl-phenyl ether	64	U	27	64	130	130
59-50-7	4-Chloro-3-methylphenol	640	U	400	640	2100	2100
106-47-8	4-Chloroaniline	64	U	41	64	210	210
7005-72-3	4-Chlorophenyl-phenyl ether	64	U	28	64	130	130
100-01-6	4-Nitroaniline	64	U	32	64	130	130
100-02-7	4-Nitrophenol	640	U	420	640	2100	2100
83-32-9	Acenaphthene	64	U	25	64	130	130
208-96-8	Acenaphthylene	64	U	25	64	130	130
98-86-2	Acetophenone	130	U	80	130	420	420
62-53-3	Aniline	64	U Q	33	64	130	130
120-12-7	Anthracene	64	U	25	64	130	130
1912-24-9	Atrazine	64	U	15	64	130	130
103-33-3/122-66-7	Azobenzene & 1,2-Diphenylhydra	130	U	58	130	250	250
100-52-7	Benzaldehyde	64	U	20	64	130	130
92-87-5	Benzidine	1600	U Z	1000	1600	5300	5300
56-55-3	Benzo(a)anthracene	81.5	J	27	64	130	130
50-32-8	Benzo(a)pyrene	63.3	J	16	64	130	130
205-99-2	Benzo(b)fluoranthene	103	J	27	64	130	130
191-24-2	Benzo(g,h,i)perylene	53.8	J Z	23	64	130	130
207-08-9	Benzo(k)fluoranthene	44.4	J	27	64	130	130
65-85-0	Benzoic acid	1600	U	310	1600	3200	3200
100-51-6	Benzyl alcohol	210	U Z	88	210	420	420

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GNSO-03-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.33 (g/L)	CTL Sample ID:	321159
% Solids:	91.3	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 21:39	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
111-91-1	Bis(2-chloroethoxy)methane	64	U	24	64	130	130
111-44-4	Bis(2-chloroethyl)ether	64	U	27	64	130	130
108-60-1	Bis(2-chloroisopropyl)ether	64	U	32	64	130	130
117-81-7	Bis(2-ethylhexyl)phthalate	130	U	92	130	420	420
85-68-7	Butylbenzylphthalate	130	U	77	130	420	420
105-60-2	Caprolactam	210	U	80	210	420	420
86-74-8	Carbazole	64	U	30	64	130	130
218-01-9	Chrysene	75.2	J	27	64	130	130
53-70-3	Dibenzo(a,h)anthracene	19.1	J	14	64	130	130
132-64-9	Dibenzofuran	64	U	25	64	130	130
84-66-2	Diethylphthalate	130	U	68	130	420	420
131-11-3	Dimethylphthalate	130	U	67	130	420	420
84-74-2	Di-n-butylphthalate	130	U	84	130	420	420
117-84-0	Di-n-octylphthalate	64	U	63	64	210	210
206-44-0	Fluoranthene	151		28	64	130	130
86-73-7	Fluorene	64	U	27	64	130	130
118-74-1	Hexachlorobenzene	64	U	30	64	130	130
87-68-3	Hexachlorobutadiene	130	U	66	130	420	420
77-47-4	Hexachlorocyclopentadiene	130	U	55	130	210	210
67-72-1	Hexachloroethane	64	U	35	64	130	130
193-39-5	Indeno(1,2,3-cd)pyrene	49.6	J	24	64	130	130
78-59-1	Isophorone	64	U	53	64	210	210
91-20-3	Naphthalene	64	U	22	64	130	130
98-95-3	Nitrobenzene	64	U	63	64	210	210

CT LABORATORIES
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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GNSO-03-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.33 (g/L)	CTL Sample ID:	321159
% Solids:	91.3	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 21:39	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
62-75-9	N-Nitrosodimethylamine	130	U	83	130	420	420
621-64-7	N-Nitroso-di-n-propylamine	130	U	74	130	420	420
86-30-6/122-39-4	N-Nitrosodiphenylamine & Diphn	130	U	53	130	250	250
930-55-2	N-Nitrosopyrrolidine	64	U	59	64	210	210
87-86-5	Pentachlorophenol	320	U	250	320	1100	1100
85-01-8	Phenanthrene	46.5	J	28	64	130	130
108-95-2	Phenol	320	U	170	320	640	640
129-00-0	Pyrene	110	J	28	64	130	130
110-86-1	Pyridine	210	U Q	41	210	420	420

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-03-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.36 (g/L)	CTL Sample ID:	321160
% Solids:	90.6	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D-SIM	Analytical Prep Batch #	73329
Analytical Run #:	164274	Dilution Factor:	10.00
Date & Time Analyzed:	09/10/2019 / 16:50	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1P082619	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
56-55-3	Benzo(a)anthracene	432		5.3	11	21	21
50-32-8	Benzo(a)pyrene	308		3.2	11	21	21
205-99-2	Benzo(b)fluoranthene	492		4.3	11	21	21
218-01-9	Chrysene	337		2.3	11	21	21
206-44-0	Fluoranthene	753		7.5	21	43	43
85-01-8	Phenanthrene	361		12	21	43	43
129-00-0	Pyrene	510		6.4	21	43	43

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-03-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.36 (g/L)	CTL Sample ID:	321160
% Solids:	90.6	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D-SIM	Analytical Prep Batch #	73329
Analytical Run #:	164274	Dilution Factor:	1.00
Date & Time Analyzed:	09/09/2019 / 21:16	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1P082619	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
90-12-0	1-Methylnaphthalene	3.97		0.43	1.1	2.1	2.1
91-57-6	2-Methylnaphthalene	4.19		0.53	1.1	2.1	2.1
83-32-9	Acenaphthene	38.9		0.53	1.1	2.1	2.1
208-96-8	Acenaphthylene	2.80		0.32	1.1	2.1	2.1
120-12-7	Anthracene	103		0.43	1.1	2.1	2.1
191-24-2	Benzo(g,h,i)perylene	190		0.28	1.1	2.1	2.1
207-08-9	Benzo(k)fluoranthene	119		0.64	2.1	4.3	4.3
53-70-3	Dibenzo(a,h)anthracene	49.0		0.22	1.1	2.1	2.1
86-73-7	Fluorene	39.9		0.43	1.1	2.1	2.1
193-39-5	Indeno(1,2,3-cd)pyrene	187		0.43	1.1	2.1	2.1
91-20-3	Naphthalene	5.45		0.53	1.1	2.1	2.1

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-03-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/L)	CTL Sample ID:	321160
% Solids:	90.6	Date Received:	08/28/2019
Conc. Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8270D	Analytical Prep Batch #	
Analytical Run #:	164485	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 21:58	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	391	J	N/A	N/A	N/A	N/A
TIC 000627-08-7	Propane, 1-(1-methylethoxy)-	12.2	J	N/A	N/A	N/A	N/A
TIC 000000-00-0	Monomethylnitrosamine	7.03	J	N/A	N/A	N/A	N/A
TIC 043142-43-4	3,5-Nonadien-7-yn-2-ol, (E,E)-	4.18	J	N/A	N/A	N/A	N/A
TIC 000141-79-7	3-Penten-2-one, 4-methyl-	4.15	J	N/A	N/A	N/A	N/A
TIC 000646-31-1	Tetracosane	3.53	J	N/A	N/A	N/A	N/A

CT LABORATORIES
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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-03-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.36 (g/L)	CTL Sample ID:	321160
% Solids:	90.6	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 21:58	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
92-52-4	1,1'-Biphenyl	64	U	15	64	130	130
95-94-3	1,2,4,5-Tetrachlorobenzene	64	U	23	64	130	130
120-82-1	1,2,4-Trichlorobenzene	64	U	22	64	130	130
95-50-1	1,2-Dichlorobenzene	64	U	26	64	130	130
541-73-1	1,3-Dichlorobenzene	64	U	21	64	130	130
106-46-7	1,4-Dichlorobenzene	64	U	20	64	130	130
90-12-0	1-Methylnaphthalene	64	U	27	64	130	130
58-90-2	2,3,4,6-Tetrachlorophenol	320	U	140	320	640	640
95-95-4	2,4,5-Trichlorophenol	320	U	140	320	640	640
88-06-2	2,4,6-Trichlorophenol	320	U	140	320	640	640
120-83-2	2,4-Dichlorophenol	320	U	140	320	640	640
105-67-9	2,4-Dimethylphenol	320	U	110	320	640	640
51-28-5	2,4-Dinitrophenol	640	U Q	290	640	1100	1100
121-14-2	2,4-Dinitrotoluene	64	U	26	64	130	130
87-65-0	2,6-Dichlorophenol	320	U	150	320	640	640
606-20-2	2,6-Dinitrotoluene	64	U	26	64	130	130
91-58-7	2-Chloronaphthalene	64	U	25	64	130	130
95-57-8	2-Chlorophenol	640	U	360	640	2100	2100
91-57-6	2-Methylnaphthalene	64	U	27	64	130	130
95-48-7	2-Methylphenol	640	U	450	640	2100	2100
88-74-4	2-Nitroaniline	64	U	25	64	130	130
88-75-5	2-Nitrophenol	320	U	300	320	1100	1100
1319-77-3	3 & 4-Methylphenol	1200	U	690	1200	3800	3800
91-94-1	3,3'-Dichlorobenzidine	320	U Q,Z	160	320	530	530

CT LABORATORIES
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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-03-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.36 (g/L)	CTL Sample ID:	321160
% Solids:	90.6	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 21:58	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
99-09-2	3-Nitroaniline	130	U	23	130	210	210
534-52-1	4,6-Dinitro-2-methylphenol	320	U	290	320	1100	1100
101-55-3	4-Bromophenyl-phenyl ether	64	U	27	64	130	130
59-50-7	4-Chloro-3-methylphenol	640	U	400	640	2100	2100
106-47-8	4-Chloroaniline	64	U	42	64	210	210
7005-72-3	4-Chlorophenyl-phenyl ether	64	U	28	64	130	130
100-01-6	4-Nitroaniline	64	U	32	64	130	130
100-02-7	4-Nitrophenol	640	U	430	640	2100	2100
83-32-9	Acenaphthene	36.8	J	26	64	130	130
208-96-8	Acenaphthylene	64	U	26	64	130	130
98-86-2	Acetophenone	130	U	80	130	430	430
62-53-3	Aniline	64	U Q	33	64	130	130
120-12-7	Anthracene	101	J	26	64	130	130
1912-24-9	Atrazine	64	U	15	64	130	130
103-33-3/122-66-7	Azobenzene & 1,2-Diphenylhydra	130	U	59	130	260	260
100-52-7	Benzaldehyde	64	U	20	64	130	130
92-87-5	Benzidine	1600	U Z	1000	1600	5300	5300
56-55-3	Benzo(a)anthracene	407		27	64	130	130
50-32-8	Benzo(a)pyrene	325		16	64	130	130
205-99-2	Benzo(b)fluoranthene	569		27	64	130	130
191-24-2	Benzo(g,h,i)perylene	206	Z	23	64	130	130
207-08-9	Benzo(k)fluoranthene	143		27	64	130	130
65-85-0	Benzoic acid	1600	U	310	1600	3200	3200
100-51-6	Benzyl alcohol	210	U Z	88	210	430	430

CT LABORATORIES
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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-03-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.36 (g/L)	CTL Sample ID:	321160
% Solids:	90.6	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 21:58	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
111-91-1	Bis(2-chloroethoxy)methane	64	U	25	64	130	130
111-44-4	Bis(2-chloroethyl)ether	64	U	27	64	130	130
108-60-1	Bis(2-chloroisopropyl)ether	64	U	32	64	130	130
117-81-7	Bis(2-ethylhexyl)phthalate	130	U	93	130	430	430
85-68-7	Butylbenzylphthalate	130	U	78	130	430	430
105-60-2	Caprolactam	210	U	80	210	430	430
86-74-8	Carbazole	105	J	30	64	130	130
218-01-9	Chrysene	381		27	64	130	130
53-70-3	Dibenzo(a,h)anthracene	47.8	J	14	64	130	130
132-64-9	Dibenzofuran	64	U	26	64	130	130
84-66-2	Diethylphthalate	130	U	68	130	430	430
131-11-3	Dimethylphthalate	130	U	67	130	430	430
84-74-2	Di-n-butylphthalate	130	U	84	130	430	430
117-84-0	Di-n-octylphthalate	64	U	63	64	210	210
206-44-0	Fluoranthene	852		28	64	130	130
86-73-7	Fluorene	29.3	J	27	64	130	130
118-74-1	Hexachlorobenzene	64	U	30	64	130	130
87-68-3	Hexachlorobutadiene	130	U	66	130	430	430
77-47-4	Hexachlorocyclopentadiene	130	U	55	130	210	210
67-72-1	Hexachloroethane	64	U	35	64	130	130
193-39-5	Indeno(1,2,3-cd)pyrene	196		25	64	130	130
78-59-1	Isophorone	64	U	53	64	210	210
91-20-3	Naphthalene	64	U	22	64	130	130
98-95-3	Nitrobenzene	64	U	63	64	210	210

CT LABORATORIES
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1B

SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-03-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.36 (g/L)	CTL Sample ID:	321160
% Solids:	90.6	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 21:58	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
62-75-9	N-Nitrosodimethylamine	130	U	83	130	430	430
621-64-7	N-Nitroso-di-n-propylamine	130	U	75	130	430	430
86-30-6/122-39-4	N-Nitrosodiphenylamine & Diphn	130	U	53	130	260	260
930-55-2	N-Nitrosopyrrolidine	64	U	60	64	210	210
87-86-5	Pentachlorophenol	320	U	260	320	1100	1100
85-01-8	Phenanthrene	413		28	64	130	130
108-95-2	Phenol	320	U	170	320	640	640
129-00-0	Pyrene	591		28	64	130	130
110-86-1	Pyridine	210	U Q	42	210	430	430

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1B

SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-04-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.17 (g/L)	CTL Sample ID:	321161
% Solids:	86.8	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D-SIM	Analytical Prep Batch #	73329
Analytical Run #:	164274	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 01:17	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1P082619	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
90-12-0	1-Methylnaphthalene	6.97		0.45	1.1	2.3	2.3
91-57-6	2-Methylnaphthalene	8.67		0.57	1.1	2.3	2.3
83-32-9	Acenaphthene	16.4		0.57	1.1	2.3	2.3
208-96-8	Acenaphthylene	7.89		0.34	1.1	2.3	2.3
120-12-7	Anthracene	44.8		0.45	1.1	2.3	2.3
56-55-3	Benzo(a)anthracene	225	M	0.57	1.1	2.3	2.3
50-32-8	Benzo(a)pyrene	177		0.34	1.1	2.3	2.3
191-24-2	Benzo(g,h,i)perylene	63.3	M,Y	0.29	1.1	2.3	2.3
207-08-9	Benzo(k)fluoranthene	77.6		0.68	2.3	4.5	4.5
218-01-9	Chrysene	198		0.25	1.1	2.3	2.3
53-70-3	Dibenzo(a,h)anthracene	19.0	M,Y	0.24	1.1	2.3	2.3
86-73-7	Fluorene	15.2		0.45	1.1	2.3	2.3
193-39-5	Indeno(1,2,3-cd)pyrene	70.3	M,Y	0.45	1.1	2.3	2.3
91-20-3	Naphthalene	4.36		0.57	1.1	2.3	2.3
85-01-8	Phenanthrene	222		1.2	2.3	4.5	4.5

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1B

SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-04-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/L)	CTL Sample ID:	321161
% Solids:	86.8	Date Received:	08/28/2019
Conc. Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8270D	Analytical Prep Batch #	
Analytical Run #:	164485	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 01:49	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	399	J	N/A	N/A	N/A	N/A
TIC 000079-39-0	Methacrylamide	11.7	J	N/A	N/A	N/A	N/A
TIC 000108-21-4	Acetic acid, 1-methylethyl ester	10.7	J	N/A	N/A	N/A	N/A
TIC 000141-79-7	3-Penten-2-one, 4-methyl-	6.77	J	N/A	N/A	N/A	N/A
TIC 056554-86-0	17-Octadecenal	5.50	J	N/A	N/A	N/A	N/A
TIC 001192-22-9	Oxirane, 3-ethyl-2,2-dimethyl-	4.89	J	N/A	N/A	N/A	N/A
TIC 056554-87-1	16-Octadecenal	4.09	J	N/A	N/A	N/A	N/A
TIC 000544-85-4	Dotriacontane	3.60	J	N/A	N/A	N/A	N/A

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description: **GN-SO-04-1**

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.17 (g/L)	CTL Sample ID:	321161
% Solids:	86.8	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 01:49	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
92-52-4	1,1'-Biphenyl	68	U	16	68	140	140
95-94-3	1,2,4,5-Tetrachlorobenzene	68	U	25	68	140	140
120-82-1	1,2,4-Trichlorobenzene	68	U	24	68	140	140
95-50-1	1,2-Dichlorobenzene	68	U	27	68	140	140
541-73-1	1,3-Dichlorobenzene	68	U	23	68	140	140
106-46-7	1,4-Dichlorobenzene	68	U	22	68	140	140
90-12-0	1-Methylnaphthalene	68	U	28	68	140	140
58-90-2	2,3,4,6-Tetrachlorophenol	340	U	150	340	680	680
95-95-4	2,4,5-Trichlorophenol	340	U	150	340	680	680
88-06-2	2,4,6-Trichlorophenol	340	U	150	340	680	680
120-83-2	2,4-Dichlorophenol	340	U	150	340	680	680
105-67-9	2,4-Dimethylphenol	340	U M	110	340	680	680
51-28-5	2,4-Dinitrophenol	680	U Q	310	680	1100	1100
121-14-2	2,4-Dinitrotoluene	68	U	27	68	140	140
87-65-0	2,6-Dichlorophenol	340	U	160	340	680	680
606-20-2	2,6-Dinitrotoluene	68	U	27	68	140	140
91-58-7	2-Chloronaphthalene	68	U	26	68	140	140
95-57-8	2-Chlorophenol	680	U	390	680	2300	2300
91-57-6	2-Methylnaphthalene	68	U	28	68	140	140
95-48-7	2-Methylphenol	680	U M,Y	480	680	2300	2300
88-74-4	2-Nitroaniline	68	U	26	68	140	140
88-75-5	2-Nitrophenol	340	U	320	340	1100	1100
1319-77-3	3 & 4-Methylphenol	1200	U Y	740	1200	4100	4100
91-94-1	3,3'-Dichlorobenzidine	340	U M,Q,Y,Z	170	340	570	570

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1B

SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-04-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.17 (g/L)	CTL Sample ID:	321161
% Solids:	86.8	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 01:49	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
99-09-2	3-Nitroaniline	140	U M	25	140	230	230
534-52-1	4,6-Dinitro-2-methylphenol	340	U	310	340	1100	1100
101-55-3	4-Bromophenyl-phenyl ether	68	U	28	68	140	140
59-50-7	4-Chloro-3-methylphenol	680	U	430	680	2300	2300
106-47-8	4-Chloroaniline	68	U Y	44	68	230	230
7005-72-3	4-Chlorophenyl-phenyl ether	68	U	29	68	140	140
100-01-6	4-Nitroaniline	68	U	34	68	140	140
100-02-7	4-Nitrophenol	680	U	450	680	2300	2300
83-32-9	Acenaphthene	68	U Y	27	68	140	140
208-96-8	Acenaphthylene	68	U	27	68	140	140
98-86-2	Acetophenone	140	U	85	140	450	450
62-53-3	Aniline	68	U M,Q	35	68	140	140
120-12-7	Anthracene	36.3	J M,Y	27	68	140	140
1912-24-9	Atrazine	68	U	16	68	140	140
103-33-3/122-66-7	Azobenzene & 1,2-Diphenylhydra	140	U	62	140	270	270
100-52-7	Benzaldehyde	68	U	22	68	140	140
92-87-5	Benzidine	1700	U Z	1100	1700	5700	5700
56-55-3	Benzo(a)anthracene	211	M,Y	28	68	140	140
50-32-8	Benzo(a)pyrene	208	M,Y	17	68	140	140
205-99-2	Benzo(b)fluoranthene	334	M,Y	28	68	140	140
191-24-2	Benzo(g,h,i)perylene	71.9	J M,Y,Z	25	68	140	140
207-08-9	Benzo(k)fluoranthene	172	M,Y	28	68	140	140
65-85-0	Benzoic acid	1700	U	330	1700	3400	3400
100-51-6	Benzyl alcohol	230	U M,Z	94	230	450	450

CT LABORATORIES
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1B

SEMIVOLATILE ORGANICS ANALYSIS

Sample Description: **GN-SO-04-1**

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.17 (g/L)	CTL Sample ID:	321161
% Solids:	86.8	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 01:49	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers		DL	LOD	LOQ	RL
111-91-1	Bis(2-chloroethoxy)methane	68	U		26	68	140	140
111-44-4	Bis(2-chloroethyl)ether	68	U		28	68	140	140
108-60-1	Bis(2-chloroisopropyl)ether	68	U		34	68	140	140
117-81-7	Bis(2-ethylhexyl)phthalate	140	U		99	140	450	450
85-68-7	Butylbenzylphthalate	140	U		83	140	450	450
105-60-2	Caprolactam	230	U		85	230	450	450
86-74-8	Carbazole	34.2	J	M,Y	32	68	140	140
218-01-9	Chrysene	230		M,Y	28	68	140	140
53-70-3	Dibenzo(a,h)anthracene	68	U	Y	15	68	140	140
132-64-9	Dibenzofuran	68	U	Y	27	68	140	140
84-66-2	Diethylphthalate	140	U		73	140	450	450
131-11-3	Dimethylphthalate	140	U		71	140	450	450
84-74-2	Di-n-butylphthalate	140	U		89	140	450	450
117-84-0	Di-n-octylphthalate	68	U		67	68	230	230
206-44-0	Fluoranthene	540		M,Y	29	68	140	140
86-73-7	Fluorene	68	U	Y	28	68	140	140
118-74-1	Hexachlorobenzene	68	U		32	68	140	140
87-68-3	Hexachlorobutadiene	140	U		70	140	450	450
77-47-4	Hexachlorocyclopentadiene	140	U	M,Y	59	140	230	230
67-72-1	Hexachloroethane	68	U		37	68	140	140
193-39-5	Indeno(1,2,3-cd)pyrene	78.6	J	M,Y	26	68	140	140
78-59-1	Isophorone	68	U		57	68	230	230
91-20-3	Naphthalene	68	U		24	68	140	140
98-95-3	Nitrobenzene	68	U		67	68	230	230

CT LABORATORIES
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1B

SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-04-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.17 (g/L)	CTL Sample ID:	321161
% Solids:	86.8	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 01:49	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
62-75-9	N-Nitrosodimethylamine	140	U	88	140	450	450
621-64-7	N-Nitroso-di-n-propylamine	140	U	79	140	450	450
86-30-6/122-39-4	N-Nitrosodiphenylamine & Diphn	140	U	57	140	270	270
930-55-2	N-Nitrosopyrrolidine	68	U	63	68	230	230
87-86-5	Pentachlorophenol	340	U	270	340	1100	1100
85-01-8	Phenanthrene	225	M,Y	29	68	140	140
108-95-2	Phenol	340	U	180	340	680	680
129-00-0	Pyrene	397	M,Y	29	68	140	140
110-86-1	Pyridine	230	U Q,Y	44	230	450	450

CT LABORATORIES
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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-04-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.17 (g/L)	CTL Sample ID:	321161
% Solids:	86.8	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D-SIM	Analytical Prep Batch #	73329
Analytical Run #:	164274	Dilution Factor:	5.00
Date & Time Analyzed:	09/10/2019 / 14:48	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1P082619	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
205-99-2	Benzo(b)fluoranthene	335		2.3	5.7	11	11
206-44-0	Fluoranthene	547	M	4.0	11	23	23
129-00-0	Pyrene	410	M	3.4	11	23	23

CT LABORATORIES
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1B

SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-04-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.52 (g/L)	CTL Sample ID:	321162
% Solids:	89.1	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D-SIM	Analytical Prep Batch #	73329
Analytical Run #:	164274	Dilution Factor:	2.00
Date & Time Analyzed:	09/10/2019 / 13:07	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1P082619	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
206-44-0	Fluoranthene	250		1.5	4.3	8.5	8.5

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-04-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.52 (g/L)	CTL Sample ID:	321162
% Solids:	89.1	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D-SIM	Analytical Prep Batch #	73329
Analytical Run #:	164274	Dilution Factor:	1.00
Date & Time Analyzed:	09/09/2019 / 21:36	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1P082619	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
90-12-0	1-Methylnaphthalene	4.07		0.43	1.1	2.1	2.1
91-57-6	2-Methylnaphthalene	4.71		0.53	1.1	2.1	2.1
83-32-9	Acenaphthene	4.54		0.53	1.1	2.1	2.1
208-96-8	Acenaphthylene	7.11		0.32	1.1	2.1	2.1
120-12-7	Anthracene	18.1		0.43	1.1	2.1	2.1
56-55-3	Benzo(a)anthracene	126		0.53	1.1	2.1	2.1
50-32-8	Benzo(a)pyrene	99.8		0.32	1.1	2.1	2.1
205-99-2	Benzo(b)fluoranthene	169		0.43	1.1	2.1	2.1
191-24-2	Benzo(g,h,i)perylene	77.5		0.28	1.1	2.1	2.1
207-08-9	Benzo(k)fluoranthene	39.2		0.64	2.1	4.3	4.3
218-01-9	Chrysene	108		0.23	1.1	2.1	2.1
53-70-3	Dibenzo(a,h)anthracene	19.1		0.22	1.1	2.1	2.1
86-73-7	Fluorene	6.22		0.43	1.1	2.1	2.1
193-39-5	Indeno(1,2,3-cd)pyrene	74.0		0.43	1.1	2.1	2.1
91-20-3	Naphthalene	3.41		0.53	1.1	2.1	2.1
85-01-8	Phenanthrene	108		1.2	2.1	4.3	4.3
129-00-0	Pyrene	194		0.64	2.1	4.3	4.3

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1B

SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-04-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/L)	CTL Sample ID:	321162
% Solids:	89.1	Date Received:	08/28/2019
Conc. Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8270D	Analytical Prep Batch #	
Analytical Run #:	164485	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 22:16	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	444	J	N/A	N/A	N/A	N/A
TIC 003031-75-2	Hydroperoxide, 1-methylethyl	14.4	J	N/A	N/A	N/A	N/A
TIC 000000-00-0	Monomethylnitrosamine	11.7	J	N/A	N/A	N/A	N/A
TIC 000141-79-7	3-Penten-2-one, 4-methyl-	5.38	J	N/A	N/A	N/A	N/A
TIC 010473-13-9	3-Buten-2-ol, 2,3-dimethyl-	4.92	J	N/A	N/A	N/A	N/A
TIC 000057-71-6	2,3-Butanedione, monooxime	4.71	J	N/A	N/A	N/A	N/A

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-04-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.52 (g/L)	CTL Sample ID:	321162
% Solids:	89.1	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 22:16	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
92-52-4	1,1'-Biphenyl	64	U	15	64	130	130
95-94-3	1,2,4,5-Tetrachlorobenzene	64	U	23	64	130	130
120-82-1	1,2,4-Trichlorobenzene	64	U	22	64	130	130
95-50-1	1,2-Dichlorobenzene	64	U	26	64	130	130
541-73-1	1,3-Dichlorobenzene	64	U	21	64	130	130
106-46-7	1,4-Dichlorobenzene	64	U	20	64	130	130
90-12-0	1-Methylnaphthalene	64	U	27	64	130	130
58-90-2	2,3,4,6-Tetrachlorophenol	320	U	140	320	640	640
95-95-4	2,4,5-Trichlorophenol	320	U	140	320	640	640
88-06-2	2,4,6-Trichlorophenol	320	U	140	320	640	640
120-83-2	2,4-Dichlorophenol	320	U	140	320	640	640
105-67-9	2,4-Dimethylphenol	320	U	110	320	640	640
51-28-5	2,4-Dinitrophenol	640	U Q	290	640	1100	1100
121-14-2	2,4-Dinitrotoluene	64	U	26	64	130	130
87-65-0	2,6-Dichlorophenol	320	U	150	320	640	640
606-20-2	2,6-Dinitrotoluene	64	U	26	64	130	130
91-58-7	2-Chloronaphthalene	64	U	25	64	130	130
95-57-8	2-Chlorophenol	640	U	360	640	2100	2100
91-57-6	2-Methylnaphthalene	64	U	27	64	130	130
95-48-7	2-Methylphenol	640	U	450	640	2100	2100
88-74-4	2-Nitroaniline	64	U	25	64	130	130
88-75-5	2-Nitrophenol	320	U	300	320	1100	1100
1319-77-3	3 & 4-Methylphenol	1200	U	690	1200	3800	3800
91-94-1	3,3'-Dichlorobenzidine	320	U Q,Z	160	320	530	530

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-04-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.52 (g/L)	CTL Sample ID:	321162
% Solids:	89.1	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 22:16	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
99-09-2	3-Nitroaniline	130	U	23	130	210	210
534-52-1	4,6-Dinitro-2-methylphenol	320	U	290	320	1100	1100
101-55-3	4-Bromophenyl-phenyl ether	64	U	27	64	130	130
59-50-7	4-Chloro-3-methylphenol	640	U	410	640	2100	2100
106-47-8	4-Chloroaniline	64	U	42	64	210	210
7005-72-3	4-Chlorophenyl-phenyl ether	64	U	28	64	130	130
100-01-6	4-Nitroaniline	64	U	32	64	130	130
100-02-7	4-Nitrophenol	640	U	430	640	2100	2100
83-32-9	Acenaphthene	64	U	26	64	130	130
208-96-8	Acenaphthylene	64	U	26	64	130	130
98-86-2	Acetophenone	130	U	80	130	430	430
62-53-3	Aniline	64	U Q	33	64	130	130
120-12-7	Anthracene	64	U	26	64	130	130
1912-24-9	Atrazine	64	U	15	64	130	130
103-33-3/122-66-7	Azobenzene & 1,2-Diphenylhydra	130	U	59	130	260	260
100-52-7	Benzaldehyde	64	U	20	64	130	130
92-87-5	Benzidine	1600	U Z	1000	1600	5300	5300
56-55-3	Benzo(a)anthracene	117	J	27	64	130	130
50-32-8	Benzo(a)pyrene	117	J	16	64	130	130
205-99-2	Benzo(b)fluoranthene	182		27	64	130	130
191-24-2	Benzo(g,h,i)perylene	86.0	J Z	23	64	130	130
207-08-9	Benzo(k)fluoranthene	74.5	J	27	64	130	130
65-85-0	Benzoic acid	1600	U	310	1600	3200	3200
100-51-6	Benzyl alcohol	210	U Z	89	210	430	430

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description: **GN-SO-04-2**

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.52 (g/L)	CTL Sample ID:	321162
% Solids:	89.1	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 22:16	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
111-91-1	Bis(2-chloroethoxy)methane	64	U	25	64	130	130
111-44-4	Bis(2-chloroethyl)ether	64	U	27	64	130	130
108-60-1	Bis(2-chloroisopropyl)ether	64	U	32	64	130	130
117-81-7	Bis(2-ethylhexyl)phthalate	130	U	93	130	430	430
85-68-7	Butylbenzylphthalate	130	U	78	130	430	430
105-60-2	Caprolactam	210	U	80	210	430	430
86-74-8	Carbazole	64	U	30	64	130	130
218-01-9	Chrysene	124	J	27	64	130	130
53-70-3	Dibenzo(a,h)anthracene	18.2	J	14	64	130	130
132-64-9	Dibenzofuran	64	U	26	64	130	130
84-66-2	Diethylphthalate	130	U	68	130	430	430
131-11-3	Dimethylphthalate	130	U	67	130	430	430
84-74-2	Di-n-butylphthalate	130	U	84	130	430	430
117-84-0	Di-n-octylphthalate	64	U	63	64	210	210
206-44-0	Fluoranthene	287		28	64	130	130
86-73-7	Fluorene	64	U	27	64	130	130
118-74-1	Hexachlorobenzene	64	U	30	64	130	130
87-68-3	Hexachlorobutadiene	130	U	66	130	430	430
77-47-4	Hexachlorocyclopentadiene	130	U	55	130	210	210
67-72-1	Hexachloroethane	64	U	35	64	130	130
193-39-5	Indeno(1,2,3-cd)pyrene	78.3	J	25	64	130	130
78-59-1	Isophorone	64	U	53	64	210	210
91-20-3	Naphthalene	64	U	22	64	130	130
98-95-3	Nitrobenzene	64	U	63	64	210	210

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-04-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.52 (g/L)	CTL Sample ID:	321162
% Solids:	89.1	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 22:16	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
62-75-9	N-Nitrosodimethylamine	130	U	83	130	430	430
621-64-7	N-Nitroso-di-n-propylamine	130	U	75	130	430	430
86-30-6/122-39-4	N-Nitrosodiphenylamine & Diphn	130	U	53	130	260	260
930-55-2	N-Nitrosopyrrolidine	64	U	60	64	210	210
87-86-5	Pentachlorophenol	320	U	260	320	1100	1100
85-01-8	Phenanthrene	107	J	28	64	130	130
108-95-2	Phenol	320	U	170	320	640	640
129-00-0	Pyrene	210		28	64	130	130
110-86-1	Pyridine	210	U Q	42	210	430	430

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-05-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.24 (g/L)	CTL Sample ID:	321163
% Solids:	96.2	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D-SIM	Analytical Prep Batch #	73329
Analytical Run #:	164274	Dilution Factor:	2.00
Date & Time Analyzed:	09/10/2019 / 13:27	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1P082619	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
206-44-0	Fluoranthene	219		1.4	4.1	8.1	8.1

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-05-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.24 (g/L)	CTL Sample ID:	321163
% Solids:	96.2	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D-SIM	Analytical Prep Batch #	73329
Analytical Run #:	164274	Dilution Factor:	1.00
Date & Time Analyzed:	09/09/2019 / 21:56	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1P082619	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
90-12-0	1-Methylnaphthalene	62.0		0.41	1.0	2.0	2.0
91-57-6	2-Methylnaphthalene	50.8		0.51	1.0	2.0	2.0
83-32-9	Acenaphthene	6.08		0.51	1.0	2.0	2.0
208-96-8	Acenaphthylene	9.57		0.30	1.0	2.0	2.0
120-12-7	Anthracene	16.7		0.41	1.0	2.0	2.0
56-55-3	Benzo(a)anthracene	124		0.51	1.0	2.0	2.0
50-32-8	Benzo(a)pyrene	98.3		0.30	1.0	2.0	2.0
205-99-2	Benzo(b)fluoranthene	183		0.41	1.0	2.0	2.0
191-24-2	Benzo(g,h,i)perylene	48.8		0.26	1.0	2.0	2.0
207-08-9	Benzo(k)fluoranthene	44.6		0.61	2.0	4.1	4.1
218-01-9	Chrysene	116		0.22	1.0	2.0	2.0
53-70-3	Dibenzo(a,h)anthracene	15.1		0.21	1.0	2.0	2.0
86-73-7	Fluorene	6.51		0.41	1.0	2.0	2.0
193-39-5	Indeno(1,2,3-cd)pyrene	45.2		0.41	1.0	2.0	2.0
91-20-3	Naphthalene	15.5		0.51	1.0	2.0	2.0
85-01-8	Phenanthrene	160		1.1	2.0	4.1	4.1
129-00-0	Pyrene	178		0.61	2.0	4.1	4.1

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-05-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/L)	CTL Sample ID:	321163
% Solids:	96.2	Date Received:	08/28/2019
Conc. Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8270D	Analytical Prep Batch #	
Analytical Run #:	164485	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 22:36	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	472	J	N/A	N/A	N/A	N/A
TIC 000079-39-0	Methacrylamide	24.7	J	N/A	N/A	N/A	N/A
TIC 000108-21-4	Acetic acid, 1-methylethyl ester	8.36	J	N/A	N/A	N/A	N/A
TIC 000107-41-5	Hexylene Glycol	8.26	J	N/A	N/A	N/A	N/A
TIC 000141-79-7	3-Penten-2-one, 4-methyl-	6.63	J	N/A	N/A	N/A	N/A
TIC 000629-62-9	Pentadecane	5.09	J	N/A	N/A	N/A	N/A
TIC 000629-94-7	Heneicosane	4.22	J	N/A	N/A	N/A	N/A
TIC 006975-98-0	Decane, 2-methyl-	3.86	J	N/A	N/A	N/A	N/A
TIC 000112-95-8	Eicosane	3.80	J	N/A	N/A	N/A	N/A

CT LABORATORIES
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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description: **GN-SO-05-1**

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.24 (g/L)	CTL Sample ID:	321163
% Solids:	96.2	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 22:36	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
92-52-4	1,1'-Biphenyl	61	U	14	61	120	120
95-94-3	1,2,4,5-Tetrachlorobenzene	61	U	22	61	120	120
120-82-1	1,2,4-Trichlorobenzene	61	U	21	61	120	120
95-50-1	1,2-Dichlorobenzene	61	U	24	61	120	120
541-73-1	1,3-Dichlorobenzene	61	U	20	61	120	120
106-46-7	1,4-Dichlorobenzene	61	U	19	61	120	120
90-12-0	1-Methylnaphthalene	61.4	J	25	61	120	120
58-90-2	2,3,4,6-Tetrachlorophenol	300	U	130	300	610	610
95-95-4	2,4,5-Trichlorophenol	300	U	130	300	610	610
88-06-2	2,4,6-Trichlorophenol	300	U	130	300	610	610
120-83-2	2,4-Dichlorophenol	300	U	130	300	610	610
105-67-9	2,4-Dimethylphenol	300	U	100	300	610	610
51-28-5	2,4-Dinitrophenol	610	U Q	270	610	1000	1000
121-14-2	2,4-Dinitrotoluene	61	U	24	61	120	120
87-65-0	2,6-Dichlorophenol	300	U	140	300	610	610
606-20-2	2,6-Dinitrotoluene	61	U	24	61	120	120
91-58-7	2-Chloronaphthalene	61	U	23	61	120	120
95-57-8	2-Chlorophenol	610	U	350	610	2000	2000
91-57-6	2-Methylnaphthalene	39.7	J	25	61	120	120
95-48-7	2-Methylphenol	610	U	430	610	2000	2000
88-74-4	2-Nitroaniline	61	U	23	61	120	120
88-75-5	2-Nitrophenol	300	U	280	300	1000	1000
1319-77-3	3 & 4-Methylphenol	1100	U	660	1100	3700	3700
91-94-1	3,3'-Dichlorobenzidine	300	U Q,Z	150	300	510	510

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-05-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.24 (g/L)	CTL Sample ID:	321163
% Solids:	96.2	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 22:36	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
99-09-2	3-Nitroaniline	120	U	22	120	200	200
534-52-1	4,6-Dinitro-2-methylphenol	300	U	270	300	1000	1000
101-55-3	4-Bromophenyl-phenyl ether	61	U	25	61	120	120
59-50-7	4-Chloro-3-methylphenol	610	U	390	610	2000	2000
106-47-8	4-Chloroaniline	61	U	40	61	200	200
7005-72-3	4-Chlorophenyl-phenyl ether	61	U	26	61	120	120
100-01-6	4-Nitroaniline	61	U	30	61	120	120
100-02-7	4-Nitrophenol	610	U	410	610	2000	2000
83-32-9	Acenaphthene	61	U	24	61	120	120
208-96-8	Acenaphthylene	61	U	24	61	120	120
98-86-2	Acetophenone	120	U	76	120	410	410
62-53-3	Aniline	61	U Q	31	61	120	120
120-12-7	Anthracene	61	U	24	61	120	120
1912-24-9	Atrazine	61	U	14	61	120	120
103-33-3/122-66-7	Azobenzene & 1,2-Diphenylhydra	120	U	56	120	240	240
100-52-7	Benzaldehyde	91.6	J	19	61	120	120
92-87-5	Benzidine	1500	U Z	960	1500	5100	5100
56-55-3	Benzo(a)anthracene	110	J	25	61	120	120
50-32-8	Benzo(a)pyrene	117	J	15	61	120	120
205-99-2	Benzo(b)fluoranthene	222		25	61	120	120
191-24-2	Benzo(g,h,i)perylene	49.4	J Z	22	61	120	120
207-08-9	Benzo(k)fluoranthene	58.4	J	25	61	120	120
65-85-0	Benzoic acid	1500	U	300	1500	3000	3000
100-51-6	Benzyl alcohol	200	U Z	84	200	410	410

CT LABORATORIES
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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description: **GN-SO-05-1**

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.24 (g/L)	CTL Sample ID:	321163
% Solids:	96.2	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 22:36	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
111-91-1	Bis(2-chloroethoxy)methane	61	U	23	61	120	120
111-44-4	Bis(2-chloroethyl)ether	61	U	25	61	120	120
108-60-1	Bis(2-chloroisopropyl)ether	61	U	30	61	120	120
117-81-7	Bis(2-ethylhexyl)phthalate	120	U	88	120	410	410
85-68-7	Butylbenzylphthalate	120	U	74	120	410	410
105-60-2	Caprolactam	200	U	76	200	410	410
86-74-8	Carbazole	61	U	28	61	120	120
218-01-9	Chrysene	132		25	61	120	120
53-70-3	Dibenzo(a,h)anthracene	16.0	J	13	61	120	120
132-64-9	Dibenzofuran	27.3	J	24	61	120	120
84-66-2	Diethylphthalate	120	U	65	120	410	410
131-11-3	Dimethylphthalate	120	U	64	120	410	410
84-74-2	Di-n-butylphthalate	120	U	80	120	410	410
117-84-0	Di-n-octylphthalate	61	U	60	61	200	200
206-44-0	Fluoranthene	253		26	61	120	120
86-73-7	Fluorene	61	U	25	61	120	120
118-74-1	Hexachlorobenzene	61	U	28	61	120	120
87-68-3	Hexachlorobutadiene	120	U	63	120	410	410
77-47-4	Hexachlorocyclopentadiene	120	U	53	120	200	200
67-72-1	Hexachloroethane	61	U	33	61	120	120
193-39-5	Indeno(1,2,3-cd)pyrene	48.2	J	23	61	120	120
78-59-1	Isophorone	61	U	51	61	200	200
91-20-3	Naphthalene	61	U	21	61	120	120
98-95-3	Nitrobenzene	61	U	60	61	200	200

CT LABORATORIES
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1B

SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-05-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.24 (g/L)	CTL Sample ID:	321163
% Solids:	96.2	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 22:36	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
62-75-9	N-Nitrosodimethylamine	120	U	79	120	410	410
621-64-7	N-Nitroso-di-n-propylamine	120	U	71	120	410	410
86-30-6/122-39-4	N-Nitrosodiphenylamine & Diphn	120	U	51	120	240	240
930-55-2	N-Nitrosopyrrolidine	61	U	57	61	200	200
87-86-5	Pentachlorophenol	300	U	240	300	1000	1000
85-01-8	Phenanthrene	159		26	61	120	120
108-95-2	Phenol	300	U	160	300	610	610
129-00-0	Pyrene	196		26	61	120	120
110-86-1	Pyridine	200	U Q	40	200	410	410

CT LABORATORIES
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1B

SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-05-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.24 (g/L)	CTL Sample ID:	321164
% Solids:	86.8	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D-SIM	Analytical Prep Batch #	73329
Analytical Run #:	164274	Dilution Factor:	1.00
Date & Time Analyzed:	09/09/2019 / 22:16	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1P082619	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
90-12-0	1-Methylnaphthalene	4.94		0.45	1.1	2.3	2.3
91-57-6	2-Methylnaphthalene	4.81		0.56	1.1	2.3	2.3
83-32-9	Acenaphthene	2.07	J	0.56	1.1	2.3	2.3
208-96-8	Acenaphthylene	2.79		0.34	1.1	2.3	2.3
120-12-7	Anthracene	6.63		0.45	1.1	2.3	2.3
56-55-3	Benzo(a)anthracene	56.9		0.56	1.1	2.3	2.3
50-32-8	Benzo(a)pyrene	42.8		0.34	1.1	2.3	2.3
205-99-2	Benzo(b)fluoranthene	70.9		0.45	1.1	2.3	2.3
191-24-2	Benzo(g,h,i)perylene	23.5		0.29	1.1	2.3	2.3
207-08-9	Benzo(k)fluoranthene	18.2		0.68	2.3	4.5	4.5
218-01-9	Chrysene	43.8		0.25	1.1	2.3	2.3
53-70-3	Dibenzo(a,h)anthracene	8.26		0.24	1.1	2.3	2.3
206-44-0	Fluoranthene	101		0.79	2.3	4.5	4.5
86-73-7	Fluorene	2.79		0.45	1.1	2.3	2.3
193-39-5	Indeno(1,2,3-cd)pyrene	24.1		0.45	1.1	2.3	2.3
91-20-3	Naphthalene	1.87	J	0.56	1.1	2.3	2.3
85-01-8	Phenanthrene	51.1		1.2	2.3	4.5	4.5
129-00-0	Pyrene	79.8		0.68	2.3	4.5	4.5

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-05-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/L)	CTL Sample ID:	321164
% Solids:	86.8	Date Received:	08/28/2019
Conc. Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8270D	Analytical Prep Batch #	
Analytical Run #:	164485	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 22:55	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	433	J	N/A	N/A	N/A	N/A
TIC 005185-97-7	2-Pentanone, 5-(acetyloxy)-	12.1	J	N/A	N/A	N/A	N/A
TIC 000695-06-7	2(3H)-Furanone, 5-ethyldihydro-	10.5	J	N/A	N/A	N/A	N/A
TIC 000141-79-7	3-Penten-2-one, 4-methyl-	5.46	J	N/A	N/A	N/A	N/A

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description: **GN-SO-05-2**

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.24 (g/L)	CTL Sample ID:	321164
% Solids:	86.8	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 22:55	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
92-52-4	1,1'-Biphenyl	68	U	16	68	140	140
95-94-3	1,2,4,5-Tetrachlorobenzene	68	U	25	68	140	140
120-82-1	1,2,4-Trichlorobenzene	68	U	24	68	140	140
95-50-1	1,2-Dichlorobenzene	68	U	27	68	140	140
541-73-1	1,3-Dichlorobenzene	68	U	23	68	140	140
106-46-7	1,4-Dichlorobenzene	68	U	21	68	140	140
90-12-0	1-Methylnaphthalene	68	U	28	68	140	140
58-90-2	2,3,4,6-Tetrachlorophenol	340	U	150	340	680	680
95-95-4	2,4,5-Trichlorophenol	340	U	150	340	680	680
88-06-2	2,4,6-Trichlorophenol	340	U	150	340	680	680
120-83-2	2,4-Dichlorophenol	340	U	150	340	680	680
105-67-9	2,4-Dimethylphenol	340	U	110	340	680	680
51-28-5	2,4-Dinitrophenol	680	U Q	300	680	1100	1100
121-14-2	2,4-Dinitrotoluene	68	U	27	68	140	140
87-65-0	2,6-Dichlorophenol	340	U	160	340	680	680
606-20-2	2,6-Dinitrotoluene	68	U	27	68	140	140
91-58-7	2-Chloronaphthalene	68	U	26	68	140	140
95-57-8	2-Chlorophenol	680	U	380	680	2300	2300
91-57-6	2-Methylnaphthalene	68	U	28	68	140	140
95-48-7	2-Methylphenol	680	U	470	680	2300	2300
88-74-4	2-Nitroaniline	68	U	26	68	140	140
88-75-5	2-Nitrophenol	340	U	320	340	1100	1100
1319-77-3	3 & 4-Methylphenol	1200	U	730	1200	4100	4100
91-94-1	3,3'-Dichlorobenzidine	340	U Q,Z	170	340	560	560

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-05-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.24 (g/L)	CTL Sample ID:	321164
% Solids:	86.8	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 22:55	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
99-09-2	3-Nitroaniline	140	U	25	140	230	230
534-52-1	4,6-Dinitro-2-methylphenol	340	U	300	340	1100	1100
101-55-3	4-Bromophenyl-phenyl ether	68	U	28	68	140	140
59-50-7	4-Chloro-3-methylphenol	680	U	430	680	2300	2300
106-47-8	4-Chloroaniline	68	U	44	68	230	230
7005-72-3	4-Chlorophenyl-phenyl ether	68	U	29	68	140	140
100-01-6	4-Nitroaniline	68	U	34	68	140	140
100-02-7	4-Nitrophenol	680	U	450	680	2300	2300
83-32-9	Acenaphthene	68	U	27	68	140	140
208-96-8	Acenaphthylene	68	U	27	68	140	140
98-86-2	Acetophenone	140	U	84	140	450	450
62-53-3	Aniline	68	U Q	35	68	140	140
120-12-7	Anthracene	68	U	27	68	140	140
1912-24-9	Atrazine	68	U	16	68	140	140
103-33-3/122-66-7	Azobenzene & 1,2-Diphenylhydra	140	U	62	140	270	270
100-52-7	Benzaldehyde	68	U	21	68	140	140
92-87-5	Benzidine	1700	U Z	1100	1700	5600	5600
56-55-3	Benzo(a)anthracene	47.5	J	28	68	140	140
50-32-8	Benzo(a)pyrene	40.3	J	17	68	140	140
205-99-2	Benzo(b)fluoranthene	78.1	J	28	68	140	140
191-24-2	Benzo(g,h,i)perylene	68	U Z	25	68	140	140
207-08-9	Benzo(k)fluoranthene	68	U	28	68	140	140
65-85-0	Benzoic acid	1700	U	330	1700	3400	3400
100-51-6	Benzyl alcohol	230	U Z	93	230	450	450

CT LABORATORIES
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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description: **GN-SO-05-2**

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.24 (g/L)	CTL Sample ID:	321164
% Solids:	86.8	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 22:55	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
111-91-1	Bis(2-chloroethoxy)methane	68	U	26	68	140	140
111-44-4	Bis(2-chloroethyl)ether	68	U	28	68	140	140
108-60-1	Bis(2-chloroisopropyl)ether	68	U	34	68	140	140
117-81-7	Bis(2-ethylhexyl)phthalate	140	U	98	140	450	450
85-68-7	Butylbenzylphthalate	140	U	82	140	450	450
105-60-2	Caprolactam	230	U	84	230	450	450
86-74-8	Carbazole	68	U	32	68	140	140
218-01-9	Chrysene	53.4	J	28	68	140	140
53-70-3	Dibenzo(a,h)anthracene	68	U	15	68	140	140
132-64-9	Dibenzofuran	68	U	27	68	140	140
84-66-2	Diethylphthalate	140	U	72	140	450	450
131-11-3	Dimethylphthalate	140	U	71	140	450	450
84-74-2	Di-n-butylphthalate	140	U	89	140	450	450
117-84-0	Di-n-octylphthalate	68	U	66	68	230	230
206-44-0	Fluoranthene	120	J	29	68	140	140
86-73-7	Fluorene	68	U	28	68	140	140
118-74-1	Hexachlorobenzene	68	U	32	68	140	140
87-68-3	Hexachlorobutadiene	140	U	70	140	450	450
77-47-4	Hexachlorocyclopentadiene	140	U	59	140	230	230
67-72-1	Hexachloroethane	68	U	37	68	140	140
193-39-5	Indeno(1,2,3-cd)pyrene	68	U	26	68	140	140
78-59-1	Isophorone	68	U	56	68	230	230
91-20-3	Naphthalene	68	U	24	68	140	140
98-95-3	Nitrobenzene	68	U	66	68	230	230

CT LABORATORIES
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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-05-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.24 (g/L)	CTL Sample ID:	321164
% Solids:	86.8	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 22:55	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
62-75-9	N-Nitrosodimethylamine	140	U	88	140	450	450
621-64-7	N-Nitroso-di-n-propylamine	140	U	79	140	450	450
86-30-6/122-39-4	N-Nitrosodiphenylamine & Diphn	140	U	56	140	270	270
930-55-2	N-Nitrosopyrrolidine	68	U	63	68	230	230
87-86-5	Pentachlorophenol	340	U	270	340	1100	1100
85-01-8	Phenanthrene	50.5	J	29	68	140	140
108-95-2	Phenol	340	U	180	340	680	680
129-00-0	Pyrene	85.1	J	29	68	140	140
110-86-1	Pyridine	230	U Q	44	230	450	450

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-06-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.76 (g/L)	CTL Sample ID:	321166
% Solids:	96.7	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D-SIM	Analytical Prep Batch #	73329
Analytical Run #:	164274	Dilution Factor:	1.00
Date & Time Analyzed:	09/09/2019 / 22:56	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1P082619	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
90-12-0	1-Methylnaphthalene	2.26		0.38	0.96	1.9	1.9
91-57-6	2-Methylnaphthalene	2.71		0.48	0.96	1.9	1.9
83-32-9	Acenaphthene	1.67	J	0.48	0.96	1.9	1.9
208-96-8	Acenaphthylene	3.87		0.29	0.96	1.9	1.9
120-12-7	Anthracene	4.47		0.38	0.96	1.9	1.9
56-55-3	Benzo(a)anthracene	39.9		0.48	0.96	1.9	1.9
50-32-8	Benzo(a)pyrene	33.5		0.29	0.96	1.9	1.9
205-99-2	Benzo(b)fluoranthene	61.7		0.38	0.96	1.9	1.9
191-24-2	Benzo(g,h,i)perylene	20.7		0.25	0.96	1.9	1.9
207-08-9	Benzo(k)fluoranthene	17.6		0.58	1.9	3.8	3.8
218-01-9	Chrysene	36.8		0.21	0.96	1.9	1.9
53-70-3	Dibenzo(a,h)anthracene	6.83		0.20	0.96	1.9	1.9
206-44-0	Fluoranthene	71.6		0.67	1.9	3.8	3.8
86-73-7	Fluorene	1.89	J	0.38	0.96	1.9	1.9
193-39-5	Indeno(1,2,3-cd)pyrene	19.0		0.38	0.96	1.9	1.9
91-20-3	Naphthalene	1.31	J	0.48	0.96	1.9	1.9
85-01-8	Phenanthrene	27.9		1.1	1.9	3.8	3.8
129-00-0	Pyrene	57.5		0.58	1.9	3.8	3.8

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-06-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/L)	CTL Sample ID:	321166
% Solids:	96.7	Date Received:	08/28/2019
Conc. Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8270D	Analytical Prep Batch #	
Analytical Run #:	164485	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 23:33	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	455	J	N/A	N/A	N/A	N/A
TIC 000000-00-0	Monomethylnitrosamine	16.1	J	N/A	N/A	N/A	N/A
TIC 000108-21-4	Acetic acid, 1-methylethyl ester	14.5	J	N/A	N/A	N/A	N/A
TIC 010473-13-9	3-Buten-2-ol, 2,3-dimethyl-	6.39	J	N/A	N/A	N/A	N/A
TIC 000141-79-7	3-Penten-2-one, 4-methyl-	5.61	J	N/A	N/A	N/A	N/A
TIC 000630-06-8	Hexatriacontane	4.95	J	N/A	N/A	N/A	N/A
TIC 000108-37-2	Benzene, 1-bromo-3-chloro-	4.66	J	N/A	N/A	N/A	N/A

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description: **GN-SO-06-1**

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.76 (g/L)	CTL Sample ID:	321166
% Solids:	96.7	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 23:33	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
92-52-4	1,1'-Biphenyl	58	U	13	58	120	120
95-94-3	1,2,4,5-Tetrachlorobenzene	58	U	21	58	120	120
120-82-1	1,2,4-Trichlorobenzene	58	U	20	58	120	120
95-50-1	1,2-Dichlorobenzene	58	U	23	58	120	120
541-73-1	1,3-Dichlorobenzene	58	U	19	58	120	120
106-46-7	1,4-Dichlorobenzene	58	U	18	58	120	120
90-12-0	1-Methylnaphthalene	58	U	24	58	120	120
58-90-2	2,3,4,6-Tetrachlorophenol	290	U	120	290	580	580
95-95-4	2,4,5-Trichlorophenol	290	U	120	290	580	580
88-06-2	2,4,6-Trichlorophenol	290	U	120	290	580	580
120-83-2	2,4-Dichlorophenol	290	U	120	290	580	580
105-67-9	2,4-Dimethylphenol	290	U	95	290	580	580
51-28-5	2,4-Dinitrophenol	580	U Q	260	580	960	960
121-14-2	2,4-Dinitrotoluene	58	U	23	58	120	120
87-65-0	2,6-Dichlorophenol	290	U	130	290	580	580
606-20-2	2,6-Dinitrotoluene	58	U	23	58	120	120
91-58-7	2-Chloronaphthalene	58	U	22	58	120	120
95-57-8	2-Chlorophenol	580	U	330	580	1900	1900
91-57-6	2-Methylnaphthalene	58	U	24	58	120	120
95-48-7	2-Methylphenol	580	U	400	580	1900	1900
88-74-4	2-Nitroaniline	58	U	22	58	120	120
88-75-5	2-Nitrophenol	290	U	270	290	960	960
1319-77-3	3 & 4-Methylphenol	1000	U	620	1000	3500	3500
91-94-1	3,3'-Dichlorobenzidine	290	U Q,Z	140	290	480	480

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-06-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.76 (g/L)	CTL Sample ID:	321166
% Solids:	96.7	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 23:33	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
99-09-2	3-Nitroaniline	120	U	21	120	190	190
534-52-1	4,6-Dinitro-2-methylphenol	290	U	260	290	960	960
101-55-3	4-Bromophenyl-phenyl ether	58	U	24	58	120	120
59-50-7	4-Chloro-3-methylphenol	580	U	370	580	1900	1900
106-47-8	4-Chloroaniline	58	U	37	58	190	190
7005-72-3	4-Chlorophenyl-phenyl ether	58	U	25	58	120	120
100-01-6	4-Nitroaniline	58	U	29	58	120	120
100-02-7	4-Nitrophenol	580	U	380	580	1900	1900
83-32-9	Acenaphthene	58	U	23	58	120	120
208-96-8	Acenaphthylene	58	U	23	58	120	120
98-86-2	Acetophenone	120	U	72	120	380	380
62-53-3	Aniline	58	U Q	30	58	120	120
120-12-7	Anthracene	58	U	23	58	120	120
1912-24-9	Atrazine	58	U	13	58	120	120
103-33-3/122-66-7	Azobenzene & 1,2-Diphenylhydra	120	U	53	120	230	230
100-52-7	Benzaldehyde	58	U	18	58	120	120
92-87-5	Benzidine	1400	U Z	910	1400	4800	4800
56-55-3	Benzo(a)anthracene	37.4	J	24	58	120	120
50-32-8	Benzo(a)pyrene	32.4	J	14	58	120	120
205-99-2	Benzo(b)fluoranthene	72.6	J	24	58	120	120
191-24-2	Benzo(g,h,i)perylene	58	U Z	21	58	120	120
207-08-9	Benzo(k)fluoranthene	58	U	24	58	120	120
65-85-0	Benzoic acid	1400	U	280	1400	2900	2900
100-51-6	Benzyl alcohol	190	U Z	80	190	380	380

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-06-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.76 (g/L)	CTL Sample ID:	321166
% Solids:	96.7	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 23:33	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
111-91-1	Bis(2-chloroethoxy)methane	58	U	22	58	120	120
111-44-4	Bis(2-chloroethyl)ether	58	U	24	58	120	120
108-60-1	Bis(2-chloroisopropyl)ether	58	U	29	58	120	120
117-81-7	Bis(2-ethylhexyl)phthalate	120	U	84	120	380	380
85-68-7	Butylbenzylphthalate	120	U	70	120	380	380
105-60-2	Caprolactam	190	U	72	190	380	380
86-74-8	Carbazole	58	U	27	58	120	120
218-01-9	Chrysene	43.6	J	24	58	120	120
53-70-3	Dibenzo(a,h)anthracene	58	U	12	58	120	120
132-64-9	Dibenzofuran	58	U	23	58	120	120
84-66-2	Diethylphthalate	120	U	62	120	380	380
131-11-3	Dimethylphthalate	120	U	61	120	380	380
84-74-2	Di-n-butylphthalate	120	U	76	120	380	380
117-84-0	Di-n-octylphthalate	58	U	57	58	190	190
206-44-0	Fluoranthene	87.8	J	25	58	120	120
86-73-7	Fluorene	58	U	24	58	120	120
118-74-1	Hexachlorobenzene	58	U	27	58	120	120
87-68-3	Hexachlorobutadiene	120	U	60	120	380	380
77-47-4	Hexachlorocyclopentadiene	120	U	50	120	190	190
67-72-1	Hexachloroethane	58	U	32	58	120	120
193-39-5	Indeno(1,2,3-cd)pyrene	58	U	22	58	120	120
78-59-1	Isophorone	58	U	48	58	190	190
91-20-3	Naphthalene	58	U	20	58	120	120
98-95-3	Nitrobenzene	58	U	57	58	190	190

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-06-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.76 (g/L)	CTL Sample ID:	321166
% Solids:	96.7	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 23:33	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
62-75-9	N-Nitrosodimethylamine	120	U	75	120	380	380
621-64-7	N-Nitroso-di-n-propylamine	120	U	67	120	380	380
86-30-6/122-39-4	N-Nitrosodiphenylamine & Diphn	120	U	48	120	230	230
930-55-2	N-Nitrosopyrrolidine	58	U	54	58	190	190
87-86-5	Pentachlorophenol	290	U	230	290	960	960
85-01-8	Phenanthrene	32.6	J	25	58	120	120
108-95-2	Phenol	290	U	150	290	580	580
129-00-0	Pyrene	62.8	J	25	58	120	120
110-86-1	Pyridine	190	U Q	37	190	380	380

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-06-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.55 (g/L)	CTL Sample ID:	321167
% Solids:	90.5	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D-SIM	Analytical Prep Batch #	73329
Analytical Run #:	164274	Dilution Factor:	1.00
Date & Time Analyzed:	09/09/2019 / 23:17	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1P082619	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
90-12-0	1-Methylnaphthalene	1.79	J	0.42	1.0	2.1	2.1
91-57-6	2-Methylnaphthalene	2.17		0.52	1.0	2.1	2.1
83-32-9	Acenaphthene	1.53	J	0.52	1.0	2.1	2.1
208-96-8	Acenaphthylene	2.83		0.31	1.0	2.1	2.1
120-12-7	Anthracene	5.41		0.42	1.0	2.1	2.1
56-55-3	Benzo(a)anthracene	47.8		0.52	1.0	2.1	2.1
50-32-8	Benzo(a)pyrene	43.2		0.31	1.0	2.1	2.1
205-99-2	Benzo(b)fluoranthene	63.6		0.42	1.0	2.1	2.1
191-24-2	Benzo(g,h,i)perylene	23.4		0.27	1.0	2.1	2.1
207-08-9	Benzo(k)fluoranthene	21.0		0.63	2.1	4.2	4.2
218-01-9	Chrysene	40.7		0.23	1.0	2.1	2.1
53-70-3	Dibenzo(a,h)anthracene	7.90		0.22	1.0	2.1	2.1
206-44-0	Fluoranthene	88.2		0.73	2.1	4.2	4.2
86-73-7	Fluorene	2.12		0.42	1.0	2.1	2.1
193-39-5	Indeno(1,2,3-cd)pyrene	24.4		0.42	1.0	2.1	2.1
91-20-3	Naphthalene	1.51	J	0.52	1.0	2.1	2.1
85-01-8	Phenanthrene	33.3		1.2	2.1	4.2	4.2
129-00-0	Pyrene	69.4		0.63	2.1	4.2	4.2

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-06-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/L)	CTL Sample ID:	321167
% Solids:	90.5	Date Received:	08/28/2019
Conc. Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8270D	Analytical Prep Batch #	
Analytical Run #:	164485	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 23:52	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	478	J	N/A	N/A	N/A	N/A
TIC 005185-97-7	2-Pentanone, 5-(acetyloxy)-	15.1	J	N/A	N/A	N/A	N/A
TIC 000079-39-0	Methacrylamide	7.18	J	N/A	N/A	N/A	N/A
TIC 000141-79-7	3-Penten-2-one, 4-methyl-	6.27	J	N/A	N/A	N/A	N/A

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-06-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.55 (g/L)	CTL Sample ID:	321167
% Solids:	90.5	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 23:52	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
92-52-4	1,1'-Biphenyl	63	U	15	63	130	130
95-94-3	1,2,4,5-Tetrachlorobenzene	63	U	23	63	130	130
120-82-1	1,2,4-Trichlorobenzene	63	U	22	63	130	130
95-50-1	1,2-Dichlorobenzene	63	U	25	63	130	130
541-73-1	1,3-Dichlorobenzene	63	U	21	63	130	130
106-46-7	1,4-Dichlorobenzene	63	U	20	63	130	130
90-12-0	1-Methylnaphthalene	63	U	26	63	130	130
58-90-2	2,3,4,6-Tetrachlorophenol	310	U	140	310	630	630
95-95-4	2,4,5-Trichlorophenol	310	U	140	310	630	630
88-06-2	2,4,6-Trichlorophenol	310	U	140	310	630	630
120-83-2	2,4-Dichlorophenol	310	U	140	310	630	630
105-67-9	2,4-Dimethylphenol	310	U	100	310	630	630
51-28-5	2,4-Dinitrophenol	630	U Q	280	630	1000	1000
121-14-2	2,4-Dinitrotoluene	63	U	25	63	130	130
87-65-0	2,6-Dichlorophenol	310	U	150	310	630	630
606-20-2	2,6-Dinitrotoluene	63	U	25	63	130	130
91-58-7	2-Chloronaphthalene	63	U	24	63	130	130
95-57-8	2-Chlorophenol	630	U	360	630	2100	2100
91-57-6	2-Methylnaphthalene	63	U	26	63	130	130
95-48-7	2-Methylphenol	630	U	440	630	2100	2100
88-74-4	2-Nitroaniline	63	U	24	63	130	130
88-75-5	2-Nitrophenol	310	U	290	310	1000	1000
1319-77-3	3 & 4-Methylphenol	1100	U	680	1100	3800	3800
91-94-1	3,3'-Dichlorobenzidine	310	U Q,Z	160	310	520	520

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-06-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.55 (g/L)	CTL Sample ID:	321167
% Solids:	90.5	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 23:52	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
99-09-2	3-Nitroaniline	130	U	23	130	210	210
534-52-1	4,6-Dinitro-2-methylphenol	310	U	280	310	1000	1000
101-55-3	4-Bromophenyl-phenyl ether	63	U	26	63	130	130
59-50-7	4-Chloro-3-methylphenol	630	U	400	630	2100	2100
106-47-8	4-Chloroaniline	63	U	41	63	210	210
7005-72-3	4-Chlorophenyl-phenyl ether	63	U	27	63	130	130
100-01-6	4-Nitroaniline	63	U	31	63	130	130
100-02-7	4-Nitrophenol	630	U	420	630	2100	2100
83-32-9	Acenaphthene	63	U	25	63	130	130
208-96-8	Acenaphthylene	63	U	25	63	130	130
98-86-2	Acetophenone	130	U	79	130	420	420
62-53-3	Aniline	63	U Q	32	63	130	130
120-12-7	Anthracene	63	U	25	63	130	130
1912-24-9	Atrazine	63	U	15	63	130	130
103-33-3/122-66-7	Azobenzene & 1,2-Diphenylhydra	130	U	58	130	250	250
100-52-7	Benzaldehyde	63	U	20	63	130	130
92-87-5	Benzidine	1600	U Z	990	1600	5200	5200
56-55-3	Benzo(a)anthracene	51.7	J	26	63	130	130
50-32-8	Benzo(a)pyrene	44.9	J	16	63	130	130
205-99-2	Benzo(b)fluoranthene	76.4	J	26	63	130	130
191-24-2	Benzo(g,h,i)perylene	26.2	J Z	23	63	130	130
207-08-9	Benzo(k)fluoranthene	32.3	J	26	63	130	130
65-85-0	Benzoic acid	1600	U	300	1600	3100	3100
100-51-6	Benzyl alcohol	210	U Z	87	210	420	420

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-06-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.55 (g/L)	CTL Sample ID:	321167
% Solids:	90.5	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 23:52	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
111-91-1	Bis(2-chloroethoxy)methane	63	U	24	63	130	130
111-44-4	Bis(2-chloroethyl)ether	63	U	26	63	130	130
108-60-1	Bis(2-chloroisopropyl)ether	63	U	31	63	130	130
117-81-7	Bis(2-ethylhexyl)phthalate	130	U	91	130	420	420
85-68-7	Butylbenzylphthalate	130	U	76	130	420	420
105-60-2	Caprolactam	210	U	79	210	420	420
86-74-8	Carbazole	63	U	29	63	130	130
218-01-9	Chrysene	47.2	J	26	63	130	130
53-70-3	Dibenzo(a,h)anthracene	63	U	14	63	130	130
132-64-9	Dibenzofuran	63	U	25	63	130	130
84-66-2	Diethylphthalate	130	U	67	130	420	420
131-11-3	Dimethylphthalate	130	U	66	130	420	420
84-74-2	Di-n-butylphthalate	130	U	83	130	420	420
117-84-0	Di-n-octylphthalate	63	U	62	63	210	210
206-44-0	Fluoranthene	106	J	27	63	130	130
86-73-7	Fluorene	63	U	26	63	130	130
118-74-1	Hexachlorobenzene	63	U	29	63	130	130
87-68-3	Hexachlorobutadiene	130	U	65	130	420	420
77-47-4	Hexachlorocyclopentadiene	130	U	54	130	210	210
67-72-1	Hexachloroethane	63	U	35	63	130	130
193-39-5	Indeno(1,2,3-cd)pyrene	63	U	24	63	130	130
78-59-1	Isophorone	63	U	52	63	210	210
91-20-3	Naphthalene	63	U	22	63	130	130
98-95-3	Nitrobenzene	63	U	62	63	210	210

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-06-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.55 (g/L)	CTL Sample ID:	321167
% Solids:	90.5	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 23:52	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
62-75-9	N-Nitrosodimethylamine	130	U	82	130	420	420
621-64-7	N-Nitroso-di-n-propylamine	130	U	73	130	420	420
86-30-6/122-39-4	N-Nitrosodiphenylamine & Diphn	130	U	52	130	250	250
930-55-2	N-Nitrosopyrrolidine	63	U	59	63	210	210
87-86-5	Pentachlorophenol	310	U	250	310	1000	1000
85-01-8	Phenanthrene	35.0	J	27	63	130	130
108-95-2	Phenol	310	U	170	310	630	630
129-00-0	Pyrene	76.7	J	27	63	130	130
110-86-1	Pyridine	210	U Q	41	210	420	420

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1B

SEMIVOLATILE ORGANICS ANALYSIS

Sample Description: **GN-SO-07-1**

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/L)	CTL Sample ID:	321168
% Solids:	92.0	Date Received:	08/28/2019
Conc. Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8270D	Analytical Prep Batch #	
Analytical Run #:	164485	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 00:12	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	410	J	N/A	N/A	N/A	N/A
TIC 002755-10-4	Pregn-4-ene-3,20-dione, (9.beta....	4.46	J	N/A	N/A	N/A	N/A
TIC 056554-86-0	17-Octadecenal	4.22	J	N/A	N/A	N/A	N/A
TIC 001069-53-0	Hexane, 2,3,5-trimethyl-	4.18	J	N/A	N/A	N/A	N/A
TIC 000638-66-4	Octadecanal	3.85	J	N/A	N/A	N/A	N/A
TIC 000112-95-8	Eicosane	3.06	J	N/A	N/A	N/A	N/A
TIC 000695-06-7	2(3H)-Furanone, 5-ethyldihydro-	22.1	J	N/A	N/A	N/A	N/A
TIC 000108-21-4	Acetic acid, 1-methylethyl ester	13.7	J	N/A	N/A	N/A	N/A
TIC 000141-79-7	3-Penten-2-one, 4-methyl-	9.74	J	N/A	N/A	N/A	N/A
TIC 000629-78-7	Heptadecane	8.60	J	N/A	N/A	N/A	N/A
TIC 010473-13-9	3-Buten-2-ol, 2,3-dimethyl-	7.68	J	N/A	N/A	N/A	N/A
TIC 000112-80-1	Oleic Acid	6.45	J	N/A	N/A	N/A	N/A
TIC 016747-28-7	Hexane, 2,3,3-trimethyl-	5.91	J	N/A	N/A	N/A	N/A
TIC 000629-92-5	Nonadecane	5.10	J	N/A	N/A	N/A	N/A

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-07-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.23 (g/L)	CTL Sample ID:	321168
% Solids:	92.0	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 00:12	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
92-52-4	1,1'-Biphenyl	64	U	15	64	130	130
95-94-3	1,2,4,5-Tetrachlorobenzene	64	U	23	64	130	130
120-82-1	1,2,4-Trichlorobenzene	64	U	22	64	130	130
95-50-1	1,2-Dichlorobenzene	64	U	26	64	130	130
541-73-1	1,3-Dichlorobenzene	64	U	21	64	130	130
106-46-7	1,4-Dichlorobenzene	64	U	20	64	130	130
90-12-0	1-Methylnaphthalene	64	U	27	64	130	130
58-90-2	2,3,4,6-Tetrachlorophenol	320	U	140	320	640	640
95-95-4	2,4,5-Trichlorophenol	320	U	140	320	640	640
88-06-2	2,4,6-Trichlorophenol	320	U	140	320	640	640
120-83-2	2,4-Dichlorophenol	320	U	140	320	640	640
105-67-9	2,4-Dimethylphenol	320	U	110	320	640	640
51-28-5	2,4-Dinitrophenol	640	U Q	290	640	1100	1100
121-14-2	2,4-Dinitrotoluene	64	U	26	64	130	130
87-65-0	2,6-Dichlorophenol	320	U	150	320	640	640
606-20-2	2,6-Dinitrotoluene	64	U	26	64	130	130
91-58-7	2-Chloronaphthalene	64	U	24	64	130	130
95-57-8	2-Chlorophenol	640	U	360	640	2100	2100
91-57-6	2-Methylnaphthalene	64	U	27	64	130	130
95-48-7	2-Methylphenol	640	U	450	640	2100	2100
88-74-4	2-Nitroaniline	64	U	24	64	130	130
88-75-5	2-Nitrophenol	320	U	300	320	1100	1100
1319-77-3	3 & 4-Methylphenol	1100	U	690	1100	3800	3800
91-94-1	3,3'-Dichlorobenzidine	320	U Q,Z	160	320	530	530

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-07-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.23 (g/L)	CTL Sample ID:	321168
% Solids:	92.0	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 00:12	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
99-09-2	3-Nitroaniline	130	U	23	130	210	210
534-52-1	4,6-Dinitro-2-methylphenol	320	U	290	320	1100	1100
101-55-3	4-Bromophenyl-phenyl ether	64	U	27	64	130	130
59-50-7	4-Chloro-3-methylphenol	640	U	400	640	2100	2100
106-47-8	4-Chloroaniline	64	U	41	64	210	210
7005-72-3	4-Chlorophenyl-phenyl ether	64	U	28	64	130	130
100-01-6	4-Nitroaniline	64	U	32	64	130	130
100-02-7	4-Nitrophenol	640	U	430	640	2100	2100
83-32-9	Acenaphthene	64	U	26	64	130	130
208-96-8	Acenaphthylene	64	U	26	64	130	130
98-86-2	Acetophenone	130	U	80	130	430	430
62-53-3	Aniline	64	U Q	33	64	130	130
120-12-7	Anthracene	64	U	26	64	130	130
1912-24-9	Atrazine	64	U	15	64	130	130
103-33-3/122-66-7	Azobenzene & 1,2-Diphenylhydra	130	U	58	130	260	260
100-52-7	Benzaldehyde	64	U	20	64	130	130
92-87-5	Benzidine	1600	U Z	1000	1600	5300	5300
56-55-3	Benzo(a)anthracene	95.6	J	27	64	130	130
50-32-8	Benzo(a)pyrene	96.6	J	16	64	130	130
205-99-2	Benzo(b)fluoranthene	181		27	64	130	130
191-24-2	Benzo(g,h,i)perylene	50.9	J Z	23	64	130	130
207-08-9	Benzo(k)fluoranthene	86.3	J	27	64	130	130
65-85-0	Benzoic acid	1600	U	310	1600	3200	3200
100-51-6	Benzyl alcohol	210	U Z	88	210	430	430

CT LABORATORIES
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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description: **GN-SO-07-1**

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.23 (g/L)	CTL Sample ID:	321168
% Solids:	92.0	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 00:12	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
111-91-1	Bis(2-chloroethoxy)methane	64	U	24	64	130	130
111-44-4	Bis(2-chloroethyl)ether	64	U	27	64	130	130
108-60-1	Bis(2-chloroisopropyl)ether	64	U	32	64	130	130
117-81-7	Bis(2-ethylhexyl)phthalate	130	U	92	130	430	430
85-68-7	Butylbenzylphthalate	130	U	78	130	430	430
105-60-2	Caprolactam	210	U	80	210	430	430
86-74-8	Carbazole	64	U	30	64	130	130
218-01-9	Chrysene	98.8	J	27	64	130	130
53-70-3	Dibenzo(a,h)anthracene	19.7	J	14	64	130	130
132-64-9	Dibenzofuran	64	U	26	64	130	130
84-66-2	Diethylphthalate	130	U	68	130	430	430
131-11-3	Dimethylphthalate	130	U	67	130	430	430
84-74-2	Di-n-butylphthalate	130	U	84	130	430	430
117-84-0	Di-n-octylphthalate	64	U	63	64	210	210
206-44-0	Fluoranthene	213		28	64	130	130
86-73-7	Fluorene	64	U	27	64	130	130
118-74-1	Hexachlorobenzene	64	U	30	64	130	130
87-68-3	Hexachlorobutadiene	130	U	66	130	430	430
77-47-4	Hexachlorocyclopentadiene	130	U	55	130	210	210
67-72-1	Hexachloroethane	64	U	35	64	130	130
193-39-5	Indeno(1,2,3-cd)pyrene	45.5	J	24	64	130	130
78-59-1	Isophorone	64	U	53	64	210	210
91-20-3	Naphthalene	64	U	22	64	130	130
98-95-3	Nitrobenzene	64	U	63	64	210	210

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-07-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.23 (g/L)	CTL Sample ID:	321168
% Solids:	92.0	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 00:12	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
62-75-9	N-Nitrosodimethylamine	130	U	83	130	430	430
621-64-7	N-Nitroso-di-n-propylamine	130	U	74	130	430	430
86-30-6/122-39-4	N-Nitrosodiphenylamine & Diphn	130	U	53	130	260	260
930-55-2	N-Nitrosopyrrolidine	64	U	60	64	210	210
87-86-5	Pentachlorophenol	320	U	260	320	1100	1100
85-01-8	Phenanthrene	72.3	J	28	64	130	130
108-95-2	Phenol	320	U	170	320	640	640
129-00-0	Pyrene	159		28	64	130	130
110-86-1	Pyridine	210	U Q	41	210	430	430

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-07-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.23 (g/L)	CTL Sample ID:	321168
% Solids:	92.0	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D-SIM	Analytical Prep Batch #	73329
Analytical Run #:	164274	Dilution Factor:	1.00
Date & Time Analyzed:	09/09/2019 / 23:37	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1P082619	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
90-12-0	1-Methylnaphthalene	6.81		0.43	1.1	2.1	2.1
91-57-6	2-Methylnaphthalene	8.14		0.53	1.1	2.1	2.1
83-32-9	Acenaphthene	4.72		0.53	1.1	2.1	2.1
208-96-8	Acenaphthylene	7.98		0.32	1.1	2.1	2.1
120-12-7	Anthracene	12.3		0.43	1.1	2.1	2.1
56-55-3	Benzo(a)anthracene	110		0.53	1.1	2.1	2.1
50-32-8	Benzo(a)pyrene	93.0		0.32	1.1	2.1	2.1
205-99-2	Benzo(b)fluoranthene	173		0.43	1.1	2.1	2.1
191-24-2	Benzo(g,h,i)perylene	47.1		0.28	1.1	2.1	2.1
207-08-9	Benzo(k)fluoranthene	42.4		0.64	2.1	4.3	4.3
218-01-9	Chrysene	97.6		0.23	1.1	2.1	2.1
53-70-3	Dibenzo(a,h)anthracene	14.5		0.22	1.1	2.1	2.1
206-44-0	Fluoranthene	179		0.74	2.1	4.3	4.3
86-73-7	Fluorene	4.43		0.43	1.1	2.1	2.1
193-39-5	Indeno(1,2,3-cd)pyrene	46.8		0.43	1.1	2.1	2.1
91-20-3	Naphthalene	3.48		0.53	1.1	2.1	2.1
85-01-8	Phenanthrene	73.0		1.2	2.1	4.3	4.3
129-00-0	Pyrene	142		0.64	2.1	4.3	4.3

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-07-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/L)	CTL Sample ID:	321169
% Solids:	90.8	Date Received:	08/28/2019
Conc. Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8270D	Analytical Prep Batch #	
Analytical Run #:	164485	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 00:31	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	486	J	N/A	N/A	N/A	N/A
TIC 003031-75-2	Hydroperoxide, 1-methylethyl	13.9	J	N/A	N/A	N/A	N/A
TIC 000288-47-1	Thiazole	9.38	J	N/A	N/A	N/A	N/A
TIC 000141-79-7	3-Penten-2-one, 4-methyl-	6.35	J	N/A	N/A	N/A	N/A

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-07-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.08 (g/L)	CTL Sample ID:	321169
% Solids:	90.8	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 00:31	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
92-52-4	1,1'-Biphenyl	66	U	15	66	130	130
95-94-3	1,2,4,5-Tetrachlorobenzene	66	U	24	66	130	130
120-82-1	1,2,4-Trichlorobenzene	66	U	23	66	130	130
95-50-1	1,2-Dichlorobenzene	66	U	26	66	130	130
541-73-1	1,3-Dichlorobenzene	66	U	22	66	130	130
106-46-7	1,4-Dichlorobenzene	66	U	21	66	130	130
90-12-0	1-Methylnaphthalene	66	U	27	66	130	130
58-90-2	2,3,4,6-Tetrachlorophenol	330	U	140	330	660	660
95-95-4	2,4,5-Trichlorophenol	330	U	140	330	660	660
88-06-2	2,4,6-Trichlorophenol	330	U	140	330	660	660
120-83-2	2,4-Dichlorophenol	330	U	140	330	660	660
105-67-9	2,4-Dimethylphenol	330	U	110	330	660	660
51-28-5	2,4-Dinitrophenol	660	U Q	290	660	1100	1100
121-14-2	2,4-Dinitrotoluene	66	U	26	66	130	130
87-65-0	2,6-Dichlorophenol	330	U	150	330	660	660
606-20-2	2,6-Dinitrotoluene	66	U	26	66	130	130
91-58-7	2-Chloronaphthalene	66	U	25	66	130	130
95-57-8	2-Chlorophenol	660	U	370	660	2200	2200
91-57-6	2-Methylnaphthalene	66	U	27	66	130	130
95-48-7	2-Methylphenol	660	U	460	660	2200	2200
88-74-4	2-Nitroaniline	66	U	25	66	130	130
88-75-5	2-Nitrophenol	330	U	310	330	1100	1100
1319-77-3	3 & 4-Methylphenol	1200	U	710	1200	3900	3900
91-94-1	3,3'-Dichlorobenzidine	330	U Q,Z	160	330	550	550

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-07-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.08 (g/L)	CTL Sample ID:	321169
% Solids:	90.8	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 00:31	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
99-09-2	3-Nitroaniline	130	U	24	130	220	220
534-52-1	4,6-Dinitro-2-methylphenol	330	U	290	330	1100	1100
101-55-3	4-Bromophenyl-phenyl ether	66	U	27	66	130	130
59-50-7	4-Chloro-3-methylphenol	660	U	420	660	2200	2200
106-47-8	4-Chloroaniline	66	U	43	66	220	220
7005-72-3	4-Chlorophenyl-phenyl ether	66	U	28	66	130	130
100-01-6	4-Nitroaniline	66	U	33	66	130	130
100-02-7	4-Nitrophenol	660	U	440	660	2200	2200
83-32-9	Acenaphthene	66	U	26	66	130	130
208-96-8	Acenaphthylene	66	U	26	66	130	130
98-86-2	Acetophenone	130	U	82	130	440	440
62-53-3	Aniline	66	U Q	34	66	130	130
120-12-7	Anthracene	66	U	26	66	130	130
1912-24-9	Atrazine	66	U	15	66	130	130
103-33-3/122-66-7	Azobenzene & 1,2-Diphenylhydra	130	U	60	130	260	260
100-52-7	Benzaldehyde	66	U	21	66	130	130
92-87-5	Benzidine	1600	U Z	1000	1600	5500	5500
56-55-3	Benzo(a)anthracene	154		27	66	130	130
50-32-8	Benzo(a)pyrene	149		16	66	130	130
205-99-2	Benzo(b)fluoranthene	261		27	66	130	130
191-24-2	Benzo(g,h,i)perylene	45.9	J Z	24	66	130	130
207-08-9	Benzo(k)fluoranthene	84.3	J	27	66	130	130
65-85-0	Benzoic acid	1600	U	320	1600	3300	3300
100-51-6	Benzyl alcohol	220	U Z	91	220	440	440

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description: **GN-SO-07-2**

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.08 (g/L)	CTL Sample ID:	321169
% Solids:	90.8	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 00:31	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
111-91-1	Bis(2-chloroethoxy)methane	66	U	25	66	130	130
111-44-4	Bis(2-chloroethyl)ether	66	U	27	66	130	130
108-60-1	Bis(2-chloroisopropyl)ether	66	U	33	66	130	130
117-81-7	Bis(2-ethylhexyl)phthalate	130	U	95	130	440	440
85-68-7	Butylbenzylphthalate	130	U	80	130	440	440
105-60-2	Caprolactam	220	U	82	220	440	440
86-74-8	Carbazole	66	U	31	66	130	130
218-01-9	Chrysene	150		27	66	130	130
53-70-3	Dibenzo(a,h)anthracene	14.4	J	14	66	130	130
132-64-9	Dibenzofuran	66	U	26	66	130	130
84-66-2	Diethylphthalate	130	U	70	130	440	440
131-11-3	Dimethylphthalate	130	U	69	130	440	440
84-74-2	Di-n-butylphthalate	130	U	86	130	440	440
117-84-0	Di-n-octylphthalate	66	U	64	66	220	220
206-44-0	Fluoranthene	402		28	66	130	130
86-73-7	Fluorene	66	U	27	66	130	130
118-74-1	Hexachlorobenzene	66	U	31	66	130	130
87-68-3	Hexachlorobutadiene	130	U	68	130	440	440
77-47-4	Hexachlorocyclopentadiene	130	U	57	130	220	220
67-72-1	Hexachloroethane	66	U	36	66	130	130
193-39-5	Indeno(1,2,3-cd)pyrene	52.3	J	25	66	130	130
78-59-1	Isophorone	66	U	55	66	220	220
91-20-3	Naphthalene	66	U	23	66	130	130
98-95-3	Nitrobenzene	66	U	64	66	220	220

CT LABORATORIES
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1B

SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-07-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.08 (g/L)	CTL Sample ID:	321169
% Solids:	90.8	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 00:31	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
62-75-9	N-Nitrosodimethylamine	130	U	85	130	440	440
621-64-7	N-Nitroso-di-n-propylamine	130	U	76	130	440	440
86-30-6/122-39-4	N-Nitrosodiphenylamine & Diphn	130	U	55	130	260	260
930-55-2	N-Nitrosopyrrolidine	66	U	61	66	220	220
87-86-5	Pentachlorophenol	330	U	260	330	1100	1100
85-01-8	Phenanthrene	178		28	66	130	130
108-95-2	Phenol	330	U	170	330	660	660
129-00-0	Pyrene	271		28	66	130	130
110-86-1	Pyridine	220	U Q	43	220	440	440

CT LABORATORIES
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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-07-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.08 (g/L)	CTL Sample ID:	321169
% Solids:	90.8	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D-SIM	Analytical Prep Batch #	73329
Analytical Run #:	164274	Dilution Factor:	2.00
Date & Time Analyzed:	09/10/2019 / 14:08	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1P082619	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
206-44-0	Fluoranthene	361		1.5	4.4	8.7	8.7
129-00-0	Pyrene	262		1.3	4.4	8.7	8.7

CT LABORATORIES
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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-07-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.08 (g/L)	CTL Sample ID:	321169
% Solids:	90.8	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D-SIM	Analytical Prep Batch #	73329
Analytical Run #:	164274	Dilution Factor:	1.00
Date & Time Analyzed:	09/09/2019 / 23:57	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1P082619	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
90-12-0	1-Methylnaphthalene	13.9		0.44	1.1	2.2	2.2
91-57-6	2-Methylnaphthalene	8.72		0.55	1.1	2.2	2.2
83-32-9	Acenaphthene	5.92		0.55	1.1	2.2	2.2
208-96-8	Acenaphthylene	6.39		0.33	1.1	2.2	2.2
120-12-7	Anthracene	27.5		0.44	1.1	2.2	2.2
56-55-3	Benzo(a)anthracene	162		0.55	1.1	2.2	2.2
50-32-8	Benzo(a)pyrene	130		0.33	1.1	2.2	2.2
205-99-2	Benzo(b)fluoranthene	218		0.44	1.1	2.2	2.2
191-24-2	Benzo(g,h,i)perylene	52.5		0.28	1.1	2.2	2.2
207-08-9	Benzo(k)fluoranthene	54.5		0.66	2.2	4.4	4.4
218-01-9	Chrysene	143		0.24	1.1	2.2	2.2
53-70-3	Dibenzo(a,h)anthracene	16.9		0.23	1.1	2.2	2.2
86-73-7	Fluorene	10.0		0.44	1.1	2.2	2.2
193-39-5	Indeno(1,2,3-cd)pyrene	57.9		0.44	1.1	2.2	2.2
91-20-3	Naphthalene	3.77		0.55	1.1	2.2	2.2
85-01-8	Phenanthrene	181		1.2	2.2	4.4	4.4

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-08-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.09 (g/L)	CTL Sample ID:	321170
% Solids:	95.9	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D-SIM	Analytical Prep Batch #	73329
Analytical Run #:	164274	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 00:17	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1P082619	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
90-12-0	1-Methylnaphthalene	3.55		0.41	1.0	2.1	2.1
91-57-6	2-Methylnaphthalene	4.60		0.52	1.0	2.1	2.1
83-32-9	Acenaphthene	6.47		0.52	1.0	2.1	2.1
208-96-8	Acenaphthylene	7.66		0.31	1.0	2.1	2.1
120-12-7	Anthracene	18.4		0.41	1.0	2.1	2.1
56-55-3	Benzo(a)anthracene	158		0.52	1.0	2.1	2.1
50-32-8	Benzo(a)pyrene	118		0.31	1.0	2.1	2.1
191-24-2	Benzo(g,h,i)perylene	50.0		0.27	1.0	2.1	2.1
207-08-9	Benzo(k)fluoranthene	49.2		0.62	2.1	4.1	4.1
218-01-9	Chrysene	128		0.23	1.0	2.1	2.1
53-70-3	Dibenzo(a,h)anthracene	16.3		0.22	1.0	2.1	2.1
86-73-7	Fluorene	6.06		0.41	1.0	2.1	2.1
193-39-5	Indeno(1,2,3-cd)pyrene	55.0		0.41	1.0	2.1	2.1
91-20-3	Naphthalene	2.00	J	0.52	1.0	2.1	2.1
85-01-8	Phenanthrene	118		1.1	2.1	4.1	4.1

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-08-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/L)	CTL Sample ID:	321170
% Solids:	95.9	Date Received:	08/28/2019
Conc. Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8270D	Analytical Prep Batch #	
Analytical Run #:	164485	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 00:50	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	436	J	N/A	N/A	N/A	N/A
TIC 003031-75-2	Hydroperoxide, 1-methylethyl	13.0	J	N/A	N/A	N/A	N/A
TIC 000079-39-0	Methacrylamide	7.94	J	N/A	N/A	N/A	N/A
TIC 000141-79-7	3-Penten-2-one, 4-methyl-	6.27	J	N/A	N/A	N/A	N/A
TIC 000630-06-8	Hexatriacontane	6.17	J	N/A	N/A	N/A	N/A

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-08-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.09 (g/L)	CTL Sample ID:	321170
% Solids:	95.9	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 00:50	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
92-52-4	1,1'-Biphenyl	62	U	14	62	120	120
95-94-3	1,2,4,5-Tetrachlorobenzene	62	U	23	62	120	120
120-82-1	1,2,4-Trichlorobenzene	62	U	22	62	120	120
95-50-1	1,2-Dichlorobenzene	62	U	25	62	120	120
541-73-1	1,3-Dichlorobenzene	62	U	21	62	120	120
106-46-7	1,4-Dichlorobenzene	62	U	20	62	120	120
90-12-0	1-Methylnaphthalene	62	U	26	62	120	120
58-90-2	2,3,4,6-Tetrachlorophenol	310	U	130	310	620	620
95-95-4	2,4,5-Trichlorophenol	310	U	130	310	620	620
88-06-2	2,4,6-Trichlorophenol	310	U	130	310	620	620
120-83-2	2,4-Dichlorophenol	310	U	130	310	620	620
105-67-9	2,4-Dimethylphenol	310	U	100	310	620	620
51-28-5	2,4-Dinitrophenol	620	U Q	280	620	1000	1000
121-14-2	2,4-Dinitrotoluene	62	U	25	62	120	120
87-65-0	2,6-Dichlorophenol	310	U	140	310	620	620
606-20-2	2,6-Dinitrotoluene	62	U	25	62	120	120
91-58-7	2-Chloronaphthalene	62	U	24	62	120	120
95-57-8	2-Chlorophenol	620	U	350	620	2100	2100
91-57-6	2-Methylnaphthalene	62	U	26	62	120	120
95-48-7	2-Methylphenol	620	U	430	620	2100	2100
88-74-4	2-Nitroaniline	62	U	24	62	120	120
88-75-5	2-Nitrophenol	310	U	290	310	1000	1000
1319-77-3	3 & 4-Methylphenol	1100	U	670	1100	3700	3700
91-94-1	3,3'-Dichlorobenzidine	310	U Q,Z	160	310	520	520

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-08-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.09 (g/L)	CTL Sample ID:	321170
% Solids:	95.9	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 00:50	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
99-09-2	3-Nitroaniline	120	U	23	120	210	210
534-52-1	4,6-Dinitro-2-methylphenol	310	U	280	310	1000	1000
101-55-3	4-Bromophenyl-phenyl ether	62	U	26	62	120	120
59-50-7	4-Chloro-3-methylphenol	620	U	390	620	2100	2100
106-47-8	4-Chloroaniline	62	U	40	62	210	210
7005-72-3	4-Chlorophenyl-phenyl ether	62	U	27	62	120	120
100-01-6	4-Nitroaniline	62	U	31	62	120	120
100-02-7	4-Nitrophenol	620	U	410	620	2100	2100
83-32-9	Acenaphthene	62	U	25	62	120	120
208-96-8	Acenaphthylene	62	U	25	62	120	120
98-86-2	Acetophenone	120	U	78	120	410	410
62-53-3	Aniline	62	U Q	32	62	120	120
120-12-7	Anthracene	62	U	25	62	120	120
1912-24-9	Atrazine	62	U	14	62	120	120
103-33-3/122-66-7	Azobenzene & 1,2-Diphenylhydra	120	U	57	120	250	250
100-52-7	Benzaldehyde	62	U	20	62	120	120
92-87-5	Benzidine	1600	U Z	980	1600	5200	5200
56-55-3	Benzo(a)anthracene	145		26	62	120	120
50-32-8	Benzo(a)pyrene	139		16	62	120	120
205-99-2	Benzo(b)fluoranthene	251		26	62	120	120
191-24-2	Benzo(g,h,i)perylene	54.0	J Z	23	62	120	120
207-08-9	Benzo(k)fluoranthene	98.5	J	26	62	120	120
65-85-0	Benzoic acid	1600	U	300	1600	3100	3100
100-51-6	Benzyl alcohol	210	U Z	86	210	410	410

CT LABORATORIES
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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-08-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.09 (g/L)	CTL Sample ID:	321170
% Solids:	95.9	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 00:50	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
111-91-1	Bis(2-chloroethoxy)methane	62	U	24	62	120	120
111-44-4	Bis(2-chloroethyl)ether	62	U	26	62	120	120
108-60-1	Bis(2-chloroisopropyl)ether	62	U	31	62	120	120
117-81-7	Bis(2-ethylhexyl)phthalate	120	U	90	120	410	410
85-68-7	Butylbenzylphthalate	120	U	75	120	410	410
105-60-2	Caprolactam	210	U	78	210	410	410
86-74-8	Carbazole	62	U	29	62	120	120
218-01-9	Chrysene	144		26	62	120	120
53-70-3	Dibenzo(a,h)anthracene	16.0	J	13	62	120	120
132-64-9	Dibenzofuran	62	U	25	62	120	120
84-66-2	Diethylphthalate	120	U	66	120	410	410
131-11-3	Dimethylphthalate	120	U	65	120	410	410
84-74-2	Di-n-butylphthalate	120	U	82	120	410	410
117-84-0	Di-n-octylphthalate	62	U	61	62	210	210
206-44-0	Fluoranthene	338		27	62	120	120
86-73-7	Fluorene	62	U	26	62	120	120
118-74-1	Hexachlorobenzene	62	U	29	62	120	120
87-68-3	Hexachlorobutadiene	120	U	64	120	410	410
77-47-4	Hexachlorocyclopentadiene	120	U	54	120	210	210
67-72-1	Hexachloroethane	62	U	34	62	120	120
193-39-5	Indeno(1,2,3-cd)pyrene	58.9	J	24	62	120	120
78-59-1	Isophorone	62	U	52	62	210	210
91-20-3	Naphthalene	62	U	22	62	120	120
98-95-3	Nitrobenzene	62	U	61	62	210	210

CT LABORATORIES
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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-08-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.09 (g/L)	CTL Sample ID:	321170
% Solids:	95.9	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 00:50	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
62-75-9	N-Nitrosodimethylamine	120	U	81	120	410	410
621-64-7	N-Nitroso-di-n-propylamine	120	U	72	120	410	410
86-30-6/122-39-4	N-Nitrosodiphenylamine & Diphn	120	U	52	120	250	250
930-55-2	N-Nitrosopyrrolidine	62	U	58	62	210	210
87-86-5	Pentachlorophenol	310	U	250	310	1000	1000
85-01-8	Phenanthrene	125		27	62	120	120
108-95-2	Phenol	310	U	170	310	620	620
129-00-0	Pyrene	244		27	62	120	120
110-86-1	Pyridine	210	U Q	40	210	410	410

CT LABORATORIES
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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-08-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.09 (g/L)	CTL Sample ID:	321170
% Solids:	95.9	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D-SIM	Analytical Prep Batch #	73329
Analytical Run #:	164274	Dilution Factor:	2.00
Date & Time Analyzed:	09/10/2019 / 14:28	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1P082619	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
205-99-2	Benzo(b)fluoranthene	201		0.83	2.1	4.1	4.1
206-44-0	Fluoranthene	284		1.4	4.1	8.3	8.3
129-00-0	Pyrene	217		1.2	4.1	8.3	8.3

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-08-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.07 (g/L)	CTL Sample ID:	321171
% Solids:	93.5	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D-SIM	Analytical Prep Batch #	73329
Analytical Run #:	164274	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 00:37	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1P082619	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
90-12-0	1-Methylnaphthalene	5.61		0.42	1.1	2.1	2.1
91-57-6	2-Methylnaphthalene	7.25		0.53	1.1	2.1	2.1
83-32-9	Acenaphthene	2.64		0.53	1.1	2.1	2.1
208-96-8	Acenaphthylene	5.72		0.32	1.1	2.1	2.1
120-12-7	Anthracene	9.28		0.42	1.1	2.1	2.1
56-55-3	Benzo(a)anthracene	52.0		0.53	1.1	2.1	2.1
50-32-8	Benzo(a)pyrene	44.3		0.32	1.1	2.1	2.1
205-99-2	Benzo(b)fluoranthene	93.2		0.42	1.1	2.1	2.1
191-24-2	Benzo(g,h,i)perylene	18.0		0.28	1.1	2.1	2.1
207-08-9	Benzo(k)fluoranthene	24.7		0.64	2.1	4.2	4.2
218-01-9	Chrysene	44.0		0.23	1.1	2.1	2.1
53-70-3	Dibenzo(a,h)anthracene	7.37		0.22	1.1	2.1	2.1
206-44-0	Fluoranthene	82.4		0.74	2.1	4.2	4.2
86-73-7	Fluorene	2.43		0.42	1.1	2.1	2.1
193-39-5	Indeno(1,2,3-cd)pyrene	21.2		0.42	1.1	2.1	2.1
91-20-3	Naphthalene	4.01		0.53	1.1	2.1	2.1
85-01-8	Phenanthrene	35.1		1.2	2.1	4.2	4.2
129-00-0	Pyrene	65.2		0.64	2.1	4.2	4.2

CT LABORATORIES
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1B

SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-08-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/L)	CTL Sample ID:	321171
% Solids:	93.5	Date Received:	08/28/2019
Conc. Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8270D	Analytical Prep Batch #	
Analytical Run #:	164485	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 01:10	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	482	J	N/A	N/A	N/A	N/A
TIC 000142-92-7	Acetic acid, hexyl ester	14.4	J	N/A	N/A	N/A	N/A
TIC 000695-06-7	2(3H)-Furanone, 5-ethyldihydro-	7.22	J	N/A	N/A	N/A	N/A
TIC 000141-79-7	3-Penten-2-one, 4-methyl-	5.93	J	N/A	N/A	N/A	N/A

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-08-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.07 (g/L)	CTL Sample ID:	321171
% Solids:	93.5	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 01:10	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
92-52-4	1,1'-Biphenyl	64	U	15	64	130	130
95-94-3	1,2,4,5-Tetrachlorobenzene	64	U	23	64	130	130
120-82-1	1,2,4-Trichlorobenzene	64	U	22	64	130	130
95-50-1	1,2-Dichlorobenzene	64	U	25	64	130	130
541-73-1	1,3-Dichlorobenzene	64	U	21	64	130	130
106-46-7	1,4-Dichlorobenzene	64	U	20	64	130	130
90-12-0	1-Methylnaphthalene	64	U	27	64	130	130
58-90-2	2,3,4,6-Tetrachlorophenol	320	U	140	320	640	640
95-95-4	2,4,5-Trichlorophenol	320	U	140	320	640	640
88-06-2	2,4,6-Trichlorophenol	320	U	140	320	640	640
120-83-2	2,4-Dichlorophenol	320	U	140	320	640	640
105-67-9	2,4-Dimethylphenol	320	U	110	320	640	640
51-28-5	2,4-Dinitrophenol	640	U Q	290	640	1100	1100
121-14-2	2,4-Dinitrotoluene	64	U	25	64	130	130
87-65-0	2,6-Dichlorophenol	320	U	150	320	640	640
606-20-2	2,6-Dinitrotoluene	64	U	25	64	130	130
91-58-7	2-Chloronaphthalene	64	U	24	64	130	130
95-57-8	2-Chlorophenol	640	U	360	640	2100	2100
91-57-6	2-Methylnaphthalene	64	U	27	64	130	130
95-48-7	2-Methylphenol	640	U	450	640	2100	2100
88-74-4	2-Nitroaniline	64	U	24	64	130	130
88-75-5	2-Nitrophenol	320	U	300	320	1100	1100
1319-77-3	3 & 4-Methylphenol	1100	U	690	1100	3800	3800
91-94-1	3,3'-Dichlorobenzidine	320	U Q,Z	160	320	530	530

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-08-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.07 (g/L)	CTL Sample ID:	321171
% Solids:	93.5	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 01:10	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
99-09-2	3-Nitroaniline	130	U	23	130	210	210
534-52-1	4,6-Dinitro-2-methylphenol	320	U	290	320	1100	1100
101-55-3	4-Bromophenyl-phenyl ether	64	U	27	64	130	130
59-50-7	4-Chloro-3-methylphenol	640	U	400	640	2100	2100
106-47-8	4-Chloroaniline	64	U	41	64	210	210
7005-72-3	4-Chlorophenyl-phenyl ether	64	U	28	64	130	130
100-01-6	4-Nitroaniline	64	U	32	64	130	130
100-02-7	4-Nitrophenol	640	U	420	640	2100	2100
83-32-9	Acenaphthene	64	U	25	64	130	130
208-96-8	Acenaphthylene	64	U	25	64	130	130
98-86-2	Acetophenone	130	U	80	130	420	420
62-53-3	Aniline	64	U Q	33	64	130	130
120-12-7	Anthracene	64	U	25	64	130	130
1912-24-9	Atrazine	64	U	15	64	130	130
103-33-3/122-66-7	Azobenzene & 1,2-Diphenylhydra	130	U	58	130	250	250
100-52-7	Benzaldehyde	64	U	20	64	130	130
92-87-5	Benzidine	1600	U Z	1000	1600	5300	5300
56-55-3	Benzo(a)anthracene	49.8	J	27	64	130	130
50-32-8	Benzo(a)pyrene	41.7	J	16	64	130	130
205-99-2	Benzo(b)fluoranthene	92.0	J	27	64	130	130
191-24-2	Benzo(g,h,i)perylene	64	U Z	23	64	130	130
207-08-9	Benzo(k)fluoranthene	44.9	J	27	64	130	130
65-85-0	Benzoic acid	1600	U	310	1600	3200	3200
100-51-6	Benzyl alcohol	210	U Z	88	210	420	420

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-08-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.07 (g/L)	CTL Sample ID:	321171
% Solids:	93.5	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 01:10	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
111-91-1	Bis(2-chloroethoxy)methane	64	U	24	64	130	130
111-44-4	Bis(2-chloroethyl)ether	64	U	27	64	130	130
108-60-1	Bis(2-chloroisopropyl)ether	64	U	32	64	130	130
117-81-7	Bis(2-ethylhexyl)phthalate	130	U	92	130	420	420
85-68-7	Butylbenzylphthalate	130	U	78	130	420	420
105-60-2	Caprolactam	210	U	80	210	420	420
86-74-8	Carbazole	64	U	30	64	130	130
218-01-9	Chrysene	47.6	J	27	64	130	130
53-70-3	Dibenzo(a,h)anthracene	64	U	14	64	130	130
132-64-9	Dibenzofuran	64	U	25	64	130	130
84-66-2	Diethylphthalate	130	U	68	130	420	420
131-11-3	Dimethylphthalate	130	U	67	130	420	420
84-74-2	Di-n-butylphthalate	130	U	84	130	420	420
117-84-0	Di-n-octylphthalate	64	U	63	64	210	210
206-44-0	Fluoranthene	101	J	28	64	130	130
86-73-7	Fluorene	64	U	27	64	130	130
118-74-1	Hexachlorobenzene	64	U	30	64	130	130
87-68-3	Hexachlorobutadiene	130	U	66	130	420	420
77-47-4	Hexachlorocyclopentadiene	130	U	55	130	210	210
67-72-1	Hexachloroethane	64	U	35	64	130	130
193-39-5	Indeno(1,2,3-cd)pyrene	24.7	J	24	64	130	130
78-59-1	Isophorone	64	U	53	64	210	210
91-20-3	Naphthalene	64	U	22	64	130	130
98-95-3	Nitrobenzene	64	U	63	64	210	210

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-08-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.07 (g/L)	CTL Sample ID:	321171
% Solids:	93.5	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 01:10	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
62-75-9	N-Nitrosodimethylamine	130	U	83	130	420	420
621-64-7	N-Nitroso-di-n-propylamine	130	U	74	130	420	420
86-30-6/122-39-4	N-Nitrosodiphenylamine & Diphn	130	U	53	130	250	250
930-55-2	N-Nitrosopyrrolidine	64	U	59	64	210	210
87-86-5	Pentachlorophenol	751	J	250	320	1100	1100
85-01-8	Phenanthrene	38.1	J	28	64	130	130
108-95-2	Phenol	320	U	170	320	640	640
129-00-0	Pyrene	70.1	J	28	64	130	130
110-86-1	Pyridine	210	U Q	41	210	420	420

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-09C-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.11 (g/L)	CTL Sample ID:	321172
% Solids:	90.0	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D-SIM	Analytical Prep Batch #	73329
Analytical Run #:	164274	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 00:57	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1P082619	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
90-12-0	1-Methylnaphthalene	0.956	J	0.44	1.1	2.2	2.2
91-57-6	2-Methylnaphthalene	1.1	U	0.55	1.1	2.2	2.2
83-32-9	Acenaphthene	1.73	J	0.55	1.1	2.2	2.2
208-96-8	Acenaphthylene	2.20		0.33	1.1	2.2	2.2
120-12-7	Anthracene	3.25		0.44	1.1	2.2	2.2
56-55-3	Benzo(a)anthracene	32.5		0.55	1.1	2.2	2.2
50-32-8	Benzo(a)pyrene	21.9		0.33	1.1	2.2	2.2
205-99-2	Benzo(b)fluoranthene	41.5		0.44	1.1	2.2	2.2
191-24-2	Benzo(g,h,i)perylene	10.3		0.29	1.1	2.2	2.2
207-08-9	Benzo(k)fluoranthene	12.7		0.66	2.2	4.4	4.4
218-01-9	Chrysene	20.3		0.24	1.1	2.2	2.2
53-70-3	Dibenzo(a,h)anthracene	5.90		0.23	1.1	2.2	2.2
206-44-0	Fluoranthene	40.8		0.77	2.2	4.4	4.4
86-73-7	Fluorene	1.39	J	0.44	1.1	2.2	2.2
193-39-5	Indeno(1,2,3-cd)pyrene	11.1		0.44	1.1	2.2	2.2
91-20-3	Naphthalene	0.803	J	0.55	1.1	2.2	2.2
85-01-8	Phenanthrene	13.5		1.2	2.2	4.4	4.4
129-00-0	Pyrene	36.0		0.66	2.2	4.4	4.4

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-09C-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/L)	CTL Sample ID:	321172
% Solids:	90.0	Date Received:	08/28/2019
Conc. Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8270D	Analytical Prep Batch #	
Analytical Run #:	164485	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 01:29	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	438	J	N/A	N/A	N/A	N/A
TIC 002516-34-9	Cyclobutylamine	10.6	J	N/A	N/A	N/A	N/A
TIC 000141-79-7	3-Penten-2-one, 4-methyl-	5.17	J	N/A	N/A	N/A	N/A
TIC 000630-06-8	Hexatriacontane	3.42	J	N/A	N/A	N/A	N/A

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-09C-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.11 (g/L)	CTL Sample ID:	321172
% Solids:	90.0	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 01:29	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
92-52-4	1,1'-Biphenyl	66	U	15	66	130	130
95-94-3	1,2,4,5-Tetrachlorobenzene	66	U	24	66	130	130
120-82-1	1,2,4-Trichlorobenzene	66	U	23	66	130	130
95-50-1	1,2-Dichlorobenzene	66	U	26	66	130	130
541-73-1	1,3-Dichlorobenzene	66	U	22	66	130	130
106-46-7	1,4-Dichlorobenzene	66	U	21	66	130	130
90-12-0	1-Methylnaphthalene	66	U	27	66	130	130
58-90-2	2,3,4,6-Tetrachlorophenol	330	U	140	330	660	660
95-95-4	2,4,5-Trichlorophenol	330	U	140	330	660	660
88-06-2	2,4,6-Trichlorophenol	330	U	140	330	660	660
120-83-2	2,4-Dichlorophenol	330	U	140	330	660	660
105-67-9	2,4-Dimethylphenol	330	U	110	330	660	660
51-28-5	2,4-Dinitrophenol	660	U Q	300	660	1100	1100
121-14-2	2,4-Dinitrotoluene	66	U	26	66	130	130
87-65-0	2,6-Dichlorophenol	330	U	150	330	660	660
606-20-2	2,6-Dinitrotoluene	66	U	26	66	130	130
91-58-7	2-Chloronaphthalene	66	U	25	66	130	130
95-57-8	2-Chlorophenol	660	U	370	660	2200	2200
91-57-6	2-Methylnaphthalene	66	U	27	66	130	130
95-48-7	2-Methylphenol	660	U	460	660	2200	2200
88-74-4	2-Nitroaniline	66	U	25	66	130	130
88-75-5	2-Nitrophenol	330	U	310	330	1100	1100
1319-77-3	3 & 4-Methylphenol	1200	U	710	1200	4000	4000
91-94-1	3,3'-Dichlorobenzidine	330	U Q,Z	160	330	550	550

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1B

SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-09C-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.11 (g/L)	CTL Sample ID:	321172
% Solids:	90.0	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 01:29	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
99-09-2	3-Nitroaniline	130	U	24	130	220	220
534-52-1	4,6-Dinitro-2-methylphenol	330	U	300	330	1100	1100
101-55-3	4-Bromophenyl-phenyl ether	66	U	27	66	130	130
59-50-7	4-Chloro-3-methylphenol	660	U	420	660	2200	2200
106-47-8	4-Chloroaniline	66	U	43	66	220	220
7005-72-3	4-Chlorophenyl-phenyl ether	66	U	29	66	130	130
100-01-6	4-Nitroaniline	66	U	33	66	130	130
100-02-7	4-Nitrophenol	660	U	440	660	2200	2200
83-32-9	Acenaphthene	66	U	26	66	130	130
208-96-8	Acenaphthylene	66	U	26	66	130	130
98-86-2	Acetophenone	130	U	82	130	440	440
62-53-3	Aniline	66	U Q	34	66	130	130
120-12-7	Anthracene	66	U	26	66	130	130
1912-24-9	Atrazine	66	U	15	66	130	130
103-33-3/122-66-7	Azobenzene & 1,2-Diphenylhydra	130	U	60	130	260	260
100-52-7	Benzaldehyde	66	U	21	66	130	130
92-87-5	Benzidine	1600	U Z	1000	1600	5500	5500
56-55-3	Benzo(a)anthracene	66	U	27	66	130	130
50-32-8	Benzo(a)pyrene	66	U	16	66	130	130
205-99-2	Benzo(b)fluoranthene	52.4	J	27	66	130	130
191-24-2	Benzo(g,h,i)perylene	66	U Z	24	66	130	130
207-08-9	Benzo(k)fluoranthene	66	U	27	66	130	130
65-85-0	Benzoic acid	1600	U	320	1600	3300	3300
100-51-6	Benzyl alcohol	220	U Z	91	220	440	440

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1B

SEMIVOLATILE ORGANICS ANALYSIS

Sample Description: **GN-SO-09C-1**

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.11 (g/L)	CTL Sample ID:	321172
% Solids:	90.0	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 01:29	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
111-91-1	Bis(2-chloroethoxy)methane	66	U	25	66	130	130
111-44-4	Bis(2-chloroethyl)ether	66	U	27	66	130	130
108-60-1	Bis(2-chloroisopropyl)ether	66	U	33	66	130	130
117-81-7	Bis(2-ethylhexyl)phthalate	130	U	96	130	440	440
85-68-7	Butylbenzylphthalate	130	U	80	130	440	440
105-60-2	Caprolactam	220	U	82	220	440	440
86-74-8	Carbazole	66	U	31	66	130	130
218-01-9	Chrysene	66	U	27	66	130	130
53-70-3	Dibenzo(a,h)anthracene	66	U	14	66	130	130
132-64-9	Dibenzofuran	66	U	26	66	130	130
84-66-2	Diethylphthalate	130	U	70	130	440	440
131-11-3	Dimethylphthalate	130	U	69	130	440	440
84-74-2	Di-n-butylphthalate	130	U	87	130	440	440
117-84-0	Di-n-octylphthalate	66	U	65	66	220	220
206-44-0	Fluoranthene	46.6	J	29	66	130	130
86-73-7	Fluorene	66	U	27	66	130	130
118-74-1	Hexachlorobenzene	66	U	31	66	130	130
87-68-3	Hexachlorobutadiene	130	U	68	130	440	440
77-47-4	Hexachlorocyclopentadiene	130	U	57	130	220	220
67-72-1	Hexachloroethane	66	U	36	66	130	130
193-39-5	Indeno(1,2,3-cd)pyrene	66	U	25	66	130	130
78-59-1	Isophorone	66	U	55	66	220	220
91-20-3	Naphthalene	66	U	23	66	130	130
98-95-3	Nitrobenzene	66	U	65	66	220	220

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-09C-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.11 (g/L)	CTL Sample ID:	321172
% Solids:	90.0	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 01:29	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
62-75-9	N-Nitrosodimethylamine	130	U	86	130	440	440
621-64-7	N-Nitroso-di-n-propylamine	130	U	77	130	440	440
86-30-6/122-39-4	N-Nitrosodiphenylamine & Diphn	130	U	55	130	260	260
930-55-2	N-Nitrosopyrrolidine	66	U	62	66	220	220
87-86-5	Pentachlorophenol	330	U	260	330	1100	1100
85-01-8	Phenanthrene	66	U	29	66	130	130
108-95-2	Phenol	330	U	180	330	660	660
129-00-0	Pyrene	37.8	J	29	66	130	130
110-86-1	Pyridine	220	U Q	43	220	440	440

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1B

SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-DUP-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.62 (g/L)	CTL Sample ID:	321157
% Solids:	95.8	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D-SIM	Analytical Prep Batch #	73329
Analytical Run #:	164274	Dilution Factor:	20.00
Date & Time Analyzed:	09/10/2019 / 16:30	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1P082619	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
120-12-7	Anthracene	521		7.9	20	39	39
56-55-3	Benzo(a)anthracene	1480		9.8	20	39	39
50-32-8	Benzo(a)pyrene	943		5.9	20	39	39
205-99-2	Benzo(b)fluoranthene	1390		7.9	20	39	39
191-24-2	Benzo(g,h,i)perylene	483		5.1	20	39	39
207-08-9	Benzo(k)fluoranthene	445		12	39	79	79
218-01-9	Chrysene	1050		4.3	20	39	39
206-44-0	Fluoranthene	2540		14	39	79	79
193-39-5	Indeno(1,2,3-cd)pyrene	511		7.9	20	39	39
85-01-8	Phenanthrene	1190		22	39	79	79
129-00-0	Pyrene	1700		12	39	79	79

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-DUP-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.62 (g/L)	CTL Sample ID:	321157
% Solids:	95.8	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D-SIM	Analytical Prep Batch #	73329
Analytical Run #:	164274	Dilution Factor:	1.00
Date & Time Analyzed:	09/09/2019 / 20:15	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1P082619	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
90-12-0	1-Methylnaphthalene	14.4		0.39	0.98	2.0	2.0
91-57-6	2-Methylnaphthalene	16.2		0.49	0.98	2.0	2.0
83-32-9	Acenaphthene	170		0.49	0.98	2.0	2.0
208-96-8	Acenaphthylene	6.82		0.29	0.98	2.0	2.0
53-70-3	Dibenzo(a,h)anthracene	133		0.21	0.98	2.0	2.0
86-73-7	Fluorene	173		0.39	0.98	2.0	2.0
91-20-3	Naphthalene	16.2		0.49	0.98	2.0	2.0

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-DUP-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/L)	CTL Sample ID:	321157
% Solids:	95.8	Date Received:	08/28/2019
Conc. Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8270D	Analytical Prep Batch #	
Analytical Run #:	164485	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 21:02	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	526	J	N/A	N/A	N/A	N/A
TIC 059942-11-9	Hexanoic acid, hydroxy-, methyl ...	19.4	J	N/A	N/A	N/A	N/A
TIC 000079-39-0	Methacrylamide	14.6	J	N/A	N/A	N/A	N/A
TIC 000141-79-7	3-Penten-2-one, 4-methyl-	6.41	J	N/A	N/A	N/A	N/A
TIC 010473-13-9	3-Buten-2-ol, 2,3-dimethyl-	6.17	J	N/A	N/A	N/A	N/A
TIC 003442-78-2	Pyrene, 2-methyl-	2.96	J	N/A	N/A	N/A	N/A

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-DUP-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.62 (g/L)	CTL Sample ID:	321157
% Solids:	95.8	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 21:02	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
92-52-4	1,1'-Biphenyl	59	U	14	59	120	120
95-94-3	1,2,4,5-Tetrachlorobenzene	59	U	22	59	120	120
120-82-1	1,2,4-Trichlorobenzene	59	U	21	59	120	120
95-50-1	1,2-Dichlorobenzene	59	U	24	59	120	120
541-73-1	1,3-Dichlorobenzene	59	U	20	59	120	120
106-46-7	1,4-Dichlorobenzene	59	U	19	59	120	120
90-12-0	1-Methylnaphthalene	59	U	25	59	120	120
58-90-2	2,3,4,6-Tetrachlorophenol	290	U	130	290	590	590
95-95-4	2,4,5-Trichlorophenol	290	U	130	290	590	590
88-06-2	2,4,6-Trichlorophenol	290	U	130	290	590	590
120-83-2	2,4-Dichlorophenol	290	U	130	290	590	590
105-67-9	2,4-Dimethylphenol	290	U	97	290	590	590
51-28-5	2,4-Dinitrophenol	590	U Q	270	590	980	980
121-14-2	2,4-Dinitrotoluene	59	U	24	59	120	120
87-65-0	2,6-Dichlorophenol	290	U	140	290	590	590
606-20-2	2,6-Dinitrotoluene	59	U	24	59	120	120
91-58-7	2-Chloronaphthalene	59	U	23	59	120	120
95-57-8	2-Chlorophenol	590	U	330	590	2000	2000
91-57-6	2-Methylnaphthalene	59	U	25	59	120	120
95-48-7	2-Methylphenol	590	U	410	590	2000	2000
88-74-4	2-Nitroaniline	59	U	23	59	120	120
88-75-5	2-Nitrophenol	290	U	280	290	980	980
1319-77-3	3 & 4-Methylphenol	1100	U	640	1100	3500	3500
91-94-1	3,3'-Dichlorobenzidine	290	U Q,Z	150	290	490	490

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-DUP-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.62 (g/L)	CTL Sample ID:	321157
% Solids:	95.8	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 21:02	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
99-09-2	3-Nitroaniline	120	U	22	120	200	200
534-52-1	4,6-Dinitro-2-methylphenol	290	U	270	290	980	980
101-55-3	4-Bromophenyl-phenyl ether	59	U	25	59	120	120
59-50-7	4-Chloro-3-methylphenol	590	U	370	590	2000	2000
106-47-8	4-Chloroaniline	59	U	38	59	200	200
7005-72-3	4-Chlorophenyl-phenyl ether	59	U	26	59	120	120
100-01-6	4-Nitroaniline	59	U	29	59	120	120
100-02-7	4-Nitrophenol	590	U	390	590	2000	2000
83-32-9	Acenaphthene	183		24	59	120	120
208-96-8	Acenaphthylene	59	U	24	59	120	120
98-86-2	Acetophenone	120	U	74	120	390	390
62-53-3	Aniline	59	U Q	30	59	120	120
120-12-7	Anthracene	457		24	59	120	120
1912-24-9	Atrazine	59	U	14	59	120	120
103-33-3/122-66-7	Azobenzene & 1,2-Diphenylhydra	120	U	54	120	240	240
100-52-7	Benzaldehyde	87.5	J	19	59	120	120
92-87-5	Benzidine	1500	U Z	930	1500	4900	4900
56-55-3	Benzo(a)anthracene	1400		25	59	120	120
50-32-8	Benzo(a)pyrene	1020		15	59	120	120
205-99-2	Benzo(b)fluoranthene	1590		25	59	120	120
191-24-2	Benzo(g,h,i)perylene	642	Z	22	59	120	120
207-08-9	Benzo(k)fluoranthene	566		25	59	120	120
65-85-0	Benzoic acid	1500	U	290	1500	2900	2900
100-51-6	Benzyl alcohol	200	U Z	82	200	390	390

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-DUP-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.62 (g/L)	CTL Sample ID:	321157
% Solids:	95.8	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 21:02	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
111-91-1	Bis(2-chloroethoxy)methane	59	U	23	59	120	120
111-44-4	Bis(2-chloroethyl)ether	59	U	25	59	120	120
108-60-1	Bis(2-chloroisopropyl)ether	59	U	29	59	120	120
117-81-7	Bis(2-ethylhexyl)phthalate	120	U	86	120	390	390
85-68-7	Butylbenzylphthalate	120	U	72	120	390	390
105-60-2	Caprolactam	200	U	74	200	390	390
86-74-8	Carbazole	250		28	59	120	120
218-01-9	Chrysene	1210		25	59	120	120
53-70-3	Dibenzo(a,h)anthracene	197		13	59	120	120
132-64-9	Dibenzofuran	58.3	J	24	59	120	120
84-66-2	Diethylphthalate	120	U	63	120	390	390
131-11-3	Dimethylphthalate	120	U	62	120	390	390
84-74-2	Di-n-butylphthalate	120	U	78	120	390	390
117-84-0	Di-n-octylphthalate	59	U	58	59	200	200
206-44-0	Fluoranthene	2740		26	59	120	120
86-73-7	Fluorene	154		25	59	120	120
118-74-1	Hexachlorobenzene	59	U	28	59	120	120
87-68-3	Hexachlorobutadiene	120	U	61	120	390	390
77-47-4	Hexachlorocyclopentadiene	120	U	51	120	200	200
67-72-1	Hexachloroethane	59	U	32	59	120	120
193-39-5	Indeno(1,2,3-cd)pyrene	621		23	59	120	120
78-59-1	Isophorone	59	U	49	59	200	200
91-20-3	Naphthalene	59	U	21	59	120	120
98-95-3	Nitrobenzene	59	U	58	59	200	200

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-DUP-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.62 (g/L)	CTL Sample ID:	321157
% Solids:	95.8	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 21:02	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
62-75-9	N-Nitrosodimethylamine	120	U	77	120	390	390
621-64-7	N-Nitroso-di-n-propylamine	120	U	69	120	390	390
86-30-6/122-39-4	N-Nitrosodiphenylamine & Diphn	120	U	49	120	240	240
930-55-2	N-Nitrosopyrrolidine	59	U	55	59	200	200
87-86-5	Pentachlorophenol	290	U	240	290	980	980
85-01-8	Phenanthrene	1330		26	59	120	120
108-95-2	Phenol	290	U	160	290	590	590
129-00-0	Pyrene	1940		26	59	120	120
110-86-1	Pyridine	200	U Q	38	200	390	390

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-DUP-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.29 (g/L)	CTL Sample ID:	321165
% Solids:	84.1	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D-SIM	Analytical Prep Batch #	73329
Analytical Run #:	164274	Dilution Factor:	1.00
Date & Time Analyzed:	09/09/2019 / 22:36	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1P082619	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
90-12-0	1-Methylnaphthalene	9.79		0.46	1.2	2.3	2.3
91-57-6	2-Methylnaphthalene	14.6		0.58	1.2	2.3	2.3
83-32-9	Acenaphthene	1.44	J	0.58	1.2	2.3	2.3
208-96-8	Acenaphthylene	1.77	J	0.35	1.2	2.3	2.3
120-12-7	Anthracene	2.70		0.46	1.2	2.3	2.3
56-55-3	Benzo(a)anthracene	25.1		0.58	1.2	2.3	2.3
50-32-8	Benzo(a)pyrene	20.4		0.35	1.2	2.3	2.3
205-99-2	Benzo(b)fluoranthene	31.8		0.46	1.2	2.3	2.3
191-24-2	Benzo(g,h,i)perylene	12.8		0.30	1.2	2.3	2.3
207-08-9	Benzo(k)fluoranthene	9.05		0.69	2.3	4.6	4.6
218-01-9	Chrysene	18.6		0.25	1.2	2.3	2.3
53-70-3	Dibenzo(a,h)anthracene	7.06		0.24	1.2	2.3	2.3
206-44-0	Fluoranthene	40.7		0.81	2.3	4.6	4.6
86-73-7	Fluorene	1.53	J	0.46	1.2	2.3	2.3
193-39-5	Indeno(1,2,3-cd)pyrene	13.2		0.46	1.2	2.3	2.3
91-20-3	Naphthalene	3.76		0.58	1.2	2.3	2.3
85-01-8	Phenanthrene	19.3		1.3	2.3	4.6	4.6
129-00-0	Pyrene	29.3		0.69	2.3	4.6	4.6

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-DUP-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	(g/L)	CTL Sample ID:	321165
% Solids:	84.1	Date Received:	08/28/2019
Conc. Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8270D	Analytical Prep Batch #	
Analytical Run #:	164485	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 23:14	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC 000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	539	J	N/A	N/A	N/A	N/A
TIC 000141-79-7	3-Penten-2-one, 4-methyl-	7.04	J	N/A	N/A	N/A	N/A
TIC 003031-75-2	Hydroperoxide, 1-methylethyl	6.17	J	N/A	N/A	N/A	N/A
TIC 000288-47-1	Thiazole	5.73	J	N/A	N/A	N/A	N/A

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description: **GN-SO-DUP-2**

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.29 (g/L)	CTL Sample ID:	321165
% Solids:	84.1	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 23:14	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
92-52-4	1,1'-Biphenyl	69	U	16	69	140	140
95-94-3	1,2,4,5-Tetrachlorobenzene	69	U	25	69	140	140
120-82-1	1,2,4-Trichlorobenzene	69	U	24	69	140	140
95-50-1	1,2-Dichlorobenzene	69	U	28	69	140	140
541-73-1	1,3-Dichlorobenzene	69	U	23	69	140	140
106-46-7	1,4-Dichlorobenzene	69	U	22	69	140	140
90-12-0	1-Methylnaphthalene	69	U	29	69	140	140
58-90-2	2,3,4,6-Tetrachlorophenol	350	U	150	350	690	690
95-95-4	2,4,5-Trichlorophenol	350	U	150	350	690	690
88-06-2	2,4,6-Trichlorophenol	350	U	150	350	690	690
120-83-2	2,4-Dichlorophenol	350	U	150	350	690	690
105-67-9	2,4-Dimethylphenol	350	U	110	350	690	690
51-28-5	2,4-Dinitrophenol	690	U Q	310	690	1200	1200
121-14-2	2,4-Dinitrotoluene	69	U	28	69	140	140
87-65-0	2,6-Dichlorophenol	350	U	160	350	690	690
606-20-2	2,6-Dinitrotoluene	69	U	28	69	140	140
91-58-7	2-Chloronaphthalene	69	U	27	69	140	140
95-57-8	2-Chlorophenol	690	U	390	690	2300	2300
91-57-6	2-Methylnaphthalene	69	U	29	69	140	140
95-48-7	2-Methylphenol	690	U	490	690	2300	2300
88-74-4	2-Nitroaniline	69	U	27	69	140	140
88-75-5	2-Nitrophenol	350	U	320	350	1200	1200
1319-77-3	3 & 4-Methylphenol	1200	U	750	1200	4200	4200
91-94-1	3,3'-Dichlorobenzidine	350	U Q,Z	170	350	580	580

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-DUP-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.29 (g/L)	CTL Sample ID:	321165
% Solids:	84.1	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 23:14	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
99-09-2	3-Nitroaniline	140	U	25	140	230	230
534-52-1	4,6-Dinitro-2-methylphenol	350	U	310	350	1200	1200
101-55-3	4-Bromophenyl-phenyl ether	69	U	29	69	140	140
59-50-7	4-Chloro-3-methylphenol	690	U	440	690	2300	2300
106-47-8	4-Chloroaniline	69	U	45	69	230	230
7005-72-3	4-Chlorophenyl-phenyl ether	69	U	30	69	140	140
100-01-6	4-Nitroaniline	69	U	35	69	140	140
100-02-7	4-Nitrophenol	690	U	460	690	2300	2300
83-32-9	Acenaphthene	69	U	28	69	140	140
208-96-8	Acenaphthylene	69	U	28	69	140	140
98-86-2	Acetophenone	140	U	87	140	460	460
62-53-3	Aniline	69	U Q	36	69	140	140
120-12-7	Anthracene	69	U	28	69	140	140
1912-24-9	Atrazine	69	U	16	69	140	140
103-33-3/122-66-7	Azobenzene & 1,2-Diphenylhydra	140	U	64	140	280	280
100-52-7	Benzaldehyde	69	U	22	69	140	140
92-87-5	Benzidine	1700	U Z	1100	1700	5800	5800
56-55-3	Benzo(a)anthracene	69	U	29	69	140	140
50-32-8	Benzo(a)pyrene	69	U	17	69	140	140
205-99-2	Benzo(b)fluoranthene	32.5	J	29	69	140	140
191-24-2	Benzo(g,h,i)perylene	69	U Z	25	69	140	140
207-08-9	Benzo(k)fluoranthene	69	U	29	69	140	140
65-85-0	Benzoic acid	1700	U	340	1700	3500	3500
100-51-6	Benzyl alcohol	230	U Z	96	230	460	460

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description: **GN-SO-DUP-2**

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.29 (g/L)	CTL Sample ID:	321165
% Solids:	84.1	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 23:14	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
111-91-1	Bis(2-chloroethoxy)methane	69	U	27	69	140	140
111-44-4	Bis(2-chloroethyl)ether	69	U	29	69	140	140
108-60-1	Bis(2-chloroisopropyl)ether	69	U	35	69	140	140
117-81-7	Bis(2-ethylhexyl)phthalate	140	U	100	140	460	460
85-68-7	Butylbenzylphthalate	140	U	84	140	460	460
105-60-2	Caprolactam	230	U	87	230	460	460
86-74-8	Carbazole	69	U	32	69	140	140
218-01-9	Chrysene	69	U	29	69	140	140
53-70-3	Dibenzo(a,h)anthracene	69	U	15	69	140	140
132-64-9	Dibenzofuran	69	U	28	69	140	140
84-66-2	Diethylphthalate	140	U	74	140	460	460
131-11-3	Dimethylphthalate	140	U	73	140	460	460
84-74-2	Di-n-butylphthalate	140	U	91	140	460	460
117-84-0	Di-n-octylphthalate	69	U	68	69	230	230
206-44-0	Fluoranthene	45.9	J	30	69	140	140
86-73-7	Fluorene	69	U	29	69	140	140
118-74-1	Hexachlorobenzene	69	U	32	69	140	140
87-68-3	Hexachlorobutadiene	140	U	72	140	460	460
77-47-4	Hexachlorocyclopentadiene	140	U	60	140	230	230
67-72-1	Hexachloroethane	69	U	38	69	140	140
193-39-5	Indeno(1,2,3-cd)pyrene	69	U	27	69	140	140
78-59-1	Isophorone	69	U	58	69	230	230
91-20-3	Naphthalene	69	U	24	69	140	140
98-95-3	Nitrobenzene	69	U	68	69	230	230

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-SO-DUP-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.29 (g/L)	CTL Sample ID:	321165
% Solids:	84.1	Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 23:14	GPC Cleanup Date/Time:	09/06/2019 / 09:13
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
62-75-9	N-Nitrosodimethylamine	140	U	90	140	460	460
621-64-7	N-Nitroso-di-n-propylamine	140	U	81	140	460	460
86-30-6/122-39-4	N-Nitrosodiphenylamine & Diphn	140	U	58	140	280	280
930-55-2	N-Nitrosopyrrolidine	69	U	65	69	230	230
87-86-5	Pentachlorophenol	350	U	280	350	1200	1200
85-01-8	Phenanthrene	69	U	30	69	140	140
108-95-2	Phenol	350	U	180	350	690	690
129-00-0	Pyrene	33.6	J	30	69	140	140
110-86-1	Pyridine	230	U Q	45	230	460	460

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-W-RB-01

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	GROUND WATER	SDG No.:	147664
Sample wt/vol:	0.96 (g/L)	CTL Sample ID:	321513
% Solids:		Date Received:	08/29/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/03/2019 / 13:30
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73348
Analytical Run #:	164171	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 16:48	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
92-52-4	1,1'-Biphenyl	0.42	U	0.16	0.42	1.0	1.0
95-94-3	1,2,4,5-Tetrachlorobenzene	0.42	U	0.18	0.42	1.0	1.0
120-82-1	1,2,4-Trichlorobenzene	0.42	U	0.18	0.42	1.0	1.0
95-50-1	1,2-Dichlorobenzene	0.42	U	0.19	0.42	1.0	1.0
541-73-1	1,3-Dichlorobenzene	0.42	U	0.21	0.42	1.0	1.0
106-46-7	1,4-Dichlorobenzene	0.42	U	0.20	0.42	1.0	1.0
90-12-0	1-Methylnaphthalene	0.42	U	0.17	0.42	1.0	1.0
58-90-2	2,3,4,6-Tetrachlorophenol	2.1	U	1.1	2.1	5.2	5.2
95-95-4	2,4,5-Trichlorophenol	2.1	U	1.1	2.1	5.2	5.2
88-06-2	2,4,6-Trichlorophenol	2.1	U	1.0	2.1	5.2	5.2
120-83-2	2,4-Dichlorophenol	2.1	U	1.0	2.1	5.2	5.2
105-67-9	2,4-Dimethylphenol	2.1	U	0.85	2.1	5.2	5.2
51-28-5	2,4-Dinitrophenol	5.2	U	1.6	5.2	10	10
121-14-2	2,4-Dinitrotoluene	0.42	U	0.22	0.42	1.0	1.0
87-65-0	2,6-Dichlorophenol	2.1	U	1.3	2.1	5.2	5.2
606-20-2	2,6-Dinitrotoluene	0.42	U	0.29	0.42	1.0	1.0
91-58-7	2-Chloronaphthalene	0.42	U	0.19	0.42	1.0	1.0
95-57-8	2-Chlorophenol	2.1	U	0.91	2.1	5.2	5.2
91-57-6	2-Methylnaphthalene	0.42	U	0.18	0.42	1.0	1.0
95-48-7	2-Methylphenol	2.1	U	0.90	2.1	5.2	5.2
88-74-4	2-Nitroaniline	0.42	U	0.23	0.42	2.1	2.1
88-75-5	2-Nitrophenol	2.1	U	0.94	2.1	5.2	5.2
1319-77-3	3 & 4-Methylphenol	3.8	U	1.5	3.8	9.4	9.4
91-94-1	3,3'-Dichlorobenzidine	1.0	U	0.69	1.0	2.6	2.6

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-W-RB-01

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	GROUND WATER	SDG No.:	147664
Sample wt/vol:	0.96 (g/L)	CTL Sample ID:	321513
% Solids:		Date Received:	08/29/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/03/2019 / 13:30
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73348
Analytical Run #:	164171	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 16:48	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
99-09-2	3-Nitroaniline	1.0	U	0.27	1.0	2.1	2.1
534-52-1	4,6-Dinitro-2-methylphenol	5.2	U	1.7	5.2	10	10
101-55-3	4-Bromophenyl-phenyl ether	0.42	U	0.21	0.42	2.1	2.1
59-50-7	4-Chloro-3-methylphenol	2.1	U	0.83	2.1	5.2	5.2
106-47-8	4-Chloroaniline	0.42	U	0.13	0.42	1.0	1.0
7005-72-3	4-Chlorophenyl-phenyl ether	0.42	U	0.19	0.42	1.0	1.0
100-01-6	4-Nitroaniline	1.0	U	0.16	1.0	2.1	2.1
100-02-7	4-Nitrophenol	5.2	U	1.1	5.2	10	10
83-32-9	Acenaphthene	0.42	U	0.19	0.42	1.0	1.0
208-96-8	Acenaphthylene	0.42	U	0.18	0.42	1.0	1.0
98-86-2	Acetophenone	0.42	U	0.28	0.42	1.0	1.0
62-53-3	Aniline	2.1	U	0.75	2.1	4.2	4.2
120-12-7	Anthracene	0.42	U	0.11	0.42	1.0	1.0
1912-24-9	Atrazine	0.42	U	0.27	0.42	1.0	1.0
103-33-3/122-66-7	Azobenzene & 1,2-Diphenylhydra	0.83	U	0.54	0.83	2.1	2.1
100-52-7	Benzaldehyde	0.42	U	0.26	0.42	1.0	1.0
92-87-5	Benzidine	52	U	30	52	100	100
56-55-3	Benzo(a)anthracene	0.42	U	0.13	0.42	1.0	1.0
50-32-8	Benzo(a)pyrene	0.42	U	0.15	0.42	1.0	1.0
205-99-2	Benzo(b)fluoranthene	0.42	U	0.18	0.42	1.0	1.0
191-24-2	Benzo(g,h,i)perylene	0.42	U	0.22	0.42	1.0	1.0
207-08-9	Benzo(k)fluoranthene	0.42	U	0.21	0.42	1.0	1.0
65-85-0	Benzoic acid	26	U	11	26	52	52
100-51-6	Benzyl alcohol	1.0	U	0.56	1.0	2.1	2.1

CT LABORATORIES
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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-W-RB-01

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	GROUND WATER	SDG No.:	147664
Sample wt/vol:	0.96 (g/L)	CTL Sample ID:	321513
% Solids:		Date Received:	08/29/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/03/2019 / 13:30
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73348
Analytical Run #:	164171	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 16:48	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
111-91-1	Bis(2-chloroethoxy)methane	0.42	U	0.20	0.42	1.0	1.0
111-44-4	Bis(2-chloroethyl)ether	0.42	U	0.22	0.42	1.0	1.0
108-60-1	Bis(2-chloroisopropyl)ether	0.42	U	0.23	0.42	1.0	1.0
117-81-7	Bis(2-ethylhexyl)phthalate	1.0	U	0.46	1.0	2.1	2.1
85-68-7	Butylbenzylphthalate	1.0	U	0.49	1.0	2.1	2.1
105-60-2	Caprolactam	1.0	U	0.20	1.0	2.1	2.1
86-74-8	Carbazole	0.42	U	0.13	0.42	1.0	1.0
218-01-9	Chrysene	0.42	U	0.17	0.42	1.0	1.0
53-70-3	Dibenzo(a,h)anthracene	0.42	U	0.18	0.42	1.0	1.0
132-64-9	Dibenzofuran	0.42	U	0.20	0.42	1.0	1.0
84-66-2	Diethylphthalate	1.0	U	0.47	1.0	2.1	2.1
131-11-3	Dimethylphthalate	1.0	U	0.56	1.0	2.1	2.1
84-74-2	Di-n-butylphthalate	2.1	U	0.70	2.1	4.2	4.2
117-84-0	Di-n-octylphthalate	1.0	U	0.51	1.0	2.1	2.1
206-44-0	Fluoranthene	0.42	U	0.14	0.42	1.0	1.0
86-73-7	Fluorene	0.42	U	0.20	0.42	1.0	1.0
118-74-1	Hexachlorobenzene	0.42	U	0.28	0.42	1.0	1.0
87-68-3	Hexachlorobutadiene	0.42	U	0.19	0.42	1.0	1.0
77-47-4	Hexachlorocyclopentadiene	1.0	U	0.27	1.0	4.2	4.2
67-72-1	Hexachloroethane	0.42	U	0.23	0.42	1.0	1.0
193-39-5	Indeno(1,2,3-cd)pyrene	0.42	U	0.19	0.42	1.0	1.0
78-59-1	Isophorone	0.42	U	0.19	0.42	1.0	1.0
91-20-3	Naphthalene	0.42	U	0.19	0.42	1.0	1.0
98-95-3	Nitrobenzene	0.42	U	0.17	0.42	1.0	1.0

CT LABORATORIES
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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-W-RB-01

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	GROUND WATER	SDG No.:	147664
Sample wt/vol:	0.96 (g/L)	CTL Sample ID:	321513
% Solids:		Date Received:	08/29/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/03/2019 / 13:30
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73348
Analytical Run #:	164171	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 16:48	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
62-75-9	N-Nitrosodimethylamine	1.0	U	0.49	1.0	2.1	2.1
621-64-7	N-Nitroso-di-n-propylamine	0.42	U	0.19	0.42	1.0	1.0
86-30-6/122-39-4	N-Nitrosodiphenylamine & Diphn	0.83	U	0.38	0.83	2.1	2.1
930-55-2	N-Nitrosopyrrolidine	1.0	U	0.22	1.0	2.1	2.1
87-86-5	Pentachlorophenol	2.1	U	1.1	2.1	5.2	5.2
85-01-8	Phenanthrene	0.42	U	0.31	0.42	1.0	1.0
108-95-2	Phenol	2.1	U	0.50	2.1	5.2	5.2
129-00-0	Pyrene	0.42	U	0.14	0.42	1.0	1.0
110-86-1	Pyridine	1.0	U	0.65	1.0	4.2	4.2

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SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

GN-W-RB-01

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	GROUND WATER	SDG No.:	147664
Sample wt/vol:	0.96 (g/L)	CTL Sample ID:	321513
% Solids:		Date Received:	08/29/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/03/2019 / 13:30
Analytical Method:	EPA 8270D-SIM	Analytical Prep Batch #	73347
Analytical Run #:	164170	Dilution Factor:	1.00
Date & Time Analyzed:	09/09/2019 / 17:34	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1P082619	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
90-12-0	1-Methylnaphthalene	0.021	U	0.0073	0.021	0.042	0.042
91-57-6	2-Methylnaphthalene	0.021	U	0.011	0.021	0.042	0.042
83-32-9	Acenaphthene	0.021	U	0.0073	0.021	0.042	0.042
208-96-8	Acenaphthylene	0.021	U	0.0063	0.021	0.042	0.042
120-12-7	Anthracene	0.021	U	0.0063	0.021	0.042	0.042
56-55-3	Benzo(a)anthracene	0.021	U	0.0073	0.021	0.042	0.042
50-32-8	Benzo(a)pyrene	0.021	U	0.0063	0.021	0.042	0.042
205-99-2	Benzo(b)fluoranthene	0.021	U	0.0073	0.021	0.042	0.042
191-24-2	Benzo(g,h,i)perylene	0.021	U	0.0063	0.021	0.042	0.042
207-08-9	Benzo(k)fluoranthene	0.021	U	0.010	0.021	0.042	0.042
218-01-9	Chrysene	0.021	U	0.0073	0.021	0.042	0.042
53-70-3	Dibenzo(a,h)anthracene	0.021	U	0.0063	0.021	0.042	0.042
206-44-0	Fluoranthene	0.021	U	0.0094	0.021	0.042	0.042
86-73-7	Fluorene	0.021	U	0.0094	0.021	0.042	0.042
193-39-5	Indeno(1,2,3-cd)pyrene	0.021	U	0.0063	0.021	0.042	0.042
91-20-3	Naphthalene	0.014	J	0.011	0.021	0.042	0.042
85-01-8	Phenanthrene	0.021	U	0.011	0.021	0.042	0.042
129-00-0	Pyrene	0.0084	J B	0.0073	0.021	0.042	0.042

CT LABORATORIES
delivering more than data from your environmental analyses

1B-2

Sample Description: **METHOD BLANK**

SEMIVOLATILE ORGANICS ANALYSIS (MB or CC

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:		SDG No.:	147664
Sample wt/vol:	10.00 (g/L)	CTL Sample ID:	321427
% Solids:		Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D-SIM	Analytical Prep Batch #	73329
Analytical Run #:	164274	Dilution Factor:	1.00
Cleanup Date/Time/Type:	09/06/2019 09:13 (GPC) , 09/09/2019 16:00 (Sulfur) , ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1P082619	Concentration Units:	ug/kg

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
90-12-0	1-Methylnaphthalene	09/09/2019	18:35	0.4	U	0.4	2.0	***1.0***
91-57-6	2-Methylnaphthalene	09/09/2019	18:35	0.5	U	0.5	2.0	***1.0***
83-32-9	Acenaphthene	09/09/2019	18:35	0.5	U	0.5	2.0	***1.0***
208-96-8	Acenaphthylene	09/09/2019	18:35	0.3	U	0.3	2.0	***1.0***
120-12-7	Anthracene	09/09/2019	18:35	0.4	U	0.4	2.0	***1.0***
56-55-3	Benzo(a)anthracene	09/09/2019	18:35	0.51	U	0.51	2.0	***1.0***
50-32-8	Benzo(a)pyrene	09/09/2019	18:35	0.3	U	0.3	2.0	***1.0***
205-99-2	Benzo(b)fluoranthene	09/09/2019	18:35	0.4	U	0.4	2.0	***1.0***
191-24-2	Benzo(g,h,i)perylene	09/09/2019	18:35	0.26	U	0.26	2.00	***1.00***
207-08-9	Benzo(k)fluoranthene	09/09/2019	18:35	0.6	U	0.6	4.0	***2.0***
218-01-9	Chrysene	09/09/2019	18:35	0.22	U	0.22	2.00	***1.00***
53-70-3	Dibenzo(a,h)anthracene	09/09/2019	18:35	0.21	U	0.21	2.00	***1.00***
206-44-0	Fluoranthene	09/09/2019	18:35	0.7	U	0.7	4.0	***2.0***
86-73-7	Fluorene	09/09/2019	18:35	0.4	U	0.4	2.0	***1.0***
193-39-5	Indeno(1,2,3-cd)pyrene	09/09/2019	18:35	0.4	U	0.4	2.0	***1.0***
91-20-3	Naphthalene	09/09/2019	18:35	0.5	U	0.5	2.0	***1.0***
85-01-8	Phenanthrene	09/09/2019	18:35	1.1	U	1.1	4.0	***2.0***
129-00-0	Pyrene	09/09/2019	18:35	0.6	U	0.6	4.0	***2.0***

CT LABORATORIES
delivering more than data from your environmental analyses

1B-2

Sample Description: **METHOD BLANK**

SEMIVOLATILE ORGANICS ANALYSIS (MB or CC

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:		SDG No.:	147664
Sample wt/vol:	10.00 (g/L)	CTL Sample ID:	321438
% Solids:		Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Cleanup Date/Time/Type:	09/06/2019 09:13 (GPC) , 09/09/2019 16:00 (Sulfur) , ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
92-52-4	1,1'-Biphenyl	09/10/2019	19:27	14	U	14	120	***60***
95-94-3	1,2,4,5-Tetrachlorobenzene	09/10/2019	19:27	22	U	22	120	***60***
120-82-1	1,2,4-Trichlorobenzene	09/10/2019	19:27	21	U	21	120	***60***
95-50-1	1,2-Dichlorobenzene	09/10/2019	19:27	24	U	24	120	***60***
541-73-1	1,3-Dichlorobenzene	09/10/2019	19:27	20	U	20	120	***60***
106-46-7	1,4-Dichlorobenzene	09/10/2019	19:27	19	U	19	120	***60***
90-12-0	1-Methylnaphthalene	09/10/2019	19:27	25	U	25	120	***60***
58-90-2	2,3,4,6-Tetrachlorophenol	09/10/2019	19:27	110	U	110	600	***300***
95-95-4	2,4,5-Trichlorophenol	09/10/2019	19:27	130	U	130	600	***300***
88-06-2	2,4,6-Trichlorophenol	09/10/2019	19:27	130	U	130	600	***300***
120-83-2	2,4-Dichlorophenol	09/10/2019	19:27	120	U	120	600	***300***
105-67-9	2,4-Dimethylphenol	09/10/2019	19:27	99	U	99	600	***300***
51-28-5	2,4-Dinitrophenol	09/10/2019	19:27	270	U	270	1000	***500***
121-14-2	2,4-Dinitrotoluene	09/10/2019	19:27	24	U	24	120	***60***
87-65-0	2,6-Dichlorophenol	09/10/2019	19:27	140	U	140	600	***300***
606-20-2	2,6-Dinitrotoluene	09/10/2019	19:27	24	U	24	120	***60***
91-58-7	2-Chloronaphthalene	09/10/2019	19:27	23	U	23	120	***60***
95-57-8	2-Chlorophenol	09/10/2019	19:27	340	U	340	2000	***1000***
91-57-6	2-Methylnaphthalene	09/10/2019	19:27	25	U	25	120	***60***
95-48-7	2-Methylphenol	09/10/2019	19:27	420	U	420	2000	***1000***
88-74-4	2-Nitroaniline	09/10/2019	19:27	23	U	23	120	***60***
88-75-5	2-Nitrophenol	09/10/2019	19:27	280	U	280	1000	***500***
1319-77-3	3 & 4-Methylphenol	09/10/2019	19:27	650	U	650	3600	***1800***

CT LABORATORIES
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Sample Description: **METHOD BLANK**

SEMIVOLATILE ORGANICS ANALYSIS (MB or CC

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:		SDG No.:	147664
Sample wt/vol:	10.00 (g/L)	CTL Sample ID:	321438
% Solids:		Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Cleanup Date/Time/Type:	09/06/2019 09:13 (GPC) , 09/09/2019 16:00 (Sulfur) , ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
91-94-1	3,3'-Dichlorobenzidine	09/10/2019	19:27	150	U	150	500	***250***
99-09-2	3-Nitroaniline	09/10/2019	19:27	22	U	22	200	***100***
534-52-1	4,6-Dinitro-2-methylphenol	09/10/2019	19:27	270	U	270	1000	***500***
101-55-3	4-Bromophenyl-phenyl ether	09/10/2019	19:27	25	U	25	120	***60***
59-50-7	4-Chloro-3-methylphenol	09/10/2019	19:27	380	U	380	2000	***1000***
106-47-8	4-Chloroaniline	09/10/2019	19:27	39	U	39	200	***100***
7005-72-3	4-Chlorophenyl-phenyl ether	09/10/2019	19:27	26	U	26	120	***60***
100-01-6	4-Nitroaniline	09/10/2019	19:27	30	U	30	120	***60***
100-02-7	4-Nitrophenol	09/10/2019	19:27	400	U	400	2000	***1000***
83-32-9	Acenaphthene	09/10/2019	19:27	24	U	24	120	***60***
208-96-8	Acenaphthylene	09/10/2019	19:27	24	U	24	120	***60***
98-86-2	Acetophenone	09/10/2019	19:27	75	U	75	400	***200***
62-53-3	Aniline	09/10/2019	19:27	31	U	31	120	***60***
120-12-7	Anthracene	09/10/2019	19:27	24	U	24	120	***60***
1912-24-9	Atrazine	09/10/2019	19:27	14	U	14	120	***60***
103-33-3/122-66-7	Azobenzene & 1,2-Diphenylhydra	09/10/2019	19:27	55	U	55	240	***120***
100-52-7	Benzaldehyde	09/10/2019	19:27	19	U	19	120	***60***
92-87-5	Benzidine	09/10/2019	19:27	950	U	950	5000	***2500***
56-55-3	Benzo(a)anthracene	09/10/2019	19:27	25	U	25	120	***60***
50-32-8	Benzo(a)pyrene	09/10/2019	19:27	15	U	15	120	***60***
205-99-2	Benzo(b)fluoranthene	09/10/2019	19:27	25	U	25	120	***60***
191-24-2	Benzo(g,h,i)perylene	09/10/2019	19:27	22	U	22	120	***60***
207-08-9	Benzo(k)fluoranthene	09/10/2019	19:27	25	U	25	120	***60***

CT LABORATORIES
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Sample Description: **METHOD BLANK**

SEMIVOLATILE ORGANICS ANALYSIS (MB or CC

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:		SDG No.:	147664
Sample wt/vol:	10.00 (g/L)	CTL Sample ID:	321438
% Solids:		Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Cleanup Date/Time/Type:	09/06/2019 09:13 (GPC) , 09/09/2019 16:00 (Sulfur) , ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
65-85-0	Benzoic acid	09/10/2019	19:27	291	U	291	3000	***1500***
100-51-6	Benzyl alcohol	09/10/2019	19:27	83	U	83	400	***200***
111-91-1	Bis(2-chloroethoxy)methane	09/10/2019	19:27	23	U	23	120	***60***
111-44-4	Bis(2-chloroethyl)ether	09/10/2019	19:27	25	U	25	120	***60***
108-60-1	Bis(2-chloroisopropyl)ether	09/10/2019	19:27	30	U	30	120	***60***
117-81-7	Bis(2-ethylhexyl)phthalate	09/10/2019	19:27	87	U	87	400	***200***
85-68-7	Butylbenzylphthalate	09/10/2019	19:27	73	U	73	400	***200***
105-60-2	Caprolactam	09/10/2019	19:27	75	U	75	400	***200***
86-74-8	Carbazole	09/10/2019	19:27	28	U	28	120	***60***
218-01-9	Chrysene	09/10/2019	19:27	25	U	25	120	***60***
53-70-3	Dibenzo(a,h)anthracene	09/10/2019	19:27	13	U	13	120	***60***
132-64-9	Dibenzofuran	09/10/2019	19:27	24	U	24	120	***60***
84-66-2	Diethylphthalate	09/10/2019	19:27	64	U	64	400	***200***
131-11-3	Dimethylphthalate	09/10/2019	19:27	63	U	63	400	***200***
84-74-2	Di-n-butylphthalate	09/10/2019	19:27	79	U	79	400	***200***
117-84-0	Di-n-octylphthalate	09/10/2019	19:27	59	U	59	200	***100***
206-44-0	Fluoranthene	09/10/2019	19:27	26	U	26	120	***60***
86-73-7	Fluorene	09/10/2019	19:27	25	U	25	120	***60***
118-74-1	Hexachlorobenzene	09/10/2019	19:27	28	U	28	120	***60***
87-68-3	Hexachlorobutadiene	09/10/2019	19:27	62	U	62	400	***200***
77-47-4	Hexachlorocyclopentadiene	09/10/2019	19:27	52	U	52	200	***100***
67-72-1	Hexachloroethane	09/10/2019	19:27	33	U	33	120	***60***
193-39-5	Indeno(1,2,3-cd)pyrene	09/10/2019	19:27	23	U	23	120	***60***

CT LABORATORIES
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Sample Description: **METHOD BLANK**

SEMIVOLATILE ORGANICS ANALYSIS (MB or CC

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:		SDG No.:	147664
Sample wt/vol:	10.00 (g/L)	CTL Sample ID:	321438
% Solids:		Date Received:	08/28/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/04/2019 / 09:50
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73331
Analytical Run #:	164275	Dilution Factor:	1.00
Cleanup Date/Time/Type:	09/06/2019 09:13 (GPC) , 09/09/2019 16:00 (Sulfur) , ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/kg

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
78-59-1	Isophorone	09/10/2019	19:27	50	U	50	200	***100***
91-20-3	Naphthalene	09/10/2019	19:27	21	U	21	120	***60***
98-95-3	Nitrobenzene	09/10/2019	19:27	59	U	59	200	***100***
62-75-9	N-Nitrosodimethylamine	09/10/2019	19:27	78	U	78	400	***200***
621-64-7	N-Nitroso-di-n-propylamine	09/10/2019	19:27	70	U	70	400	***200***
86-30-6/122-39-4	N-Nitrosodiphenylamine & Diphn	09/10/2019	19:27	50	U	50	240	***120***
930-55-2	N-Nitrosopyrrolidine	09/10/2019	19:27	56	U	56	200	***100***
87-86-5	Pentachlorophenol	09/10/2019	19:27	240	U	240	1000	***500***
85-01-8	Phenanthrene	09/10/2019	19:27	26	U	26	120	***60***
108-95-2	Phenol	09/10/2019	19:27	160	U	160	600	***300***
129-00-0	Pyrene	09/10/2019	19:27	26	U	26	120	***60***
110-86-1	Pyridine	09/10/2019	19:27	39	U	39	400	***200***

CT LABORATORIES
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Sample Description: **METHOD BLANK**

SEMIVOLATILE ORGANICS ANALYSIS (MB or CC

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:		SDG No.:	147664
Sample wt/vol:	1.00 (g/L)	CTL Sample ID:	321835
% Solids:		Date Received:	08/29/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/03/2019 / 13:30
Analytical Method:	EPA 8270D-SIM	Analytical Prep Batch #	73347
Analytical Run #:	164170	Dilution Factor:	1.00
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1P082619	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
90-12-0	1-Methylnaphthalene	09/09/2019	16:54	0.007	U	0.007	0.040	***0.020***
91-57-6	2-Methylnaphthalene	09/09/2019	16:54	0.011	U	0.011	0.040	***0.020***
83-32-9	Acenaphthene	09/09/2019	16:54	0.007	U	0.007	0.040	***0.020***
208-96-8	Acenaphthylene	09/09/2019	16:54	0.006	U	0.006	0.040	***0.020***
120-12-7	Anthracene	09/09/2019	16:54	0.006	U	0.006	0.040	***0.020***
56-55-3	Benzo(a)anthracene	09/09/2019	16:54	0.007	U	0.007	0.040	***0.020***
50-32-8	Benzo(a)pyrene	09/09/2019	16:54	0.006	U	0.006	0.040	***0.020***
205-99-2	Benzo(b)fluoranthene	09/09/2019	16:54	0.007	U	0.007	0.040	***0.020***
191-24-2	Benzo(g,h,i)perylene	09/09/2019	16:54	0.006	U	0.006	0.040	***0.020***
207-08-9	Benzo(k)fluoranthene	09/09/2019	16:54	0.010	U	0.010	0.040	***0.020***
218-01-9	Chrysene	09/09/2019	16:54	0.007	U	0.007	0.040	***0.020***
53-70-3	Dibenzo(a,h)anthracene	09/09/2019	16:54	0.006	U	0.006	0.040	***0.020***
206-44-0	Fluoranthene	09/09/2019	16:54	0.009	U	0.009	0.040	***0.020***
86-73-7	Fluorene	09/09/2019	16:54	0.009	U	0.009	0.040	***0.020***
193-39-5	Indeno(1,2,3-cd)pyrene	09/09/2019	16:54	0.006	U	0.006	0.040	***0.020***
91-20-3	Naphthalene	09/09/2019	16:54	0.011	U	0.011	0.040	***0.020***
85-01-8	Phenanthrene	09/09/2019	16:54	0.011	U	0.011	0.040	***0.020***
129-00-0	Pyrene	09/09/2019	16:54	0.00938	B	0.007	0.040	***0.020***

CT LABORATORIES
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1B-2

Sample Description: **METHOD BLANK**

SEMIVOLATILE ORGANICS ANALYSIS (MB or CC

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:		SDG No.:	147664
Sample wt/vol:	1.00 (g/L)	CTL Sample ID:	321838
% Solids:		Date Received:	08/29/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/03/2019 / 13:30
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73348
Analytical Run #:	164171	Dilution Factor:	1.00
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
92-52-4	1,1'-Biphenyl	09/05/2019	16:12	0.15	U	0.15	1.00	***0.50***
95-94-3	1,2,4,5-Tetrachlorobenzene	09/05/2019	16:12	0.17	U	0.17	1.00	***0.50***
120-82-1	1,2,4-Trichlorobenzene	09/05/2019	16:12	0.17	U	0.17	1.00	***0.50***
95-50-1	1,2-Dichlorobenzene	09/05/2019	16:12	0.18	U	0.18	1.00	***0.50***
541-73-1	1,3-Dichlorobenzene	09/05/2019	16:12	0.20	U	0.20	1.00	***0.50***
106-46-7	1,4-Dichlorobenzene	09/05/2019	16:12	0.19	U	0.19	1.00	***0.50***
90-12-0	1-Methylnaphthalene	09/05/2019	16:12	0.16	U	0.16	1.00	***0.50***
58-90-2	2,3,4,6-Tetrachlorophenol	09/05/2019	16:12	1.1	U	1.1	5.0	***2.5***
95-95-4	2,4,5-Trichlorophenol	09/05/2019	16:12	1.1	U	1.1	5.0	***2.5***
88-06-2	2,4,6-Trichlorophenol	09/05/2019	16:12	1.0	U	1.0	5.0	***2.5***
120-83-2	2,4-Dichlorophenol	09/05/2019	16:12	1.0	U	1.0	5.0	***2.5***
105-67-9	2,4-Dimethylphenol	09/05/2019	16:12	0.82	U	0.82	5.0	***2.5***
51-28-5	2,4-Dinitrophenol	09/05/2019	16:12	1.5	U	1.5	10.0	***5.0***
121-14-2	2,4-Dinitrotoluene	09/05/2019	16:12	0.21	U	0.21	1.00	***0.50***
87-65-0	2,6-Dichlorophenol	09/05/2019	16:12	1.2	U	1.2	5.0	***2.5***
606-20-2	2,6-Dinitrotoluene	09/05/2019	16:12	0.28	U	0.28	1.00	***0.50***
91-58-7	2-Chloronaphthalene	09/05/2019	16:12	0.18	U	0.18	1.00	***0.50***
95-57-8	2-Chlorophenol	09/05/2019	16:12	0.87	U	0.87	5.0	***2.5***
91-57-6	2-Methylnaphthalene	09/05/2019	16:12	0.17	U	0.17	1.00	***0.50***
95-48-7	2-Methylphenol	09/05/2019	16:12	0.86	U	0.86	5.0	***2.5***
88-74-4	2-Nitroaniline	09/05/2019	16:12	0.22	U	0.22	2.00	***1.00***
88-75-5	2-Nitrophenol	09/05/2019	16:12	0.90	U	0.90	5.0	***2.5***
1319-77-3	3 & 4-Methylphenol	09/05/2019	16:12	1.4	U	1.4	9.0	***4.5***

CT LABORATORIES
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SEMIVOLATILE ORGANICS ANALYSIS (MB or CC

Sample Description

METHOD BLANK

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:		SDG No.:	147664
Sample wt/vol:	1.00 (g/L)	CTL Sample ID:	321838
% Solids:		Date Received:	08/29/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/03/2019 / 13:30
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73348
Analytical Run #:	164171	Dilution Factor:	1.00
Cleanup Date/Time/Type:	, , ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
91-94-1	3,3'-Dichlorobenzidine	09/05/2019	16:12	0.66	U	0.66	2.50	***1.25***
99-09-2	3-Nitroaniline	09/05/2019	16:12	0.26	U	0.26	2.00	***1.00***
534-52-1	4,6-Dinitro-2-methylphenol	09/05/2019	16:12	1.6	U	1.6	10.0	***5.0***
101-55-3	4-Bromophenyl-phenyl ether	09/05/2019	16:12	0.20	U	0.20	2.00	***1.00***
59-50-7	4-Chloro-3-methylphenol	09/05/2019	16:12	0.76	U	0.76	5.00	***2.50***
106-47-8	4-Chloroaniline	09/05/2019	16:12	0.12	U	0.12	1.00	***0.50***
7005-72-3	4-Chlorophenyl-phenyl ether	09/05/2019	16:12	0.18	U	0.18	1.00	***0.50***
100-01-6	4-Nitroaniline	09/05/2019	16:12	0.15	U	0.15	2.00	***1.00***
100-02-7	4-Nitrophenol	09/05/2019	16:12	1.1	U	1.1	10.0	***5.0***
83-32-9	Acenaphthene	09/05/2019	16:12	0.18	U	0.18	1.00	***0.50***
208-96-8	Acenaphthylene	09/05/2019	16:12	0.17	U	0.17	1.00	***0.50***
98-86-2	Acetophenone	09/05/2019	16:12	0.27	U	0.27	1.00	***0.50***
62-53-3	Aniline	09/05/2019	16:12	0.72	U	0.72	4.00	***2.00***
120-12-7	Anthracene	09/05/2019	16:12	0.11	U	0.11	1.00	***0.50***
1912-24-9	Atrazine	09/05/2019	16:12	0.26	U	0.26	1.00	***0.50***
103-33-3/122-66-7	Azobenzene & 1,2-Diphenylhydra	09/05/2019	16:12	0.52	U	0.52	2.00	***1.00***
100-52-7	Benzaldehyde	09/05/2019	16:12	0.25	U	0.25	1.00	***0.50***
92-87-5	Benzidine	09/05/2019	16:12	29	U	29	100	***50***
56-55-3	Benzo(a)anthracene	09/05/2019	16:12	0.12	U	0.12	1.00	***0.50***
50-32-8	Benzo(a)pyrene	09/05/2019	16:12	0.14	U	0.14	1.00	***0.50***
205-99-2	Benzo(b)fluoranthene	09/05/2019	16:12	0.17	U	0.17	1.00	***0.50***
191-24-2	Benzo(g,h,i)perylene	09/05/2019	16:12	0.21	U	0.21	1.00	***0.50***
207-08-9	Benzo(k)fluoranthene	09/05/2019	16:12	0.20	U	0.20	1.00	***0.50***

CT LABORATORIES
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Sample Description: **METHOD BLANK**

SEMIVOLATILE ORGANICS ANALYSIS (MB or CC

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:		SDG No.:	147664
Sample wt/vol:	1.00 (g/L)	CTL Sample ID:	321838
% Solids:		Date Received:	08/29/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/03/2019 / 13:30
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73348
Analytical Run #:	164171	Dilution Factor:	1.00
Cleanup Date/Time/Type:	, , ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
65-85-0	Benzoic acid	09/05/2019	16:12	11	U	11	50	***25***
100-51-6	Benzyl alcohol	09/05/2019	16:12	0.54	U	0.54	2.00	***1.00***
111-91-1	Bis(2-chloroethoxy)methane	09/05/2019	16:12	0.19	U	0.19	1.00	***0.50***
111-44-4	Bis(2-chloroethyl)ether	09/05/2019	16:12	0.21	U	0.21	1.00	***0.50***
108-60-1	Bis(2-chloroisopropyl)ether	09/05/2019	16:12	0.22	U	0.22	1.00	***0.50***
117-81-7	Bis(2-ethylhexyl)phthalate	09/05/2019	16:12	0.44	U	0.44	2.00	***1.00***
85-68-7	Butylbenzylphthalate	09/05/2019	16:12	0.47	U	0.47	2.00	***1.00***
105-60-2	Caprolactam	09/05/2019	16:12	0.19	U	0.19	2.00	***1.00***
86-74-8	Carbazole	09/05/2019	16:12	0.12	U	0.12	1.00	***0.50***
218-01-9	Chrysene	09/05/2019	16:12	0.16	U	0.16	1.00	***0.50***
53-70-3	Dibenzo(a,h)anthracene	09/05/2019	16:12	0.17	U	0.17	1.00	***0.50***
132-64-9	Dibenzofuran	09/05/2019	16:12	0.19	U	0.19	1.00	***0.50***
84-66-2	Diethylphthalate	09/05/2019	16:12	0.45	U	0.45	2.00	***1.00***
131-11-3	Dimethylphthalate	09/05/2019	16:12	0.54	U	0.54	2.00	***1.00***
84-74-2	Di-n-butylphthalate	09/05/2019	16:12	0.67	U	0.67	4.00	***2.00***
117-84-0	Di-n-octylphthalate	09/05/2019	16:12	0.49	U	0.49	2.00	***1.00***
206-44-0	Fluoranthene	09/05/2019	16:12	0.13	U	0.13	1.00	***0.50***
86-73-7	Fluorene	09/05/2019	16:12	0.19	U	0.19	1.00	***0.50***
118-74-1	Hexachlorobenzene	09/05/2019	16:12	0.27	U	0.27	1.00	***0.50***
87-68-3	Hexachlorobutadiene	09/05/2019	16:12	0.18	U	0.18	1.00	***0.50***
77-47-4	Hexachlorocyclopentadiene	09/05/2019	16:12	0.26	U	0.26	4.00	***2.00***
67-72-1	Hexachloroethane	09/05/2019	16:12	0.22	U	0.22	1.00	***0.50***
193-39-5	Indeno(1,2,3-cd)pyrene	09/05/2019	16:12	0.18	U	0.18	1.00	***0.50***

CT LABORATORIES
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Sample Description: **METHOD BLANK**

SEMIVOLATILE ORGANICS ANALYSIS (MB or CC

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:		SDG No.:	147664
Sample wt/vol:	1.00 (g/L)	CTL Sample ID:	321838
% Solids:		Date Received:	08/29/2019
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	09/03/2019 / 13:30
Analytical Method:	EPA 8270D	Analytical Prep Batch #	73348
Analytical Run #:	164171	Dilution Factor:	1.00
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	1S082019	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
78-59-1	Isophorone	09/05/2019	16:12	0.18	U	0.18	1.00	***0.50***
91-20-3	Naphthalene	09/05/2019	16:12	0.18	U	0.18	1.00	***0.50***
98-95-3	Nitrobenzene	09/05/2019	16:12	0.16	U	0.16	1.00	***0.50***
62-75-9	N-Nitrosodimethylamine	09/05/2019	16:12	0.47	U	0.47	2.00	***1.00***
621-64-7	N-Nitroso-di-n-propylamine	09/05/2019	16:12	0.18	U	0.18	1.00	***0.50***
86-30-6/122-39-4	N-Nitrosodiphenylamine & Diphn	09/05/2019	16:12	0.36	U	0.36	2.00	***1.00***
930-55-2	N-Nitrosopyrrolidine	09/05/2019	16:12	0.21	U	0.21	2.00	***1.00***
87-86-5	Pentachlorophenol	09/05/2019	16:12	1.1	U	1.1	5.0	***2.5***
85-01-8	Phenanthrene	09/05/2019	16:12	0.30	U	0.30	1.00	***0.50***
108-95-2	Phenol	09/05/2019	16:12	0.48	U	0.48	5.00	***2.50***
129-00-0	Pyrene	09/05/2019	16:12	0.13	U	0.13	1.00	***0.50***
110-86-1	Pyridine	09/05/2019	16:12	0.62	U	0.62	4.00	***2.00***

CT LABORATORIES
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WATER SEMI VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Analytical Method:	EPA 8270D	SDG:	147664
Analytical Run #:	164171	ICAL Calibration #:	1S082019

CTLab #	321513				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,6-Tribromophenol	100	85	43	140	
Surr: 2-Fluorobiphenyl	100	73	44	119	
Surr: 2-Fluorophenol	100	47	19	119	
Surr: Nitrobenzene-d5	100	68	44	120	
Surr: Phenol-d5	100	32	1	114	
Surr: Terphenyl-d14	100	91	50	134	

CTLab #	321838	Sample Type:	Method Blank		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,6-Tribromophenol	100	76.7	43	140	
Surr: 2-Fluorobiphenyl	100	65.8	44	119	
Surr: 2-Fluorophenol	100	44.5	19	119	
Surr: Nitrobenzene-d5	100	58.8	44	120	
Surr: Phenol-d5	100	30.3	1	114	
Surr: Terphenyl-d14	100	84.2	50	134	

CTLab #	321839	Sample Type:	Lab Control Spike		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,6-Tribromophenol	100	91.3	43	140	
Surr: 2-Fluorobiphenyl	100	73.6	44	119	
Surr: 2-Fluorophenol	100	45.5	19	119	
Surr: Nitrobenzene-d5	100	68.5	44	120	
Surr: Phenol-d5	100	32.3	1	114	
Surr: Terphenyl-d14	100	93.1	50	134	

CTLab #	321840	Sample Type:	Lab Control Spike Duplicate		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,6-Tribromophenol	100	85.5	43	140	
Surr: 2-Fluorobiphenyl	100	70.9	44	119	
Surr: 2-Fluorophenol	100	43.1	19	119	
Surr: Nitrobenzene-d5	100	64.3	44	120	
Surr: Phenol-d5	100	29.8	1	114	
Surr: Terphenyl-d14	100	89.3	50	134	

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2C

WATER SEMI VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Analytical Method:	EPA 8270D-SIM	SDG:	147664
Analytical Run #:	164170	ICAL Calibration #:	1P082619

CTLab #	321513				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2-Methylnaphthalene-d1	100	74	50	150	
Surr: Fluoranthene-d10	100	88	50	150	
CTLab #	**321835**	Sample Type:		Method Blank	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2-Methylnaphthalene-d1	100	67.4	50	150	
Surr: Fluoranthene-d10	100	80.7	50	150	
CTLab #	**321836**	Sample Type:		Lab Control Spike	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2-Methylnaphthalene-d1	100	78.5	50	150	
Surr: Fluoranthene-d10	100	86.6	50	150	
CTLab #	**321837**	Sample Type:		Lab Control Spike Duplicate	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2-Methylnaphthalene-d1	100	70.5	50	150	
Surr: Fluoranthene-d10	100	88.2	50	150	

CT LABORATORIES
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SOIL SEMI VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Analytical Method:	EPA 8270D	SDG:	147664
Analytical Run #:	164275	ICAL Calibration #:	1S082019

CTLab #	321149				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,6-Tribromophenol	100	61	39	132	
Surr: 2-Fluorobiphenyl	100	72	44	115	
Surr: 2-Fluorophenol	100	57	35	115	
Surr: Nitrobenzene-d5	100	64	37	122	
Surr: Phenol-d5	100	62	33	122	
Surr: Terphenyl-d14	100	77	54	127	

CTLab #	321154				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,6-Tribromophenol	100	55	39	132	
Surr: 2-Fluorobiphenyl	100	67	44	115	
Surr: 2-Fluorophenol	100	47	35	115	
Surr: Nitrobenzene-d5	100	57	37	122	
Surr: Phenol-d5	100	56	33	122	
Surr: Terphenyl-d14	100	74	54	127	

CTLab #	321155				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,6-Tribromophenol	100	50	39	132	
Surr: 2-Fluorobiphenyl	100	64	44	115	
Surr: 2-Fluorophenol	100	49	35	115	
Surr: Nitrobenzene-d5	100	54	37	122	
Surr: Phenol-d5	100	54	33	122	
Surr: Terphenyl-d14	100	68	54	127	

CTLab #	321157				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,6-Tribromophenol	100	44	39	132	
Surr: 2-Fluorobiphenyl	100	77	44	115	
Surr: 2-Fluorophenol	100	43	35	115	
Surr: Nitrobenzene-d5	100	70	37	122	
Surr: Phenol-d5	100	61	33	122	
Surr: Terphenyl-d14	100	79	54	127	

CTLab #	321158				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,6-Tribromophenol	100	72	39	132	
Surr: 2-Fluorobiphenyl	100	65	44	115	
Surr: 2-Fluorophenol	100	60	35	115	
Surr: Nitrobenzene-d5	100	55	37	122	
Surr: Phenol-d5	100	55	33	122	
Surr: Terphenyl-d14	100	78	54	127	

CT LABORATORIES
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2D

SOIL SEMI VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Analytical Method:	EPA 8270D	SDG:	147664
Analytical Run #:	164275	ICAL Calibration #:	1S082019

CTLab #	321159				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,6-Tribromophenol	100	53	39	132	
Surr: 2-Fluorobiphenyl	100	66	44	115	
Surr: 2-Fluorophenol	100	46	35	115	
Surr: Nitrobenzene-d5	100	59	37	122	
Surr: Phenol-d5	100	56	33	122	
Surr: Terphenyl-d14	100	71	54	127	

CTLab #	321160				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,6-Tribromophenol	100	44	39	132	
Surr: 2-Fluorobiphenyl	100	61	44	115	
Surr: 2-Fluorophenol	100	36	35	115	
Surr: Nitrobenzene-d5	100	51	37	122	
Surr: Phenol-d5	100	45	33	122	
Surr: Terphenyl-d14	100	75	54	127	

CTLab #	321161				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,6-Tribromophenol	100	44	39	132	
Surr: 2-Fluorobiphenyl	100	64	44	115	
Surr: 2-Fluorophenol	100	40	35	115	
Surr: Nitrobenzene-d5	100	48	37	122	
Surr: Phenol-d5	100	45	33	122	
Surr: Terphenyl-d14	100	76	54	127	

CTLab #	321162				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,6-Tribromophenol	100	33	39	132	*FAIL*
Surr: 2-Fluorobiphenyl	100	68	44	115	
Surr: 2-Fluorophenol	100	33	35	115	*FAIL*
Surr: Nitrobenzene-d5	100	59	37	122	
Surr: Phenol-d5	100	46	33	122	
Surr: Terphenyl-d14	100	73	54	127	

CTLab #	321163				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,6-Tribromophenol	100	60	39	132	
Surr: 2-Fluorobiphenyl	100	76	44	115	
Surr: 2-Fluorophenol	100	56	35	115	
Surr: Nitrobenzene-d5	100	60	37	122	
Surr: Phenol-d5	100	58	33	122	
Surr: Terphenyl-d14	100	75	54	127	

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2D

SOIL SEMI VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Analytical Method:	EPA 8270D	SDG:	147664
Analytical Run #:	164275	ICAL Calibration #:	1S082019

CTLab #	321164				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,6-Tribromophenol	100	32	39	132	*FAIL*
Surr: 2-Fluorobiphenyl	100	61	44	115	
Surr: 2-Fluorophenol	100	24	35	115	*FAIL*
Surr: Nitrobenzene-d5	100	53	37	122	
Surr: Phenol-d5	100	41	33	122	
Surr: Terphenyl-d14	100	76	54	127	

CTLab #	321165				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,6-Tribromophenol	100	51	39	132	
Surr: 2-Fluorobiphenyl	100	67	44	115	
Surr: 2-Fluorophenol	100	48	35	115	
Surr: Nitrobenzene-d5	100	60	37	122	
Surr: Phenol-d5	100	55	33	122	
Surr: Terphenyl-d14	100	71	54	127	

CTLab #	321166				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,6-Tribromophenol	100	27	39	132	*FAIL*
Surr: 2-Fluorobiphenyl	100	73	44	115	
Surr: 2-Fluorophenol	100	23	35	115	*FAIL*
Surr: Nitrobenzene-d5	100	63	37	122	
Surr: Phenol-d5	100	44	33	122	
Surr: Terphenyl-d14	100	78	54	127	

CTLab #	321167				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,6-Tribromophenol	100	34	39	132	*FAIL*
Surr: 2-Fluorobiphenyl	100	75	44	115	
Surr: 2-Fluorophenol	100	33	35	115	*FAIL*
Surr: Nitrobenzene-d5	100	62	37	122	
Surr: Phenol-d5	100	53	33	122	
Surr: Terphenyl-d14	100	78	54	127	

CTLab #	321168				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,6-Tribromophenol	100	33	39	132	*FAIL*
Surr: 2-Fluorobiphenyl	100	69	44	115	
Surr: 2-Fluorophenol	100	36	35	115	
Surr: Nitrobenzene-d5	100	55	37	122	
Surr: Phenol-d5	100	49	33	122	
Surr: Terphenyl-d14	100	73	54	127	

CT LABORATORIES
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2D

SOIL SEMI VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CT Laboratories | Contract: HDR, INC-MEMPHIS DEPOT

Analytical Method: EPA 8270D | SDG: 147664

Analytical Run #: 164275 | ICAL Calibration #: 1S082019

CTLab #	321169				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,6-Tribromophenol	100	34	39	132	*FAIL*
Surr: 2-Fluorobiphenyl	100	70	44	115	
Surr: 2-Fluorophenol	100	32	35	115	*FAIL*
Surr: Nitrobenzene-d5	100	61	37	122	
Surr: Phenol-d5	100	49	33	122	
Surr: Terphenyl-d14	100	77	54	127	

CTLab #	321170				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,6-Tribromophenol	100	49	39	132	
Surr: 2-Fluorobiphenyl	100	67	44	115	
Surr: 2-Fluorophenol	100	37	35	115	
Surr: Nitrobenzene-d5	100	59	37	122	
Surr: Phenol-d5	100	49	33	122	
Surr: Terphenyl-d14	100	76	54	127	

CTLab #	321171				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,6-Tribromophenol	100	43	39	132	
Surr: 2-Fluorobiphenyl	100	74	44	115	
Surr: 2-Fluorophenol	100	40	35	115	
Surr: Nitrobenzene-d5	100	66	37	122	
Surr: Phenol-d5	100	52	33	122	
Surr: Terphenyl-d14	100	74	54	127	

CTLab #	321172				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,6-Tribromophenol	100	49	39	132	
Surr: 2-Fluorobiphenyl	100	63	44	115	
Surr: 2-Fluorophenol	100	42	35	115	
Surr: Nitrobenzene-d5	100	55	37	122	
Surr: Phenol-d5	100	48	33	122	
Surr: Terphenyl-d14	100	64	54	127	

CTLab #	321438	Sample Type:	Method Blank		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,6-Tribromophenol	100	70.7	39	132	
Surr: 2-Fluorobiphenyl	100	63.9	44	115	
Surr: 2-Fluorophenol	100	59.7	35	115	
Surr: Nitrobenzene-d5	100	52.4	37	122	
Surr: Phenol-d5	100	57.2	33	122	
Surr: Terphenyl-d14	100	80.8	54	127	

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SOIL SEMI VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Analytical Method:	EPA 8270D	SDG:	147664
Analytical Run #:	164275	ICAL Calibration #:	1S082019

CTLab #	321439	Sample Type:		Lab Control Spike	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,6-Tribromophenol	100	90.9	39	132	
Surr: 2-Fluorobiphenyl	100	63.0	44	115	
Surr: 2-Fluorophenol	100	59.2	35	115	
Surr: Nitrobenzene-d5	100	59.4	37	122	
Surr: Phenol-d5	100	61.5	33	122	
Surr: Terphenyl-d14	100	94.0	54	127	

CTLab #	321441	Sample Type:		Matrix Spike	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,6-Tribromophenol	100	60.5	39	132	
Surr: 2-Fluorobiphenyl	100	72.3	44	115	
Surr: 2-Fluorophenol	100	58.4	35	115	
Surr: Nitrobenzene-d5	100	73.3	37	122	
Surr: Phenol-d5	100	68.8	33	122	
Surr: Terphenyl-d14	100	75.1	54	127	

CTLab #	321442	Sample Type:		Matrix Spike Duplicate	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,6-Tribromophenol	100	52.2	39	132	
Surr: 2-Fluorobiphenyl	100	75.5	44	115	
Surr: 2-Fluorophenol	100	53.0	35	115	
Surr: Nitrobenzene-d5	100	69.3	37	122	
Surr: Phenol-d5	100	66.4	33	122	
Surr: Terphenyl-d14	100	84.2	54	127	

CT LABORATORIES
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SOIL SEMI VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CT Laboratories | Contract: HDR, INC-MEMPHIS DEPOT

Analytical Method: EPA 8270D-SIM | SDG: 147664

Analytical Run #: 164274 | ICAL Calibration #: 1P082619

CTLab #	321149				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2-Methylnaphthalene-d1	100	76	50	150	
Surr: Fluoranthene-d10	100	82	50	150	
CTLab #	**321154**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2-Methylnaphthalene-d1	100	73	50	150	
Surr: Fluoranthene-d10	100	77	50	150	
CTLab #	**321155**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2-Methylnaphthalene-d1	100	69	50	150	
Surr: Fluoranthene-d10	100	74	50	150	
CTLab #	**321157**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2-Methylnaphthalene-d1	100	82	50	150	
Surr: Fluoranthene-d10	100	87	50	150	
CTLab #	**321158**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2-Methylnaphthalene-d1	100	73	50	150	
Surr: Fluoranthene-d10	100	79	50	150	
CTLab #	**321159**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2-Methylnaphthalene-d1	100	74	50	150	
Surr: Fluoranthene-d10	100	78	50	150	
CTLab #	**321160**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2-Methylnaphthalene-d1	100	65	50	150	
Surr: Fluoranthene-d10	100	83	50	150	
CTLab #	**321161**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2-Methylnaphthalene-d1	100	68	50	150	
Surr: Fluoranthene-d10	100	79	50	150	
CTLab #	**321162**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2-Methylnaphthalene-d1	100	72	50	150	
Surr: Fluoranthene-d10	100	80	50	150	
CTLab #	**321163**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2-Methylnaphthalene-d1	100	82	50	150	
Surr: Fluoranthene-d10	100	82	50	150	

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SOIL SEMI VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CT Laboratories | Contract: HDR, INC-MEMPHIS DEPOT

Analytical Method: EPA 8270D-SIM | SDG: 147664

Analytical Run #: 164274 | ICAL Calibration #: 1P082619

CTLab #	321164				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2-Methylnaphthalene-d1	100	66	50	150	
Surr: Fluoranthene-d10	100	81	50	150	
CTLab #	**321165**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2-Methylnaphthalene-d1	100	147	50	150	
Surr: Fluoranthene-d10	100	154	50	150	*FAIL*
CTLab #	**321166**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2-Methylnaphthalene-d1	100	78	50	150	
Surr: Fluoranthene-d10	100	85	50	150	
CTLab #	**321167**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2-Methylnaphthalene-d1	100	80	50	150	
Surr: Fluoranthene-d10	100	83	50	150	
CTLab #	**321168**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2-Methylnaphthalene-d1	100	74	50	150	
Surr: Fluoranthene-d10	100	81	50	150	
CTLab #	**321169**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2-Methylnaphthalene-d1	100	76	50	150	
Surr: Fluoranthene-d10	100	85	50	150	
CTLab #	**321170**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2-Methylnaphthalene-d1	100	71	50	150	
Surr: Fluoranthene-d10	100	80	50	150	
CTLab #	**321171**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2-Methylnaphthalene-d1	100	79	50	150	
Surr: Fluoranthene-d10	100	79	50	150	
CTLab #	**321172**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2-Methylnaphthalene-d1	100	71	50	150	
Surr: Fluoranthene-d10	100	75	50	150	
CTLab #	**321427**	Sample Type:		Method Blank	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2-Methylnaphthalene-d1	100	68.4	50	150	
Surr: Fluoranthene-d10	100	85.6	50	150	

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SOIL SEMI VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Analytical Method:	EPA 8270D-SIM	SDG:	147664
Analytical Run #:	164274	ICAL Calibration #:	1P082619

CTLab #	321428	Sample Type:		Lab Control Spike	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2-Methylnaphthalene-d1	100	69.4	50	150	
Surr: Fluoranthene-d10	100	95.7	50	150	

CTLab #	321430	Sample Type:		Matrix Spike	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2-Methylnaphthalene-d1	100	80.2	50	150	
Surr: Fluoranthene-d10	100	80.8	50	150	

CTLab #	321431	Sample Type:		Matrix Spike Duplicate	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2-Methylnaphthalene-d1	100	82.2	50	150	
Surr: Fluoranthene-d10	100	80.7	50	150	

CT LABORATORIES
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Sample Description

LCS

WATER SEMIVOLATILE LAB CONTROL SAMPLE

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

Sample No.: 321836 SDG No.: 147664

Analytical Method: EPA 8270D-SIM Concentration Units: ug/L

Sample No.: 321836 Parent Sample No.: 0

Analytical Prep Batch #: 73347 Analytical Preparation Date/Time: 09/03/2019 13:30

Analytical Run #: 164170 ICAL Calibration #: 1P082619

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
1-Methylnaphthalene	09/09/2019	17:14	41-115	0.734		1.00	73
2-Methylnaphthalene	09/09/2019	17:14	39-114	0.839		1.00	84
Acenaphthene	09/09/2019	17:14	48-114	0.711		1.00	71
Acenaphthylene	09/09/2019	17:14	35-121	0.853		1.00	85
Anthracene	09/09/2019	17:14	53-119	0.862		1.00	86
Benzo(a)anthracene	09/09/2019	17:14	59-120	1.02		1.00	102
Benzo(a)pyrene	09/09/2019	17:14	53-120	0.881		1.00	88
Benzo(b)fluoranthene	09/09/2019	17:14	53-126	0.824		1.00	82
Benzo(g,h,i)perylene	09/09/2019	17:14	44-128	0.857		1.00	86
Benzo(k)fluoranthene	09/09/2019	17:14	54-125	0.804		1.00	80
Chrysene	09/09/2019	17:14	57-120	0.918		1.00	92
Dibenzo(a,h)anthracene	09/09/2019	17:14	44-131	0.870		1.00	87
Fluoranthene	09/09/2019	17:14	58-120	0.867		1.00	87
Fluorene	09/09/2019	17:14	50-118	0.799		1.00	80
Indeno(1,2,3-cd)pyrene	09/09/2019	17:14	48-130	0.899		1.00	90
Naphthalene	09/09/2019	17:14	43-114	0.747		1.00	75
Phenanthrene	09/09/2019	17:14	53-115	0.802		1.00	80
Pyrene	09/09/2019	17:14	53-121	0.854		1.00	85

Spike Recovery: 0 out of 18 outside limits

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Sample Description

LCS

WATER SEMIVOLATILE LAB CONTROL SAMPLE

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT
Sample No.: 321839
SDG No.: 147664
Analytical Method: EPA 8270D
Concentration Units: ug/L

Sample No.: 321839
Parent Sample No.: 0
Analytical Prep Batch #: 73348
Analytical Preparation Date/Time: 09/03/2019 13:30
Analytical Run #: 164171
ICAL Calibration #: 1S082019

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
1,1'-Biphenyl	09/05/2019	16:30	49-115	14.7		20.0	74
1,2,4,5-Tetrachlorobenzene	09/05/2019	16:30	35-121	14.2		20.0	71
1,2,4-Trichlorobenzene	09/05/2019	16:30	29-116	12.9		20.0	64
1,2-Dichlorobenzene	09/05/2019	16:30	32-111	13.2		20.0	66
1,3-Dichlorobenzene	09/05/2019	16:30	28-110	12.9		20.0	64
1,4-Dichlorobenzene	09/05/2019	16:30	29-112	12.1		20.0	60
1-Methylnaphthalene	09/05/2019	16:30	41-119	14.6		20.0	73
2,3,4,6-Tetrachlorophenol	09/05/2019	16:30	50-128	17.9		20.0	90
2,4,5-Trichlorophenol	09/05/2019	16:30	53-123	15.9		20.0	80
2,4,6-Trichlorophenol	09/05/2019	16:30	50-125	15.5		20.0	78
2,4-Dichlorophenol	09/05/2019	16:30	47-121	13.0		20.0	65
2,4-Dimethylphenol	09/05/2019	16:30	31-124	13.2		20.0	66
2,4-Dinitrophenol	09/05/2019	16:30	23-143	21.4		20.0	107
2,4-Dinitrotoluene	09/05/2019	16:30	57-128	18.1		20.0	90
2,6-Dichlorophenol	09/05/2019	16:30	50-118	13.2		20.0	66
2,6-Dinitrotoluene	09/05/2019	16:30	57-124	17.7		20.0	88
2-Chloronaphthalene	09/05/2019	16:30	40-116	14.2		20.0	71
2-Chlorophenol	09/05/2019	16:30	38-117	13.1		20.0	66
2-Methylnaphthalene	09/05/2019	16:30	40-121	13.1		20.0	66
2-Methylphenol	09/05/2019	16:30	30-117	12.5		20.0	62
2-Nitroaniline	09/05/2019	16:30	55-127	16.6		20.0	83
2-Nitrophenol	09/05/2019	16:30	47-123	13.7		20.0	68
3 & 4-Methylphenol	09/05/2019	16:30	28-110	11.0		20.0	55
3,3'-Dichlorobenzidine	09/05/2019	16:30	27-129	7.40		20.0	37
3-Nitroaniline	09/05/2019	16:30	41-128	13.8		20.0	69
4,6-Dinitro-2-methylphenol	09/05/2019	16:30	44-137	18.8		20.0	94
4-Bromophenyl-phenyl ether	09/05/2019	16:30	55-124	17.7		20.0	88
4-Chloro-3-methylphenol	09/05/2019	16:30	52-119	14.8		20.0	74

CT LABORATORIES
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Sample Description

LCS

WATER SEMIVOLATILE LAB CONTROL SAMPLE

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT
Sample No.: 321839
SDG No.: 147664
Analytical Method: EPA 8270D
Concentration Units: ug/L

Sample No.: 321839
Parent Sample No.: 0
Analytical Prep Batch #: 73348
Analytical Preparation Date/Time: 09/03/2019 13:30
Analytical Run #: 164171
ICAL Calibration #: 1S082019

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
4-Chloroaniline	09/05/2019	16:30	33-117	9.41		20.0	47
4-Chlorophenyl-phenyl ether	09/05/2019	16:30	53-121	16.3		20.0	82
4-Nitroaniline	09/05/2019	16:30	51-130	15.4		20.0	77
4-Nitrophenol	09/05/2019	16:30	0-113	9.07		20.0	45
Acenaphthene	09/05/2019	16:30	47-122	15.3		20.0	76
Acenaphthylene	09/05/2019	16:30	41-130	15.6		20.0	78
Acetophenone	09/05/2019	16:30	46-118	13.0		20.0	65
Aniline	09/05/2019	16:30	18-101	6.33		20.0	32
Anthracene	09/05/2019	16:30	57-123	17.5		20.0	88
Atrazine	09/05/2019	16:30	44-142	16.7		20.0	84
Azobenzene & 1,2-Diphenylhydra	09/05/2019	16:30	61-116	36.1		40.0	90
Benzaldehyde	09/05/2019	16:30	15-118	12.3		20.0	62
Benzidine	09/05/2019	16:30	0-165	0		20.0	0
Benzo(a)anthracene	09/05/2019	16:30	58-125	18.9		20.0	94
Benzo(a)pyrene	09/05/2019	16:30	54-128	17.7		20.0	88
Benzo(b)fluoranthene	09/05/2019	16:30	53-131	16.8		20.0	84
Benzo(g,h,i)perylene	09/05/2019	16:30	50-134	16.9		20.0	84
Benzo(k)fluoranthene	09/05/2019	16:30	57-129	17.6		20.0	88
Benzoic acid	09/05/2019	16:30	0-125	9.47		20.0	47
Benzyl alcohol	09/05/2019	16:30	31-112	12.7		20.0	64
Bis(2-chloroethoxy)methane	09/05/2019	16:30	48-120	12.7		20.0	64
Bis(2-chloroethyl)ether	09/05/2019	16:30	43-118	13.7		20.0	68
Bis(2-chloroisopropyl)ether	09/05/2019	16:30	37-130	11.5		20.0	58
Bis(2-ethylhexyl)phthalate	09/05/2019	16:30	55-135	18.6		20.0	93
Butylbenzylphthalate	09/05/2019	16:30	53-134	18.1		20.0	90
Caprolactam	09/05/2019	16:30	10-120	5.78		20.0	29
Carbazole	09/05/2019	16:30	60-122	18.7		20.0	94
Chrysene	09/05/2019	16:30	59-123	18.0		20.0	90

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Sample Description

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WATER SEMIVOLATILE LAB CONTROL SAMPLE

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT
Sample No.: 321839
SDG No.: 147664
Analytical Method: EPA 8270D
Concentration Units: ug/L

Sample No.: 321839
Parent Sample No.: 0
Analytical Prep Batch #: 73348
Analytical Preparation Date/Time: 09/03/2019 13:30
Analytical Run #: 164171
ICAL Calibration #: 1S082019

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
Dibenzo(a,h)anthracene	09/05/2019	16:30	51-134	18.6		20.0	93
Dibenzofuran	09/05/2019	16:30	53-118	15.6		20.0	78
Diethylphthalate	09/05/2019	16:30	56-125	17.6		20.0	88
Dimethylphthalate	09/05/2019	16:30	45-127	17.0		20.0	85
Di-n-butylphthalate	09/05/2019	16:30	59-127	19.4		20.0	97
Di-n-octylphthalate	09/05/2019	16:30	51-140	18.2		20.0	91
Fluoranthene	09/05/2019	16:30	57-128	18.7		20.0	94
Fluorene	09/05/2019	16:30	52-124	16.4		20.0	82
Hexachlorobenzene	09/05/2019	16:30	53-125	18.1		20.0	90
Hexachlorobutadiene	09/05/2019	16:30	22-124	10.8		20.0	54
Hexachlorocyclopentadiene	09/05/2019	16:30	31-93	11.3		20.0	56
Hexachloroethane	09/05/2019	16:30	21-115	12.1		20.0	60
Indeno(1,2,3-cd)pyrene	09/05/2019	16:30	52-134	17.2		20.0	86
Isophorone	09/05/2019	16:30	42-124	10.3		20.0	52
Naphthalene	09/05/2019	16:30	40-121	13.5		20.0	68
Nitrobenzene	09/05/2019	16:30	45-121	14.0		20.0	70
N-Nitrosodimethylamine	09/05/2019	16:30	9-104	8.86		20.0	44
N-Nitroso-di-n-propylamine	09/05/2019	16:30	49-119	14.2		20.0	71
N-Nitrosodiphenylamine & Diphn	09/05/2019	16:30	51-123	35.9		40.0	90
N-Nitrosopyrrolidine	09/05/2019	16:30	48-113	12.4		20.0	62
Pentachlorophenol	09/05/2019	16:30	35-138	19.0		20.0	95
Phenanthrene	09/05/2019	16:30	59-120	17.7		20.0	88
Phenol	09/05/2019	16:30	0-108	5.97		20.0	30
Pyrene	09/05/2019	16:30	57-126	18.5		20.0	92
Pyridine	09/05/2019	16:30	0-106	7.33		20.0	37

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Sample Description

LCS

WATER SEMIVOLATILE LAB CONTROL SAMPLE

Lab Name:	CT Laboratories	Contract	HDR, INC-MEMPHIS DEPOT
Sample No.:	321839	SDG No.:	147664
Analytical Method:	EPA 8270D	Concentration Units:	ug/L

Spike Recovery: 0 out of 81 outside limits

CT LABORATORIES
delivering more than data from your environmental analyses

3C

Sample Description: LCSD

WATER SEMIVOLATILE LAB CONTROL SAMPLE

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT
Sample No.: 321837
SDG No.: 147664
Analytical Method: EPA 8270D-SIM
Concentration Units: ug/L

Analytical Run #: 164170 Sample No.: 321837 Parent Sample No.: 321836
Analytical Prep Batch #: 73347 Analytical Preparation Date/Time: 09/03/2019 13:30
ICAL Calibration #: 1P082619

Analyte	Analysis Date/Time	Spike Result	Parent Result	Spike Amount	%R	%RPD	Control Limit (%R)	Control Limit (%RPD)
1-Methylnaphthalene	09/09/2019 17:55	0.685	0.734	1.00	68	7	41-115	40
2-Methylnaphthalene	09/09/2019 17:55	0.762	0.839	1.00	76	10	39-114	40
Acenaphthene	09/09/2019 17:55	0.665	0.711	1.00	66	7	48-114	40
Acenaphthylene	09/09/2019 17:55	0.781	0.853	1.00	78	9	35-121	40
Anthracene	09/09/2019 17:55	0.782	0.862	1.00	78	10	53-119	40
Benzo(a)anthracene	09/09/2019 17:55	1.02	1.02	1.00	102	0	59-120	40
Benzo(a)pyrene	09/09/2019 17:55	0.896	0.881	1.00	90	2	53-120	40
Benzo(b)fluoranthene	09/09/2019 17:55	0.924	0.824	1.00	92	11	53-126	40
Benzo(g,h,i)perylene	09/09/2019 17:55	0.903	0.857	1.00	90	5	44-128	40
Benzo(k)fluoranthene	09/09/2019 17:55	0.874	0.804	1.00	87	8	54-125	40
Chrysene	09/09/2019 17:55	0.932	0.918	1.00	93	2	57-120	40
Dibenzo(a,h)anthracene	09/09/2019 17:55	0.908	0.870	1.00	91	4	44-131	40
Fluoranthene	09/09/2019 17:55	0.883	0.867	1.00	88	2	58-120	40
Fluorene	09/09/2019 17:55	0.775	0.799	1.00	78	3	50-118	40
Indeno(1,2,3-cd)pyrene	09/09/2019 17:55	0.940	0.899	1.00	94	4	48-130	40
Naphthalene	09/09/2019 17:55	0.679	0.747	1.00	68	10	43-114	40
Phenanthrene	09/09/2019 17:55	0.806	0.802	1.00	81	0	53-115	40
Pyrene	09/09/2019 17:55	0.866	0.854	1.00	87	1	53-121	40

RPD or Spike Recovery: 0 out of 18 outside QC limits

CT LABORATORIES
delivering more than data from your environmental analyses

3C

WATER SEMIVOLATILE LAB CONTROL SAMPLE

Sample Description: **LCSD**

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT
Sample No.: 321840
SDG No.: 147664
Analytical Method: EPA 8270D
Concentration Units: ug/L

Analytical Run #: 164171 Sample No.: 321840 Parent Sample No.: 321839
Analytical Prep Batch #: 73348 Analytical Preparation Date/Time: 09/03/2019 13:30
ICAL Calibration #: 1S082019

Analyte	Analysis Date/Time		Spike Result	Parent Result	Spike Amount	%R	%RPD	Control Limit (%R)	Control Limit (%RPD)
1,1'-Biphenyl	09/05/2019	17:07	14.3	14.7	20.0	72	3	49-115	20
1,2,4,5-Tetrachlorobenzene	09/05/2019	17:07	13.6	14.2	20.0	68	4	35-121	20
1,2,4-Trichlorobenzene	09/05/2019	17:07	12.5	12.9	20.0	62	3	29-116	20
1,2-Dichlorobenzene	09/05/2019	17:07	12.9	13.2	20.0	64	2	32-111	20
1,3-Dichlorobenzene	09/05/2019	17:07	12.5	12.9	20.0	62	3	28-110	20
1,4-Dichlorobenzene	09/05/2019	17:07	11.8	12.1	20.0	59	3	29-112	20
1-Methylnaphthalene	09/05/2019	17:07	13.9	14.6	20.0	70	5	41-119	20
2,3,4,6-Tetrachlorophenol	09/05/2019	17:07	17.3	17.9	20.0	86	3	50-128	20
2,4,5-Trichlorophenol	09/05/2019	17:07	16.5	15.9	20.0	82	4	53-123	20
2,4,6-Trichlorophenol	09/05/2019	17:07	15.2	15.5	20.0	76	2	50-125	20
2,4-Dichlorophenol	09/05/2019	17:07	13.0	13.0	20.0	65	0	47-121	20
2,4-Dimethylphenol	09/05/2019	17:07	12.9	13.2	20.0	64	2	31-124	20
2,4-Dinitrophenol	09/05/2019	17:07	23.6	21.4	20.0	118	10	23-143	20
2,4-Dinitrotoluene	09/05/2019	17:07	17.1	18.1	20.0	86	6	57-128	20
2,6-Dichlorophenol	09/05/2019	17:07	12.9	13.2	20.0	64	2	50-118	20
2,6-Dinitrotoluene	09/05/2019	17:07	17.2	17.7	20.0	86	3	57-124	20
2-Chloronaphthalene	09/05/2019	17:07	13.9	14.2	20.0	70	2	40-116	20
2-Chlorophenol	09/05/2019	17:07	12.6	13.1	20.0	63	4	38-117	20
2-Methylnaphthalene	09/05/2019	17:07	12.7	13.1	20.0	64	3	40-121	20
2-Methylphenol	09/05/2019	17:07	12.3	12.5	20.0	62	2	30-117	20
2-Nitroaniline	09/05/2019	17:07	16.4	16.6	20.0	82	1	55-127	20
2-Nitrophenol	09/05/2019	17:07	13.0	13.7	20.0	65	5	47-123	20
3 & 4-Methylphenol	09/05/2019	17:07	10.8	11.0	20.0	54	2	28-110	20
3,3'-Dichlorobenzidine	09/05/2019	17:07	7.08	7.40	20.0	35	4	27-129	20
3-Nitroaniline	09/05/2019	17:07	13.3	13.8	20.0	66	4	41-128	20
4,6-Dinitro-2-methylphenol	09/05/2019	17:07	18.3	18.8	20.0	92	3	44-137	20
4-Bromophenyl-phenyl ether	09/05/2019	17:07	17.6	17.7	20.0	88	1	55-124	20
4-Chloro-3-methylphenol	09/05/2019	17:07	14.3	14.8	20.0	72	3	52-119	20

CT LABORATORIES
delivering more than data from your environmental analyses

3C

WATER SEMIVOLATILE LAB CONTROL SAMPLE

Sample Description: **LCSD**

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT
Sample No.: 321840
SDG No.: 147664
Analytical Method: EPA 8270D
Concentration Units: ug/L

Analytical Run #: 164171 Sample No.: 321840 Parent Sample No.: 321839
Analytical Prep Batch #: 73348 Analytical Preparation Date/Time: 09/03/2019 13:30
ICAL Calibration #: 1S082019

Analyte	Analysis Date/Time		Spike Result	Parent Result	Spike Amount	%R	%RPD	Control Limit (%R)	Control Limit (%RPD)
4-Chloroaniline	09/05/2019	17:07	9.41	9.41	20.0	47	0	33-117	20
4-Chlorophenyl-phenyl ether	09/05/2019	17:07	15.9	16.3	20.0	80	2	53-121	20
4-Nitroaniline	09/05/2019	17:07	14.8	15.4	20.0	74	4	51-130	20
4-Nitrophenol	09/05/2019	17:07	8.58	9.07	20.0	43	6	0-113	20
Acenaphthene	09/05/2019	17:07	15.0	15.3	20.0	75	2	47-122	20
Acenaphthylene	09/05/2019	17:07	15.5	15.6	20.0	78	1	41-130	20
Acetophenone	09/05/2019	17:07	12.5	13.0	20.0	62	4	46-118	20
Aniline	09/05/2019	17:07	6.80	6.33	20.0	34	7	18-101	20
Anthracene	09/05/2019	17:07	16.8	17.5	20.0	84	4	57-123	20
Atrazine	09/05/2019	17:07	16.7	16.7	20.0	84	0	44-142	20
Azobenzene & 1,2-Diphenylhydra	09/05/2019	17:07	35.1	36.1	40.0	88	3	61-116	20
Benzaldehyde	09/05/2019	17:07	12.0	12.3	20.0	60	2	15-118	20
Benzidine	09/05/2019	17:07	0		20.0			0-165	20
Benzo(a)anthracene	09/05/2019	17:07	18.5	18.9	20.0	92	2	58-125	20
Benzo(a)pyrene	09/05/2019	17:07	17.6	17.7	20.0	88	1	54-128	20
Benzo(b)fluoranthene	09/05/2019	17:07	17.7	16.8	20.0	88	5	53-131	20
Benzo(g,h,i)perylene	09/05/2019	17:07	16.2	16.9	20.0	81	4	50-134	20
Benzo(k)fluoranthene	09/05/2019	17:07	16.1	17.6	20.0	80	9	57-129	20
Benzoic acid	09/05/2019	17:07	9.34	9.47	20.0	47	1	0-125	20
Benzyl alcohol	09/05/2019	17:07	12.2	12.7	20.0	61	4	31-112	20
Bis(2-chloroethoxy)methane	09/05/2019	17:07	12.1	12.7	20.0	60	5	48-120	20
Bis(2-chloroethyl)ether	09/05/2019	17:07	12.3	13.7	20.0	62	11	43-118	20
Bis(2-chloroisopropyl)ether	09/05/2019	17:07	11.2	11.5	20.0	56	3	37-130	20
Bis(2-ethylhexyl)phthalate	09/05/2019	17:07	18.2	18.6	20.0	91	2	55-135	20
Butylbenzylphthalate	09/05/2019	17:07	17.8	18.1	20.0	89	2	53-134	20
Caprolactam	09/05/2019	17:07	5.60	5.78	20.0	28	3	10-120	20
Carbazole	09/05/2019	17:07	18.3	18.7	20.0	92	2	60-122	20
Chrysene	09/05/2019	17:07	17.4	18.0	20.0	87	3	59-123	20

CT LABORATORIES
delivering more than data from your environmental analyses

3C

Sample Description

WATER SEMIVOLATILE LAB CONTROL SAMPLE

LCSD

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

Sample No.: 321840 SDG No.: 147664

Analytical Method: EPA 8270D Concentration Units: ug/L

Analytical Run #: 164171 Sample No.: 321840 Parent Sample No.: 321839

Analytical Prep Batch #: 73348 Analytical Preparation Date/Time: 09/03/2019 13:30

ICAL Calibration #: 1S082019

Analyte	Analysis Date/Time	Spike Result	Parent Result	Spike Amount	%R	%RPD	Control Limit (%R)	Control Limit (%RPD)
Dibenzo(a,h)anthracene	09/05/2019 17:07	17.9	18.6	20.0	90	4	51-134	20
Dibenzofuran	09/05/2019 17:07	15.1	15.6	20.0	76	3	53-118	20
Diethylphthalate	09/05/2019 17:07	17.0	17.6	20.0	85	3	56-125	20
Dimethylphthalate	09/05/2019 17:07	16.5	17.0	20.0	82	3	45-127	20
Di-n-butylphthalate	09/05/2019 17:07	19.0	19.4	20.0	95	2	59-127	20
Di-n-octylphthalate	09/05/2019 17:07	17.6	18.2	20.0	88	3	51-140	20
Fluoranthene	09/05/2019 17:07	18.4	18.7	20.0	92	2	57-128	20
Fluorene	09/05/2019 17:07	16.1	16.4	20.0	80	2	52-124	20
Hexachlorobenzene	09/05/2019 17:07	17.7	18.1	20.0	88	2	53-125	20
Hexachlorobutadiene	09/05/2019 17:07	10.7	10.8	20.0	54	1	22-124	20
Hexachlorocyclopentadiene	09/05/2019 17:07	10.8	11.3	20.0	54	5	31-93	20
Hexachloroethane	09/05/2019 17:07	11.9	12.1	20.0	60	2	21-115	20
Indeno(1,2,3-cd)pyrene	09/05/2019 17:07	16.6	17.2	20.0	83	4	52-134	20
Isophorone	09/05/2019 17:07	9.97	10.3	20.0	50	3	42-124	20
Naphthalene	09/05/2019 17:07	13.3	13.5	20.0	66	1	40-121	20
Nitrobenzene	09/05/2019 17:07	13.4	14.0	20.0	67	4	45-121	20
N-Nitrosodimethylamine	09/05/2019 17:07	9.07	8.86	20.0	45	2	9-104	20
N-Nitroso-di-n-propylamine	09/05/2019 17:07	13.7	14.2	20.0	68	4	49-119	20
N-Nitrosodiphenylamine & Diphn	09/05/2019 17:07	34.9	35.9	40.0	87	3	51-123	20
N-Nitrosopyrrolidine	09/05/2019 17:07	12.4	12.4	20.0	62	0	48-113	20
Pentachlorophenol	09/05/2019 17:07	19.0	19.0	20.0	95	0	35-138	20
Phenanthrene	09/05/2019 17:07	17.2	17.7	20.0	86	3	59-120	20
Phenol	09/05/2019 17:07	6.12	5.97	20.0	31	2	0-108	20
Pyrene	09/05/2019 17:07	18.0	18.5	20.0	90	3	57-126	20
Pyridine	09/05/2019 17:07	7.48	7.33	20.0	37	2	0-106	20

CT LABORATORIES
delivering more than data from your environmental analyses

3C

WATER SEMIVOLATILE LAB CONTROL SAMPLE

Sample Description: **LCSD**

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Sample No.:	321840	SDG No.:	147664
Analytical Method:	EPA 8270D	Concentration Units:	ug/L

RPD or Spike Recovery: 0 out of 81 outside QC limits

CT LABORATORIES
delivering more than data from your environmental analyses

3D

Sample Description

GN-SO-04-1

SOIL SEMIVOLATILE MATRIX SPIKE RECOVERY

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

Matrix: SOIL SDG No.: 147664

Analytical Method: EPA 8270D Concentration Units: ug/kg

Analytical Run #: 164275 Sample No.: 321441 Parent Sample No.: 321161

Analytical Prep Batch #: 73331 Analytical Preparation Date/Time: 09/04/2019 09:50

ICAL Calibration #: 1S082019

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R	
1,1'-Biphenyl	09/11/2019	02:07	40-117	1730	BDL	2290	76	
1,2,4,5-Tetrachlorobenzene	09/11/2019	02:07	47-106	1760	BDL	2290	77	
1,2,4-Trichlorobenzene	09/11/2019	02:07	34-118	1690	BDL	2290	74	
1,2-Dichlorobenzene	09/11/2019	02:07	33-117	1670	BDL	2290	73	
1,3-Dichlorobenzene	09/11/2019	02:07	30-115	1640	BDL	2290	72	
1,4-Dichlorobenzene	09/11/2019	02:07	31-115	1540	BDL	2290	67	
1-Methylnaphthalene	09/11/2019	02:07	50-150	1740	BDL	2290	76	
2,3,4,6-Tetrachlorophenol	09/11/2019	02:07	48-113	1710	BDL	2290	75	
2,4,5-Trichlorophenol	09/11/2019	02:07	41-124	1740	BDL	2290	76	
2,4,6-Trichlorophenol	09/11/2019	02:07	39-126	1310	BDL	2290	57	
2,4-Dichlorophenol	09/11/2019	02:07	40-122	1390	BDL	2290	61	
2,4-Dimethylphenol	09/11/2019	02:07	30-127	165	BDL	2290	7	*FAIL*
2,4-Dinitrophenol	09/11/2019	02:07	16-102	1430	BDL	2290	62	
2,4-Dinitrotoluene	09/11/2019	02:07	48-126	1790	BDL	2290	78	
2,6-Dichlorophenol	09/11/2019	02:07	41-117	1110	BDL	2290	48	
2,6-Dinitrotoluene	09/11/2019	02:07	46-124	1830	BDL	2290	80	
2-Chloronaphthalene	09/11/2019	02:07	41-114	1680	BDL	2290	73	
2-Chlorophenol	09/11/2019	02:07	34-121	1430	BDL	2290	62	
2-Methylnaphthalene	09/11/2019	02:07	38-122	1760	BDL	2290	77	
2-Methylphenol	09/11/2019	02:07	32-122	975	BDL	2290	43	
2-Nitroaniline	09/11/2019	02:07	44-127	1720	BDL	2290	75	
2-Nitrophenol	09/11/2019	02:07	36-123	1690	BDL	2290	74	
3 & 4-Methylphenol	09/11/2019	02:07	34-119	1110	BDL	2290	48	
3,3'-Dichlorobenzidine	09/11/2019	02:07	22-121	0	BDL	2290	0	*FAIL*
3-Nitroaniline	09/11/2019	02:07	33-119	678	BDL	2290	30	*FAIL*
4,6-Dinitro-2-methylphenol	09/11/2019	02:07	29-132	1350	BDL	2290	59	
4-Bromophenyl-phenyl ether	09/11/2019	02:07	46-124	1840	BDL	2290	80	
4-Chloro-3-methylphenol	09/11/2019	02:07	45-122	1360	BDL	2290	59	
4-Chloroaniline	09/11/2019	02:07	1-100	163	BDL	2290	7	
4-Chlorophenyl-phenyl ether	09/11/2019	02:07	45-121	1740	BDL	2290	76	
4-Nitroaniline	09/11/2019	02:07	44-125	1100	BDL	2290	48	

CT LABORATORIES
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3D

Sample Description

GN-SO-04-1

SOIL SEMIVOLATILE MATRIX SPIKE RECOVERY

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

Matrix: SOIL SDG No.: 147664

Analytical Method: EPA 8270D Concentration Units: ug/kg

Analytical Run #: 164275 Sample No.: 321441 Parent Sample No.: 321161

Analytical Prep Batch #: 73331 Analytical Preparation Date/Time: 09/04/2019 09:50

ICAL Calibration #: 1S082019

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R	
4-Nitrophenol	09/11/2019	02:07	30-132	1180	BDL	2290	52	
Acenaphthene	09/11/2019	02:07	40-123	1780	BDL	2290	78	
Acenaphthylene	09/11/2019	02:07	32-132	1780	BDL	2290	78	
Acetophenone	09/11/2019	02:07	25-96	1550	BDL	2290	68	
Aniline	09/11/2019	02:07	18-87	70.6	BDL	2290	3	*FAIL*
Anthracene	09/11/2019	02:07	47-123	1820	36.3	2290	78	
Atrazine	09/11/2019	02:07	47-127	1730	BDL	2290	76	
Azobenzene & 1,2-Diphenylhydra	09/11/2019	02:07	39-125	3740	BDL	4570	82	
Benzaldehyde	09/11/2019	02:07	6-185	1550	BDL	2290	68	
Benzidine	09/11/2019	02:07	0-141	0	BDL	2290	0	
Benzo(a)anthracene	09/11/2019	02:07	49-126	2300	211	2290	91	
Benzo(a)pyrene	09/11/2019	02:07	45-129	2030	208	2290	80	
Benzo(b)fluoranthene	09/11/2019	02:07	45-132	2430	334	2290	92	
Benzo(g,h,i)perylene	09/11/2019	02:07	43-134	714	71.9	2290	28	*FAIL*
Benzo(k)fluoranthene	09/11/2019	02:07	47-132	2210	172	2290	89	
Benzoic acid	09/11/2019	02:07	3-93	1540	BDL	2290	67	
Benzyl alcohol	09/11/2019	02:07	29-122	88.8	BDL	2290	4	*FAIL*
Bis(2-chloroethoxy)methane	09/11/2019	02:07	36-121	1480	BDL	2290	65	
Bis(2-chloroethyl)ether	09/11/2019	02:07	31-120	1540	BDL	2290	67	
Bis(2-chloroisopropyl)ether	09/11/2019	02:07	33-131	1350	BDL	2290	59	
Bis(2-ethylhexyl)phthalate	09/11/2019	02:07	51-133	1880	BDL	2290	82	
Butylbenzylphthalate	09/11/2019	02:07	48-132	1820	BDL	2290	79	
Caprolactam	09/11/2019	02:07	46-117	1380	BDL	2290	60	
Carbazole	09/11/2019	02:07	50-123	1950	34.2	2290	84	
Chrysene	09/11/2019	02:07	50-124	2070	230	2290	80	
Dibenzo(a,h)anthracene	09/11/2019	02:07	45-134	1030	BDL	2290	45	
Dibenzofuran	09/11/2019	02:07	44-120	1720	BDL	2290	75	
Diethylphthalate	09/11/2019	02:07	50-124	1830	BDL	2290	80	
Dimethylphthalate	09/11/2019	02:07	48-124	1720	BDL	2290	75	
Di-n-butylphthalate	09/11/2019	02:07	51-128	2010	BDL	2290	88	
Di-n-octylphthalate	09/11/2019	02:07	45-140	1860	BDL	2290	81	

CT LABORATORIES
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3D

Sample Description

GN-SO-04-1

SOIL SEMIVOLATILE MATRIX SPIKE RECOVERY

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

Matrix: SOIL SDG No.: 147664

Analytical Method: EPA 8270D Concentration Units: ug/kg

Analytical Run #: 164275 Sample No.: 321441 Parent Sample No.: 321161

Analytical Prep Batch #: 73331 Analytical Preparation Date/Time: 09/04/2019 09:50

ICAL Calibration #: 1S082019

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R	
Fluoranthene	09/11/2019	02:07	50-127	2800	540	2290	99	
Fluorene	09/11/2019	02:07	43-125	1800	BDL	2290	79	
Hexachlorobenzene	09/11/2019	02:07	45-122	1870	BDL	2290	82	
Hexachlorobutadiene	09/11/2019	02:07	32-123	1420	BDL	2290	62	
Hexachlorocyclopentadiene	09/11/2019	02:07	35-106	401	BDL	2290	18	*FAIL*
Hexachloroethane	09/11/2019	02:07	28-117	1540	BDL	2290	67	
Indeno(1,2,3-cd)pyrene	09/11/2019	02:07	45-133	959	78.6	2290	38	*FAIL*
Isophorone	09/11/2019	02:07	30-122	1170	BDL	2290	51	
Naphthalene	09/11/2019	02:07	35-123	1720	BDL	2290	75	
Nitrobenzene	09/11/2019	02:07	34-122	1690	BDL	2290	74	
N-Nitrosodimethylamine	09/11/2019	02:07	23-120	1480	BDL	2290	65	
N-Nitroso-di-n-propylamine	09/11/2019	02:07	36-120	1630	BDL	2290	71	
N-Nitrosodiphenylamine & Diphn	09/11/2019	02:07	38-127	2860	BDL	4570	63	
N-Nitrosopyrrolidine	09/11/2019	02:07	45-126	1540	BDL	2290	67	
Pentachlorophenol	09/11/2019	02:07	25-133	1630	BDL	2290	71	
Phenanthrene	09/11/2019	02:07	50-121	2300	225	2290	91	
Phenol	09/11/2019	02:07	34-121	1340	BDL	2290	59	
Pyrene	09/11/2019	02:07	47-127	2430	397	2290	89	
Pyridine	09/11/2019	02:07	1-63	242	BDL	2290	11	

Spike Recovery: 8 out of 81 outside QC limits

CT LABORATORIES
delivering more than data from your environmental analyses

3D

Sample Description

SOIL SEMIVOLATILE MATRIX SPIKE RECOVERY

GN-SO-04-1

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

Matrix: SOIL SDG No.: 147664

Analytical Method: EPA 8270D-SIM Concentration Units: ug/kg

Analytical Run #: 164274 Sample No.: 321430 Parent Sample No.: 321161

Analytical Prep Batch #: 73329 Analytical Preparation Date/Time: 09/04/2019 09:50

ICAL Calibration #: 1P082619

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R	
1-Methylnaphthalene	09/10/2019	01:37	43-111	94.5	6.97	114	77	
2-Methylnaphthalene	09/10/2019	01:37	39-114	112	8.67	114	91	
Acenaphthene	09/10/2019	01:37	44-111	98.2	16.4	114	72	
Acenaphthylene	09/10/2019	01:37	39-116	110	7.89	114	90	
Anthracene	09/10/2019	01:37	50-114	138	44.8	114	82	
Benzo(g,h,i)perylene	09/10/2019	01:37	49-127	94.5	63.3	114	27	*FAIL*
Benzo(k)fluoranthene	09/10/2019	01:37	56-123	184	77.6	114	93	
Dibenzo(a,h)anthracene	09/10/2019	01:37	50-129	65.1	19.0	114	40	*FAIL*
Fluorene	09/10/2019	01:37	47-114	110	15.2	114	83	
Indeno(1,2,3-cd)pyrene	09/10/2019	01:37	49-130	113	70.3	114	37	*FAIL*
Naphthalene	09/10/2019	01:37	38-111	94.5	4.36	114	79	

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R	
Benzo(a)anthracene	09/10/2019	15:09	54-122	401	225	114	154	*FAIL*
Benzo(a)pyrene	09/10/2019	15:09	50-125	310	177	114	117	
Benzo(b)fluoranthene	09/10/2019	15:09	53-128	416	335	114	71	
Chrysene	09/10/2019	15:09	57-118	332	198	114	118	
Fluoranthene	09/10/2019	15:09	55-119	643	547	114	84	
Phenanthrene	09/10/2019	15:09	49-113	320	222	114	86	
Pyrene	09/10/2019	15:09	55-117	495	410	114	75	

Spike Recovery: 4 out of 18 outside QC limits

CT LABORATORIES
delivering more than data from your environmental analyses

3D

Sample Description

GN-SO-04-1

SOIL SEMIVOLATILE MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

Matrix: SOIL SDG No.: 147664

Analytical Method: EPA 8270D Concentration Units: ug/kg

Analytical Run #: 164275 Sample No.: 321442 Parent Sample No.: 321441

Analytical Prep Batch #: 73331 Analytical Preparation Date/Time: 09/04/2019 09:50

ICAL Calibration #: 1S082019

Analyte	Analysis Date/Time		Spike Result	Spike Amount	%R	%RPD	Control Limits (%R)	Control Limits (%RPD)	
1,1'-Biphenyl	09/11/2019	02:26	1750	2160	81	6	40-117	20	
1,2,4,5-Tetrachlorobenzene	09/11/2019	02:26	1680	2160	78	1	47-106	20	
1,2,4-Trichlorobenzene	09/11/2019	02:26	1570	2160	73	2	34-118	20	
1,2-Dichlorobenzene	09/11/2019	02:26	1520	2160	70	4	33-117	20	
1,3-Dichlorobenzene	09/11/2019	02:26	1470	2160	68	5	30-115	20	
1,4-Dichlorobenzene	09/11/2019	02:26	1370	2160	63	6	31-115	20	
1-Methylnaphthalene	09/11/2019	02:26	1690	2160	78	3	50-150	20	
2,3,4,6-Tetrachlorophenol	09/11/2019	02:26	1550	2160	72	5	48-113	20	
2,4,5-Trichlorophenol	09/11/2019	02:26	1700	2160	79	3	41-124	20	
2,4,6-Trichlorophenol	09/11/2019	02:26	1140	2160	53	8	39-126	20	
2,4-Dichlorophenol	09/11/2019	02:26	1240	2160	57	6	40-122	20	
2,4-Dimethylphenol	09/11/2019	02:26	154	2160	7	1	30-127	20	*FAIL*
2,4-Dinitrophenol	09/11/2019	02:26	1290	2160	60	5	16-102	20	
2,4-Dinitrotoluene	09/11/2019	02:26	1740	2160	81	2	48-126	20	
2,6-Dichlorophenol	09/11/2019	02:26	917	2160	42	14	41-117	20	
2,6-Dinitrotoluene	09/11/2019	02:26	1810	2160	84	4	46-124	20	
2-Chloronaphthalene	09/11/2019	02:26	1650	2160	76	3	41-114	20	
2-Chlorophenol	09/11/2019	02:26	1240	2160	57	8	34-121	20	
2-Methylnaphthalene	09/11/2019	02:26	1700	2160	79	2	38-122	20	
2-Methylphenol	09/11/2019	02:26	562	2160	26	49	32-122	20	*FAIL*
2-Nitroaniline	09/11/2019	02:26	1670	2160	77	2	44-127	20	
2-Nitrophenol	09/11/2019	02:26	1550	2160	72	3	36-123	20	
3 & 4-Methylphenol	09/11/2019	02:26	819	2160	38	24	34-119	20	*FAIL*
3,3'-Dichlorobenzidine	09/11/2019	02:26	27.8	2160	1	200	22-121	20	*FAIL*
3-Nitroaniline	09/11/2019	02:26	596	2160	28	7	33-119	20	*FAIL*
4,6-Dinitro-2-methylphenol	09/11/2019	02:26	1130	2160	52	12	29-132	20	
4-Bromophenyl-phenyl ether	09/11/2019	02:26	1820	2160	84	4	46-124	20	
4-Chloro-3-methylphenol	09/11/2019	02:26	1170	2160	54	10	45-122	20	
4-Chloroaniline	09/11/2019	02:26	106	2160	5	37	1-100	20	*FAIL*
4-Chlorophenyl-phenyl ether	09/11/2019	02:26	1770	2160	82	7	45-121	20	
4-Nitroaniline	09/11/2019	02:26	1000	2160	46	4	44-125	20	

CT LABORATORIES
delivering more than data from your environmental analyses

3D

Sample Description

GN-SO-04-1

SOIL SEMIVOLATILE MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

Matrix: SOIL SDG No.: 147664

Analytical Method: EPA 8270D Concentration Units: ug/kg

Analytical Run #: 164275 Sample No.: 321442 Parent Sample No.: 321441

Analytical Prep Batch #: 73331 Analytical Preparation Date/Time: 09/04/2019 09:50

ICAL Calibration #: 1S082019

Analyte	Analysis Date/Time		Spike Result	Spike Amount	%R	%RPD	Control Limits (%R)	Control Limits (%RPD)	
4-Nitrophenol	09/11/2019	02:26	1120	2160	52	1	30-132	20	
Acenaphthene	09/11/2019	02:26	2480	2160	115	38	40-123	20	*FAIL*
Acenaphthylene	09/11/2019	02:26	1740	2160	81	3	32-132	20	
Acetophenone	09/11/2019	02:26	1440	2160	67	2	25-96	20	
Aniline	09/11/2019	02:26	68.5	2160	3	2	18-87	20	*FAIL*
Anthracene	09/11/2019	02:26	3020	2160	138	55	47-123	20	*FAIL*
Atrazine	09/11/2019	02:26	1680	2160	78	2	47-127	20	
Azobenzene & 1,2-Diphenylhydra	09/11/2019	02:26	4030	4330	93	13	39-125	20	
Benzaldehyde	09/11/2019	02:26	1430	2160	66	3	6-185	20	
Benzidine	09/11/2019	02:26	0	2160	0	0	0-141	20	
Benzo(a)pyrene	09/11/2019	02:26	5110	2160	227	91	45-129	20	*FAIL*
Benzo(g,h,i)perylene	09/11/2019	02:26	1480	2160	65	74	43-134	20	*FAIL*
Benzo(k)fluoranthene	09/11/2019	02:26	3420	2160	150	48	47-132	20	*FAIL*
Benzoic acid	09/11/2019	02:26	1410	2160	65	3	3-93	20	
Benzyl alcohol	09/11/2019	02:26	80.7	2160	4	4	29-122	20	*FAIL*
Bis(2-chloroethoxy)methane	09/11/2019	02:26	1390	2160	64	1	36-121	20	
Bis(2-chloroethyl)ether	09/11/2019	02:26	1440	2160	67	1	31-120	20	
Bis(2-chloroisopropyl)ether	09/11/2019	02:26	1270	2160	59	1	33-131	20	
Bis(2-ethylhexyl)phthalate	09/11/2019	02:26	1880	2160	87	5	51-133	20	
Butylbenzylphthalate	09/11/2019	02:26	1880	2160	87	9	48-132	20	
Caprolactam	09/11/2019	02:26	1390	2160	64	7	46-117	20	
Carbazole	09/11/2019	02:26	2980	2160	136	47	50-123	20	*FAIL*
Chrysene	09/11/2019	02:26	5350	2160	237	93	50-124	20	*FAIL*
Dibenzo(a,h)anthracene	09/11/2019	02:26	1360	2160	63	33	45-134	20	*FAIL*
Dibenzofuran	09/11/2019	02:26	2190	2160	101	30	44-120	20	*FAIL*
Diethylphthalate	09/11/2019	02:26	1780	2160	82	3	50-124	20	
Dimethylphthalate	09/11/2019	02:26	1700	2160	79	5	48-124	20	
Di-n-butylphthalate	09/11/2019	02:26	1880	2160	87	1	51-128	20	
Di-n-octylphthalate	09/11/2019	02:26	1930	2160	89	9	45-140	20	
Fluorene	09/11/2019	02:26	2420	2160	112	35	43-125	20	*FAIL*
Hexachlorobenzene	09/11/2019	02:26	1880	2160	87	6	45-122	20	

CT LABORATORIES
delivering more than data from your environmental analyses

3D

Sample Description

GN-SO-04-1

SOIL SEMIVOLATILE MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

Matrix: SOIL SDG No.: 147664

Analytical Method: EPA 8270D Concentration Units: ug/kg

Analytical Run #: 164275 Sample No.: 321442 Parent Sample No.: 321441

Analytical Prep Batch #: 73331 Analytical Preparation Date/Time: 09/04/2019 09:50

ICAL Calibration #: 1S082019

Analyte	Analysis Date/Time		Spike Result	Spike Amount	%R	%RPD	Control Limits (%R)	Control Limits (%RPD)	
Hexachlorobutadiene	09/11/2019	02:26	1310	2160	61	3	32-123	20	
Hexachlorocyclopentadiene	09/11/2019	02:26	288	2160	13	27	35-106	20	*FAIL*
Hexachloroethane	09/11/2019	02:26	1370	2160	63	6	28-117	20	
Indeno(1,2,3-cd)pyrene	09/11/2019	02:26	1810	2160	80	67	45-133	20	*FAIL*
Isophorone	09/11/2019	02:26	1110	2160	51	0	30-122	20	
Naphthalene	09/11/2019	02:26	1720	2160	80	6	35-123	20	
Nitrobenzene	09/11/2019	02:26	1540	2160	71	4	34-122	20	
N-Nitrosodimethylamine	09/11/2019	02:26	1410	2160	65	1	23-120	20	
N-Nitroso-di-n-propylamine	09/11/2019	02:26	1490	2160	69	4	36-120	20	
N-Nitrosodiphenylamine & Diphn	09/11/2019	02:26	2290	4330	53	17	38-127	20	
N-Nitrosopyrrolidine	09/11/2019	02:26	1450	2160	67	1	45-126	20	
Pentachlorophenol	09/11/2019	02:26	1520	2160	70	2	25-133	20	
Phenanthrene	09/11/2019	02:26	8860	2160	400	121	50-121	20	*FAIL*
Phenol	09/11/2019	02:26	1180	2160	55	7	34-121	20	
Pyridine	09/11/2019	02:26	745	2160	34	106	1-63	20	*FAIL*

Analyte	Analysis Date/Time		Spike Result	Spike Amount	%R	%RPD	Control Limits (%R)	Control Limits (%RPD)	
Benzo(a)anthracene	09/11/2019	16:30	6100	2160	273	95	49-126	20	*FAIL*
Benzo(b)fluoranthene	09/11/2019	16:30	6100	2160	267	91	45-132	20	*FAIL*
Fluoranthene	09/11/2019	16:30	12200	2160	540	129	50-127	20	*FAIL*
Pyrene	09/11/2019	16:30	9130	2160	404	119	47-127	20	*FAIL*

RPD or Spike Recovery: 26 out of 81 outside QC limits

CT LABORATORIES
delivering more than data from your environmental analyses

3D

Sample Description

GN-SO-04-1

SOIL SEMIVOLATILE MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

Matrix: SOIL SDG No.: 147664

Analytical Method: EPA 8270D-SIM Concentration Units: ug/kg

Analytical Run #: 164274 Sample No.: 321431 Parent Sample No.: 321430

Analytical Prep Batch #: 73329 Analytical Preparation Date/Time: 09/04/2019 09:50

ICAL Calibration #: 1P082619

Analyte	Analysis Date/Time		Spike Result	Spike Amount	%R	%RPD	Control Limits (%R)	Control Limits (%RPD)	
Benzo(a)anthracene	09/10/2019	15:29	378	108	142	0	54-122	40	*FAIL*
Benzo(a)pyrene	09/10/2019	15:29	294	108	108	0	50-125	40	
Benzo(b)fluoranthene	09/10/2019	15:29	395	108	56	0	53-128	40	
Chrysene	09/10/2019	15:29	311	108	105	1	57-118	40	
Fluoranthene	09/10/2019	15:29	605	108	54	1	55-119	40	*FAIL*
Phenanthrene	09/10/2019	15:29	304	108	76	1	49-113	40	
Pyrene	09/10/2019	15:29	461	108	47	2	55-117	40	*FAIL*

Analyte	Analysis Date/Time		Spike Result	Spike Amount	%R	%RPD	Control Limits (%R)	Control Limits (%RPD)	
1-Methylnaphthalene	09/10/2019	15:49	93.2	108	80	4	43-111	40	
2-Methylnaphthalene	09/10/2019	15:49	102	108	86	3	39-114	40	
Acenaphthene	09/10/2019	15:49	97.3	108	75	5	44-111	40	
Acenaphthylene	09/10/2019	15:49	110	108	95	5	39-116	40	
Anthracene	09/10/2019	15:49	165	108	111	23	50-114	40	
Benzo(g,h,i)perylene	09/10/2019	15:49	156	108	86	54	49-127	40	*FAIL*
Benzo(k)fluoranthene	09/10/2019	15:49	195	108	109	11	56-123	40	
Dibenzo(a,h)anthracene	09/10/2019	15:49	115	108	89	60	50-129	40	*FAIL*
Fluorene	09/10/2019	15:49	124	108	101	17	47-114	40	
Indeno(1,2,3-cd)pyrene	09/10/2019	15:49	177	108	99	49	49-130	40	*FAIL*
Naphthalene	09/10/2019	15:49	90.6	108	80	1	38-111	40	

RPD or Spike Recovery: 6 out of 18 outside QC limits

CT LABORATORIES
delivering more than data from your environmental analyses

3D

Sample Description

LCS

SOIL SEMIVOLATILE LAB CONTROL SAMPLE

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT
Sample No.: 321428
SDG No.: 147664
Analytical Method: EPA 8270D-SIM
Concentration Units: ug/kg

Sample No.: 321428
Parent Sample No.: 0
Analytical Prep Batch #: 73329
Analytical Preparation Date/Time: 09/04/2019 09:50
Analytical Run #: 164274
ICAL Calibration #: 1P082619

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
1-Methylnaphthalene	09/09/2019	18:55	43-111	59.4		100	59
2-Methylnaphthalene	09/09/2019	18:55	39-114	65.1		100	65
Acenaphthene	09/09/2019	18:55	44-111	58.4		100	58
Acenaphthylene	09/09/2019	18:55	39-116	70.0		100	70
Anthracene	09/09/2019	18:55	50-114	71.2		100	71
Benzo(a)anthracene	09/09/2019	18:55	54-122	93.6		100	94
Benzo(a)pyrene	09/09/2019	18:55	50-125	84.4		100	84
Benzo(b)fluoranthene	09/09/2019	18:55	53-128	83.7		100	84
Benzo(g,h,i)perylene	09/09/2019	18:55	49-127	82.1		100	82
Benzo(k)fluoranthene	09/09/2019	18:55	56-123	85.1		100	85
Chrysene	09/09/2019	18:55	57-118	90.2		100	90
Dibenzo(a,h)anthracene	09/09/2019	18:55	50-129	86.0		100	86
Fluoranthene	09/09/2019	18:55	55-119	82.6		100	83
Fluorene	09/09/2019	18:55	47-114	65.9		100	66
Indeno(1,2,3-cd)pyrene	09/09/2019	18:55	49-130	89.0		100	89
Naphthalene	09/09/2019	18:55	38-111	60.7		100	61
Phenanthrene	09/09/2019	18:55	49-113	65.6		100	66
Pyrene	09/09/2019	18:55	55-117	79.3		100	79

Spike Recovery: 0 out of 18 outside limits

CT LABORATORIES
delivering more than data from your environmental analyses

3D

Sample Description

LCS

SOIL SEMIVOLATILE LAB CONTROL SAMPLE

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT
Sample No.: 321439
SDG No.: 147664
Analytical Method: EPA 8270D
Concentration Units: ug/kg

Sample No.: 321439
Parent Sample No.: 0
Analytical Prep Batch #: 73331
Analytical Preparation Date/Time: 09/04/2019 09:50
Analytical Run #: 164275
ICAL Calibration #: 1S082019

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R	
1,1'-Biphenyl	09/10/2019	19:46	40-117	1310		2000	66	
1,2,4,5-Tetrachlorobenzene	09/10/2019	19:46	47-106	1280		2000	64	
1,2,4-Trichlorobenzene	09/10/2019	19:46	34-118	1200		2000	60	
1,2-Dichlorobenzene	09/10/2019	19:46	33-117	1210		2000	60	
1,3-Dichlorobenzene	09/10/2019	19:46	30-115	1140		2000	57	
1,4-Dichlorobenzene	09/10/2019	19:46	31-115	1070		2000	54	
1-Methylnaphthalene	09/10/2019	19:46	40-119	1290		2000	64	
2,3,4,6-Tetrachlorophenol	09/10/2019	19:46	48-113	1830		2000	92	
2,4,5-Trichlorophenol	09/10/2019	19:46	41-124	1630		2000	82	
2,4,6-Trichlorophenol	09/10/2019	19:46	39-126	1390		2000	70	
2,4-Dichlorophenol	09/10/2019	19:46	40-122	1180		2000	59	
2,4-Dimethylphenol	09/10/2019	19:46	30-127	1140		2000	57	
2,4-Dinitrophenol	09/10/2019	19:46	16-102	2360		2000	118	*FAIL*
2,4-Dinitrotoluene	09/10/2019	19:46	48-126	1800		2000	90	
2,6-Dichlorophenol	09/10/2019	19:46	41-117	1120		2000	56	
2,6-Dinitrotoluene	09/10/2019	19:46	46-124	1730		2000	86	
2-Chloronaphthalene	09/10/2019	19:46	41-114	1260		2000	63	
2-Chlorophenol	09/10/2019	19:46	34-121	1180		2000	59	
2-Methylnaphthalene	09/10/2019	19:46	38-122	1220		2000	61	
2-Methylphenol	09/10/2019	19:46	32-122	1250		2000	62	
2-Nitroaniline	09/10/2019	19:46	44-127	1630		2000	82	
2-Nitrophenol	09/10/2019	19:46	36-123	1190		2000	60	
3 & 4-Methylphenol	09/10/2019	19:46	34-119	1180		2000	59	
3,3'-Dichlorobenzidine	09/10/2019	19:46	22-121	155		2000	8	*FAIL*
3-Nitroaniline	09/10/2019	19:46	33-119	694		2000	35	
4,6-Dinitro-2-methylphenol	09/10/2019	19:46	29-132	1960		2000	98	
4-Bromophenyl-phenyl ether	09/10/2019	19:46	46-124	1730		2000	86	
4-Chloro-3-methylphenol	09/10/2019	19:46	45-122	1480		2000	74	

CT LABORATORIES
delivering more than data from your environmental analyses

3D

Sample Description

LCS

SOIL SEMIVOLATILE LAB CONTROL SAMPLE

Lab Name: CT Laboratories | Contract: HDR, INC-MEMPHIS DEPOT

Sample No.: 321439 | SDG No.: 147664

Analytical Method: EPA 8270D | Concentration Units: ug/kg

Sample No.: 321439 | Parent Sample No.: 0

Analytical Prep Batch #: 73331 | Analytical Preparation Date/Time: 09/04/2019 09:50

Analytical Run #: 164275 | ICAL Calibration #: 1S082019

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R	
4-Chloroaniline	09/10/2019	19:46	1-100	396		2000	20	
4-Chlorophenyl-phenyl ether	09/10/2019	19:46	45-121	1520		2000	76	
4-Nitroaniline	09/10/2019	19:46	44-125	1310		2000	66	
4-Nitrophenol	09/10/2019	19:46	30-132	2100		2000	105	
Acenaphthene	09/10/2019	19:46	40-123	1370		2000	68	
Acenaphthylene	09/10/2019	19:46	32-132	1420		2000	71	
Acetophenone	09/10/2019	19:46	33-115	1100		2000	55	
Aniline	09/10/2019	19:46	18-87	172		2000	9	*FAIL*
Anthracene	09/10/2019	19:46	47-123	1790		2000	90	
Atrazine	09/10/2019	19:46	47-127	1470		2000	74	
Azobenzene & 1,2-Diphenylhydra	09/10/2019	19:46	39-125	3430		4000	86	
Benzaldehyde	09/10/2019	19:46	6-185	1040		2000	52	
Benzidine	09/10/2019	19:46	0-141	0		2000	0	
Benzo(a)anthracene	09/10/2019	19:46	49-126	1990		2000	100	
Benzo(a)pyrene	09/10/2019	19:46	54-129	1850		2000	92	
Benzo(b)fluoranthene	09/10/2019	19:46	45-132	1830		2000	92	
Benzo(g,h,i)perylene	09/10/2019	19:46	43-134	1820		2000	91	
Benzo(k)fluoranthene	09/10/2019	19:46	47-132	1820		2000	91	
Benzoic acid	09/10/2019	19:46	3-93	1430		2000	72	
Benzyl alcohol	09/10/2019	19:46	29-122	859		2000	43	
Bis(2-chloroethoxy)methane	09/10/2019	19:46	36-121	1060		2000	53	
Bis(2-chloroethyl)ether	09/10/2019	19:46	31-120	1430		2000	72	
Bis(2-chloroisopropyl)ether	09/10/2019	19:46	33-131	962		2000	48	
Bis(2-ethylhexyl)phthalate	09/10/2019	19:46	51-133	1990		2000	100	
Butylbenzylphthalate	09/10/2019	19:46	48-132	1910		2000	96	
Caprolactam	09/10/2019	19:46	46-117	1610		2000	80	
Carbazole	09/10/2019	19:46	50-123	1890		2000	94	
Chrysene	09/10/2019	19:46	50-124	1870		2000	94	

CT LABORATORIES
delivering more than data from your environmental analyses

3D

Sample Description

LCS

SOIL SEMIVOLATILE LAB CONTROL SAMPLE

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT
Sample No.: 321439
SDG No.: 147664
Analytical Method: EPA 8270D
Concentration Units: ug/kg

Sample No.: 321439
Parent Sample No.: 0
Analytical Prep Batch #: 73331
Analytical Preparation Date/Time: 09/04/2019 09:50
Analytical Run #: 164275
ICAL Calibration #: 1S082019

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R	
Dibenzo(a,h)anthracene	09/10/2019	19:46	45-134	1970		2000	98	
Dibenzofuran	09/10/2019	19:46	44-120	1420		2000	71	
Diethylphthalate	09/10/2019	19:46	50-124	1820		2000	91	
Dimethylphthalate	09/10/2019	19:46	48-124	1630		2000	82	
Di-n-butylphthalate	09/10/2019	19:46	51-128	2030		2000	102	
Di-n-octylphthalate	09/10/2019	19:46	51-128	1920		2000	96	
Fluoranthene	09/10/2019	19:46	50-127	1980		2000	99	
Fluorene	09/10/2019	19:46	43-125	1550		2000	78	
Hexachlorobenzene	09/10/2019	19:46	45-122	1840		2000	92	
Hexachlorobutadiene	09/10/2019	19:46	32-123	982		2000	49	
Hexachlorocyclopentadiene	09/10/2019	19:46	35-106	869		2000	43	
Hexachloroethane	09/10/2019	19:46	28-117	1130		2000	56	
Indeno(1,2,3-cd)pyrene	09/10/2019	19:46	45-133	1850		2000	92	
Isophorone	09/10/2019	19:46	30-122	883		2000	44	
Naphthalene	09/10/2019	19:46	35-123	1220		2000	61	
Nitrobenzene	09/10/2019	19:46	34-122	1220		2000	61	
N-Nitrosodimethylamine	09/10/2019	19:46	23-120	1120		2000	56	
N-Nitroso-di-n-propylamine	09/10/2019	19:46	36-120	1140		2000	57	
N-Nitrosodiphenylamine & Diphn	09/10/2019	19:46	38-127	3310		4000	83	
N-Nitrosopyrrolidine	09/10/2019	19:46	45-126	1090		2000	54	
Pentachlorophenol	09/10/2019	19:46	25-133	2000		2000	100	
Phenanthrene	09/10/2019	19:46	50-121	1820		2000	91	
Phenol	09/10/2019	19:46	34-121	1120		2000	56	
Pyrene	09/10/2019	19:46	47-127	1900		2000	95	
Pyridine	09/10/2019	19:46	1-63	1410		2000	70	*FAIL*

CT LABORATORIES
delivering more than data from your environmental analyses

3D

Sample Description

LCS

SOIL SEMIVOLATILE LAB CONTROL SAMPLE

Lab Name:	CT Laboratories	Contract	HDR, INC-MEMPHIS DEPOT
Sample No.:	321439	SDG No.:	147664
Analytical Method:	EPA 8270D	Concentration Units:	ug/kg

Spike Recovery: 4 out of 81 outside limits

CT LABORATORIES
delivering more than data from your environmental analyses

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Sample ID:	321427	SDG No.:	147664
Matrix:	SOLID	Date Extracted:	09/04/2019
Date Analyzed:	09/09/2019	Time Analyzed:	18:35
Analytical Method:	EPA 8270D-SIM	Extraction Method:	SW3546
Analytical Run #:	164274	Extraction Batch #:	73329
		ICAL Calibration #:	1P082619

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC:

SEQUENCE	SAMPLE DESCRIPTION	SAMPLE ID	DATE/TIME ANALYZED	CALIBRATION # ID
1	MBS	321427	09/09/2019 18:35	1P082619
2	LCSS	321428	09/09/2019 18:55	1P082619
3	GN-SO-01-1	321149	09/09/2019 19:15	1P082619
4	GN-SO-01-2	321154	09/09/2019 19:35	1P082619
5	GN-SO-02-1	321155	09/09/2019 19:55	1P082619
6	GN-SO-DUP-1	321157	09/09/2019 20:15	1P082619
7	GN-SO-02-2	321158	09/09/2019 20:35	1P082619
8	GNSO-03-1	321159	09/09/2019 20:56	1P082619
9	GN-SO-03-2	321160	09/09/2019 21:16	1P082619
10	GN-SO-04-2	321162	09/09/2019 21:36	1P082619
11	GN-SO-05-1	321163	09/09/2019 21:56	1P082619
12	GN-SO-05-2	321164	09/09/2019 22:16	1P082619
13	GN-SO-DUP-2	321165	09/09/2019 22:36	1P082619
14	GN-SO-06-1	321166	09/09/2019 22:56	1P082619
15	GN-SO-06-2	321167	09/09/2019 23:17	1P082619
16	GN-SO-07-1	321168	09/09/2019 23:37	1P082619
17	GN-SO-07-2	321169	09/09/2019 23:57	1P082619
18	GN-SO-08-1	321170	09/10/2019 00:17	1P082619
19	GN-SO-08-2	321171	09/10/2019 00:37	1P082619
20	GN-SO-09C-1	321172	09/10/2019 00:57	1P082619
21	GN-SO-04-1	321161	09/10/2019 01:17	1P082619
22	GN-SO-04-1MSS	321430	09/10/2019 01:37	1P082619
23	GN-SO-04-2	321162	09/10/2019 13:07	1P082619
24	GN-SO-05-1	321163	09/10/2019 13:27	1P082619
25	GN-SO-07-2	321169	09/10/2019 14:08	1P082619
26	GN-SO-08-1	321170	09/10/2019 14:28	1P082619
27	GN-SO-04-1	321161	09/10/2019 14:48	1P082619
28	GN-SO-04-1MSS	321430	09/10/2019 15:09	1P082619
29	GN-SO-04-1MSDS	321431	09/10/2019 15:29	1P082619
30	GN-SO-04-1MSDS	321431	09/10/2019 15:49	1P082619

CT LABORATORIES
delivering more than data from your environmental analyses

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Sample ID:	321427	SDG No.:	147664
Matrix:	SOLID	Date Extracted:	09/04/2019
Date Analyzed:	09/09/2019	Time Analyzed:	18:35
Analytical Method:	EPA 8270D-SIM	Extraction Method:	SW3546
Analytical Run #:	164274	Extraction Batch #:	73329
		ICAL Calibration #:	1P082619

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC:

SEQUENCE	SAMPLE DESCRIPTION	SAMPLE ID	DATE/TIME ANALYZED	CALIBRATION # ID
31	GN-SO-02-1	321155	09/10/2019 16:10	1P082619
32	GN-SO-DUP-1	321157	09/10/2019 16:30	1P082619
33	GN-SO-03-2	321160	09/10/2019 16:50	1P082619

CT LABORATORIES
delivering more than data from your environmental analyses

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Sample ID:	321438	SDG No.:	147664
Matrix:	SOLID	Date Extracted:	09/04/2019
Date Analyzed:	09/10/2019	Time Analyzed:	19:27
Analytical Method:	EPA 8270D	Extraction Method:	SW3546
Analytical Run #:	164275	Extraction Batch #:	73331
		ICAL Calibration #:	1S082019

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC:

SEQUENCE	SAMPLE DESCRIPTION	SAMPLE ID	DATE/TIME ANALYZED	CALIBRATION # ID
1	MBS	321438	09/10/2019 19:27	1S082019
2	LCSS	321439	09/10/2019 19:46	1S082019
3	GN-SO-01-1	321149	09/10/2019 20:05	1S082019
4	GN-SO-01-2	321154	09/10/2019 20:24	1S082019
5	GN-SO-02-1	321155	09/10/2019 20:43	1S082019
6	GN-SO-DUP-1	321157	09/10/2019 21:02	1S082019
7	GN-SO-02-2	321158	09/10/2019 21:20	1S082019
8	GNSO-03-1	321159	09/10/2019 21:39	1S082019
9	GN-SO-03-2	321160	09/10/2019 21:58	1S082019
10	GN-SO-04-2	321162	09/10/2019 22:16	1S082019
11	GN-SO-05-1	321163	09/10/2019 22:36	1S082019
12	GN-SO-05-2	321164	09/10/2019 22:55	1S082019
13	GN-SO-DUP-2	321165	09/10/2019 23:14	1S082019
14	GN-SO-06-1	321166	09/10/2019 23:33	1S082019
15	GN-SO-06-2	321167	09/10/2019 23:52	1S082019
16	GN-SO-07-1	321168	09/11/2019 00:12	1S082019
17	GN-SO-07-2	321169	09/11/2019 00:31	1S082019
18	GN-SO-08-1	321170	09/11/2019 00:50	1S082019
19	GN-SO-08-2	321171	09/11/2019 01:10	1S082019
20	GN-SO-09C-1	321172	09/11/2019 01:29	1S082019
21	GN-SO-04-1	321161	09/11/2019 01:49	1S082019
22	GN-SO-04-1MSS	321441	09/11/2019 02:07	1S082019
23	GN-SO-04-1MSDS	321442	09/11/2019 02:26	1S082019
24	GN-SO-04-1MSDS	321442	09/11/2019 16:30	1S082019

CT LABORATORIES
delivering more than data from your environmental analyses

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Sample ID:	321835	SDG No.:	147664
Matrix:	LIQUID	Date Extracted:	09/03/2019
Date Analyzed:	09/09/2019	Time Analyzed:	16:54
Analytical Method:	EPA 8270D-SIM	Extraction Method:	SW3510
Analytical Run #:	164170	Extraction Batch #:	73347
		ICAL Calibration #:	1P082619

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC:

SEQUENCE	SAMPLE DESCRIPTION	SAMPLE ID	DATE/TIME ANALYZED	CALIBRATION # ID
1	MBW	321835	09/09/2019 16:54	1P082619
2	LCSW	321836	09/09/2019 17:14	1P082619
3	GN-W-RB-01	321513	09/09/2019 17:34	1P082619
4	LCSDW	321837	09/09/2019 17:55	1P082619

CT LABORATORIES
delivering more than data from your environmental analyses

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Sample ID:	321838	SDG No.:	147664
Matrix:	LIQUID	Date Extracted:	09/03/2019
Date Analyzed:	09/05/2019	Time Analyzed:	16:12
Analytical Method:	EPA 8270D	Extraction Method:	SW3510
Analytical Run #:	164171	Extraction Batch #:	73348
		ICAL Calibration #:	1S082019

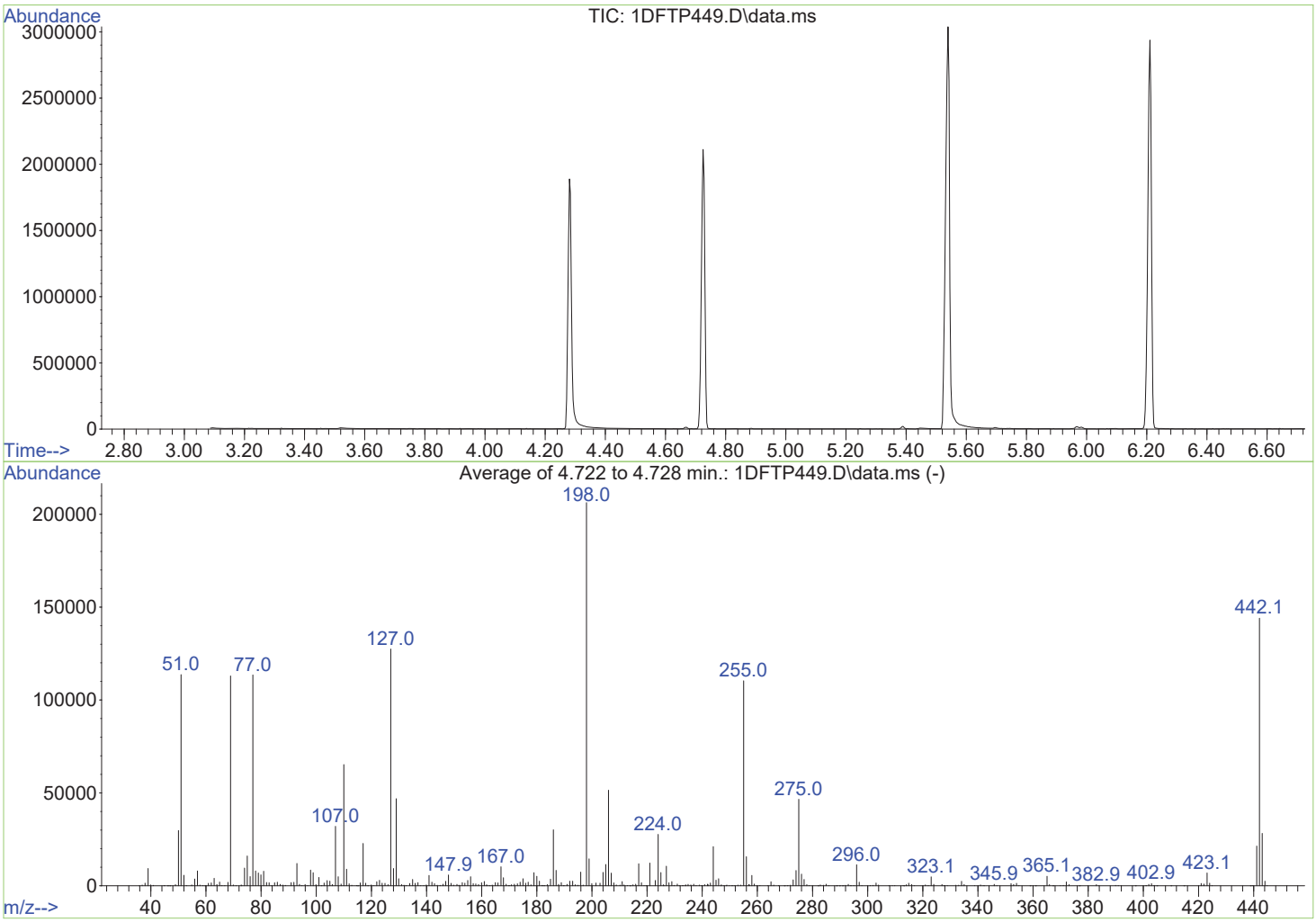
THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC:

SEQUENCE	SAMPLE DESCRIPTION	SAMPLE ID	DATE/TIME ANALYZED	CALIBRATION # ID
1	MBW	321838	09/05/2019 16:12	1S082019
2	LCSW	321839	09/05/2019 16:30	1S082019
3	GN-W-RB-01	321513	09/05/2019 16:48	1S082019
4	LCSDW	321840	09/05/2019 17:07	1S082019

Data Path : C:\INSTARCH\DATA\1S082019\
Data File : 1DFTP449.D
Acq On : 20 Aug 2019 9:39
Operator : RPN
Sample : DFTPP TUNE SVMS8353
Misc : SVMS1,25ng DFTPP
ALS Vial : 1 Sample Multiplier: 1

Integration File: DDD.p

Method : C:\INSTARCH\METHOD\1DFTPP.M
Title : DFTPP TUNE
Last Update : Tue Aug 20 13:27:55 2019



AutoFind: Scans 527, 528, 529; Background Corrected with Scan 519

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	55.1	113641	PASS
68	69	0.00	2	1.7	1900	PASS
70	69	0.00	2	0.4	459	PASS
127	198	10	80	61.8	127472	PASS
197	198	0.00	2	0.2	360	PASS
198	198	50	100	100.0	206251	PASS
199	198	5	9	7.0	14479	PASS
275	198	10	60	22.6	46597	PASS
365	198	1	100	2.5	5125	PASS
441	442	0.01	24	14.8	21362	PASS
442	198	50	100	69.8	144029	PASS
443	442	15	24	19.6	28237	PASS

Injection Log Summary Report

Method : C:\INSTARCH\METHOD\1S082019.M (RTE Integrator)
Title : Method for 8270 Analysis
Start (Tune) File ID : C:\INSTARCH\DATA\1S082019\1DFTP449.D
Injection Date : 20 Aug 2019 Log Time Period (hrs) : ALL
Injection Time : 09:39 Total files within period : 29
Sample Directory : C:\INSTARCH\DATA\1S082019\

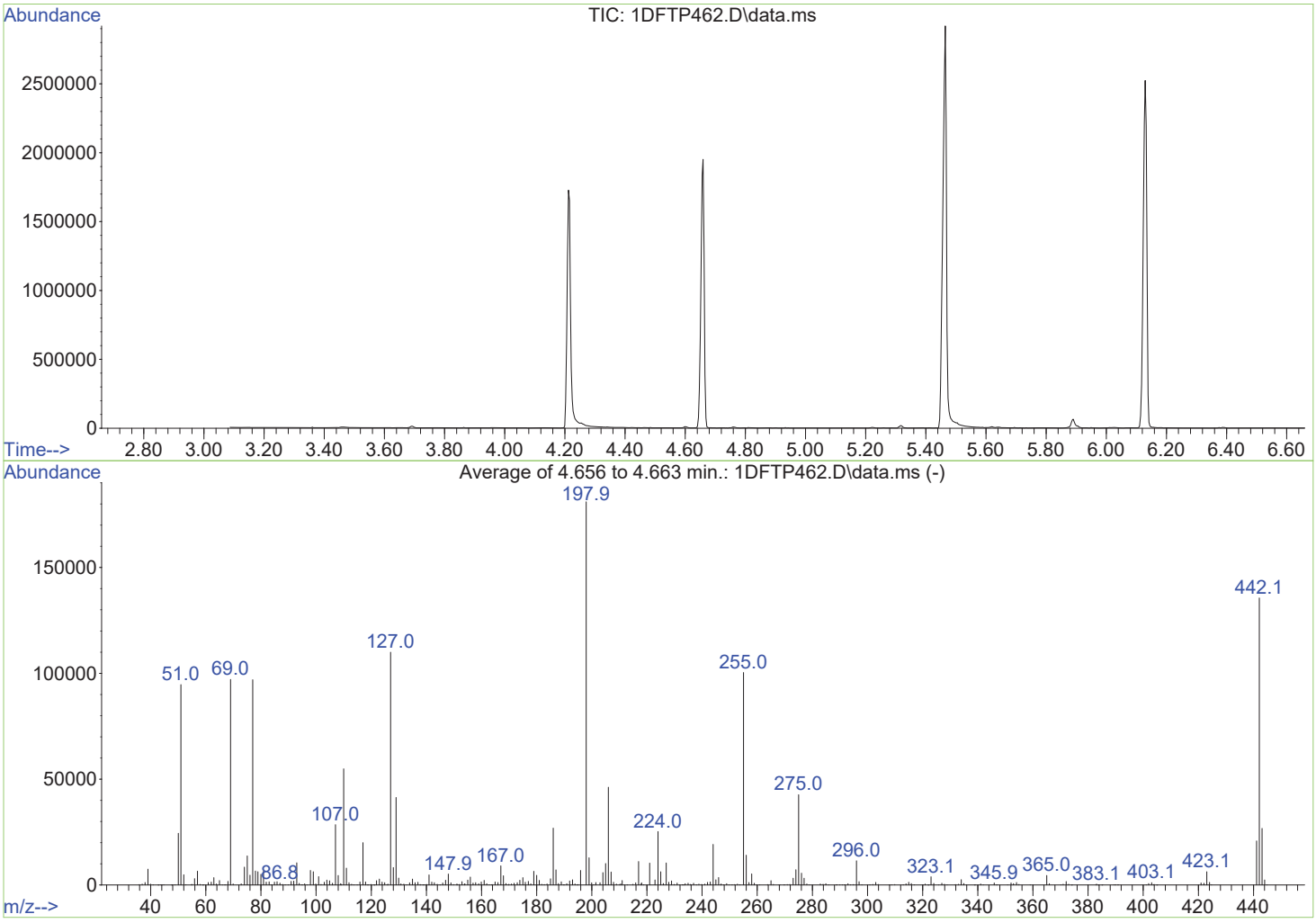
Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name Misc Info	Date	Time
1IB01	1.00	1.00	1.00	InstrumentBlank 500ul+5ul S4077D	20 Aug 2019	09:54
1ICAL7	1.00	1.00	1.00	ICAL 50ug/mL SVMS8430 500ul+5ul S4077D	20 Aug 2019	10:12
1ICAL6	1.00	1.00	1.00	ICAL 40ug/mL SVMS8429 500ul+5ul S4077D	20 Aug 2019	10:31
1ICAL5	1.00	1.00	1.00	ICAL 30ug/mL SVMS8428 500ul+5ul S4077D	20 Aug 2019	10:50
1ICAL4	1.00	1.00	1.00	ICAL 20ug/mL SVMS8427 500ul+5ul S4077D	20 Aug 2019	11:08
1ICAL3	1.00	1.00	1.00	ICAL 10ug/mL SVMS8426 500ul+5ul S4077D	20 Aug 2019	11:27
1ICAL2	1.00	1.00	1.00	ICAL 5ug/mL SVMS8425 500ul+5ul S4077D	20 Aug 2019	11:45
1ICAL1	1.00	1.00	1.00	ICAL 1ug/mL SVMS8424 500ul+5ul S4077D	20 Aug 2019	12:04
1ICV1	1.00	1.00	1.00	ICV 20ug/mL SVMS8431 500ul+5ul S4077D	20 Aug 2019	12:23
1ICV2	1.00	1.00	1.00	ICV 40ug/mL SVMS8432 500ul+5ul S4077D	20 Aug 2019	12:41
1IB02	1.00	1.00	1.00	InstrumentBlank 500ul+5ul S4077D	20 Aug 2019	14:01
1ICAL7A	1.00	1.00	1.00	ICAL A 50ug/mL SVMS8440 500ul+5ul S4077D	20 Aug 2019	14:19
1ICAL6A	1.00	1.00	1.00	ICAL A 40ug/mL SVMS8439 500ul+5ul S4077D	20 Aug 2019	14:37
1ICAL5A	1.00	1.00	1.00	ICAL A 30ug/mL SVMS8438 500ul+5ul S4077D	20 Aug 2019	14:56
1ICAL4A	1.00	1.00	1.00	ICAL A 20ug/mL SVMS8437 500ul+5ul S4077D	20 Aug 2019	15:15
1ICAL3A	1.00	1.00	1.00	ICAL A 10ug/mL SVMS8436 500ul+5ul S4077D	20 Aug 2019	15:33
1ICAL2A	1.00	1.00	1.00	ICAL A 5ug/mL SVMS8435 500ul+5ul S4077D	20 Aug 2019	15:52
1ICAL1A	1.00	1.00	1.00	ICAL A 1ug/mL SVMS8434 500ul+5ul S4077D	20 Aug 2019	16:11
1ICV1A	1.00	1.00	1.00	ICV A 20ug/mL SVMS8441 500ul+5ul S4077D	20 Aug 2019	16:30
1ICV2A	1.00	1.00	1.00	ICV A 40ug/mL SVMS8442 500ul+5ul S4077D	20 Aug 2019	16:48
1IB03	1.00	1.00	1.00	InstrumentBlank 500ul+5ul S4077D	20 Aug 2019	17:07
1MBW01	1.00	1.00	1.00	163485,MBW, 314528,500ul+5ul S4077D	20 Aug 2019	17:25

Data Path : C:\INSTARCH\DATA\1S090519\
Data File : 1DFTP462.D
Acq On : 5 Sep 2019 15:19
Operator : JJY
Sample : DFTPP TUNE SVMS8353
Misc : SVMS1,25ng DFTPP
ALS Vial : 1 Sample Multiplier: 1

Integration File: DDD.p

Method : C:\INSTARCH\METHOD\1DFTPP.M
Title : DFTPP TUNE
Last Update : Tue Sep 03 12:44:34 2019



AutoFind: Scans 506, 507, 508; Background Corrected with Scan 497

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	52.3	94679	PASS
68	69	0.00	2	1.8	1722	PASS
70	69	0.00	2	0.5	448	PASS
127	198	10	80	60.7	109965	PASS
197	198	0.00	2	0.0	0	PASS
198	198	50	100	100.0	181035	PASS
199	198	5	9	7.1	12857	PASS
275	198	10	60	23.6	42651	PASS
365	198	1	100	2.5	4523	PASS
441	442	0.01	24	15.3	20789	PASS
442	198	50	100	74.9	135640	PASS
443	442	15	24	19.7	26699	PASS

Injection Log Summary Report

Method : C:\INSTARCH\METHOD\1A082019.M (RTE Integrator)
Title : Method for 8270 Analysis
Start (Tune) File ID : C:\INSTARCH\DATA\1S090519\1DFTP462.D
Injection Date : 5 Sep 2019 Log Time Period (hrs) : ALL
Injection Time : 15:19 Total files within period : 21
Sample Directory : C:\INSTARCH\DATA\1S090519\

Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name / Misc Info	Date	Time
1CCV600	1.00	1.00	1.00	CCV 20ug/mL SVMS8433 500ul+5ul S4077D	5 Sep 2019	15:35
1CCV601	1.00	1.00	1.00	CCV A 20ug/mL SVMS8443 500ul+5ul S4077D	5 Sep 2019	15:53
1MBW01	1.00	1.00	1.00	164171,MBW, 321838,500ul+5ul S4142A	5 Sep 2019	16:12
1LCSW01	1.00	1.00	1.00	164171,LCSW, 321839,500ul+5ul S4142A	5 Sep 2019	16:30
321513	1.00	1.00	1.00	164171,321513, 500ul+5ul S4142A	5 Sep 2019	16:48
1LCSDW01	1.00	1.00	1.00	164171,LCSDW, 321840,500ul+5ul S4142A	5 Sep 2019	17:07
1CCV602	1.00	1.00	1.00	CCV 20ug/mL SVMS8433 500ul+5ul S4077D	5 Sep 2019	17:26
1CCV603	1.00	1.00	1.00	CCV A 20ug/mL SVMS8443 500ul+5ul S4077D	5 Sep 2019	17:44
1MBS01	1.00	1.00	1.00	164169,MBS, 321443,500ul+5ul S4142A	5 Sep 2019	18:02
1LCSS01	1.00	1.00	1.00	164169,LCSS, 321444,500ul+5ul S4142A	5 Sep 2019	18:21
320880	1.00	1.00	1.00	164169,320880, 500ul+5ul S4142A	5 Sep 2019	18:39
320882	1.00	1.00	1.00	164169,320882, 500ul+5ul S4142A	5 Sep 2019	18:58
320886	1.00	1.00	1.00	164169,320886, 500ul+5ul S4142A	5 Sep 2019	19:16
320888	1.00	1.00	1.00	164169,320888, 500ul+5ul S4142A	5 Sep 2019	19:35
320890	1.00	1.00	1.00	164169,320890, 500ul+5ul S4142A	5 Sep 2019	19:53
320895	1.00	1.00	1.00	164169,320895, 500ul+5ul S4142A	5 Sep 2019	20:11
320897	1.00	1.00	1.00	164169,320897, 500ul+5ul S4142A	5 Sep 2019	20:30
321495	1.00	1.00	1.00	164169,321495, 500ul+5ul S4142A	5 Sep 2019	20:49
320893	1.00	1.00	1.00	164169,320893, 500ul+5ul S4142A	5 Sep 2019	21:07
320893MS	1.00	1.00	1.00	164169,MSS320893, 321515,500ul+5ul S4142A	5 Sep 2019	21:26
320893SD	1.00	1.00	1.00	164169,MSDS320893, 321516,500ul+5ul S4142A	5 Sep 2019	21:44

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : Contract :
Project : Site : Location : Group :
Lab File ID (Standard): 1ICAL4.D Date Analyzed : 20 Aug 2019
Instrument ID : SVMS1 Time Analyzed : 11:08
GC Column : ID : (mm) Heated Purge (Y:N) :

	IS1 (DCB)		IS2 (NPT)		IS3 (ANT)	
	Area #	RT #	Area #	RT #	Area #	RT #
ICAL MID PT	126239	3.39	470380	4.93	293767	6.82
UPPER LIMIT	252478	3.89	940760	5.43	587534	7.32
LOWER LIMIT	63120	2.89	235190	4.43	146884	6.32
File ID Sample						
1CCV600 CCV 20ug	117023	3.31	435864	4.83	265860	6.75
1CCV601 CCV A 20u	104287	3.31	388537	4.82	240871	6.76
1CCV602 CCV 20ug	114070	3.31	425279	4.83	253383	6.75
1CCV603 CCV A 20u	105839	3.31	398957	4.82	240091	6.75
1LCSDW01 164171,LC	112988	3.31	436580	4.83	270269	6.75
1LCSS01 164169,LC	111796	3.31	423421	4.82	255744	6.76
1LCSW01 164171,LC	110955	3.31	431270	4.83	264733	6.75
1MBS01 164169,MB	108677	3.31	411103	4.82	248346	6.75
1MBW01 164171,MB	108699	3.31	424599	4.82	269446	6.75
320880 164169,32	106986	3.31	405871	4.82	248742	6.75
320882 164169,32	106171	3.31	392436	4.82	248545	6.75
320886 164169,32	105013	3.31	413641	4.82	247785	6.75
320888 164169,32	112225	3.31	431479	4.82	258148	6.75
320890 164169,32	107203	3.31	413140	4.82	257253	6.75
320893 164169,32	107804	3.31	421746	4.82	254138	6.75
320893MS 164169,MS	107150	3.31	411242	4.83	251474	6.75
320893SD 164169,MS	106938	3.31	419511	4.83	253329	6.75
320895 164169,32	110744	3.31	416585	4.82	253563	6.75
320897 164169,32	108994	3.31	413680	4.82	253435	6.75
321495 164169,32	108573	3.31	409093	4.82	254517	6.75
321513 164171,32	111865	3.31	429386	4.82	266613	6.75

IS1 (DCB) = 14Diclbenzd4
IS2 (NPT) = Naphthalened8
IS3 (ANT) = Acenaphthened10

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : Contract :
Project : Site : Location : Group :
Lab File ID (Standard): 1ICAL4.D Date Analyzed : 20 Aug 2019
Instrument ID : SVMS1 Time Analyzed : 11:08
GC Column : ID : (mm) Heated Purge (Y:N) :

	IS4 (PHN)		IS5 (CRY)		IS6 (PRY)	
	Area #	RT #	Area #	RT #	Area #	RT #
ICAL MID PT	502863	7.78	262006	9.19	307726	10.04
UPPER LIMIT	1005726	8.28	524012	9.69	615452	10.54
LOWER LIMIT	251432	7.28	131003	8.69	153863	9.54
File ID Sample						
1CCV600 CCV 20ug	443409	7.71	233022	9.12	270717	9.95
1CCV601 CCV A 20u	400501	7.72	217463	9.12	248626	9.94
1CCV602 CCV 20ug	429603	7.71	228471	9.12	270865	9.95
1CCV603 CCV A 20u	411752	7.71	229780	9.12	261301	9.95
1LCSDW01 164171,LC	442713	7.71	233765	9.12	267582	9.95
1LCSS01 164169,LC	421458	7.72	222045	9.12	264960	9.94
1LCSW01 164171,LC	440128	7.71	231373	9.12	271571	9.95
1MBS01 164169,MB	417454	7.71	233108	9.12	265474	9.95
1MBW01 164171,MB	451080	7.71	249950	9.12	276924	9.95
320880 164169,32	400877	7.71	229613	9.12	253789	9.95
320882 164169,32	400380	7.71	218265	9.12	250850	9.95
320886 164169,32	395923	7.71	228793	9.12	261667	9.95
320888 164169,32	420152	7.71	237376	9.12	264299	9.95
320890 164169,32	418685	7.71	240873	9.12	276851	9.95
320893 164169,32	414320	7.71	232381	9.12	255479	9.95
320893MS 164169,MS	408740	7.71	233658	9.12	269455	9.95
320893SD 164169,MS	420228	7.71	236806	9.12	266858	9.95
320895 164169,32	412461	7.71	238284	9.12	262909	9.95
320897 164169,32	424697	7.71	231589	9.12	270044	9.95
321495 164169,32	418159	7.71	239707	9.12	275252	9.95
321513 164171,32	443368	7.71	241775	9.12	274319	9.95

IS4 (PHN) = Phenanthrd10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

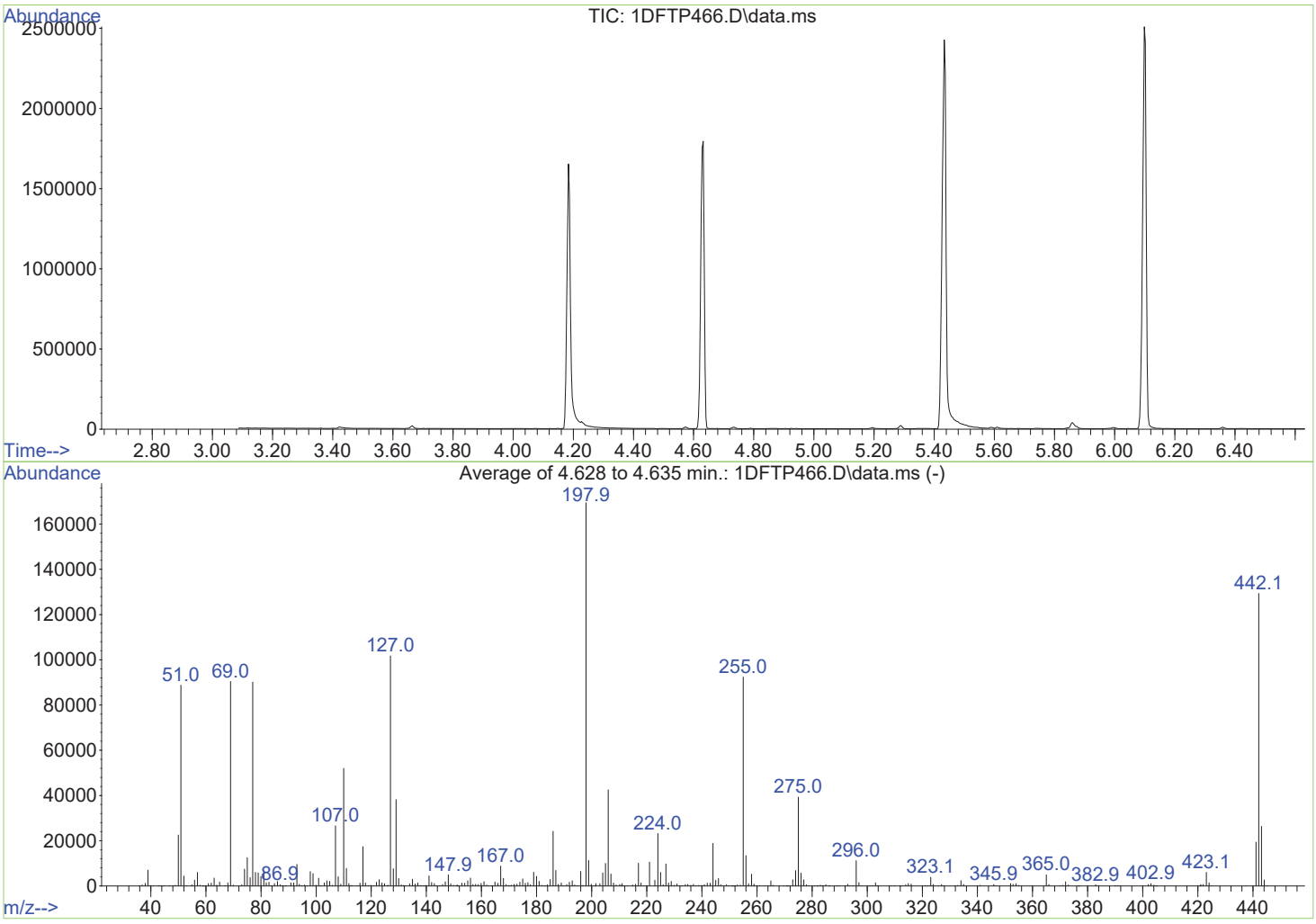
AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 1DFTP466.D
Acq On : 10 Sep 2019 18:33
Operator : JJY
Sample : DFTPP TUNE SVMS8353
Misc : SVMS1,25ng DFTPP
ALS Vial : 1 Sample Multiplier: 1

Integration File: DDD.p

Method : C:\INSTARCH\METHOD\1DFTPP.M
Title : DFTPP TUNE
Last Update : Tue Sep 10 18:49:02 2019



AutoFind: Scans 497, 498, 499; Background Corrected with Scan 488

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	52.4	88770	PASS
68	69	0.00	2	1.6	1403	PASS
70	69	0.00	2	0.4	386	PASS
127	198	10	80	60.0	101693	PASS
197	198	0.00	2	0.2	329	PASS
198	198	50	100	100.0	169419	PASS
199	198	5	9	6.7	11274	PASS
275	198	10	60	23.2	39264	PASS
365	198	1	100	2.9	4920	PASS
441	442	0.01	24	15.0	19384	PASS
442	198	50	100	76.3	129336	PASS
443	442	15	24	20.4	26368	PASS

Injection Log Summary Report

Method : C:\INSTARCH\METHOD\1S082019.M (RTE Integrator)
Title : Method for 8270 Analysis
Start (Tune) File ID : C:\INSTARCH\DATA\1S091119\1DFTP466.D
Injection Date : 10 Sep 2019 Log Time Period (hrs) : ALL
Injection Time : 18:33 Total files within period : 27
Sample Directory : C:\INSTARCH\DATA\1S091119\

Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name Misc Info	Date Time
1CCV609	1.00	1.00	1.00	CCV 20ug/mL SVMS8433 500ul+5ul S4077D	10 Sep 2019 18:49
1CCV610	1.00	1.00	1.00	CCV A 20ug/mL SVMS8443 500ul+5ul S4077D	10 Sep 2019 19:09
1MBS01	1.00	1.00	1.00	164275,MBS, 321438,500ul+5ul S4142A	10 Sep 2019 19:27
1LCSS01	1.00	1.00	1.00	164275,LCSS, 321439,500ul+5ul S4142A	10 Sep 2019 19:46
321149	1.00	1.00	1.00	164275,321149, 500ul+5ul S4142A	10 Sep 2019 20:05
321154	1.00	1.00	1.00	164275,321154, 500ul+5ul S4142A	10 Sep 2019 20:24
321155	1.00	1.00	1.00	164275,321155, 500ul+5ul S4142A	10 Sep 2019 20:43
321157	1.00	1.00	1.00	164275,321157, 500ul+5ul S4142A	10 Sep 2019 21:02
321158	1.00	1.00	1.00	164275,321158, 500ul+5ul S4142A	10 Sep 2019 21:20
321159	1.00	1.00	1.00	164275,321159, 500ul+5ul S4142A	10 Sep 2019 21:39
321160	1.00	1.00	1.00	164275,321160, 500ul+5ul S4142A	10 Sep 2019 21:58
321162	1.00	1.00	1.00	164275,321162, 500ul+5ul S4142A	10 Sep 2019 22:16
321163	1.00	1.00	1.00	164275,321163, 500ul+5ul S4142A	10 Sep 2019 22:36
321164	1.00	1.00	1.00	164275,321164, 500ul+5ul S4142A	10 Sep 2019 22:55
321165	1.00	1.00	1.00	164275,321165, 500ul+5ul S4142A	10 Sep 2019 23:14
321166	1.00	1.00	1.00	164275,321166, 500ul+5ul S4142A	10 Sep 2019 23:33
321167	1.00	1.00	1.00	164275,321167, 500ul+5ul S4142A	10 Sep 2019 23:52
321168	1.00	1.00	1.00	164275,321168, 500ul+5ul S4142A	11 Sep 2019 00:12
321169	1.00	1.00	1.00	164275,321169, 500ul+5ul S4142A	11 Sep 2019 00:31
321170	1.00	1.00	1.00	164275,321170, 500ul+5ul S4142A	11 Sep 2019 00:50
321171	1.00	1.00	1.00	164275,321171, 500ul+5ul S4142A	11 Sep 2019 01:10
321172	1.00	1.00	1.00	164275,321172, 500ul+5ul S4142A	11 Sep 2019 01:29

Injection Log Summary Report

Method : C:\INSTARCH\METHOD\1S082019.M (RTE Integrator)
Title : Method for 8270 Analysis
Start (Tune) File ID : C:\INSTARCH\DATA\1S091119\1DFTP466.D
Injection Date : 10 Sep 2019 Log Time Period (hrs) : ALL
Injection Time : 18:33 Total files within period : 27
Sample Directory : C:\INSTARCH\DATA\1S091119\

Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name Misc Info	Date Time
321161	1.00	1.00	1.00	164275,321161, 500ul+5ul S4142A	11 Sep 2019 01:49
321161MS	1.00	1.00	1.00	164275,MSS321161, 321441,500ul+5ul S4142A	11 Sep 2019 02:07
321161SD	1.00	1.00	1.00	164275,MSDS321161, 321442,500ul+5ul S4142A	11 Sep 2019 02:26
1CCV611	1.00	1.00	1.00	CCV 20ug/mL SVMS8433 500ul+5ul S4077D	11 Sep 2019 02:45
1CCV612	1.00	1.00	1.00	CCV A 20ug/mL SVMS8443 500ul+5ul S4077D	11 Sep 2019 03:04

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : Contract :
Project : Site : Location : Group :
Lab File ID (Standard): 1ICAL4.D Date Analyzed : 20 Aug 2019
Instrument ID : SVMS1 Time Analyzed : 11:08
GC Column : ID : (mm) Heated Purge (Y:N) :

	IS1 (DCB)		IS2 (NPT)		IS3 (ANT)	
	Area #	RT #	Area #	RT #	Area #	RT #
ICAL MID PT	126239	3.39	470380	4.93	293767	6.82
UPPER LIMIT	252478	3.89	940760	5.43	587534	7.32
LOWER LIMIT	63120	2.89	235190	4.43	146884	6.32
File ID Sample						
1CCV609 CCV 20ug	111012	3.27	411920	4.79	252018	6.73
1CCV610 CCV A 20u	104744	3.27	394034	4.78	241323	6.72
1CCV611 CCV 20ug	141340	3.28	554695	4.79	313220	6.74
1CCV612 CCV A 20u	113755	3.27	450037	4.79	283981	6.73
1LCSS01 164275,LC	104353	3.27	404832	4.78	250773	6.73
1MBS01 164275,MB	106784	3.27	409070	4.78	246617	6.72
321149 164275,32	106216	3.27	414606	4.78	255076	6.72
321154 164275,32	103806	3.27	397685	4.78	242034	6.72
321155 164275,32	106646	3.27	410426	4.78	257839	6.73
321157 164275,32	108552	3.27	423851	4.78	259075	6.73
321158 164275,32	107612	3.27	400798	4.78	249855	6.72
321159 164275,32	105225	3.27	400795	4.78	246991	6.73
321160 164275,32	106737	3.27	403000	4.78	250805	6.72
321161 164275,32	108005	3.27	408894	4.78	252204	6.73
321161MS 164275,MS	112293	3.27	433578	4.79	273656	6.73
321161SD 164275,MS	109976	3.28	425182	4.79	257777	6.73
321162 164275,32	109749	3.27	421302	4.78	254905	6.72
321163 164275,32	107767	3.27	413141	4.78	247284	6.72
321164 164275,32	107263	3.27	413166	4.78	252709	6.73
321165 164275,32	111273	3.27	426063	4.78	258848	6.73
321166 164275,32	108246	3.27	413847	4.78	253029	6.72
321167 164275,32	108511	3.27	411700	4.78	251030	6.73
321168 164275,32	112226	3.27	430640	4.78	259083	6.73
321169 164275,32	109796	3.27	416638	4.79	255512	6.73
321170 164275,32	105692	3.28	399102	4.79	240975	6.72

IS1 (DCB) = 14Diclbenzd4
IS2 (NPT) = Naphthalened8
IS3 (ANT) = Acenaphthened10

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : Contract :
Project : Site : Location : Group :
Lab File ID (Standard): 1ICAL4.D Date Analyzed : 20 Aug 2019
Instrument ID : SVMS1 Time Analyzed : 11:08
GC Column : ID : (mm) Heated Purge (Y:N) :

	IS1 (DCB)		IS2 (NPT)		IS3 (ANT)	
	Area #	RT #	Area #	RT #	Area #	RT #
ICAL MID PT	126239	3.39	470380	4.93	293767	6.82
UPPER LIMIT	252478	3.89	940760	5.43	587534	7.32
LOWER LIMIT	63120	2.89	235190	4.43	146884	6.32
File ID Sample						
321171 164275,32	108657	3.28	412463	4.79	248525	6.73
321172 164275,32	109015	3.27	414549	4.78	248945	6.73

IS1 (DCB) = 14Diclbenzd4
IS2 (NPT) = Naphthalened8
IS3 (ANT) = Acenaphthened10

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : Contract :
Project : Site : Location : Group :
Lab File ID (Standard): 1ICAL4.D Date Analyzed : 20 Aug 2019
Instrument ID : SVMS1 Time Analyzed : 11:08
GC Column : ID : (mm) Heated Purge (Y:N) :

	IS4 (PHN)		IS5 (CRY)		IS6 (PRY)	
	Area #	RT #	Area #	RT #	Area #	RT #
ICAL MID PT	502863	7.78	262006	9.19	307726	10.04
UPPER LIMIT	1005726	8.28	524012	9.69	615452	10.54
LOWER LIMIT	251432	7.28	131003	8.69	153863	9.54
File ID Sample						
1CCV609 CCV 20ug	421709	7.69	225921	9.10	272472	9.92
1CCV610 CCV A 20u	423585	7.68	241691	9.10	274379	9.92
1CCV611 CCV 20ug	589331	7.69	361038	9.10	301602	9.93
1CCV612 CCV A 20u	494206	7.69	304468	9.10	267021	9.92
1LCSS01 164275,LC	412086	7.69	222573	9.10	261910	9.92
1MBS01 164275,MB	422751	7.68	239140	9.10	277561	9.92
321149 164275,32	424727	7.68	245300	9.10	282307	9.92
321154 164275,32	402905	7.68	227578	9.10	265530	9.92
321155 164275,32	425722	7.69	232421	9.09	277519	9.92
321157 164275,32	434885	7.68	244378	9.10	287460	9.93
321158 164275,32	418916	7.68	234289	9.09	250440	9.92
321159 164275,32	420561	7.68	240515	9.10	281211	9.92
321160 164275,32	420355	7.68	241358	9.10	270393	9.92
321161 164275,32	435788	7.69	253204	9.10	223296	9.92
321161MS 164275,MS	456381	7.69	257391	9.10	244892	9.92
321161SD 164275,MS	431746	7.69	236883	9.11	207258	9.93
321162 164275,32	447726	7.68	254566	9.10	288214	9.92
321163 164275,32	424133	7.68	246033	9.10	232116	9.93
321164 164275,32	435662	7.68	247467	9.10	247303	9.92
321165 164275,32	448859	7.68	262505	9.10	277190	9.92
321166 164275,32	436084	7.68	254895	9.10	238163	9.92
321167 164275,32	432327	7.68	245162	9.10	238817	9.93
321168 164275,32	454631	7.69	266280	9.10	239760	9.92
321169 164275,32	437576	7.69	262602	9.10	247942	9.92
321170 164275,32	417921	7.68	242195	9.10	216432	9.93

IS4 (PHN) = Phenanthrd10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : Contract :
Project : Site : Location : Group :
Lab File ID (Standard): 1ICAL4.D Date Analyzed : 20 Aug 2019
Instrument ID : SVMS1 Time Analyzed : 11:08
GC Column : ID : (mm) Heated Purge (Y:N) :

	IS4 (PHN)		IS5 (CRY)		IS6 (PRY)	
	Area #	RT #	Area #	RT #	Area #	RT #
ICAL MID PT	502863	7.78	262006	9.19	307726	10.04
UPPER LIMIT	1005726	8.28	524012	9.69	615452	10.54
LOWER LIMIT	251432	7.28	131003	8.69	153863	9.54
File ID Sample						
321171 164275,32	427607	7.69	258299	9.10	235177	9.92
321172 164275,32	433684	7.69	257125	9.10	249457	9.92

IS4 (PHN) = Phenanthrd10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

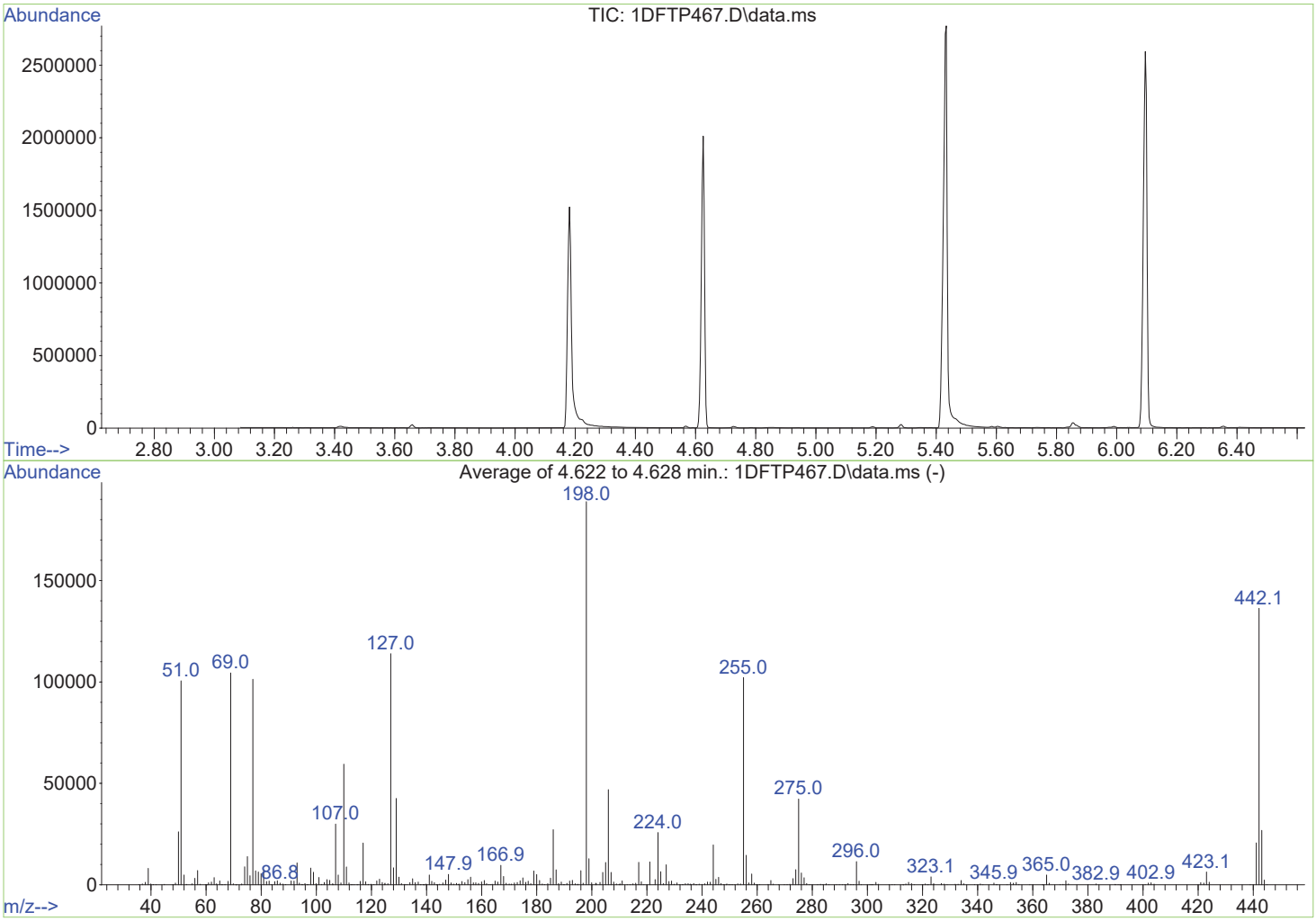
AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 1DFTP467.D
Acq On : 11 Sep 2019 11:17
Operator : JJY
Sample : DFTPP TUNE SVMS8353
Misc : SVMS1,25ng DFTPP
ALS Vial : 30 Sample Multiplier: 1

Integration File: DDD.p

Method : C:\INSTARCH\METHOD\1DFTPP.M
Title : DFTPP TUNE
Last Update : Tue Sep 10 18:49:02 2019



AutoFind: Scans 495, 496, 497; Background Corrected with Scan 487

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	53.2	100563	PASS
68	69	0.00	2	1.6	1691	PASS
70	69	0.00	2	0.5	483	PASS
127	198	10	80	60.3	113987	PASS
197	198	0.00	2	0.4	755	PASS
198	198	50	100	100.0	188885	PASS
199	198	5	9	6.8	12823	PASS
275	198	10	60	22.4	42315	PASS
365	198	1	100	2.6	4861	PASS
441	442	0.01	24	15.2	20667	PASS
442	198	50	100	72.2	136285	PASS
443	442	15	24	19.7	26835	PASS

Injection Log Summary Report

Method : C:\INSTARCH\METHOD\1S082019.M (RTE Integrator)
Title : Method for 8270 Analysis
Start (Tune) File ID : C:\INSTARCH\DATA\1S091119\1DFTP467.D
Injection Date : 11 Sep 2019 Log Time Period (hrs) : ALL
Injection Time : 11:17 Total files within period : 17
Sample Directory : C:\INSTARCH\DATA\1S091119\

Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name Misc Info	Date	Time
1CCV613	1.00	1.00	1.00	CCV 20ug/mL SVMS8433 500ul+5ul S4077D	11 Sep 2019	11:33
1MBTS01	1.00	1.00	1.00	164265,MBTS, 500ul+5ul S4142A	11 Sep 2019	11:51
1MBTV01	1.00	1.00	1.00	164265,MBTV, 500ul+5ul S4142A	11 Sep 2019	12:10
1MBW01	1.00	1.00	1.00	164265,MBW, 323239,500ul+5ul S4142A	11 Sep 2019	12:29
1LCSW01	1.00	1.00	1.00	164265,LCSW, 323240,500ul+5ul S4142A	11 Sep 2019	12:47
320881	1.00	1.00	1.00	164265,320881, 500ul+5ul S4142A	11 Sep 2019	13:06
320883	1.00	1.00	1.00	164265,320883, 500ul+5ul S4142A	11 Sep 2019	13:25
320887	1.00	1.00	1.00	164265,320887, 500ul+5ul S4142A	11 Sep 2019	13:43
320889	1.00	1.00	1.00	164265,320889, 500ul+5ul S4142A	11 Sep 2019	14:04
320892	1.00	1.00	1.00	164265,320892, 500ul+5ul S4142A	11 Sep 2019	14:34
320896	1.00	1.00	1.00	164265,320896, 500ul+5ul S4142A	11 Sep 2019	14:54
320898	1.00	1.00	1.00	164265,320898, 500ul+5ul S4142A	11 Sep 2019	15:13
321496	1.00	1.00	1.00	164265,321496, 500ul+5ul S4142A	11 Sep 2019	15:32
320894	1.00	1.00	1.00	164265,320894, 500ul+5ul S4142A	11 Sep 2019	15:52
320894MS	1.00	1.00	1.00	164265,MSW320894, 324340,500ul+5ul S4142A	11 Sep 2019	16:11
321161DR	1.00	1.00	1.00	164275,MSDS321161,10 321442,500ul+5ul S4142A	11 Sep 2019	16:30
1CCV614	1.00	1.00	1.00	CCV 20 ug/mL SVMS8433 500ul+5ul S4077D	11 Sep 2019	16:49

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : Contract :
Project : Site : Location : Group :
Lab File ID (Standard): 1ICAL4.D Date Analyzed : 20 Aug 2019
Instrument ID : SVMS1 Time Analyzed : 11:08
GC Column : ID : (mm) Heated Purge (Y:N) :

	IS1 (DCB)		IS2 (NPT)		IS3 (ANT)	
	Area #	RT #	Area #	RT #	Area #	RT #
ICAL MID PT	126239	3.39	470380	4.93	293767	6.82
UPPER LIMIT	252478	3.89	940760	5.43	587534	7.32
LOWER LIMIT	63120	2.89	235190	4.43	146884	6.32
File ID Sample						
1CCV613 CCV 20ug	115936	3.27	428468	4.78	264342	6.72
1CCV614 CCV 20 ug	115573	3.27	433242	4.78	264694	6.72
1LCSW01 164265,LC	108394	3.27	419979	4.77	261677	6.72
1MBTS01 164265,MB	103012	3.27	386364	4.78	248305	6.72
1MBTV01 164265,MB	109212	3.27	400666	4.77	249487	6.72
1MBW01 164265,MB	106678	3.27	397071	4.77	247896	6.72
320881 164265,32	107478	3.27	396128	4.77	250066	6.72
320883 164265,32	108117	3.27	405039	4.77	255489	6.72
320887 164265,32	107974	3.27	399311	4.77	254126	6.72
320889 164265,32	110072	3.27	400229	4.77	249706	6.72
320892 164265,32	111267	3.27	413792	4.77	254195	6.72
320894 164265,32	112090	3.27	407235	4.77	255153	6.72
320894MS 164265,32	111687	3.27	432967	4.77	273153	6.72
320896 164265,32	105230	3.27	390182	4.77	241345	6.72
320898 164265,32	106799	3.27	379237	4.78	236105	6.72
321161DR 164275,MS	117957	3.27	444283	4.78	285741	6.72
321496 164265,32	103868	3.27	375983	4.77	232600	6.72

IS1 (DCB) = 14Diclbenzd4
IS2 (NPT) = Naphthalened8
IS3 (ANT) = Acenaphthened10

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : Contract :
Project : Site : Location : Group :
Lab File ID (Standard): 1ICAL4.D Date Analyzed : 20 Aug 2019
Instrument ID : SVMS1 Time Analyzed : 11:08
GC Column : ID : (mm) Heated Purge (Y:N) :

	IS4 (PHN)		IS5 (CRY)		IS6 (PRY)	
	Area #	RT #	Area #	RT #	Area #	RT #
ICAL MID PT	502863	7.78	262006	9.19	307726	10.04
UPPER LIMIT	1005726	8.28	524012	9.69	615452	10.54
LOWER LIMIT	251432	7.28	131003	8.69	153863	9.54
File ID Sample						
1CCV613 CCV 20ug	440636	7.68	232841	9.10	272723	9.92
1CCV614 CCV 20 ug	443766	7.68	239193	9.10	282735	9.92
1LCSW01 164265,LC	437525	7.68	239093	9.10	257442	9.92
1MBTS01 164265,MB	425248	7.68	235652	9.09	277562	9.92
1MBTV01 164265,MB	438305	7.68	244480	9.09	262423	9.92
1MBW01 164265,MB	436201	7.68	245897	9.09	281585	9.92
320881 164265,32	433170	7.68	241871	9.09	275984	9.92
320883 164265,32	450330	7.68	242818	9.09	274555	9.92
320887 164265,32	445255	7.68	250851	9.09	294945	9.92
320889 164265,32	438708	7.68	250835	9.09	284147	9.92
320892 164265,32	455826	7.69	240144	9.09	277439	9.92
320894 164265,32	454404	7.68	255361	9.09	289324	9.91
320894MS 164265,32	458366	7.69	237329	9.09	255849	9.91
320896 164265,32	428083	7.68	244139	9.09	277985	9.92
320898 164265,32	409030	7.68	234674	9.09	272048	9.92
321161DR 164275,MS	491989	7.68	276114	9.09	319613	9.92
321496 164265,32	417688	7.68	241437	9.09	280952	9.92

IS4 (PHN) = Phenanthrd10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

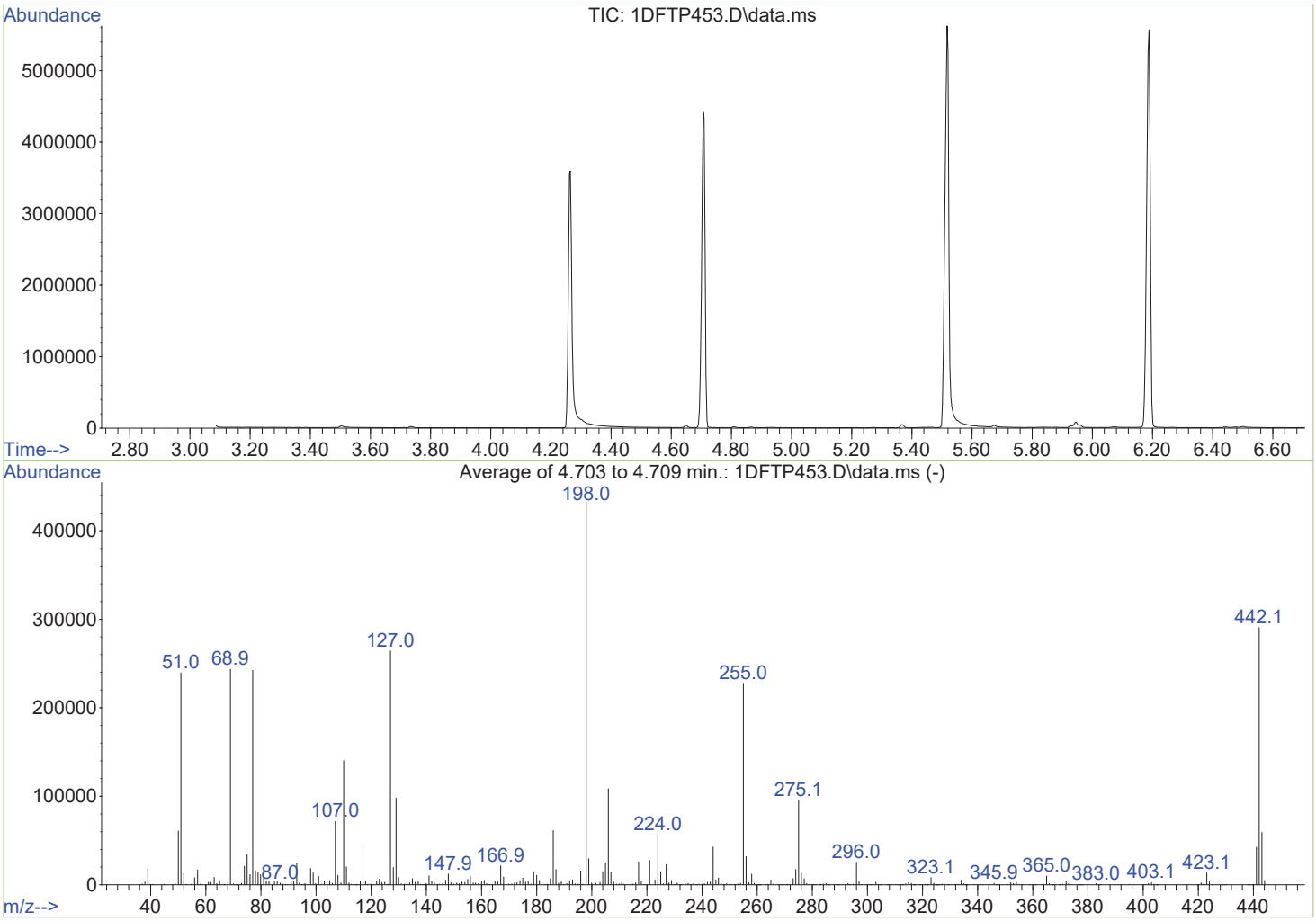
AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

Data Path : C:\INSTARCH\DATA\1S082619\
Data File : 1DFTP453.D
Acq On : 26 Aug 2019 14:34
Operator : JJY
Sample : DFTPP TUNE SVMS8353
Misc : SVMS1, 25ng DFTPP
ALS Vial : 1 Sample Multiplier: 1

Integration File: ddd.p

Method : C:\INSTARCH\METHOD\1DFTPAH.M
Title : DFTPP TUNE
Last Update : Mon Aug 26 14:45:29 2019



AutoFind: Scans 521, 522, 523; Background Corrected with Scan 513

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	55.3	239478	PASS
68	69	0.00	2	1.8	4483	PASS
70	69	0.00	2	0.5	1191	PASS
127	198	10	80	61.1	264256	PASS
197	198	0.00	2	0.2	701	PASS
198	198	50	100	100.0	432768	PASS
199	198	5	9	6.8	29427	PASS
275	198	10	60	22.1	95475	PASS
365	198	1	100	2.3	9950	PASS
441	442	0.01	24	14.6	42389	PASS
442	198	50	100	67.1	290496	PASS
443	442	15	24	20.4	59339	PASS

Injection Log Summary Report

Method : C:\INSTARCH\METHOD\1P082619.M (RTE Integrator)
Title : Method for 8270 Analysis
Start (Tune) File ID : C:\INSTARCH\DATA\1S082619\1DFTP453.D
Injection Date : 26 Aug 2019 Log Time Period (hrs) : 12
Injection Time : 14:34 Total files within period : 35
Sample Directory : C:\INSTARCH\DATA\1S082619\

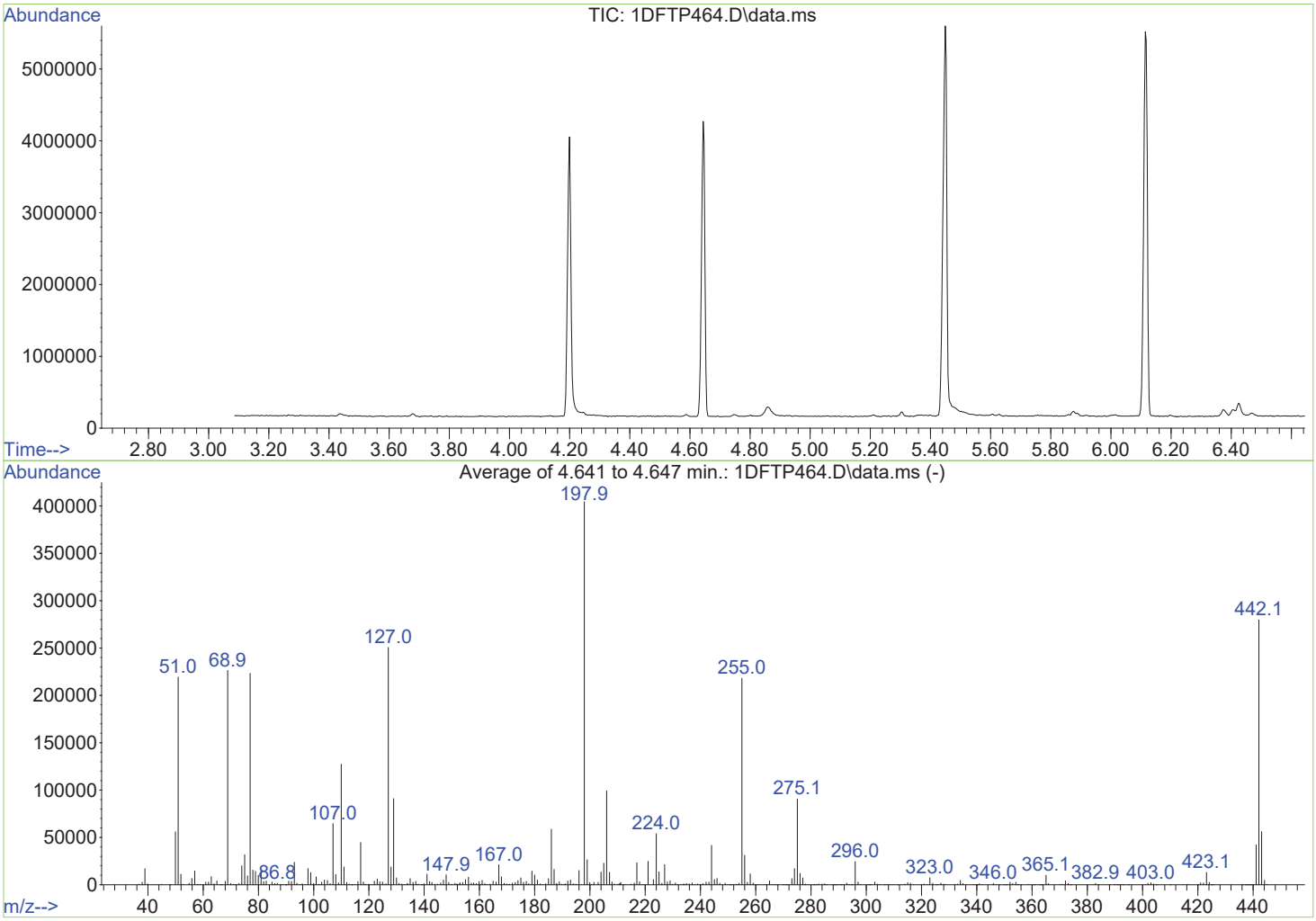
Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name Misc Info	Date	Time
1IB01	1.00	1.00	1.00	InstrumentBlank 500ul+5ul SVMS8389	26 Aug 2019	14:49
1ICAL1	1.00	1.00	1.00	ICAL 50ng/ml SVMS8401 500ul+5ul SVMS8389	26 Aug 2019	15:10
1ICAL2	1.00	1.00	1.00	ICAL 100ng/ml SVMS8402 500ul+5ul SVMS8389	26 Aug 2019	15:31
1ICAL3	1.00	1.00	1.00	ICAL 200ng/ml SVMS8403 500ul+5ul SVMS8389	26 Aug 2019	15:52
1ICAL4	1.00	1.00	1.00	ICAL 400ng/ml SVMS8404 500ul+5ul SVMS8389	26 Aug 2019	16:12
1ICAL5	1.00	1.00	1.00	ICAL 800ng/ml SVMS8405 500ul+5ul SVMS8389	26 Aug 2019	16:33
1ICAL6	1.00	1.00	1.00	ICAL 1500ng/ml SVMS8406 500ul+5ul SVMS8389	26 Aug 2019	16:54
1ICAL7	1.00	1.00	1.00	ICAL 2000ng/ml SVMS8407 500ul+5ul SVMS8389	26 Aug 2019	17:15
1ICV1	1.00	1.00	1.00	ICV 400ng/ml SVMS8408 500ul+5ul SVMS8389	26 Aug 2019	17:35
1IB02	1.00	1.00	1.00	InstrumentBlank 500ul+5ul SVMS8389	26 Aug 2019	17:56
1MBW01	1.00	1.00	1.00	163814,MBW, 316850,500ul+5ul SVMS8389	26 Aug 2019	18:17
1LCSW01	1.00	1.00	1.00	163814,LCSW, 316851,500ul+5ul SVMS8389	26 Aug 2019	18:37
315117	1.00	1.00	1.00	163814,315117, 500ul+5ul SVMS8389	26 Aug 2019	18:58
315810	1.00	1.00	1.00	163814,315810, 500ul+5ul SVMS8389	26 Aug 2019	19:19
315816	1.00	1.00	1.00	163814,315816, 500ul+5ul SVMS8389	26 Aug 2019	19:40
315818	1.00	1.00	1.00	163814,315818, 500ul+5ul SVMS8389	26 Aug 2019	20:00
316700	1.00	1.00	1.00	163814,316700, 500ul+5ul SVMS8389	26 Aug 2019	20:21
316705	1.00	1.00	1.00	163814,316705, 500ul+5ul SVMS8389	26 Aug 2019	20:42
316710	1.00	1.00	1.00	163814,316710, 500ul+5ul SVMS8389	26 Aug 2019	21:03
317012	1.00	1.00	1.00	163814,317012, 500ul+5ul SVMS8389	26 Aug 2019	21:23
317096	1.00	1.00	1.00	163814,317096, 500ul+5ul SVMS8389	26 Aug 2019	21:44
317100	1.00	1.00	1.00	163814,317100, 500ul+5ul SVMS8389	26 Aug 2019	22:05

Data Path : C:\INSTARCH\DATA\1S090919\
Data File : 1DFTP464.D
Acq On : 9 Sep 2019 15:59
Operator : JJY
Sample : DFTPP TUNE SVMS8353
Misc : SVMS1, 25ng DFTPP
ALS Vial : 1 Sample Multiplier: 1

Integration File: ddd.p

Method : C:\INSTARCH\METHOD\1DFTPAH.M
Title : DFTPP TUNE
Last Update : Mon Sep 09 16:10:11 2019



AutoFind: Scans 501, 502, 503; Background Corrected with Scan 493

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	54.2	219352	PASS
68	69	0.00	2	1.6	3627	PASS
70	69	0.00	2	0.6	1351	PASS
127	198	10	80	61.9	250560	PASS
197	198	0.00	2	0.0	0	PASS
198	198	50	100	100.0	404565	PASS
199	198	5	9	6.5	26395	PASS
275	198	10	60	22.4	90608	PASS
365	198	1	100	2.5	9972	PASS
441	442	0.01	24	15.1	42109	PASS
442	198	50	100	69.2	279765	PASS
443	442	15	24	20.1	56133	PASS

Injection Log Summary Report

Method : C:\INSTARCH\METHOD\1P082619.M (RTE Integrator)
Title : Method for 8270 Analysis
Start (Tune) File ID : C:\INSTARCH\DATA\1S090919\1DFTP464.D
Injection Date : 9 Sep 2019 Log Time Period (hrs) : ALL
Injection Time : 15:59 Total files within period : 33
Sample Directory : C:\INSTARCH\DATA\1S090919\

Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name Misc Info	Date	Time
1CCV605	1.00	1.00	1.00	CCV 400ng/mL SVMS8409 500ul+5ul SVMS8389	9 Sep 2019	16:14
1IB01	1.00	1.00	1.00	Instrument blank 500ul+5ul SVMS8389	9 Sep 2019	16:34
1MBW01	1.00	1.00	1.00	164170,MBW, 321835,500ul+5ul SVMS8389	9 Sep 2019	16:54
1LCSW01	1.00	1.00	1.00	164170,LCSW, 321836,500ul+5ul SVMS8389	9 Sep 2019	17:14
321513	1.00	1.00	1.00	164170,321513, 500ul+5ul SVMS8389	9 Sep 2019	17:34
1LCSDW01	1.00	1.00	1.00	164170,LCSDW, 321837,500ul+5ul SVMS8389	9 Sep 2019	17:55
1IB02	1.00	1.00	1.00	Instrument blank 500ul+5ul SVMS8389	9 Sep 2019	18:15
1MBS01	1.00	1.00	1.00	164274,MBS, 321427,500ul+5ul SVMS8389	9 Sep 2019	18:35
1LCSS01	1.00	1.00	1.00	164274,LCSS, 321428,500ul+5ul SVMS8389	9 Sep 2019	18:55
321149	1.00	1.00	1.00	164274,321149, 500ul+5ul SVMS8389	9 Sep 2019	19:15
321154	1.00	1.00	1.00	164274,321154, 500ul+5ul SVMS8389	9 Sep 2019	19:35
321155	1.00	1.00	1.00	164274,321155, 500ul+5ul SVMS8389	9 Sep 2019	19:55
321157	1.00	1.00	1.00	164274,321157, 500ul+5ul SVMS8389	9 Sep 2019	20:15
321158	1.00	1.00	1.00	164274,321158, 500ul+5ul SVMS8389	9 Sep 2019	20:35
321159	1.00	1.00	1.00	164274,321159, 500ul+5ul SVMS8389	9 Sep 2019	20:56
321160	1.00	1.00	1.00	164274,321160, 500ul+5ul SVMS8389	9 Sep 2019	21:16
321162	1.00	1.00	1.00	164274,321162, 500ul+5ul SVMS8389	9 Sep 2019	21:36
321163	1.00	1.00	1.00	164274,321163, 500ul+5ul SVMS8389	9 Sep 2019	21:56
321164	1.00	1.00	1.00	164274,321164, 500ul+5ul SVMS8389	9 Sep 2019	22:16
321165	1.00	1.00	1.00	164274,321165, 500ul+5ul SVMS8389	9 Sep 2019	22:36
321166	1.00	1.00	1.00	164274,321166, 500ul+5ul SVMS8389	9 Sep 2019	22:56
321167	1.00	1.00	1.00	164274,321167, 500ul+5ul SVMS8389	9 Sep 2019	23:17

Injection Log Summary Report

Method : C:\INSTARCH\METHOD\1P082619.M (RTE Integrator)
Title : Method for 8270 Analysis
Start (Tune) File ID : C:\INSTARCH\DATA\1S090919\1DFTP464.D
Injection Date : 9 Sep 2019 Log Time Period (hrs) : ALL
Injection Time : 15:59 Total files within period : 33
Sample Directory : C:\INSTARCH\DATA\1S090919\

Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name / Misc Info	Date	Time
321168	1.00	1.00	1.00	164274,321168, 500ul+5ul SVMS8389	9 Sep 2019	23:37
321169	1.00	1.00	1.00	164274,321169, 500ul+5ul SVMS8389	9 Sep 2019	23:57
321170	1.00	1.00	1.00	164274,321170, 500ul+5ul SVMS8389	10 Sep 2019	00:17
321171	1.00	1.00	1.00	164274,321171, 500ul+5ul SVMS8389	10 Sep 2019	00:37
321172	1.00	1.00	1.00	164274,321172, 500ul+5ul SVMS8389	10 Sep 2019	00:57
321161	1.00	1.00	1.00	164274,321161, 500ul+5ul SVMS8389	10 Sep 2019	01:17
321161MS	1.00	1.00	1.00	164274,MSS321161, 321430,500ul+5ul SVMS8389	10 Sep 2019	01:37
321161SD	1.00	1.00	1.00	164274,MSDS321161, 321431,500ul+5ul SVMS8389	10 Sep 2019	01:57
1MBS01R	1.00	1.00	1.00	164274,MBS, 321427,500ul+5ul SVMS8389	10 Sep 2019	02:17
1MBW01R	1.00	1.00	1.00	164170,MBW, 321835,500ul+5ul SVMS8389	10 Sep 2019	02:37
1CCV606	1.00	1.00	1.00	CCV 400ng/mL SVMS8409 500ul+5ul SVMS8389	10 Sep 2019	02:58

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : Contract :
Project : Site : Location : Group :
Lab File ID (Standard): 1ICAL4.D Date Analyzed : 26 Aug 2019
Instrument ID : SVMS1 Time Analyzed : 16:12
GC Column : ID : (mm) Heated Purge (Y:N) :

	IS1 (NPT)		IS2 (ANT)		IS3 (PHN)	
	Area #	RT #	Area #	RT #	Area #	RT #
ICAL MID PT	28968	3.20	14868	4.38	24124	5.41
UPPER LIMIT	57936	3.70	29736	4.88	48248	5.91
LOWER LIMIT	14484	2.70	7434	3.88	12062	4.91
File ID Sample						
1CCV605 CCV 400ng	27029	3.14	13877	4.32	22557	5.34
1CCV606 CCV 400ng	23575	3.15	12933	4.32	21112	5.35
1IB01 Instrumen	26170	3.14	13982	4.32	22092	5.34
1IB02 Instrumen	25350	3.15	13988	4.32	21445	5.35
1LCSDW01 164170,LC	26020	3.14	13063	4.32	21314	5.34
1LCSS01 164274,LC	27802	3.14	13645	4.32	22222	5.35
1LCSW01 164170,LC	27048	3.14	13845	4.32	22904	5.34
1MBS01 164274,MB	27368	3.14	13829	4.32	22000	5.35
1MBS01R 164274,MB	26275	3.14	14064	4.32	22752	5.35
1MBW01 164170,MB	27402	3.14	14288	4.32	22737	5.34
1MBW01R 164170,MB	24977	3.14	13779	4.32	22782	5.35
321149 164274,32	28444	3.14	14087	4.32	23000	5.34
321154 164274,32	28426	3.14	14251	4.32	23441	5.34
321155 164274,32	28543	3.14	14372	4.32	22726	5.34
321157 164274,32	28527	3.14	14109	4.32	22838	5.34
321158 164274,32	27665	3.14	14012	4.32	23188	5.34
321159 164274,32	28679	3.14	14557	4.32	23706	5.34
321160 164274,32	28040	3.14	14101	4.32	22347	5.34
321161 164274,32	27707	3.14	14306	4.32	24628	5.34
321161MS 164274,MS	27671	3.14	14316	4.32	23862	5.34
321161SD 164274,MS	25909	3.14	14267	4.32	23011	5.35
321162 164274,32	28434	3.14	14346	4.32	23644	5.34
321163 164274,32	26452	3.14	14445	4.32	23010	5.34
321164 164274,32	28660	3.14	14778	4.32	23876	5.34
321165 164274,32	28640	3.14	14508	4.32	23905	5.34

IS1 (NPT) = Naphthalened8
IS2 (ANT) = Acenaphthened10
IS3 (PHN) = Phenanthrd10

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : Contract :
Project : Site : Location : Group :
Lab File ID (Standard): 1ICAL4.D Date Analyzed : 26 Aug 2019
Instrument ID : SVMS1 Time Analyzed : 16:12
GC Column : ID : (mm) Heated Purge (Y:N) :

	IS1 (NPT)		IS2 (ANT)		IS3 (PHN)	
	Area #	RT #	Area #	RT #	Area #	RT #
ICAL MID PT	28968	3.20	14868	4.38	24124	5.41
UPPER LIMIT	57936	3.70	29736	4.88	48248	5.91
LOWER LIMIT	14484	2.70	7434	3.88	12062	4.91
File ID Sample						
321166 164274,32	28080	3.14	14433	4.32	23865	5.34
321167 164274,32	28624	3.14	14330	4.32	24023	5.34
321168 164274,32	27960	3.14	14506	4.32	23993	5.34
321169 164274,32	26904	3.14	13854	4.32	22809	5.34
321170 164274,32	28042	3.14	14350	4.32	24110	5.34
321171 164274,32	28639	3.14	14625	4.32	24569	5.34
321172 164274,32	28346	3.14	14541	4.32	24234	5.34
321513 164170,32	27203	3.14	13798	4.32	23316	5.34

IS1 (NPT) = Naphthalened8
IS2 (ANT) = Acenaphthened10
IS3 (PHN) = Phenanthrd10

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : Contract :
Project : Site : Location : Group :
Lab File ID (Standard): 1ICAL4.D Date Analyzed : 26 Aug 2019
Instrument ID : SVMS1 Time Analyzed : 16:12
GC Column : ID : (mm) Heated Purge (Y:N) :

	IS4 (CRY)		IS5 (PRY)		IS6	
	Area #	RT #	Area #	RT #	Area #	RT #
ICAL MID PT	17846	7.25	14984	8.35	0	0.00
UPPER LIMIT	35692	7.75	29968	8.85	0	0.00
LOWER LIMIT	8923	6.75	7492	7.85	0	0.00
File ID Sample						
1CCV605 CCV 400ng	17358	7.18	17348	8.24	0	0.00
1CCV606 CCV 400ng	16375	7.18	12237	8.24	0	0.00
1IB01 Instrumen	17450	7.18	16546	8.24	0	0.00
1IB02 Instrumen	16983	7.18	14879	8.24	0	0.00
1LCSDW01 164170,LC	15903	7.17	16012	8.24	0	0.00
1LCSS01 164274,LC	16943	7.18	16718	8.24	0	0.00
1LCSW01 164170,LC	17075	7.17	18139	8.24	0	0.00
1MBS01 164274,MB	17616	7.18	17105	8.24	0	0.00
1MBS01R 164274,MB	18349	7.18	14183	8.24	0	0.00
1MBW01 164170,MB	17789	7.18	17576	8.24	0	0.00
1MBW01R 164170,MB	17968	7.18	13764	8.24	0	0.00
321149 164274,32	17076	7.18	18712	8.24	0	0.00
321154 164274,32	17931	7.18	19580	8.24	0	0.00
321155 164274,32	16677	7.17	20269	8.24	0	0.00
321157 164274,32	16888	7.18	21526	8.24	0	0.00
321158 164274,32	17156	7.17	16990	8.24	0	0.00
321159 164274,32	18072	7.18	20642	8.24	0	0.00
321160 164274,32	16990	7.17	19384	8.24	0	0.00
321161 164274,32	17427	7.18	14154	8.24	0	0.00
321161MS 164274,MS	17219	7.18	13710	8.24	0	0.00
321161SD 164274,MS	18536	7.18	14203	8.24	0	0.00
321162 164274,32	17581	7.18	18961	8.24	0	0.00
321163 164274,32	17673	7.18	14460	8.24	0	0.00
321164 164274,32	18116	7.17	17505	8.24	0	0.00
321165 164274,32	20099	7.18	18370	8.24	0	0.00

IS4 (CRY) = Chrysene-d12
IS5 (PRY) = Perylene-d12
IS6 =

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : Contract :
Project : Site : Location : Group :
Lab File ID (Standard): 1ICAL4.D Date Analyzed : 26 Aug 2019
Instrument ID : SVMS1 Time Analyzed : 16:12
GC Column : ID : (mm) Heated Purge (Y:N) :

	IS4 (CRY)		IS5 (PRY)		IS6	
	Area #	RT #	Area #	RT #	Area #	RT #
ICAL MID PT	17846	7.25	14984	8.35	0	0.00
UPPER LIMIT	35692	7.75	29968	8.85	0	0.00
LOWER LIMIT	8923	6.75	7492	7.85	0	0.00
File ID Sample						
321166 164274,32	17969	7.18	15729	8.24	0	0.00
321167 164274,32	18286	7.18	16205	8.25	0	0.00
321168 164274,32	18054	7.18	15635	8.24	0	0.00
321169 164274,32	16733	7.18	15717	8.24	0	0.00
321170 164274,32	17593	7.18	16384	8.24	0	0.00
321171 164274,32	18396	7.18	14120	8.24	0	0.00
321172 164274,32	18618	7.18	15029	8.24	0	0.00
321513 164170,32	18591	7.18	19041	8.24	0	0.00

IS4 (CRY) = Chrysene-d12
IS5 (PRY) = Perylene-d12
IS6 =

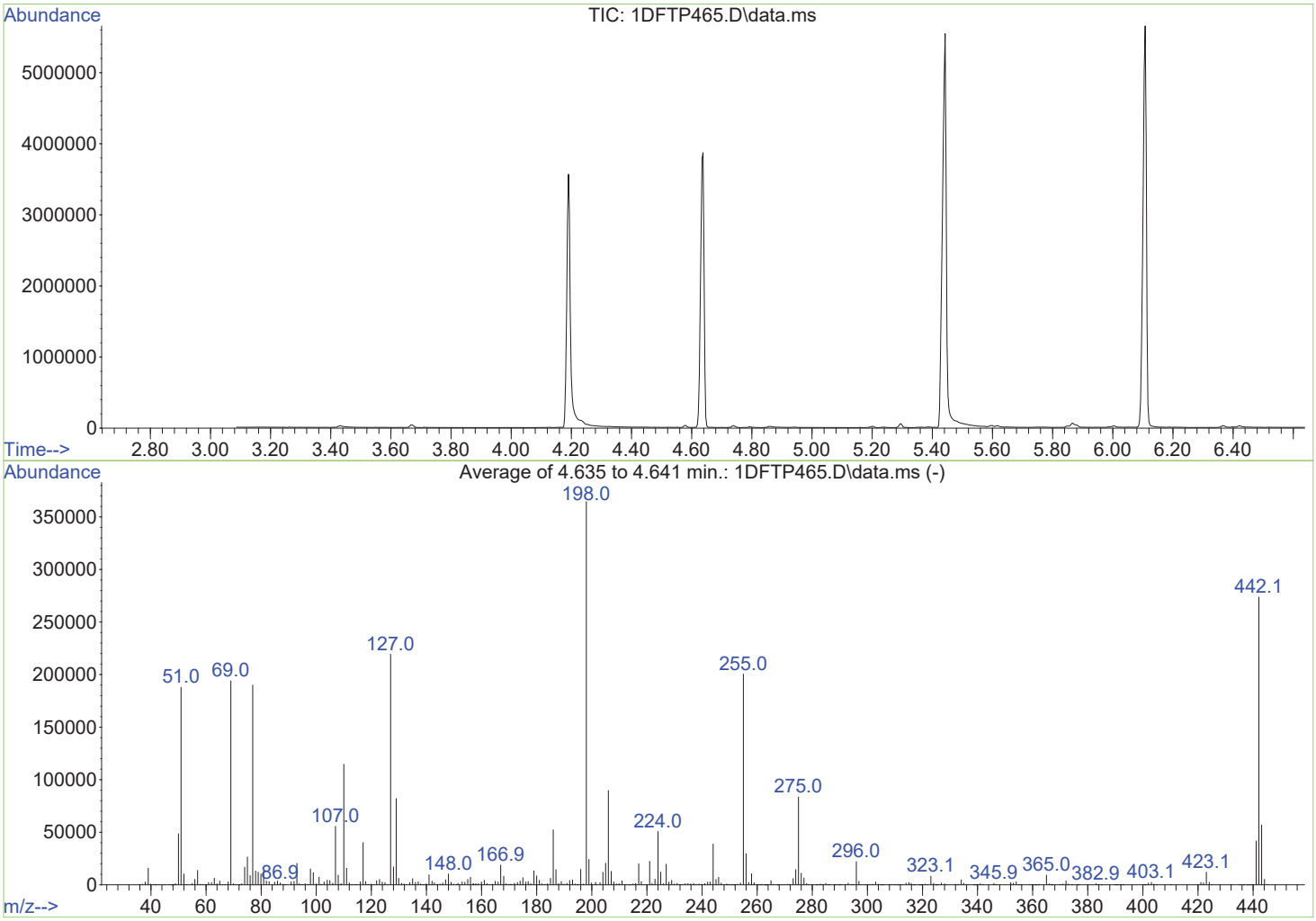
AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

Data Path : C:\INSTARCH\DATA\1S091019\
Data File : 1DFTP465.D
Acq On : 10 Sep 2019 11:10
Operator : JJY
Sample : DFTPP TUNE SVMS8353
Misc : SVMS1, 25ng DFTPP
ALS Vial : 1 Sample Multiplier: 1

Integration File: ddd.p

Method : C:\INSTARCH\METHOD\1DFTPAH.M
Title : DFTPP TUNE
Last Update : Tue Sep 10 16:28:39 2019



AutoFind: Scans 499, 500, 501; Background Corrected with Scan 490

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	51.6	188047	PASS
68	69	0.00	2	1.4	2805	PASS
70	69	0.00	2	0.5	975	PASS
127	198	10	80	60.2	219349	PASS
197	198	0.00	2	0.2	761	PASS
198	198	50	100	100.0	364501	PASS
199	198	5	9	6.6	24075	PASS
275	198	10	60	22.9	83488	PASS
365	198	1	100	2.5	9173	PASS
441	442	0.01	24	15.2	41707	PASS
442	198	50	100	75.1	273792	PASS
443	442	15	24	20.8	56893	PASS

Injection Log Summary Report

Method : C:\INSTARCH\METHOD\1P082619.M (RTE Integrator)
Title : Method for 8270 Analysis
Start (Tune) File ID : C:\INSTARCH\DATA\1S091019\1DFTP465.D
Injection Date : 10 Sep 2019 Log Time Period (hrs) : ALL
Injection Time : 11:10 Total files within period : 18
Sample Directory : C:\INSTARCH\DATA\1S091019\

Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name / Misc Info	Date	Time
1CCV607	1.00	1.00	1.00	CCV 400ng/mL SVMS8409 500ul+5ul SVMS8389	10 Sep 2019	11:26
1IB01	1.00	1.00	1.00	Instrument blank 500ul+5ul SVMS8389	10 Sep 2019	11:46
321155D	1.00	1.00	1.00	164274,321155,10 500ul+5ul SVMS8389	10 Sep 2019	12:06
321157D	1.00	1.00	1.00	164274,321157,20 500ul+5ul SVMS8389	10 Sep 2019	12:26
321160D	1.00	1.00	1.00	164274,321160,10 500ul+5ul SVMS8389	10 Sep 2019	12:47
321162D	1.00	1.00	1.00	164274,321162,2 500ul+5ul SVMS8389	10 Sep 2019	13:07
321163D	1.00	1.00	1.00	164274,321163,2 500ul+5ul SVMS8389	10 Sep 2019	13:27
321168D	1.00	1.00	1.00	164274,321168,2 500ul+5ul SVMS8389	10 Sep 2019	13:48
321169D	1.00	1.00	1.00	164274,321169,2 500ul+5ul SVMS8389	10 Sep 2019	14:08
321170D	1.00	1.00	1.00	164274,321170,2 500ul+5ul SVMS8389	10 Sep 2019	14:28
321161D	1.00	1.00	1.00	164274,321161,5 500ul+5ul SVMS8389	10 Sep 2019	14:48
321161SD	1.00	1.00	1.00	164274,MSS321161,5 321430,500ul+5ul SVMS8389	10 Sep 2019	15:09
321161DD	1.00	1.00	1.00	164274,MSDS321161,5 321431,500ul+5ul SVMS8389	10 Sep 2019	15:29
321161SR	1.00	1.00	1.00	164274,MSDS321161, 321431,500ul+5ul SVMS8389	10 Sep 2019	15:49
321155D2	1.00	1.00	1.00	164274,321155,10 500ul+5ul SVMS8389	10 Sep 2019	16:10
321157D2	1.00	1.00	1.00	164274,321157,20 500ul+5ul SVMS8389	10 Sep 2019	16:30
321160D2	1.00	1.00	1.00	164274,321160,10 500ul+5ul SVMS8389	10 Sep 2019	16:50
1CCV608	1.00	1.00	1.00	CCV 400ng/mL SVMS8409 500ul+5ul SVMS8389	10 Sep 2019	17:10

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : Contract :
Project : Site : Location : Group :
Lab File ID (Standard): 1ICAL4.D Date Analyzed : 26 Aug 2019
Instrument ID : SVMS1 Time Analyzed : 16:12
GC Column : ID : (mm) Heated Purge (Y:N) :

	IS1 (NPT)			IS2 (ANT)			IS3 (PHN)		
	Area	#	RT	Area	#	RT	Area	#	RT
ICAL MID PT	28968		3.20	14868		4.38	24124		5.41
UPPER LIMIT	57936		3.70	29736		4.88	48248		5.91
LOWER LIMIT	14484		2.70	7434		3.88	12062		4.91
File ID Sample									
1CCV607 CCV 400ng	23248		3.14	12186		4.31	20182		5.34
1CCV608 CCV 400ng	21766		3.14	12107		4.31	19859		5.34
1IB01 Instrumen	24635		3.14	13995		4.31	21983		5.34
321155D 164274,32	2562	*	3.14	1352	*	4.31	2230	*	5.34
321155D2 164274,32	27165		3.14	14798		4.32	24592		5.34
321157D 164274,32	1263	*	3.14	668	*	4.32	1144	*	5.34
321157D2 164274,32	25760		3.14	14574		4.31	24447		5.34
321160D 164274,32	2770	*	3.14	1424	*	4.32	2428	*	5.34
321160D2 164274,32	26661		3.14	15018		4.31	24899		5.34
321161D 164274,32	23671		3.14	13004		4.31	21336		5.34
321161DD 164274,MS	24553		3.14	13409		4.32	22646		5.34
321161SD 164274,MS	25194		3.14	13688		4.31	23290		5.34
321161SR 164274,MS	27712		3.14	14380		4.31	25102		5.34
321162D 164274,32	27752		3.14	14719		4.31	24264		5.34
321163D 164274,32	24330		3.14	14258		4.31	24262		5.34
321168D 164274,32	27520		3.14	14277		4.31	23713		5.34
321169D 164274,32	26975		3.14	13917		4.31	23211		5.34
321170D 164274,32	27085		3.14	13968		4.31	23121		5.34

IS1 (NPT) = Naphthalened8
IS2 (ANT) = Acenaphthened10
IS3 (PHN) = Phenanthrd10

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : Contract :
Project : Site : Location : Group :
Lab File ID (Standard): 1ICAL4.D Date Analyzed : 26 Aug 2019
Instrument ID : SVMS1 Time Analyzed : 16:12
GC Column : ID : (mm) Heated Purge (Y:N) :

	IS4 (CRY)		IS5 (PRY)		IS6	
	Area #	RT #	Area #	RT #	Area #	RT #
ICAL MID PT	17846	7.25	14984	8.35	0	0.00
UPPER LIMIT	35692	7.75	29968	8.85	0	0.00
LOWER LIMIT	8923	6.75	7492	7.85	0	0.00
File ID Sample						
1CCV607 CCV 400ng	15877	7.17	16759	8.22	0	0.00
1CCV608 CCV 400ng	16102	7.17	15544	8.23	0	0.00
1IB01 Instrumen	17663	7.17	16976	8.23	0	0.00
321155D 164274,32	1856 *	7.17	1889 *	8.23	0	0.00
321155D2 164274,32	19311	7.17	19886	8.23	0	0.00
321157D 164274,32	1001 *	7.17	1073 *	8.23	0	0.00
321157D2 164274,32	20012	7.17	20931	8.23	0	0.00
321160D 164274,32	1963 *	7.17	1925 *	8.23	0	0.00
321160D2 164274,32	19998	7.17	20713	8.23	0	0.00
321161D 164274,32	17373	7.17	18967	8.23	0	0.00
321161DD 164274,MS	18297	7.17	20382	8.23	0	0.00
321161SD 164274,MS	18621	7.17	20854	8.23	0	0.00
321161SR 164274,MS	19505	7.17	21201	8.23	0	0.00
321162D 164274,32	18959	7.17	21246	8.23	0	0.00
321163D 164274,32	19468	7.17	21276	8.23	0	0.00
321168D 164274,32	17815	7.17	18148	8.23	0	0.00
321169D 164274,32	18600	7.17	20935	8.23	0	0.00
321170D 164274,32	18242	7.17	20165	8.23	0	0.00

IS4 (CRY) = Chrysene-d12
IS5 (PRY) = Perylene-d12
IS6 =

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

SEMI - VOLATILE ORGANIC ANALYSIS
SAMPLE DATA
DOCUMENTS

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090519\321513.D Vial: 6
Acq On : 5 Sep 2019 16:48 Operator: JJY
Sample : 164171,321513, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 05 17:00:27 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Thu Sep 05 16:03:25 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

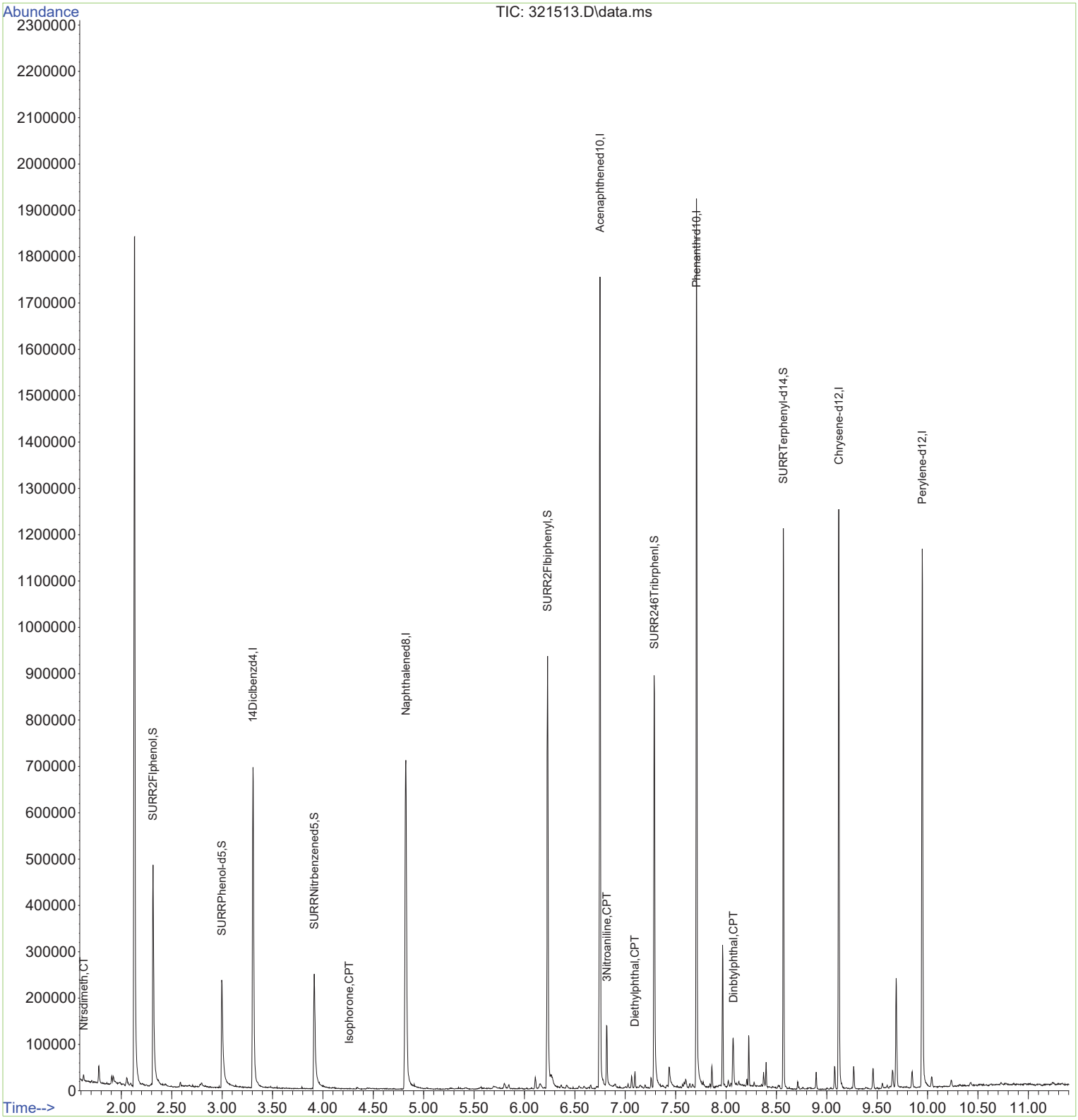
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.306	152	111865	20.00	ug/mL	0.00
21) Naphthalened8	4.823	136	429386	20.00	ug/mL	0.00
39) Acenaphthened10	6.750	164	266613	20.00	ug/mL	0.00
63) Phenanthrd10	7.707	188	443368	20.00	ug/mL	0.00
75) Chrysene-d12	9.120	240	241775	20.00	ug/mL	0.00
86) Perylene-d12	9.946	264	274319	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.314	112	131083	46.62	%REC	0.00
Spiked Amount 100.000			Recovery = 46.62%			
7) SURRPhenol-d5	2.996	99	106474	32.23	%REC	0.00
Spiked Amount 100.000			Recovery = 32.23%			
22) SURRNitrbenzened5	3.914	82	100355	68.38	%REC	0.00
Spiked Amount 100.000			Recovery = 68.38%			
44) SURR2Flbiphenyl	6.230	172	259879	73.17	%REC	0.00
Spiked Amount 100.000			Recovery = 73.17%			
62) SURR246Tribrphenl	7.290	330	70785	84.55	%REC	0.00
Spiked Amount 100.000			Recovery = 84.55%			
78) SURRTerphenyl-d14	8.568	244	201099	90.88	%REC	0.00
Spiked Amount 100.000			Recovery = 90.88%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.627	74	619	0.6856	ug/mL#	1
24) Isophorone	4.261	82	2059	0.8517	ug/mL	68
51) 3Nitroaniline	6.818	138	532	0.5204	ug/mL#	35
60) Diethylphthal	7.096	149	6763	0.3788	ug/mL	89
73) Dinbtylphthal	8.074	149	14393	0.3258	ug/mL	99

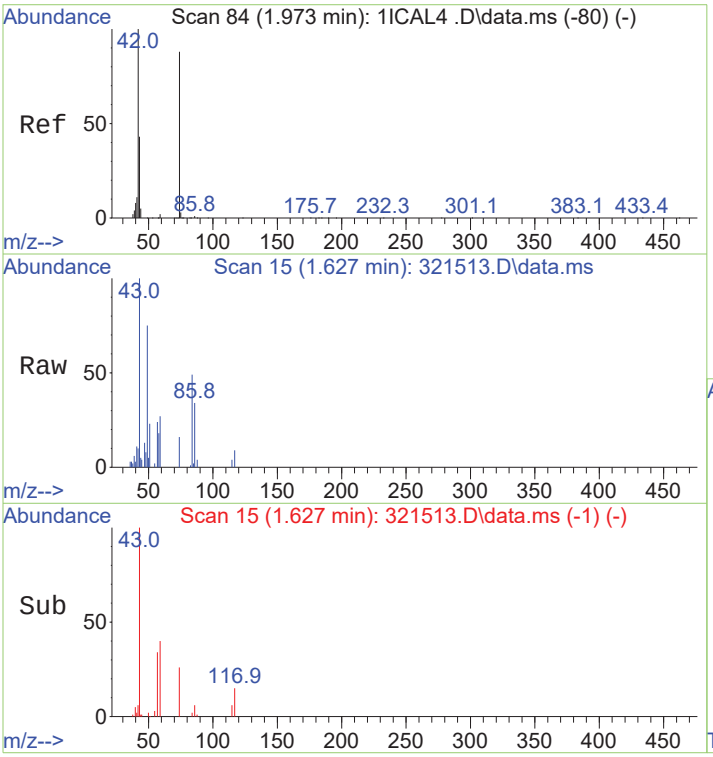
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090519\321513.D Vial: 6
Acq On : 5 Sep 2019 16:48 Operator: JJY
Sample : 164171,321513, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 05 17:00:27 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Thu Sep 05 16:03:25 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

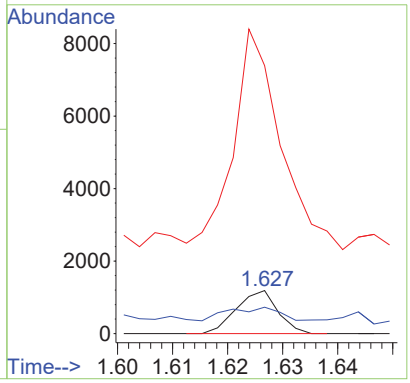


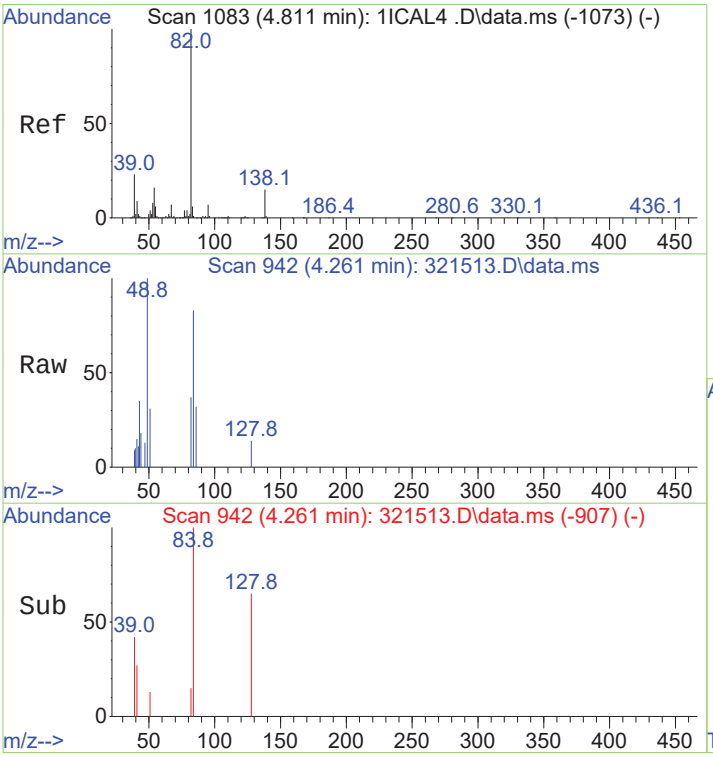


#2
Ntrsdimeth
Concen: 0.69 ug/mL
RT: 1.627 min Scan# 15
Delta R.T. -0.023 min
Lab File: 321513.D
Acq: 5 Sep 2019 16:48

Tgt Ion: 74 Resp: 619

Ion	Ratio	Lower	Upper
74	100		
42	29.2	54.2	114.2#
43	399.1	5.5	65.5#

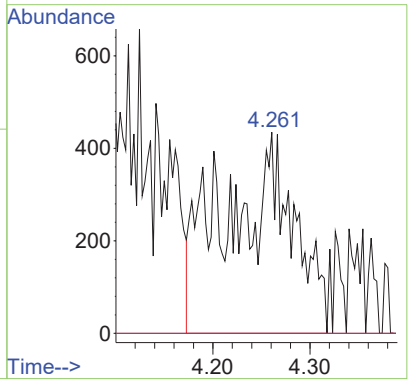


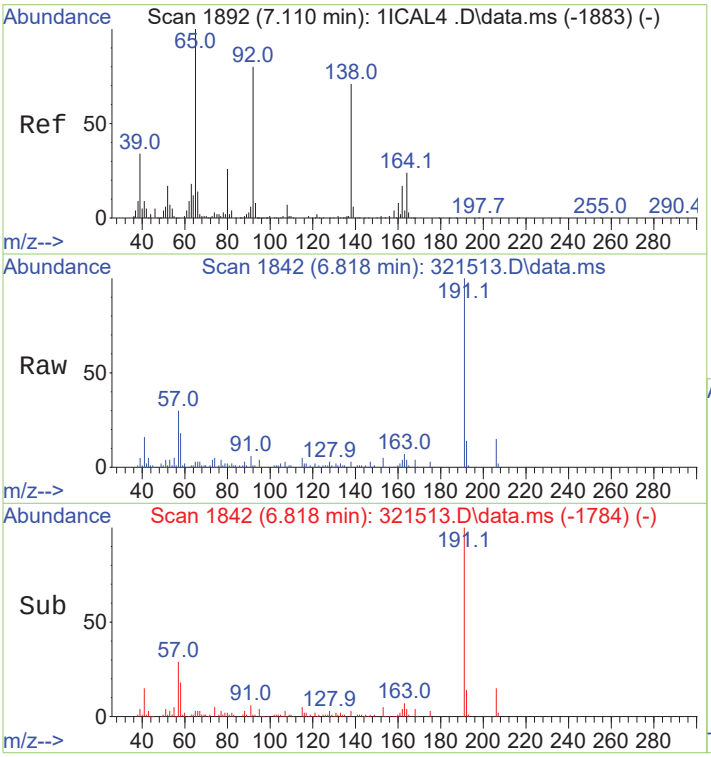


#24
Isophorone
Concen: 0.85 ug/mL
RT: 4.261 min Scan# 942
Delta R.T. 0.000 min
Lab File: 321513.D
Acq: 5 Sep 2019 16:48

Tgt Ion: 82 Resp: 2059

Ion	Ratio	Lower	Upper
82	100		
138	0.0	0.0	46.1
95	0.0	0.0	36.1

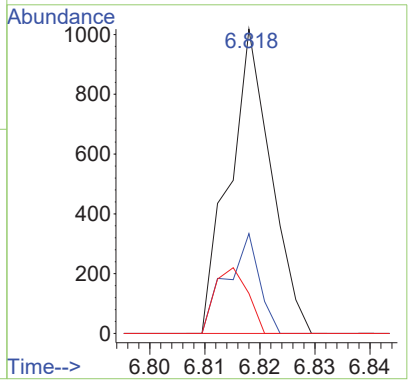


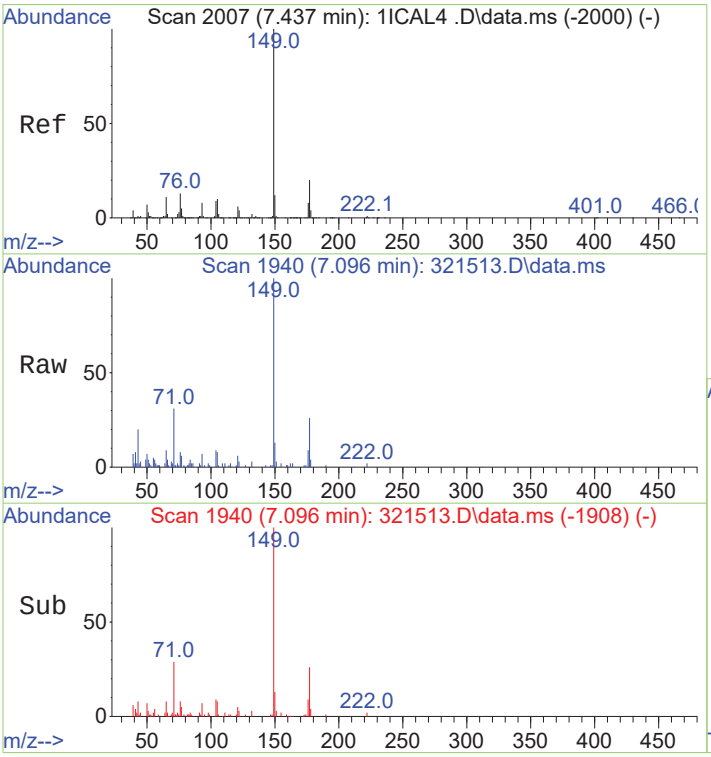


#51
3Nitroaniline
Concen: 0.52 ug/mL
RT: 6.818 min Scan# 1842
Delta R.T. 0.066 min
Lab File: 321513.D
Acq: 5 Sep 2019 16:48

Tgt Ion:138 Resp: 532

Ion	Ratio	Lower	Upper
138	100		
92	32.8	80.6	140.6#
108	13.2	0.0	45.4

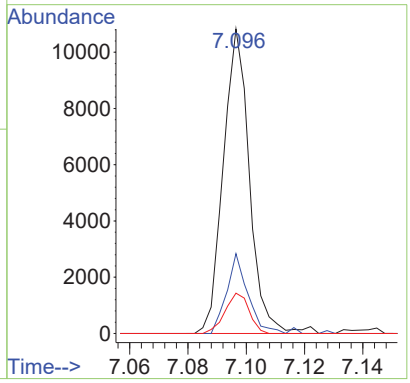


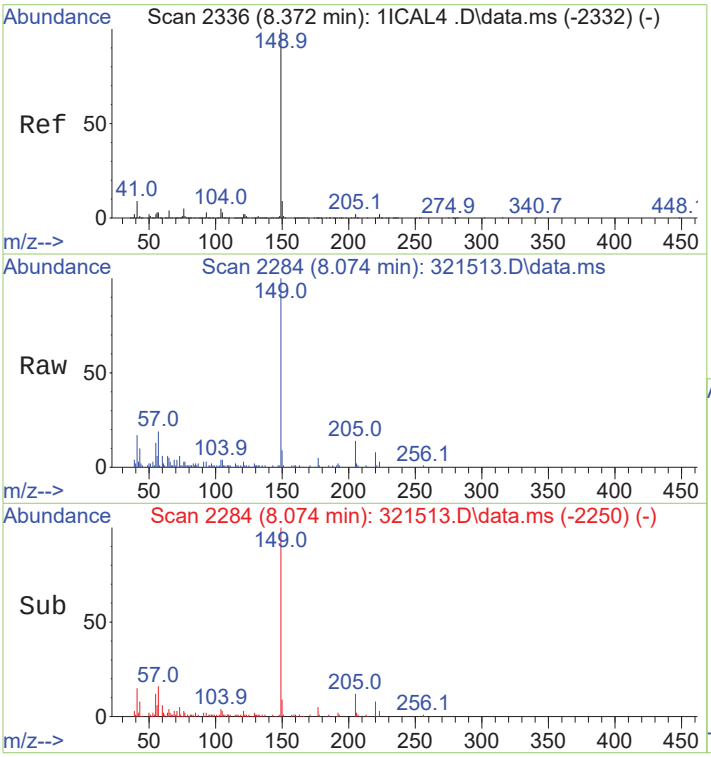


#60
Diethylphthal
Concen: 0.38 ug/mL
RT: 7.096 min Scan# 1940
Delta R.T. -0.008 min
Lab File: 321513.D
Acq: 5 Sep 2019 16:48

Tgt Ion:149 Resp: 6763

Ion	Ratio	Lower	Upper
149	100		
177	26.2	0.0	49.3
150	13.2	0.0	41.9

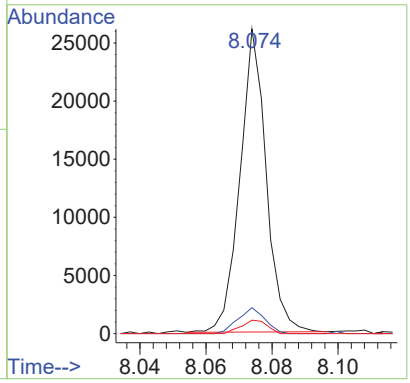




#73
Dinbtylphthal
Concen: 0.33 ug/mL
RT: 8.074 min Scan# 2284
Delta R.T. -0.003 min
Lab File: 321513.D
Acq: 5 Sep 2019 16:48

Tgt Ion:149 Resp: 14393

Ion	Ratio	Lower	Upper
149	100		
150	8.6	0.0	39.0
104	4.5	0.0	34.6



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090519\321513.D Vial: 6
Acq On : 5 Sep 2019 16:48 Operator: JJY
Sample : 164171,321513, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 05 17:02:43 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Thu Sep 05 16:06:44 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

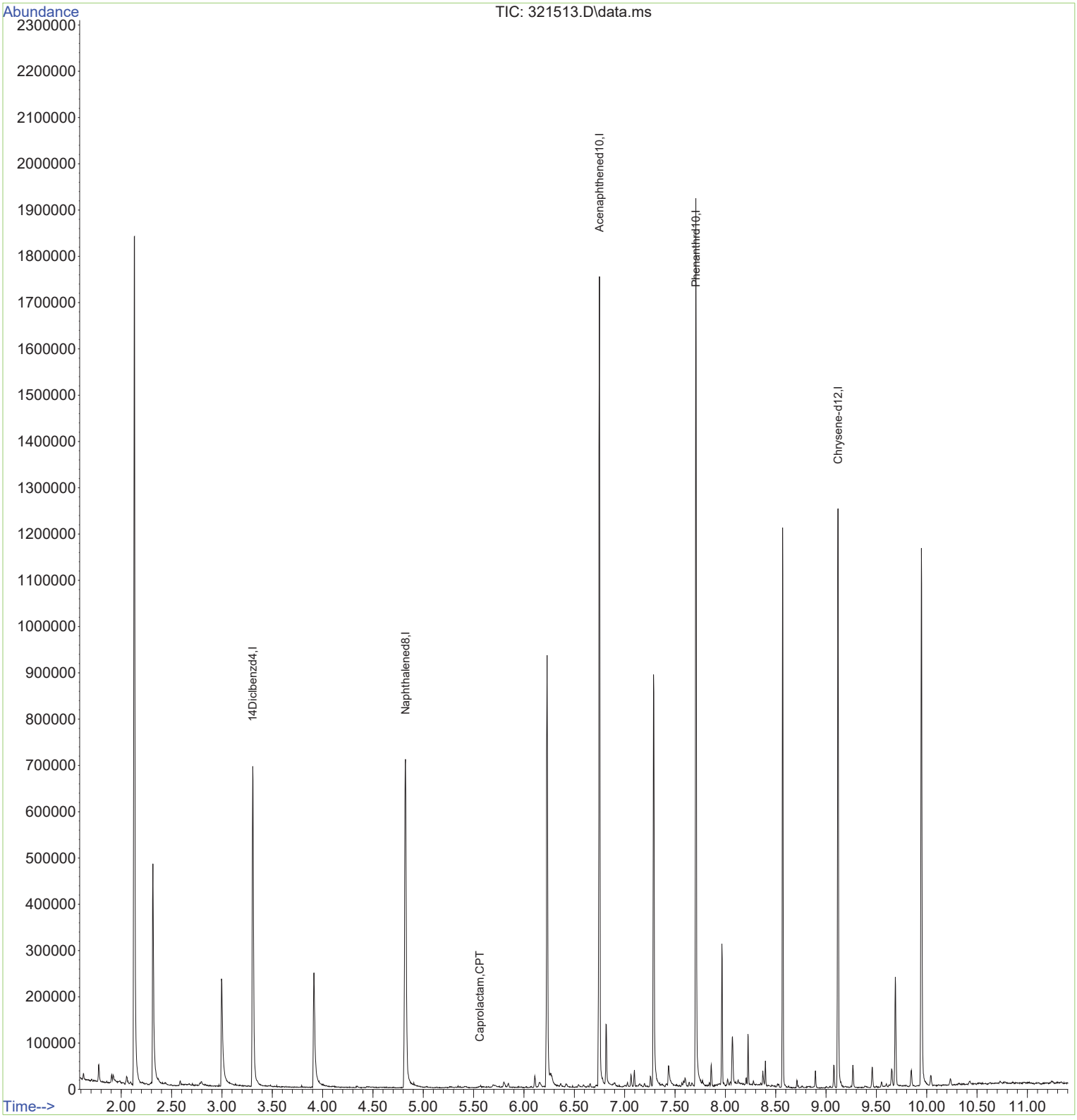
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.306	152	112776	20.00	ug/mL	0.00
3) Naphthalened8	4.823	136	428820	20.00	ug/mL	0.00
5) Acenaphthened10	6.750	164	273971	20.00	ug/mL	0.00
7) Phenanthrd10	7.707	188	446439	20.00	ug/mL	0.00
9) Chrysene-d12	9.120	240	239750	20.00	ug/mL	0.00
Target Compounds						Qvalue
4) Caprolactam	5.562	55	1707	1.3191	ug/mL#	68

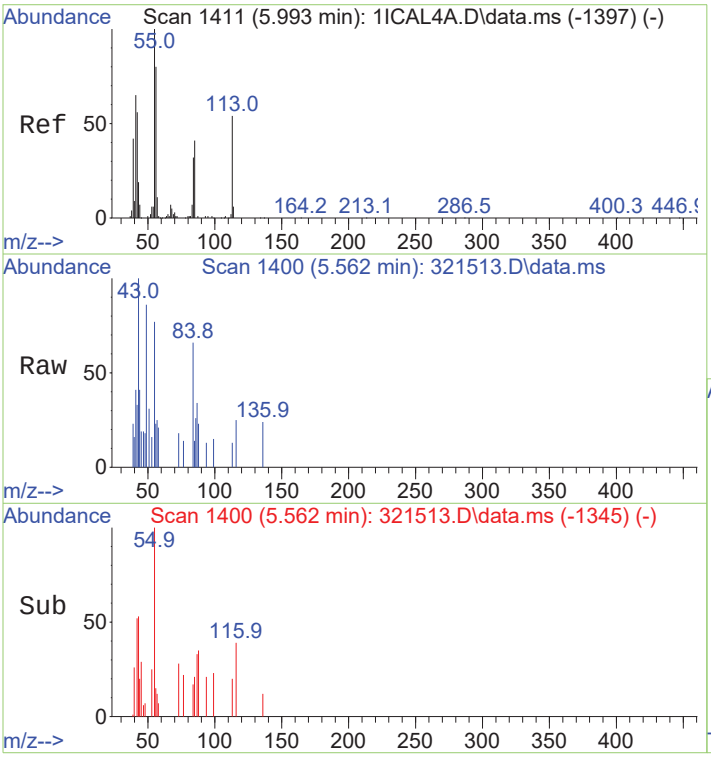
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090519\321513.D Vial: 6
Acq On : 5 Sep 2019 16:48 Operator: JJY
Sample : 164171,321513, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 05 17:02:43 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Thu Sep 05 16:06:44 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

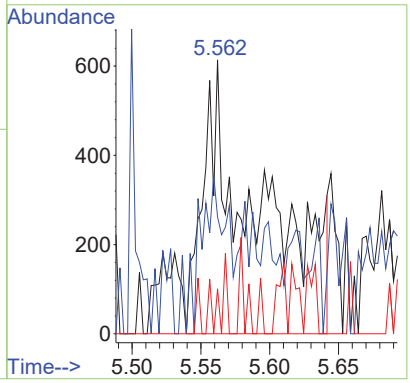




#4
Caprolactam
Concen: 1.32 ug/mL
RT: 5.562 min Scan# 1400
Delta R.T. 0.057 min
Lab File: 321513.D
Acq: 5 Sep 2019 16:48

Tgt Ion: 55 Resp: 1707

Ion	Ratio	Lower	Upper
55	100		
42	42.2	24.6	84.6
113	22.0	26.7	86.7#



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321149.D Vial: 6
Acq On : 10 Sep 2019 20:05 Operator: JJY
Sample : 164275,321149, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 20:18:13 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

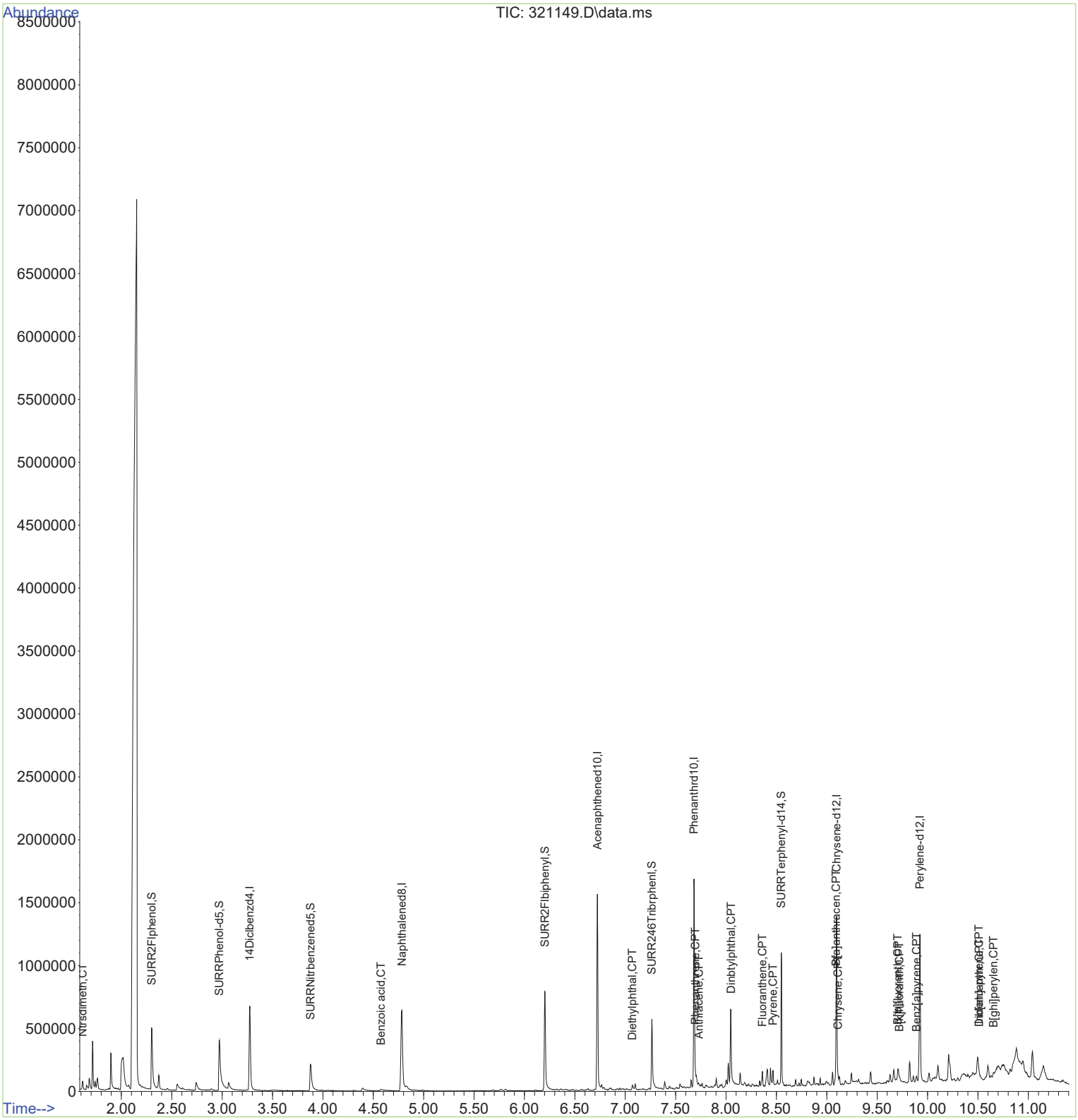
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	106216	20.00	ug/mL	0.00
21) Naphthalened8	4.783	136	414606	20.00	ug/mL	0.00
39) Acenaphthened10	6.724	164	255076	20.00	ug/mL	0.00
63) Phenanthrd10	7.682	188	424727	20.00	ug/mL	0.00
75) Chrysene-d12	9.097	240	245300	20.00	ug/mL	0.00
86) Perylene-d12	9.924	264	282307	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.303	112	153139	56.63	%REC	0.02
Spiked Amount 100.000			Recovery = 56.63%			
7) SURRPhenol-d5	2.973	99	200187	62.14	%REC	0.00
Spiked Amount 100.000			Recovery = 62.14%			
22) SURRNitrbenzened5	3.877	82	89687	63.51	%REC	0.00
Spiked Amount 100.000			Recovery = 63.51%			
44) SURR2Flbiphenyl	6.204	172	244254	71.88	%REC	0.00
Spiked Amount 100.000			Recovery = 71.88%			
62) SURR246Tribrphenl	7.264	330	48461	60.74	%REC	0.00
Spiked Amount 100.000			Recovery = 60.74%			
78) SURRTerphenyl-d14	8.548	244	173582	77.31	%REC	0.00
Spiked Amount 100.000			Recovery = 77.31%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.615	74	3724	1.3900	ug/mL#	1
30) Benzoic acid	4.576	122	5706	5.7894	ug/mL	89
60) Diethylphthal	7.071	149	5822	0.3409	ug/mL	97
70) Phenanthrene	7.696	178	11405	0.5091	ug/mL	98
71) Anthracene	7.730	178	3197	0.1386	ug/mL	91
73) Dinbtylphthal	8.051	149	7055	0.0906	ug/mL	99
74) Fluoranthene	8.361	202	28491	1.7696	ug/mL	97
77) Pyrene	8.466	202	24417	1.3247	ug/mL	98
82) B[a]anthracen	9.091	228	12274	0.8117	ug/mL	91
83) Chrysene	9.111	228	14266	0.9116	ug/mL	96
87) B[b]fluoranth	9.705	252	22634m	1.4729	ug/mL	
88) B[k]fluoranth	9.719	252	5704m	0.3701	ug/mL	
89) Benz[a]pyrene	9.889	252	13725	0.8656	ug/mL	96
90) Indeno-pyrene	10.509	276	11336	0.6910	ug/mL	90
91) Dib[ah]anthr	10.512	278	1977	0.1486	ug/mL	85
92) B[ghi]perylen	10.654	276	10851	0.7550	ug/mL	96

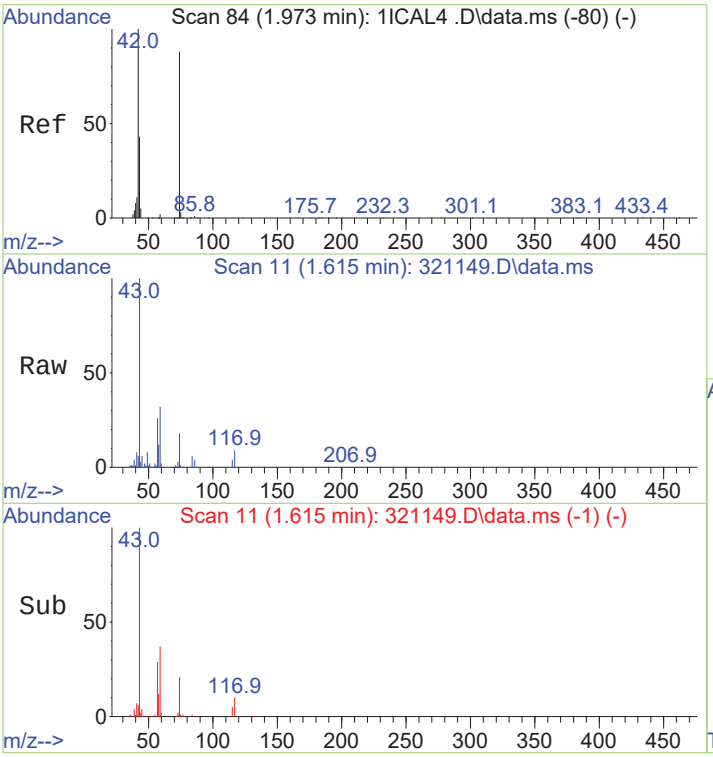
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321149.D Vial: 6
Acq On : 10 Sep 2019 20:05 Operator: JJY
Sample : 164275,321149, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 20:18:13 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

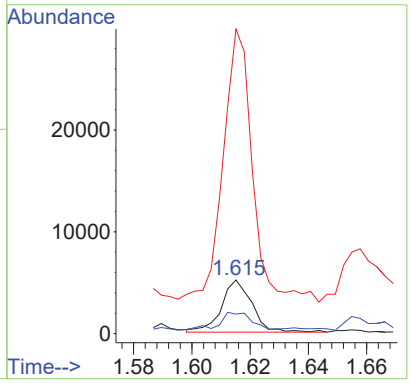


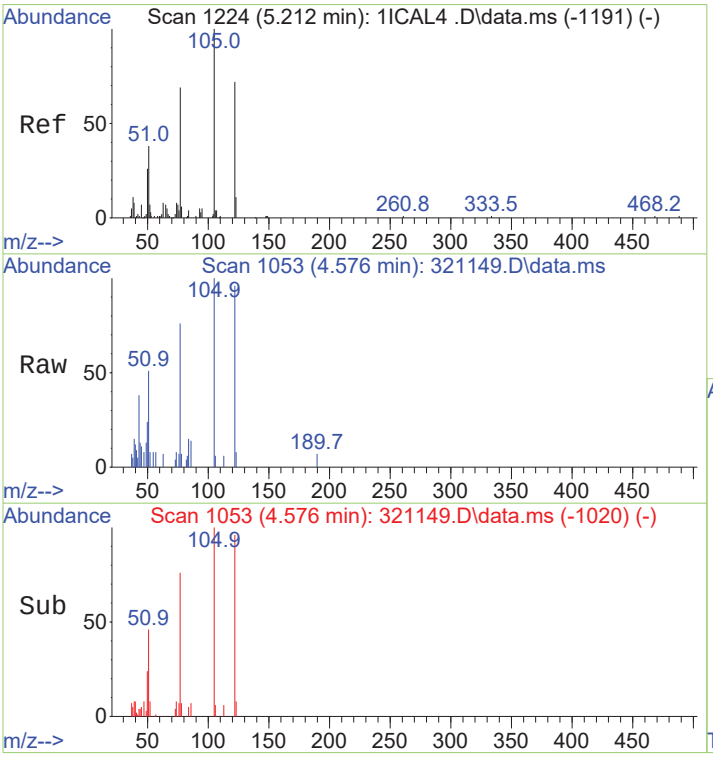


#2
Ntrsdimeth
Concen: 1.39 ug/mL
RT: 1.615 min Scan# 11
Delta R.T. -0.023 min
Lab File: 321149.D
Acq: 10 Sep 2019 20:05

Tgt Ion: 74 Resp: 3724

Ion	Ratio	Lower	Upper
74	100		
42	29.7	54.2	114.2#
43	521.7	5.5	65.5#

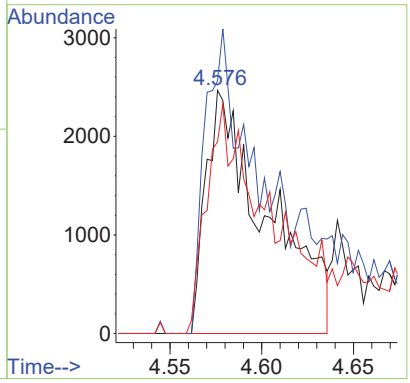


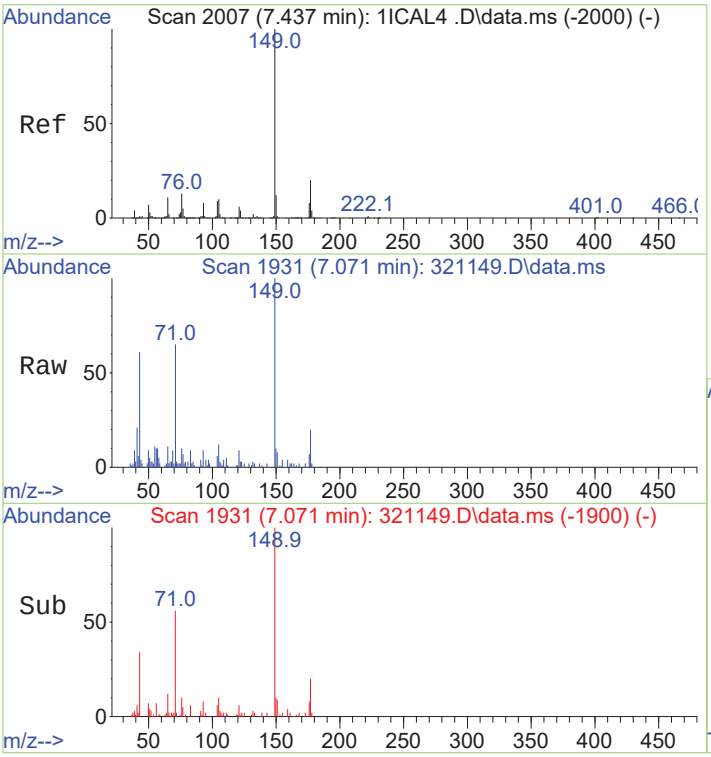


#30
Benzoic acid
Concen: 5.79 ug/mL
RT: 4.576 min Scan# 1053
Delta R.T. -0.091 min
Lab File: 321149.D
Acq: 10 Sep 2019 20:05

Tgt Ion:122 Resp: 5706

Ion	Ratio	Lower	Upper
122	100		
105	103.8	84.5	144.5
77	78.8	61.4	121.4

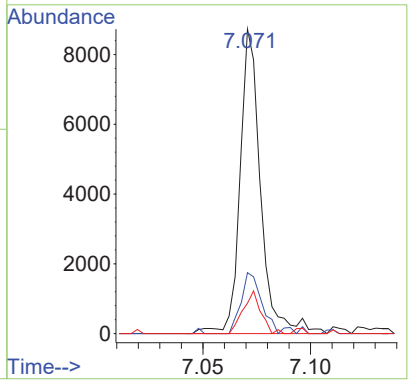


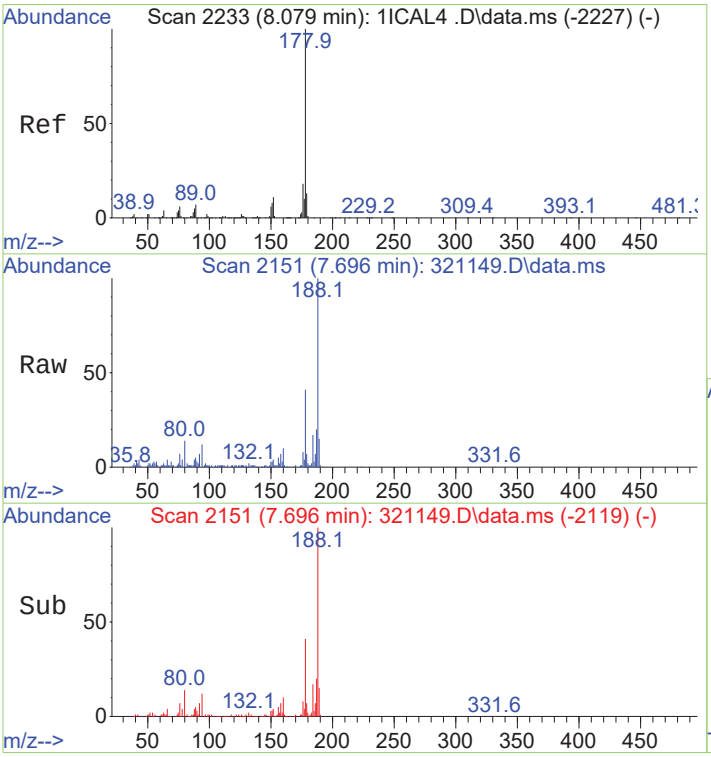


#60
Diethylphthal
Concen: 0.34 ug/mL
RT: 7.071 min Scan# 1931
Delta R.T. -0.011 min
Lab File: 321149.D
Acq: 10 Sep 2019 20:05

Tgt Ion:149 Resp: 5822

Ion	Ratio	Lower	Upper
149	100		
177	20.0	0.0	49.3
150	10.0	0.0	41.9

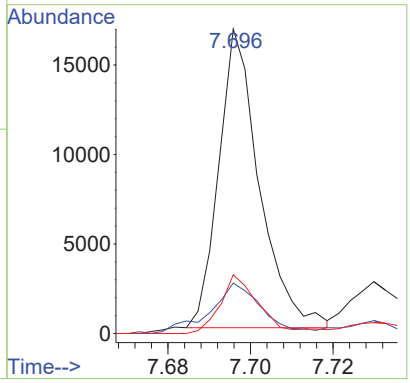


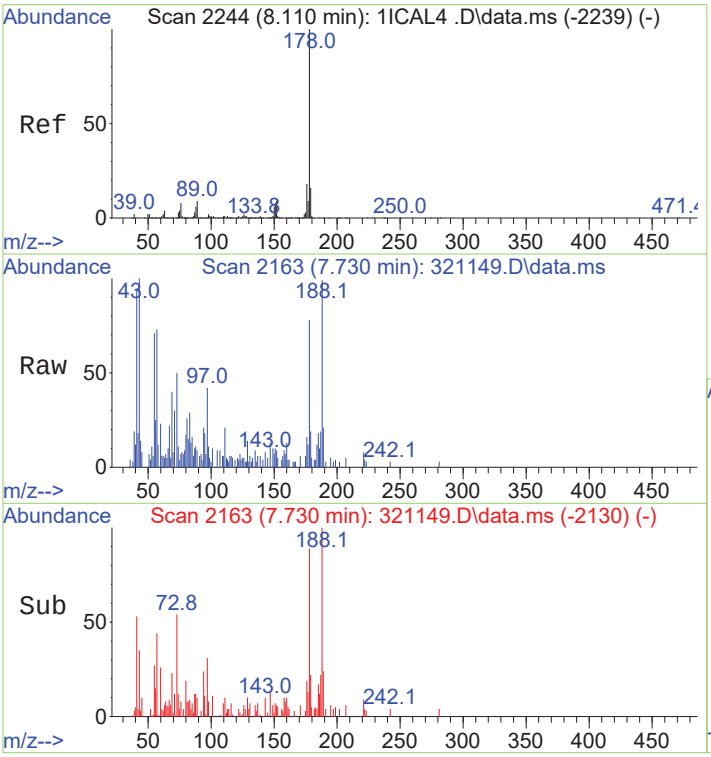


#70
Phenanthrene
Concen: 0.51 ug/mL
RT: 7.696 min Scan# 2151
Delta R.T. -0.009 min
Lab File: 321149.D
Acq: 10 Sep 2019 20:05

Tgt Ion:178 Resp: 11405

Ion	Ratio	Lower	Upper
178	100		
179	14.9	0.0	45.3
176	19.7	0.0	48.4

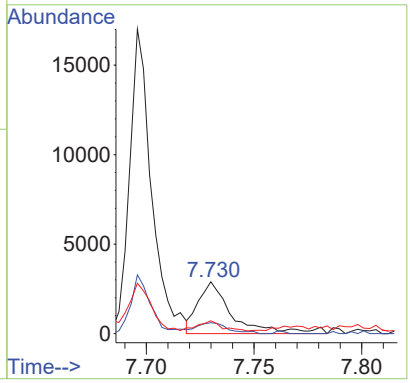


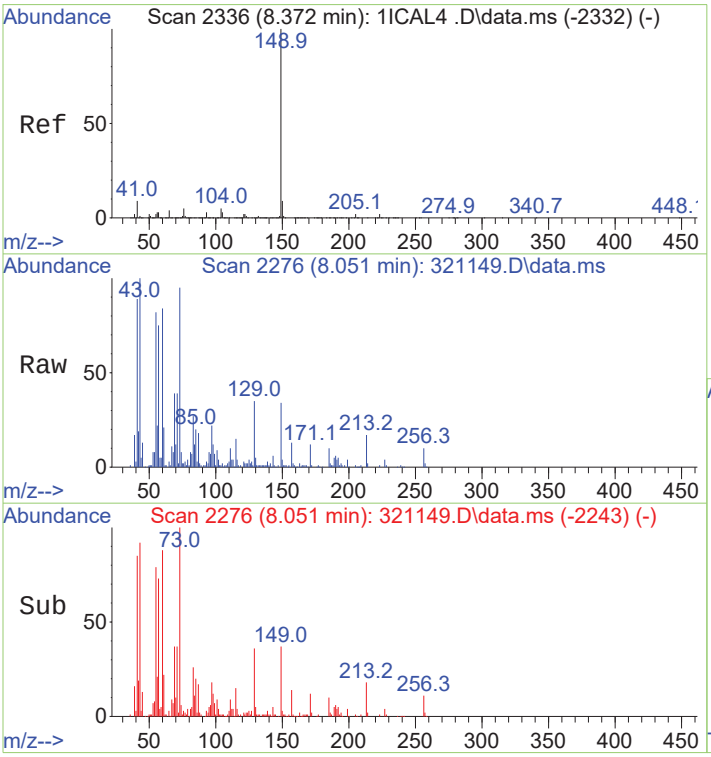


#71
Anthracene
Concen: 0.14 ug/mL
RT: 7.730 min Scan# 2163
Delta R.T. -0.006 min
Lab File: 321149.D
Acq: 10 Sep 2019 20:05

Tgt Ion:178 Resp: 3197

Ion	Ratio	Lower	Upper
178	100		
176	21.1	0.0	47.6
179	19.5	0.0	45.1

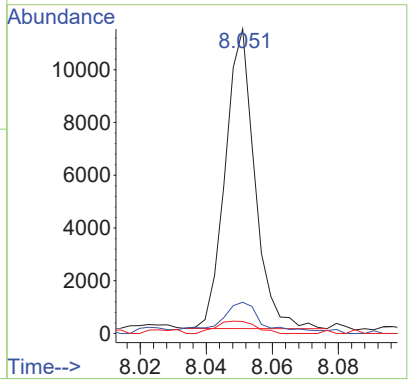


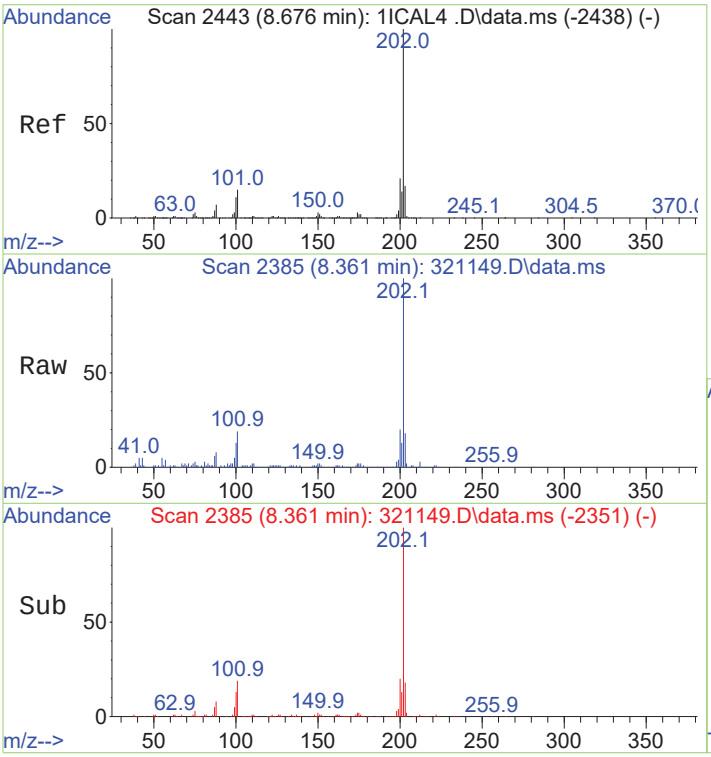


#73
Dinbtylphthal
Concen: 0.09 ug/mL
RT: 8.051 min Scan# 2276
Delta R.T. -0.006 min
Lab File: 321149.D
Acq: 10 Sep 2019 20:05

Tgt Ion:149 Resp: 7055

Ion	Ratio	Lower	Upper
149	100		
150	9.5	0.0	39.0
104	4.0	0.0	34.6

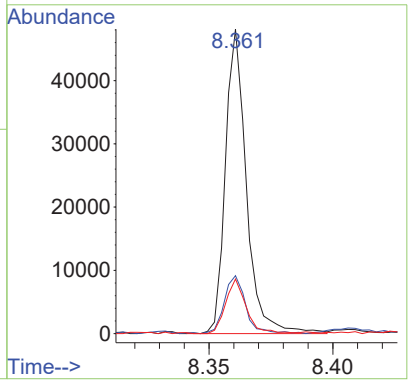


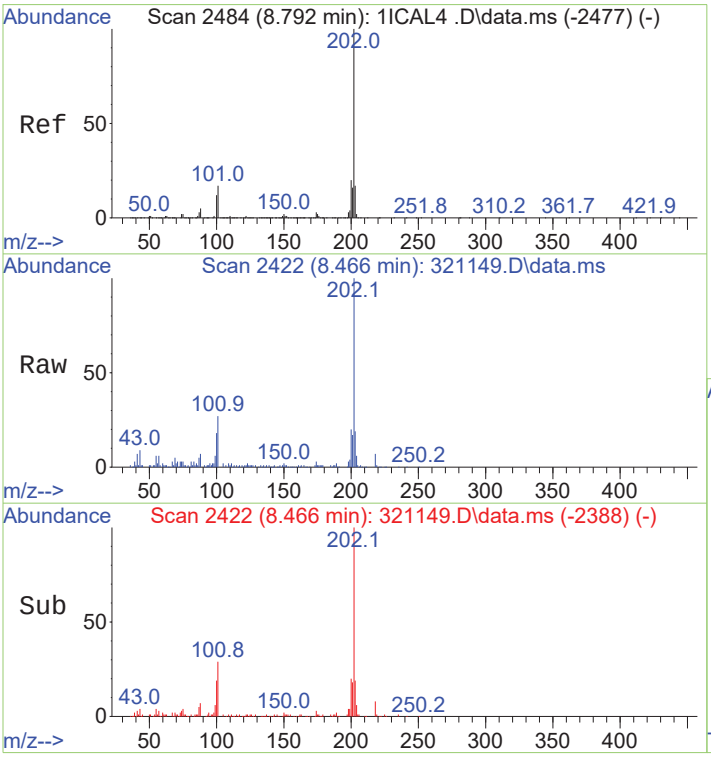


#74
Fluoranthene
Concen: 1.77 ug/mL
RT: 8.361 min Scan# 2385
Delta R.T. -0.003 min
Lab File: 321149.D
Acq: 10 Sep 2019 20:05

Tgt Ion:202 Resp: 28491

Ion	Ratio	Lower	Upper
202	100		
101	18.7	0.0	50.7
203	17.6	0.0	47.3

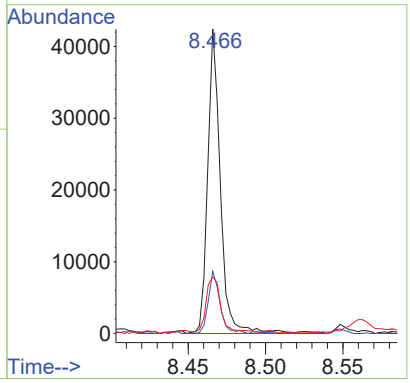


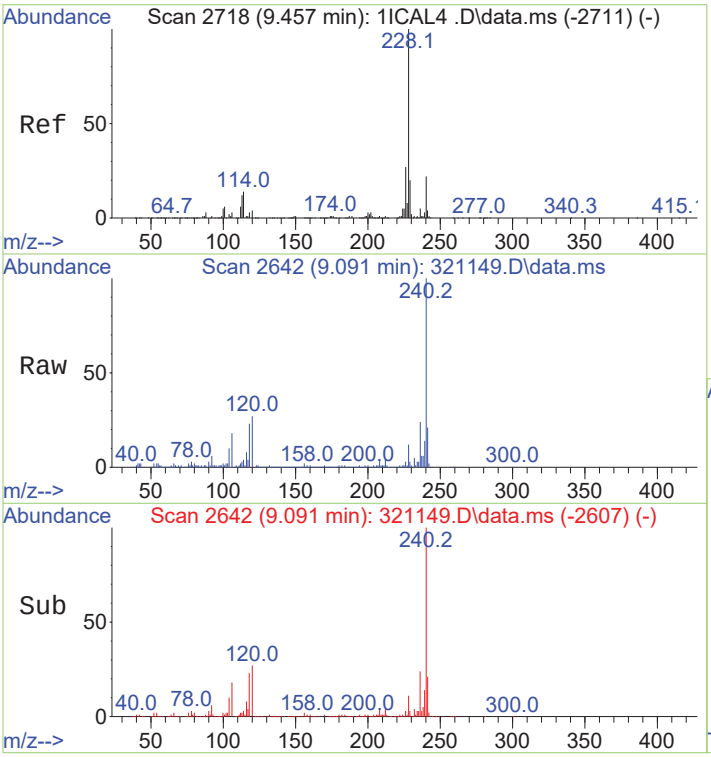


#77
Pyrene
Concen: 1.32 ug/mL
RT: 8.466 min Scan# 2422
Delta R.T. -0.003 min
Lab File: 321149.D
Acq: 10 Sep 2019 20:05

Tgt Ion:202 Resp: 24417

Ion	Ratio	Lower	Upper
202	100		
200	20.4	0.0	50.1
203	18.1	0.0	46.9

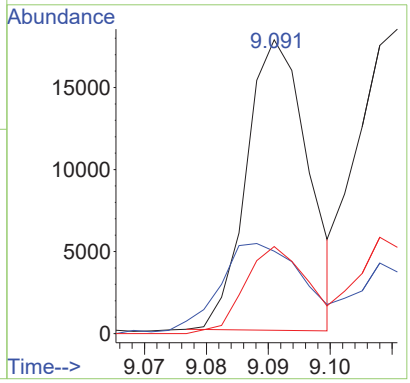


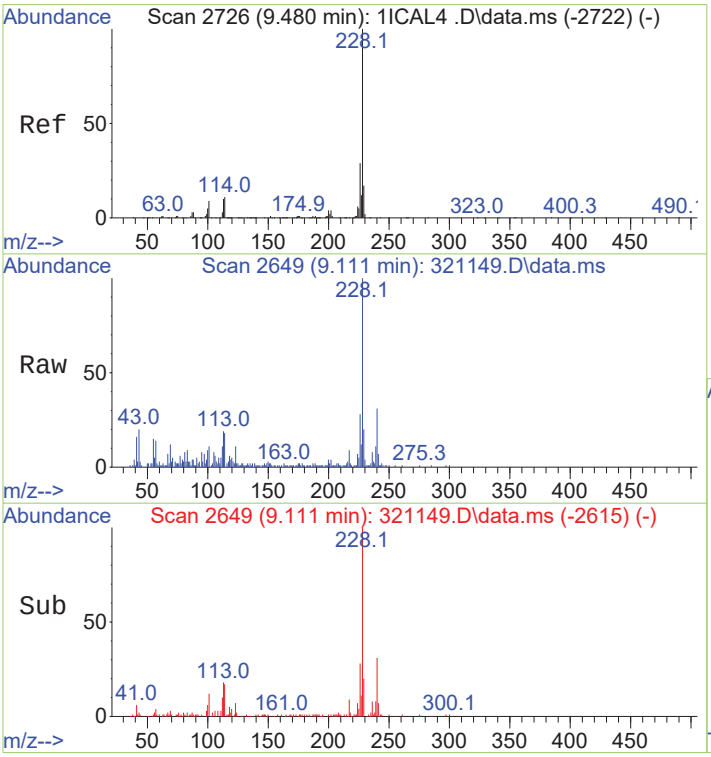


#82
B[a]anthracen
Concen: 0.81 ug/mL
RT: 9.091 min Scan# 2642
Delta R.T. -0.000 min
Lab File: 321149.D
Acq: 10 Sep 2019 20:05

Tgt Ion:228 Resp: 12274

Ion	Ratio	Lower	Upper
228	100		
229	24.2	0.0	49.3
226	30.1	0.0	56.2

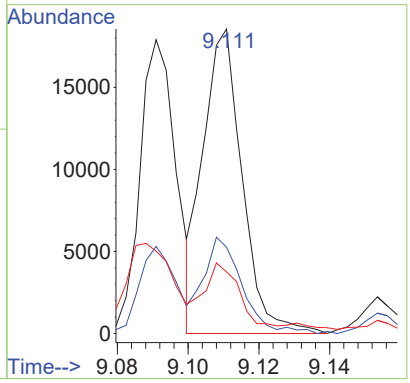


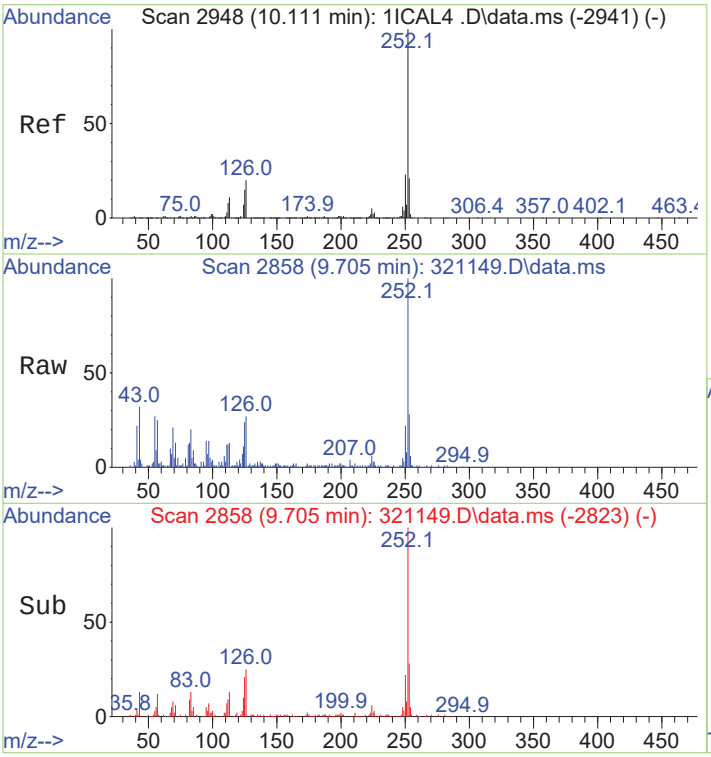


#83
Chrysene
Concen: 0.91 ug/mL
RT: 9.111 min Scan# 2649
Delta R.T. -0.003 min
Lab File: 321149.D
Acq: 10 Sep 2019 20:05

Tgt Ion:228 Resp: 14266

Ion	Ratio	Lower	Upper
228	100		
226	26.2	0.0	59.0
229	18.3	0.0	49.4

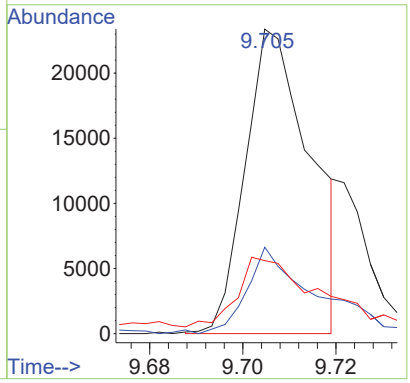


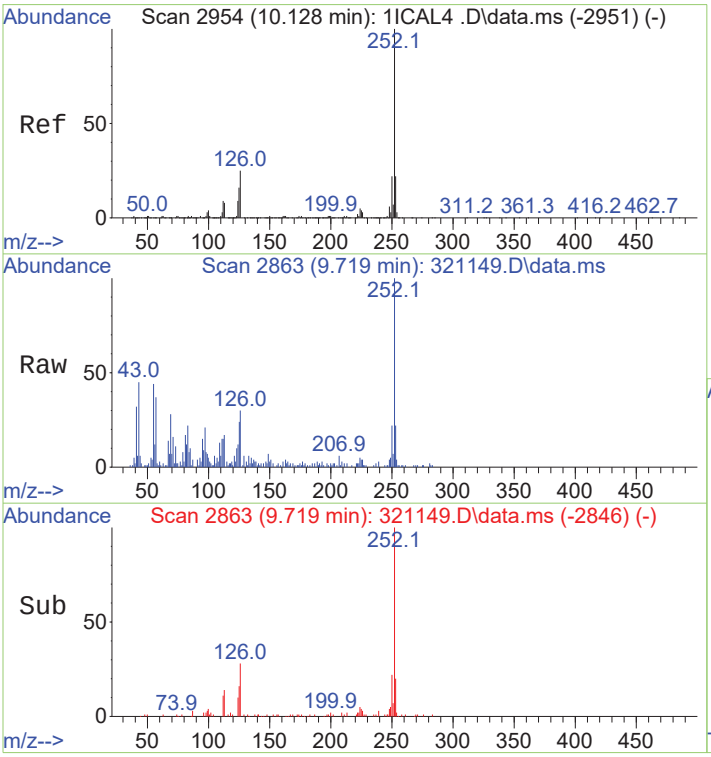


#87
B[b]fluoranth
Concen: 1.47 ug/mL m
RT: 9.705 min Scan# 2858
Delta R.T. -0.000 min
Lab File: 321149.D
Acq: 10 Sep 2019 20:05

Tgt Ion:252 Resp: 22634

Ion	Ratio	Lower	Upper
252	100		
253	28.4	0.0	51.9
125	23.9	0.0	50.0

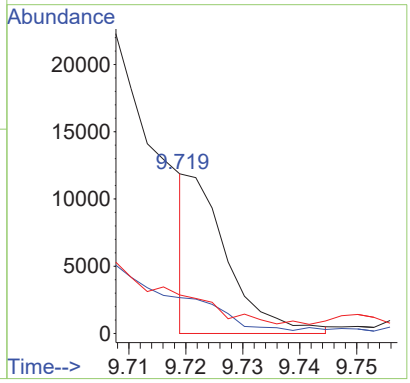


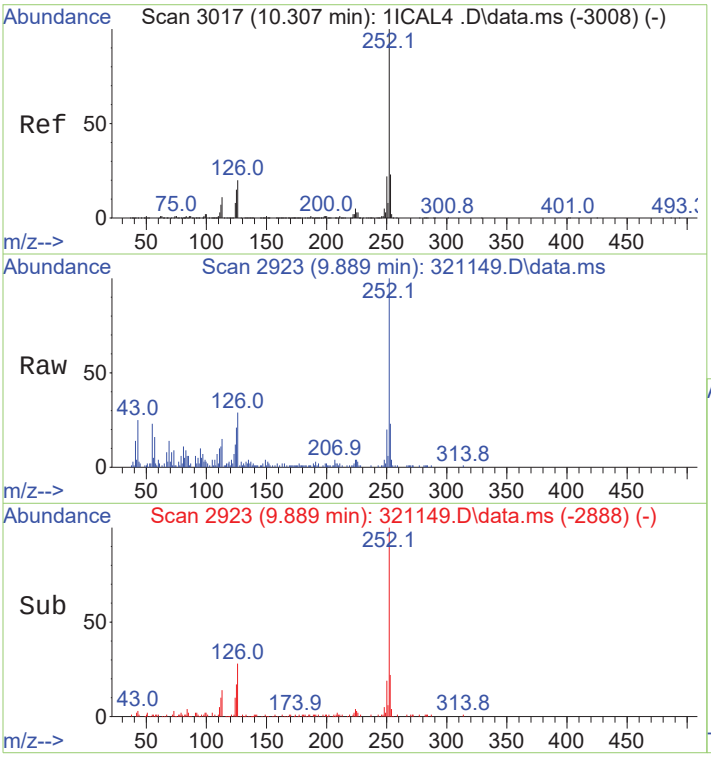


#88
B[k]fluoranth
Concen: 0.37 ug/mL m
RT: 9.719 min Scan# 2863
Delta R.T. -0.003 min
Lab File: 321149.D
Acq: 10 Sep 2019 20:05

Tgt Ion:252 Resp: 5704

Ion	Ratio	Lower	Upper
252	100		
253	22.4	0.0	52.0
125	24.1	0.0	50.2

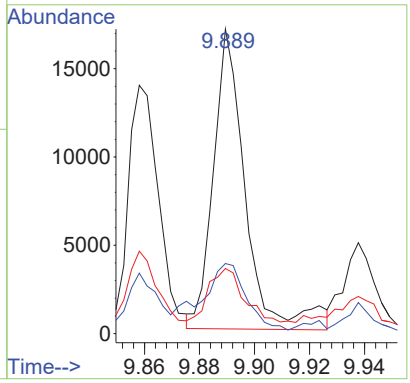


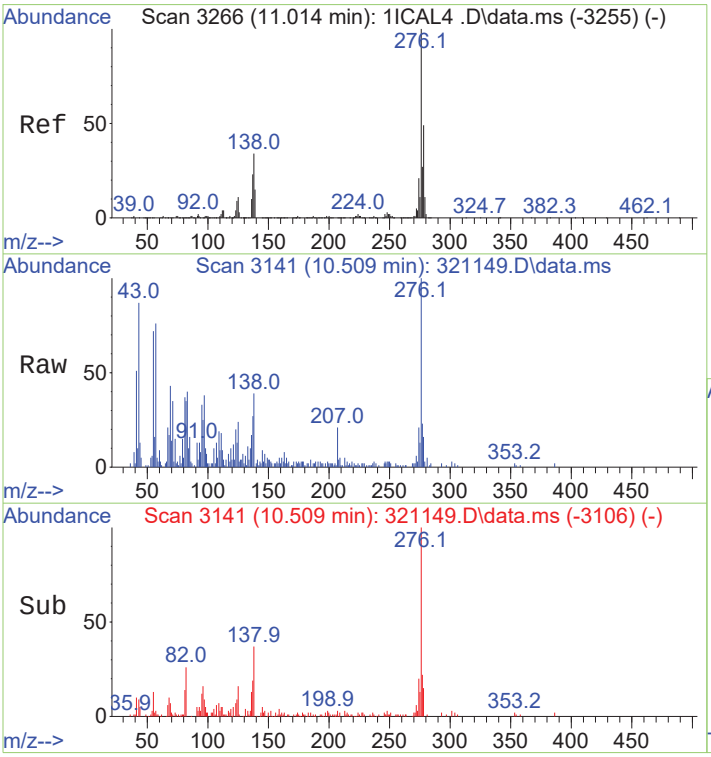


#89
Benz[a]pyrene
Concen: 0.87 ug/mL
RT: 9.889 min Scan# 2923
Delta R.T. -0.000 min
Lab File: 321149.D
Acq: 10 Sep 2019 20:05

Tgt Ion:252 Resp: 13725

Ion	Ratio	Lower	Upper
252	100		
253	22.9	0.0	51.7
125	18.3	0.0	51.4

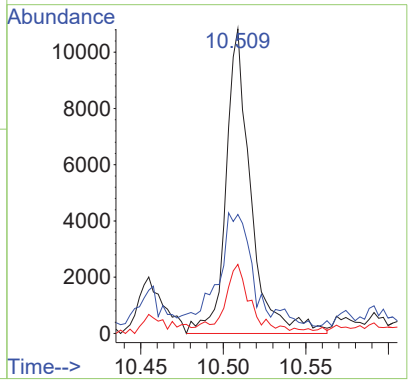


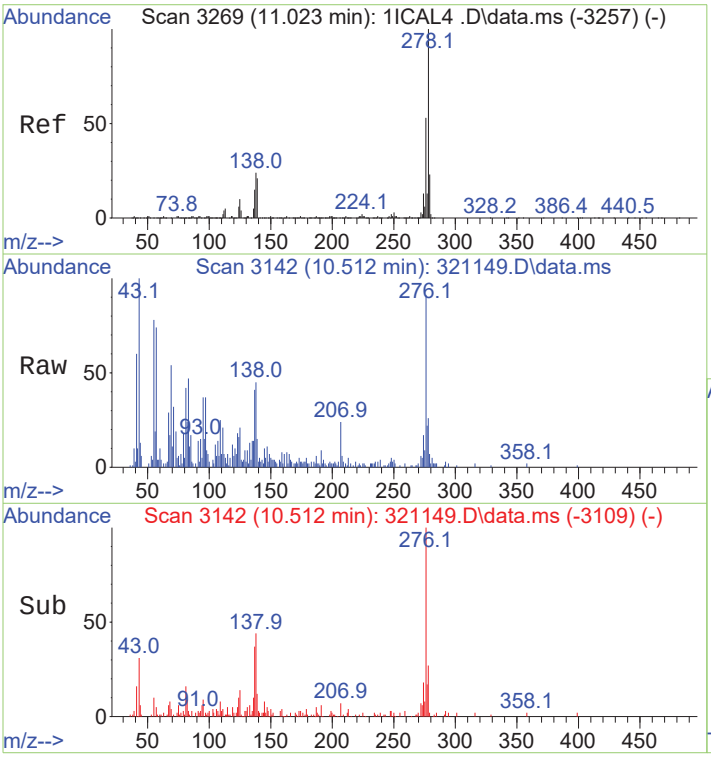


#90
Indeno-pyrene
Concen: 0.69 ug/mL
RT: 10.509 min Scan# 3141
Delta R.T. -0.000 min
Lab File: 321149.D
Acq: 10 Sep 2019 20:05

Tgt Ion:276 Resp: 11336

Ion	Ratio	Lower	Upper
276	100		
138	34.9	13.2	73.2
277	21.8	0.0	54.7

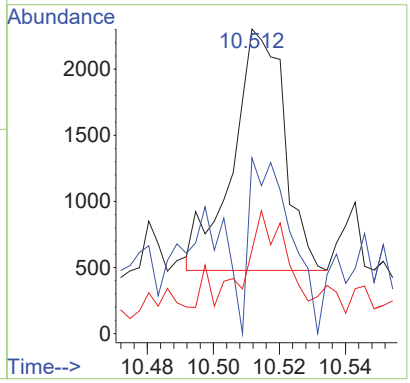


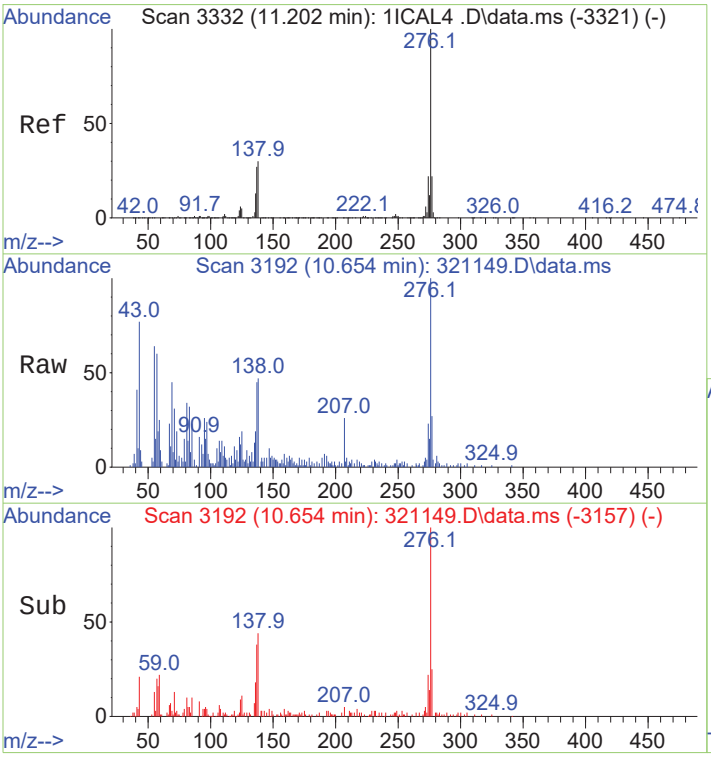


#91
Dib[ah]anthr
Concen: 0.15 ug/mL
RT: 10.512 min Scan# 3142
Delta R.T. -0.006 min
Lab File: 321149.D
Acq: 10 Sep 2019 20:05

Tgt Ion:278 Resp: 1977

Ion	Ratio	Lower	Upper
278	100		
139	48.5	4.7	64.7
279	23.5	0.0	54.0

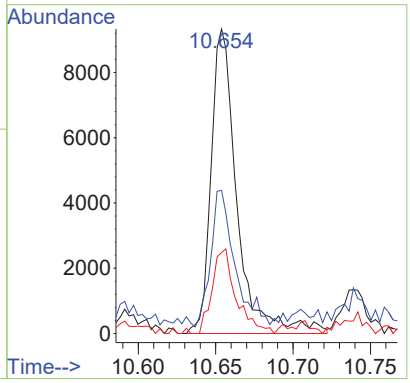


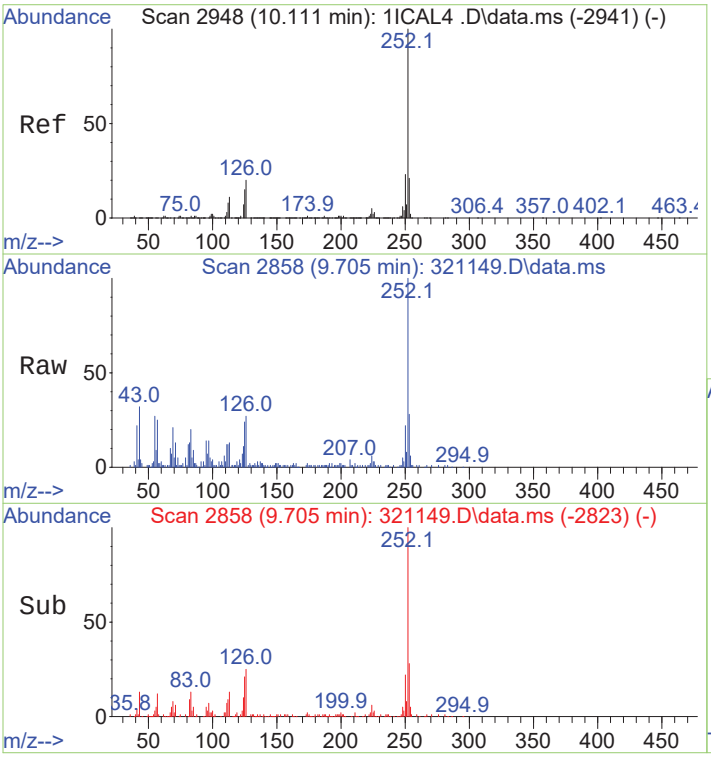


#92
B[ghi]perylen
Concen: 0.76 ug/mL
RT: 10.654 min Scan# 3192
Delta R.T. -0.000 min
Lab File: 321149.D
Acq: 10 Sep 2019 20:05

Tgt Ion:276 Resp: 10851

Ion	Ratio	Lower	Upper
276	100		
138	41.5	15.0	75.0
277	24.9	0.0	54.0

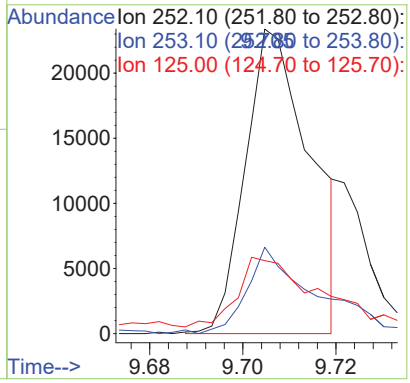




#87
B[b]fluoranth
Concen: 1.47 ug/mL m
RT: 9.705 min Scan# 2858
Delta R.T. -0.000 min
Lab File: 321149.D
Acq: 10 Sep 2019 20:05

Tgt Ion:252 Resp: 22634

Ion	Ratio	Lower	Upper
252	100		
253	28.4	0.0	51.9
125	23.9	0.0	50.0

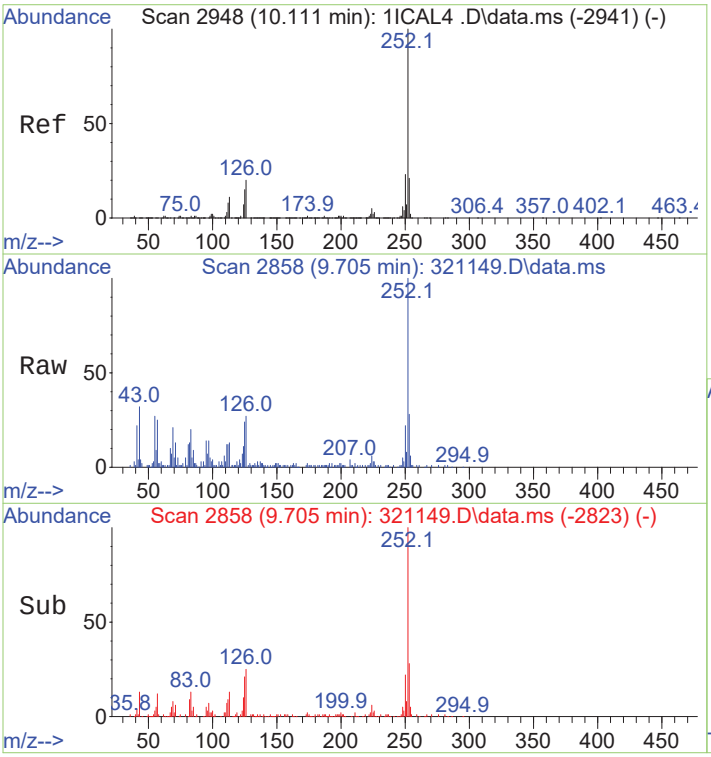


After Manual Integration

Reason#3

JJY
9/16/19

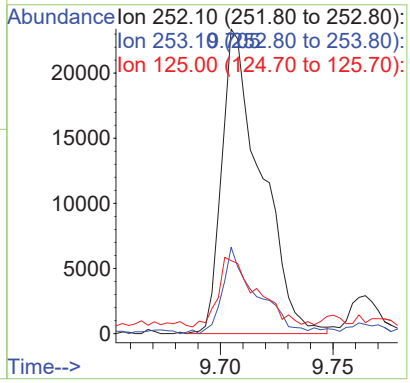
AJZ
09/19/2019



#87
B[b]fluoranth
Concen: 1.85 ug/mL
RT: 9.705 min Scan# 2858
Delta R.T. -0.000 min
Lab File: 321149.D
Acq: 10 Sep 2019 20:05

Tgt Ion:252 Resp: 28438

Ion	Ratio	Lower	Upper
252	100		
253	27.9	0.0	51.9
125	21.3	0.0	50.0

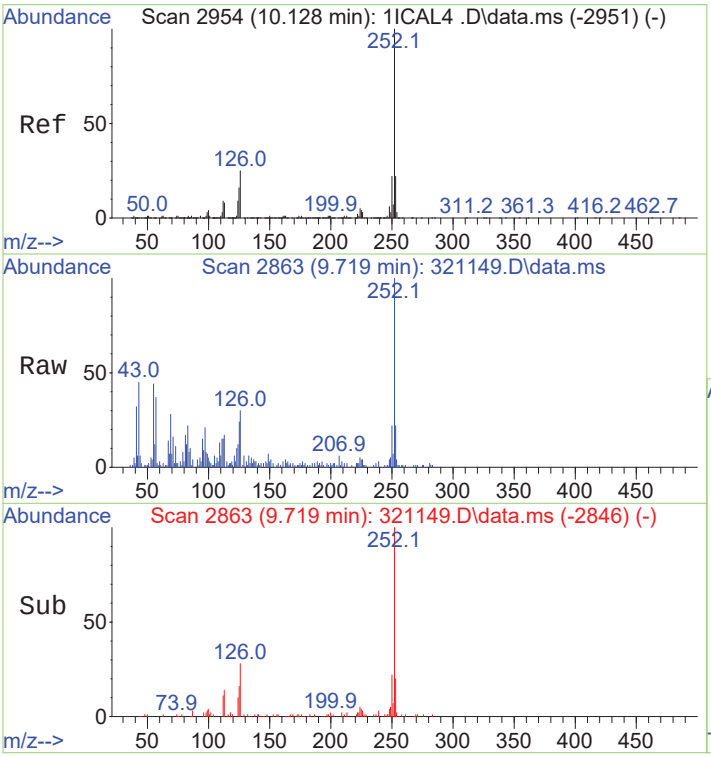


Before Manual Integration

Reason#3

JJY 9/16/19

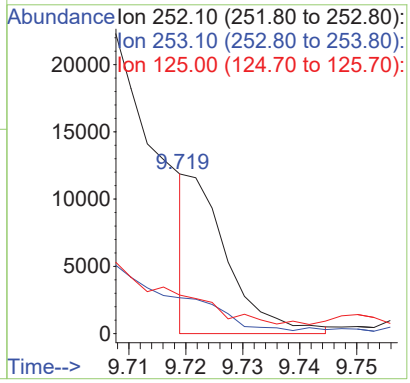
AJZ 09/19/2019



#88
B[k]fluoranth
Concen: 0.37 ug/mL m
RT: 9.719 min Scan# 2863
Delta R.T. -0.003 min
Lab File: 321149.D
Acq: 10 Sep 2019 20:05

Tgt Ion:252 Resp: 5704

Ion	Ratio	Lower	Upper
252	100		
253	22.4	0.0	52.0
125	24.1	0.0	50.2

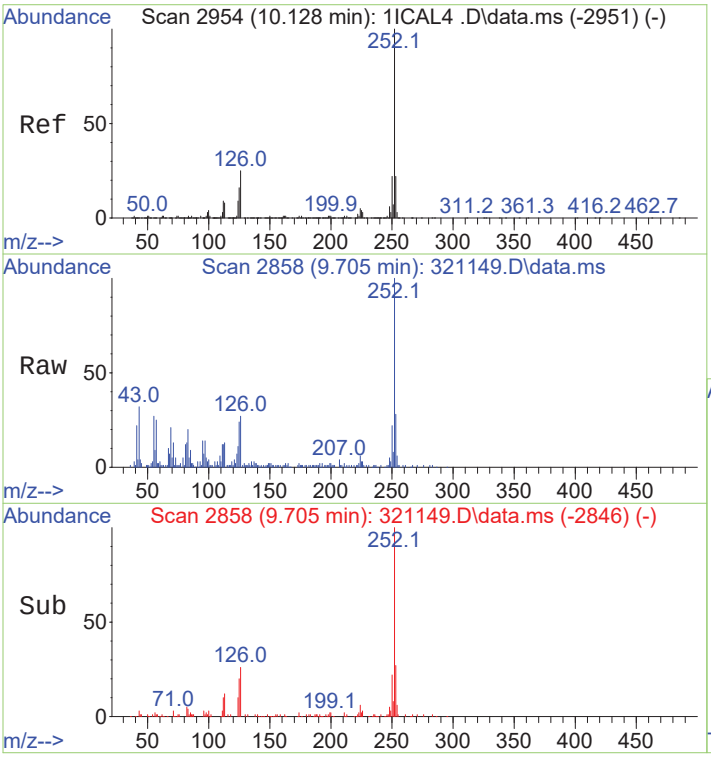


After Manual Integration

Reason#3

JJY
9/16/19

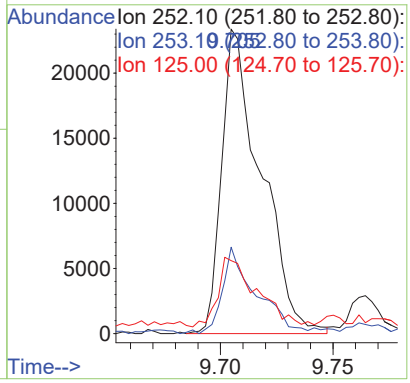
AJZ
09/19/2019



#88
B[k]fluoranth
Concen: 1.85 ug/mL
RT: 9.705 min Scan# 2858
Delta R.T. -0.017 min
Lab File: 321149.D
Acq: 10 Sep 2019 20:05

Tgt Ion:252 Resp: 28438

Ion	Ratio	Lower	Upper
252	100		
253	27.9	0.0	52.0
125	21.3	0.0	50.2



Before Manual Integration

Reason#3

JJY
9/16/19

AJZ
09/19/2019

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321149.D Vial: 6
Acq On : 10 Sep 2019 20:05 Operator: JJY
Sample : 164275,321149, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:20 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

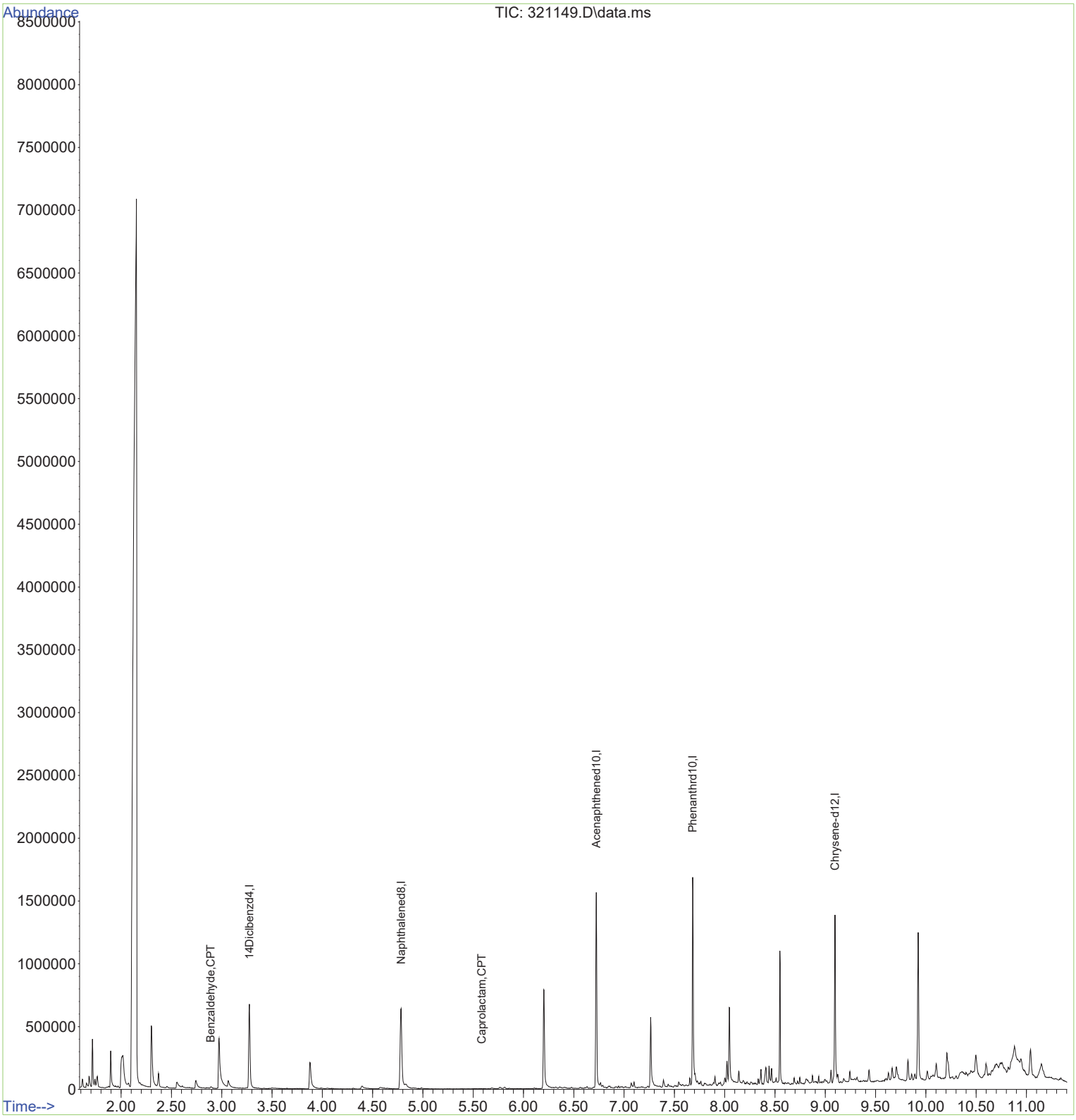
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	106302	20.00	ug/mL	0.00
3) Naphthalened8	4.783	136	414606	20.00	ug/mL	0.00
5) Acenaphthened10	6.724	164	262541	20.00	ug/mL	0.00
7) Phenanthrd10	7.682	188	428677	20.00	ug/mL	0.00
9) Chrysene-d12	9.097	240	244859	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	2.891	77	3213	1.1373	ug/mL#	75
4) Caprolactam	5.585	55	1258	1.2297	ug/mL#	23

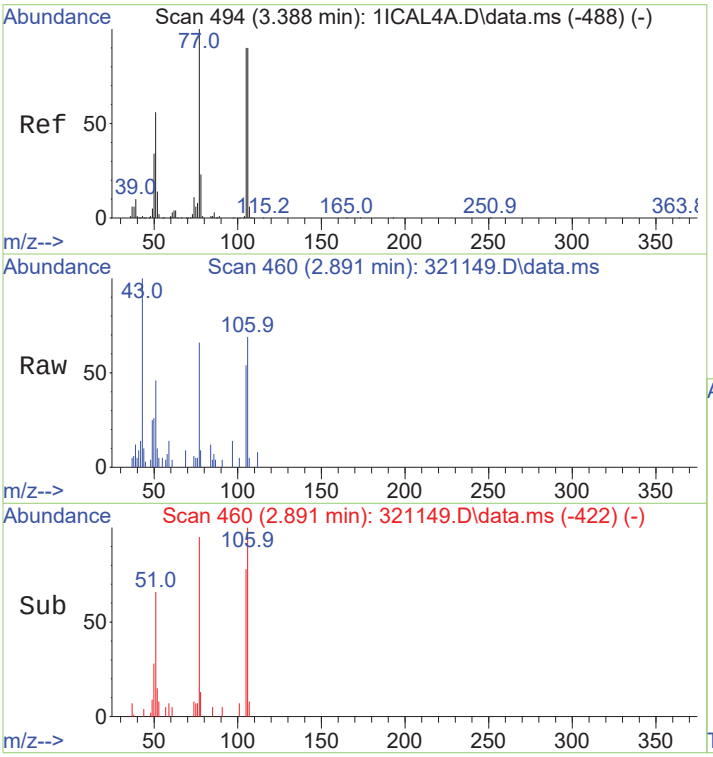
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321149.D Vial: 6
Acq On : 10 Sep 2019 20:05 Operator: JJY
Sample : 164275,321149, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:20 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

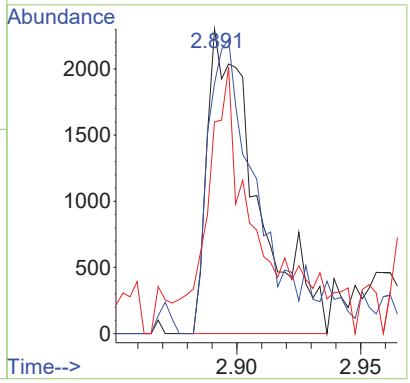


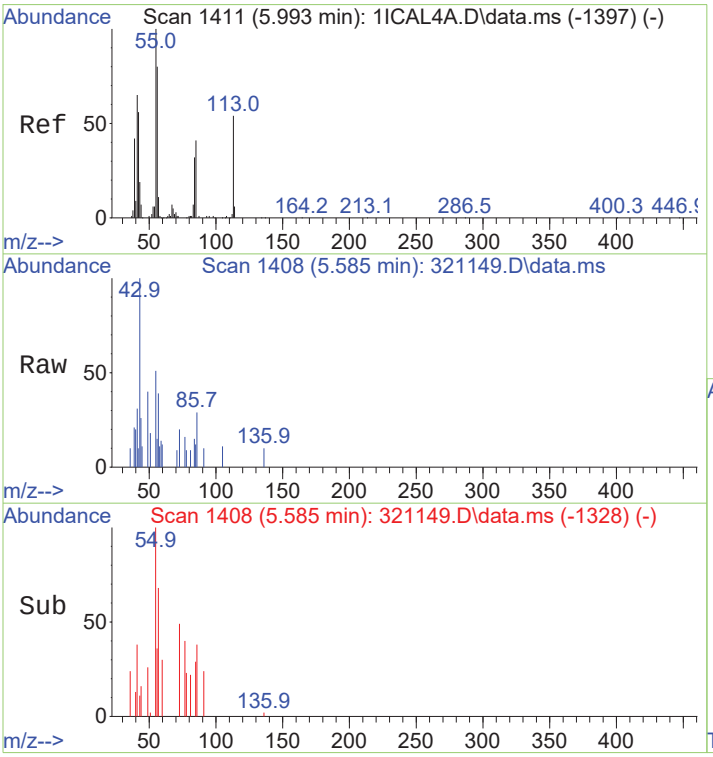


#2
Benzaldehyde
Concen: 1.14 ug/mL
RT: 2.891 min Scan# 460
Delta R.T. 0.008 min
Lab File: 321149.D
Acq: 10 Sep 2019 20:05

Tgt Ion: 77 Resp: 3213

Ion	Ratio	Lower	Upper
77	100		
105	110.7	67.4	127.4
51	86.6	23.2	83.2#

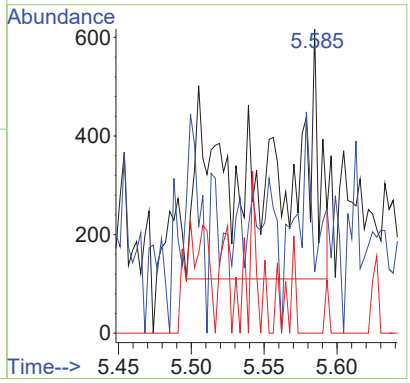




#4
Caprolactam
Concen: 1.23 ug/mL
RT: 5.585 min Scan# 1408
Delta R.T. 0.128 min
Lab File: 321149.D
Acq: 10 Sep 2019 20:05

Tgt Ion: 55 Resp: 1258

Ion	Ratio	Lower	Upper
55	100		
42	0.0	24.6	84.6#
113	0.0	26.7	86.7#



Library Search Compound Report

Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321154.D
Acq On : 10 Sep 2019 20:24
Operator : JJY
Sample : 164275,321154,
Misc : 500ul+5ul S4142A
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 1 3-Penten-2-one, 4-methyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.897	15.92 ug/mL	477635	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
2	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
3	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	90
4	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	90
5	2-Pentene, 3,4-dimethyl-, (E)-	98	C7H14	004914-92-5	90

****

Peak Number 2 Acetic acid, hexyl ester Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.013	14.29 ug/mL	428617	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetic acid, hexyl ester	144	C8H16O2	000142-92-7	9
2	CH2=CHCH2C(O)OCH3	100	C5H8O2	003724-55-8	9
3	2-Pentanone, 5-(acetyloxy)-	144	C7H12O3	005185-97-7	9
4	Isobutane	58	C4H10	000075-28-5	9
5	Hydroperoxide, 1-methylethyl	76	C3H8O2	003031-75-2	9

****

Peak Number 3 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.150	471.34 ug/mL	14141700	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	56
2	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	56
3	tert-Butyl Hydroperoxide	90	C4H10O2	000075-91-2	28
4	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	28
5	Acetic acid, cyano-, 1,1-dimethy...	141	C7H11NO2	001116-98-9	17

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321154.D Vial: 7
Acq On : 10 Sep 2019 20:24 Operator: JJY
Sample : 164275,321154, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 20:37:03 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

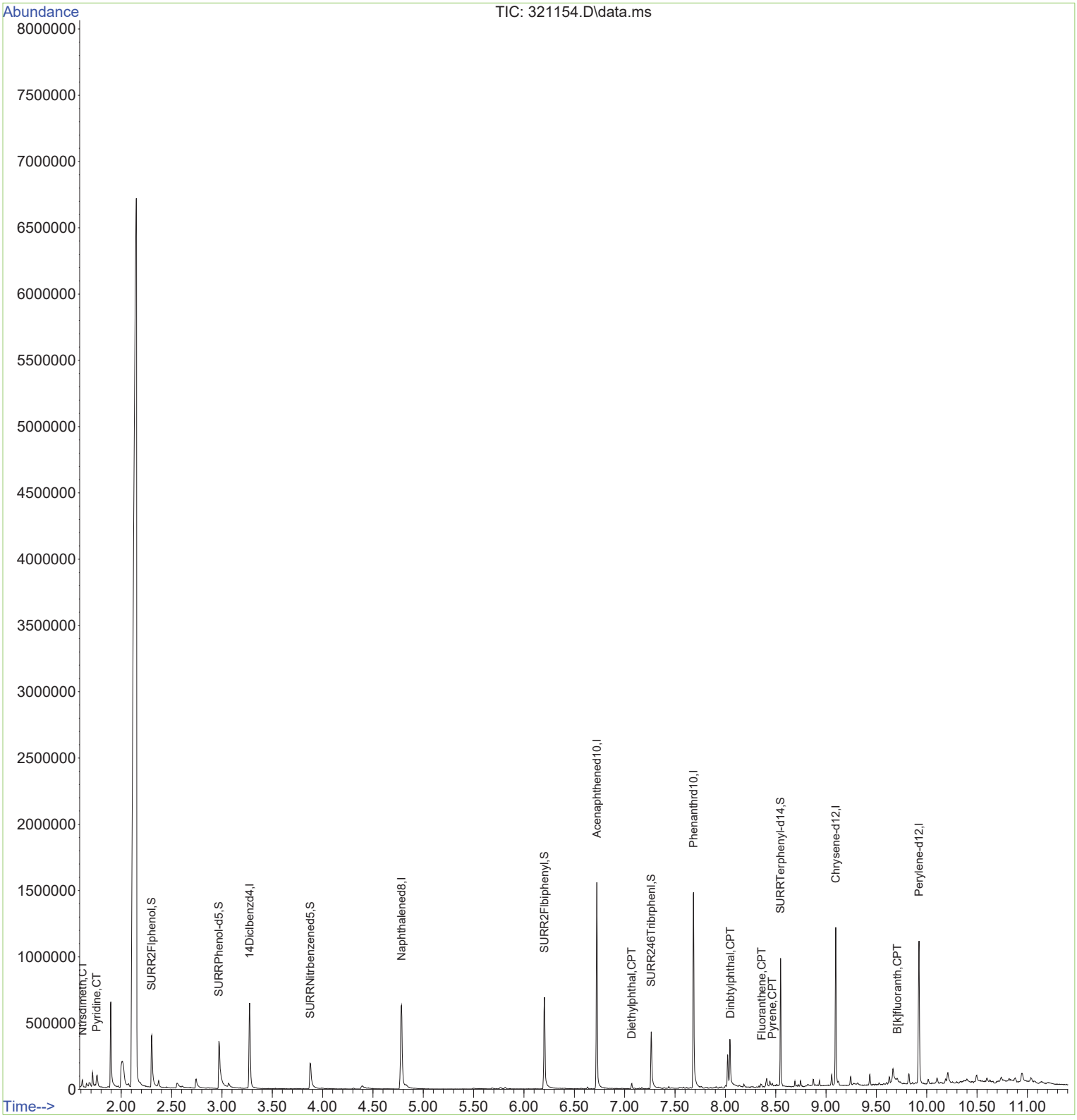
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	103806	20.00	ug/mL	0.00
21) Naphthalened8	4.784	136	397685	20.00	ug/mL	0.00
39) Acenaphthened10	6.724	164	242034	20.00	ug/mL	0.00
63) Phenanthrd10	7.685	188	402905	20.00	ug/mL	0.00
75) Chrysene-d12	9.097	240	227578	20.00	ug/mL	0.00
86) Perylene-d12	9.924	264	265530	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.303	112	121875	46.70	%REC	0.02
Spiked Amount 100.000			Recovery = 46.70%			
7) SURRPhenol-d5	2.971	99	175162	55.87	%REC	0.00
Spiked Amount 100.000			Recovery = 55.87%			
22) SURRNitrbenzened5	3.877	82	77154	57.24	%REC	0.00
Spiked Amount 100.000			Recovery = 57.24%			
44) SURR2Flbiphenyl	6.204	172	216842	67.25	%REC	0.00
Spiked Amount 100.000			Recovery = 67.25%			
62) SURR246Tribrphenl	7.264	330	41256	54.57	%REC	0.00
Spiked Amount 100.000			Recovery = 54.57%			
78) SURRTerphenyl-d14	8.548	244	153478	73.68	%REC	0.00
Spiked Amount 100.000			Recovery = 73.68%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.615	74	3200	1.2891	ug/mL#	1
3) Pyridine	1.755	79	835	0.6718	ug/mL#	52
60) Diethylphthal	7.071	149	5393	0.3328	ug/mL	99
73) Dinbtylphthal	8.051	149	5965	0.0638	ug/mL	95
74) Fluoranthene	8.361	202	4475	0.2930	ug/mL	95
77) Pyrene	8.466	202	3714	0.2172	ug/mL	89
88) B[k]fluoranth	9.708	252	3066	0.2115	ug/mL	97

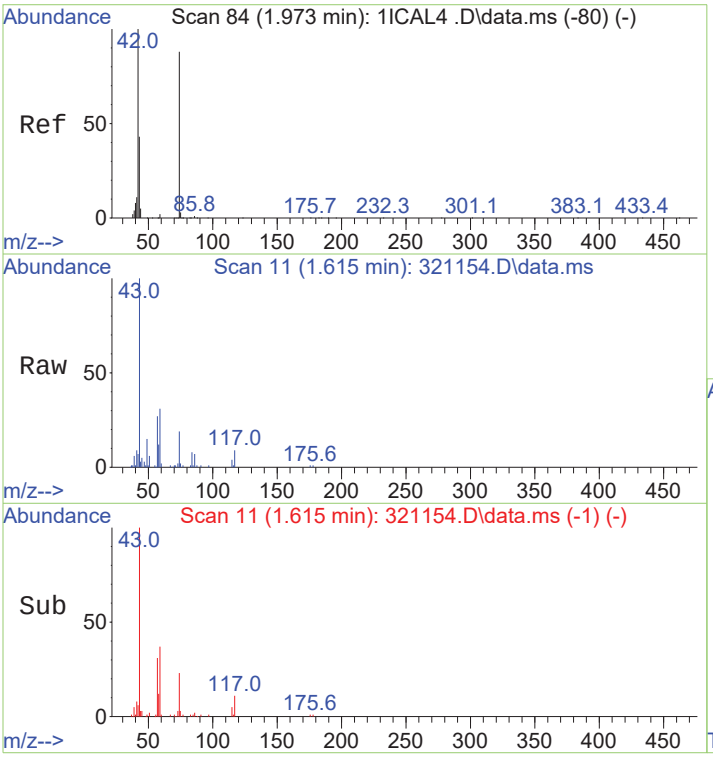
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321154.D Vial: 7
Acq On : 10 Sep 2019 20:24 Operator: JJY
Sample : 164275,321154, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 20:37:03 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

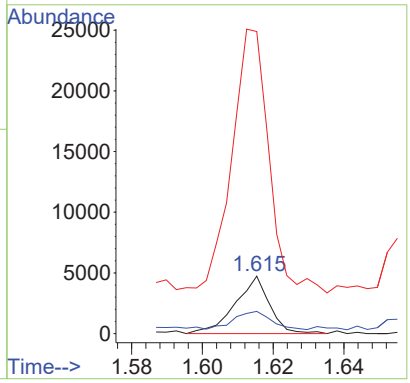


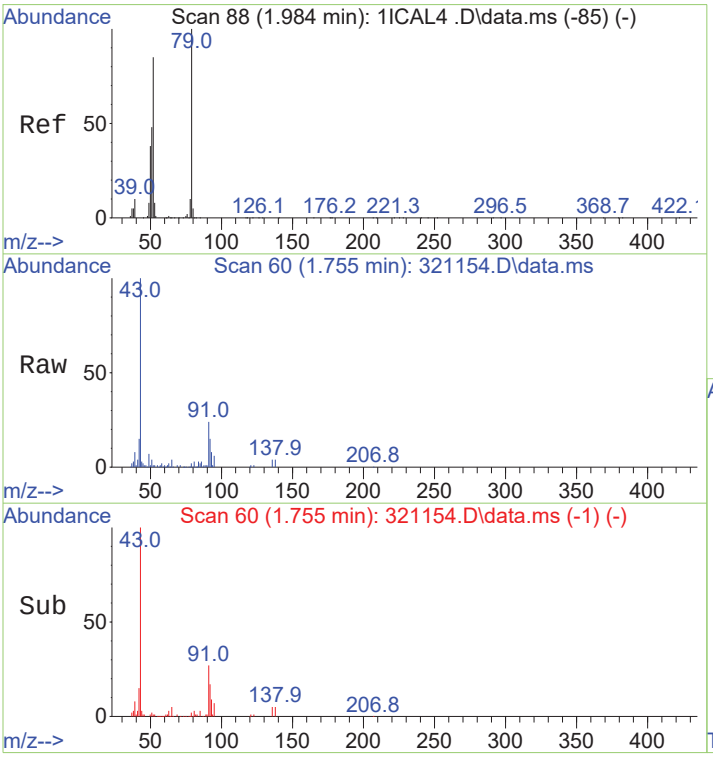


#2
Ntrsdimeth
Concen: 1.29 ug/mL
RT: 1.615 min Scan# 11
Delta R.T. -0.023 min
Lab File: 321154.D
Acq: 10 Sep 2019 20:24

Tgt Ion: 74 Resp: 3200

Ion	Ratio	Lower	Upper
74	100		
42	29.2	54.2	114.2#
43	450.7	5.5	65.5#

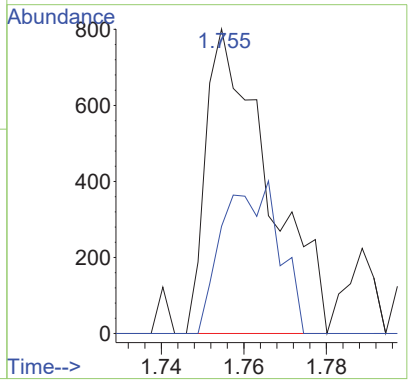


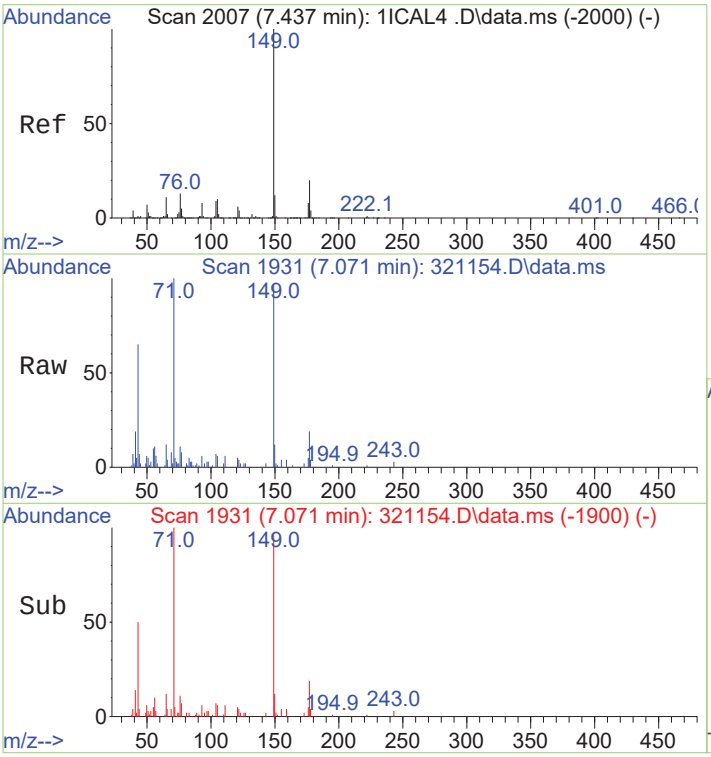


#3
Pyridine
Concen: 0.67 ug/mL
RT: 1.755 min Scan# 60
Delta R.T. 0.108 min
Lab File: 321154.D
Acq: 10 Sep 2019 20:24

Tgt Ion: 79 Resp: 835

Ion	Ratio	Lower	Upper
79	100		
52	35.2	46.7	106.7#

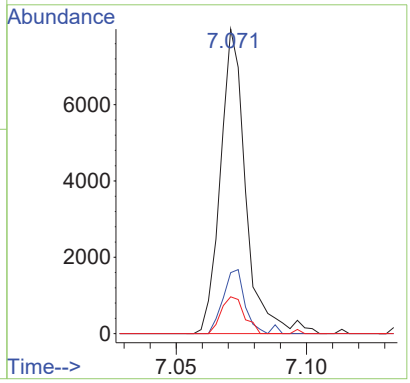


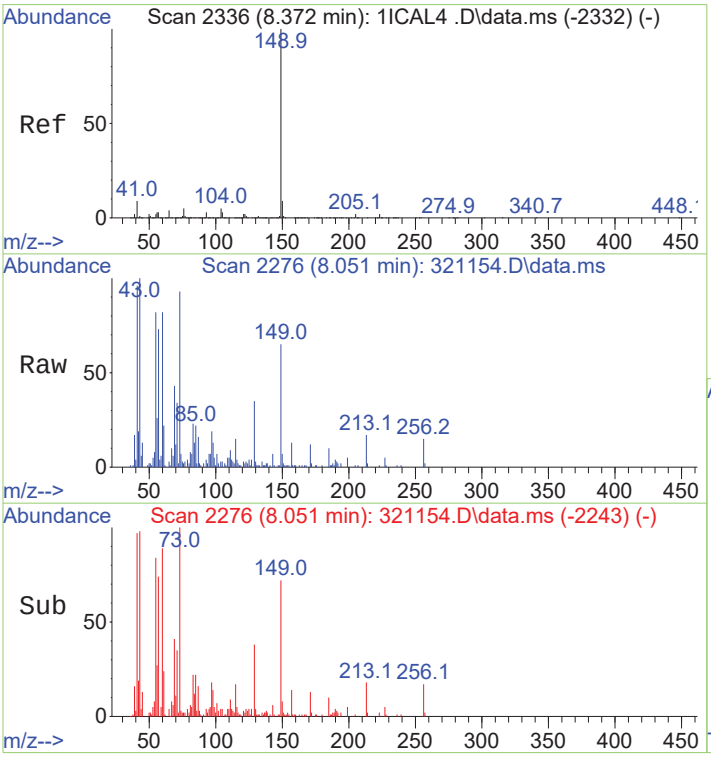


#60
Diethylphthal
Concen: 0.33 ug/mL
RT: 7.071 min Scan# 1931
Delta R.T. -0.011 min
Lab File: 321154.D
Acq: 10 Sep 2019 20:24

Tgt Ion:149 Resp: 5393

Ion	Ratio	Lower	Upper
149	100		
177	20.0	0.0	49.3
150	12.1	0.0	41.9

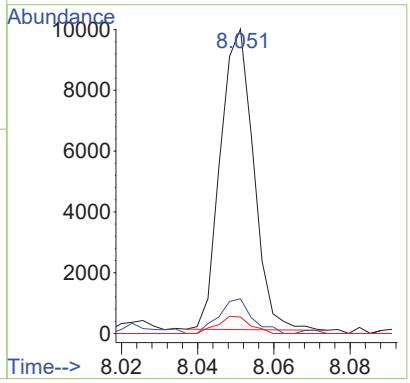


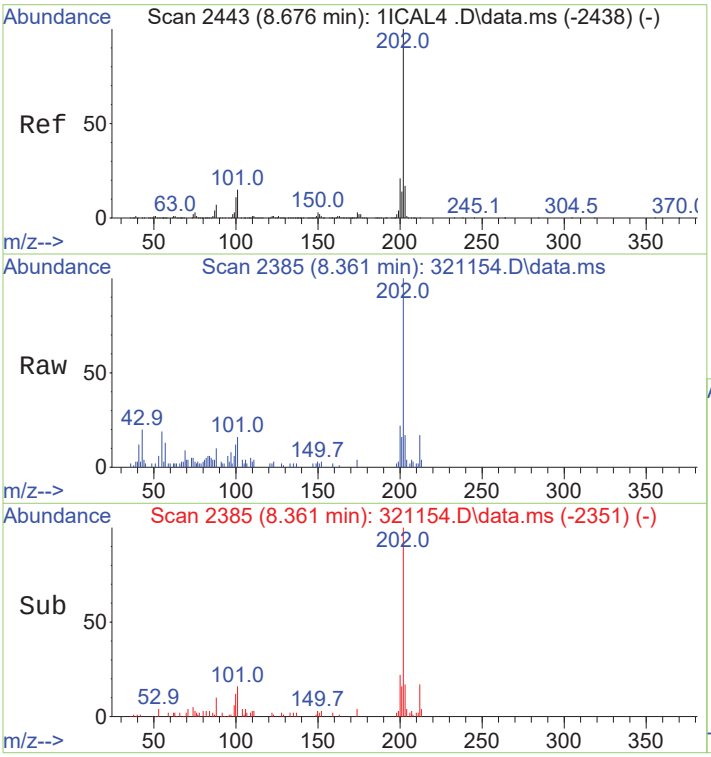


#73
Dinbtylphthal
Concen: 0.06 ug/mL
RT: 8.051 min Scan# 2276
Delta R.T. -0.006 min
Lab File: 321154.D
Acq: 10 Sep 2019 20:24

Tgt Ion:149 Resp: 5965

Ion	Ratio	Lower	Upper
149	100		
150	11.5	0.0	39.0
104	5.5	0.0	34.6

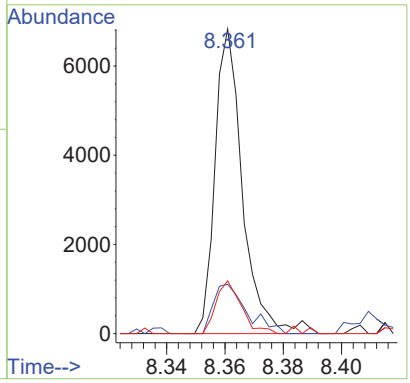


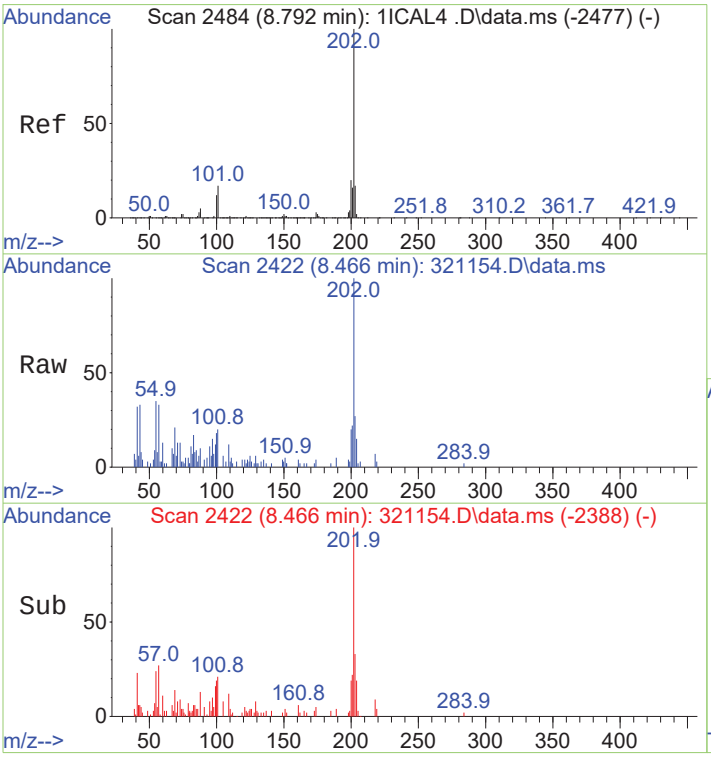


#74
Fluoranthene
Concen: 0.29 ug/mL
RT: 8.361 min Scan# 2385
Delta R.T. -0.003 min
Lab File: 321154.D
Acq: 10 Sep 2019 20:24

Tgt Ion:202 Resp: 4475

Ion	Ratio	Lower	Upper
202	100		
101	16.2	0.0	50.7
203	17.3	0.0	47.3

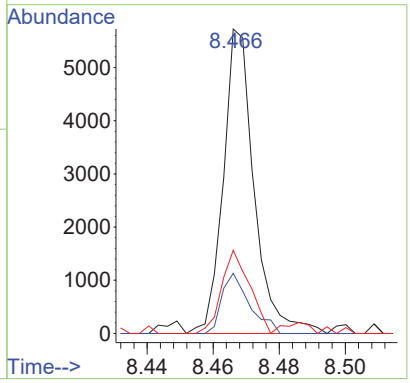


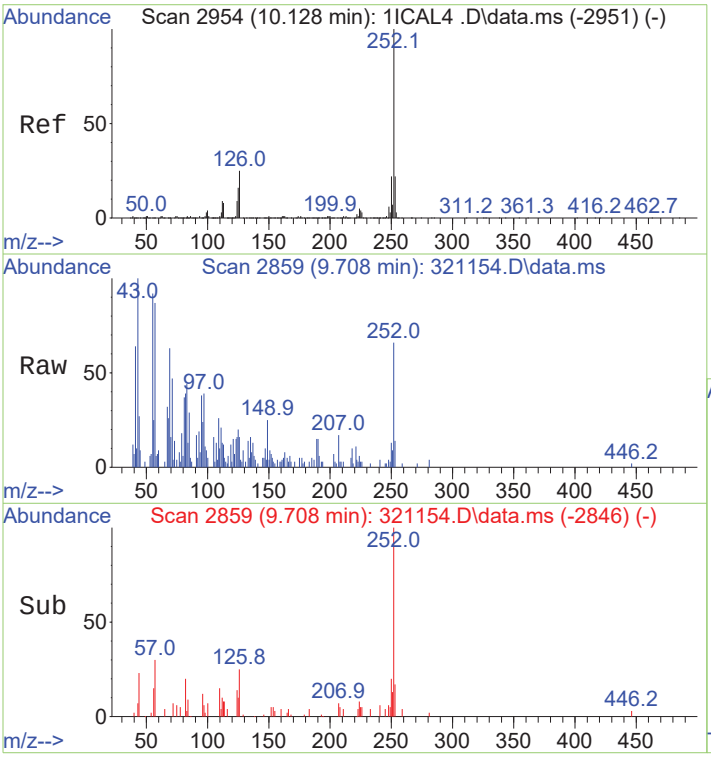


#77
Pyrene
Concen: 0.22 ug/mL
RT: 8.466 min Scan# 2422
Delta R.T. -0.003 min
Lab File: 321154.D
Acq: 10 Sep 2019 20:24

Tgt Ion:202 Resp: 3714

Ion	Ratio	Lower	Upper
202	100		
200	19.8	0.0	50.1
203	27.3	0.0	46.9

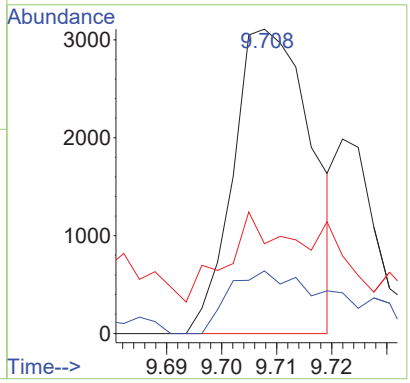




#88
B[k]fluoranth
Concen: 0.21 ug/mL
RT: 9.708 min Scan# 2859
Delta R.T. -0.014 min
Lab File: 321154.D
Acq: 10 Sep 2019 20:24

Tgt Ion:252 Resp: 3066

Ion	Ratio	Lower	Upper
252	100		
253	20.6	0.0	52.0
125	19.2	0.0	50.2



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321154.D Vial: 7
Acq On : 10 Sep 2019 20:24 Operator: JJY
Sample : 164275,321154, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:22 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

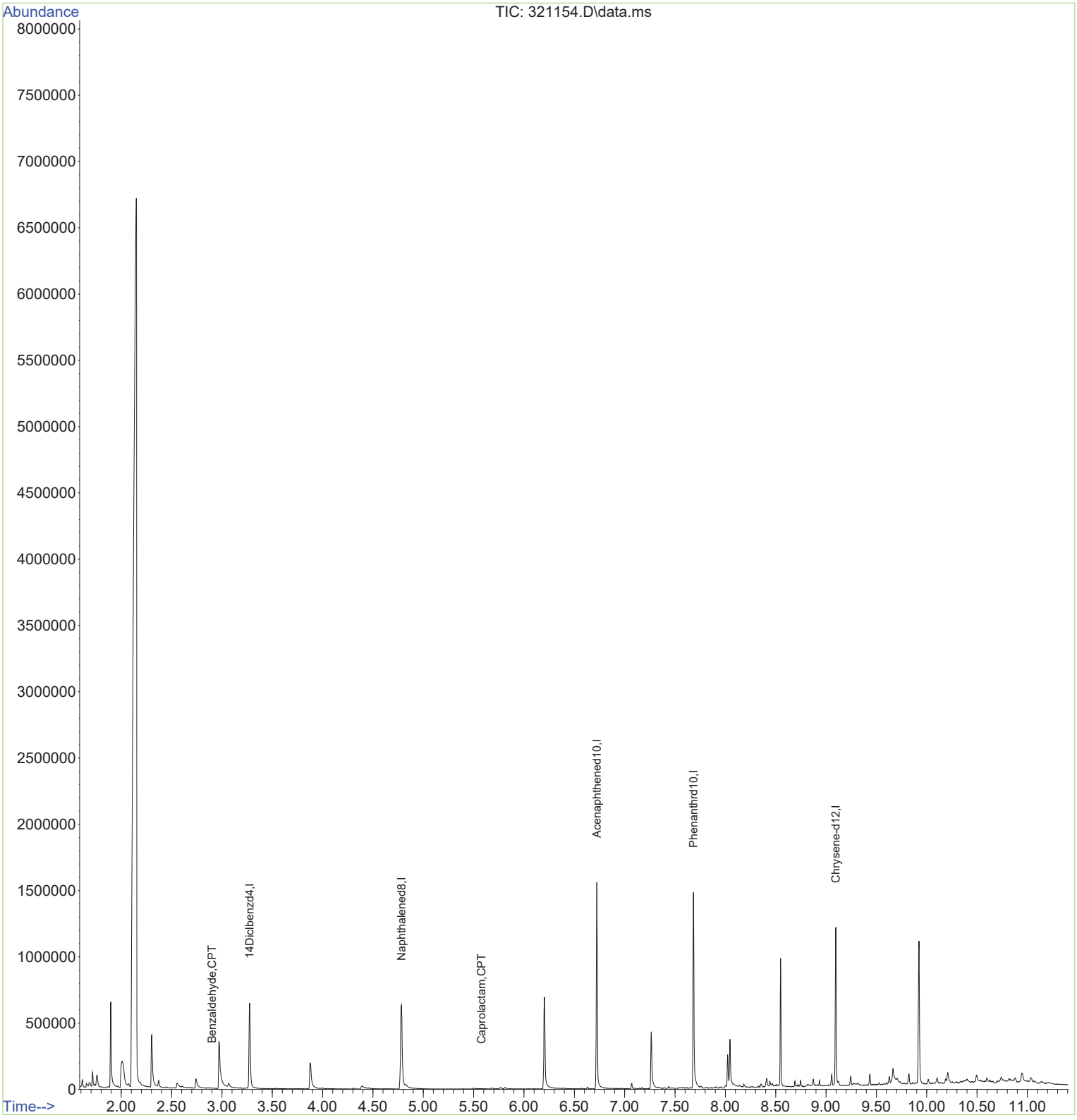
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	103806	20.00	ug/mL	0.00
3) Naphthalened8	4.784	136	397685	20.00	ug/mL	0.00
5) Acenaphthened10	6.724	164	249834	20.00	ug/mL	0.00
7) Phenanthrd10	7.685	188	406938	20.00	ug/mL	0.00
9) Chrysene-d12	9.097	240	226998	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	2.903	77	509	0.6824	ug/mL#	1
4) Caprolactam	5.579	55	1233	1.2360	ug/mL#	30

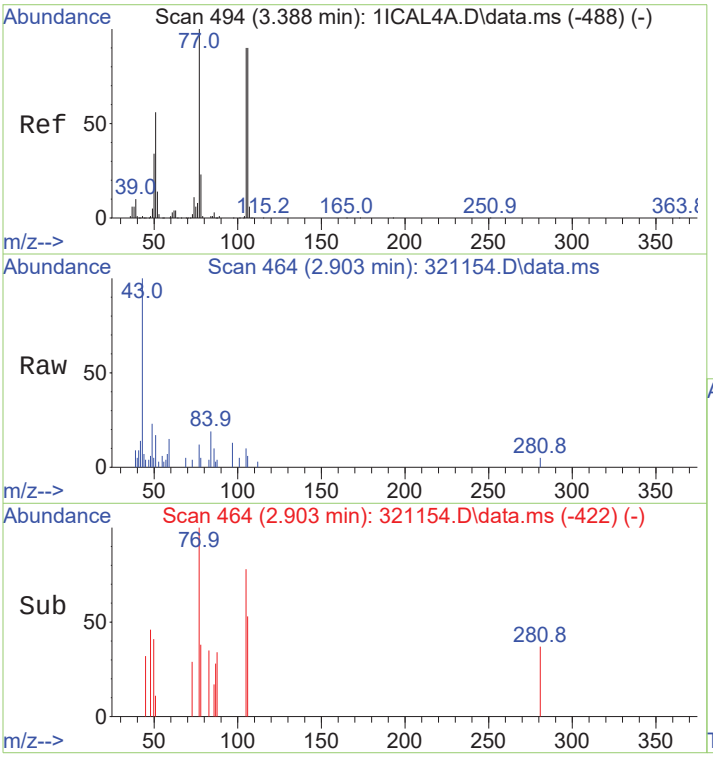
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321154.D Vial: 7
Acq On : 10 Sep 2019 20:24 Operator: JJY
Sample : 164275,321154, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:22 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

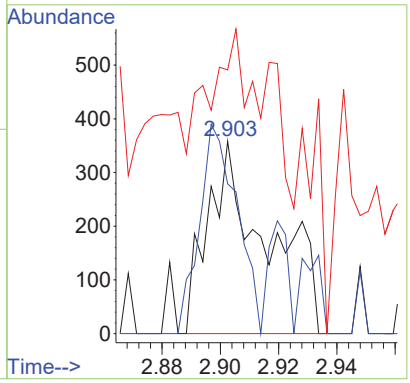


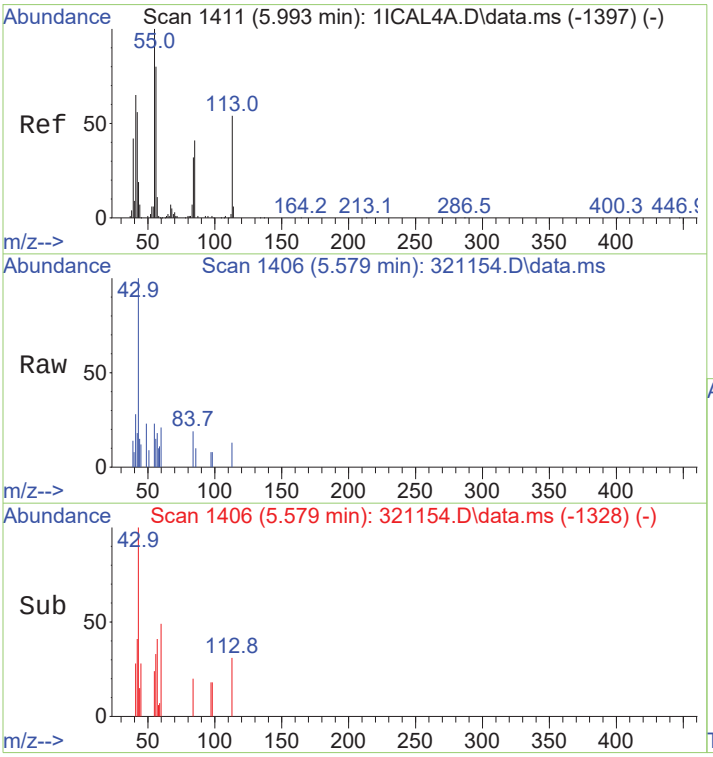


#2
Benzaldehyde
Concen: 0.68 ug/mL
RT: 2.903 min Scan# 464
Delta R.T. 0.020 min
Lab File: 321154.D
Acq: 10 Sep 2019 20:24

Tgt Ion: 77 Resp: 509

Ion	Ratio	Lower	Upper
77	100		
105	68.8	67.4	127.4
51	423.6	23.2	83.2#

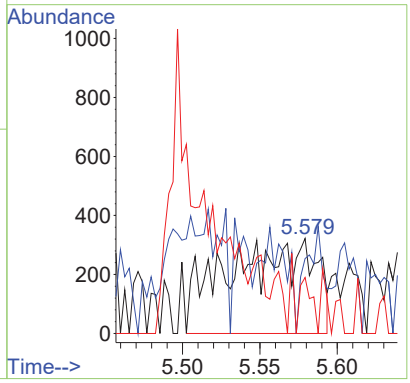




#4
Caprolactam
Concen: 1.24 ug/mL
RT: 5.579 min Scan# 1406
Delta R.T. 0.122 min
Lab File: 321154.D
Acq: 10 Sep 2019 20:24

Tgt Ion: 55 Resp: 1233

Ion	Ratio	Lower	Upper
55	100		
42	9.5	24.6	84.6#
113	0.0	26.7	86.7#



Library Search Compound Report

Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321154.D
Acq On : 10 Sep 2019 20:24
Operator : JJY
Sample : 164275,321154,
Misc : 500ul+5ul S4142A
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 1 3-Penten-2-one, 4-methyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.897	15.92 ug/mL	477635	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
2	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
3	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	90
4	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	90
5	2-Pentene, 3,4-dimethyl-, (E)-	98	C7H14	004914-92-5	90

****

Peak Number 2 Acetic acid, hexyl ester Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.013	14.29 ug/mL	428617	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetic acid, hexyl ester	144	C8H16O2	000142-92-7	9
2	CH2=CHCH2C(O)OCH3	100	C5H8O2	003724-55-8	9
3	2-Pentanone, 5-(acetyloxy)-	144	C7H12O3	005185-97-7	9
4	Isobutane	58	C4H10	000075-28-5	9
5	Hydroperoxide, 1-methylethyl	76	C3H8O2	003031-75-2	9

****

Peak Number 3 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.150	471.34 ug/mL	14141700	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	56
2	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	56
3	tert-Butyl Hydroperoxide	90	C4H10O2	000075-91-2	28
4	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	28
5	Acetic acid, cyano-, 1,1-dimethy...	141	C7H11NO2	001116-98-9	17

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321155.D Vial: 8
Acq On : 10 Sep 2019 20:43 Operator: JJY
Sample : 164275,321155, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 20:56:21 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

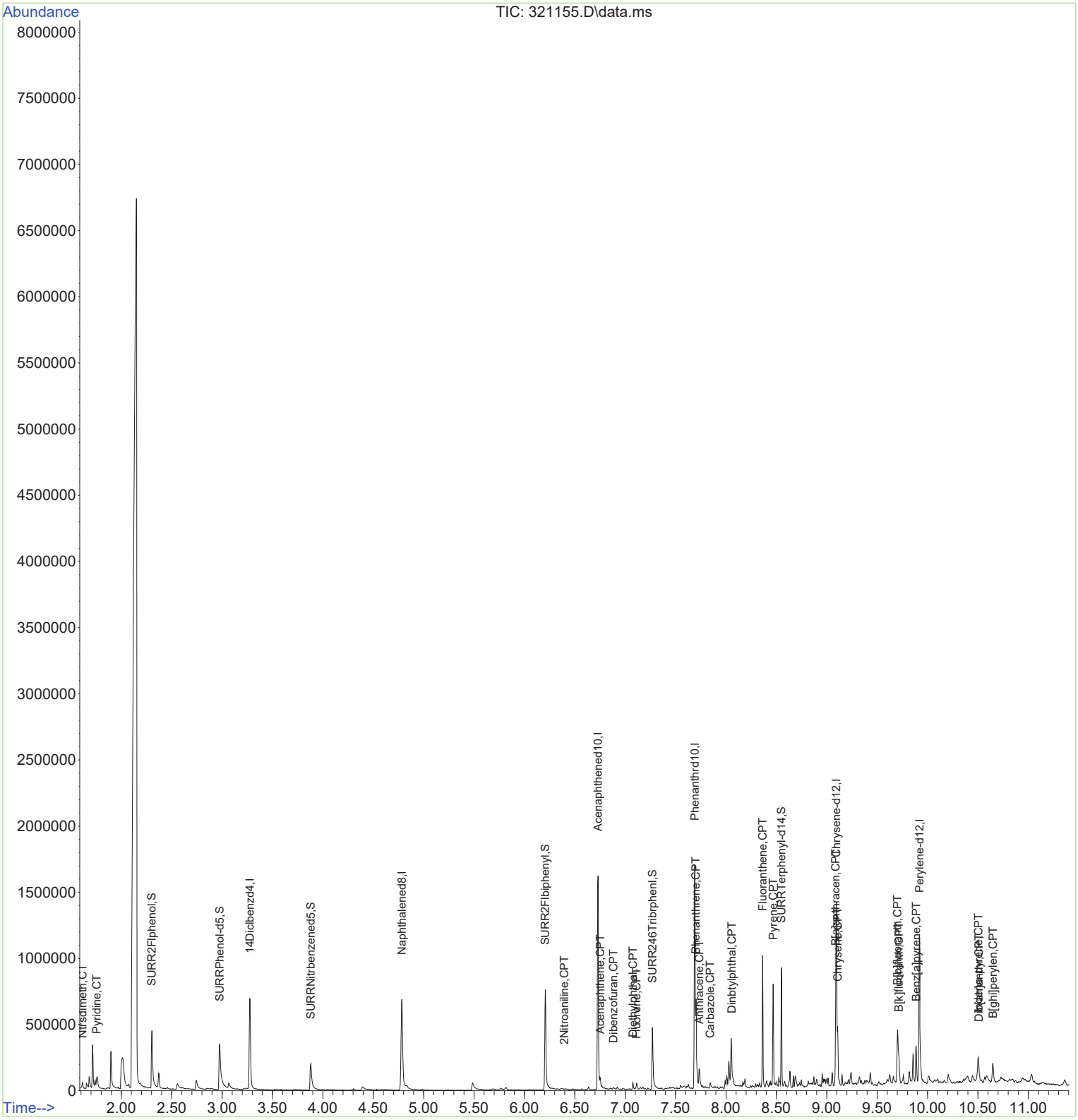
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	106646	20.00	ug/mL	0.00
21) Naphthalened8	4.784	136	410426	20.00	ug/mL	0.00
39) Acenaphthened10	6.730	164	257839	20.00	ug/mL	0.00
63) Phenanthrd10	7.690	188	425722	20.00	ug/mL	0.00
75) Chrysene-d12	9.094	240	232421	20.00	ug/mL	0.00
86) Perylene-d12	9.921	264	277519	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.303	112	132710	49.33	%REC	0.02
Spiked Amount 100.000			Recovery = 49.33%			
7) SURRPhenol-d5	2.976	99	174165	54.14	%REC	0.00
Spiked Amount 100.000			Recovery = 54.14%			
22) SURRNitrbenzened5	3.880	82	74386	53.64	%REC	0.00
Spiked Amount 100.000			Recovery = 53.64%			
44) SURR2Flbiphenyl	6.207	172	218815	63.70	%REC	0.00
Spiked Amount 100.000			Recovery = 63.70%			
62) SURR246Tribrphenl	7.270	330	40551	50.40	%REC	0.00
Spiked Amount 100.000			Recovery = 50.40%			
78) SURRTerphenyl-d14	8.551	244	145564	68.43	%REC	0.00
Spiked Amount 100.000			Recovery = 68.43%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.615	74	2364	1.0827	ug/mL#	1
3) Pyridine	1.755	79	861	0.6723	ug/mL#	46
46) 2Nitroaniline	6.395	65	807	0.6902	ug/mL#	29
50) Acenaphthene	6.753	154	8747	0.6284	ug/mL	95
53) Dibenzofuran	6.883	168	5343	0.2555	ug/mL	96
58) Fluorene	7.114	166	9554	0.5786	ug/mL	98
60) Diethylphthal	7.077	149	5816	0.3369	ug/mL	95
70) Phenanthrene	7.702	178	155489	6.9249	ug/mL	99
71) Anthracene	7.736	178	46430	2.0077	ug/mL	95
72) Carbazole	7.844	167	17979	0.8061	ug/mL	97
73) Dinbtylphthal	8.057	149	7498	0.1054	ug/mL	92
74) Fluoranthene	8.364	202	200545	12.4268	ug/mL	98
77) Pyrene	8.469	202	154439	8.8430	ug/mL	94
82) B[a]anthracen	9.088	228	93010	6.4914	ug/mL	98
83) Chrysene	9.108	228	79218	5.3425	ug/mL	96
87) B[b]fluoranth	9.702	252	118905m	7.8712	ug/mL	
88) B[k]fluoranth	9.716	252	29022m	1.9157	ug/mL	
89) Benz[a]pyrene	9.887	252	73588	4.7211	ug/mL	97
90) Indeno-pyrene	10.503	276	49332	3.0590	ug/mL	95
91) Dib[ah]anthr	10.509	278	12712	0.9717	ug/mL	94
92) B[ghi]perylen	10.648	276	43779	3.0987	ug/mL	99

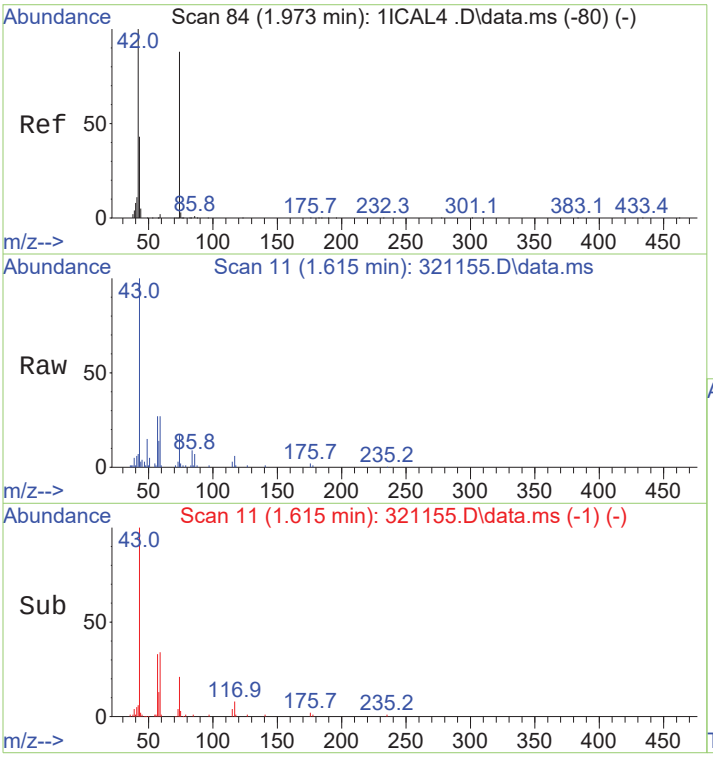
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321155.D Vial: 8
Acq On : 10 Sep 2019 20:43 Operator: JJY
Sample : 164275,321155, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 20:56:21 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

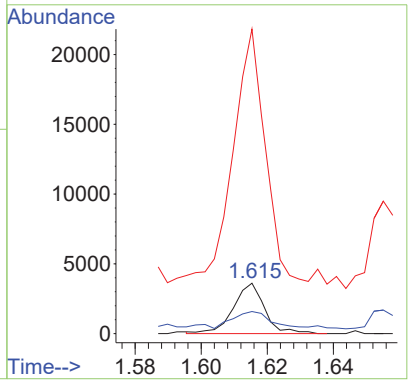


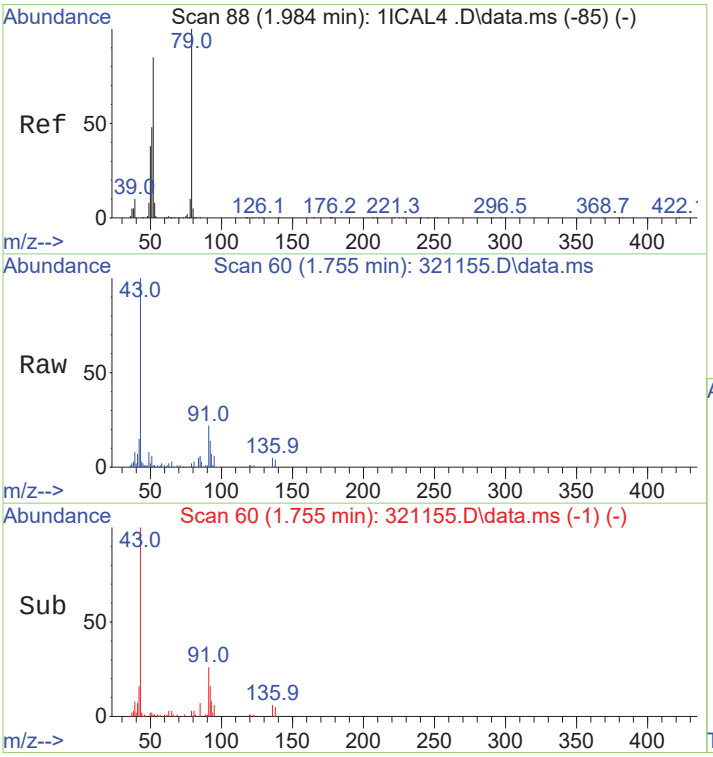


#2
Ntrsdimeth
Concen: 1.08 ug/mL
RT: 1.615 min Scan# 11
Delta R.T. -0.023 min
Lab File: 321155.D
Acq: 10 Sep 2019 20:43

Tgt Ion: 74 Resp: 2364

Ion	Ratio	Lower	Upper
74	100		
42	31.8	54.2	114.2#
43	505.9	5.5	65.5#

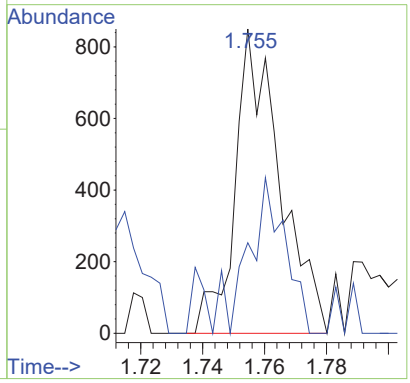


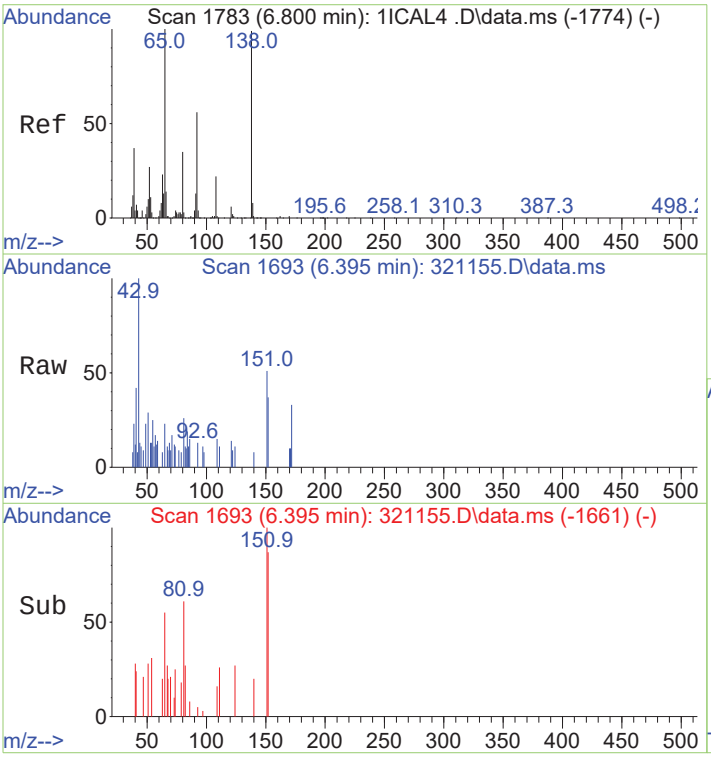


#3
Pyridine
Concen: 0.67 ug/mL
RT: 1.755 min Scan# 60
Delta R.T. 0.108 min
Lab File: 321155.D
Acq: 10 Sep 2019 20:43

Tgt Ion: 79 Resp: 861

Ion	Ratio	Lower	Upper
79	100		
52	29.8	46.7	106.7#

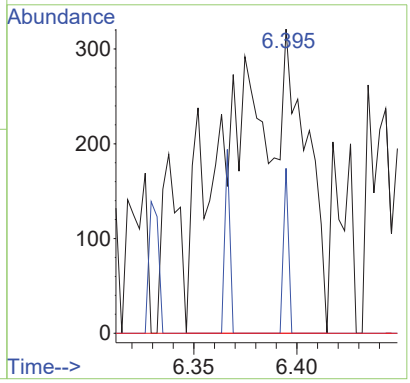


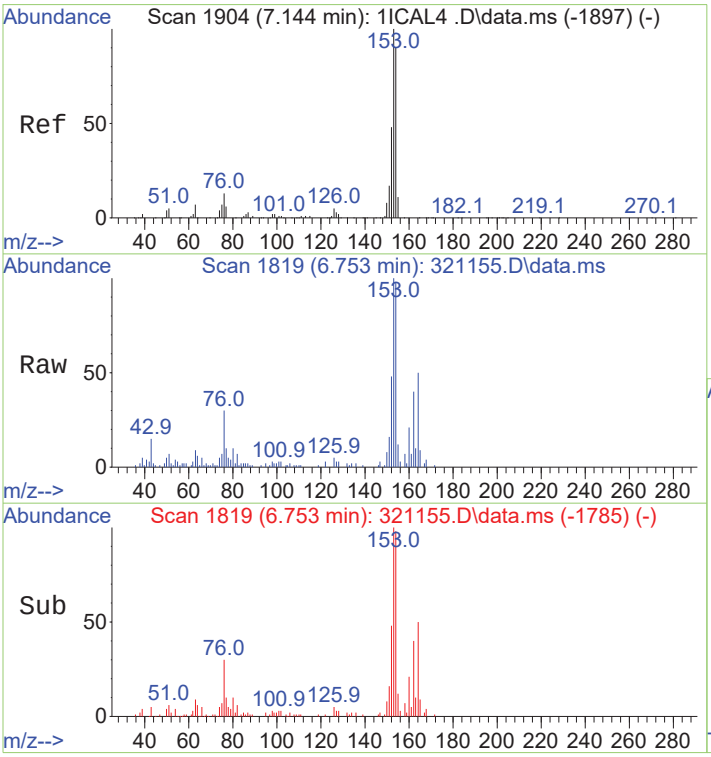


#46
2Nitroaniline
Concen: 0.69 ug/mL
RT: 6.395 min Scan# 1693
Delta R.T. -0.008 min
Lab File: 321155.D
Acq: 10 Sep 2019 20:43

Tgt Ion: 65 Resp: 807

Ion	Ratio	Lower	Upper
65	100		
92	54.2	35.4	95.4
138	0.0	80.4	140.4#

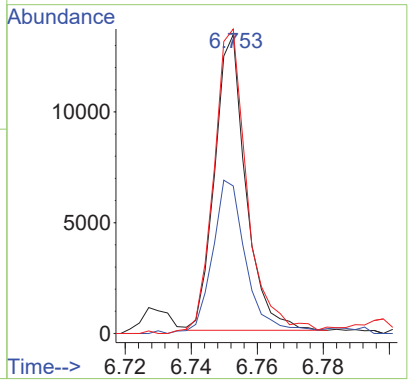


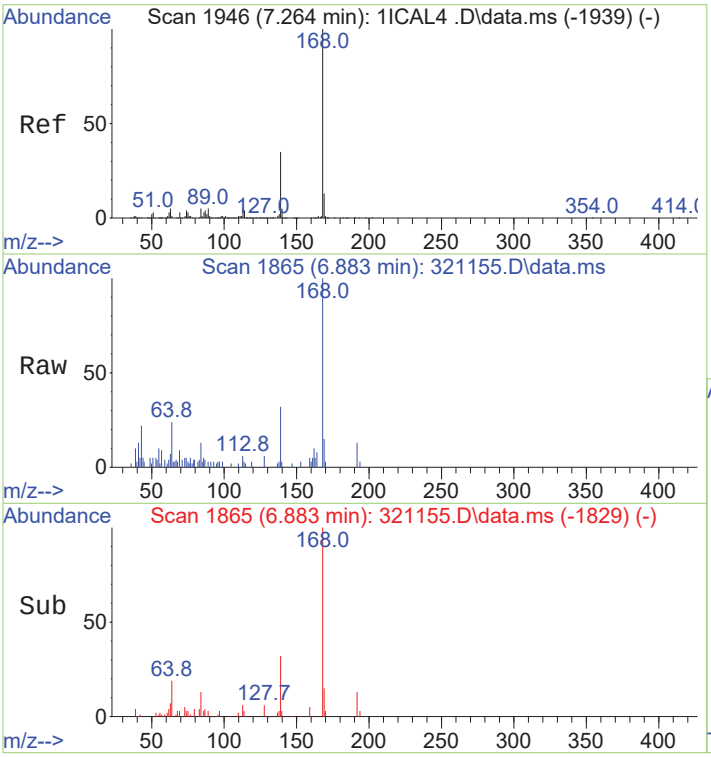


#50
Acenaphthene
Concen: 0.63 ug/mL
RT: 6.753 min Scan# 1819
Delta R.T. -0.003 min
Lab File: 321155.D
Acq: 10 Sep 2019 20:43

Tgt Ion:154 Resp: 8747

Ion	Ratio	Lower	Upper
154	100		
152	48.9	22.5	82.5
153	101.6	76.8	136.8

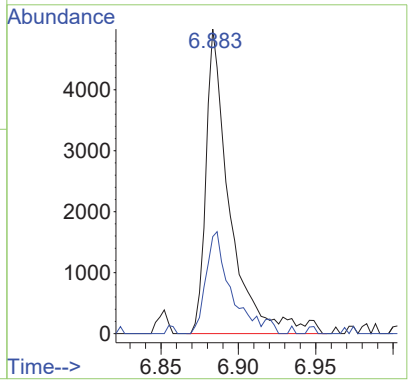


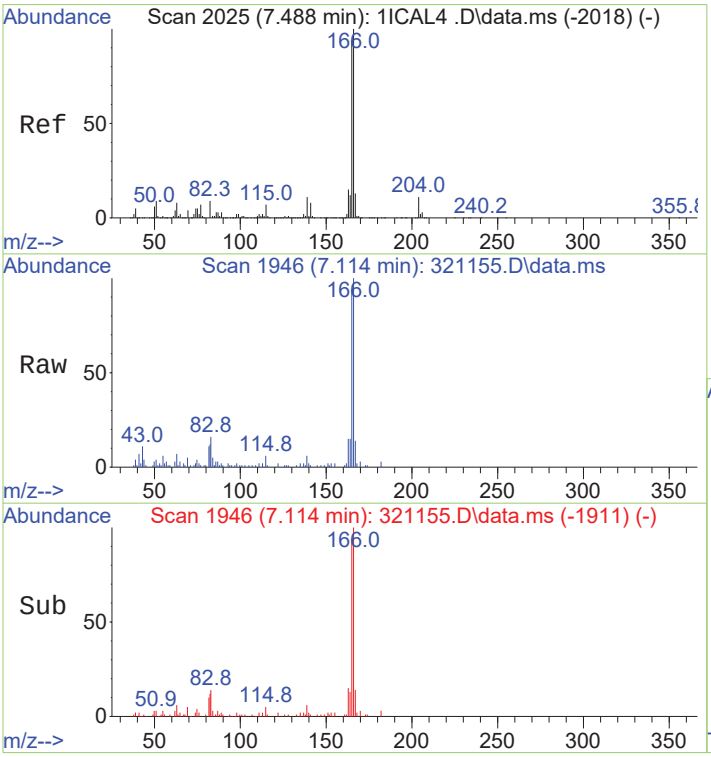


#53
Dibenzofuran
Concen: 0.26 ug/mL
RT: 6.883 min Scan# 1865
Delta R.T. 0.003 min
Lab File: 321155.D
Acq: 10 Sep 2019 20:43

Tgt Ion:168 Resp: 5343

Ion	Ratio	Lower	Upper
168	100		
139	34.9	7.3	67.3

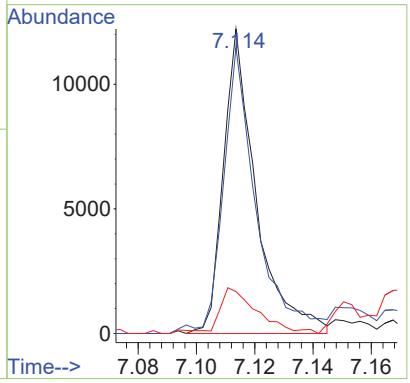


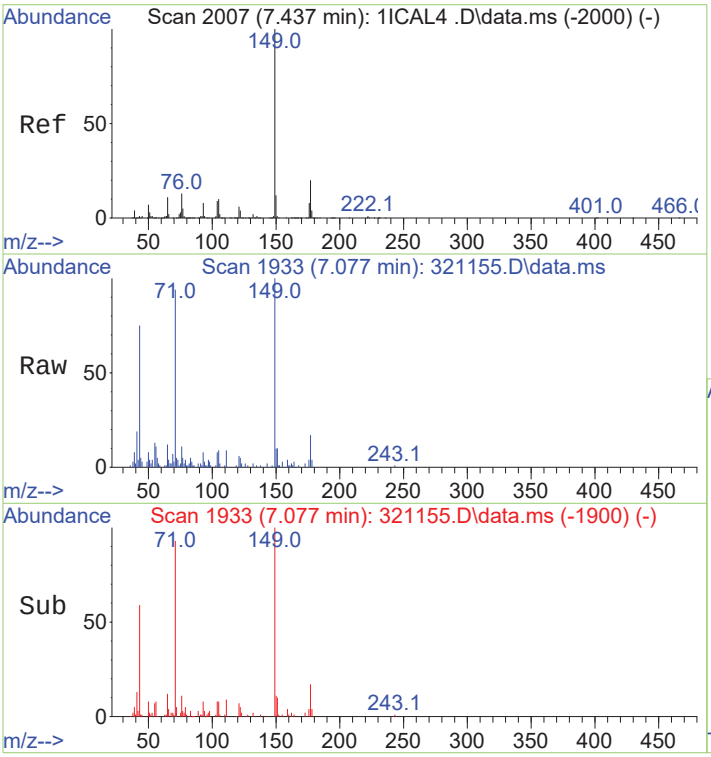


#58
Fluorene
Concen: 0.58 ug/mL
RT: 7.114 min Scan# 1946
Delta R.T. 0.000 min
Lab File: 321155.D
Acq: 10 Sep 2019 20:43

Tgt Ion:166 Resp: 9554

Ion	Ratio	Lower	Upper
166	100		
165	91.1	62.6	122.6
167	12.8	0.0	43.3

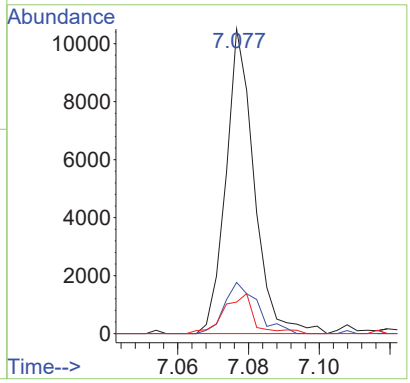


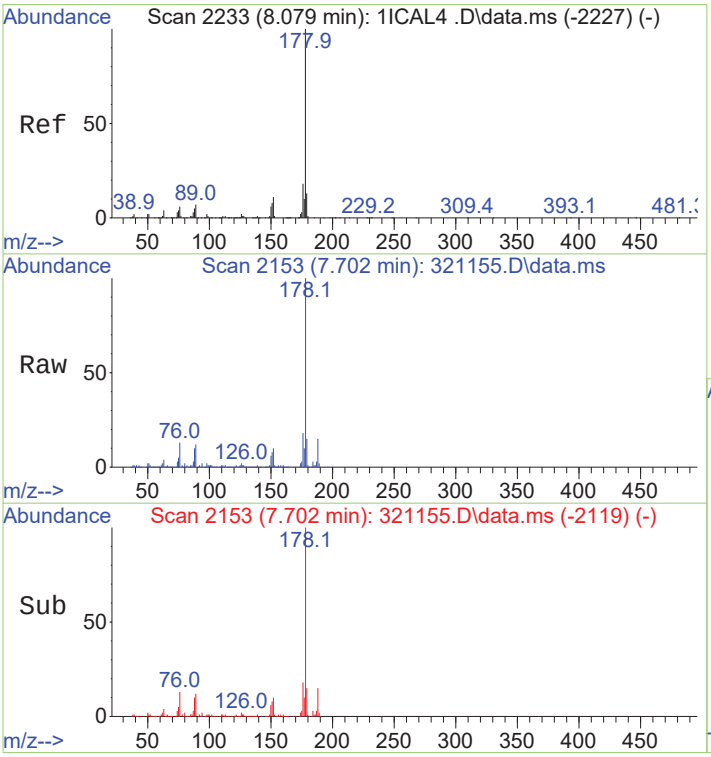


#60
Diethylphthal
Concen: 0.34 ug/mL
RT: 7.077 min Scan# 1933
Delta R.T. -0.006 min
Lab File: 321155.D
Acq: 10 Sep 2019 20:43

Tgt Ion:149 Resp: 5816

Ion	Ratio	Lower	Upper
149	100		
177	16.8	0.0	49.3
150	10.4	0.0	41.9

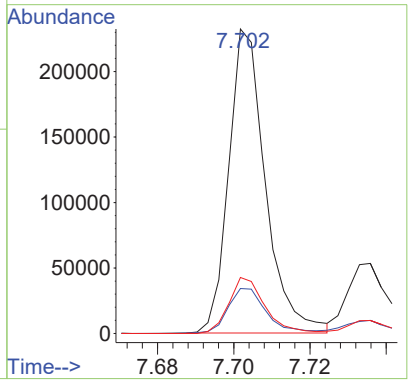


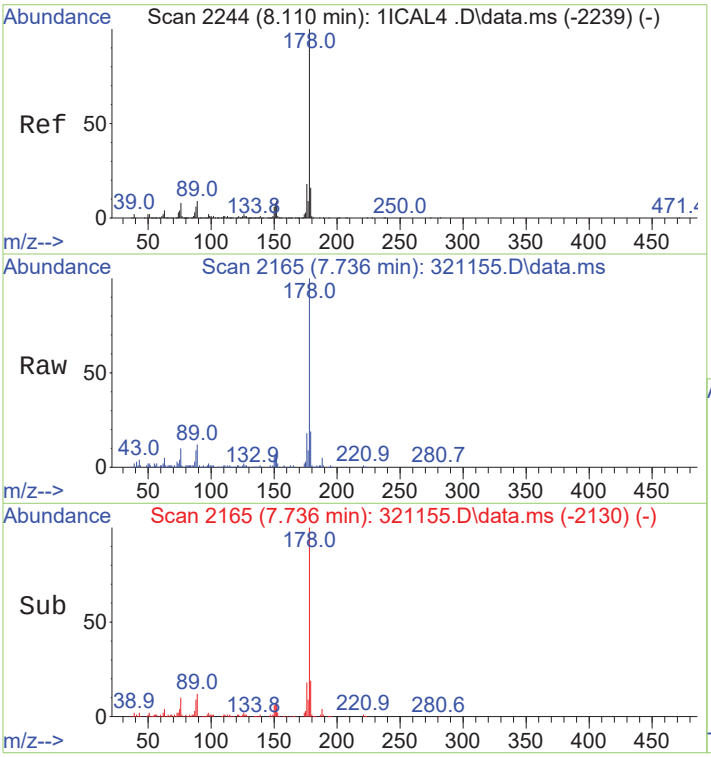


#70
Phenanthrene
Concen: 6.92 ug/mL
RT: 7.702 min Scan# 2153
Delta R.T. -0.003 min
Lab File: 321155.D
Acq: 10 Sep 2019 20:43

Tgt Ion:178 Resp: 155489

Ion	Ratio	Lower	Upper
178	100		
179	14.7	0.0	45.3
176	18.4	0.0	48.4

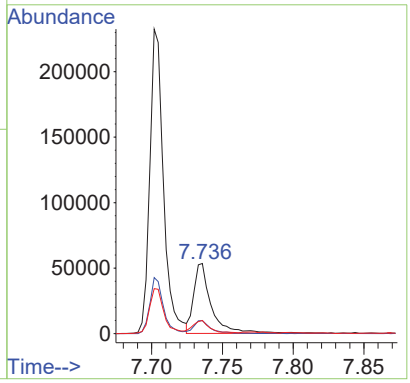


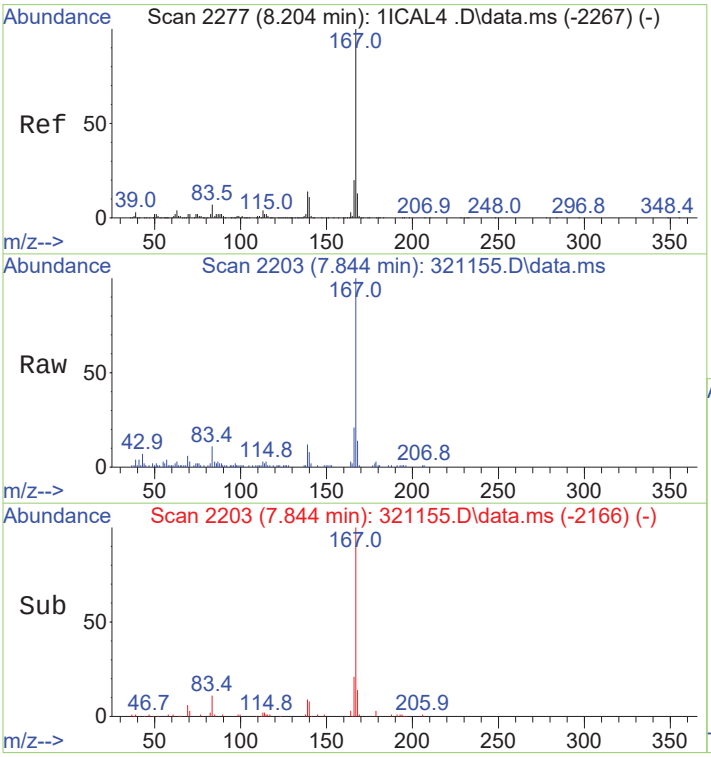


#71
Anthracene
Concen: 2.01 ug/mL
RT: 7.736 min Scan# 2165
Delta R.T. 0.000 min
Lab File: 321155.D
Acq: 10 Sep 2019 20:43

Tgt Ion:178 Resp: 46430

Ion	Ratio	Lower	Upper
178	100		
176	18.3	0.0	47.6
179	18.4	0.0	45.1

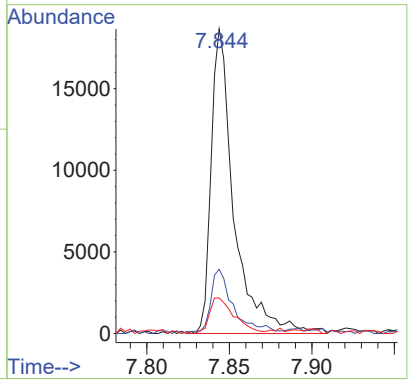


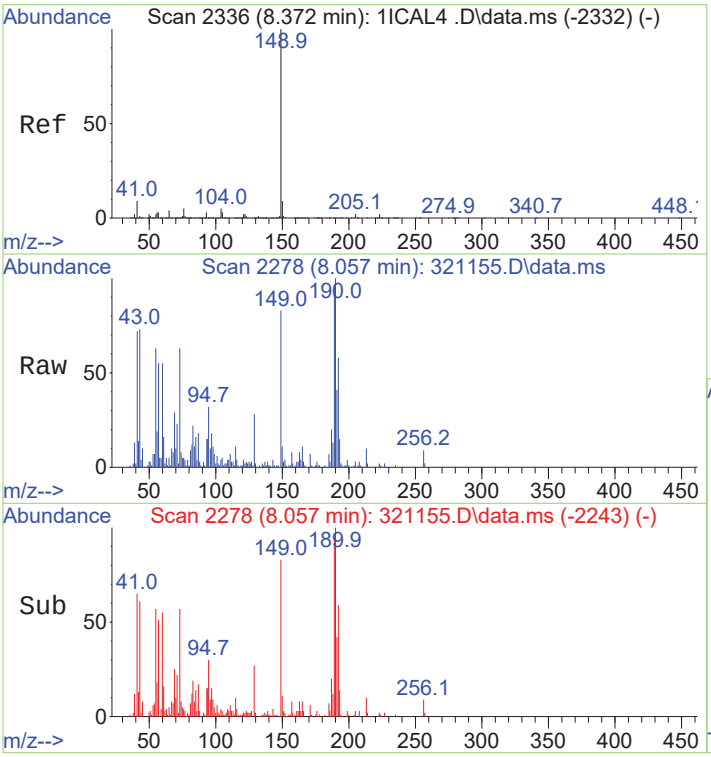


#72
Carbazole
Concen: 0.81 ug/mL
RT: 7.844 min Scan# 2203
Delta R.T. 0.006 min
Lab File: 321155.D
Acq: 10 Sep 2019 20:43

Tgt Ion:167 Resp: 17979

Ion	Ratio	Lower	Upper
167	100		
166	20.5	0.0	49.3
139	11.7	0.0	42.6

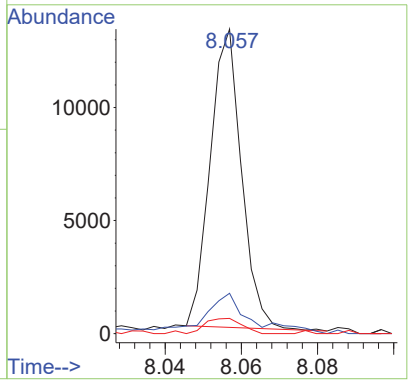


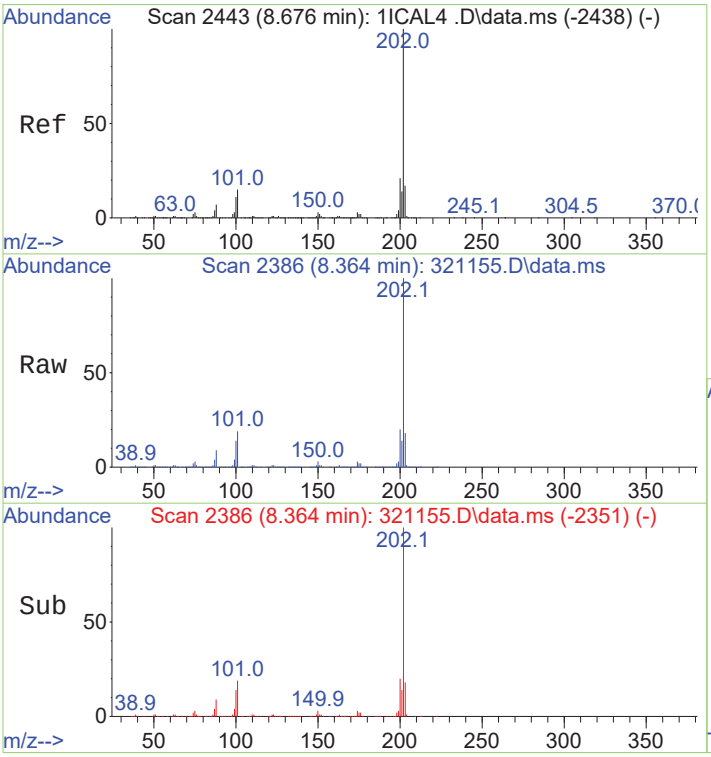


#73
Dinbtylphthal
Concen: 0.11 ug/mL
RT: 8.057 min Scan# 2278
Delta R.T. 0.000 min
Lab File: 321155.D
Acq: 10 Sep 2019 20:43

Tgt Ion:149 Resp: 7498

Ion	Ratio	Lower	Upper
149	100		
150	13.4	0.0	39.0
104	5.0	0.0	34.6

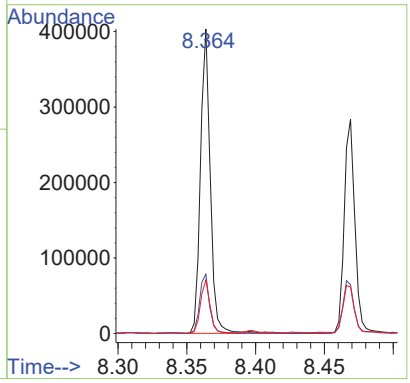


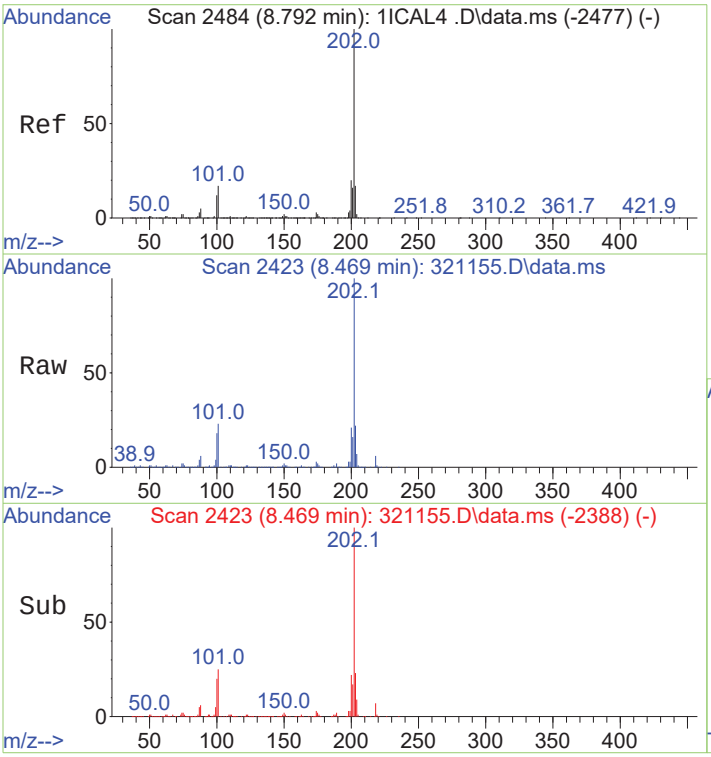


#74
Fluoranthene
Concen: 12.43 ug/mL
RT: 8.364 min Scan# 2386
Delta R.T. 0.000 min
Lab File: 321155.D
Acq: 10 Sep 2019 20:43

Tgt Ion:202 Resp: 200545

Ion	Ratio	Lower	Upper
202	100		
101	19.4	0.0	50.7
203	17.4	0.0	47.3

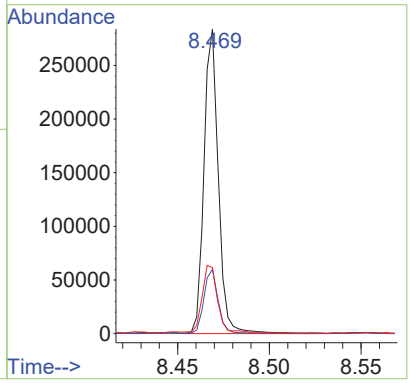


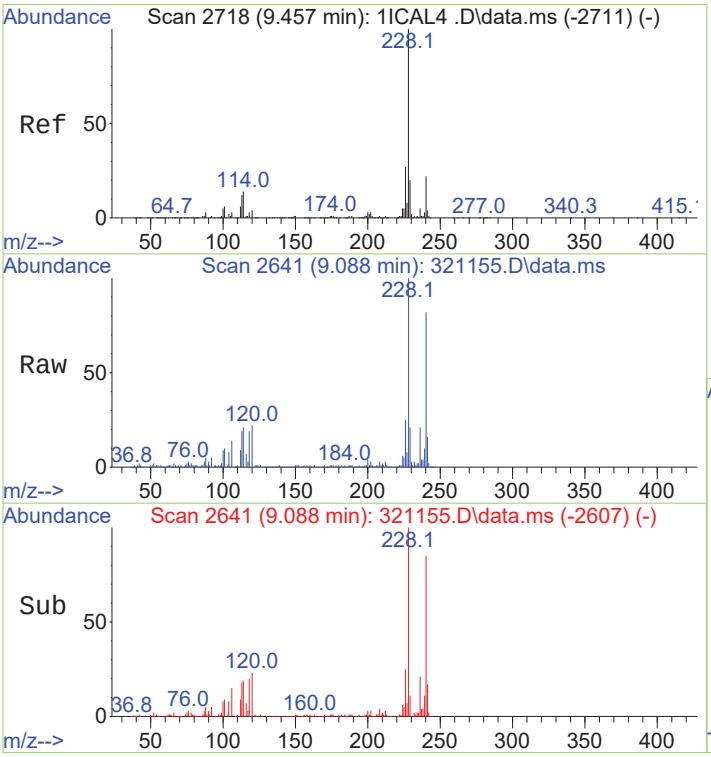


#77
Pyrene
Concen: 8.84 ug/mL
RT: 8.469 min Scan# 2423
Delta R.T. 0.000 min
Lab File: 321155.D
Acq: 10 Sep 2019 20:43

Tgt Ion:202 Resp: 154439

Ion	Ratio	Lower	Upper
202	100		
200	21.1	0.0	50.1
203	21.5	0.0	46.9

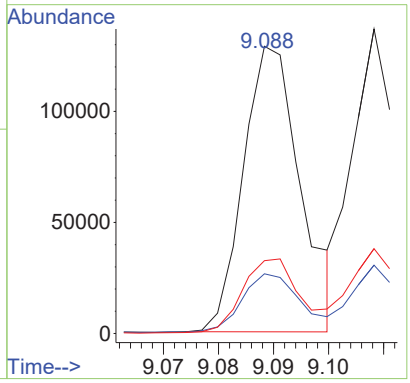


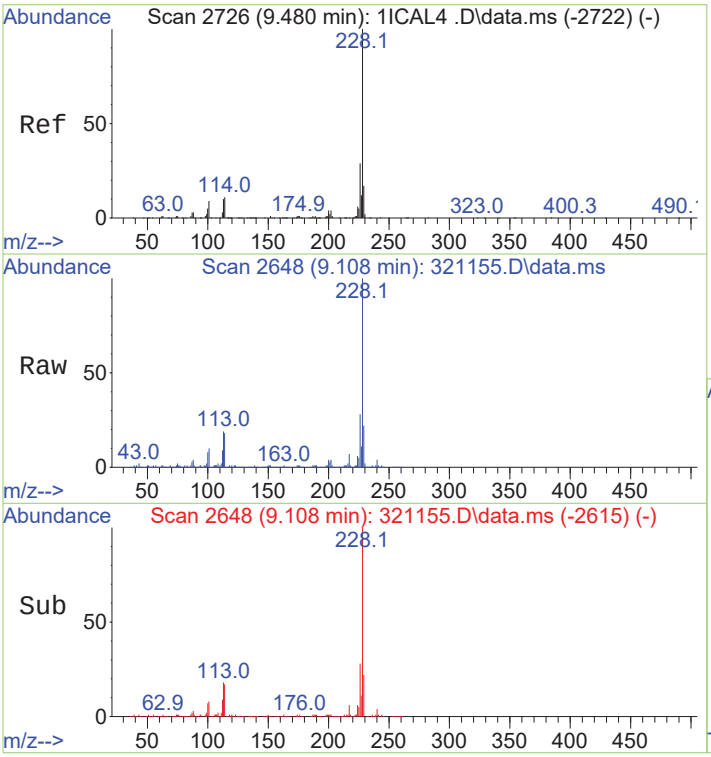


#82
B[a]anthracen
Concen: 6.49 ug/mL
RT: 9.088 min Scan# 2641
Delta R.T. -0.003 min
Lab File: 321155.D
Acq: 10 Sep 2019 20:43

Tgt Ion:228 Resp: 93010

Ion	Ratio	Lower	Upper
228	100		
229	20.4	0.0	49.3
226	25.1	0.0	56.2

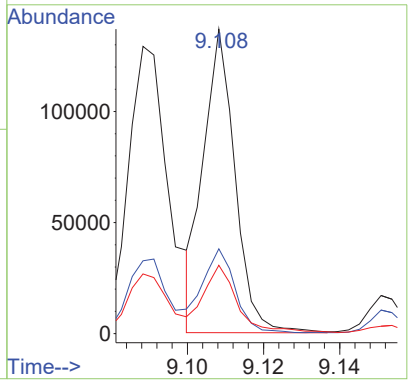


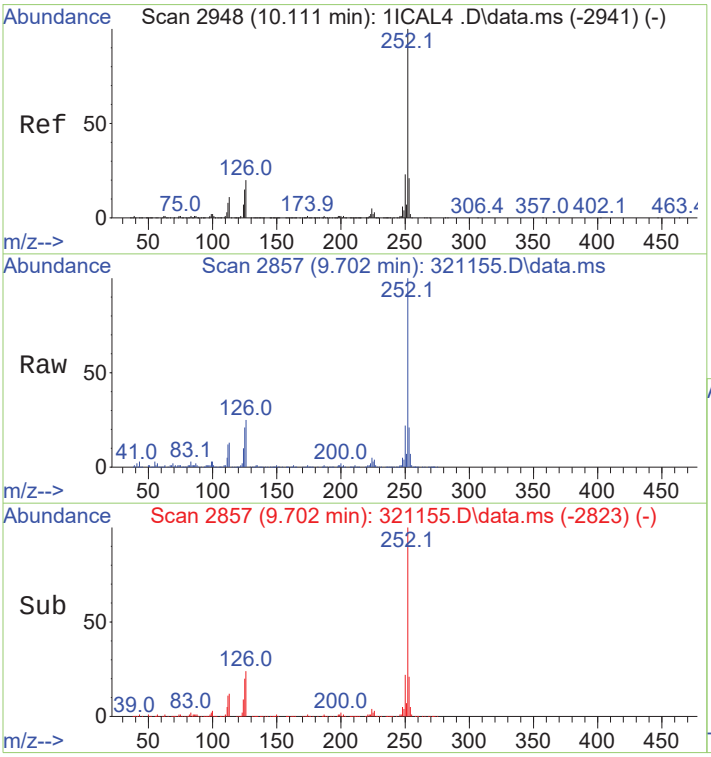


#83
Chrysene
Concen: 5.34 ug/mL
RT: 9.108 min Scan# 2648
Delta R.T. -0.006 min
Lab File: 321155.D
Acq: 10 Sep 2019 20:43

Tgt Ion:228 Resp: 79218

Ion	Ratio	Lower	Upper
228	100		
226	27.7	0.0	59.0
229	21.9	0.0	49.4

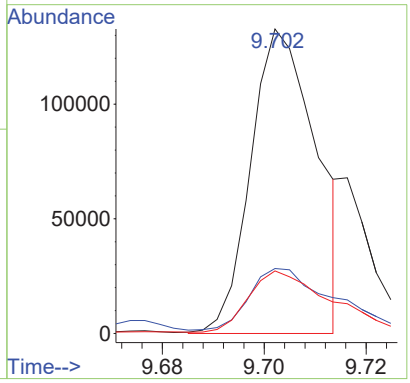


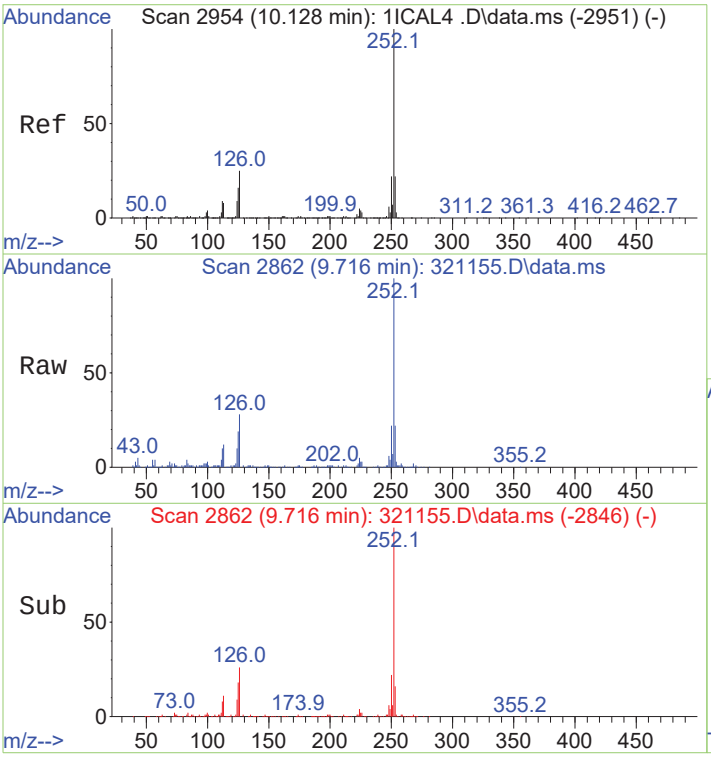


#87
B[b]fluoranth
Concen: 7.87 ug/mL m
RT: 9.702 min Scan# 2857
Delta R.T. -0.003 min
Lab File: 321155.D
Acq: 10 Sep 2019 20:43

Tgt Ion:252 Resp: 118905

Ion	Ratio	Lower	Upper
252	100		
253	21.3	0.0	51.9
125	20.6	0.0	50.0

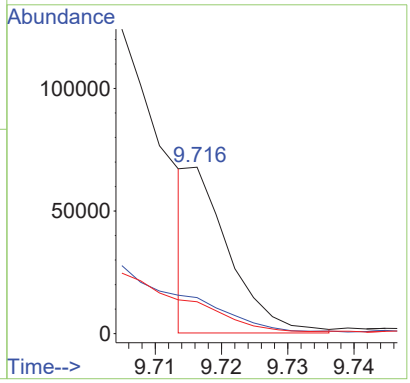


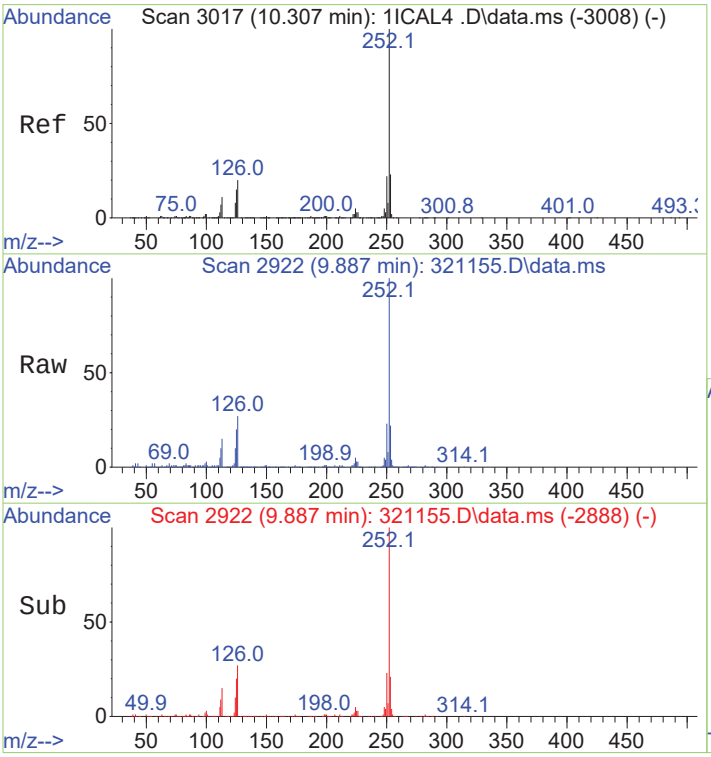


#88
B[k]fluoranth
Concen: 1.92 ug/mL m
RT: 9.716 min Scan# 2862
Delta R.T. -0.006 min
Lab File: 321155.D
Acq: 10 Sep 2019 20:43

Tgt Ion:252 Resp: 29022

Ion	Ratio	Lower	Upper
252	100		
253	21.6	0.0	52.0
125	19.1	0.0	50.2

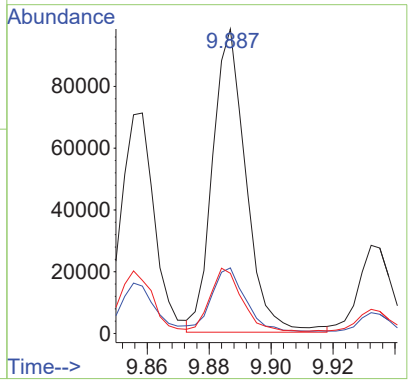


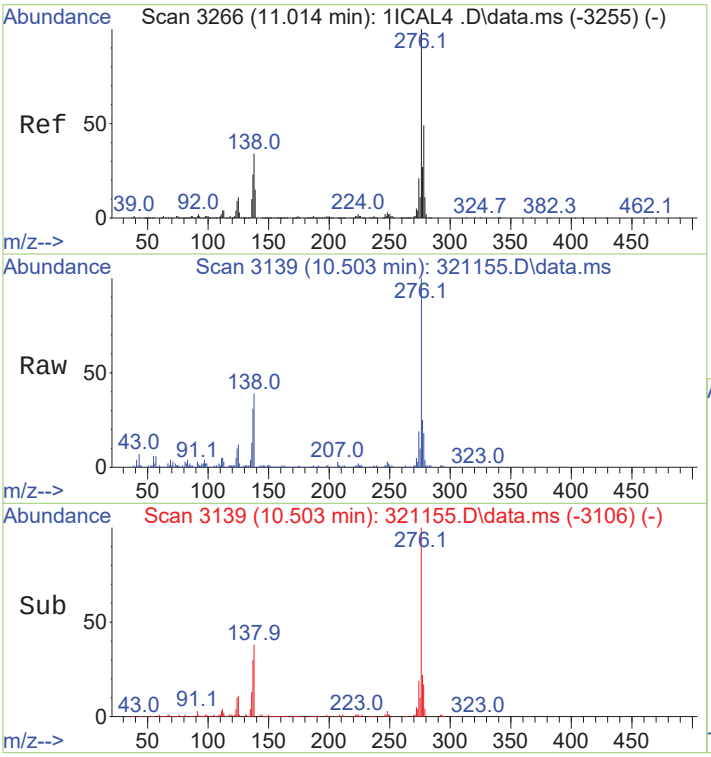


#89
Benz[a]pyrene
Concen: 4.72 ug/mL
RT: 9.887 min Scan# 2922
Delta R.T. -0.003 min
Lab File: 321155.D
Acq: 10 Sep 2019 20:43

Tgt Ion:252 Resp: 73588

Ion	Ratio	Lower	Upper
252	100		
253	21.2	0.0	51.7
125	19.4	0.0	51.4

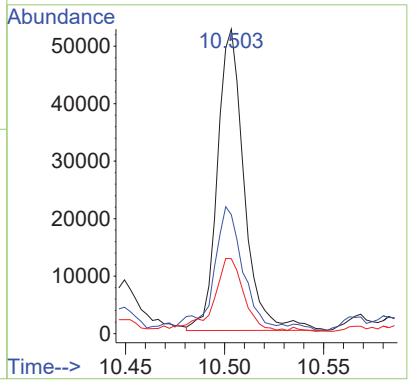


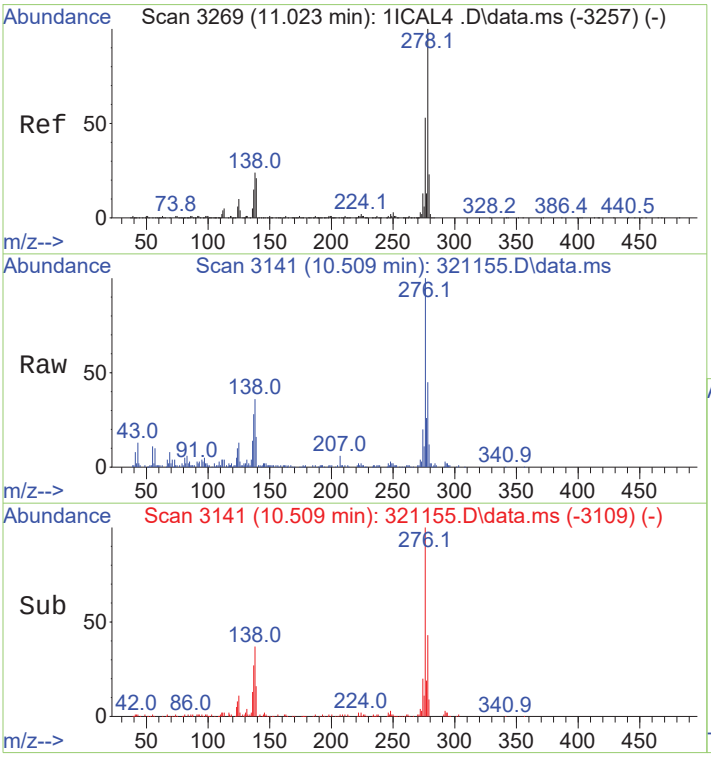


#90
Indeno-pyrene
Concen: 3.06 ug/mL
RT: 10.503 min Scan# 3139
Delta R.T. -0.006 min
Lab File: 321155.D
Acq: 10 Sep 2019 20:43

Tgt Ion:276 Resp: 49332

Ion	Ratio	Lower	Upper
276	100		
138	38.4	13.2	73.2
277	24.1	0.0	54.7

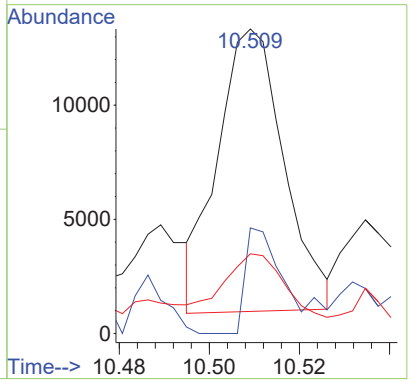


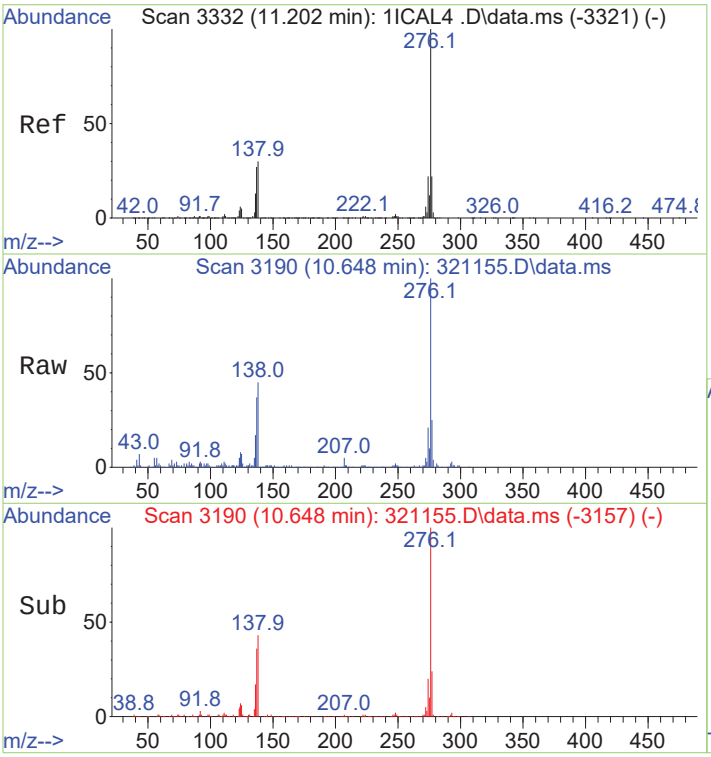


#91
Dib[ah]anthr
Concen: 0.97 ug/mL
RT: 10.509 min Scan# 3141
Delta R.T. -0.008 min
Lab File: 321155.D
Acq: 10 Sep 2019 20:43

Tgt Ion:278 Resp: 12712

Ion	Ratio	Lower	Upper
278	100		
139	39.5	4.7	64.7
279	25.4	0.0	54.0

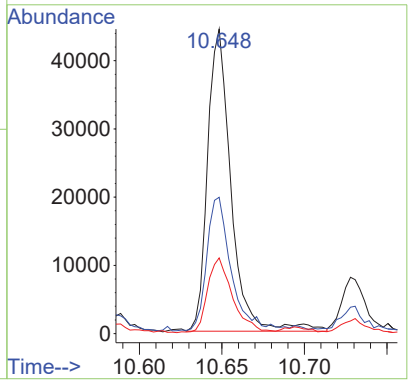


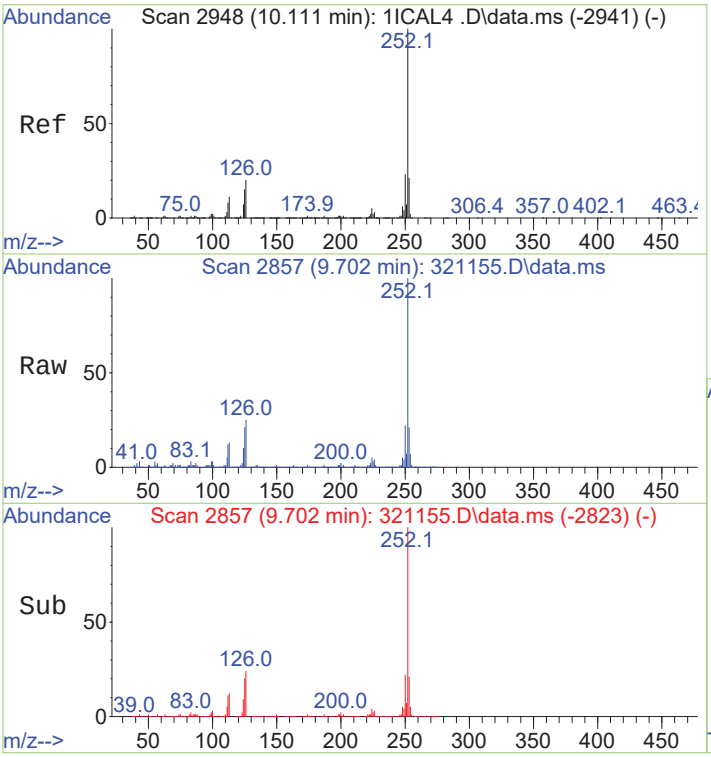


#92
B[ghi]perylen
Concen: 3.10 ug/mL
RT: 10.648 min Scan# 3190
Delta R.T. -0.006 min
Lab File: 321155.D
Acq: 10 Sep 2019 20:43

Tgt Ion:276 Resp: 43779

Ion	Ratio	Lower	Upper
276	100		
138	44.1	15.0	75.0
277	24.6	0.0	54.0

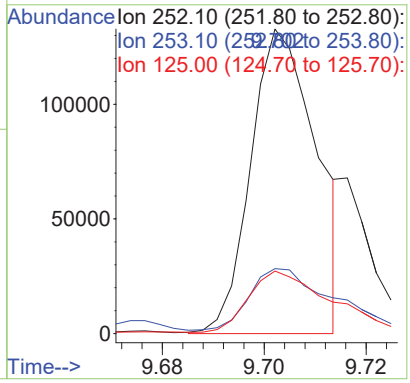




#87
B[b]fluoranth
Concen: 7.87 ug/mL m
RT: 9.702 min Scan# 2857
Delta R.T. -0.003 min
Lab File: 321155.D
Acq: 10 Sep 2019 20:43

Tgt Ion:252 Resp: 118905

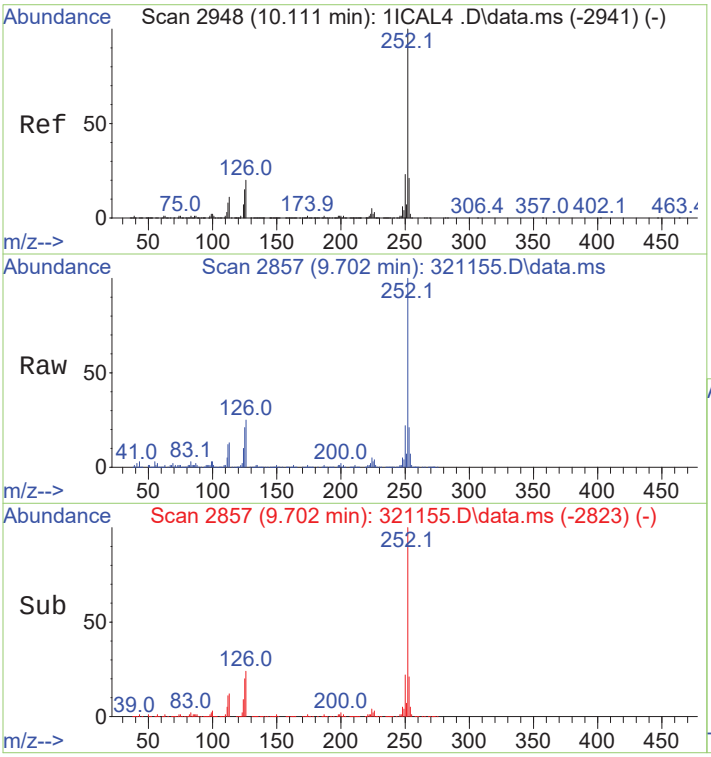
Ion	Ratio	Lower	Upper
252	100		
253	21.3	0.0	51.9
125	20.6	0.0	50.0



After Manual Integration

Reason#3 JJY 9/16/19

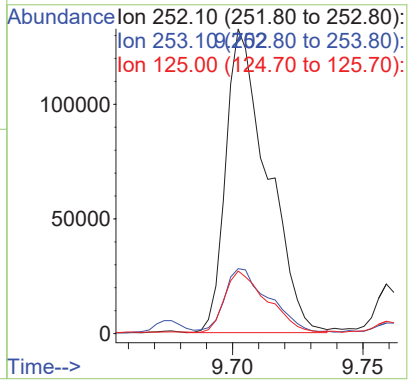
AJZ 09/19/2019



#87
B[b]fluoranth
Concen: 9.74 ug/mL
RT: 9.702 min Scan# 2857
Delta R.T. -0.003 min
Lab File: 321155.D
Acq: 10 Sep 2019 20:43

Tgt Ion:252 Resp: 147105

Ion	Ratio	Lower	Upper
252	100		
253	20.6	0.0	51.9
125	20.1	0.0	50.0

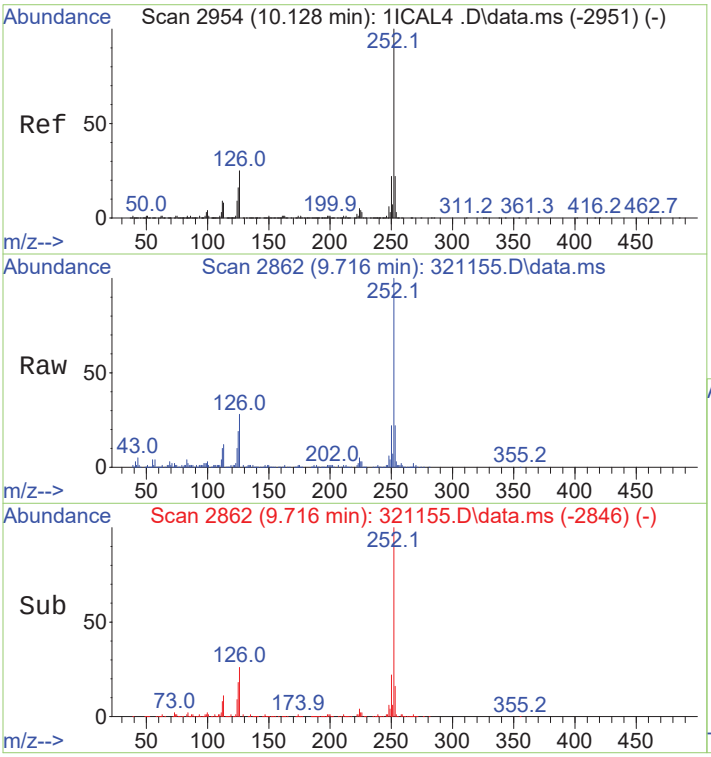


Before Manual Integration

Reason#3

JJY
9/16/19

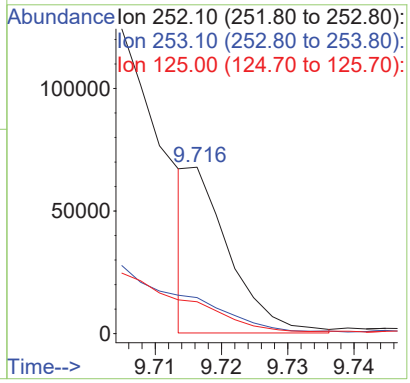
AJZ
09/19/2019



#88
B[k]fluoranth
Concen: 1.92 ug/mL m
RT: 9.716 min Scan# 2862
Delta R.T. -0.006 min
Lab File: 321155.D
Acq: 10 Sep 2019 20:43

Tgt Ion:252 Resp: 29022

Ion	Ratio	Lower	Upper
252	100		
253	21.6	0.0	52.0
125	19.1	0.0	50.2

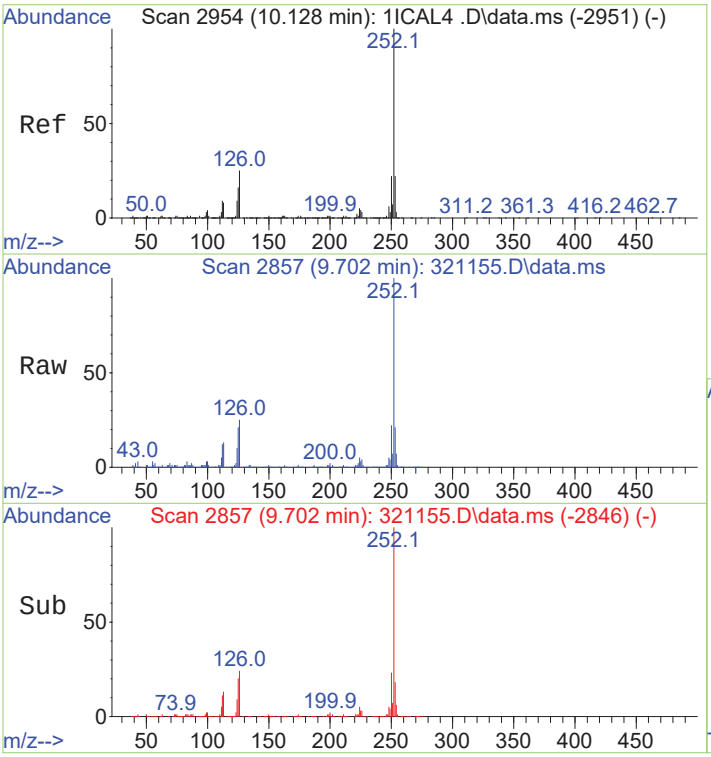


After Manual Integration

Reason#3

JJY
9/16/19

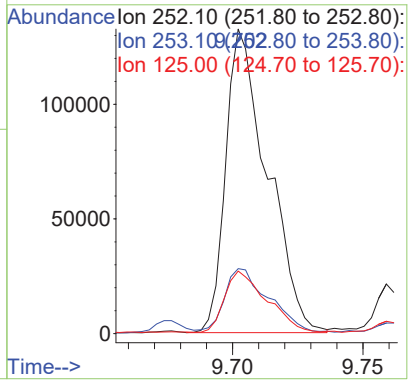
AJZ
09/19/2019



#88
B[k]fluoranth
Concen: 9.71 ug/mL
RT: 9.702 min Scan# 2857
Delta R.T. -0.020 min
Lab File: 321155.D
Acq: 10 Sep 2019 20:43

Tgt Ion:252 Resp: 147105

Ion	Ratio	Lower	Upper
252	100		
253	20.6	0.0	52.0
125	20.1	0.0	50.2



Before Manual Integration

Reason#3

JJY
9/16/19

AJZ
09/19/2019

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321155.D Vial: 8
Acq On : 10 Sep 2019 20:43 Operator: JJY
Sample : 164275,321155, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:24 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

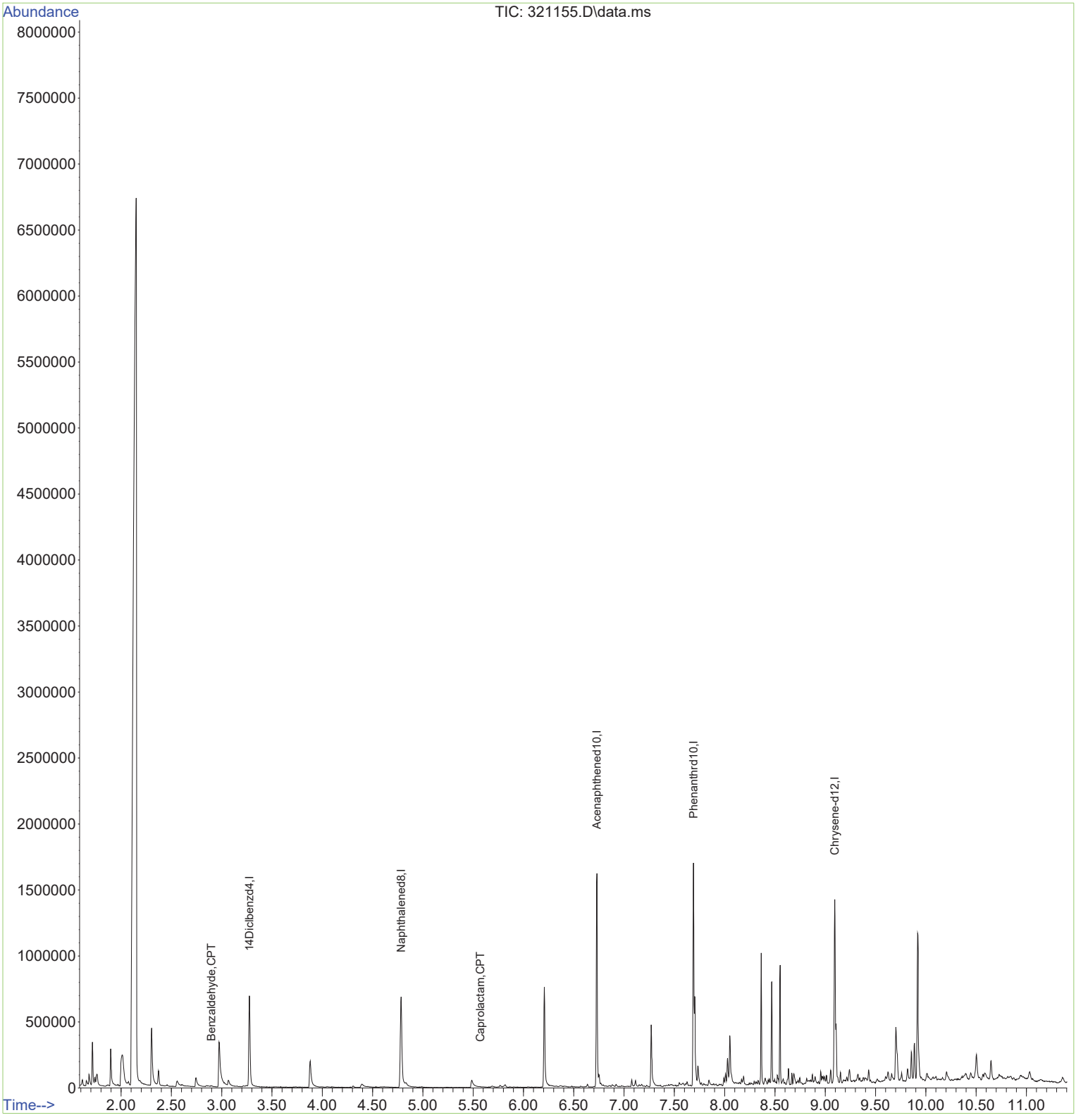
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	107722	20.00	ug/mL	0.00
3) Naphthalened8	4.784	136	410127	20.00	ug/mL	0.00
5) Acenaphthened10	6.730	164	264851	20.00	ug/mL	0.00
7) Phenanthrd10	7.690	188	427637	20.00	ug/mL	0.00
9) Chrysene-d12	9.094	240	232792	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	2.897	77	2205	0.9622	ug/mL#	1
4) Caprolactam	5.571	55	2387	1.4927	ug/mL#	20

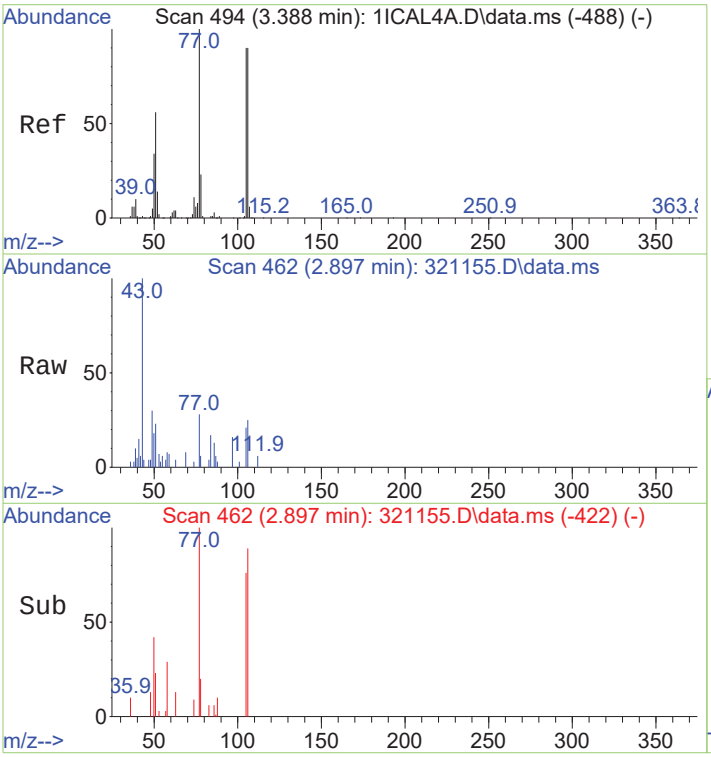
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321155.D Vial: 8
Acq On : 10 Sep 2019 20:43 Operator: JJY
Sample : 164275,321155, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:24 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

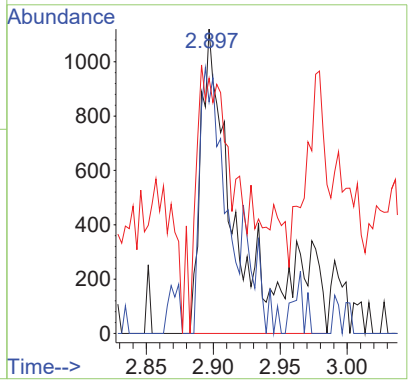


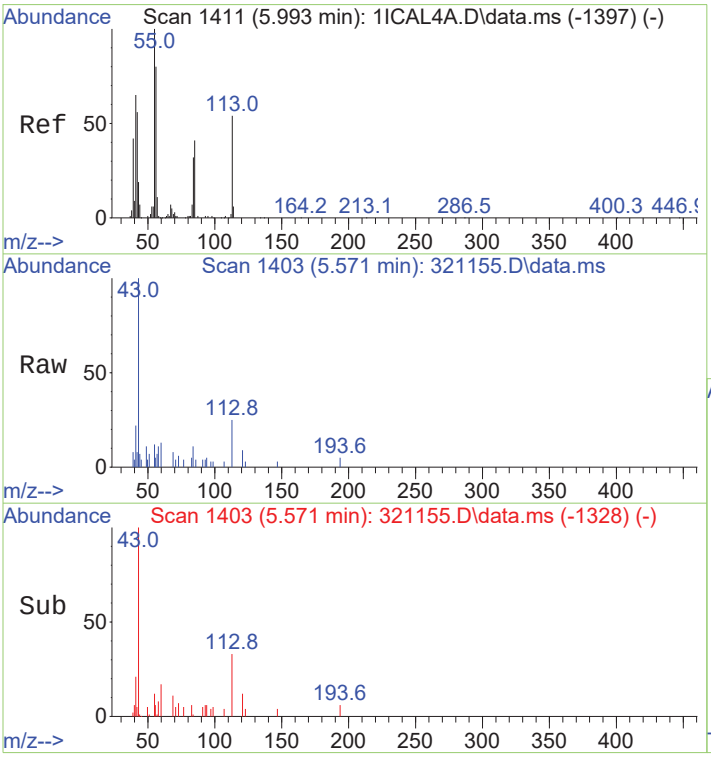


#2
Benzaldehyde
Concen: 0.96 ug/mL
RT: 2.897 min Scan# 462
Delta R.T. 0.014 min
Lab File: 321155.D
Acq: 10 Sep 2019 20:43

Tgt Ion: 77 Resp: 2205

Ion	Ratio	Lower	Upper
77	100		
105	68.5	67.4	127.4
51	220.1	23.2	83.2#

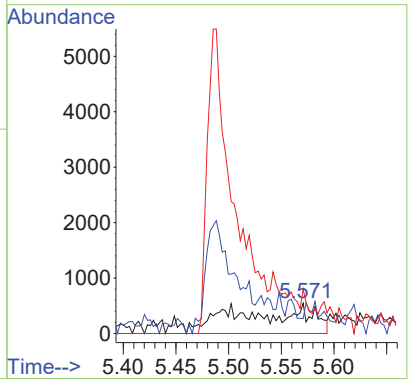




#4
Caprolactam
Concen: 1.49 ug/mL
RT: 5.571 min Scan# 1403
Delta R.T. 0.114 min
Lab File: 321155.D
Acq: 10 Sep 2019 20:43

Tgt Ion: 55 Resp: 2387

Ion	Ratio	Lower	Upper
55	100		
42	26.5	24.6	84.6
113	143.8	26.7	86.7#



Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321155.D
Acq On : 10 Sep 2019 20:43
Operator : JJY
Sample : 164275,321155,
Misc : 500ul+5ul S4142A
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 1 Methacrylamide Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.715	6.44 ug/mL	197951	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Methacrylamide	85	C4H7NO	000079-39-0	45
2	Thiazole	85	C3H3NS	000288-47-1	35
3	Monomethylnitrosamine	60	CH4N2O	000000-00-0	9
4	2-Propenal, 2-methyl-	70	C4H6O	000078-85-3	9
5	2(3H)-Furanone, 5-ethyldihydro-	114	C6H10O2	000695-06-7	9

****

Peak Number 2 3-Penten-2-one, 4-methyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.897	6.92 ug/mL	212545	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
2	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
3	2-Pentene, 3,4-dimethyl-, (E)-	98	C7H14	004914-92-5	90
4	2-Pentene, 3,4-dimethyl-, (Z)-	98	C7H14	004914-91-4	86
5	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	86

****

Peak Number 3 Hydroperoxide, 1-methylethyl Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.013	15.77 ug/mL	484366	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hydroperoxide, 1-methylethyl	76	C3H8O2	003031-75-2	42
2	Acetic acid, 1-methylethyl ester	102	C5H10O2	000108-21-4	17
3	2-Pentanone, 5-(acetyloxy)-	144	C7H12O3	005185-97-7	9
4	Butanoic acid, ethyl ester	116	C6H12O2	000105-54-4	9
5	Cyclobutylamine	71	C4H9N	002516-34-9	9

****

Peak Number 4 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.150	453.85 ug/mL	13943100	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	56
2	tert-Butyl Hydroperoxide	90	C4H10O2	000075-91-2	28
3	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	28

Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321155.D
Acq On : 10 Sep 2019 20:43
Operator : JJY
Sample : 164275,321155,
Misc : 500ul+5ul S4142A
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

4	Acetic acid, cyano-, 1,1-dimethy...	141	C7H11NO2	001116-98-9	23
5	CH2=CHCH2C(O)OCH3	100	C5H8O2	003724-55-8	10

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321157.D Vial: 9
Acq On : 10 Sep 2019 21:02 Operator: JJY
Sample : 164275,321157, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 21:15:03 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

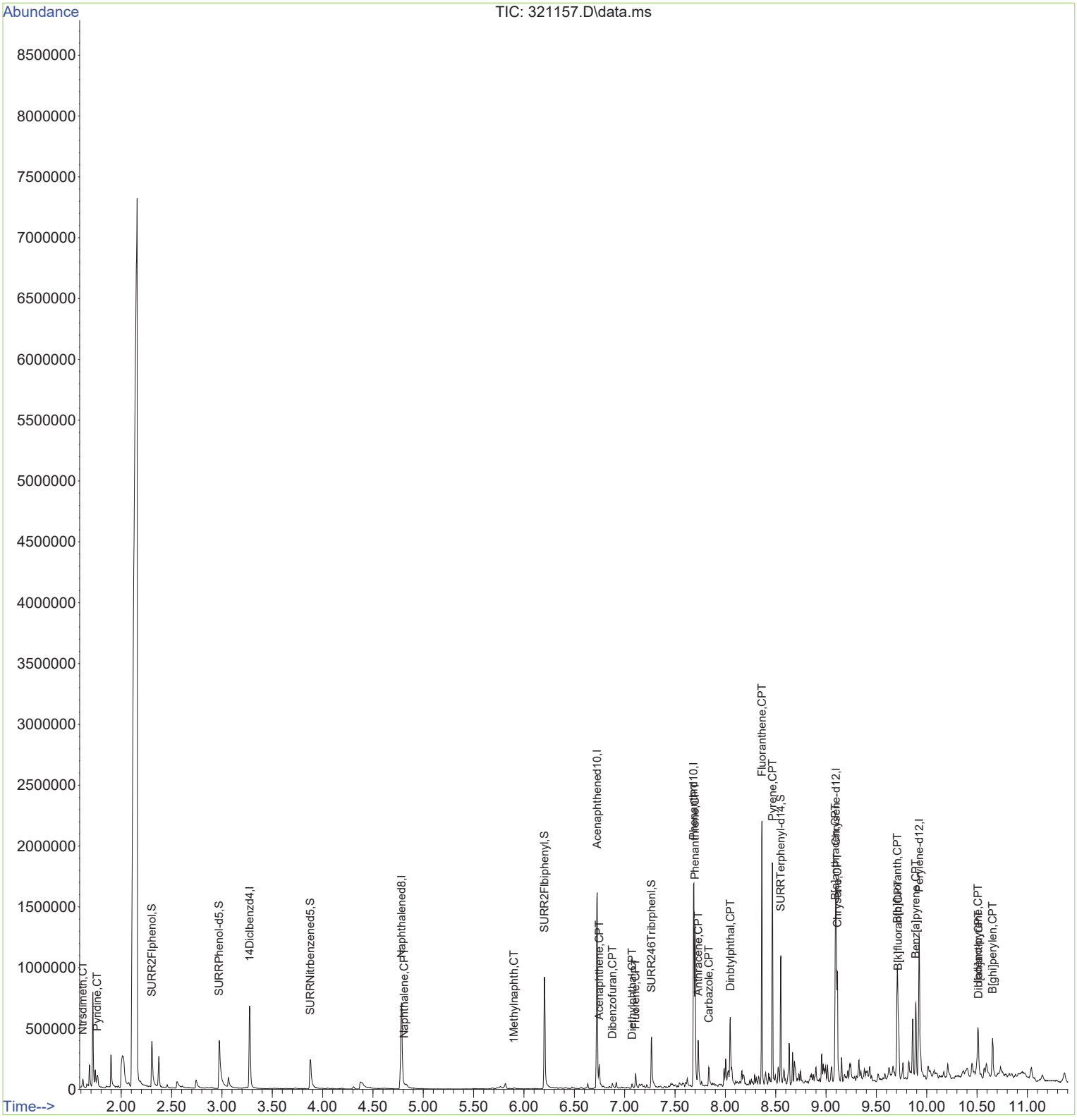
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	108552	20.00	ug/mL	0.00
21) Naphthalened8	4.783	136	423851	20.00	ug/mL	0.00
39) Acenaphthened10	6.727	164	259075	20.00	ug/mL	0.00
63) Phenanthrd10	7.684	188	434885	20.00	ug/mL	0.00
75) Chrysene-d12	9.099	240	244378	20.00	ug/mL	0.00
86) Perylene-d12	9.926	264	287460	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.306	112	117317	43.20	%REC	0.03
Spiked Amount 100.000			Recovery = 43.20%			
7) SURRPhenol-d5	2.973	99	200124	60.84	%REC	0.00
Spiked Amount 100.000			Recovery = 60.84%			
22) SURRNitrbenzened5	3.877	82	101507	70.00	%REC	0.00
Spiked Amount 100.000			Recovery = 70.00%			
44) SURR2Flbiphenyl	6.204	172	266506	77.22	%REC	0.00
Spiked Amount 100.000			Recovery = 77.22%			
62) SURR246Tribrphenl	7.267	330	35563	44.08	%REC	0.00
Spiked Amount 100.000			Recovery = 44.08%			
78) SURRTerphenyl-d14	8.551	244	176706	79.00	%REC	0.00
Spiked Amount 100.000			Recovery = 79.00%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.618	74	3943	1.4201	ug/mL#	1
3) Pyridine	1.760	79	826	0.6652	ug/mL#	50
31) Naphthalene	4.809	128	3683	0.1699	ug/mL	93
38) 1Methylnaphth	5.900	141	2141	0.1488	ug/mL	73
50) Acenaphthene	6.747	154	26056	1.8630	ug/mL	99
53) Dibenzofuran	6.877	168	12462	0.5930	ug/mL	100
58) Fluorene	7.108	166	25952	1.5641	ug/mL	90
60) Diethylphthal	7.074	149	5298	0.3054	ug/mL	96
70) Phenanthrene	7.699	178	309895	13.5107	ug/mL	99
71) Anthracene	7.730	178	109817	4.6487	ug/mL	98
72) Carbazole	7.835	167	57948	2.5435	ug/mL	99
73) Dinbtylphthal	8.051	149	6472	0.0649	ug/mL	87
74) Fluoranthene	8.364	202	459948	27.9002	ug/mL	97
77) Pyrene	8.469	202	361738	19.6992	ug/mL	96
82) B[a]anthracen	9.091	228	215063	14.2755	ug/mL	99
83) Chrysene	9.114	228	192466	12.3450	ug/mL	98
87) B[b]fluoranth	9.708	252	253006m	16.1692	ug/mL	
88) B[k]fluoranth	9.716	252	90429m	5.7626	ug/mL	
89) Benz[a]pyrene	9.892	252	167528	10.3763	ug/mL	98
90) Indeno-pyrene	10.509	276	105505	6.3160	ug/mL	98
91) Dib[ah]anthr	10.515	278	27152	2.0038	ug/mL	94
92) B[ghi]perylen	10.654	276	95549	6.5292	ug/mL	99

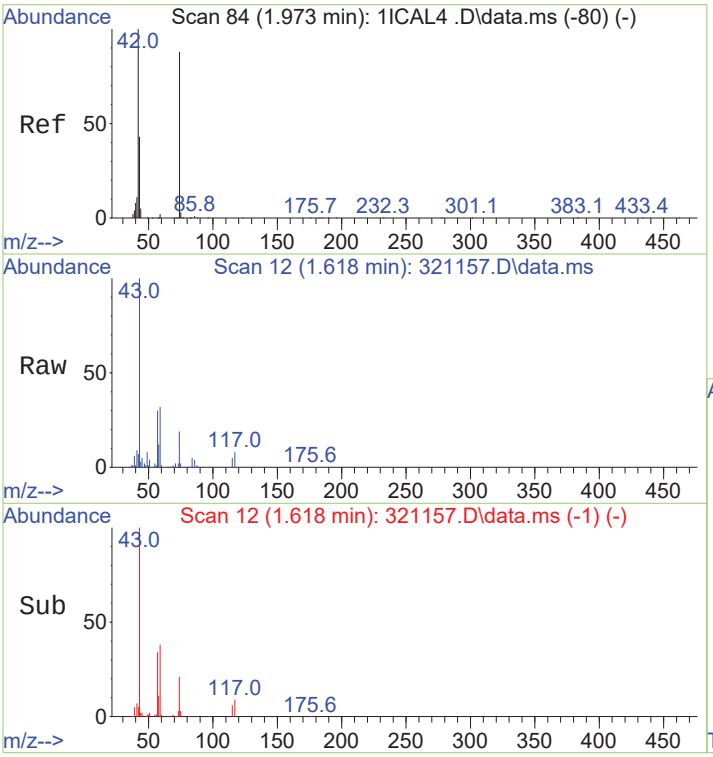
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321157.D Vial: 9
Acq On : 10 Sep 2019 21:02 Operator: JJY
Sample : 164275,321157, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 21:15:03 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

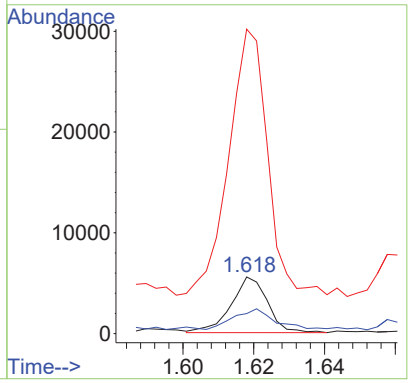


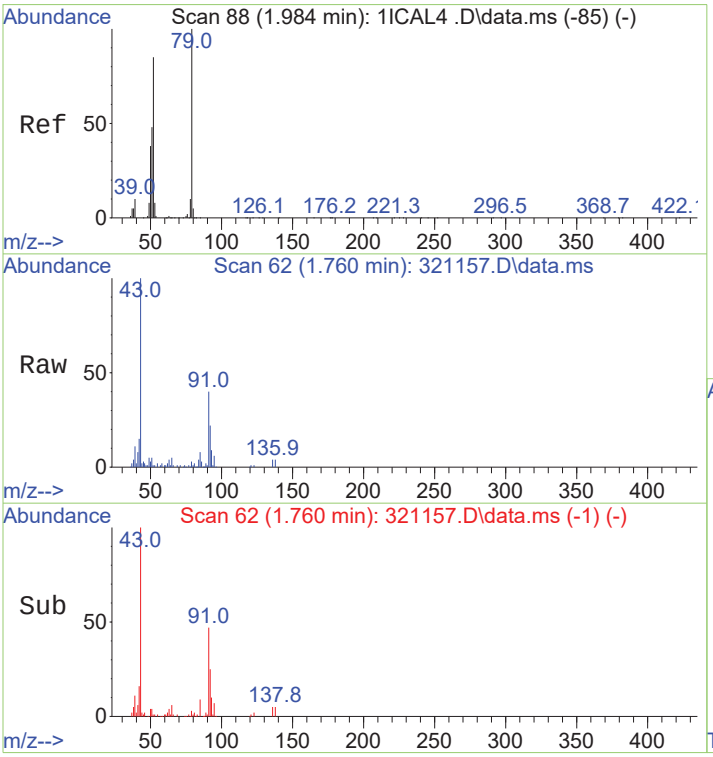


#2
Ntrsdimeth
Concen: 1.42 ug/mL
RT: 1.618 min Scan# 12
Delta R.T. -0.020 min
Lab File: 321157.D
Acq: 10 Sep 2019 21:02

Tgt Ion: 74 Resp: 3943

Ion	Ratio	Lower	Upper
74	100		
42	26.0	54.2	114.2#
43	482.6	5.5	65.5#

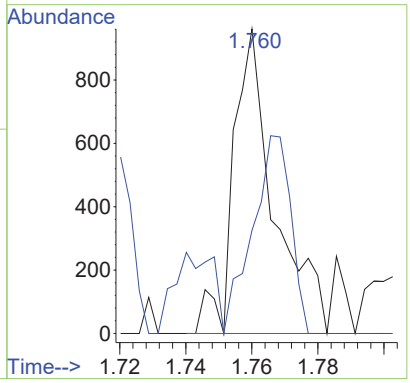


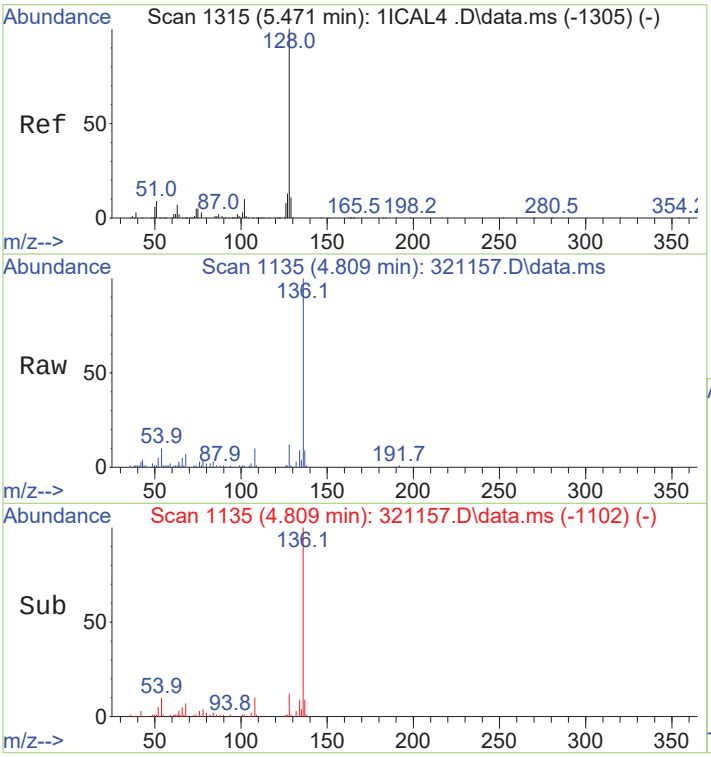


#3
Pyridine
Concen: 0.67 ug/mL
RT: 1.760 min Scan# 62
Delta R.T. 0.114 min
Lab File: 321157.D
Acq: 10 Sep 2019 21:02

Tgt Ion: 79 Resp: 826

Ion	Ratio	Lower	Upper
79	100		
52	33.8	46.7	106.7#

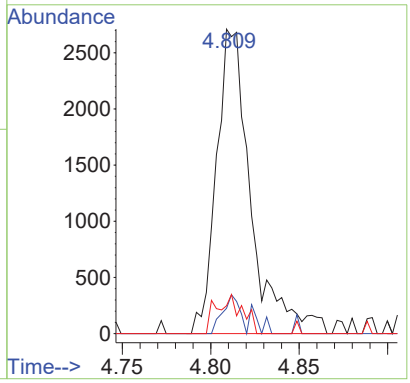


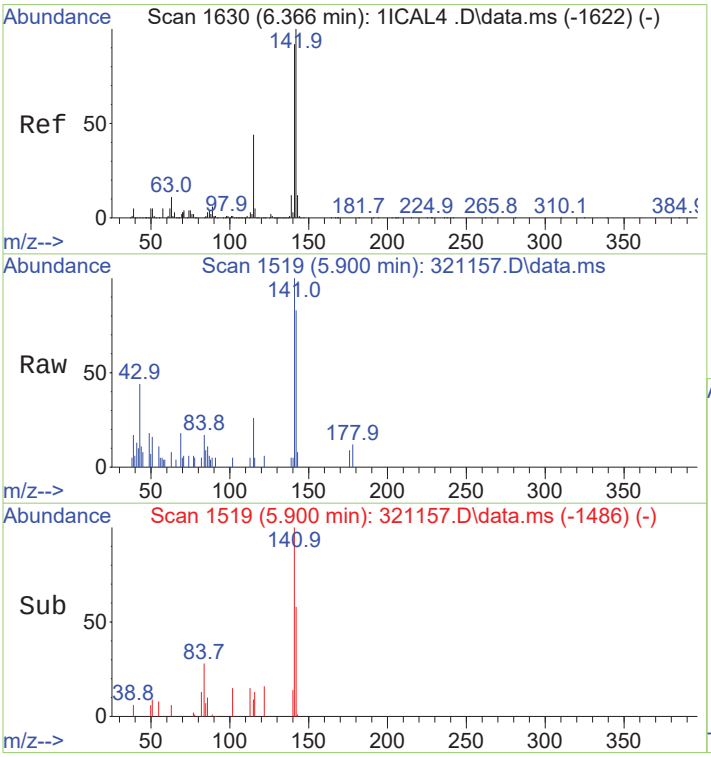


#31
Naphthalene
Concen: 0.17 ug/mL
RT: 4.809 min Scan# 1135
Delta R.T. -0.006 min
Lab File: 321157.D
Acq: 10 Sep 2019 21:02

Tgt Ion:128 Resp: 3683

Ion	Ratio	Lower	Upper
128	100		
129	8.3	0.0	40.6
127	9.1	0.0	42.2

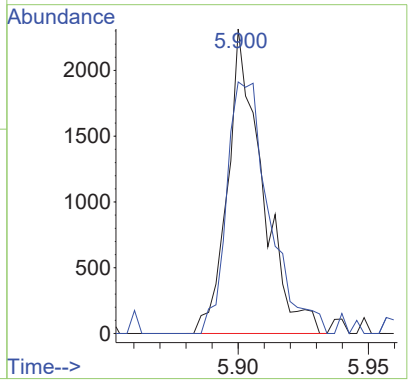


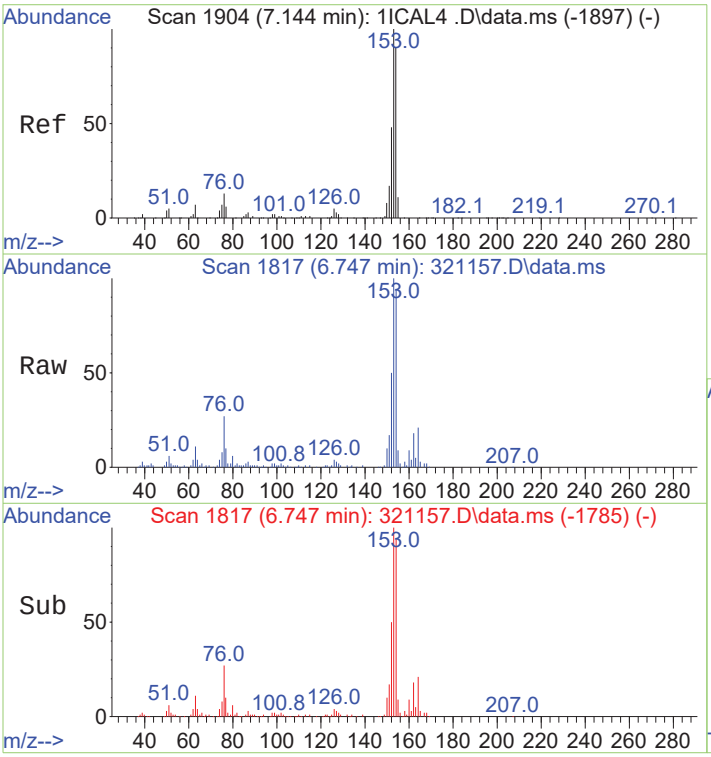


#38
1Methylnaphth
Concen: 0.15 ug/mL
RT: 5.900 min Scan# 1519
Delta R.T. -0.006 min
Lab File: 321157.D
Acq: 10 Sep 2019 21:02

Tgt Ion:141 Resp: 2141

Ion	Ratio	Lower	Upper
141	100		
142	82.6	80.9	140.9

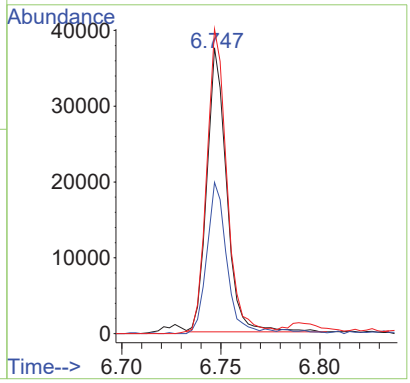


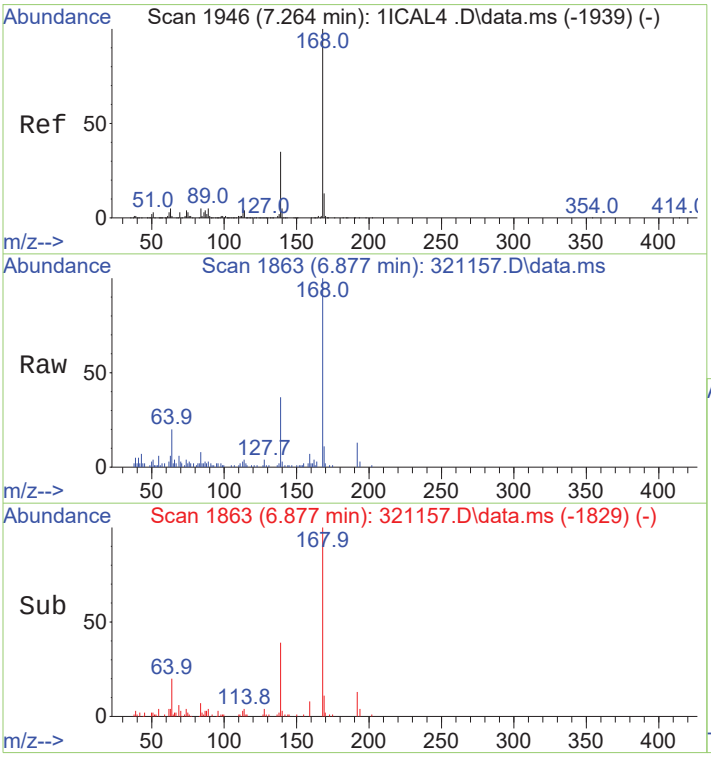


#50
Acenaphthene
Concen: 1.86 ug/mL
RT: 6.747 min Scan# 1817
Delta R.T. -0.009 min
Lab File: 321157.D
Acq: 10 Sep 2019 21:02

Tgt Ion:154 Resp: 26056

Ion	Ratio	Lower	Upper
154	100		
152	53.2	22.5	82.5
153	106.4	76.8	136.8

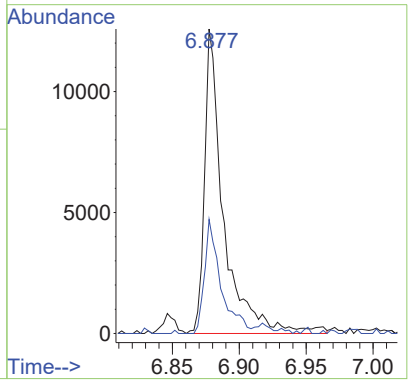


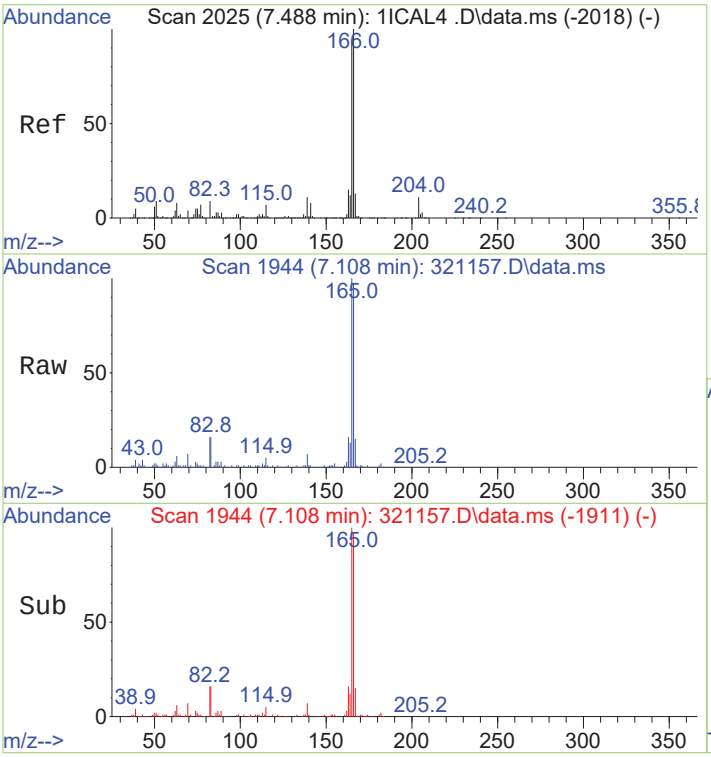


#53
Dibenzofuran
Concen: 0.59 ug/mL
RT: 6.877 min Scan# 1863
Delta R.T. -0.003 min
Lab File: 321157.D
Acq: 10 Sep 2019 21:02

Tgt Ion:168 Resp: 12462

Ion	Ratio	Lower	Upper
168	100		
139	37.4	7.3	67.3

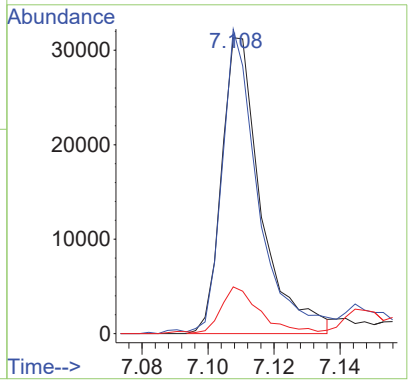


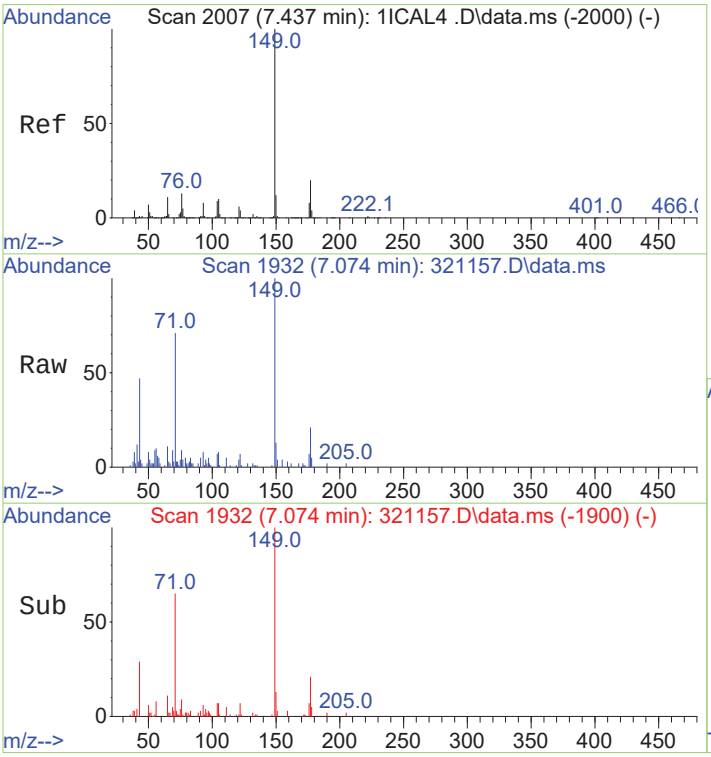


#58
Fluorene
Concen: 1.56 ug/mL
RT: 7.108 min Scan# 1944
Delta R.T. -0.006 min
Lab File: 321157.D
Acq: 10 Sep 2019 21:02

Tgt Ion:166 Resp: 25952

Ion	Ratio	Lower	Upper
166	100		
165	103.0	62.6	122.6
167	14.7	0.0	43.3

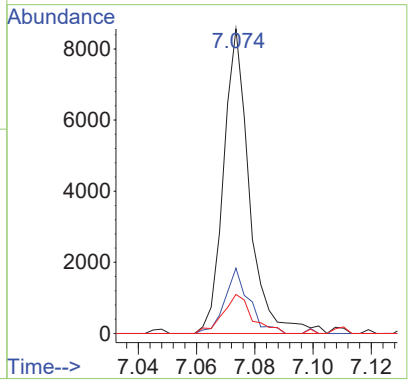


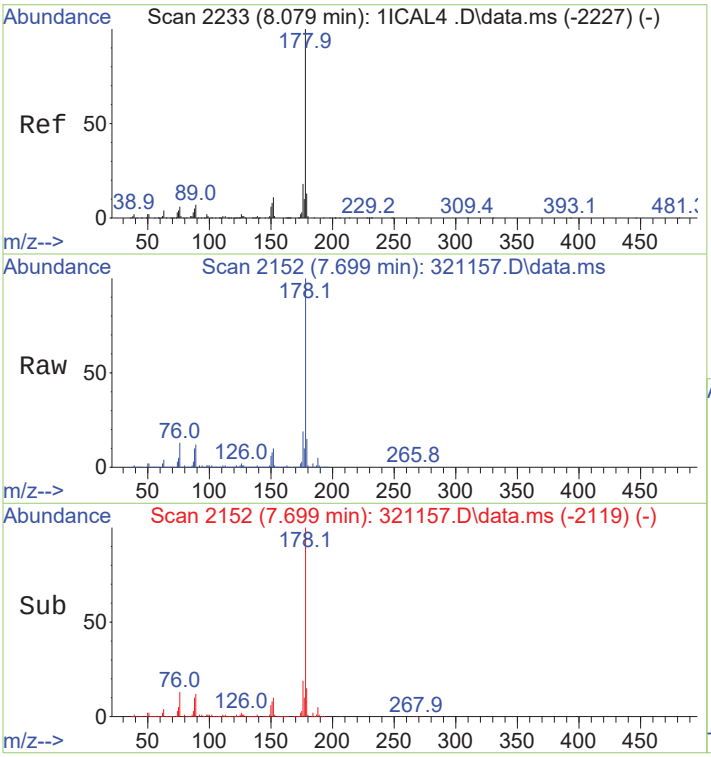


#60
Diethylphthal
Concen: 0.31 ug/mL
RT: 7.074 min Scan# 1932
Delta R.T. -0.009 min
Lab File: 321157.D
Acq: 10 Sep 2019 21:02

Tgt Ion:149 Resp: 5298

Ion	Ratio	Lower	Upper
149	100		
177	21.4	0.0	49.3
150	12.8	0.0	41.9

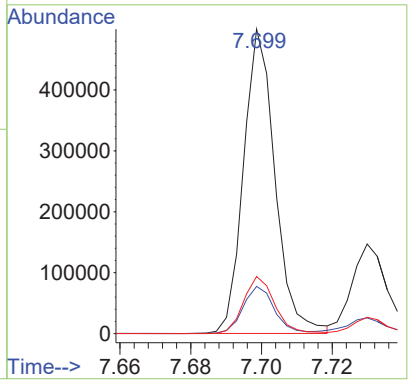


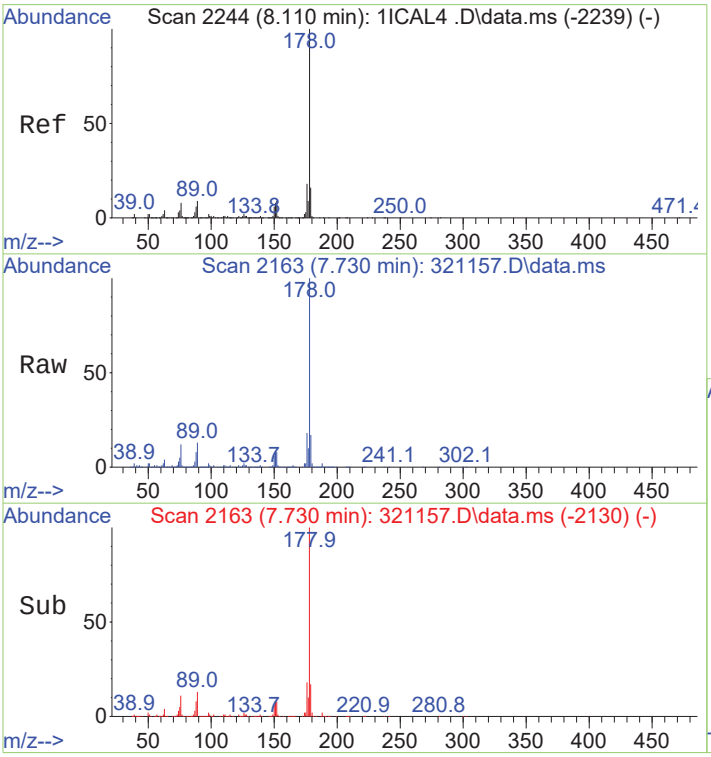


#70
Phenanthrene
Concen: 13.51 ug/mL
RT: 7.699 min Scan# 2152
Delta R.T. -0.006 min
Lab File: 321157.D
Acq: 10 Sep 2019 21:02

Tgt Ion:178 Resp: 309895

Ion	Ratio	Lower	Upper
178	100		
179	15.5	0.0	45.3
176	18.8	0.0	48.4

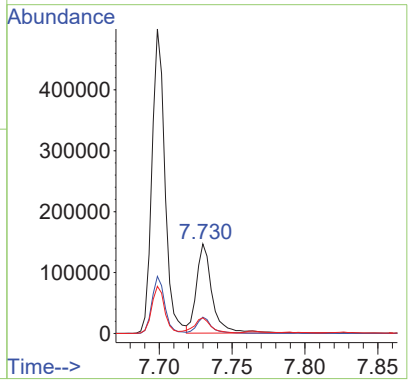


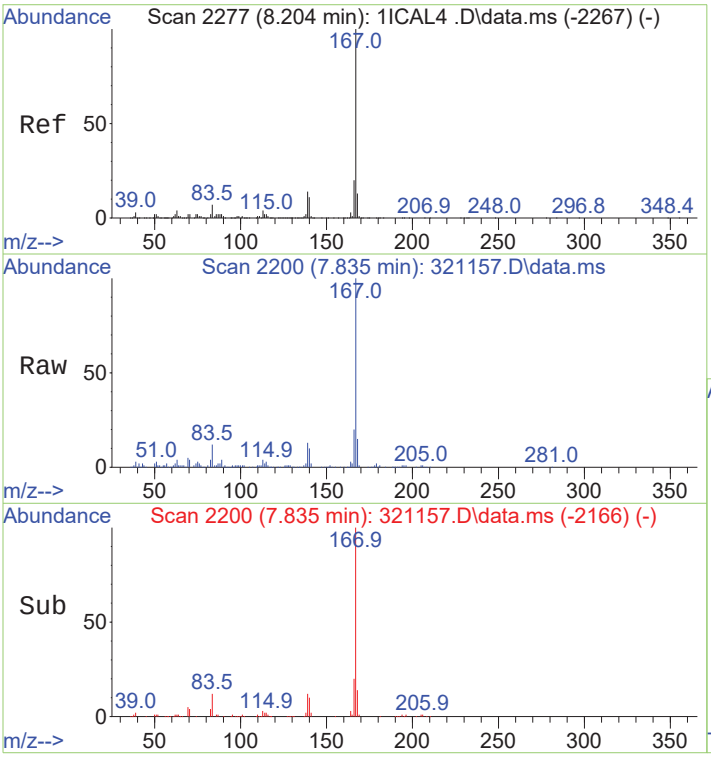


#71
Anthracene
Concen: 4.65 ug/mL
RT: 7.730 min Scan# 2163
Delta R.T. -0.006 min
Lab File: 321157.D
Acq: 10 Sep 2019 21:02

Tgt Ion:178 Resp: 109817

Ion	Ratio	Lower	Upper
178	100		
176	18.1	0.0	47.6
179	16.4	0.0	45.1

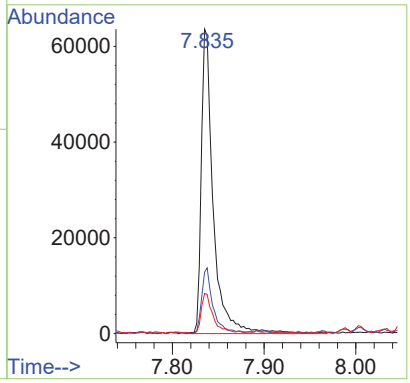


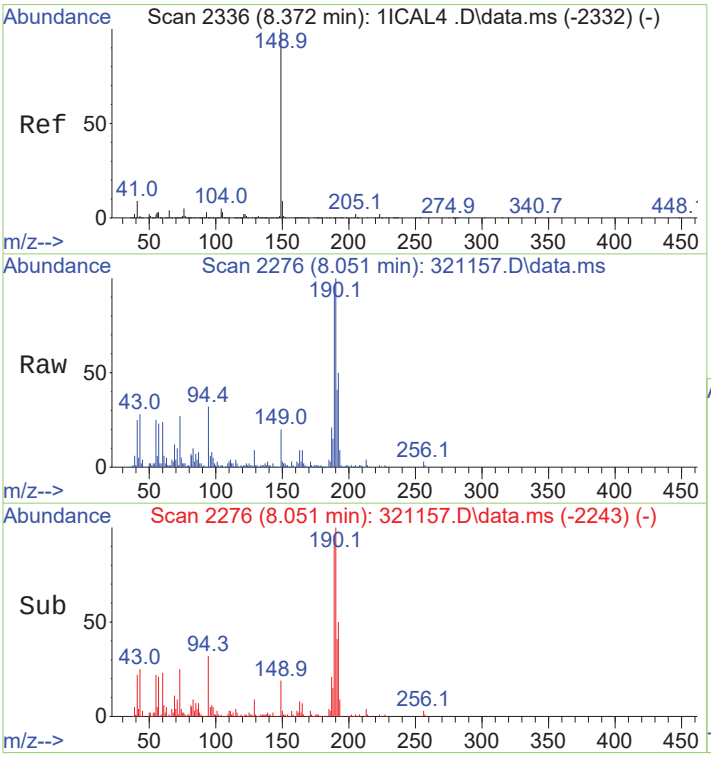


#72
Carbazole
Concen: 2.54 ug/mL
RT: 7.835 min Scan# 2200
Delta R.T. -0.003 min
Lab File: 321157.D
Acq: 10 Sep 2019 21:02

Tgt Ion:167 Resp: 57948

Ion	Ratio	Lower	Upper
167	100		
166	19.9	0.0	49.3
139	12.9	0.0	42.6

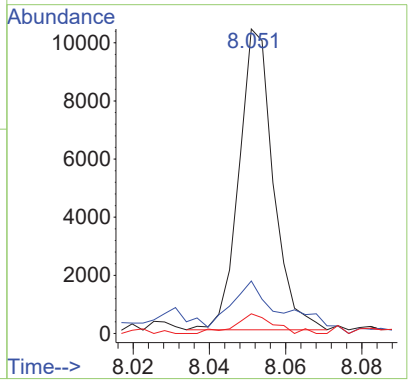


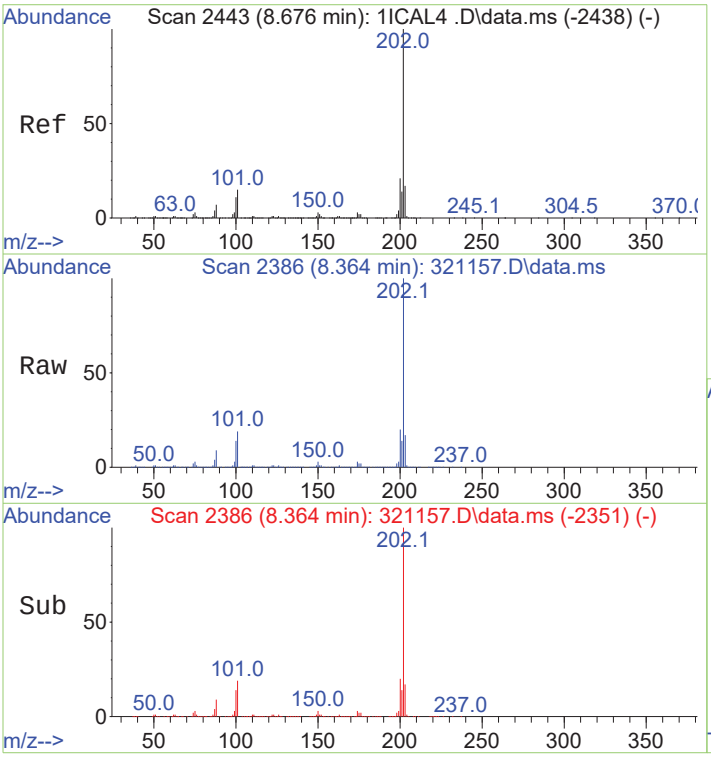


#73
Dinbtylphthal
Concen: 0.06 ug/mL
RT: 8.051 min Scan# 2276
Delta R.T. -0.006 min
Lab File: 321157.D
Acq: 10 Sep 2019 21:02

Tgt Ion:149 Resp: 6472

Ion	Ratio	Lower	Upper
149	100		
150	14.9	0.0	39.0
104	6.6	0.0	34.6

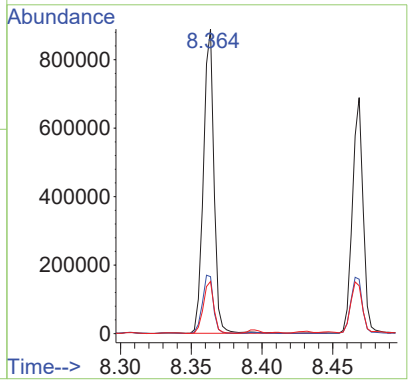


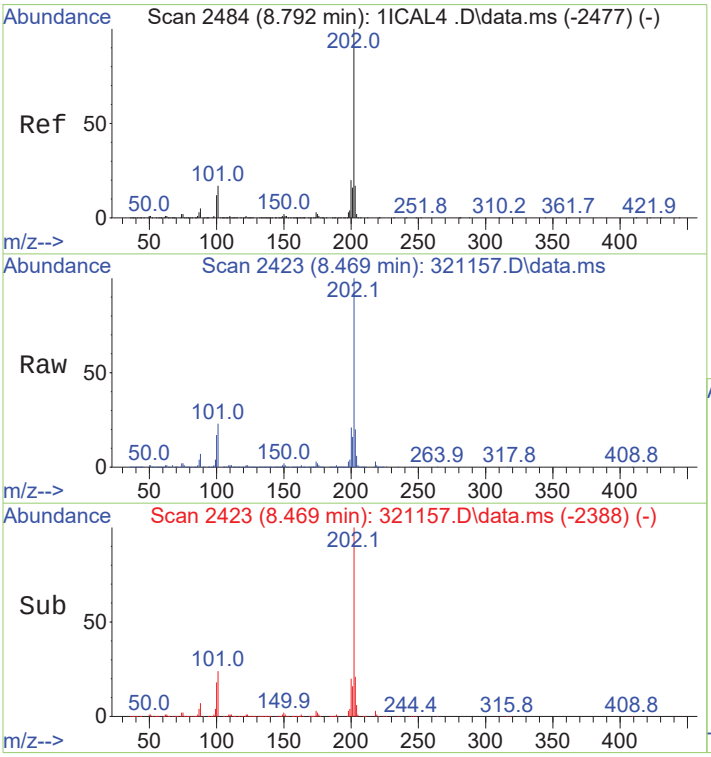


#74
Fluoranthene
Concen: 27.90 ug/mL
RT: 8.364 min Scan# 2386
Delta R.T. -0.000 min
Lab File: 321157.D
Acq: 10 Sep 2019 21:02

Tgt Ion:202 Resp: 459948

Ion	Ratio	Lower	Upper
202	100		
101	18.6	0.0	50.7
203	17.1	0.0	47.3

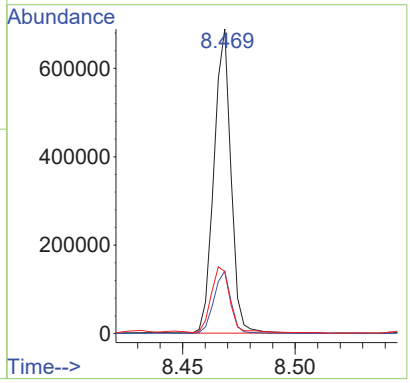


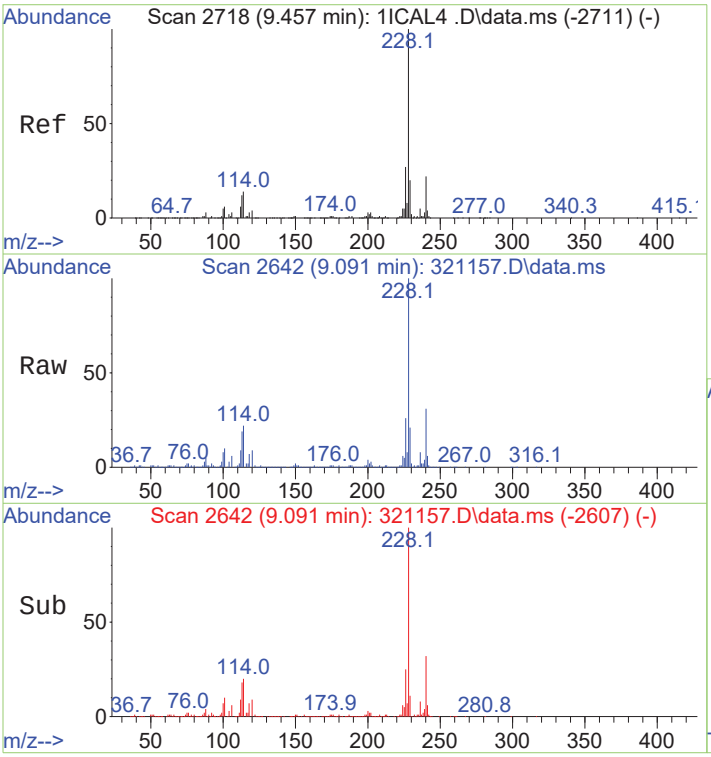


#77
Pyrene
Concen: 19.70 ug/mL
RT: 8.469 min Scan# 2423
Delta R.T. -0.000 min
Lab File: 321157.D
Acq: 10 Sep 2019 21:02

Tgt Ion:202 Resp: 361738

Ion	Ratio	Lower	Upper
202	100		
200	20.5	0.0	50.1
203	20.2	0.0	46.9

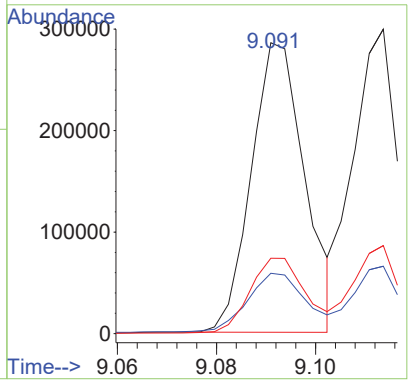


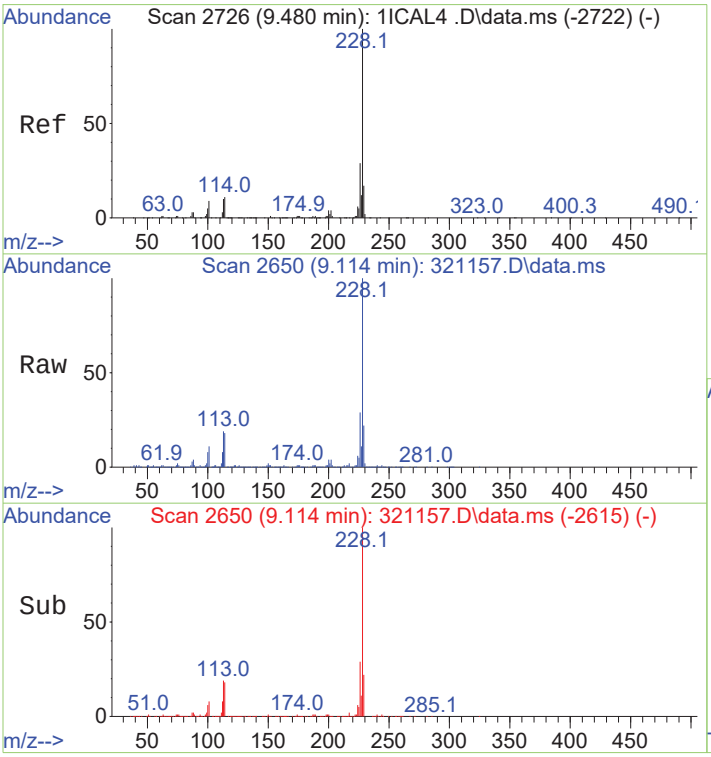


#82
B[a]anthracen
Concen: 14.28 ug/mL
RT: 9.091 min Scan# 2642
Delta R.T. -0.000 min
Lab File: 321157.D
Acq: 10 Sep 2019 21:02

Tgt Ion:228 Resp: 215063

Ion	Ratio	Lower	Upper
228	100		
229	20.1	0.0	49.3
226	25.8	0.0	56.2

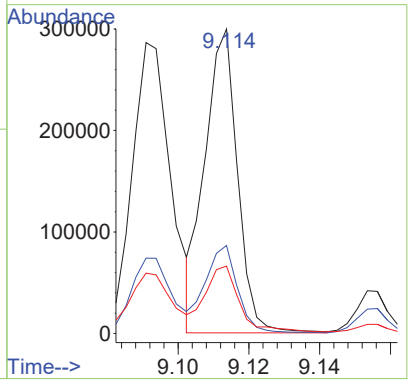


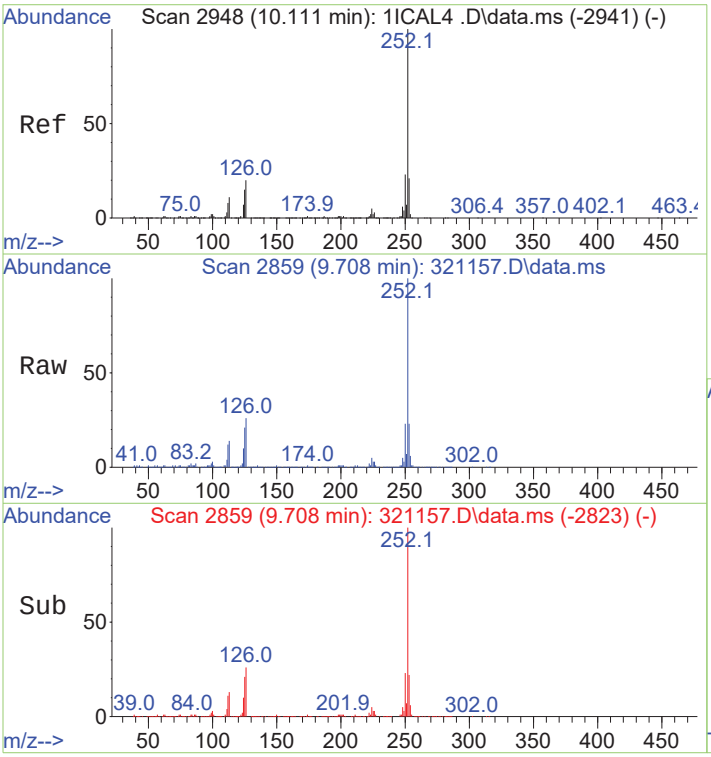


#83
Chrysene
Concen: 12.35 ug/mL
RT: 9.114 min Scan# 2650
Delta R.T. -0.000 min
Lab File: 321157.D
Acq: 10 Sep 2019 21:02

Tgt Ion:228 Resp: 192466

Ion	Ratio	Lower	Upper
228	100		
226	28.8	0.0	59.0
229	21.7	0.0	49.4

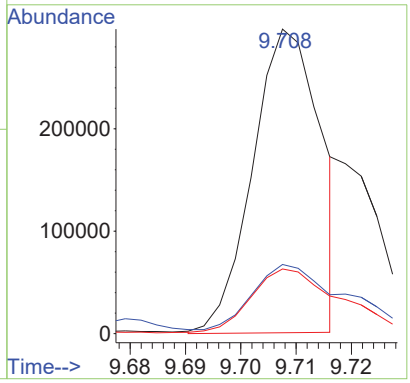


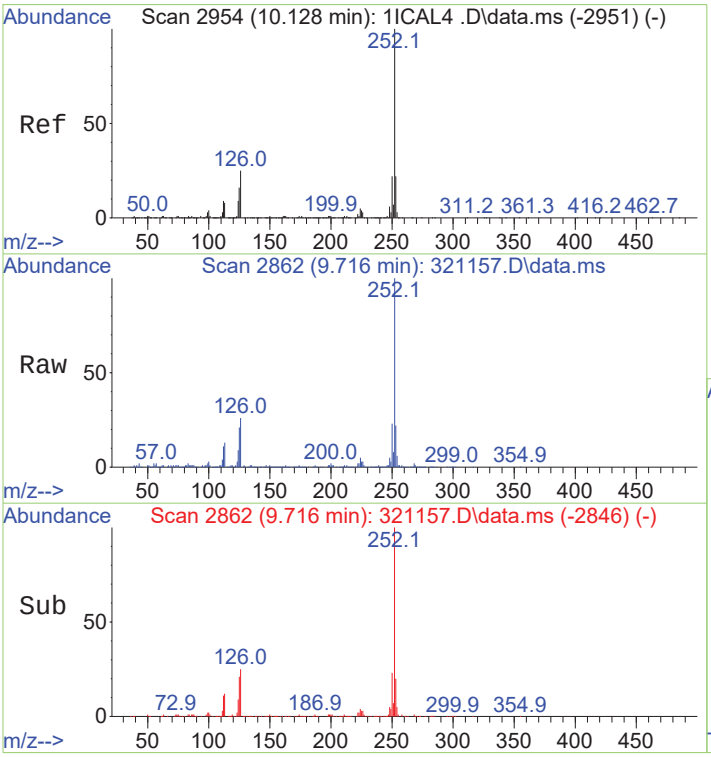


#87
B[b]fluoranth
Concen: 16.17 ug/mL m
RT: 9.708 min Scan# 2859
Delta R.T. 0.003 min
Lab File: 321157.D
Acq: 10 Sep 2019 21:02

Tgt Ion:252 Resp: 253006

Ion	Ratio	Lower	Upper
252	100		
253	22.7	0.0	51.9
125	21.2	0.0	50.0

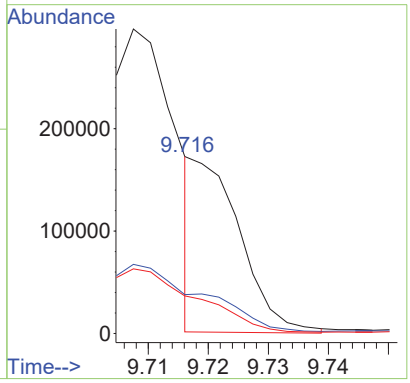


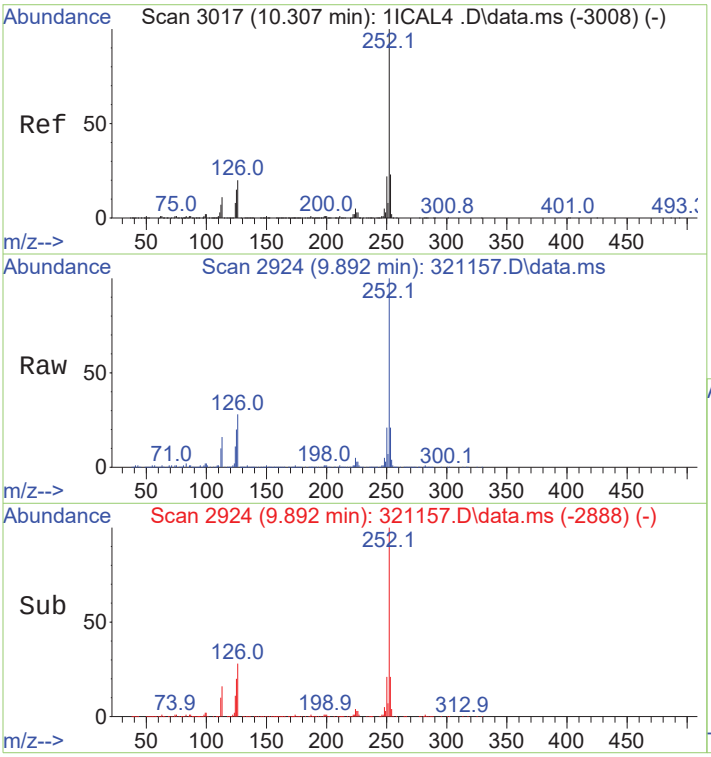


#88
B[k]fluoranth
Concen: 5.76 ug/mL m
RT: 9.716 min Scan# 2862
Delta R.T. -0.006 min
Lab File: 321157.D
Acq: 10 Sep 2019 21:02

Tgt Ion:252 Resp: 90429

Ion	Ratio	Lower	Upper
252	100		
253	21.9	0.0	52.0
125	21.2	0.0	50.2

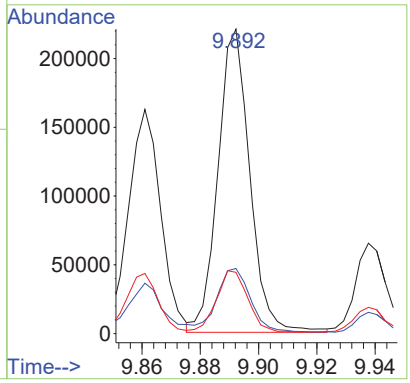


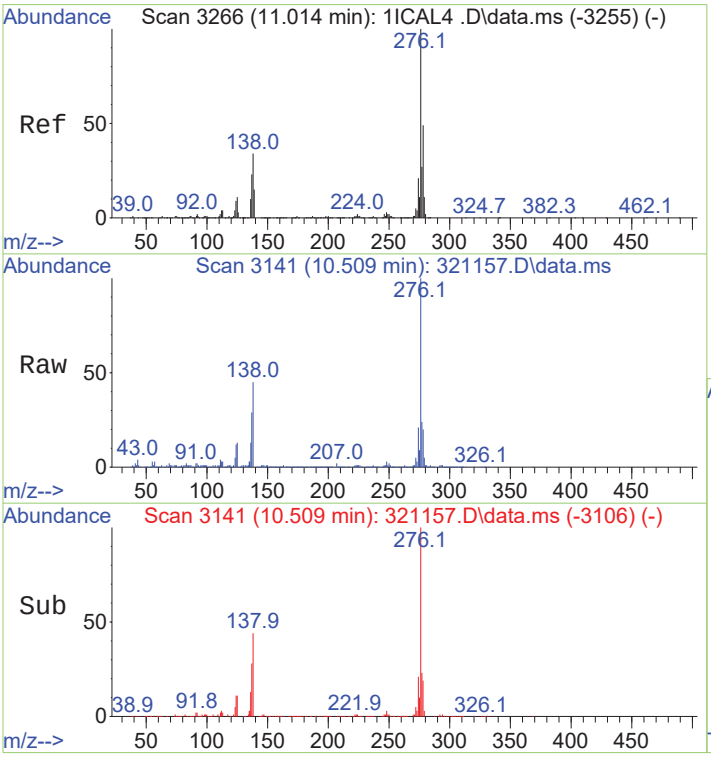


#89
Benz[a]pyrene
Concen: 10.38 ug/mL
RT: 9.892 min Scan# 2924
Delta R.T. 0.003 min
Lab File: 321157.D
Acq: 10 Sep 2019 21:02

Tgt Ion:252 Resp: 167528

Ion	Ratio	Lower	Upper
252	100		
253	21.1	0.0	51.7
125	19.8	0.0	51.4

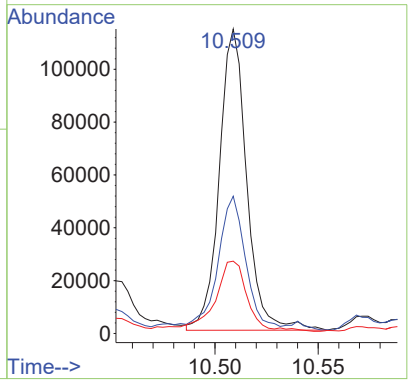


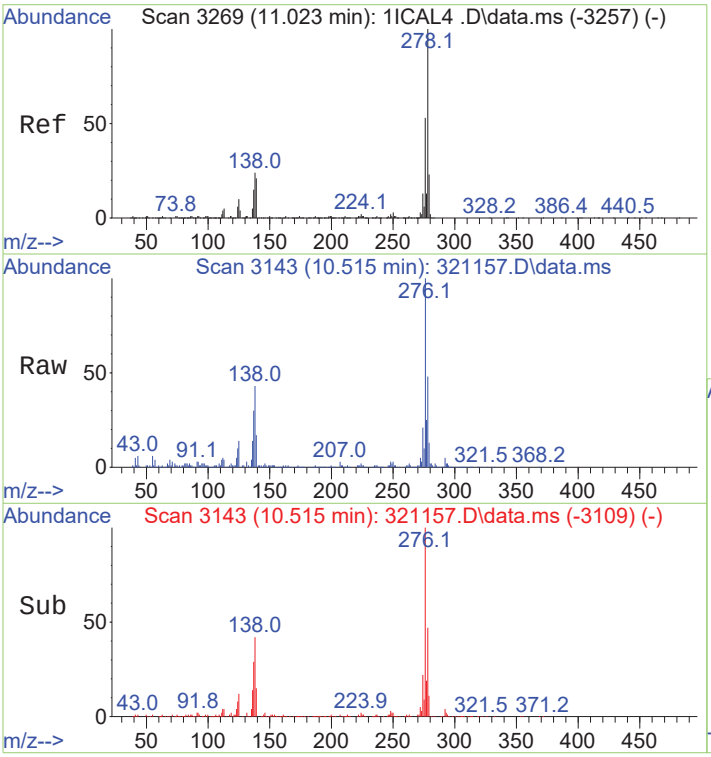


#90
Indeno-pyrene
Concen: 6.32 ug/mL
RT: 10.509 min Scan# 3141
Delta R.T. -0.000 min
Lab File: 321157.D
Acq: 10 Sep 2019 21:02

Tgt Ion:276 Resp: 105505

Ion	Ratio	Lower	Upper
276	100		
138	44.4	13.2	73.2
277	23.0	0.0	54.7

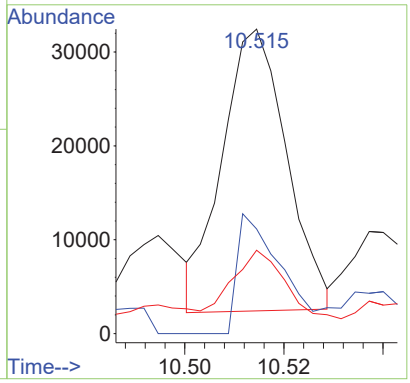


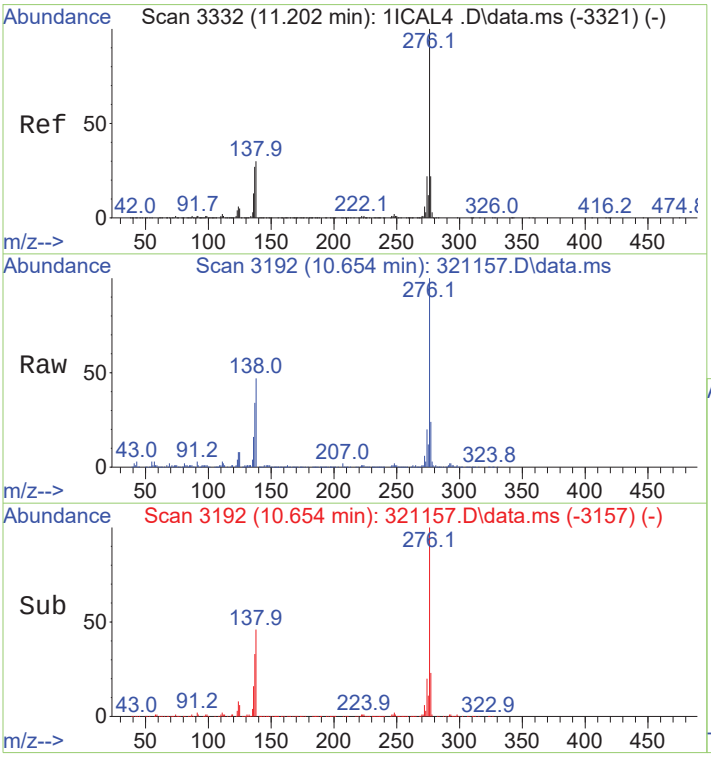


#91
Dib[ah]anthr
Concen: 2.00 ug/mL
RT: 10.515 min Scan# 3143
Delta R.T. -0.003 min
Lab File: 321157.D
Acq: 10 Sep 2019 21:02

Tgt Ion:278 Resp: 27152

Ion	Ratio	Lower	Upper
278	100		
139	40.3	4.7	64.7
279	24.8	0.0	54.0

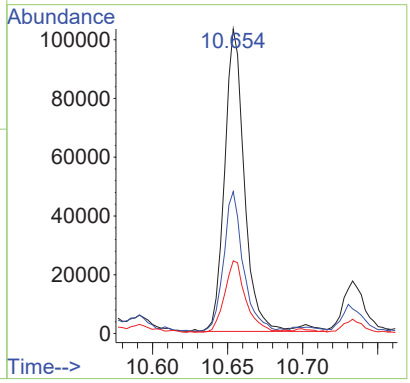


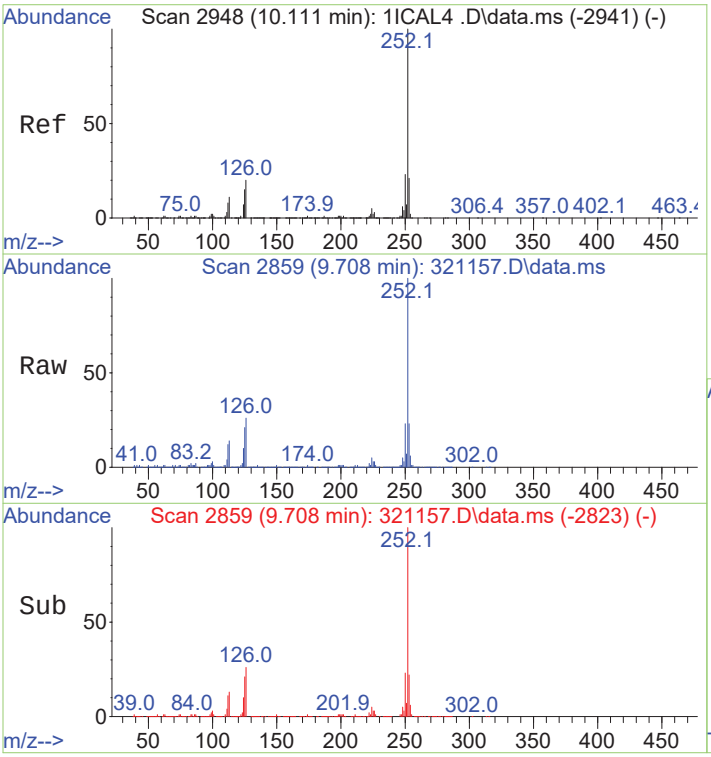


#92
B[ghi]perylen
Concen: 6.53 ug/mL
RT: 10.654 min Scan# 3192
Delta R.T. -0.000 min
Lab File: 321157.D
Acq: 10 Sep 2019 21:02

Tgt Ion:276 Resp: 95549

Ion	Ratio	Lower	Upper
276	100		
138	45.8	15.0	75.0
277	23.7	0.0	54.0

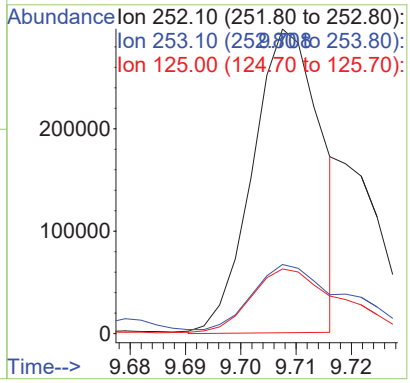




#87
B[b]fluoranth
Concen: 16.17 ug/mL m
RT: 9.708 min Scan# 2859
Delta R.T. 0.003 min
Lab File: 321157.D
Acq: 10 Sep 2019 21:02

Tgt Ion:252 Resp: 253006

Ion	Ratio	Lower	Upper
252	100		
253	22.7	0.0	51.9
125	21.2	0.0	50.0

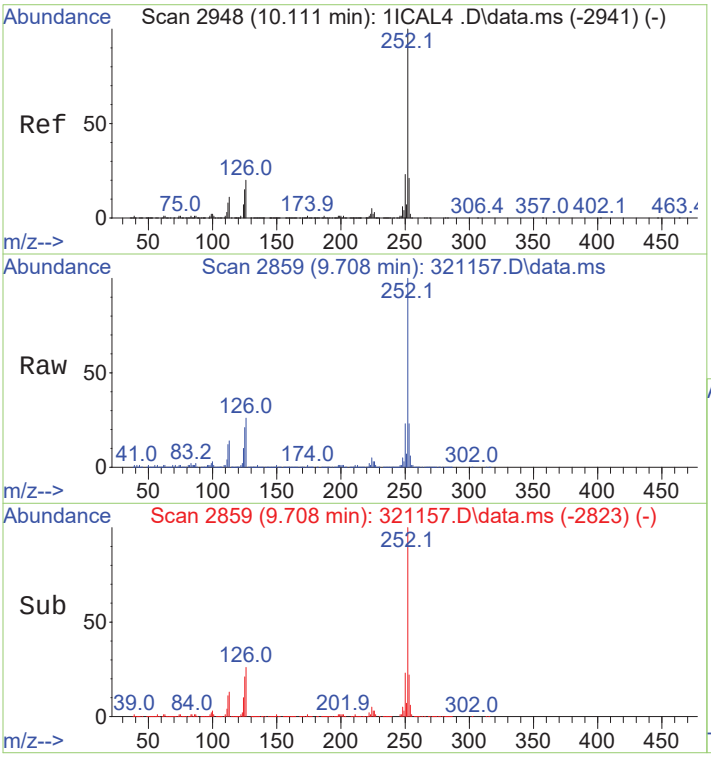


After Manual Integration

Reason#3

JJY
9/16/19

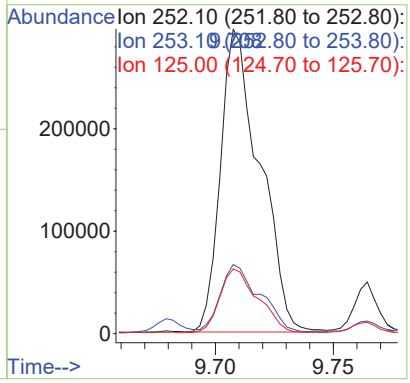
AJZ
09/19/2019



#87
B[b]fluoranth
Concen: 21.88 ug/mL
RT: 9.708 min Scan# 2859
Delta R.T. 0.003 min
Lab File: 321157.D
Acq: 10 Sep 2019 21:02

Tgt Ion:252 Resp: 342326

Ion	Ratio	Lower	Upper
252	100		
253	22.0	0.0	51.9
125	21.0	0.0	50.0

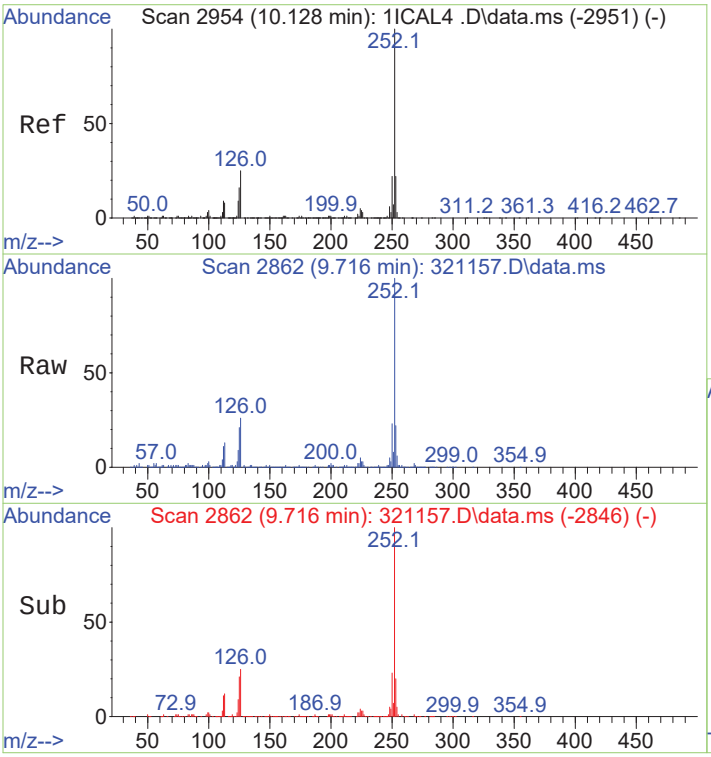


Before Manual Integration

Reason#3

JJY
9/16/19

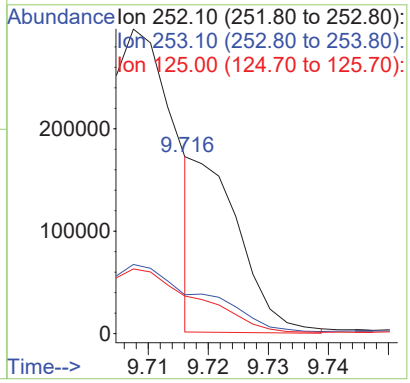
AJZ
09/19/2019



#88
B[k]fluoranth
Concen: 5.76 ug/mL m
RT: 9.716 min Scan# 2862
Delta R.T. -0.006 min
Lab File: 321157.D
Acq: 10 Sep 2019 21:02

Tgt Ion:252 Resp: 90429

Ion	Ratio	Lower	Upper
252	100		
253	21.9	0.0	52.0
125	21.2	0.0	50.2

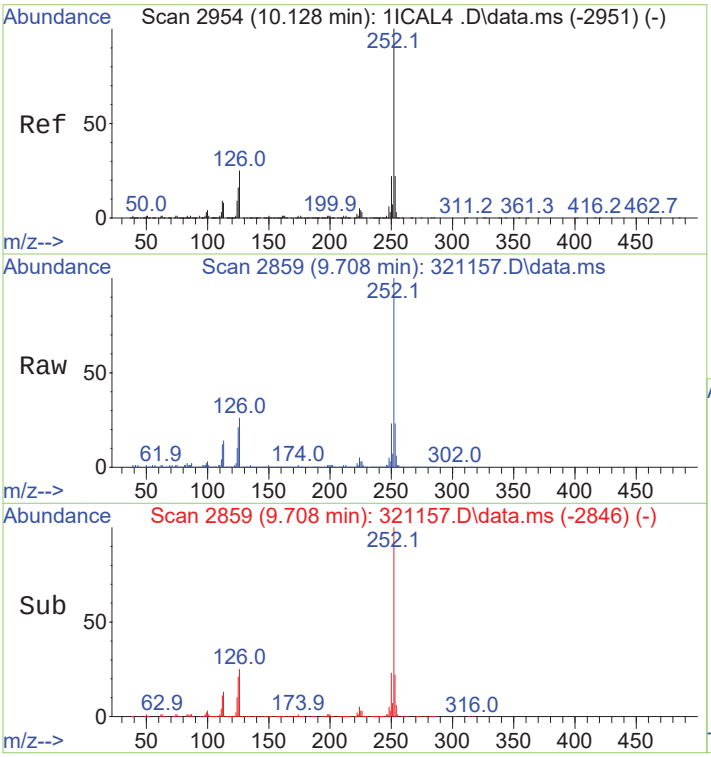


After Manual Integration

Reason#3

JJY
9/16/19

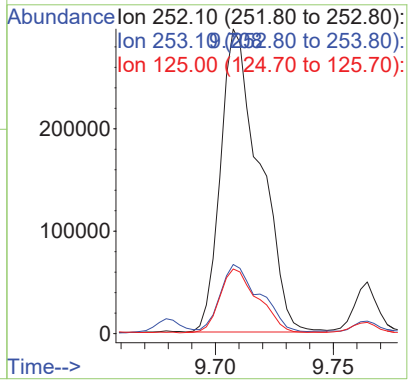
AJZ
09/19/2019



#88
B[k]fluoranth
Concen: 21.81 ug/mL
RT: 9.708 min Scan# 2859
Delta R.T. -0.014 min
Lab File: 321157.D
Acq: 10 Sep 2019 21:02

Tgt Ion:252 Resp: 342326

Ion	Ratio	Lower	Upper
252	100		
253	22.0	0.0	52.0
125	21.0	0.0	50.2



Before Manual Integration

Reason#3 JJY 9/16/19

AJZ 09/19/2019

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321157.D Vial: 9
Acq On : 10 Sep 2019 21:02 Operator: JJY
Sample : 164275,321157, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:26 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

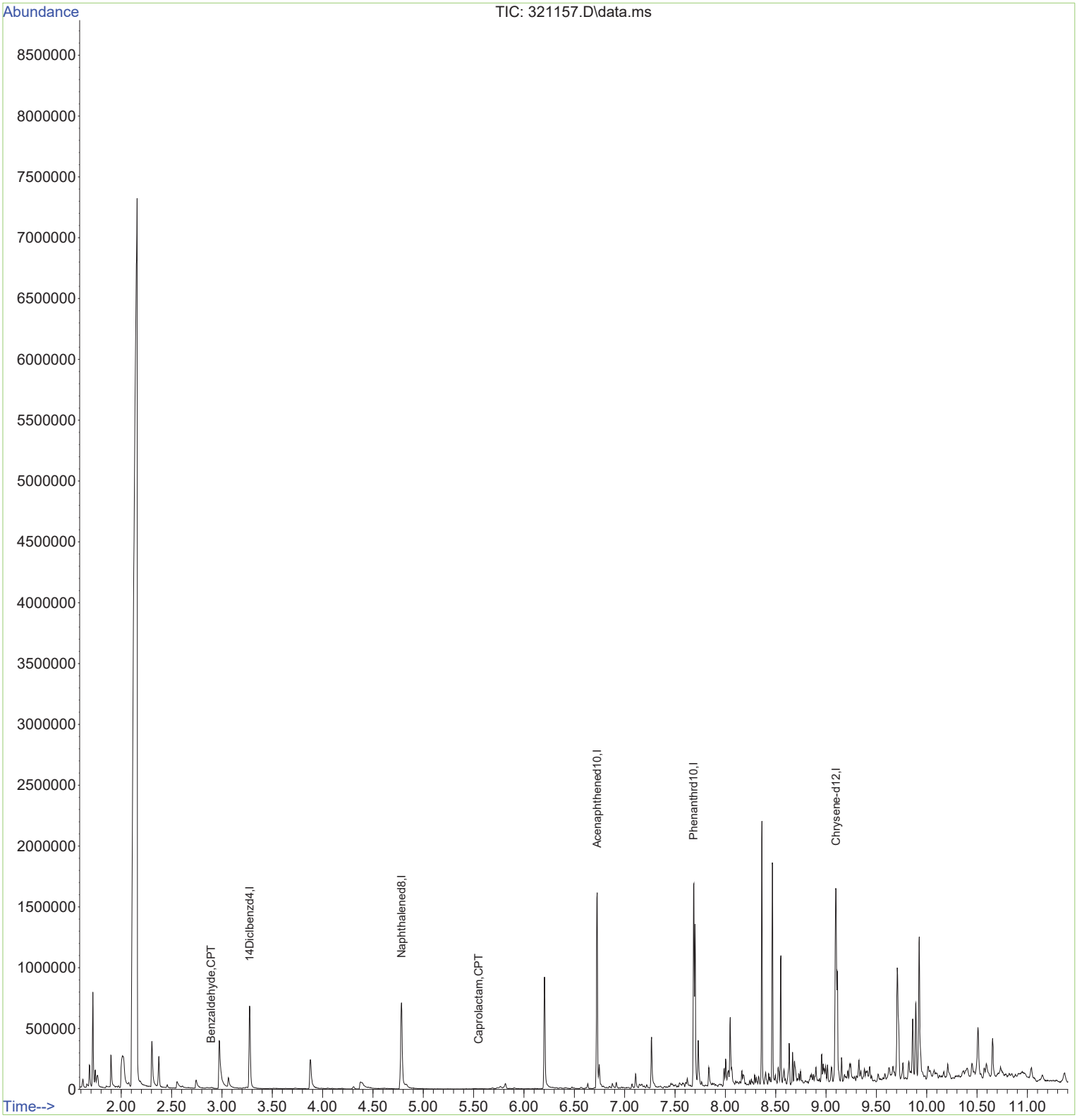
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	108844	20.00	ug/mL	0.00
3) Naphthalened8	4.783	136	423851	20.00	ug/mL	0.00
5) Acenaphthened10	6.727	164	267219	20.00	ug/mL	0.00
7) Phenanthrd10	7.684	188	437693	20.00	ug/mL	0.00
9) Chrysene-d12	9.099	240	244027	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	2.894	77	1791	0.8901	ug/mL	87
4) Caprolactam	5.551	55	1877	1.3614	ug/mL#	56

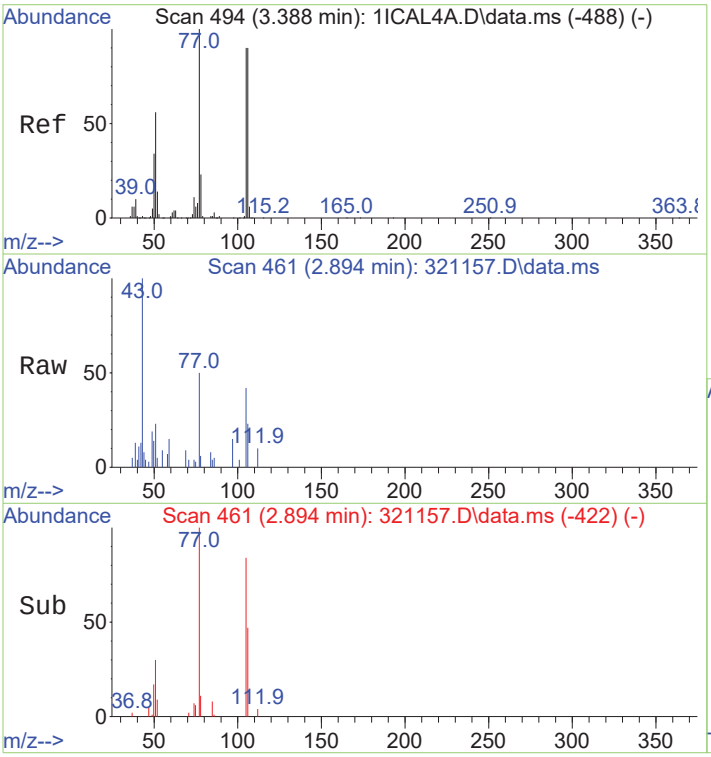
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321157.D Vial: 9
Acq On : 10 Sep 2019 21:02 Operator: JJY
Sample : 164275,321157, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:26 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

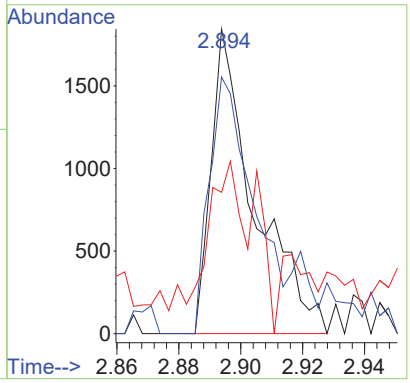


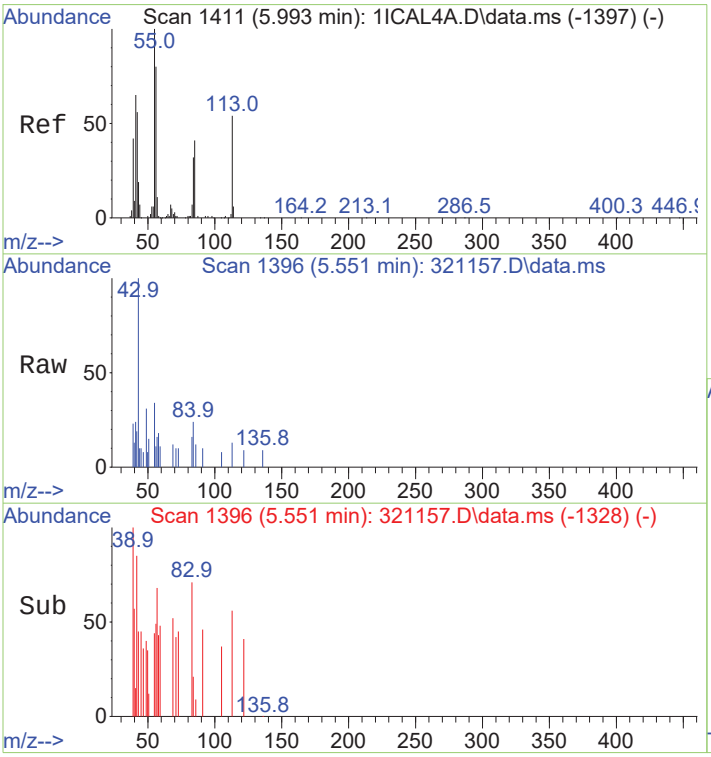


#2
Benzaldehyde
Concen: 0.89 ug/mL
RT: 2.894 min Scan# 461
Delta R.T. 0.011 min
Lab File: 321157.D
Acq: 10 Sep 2019 21:02

Tgt Ion: 77 Resp: 1791

Ion	Ratio	Lower	Upper
77	100		
105	111.9	67.4	127.4
51	60.1	23.2	83.2

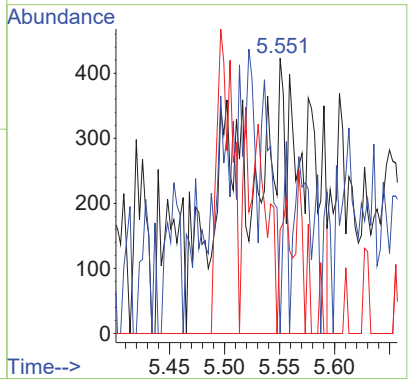




#4
Caprolactam
Concen: 1.36 ug/mL
RT: 5.551 min Scan# 1396
Delta R.T. 0.094 min
Lab File: 321157.D
Acq: 10 Sep 2019 21:02

Tgt Ion: 55 Resp: 1877

Ion	Ratio	Lower	Upper
55	100		
42	0.0	24.6	84.6#
113	46.7	26.7	86.7



Library Search Compound Report

Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321157.D
Acq On : 10 Sep 2019 21:02
Operator : JJY
Sample : 164275,321157,
Misc : 500ul+5ul S4142A
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 1 Methacrylamide Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.717	14.61 ug/mL	451117	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Methacrylamide	85	C4H7NO	000079-39-0	36
2	Monomethylnitrosamine	60	CH4N2O	000000-00-0	9
3	Hexane, 3-bromo-	164	C6H13Br	003377-87-5	9
4	2H-Pyran-2-one, tetrahydro-6,6-d...	128	C7H12O2	002610-95-9	9
5	Isothiazole	85	C3H3NS	000288-16-4	7

****

Peak Number 2 3-Penten-2-one, 4-methyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.896	6.41 ug/mL	197821	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
2	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
3	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	90
4	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	90
5	2-Pentene, 3,4-dimethyl-, (E)-	98	C7H14	004914-92-5	90

****

Peak Number 3 Hexanoic acid, hydroxy-, me... Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.013	19.37 ug/mL	598091	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexanoic acid, hydroxy-, methyl ...	146	C7H14O3	059942-11-9	28
2	2-Pentanone, 5-(acetyloxy)-	144	C7H12O3	005185-97-7	28
3	Acetic acid, 1-methylethyl ester	102	C5H10O2	000108-21-4	23
4	Propane, 1-(1-methylethoxy)-	102	C6H14O	000627-08-7	9
5	Acetic acid, hexyl ester	144	C8H16O2	000142-92-7	9

****

Peak Number 4 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.158	525.79 ug/mL	16231200	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	56
2	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	47
3	Acetic acid, 1,1-dimethylethyl e...	116	C6H12O2	000540-88-5	33

Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321157.D
Acq On : 10 Sep 2019 21:02
Operator : JJY
Sample : 164275,321157,
Misc : 500ul+5ul S4142A
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

4	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	28
5	Acetic acid, cyano-, 1,1-dimethy...	141	C7H11NO2	001116-98-9	23

****

Peak Number 5 3-Buten-2-ol, 2,3-dimethyl- Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.374	6.17 ug/mL	190554	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Buten-2-ol, 2,3-dimethyl-	100	C6H12O	010473-13-9	40
2	Pentane, 2-bromo-2-methyl-	164	C6H13Br	004283-80-1	32
3	2-Pyrrolidinone	85	C4H7NO	000616-45-5	25
4	Hexylene Glycol	118	C6H14O2	000107-41-5	25
5	2H-Pyran, 2-(bromomethyl)tetrahy...	178	C6H11BrO	034723-82-5	23

****

Peak Number 6 Pyrene, 2-methyl- Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.633	2.96 ug/mL	248063	Chrysene-d12	9.099

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pyrene, 2-methyl-	216	C17H12	003442-78-2	93
2	11H-Benzo[b]fluorene	216	C17H12	000243-17-4	89
3	11H-Benzo[a]fluorene	216	C17H12	000238-84-6	86
4	11H-Benzo[b]fluorene	216	C17H12	000243-17-4	76
5	11H-Benzo[a]fluorene	216	C17H12	000238-84-6	76

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321158.D Vial: 10
Acq On : 10 Sep 2019 21:20 Operator: JJY
Sample : 164275,321158, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 21:33:45 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

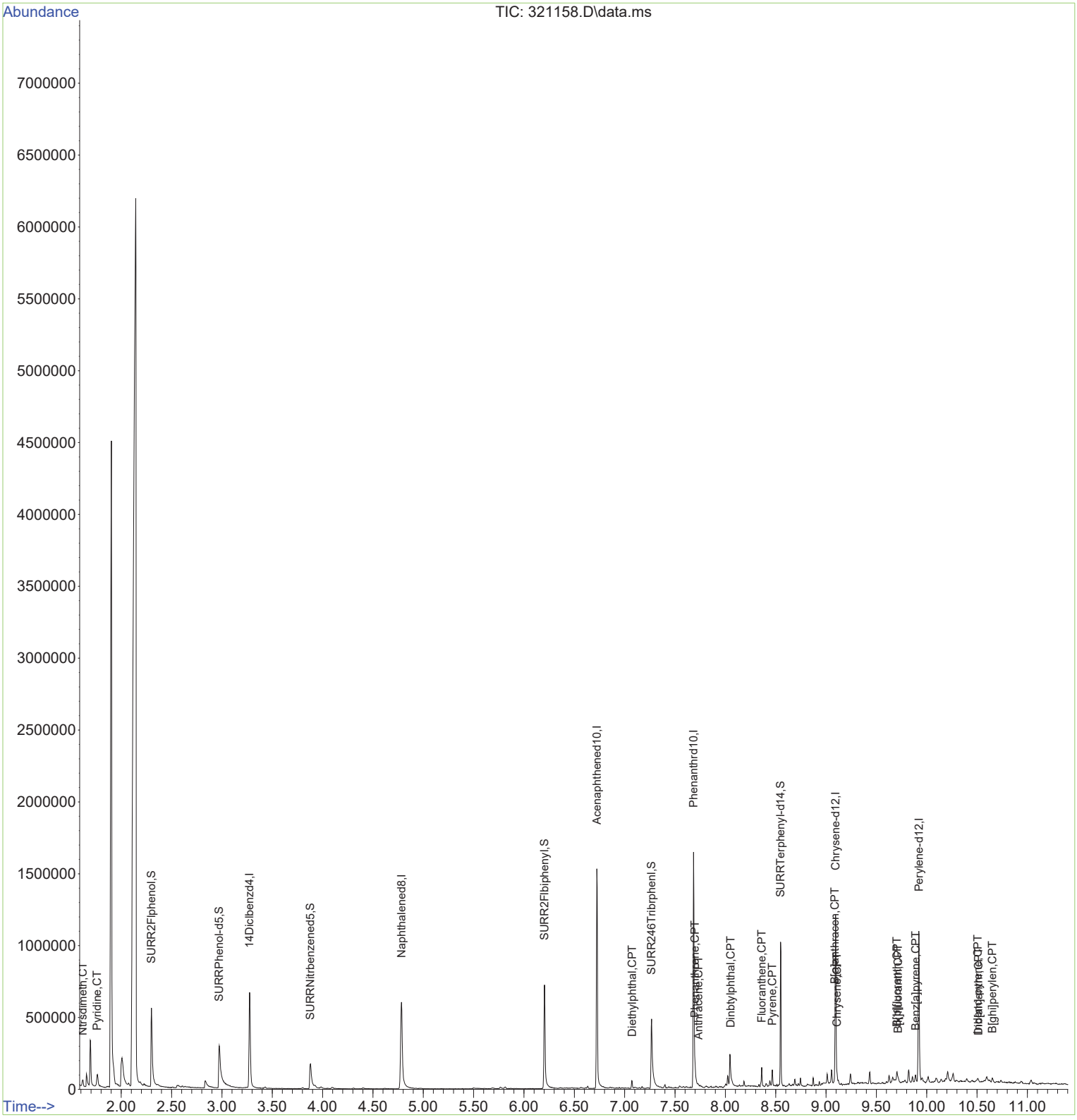
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	107612	20.00	ug/mL	0.00
21) Naphthalened8	4.784	136	400798	20.00	ug/mL	0.00
39) Acenaphthened10	6.724	164	249855	20.00	ug/mL	0.00
63) Phenanthrd10	7.685	188	418916	20.00	ug/mL	0.00
75) Chrysene-d12	9.094	240	234289	20.00	ug/mL	0.00
86) Perylene-d12	9.924	264	250440	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.300	112	165128	60.03	%REC	0.02
Spiked Amount 100.000			Recovery = 60.03%			
7) SURRPhenol-d5	2.974	99	180290	55.49	%REC	0.00
Spiked Amount 100.000			Recovery = 55.49%			
22) SURRNitrbenzened5	3.877	82	74492	54.94	%REC	0.00
Spiked Amount 100.000			Recovery = 54.94%			
44) SURR2Flbiphenyl	6.204	172	216173	64.95	%REC	0.00
Spiked Amount 100.000			Recovery = 64.95%			
62) SURR246Tribrphenl	7.267	330	56667	72.35	%REC	0.00
Spiked Amount 100.000			Recovery = 72.35%			
78) SURRTerphenyl-d14	8.548	244	166961	77.86	%REC	0.00
Spiked Amount 100.000			Recovery = 77.86%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.618	74	3258	1.2760	ug/mL#	1
3) Pyridine	1.760	79	712	0.6499	ug/mL	97
60) Diethylphthal	7.074	149	7083	0.4234	ug/mL	98
70) Phenanthrene	7.699	178	18232	0.8252	ug/mL	98
71) Anthracene	7.733	178	4315	0.1896	ug/mL	98
73) Dinbtylphthal	8.054	149	6896	0.0883	ug/mL	99
74) Fluoranthene	8.361	202	29442	1.8540	ug/mL	97
77) Pyrene	8.466	202	23810	1.3525	ug/mL	94
82) B[a]anthracen	9.088	228	12187	0.8438	ug/mL	88
83) Chrysene	9.108	228	12322	0.8244	ug/mL	94
87) B[b]fluoranth	9.705	252	19079m	1.3995	ug/mL	
88) B[k]fluoranth	9.716	252	4794m	0.3507	ug/mL	
89) Benz[a]pyrene	9.890	252	9699	0.6895	ug/mL	98
90) Indeno-pyrene	10.506	276	8011	0.5505	ug/mL	92
91) Dib[ah]anthr	10.515	278	2161	0.1831	ug/mL	87
92) B[ghi]perylen	10.651	276	7188	0.5638	ug/mL	90

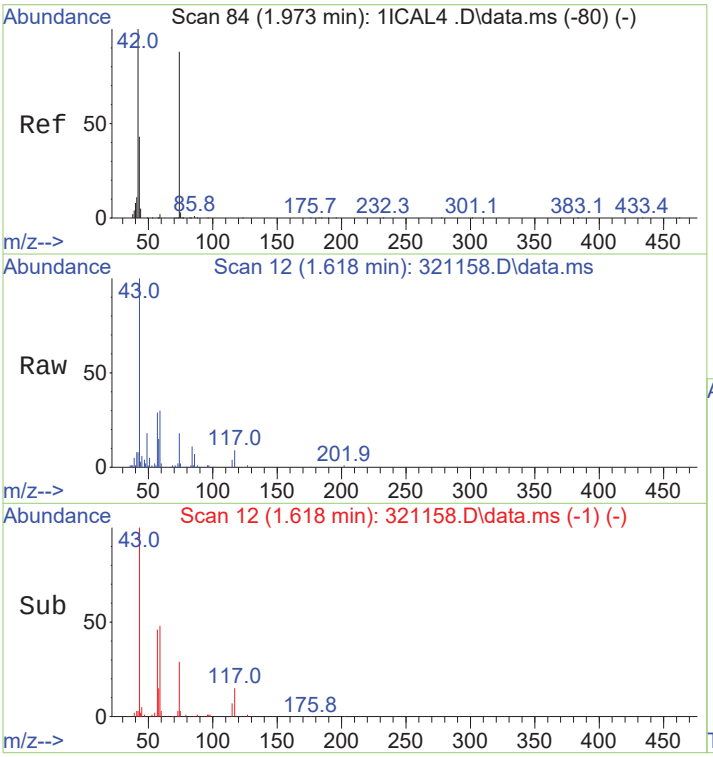
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321158.D Vial: 10
Acq On : 10 Sep 2019 21:20 Operator: JJY
Sample : 164275,321158, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 21:33:45 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

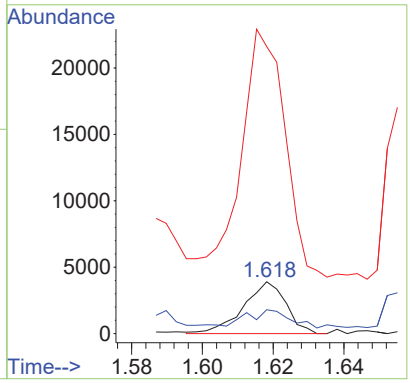


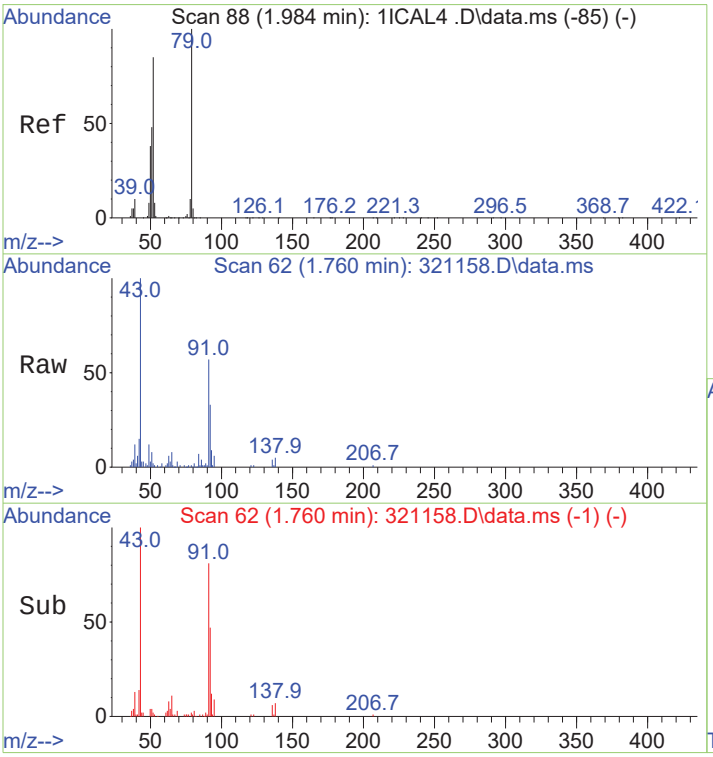


#2
Ntrsdimeth
Concen: 1.28 ug/mL
RT: 1.618 min Scan# 12
Delta R.T. -0.020 min
Lab File: 321158.D
Acq: 10 Sep 2019 21:20

Tgt Ion: 74 Resp: 3258

Ion	Ratio	Lower	Upper
74	100		
42	29.8	54.2	114.2#
43	432.8	5.5	65.5#

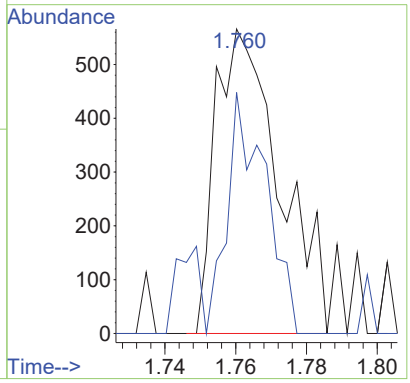


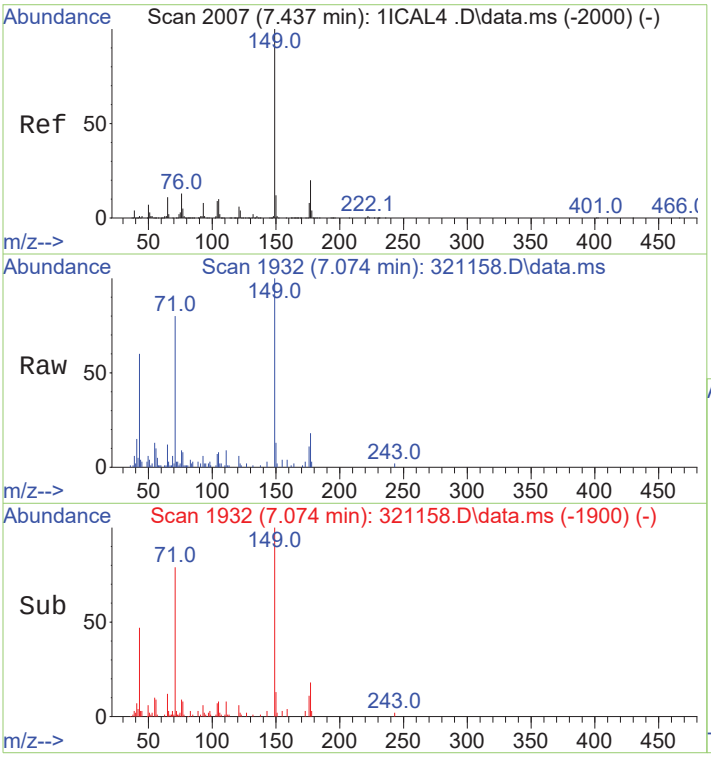


#3
Pyridine
Concen: 0.65 ug/mL
RT: 1.760 min Scan# 62
Delta R.T. 0.114 min
Lab File: 321158.D
Acq: 10 Sep 2019 21:20

Tgt Ion: 79 Resp: 712

Ion	Ratio	Lower	Upper
79	100		
52	79.2	46.7	106.7

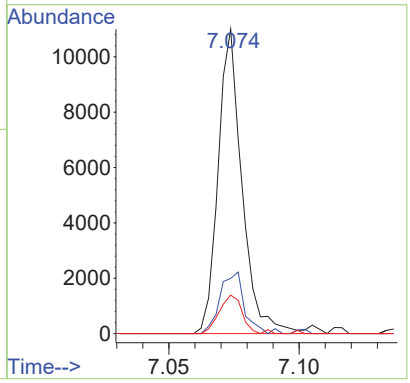


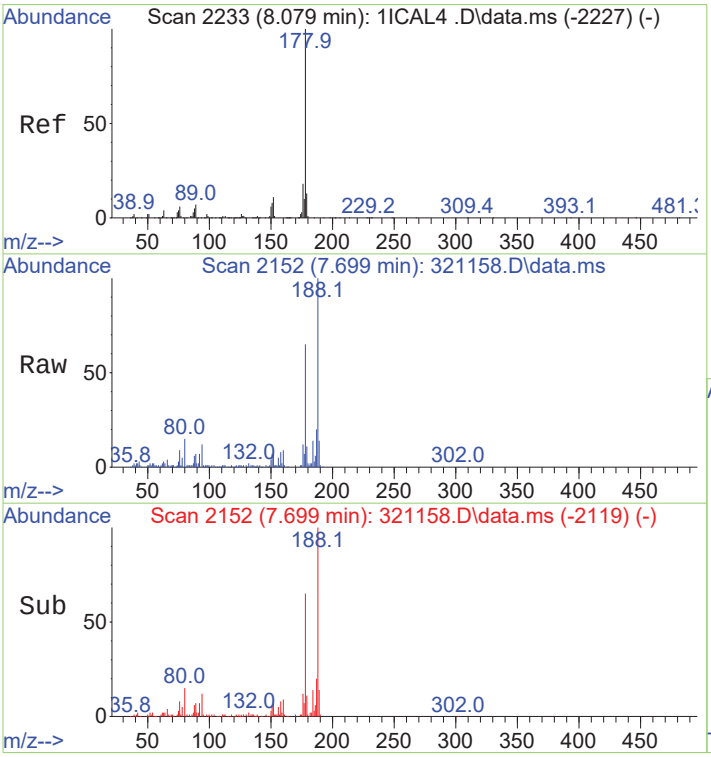


#60
Diethylphthal
Concen: 0.42 ug/mL
RT: 7.074 min Scan# 1932
Delta R.T. -0.008 min
Lab File: 321158.D
Acq: 10 Sep 2019 21:20

Tgt Ion:149 Resp: 7083

Ion	Ratio	Lower	Upper
149	100		
177	18.1	0.0	49.3
150	12.7	0.0	41.9

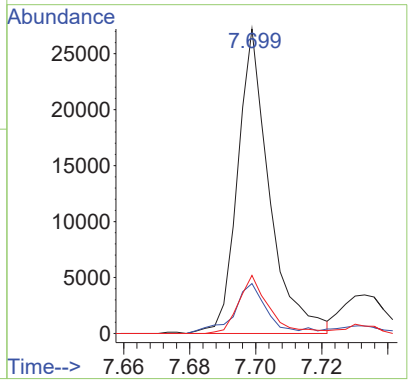


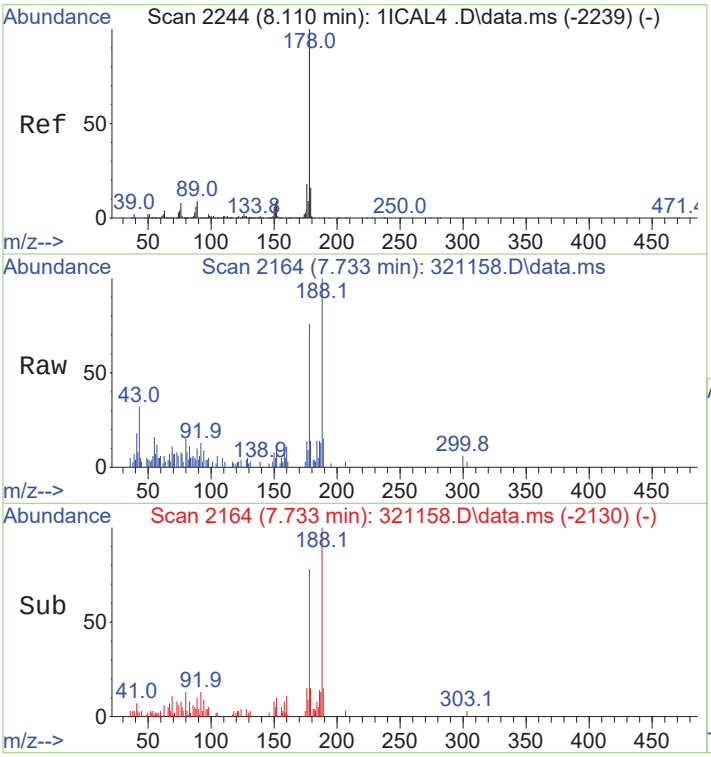


#70
Phenanthrene
Concen: 0.83 ug/mL
RT: 7.699 min Scan# 2152
Delta R.T. -0.006 min
Lab File: 321158.D
Acq: 10 Sep 2019 21:20

Tgt Ion:178 Resp: 18232

Ion	Ratio	Lower	Upper
178	100		
179	16.4	0.0	45.3
176	19.1	0.0	48.4

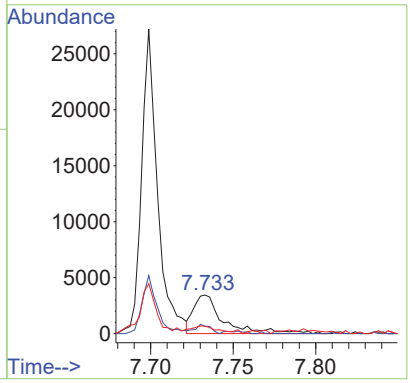


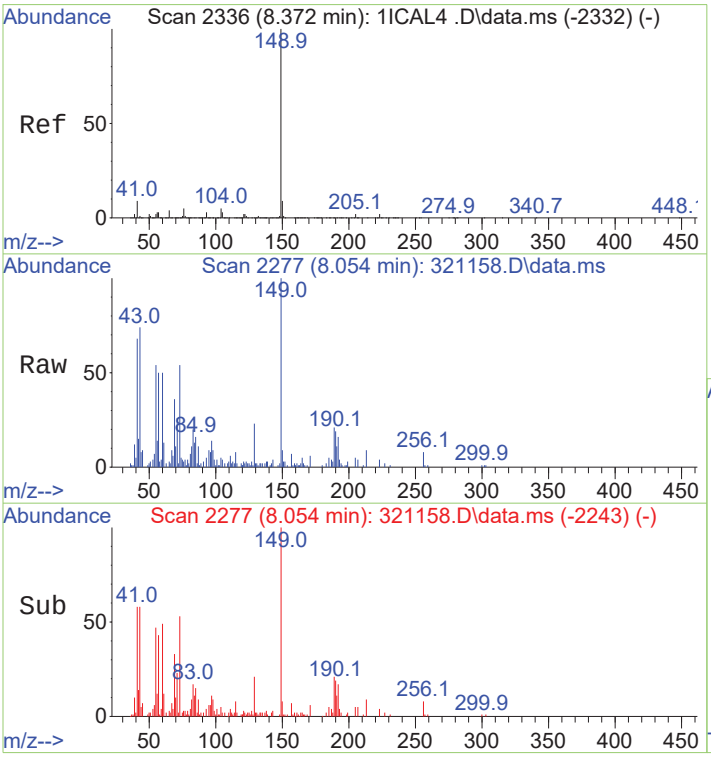


#71
Anthracene
Concen: 0.19 ug/mL
RT: 7.733 min Scan# 2164
Delta R.T. -0.003 min
Lab File: 321158.D
Acq: 10 Sep 2019 21:20

Tgt Ion:178 Resp: 4315

Ion	Ratio	Lower	Upper
178	100		
176	19.1	0.0	47.6
179	14.9	0.0	45.1

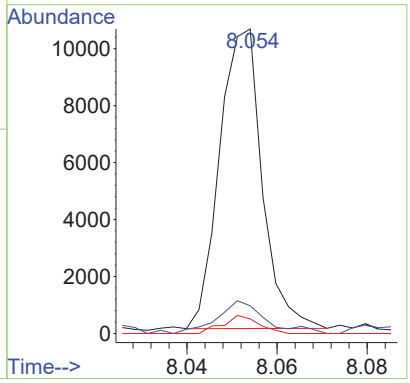


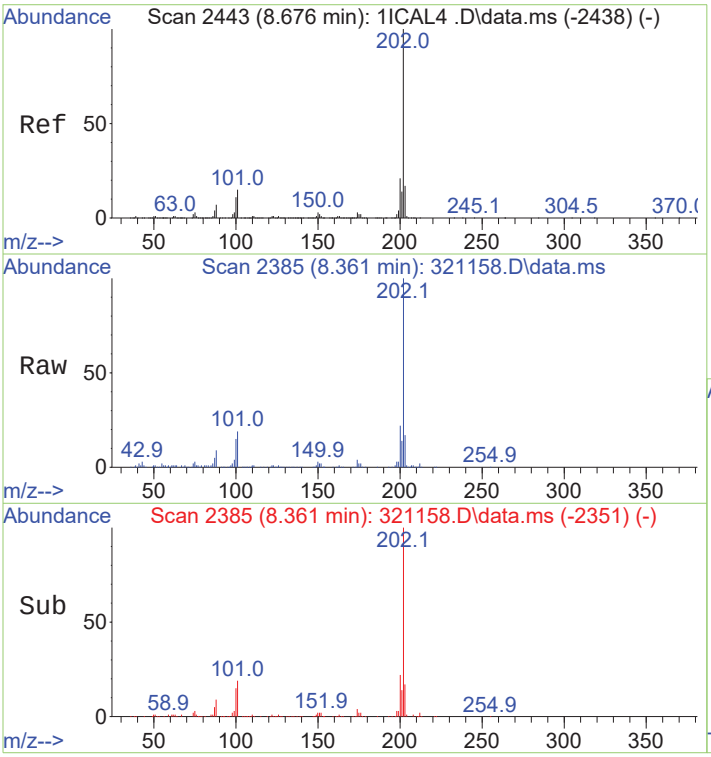


#73
Dinbtylphthal
Concen: 0.09 ug/mL
RT: 8.054 min Scan# 2277
Delta R.T. -0.003 min
Lab File: 321158.D
Acq: 10 Sep 2019 21:20

Tgt Ion:149 Resp: 6896

Ion	Ratio	Lower	Upper
149	100		
150	9.2	0.0	39.0
104	4.8	0.0	34.6

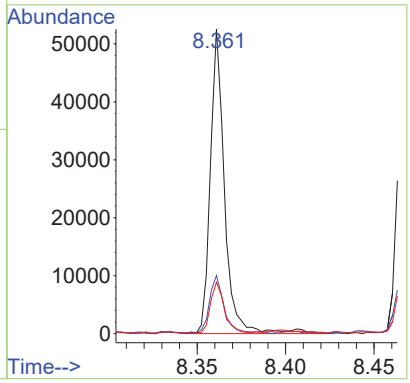


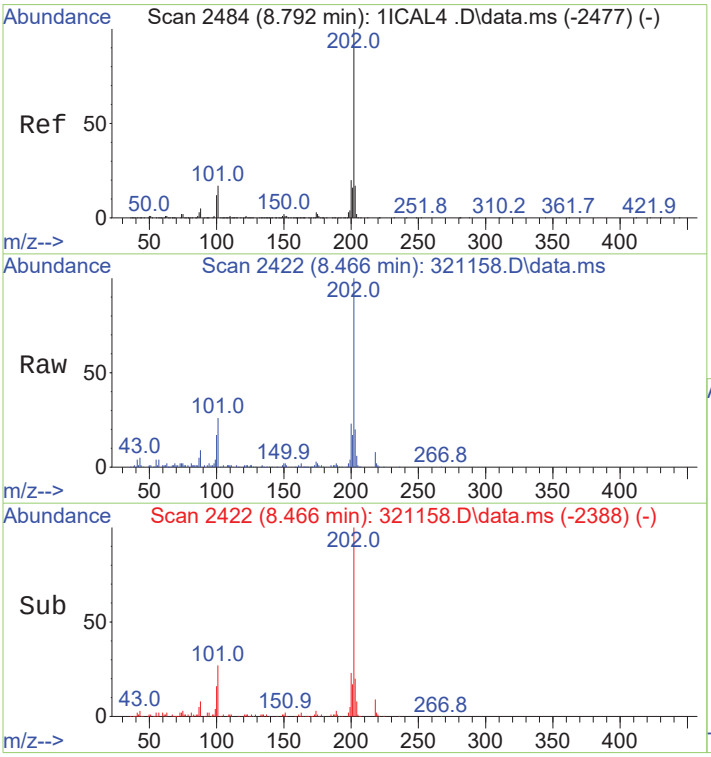


#74
Fluoranthene
Concen: 1.85 ug/mL
RT: 8.361 min Scan# 2385
Delta R.T. -0.003 min
Lab File: 321158.D
Acq: 10 Sep 2019 21:20

Tgt Ion:202 Resp: 29442

Ion	Ratio	Lower	Upper
202	100		
101	18.8	0.0	50.7
203	16.7	0.0	47.3

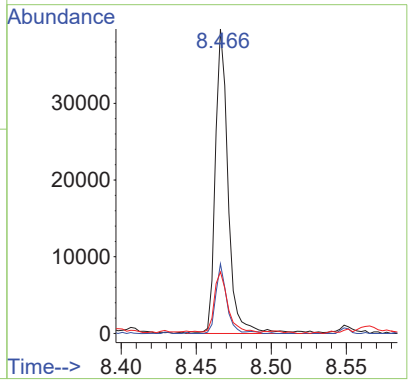


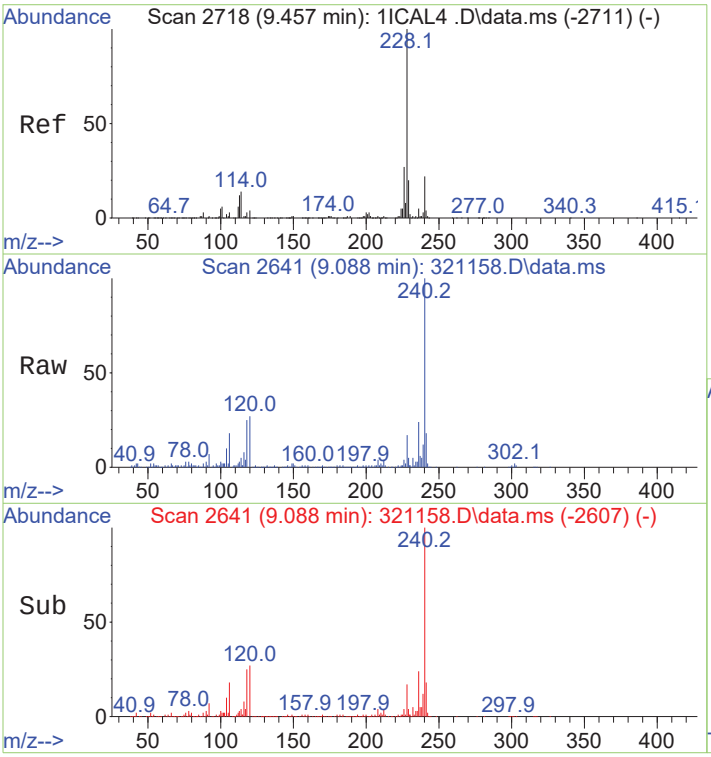


#77
Pyrene
Concen: 1.35 ug/mL
RT: 8.466 min Scan# 2422
Delta R.T. -0.003 min
Lab File: 321158.D
Acq: 10 Sep 2019 21:20

Tgt Ion:202 Resp: 23810

Ion	Ratio	Lower	Upper
202	100		
200	22.8	0.0	50.1
203	19.9	0.0	46.9

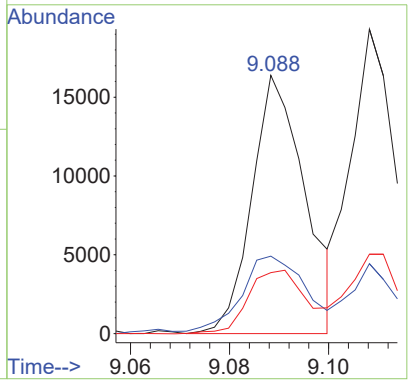


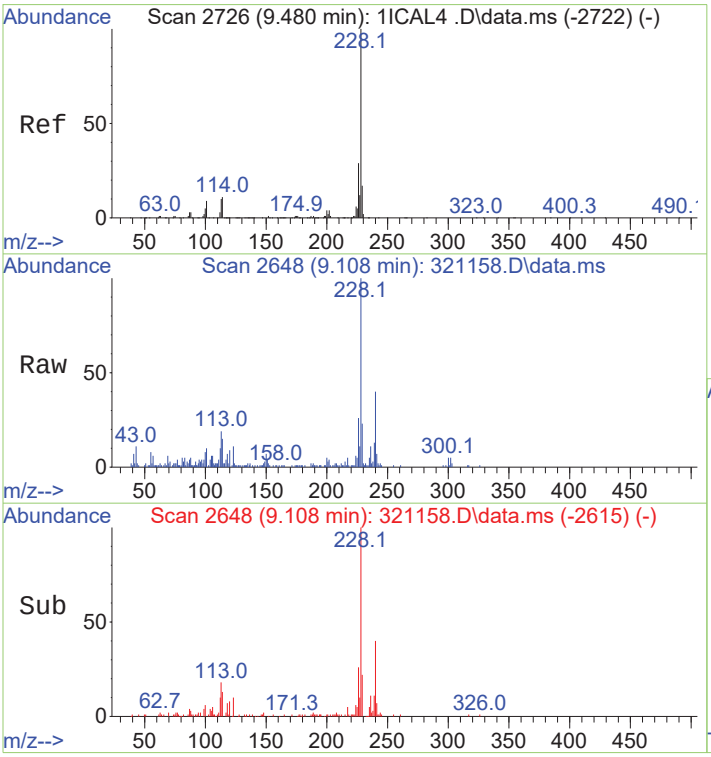


#82
B[a]anthracen
Concen: 0.84 ug/mL
RT: 9.088 min Scan# 2641
Delta R.T. -0.003 min
Lab File: 321158.D
Acq: 10 Sep 2019 21:20

Tgt Ion:228 Resp: 12187

Ion	Ratio	Lower	Upper
228	100		
229	29.1	0.0	49.3
226	23.6	0.0	56.2

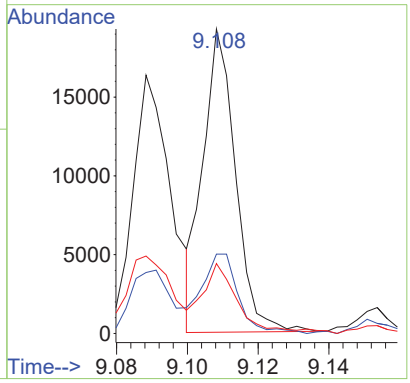


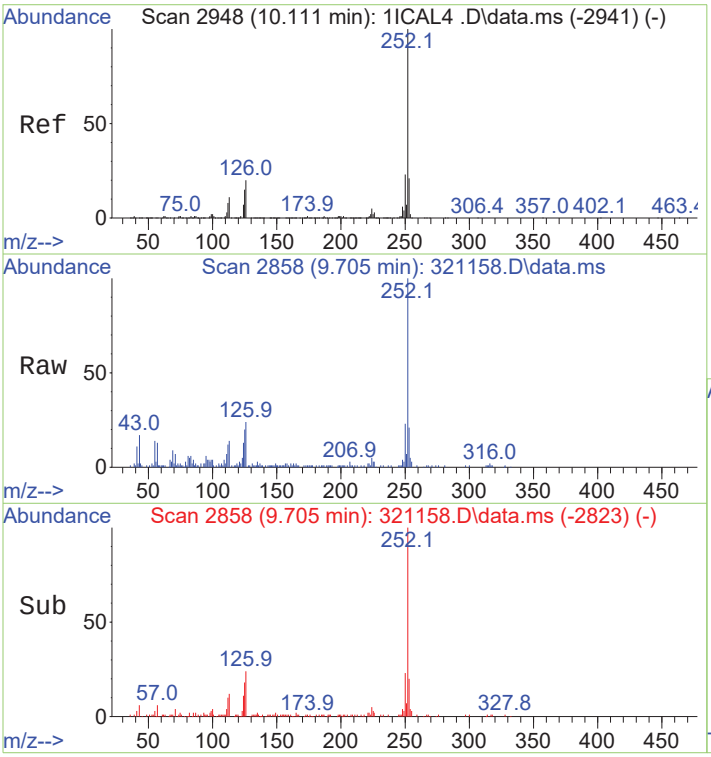


#83
Chrysene
Concen: 0.82 ug/mL
RT: 9.108 min Scan# 2648
Delta R.T. -0.006 min
Lab File: 321158.D
Acq: 10 Sep 2019 21:20

Tgt Ion:228 Resp: 12322

Ion	Ratio	Lower	Upper
228	100		
226	25.5	0.0	59.0
229	22.3	0.0	49.4

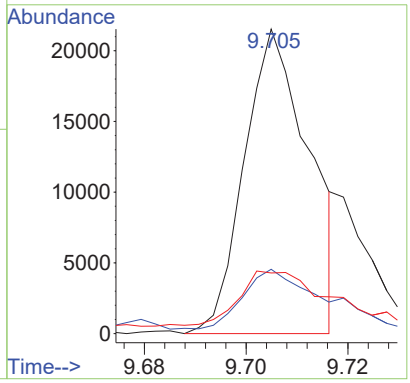


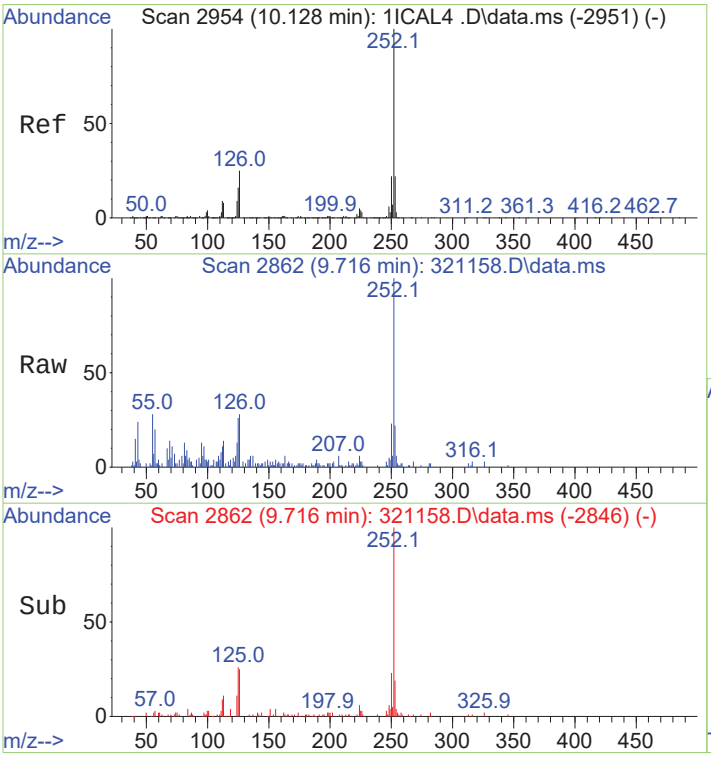


#87
B[b]fluoranth
Concen: 1.40 ug/mL m
RT: 9.705 min Scan# 2858
Delta R.T. 0.000 min
Lab File: 321158.D
Acq: 10 Sep 2019 21:20

Tgt Ion:252 Resp: 19079

Ion	Ratio	Lower	Upper
252	100		
253	21.1	0.0	51.9
125	19.9	0.0	50.0

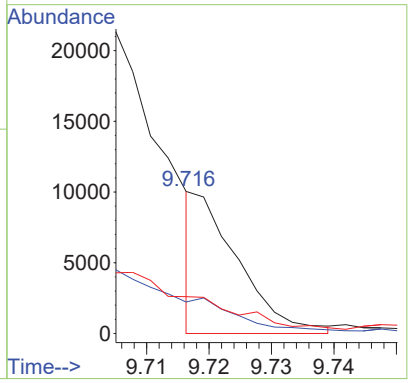


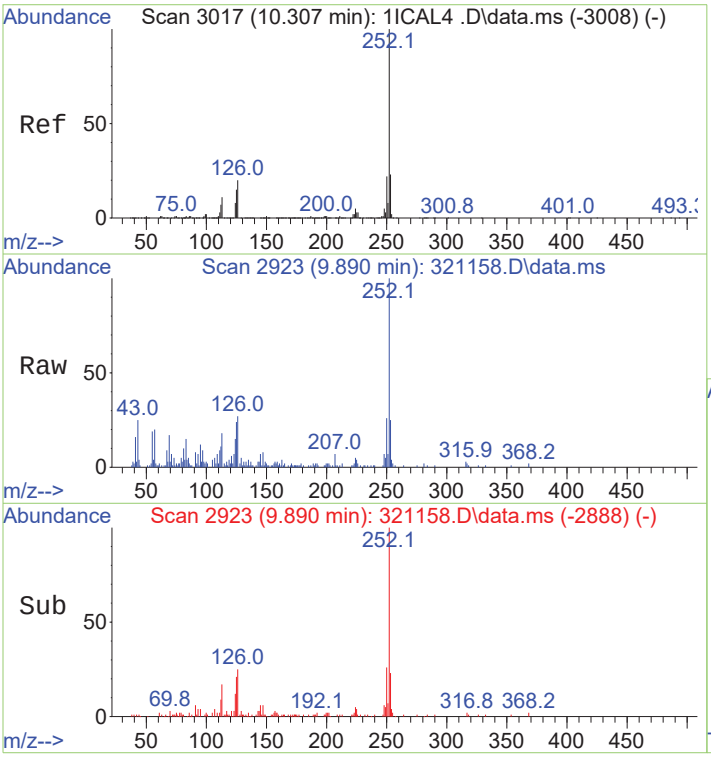


#88
B[k]fluoranth
Concen: 0.35 ug/mL m
RT: 9.716 min Scan# 2862
Delta R.T. -0.006 min
Lab File: 321158.D
Acq: 10 Sep 2019 21:20

Tgt Ion:252 Resp: 4794

Ion	Ratio	Lower	Upper
252	100		
253	22.2	0.0	52.0
125	25.9	0.0	50.2

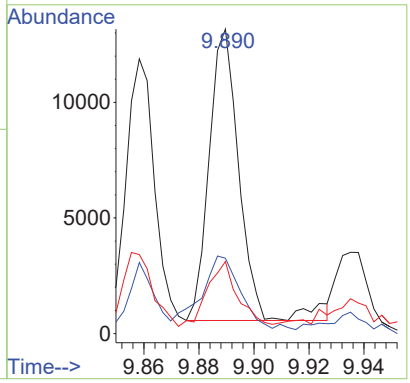


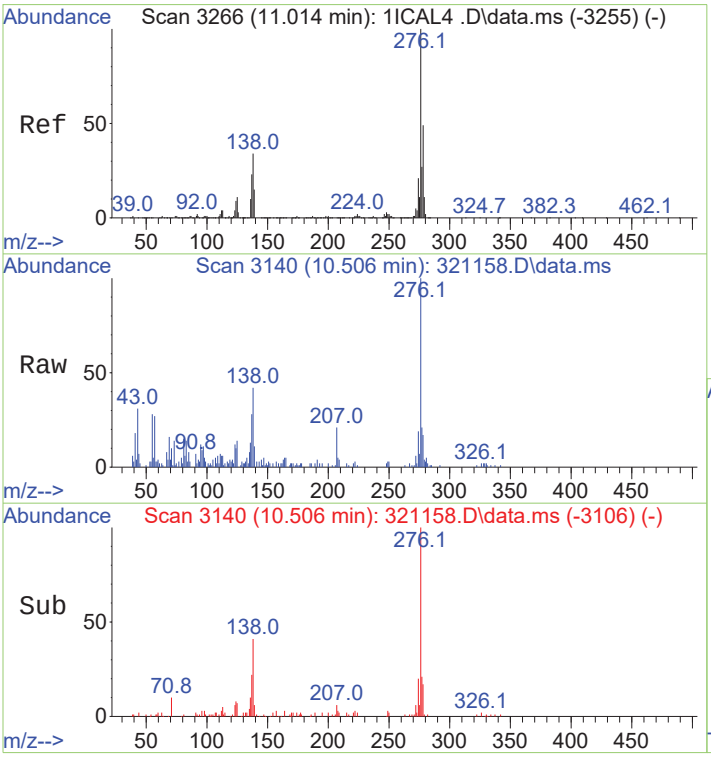


#89
Benz[a]pyrene
Concen: 0.69 ug/mL
RT: 9.890 min Scan# 2923
Delta R.T. 0.000 min
Lab File: 321158.D
Acq: 10 Sep 2019 21:20

Tgt Ion:252 Resp: 9699

Ion	Ratio	Lower	Upper
252	100		
253	22.5	0.0	51.7
125	20.3	0.0	51.4

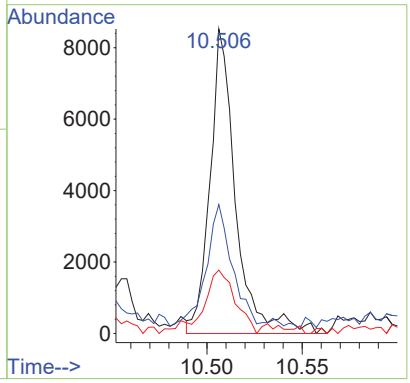


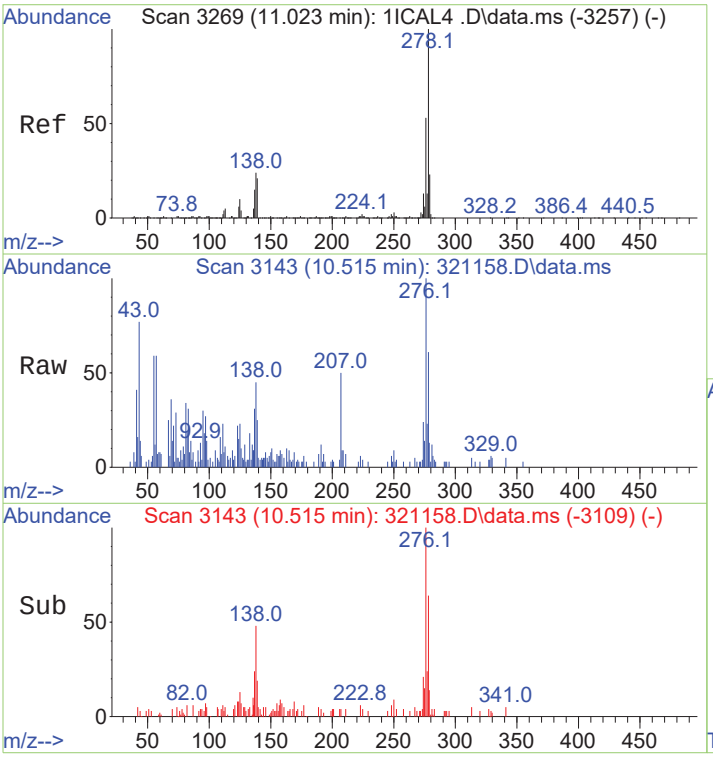


#90
Indeno-pyrene
Concen: 0.55 ug/mL
RT: 10.506 min Scan# 3140
Delta R.T. -0.003 min
Lab File: 321158.D
Acq: 10 Sep 2019 21:20

Tgt Ion:276 Resp: 8011

Ion	Ratio	Lower	Upper
276	100		
138	38.3	13.2	73.2
277	20.8	0.0	54.7

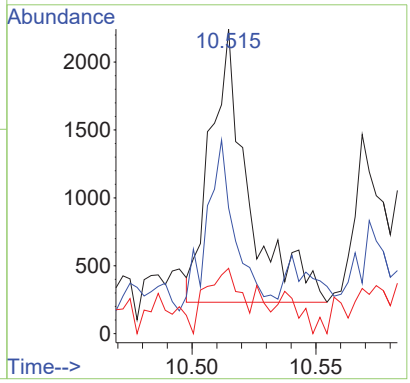


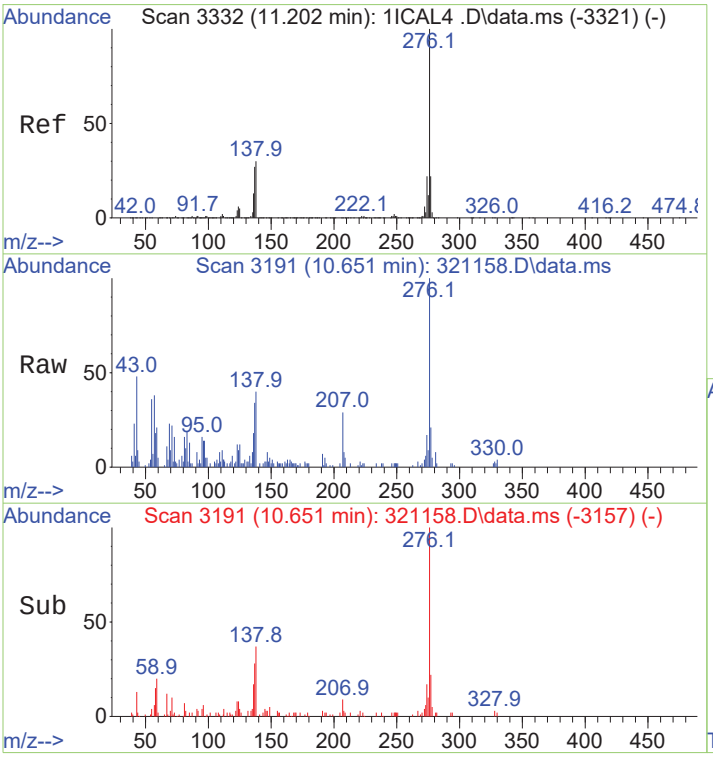


#91
Dib[ah]anthr
Concen: 0.18 ug/mL
RT: 10.515 min Scan# 3143
Delta R.T. -0.003 min
Lab File: 321158.D
Acq: 10 Sep 2019 21:20

Tgt Ion:278 Resp: 2161

Ion	Ratio	Lower	Upper
278	100		
139	26.3	4.7	64.7
279	19.3	0.0	54.0

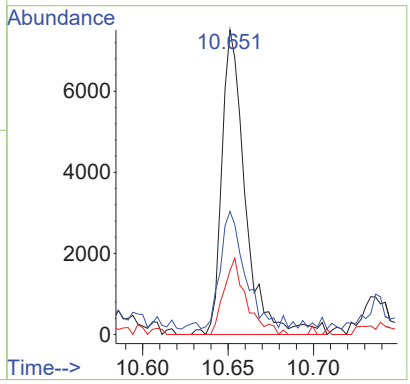


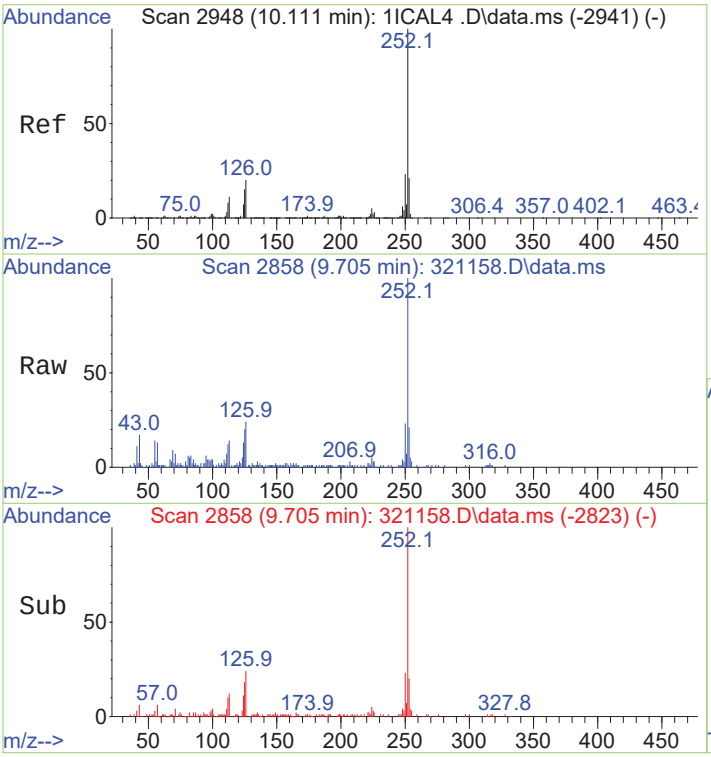


#92
B[ghi]perylen
Concen: 0.56 ug/mL
RT: 10.651 min Scan# 3191
Delta R.T. -0.003 min
Lab File: 321158.D
Acq: 10 Sep 2019 21:20

Tgt Ion:276 Resp: 7188

Ion	Ratio	Lower	Upper
276	100		
138	38.6	15.0	75.0
277	19.4	0.0	54.0

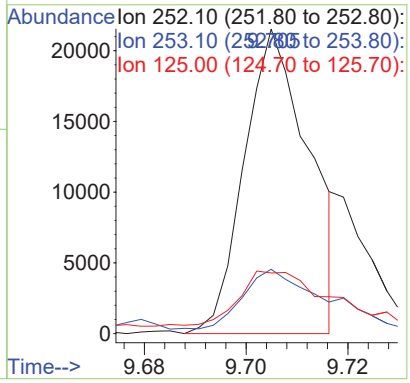




#87
B[b]fluoranth
Concen: 1.40 ug/mL m
RT: 9.705 min Scan# 2858
Delta R.T. 0.000 min
Lab File: 321158.D
Acq: 10 Sep 2019 21:20

Tgt Ion:252 Resp: 19079

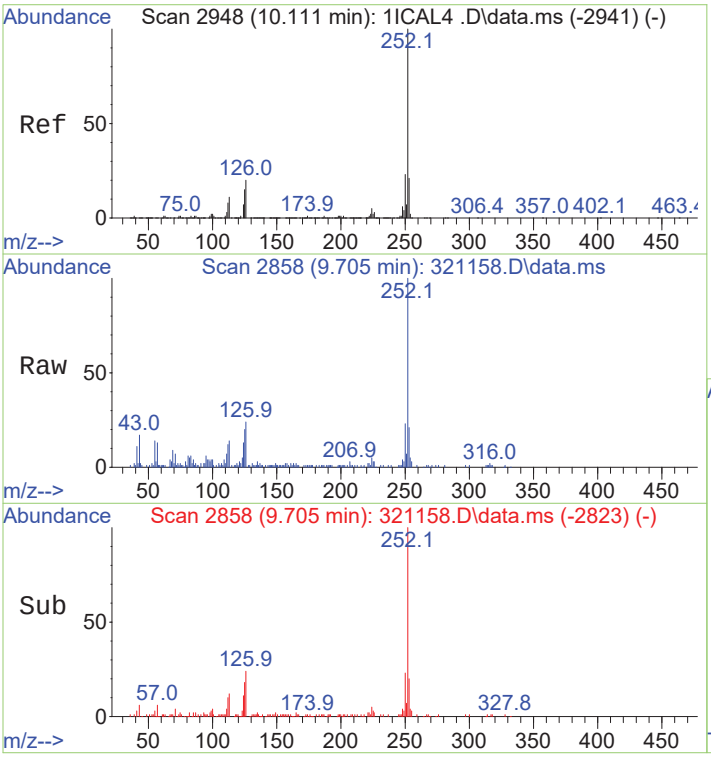
Ion	Ratio	Lower	Upper
252	100		
253	21.1	0.0	51.9
125	19.9	0.0	50.0



After Manual Integration

Reason#3 JJY 9/16/19

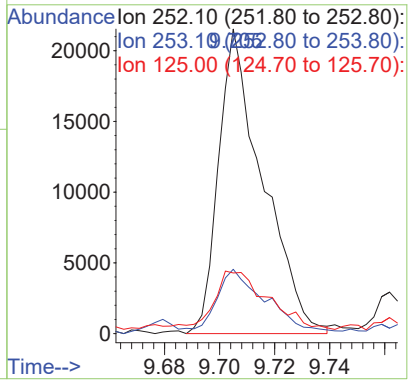
AJZ 09/19/2019



#87
B[b]fluoranth
Concen: 1.75 ug/mL
RT: 9.705 min Scan# 2858
Delta R.T. 0.000 min
Lab File: 321158.D
Acq: 10 Sep 2019 21:20

Tgt Ion:252 Resp: 23873

Ion	Ratio	Lower	Upper
252	100		
253	19.9	0.0	51.9
125	18.0	0.0	50.0

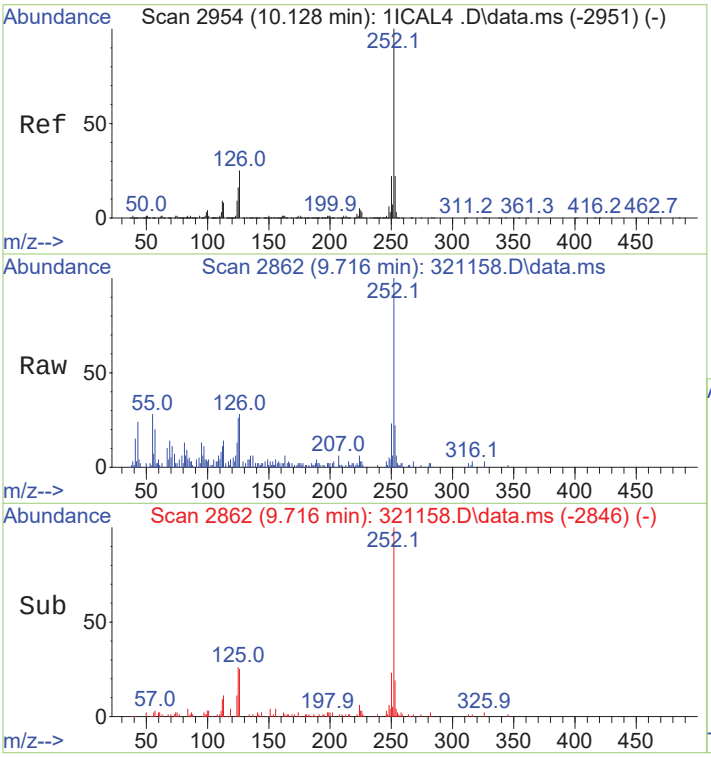


Before Manual Integration

Reason#3

JJY
9/16/19

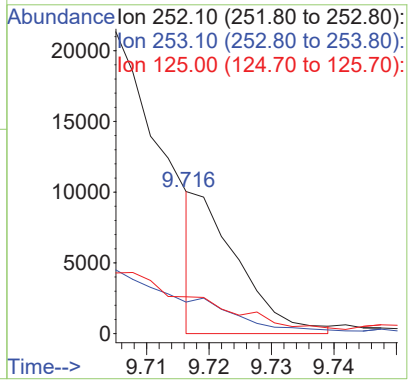
AJZ
09/19/2019



#88
B[k]fluoranth
Concen: 0.35 ug/mL m
RT: 9.716 min Scan# 2862
Delta R.T. -0.006 min
Lab File: 321158.D
Acq: 10 Sep 2019 21:20

Tgt Ion:252 Resp: 4794

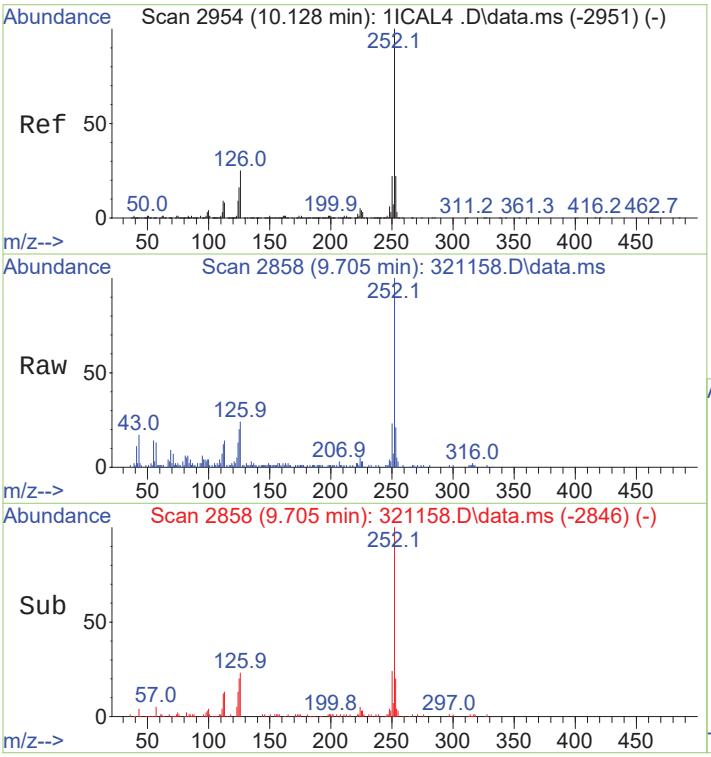
Ion	Ratio	Lower	Upper
252	100		
253	22.2	0.0	52.0
125	25.9	0.0	50.2



After Manual Integration

Reason#3 JJY 9/16/19

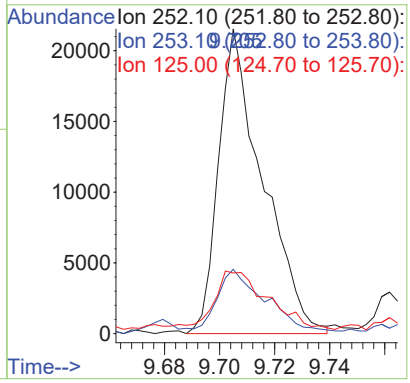
AJZ 09/19/2019



#88
B[k]fluoranth
Concen: 1.75 ug/mL
RT: 9.705 min Scan# 2858
Delta R.T. -0.017 min
Lab File: 321158.D
Acq: 10 Sep 2019 21:20

Tgt Ion:252 Resp: 23873

Ion	Ratio	Lower	Upper
252	100		
253	19.9	0.0	52.0
125	18.0	0.0	50.2



Before Manual Integration

Reason#3 JJY 9/16/19

AJZ 09/19/2019

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321158.D Vial: 10
Acq On : 10 Sep 2019 21:20 Operator: JJY
Sample : 164275,321158, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:28 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

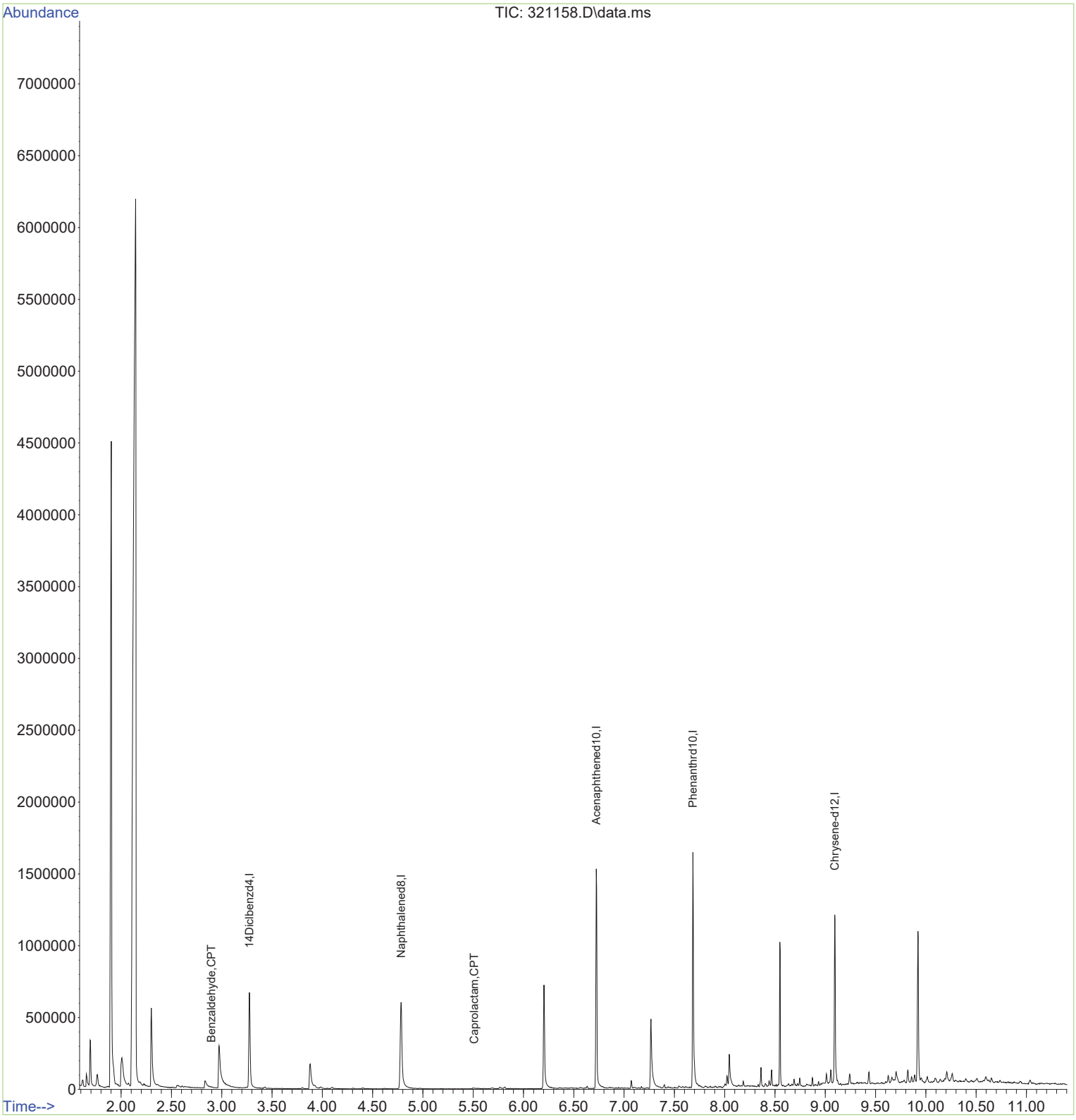
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	107847	20.00	ug/mL	0.00
3) Naphthalened8	4.784	136	400421	20.00	ug/mL	0.00
5) Acenaphthened10	6.724	164	257540	20.00	ug/mL	0.00
7) Phenanthrd10	7.685	188	423735	20.00	ug/mL	0.00
9) Chrysene-d12	9.094	240	233958	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	2.897	77	651	0.7028	ug/mL#	33
4) Caprolactam	5.511	55	1926	1.3974	ug/mL#	33

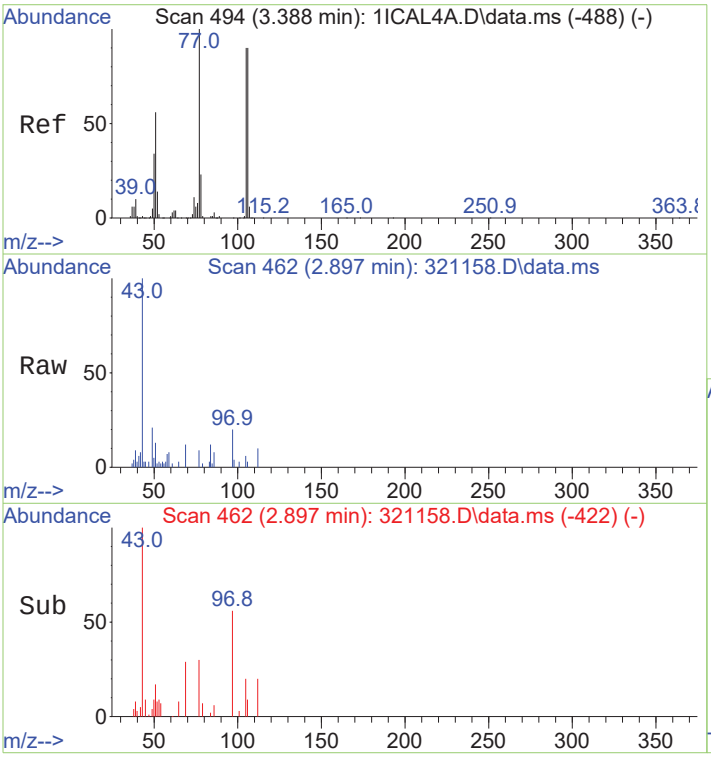
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321158.D Vial: 10
Acq On : 10 Sep 2019 21:20 Operator: JJY
Sample : 164275,321158, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:28 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

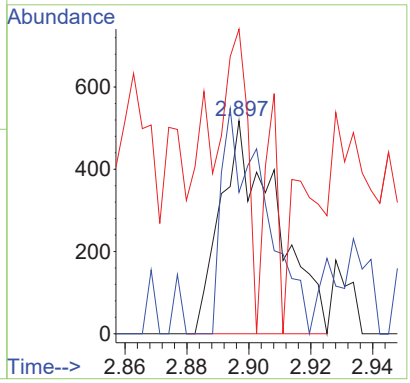


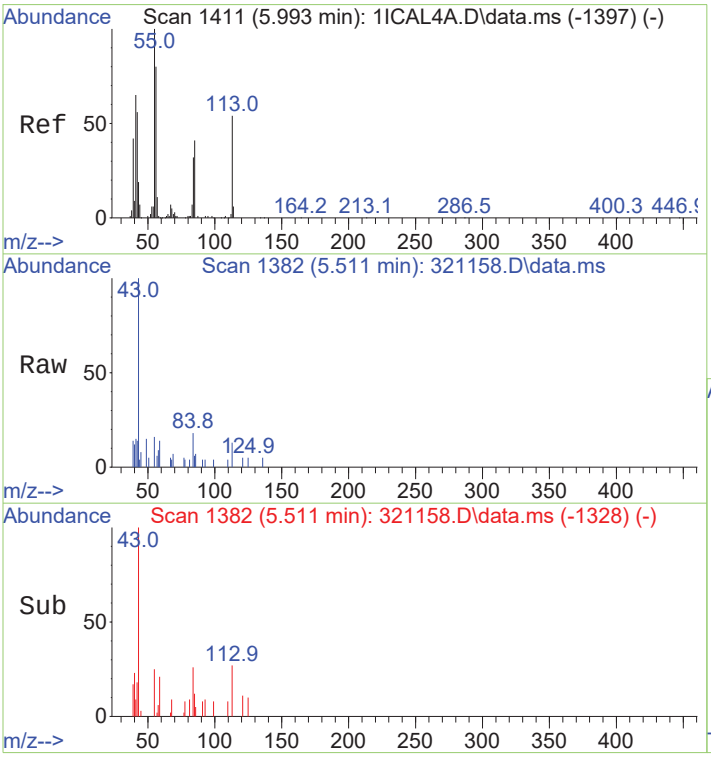


#2
Benzaldehyde
Concen: 0.70 ug/mL
RT: 2.897 min Scan# 462
Delta R.T. 0.014 min
Lab File: 321158.D
Acq: 10 Sep 2019 21:20

Tgt Ion: 77 Resp: 651

Ion	Ratio	Lower	Upper
77	100		
105	81.6	67.4	127.4
51	167.9	23.2	83.2#

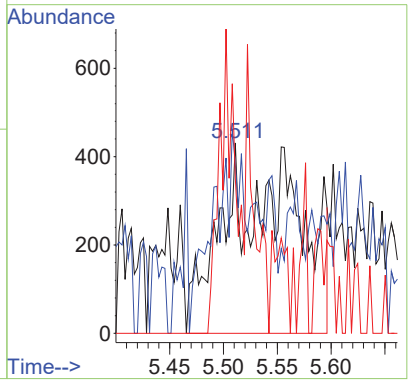




#4
Caprolactam
Concen: 1.40 ug/mL
RT: 5.511 min Scan# 1382
Delta R.T. 0.054 min
Lab File: 321158.D
Acq: 10 Sep 2019 21:20

Tgt Ion: 55 Resp: 1926

Ion	Ratio	Lower	Upper
55	100		
42	25.6	24.6	84.6
113	124.6	26.7	86.7#



Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321158.D
Acq On : 10 Sep 2019 21:20
Operator : JJY
Sample : 164275,321158,
Misc : 500ul+5ul S4142A
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 1 5-Hexen-2-one Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.692	8.14 ug/mL	250722	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	5-Hexen-2-one	98	C6H10O	000109-49-9	35
2	5-Hexen-2-one	98	C6H10O	000109-49-9	9
3	2-Pentanone, 5-hydroxy-	102	C5H10O2	001071-73-4	9
4	Methyl 1-methylcyclopropyl ketone	98	C6H10O	001567-75-5	9
5	3,5-Hexadien-2-ol	98	C6H10O	003280-51-1	7

****

Peak Number 2 3-Penten-2-one, 4-methyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.902	117.41 ug/mL	3616970	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
2	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
3	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	90
4	2-Pentene, 3,4-dimethyl-, (Z)-	98	C7H14	004914-91-4	86
5	2-Pentene, 3,4-dimethyl-, (E)-	98	C7H14	004914-92-5	86

****

Peak Number 3 2-Pentanone, 5-(acetyloxy)- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.007	11.07 ug/mL	340910	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pentanone, 5-(acetyloxy)-	144	C7H12O3	005185-97-7	25
2	Acetic acid, 1-methylethyl ester	102	C5H10O2	000108-21-4	12
3	Acetone	58	C3H6O	000067-64-1	9
4	Butanoic acid, ethyl ester	116	C6H12O2	000105-54-4	9
5	Acetic acid, hexyl ester	144	C8H16O2	000142-92-7	9

****

Peak Number 4 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.144	353.35 ug/mL	10885800	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	56
2	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	47
3	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	28

Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321158.D
Acq On : 10 Sep 2019 21:20
Operator : JJY
Sample : 164275,321158,
Misc : 500ul+5ul S4142A
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

4	Acetic acid, cyano-, 1,1-dimethy...	141	C7H11NO2	001116-98-9	23
5	CH2=CHCH2C(O)OCH3	100	C5H8O2	003724-55-8	10

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321159.D Vial: 11
Acq On : 10 Sep 2019 21:39 Operator: JJY
Sample : 164275,321159, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 21:52:32 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

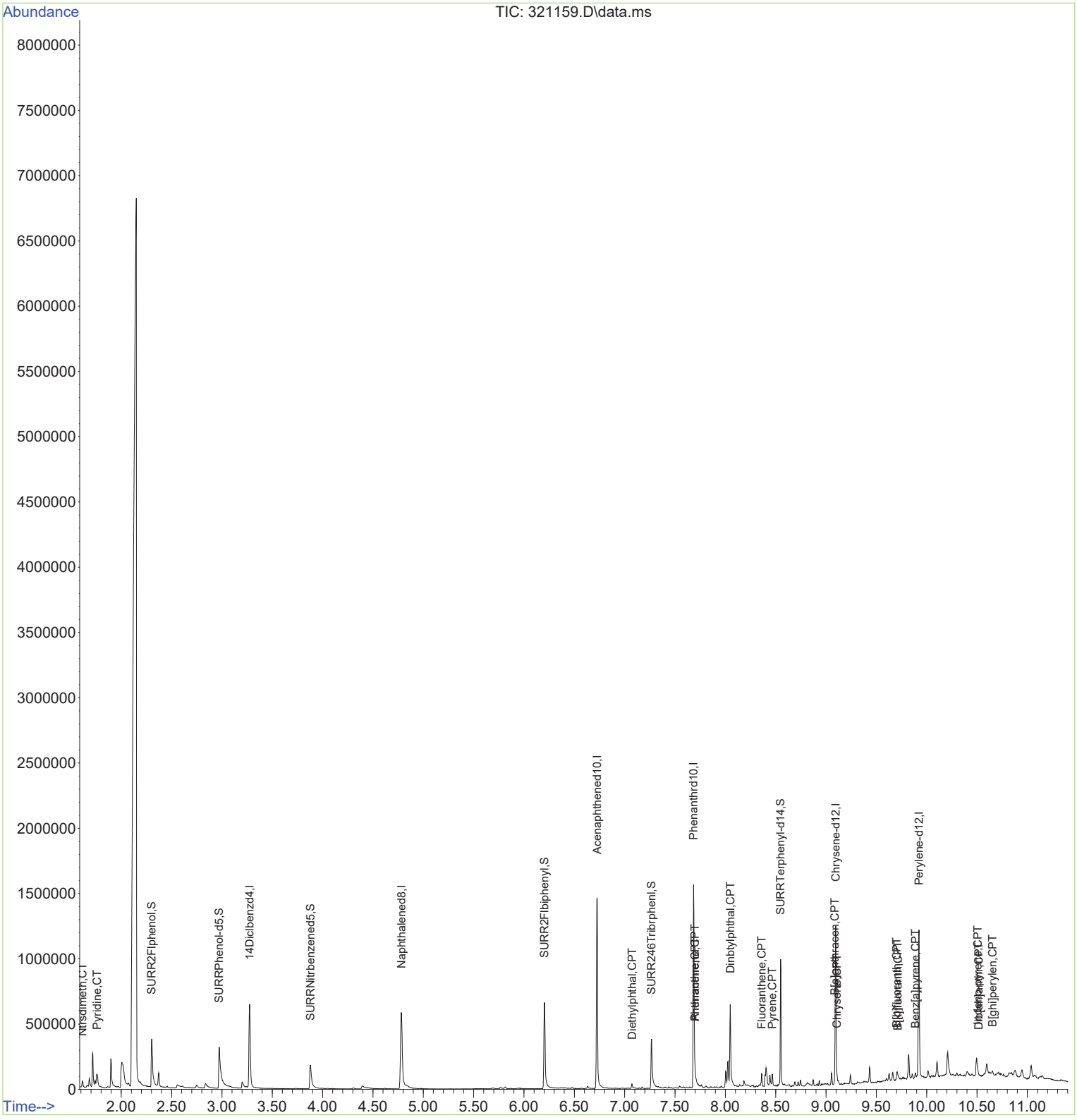
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	105225	20.00	ug/mL	0.00
21) Naphthalened8	4.783	136	400795	20.00	ug/mL	0.00
39) Acenaphthened10	6.727	164	246991	20.00	ug/mL	0.00
63) Phenanthrd10	7.685	188	420561	20.00	ug/mL	0.00
75) Chrysene-d12	9.097	240	240515	20.00	ug/mL	0.00
86) Perylene-d12	9.924	264	281211	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.303	112	121530	45.99	%REC	0.02
Spiked Amount 100.000			Recovery = 45.99%			
7) SURRPhenol-d5	2.973	99	177314	55.80	%REC	0.00
Spiked Amount 100.000			Recovery = 55.80%			
22) SURRNitrbenzened5	3.880	82	80234	58.98	%REC	0.00
Spiked Amount 100.000			Recovery = 58.98%			
44) SURR2Flbiphenyl	6.204	172	217816	66.20	%REC	0.00
Spiked Amount 100.000			Recovery = 66.20%			
62) SURR246Tribrphenl	7.267	330	41186	53.40	%REC	0.00
Spiked Amount 100.000			Recovery = 53.40%			
78) SURRTerphenyl-d14	8.548	244	156662	71.17	%REC	0.00
Spiked Amount 100.000			Recovery = 71.17%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.615	74	3330	1.3086	ug/mL#	1
3) Pyridine	1.760	79	1323	0.7412	ug/mL#	40
60) Diethylphthal	7.074	149	5481	0.3314	ug/mL	98
70) Phenanthrene	7.699	178	9744	0.4393	ug/mL	99
71) Anthracene	7.699	178	10454	0.4576	ug/mL	99
73) Dinbtylphthal	8.051	149	5222	0.0283	ug/mL	99
74) Fluoranthene	8.361	202	22766	1.4280	ug/mL	97
77) Pyrene	8.466	202	18832	1.0420	ug/mL	92
82) B[a]anthracen	9.088	228	11405	0.7692	ug/mL	84
83) Chrysene	9.108	228	10892	0.7098	ug/mL	89
87) B[b]fluoranth	9.702	252	14926m	0.9751	ug/mL	
88) B[k]fluoranth	9.713	252	6433m	0.4191	ug/mL	
89) Benz[a]pyrene	9.887	252	9441	0.5977	ug/mL	96
90) Indeno-pyrene	10.506	276	7651	0.4682	ug/mL	92
91) Dib[ah]anthr	10.517	278	2388	0.1801	ug/mL	62
92) B[ghi]perylen	10.654	276	7266	0.5075	ug/mL	89

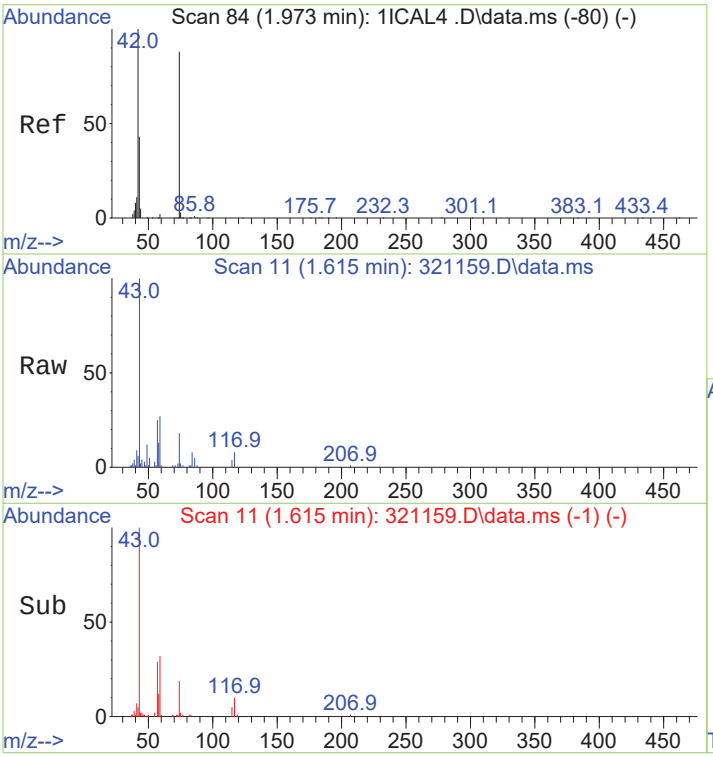
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321159.D Vial: 11
Acq On : 10 Sep 2019 21:39 Operator: JJY
Sample : 164275,321159, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 21:52:32 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

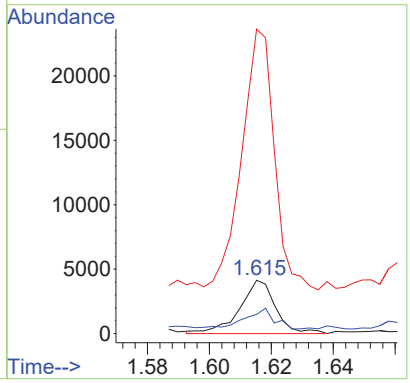


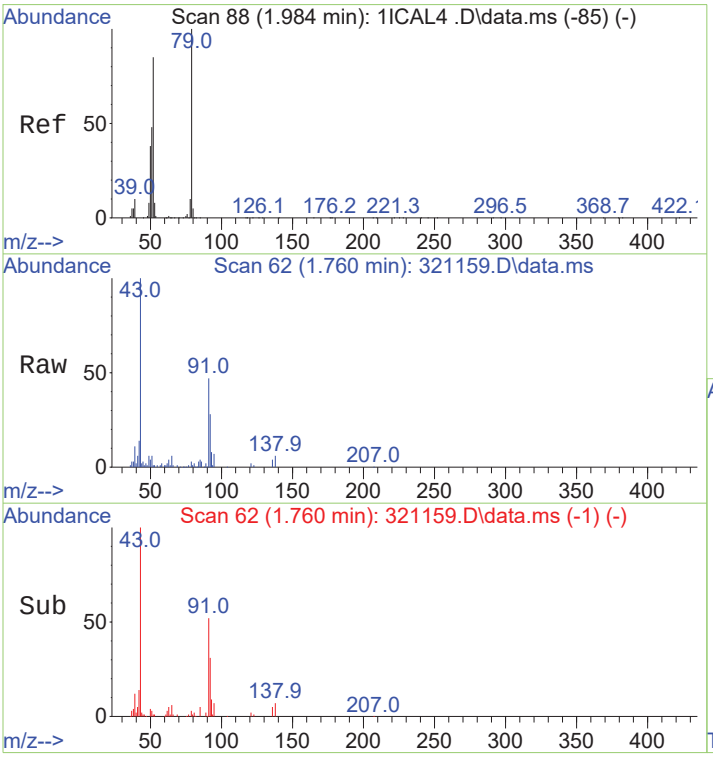


#2
Ntrsdimeth
Concen: 1.31 ug/mL
RT: 1.615 min Scan# 11
Delta R.T. -0.023 min
Lab File: 321159.D
Acq: 10 Sep 2019 21:39

Tgt Ion: 74 Resp: 3330

Ion	Ratio	Lower	Upper
74	100		
42	22.6	54.2	114.2#
43	486.9	5.5	65.5#

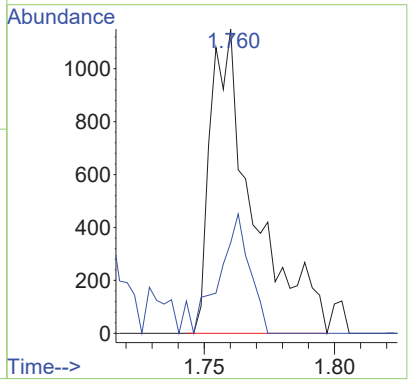


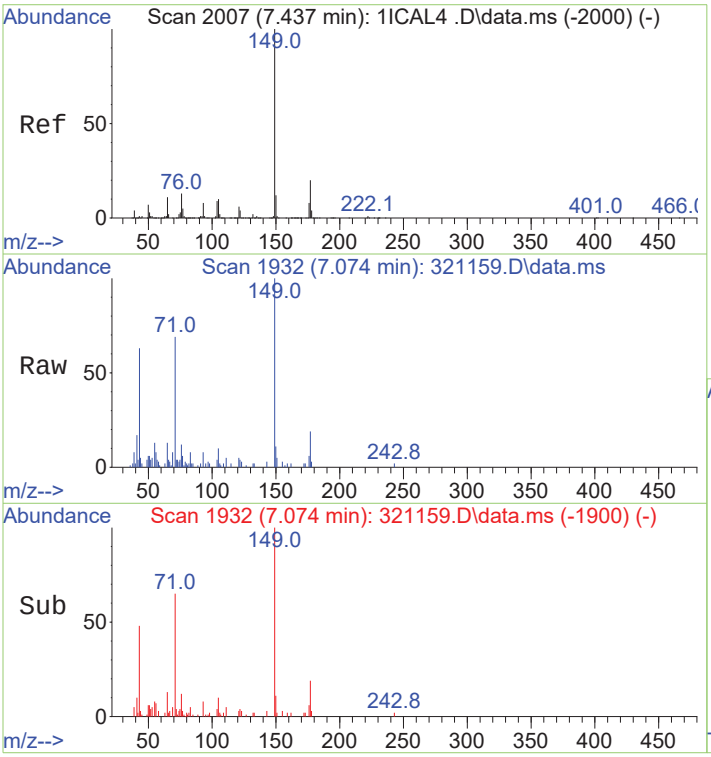


#3
Pyridine
Concen: 0.74 ug/mL
RT: 1.760 min Scan# 62
Delta R.T. 0.114 min
Lab File: 321159.D
Acq: 10 Sep 2019 21:39

Tgt Ion: 79 Resp: 1323

Ion	Ratio	Lower	Upper
79	100		
52	25.2	46.7	106.7#

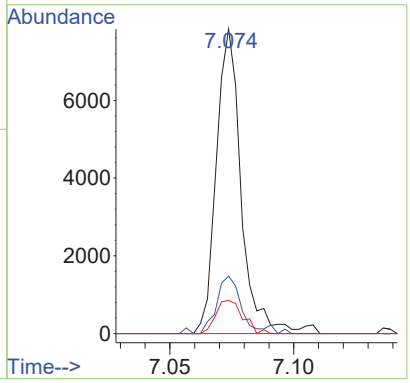


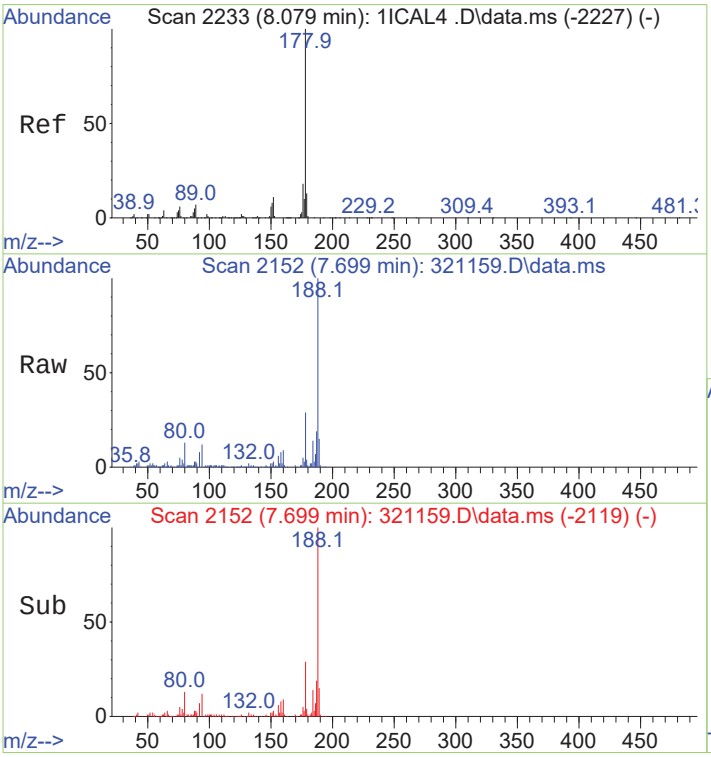


#60
Diethylphthal
Concen: 0.33 ug/mL
RT: 7.074 min Scan# 1932
Delta R.T. -0.008 min
Lab File: 321159.D
Acq: 10 Sep 2019 21:39

Tgt Ion:149 Resp: 5481

Ion	Ratio	Lower	Upper
149	100		
177	18.9	0.0	49.3
150	10.9	0.0	41.9

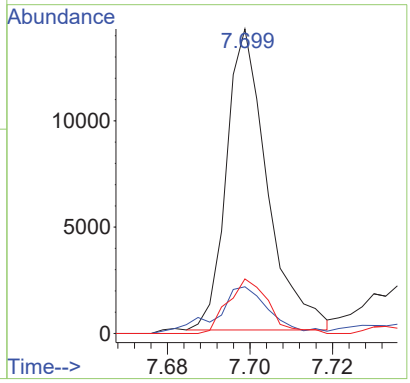


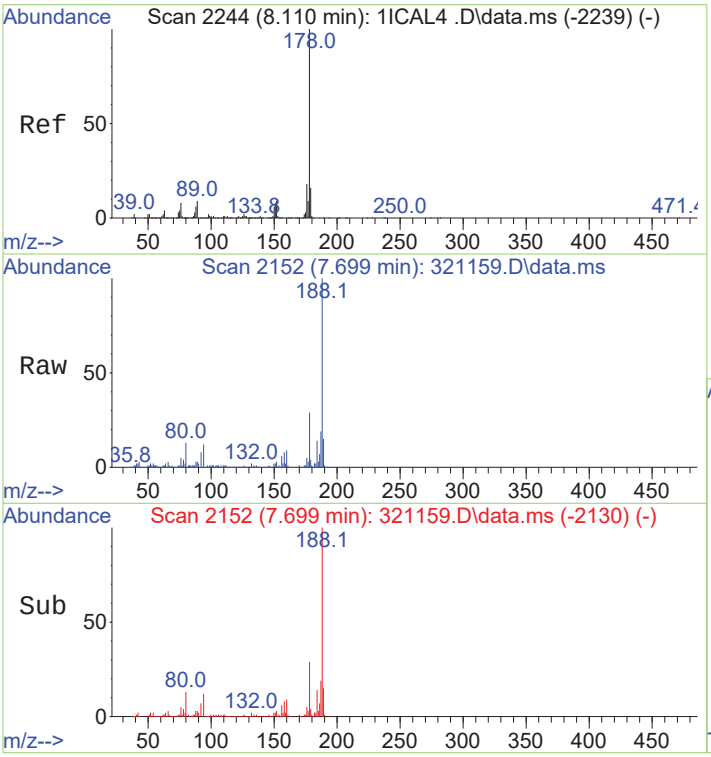


#70
Phenanthrene
Concen: 0.44 ug/mL
RT: 7.699 min Scan# 2152
Delta R.T. -0.006 min
Lab File: 321159.D
Acq: 10 Sep 2019 21:39

Tgt Ion:178 Resp: 9744

Ion	Ratio	Lower	Upper
178	100		
179	14.8	0.0	45.3
176	18.1	0.0	48.4

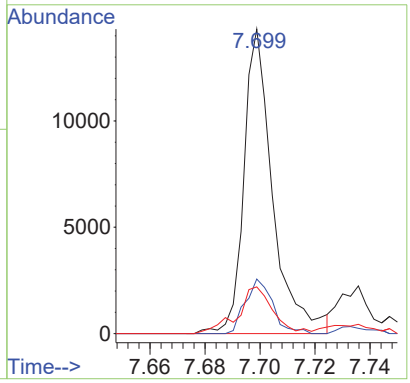


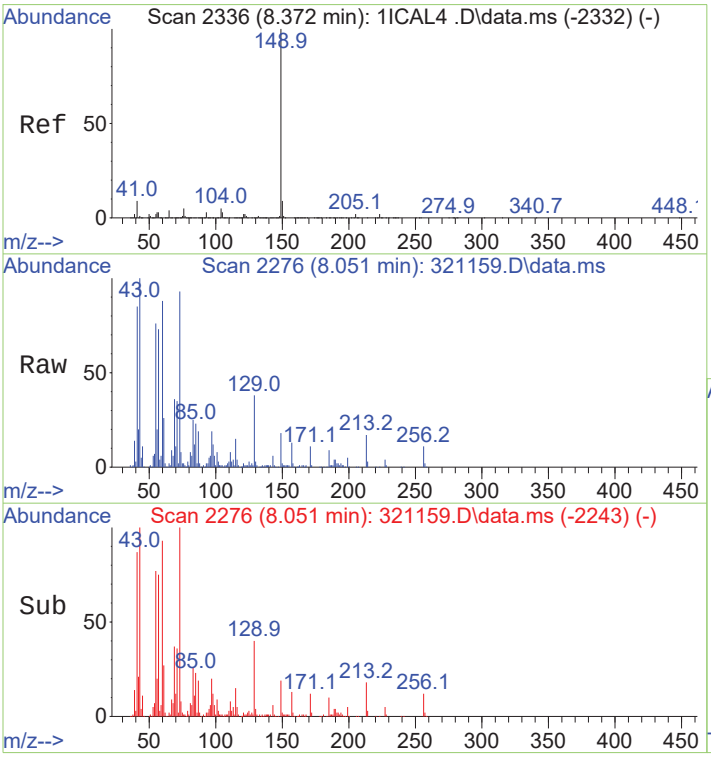


#71
Anthracene
Concen: 0.46 ug/mL
RT: 7.699 min Scan# 2152
Delta R.T. -0.037 min
Lab File: 321159.D
Acq: 10 Sep 2019 21:39

Tgt Ion:178 Resp: 10454

Ion	Ratio	Lower	Upper
178	100		
176	17.9	0.0	47.6
179	15.3	0.0	45.1

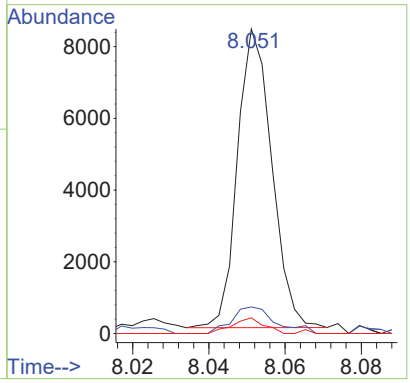


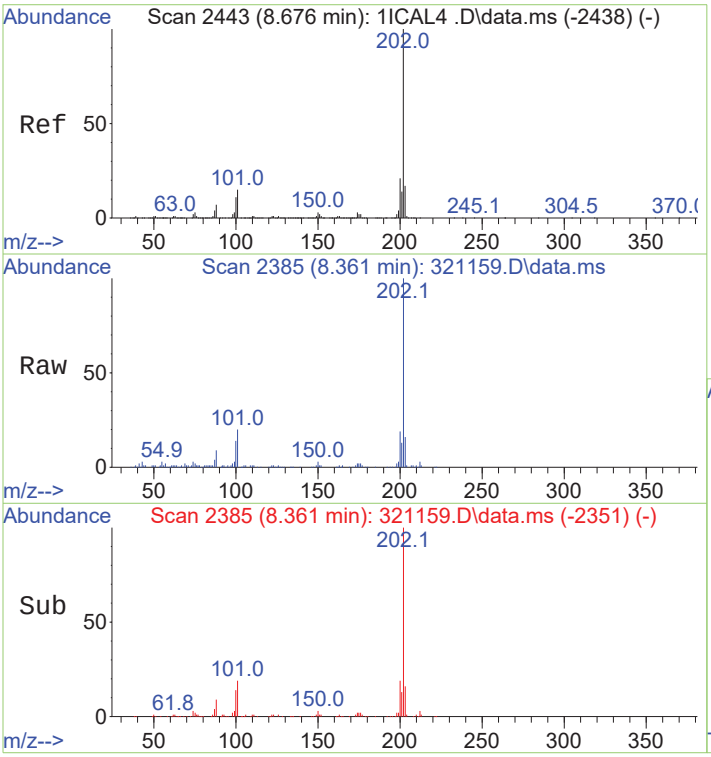


#73
Dinbtylphthal
Concen: 0.03 ug/mL
RT: 8.051 min Scan# 2276
Delta R.T. -0.006 min
Lab File: 321159.D
Acq: 10 Sep 2019 21:39

Tgt Ion:149 Resp: 5222

Ion	Ratio	Lower	Upper
149	100		
150	8.9	0.0	39.0
104	5.3	0.0	34.6

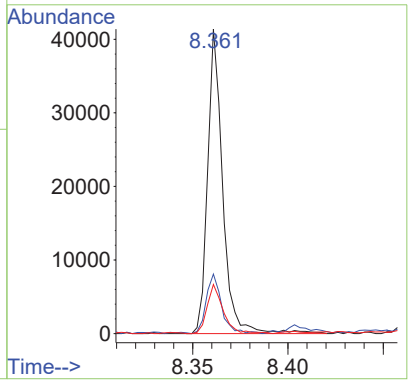


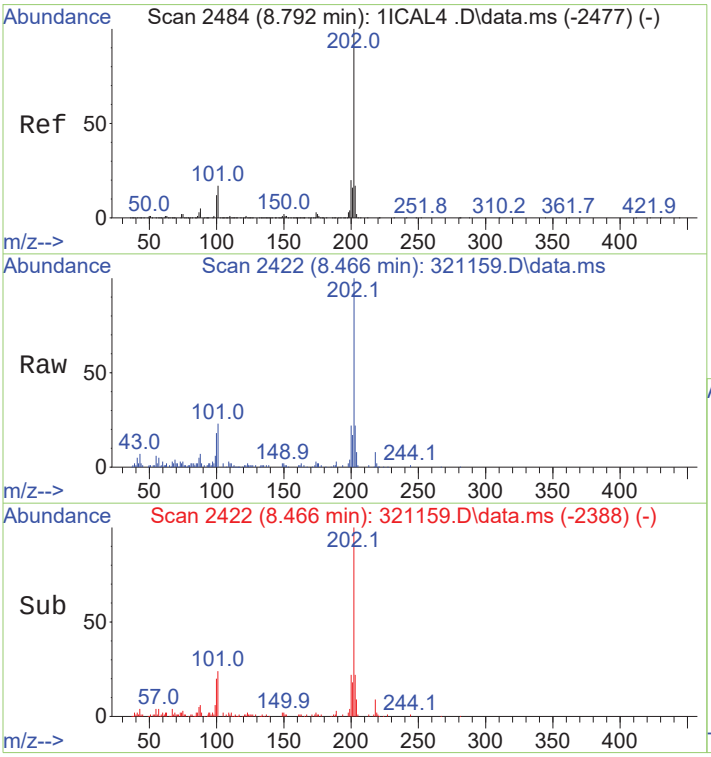


#74
Fluoranthene
Concen: 1.43 ug/mL
RT: 8.361 min Scan# 2385
Delta R.T. -0.003 min
Lab File: 321159.D
Acq: 10 Sep 2019 21:39

Tgt Ion:202 Resp: 22766

Ion	Ratio	Lower	Upper
202	100		
101	19.3	0.0	50.7
203	16.1	0.0	47.3

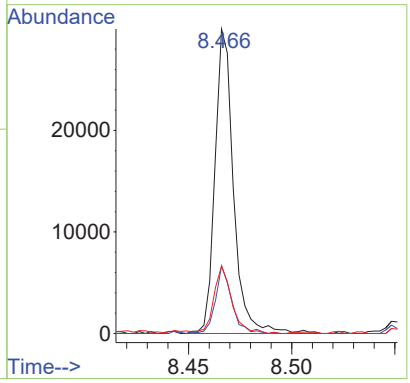


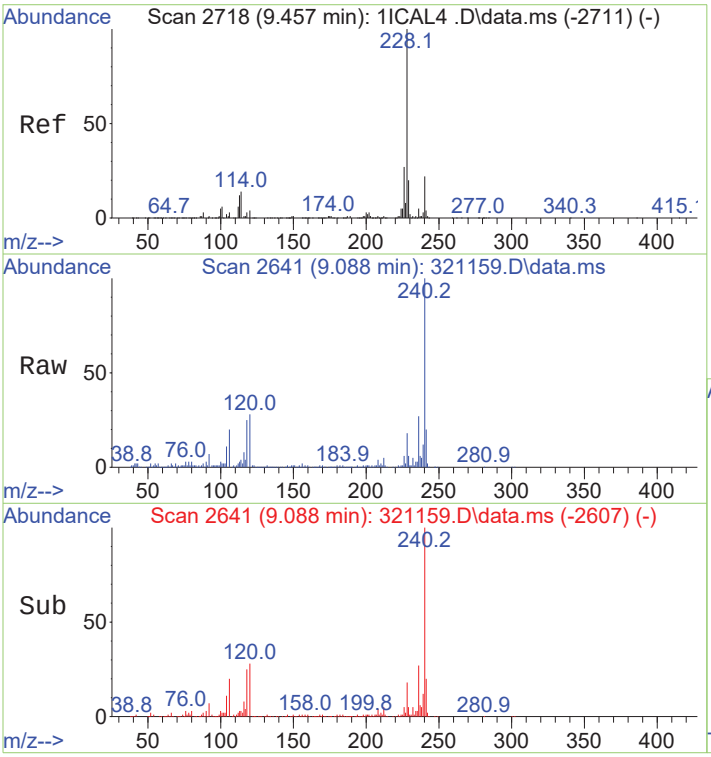


#77
Pyrene
Concen: 1.04 ug/mL
RT: 8.466 min Scan# 2422
Delta R.T. -0.003 min
Lab File: 321159.D
Acq: 10 Sep 2019 21:39

Tgt Ion:202 Resp: 18832

Ion	Ratio	Lower	Upper
202	100		
200	22.2	0.0	50.1
203	22.2	0.0	46.9

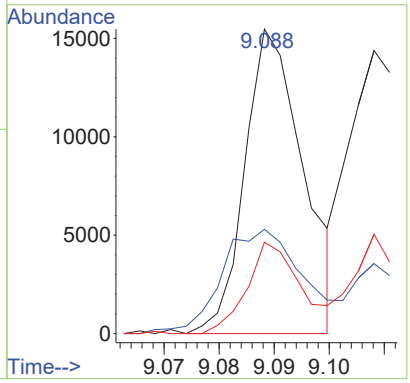


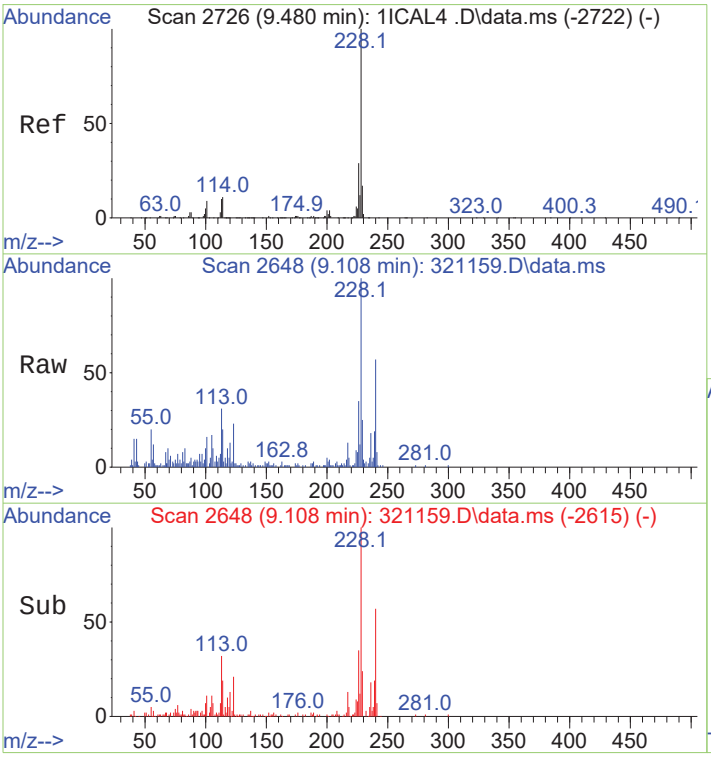


#82
B[a]anthracen
Concen: 0.77 ug/mL
RT: 9.088 min Scan# 2641
Delta R.T. -0.003 min
Lab File: 321159.D
Acq: 10 Sep 2019 21:39

Tgt Ion:228 Resp: 11405

Ion	Ratio	Lower	Upper
228	100		
229	31.8	0.0	49.3
226	30.0	0.0	56.2

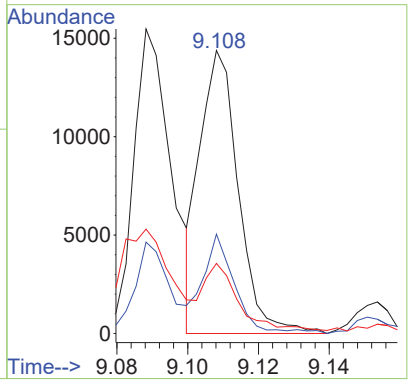


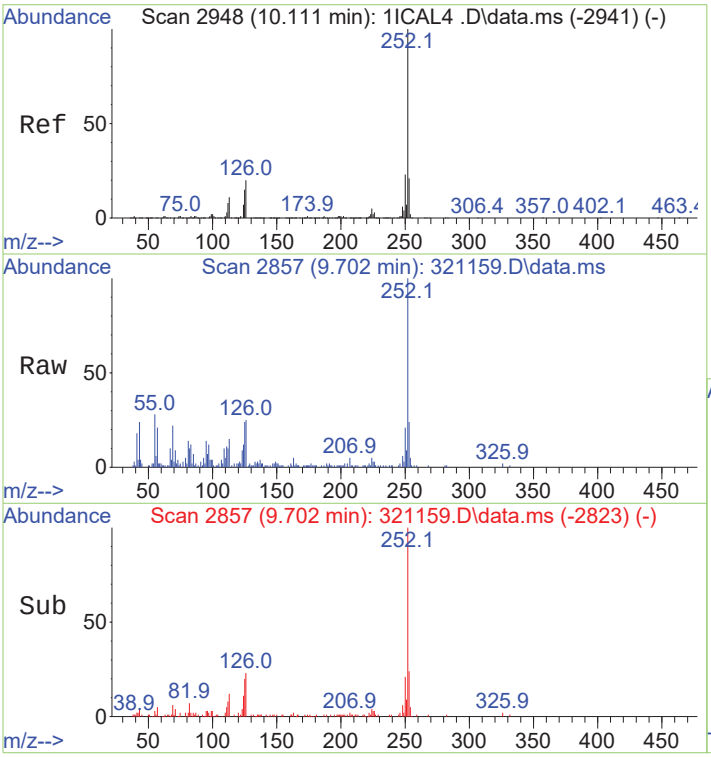


#83
Chrysene
Concen: 0.71 ug/mL
RT: 9.108 min Scan# 2648
Delta R.T. -0.006 min
Lab File: 321159.D
Acq: 10 Sep 2019 21:39

Tgt Ion:228 Resp: 10892

Ion	Ratio	Lower	Upper
228	100		
226	35.1	0.0	59.0
229	23.7	0.0	49.4

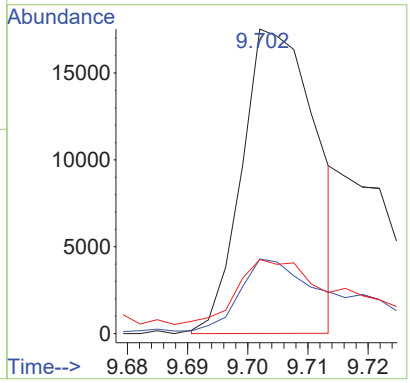


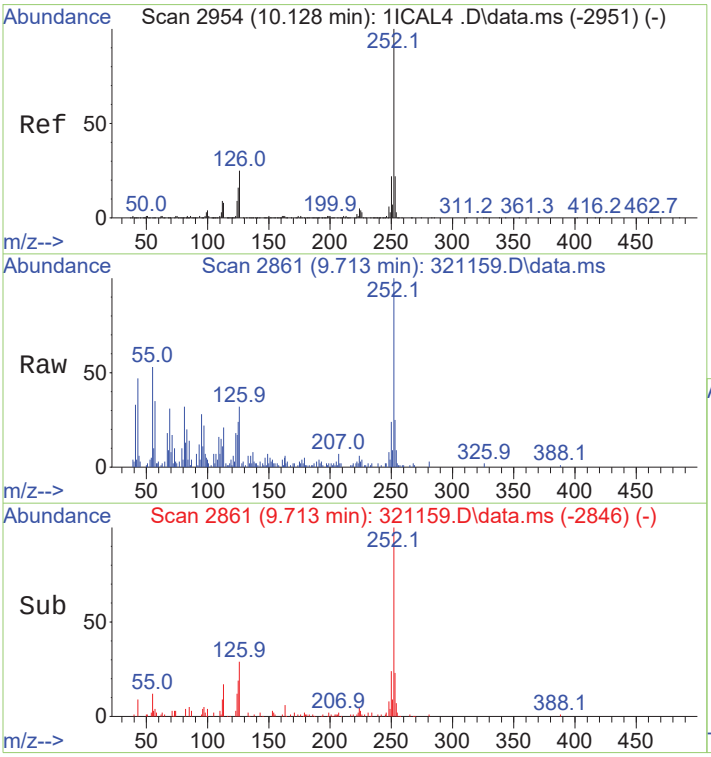


#87
B[b]fluoranth
Concen: 0.98 ug/mL m
RT: 9.702 min Scan# 2857
Delta R.T. -0.003 min
Lab File: 321159.D
Acq: 10 Sep 2019 21:39

Tgt Ion:252 Resp: 14926

Ion	Ratio	Lower	Upper
252	100		
253	24.5	0.0	51.9
125	24.3	0.0	50.0

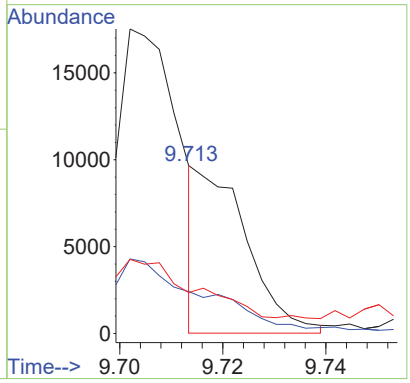


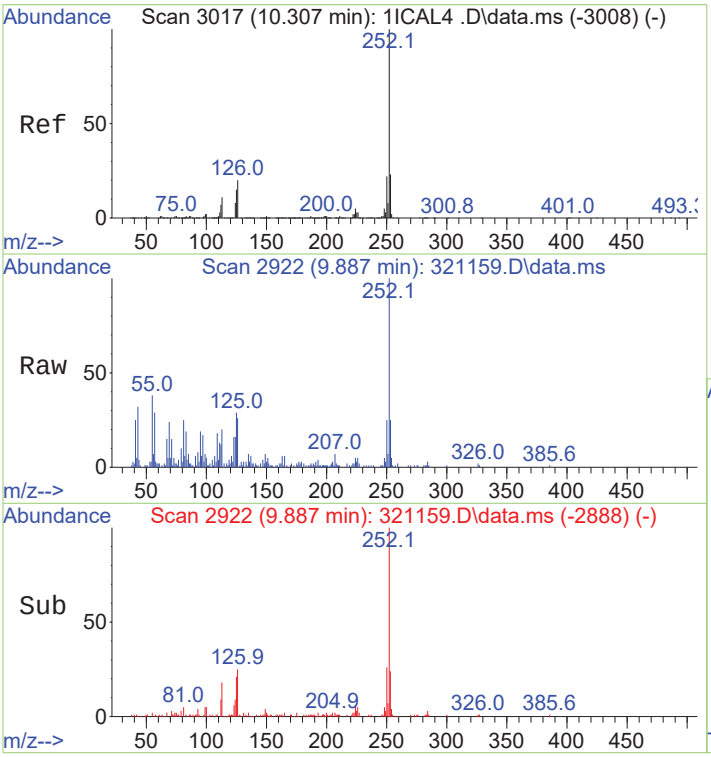


#88
B[k]fluoranth
Concen: 0.42 ug/mL m
RT: 9.713 min Scan# 2861
Delta R.T. -0.008 min
Lab File: 321159.D
Acq: 10 Sep 2019 21:39

Tgt Ion:252 Resp: 6433

Ion	Ratio	Lower	Upper
252	100		
253	24.9	0.0	52.0
125	24.4	0.0	50.2

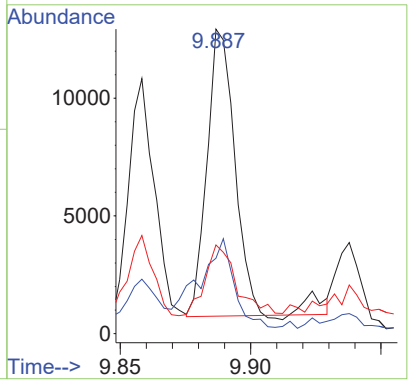


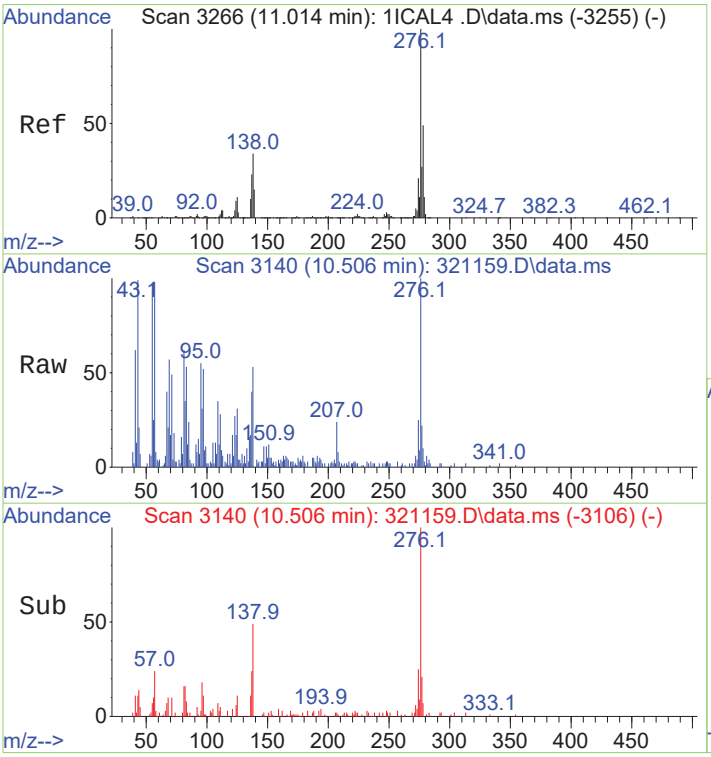


#89
Benz[a]pyrene
Concen: 0.60 ug/mL
RT: 9.887 min Scan# 2922
Delta R.T. -0.003 min
Lab File: 321159.D
Acq: 10 Sep 2019 21:39

Tgt Ion:252 Resp: 9441

Ion	Ratio	Lower	Upper
252	100		
253	22.1	0.0	51.7
125	24.4	0.0	51.4

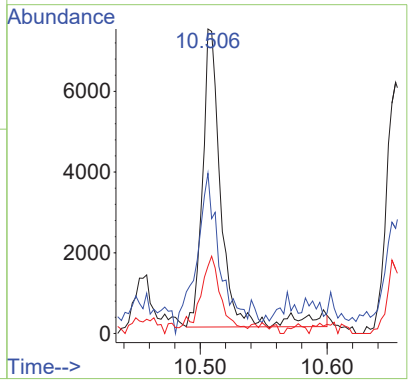


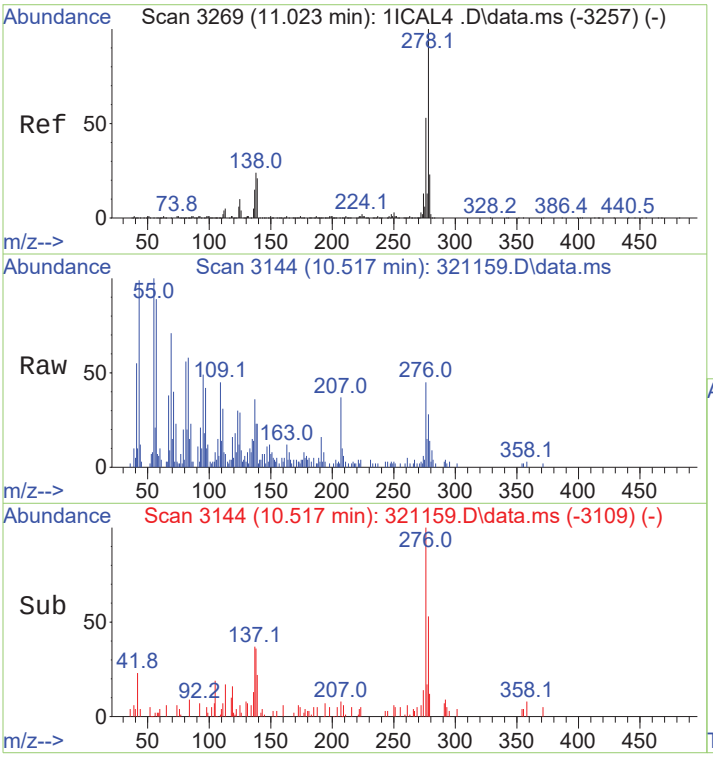


#90
Indeno-pyrene
Concen: 0.47 ug/mL
RT: 10.506 min Scan# 3140
Delta R.T. -0.003 min
Lab File: 321159.D
Acq: 10 Sep 2019 21:39

Tgt Ion:276 Resp: 7651

Ion	Ratio	Lower	Upper
276	100		
138	47.0	13.2	73.2
277	19.5	0.0	54.7

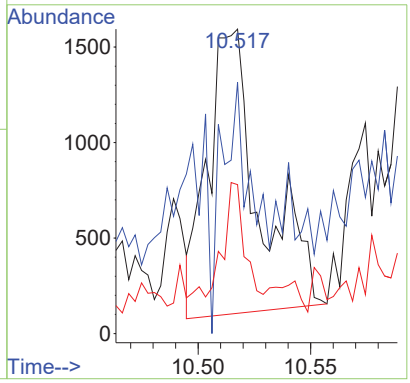


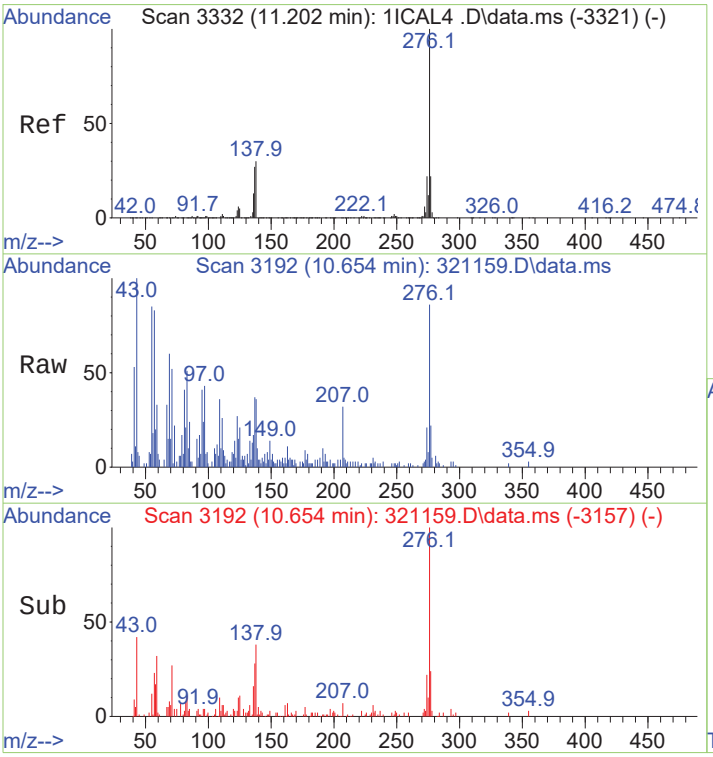


#91
Dib[ah]anthr
Concen: 0.18 ug/mL
RT: 10.517 min Scan# 3144
Delta R.T. 0.000 min
Lab File: 321159.D
Acq: 10 Sep 2019 21:39

Tgt Ion:278 Resp: 2388

Ion	Ratio	Lower	Upper
278	100		
139	57.5	4.7	64.7
279	41.9	0.0	54.0

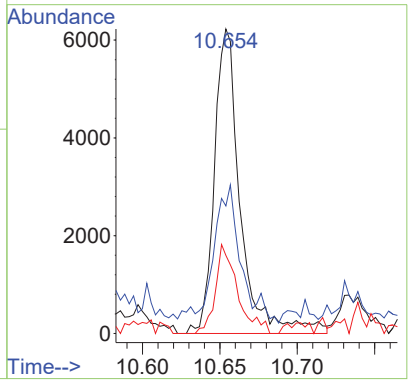


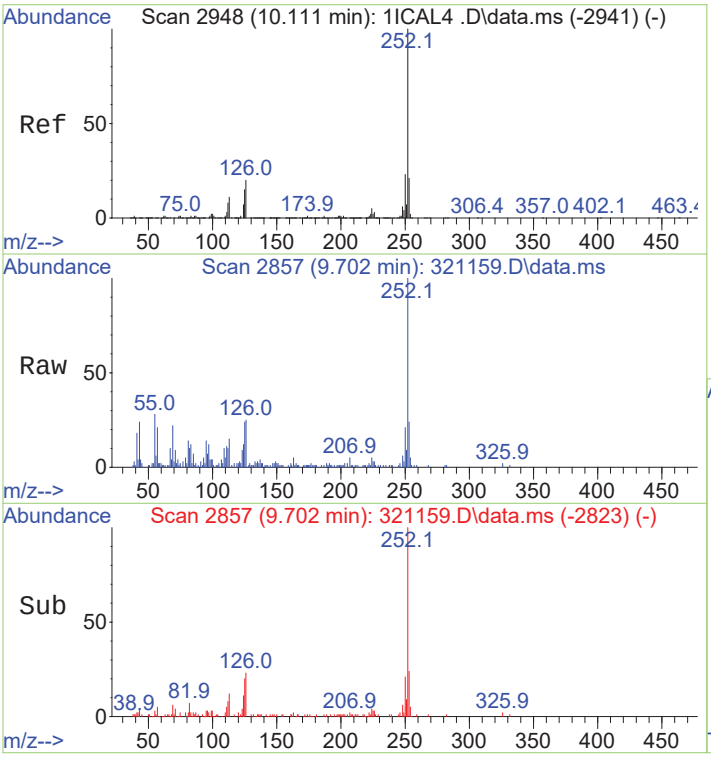


#92
B[ghi]perylen
Concen: 0.51 ug/mL
RT: 10.654 min Scan# 3192
Delta R.T. 0.000 min
Lab File: 321159.D
Acq: 10 Sep 2019 21:39

Tgt Ion:276 Resp: 7266

Ion	Ratio	Lower	Upper
276	100		
138	34.9	15.0	75.0
277	25.6	0.0	54.0

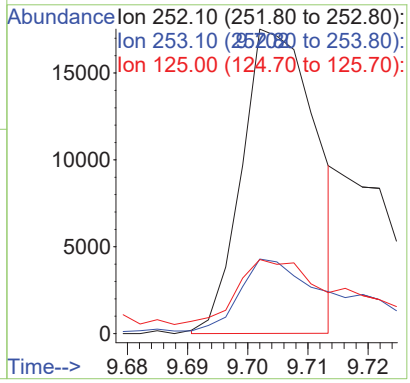




#87
B[b]fluoranth
Concen: 0.98 ug/mL m
RT: 9.702 min Scan# 2857
Delta R.T. -0.003 min
Lab File: 321159.D
Acq: 10 Sep 2019 21:39

Tgt Ion:252 Resp: 14926

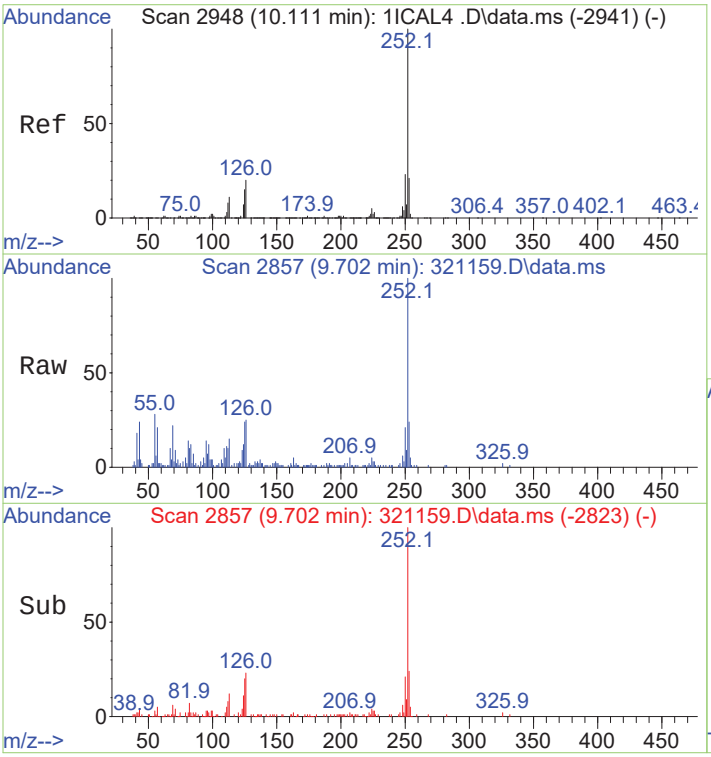
Ion	Ratio	Lower	Upper
252	100		
253	24.5	0.0	51.9
125	24.3	0.0	50.0



After Manual Integration

Reason#3 JJY 9/16/19

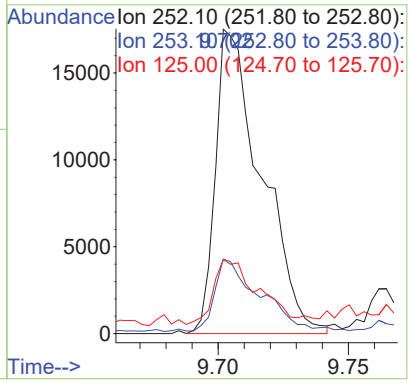
AJZ 09/19/2019



#87
B[b]fluoranth
Concen: 1.41 ug/mL
RT: 9.702 min Scan# 2857
Delta R.T. -0.003 min
Lab File: 321159.D
Acq: 10 Sep 2019 21:39

Tgt Ion:252 Resp: 21510

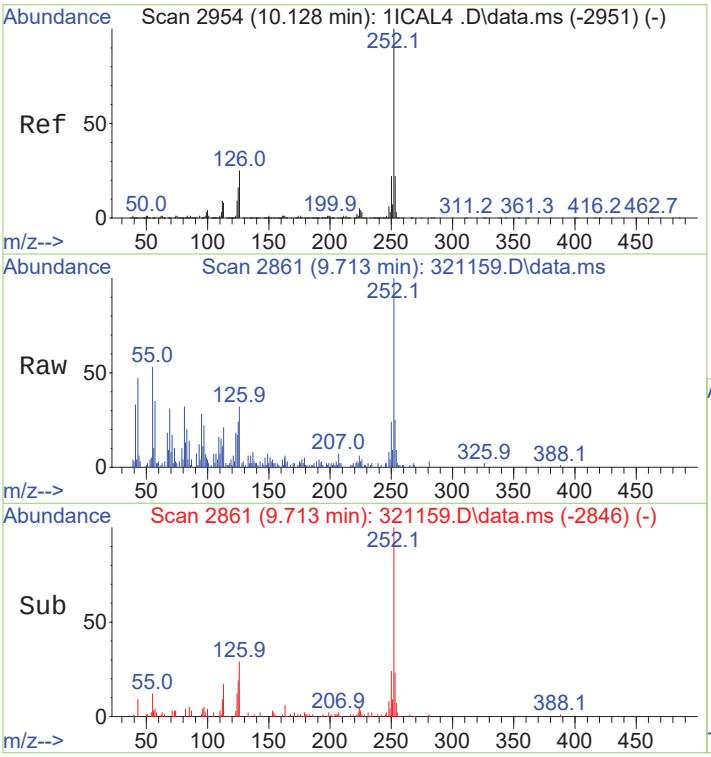
Ion	Ratio	Lower	Upper
252	100		
253	23.6	0.0	51.9
125	21.3	0.0	50.0



Before Manual Integration

Reason#3 JJY 9/16/19

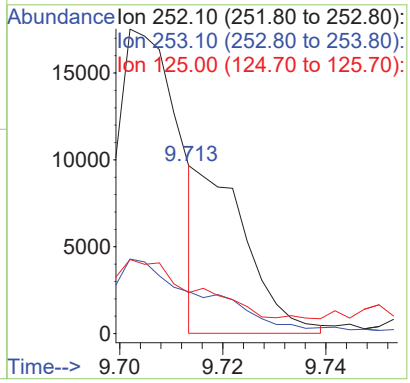
AJZ 09/19/2019



#88
B[k]fluoranth
Concen: 0.42 ug/mL m
RT: 9.713 min Scan# 2861
Delta R.T. -0.008 min
Lab File: 321159.D
Acq: 10 Sep 2019 21:39

Tgt Ion:252 Resp: 6433

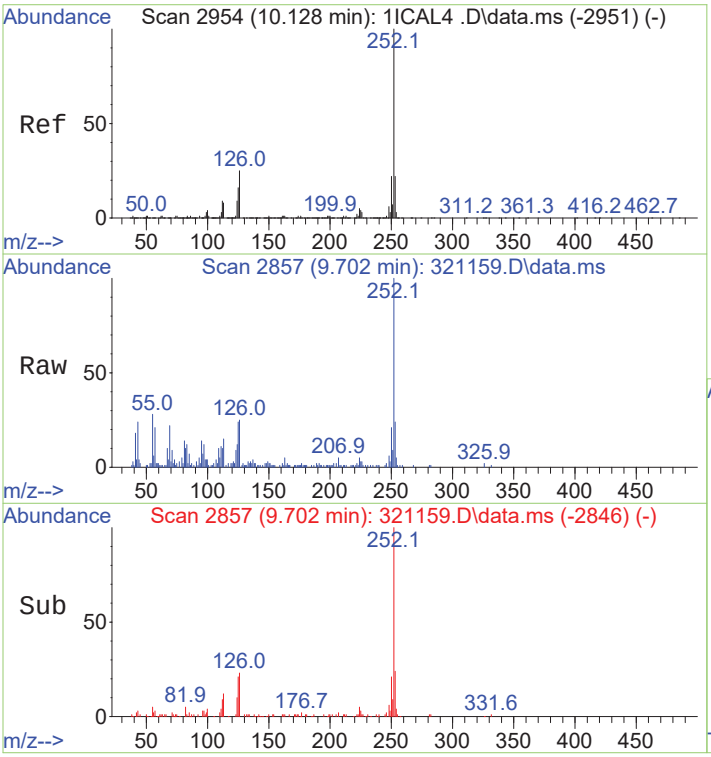
Ion	Ratio	Lower	Upper
252	100		
253	24.9	0.0	52.0
125	24.4	0.0	50.2



After Manual Integration

Reason#3 JJY 9/16/19

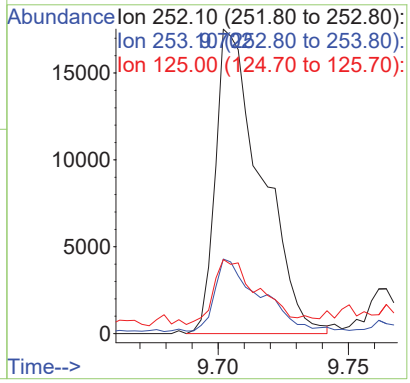
AJZ 09/19/2019



#88
B[k]fluoranth
Concen: 1.40 ug/mL
RT: 9.702 min Scan# 2857
Delta R.T. -0.020 min
Lab File: 321159.D
Acq: 10 Sep 2019 21:39

Tgt Ion:252 Resp: 21510

Ion	Ratio	Lower	Upper
252	100		
253	23.6	0.0	52.0
125	21.3	0.0	50.2



Before Manual Integration

Reason#3

JJY
9/16/19

AJZ
09/19/2019

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321159.D Vial: 11
Acq On : 10 Sep 2019 21:39 Operator: JJY
Sample : 164275,321159, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:30 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

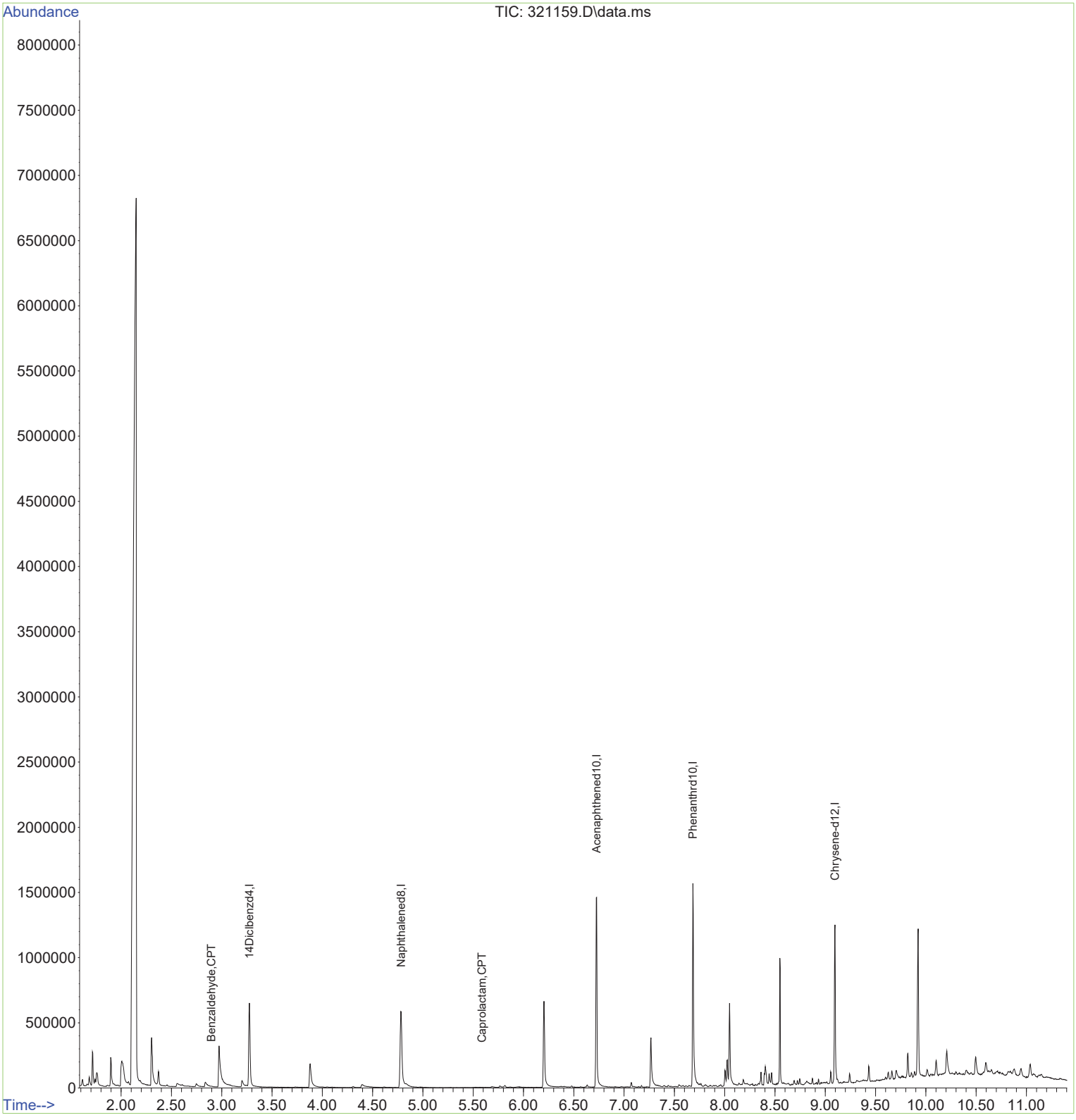
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	105796	20.00	ug/mL	0.00
3) Naphthalened8	4.783	136	400795	20.00	ug/mL	0.00
5) Acenaphthened10	6.727	164	256511	20.00	ug/mL	0.00
7) Phenanthrd10	7.685	188	423849	20.00	ug/mL	0.00
9) Chrysene-d12	9.097	240	240082	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	2.897	77	351	0.6539	ug/mL	83
4) Caprolactam	5.588	55	1577	1.3148	ug/mL#	23

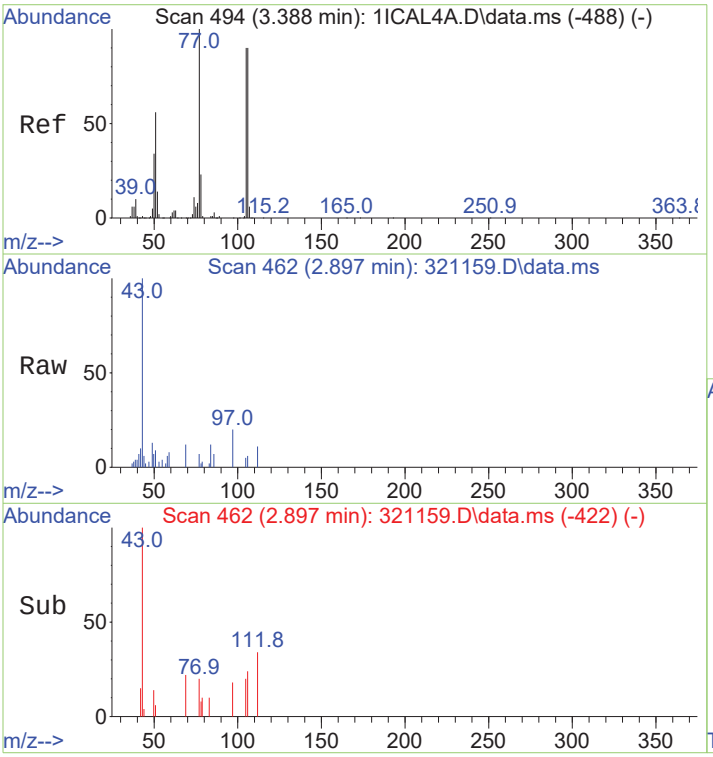
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321159.D Vial: 11
Acq On : 10 Sep 2019 21:39 Operator: JJY
Sample : 164275,321159, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:30 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

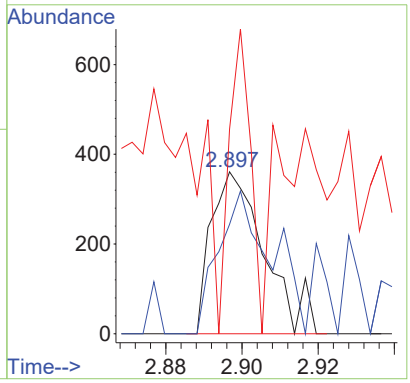


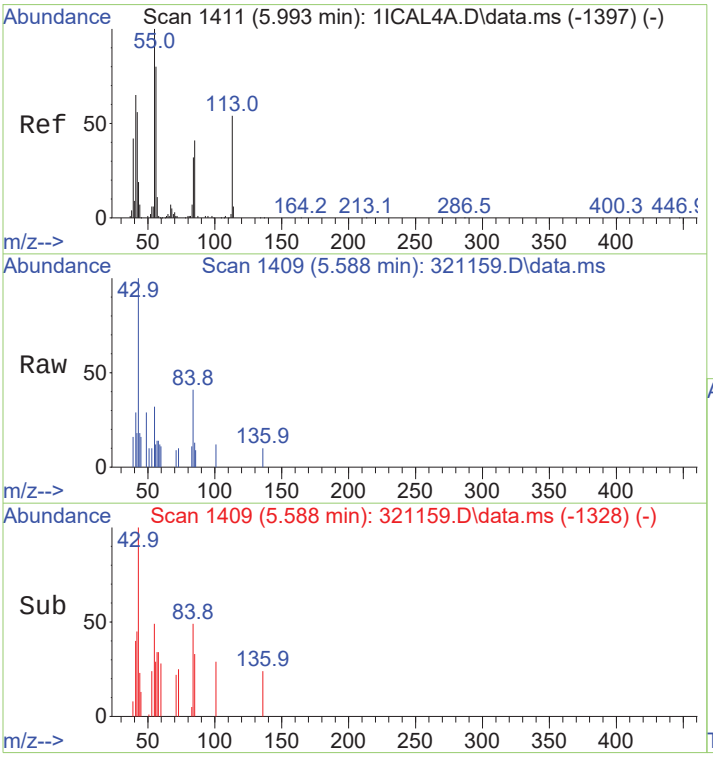


#2
Benzaldehyde
Concen: 0.65 ug/mL
RT: 2.897 min Scan# 462
Delta R.T. 0.014 min
Lab File: 321159.D
Acq: 10 Sep 2019 21:39

Tgt Ion: 77 Resp: 351

Ion	Ratio	Lower	Upper
77	100		
105	87.7	67.4	127.4
51	74.9	23.2	83.2

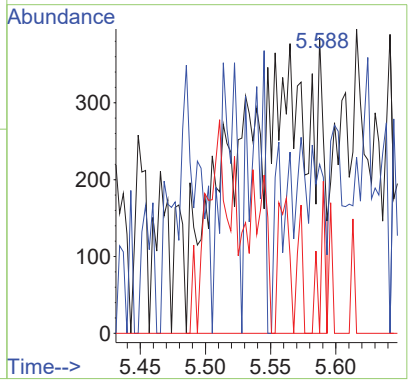




#4
Caprolactam
Concen: 1.31 ug/mL
RT: 5.588 min Scan# 1409
Delta R.T. 0.131 min
Lab File: 321159.D
Acq: 10 Sep 2019 21:39

Tgt Ion: 55 Resp: 1577

Ion	Ratio	Lower	Upper
55	100		
42	0.0	24.6	84.6#
113	0.0	26.7	86.7#



Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321159.D
Acq On : 10 Sep 2019 21:39
Operator : JJY
Sample : 164275,321159,
Misc : 500ul+5ul S4142A
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 1 Thiazole Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.715	5.61 ug/mL	168323	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Thiazole	85	C3H3NS	000288-47-1	17
2	2H-Pyran-2-one, tetrahydro-6,6-d...	128	C7H12O2	002610-95-9	10
3	Monomethylnitrosamine	60	CH4N2O	000000-00-0	9
4	Hexane, 3-bromo-	164	C6H13Br	003377-87-5	9
5	Propanenitrile, 3-hydroxy-	71	C3H5NO	000109-78-4	9

****

Peak Number 2 3-Penten-2-one, 4-methyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.897	5.49 ug/mL	164722	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
2	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
3	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
4	2-Pentene, 3,4-dimethyl-, (E)-	98	C7H14	004914-92-5	86
5	2-Pentene, 3,4-dimethyl-, (Z)-	98	C7H14	004914-91-4	86

****

Peak Number 3 Oxirane, trimethyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.007	6.56 ug/mL	196907	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Oxirane, trimethyl-	86	C5H10O	005076-19-7	25
2	Acetone	58	C3H6O	000067-64-1	9
3	Acetic acid, hexyl ester	144	C8H16O2	000142-92-7	9
4	Acetic acid, hexyl ester	144	C8H16O2	000142-92-7	9
5	Acetone	58	C3H6O	000067-64-1	9

****

Peak Number 4 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.149	439.07 ug/mL	13174200	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	56
2	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	47
3	Acetic acid, 1,1-dimethylethyl e...	116	C6H12O2	000540-88-5	33

Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321159.D
Acq On : 10 Sep 2019 21:39
Operator : JJY
Sample : 164275,321159,
Misc : 500ul+5ul S4142A
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

4	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	28
5	tert-Butyl Hydroperoxide	90	C4H10O2	000075-91-2	28

****

Peak Number 5 Nonadecane Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.821	3.16 ug/mL	137705	Perylene-d12	9.924

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Nonadecane	268	C19H40	000629-92-5	94
2	Hexadecane	226	C16H34	000544-76-3	91
3	Hexatriacontane	507	C36H74	000630-06-8	91
4	Heptadecane	240	C17H36	000629-78-7	90
5	Tetratetracontane	619	C44H90	007098-22-8	90

****

Peak Number 6 Hexatriacontane Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.208	4.35 ug/mL	189602	Perylene-d12	9.924

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexatriacontane	507	C36H74	000630-06-8	91
2	Dotriacontane	451	C32H66	000544-85-4	90
3	Pentadecane	212	C15H32	000629-62-9	74
4	Octadecane, 5,14-dibutyl-	366	C26H54	055282-13-8	72
5	Heneicosane	296	C21H44	000629-94-7	64

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321160.D Vial: 12
Acq On : 10 Sep 2019 21:58 Operator: JJY
Sample : 164275,321160, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 22:11:15 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

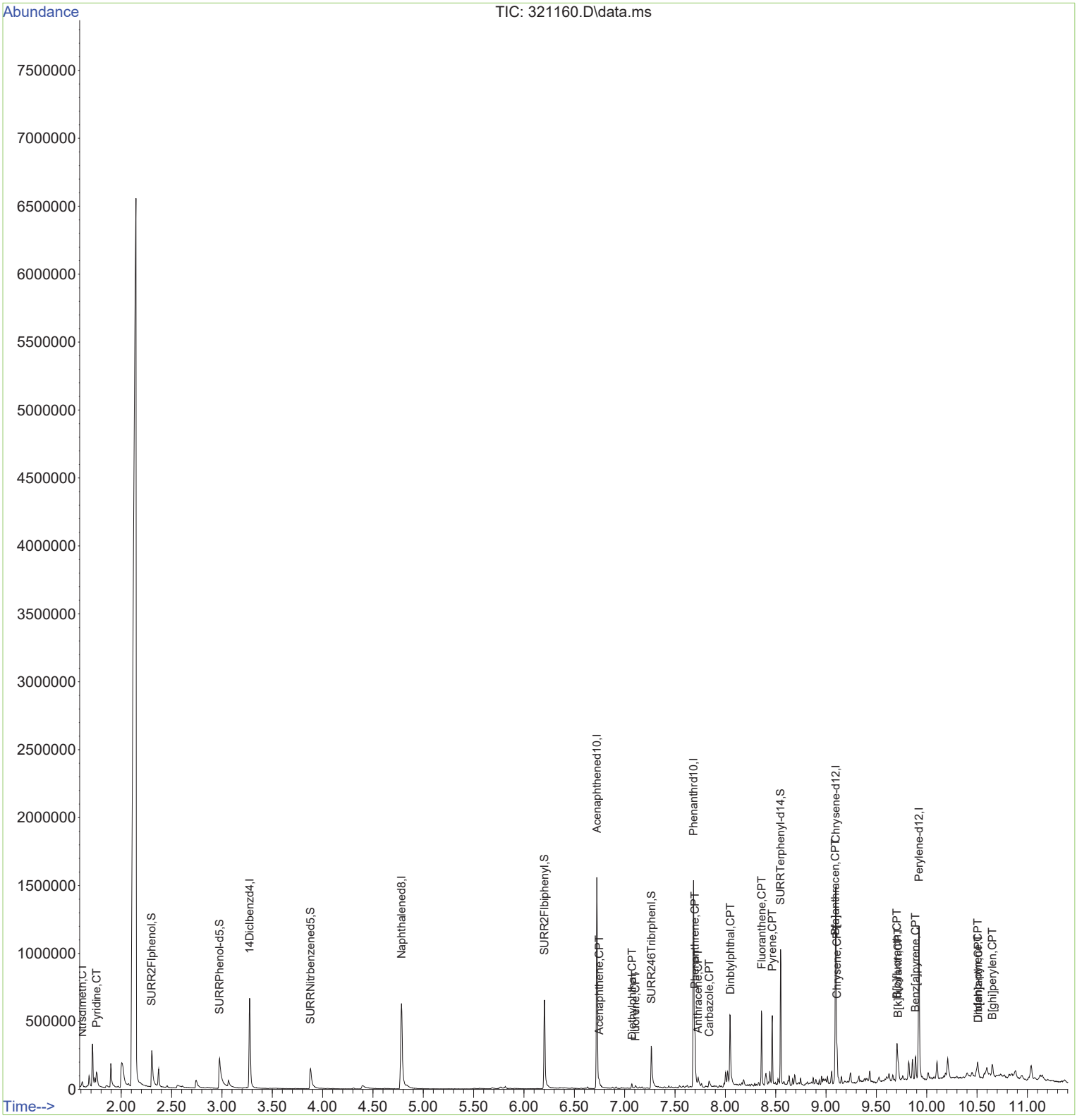
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	106737	20.00	ug/mL	0.00
21) Naphthalened8	4.784	136	403000	20.00	ug/mL	0.00
39) Acenaphthened10	6.724	164	250805	20.00	ug/mL	0.00
63) Phenanthrd10	7.685	188	420355	20.00	ug/mL	0.00
75) Chrysene-d12	9.097	240	241358	20.00	ug/mL	0.00
86) Perylene-d12	9.924	264	270393	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.303	112	95999	36.33	%REC	0.02
Spiked Amount 100.000			Recovery = 36.33%			
7) SURRPhenol-d5	2.976	99	144652	45.25	%REC	0.00
Spiked Amount 100.000			Recovery = 45.25%			
22) SURRNitrbenzened5	3.880	82	69957	51.49	%REC	0.00
Spiked Amount 100.000			Recovery = 51.49%			
44) SURR2Flbiphenyl	6.204	172	202716	60.67	%REC	0.00
Spiked Amount 100.000			Recovery = 60.67%			
62) SURR246Tribrphenl	7.267	330	34559	44.24	%REC	0.00
Spiked Amount 100.000			Recovery = 44.24%			
78) SURRTerphenyl-d14	8.548	244	164837	74.62	%REC	0.00
Spiked Amount 100.000			Recovery = 74.62%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.612	74	2389	1.0878	ug/mL#	1
3) Pyridine	1.755	79	1254	0.7286	ug/mL#	49
50) Acenaphthene	6.747	154	4674	0.3452	ug/mL	92
58) Fluorene	7.108	166	4428	0.2757	ug/mL	99
60) Diethylphthal	7.074	149	4005	0.2385	ug/mL	90
70) Phenanthrene	7.699	178	85934	3.8760	ug/mL	99
71) Anthracene	7.730	178	21613	0.9465	ug/mL	91
72) Carbazole	7.841	167	21748	0.9876	ug/mL	98
73) Dinbtylphthal	8.051	149	22722	0.6465	ug/mL	99
74) Fluoranthene	8.361	202	127447	7.9981	ug/mL	97
77) Pyrene	8.466	202	100662	5.5503	ug/mL	96
82) B[a]anthracen	9.091	228	56809	3.8181	ug/mL	97
83) Chrysene	9.108	228	55062	3.5759	ug/mL	96
87) B[b]fluoranth	9.705	252	78613m	5.3412	ug/mL	
88) B[k]fluoranth	9.716	252	19821m	1.3428	ug/mL	
89) Benz[a]pyrene	9.890	252	46259	3.0460	ug/mL	98
90) Indeno-pyrene	10.506	276	28889	1.8386	ug/mL	95
91) Dib[ah]anthr	10.512	278	5734	0.4499	ug/mL	79
92) B[ghi]perylen	10.651	276	26563	1.9297	ug/mL	96

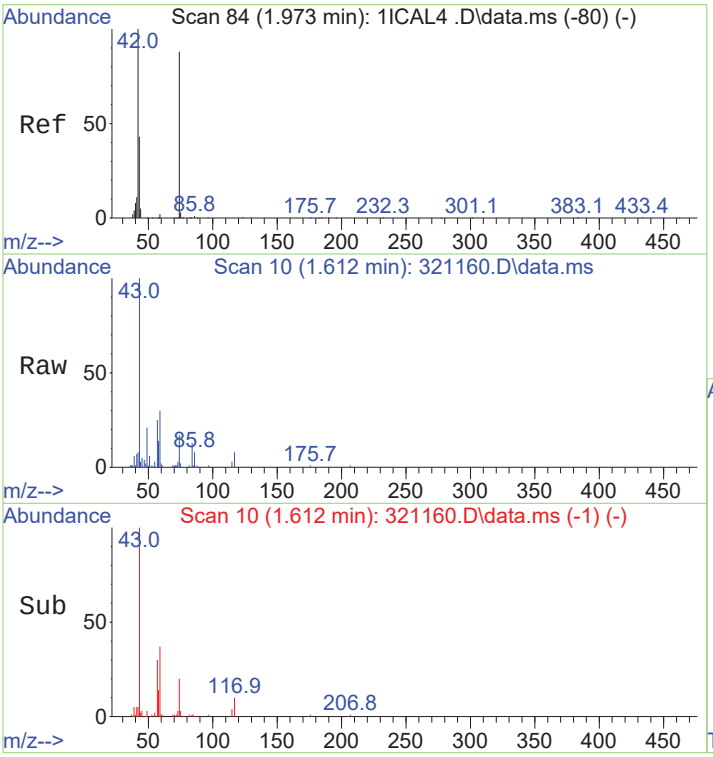
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321160.D Vial: 12
Acq On : 10 Sep 2019 21:58 Operator: JJY
Sample : 164275,321160, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 22:11:15 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

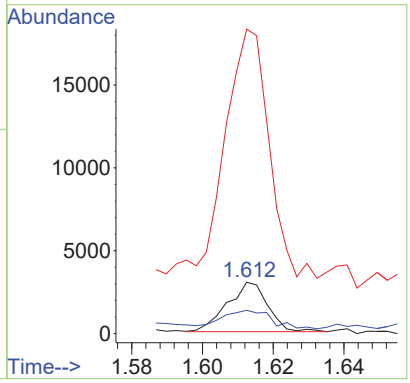


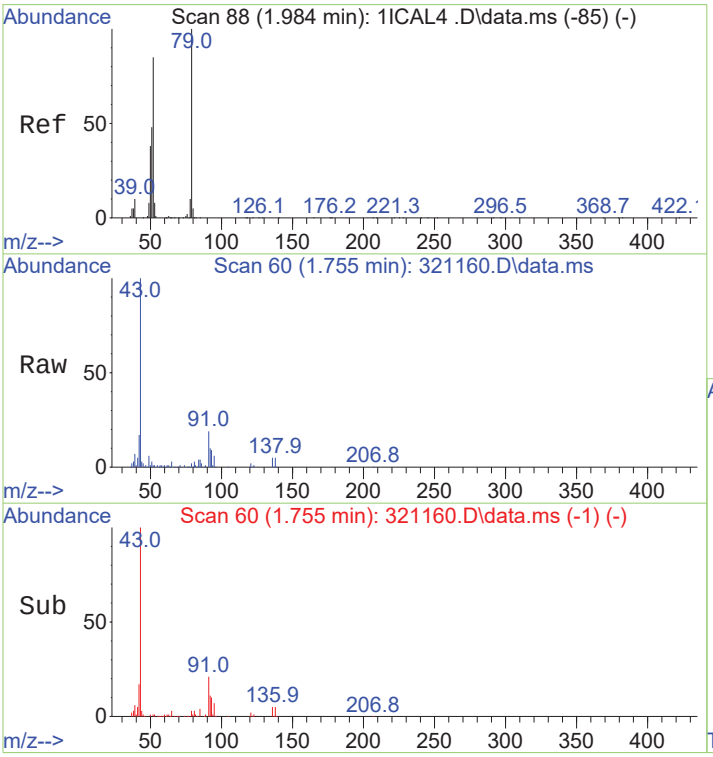


#2
Ntrsdimeth
Concen: 1.09 ug/mL
RT: 1.612 min Scan# 10
Delta R.T. -0.025 min
Lab File: 321160.D
Acq: 10 Sep 2019 21:58

Tgt Ion: 74 Resp: 2389

Ion	Ratio	Lower	Upper
74	100		
42	31.9	54.2	114.2#
43	480.7	5.5	65.5#

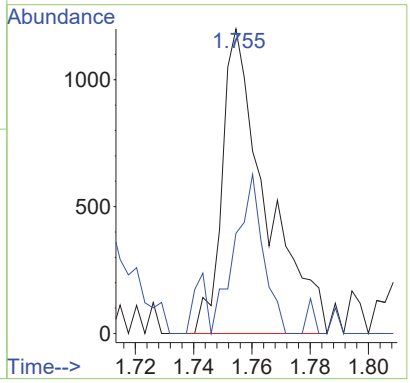


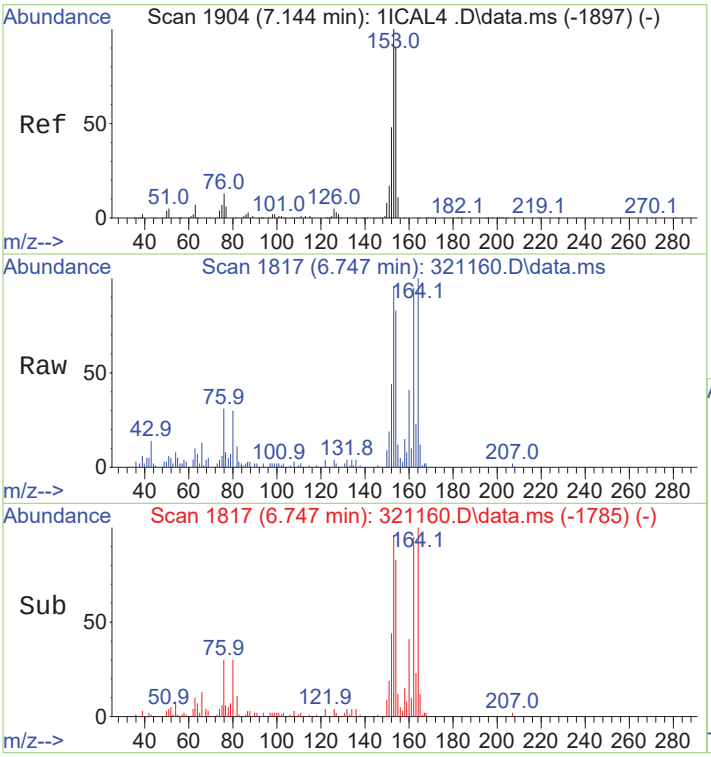


#3
Pyridine
Concen: 0.73 ug/mL
RT: 1.755 min Scan# 60
Delta R.T. 0.108 min
Lab File: 321160.D
Acq: 10 Sep 2019 21:58

Tgt Ion: 79 Resp: 1254

Ion	Ratio	Lower	Upper
79	100		
52	32.9	46.7	106.7#

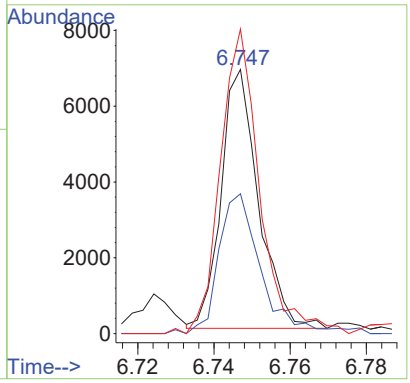


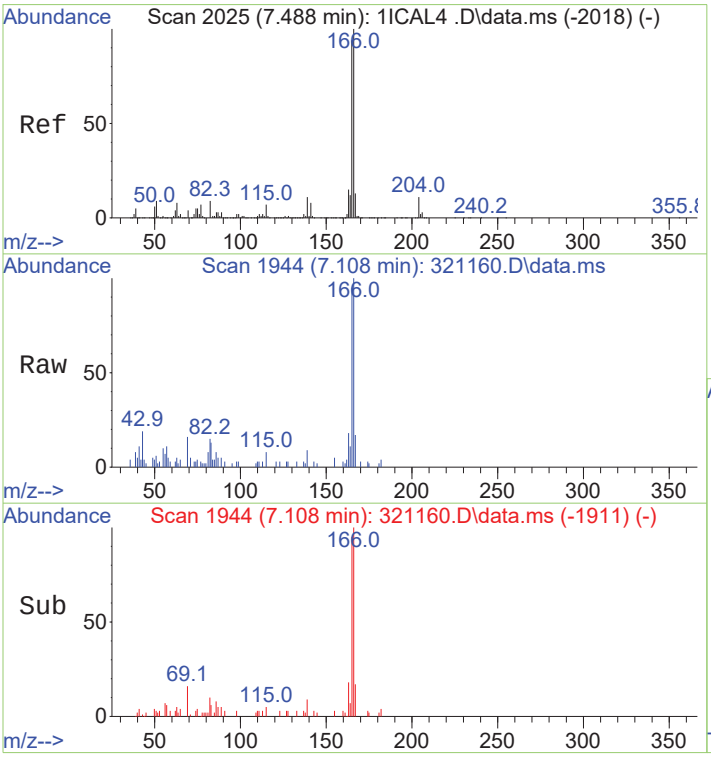


#50
Acenaphthene
Concen: 0.35 ug/mL
RT: 6.747 min Scan# 1817
Delta R.T. -0.008 min
Lab File: 321160.D
Acq: 10 Sep 2019 21:58

Tgt Ion:154 Resp: 4674

Ion	Ratio	Lower	Upper
154	100		
152	54.0	22.5	82.5
153	117.6	76.8	136.8

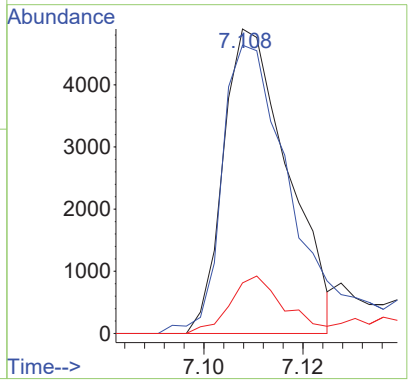


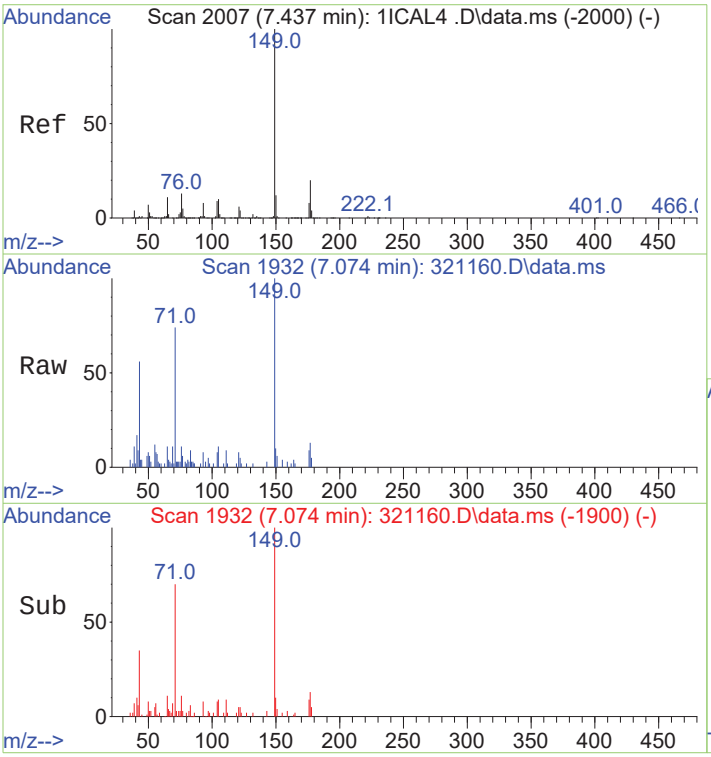


#58
Fluorene
Concen: 0.28 ug/mL
RT: 7.108 min Scan# 1944
Delta R.T. -0.006 min
Lab File: 321160.D
Acq: 10 Sep 2019 21:58

Tgt Ion:166 Resp: 4428

Ion	Ratio	Lower	Upper
166	100		
165	92.3	62.6	122.6
167	16.6	0.0	43.3

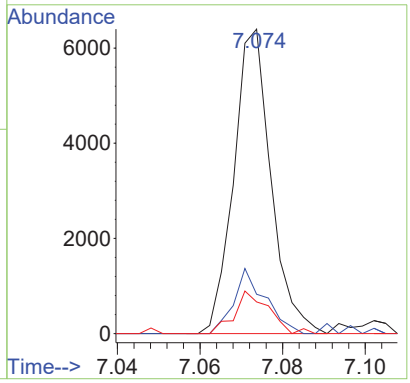


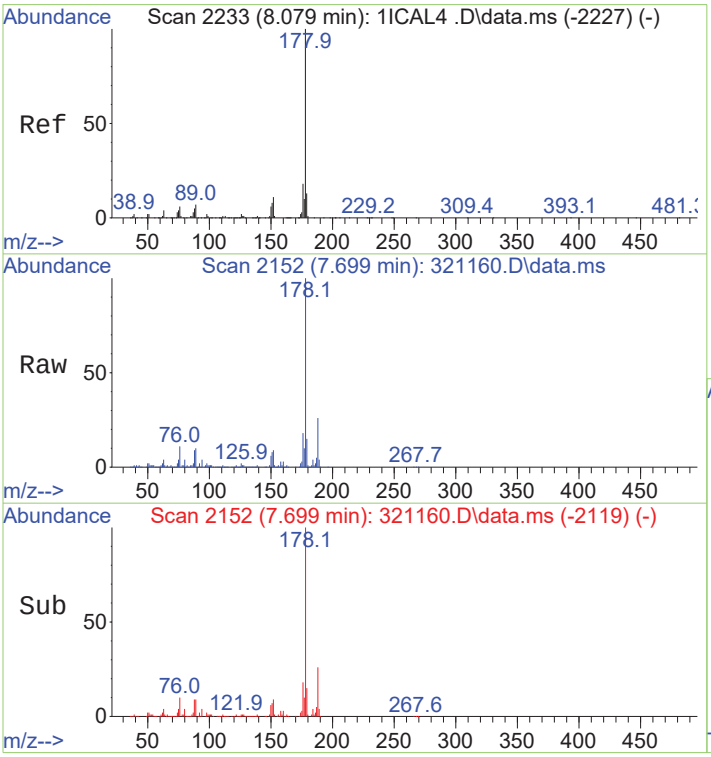


#60
Diethylphthal
Concen: 0.24 ug/mL
RT: 7.074 min Scan# 1932
Delta R.T. -0.008 min
Lab File: 321160.D
Acq: 10 Sep 2019 21:58

Tgt Ion:149 Resp: 4005

Ion	Ratio	Lower	Upper
149	100		
177	12.9	0.0	49.3
150	10.4	0.0	41.9

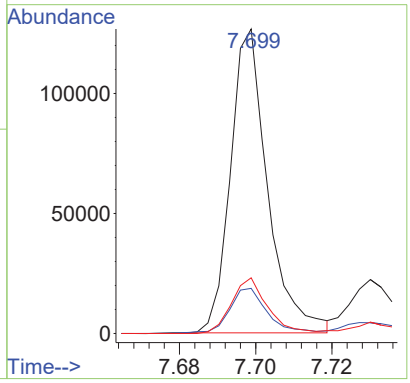


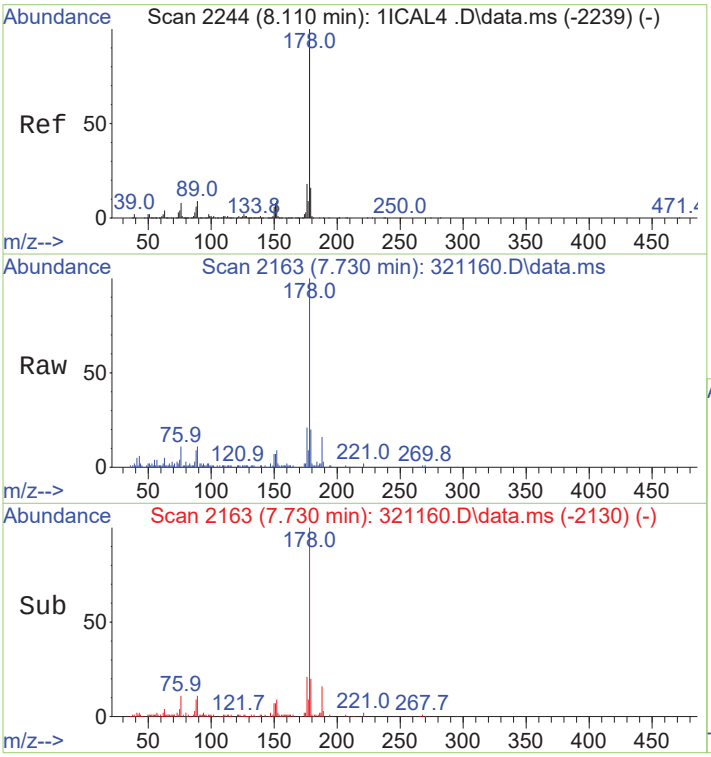


#70
Phenanthrene
Concen: 3.88 ug/mL
RT: 7.699 min Scan# 2152
Delta R.T. -0.006 min
Lab File: 321160.D
Acq: 10 Sep 2019 21:58

Tgt Ion:178 Resp: 85934

Ion	Ratio	Lower	Upper
178	100		
179	14.6	0.0	45.3
176	18.3	0.0	48.4

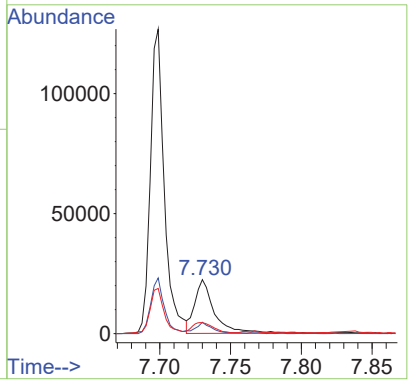


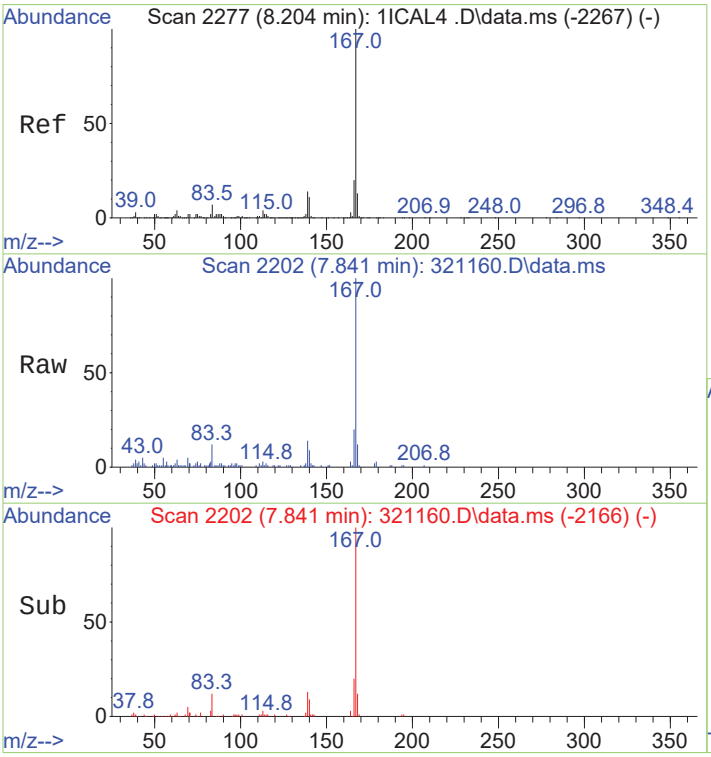


#71
Anthracene
Concen: 0.95 ug/mL
RT: 7.730 min Scan# 2163
Delta R.T. -0.006 min
Lab File: 321160.D
Acq: 10 Sep 2019 21:58

Tgt Ion:178 Resp: 21613

Ion	Ratio	Lower	Upper
178	100		
176	21.4	0.0	47.6
179	18.7	0.0	45.1

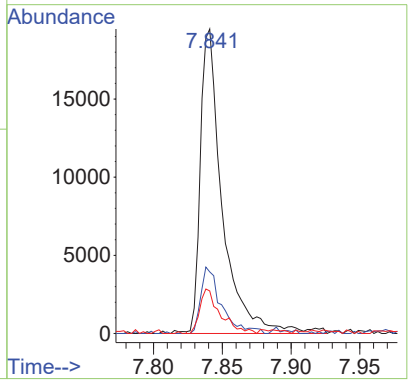


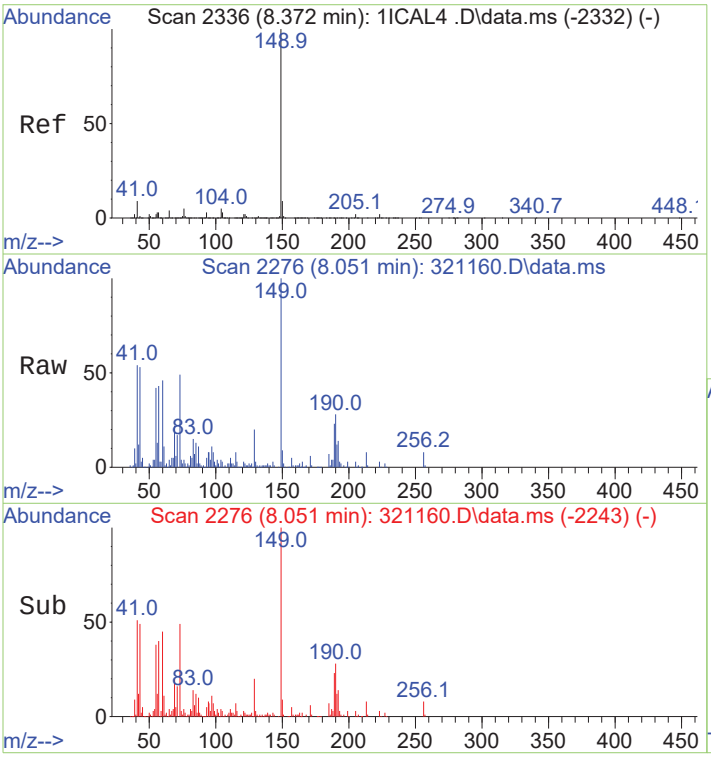


#72
Carbazole
Concen: 0.99 ug/mL
RT: 7.841 min Scan# 2202
Delta R.T. 0.003 min
Lab File: 321160.D
Acq: 10 Sep 2019 21:58

Tgt Ion:167 Resp: 21748

Ion	Ratio	Lower	Upper
167	100		
166	19.7	0.0	49.3
139	14.0	0.0	42.6

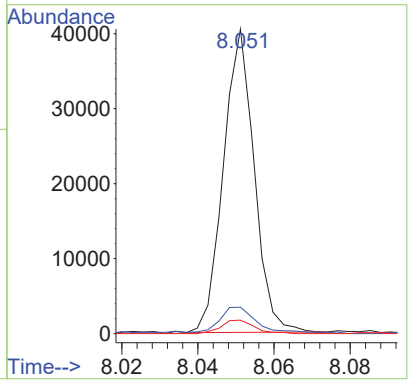


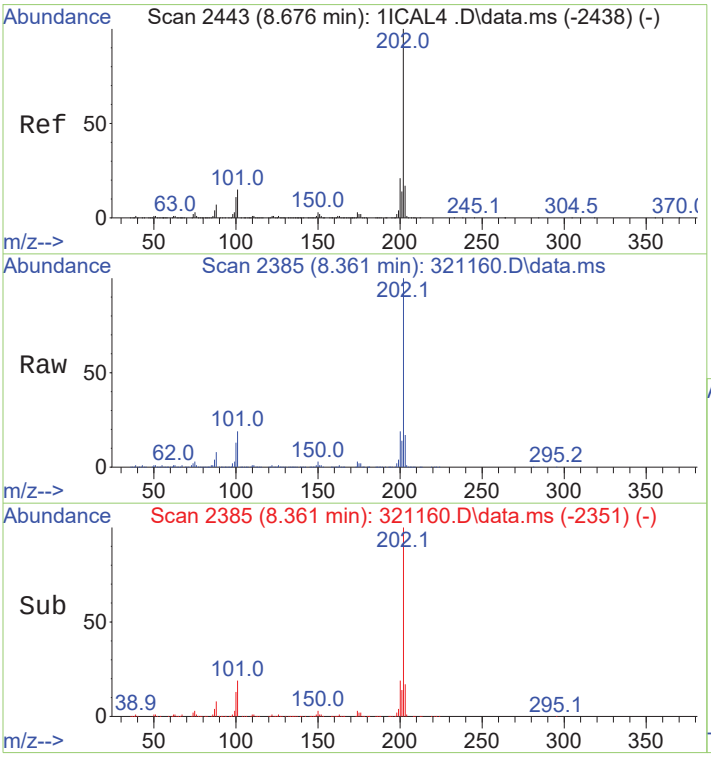


#73
Dinbtylphthal
Concen: 0.65 ug/mL
RT: 8.051 min Scan# 2276
Delta R.T. -0.006 min
Lab File: 321160.D
Acq: 10 Sep 2019 21:58

Tgt Ion:149 Resp: 22722

Ion	Ratio	Lower	Upper
149	100		
150	8.3	0.0	39.0
104	4.4	0.0	34.6

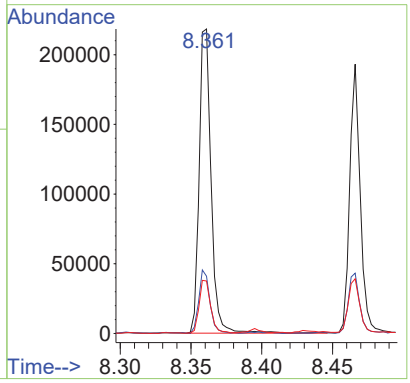


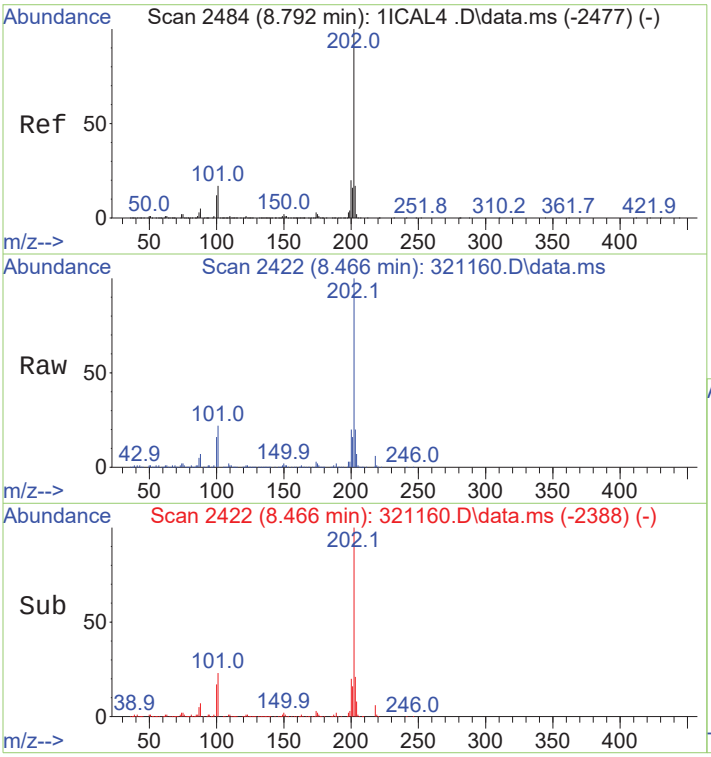


#74
Fluoranthene
Concen: 8.00 ug/mL
RT: 8.361 min Scan# 2385
Delta R.T. -0.003 min
Lab File: 321160.D
Acq: 10 Sep 2019 21:58

Tgt Ion:202 Resp: 127447

Ion	Ratio	Lower	Upper
202	100		
101	18.7	0.0	50.7
203	17.0	0.0	47.3

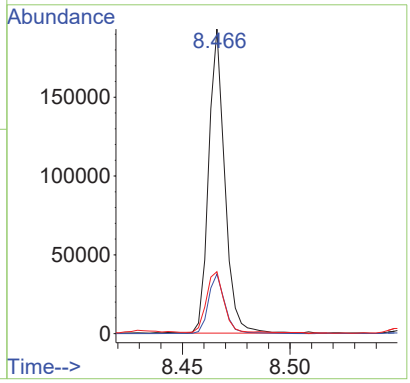


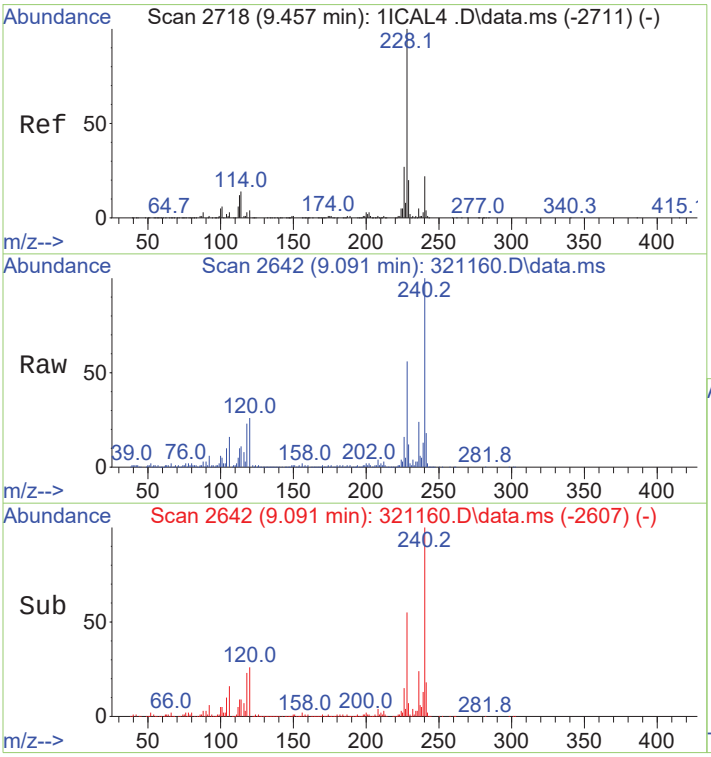


#77
Pyrene
Concen: 5.55 ug/mL
RT: 8.466 min Scan# 2422
Delta R.T. -0.003 min
Lab File: 321160.D
Acq: 10 Sep 2019 21:58

Tgt Ion:202 Resp: 100662

Ion	Ratio	Lower	Upper
202	100		
200	19.6	0.0	50.1
203	20.2	0.0	46.9

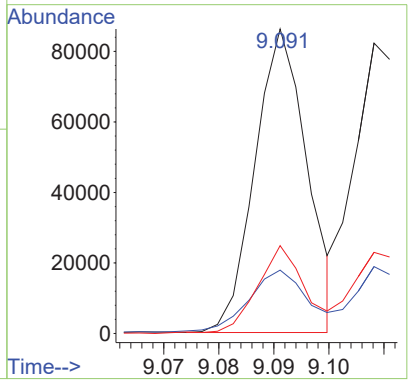


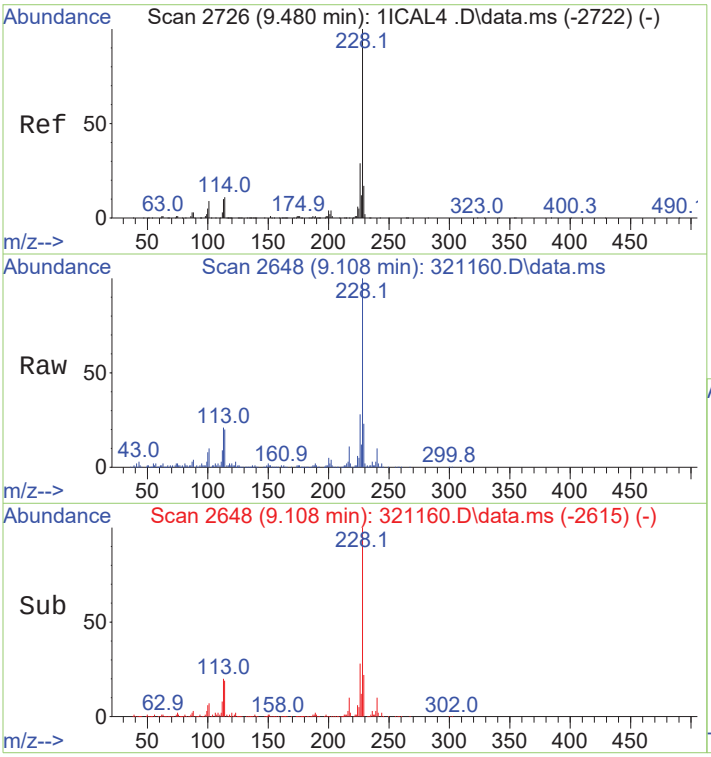


#82
B[a]anthracen
Concen: 3.82 ug/mL
RT: 9.091 min Scan# 2642
Delta R.T. 0.000 min
Lab File: 321160.D
Acq: 10 Sep 2019 21:58

Tgt Ion:228 Resp: 56809

Ion	Ratio	Lower	Upper
228	100		
229	20.1	0.0	49.3
226	28.5	0.0	56.2

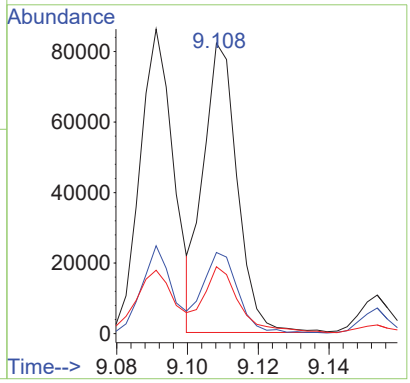


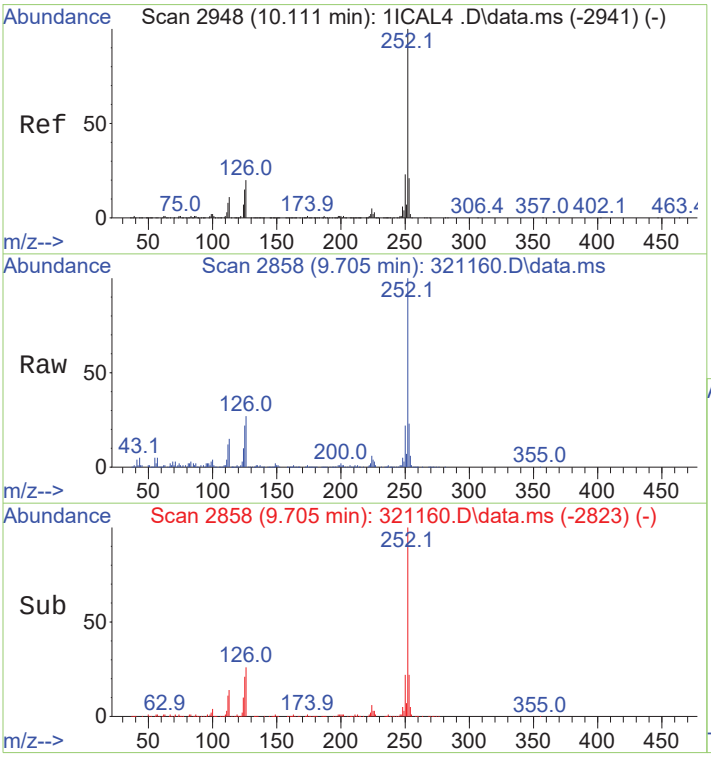


#83
Chrysene
Concen: 3.58 ug/mL
RT: 9.108 min Scan# 2648
Delta R.T. -0.006 min
Lab File: 321160.D
Acq: 10 Sep 2019 21:58

Tgt Ion:228 Resp: 55062

Ion	Ratio	Lower	Upper
228	100		
226	27.9	0.0	59.0
229	22.6	0.0	49.4

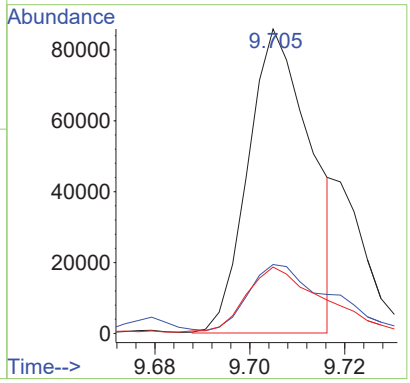


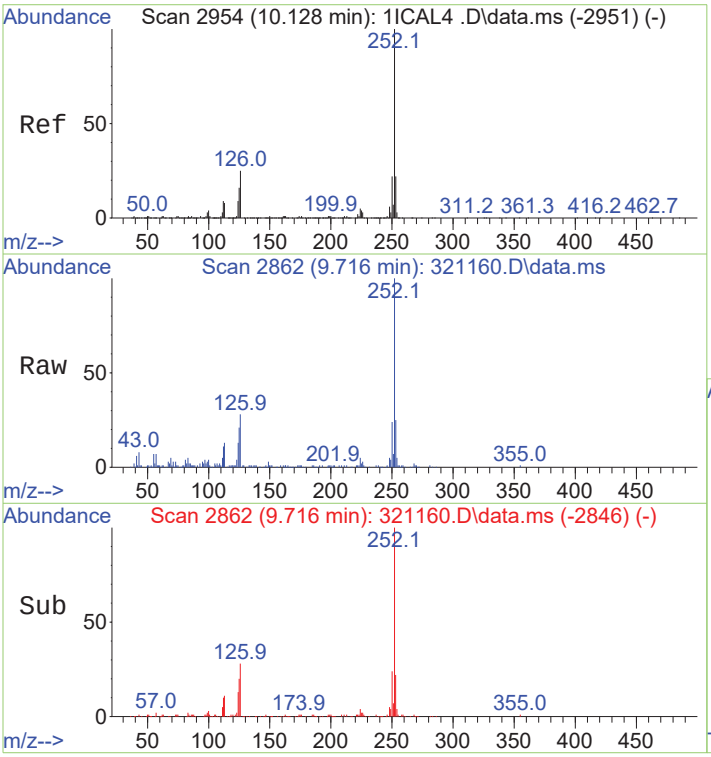


#87
B[b]fluoranth
Concen: 5.34 ug/mL m
RT: 9.705 min Scan# 2858
Delta R.T. 0.000 min
Lab File: 321160.D
Acq: 10 Sep 2019 21:58

Tgt Ion:252 Resp: 78613

Ion	Ratio	Lower	Upper
252	100		
253	22.7	0.0	51.9
125	21.8	0.0	50.0

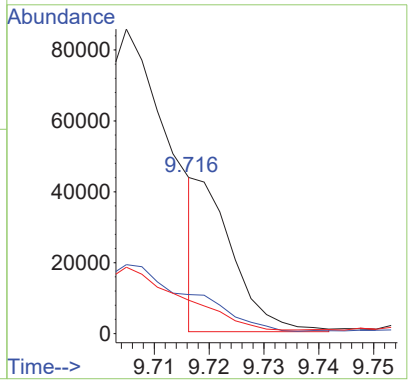


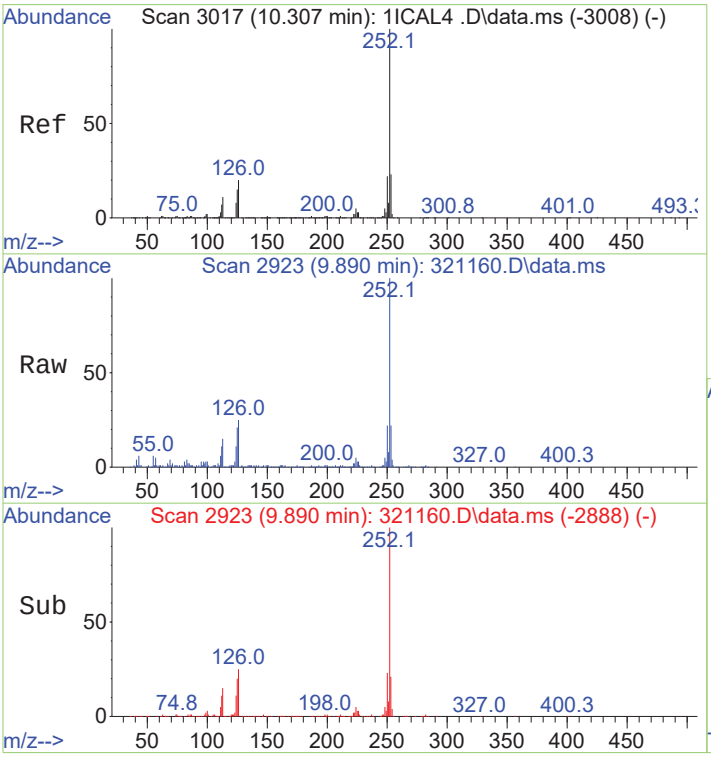


#88
B[k]fluoranth
Concen: 1.34 ug/mL m
RT: 9.716 min Scan# 2862
Delta R.T. -0.006 min
Lab File: 321160.D
Acq: 10 Sep 2019 21:58

Tgt Ion:252 Resp: 19821

Ion	Ratio	Lower	Upper
252	100		
253	25.0	0.0	52.0
125	21.4	0.0	50.2

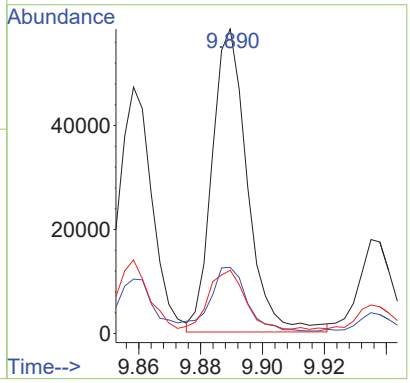


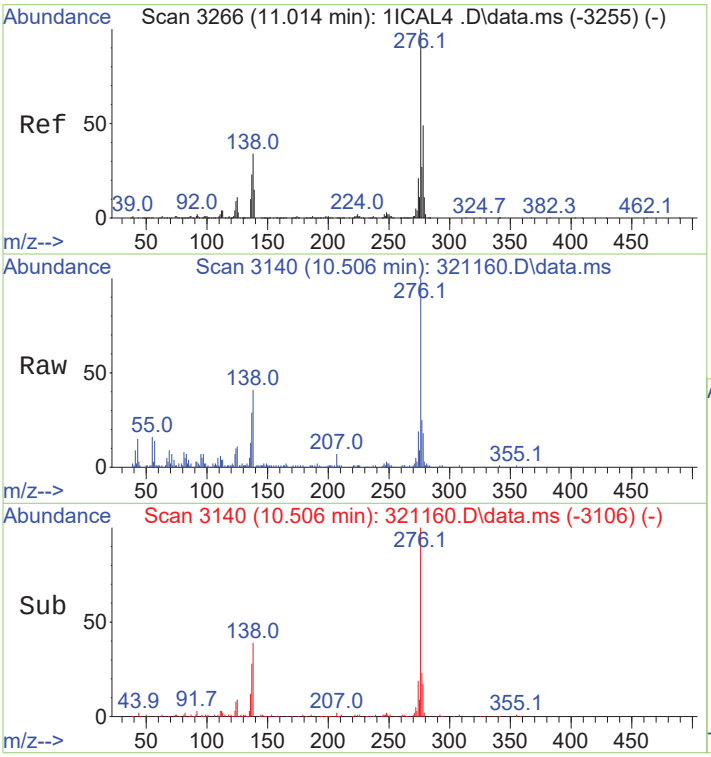


#89
Benz[a]pyrene
Concen: 3.05 ug/mL
RT: 9.890 min Scan# 2923
Delta R.T. 0.000 min
Lab File: 321160.D
Acq: 10 Sep 2019 21:58

Tgt Ion:252 Resp: 46259

Ion	Ratio	Lower	Upper
252	100		
253	21.0	0.0	51.7
125	19.8	0.0	51.4

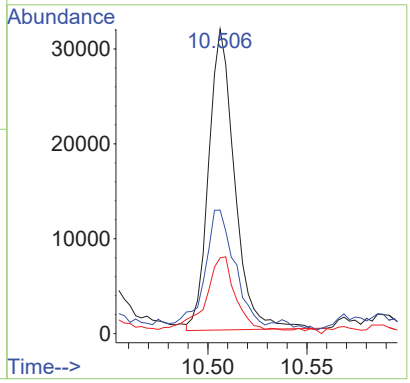


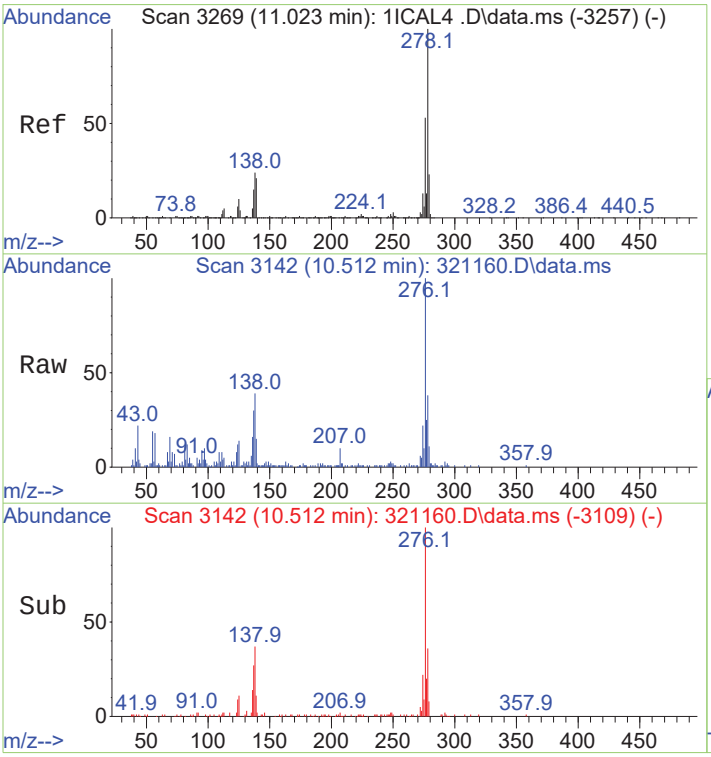


#90
Indeno-pyrene
Concen: 1.84 ug/mL
RT: 10.506 min Scan# 3140
Delta R.T. -0.003 min
Lab File: 321160.D
Acq: 10 Sep 2019 21:58

Tgt Ion:276 Resp: 28889

Ion	Ratio	Lower	Upper
276	100		
138	38.9	13.2	73.2
277	23.6	0.0	54.7

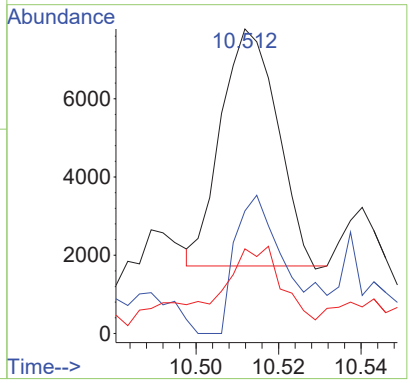


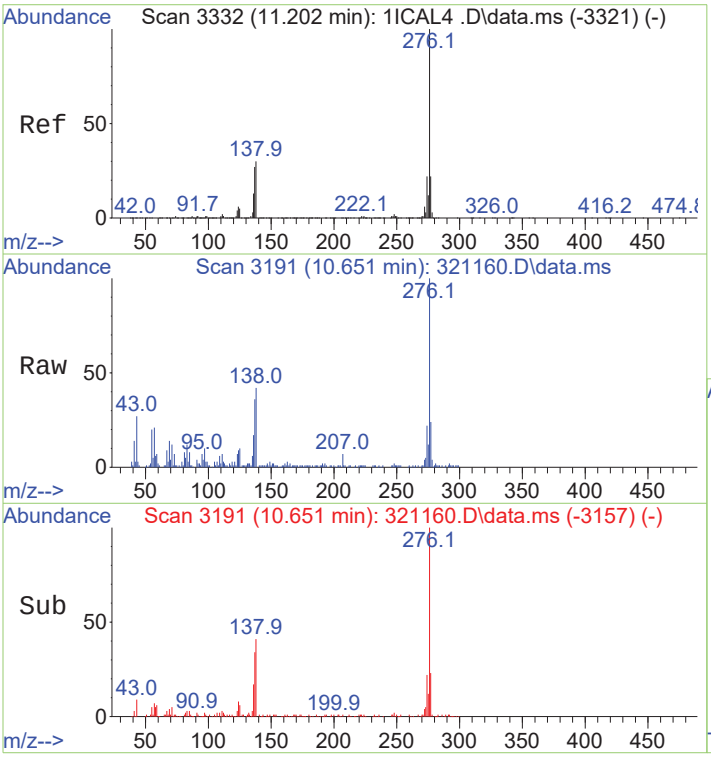


#91
Dib[ah]anthr
Concen: 0.45 ug/mL
RT: 10.512 min Scan# 3142
Delta R.T. -0.006 min
Lab File: 321160.D
Acq: 10 Sep 2019 21:58

Tgt Ion:278 Resp: 5734

Ion	Ratio	Lower	Upper
278	100		
139	54.1	4.7	64.7
279	25.1	0.0	54.0

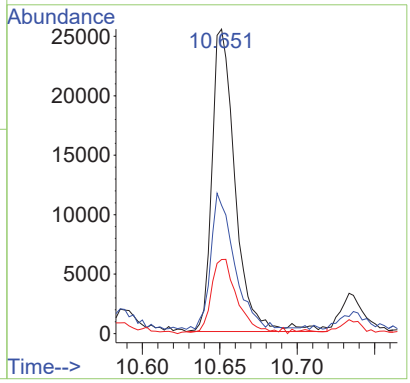


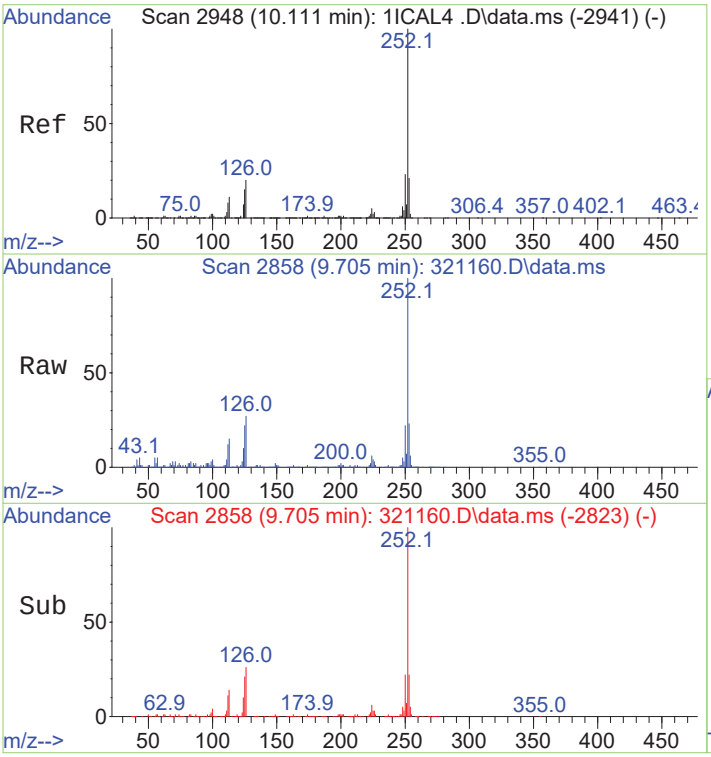


#92
B[ghi]perylen
Concen: 1.93 ug/mL
RT: 10.651 min Scan# 3191
Delta R.T. -0.003 min
Lab File: 321160.D
Acq: 10 Sep 2019 21:58

Tgt Ion:276 Resp: 26563

Ion	Ratio	Lower	Upper
276	100		
138	41.0	15.0	75.0
277	23.9	0.0	54.0

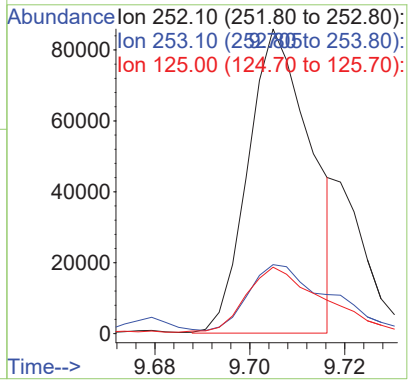




#87
B[b]fluoranth
Concen: 5.34 ug/mL m
RT: 9.705 min Scan# 2858
Delta R.T. 0.000 min
Lab File: 321160.D
Acq: 10 Sep 2019 21:58

Tgt Ion:252 Resp: 78613

Ion	Ratio	Lower	Upper
252	100		
253	22.7	0.0	51.9
125	21.8	0.0	50.0

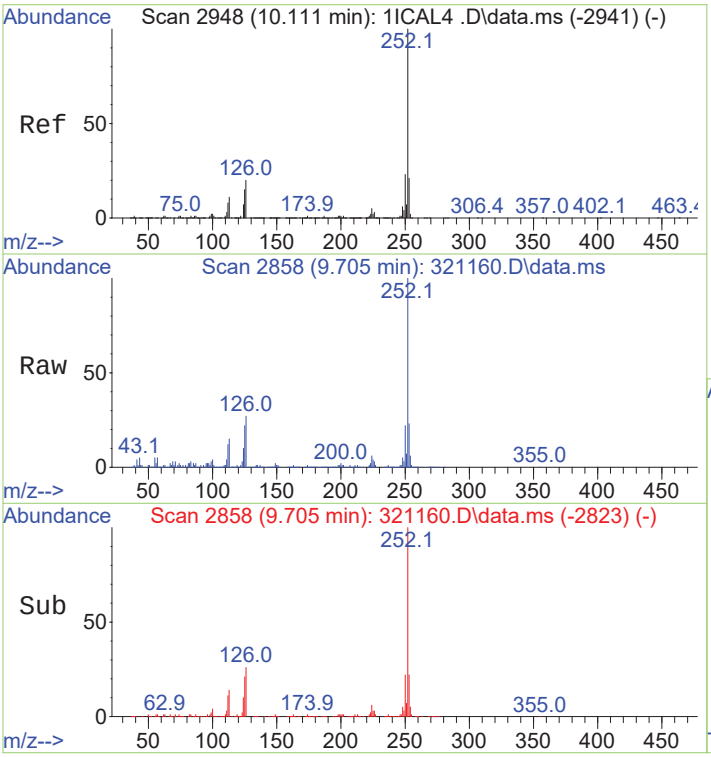


After Manual Integration

Reason#3

JJY
9/16/19

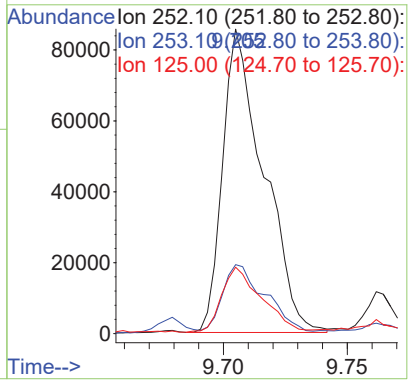
AJZ
09/19/2019



#87
B[b]fluoranth
Concen: 6.69 ug/mL
RT: 9.705 min Scan# 2858
Delta R.T. 0.000 min
Lab File: 321160.D
Acq: 10 Sep 2019 21:58

Tgt Ion:252 Resp: 98521

Ion	Ratio	Lower	Upper
252	100		
253	21.8	0.0	51.9
125	21.4	0.0	50.0

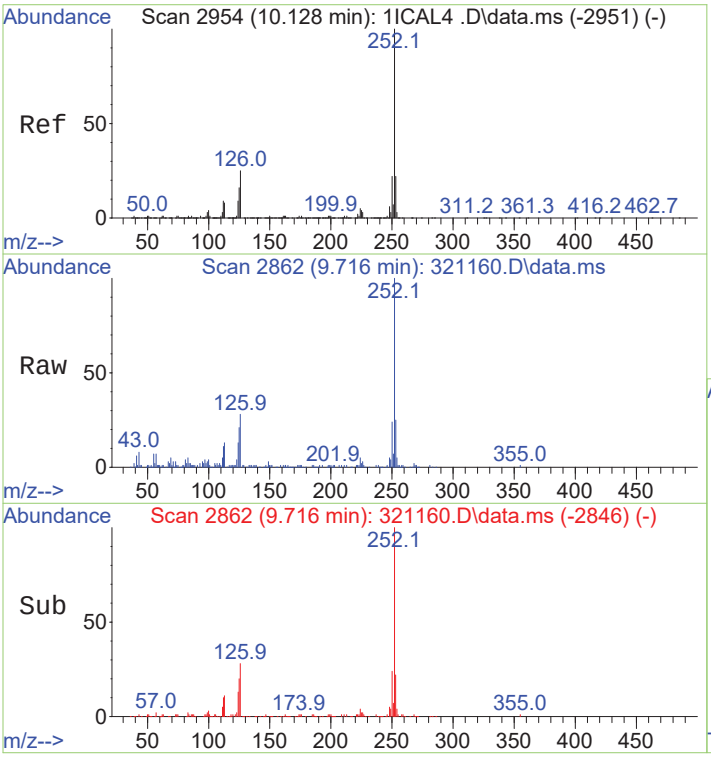


Before Manual Integration

Reason#3

JJY
9/16/19

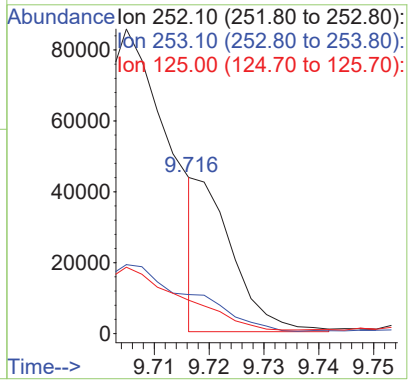
AJZ
09/19/2019



#88
B[k]fluoranth
Concen: 1.34 ug/mL m
RT: 9.716 min Scan# 2862
Delta R.T. -0.006 min
Lab File: 321160.D
Acq: 10 Sep 2019 21:58

Tgt Ion:252 Resp: 19821

Ion	Ratio	Lower	Upper
252	100		
253	25.0	0.0	52.0
125	21.4	0.0	50.2

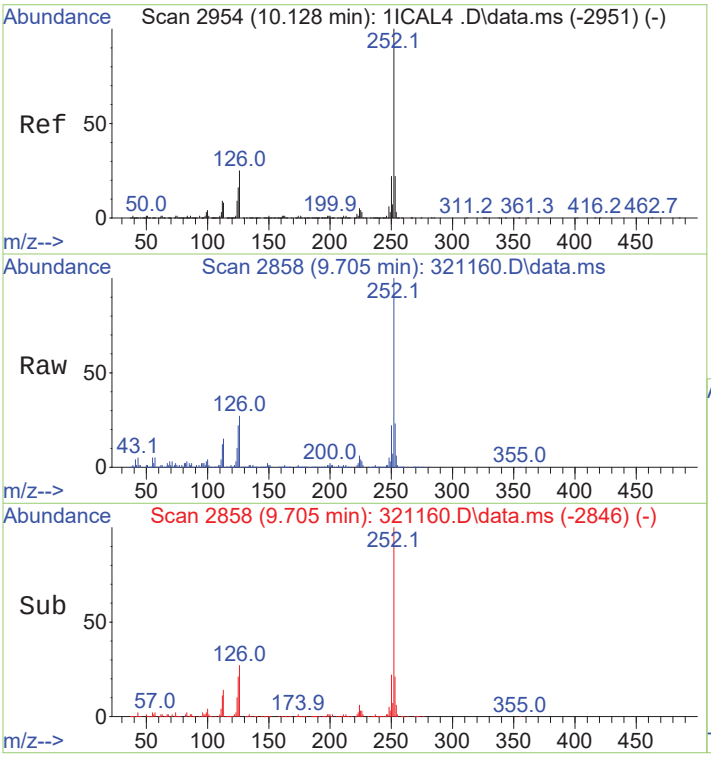


After Manual Integration

Reason#3

JJY
9/16/19

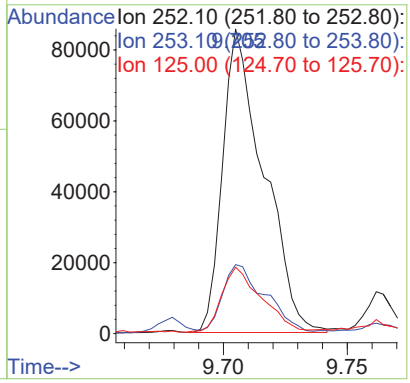
AJZ
09/19/2019



#88
B[k]fluoranth
Concen: 6.67 ug/mL
RT: 9.705 min Scan# 2858
Delta R.T. -0.017 min
Lab File: 321160.D
Acq: 10 Sep 2019 21:58

Tgt Ion:252 Resp: 98521

Ion	Ratio	Lower	Upper
252	100		
253	21.8	0.0	52.0
125	21.4	0.0	50.2



Before Manual Integration

Reason#3

JJY
9/16/19

AJZ
09/19/2019

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321160.D Vial: 12
Acq On : 10 Sep 2019 21:58 Operator: JJY
Sample : 164275,321160, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:32 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

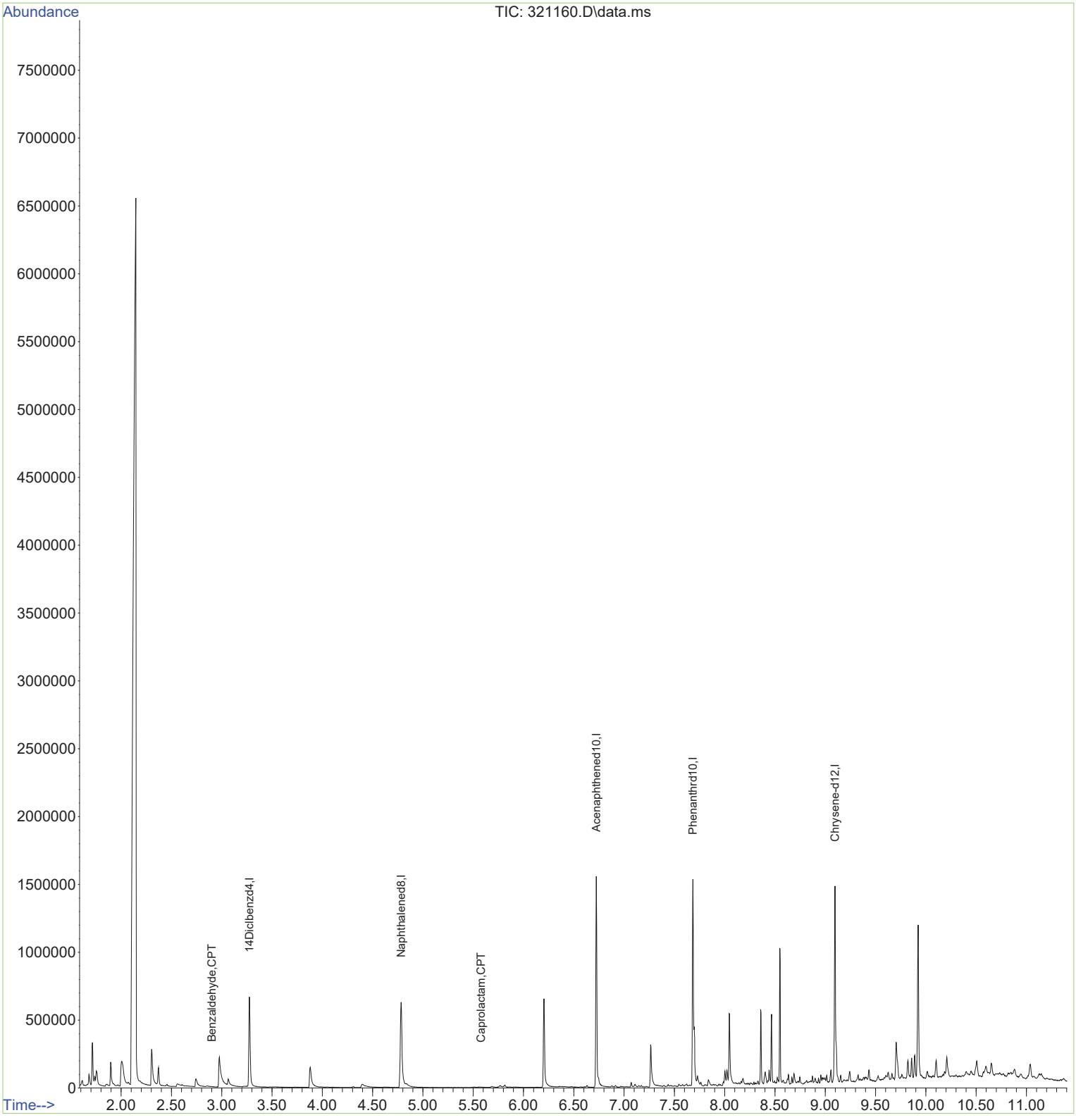
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	107411	20.00	ug/mL	0.00
3) Naphthalened8	4.784	136	402291	20.00	ug/mL	0.00
5) Acenaphthened10	6.724	164	259692	20.00	ug/mL	0.00
7) Phenanthrd10	7.685	188	423590	20.00	ug/mL	0.00
9) Chrysene-d12	9.097	240	241169	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	2.902	77	336	0.6505	ug/mL#	1
4) Caprolactam	5.579	55	1681	1.3378	ug/mL#	7

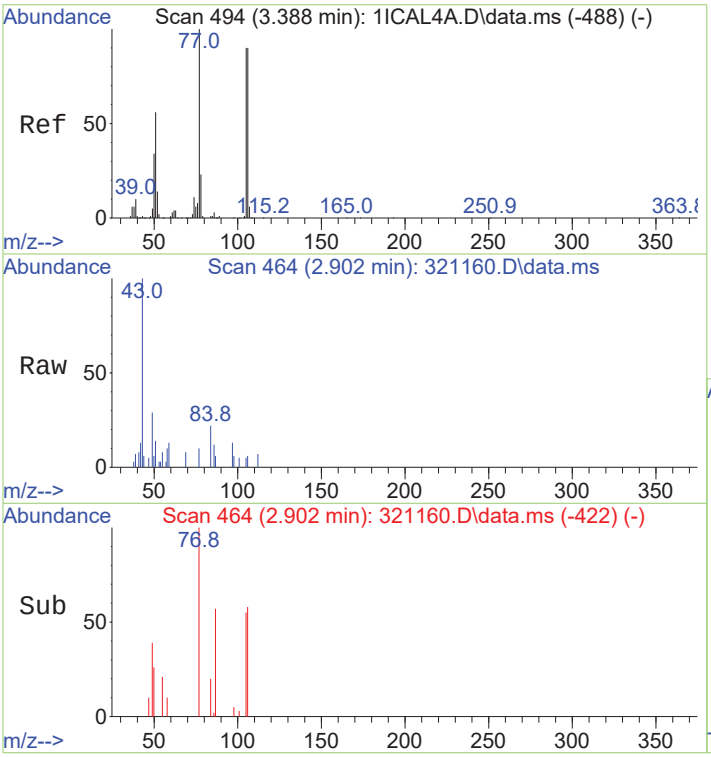
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321160.D Vial: 12
Acq On : 10 Sep 2019 21:58 Operator: JJY
Sample : 164275,321160, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:32 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

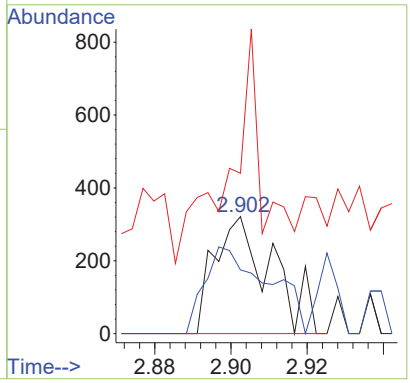


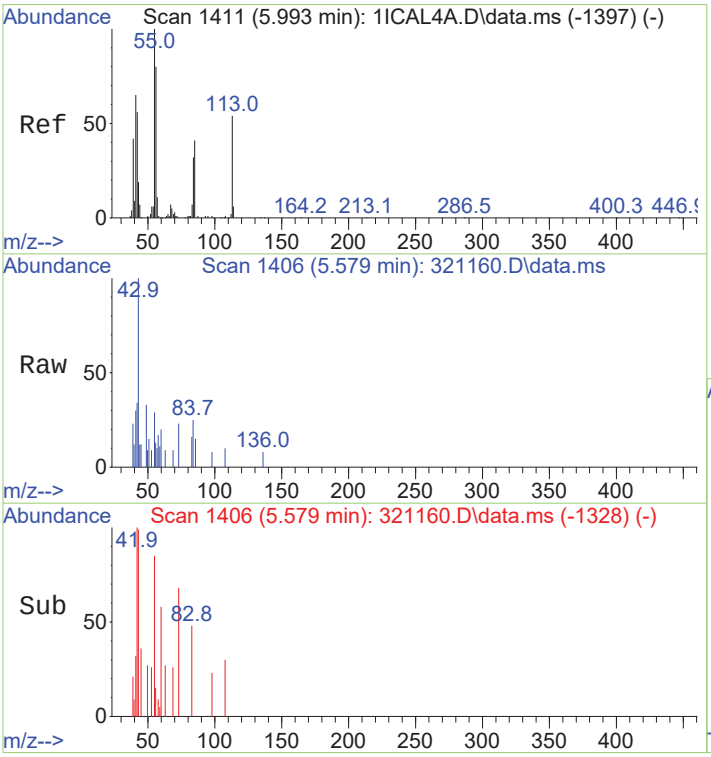


#2
Benzaldehyde
Concen: 0.65 ug/mL
RT: 2.902 min Scan# 464
Delta R.T. 0.020 min
Lab File: 321160.D
Acq: 10 Sep 2019 21:58

Tgt Ion: 77 Resp: 336

Ion	Ratio	Lower	Upper
77	100		
105	82.1	67.4	127.4
51	633.6	23.2	83.2#

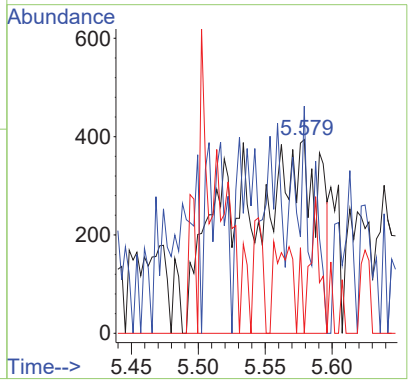




#4
Caprolactam
Concen: 1.34 ug/mL
RT: 5.579 min Scan# 1406
Delta R.T. 0.122 min
Lab File: 321160.D
Acq: 10 Sep 2019 21:58

Tgt Ion: 55 Resp: 1681

Ion	Ratio	Lower	Upper
55	100		
42	133.0	24.6	84.6#
113	0.0	26.7	86.7#



Library Search Compound Report

Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321160.D
Acq On : 10 Sep 2019 21:58
Operator : JJY
Sample : 164275,321160,
Misc : 500ul+5ul S4142A
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 1 Monomethylnitrosamine Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.715	7.03 ug/mL	216431	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Monomethylnitrosamine	60	CH4N2O	000000-00-0	9
2	Methacrylamide	85	C4H7NO	000079-39-0	9
3	Azetidine, 1-nitroso-	86	C3H6N2O	015216-10-1	9
4	2(3H)-Furanone, 5-ethyldihydro-	114	C6H10O2	000695-06-7	9
5	Acetic acid	60	C2H4O2	000064-19-7	7

****

Peak Number 2 3,5-Nonadien-7-yn-2-ol, (E,E)- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.755	4.18 ug/mL	128648	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3,5-Nonadien-7-yn-2-ol, (E,E)-	136	C9H12O	043142-43-4	7
2	2-Propanone, 1-chloro-	92	C3H5ClO	000078-95-5	4
3	3,5,7-Nonatrien-2-one	136	C9H12O	017609-32-4	4
4	2-Propen-1-ol, 3,3-difluoro-, ac...	136	C5H6F2O2	001597-40-6	4
5	1-Butanol	74	C4H10O	000071-36-3	4

****

Peak Number 3 3-Penten-2-one, 4-methyl- Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.897	4.15 ug/mL	127915	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
2	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	90
3	2-Pentene, 3,4-dimethyl-, (E)-	98	C7H14	004914-92-5	90
4	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	90
5	2-Pentene, 3,4-dimethyl-, (Z)-	98	C7H14	004914-91-4	86

****

Peak Number 4 Propane, 1-(1-methylethoxy)- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.005	12.24 ug/mL	376805	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propane, 1-(1-methylethoxy)-	102	C6H14O	000627-08-7	22
2	1-Pentanol, 2-methyl-	102	C6H14O	000105-30-6	17
3	Acetic acid, 1-methylethyl ester	102	C5H10O2	000108-21-4	17

Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321160.D
Acq On : 10 Sep 2019 21:58
Operator : JJY
Sample : 164275,321160,
Misc : 500ul+5ul S4142A
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

4	Butane	58	C4H10	000106-97-8	16
5	Butanoic acid, ethyl ester	116	C6H12O2	000105-54-4	9

****

Peak Number 5 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.147	391.07 ug/mL	12042000	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	56
2	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	56
3	tert-Butyl Hydroperoxide	90	C4H10O2	000075-91-2	28
4	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	28
5	Acetic acid, cyano-, 1,1-dimethy...	141	C7H11NO2	001116-98-9	23

****

Peak Number 6 Tetracosane Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.208	3.53 ug/mL	152132	Perylene-d12	9.924

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tetracosane	338	C24H50	000646-31-1	91
2	Dotriacontane	451	C32H66	000544-85-4	90
3	Docosane	310	C22H46	000629-97-0	90
4	Eicosane	282	C20H42	000112-95-8	87
5	Heneicosane	296	C21H44	000629-94-7	83

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321162.D Vial: 13
Acq On : 10 Sep 2019 22:16 Operator: JJY
Sample : 164275,321162, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 22:30:06 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

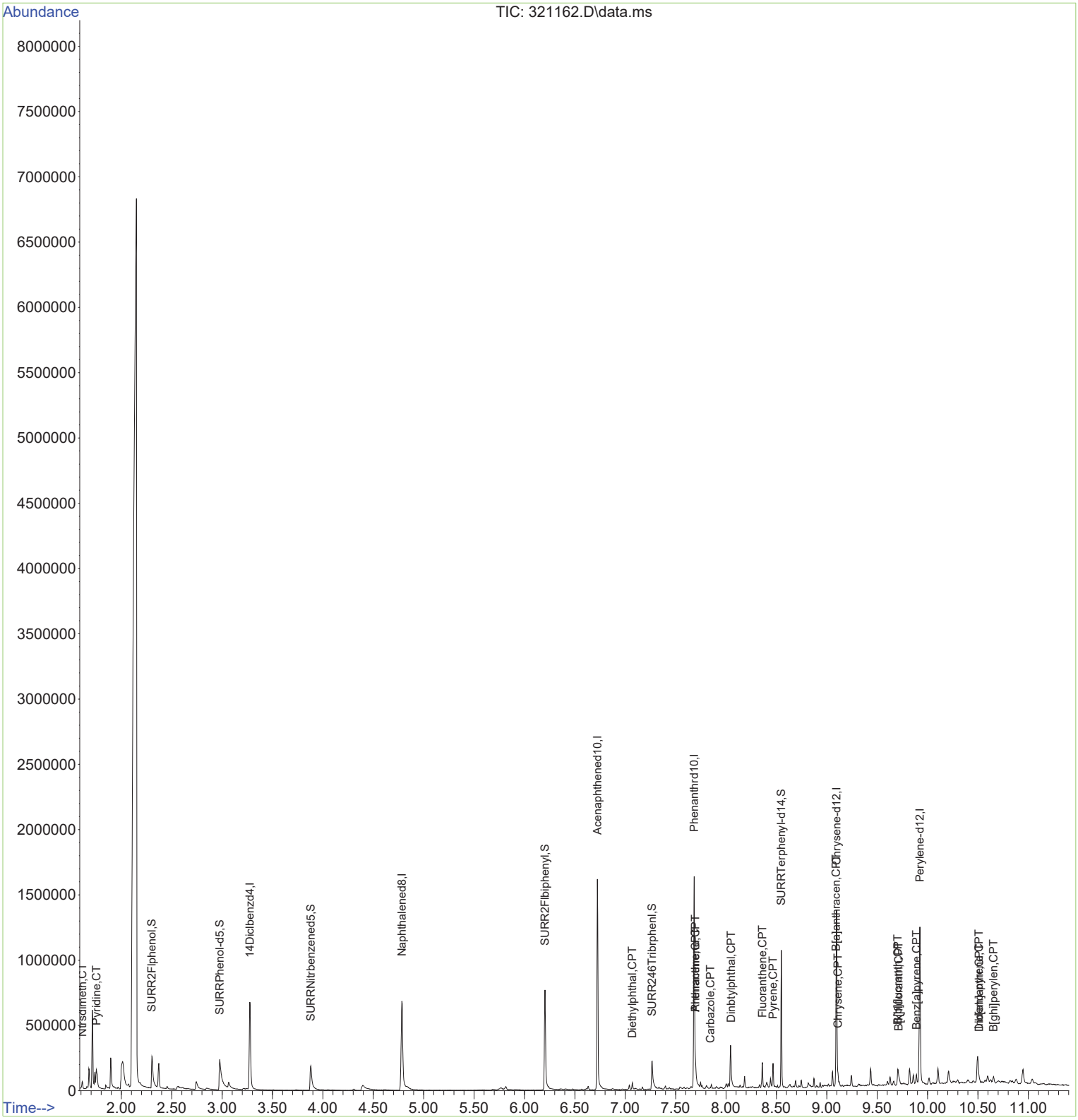
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	109749	20.00	ug/mL	0.00
21) Naphthalened8	4.784	136	421302	20.00	ug/mL	0.00
39) Acenaphthened10	6.724	164	254905	20.00	ug/mL	0.00
63) Phenanthrd10	7.685	188	447726	20.00	ug/mL	0.00
75) Chrysene-d12	9.097	240	254566	20.00	ug/mL	0.00
86) Perylene-d12	9.924	264	288214	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.303	112	89649	33.18	%REC	0.02
Spiked Amount 100.000			Recovery = 33.18%			
7) SURRPhenol-d5	2.976	99	152768	46.43	%REC	0.00
Spiked Amount 100.000			Recovery = 46.43%			
22) SURRNitrbenzened5	3.880	82	83714	58.56	%REC	0.00
Spiked Amount 100.000			Recovery = 58.56%			
44) SURR2Flbiphenyl	6.204	172	230029	67.74	%REC	0.00
Spiked Amount 100.000			Recovery = 67.74%			
62) SURR246Tribrphenl	7.267	330	26304	33.29	%REC	0.00
Spiked Amount 100.000			Recovery = 33.29%			
78) SURRTerphenyl-d14	8.548	244	170696	73.26	%REC	0.00
Spiked Amount 100.000			Recovery = 73.26%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.612	74	3061	1.2191	ug/mL#	1
3) Pyridine	1.752	79	1621	0.7749	ug/mL#	20
60) Diethylphthal	7.071	149	6304	0.3693	ug/mL	97
70) Phenanthrene	7.696	178	23610	0.9998	ug/mL	97
71) Anthracene	7.696	178	28287	1.1631	ug/mL	99
72) Carbazole	7.844	167	3631	0.1548	ug/mL	84
73) Dinbtylphthal	8.051	149	7221	0.0834	ug/mL	94
74) Fluoranthene	8.361	202	45624	2.6882	ug/mL	97
77) Pyrene	8.466	202	37669	1.9692	ug/mL	93
82) B[a]anthracen	9.091	228	17175	1.0944	ug/mL	97
83) Chrysene	9.111	228	18853	1.1609	ug/mL	98
87) B[b]fluoranth	9.705	252	26714m	1.7028	ug/mL	
88) B[k]fluoranth	9.713	252	10985m	0.6982	ug/mL	
89) Benz[a]pyrene	9.890	252	17735	1.0956	ug/mL	94
90) Indeno-pyrene	10.509	276	12306	0.7348	ug/mL	91
91) Dib[ah]anthr	10.512	278	2331	0.1716	ug/mL	85
92) B[ghi]perylen	10.654	276	11833	0.8065	ug/mL	97

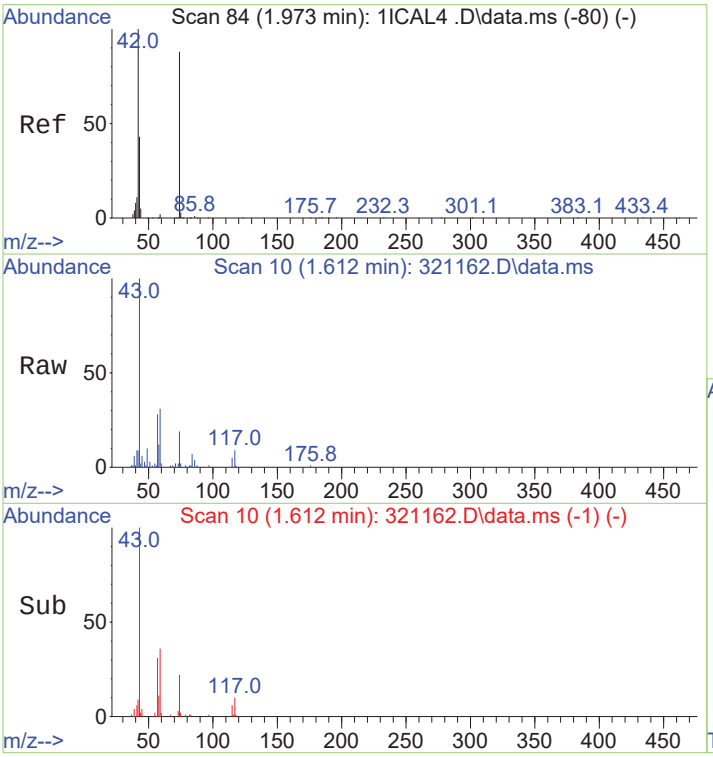
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321162.D Vial: 13
Acq On : 10 Sep 2019 22:16 Operator: JJY
Sample : 164275,321162, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 22:30:06 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

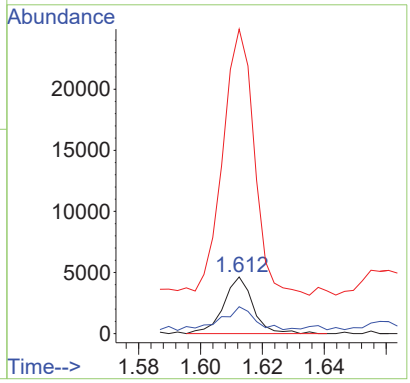


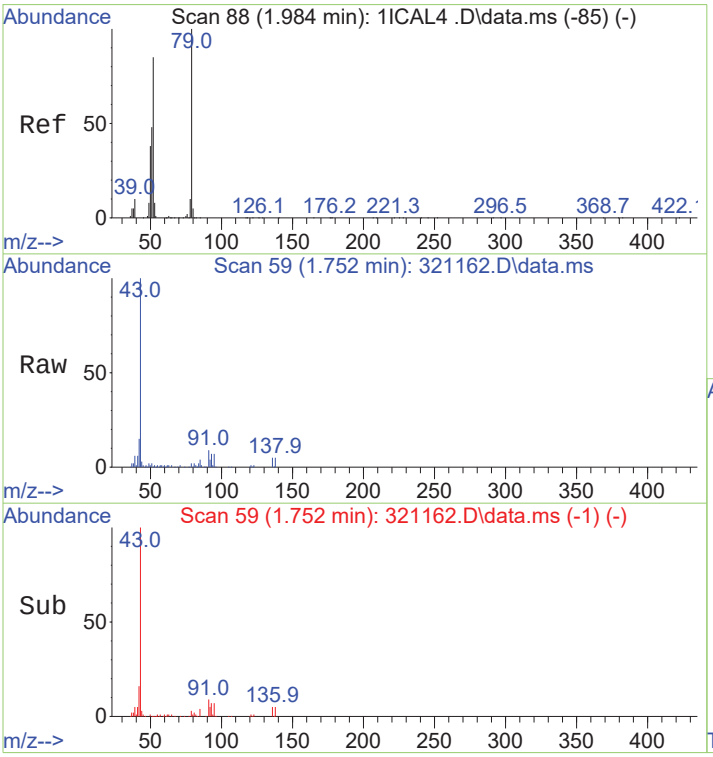


#2
Ntrsdimeth
Concen: 1.22 ug/mL
RT: 1.612 min Scan# 10
Delta R.T. -0.025 min
Lab File: 321162.D
Acq: 10 Sep 2019 22:16

Tgt Ion: 74 Resp: 3061

Ion	Ratio	Lower	Upper
74	100		
42	37.7	54.2	114.2#
43	459.8	5.5	65.5#

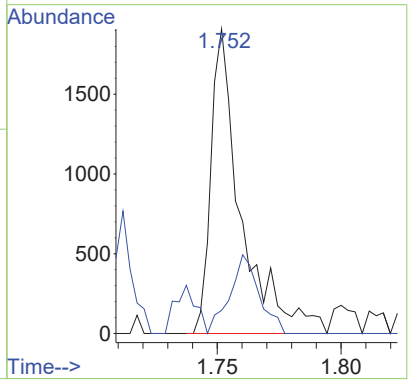


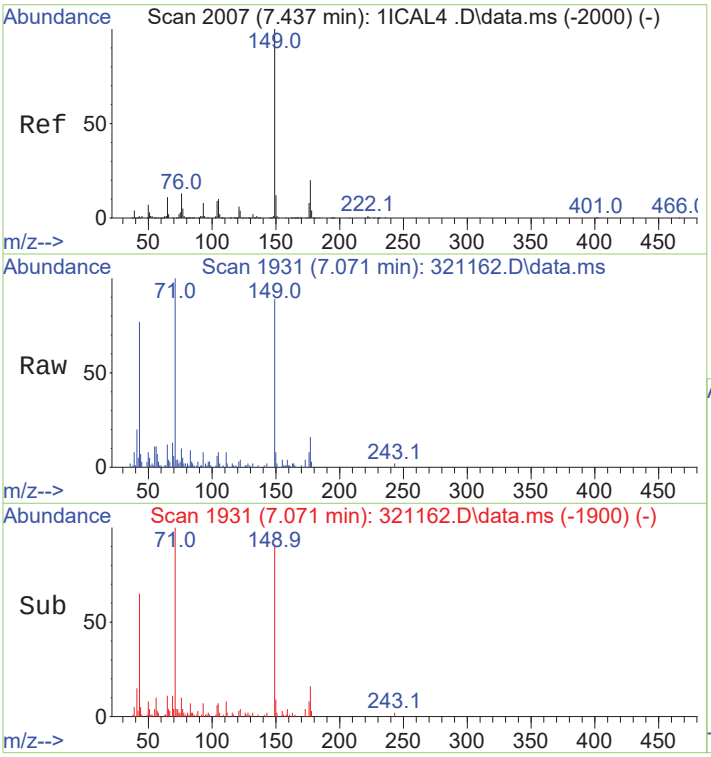


#3
Pyridine
Concen: 0.77 ug/mL
RT: 1.752 min Scan# 59
Delta R.T. 0.105 min
Lab File: 321162.D
Acq: 10 Sep 2019 22:16

Tgt Ion: 79 Resp: 1621

Ion	Ratio	Lower	Upper
79	100		
52	7.6	46.7	106.7#

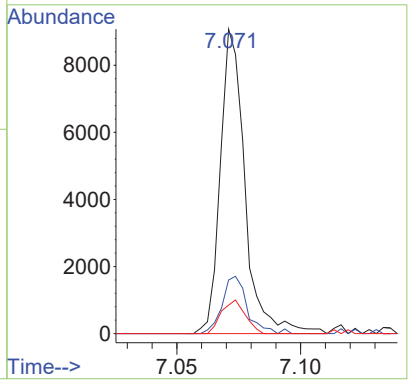


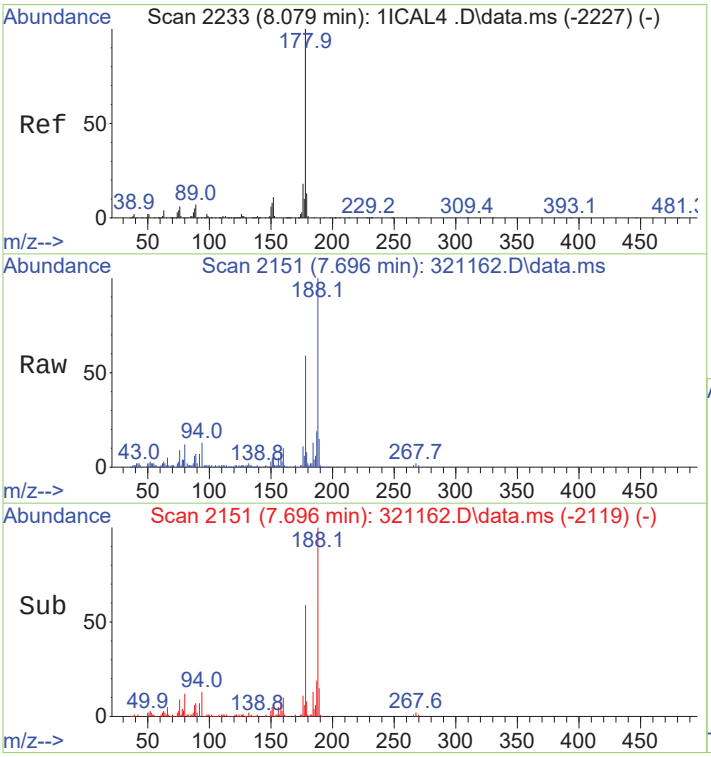


#60
Diethylphthal
Concen: 0.37 ug/mL
RT: 7.071 min Scan# 1931
Delta R.T. -0.011 min
Lab File: 321162.D
Acq: 10 Sep 2019 22:16

Tgt Ion:149 Resp: 6304

Ion	Ratio	Lower	Upper
149	100		
177	17.6	0.0	49.3
150	11.4	0.0	41.9

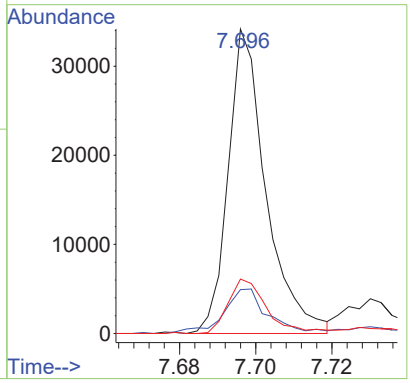


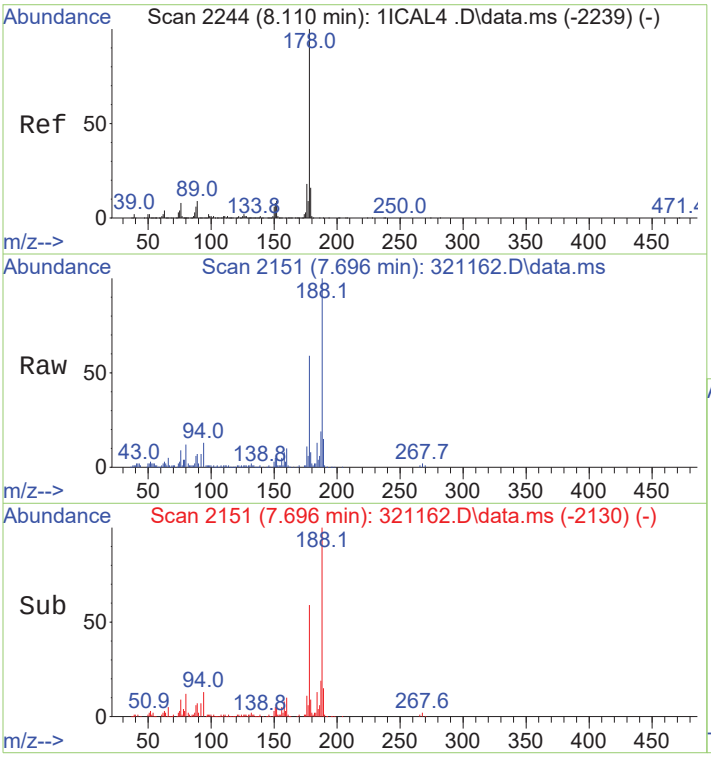


#70
Phenanthrene
Concen: 1.00 ug/mL
RT: 7.696 min Scan# 2151
Delta R.T. -0.008 min
Lab File: 321162.D
Acq: 10 Sep 2019 22:16

Tgt Ion:178 Resp: 23610

Ion	Ratio	Lower	Upper
178	100		
179	13.5	0.0	45.3
176	17.8	0.0	48.4

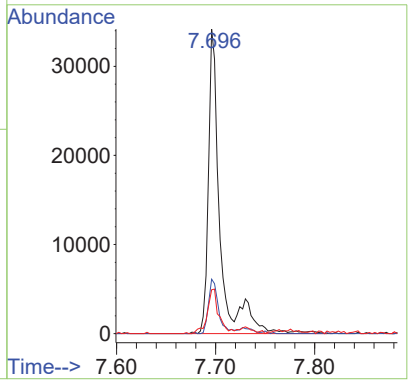


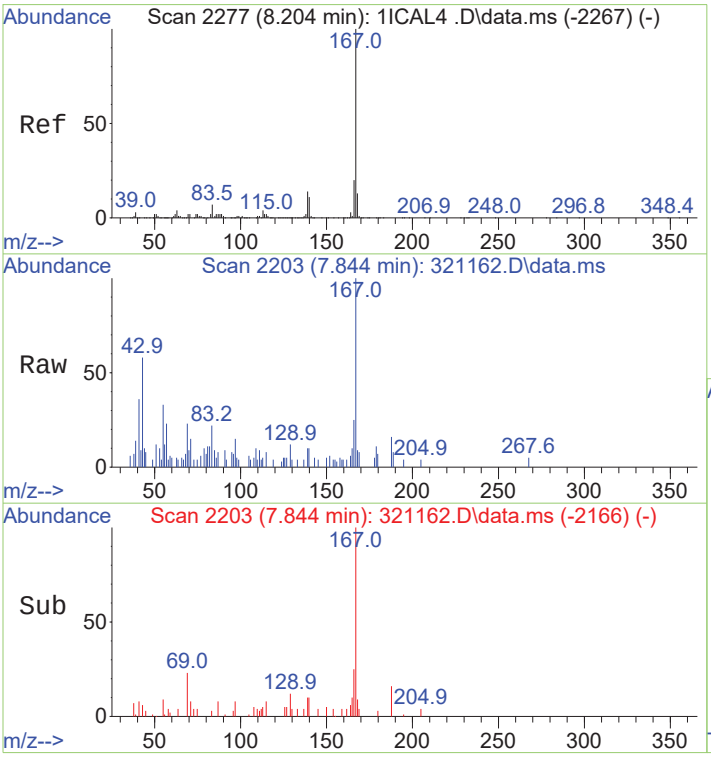


#71
Anthracene
Concen: 1.16 ug/mL
RT: 7.696 min Scan# 2151
Delta R.T. -0.040 min
Lab File: 321162.D
Acq: 10 Sep 2019 22:16

Tgt Ion:178 Resp: 28287

Ion	Ratio	Lower	Upper
178	100		
176	17.9	0.0	47.6
179	14.1	0.0	45.1

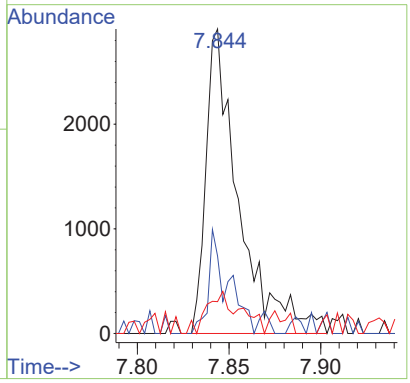


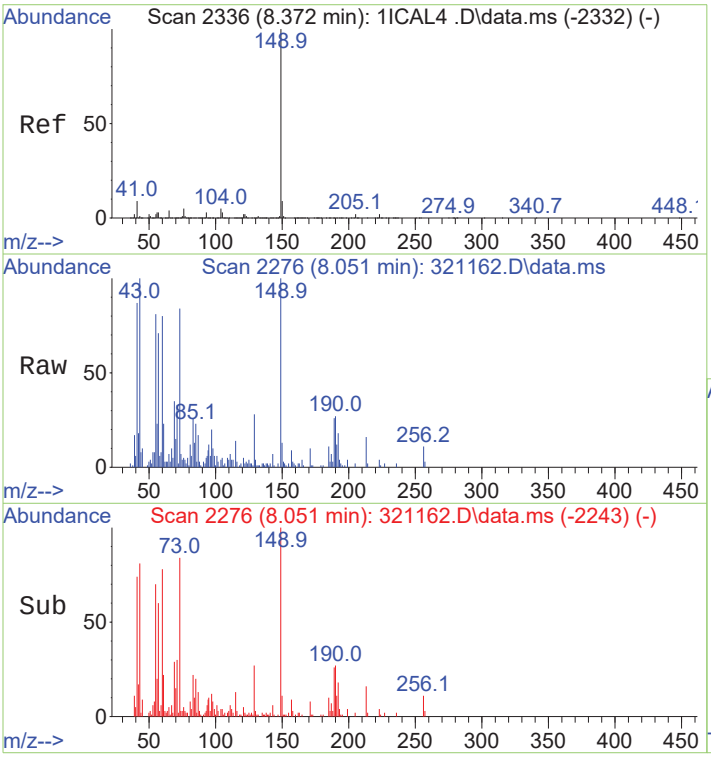


#72
Carbazole
Concen: 0.15 ug/mL
RT: 7.844 min Scan# 2203
Delta R.T. 0.006 min
Lab File: 321162.D
Acq: 10 Sep 2019 22:16

Tgt Ion:167 Resp: 3631

Ion	Ratio	Lower	Upper
167	100		
166	25.5	0.0	49.3
139	20.2	0.0	42.6

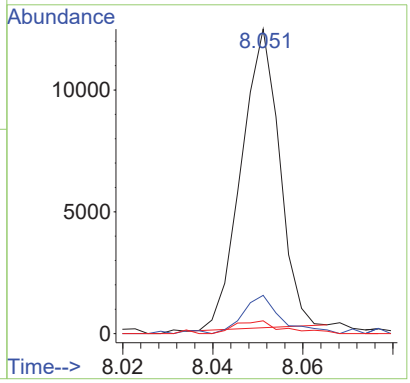


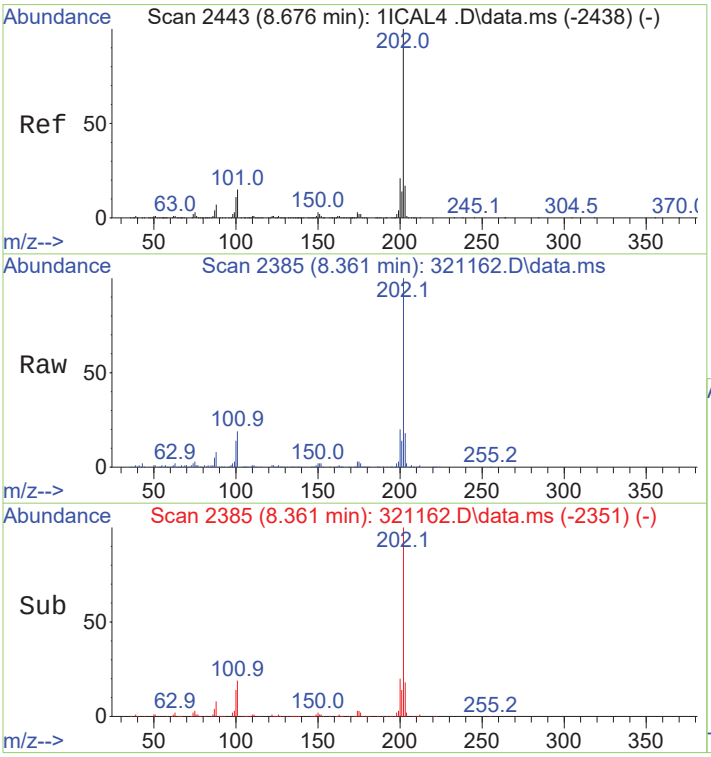


#73
Dinbtylphthal
Concen: 0.08 ug/mL
RT: 8.051 min Scan# 2276
Delta R.T. -0.006 min
Lab File: 321162.D
Acq: 10 Sep 2019 22:16

Tgt Ion:149 Resp: 7221

Ion	Ratio	Lower	Upper
149	100		
150	11.7	0.0	39.0
104	3.4	0.0	34.6

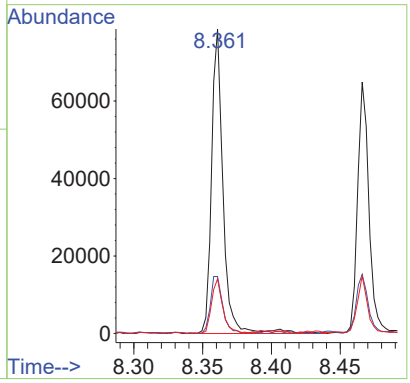


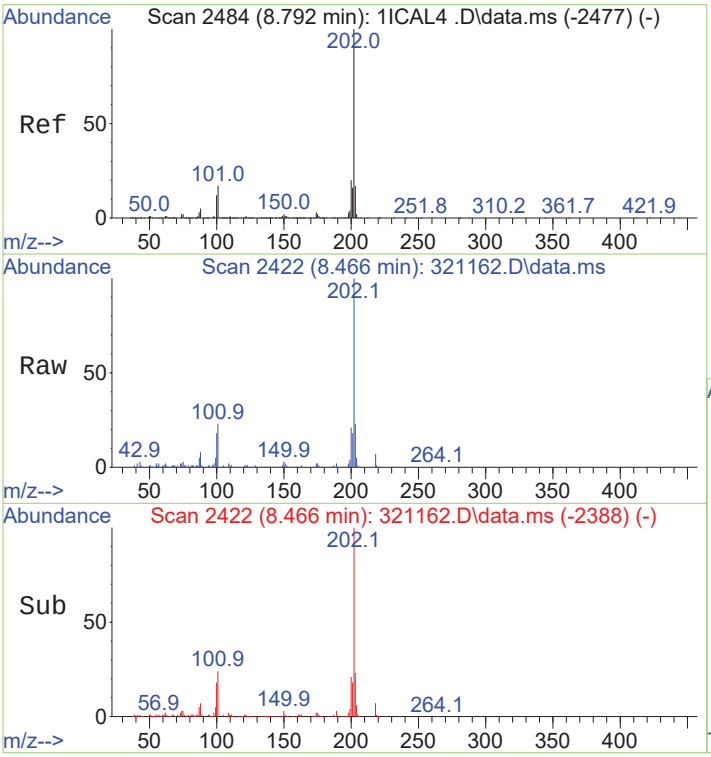


#74
Fluoranthene
Concen: 2.69 ug/mL
RT: 8.361 min Scan# 2385
Delta R.T. -0.003 min
Lab File: 321162.D
Acq: 10 Sep 2019 22:16

Tgt Ion:202 Resp: 45624

Ion	Ratio	Lower	Upper
202	100		
101	18.7	0.0	50.7
203	17.8	0.0	47.3

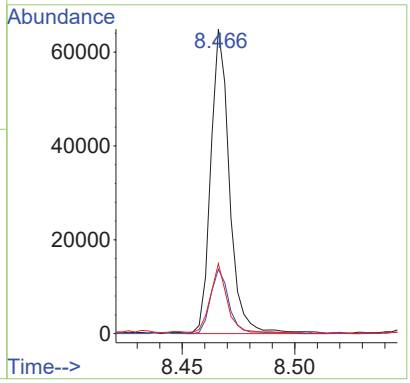


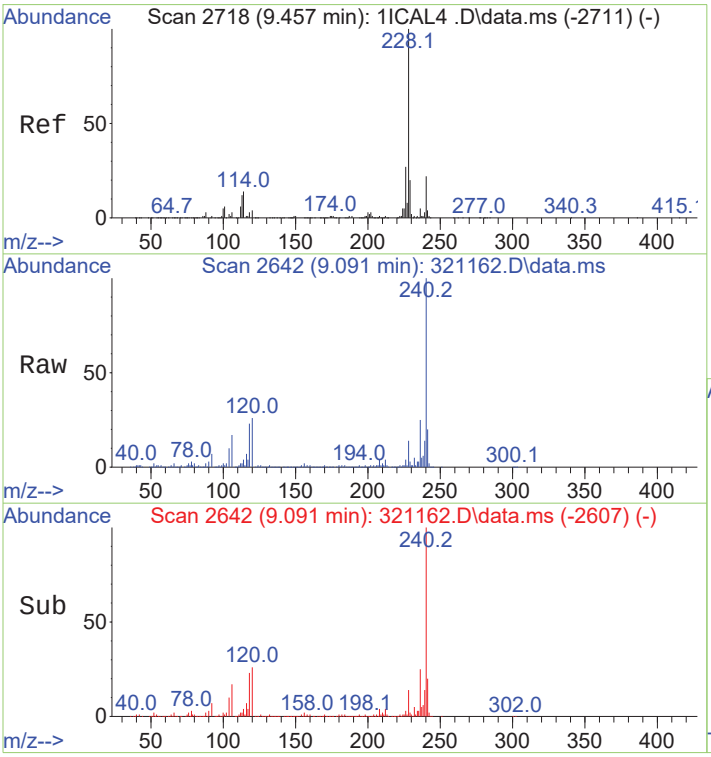


#77
Pyrene
Concen: 1.97 ug/mL
RT: 8.466 min Scan# 2422
Delta R.T. -0.003 min
Lab File: 321162.D
Acq: 10 Sep 2019 22:16

Tgt Ion:202 Resp: 37669

Ion	Ratio	Lower	Upper
202	100		
200	21.2	0.0	50.1
203	22.8	0.0	46.9

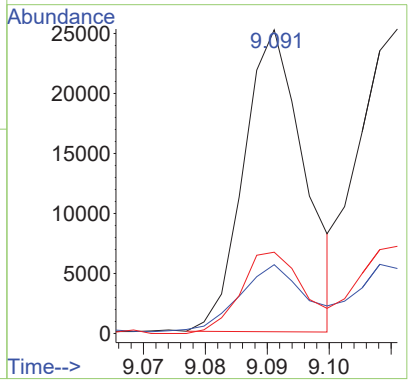


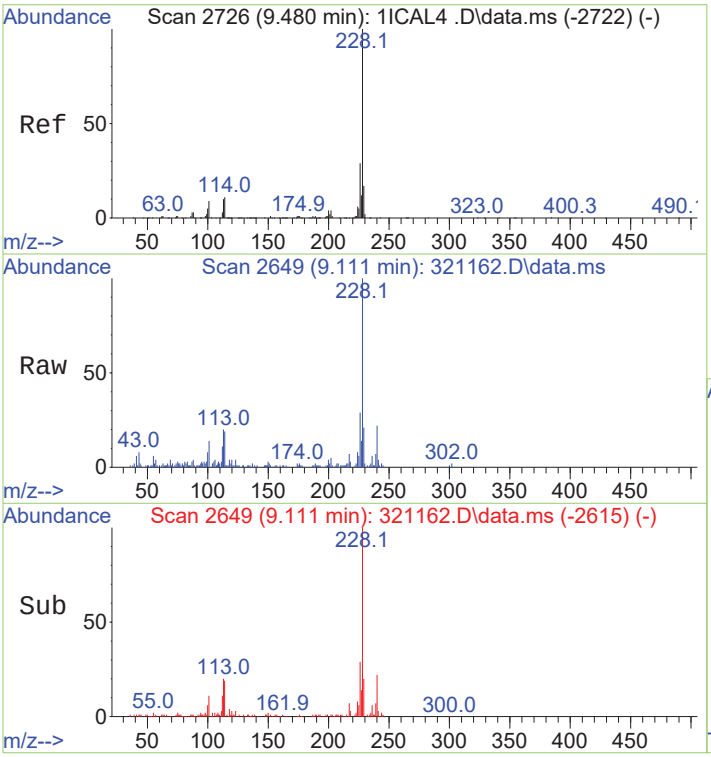


#82
B[a]anthracen
Concen: 1.09 ug/mL
RT: 9.091 min Scan# 2642
Delta R.T. 0.000 min
Lab File: 321162.D
Acq: 10 Sep 2019 22:16

Tgt Ion:228 Resp: 17175

Ion	Ratio	Lower	Upper
228	100		
229	21.5	0.0	49.3
226	27.0	0.0	56.2

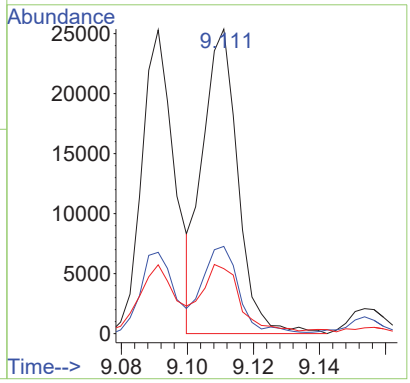


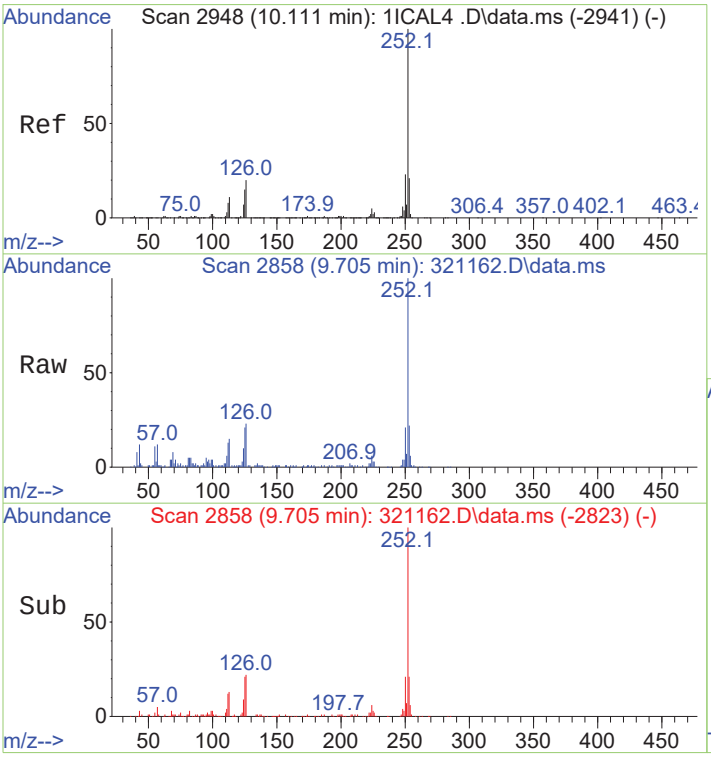


#83
Chrysene
Concen: 1.16 ug/mL
RT: 9.111 min Scan# 2649
Delta R.T. -0.003 min
Lab File: 321162.D
Acq: 10 Sep 2019 22:16

Tgt Ion:228 Resp: 18853

Ion	Ratio	Lower	Upper
228	100		
226	27.4	0.0	59.0
229	19.6	0.0	49.4

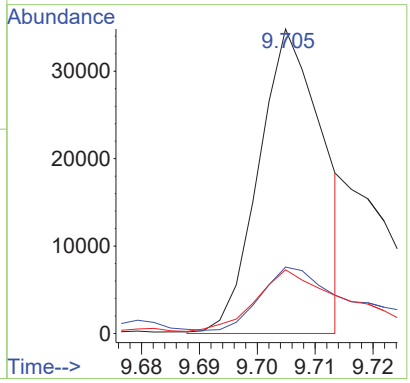


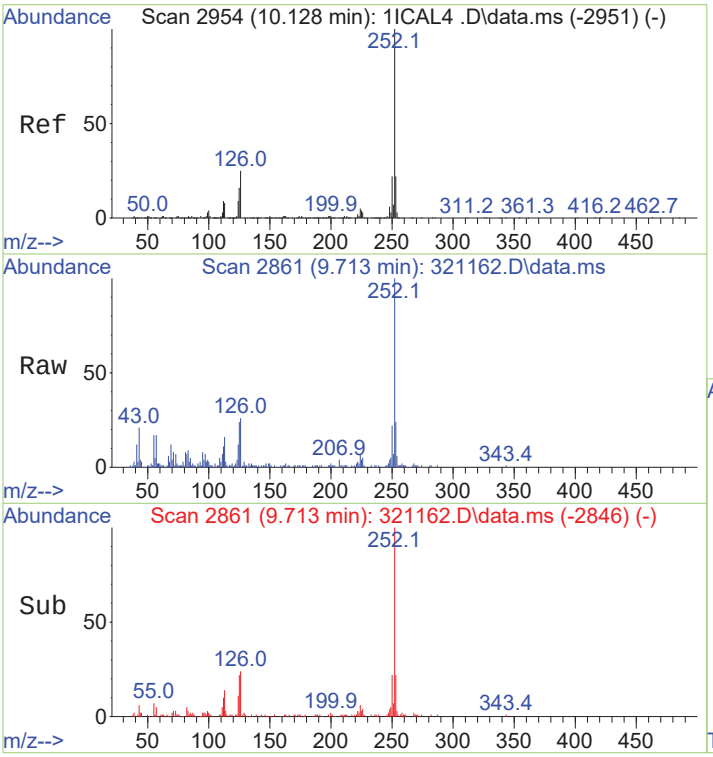


#87
B[b]fluoranth
Concen: 1.70 ug/mL m
RT: 9.705 min Scan# 2858
Delta R.T. 0.000 min
Lab File: 321162.D
Acq: 10 Sep 2019 22:16

Tgt Ion:252 Resp: 26714

Ion	Ratio	Lower	Upper
252	100		
253	21.8	0.0	51.9
125	20.9	0.0	50.0

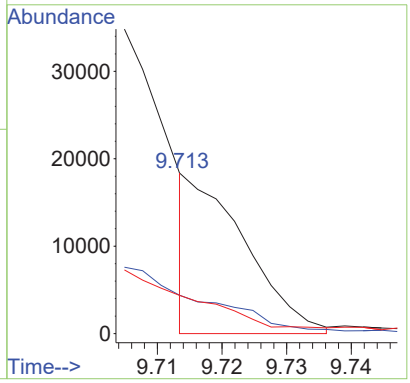


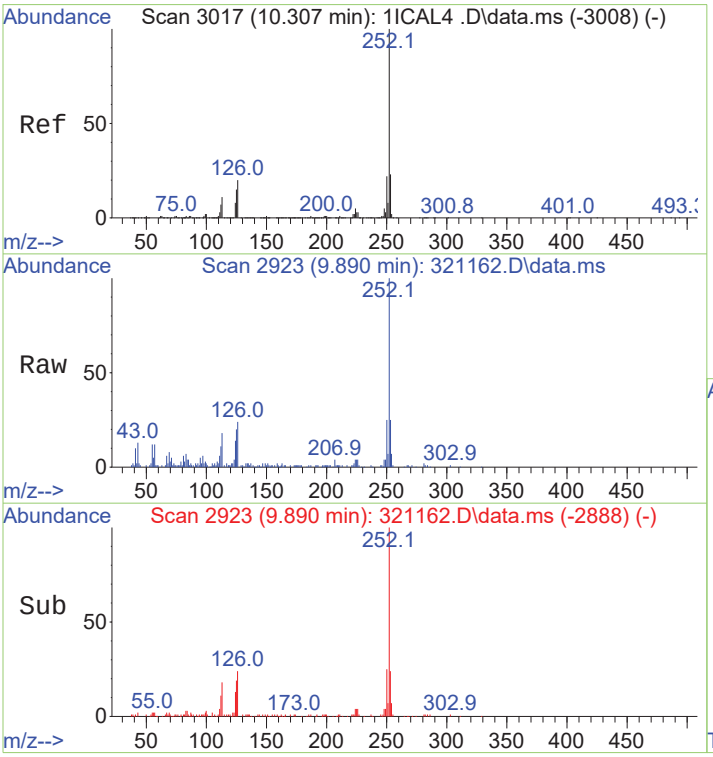


#88
B[k]fluoranth
Concen: 0.70 ug/mL m
RT: 9.713 min Scan# 2861
Delta R.T. -0.008 min
Lab File: 321162.D
Acq: 10 Sep 2019 22:16

Tgt Ion:252 Resp: 10985

Ion	Ratio	Lower	Upper
252	100		
253	23.9	0.0	52.0
125	23.8	0.0	50.2

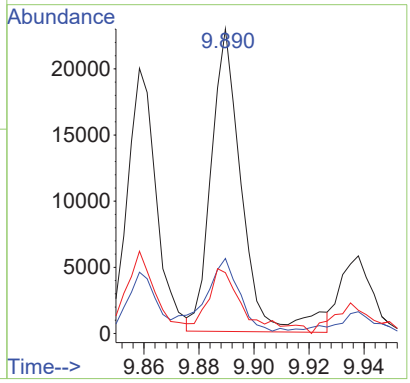


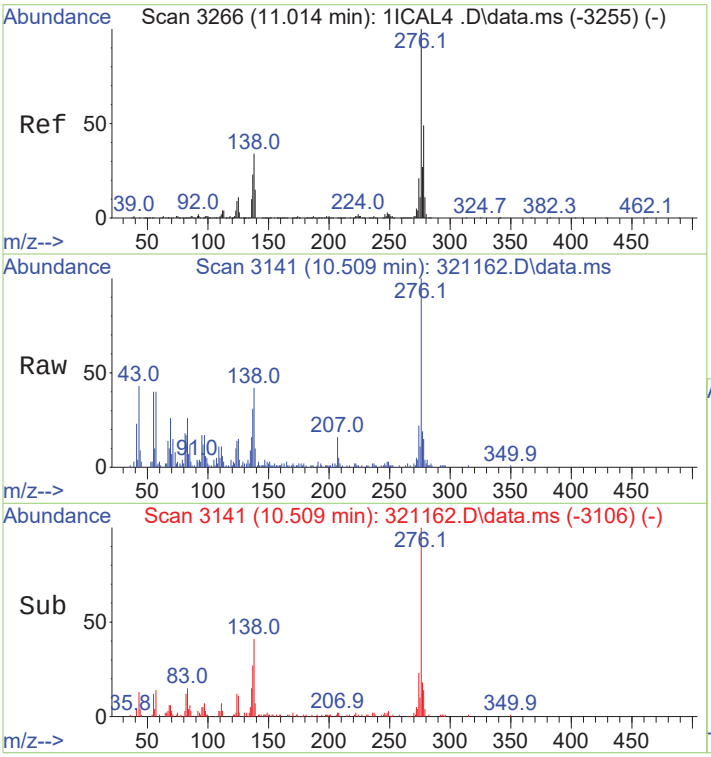


#89
Benz[a]pyrene
Concen: 1.10 ug/mL
RT: 9.890 min Scan# 2923
Delta R.T. 0.000 min
Lab File: 321162.D
Acq: 10 Sep 2019 22:16

Tgt Ion:252 Resp: 17735

Ion	Ratio	Lower	Upper
252	100		
253	23.8	0.0	51.7
125	17.7	0.0	51.4

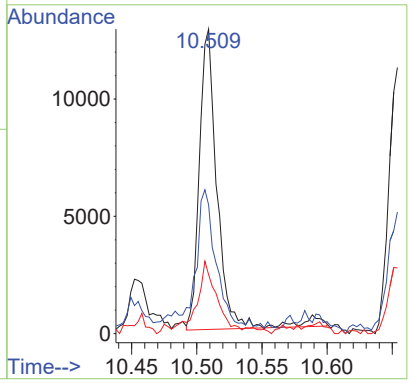


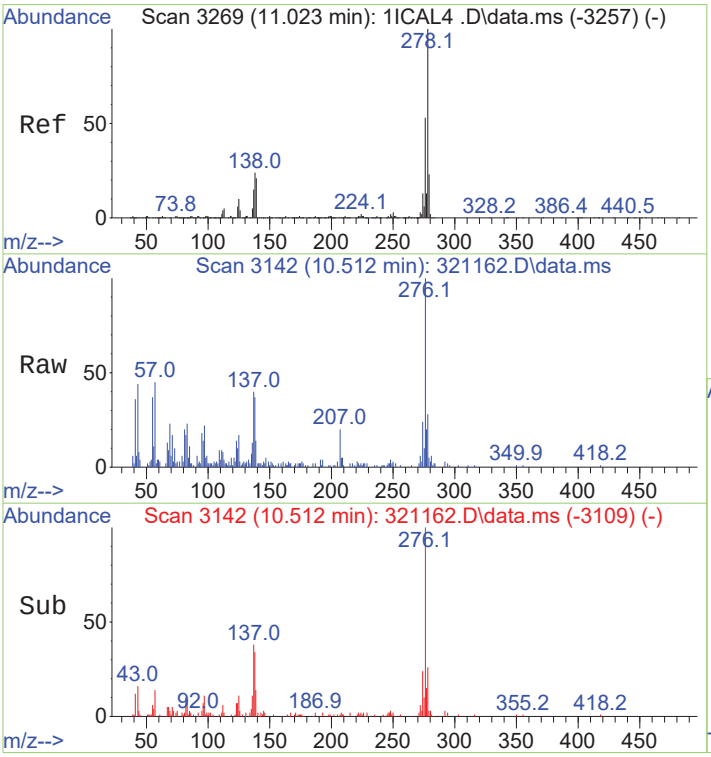


#90
Indeno-pyrene
Concen: 0.73 ug/mL
RT: 10.509 min Scan# 3141
Delta R.T. 0.000 min
Lab File: 321162.D
Acq: 10 Sep 2019 22:16

Tgt Ion:276 Resp: 12306

Ion	Ratio	Lower	Upper
276	100		
138	39.3	13.2	73.2
277	17.8	0.0	54.7

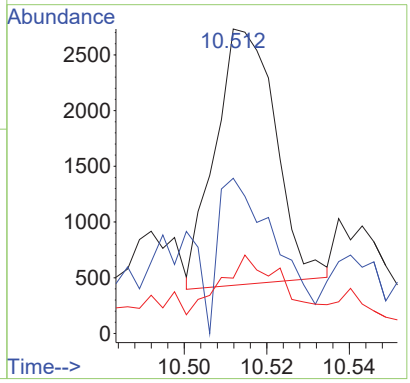


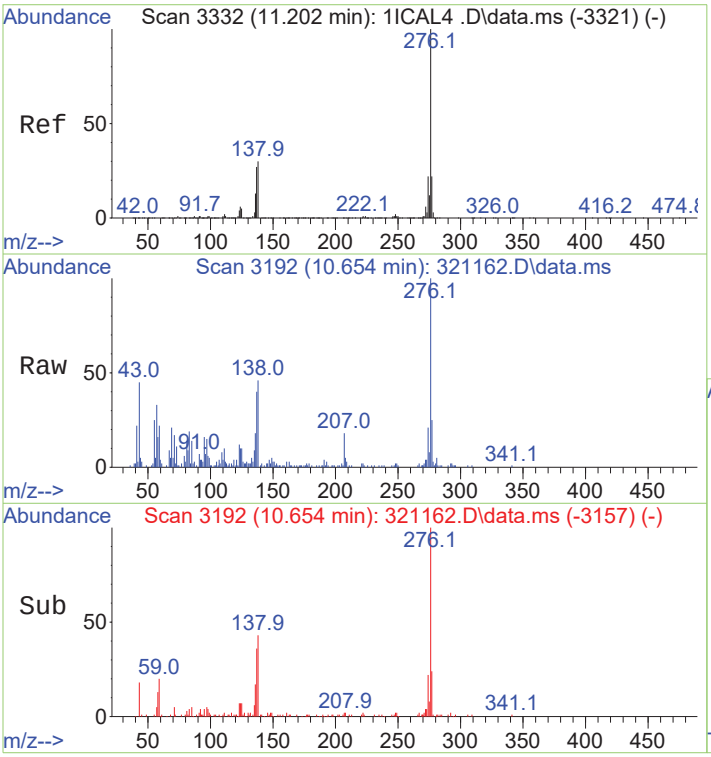


#91
Dib[ah]anthr
Concen: 0.17 ug/mL
RT: 10.512 min Scan# 3142
Delta R.T. -0.006 min
Lab File: 321162.D
Acq: 10 Sep 2019 22:16

Tgt Ion:278 Resp: 2331

Ion	Ratio	Lower	Upper
278	100		
139	41.4	4.7	64.7
279	14.7	0.0	54.0

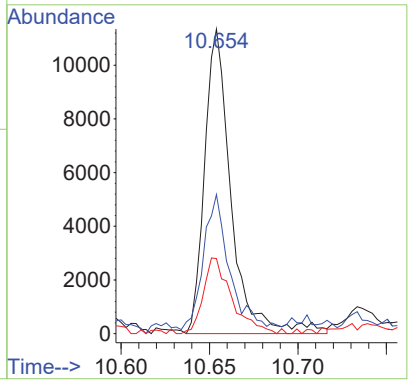


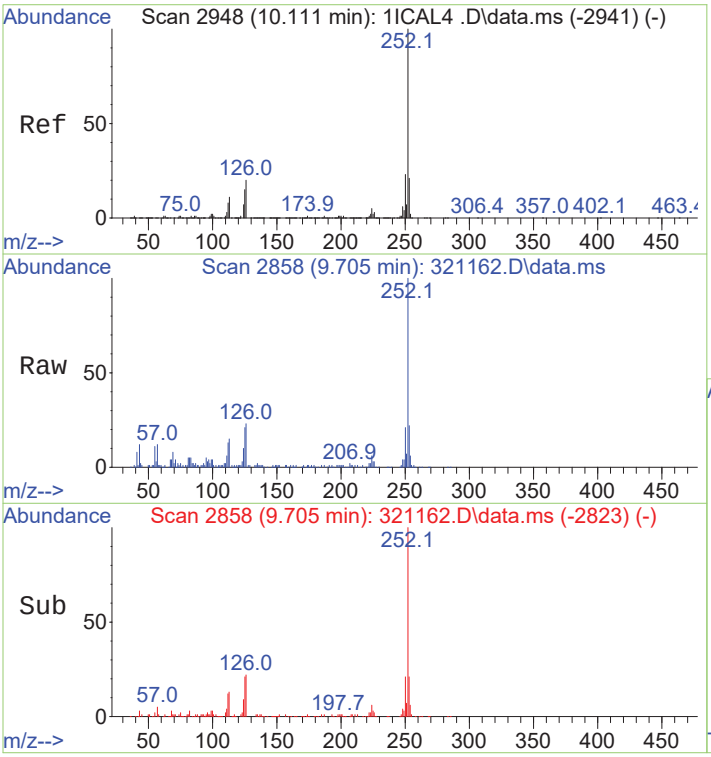


#92
B[ghi]perylen
Concen: 0.81 ug/mL
RT: 10.654 min Scan# 3192
Delta R.T. 0.000 min
Lab File: 321162.D
Acq: 10 Sep 2019 22:16

Tgt Ion:276 Resp: 11833

Ion	Ratio	Lower	Upper
276	100		
138	42.2	15.0	75.0
277	23.9	0.0	54.0

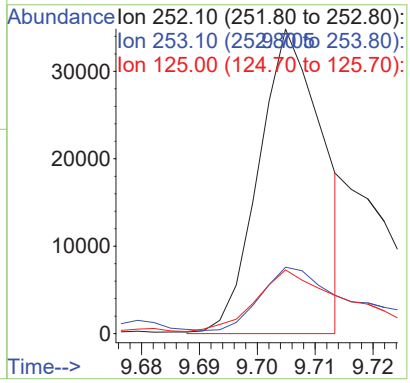




#87
B[b]fluoranth
Concen: 1.70 ug/mL m
RT: 9.705 min Scan# 2858
Delta R.T. 0.000 min
Lab File: 321162.D
Acq: 10 Sep 2019 22:16

Tgt Ion:252 Resp: 26714

Ion	Ratio	Lower	Upper
252	100		
253	21.8	0.0	51.9
125	20.9	0.0	50.0

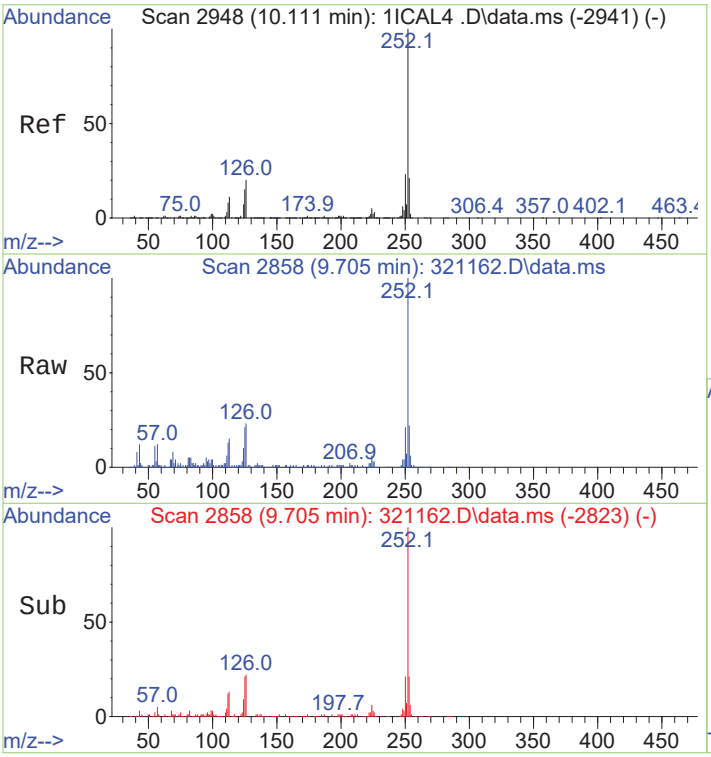


After Manual Integration

Reason#3

JJY
9/16/19

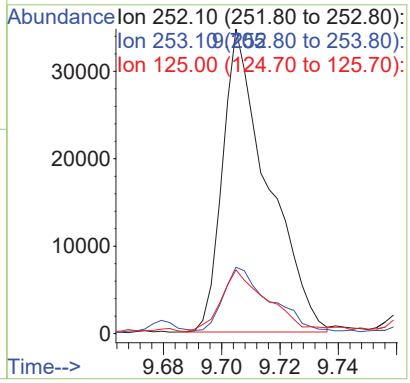
AJZ
09/19/2019



#87
B[b]fluoranth
Concen: 2.37 ug/mL
RT: 9.705 min Scan# 2858
Delta R.T. 0.000 min
Lab File: 321162.D
Acq: 10 Sep 2019 22:16

Tgt Ion:252 Resp: 37159

Ion	Ratio	Lower	Upper
252	100		
253	20.6	0.0	51.9
125	20.4	0.0	50.0

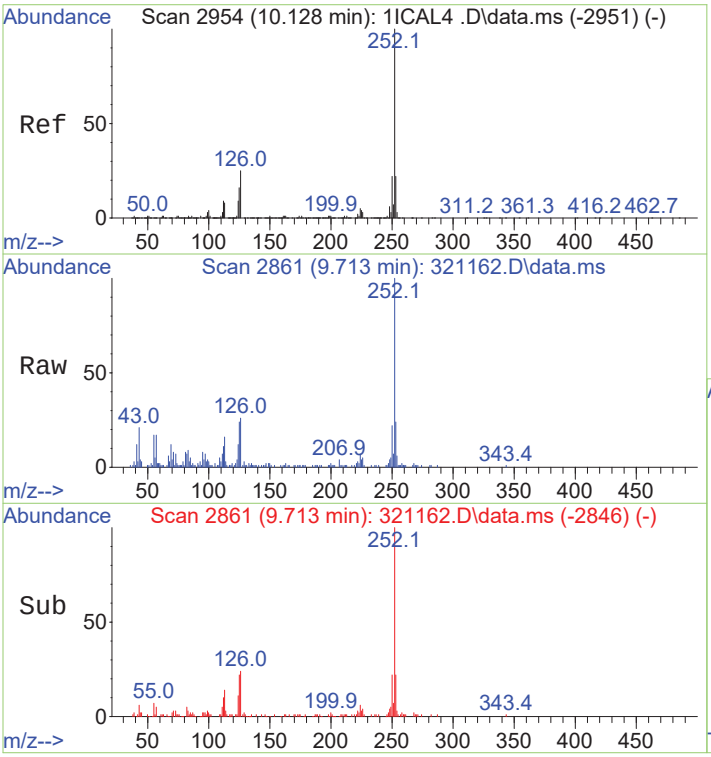


Before Manual Integration

Reason#3

JJY
9/16/19

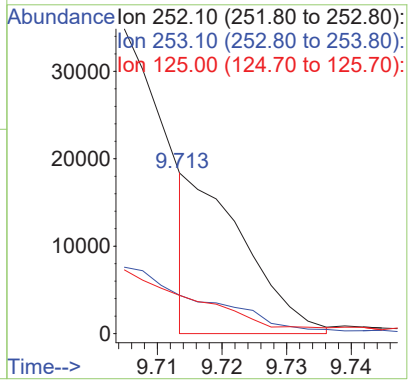
AJZ
09/19/2019



#88
B[k]fluoranth
Concen: 0.70 ug/mL m
RT: 9.713 min Scan# 2861
Delta R.T. -0.008 min
Lab File: 321162.D
Acq: 10 Sep 2019 22:16

Tgt Ion:252 Resp: 10985

Ion	Ratio	Lower	Upper
252	100		
253	23.9	0.0	52.0
125	23.8	0.0	50.2

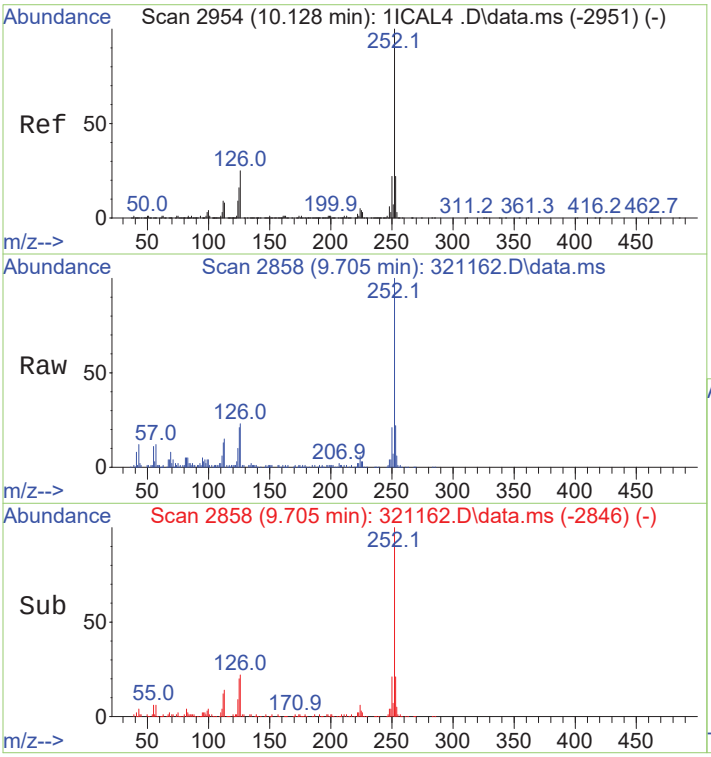


After Manual Integration

Reason#3

JJY
9/16/19

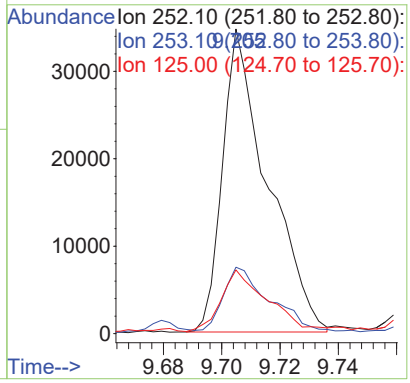
AJZ
09/19/2019



#88
B[k]fluoranth
Concen: 2.36 ug/mL
RT: 9.705 min Scan# 2858
Delta R.T. -0.017 min
Lab File: 321162.D
Acq: 10 Sep 2019 22:16

Tgt Ion:252 Resp: 37159

Ion	Ratio	Lower	Upper
252	100		
253	20.6	0.0	52.0
125	20.4	0.0	50.2



Before Manual Integration

Reason#3

JJY
9/16/19

AJZ
09/19/2019

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321162.D Vial: 13
Acq On : 10 Sep 2019 22:16 Operator: JJY
Sample : 164275,321162, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:40 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

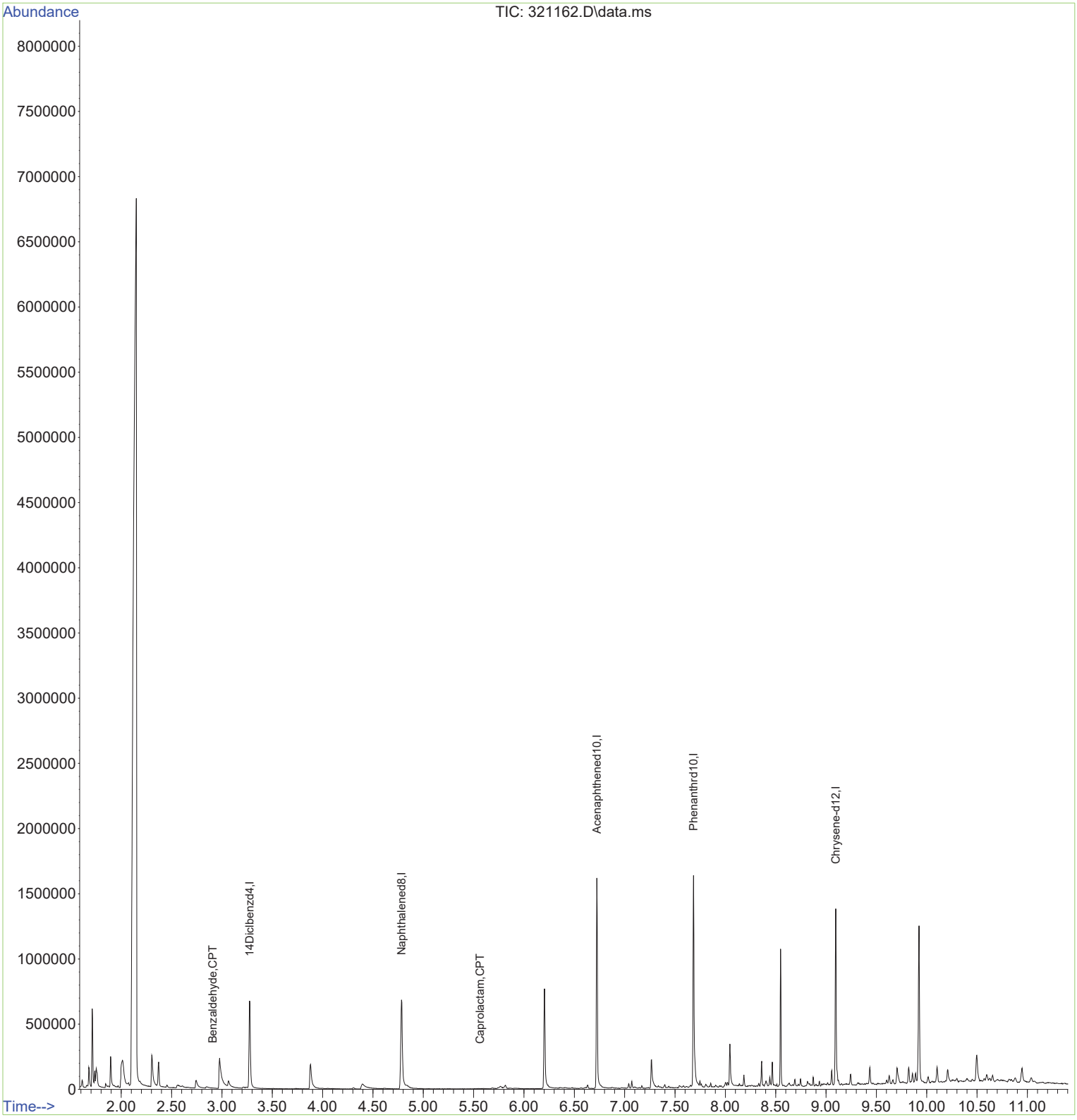
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	109950	20.00	ug/mL	0.00
3) Naphthalened8	4.784	136	421023	20.00	ug/mL	0.00
5) Acenaphthened10	6.724	164	266738	20.00	ug/mL	0.00
7) Phenanthrd10	7.685	188	451010	20.00	ug/mL	0.00
9) Chrysene-d12	9.097	240	254211	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	2.908	77	256	0.6361	ug/mL#	1
4) Caprolactam	5.565	55	2364	1.4734	ug/mL#	23

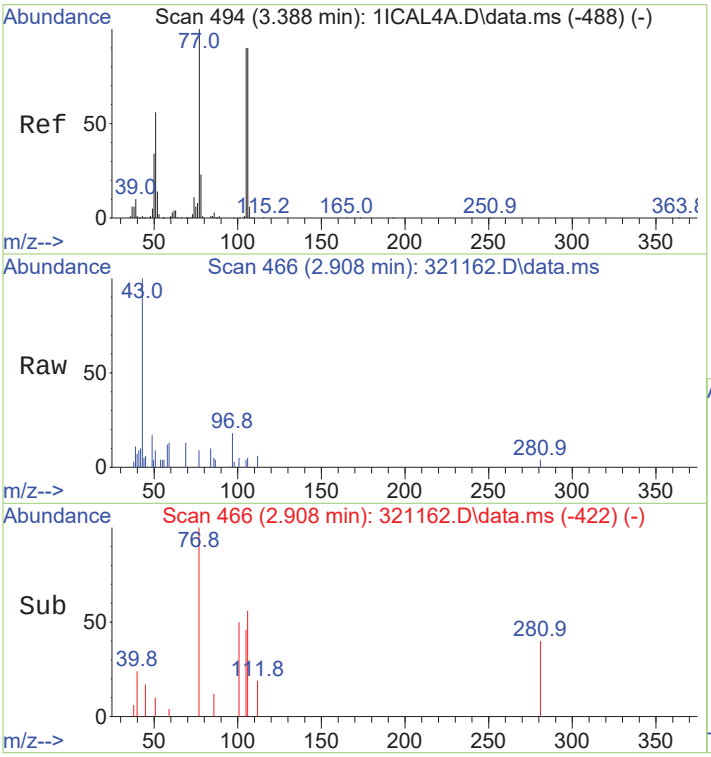
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321162.D Vial: 13
Acq On : 10 Sep 2019 22:16 Operator: JJY
Sample : 164275,321162, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:40 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

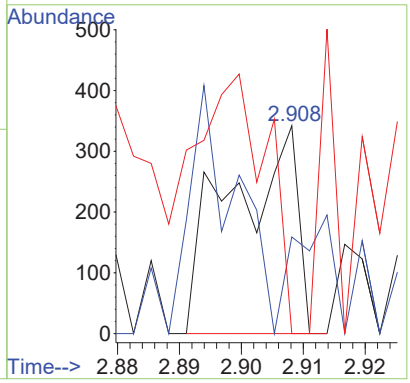


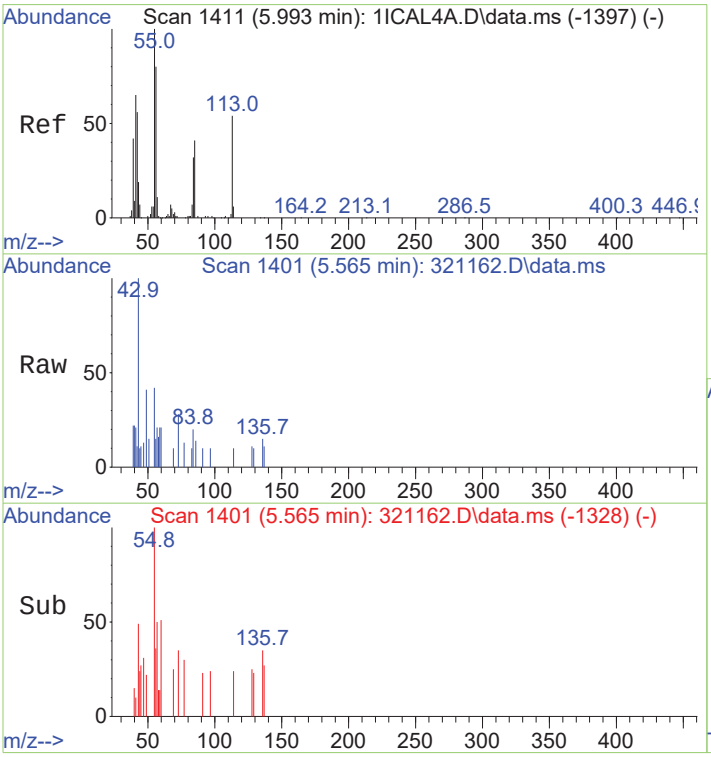


#2
Benzaldehyde
Concen: 0.64 ug/mL
RT: 2.908 min Scan# 466
Delta R.T. 0.026 min
Lab File: 321162.D
Acq: 10 Sep 2019 22:16

Tgt Ion: 77 Resp: 256

Ion	Ratio	Lower	Upper
77	100		
105	0.0	67.4	127.4#
51	238.3	23.2	83.2#

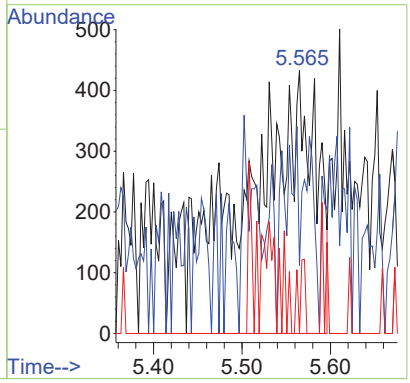




#4
Caprolactam
Concen: 1.47 ug/mL
RT: 5.565 min Scan# 1401
Delta R.T. 0.108 min
Lab File: 321162.D
Acq: 10 Sep 2019 22:16

Tgt Ion: 55 Resp: 2364

Ion	Ratio	Lower	Upper
55	100		
42	0.0	24.6	84.6#
113	0.0	26.7	86.7#



Library Search Compound Report

Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321162.D
Acq On : 10 Sep 2019 22:16
Operator : JJY
Sample : 164275,321162,
Misc : 500ul+5ul S4142A
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 1 Monomethylnitrosamine Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.712	11.72 ug/mL	367176	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Monomethylnitrosamine	60	CH4N2O	000000-00-0	9
2	3-Butenenitrile	67	C4H5N	000109-75-1	9
3	Hexane, 3-bromo-	164	C6H13Br	003377-87-5	9
4	Hexane, 2-bromo-	164	C6H13Br	003377-86-4	9
5	Hexane, 3-bromo-	164	C6H13Br	003377-87-5	9

****

Peak Number 2 2,3-Butanedione, monooxime Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.752	4.71 ug/mL	147428	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2,3-Butanedione, monooxime	101	C4H7NO2	000057-71-6	9
2	3,5-Nonadien-7-yn-2-ol, (E,E)-	136	C9H12O	043142-43-4	5
3	Benzenemethanol, .alpha.,.alpha....	136	C9H12O	000617-94-7	4
4	1-Propanesulfonic acid, methyl e...	138	C4H10O3S	002697-50-9	4
5	Benzeneethanamine	121	C8H11N	000064-04-0	4

****

Peak Number 3 3-Penten-2-one, 4-methyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.894	5.38 ug/mL	168552	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
2	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
3	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	90
4	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	90
5	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	90

****

Peak Number 4 Hydroperoxide, 1-methylethyl Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.013	14.41 ug/mL	451423	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hydroperoxide, 1-methylethyl	76	C3H8O2	003031-75-2	42
2	Acetic acid, hexyl ester	144	C8H16O2	000142-92-7	17
3	Propane, 1-(1-methylethoxy)-	102	C6H14O	000627-08-7	9

Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321162.D
Acq On : 10 Sep 2019 22:16
Operator : JJY
Sample : 164275,321162,
Misc : 500ul+5ul S4142A
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

4	Butanoic acid, ethyl ester	116	C6H12O2	000105-54-4 9
5	2-Pentanone, 5-(acetyloxy)-	144	C7H12O3	005185-97-7 9

****

Peak Number 5 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.149	444.02 ug/mL	13911700	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	56
2	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	56
3	tert-Butyl Hydroperoxide	90	C4H10O2	000075-91-2	36
4	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	28
5	Acetic acid, cyano-, 1,1-dimethy...	141	C7H11NO2	001116-98-9	17

****

Peak Number 6 3-Buten-2-ol, 2,3-dimethyl- Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.371	4.92 ug/mL	154027	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Buten-2-ol, 2,3-dimethyl-	100	C6H12O	010473-13-9	43
2	Oxirane, 3-ethyl-2,2-dimethyl-	100	C6H12O	001192-22-9	40
3	Pentanamide	101	C5H11NO	000626-97-1	32
4	Hexylene Glycol	118	C6H14O2	000107-41-5	28
5	2-Pyrrolidinone	85	C4H7NO	000616-45-5	25

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321163.D Vial: 14
Acq On : 10 Sep 2019 22:36 Operator: JJY
Sample : 164275,321163, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 22:49:12 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

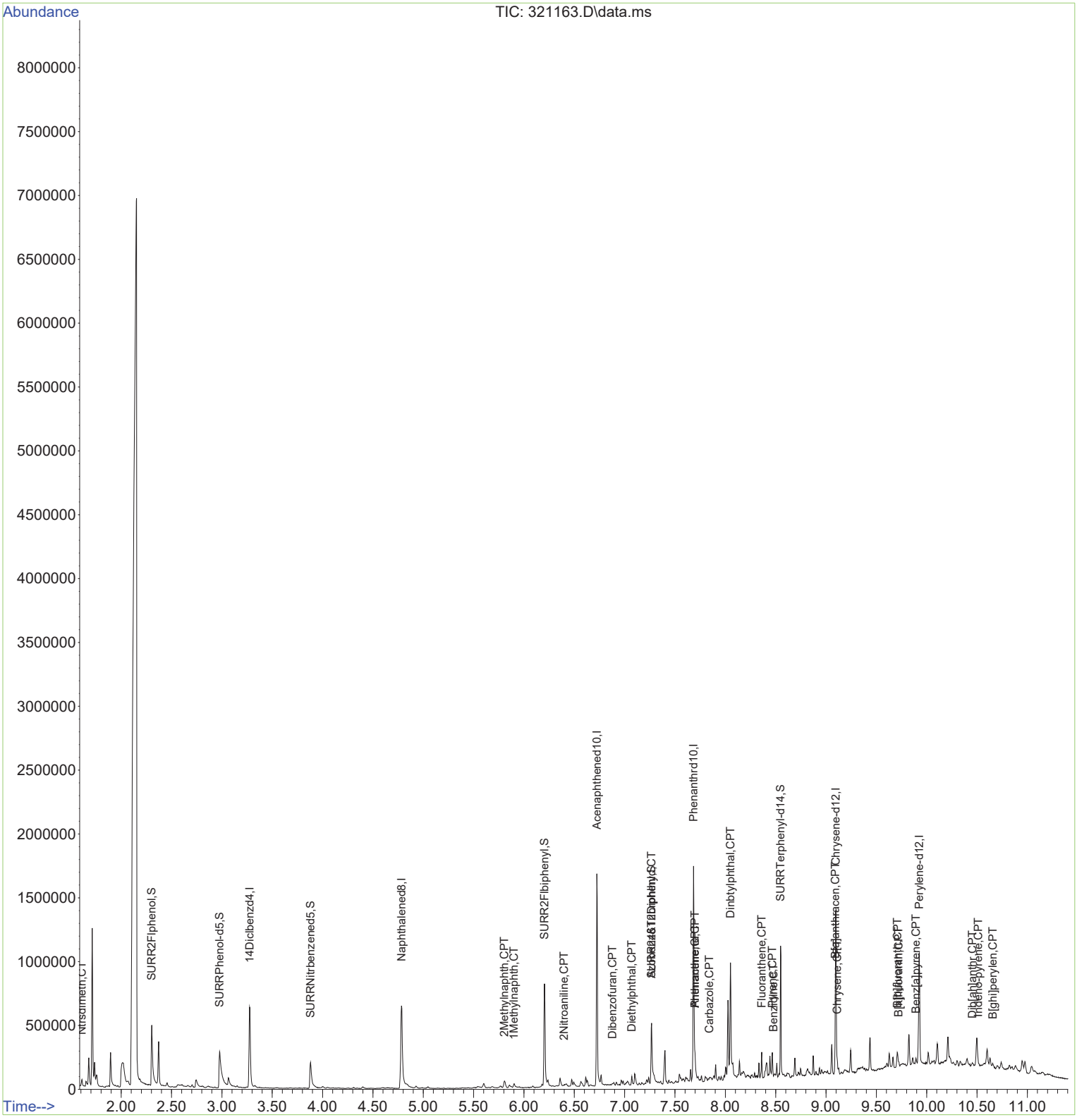
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	107767	20.00	ug/mL	0.00
21) Naphthalened8	4.784	136	413141	20.00	ug/mL	0.00
39) Acenaphthened10	6.724	164	247284	20.00	ug/mL	0.00
63) Phenanthrd10	7.685	188	424133	20.00	ug/mL	0.00
75) Chrysene-d12	9.097	240	246033	20.00	ug/mL	0.00
86) Perylene-d12	9.927	264	232116	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.303	112	152351	55.60	%REC	0.02
Spiked Amount 100.000			Recovery = 55.60%			
7) SURRPhenol-d5	2.976	99	189808	58.22	%REC	0.00
Spiked Amount 100.000			Recovery = 58.22%			
22) SURRNitrbenzened5	3.880	82	84710	60.34	%REC	0.00
Spiked Amount 100.000			Recovery = 60.34%			
44) SURR2Flbiphenyl	6.204	172	248720	75.50	%REC	0.00
Spiked Amount 100.000			Recovery = 75.50%			
62) SURR246Tribrphenl	7.267	330	46510	60.14	%REC	0.00
Spiked Amount 100.000			Recovery = 60.14%			
78) SURRTerphenyl-d14	8.549	244	168052	74.63	%REC	0.00
Spiked Amount 100.000			Recovery = 74.63%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.610	74	3275	1.2787	ug/mL#	1
37) 2Methylnaphth	5.804	142	6710	0.3918	ug/mL	99
38) 1Methylnaphth	5.900	141	8485	0.6051	ug/mL	98
46) 2Nitroaniline	6.398	65	934	0.7231	ug/mL#	1
53) Dibenzofuran	6.878	168	5398	0.2691	ug/mL	95
60) Diethylphthal	7.071	149	8802	0.5316	ug/mL	96
66) Azobenz&12Diphlhyd	7.267	182	7325	1.9537	ug/mL#	1
70) Phenanthrene	7.699	178	34974	1.5634	ug/mL	98
71) Anthracene	7.699	178	40702	1.7666	ug/mL	97
72) Carbazole	7.841	167	4167	0.1875	ug/mL	85
73) Dinbtylphthal	8.051	149	8122	0.1282	ug/mL	97
74) Fluoranthene	8.361	202	40156	2.4976	ug/mL	99
76) Benzidine	8.477	184	1636	0.4155	ug/mL#	1
77) Pyrene	8.466	202	35620	1.9267	ug/mL	94
82) B[a]anthracen	9.091	228	16495	1.0875	ug/mL	90
83) Chrysene	9.111	228	20478	1.3047	ug/mL	96
87) B[b]fluoranth	9.708	252	27619m	2.1859	ug/mL	
88) B[k]fluoranth	9.719	252	7289m	0.5752	ug/mL	
89) Benz[a]pyrene	9.893	252	15067	1.1557	ug/mL	98
90) Indeno-pyrene	10.512	276	6418	0.4758	ug/mL	96
91) Dib[ah]anthr	10.455	278	1730	0.1581	ug/mL	74
92) B[ghi]perylen	10.657	276	5759	0.4874	ug/mL	97

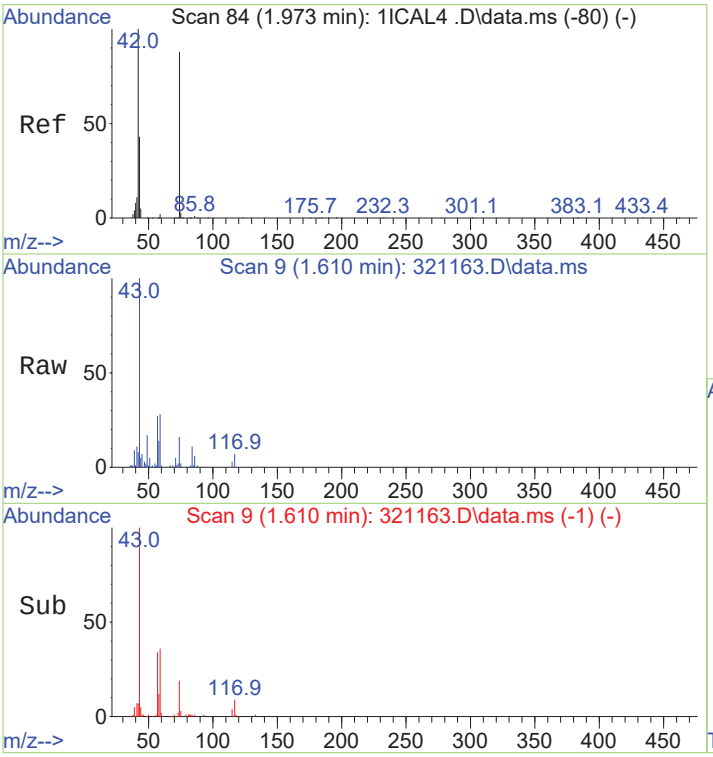
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321163.D Vial: 14
Acq On : 10 Sep 2019 22:36 Operator: JJY
Sample : 164275,321163, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 22:49:12 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

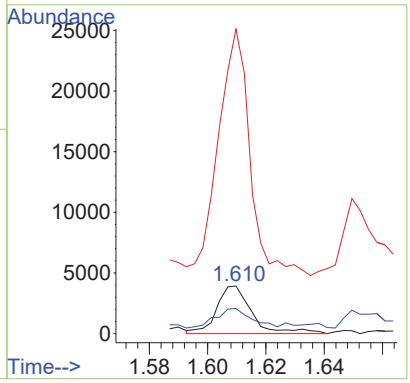


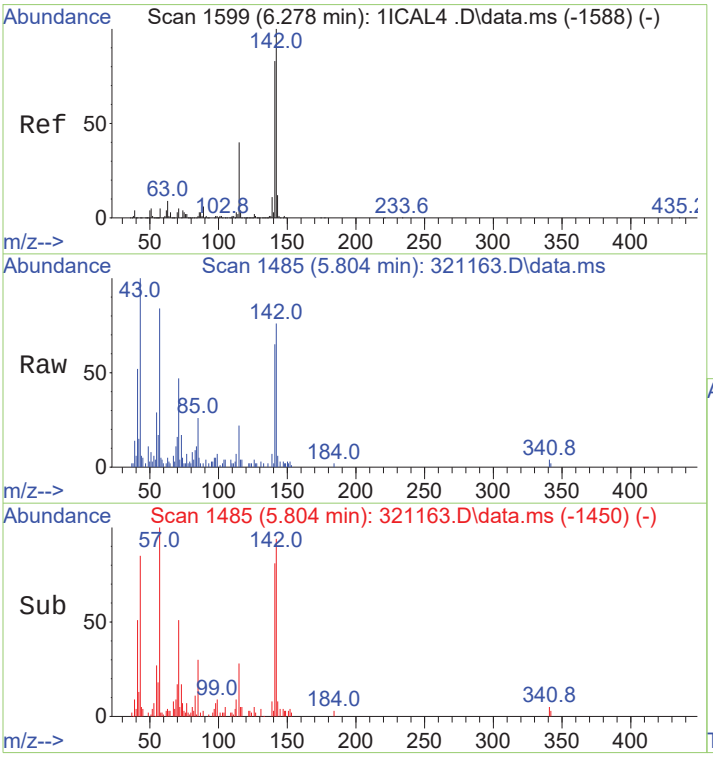


#2
Ntrsdimeth
Concen: 1.28 ug/mL
RT: 1.610 min Scan# 9
Delta R.T. -0.028 min
Lab File: 321163.D
Acq: 10 Sep 2019 22:36

Tgt Ion: 74 Resp: 3275

Ion	Ratio	Lower	Upper
74	100		
42	42.0	54.2	114.2#
43	516.9	5.5	65.5#

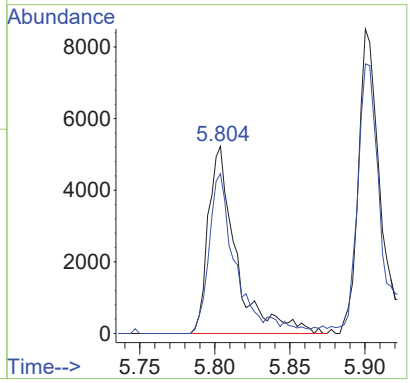


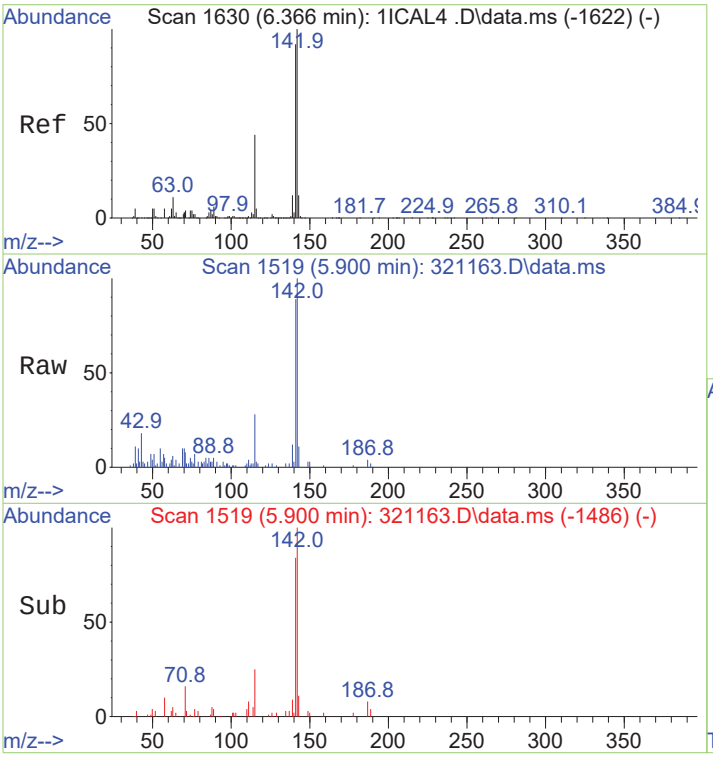


#37
2Methylnaphth
Concen: 0.39 ug/mL
RT: 5.804 min Scan# 1485
Delta R.T. 0.000 min
Lab File: 321163.D
Acq: 10 Sep 2019 22:36

Tgt Ion:142 Resp: 6710

Ion	Ratio	Lower	Upper
142	100		
141	85.3	55.9	115.9

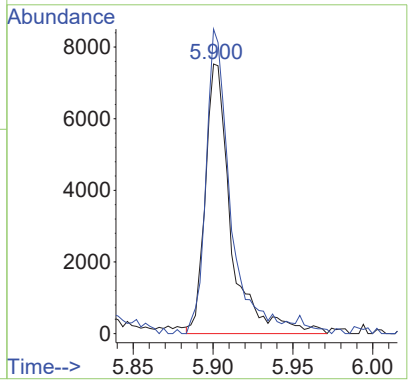


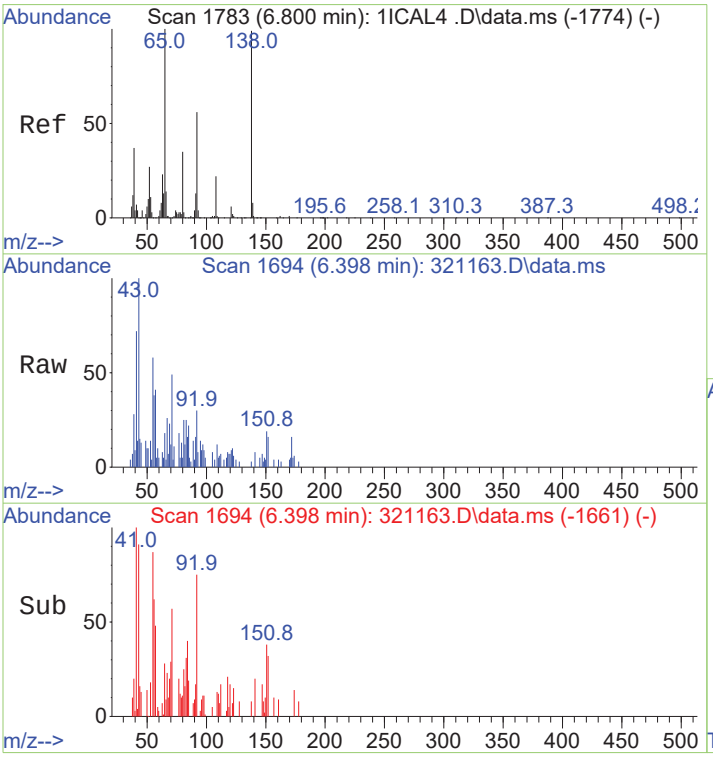


#38
1Methylnaphth
Concen: 0.61 ug/mL
RT: 5.900 min Scan# 1519
Delta R.T. -0.006 min
Lab File: 321163.D
Acq: 10 Sep 2019 22:36

Tgt Ion:141 Resp: 8485

Ion	Ratio	Lower	Upper
141	100		
142	112.9	80.9	140.9

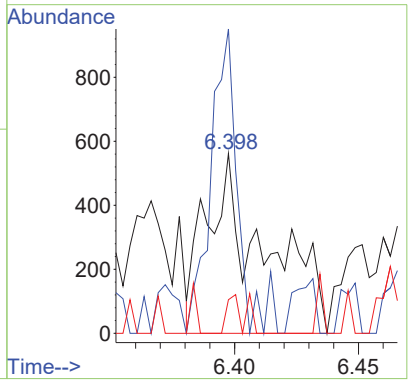


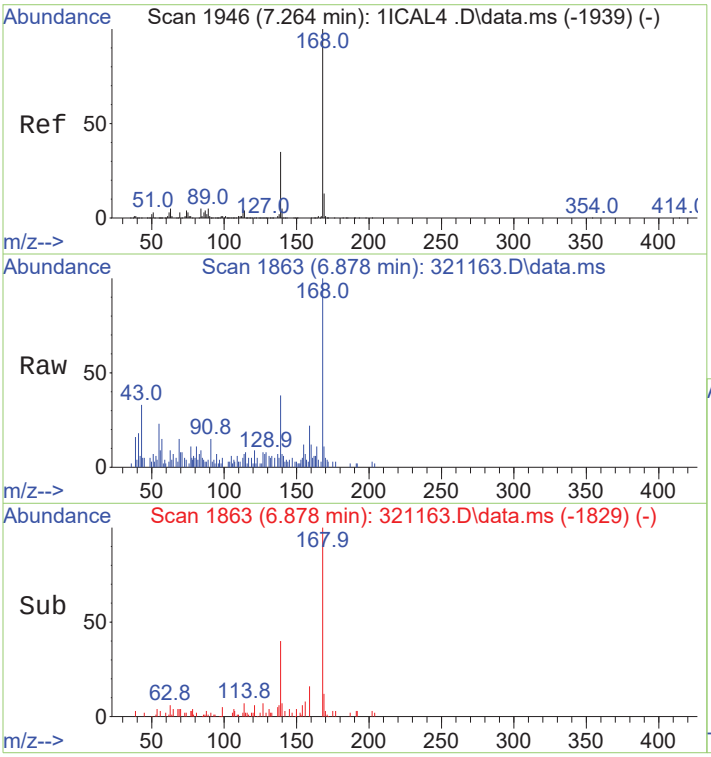


#46
2Nitroaniline
Concen: 0.72 ug/mL
RT: 6.398 min Scan# 1694
Delta R.T. -0.006 min
Lab File: 321163.D
Acq: 10 Sep 2019 22:36

Tgt Ion: 65 Resp: 934

Ion	Ratio	Lower	Upper
65	100		
92	169.2	35.4	95.4#
138	18.7	80.4	140.4#

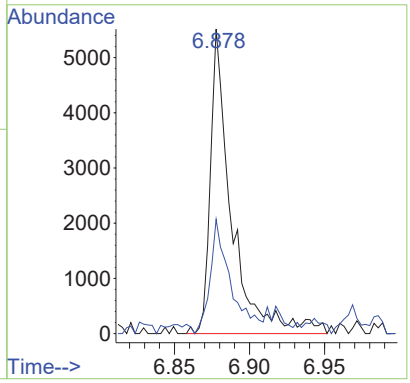


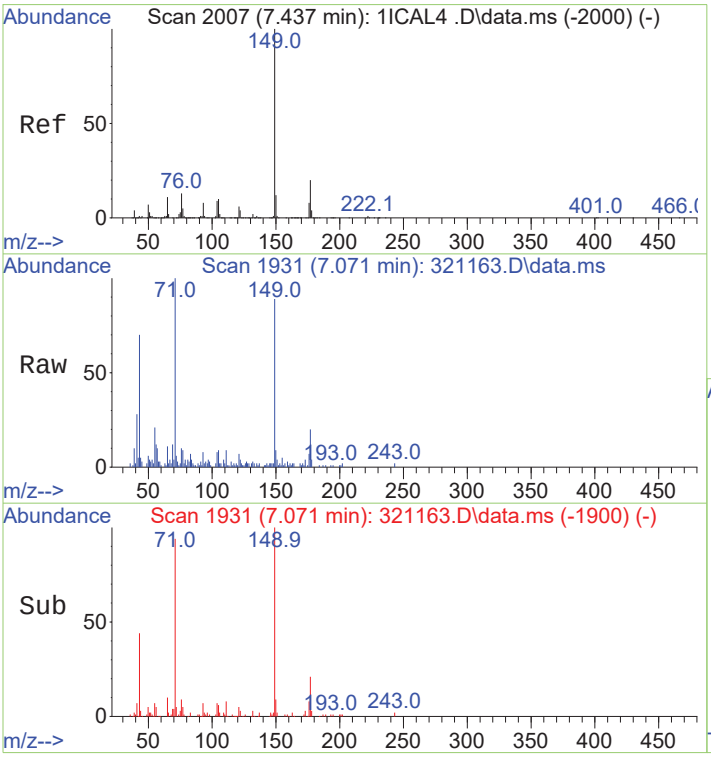


#53
Dibenzofuran
Concen: 0.27 ug/mL
RT: 6.878 min Scan# 1863
Delta R.T. -0.003 min
Lab File: 321163.D
Acq: 10 Sep 2019 22:36

Tgt Ion:168 Resp: 5398

Ion	Ratio	Lower	Upper
168	100		
139	34.5	7.3	67.3

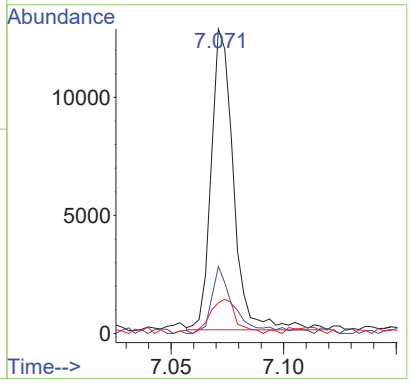


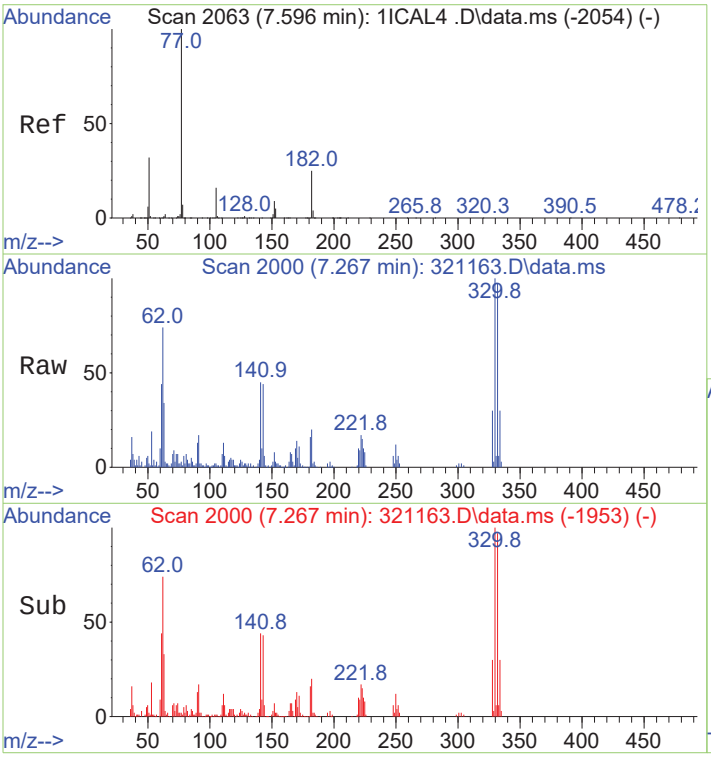


#60
Diethylphthal
Concen: 0.53 ug/mL
RT: 7.071 min Scan# 1931
Delta R.T. -0.011 min
Lab File: 321163.D
Acq: 10 Sep 2019 22:36

Tgt Ion:149 Resp: 8802

Ion	Ratio	Lower	Upper
149	100		
177	21.2	0.0	49.3
150	10.2	0.0	41.9

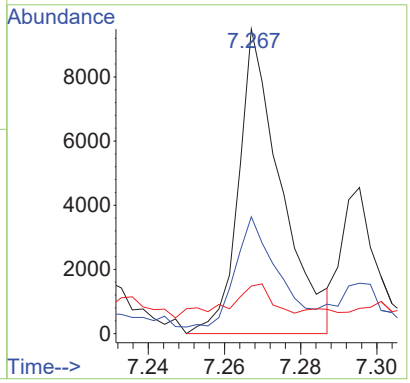


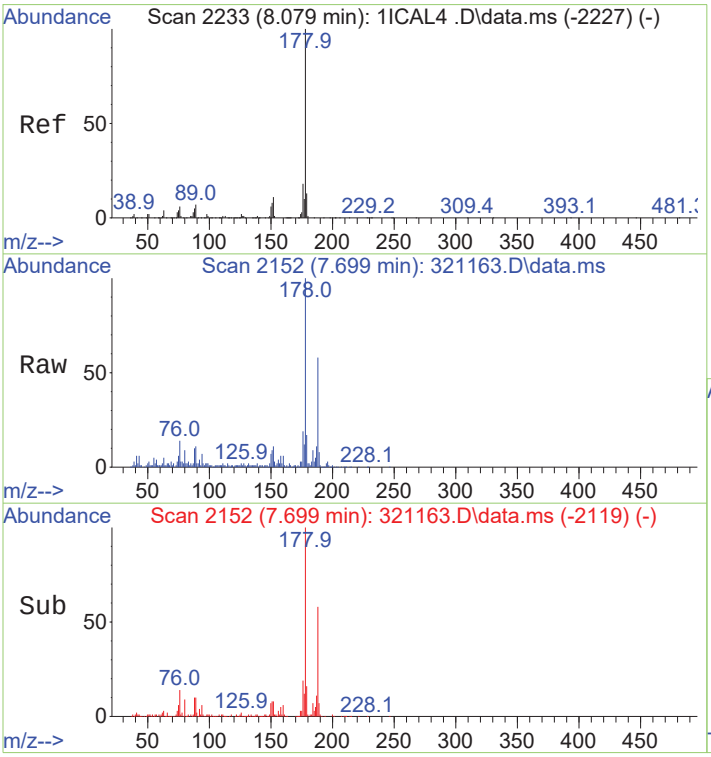


#66
Azobenz&12Diphlhyd
Concen: 1.95 ug/mL
RT: 7.267 min Scan# 2000
Delta R.T. 0.034 min
Lab File: 321163.D
Acq: 10 Sep 2019 22:36

Tgt Ion:182 Resp: 7325

Ion	Ratio	Lower	Upper
182	100		
152	36.2	8.0	68.0
77	7.6	433.3	493.3#

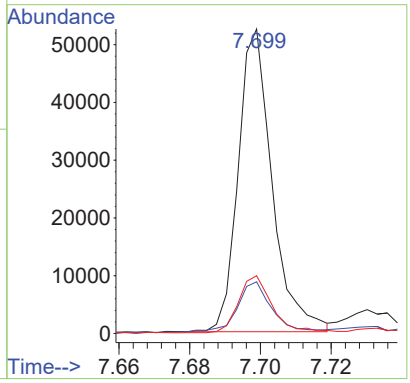


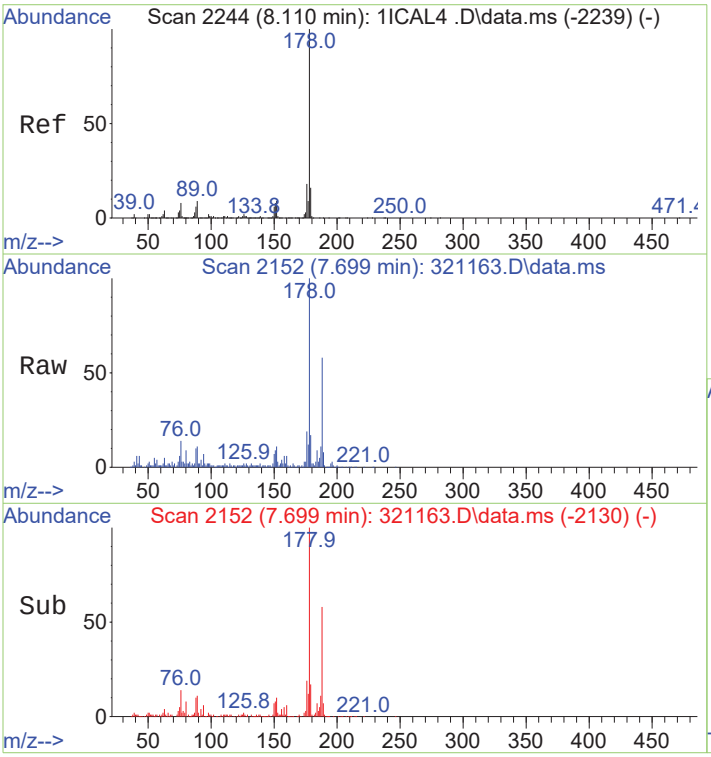


#70
Phenanthrene
Concen: 1.56 ug/mL
RT: 7.699 min Scan# 2152
Delta R.T. -0.006 min
Lab File: 321163.D
Acq: 10 Sep 2019 22:36

Tgt Ion:178 Resp: 34974

Ion	Ratio	Lower	Upper
178	100		
179	16.6	0.0	45.3
176	18.8	0.0	48.4

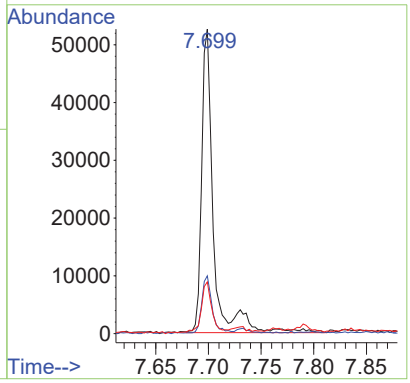


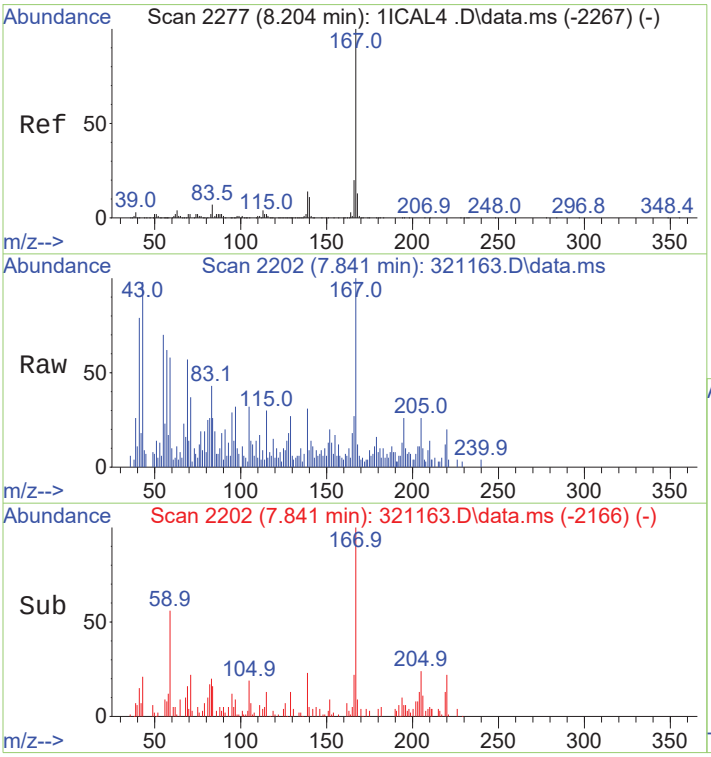


#71
Anthracene
Concen: 1.77 ug/mL
RT: 7.699 min Scan# 2152
Delta R.T. -0.037 min
Lab File: 321163.D
Acq: 10 Sep 2019 22:36

Tgt Ion:178 Resp: 40702

Ion	Ratio	Lower	Upper
178	100		
176	18.8	0.0	47.6
179	16.5	0.0	45.1

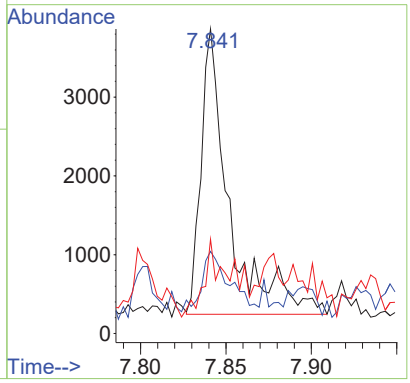


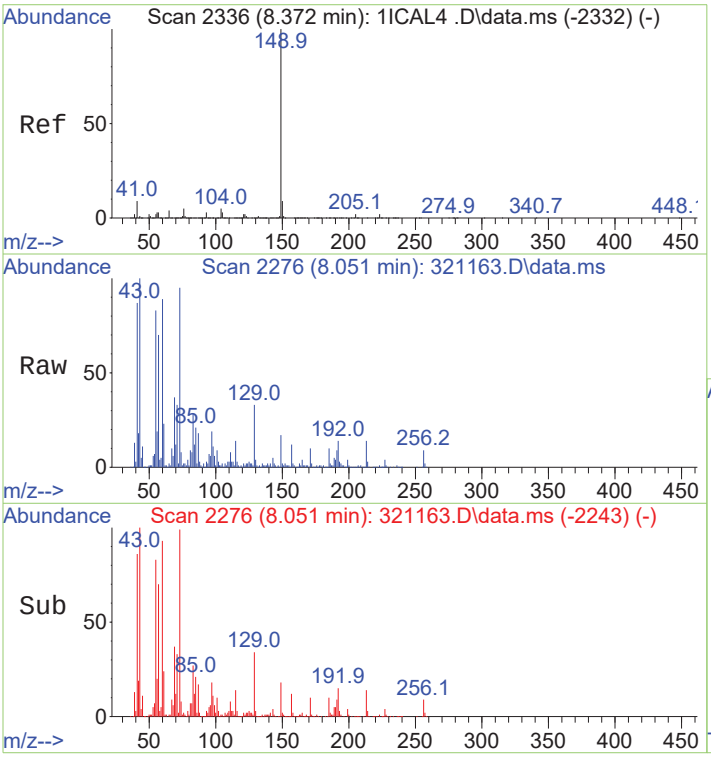


#72
Carbazole
Concen: 0.19 ug/mL
RT: 7.841 min Scan# 2202
Delta R.T. 0.003 min
Lab File: 321163.D
Acq: 10 Sep 2019 22:36

Tgt Ion:167 Resp: 4167

Ion	Ratio	Lower	Upper
167	100		
166	17.4	0.0	49.3
139	24.6	0.0	42.6

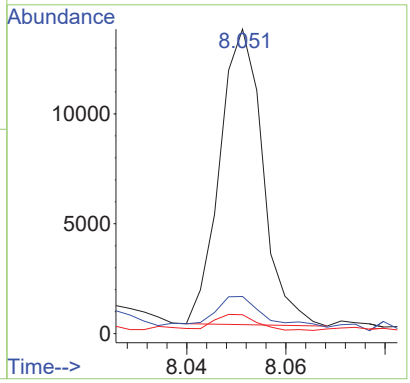


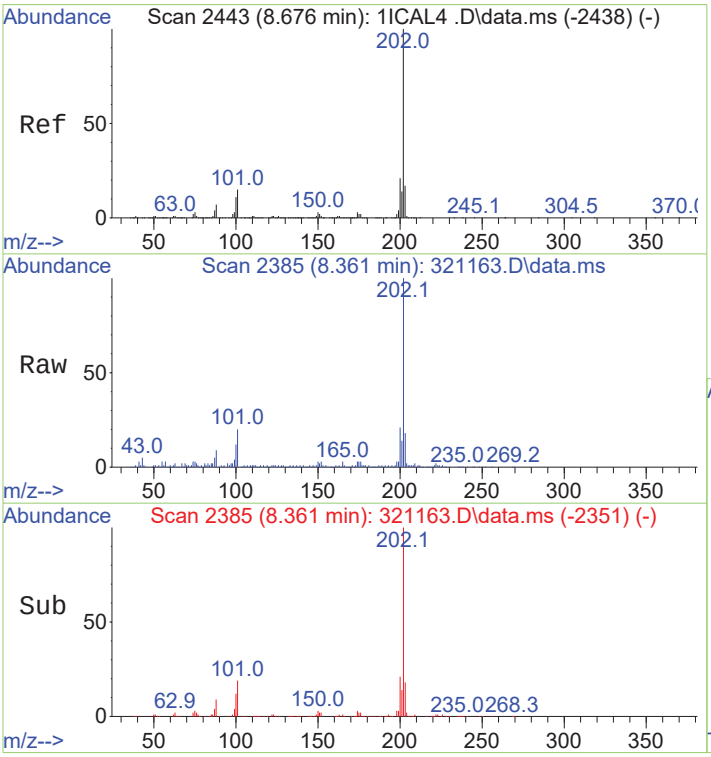


#73
Dinbtylphthal
Concen: 0.13 ug/mL
RT: 8.051 min Scan# 2276
Delta R.T. -0.006 min
Lab File: 321163.D
Acq: 10 Sep 2019 22:36

Tgt Ion:149 Resp: 8122

Ion	Ratio	Lower	Upper
149	100		
150	10.3	0.0	39.0
104	4.8	0.0	34.6

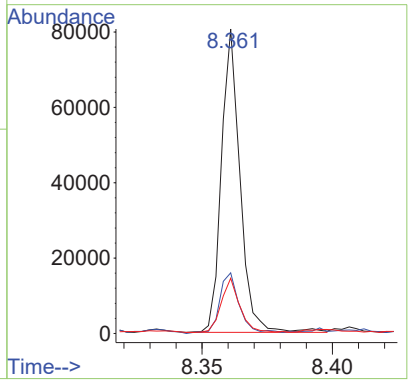


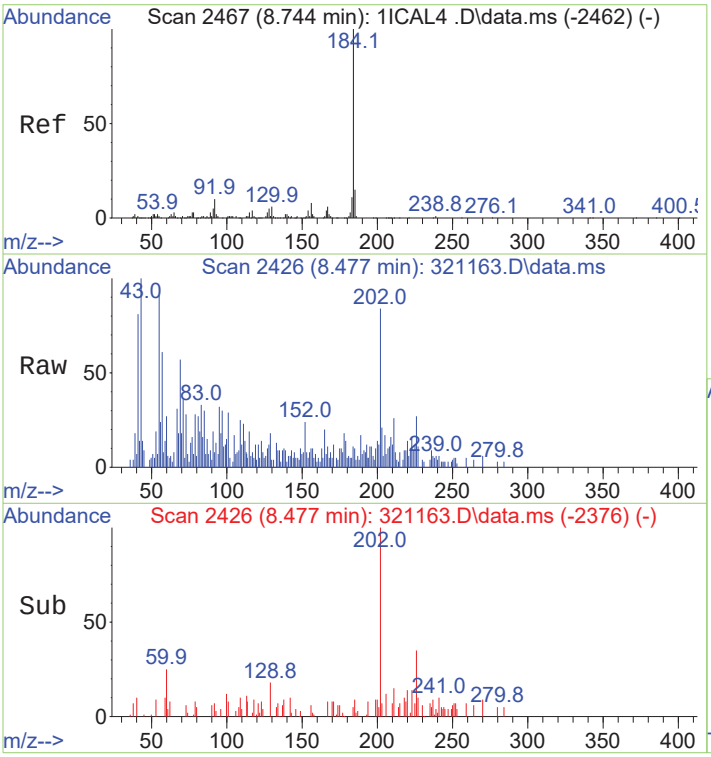


#74
Fluoranthene
Concen: 2.50 ug/mL
RT: 8.361 min Scan# 2385
Delta R.T. -0.003 min
Lab File: 321163.D
Acq: 10 Sep 2019 22:36

Tgt Ion:202 Resp: 40156

Ion	Ratio	Lower	Upper
202	100		
101	20.0	0.0	50.7
203	17.9	0.0	47.3

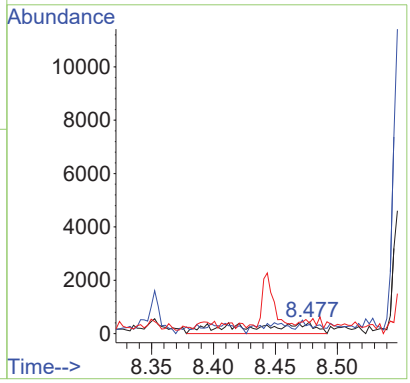


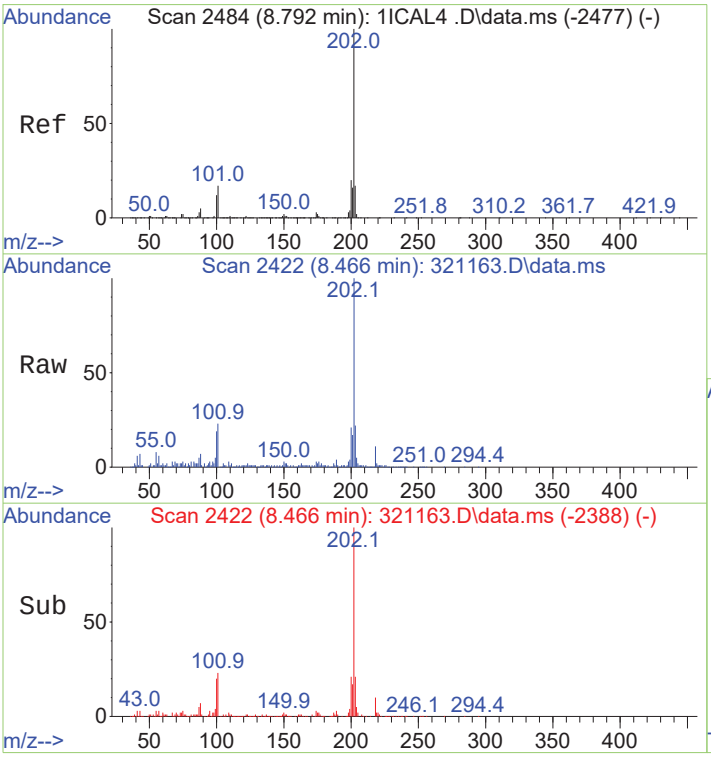


#76
Benzidine
Concen: 0.42 ug/mL
RT: 8.477 min Scan# 2426
Delta R.T. 0.043 min
Lab File: 321163.D
Acq: 10 Sep 2019 22:36

Tgt Ion:184 Resp: 1636

Ion	Ratio	Lower	Upper
184	100		
92	32.6	0.0	43.8
185	81.1	0.0	44.2#

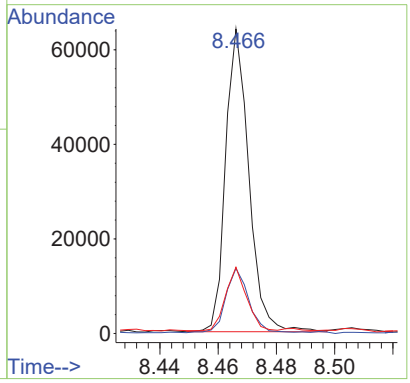


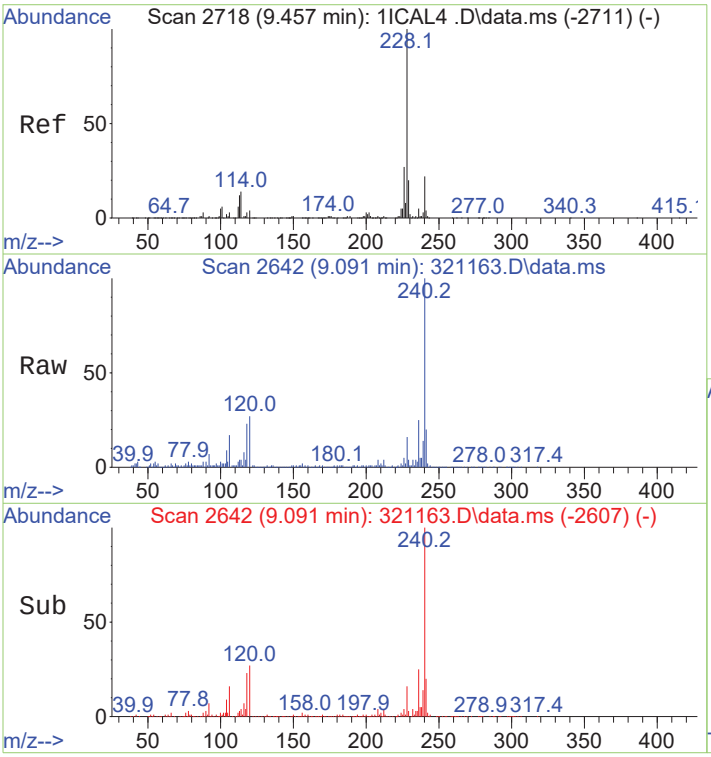


#77
Pyrene
Concen: 1.93 ug/mL
RT: 8.466 min Scan# 2422
Delta R.T. -0.003 min
Lab File: 321163.D
Acq: 10 Sep 2019 22:36

Tgt Ion:202 Resp: 35620

Ion	Ratio	Lower	Upper
202	100		
200	21.2	0.0	50.1
203	20.9	0.0	46.9

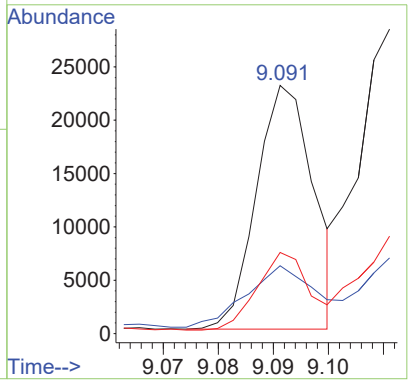


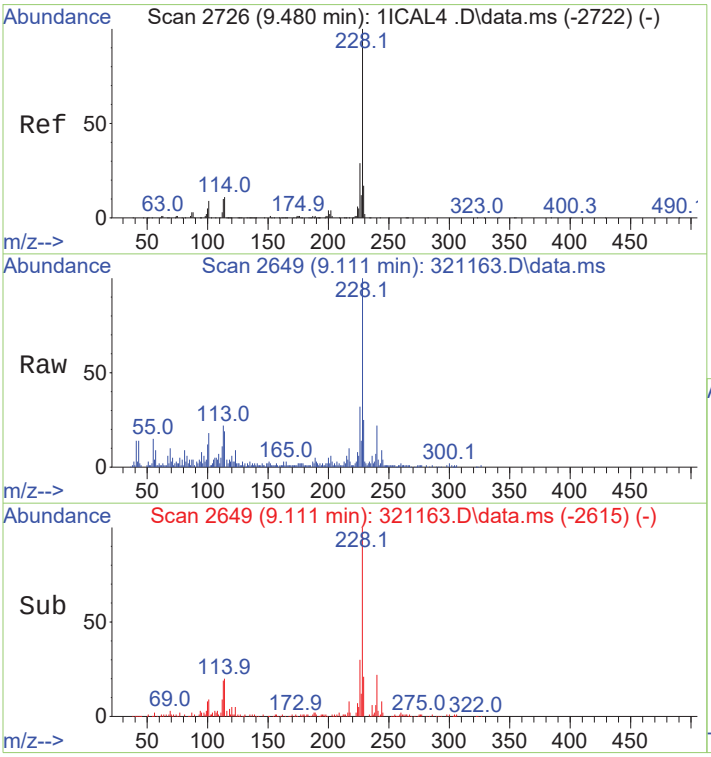


#82
B[a]anthracen
Concen: 1.09 ug/mL
RT: 9.091 min Scan# 2642
Delta R.T. 0.000 min
Lab File: 321163.D
Acq: 10 Sep 2019 22:36

Tgt Ion:228 Resp: 16495

Ion	Ratio	Lower	Upper
228	100		
229	23.2	0.0	49.3
226	31.8	0.0	56.2

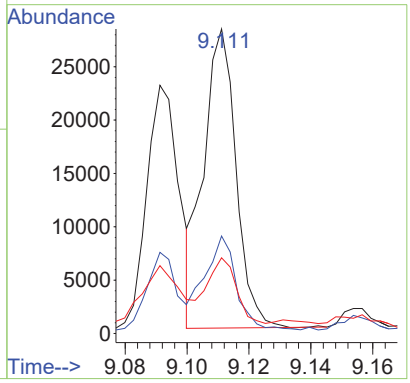


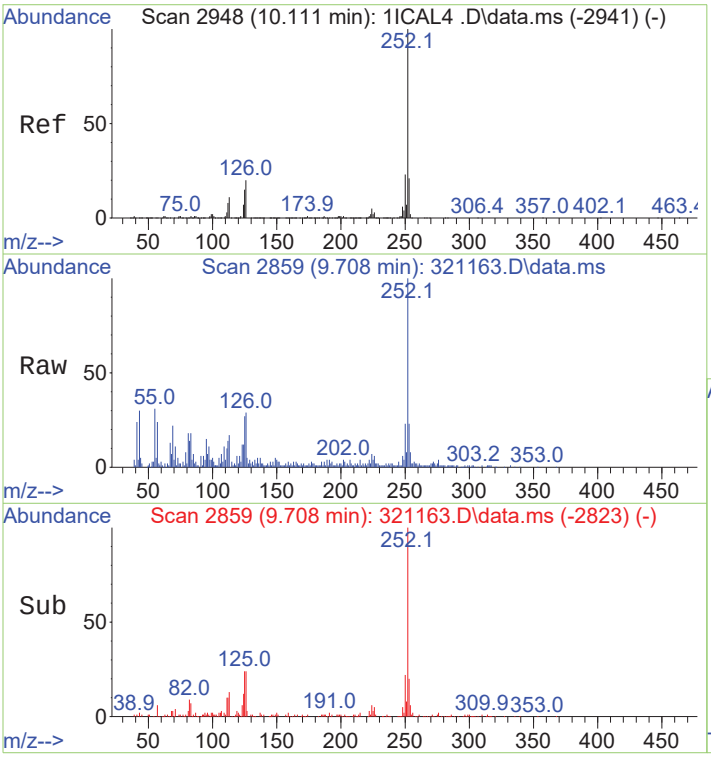


#83
Chrysene
Concen: 1.30 ug/mL
RT: 9.111 min Scan# 2649
Delta R.T. -0.003 min
Lab File: 321163.D
Acq: 10 Sep 2019 22:36

Tgt Ion:228 Resp: 20478

Ion	Ratio	Lower	Upper
228	100		
226	31.1	0.0	59.0
229	21.8	0.0	49.4

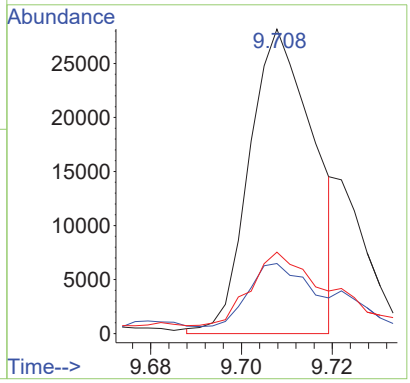


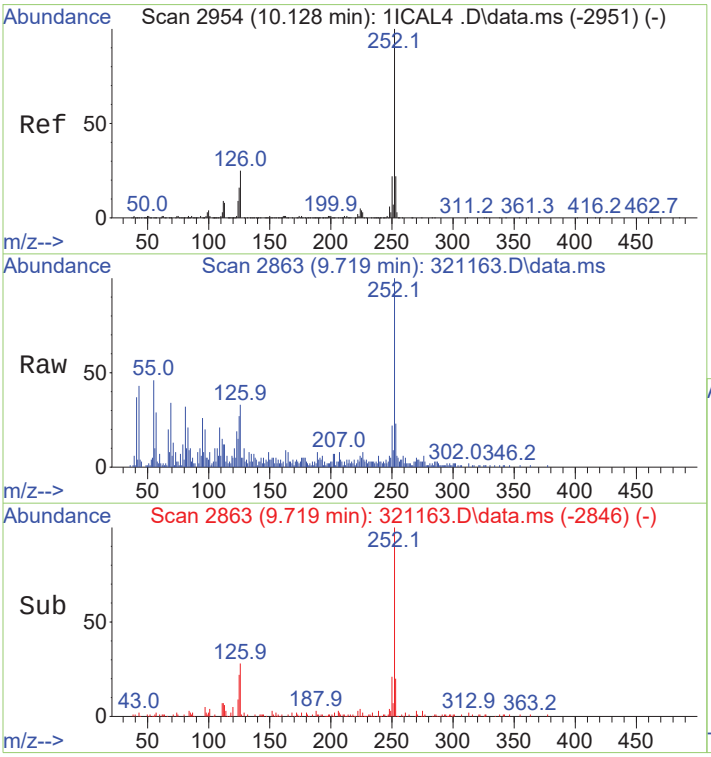


#87
B[b]fluoranth
Concen: 2.19 ug/mL m
RT: 9.708 min Scan# 2859
Delta R.T. 0.003 min
Lab File: 321163.D
Acq: 10 Sep 2019 22:36

Tgt Ion:252 Resp: 27619

Ion	Ratio	Lower	Upper
252	100		
253	23.0	0.0	51.9
125	26.7	0.0	50.0

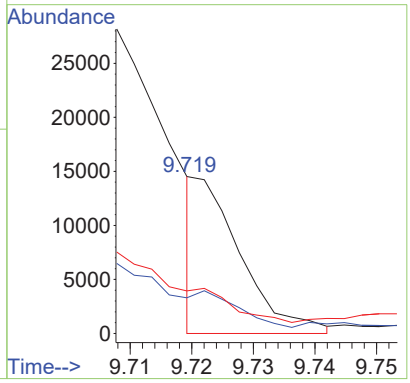


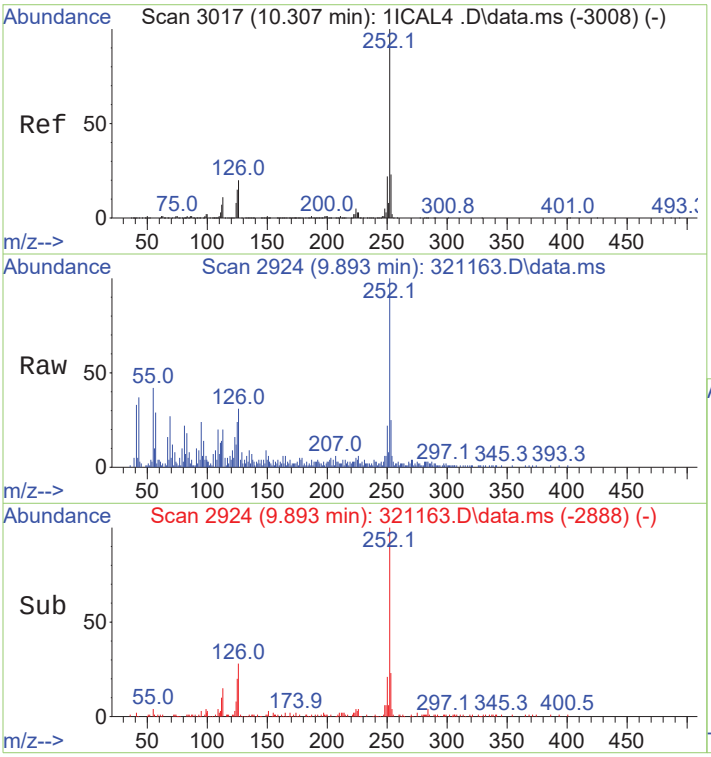


#88
B[k]fluoranth
Concen: 0.58 ug/mL m
RT: 9.719 min Scan# 2863
Delta R.T. -0.003 min
Lab File: 321163.D
Acq: 10 Sep 2019 22:36

Tgt Ion:252 Resp: 7289

Ion	Ratio	Lower	Upper
252	100		
253	22.7	0.0	52.0
125	27.2	0.0	50.2

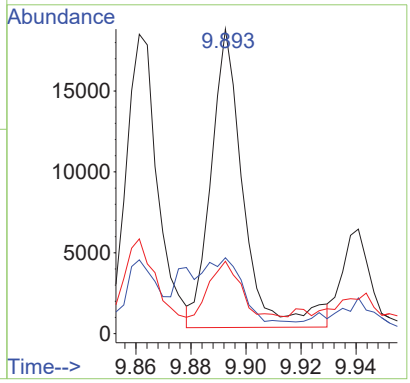


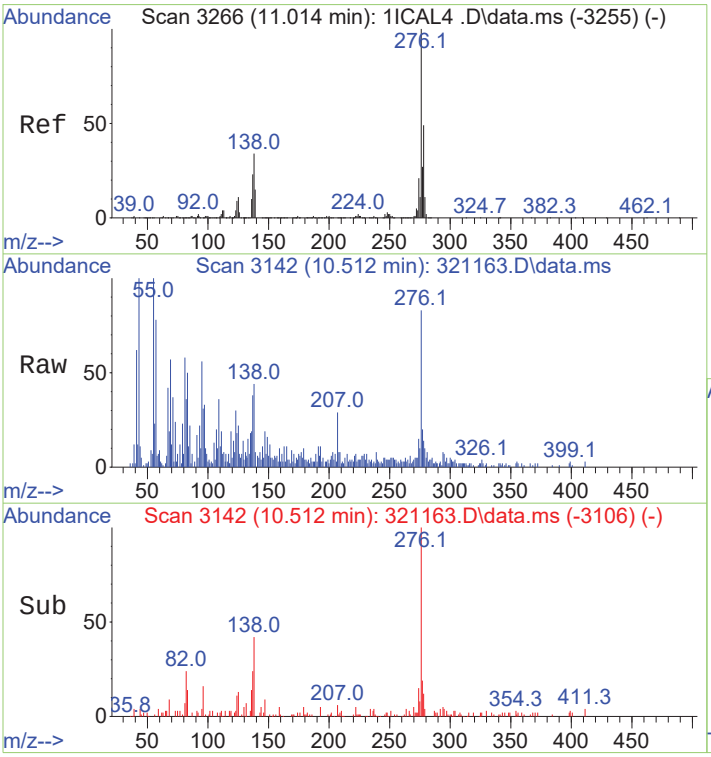


#89
Benz[a]pyrene
Concen: 1.16 ug/mL
RT: 9.893 min Scan# 2924
Delta R.T. 0.003 min
Lab File: 321163.D
Acq: 10 Sep 2019 22:36

Tgt Ion:252 Resp: 15067

Ion	Ratio	Lower	Upper
252	100		
253	22.0	0.0	51.7
125	20.2	0.0	51.4

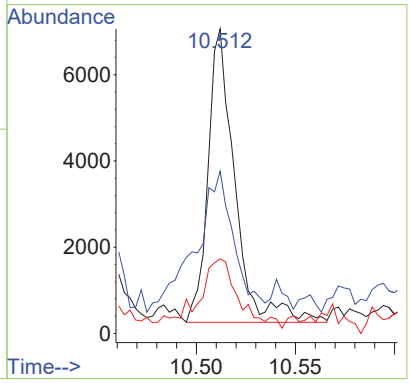


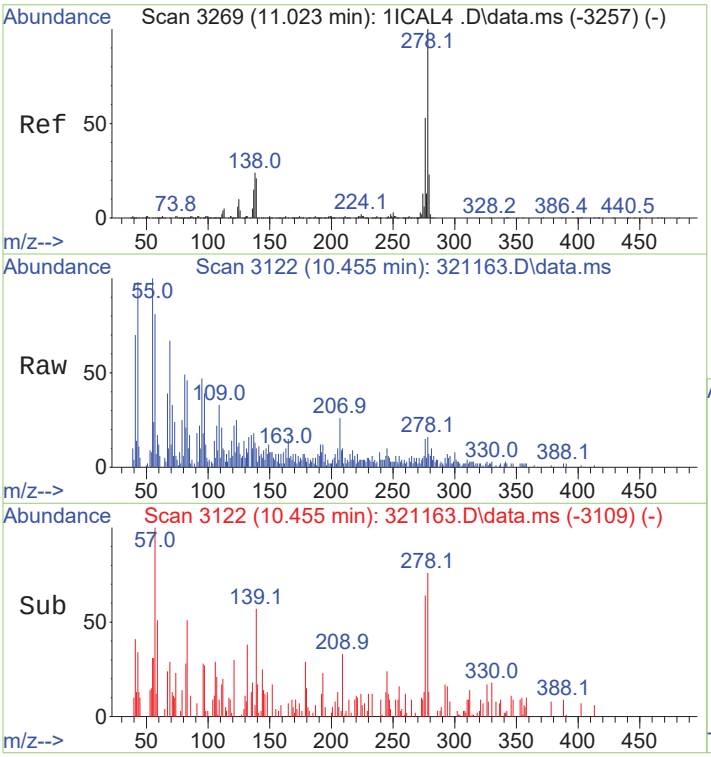


#90
Indeno-pyrene
Concen: 0.48 ug/mL
RT: 10.512 min Scan# 3142
Delta R.T. 0.003 min
Lab File: 321163.D
Acq: 10 Sep 2019 22:36

Tgt Ion:276 Resp: 6418

Ion	Ratio	Lower	Upper
276	100		
138	43.6	13.2	73.2
277	19.3	0.0	54.7

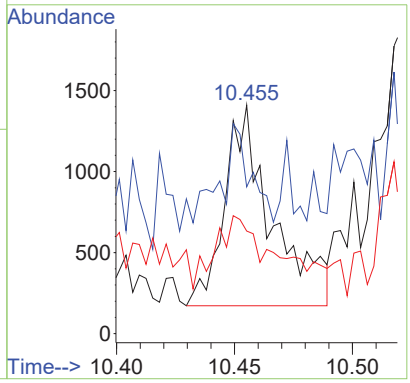


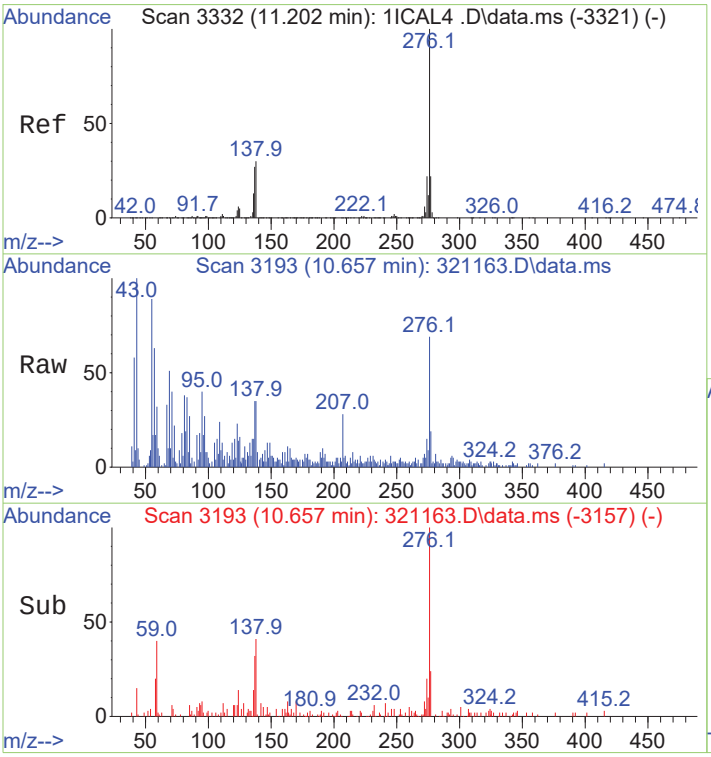


#91
Dib[ah]anthr
Concen: 0.16 ug/mL
RT: 10.455 min Scan# 3122
Delta R.T. -0.062 min
Lab File: 321163.D
Acq: 10 Sep 2019 22:36

Tgt Ion:278 Resp: 1730

Ion	Ratio	Lower	Upper
278	100		
139	13.3	4.7	64.7
279	18.7	0.0	54.0

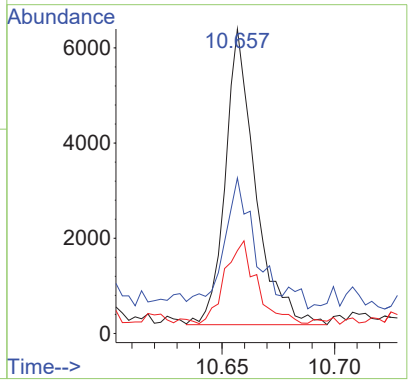


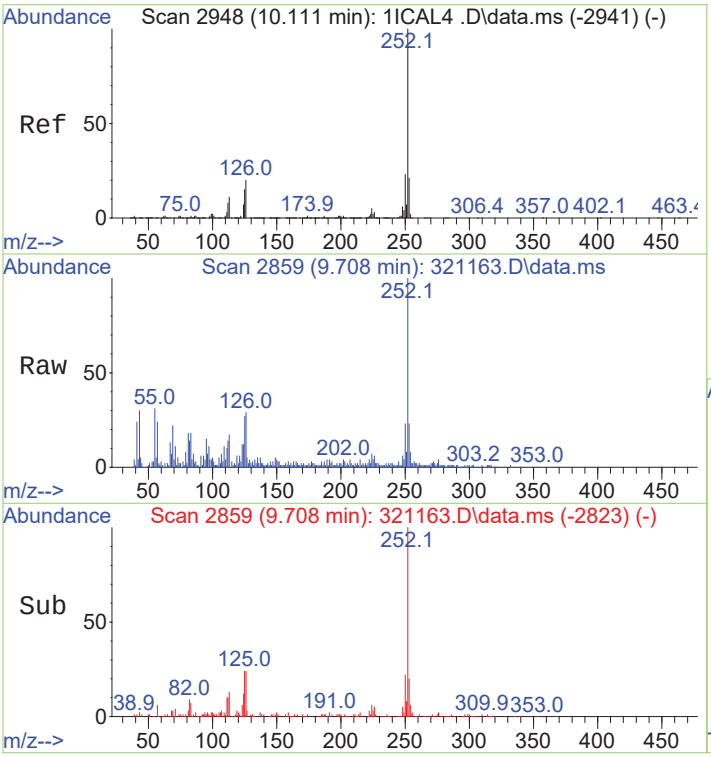


#92
B[ghi]perylen
Concen: 0.49 ug/mL
RT: 10.657 min Scan# 3193
Delta R.T. 0.003 min
Lab File: 321163.D
Acq: 10 Sep 2019 22:36

Tgt Ion:276 Resp: 5759

Ion	Ratio	Lower	Upper
276	100		
138	42.4	15.0	75.0
277	23.9	0.0	54.0

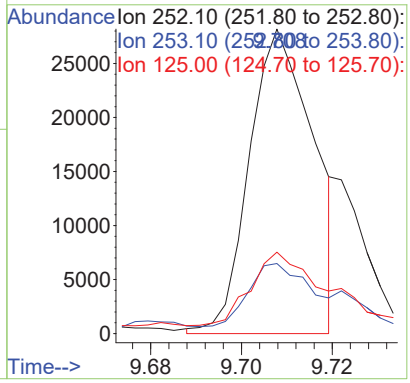




#87
B[b]fluoranth
Concen: 2.19 ug/mL m
RT: 9.708 min Scan# 2859
Delta R.T. 0.003 min
Lab File: 321163.D
Acq: 10 Sep 2019 22:36

Tgt Ion:252 Resp: 27619

Ion	Ratio	Lower	Upper
252	100		
253	23.0	0.0	51.9
125	26.7	0.0	50.0

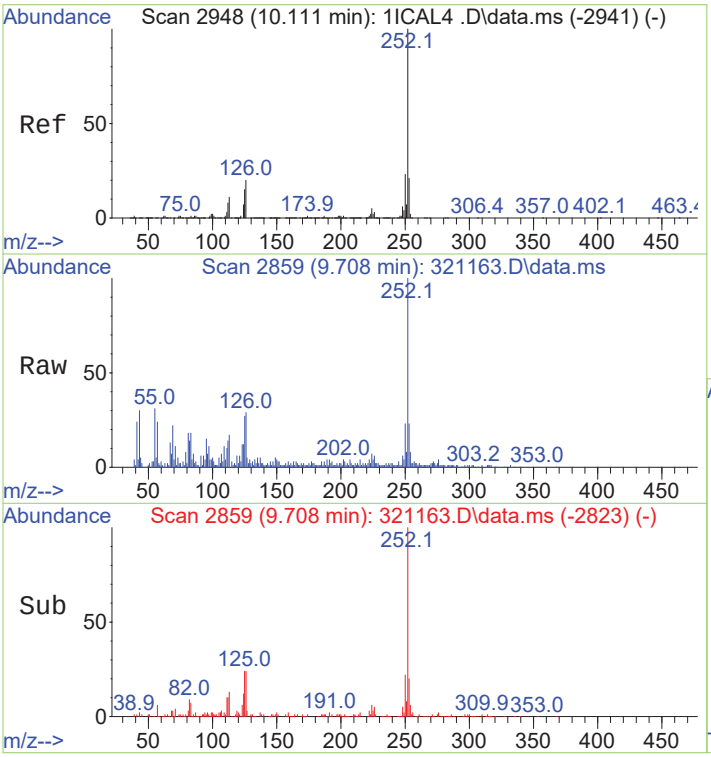


After Manual Integration

Reason#3

JJY
9/16/19

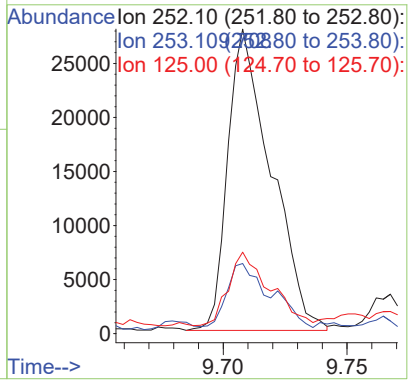
AJZ
09/19/2019



#87
B[b]fluoranth
Concen: 2.69 ug/mL
RT: 9.708 min Scan# 2859
Delta R.T. 0.003 min
Lab File: 321163.D
Acq: 10 Sep 2019 22:36

Tgt Ion:252 Resp: 33991

Ion	Ratio	Lower	Upper
252	100		
253	19.5	0.0	51.9
125	24.0	0.0	50.0

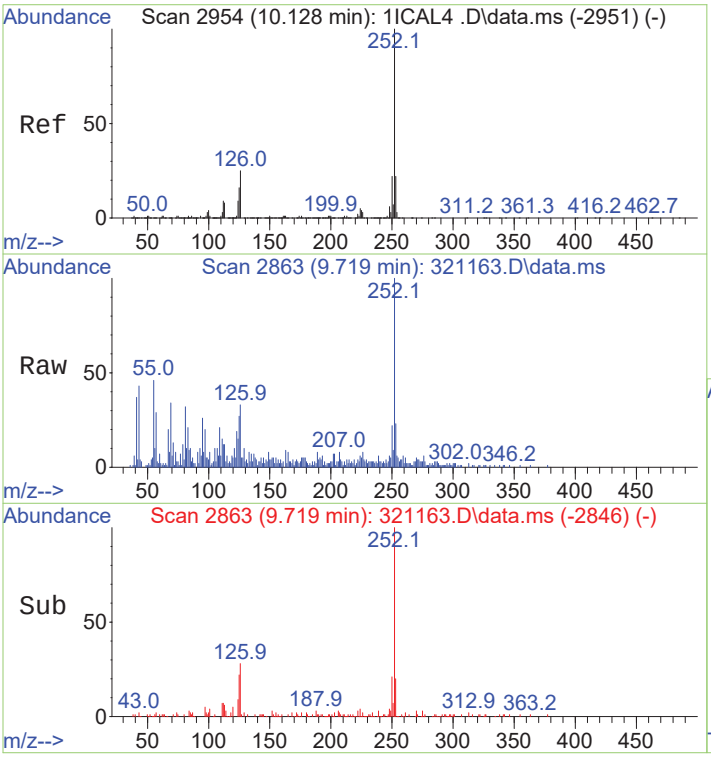


Before Manual Integration

Reason#3

JJY
9/16/19

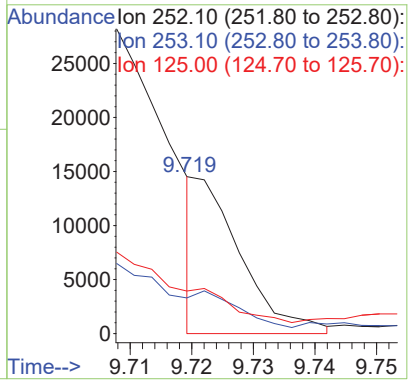
AJZ
09/19/2019



#88
B[k]fluoranth
Concen: 0.58 ug/mL m
RT: 9.719 min Scan# 2863
Delta R.T. -0.003 min
Lab File: 321163.D
Acq: 10 Sep 2019 22:36

Tgt Ion:252 Resp: 7289

Ion	Ratio	Lower	Upper
252	100		
253	22.7	0.0	52.0
125	27.2	0.0	50.2

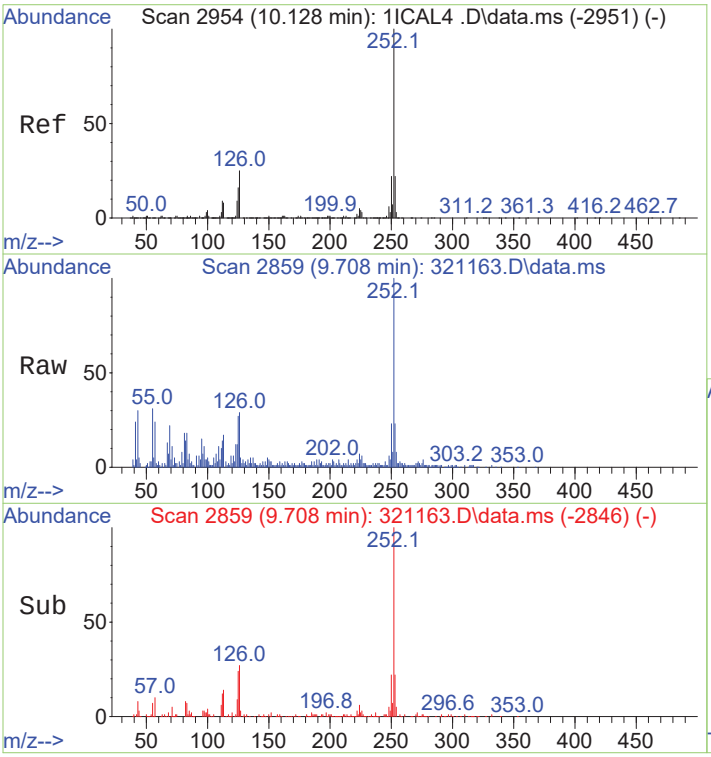


After Manual Integration

Reason#3

JJY
9/16/19

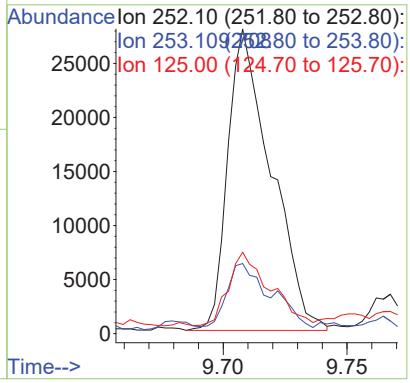
AJZ
09/19/2019



#88
B[k]fluoranth
Concen: 2.68 ug/mL
RT: 9.708 min Scan# 2859
Delta R.T. -0.014 min
Lab File: 321163.D
Acq: 10 Sep 2019 22:36

Tgt Ion:252 Resp: 33991

Ion	Ratio	Lower	Upper
252	100		
253	19.5	0.0	52.0
125	24.0	0.0	50.2



Before Manual Integration

Reason#3

JJY
9/16/19

AJZ
09/19/2019

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321163.D Vial: 14
Acq On : 10 Sep 2019 22:36 Operator: JJY
Sample : 164275,321163, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:42 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

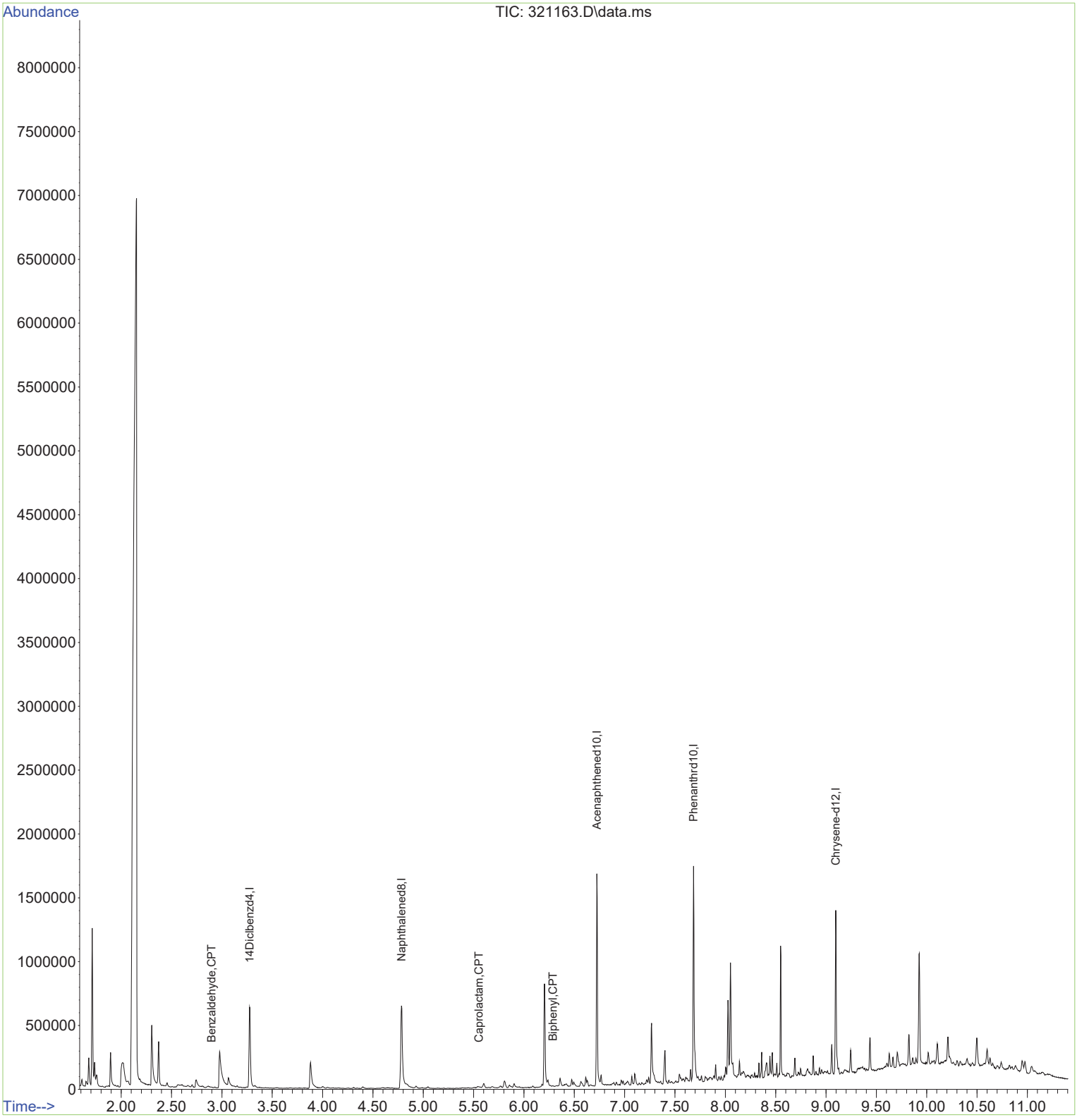
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	108475	20.00	ug/mL	0.00
3) Naphthalened8	4.784	136	412486	20.00	ug/mL	0.00
5) Acenaphthened10	6.724	164	260096	20.00	ug/mL	0.00
7) Phenanthrd10	7.685	188	426312	20.00	ug/mL	0.00
9) Chrysene-d12	9.097	240	245742	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	2.897	77	1861	0.9027	ug/mL#	46
4) Caprolactam	5.551	55	2012	1.4038	ug/mL#	23
6) Biphenyl	6.287	154	1144	0.0604	ug/mL#	1

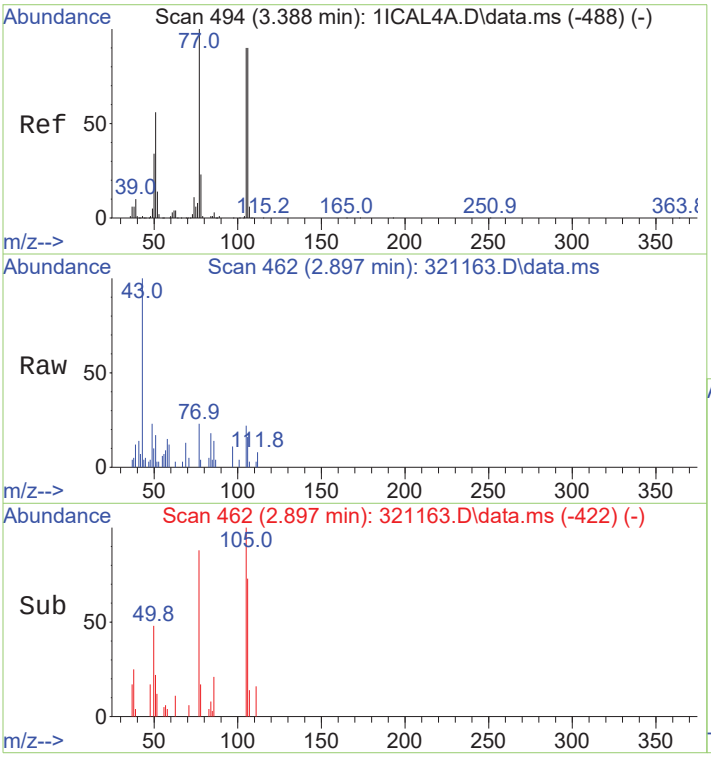
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321163.D Vial: 14
Acq On : 10 Sep 2019 22:36 Operator: JJY
Sample : 164275,321163, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:42 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

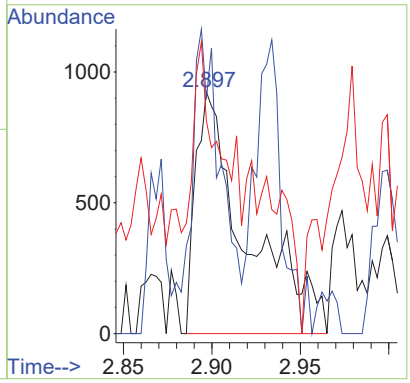


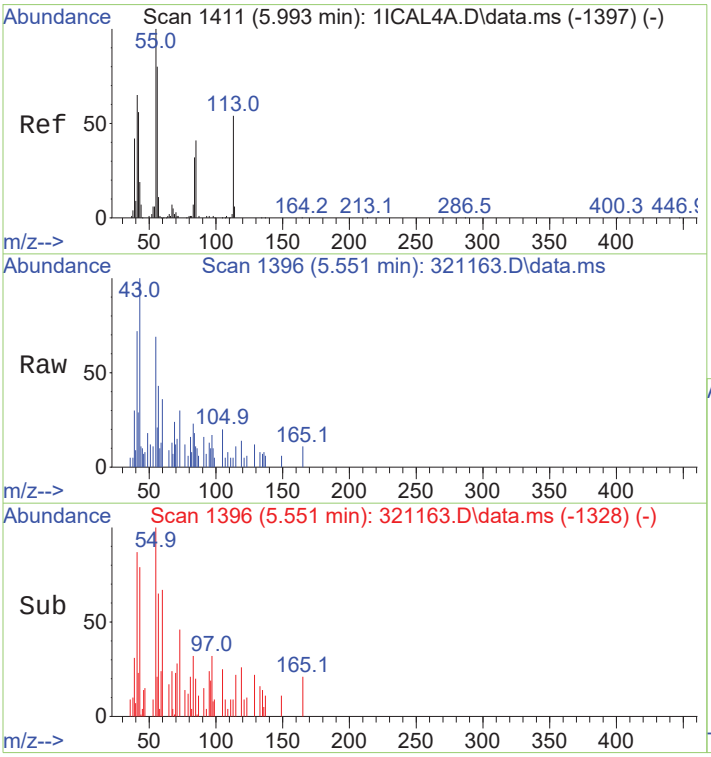


#2
Benzaldehyde
Concen: 0.90 ug/mL
RT: 2.897 min Scan# 462
Delta R.T. 0.014 min
Lab File: 321163.D
Acq: 10 Sep 2019 22:36

Tgt Ion: 77 Resp: 1861

Ion	Ratio	Lower	Upper
77	100		
105	69.7	67.4	127.4
51	124.4	23.2	83.2#

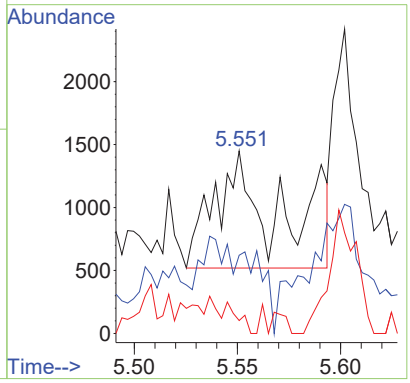


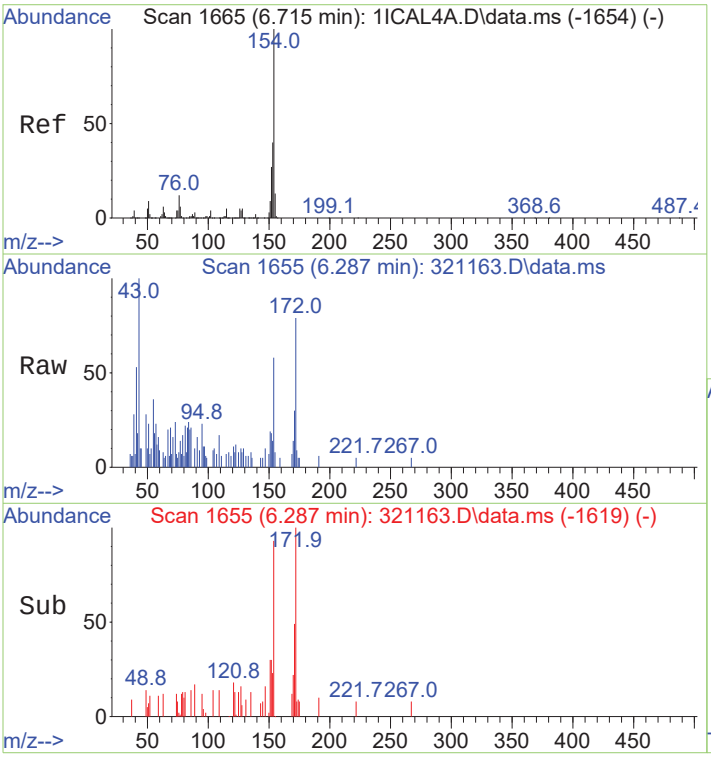


#4
Caprolactam
Concen: 1.40 ug/mL
RT: 5.551 min Scan# 1396
Delta R.T. 0.094 min
Lab File: 321163.D
Acq: 10 Sep 2019 22:36

Tgt Ion: 55 Resp: 2012

Ion	Ratio	Lower	Upper
55	100		
42	0.0	24.6	84.6#
113	0.0	26.7	86.7#

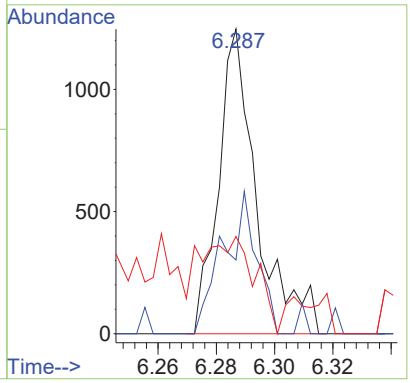




#6
Biphenyl
Concen: 0.06 ug/mL
RT: 6.287 min Scan# 1655
Delta R.T. 0.003 min
Lab File: 321163.D
Acq: 10 Sep 2019 22:36

Tgt Ion:154 Resp: 1144

Ion	Ratio	Lower	Upper
154	100		
153	359.0	9.6	69.6#
152	1082.3	0.0	57.6#



Library Search Compound Report

Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321163.D
Acq On : 10 Sep 2019 22:36
Operator : JJY
Sample : 164275,321163,
Misc : 500ul+5ul S4142A
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 1 Methacrylamide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.712	24.70 ug/mL	760984	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Methacrylamide	85	C4H7NO	000079-39-0	36
2	Thiazole	85	C3H3NS	000288-47-1	35
3	Monomethylnitrosamine	60	CH4N2O	000000-00-0	9
4	Hexane, 3-bromo-	164	C6H13Br	003377-87-5	9
5	Formic acid, 2-methylpropyl ester	102	C5H10O2	000542-55-2	9

****

Peak Number 2 3-Penten-2-one, 4-methyl- Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.894	6.63 ug/mL	204431	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
2	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
3	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
4	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	90
5	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	90

****

Peak Number 3 Acetic acid, 1-methylethyl ... Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.013	8.36 ug/mL	257594	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetic acid, 1-methylethyl ester	102	C5H10O2	000108-21-4	23
2	3-Buten-2-one, 3-methyl-	84	C5H8O	000814-78-8	9
3	Oxirane, 2,3-dimethyl-, cis-	72	C4H8O	001758-33-4	9
4	Isobutane	58	C4H10	000075-28-5	9
5	Butanoic acid, ethyl ester	116	C6H12O2	000105-54-4	9

****

Peak Number 4 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.152	471.91 ug/mL	14540000	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	56
2	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	47
3	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	28

Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321163.D
Acq On : 10 Sep 2019 22:36
Operator : JJY
Sample : 164275,321163,
Misc : 500ul+5ul S4142A
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

4	tert-Butyl Hydroperoxide	90	C4H10O2	000075-91-2	28
5	Acetic acid, cyano-, 1,1-dimethy...	141	C7H11NO2	001116-98-9	23

****

Peak Number 5 Hexylene Glycol Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.371	8.26 ug/mL	254371	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexylene Glycol	118	C6H14O2	000107-41-5	40
2	3-Buten-2-ol, 2,3-dimethyl-	100	C6H12O	010473-13-9	40
3	2-Propanol, 2-methyl-	74	C4H10O	000075-65-0	38
4	Hexylene Glycol	118	C6H14O2	000107-41-5	28
5	1-Butanol, 3-methoxy-	104	C5H12O2	002517-43-3	25

****

Peak Number 6 Decane, 2-methyl- Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.401	3.86 ug/mL	237724	Phenanthrd10	7.685

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Decane, 2-methyl-	156	C11H24	006975-98-0	87
2	Pentadecane, 2,6,10,14-tetramethyl-	268	C19H40	001921-70-6	86
3	Dodecane, 2,7,10-trimethyl-	212	C15H32	074645-98-0	86
4	Hexadecane, 2,6,11,15-tetramethyl-	282	C20H42	000504-44-9	74
5	Heptadecane, 7-methyl-	254	C18H38	020959-33-5	72

****

Peak Number 7 Eicosane Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.435	3.80 ug/mL	172606	Chrysene-d12	9.097

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Eicosane	282	C20H42	000112-95-8	90
2	Octacosane	394	C28H58	000630-02-4	90
3	Heneicosane	296	C21H44	000629-94-7	90
4	Dotriacontane	451	C32H66	000544-85-4	90
5	Docosane, 9-butyl-	366	C26H54	055282-14-9	86

****

Peak Number 8 Pentadecane Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.821	5.09 ug/mL	181894	Perylene-d12	9.927

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual

Library Search Compound Report

Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321163.D
Acq On : 10 Sep 2019 22:36
Operator : JJY
Sample : 164275,321163,
Misc : 500ul+5ul S4142A
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

1	Pentadecane	212	C15H32	000629-62-9	95
2	Nonadecane	268	C19H40	000629-92-5	94
3	Nonadecane	268	C19H40	000629-92-5	93
4	Nonadecane	268	C19H40	000629-92-5	90
5	Eicosane	282	C20H42	000112-95-8	90

****

Peak Number 9 Heneicosane Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.211	4.22 ug/mL	150818	Perylene-d12	9.927

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heneicosane	296	C21H44	000629-94-7	91
2	Eicosane	282	C20H42	000112-95-8	91
3	Dodecane, 2-methyl-6-propyl-	226	C16H34	055045-08-4	91
4	Tetratetracontane	619	C44H90	007098-22-8	90
5	Nonacosane	408	C29H60	000630-03-5	90

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321164.D Vial: 15
Acq On : 10 Sep 2019 22:55 Operator: JJY
Sample : 164275,321164, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 23:08:02 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

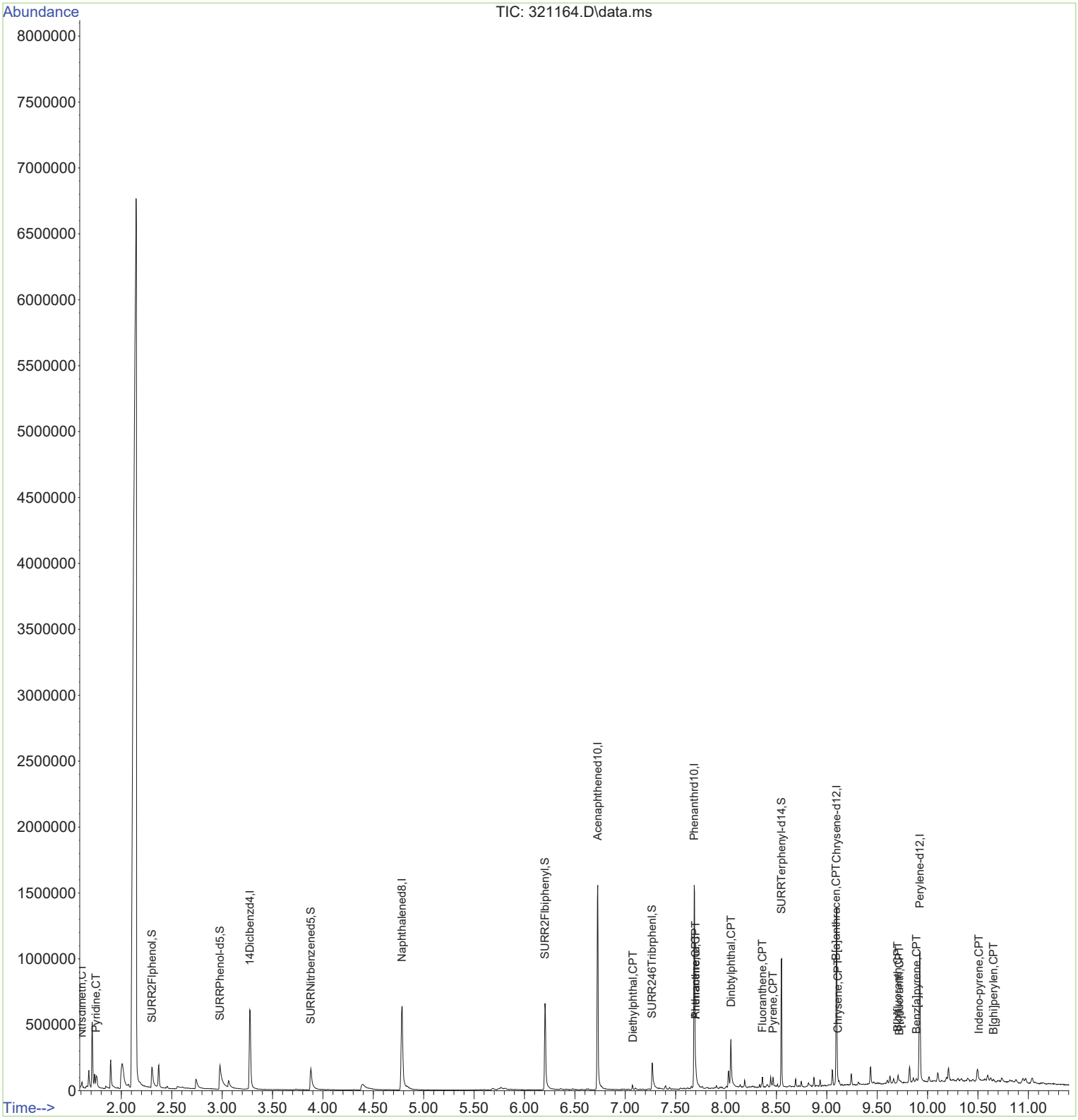
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	107263	20.00	ug/mL	0.00
21) Naphthalened8	4.784	136	413166	20.00	ug/mL	0.00
39) Acenaphthened10	6.727	164	252709	20.00	ug/mL	0.00
63) Phenanthrd10	7.685	188	435662	20.00	ug/mL	0.00
75) Chrysene-d12	9.097	240	247467	20.00	ug/mL	0.00
86) Perylene-d12	9.924	264	247303	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.306	112	63305	24.43	%REC	0.03
Spiked Amount 100.000			Recovery = 24.43%			
7) SURRPhenol-d5	2.979	99	130845	40.89	%REC	0.01
Spiked Amount 100.000			Recovery = 40.89%			
22) SURRNitrbenzened5	3.880	82	74109	53.12	%REC	0.00
Spiked Amount 100.000			Recovery = 53.12%			
44) SURR2Flbiphenyl	6.204	172	206436	61.32	%REC	0.00
Spiked Amount 100.000			Recovery = 61.32%			
62) SURR246Tribrphenl	7.267	330	24826	31.72	%REC	0.00
Spiked Amount 100.000			Recovery = 31.72%			
78) SURRTerphenyl-d14	8.551	244	171708	75.81	%REC	0.00
Spiked Amount 100.000			Recovery = 75.81%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.610	74	2403	1.0883	ug/mL#	1
3) Pyridine	1.749	79	797	0.6624	ug/mL#	26
60) Diethylphthal	7.077	149	4351	0.2571	ug/mL	92
70) Phenanthrene	7.699	178	10336	0.4498	ug/mL	97
71) Anthracene	7.699	178	13009	0.5497	ug/mL	98
73) Dinbtylphthal	8.051	149	7433	0.0972	ug/mL	96
74) Fluoranthene	8.361	202	17688	1.0710	ug/mL	98
77) Pyrene	8.466	202	14068	0.7565	ug/mL	93
82) B[a]anthracen	9.091	228	6444	0.4224	ug/mL	96
83) Chrysene	9.111	228	7510	0.4757	ug/mL	89
87) B[b]fluoranth	9.705	252	9350	0.6946	ug/mL	86
88) B[k]fluoranth	9.719	252	3332m	0.2468	ug/mL	
89) Benz[a]pyrene	9.890	252	4981	0.3586	ug/mL	94
90) Indeno-pyrene	10.509	276	2840	0.1976	ug/mL	75
92) B[ghi]perylen	10.654	276	2218	0.1762	ug/mL	74

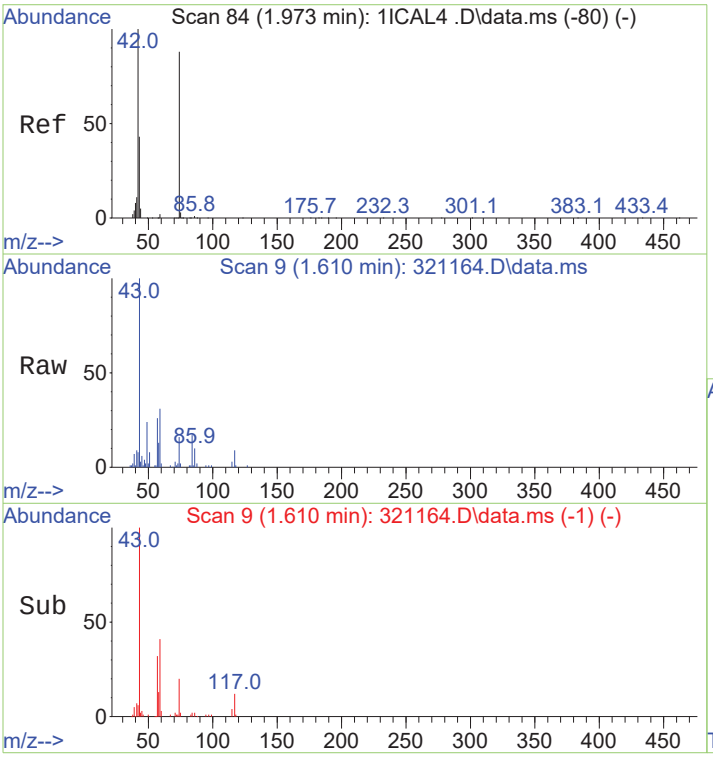
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321164.D Vial: 15
Acq On : 10 Sep 2019 22:55 Operator: JJY
Sample : 164275,321164, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 23:08:02 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

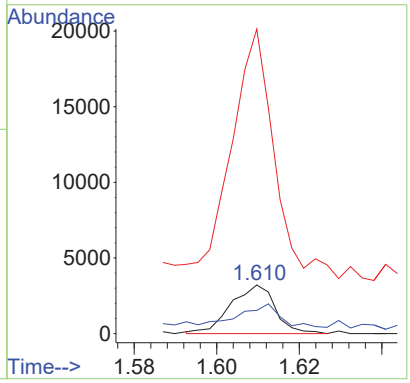


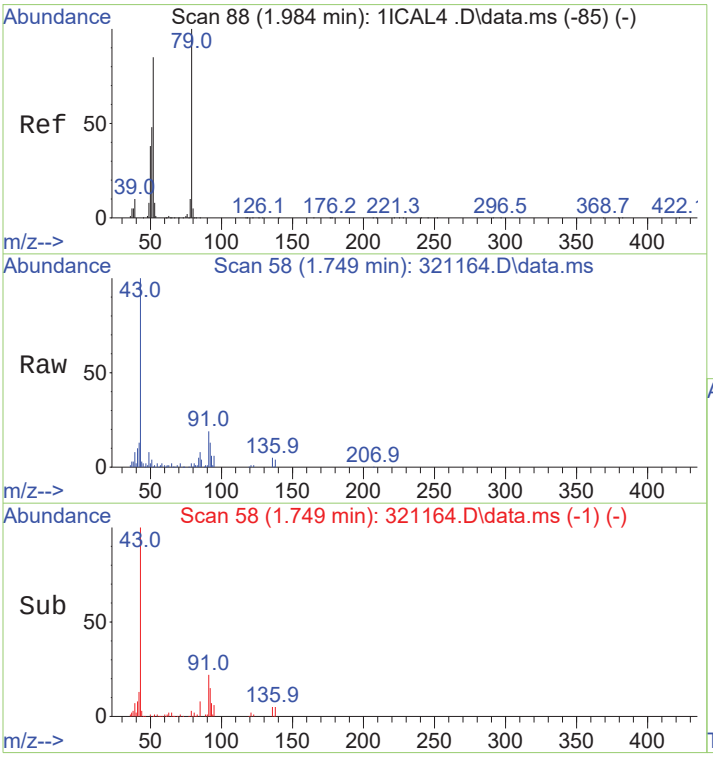


#2
Ntrsdimeth
Concen: 1.09 ug/mL
RT: 1.610 min Scan# 9
Delta R.T. -0.028 min
Lab File: 321164.D
Acq: 10 Sep 2019 22:55

Tgt Ion: 74 Resp: 2403

Ion	Ratio	Lower	Upper
74	100		
42	29.5	54.2	114.2#
43	493.0	5.5	65.5#

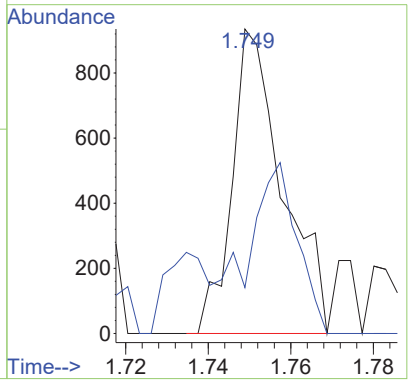


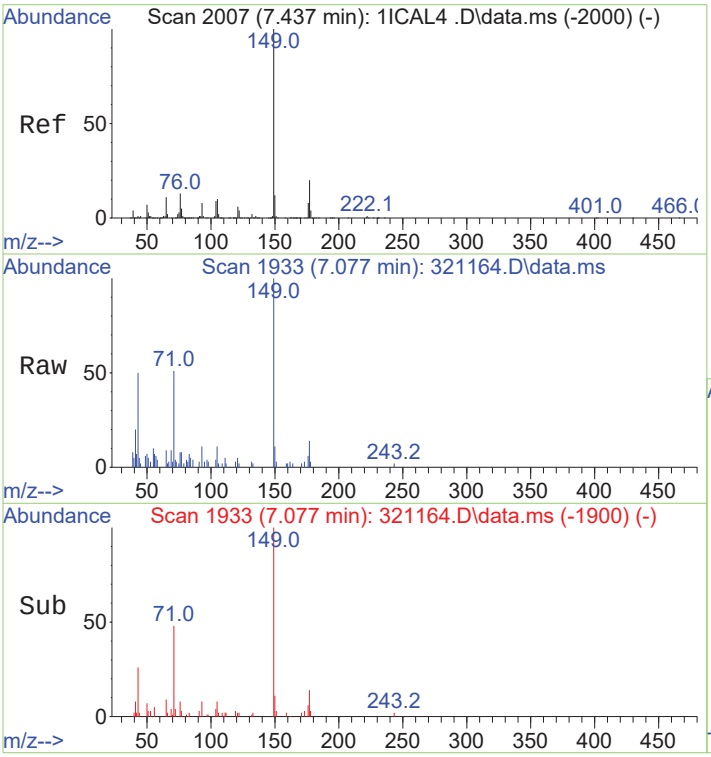


#3
Pyridine
Concen: 0.66 ug/mL
RT: 1.749 min Scan# 58
Delta R.T. 0.102 min
Lab File: 321164.D
Acq: 10 Sep 2019 22:55

Tgt Ion: 79 Resp: 797

Ion	Ratio	Lower	Upper
79	100		
52	13.2	46.7	106.7#

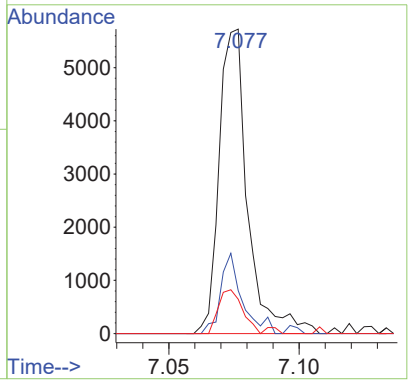


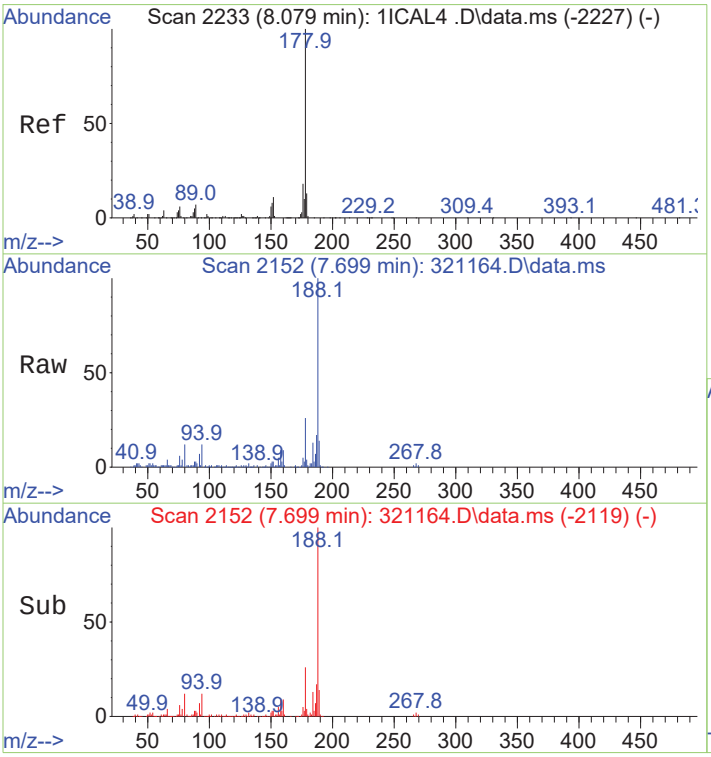


#60
Diethylphthal
Concen: 0.26 ug/mL
RT: 7.077 min Scan# 1933
Delta R.T. -0.006 min
Lab File: 321164.D
Acq: 10 Sep 2019 22:55

Tgt Ion:149 Resp: 4351

Ion	Ratio	Lower	Upper
149	100		
177	14.1	0.0	49.3
150	11.3	0.0	41.9

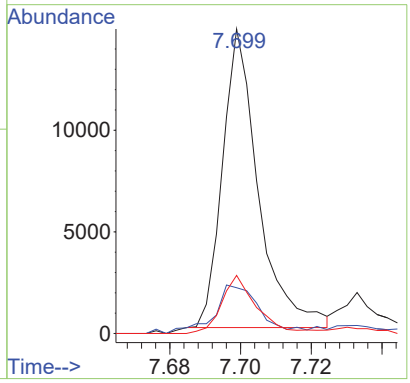


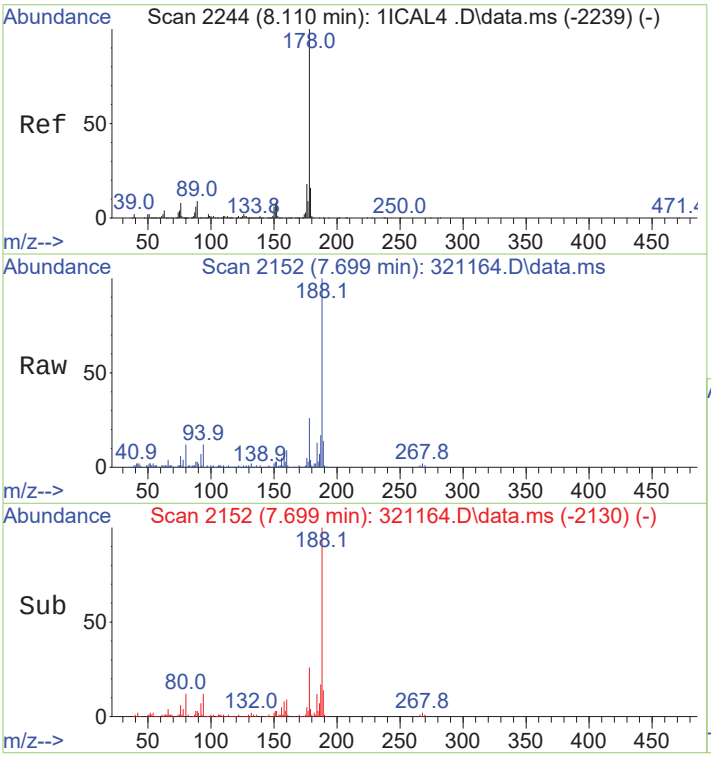


#70
Phenanthrene
Concen: 0.45 ug/mL
RT: 7.699 min Scan# 2152
Delta R.T. -0.006 min
Lab File: 321164.D
Acq: 10 Sep 2019 22:55

Tgt Ion:178 Resp: 10336

Ion	Ratio	Lower	Upper
178	100		
179	14.0	0.0	45.3
176	19.5	0.0	48.4

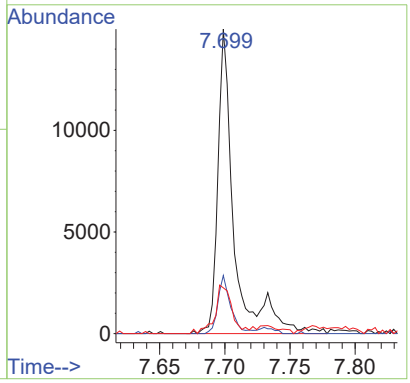


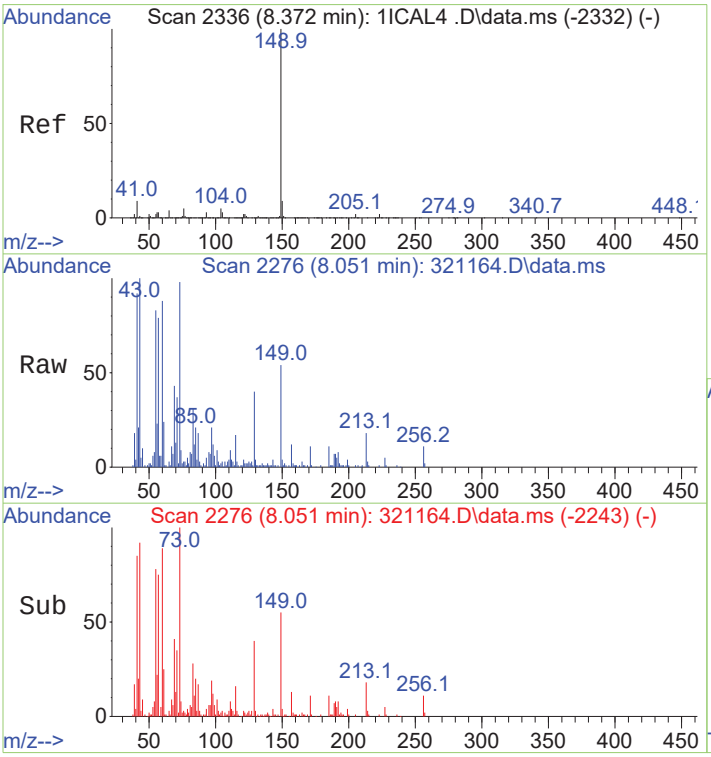


#71
Anthracene
Concen: 0.55 ug/mL
RT: 7.699 min Scan# 2152
Delta R.T. -0.037 min
Lab File: 321164.D
Acq: 10 Sep 2019 22:55

Tgt Ion:178 Resp: 13009

Ion	Ratio	Lower	Upper
178	100		
176	19.1	0.0	47.6
179	15.0	0.0	45.1

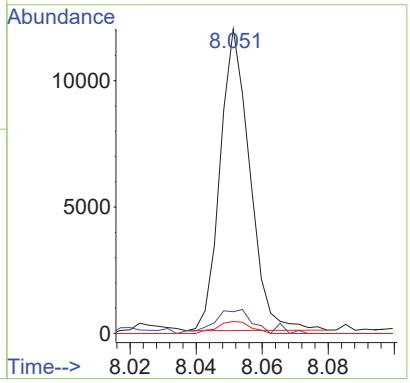


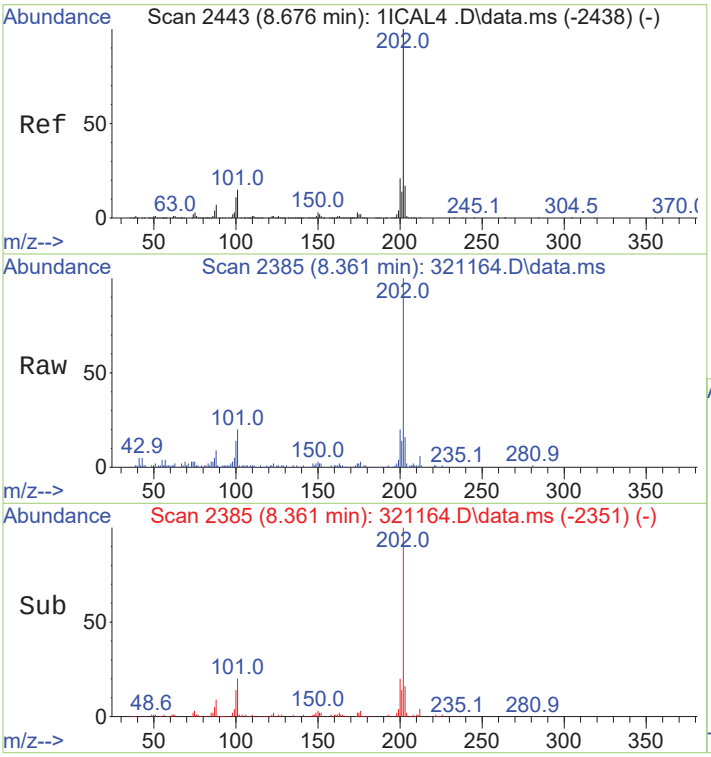


#73
Dinbtylphthal
Concen: 0.10 ug/mL
RT: 8.051 min Scan# 2276
Delta R.T. -0.006 min
Lab File: 321164.D
Acq: 10 Sep 2019 22:55

Tgt Ion:149 Resp: 7433

Ion	Ratio	Lower	Upper
149	100		
150	7.2	0.0	39.0
104	4.0	0.0	34.6

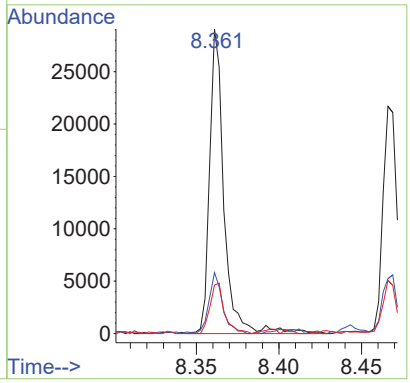


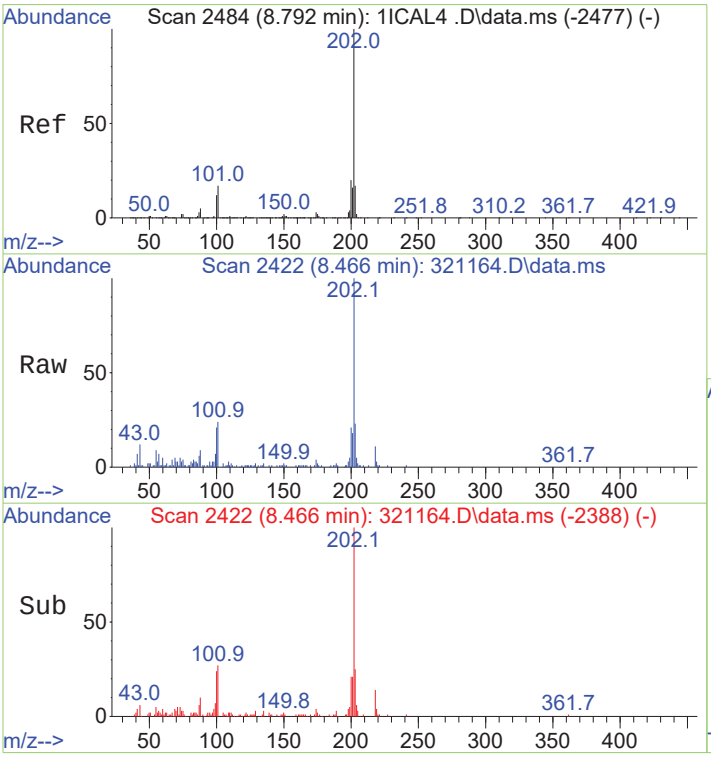


#74
Fluoranthene
Concen: 1.07 ug/mL
RT: 8.361 min Scan# 2385
Delta R.T. -0.003 min
Lab File: 321164.D
Acq: 10 Sep 2019 22:55

Tgt Ion:202 Resp: 17688

Ion	Ratio	Lower	Upper
202	100		
101	20.0	0.0	50.7
203	15.9	0.0	47.3

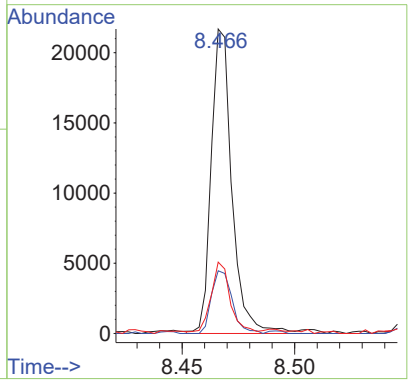


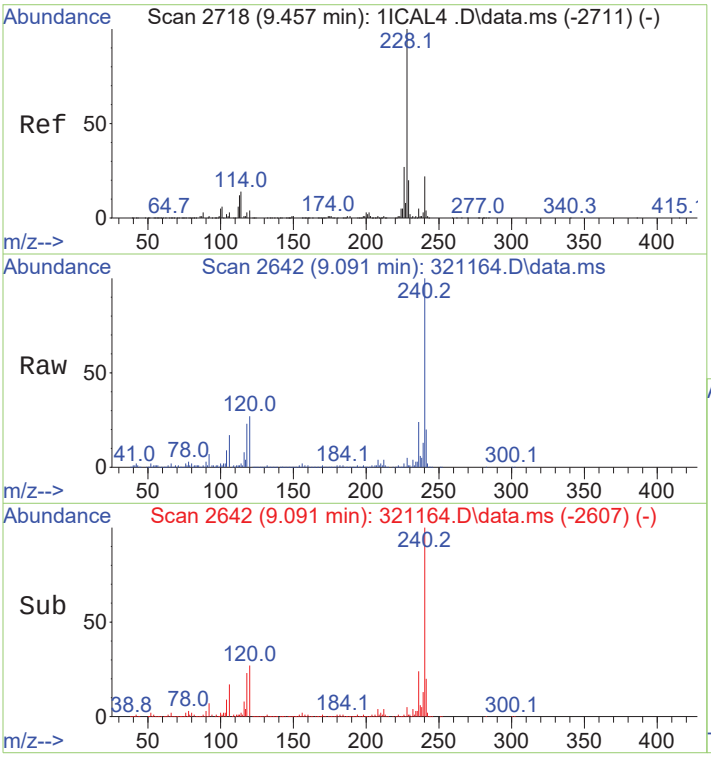


#77
Pyrene
Concen: 0.76 ug/mL
RT: 8.466 min Scan# 2422
Delta R.T. -0.003 min
Lab File: 321164.D
Acq: 10 Sep 2019 22:55

Tgt Ion:202 Resp: 14068

Ion	Ratio	Lower	Upper
202	100		
200	20.7	0.0	50.1
203	23.0	0.0	46.9

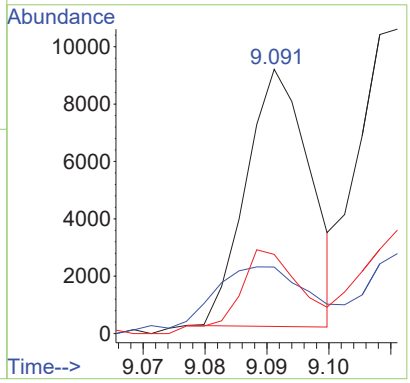


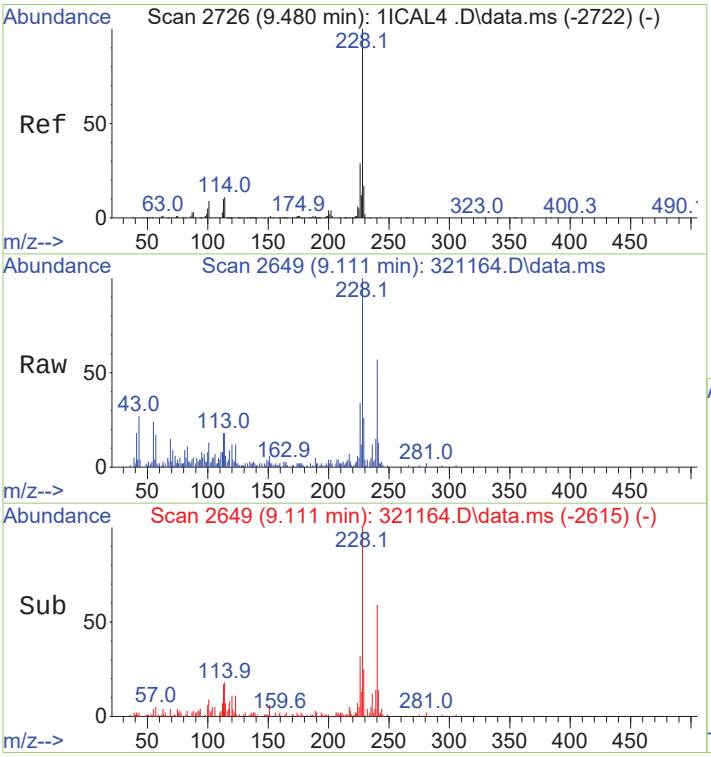


#82
B[a]anthracen
Concen: 0.42 ug/mL
RT: 9.091 min Scan# 2642
Delta R.T. 0.000 min
Lab File: 321164.D
Acq: 10 Sep 2019 22:55

Tgt Ion:228 Resp: 6444

Ion	Ratio	Lower	Upper
228	100		
229	21.2	0.0	49.3
226	28.0	0.0	56.2

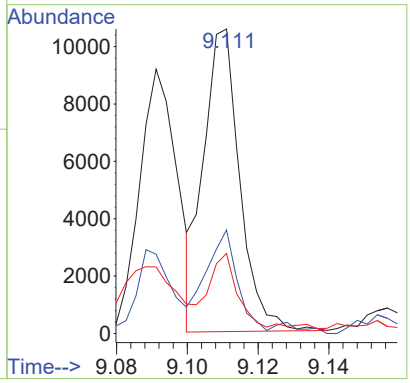


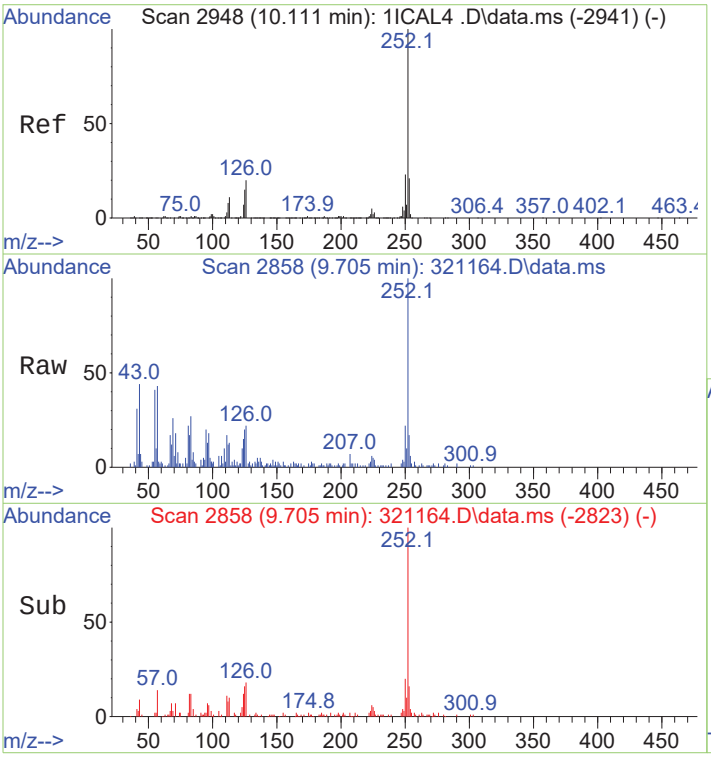


#83
Chrysene
Concen: 0.48 ug/mL
RT: 9.111 min Scan# 2649
Delta R.T. -0.003 min
Lab File: 321164.D
Acq: 10 Sep 2019 22:55

Tgt Ion:228 Resp: 7510

Ion	Ratio	Lower	Upper
228	100		
226	34.3	0.0	59.0
229	24.8	0.0	49.4

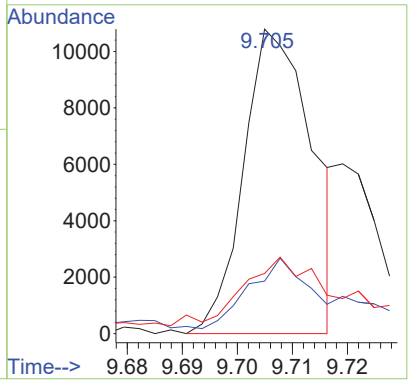


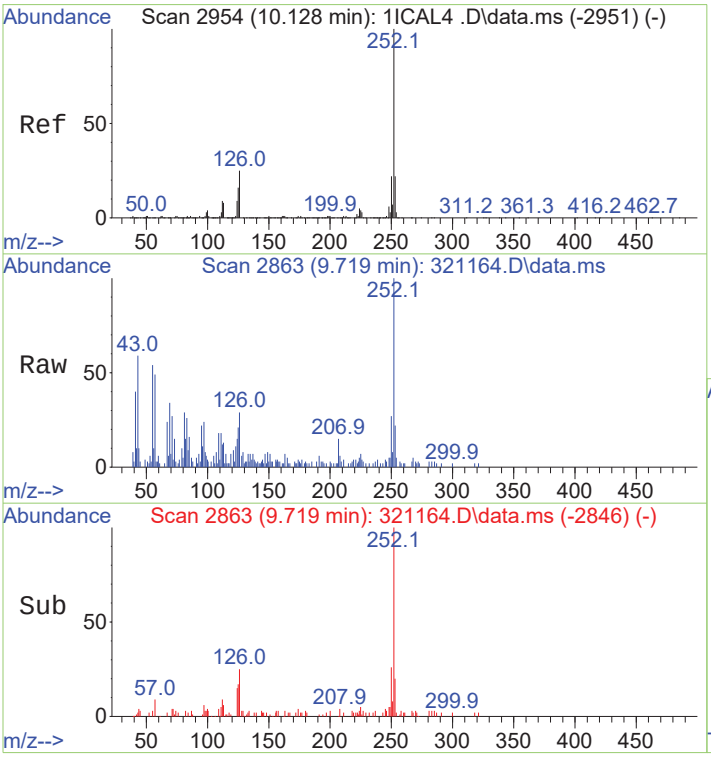


#87
B[b]fluoranth
Concen: 0.69 ug/mL
RT: 9.705 min Scan# 2858
Delta R.T. 0.000 min
Lab File: 321164.D
Acq: 10 Sep 2019 22:55

Tgt Ion:252 Resp: 9350

Ion	Ratio	Lower	Upper
252	100		
253	14.9	0.0	51.9
125	13.6	0.0	50.0

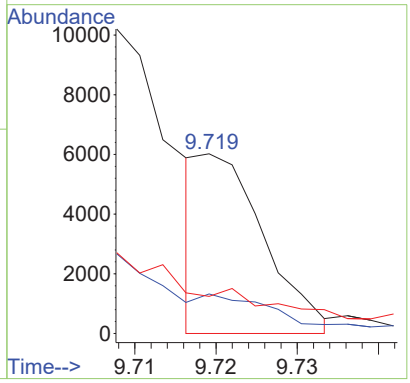


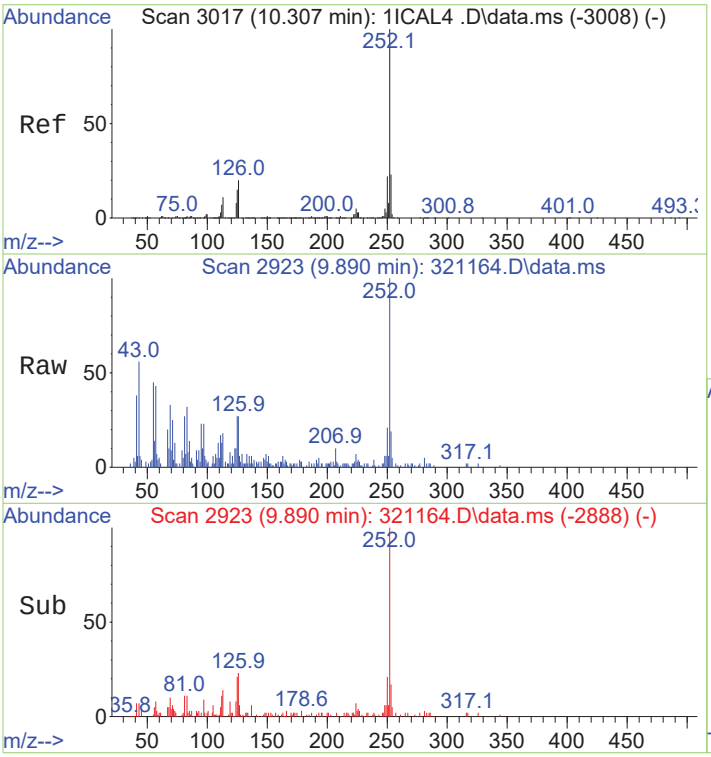


#88
B[k]fluoranth
Concen: 0.25 ug/mL m
RT: 9.719 min Scan# 2863
Delta R.T. -0.003 min
Lab File: 321164.D
Acq: 10 Sep 2019 22:55

Tgt Ion:252 Resp: 3332

Ion	Ratio	Lower	Upper
252	100		
253	22.0	0.0	52.0
125	20.7	0.0	50.2

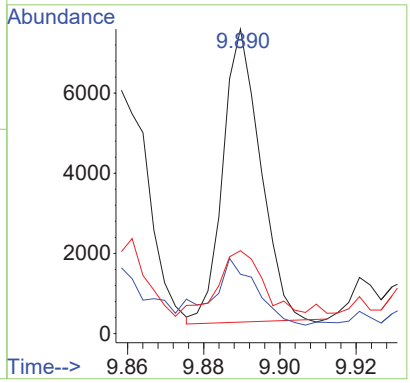


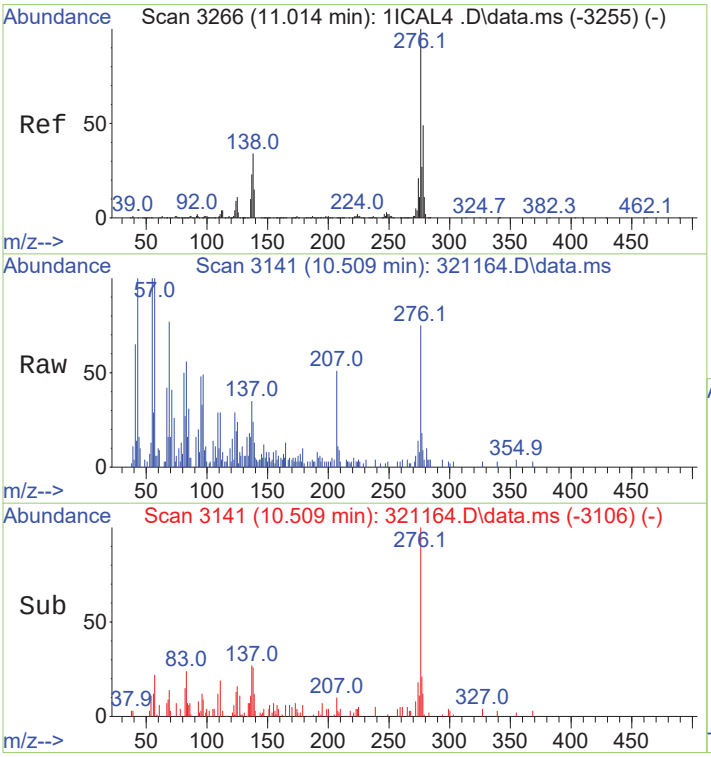


#89
Benz[a]pyrene
Concen: 0.36 ug/mL
RT: 9.890 min Scan# 2923
Delta R.T. 0.000 min
Lab File: 321164.D
Acq: 10 Sep 2019 22:55

Tgt Ion:252 Resp: 4981

Ion	Ratio	Lower	Upper
252	100		
253	16.6	0.0	51.7
125	21.6	0.0	51.4

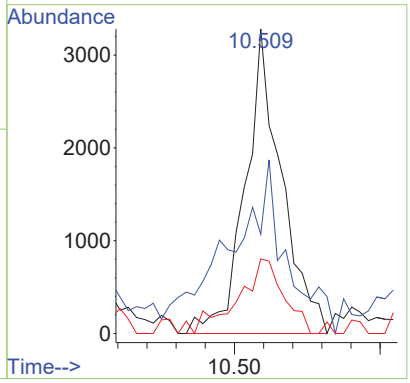


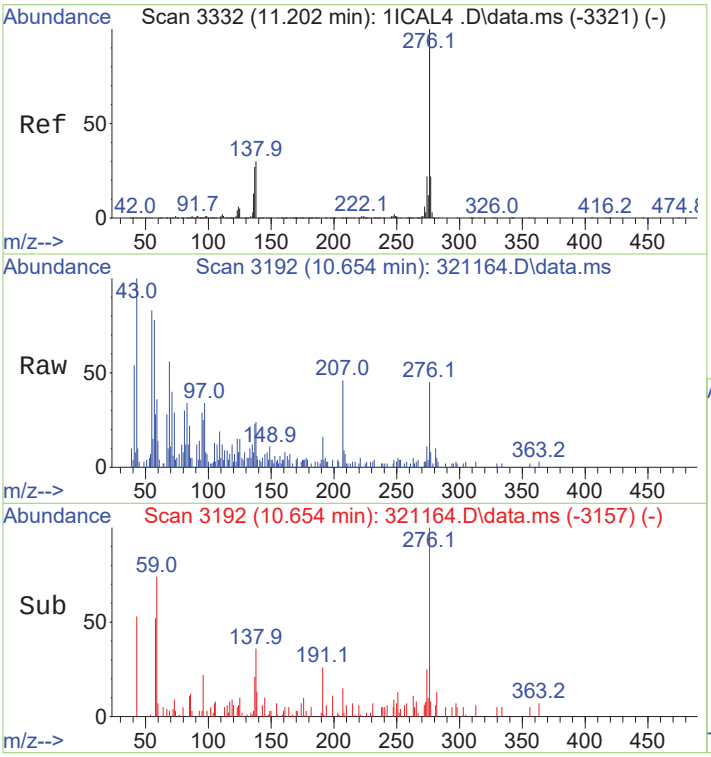


#90
Indeno-pyrene
Concen: 0.20 ug/mL
RT: 10.509 min Scan# 3141
Delta R.T. 0.000 min
Lab File: 321164.D
Acq: 10 Sep 2019 22:55

Tgt Ion:276 Resp: 2840

Ion	Ratio	Lower	Upper
276	100		
138	20.5	13.2	73.2
277	20.7	0.0	54.7

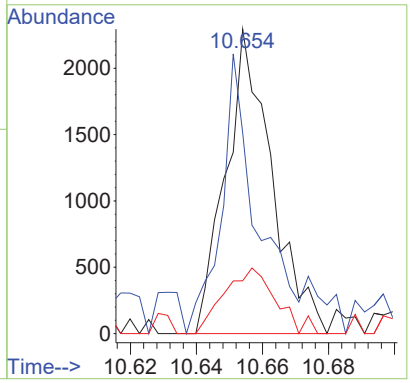


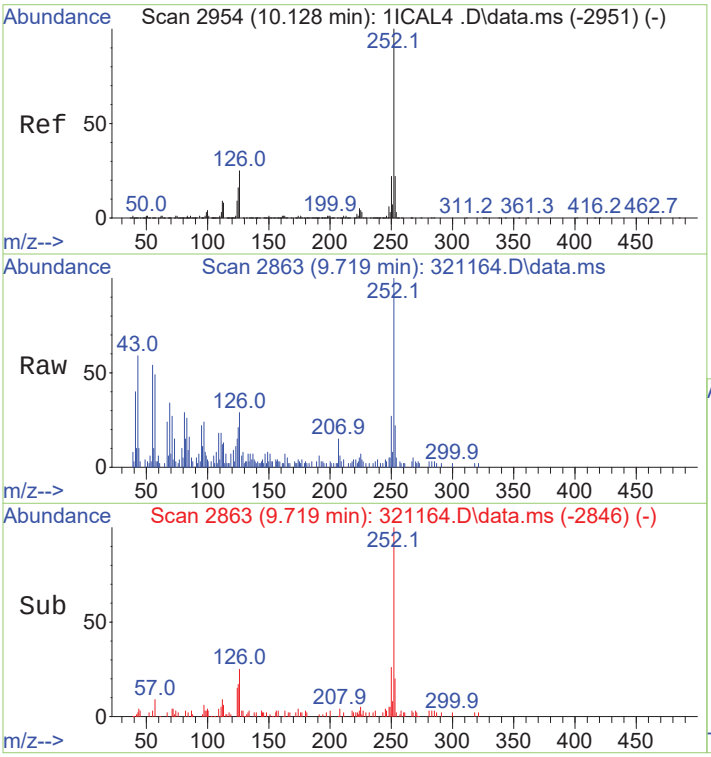


#92
B[ghi]perylen
Concen: 0.18 ug/mL
RT: 10.654 min Scan# 3192
Delta R.T. 0.000 min
Lab File: 321164.D
Acq: 10 Sep 2019 22:55

Tgt Ion:276 Resp: 2218

Ion	Ratio	Lower	Upper
276	100		
138	66.0	15.0	75.0
277	17.3	0.0	54.0

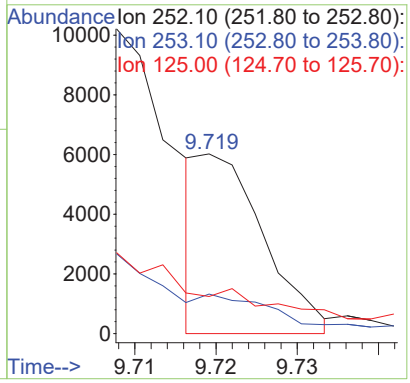




#88
B[k]fluoranth
Concen: 0.25 ug/mL m
RT: 9.719 min Scan# 2863
Delta R.T. -0.003 min
Lab File: 321164.D
Acq: 10 Sep 2019 22:55

Tgt Ion:252 Resp: 3332

Ion	Ratio	Lower	Upper
252	100		
253	22.0	0.0	52.0
125	20.7	0.0	50.2

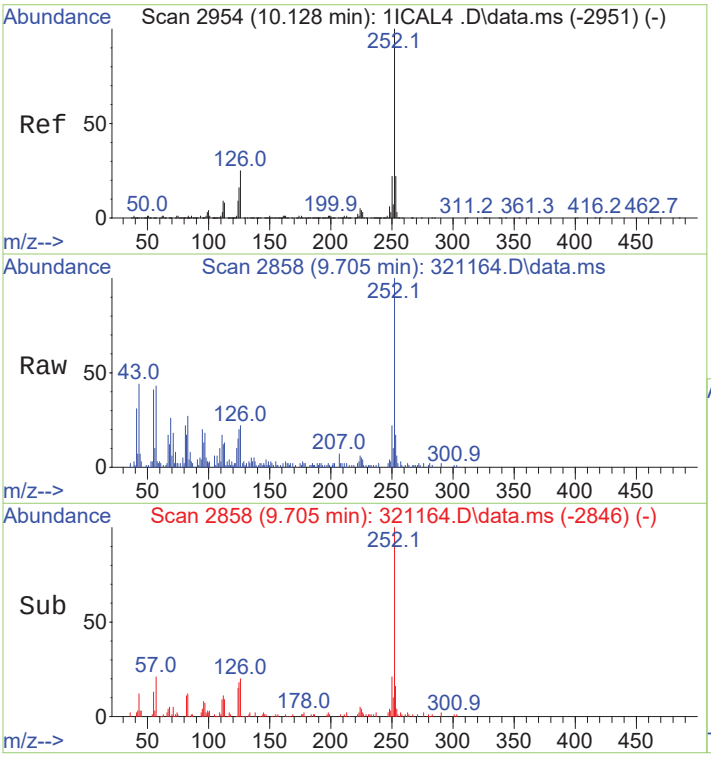


After Manual Integration

Reason#1

JJY
9/16/19

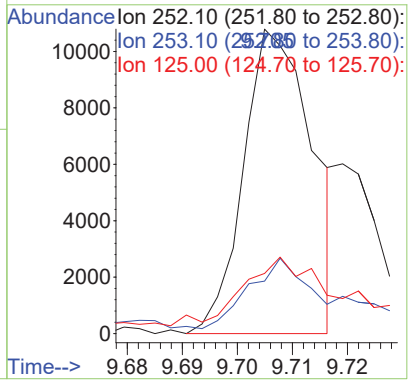
AJZ
09/19/2019



#88
B[k]fluoranth
Concen: 0.69 ug/mL
RT: 9.705 min Scan# 2858
Delta R.T. -0.017 min
Lab File: 321164.D
Acq: 10 Sep 2019 22:55

Tgt Ion:252 Resp: 9350

Ion	Ratio	Lower	Upper
252	100		
253	14.9	0.0	52.0
125	13.6	0.0	50.2



Before Manual Integration

Reason#1

JJY
9/16/19

AJZ
09/19/2019

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321164.D Vial: 15
Acq On : 10 Sep 2019 22:55 Operator: JJY
Sample : 164275,321164, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:44 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

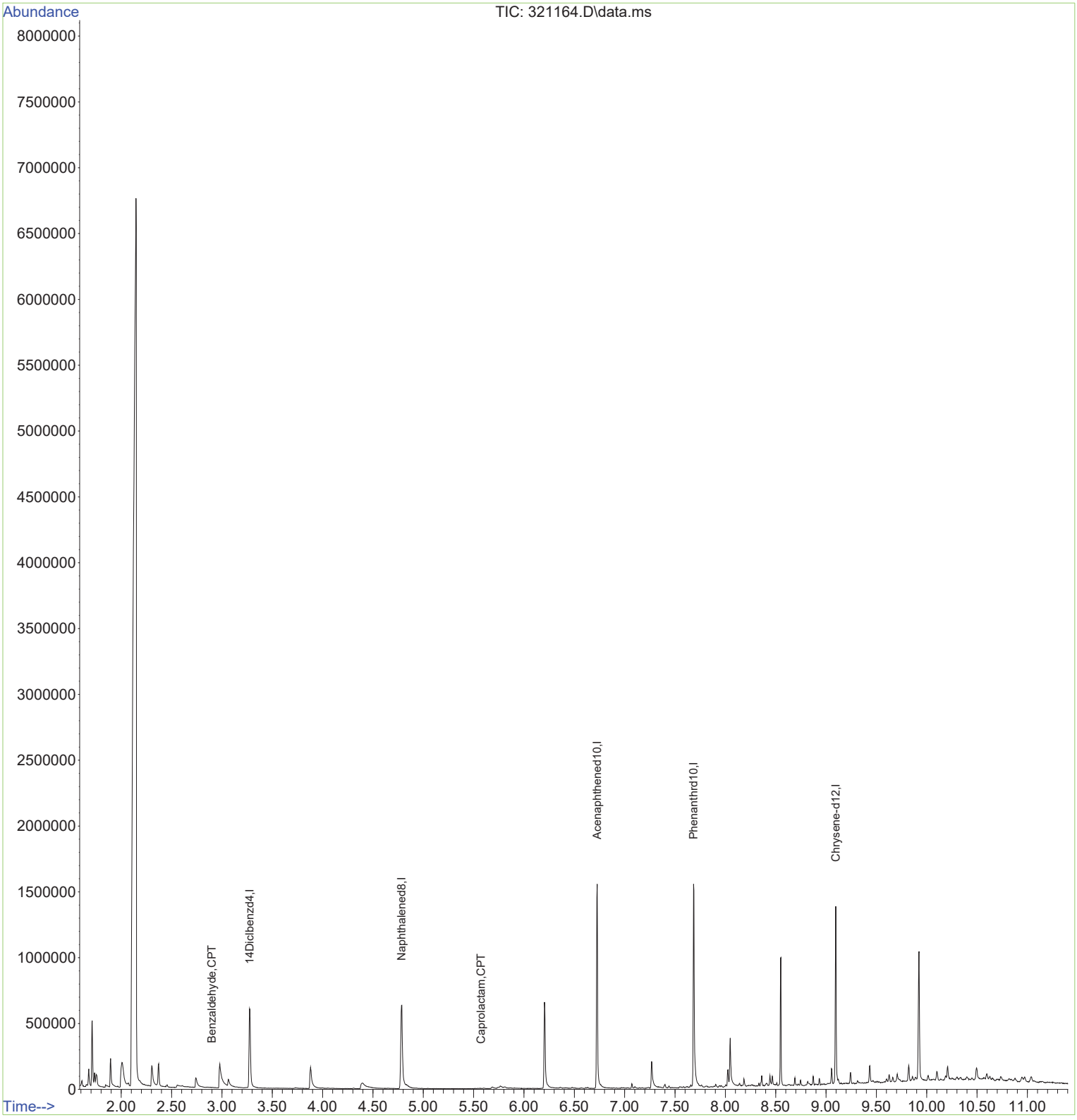
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	107963	20.00	ug/mL	0.00
3) Naphthalened8	4.784	136	413166	20.00	ug/mL	0.00
5) Acenaphthened10	6.727	164	261682	20.00	ug/mL	0.00
7) Phenanthrd10	7.685	188	440050	20.00	ug/mL	0.00
9) Chrysene-d12	9.097	240	247036	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	2.900	77	355	0.6534	ug/mL#	1
4) Caprolactam	5.573	55	3289	1.6945	ug/mL#	52

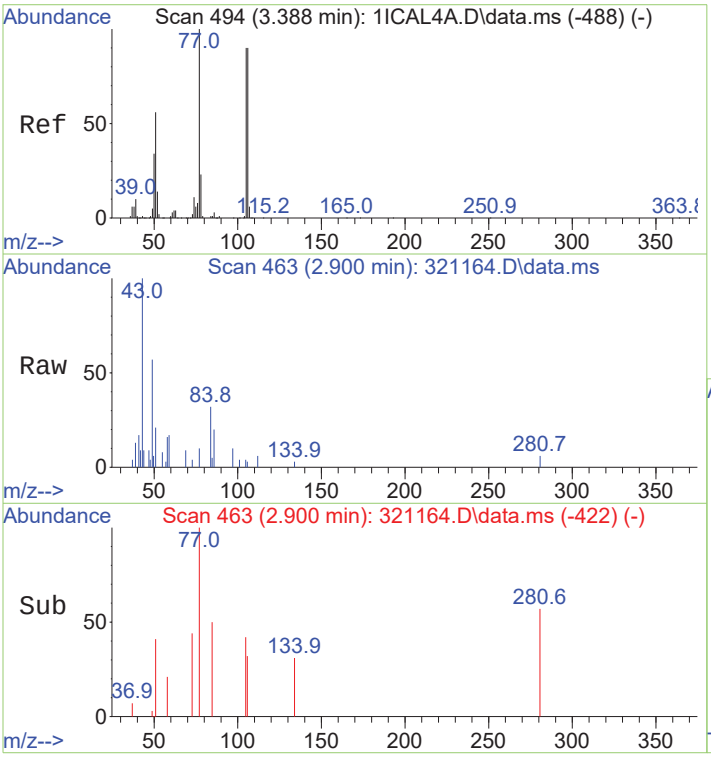
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321164.D Vial: 15
Acq On : 10 Sep 2019 22:55 Operator: JJY
Sample : 164275,321164, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:44 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

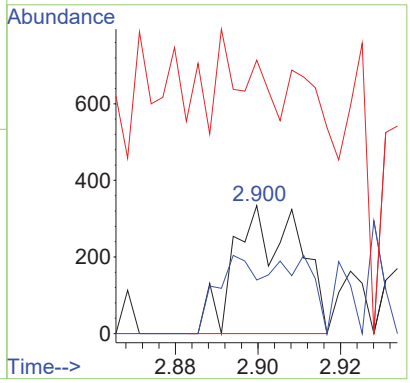


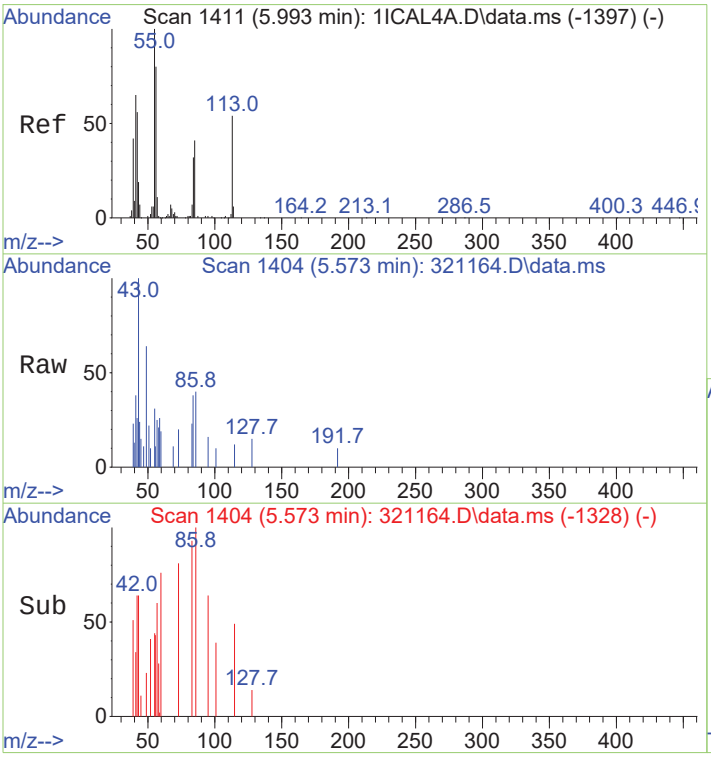


#2
Benzaldehyde
Concen: 0.65 ug/mL
RT: 2.900 min Scan# 463
Delta R.T. 0.017 min
Lab File: 321164.D
Acq: 10 Sep 2019 22:55

Tgt Ion: 77 Resp: 355

Ion	Ratio	Lower	Upper
77	100		
105	77.5	67.4	127.4
51	725.4	23.2	83.2#

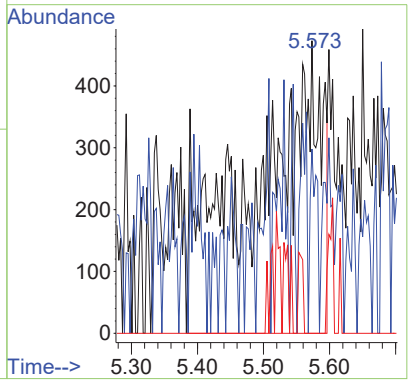




#4
Caprolactam
Concen: 1.69 ug/mL
RT: 5.573 min Scan# 1404
Delta R.T. 0.117 min
Lab File: 321164.D
Acq: 10 Sep 2019 22:55

Tgt Ion: 55 Resp: 3289

Ion	Ratio	Lower	Upper
55	100		
42	41.4	24.6	84.6
113	0.0	26.7	86.7#



Library Search Compound Report

Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321164.D
Acq On : 10 Sep 2019 22:55
Operator : JJY
Sample : 164275,321164,
Misc : 500ul+5ul S4142A
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 1 2(3H)-Furanone, 5-ethyldihy... Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.712	10.54 ug/mL	327522	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2(3H)-Furanone, 5-ethyldihydro-	114	C6H10O2	000695-06-7	33
2	Monomethylnitrosamine	60	CH4N2O	000000-00-0	9
3	Hexane, 3-bromo-	164	C6H13Br	003377-87-5	9
4	(S)-(-)-1-Amino-2-(methoxymethyl...	130	C6H14N2O	059983-39-0	9
5	Hexane, 3-bromo-	164	C6H13Br	003377-87-5	9

****

Peak Number 2 3-Penten-2-one, 4-methyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.894	5.46 ug/mL	169523	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
2	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
3	2-Pentene, 3,4-dimethyl-, (E)-	98	C7H14	004914-92-5	90
4	2-Pentene, 2,4-dimethyl-	98	C7H14	000625-65-0	86
5	Cyclohexane, methyl-	98	C7H14	000108-87-2	80

****

Peak Number 3 2-Pentanone, 5-(acetyloxy)- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.007	12.06 ug/mL	374736	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pentanone, 5-(acetyloxy)-	144	C7H12O3	005185-97-7	28
2	Acetic acid, hexyl ester	144	C8H16O2	000142-92-7	17
3	Acetic acid, 1-methylethyl ester	102	C5H10O2	000108-21-4	17
4	Propane, 1-(1-methylethoxy)-	102	C6H14O	000627-08-7	9
5	3-Pentenoic acid, 4-methyl-	114	C6H10O2	000504-85-8	9

****

Peak Number 4 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.147	433.03 ug/mL	13457200	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	56
2	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	56
3	tert-Butyl Hydroperoxide	90	C4H10O2	000075-91-2	36

Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321164.D
Acq On : 10 Sep 2019 22:55
Operator : JJY
Sample : 164275,321164,
Misc : 500ul+5ul S4142A
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

4	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	28
5	Acetic acid, cyano-, 1,1-dimethy...	141	C7H11NO2	001116-98-9	23

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321165.D Vial: 16
Acq On : 10 Sep 2019 23:14 Operator: JJY
Sample : 164275,321165, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 23:27:13 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

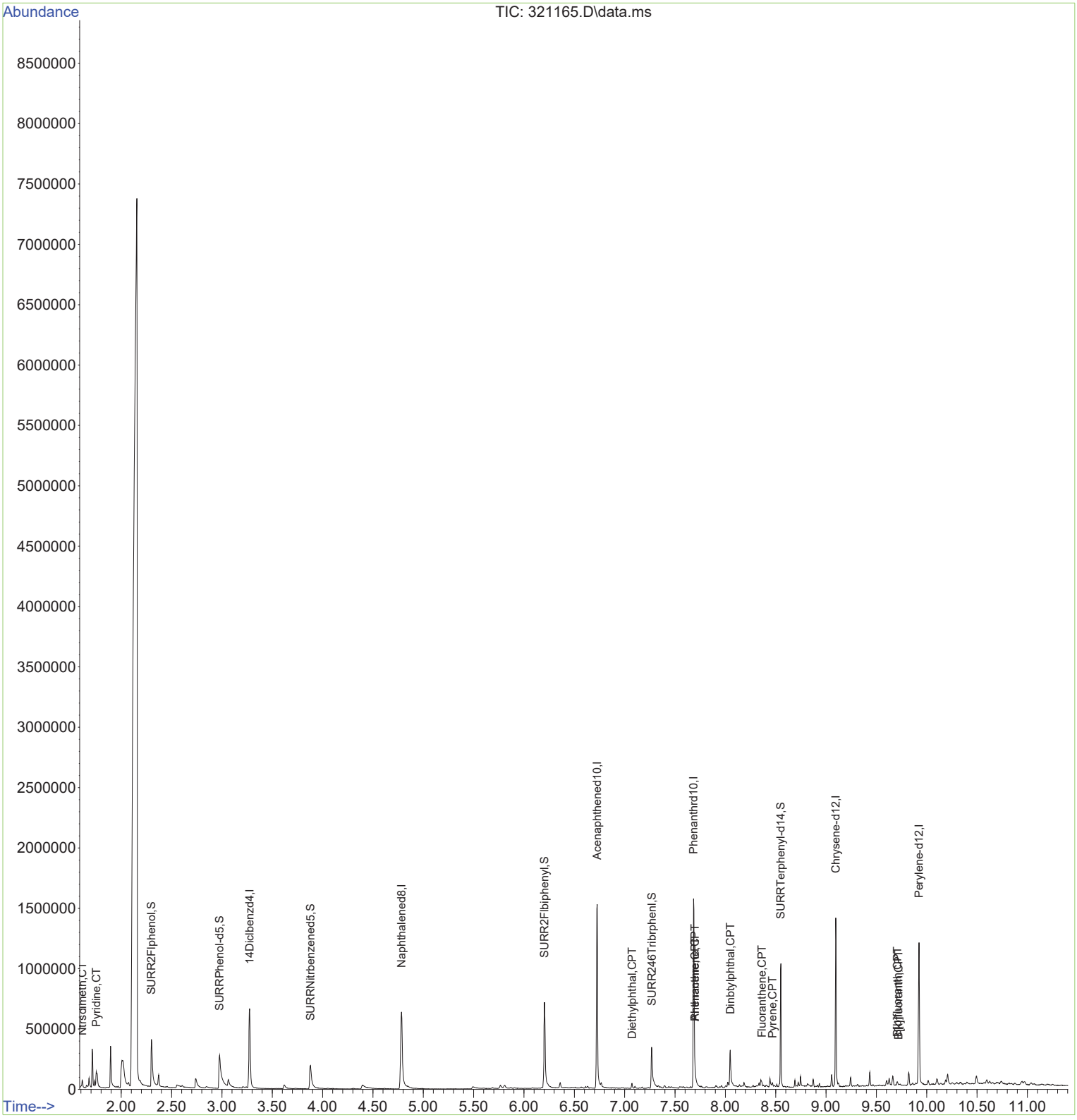
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	111273	20.00	ug/mL	0.00
21) Naphthalened8	4.784	136	426063	20.00	ug/mL	0.00
39) Acenaphthened10	6.727	164	258848	20.00	ug/mL	0.00
63) Phenanthrd10	7.685	188	448859	20.00	ug/mL	0.00
75) Chrysene-d12	9.097	240	262505	20.00	ug/mL	0.00
86) Perylene-d12	9.924	264	277190	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.300	112	133112	47.53	%REC	0.02
Spiked Amount 100.000			Recovery = 47.53%			
7) SURRPhenol-d5	2.976	99	183019	54.51	%REC	0.00
Spiked Amount 100.000			Recovery = 54.51%			
22) SURRNitrbenzened5	3.880	82	87178	60.22	%REC	0.00
Spiked Amount 100.000			Recovery = 60.22%			
44) SURR2Flbiphenyl	6.204	172	230922	66.97	%REC	0.00
Spiked Amount 100.000			Recovery = 66.97%			
62) SURR246Tribrphenl	7.270	330	41598	51.49	%REC	0.00
Spiked Amount 100.000			Recovery = 51.49%			
78) SURRTerphenyl-d14	8.551	244	171583	71.41	%REC	0.00
Spiked Amount 100.000			Recovery = 71.41%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.613	74	2994	1.1957	ug/mL#	1
3) Pyridine	1.752	79	1582	0.7664	ug/mL#	24
60) Diethylphthal	7.074	149	5783	0.3336	ug/mL	94
70) Phenanthrene	7.699	178	4313	0.1822	ug/mL	93
71) Anthracene	7.699	178	5395	0.2213	ug/mL	96
73) Dinbtylphthal	8.051	149	7684	0.0981	ug/mL	97
74) Fluoranthene	8.364	202	6763	0.3975	ug/mL	95
77) Pyrene	8.469	202	5752	0.2916	ug/mL	96
87) B[b]fluoranth	9.708	252	4244m	0.2813	ug/mL	
88) B[k]fluoranth	9.719	252	1583m	0.1046	ug/mL	

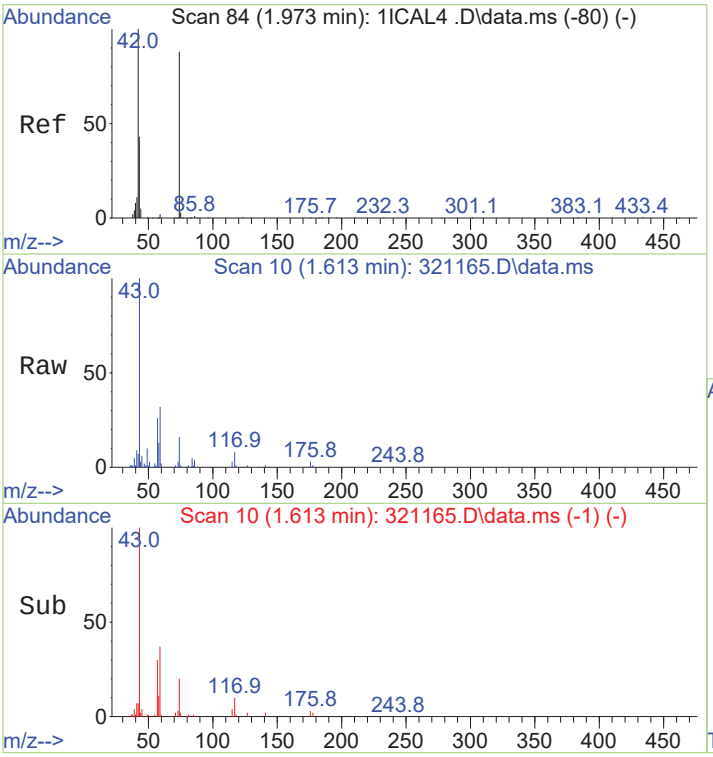
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321165.D Vial: 16
Acq On : 10 Sep 2019 23:14 Operator: JJY
Sample : 164275,321165, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 23:27:13 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

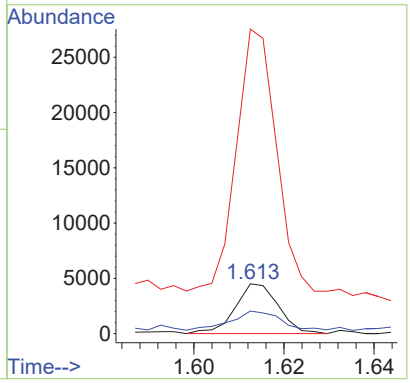


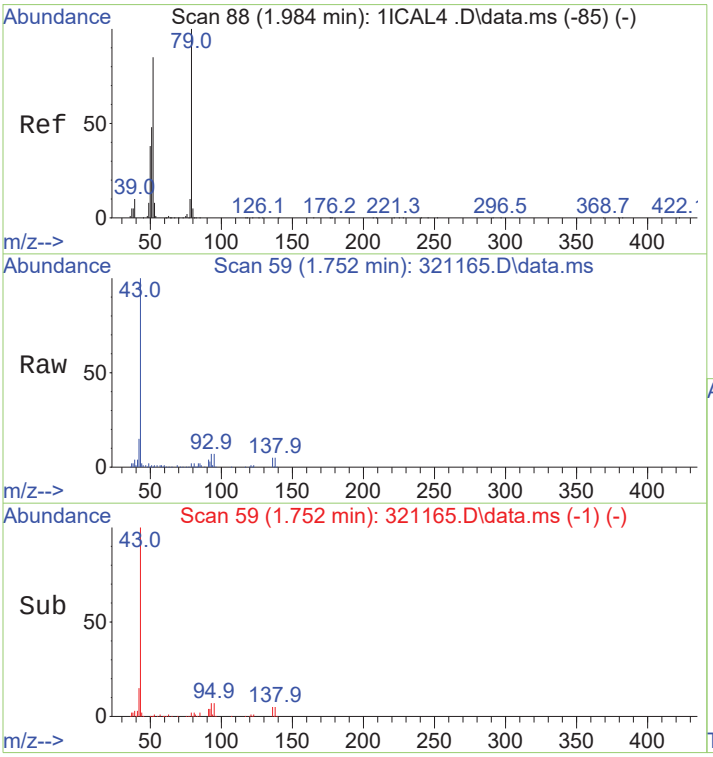


#2
Ntrsdimeth
Concen: 1.20 ug/mL
RT: 1.613 min Scan# 10
Delta R.T. -0.025 min
Lab File: 321165.D
Acq: 10 Sep 2019 23:14

Tgt Ion: 74 Resp: 2994

Ion	Ratio	Lower	Upper
74	100		
42	38.2	54.2	114.2#
43	527.3	5.5	65.5#

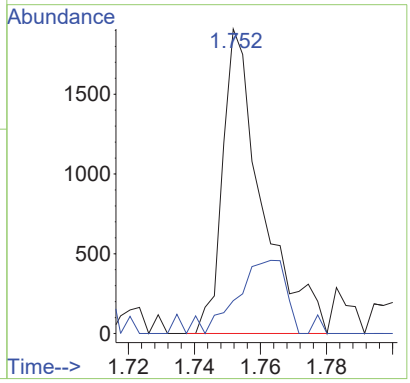


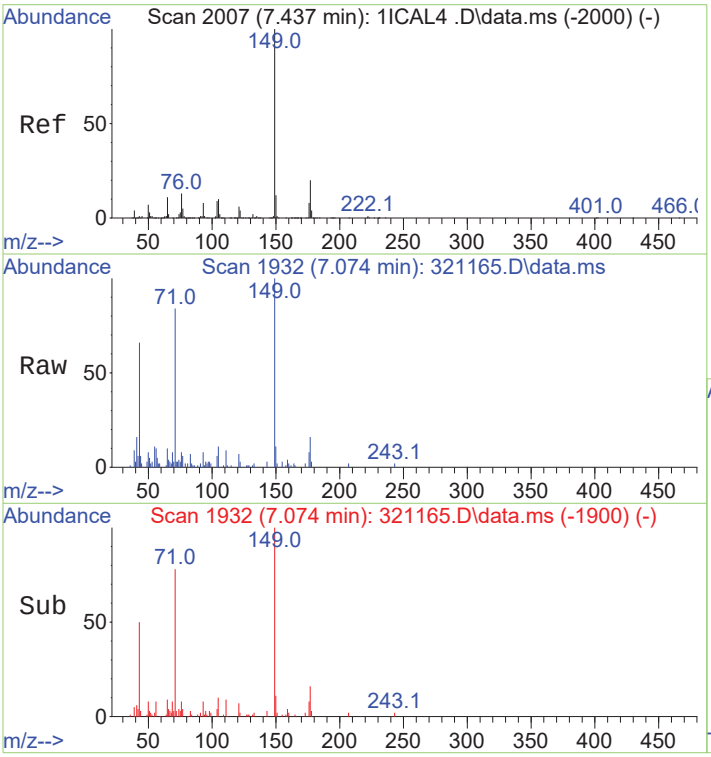


#3
Pyridine
Concen: 0.77 ug/mL
RT: 1.752 min Scan# 59
Delta R.T. 0.105 min
Lab File: 321165.D
Acq: 10 Sep 2019 23:14

Tgt Ion: 79 Resp: 1582

Ion	Ratio	Lower	Upper
79	100		
52	10.8	46.7	106.7#

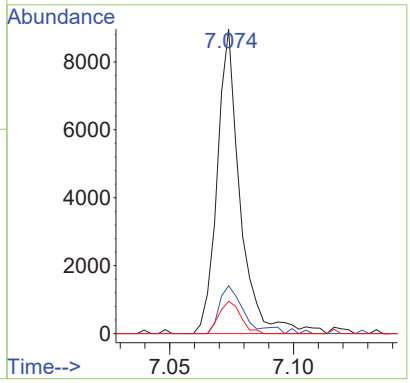


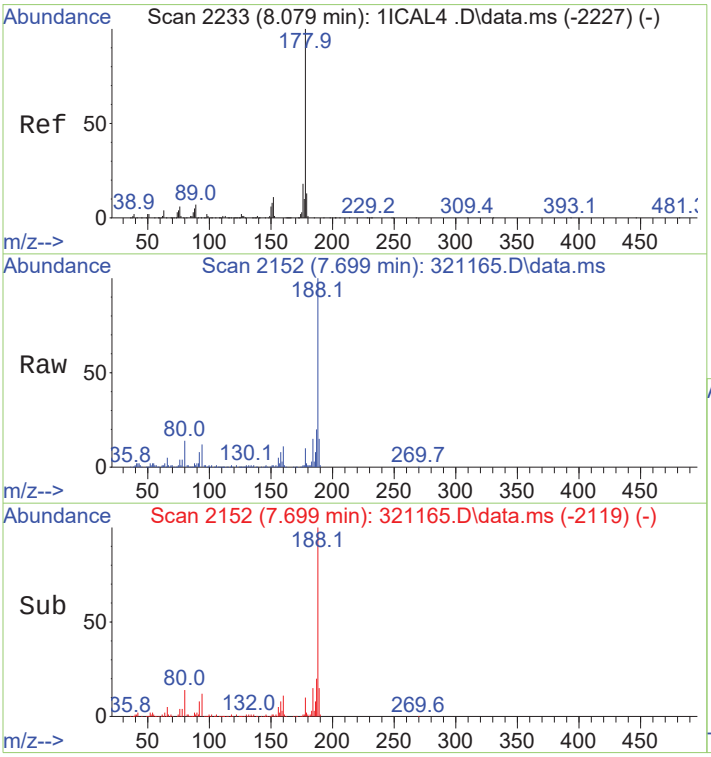


#60
Diethylphthal
Concen: 0.33 ug/mL
RT: 7.074 min Scan# 1932
Delta R.T. -0.008 min
Lab File: 321165.D
Acq: 10 Sep 2019 23:14

Tgt Ion:149 Resp: 5783

Ion	Ratio	Lower	Upper
149	100		
177	15.7	0.0	49.3
150	10.6	0.0	41.9

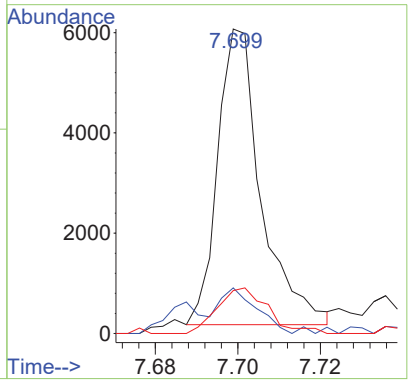


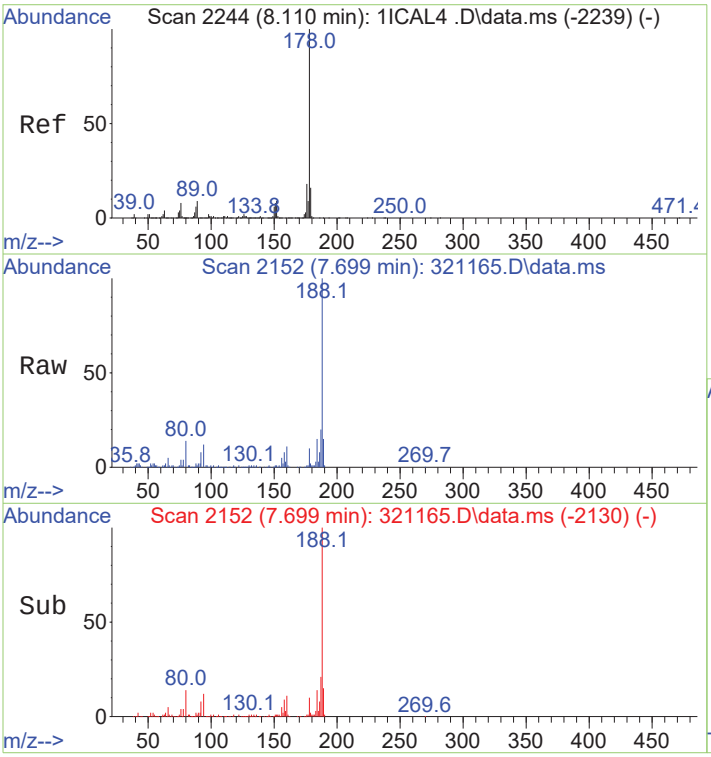


#70
Phenanthrene
Concen: 0.18 ug/mL
RT: 7.699 min Scan# 2152
Delta R.T. -0.006 min
Lab File: 321165.D
Acq: 10 Sep 2019 23:14

Tgt Ion:178 Resp: 4313

Ion	Ratio	Lower	Upper
178	100		
179	13.3	0.0	45.3
176	14.5	0.0	48.4

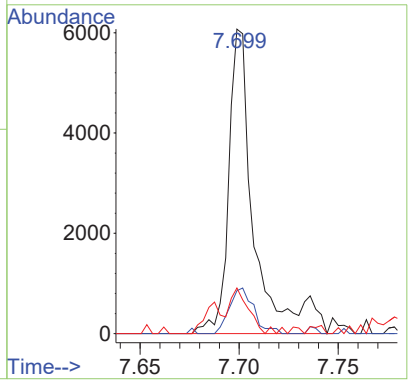


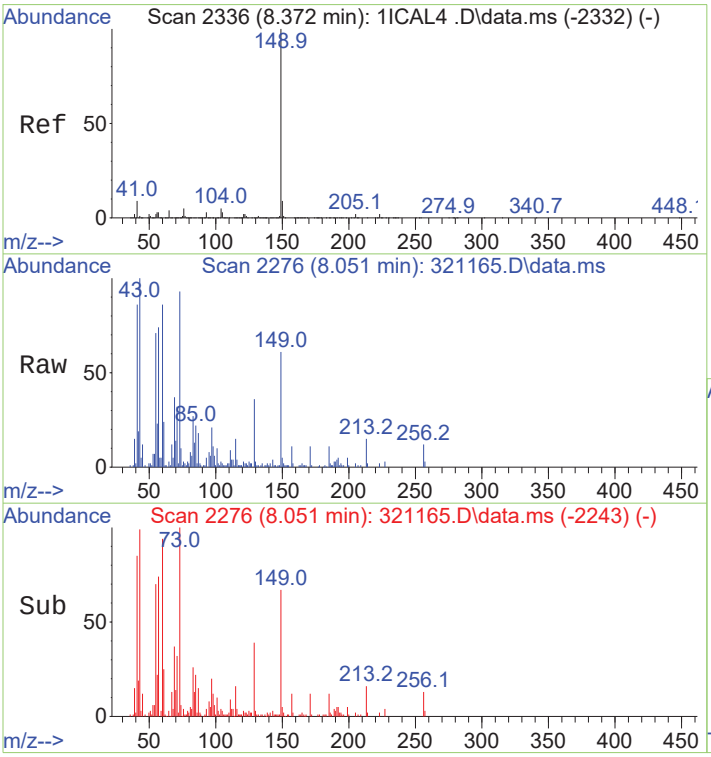


#71
Anthracene
Concen: 0.22 ug/mL
RT: 7.699 min Scan# 2152
Delta R.T. -0.037 min
Lab File: 321165.D
Acq: 10 Sep 2019 23:14

Tgt Ion:178 Resp: 5395

Ion	Ratio	Lower	Upper
178	100		
176	14.1	0.0	47.6
179	15.0	0.0	45.1

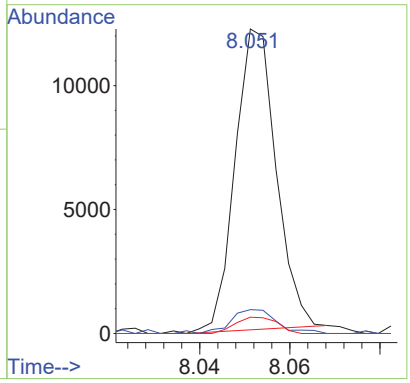


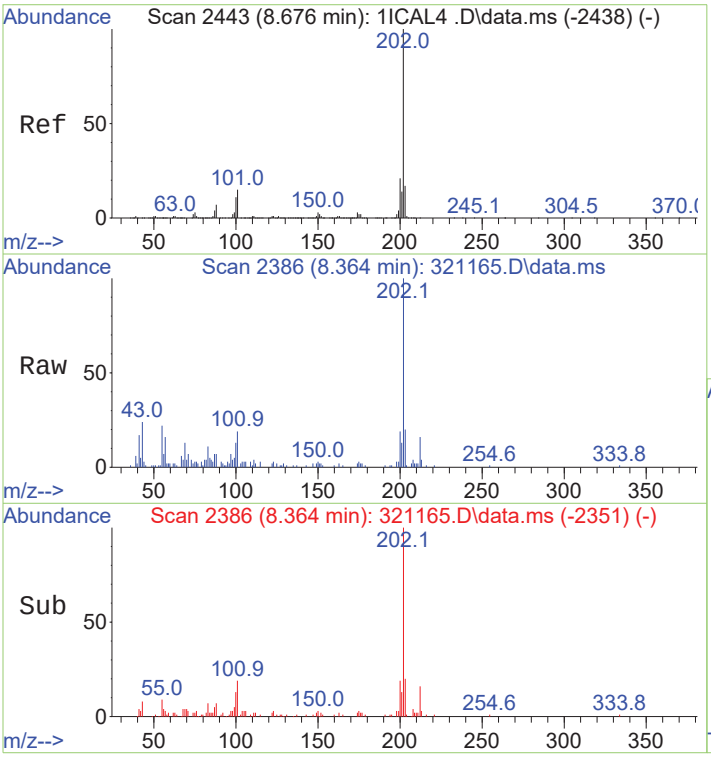


#73
Dinbtylphthal
Concen: 0.10 ug/mL
RT: 8.051 min Scan# 2276
Delta R.T. -0.006 min
Lab File: 321165.D
Acq: 10 Sep 2019 23:14

Tgt Ion:149 Resp: 7684

Ion	Ratio	Lower	Upper
149	100		
150	7.8	0.0	39.0
104	5.4	0.0	34.6

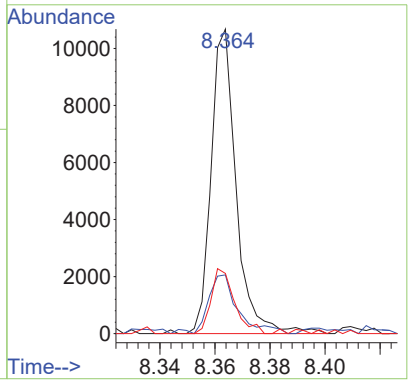


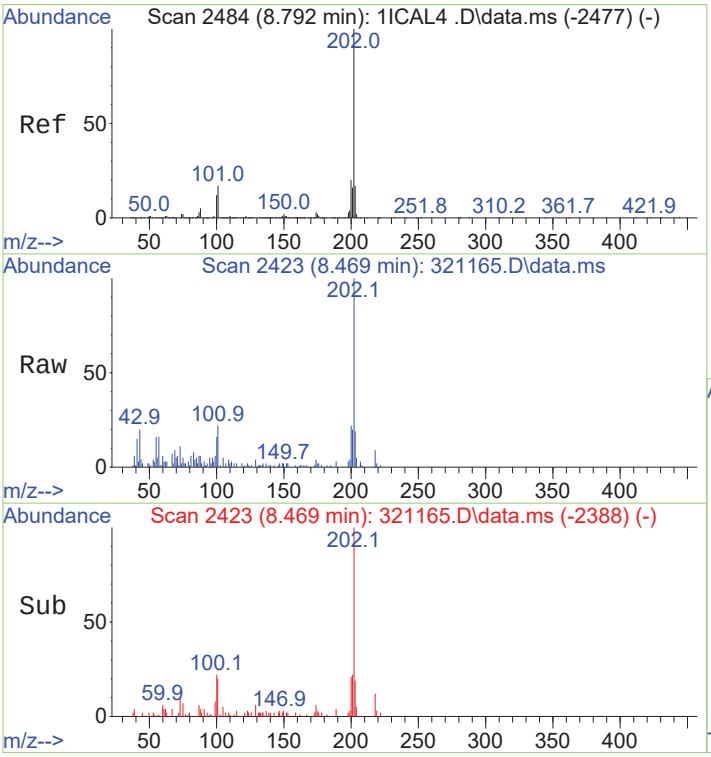


#74
Fluoranthene
Concen: 0.40 ug/mL
RT: 8.364 min Scan# 2386
Delta R.T. 0.000 min
Lab File: 321165.D
Acq: 10 Sep 2019 23:14

Tgt Ion:202 Resp: 6763

Ion	Ratio	Lower	Upper
202	100		
101	18.2	0.0	50.7
203	19.8	0.0	47.3

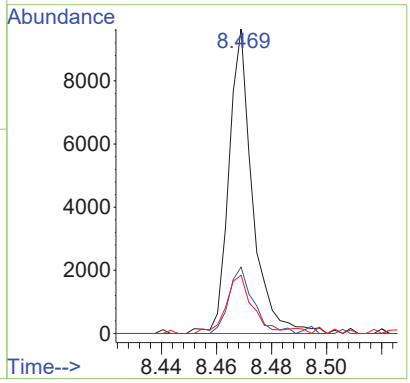


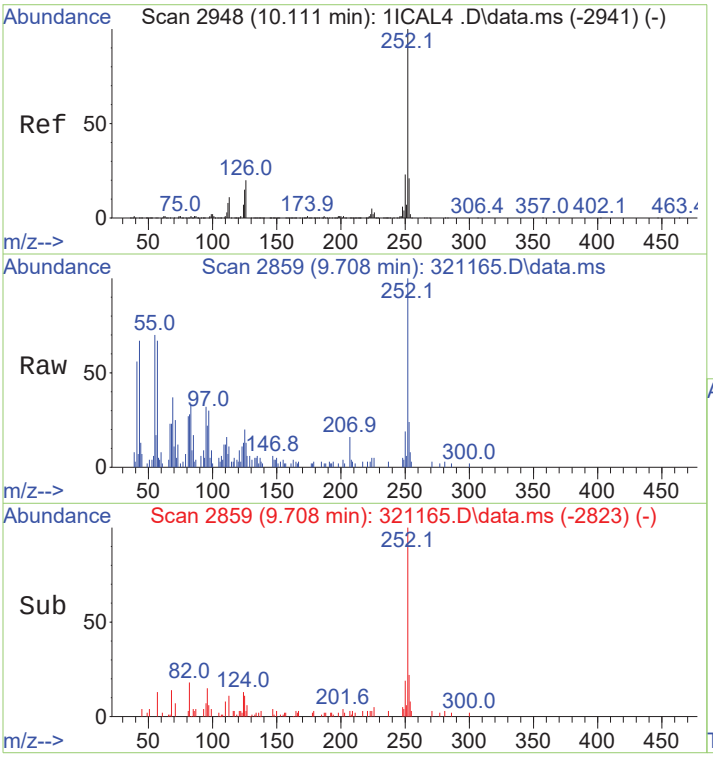


#77
Pyrene
Concen: 0.29 ug/mL
RT: 8.469 min Scan# 2423
Delta R.T. 0.000 min
Lab File: 321165.D
Acq: 10 Sep 2019 23:14

Tgt Ion:202 Resp: 5752

Ion	Ratio	Lower	Upper
202	100		
200	21.8	0.0	50.1
203	19.1	0.0	46.9

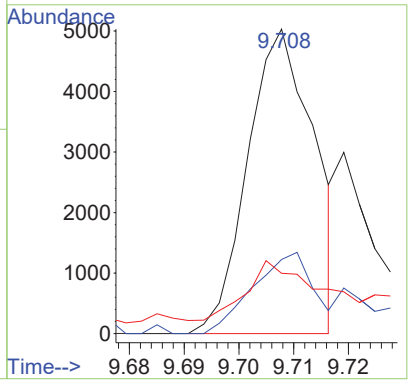


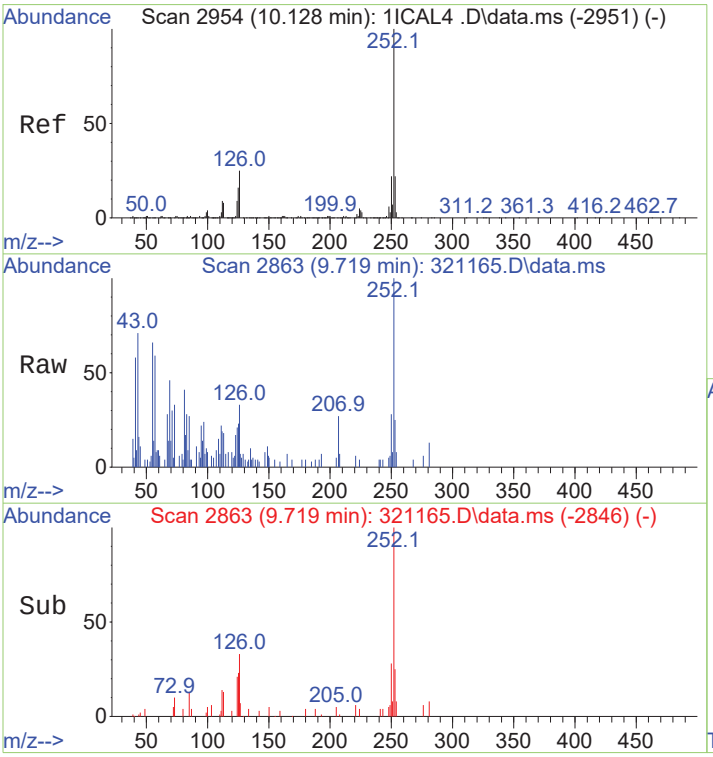


#87
B[b]fluoranth
Concen: 0.28 ug/mL m
RT: 9.708 min Scan# 2859
Delta R.T. 0.003 min
Lab File: 321165.D
Acq: 10 Sep 2019 23:14

Tgt Ion:252 Resp: 4244

Ion	Ratio	Lower	Upper
252	100		
253	24.3	0.0	51.9
125	19.8	0.0	50.0

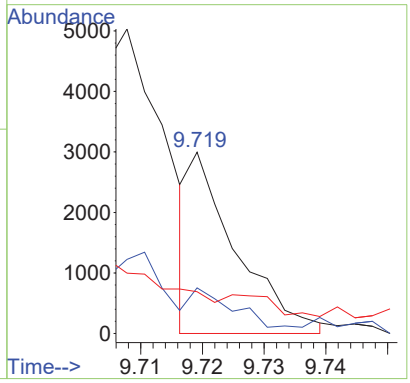


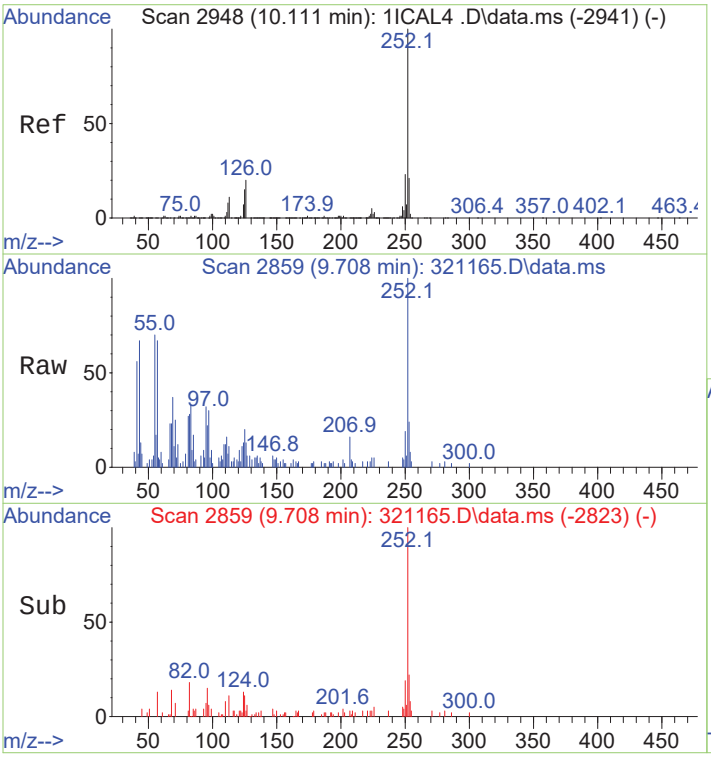


#88
B[k]fluoranth
Concen: 0.10 ug/mL m
RT: 9.719 min Scan# 2863
Delta R.T. -0.003 min
Lab File: 321165.D
Acq: 10 Sep 2019 23:14

Tgt Ion:252 Resp: 1583

Ion	Ratio	Lower	Upper
252	100		
253	25.2	0.0	52.0
125	23.0	0.0	50.2

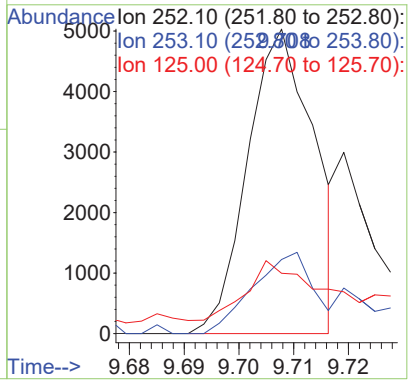




#87
B[b]fluoranth
Concen: 0.28 ug/mL m
RT: 9.708 min Scan# 2859
Delta R.T. 0.003 min
Lab File: 321165.D
Acq: 10 Sep 2019 23:14

Tgt Ion:252 Resp: 4244

Ion	Ratio	Lower	Upper
252	100		
253	24.3	0.0	51.9
125	19.8	0.0	50.0

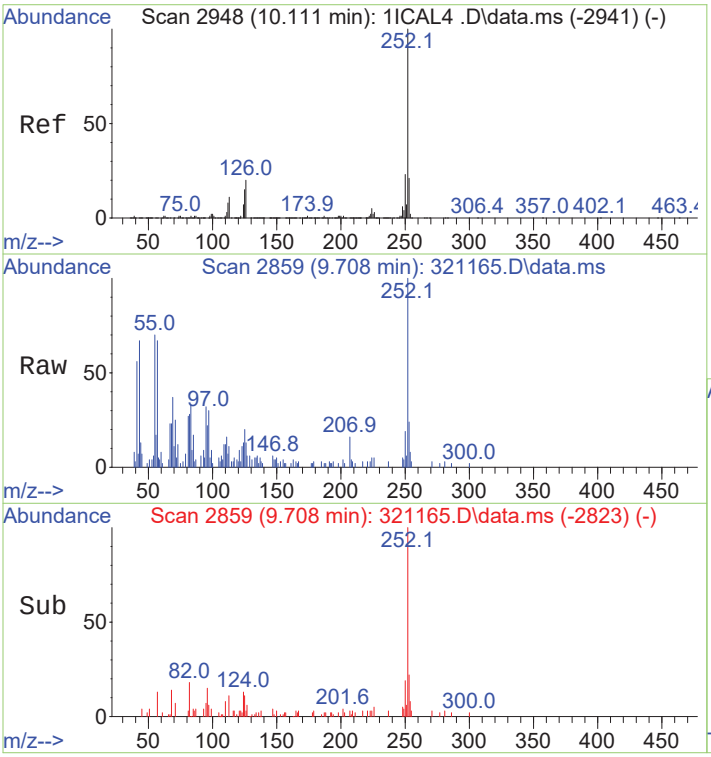


After Manual Integration

Reason#3

JJY
9/16/19

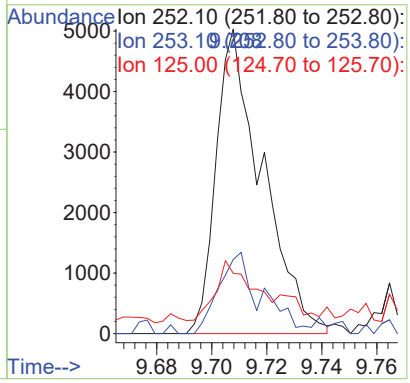
AJZ
09/19/2019



#87
B[b]fluoranth
Concen: 0.39 ug/mL
RT: 9.708 min Scan# 2859
Delta R.T. 0.003 min
Lab File: 321165.D
Acq: 10 Sep 2019 23:14

Tgt Ion:252 Resp: 5849

Ion	Ratio	Lower	Upper
252	100		
253	24.3	0.0	51.9
125	15.5	0.0	50.0

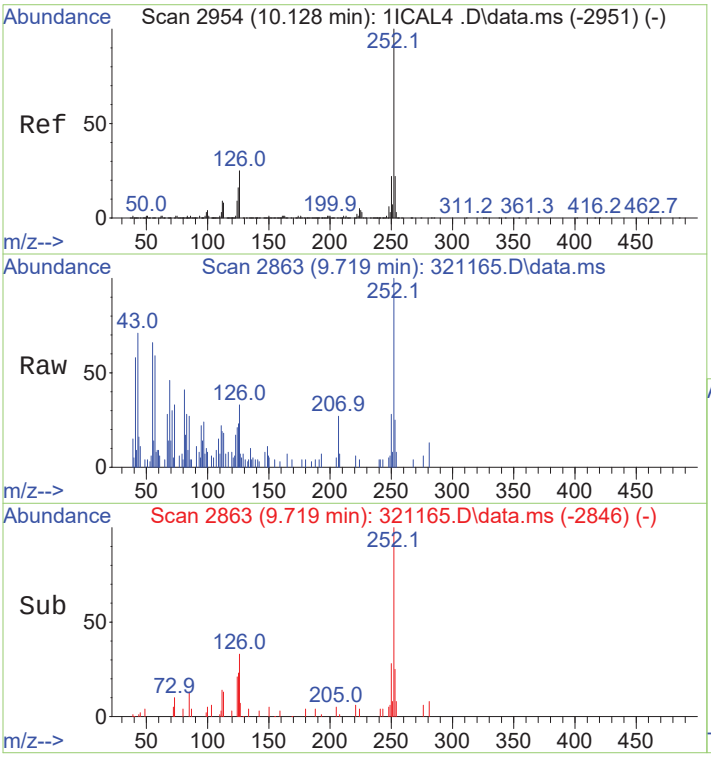


Before Manual Integration

Reason#3

JJY
9/16/19

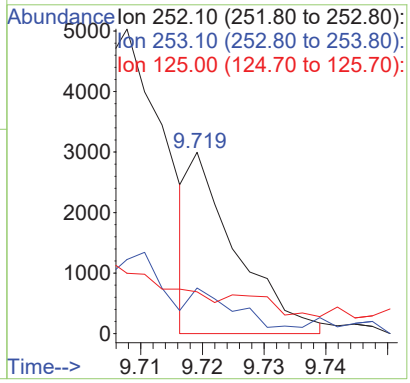
AJZ
09/19/2019



#88
B[k]fluoranth
Concen: 0.10 ug/mL m
RT: 9.719 min Scan# 2863
Delta R.T. -0.003 min
Lab File: 321165.D
Acq: 10 Sep 2019 23:14

Tgt Ion:252 Resp: 1583

Ion	Ratio	Lower	Upper
252	100		
253	25.2	0.0	52.0
125	23.0	0.0	50.2

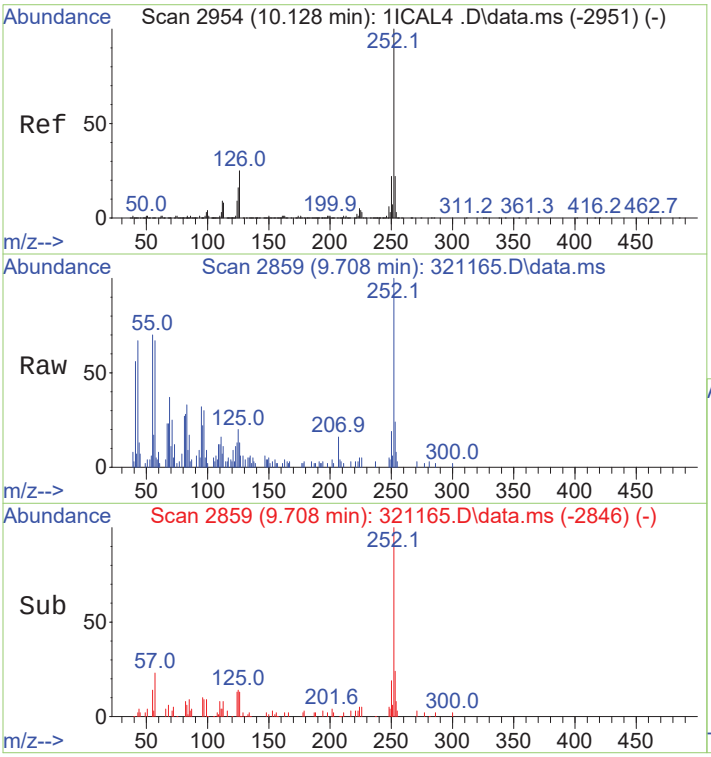


After Manual Integration

Reason#3

JJY
9/16/19

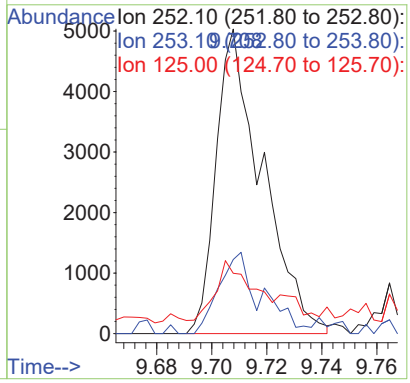
AJZ
09/19/2019



#88
B[k]fluoranth
Concen: 0.39 ug/mL
RT: 9.708 min Scan# 2859
Delta R.T. -0.014 min
Lab File: 321165.D
Acq: 10 Sep 2019 23:14

Tgt Ion:252 Resp: 5849

Ion	Ratio	Lower	Upper
252	100		
253	24.3	0.0	52.0
125	15.5	0.0	50.2



Before Manual Integration

Reason#3

JJY
9/16/19

AJZ
09/19/2019

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321165.D Vial: 16
Acq On : 10 Sep 2019 23:14 Operator: JJY
Sample : 164275,321165, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:46 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

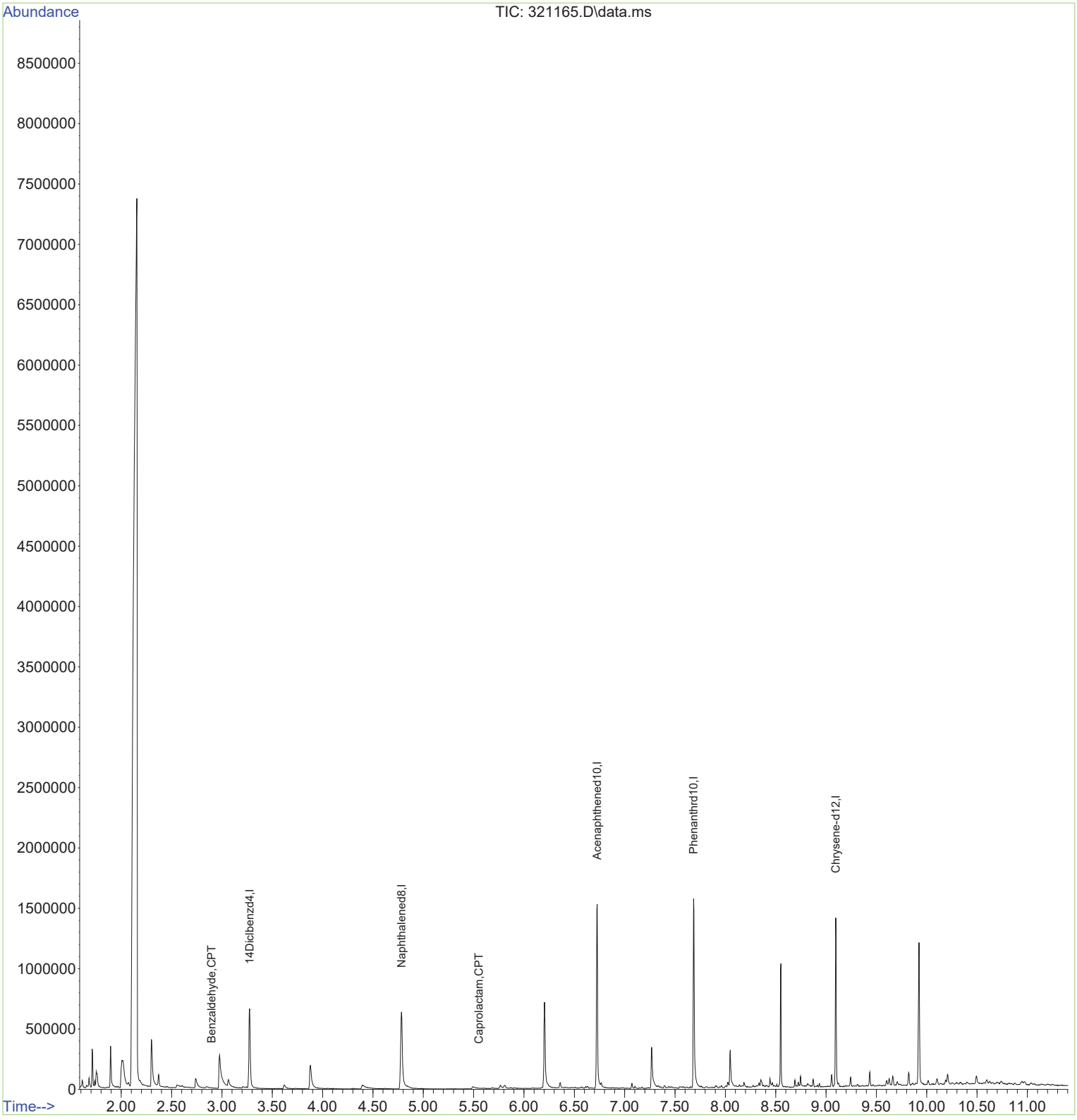
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	111507	20.00	ug/mL	0.00
3) Naphthalened8	4.784	136	426063	20.00	ug/mL	0.00
5) Acenaphthened10	6.727	164	269932	20.00	ug/mL	0.00
7) Phenanthrd10	7.685	188	453247	20.00	ug/mL	0.00
9) Chrysene-d12	9.097	240	262100	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	2.897	77	460	0.6685	ug/mL	90
4) Caprolactam	5.551	55	440	1.0404	ug/mL#	27

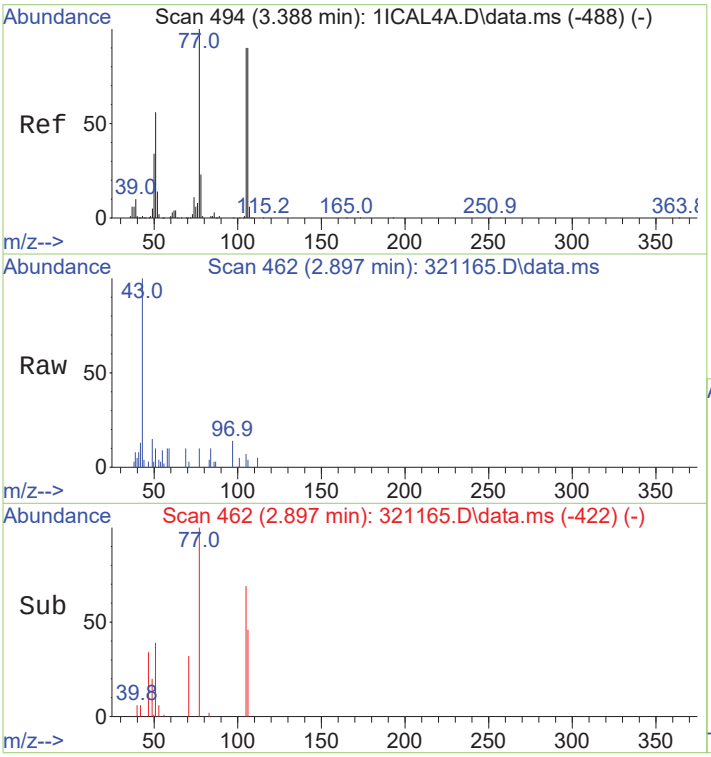
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321165.D Vial: 16
Acq On : 10 Sep 2019 23:14 Operator: JJY
Sample : 164275,321165, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:46 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

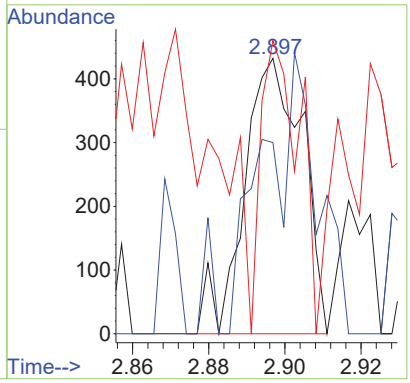


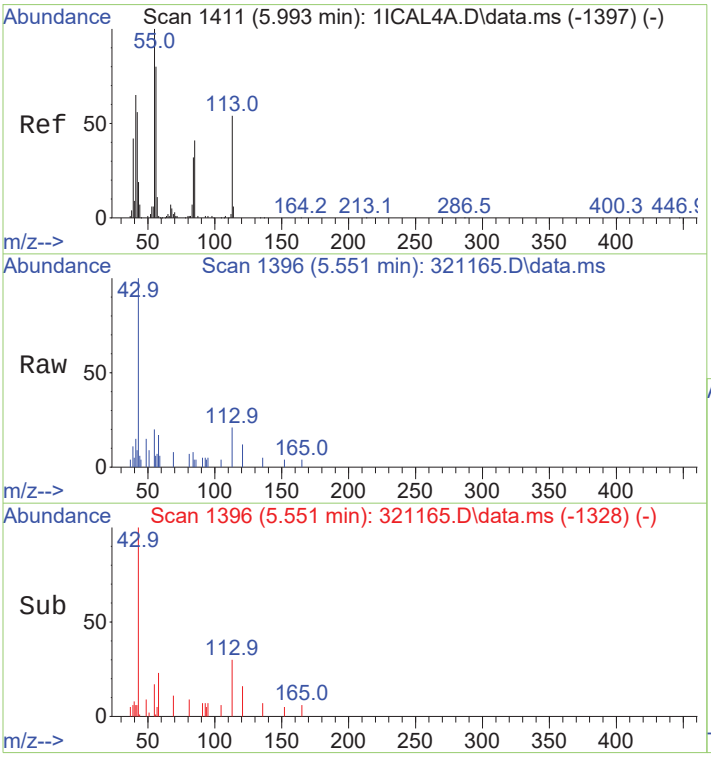


#2
Benzaldehyde
Concen: 0.67 ug/mL
RT: 2.897 min Scan# 462
Delta R.T. 0.014 min
Lab File: 321165.D
Acq: 10 Sep 2019 23:14

Tgt Ion: 77 Resp: 460

Ion	Ratio	Lower	Upper
77	100		
105	94.6	67.4	127.4
51	70.2	23.2	83.2

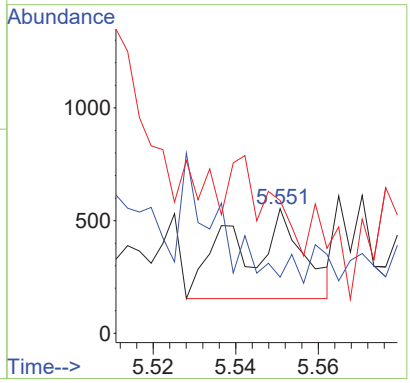




#4
Caprolactam
Concen: 1.04 ug/mL
RT: 5.551 min Scan# 1396
Delta R.T. 0.094 min
Lab File: 321165.D
Acq: 10 Sep 2019 23:14

Tgt Ion: 55 Resp: 440

Ion	Ratio	Lower	Upper
55	100		
42	0.0	24.6	84.6#
113	5.2	26.7	86.7#



Library Search Compound Report

Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321165.D
Acq On : 10 Sep 2019 23:14
Operator : JJY
Sample : 164275,321165,
Misc : 500ul+5ul S4142A
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 1 Thiazole Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.712	5.73 ug/mL	181271	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Thiazole	85	C3H3NS	000288-47-1	17
2	Thiazole	85	C3H3NS	000288-47-1	17
3	Monomethylnitrosamine	60	CH4N2O	000000-00-0	9
4	2-Pyrrolidinone	85	C4H7NO	000616-45-5	9
5	Pentane, 2-bromo-4-methyl-	164	C6H13Br	030310-22-6	9

****

Peak Number 2 3-Penten-2-one, 4-methyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.894	7.04 ug/mL	222740	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
2	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
3	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	90
4	2-Pentene, 3,4-dimethyl-, (E)-	98	C7H14	004914-92-5	86
5	2-Pentene, 3,4-dimethyl-, (Z)-	98	C7H14	004914-91-4	86

****

Peak Number 3 Hydroperoxide, 1-methylethyl Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.007	6.17 ug/mL	195347	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hydroperoxide, 1-methylethyl	76	C3H8O2	003031-75-2	40
2	Acetic acid, 1-methylethyl ester	102	C5H10O2	000108-21-4	17
3	Butane	58	C4H10	000106-97-8	9
4	3-Buten-2-one, 3-methyl-	84	C5H8O	000814-78-8	9
5	Butane	58	C4H10	000106-97-8	9

****

Peak Number 4 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.155	538.67 ug/mL	17048400	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	56
2	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	56
3	tert-Butyl Hydroperoxide	90	C4H10O2	000075-91-2	36

Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321165.D
Acq On : 10 Sep 2019 23:14
Operator : JJY
Sample : 164275,321165,
Misc : 500ul+5ul S4142A
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

4	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	28
5	Acetic acid, cyano-, 1,1-dimethy...	141	C7H11NO2	001116-98-9	17

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321166.D Vial: 17
Acq On : 10 Sep 2019 23:33 Operator: JJY
Sample : 164275,321166, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 23:46:33 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

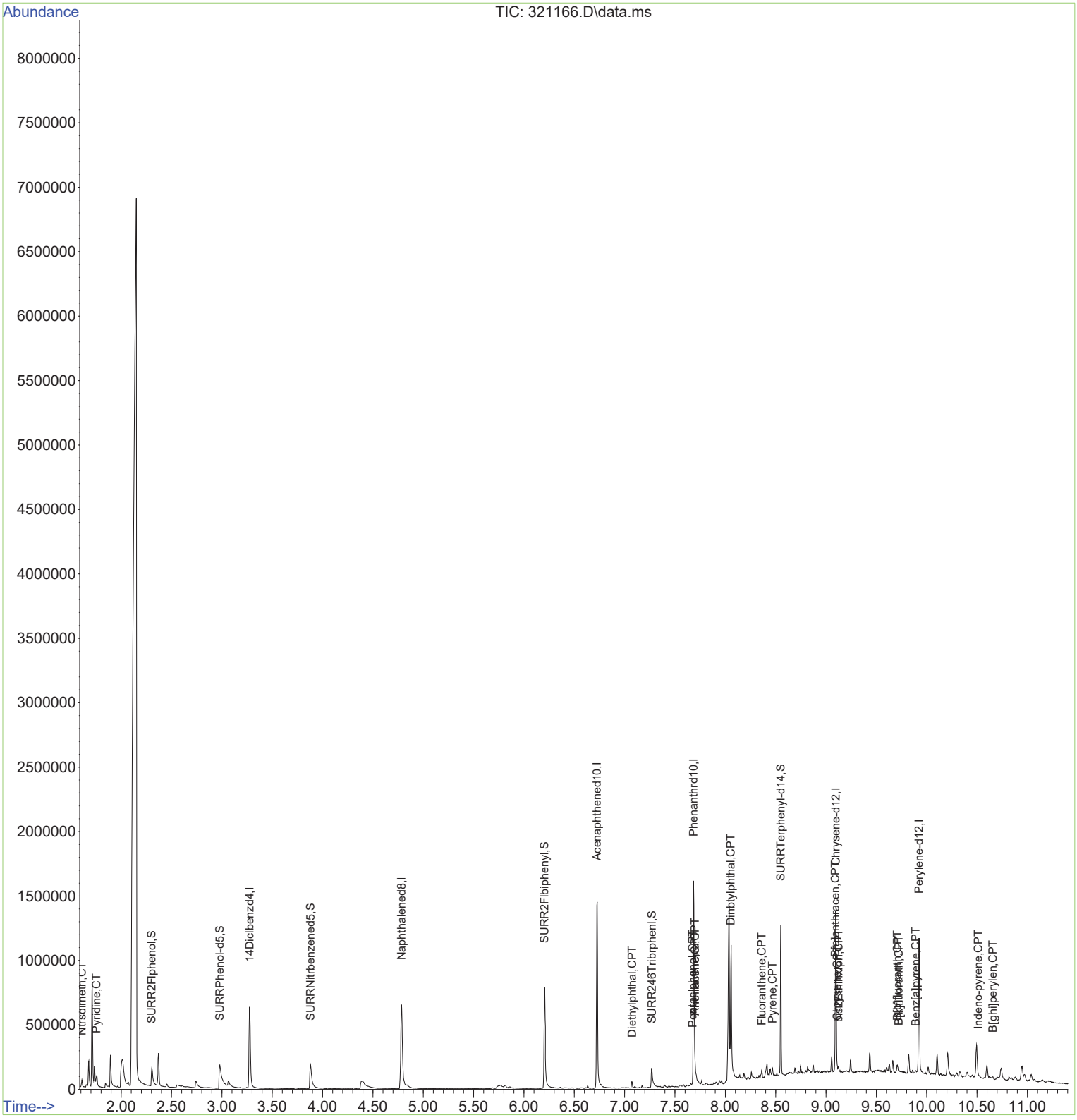
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	108246	20.00	ug/mL	0.00
21) Naphthalened8	4.784	136	413847	20.00	ug/mL	0.00
39) Acenaphthened10	6.724	164	253029	20.00	ug/mL	0.00
63) Phenanthrd10	7.685	188	436084	20.00	ug/mL	0.00
75) Chrysene-d12	9.097	240	254895	20.00	ug/mL	0.00
86) Perylene-d12	9.924	264	238163	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.303	112	59062	22.69	%REC	0.02
Spiked Amount 100.000			Recovery = 22.69%			
7) SURRPhenol-d5	2.979	99	142150	43.90	%REC	0.01
Spiked Amount 100.000			Recovery = 43.90%			
22) SURRNitrbenzened5	3.880	82	88778	63.00	%REC	0.00
Spiked Amount 100.000			Recovery = 63.00%			
44) SURR2Flbiphenyl	6.204	172	244606	72.57	%REC	0.00
Spiked Amount 100.000			Recovery = 72.57%			
62) SURR246Tribrphenl	7.270	330	20682	26.50	%REC	0.00
Spiked Amount 100.000			Recovery = 26.50%			
78) SURRTerphenyl-d14	8.551	244	181525	77.81	%REC	0.00
Spiked Amount 100.000			Recovery = 77.81%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.610	74	2743	1.1583	ug/mL#	1
3) Pyridine	1.752	79	533	0.6240	ug/mL	74
60) Diethylphthal	7.074	149	6857	0.4047	ug/mL	94
69) Pentaclphenol	7.676	266	3157	3.2007	ug/mL#	7
70) Phenanthrene	7.699	178	7810	0.3396	ug/mL	96
71) Anthracene	7.699	178	9645	0.4072	ug/mL	94
73) Dinbtylphthal	8.054	149	5836	0.0427	ug/mL	99
74) Fluoranthene	8.361	202	15118	0.9145	ug/mL	96
77) Pyrene	8.469	202	12508	0.6530	ug/mL	94
82) B[a]anthracen	9.091	228	6122	0.3896	ug/mL	95
83) Chrysene	9.111	228	7393	0.4546	ug/mL	99
84) bis2Ethlhxlph	9.125	149	4867	0.3613	ug/mL	96
87) B[b]fluoranth	9.708	252	9796m	0.7556	ug/mL	
88) B[k]fluoranth	9.722	252	2765m	0.2127	ug/mL	
89) Benz[a]pyrene	9.890	252	4514	0.3375	ug/mL	84
90) Indeno-pyrene	10.512	276	2575	0.1861	ug/mL	88
92) B[ghi]perylen	10.657	276	2353	0.1941	ug/mL#	49

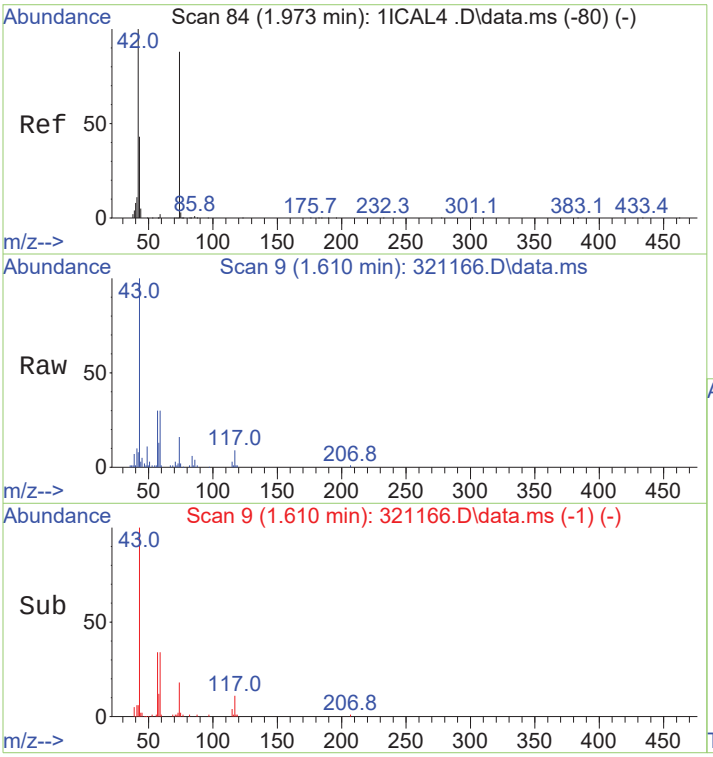
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321166.D Vial: 17
Acq On : 10 Sep 2019 23:33 Operator: JJY
Sample : 164275,321166, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 23:46:33 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

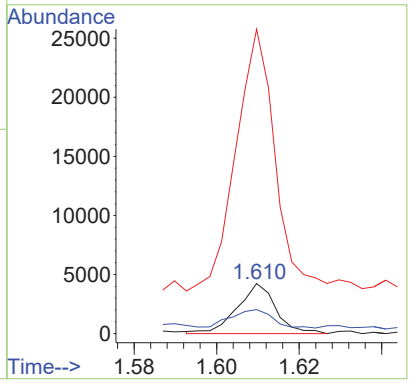


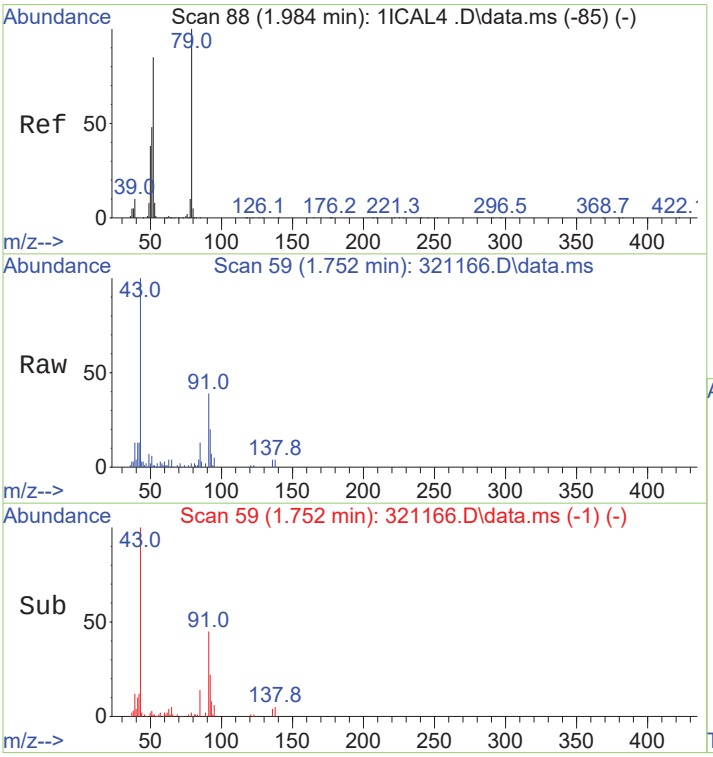


#2
Ntrsdimeth
Concen: 1.16 ug/mL
RT: 1.610 min Scan# 9
Delta R.T. -0.028 min
Lab File: 321166.D
Acq: 10 Sep 2019 23:33

Tgt Ion: 74 Resp: 2743

Ion	Ratio	Lower	Upper
74	100		
42	32.5	54.2	114.2#
43	525.6	5.5	65.5#

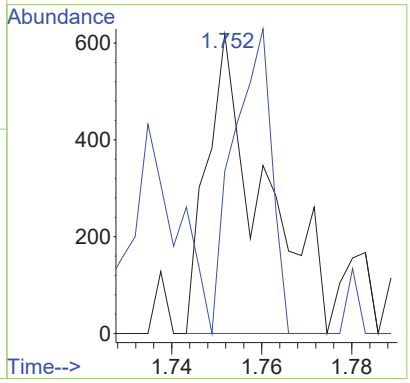


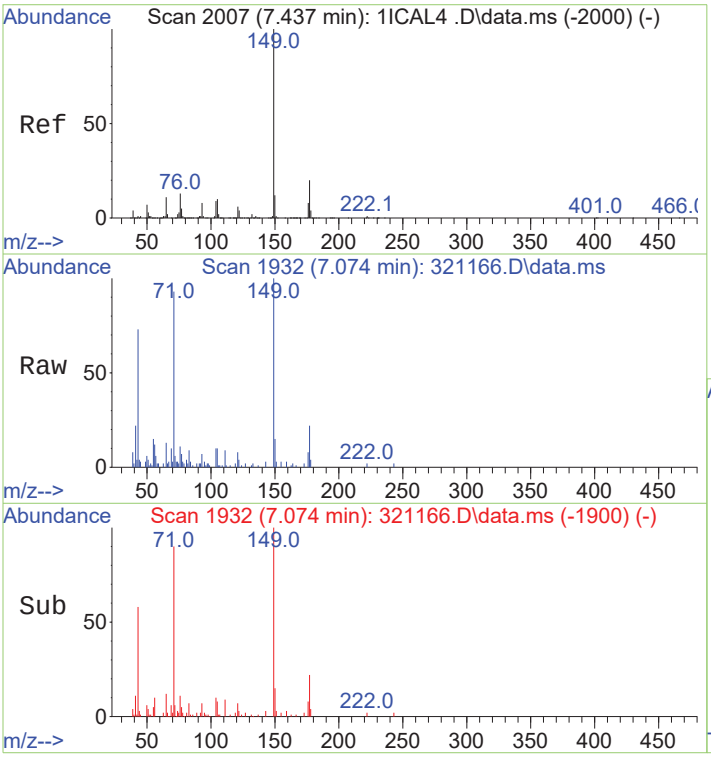


#3
Pyridine
Concen: 0.62 ug/mL
RT: 1.752 min Scan# 59
Delta R.T. 0.105 min
Lab File: 321166.D
Acq: 10 Sep 2019 23:33

Tgt Ion: 79 Resp: 533

Ion	Ratio	Lower	Upper
79	100		
52	54.2	46.7	106.7

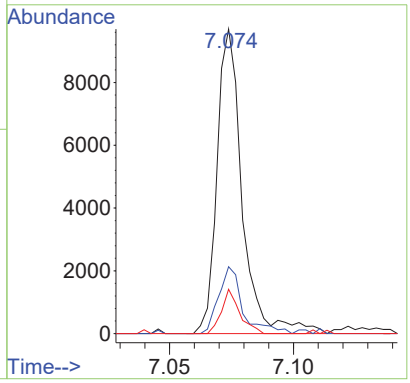


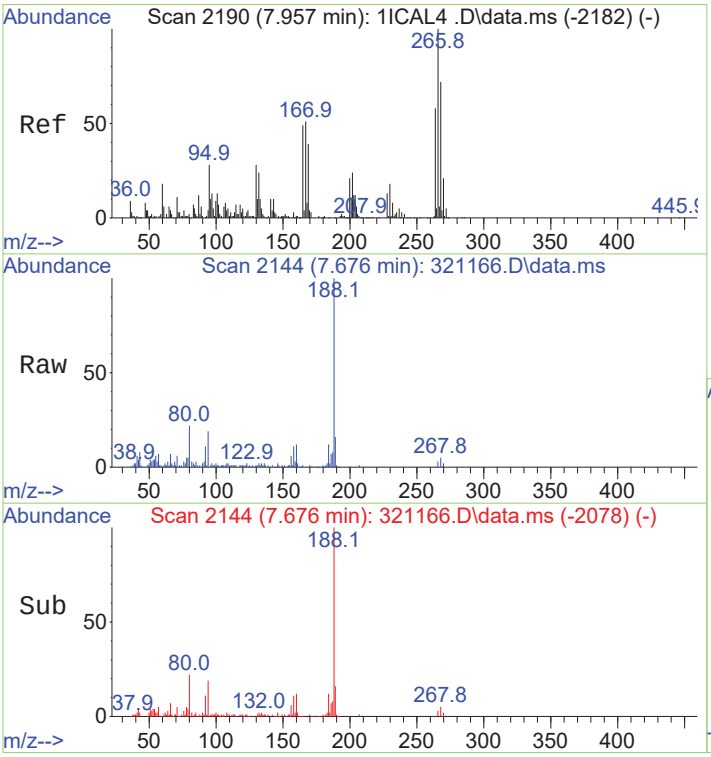


#60
Diethylphthal
Concen: 0.40 ug/mL
RT: 7.074 min Scan# 1932
Delta R.T. -0.008 min
Lab File: 321166.D
Acq: 10 Sep 2019 23:33

Tgt Ion:149 Resp: 6857

Ion	Ratio	Lower	Upper
149	100		
177	22.0	0.0	49.3
150	14.5	0.0	41.9

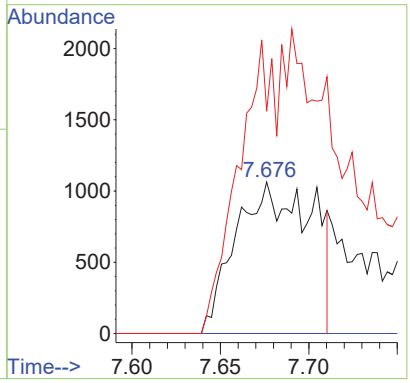


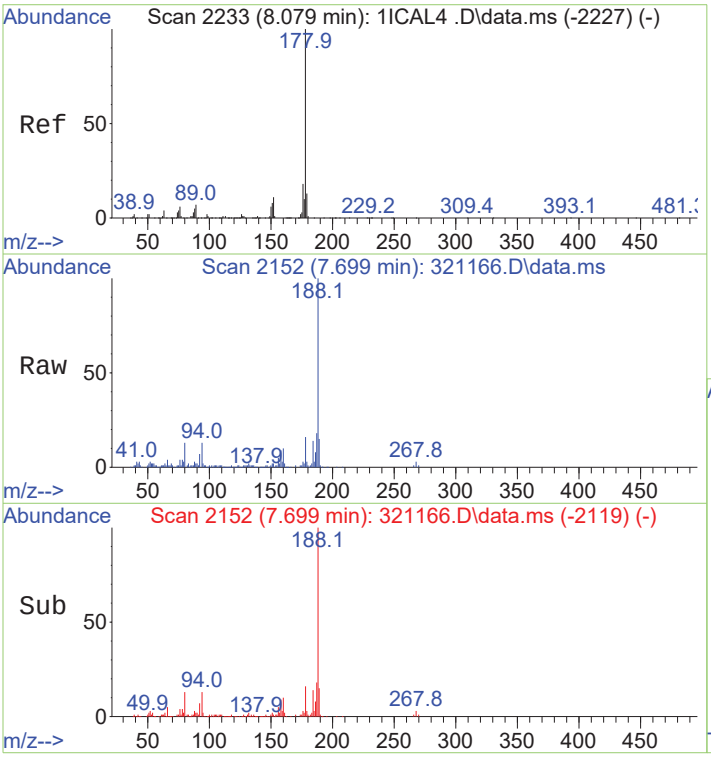


#69
Pentaclphenol
Concen: 3.20 ug/mL
RT: 7.676 min Scan# 2144
Delta R.T. 0.088 min
Lab File: 321166.D
Acq: 10 Sep 2019 23:33

Tgt Ion:266 Resp: 3157

Ion	Ratio	Lower	Upper
266	100		
264	0.0	35.2	95.2#
268	146.6	34.5	94.5#

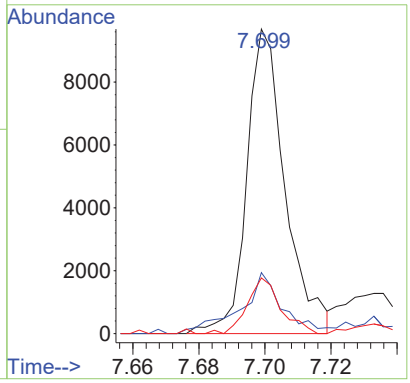


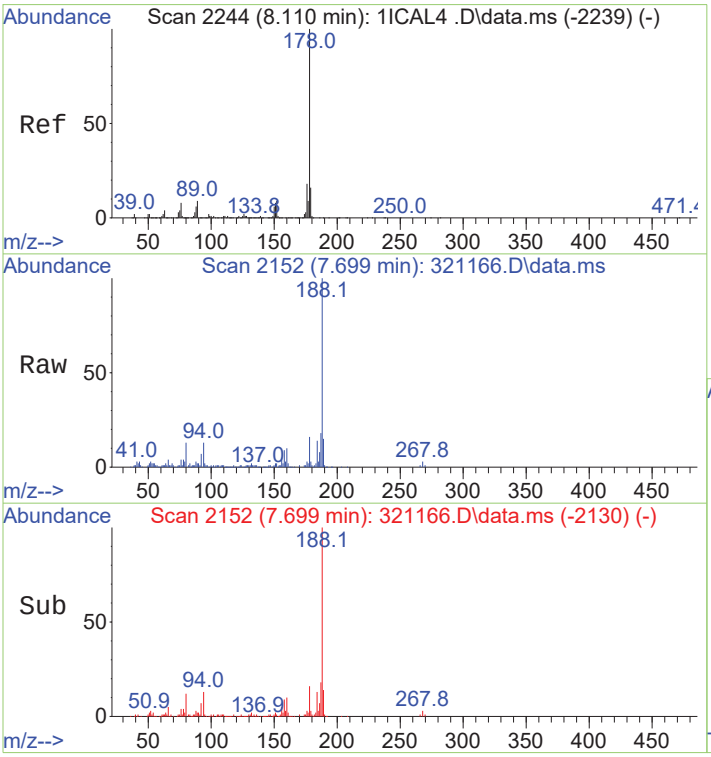


#70
Phenanthrene
Concen: 0.34 ug/mL
RT: 7.699 min Scan# 2152
Delta R.T. -0.006 min
Lab File: 321166.D
Acq: 10 Sep 2019 23:33

Tgt Ion:178 Resp: 7810

Ion	Ratio	Lower	Upper
178	100		
179	18.6	0.0	45.3
176	18.3	0.0	48.4

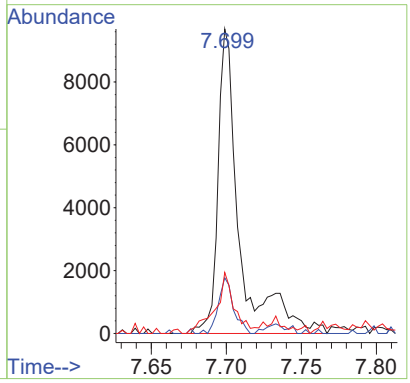


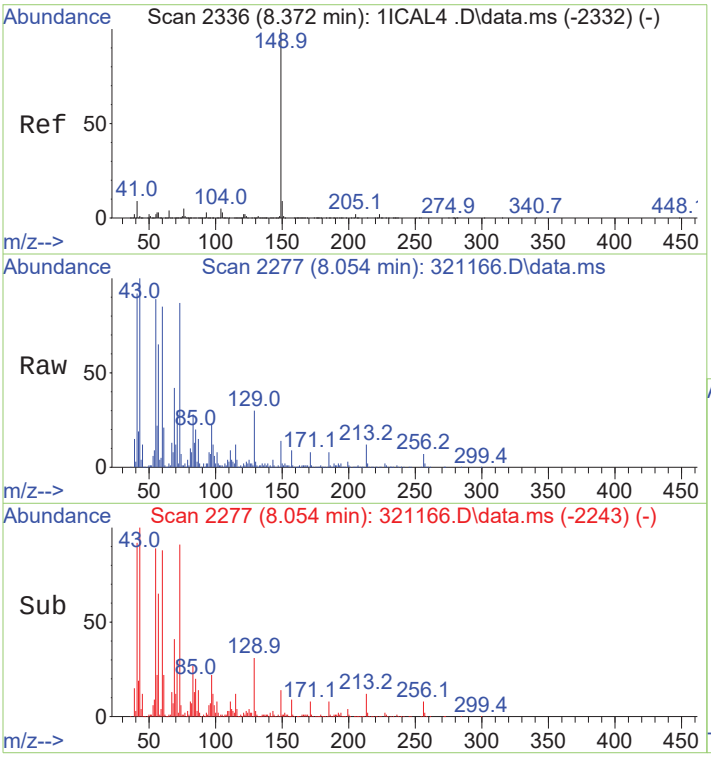


#71
Anthracene
Concen: 0.41 ug/mL
RT: 7.699 min Scan# 2152
Delta R.T. -0.037 min
Lab File: 321166.D
Acq: 10 Sep 2019 23:33

Tgt Ion:178 Resp: 9645

Ion	Ratio	Lower	Upper
178	100		
176	18.3	0.0	47.6
179	20.0	0.0	45.1

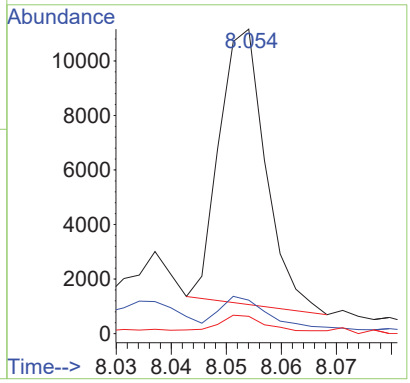


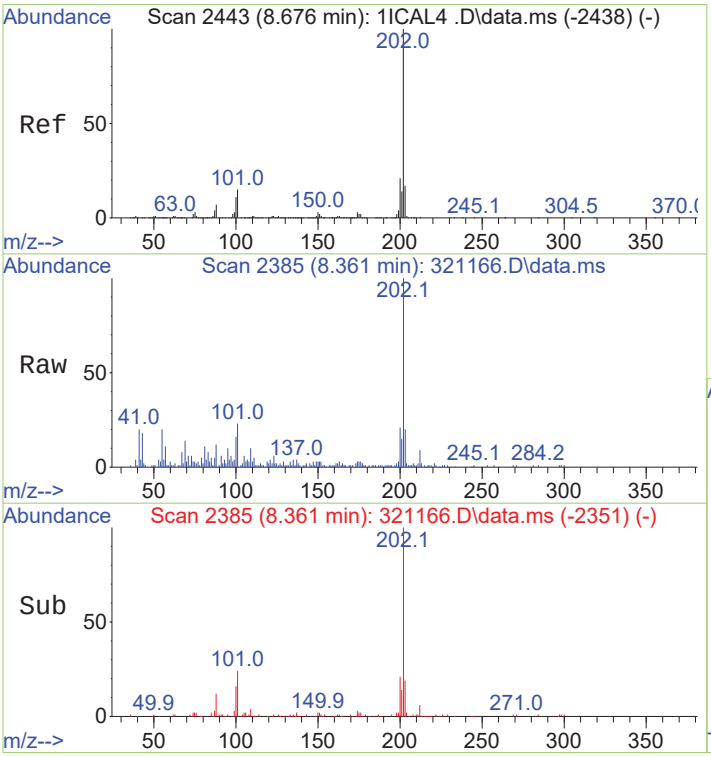


#73
Dinbtylphthal
Concen: 0.04 ug/mL
RT: 8.054 min Scan# 2277
Delta R.T. -0.003 min
Lab File: 321166.D
Acq: 10 Sep 2019 23:33

Tgt Ion:149 Resp: 5836

Ion	Ratio	Lower	Upper
149	100		
150	9.5	0.0	39.0
104	5.0	0.0	34.6

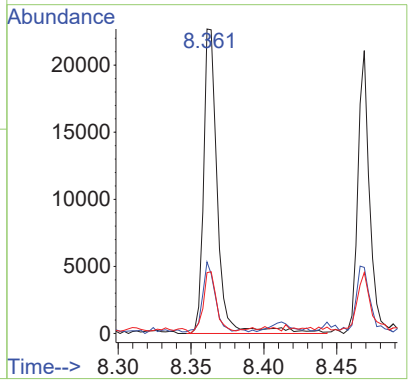


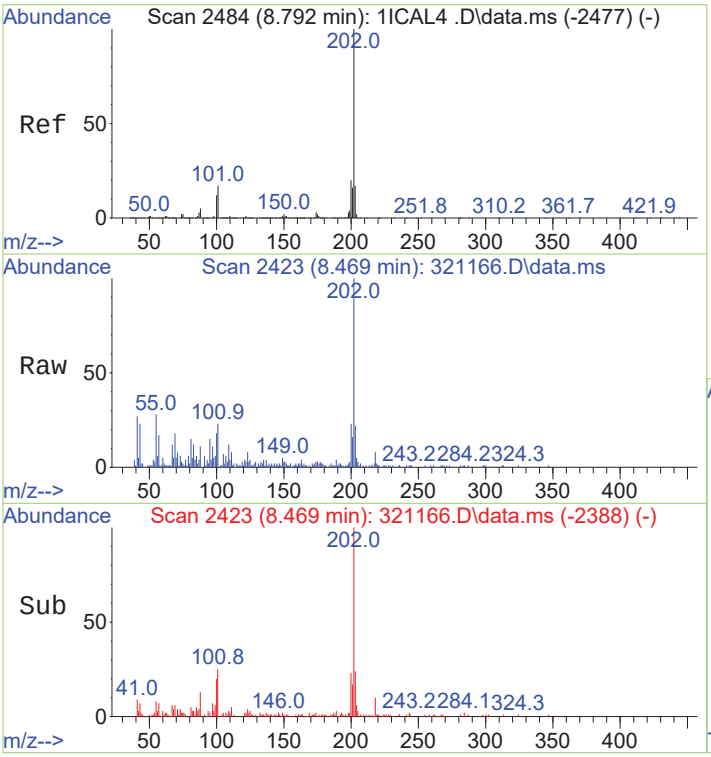


#74
Fluoranthene
Concen: 0.91 ug/mL
RT: 8.361 min Scan# 2385
Delta R.T. -0.003 min
Lab File: 321166.D
Acq: 10 Sep 2019 23:33

Tgt Ion:202 Resp: 15118

Ion	Ratio	Lower	Upper
202	100		
101	22.9	0.0	50.7
203	18.8	0.0	47.3

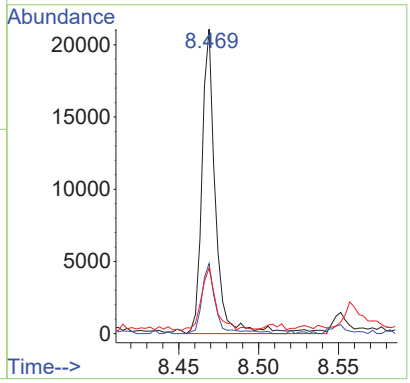


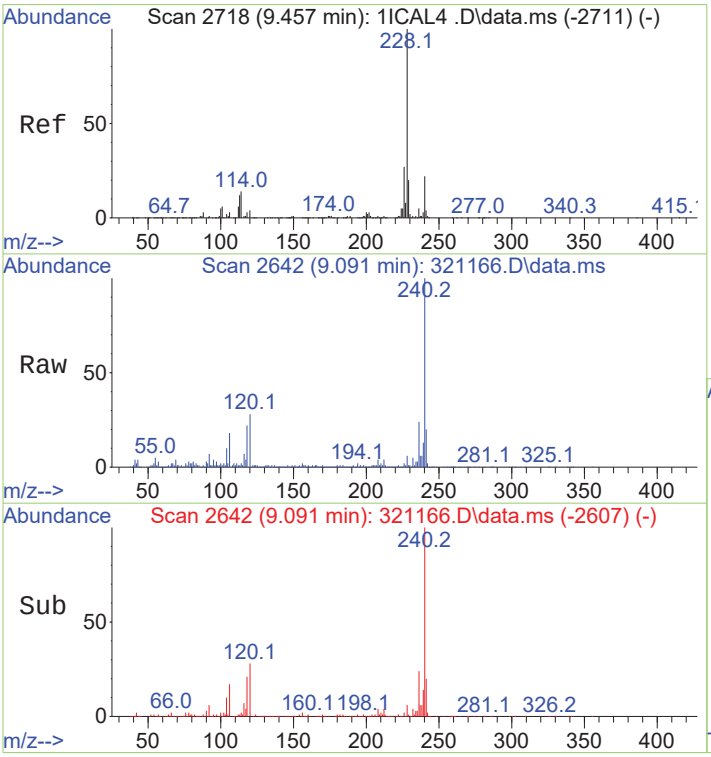


#77
Pyrene
Concen: 0.65 ug/mL
RT: 8.469 min Scan# 2423
Delta R.T. 0.000 min
Lab File: 321166.D
Acq: 10 Sep 2019 23:33

Tgt Ion:202 Resp: 12508

Ion	Ratio	Lower	Upper
202	100		
200	23.0	0.0	50.1
203	19.7	0.0	46.9

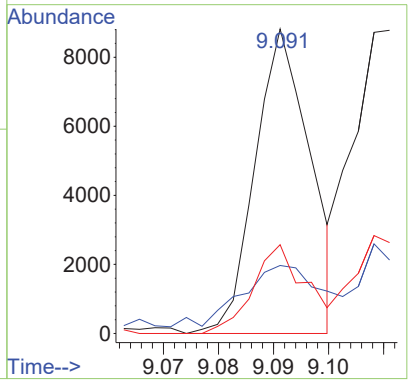


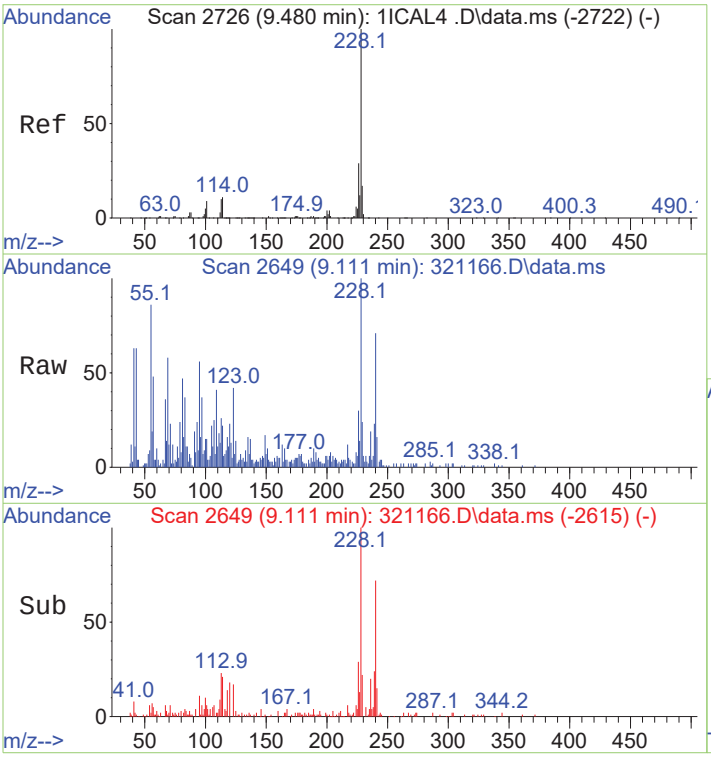


#82
B[a]anthracen
Concen: 0.39 ug/mL
RT: 9.091 min Scan# 2642
Delta R.T. 0.000 min
Lab File: 321166.D
Acq: 10 Sep 2019 23:33

Tgt Ion:228 Resp: 6122

Ion	Ratio	Lower	Upper
228	100		
229	17.1	0.0	49.3
226	29.2	0.0	56.2

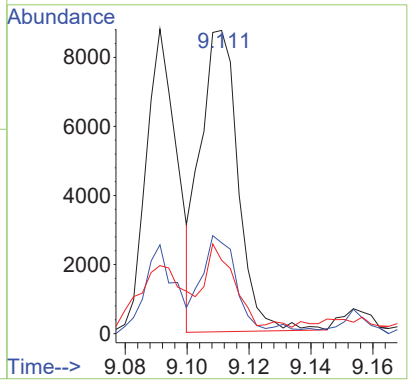


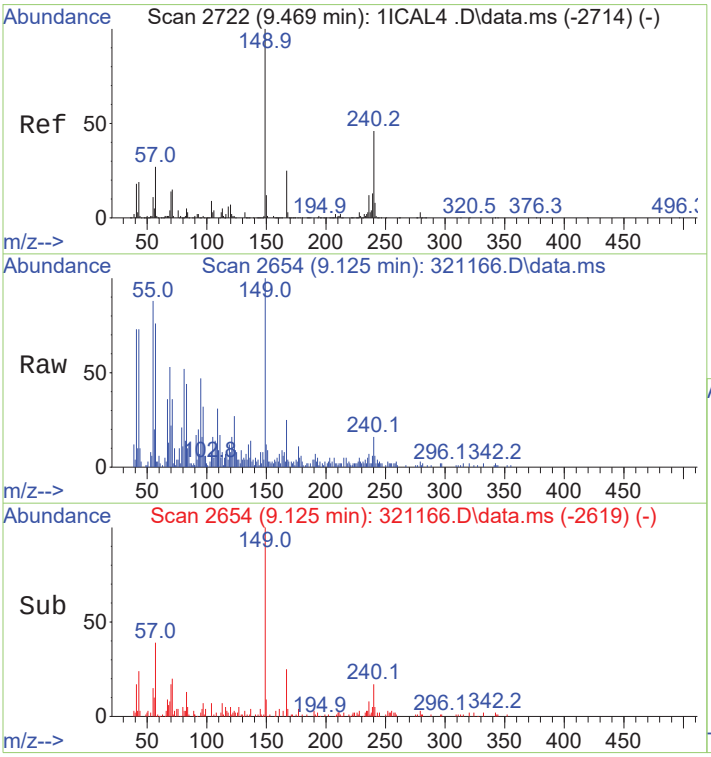


#83
Chrysene
Concen: 0.45 ug/mL
RT: 9.111 min Scan# 2649
Delta R.T. -0.003 min
Lab File: 321166.D
Acq: 10 Sep 2019 23:33

Tgt Ion:228 Resp: 7393

Ion	Ratio	Lower	Upper
228	100		
226	28.7	0.0	59.0
229	19.7	0.0	49.4

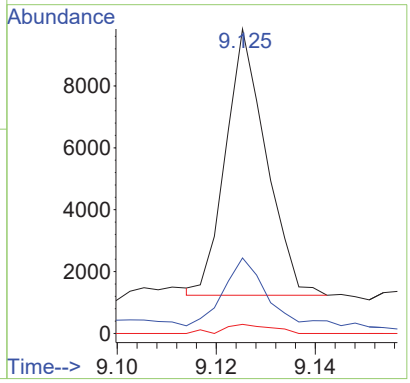


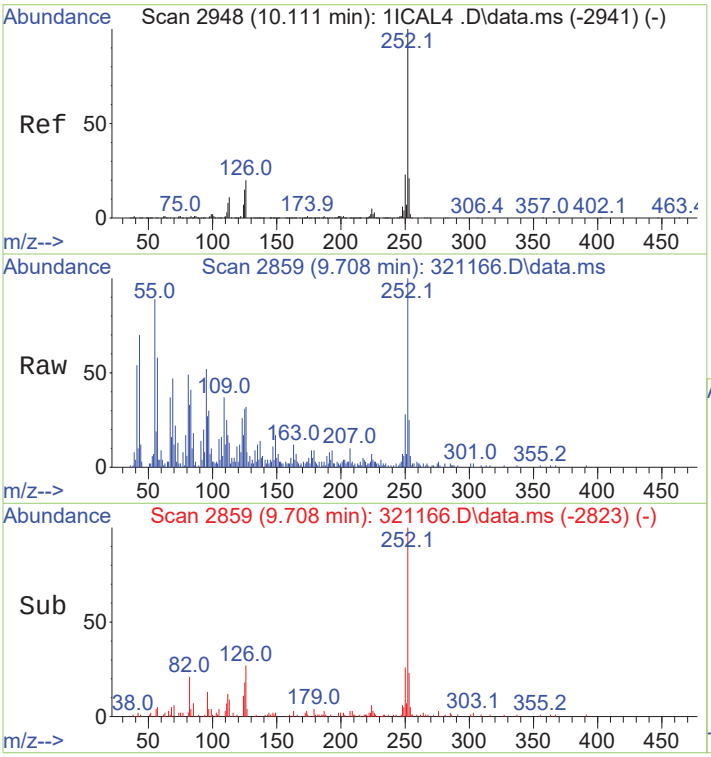


#84
bis2Ethlhxlph
Concen: 0.36 ug/mL
RT: 9.125 min Scan# 2654
Delta R.T. 0.000 min
Lab File: 321166.D
Acq: 10 Sep 2019 23:33

Tgt Ion:149 Resp: 4867

Ion	Ratio	Lower	Upper
149	100		
167	25.5	0.0	53.5
279	3.5	0.0	32.8

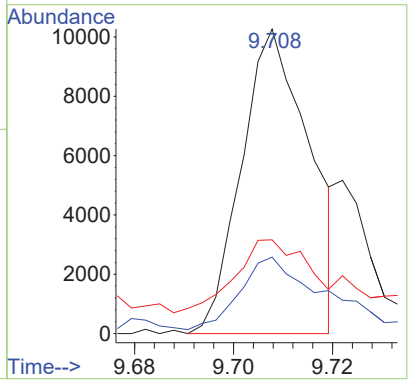


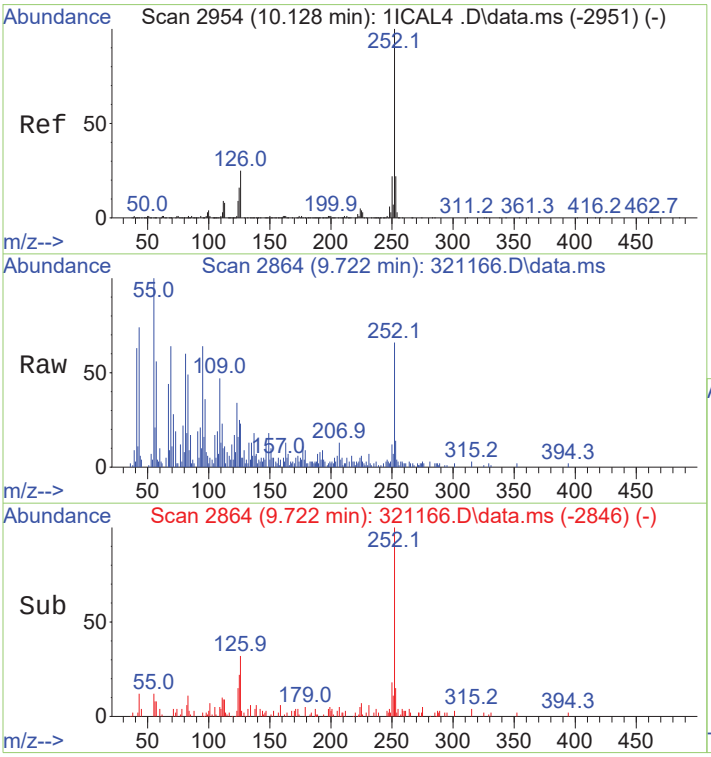


#87
B[b]fluoranth
Concen: 0.76 ug/mL m
RT: 9.708 min Scan# 2859
Delta R.T. 0.003 min
Lab File: 321166.D
Acq: 10 Sep 2019 23:33

Tgt Ion:252 Resp: 9796

Ion	Ratio	Lower	Upper
252	100		
253	25.1	0.0	51.9
125	30.8	0.0	50.0

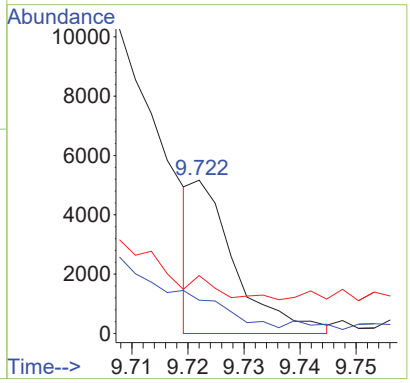


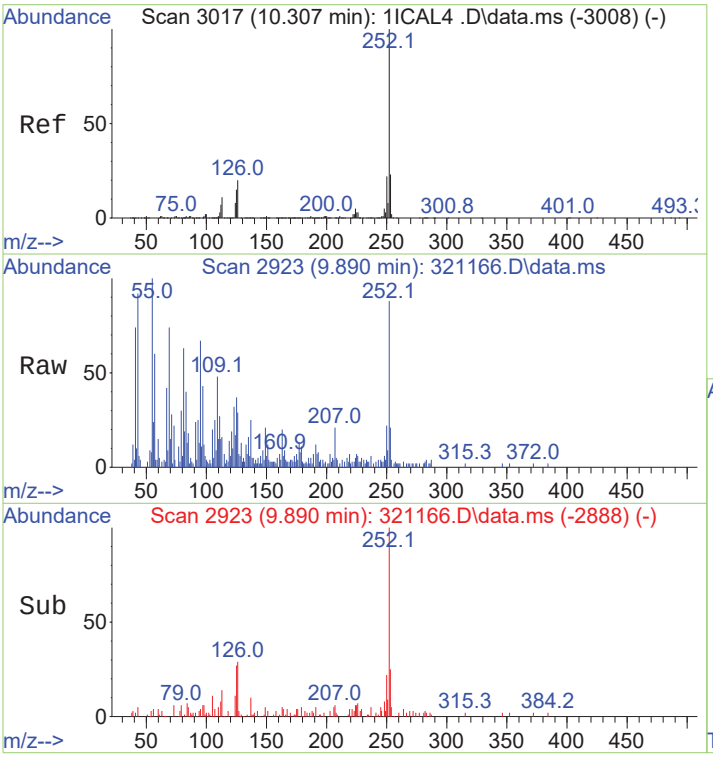


#88
B[k]fluoranth
Concen: 0.21 ug/mL m
RT: 9.722 min Scan# 2864
Delta R.T. 0.000 min
Lab File: 321166.D
Acq: 10 Sep 2019 23:33

Tgt Ion:252 Resp: 2765

Ion	Ratio	Lower	Upper
252	100		
253	21.7	0.0	52.0
125	37.8	0.0	50.2

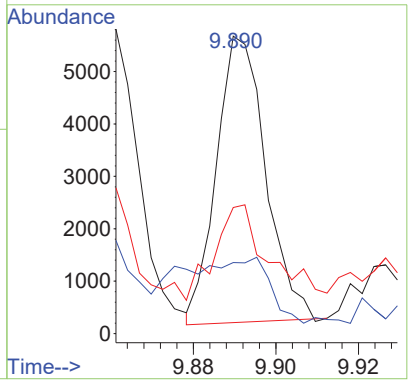


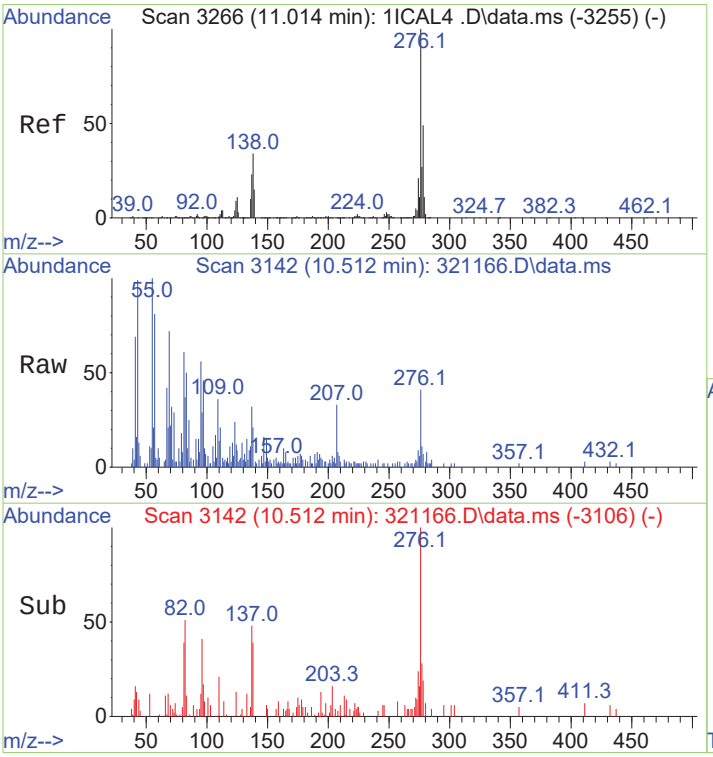


#89
Benz[a]pyrene
Concen: 0.34 ug/mL
RT: 9.890 min Scan# 2923
Delta R.T. 0.000 min
Lab File: 321166.D
Acq: 10 Sep 2019 23:33

Tgt Ion:252 Resp: 4514

Ion	Ratio	Lower	Upper
252	100		
253	25.4	0.0	51.7
125	32.9	0.0	51.4

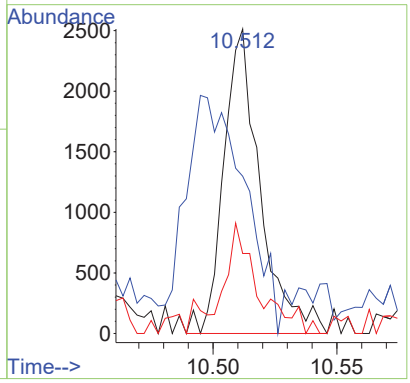


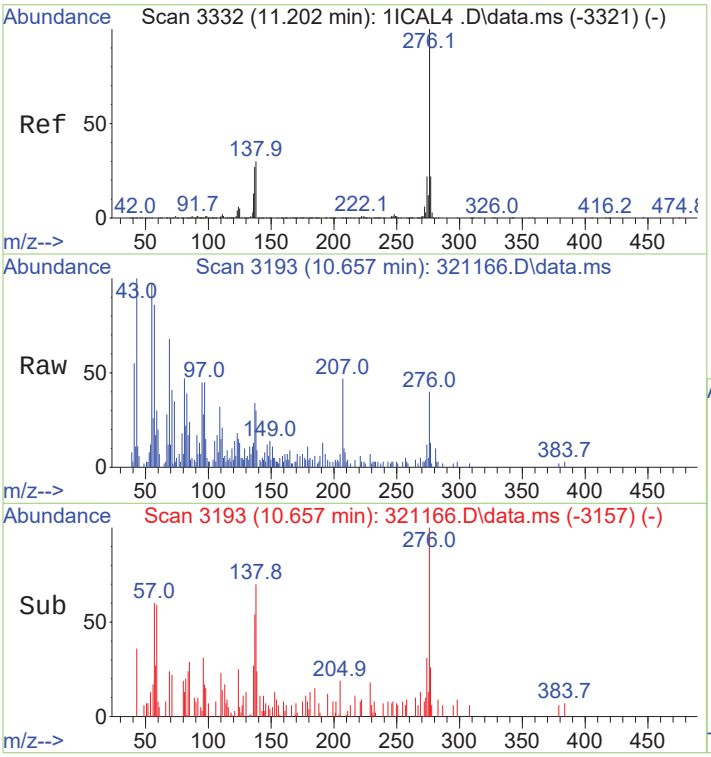


#90
Indeno-pyrene
Concen: 0.19 ug/mL
RT: 10.512 min Scan# 3142
Delta R.T. 0.003 min
Lab File: 321166.D
Acq: 10 Sep 2019 23:33

Tgt Ion:276 Resp: 2575

Ion	Ratio	Lower	Upper
276	100		
138	35.3	13.2	73.2
277	19.4	0.0	54.7

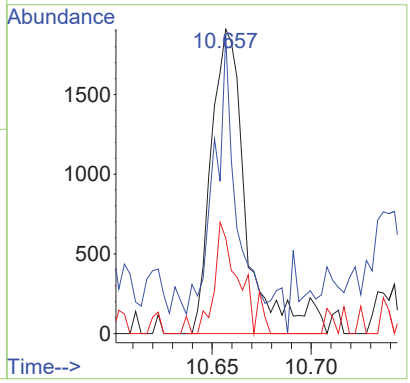


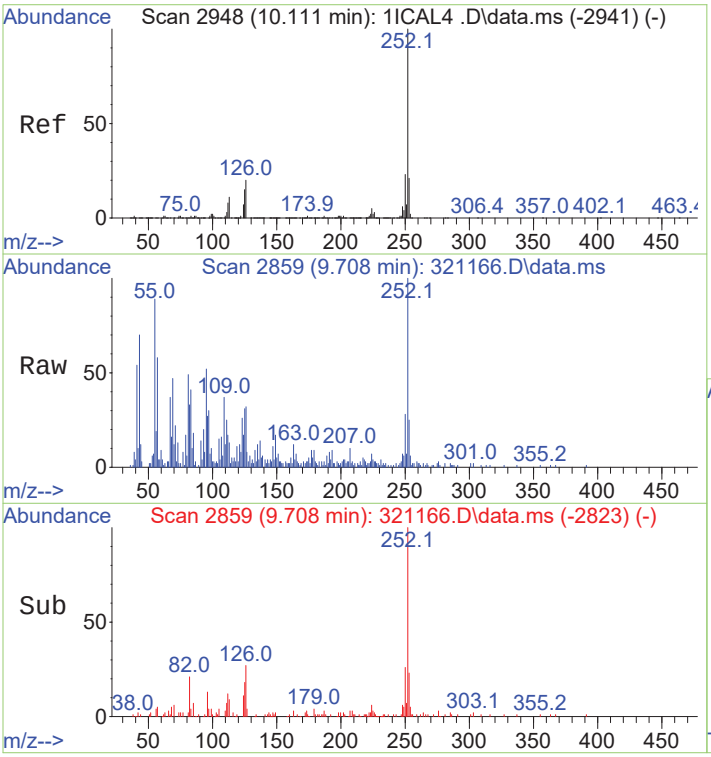


#92
B[ghi]perylen
Concen: 0.19 ug/mL
RT: 10.657 min Scan# 3193
Delta R.T. 0.003 min
Lab File: 321166.D
Acq: 10 Sep 2019 23:33

Tgt Ion:276 Resp: 2353

Ion	Ratio	Lower	Upper
276	100		
138	91.5	15.0	75.0#
277	31.0	0.0	54.0

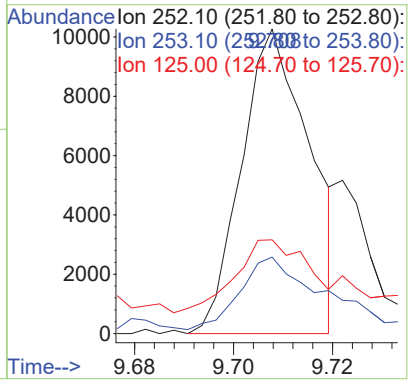




#87
B[b]fluoranth
Concen: 0.76 ug/mL m
RT: 9.708 min Scan# 2859
Delta R.T. 0.003 min
Lab File: 321166.D
Acq: 10 Sep 2019 23:33

Tgt Ion:252 Resp: 9796

Ion	Ratio	Lower	Upper
252	100		
253	25.1	0.0	51.9
125	30.8	0.0	50.0

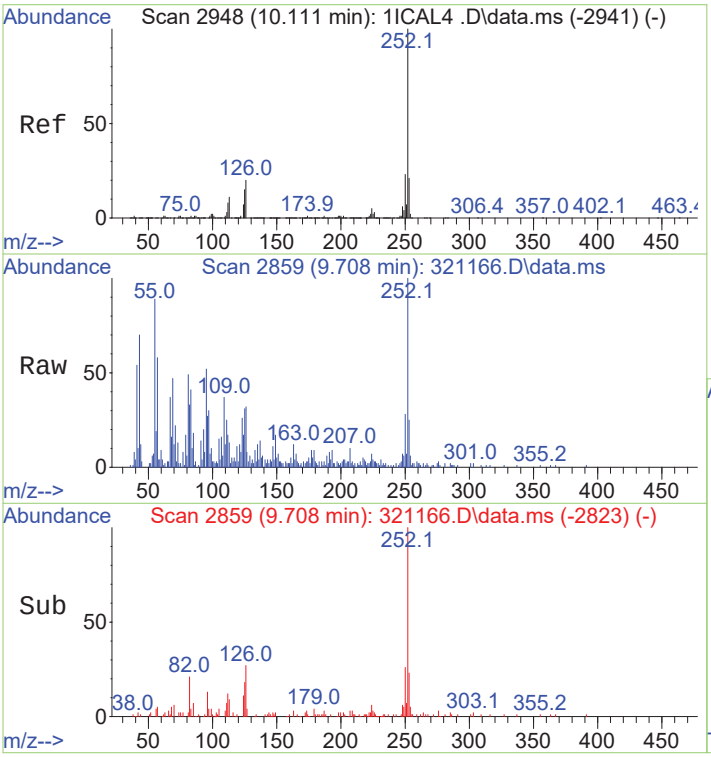


After Manual Integration

Reason#3

JJY
9/16/19

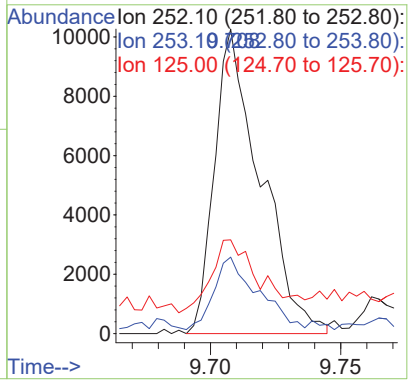
AJZ
09/19/2019



#87
B[b]fluoranth
Concen: 0.97 ug/mL
RT: 9.708 min Scan# 2859
Delta R.T. 0.003 min
Lab File: 321166.D
Acq: 10 Sep 2019 23:33

Tgt Ion:252 Resp: 12564

Ion	Ratio	Lower	Upper
252	100		
253	23.8	0.0	51.9
125	22.5	0.0	50.0

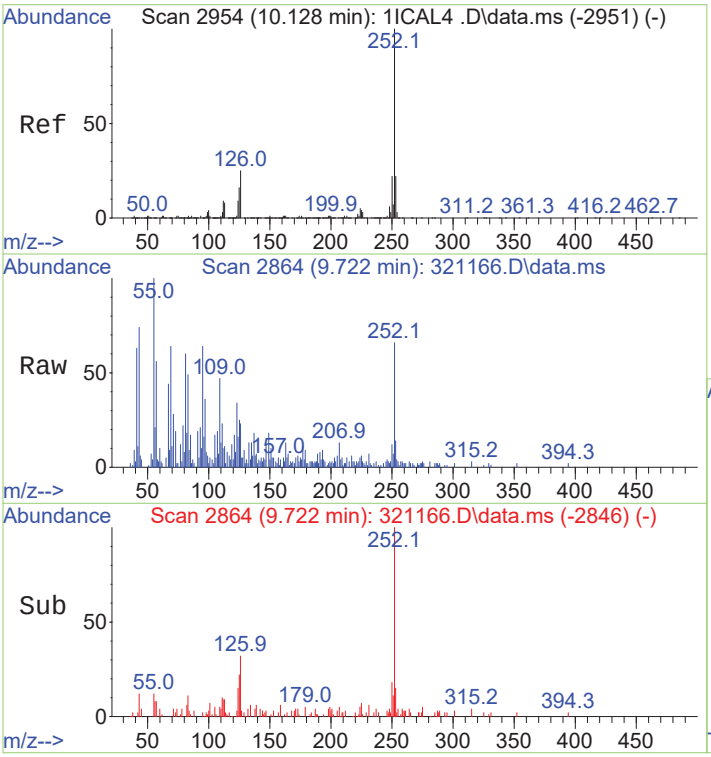


Before Manual Integration

Reason#3

JJY
9/16/19

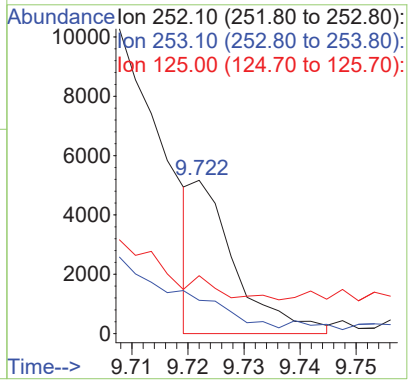
AJZ
09/19/2019



#88
B[k]fluoranth
Concen: 0.21 ug/mL m
RT: 9.722 min Scan# 2864
Delta R.T. 0.000 min
Lab File: 321166.D
Acq: 10 Sep 2019 23:33

Tgt Ion:252 Resp: 2765

Ion	Ratio	Lower	Upper
252	100		
253	21.7	0.0	52.0
125	37.8	0.0	50.2

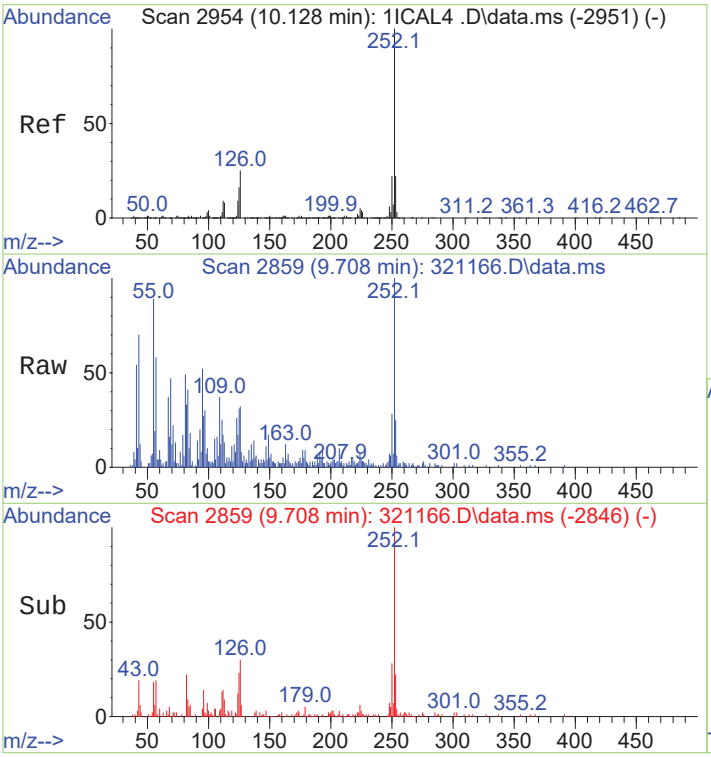


After Manual Integration

Reason#3

JJY
9/16/19

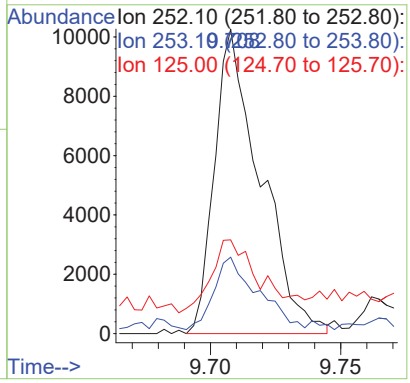
AJZ
09/19/2019



#88
B[k]fluoranth
Concen: 0.97 ug/mL
RT: 9.708 min Scan# 2859
Delta R.T. -0.014 min
Lab File: 321166.D
Acq: 10 Sep 2019 23:33

Tgt Ion:252 Resp: 12564

Ion	Ratio	Lower	Upper
252	100		
253	23.8	0.0	52.0
125	22.5	0.0	50.2



Before Manual Integration

Reason#3

JJY
9/16/19

AJZ
09/19/2019

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321166.D Vial: 17
Acq On : 10 Sep 2019 23:33 Operator: JJY
Sample : 164275,321166, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:48 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

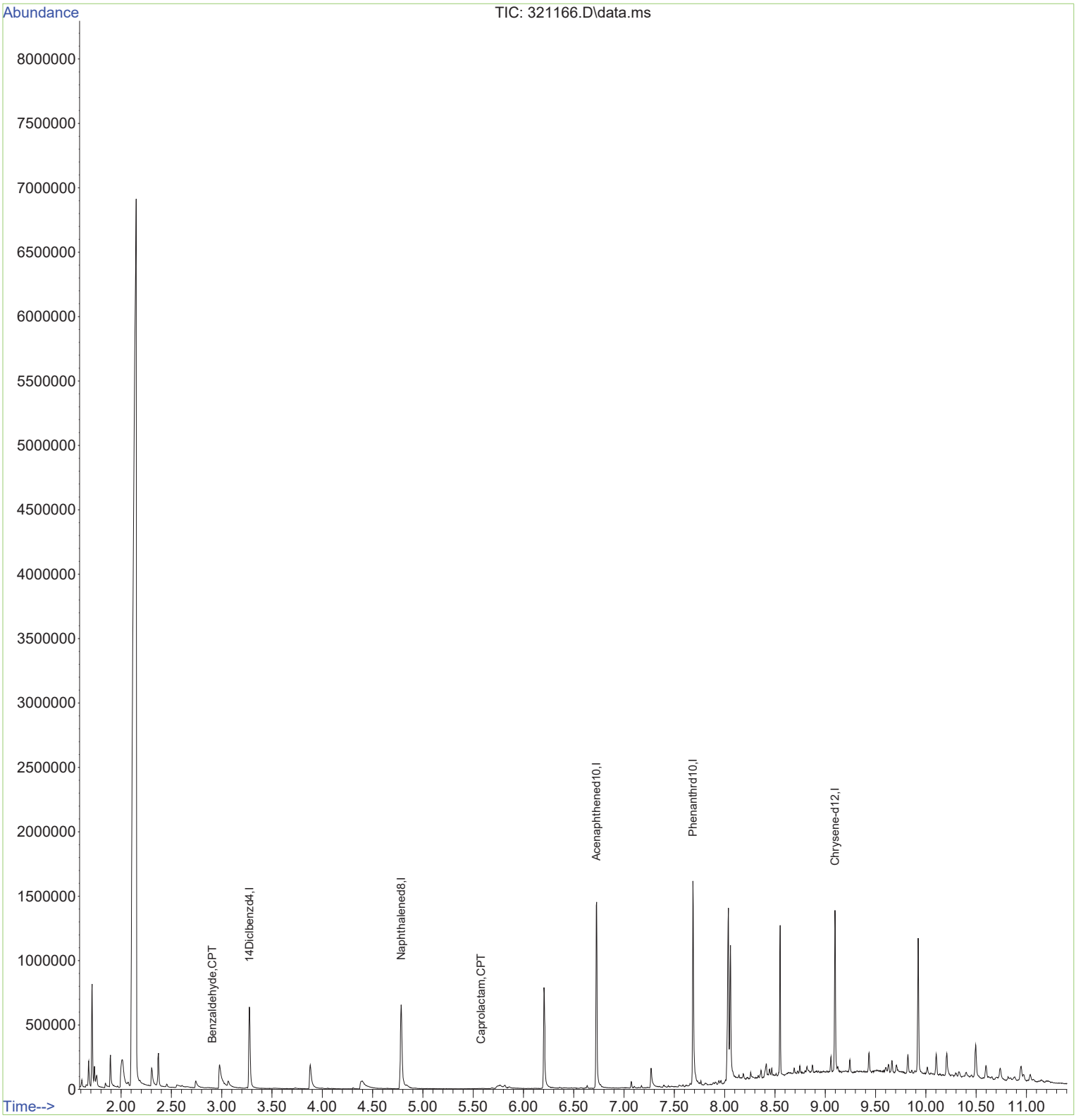
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	109022	20.00	ug/mL	0.00
3) Naphthalened8	4.784	136	413595	20.00	ug/mL	0.00
5) Acenaphthened10	6.724	164	262226	20.00	ug/mL	0.00
7) Phenanthrd10	7.685	188	441739	20.00	ug/mL	0.00
9) Chrysene-d12	9.097	240	254535	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	2.905	77	410	0.6619	ug/mL#	1
4) Caprolactam	5.579	55	2876	1.5996	ug/mL#	34

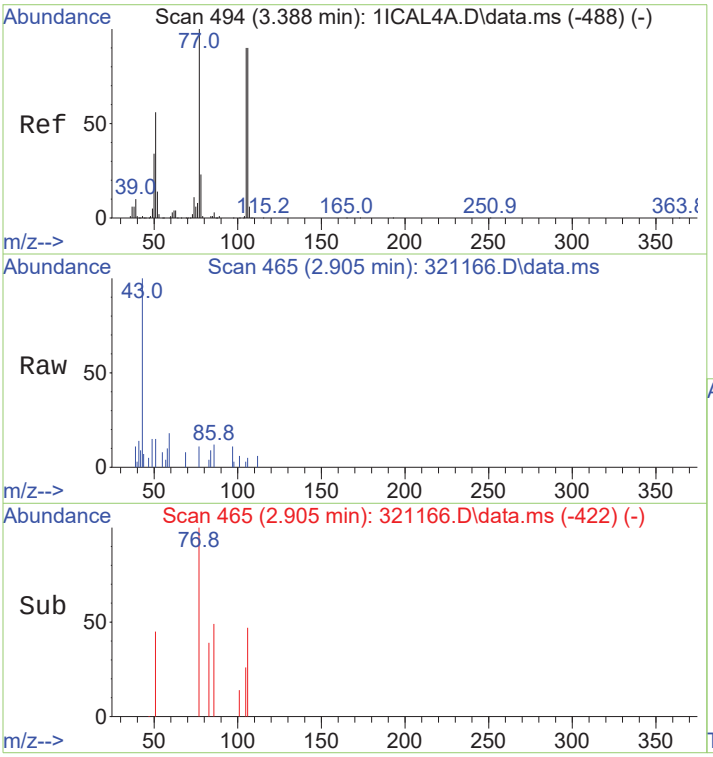
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321166.D Vial: 17
Acq On : 10 Sep 2019 23:33 Operator: JJY
Sample : 164275,321166, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:48 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

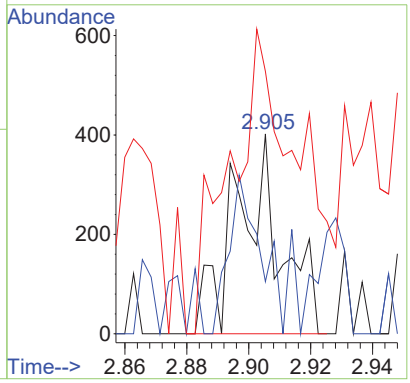


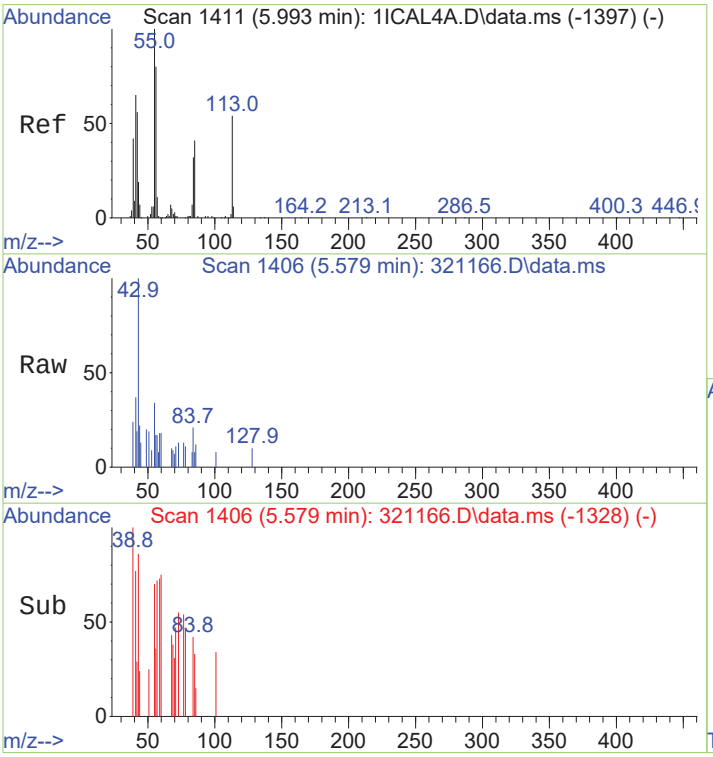


#2
Benzaldehyde
Concen: 0.66 ug/mL
RT: 2.905 min Scan# 465
Delta R.T. 0.023 min
Lab File: 321166.D
Acq: 10 Sep 2019 23:33

Tgt Ion: 77 Resp: 410

Ion	Ratio	Lower	Upper
77	100		
105	0.0	67.4	127.4#
51	232.2	23.2	83.2#

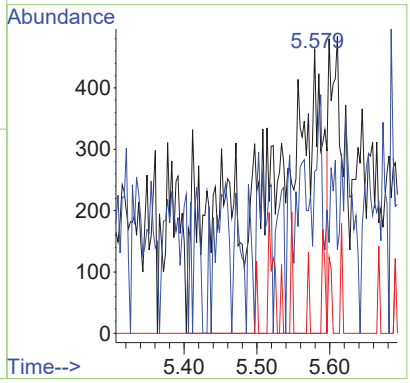




#4
Caprolactam
Concen: 1.60 ug/mL
RT: 5.579 min Scan# 1406
Delta R.T. 0.122 min
Lab File: 321166.D
Acq: 10 Sep 2019 23:33

Tgt Ion: 55 Resp: 2876

Ion	Ratio	Lower	Upper
55	100		
42	15.8	24.6	84.6#
113	0.0	26.7	86.7#



Library Search Compound Report

Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321166.D
Acq On : 10 Sep 2019 23:33
Operator : JJY
Sample : 164275,321166,
Misc : 500ul+5ul S4142A
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 1 Monomethylnitrosamine Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.712	16.13 ug/mL	506594	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Monomethylnitrosamine	60	CH4N2O	000000-00-0	9
2	2H-Pyran-2-one, tetrahydro-6,6-d...	128	C7H12O2	002610-95-9	9
3	Methacrylamide	85	C4H7NO	000079-39-0	9
4	Propene	42	C3H6	000115-07-1	7
5	1-Propanol	60	C3H8O	000071-23-8	5

****

Peak Number 2 3-Penten-2-one, 4-methyl- Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.894	5.61 ug/mL	176159	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
2	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
3	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
4	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	87
5	2-Pentene, 2,4-dimethyl-	98	C7H14	000625-65-0	86

****

Peak Number 3 Acetic acid, 1-methylethyl ... Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.013	14.49 ug/mL	455040	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetic acid, 1-methylethyl ester	102	C5H10O2	000108-21-4	12
2	Acetone	58	C3H6O	000067-64-1	9
3	Propane, 1-(1-methylethoxy)-	102	C6H14O	000627-08-7	9
4	Acetic acid, hexyl ester	144	C8H16O2	000142-92-7	9
5	Butanoic acid, ethyl ester	116	C6H12O2	000105-54-4	9

****

Peak Number 4 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.150	455.16 ug/mL	14293700	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	56
2	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	47
3	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	28

Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321166.D
Acq On : 10 Sep 2019 23:33
Operator : JJY
Sample : 164275,321166,
Misc : 500ul+5ul S4142A
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

4	Acetic acid, cyano-, 1,1-dimethy...	141	C7H11NO2	001116-98-9	23
5	3-Hydroxy-2-pentanone	102	C5H10O2	003142-66-3	9

****

Peak Number 5 3-Buten-2-ol, 2,3-dimethyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.371	6.39 ug/mL	200680	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Buten-2-ol, 2,3-dimethyl-	100	C6H12O	010473-13-9	64
2	Thiazole	85	C3H3NS	000288-47-1	38
3	Pentane, 2-bromo-2-methyl-	164	C6H13Br	004283-80-1	32
4	2-Propanol, 2-methyl-	74	C4H10O	000075-65-0	32
5	2-Pentanol, 3-chloro-2-methyl-	136	C6H13ClO	074685-49-7	32

****

Peak Number 6 Benzene, 1-bromo-3-chloro- Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.397	4.66 ug/mL	188320	Naphthalened8	4.784

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-bromo-3-chloro-	190	C6H4BrCl	000108-37-2	18
2	Benzene, 1-bromo-4-chloro-	190	C6H4BrCl	000106-39-8	14
3	1H-1,2,3-Triazole, 4-(4-nitrophe...	190	C8H6N4O2	006111-97-3	9
4	Benzo[1,2-b:5,4-b']dithiophene	190	C10H6S2	000267-61-8	9
5	Propanoic acid, 3-chloro-, ethyl...	136	C5H9ClO2	000623-71-2	9

****

Peak Number 7 Hexatriacontane Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.208	4.95 ug/mL	182337	Perylene-d12	9.924

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexatriacontane	507	C36H74	000630-06-8	91
2	Tetratetracontane	619	C44H90	007098-22-8	91
3	Hexadecane	226	C16H34	000544-76-3	90
4	Eicosane	282	C20H42	000112-95-8	90
5	Dotriacontane	451	C32H66	000544-85-4	90

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321167.D Vial: 18
Acq On : 10 Sep 2019 23:52 Operator: JJY
Sample : 164275,321167, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 00:05:53 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

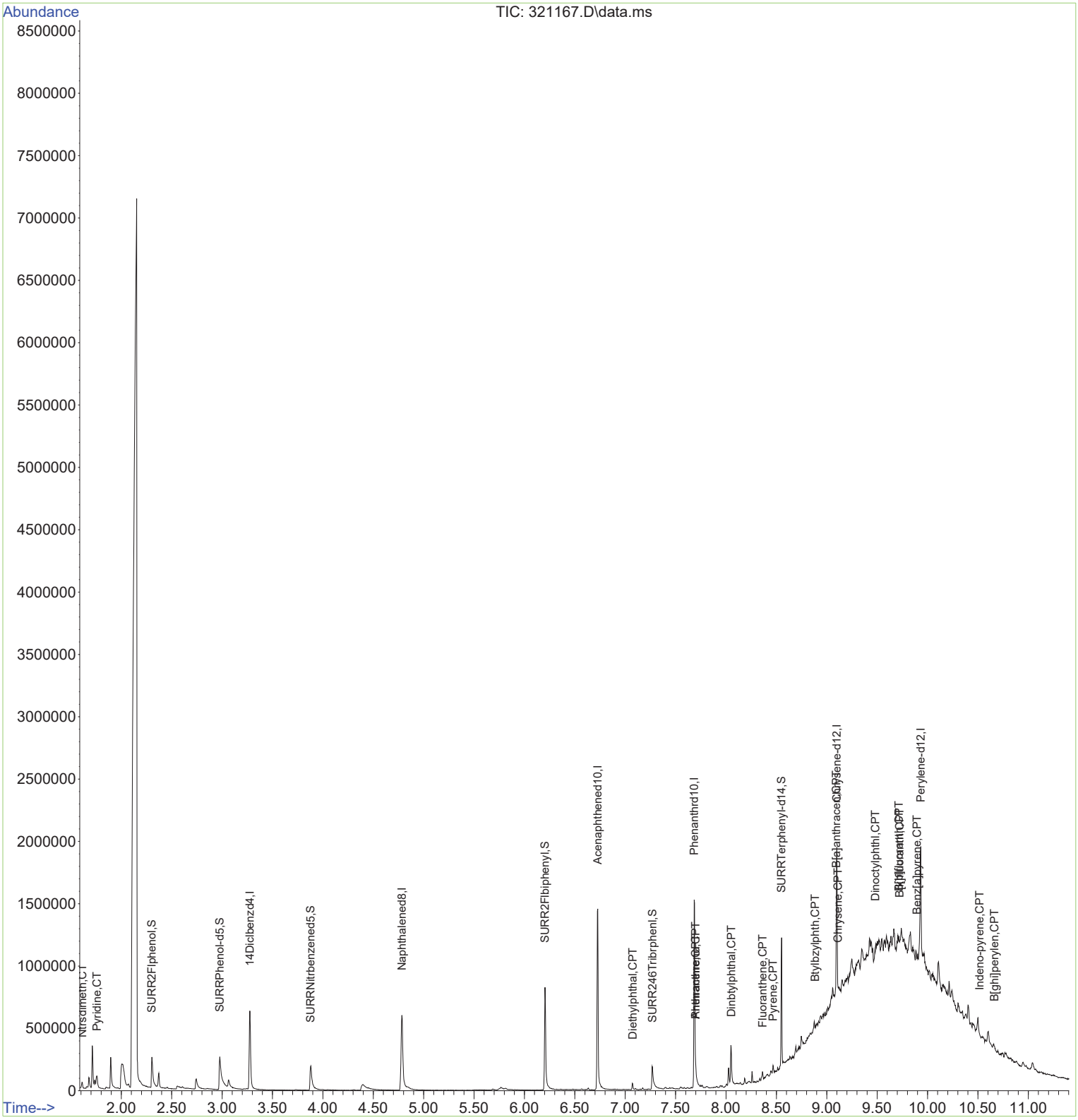
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	108511	20.00	ug/mL	0.00
21) Naphthalened8	4.784	136	411700	20.00	ug/mL	0.00
39) Acenaphthened10	6.727	164	251030	20.00	ug/mL	0.00
63) Phenanthrd10	7.685	188	432327	20.00	ug/mL	0.00
75) Chrysene-d12	9.100	240	245162	20.00	ug/mL	0.00
86) Perylene-d12	9.932	264	238817	20.00	ug/mL	0.01
System Monitoring Compounds						
4) SURR2Flphenol	2.303	112	88628	33.18	%REC	0.02
Spiked Amount 100.000			Recovery = 33.18%			
7) SURRPhenol-d5	2.976	99	174064	53.22	%REC	0.00
Spiked Amount 100.000			Recovery = 53.22%			
22) SURRNitrbenzened5	3.877	82	87448	62.41	%REC	0.00
Spiked Amount 100.000			Recovery = 62.41%			
44) SURR2Flbiphenyl	6.204	172	250309	74.85	%REC	0.00
Spiked Amount 100.000			Recovery = 74.85%			
62) SURR246Tribrphenl	7.270	330	26294	33.78	%REC	0.00
Spiked Amount 100.000			Recovery = 33.78%			
78) SURRTerphenyl-d14	8.551	244	175169	78.06	%REC	0.00
Spiked Amount 100.000			Recovery = 78.06%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.613	74	2946	1.2015	ug/mL#	1
3) Pyridine	1.757	79	875	0.6721	ug/mL	80
60) Diethylphthal	7.074	149	6961	0.4141	ug/mL	95
70) Phenanthrene	7.699	178	7622	0.3343	ug/mL	94
71) Anthracene	7.699	178	10017	0.4265	ug/mL	92
73) Dinbtylphthal	8.054	149	8309	0.1293	ug/mL	95
74) Fluoranthene	8.364	202	16626	1.0145	ug/mL	95
77) Pyrene	8.466	202	13497	0.7327	ug/mL	96
79) Btylbzylphth	8.884	149	4923	0.7451	ug/mL	71
82) B[a]anthracen	9.094	228	7470	0.4943	ug/mL	88
83) Chrysene	9.111	228	7066	0.4518	ug/mL	98
85) Dinoctylphthl	9.483	149	4462	0.6396	ug/mL#	1
87) B[b]fluoranth	9.716	252	9484m	0.7296	ug/mL	
88) B[k]fluoranth	9.722	252	4017m	0.3081	ug/mL	
89) Benz[a]pyrene	9.895	252	5763	0.4296	ug/mL	86
90) Indeno-pyrene	10.518	276	2748	0.1980	ug/mL	88
92) B[ghi]perylen	10.663	276	3046	0.2505	ug/mL	91

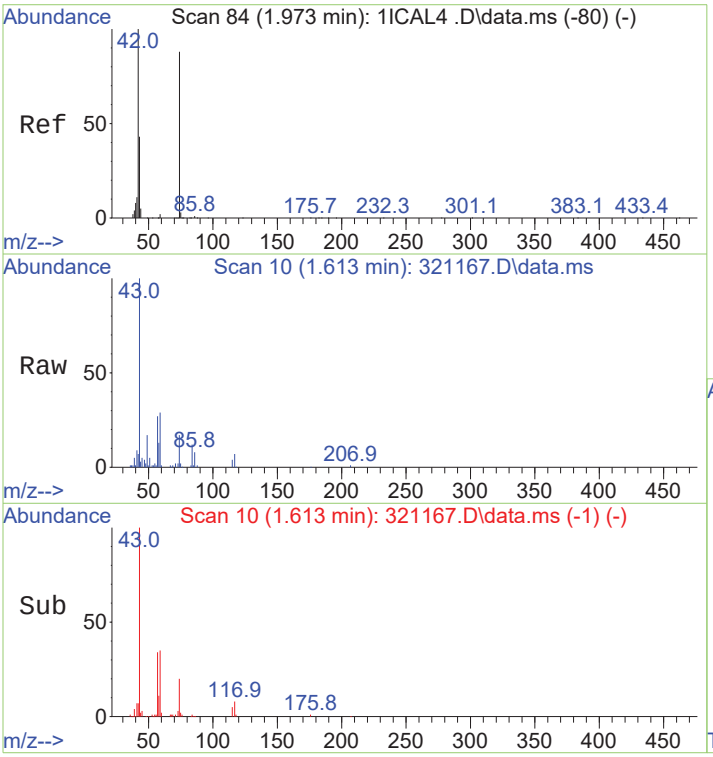
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321167.D Vial: 18
Acq On : 10 Sep 2019 23:52 Operator: JJY
Sample : 164275,321167, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 00:05:53 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

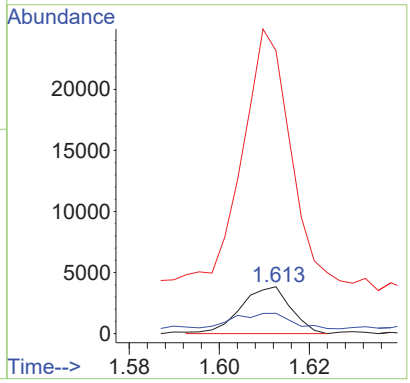


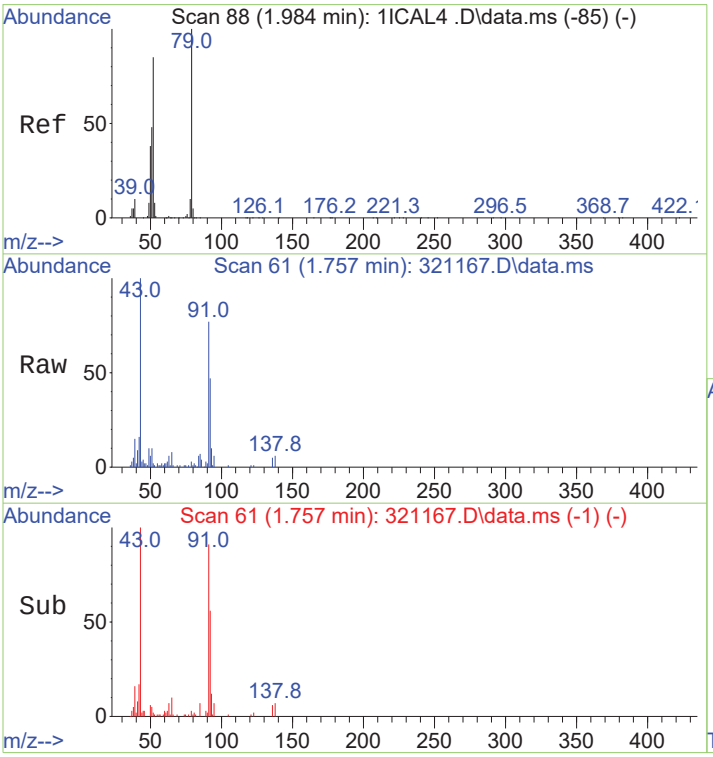


#2
Ntrsdimeth
Concen: 1.20 ug/mL
RT: 1.613 min Scan# 10
Delta R.T. -0.025 min
Lab File: 321167.D
Acq: 10 Sep 2019 23:52

Tgt Ion: 74 Resp: 2946

Ion	Ratio	Lower	Upper
74	100		
42	31.3	54.2	114.2#
43	483.8	5.5	65.5#

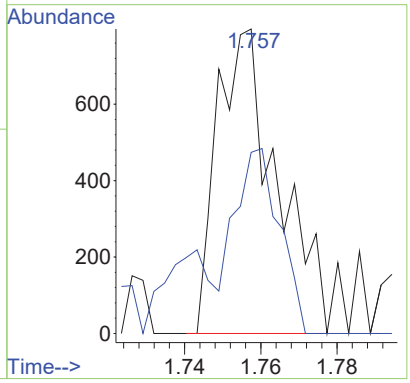


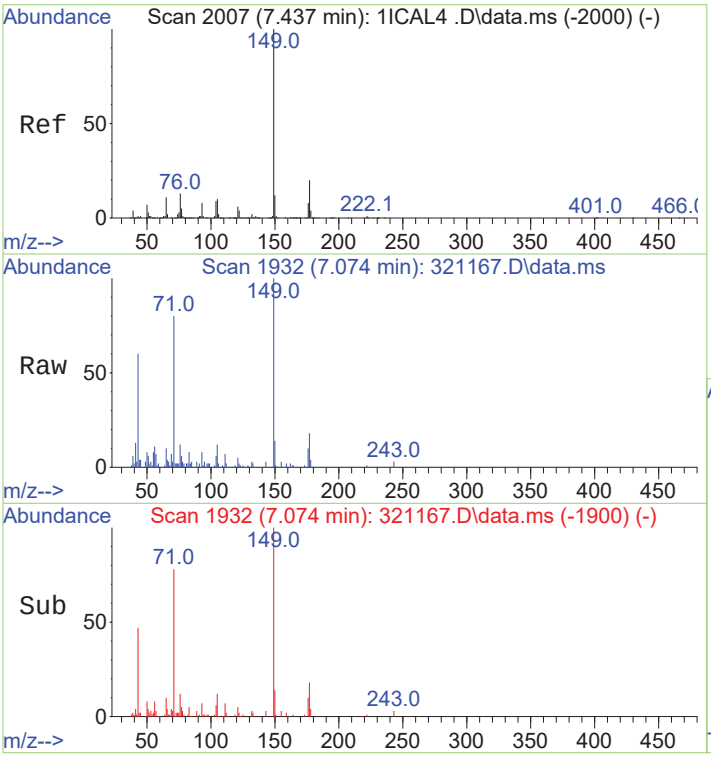


#3
Pyridine
Concen: 0.67 ug/mL
RT: 1.757 min Scan# 61
Delta R.T. 0.111 min
Lab File: 321167.D
Acq: 10 Sep 2019 23:52

Tgt Ion: 79 Resp: 875

Ion	Ratio	Lower	Upper
79	100		
52	59.5	46.7	106.7

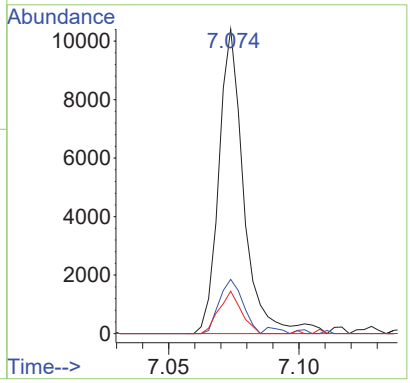


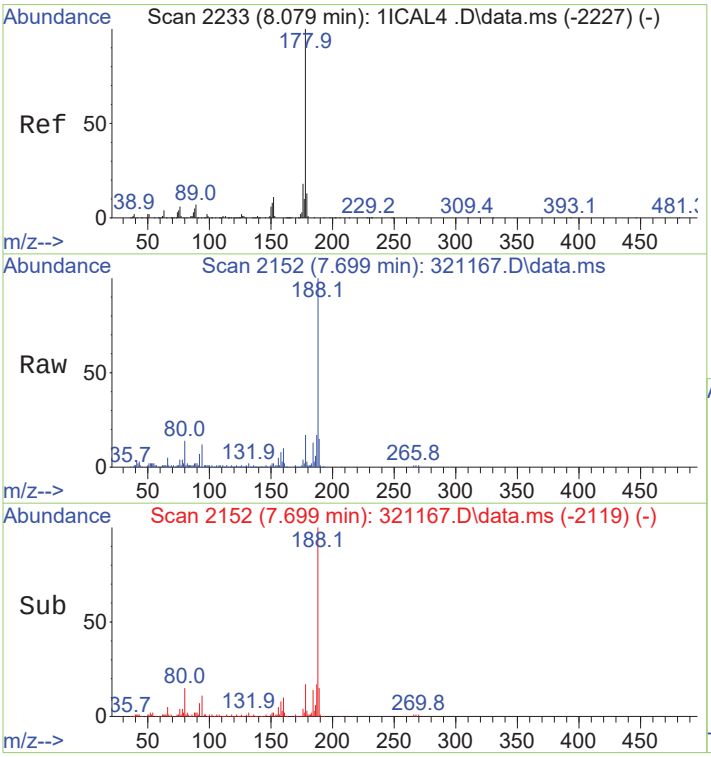


#60
Diethylphthal
Concen: 0.41 ug/mL
RT: 7.074 min Scan# 1932
Delta R.T. -0.008 min
Lab File: 321167.D
Acq: 10 Sep 2019 23:52

Tgt Ion:149 Resp: 6961

Ion	Ratio	Lower	Upper
149	100		
177	17.8	0.0	49.3
150	15.3	0.0	41.9

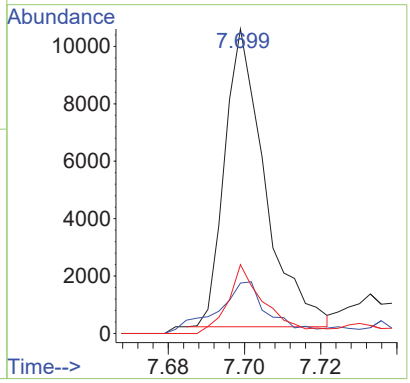


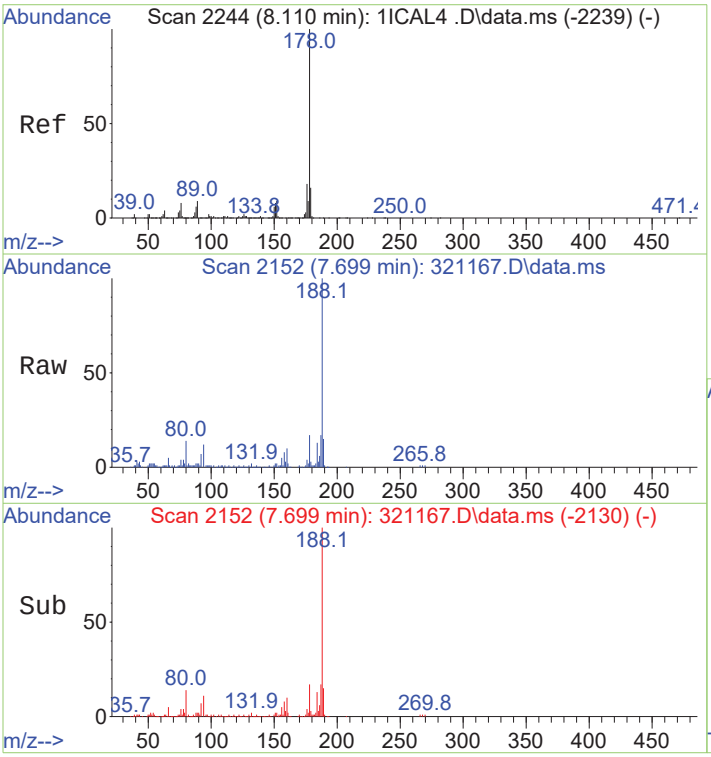


#70
Phenanthrene
Concen: 0.33 ug/mL
RT: 7.699 min Scan# 2152
Delta R.T. -0.006 min
Lab File: 321167.D
Acq: 10 Sep 2019 23:52

Tgt Ion:178 Resp: 7622

Ion	Ratio	Lower	Upper
178	100		
179	15.2	0.0	45.3
176	23.1	0.0	48.4

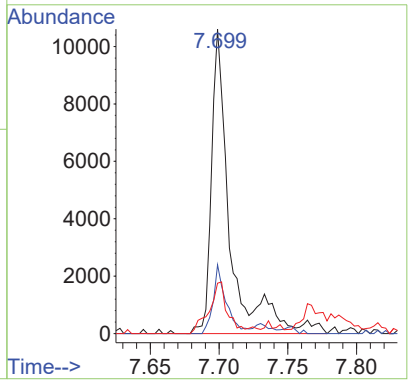


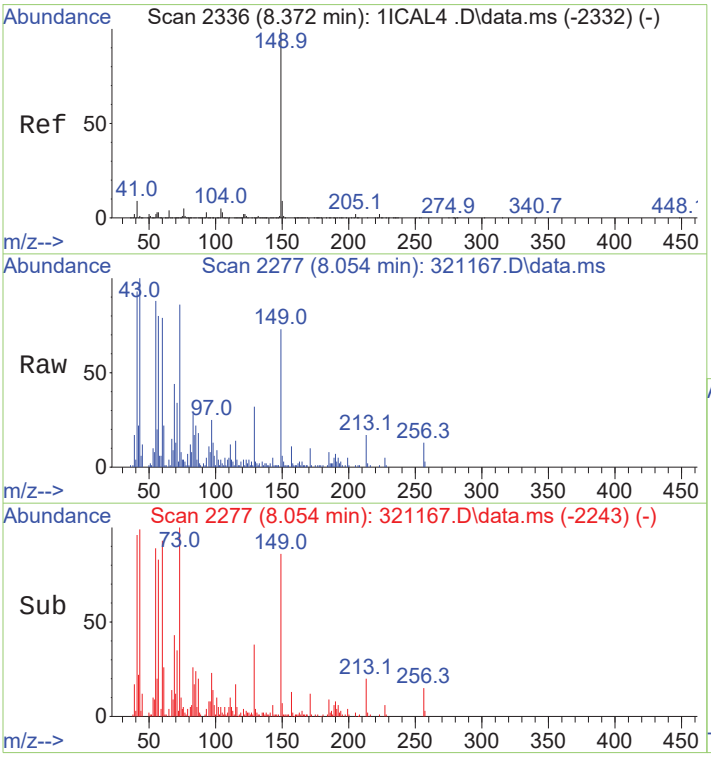


#71
Anthracene
Concen: 0.43 ug/mL
RT: 7.699 min Scan# 2152
Delta R.T. -0.037 min
Lab File: 321167.D
Acq: 10 Sep 2019 23:52

Tgt Ion:178 Resp: 10017

Ion	Ratio	Lower	Upper
178	100		
176	22.6	0.0	47.6
179	16.6	0.0	45.1

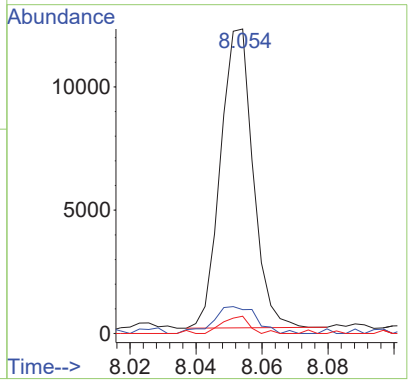


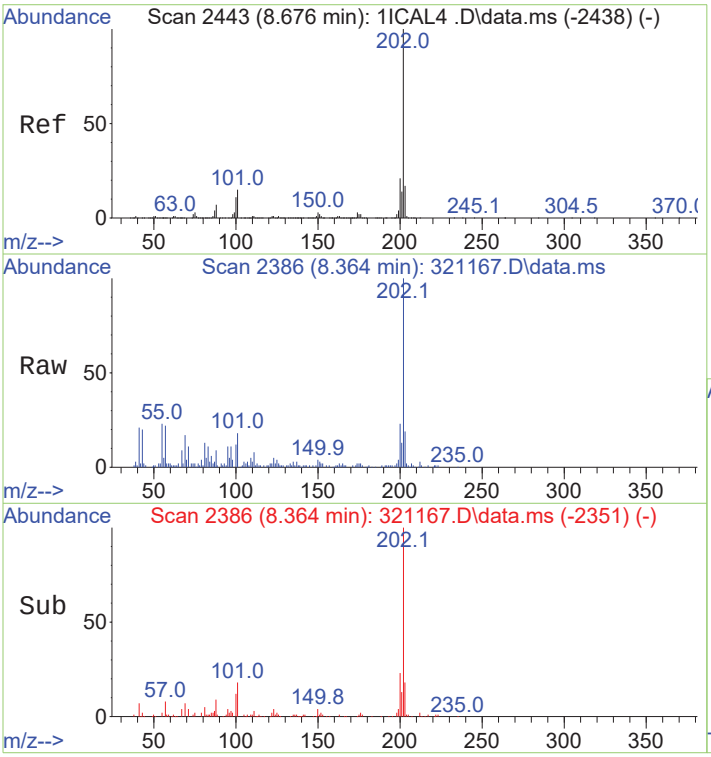


#73
Dinbtylphthal
Concen: 0.13 ug/mL
RT: 8.054 min Scan# 2277
Delta R.T. -0.003 min
Lab File: 321167.D
Acq: 10 Sep 2019 23:52

Tgt Ion:149 Resp: 8309

Ion	Ratio	Lower	Upper
149	100		
150	6.7	0.0	39.0
104	5.8	0.0	34.6

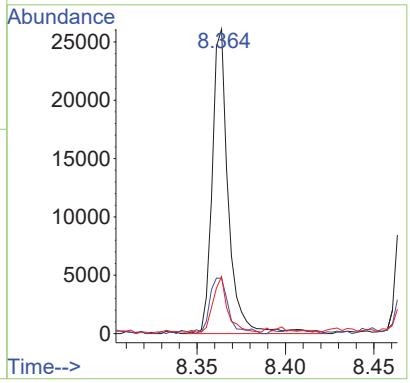


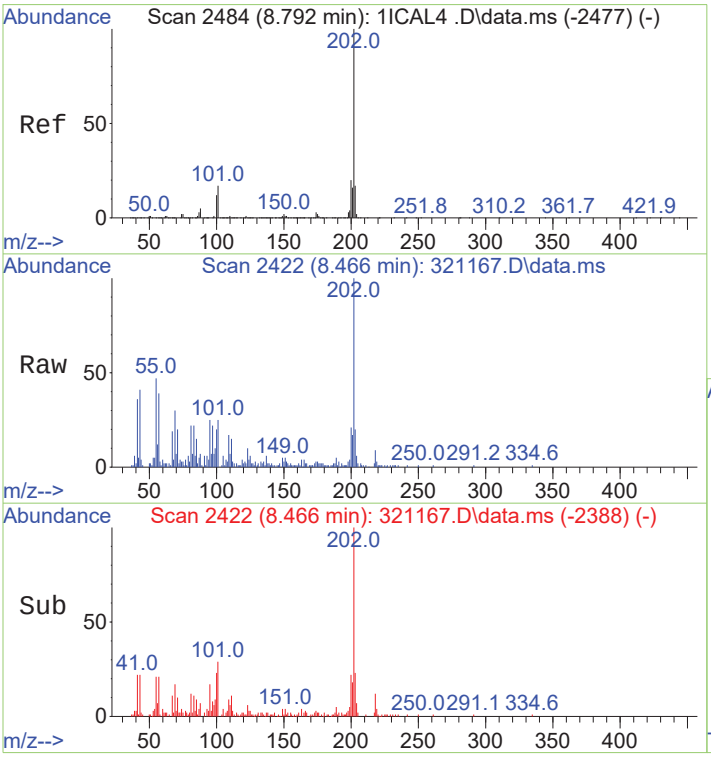


#74
Fluoranthene
Concen: 1.01 ug/mL
RT: 8.364 min Scan# 2386
Delta R.T. 0.000 min
Lab File: 321167.D
Acq: 10 Sep 2019 23:52

Tgt Ion:202 Resp: 16626

Ion	Ratio	Lower	Upper
202	100		
101	17.6	0.0	50.7
203	18.3	0.0	47.3

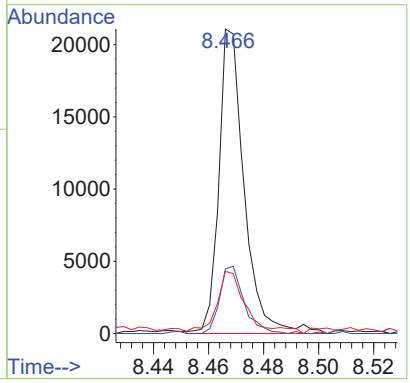


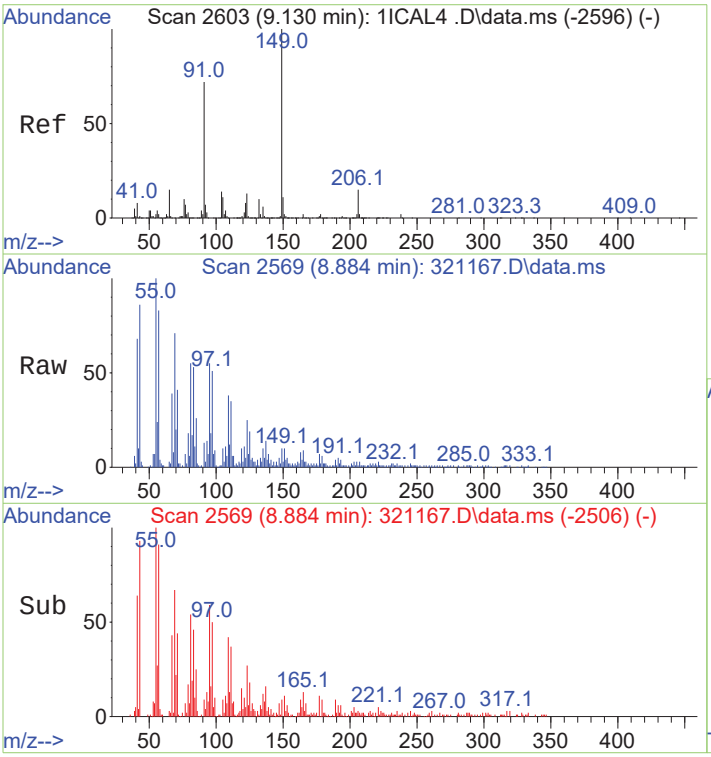


#77
Pyrene
Concen: 0.73 ug/mL
RT: 8.466 min Scan# 2422
Delta R.T. -0.003 min
Lab File: 321167.D
Acq: 10 Sep 2019 23:52

Tgt Ion:202 Resp: 13497

Ion	Ratio	Lower	Upper
202	100		
200	21.2	0.0	50.1
203	19.6	0.0	46.9

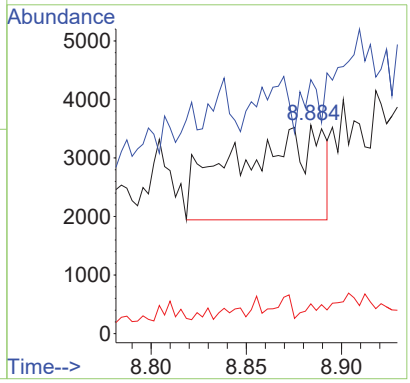


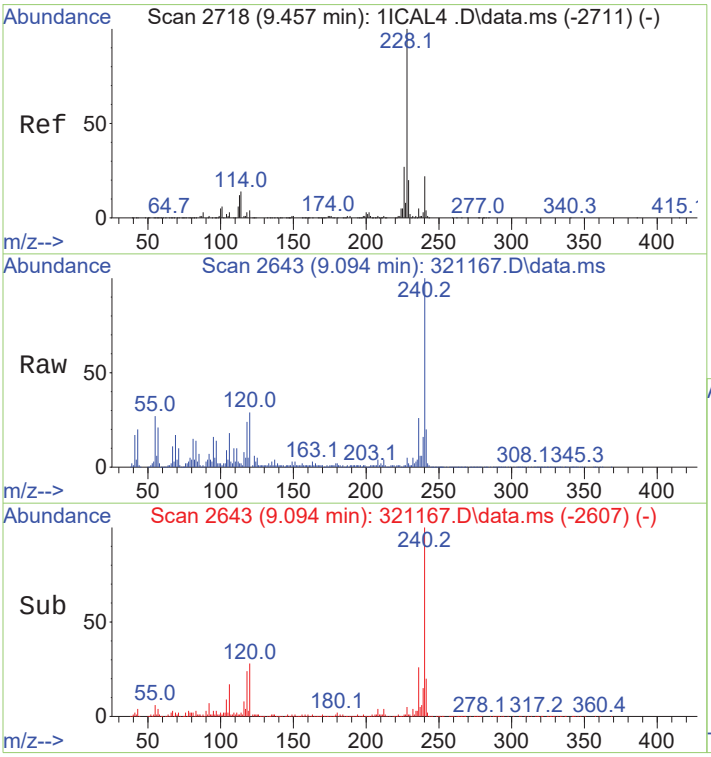


#79
Btylbzylphth
Concen: 0.75 ug/mL
RT: 8.884 min Scan# 2569
Delta R.T. 0.080 min
Lab File: 321167.D
Acq: 10 Sep 2019 23:52

Tgt Ion:149 Resp: 4923

Ion	Ratio	Lower	Upper
149	100		
91	42.4	39.2	99.2
206	15.4	0.0	43.2

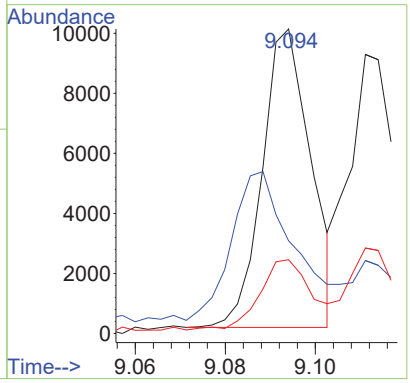


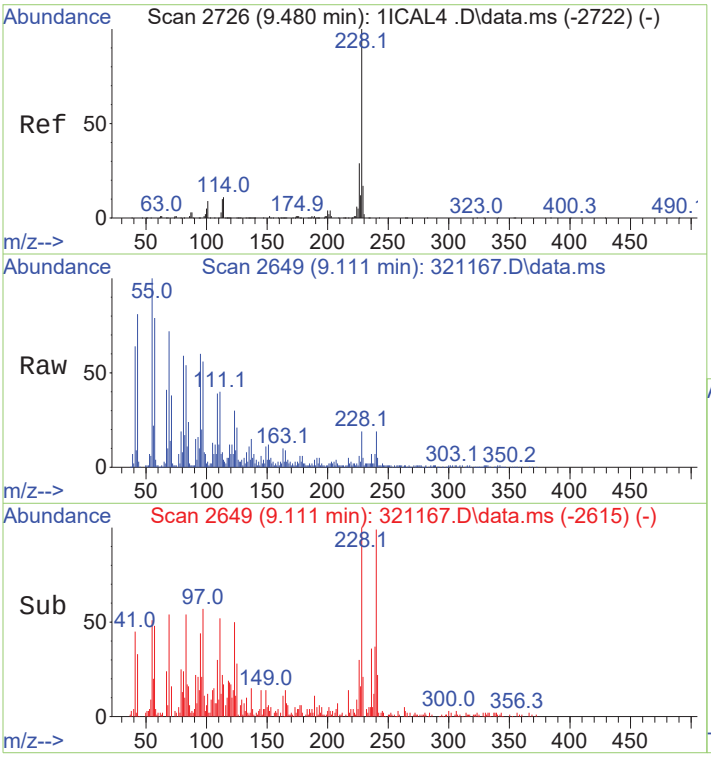


#82
B[a]anthracen
Concen: 0.49 ug/mL
RT: 9.094 min Scan# 2643
Delta R.T. 0.003 min
Lab File: 321167.D
Acq: 10 Sep 2019 23:52

Tgt Ion:228 Resp: 7470

Ion	Ratio	Lower	Upper
228	100		
229	26.6	0.0	49.3
226	21.3	0.0	56.2

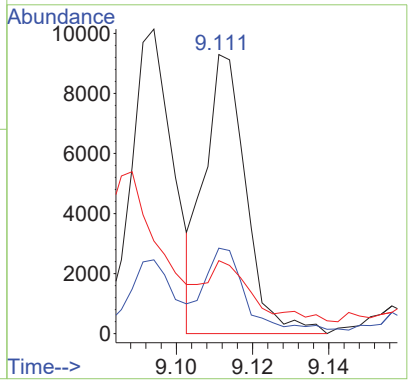


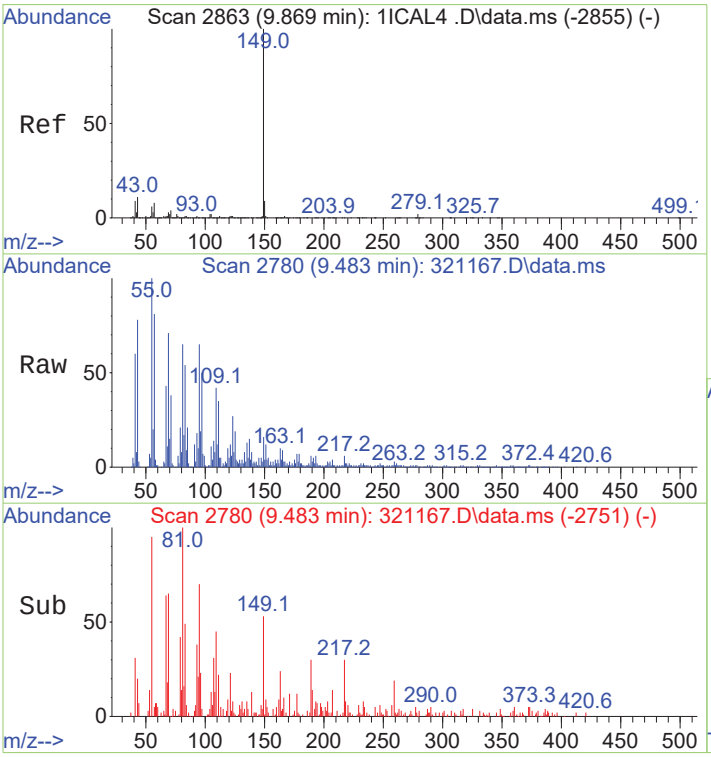


#83
Chrysene
Concen: 0.45 ug/mL
RT: 9.111 min Scan# 2649
Delta R.T. -0.003 min
Lab File: 321167.D
Acq: 10 Sep 2019 23:52

Tgt Ion:228 Resp: 7066

Ion	Ratio	Lower	Upper
228	100		
226	29.1	0.0	59.0
229	21.6	0.0	49.4

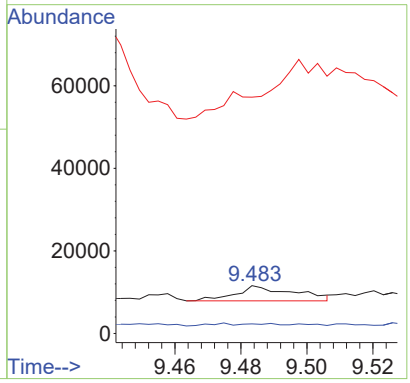


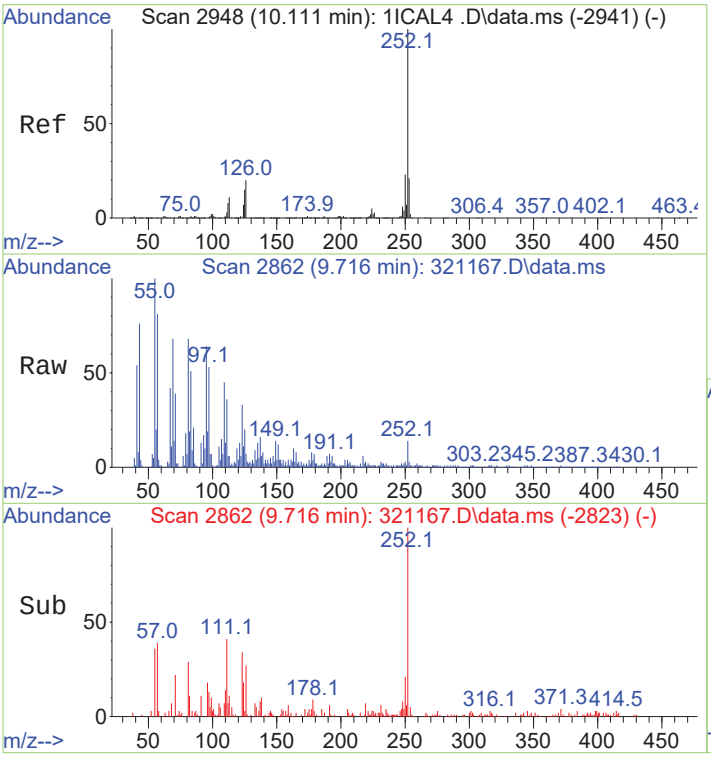


#85
Dinoctylphthl
Concen: 0.64 ug/mL
RT: 9.483 min Scan# 2780
Delta R.T. -0.017 min
Lab File: 321167.D
Acq: 10 Sep 2019 23:52

Tgt Ion:149 Resp: 4462

Ion	Ratio	Lower	Upper
149	100		
167	12.9	0.0	31.1
43	144.5	0.0	40.3#

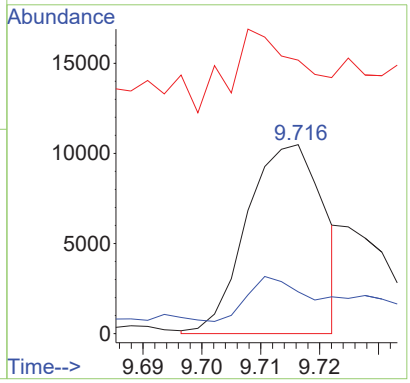


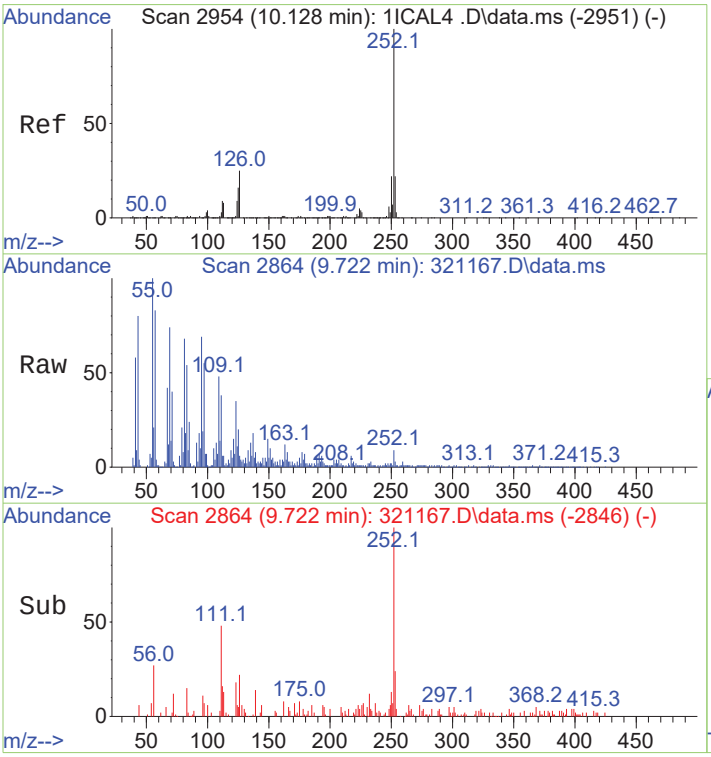


#87
B[b]fluoranth
Concen: 0.73 ug/mL m
RT: 9.716 min Scan# 2862
Delta R.T. 0.012 min
Lab File: 321167.D
Acq: 10 Sep 2019 23:52

Tgt Ion:252 Resp: 9484

Ion	Ratio	Lower	Upper
252	100		
253	22.1	0.0	51.9
125	144.7	0.0	50.0#

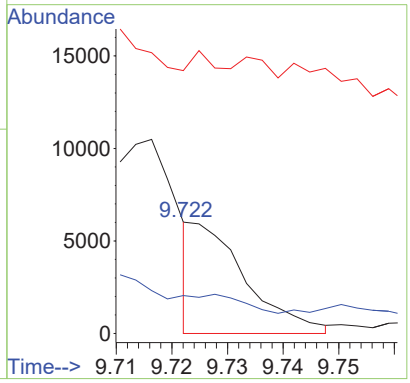


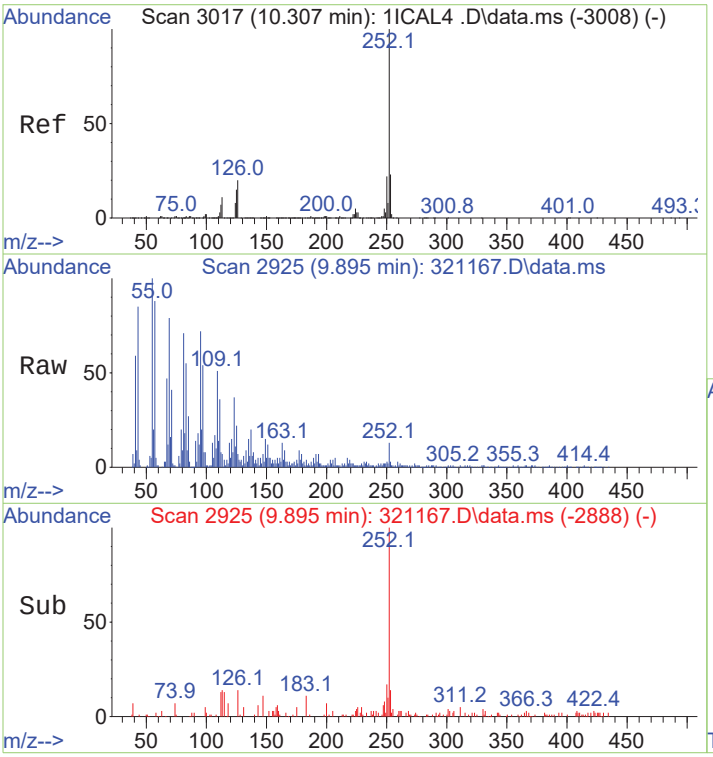


#88
B[k]fluoranth
Concen: 0.31 ug/mL m
RT: 9.722 min Scan# 2864
Delta R.T. 0.000 min
Lab File: 321167.D
Acq: 10 Sep 2019 23:52

Tgt Ion:252 Resp: 4017

Ion	Ratio	Lower	Upper
252	100		
253	34.0	0.0	52.0
125	235.9	0.0	50.2#

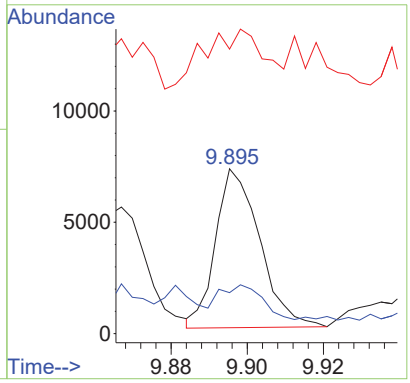


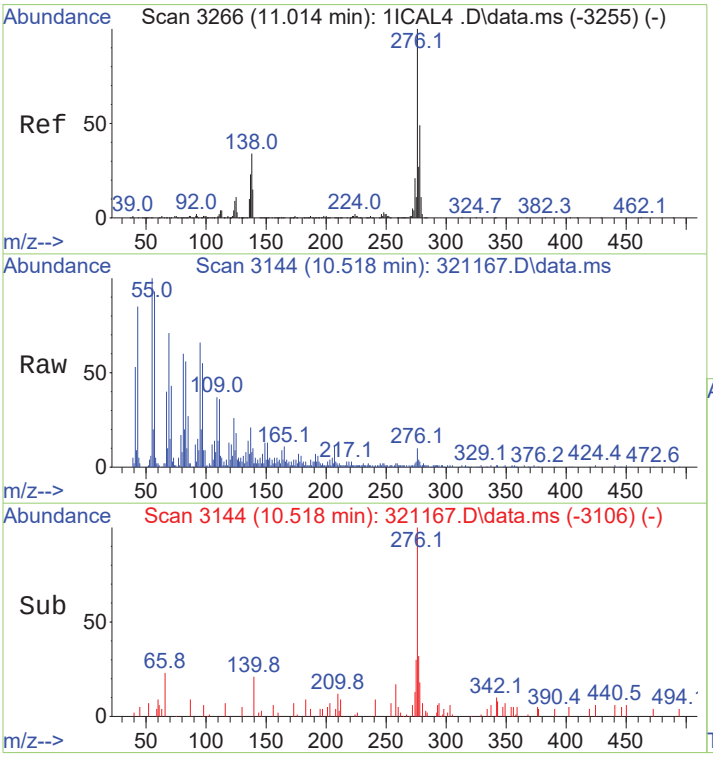


#89
Benz[a]pyrene
Concen: 0.43 ug/mL
RT: 9.895 min Scan# 2925
Delta R.T. 0.006 min
Lab File: 321167.D
Acq: 10 Sep 2019 23:52

Tgt Ion:252 Resp: 5763

Ion	Ratio	Lower	Upper
252	100		
253	15.1	0.0	51.7
125	15.0	0.0	51.4

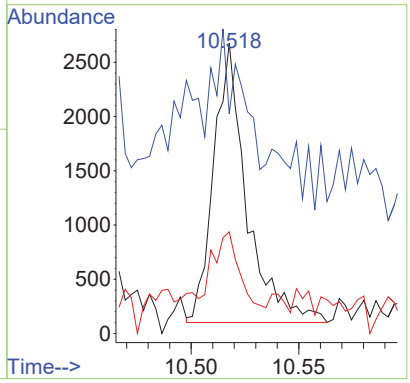


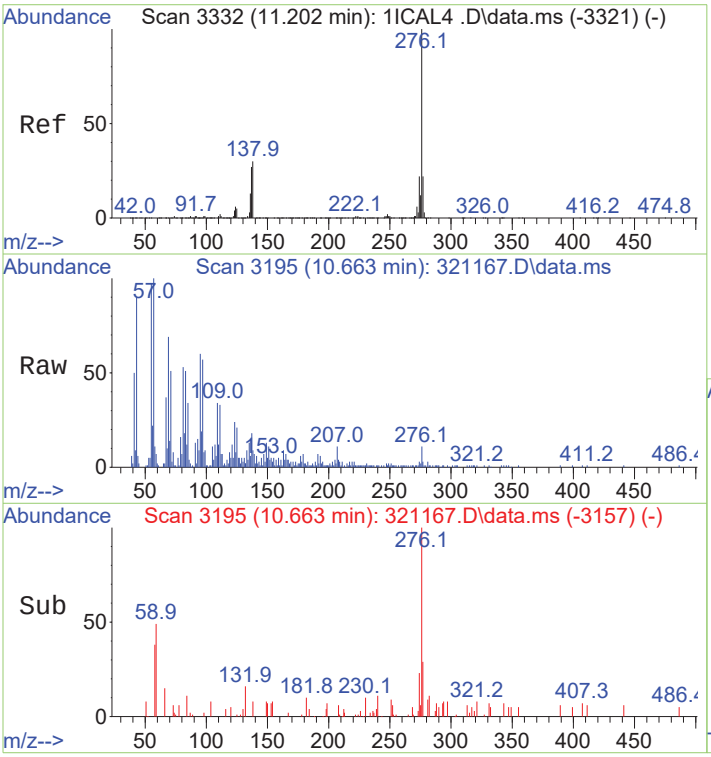


#90
Indeno-pyrene
Concen: 0.20 ug/mL
RT: 10.518 min Scan# 3144
Delta R.T. 0.009 min
Lab File: 321167.D
Acq: 10 Sep 2019 23:52

Tgt Ion:276 Resp: 2748

Ion	Ratio	Lower	Upper
276	100		
138	31.4	13.2	73.2
277	24.3	0.0	54.7

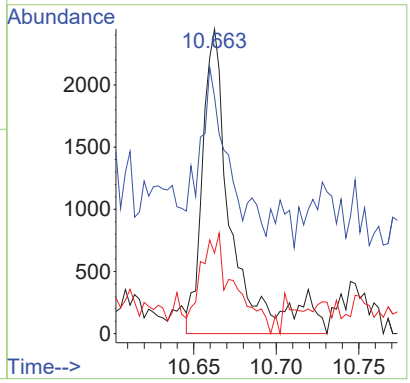


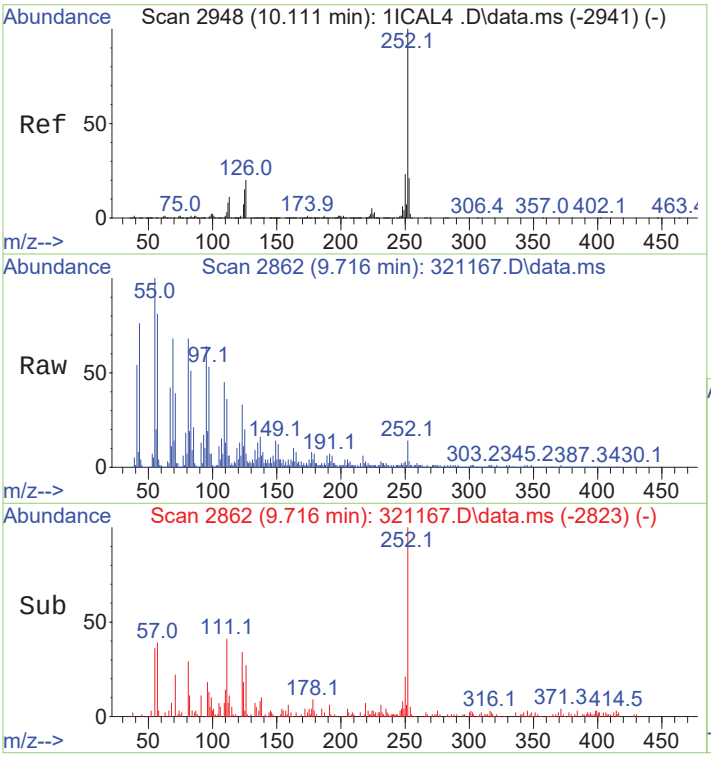


#92
B[ghi]perylen
Concen: 0.25 ug/mL
RT: 10.663 min Scan# 3195
Delta R.T. 0.009 min
Lab File: 321167.D
Acq: 10 Sep 2019 23:52

Tgt Ion:276 Resp: 3046

Ion	Ratio	Lower	Upper
276	100		
138	37.5	15.0	75.0
277	21.4	0.0	54.0

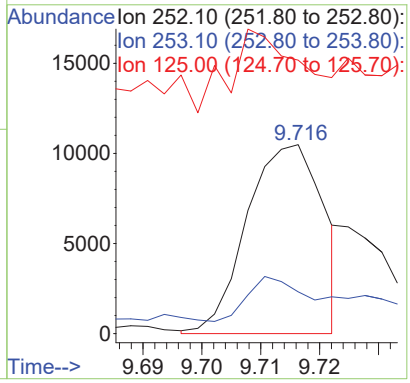




#87
B[b]fluoranth
Concen: 0.73 ug/mL m
RT: 9.716 min Scan# 2862
Delta R.T. 0.012 min
Lab File: 321167.D
Acq: 10 Sep 2019 23:52

Tgt Ion:252 Resp: 9484

Ion	Ratio	Lower	Upper
252	100		
253	22.1	0.0	51.9
125	144.7	0.0	50.0#

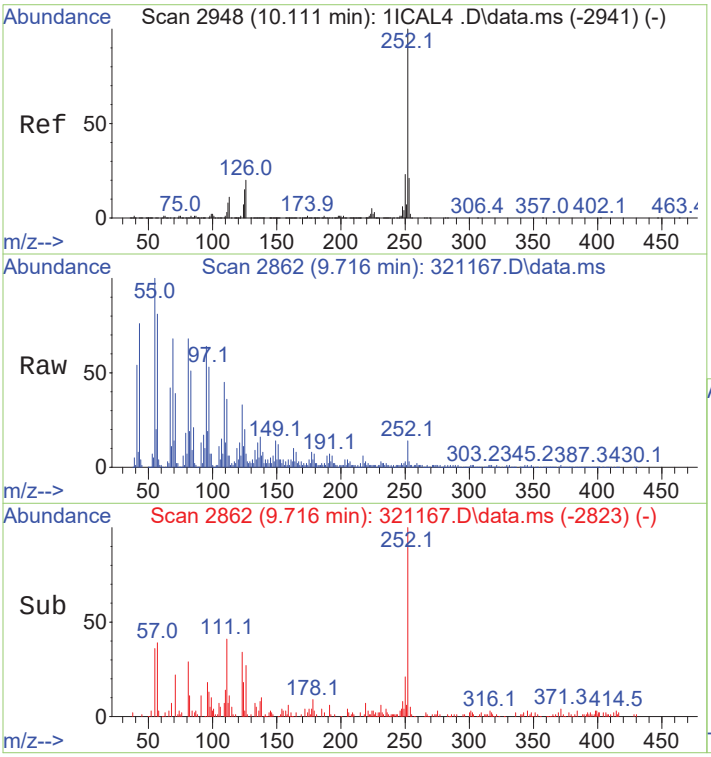


After Manual Integration

Reason#3

JJY
9/16/19

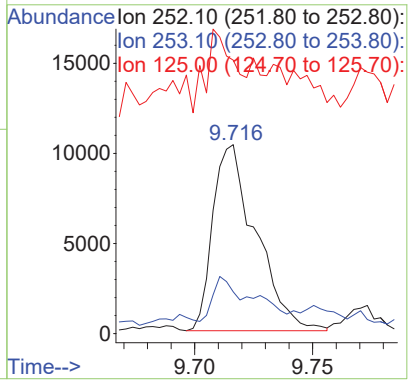
AJZ
09/19/2019



#87
B[b]fluoranth
Concen: 1.01 ug/mL
RT: 9.716 min Scan# 2862
Delta R.T. 0.012 min
Lab File: 321167.D
Acq: 10 Sep 2019 23:52

Tgt Ion:252 Resp: 13130

Ion	Ratio	Lower	Upper
252	100		
253	13.8	0.0	51.9
125	22.8	0.0	50.0

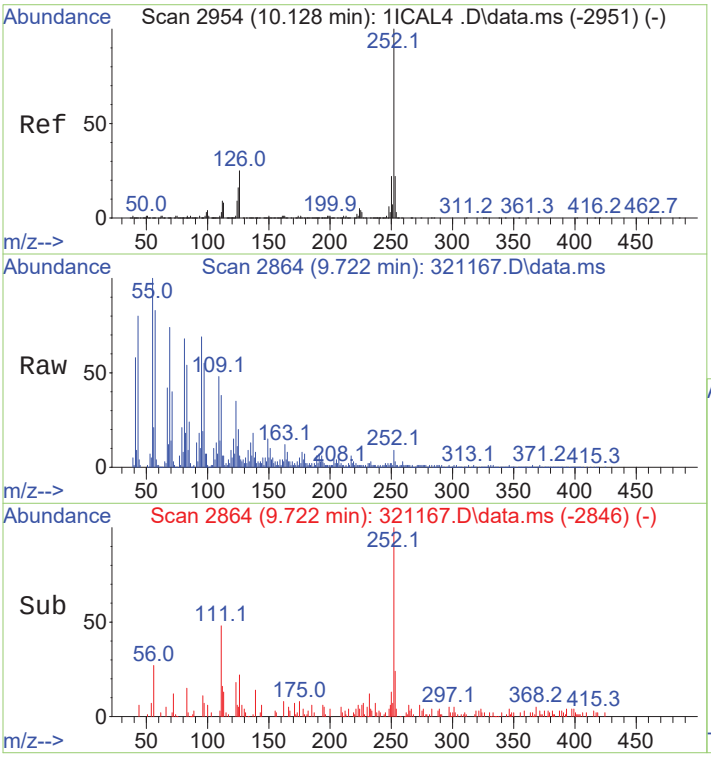


Before Manual Integration

Reason#3

JJY
9/16/19

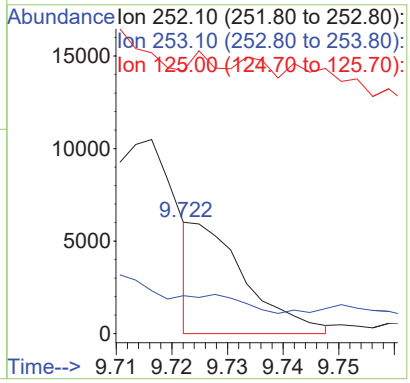
AJZ
09/19/2019



#88
B[k]fluoranth
Concen: 0.31 ug/mL m
RT: 9.722 min Scan# 2864
Delta R.T. 0.000 min
Lab File: 321167.D
Acq: 10 Sep 2019 23:52

Tgt Ion:252 Resp: 4017

Ion	Ratio	Lower	Upper
252	100		
253	34.0	0.0	52.0
125	235.9	0.0	50.2#

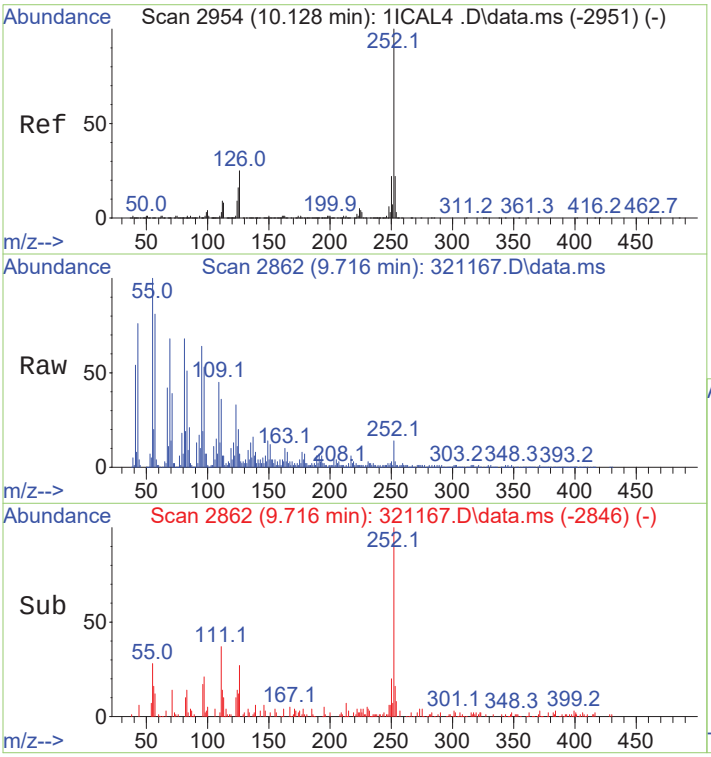


After Manual Integration

Reason#3

JJY
9/16/19

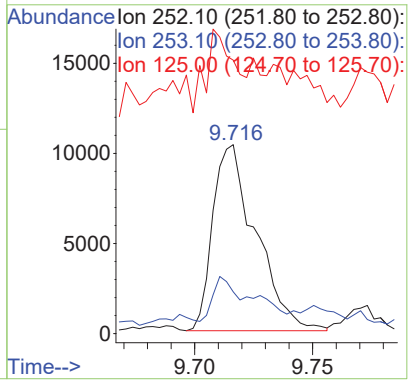
AJZ
09/19/2019



#88
B[k]fluoranth
Concen: 1.01 ug/mL
RT: 9.716 min Scan# 2862
Delta R.T. -0.005 min
Lab File: 321167.D
Acq: 10 Sep 2019 23:52

Tgt Ion:252 Resp: 13130

Ion	Ratio	Lower	Upper
252	100		
253	13.8	0.0	52.0
125	22.8	0.0	50.2



Before Manual Integration

Reason#3

JJY
9/16/19

AJZ
09/19/2019

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321167.D Vial: 18
Acq On : 10 Sep 2019 23:52 Operator: JJY
Sample : 164275,321167, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:50 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

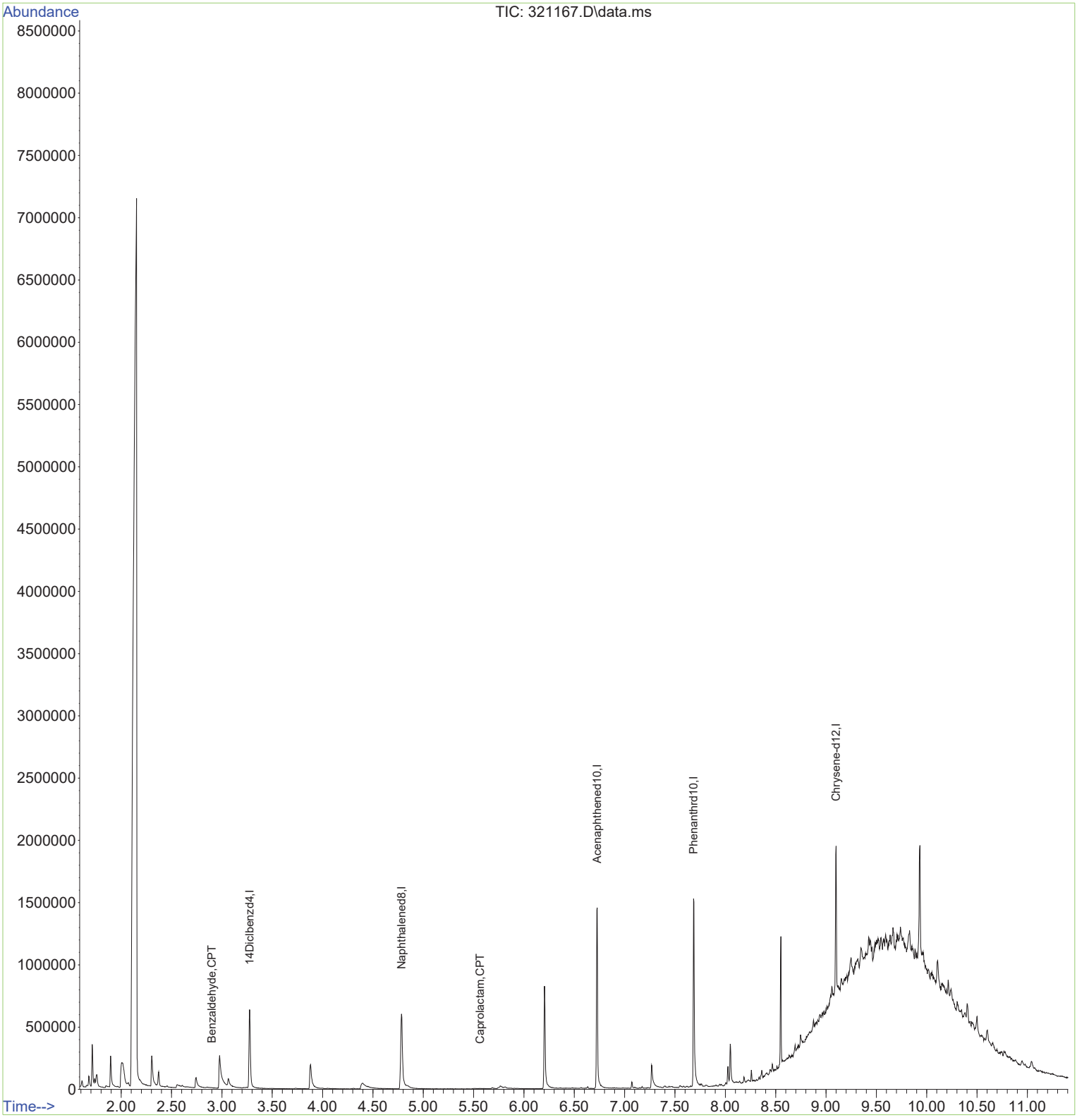
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	108518	20.00	ug/mL	0.00
3) Naphthalened8	4.784	136	410958	20.00	ug/mL	0.00
5) Acenaphthened10	6.727	164	263985	20.00	ug/mL	0.00
7) Phenanthrd10	7.685	188	435912	20.00	ug/mL	0.00
9) Chrysene-d12	9.100	240	244616	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	2.900	77	421	0.6640	ug/mL#	60
4) Caprolactam	5.565	55	1692	1.3320	ug/mL	97

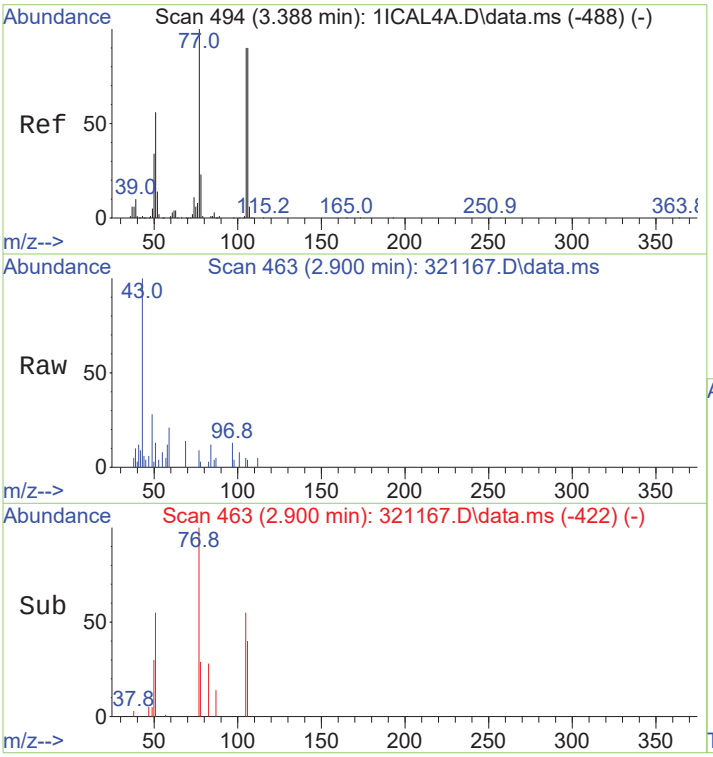
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321167.D Vial: 18
Acq On : 10 Sep 2019 23:52 Operator: JJY
Sample : 164275,321167, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:50 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

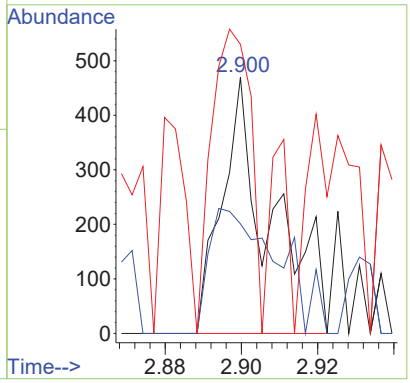


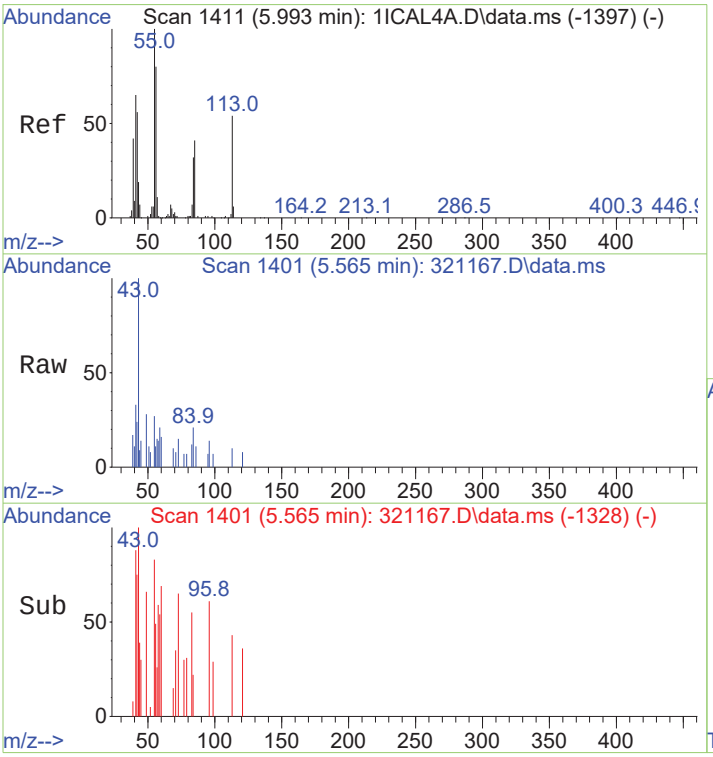


#2
Benzaldehyde
Concen: 0.66 ug/mL
RT: 2.900 min Scan# 463
Delta R.T. 0.017 min
Lab File: 321167.D
Acq: 10 Sep 2019 23:52

Tgt Ion: 77 Resp: 421

Ion	Ratio	Lower	Upper
77	100		
105	68.4	67.4	127.4
51	94.5	23.2	83.2#

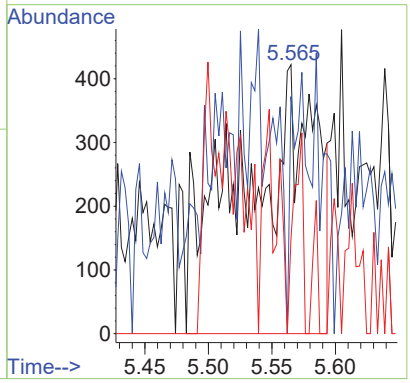




#4
Caprolactam
Concen: 1.33 ug/mL
RT: 5.565 min Scan# 1401
Delta R.T. 0.108 min
Lab File: 321167.D
Acq: 10 Sep 2019 23:52

Tgt Ion: 55 Resp: 1692

Ion	Ratio	Lower	Upper
55	100		
42	56.7	24.6	84.6
113	55.0	26.7	86.7



Library Search Compound Report

Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321167.D
Acq On : 10 Sep 2019 23:52
Operator : JJY
Sample : 164275,321167,
Misc : 500ul+5ul S4142A
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 1 Methacrylamide Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.712	7.18 ug/mL	227203	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Methacrylamide	85	C4H7NO	000079-39-0	45
2	Monomethylnitrosamine	60	CH4N2O	000000-00-0	9
3	Hexane, 2-bromo-	164	C6H13Br	003377-86-4	9
4	Hexane, 3-bromo-	164	C6H13Br	003377-87-5	9
5	Hexane, 3-bromo-	164	C6H13Br	003377-87-5	9

****

Peak Number 2 3-Penten-2-one, 4-methyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.894	6.27 ug/mL	198451	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
2	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
3	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
4	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	90
5	2-Pentene, 3,4-dimethyl-, (E)-	98	C7H14	004914-92-5	90

****

Peak Number 3 2-Pentanone, 5-(acetyloxy)- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.005	15.08 ug/mL	477171	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pentanone, 5-(acetyloxy)-	144	C7H12O3	005185-97-7	28
2	Acetic acid, 1-methylethyl ester	102	C5H10O2	000108-21-4	17
3	Acetic acid, hexyl ester	144	C8H16O2	000142-92-7	17
4	3-Buten-2-one, 3-methyl-	84	C5H8O	000814-78-8	9
5	Butane	58	C4H10	000106-97-8	9

****

Peak Number 4 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.152	478.34 ug/mL	15134700	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	56
2	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	47
3	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	28

Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321167.D
Acq On : 10 Sep 2019 23:52
Operator : JJY
Sample : 164275,321167,
Misc : 500ul+5ul S4142A
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

4	Acetic acid, cyano-, 1,1-dimethy...	141	C7H11NO2	001116-98-9	23
5	CH2=CHCH2C(O)OCH3	100	C5H8O2	003724-55-8	10

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321168.D Vial: 19
Acq On : 11 Sep 2019 00:12 Operator: JJY
Sample : 164275,321168, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 00:25:18 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

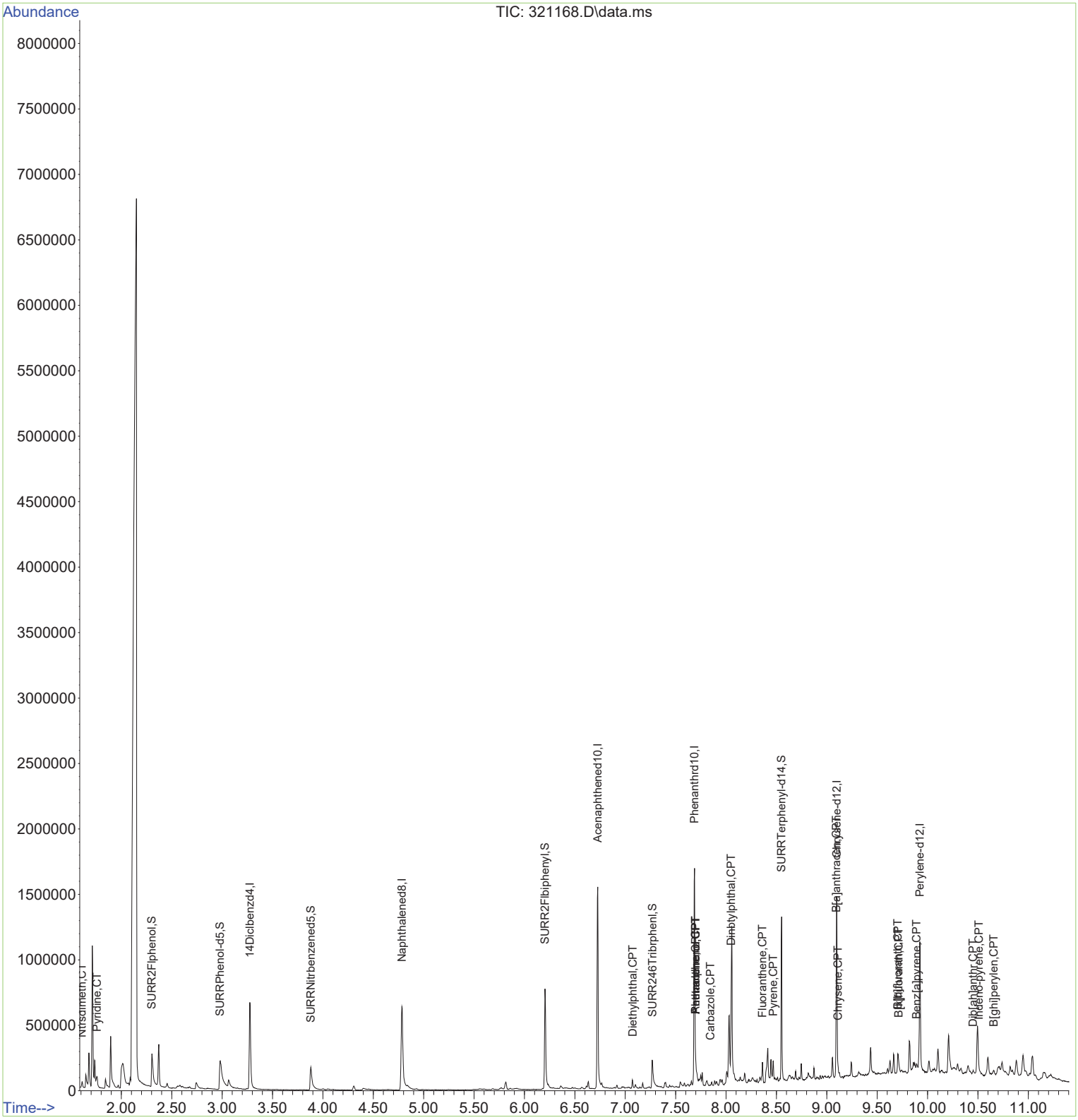
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	112226	20.00	ug/mL	0.00
21) Naphthalened8	4.783	136	430640	20.00	ug/mL	0.00
39) Acenaphthened10	6.727	164	259083	20.00	ug/mL	0.00
63) Phenanthrd10	7.687	188	454631	20.00	ug/mL	0.00
75) Chrysene-d12	9.100	240	266280	20.00	ug/mL	0.00
86) Perylene-d12	9.924	264	239760	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.303	112	99828	35.96	%REC	0.02
Spiked Amount 100.000			Recovery = 35.96%			
7) SURRPhenol-d5	2.979	99	163587	48.53	%REC	0.01
Spiked Amount 100.000			Recovery = 48.53%			
22) SURRNitrbenzened5	3.880	82	80815	55.45	%REC	0.00
Spiked Amount 100.000			Recovery = 55.45%			
44) SURR2Flbiphenyl	6.204	172	237738	68.88	%REC	0.00
Spiked Amount 100.000			Recovery = 68.88%			
62) SURR246Tribrphenl	7.270	330	26674	33.22	%REC	0.00
Spiked Amount 100.000			Recovery = 33.22%			
78) SURRTerphenyl-d14	8.551	244	176876	72.57	%REC	0.00
Spiked Amount 100.000			Recovery = 72.57%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.610	74	2877	1.1654	ug/mL#	1
3) Pyridine	1.757	79	711	0.6456	ug/mL	78
60) Diethylphthal	7.074	149	7638	0.4403	ug/mL	97
69) Pentaclphenol	7.699	266	3601	3.2973	ug/mL#	1
70) Phenanthrene	7.699	178	16309	0.6802	ug/mL	96
71) Anthracene	7.699	178	20852	0.8444	ug/mL	95
72) Carbazole	7.844	167	3861	0.1621	ug/mL	78
73) Dinbtylphthal	8.051	149	9992	0.1702	ug/mL	97
74) Fluoranthene	8.361	202	34639	2.0099	ug/mL	97
77) Pyrene	8.469	202	29995	1.4991	ug/mL	95
82) B[a]anthracen	9.094	228	14789	0.9009	ug/mL	96
83) Chrysene	9.111	228	15802	0.9302	ug/mL	99
87) B[b]fluoranth	9.705	252	22298m	1.7085	ug/mL	
88) B[k]fluoranth	9.713	252	10637m	0.8127	ug/mL	
89) Benz[a]pyrene	9.890	252	12243	0.9092	ug/mL	91
90) Indeno-pyrene	10.509	276	5963	0.4280	ug/mL	96
91) Dib[ah]anthr	10.449	278	2092	0.1851	ug/mL	77
92) B[ghi]perylen	10.657	276	5846	0.4790	ug/mL	85

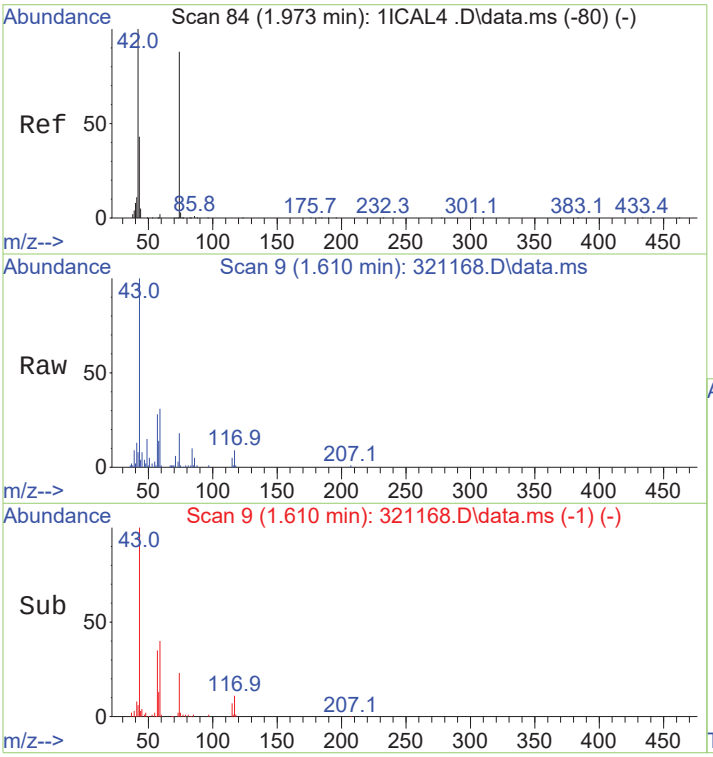
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321168.D Vial: 19
Acq On : 11 Sep 2019 00:12 Operator: JJY
Sample : 164275,321168, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 00:25:18 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

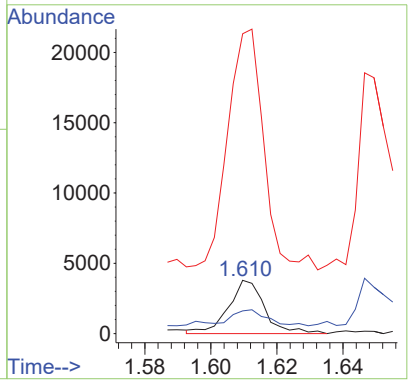


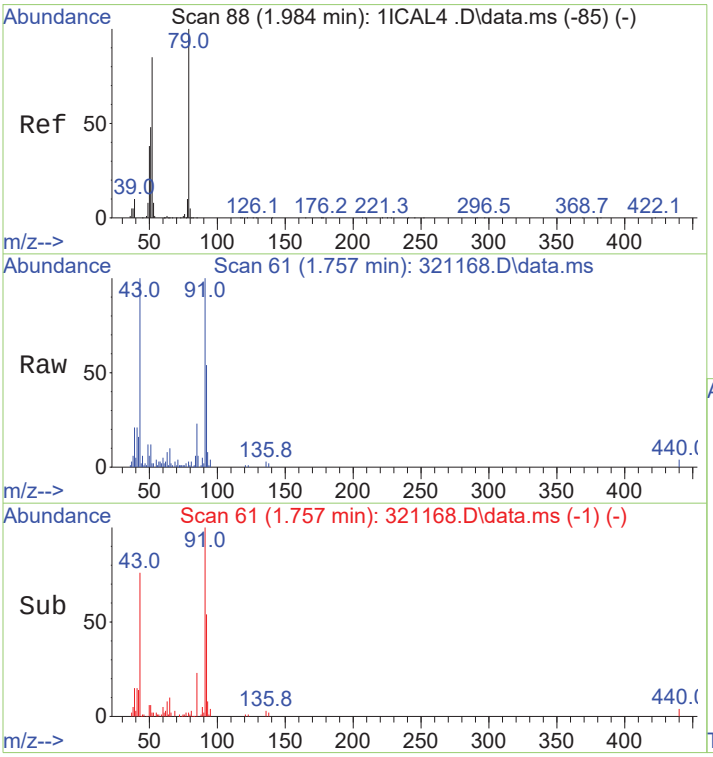


#2
Ntrsdimeth
Concen: 1.17 ug/mL
RT: 1.610 min Scan# 9
Delta R.T. -0.028 min
Lab File: 321168.D
Acq: 11 Sep 2019 00:12

Tgt Ion: 74 Resp: 2877

Ion	Ratio	Lower	Upper
74	100		
42	23.9	54.2	114.2#
43	451.5	5.5	65.5#

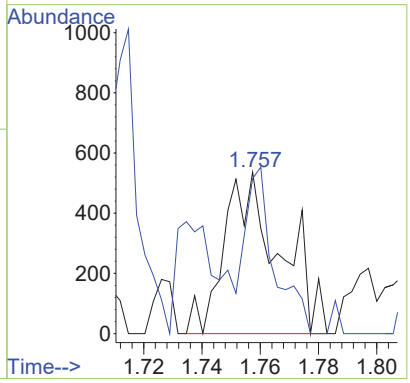


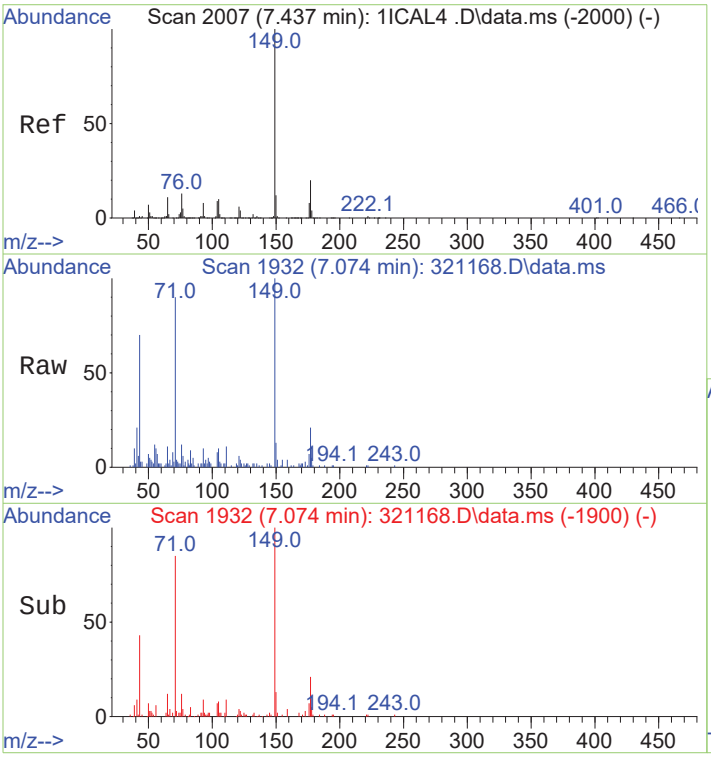


#3
Pyridine
Concen: 0.65 ug/mL
RT: 1.757 min Scan# 61
Delta R.T. 0.111 min
Lab File: 321168.D
Acq: 11 Sep 2019 00:12

Tgt Ion: 79 Resp: 711

Ion	Ratio	Lower	Upper
79	100		
52	95.9	46.7	106.7

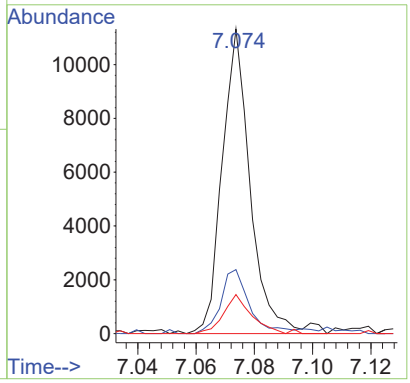


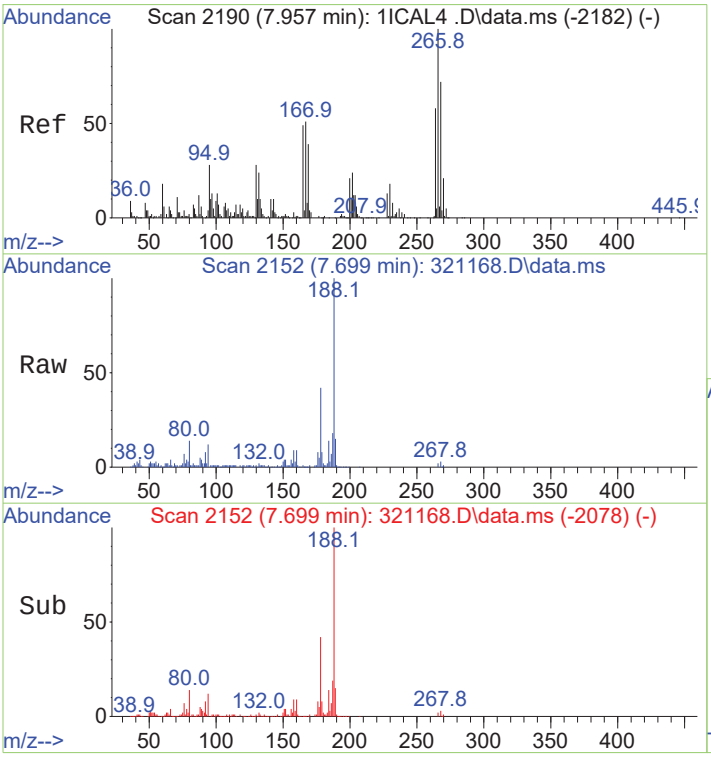


#60
Diethylphthal
Concen: 0.44 ug/mL
RT: 7.074 min Scan# 1932
Delta R.T. -0.008 min
Lab File: 321168.D
Acq: 11 Sep 2019 00:12

Tgt Ion:149 Resp: 7638

Ion	Ratio	Lower	Upper
149	100		
177	21.0	0.0	49.3
150	12.8	0.0	41.9

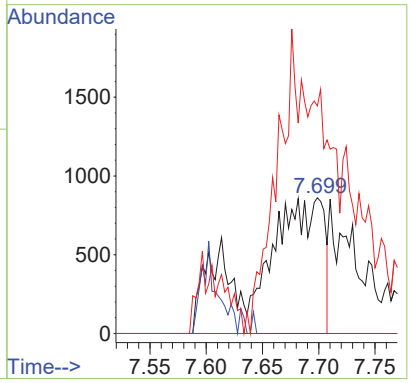


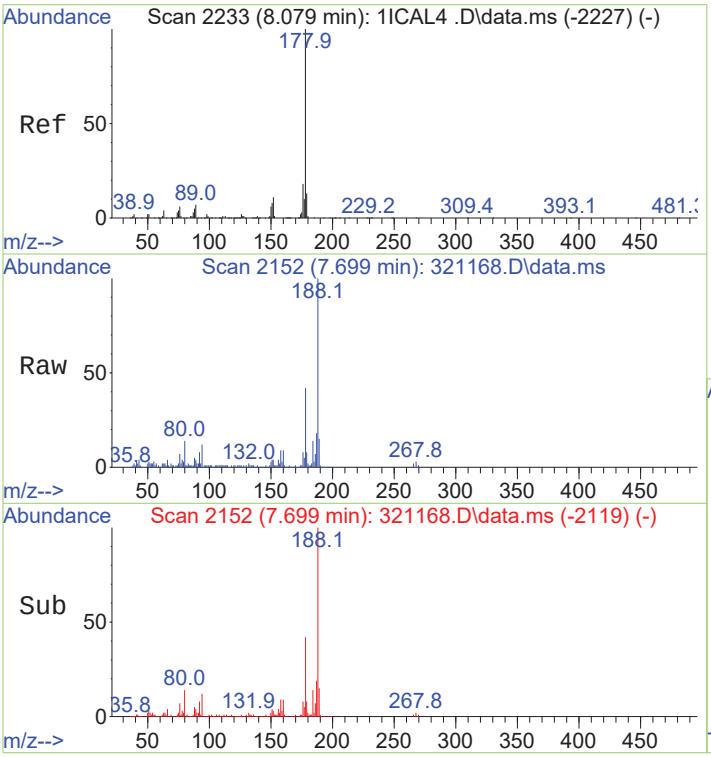


#69
Pentaclphenol
Concen: 3.30 ug/mL
RT: 7.699 min Scan# 2152
Delta R.T. 0.111 min
Lab File: 321168.D
Acq: 11 Sep 2019 00:12

Tgt Ion:266 Resp: 3601

Ion	Ratio	Lower	Upper
266	100		
264	0.0	35.2	95.2#
268	167.7	34.5	94.5#

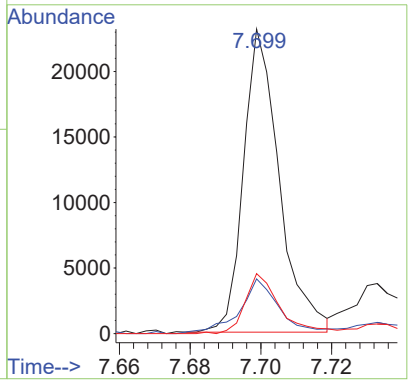


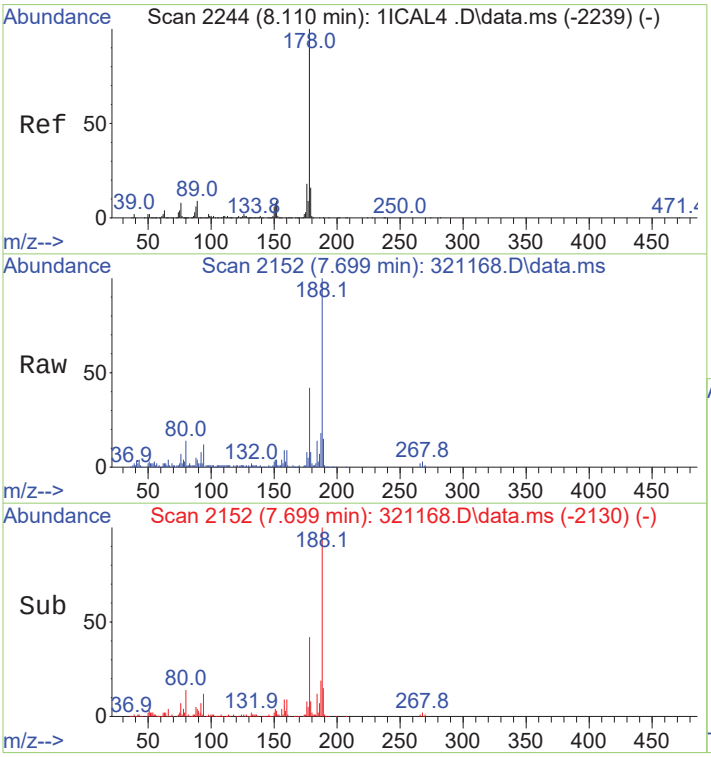


#70
Phenanthrene
Concen: 0.68 ug/mL
RT: 7.699 min Scan# 2152
Delta R.T. -0.006 min
Lab File: 321168.D
Acq: 11 Sep 2019 00:12

Tgt Ion:178 Resp: 16309

Ion	Ratio	Lower	Upper
178	100		
179	17.6	0.0	45.3
176	19.9	0.0	48.4

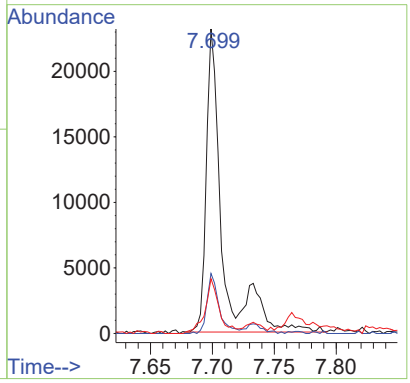


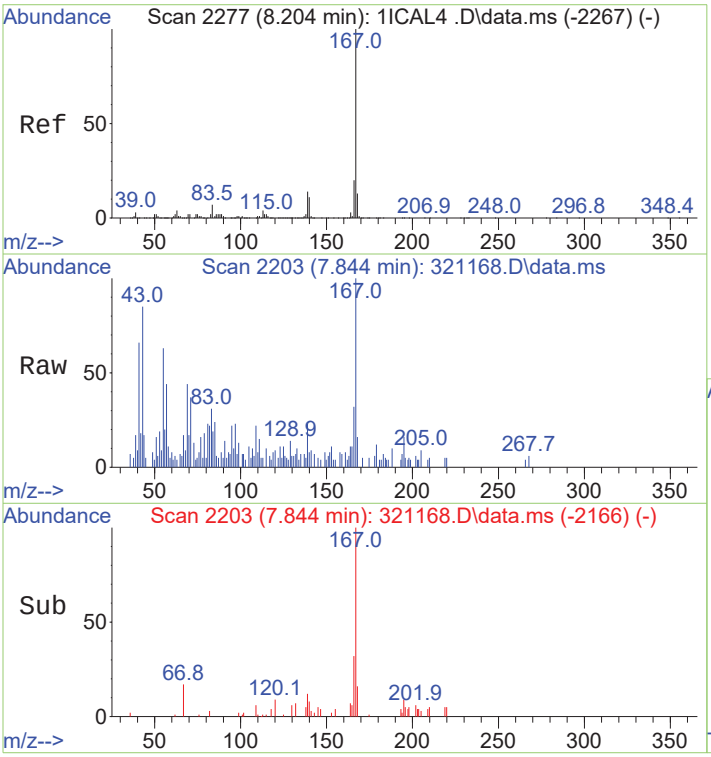


#71
Anthracene
Concen: 0.84 ug/mL
RT: 7.699 min Scan# 2152
Delta R.T. -0.037 min
Lab File: 321168.D
Acq: 11 Sep 2019 00:12

Tgt Ion:178 Resp: 20852

Ion	Ratio	Lower	Upper
178	100		
176	19.8	0.0	47.6
179	17.5	0.0	45.1

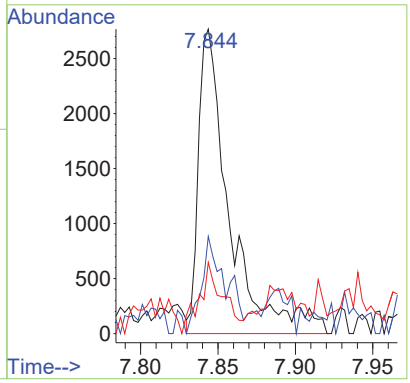


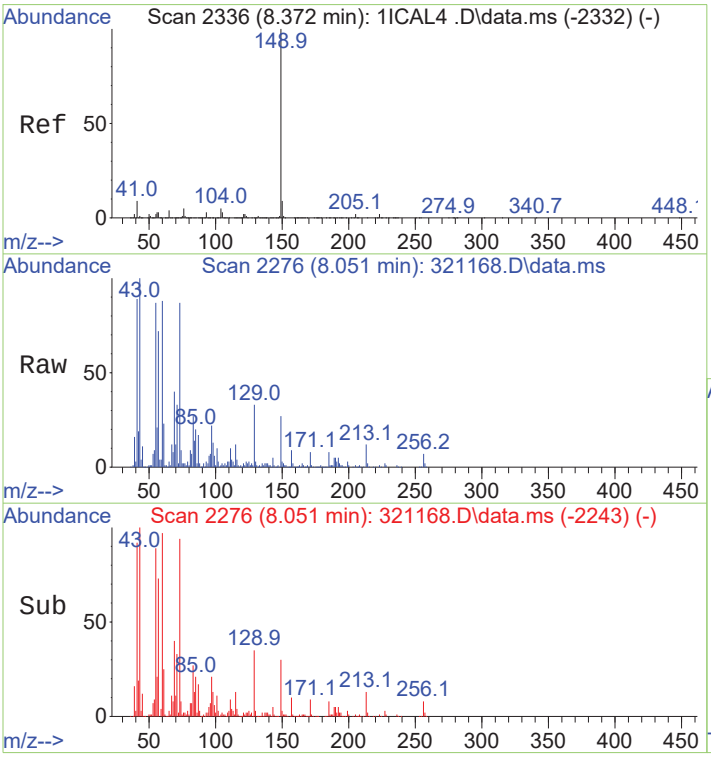


#72
Carbazole
Concen: 0.16 ug/mL
RT: 7.844 min Scan# 2203
Delta R.T. 0.006 min
Lab File: 321168.D
Acq: 11 Sep 2019 00:12

Tgt Ion:167 Resp: 3861

Ion	Ratio	Lower	Upper
167	100		
166	31.9	0.0	49.3
139	17.6	0.0	42.6

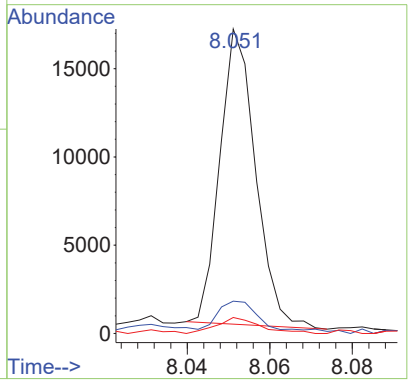


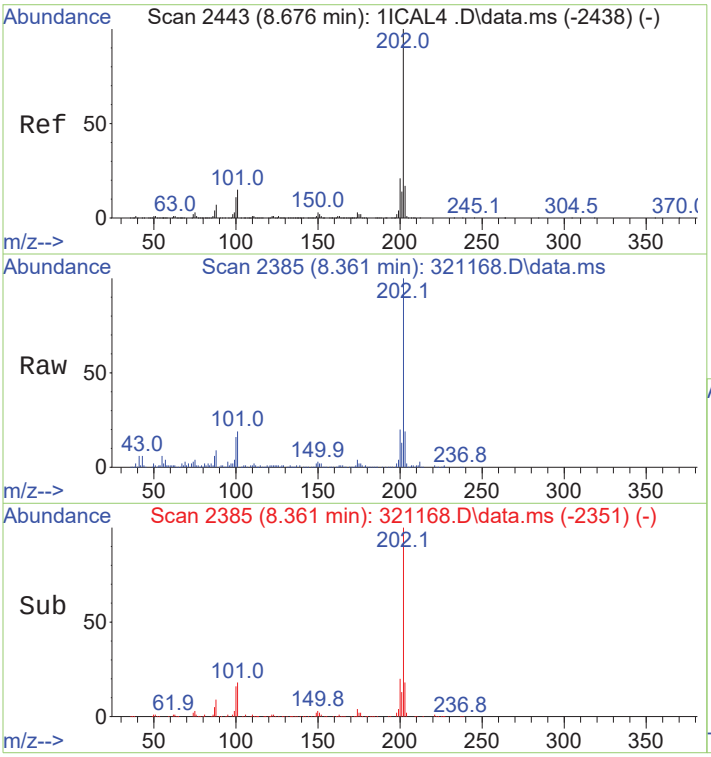


#73
Dinbtylphthal
Concen: 0.17 ug/mL
RT: 8.051 min Scan# 2276
Delta R.T. -0.006 min
Lab File: 321168.D
Acq: 11 Sep 2019 00:12

Tgt Ion:149 Resp: 9992

Ion	Ratio	Lower	Upper
149	100		
150	10.1	0.0	39.0
104	5.3	0.0	34.6

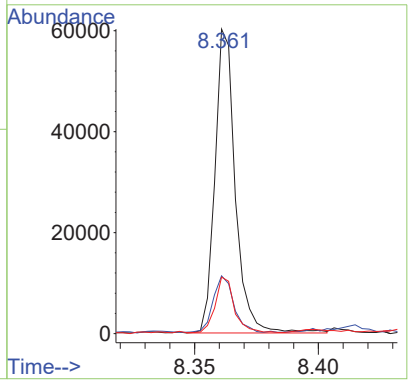


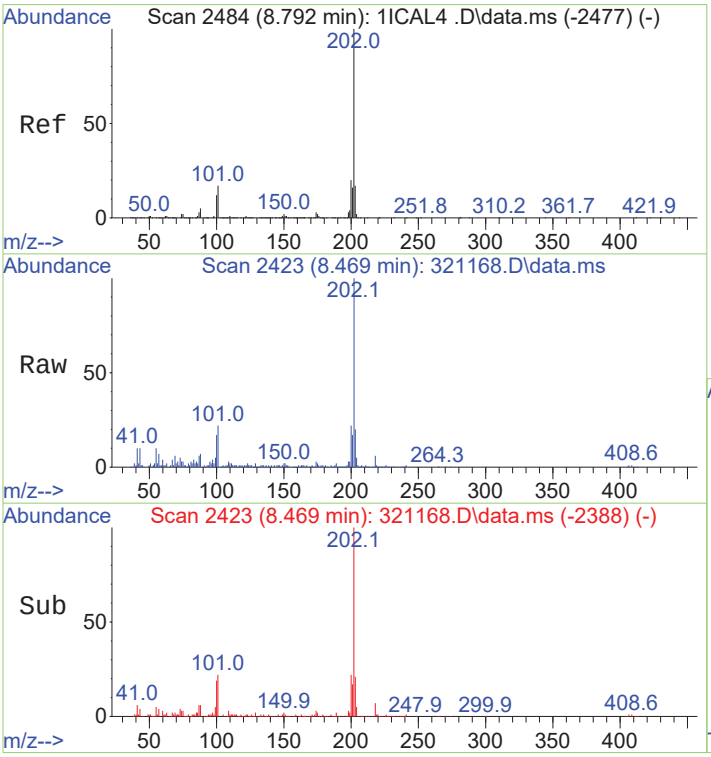


#74
Fluoranthene
Concen: 2.01 ug/mL
RT: 8.361 min Scan# 2385
Delta R.T. -0.003 min
Lab File: 321168.D
Acq: 11 Sep 2019 00:12

Tgt Ion:202 Resp: 34639

Ion	Ratio	Lower	Upper
202	100		
101	18.6	0.0	50.7
203	18.3	0.0	47.3

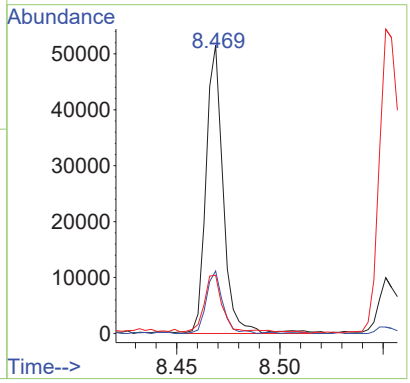


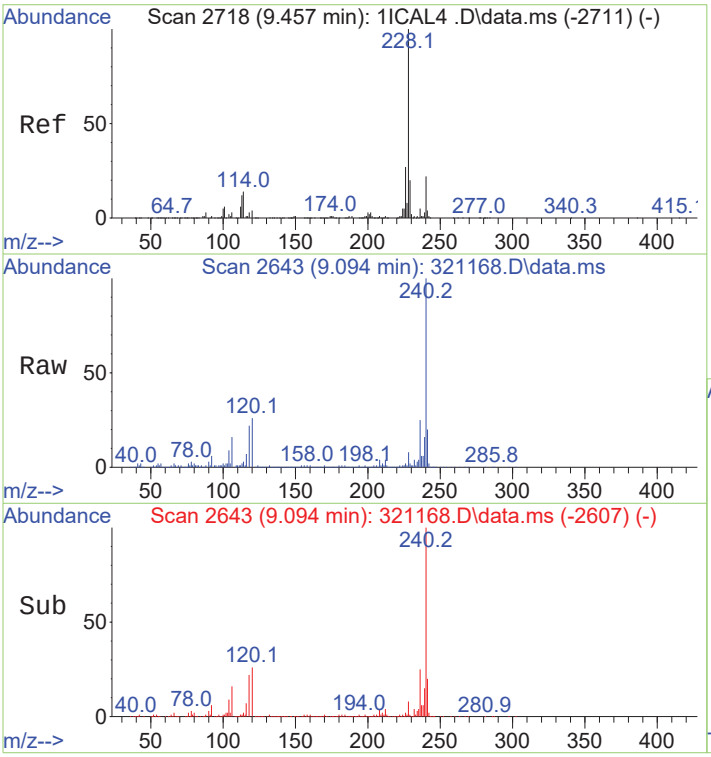


#77
Pyrene
Concen: 1.50 ug/mL
RT: 8.469 min Scan# 2423
Delta R.T. 0.000 min
Lab File: 321168.D
Acq: 11 Sep 2019 00:12

Tgt Ion:202 Resp: 29995

Ion	Ratio	Lower	Upper
202	100		
200	21.7	0.0	50.1
203	19.7	0.0	46.9

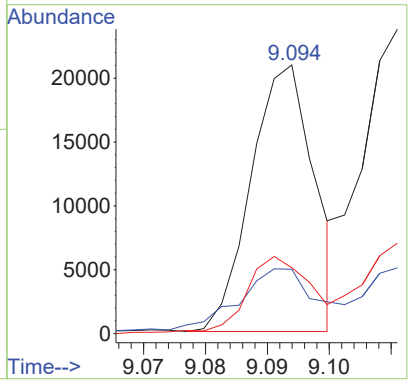


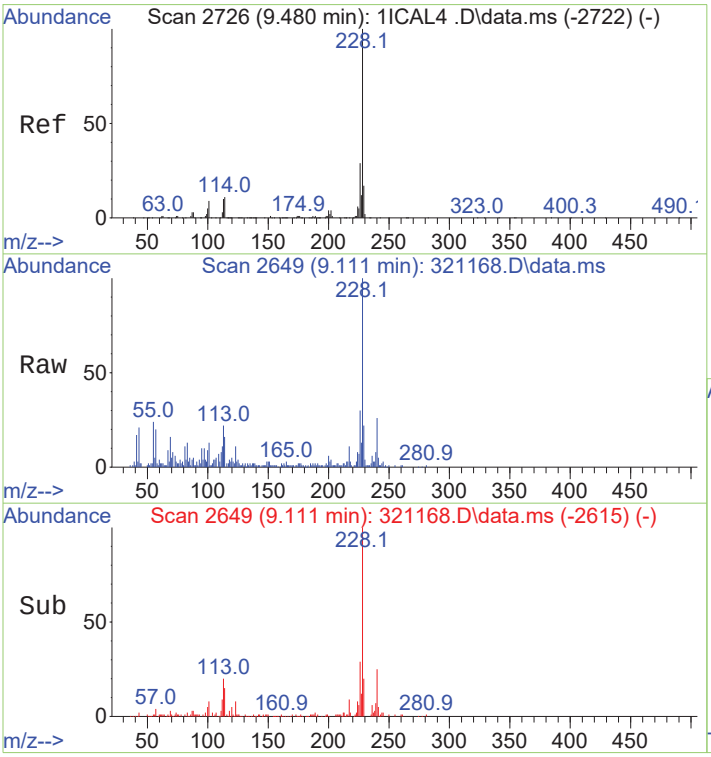


#82
B[a]anthracen
Concen: 0.90 ug/mL
RT: 9.094 min Scan# 2643
Delta R.T. 0.003 min
Lab File: 321168.D
Acq: 11 Sep 2019 00:12

Tgt Ion:228 Resp: 14789

Ion	Ratio	Lower	Upper
228	100		
229	20.9	0.0	49.3
226	23.5	0.0	56.2

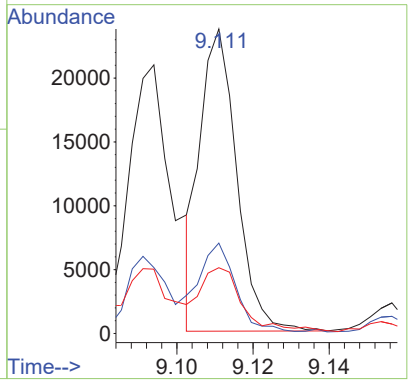


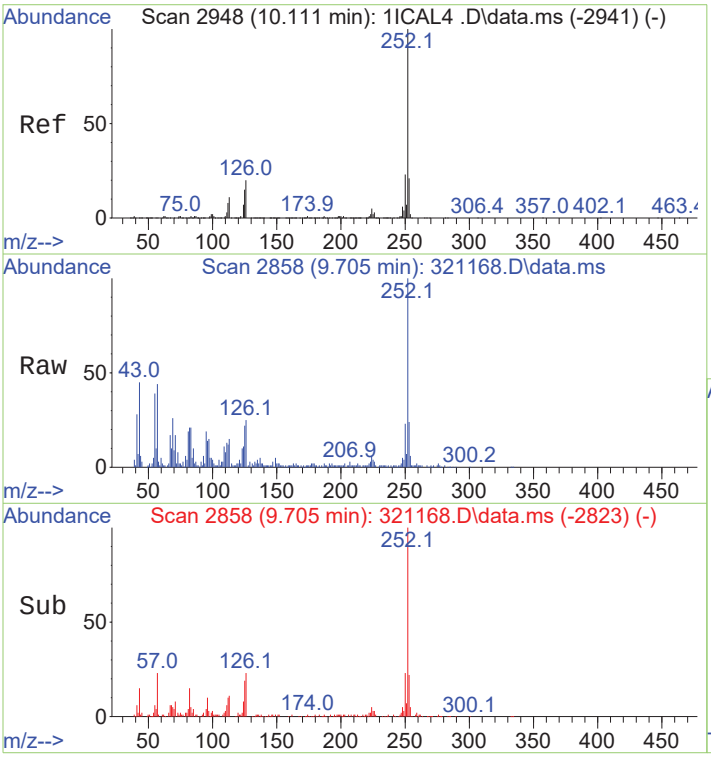


#83
Chrysene
Concen: 0.93 ug/mL
RT: 9.111 min Scan# 2649
Delta R.T. -0.003 min
Lab File: 321168.D
Acq: 11 Sep 2019 00:12

Tgt Ion:228 Resp: 15802

Ion	Ratio	Lower	Upper
228	100		
226	29.0	0.0	59.0
229	21.0	0.0	49.4

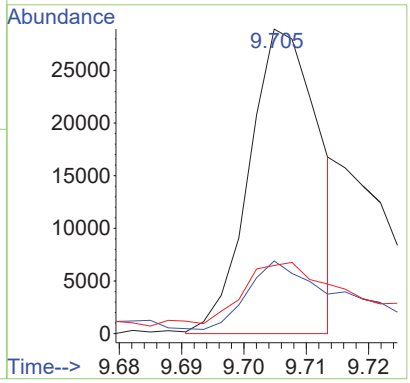


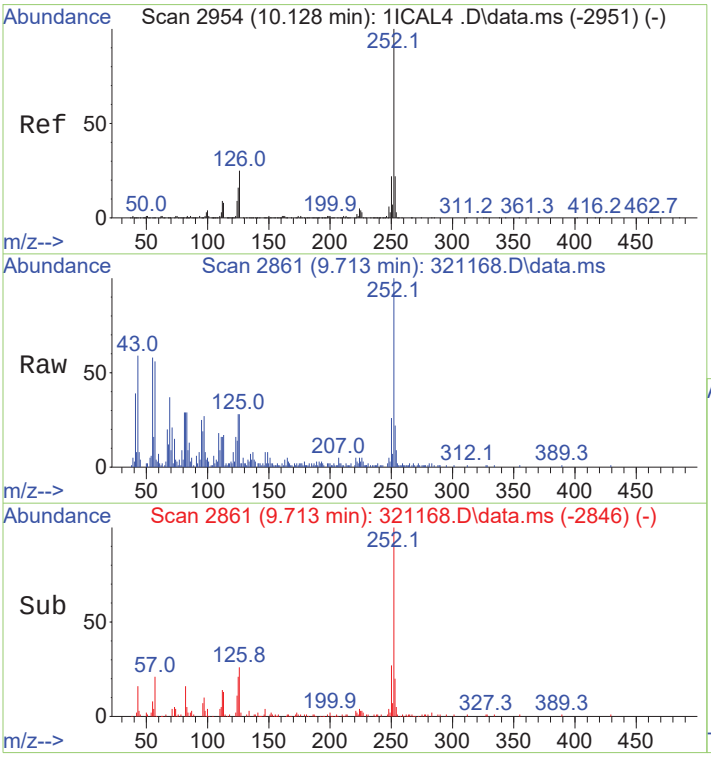


#87
B[b]fluoranth
Concen: 1.71 ug/mL m
RT: 9.705 min Scan# 2858
Delta R.T. 0.000 min
Lab File: 321168.D
Acq: 11 Sep 2019 00:12

Tgt Ion:252 Resp: 22298

Ion	Ratio	Lower	Upper
252	100		
253	23.8	0.0	51.9
125	22.4	0.0	50.0

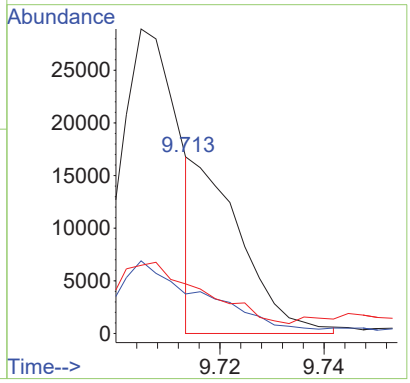


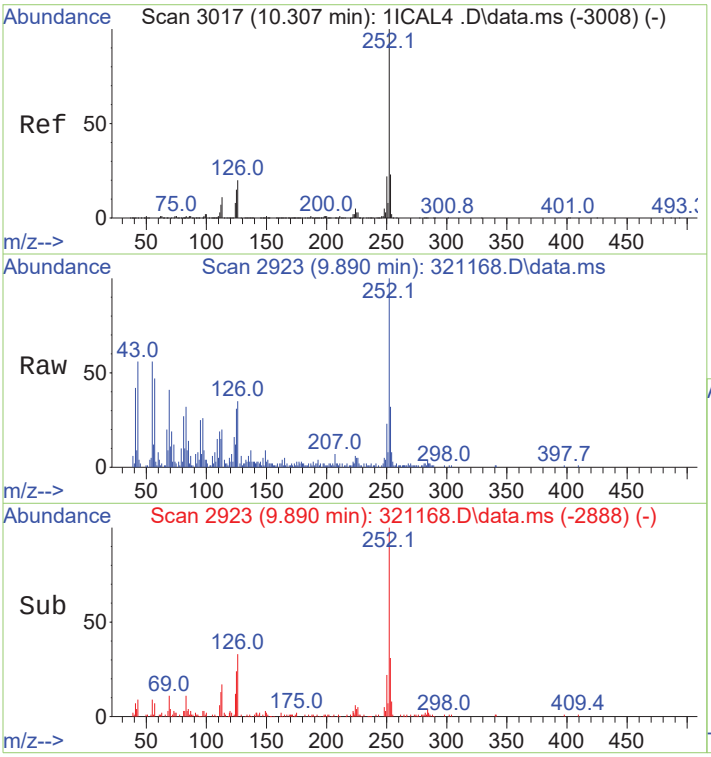


#88
B[k]fluoranth
Concen: 0.81 ug/mL m
RT: 9.713 min Scan# 2861
Delta R.T. -0.008 min
Lab File: 321168.D
Acq: 11 Sep 2019 00:12

Tgt Ion:252 Resp: 10637

Ion	Ratio	Lower	Upper
252	100		
253	22.3	0.0	52.0
125	28.1	0.0	50.2

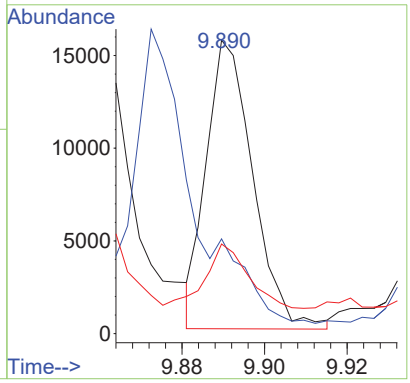


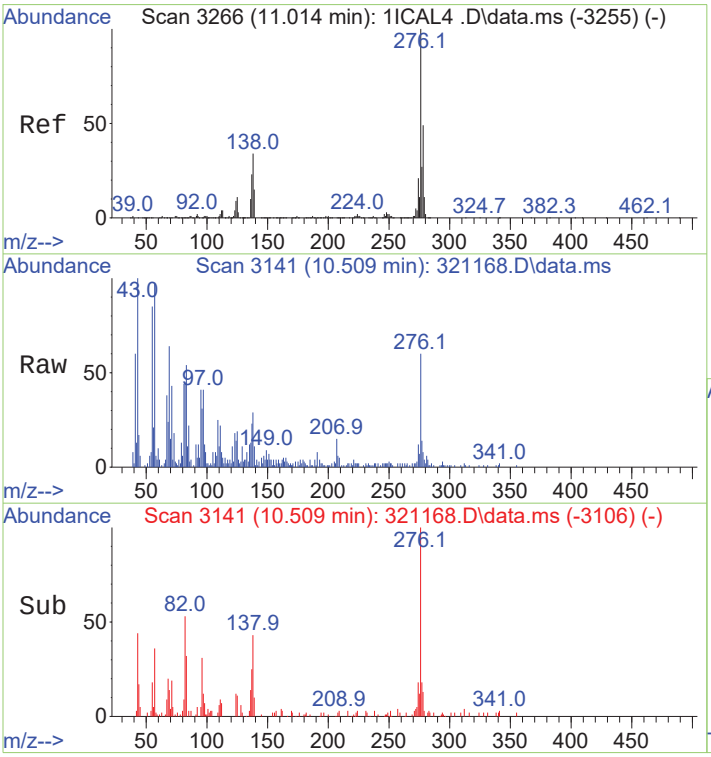


#89
Benz[a]pyrene
Concen: 0.91 ug/mL
RT: 9.890 min Scan# 2923
Delta R.T. 0.000 min
Lab File: 321168.D
Acq: 11 Sep 2019 00:12

Tgt Ion:252 Resp: 12243

Ion	Ratio	Lower	Upper
252	100		
253	29.3	0.0	51.7
125	20.7	0.0	51.4

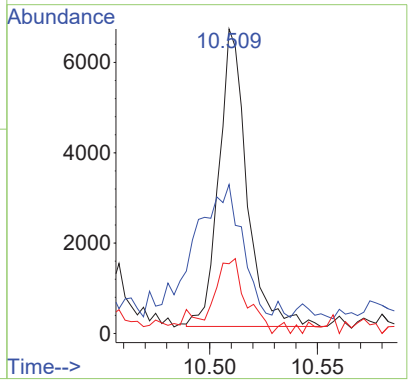


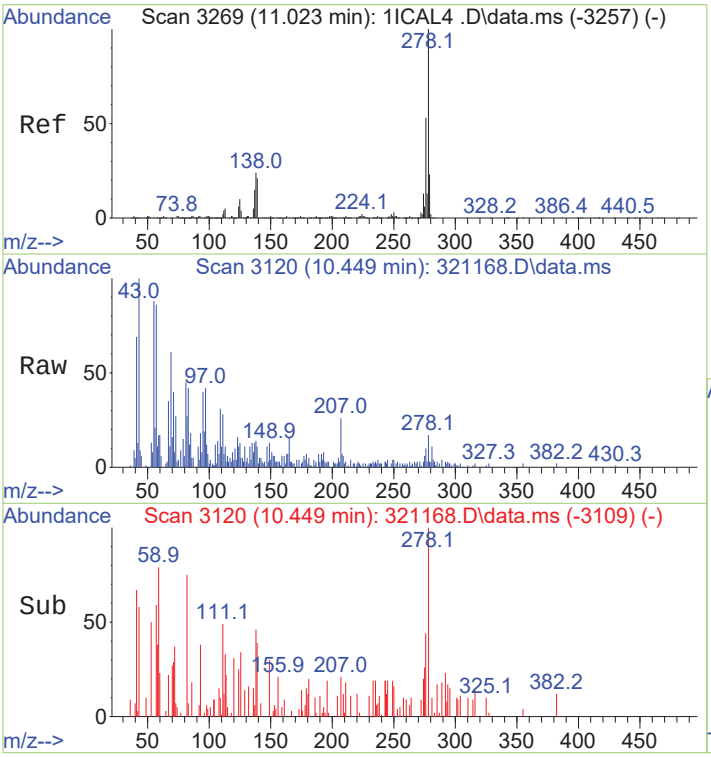


#90
Indeno-pyrene
Concen: 0.43 ug/mL
RT: 10.509 min Scan# 3141
Delta R.T. 0.000 min
Lab File: 321168.D
Acq: 11 Sep 2019 00:12

Tgt Ion:276 Resp: 5963

Ion	Ratio	Lower	Upper
276	100		
138	44.3	13.2	73.2
277	20.8	0.0	54.7

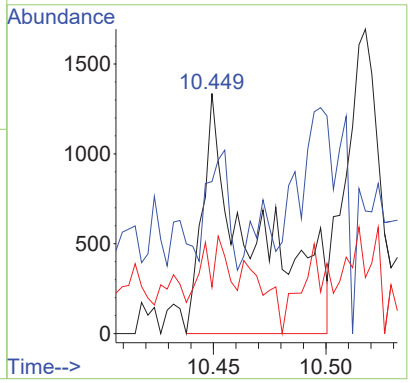


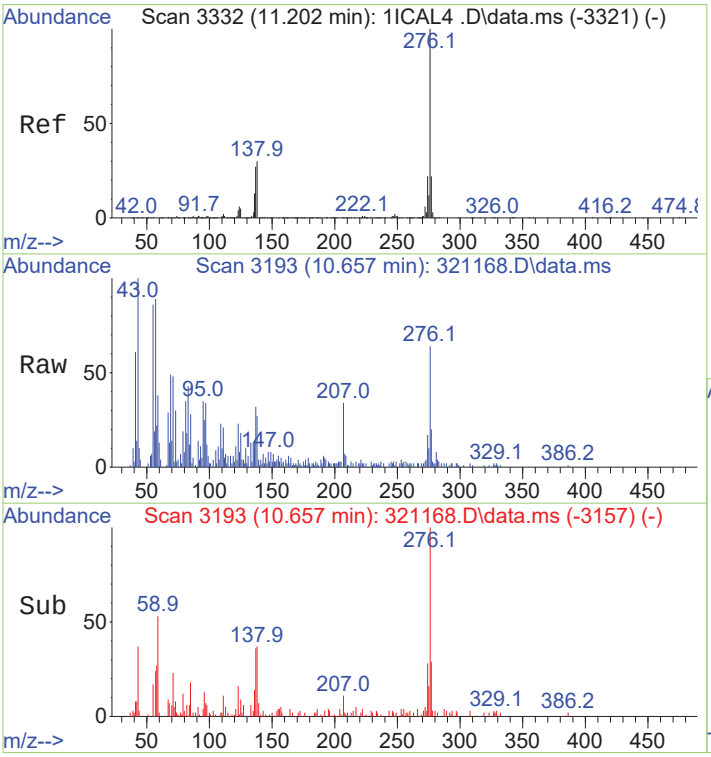


#91
Dib[ah]anthr
Concen: 0.19 ug/mL
RT: 10.449 min Scan# 3120
Delta R.T. -0.068 min
Lab File: 321168.D
Acq: 11 Sep 2019 00:12

Tgt Ion:278 Resp: 2092

Ion	Ratio	Lower	Upper
278	100		
139	26.0	4.7	64.7
279	6.4	0.0	54.0

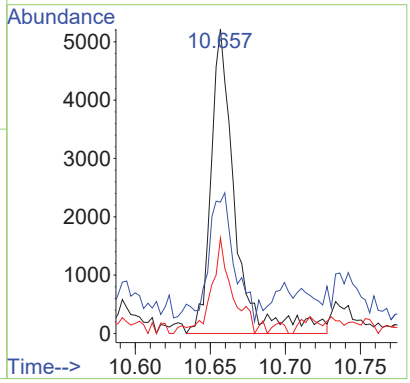


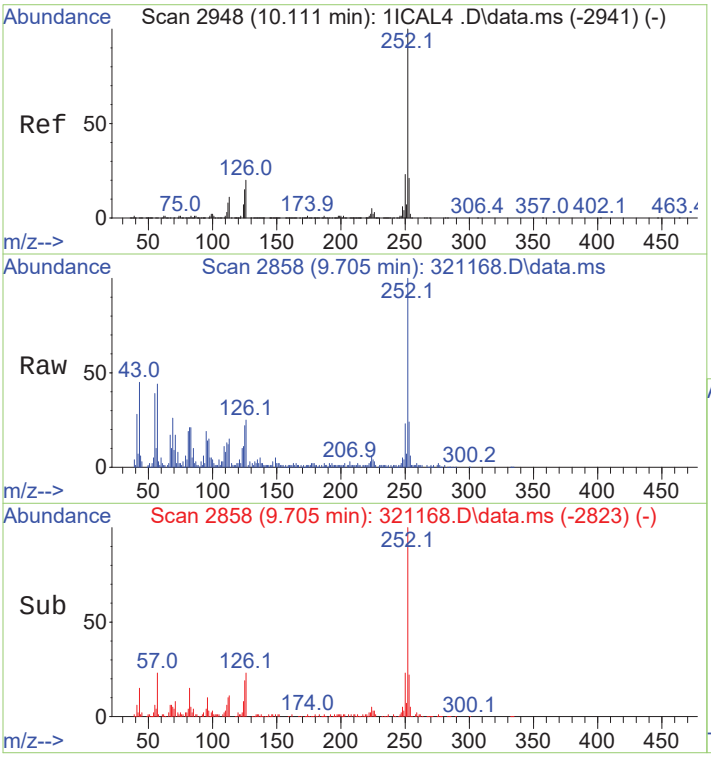


#92
B[ghi]perylen
Concen: 0.48 ug/mL
RT: 10.657 min Scan# 3193
Delta R.T. 0.003 min
Lab File: 321168.D
Acq: 11 Sep 2019 00:12

Tgt Ion:276 Resp: 5846

Ion	Ratio	Lower	Upper
276	100		
138	33.6	15.0	75.0
277	29.4	0.0	54.0

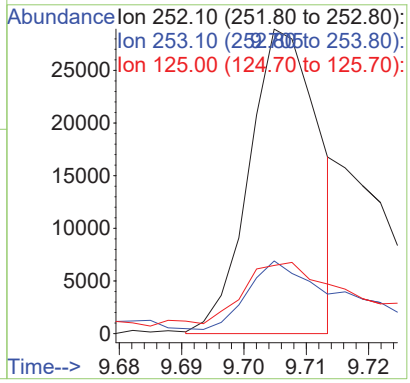




#87
B[b]fluoranth
Concen: 1.71 ug/mL m
RT: 9.705 min Scan# 2858
Delta R.T. 0.000 min
Lab File: 321168.D
Acq: 11 Sep 2019 00:12

Tgt Ion:252 Resp: 22298

Ion	Ratio	Lower	Upper
252	100		
253	23.8	0.0	51.9
125	22.4	0.0	50.0

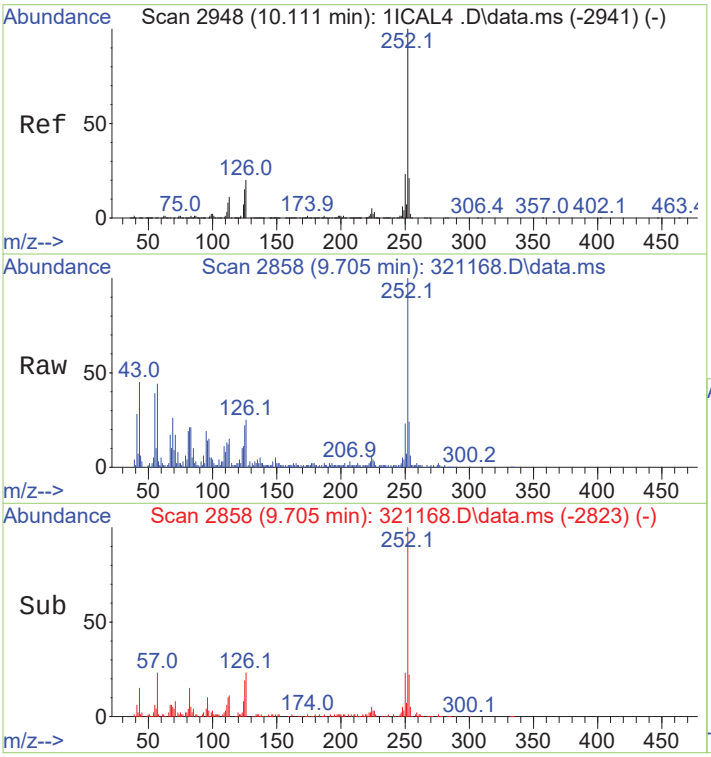


After Manual Integration

Reason#3

JJY
9/16/19

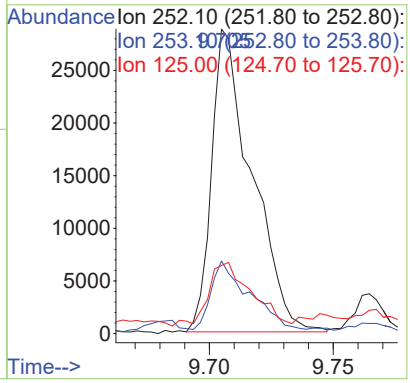
AJZ
09/19/2019



#87
B[b]fluoranth
Concen: 2.49 ug/mL
RT: 9.705 min Scan# 2858
Delta R.T. 0.000 min
Lab File: 321168.D
Acq: 11 Sep 2019 00:12

Tgt Ion:252 Resp: 32503

Ion	Ratio	Lower	Upper
252	100		
253	22.3	0.0	51.9
125	18.4	0.0	50.0

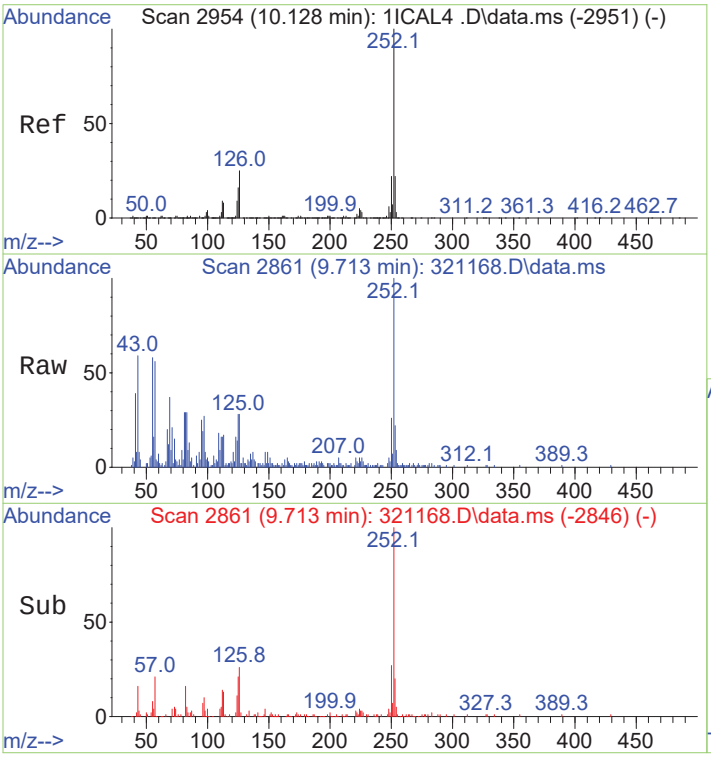


Before Manual Integration

Reason#3

JJY
9/16/19

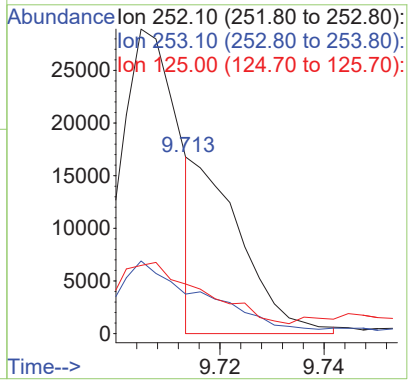
AJZ
09/19/2019



#88
B[k]fluoranth
Concen: 0.81 ug/mL m
RT: 9.713 min Scan# 2861
Delta R.T. -0.008 min
Lab File: 321168.D
Acq: 11 Sep 2019 00:12

Tgt Ion:252 Resp: 10637

Ion	Ratio	Lower	Upper
252	100		
253	22.3	0.0	52.0
125	28.1	0.0	50.2

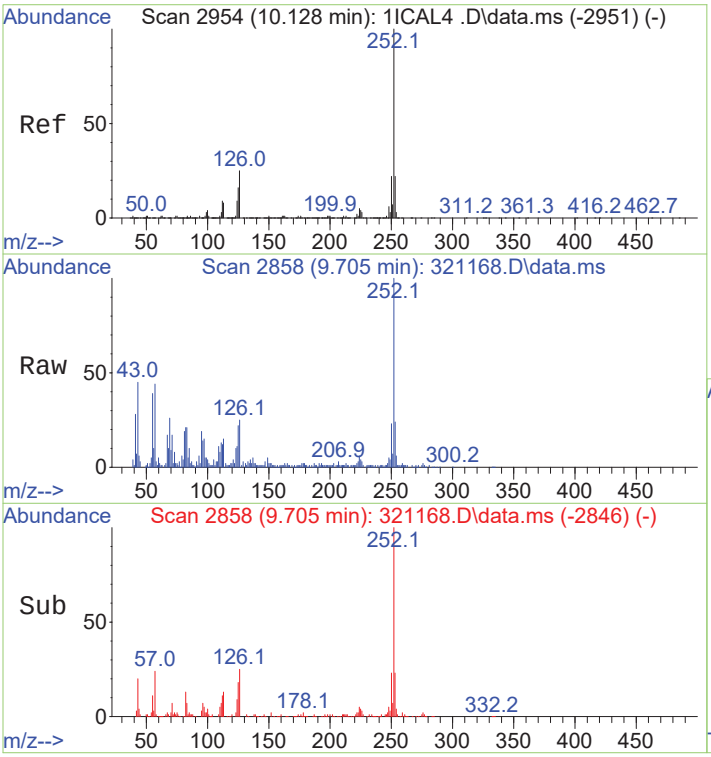


After Manual Integration

Reason#3

JJY
9/16/19

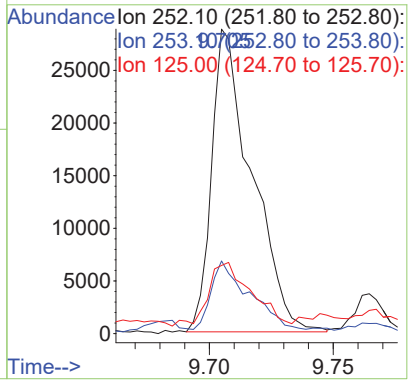
AJZ
09/19/2019



#88
B[k]fluoranth
Concen: 2.48 ug/mL
RT: 9.705 min Scan# 2858
Delta R.T. -0.017 min
Lab File: 321168.D
Acq: 11 Sep 2019 00:12

Tgt Ion:252 Resp: 32503

Ion	Ratio	Lower	Upper
252	100		
253	22.3	0.0	52.0
125	18.4	0.0	50.2



Before Manual Integration

Reason#3

JJY
9/16/19

AJZ
09/19/2019

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321168.D Vial: 19
Acq On : 11 Sep 2019 00:12 Operator: JJY
Sample : 164275,321168, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:52 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

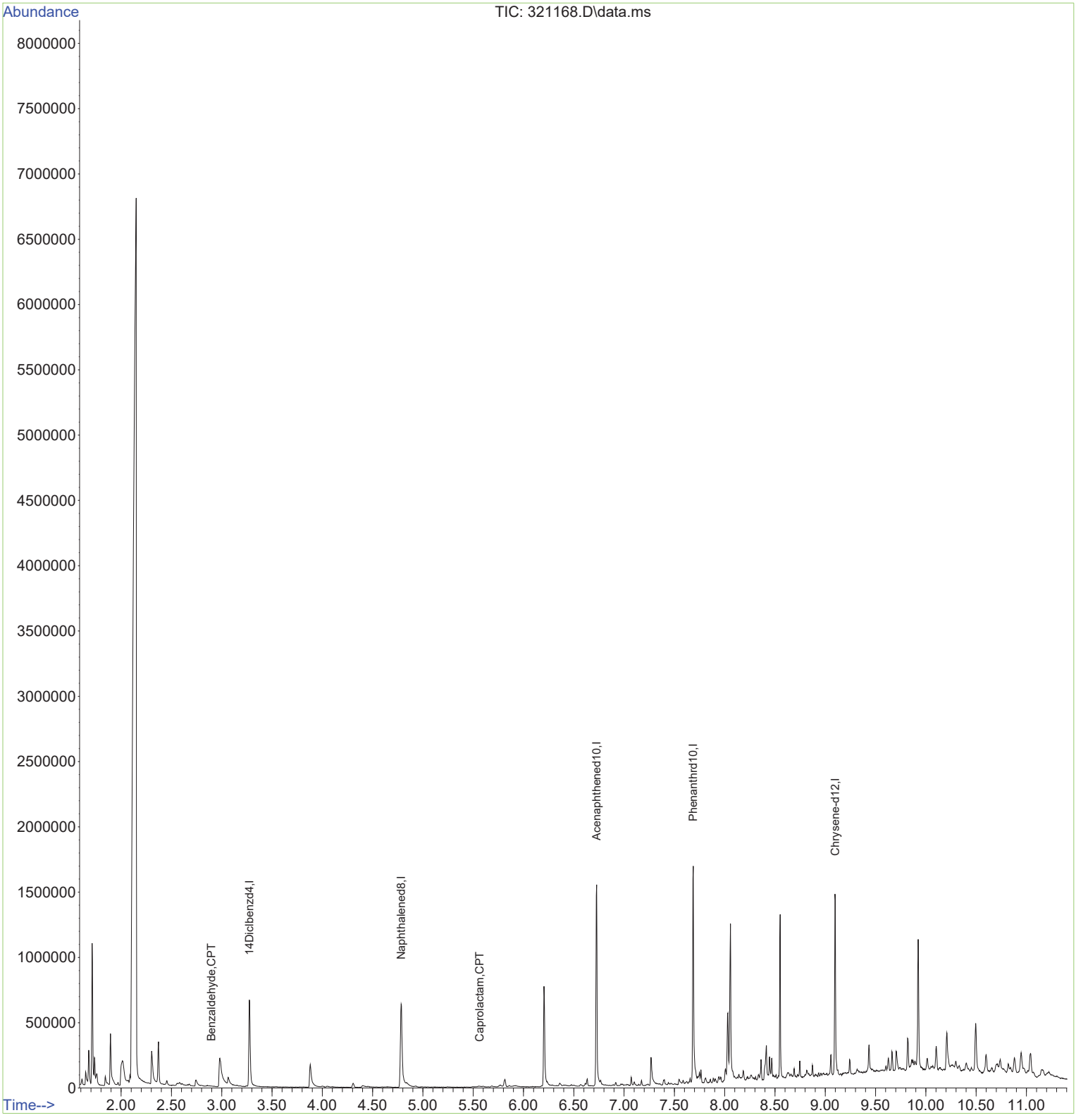
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	112991	20.00	ug/mL	0.00
3) Naphthalened8	4.783	136	430226	20.00	ug/mL	0.00
5) Acenaphthened10	6.727	164	271414	20.00	ug/mL	0.00
7) Phenanthrd10	7.687	188	455463	20.00	ug/mL	0.00
9) Chrysene-d12	9.100	240	266280	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	2.897	77	890	0.7359	ug/mL#	1
4) Caprolactam	5.565	55	1009	1.1646	ug/mL#	46

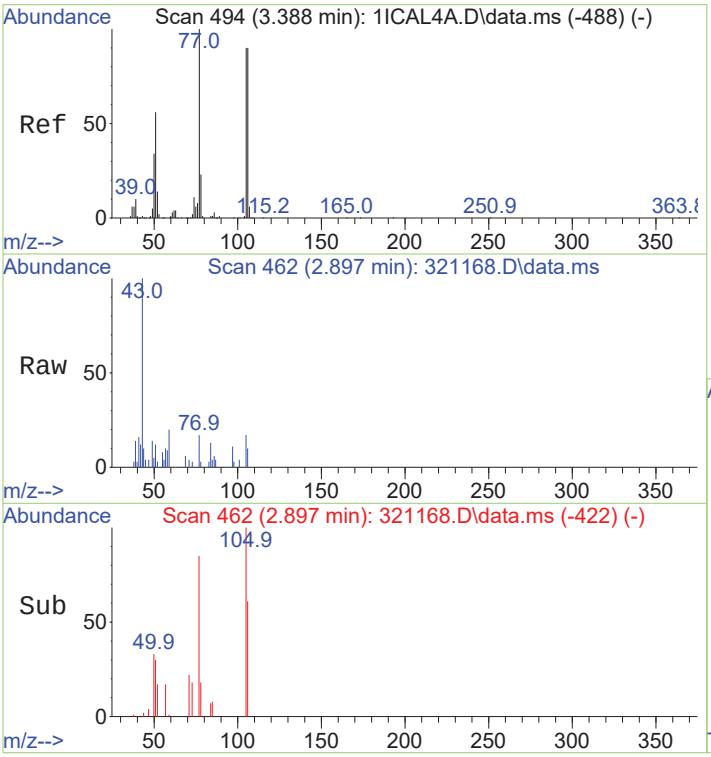
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321168.D Vial: 19
Acq On : 11 Sep 2019 00:12 Operator: JJY
Sample : 164275,321168, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:52 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

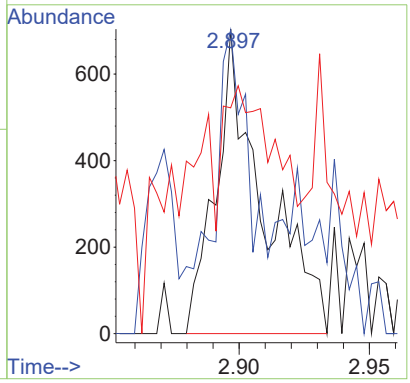


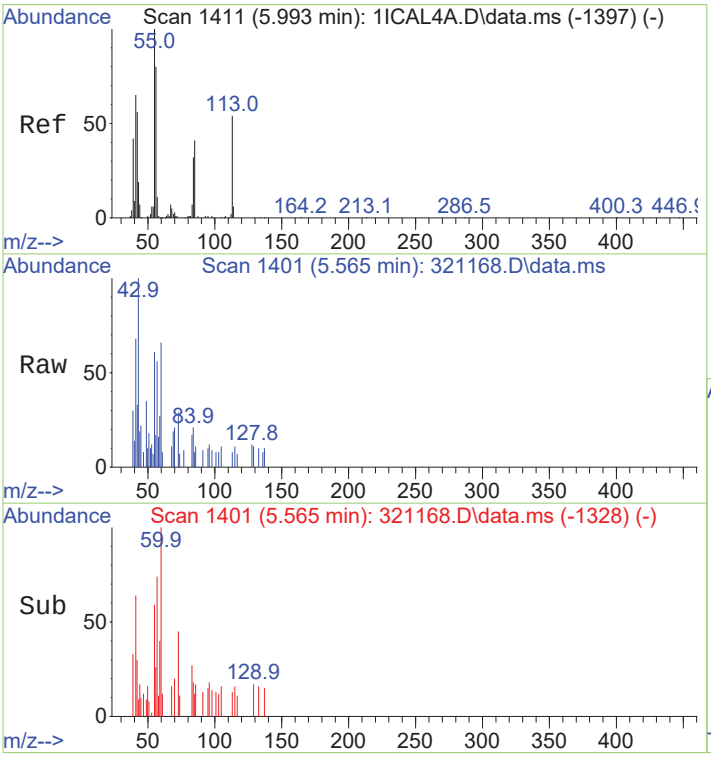


#2
Benzaldehyde
Concen: 0.74 ug/mL
RT: 2.897 min Scan# 462
Delta R.T. 0.014 min
Lab File: 321168.D
Acq: 11 Sep 2019 00:12

Tgt Ion: 77 Resp: 890

Ion	Ratio	Lower	Upper
77	100		
105	113.5	67.4	127.4
51	252.6	23.2	83.2#

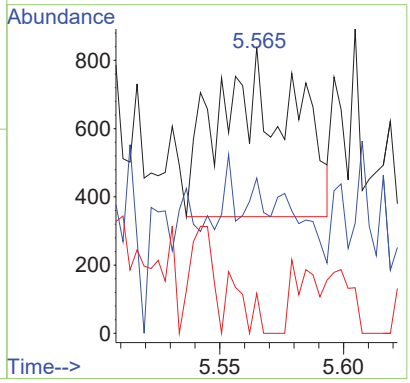




#4
Caprolactam
Concen: 1.16 ug/mL
RT: 5.565 min Scan# 1401
Delta R.T. 0.108 min
Lab File: 321168.D
Acq: 11 Sep 2019 00:12

Tgt Ion: 55 Resp: 1009

Ion	Ratio	Lower	Upper
55	100		
42	33.1	24.6	84.6
113	0.0	26.7	86.7#



Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321168.D
Acq On : 11 Sep 2019 00:12
Operator : JJY
Sample : 164275,321168,
Misc : 500ul+5ul S4142A
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 1 Hexane, 2,3,3-trimethyl- Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.678	5.91 ug/mL	192668	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexane, 2,3,3-trimethyl-	128	C9H20	016747-28-7	36
2	Heptane, 4,4-dimethyl-	128	C9H20	001068-19-5	36
3	Pentane, 3-ethyl-3-methyl-	114	C8H18	001067-08-9	33
4	Thiazole	85	C3H3NS	000288-47-1	28
5	Thiazole	85	C3H3NS	000288-47-1	9

****

Peak Number 2 2(3H)-Furanone, 5-ethyldihy... Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.712	22.07 ug/mL	719203	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2(3H)-Furanone, 5-ethyldihydro-	114	C6H10O2	000695-06-7	23
2	Monomethylnitrosamine	60	CH4N2O	000000-00-0	9
3	Hexane, 3-bromo-	164	C6H13Br	003377-87-5	9
4	Propanenitrile, 3-hydroxy-	71	C3H5NO	000109-78-4	9
5	Hexane, 3-bromo-	164	C6H13Br	003377-87-5	9

****

Peak Number 3 Hexane, 2,3,5-trimethyl- Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.735	4.18 ug/mL	136296	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexane, 2,3,5-trimethyl-	128	C9H20	001069-53-0	38
2	Hexane, 2,3,5-trimethyl-	128	C9H20	001069-53-0	38
3	Hexane, 2,4-dimethyl-	114	C8H18	000589-43-5	38
4	Pentane, 2,3,3,4-tetramethyl-	128	C9H20	016747-38-9	33
5	Tetrahydrofuran, 2,2-dimethyl-	100	C6H12O	001003-17-4	28

****

Peak Number 4 3-Penten-2-one, 4-methyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.894	9.74 ug/mL	317413	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
2	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
3	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	90

Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321168.D
Acq On : 11 Sep 2019 00:12
Operator : JJY
Sample : 164275,321168,
Misc : 500ul+5ul S4142A
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

4	2-Pentene, 3,4-dimethyl-, (E)-	98	C7H14	004914-92-5	90
5	2-Pentene, 2,4-dimethyl-	98	C7H14	000625-65-0	86

****
Peak Number 5 Acetic acid, 1-methylethyl ... Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.013	13.66 ug/mL	445267	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetic acid, 1-methylethyl ester	102	C5H10O2	000108-21-4	12
2	Acetone	58	C3H6O	000067-64-1	9
3	Propane, 1-(1-methylethoxy)-	102	C6H14O	000627-08-7	9
4	Acetic acid, hexyl ester	144	C8H16O2	000142-92-7	9
5	Acetone	58	C3H6O	000067-64-1	7

****
Peak Number 6 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.149	409.98 ug/mL	13362700	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	56
2	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	56
3	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	28
4	Acetic acid, cyano-, 1,1-dimethy...	141	C7H11NO2	001116-98-9	23
5	Morpholine, 4-methyl-	101	C5H11NO	000109-02-4	9

****
Peak Number 7 3-Buten-2-ol, 2,3-dimethyl- Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.371	7.68 ug/mL	250388	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Buten-2-ol, 2,3-dimethyl-	100	C6H12O	010473-13-9	40
2	Hexane, 1-ethoxy-	130	C8H18O	005756-43-4	37
3	Hexylene Glycol	118	C6H14O2	000107-41-5	25
4	Propane, 1-ethoxy-2-methyl-	102	C6H14O	000627-02-1	25
5	Oxirane, tetramethyl-	100	C6H12O	005076-20-0	23

****
Peak Number 8 Oleic Acid Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.415	6.45 ug/mL	306622	Chrysene-d12	9.100

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual

Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321168.D
Acq On : 11 Sep 2019 00:12
Operator : JJY
Sample : 164275,321168,
Misc : 500ul+5ul S4142A
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

1	Oleic Acid	282	C18H34O2	000112-80-1	91
2	Oleic Acid	282	C18H34O2	000112-80-1	86
3	15-Tetracosenoic acid, methyl es...	380	C25H48O2	002733-88-2	76
4	Oleic Acid	282	C18H34O2	000112-80-1	70
5	14-Pentadecenoic acid	240	C15H28O2	017351-34-7	58

****

Peak Number 9 Eicosane Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.435	3.06 ug/mL	145531	Chrysene-d12	9.100

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Eicosane	282	C20H42	000112-95-8	91
2	Tricosane	324	C23H48	000638-67-5	91
3	Dotriacontane	451	C32H66	000544-85-4	91
4	Tetratetracontane	619	C44H90	007098-22-8	90
5	Docosane, 7-butyl-	366	C26H54	055282-15-0	90

****

Peak Number 10 Nonadecane Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.819	5.10 ug/mL	193368	Perylene-d12	9.924

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Nonadecane	268	C19H40	000629-92-5	90
2	Dotriacontane	451	C32H66	000544-85-4	90
3	Nonacosane	408	C29H60	000630-03-5	86
4	Octadecane	254	C18H38	000593-45-3	83
5	Tridecane, 6-propyl-	226	C16H34	055045-10-8	80

****

Peak Number 11 17-Octadecenal Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.103	4.22 ug/mL	159989	Perylene-d12	9.924

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	17-Octadecenal	266	C18H34O	056554-86-0	91
2	16-Octadecenal	266	C18H34O	056554-87-1	90
3	Octadecanal	268	C18H36O	000638-66-4	87
4	Hexadecanal	240	C16H32O	000629-80-1	86
5	13-Octadecenal	266	C18H34O	056554-90-6	83

****

Peak Number 12 Heptadecane Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.

Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321168.D
Acq On : 11 Sep 2019 00:12
Operator : JJY
Sample : 164275,321168,
Misc : 500ul+5ul S4142A
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

10.208	8.60 ug/mL	326034	Perylene-d12	9.924

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptadecane	240	C17H36	000629-78-7	87
2	Eicosane	282	C20H42	000112-95-8	83
3	Heptadecane	240	C17H36	000629-78-7	80
4	Pentadecane	212	C15H32	000629-62-9	80
5	Octadecane	254	C18H38	000593-45-3	72

****

Peak Number 13 Octadecanal Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.947	3.85 ug/mL	145933	Perylene-d12	9.924

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octadecanal	268	C18H36O	000638-66-4	91
2	Oxirane, hexadecyl-	268	C18H36O	007390-81-0	89
3	Octadecanoic acid, 3-hydroxy-2-t...	510	C33H66O3	018951-36-5	72
4	17-Octadecenal	266	C18H34O	056554-86-0	64
5	16-Octadecenal	266	C18H34O	056554-87-1	64

****

Peak Number 14 Pregn-4-ene-3,20-dione, (9.... Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
11.040	4.46 ug/mL	168934	Perylene-d12	9.924

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pregn-4-ene-3,20-dione, (9.beta....	314	C21H30O2	002755-10-4	64
2	Stigmast-4-en-3-one	412	C29H48O	001058-61-3	53
3	Testosterone	288	C19H28O2	000058-22-0	51
4	Atropine	289	C17H23NO3	000051-55-8	46
5	3,5-Dihydroxytoluene	124	C7H8O2	000504-15-4	43

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321169.D Vial: 20
Acq On : 11 Sep 2019 00:31 Operator: JJY
Sample : 164275,321169, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 11:36:21 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 11:36:04 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

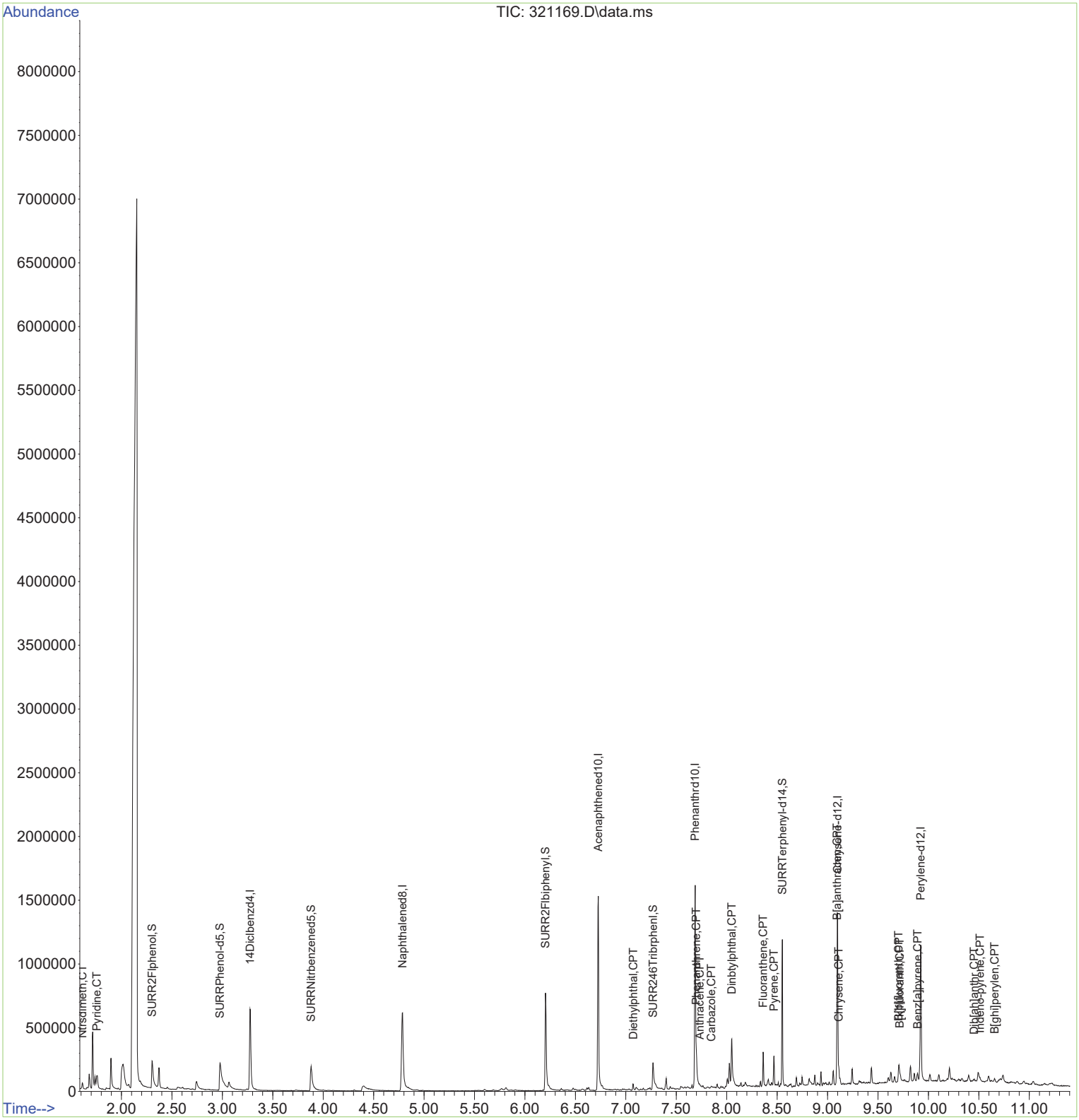
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	109796	20.00	ug/mL	0.00
21) Naphthalened8	4.786	136	416638	20.00	ug/mL	0.00
39) Acenaphthened10	6.727	164	255512	20.00	ug/mL	0.00
63) Phenanthrd10	7.687	188	437576	20.00	ug/mL	0.00
75) Chrysene-d12	9.100	240	262602	20.00	ug/mL	0.00
86) Perylene-d12	9.924	264	247942	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.306	112	85679	31.78	%REC	0.03
Spiked Amount 100.000			Recovery = 31.78%			
7) SURRPhenol-d5	2.976	99	160516	48.67	%REC	0.00
Spiked Amount 100.000			Recovery = 48.67%			
22) SURRNitrbenzened5	3.880	82	86460	61.04	%REC	0.00
Spiked Amount 100.000			Recovery = 61.04%			
44) SURR2Flbiphenyl	6.204	172	238570	70.09	%REC	0.00
Spiked Amount 100.000			Recovery = 70.09%			
62) SURR246Tribrphenl	7.270	330	27037	34.12	%REC	0.00
Spiked Amount 100.000			Recovery = 34.12%			
78) SURRTerphenyl-d14	8.551	244	185433	77.15	%REC	0.00
Spiked Amount 100.000			Recovery = 77.15%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.612	74	2810	1.1644	ug/mL#	1
3) Pyridine	1.754	79	1379	0.7410	ug/mL#	11
60) Diethylphthal	7.074	149	6651	0.3887	ug/mL	93
70) Phenanthrene	7.699	178	37582	1.6284	ug/mL	99
71) Anthracene	7.733	178	4727	0.1989	ug/mL	98
72) Carbazole	7.846	167	4763	0.2078	ug/mL	93
73) Dinbtylphthal	8.051	149	6926	0.0789	ug/mL	93
74) Fluoranthene	8.361	202	61051	3.6806	ug/mL	99
77) Pyrene	8.469	202	48984	2.4824	ug/mL	98
82) B[a]anthracen	9.094	228	22805	1.4087	ug/mL	94
83) Chrysene	9.111	228	23082	1.3778	ug/mL	99
87) B[b]fluoranth	9.705	252	32217m	2.3871	ug/mL	
88) B[k]fluoranth	9.716	252	10457m	0.7726	ug/mL	
89) Benz[a]pyrene	9.892	252	18940	1.3601	ug/mL	98
90) Indeno-pyrene	10.512	276	6909	0.4795	ug/mL	84
91) Dib[ah]anthr	10.452	278	1547	0.1324	ug/mL	90
92) B[ghi]perylen	10.657	276	5311	0.4208	ug/mL	93

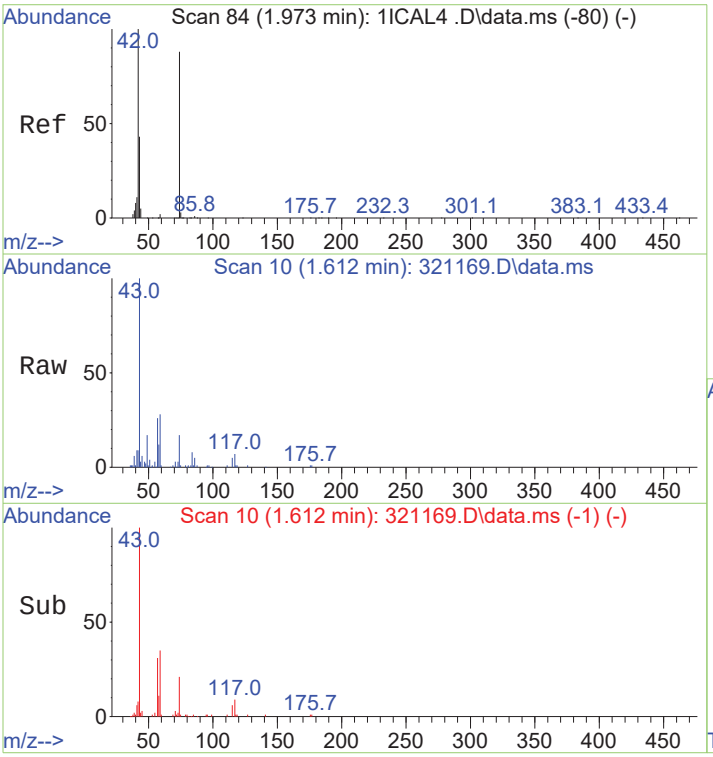
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321169.D Vial: 20
Acq On : 11 Sep 2019 00:31 Operator: JJY
Sample : 164275,321169, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 11:36:21 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 11:36:04 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

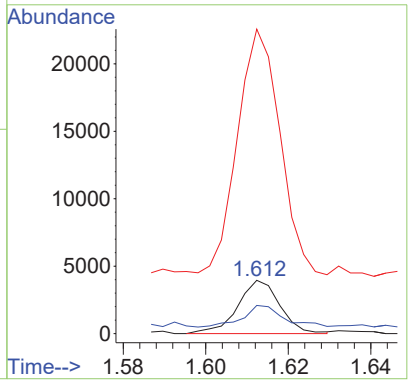


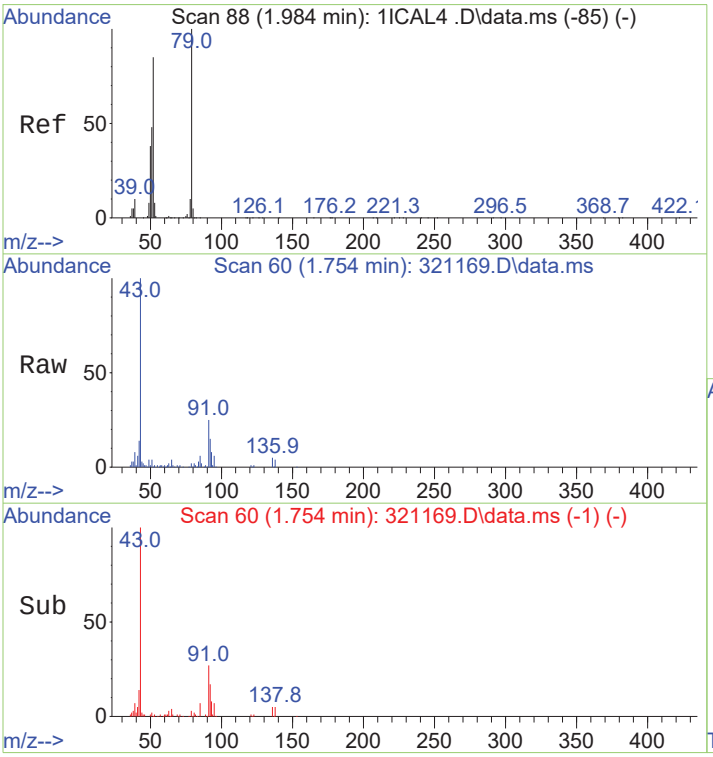


#2
Ntrsdimeth
Concen: 1.16 ug/mL
RT: 1.612 min Scan# 10
Delta R.T. -0.026 min
Lab File: 321169.D
Acq: 11 Sep 2019 00:31

Tgt Ion: 74 Resp: 2810

Ion	Ratio	Lower	Upper
74	100		
42	39.6	54.2	114.2#
43	465.8	5.5	65.5#

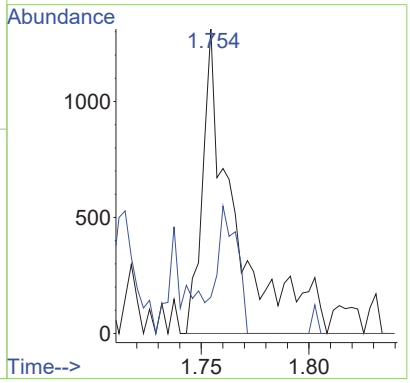


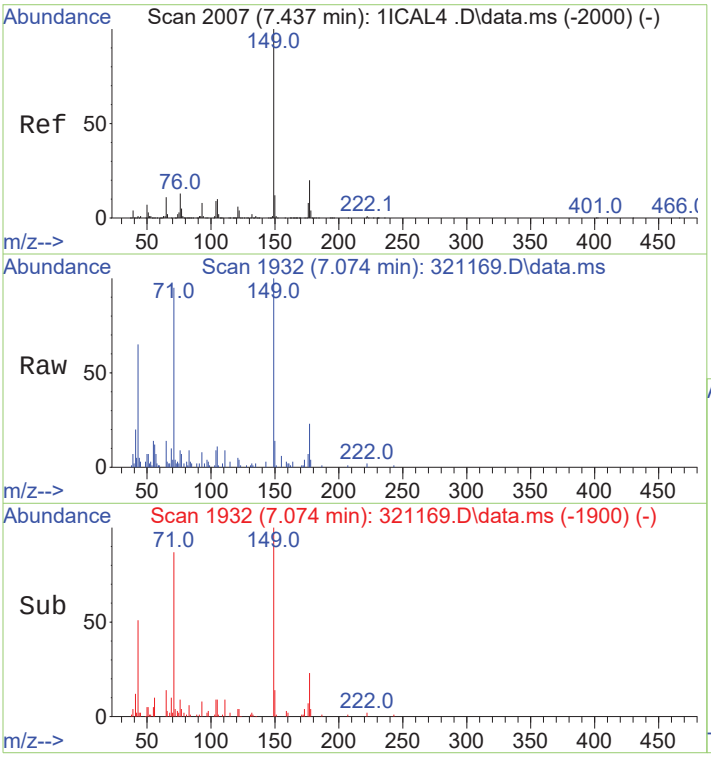


#3
Pyridine
Concen: 0.74 ug/mL
RT: 1.754 min Scan# 60
Delta R.T. 0.108 min
Lab File: 321169.D
Acq: 11 Sep 2019 00:31

Tgt Ion: 79 Resp: 1379

Ion	Ratio	Lower	Upper
79	100		
52	0.0	46.7	106.7#

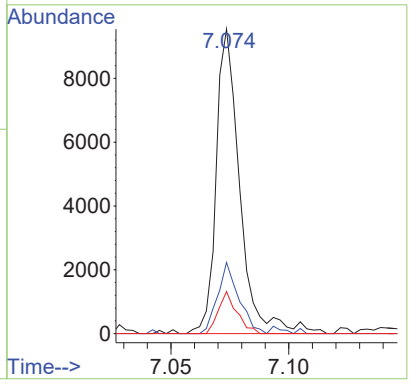


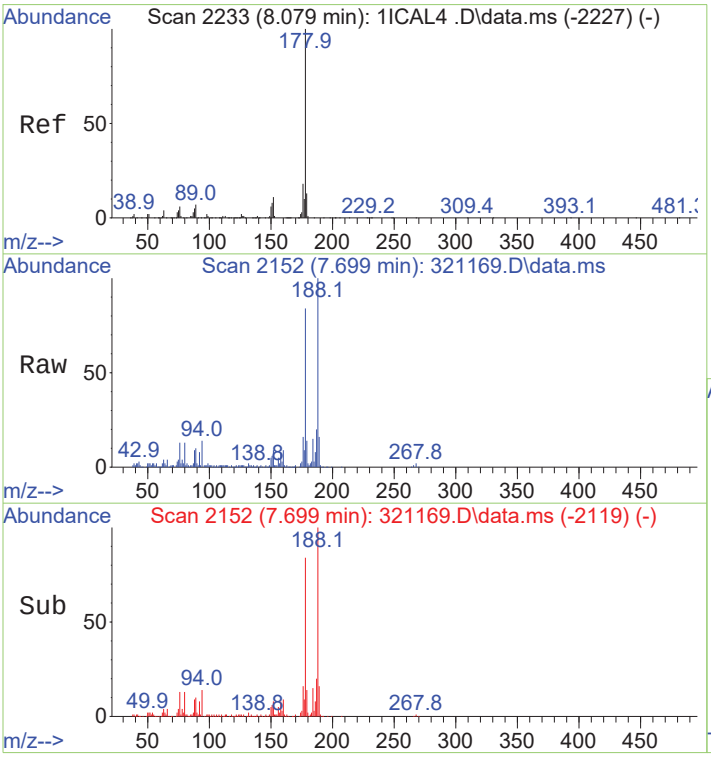


#60
Diethylphthal
Concen: 0.39 ug/mL
RT: 7.074 min Scan# 1932
Delta R.T. -0.009 min
Lab File: 321169.D
Acq: 11 Sep 2019 00:31

Tgt Ion:149 Resp: 6651

Ion	Ratio	Lower	Upper
149	100		
177	23.4	0.0	49.3
150	13.8	0.0	41.9

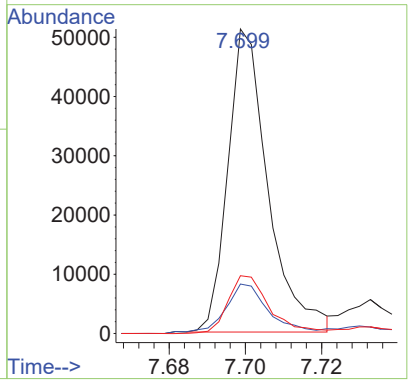


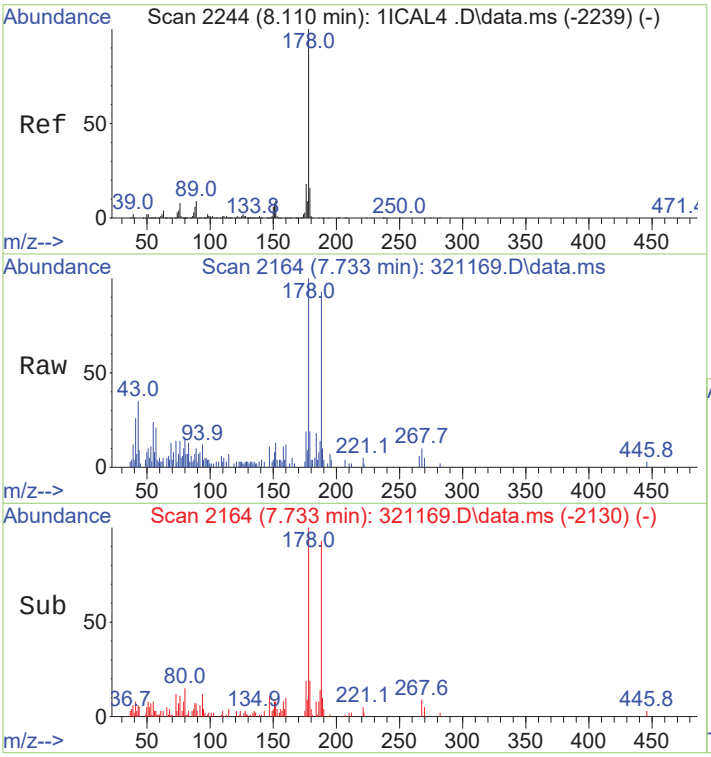


#70
Phenanthrene
Concen: 1.63 ug/mL
RT: 7.699 min Scan# 2152
Delta R.T. -0.006 min
Lab File: 321169.D
Acq: 11 Sep 2019 00:31

Tgt Ion:178 Resp: 37582

Ion	Ratio	Lower	Upper
178	100		
179	15.7	0.0	45.3
176	19.1	0.0	48.4

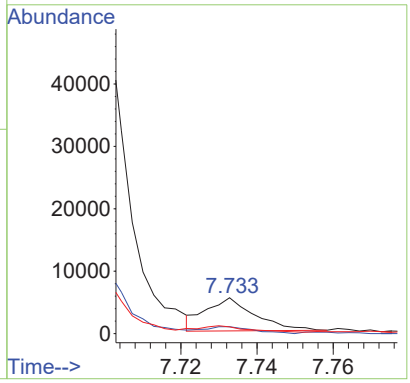


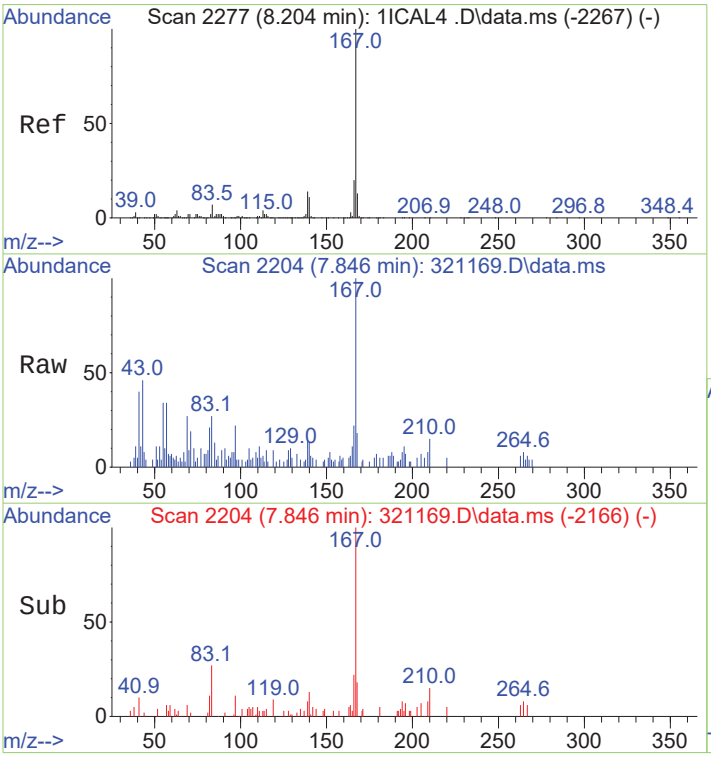


#71
Anthracene
Concen: 0.20 ug/mL
RT: 7.733 min Scan# 2164
Delta R.T. -0.003 min
Lab File: 321169.D
Acq: 11 Sep 2019 00:31

Tgt Ion:178 Resp: 4727

Ion	Ratio	Lower	Upper
178	100		
176	16.4	0.0	47.6
179	14.9	0.0	45.1

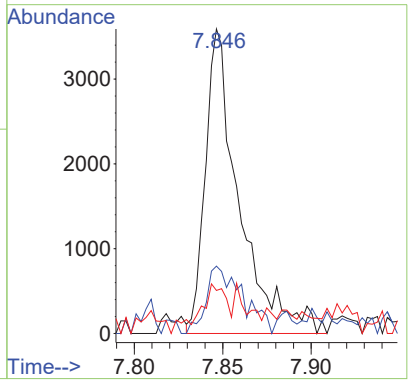


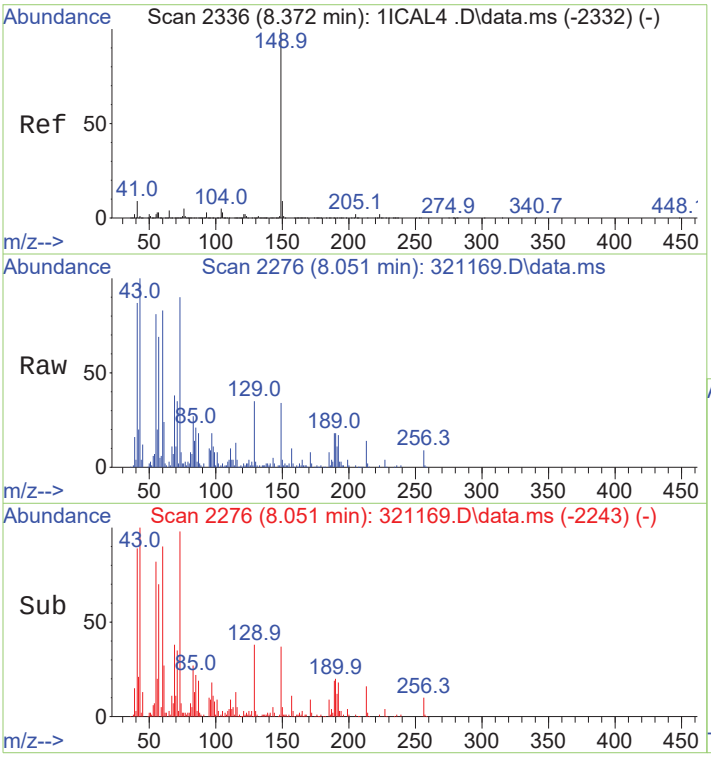


#72
Carbazole
Concen: 0.21 ug/mL
RT: 7.846 min Scan# 2204
Delta R.T. 0.008 min
Lab File: 321169.D
Acq: 11 Sep 2019 00:31

Tgt Ion:167 Resp: 4763

Ion	Ratio	Lower	Upper
167	100		
166	22.1	0.0	49.3
139	9.6	0.0	42.6

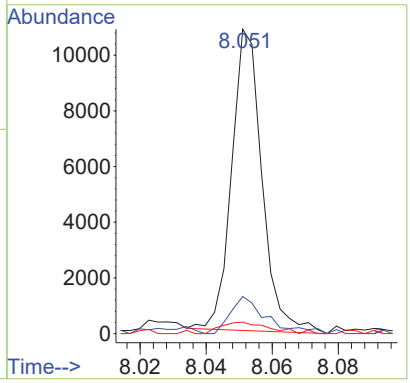


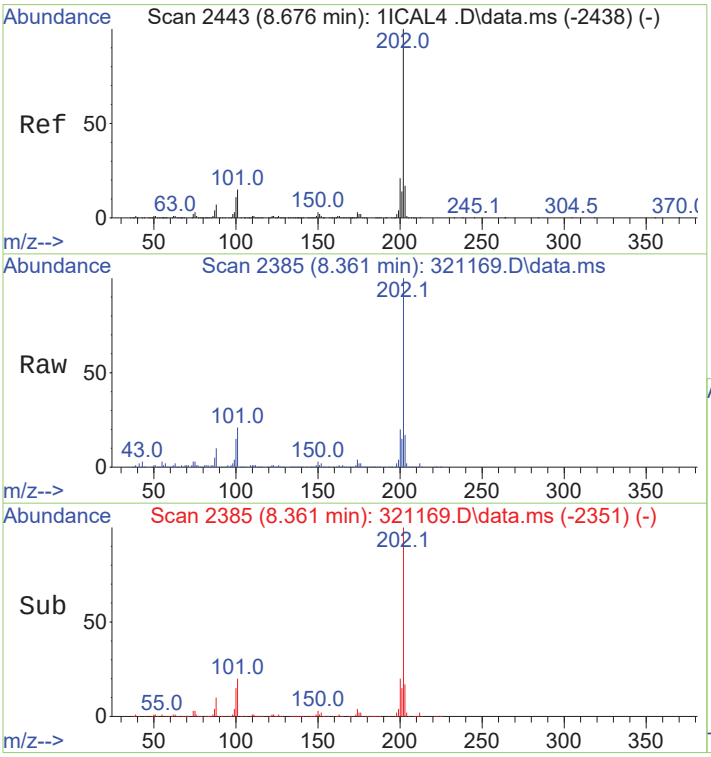


#73
Dinbtylphthal
Concen: 0.08 ug/mL
RT: 8.051 min Scan# 2276
Delta R.T. -0.006 min
Lab File: 321169.D
Acq: 11 Sep 2019 00:31

Tgt Ion:149 Resp: 6926

Ion	Ratio	Lower	Upper
149	100		
150	12.2	0.0	39.0
104	3.8	0.0	34.6

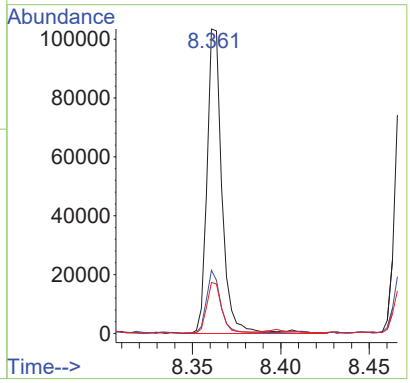


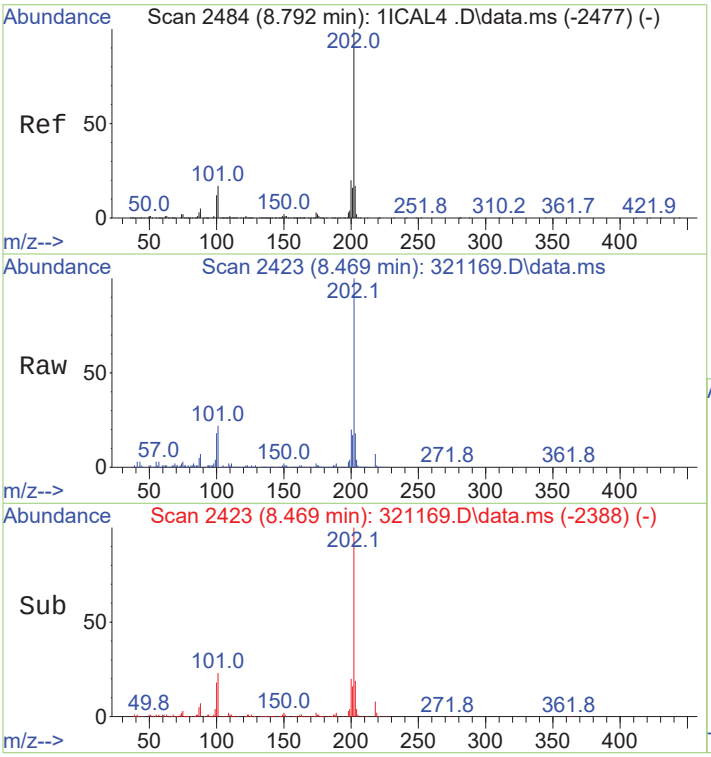


#74
Fluoranthene
Concen: 3.68 ug/mL
RT: 8.361 min Scan# 2385
Delta R.T. -0.003 min
Lab File: 321169.D
Acq: 11 Sep 2019 00:31

Tgt Ion:202 Resp: 61051

Ion	Ratio	Lower	Upper
202	100		
101	20.5	0.0	50.7
203	16.6	0.0	47.3

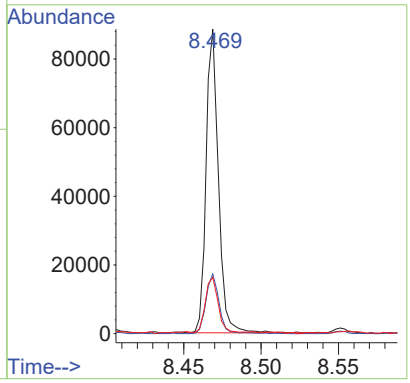


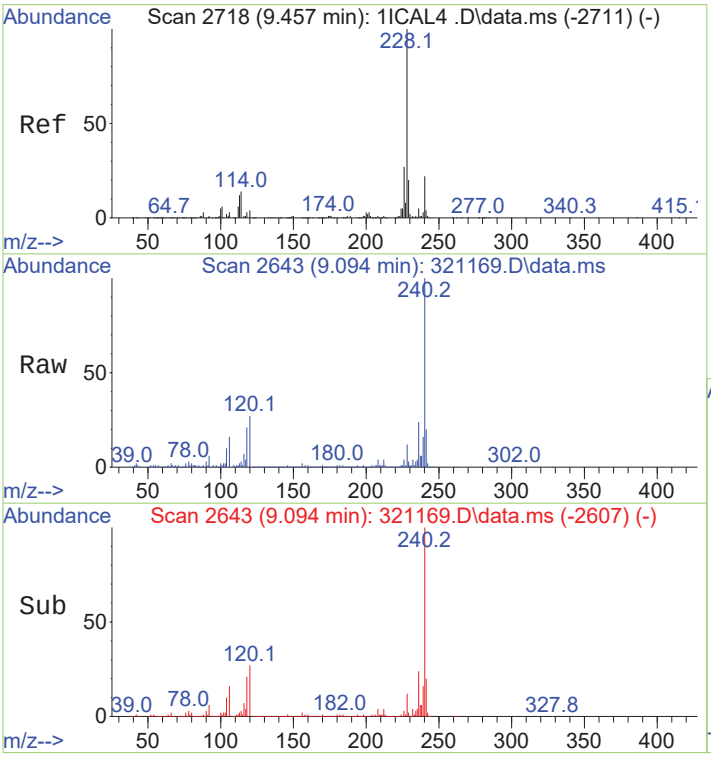


#77
Pyrene
Concen: 2.48 ug/mL
RT: 8.469 min Scan# 2423
Delta R.T. -0.000 min
Lab File: 321169.D
Acq: 11 Sep 2019 00:31

Tgt Ion:202 Resp: 48984

Ion	Ratio	Lower	Upper
202	100		
200	19.7	0.0	50.1
203	18.2	0.0	46.9

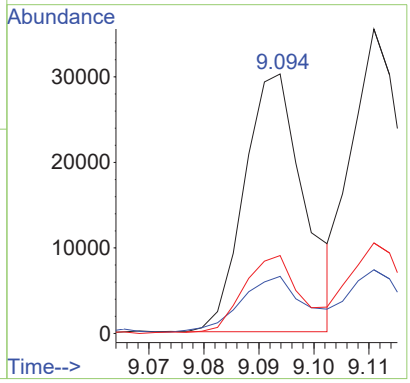


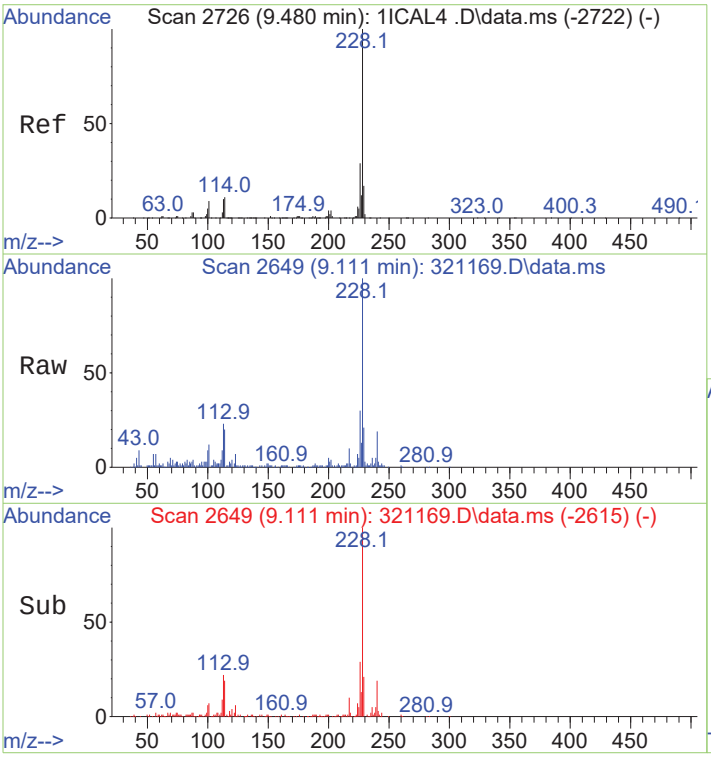


#82
B[a]anthracen
Concen: 1.41 ug/mL
RT: 9.094 min Scan# 2643
Delta R.T. 0.003 min
Lab File: 321169.D
Acq: 11 Sep 2019 00:31

Tgt Ion:228 Resp: 22805

Ion	Ratio	Lower	Upper
228	100		
229	20.9	0.0	49.3
226	29.8	0.0	56.2

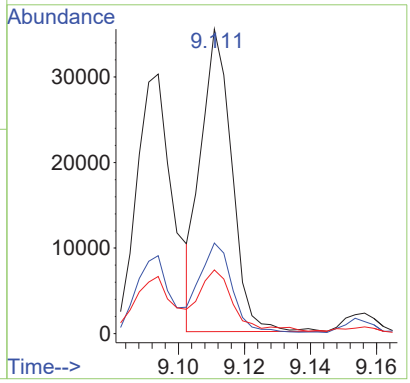


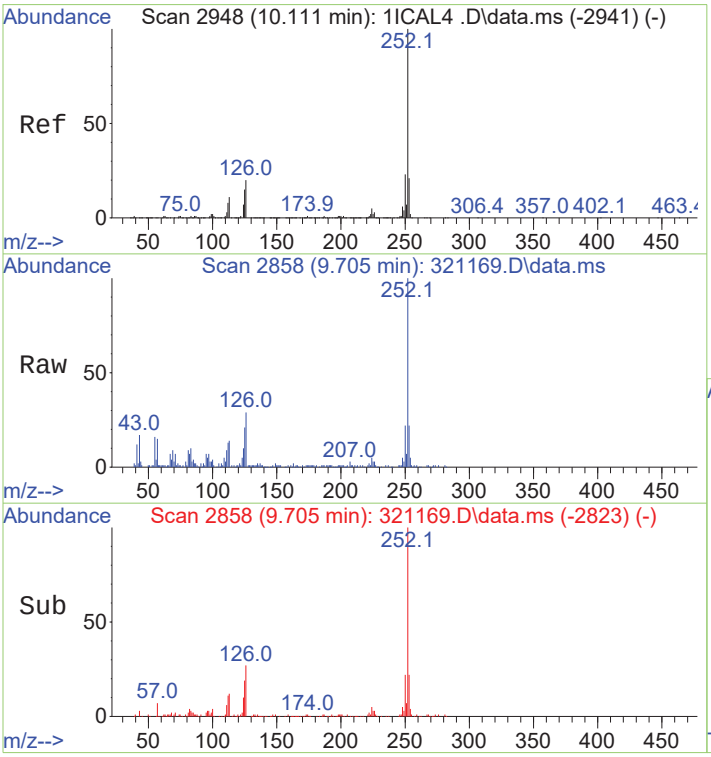


#83
Chrysene
Concen: 1.38 ug/mL
RT: 9.111 min Scan# 2649
Delta R.T. -0.003 min
Lab File: 321169.D
Acq: 11 Sep 2019 00:31

Tgt Ion:228 Resp: 23082

Ion	Ratio	Lower	Upper
228	100		
226	29.6	0.0	59.0
229	19.8	0.0	49.4

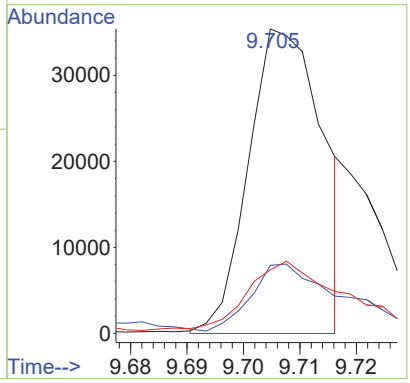


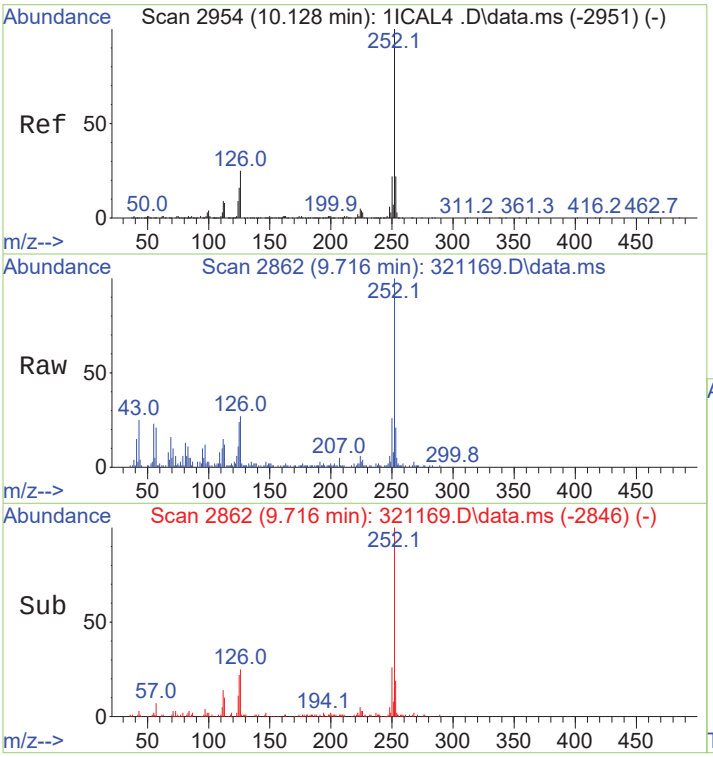


#87
B[b]fluoranth
Concen: 2.39 ug/mL m
RT: 9.705 min Scan# 2858
Delta R.T. -0.000 min
Lab File: 321169.D
Acq: 11 Sep 2019 00:31

Tgt Ion:252 Resp: 32217

Ion	Ratio	Lower	Upper
252	100		
253	22.4	0.0	51.9
125	20.8	0.0	50.0

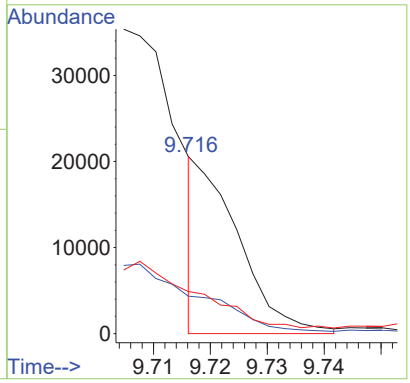


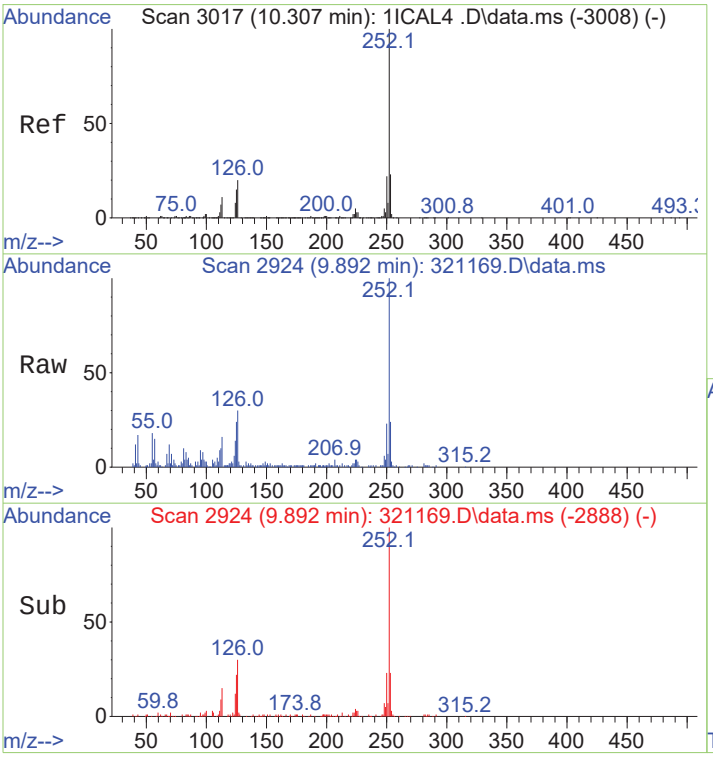


#88
B[k]fluoranth
Concen: 0.77 ug/mL m
RT: 9.716 min Scan# 2862
Delta R.T. -0.006 min
Lab File: 321169.D
Acq: 11 Sep 2019 00:31

Tgt Ion:252 Resp: 10457

Ion	Ratio	Lower	Upper
252	100		
253	21.1	0.0	52.0
125	23.8	0.0	50.2

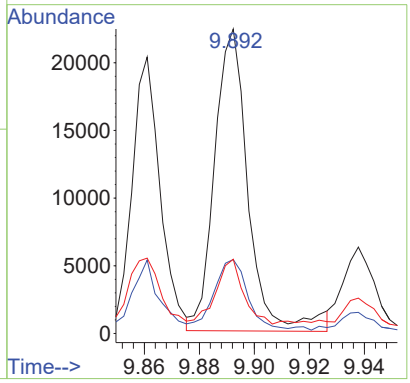


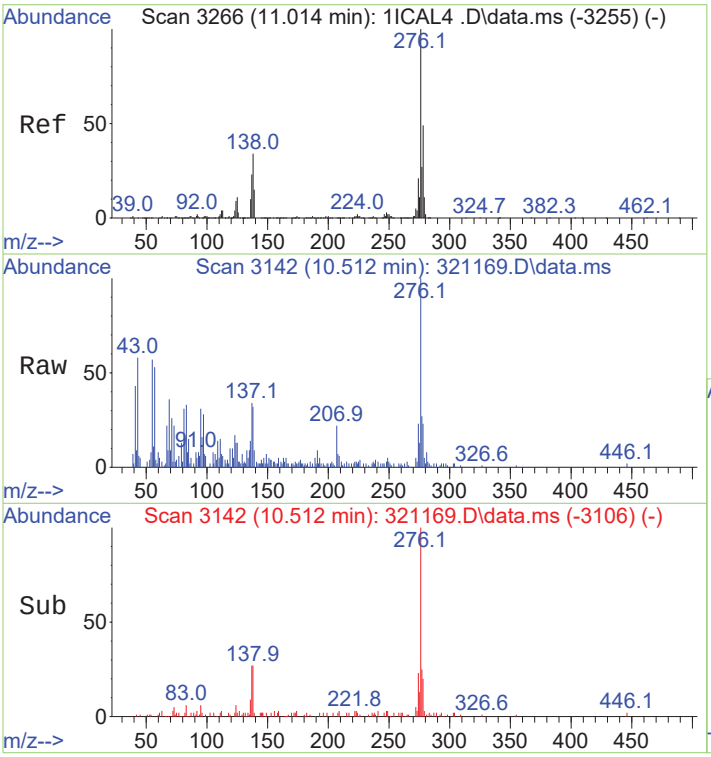


#89
Benz[a]pyrene
Concen: 1.36 ug/mL
RT: 9.892 min Scan# 2924
Delta R.T. 0.003 min
Lab File: 321169.D
Acq: 11 Sep 2019 00:31

Tgt Ion:252 Resp: 18940

Ion	Ratio	Lower	Upper
252	100		
253	23.6	0.0	51.7
125	21.7	0.0	51.4

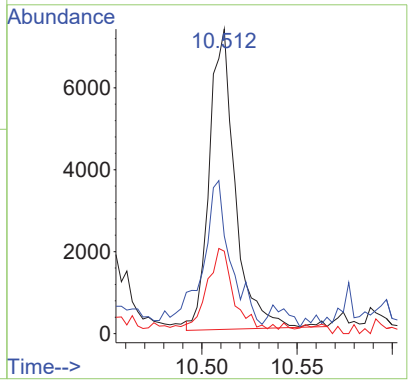


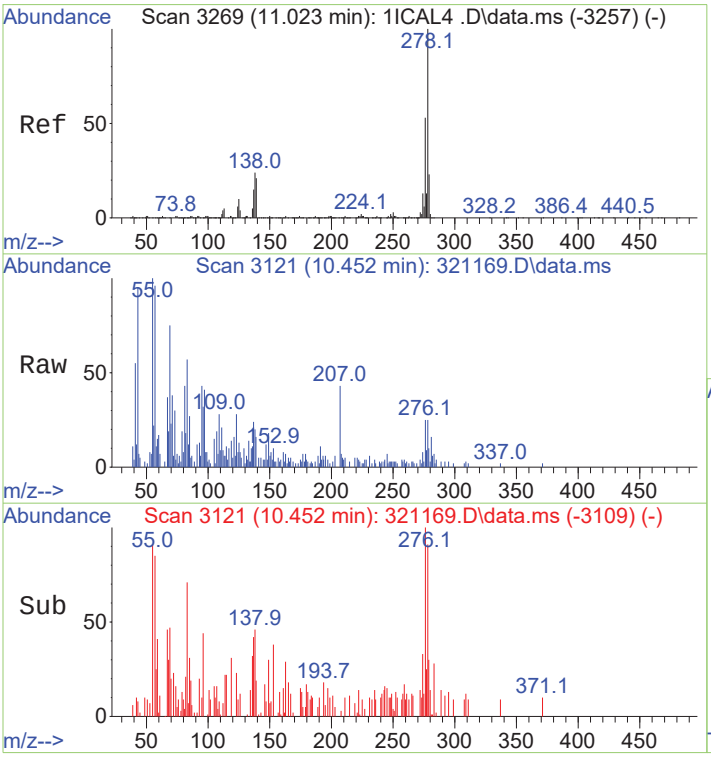


#90
Indeno-pyrene
Concen: 0.48 ug/mL
RT: 10.512 min Scan# 3142
Delta R.T. 0.003 min
Lab File: 321169.D
Acq: 11 Sep 2019 00:31

Tgt Ion:276 Resp: 6909

Ion	Ratio	Lower	Upper
276	100		
138	27.4	13.2	73.2
277	25.2	0.0	54.7

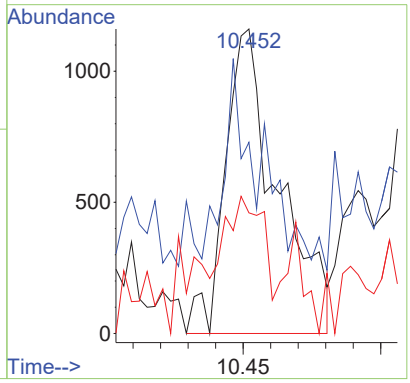


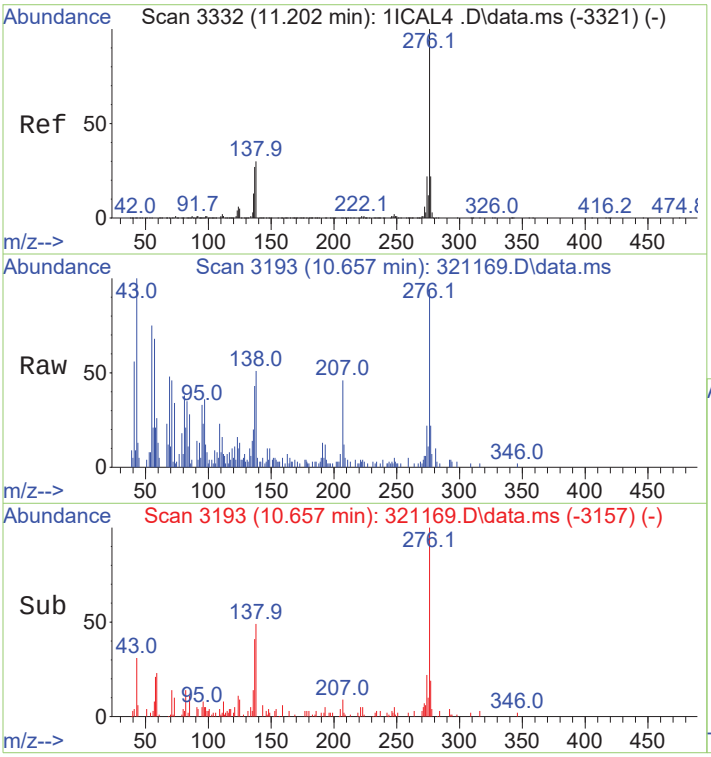


#91
Dib[ah]anthr
Concen: 0.13 ug/mL
RT: 10.452 min Scan# 3121
Delta R.T. -0.065 min
Lab File: 321169.D
Acq: 11 Sep 2019 00:31

Tgt Ion:278 Resp: 1547

Ion	Ratio	Lower	Upper
278	100		
139	42.0	4.7	64.7
279	26.4	0.0	54.0

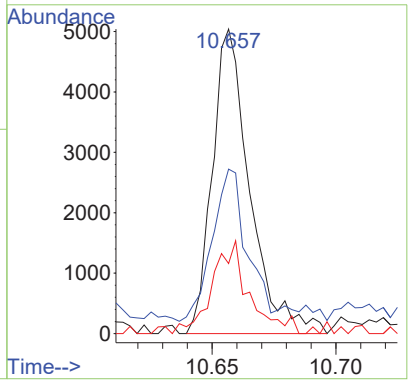


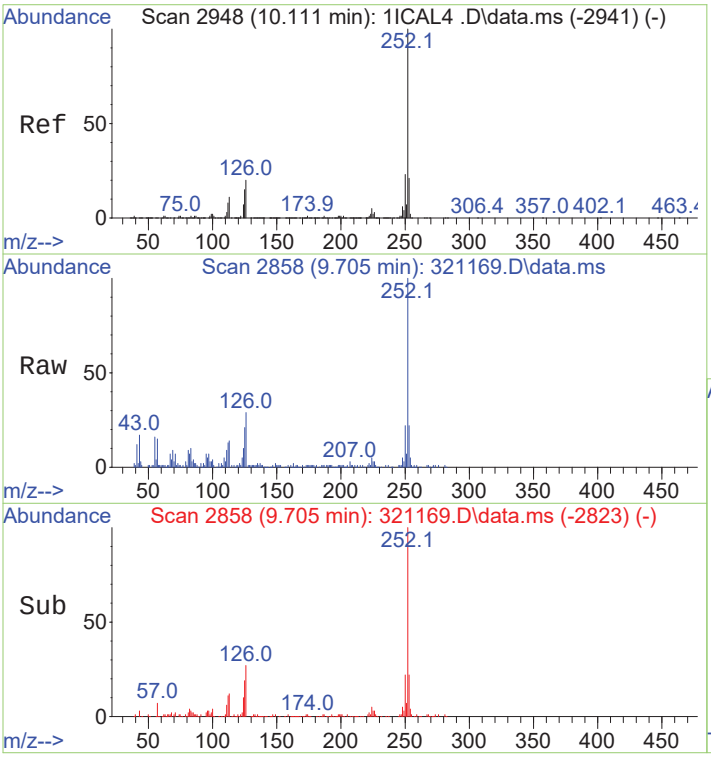


#92
B[ghi]perylen
Concen: 0.42 ug/mL
RT: 10.657 min Scan# 3193
Delta R.T. 0.003 min
Lab File: 321169.D
Acq: 11 Sep 2019 00:31

Tgt Ion:276 Resp: 5311

Ion	Ratio	Lower	Upper
276	100		
138	49.7	15.0	75.0
277	20.8	0.0	54.0

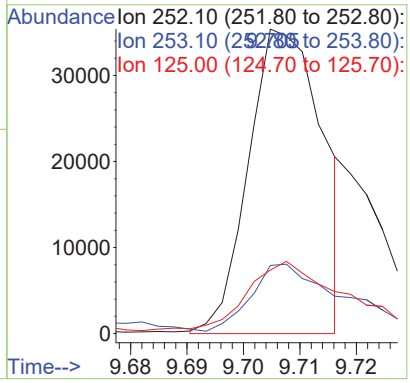




#87
B[b]fluoranth
Concen: 2.39 ug/mL m
RT: 9.705 min Scan# 2858
Delta R.T. -0.000 min
Lab File: 321169.D
Acq: 11 Sep 2019 00:31

Tgt Ion:252 Resp: 32217

Ion	Ratio	Lower	Upper
252	100		
253	22.4	0.0	51.9
125	20.8	0.0	50.0

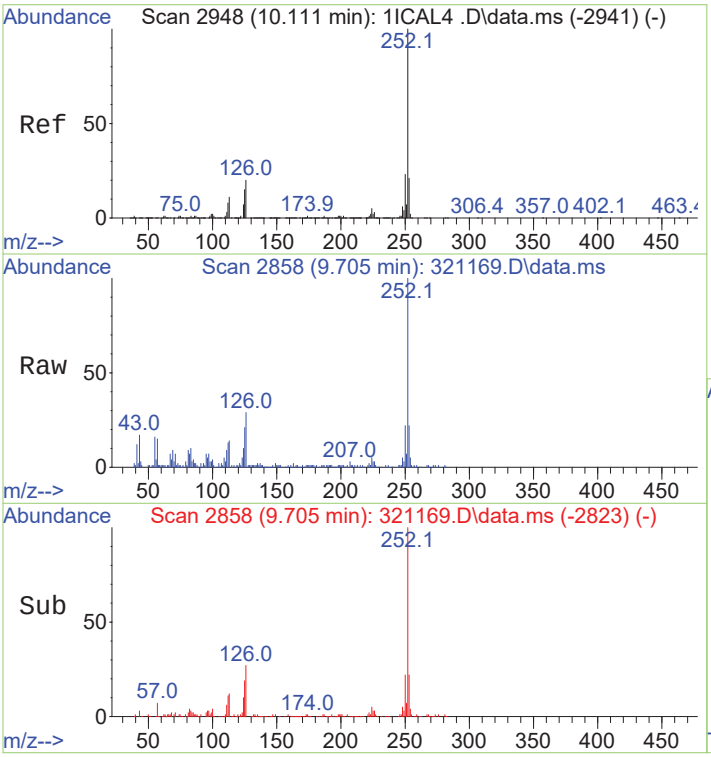


After Manual Integration

Reason#3

JJY
9/16/19

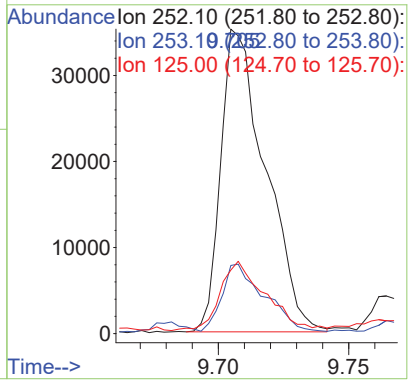
AJZ
09/19/2019



#87
B[b]fluoranth
Concen: 3.12 ug/mL
RT: 9.705 min Scan# 2858
Delta R.T. -0.000 min
Lab File: 321169.D
Acq: 11 Sep 2019 00:31

Tgt Ion:252 Resp: 42056

Ion	Ratio	Lower	Upper
252	100		
253	21.8	0.0	51.9
125	19.2	0.0	50.0

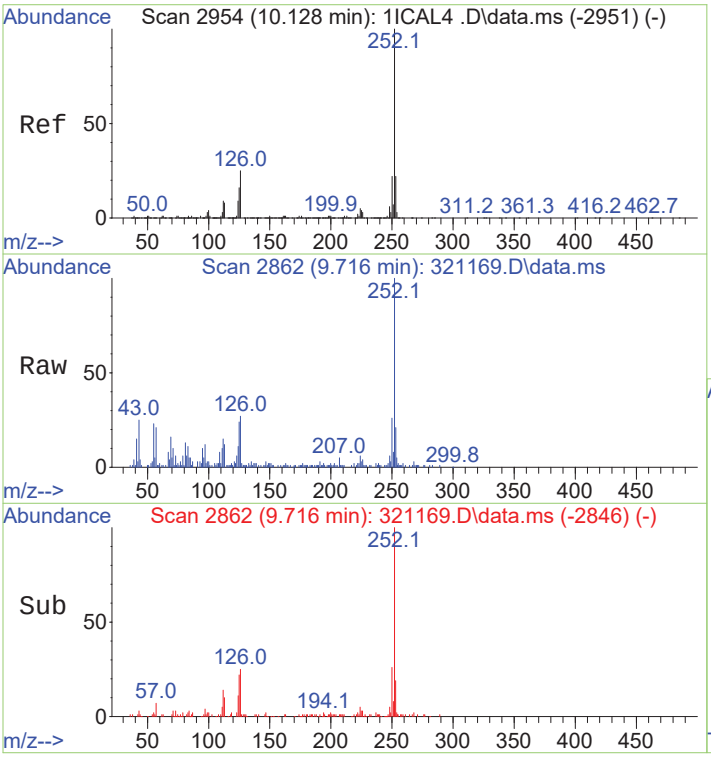


Before Manual Integration

Reason#3

JJY
9/16/19

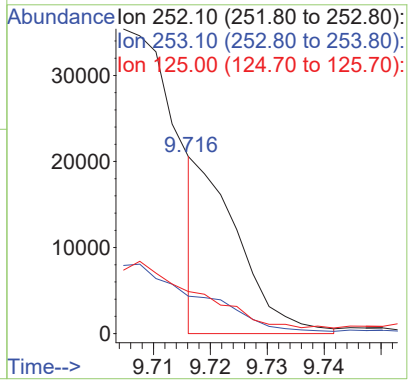
AJZ
09/19/2019



#88
B[k]fluoranth
Concen: 0.77 ug/mL m
RT: 9.716 min Scan# 2862
Delta R.T. -0.006 min
Lab File: 321169.D
Acq: 11 Sep 2019 00:31

Tgt Ion:252 Resp: 10457

Ion	Ratio	Lower	Upper
252	100		
253	21.1	0.0	52.0
125	23.8	0.0	50.2

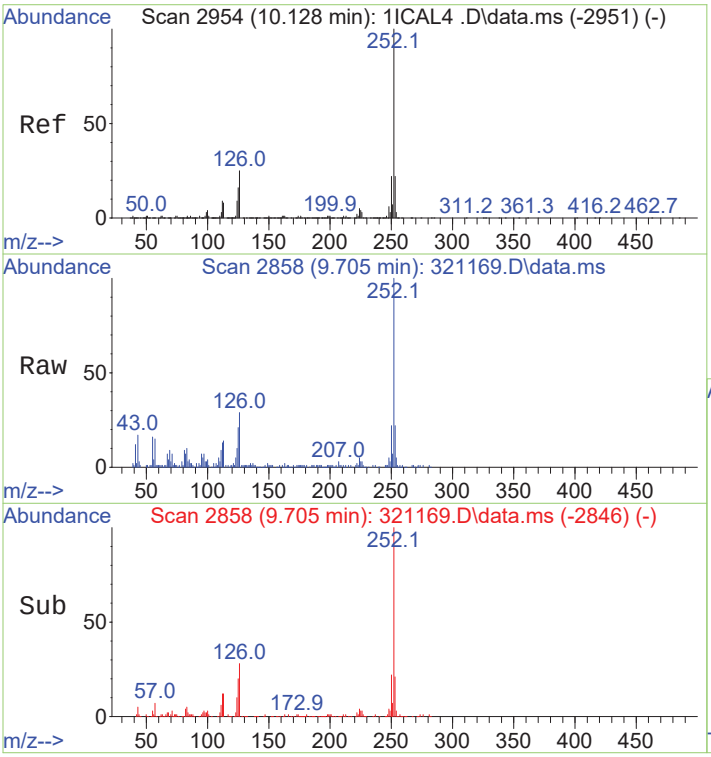


After Manual Integration

Reason#3

JJY 9/16/19

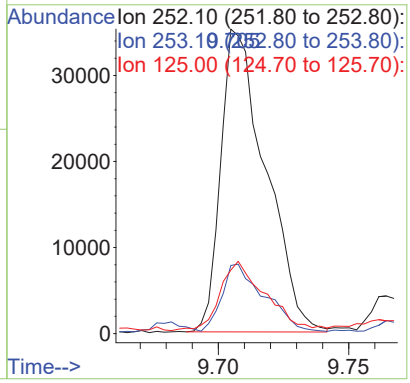
AJZ 09/19/2019



#88
B[k]fluoranth
Concen: 3.11 ug/mL
RT: 9.705 min Scan# 2858
Delta R.T. -0.017 min
Lab File: 321169.D
Acq: 11 Sep 2019 00:31

Tgt Ion:252 Resp: 42086

Ion	Ratio	Lower	Upper
252	100		
253	21.8	0.0	52.0
125	19.2	0.0	50.2



Before Manual Integration

Reason#3

JJY
9/16/19

AJZ
09/19/2019

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321169.D Vial: 20
Acq On : 11 Sep 2019 00:31 Operator: JJY
Sample : 164275,321169, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:54 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

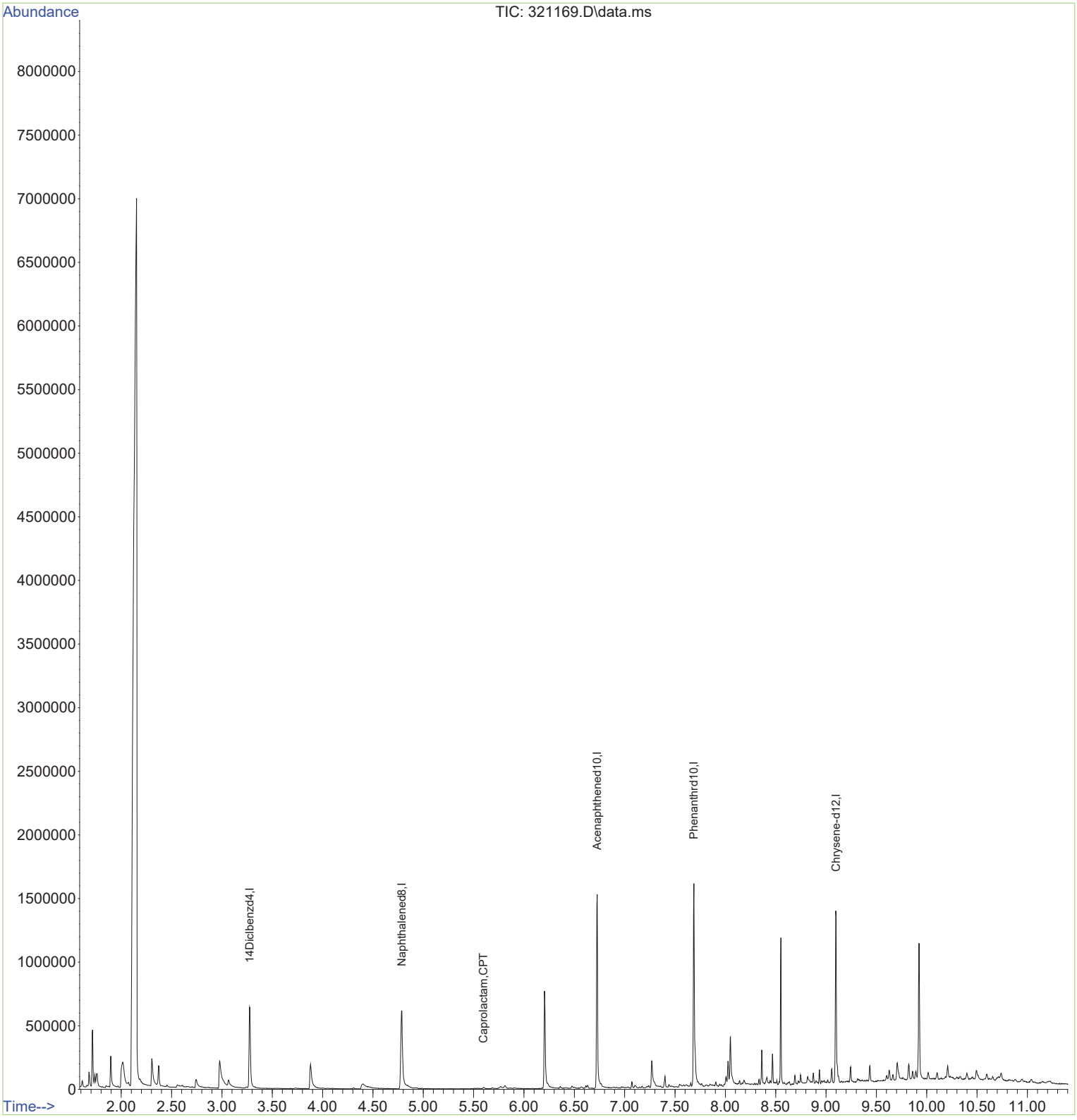
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	110600	20.00	ug/mL	0.00
3) Naphthalened8	4.786	136	416638	20.00	ug/mL	0.00
5) Acenaphthened10	6.727	164	266079	20.00	ug/mL	0.00
7) Phenanthrd10	7.687	188	441400	20.00	ug/mL	0.00
9) Chrysene-d12	9.100	240	262010	20.00	ug/mL	0.00
Target Compounds						Qvalue
4) Caprolactam	5.596	55	1291	1.2358	ug/mL#	59

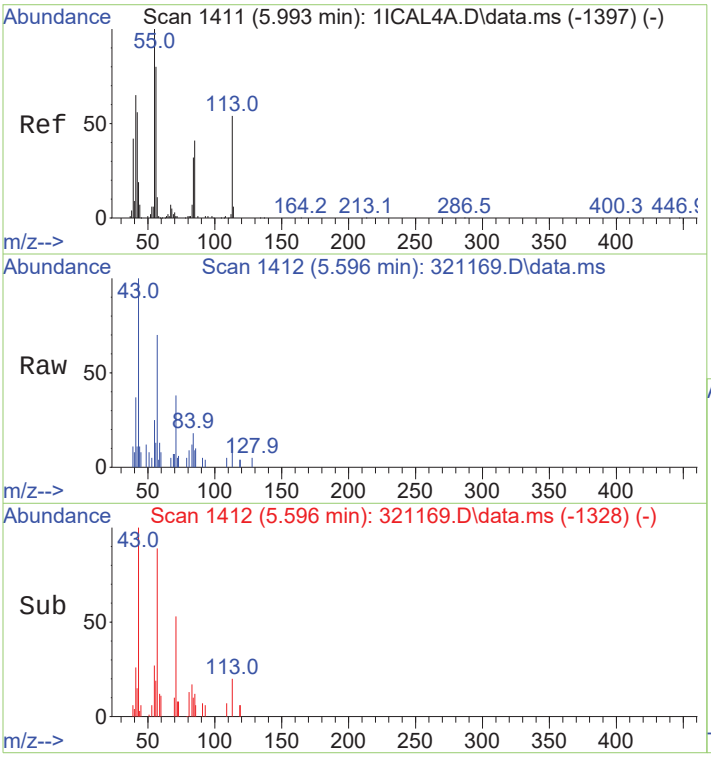
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321169.D Vial: 20
Acq On : 11 Sep 2019 00:31 Operator: JJY
Sample : 164275,321169, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:54 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

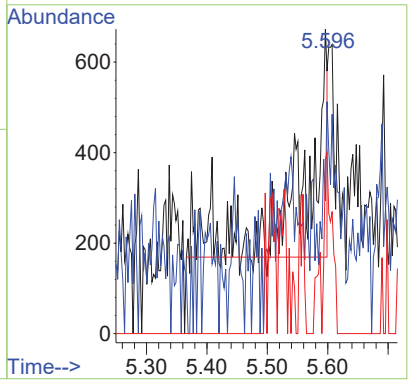




#4
Caprolactam
Concen: 1.24 ug/mL
RT: 5.596 min Scan# 1412
Delta R.T. 0.139 min
Lab File: 321169.D
Acq: 11 Sep 2019 00:31

Tgt Ion: 55 Resp: 1291

Ion	Ratio	Lower	Upper
55	100		
42	0.0	24.6	84.6#
113	62.3	26.7	86.7



Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321169.D
Acq On : 11 Sep 2019 00:31
Operator : JJY
Sample : 164275,321169,
Misc : 500ul+5ul S4142A
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 1 Thiazole Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.715	9.38 ug/mL	289235	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Thiazole	85	C3H3NS	000288-47-1	35
2	Monomethylnitrosamine	60	CH4N2O	000000-00-0	9
3	2H-Pyran-2-one, tetrahydro-6,6-d...	128	C7H12O2	002610-95-9	9
4	2-Propenal, 2-methyl-	70	C4H6O	000078-85-3	9
5	Isothiazole	85	C3H3NS	000288-16-4	7

****

Peak Number 2 3-Penten-2-one, 4-methyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.896	6.35 ug/mL	195744	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	81
2	2-Pentene, 2,3-dimethyl-	98	C7H14	010574-37-5	78
3	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	76
4	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	76
5	2-Pentene, 3,4-dimethyl-, (Z)-	98	C7H14	004914-91-4	64

****

Peak Number 3 Hydroperoxide, 1-methylethyl Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.016	13.94 ug/mL	429664	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hydroperoxide, 1-methylethyl	76	C3H8O2	003031-75-2	40
2	Butane	58	C4H10	000106-97-8	16
3	Propane, 1-(1-methylethoxy)-	102	C6H14O	000627-08-7	9
4	Acetic acid, 1-methylethyl ester	102	C5H10O2	000108-21-4	9
5	Butanoic acid, ethyl ester	116	C6H12O2	000105-54-4	9

****

Peak Number 4 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.152	485.93 ug/mL	14980000	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	56
2	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	47
3	tert-Butyl Hydroperoxide	90	C4H10O2	000075-91-2	36

Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321169.D
Acq On : 11 Sep 2019 00:31
Operator : JJY
Sample : 164275,321169,
Misc : 500ul+5ul S4142A
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

4	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	28
5	Acetic acid, cyano-, 1,1-dimethy...	141	C7H11NO2	001116-98-9	23

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321170.D Vial: 21
Acq On : 11 Sep 2019 00:50 Operator: JJY
Sample : 164275,321170, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 01:03:57 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

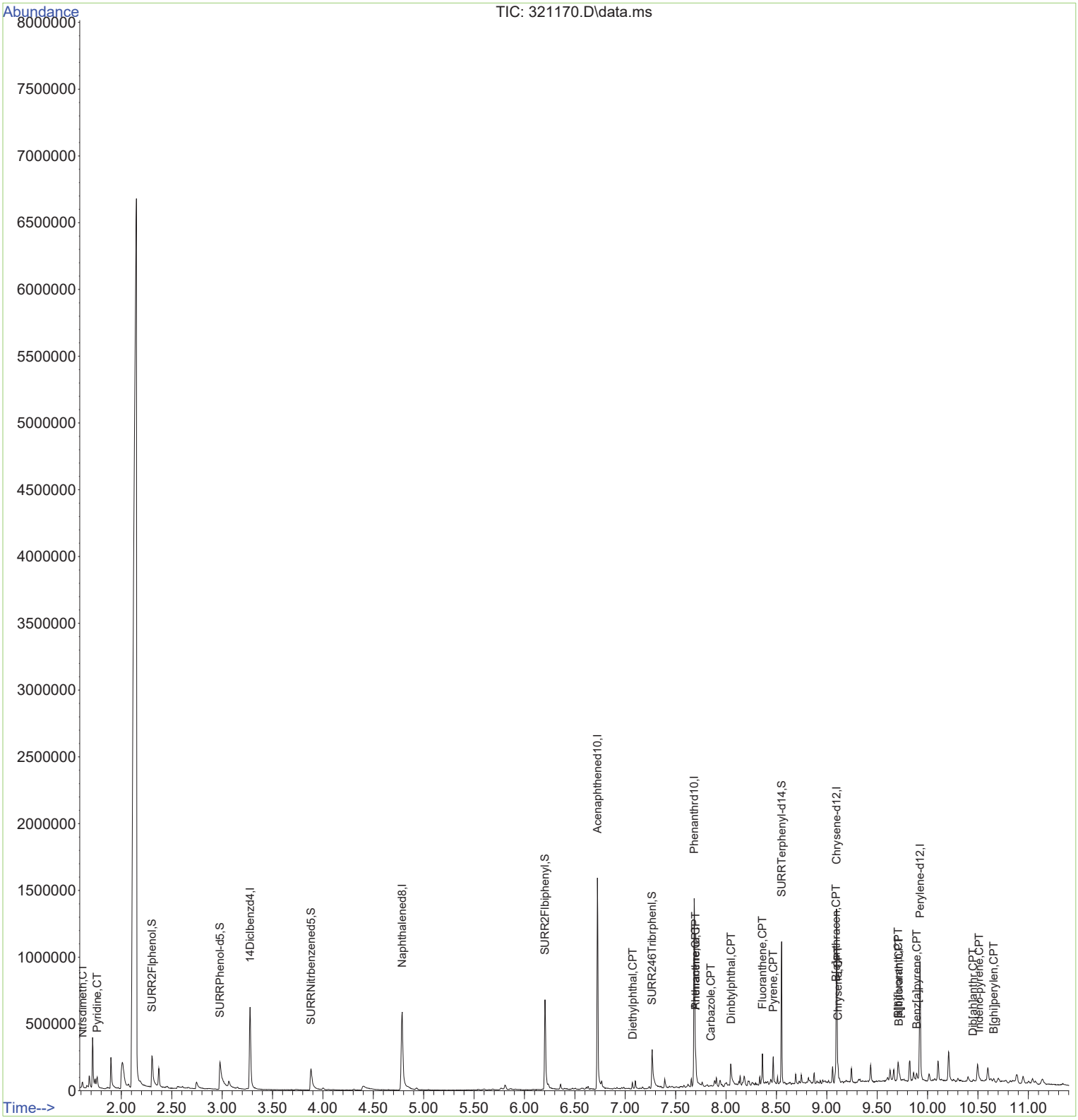
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.278	152	105692	20.00	ug/mL	0.00
21) Naphthalened8	4.786	136	399102	20.00	ug/mL	0.00
39) Acenaphthened10	6.724	164	240975	20.00	ug/mL	0.00
63) Phenanthrd10	7.685	188	417921	20.00	ug/mL	0.00
75) Chrysene-d12	9.097	240	242195	20.00	ug/mL	0.00
86) Perylene-d12	9.927	264	216432	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.306	112	97908	37.36	%REC	0.03
Spiked Amount 100.000			Recovery = 37.36%			
7) SURRPhenol-d5	2.979	99	154606	48.70	%REC	0.01
Spiked Amount 100.000			Recovery = 48.70%			
22) SURRNitrbenzened5	3.883	82	79223	58.50	%REC	0.00
Spiked Amount 100.000			Recovery = 58.50%			
44) SURR2Flbiphenyl	6.204	172	216666	67.49	%REC	0.00
Spiked Amount 100.000			Recovery = 67.49%			
62) SURR246Tribrphenl	7.267	330	37075	49.32	%REC	0.00
Spiked Amount 100.000			Recovery = 49.32%			
78) SURRTerphenyl-d14	8.551	244	169357	76.40	%REC	0.00
Spiked Amount 100.000			Recovery = 76.40%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.615	74	2639	1.1495	ug/mL#	1
3) Pyridine	1.760	79	629	0.6397	ug/mL	82
60) Diethylphthal	7.074	149	7045	0.4366	ug/mL	96
70) Phenanthrene	7.699	178	26610	1.2072	ug/mL	95
71) Anthracene	7.699	178	33604	1.4802	ug/mL	96
72) Carbazole	7.849	167	5107	0.2333	ug/mL	98
73) Dinbtylphthal	8.051	149	5739	0.0478	ug/mL	97
74) Fluoranthene	8.361	202	51813	3.2705	ug/mL	99
77) Pyrene	8.469	202	43024	2.3641	ug/mL	97
82) B[a]anthracen	9.091	228	21014	1.4074	ug/mL	81
83) Chrysene	9.111	228	21473	1.3897	ug/mL	95
87) B[b]fluoranth	9.708	252	28658m	2.4325	ug/mL	
88) B[k]fluoranth	9.716	252	11265m	0.9535	ug/mL	
89) Benz[a]pyrene	9.892	252	16359	1.3458	ug/mL	94
90) Indeno-pyrene	10.512	276	7170	0.5701	ug/mL	85
91) Dib[ah]anthr	10.449	278	1591	0.1559	ug/mL	77
92) B[ghi]perylen	10.657	276	5770	0.5237	ug/mL	95

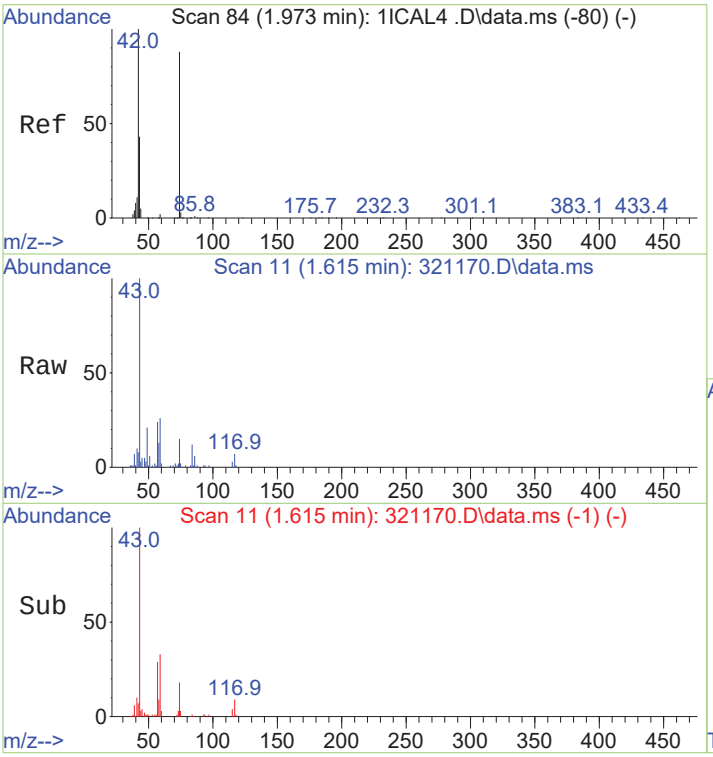
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321170.D Vial: 21
Acq On : 11 Sep 2019 00:50 Operator: JJY
Sample : 164275,321170, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 01:03:57 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

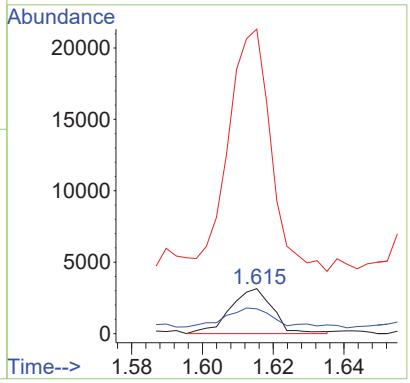


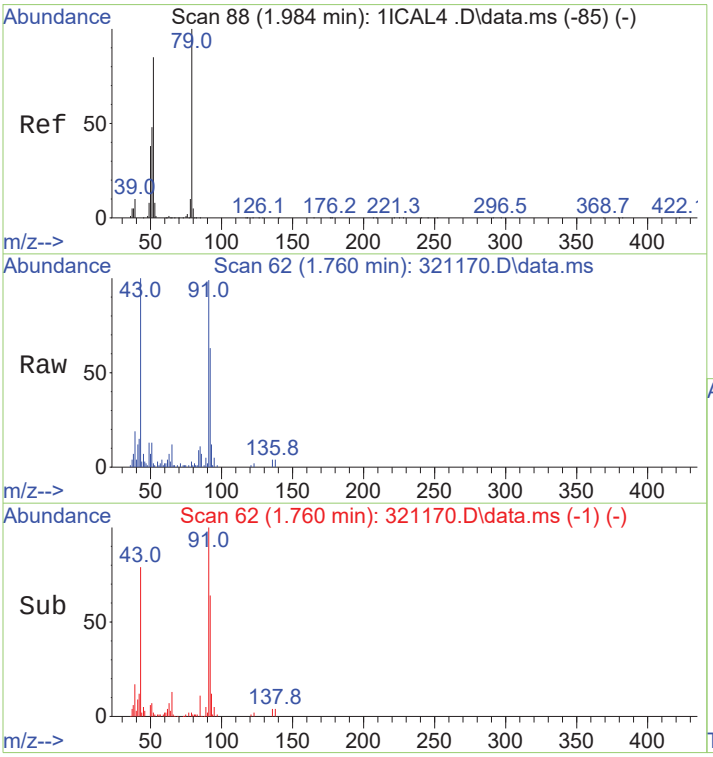


#2
Ntrsdimeth
Concen: 1.15 ug/mL
RT: 1.615 min Scan# 11
Delta R.T. -0.023 min
Lab File: 321170.D
Acq: 11 Sep 2019 00:50

Tgt Ion: 74 Resp: 2639

Ion	Ratio	Lower	Upper
74	100		
42	38.8	54.2	114.2#
43	534.0	5.5	65.5#

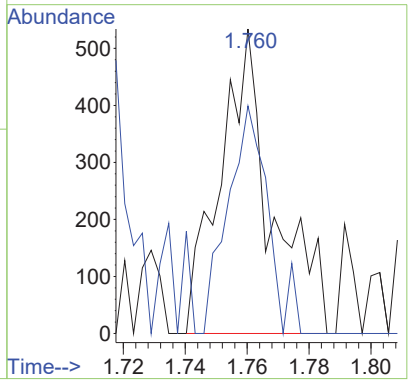


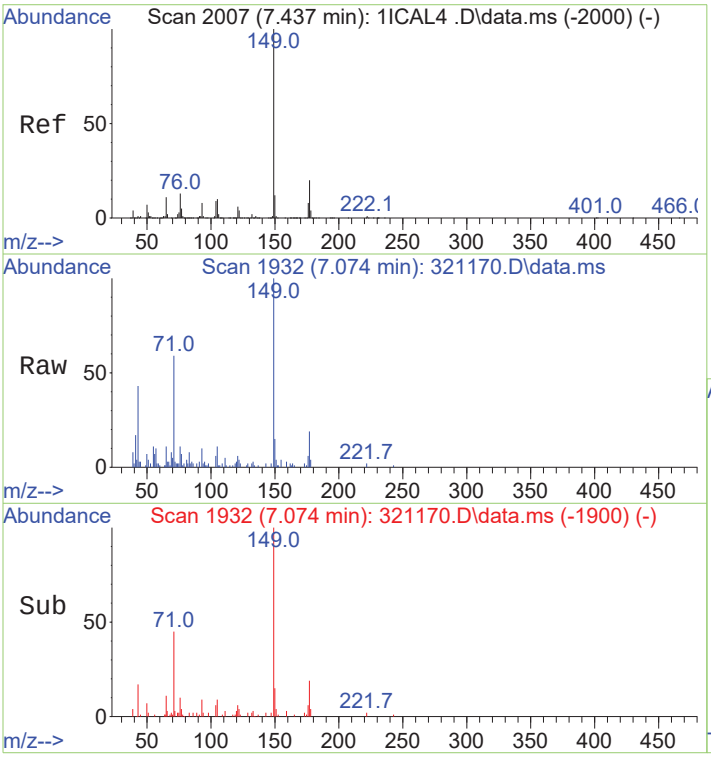


#3
Pyridine
Concen: 0.64 ug/mL
RT: 1.760 min Scan# 62
Delta R.T. 0.114 min
Lab File: 321170.D
Acq: 11 Sep 2019 00:50

Tgt Ion: 79 Resp: 629

Ion	Ratio	Lower	Upper
79	100		
52	60.8	46.7	106.7

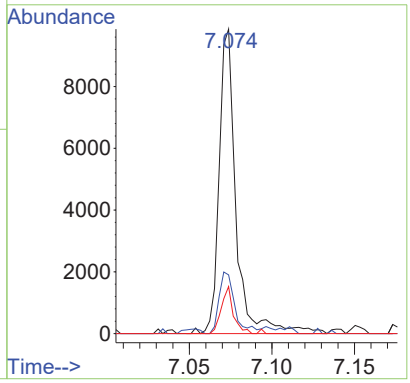


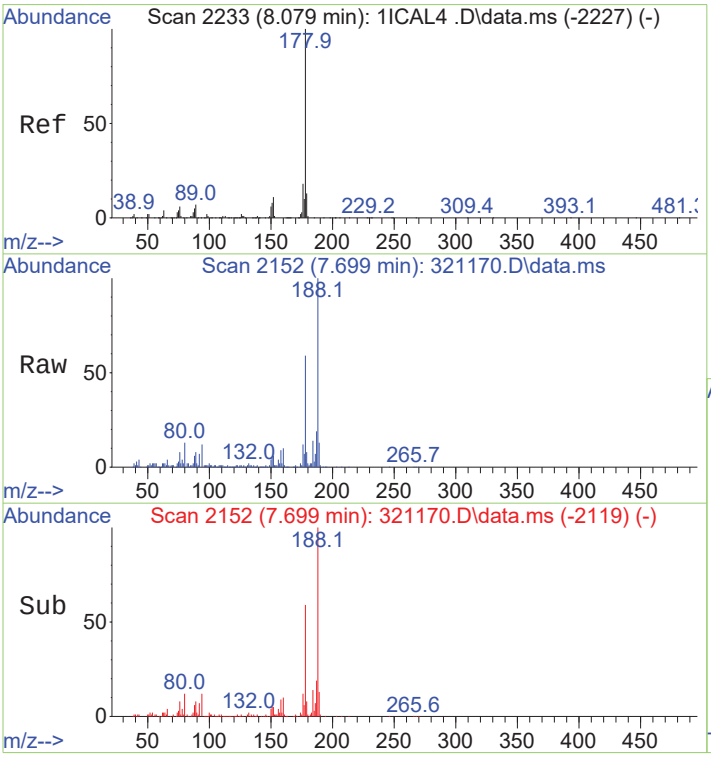


#60
Diethylphthal
Concen: 0.44 ug/mL
RT: 7.074 min Scan# 1932
Delta R.T. -0.008 min
Lab File: 321170.D
Acq: 11 Sep 2019 00:50

Tgt Ion:149 Resp: 7045

Ion	Ratio	Lower	Upper
149	100		
177	19.3	0.0	49.3
150	15.5	0.0	41.9

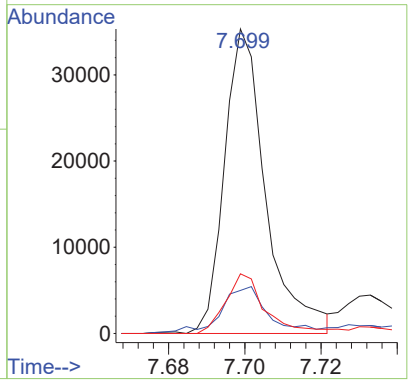


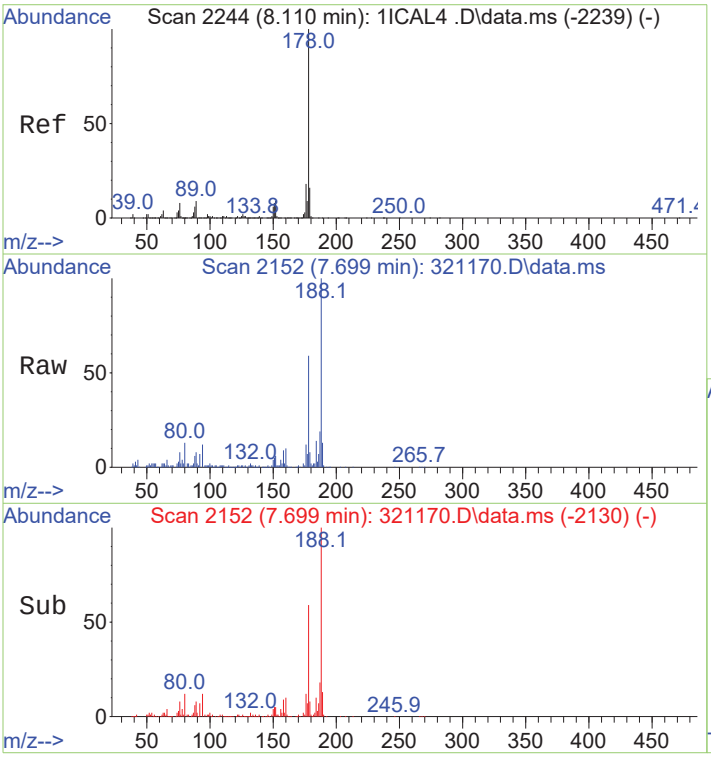


#70
Phenanthrene
Concen: 1.21 ug/mL
RT: 7.699 min Scan# 2152
Delta R.T. -0.006 min
Lab File: 321170.D
Acq: 11 Sep 2019 00:50

Tgt Ion:178 Resp: 26610

Ion	Ratio	Lower	Upper
178	100		
179	12.2	0.0	45.3
176	19.6	0.0	48.4

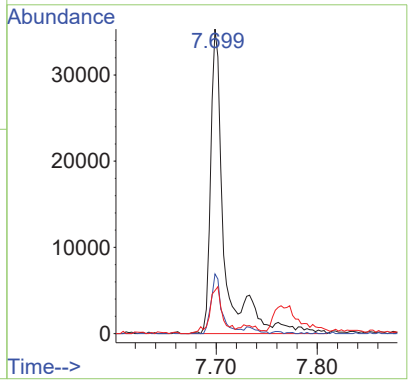


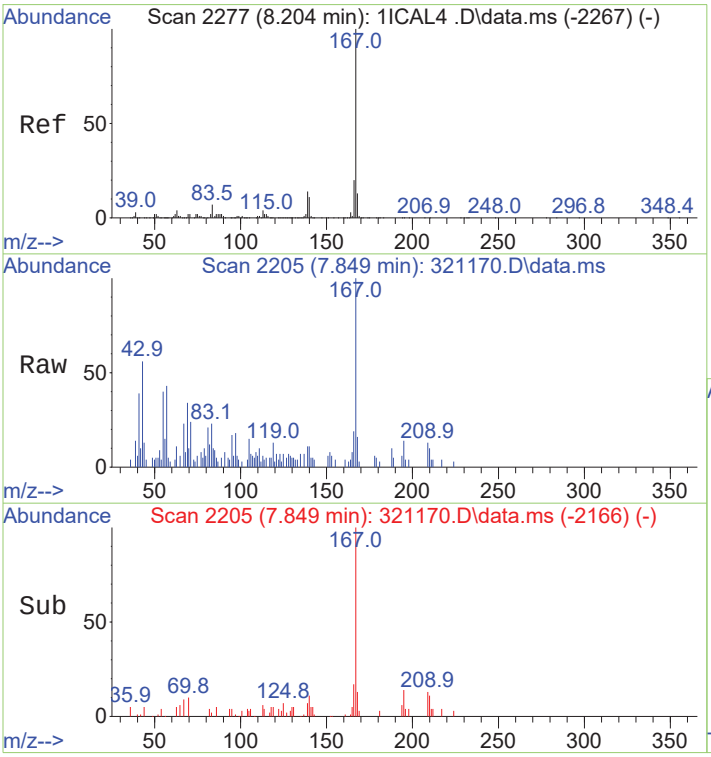


#71
Anthracene
Concen: 1.48 ug/mL
RT: 7.699 min Scan# 2152
Delta R.T. -0.037 min
Lab File: 321170.D
Acq: 11 Sep 2019 00:50

Tgt Ion:178 Resp: 33604

Ion	Ratio	Lower	Upper
178	100		
176	19.6	0.0	47.6
179	14.1	0.0	45.1

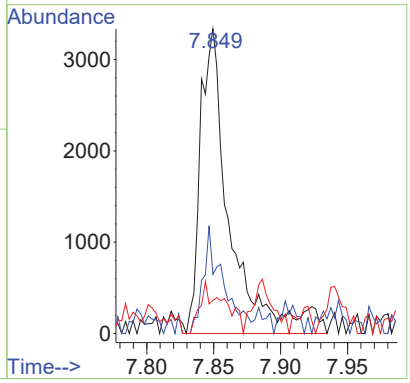


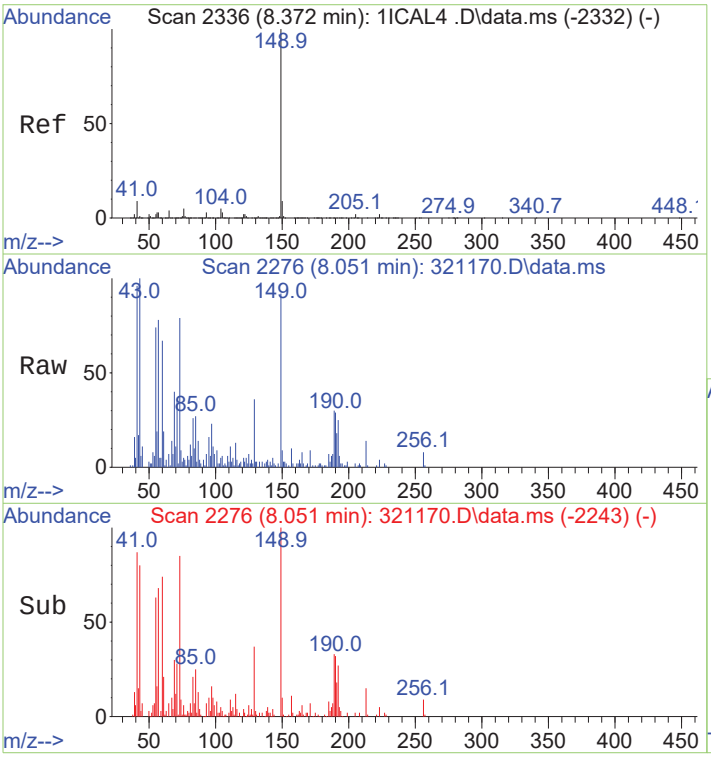


#72
Carbazole
Concen: 0.23 ug/mL
RT: 7.849 min Scan# 2205
Delta R.T. 0.011 min
Lab File: 321170.D
Acq: 11 Sep 2019 00:50

Tgt Ion:167 Resp: 5107

Ion	Ratio	Lower	Upper
167	100		
166	19.5	0.0	49.3
139	10.9	0.0	42.6

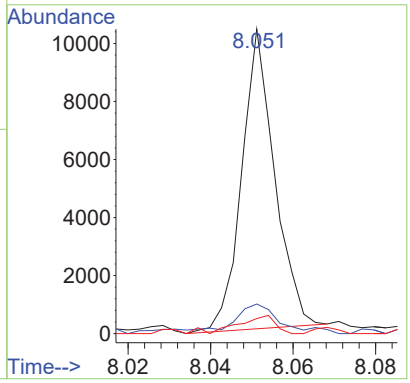


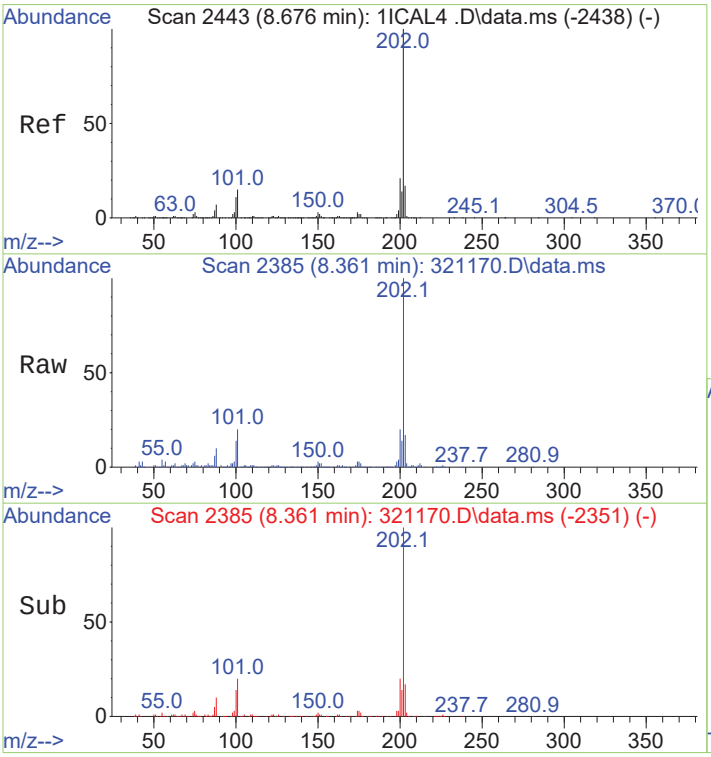


#73
Dinbtylphthal
Concen: 0.05 ug/mL
RT: 8.051 min Scan# 2276
Delta R.T. -0.006 min
Lab File: 321170.D
Acq: 11 Sep 2019 00:50

Tgt Ion:149 Resp: 5739

Ion	Ratio	Lower	Upper
149	100		
150	8.6	0.0	39.0
104	2.9	0.0	34.6

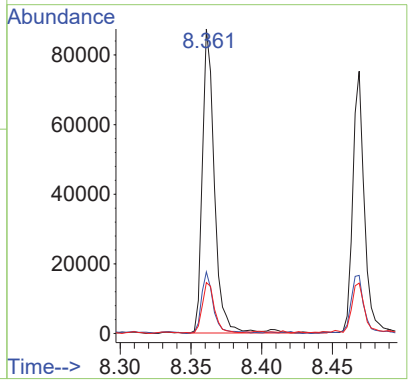


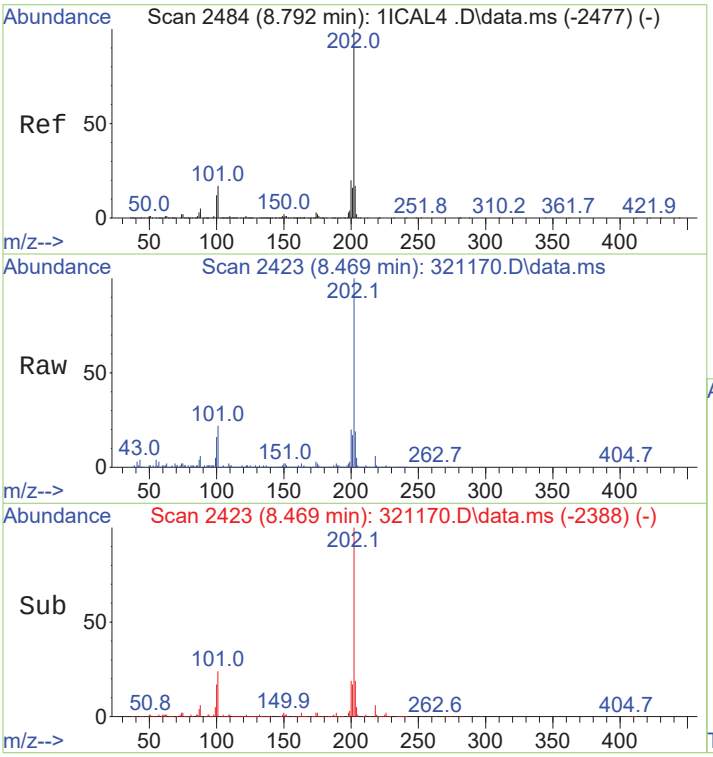


#74
Fluoranthene
Concen: 3.27 ug/mL
RT: 8.361 min Scan# 2385
Delta R.T. -0.003 min
Lab File: 321170.D
Acq: 11 Sep 2019 00:50

Tgt Ion:202 Resp: 51813

Ion	Ratio	Lower	Upper
202	100		
101	20.2	0.0	50.7
203	16.4	0.0	47.3

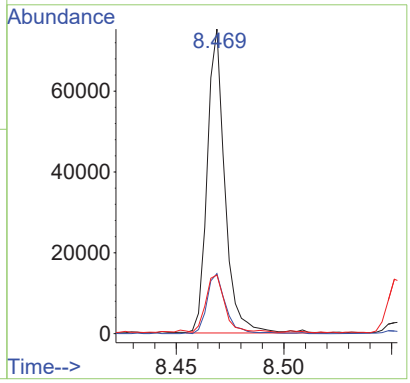


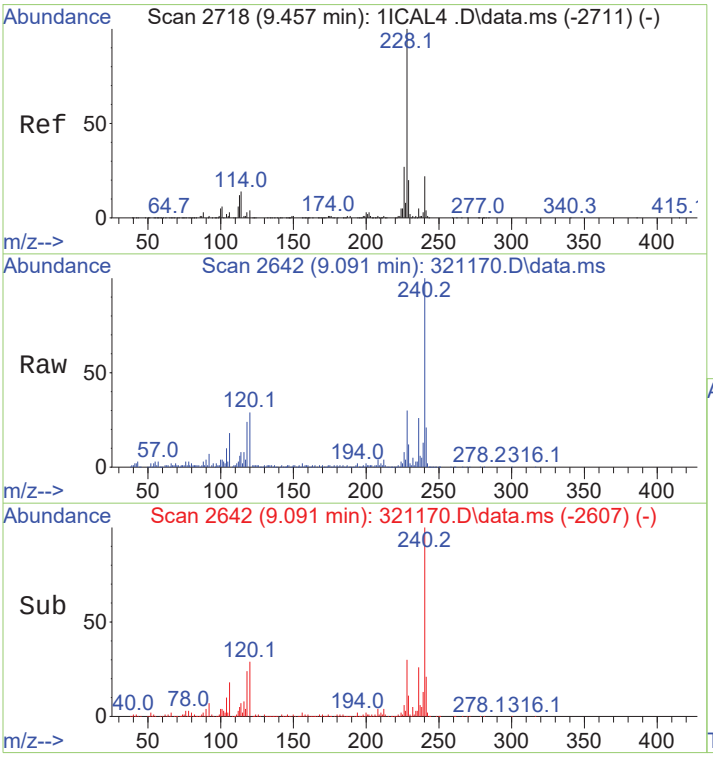


#77
Pyrene
Concen: 2.36 ug/mL
RT: 8.469 min Scan# 2423
Delta R.T. 0.000 min
Lab File: 321170.D
Acq: 11 Sep 2019 00:50

Tgt Ion:202 Resp: 43024

Ion	Ratio	Lower	Upper
202	100		
200	19.8	0.0	50.1
203	18.9	0.0	46.9

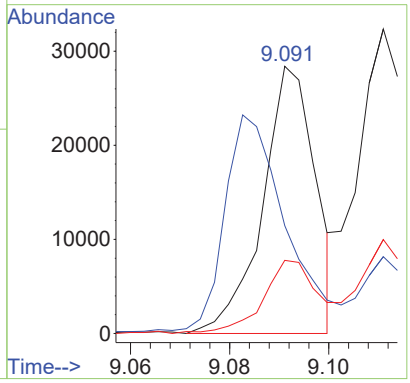


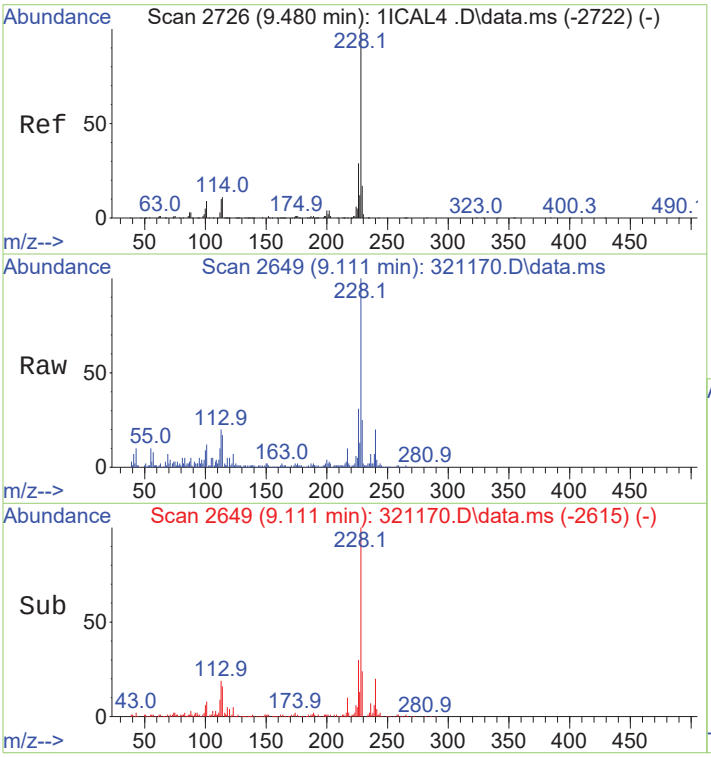


#82
B[a]anthracen
Concen: 1.41 ug/mL
RT: 9.091 min Scan# 2642
Delta R.T. 0.000 min
Lab File: 321170.D
Acq: 11 Sep 2019 00:50

Tgt Ion:228 Resp: 21014

Ion	Ratio	Lower	Upper
228	100		
229	38.6	0.0	49.3
226	26.7	0.0	56.2

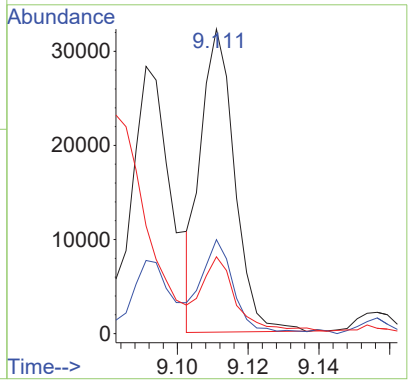


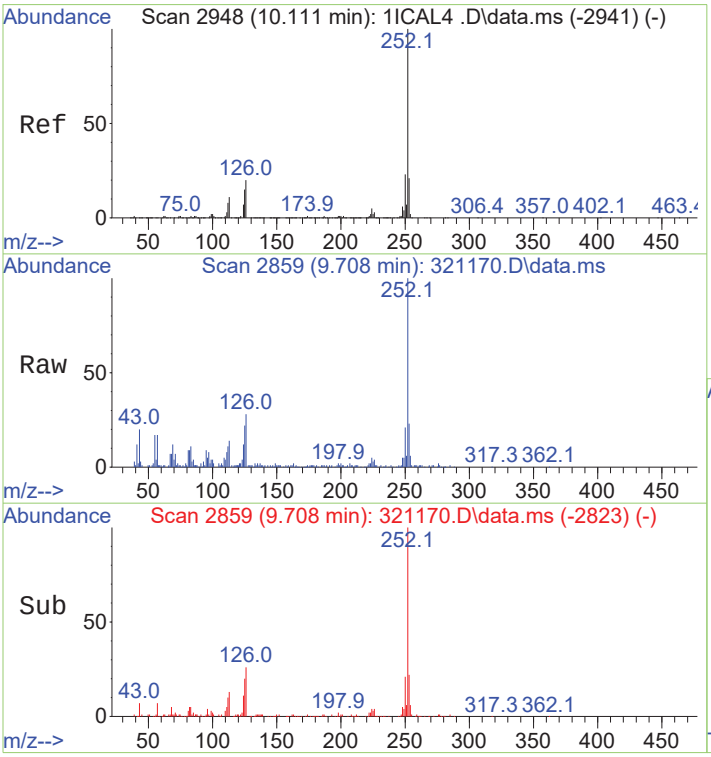


#83
Chrysene
Concen: 1.39 ug/mL
RT: 9.111 min Scan# 2649
Delta R.T. -0.003 min
Lab File: 321170.D
Acq: 11 Sep 2019 00:50

Tgt Ion:228 Resp: 21473

Ion	Ratio	Lower	Upper
228	100		
226	29.6	0.0	59.0
229	24.6	0.0	49.4

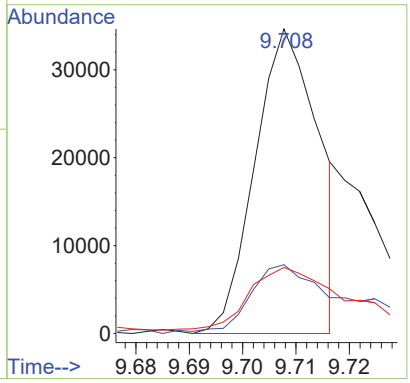


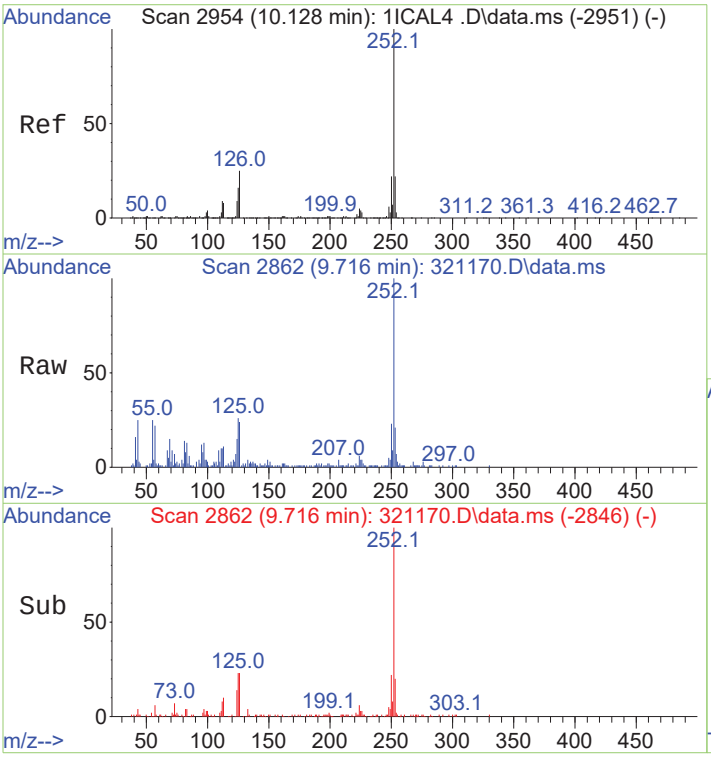


#87
B[b]fluoranth
Concen: 2.43 ug/mL m
RT: 9.708 min Scan# 2859
Delta R.T. 0.003 min
Lab File: 321170.D
Acq: 11 Sep 2019 00:50

Tgt Ion:252 Resp: 28658

Ion	Ratio	Lower	Upper
252	100		
253	22.6	0.0	51.9
125	21.7	0.0	50.0

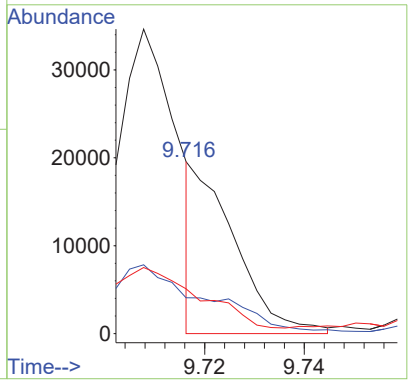


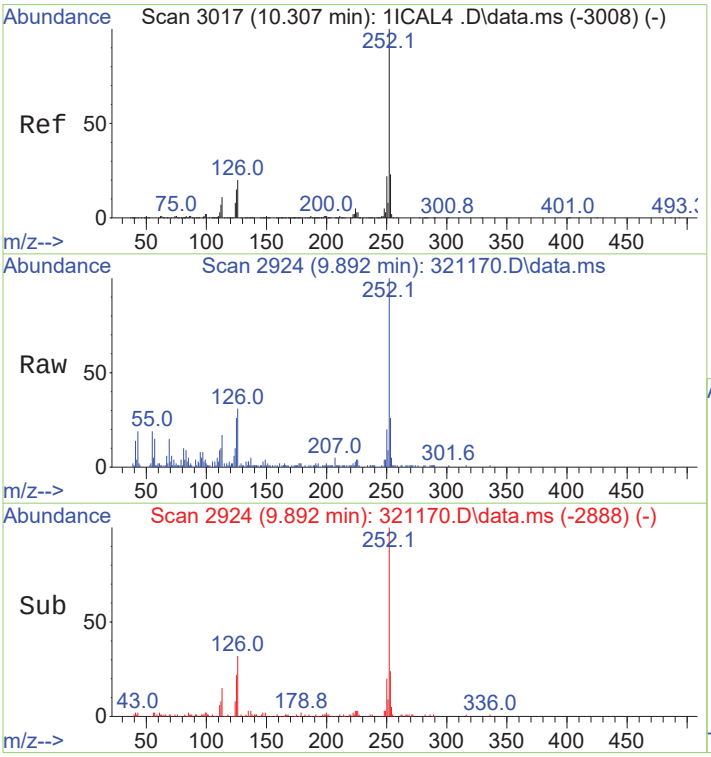


#88
B[k]fluoranth
Concen: 0.95 ug/mL m
RT: 9.716 min Scan# 2862
Delta R.T. -0.006 min
Lab File: 321170.D
Acq: 11 Sep 2019 00:50

Tgt Ion:252 Resp: 11265

Ion	Ratio	Lower	Upper
252	100		
253	20.8	0.0	52.0
125	26.0	0.0	50.2

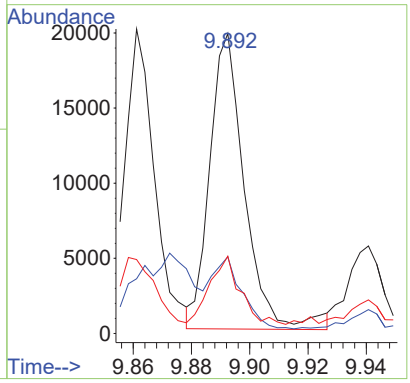


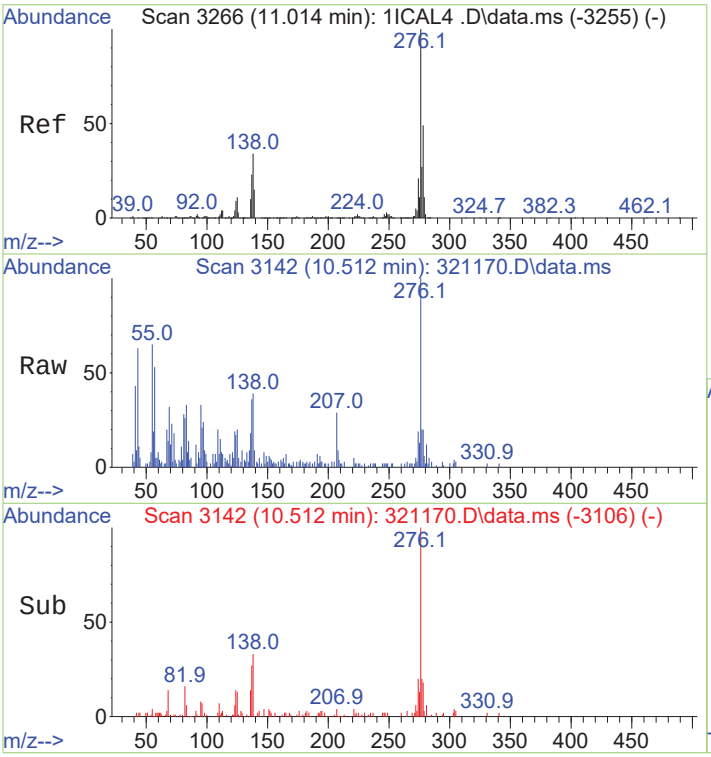


#89
Benz[a]pyrene
Concen: 1.35 ug/mL
RT: 9.892 min Scan# 2924
Delta R.T. 0.003 min
Lab File: 321170.D
Acq: 11 Sep 2019 00:50

Tgt Ion:252 Resp: 16359

Ion	Ratio	Lower	Upper
252	100		
253	25.1	0.0	51.7
125	23.8	0.0	51.4

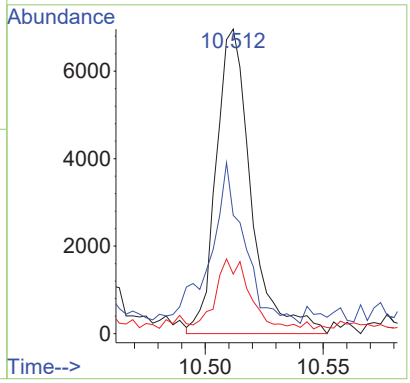


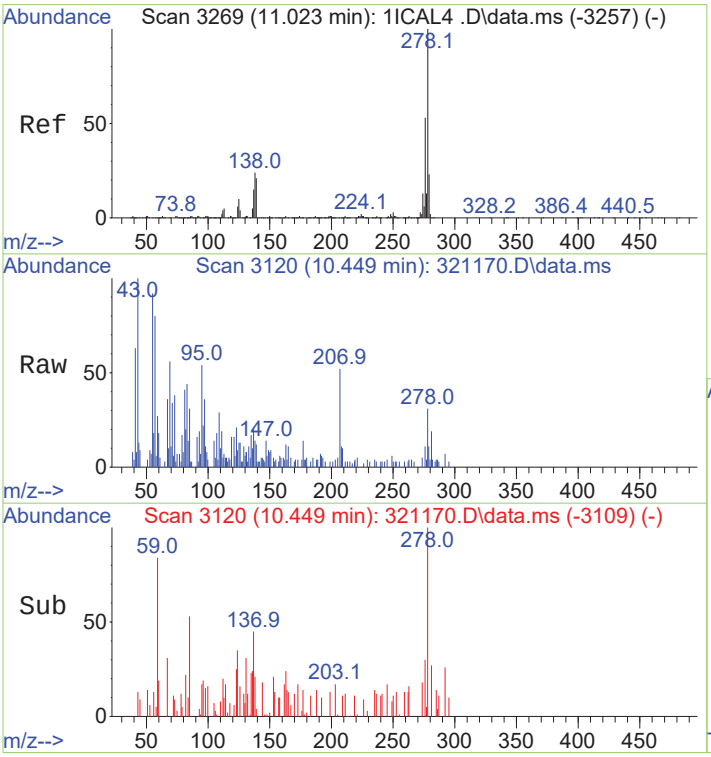


#90
Indeno-pyrene
Concen: 0.57 ug/mL
RT: 10.512 min Scan# 3142
Delta R.T. 0.003 min
Lab File: 321170.D
Acq: 11 Sep 2019 00:50

Tgt Ion:276 Resp: 7170

Ion	Ratio	Lower	Upper
276	100		
138	33.5	13.2	73.2
277	17.6	0.0	54.7

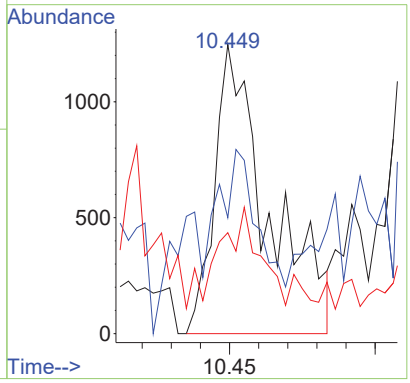


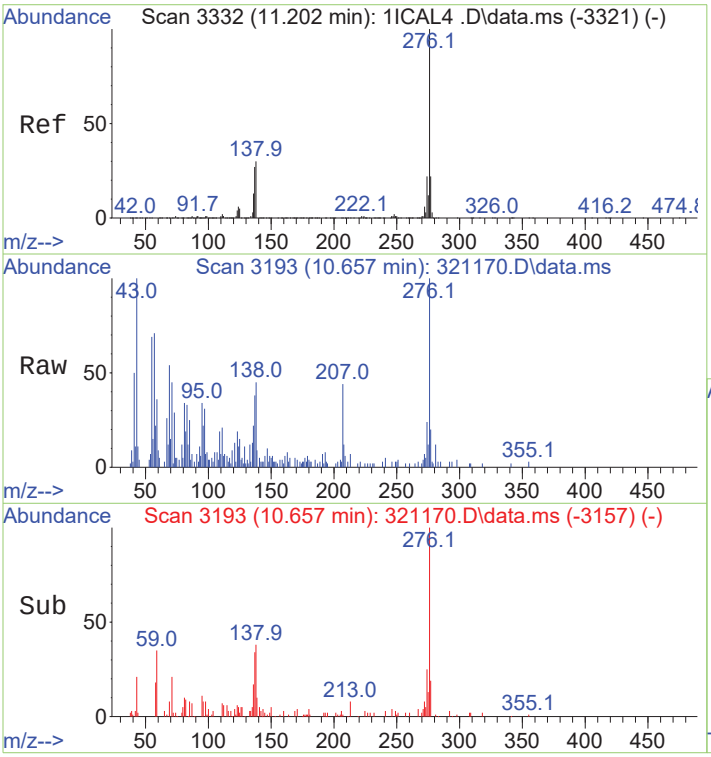


#91
Dib[ah]anthr
Concen: 0.16 ug/mL
RT: 10.449 min Scan# 3120
Delta R.T. -0.068 min
Lab File: 321170.D
Acq: 11 Sep 2019 00:50

Tgt Ion:278 Resp: 1591

Ion	Ratio	Lower	Upper
278	100		
139	14.2	4.7	64.7
279	26.2	0.0	54.0

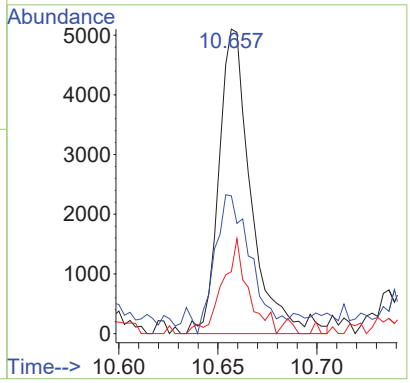


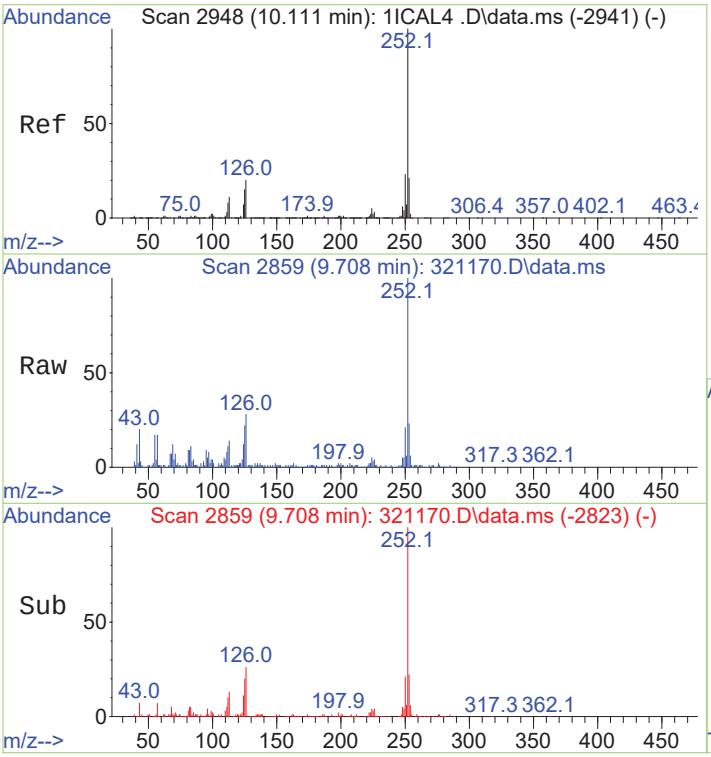


#92
B[ghi]perylen
Concen: 0.52 ug/mL
RT: 10.657 min Scan# 3193
Delta R.T. 0.003 min
Lab File: 321170.D
Acq: 11 Sep 2019 00:50

Tgt Ion:276 Resp: 5770

Ion	Ratio	Lower	Upper
276	100		
138	47.9	15.0	75.0
277	20.3	0.0	54.0

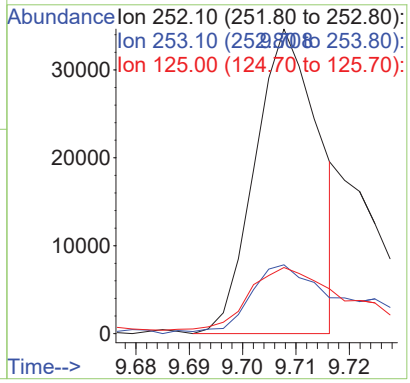




#87
B[b]fluoranth
Concen: 2.43 ug/mL m
RT: 9.708 min Scan# 2859
Delta R.T. 0.003 min
Lab File: 321170.D
Acq: 11 Sep 2019 00:50

Tgt Ion:252 Resp: 28658

Ion	Ratio	Lower	Upper
252	100		
253	22.6	0.0	51.9
125	21.7	0.0	50.0

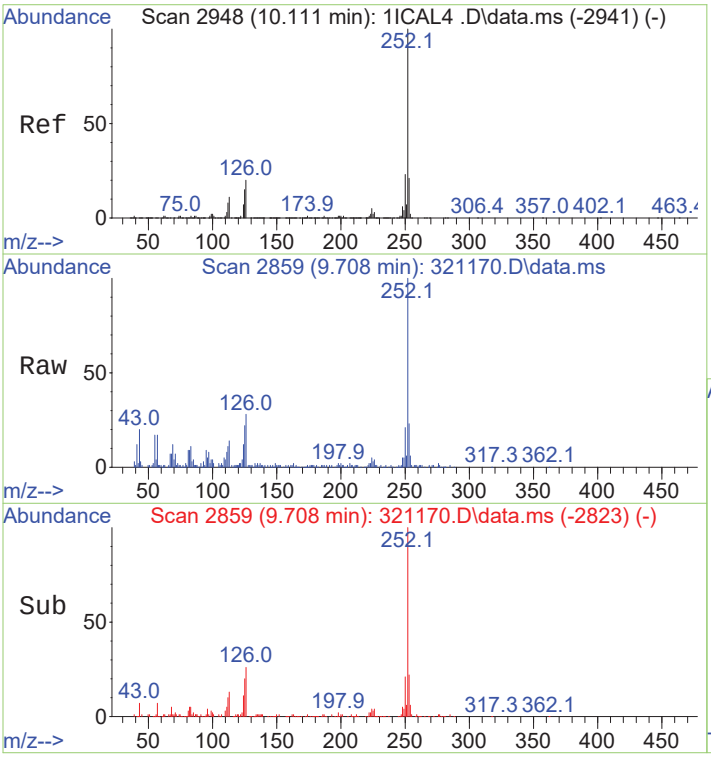


After Manual Integration

Reason#3

JJY
9/16/19

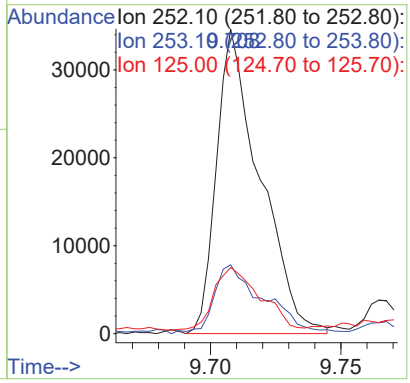
AJZ
09/19/2019



#87
B[b]fluoranth
Concen: 3.39 ug/mL
RT: 9.708 min Scan# 2859
Delta R.T. 0.003 min
Lab File: 321170.D
Acq: 11 Sep 2019 00:50

Tgt Ion:252 Resp: 39927

Ion	Ratio	Lower	Upper
252	100		
253	22.1	0.0	51.9
125	20.3	0.0	50.0

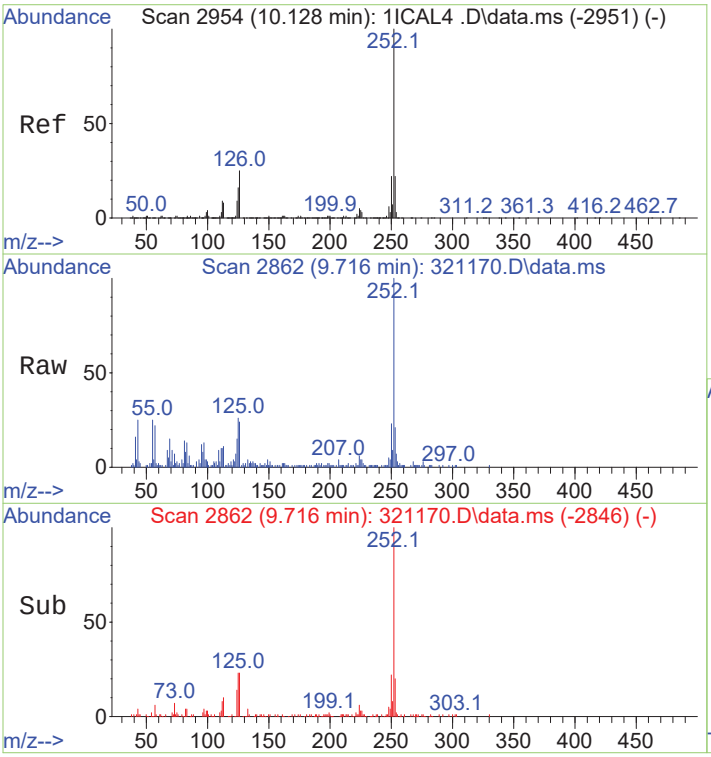


Before Manual Integration

Reason#3

JJY
9/16/19

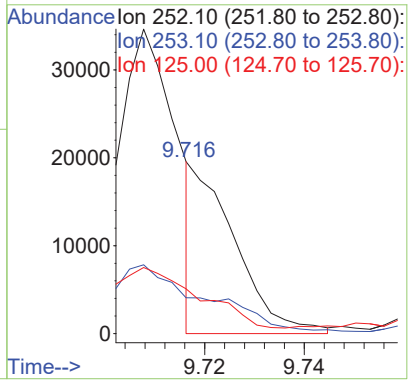
AJZ
09/19/2019



#88
B[k]fluoranth
Concen: 0.95 ug/mL m
RT: 9.716 min Scan# 2862
Delta R.T. -0.006 min
Lab File: 321170.D
Acq: 11 Sep 2019 00:50

Tgt Ion:252 Resp: 11265

Ion	Ratio	Lower	Upper
252	100		
253	20.8	0.0	52.0
125	26.0	0.0	50.2

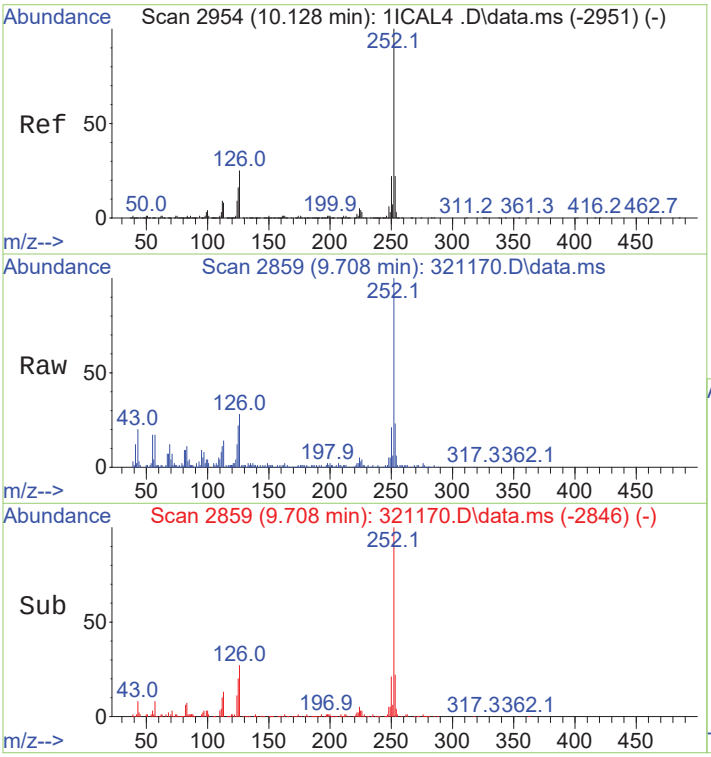


After Manual Integration

Reason#3

JJY
9/16/19

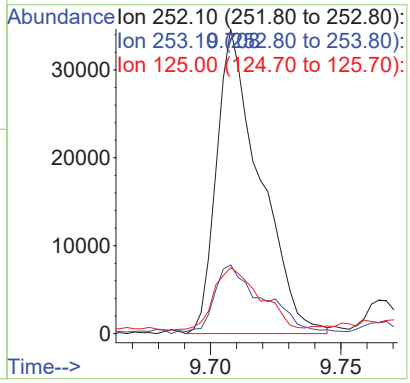
AJZ
09/19/2019



#88
B[k]fluoranth
Concen: 3.38 ug/mL
RT: 9.708 min Scan# 2859
Delta R.T. -0.014 min
Lab File: 321170.D
Acq: 11 Sep 2019 00:50

Tgt Ion:252 Resp: 39927

Ion	Ratio	Lower	Upper
252	100		
253	22.1	0.0	52.0
125	20.3	0.0	50.2



Before Manual Integration

Reason#3

JJY
9/16/19

AJZ
09/19/2019

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321170.D Vial: 21
Acq On : 11 Sep 2019 00:50 Operator: JJY
Sample : 164275,321170, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:56 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

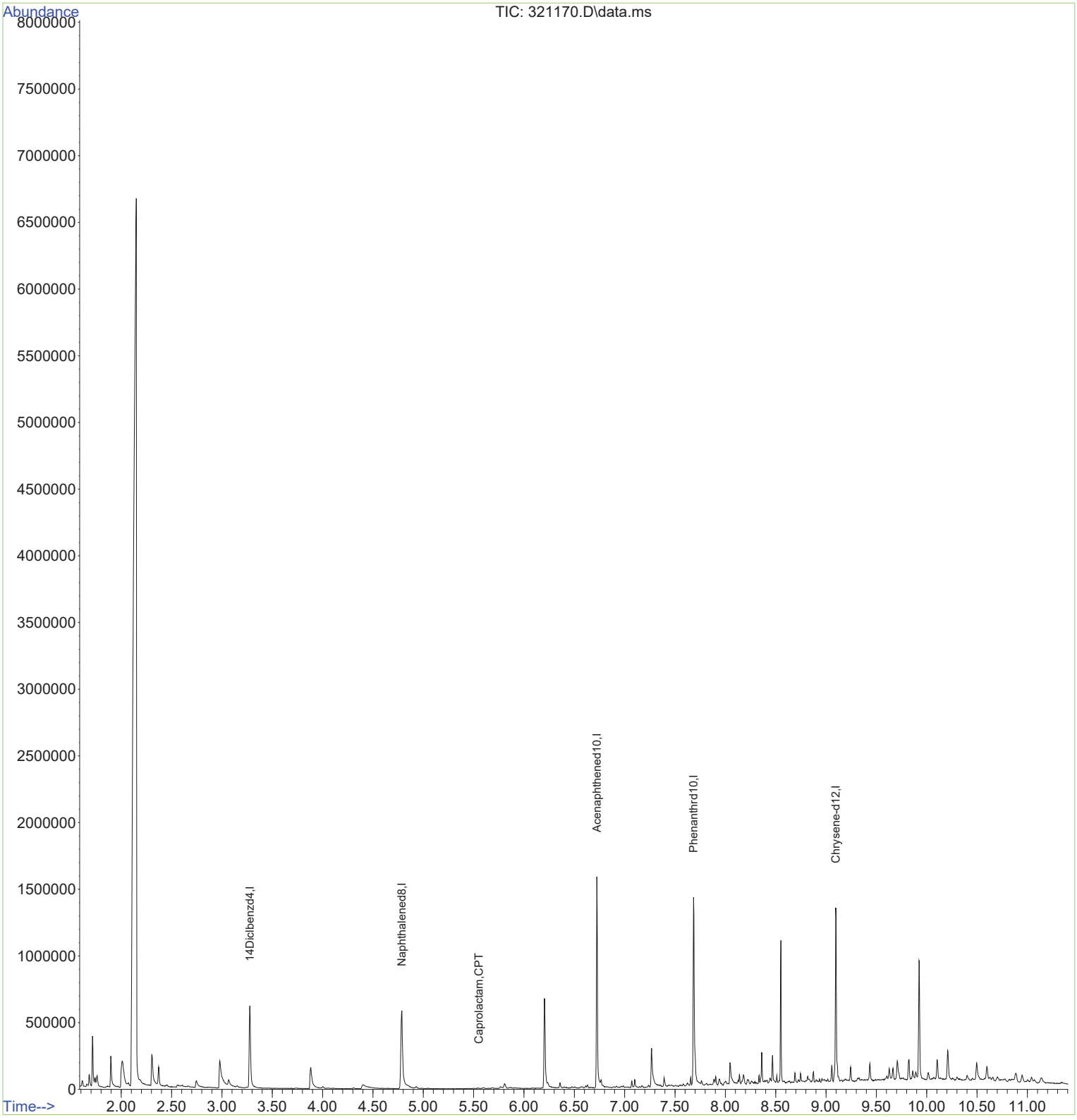
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.278	152	106540	20.00	ug/mL	0.00
3) Naphthalened8	4.786	136	399102	20.00	ug/mL	0.00
5) Acenaphthened10	6.724	164	254617	20.00	ug/mL	0.00
7) Phenanthrd10	7.685	188	422415	20.00	ug/mL	0.00
9) Chrysene-d12	9.097	240	241760	20.00	ug/mL	0.00
Target Compounds						Qvalue
4) Caprolactam	5.551	55	2517	1.5386	ug/mL#	23

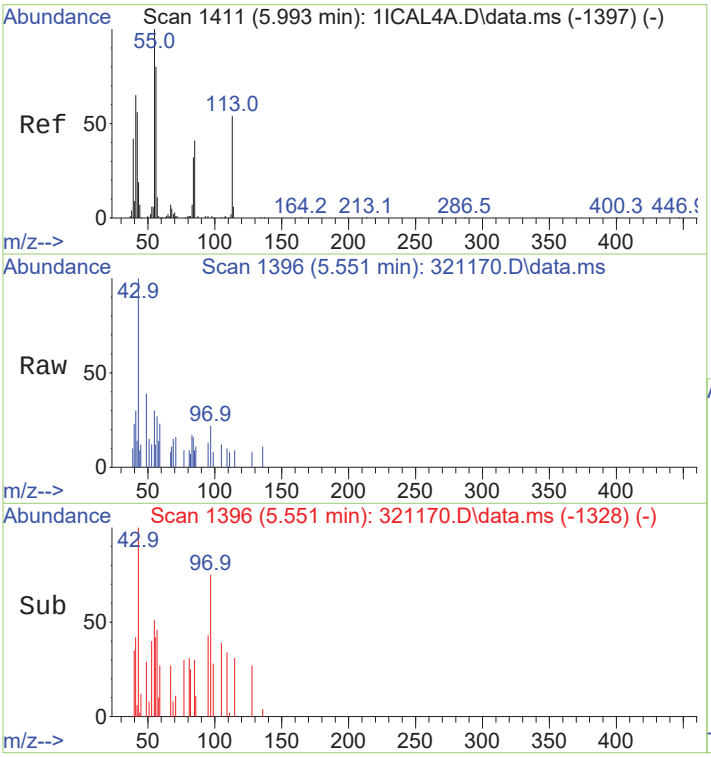
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321170.D Vial: 21
Acq On : 11 Sep 2019 00:50 Operator: JJY
Sample : 164275,321170, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:56 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

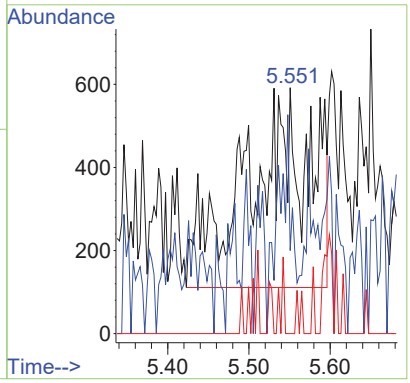




#4
Caprolactam
Concen: 1.54 ug/mL
RT: 5.551 min Scan# 1396
Delta R.T. 0.094 min
Lab File: 321170.D
Acq: 11 Sep 2019 00:50

Tgt Ion: 55 Resp: 2517

Ion	Ratio	Lower	Upper
55	100		
42	0.0	24.6	84.6#
113	0.0	26.7	86.7#



Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321170.D
Acq On : 11 Sep 2019 00:50
Operator : JJY
Sample : 164275,321170,
Misc : 500ul+5ul S4142A
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 1 Methacrylamide Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.715	7.94 ug/mL	238951	14Diclbenzd4	3.278

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Methacrylamide	85	C4H7NO	000079-39-0	36
2	Thiazole	85	C3H3NS	000288-47-1	35
3	Monomethylnitrosamine	60	CH4N2O	000000-00-0	9
4	2H-Pyran-2-one, tetrahydro-6,6-d...	128	C7H12O2	002610-95-9	9
5	Isothiazole	85	C3H3NS	000288-16-4	7

****

Peak Number 2 3-Penten-2-one, 4-methyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.897	6.27 ug/mL	188668	14Diclbenzd4	3.278

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	76
2	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	64
3	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	64
4	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	64
5	2-Pentene, 2,4-dimethyl-	98	C7H14	000625-65-0	58

****

Peak Number 3 Hydroperoxide, 1-methylethyl Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.010	13.03 ug/mL	392333	14Diclbenzd4	3.278

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hydroperoxide, 1-methylethyl	76	C3H8O2	003031-75-2	40
2	Acetic acid, 1-methylethyl ester	102	C5H10O2	000108-21-4	23
3	Butanoic acid, ethyl ester	116	C6H12O2	000105-54-4	9
4	Acetic acid, 1-methylethyl ester	102	C5H10O2	000108-21-4	9
5	Ethylamine	45	C2H7N	000075-04-7	7

****

Peak Number 4 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.150	436.36 ug/mL	13139300	14Diclbenzd4	3.278

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	56
2	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	47
3	tert-Butyl Hydroperoxide	90	C4H10O2	000075-91-2	36

Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321170.D
Acq On : 11 Sep 2019 00:50
Operator : JJY
Sample : 164275,321170,
Misc : 500ul+5ul S4142A
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

4	Acetic acid, 1,1-dimethylethyl e...	116	C6H12O2	000540-88-5	33
5	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	28

****

Peak Number 5 Hexatriacontane Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.208	6.17 ug/mL	209728	Perylene-d12	9.927

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexatriacontane	507	C36H74	000630-06-8	91
2	Hexatriacontane	507	C36H74	000630-06-8	90
3	Tetratetracontane	619	C44H90	007098-22-8	90
4	Docosane	310	C22H46	000629-97-0	86
5	Eicosane	282	C20H42	000112-95-8	86

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321171.D Vial: 22
Acq On : 11 Sep 2019 1:10 Operator: JJY
Sample : 164275,321171, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 01:23:16 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

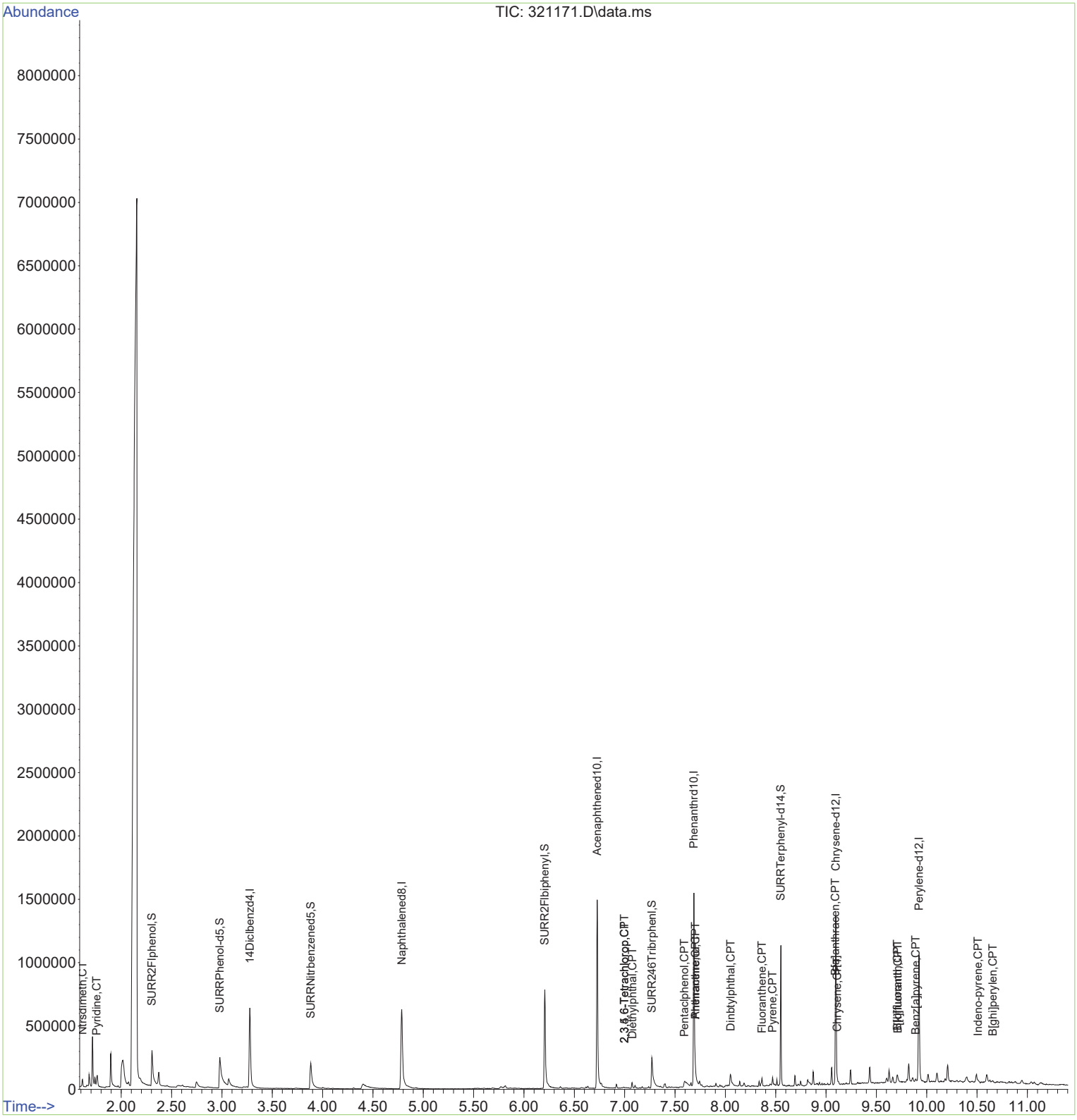
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.277	152	108657	20.00	ug/mL	0.00
21) Naphthalened8	4.786	136	412463	20.00	ug/mL	0.00
39) Acenaphthened10	6.727	164	248525	20.00	ug/mL	0.00
63) Phenanthrd10	7.687	188	427607	20.00	ug/mL	0.00
75) Chrysene-d12	9.097	240	258299	20.00	ug/mL	0.00
86) Perylene-d12	9.924	264	235177	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.306	112	108907	40.24	%REC	0.03
Spiked Amount 100.000			Recovery = 40.24%			
7) SURRPhenol-d5	2.979	99	168780	51.59	%REC	0.01
Spiked Amount 100.000			Recovery = 51.59%			
22) SURRNitrbenzened5	3.883	82	92542	65.76	%REC	0.00
Spiked Amount 100.000			Recovery = 65.76%			
44) SURR2Flbiphenyl	6.207	172	245242	74.07	%REC	0.00
Spiked Amount 100.000			Recovery = 74.07%			
62) SURR246Tribrphenl	7.270	330	33207	42.92	%REC	0.00
Spiked Amount 100.000			Recovery = 42.92%			
78) SURRTerphenyl-d14	8.551	244	174489	73.81	%REC	0.00
Spiked Amount 100.000			Recovery = 73.81%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.615	74	2633	1.1319	ug/mL#	1
3) Pyridine	1.754	79	570	0.6289	ug/mL#	25
56) 2,3,5,6-Tetrachlorop	6.997	232	783	0.7101	ug/mL#	66
57) 2,3,4,6-Tetrachlorop	6.997	232	783	0.4003	ug/mL#	74
60) Diethylphthal	7.076	149	6584	0.3956	ug/mL	96
69) Pentaclphenol	7.594	266	14745	7.0727	ug/mL	90
70) Phenanthrene	7.702	178	8113	0.3597	ug/mL	95
71) Anthracene	7.702	178	8255	0.3554	ug/mL	94
73) Dinbtylphthal	8.054	149	6566	0.0719	ug/mL	98
74) Fluoranthene	8.364	202	15467	0.9542	ug/mL	96
77) Pyrene	8.469	202	12812	0.6601	ug/mL	92
82) B[a]anthracen	9.091	228	7471	0.4692	ug/mL	93
83) Chrysene	9.111	228	7395	0.4488	ug/mL	94
87) B[b]fluoranth	9.708	252	11094m	0.8666	ug/mL	
88) B[k]fluoranth	9.713	252	5433m	0.4232	ug/mL	
89) Benz[a]pyrene	9.890	252	5202	0.3938	ug/mL	91
90) Indeno-pyrene	10.509	276	3189	0.2333	ug/mL	87
92) B[ghi]perylen	10.657	276	2269	0.1895	ug/mL	97

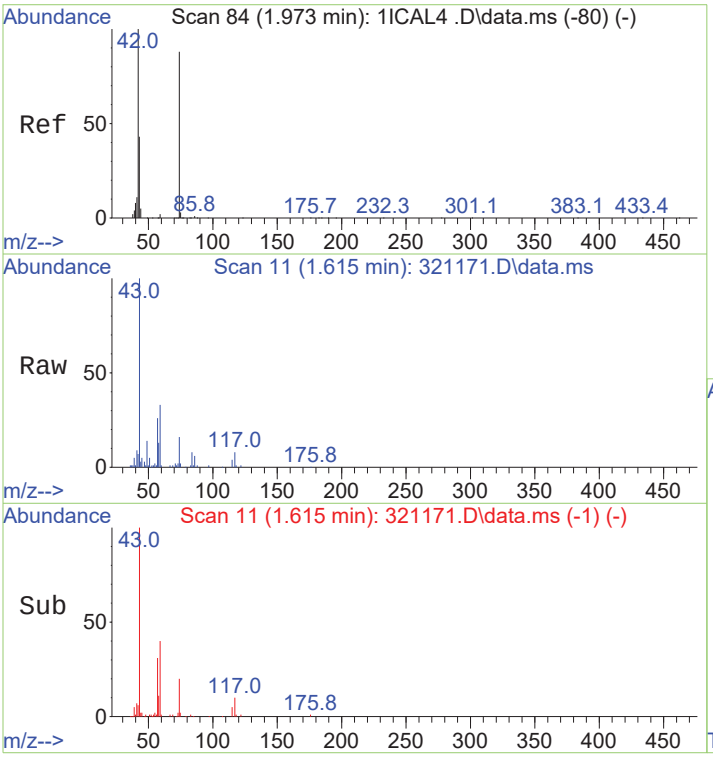
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321171.D Vial: 22
Acq On : 11 Sep 2019 1:10 Operator: JJY
Sample : 164275,321171, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 01:23:16 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

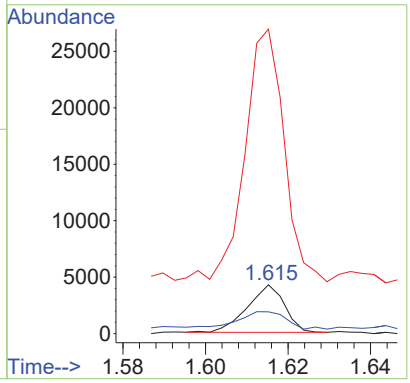


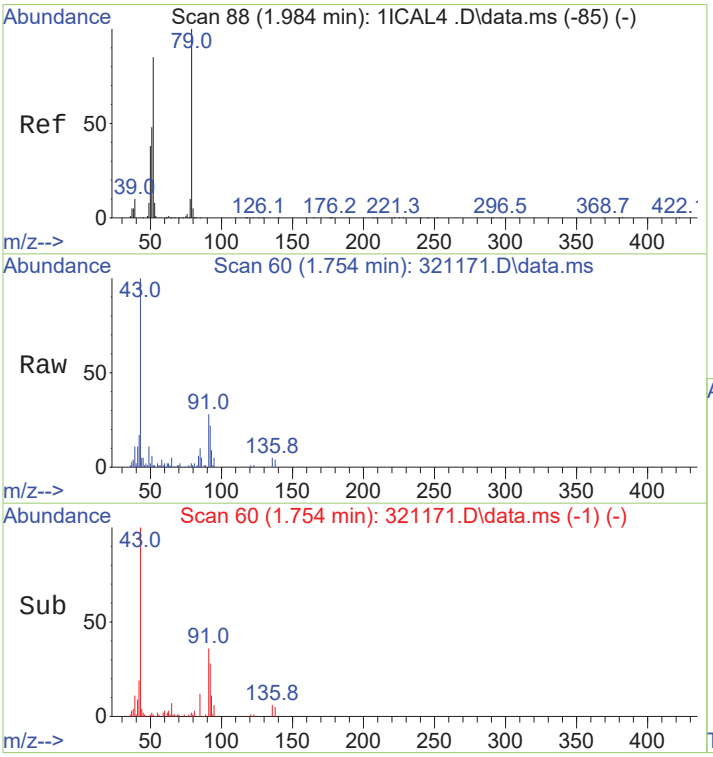


#2
Ntrsdimeth
Concen: 1.13 ug/mL
RT: 1.615 min Scan# 11
Delta R.T. -0.023 min
Lab File: 321171.D
Acq: 11 Sep 2019 1:10

Tgt Ion: 74 Resp: 2633

Ion	Ratio	Lower	Upper
74	100		
42	34.5	54.2	114.2#
43	527.4	5.5	65.5#

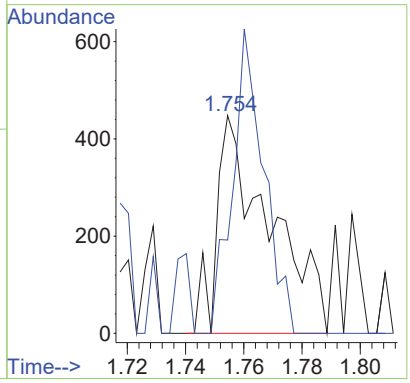


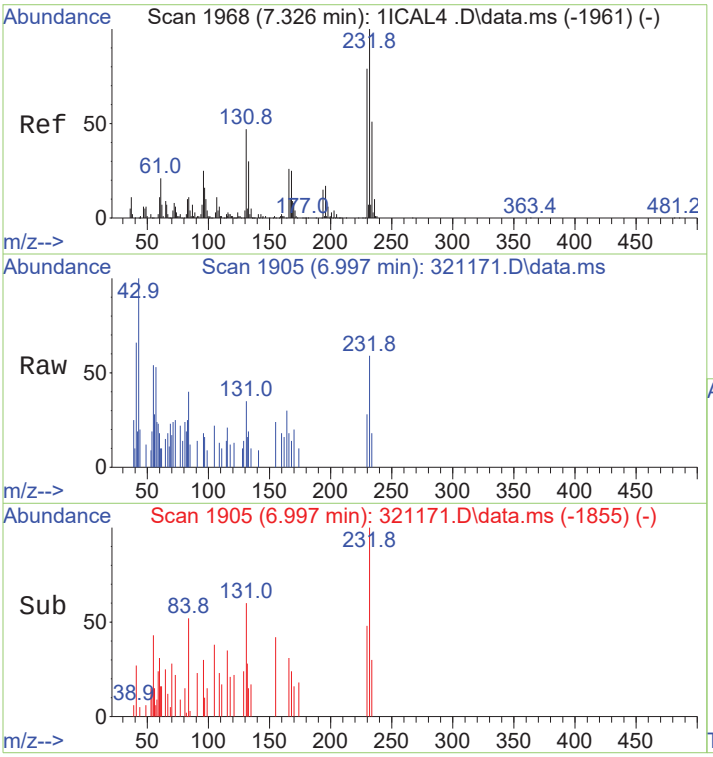


#3
Pyridine
Concen: 0.63 ug/mL
RT: 1.754 min Scan# 60
Delta R.T. 0.108 min
Lab File: 321171.D
Acq: 11 Sep 2019 1:10

Tgt Ion: 79 Resp: 570

Ion	Ratio	Lower	Upper
79	100		
52	11.8	46.7	106.7#

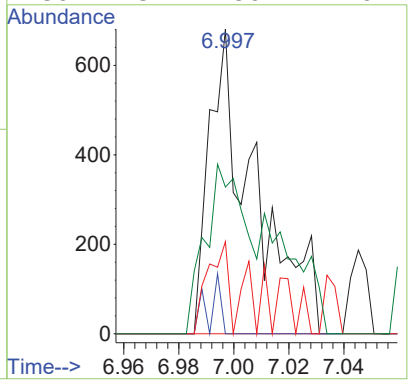


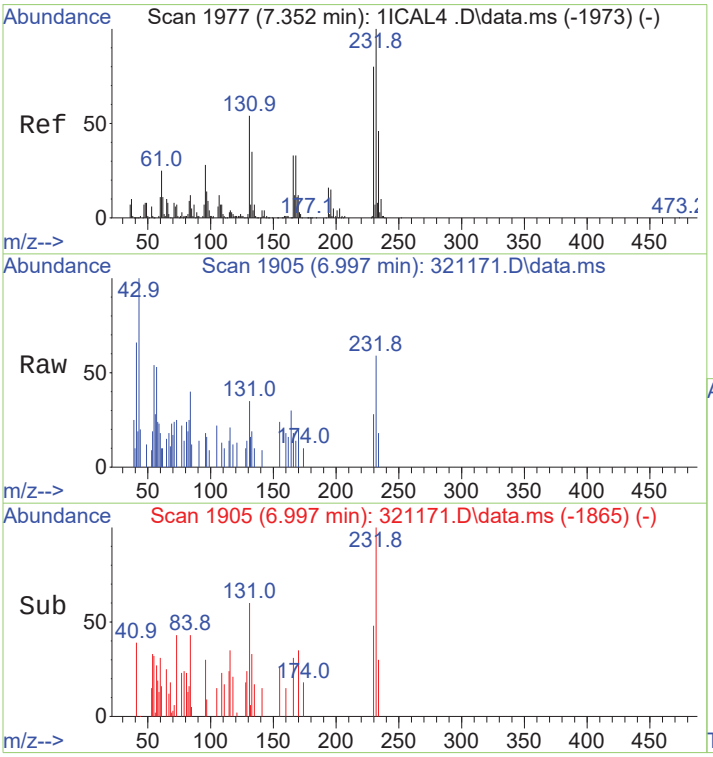


#56
2,3,5,6-Tetrachlorop
Concen: 0.71 ug/mL
RT: 6.997 min Scan# 1905
Delta R.T. 0.043 min
Lab File: 321171.D
Acq: 11 Sep 2019 1:10

Tgt Ion:232 Resp: 783

Ion	Ratio	Lower	Upper
232	100		
194	0.0	0.0	48.3
234	30.2	19.0	79.0
230	48.2	50.2	110.2#

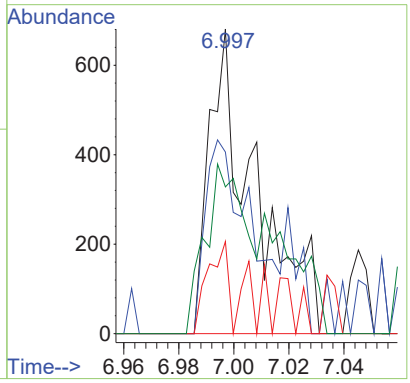


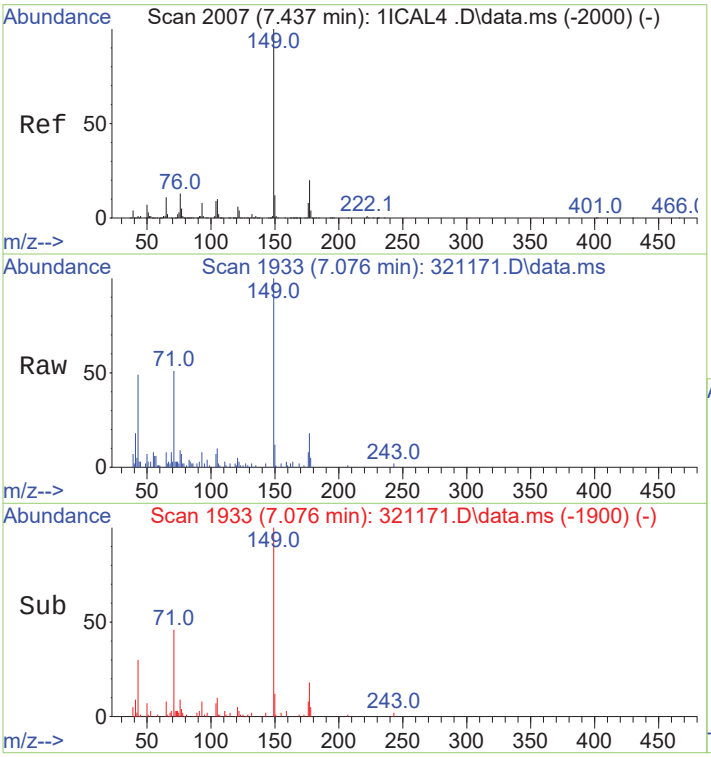


#57
2,3,4,6-Tetrachlorop
Concen: 0.40 ug/mL
RT: 6.997 min Scan# 1905
Delta R.T. 0.014 min
Lab File: 321171.D
Acq: 11 Sep 2019 1:10

Tgt Ion:232 Resp: 783

Ion	Ratio	Lower	Upper
232	100		
131	59.6	28.3	68.3
234	30.2	26.0	66.0
230	48.2	57.1	97.1#

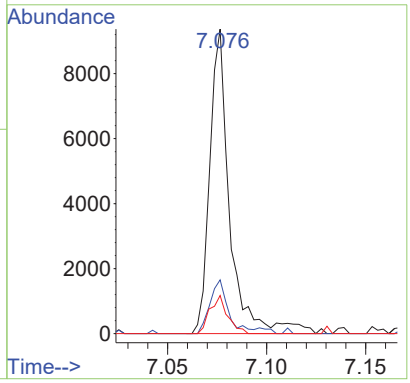


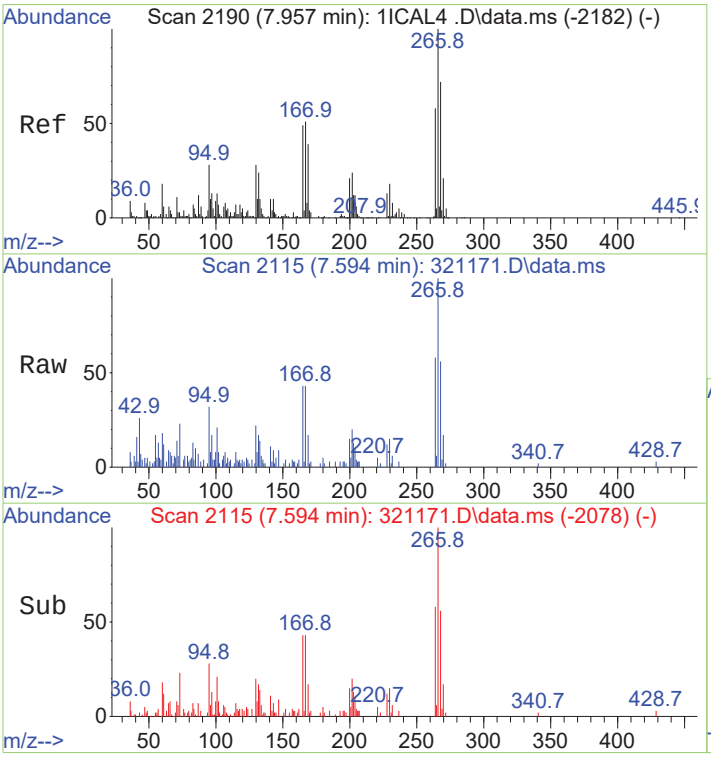


#60
Diethylphthal
Concen: 0.40 ug/mL
RT: 7.076 min Scan# 1933
Delta R.T. -0.006 min
Lab File: 321171.D
Acq: 11 Sep 2019 1:10

Tgt Ion:149 Resp: 6584

Ion	Ratio	Lower	Upper
149	100		
177	17.6	0.0	49.3
150	13.8	0.0	41.9

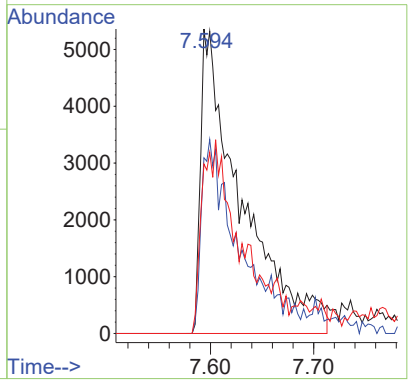


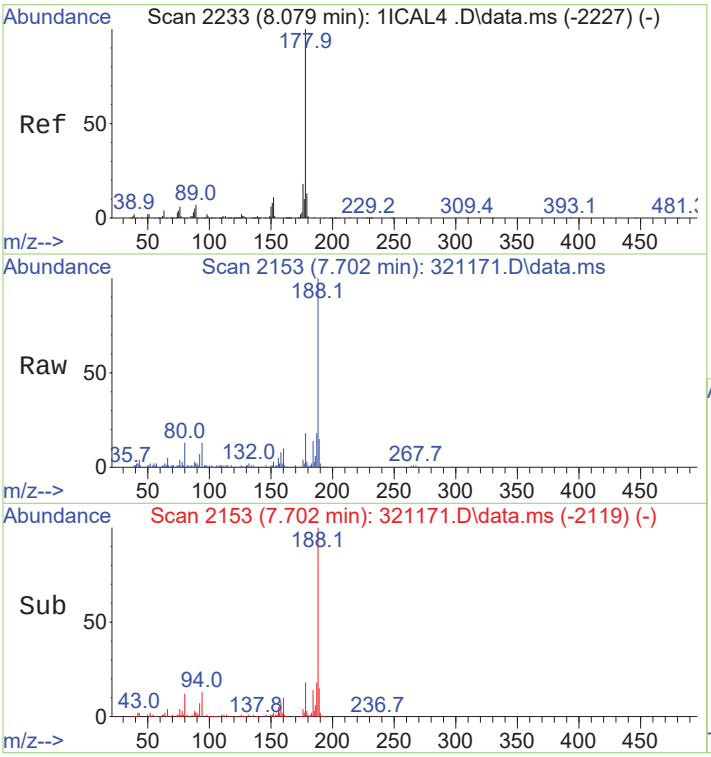


#69
Pentaclphenol
Concen: 7.07 ug/mL
RT: 7.594 min Scan# 2115
Delta R.T. 0.006 min
Lab File: 321171.D
Acq: 11 Sep 2019 1:10

Tgt Ion:266 Resp: 14745

Ion	Ratio	Lower	Upper
266	100		
264	57.7	35.2	95.2
268	55.7	34.5	94.5

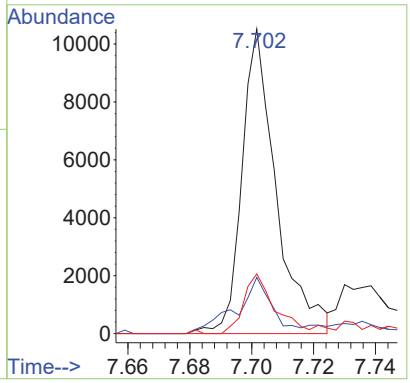


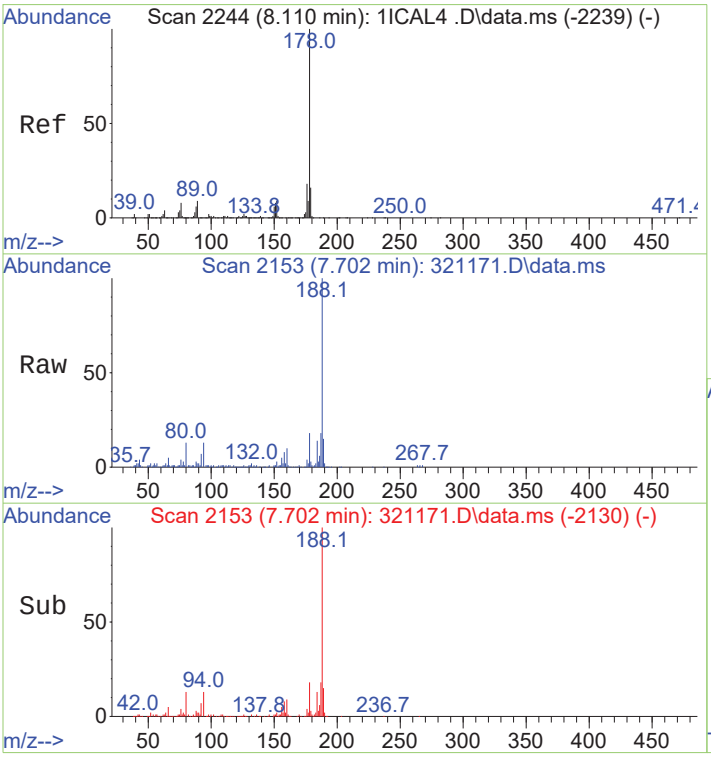


#70
Phenanthrene
Concen: 0.36 ug/mL
RT: 7.702 min Scan# 2153
Delta R.T. -0.003 min
Lab File: 321171.D
Acq: 11 Sep 2019 1:10

Tgt Ion:178 Resp: 8113

Ion	Ratio	Lower	Upper
178	100		
179	18.5	0.0	45.3
176	19.6	0.0	48.4

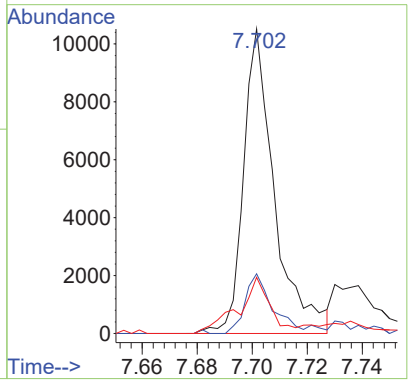


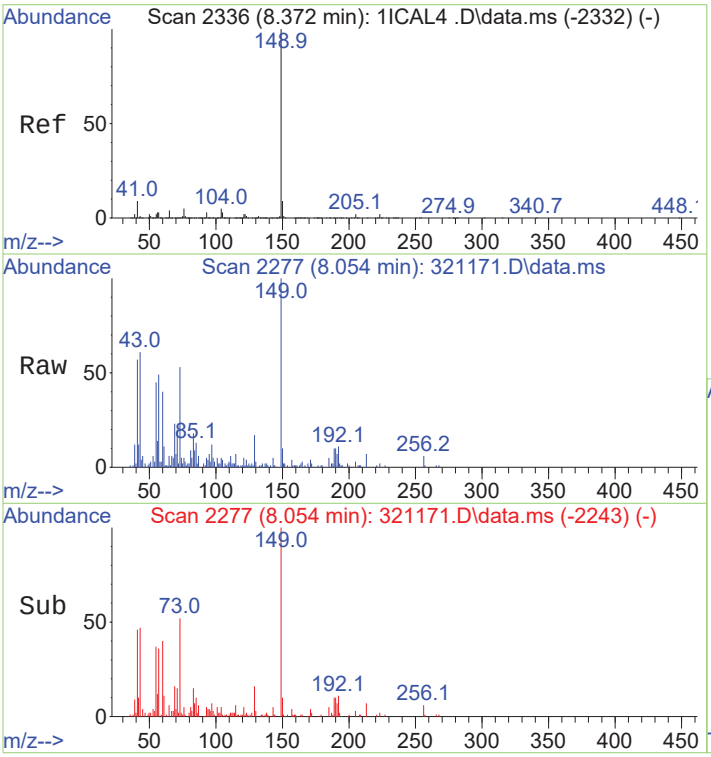


#71
Anthracene
Concen: 0.36 ug/mL
RT: 7.702 min Scan# 2153
Delta R.T. -0.034 min
Lab File: 321171.D
Acq: 11 Sep 2019 1:10

Tgt Ion:178 Resp: 8255

Ion	Ratio	Lower	Upper
178	100		
176	19.6	0.0	47.6
179	18.5	0.0	45.1

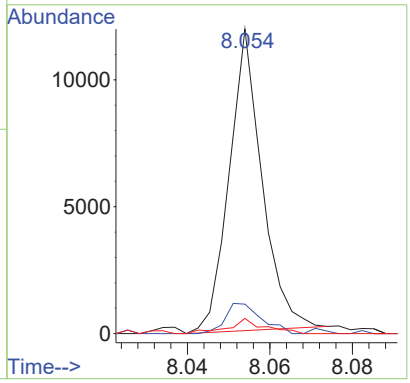


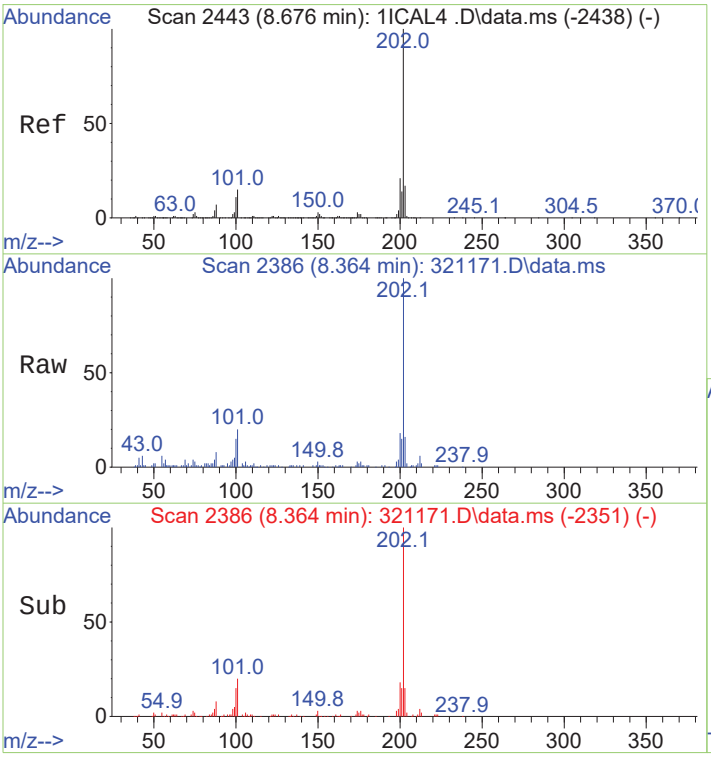


#73
Dinbtylphthal
Concen: 0.07 ug/mL
RT: 8.054 min Scan# 2277
Delta R.T. -0.003 min
Lab File: 321171.D
Acq: 11 Sep 2019 1:10

Tgt Ion:149 Resp: 6566

Ion	Ratio	Lower	Upper
149	100		
150	9.7	0.0	39.0
104	5.0	0.0	34.6

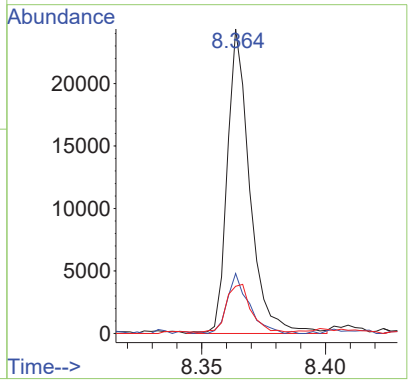


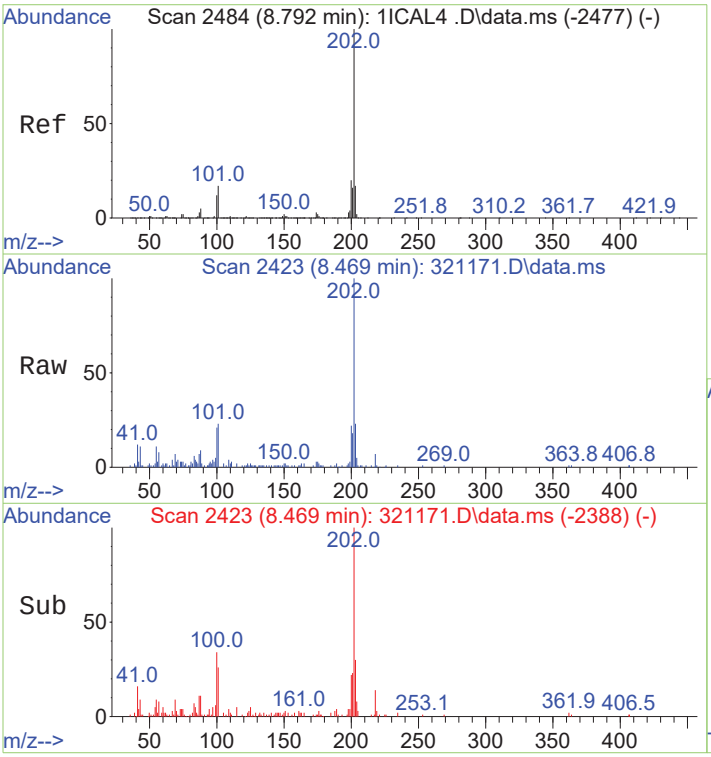


#74
Fluoranthene
Concen: 0.95 ug/mL
RT: 8.364 min Scan# 2386
Delta R.T. 0.000 min
Lab File: 321171.D
Acq: 11 Sep 2019 1:10

Tgt Ion:202 Resp: 15467

Ion	Ratio	Lower	Upper
202	100		
101	19.3	0.0	50.7
203	15.0	0.0	47.3

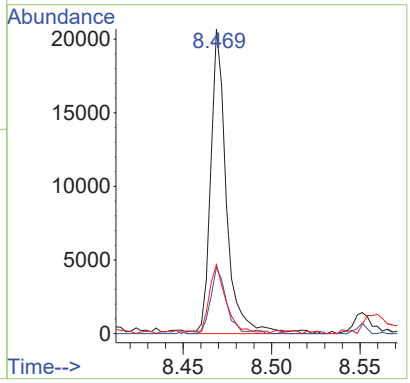


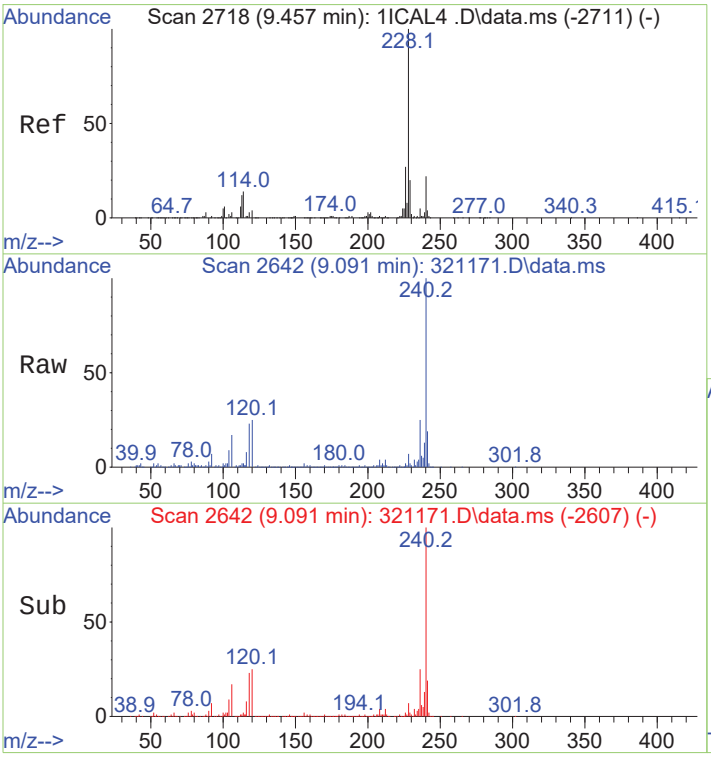


#77
Pyrene
Concen: 0.66 ug/mL
RT: 8.469 min Scan# 2423
Delta R.T. 0.000 min
Lab File: 321171.D
Acq: 11 Sep 2019 1:10

Tgt Ion:202 Resp: 12812

Ion	Ratio	Lower	Upper
202	100		
200	21.8	0.0	50.1
203	22.7	0.0	46.9

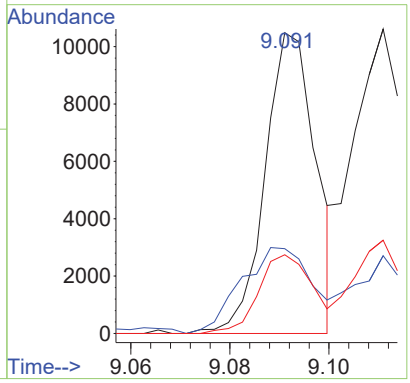


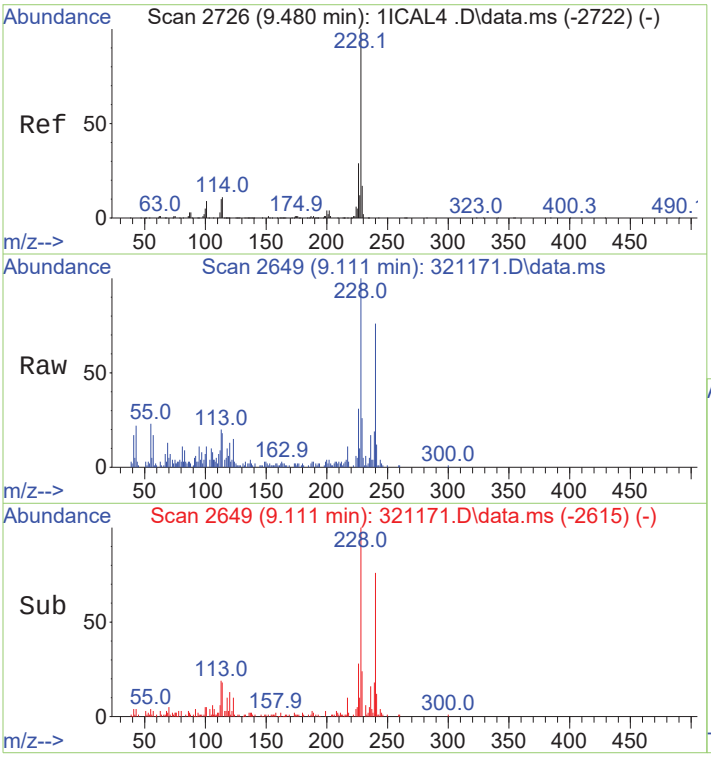


#82
B[a]anthracen
Concen: 0.47 ug/mL
RT: 9.091 min Scan# 2642
Delta R.T. 0.000 min
Lab File: 321171.D
Acq: 11 Sep 2019 1:10

Tgt Ion:228 Resp: 7471

Ion	Ratio	Lower	Upper
228	100		
229	27.1	0.0	49.3
226	26.2	0.0	56.2

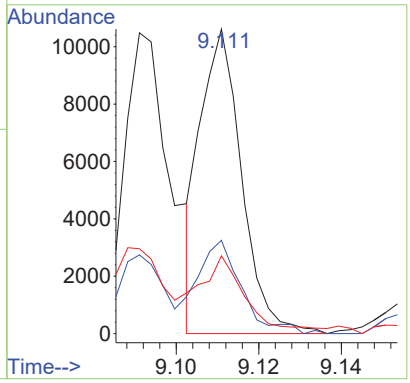


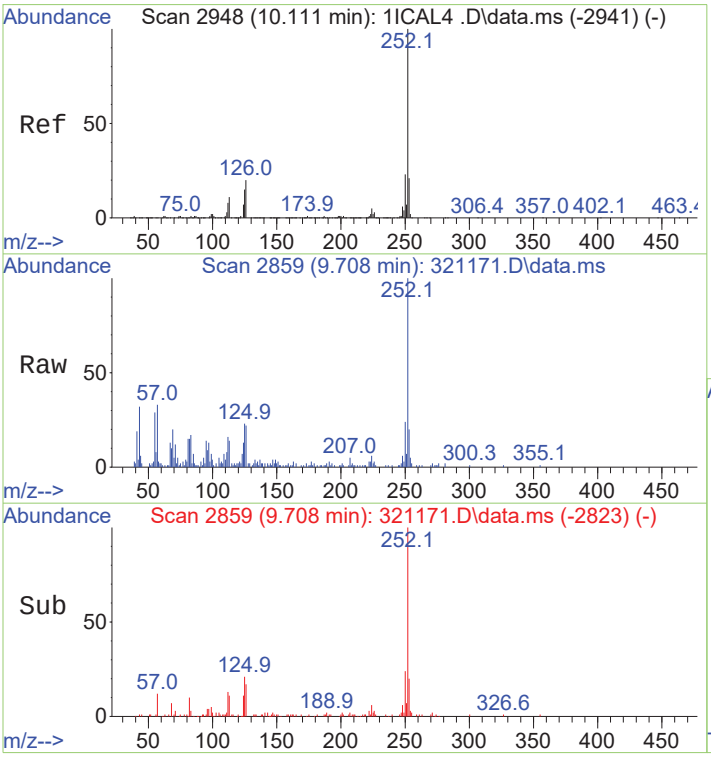


#83
Chrysene
Concen: 0.45 ug/mL
RT: 9.111 min Scan# 2649
Delta R.T. -0.003 min
Lab File: 321171.D
Acq: 11 Sep 2019 1:10

Tgt Ion:228 Resp: 7395

Ion	Ratio	Lower	Upper
228	100		
226	30.6	0.0	59.0
229	23.9	0.0	49.4

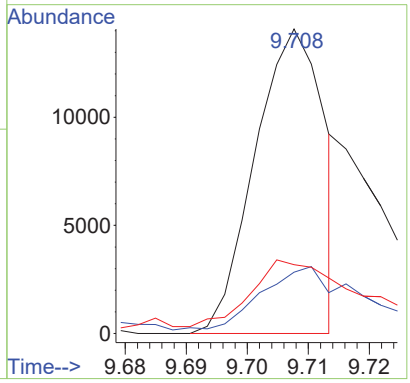


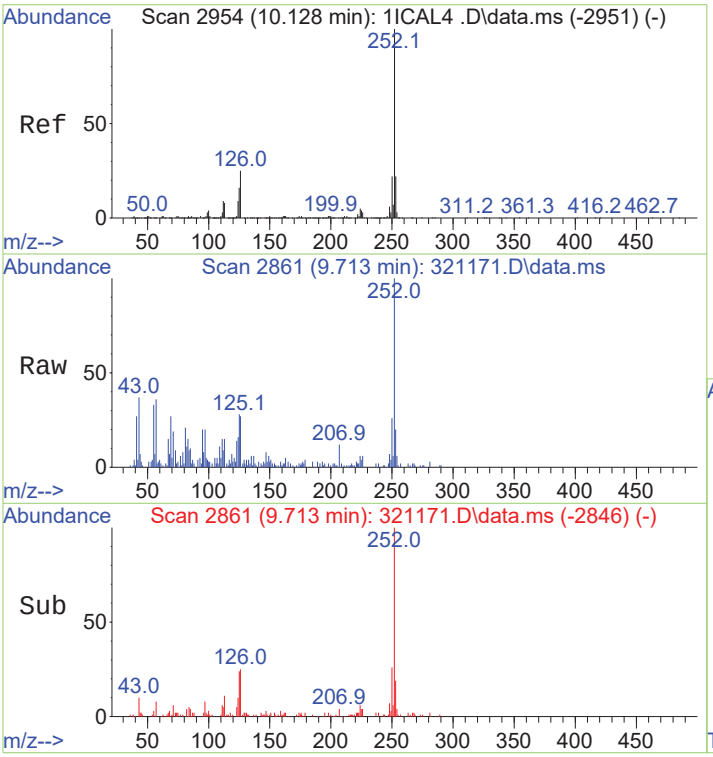


#87
B[b]fluoranth
Concen: 0.87 ug/mL m
RT: 9.708 min Scan# 2859
Delta R.T. 0.003 min
Lab File: 321171.D
Acq: 11 Sep 2019 1:10

Tgt Ion:252 Resp: 11094

Ion	Ratio	Lower	Upper
252	100		
253	20.1	0.0	51.9
125	22.6	0.0	50.0

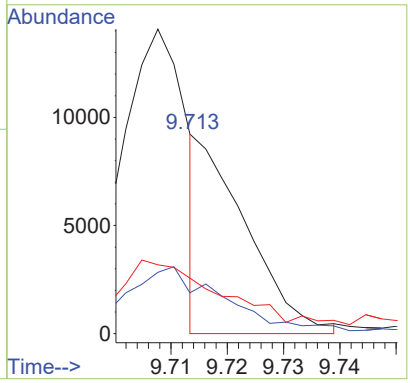


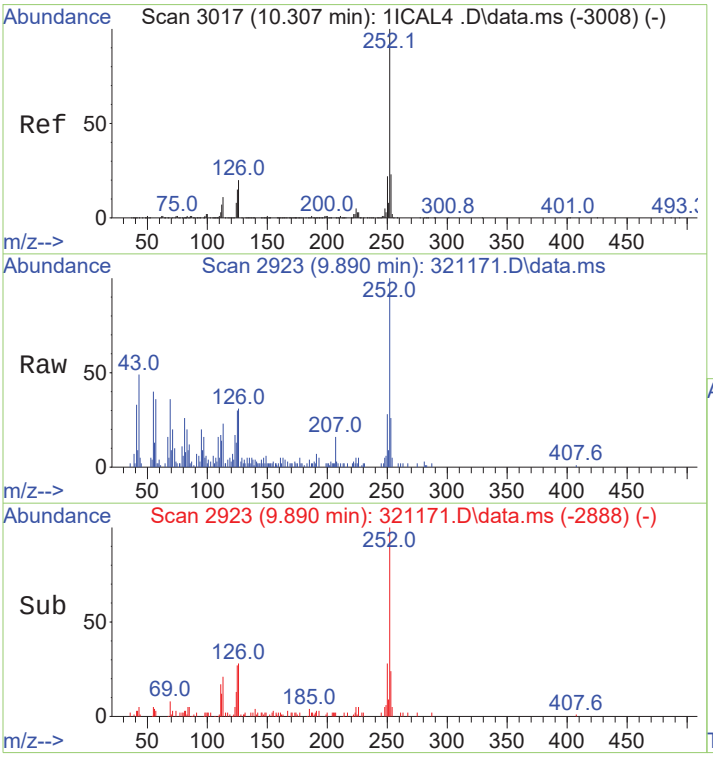


#88
B[k]fluoranth
Concen: 0.42 ug/mL m
RT: 9.713 min Scan# 2861
Delta R.T. -0.008 min
Lab File: 321171.D
Acq: 11 Sep 2019 1:10

Tgt Ion:252 Resp: 5433

Ion	Ratio	Lower	Upper
252	100		
253	20.5	0.0	52.0
125	27.9	0.0	50.2

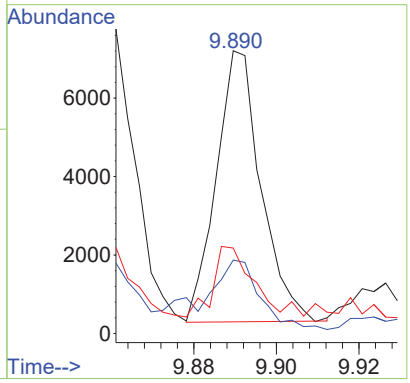


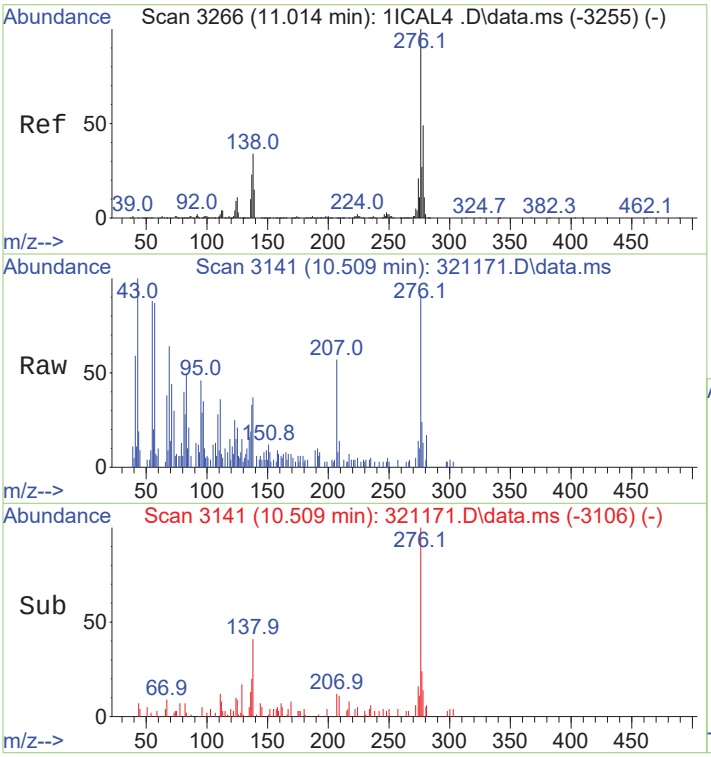


#89
Benz[a]pyrene
Concen: 0.39 ug/mL
RT: 9.890 min Scan# 2923
Delta R.T. 0.000 min
Lab File: 321171.D
Acq: 11 Sep 2019 1:10

Tgt Ion:252 Resp: 5202

Ion	Ratio	Lower	Upper
252	100		
253	25.7	0.0	51.7
125	25.5	0.0	51.4

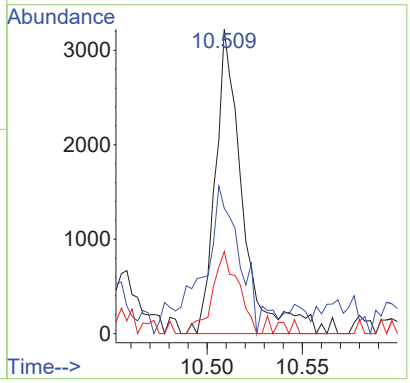


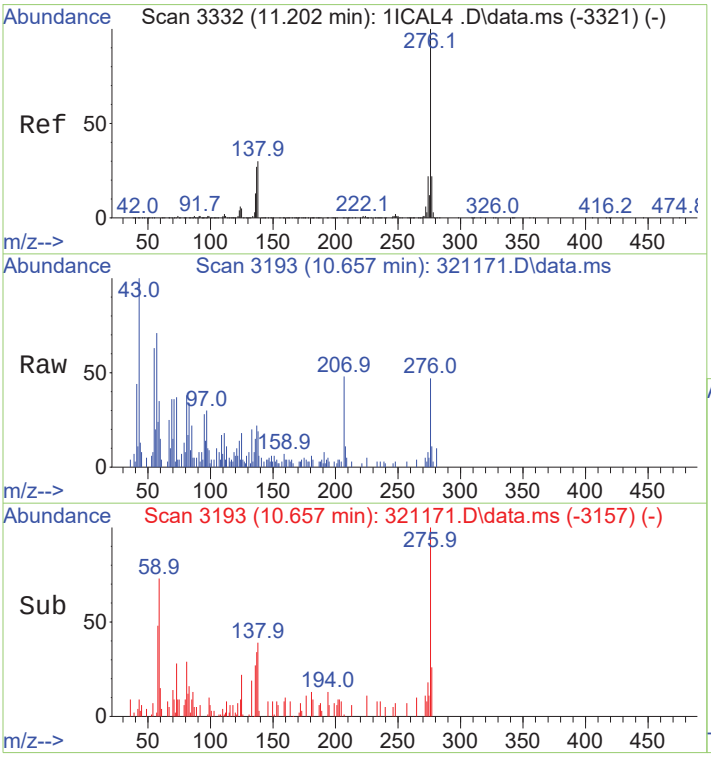


#90
Indeno-pyrene
Concen: 0.23 ug/mL
RT: 10.509 min Scan# 3141
Delta R.T. 0.000 min
Lab File: 321171.D
Acq: 11 Sep 2019 1:10

Tgt Ion:276 Resp: 3189

Ion	Ratio	Lower	Upper
276	100		
138	31.6	13.2	73.2
277	26.9	0.0	54.7

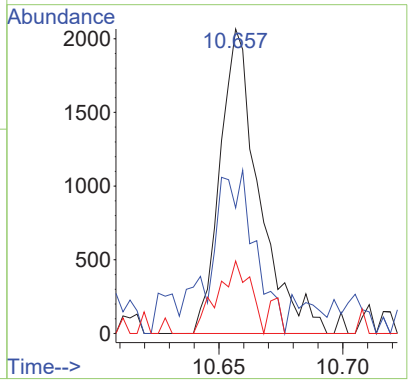


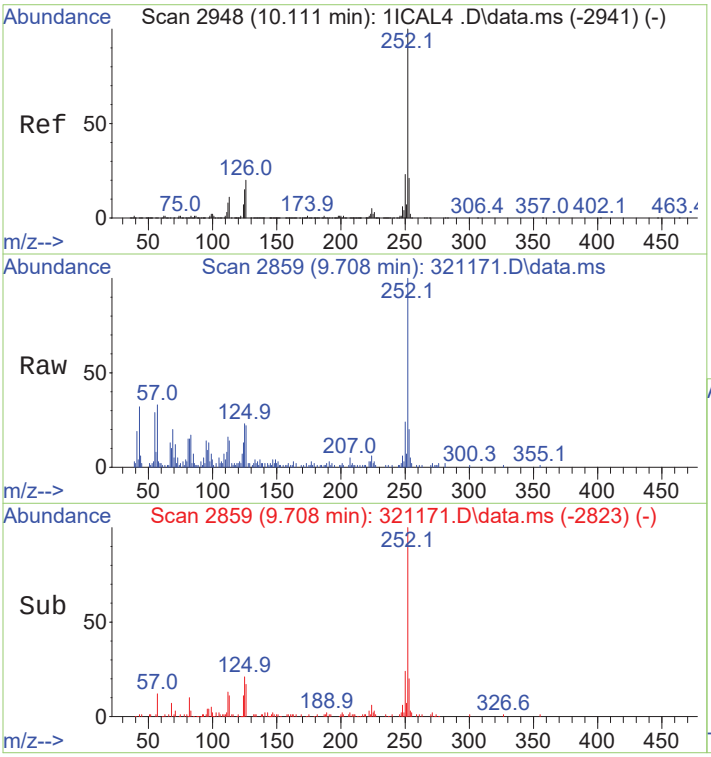


#92
B[ghi]perylen
Concen: 0.19 ug/mL
RT: 10.657 min Scan# 3193
Delta R.T. 0.003 min
Lab File: 321171.D
Acq: 11 Sep 2019 1:10

Tgt Ion:276 Resp: 2269

Ion	Ratio	Lower	Upper
276	100		
138	48.2	15.0	75.0
277	23.8	0.0	54.0

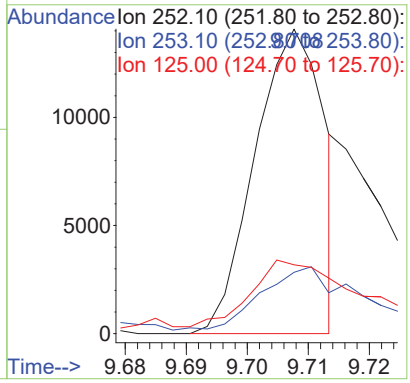




#87
B[b]fluoranth
Concen: 0.87 ug/mL m
RT: 9.708 min Scan# 2859
Delta R.T. 0.003 min
Lab File: 321171.D
Acq: 11 Sep 2019 1:10

Tgt Ion:252 Resp: 11094

Ion	Ratio	Lower	Upper
252	100		
253	20.1	0.0	51.9
125	22.6	0.0	50.0

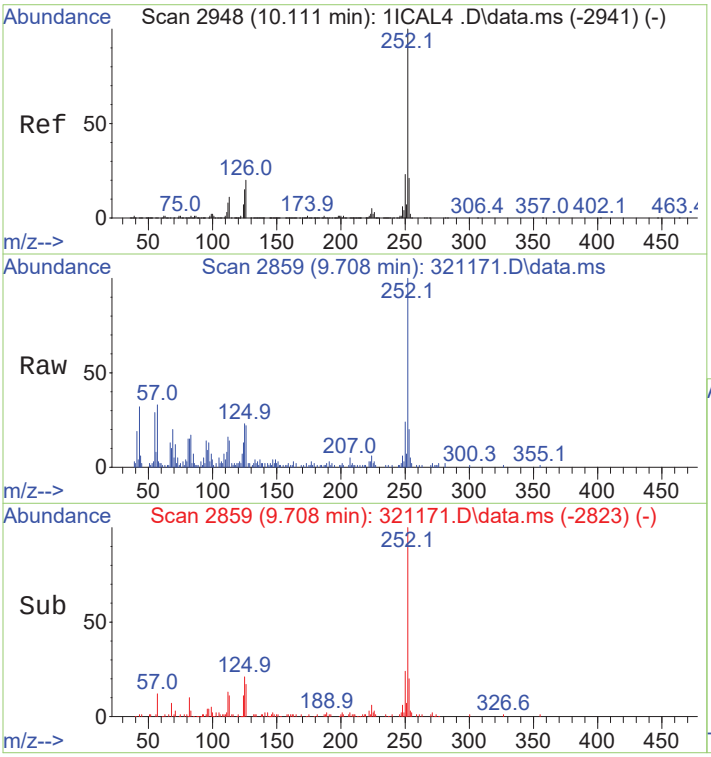


After Manual Integration

Reason#3

JJY
9/16/19

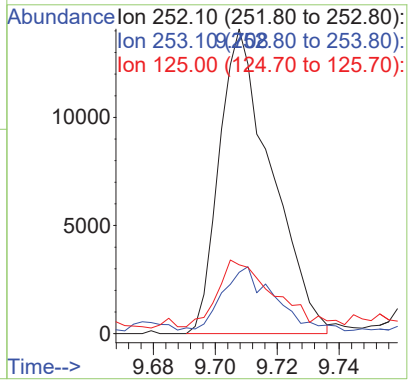
AJZ
09/19/2019



#87
B[b]fluoranth
Concen: 1.28 ug/mL
RT: 9.708 min Scan# 2859
Delta R.T. 0.003 min
Lab File: 321171.D
Acq: 11 Sep 2019 1:10

Tgt Ion:252 Resp: 16445

Ion	Ratio	Lower	Upper
252	100		
253	18.2	0.0	51.9
125	20.3	0.0	50.0

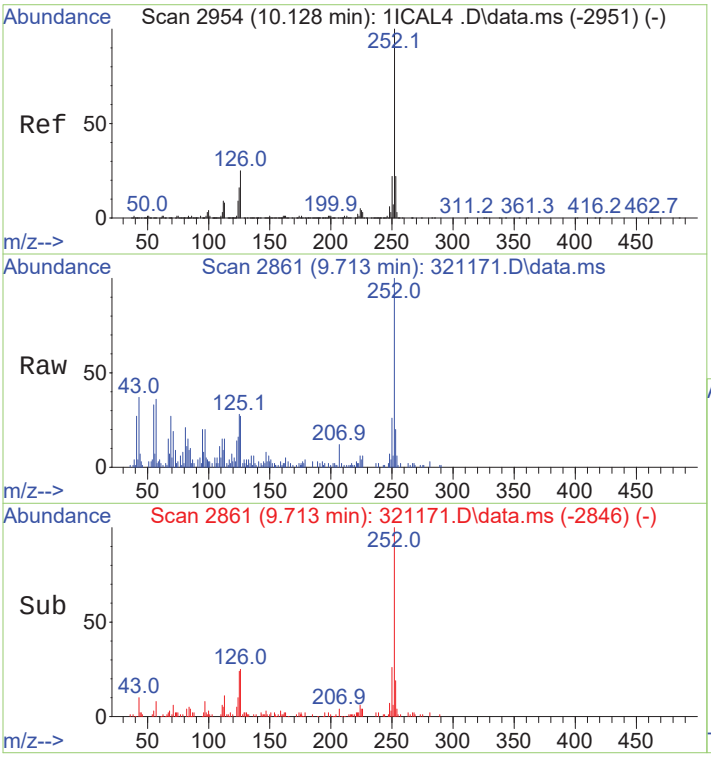


Before Manual Integration

Reason#3

JJY
9/16/19

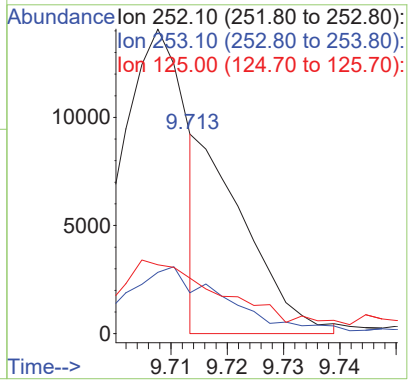
AJZ
09/19/2019



#88
B[k]fluoranth
Concen: 0.42 ug/mL m
RT: 9.713 min Scan# 2861
Delta R.T. -0.008 min
Lab File: 321171.D
Acq: 11 Sep 2019 1:10

Tgt Ion:252 Resp: 5433

Ion	Ratio	Lower	Upper
252	100		
253	20.5	0.0	52.0
125	27.9	0.0	50.2

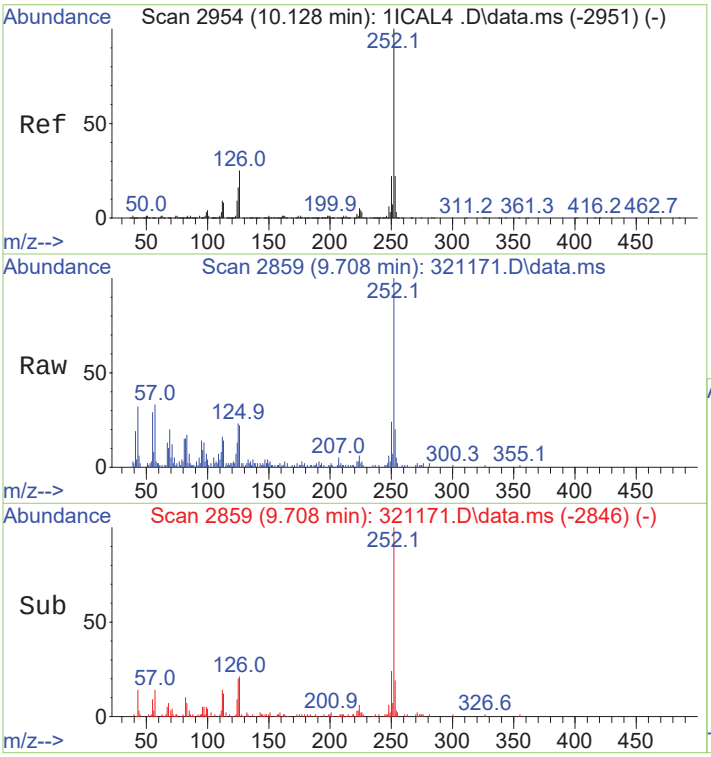


After Manual Integration

Reason#3

JJY
9/16/19

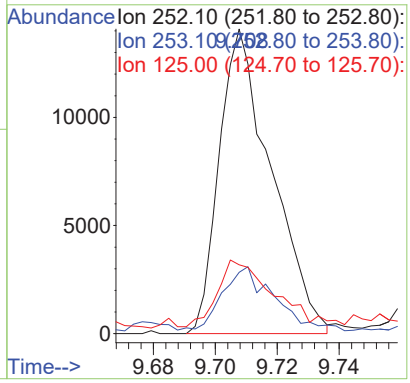
AJZ
09/19/2019



#88
B[k]fluoranth
Concen: 1.28 ug/mL
RT: 9.708 min Scan# 2859
Delta R.T. -0.014 min
Lab File: 321171.D
Acq: 11 Sep 2019 1:10

Tgt Ion:252 Resp: 16445

Ion	Ratio	Lower	Upper
252	100		
253	18.2	0.0	52.0
125	20.3	0.0	50.2



Before Manual Integration

Reason#3

JJY
9/16/19

AJZ
09/19/2019

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321171.D Vial: 22
Acq On : 11 Sep 2019 1:10 Operator: JJY
Sample : 164275,321171, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:58 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

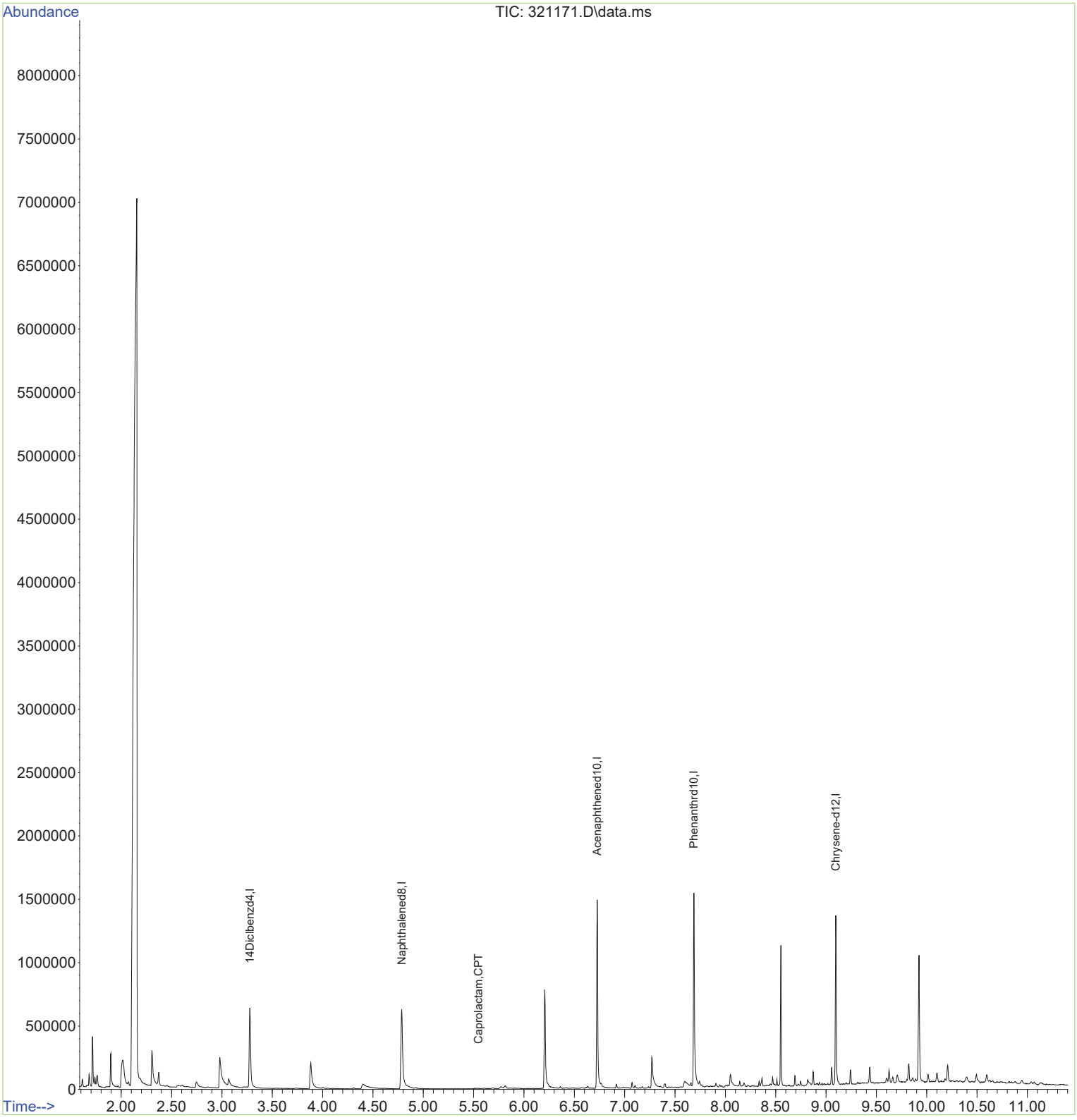
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.277	152	109559	20.00	ug/mL	0.00
3) Naphthalened8	4.786	136	412463	20.00	ug/mL	0.00
5) Acenaphthened10	6.727	164	258850	20.00	ug/mL	0.00
7) Phenanthrd10	7.687	188	433178	20.00	ug/mL	0.00
9) Chrysene-d12	9.097	240	257792	20.00	ug/mL	0.00
Target Compounds						Qvalue
4) Caprolactam	5.548	55	3148	1.6636	ug/mL#	54

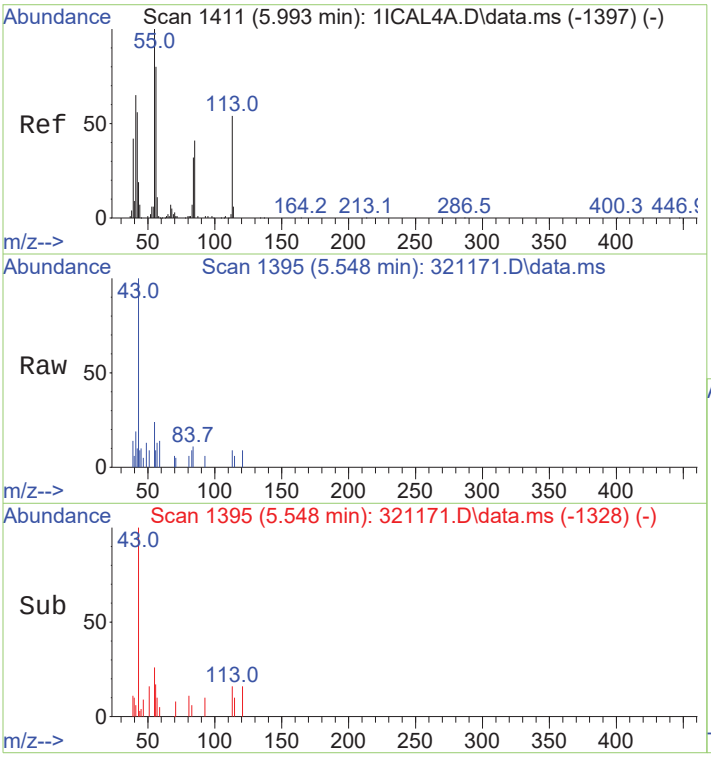
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321171.D Vial: 22
Acq On : 11 Sep 2019 1:10 Operator: JJY
Sample : 164275,321171, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:58 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

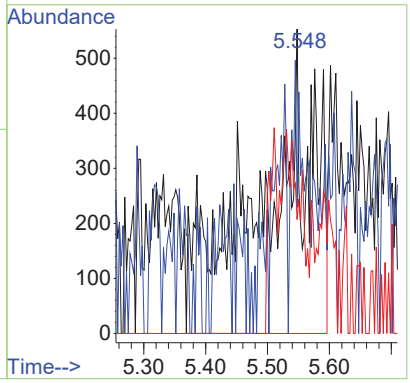




#4
Caprolactam
Concen: 1.66 ug/mL
RT: 5.548 min Scan# 1395
Delta R.T. 0.091 min
Lab File: 321171.D
Acq: 11 Sep 2019 1:10

Tgt Ion: 55 Resp: 3148

Ion	Ratio	Lower	Upper
55	100		
42	15.0	24.6	84.6#
113	29.2	26.7	86.7



Library Search Compound Report

Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321171.D
Acq On : 11 Sep 2019 1:10
Operator : JJY
Sample : 164275,321171,
Misc : 500ul+5ul S4142A
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 1 2(3H)-Furanone, 5-ethyldihy... Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.715	7.22 ug/mL	227336	14Diclbenzd4	3.277

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2(3H)-Furanone, 5-ethyldihydro-	114	C6H10O2	000695-06-7	23
2	Monomethylnitrosamine	60	CH4N2O	000000-00-0	9
3	Hexane, 2-bromo-	164	C6H13Br	003377-86-4	9
4	2H-Pyran-2-one, tetrahydro-6,6-d...	128	C7H12O2	002610-95-9	9
5	1-Propen-1-one, 2-methyl-	70	C4H6O	000598-26-5	9

****

Peak Number 2 3-Penten-2-one, 4-methyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.897	5.93 ug/mL	186740	14Diclbenzd4	3.277

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
2	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
3	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
4	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	90
5	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	90

****

Peak Number 3 Acetic acid, hexyl ester Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.016	14.35 ug/mL	451519	14Diclbenzd4	3.277

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetic acid, hexyl ester	144	C8H16O2	000142-92-7	17
2	Propane, 1-(1-methylethoxy)-	102	C6H14O	000627-08-7	9
3	Acetic acid, 1-methylethyl ester	102	C5H10O2	000108-21-4	9
4	Cyclobutylamine	71	C4H9N	002516-34-9	9
5	Butanoic acid, ethyl ester	116	C6H12O2	000105-54-4	9

****

Peak Number 4 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.155	481.59 ug/mL	15158100	14Diclbenzd4	3.277

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	56
2	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	47
3	Acetic acid, 1,1-dimethylethyl e...	116	C6H12O2	000540-88-5	33

Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321171.D
Acq On : 11 Sep 2019 1:10
Operator : JJY
Sample : 164275,321171,
Misc : 500ul+5ul S4142A
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

4	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	28
5	Acetic acid, cyano-, 1,1-dimethy...	141	C7H11NO2	001116-98-9	17

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321172.D Vial: 23
Acq On : 11 Sep 2019 1:29 Operator: JJY
Sample : 164275,321172, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 01:42:44 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

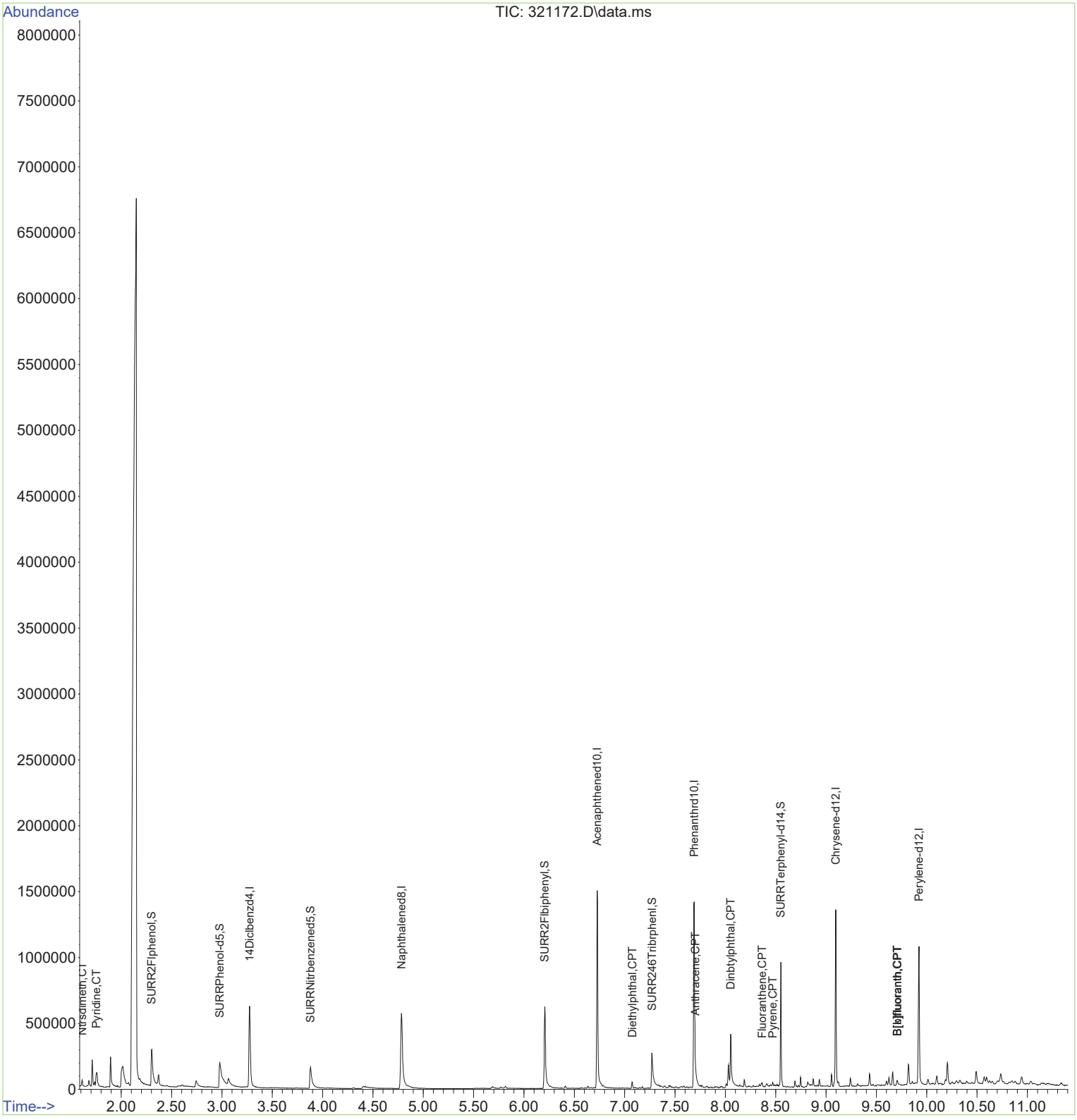
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	109015	20.00	ug/mL	0.00
21) Naphthalened8	4.783	136	414549	20.00	ug/mL	0.00
39) Acenaphthened10	6.727	164	248945	20.00	ug/mL	0.00
63) Phenanthrd10	7.690	188	433684	20.00	ug/mL	0.00
75) Chrysene-d12	9.097	240	257125	20.00	ug/mL	0.00
86) Perylene-d12	9.924	264	249457	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.303	112	114651	42.11	%REC	0.02
Spiked Amount 100.000			Recovery = 42.11%			
7) SURRPhenol-d5	2.979	99	158694	48.47	%REC	0.01
Spiked Amount 100.000			Recovery = 48.47%			
22) SURRNitrbenzened5	3.880	82	77297	55.11	%REC	0.00
Spiked Amount 100.000			Recovery = 55.11%			
44) SURR2Flbiphenyl	6.207	172	210203	63.38	%REC	0.00
Spiked Amount 100.000			Recovery = 63.38%			
62) SURR246Tribrphenl	7.272	330	37660	48.51	%REC	0.00
Spiked Amount 100.000			Recovery = 48.51%			
78) SURRTerphenyl-d14	8.551	244	150843	64.10	%REC	0.00
Spiked Amount 100.000			Recovery = 64.10%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.612	74	2481	1.0968	ug/mL#	1
3) Pyridine	1.752	79	1310	0.7327	ug/mL#	29
60) Diethylphthal	7.076	149	6650	0.3989	ug/mL	94
71) Anthracene	7.702	178	3644	0.1547	ug/mL	92
73) Dinbtylphthal	8.054	149	5280	0.0247	ug/mL	91
74) Fluoranthene	8.366	202	6974	0.4242	ug/mL	94
77) Pyrene	8.472	202	6647	0.3440	ug/mL	94
87) B[b]fluoranth	9.708	252	6484	0.4775	ug/mL	91
88) B[k]fluoranth	9.708	252	6484	0.4761	ug/mL	91

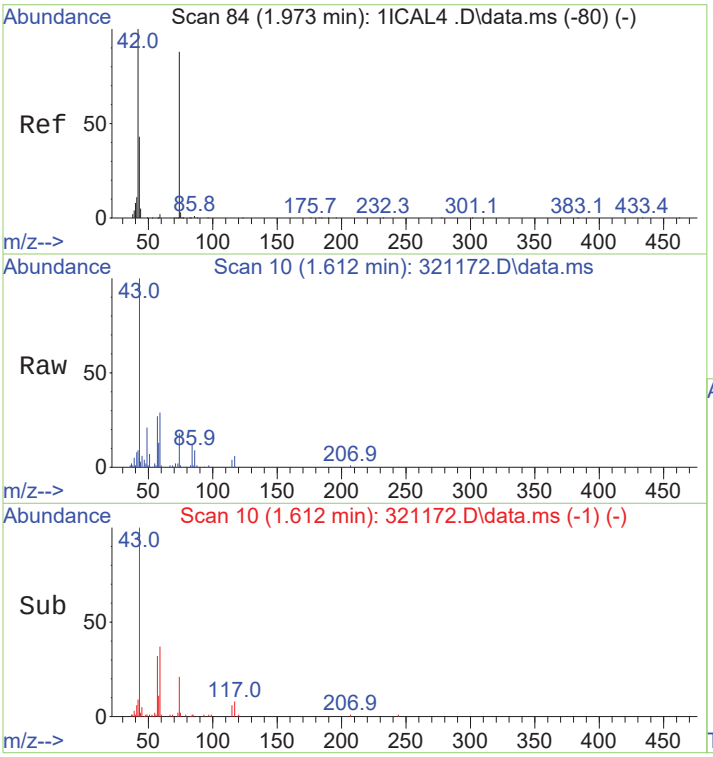
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321172.D Vial: 23
Acq On : 11 Sep 2019 1:29 Operator: JJY
Sample : 164275,321172, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 01:42:44 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

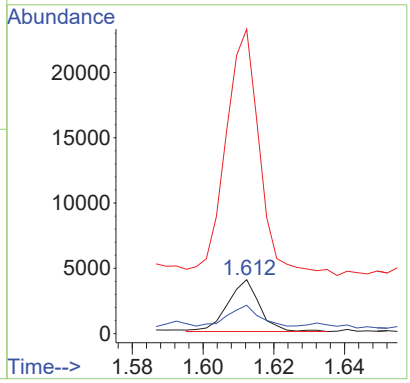


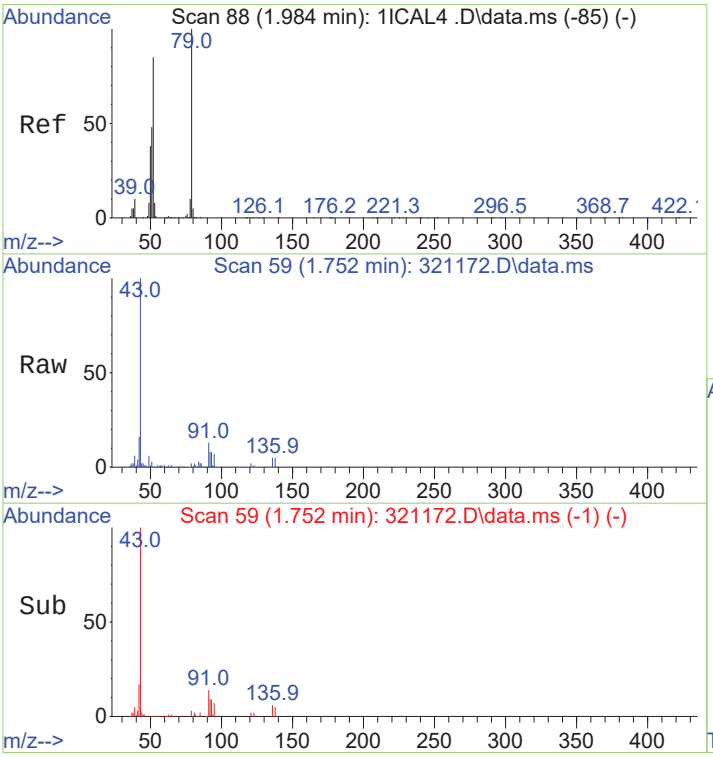


#2
Ntrsdimeth
Concen: 1.10 ug/mL
RT: 1.612 min Scan# 10
Delta R.T. -0.026 min
Lab File: 321172.D
Acq: 11 Sep 2019 1:29

Tgt Ion: 74 Resp: 2481

Ion	Ratio	Lower	Upper
74	100		
42	37.1	54.2	114.2#
43	469.9	5.5	65.5#

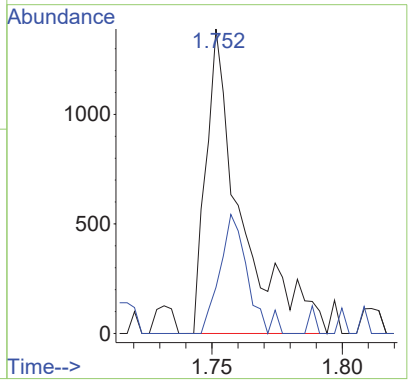


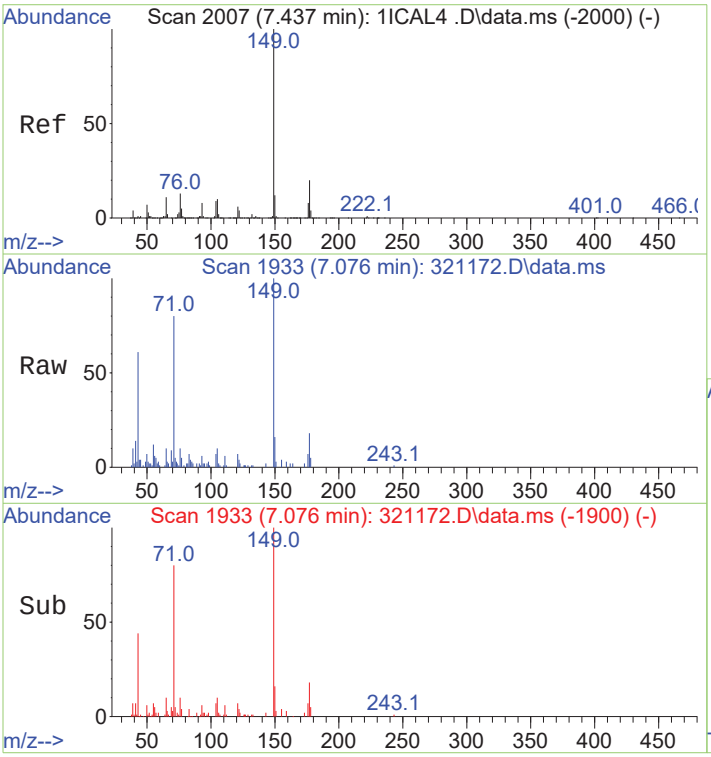


#3
Pyridine
Concen: 0.73 ug/mL
RT: 1.752 min Scan# 59
Delta R.T. 0.105 min
Lab File: 321172.D
Acq: 11 Sep 2019 1:29

Tgt Ion: 79 Resp: 1310

Ion	Ratio	Lower	Upper
79	100		
52	15.1	46.7	106.7#

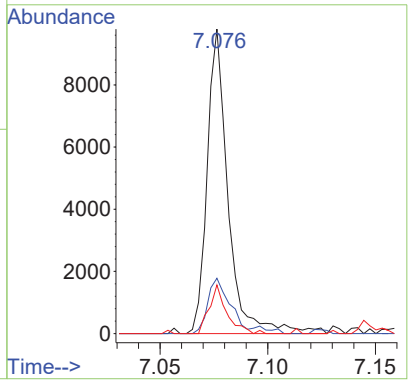


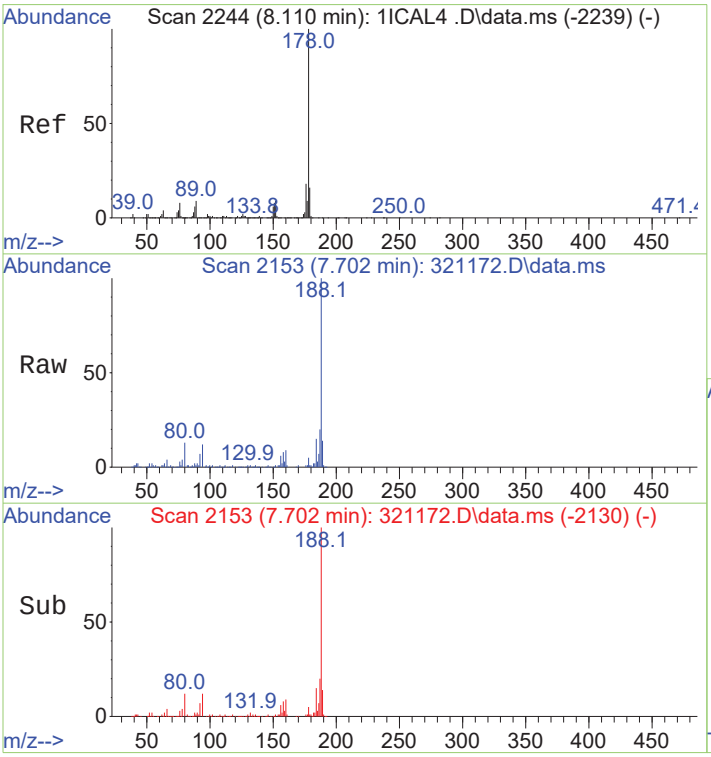


#60
Diethylphthal
Concen: 0.40 ug/mL
RT: 7.076 min Scan# 1933
Delta R.T. -0.006 min
Lab File: 321172.D
Acq: 11 Sep 2019 1:29

Tgt Ion:149 Resp: 6650

Ion	Ratio	Lower	Upper
149	100		
177	18.2	0.0	49.3
150	15.9	0.0	41.9

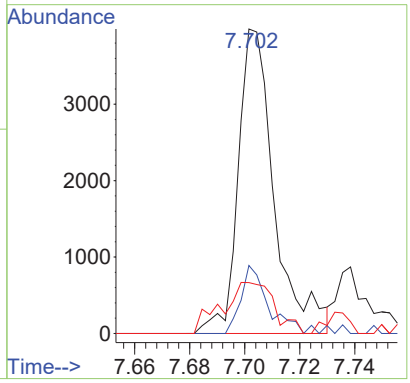


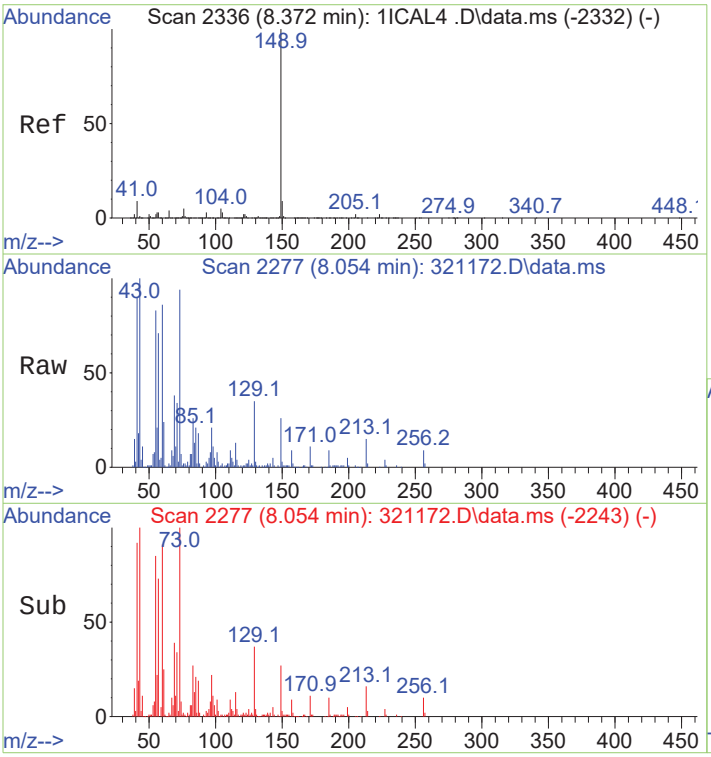


#71
Anthracene
Concen: 0.15 ug/mL
RT: 7.702 min Scan# 2153
Delta R.T. -0.034 min
Lab File: 321172.D
Acq: 11 Sep 2019 1:29

Tgt Ion:178 Resp: 3644

Ion	Ratio	Lower	Upper
178	100		
176	22.3	0.0	47.6
179	16.7	0.0	45.1

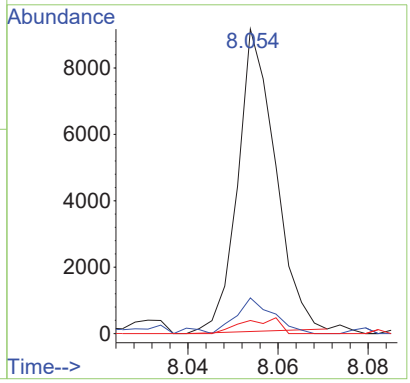


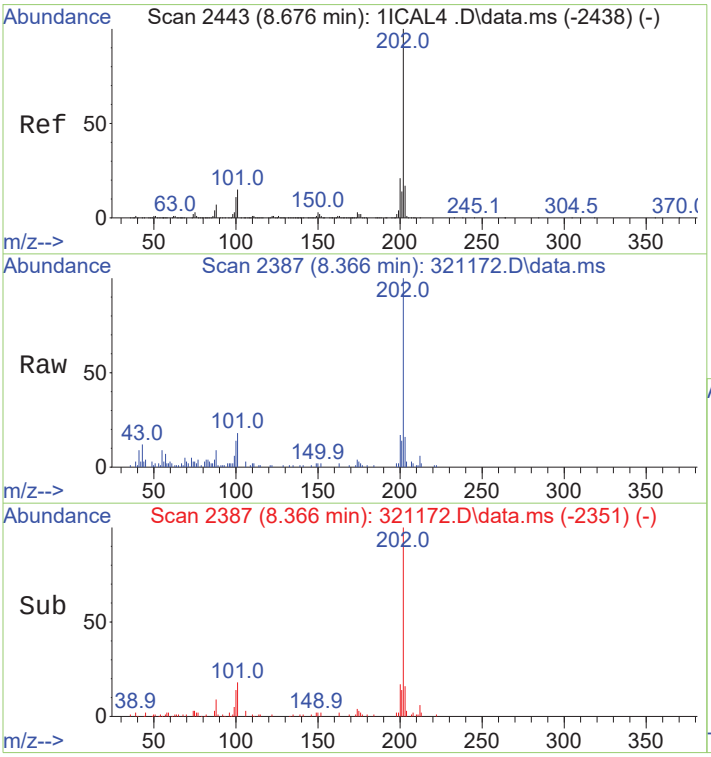


#73
Dinbtylphthal
Concen: 0.02 ug/mL
RT: 8.054 min Scan# 2277
Delta R.T. -0.003 min
Lab File: 321172.D
Acq: 11 Sep 2019 1:29

Tgt Ion:149 Resp: 5280

Ion	Ratio	Lower	Upper
149	100		
150	13.8	0.0	39.0
104	4.3	0.0	34.6

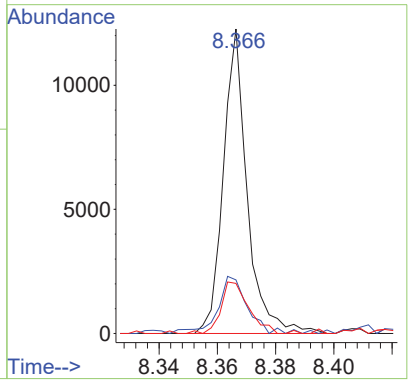


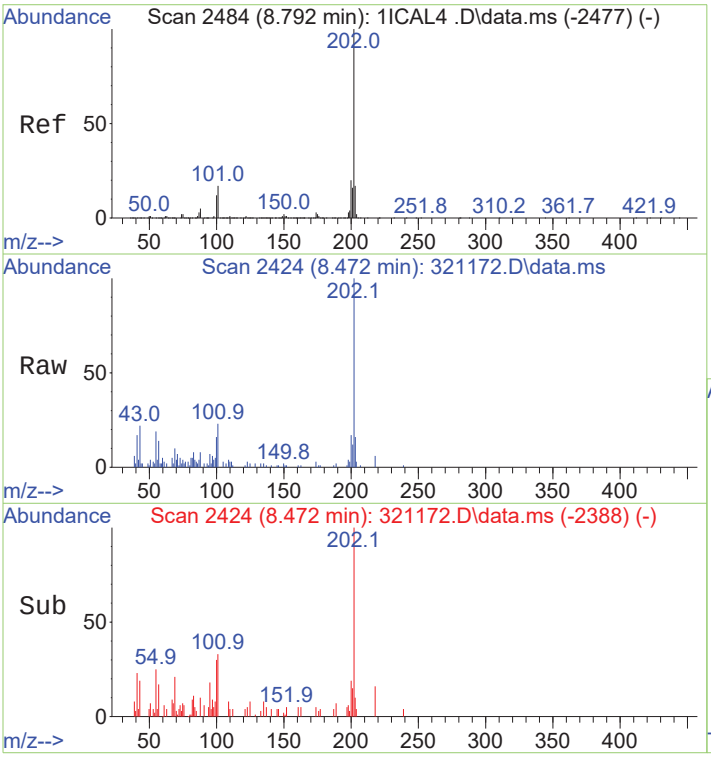


#74
Fluoranthene
Concen: 0.42 ug/mL
RT: 8.366 min Scan# 2387
Delta R.T. 0.003 min
Lab File: 321172.D
Acq: 11 Sep 2019 1:29

Tgt Ion:202 Resp: 6974

Ion	Ratio	Lower	Upper
202	100		
101	16.4	0.0	50.7
203	16.5	0.0	47.3

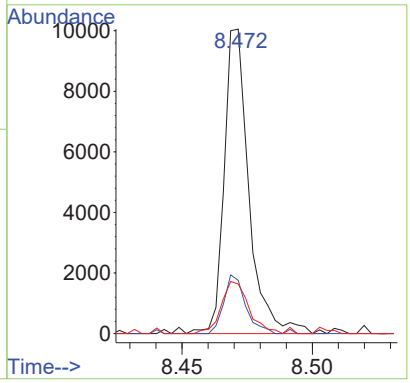


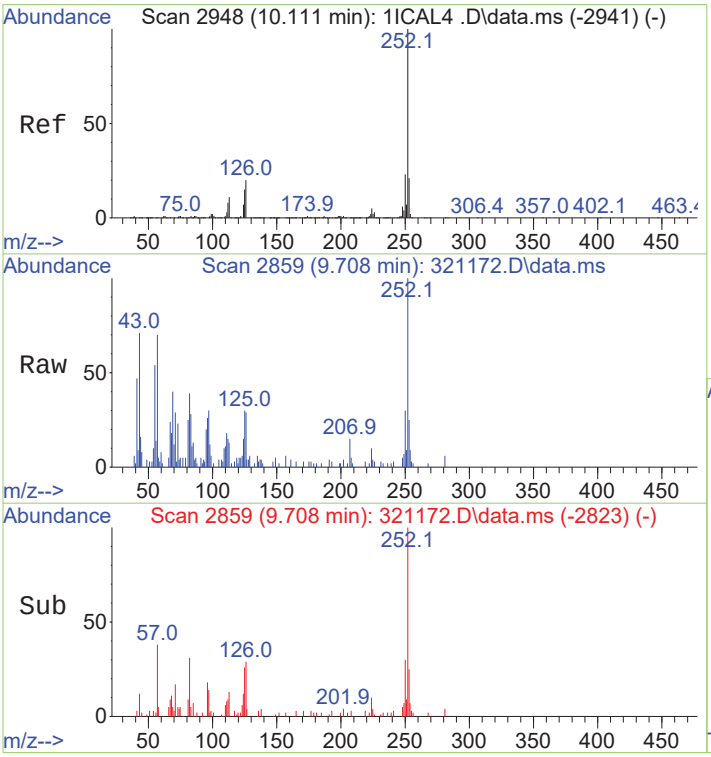


#77
Pyrene
Concen: 0.34 ug/mL
RT: 8.472 min Scan# 2424
Delta R.T. 0.003 min
Lab File: 321172.D
Acq: 11 Sep 2019 1:29

Tgt Ion:202 Resp: 6647

Ion	Ratio	Lower	Upper
202	100		
200	17.5	0.0	50.1
203	19.4	0.0	46.9

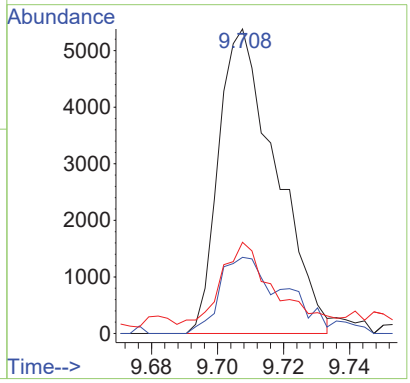


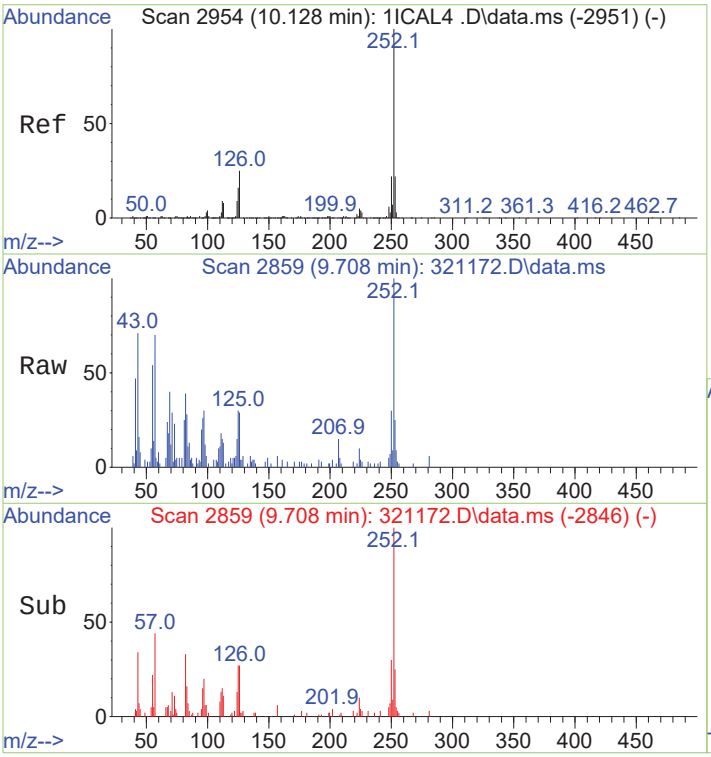


#87
B[b]fluoranth
Concen: 0.48 ug/mL
RT: 9.708 min Scan# 2859
Delta R.T. 0.003 min
Lab File: 321172.D
Acq: 11 Sep 2019 1:29

Tgt Ion:252 Resp: 6484

Ion	Ratio	Lower	Upper
252	100		
253	25.0	0.0	51.9
125	25.5	0.0	50.0

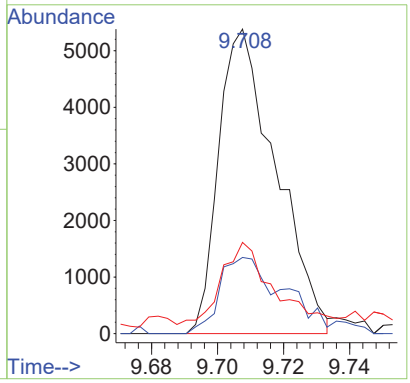




#88
B[k]fluoranth
Concen: 0.48 ug/mL
RT: 9.708 min Scan# 2859
Delta R.T. -0.014 min
Lab File: 321172.D
Acq: 11 Sep 2019 1:29

Tgt Ion:252 Resp: 6484

Ion	Ratio	Lower	Upper
252	100		
253	25.0	0.0	52.0
125	25.5	0.0	50.2



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321172.D Vial: 23
Acq On : 11 Sep 2019 1:29 Operator: JJY
Sample : 164275,321172, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:26:00 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

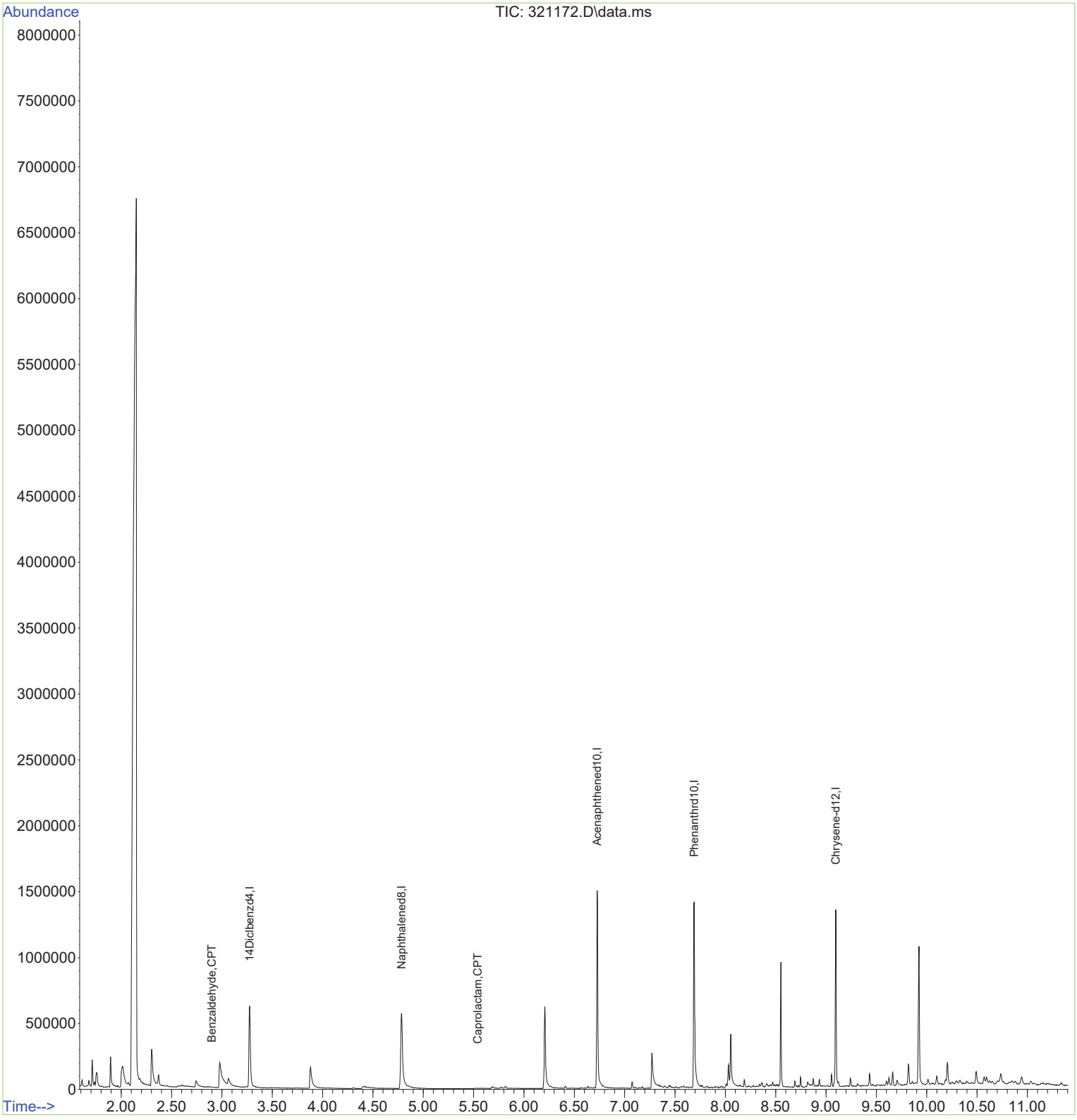
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	109941	20.00	ug/mL	0.00
3) Naphthalened8	4.783	136	414549	20.00	ug/mL	0.00
5) Acenaphthened10	6.727	164	261943	20.00	ug/mL	0.00
7) Phenanthrd10	7.690	188	439724	20.00	ug/mL	0.00
9) Chrysene-d12	9.097	240	256569	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	2.899	77	525	0.6801	ug/mL#	1
4) Caprolactam	5.539	55	727	1.1086	ug/mL#	45

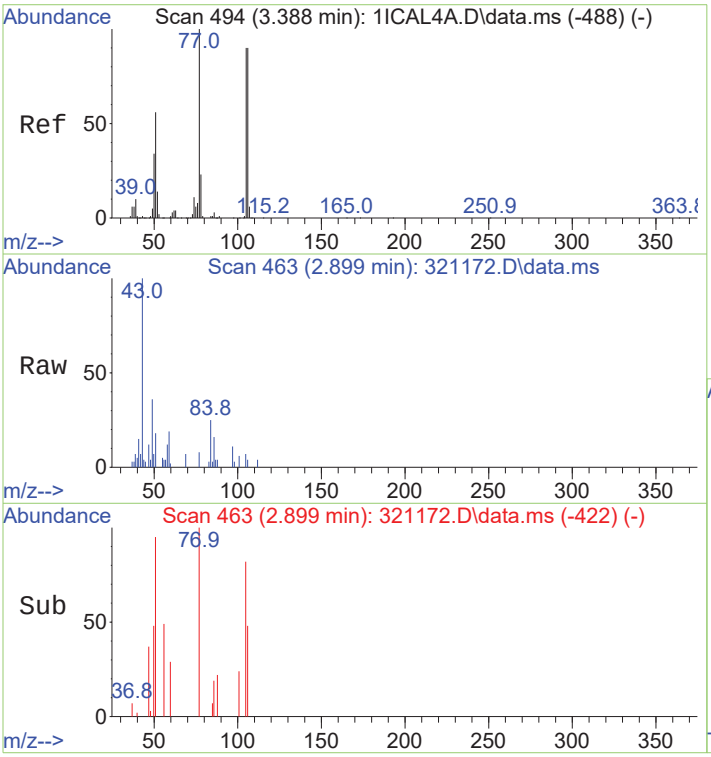
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321172.D Vial: 23
Acq On : 11 Sep 2019 1:29 Operator: JJY
Sample : 164275,321172, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:26:00 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

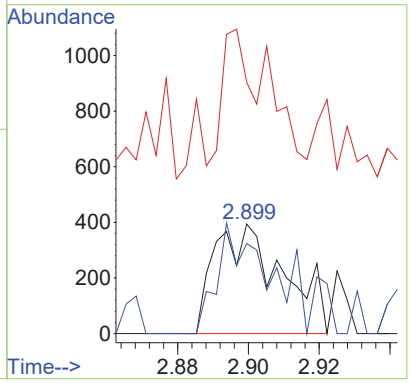


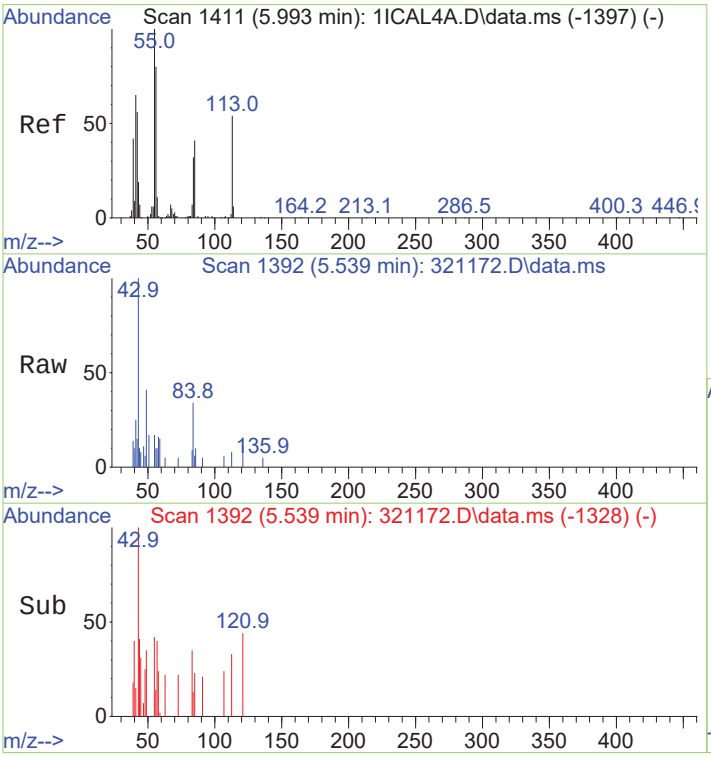


#2
Benzaldehyde
Concen: 0.68 ug/mL
RT: 2.899 min Scan# 463
Delta R.T. 0.017 min
Lab File: 321172.D
Acq: 11 Sep 2019 1:29

Tgt Ion: 77 Resp: 525

Ion	Ratio	Lower	Upper
77	100		
105	76.8	67.4	127.4
51	1568.8	23.2	83.2#

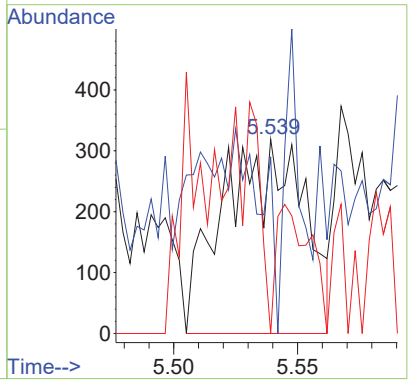




#4
Caprolactam
Concen: 1.11 ug/mL
RT: 5.539 min Scan# 1392
Delta R.T. 0.082 min
Lab File: 321172.D
Acq: 11 Sep 2019 1:29

Tgt Ion: 55 Resp: 727

Ion	Ratio	Lower	Upper
55	100		
42	32.2	24.6	84.6
113	0.0	26.7	86.7#



Library Search Compound Report

Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321172.D
Acq On : 11 Sep 2019 1:29
Operator : JJY
Sample : 164275,321172,
Misc : 500ul+5ul S4142A
ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 1 3-Penten-2-one, 4-methyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.894	5.17 ug/mL	161962	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
2	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
3	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
4	2-Pentene, 3,4-dimethyl-, (E)-	98	C7H14	004914-92-5	90
5	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	90

****

Peak Number 2 Cyclobutylamine Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.013	10.55 ug/mL	330231	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclobutylamine	71	C4H9N	002516-34-9	9
2	Acetic acid, 1-methylethyl ester	102	C5H10O2	000108-21-4	9
3	Oxirane, 2,3-dimethyl-, cis-	72	C4H8O	001758-33-4	9
4	2-Pentanone, 5-(acetyloxy)-	144	C7H12O3	005185-97-7	9
5	Oxirane, 2,3-dimethyl-, trans-	72	C4H8O	021490-63-1	9

****

Peak Number 3 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.149	437.74 ug/mL	13703100	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	56
2	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	56
3	tert-Butyl Hydroperoxide	90	C4H10O2	000075-91-2	28
4	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	28
5	Acetic acid, cyano-, 1,1-dimethy...	141	C7H11NO2	001116-98-9	23

****

Peak Number 4 Hexatriacontane Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.205	3.42 ug/mL	138401	Perylene-d12	9.924

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexatriacontane	507	C36H74	000630-06-8	91
2	Nonacosane	408	C29H60	000630-03-5	91
3	Pentacosane	352	C25H52	000629-99-2	90

Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321172.D
Acq On : 11 Sep 2019 1:29
Operator : JJY
Sample : 164275,321172,
Misc : 500ul+5ul S4142A
ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

4	Tetracosane	338	C24H50	000646-31-1 87
5	Eicosane	282	C20H42	000112-95-8 87

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321161.D Vial: 24
Acq On : 11 Sep 2019 1:49 Operator: JJY
Sample : 164275,321161, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 12:11:01 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 11:36:04 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

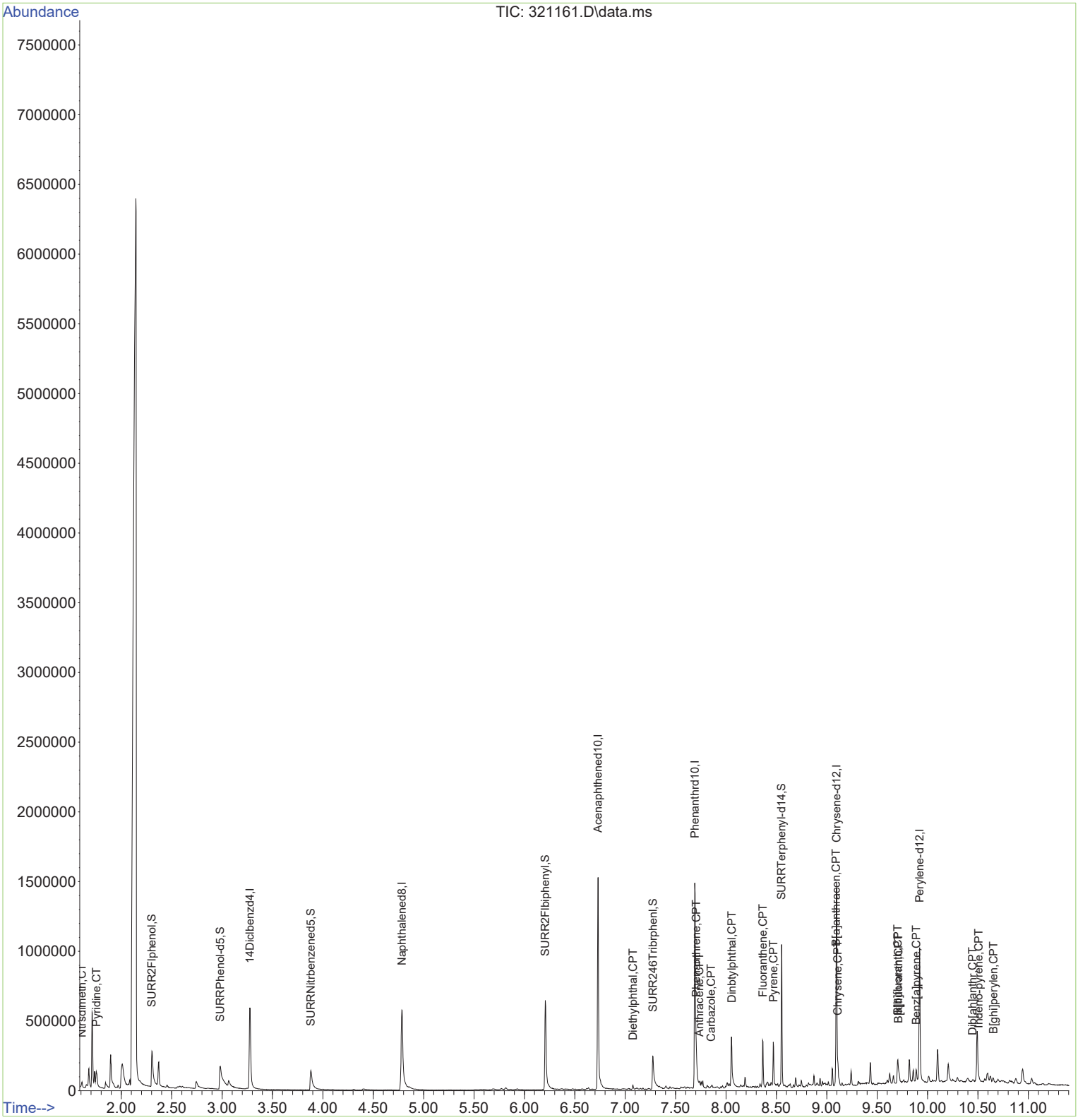
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	108005	20.00	ug/mL	0.00
21) Naphthalened8	4.784	136	408894	20.00	ug/mL	0.00
39) Acenaphthened10	6.730	164	252204	20.00	ug/mL	0.00
63) Phenanthrd10	7.690	188	435788	20.00	ug/mL	0.00
75) Chrysene-d12	9.097	240	253204	20.00	ug/mL	0.00
86) Perylene-d12	9.921	264	223296	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.303	112	108763	40.42	%REC	0.02
Spiked Amount 100.000			Recovery = 40.42%			
7) SURRPhenol-d5	2.982	99	145715	45.05	%REC	0.01
Spiked Amount 100.000			Recovery = 45.05%			
22) SURRNitrbenzened5	3.880	82	65861	47.95	%REC	0.00
Spiked Amount 100.000			Recovery = 47.95%			
44) SURR2Flbiphenyl	6.207	172	214814	63.94	%REC	0.00
Spiked Amount 100.000			Recovery = 63.94%			
62) SURR246Tribrphenl	7.276	330	34708	44.19	%REC	0.00
Spiked Amount 100.000			Recovery = 44.19%			
78) SURRTerphenyl-d14	8.551	244	175693	75.81	%REC	0.00
Spiked Amount 100.000			Recovery = 75.81%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.610	74	2198	1.0393	ug/mL#	1
3) Pyridine	1.752	79	1010	0.6919	ug/mL#	44
60) Diethylphthal	7.077	149	4174	0.2472	ug/mL	97
70) Phenanthrene	7.705	178	45615	1.9846	ug/mL	98
71) Anthracene	7.736	178	7584	0.3204	ug/mL	93
72) Carbazole	7.852	167	6896	0.3021	ug/mL	97
73) Dinbtylphthal	8.057	149	6253	0.0570	ug/mL	93
74) Fluoranthene	8.367	202	78710	4.7646	ug/mL	96
77) Pyrene	8.472	202	66656	3.5034	ug/mL	97
82) B[a]anthracen	9.091	228	29108	1.8648	ug/mL	95
83) Chrysene	9.108	228	32799	2.0304	ug/mL	97
87) B[b]fluoranth	9.705	252	35891m	2.9528	ug/mL	
88) B[k]fluoranth	9.711	252	18491m	1.5169	ug/mL	
89) Benz[a]pyrene	9.887	252	23022	1.8357	ug/mL	91
90) Indeno-pyrene	10.506	276	9017	0.6949	ug/mL	92
91) Dib[ah]anthr	10.447	278	2159	0.2051	ug/mL	87
92) B[ghi]perylen	10.654	276	7219	0.6350	ug/mL	86

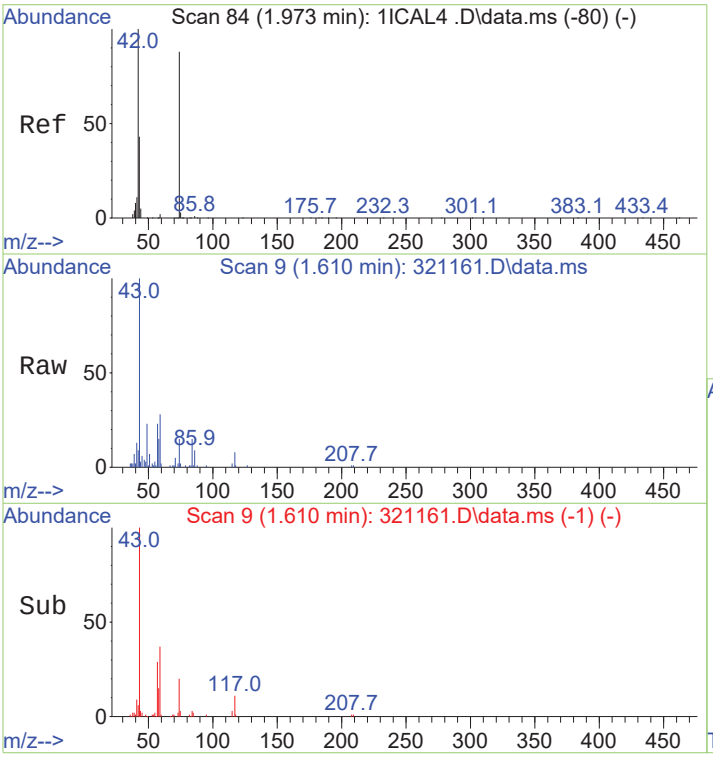
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321161.D Vial: 24
Acq On : 11 Sep 2019 1:49 Operator: JJY
Sample : 164275,321161, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 12:11:01 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 11:36:04 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

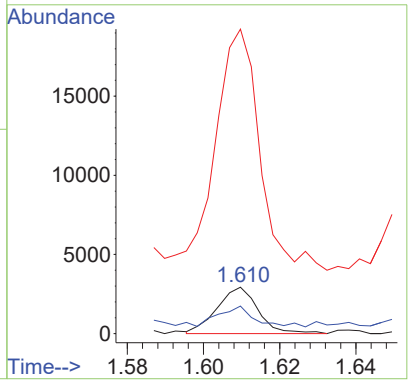


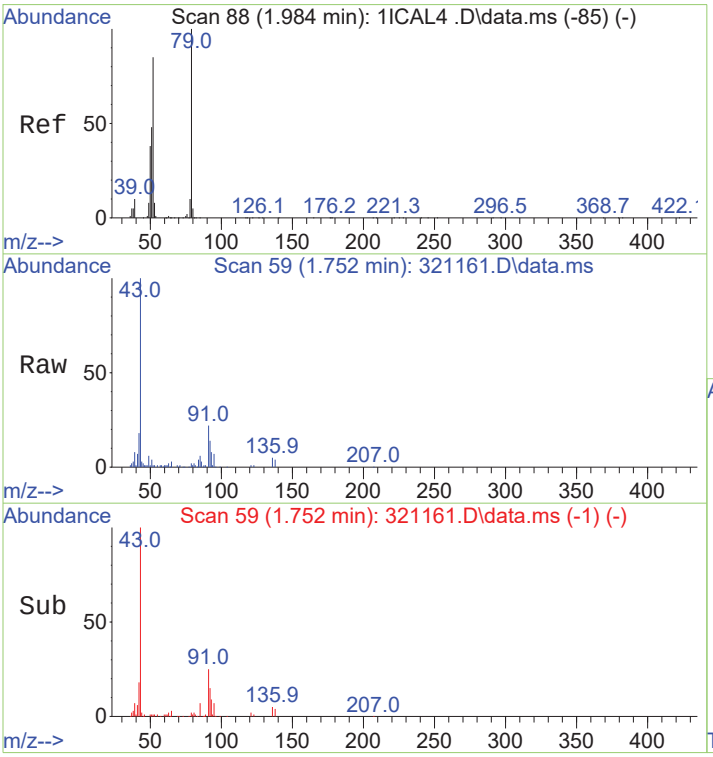


#2
Ntrsdimeth
Concen: 1.04 ug/mL
RT: 1.610 min Scan# 9
Delta R.T. -0.028 min
Lab File: 321161.D
Acq: 11 Sep 2019 1:49

Tgt Ion: 74 Resp: 2198

Ion	Ratio	Lower	Upper
74	100		
42	38.7	54.2	114.2#
43	510.0	5.5	65.5#

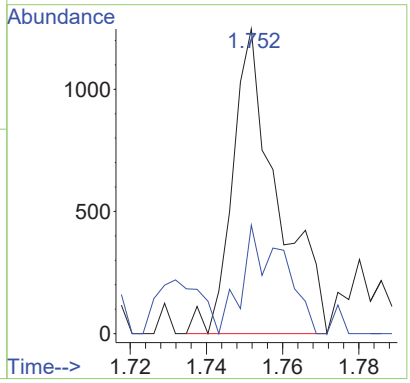


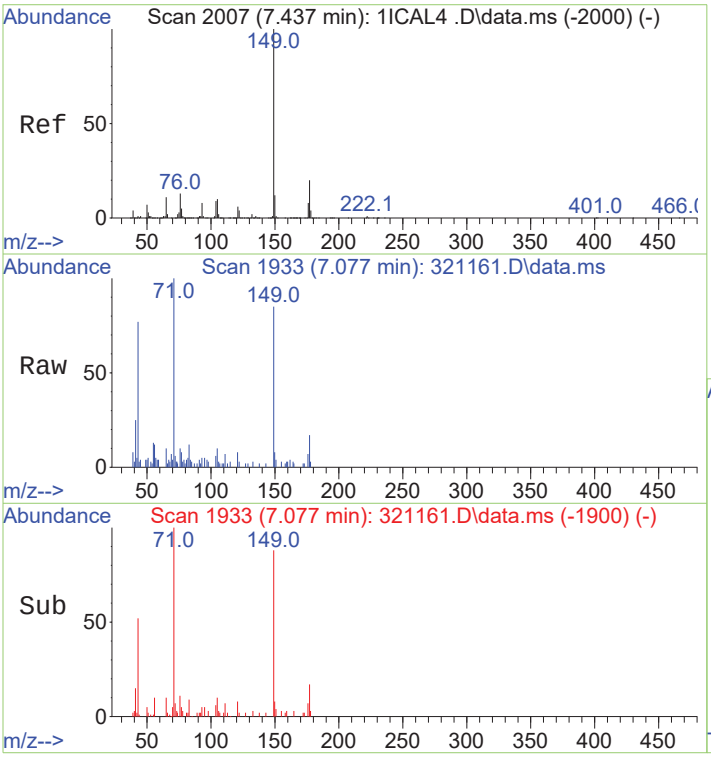


#3
Pyridine
Concen: 0.69 ug/mL
RT: 1.752 min Scan# 59
Delta R.T. 0.105 min
Lab File: 321161.D
Acq: 11 Sep 2019 1:49

Tgt Ion: 79 Resp: 1010

Ion	Ratio	Lower	Upper
79	100		
52	28.4	46.7	106.7#

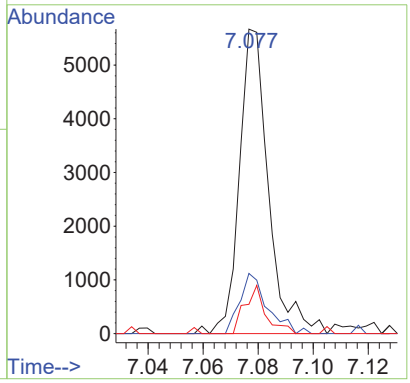


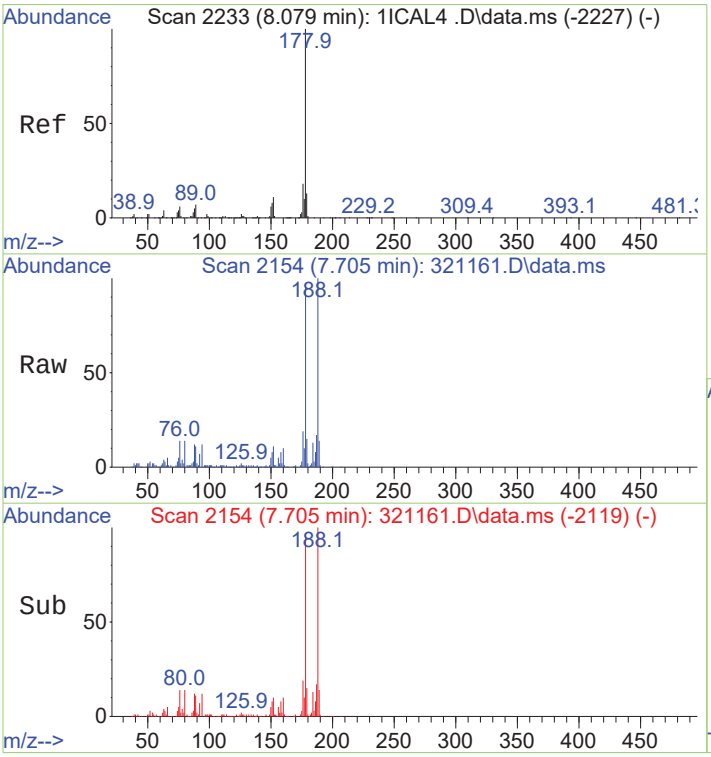


#60
Diethylphthal
Concen: 0.25 ug/mL
RT: 7.077 min Scan# 1933
Delta R.T. -0.006 min
Lab File: 321161.D
Acq: 11 Sep 2019 1:49

Tgt Ion:149 Resp: 4174

Ion	Ratio	Lower	Upper
149	100		
177	19.8	0.0	49.3
150	9.6	0.0	41.9

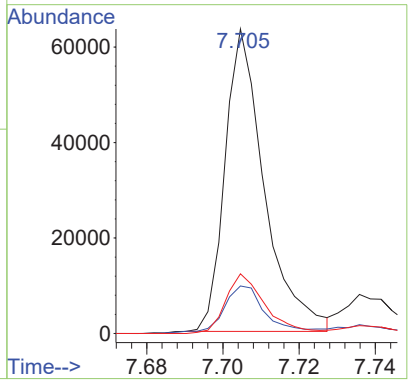


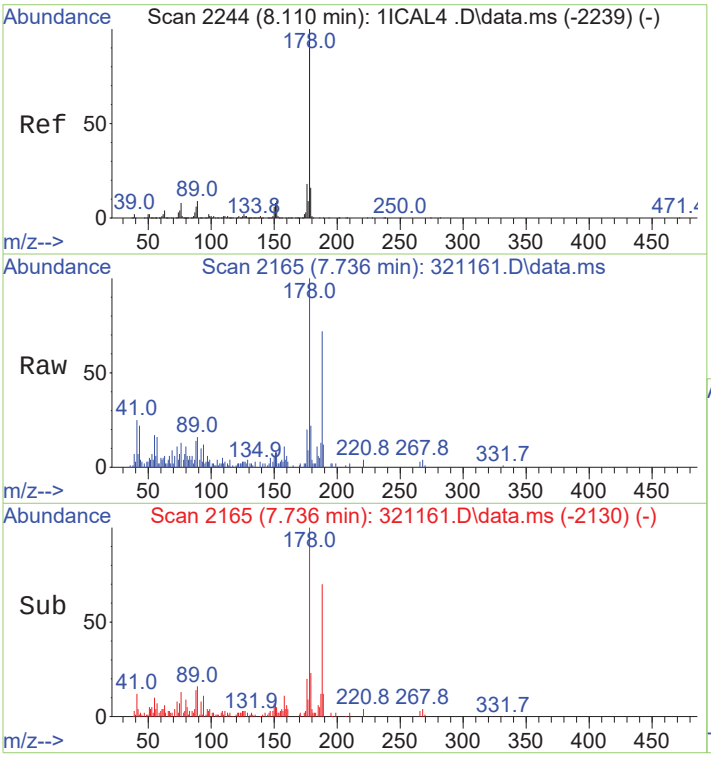


#70
Phenanthrene
Concen: 1.98 ug/mL
RT: 7.705 min Scan# 2154
Delta R.T. 0.000 min
Lab File: 321161.D
Acq: 11 Sep 2019 1:49

Tgt Ion:178 Resp: 45615

Ion	Ratio	Lower	Upper
178	100		
179	15.0	0.0	45.3
176	19.7	0.0	48.4

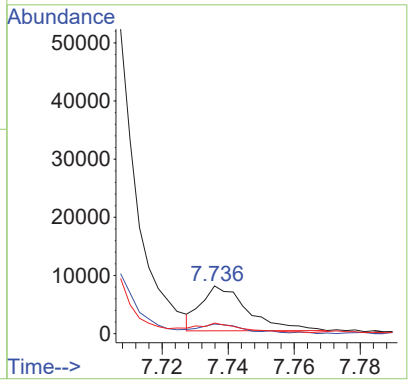


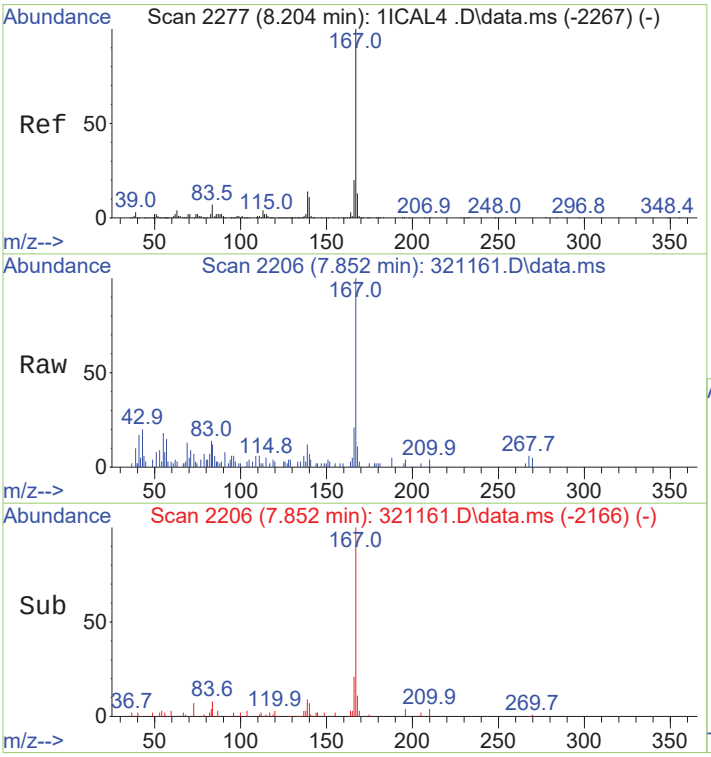


#71
Anthracene
Concen: 0.32 ug/mL
RT: 7.736 min Scan# 2165
Delta R.T. 0.000 min
Lab File: 321161.D
Acq: 11 Sep 2019 1:49

Tgt Ion:178 Resp: 7584

Ion	Ratio	Lower	Upper
178	100		
176	19.9	0.0	47.6
179	19.1	0.0	45.1

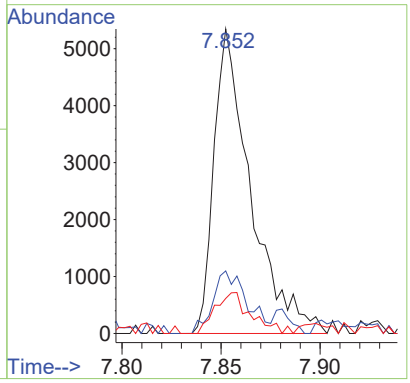


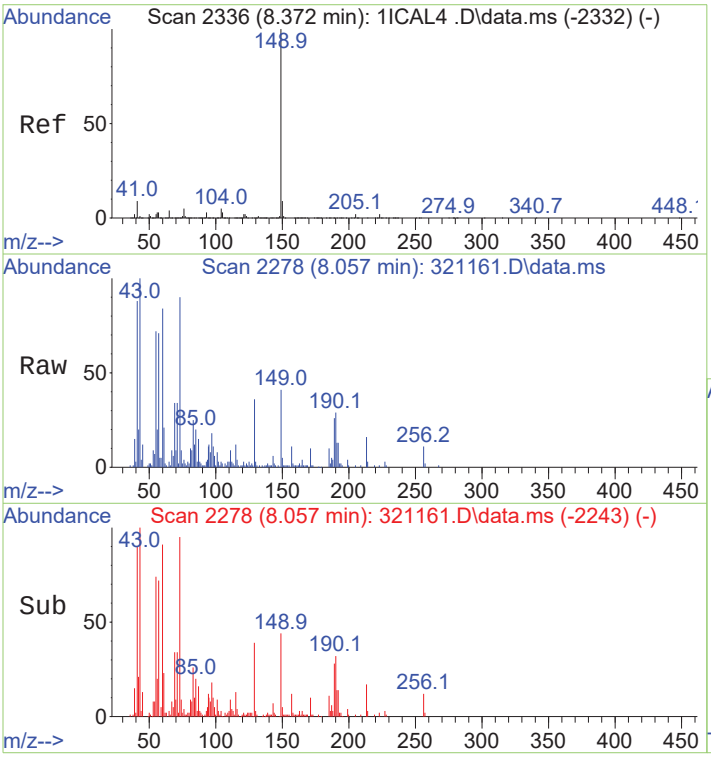


#72
Carbazole
Concen: 0.30 ug/mL
RT: 7.852 min Scan# 2206
Delta R.T. 0.014 min
Lab File: 321161.D
Acq: 11 Sep 2019 1:49

Tgt Ion:167 Resp: 6896

Ion	Ratio	Lower	Upper
167	100		
166	20.5	0.0	49.3
139	11.5	0.0	42.6

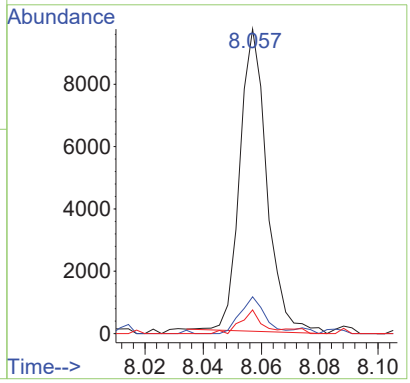


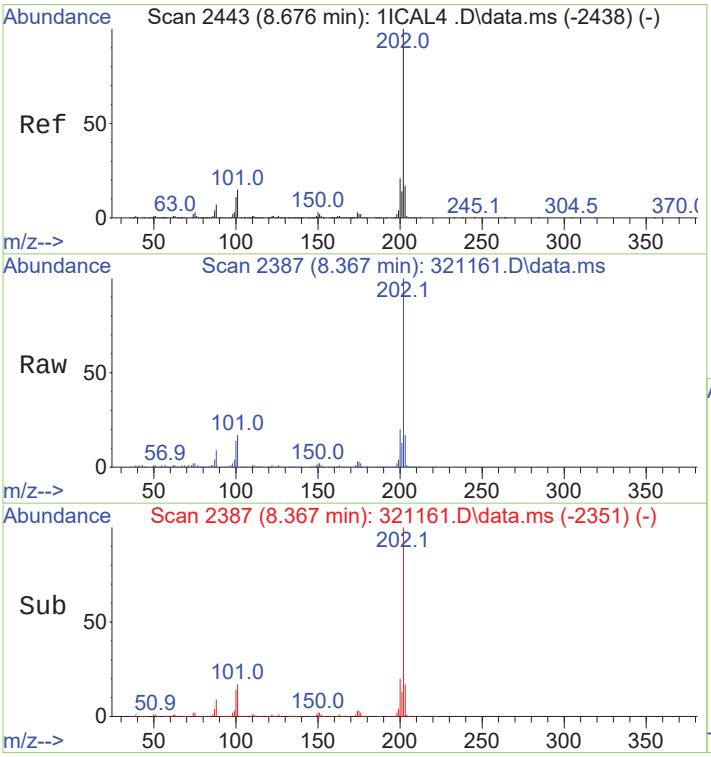


#73
Dinbtylphthal
Concen: 0.06 ug/mL
RT: 8.057 min Scan# 2278
Delta R.T. 0.000 min
Lab File: 321161.D
Acq: 11 Sep 2019 1:49

Tgt Ion:149 Resp: 6253

Ion	Ratio	Lower	Upper
149	100		
150	11.0	0.0	39.0
104	7.8	0.0	34.6

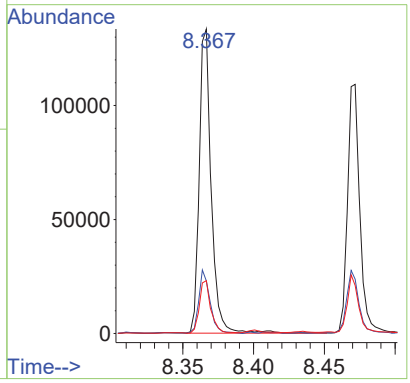


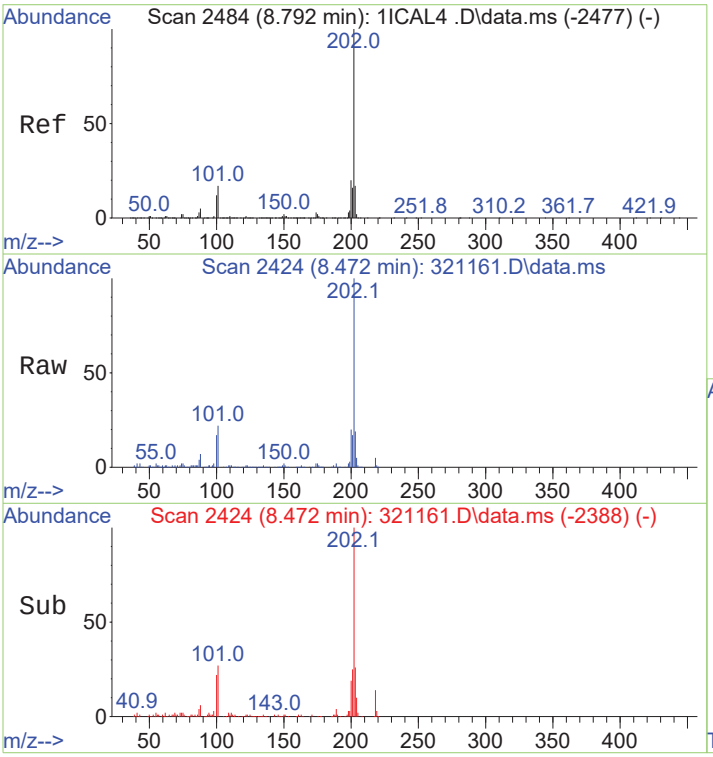


#74
Fluoranthene
Concen: 4.76 ug/mL
RT: 8.367 min Scan# 2387
Delta R.T. 0.003 min
Lab File: 321161.D
Acq: 11 Sep 2019 1:49

Tgt Ion:202 Resp: 78710

Ion	Ratio	Lower	Upper
202	100		
101	17.1	0.0	50.7
203	17.2	0.0	47.3

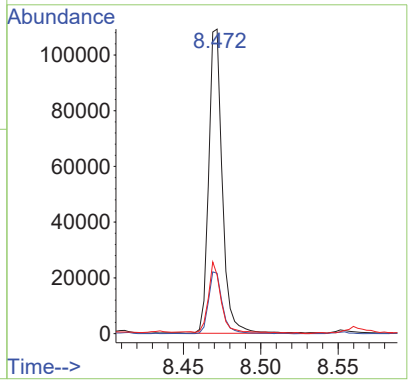


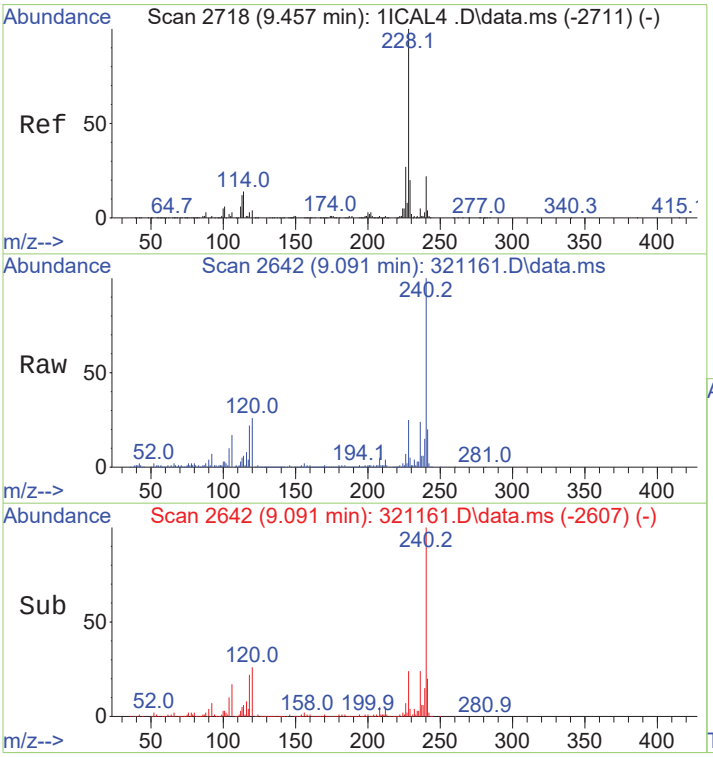


#77
Pyrene
Concen: 3.50 ug/mL
RT: 8.472 min Scan# 2424
Delta R.T. 0.003 min
Lab File: 321161.D
Acq: 11 Sep 2019 1:49

Tgt Ion:202 Resp: 66656

Ion	Ratio	Lower	Upper
202	100		
200	19.7	0.0	50.1
203	19.2	0.0	46.9

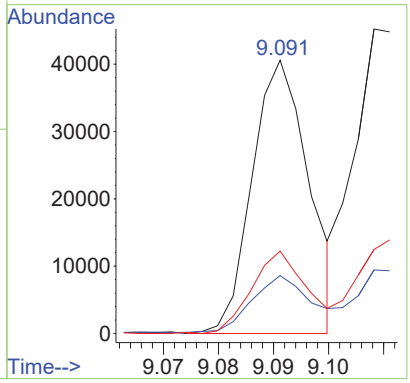


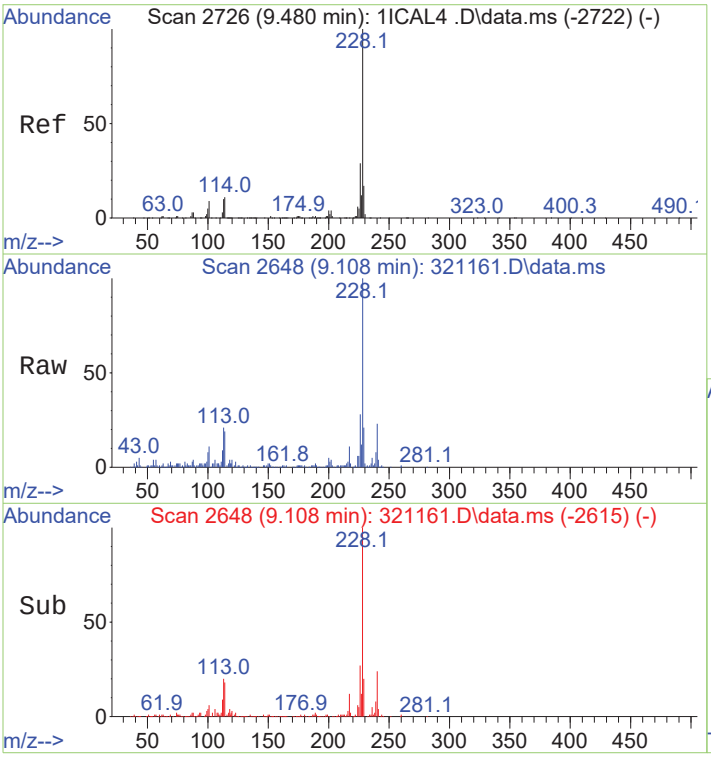


#82
B[a]anthracen
Concen: 1.86 ug/mL
RT: 9.091 min Scan# 2642
Delta R.T. 0.000 min
Lab File: 321161.D
Acq: 11 Sep 2019 1:49

Tgt Ion:228 Resp: 29108

Ion	Ratio	Lower	Upper
228	100		
229	20.3	0.0	49.3
226	29.8	0.0	56.2

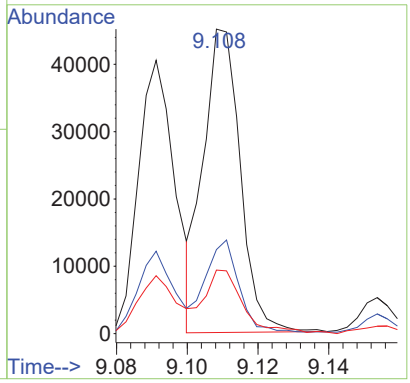


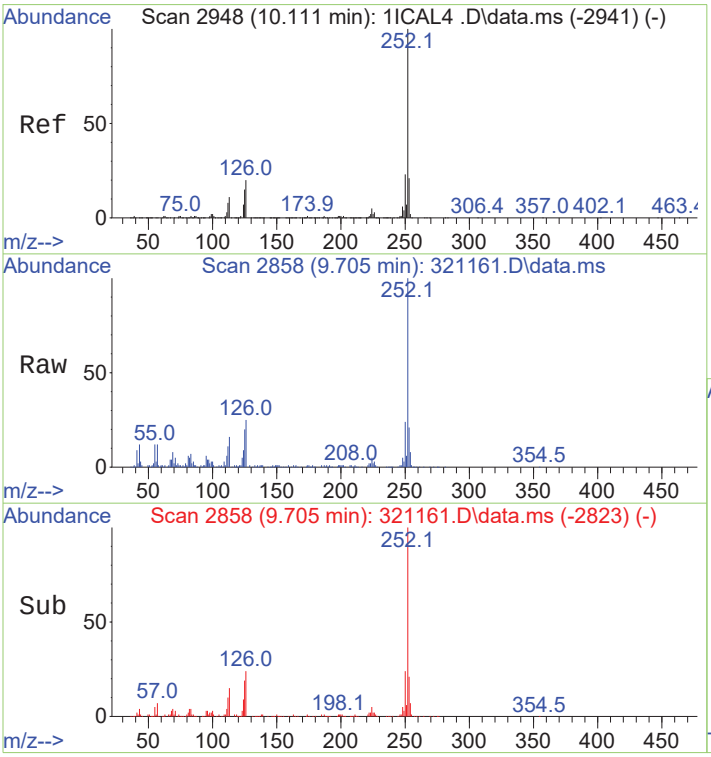


#83
Chrysene
Concen: 2.03 ug/mL
RT: 9.108 min Scan# 2648
Delta R.T. -0.006 min
Lab File: 321161.D
Acq: 11 Sep 2019 1:49

Tgt Ion:228 Resp: 32799

Ion	Ratio	Lower	Upper
228	100		
226	27.3	0.0	59.0
229	20.5	0.0	49.4

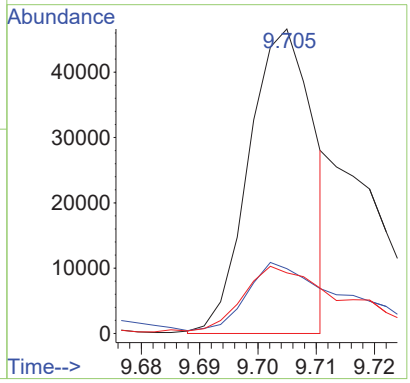


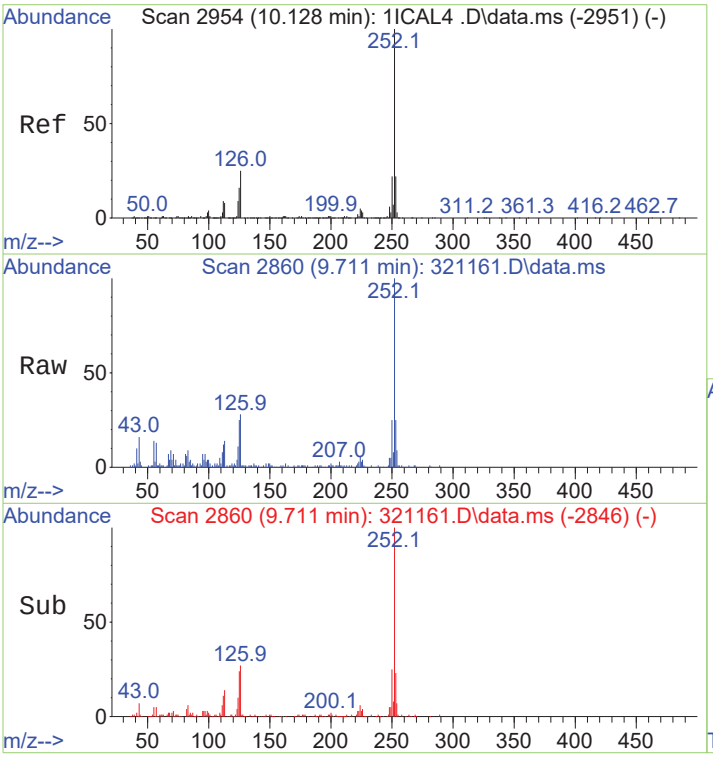


#87
B[b]fluoranth
Concen: 2.95 ug/mL m
RT: 9.705 min Scan# 2858
Delta R.T. 0.000 min
Lab File: 321161.D
Acq: 11 Sep 2019 1:49

Tgt Ion:252 Resp: 35891

Ion	Ratio	Lower	Upper
252	100		
253	21.3	0.0	51.9
125	19.9	0.0	50.0

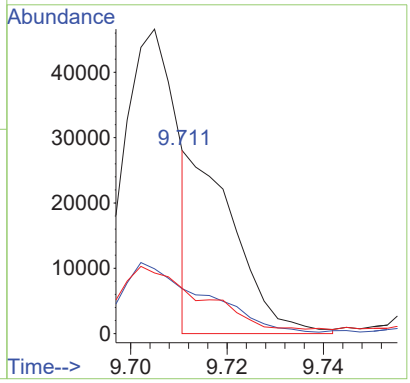


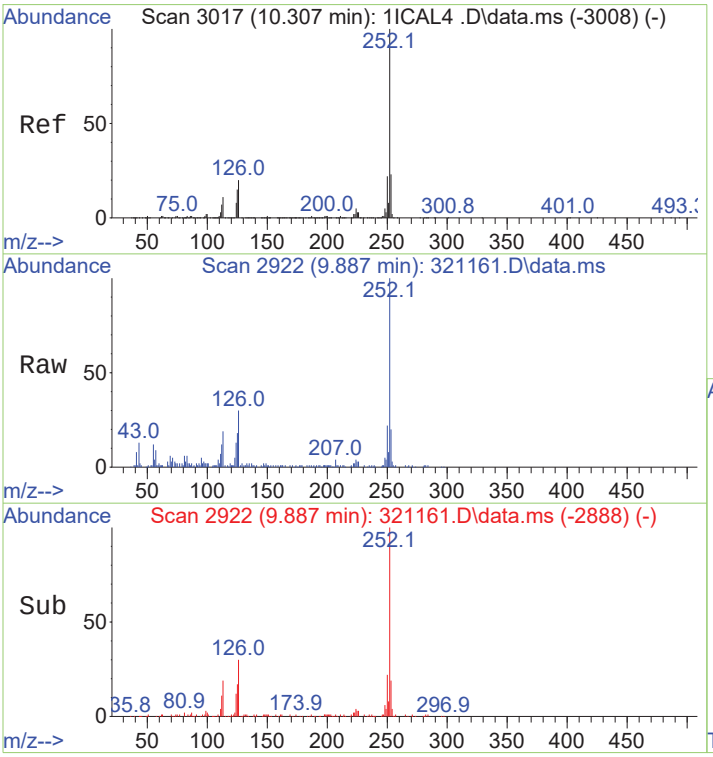


#88
B[k]fluoranth
Concen: 1.52 ug/mL m
RT: 9.711 min Scan# 2860
Delta R.T. -0.011 min
Lab File: 321161.D
Acq: 11 Sep 2019 1:49

Tgt Ion:252 Resp: 18491

Ion	Ratio	Lower	Upper
252	100		
253	24.5	0.0	52.0
125	24.8	0.0	50.2

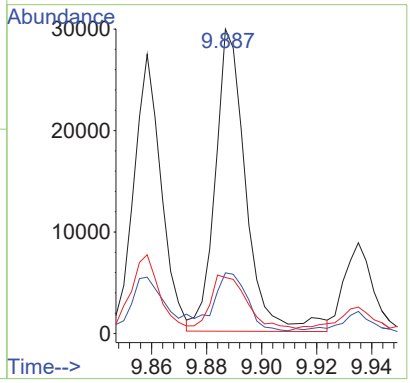


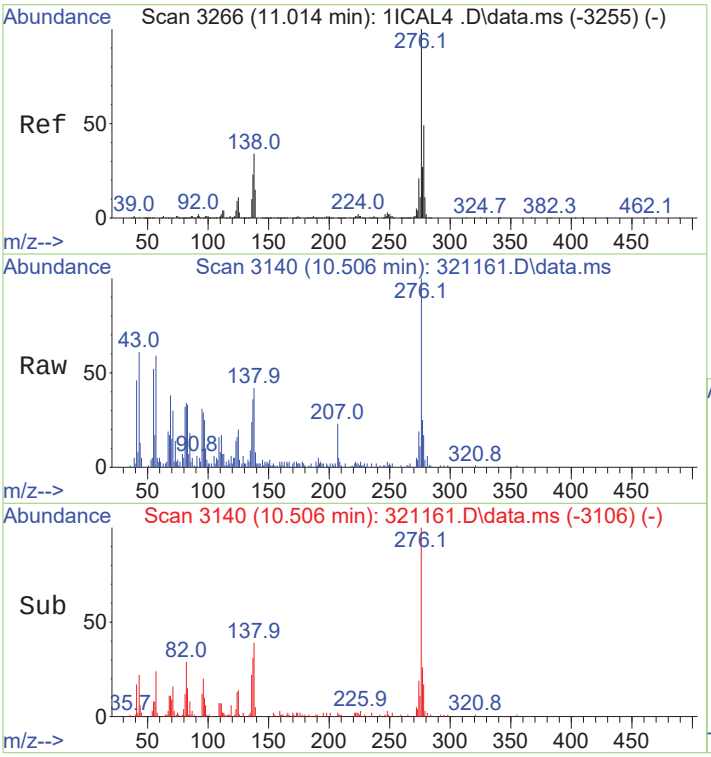


#89
Benz[a]pyrene
Concen: 1.84 ug/mL
RT: 9.887 min Scan# 2922
Delta R.T. -0.003 min
Lab File: 321161.D
Acq: 11 Sep 2019 1:49

Tgt Ion:252 Resp: 23022

Ion	Ratio	Lower	Upper
252	100		
253	19.1	0.0	51.7
125	15.9	0.0	51.4

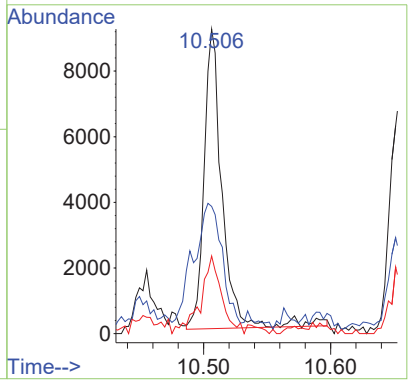


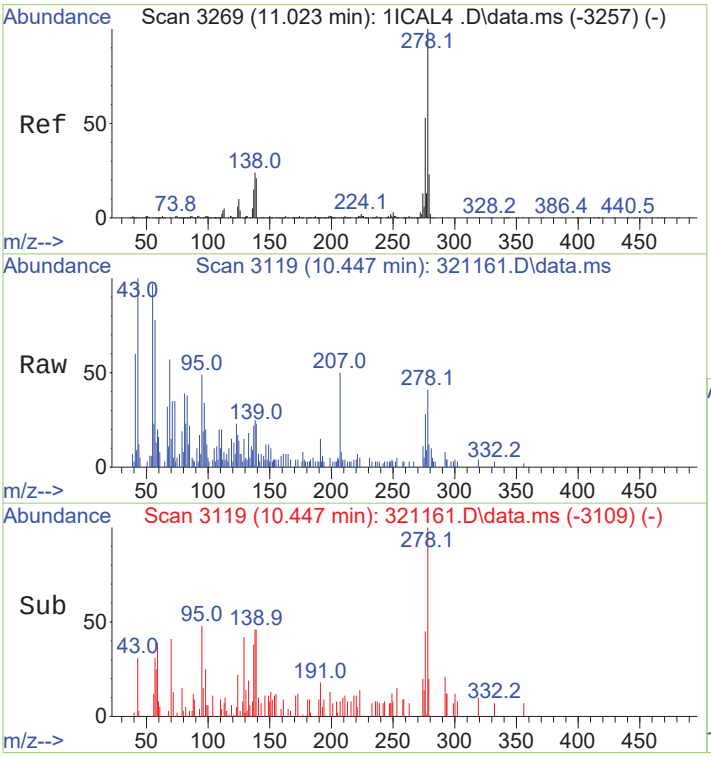


#90
Indeno-pyrene
Concen: 0.69 ug/mL
RT: 10.506 min Scan# 3140
Delta R.T. -0.003 min
Lab File: 321161.D
Acq: 11 Sep 2019 1:49

Tgt Ion:276 Resp: 9017

Ion	Ratio	Lower	Upper
276	100		
138	36.1	13.2	73.2
277	23.5	0.0	54.7

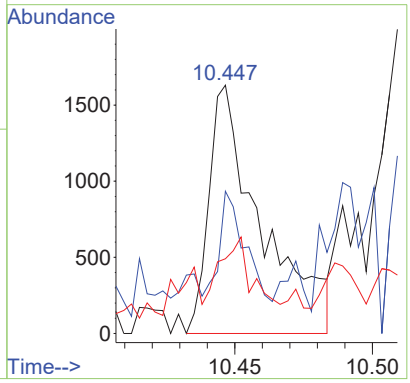


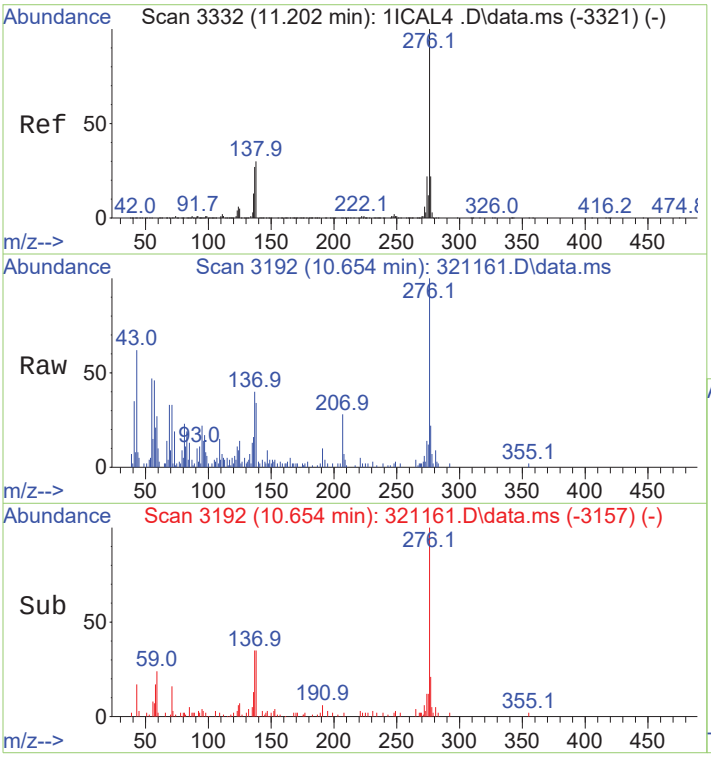


#91
Dib[ah]anthr
Concen: 0.21 ug/mL
RT: 10.447 min Scan# 3119
Delta R.T. -0.071 min
Lab File: 321161.D
Acq: 11 Sep 2019 1:49

Tgt Ion:278 Resp: 2159

Ion	Ratio	Lower	Upper
278	100		
139	33.7	4.7	64.7
279	9.6	0.0	54.0

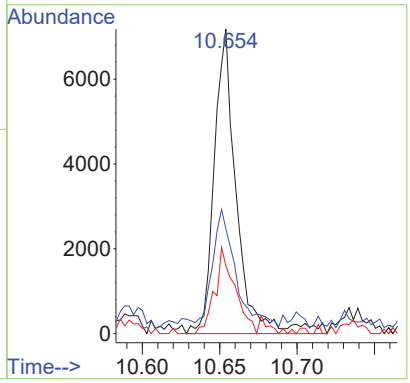


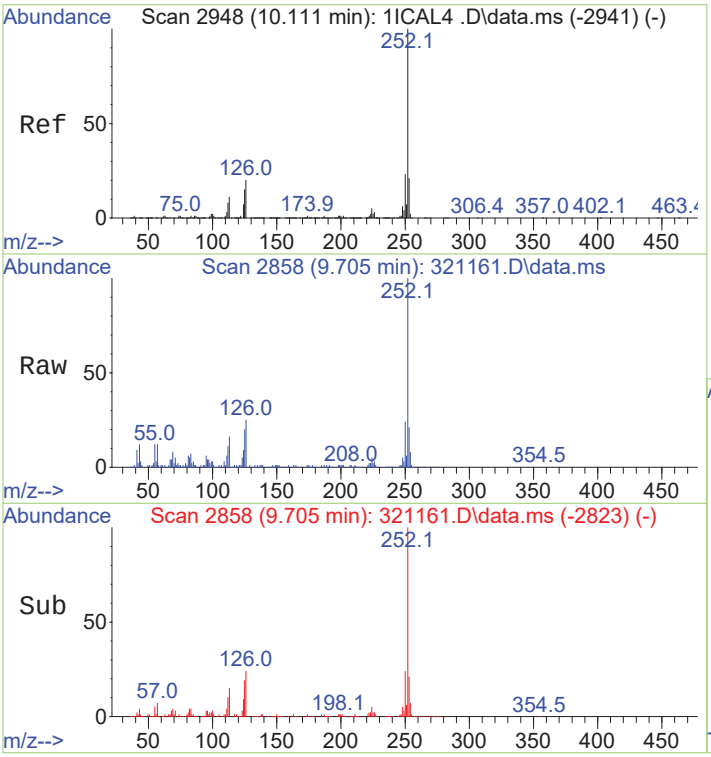


#92
B[ghi]perylen
Concen: 0.64 ug/mL
RT: 10.654 min Scan# 3192
Delta R.T. 0.000 min
Lab File: 321161.D
Acq: 11 Sep 2019 1:49

Tgt Ion:276 Resp: 7219

Ion	Ratio	Lower	Upper
276	100		
138	32.0	15.0	75.0
277	22.2	0.0	54.0

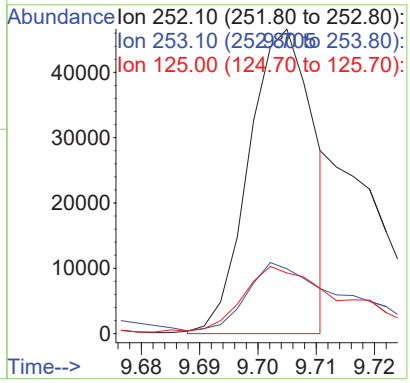




#87
B[b]fluoranth
Concen: 2.95 ug/mL m
RT: 9.705 min Scan# 2858
Delta R.T. 0.000 min
Lab File: 321161.D
Acq: 11 Sep 2019 1:49

Tgt Ion:252 Resp: 35891

Ion	Ratio	Lower	Upper
252	100		
253	21.3	0.0	51.9
125	19.9	0.0	50.0

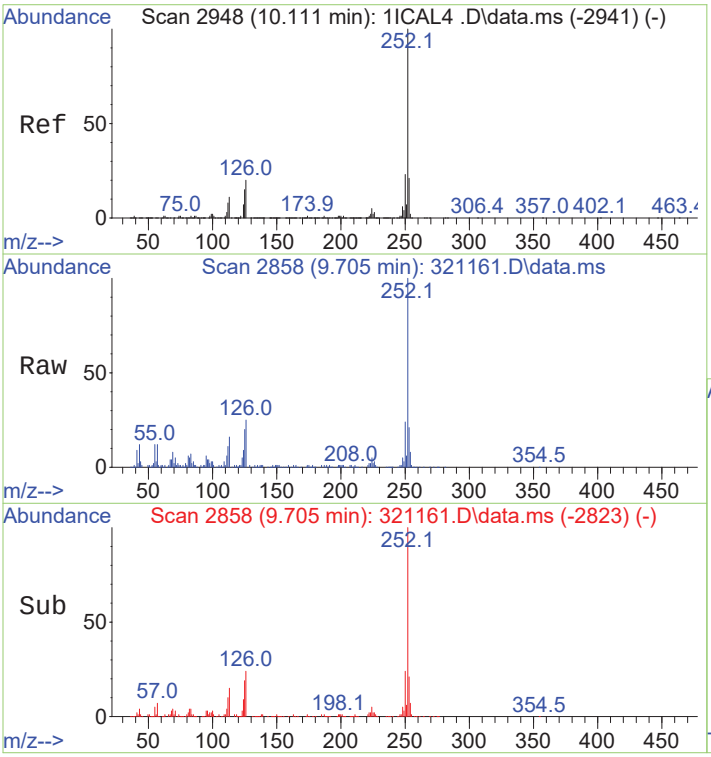


After Manual Integration

Reason#3

JJY
9/16/19

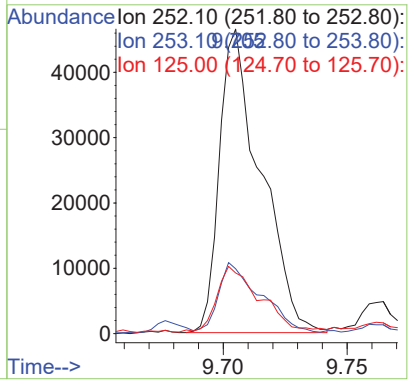
AJZ
09/19/2019



#87
B[b]fluoranth
Concen: 4.43 ug/mL
RT: 9.705 min Scan# 2858
Delta R.T. 0.000 min
Lab File: 321161.D
Acq: 11 Sep 2019 1:49

Tgt Ion:252 Resp: 53897

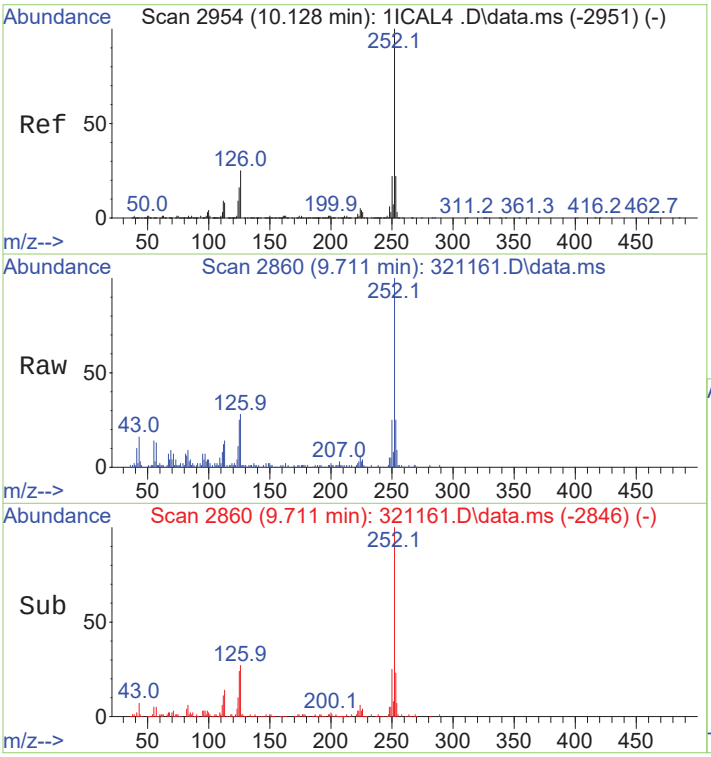
Ion	Ratio	Lower	Upper
252	100		
253	20.4	0.0	51.9
125	18.8	0.0	50.0



Before Manual Integration

Reason#3 JJY 9/16/19

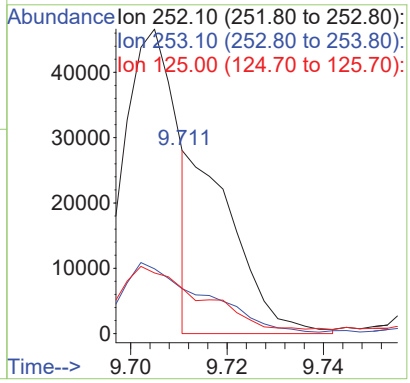
AJZ 09/19/2019



#88
B[k]fluoranth
Concen: 1.52 ug/mL m
RT: 9.711 min Scan# 2860
Delta R.T. -0.011 min
Lab File: 321161.D
Acq: 11 Sep 2019 1:49

Tgt Ion:252 Resp: 18491

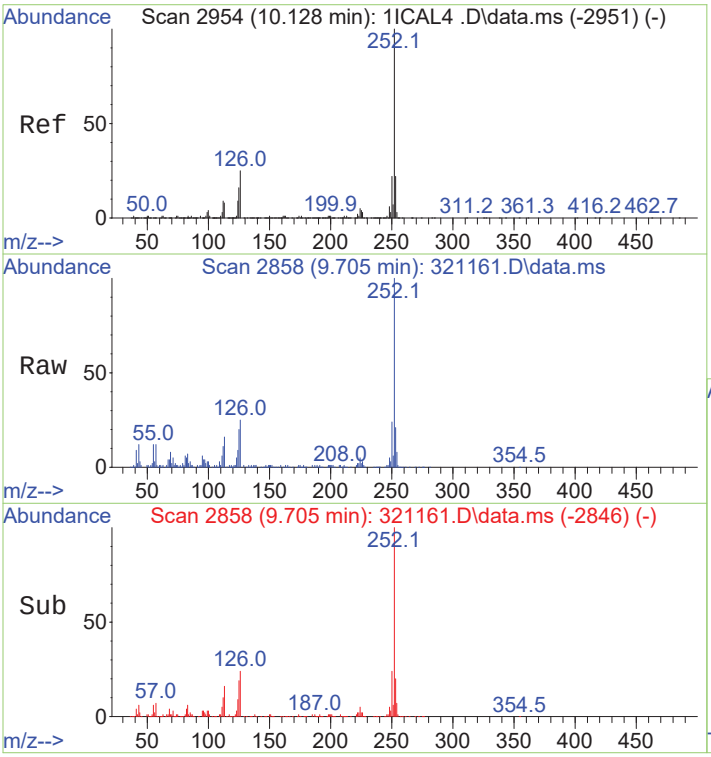
Ion	Ratio	Lower	Upper
252	100		
253	24.5	0.0	52.0
125	24.8	0.0	50.2



After Manual Integration

Reason#3 JJY 9/16/19

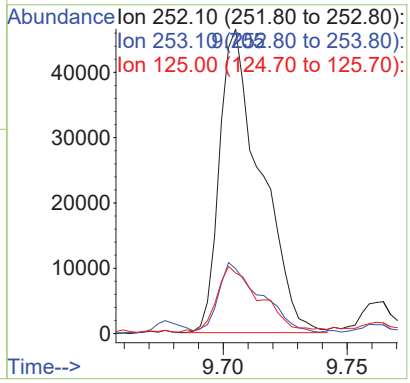
AJZ 09/19/2019



#88
B[k]fluoranth
Concen: 4.42 ug/mL
RT: 9.705 min Scan# 2858
Delta R.T. -0.017 min
Lab File: 321161.D
Acq: 11 Sep 2019 1:49

Tgt Ion:252 Resp: 53897

Ion	Ratio	Lower	Upper
252	100		
253	20.4	0.0	52.0
125	18.8	0.0	50.2



Before Manual Integration

Reason#3

JJY
9/16/19

AJZ
09/19/2019

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321161.D Vial: 24
Acq On : 11 Sep 2019 1:49 Operator: JJY
Sample : 164275,321161, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:34 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

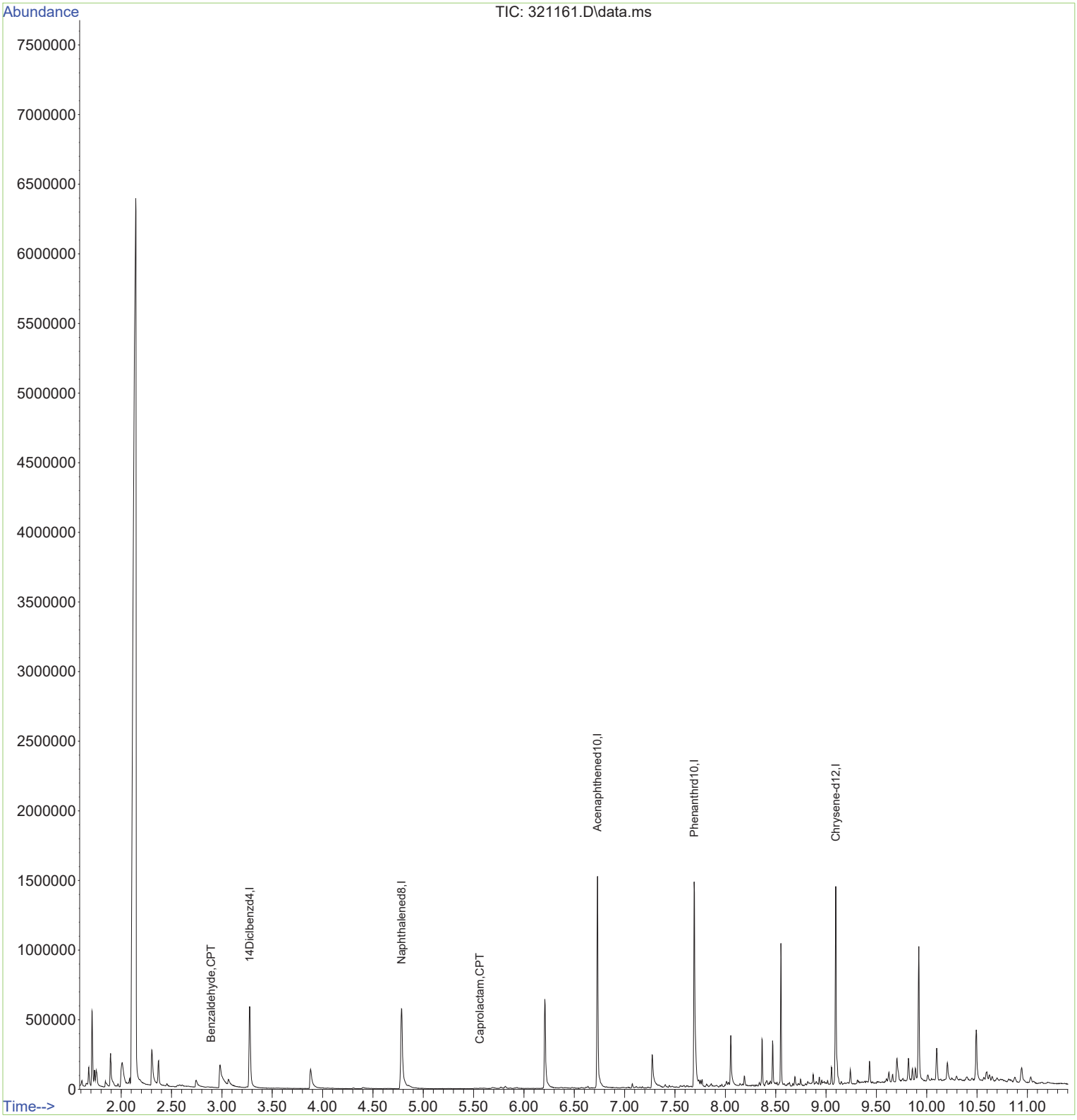
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	108944	20.00	ug/mL	0.00
3) Naphthalened8	4.784	136	408430	20.00	ug/mL	0.00
5) Acenaphthened10	6.730	164	265037	20.00	ug/mL	0.00
7) Phenanthrd10	7.690	188	440154	20.00	ug/mL	0.00
9) Chrysene-d12	9.097	240	253064	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	2.894	77	394	0.6593	ug/mL#	1
4) Caprolactam	5.562	55	1476	1.2845	ug/mL	74

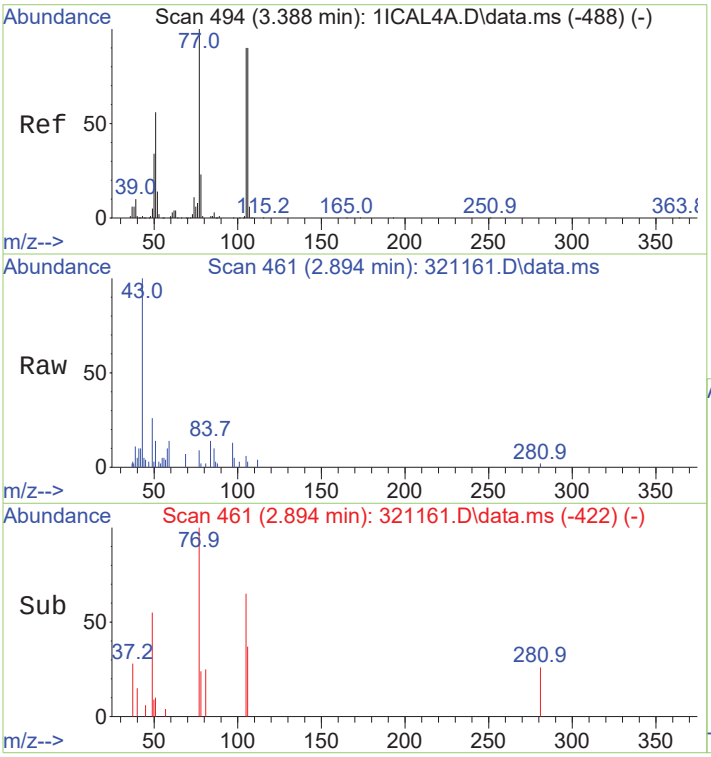
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321161.D Vial: 24
Acq On : 11 Sep 2019 1:49 Operator: JJY
Sample : 164275,321161, Inst : SVMS1
Misc : 500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:34 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

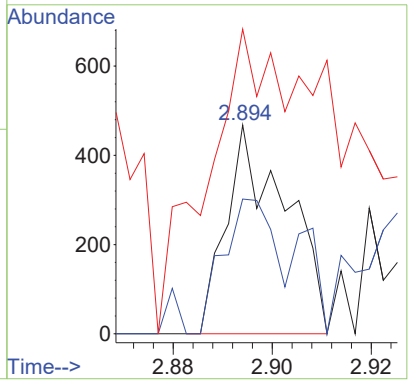


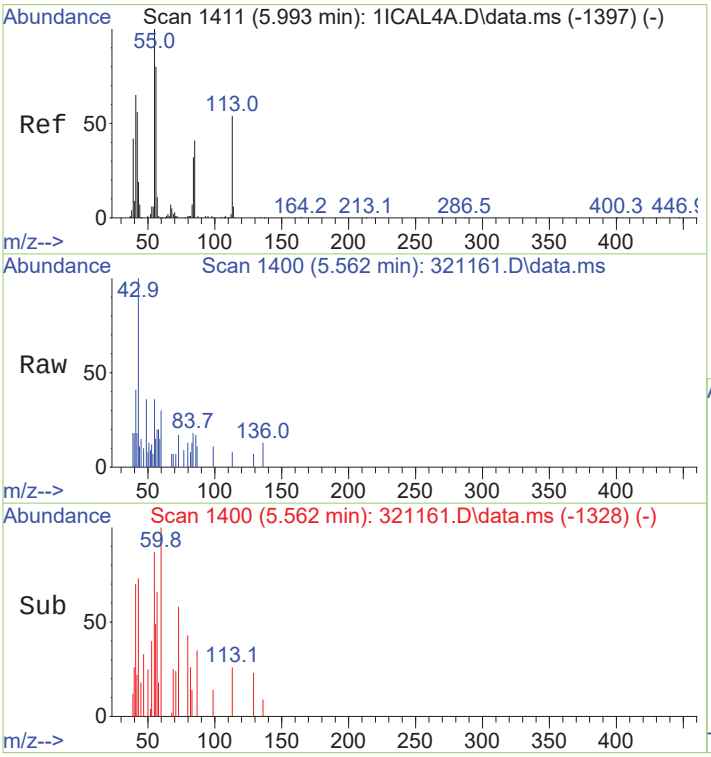


#2
Benzaldehyde
Concen: 0.66 ug/mL
RT: 2.894 min Scan# 461
Delta R.T. 0.011 min
Lab File: 321161.D
Acq: 11 Sep 2019 1:49

Tgt Ion: 77 Resp: 394

Ion	Ratio	Lower	Upper
77	100		
105	75.9	67.4	127.4
51	520.1	23.2	83.2#

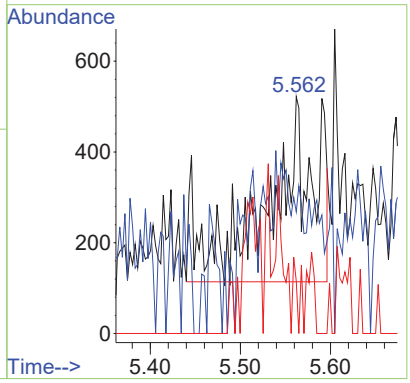




#4
Caprolactam
Concen: 1.28 ug/mL
RT: 5.562 min Scan# 1400
Delta R.T. 0.105 min
Lab File: 321161.D
Acq: 11 Sep 2019 1:49

Tgt Ion: 55 Resp: 1476

Ion	Ratio	Lower	Upper
55	100		
42	32.7	24.6	84.6
113	40.6	26.7	86.7



Library Search Compound Report

Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321161.D
Acq On : 11 Sep 2019 1:49
Operator : JJY
Sample : 164275,321161,
Misc : 500ul+5ul S4142A
ALS Vial : 24 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 1 Methacrylamide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.709	11.65 ug/mL	356435	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Methacrylamide	85	C4H7NO	000079-39-0	38
2	Monomethylnitrosamine	60	CH4N2O	000000-00-0	9
3	2(3H)-Furanone, 5-ethyldihydro-	114	C6H10O2	000695-06-7	9
4	Hexane, 3-bromo-	164	C6H13Br	003377-87-5	9
5	2H-Pyran-2-one, tetrahydro-6,6-d...	128	C7H12O2	002610-95-9	9

****

Peak Number 2 3-Penten-2-one, 4-methyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.894	6.77 ug/mL	207143	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	94
2	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
3	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
4	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	90
5	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	86

****

Peak Number 3 Acetic acid, 1-methylethyl ... Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.010	10.67 ug/mL	326387	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetic acid, 1-methylethyl ester	102	C5H10O2	000108-21-4	9
2	Acetic acid, pentyl ester	130	C7H14O2	000628-63-7	9
3	Cyclobutylamine	71	C4H9N	002516-34-9	9
4	Oxirane, trimethyl-	86	C5H10O	005076-19-7	9
5	Hydroperoxide, 1-methylethyl	76	C3H8O2	003031-75-2	9

****

Peak Number 4 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.144	398.53 ug/mL	12188400	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	56
2	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	56
3	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	28

Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321161.D
Acq On : 11 Sep 2019 1:49
Operator : JJY
Sample : 164275,321161,
Misc : 500ul+5ul S4142A
ALS Vial : 24 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

4	tert-Butyl Hydroperoxide	90	C4H10O2	000075-91-2	28
5	Acetic acid, cyano-, 1,1-dimethy...	141	C7H11NO2	001116-98-9	23

****

Peak Number 5 Oxirane, 3-ethyl-2,2-dimethyl- Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.371	4.89 ug/mL	149615	14Diclbenzd4	3.275

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Oxirane, 3-ethyl-2,2-dimethyl-	100	C6H12O	001192-22-9	50
2	2,3-Butanediol, 2,3-dimethyl-	118	C6H14O2	000076-09-5	40
3	3-Buten-2-ol, 2,3-dimethyl-	100	C6H12O	010473-13-9	40
4	Pentane, 2-bromo-2-methyl-	164	C6H13Br	004283-80-1	32
5	Oxirane, tetramethyl-	100	C6H12O	005076-20-0	25

****

Peak Number 6 Dotriacontane Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.819	3.60 ug/mL	125645	Perylene-d12	9.921

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dotriacontane	451	C32H66	000544-85-4	91
2	Hexatriacontane	507	C36H74	000630-06-8	91
3	Docosane, 11-butyl-	366	C26H54	013475-76-8	90
4	Docosane, 9-butyl-	366	C26H54	055282-14-9	90
5	Eicosane, 10-methyl-	296	C21H44	054833-23-7	86

****

Peak Number 7 17-Octadecenal Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.100	5.50 ug/mL	192002	Perylene-d12	9.921

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	17-Octadecenal	266	C18H34O	056554-86-0	91
2	1,15-Pentadecanediol	244	C15H32O2	000000-00-0	91
3	16-Octadecenal	266	C18H34O	056554-87-1	90
4	13-Octadecenal	266	C18H34O	056554-90-6	86
5	15-Octadecenal	266	C18H34O	056554-93-9	83

****

Peak Number 8 16-Octadecenal Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.944	4.09 ug/mL	142865	Perylene-d12	9.921

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual

Library Search Compound Report

Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 321161.D
Acq On : 11 Sep 2019 1:49
Operator : JJY
Sample : 164275,321161,
Misc : 500ul+5ul S4142A
ALS Vial : 24 Sample Multiplier: 1

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis

TIC Library : C:\Database\NBS75K.L
TIC Integration Parameters: LSCINT.P

1	16-Octadecenal	266	C18H34O	056554-87-1	78
2	Cyclohexanehexanol	184	C12H24O	004354-58-9	47
3	Tetradecanal	212	C14H28O	000124-25-4	47
4	8-Azabicyclo[3.2.1]octane-3-carb...	150	C9H14N2	005911-81-9	43
5	17-Pentatriacontene	491	C35H70	006971-40-0	43

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321513.D Vial: 6
Acq On : 9 Sep 2019 17:34 Operator: JJY
Sample : 164170,321513, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 17:49:16 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

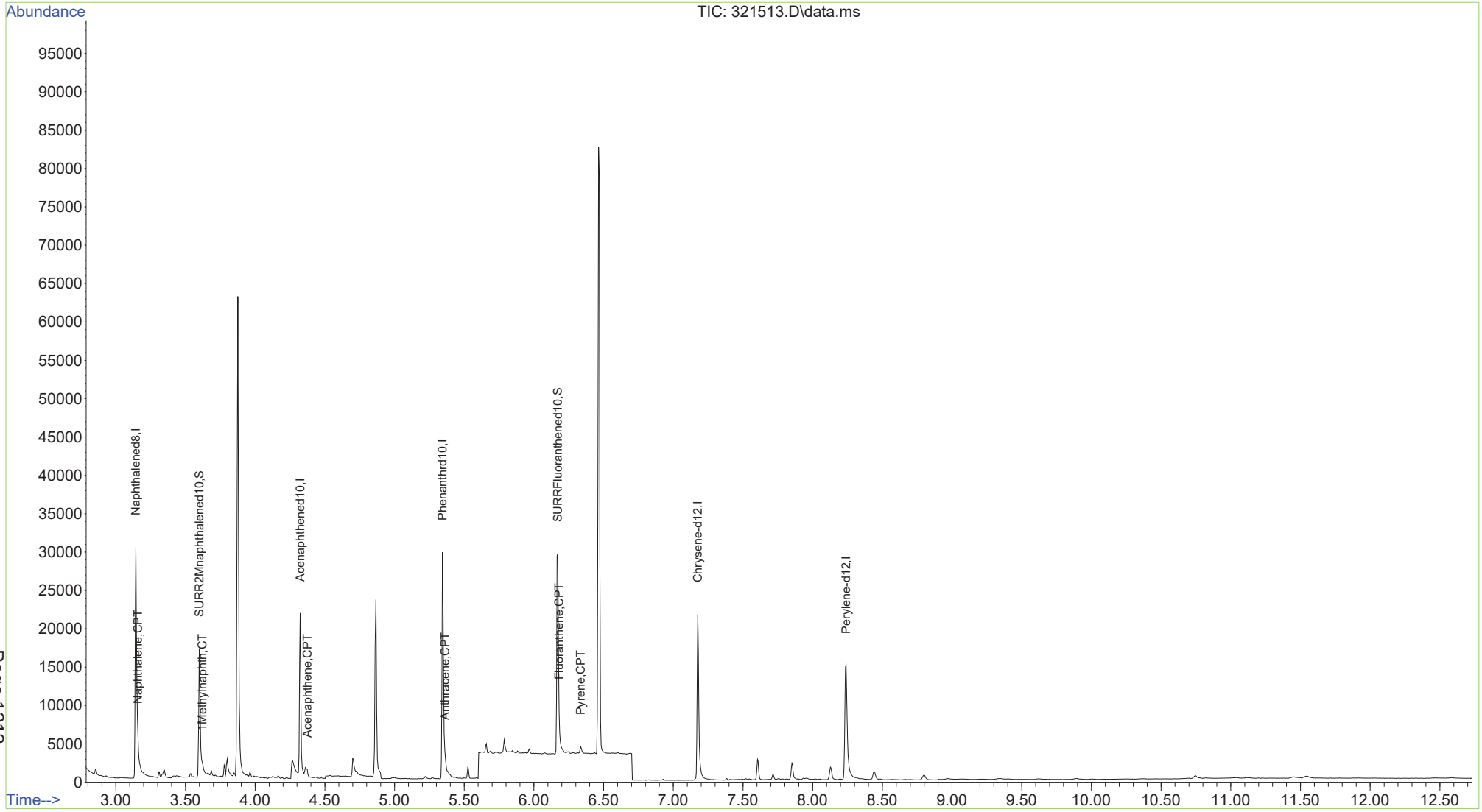
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.144	136	27203	400.00	ng/mL	0.00
6) Acenaphthened10	4.323	164	13798	400.00	ng/mL	0.00
10) Phenanthrd10	5.343	188	23316	400.00	ng/mL	0.00
15) Chrysene-d12	7.176	240	18591	400.00	ng/mL	0.00
19) Perylene-d12	8.239	264	19041	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.599	152	11165	74.00	%REC	0.00
Spiked Amount 100.000			Recovery = 74.00%			
13) SURRFluoranthened10	6.171	212	20188	87.68	%REC	0.00
Spiked Amount 100.000			Recovery = 87.68%			
Target Compounds						Qvalue
2) Naphthalene	3.159	128	899	13.4398	ng/ml	96
5) 1Methylnaphth	3.621	141	210	5.8564	ng/mL	99
8) Acenaphthene	4.374	154	277	7.0684	ng/mL#	36
11) Phenanthrene	5.362	178	803	Below Cal	#	1
12) Anthracene	5.362	178	802	13.8141	ng/mL	72
14) Fluoranthene	6.180	202	371	5.5887	ng/mL	90
16) Pyrene	6.336	202	603	8.0215	ng/mL	85

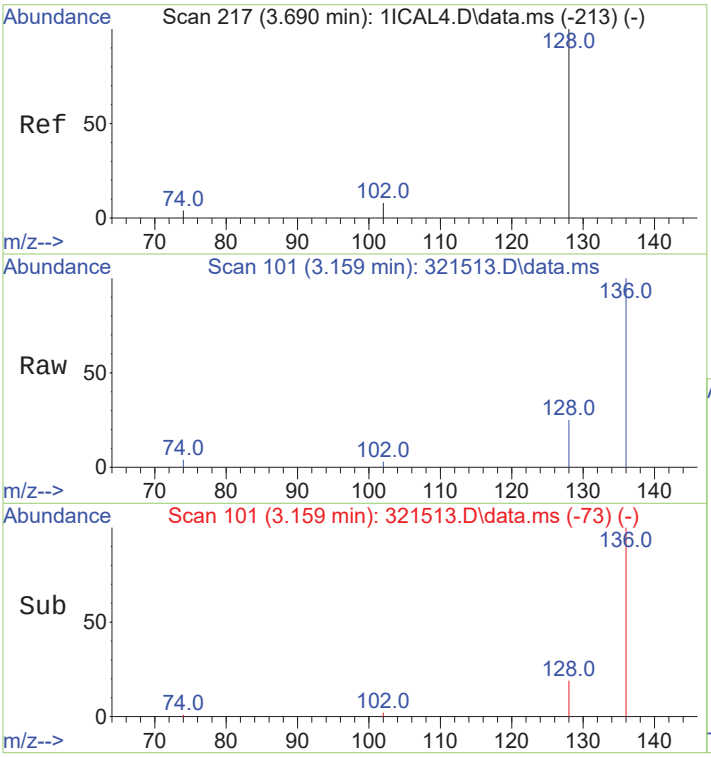
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321513.D Vial: 6
Acq On : 9 Sep 2019 17:34 Operator: JJY
Sample : 164170,321513, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 17:49:16 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

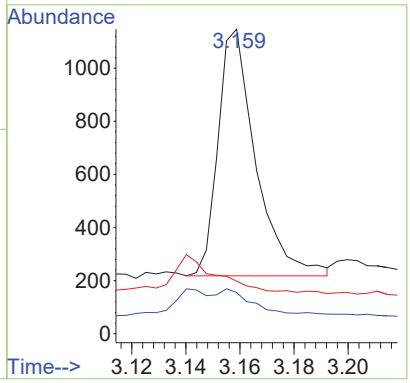


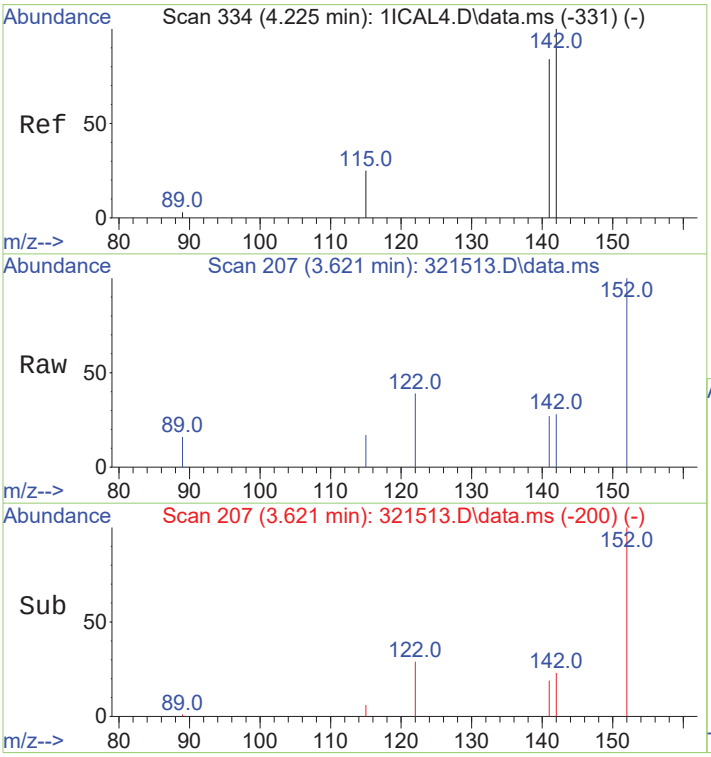


#2
Naphthalene
Concen: 13.44 ng/ml
RT: 3.159 min Scan# 101
Delta R.T. 0.004 min
Lab File: 321513.D
Acq: 9 Sep 2019 17:34

Tgt Ion:128 Resp: 899

Ion	Ratio	Lower	Upper
128	100		
102	8.7	0.0	37.6
74	5.1	0.0	33.6

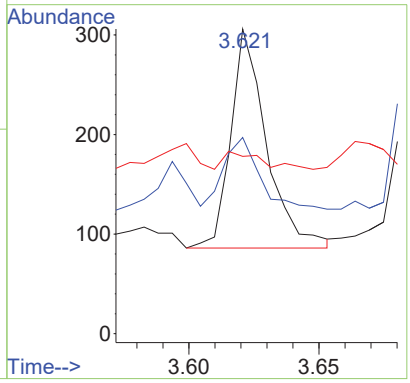


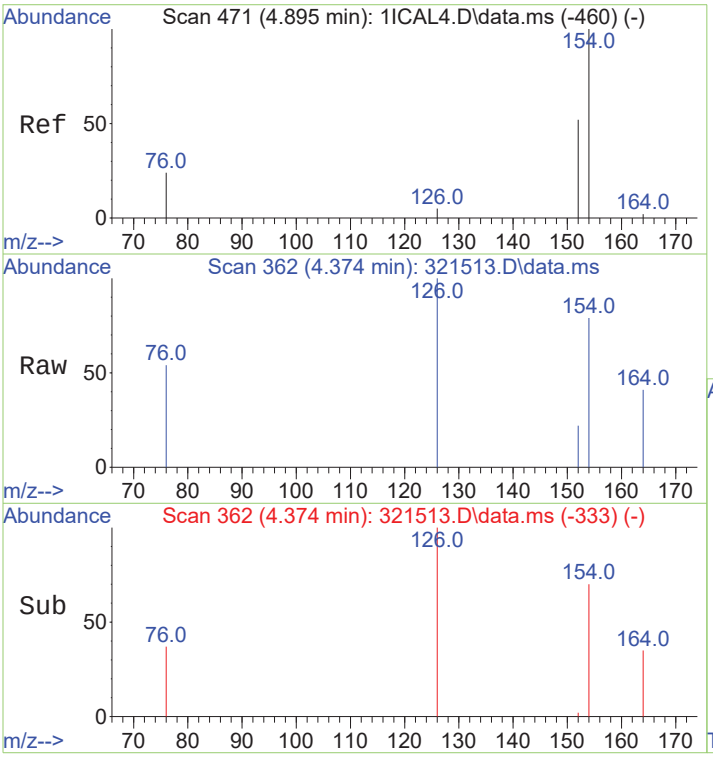


#5
1Methylnaphth
Concen: 5.86 ng/mL
RT: 3.621 min Scan# 207
Delta R.T. -0.060 min
Lab File: 321513.D
Acq: 9 Sep 2019 17:34

Tgt Ion:141 Resp: 210

Ion	Ratio	Lower	Upper
141	100		
115	32.7	2.5	62.5
89	5.0	0.0	34.0

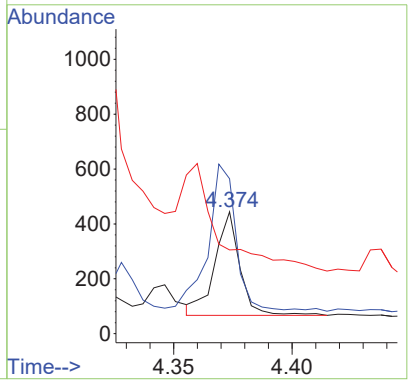


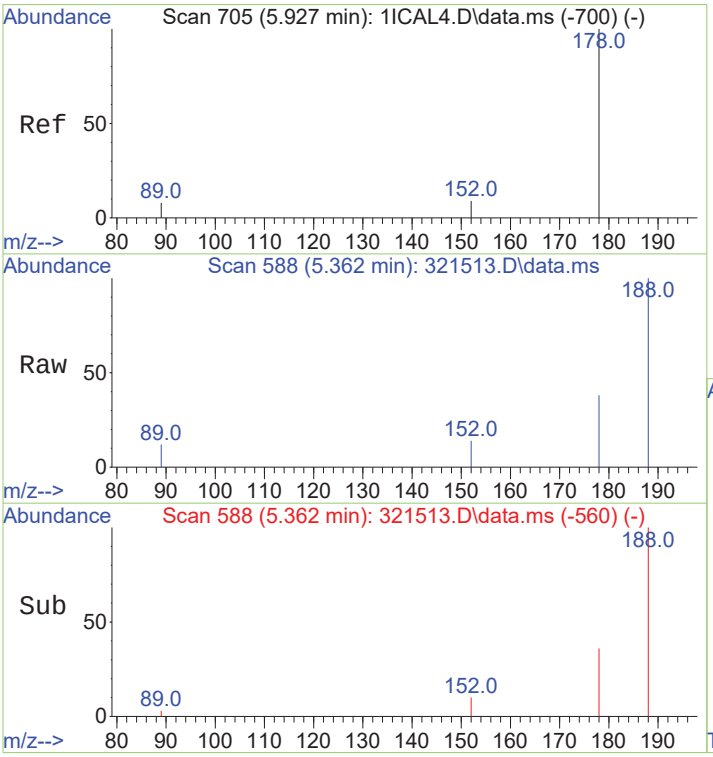


#8
Acenaphthene
Concen: 7.07 ng/mL
RT: 4.374 min Scan# 362
Delta R.T. 0.032 min
Lab File: 321513.D
Acq: 9 Sep 2019 17:34

Tgt Ion:154 Resp: 277

Ion	Ratio	Lower	Upper
154	100		
126	128.1	0.0	34.3#
76	20.4	0.0	51.6

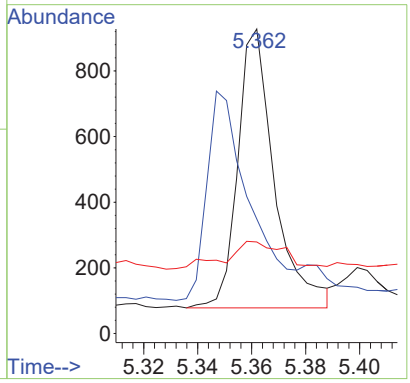


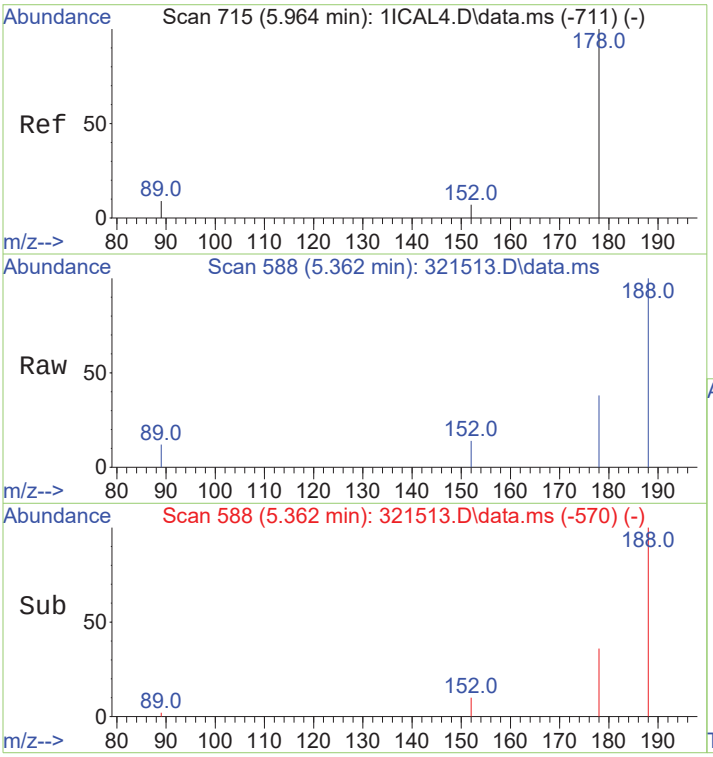


#11
Phenanthrene
Concen: Below Cal
RT: 5.362 min Scan# 588
Delta R.T. 0.004 min
Lab File: 321513.D
Acq: 9 Sep 2019 17:34

Tgt Ion:178 Resp: 803

Ion	Ratio	Lower	Upper
178	100		
152	87.4	0.0	40.1#
89	0.0	0.0	41.4

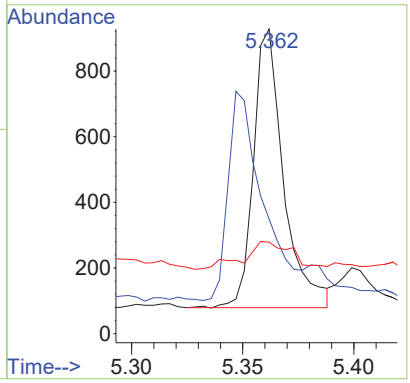


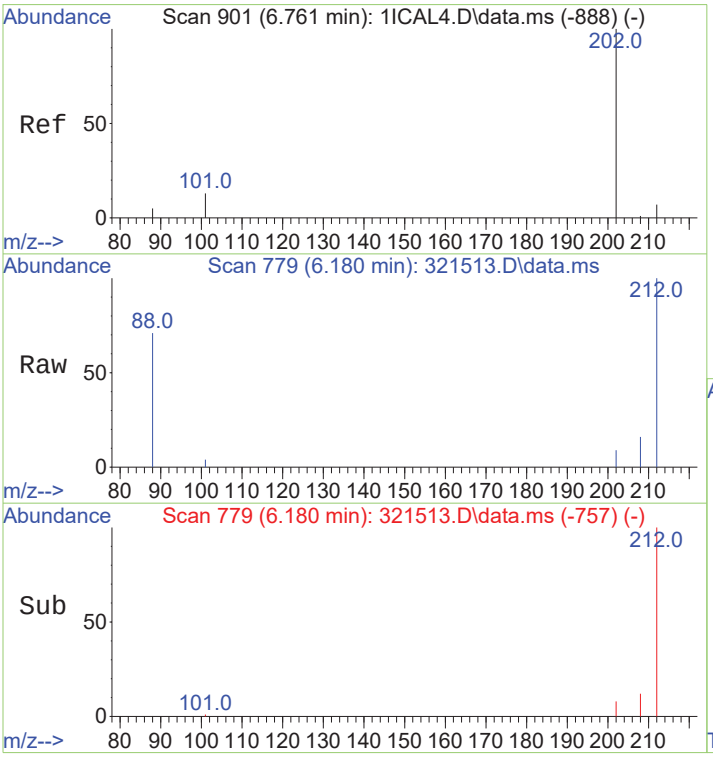


#12
Anthracene
Concen: 13.81 ng/mL
RT: 5.362 min Scan# 588
Delta R.T. -0.033 min
Lab File: 321513.D
Acq: 9 Sep 2019 17:34

Tgt Ion:178 Resp: 802

Ion	Ratio	Lower	Upper
178	100		
152	28.7	0.0	37.8
89	9.1	0.0	31.3

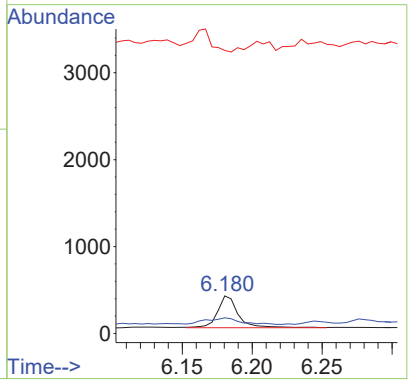


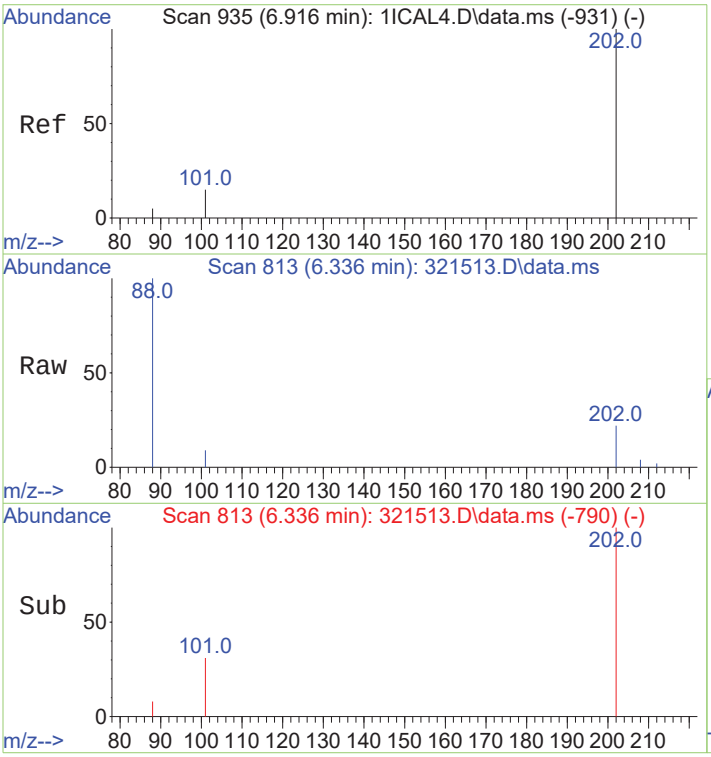


#14
Fluoranthene
Concen: 5.59 ng/mL
RT: 6.180 min Scan# 779
Delta R.T. 0.000 min
Lab File: 321513.D
Acq: 9 Sep 2019 17:34

Tgt Ion:202 Resp: 371

Ion	Ratio	Lower	Upper
202	100		
101	19.7	0.0	48.3
88	0.0	0.0	38.8

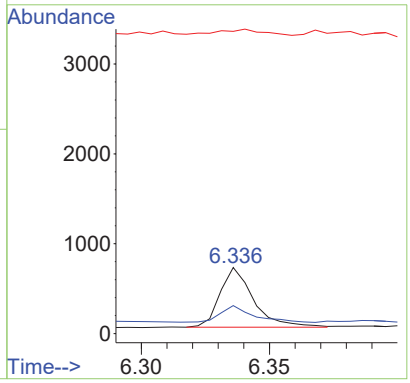




#16
Pyrene
Concen: 8.02 ng/mL
RT: 6.336 min Scan# 813
Delta R.T. 0.005 min
Lab File: 321513.D
Acq: 9 Sep 2019 17:34

Tgt Ion:202 Resp: 603

Ion	Ratio	Lower	Upper
202	100		
101	27.9	0.0	49.4
88	5.0	0.0	35.5



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321149.D Vial: 11
Acq On : 9 Sep 2019 19:15 Operator: JJY
Sample : 164274,321149, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 19:29:47 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

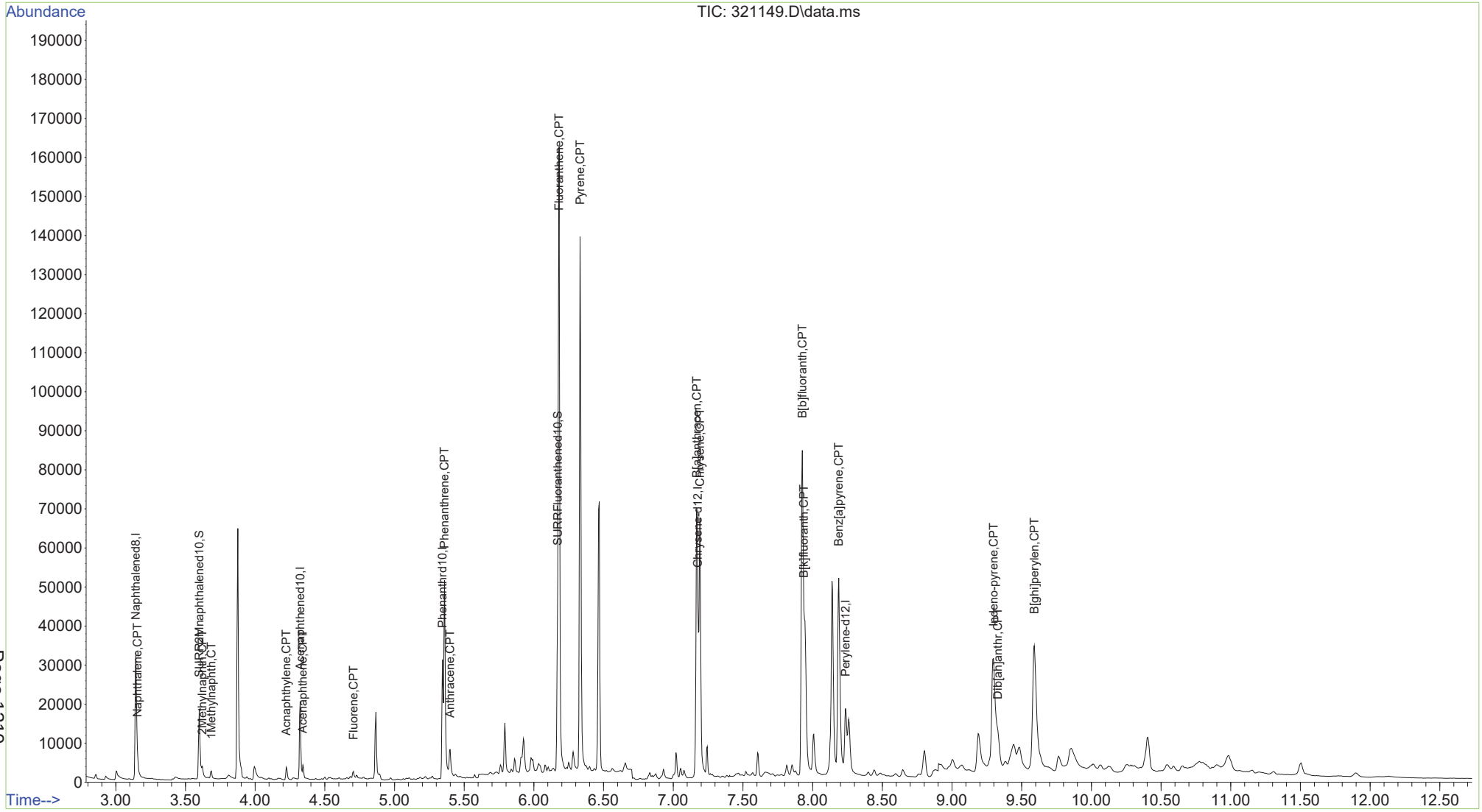
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.144	136	28444	400.00	ng/mL	0.00
6) Acenaphthened10	4.323	164	14087	400.00	ng/mL	0.00
10) Phenanthrd10	5.343	188	23000	400.00	ng/mL	0.00
15) Chrysene-d12	7.176	240	17076	400.00	ng/mL	0.00
19) Perylene-d12	8.236	264	18712	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.599	152	11955	75.78	%REC	0.00
Spiked Amount 100.000			Recovery = 75.78%			
13) SURRFluoranthened10	6.171	212	18623	82.00	%REC	0.00
Spiked Amount 100.000			Recovery = 82.00%			
Target Compounds						Qvalue
2) Naphthalene	3.155	128	925	13.2251	ng/ml	92
4) 2Methylnaphth	3.621	142	825	21.4955	ng/mL	89
5) 1Methylnaphth	3.686	141	595	15.8693	ng/mL	76
7) Acnaphthylene	4.223	152	2195	37.1553	ng/mL	94
8) Acenaphthene	4.342	154	1457	36.4167	ng/mL	77
9) Fluorene	4.705	166	1448	34.2908	ng/mL	66
11) Phenanthrene	5.358	178	29950	509.2529	ng/mL	99
12) Anthracene	5.399	178	5329	93.0505	ng/mL	97
14) Fluoranthene	6.180	202	93491	1427.6957	ng/mL	94
16) Pyrene	6.331	202	81177	1175.6771	ng/mL	97
17) B[a]anthracen	7.169	228	44299	909.2970	ng/mL	99
18) Chrysene	7.191	228	45789	763.4317	ng/mL	98
20) B[b]fluoranth	7.926	252	68271m	1120.6298	ng/mL	
21) B[k]fluoranth	7.937	252	30412m	406.7924	ng/mL	
22) Benz[a]pyrene	8.187	252	44274	756.3198	ng/mL	99
23) Indeno-pyrene	9.297	276	34972	607.8786	ng/mL	96
24) Dib[ah]anthr	9.329	278	6270	160.2746	ng/mL	90
25) B[ghi]perylen	9.590	276	33087	668.0224	ng/mL	94

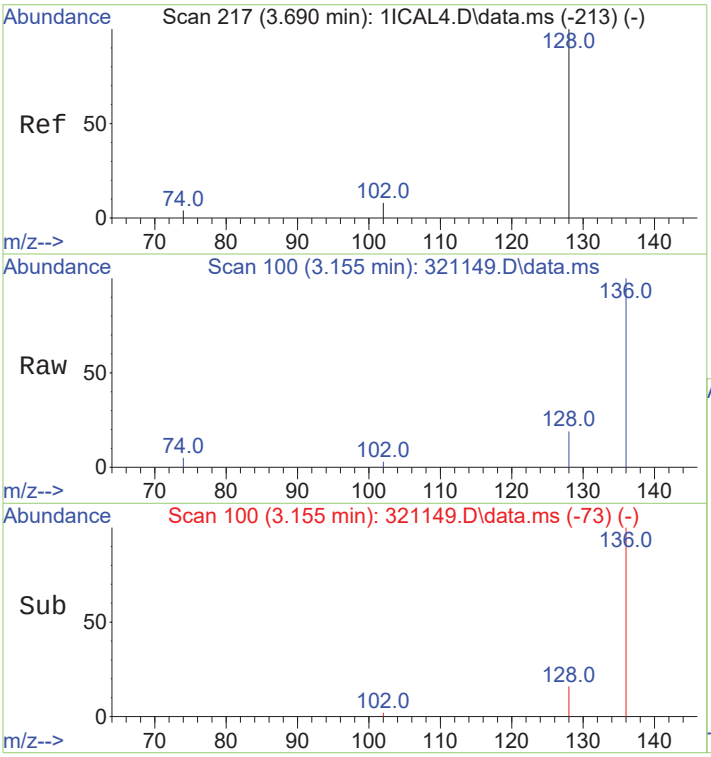
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321149.D Vial: 11
Acq On : 9 Sep 2019 19:15 Operator: JJY
Sample : 164274,321149, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 19:29:47 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

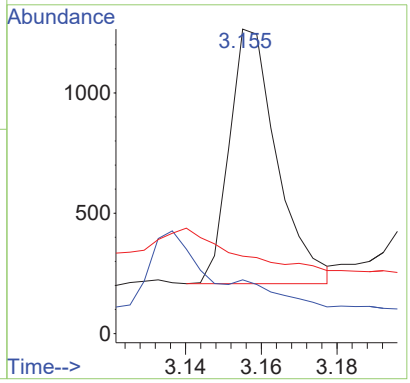


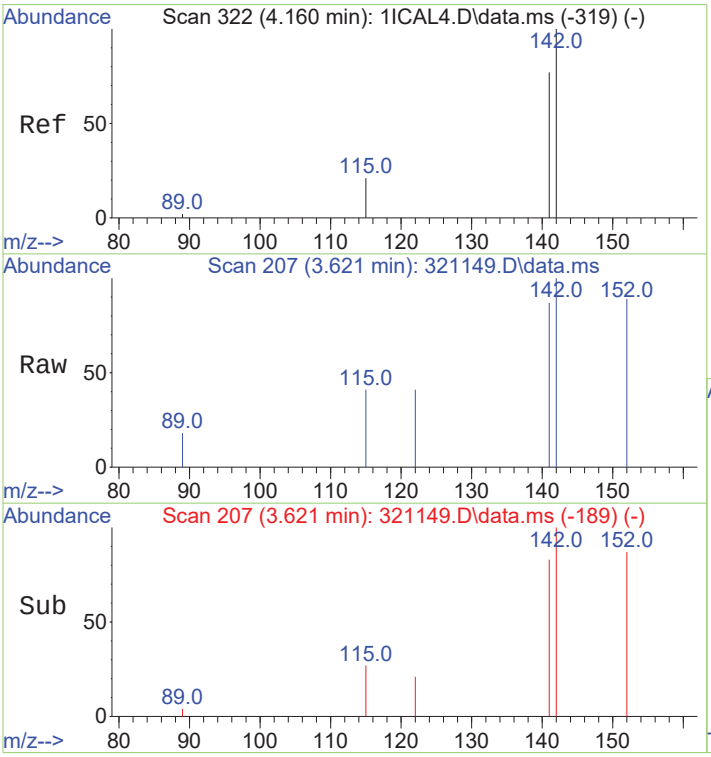


#2
Naphthalene
Concen: 13.23 ng/ml
RT: 3.155 min Scan# 100
Delta R.T. 0.000 min
Lab File: 321149.D
Acq: 9 Sep 2019 19:15

Tgt Ion:128 Resp: 925

Ion	Ratio	Lower	Upper
128	100		
102	10.6	0.0	37.6
74	5.7	0.0	33.6

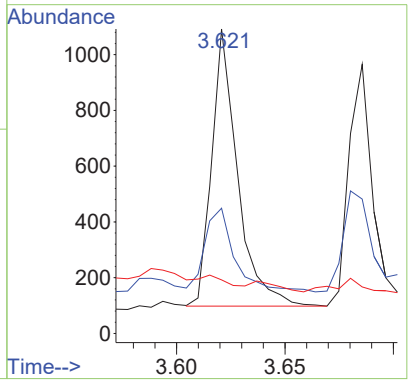


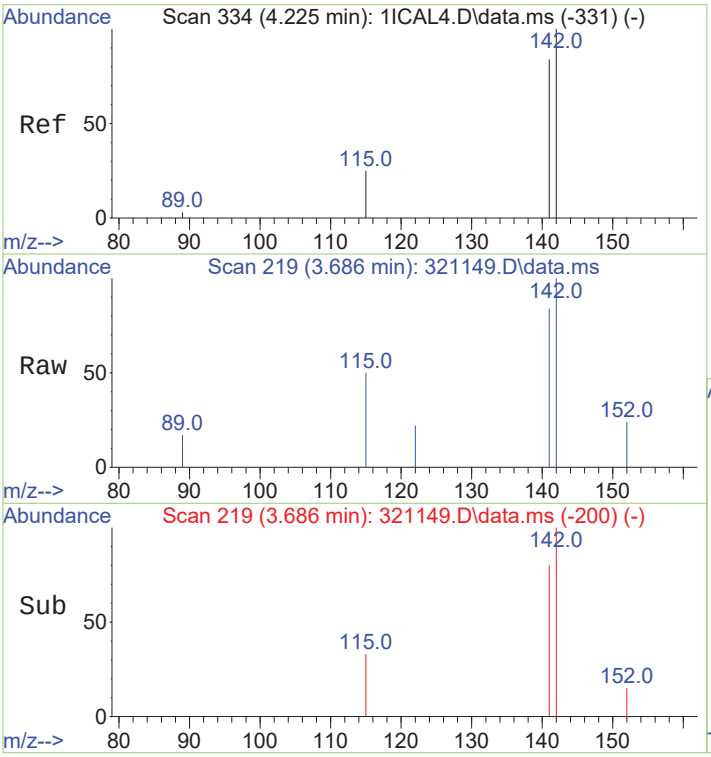


#4
2Methylnaphth
Concen: 21.50 ng/mL
RT: 3.621 min Scan# 207
Delta R.T. 0.000 min
Lab File: 321149.D
Acq: 9 Sep 2019 19:15

Tgt Ion:142 Resp: 825

Ion	Ratio	Lower	Upper
142	100		
115	29.9	6.9	66.9
89	2.3	0.0	34.9

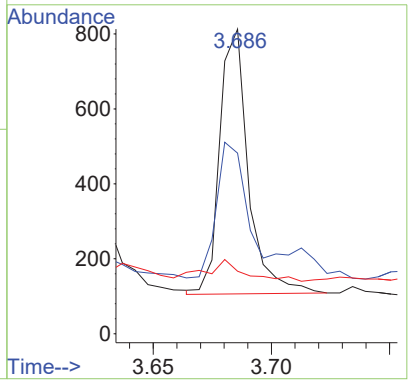


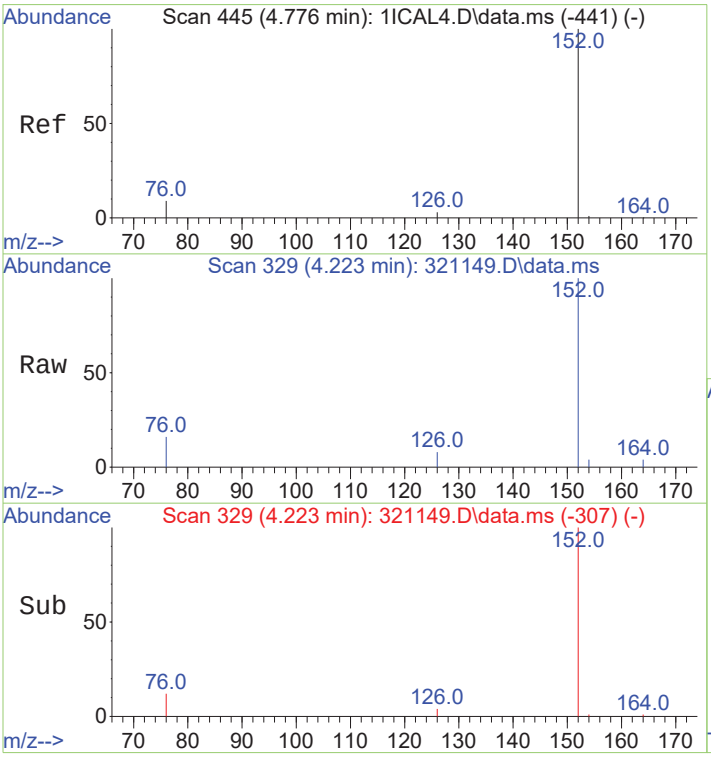


#5
1Methylnaphth
Concen: 15.87 ng/mL
RT: 3.686 min Scan# 219
Delta R.T. 0.006 min
Lab File: 321149.D
Acq: 9 Sep 2019 19:15

Tgt Ion:141 Resp: 595

Ion	Ratio	Lower	Upper
141	100		
115	47.3	2.5	62.5
89	3.0	0.0	34.0

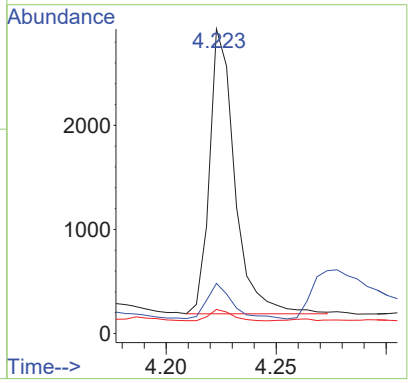


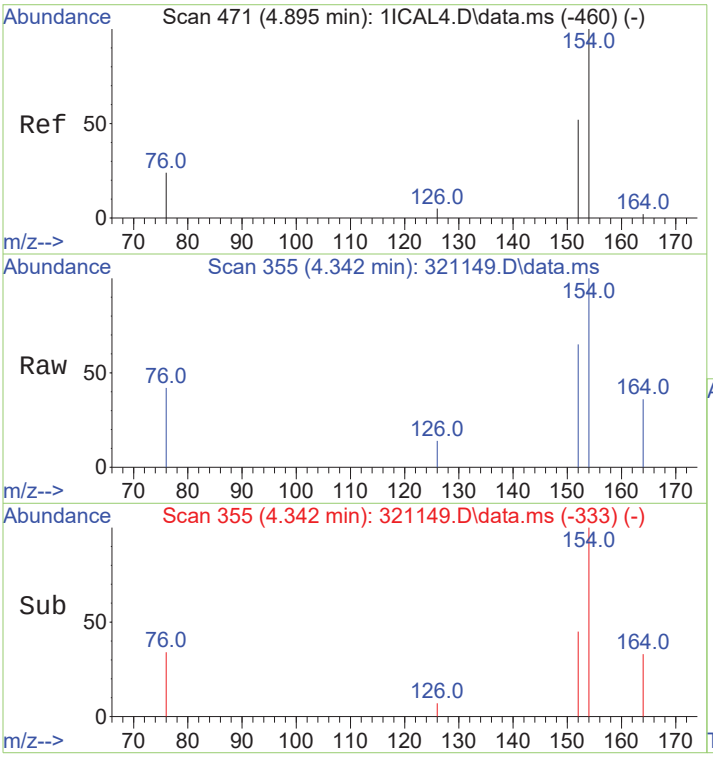


#7
Acnaphthylene
Concen: 37.16 ng/mL
RT: 4.223 min Scan# 329
Delta R.T. 0.000 min
Lab File: 321149.D
Acq: 9 Sep 2019 19:15

Tgt Ion:152 Resp: 2195

Ion	Ratio	Lower	Upper
152	100		
76	12.3	0.0	39.9
126	3.9	0.0	33.1

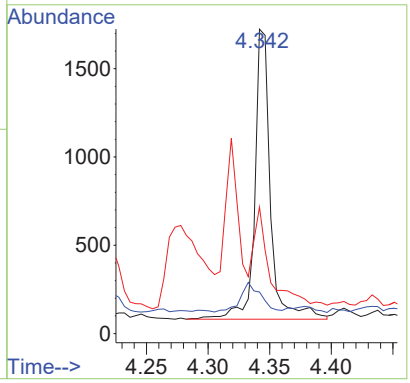


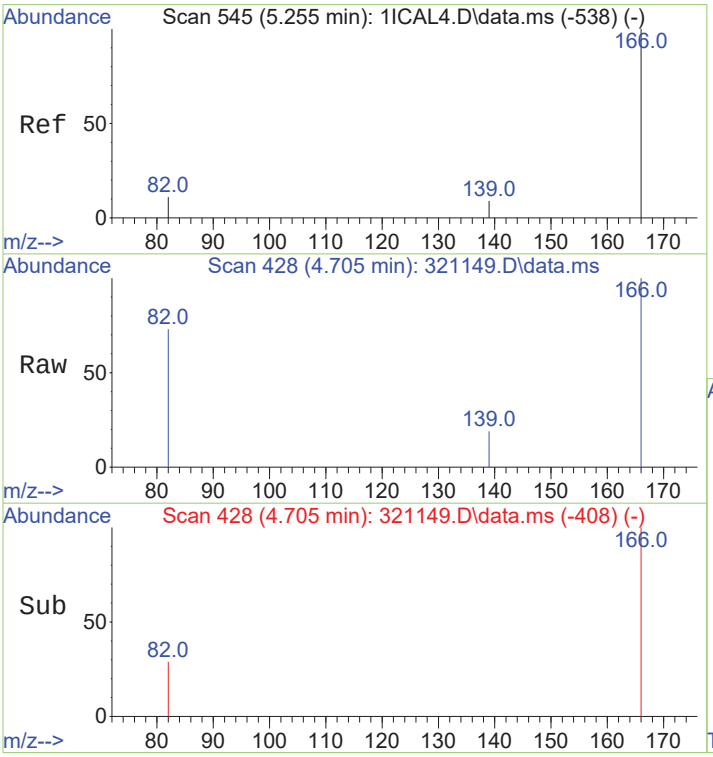


#8
Acenaphthene
Concen: 36.42 ng/mL
RT: 4.342 min Scan# 355
Delta R.T. 0.000 min
Lab File: 321149.D
Acq: 9 Sep 2019 19:15

Tgt Ion:154 Resp: 1457

Ion	Ratio	Lower	Upper
154	100		
126	7.1	0.0	34.3
76	33.8	0.0	51.6

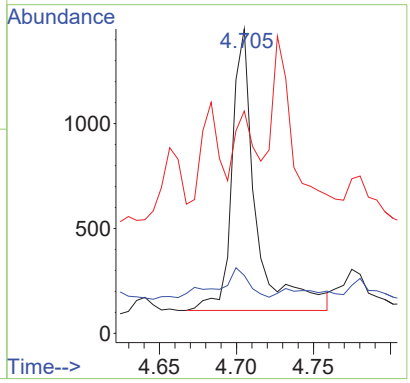


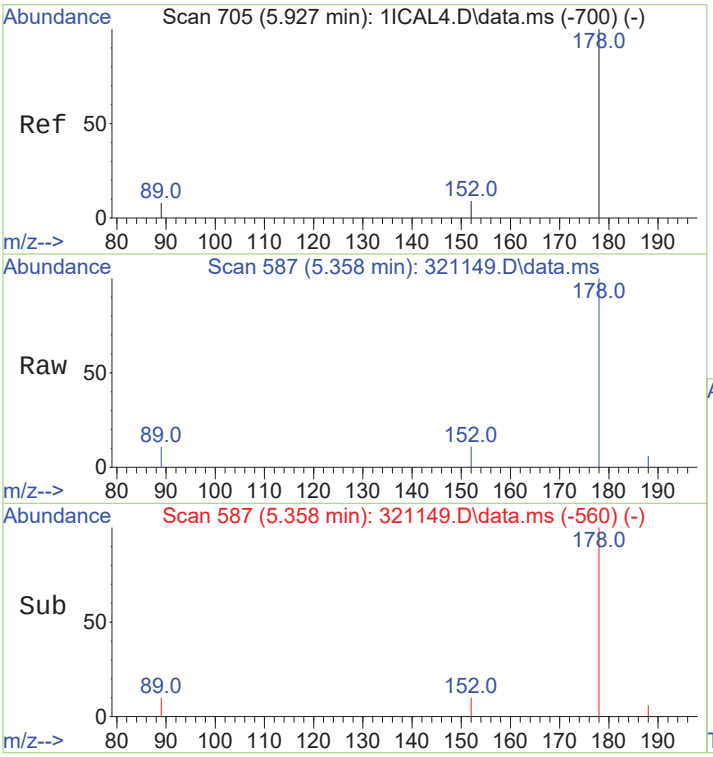


#9
Fluorene
Concen: 34.29 ng/mL
RT: 4.705 min Scan# 428
Delta R.T. 0.005 min
Lab File: 321149.D
Acq: 9 Sep 2019 19:15

Tgt Ion:166 Resp: 1448

Ion	Ratio	Lower	Upper
166	100		
139	6.4	0.0	38.6
82	33.1	0.0	42.4

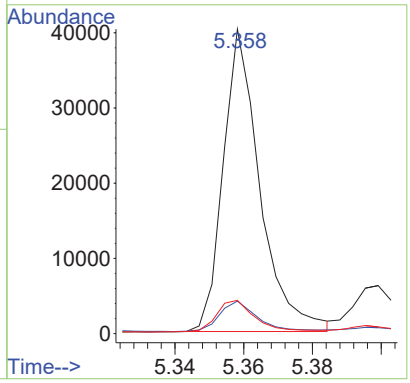


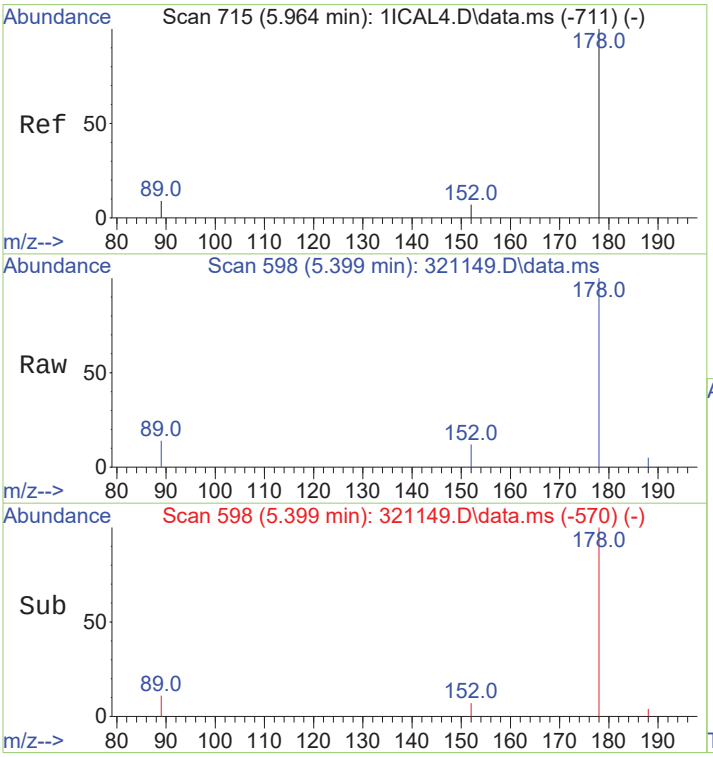


#11
Phenanthrene
Concen: 509.25 ng/mL
RT: 5.358 min Scan# 587
Delta R.T. 0.000 min
Lab File: 321149.D
Acq: 9 Sep 2019 19:15

Tgt Ion:178 Resp: 29950

Ion	Ratio	Lower	Upper
178	100		
152	10.4	0.0	40.1
89	11.2	0.0	41.4

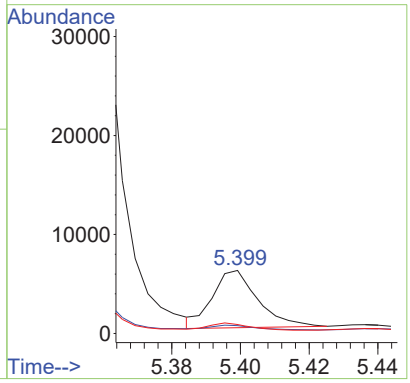


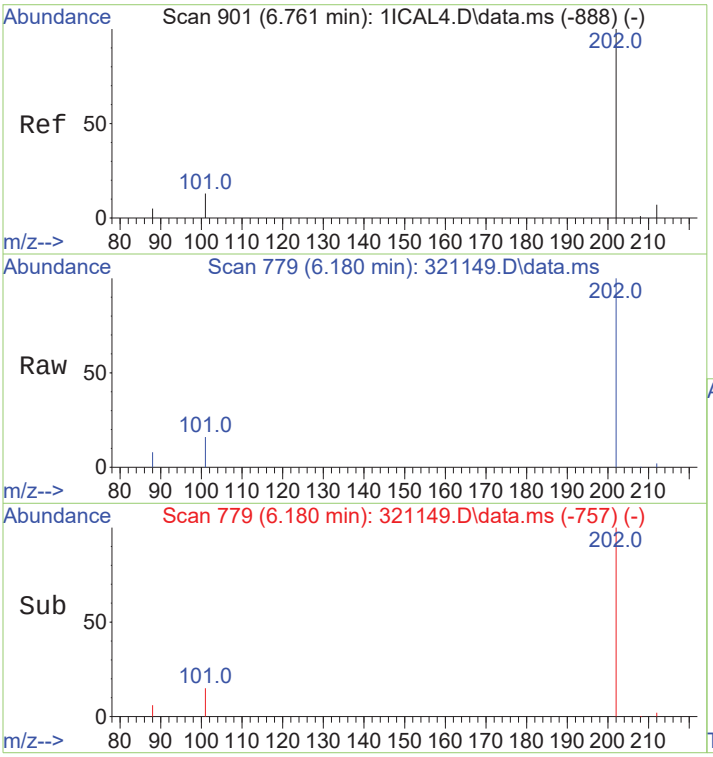


#12
Anthracene
Concen: 93.05 ng/mL
RT: 5.399 min Scan# 598
Delta R.T. 0.004 min
Lab File: 321149.D
Acq: 9 Sep 2019 19:15

Tgt Ion:178 Resp: 5329

Ion	Ratio	Lower	Upper
178	100		
152	7.6	0.0	37.8
89	9.7	0.0	31.3

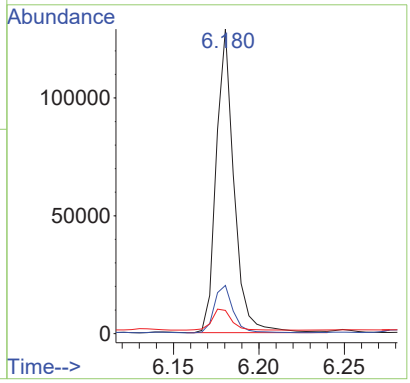


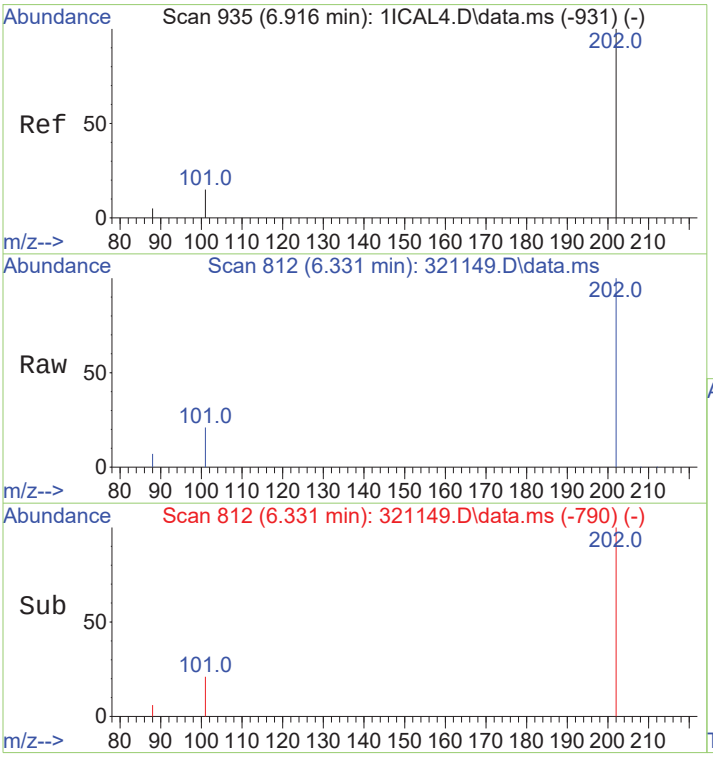


#14
Fluoranthene
Concen: 1427.70 ng/mL
RT: 6.180 min Scan# 779
Delta R.T. 0.000 min
Lab File: 321149.D
Acq: 9 Sep 2019 19:15

Tgt Ion:202 Resp: 93491

Ion	Ratio	Lower	Upper
202	100		
101	15.6	0.0	48.3
88	6.5	0.0	38.8

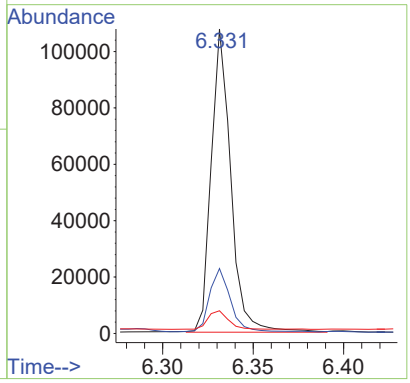


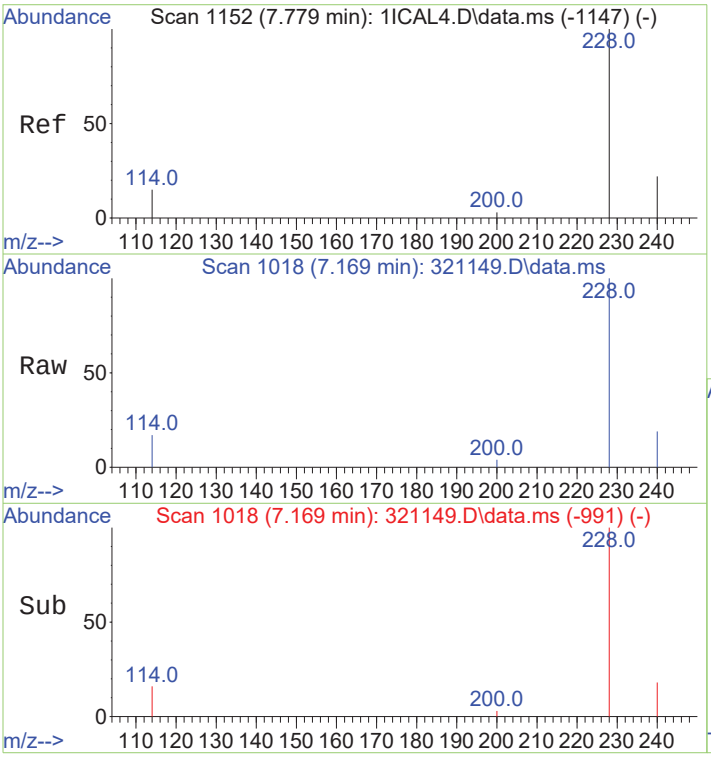


#16
Pyrene
Concen: 1175.68 ng/mL
RT: 6.331 min Scan# 812
Delta R.T. 0.000 min
Lab File: 321149.D
Acq: 9 Sep 2019 19:15

Tgt Ion:202 Resp: 81177

Ion	Ratio	Lower	Upper
202	100		
101	20.9	0.0	49.4
88	6.1	0.0	35.5

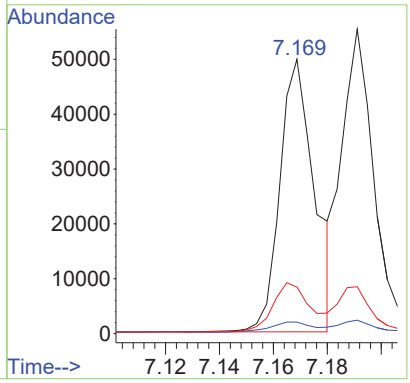


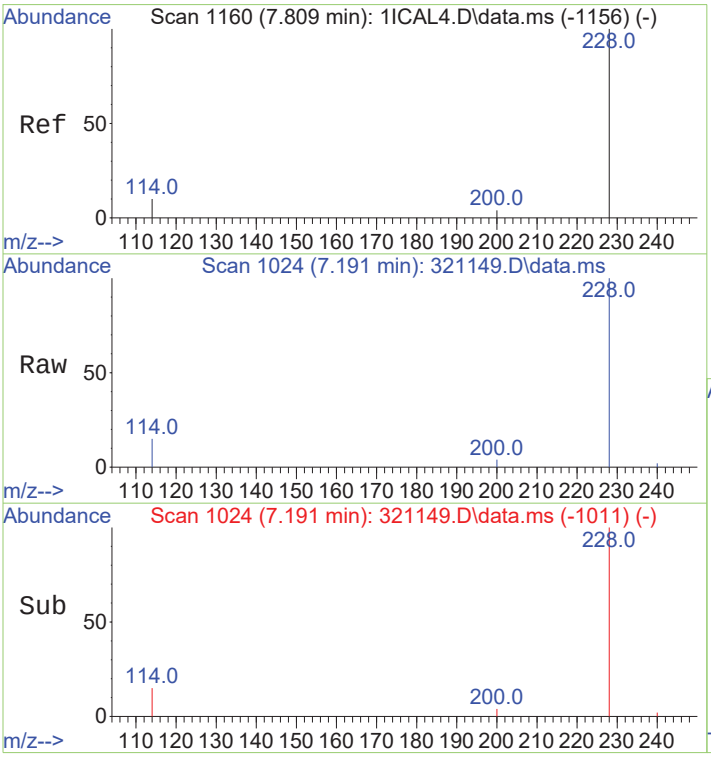


#17
B[a]anthracen
Concen: 909.30 ng/mL
RT: 7.169 min Scan# 1018
Delta R.T. 0.000 min
Lab File: 321149.D
Acq: 9 Sep 2019 19:15

Tgt Ion:228 Resp: 44299

Ion	Ratio	Lower	Upper
228	100		
200	3.7	0.0	33.6
114	16.5	0.0	47.0

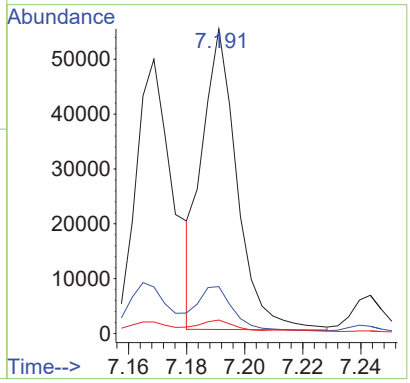


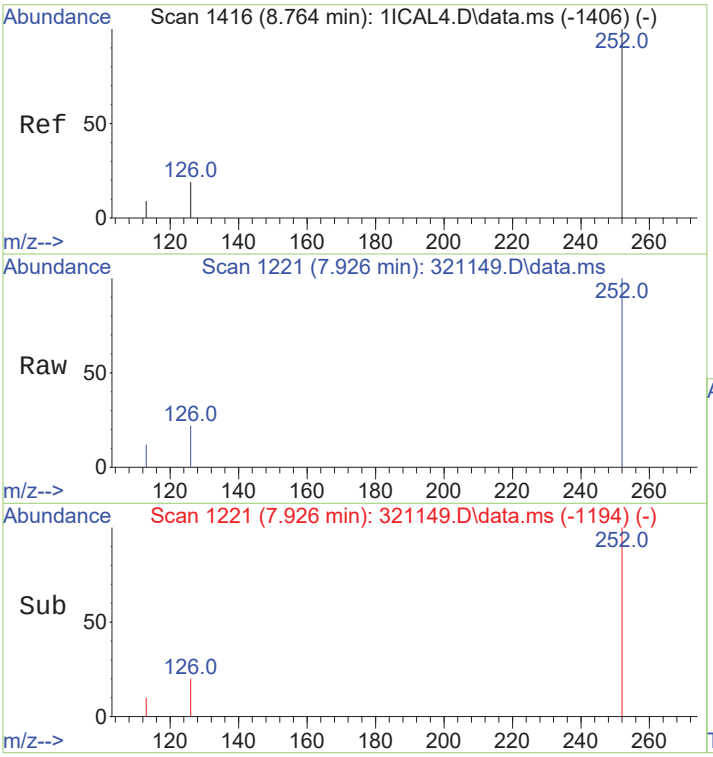


#18
Chrysene
Concen: 763.43 ng/mL
RT: 7.191 min Scan# 1024
Delta R.T. 0.000 min
Lab File: 321149.D
Acq: 9 Sep 2019 19:15

Tgt Ion:228 Resp: 45789

Ion	Ratio	Lower	Upper
228	100		
114	14.8	0.0	46.1
200	3.8	0.0	33.8

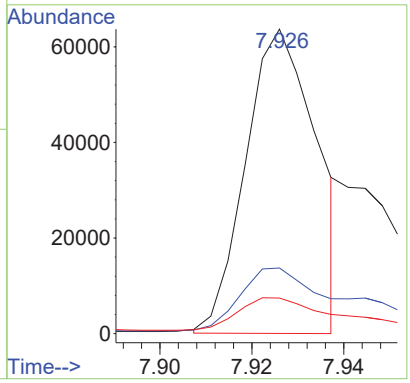


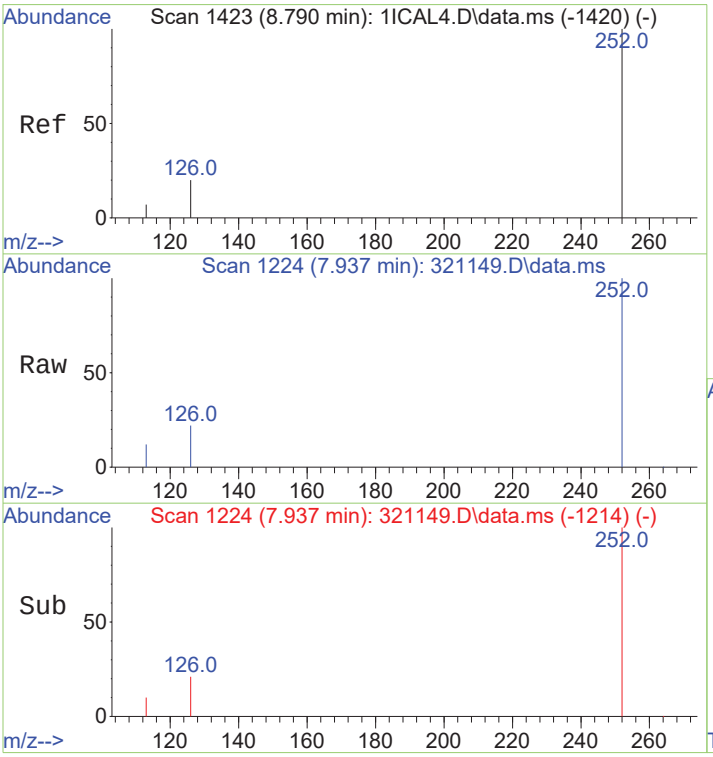


#20
B[b]fluoranth
Concen: 1120.63 ng/mL m
RT: 7.926 min Scan# 1221
Delta R.T. 0.000 min
Lab File: 321149.D
Acq: 9 Sep 2019 19:15

Tgt Ion:252 Resp: 68271

Ion	Ratio	Lower	Upper
252	100		
126	21.5	0.0	52.1
113	11.7	0.0	40.0

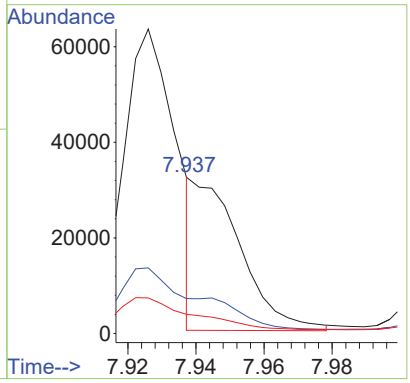


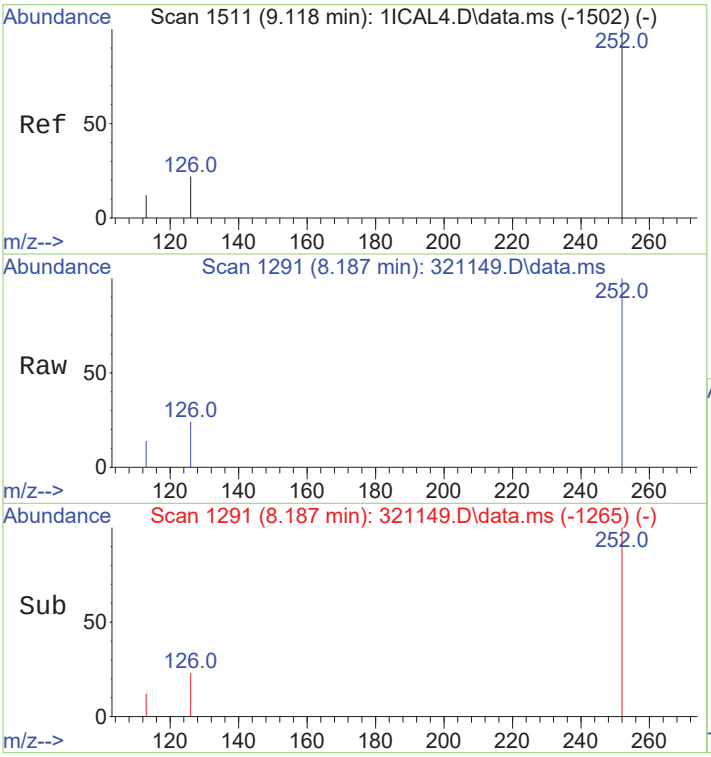


#21
B[k]fluoranth
Concen: 406.79 ng/mL m
RT: 7.937 min Scan# 1224
Delta R.T. -0.011 min
Lab File: 321149.D
Acq: 9 Sep 2019 19:15

Tgt Ion:252 Resp: 30412

Ion	Ratio	Lower	Upper
252	100		
126	22.3	0.0	54.3
113	12.3	0.0	39.4

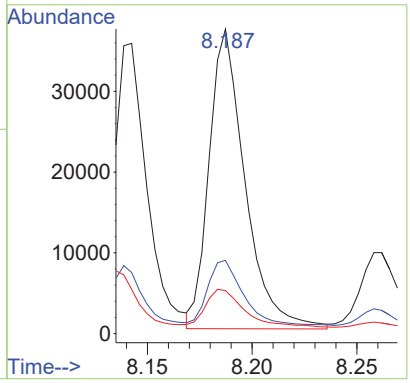


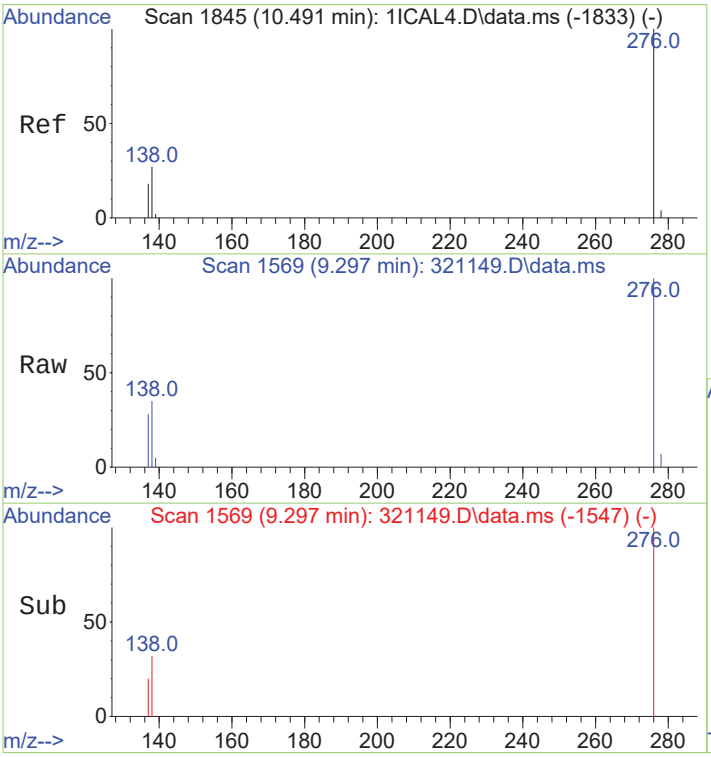


#22
Benz[a]pyrene
Concen: 756.32 ng/mL
RT: 8.187 min Scan# 1291
Delta R.T. -0.004 min
Lab File: 321149.D
Acq: 9 Sep 2019 19:15

Tgt Ion:252 Resp: 44274

Ion	Ratio	Lower	Upper
252	100		
126	21.9	0.0	52.7
113	12.3	0.0	42.2

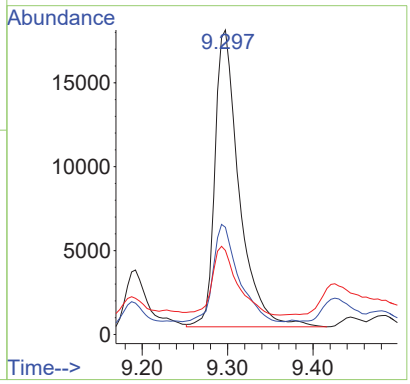


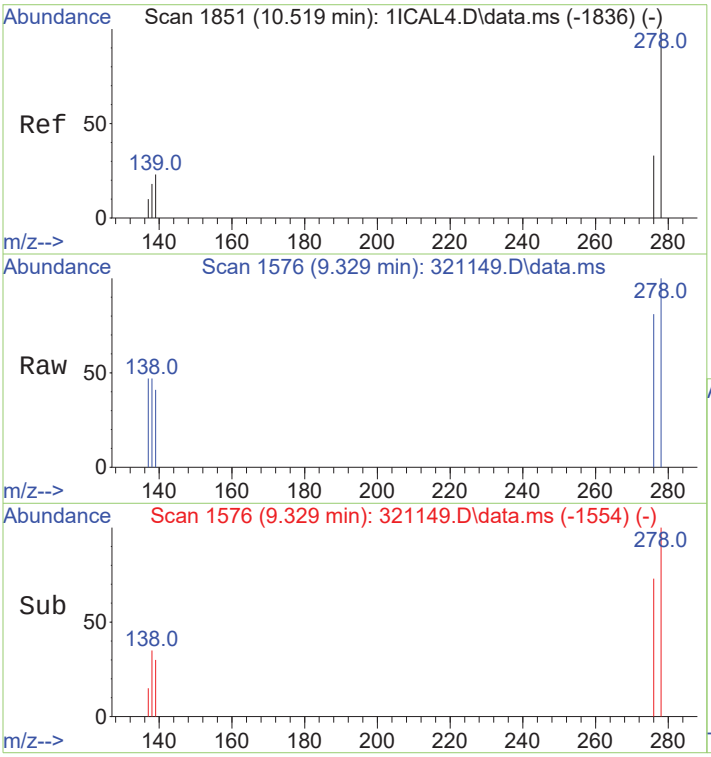


#23
Indeno-pyrene
Concen: 607.88 ng/mL
RT: 9.297 min Scan# 1569
Delta R.T. 0.000 min
Lab File: 321149.D
Acq: 9 Sep 2019 19:15

Tgt Ion:276 Resp: 34972

Ion	Ratio	Lower	Upper
276	100		
138	31.6	4.1	64.1
137	20.9	0.0	52.8

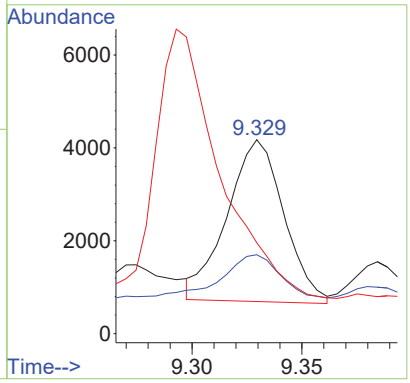


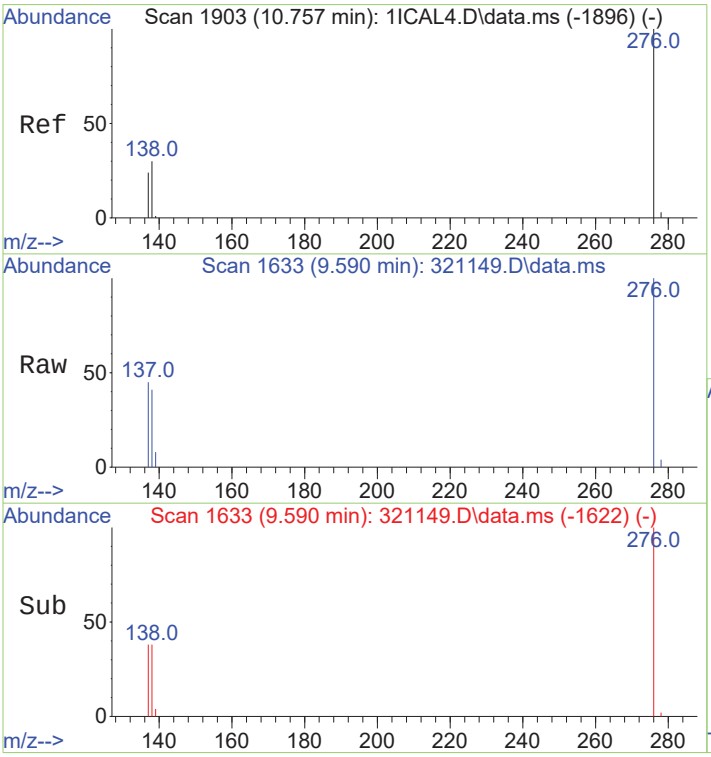


#24
Dib[ah]anthr
Concen: 160.27 ng/mL
RT: 9.329 min Scan# 1576
Delta R.T. 0.000 min
Lab File: 321149.D
Acq: 9 Sep 2019 19:15

Tgt Ion:278 Resp: 6270

Ion	Ratio	Lower	Upper
278	100		
139	27.6	0.0	59.3
138	35.1	0.0	56.3

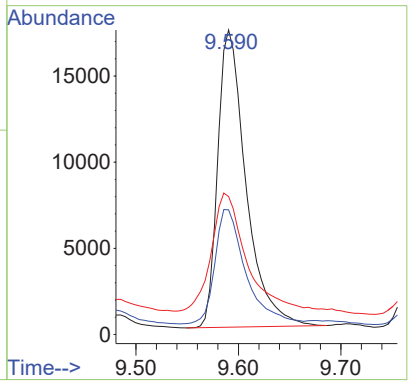


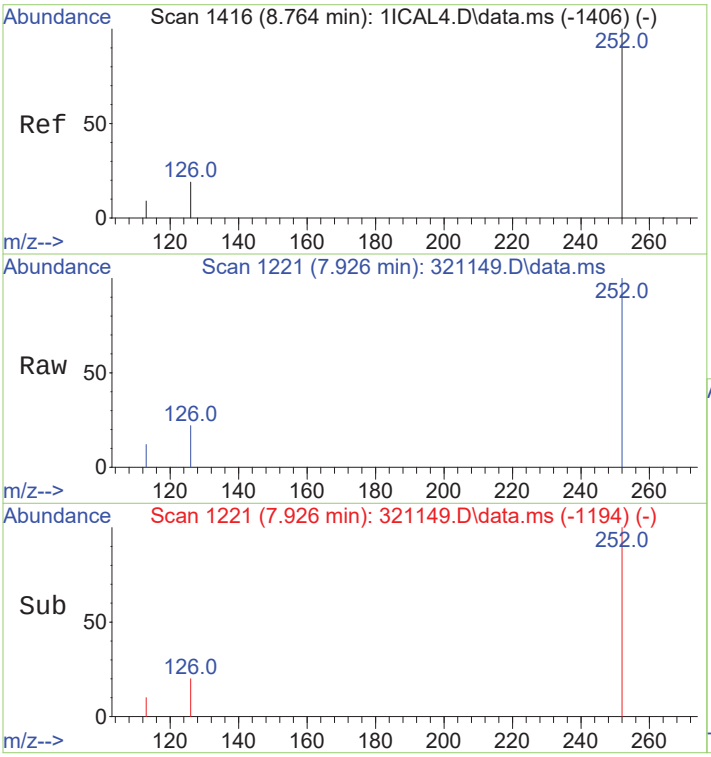


#25
B[ghi]perylen
Concen: 668.02 ng/mL
RT: 9.590 min Scan# 1633
Delta R.T. 0.000 min
Lab File: 321149.D
Acq: 9 Sep 2019 19:15

Tgt Ion:276 Resp: 33087

Ion	Ratio	Lower	Upper
276	100		
138	38.1	7.7	67.7
137	37.9	0.6	60.6

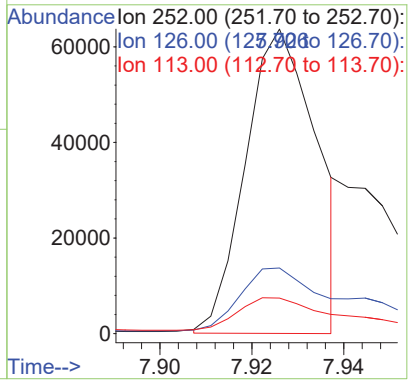




#20
B[b]fluoranth
Concen: 1120.63 ng/mL m
RT: 7.926 min Scan# 1221
Delta R.T. 0.000 min
Lab File: 321149.D
Acq: 9 Sep 2019 19:15

Tgt Ion:252 Resp: 68271

Ion	Ratio	Lower	Upper
252	100		
126	21.5	0.0	52.1
113	11.7	0.0	40.0

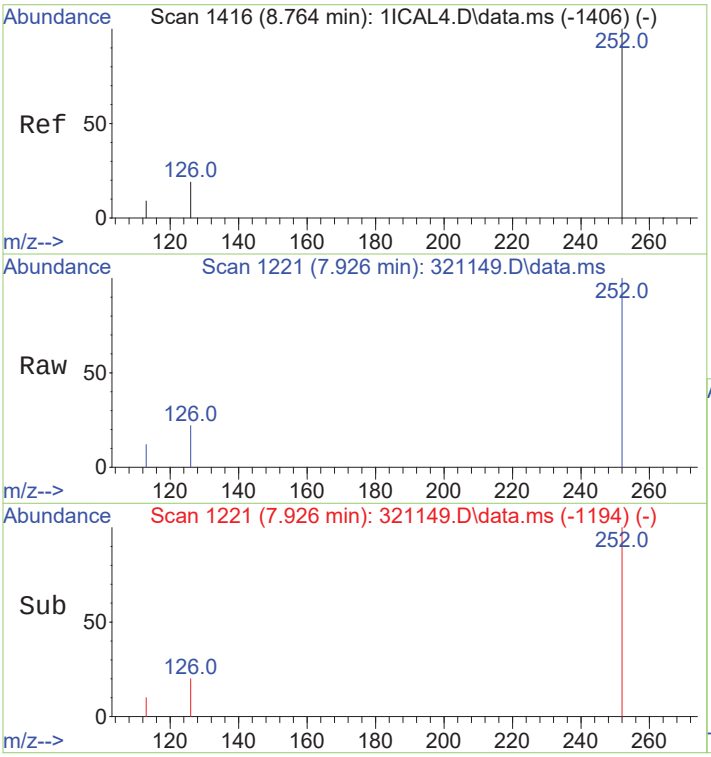


After Manual Integration

RED
9/12/2019

Reason#3

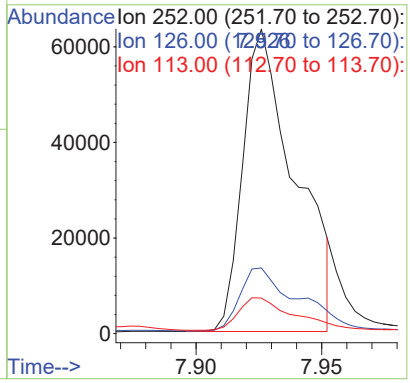
JJY
9/11/19



#20
B[b]fluoranth
Concen: 1492.18 ng/mL
RT: 7.926 min Scan# 1221
Delta R.T. 0.000 min
Lab File: 321149.D
Acq: 9 Sep 2019 19:15

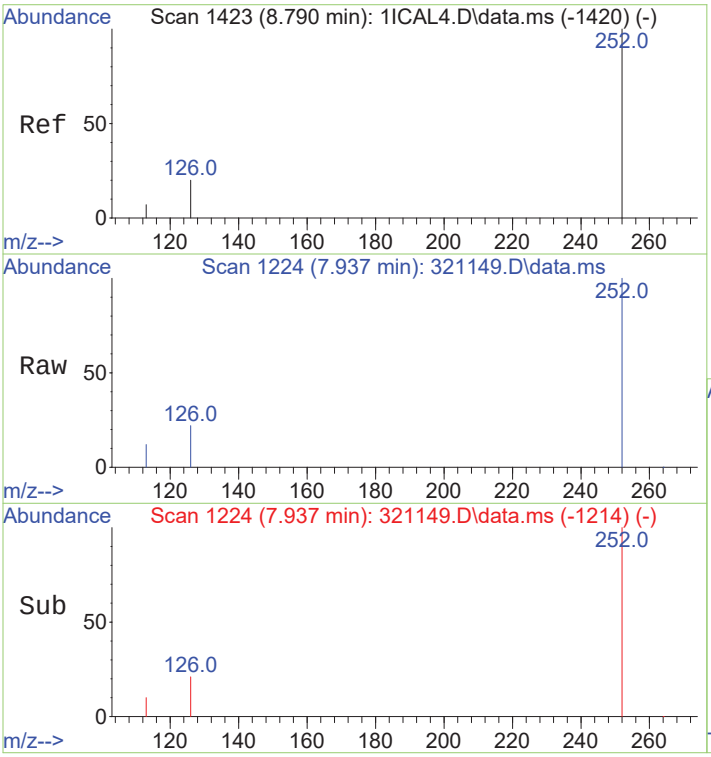
Tgt Ion:252 Resp: 91485

Ion	Ratio	Lower	Upper
252	100		
126	20.8	0.0	52.1
113	10.6	0.0	40.0



Before Manual Integration

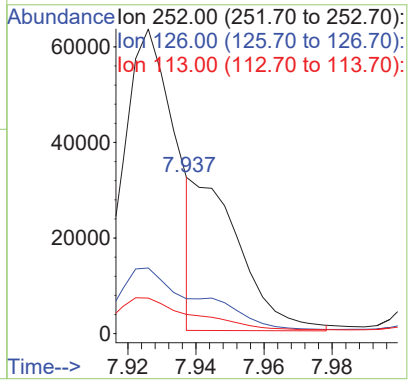
Reason#3 JJY 9/11/19



#21
B[k]fluoranth
Concen: 406.79 ng/mL m
RT: 7.937 min Scan# 1224
Delta R.T. -0.011 min
Lab File: 321149.D
Acq: 9 Sep 2019 19:15

Tgt Ion:252 Resp: 30412

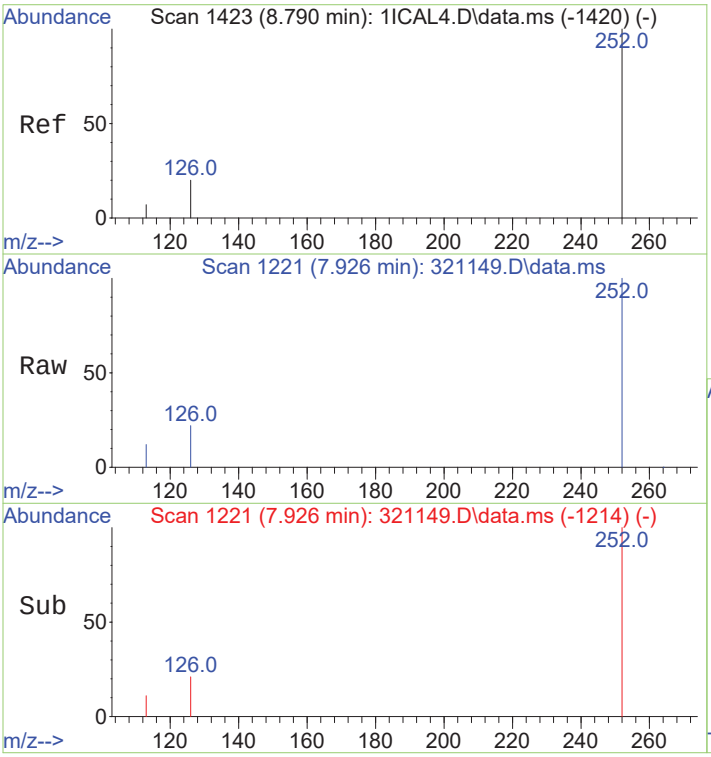
Ion	Ratio	Lower	Upper
252	100		
126	22.3	0.0	54.3
113	12.3	0.0	39.4



RED
9/12/2019

After Manual Integration

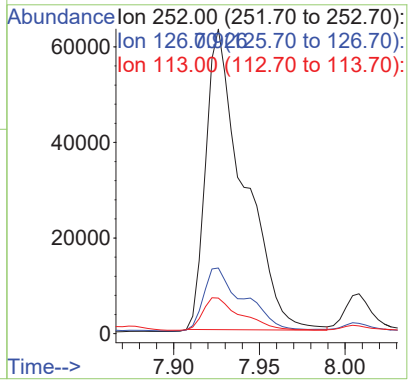
Reason#3 JJY
9/11/19



#21
B[k]fluoranth
Concen: 1299.25 ng/mL
RT: 7.926 min Scan# 1221
Delta R.T. -0.022 min
Lab File: 321149.D
Acq: 9 Sep 2019 19:15

Tgt Ion:252 Resp: 97407

Ion	Ratio	Lower	Upper
252	100		
126	20.7	0.0	54.3
113	10.6	0.0	39.4



Before Manual Integration

Reason#3 JJY 9/11/19

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321154.D Vial: 12
Acq On : 9 Sep 2019 19:35 Operator: JJY
Sample : 164274,321154, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 19:49:51 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

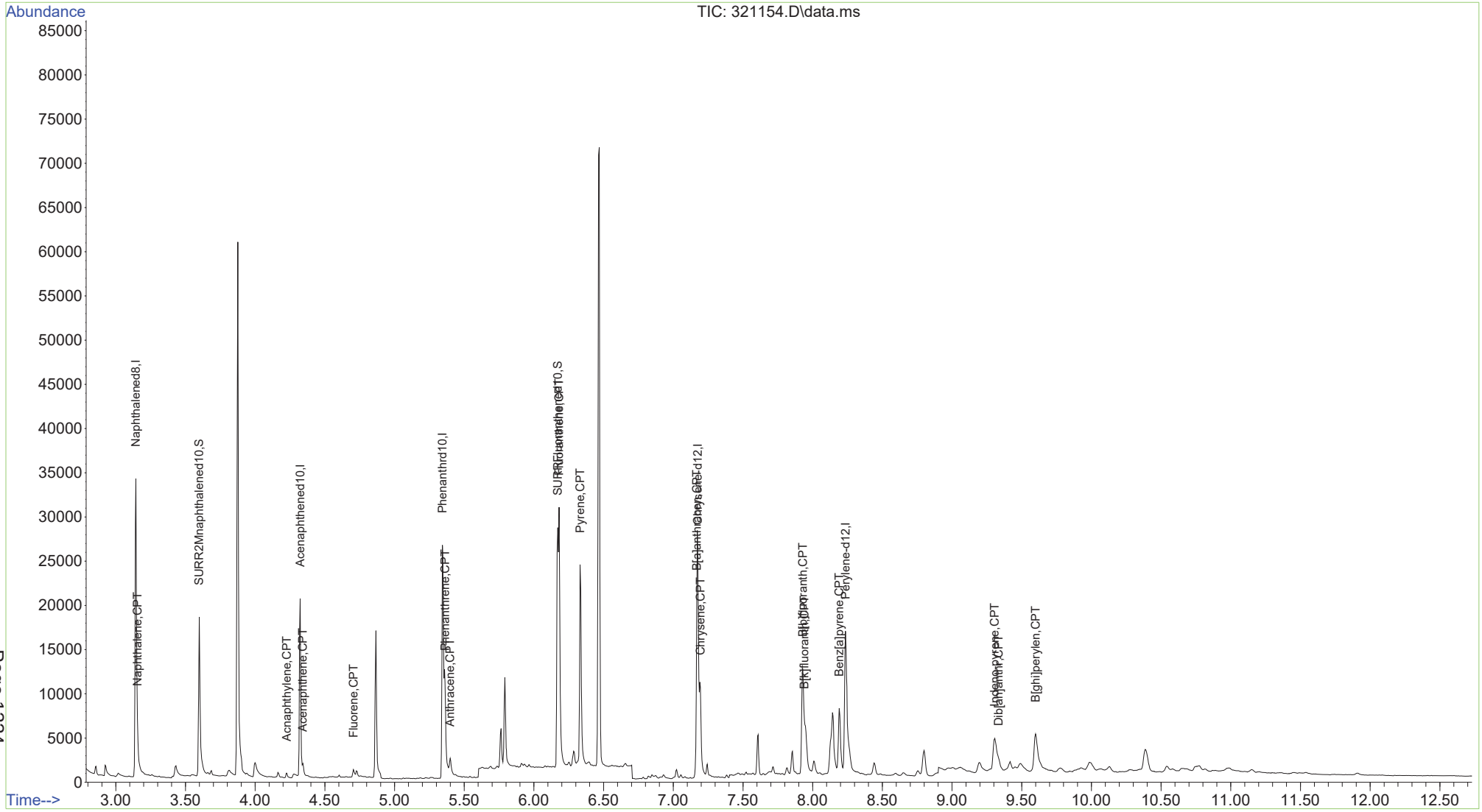
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.144	136	28426	400.00	ng/mL	0.00
6) Acenaphthened10	4.323	164	14251	400.00	ng/mL	0.00
10) Phenanthrd10	5.343	188	23441	400.00	ng/mL	0.00
15) Chrysene-d12	7.176	240	17931	400.00	ng/mL	0.00
19) Perylene-d12	8.236	264	19580	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.599	152	11547	73.24	%REC	0.00
Spiked Amount 100.000			Recovery = 73.24%			
13) SURRFluoranthened10	6.171	212	17904	77.35	%REC	0.00
Spiked Amount 100.000			Recovery = 77.35%			
Target Compounds						Qvalue
2) Naphthalene	3.155	128	336	4.8070	ng/ml	81
7) Acnaphthylene	4.227	152	334	5.5886	ng/mL	94
8) Acenaphthene	4.341	154	348	8.5979	ng/mL	68
9) Fluorene	4.705	166	506	11.8449	ng/mL#	1
11) Phenanthrene	5.362	178	6612	90.0496	ng/mL	95
12) Anthracene	5.399	178	1400	23.9857	ng/mL	95
14) Fluoranthene	6.180	202	16854	252.5344	ng/mL	96
16) Pyrene	6.331	202	14462	199.4642	ng/mL	91
17) B[a]anthracen	7.168	228	7332	181.7312	ng/mL	96
18) Chrysene	7.195	228	7928	125.8793	ng/mL	96
20) B[b]fluoranth	7.930	252	10323m	185.8137	ng/mL	
21) B[k]fluoranth	7.941	252	4814m	62.9504	ng/mL	
22) Benz[a]pyrene	8.191	252	6573	137.9494	ng/mL	97
23) Indeno-pyrene	9.306	276	4766	119.7650	ng/mL	96
24) Dib[ah]anthr	9.334	278	915	56.1920	ng/mL	80
25) B[ghi]perylen	9.599	276	4500	127.5758	ng/mL	97

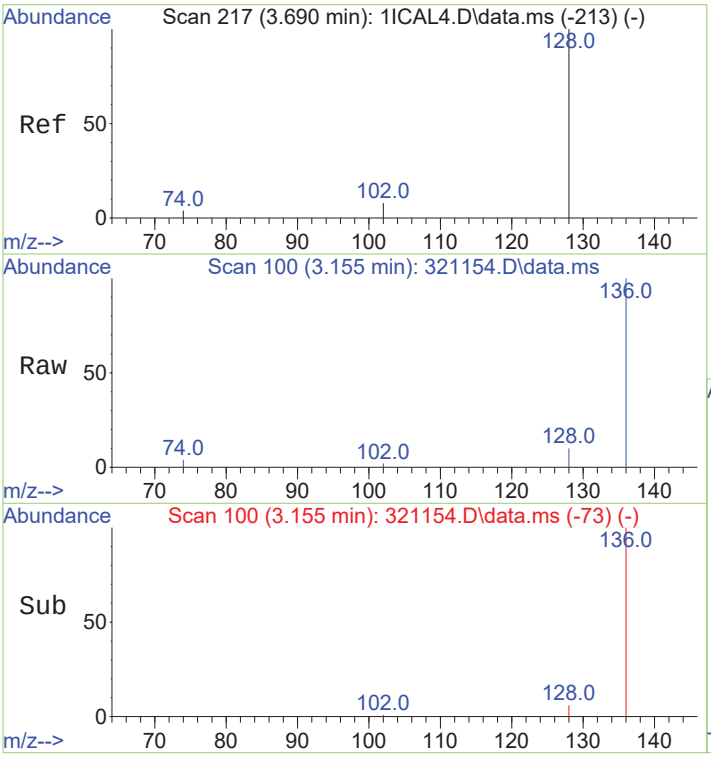
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321154.D Vial: 12
Acq On : 9 Sep 2019 19:35 Operator: JJY
Sample : 164274,321154, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 19:49:51 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

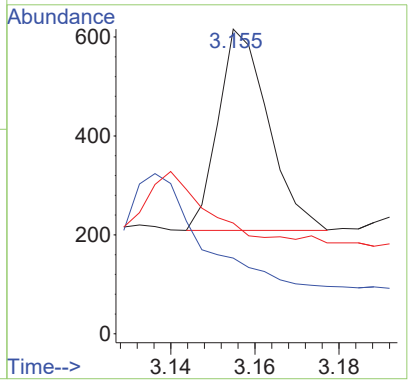


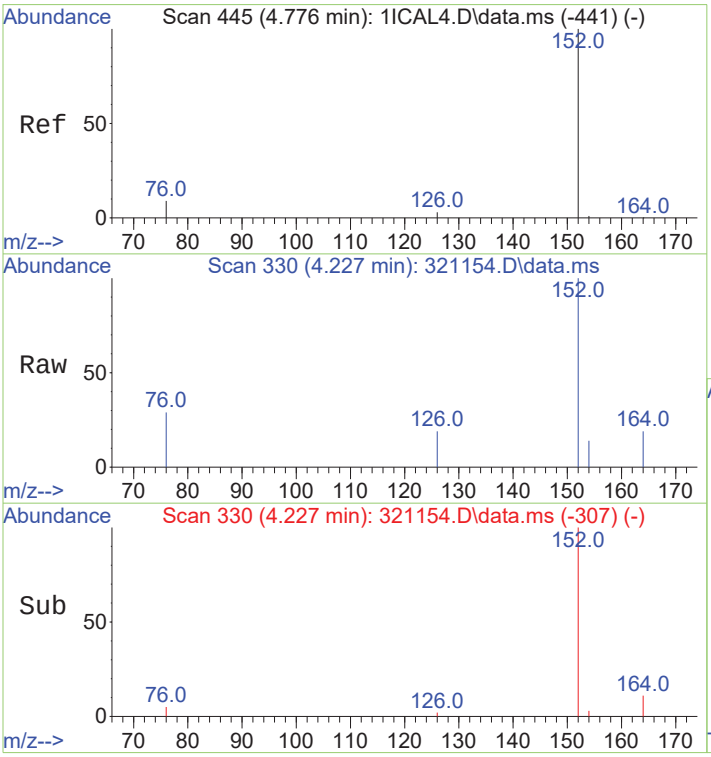


#2
Naphthalene
Concen: 4.81 ng/ml
RT: 3.155 min Scan# 100
Delta R.T. -0.000 min
Lab File: 321154.D
Acq: 9 Sep 2019 19:35

Tgt Ion:128 Resp: 336

Ion	Ratio	Lower	Upper
128	100		
102	14.0	0.0	37.6
74	9.8	0.0	33.6

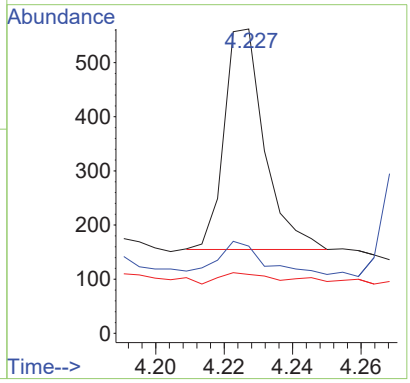


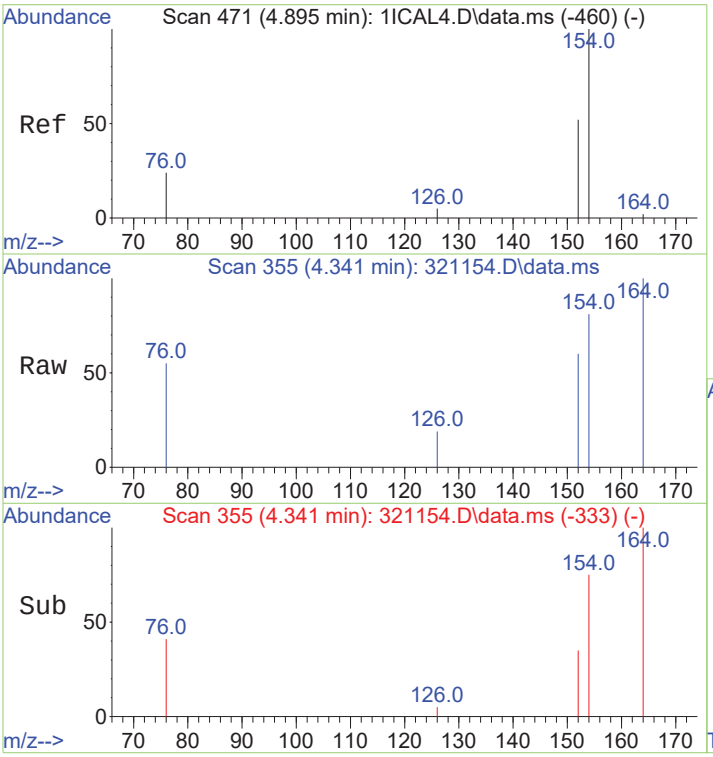


#7
Acnaphthylene
Concen: 5.59 ng/mL
RT: 4.227 min Scan# 330
Delta R.T. 0.004 min
Lab File: 321154.D
Acq: 9 Sep 2019 19:35

Tgt Ion:152 Resp: 334

Ion	Ratio	Lower	Upper
152	100		
76	12.8	0.0	39.9
126	3.2	0.0	33.1

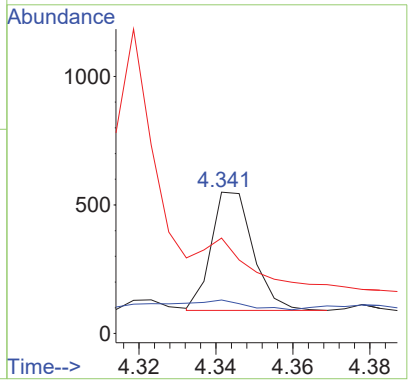


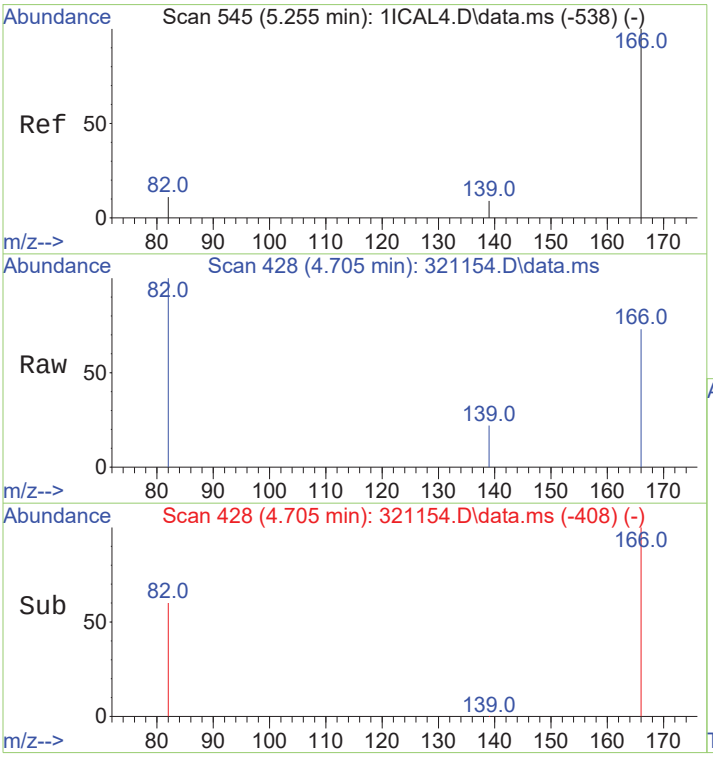


#8
Acenaphthene
Concen: 8.60 ng/mL
RT: 4.341 min Scan# 355
Delta R.T. -0.000 min
Lab File: 321154.D
Acq: 9 Sep 2019 19:35

Tgt Ion:154 Resp: 348

Ion	Ratio	Lower	Upper
154	100		
126	5.0	0.0	34.3
76	39.3	0.0	51.6

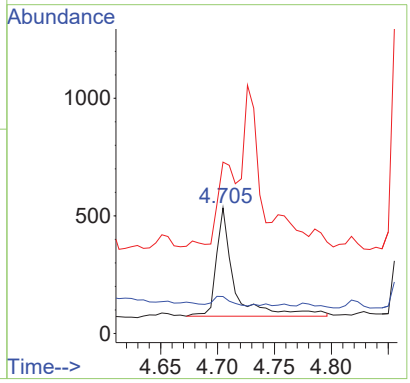


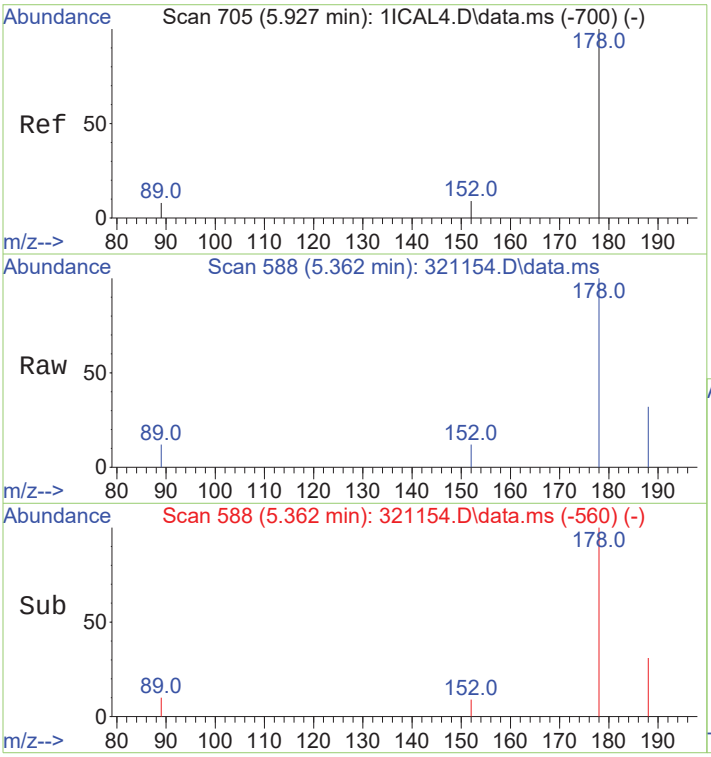


#9
Fluorene
Concen: 11.84 ng/mL
RT: 4.705 min Scan# 428
Delta R.T. 0.005 min
Lab File: 321154.D
Acq: 9 Sep 2019 19:35

Tgt Ion:166 Resp: 506

Ion	Ratio	Lower	Upper
166	100		
139	9.5	0.0	38.6
82	77.7	0.0	42.4#

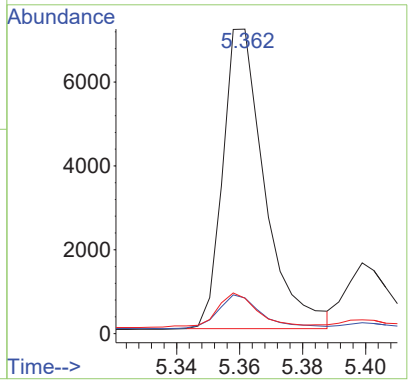


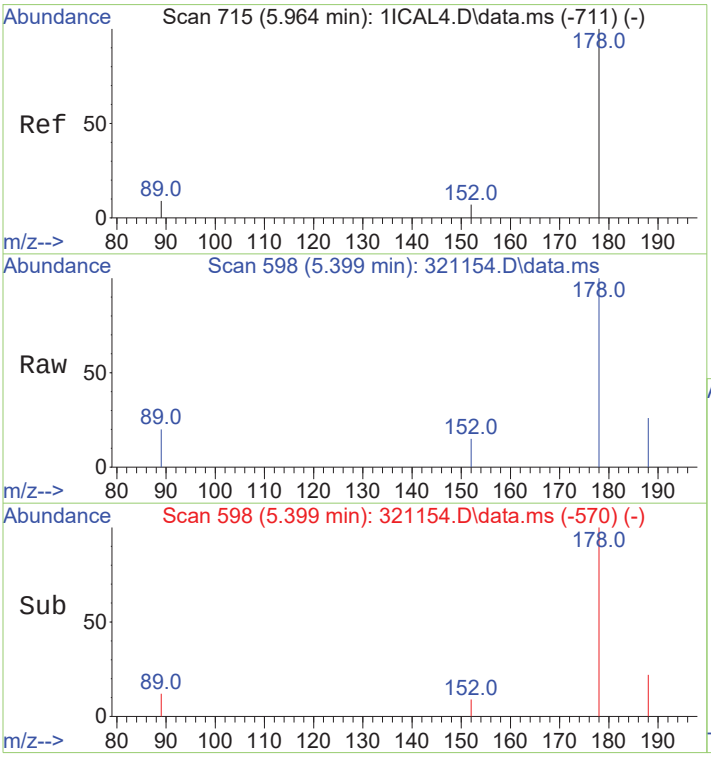


#11
Phenanthrene
Concen: 90.05 ng/mL
RT: 5.362 min Scan# 588
Delta R.T. 0.004 min
Lab File: 321154.D
Acq: 9 Sep 2019 19:35

Tgt Ion:178 Resp: 6612

Ion	Ratio	Lower	Upper
178	100		
152	12.0	0.0	40.1
89	9.6	0.0	41.4

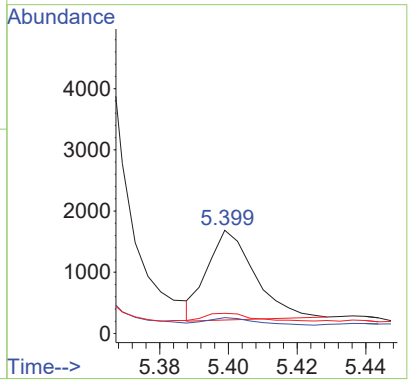


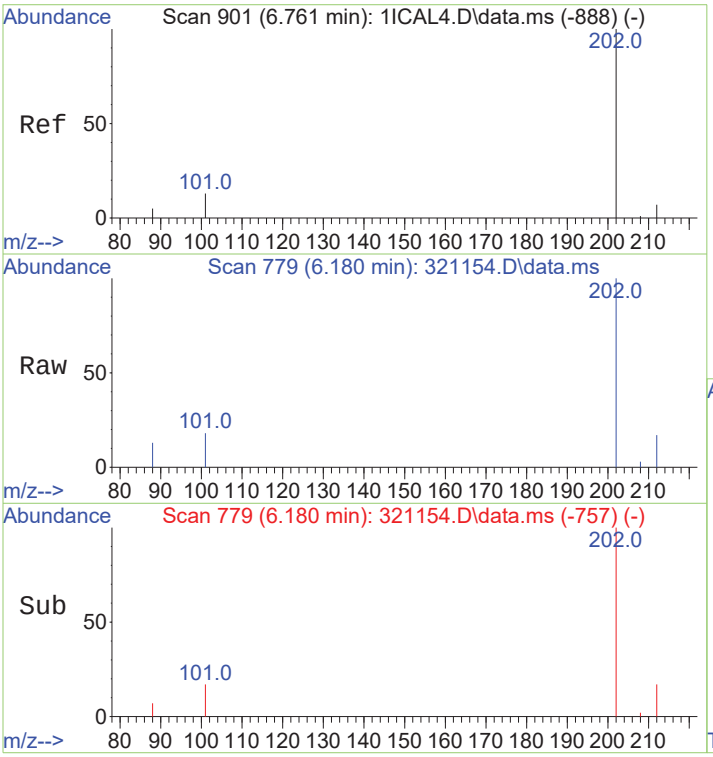


#12
Anthracene
Concen: 23.99 ng/mL
RT: 5.399 min Scan# 598
Delta R.T. 0.004 min
Lab File: 321154.D
Acq: 9 Sep 2019 19:35

Tgt Ion:178 Resp: 1400

Ion	Ratio	Lower	Upper
178	100		
152	7.8	0.0	37.8
89	8.3	0.0	31.3

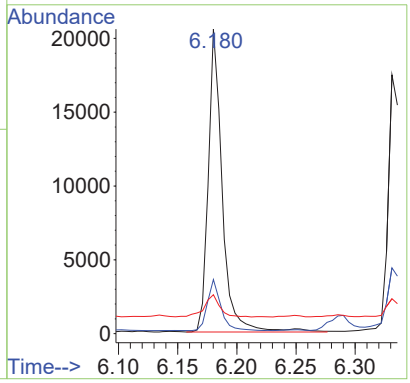


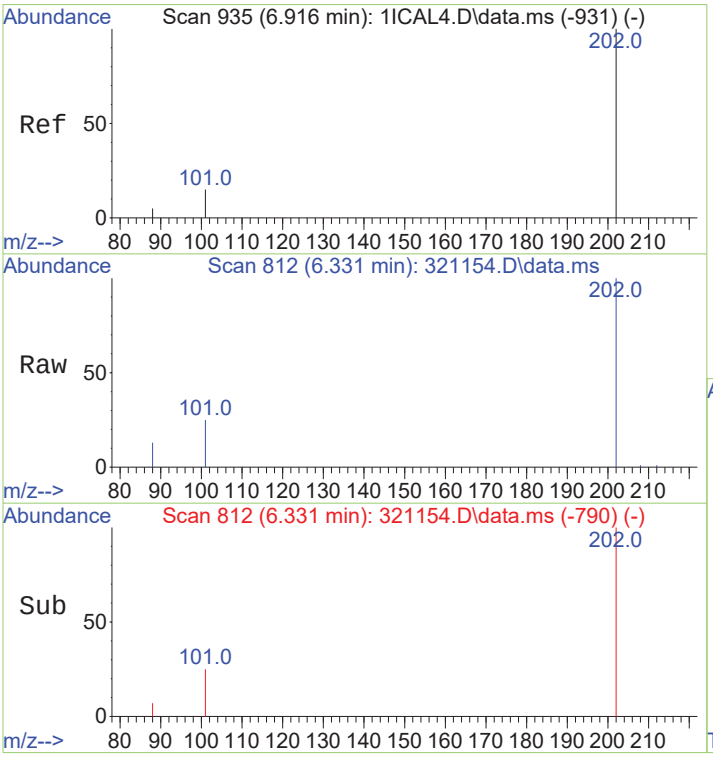


#14
Fluoranthene
Concen: 252.53 ng/mL
RT: 6.180 min Scan# 779
Delta R.T. -0.000 min
Lab File: 321154.D
Acq: 9 Sep 2019 19:35

Tgt Ion:202 Resp: 16854

Ion	Ratio	Lower	Upper
202	100		
101	16.9	0.0	48.3
88	7.1	0.0	38.8

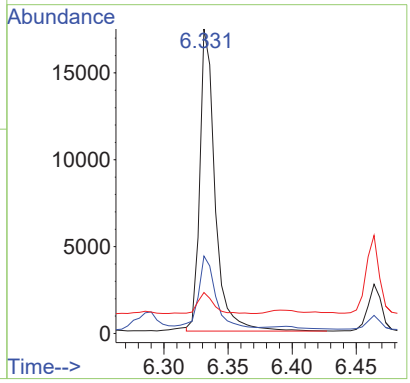


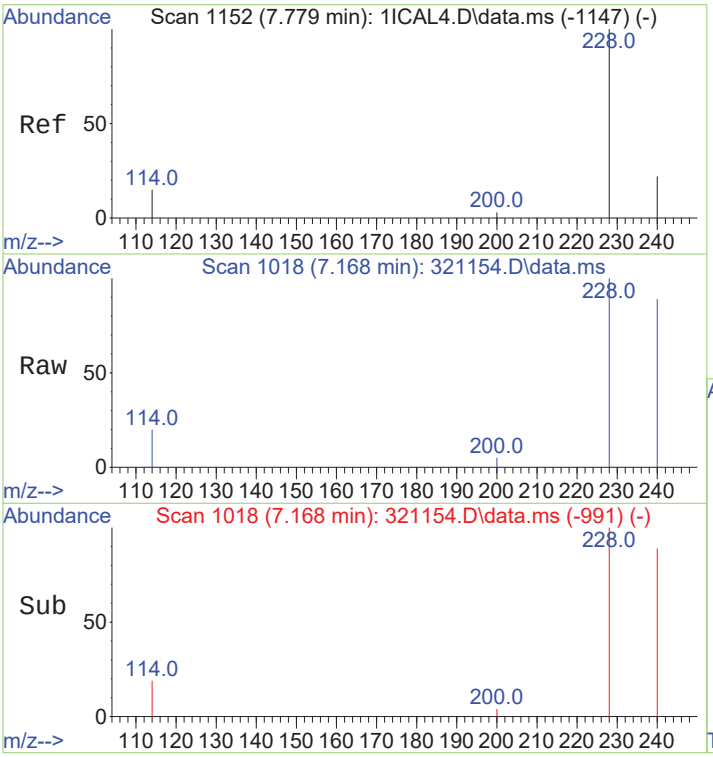


#16
Pyrene
Concen: 199.46 ng/mL
RT: 6.331 min Scan# 812
Delta R.T. -0.000 min
Lab File: 321154.D
Acq: 9 Sep 2019 19:35

Tgt Ion:202 Resp: 14462

Ion	Ratio	Lower	Upper
202	100		
101	24.2	0.0	49.4
88	6.9	0.0	35.5

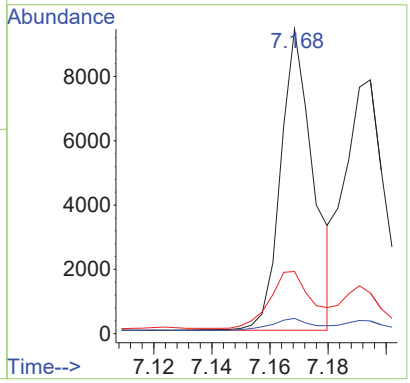


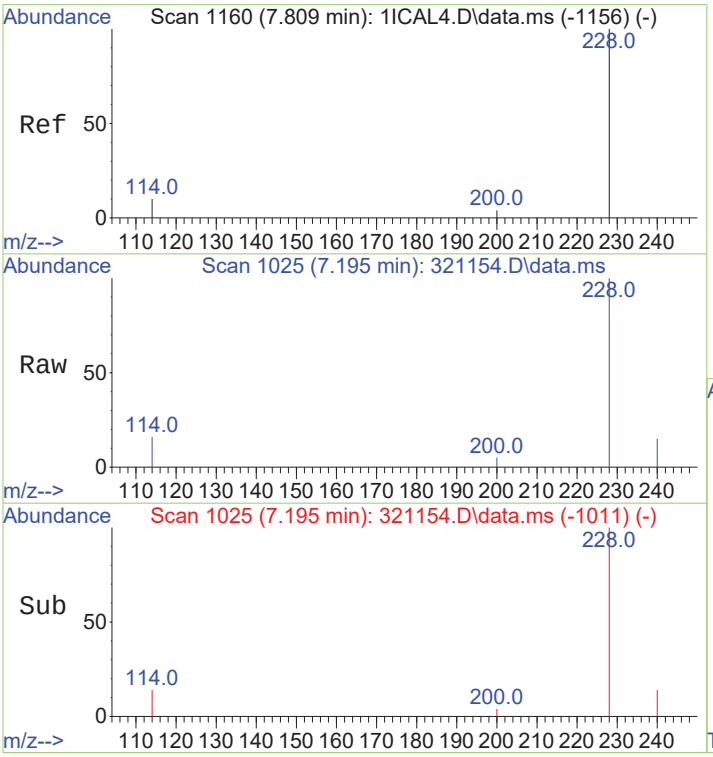


#17
B[a]anthracen
Concen: 181.73 ng/mL
RT: 7.168 min Scan# 1018
Delta R.T. -0.000 min
Lab File: 321154.D
Acq: 9 Sep 2019 19:35

Tgt Ion:228 Resp: 7332

Ion	Ratio	Lower	Upper
228	100		
200	4.0	0.0	33.6
114	18.8	0.0	47.0

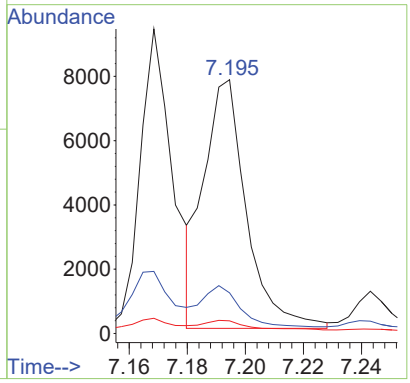


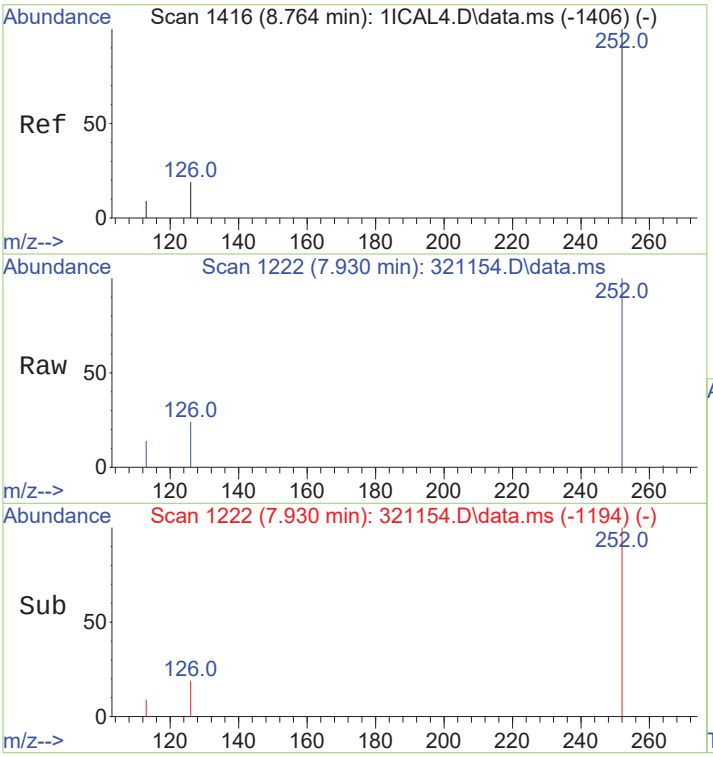


#18
Chrysene
Concen: 125.88 ng/mL
RT: 7.195 min Scan# 1025
Delta R.T. 0.004 min
Lab File: 321154.D
Acq: 9 Sep 2019 19:35

Tgt Ion:228 Resp: 7928

Ion	Ratio	Lower	Upper
228	100		
114	14.0	0.0	46.1
200	3.8	0.0	33.8

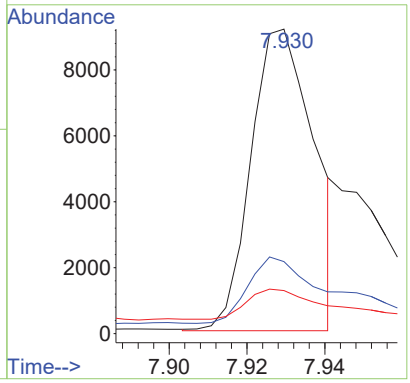


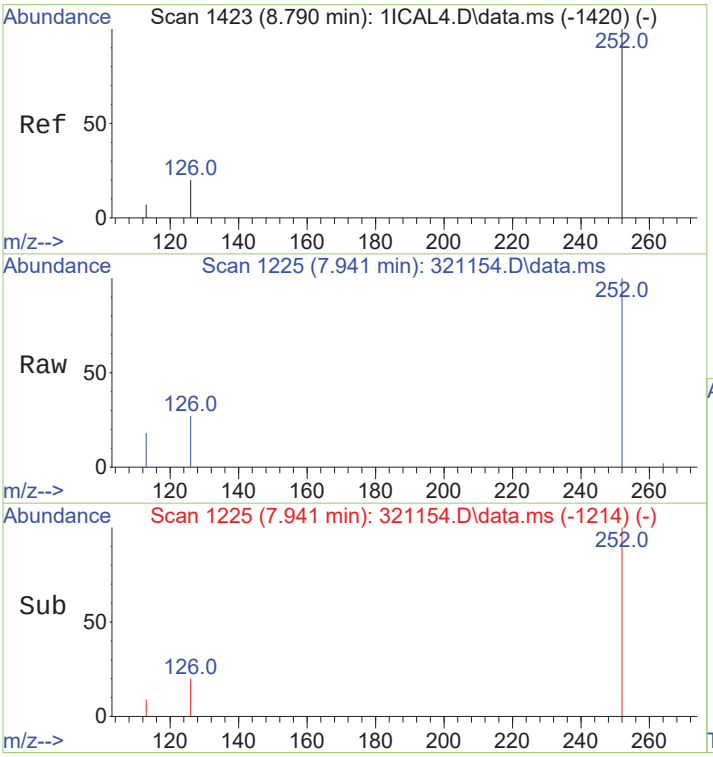


#20
B[b]fluoranth
Concen: 185.81 ng/mL m
RT: 7.930 min Scan# 1222
Delta R.T. 0.004 min
Lab File: 321154.D
Acq: 9 Sep 2019 19:35

Tgt Ion:252 Resp: 10323

Ion	Ratio	Lower	Upper
252	100		
126	23.6	0.0	52.1
113	14.1	0.0	40.0

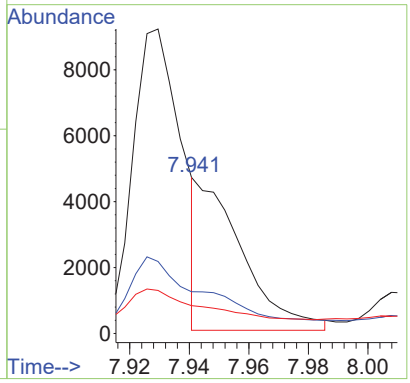


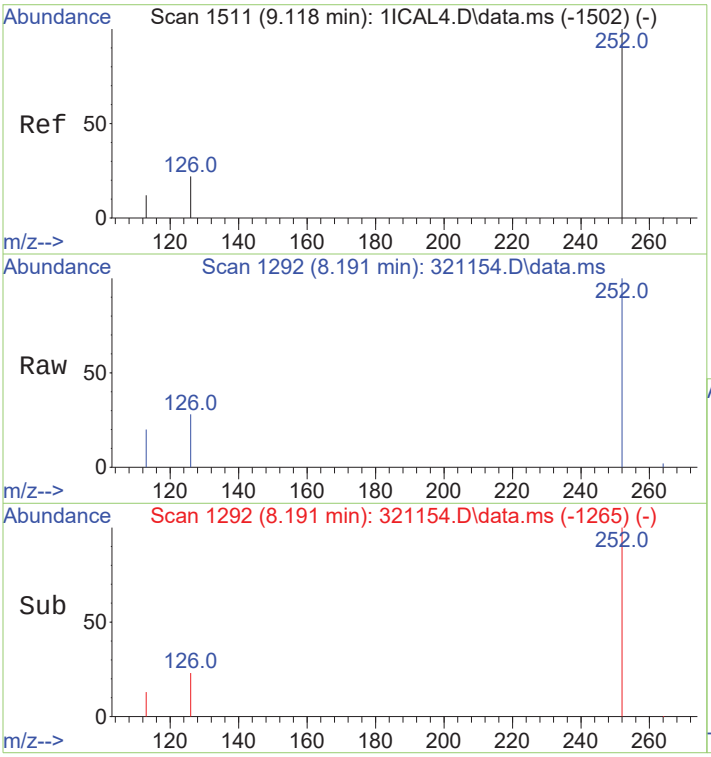


#21
B[k]fluoranth
Concen: 62.95 ng/mL m
RT: 7.941 min Scan# 1225
Delta R.T. -0.008 min
Lab File: 321154.D
Acq: 9 Sep 2019 19:35

Tgt Ion:252 Resp: 4814

Ion	Ratio	Lower	Upper
252	100		
126	26.7	0.0	54.3
113	17.8	0.0	39.4

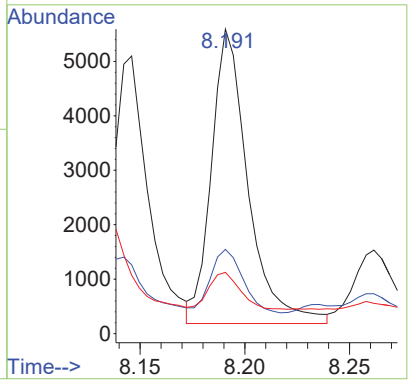


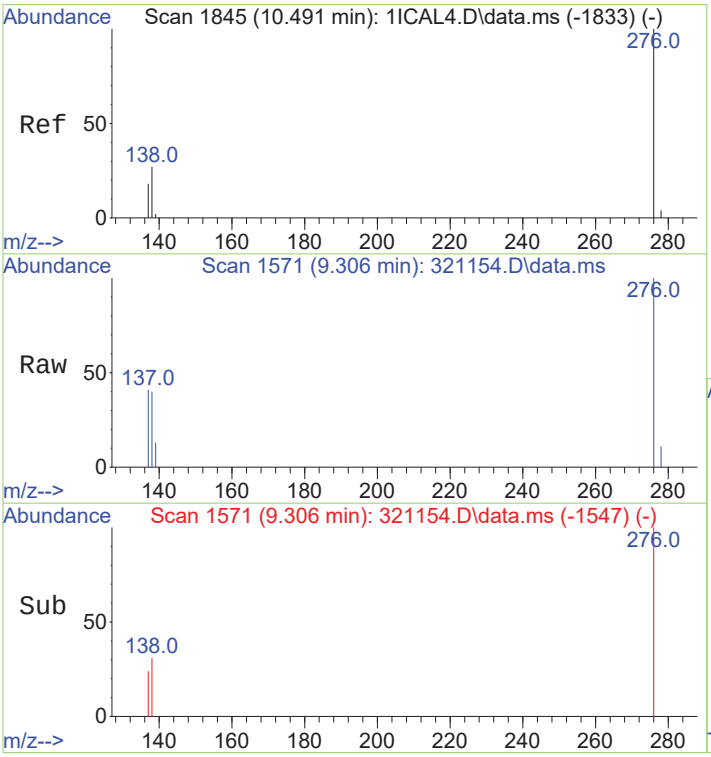


#22
Benz[a]pyrene
Concen: 137.95 ng/mL
RT: 8.191 min Scan# 1292
Delta R.T. -0.000 min
Lab File: 321154.D
Acq: 9 Sep 2019 19:35

Tgt Ion:252 Resp: 6573

Ion	Ratio	Lower	Upper
252	100		
126	20.5	0.0	52.7
113	12.8	0.0	42.2

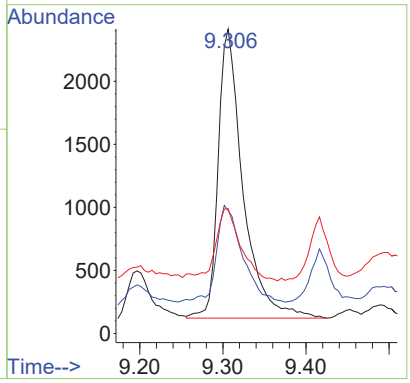


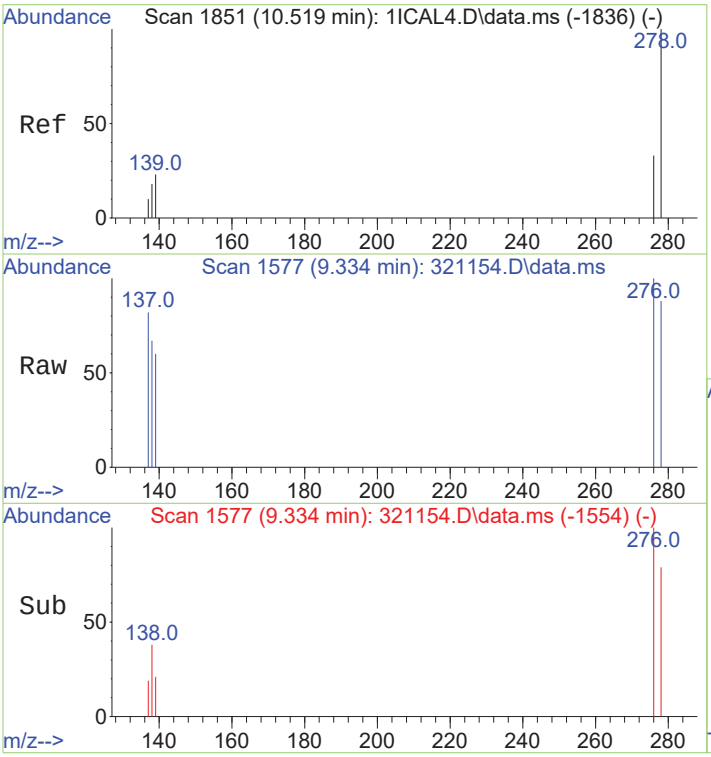


#23
Indeno-pyrene
Concen: 119.76 ng/mL
RT: 9.306 min Scan# 1571
Delta R.T. 0.009 min
Lab File: 321154.D
Acq: 9 Sep 2019 19:35

Tgt Ion:276 Resp: 4766

Ion	Ratio	Lower	Upper
276	100		
138	30.7	4.1	64.1
137	22.6	0.0	52.8

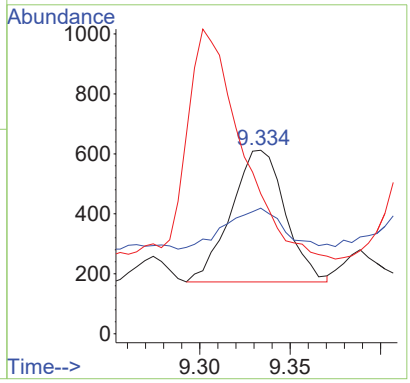


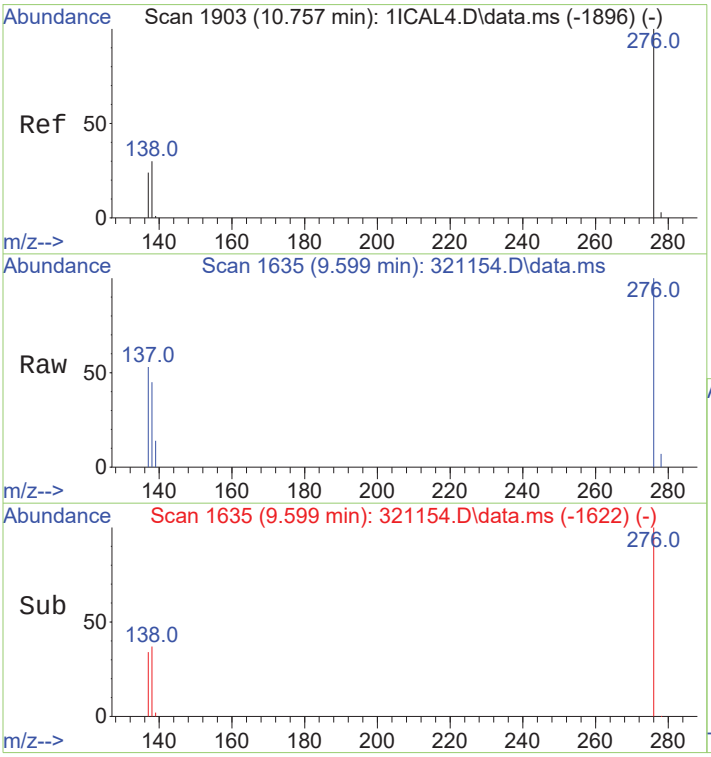


#24
Dib[ah]anthr
Concen: 56.19 ng/mL
RT: 9.334 min Scan# 1577
Delta R.T. 0.004 min
Lab File: 321154.D
Acq: 9 Sep 2019 19:35

Tgt Ion:278 Resp: 915

Ion	Ratio	Lower	Upper
278	100		
139	29.8	0.0	59.3
138	47.4	0.0	56.3

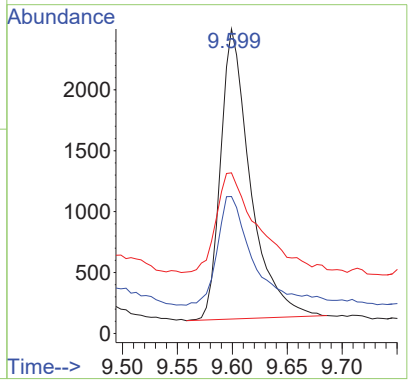


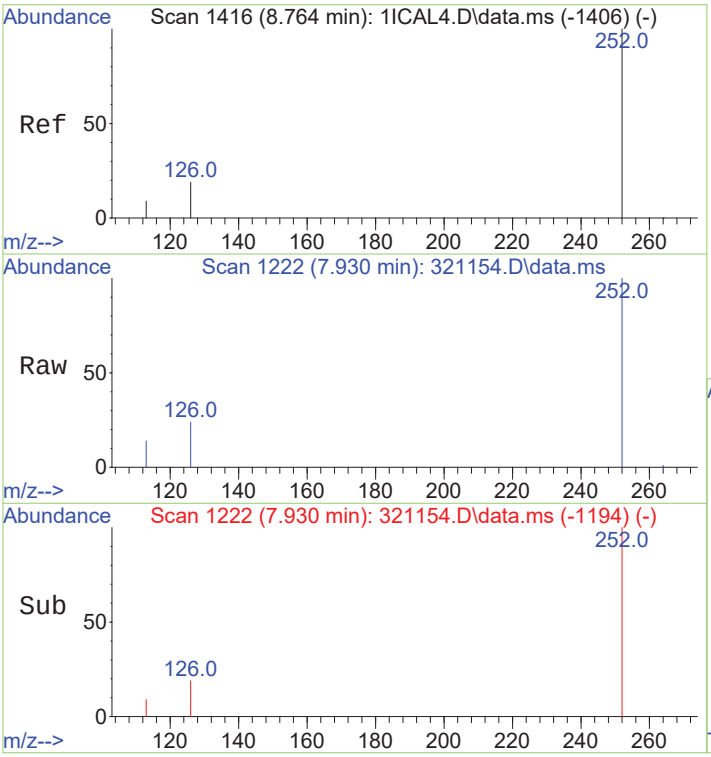


#25
B[ghi]perylen
Concen: 127.58 ng/mL
RT: 9.599 min Scan# 1635
Delta R.T. 0.009 min
Lab File: 321154.D
Acq: 9 Sep 2019 19:35

Tgt Ion:276 Resp: 4500

Ion	Ratio	Lower	Upper
276	100		
138	37.3	7.7	67.7
137	34.0	0.6	60.6

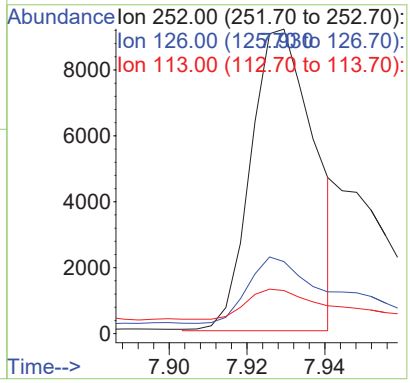




#20
B[b]fluoranth
Concen: 185.81 ng/mL m
RT: 7.930 min Scan# 1222
Delta R.T. 0.004 min
Lab File: 321154.D
Acq: 9 Sep 2019 19:35

Tgt Ion:252 Resp: 10323

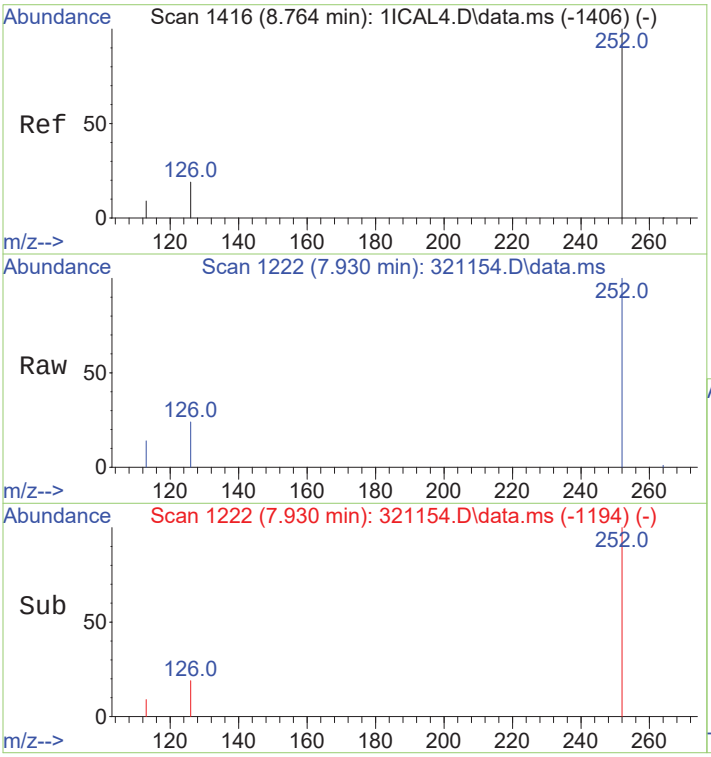
Ion	Ratio	Lower	Upper
252	100		
126	23.6	0.0	52.1
113	14.1	0.0	40.0



RED
9/12/2019

After Manual Integration

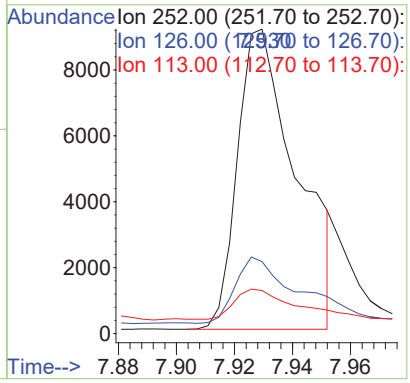
Reason#3 JJY
9/11/19



#20
B[b]fluoranth
Concen: 225.28 ng/mL
RT: 7.930 min Scan# 1222
Delta R.T. 0.004 min
Lab File: 321154.D
Acq: 9 Sep 2019 19:35

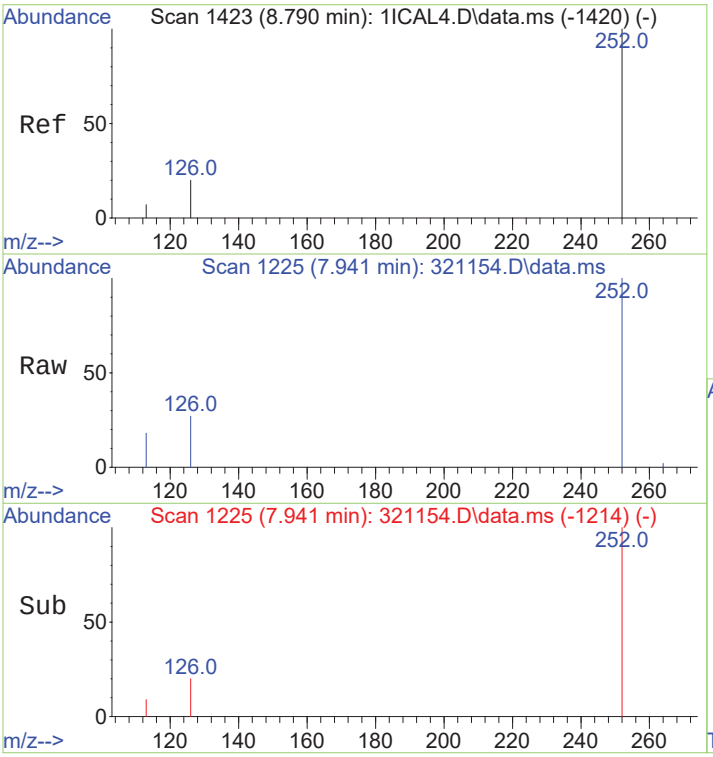
Tgt Ion:252 Resp: 12903

Ion	Ratio	Lower	Upper
252	100		
126	20.5	0.0	52.1
113	9.5	0.0	40.0



Before Manual Integration

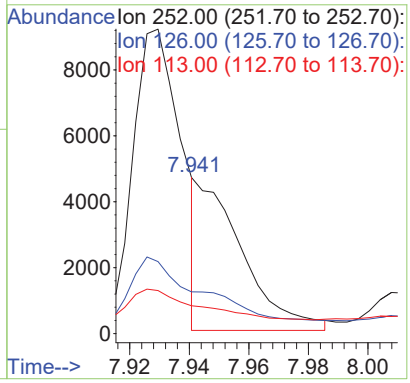
Reason#3 JJY 9/11/19



#21
B[k]fluoranth
Concen: 62.95 ng/mL m
RT: 7.941 min Scan# 1225
Delta R.T. -0.008 min
Lab File: 321154.D
Acq: 9 Sep 2019 19:35

Tgt Ion:252 Resp: 4814

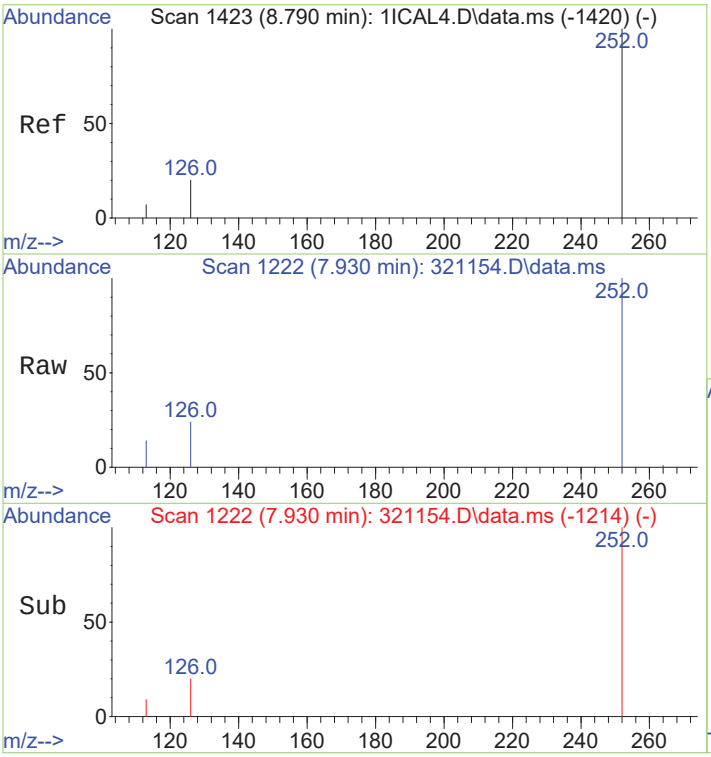
Ion	Ratio	Lower	Upper
252	100		
126	26.7	0.0	54.3
113	17.8	0.0	39.4



RED
9/12/2019

After Manual Integration

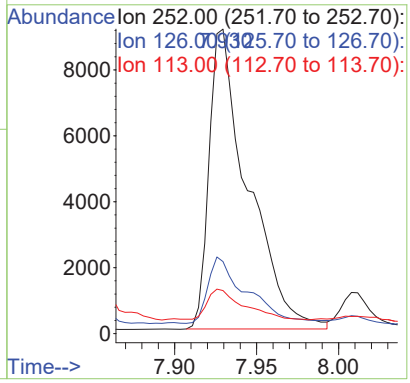
Reason#3 JJY
9/11/19



#21
B[k]fluoranth
Concen: 192.55 ng/mL
RT: 7.930 min Scan# 1222
Delta R.T. -0.019 min
Lab File: 321154.D
Acq: 9 Sep 2019 19:35

Tgt Ion:252 Resp: 14994

Ion	Ratio	Lower	Upper
252	100		
126	20.6	0.0	54.3
113	9.5	0.0	39.4



Before Manual Integration

Reason#3 JJY 9/11/19

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321155.D Vial: 13
Acq On : 9 Sep 2019 19:55 Operator: JJY
Sample : 164274,321155, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 20:09:55 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

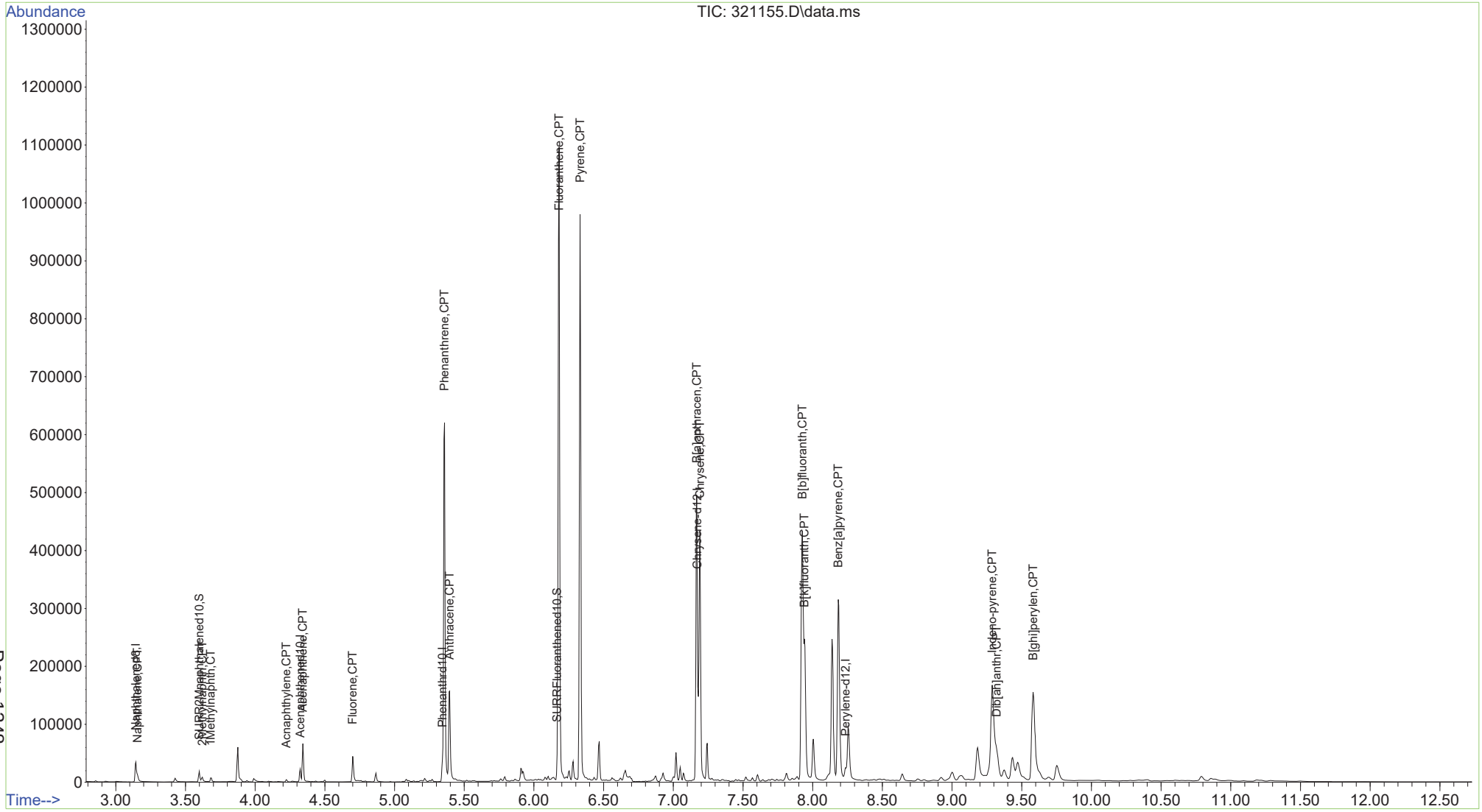
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.144	136	28543	400.00	ng/mL	0.00
6) Acenaphthened10	4.323	164	14372	400.00	ng/mL	0.00
10) Phenanthrd10	5.343	188	22726	400.00	ng/mL	0.00
15) Chrysene-d12	7.172	240	16677	400.00	ng/mL	0.00
19) Perylene-d12	8.235	264	20269	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.599	152	10935	69.08	%REC	0.00
Spiked Amount 100.000			Recovery = 69.08%			
13) SURRFluoranthened10	6.166	212	16545	73.73	%REC	0.00
Spiked Amount 100.000			Recovery = 73.73%			
Target Compounds						Qvalue
2) Naphthalene	3.155	128	5669	80.7710	ng/ml	99
4) 2Methylnaphth	3.620	142	2747	71.3253	ng/mL	83
5) 1Methylnaphth	3.680	141	2238	59.4827	ng/mL	77
7) Acnaphthylene	4.223	152	2555	42.3914	ng/mL	95
8) Acenaphthene	4.341	154	25451	623.5150	ng/mL	95
9) Fluorene	4.699	166	29565	686.2592	ng/mL	99
11) Phenanthrene	5.358	178	377717	6804.1825	ng/mL	100
12) Anthracene	5.395	178	115062	2033.3398	ng/mL	99
14) Fluoranthene	6.180	202	670168	10357.4861	ng/mL	97
16) Pyrene	6.331	202	526229	7803.6548	ng/mL	93
17) B[a]anthracen	7.168	228	321649	6466.8591	ng/mL	99
18) Chrysene	7.191	228	281723	4809.4959	ng/mL	99
20) B[b]fluoranth	7.926	252	374357	5559.4437	ng/mL	98
21) B[k]fluoranth	7.941	252	137233	1689.3582	ng/mL	98
22) Benz[a]pyrene	8.183	252	254035	3852.8090	ng/mL	96
23) Indeno-pyrene	9.288	276	176108	2655.6351	ng/mL	99
24) Dib[ah]anthr	9.320	278	35863	677.9928	ng/mL	94
25) B[ghi]perylen	9.581	276	155466	2741.3937	ng/mL	100

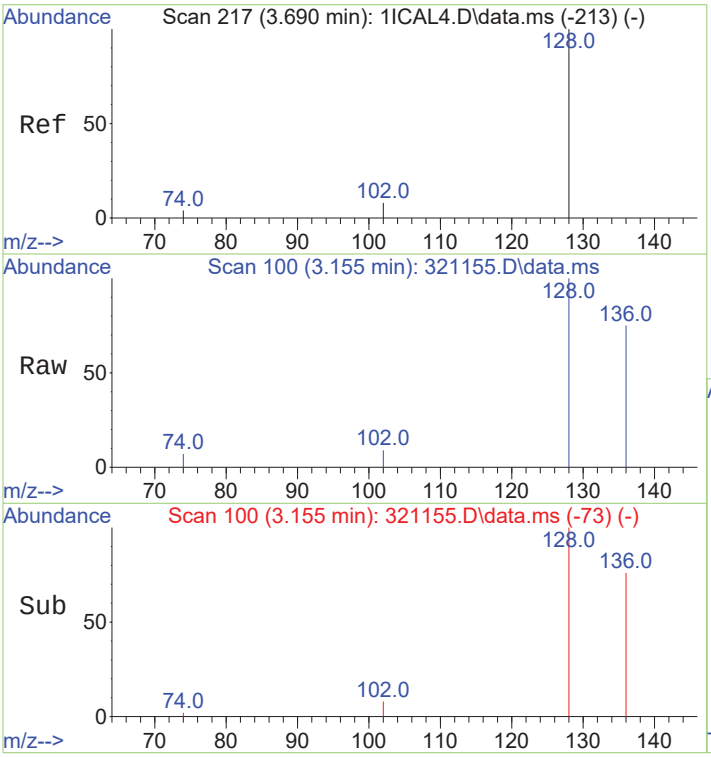
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321155.D Vial: 13
Acq On : 9 Sep 2019 19:55 Operator: JJY
Sample : 164274,321155, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 20:09:55 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

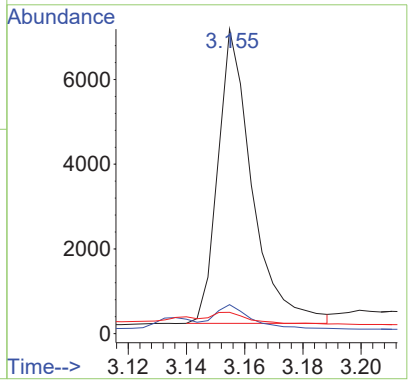


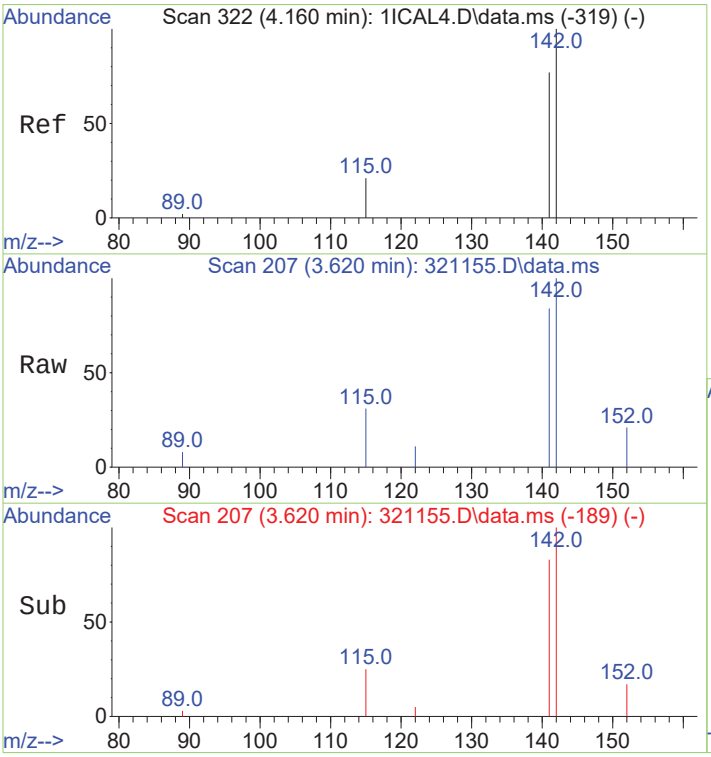


#2
Naphthalene
Concen: 80.77 ng/ml
RT: 3.155 min Scan# 100
Delta R.T. -0.000 min
Lab File: 321155.D
Acq: 9 Sep 2019 19:55

Tgt Ion:128 Resp: 5669

Ion	Ratio	Lower	Upper
128	100		
102	8.0	0.0	37.6
74	4.0	0.0	33.6

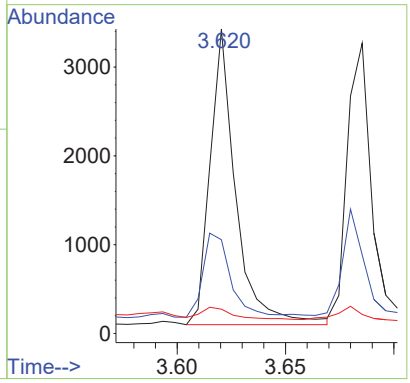


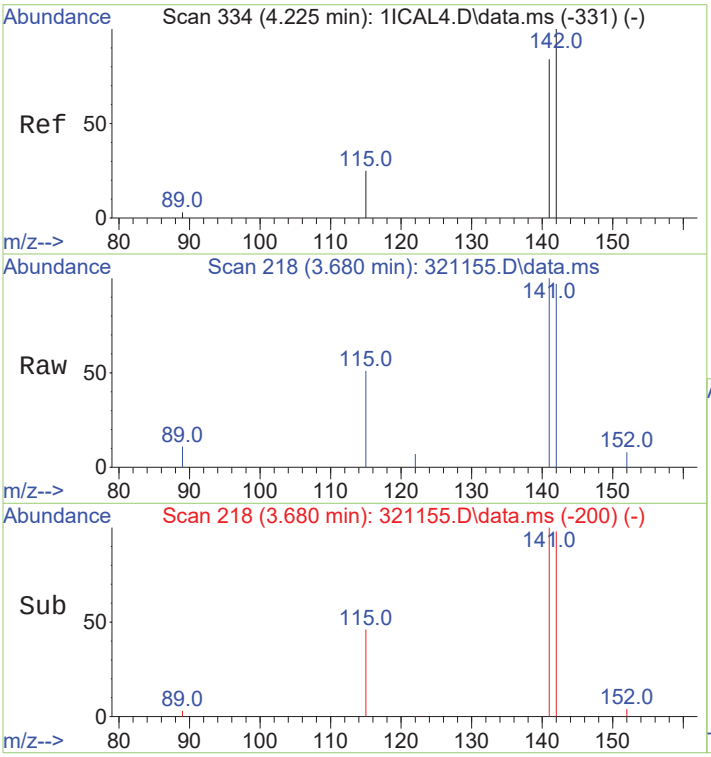


#4
2Methylnaphth
Concen: 71.33 ng/mL
RT: 3.620 min Scan# 207
Delta R.T. -0.000 min
Lab File: 321155.D
Acq: 9 Sep 2019 19:55

Tgt Ion:142 Resp: 2747

Ion	Ratio	Lower	Upper
142	100		
115	26.2	6.9	66.9
89	2.8	0.0	34.9

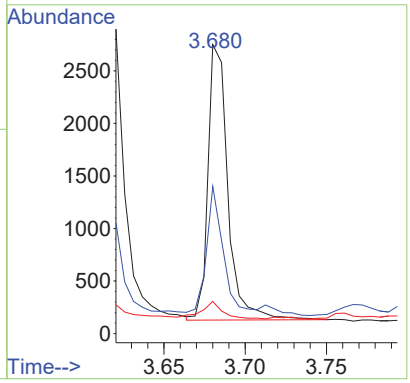


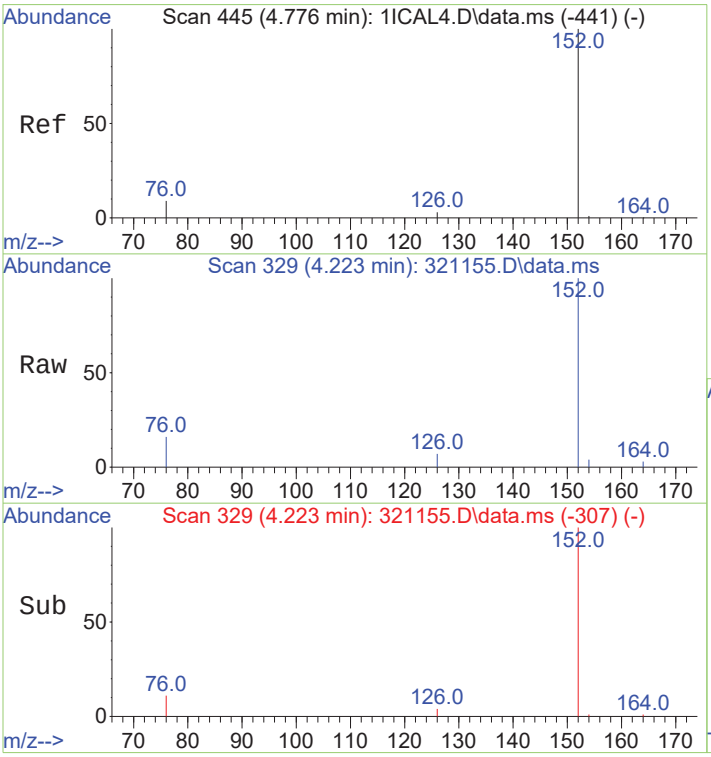


#5
1Methylnaphth
Concen: 59.48 ng/mL
RT: 3.680 min Scan# 218
Delta R.T. -0.000 min
Lab File: 321155.D
Acq: 9 Sep 2019 19:55

Tgt Ion:141 Resp: 2238

Ion	Ratio	Lower	Upper
141	100		
115	46.5	2.5	62.5
89	6.0	0.0	34.0

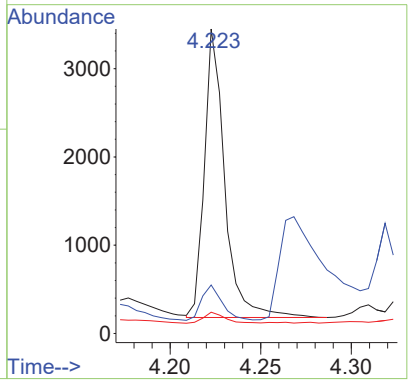


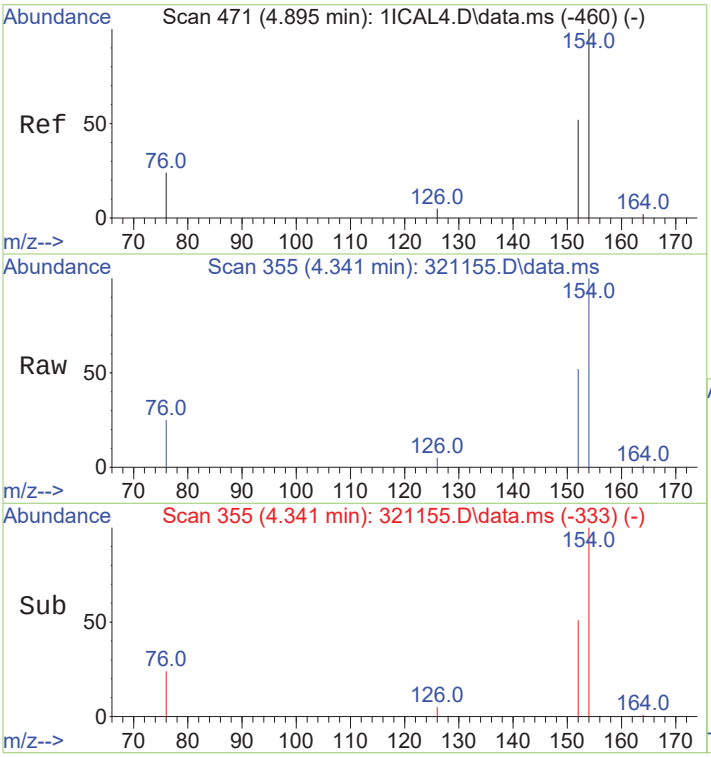


#7
Acnaphthylene
Concen: 42.39 ng/mL
RT: 4.223 min Scan# 329
Delta R.T. -0.000 min
Lab File: 321155.D
Acq: 9 Sep 2019 19:55

Tgt Ion:152 Resp: 2555

Ion	Ratio	Lower	Upper
152	100		
76	12.3	0.0	39.9
126	3.9	0.0	33.1

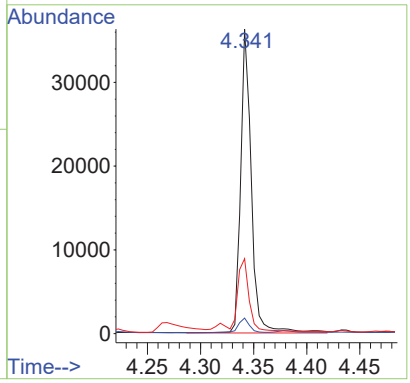


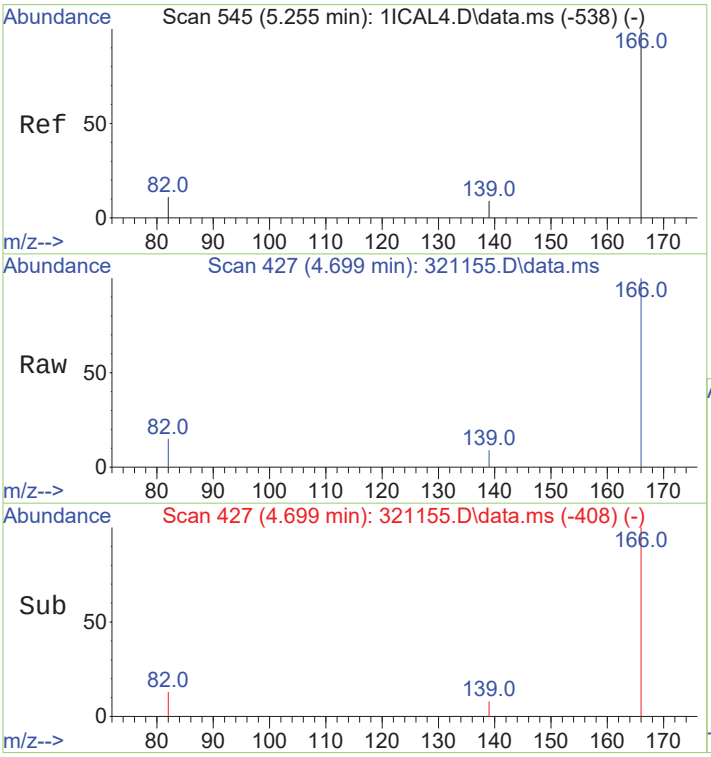


#8
Acenaphthene
Concen: 623.52 ng/mL
RT: 4.341 min Scan# 355
Delta R.T. -0.000 min
Lab File: 321155.D
Acq: 9 Sep 2019 19:55

Tgt Ion:154 Resp: 25451

Ion	Ratio	Lower	Upper
154	100		
126	4.8	0.0	34.3
76	24.1	0.0	51.6

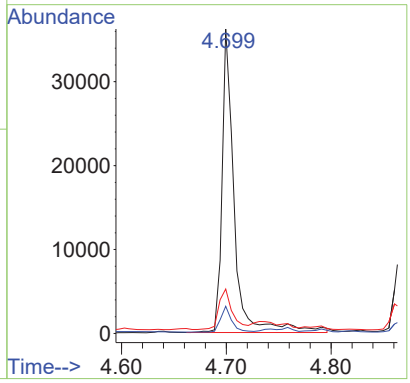


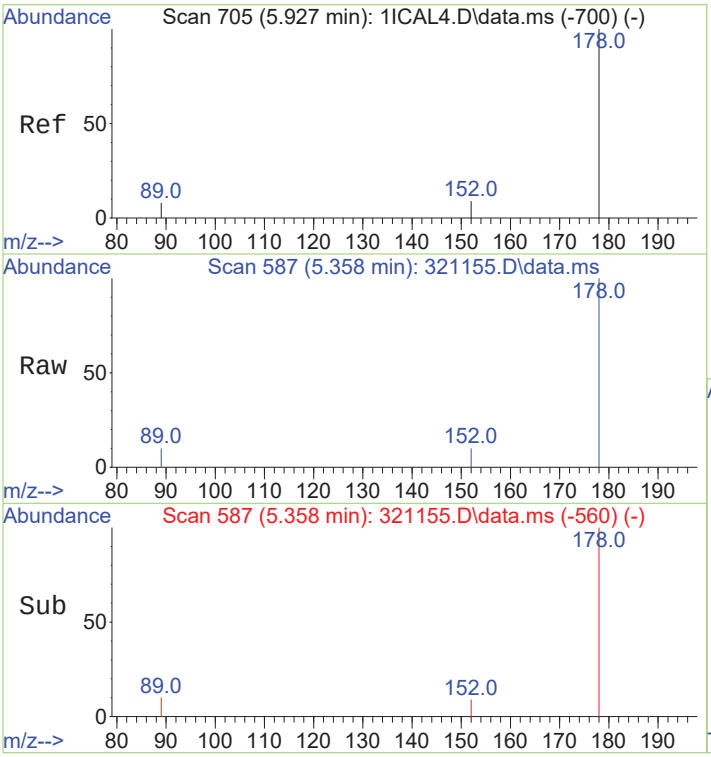


#9
Fluorene
Concen: 686.26 ng/mL
RT: 4.699 min Scan# 427
Delta R.T. -0.000 min
Lab File: 321155.D
Acq: 9 Sep 2019 19:55

Tgt Ion:166 Resp: 29565

Ion	Ratio	Lower	Upper
166	100		
139	8.4	0.0	38.6
82	13.0	0.0	42.4

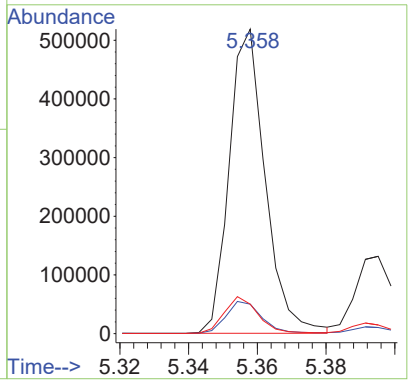


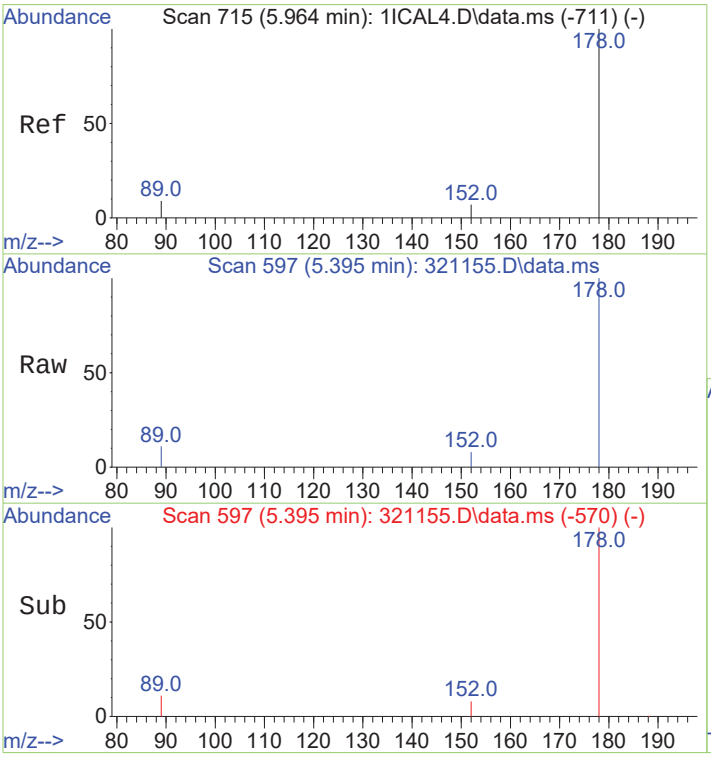


#11
Phenanthrene
Concen: 6804.18 ng/mL
RT: 5.358 min Scan# 587
Delta R.T. -0.000 min
Lab File: 321155.D
Acq: 9 Sep 2019 19:55

Tgt Ion:178 Resp: 377717

Ion	Ratio	Lower	Upper
178	100		
152	10.5	0.0	40.1
89	11.4	0.0	41.4

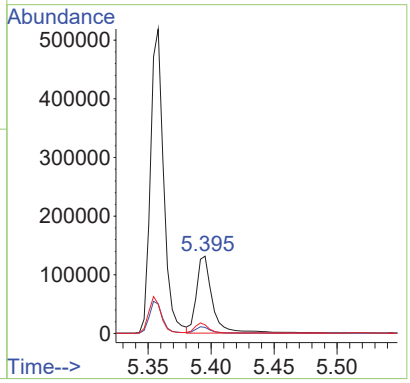


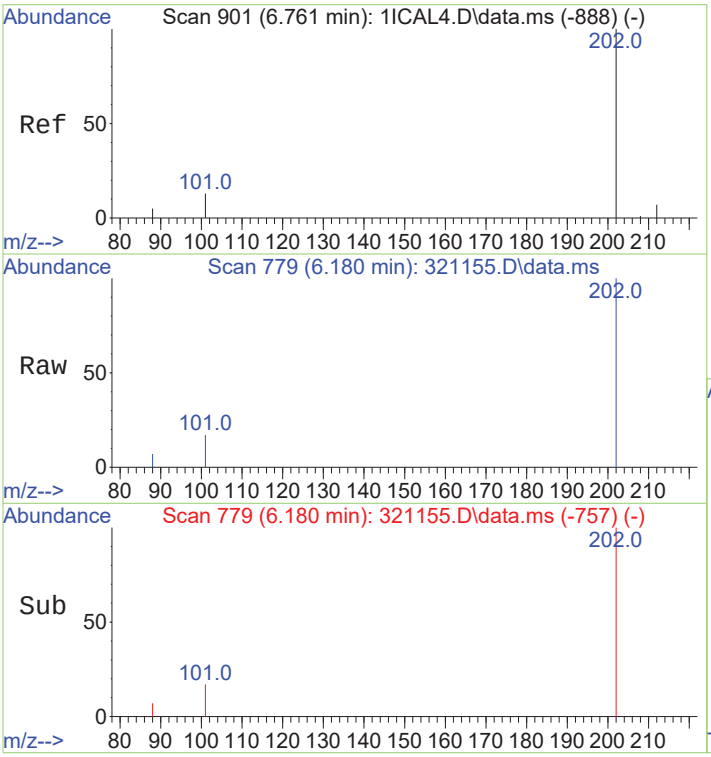


#12
Anthracene
Concen: 2033.34 ng/mL
RT: 5.395 min Scan# 597
Delta R.T. -0.000 min
Lab File: 321155.D
Acq: 9 Sep 2019 19:55

Tgt Ion:178 Resp: 115062

Ion	Ratio	Lower	Upper
178	100		
152	7.7	0.0	37.8
89	11.0	0.0	31.3

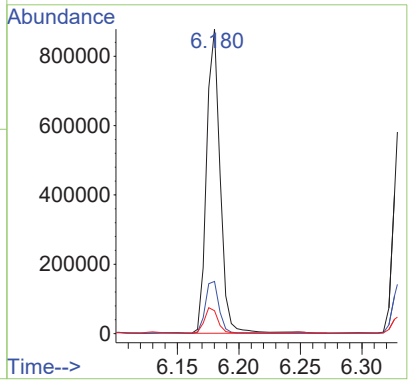


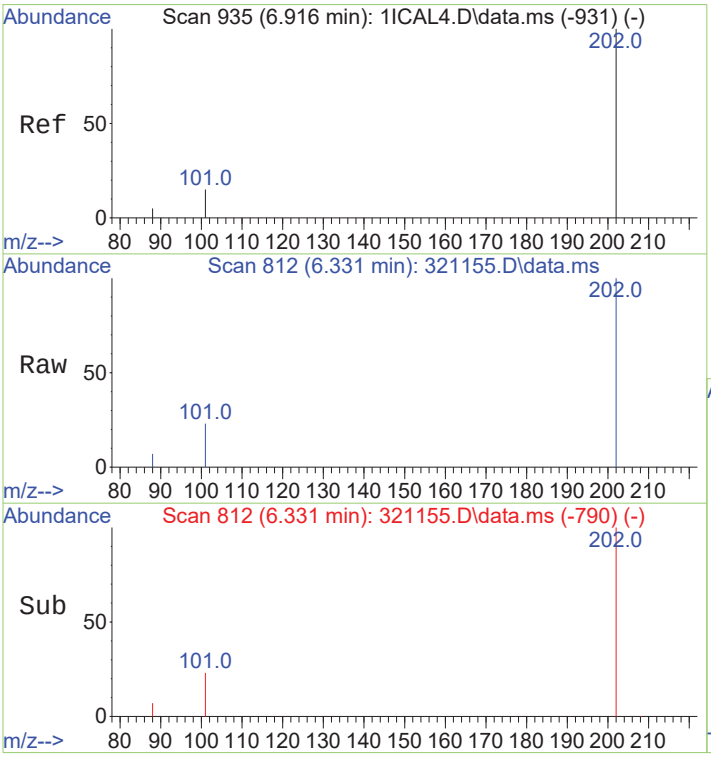


#14
Fluoranthene
Concen: 10357.49 ng/mL
RT: 6.180 min Scan# 779
Delta R.T. -0.000 min
Lab File: 321155.D
Acq: 9 Sep 2019 19:55

Tgt Ion:202 Resp: 670168

Ion	Ratio	Lower	Upper
202	100		
101	17.1	0.0	48.3
88	7.4	0.0	38.8

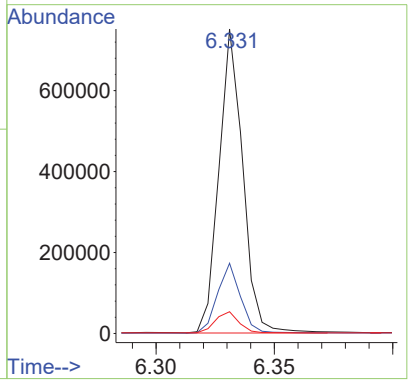


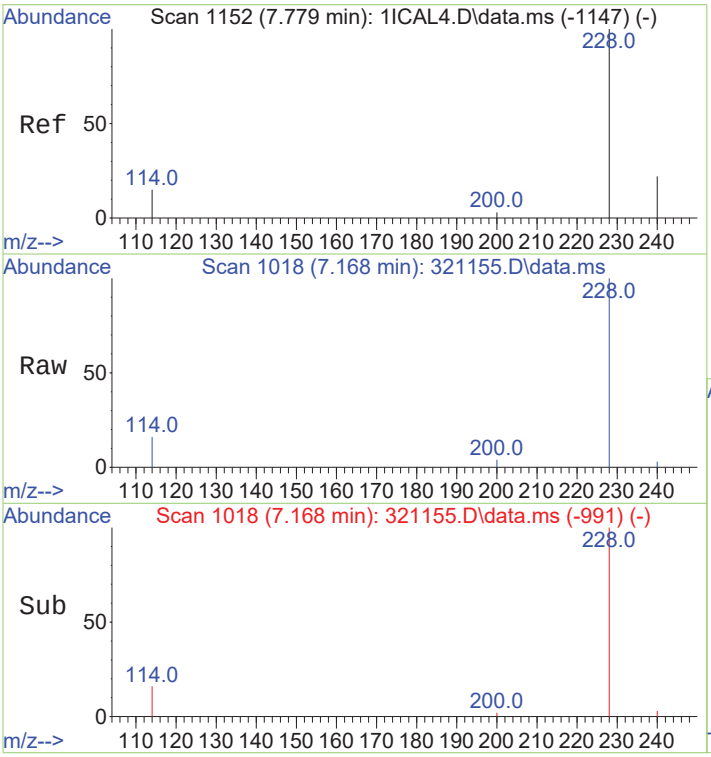


#16
Pyrene
Concen: 7803.65 ng/mL
RT: 6.331 min Scan# 812
Delta R.T. -0.000 min
Lab File: 321155.D
Acq: 9 Sep 2019 19:55

Tgt Ion:202 Resp: 526229

Ion	Ratio	Lower	Upper
202	100		
101	23.0	0.0	49.4
88	6.9	0.0	35.5

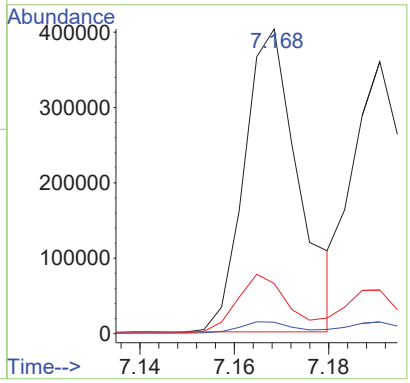


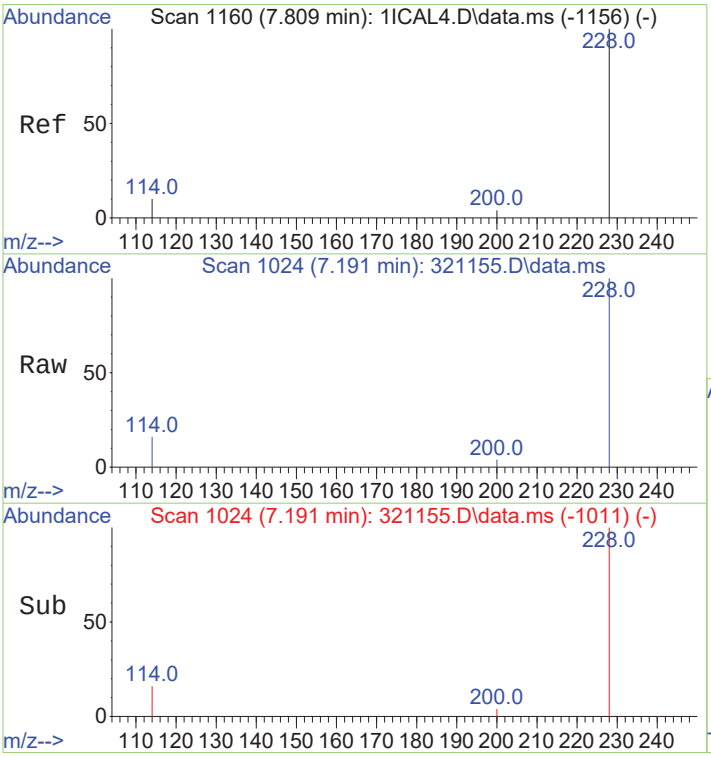


#17
B[a]anthracen
Concen: 6466.86 ng/mL
RT: 7.168 min Scan# 1018
Delta R.T. -0.000 min
Lab File: 321155.D
Acq: 9 Sep 2019 19:55

Tgt Ion:228 Resp: 321649

Ion	Ratio	Lower	Upper
228	100		
200	3.5	0.0	33.6
114	16.3	0.0	47.0

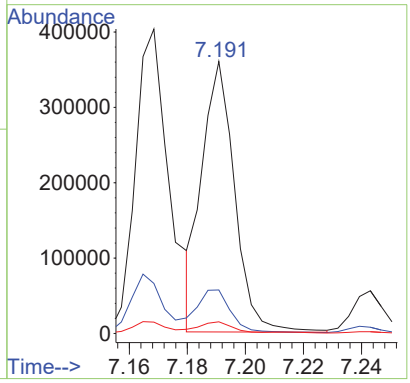


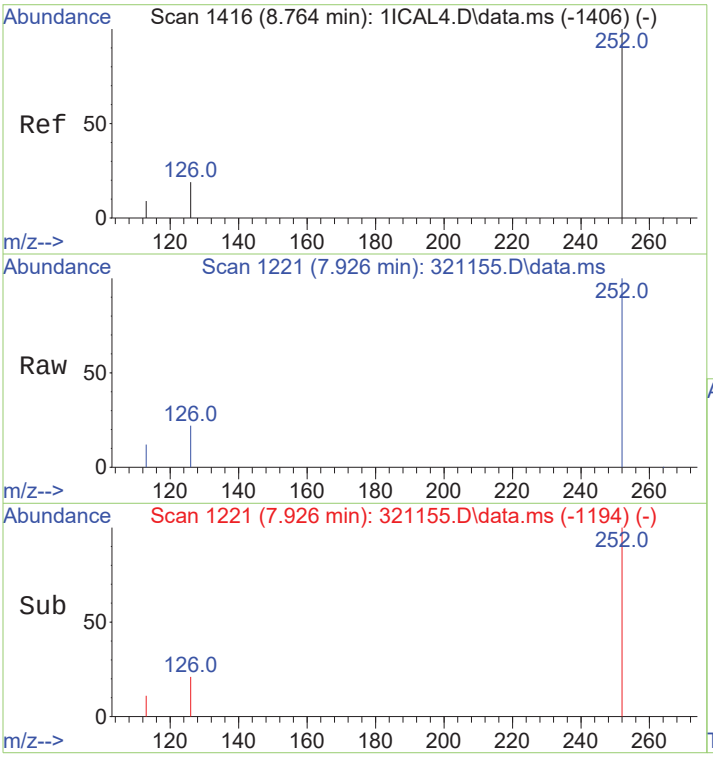


#18
Chrysene
Concen: 4809.50 ng/mL
RT: 7.191 min Scan# 1024
Delta R.T. -0.000 min
Lab File: 321155.D
Acq: 9 Sep 2019 19:55

Tgt Ion:228 Resp: 281723

Ion	Ratio	Lower	Upper
228	100		
114	15.8	0.0	46.1
200	4.2	0.0	33.8

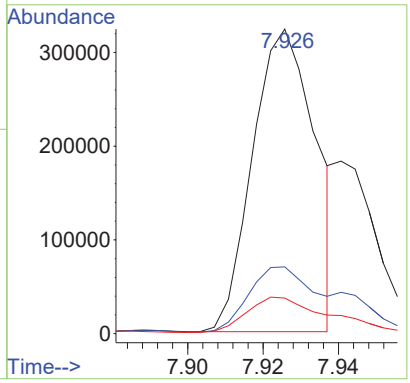


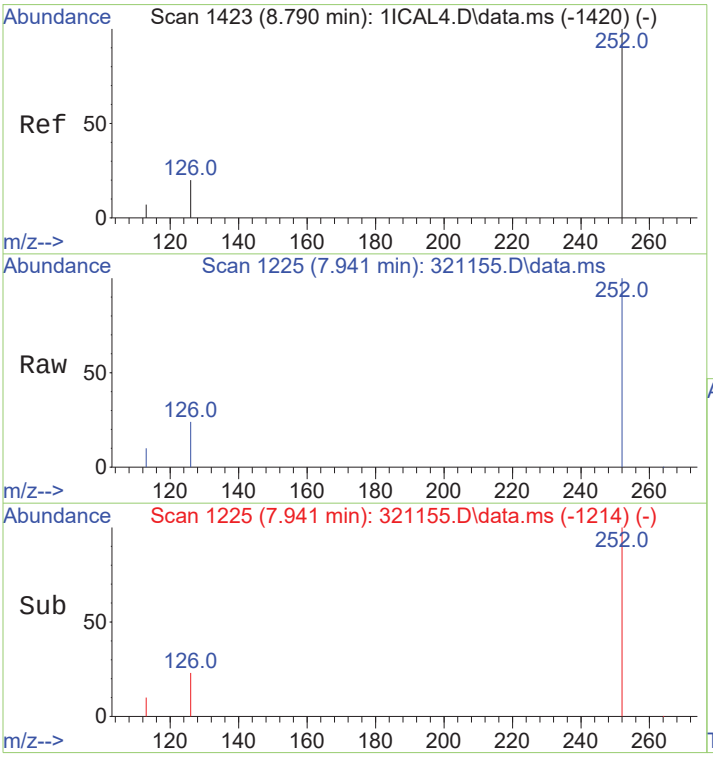


#20
B[b]fluoranth
Concen: 5559.44 ng/mL
RT: 7.926 min Scan# 1221
Delta R.T. -0.000 min
Lab File: 321155.D
Acq: 9 Sep 2019 19:55

Tgt Ion:252 Resp: 374357

Ion	Ratio	Lower	Upper
252	100		
126	21.5	0.0	52.1
113	11.3	0.0	40.0

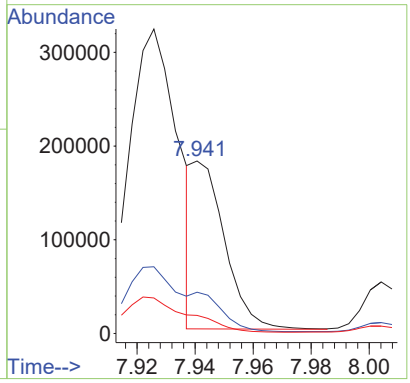


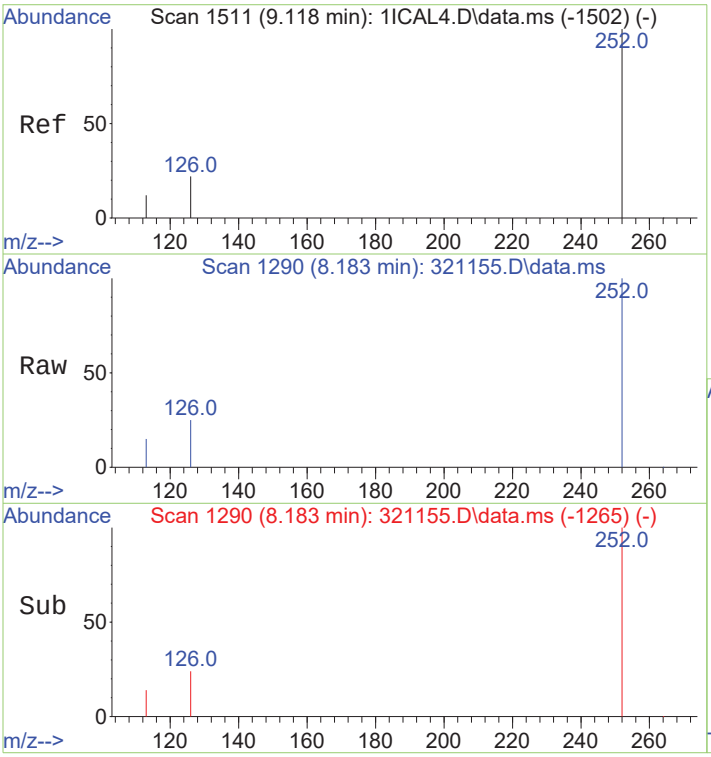


#21
B[k]fluoranth
Concen: 1689.36 ng/mL
RT: 7.941 min Scan# 1225
Delta R.T. -0.008 min
Lab File: 321155.D
Acq: 9 Sep 2019 19:55

Tgt Ion:252 Resp: 137233

Ion	Ratio	Lower	Upper
252	100		
126	23.4	0.0	54.3
113	9.9	0.0	39.4

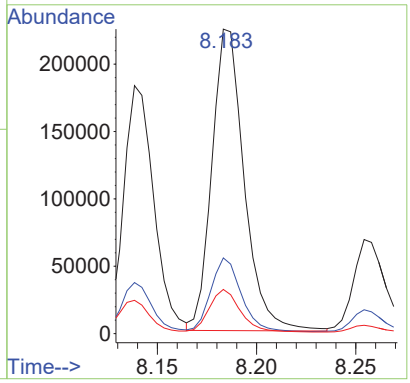


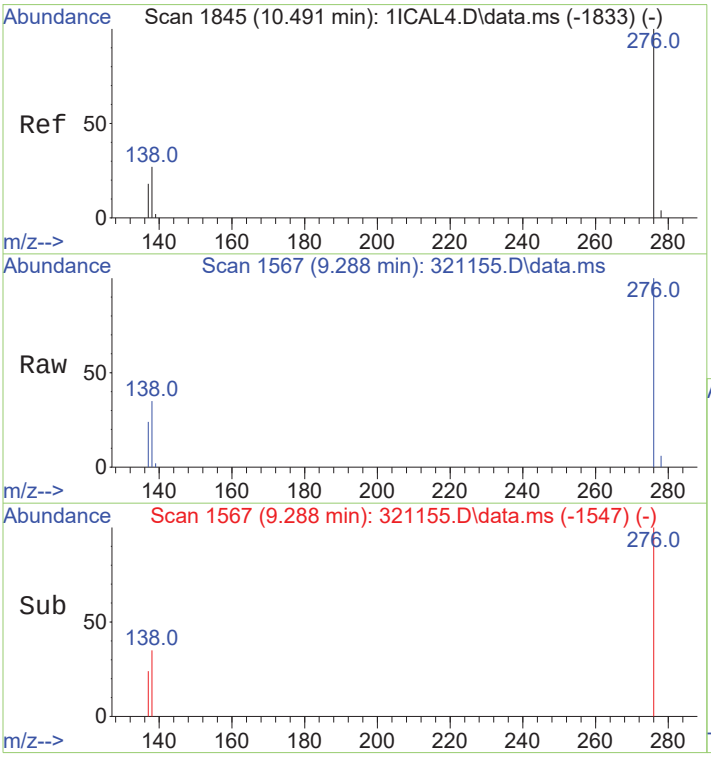


#22
Benz[a]pyrene
Concen: 3852.81 ng/mL
RT: 8.183 min Scan# 1290
Delta R.T. -0.008 min
Lab File: 321155.D
Acq: 9 Sep 2019 19:55

Tgt Ion:252 Resp: 254035

Ion	Ratio	Lower	Upper
252	100		
126	24.6	0.0	52.7
113	14.2	0.0	42.2

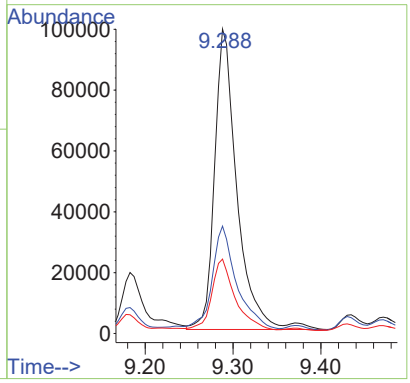


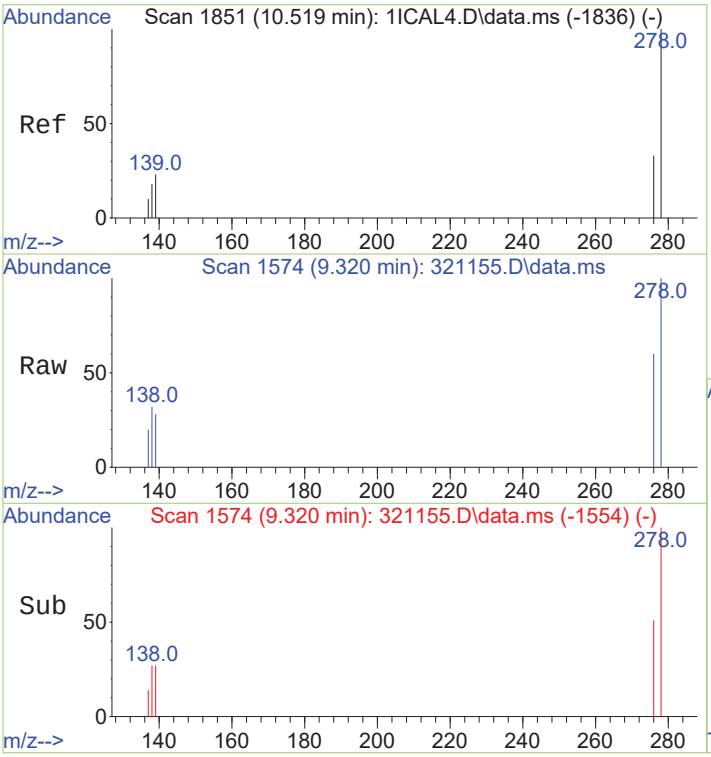


#23
Indeno-pyrene
Concen: 2655.64 ng/mL
RT: 9.288 min Scan# 1567
Delta R.T. -0.009 min
Lab File: 321155.D
Acq: 9 Sep 2019 19:55

Tgt Ion:276 Resp: 176108

Ion	Ratio	Lower	Upper
276	100		
138	34.5	4.1	64.1
137	23.7	0.0	52.8

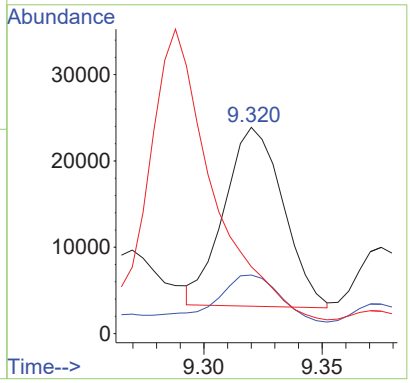


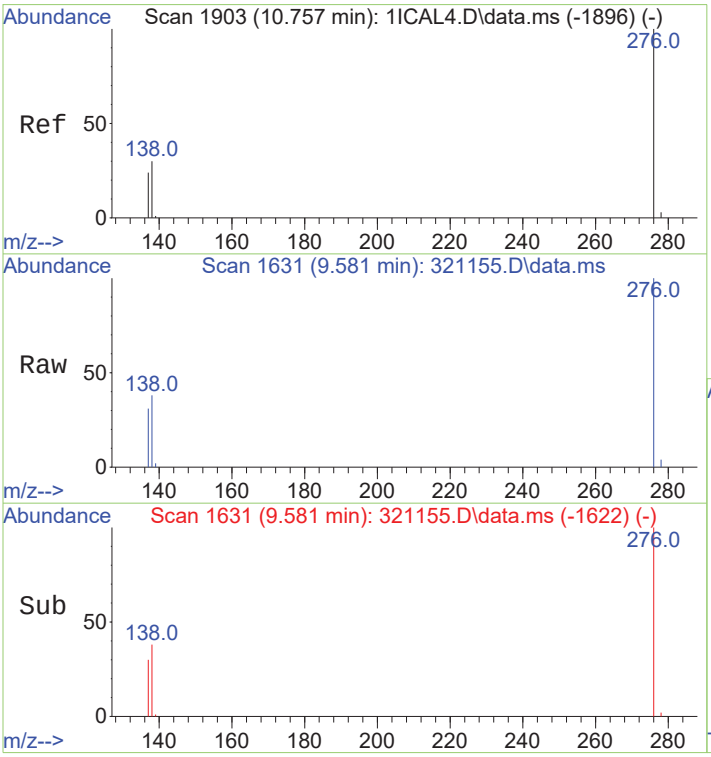


#24
Dib[ah]anthr
Concen: 677.99 ng/mL
RT: 9.320 min Scan# 1574
Delta R.T. -0.009 min
Lab File: 321155.D
Acq: 9 Sep 2019 19:55

Tgt Ion:278 Resp: 35863

Ion	Ratio	Lower	Upper
278	100		
139	26.7	0.0	59.3
138	30.2	0.0	56.3

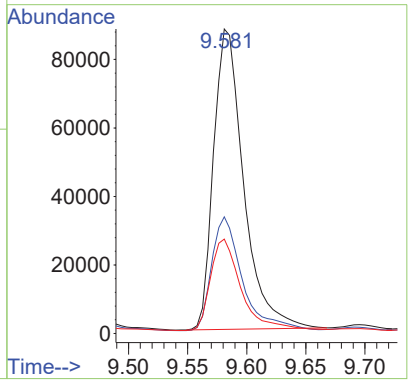




#25
B[ghi]perylen
Concen: 2741.39 ng/mL
RT: 9.581 min Scan# 1631
Delta R.T. -0.009 min
Lab File: 321155.D
Acq: 9 Sep 2019 19:55

Tgt Ion:276 Resp: 155466

Ion	Ratio	Lower	Upper
276	100		
138	37.8	7.7	67.7
137	30.3	0.6	60.6



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321157.D Vial: 14
Acq On : 9 Sep 2019 20:15 Operator: JJY
Sample : 164274,321157, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 20:30:06 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

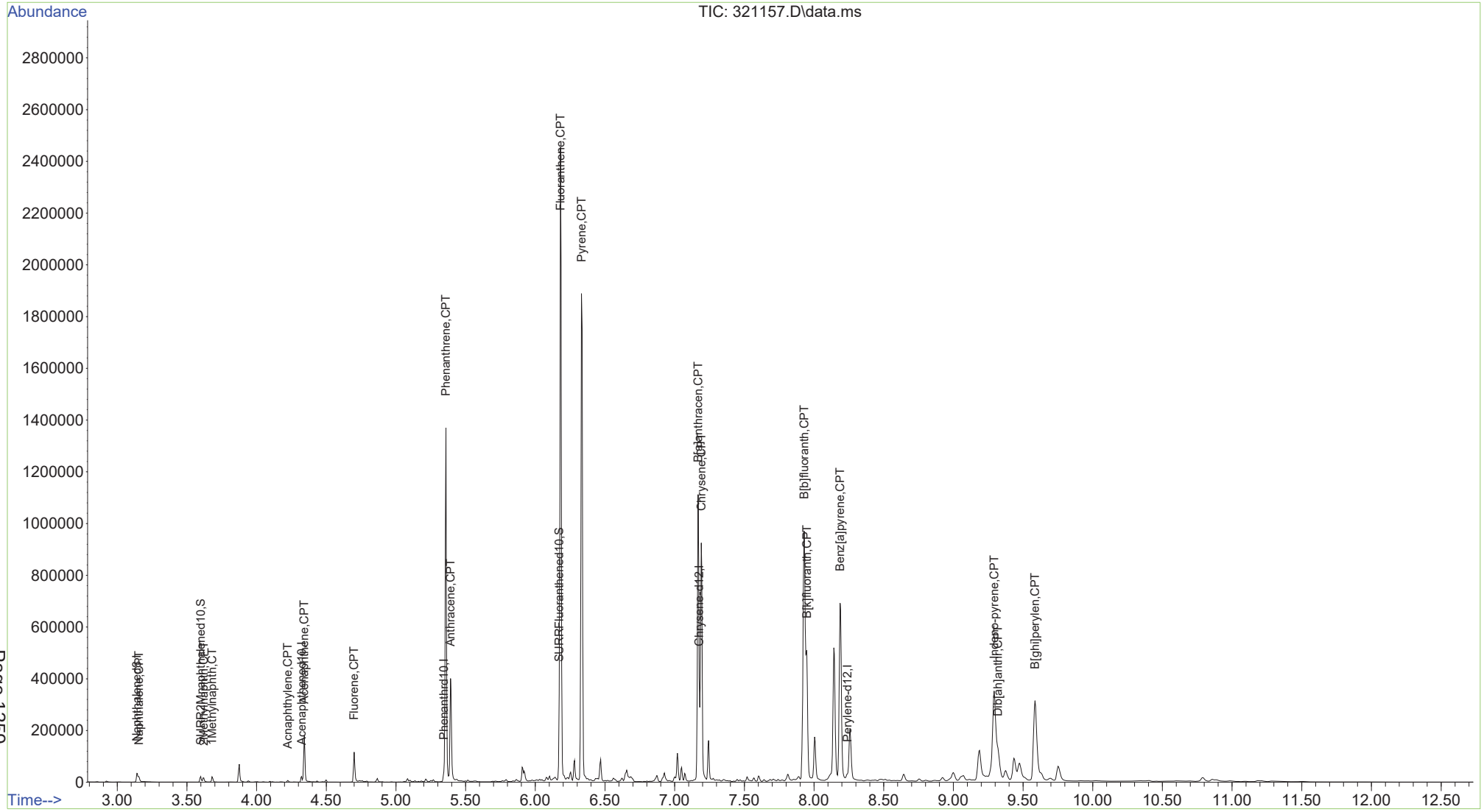
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.140	136	28527	400.00	ng/mL	0.00
6) Acenaphthened10	4.323	164	14109	400.00	ng/mL	0.00
10) Phenanthrd10	5.343	188	22838	400.00	ng/mL	0.00
15) Chrysene-d12	7.176	240	16888	400.00	ng/mL	0.00
19) Perylene-d12	8.239	264	21526	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.599	152	13020	82.29	%REC	0.00
Spiked Amount 100.000			Recovery = 82.29%			
13) SURRFluoranthened10	6.171	212	19593	86.88	%REC	0.00
Spiked Amount 100.000			Recovery = 86.88%			
Target Compounds						Qvalue
2) Naphthalene	3.155	128	11595	165.2964	ng/ml	99
4) 2Methylnaphth	3.621	142	6328	164.3974	ng/mL	76
5) 1Methylnaphth	3.680	141	5508	146.4765	ng/mL	85
7) Acnaphthylene	4.223	152	4103	69.3441	ng/mL	92
8) Acenaphthene	4.342	154	69233	1727.7313	ng/mL	94
9) Fluorene	4.700	166	74371	1758.4697	ng/mL	96
11) Phenanthrene	5.358	178	709235	12735.9451	ng/mL	98
12) Anthracene	5.392	178	243424	4280.6171	ng/mL	95
14) Fluoranthene	6.180	202	1400553	21539.4770	ng/mL	95
16) Pyrene	6.331	202	1114402	16319.4255	ng/mL	86
17) B[a]anthracen	7.169	228	685000	13549.7872	ng/mL	96
18) Chrysene	7.191	228	609302	10271.8712	ng/mL	94
20) B[b]fluoranth	7.930	252	893834	12464.0428	ng/mL	98
21) B[k]fluoranth	7.948	252	198122	2295.8934	ng/mL	98
22) Benz[a]pyrene	8.187	252	540132	7677.7417	ng/mL	95
23) Indeno-pyrene	9.293	276	365191	5140.8923	ng/mL	97
24) Dib[ah]anthr	9.320	278	78635	1357.9269	ng/mL	94
25) B[ghi]perylen	9.586	276	312607	5148.5921	ng/mL	100

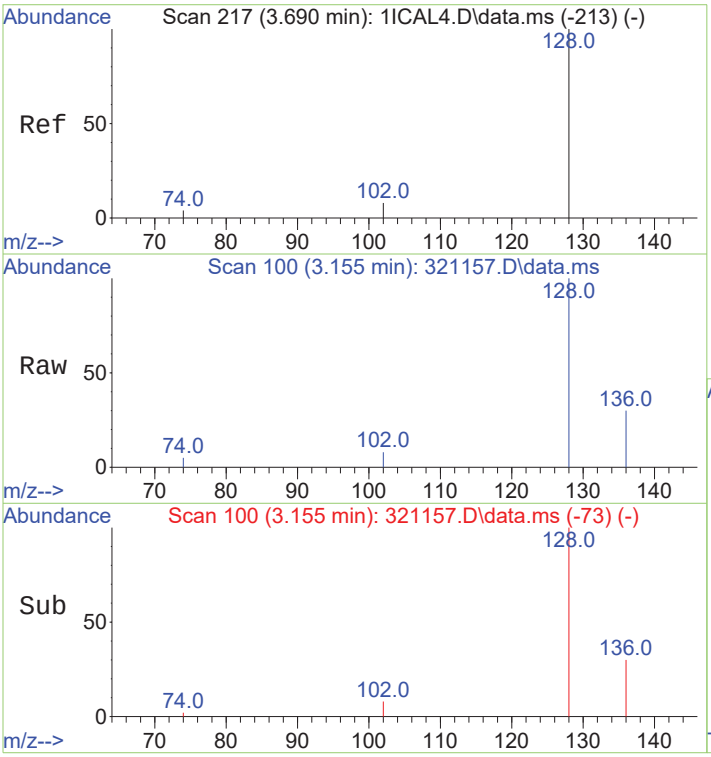
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321157.D Vial: 14
Acq On : 9 Sep 2019 20:15 Operator: JJY
Sample : 164274,321157, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 20:30:06 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

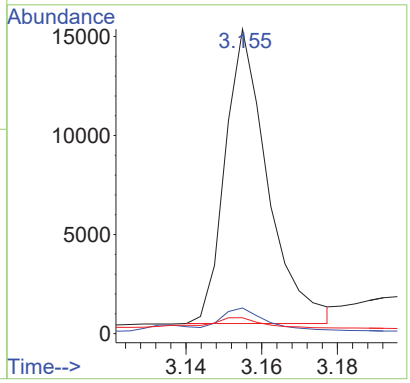


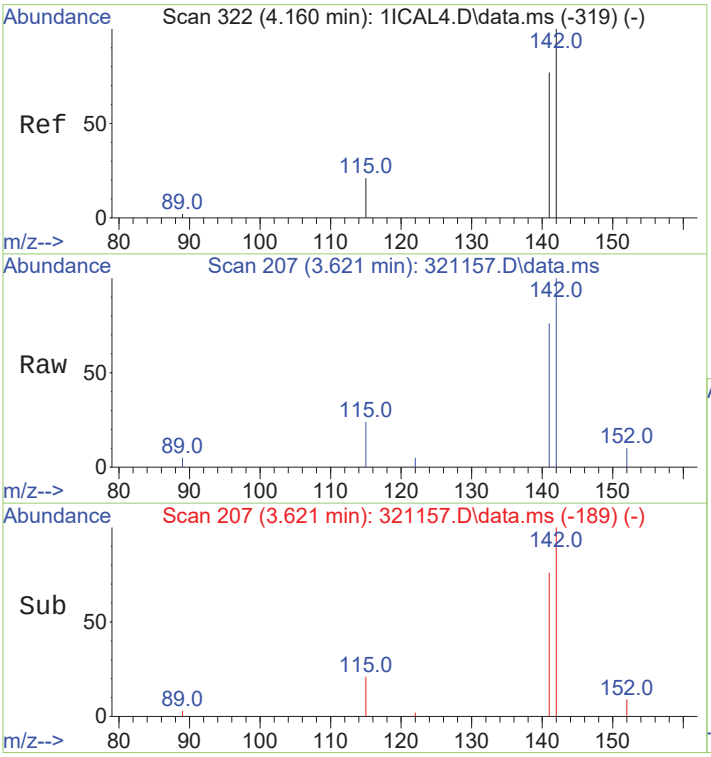


#2
Naphthalene
Concen: 165.30 ng/ml
RT: 3.155 min Scan# 100
Delta R.T. -0.000 min
Lab File: 321157.D
Acq: 9 Sep 2019 20:15

Tgt Ion:128 Resp: 11595

Ion	Ratio	Lower	Upper
128	100		
102	7.4	0.0	37.6
74	3.4	0.0	33.6

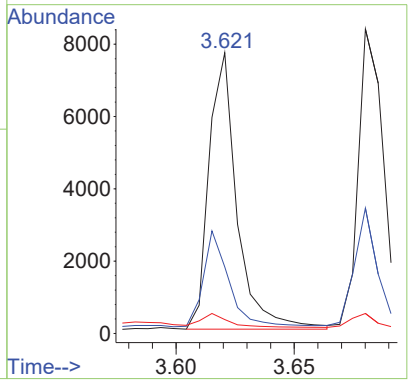


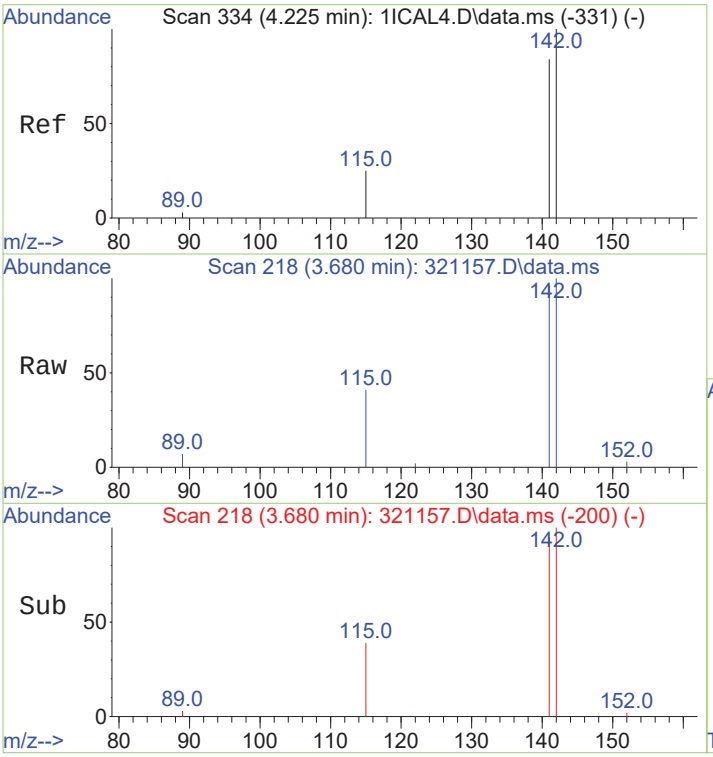


#4
2Methylnaphth
Concen: 164.40 ng/mL
RT: 3.621 min Scan# 207
Delta R.T. -0.000 min
Lab File: 321157.D
Acq: 9 Sep 2019 20:15

Tgt Ion:142 Resp: 6328

Ion	Ratio	Lower	Upper
142	100		
115	21.5	6.9	66.9
89	2.8	0.0	34.9

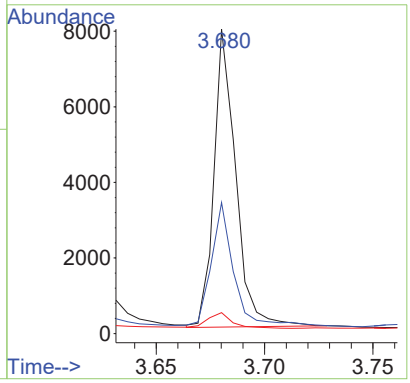


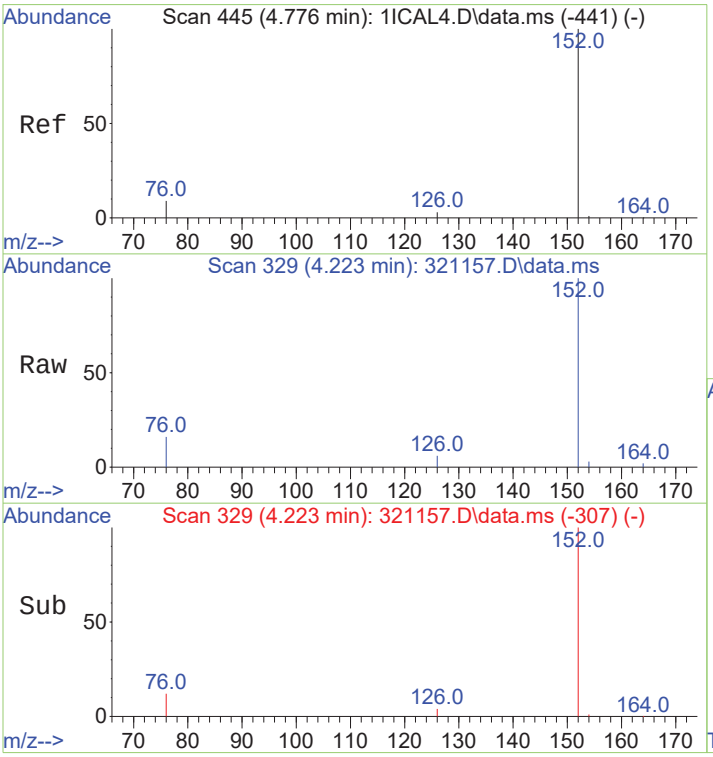


#5
1Methylnaphth
Concen: 146.48 ng/mL
RT: 3.680 min Scan# 218
Delta R.T. -0.000 min
Lab File: 321157.D
Acq: 9 Sep 2019 20:15

Tgt Ion:141 Resp: 5508

Ion	Ratio	Lower	Upper
141	100		
115	41.5	2.5	62.5
89	5.2	0.0	34.0

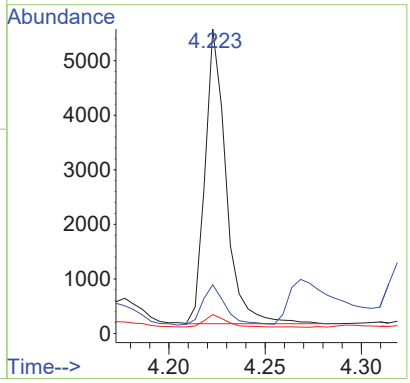


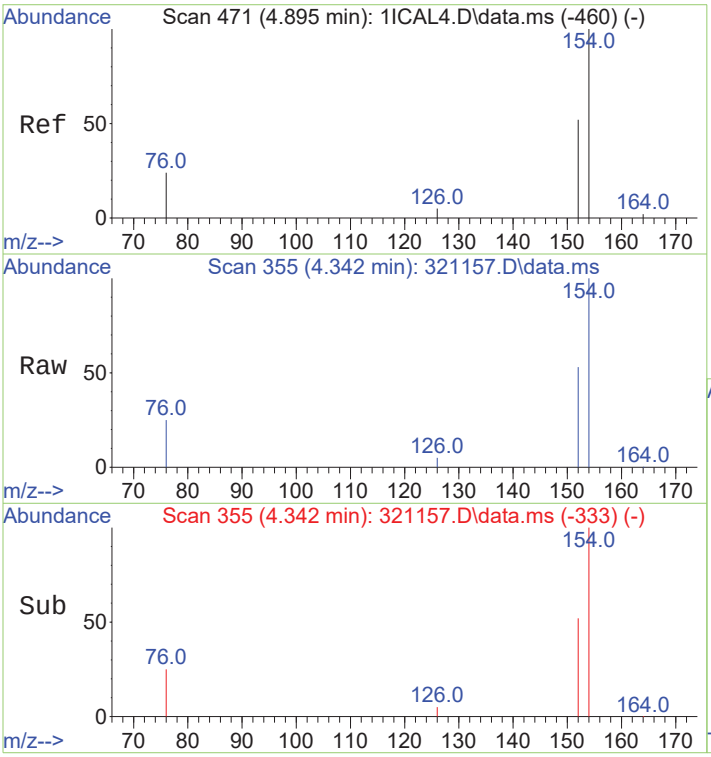


#7
Acnaphthylene
Concen: 69.34 ng/mL
RT: 4.223 min Scan# 329
Delta R.T. -0.000 min
Lab File: 321157.D
Acq: 9 Sep 2019 20:15

Tgt Ion:152 Resp: 4103

Ion	Ratio	Lower	Upper
152	100		
76	13.4	0.0	39.9
126	4.2	0.0	33.1

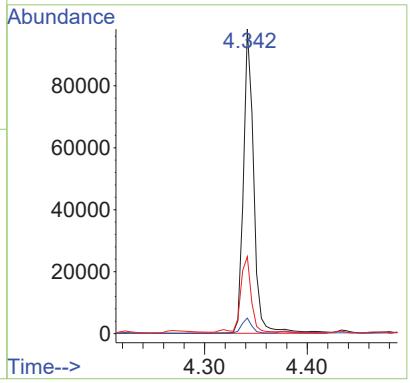


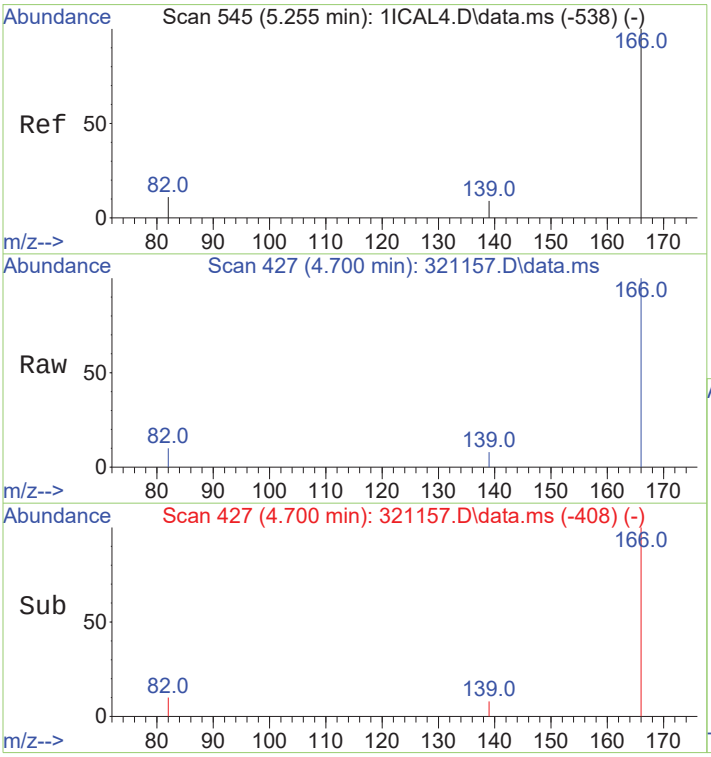


#8
Acenaphthene
Concen: 1727.73 ng/mL
RT: 4.342 min Scan# 355
Delta R.T. -0.000 min
Lab File: 321157.D
Acq: 9 Sep 2019 20:15

Tgt Ion:154 Resp: 69233

Ion	Ratio	Lower	Upper
154	100		
126	5.0	0.0	34.3
76	25.0	0.0	51.6

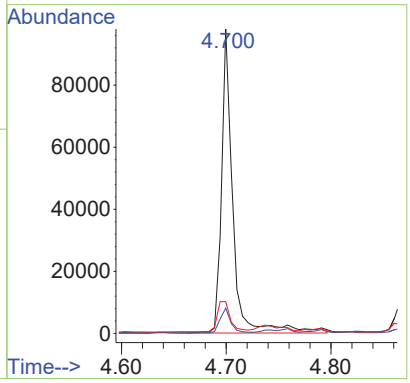


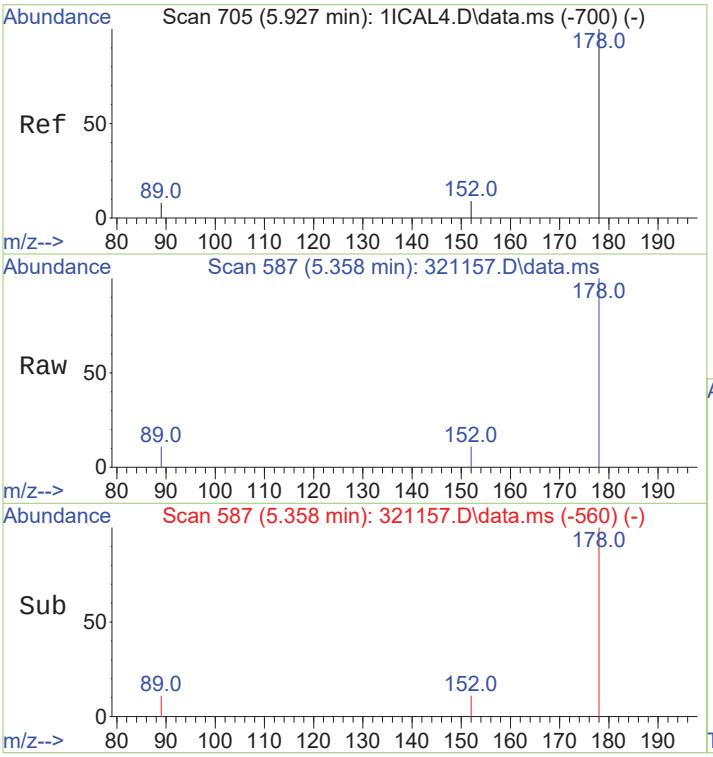


#9
Fluorene
Concen: 1758.47 ng/mL
RT: 4.700 min Scan# 427
Delta R.T. -0.000 min
Lab File: 321157.D
Acq: 9 Sep 2019 20:15

Tgt Ion:166 Resp: 74371

Ion	Ratio	Lower	Upper
166	100		
139	8.2	0.0	38.6
82	9.8	0.0	42.4

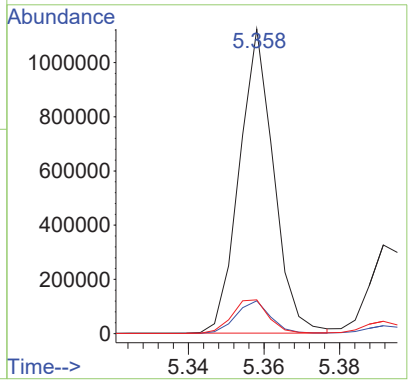


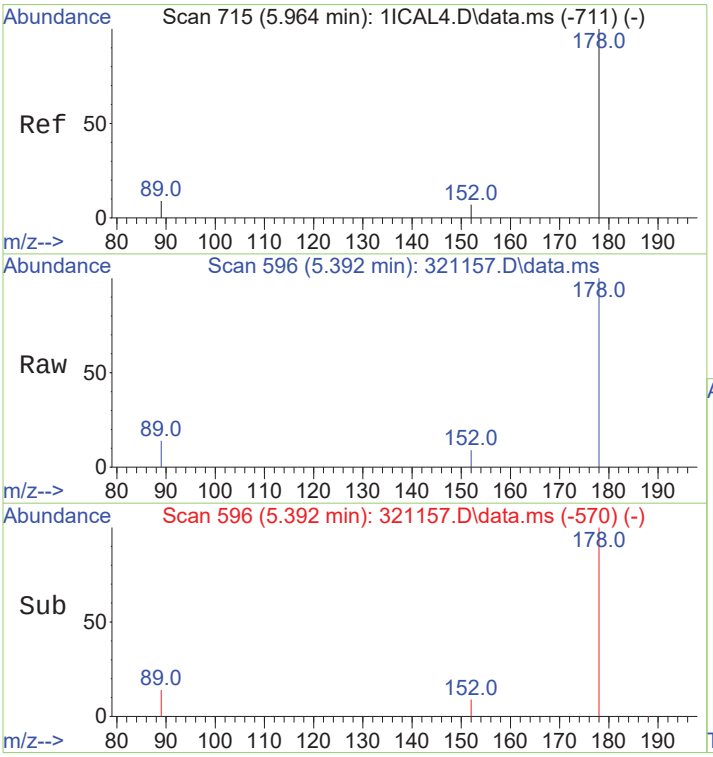


#11
Phenanthrene
Concen: 12735.95 ng/mL
RT: 5.358 min Scan# 587
Delta R.T. -0.000 min
Lab File: 321157.D
Acq: 9 Sep 2019 20:15

Tgt Ion:178 Resp: 709235

Ion	Ratio	Lower	Upper
178	100		
152	10.8	0.0	40.1
89	12.0	0.0	41.4

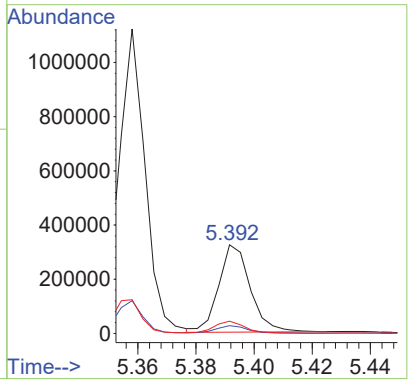


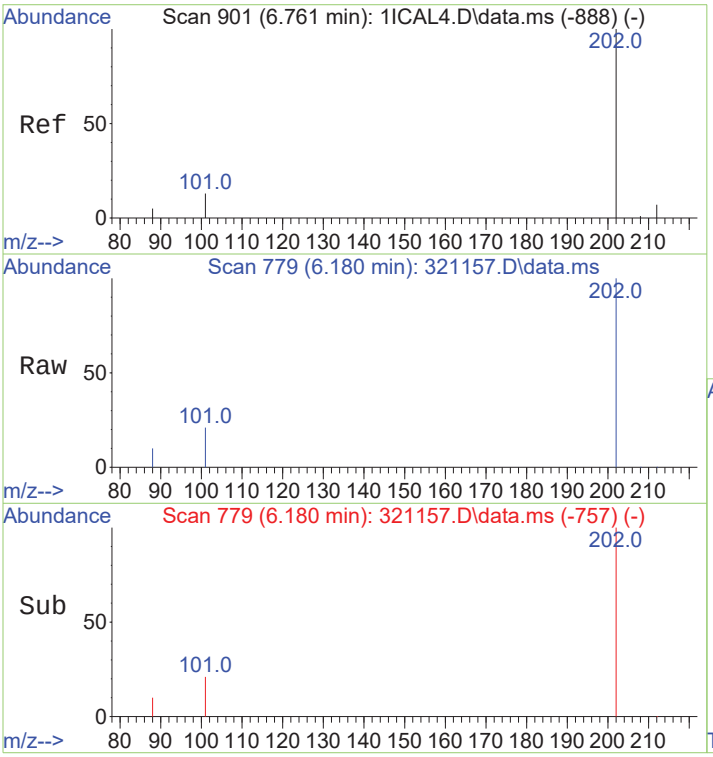


#12
Anthracene
Concen: 4280.62 ng/mL
RT: 5.392 min Scan# 596
Delta R.T. -0.004 min
Lab File: 321157.D
Acq: 9 Sep 2019 20:15

Tgt Ion:178 Resp: 243424

Ion	Ratio	Lower	Upper
178	100		
152	8.7	0.0	37.8
89	13.7	0.0	31.3

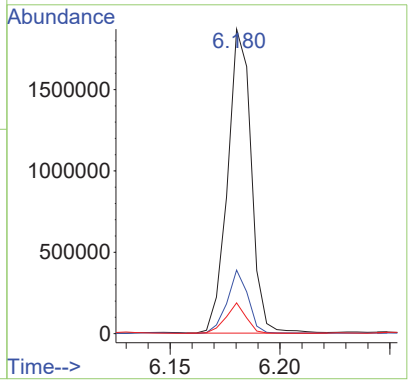


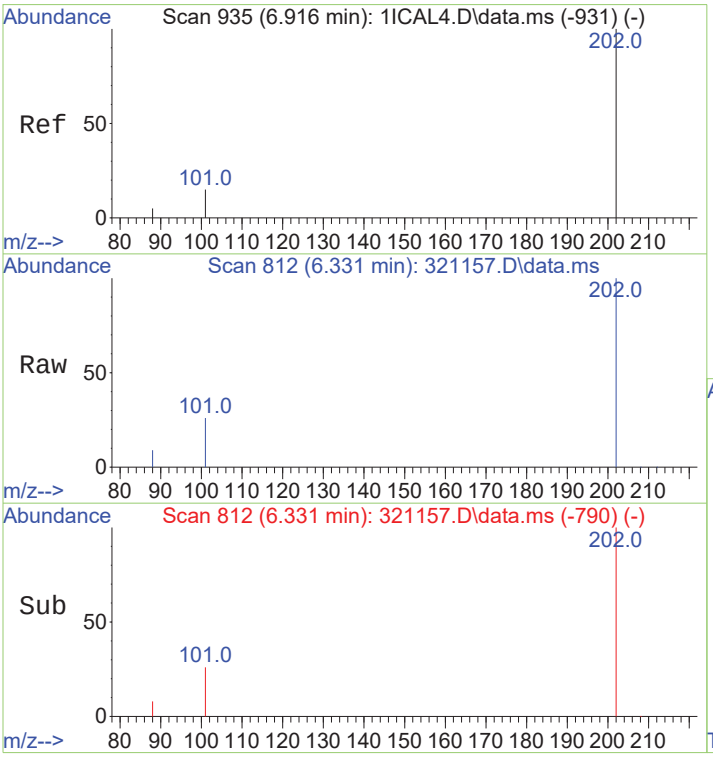


#14
Fluoranthene
Concen: 21539.48 ng/mL
RT: 6.180 min Scan# 779
Delta R.T. -0.000 min
Lab File: 321157.D
Acq: 9 Sep 2019 20:15

Tgt Ion:202 Resp: 1400553

Ion	Ratio	Lower	Upper
202	100		
101	20.8	0.0	48.3
88	10.0	0.0	38.8

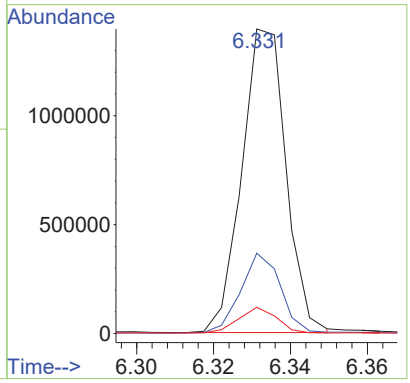


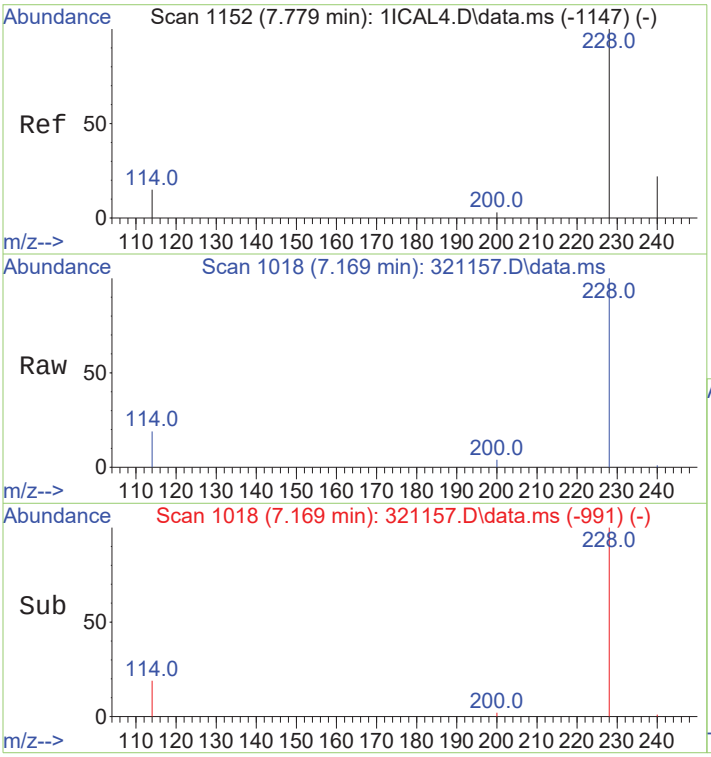


#16
Pyrene
Concen: 16319.43 ng/mL
RT: 6.331 min Scan# 812
Delta R.T. -0.000 min
Lab File: 321157.D
Acq: 9 Sep 2019 20:15

Tgt Ion:202 Resp: 1114402

Ion	Ratio	Lower	Upper
202	100		
101	26.3	0.0	49.4
88	8.5	0.0	35.5

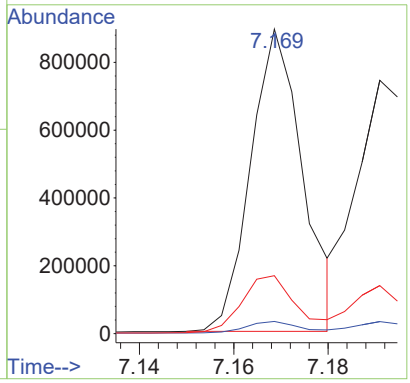


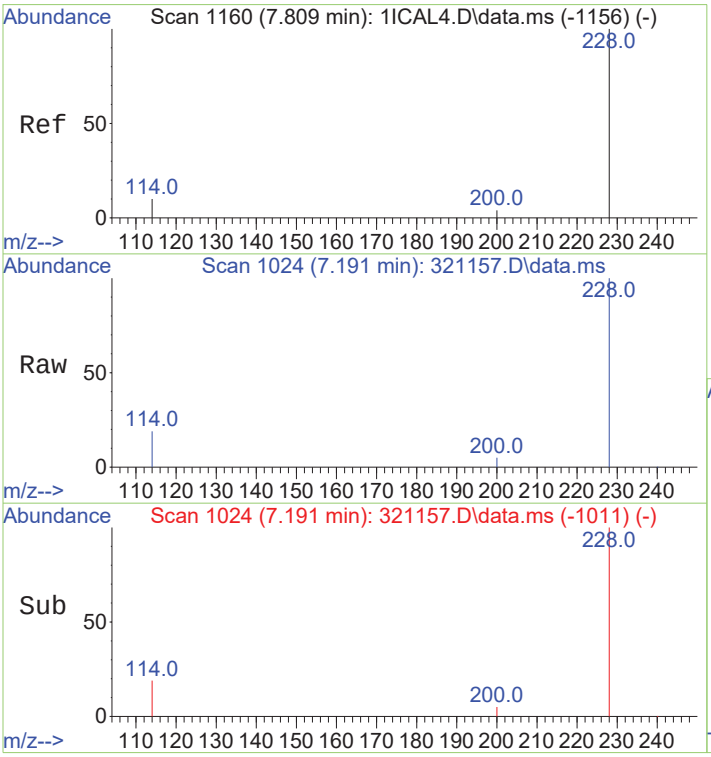


#17
B[a]anthracen
Concen: 13549.79 ng/mL
RT: 7.169 min Scan# 1018
Delta R.T. -0.000 min
Lab File: 321157.D
Acq: 9 Sep 2019 20:15

Tgt Ion:228 Resp: 685000

Ion	Ratio	Lower	Upper
228	100		
200	3.8	0.0	33.6
114	18.9	0.0	47.0

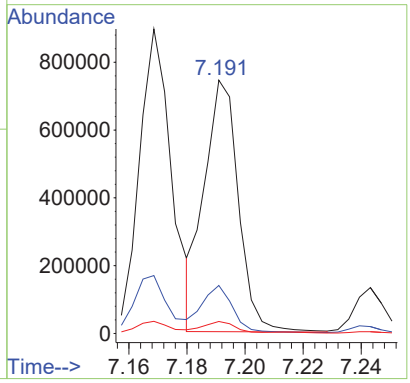


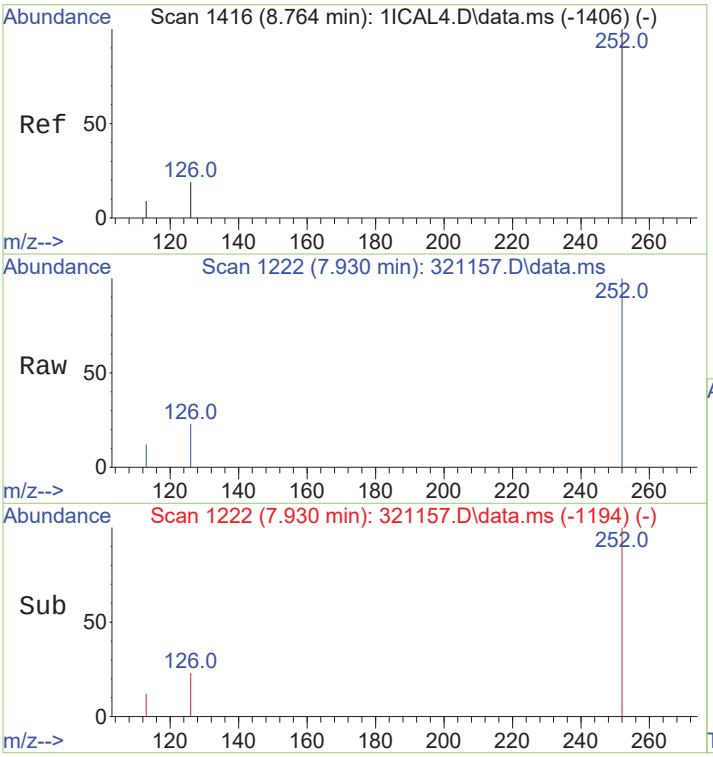


#18
Chrysene
Concen: 10271.87 ng/mL
RT: 7.191 min Scan# 1024
Delta R.T. -0.000 min
Lab File: 321157.D
Acq: 9 Sep 2019 20:15

Tgt Ion:228 Resp: 609302

Ion	Ratio	Lower	Upper
228	100		
114	18.8	0.0	46.1
200	4.6	0.0	33.8

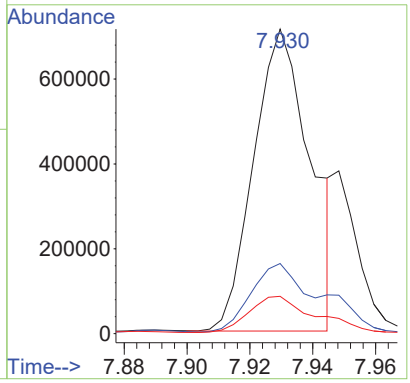


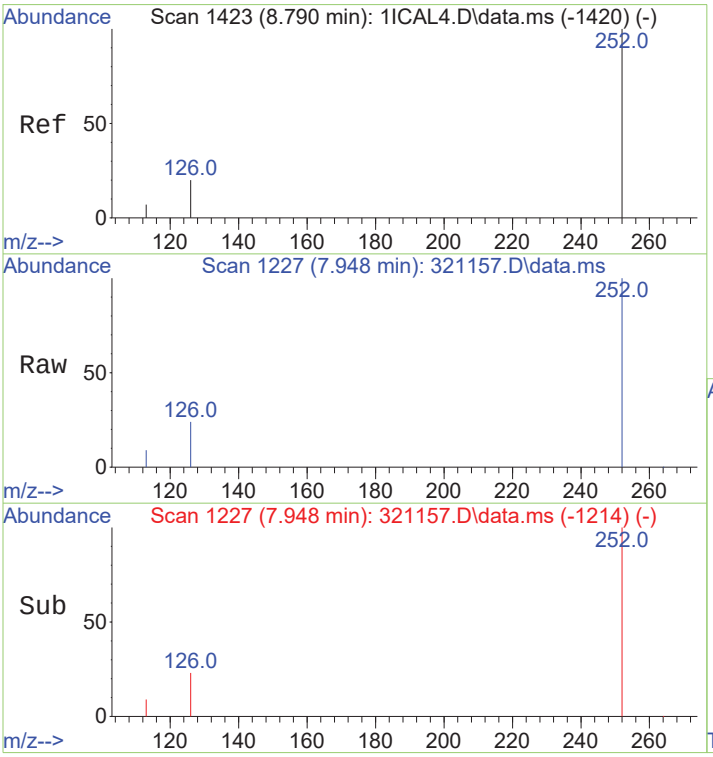


#20
B[b]fluoranth
Concen: 12464.04 ng/mL
RT: 7.930 min Scan# 1222
Delta R.T. 0.004 min
Lab File: 321157.D
Acq: 9 Sep 2019 20:15

Tgt Ion:252 Resp: 893834

Ion	Ratio	Lower	Upper
252	100		
126	22.6	0.0	52.1
113	12.0	0.0	40.0

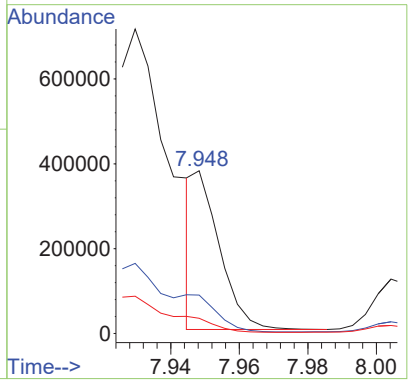


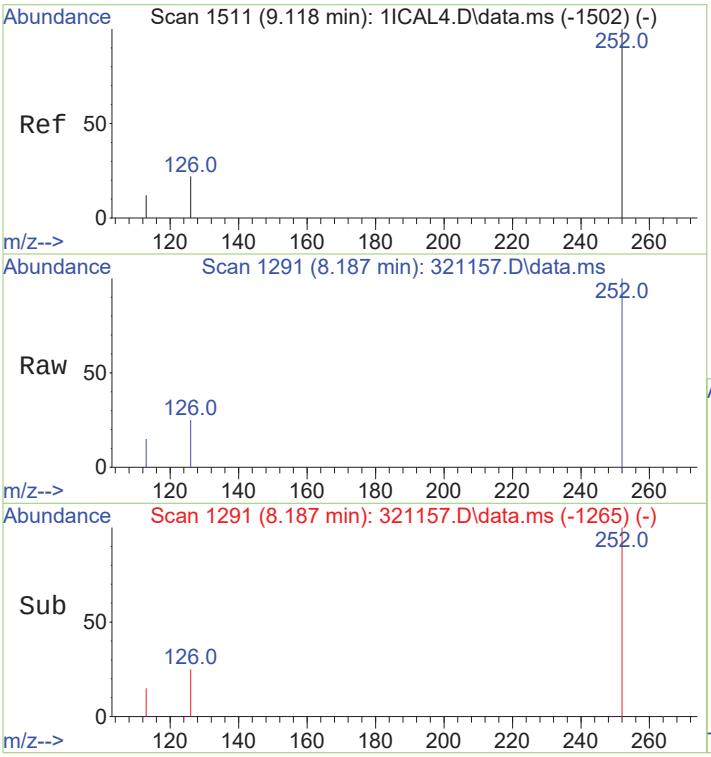


#21
B[k]fluoranth
Concen: 2295.89 ng/mL
RT: 7.948 min Scan# 1227
Delta R.T. -0.000 min
Lab File: 321157.D
Acq: 9 Sep 2019 20:15

Tgt Ion:252 Resp: 198122

Ion	Ratio	Lower	Upper
252	100		
126	23.1	0.0	54.3
113	8.7	0.0	39.4

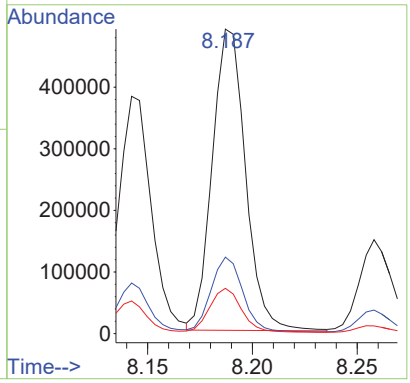


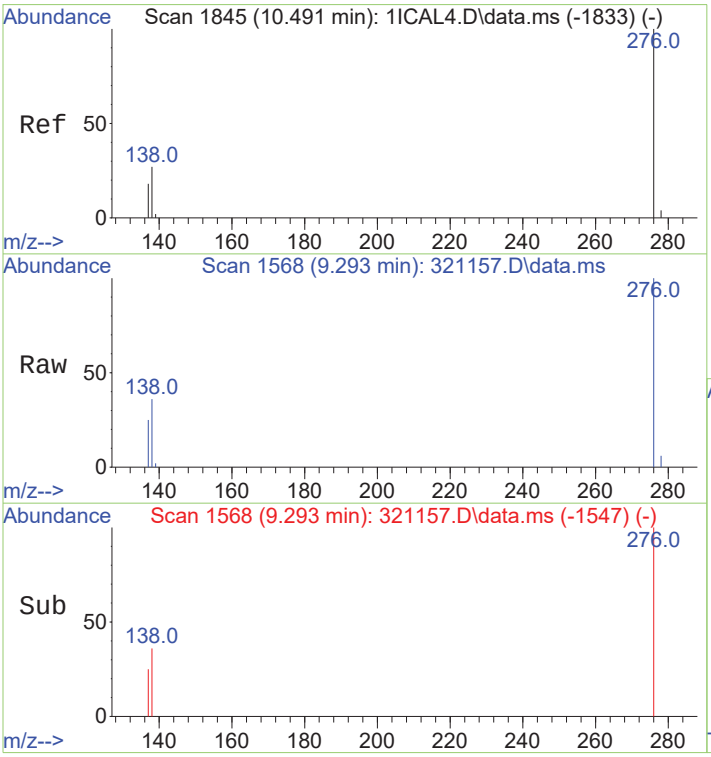


#22
Benz[a]pyrene
Concen: 7677.74 ng/mL
RT: 8.187 min Scan# 1291
Delta R.T. -0.004 min
Lab File: 321157.D
Acq: 9 Sep 2019 20:15

Tgt Ion:252 Resp: 540132

Ion	Ratio	Lower	Upper
252	100		
126	24.9	0.0	52.7
113	14.6	0.0	42.2

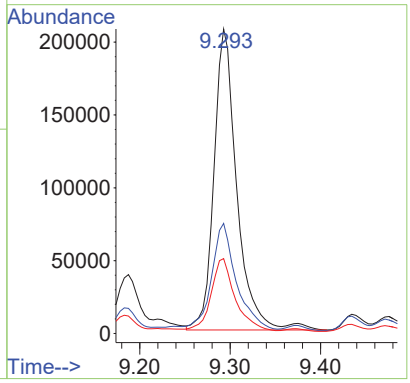


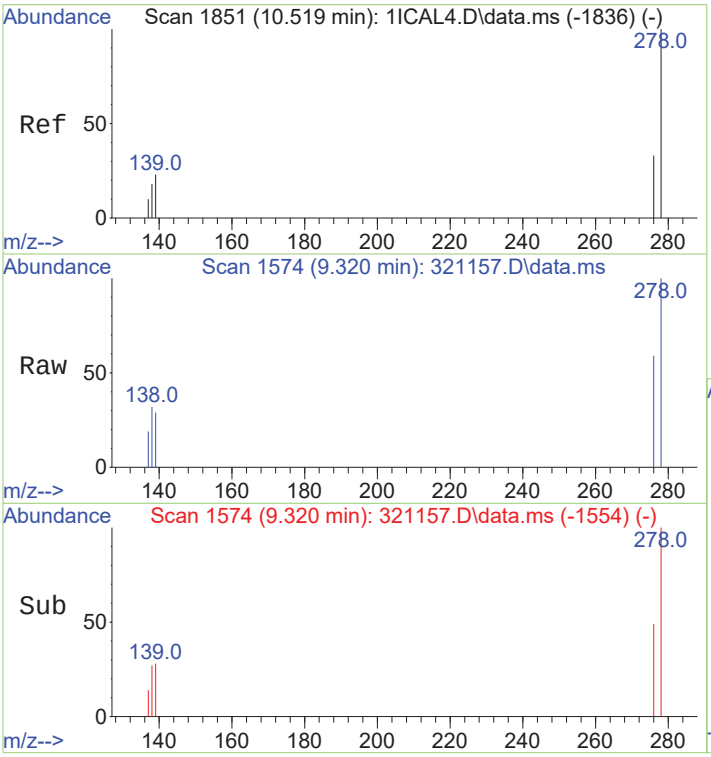


#23
Indeno-pyrene
Concen: 5140.89 ng/mL
RT: 9.293 min Scan# 1568
Delta R.T. -0.005 min
Lab File: 321157.D
Acq: 9 Sep 2019 20:15

Tgt Ion:276 Resp: 365191

Ion	Ratio	Lower	Upper
276	100		
138	35.6	4.1	64.1
137	24.1	0.0	52.8

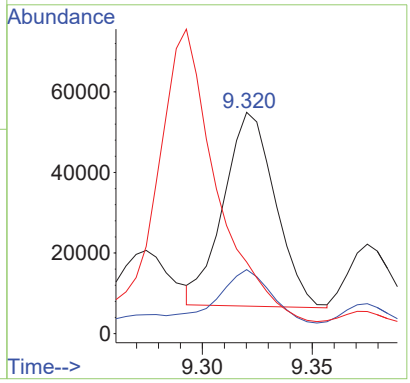


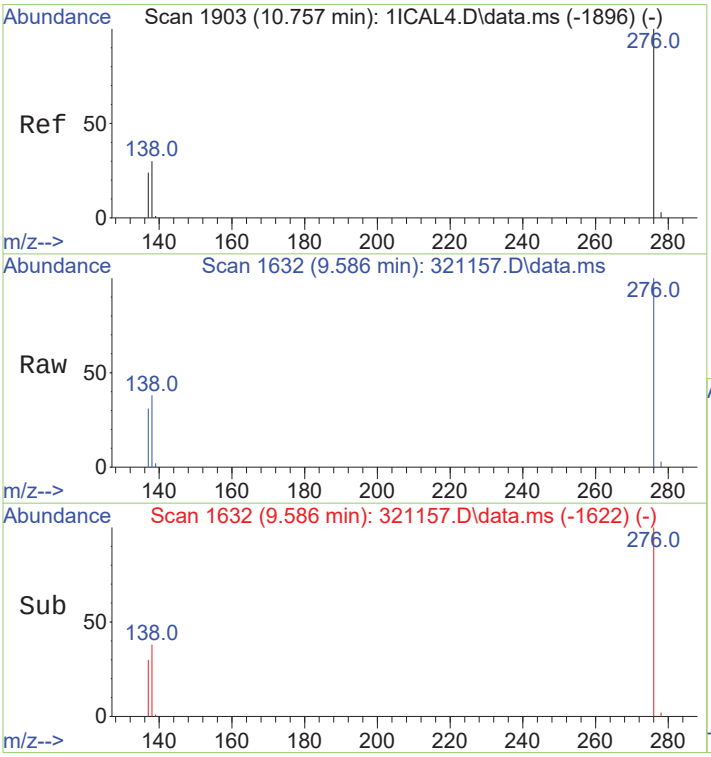


#24
Dib[ah]anthr
Concen: 1357.93 ng/mL
RT: 9.320 min Scan# 1574
Delta R.T. -0.009 min
Lab File: 321157.D
Acq: 9 Sep 2019 20:15

Tgt Ion:278 Resp: 78635

Ion	Ratio	Lower	Upper
278	100		
139	27.1	0.0	59.3
138	30.4	0.0	56.3

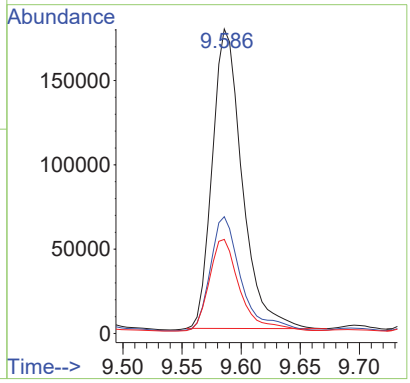




#25
B[ghi]perylen
Concen: 5148.59 ng/mL
RT: 9.586 min Scan# 1632
Delta R.T. -0.005 min
Lab File: 321157.D
Acq: 9 Sep 2019 20:15

Tgt Ion:276 Resp: 312607

Ion	Ratio	Lower	Upper
276	100		
138	37.8	7.7	67.7
137	30.4	0.6	60.6



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321158.D Vial: 15
Acq On : 9 Sep 2019 20:35 Operator: JJY
Sample : 164274,321158, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 20:50:14 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

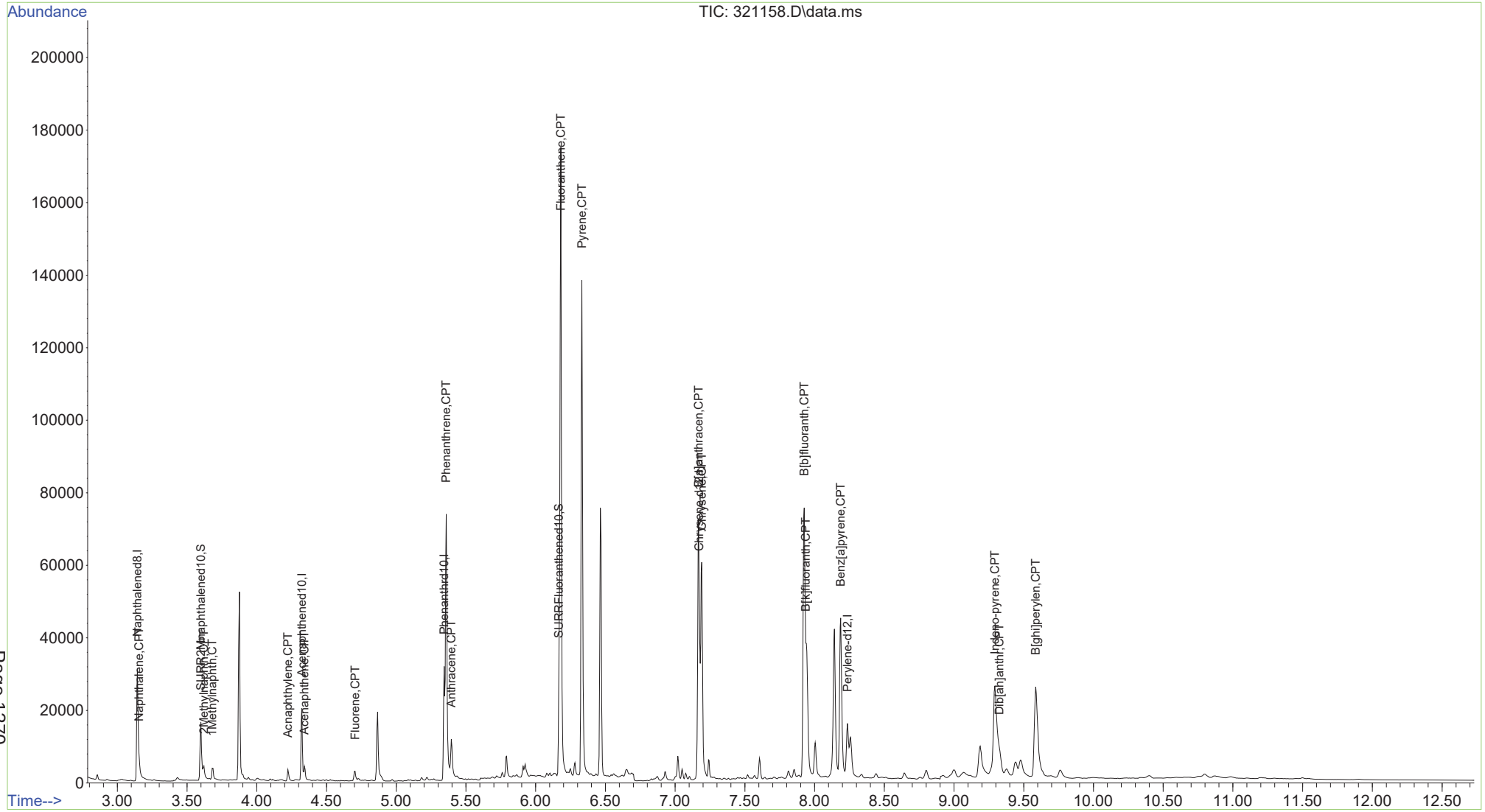
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.144	136	27665	400.00	ng/mL	0.00
6) Acenaphthened10	4.323	164	14012	400.00	ng/mL	0.00
10) Phenanthrd10	5.343	188	23188	400.00	ng/mL	0.00
15) Chrysene-d12	7.172	240	17156	400.00	ng/mL	0.00
19) Perylene-d12	8.236	264	16990	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.599	152	11147	72.65	%REC	0.00
Spiked Amount 100.000			Recovery = 72.65%			
13) SURRFluoranthened10	6.167	212	18152	79.28	%REC	0.00
Spiked Amount 100.000			Recovery = 79.28%			
Target Compounds						Qvalue
2) Naphthalene	3.155	128	1275	18.7425	ng/ml	97
4) 2Methylnaphth	3.621	142	1146	30.7000	ng/mL	86
5) 1Methylnaphth	3.680	141	1089	29.8626	ng/mL	65
7) Acnaphthylene	4.223	152	2058	35.0227	ng/mL	93
8) Acenaphthene	4.342	154	1552	38.9988	ng/mL	85
9) Fluorene	4.705	166	2274	54.1399	ng/mL	92
11) Phenanthrene	5.358	178	45740	784.7474	ng/mL	99
12) Anthracene	5.395	178	8905	154.2310	ng/mL	97
14) Fluoranthene	6.180	202	101316	1534.6467	ng/mL	93
16) Pyrene	6.331	202	81233	1171.0021	ng/mL	99
17) B[a]anthracen	7.169	228	40192	825.5683	ng/mL	96
18) Chrysene	7.191	228	46974	779.5369	ng/mL	97
20) B[b]fluoranth	7.926	252	62430m	1128.4168	ng/mL	
21) B[k]fluoranth	7.937	252	24187m	356.5237	ng/mL	
22) Benz[a]pyrene	8.187	252	36555	690.9870	ng/mL	99
23) Indeno-pyrene	9.293	276	28521	550.7458	ng/mL	98
24) Dib[ah]anthr	9.325	278	5885	164.3539	ng/mL	90
25) B[ghi]perylen	9.586	276	26266	589.9430	ng/mL	99

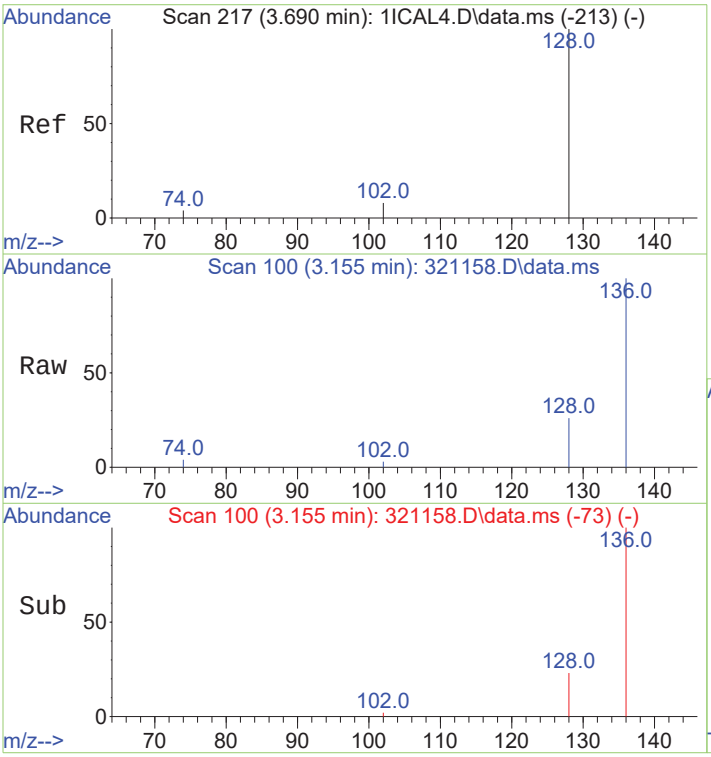
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321158.D Vial: 15
Acq On : 9 Sep 2019 20:35 Operator: JJY
Sample : 164274,321158, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 20:50:14 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

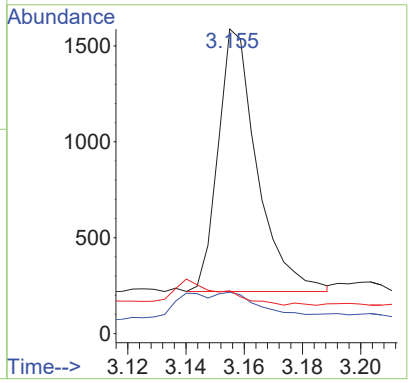


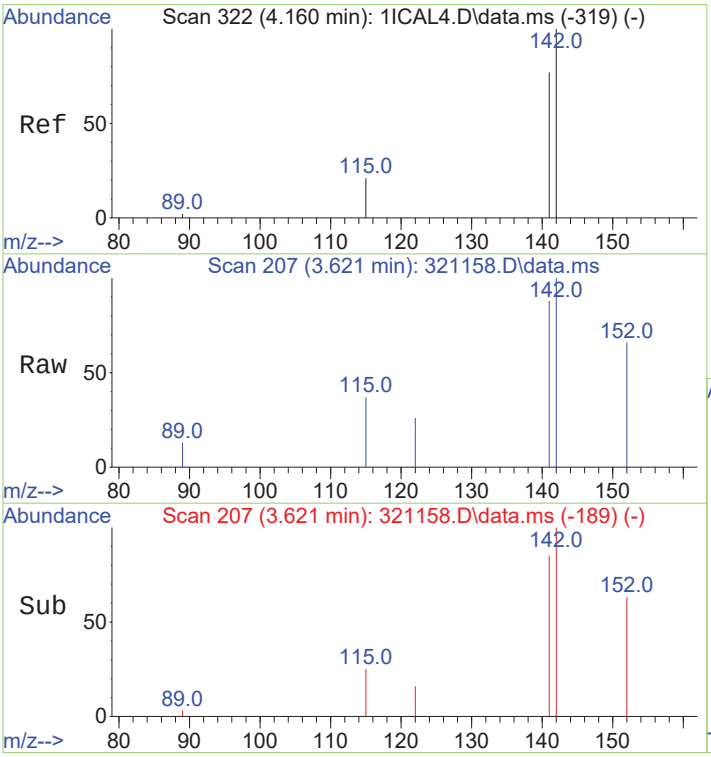


#2
Naphthalene
Concen: 18.74 ng/ml
RT: 3.155 min Scan# 100
Delta R.T. 0.000 min
Lab File: 321158.D
Acq: 9 Sep 2019 20:35

Tgt Ion:128 Resp: 1275

Ion	Ratio	Lower	Upper
128	100		
102	8.3	0.0	37.6
74	5.0	0.0	33.6

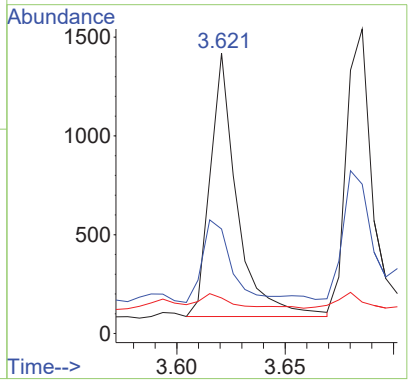


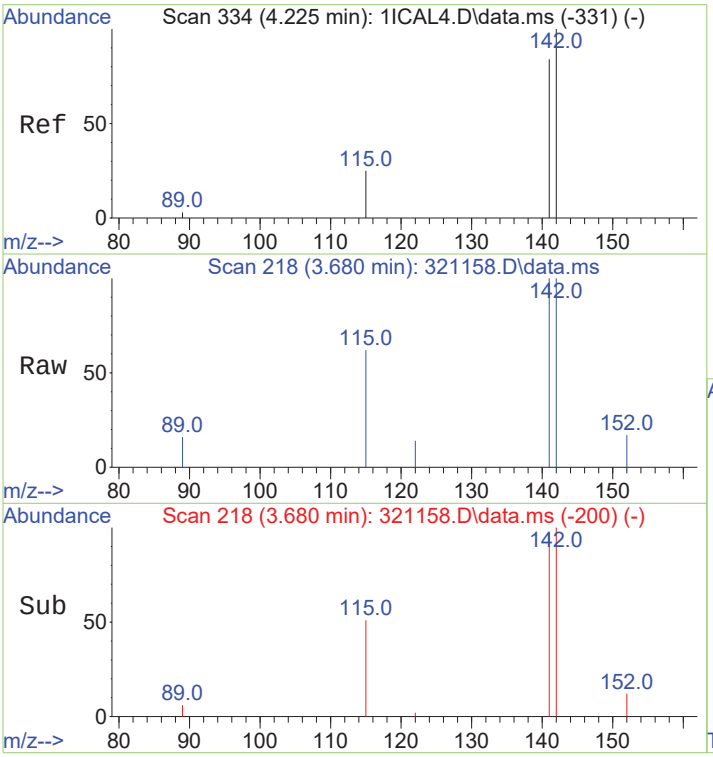


#4
2Methylnaphth
Concen: 30.70 ng/mL
RT: 3.621 min Scan# 207
Delta R.T. 0.000 min
Lab File: 321158.D
Acq: 9 Sep 2019 20:35

Tgt Ion:142 Resp: 1146

Ion	Ratio	Lower	Upper
142	100		
115	27.9	6.9	66.9
89	2.8	0.0	34.9

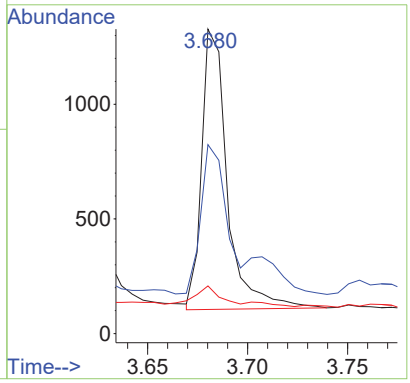


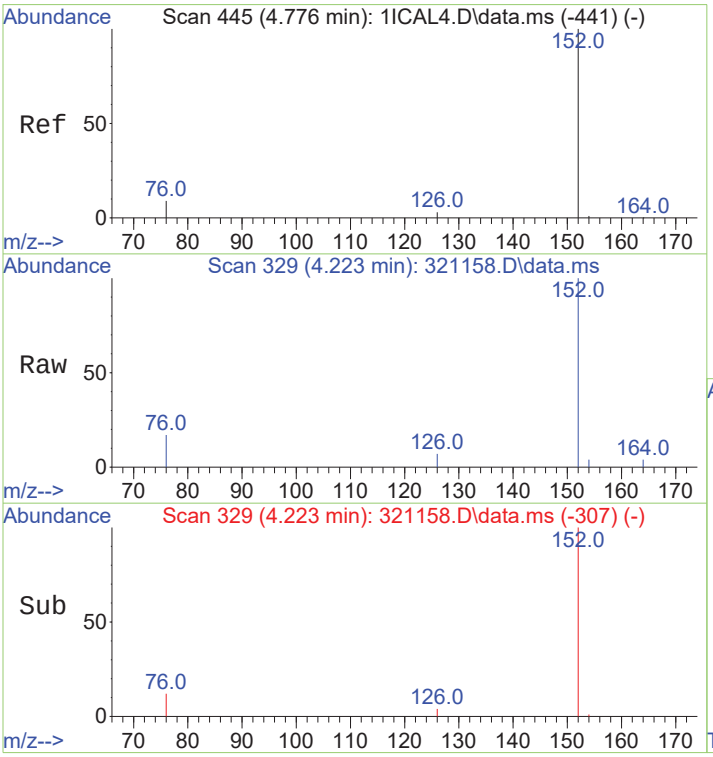


#5
1Methylnaphth
Concen: 29.86 ng/mL
RT: 3.680 min Scan# 218
Delta R.T. 0.000 min
Lab File: 321158.D
Acq: 9 Sep 2019 20:35

Tgt Ion:141 Resp: 1089

Ion	Ratio	Lower	Upper
141	100		
115	53.7	2.5	62.5
89	7.2	0.0	34.0

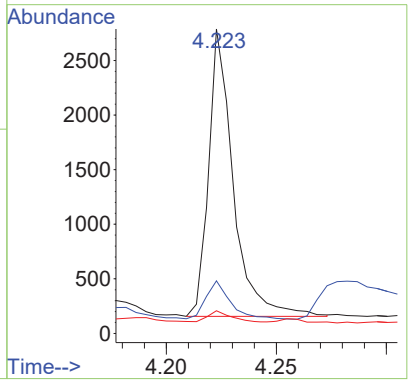


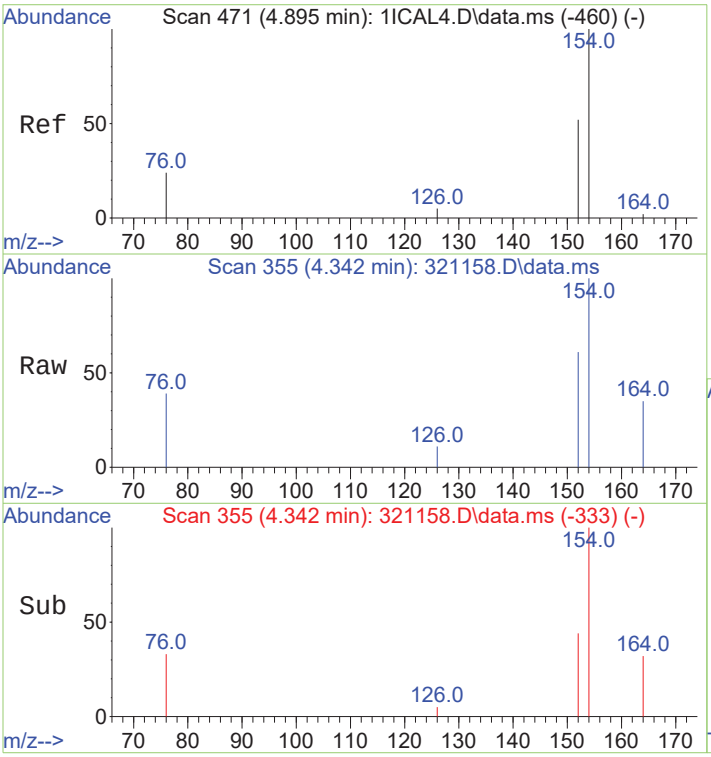


#7
Acnaphthylene
Concen: 35.02 ng/mL
RT: 4.223 min Scan# 329
Delta R.T. 0.000 min
Lab File: 321158.D
Acq: 9 Sep 2019 20:35

Tgt Ion:152 Resp: 2058

Ion	Ratio	Lower	Upper
152	100		
76	13.1	0.0	39.9
126	3.9	0.0	33.1

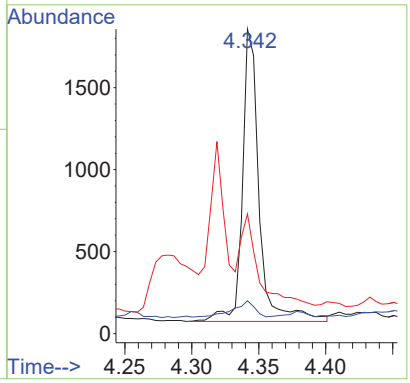


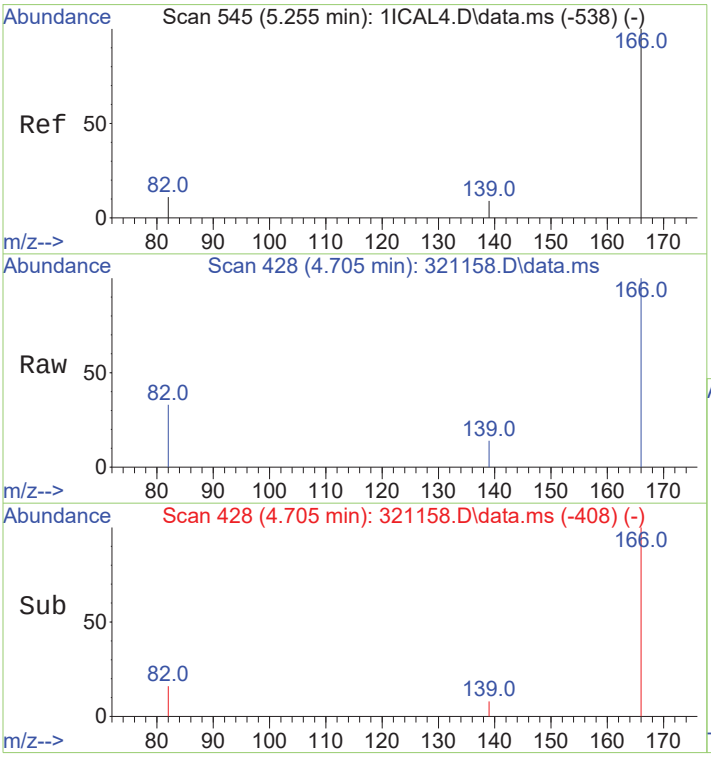


#8
Acenaphthene
Concen: 39.00 ng/mL
RT: 4.342 min Scan# 355
Delta R.T. 0.000 min
Lab File: 321158.D
Acq: 9 Sep 2019 20:35

Tgt Ion:154 Resp: 1552

Ion	Ratio	Lower	Upper
154	100		
126	5.3	0.0	34.3
76	30.1	0.0	51.6

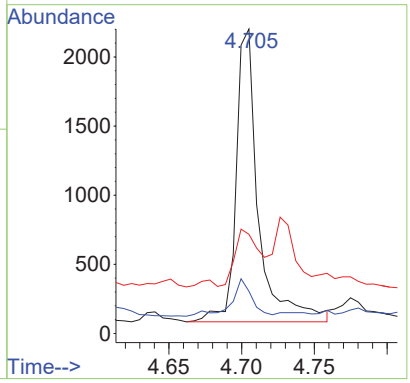


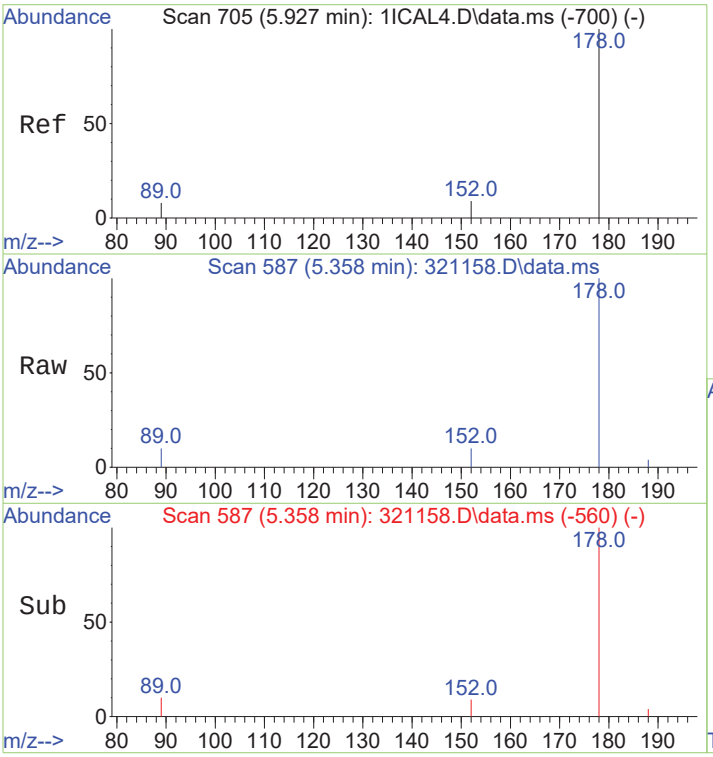


#9
Fluorene
Concen: 54.14 ng/mL
RT: 4.705 min Scan# 428
Delta R.T. 0.005 min
Lab File: 321158.D
Acq: 9 Sep 2019 20:35

Tgt Ion:166 Resp: 2274

Ion	Ratio	Lower	Upper
166	100		
139	8.5	0.0	38.6
82	18.0	0.0	42.4

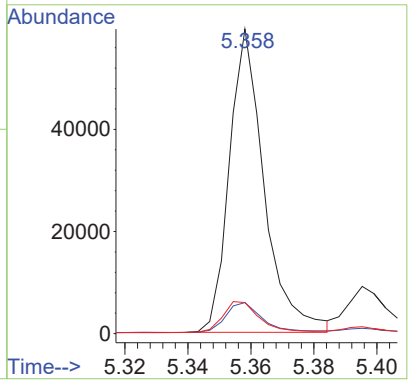


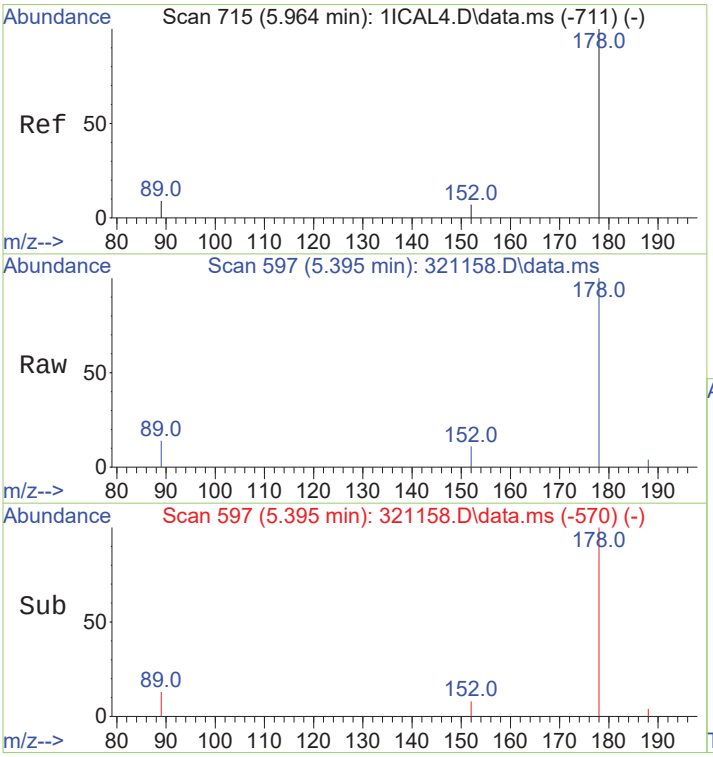


#11
Phenanthrene
Concen: 784.75 ng/mL
RT: 5.358 min Scan# 587
Delta R.T. 0.000 min
Lab File: 321158.D
Acq: 9 Sep 2019 20:35

Tgt Ion:178 Resp: 45740

Ion	Ratio	Lower	Upper
178	100		
152	10.5	0.0	40.1
89	10.9	0.0	41.4

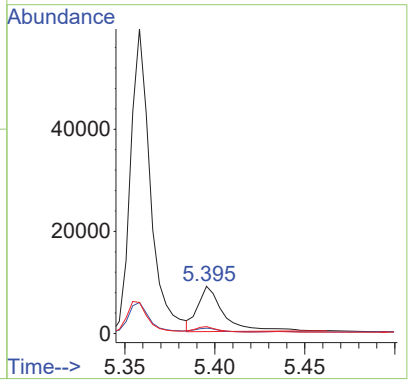


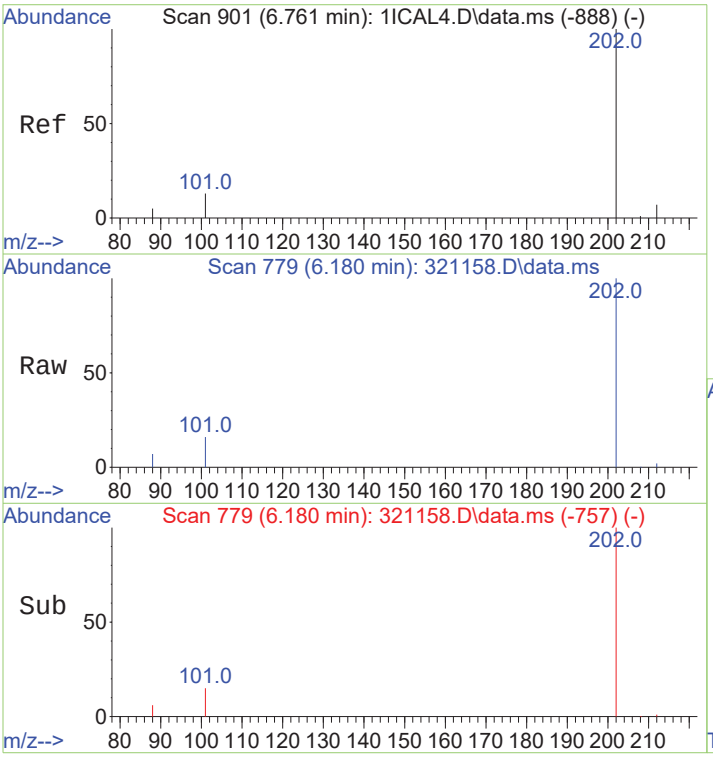


#12
Anthracene
Concen: 154.23 ng/mL
RT: 5.395 min Scan# 597
Delta R.T. 0.000 min
Lab File: 321158.D
Acq: 9 Sep 2019 20:35

Tgt Ion:178 Resp: 8905

Ion	Ratio	Lower	Upper
178	100		
152	8.7	0.0	37.8
89	12.3	0.0	31.3

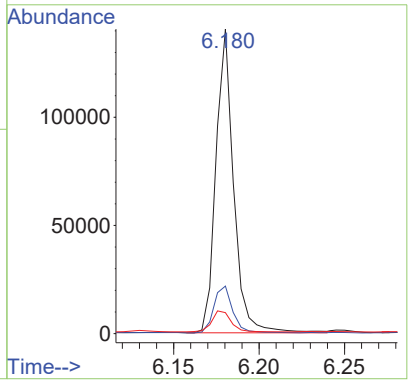


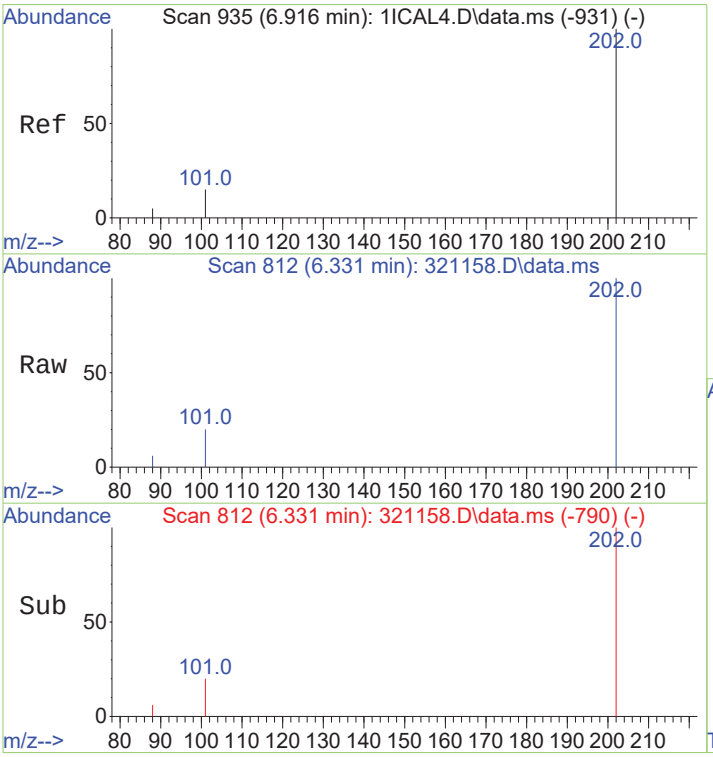


#14
Fluoranthene
Concen: 1534.65 ng/mL
RT: 6.180 min Scan# 779
Delta R.T. 0.000 min
Lab File: 321158.D
Acq: 9 Sep 2019 20:35

Tgt Ion:202 Resp: 101316

Ion	Ratio	Lower	Upper
202	100		
101	15.4	0.0	48.3
88	6.3	0.0	38.8

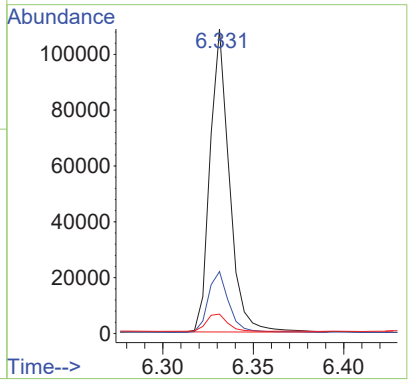


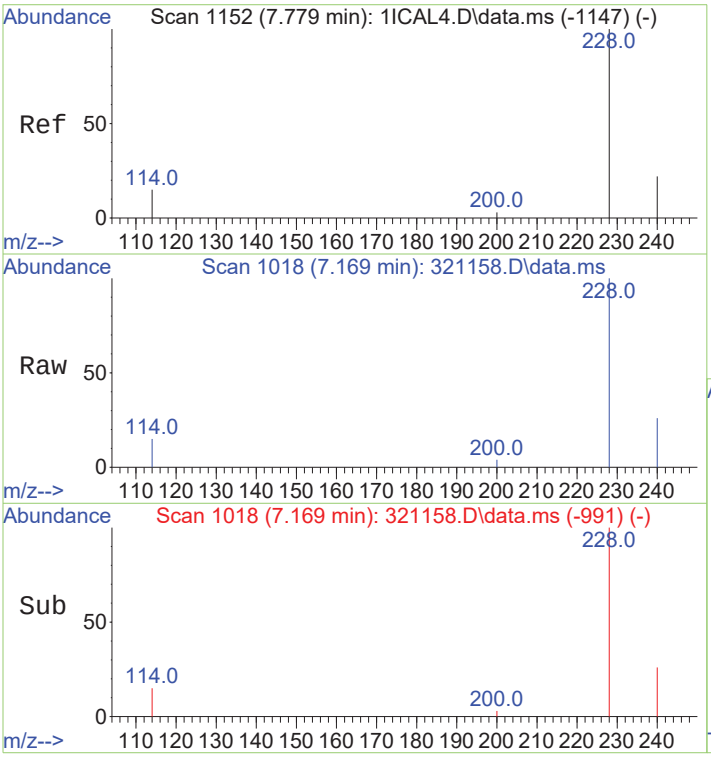


#16
Pyrene
Concen: 1171.00 ng/mL
RT: 6.331 min Scan# 812
Delta R.T. 0.000 min
Lab File: 321158.D
Acq: 9 Sep 2019 20:35

Tgt Ion:202 Resp: 81233

Ion	Ratio	Lower	Upper
202	100		
101	20.0	0.0	49.4
88	5.7	0.0	35.5

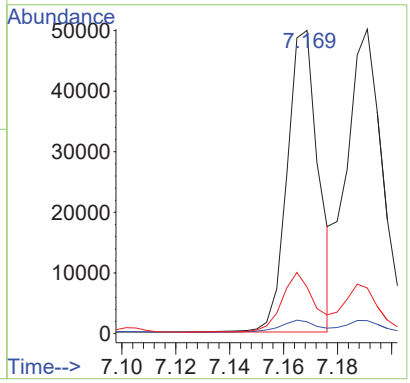


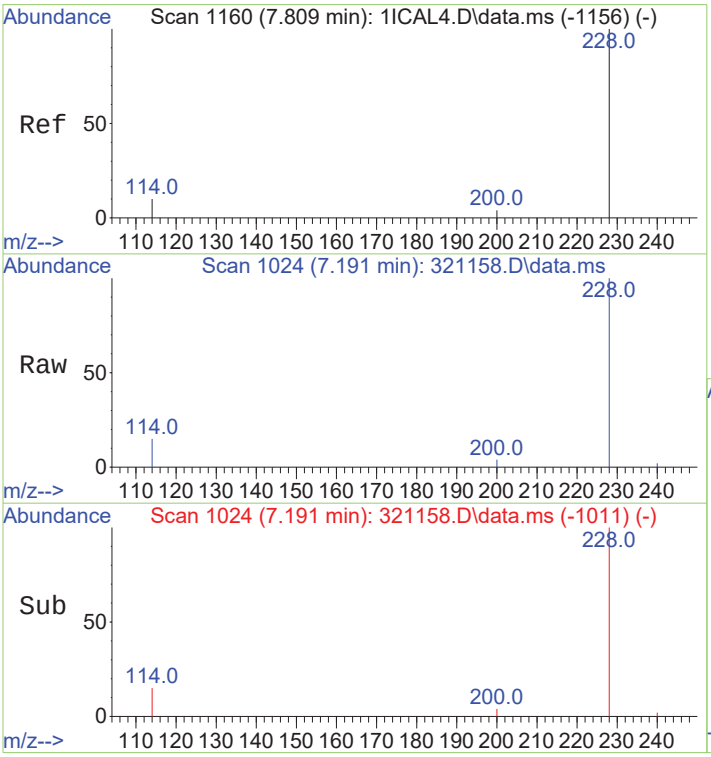


#17
B[a]anthracen
Concen: 825.57 ng/mL
RT: 7.169 min Scan# 1018
Delta R.T. 0.000 min
Lab File: 321158.D
Acq: 9 Sep 2019 20:35

Tgt Ion:228 Resp: 40192

Ion	Ratio	Lower	Upper
228	100		
200	3.4	0.0	33.6
114	15.0	0.0	47.0

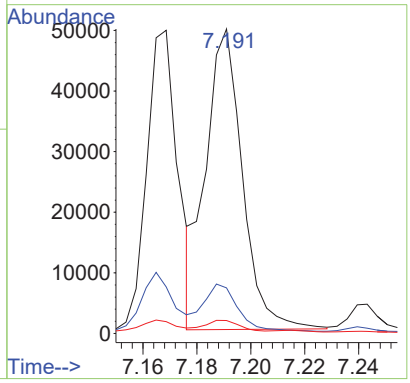


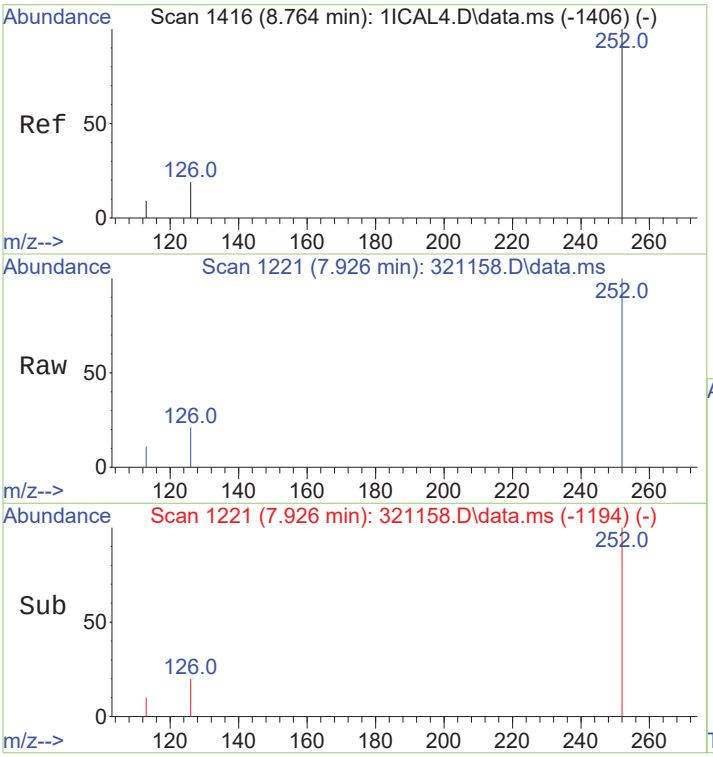


#18
Chrysene
Concen: 779.54 ng/mL
RT: 7.191 min Scan# 1024
Delta R.T. 0.000 min
Lab File: 321158.D
Acq: 9 Sep 2019 20:35

Tgt Ion:228 Resp: 46974

Ion	Ratio	Lower	Upper
228	100		
114	14.6	0.0	46.1
200	3.8	0.0	33.8

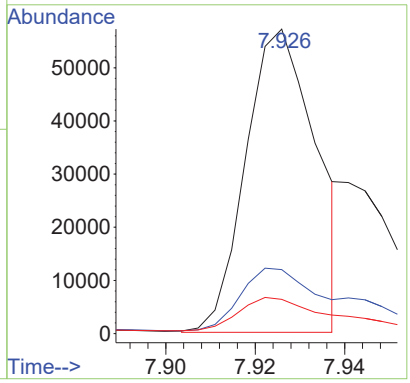


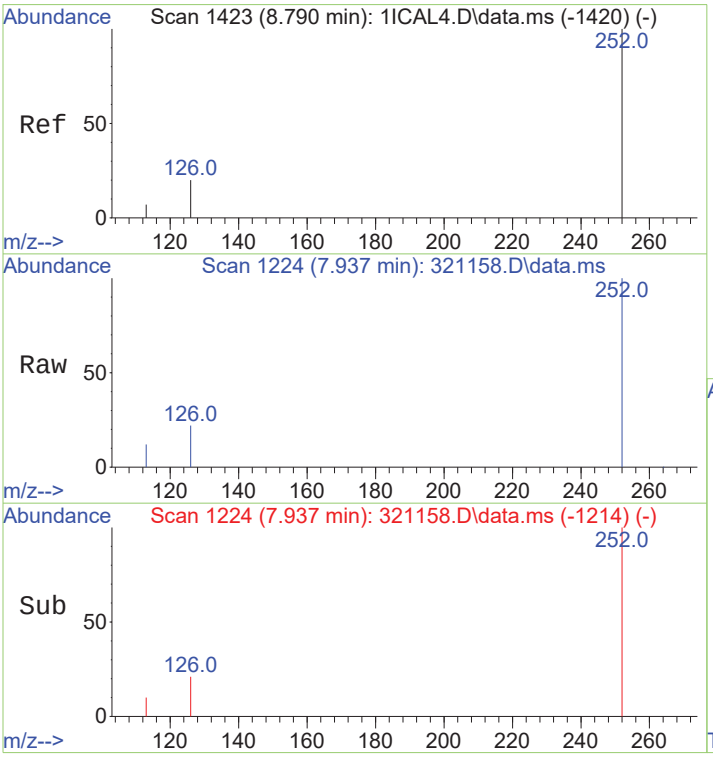


#20
B[b]fluoranth
Concen: 1128.42 ng/mL m
RT: 7.926 min Scan# 1221
Delta R.T. 0.000 min
Lab File: 321158.D
Acq: 9 Sep 2019 20:35

Tgt Ion:252 Resp: 62430

Ion	Ratio	Lower	Upper
252	100		
126	21.0	0.0	52.1
113	11.2	0.0	40.0

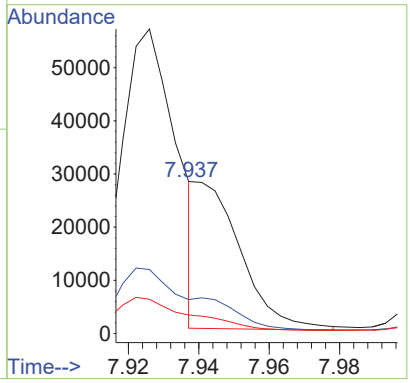


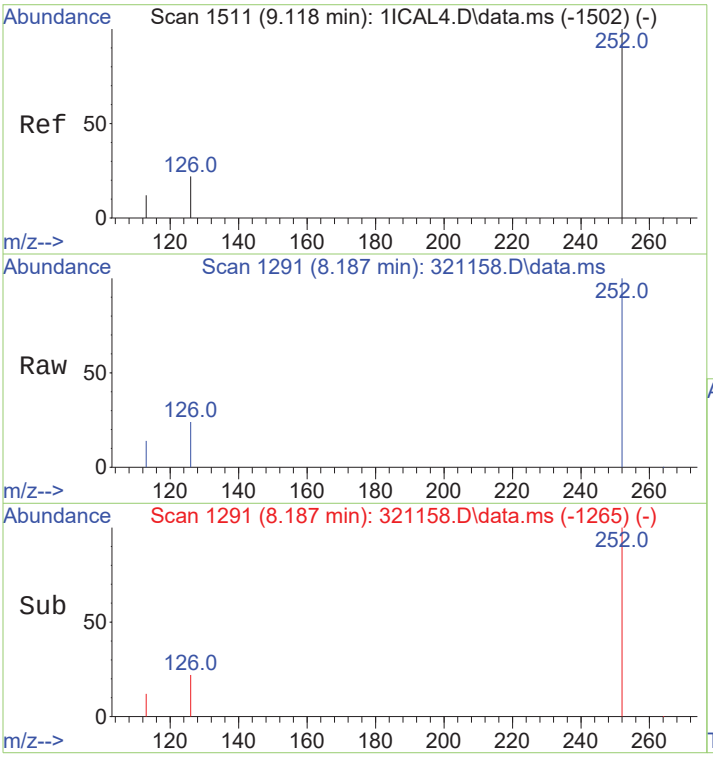


#21
B[k]fluoranth
Concen: 356.52 ng/mL m
RT: 7.937 min Scan# 1224
Delta R.T. -0.011 min
Lab File: 321158.D
Acq: 9 Sep 2019 20:35

Tgt Ion:252 Resp: 24187

Ion	Ratio	Lower	Upper
252	100		
126	22.3	0.0	54.3
113	12.2	0.0	39.4

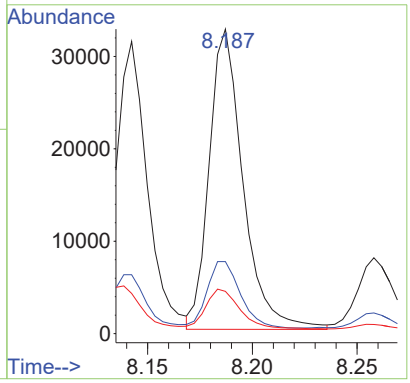


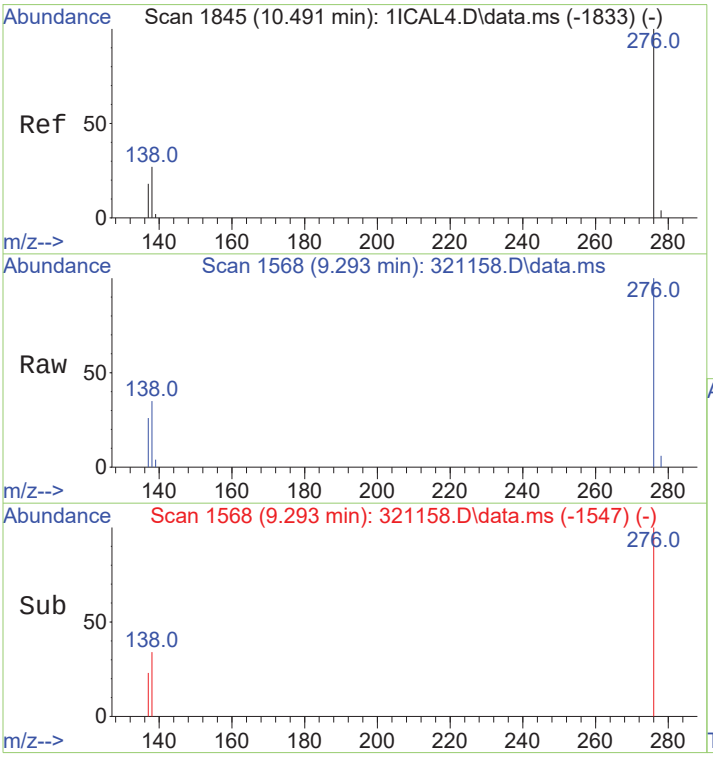


#22
Benz[a]pyrene
Concen: 690.99 ng/mL
RT: 8.187 min Scan# 1291
Delta R.T. -0.004 min
Lab File: 321158.D
Acq: 9 Sep 2019 20:35

Tgt Ion:252 Resp: 36555

Ion	Ratio	Lower	Upper
252	100		
126	22.3	0.0	52.7
113	12.7	0.0	42.2

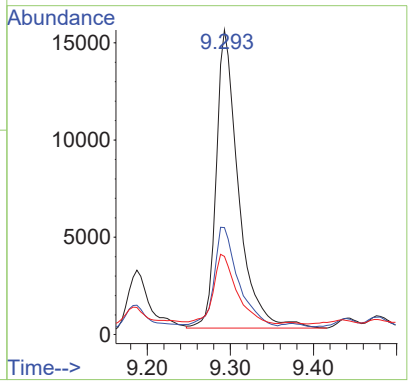


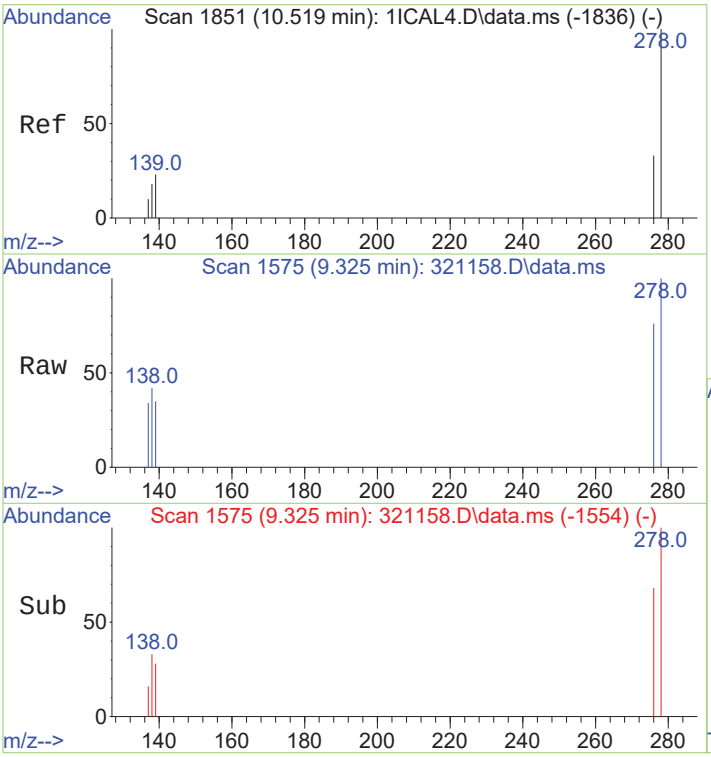


#23
Indeno-pyrene
Concen: 550.75 ng/mL
RT: 9.293 min Scan# 1568
Delta R.T. -0.005 min
Lab File: 321158.D
Acq: 9 Sep 2019 20:35

Tgt Ion:276 Resp: 28521

Ion	Ratio	Lower	Upper
276	100		
138	32.8	4.1	64.1
137	22.2	0.0	52.8

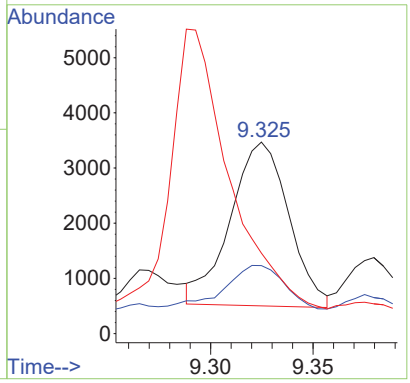


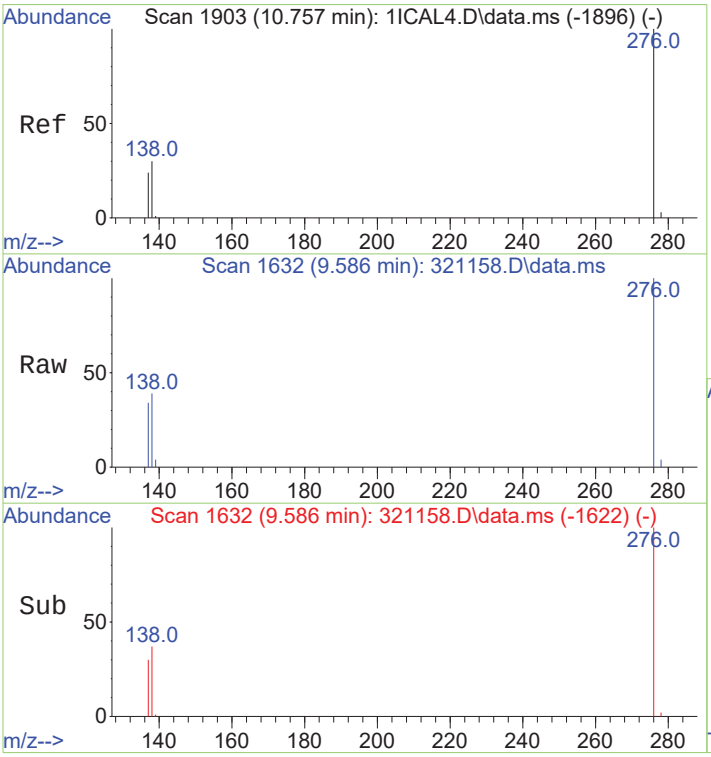


#24
Dib[ah]anthr
Concen: 164.35 ng/mL
RT: 9.325 min Scan# 1575
Delta R.T. -0.005 min
Lab File: 321158.D
Acq: 9 Sep 2019 20:35

Tgt Ion:278 Resp: 5885

Ion	Ratio	Lower	Upper
278	100		
139	28.2	0.0	59.3
138	36.3	0.0	56.3

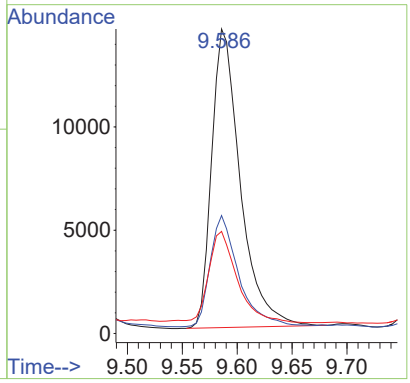


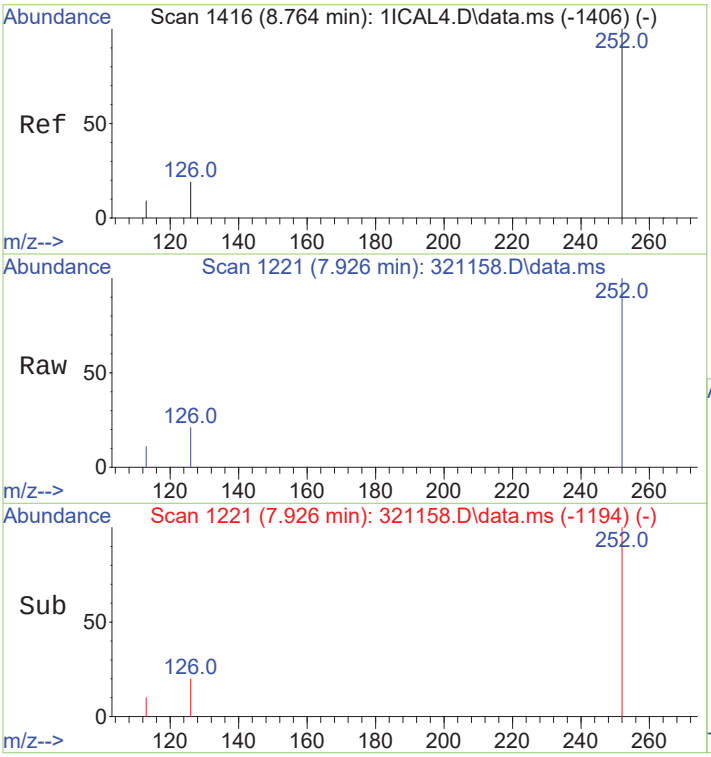


#25
B[ghi]perylen
Concen: 589.94 ng/mL
RT: 9.586 min Scan# 1632
Delta R.T. -0.005 min
Lab File: 321158.D
Acq: 9 Sep 2019 20:35

Tgt Ion:276 Resp: 26266

Ion	Ratio	Lower	Upper
276	100		
138	37.0	7.7	67.7
137	30.4	0.6	60.6

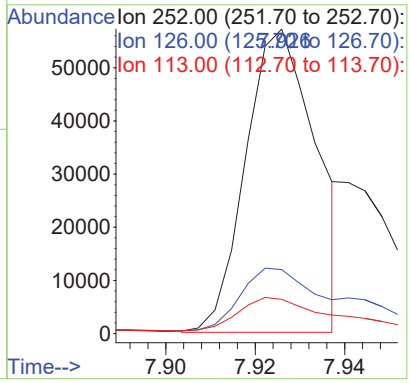




#20
B[b]fluoranth
Concen: 1128.42 ng/mL m
RT: 7.926 min Scan# 1221
Delta R.T. 0.000 min
Lab File: 321158.D
Acq: 9 Sep 2019 20:35

Tgt Ion:252 Resp: 62430

Ion	Ratio	Lower	Upper
252	100		
126	21.0	0.0	52.1
113	11.2	0.0	40.0

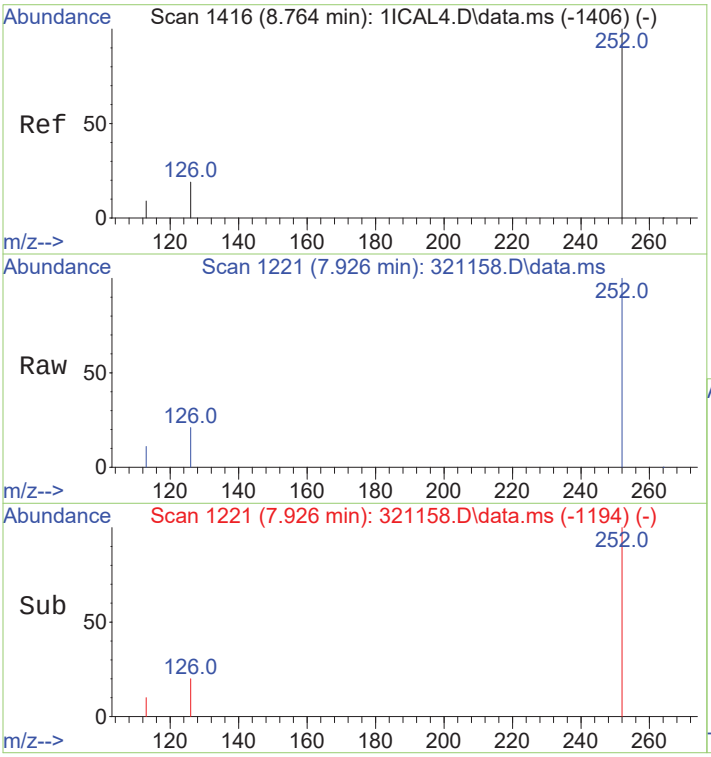


RED
9/12/2019

After Manual Integration

Reason#3

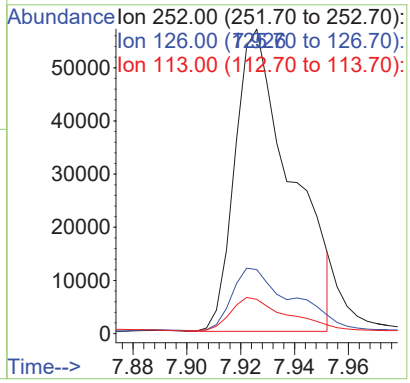
JJY
9/11/19



#20
B[b]fluoranth
Concen: 1480.43 ng/mL
RT: 7.926 min Scan# 1221
Delta R.T. 0.000 min
Lab File: 321158.D
Acq: 9 Sep 2019 20:35

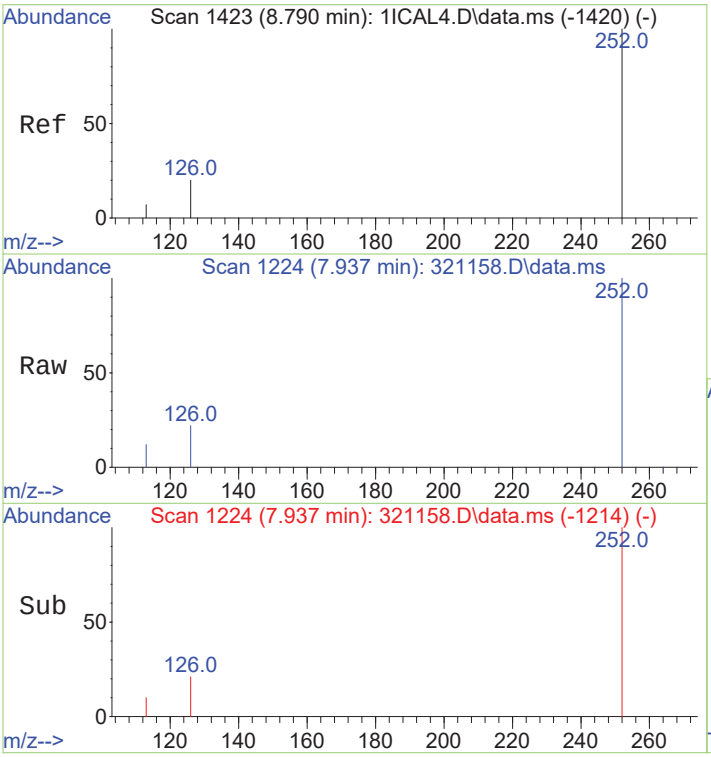
Tgt Ion:252 Resp: 82399

Ion	Ratio	Lower	Upper
252	100		
126	20.2	0.0	52.1
113	10.3	0.0	40.0



Before Manual Integration

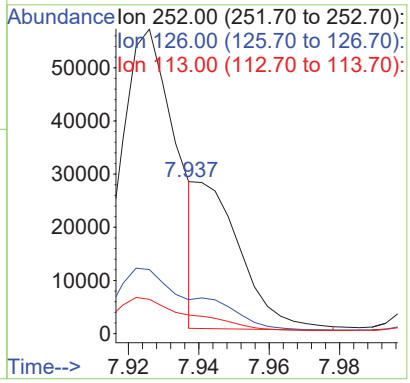
Reason#3 JJY 9/11/19



#21
B[k]fluoranth
Concen: 356.52 ng/mL m
RT: 7.937 min Scan# 1224
Delta R.T. -0.011 min
Lab File: 321158.D
Acq: 9 Sep 2019 20:35

Tgt Ion:252 Resp: 24187

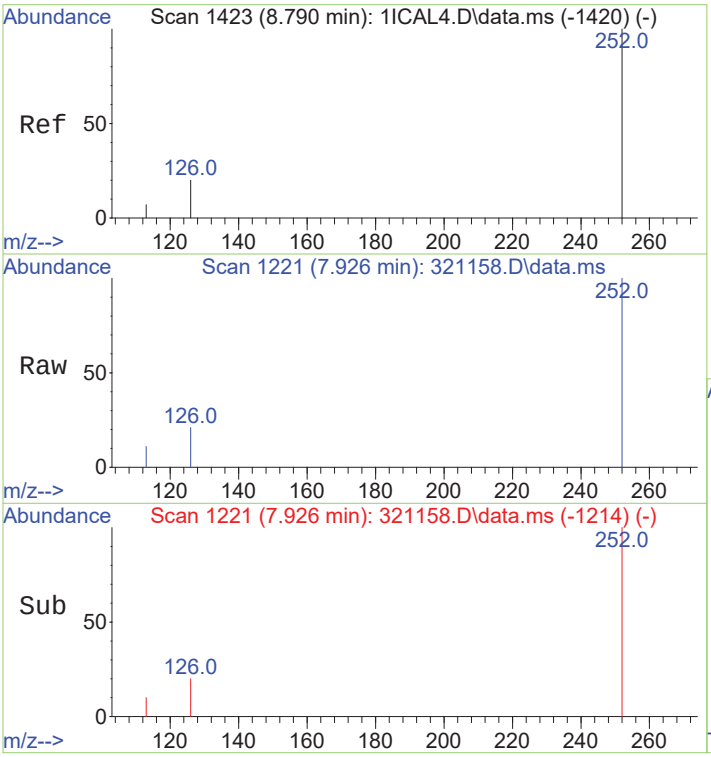
Ion	Ratio	Lower	Upper
252	100		
126	22.3	0.0	54.3
113	12.2	0.0	39.4



RED
9/12/2019

After Manual Integration

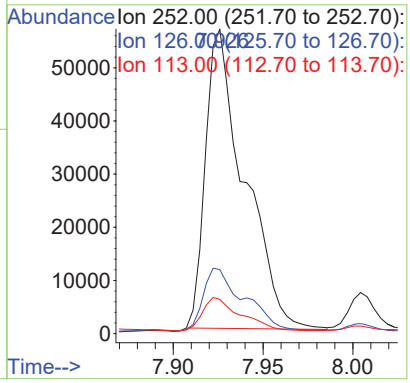
Reason#3 JJY 9/11/19



#21
B[k]fluoranth
Concen: 1249.37 ng/mL
RT: 7.926 min Scan# 1221
Delta R.T. -0.022 min
Lab File: 321158.D
Acq: 9 Sep 2019 20:35

Tgt Ion:252 Resp: 85043

Ion	Ratio	Lower	Upper
252	100		
126	20.2	0.0	54.3
113	10.4	0.0	39.4



Before Manual Integration

Reason#3

JJY
9/11/19

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321159.D Vial: 16
Acq On : 9 Sep 2019 20:56 Operator: JJY
Sample : 164274,321159, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 21:10:18 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

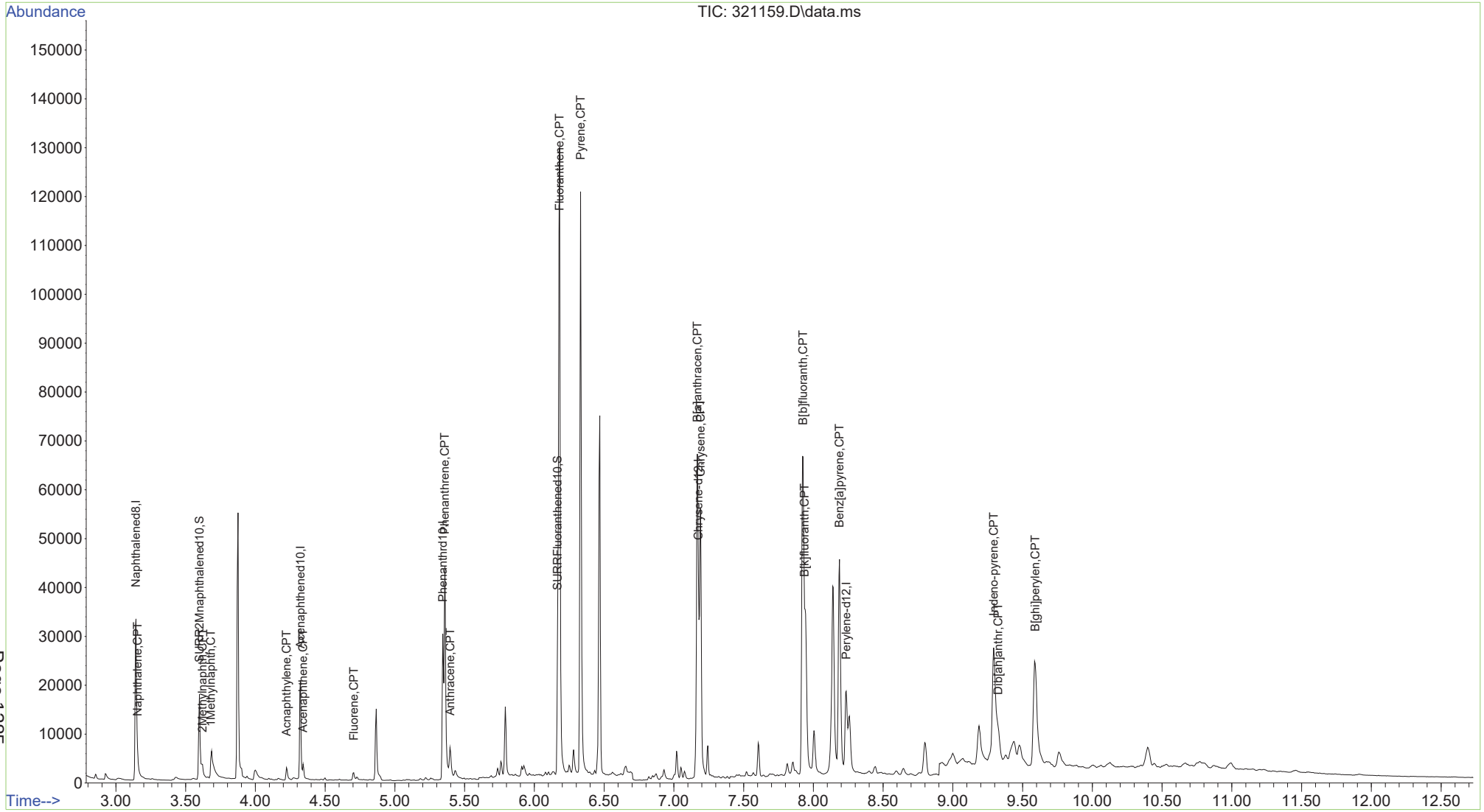
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.144	136	28679	400.00	ng/mL	0.00
6) Acenaphthened10	4.323	164	14557	400.00	ng/mL	0.00
10) Phenanthrd10	5.343	188	23706	400.00	ng/mL	0.00
15) Chrysene-d12	7.176	240	18072	400.00	ng/mL	0.00
19) Perylene-d12	8.236	264	20642	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.599	152	11752	73.88	%REC	0.00
Spiked Amount 100.000			Recovery = 73.88%			
13) SURRFluoranthened10	6.167	212	18209	77.79	%REC	0.00
Spiked Amount 100.000			Recovery = 77.79%			
Target Compounds						Qvalue
2) Naphthalene	3.155	128	875	12.4077	ng/ml	92
4) 2Methylnaphth	3.621	142	779	20.1307	ng/mL	80
5) 1Methylnaphth	3.680	141	915	24.2040	ng/mL#	1
7) Acnaphthylene	4.223	152	1384	22.6709	ng/mL	64
8) Acenaphthene	4.342	154	1121	27.1140	ng/mL	78
9) Fluorene	4.705	166	1139	26.1023	ng/mL	57
11) Phenanthrene	5.358	178	26238	428.9690	ng/mL	99
12) Anthracene	5.395	178	5353	90.6860	ng/mL	99
14) Fluoranthene	6.180	202	81620	1209.2942	ng/mL	94
16) Pyrene	6.331	202	67278	920.6786	ng/mL	97
17) B[a]anthracen	7.169	228	41409	808.4547	ng/mL	98
18) Chrysene	7.191	228	38188	601.6112	ng/mL	98
20) B[b]fluoranth	7.926	252	57776m	866.1894	ng/mL	
21) B[k]fluoranth	7.937	252	22845m	277.5360	ng/mL	
22) Benz[a]pyrene	8.187	252	37390	587.3746	ng/mL	99
23) Indeno-pyrene	9.293	276	26550	432.8932	ng/mL	98
24) Dib[ah]anthr	9.325	278	5206	130.3599	ng/mL	89
25) B[ghi]perylen	9.590	276	24204	458.7631	ng/mL	97

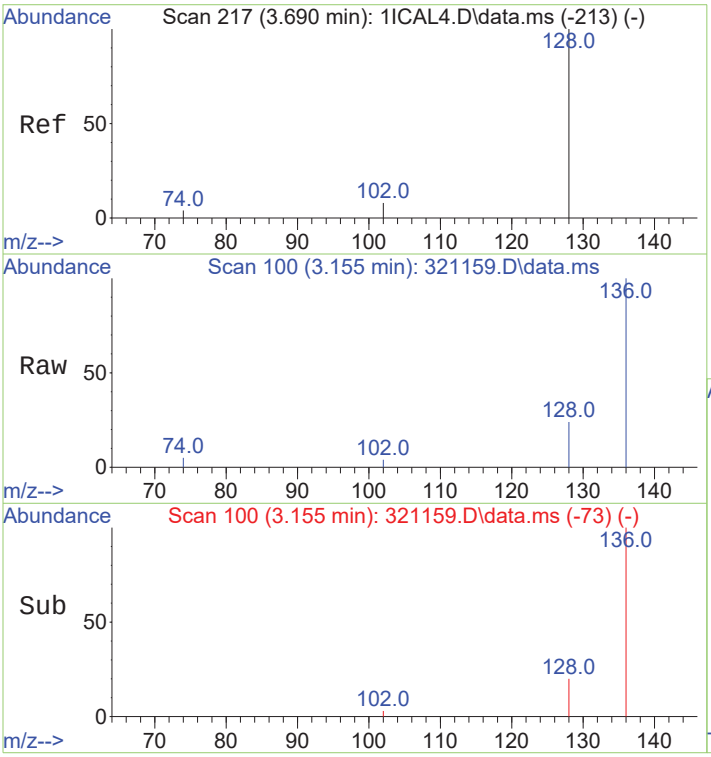
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321159.D Vial: 16
Acq On : 9 Sep 2019 20:56 Operator: JJY
Sample : 164274,321159, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 21:10:18 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

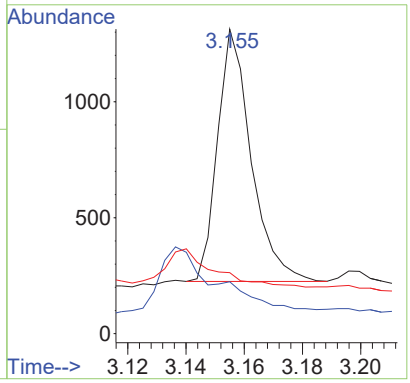


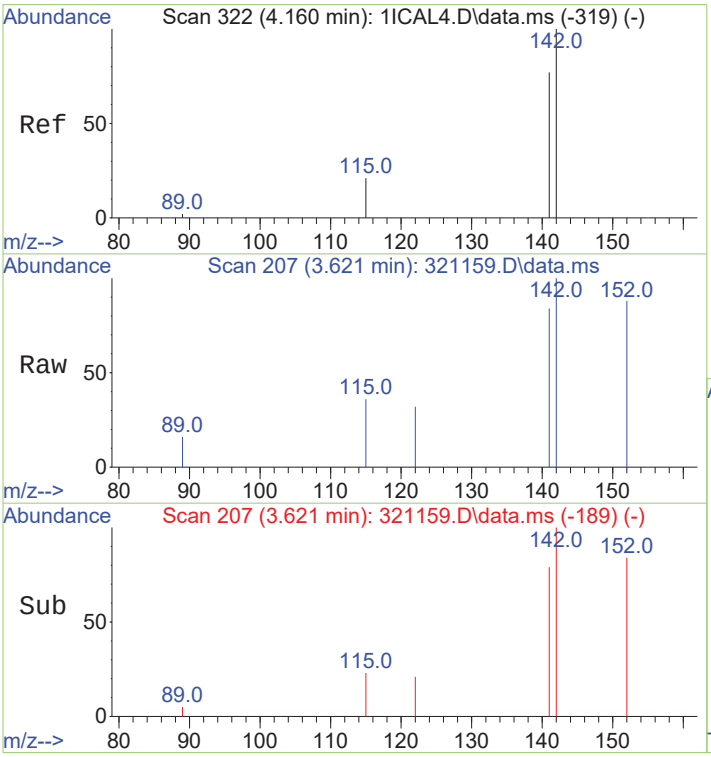


#2
Naphthalene
Concen: 12.41 ng/ml
RT: 3.155 min Scan# 100
Delta R.T. 0.000 min
Lab File: 321159.D
Acq: 9 Sep 2019 20:56

Tgt Ion:128 Resp: 875

Ion	Ratio	Lower	Upper
128	100		
102	10.9	0.0	37.6
74	5.6	0.0	33.6

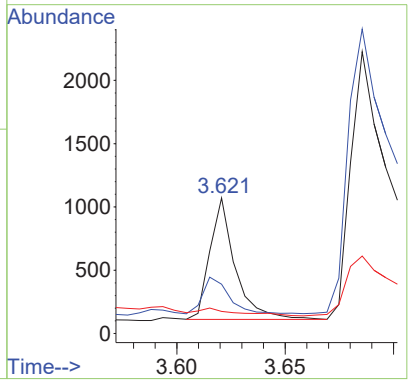


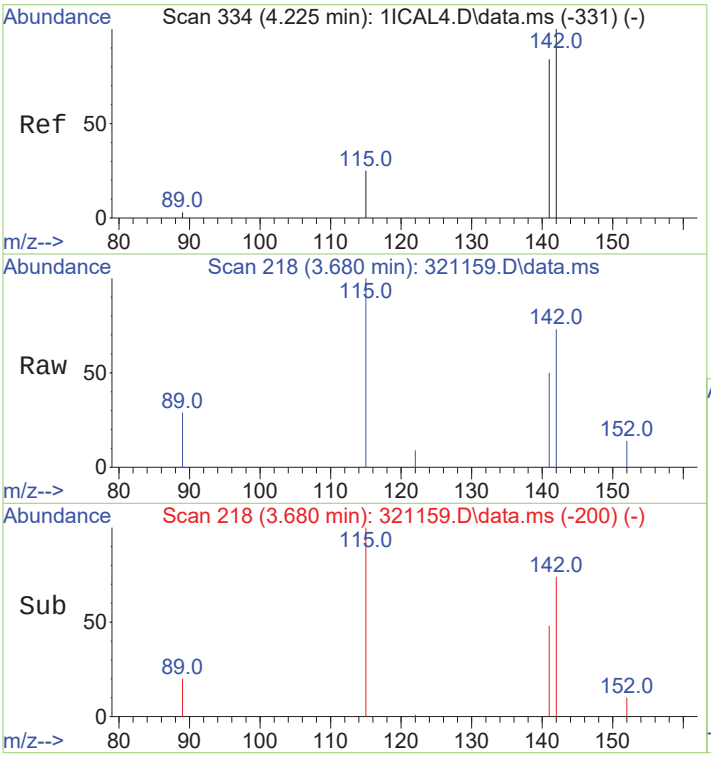


#4
2Methylnaphth
Concen: 20.13 ng/mL
RT: 3.621 min Scan# 207
Delta R.T. 0.000 min
Lab File: 321159.D
Acq: 9 Sep 2019 20:56

Tgt Ion:142 Resp: 779

Ion	Ratio	Lower	Upper
142	100		
115	24.3	6.9	66.9
89	2.6	0.0	34.9

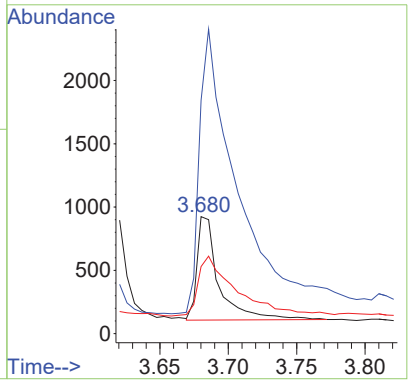


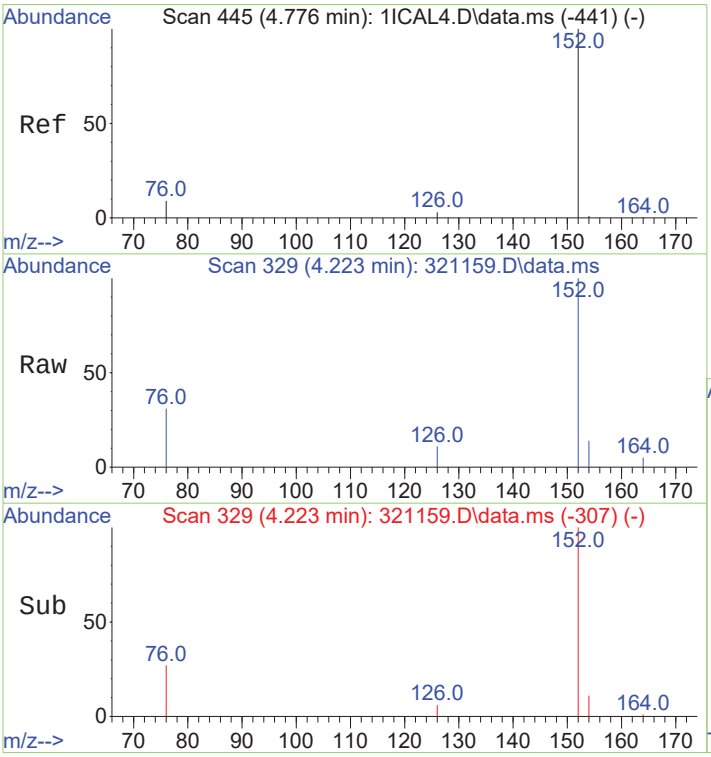


#5
1Methylnaphth
Concen: 24.20 ng/mL
RT: 3.680 min Scan# 218
Delta R.T. 0.000 min
Lab File: 321159.D
Acq: 9 Sep 2019 20:56

Tgt Ion:141 Resp: 915

Ion	Ratio	Lower	Upper
141	100		
115	206.0	2.5	62.5#
89	46.7	0.0	34.0#

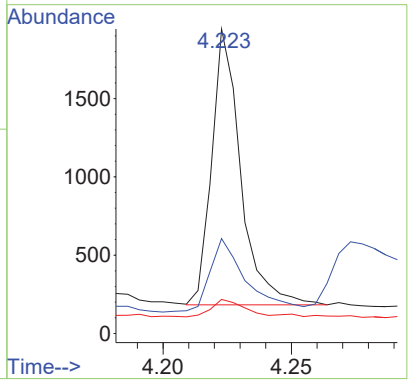


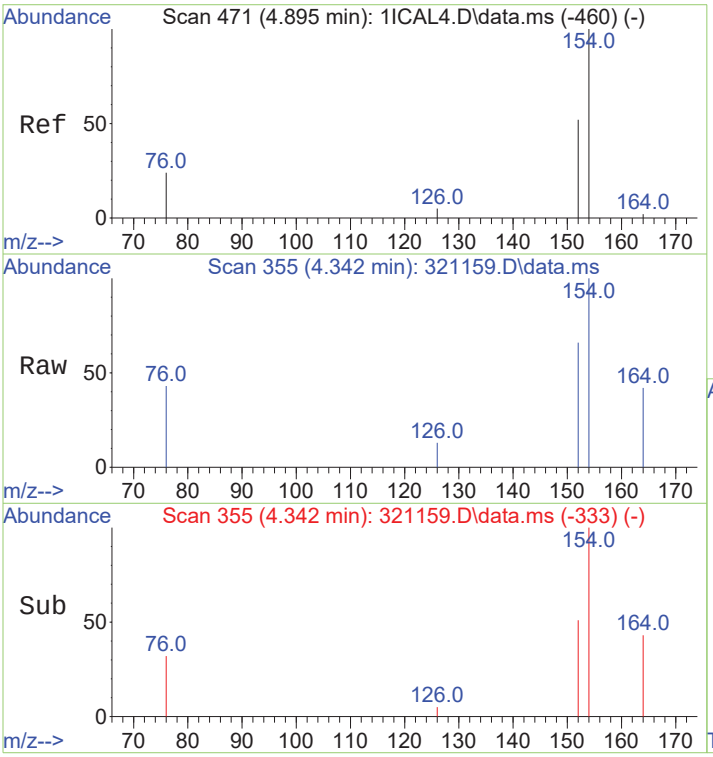


#7
Acnaphthylene
Concen: 22.67 ng/mL
RT: 4.223 min Scan# 329
Delta R.T. 0.000 min
Lab File: 321159.D
Acq: 9 Sep 2019 20:56

Tgt Ion:152 Resp: 1384

Ion	Ratio	Lower	Upper
152	100		
76	26.2	0.0	39.9
126	6.4	0.0	33.1

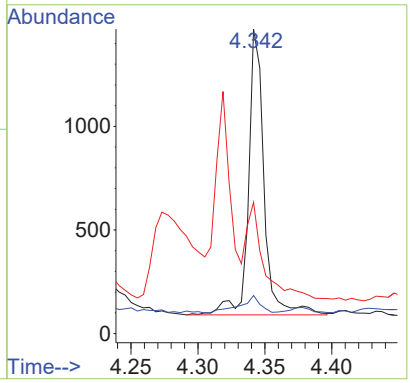


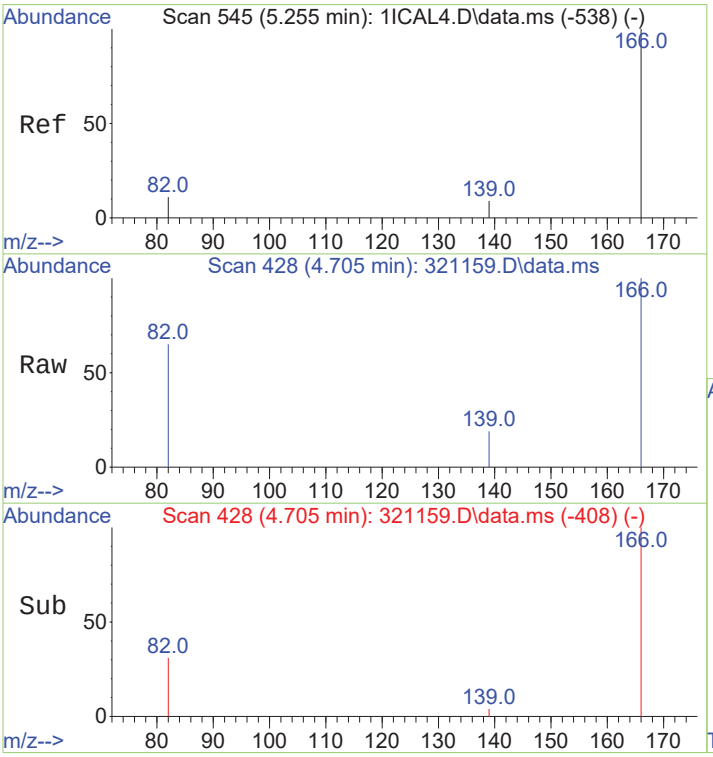


#8
Acenaphthene
Concen: 27.11 ng/mL
RT: 4.342 min Scan# 355
Delta R.T. 0.000 min
Lab File: 321159.D
Acq: 9 Sep 2019 20:56

Tgt Ion:154 Resp: 1121

Ion	Ratio	Lower	Upper
154	100		
126	5.9	0.0	34.3
76	33.7	0.0	51.6

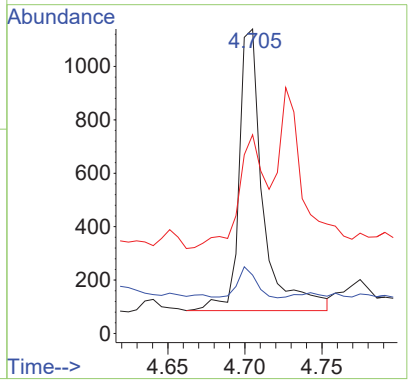


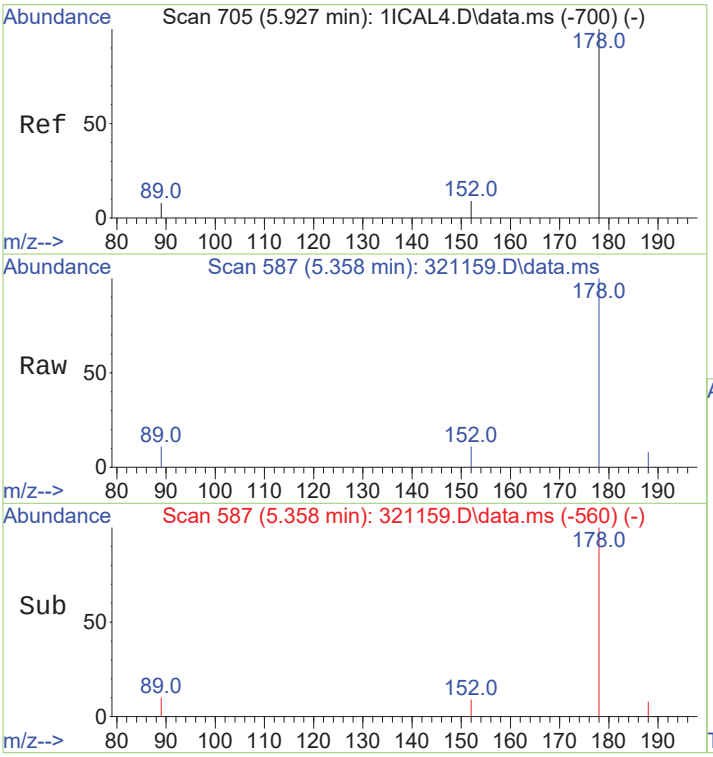


#9
Fluorene
Concen: 26.10 ng/mL
RT: 4.705 min Scan# 428
Delta R.T. 0.005 min
Lab File: 321159.D
Acq: 9 Sep 2019 20:56

Tgt Ion:166 Resp: 1139

Ion	Ratio	Lower	Upper
166	100		
139	7.6	0.0	38.6
82	40.4	0.0	42.4

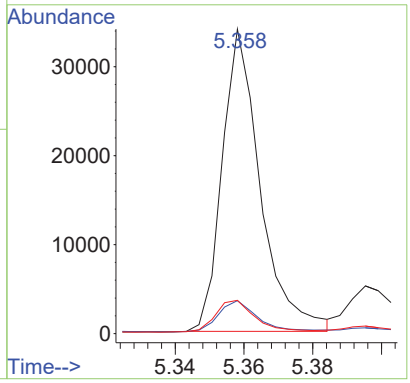


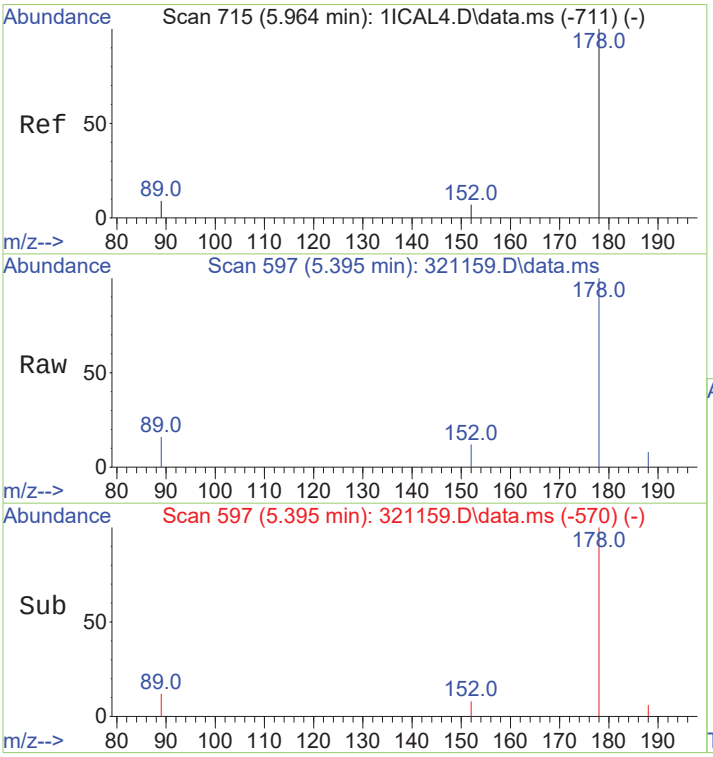


#11
Phenanthrene
Concen: 428.97 ng/mL
RT: 5.358 min Scan# 587
Delta R.T. 0.000 min
Lab File: 321159.D
Acq: 9 Sep 2019 20:56

Tgt Ion:178 Resp: 26238

Ion	Ratio	Lower	Upper
178	100		
152	10.7	0.0	40.1
89	11.2	0.0	41.4

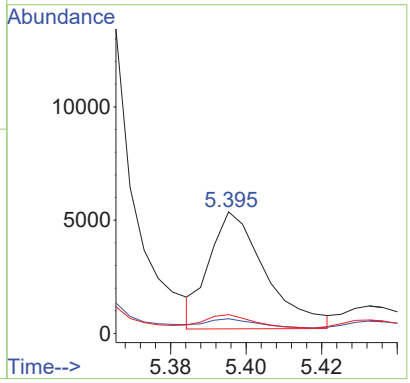


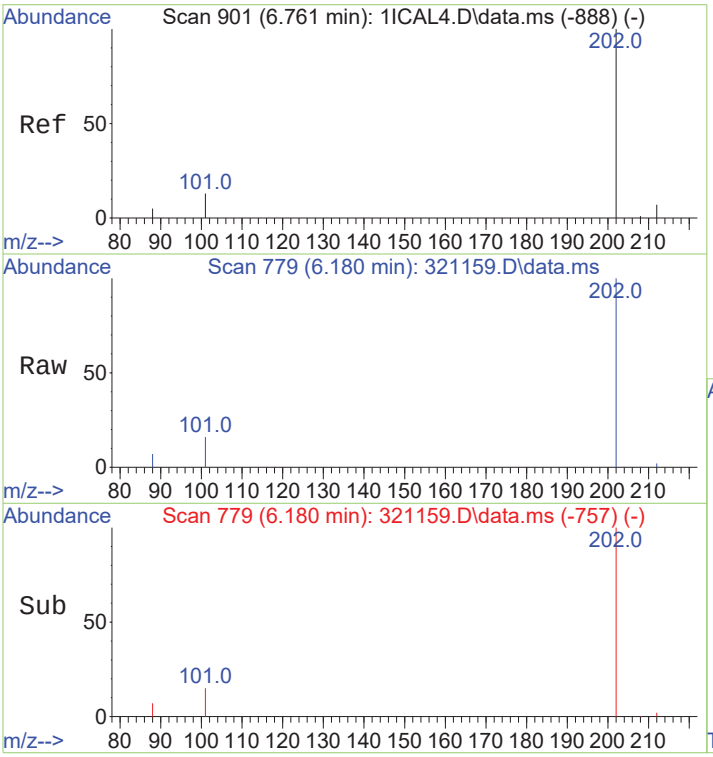


#12
Anthracene
Concen: 90.69 ng/mL
RT: 5.395 min Scan# 597
Delta R.T. 0.000 min
Lab File: 321159.D
Acq: 9 Sep 2019 20:56

Tgt Ion:178 Resp: 5353

Ion	Ratio	Lower	Upper
178	100		
152	8.2	0.0	37.8
89	11.7	0.0	31.3

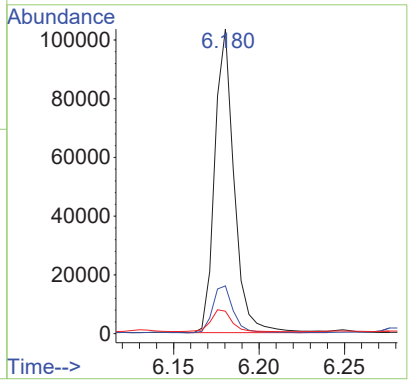


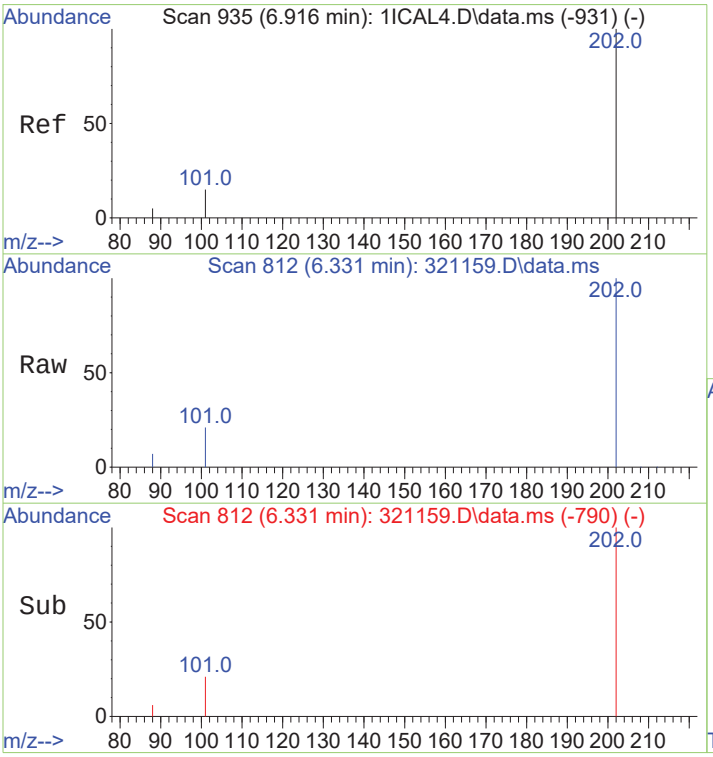


#14
Fluoranthene
Concen: 1209.29 ng/mL
RT: 6.180 min Scan# 779
Delta R.T. 0.000 min
Lab File: 321159.D
Acq: 9 Sep 2019 20:56

Tgt Ion:202 Resp: 81620

Ion	Ratio	Lower	Upper
202	100		
101	15.4	0.0	48.3
88	6.6	0.0	38.8

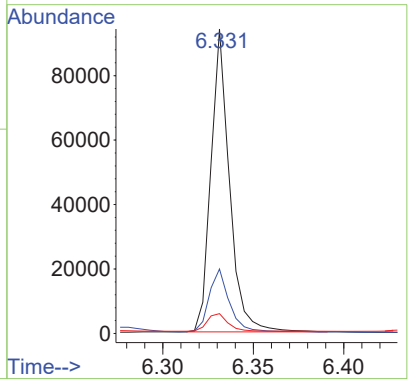


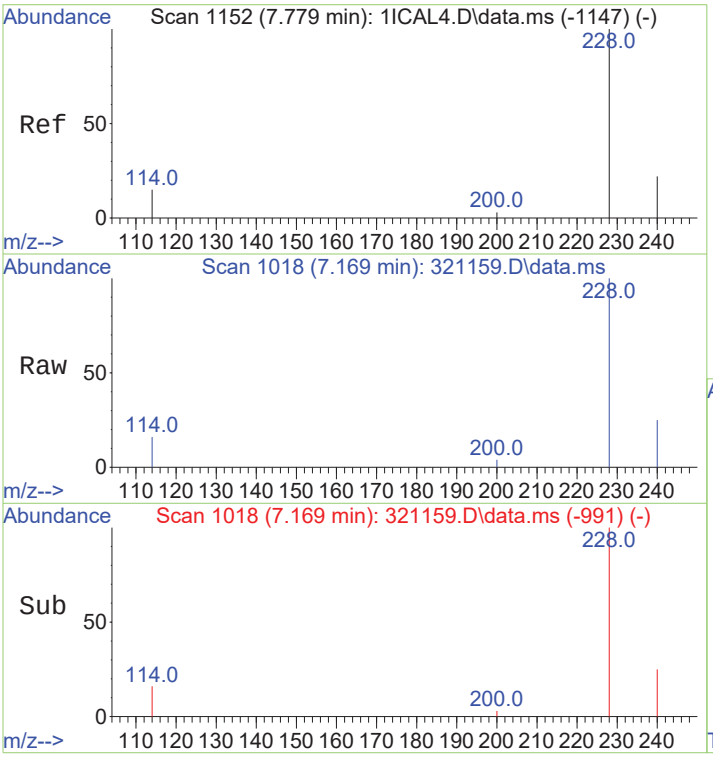


#16
Pyrene
Concen: 920.68 ng/mL
RT: 6.331 min Scan# 812
Delta R.T. 0.000 min
Lab File: 321159.D
Acq: 9 Sep 2019 20:56

Tgt Ion:202 Resp: 67278

Ion	Ratio	Lower	Upper
202	100		
101	20.8	0.0	49.4
88	5.8	0.0	35.5

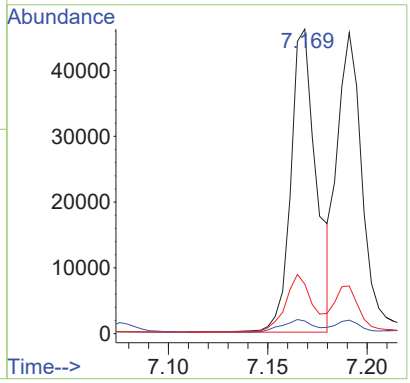


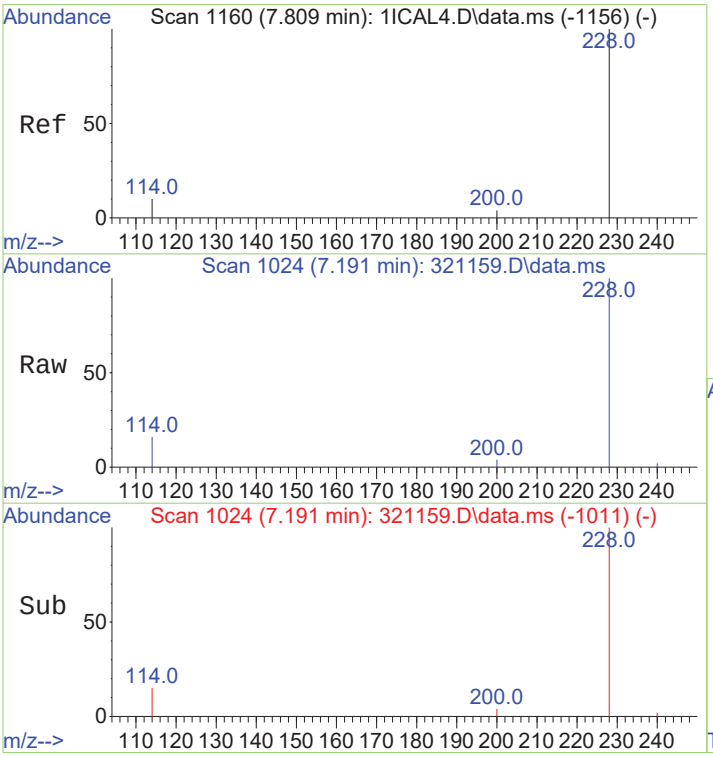


#17
B[a]anthracen
Concen: 808.45 ng/mL
RT: 7.169 min Scan# 1018
Delta R.T. 0.000 min
Lab File: 321159.D
Acq: 9 Sep 2019 20:56

Tgt Ion:228 Resp: 41409

Ion	Ratio	Lower	Upper
228	100		
200	3.6	0.0	33.6
114	15.9	0.0	47.0

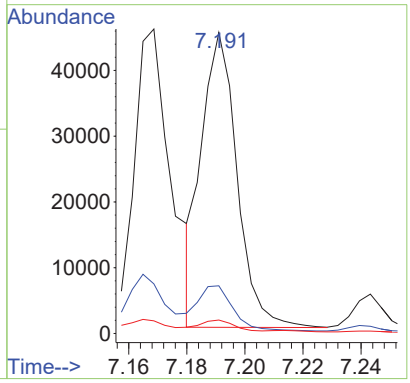


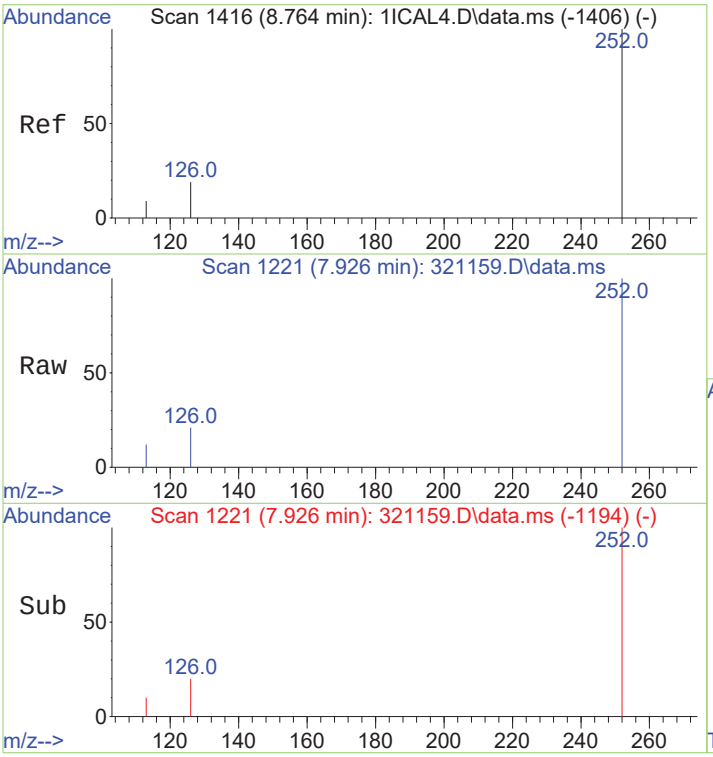


#18
Chrysene
Concen: 601.61 ng/mL
RT: 7.191 min Scan# 1024
Delta R.T. 0.000 min
Lab File: 321159.D
Acq: 9 Sep 2019 20:56

Tgt Ion:228 Resp: 38188

Ion	Ratio	Lower	Upper
228	100		
114	15.3	0.0	46.1
200	4.0	0.0	33.8

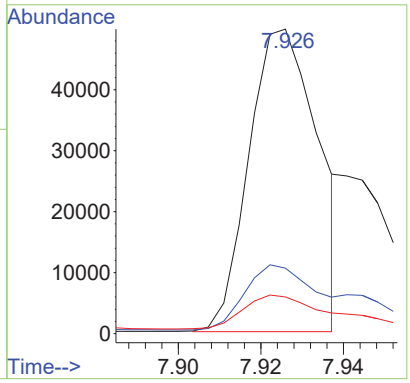


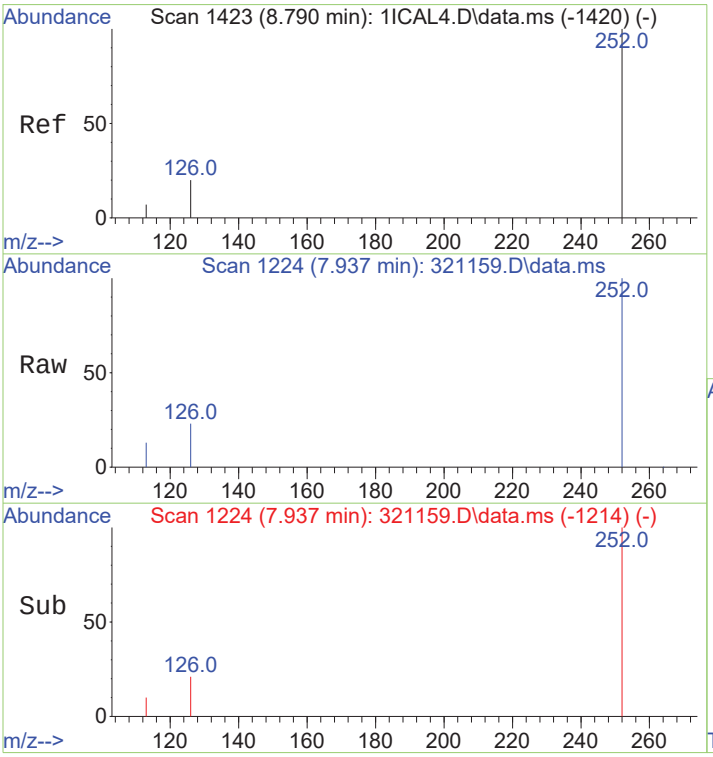


#20
B[b]fluoranth
Concen: 866.19 ng/mL m
RT: 7.926 min Scan# 1221
Delta R.T. 0.000 min
Lab File: 321159.D
Acq: 9 Sep 2019 20:56

Tgt Ion:252 Resp: 57776

Ion	Ratio	Lower	Upper
252	100		
126	21.5	0.0	52.1
113	12.0	0.0	40.0

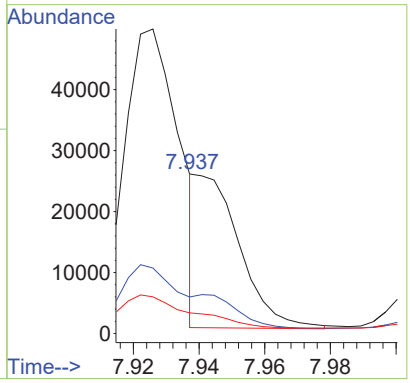


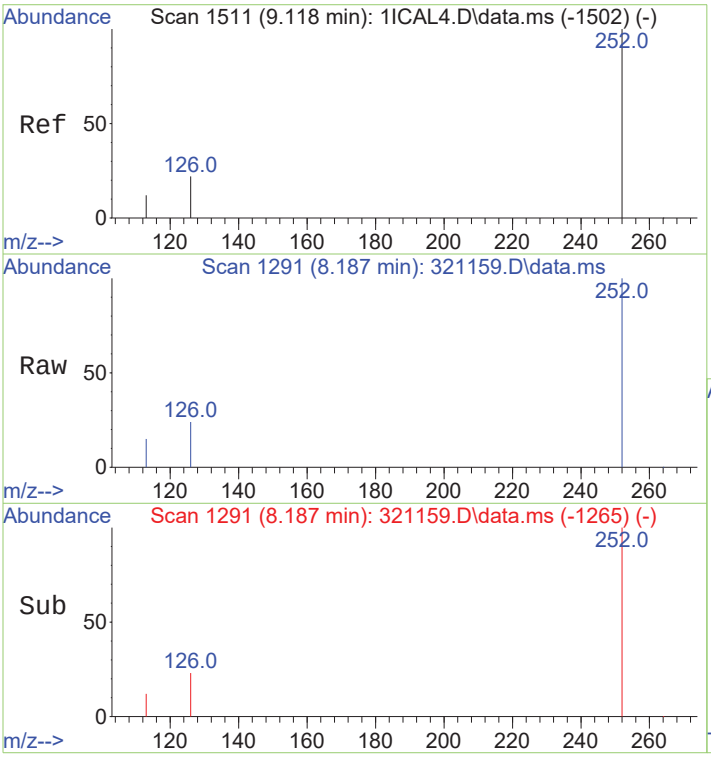


#21
B[k]fluoranth
Concen: 277.54 ng/mL m
RT: 7.937 min Scan# 1224
Delta R.T. -0.011 min
Lab File: 321159.D
Acq: 9 Sep 2019 20:56

Tgt Ion:252 Resp: 22845

Ion	Ratio	Lower	Upper
252	100		
126	22.9	0.0	54.3
113	12.9	0.0	39.4

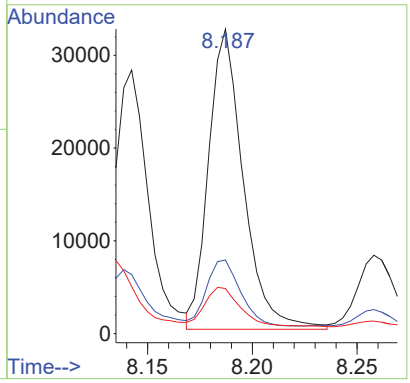


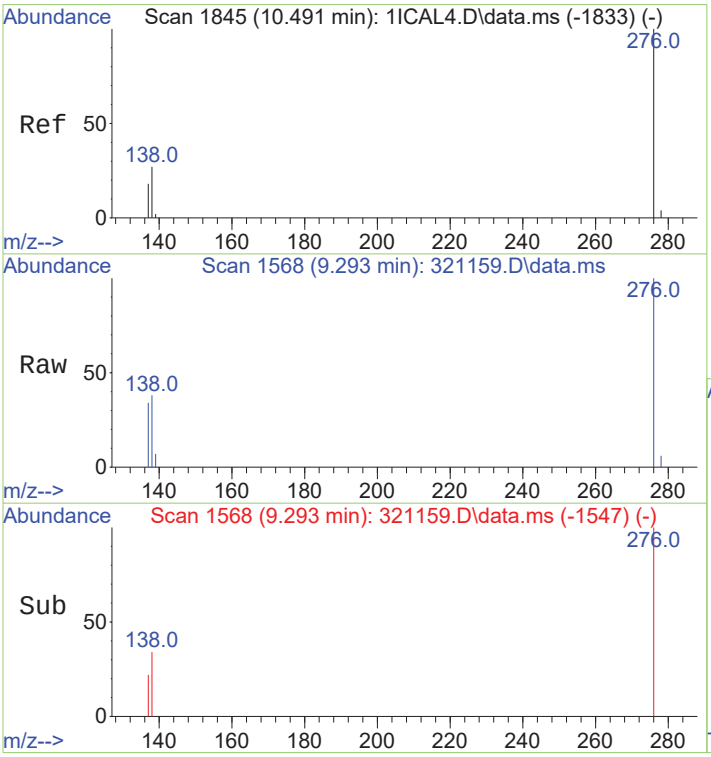


#22
Benz[a]pyrene
Concen: 587.37 ng/mL
RT: 8.187 min Scan# 1291
Delta R.T. -0.004 min
Lab File: 321159.D
Acq: 9 Sep 2019 20:56

Tgt Ion:252 Resp: 37390

Ion	Ratio	Lower	Upper
252	100		
126	22.2	0.0	52.7
113	12.8	0.0	42.2

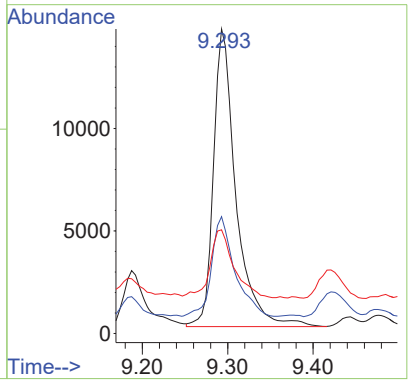


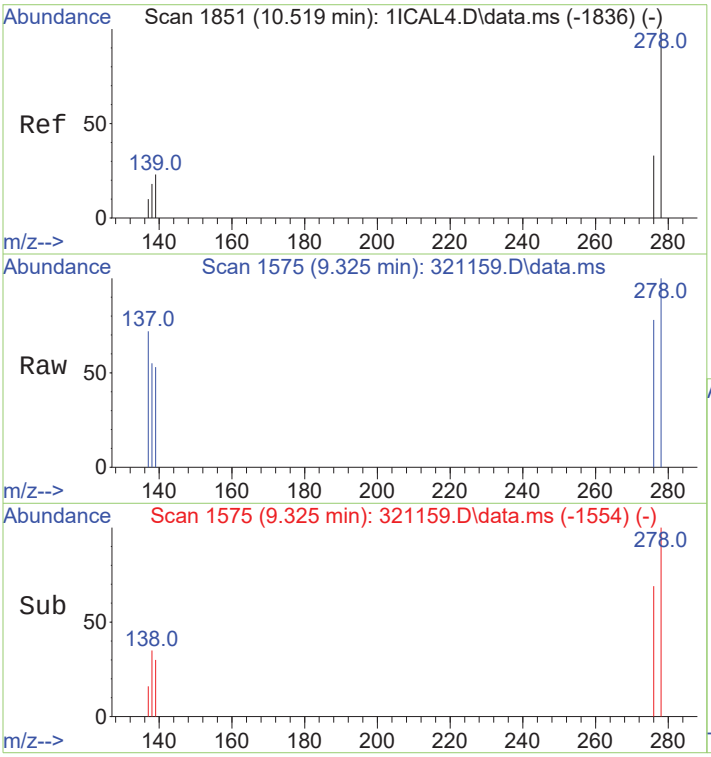


#23
Indeno-pyrene
Concen: 432.89 ng/mL
RT: 9.293 min Scan# 1568
Delta R.T. -0.005 min
Lab File: 321159.D
Acq: 9 Sep 2019 20:56

Tgt Ion:276 Resp: 26550

Ion	Ratio	Lower	Upper
276	100		
138	33.0	4.1	64.1
137	21.7	0.0	52.8

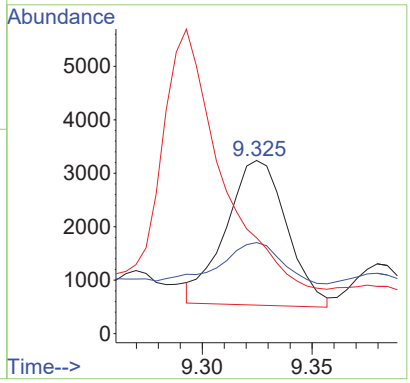


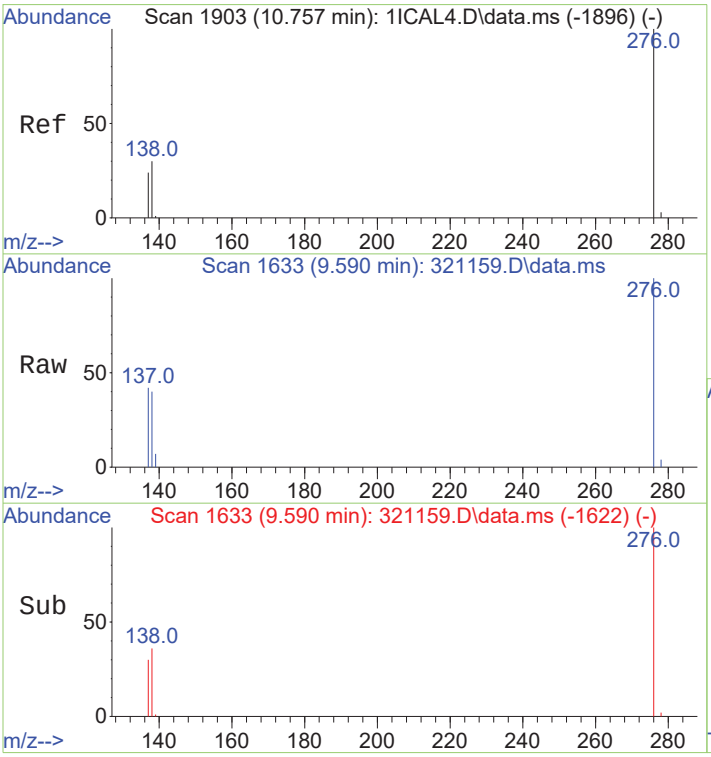


#24
Dib[ah]anthr
Concen: 130.36 ng/mL
RT: 9.325 min Scan# 1575
Delta R.T. -0.005 min
Lab File: 321159.D
Acq: 9 Sep 2019 20:56

Tgt Ion:278 Resp: 5206

Ion	Ratio	Lower	Upper
278	100		
139	30.0	0.0	59.3
138	37.4	0.0	56.3

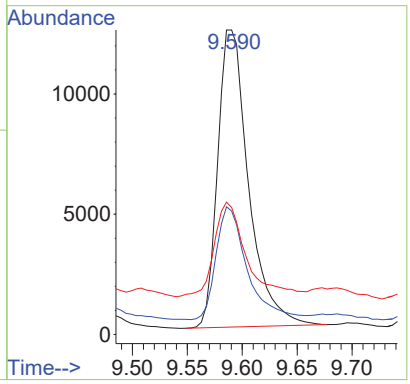


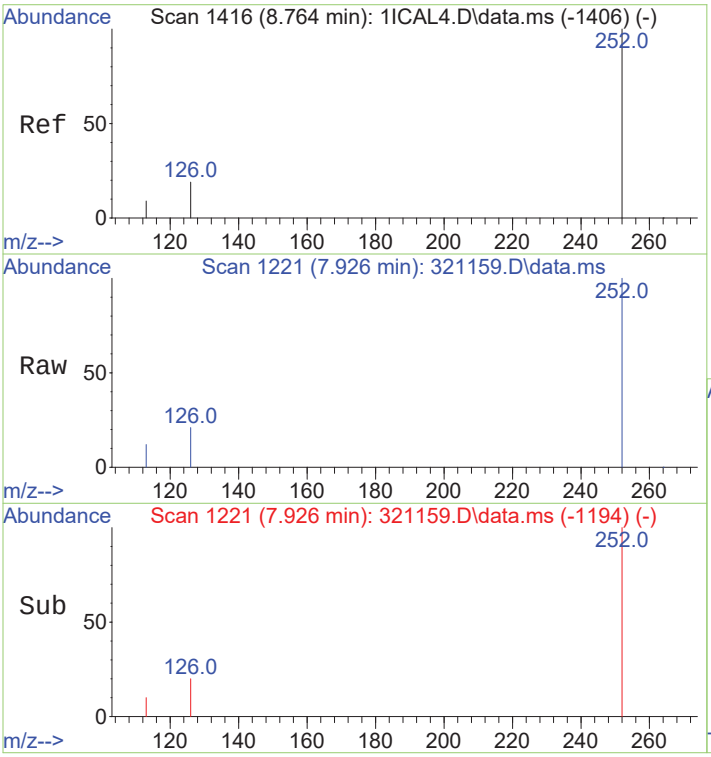


#25
B[ghi]perylen
Concen: 458.76 ng/mL
RT: 9.590 min Scan# 1633
Delta R.T. 0.000 min
Lab File: 321159.D
Acq: 9 Sep 2019 20:56

Tgt Ion:276 Resp: 24204

Ion	Ratio	Lower	Upper
276	100		
138	36.3	7.7	67.7
137	29.0	0.6	60.6

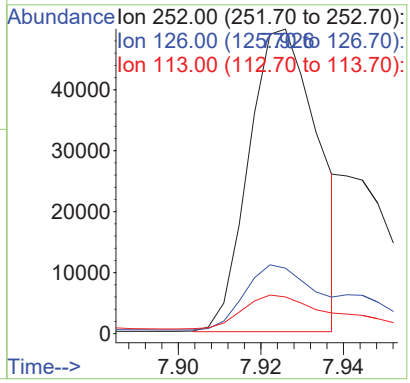




#20
B[b]fluoranth
Concen: 866.19 ng/mL m
RT: 7.926 min Scan# 1221
Delta R.T. 0.000 min
Lab File: 321159.D
Acq: 9 Sep 2019 20:56

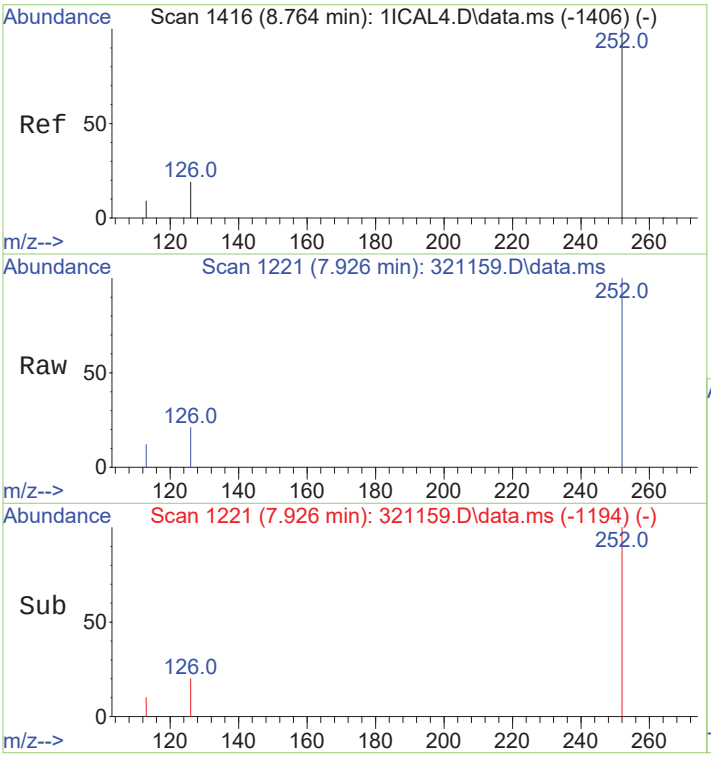
Tgt Ion:252 Resp: 57776

Ion	Ratio	Lower	Upper
252	100		
126	21.5	0.0	52.1
113	12.0	0.0	40.0



After Manual Integration

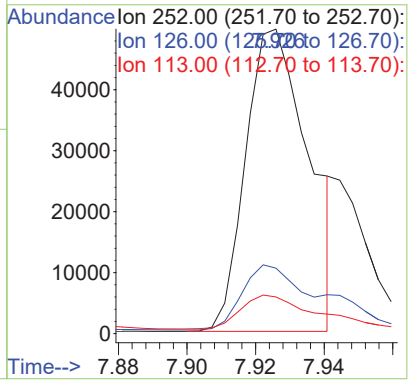
Reason#3 JJY 9/11/19



#20
B[b]fluoranth
Concen: 948.02 ng/mL
RT: 7.926 min Scan# 1221
Delta R.T. 0.000 min
Lab File: 321159.D
Acq: 9 Sep 2019 20:56

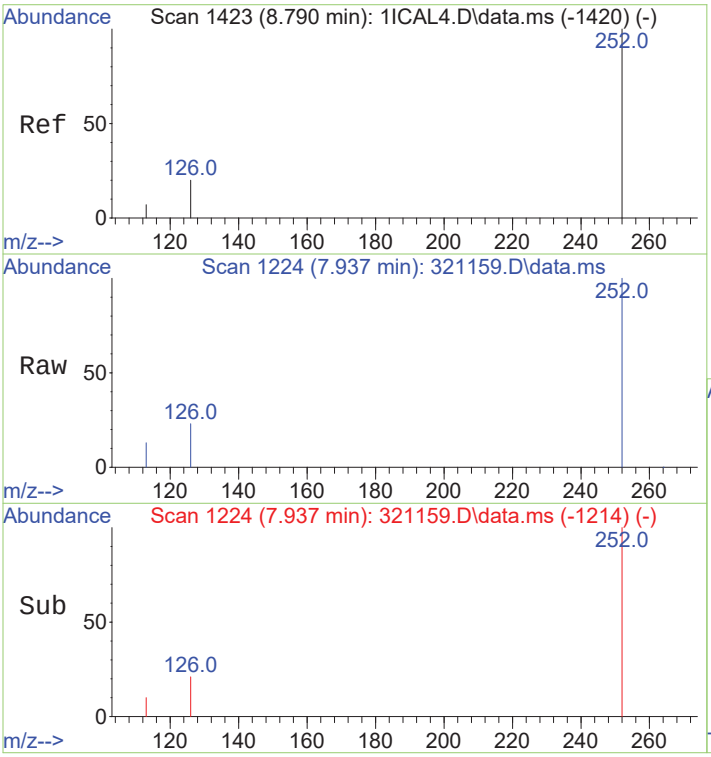
Tgt Ion:252 Resp: 63416

Ion	Ratio	Lower	Upper
252	100		
126	20.4	0.0	52.1
113	10.6	0.0	40.0



Before Manual Integration

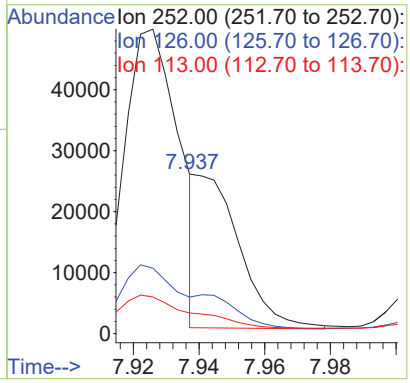
Reason#3 JJY 9/11/19



#21
B[k]fluoranth
Concen: 277.54 ng/mL m
RT: 7.937 min Scan# 1224
Delta R.T. -0.011 min
Lab File: 321159.D
Acq: 9 Sep 2019 20:56

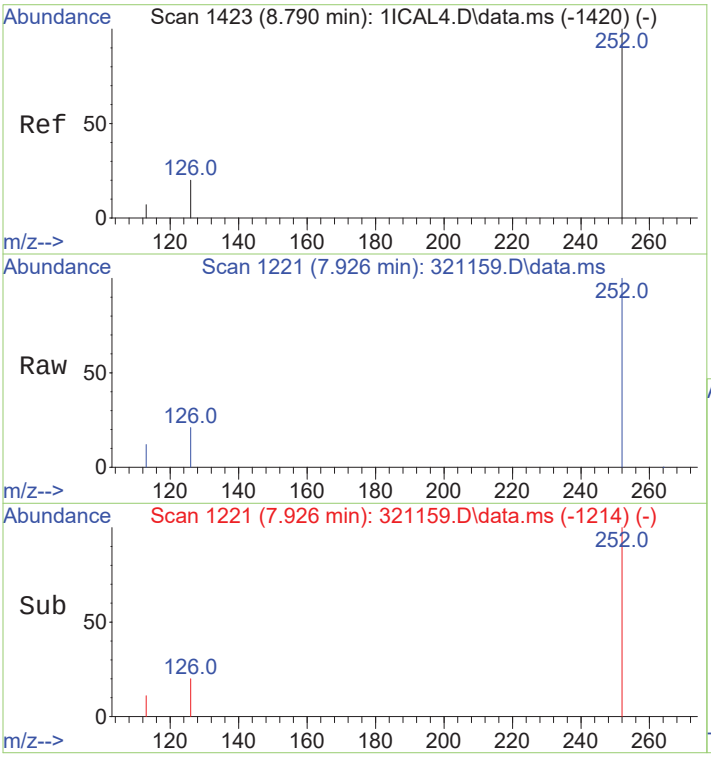
Tgt Ion:252 Resp: 22845

Ion	Ratio	Lower	Upper
252	100		
126	22.9	0.0	54.3
113	12.9	0.0	39.4



After Manual Integration

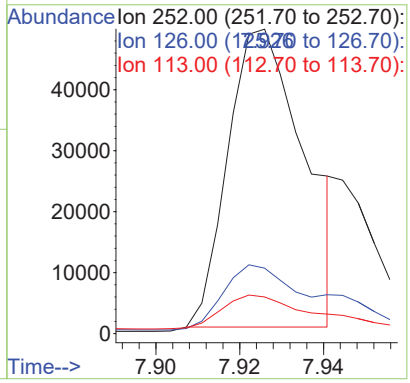
Reason#3 JJY 9/11/19 RED 9/12/2019



#21
B[k]fluoranth
Concen: 747.56 ng/mL
RT: 7.926 min Scan# 1221
Delta R.T. -0.022 min
Lab File: 321159.D
Acq: 9 Sep 2019 20:56

Tgt Ion:252 Resp: 61768

Ion	Ratio	Lower	Upper
252	100		
126	20.2	0.0	54.3
113	10.3	0.0	39.4



Before Manual Integration

Reason#3 JJY 9/11/19

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321160.D Vial: 17
Acq On : 9 Sep 2019 21:16 Operator: JJY
Sample : 164274,321160, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 21:30:34 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

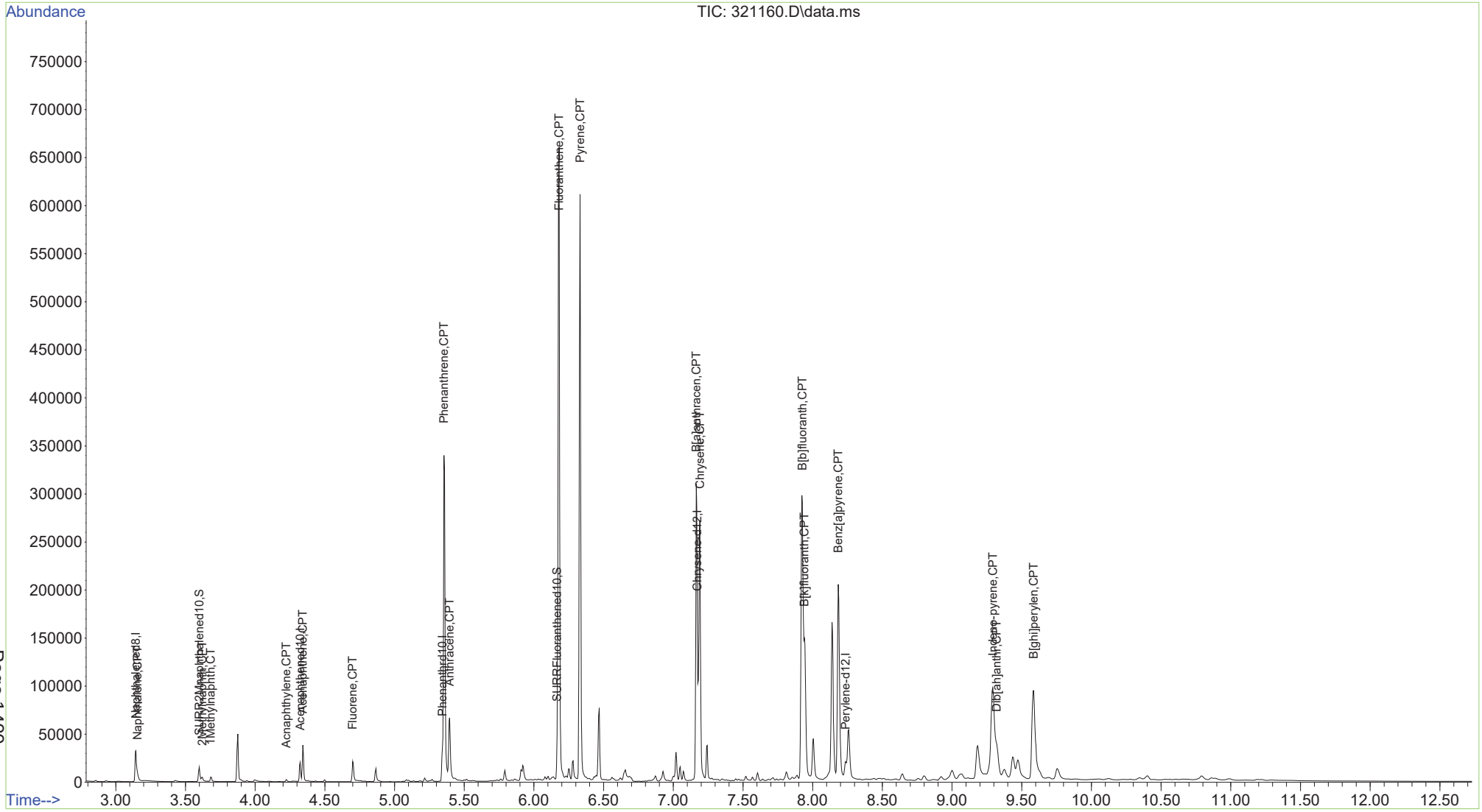
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.144	136	28040	400.00	ng/mL	0.00
6) Acenaphthened10	4.323	164	14101	400.00	ng/mL	0.00
10) Phenanthrd10	5.343	188	22347	400.00	ng/mL	0.00
15) Chrysene-d12	7.172	240	16990	400.00	ng/mL	0.00
19) Perylene-d12	8.236	264	19384	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.599	152	10156	65.31	%REC	0.00
Spiked Amount 100.000			Recovery = 65.31%			
13) SURRFluoranthened10	6.167	212	18303	82.94	%REC	0.00
Spiked Amount 100.000			Recovery = 82.94%			
Target Compounds						Qvalue
2) Naphthalene	3.155	128	3528	51.1681	ng/ml	98
4) 2Methylnaphth	3.621	142	1487	39.3023	ng/mL	80
5) 1Methylnaphth	3.680	141	1379	37.3092	ng/mL	52
7) Acnaphthylene	4.223	152	1552	26.2450	ng/mL	94
8) Acenaphthene	4.342	154	14612	364.8539	ng/mL	90
9) Fluorene	4.700	166	15840	374.7423	ng/mL	96
11) Phenanthrene	5.354	178	214449	3917.6637	ng/mL	99
12) Anthracene	5.395	178	53795	966.7713	ng/mL	99
14) Fluoranthene	6.180	202	416048	6539.0986	ng/mL	94
16) Pyrene	6.331	202	335116	4878.0134	ng/mL	97
17) B[a]anthracen	7.165	228	183874	3648.7520	ng/mL	96
18) Chrysene	7.191	228	191934	3216.2790	ng/mL	96
20) B[b]fluoranth	7.926	252	250966	3905.5145	ng/mL	97
21) B[k]fluoranth	7.941	252	86380	1112.4679	ng/mL	98
22) Benz[a]pyrene	8.183	252	160216	2553.0079	ng/mL	98
23) Indeno-pyrene	9.293	276	110558	1759.3201	ng/mL	98
24) Dib[ah]anthr	9.320	278	22588	459.9496	ng/mL	93
25) B[ghi]perylen	9.586	276	95902	1784.9118	ng/mL	95

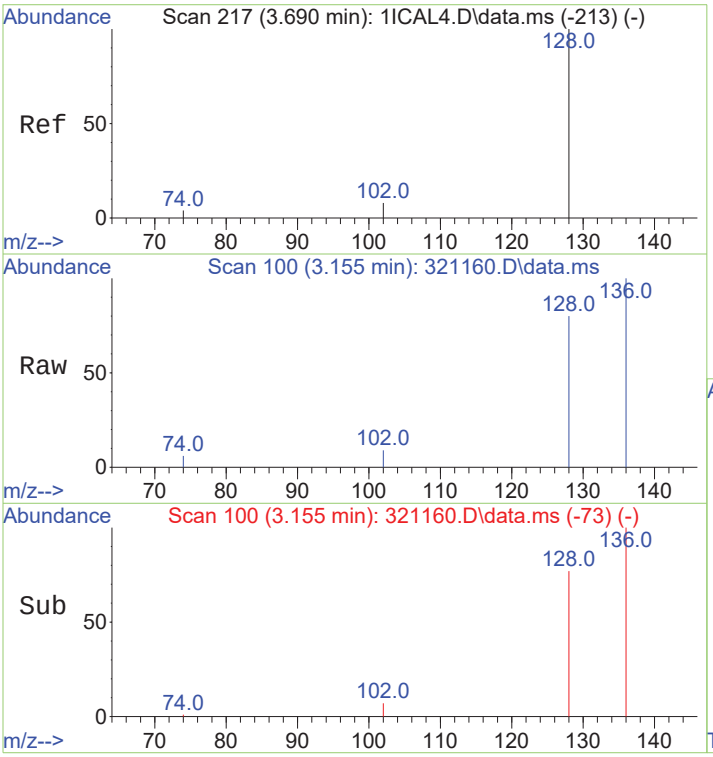
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321160.D Vial: 17
Acq On : 9 Sep 2019 21:16 Operator: JJY
Sample : 164274,321160, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 21:30:34 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

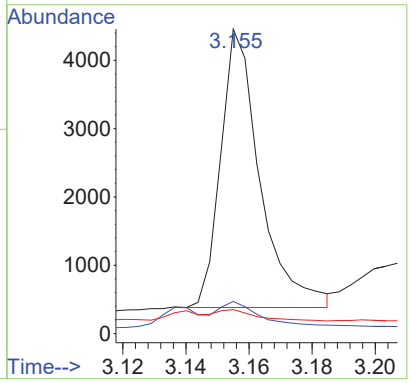


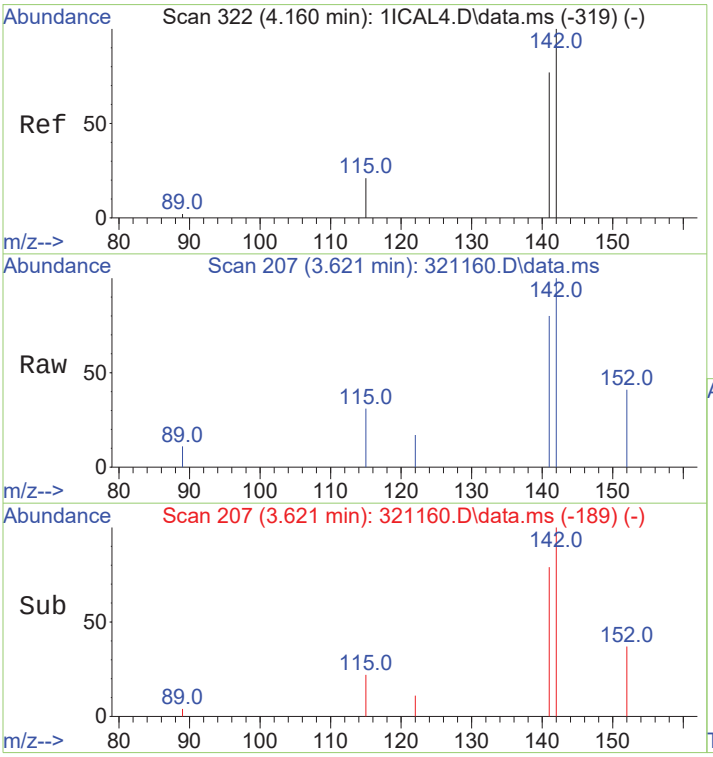


#2
Naphthalene
Concen: 51.17 ng/ml
RT: 3.155 min Scan# 100
Delta R.T. -0.000 min
Lab File: 321160.D
Acq: 9 Sep 2019 21:16

Tgt Ion:128 Resp: 3528

Ion	Ratio	Lower	Upper
128	100		
102	8.5	0.0	37.6
74	4.1	0.0	33.6

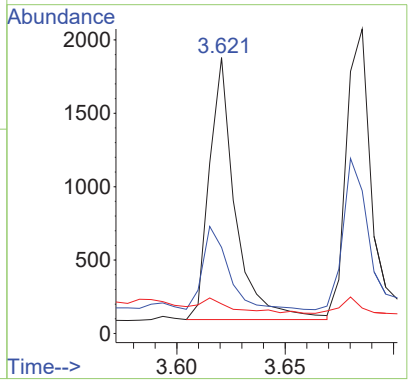


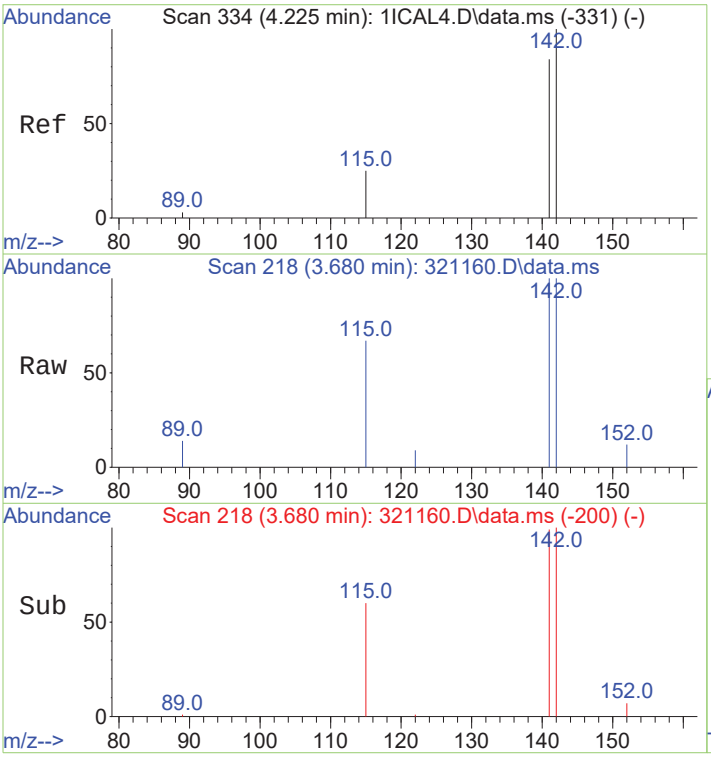


#4
2Methylnaphth
Concen: 39.30 ng/mL
RT: 3.621 min Scan# 207
Delta R.T. 0.000 min
Lab File: 321160.D
Acq: 9 Sep 2019 21:16

Tgt Ion:142 Resp: 1487

Ion	Ratio	Lower	Upper
142	100		
115	23.7	6.9	66.9
89	2.7	0.0	34.9

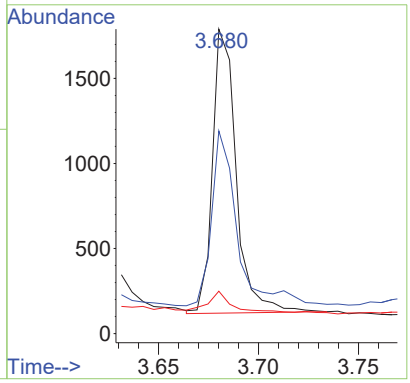


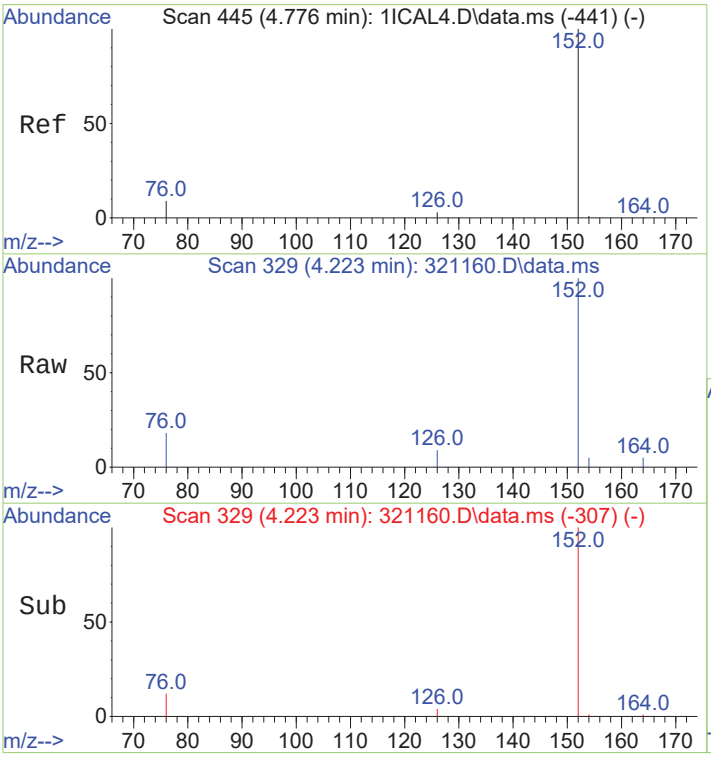


#5
1Methylnaphth
Concen: 37.31 ng/mL
RT: 3.680 min Scan# 218
Delta R.T. 0.000 min
Lab File: 321160.D
Acq: 9 Sep 2019 21:16

Tgt Ion:141 Resp: 1379

Ion	Ratio	Lower	Upper
141	100		
115	62.0	2.5	62.5
89	7.6	0.0	34.0

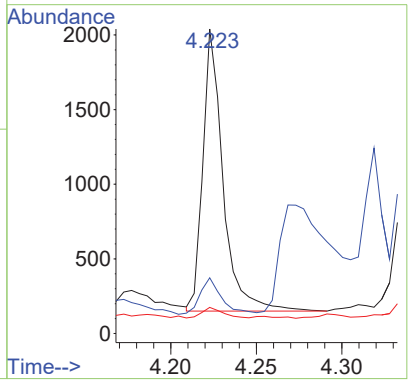


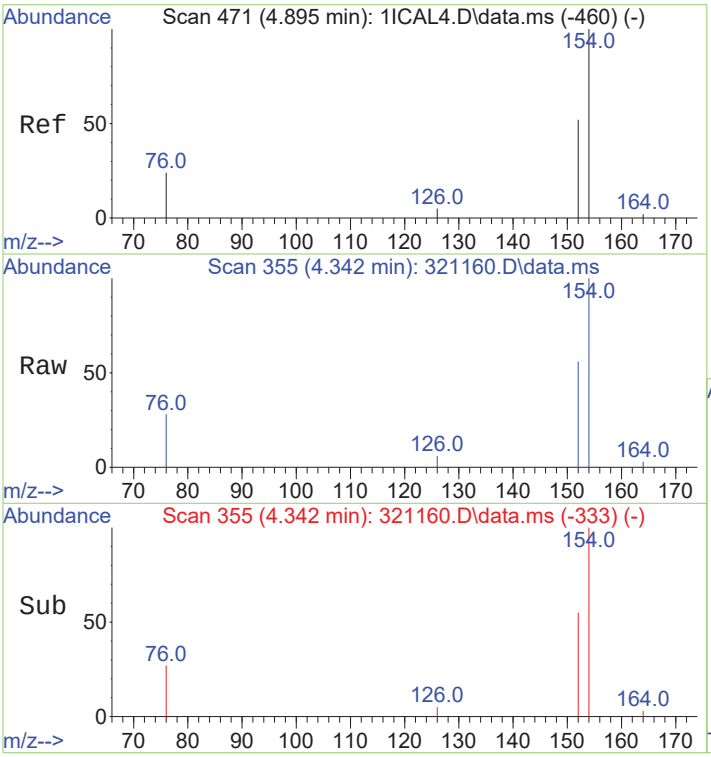


#7
Acnaphthylene
Concen: 26.24 ng/mL
RT: 4.223 min Scan# 329
Delta R.T. 0.000 min
Lab File: 321160.D
Acq: 9 Sep 2019 21:16

Tgt Ion:152 Resp: 1552

Ion	Ratio	Lower	Upper
152	100		
76	12.5	0.0	39.9
126	3.8	0.0	33.1

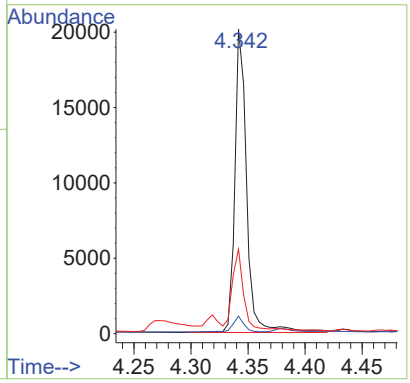


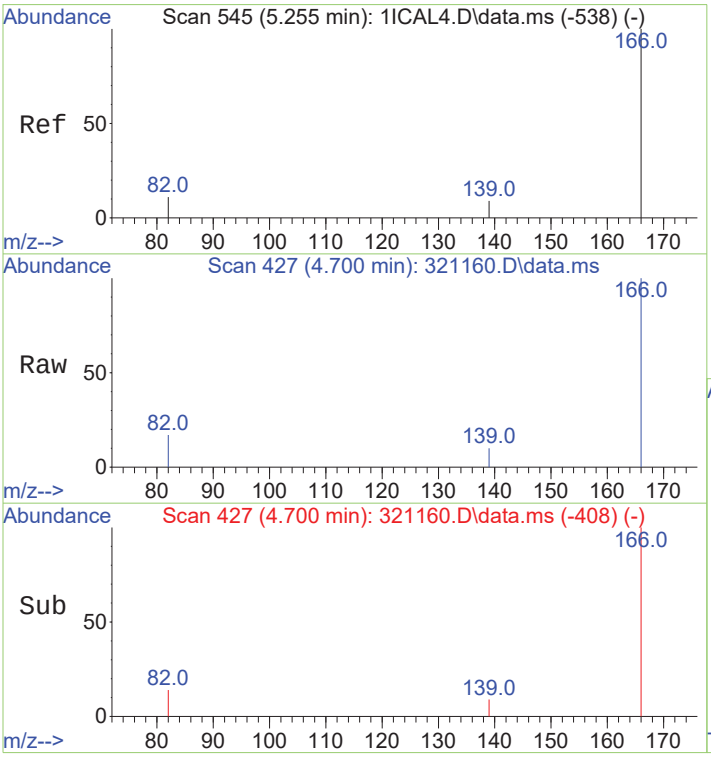


#8
Acenaphthene
Concen: 364.85 ng/mL
RT: 4.342 min Scan# 355
Delta R.T. 0.000 min
Lab File: 321160.D
Acq: 9 Sep 2019 21:16

Tgt Ion:154 Resp: 14612

Ion	Ratio	Lower	Upper
154	100		
126	5.1	0.0	34.3
76	26.9	0.0	51.6

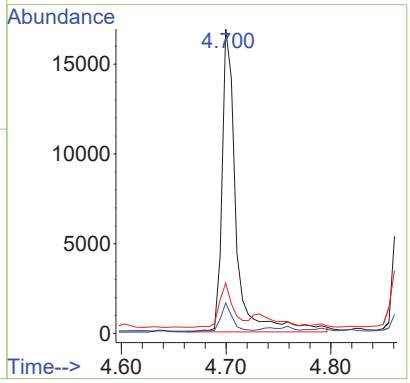


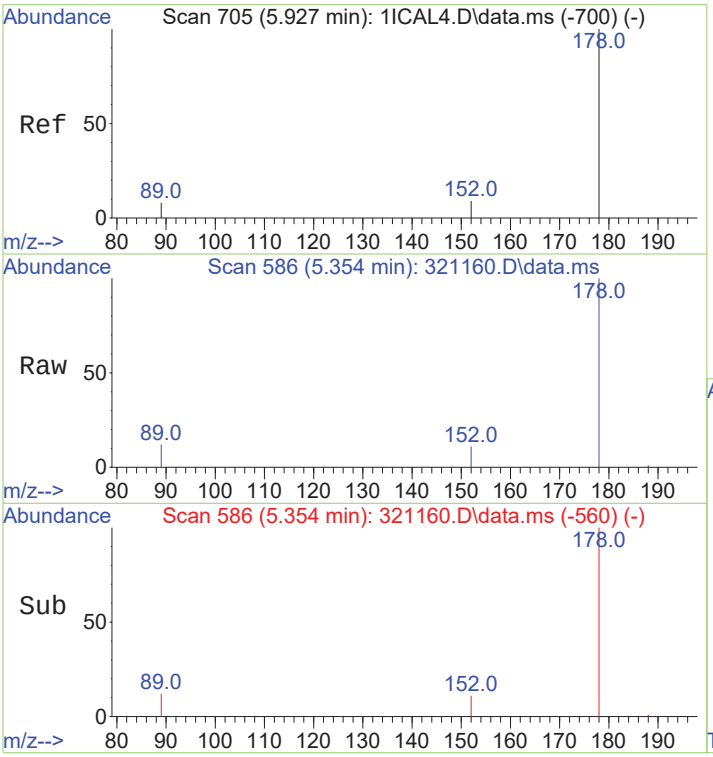


#9
Fluorene
Concen: 374.74 ng/mL
RT: 4.700 min Scan# 427
Delta R.T. 0.000 min
Lab File: 321160.D
Acq: 9 Sep 2019 21:16

Tgt Ion:166 Resp: 15840

Ion	Ratio	Lower	Upper
166	100		
139	9.3	0.0	38.6
82	14.6	0.0	42.4

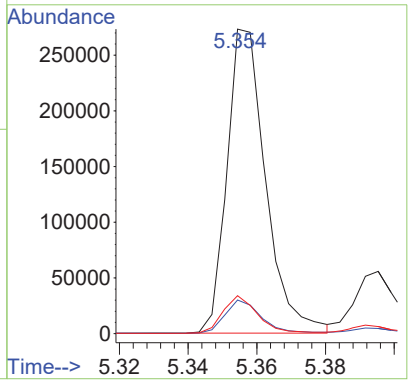


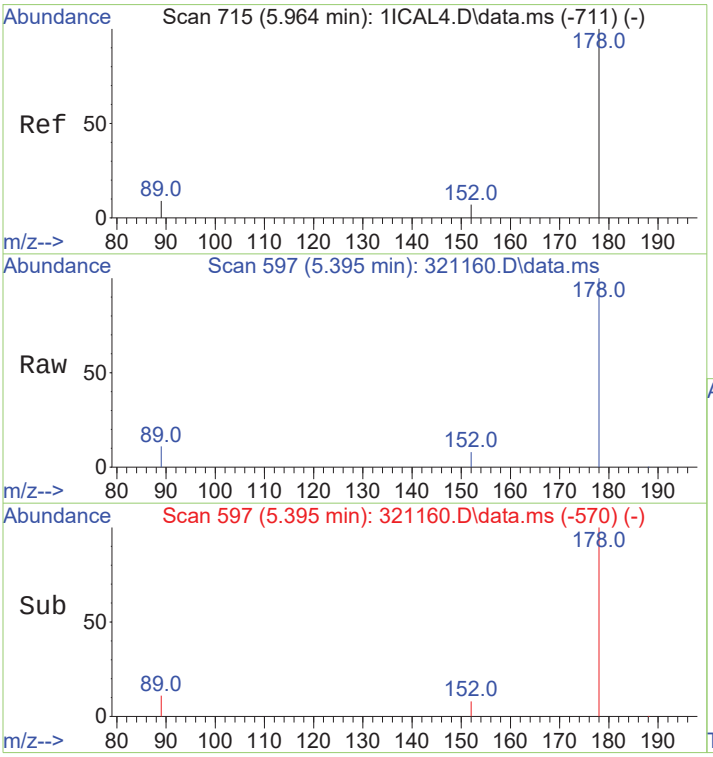


#11
Phenanthrene
Concen: 3917.66 ng/mL
RT: 5.354 min Scan# 586
Delta R.T. -0.004 min
Lab File: 321160.D
Acq: 9 Sep 2019 21:16

Tgt Ion:178 Resp: 214449

Ion	Ratio	Lower	Upper
178	100		
152	10.3	0.0	40.1
89	11.1	0.0	41.4

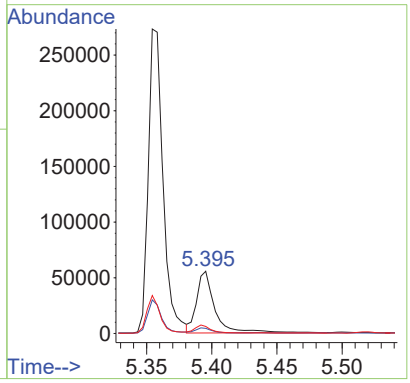


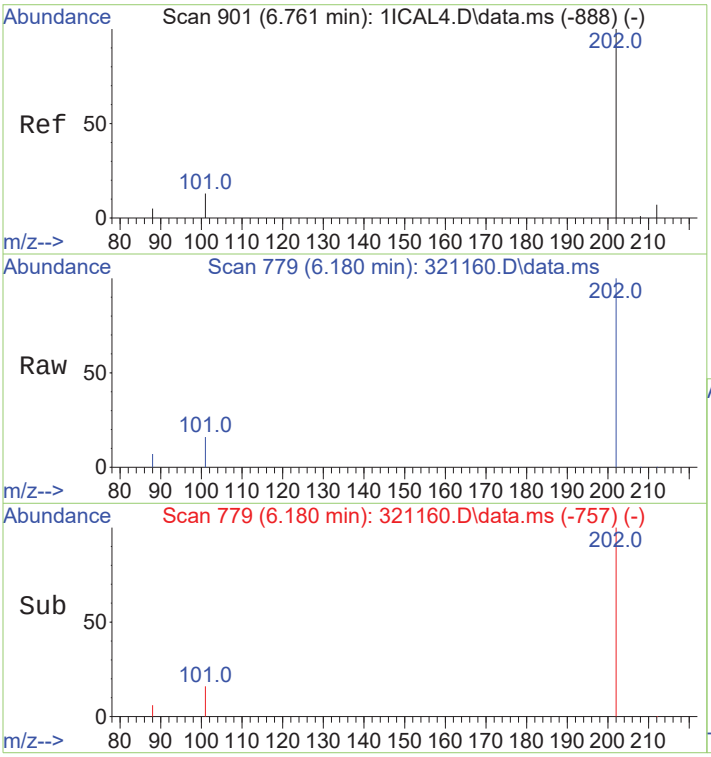


#12
Anthracene
Concen: 966.77 ng/mL
RT: 5.395 min Scan# 597
Delta R.T. 0.000 min
Lab File: 321160.D
Acq: 9 Sep 2019 21:16

Tgt Ion:178 Resp: 53795

Ion	Ratio	Lower	Upper
178	100		
152	7.9	0.0	37.8
89	11.0	0.0	31.3

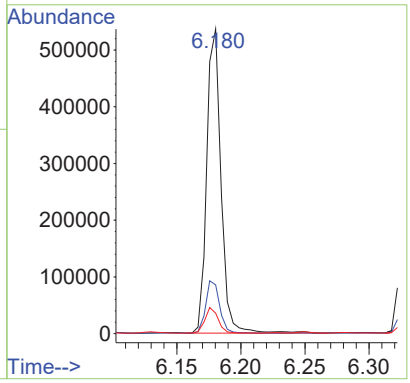


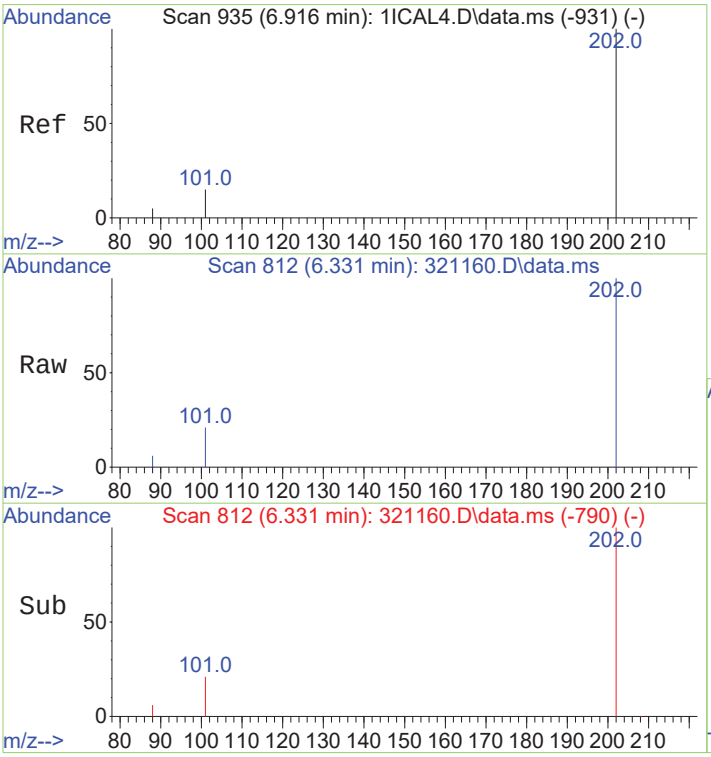


#14
Fluoranthene
Concen: 6539.10 ng/mL
RT: 6.180 min Scan# 779
Delta R.T. 0.000 min
Lab File: 321160.D
Acq: 9 Sep 2019 21:16

Tgt Ion:202 Resp: 416048

Ion	Ratio	Lower	Upper
202	100		
101	16.0	0.0	48.3
88	6.6	0.0	38.8

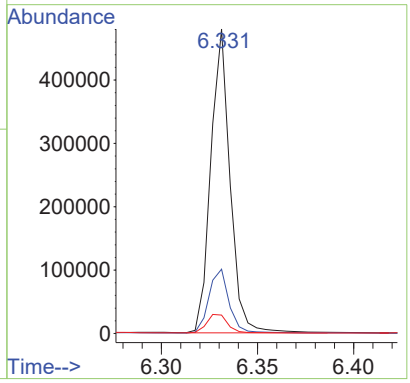


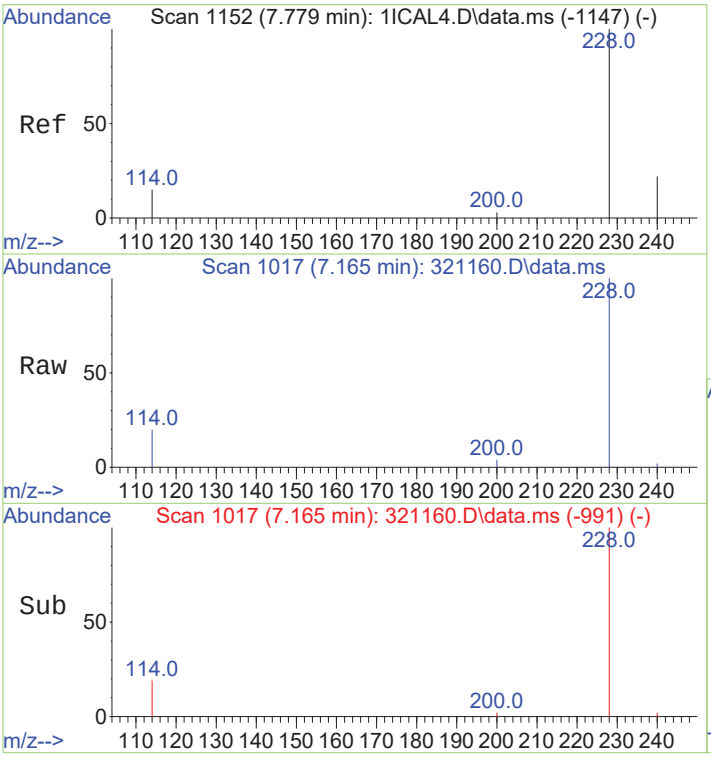


#16
Pyrene
Concen: 4878.01 ng/mL
RT: 6.331 min Scan# 812
Delta R.T. 0.000 min
Lab File: 321160.D
Acq: 9 Sep 2019 21:16

Tgt Ion:202 Resp: 335116

Ion	Ratio	Lower	Upper
202	100		
101	21.0	0.0	49.4
88	5.9	0.0	35.5

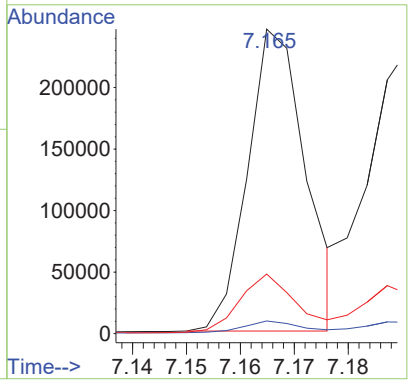


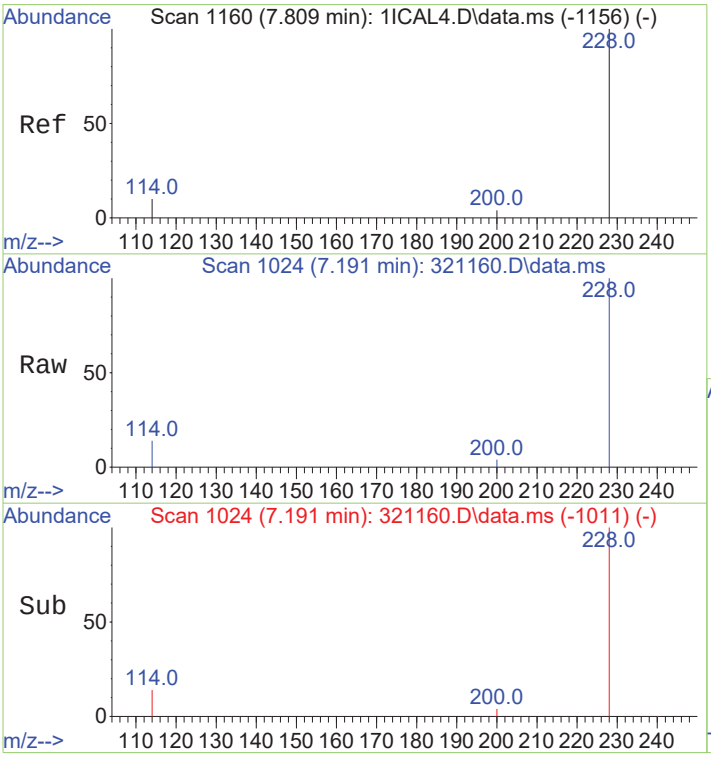


#17
B[a]anthracen
Concen: 3648.75 ng/mL
RT: 7.165 min Scan# 1017
Delta R.T. -0.004 min
Lab File: 321160.D
Acq: 9 Sep 2019 21:16

Tgt Ion:228 Resp: 183874

Ion	Ratio	Lower	Upper
228	100		
200	3.9	0.0	33.6
114	19.3	0.0	47.0

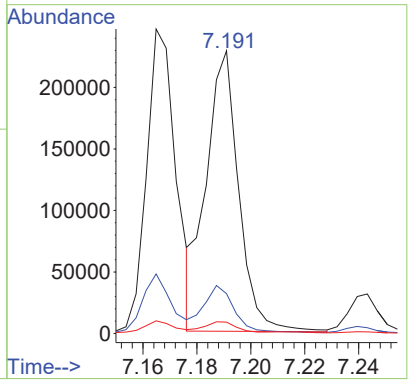


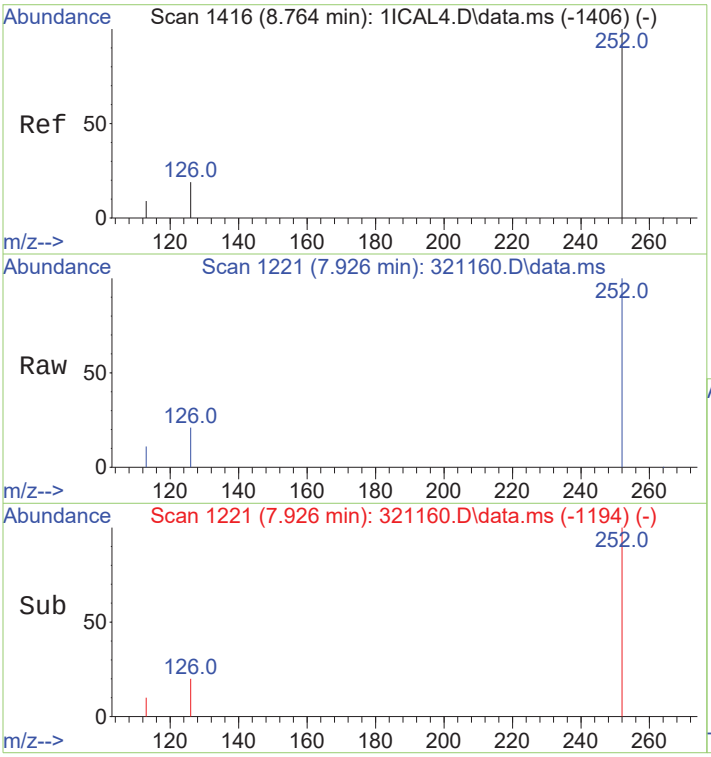


#18
Chrysene
Concen: 3216.28 ng/mL
RT: 7.191 min Scan# 1024
Delta R.T. 0.000 min
Lab File: 321160.D
Acq: 9 Sep 2019 21:16

Tgt Ion:228 Resp: 191934

Ion	Ratio	Lower	Upper
228	100		
114	13.9	0.0	46.1
200	3.9	0.0	33.8

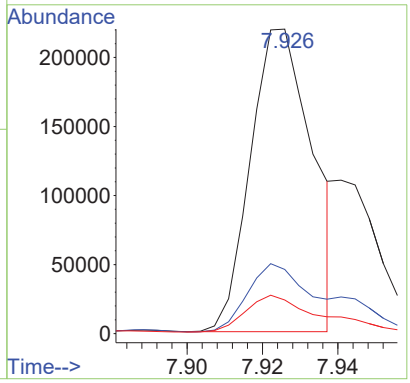


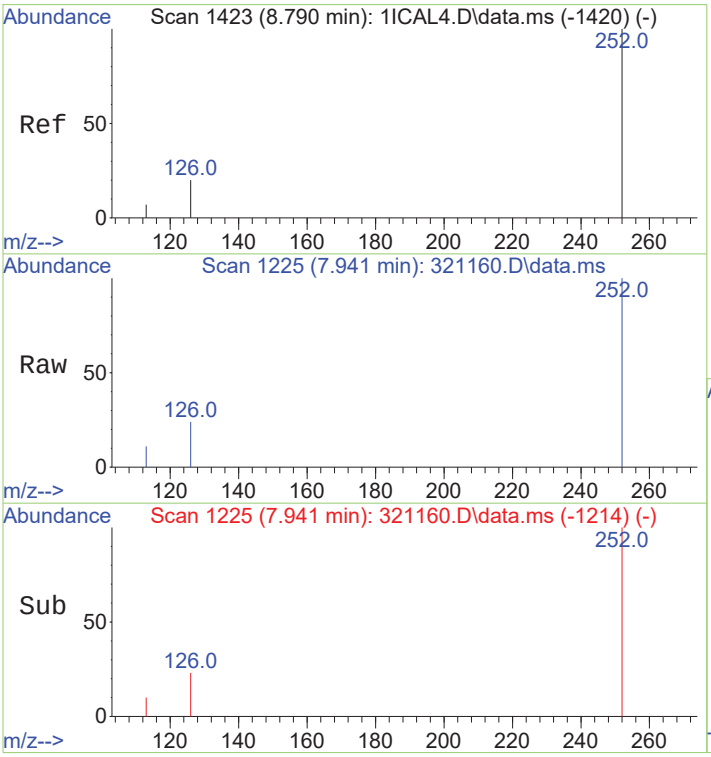


#20
B[b]fluoranth
Concen: 3905.51 ng/mL
RT: 7.926 min Scan# 1221
Delta R.T. 0.000 min
Lab File: 321160.D
Acq: 9 Sep 2019 21:16

Tgt Ion:252 Resp: 250966

Ion	Ratio	Lower	Upper
252	100		
126	20.6	0.0	52.1
113	10.6	0.0	40.0

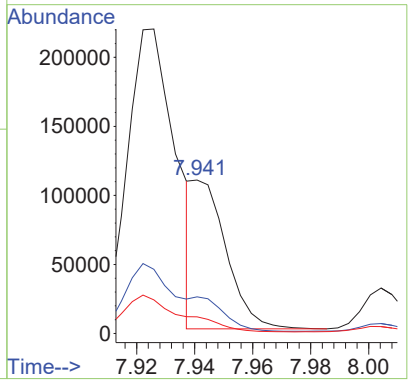


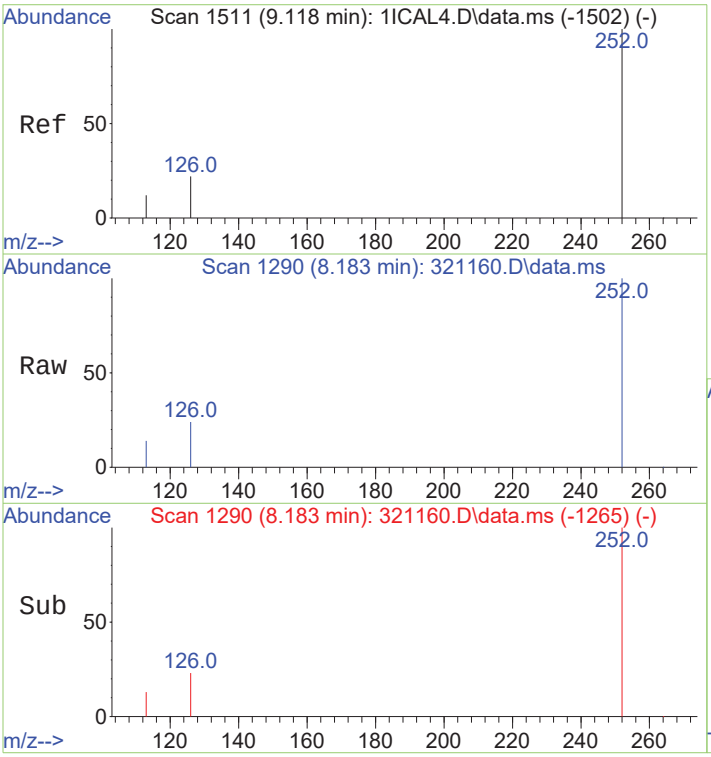


#21
B[k]fluoranth
Concen: 1112.47 ng/mL
RT: 7.941 min Scan# 1225
Delta R.T. -0.007 min
Lab File: 321160.D
Acq: 9 Sep 2019 21:16

Tgt Ion:252 Resp: 86380

Ion	Ratio	Lower	Upper
252	100		
126	23.0	0.0	54.3
113	9.8	0.0	39.4

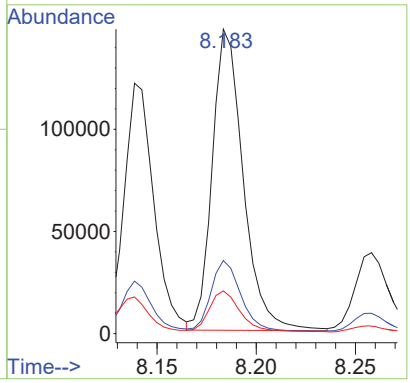


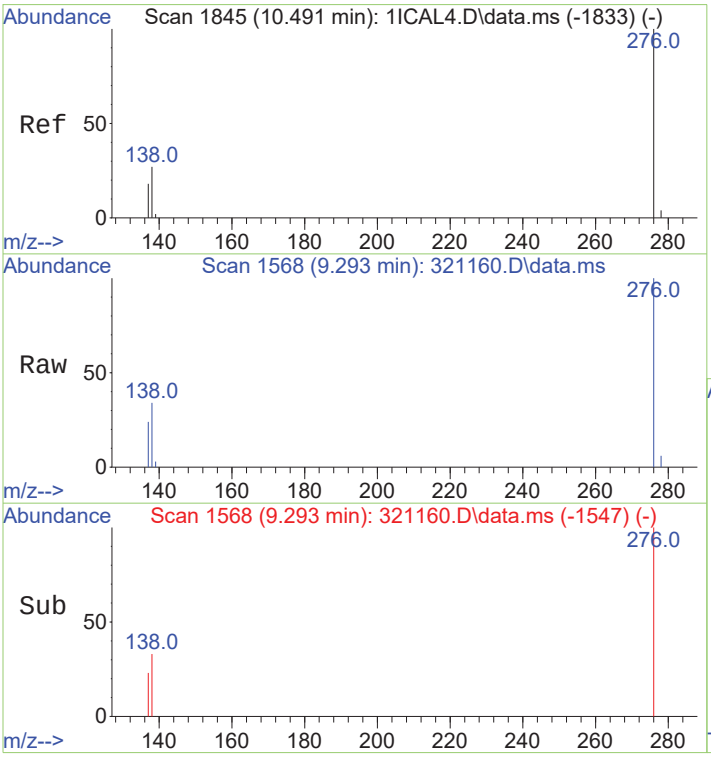


#22
Benz[a]pyrene
Concen: 2553.01 ng/mL
RT: 8.183 min Scan# 1290
Delta R.T. -0.007 min
Lab File: 321160.D
Acq: 9 Sep 2019 21:16

Tgt Ion:252 Resp: 160216

Ion	Ratio	Lower	Upper
252	100		
126	23.6	0.0	52.7
113	13.6	0.0	42.2

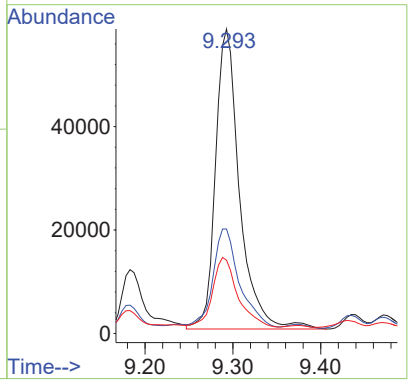


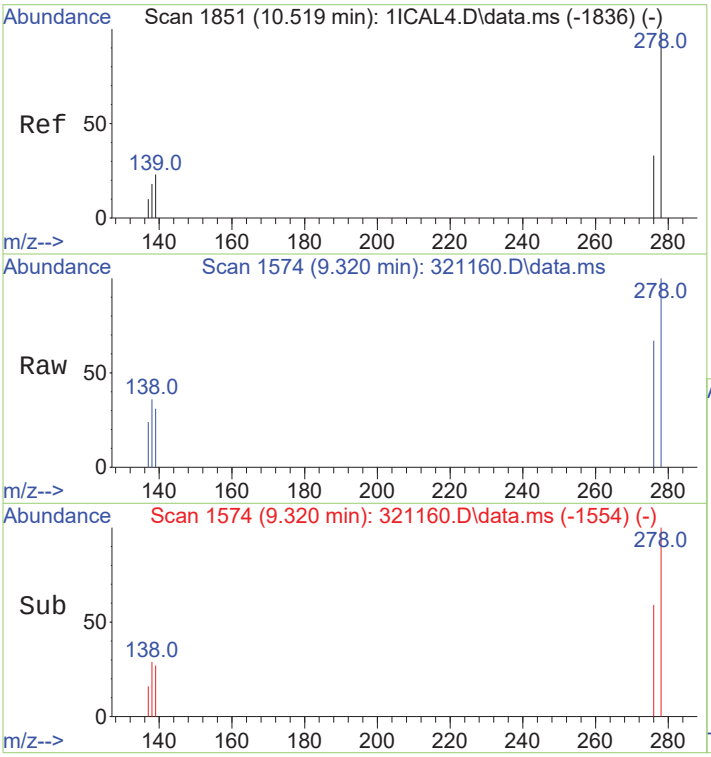


#23
Indeno-pyrene
Concen: 1759.32 ng/mL
RT: 9.293 min Scan# 1568
Delta R.T. -0.005 min
Lab File: 321160.D
Acq: 9 Sep 2019 21:16

Tgt Ion:276 Resp: 110558

Ion	Ratio	Lower	Upper
276	100		
138	32.9	4.1	64.1
137	22.0	0.0	52.8

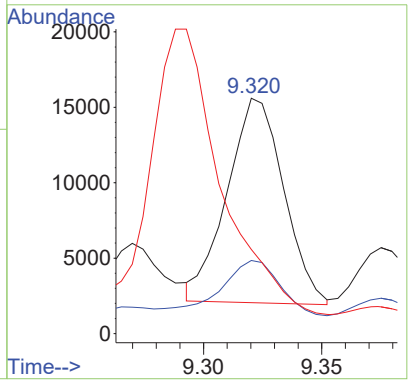


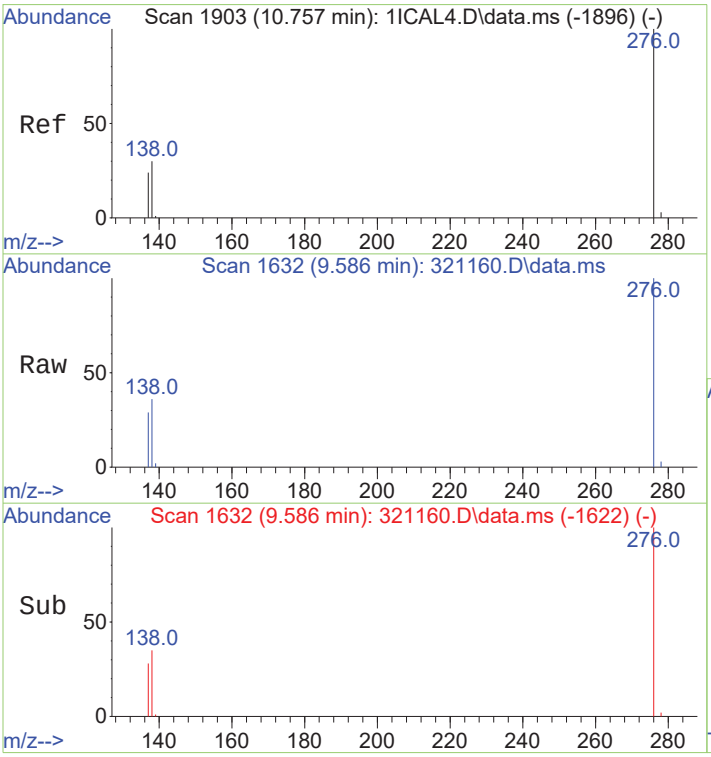


#24
Dib[ah]anthr
Concen: 459.95 ng/mL
RT: 9.320 min Scan# 1574
Delta R.T. -0.009 min
Lab File: 321160.D
Acq: 9 Sep 2019 21:16

Tgt Ion:278 Resp: 22588

Ion	Ratio	Lower	Upper
278	100		
139	27.4	0.0	59.3
138	32.2	0.0	56.3

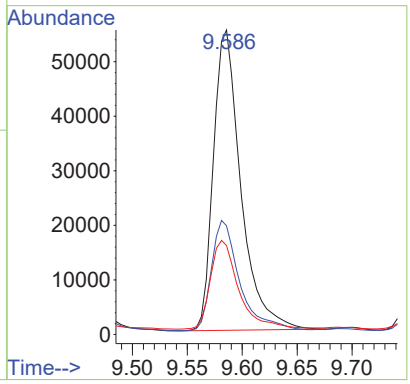




#25
B[ghi]perylen
Concen: 1784.91 ng/mL
RT: 9.586 min Scan# 1632
Delta R.T. -0.005 min
Lab File: 321160.D
Acq: 9 Sep 2019 21:16

Tgt Ion:276 Resp: 95902

Ion	Ratio	Lower	Upper
276	100		
138	34.8	7.7	67.7
137	27.7	0.6	60.6



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321162.D Vial: 18
Acq On : 9 Sep 2019 21:36 Operator: JJY
Sample : 164274,321162, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 21:50:40 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

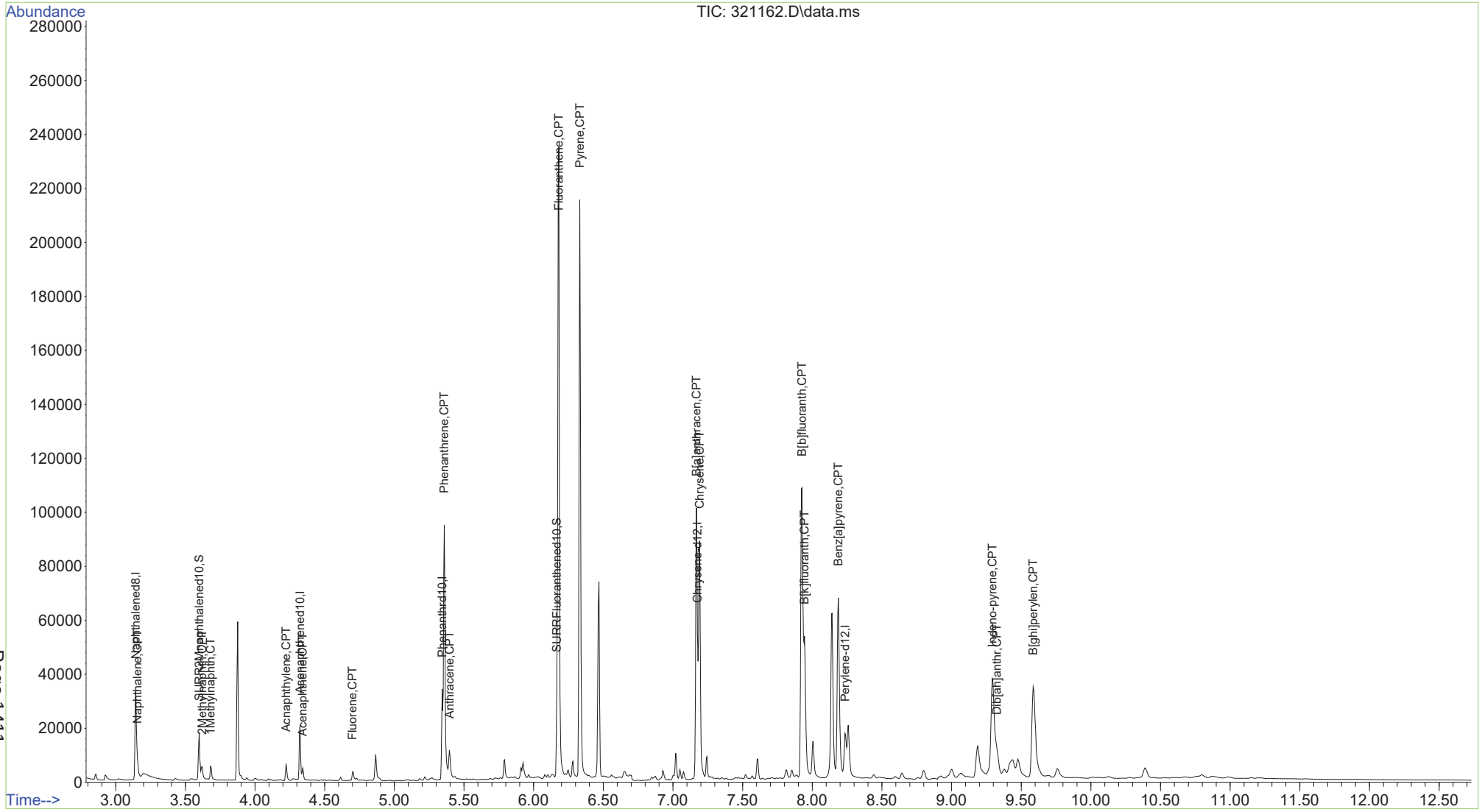
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.144	136	28434	400.00	ng/mL	0.00
6) Acenaphthened10	4.323	164	14346	400.00	ng/mL	0.00
10) Phenanthrd10	5.343	188	23644	400.00	ng/mL	0.00
15) Chrysene-d12	7.176	240	17581	400.00	ng/mL	0.00
19) Perylene-d12	8.236	264	18961	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.599	152	11386	72.20	%REC	0.00
Spiked Amount 100.000			Recovery = 72.20%			
13) SURRFluoranthened10	6.167	212	18683	80.02	%REC	0.00
Spiked Amount 100.000			Recovery = 80.02%			
Target Compounds						Qvalue
2) Naphthalene	3.155	128	2233	31.9374	ng/ml	98
4) 2Methylnaphth	3.621	142	1693	44.1269	ng/mL	80
5) 1Methylnaphth	3.680	141	1429	38.1263	ng/mL	57
7) Acnaphthylene	4.223	152	4009	66.6361	ng/mL	95
8) Acenaphthene	4.342	154	1735	42.5822	ng/mL	87
9) Fluorene	4.700	166	2508	58.3209	ng/mL	74
11) Phenanthrene	5.358	178	59640	1010.7011	ng/mL	99
12) Anthracene	5.395	178	9972	169.3801	ng/mL	99
14) Fluoranthene	6.180	202	148731	2209.3993	ng/mL	93
16) Pyrene	6.331	202	129078	1815.7241	ng/mL	98
17) B[a]anthracen	7.169	228	60015	1182.1028	ng/mL	98
18) Chrysene	7.191	228	62234	1007.8115	ng/mL	97
20) B[b]fluoranth	7.926	252	98492	1583.6327	ng/mL	97
21) B[k]fluoranth	7.945	252	27851	367.8043	ng/mL	96
22) Benz[a]pyrene	8.187	252	56009	935.3491	ng/mL	99
23) Indeno-pyrene	9.293	276	40845	693.5166	ng/mL	99
24) Dib[ah]anthr	9.325	278	7346	179.1702	ng/mL	90
25) B[ghi]perylen	9.586	276	36693	726.6760	ng/mL	99

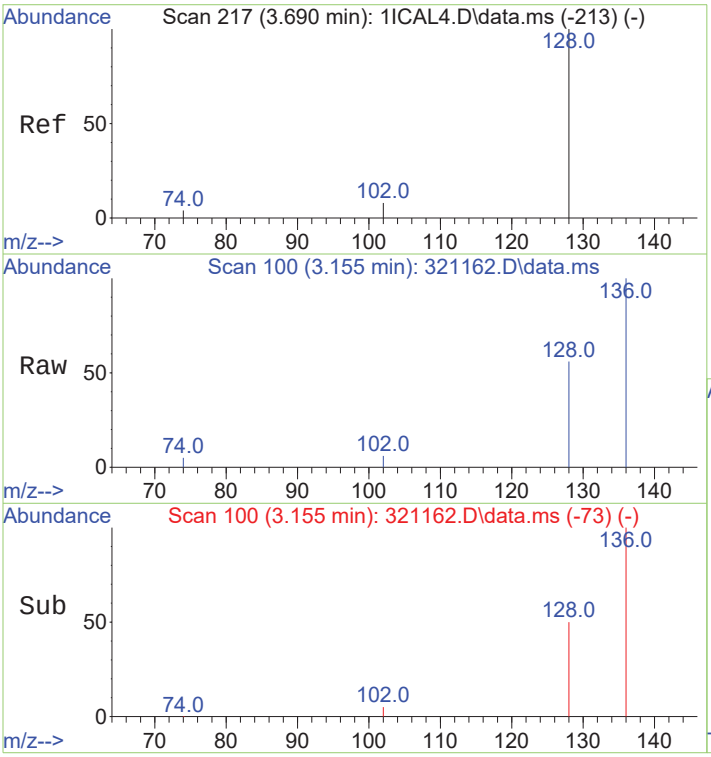
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321162.D Vial: 18
Acq On : 9 Sep 2019 21:36 Operator: JJY
Sample : 164274,321162, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 21:50:40 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

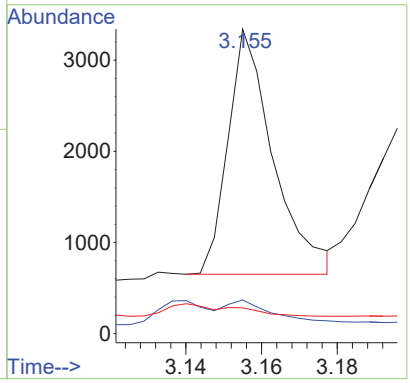


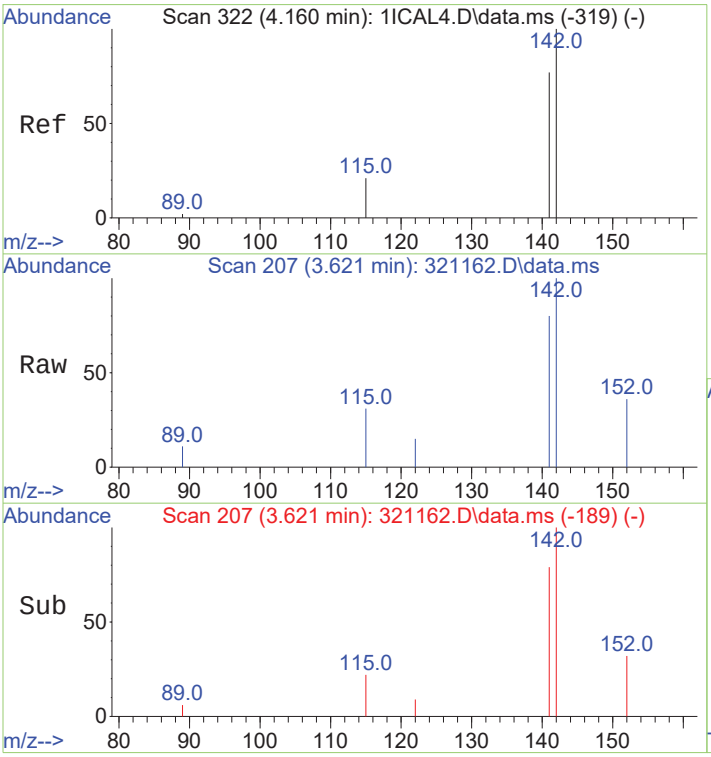


#2
Naphthalene
Concen: 31.94 ng/ml
RT: 3.155 min Scan# 100
Delta R.T. 0.000 min
Lab File: 321162.D
Acq: 9 Sep 2019 21:36

Tgt Ion:128 Resp: 2233

Ion	Ratio	Lower	Upper
128	100		
102	8.5	0.0	37.6
74	3.5	0.0	33.6

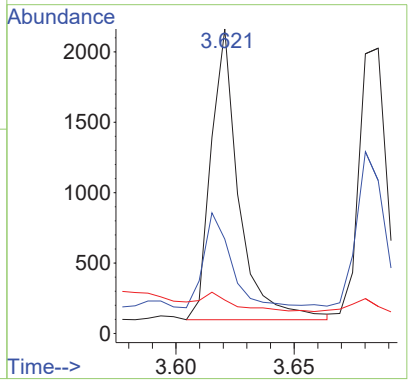


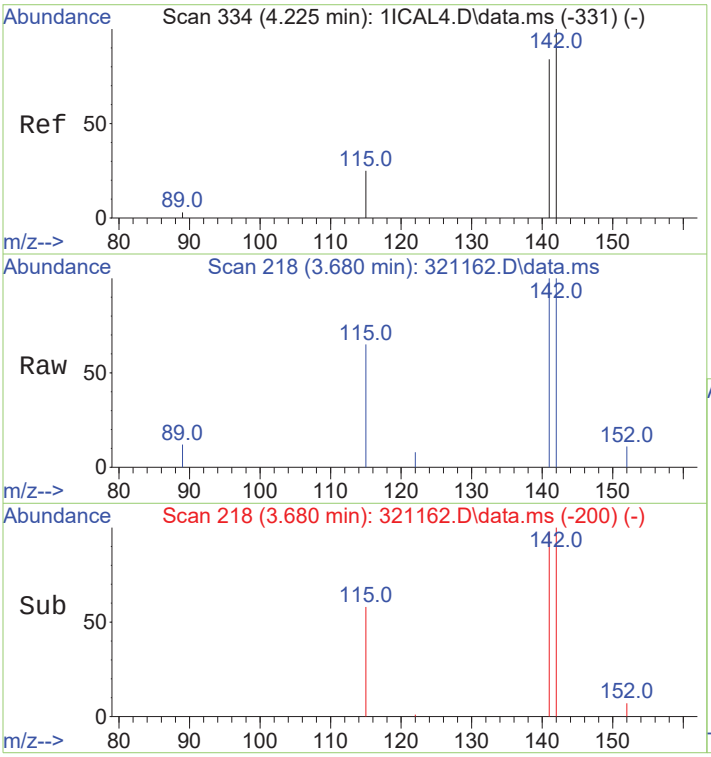


#4
2Methylnaphth
Concen: 44.13 ng/mL
RT: 3.621 min Scan# 207
Delta R.T. 0.000 min
Lab File: 321162.D
Acq: 9 Sep 2019 21:36

Tgt Ion:142 Resp: 1693

Ion	Ratio	Lower	Upper
142	100		
115	23.6	6.9	66.9
89	3.5	0.0	34.9

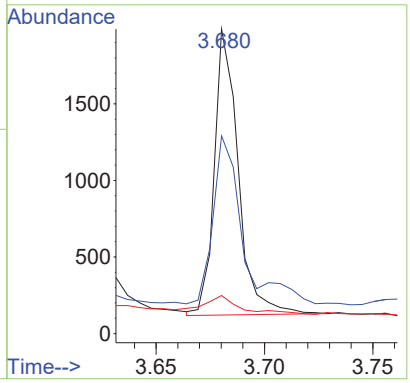


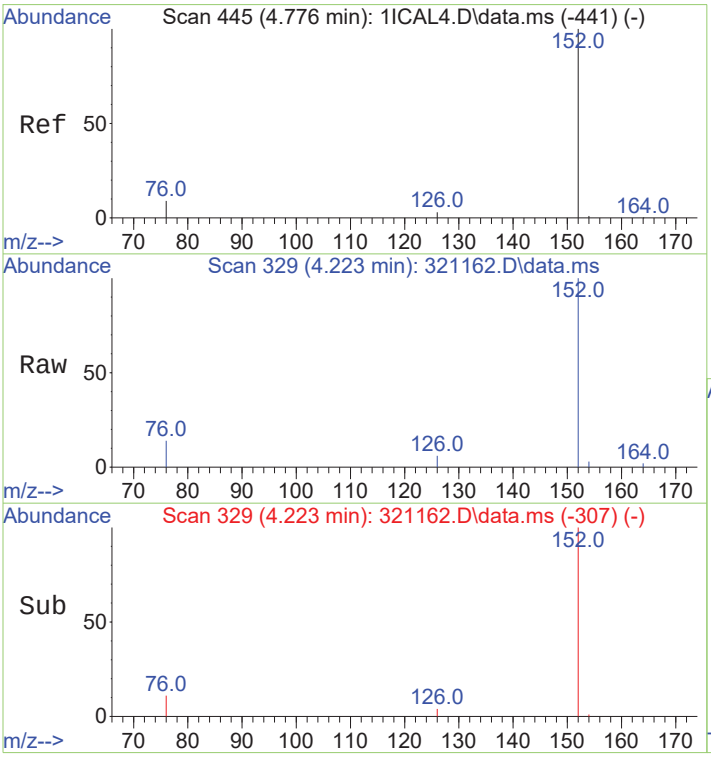


#5
1Methylnaphth
Concen: 38.13 ng/mL
RT: 3.680 min Scan# 218
Delta R.T. 0.000 min
Lab File: 321162.D
Acq: 9 Sep 2019 21:36

Tgt Ion:141 Resp: 1429

Ion	Ratio	Lower	Upper
141	100		
115	59.0	2.5	62.5
89	5.9	0.0	34.0

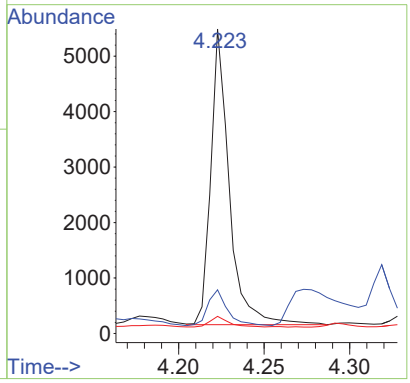


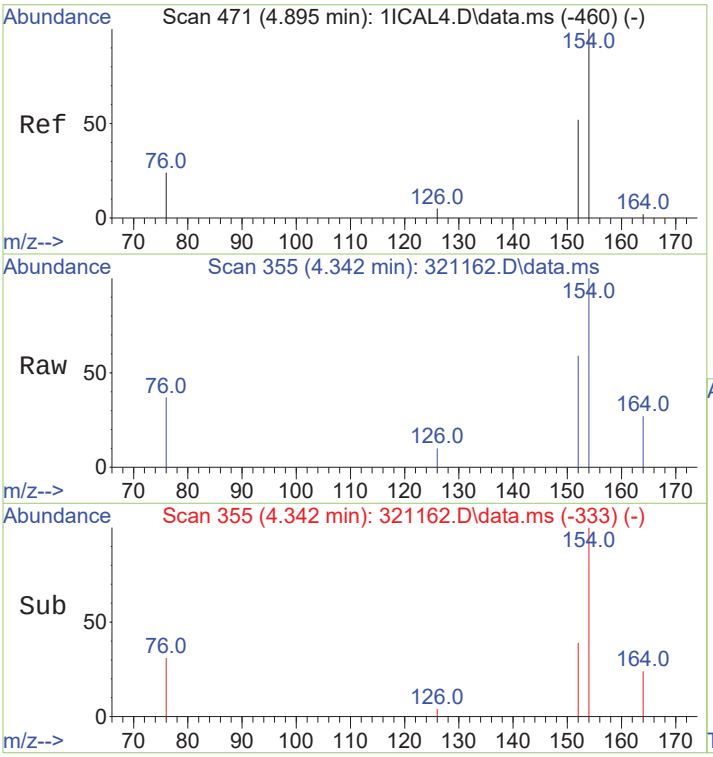


#7
Acnaphthylene
Concen: 66.64 ng/mL
RT: 4.223 min Scan# 329
Delta R.T. 0.000 min
Lab File: 321162.D
Acq: 9 Sep 2019 21:36

Tgt Ion:152 Resp: 4009

Ion	Ratio	Lower	Upper
152	100		
76	12.1	0.0	39.9
126	3.6	0.0	33.1

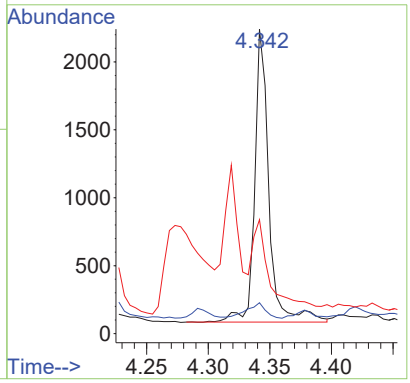


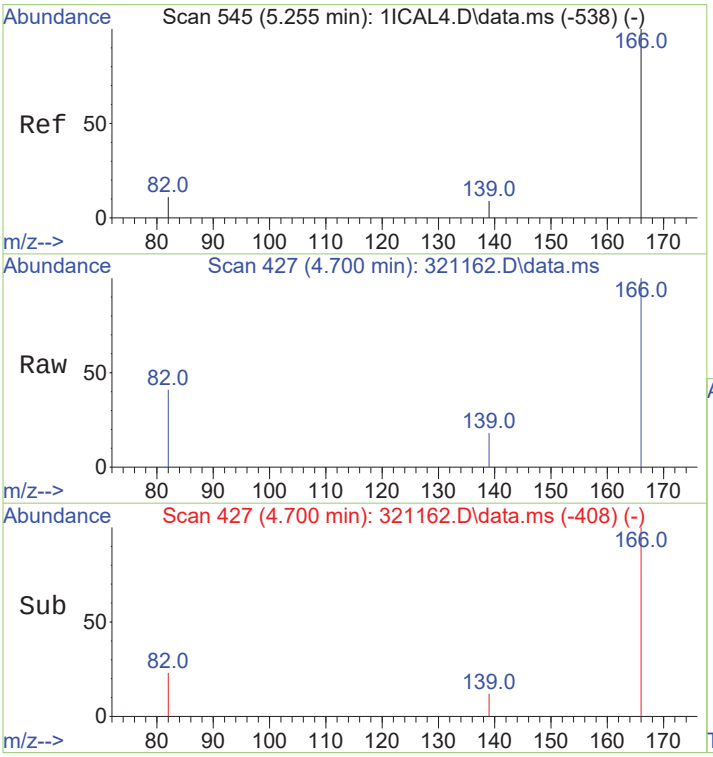


#8
Acenaphthene
Concen: 42.58 ng/mL
RT: 4.342 min Scan# 355
Delta R.T. 0.000 min
Lab File: 321162.D
Acq: 9 Sep 2019 21:36

Tgt Ion:154 Resp: 1735

Ion	Ratio	Lower	Upper
154	100		
126	4.8	0.0	34.3
76	29.0	0.0	51.6

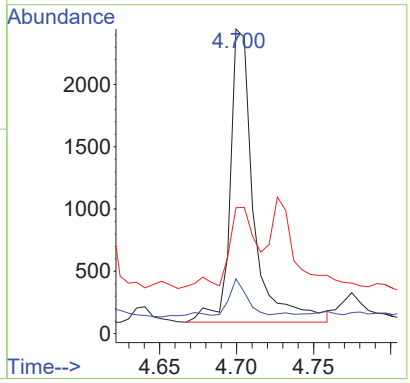


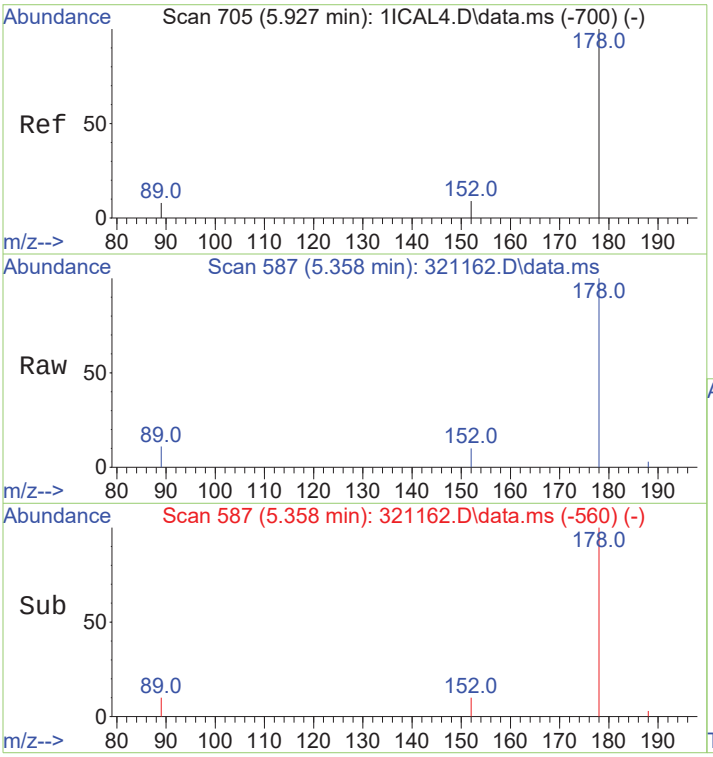


#9
Fluorene
Concen: 58.32 ng/mL
RT: 4.700 min Scan# 427
Delta R.T. 0.000 min
Lab File: 321162.D
Acq: 9 Sep 2019 21:36

Tgt Ion:166 Resp: 2508

Ion	Ratio	Lower	Upper
166	100		
139	12.3	0.0	38.6
82	26.8	0.0	42.4

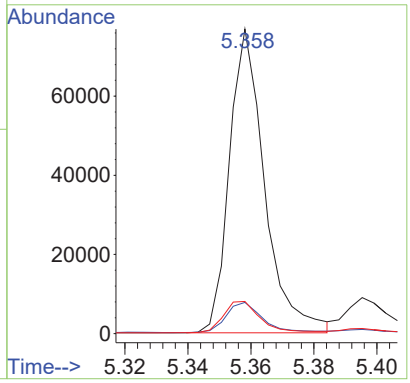


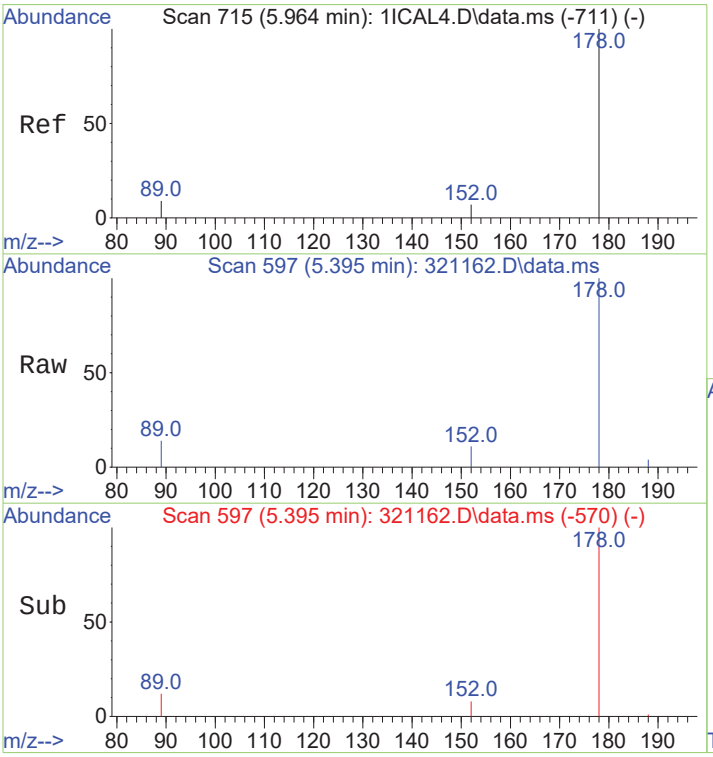


#11
Phenanthrene
Concen: 1010.70 ng/mL
RT: 5.358 min Scan# 587
Delta R.T. 0.000 min
Lab File: 321162.D
Acq: 9 Sep 2019 21:36

Tgt Ion:178 Resp: 59640

Ion	Ratio	Lower	Upper
178	100		
152	10.3	0.0	40.1
89	10.8	0.0	41.4

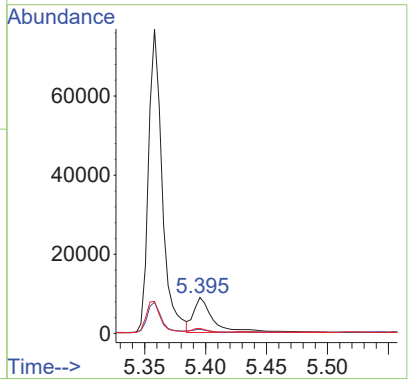


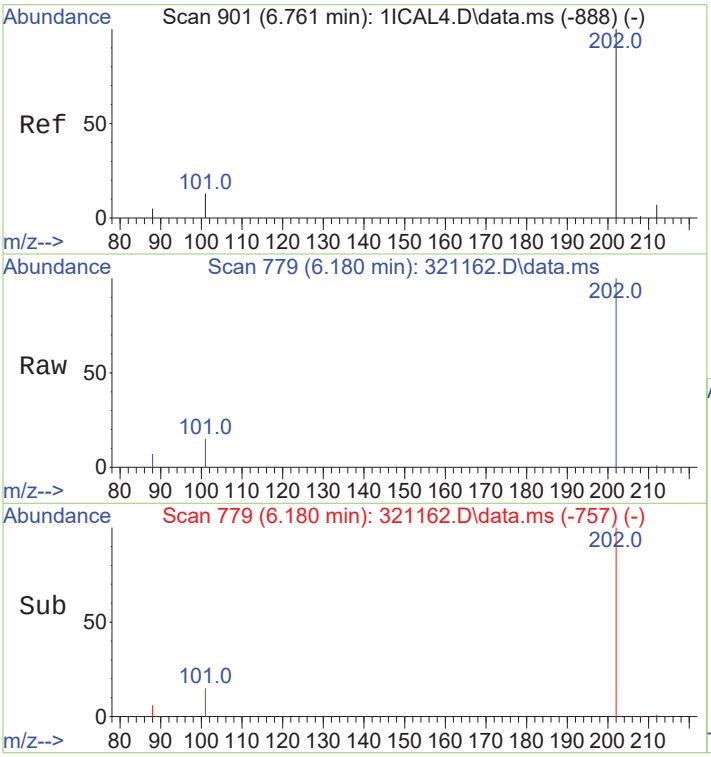


#12
Anthracene
Concen: 169.38 ng/mL
RT: 5.395 min Scan# 597
Delta R.T. 0.000 min
Lab File: 321162.D
Acq: 9 Sep 2019 21:36

Tgt Ion:178 Resp: 9972

Ion	Ratio	Lower	Upper
178	100		
152	8.2	0.0	37.8
89	11.8	0.0	31.3

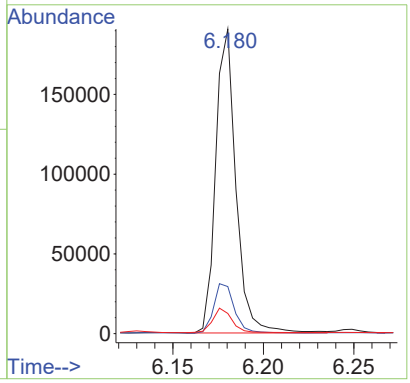


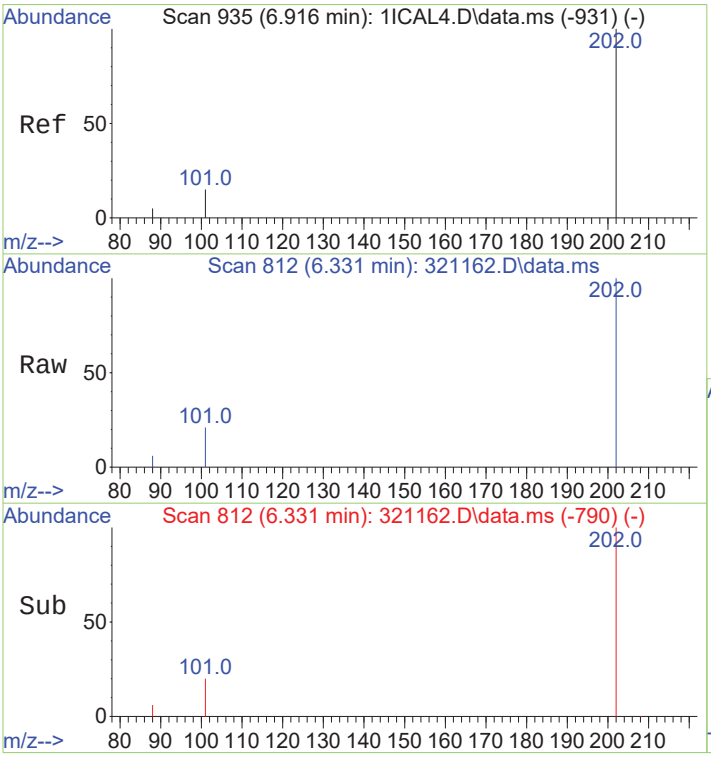


#14
Fluoranthene
Concen: 2209.40 ng/mL
RT: 6.180 min Scan# 779
Delta R.T. 0.000 min
Lab File: 321162.D
Acq: 9 Sep 2019 21:36

Tgt Ion:202 Resp: 148731

Ion	Ratio	Lower	Upper
202	100		
101	15.3	0.0	48.3
88	6.3	0.0	38.8

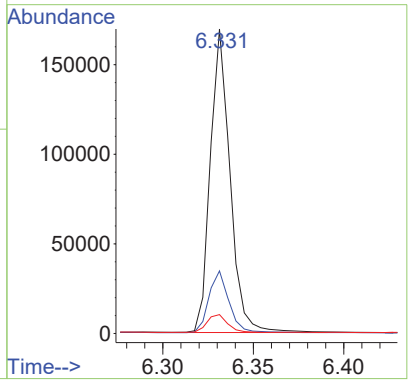


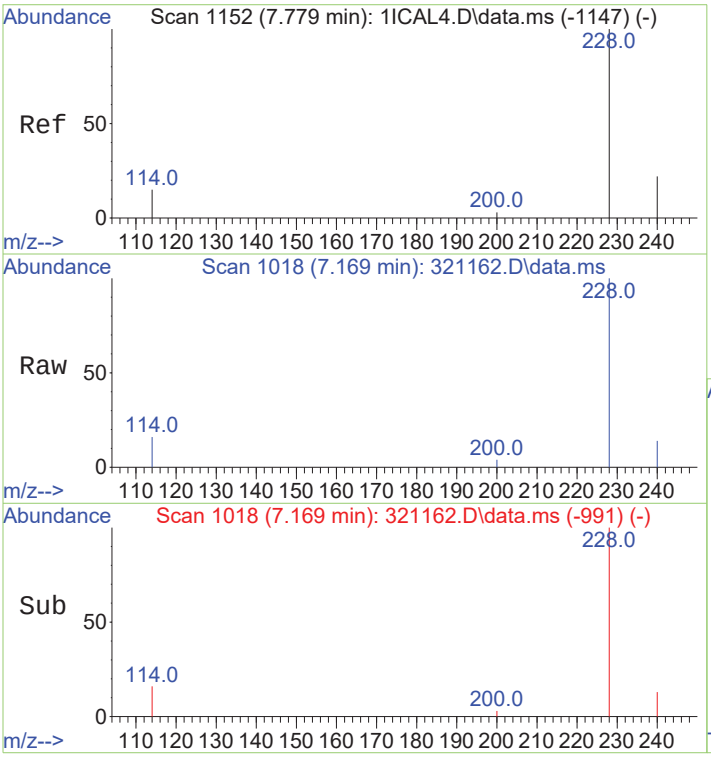


#16
Pyrene
Concen: 1815.72 ng/mL
RT: 6.331 min Scan# 812
Delta R.T. 0.000 min
Lab File: 321162.D
Acq: 9 Sep 2019 21:36

Tgt Ion:202 Resp: 129078

Ion	Ratio	Lower	Upper
202	100		
101	20.3	0.0	49.4
88	5.9	0.0	35.5

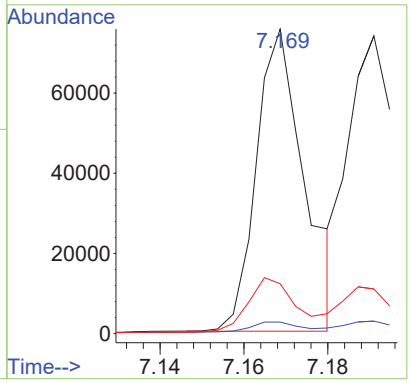


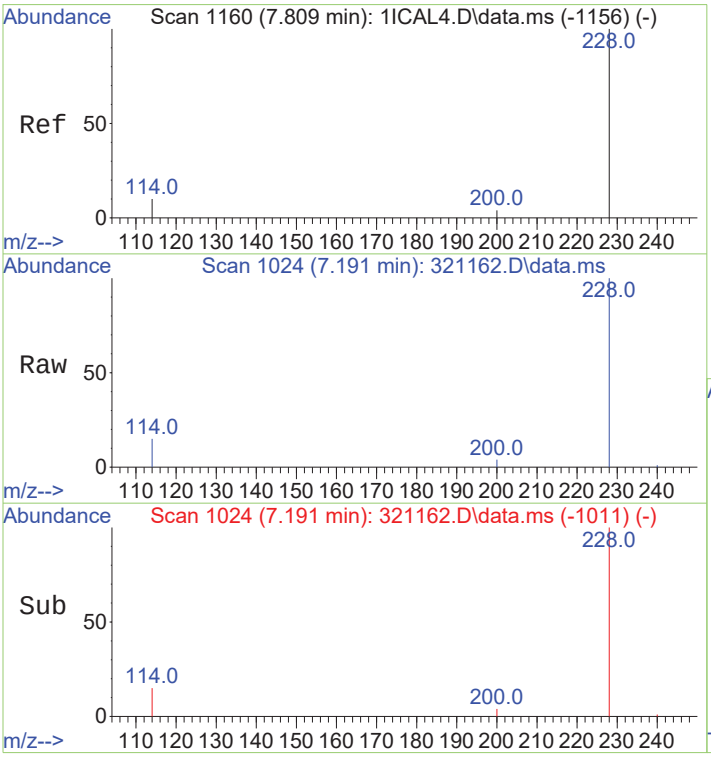


#17
B[a]anthracen
Concen: 1182.10 ng/mL
RT: 7.169 min Scan# 1018
Delta R.T. 0.000 min
Lab File: 321162.D
Acq: 9 Sep 2019 21:36

Tgt Ion:228 Resp: 60015

Ion	Ratio	Lower	Upper
228	100		
200	3.4	0.0	33.6
114	16.0	0.0	47.0

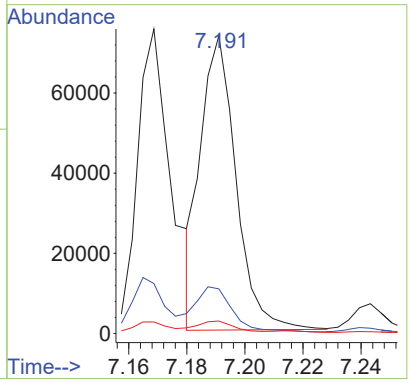


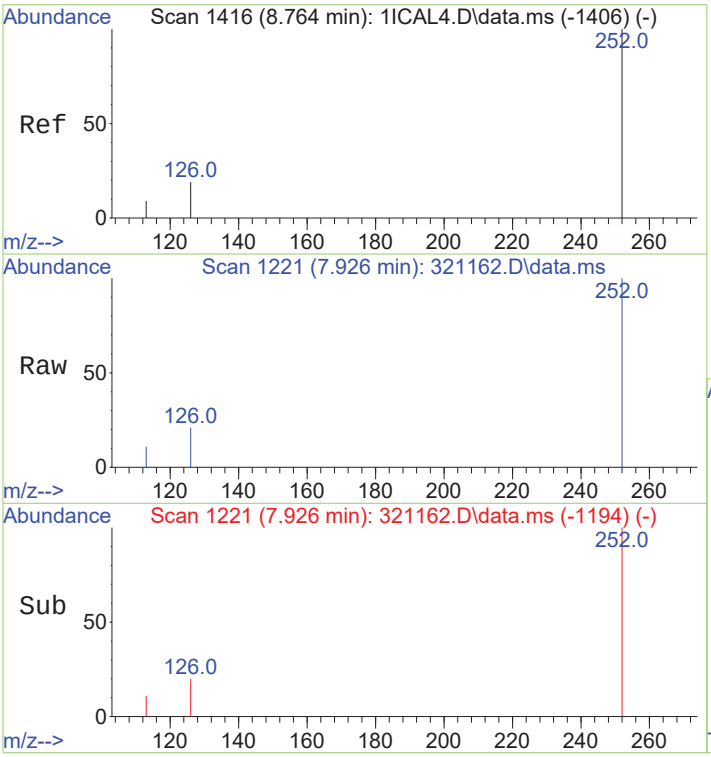


#18
Chrysene
Concen: 1007.81 ng/mL
RT: 7.191 min Scan# 1024
Delta R.T. 0.000 min
Lab File: 321162.D
Acq: 9 Sep 2019 21:36

Tgt Ion:228 Resp: 62234

Ion	Ratio	Lower	Upper
228	100		
114	14.7	0.0	46.1
200	3.9	0.0	33.8

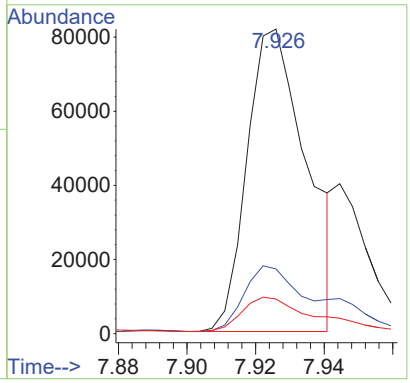


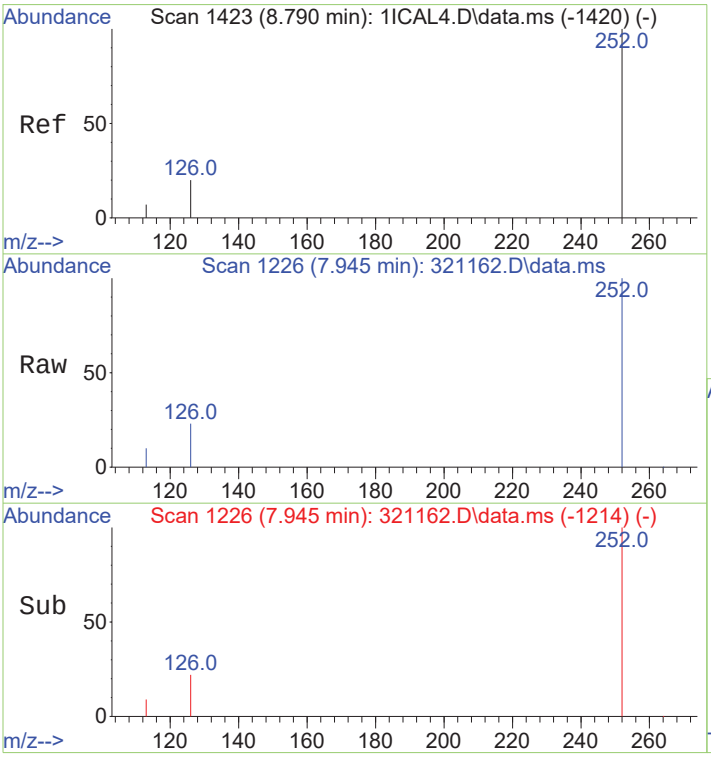


#20
B[b]fluoranth
Concen: 1583.63 ng/mL
RT: 7.926 min Scan# 1221
Delta R.T. 0.000 min
Lab File: 321162.D
Acq: 9 Sep 2019 21:36

Tgt Ion:252 Resp: 98492

Ion	Ratio	Lower	Upper
252	100		
126	20.6	0.0	52.1
113	10.7	0.0	40.0

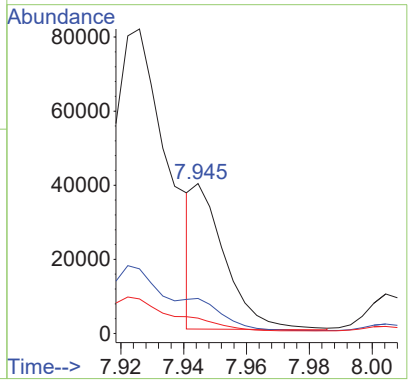


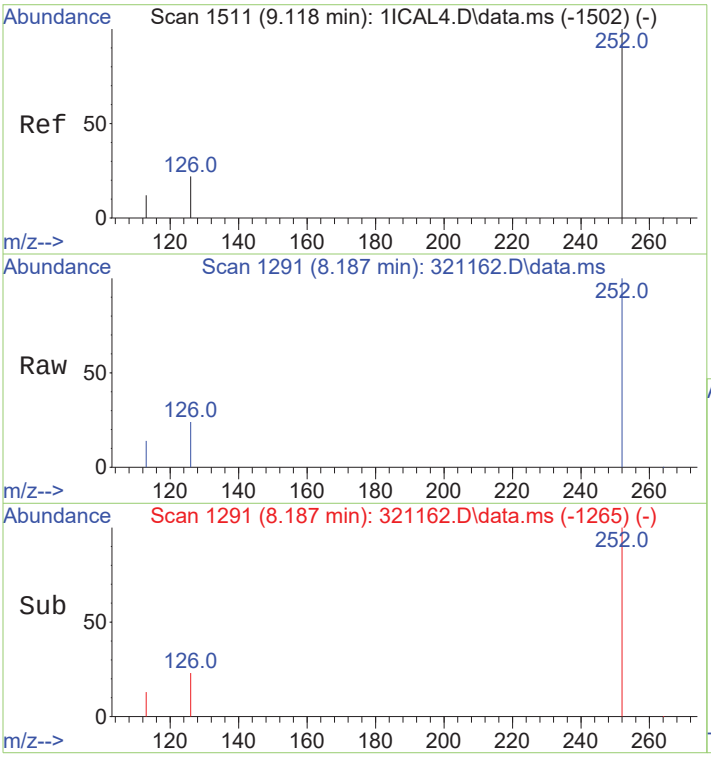


#21
B[k]fluoranth
Concen: 367.80 ng/mL
RT: 7.945 min Scan# 1226
Delta R.T. -0.004 min
Lab File: 321162.D
Acq: 9 Sep 2019 21:36

Tgt Ion:252 Resp: 27851

Ion	Ratio	Lower	Upper
252	100		
126	22.2	0.0	54.3
113	8.8	0.0	39.4

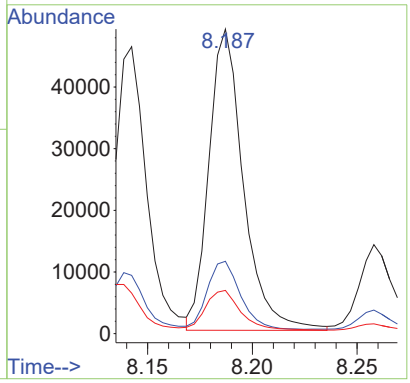


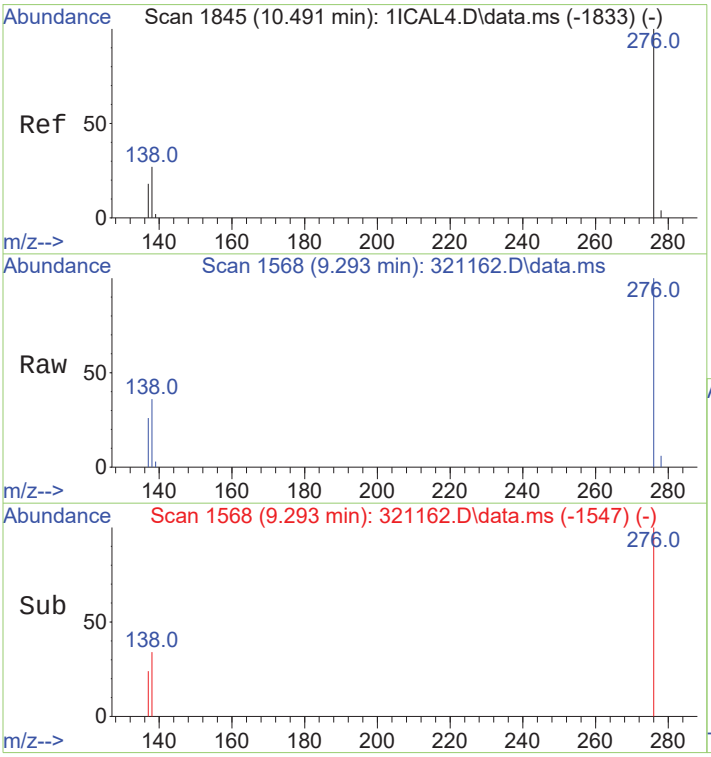


#22
Benz[a]pyrene
Concen: 935.35 ng/mL
RT: 8.187 min Scan# 1291
Delta R.T. -0.004 min
Lab File: 321162.D
Acq: 9 Sep 2019 21:36

Tgt Ion:252 Resp: 56009

Ion	Ratio	Lower	Upper
252	100		
126	22.9	0.0	52.7
113	13.4	0.0	42.2

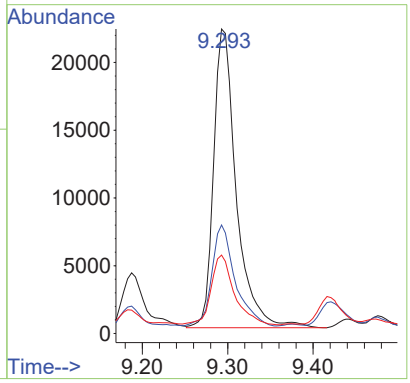


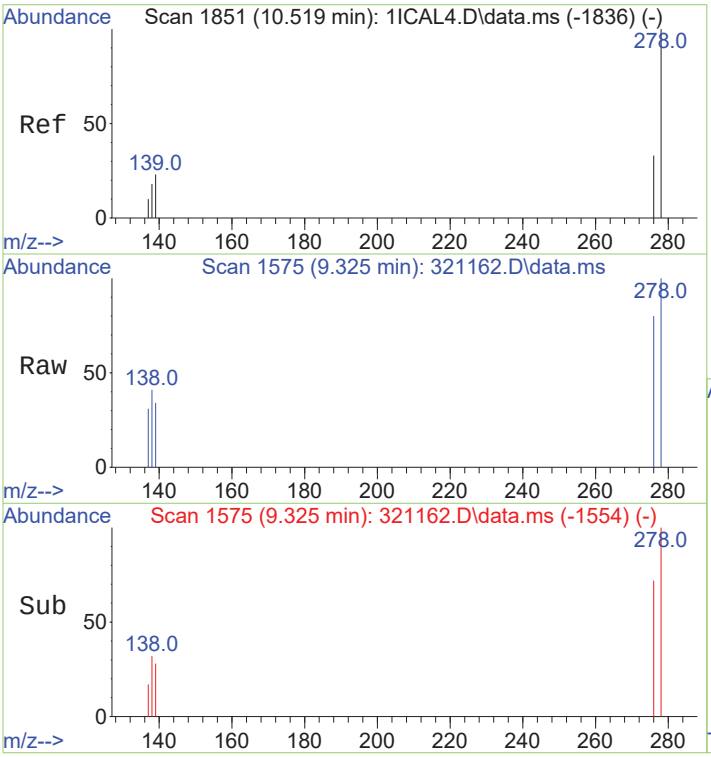


#23
Indeno-pyrene
Concen: 693.52 ng/mL
RT: 9.293 min Scan# 1568
Delta R.T. -0.005 min
Lab File: 321162.D
Acq: 9 Sep 2019 21:36

Tgt Ion:276 Resp: 40845

Ion	Ratio	Lower	Upper
276	100		
138	33.5	4.1	64.1
137	22.9	0.0	52.8

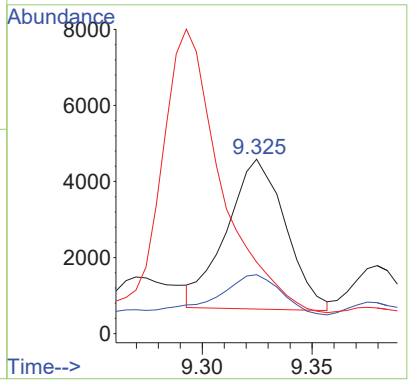


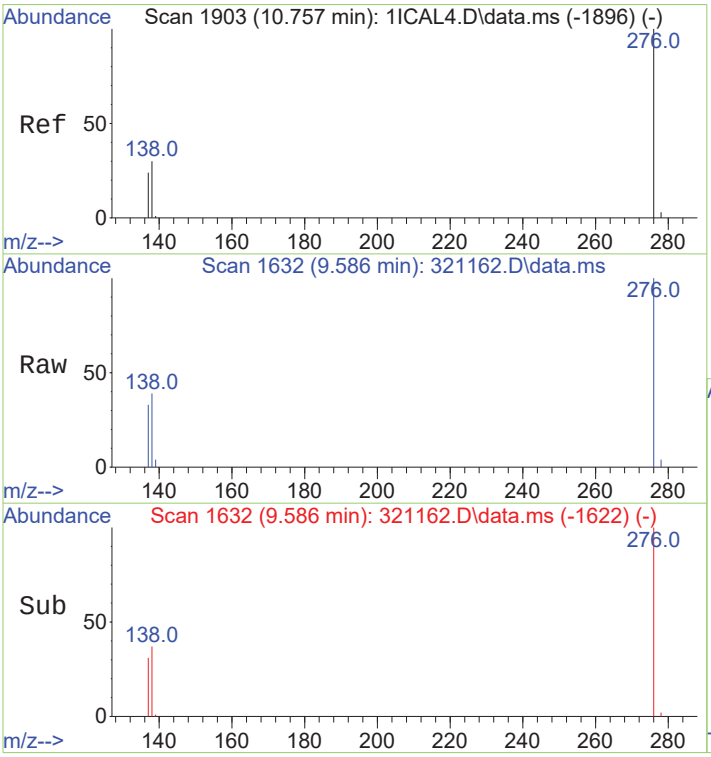


#24
Dib[ah]anthr
Concen: 179.17 ng/mL
RT: 9.325 min Scan# 1575
Delta R.T. -0.005 min
Lab File: 321162.D
Acq: 9 Sep 2019 21:36

Tgt Ion:278 Resp: 7346

Ion	Ratio	Lower	Upper
278	100		
139	28.2	0.0	59.3
138	35.5	0.0	56.3

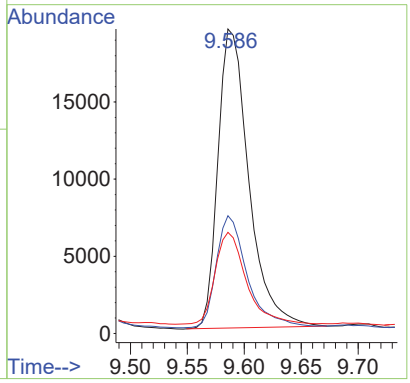




#25
B[ghi]perylen
Concen: 726.68 ng/mL
RT: 9.586 min Scan# 1632
Delta R.T. -0.005 min
Lab File: 321162.D
Acq: 9 Sep 2019 21:36

Tgt Ion:276 Resp: 36693

Ion	Ratio	Lower	Upper
276	100		
138	37.3	7.7	67.7
137	30.4	0.6	60.6



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321163.D Vial: 19
Acq On : 9 Sep 2019 21:56 Operator: JJY
Sample : 164274,321163, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 22:10:46 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

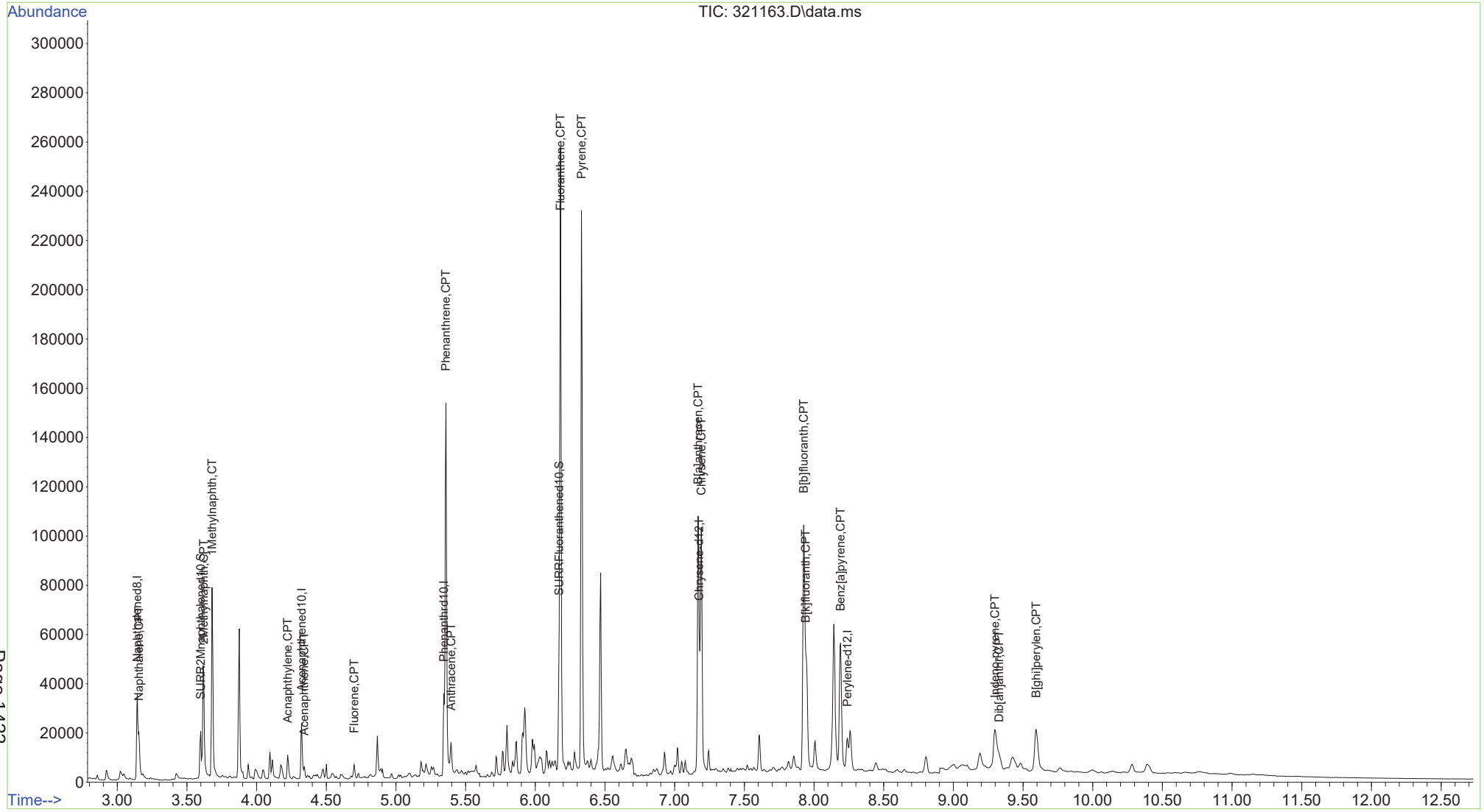
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.144	136	26452	400.00	ng/mL	0.00
6) Acenaphthened10	4.323	164	14445	400.00	ng/mL	0.00
10) Phenanthrd10	5.343	188	23010	400.00	ng/mL	0.00
15) Chrysene-d12	7.176	240	17673	400.00	ng/mL	0.00
19) Perylene-d12	8.239	264	14460	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.599	152	11989	81.72	%REC	0.00
Spiked Amount 100.000			Recovery = 81.72%			
13) SURRFluoranthened10	6.171	212	18689	82.25	%REC	0.00
Spiked Amount 100.000			Recovery = 82.25%			
Target Compounds						Qvalue
2) Naphthalene	3.155	128	9948	152.9417	ng/ml	99
4) 2Methylnaphth	3.620	142	17846	499.9965	ng/mL	75
5) 1Methylnaphth	3.680	141	21302	610.9309	ng/mL	88
7) Acnaphthylene	4.223	152	5710	94.2590	ng/mL	84
8) Acenaphthene	4.341	154	2458	59.9134	ng/mL	79
9) Fluorene	4.699	166	2775	64.0874	ng/mL#	1
11) Phenanthrene	5.358	178	89672	1575.6113	ng/mL	99
12) Anthracene	5.395	178	9419	164.3952	ng/mL	95
14) Fluoranthene	6.180	202	139890	2135.3237	ng/mL	96
16) Pyrene	6.331	202	125361	1754.2576	ng/mL	98
17) B[a]anthracen	7.168	228	62324	1219.6846	ng/mL	99
18) Chrysene	7.191	228	70658	1138.2725	ng/mL	100
20) B[b]fluoranth	7.926	252	85534m	1799.4985	ng/mL	
21) B[k]fluoranth	7.941	252	25363m	438.8842	ng/mL	
22) Benz[a]pyrene	8.191	252	44297	968.7017	ng/mL	99
23) Indeno-pyrene	9.297	276	19180	444.9658	ng/mL	97
24) Dib[ah]anthr	9.329	278	4388	148.8605	ng/mL	86
25) B[ghi]perylen	9.595	276	17876	481.1332	ng/mL	98

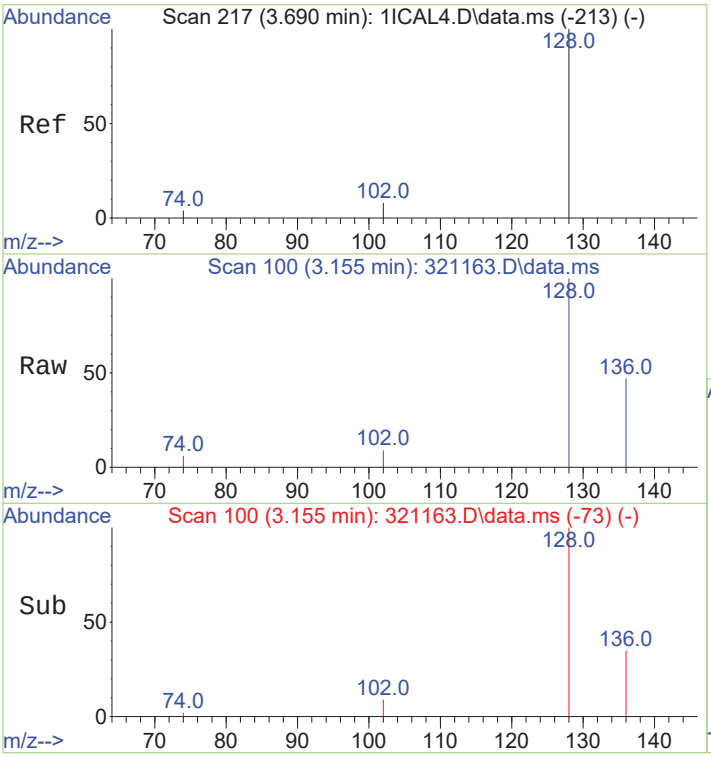
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321163.D Vial: 19
Acq On : 9 Sep 2019 21:56 Operator: JJY
Sample : 164274,321163, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 22:10:46 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

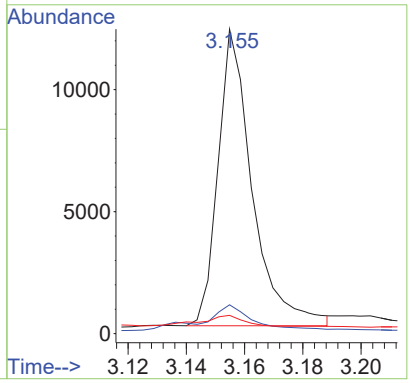


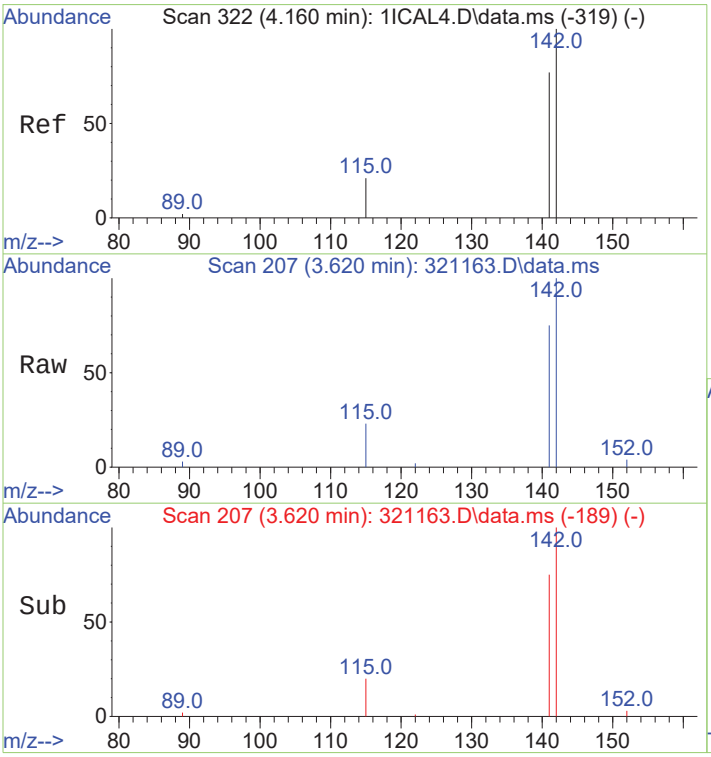


#2
Naphthalene
Concen: 152.94 ng/ml
RT: 3.155 min Scan# 100
Delta R.T. -0.000 min
Lab File: 321163.D
Acq: 9 Sep 2019 21:56

Tgt Ion:128 Resp: 9948

Ion	Ratio	Lower	Upper
128	100		
102	8.2	0.0	37.6
74	3.8	0.0	33.6

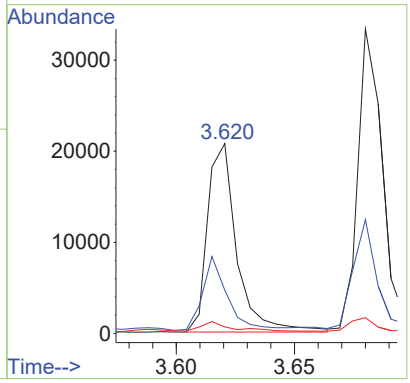


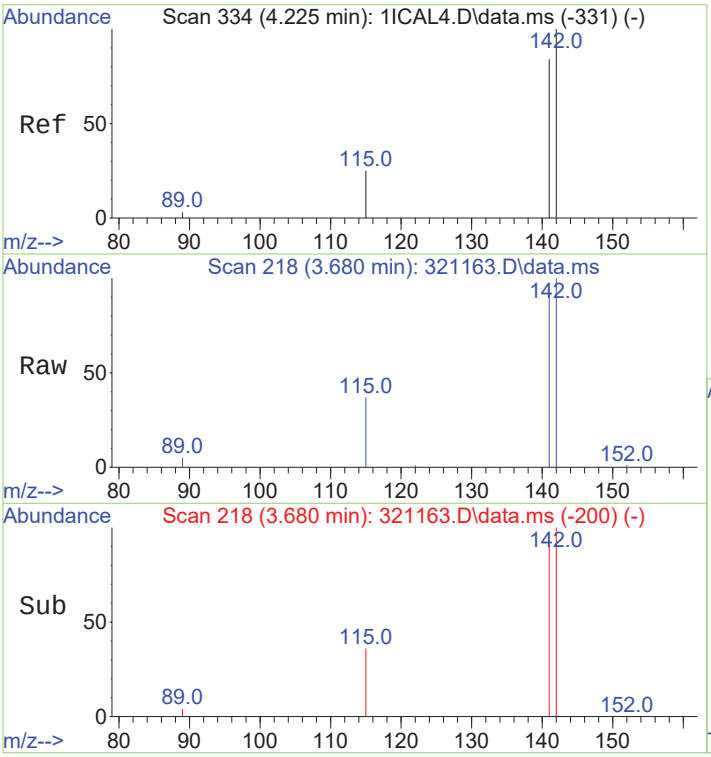


#4
2Methylnaphth
Concen: 500.00 ng/mL
RT: 3.620 min Scan# 207
Delta R.T. -0.000 min
Lab File: 321163.D
Acq: 9 Sep 2019 21:56

Tgt Ion:142 Resp: 17846

Ion	Ratio	Lower	Upper
142	100		
115	20.9	6.9	66.9
89	2.3	0.0	34.9

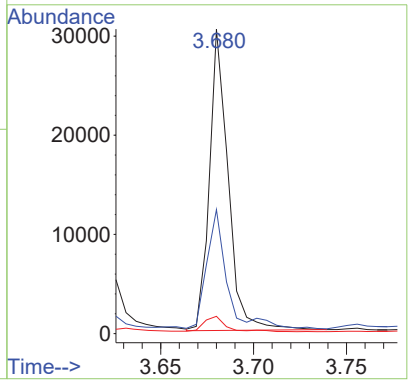


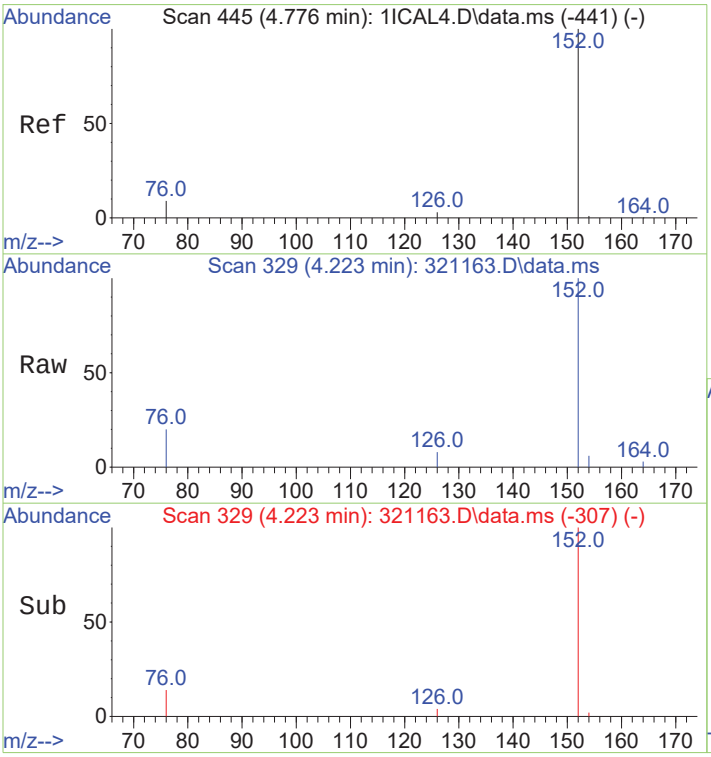


#5
1Methylnaphth
Concen: 610.93 ng/mL
RT: 3.680 min Scan# 218
Delta R.T. -0.000 min
Lab File: 321163.D
Acq: 9 Sep 2019 21:56

Tgt Ion:141 Resp: 21302

Ion	Ratio	Lower	Upper
141	100		
115	39.7	2.5	62.5
89	5.1	0.0	34.0

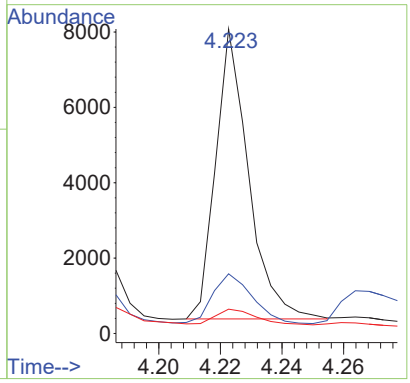


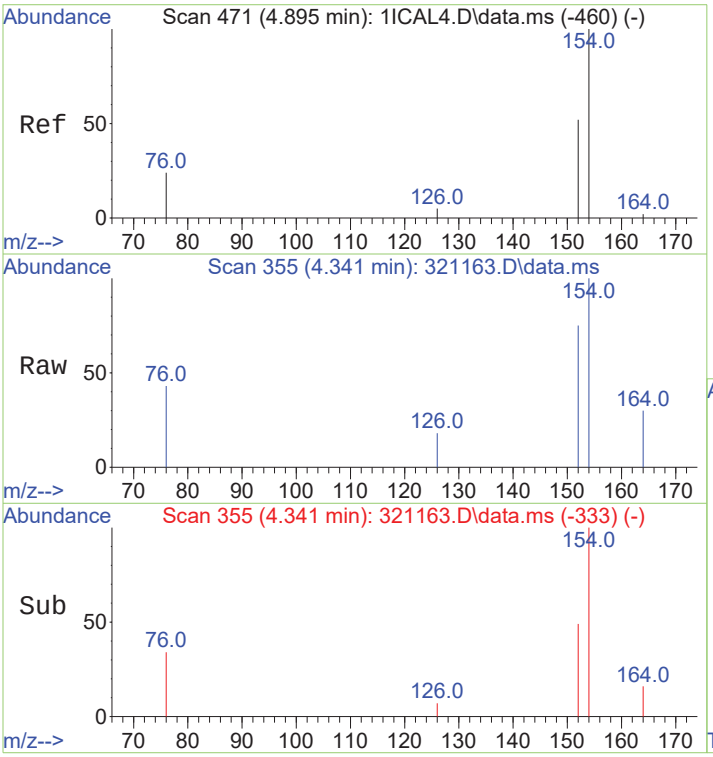


#7
Acnaphthylene
Concen: 94.26 ng/mL
RT: 4.223 min Scan# 329
Delta R.T. -0.000 min
Lab File: 321163.D
Acq: 9 Sep 2019 21:56

Tgt Ion:152 Resp: 5710

Ion	Ratio	Lower	Upper
152	100		
76	16.8	0.0	39.9
126	5.1	0.0	33.1

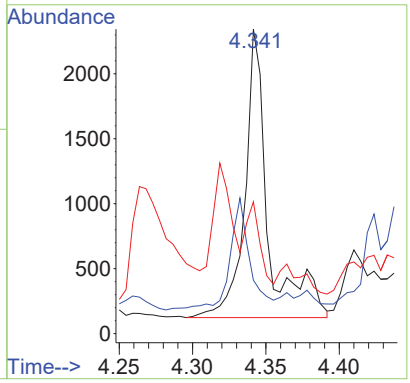


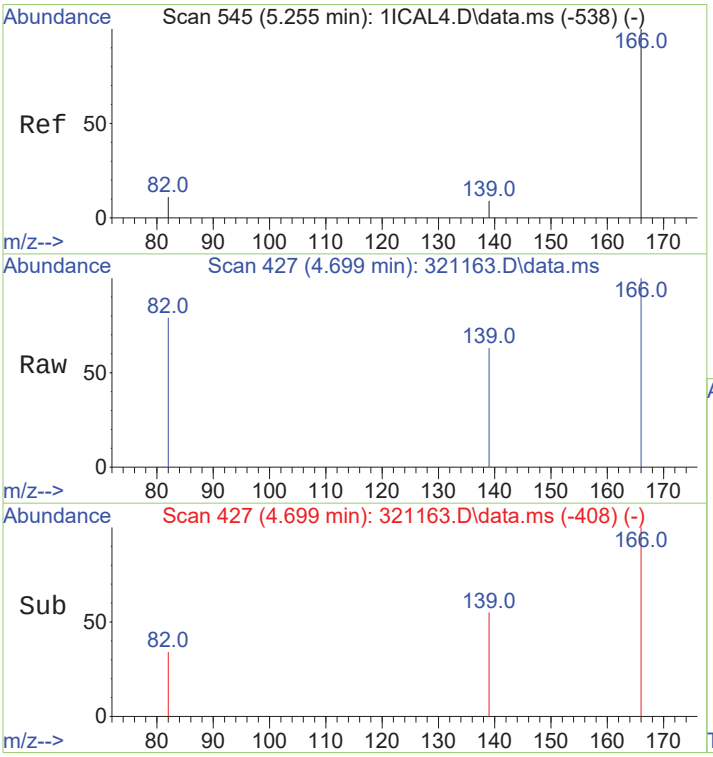


#8
Acenaphthene
Concen: 59.91 ng/mL
RT: 4.341 min Scan# 355
Delta R.T. -0.000 min
Lab File: 321163.D
Acq: 9 Sep 2019 21:56

Tgt Ion:154 Resp: 2458

Ion	Ratio	Lower	Upper
154	100		
126	9.5	0.0	34.3
76	32.0	0.0	51.6

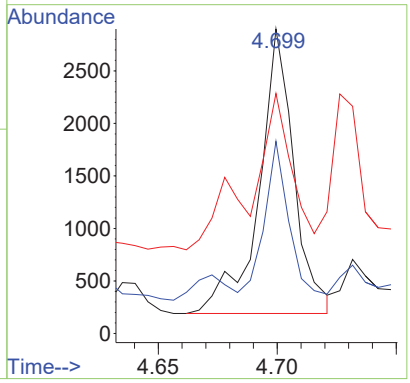


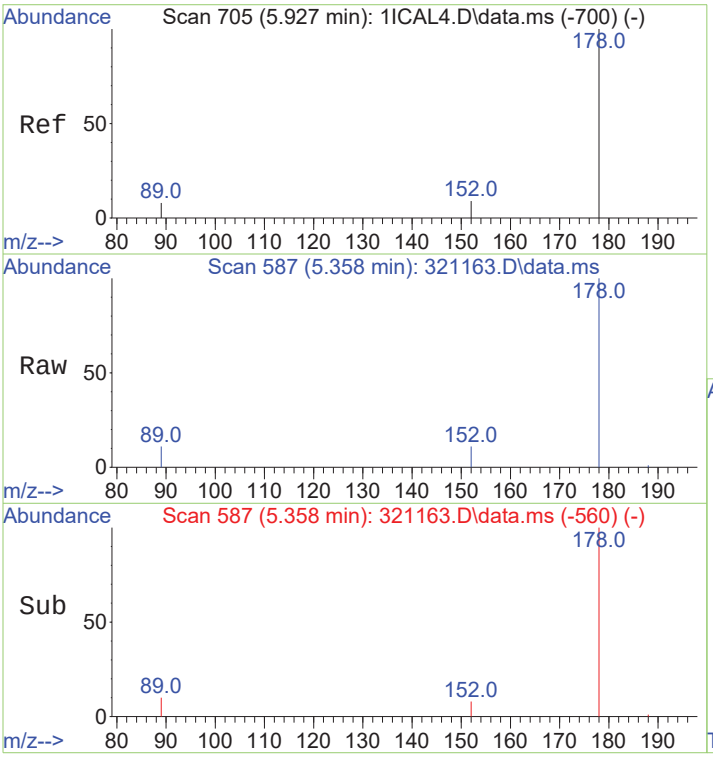


#9
Fluorene
Concen: 64.09 ng/mL
RT: 4.699 min Scan# 427
Delta R.T. -0.000 min
Lab File: 321163.D
Acq: 9 Sep 2019 21:56

Tgt Ion:166 Resp: 2775

Ion	Ratio	Lower	Upper
166	100		
139	53.7	0.0	38.6#
82	55.0	0.0	42.4#

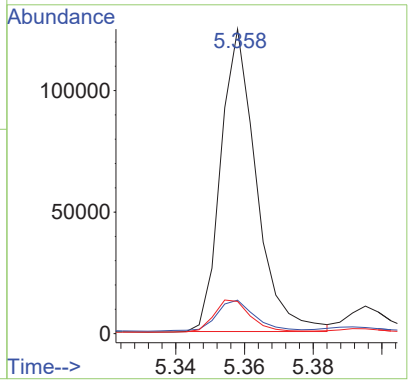


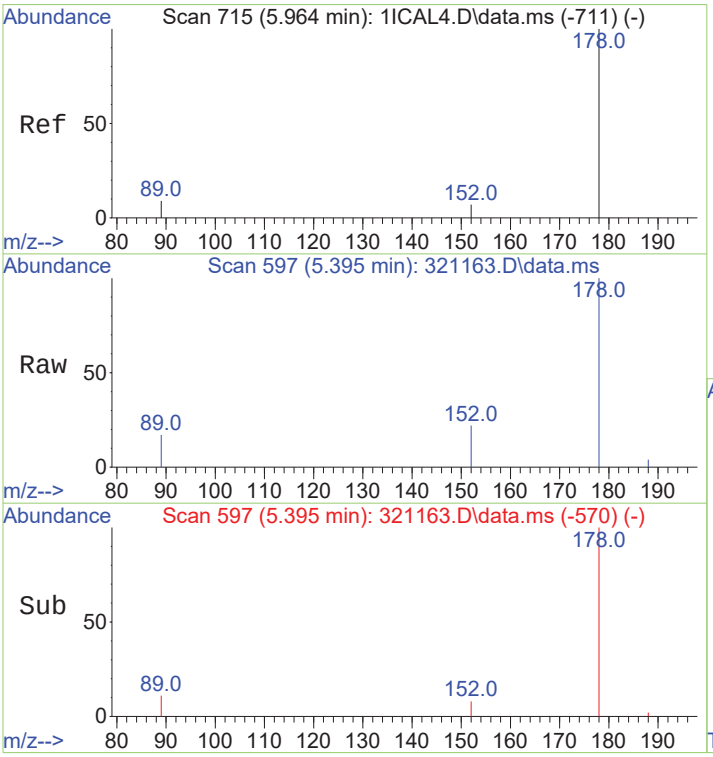


#11
Phenanthrene
Concen: 1575.61 ng/mL
RT: 5.358 min Scan# 587
Delta R.T. -0.000 min
Lab File: 321163.D
Acq: 9 Sep 2019 21:56

Tgt Ion:178 Resp: 89672

Ion	Ratio	Lower	Upper
178	100		
152	10.1	0.0	40.1
89	11.0	0.0	41.4

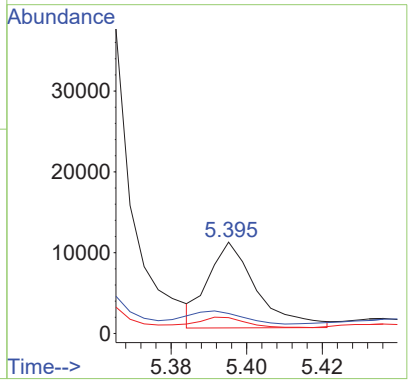


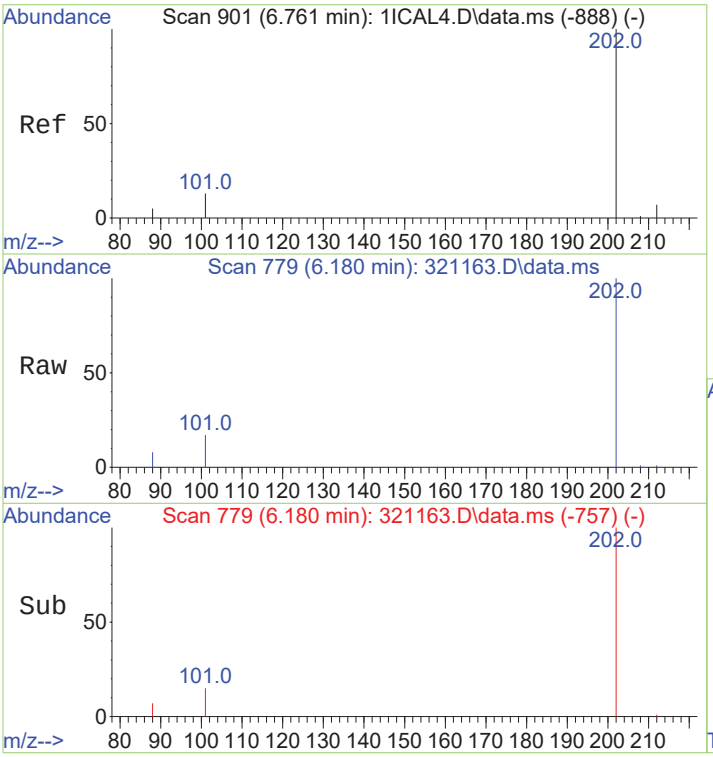


#12
Anthracene
Concen: 164.40 ng/mL
RT: 5.395 min Scan# 597
Delta R.T. -0.000 min
Lab File: 321163.D
Acq: 9 Sep 2019 21:56

Tgt Ion:178 Resp: 9419

Ion	Ratio	Lower	Upper
178	100		
152	11.5	0.0	37.8
89	11.2	0.0	31.3

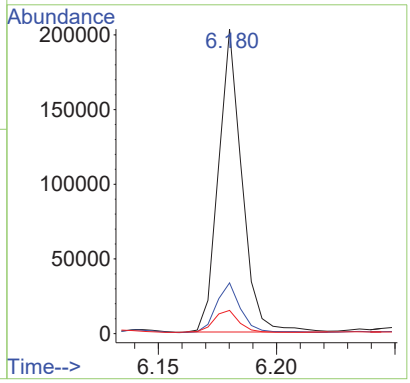


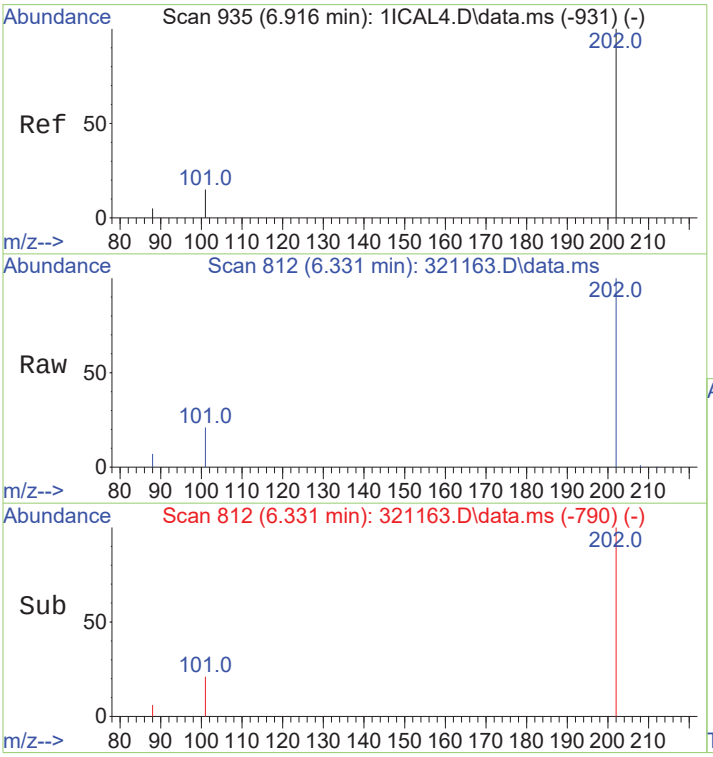


#14
Fluoranthene
Concen: 2135.32 ng/mL
RT: 6.180 min Scan# 779
Delta R.T. -0.000 min
Lab File: 321163.D
Acq: 9 Sep 2019 21:56

Tgt Ion:202 Resp: 139890

Ion	Ratio	Lower	Upper
202	100		
101	16.3	0.0	48.3
88	7.2	0.0	38.8

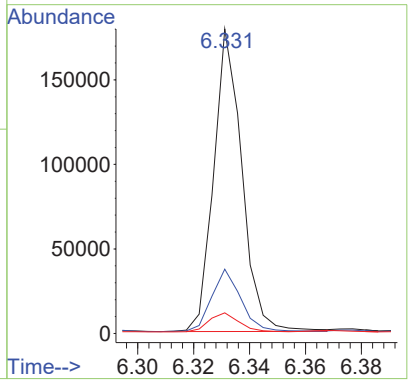


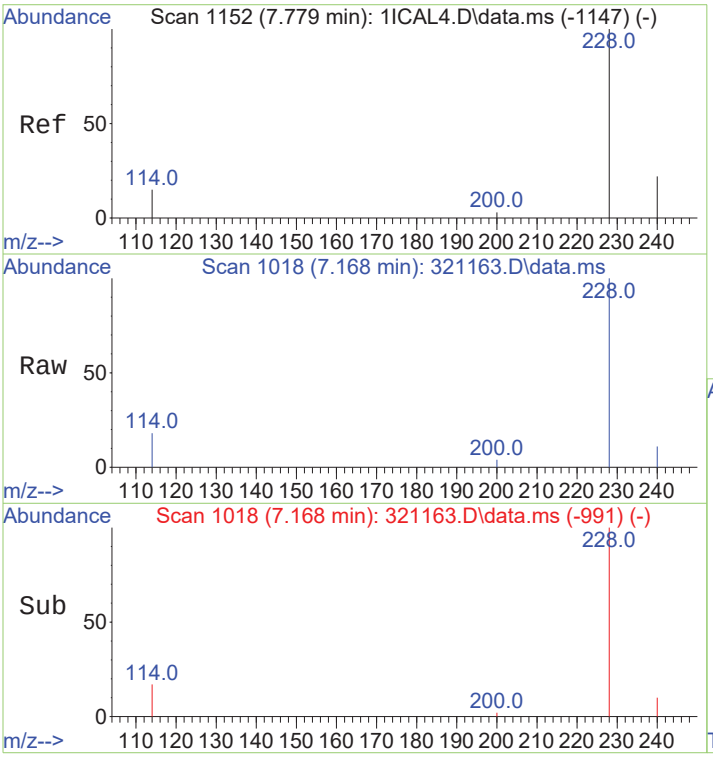


#16
Pyrene
Concen: 1754.26 ng/mL
RT: 6.331 min Scan# 812
Delta R.T. -0.000 min
Lab File: 321163.D
Acq: 9 Sep 2019 21:56

Tgt Ion:202 Resp: 125361

Ion	Ratio	Lower	Upper
202	100		
101	20.5	0.0	49.4
88	6.3	0.0	35.5

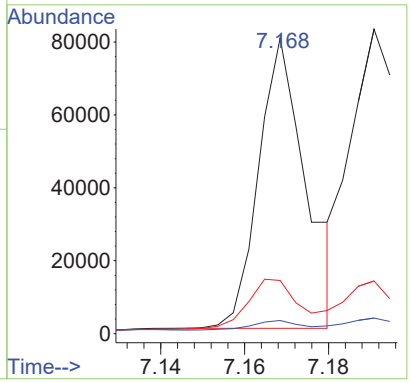


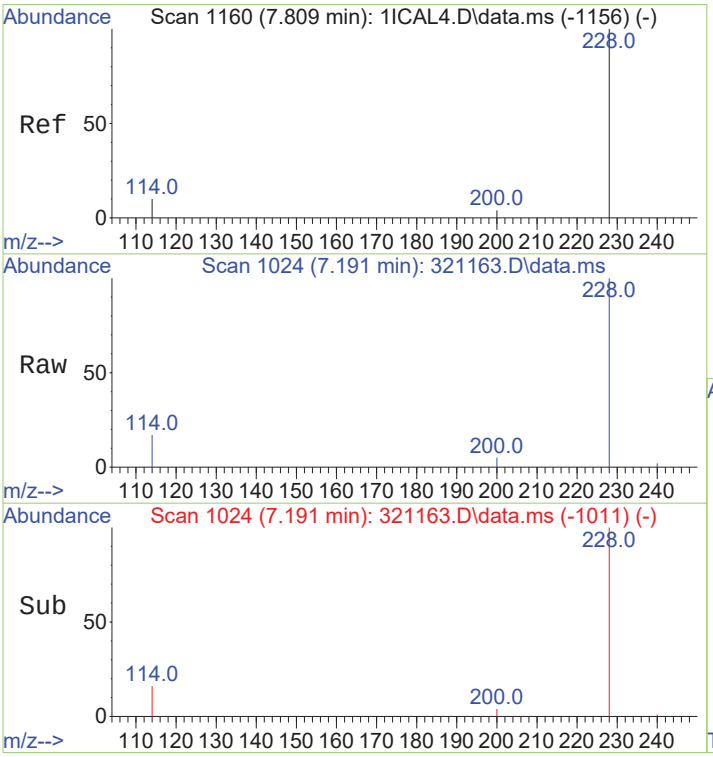


#17
B[a]anthracen
Concen: 1219.68 ng/mL
RT: 7.168 min Scan# 1018
Delta R.T. -0.000 min
Lab File: 321163.D
Acq: 9 Sep 2019 21:56

Tgt Ion:228 Resp: 62324

Ion	Ratio	Lower	Upper
228	100		
200	3.3	0.0	33.6
114	16.7	0.0	47.0

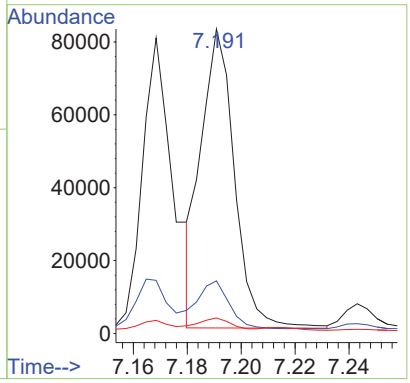


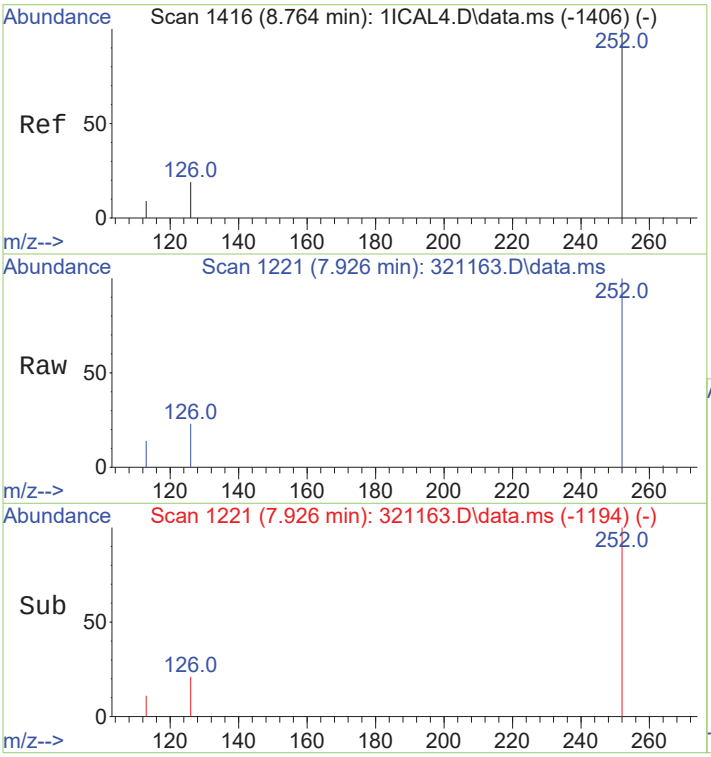


#18
Chrysene
Concen: 1138.27 ng/mL
RT: 7.191 min Scan# 1024
Delta R.T. -0.000 min
Lab File: 321163.D
Acq: 9 Sep 2019 21:56

Tgt Ion:228 Resp: 70658

Ion	Ratio	Lower	Upper
228	100		
114	16.1	0.0	46.1
200	4.1	0.0	33.8

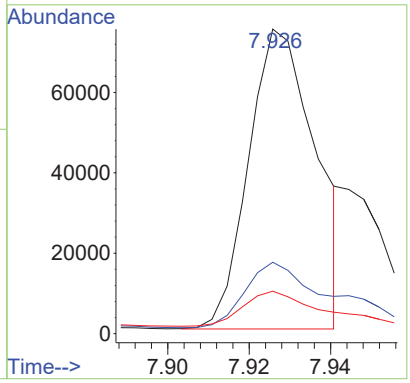


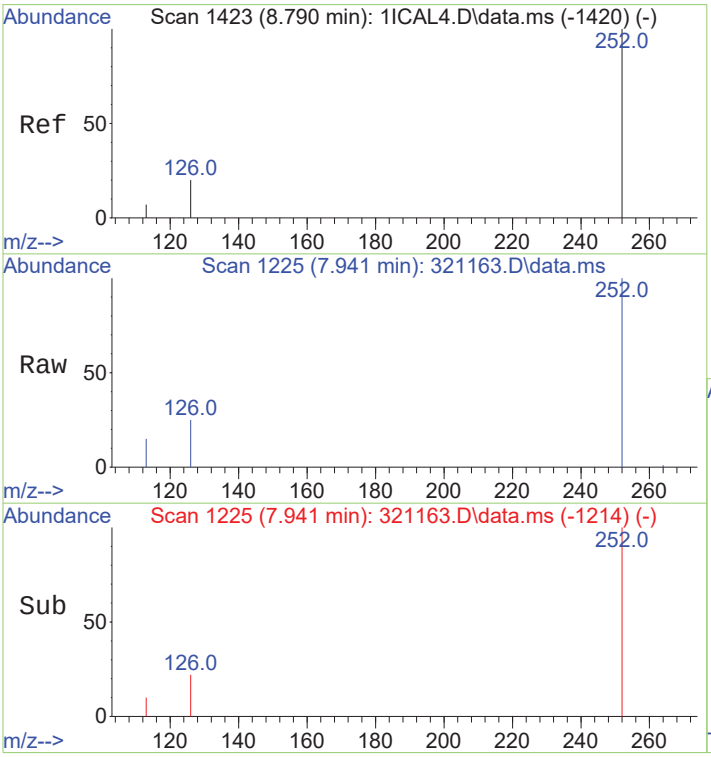


#20
B[b]fluoranth
Concen: 1799.50 ng/mL m
RT: 7.926 min Scan# 1221
Delta R.T. -0.000 min
Lab File: 321163.D
Acq: 9 Sep 2019 21:56

Tgt Ion:252 Resp: 85534

Ion	Ratio	Lower	Upper
252	100		
126	23.4	0.0	52.1
113	13.9	0.0	40.0

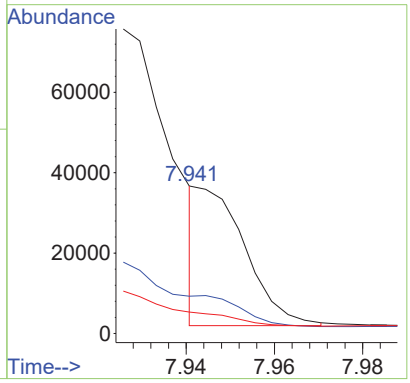


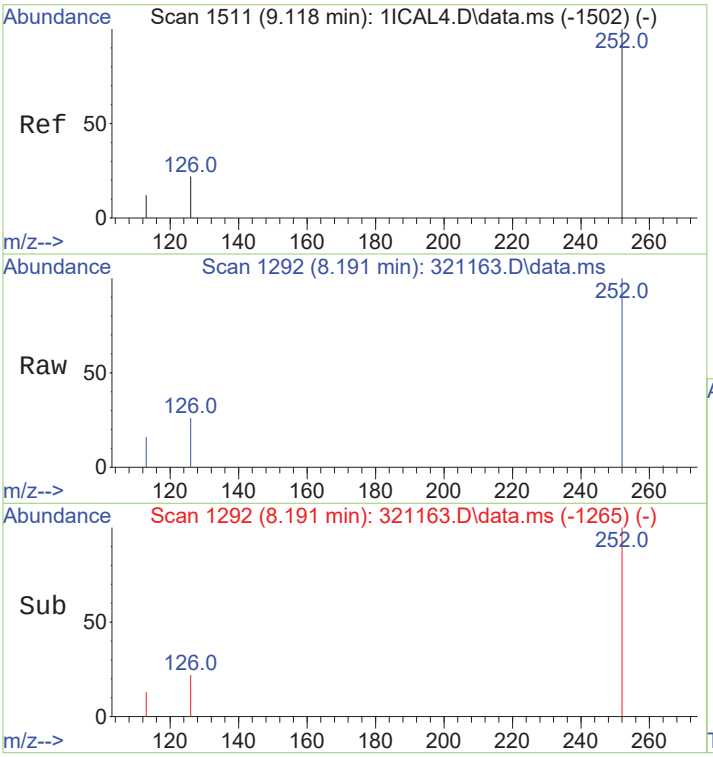


#21
B[k]fluoranth
Concen: 438.88 ng/mL m
RT: 7.941 min Scan# 1225
Delta R.T. -0.008 min
Lab File: 321163.D
Acq: 9 Sep 2019 21:56

Tgt Ion:252 Resp: 25363

Ion	Ratio	Lower	Upper
252	100		
126	25.3	0.0	54.3
113	14.6	0.0	39.4

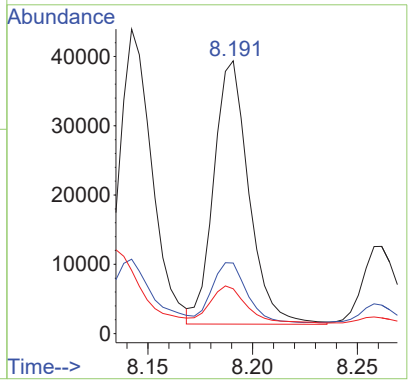


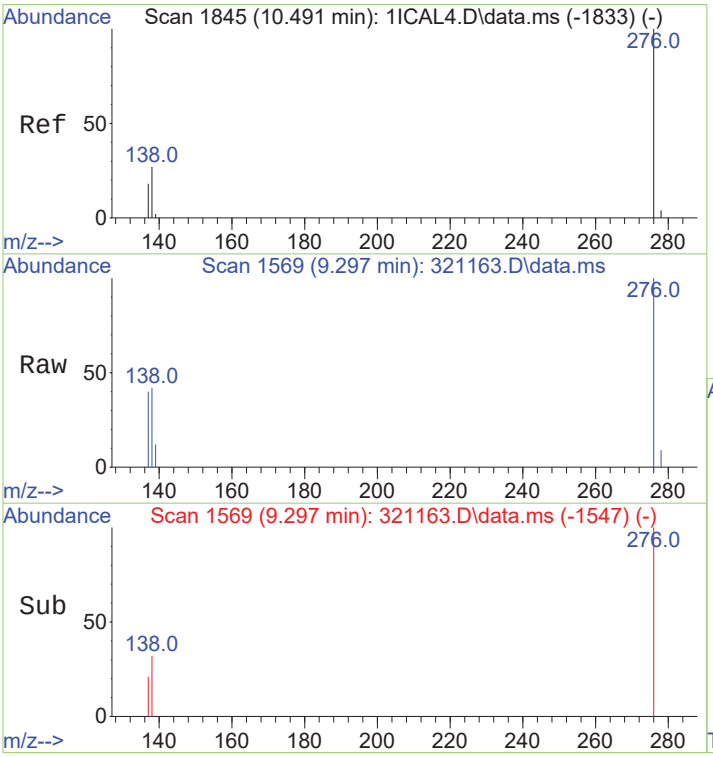


#22
Benz[a]pyrene
Concen: 968.70 ng/mL
RT: 8.191 min Scan# 1292
Delta R.T. -0.000 min
Lab File: 321163.D
Acq: 9 Sep 2019 21:56

Tgt Ion:252 Resp: 44297

Ion	Ratio	Lower	Upper
252	100		
126	22.6	0.0	52.7
113	13.1	0.0	42.2

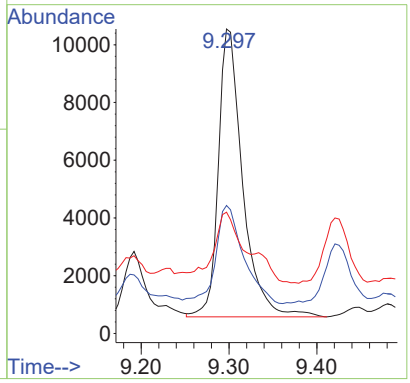


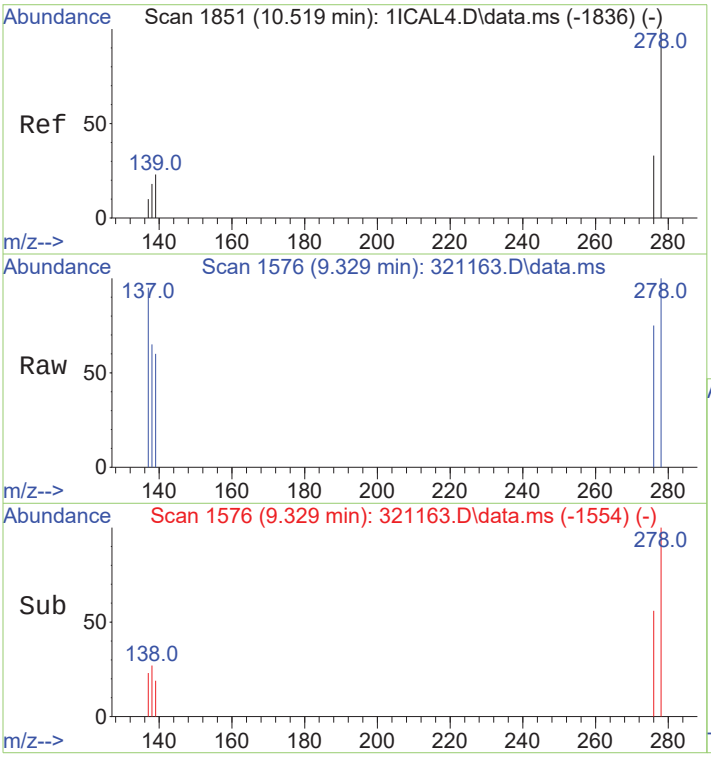


#23
Indeno-pyrene
Concen: 444.97 ng/mL
RT: 9.297 min Scan# 1569
Delta R.T. -0.000 min
Lab File: 321163.D
Acq: 9 Sep 2019 21:56

Tgt Ion:276 Resp: 19180

Ion	Ratio	Lower	Upper
276	100		
138	32.3	4.1	64.1
137	21.0	0.0	52.8

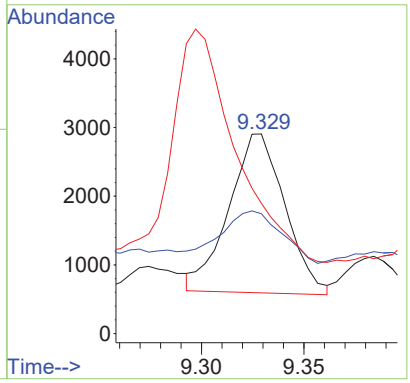


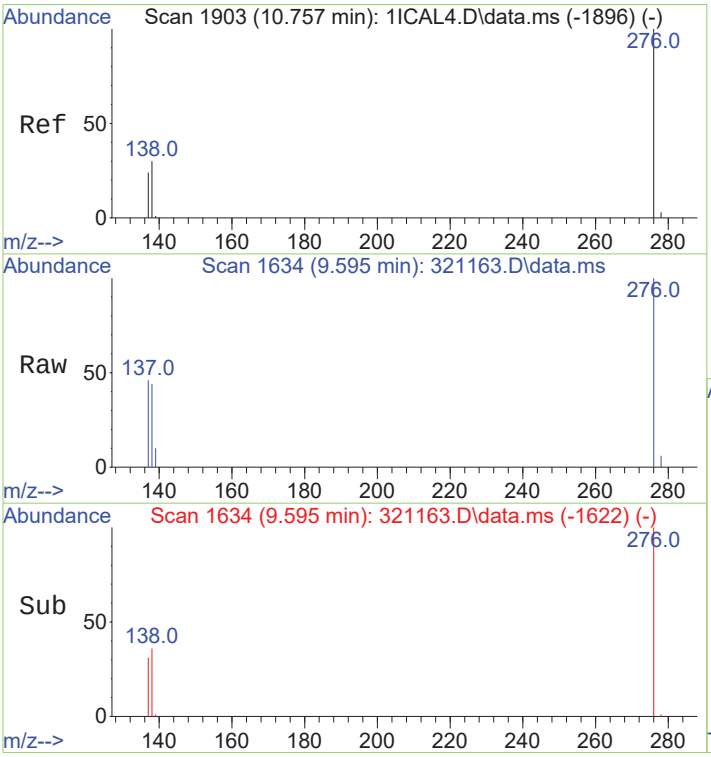


#24
Dib[ah]anthr
Concen: 148.86 ng/mL
RT: 9.329 min Scan# 1576
Delta R.T. -0.000 min
Lab File: 321163.D
Acq: 9 Sep 2019 21:56

Tgt Ion:278 Resp: 4388

Ion	Ratio	Lower	Upper
278	100		
139	31.3	0.0	59.3
138	39.0	0.0	56.3

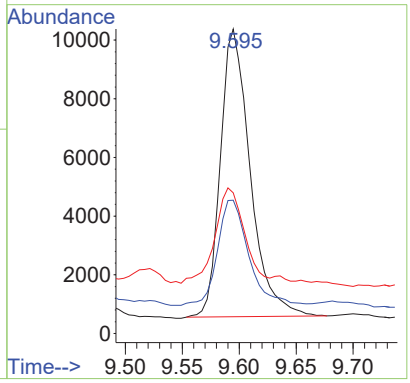


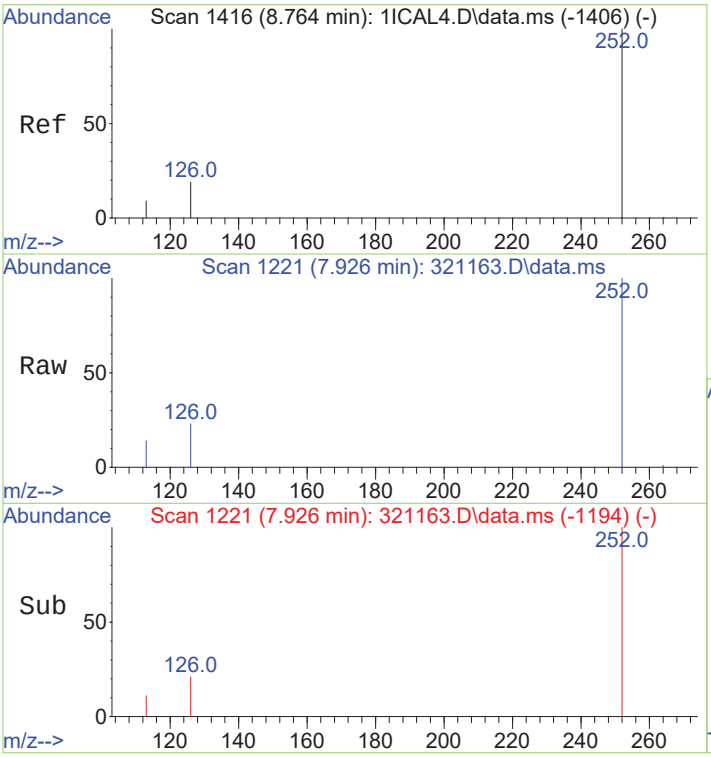


#25
B[ghi]perylen
Concen: 481.13 ng/mL
RT: 9.595 min Scan# 1634
Delta R.T. 0.004 min
Lab File: 321163.D
Acq: 9 Sep 2019 21:56

Tgt Ion:276 Resp: 17876

Ion	Ratio	Lower	Upper
276	100		
138	35.8	7.7	67.7
137	31.0	0.6	60.6

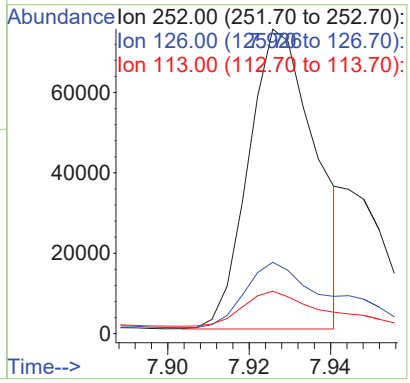




#20
B[b]fluoranth
Concen: 1799.50 ng/mL m
RT: 7.926 min Scan# 1221
Delta R.T. -0.000 min
Lab File: 321163.D
Acq: 9 Sep 2019 21:56

Tgt Ion:252 Resp: 85534

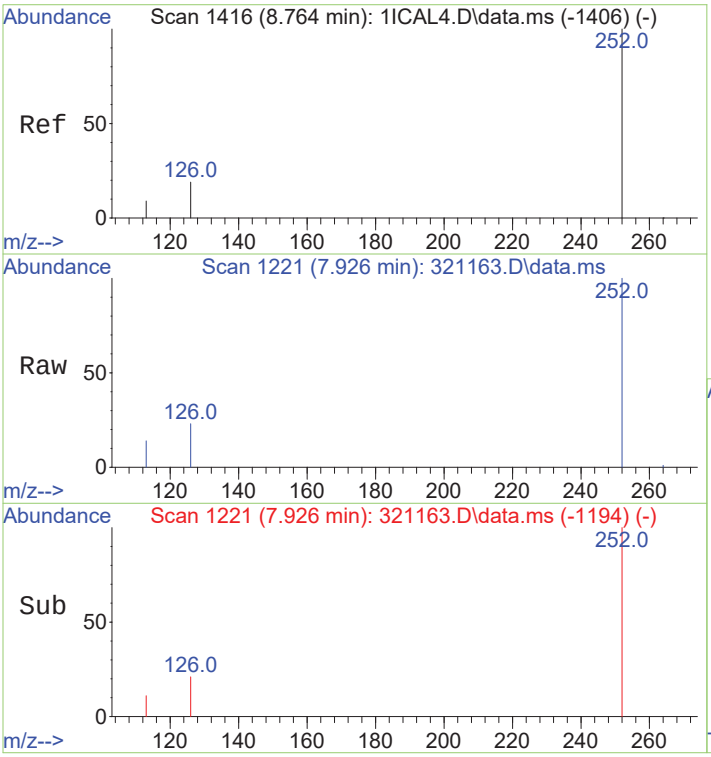
Ion	Ratio	Lower	Upper
252	100		
126	23.4	0.0	52.1
113	13.9	0.0	40.0



RED
9/12/2019

After Manual Integration

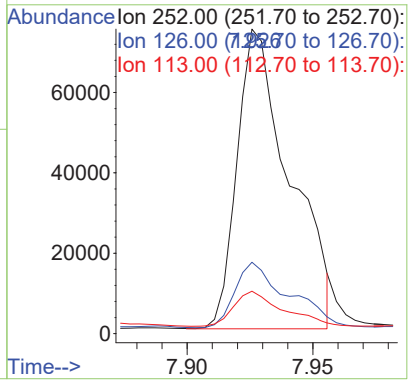
Reason#3 JJY
9/11/19



#20
B[b]fluoranth
Concen: 2285.86 ng/mL
RT: 7.926 min Scan# 1221
Delta R.T. -0.000 min
Lab File: 321163.D
Acq: 9 Sep 2019 21:56

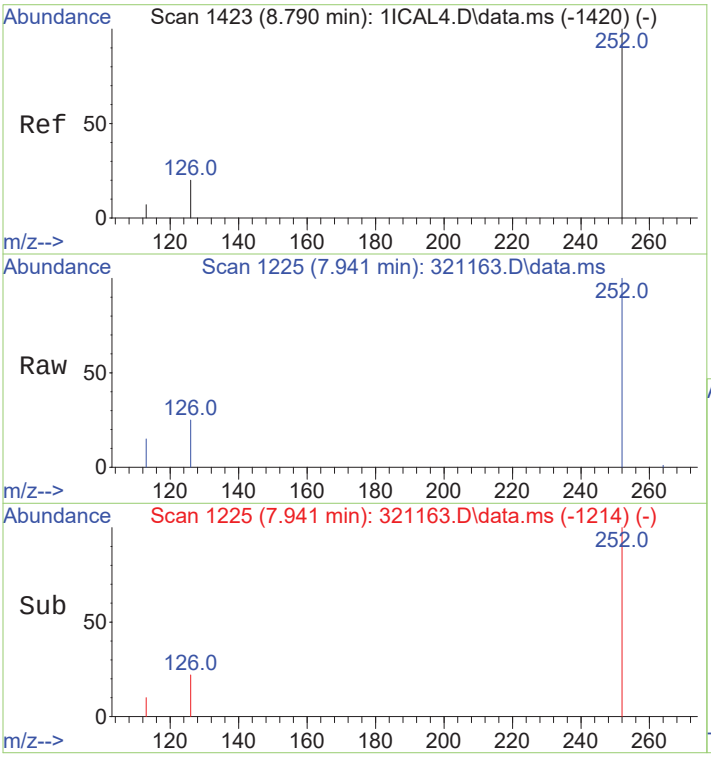
Tgt Ion:252 Resp: 109016

Ion	Ratio	Lower	Upper
252	100		
126	21.8	0.0	52.1
113	11.6	0.0	40.0



Before Manual Integration

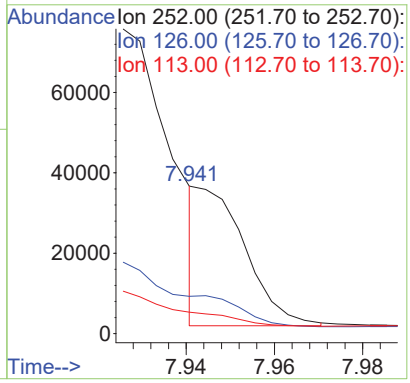
Reason#3 JJY 9/11/19



#21
B[k]fluoranth
Concen: 438.88 ng/mL m
RT: 7.941 min Scan# 1225
Delta R.T. -0.008 min
Lab File: 321163.D
Acq: 9 Sep 2019 21:56

Tgt Ion:252 Resp: 25363

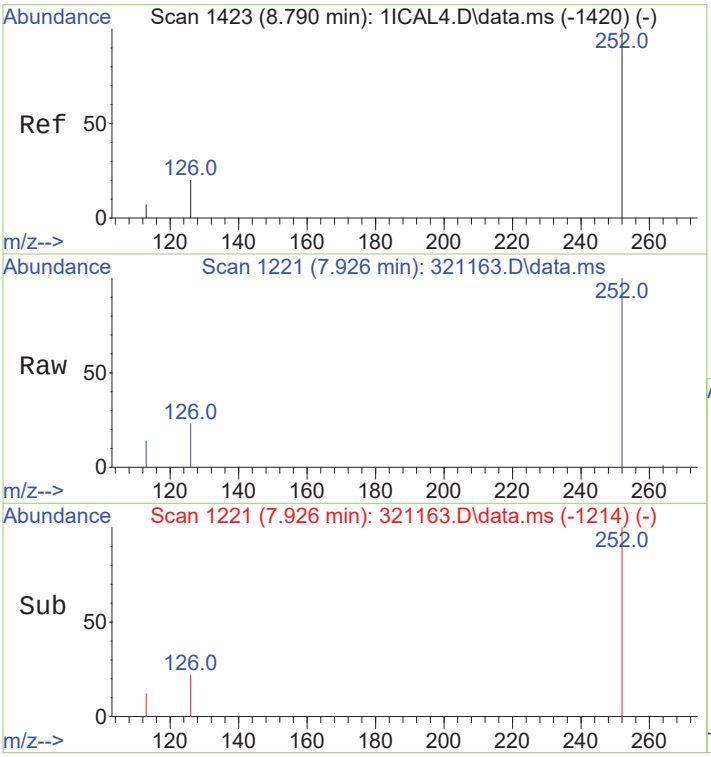
Ion	Ratio	Lower	Upper
252	100		
126	25.3	0.0	54.3
113	14.6	0.0	39.4



RED
9/12/2019

After Manual Integration

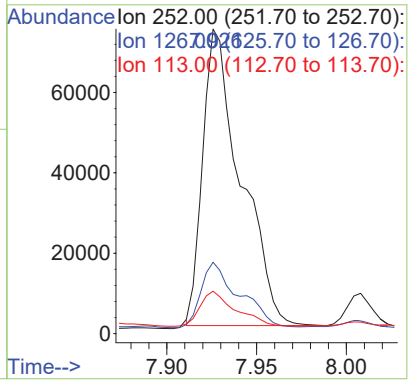
Reason#3 JJY
9/11/19



#21
B[k]fluoranth
Concen: 1879.30 ng/mL
RT: 7.926 min Scan# 1221
Delta R.T. -0.023 min
Lab File: 321163.D
Acq: 9 Sep 2019 21:56

Tgt Ion:252 Resp: 108921

Ion	Ratio	Lower	Upper
252	100		
126	21.7	0.0	54.3
113	11.6	0.0	39.4



Before Manual Integration

Reason#3 JJY 9/11/19

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321164.D Vial: 20
Acq On : 9 Sep 2019 22:16 Operator: JJY
Sample : 164274,321164, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 22:30:57 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

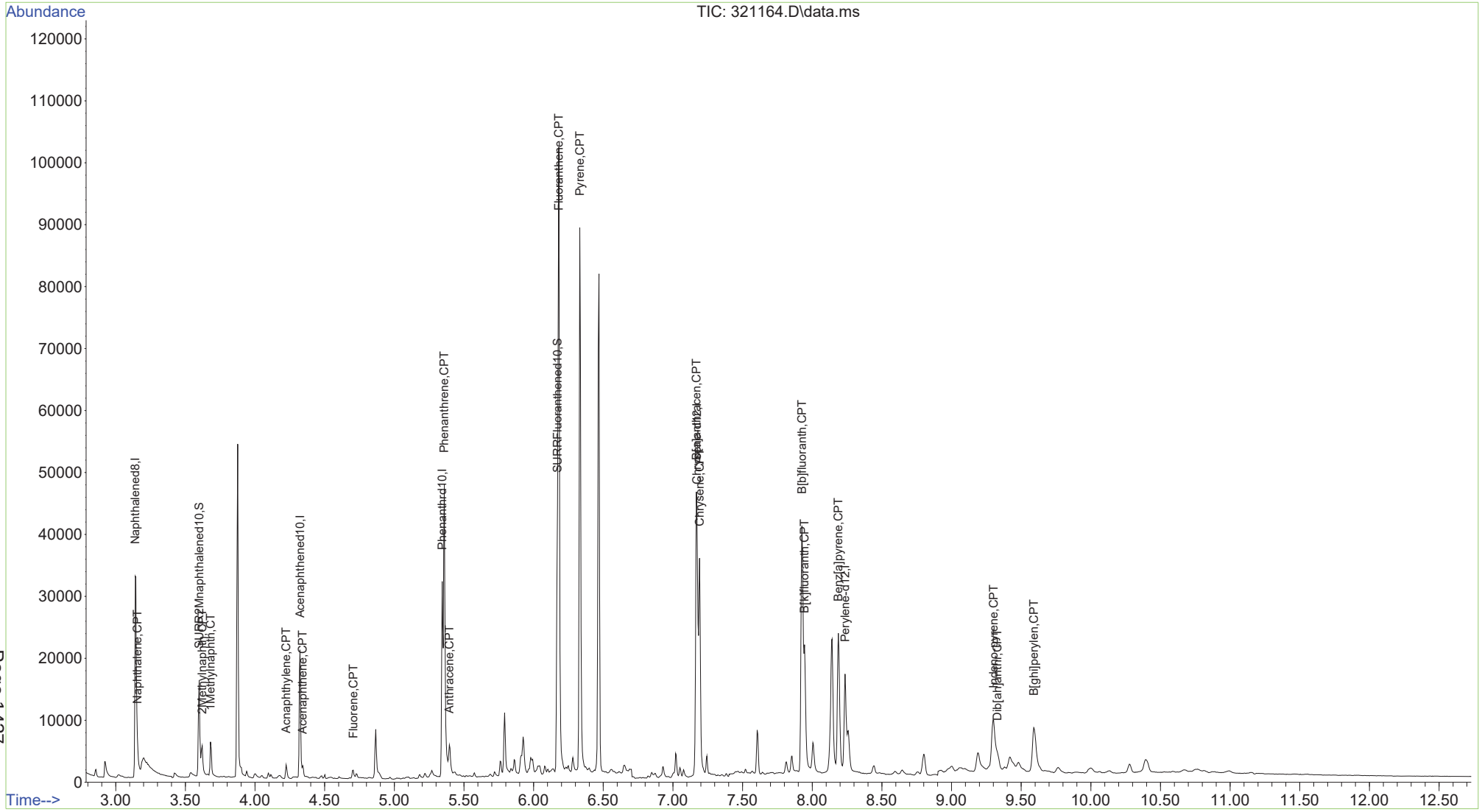
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.140	136	28660	400.00	ng/mL	0.00
6) Acenaphthened10	4.323	164	14778	400.00	ng/mL	0.00
10) Phenanthrd10	5.343	188	23876	400.00	ng/mL	0.00
15) Chrysene-d12	7.172	240	18116	400.00	ng/mL	0.00
19) Perylene-d12	8.236	264	17505	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.599	152	10450	65.74	%REC	0.00
Spiked Amount 100.000			Recovery = 65.74%			
13) SURRFluoranthened10	6.171	212	19190	81.39	%REC	0.00
Spiked Amount 100.000			Recovery = 81.39%			
Target Compounds						Qvalue
2) Naphthalene	3.155	128	1174	16.6587	ng/ml	98
4) 2Methylnaphth	3.621	142	1655	42.7963	ng/mL	84
5) 1Methylnaphth	3.680	141	1658	43.8873	ng/mL	80
7) Acnaphthylene	4.223	152	1538	24.8168	ng/mL	92
8) Acenaphthene	4.342	154	772	18.3934	ng/mL	72
9) Fluorene	4.705	166	1097	24.7639	ng/mL	65
11) Phenanthrene	5.358	178	27896	454.2672	ng/mL	99
12) Anthracene	5.395	178	3504	58.9391	ng/mL	99
14) Fluoranthene	6.180	202	61092	898.7035	ng/mL	95
16) Pyrene	6.331	202	51950	709.1930	ng/mL	97
17) B[a]anthracen	7.169	228	25019	505.3894	ng/mL	97
18) Chrysene	7.191	228	24766	389.2143	ng/mL	98
20) B[b]fluoranth	7.926	252	35187	629.9339	ng/mL	97
21) B[k]fluoranth	7.945	252	11240	161.7204	ng/mL	97
22) Benz[a]pyrene	8.187	252	19791	380.0413	ng/mL	98
23) Indeno-pyrene	9.302	276	9784	214.5064	ng/mL	94
24) Dib[ah]anthr	9.329	278	1653	73.4095	ng/mL	81
25) B[ghi]perylen	9.590	276	8068	208.7521	ng/mL	96

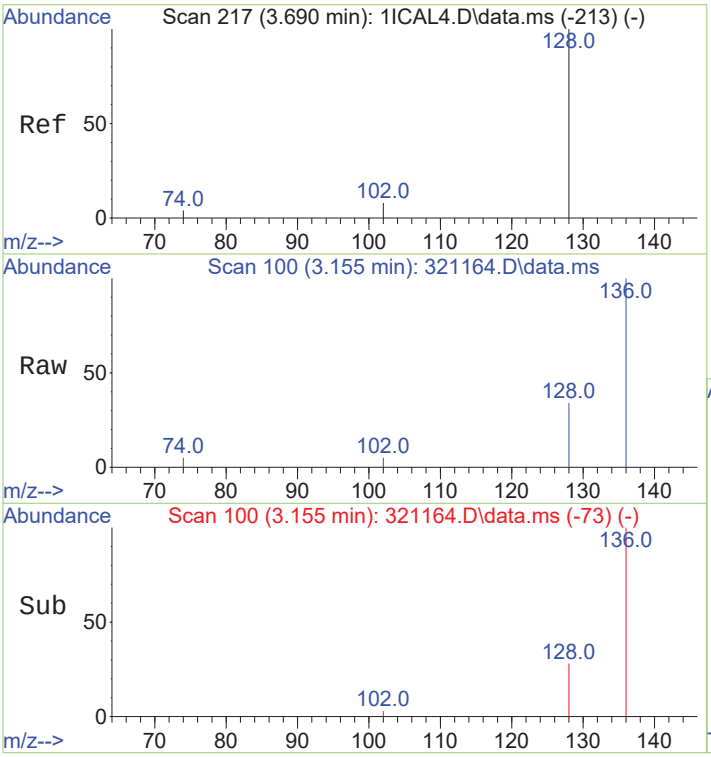
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321164.D Vial: 20
Acq On : 9 Sep 2019 22:16 Operator: JJY
Sample : 164274,321164, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 22:30:57 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

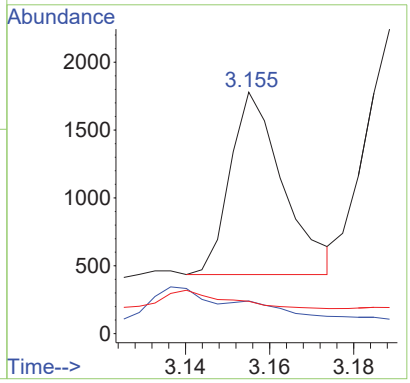


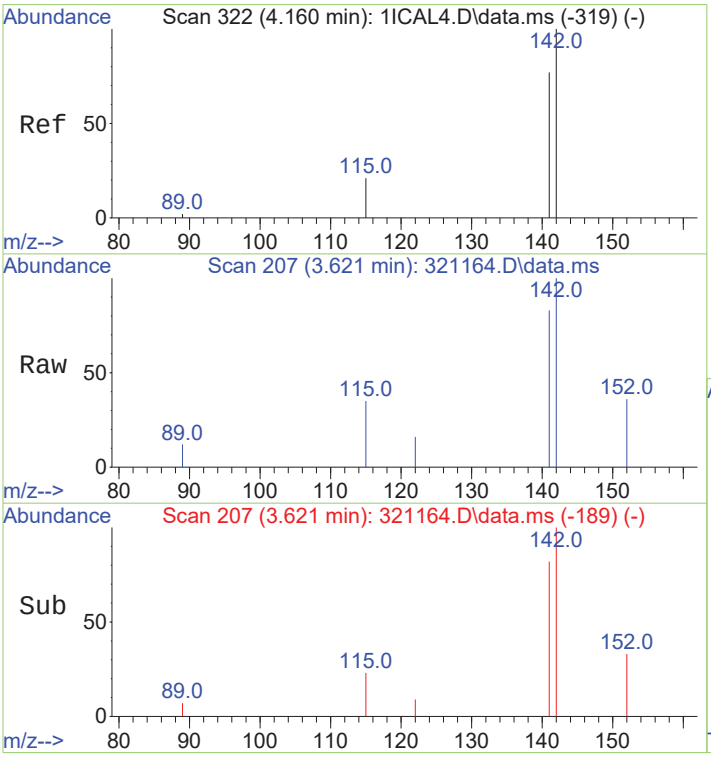


#2
Naphthalene
Concen: 16.66 ng/ml
RT: 3.155 min Scan# 100
Delta R.T. 0.000 min
Lab File: 321164.D
Acq: 9 Sep 2019 22:16

Tgt Ion:128 Resp: 1174

Ion	Ratio	Lower	Upper
128	100		
102	8.4	0.0	37.6
74	4.2	0.0	33.6

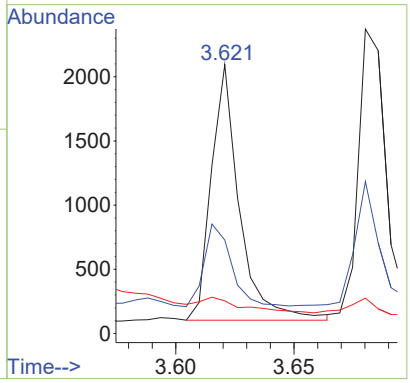


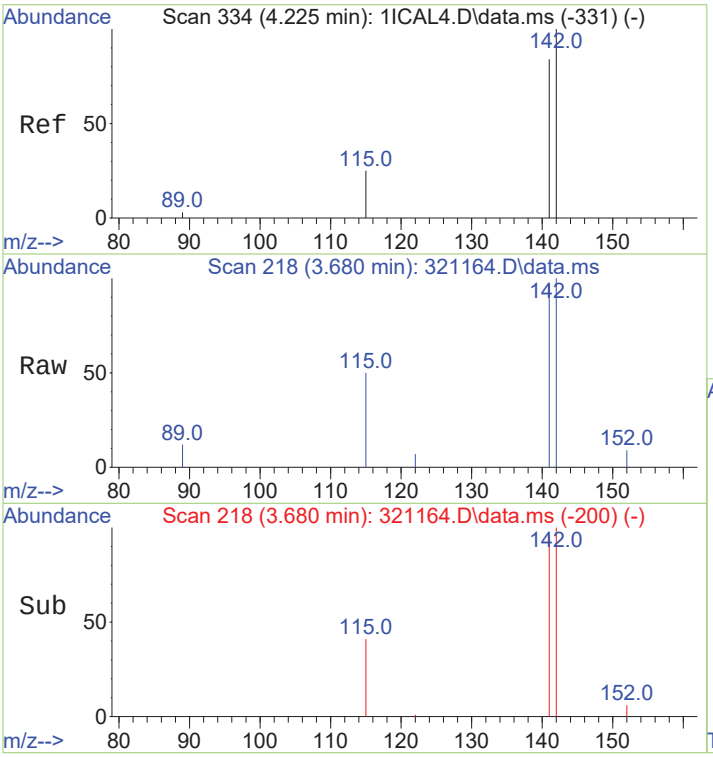


#4
2Methylnaphth
Concen: 42.80 ng/mL
RT: 3.621 min Scan# 207
Delta R.T. 0.000 min
Lab File: 321164.D
Acq: 9 Sep 2019 22:16

Tgt Ion:142 Resp: 1655

Ion	Ratio	Lower	Upper
142	100		
115	26.1	6.9	66.9
89	3.9	0.0	34.9

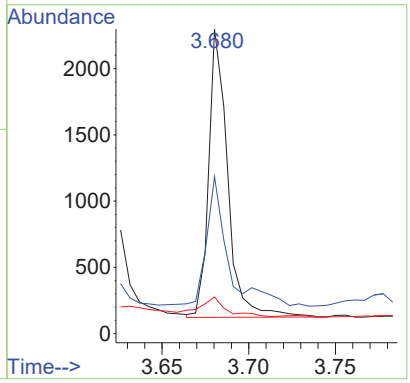


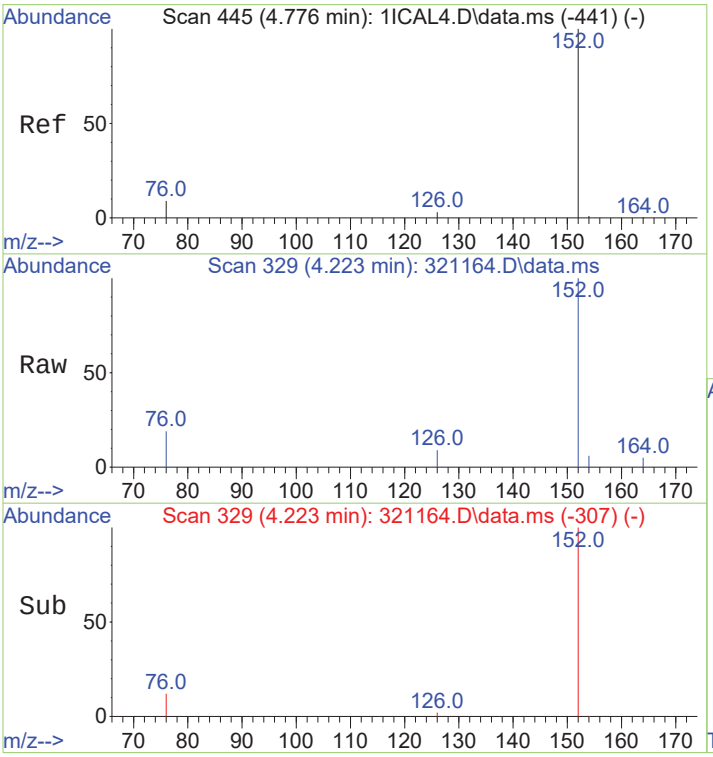


#5
1Methylnaphth
Concen: 43.89 ng/mL
RT: 3.680 min Scan# 218
Delta R.T. 0.000 min
Lab File: 321164.D
Acq: 9 Sep 2019 22:16

Tgt Ion:141 Resp: 1658

Ion	Ratio	Lower	Upper
141	100		
115	44.7	2.5	62.5
89	6.9	0.0	34.0

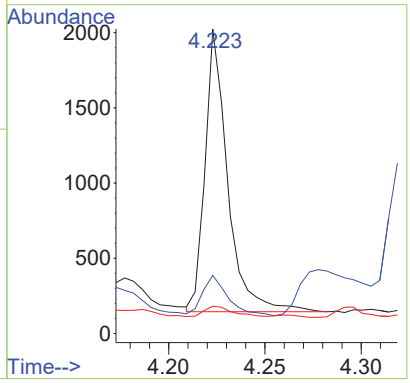


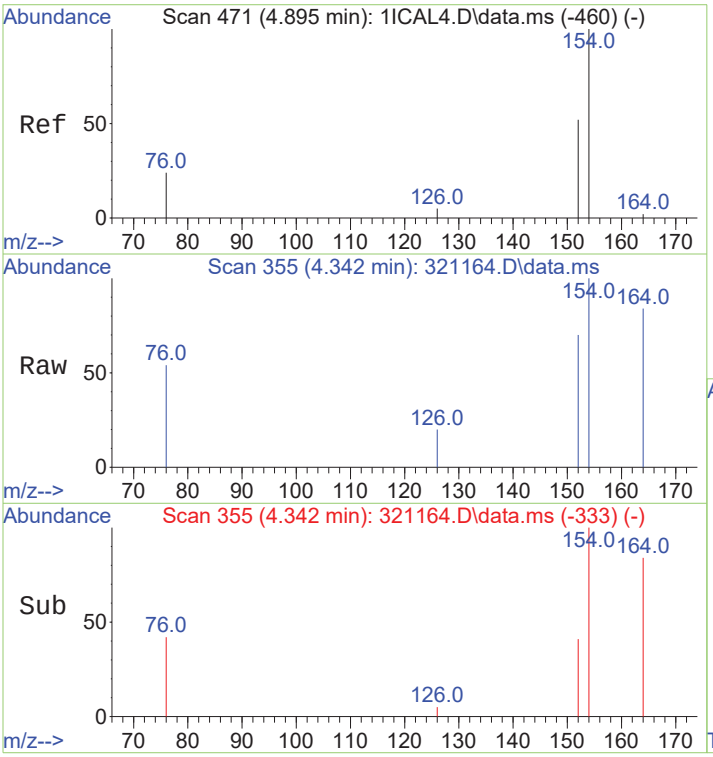


#7
Acnaphthylene
Concen: 24.82 ng/mL
RT: 4.223 min Scan# 329
Delta R.T. 0.000 min
Lab File: 321164.D
Acq: 9 Sep 2019 22:16

Tgt Ion:152 Resp: 1538

Ion	Ratio	Lower	Upper
152	100		
76	13.6	0.0	39.9
126	3.8	0.0	33.1

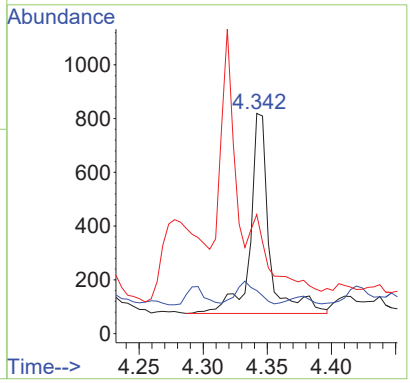


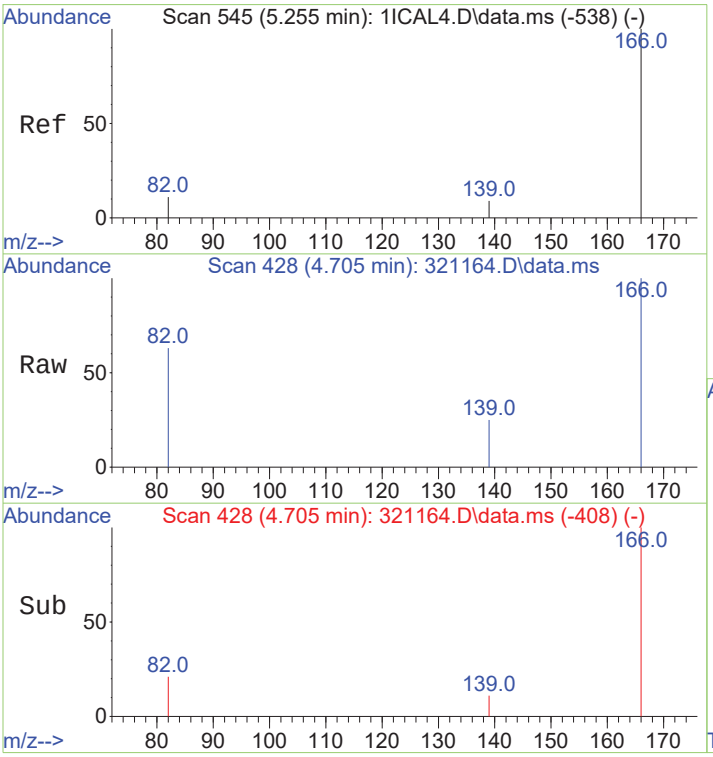


#8
Acenaphthene
Concen: 18.39 ng/mL
RT: 4.342 min Scan# 355
Delta R.T. 0.000 min
Lab File: 321164.D
Acq: 9 Sep 2019 22:16

Tgt Ion:154 Resp: 772

Ion	Ratio	Lower	Upper
154	100		
126	6.3	0.0	34.3
76	37.0	0.0	51.6

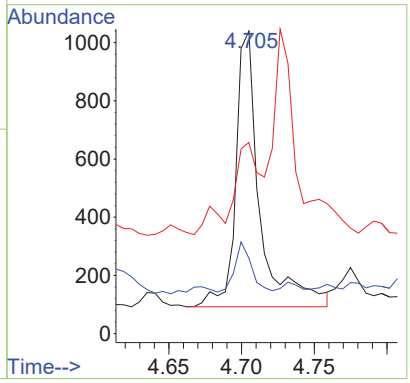


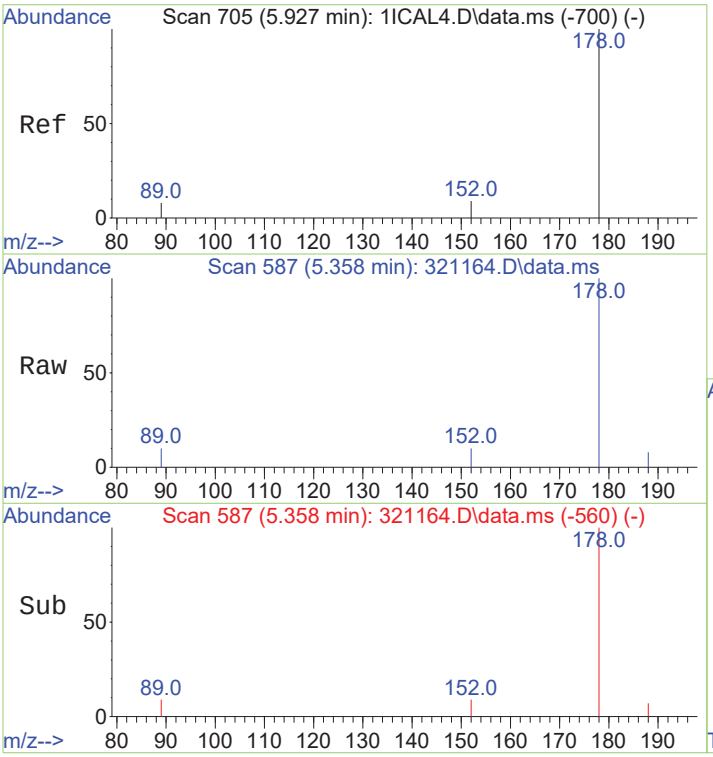


#9
Fluorene
Concen: 24.76 ng/mL
RT: 4.705 min Scan# 428
Delta R.T. 0.005 min
Lab File: 321164.D
Acq: 9 Sep 2019 22:16

Tgt Ion:166 Resp: 1097

Ion	Ratio	Lower	Upper
166	100		
139	12.2	0.0	38.6
82	32.6	0.0	42.4

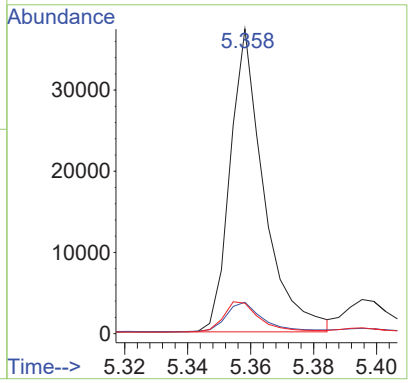


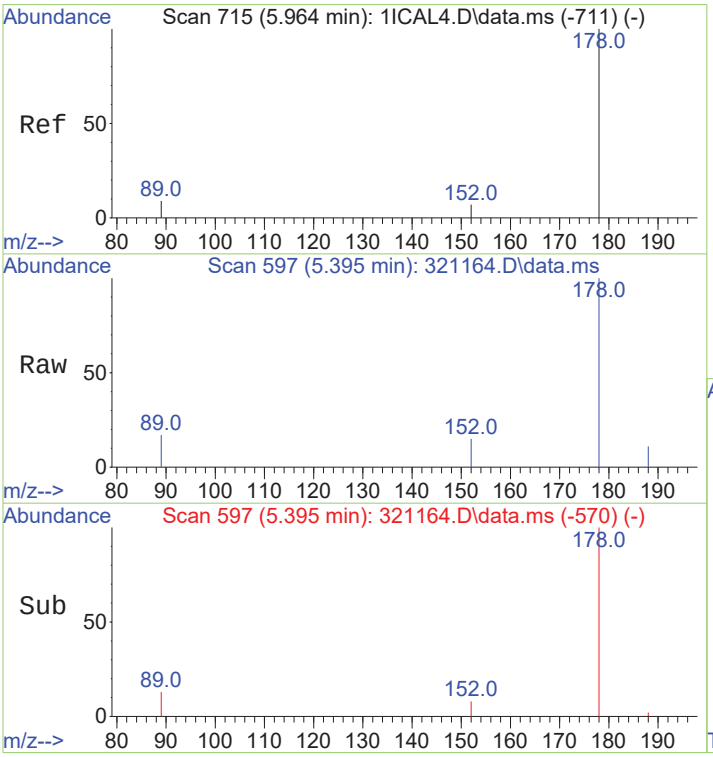


#11
Phenanthrene
Concen: 454.27 ng/mL
RT: 5.358 min Scan# 587
Delta R.T. 0.000 min
Lab File: 321164.D
Acq: 9 Sep 2019 22:16

Tgt Ion:178 Resp: 27896

Ion	Ratio	Lower	Upper
178	100		
152	10.5	0.0	40.1
89	10.8	0.0	41.4

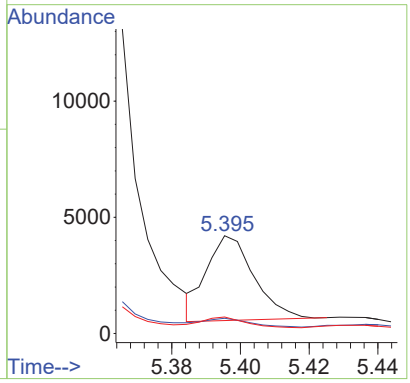


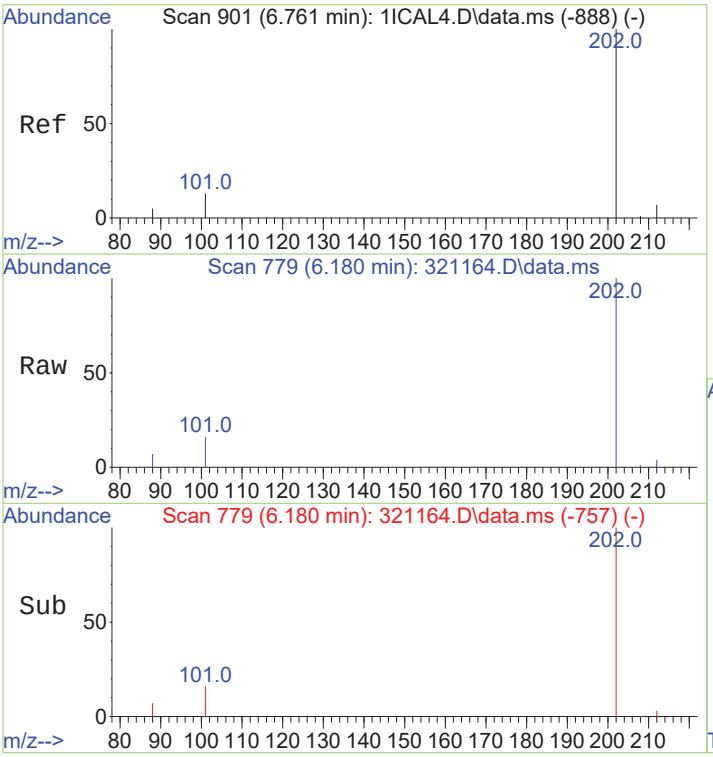


#12
Anthracene
Concen: 58.94 ng/mL
RT: 5.395 min Scan# 597
Delta R.T. 0.000 min
Lab File: 321164.D
Acq: 9 Sep 2019 22:16

Tgt Ion:178 Resp: 3504

Ion	Ratio	Lower	Upper
178	100		
152	8.6	0.0	37.8
89	11.0	0.0	31.3

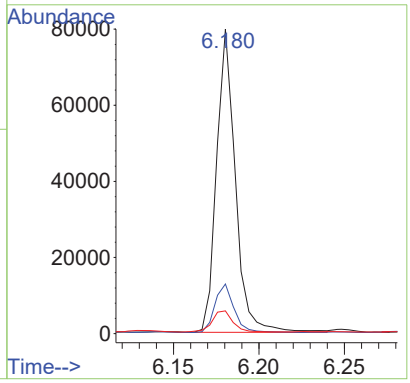


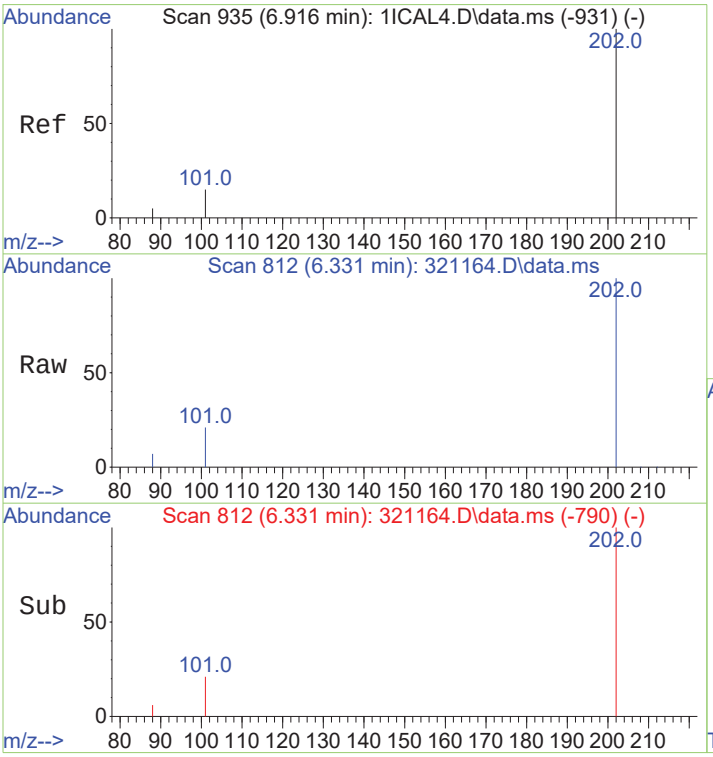


#14
Fluoranthene
Concen: 898.70 ng/mL
RT: 6.180 min Scan# 779
Delta R.T. 0.000 min
Lab File: 321164.D
Acq: 9 Sep 2019 22:16

Tgt Ion:202 Resp: 61092

Ion	Ratio	Lower	Upper
202	100		
101	16.0	0.0	48.3
88	6.9	0.0	38.8

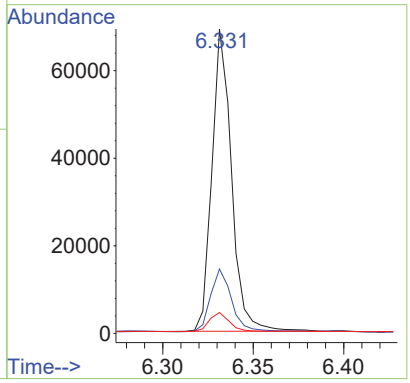


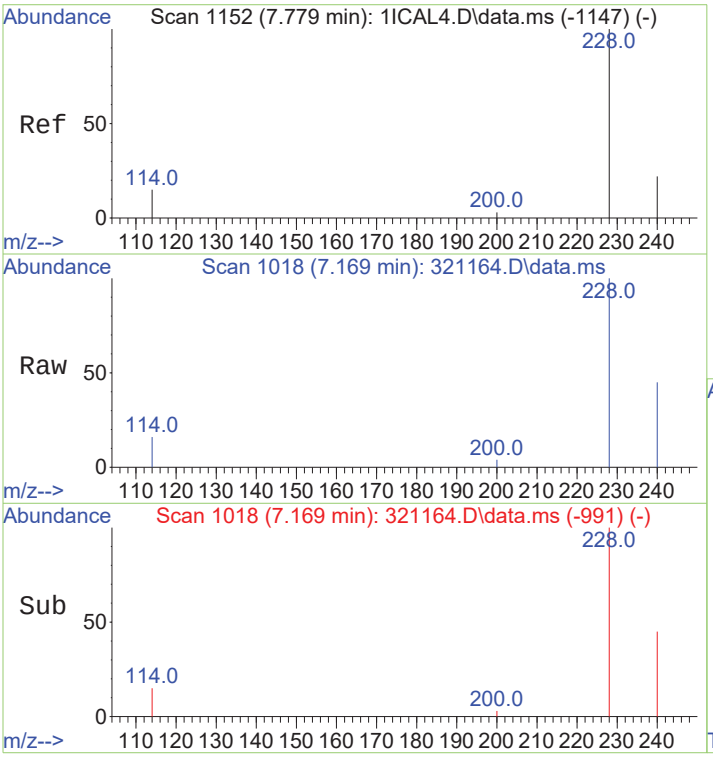


#16
Pyrene
Concen: 709.19 ng/mL
RT: 6.331 min Scan# 812
Delta R.T. 0.000 min
Lab File: 321164.D
Acq: 9 Sep 2019 22:16

Tgt Ion:202 Resp: 51950

Ion	Ratio	Lower	Upper
202	100		
101	20.7	0.0	49.4
88	6.3	0.0	35.5

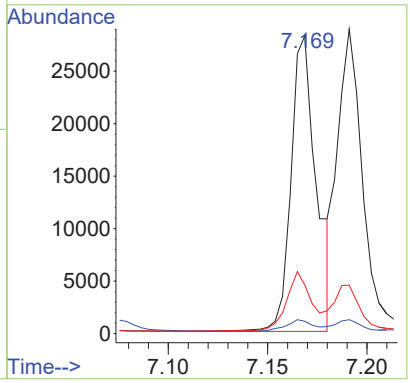


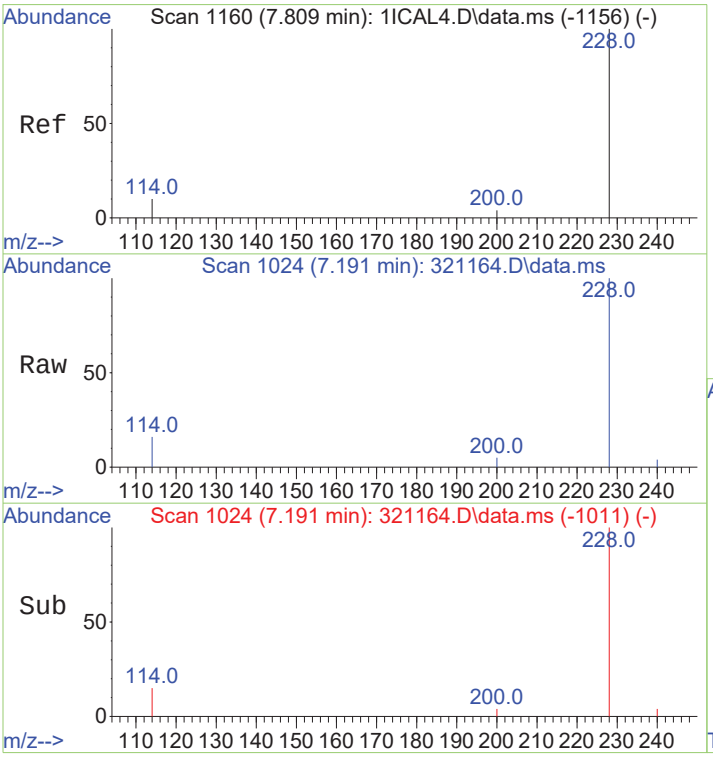


#17
B[a]anthracen
Concen: 505.39 ng/mL
RT: 7.169 min Scan# 1018
Delta R.T. 0.000 min
Lab File: 321164.D
Acq: 9 Sep 2019 22:16

Tgt Ion:228 Resp: 25019

Ion	Ratio	Lower	Upper
228	100		
200	3.3	0.0	33.6
114	15.6	0.0	47.0

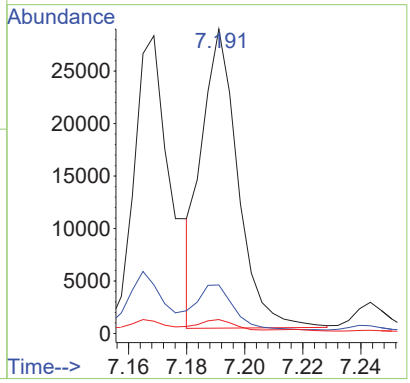


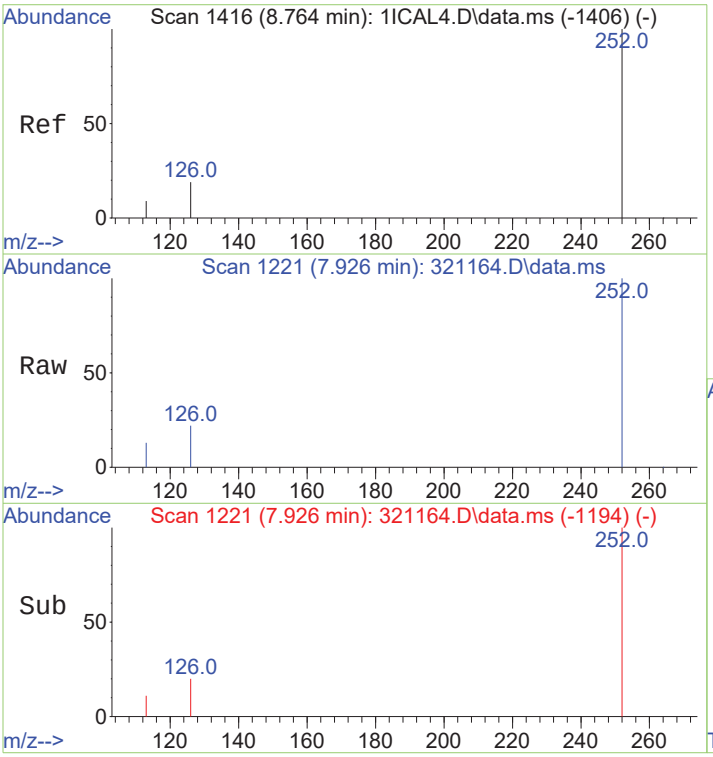


#18
Chrysene
Concen: 389.21 ng/mL
RT: 7.191 min Scan# 1024
Delta R.T. 0.000 min
Lab File: 321164.D
Acq: 9 Sep 2019 22:16

Tgt Ion:228 Resp: 24766

Ion	Ratio	Lower	Upper
228	100		
114	15.1	0.0	46.1
200	3.9	0.0	33.8

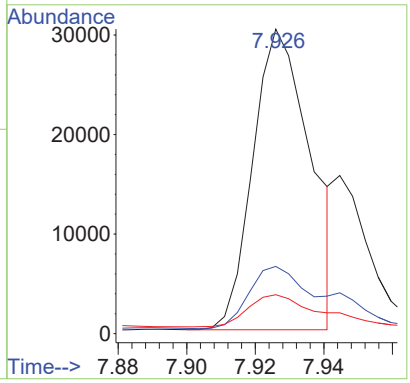


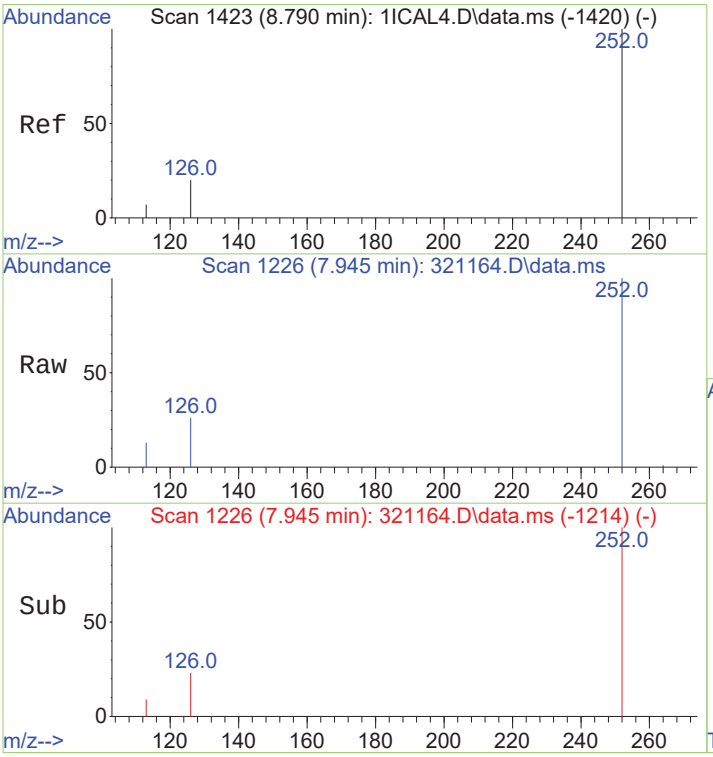


#20
B[b]fluoranth
Concen: 629.93 ng/mL
RT: 7.926 min Scan# 1221
Delta R.T. 0.000 min
Lab File: 321164.D
Acq: 9 Sep 2019 22:16

Tgt Ion:252 Resp: 35187

Ion	Ratio	Lower	Upper
252	100		
126	20.6	0.0	52.1
113	10.7	0.0	40.0

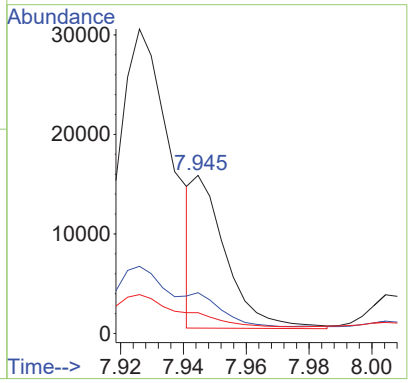


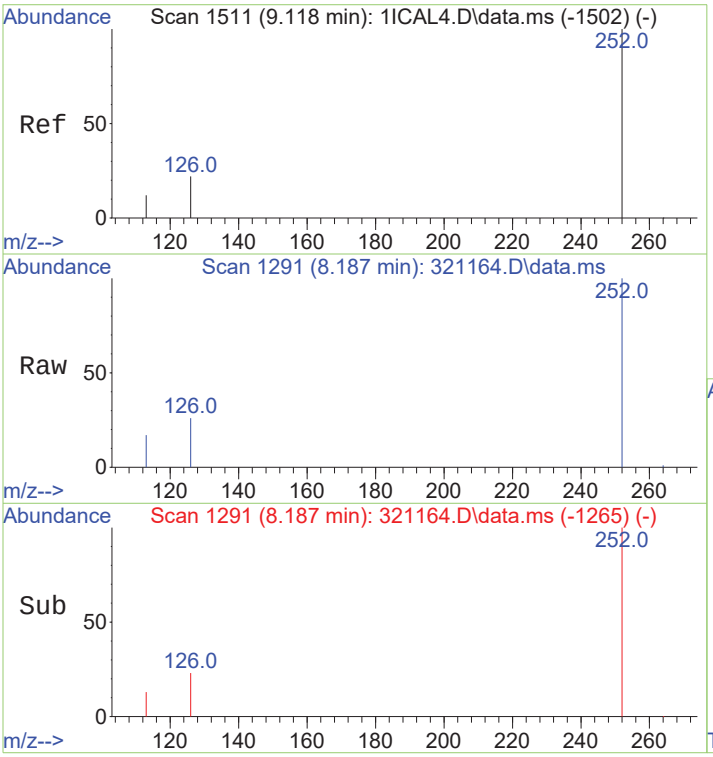


#21
B[k]fluoranth
Concen: 161.72 ng/mL
RT: 7.945 min Scan# 1226
Delta R.T. -0.004 min
Lab File: 321164.D
Acq: 9 Sep 2019 22:16

Tgt Ion:252 Resp: 11240

Ion	Ratio	Lower	Upper
252	100		
126	22.6	0.0	54.3
113	9.0	0.0	39.4

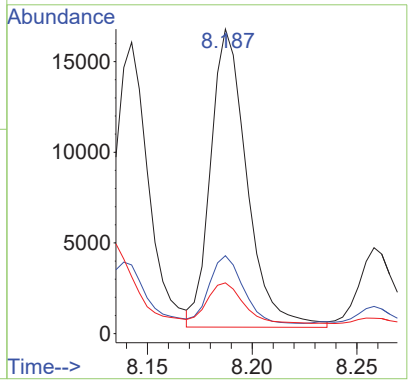


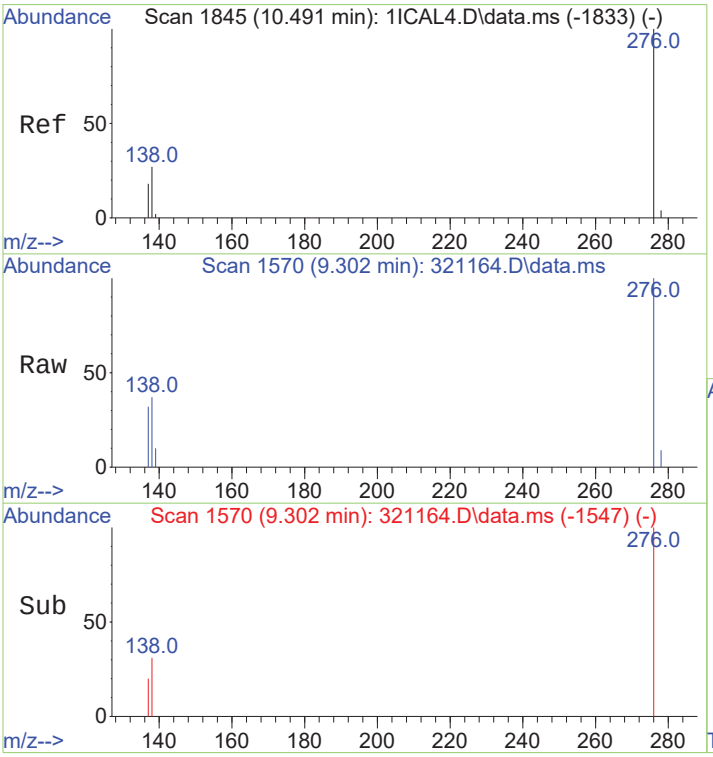


#22
Benz[a]pyrene
Concen: 380.04 ng/mL
RT: 8.187 min Scan# 1291
Delta R.T. -0.004 min
Lab File: 321164.D
Acq: 9 Sep 2019 22:16

Tgt Ion:252 Resp: 19791

Ion	Ratio	Lower	Upper
252	100		
126	22.6	0.0	52.7
113	13.9	0.0	42.2

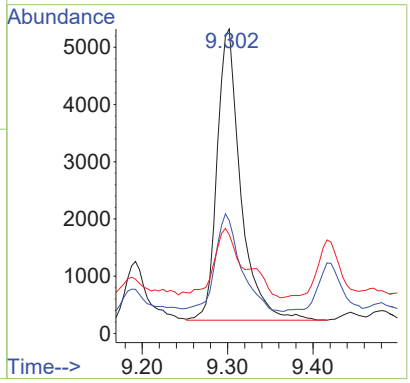


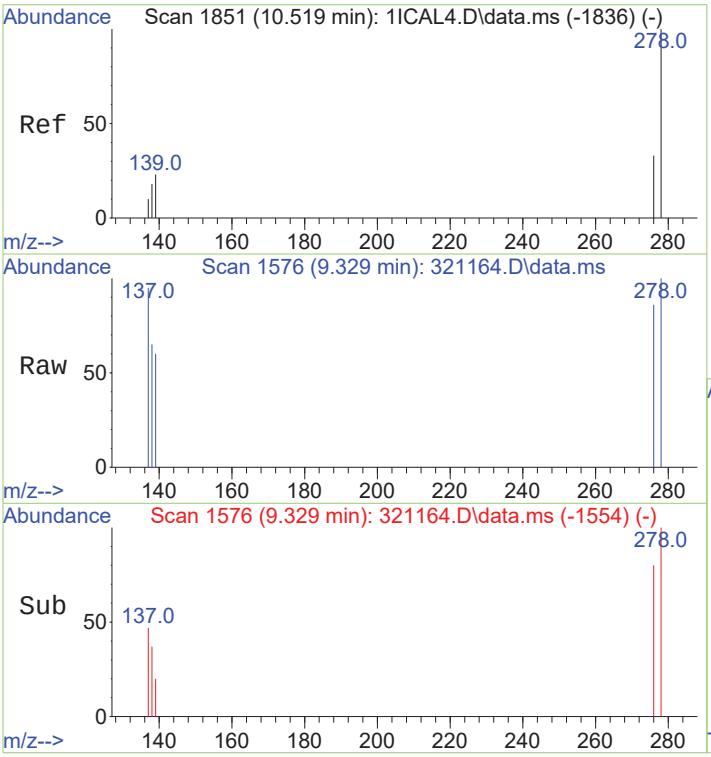


#23
Indeno-pyrene
Concen: 214.51 ng/mL
RT: 9.302 min Scan# 1570
Delta R.T. 0.005 min
Lab File: 321164.D
Acq: 9 Sep 2019 22:16

Tgt Ion:276 Resp: 9784

Ion	Ratio	Lower	Upper
276	100		
138	30.2	4.1	64.1
137	19.8	0.0	52.8

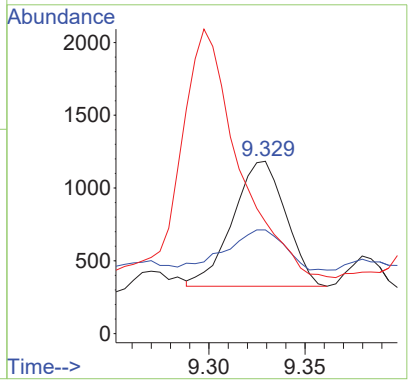


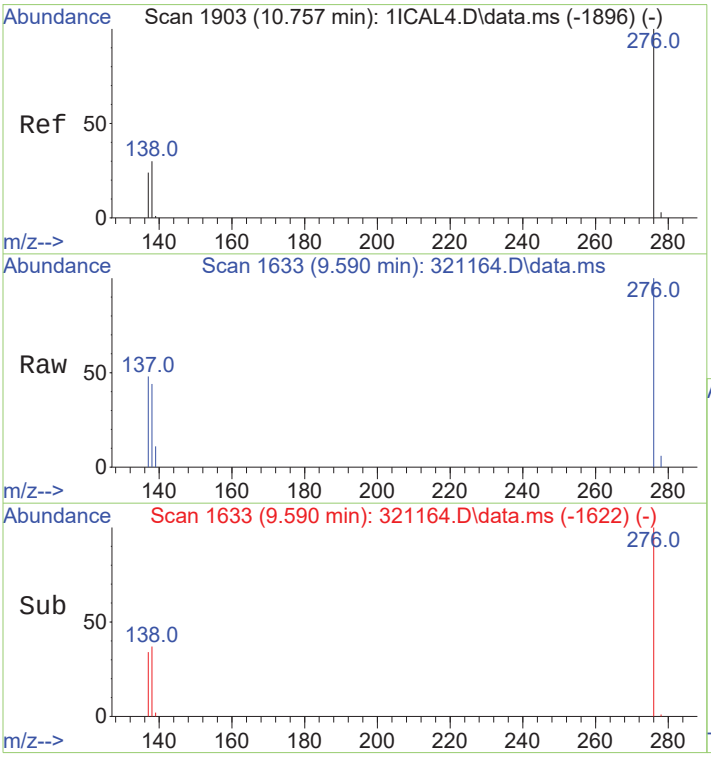


#24
Dib[ah]anthr
Concen: 73.41 ng/mL
RT: 9.329 min Scan# 1576
Delta R.T. 0.000 min
Lab File: 321164.D
Acq: 9 Sep 2019 22:16

Tgt Ion:278 Resp: 1653

Ion	Ratio	Lower	Upper
278	100		
139	32.1	0.0	59.3
138	43.9	0.0	56.3

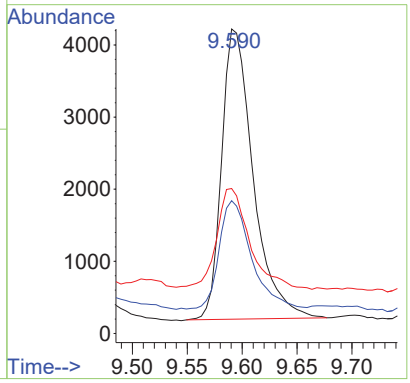




#25
B[ghi]perylen
Concen: 208.75 ng/mL
RT: 9.590 min Scan# 1633
Delta R.T. 0.000 min
Lab File: 321164.D
Acq: 9 Sep 2019 22:16

Tgt Ion:276 Resp: 8068

Ion	Ratio	Lower	Upper
276	100		
138	37.3	7.7	67.7
137	34.5	0.6	60.6



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321165.D Vial: 21
Acq On : 9 Sep 2019 22:36 Operator: JJY
Sample : 164274,321165, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 13:13:57 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 13:13:41 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

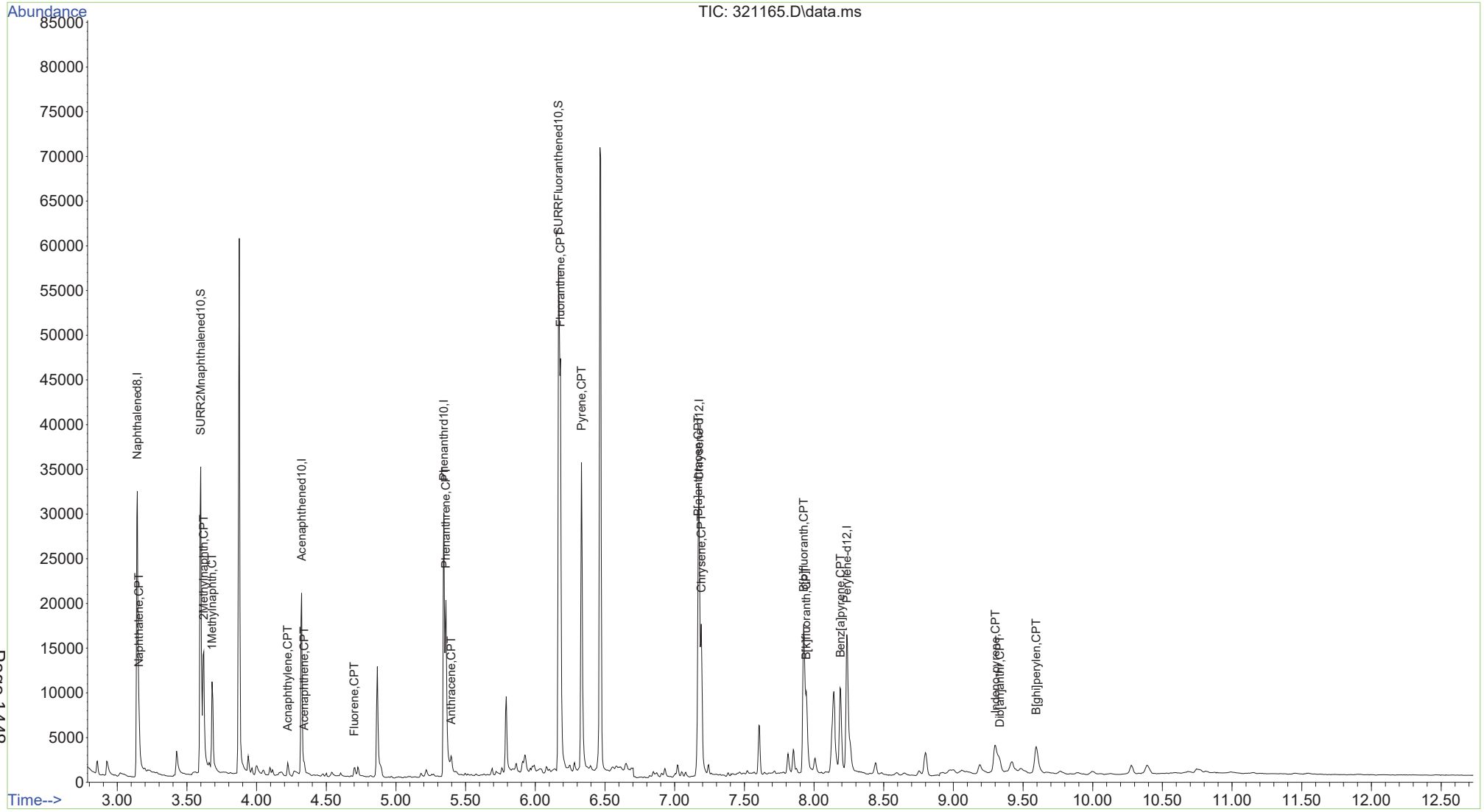
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.144	136	28640	400.00	ng/mL	0.00
6) Acenaphthened10	4.323	164	14508	400.00	ng/mL	0.00
10) Phenanthrd10	5.343	188	23905	400.00	ng/mL	0.00
15) Chrysene-d12	7.176	240	20099	400.00	ng/mL	0.00
19) Perylene-d12	8.236	264	18370	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.599	152	23288	146.61	%REC	0.00
Spiked Amount 100.000			Recovery = 146.61%			
13) SURRFluoranthened10	6.167	212	36466	154.48	%REC	0.00
Spiked Amount 100.000			Recovery = 154.48%			
Target Compounds						Qvalue
2) Naphthalene	3.155	128	2291	32.5312	ng/ml	97
4) 2Methylnaphth	3.621	142	4888	126.4861	ng/mL	78
5) 1Methylnaphth	3.680	141	3199	84.7367	ng/mL	84
7) Acnaphthylene	4.223	152	930	15.2855	ng/mL	87
8) Acenaphthene	4.342	154	513	12.4500	ng/mL	50
9) Fluorene	4.700	166	574	13.1987	ng/mL#	1
11) Phenanthrene	5.358	178	11211	166.8593	ng/mL	98
12) Anthracene	5.395	178	1391	23.3690	ng/mL	91
14) Fluoranthene	6.180	202	24001	352.6422	ng/mL	94
16) Pyrene	6.331	202	20606	253.5482	ng/mL	96
17) B[a]anthracen	7.169	228	10368	217.3369	ng/mL	98
18) Chrysene	7.191	228	11356	160.8593	ng/mL	98
20) B[b]fluoranth	7.926	252	15179m	275.3844	ng/mL	
21) B[k]fluoranth	7.945	252	5650m	78.3312	ng/mL	
22) Benz[a]pyrene	8.191	252	8508	176.7645	ng/mL	96
23) Indeno-pyrene	9.302	276	4114	113.9217	ng/mL	97
24) Dib[ah]anthr	9.334	278	1110	61.1348	ng/mL	94
25) B[ghi]perylen	9.595	276	3357	111.0354	ng/mL	97

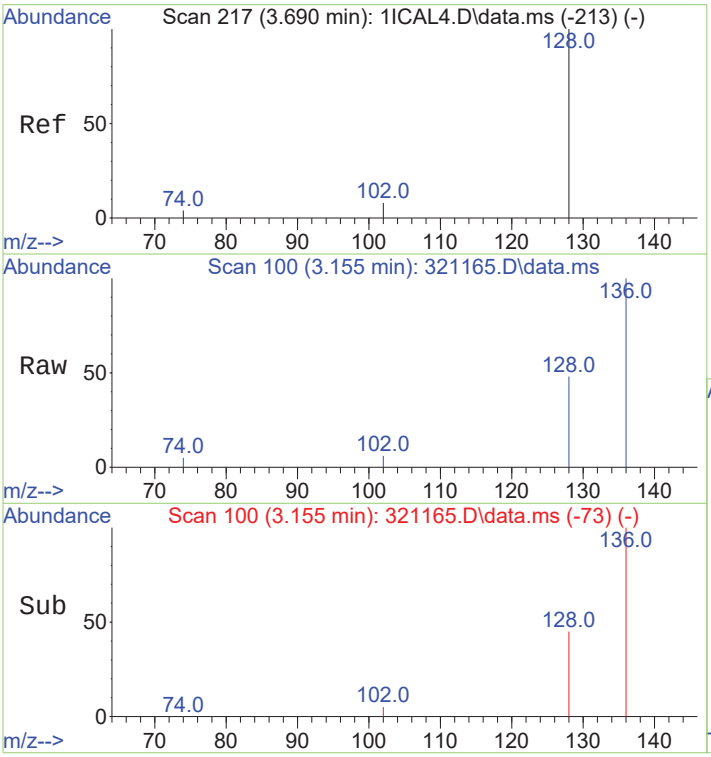
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321165.D Vial: 21
Acq On : 9 Sep 2019 22:36 Operator: JJY
Sample : 164274,321165, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 13:13:57 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 13:13:41 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

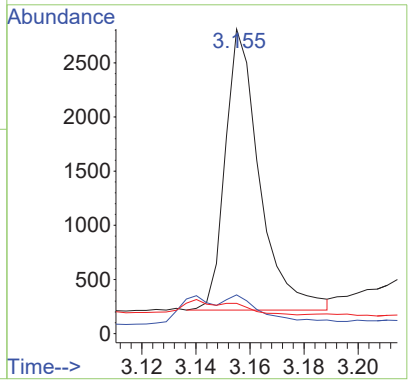


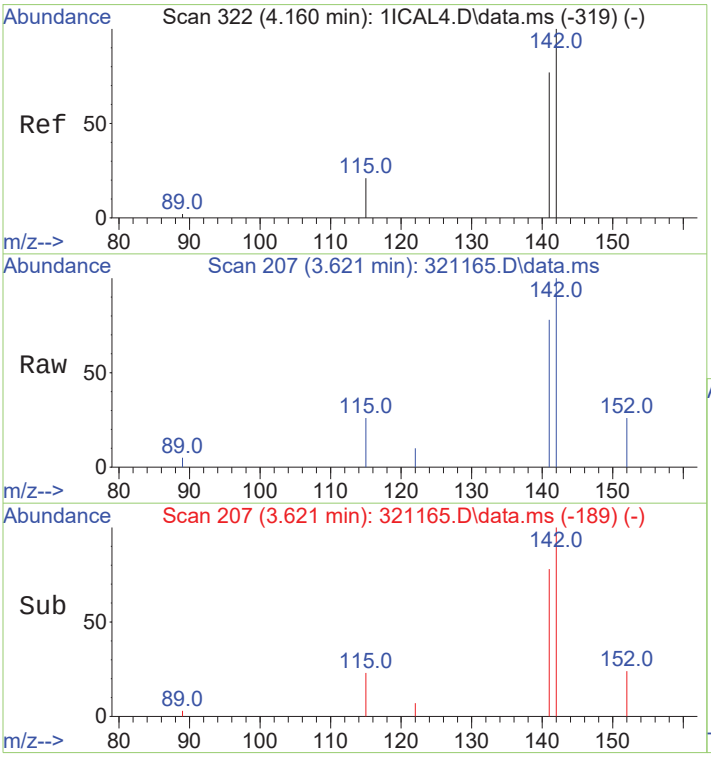


#2
Naphthalene
Concen: 32.53 ng/ml
RT: 3.155 min Scan# 100
Delta R.T. 0.000 min
Lab File: 321165.D
Acq: 9 Sep 2019 22:36

Tgt Ion:128 Resp: 2291

Ion	Ratio	Lower	Upper
128	100		
102	8.9	0.0	37.6
74	3.7	0.0	33.6

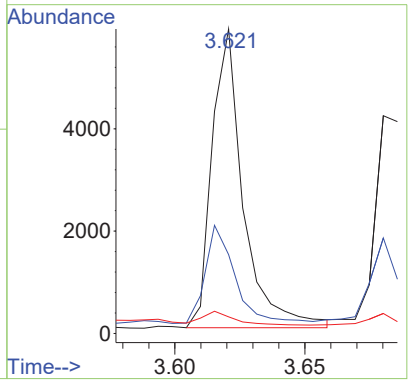


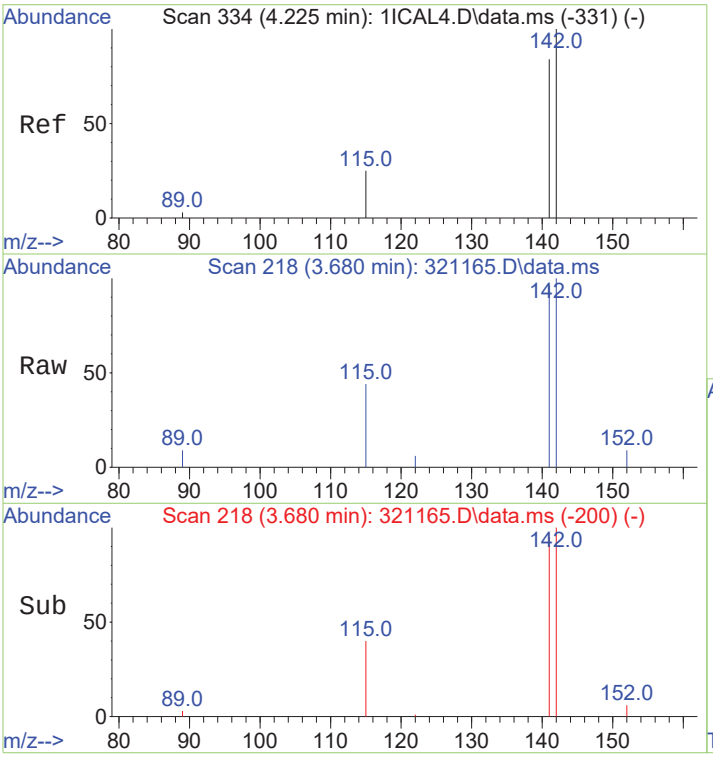


#4
2Methylnaphth
Concen: 126.49 ng/mL
RT: 3.621 min Scan# 207
Delta R.T. 0.000 min
Lab File: 321165.D
Acq: 9 Sep 2019 22:36

Tgt Ion:142 Resp: 4888

Ion	Ratio	Lower	Upper
142	100		
115	22.9	6.9	66.9
89	2.8	0.0	34.9

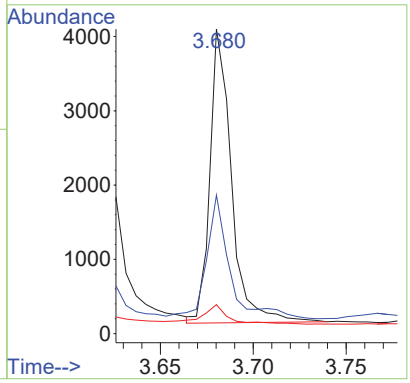


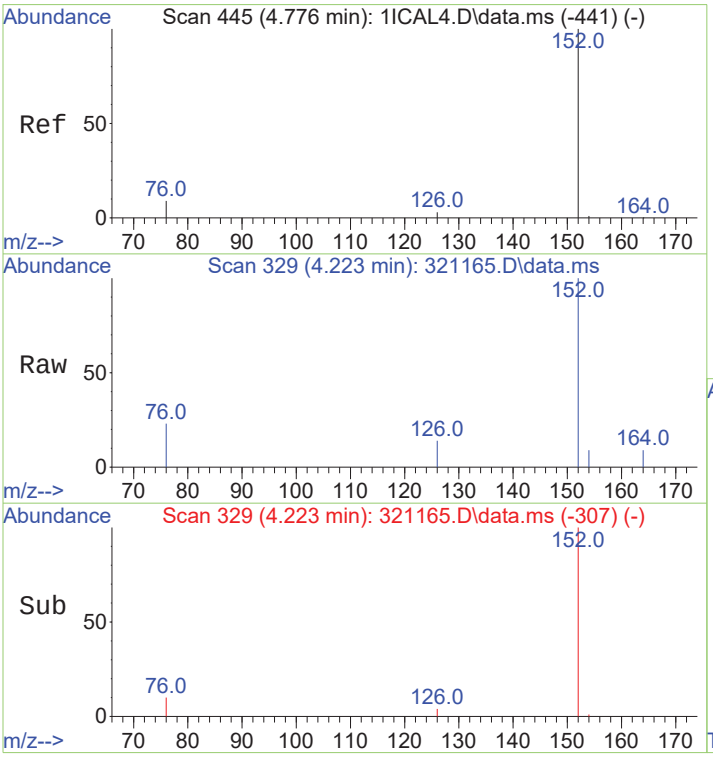


#5
1Methylnaphth
Concen: 84.74 ng/mL
RT: 3.680 min Scan# 218
Delta R.T. 0.000 min
Lab File: 321165.D
Acq: 9 Sep 2019 22:36

Tgt Ion:141 Resp: 3199

Ion	Ratio	Lower	Upper
141	100		
115	42.2	2.5	62.5
89	6.6	0.0	34.0

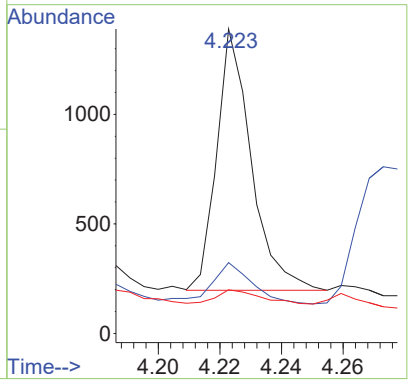


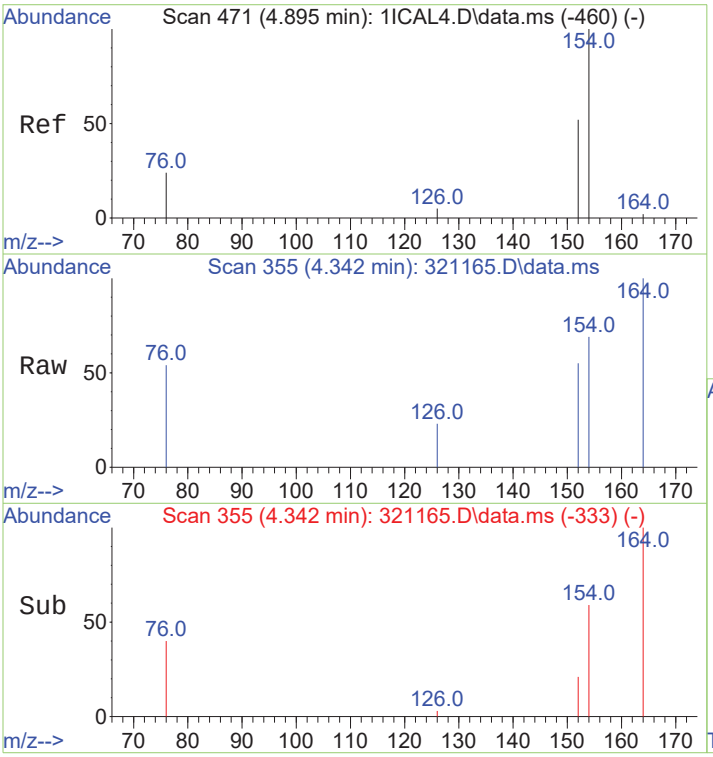


#7
Acnaphthylene
Concen: 15.29 ng/mL
RT: 4.223 min Scan# 329
Delta R.T. 0.000 min
Lab File: 321165.D
Acq: 9 Sep 2019 22:36

Tgt Ion:152 Resp: 930

Ion	Ratio	Lower	Upper
152	100		
76	15.4	0.0	39.9
126	5.1	0.0	33.1

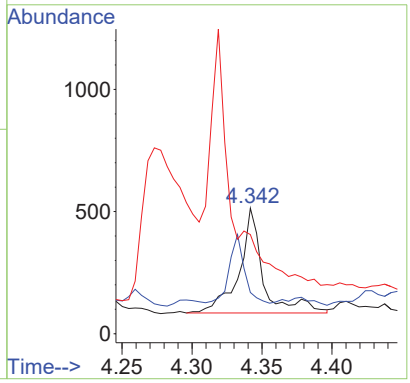


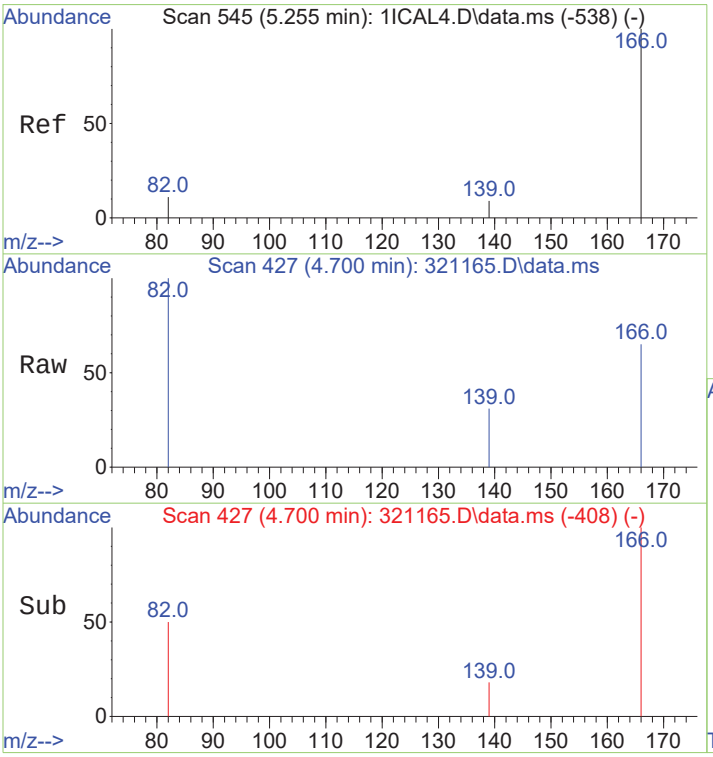


#8
Acenaphthene
Concen: 12.45 ng/mL
RT: 4.342 min Scan# 355
Delta R.T. 0.000 min
Lab File: 321165.D
Acq: 9 Sep 2019 22:36

Tgt Ion:154 Resp: 513

Ion	Ratio	Lower	Upper
154	100		
126	12.4	0.0	34.3
76	47.8	0.0	51.6

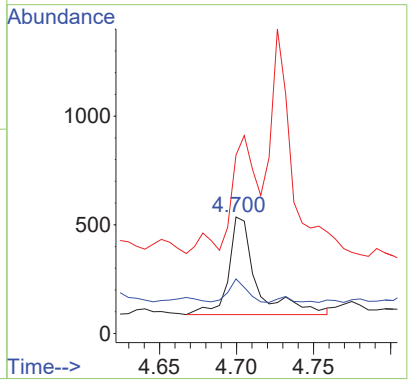


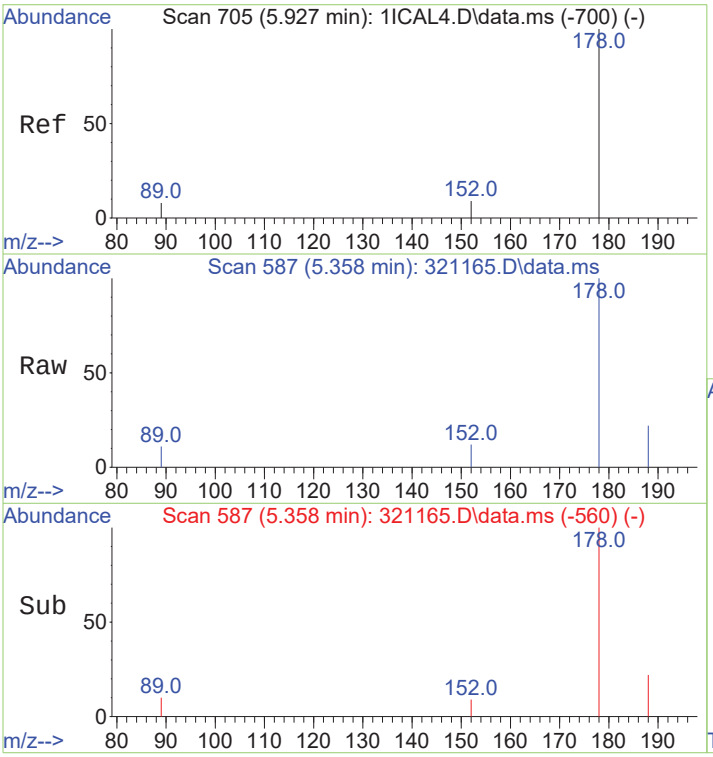


#9
Fluorene
Concen: 13.20 ng/mL
RT: 4.700 min Scan# 427
Delta R.T. 0.000 min
Lab File: 321165.D
Acq: 9 Sep 2019 22:36

Tgt Ion:166 Resp: 574

Ion	Ratio	Lower	Upper
166	100		
139	21.6	0.0	38.6
82	100.7	0.0	42.4#

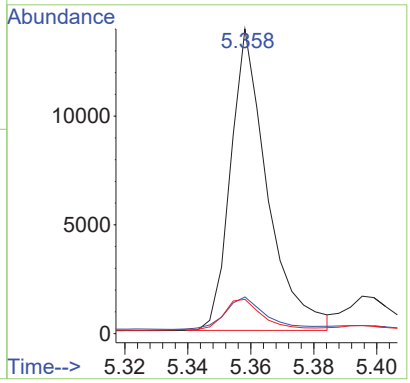


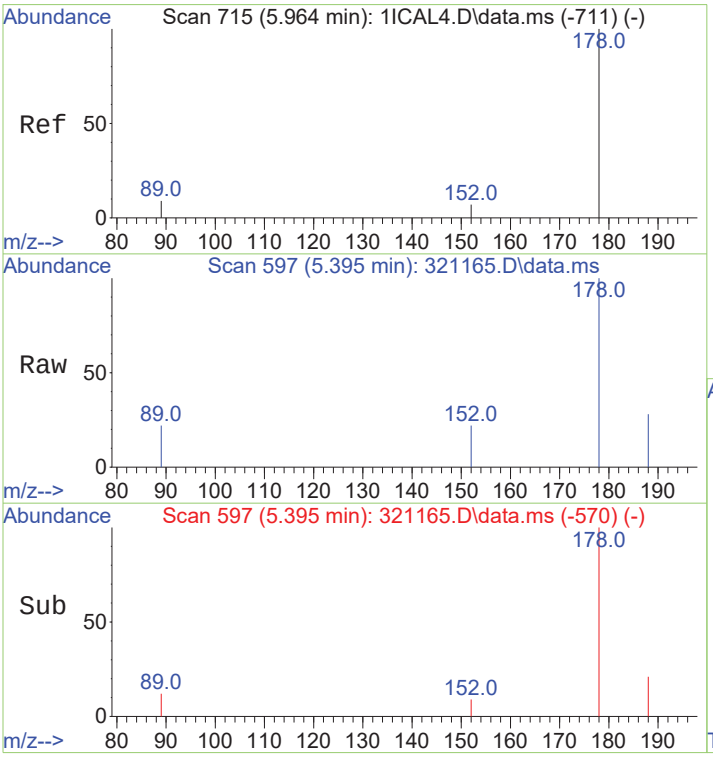


#11
Phenanthrene
Concen: 166.86 ng/mL
RT: 5.358 min Scan# 587
Delta R.T. 0.000 min
Lab File: 321165.D
Acq: 9 Sep 2019 22:36

Tgt Ion:178 Resp: 11211

Ion	Ratio	Lower	Upper
178	100		
152	11.9	0.0	40.1
89	11.5	0.0	41.4

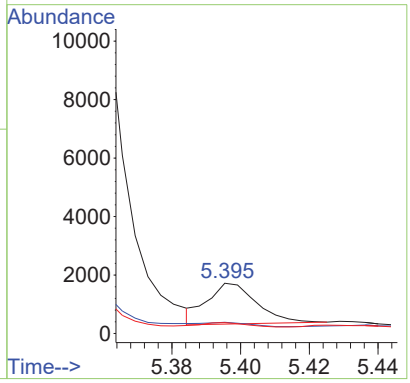


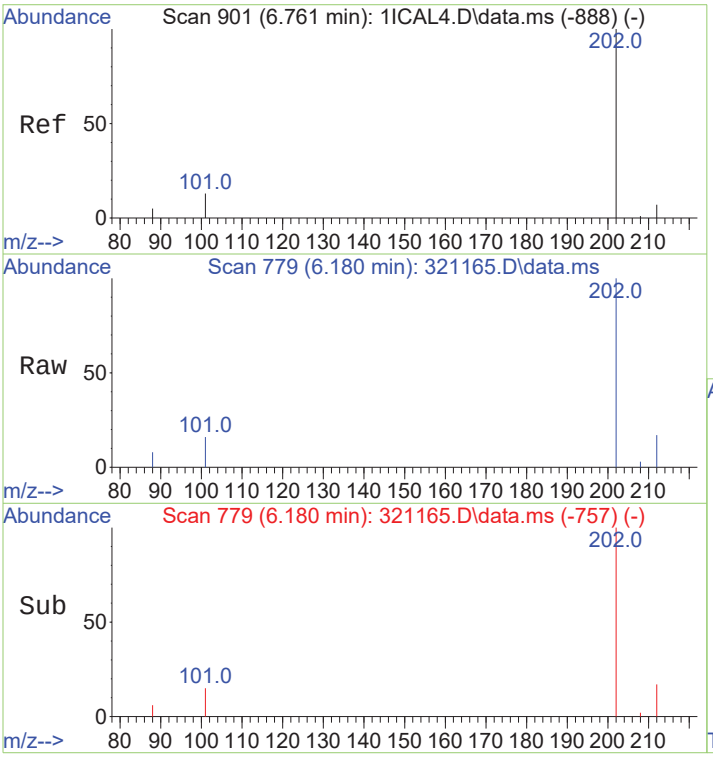


#12
Anthracene
Concen: 23.37 ng/mL
RT: 5.395 min Scan# 597
Delta R.T. 0.000 min
Lab File: 321165.D
Acq: 9 Sep 2019 22:36

Tgt Ion:178 Resp: 1391

Ion	Ratio	Lower	Upper
178	100		
152	9.7	0.0	37.8
89	7.2	0.0	31.3

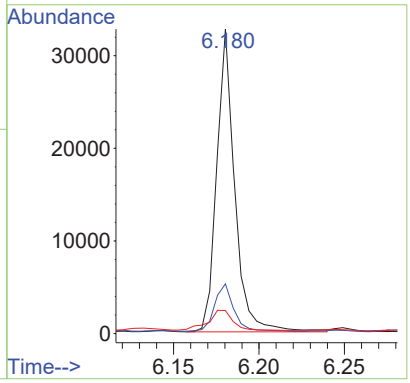


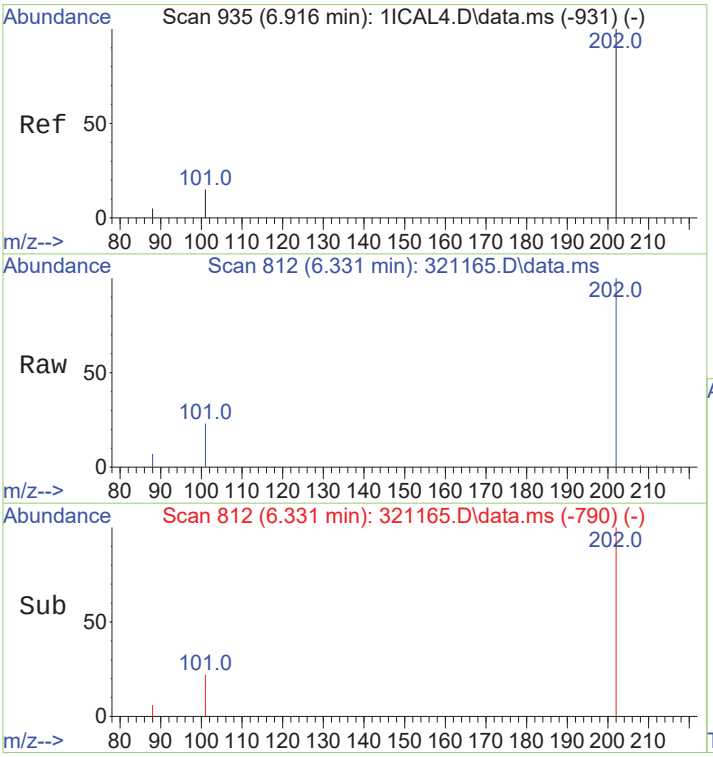


#14
Fluoranthene
Concen: 352.64 ng/mL
RT: 6.180 min Scan# 779
Delta R.T. 0.000 min
Lab File: 321165.D
Acq: 9 Sep 2019 22:36

Tgt Ion:202 Resp: 24001

Ion	Ratio	Lower	Upper
202	100		
101	15.6	0.0	48.3
88	6.4	0.0	38.8

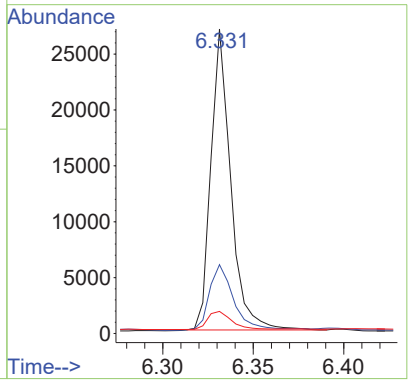


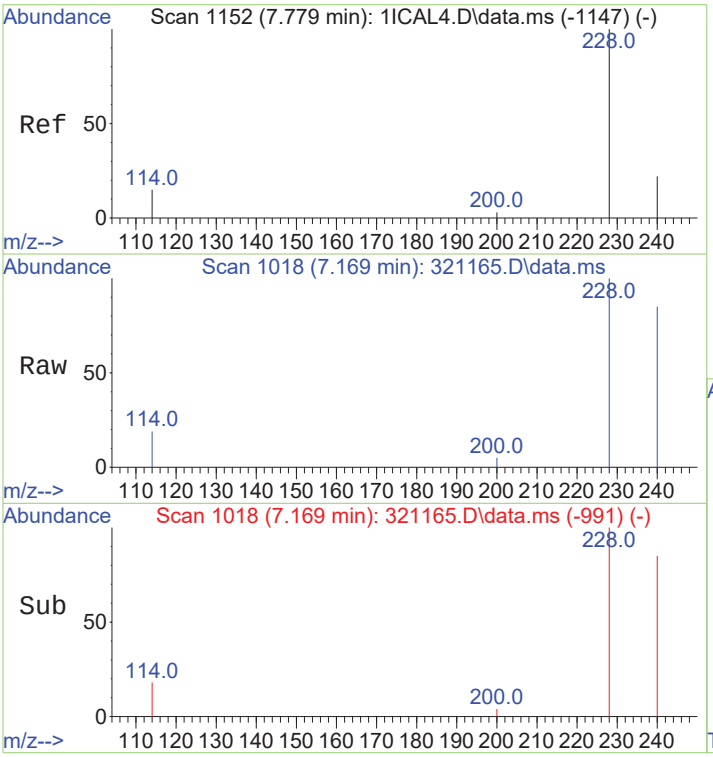


#16
Pyrene
Concen: 253.55 ng/mL
RT: 6.331 min Scan# 812
Delta R.T. 0.000 min
Lab File: 321165.D
Acq: 9 Sep 2019 22:36

Tgt Ion:202 Resp: 20606

Ion	Ratio	Lower	Upper
202	100		
101	21.6	0.0	49.4
88	6.0	0.0	35.5

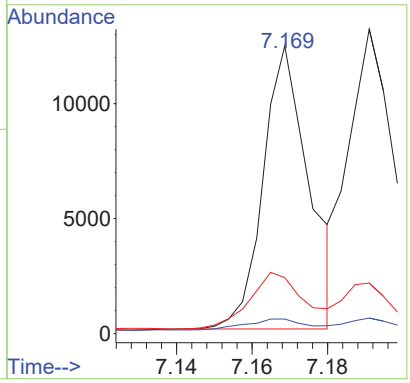


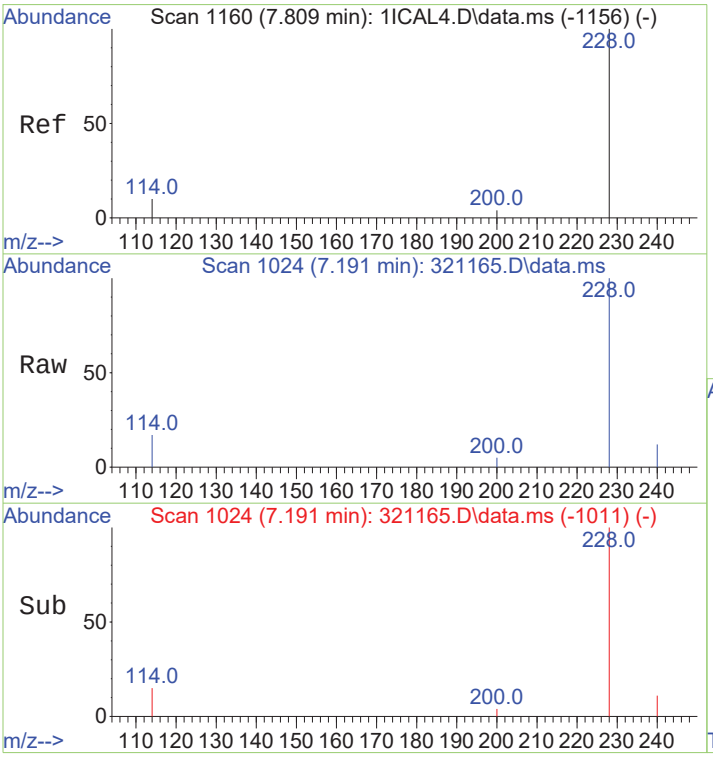


#17
B[a]anthracen
Concen: 217.34 ng/mL
RT: 7.169 min Scan# 1018
Delta R.T. 0.000 min
Lab File: 321165.D
Acq: 9 Sep 2019 22:36

Tgt Ion:228 Resp: 10368

Ion	Ratio	Lower	Upper
228	100		
200	3.9	0.0	33.6
114	18.1	0.0	47.0

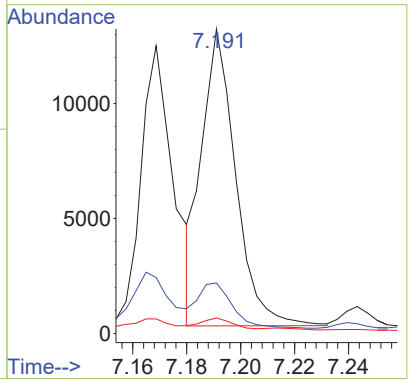


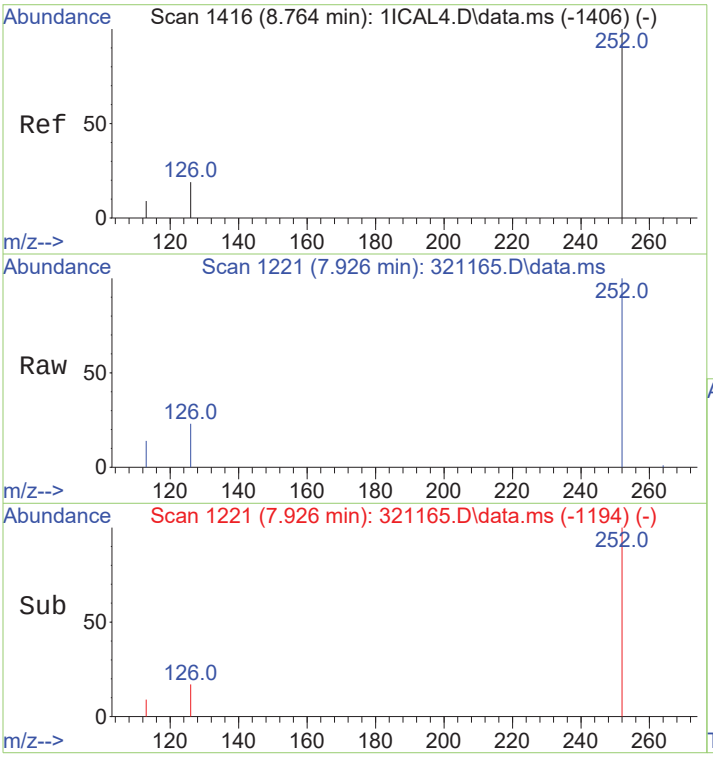


#18
Chrysene
Concen: 160.86 ng/mL
RT: 7.191 min Scan# 1024
Delta R.T. 0.000 min
Lab File: 321165.D
Acq: 9 Sep 2019 22:36

Tgt Ion:228 Resp: 11356

Ion	Ratio	Lower	Upper
228	100		
114	15.1	0.0	46.1
200	4.0	0.0	33.8

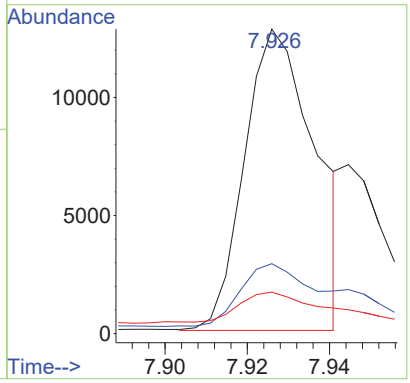


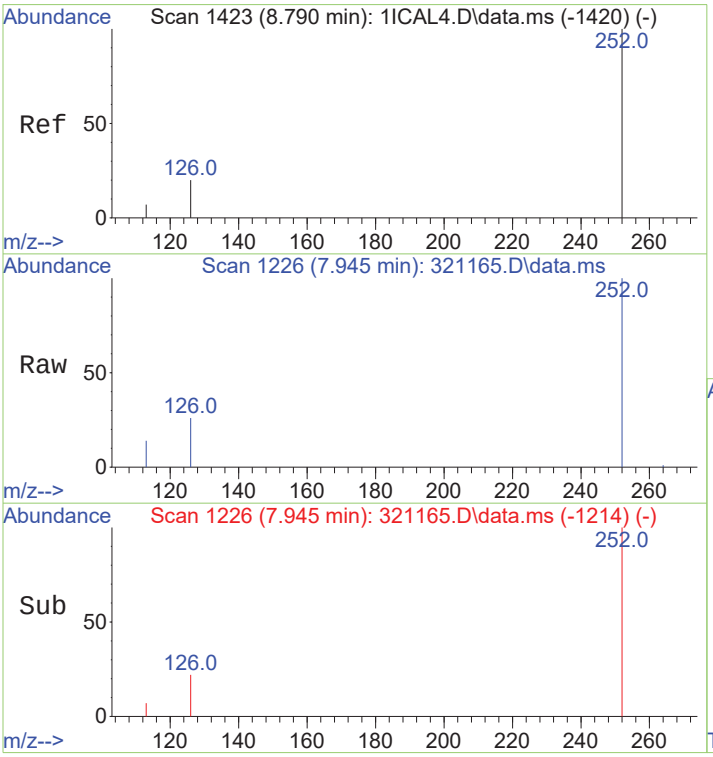


#20
B[b]fluoranth
Concen: 275.38 ng/mL m
RT: 7.926 min Scan# 1221
Delta R.T. 0.000 min
Lab File: 321165.D
Acq: 9 Sep 2019 22:36

Tgt Ion:252 Resp: 15179

Ion	Ratio	Lower	Upper
252	100		
126	22.9	0.0	52.1
113	13.6	0.0	40.0

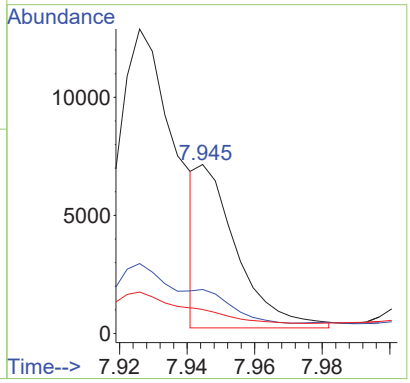


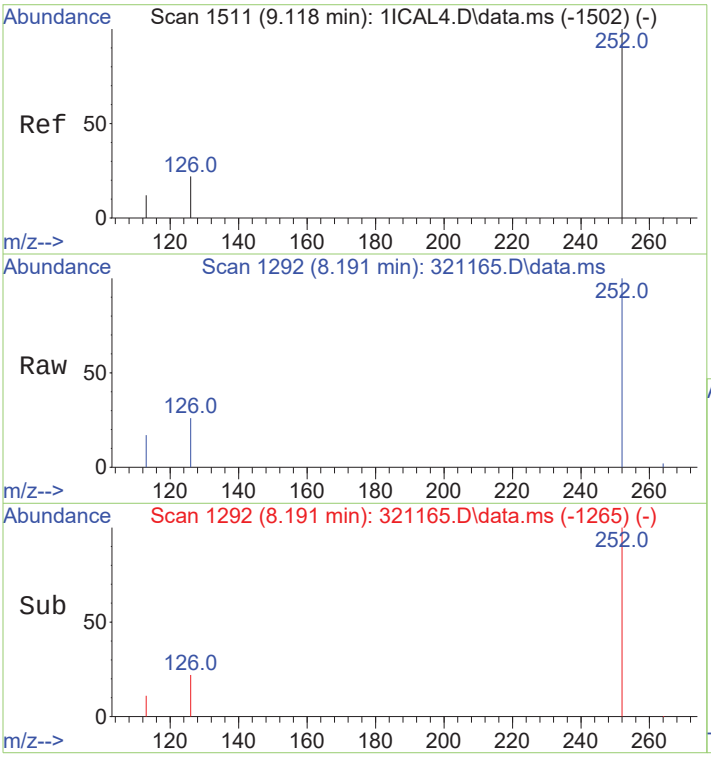


#21
B[k]fluoranth
Concen: 78.33 ng/mL m
RT: 7.945 min Scan# 1226
Delta R.T. -0.004 min
Lab File: 321165.D
Acq: 9 Sep 2019 22:36

Tgt Ion:252 Resp: 5650

Ion	Ratio	Lower	Upper
252	100		
126	26.1	0.0	54.3
113	14.1	0.0	39.4

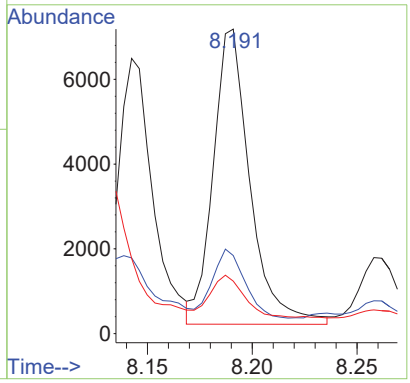


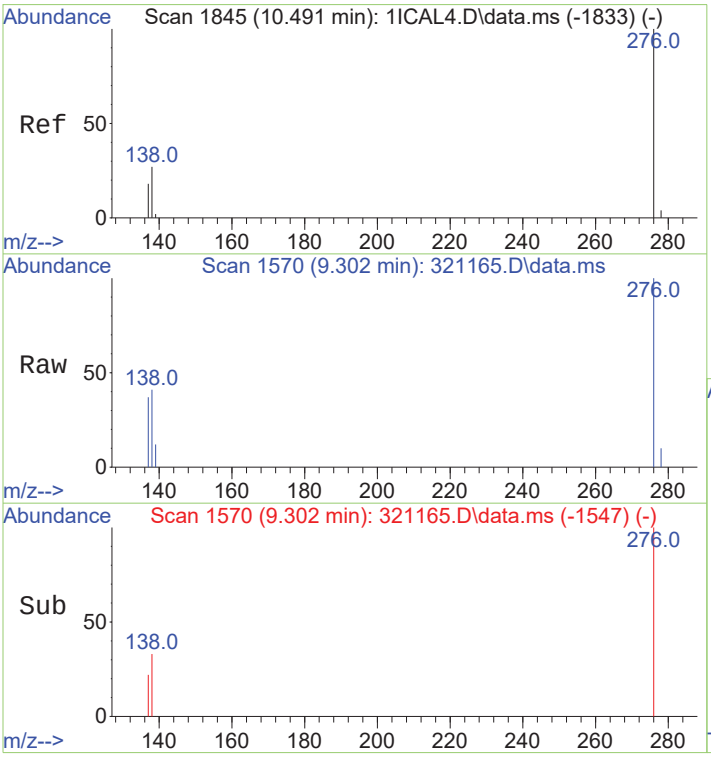


#22
Benz[a]pyrene
Concen: 176.76 ng/mL
RT: 8.191 min Scan# 1292
Delta R.T. 0.000 min
Lab File: 321165.D
Acq: 9 Sep 2019 22:36

Tgt Ion:252 Resp: 8508

Ion	Ratio	Lower	Upper
252	100		
126	20.0	0.0	52.7
113	12.7	0.0	42.2

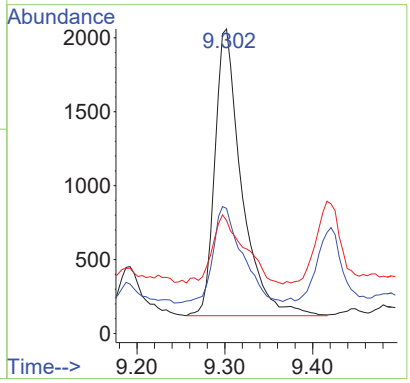


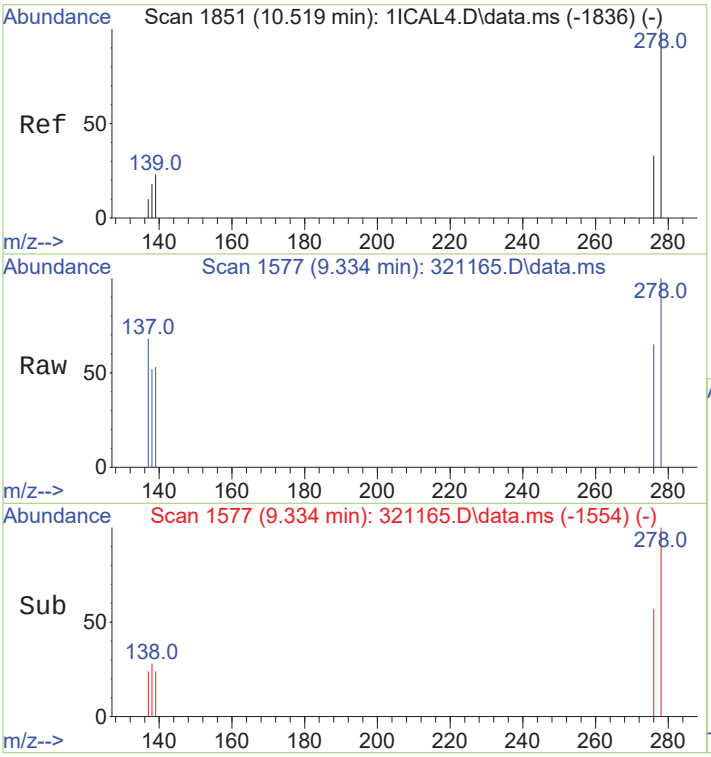


#23
Indeno-pyrene
Concen: 113.92 ng/mL
RT: 9.302 min Scan# 1570
Delta R.T. 0.005 min
Lab File: 321165.D
Acq: 9 Sep 2019 22:36

Tgt Ion:276 Resp: 4114

Ion	Ratio	Lower	Upper
276	100		
138	32.3	4.1	64.1
137	21.9	0.0	52.8

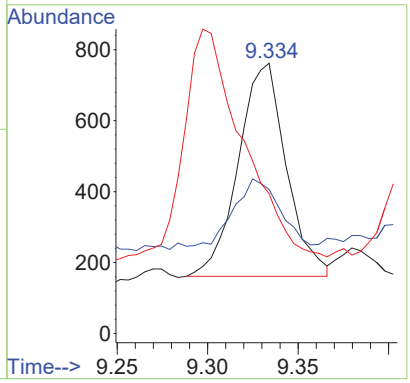


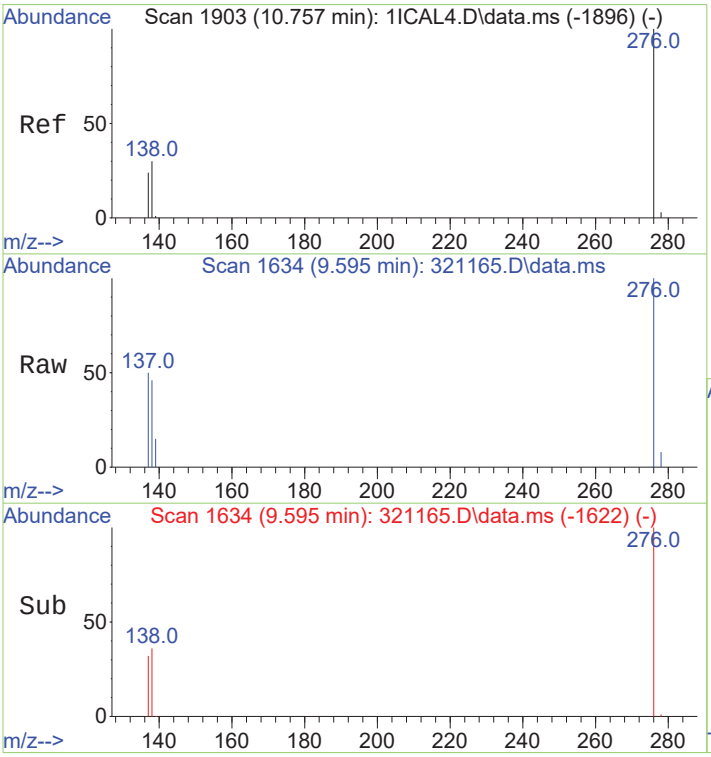


#24
Dib[ah]anthr
Concen: 61.13 ng/mL
RT: 9.334 min Scan# 1577
Delta R.T. 0.005 min
Lab File: 321165.D
Acq: 9 Sep 2019 22:36

Tgt Ion:278 Resp: 1110

Ion	Ratio	Lower	Upper
278	100		
139	26.6	0.0	59.3
138	29.6	0.0	56.3

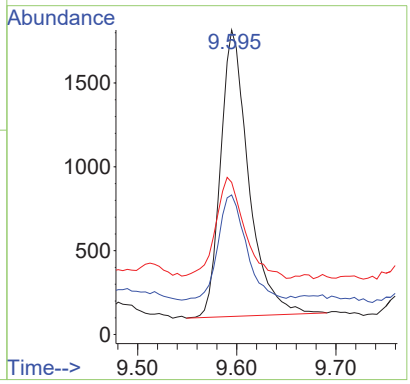


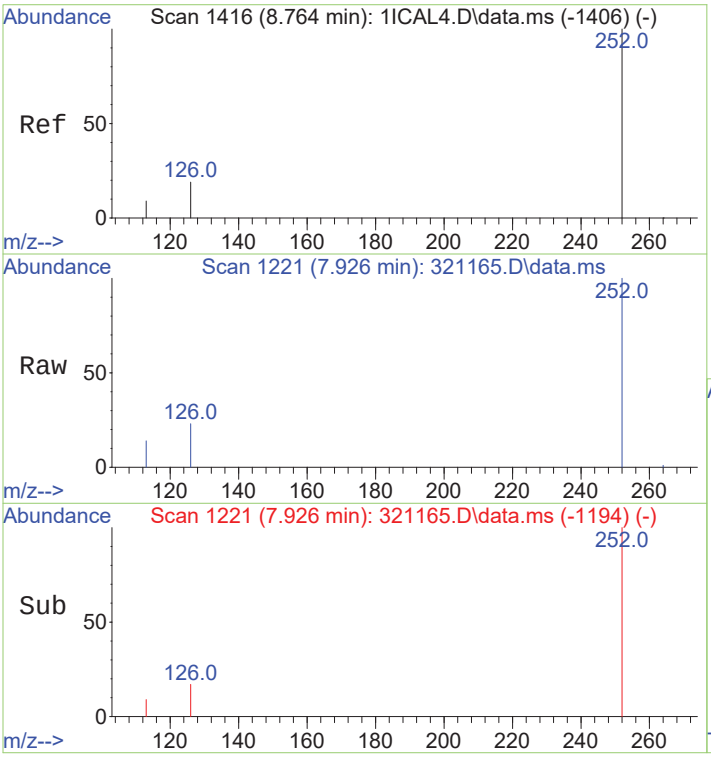


#25
B[ghi]perylen
Concen: 111.04 ng/mL
RT: 9.595 min Scan# 1634
Delta R.T. 0.005 min
Lab File: 321165.D
Acq: 9 Sep 2019 22:36

Tgt Ion:276 Resp: 3357

Ion	Ratio	Lower	Upper
276	100		
138	36.3	7.7	67.7
137	32.8	0.6	60.6

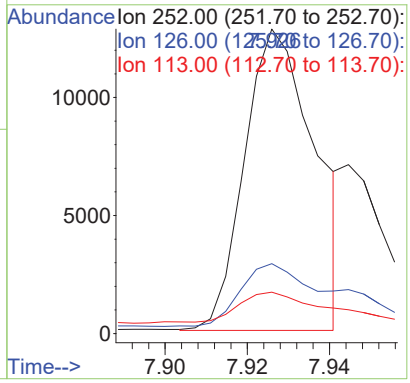




#20
B[b]fluoranth
Concen: 275.38 ng/mL m
RT: 7.926 min Scan# 1221
Delta R.T. 0.000 min
Lab File: 321165.D
Acq: 9 Sep 2019 22:36

Tgt Ion:252 Resp: 15179

Ion	Ratio	Lower	Upper
252	100		
126	22.9	0.0	52.1
113	13.6	0.0	40.0

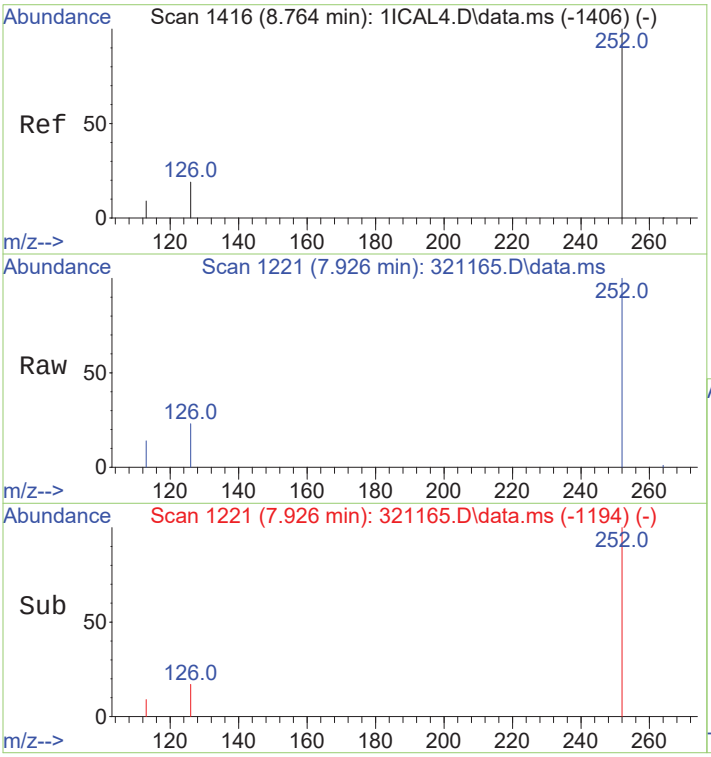


After Manual Integration

RED
9/12/2019

Reason#3

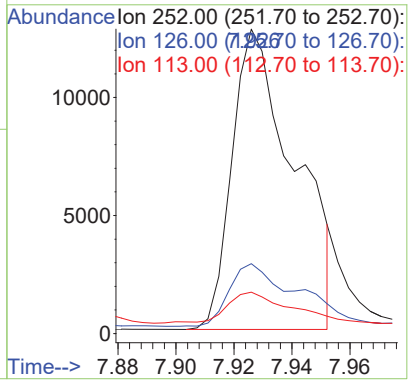
JJY
9/11/19



#20
B[b]fluoranth
Concen: 338.50 ng/mL
RT: 7.926 min Scan# 1221
Delta R.T. 0.000 min
Lab File: 321165.D
Acq: 9 Sep 2019 22:36

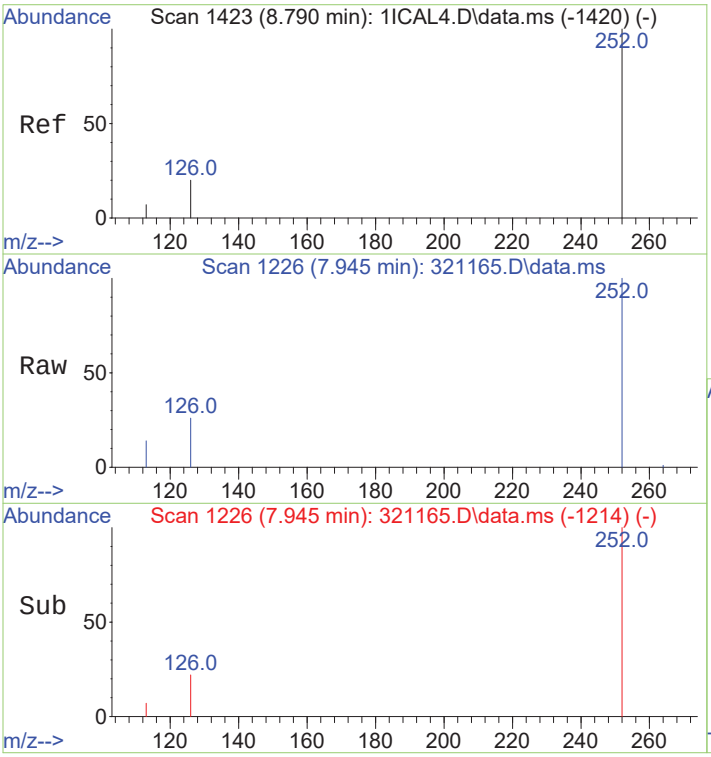
Tgt Ion:252 Resp: 19050

Ion	Ratio	Lower	Upper
252	100		
126	20.7	0.0	52.1
113	9.9	0.0	40.0



Before Manual Integration

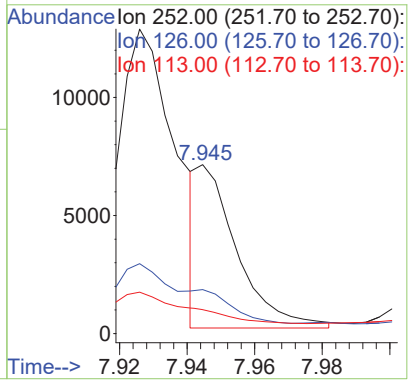
Reason#3 JJY 9/11/19



#21
B[k]fluoranth
Concen: 78.33 ng/mL m
RT: 7.945 min Scan# 1226
Delta R.T. -0.004 min
Lab File: 321165.D
Acq: 9 Sep 2019 22:36

Tgt Ion:252 Resp: 5650

Ion	Ratio	Lower	Upper
252	100		
126	26.1	0.0	54.3
113	14.1	0.0	39.4

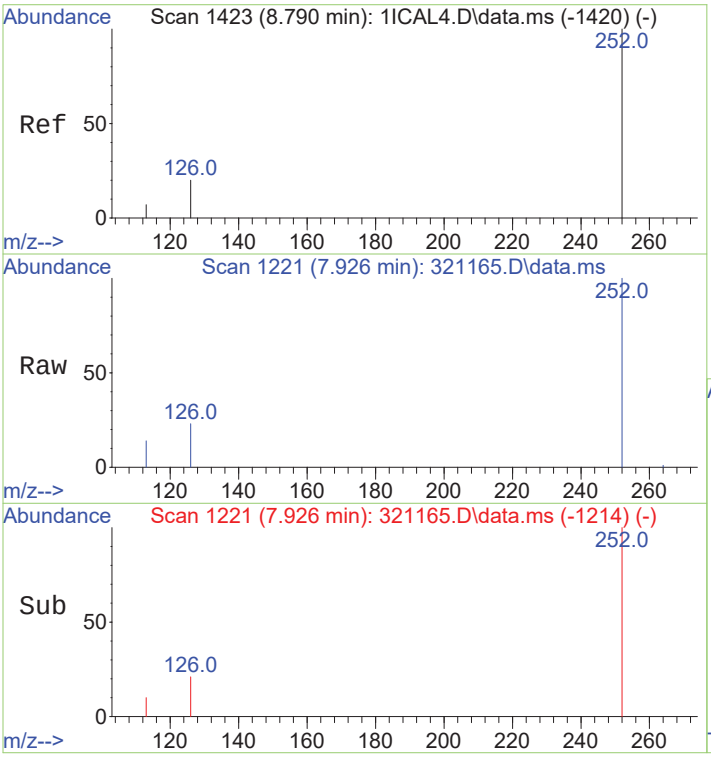


RED
9/12/2019

After Manual Integration

Reason#3

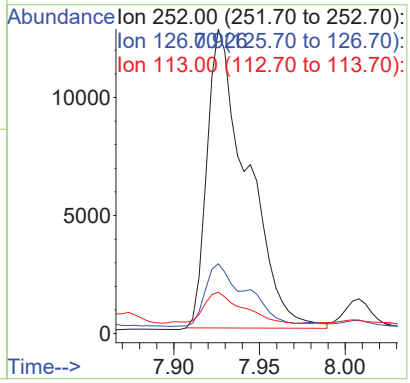
JJY
9/11/19



#21
B[k]fluoranth
Concen: 282.58 ng/mL
RT: 7.926 min Scan# 1221
Delta R.T. -0.022 min
Lab File: 321165.D
Acq: 9 Sep 2019 22:36

Tgt Ion:252 Resp: 20702

Ion	Ratio	Lower	Upper
252	100		
126	20.9	0.0	54.3
113	10.1	0.0	39.4



Before Manual Integration

Reason#3

JJY
9/11/19

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321166.D Vial: 22
Acq On : 9 Sep 2019 22:56 Operator: JJY
Sample : 164274,321166, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 13:20:08 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 13:13:41 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

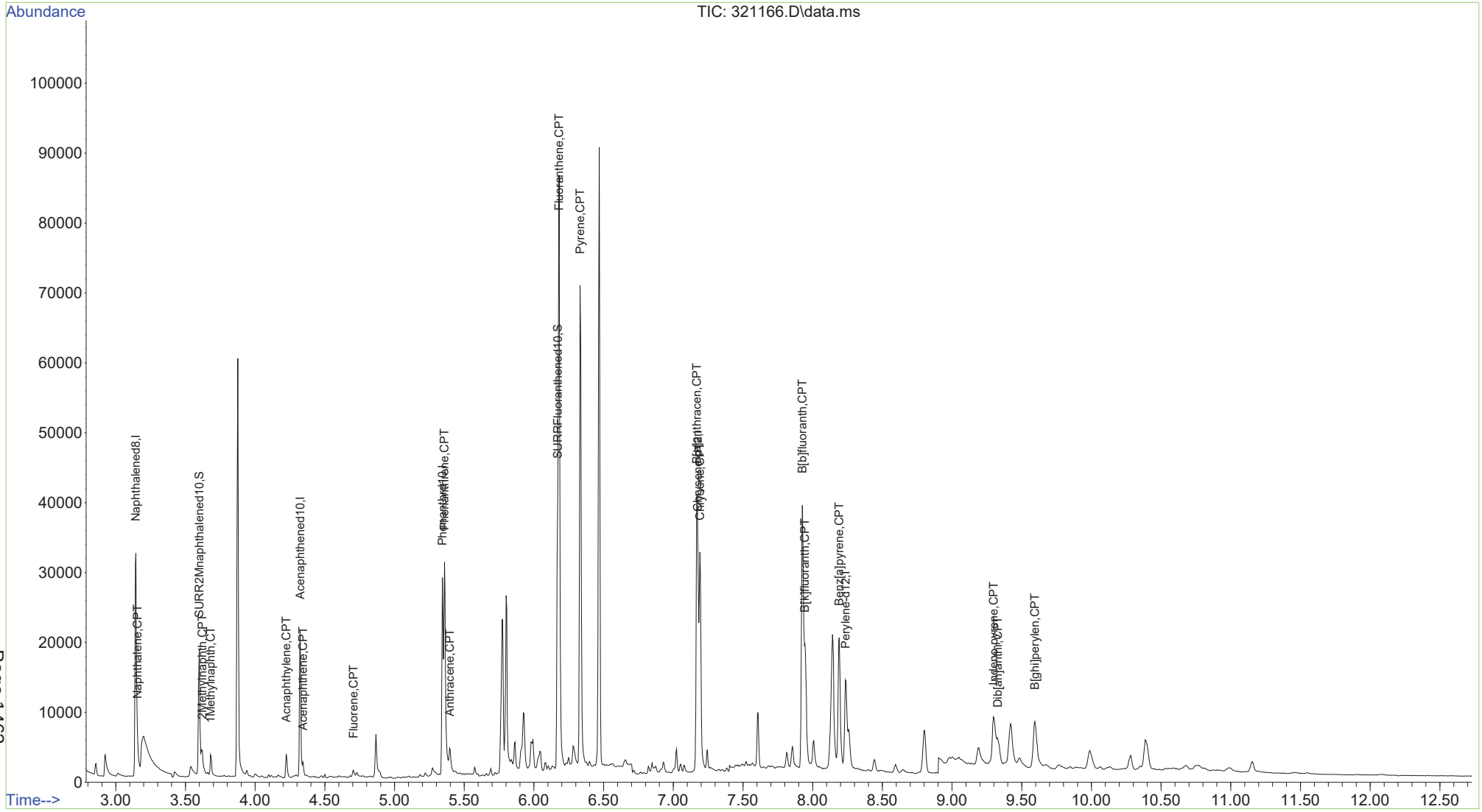
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.144	136	28080	400.00	ng/mL	0.00
6) Acenaphthened10	4.323	164	14433	400.00	ng/mL	0.00
10) Phenanthrd10	5.343	188	23865	400.00	ng/mL	0.00
15) Chrysene-d12	7.176	240	17969	400.00	ng/mL	0.00
19) Perylene-d12	8.236	264	15729	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.599	152	12110	77.76	%REC	0.00
Spiked Amount 100.000			Recovery = 77.76%			
13) SURRFluoranthened10	6.171	212	20099	85.29	%REC	0.00
Spiked Amount 100.000			Recovery = 85.29%			
Target Compounds						Qvalue
2) Naphthalene	3.155	128	944	13.6717	ng/ml	95
4) 2Methylnaphth	3.621	142	1070	28.2404	ng/mL	81
5) 1Methylnaphth	3.680	141	872	23.5586	ng/mL	69
7) Acnaphthylene	4.223	152	2435	40.2297	ng/mL	95
8) Acenaphthene	4.342	154	711	17.3449	ng/mL	69
9) Fluorene	4.705	166	850	19.6467	ng/mL#	54
11) Phenanthrene	5.358	178	18349	290.0946	ng/mL	99
12) Anthracene	5.395	178	2764	46.5134	ng/mL	97
14) Fluoranthene	6.180	202	50641	745.3058	ng/mL	96
16) Pyrene	6.331	202	43438	597.8430	ng/mL	96
17) B[a]anthracen	7.169	228	19948	415.1946	ng/mL	99
18) Chrysene	7.191	228	24144	382.5432	ng/mL	100
20) B[b]fluoranth	7.926	252	32234	641.6814	ng/mL	98
21) B[k]fluoranth	7.945	252	11435	182.8830	ng/mL	97
22) Benz[a]pyrene	8.191	252	16145	348.3234	ng/mL	99
23) Indeno-pyrene	9.297	276	7917	197.8146	ng/mL	98
24) Dib[ah]anthr	9.329	278	1382	71.0391	ng/mL#	62
25) B[ghi]perylen	9.595	276	7536	215.1522	ng/mL	98

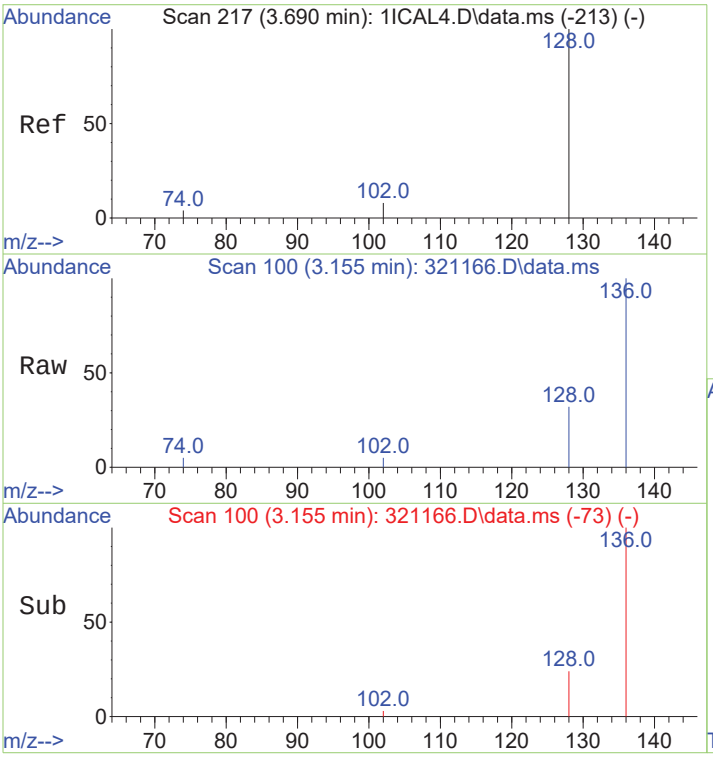
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321166.D Vial: 22
Acq On : 9 Sep 2019 22:56 Operator: JJY
Sample : 164274,321166, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 13:20:08 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 13:13:41 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

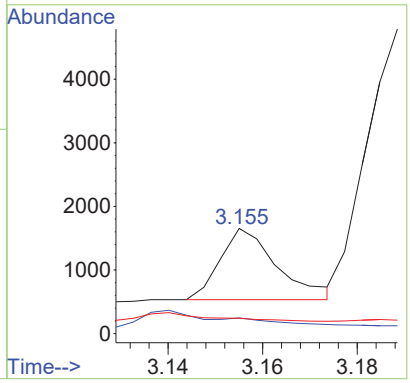


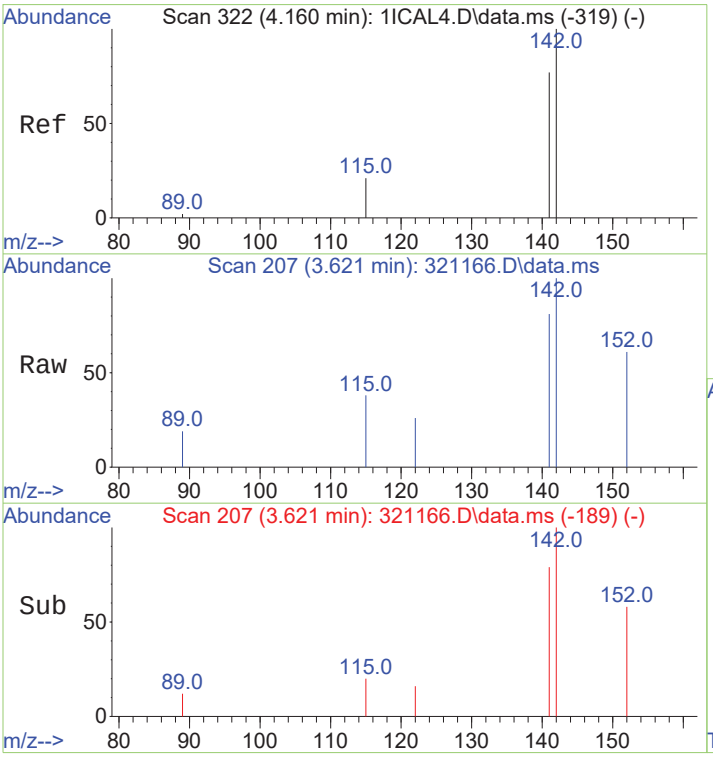


#2
Naphthalene
Concen: 13.67 ng/ml
RT: 3.155 min Scan# 100
Delta R.T. 0.000 min
Lab File: 321166.D
Acq: 9 Sep 2019 22:56

Tgt Ion:128 Resp: 944

Ion	Ratio	Lower	Upper
128	100		
102	9.6	0.0	37.6
74	4.3	0.0	33.6

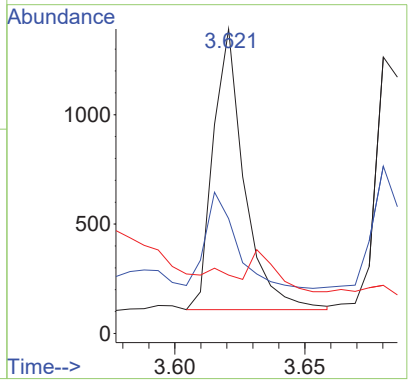


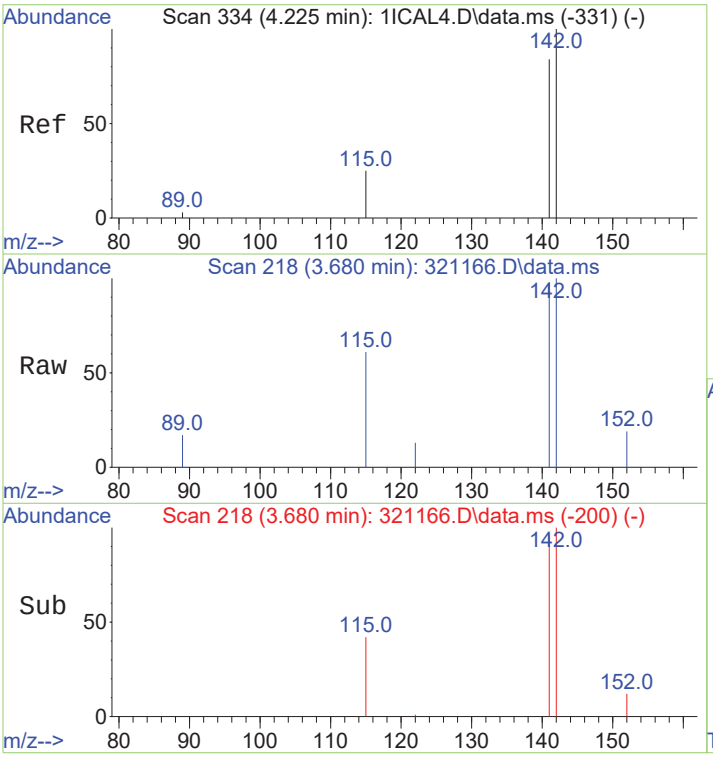


#4
2Methylnaphth
Concen: 28.24 ng/mL
RT: 3.621 min Scan# 207
Delta R.T. 0.000 min
Lab File: 321166.D
Acq: 9 Sep 2019 22:56

Tgt Ion:142 Resp: 1070

Ion	Ratio	Lower	Upper
142	100		
115	24.5	6.9	66.9
89	5.9	0.0	34.9

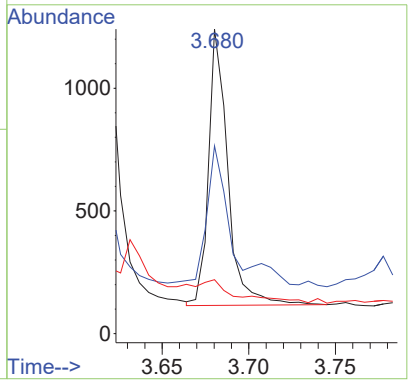


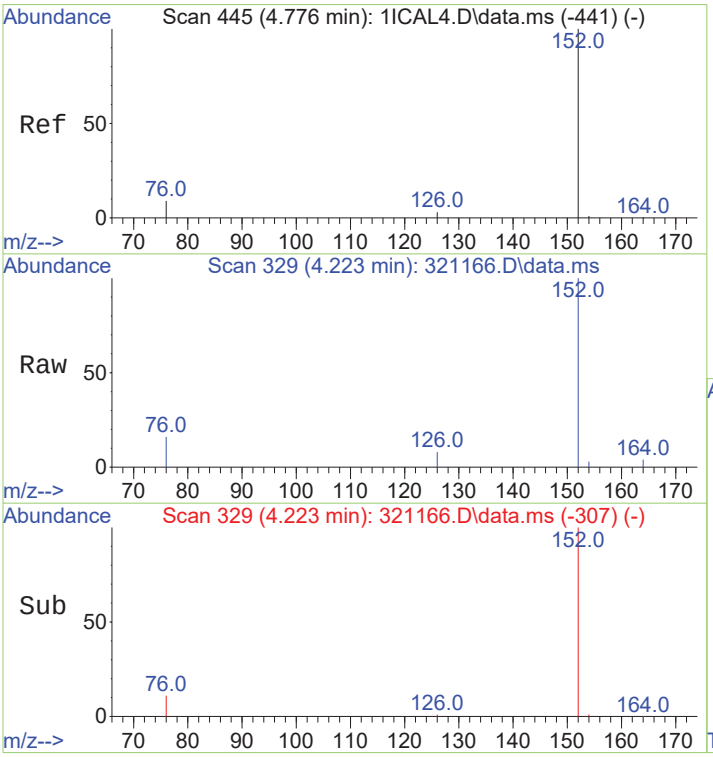


#5
1Methylnaphth
Concen: 23.56 ng/mL
RT: 3.680 min Scan# 218
Delta R.T. 0.000 min
Lab File: 321166.D
Acq: 9 Sep 2019 22:56

Tgt Ion:141 Resp: 872

Ion	Ratio	Lower	Upper
141	100		
115	51.1	2.5	62.5
89	8.5	0.0	34.0

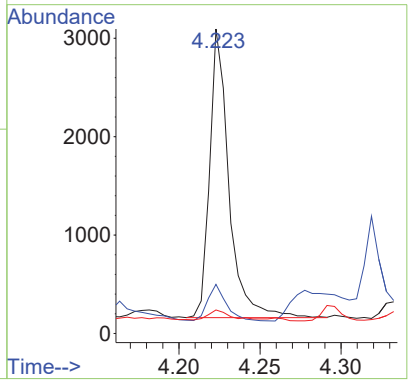


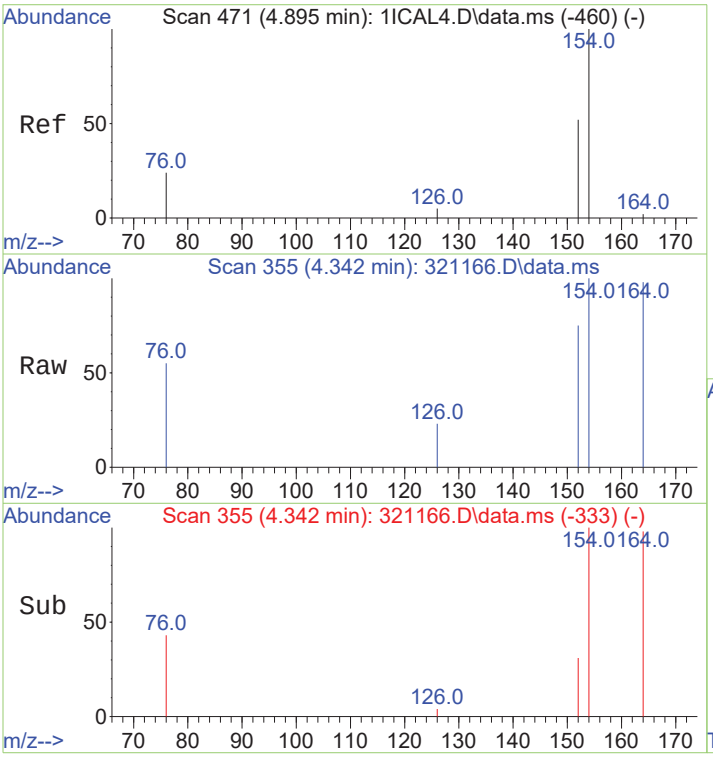


#7
Acnaphthylene
Concen: 40.23 ng/mL
RT: 4.223 min Scan# 329
Delta R.T. 0.000 min
Lab File: 321166.D
Acq: 9 Sep 2019 22:56

Tgt Ion:152 Resp: 2435

Ion	Ratio	Lower	Upper
152	100		
76	12.4	0.0	39.9
126	3.3	0.0	33.1

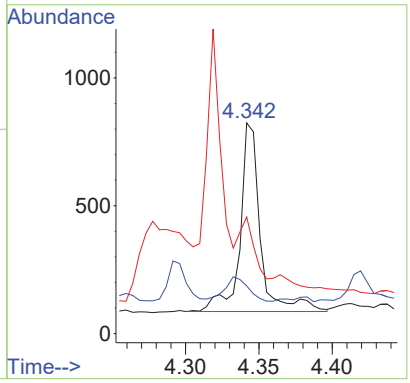


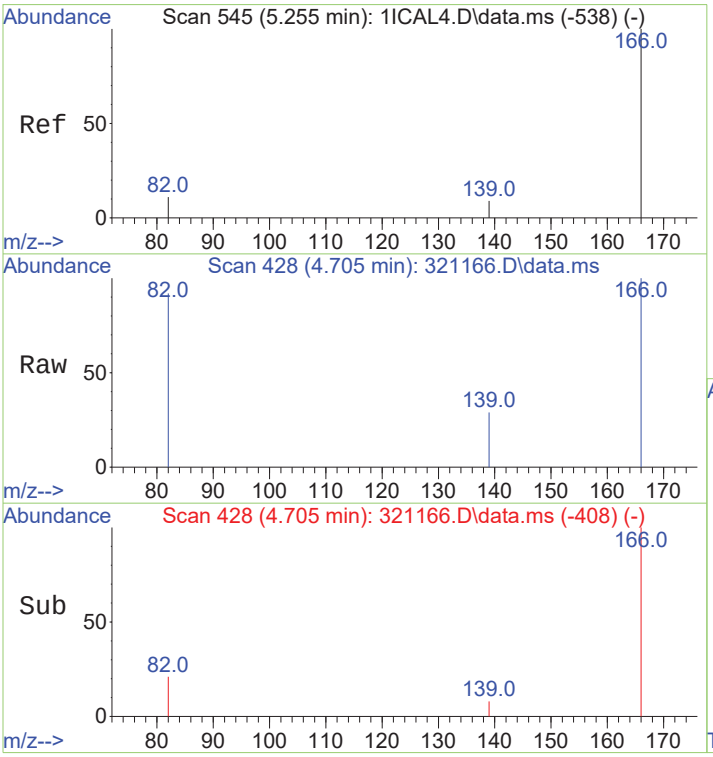


#8
Acenaphthene
Concen: 17.34 ng/mL
RT: 4.342 min Scan# 355
Delta R.T. 0.000 min
Lab File: 321166.D
Acq: 9 Sep 2019 22:56

Tgt Ion:154 Resp: 711

Ion	Ratio	Lower	Upper
154	100		
126	7.5	0.0	34.3
76	38.1	0.0	51.6

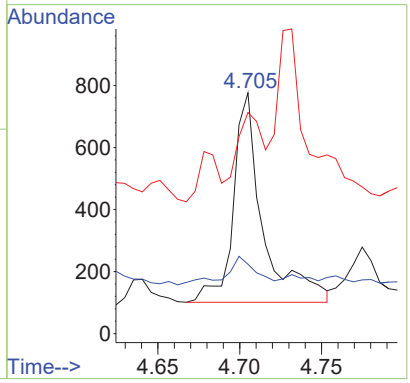


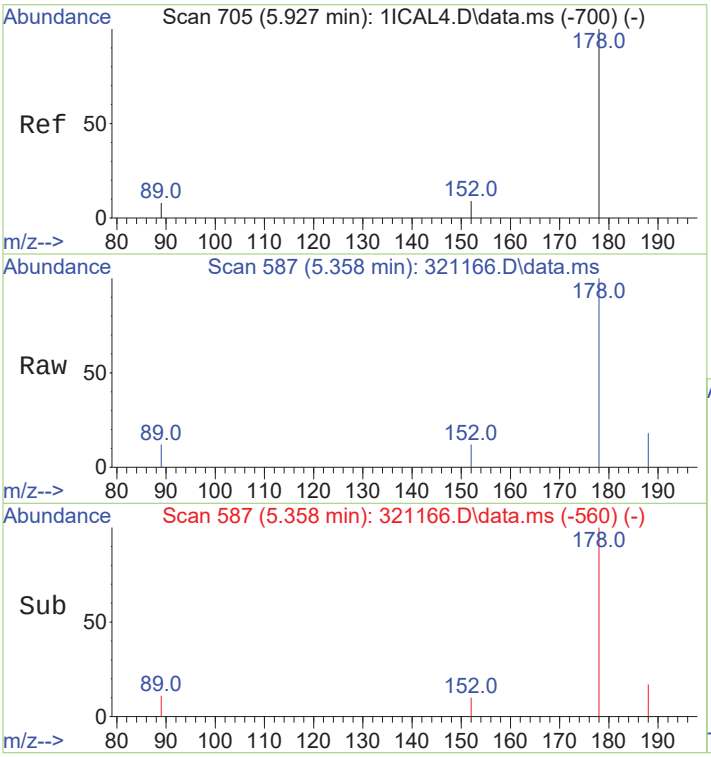


#9
Fluorene
Concen: 19.65 ng/mL
RT: 4.705 min Scan# 428
Delta R.T. 0.005 min
Lab File: 321166.D
Acq: 9 Sep 2019 22:56

Tgt Ion:166 Resp: 850

Ion	Ratio	Lower	Upper
166	100		
139	8.7	0.0	38.6
82	42.7	0.0	42.4#

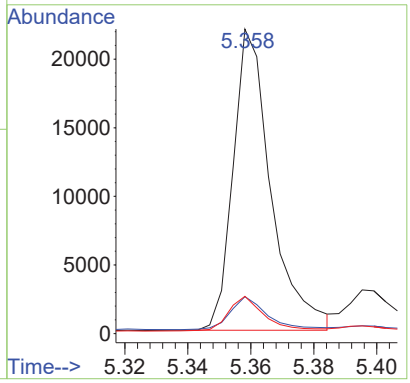


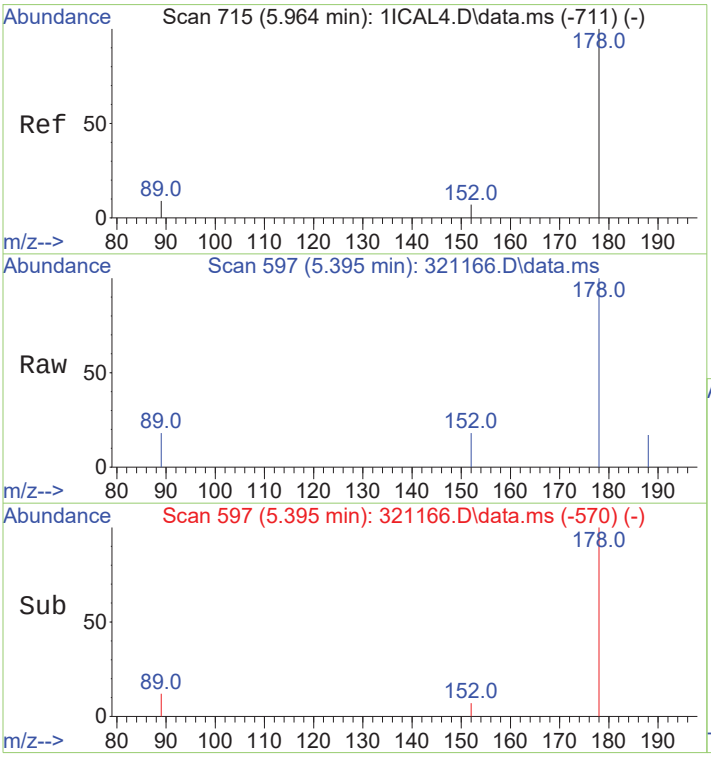


#11
Phenanthrene
Concen: 290.09 ng/mL
RT: 5.358 min Scan# 587
Delta R.T. 0.000 min
Lab File: 321166.D
Acq: 9 Sep 2019 22:56

Tgt Ion:178 Resp: 18349

Ion	Ratio	Lower	Upper
178	100		
152	10.7	0.0	40.1
89	11.2	0.0	41.4

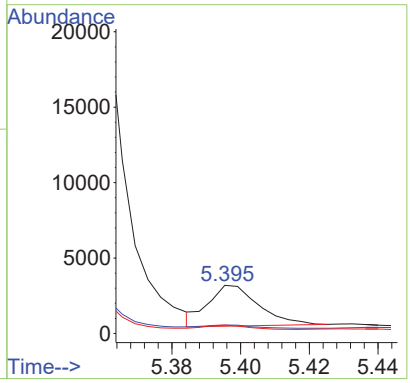


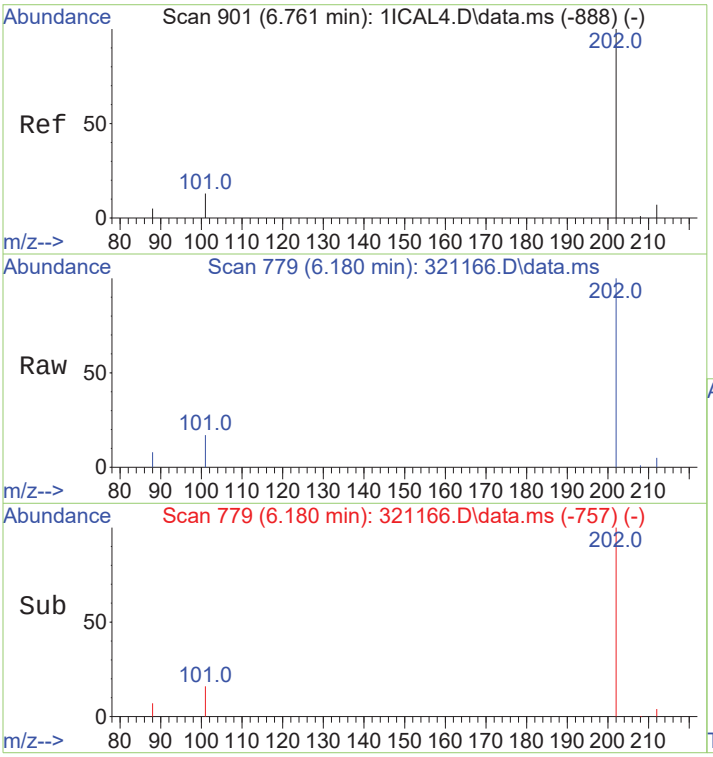


#12
Anthracene
Concen: 46.51 ng/mL
RT: 5.395 min Scan# 597
Delta R.T. 0.000 min
Lab File: 321166.D
Acq: 9 Sep 2019 22:56

Tgt Ion:178 Resp: 2764

Ion	Ratio	Lower	Upper
178	100		
152	8.4	0.0	37.8
89	9.8	0.0	31.3

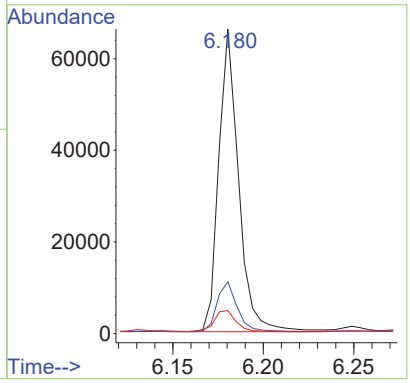


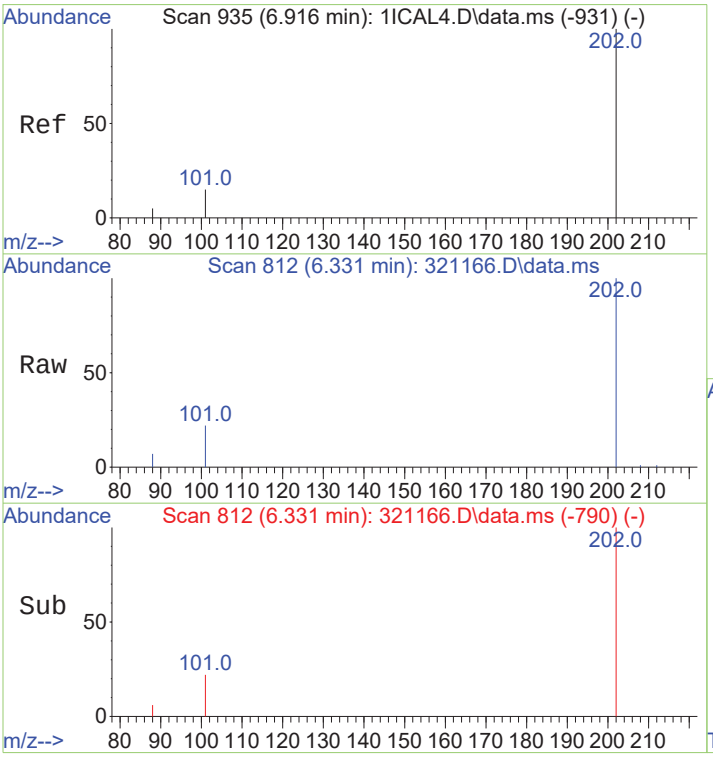


#14
Fluoranthene
Concen: 745.31 ng/mL
RT: 6.180 min Scan# 779
Delta R.T. 0.000 min
Lab File: 321166.D
Acq: 9 Sep 2019 22:56

Tgt Ion:202 Resp: 50641

Ion	Ratio	Lower	Upper
202	100		
101	16.5	0.0	48.3
88	7.0	0.0	38.8

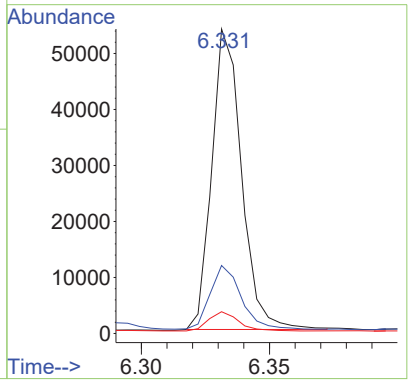


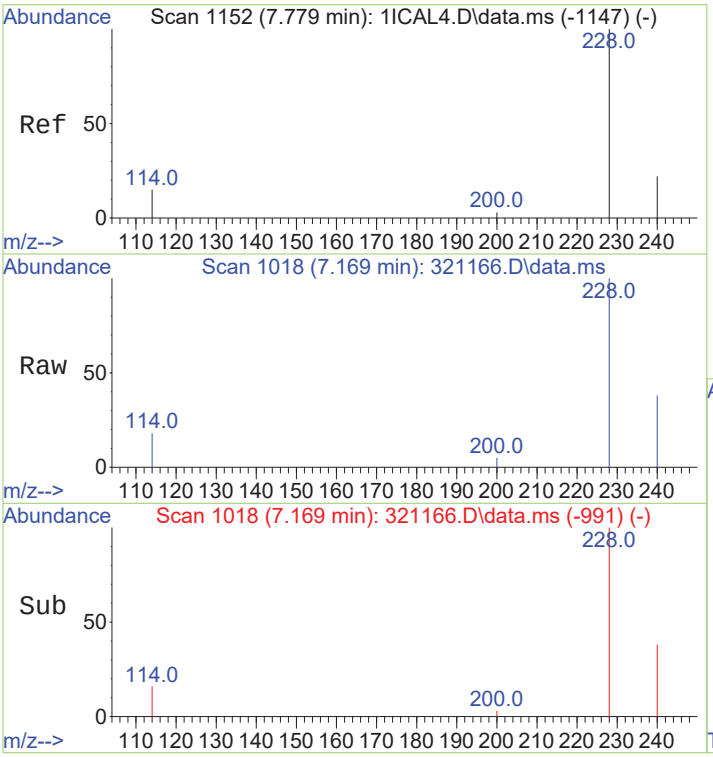


#16
Pyrene
Concen: 597.84 ng/mL
RT: 6.331 min Scan# 812
Delta R.T. 0.000 min
Lab File: 321166.D
Acq: 9 Sep 2019 22:56

Tgt Ion:202 Resp: 43438

Ion	Ratio	Lower	Upper
202	100		
101	21.1	0.0	49.4
88	6.4	0.0	35.5

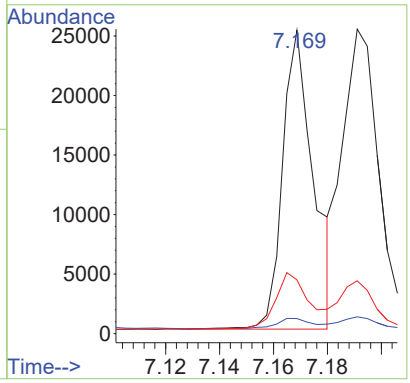


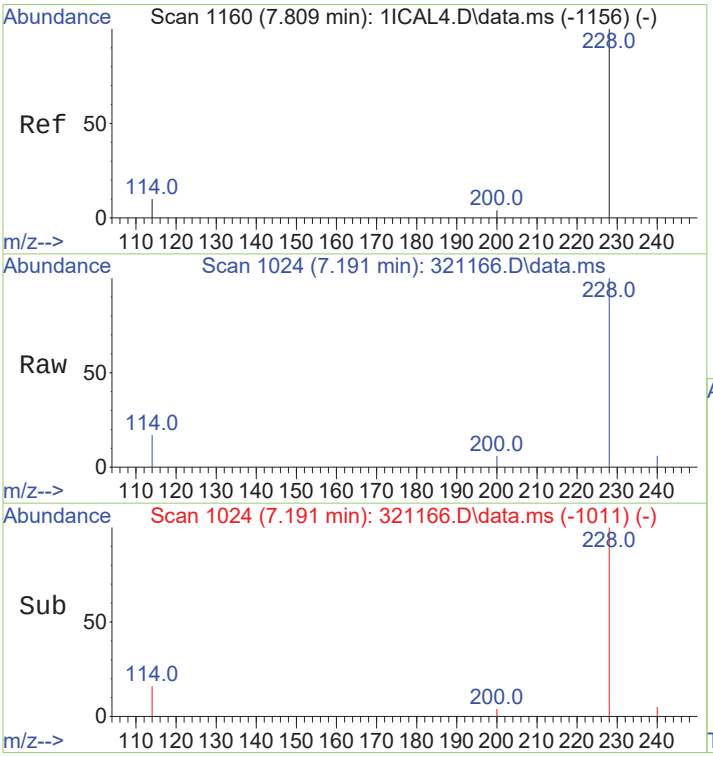


#17
B[a]anthracen
Concen: 415.19 ng/mL
RT: 7.169 min Scan# 1018
Delta R.T. 0.000 min
Lab File: 321166.D
Acq: 9 Sep 2019 22:56

Tgt Ion:228 Resp: 19948

Ion	Ratio	Lower	Upper
228	100		
200	3.4	0.0	33.6
114	16.5	0.0	47.0

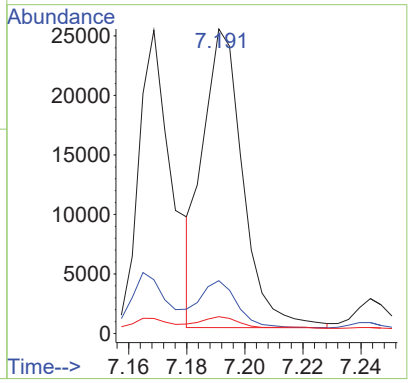


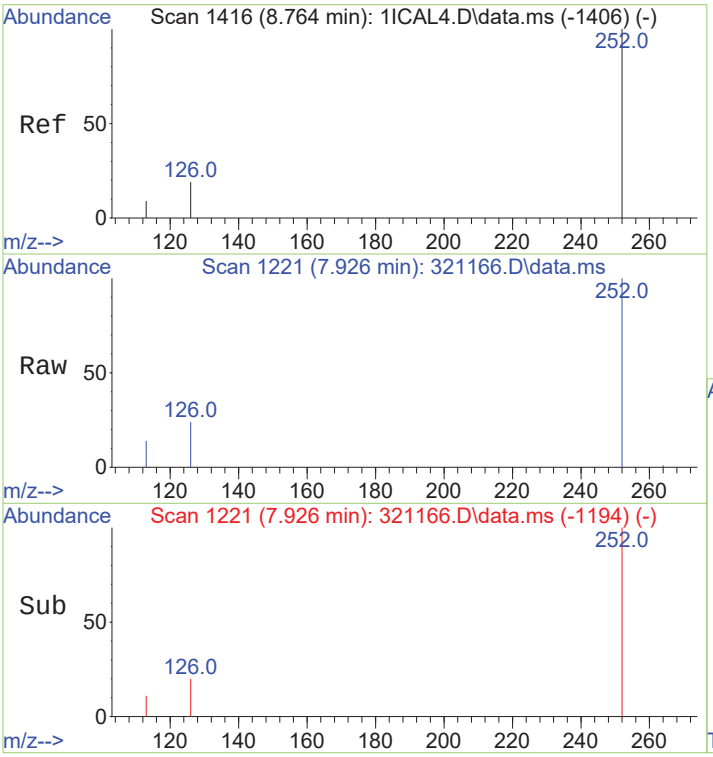


#18
Chrysene
Concen: 382.54 ng/mL
RT: 7.191 min Scan# 1024
Delta R.T. 0.000 min
Lab File: 321166.D
Acq: 9 Sep 2019 22:56

Tgt Ion:228 Resp: 24144

Ion	Ratio	Lower	Upper
228	100		
114	16.0	0.0	46.1
200	4.0	0.0	33.8

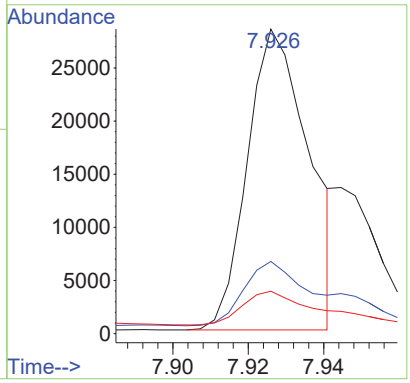


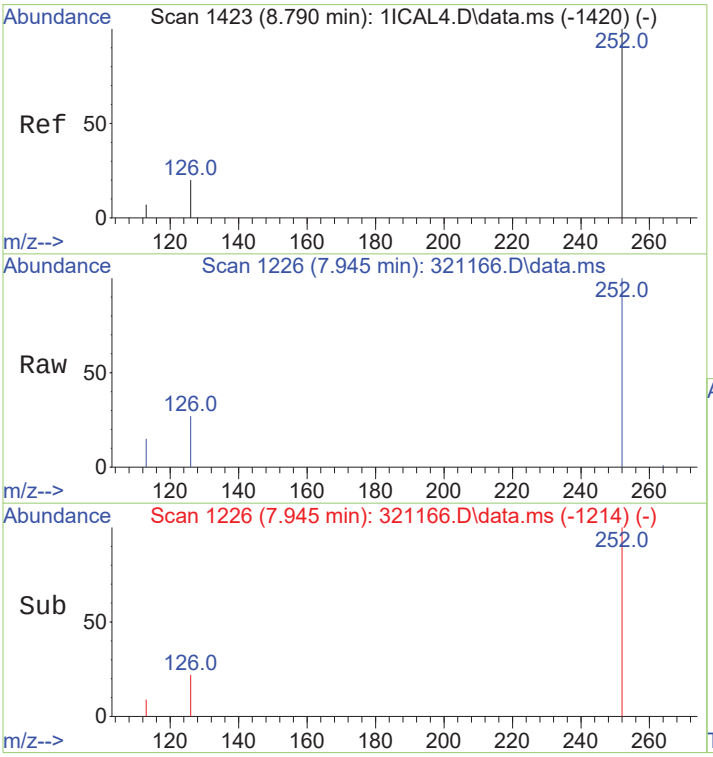


#20
B[b]fluoranth
Concen: 641.68 ng/mL
RT: 7.926 min Scan# 1221
Delta R.T. 0.000 min
Lab File: 321166.D
Acq: 9 Sep 2019 22:56

Tgt Ion:252 Resp: 32234

Ion	Ratio	Lower	Upper
252	100		
126	21.4	0.0	52.1
113	11.2	0.0	40.0

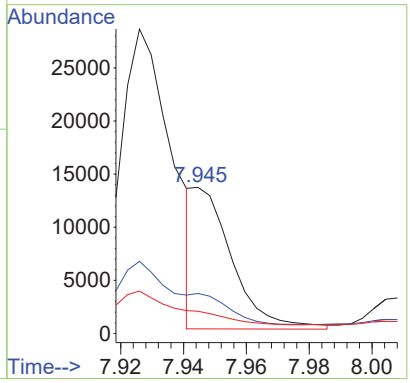


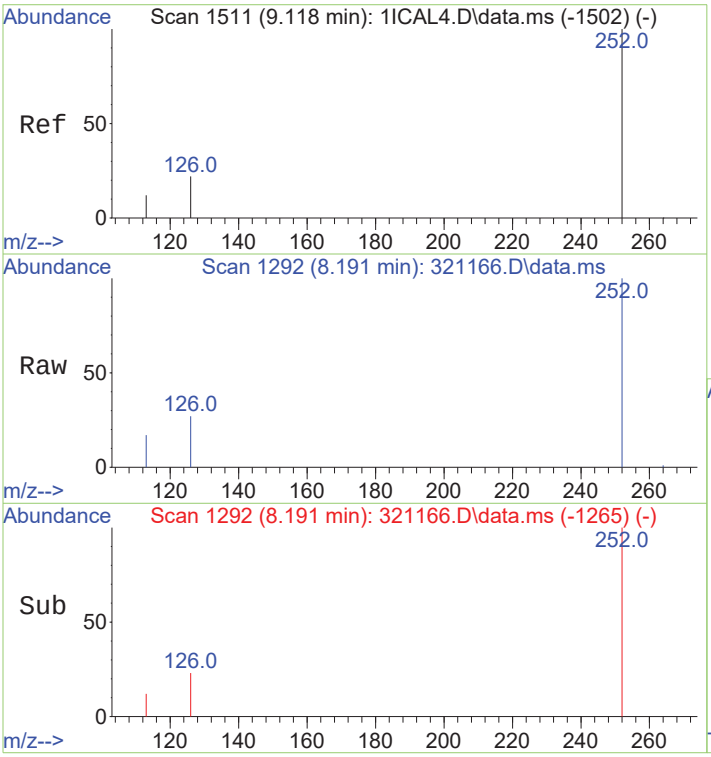


#21
B[k]fluoranth
Concen: 182.88 ng/mL
RT: 7.945 min Scan# 1226
Delta R.T. -0.004 min
Lab File: 321166.D
Acq: 9 Sep 2019 22:56

Tgt Ion:252 Resp: 11435

Ion	Ratio	Lower	Upper
252	100		
126	22.2	0.0	54.3
113	9.6	0.0	39.4

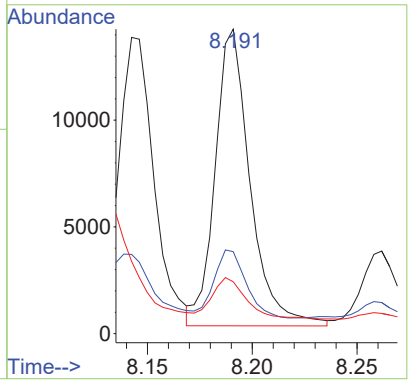


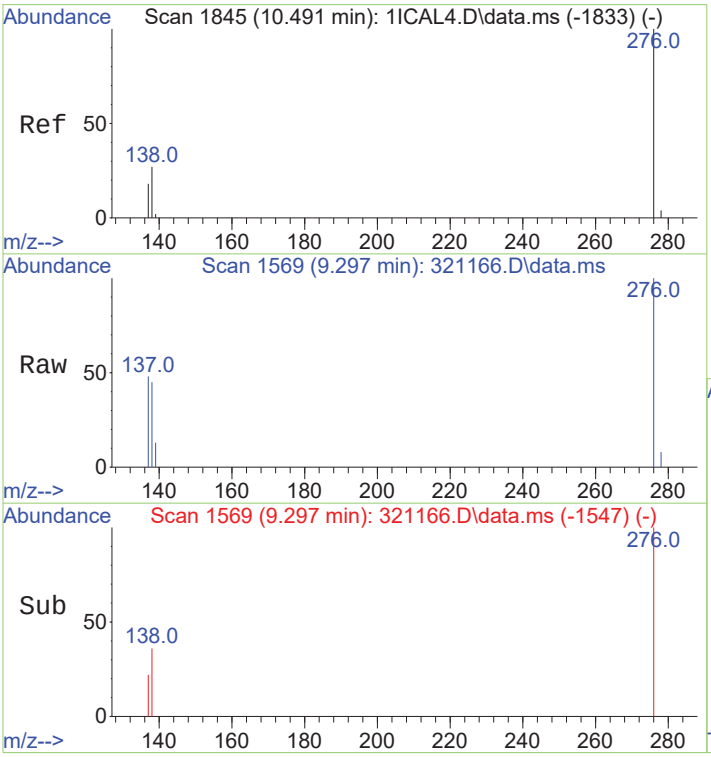


#22
Benz[a]pyrene
Concen: 348.32 ng/mL
RT: 8.191 min Scan# 1292
Delta R.T. 0.000 min
Lab File: 321166.D
Acq: 9 Sep 2019 22:56

Tgt Ion:252 Resp: 16145

Ion	Ratio	Lower	Upper
252	100		
126	22.2	0.0	52.7
113	12.7	0.0	42.2

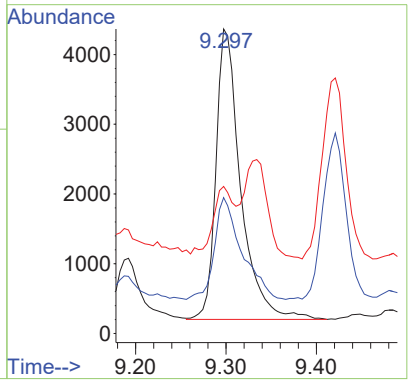


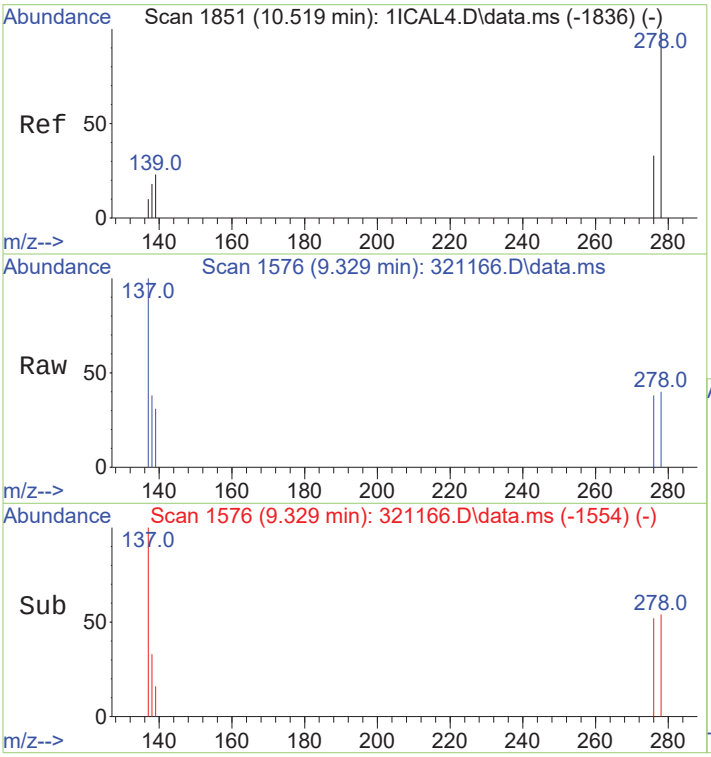


#23
Indeno-pyrene
Concen: 197.81 ng/mL
RT: 9.297 min Scan# 1569
Delta R.T. 0.000 min
Lab File: 321166.D
Acq: 9 Sep 2019 22:56

Tgt Ion:276 Resp: 7917

Ion	Ratio	Lower	Upper
276	100		
138	35.0	4.1	64.1
137	21.9	0.0	52.8

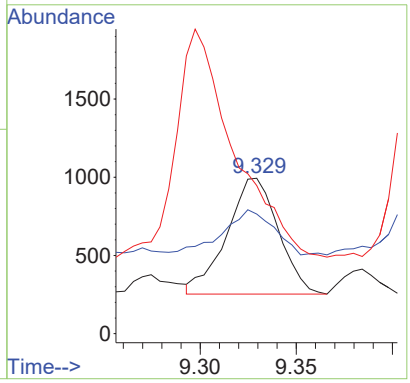


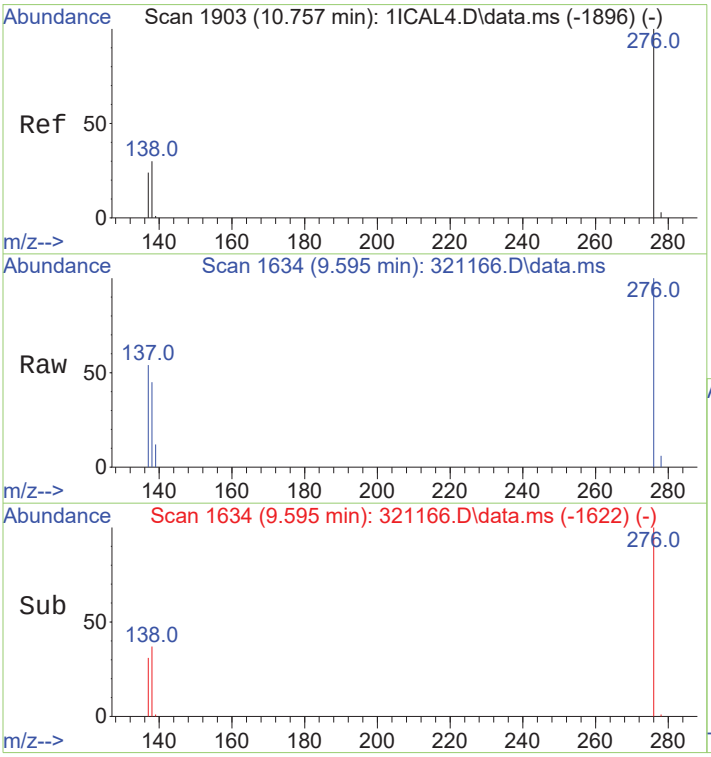


#24
Dib[ah]anthr
Concen: 71.04 ng/mL
RT: 9.329 min Scan# 1576
Delta R.T. 0.000 min
Lab File: 321166.D
Acq: 9 Sep 2019 22:56

Tgt Ion:278 Resp: 1382

Ion	Ratio	Lower	Upper
278	100		
139	35.1	0.0	59.3
138	61.8	0.0	56.3#

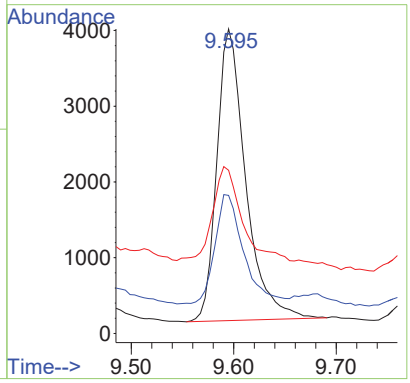




#25
B[ghi]perylen
Concen: 215.15 ng/mL
RT: 9.595 min Scan# 1634
Delta R.T. 0.005 min
Lab File: 321166.D
Acq: 9 Sep 2019 22:56

Tgt Ion:276 Resp: 7536

Ion	Ratio	Lower	Upper
276	100		
138	36.8	7.7	67.7
137	32.2	0.6	60.6



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321167.D Vial: 23
Acq On : 9 Sep 2019 23:17 Operator: JJY
Sample : 164274,321167, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 13:24:15 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 13:13:41 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

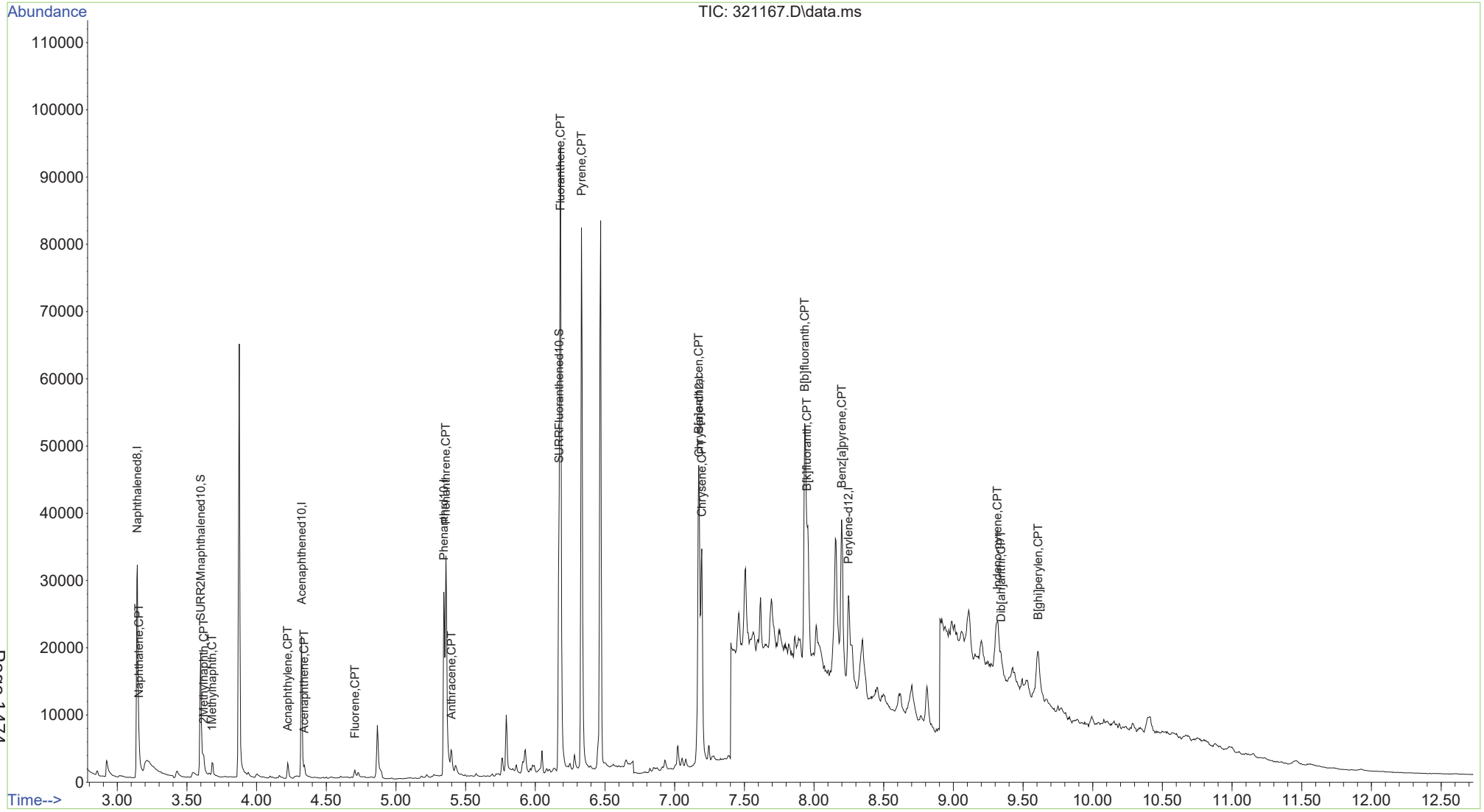
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.144	136	28624	400.00	ng/mL	0.00
6) Acenaphthened10	4.323	164	14330	400.00	ng/mL	0.00
10) Phenanthrd10	5.343	188	24023	400.00	ng/mL	0.00
15) Chrysene-d12	7.176	240	18286	400.00	ng/mL	0.00
19) Perylene-d12	8.247	264	16205	400.00	ng/mL	0.01
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.599	152	12700	80.00	%REC	0.00
Spiked Amount 100.000			Recovery = 80.00%			
13) SURRFluoranthened10	6.171	212	19779	83.38	%REC	0.00
Spiked Amount 100.000			Recovery = 83.38%			
Target Compounds						Qvalue
2) Naphthalene	3.155	128	1015	14.4206	ng/ml	94
4) 2Methylnaphth	3.621	142	801	20.7389	ng/mL	86
5) 1Methylnaphth	3.680	141	646	17.1211	ng/mL	70
7) Acnaphthylene	4.223	152	1621	26.9737	ng/mL	93
8) Acenaphthene	4.341	154	594	14.5948	ng/mL	60
9) Fluorene	4.705	166	869	20.2302	ng/mL	63
11) Phenanthrene	5.358	178	20083	317.6787	ng/mL	99
12) Anthracene	5.399	178	3091	51.6741	ng/mL	95
14) Fluoranthene	6.180	202	57599	842.1343	ng/mL	95
16) Pyrene	6.331	202	48992	662.5942	ng/mL	98
17) B[a]anthracen	7.172	228	22558	456.3075	ng/mL	100
18) Chrysene	7.195	228	24964	388.6786	ng/mL	98
20) B[b]fluoranth	7.933	252	31369m	607.6661	ng/mL	
21) B[k]fluoranth	7.948	252	12903m	200.1410	ng/mL	
22) Benz[a]pyrene	8.198	252	20026	412.0810	ng/mL	87
23) Indeno-pyrene	9.316	276	10037	232.6583	ng/mL	93
24) Dib[ah]anthr	9.343	278	1619	75.3866	ng/mL#	36
25) B[ghi]perylen	9.608	276	8127	223.0203	ng/mL	95

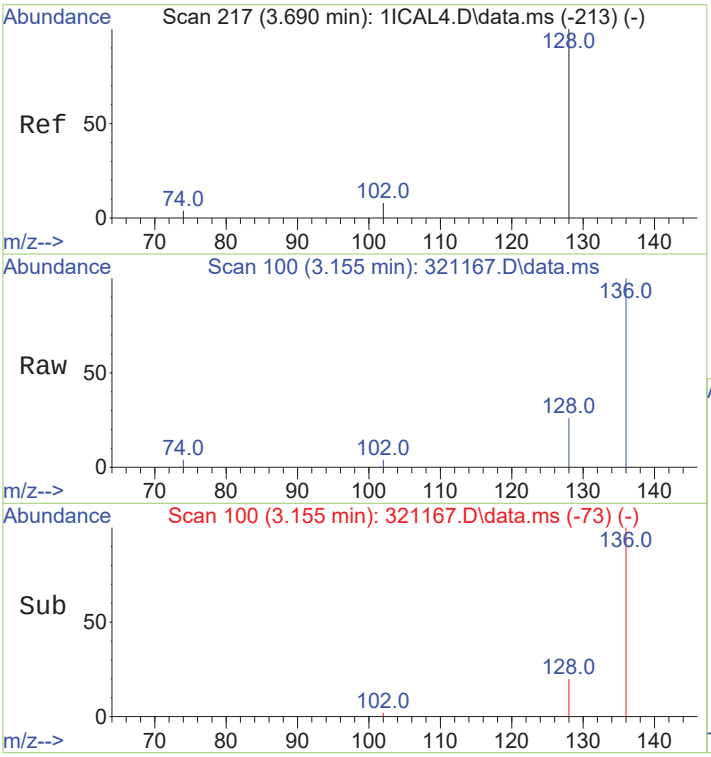
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321167.D Vial: 23
Acq On : 9 Sep 2019 23:17 Operator: JJY
Sample : 164274,321167, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 13:24:15 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 13:13:41 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

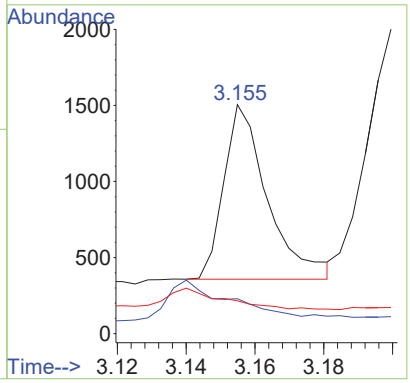


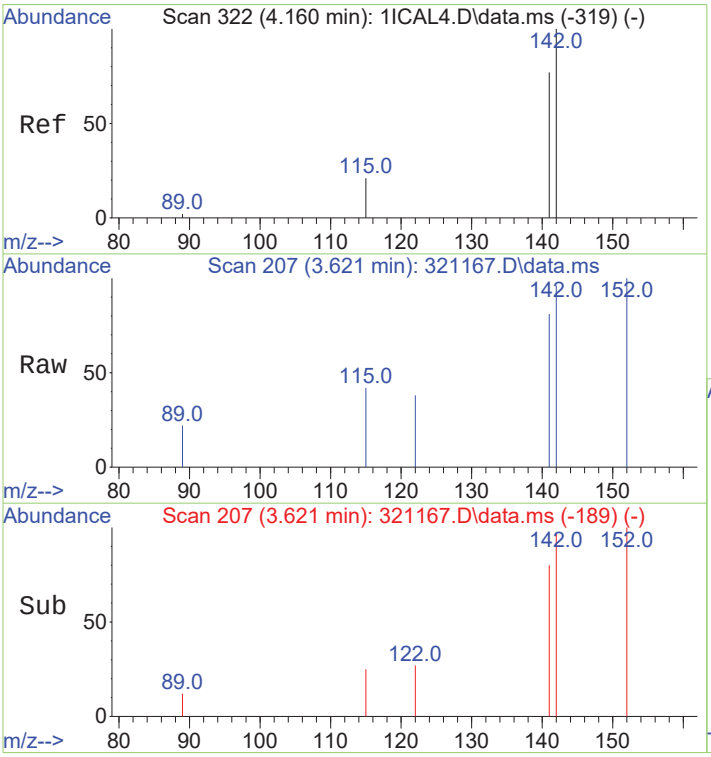


#2
Naphthalene
Concen: 14.42 ng/ml
RT: 3.155 min Scan# 100
Delta R.T. -0.000 min
Lab File: 321167.D
Acq: 9 Sep 2019 23:17

Tgt Ion:128 Resp: 1015

Ion	Ratio	Lower	Upper
128	100		
102	9.9	0.0	37.6
74	4.8	0.0	33.6

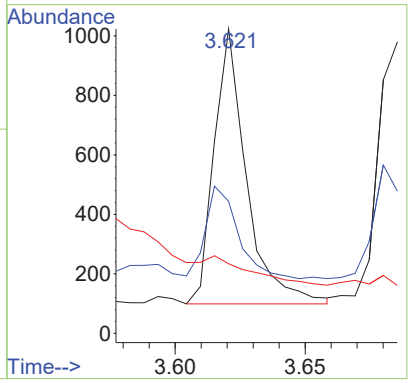


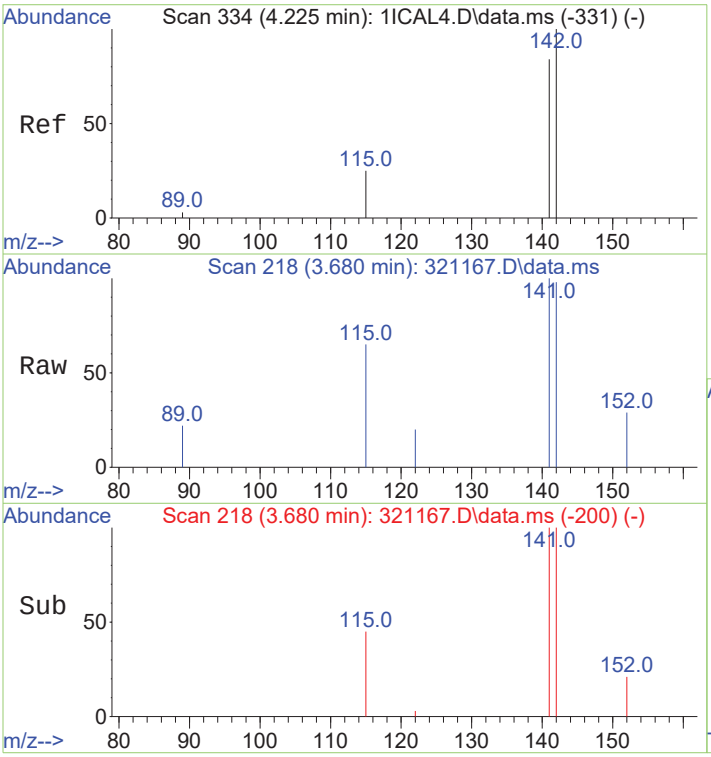


#4
2Methylnaphth
Concen: 20.74 ng/mL
RT: 3.621 min Scan# 207
Delta R.T. -0.000 min
Lab File: 321167.D
Acq: 9 Sep 2019 23:17

Tgt Ion:142 Resp: 801

Ion	Ratio	Lower	Upper
142	100		
115	28.1	6.9	66.9
89	7.8	0.0	34.9

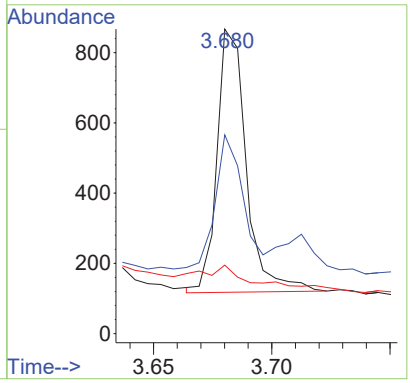


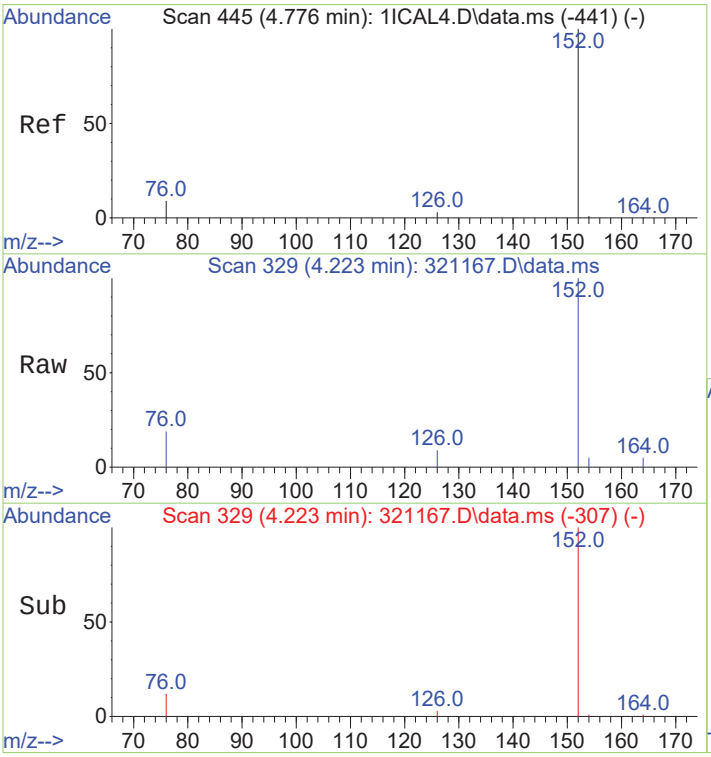


#5
1Methylnaphth
Concen: 17.12 ng/mL
RT: 3.680 min Scan# 218
Delta R.T. -0.000 min
Lab File: 321167.D
Acq: 9 Sep 2019 23:17

Tgt Ion:141 Resp: 646

Ion	Ratio	Lower	Upper
141	100		
115	50.7	2.5	62.5
89	8.6	0.0	34.0

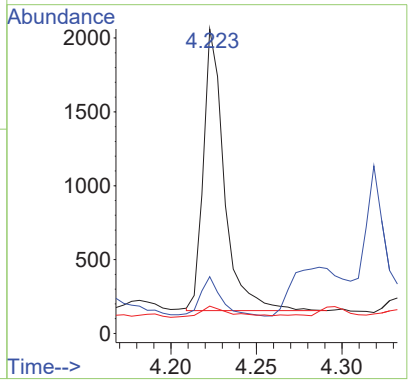


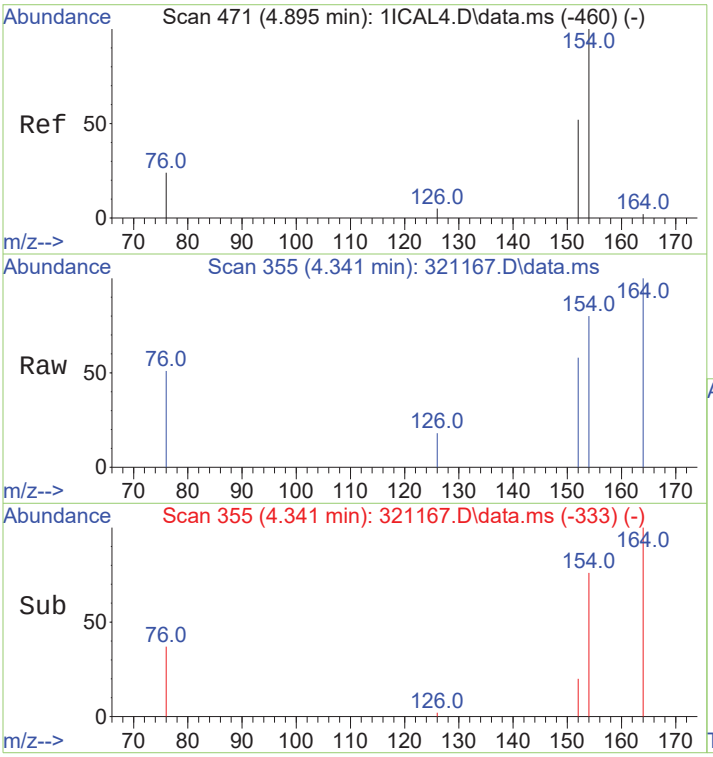


#7
Acnaphthylene
Concen: 26.97 ng/mL
RT: 4.223 min Scan# 329
Delta R.T. -0.000 min
Lab File: 321167.D
Acq: 9 Sep 2019 23:17

Tgt Ion:152 Resp: 1621

Ion	Ratio	Lower	Upper
152	100		
76	13.2	0.0	39.9
126	3.6	0.0	33.1

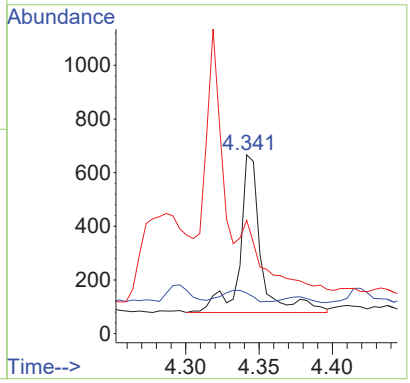


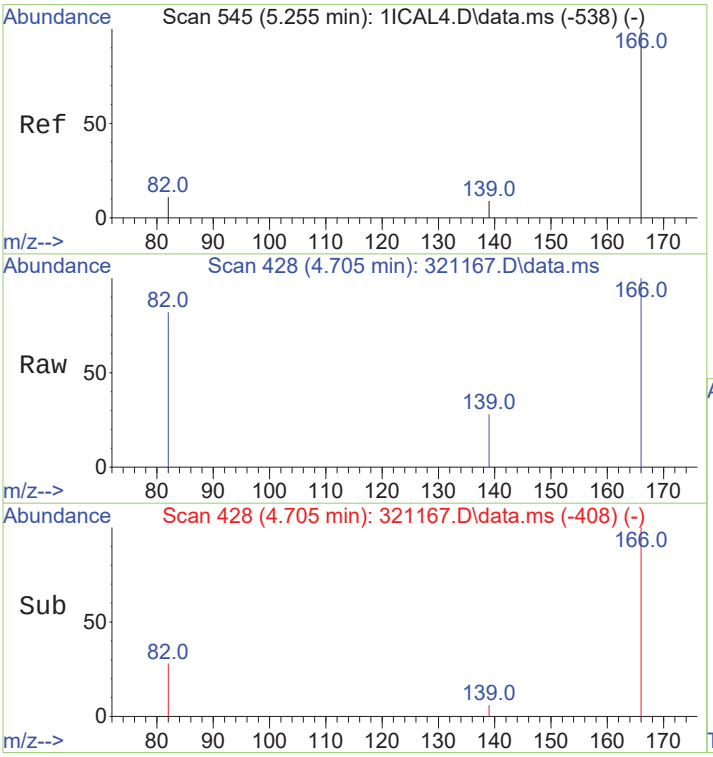


#8
Acenaphthene
Concen: 14.59 ng/mL
RT: 4.341 min Scan# 355
Delta R.T. -0.000 min
Lab File: 321167.D
Acq: 9 Sep 2019 23:17

Tgt Ion:154 Resp: 594

Ion	Ratio	Lower	Upper
154	100		
126	6.0	0.0	34.3
76	43.8	0.0	51.6

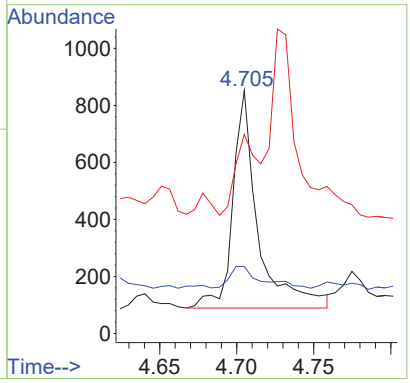


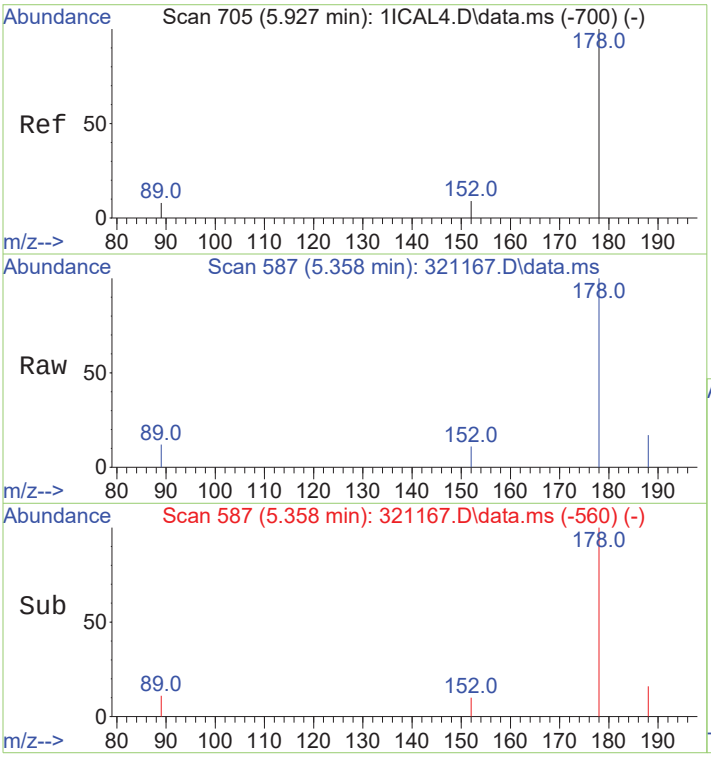


#9
Fluorene
Concen: 20.23 ng/mL
RT: 4.705 min Scan# 428
Delta R.T. 0.005 min
Lab File: 321167.D
Acq: 9 Sep 2019 23:17

Tgt Ion:166 Resp: 869

Ion	Ratio	Lower	Upper
166	100		
139	9.0	0.0	38.6
82	36.8	0.0	42.4

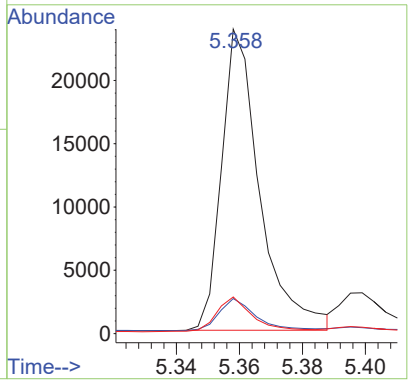


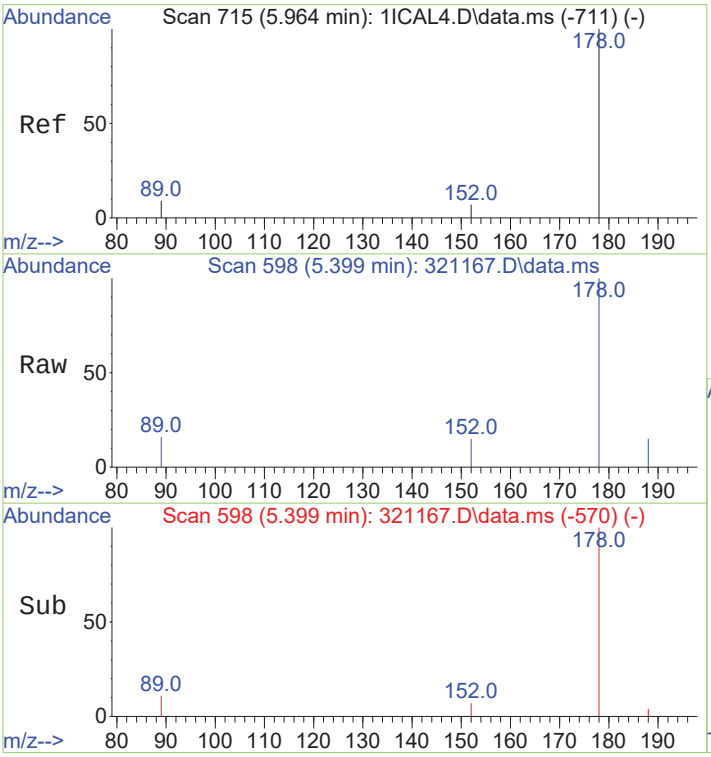


#11
Phenanthrene
Concen: 317.68 ng/mL
RT: 5.358 min Scan# 587
Delta R.T. -0.000 min
Lab File: 321167.D
Acq: 9 Sep 2019 23:17

Tgt Ion:178 Resp: 20083

Ion	Ratio	Lower	Upper
178	100		
152	10.3	0.0	40.1
89	11.1	0.0	41.4

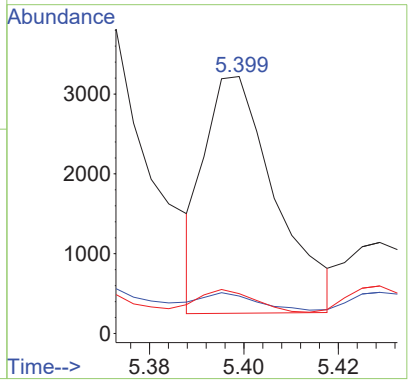


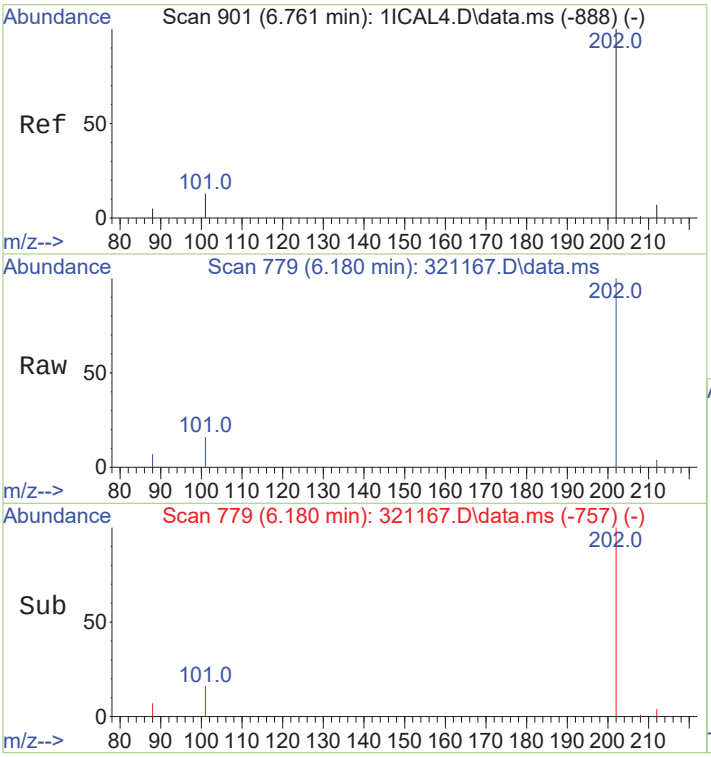


#12
Anthracene
Concen: 51.67 ng/mL
RT: 5.399 min Scan# 598
Delta R.T. 0.004 min
Lab File: 321167.D
Acq: 9 Sep 2019 23:17

Tgt Ion:178 Resp: 3091

Ion	Ratio	Lower	Upper
178	100		
152	7.1	0.0	37.8
89	8.3	0.0	31.3

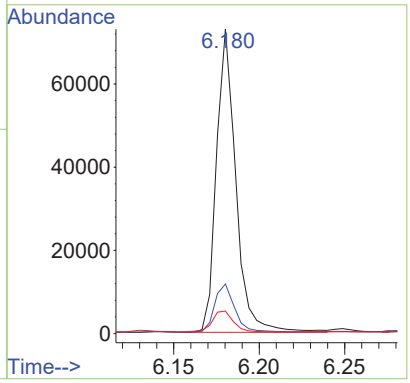


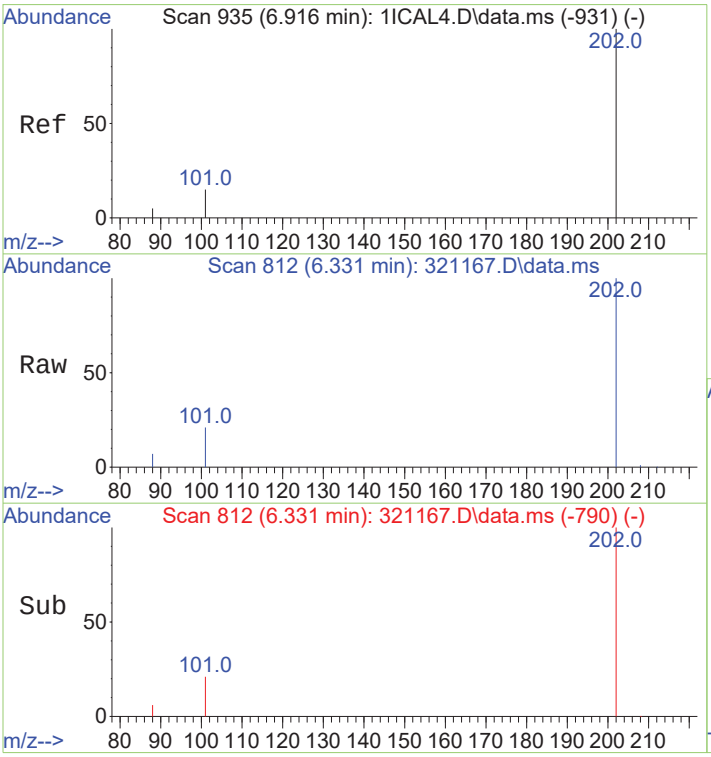


#14
Fluoranthene
Concen: 842.13 ng/mL
RT: 6.180 min Scan# 779
Delta R.T. -0.000 min
Lab File: 321167.D
Acq: 9 Sep 2019 23:17

Tgt Ion:202 Resp: 57599

Ion	Ratio	Lower	Upper
202	100		
101	15.9	0.0	48.3
88	6.9	0.0	38.8

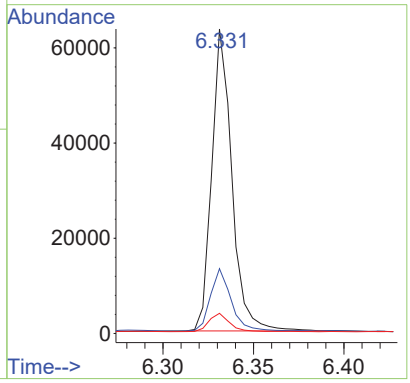


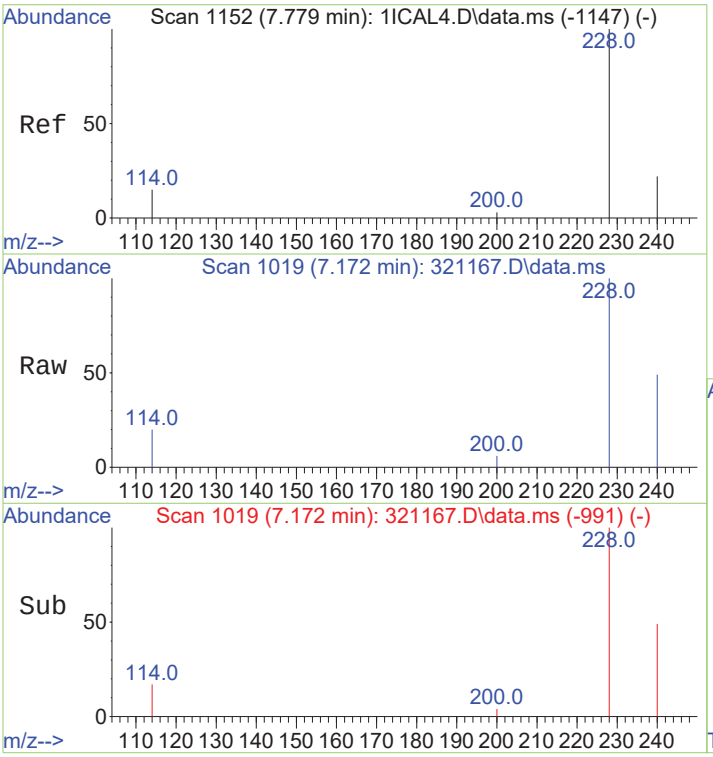


#16
Pyrene
Concen: 662.59 ng/mL
RT: 6.331 min Scan# 812
Delta R.T. -0.000 min
Lab File: 321167.D
Acq: 9 Sep 2019 23:17

Tgt Ion:202 Resp: 48992

Ion	Ratio	Lower	Upper
202	100		
101	20.6	0.0	49.4
88	6.0	0.0	35.5

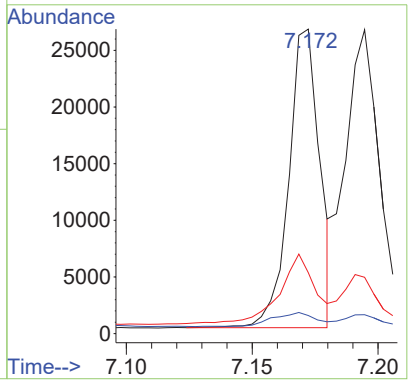


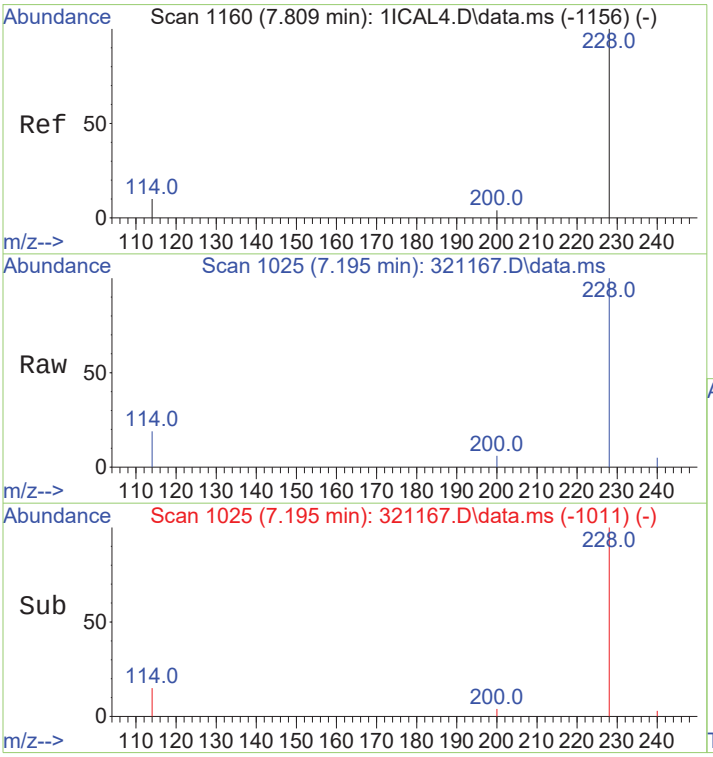


#17
B[a]anthracen
Concen: 456.31 ng/mL
RT: 7.172 min Scan# 1019
Delta R.T. 0.004 min
Lab File: 321167.D
Acq: 9 Sep 2019 23:17

Tgt Ion:228 Resp: 22558

Ion	Ratio	Lower	Upper
228	100		
200	3.7	0.0	33.6
114	17.1	0.0	47.0

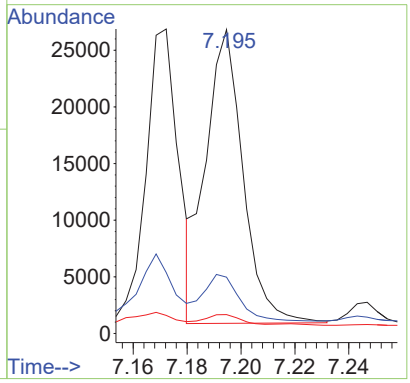


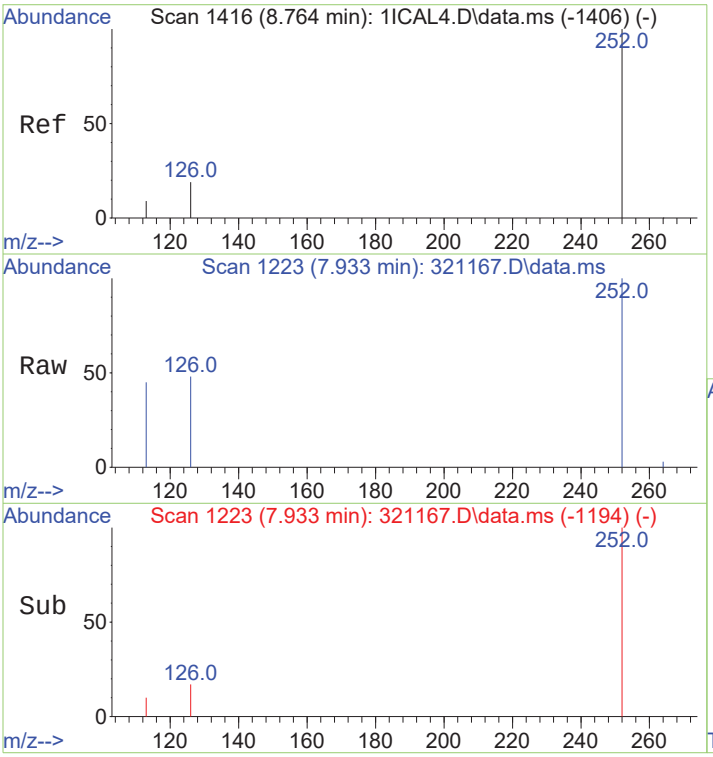


#18
Chrysene
Concen: 388.68 ng/mL
RT: 7.195 min Scan# 1025
Delta R.T. 0.004 min
Lab File: 321167.D
Acq: 9 Sep 2019 23:17

Tgt Ion:228 Resp: 24964

Ion	Ratio	Lower	Upper
228	100		
114	15.0	0.0	46.1
200	3.6	0.0	33.8

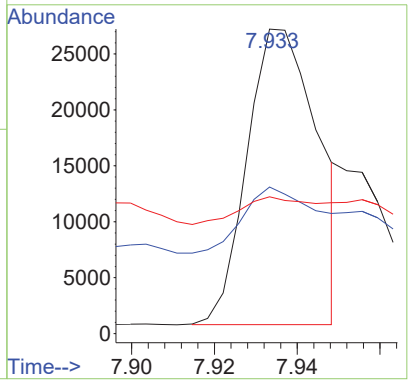


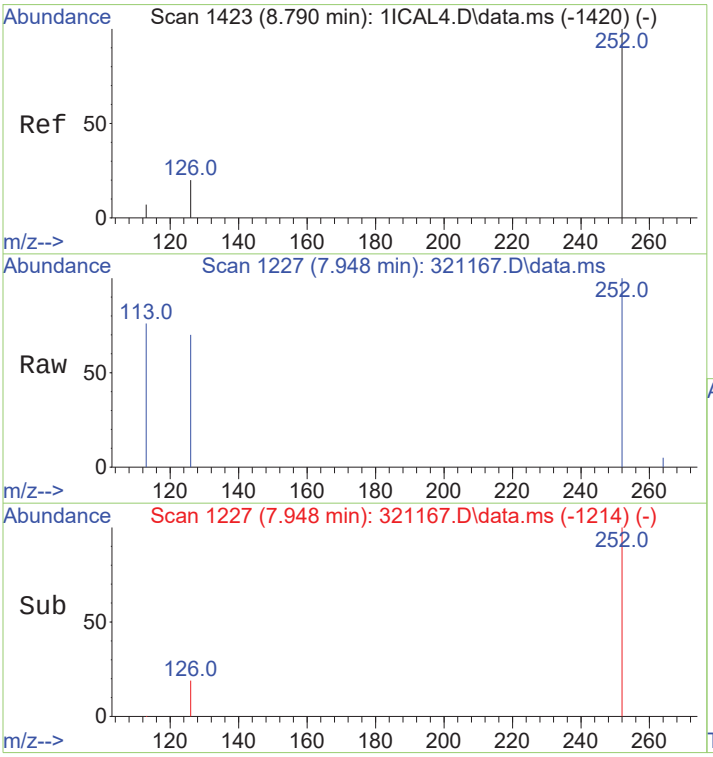


#20
B[b]fluoranth
Concen: 607.67 ng/mL m
RT: 7.933 min Scan# 1223
Delta R.T. 0.007 min
Lab File: 321167.D
Acq: 9 Sep 2019 23:17

Tgt Ion:252 Resp: 31369

Ion	Ratio	Lower	Upper
252	100		
126	48.1	0.0	52.1
113	44.9	0.0	40.0#

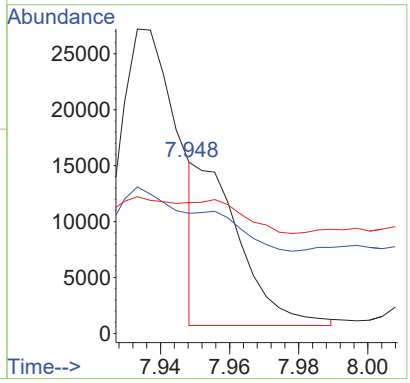


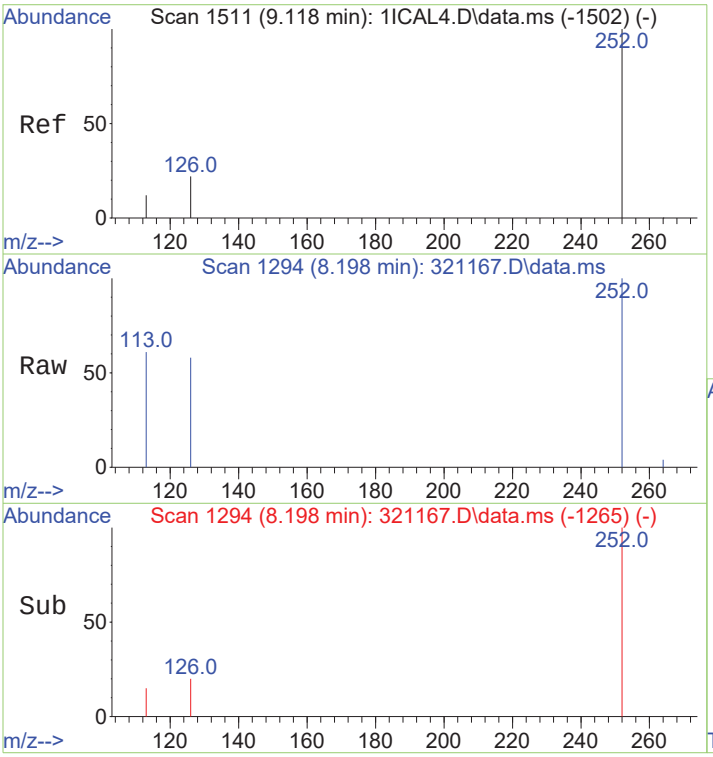


#21
B[k]fluoranth
Concen: 200.14 ng/mL m
RT: 7.948 min Scan# 1227
Delta R.T. -0.000 min
Lab File: 321167.D
Acq: 9 Sep 2019 23:17

Tgt Ion:252 Resp: 12903

Ion	Ratio	Lower	Upper
252	100		
126	70.1	0.0	54.3#
113	76.4	0.0	39.4#

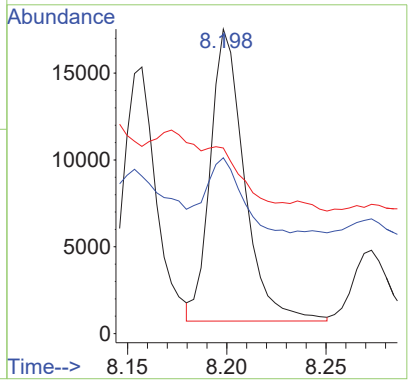


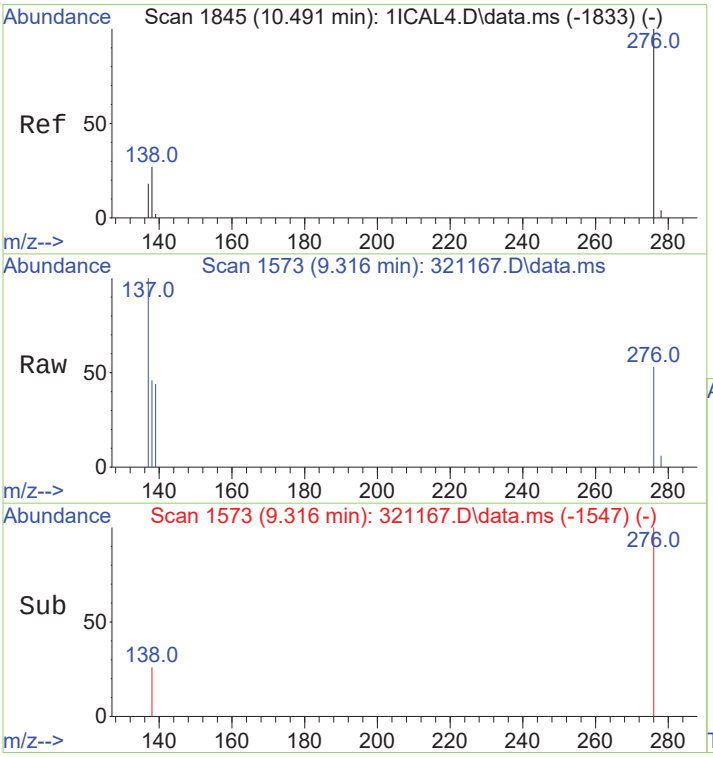


#22
Benz[a]pyrene
Concen: 412.08 ng/mL
RT: 8.198 min Scan# 1294
Delta R.T. 0.007 min
Lab File: 321167.D
Acq: 9 Sep 2019 23:17

Tgt Ion:252 Resp: 20026

Ion	Ratio	Lower	Upper
252	100		
126	26.0	0.0	52.7
113	21.9	0.0	42.2

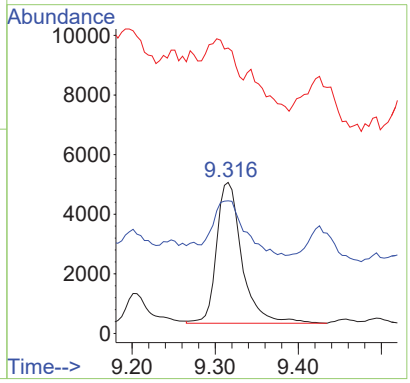


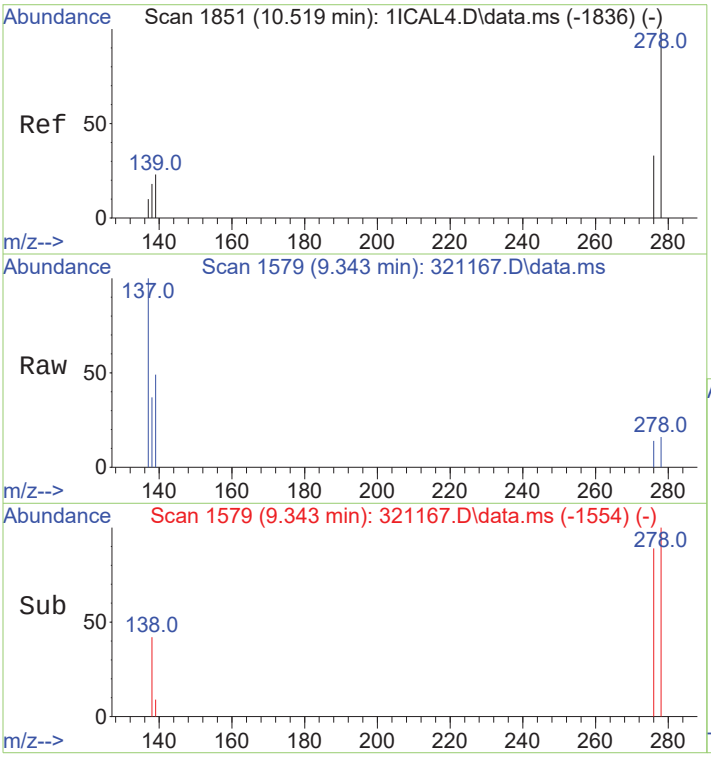


#23
Indeno-pyrene
Concen: 232.66 ng/mL
RT: 9.316 min Scan# 1573
Delta R.T. 0.018 min
Lab File: 321167.D
Acq: 9 Sep 2019 23:17

Tgt Ion:276 Resp: 10037

Ion	Ratio	Lower	Upper
276	100		
138	31.8	4.1	64.1
137	27.9	0.0	52.8

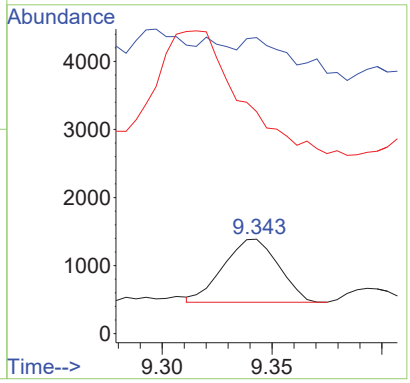


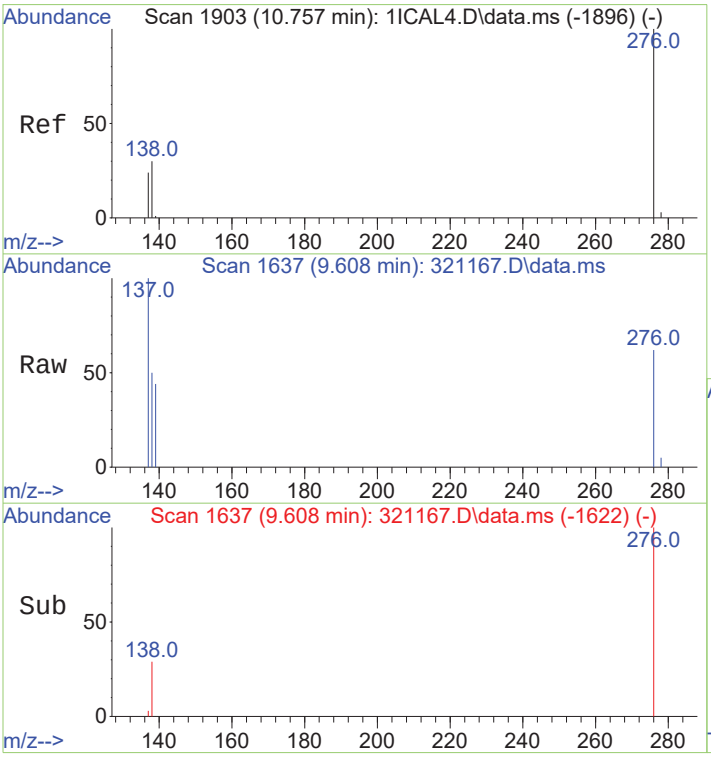


#24
Dib[ah]anthr
Concen: 75.39 ng/mL
RT: 9.343 min Scan# 1579
Delta R.T. 0.014 min
Lab File: 321167.D
Acq: 9 Sep 2019 23:17

Tgt Ion:278 Resp: 1619

Ion	Ratio	Lower	Upper
278	100		
139	56.7	0.0	59.3
138	66.3	0.0	56.3#

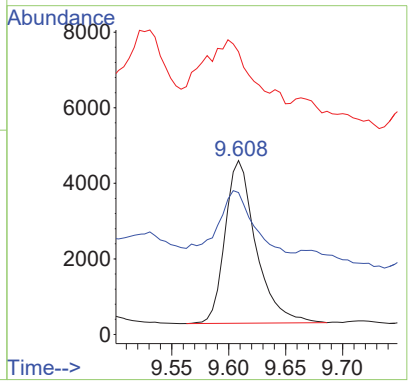


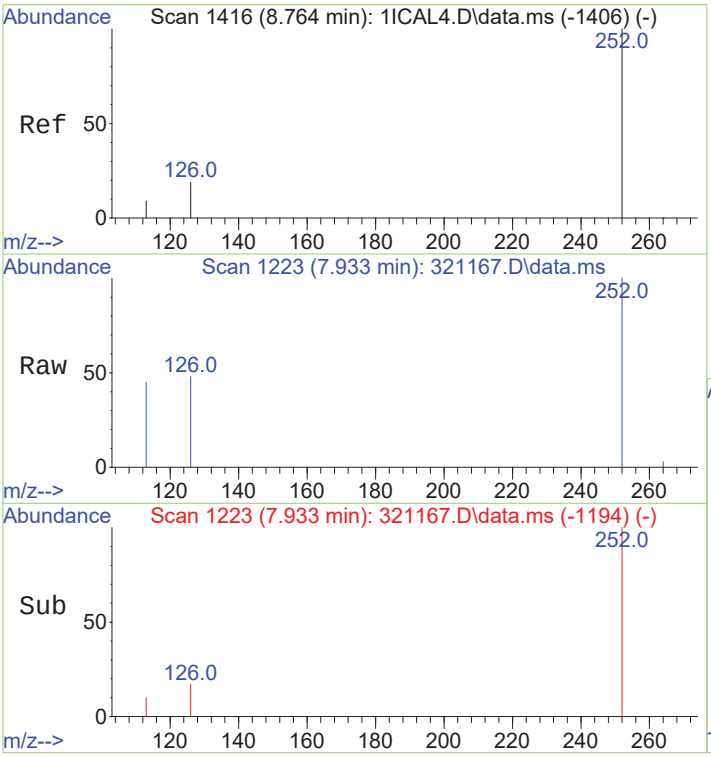


#25
B[ghi]perylen
Concen: 223.02 ng/mL
RT: 9.608 min Scan# 1637
Delta R.T. 0.018 min
Lab File: 321167.D
Acq: 9 Sep 2019 23:17

Tgt Ion:276 Resp: 8127

Ion	Ratio	Lower	Upper
276	100		
138	38.2	7.7	67.7
137	36.5	0.6	60.6

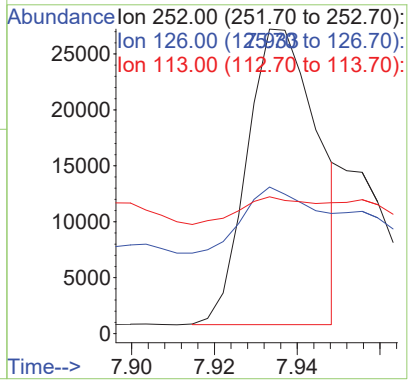




#20
B[b]fluoranth
Concen: 607.67 ng/mL m
RT: 7.933 min Scan# 1223
Delta R.T. 0.007 min
Lab File: 321167.D
Acq: 9 Sep 2019 23:17

Tgt Ion:252 Resp: 31369

Ion	Ratio	Lower	Upper
252	100		
126	48.1	0.0	52.1
113	44.9	0.0	40.0#

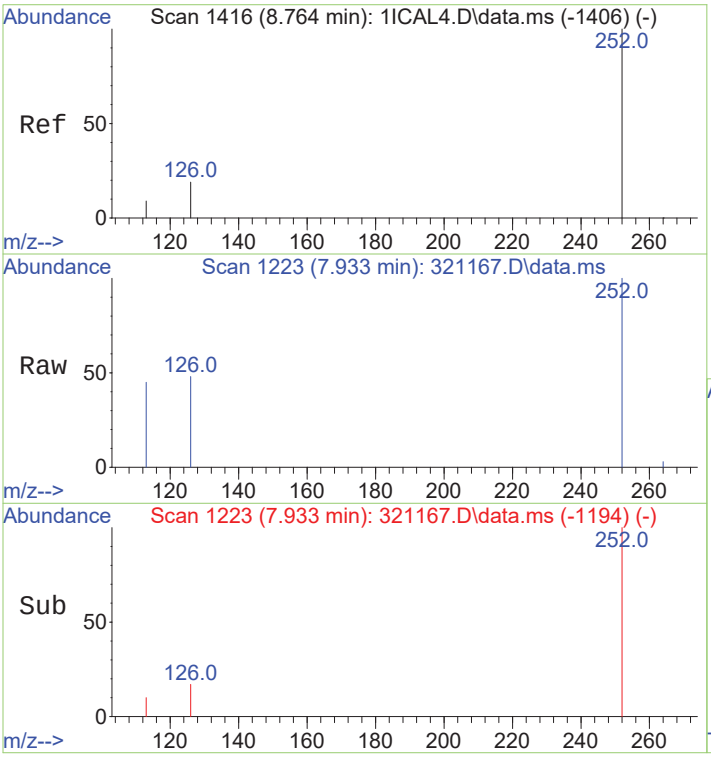


After Manual Integration

RED
9/12/2019

Reason#3

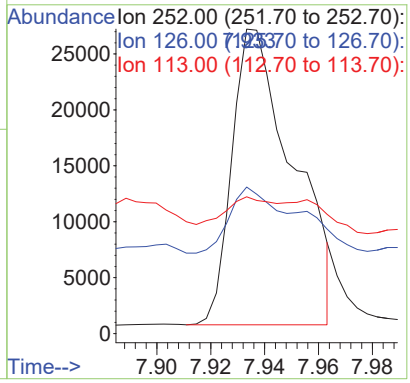
JJY
9/11/19



#20
B[b]fluoranth
Concen: 797.57 ng/mL
RT: 7.933 min Scan# 1223
Delta R.T. 0.007 min
Lab File: 321167.D
Acq: 9 Sep 2019 23:17

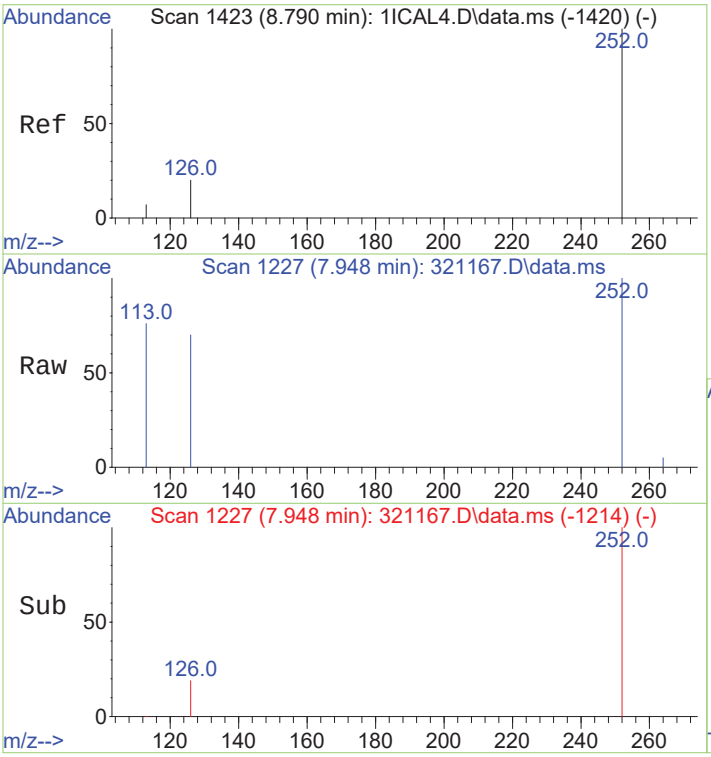
Tgt Ion:252 Resp: 41644

Ion	Ratio	Lower	Upper
252	100		
126	22.3	0.0	52.1
113	8.4	0.0	40.0



Before Manual Integration

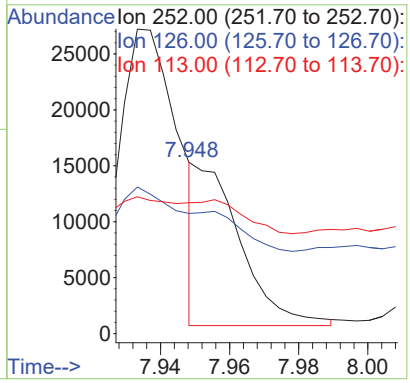
Reason#3 JJY 9/11/19



#21
B[k]fluoranth
Concen: 200.14 ng/mL m
RT: 7.948 min Scan# 1227
Delta R.T. -0.000 min
Lab File: 321167.D
Acq: 9 Sep 2019 23:17

Tgt Ion:252 Resp: 12903

Ion	Ratio	Lower	Upper
252	100		
126	70.1	0.0	54.3#
113	76.4	0.0	39.4#

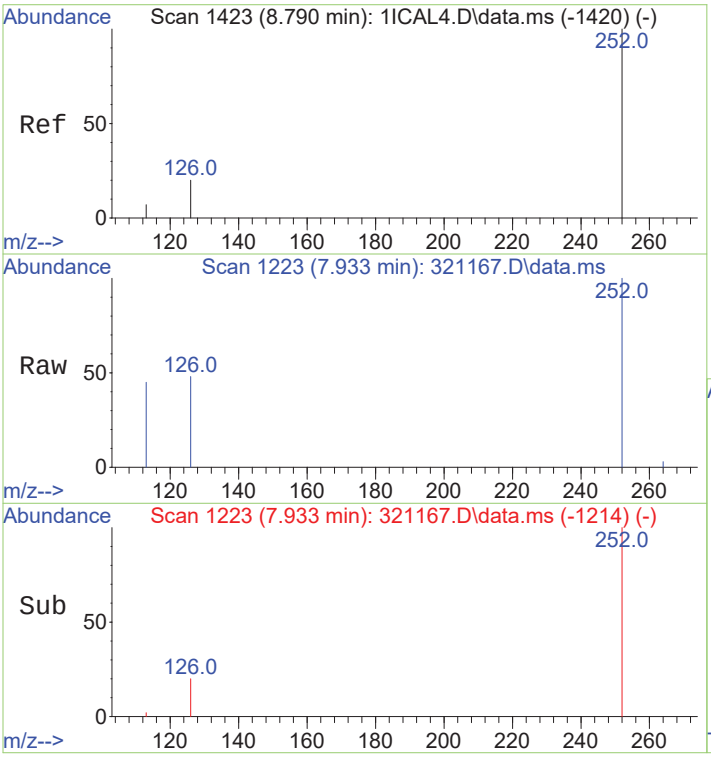


After Manual Integration

RED
9/12/2019

Reason#3

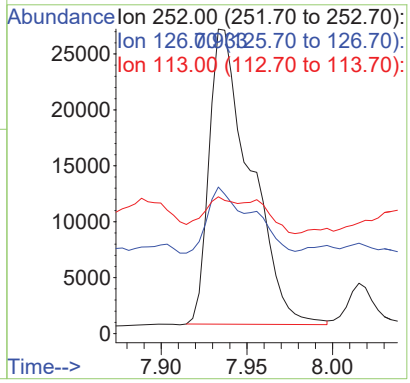
JJY
9/11/19



#21
B[k]fluoranth
Concen: 680.13 ng/mL
RT: 7.933 min Scan# 1223
Delta R.T. -0.015 min
Lab File: 321167.D
Acq: 9 Sep 2019 23:17

Tgt Ion:252 Resp: 44107

Ion	Ratio	Lower	Upper
252	100		
126	22.4	0.0	54.3
113	10.7	0.0	39.4



Before Manual Integration

Reason#3 JJY 9/11/19

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321168.D Vial: 24
Acq On : 9 Sep 2019 23:37 Operator: JJY
Sample : 164274,321168, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 13:30:12 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 13:13:41 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

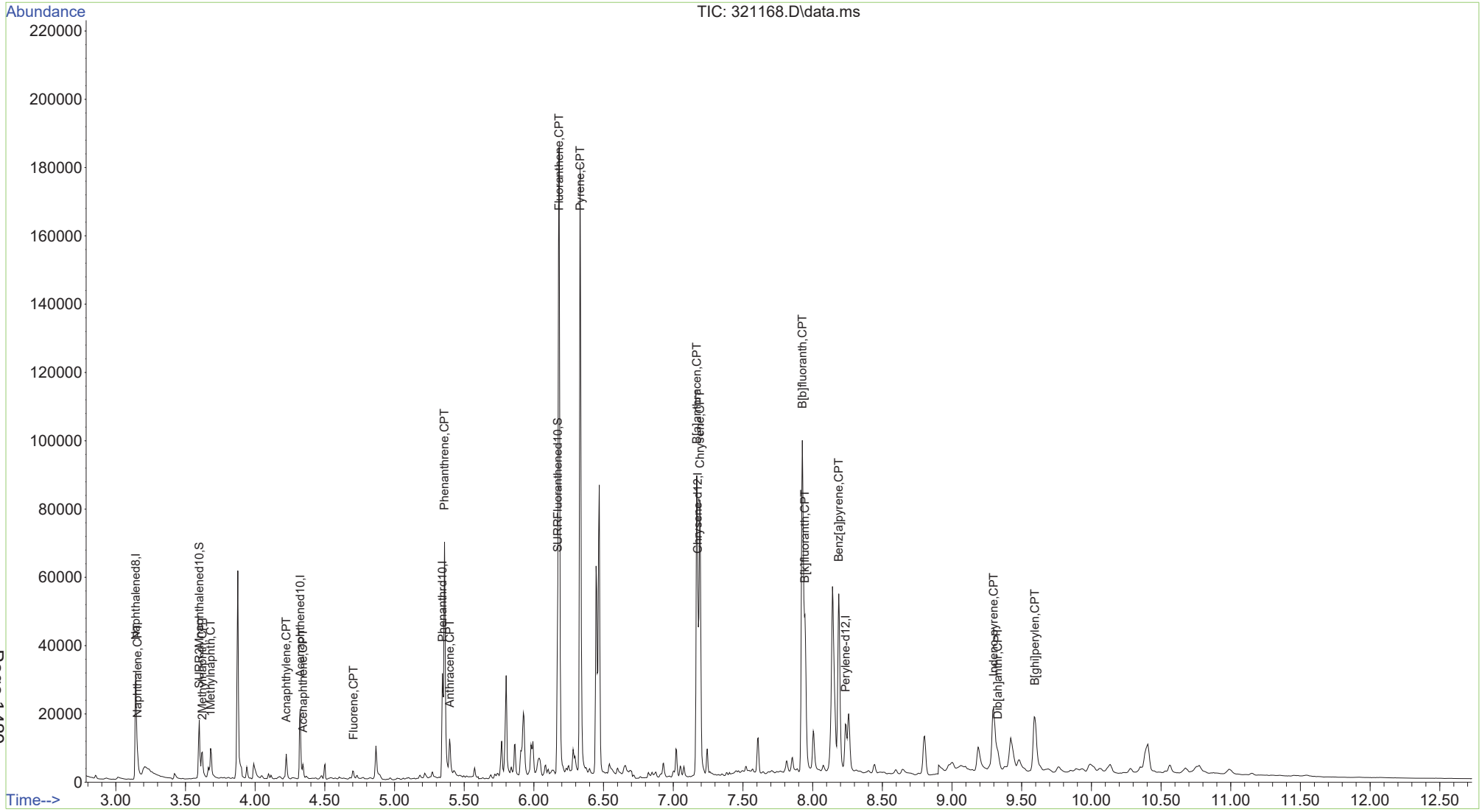
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.144	136	27960	400.00	ng/mL	0.00
6) Acenaphthened10	4.323	164	14506	400.00	ng/mL	0.00
10) Phenanthrd10	5.343	188	23993	400.00	ng/mL	0.00
15) Chrysene-d12	7.176	240	18054	400.00	ng/mL	0.00
19) Perylene-d12	8.236	264	15635	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.599	152	11462	73.91	%REC	0.00
Spiked Amount 100.000			Recovery = 73.91%			
13) SURRFluoranthened10	6.171	212	19189	80.99	%REC	0.00
Spiked Amount 100.000			Recovery = 80.99%			
Target Compounds						Qvalue
2) Naphthalene	3.155	128	2255	32.7988	ng/ml	99
4) 2Methylnaphth	3.621	142	2889	76.5764	ng/mL	78
5) 1Methylnaphth	3.680	141	2363	64.1146	ng/mL#	42
7) Acnaphthylene	4.223	152	4567	75.0737	ng/mL	95
8) Acenaphthene	4.342	154	1829	44.3941	ng/mL	85
9) Fluorene	4.705	166	1812	41.6714	ng/mL	81
11) Phenanthrene	5.358	178	41605	686.7277	ng/mL	99
12) Anthracene	5.395	178	6921	115.8471	ng/mL	98
14) Fluoranthene	6.180	202	114843	1681.1778	ng/mL	94
16) Pyrene	6.331	202	97378	1333.9164	ng/mL	98
17) B[a]anthracen	7.169	228	53690	1035.6884	ng/mL	99
18) Chrysene	7.191	228	58226	918.2030	ng/mL	98
20) B[b]fluoranth	7.926	252	83787m	1632.8958	ng/mL	
21) B[k]fluoranth	7.945	252	24925m	399.0433	ng/mL	
22) Benz[a]pyrene	8.187	252	43095	875.1714	ng/mL	99
23) Indeno-pyrene	9.297	276	20489	440.1733	ng/mL	96
24) Dib[ah]anthr	9.329	278	4196	136.1960	ng/mL	86
25) B[ghi]perylen	9.595	276	17645	443.3046	ng/mL	95

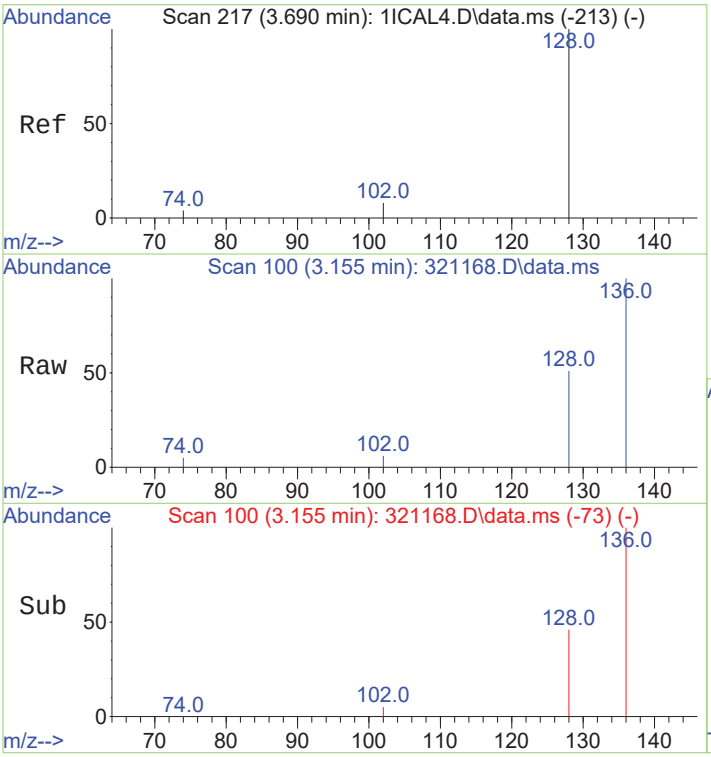
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321168.D Vial: 24
Acq On : 9 Sep 2019 23:37 Operator: JJY
Sample : 164274,321168, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 13:30:12 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 13:13:41 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

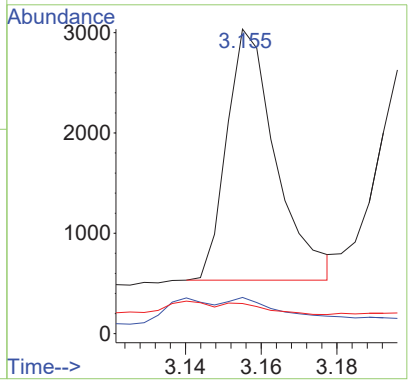


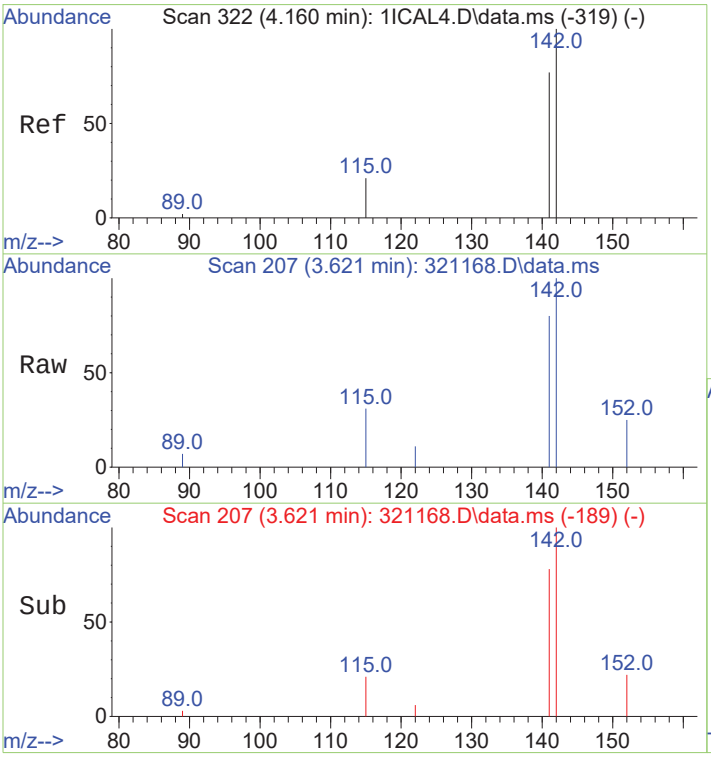


#2
Naphthalene
Concen: 32.80 ng/ml
RT: 3.155 min Scan# 100
Delta R.T. 0.000 min
Lab File: 321168.D
Acq: 9 Sep 2019 23:37

Tgt Ion:128 Resp: 2255

Ion	Ratio	Lower	Upper
128	100		
102	7.4	0.0	37.6
74	4.4	0.0	33.6

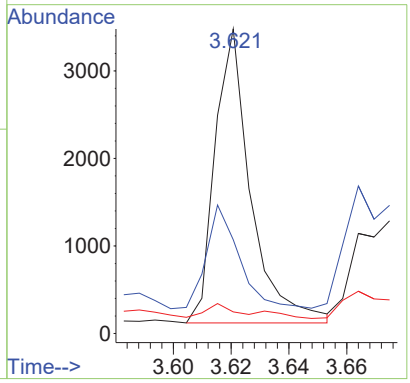


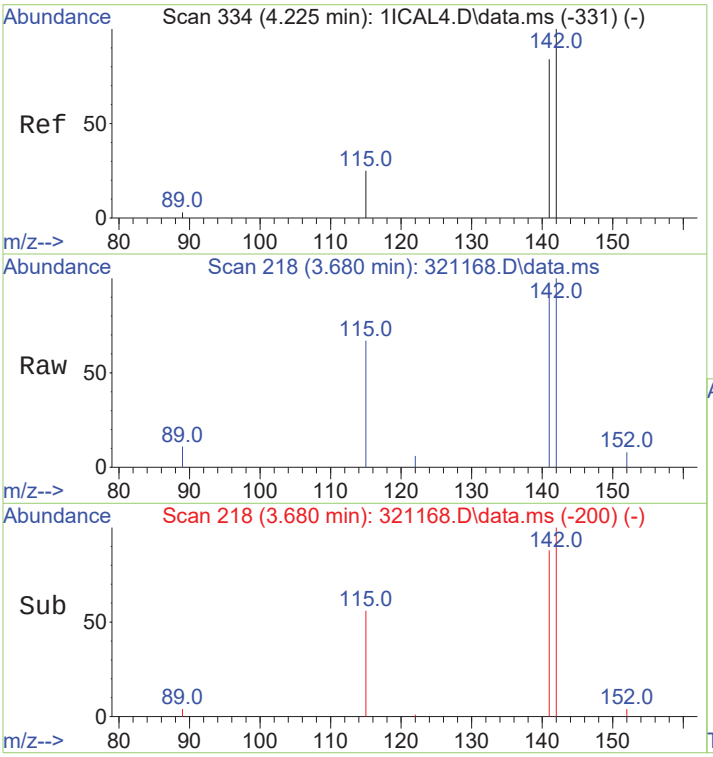


#4
2Methylnaphth
Concen: 76.58 ng/mL
RT: 3.621 min Scan# 207
Delta R.T. 0.000 min
Lab File: 321168.D
Acq: 9 Sep 2019 23:37

Tgt Ion:142 Resp: 2889

Ion	Ratio	Lower	Upper
142	100		
115	23.0	6.9	66.9
89	2.0	0.0	34.9

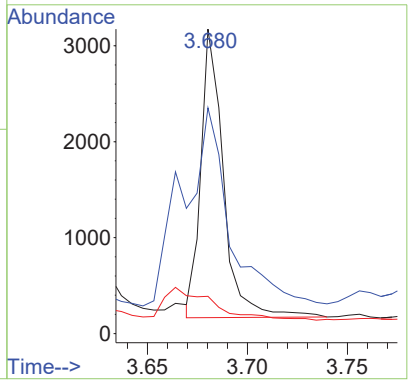


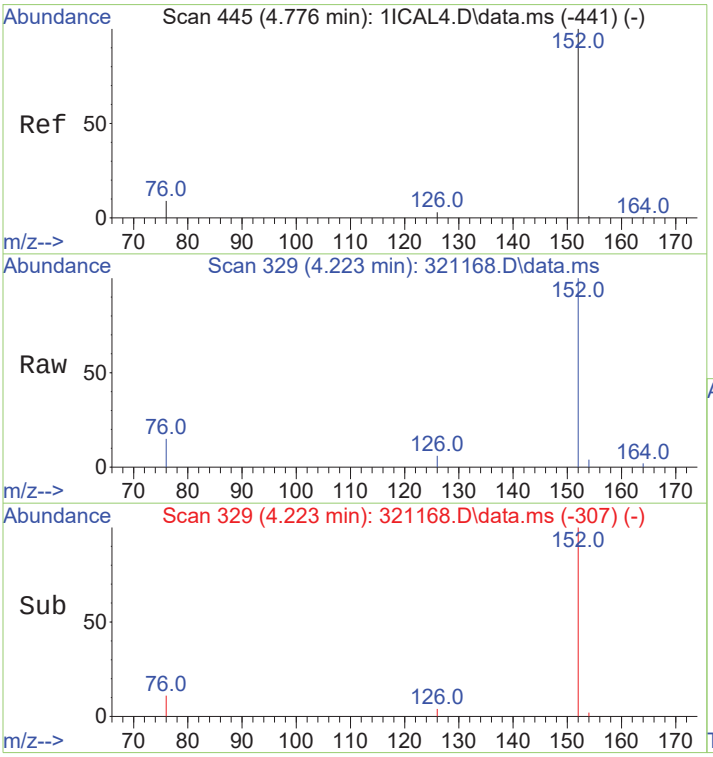


#5
1Methylnaphth
Concen: 64.11 ng/mL
RT: 3.680 min Scan# 218
Delta R.T. 0.000 min
Lab File: 321168.D
Acq: 9 Sep 2019 23:37

Tgt Ion:141 Resp: 2363

Ion	Ratio	Lower	Upper
141	100		
115	68.1	2.5	62.5#
89	8.0	0.0	34.0

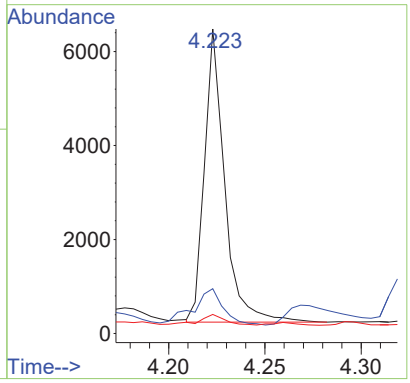


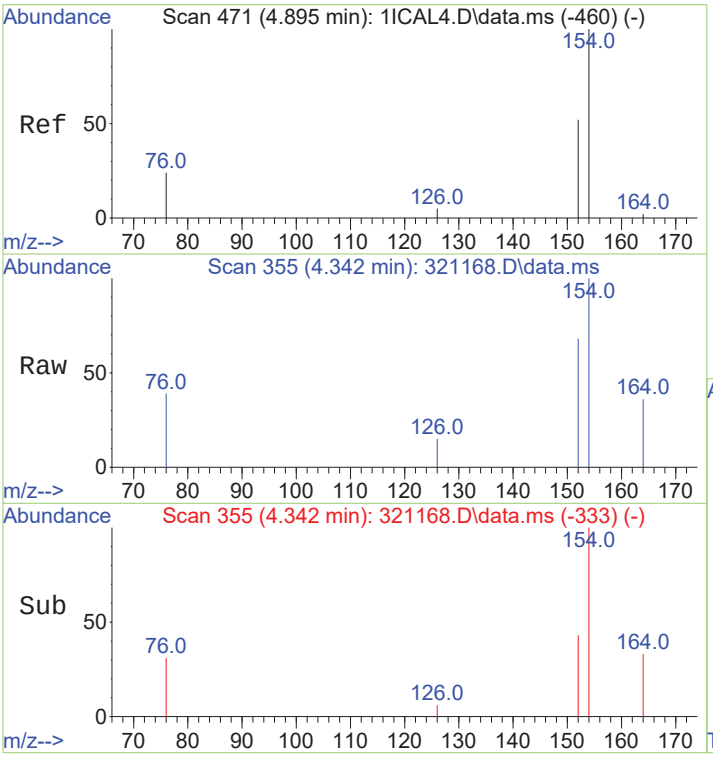


#7
Acnaphthylene
Concen: 75.07 ng/mL
RT: 4.223 min Scan# 329
Delta R.T. 0.000 min
Lab File: 321168.D
Acq: 9 Sep 2019 23:37

Tgt Ion:152 Resp: 4567

Ion	Ratio	Lower	Upper
152	100		
76	7.4	0.0	39.9
126	3.6	0.0	33.1

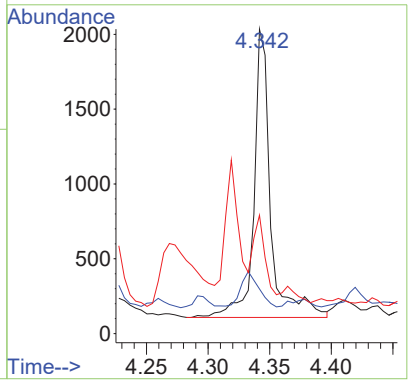


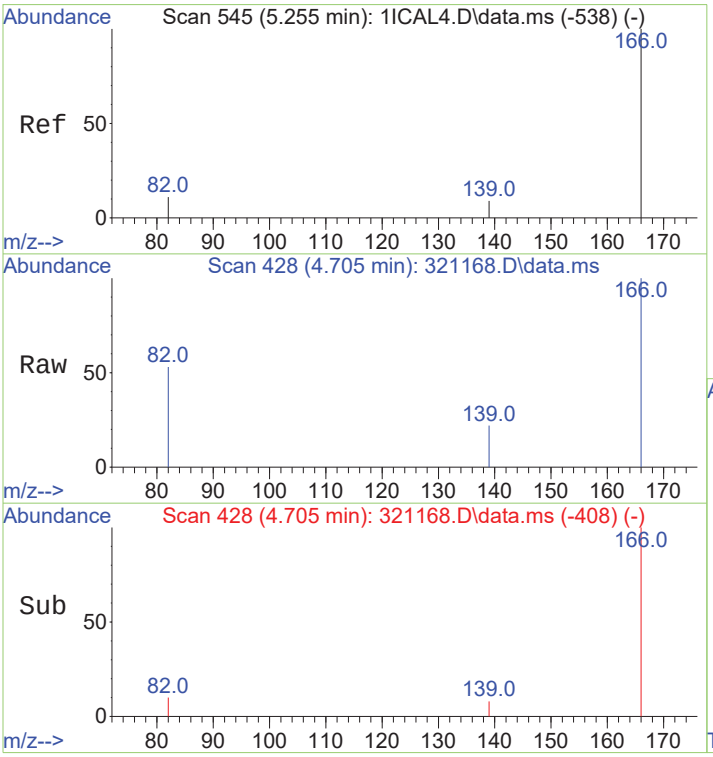


#8
Acenaphthene
Concen: 44.39 ng/mL
RT: 4.342 min Scan# 355
Delta R.T. 0.000 min
Lab File: 321168.D
Acq: 9 Sep 2019 23:37

Tgt Ion:154 Resp: 1829

Ion	Ratio	Lower	Upper
154	100		
126	6.0	0.0	34.3
76	29.6	0.0	51.6

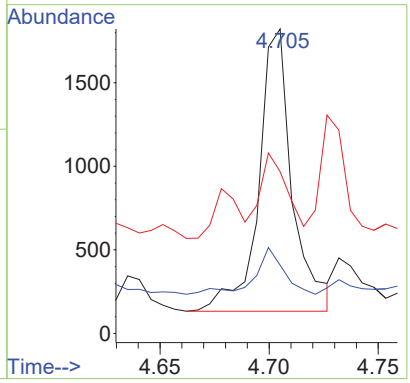


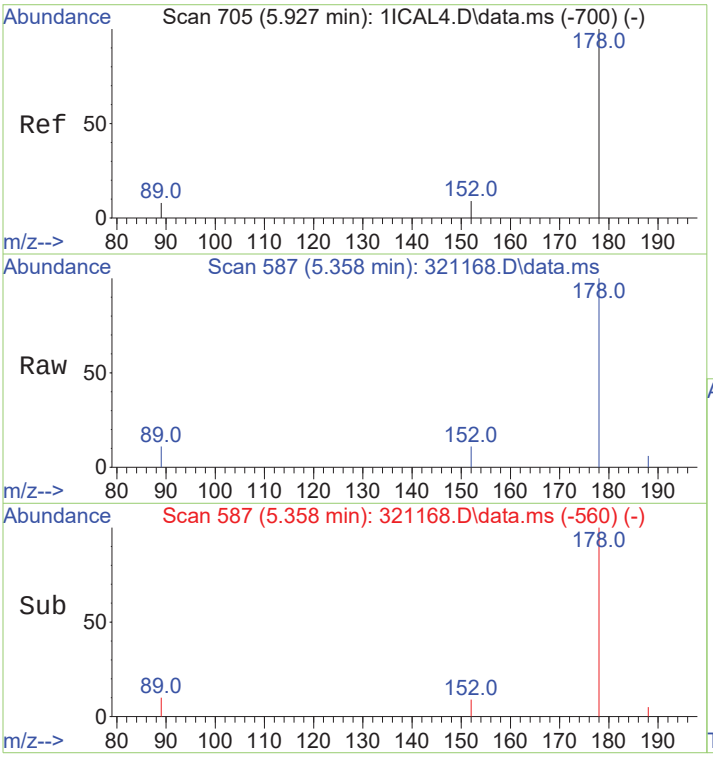


#9
Fluorene
Concen: 41.67 ng/mL
RT: 4.705 min Scan# 428
Delta R.T. 0.005 min
Lab File: 321168.D
Acq: 9 Sep 2019 23:37

Tgt Ion:166 Resp: 1812

Ion	Ratio	Lower	Upper
166	100		
139	10.4	0.0	38.6
82	23.7	0.0	42.4

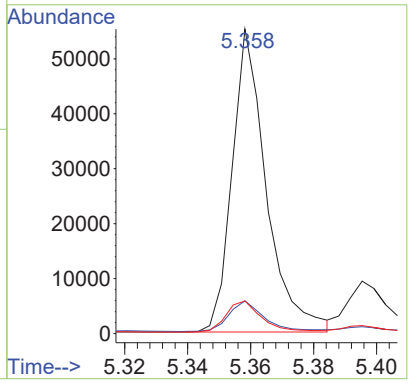


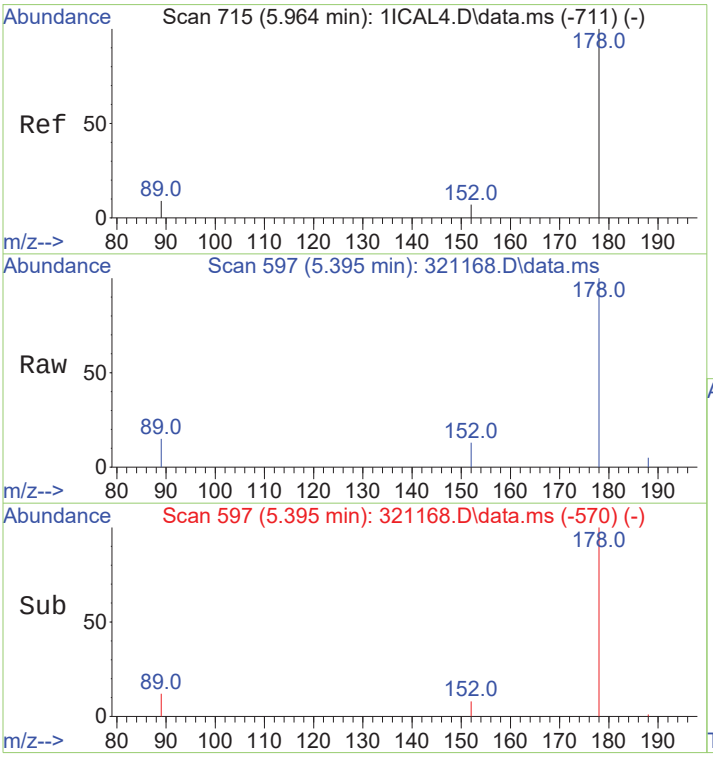


#11
Phenanthrene
Concen: 686.73 ng/mL
RT: 5.358 min Scan# 587
Delta R.T. 0.000 min
Lab File: 321168.D
Acq: 9 Sep 2019 23:37

Tgt Ion:178 Resp: 41605

Ion	Ratio	Lower	Upper
178	100		
152	10.4	0.0	40.1
89	10.8	0.0	41.4

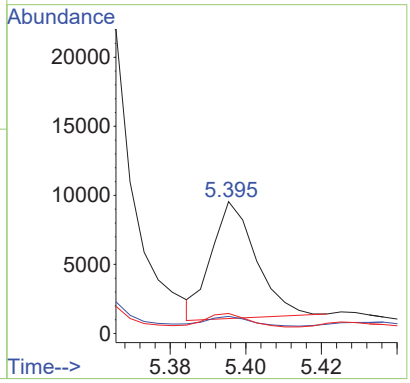


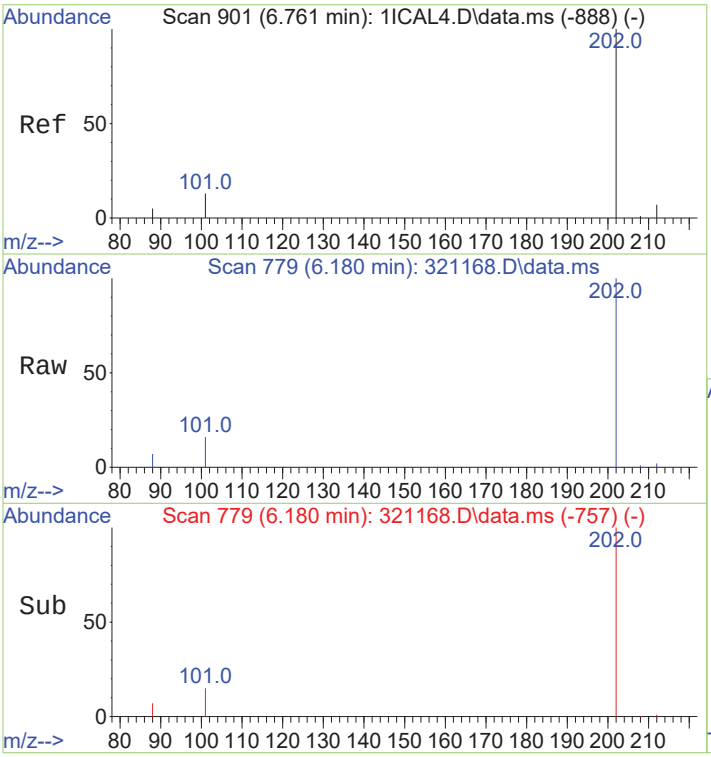


#12
Anthracene
Concen: 115.85 ng/mL
RT: 5.395 min Scan# 597
Delta R.T. 0.000 min
Lab File: 321168.D
Acq: 9 Sep 2019 23:37

Tgt Ion:178 Resp: 6921

Ion	Ratio	Lower	Upper
178	100		
152	7.0	0.0	37.8
89	10.4	0.0	31.3

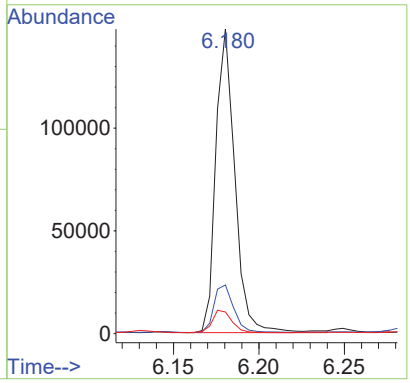


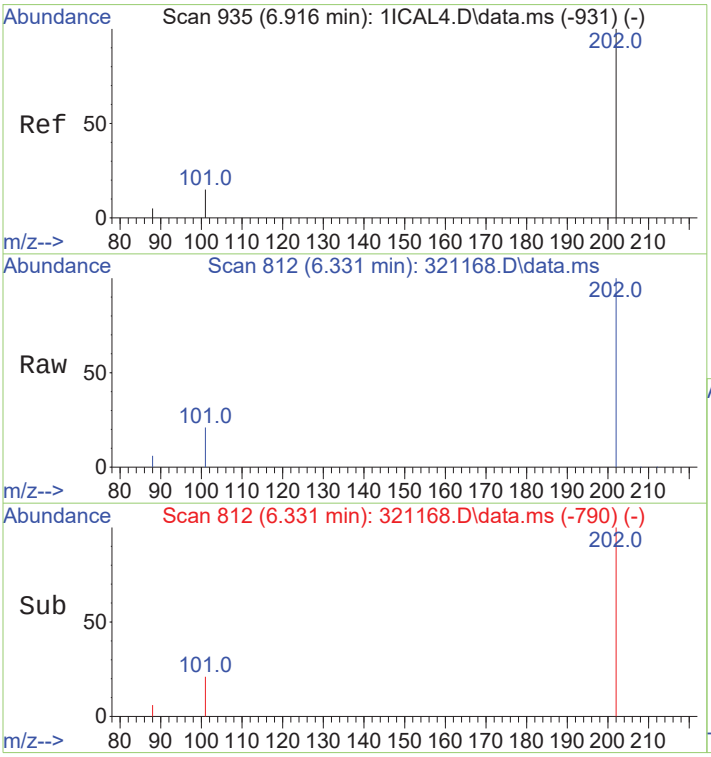


#14
Fluoranthene
Concen: 1681.18 ng/mL
RT: 6.180 min Scan# 779
Delta R.T. 0.000 min
Lab File: 321168.D
Acq: 9 Sep 2019 23:37

Tgt Ion:202 Resp: 114843

Ion	Ratio	Lower	Upper
202	100		
101	15.7	0.0	48.3
88	6.8	0.0	38.8

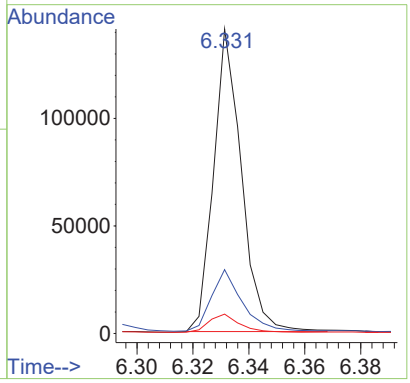


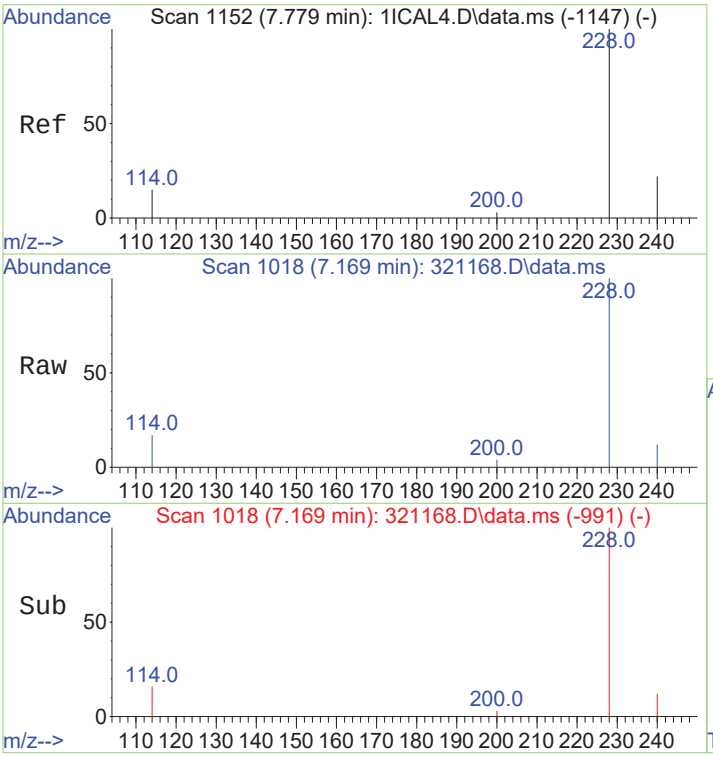


#16
Pyrene
Concen: 1333.92 ng/mL
RT: 6.331 min Scan# 812
Delta R.T. 0.000 min
Lab File: 321168.D
Acq: 9 Sep 2019 23:37

Tgt Ion:202 Resp: 97378

Ion	Ratio	Lower	Upper
202	100		
101	20.2	0.0	49.4
88	6.0	0.0	35.5

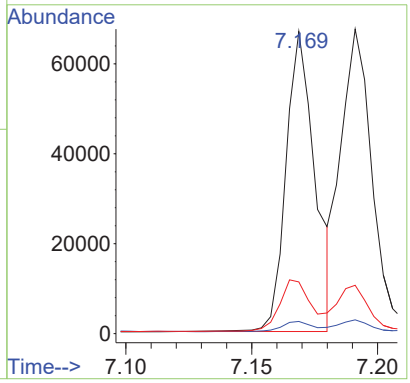


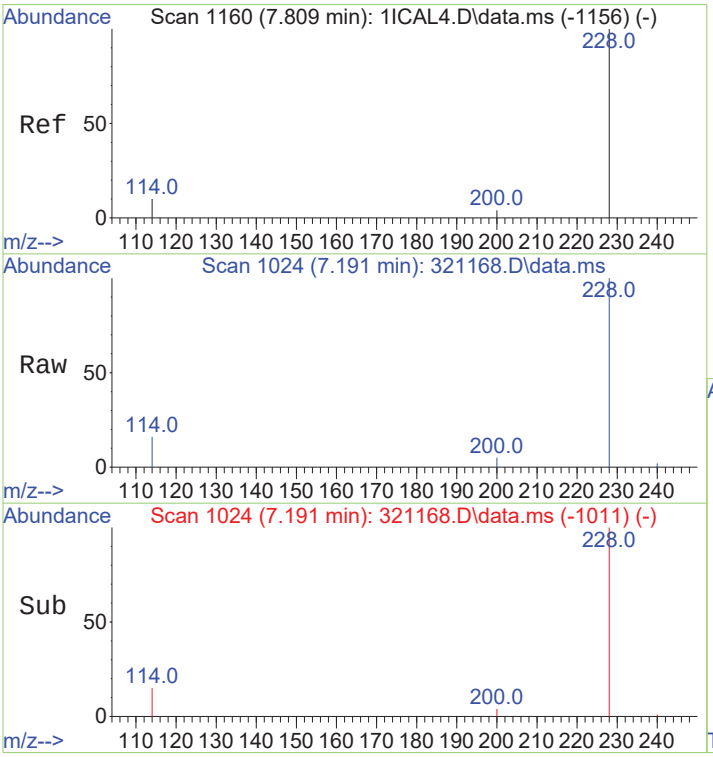


#17
B[a]anthracen
Concen: 1035.69 ng/mL
RT: 7.169 min Scan# 1018
Delta R.T. 0.000 min
Lab File: 321168.D
Acq: 9 Sep 2019 23:37

Tgt Ion:228 Resp: 53690

Ion	Ratio	Lower	Upper
228	100		
200	3.4	0.0	33.6
114	16.5	0.0	47.0

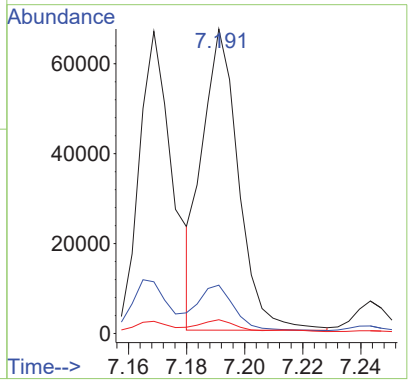


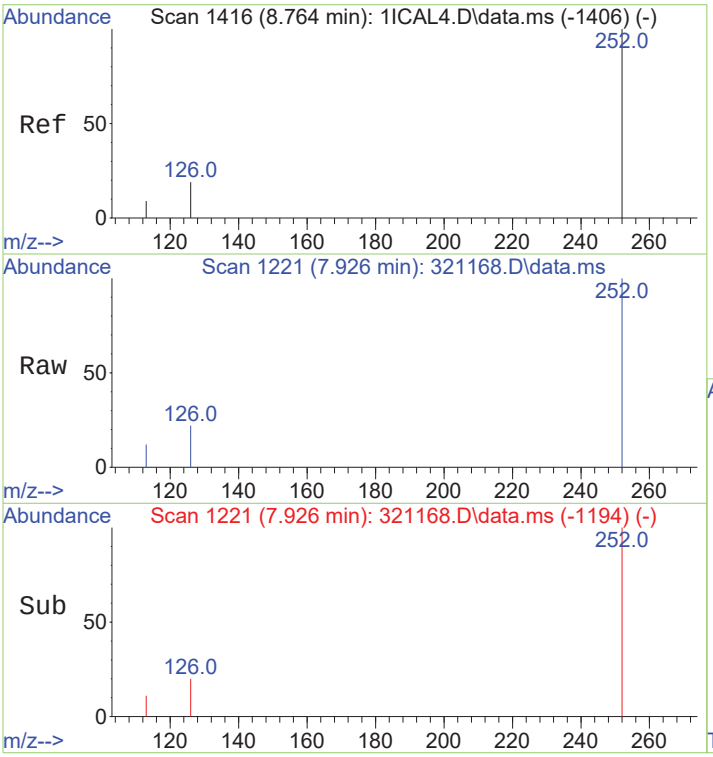


#18
Chrysene
Concen: 918.20 ng/mL
RT: 7.191 min Scan# 1024
Delta R.T. 0.000 min
Lab File: 321168.D
Acq: 9 Sep 2019 23:37

Tgt Ion:228 Resp: 58226

Ion	Ratio	Lower	Upper
228	100		
114	15.2	0.0	46.1
200	4.0	0.0	33.8

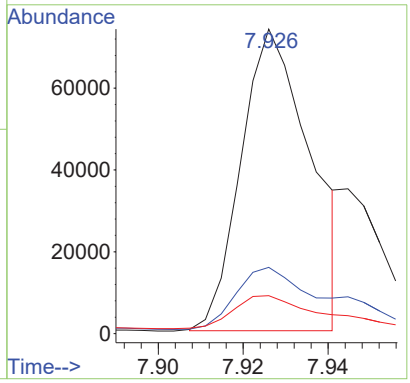


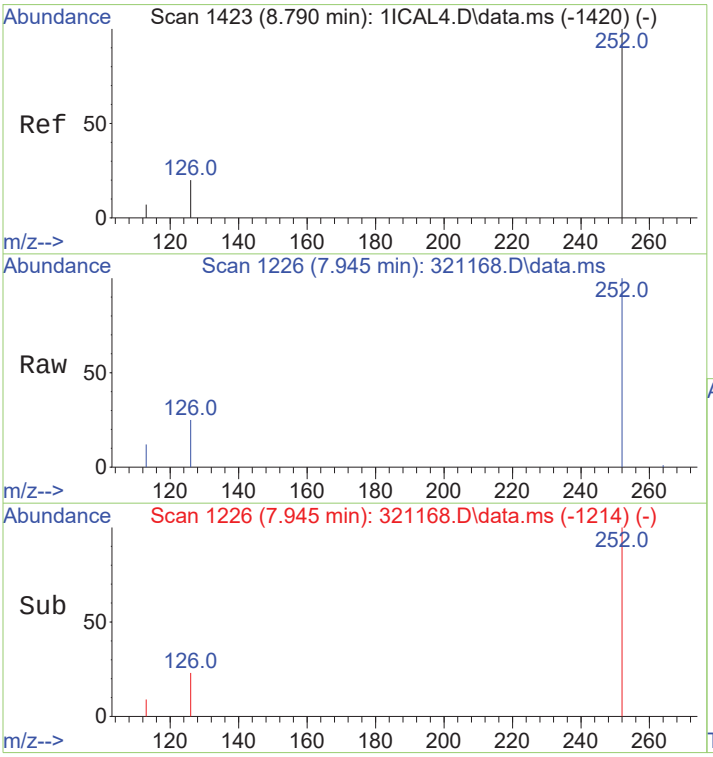


#20
B[b]fluoranth
Concen: 1632.90 ng/mL m
RT: 7.926 min Scan# 1221
Delta R.T. 0.000 min
Lab File: 321168.D
Acq: 9 Sep 2019 23:37

Tgt Ion:252 Resp: 83787

Ion	Ratio	Lower	Upper
252	100		
126	21.8	0.0	52.1
113	12.4	0.0	40.0

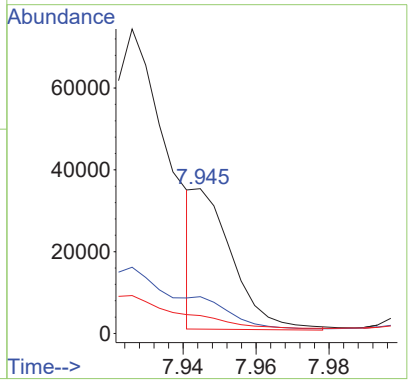


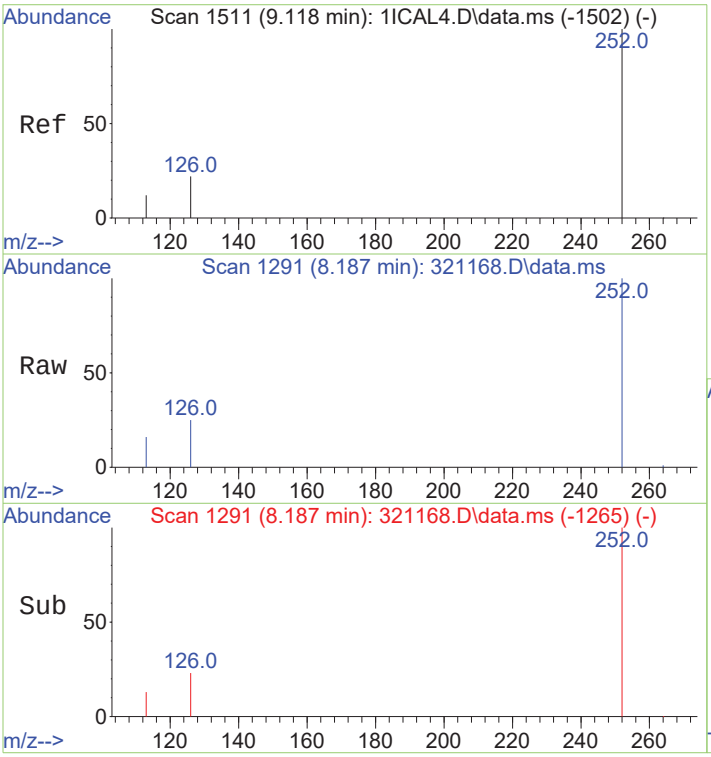


#21
B[k]fluoranth
Concen: 399.04 ng/mL m
RT: 7.945 min Scan# 1226
Delta R.T. -0.004 min
Lab File: 321168.D
Acq: 9 Sep 2019 23:37

Tgt Ion:252 Resp: 24925

Ion	Ratio	Lower	Upper
252	100		
126	25.4	0.0	54.3
113	12.4	0.0	39.4

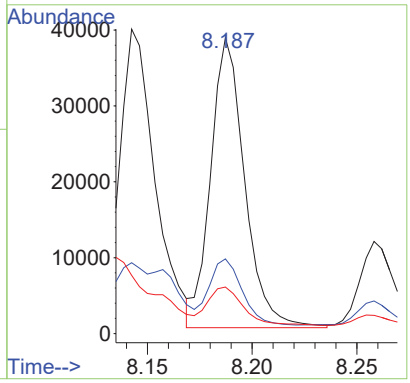


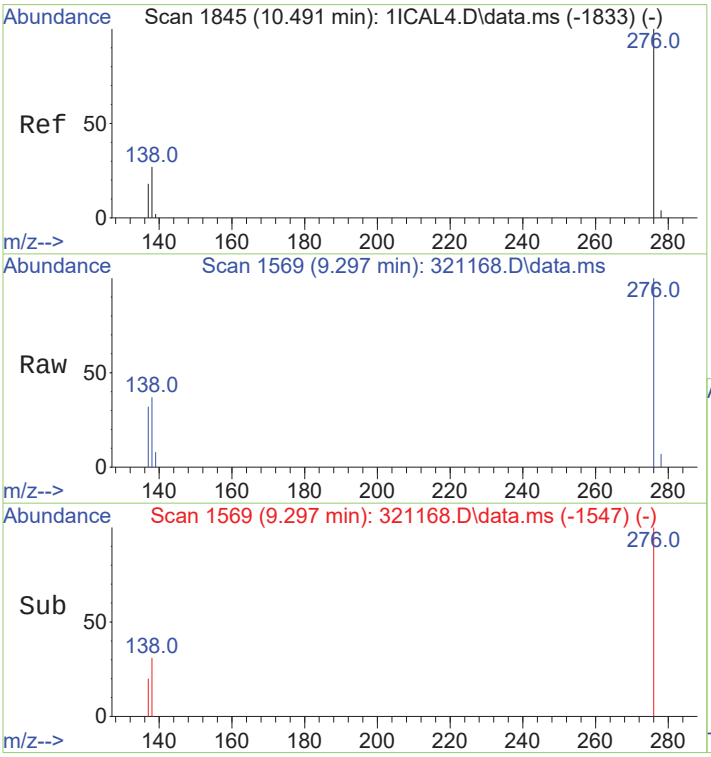


#22
Benz[a]pyrene
Concen: 875.17 ng/mL
RT: 8.187 min Scan# 1291
Delta R.T. -0.004 min
Lab File: 321168.D
Acq: 9 Sep 2019 23:37

Tgt Ion:252 Resp: 43095

Ion	Ratio	Lower	Upper
252	100		
126	22.7	0.0	52.7
113	13.3	0.0	42.2

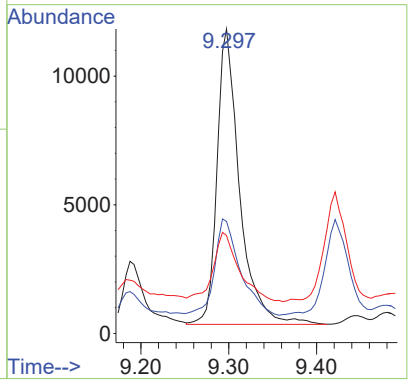


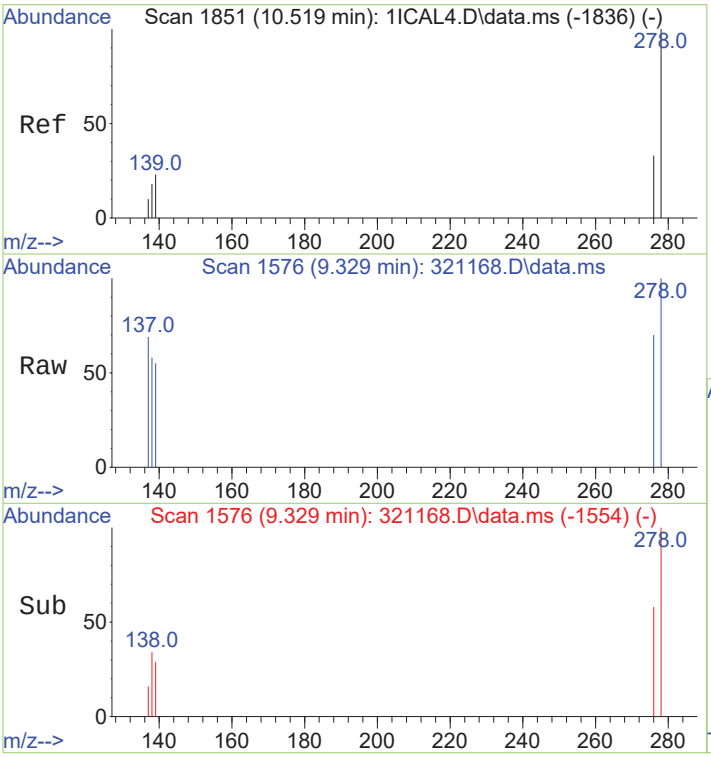


#23
Indeno-pyrene
Concen: 440.17 ng/mL
RT: 9.297 min Scan# 1569
Delta R.T. 0.000 min
Lab File: 321168.D
Acq: 9 Sep 2019 23:37

Tgt Ion:276 Resp: 20489

Ion	Ratio	Lower	Upper
276	100		
138	31.1	4.1	64.1
137	21.2	0.0	52.8

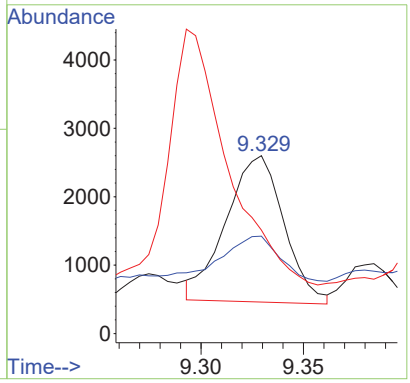


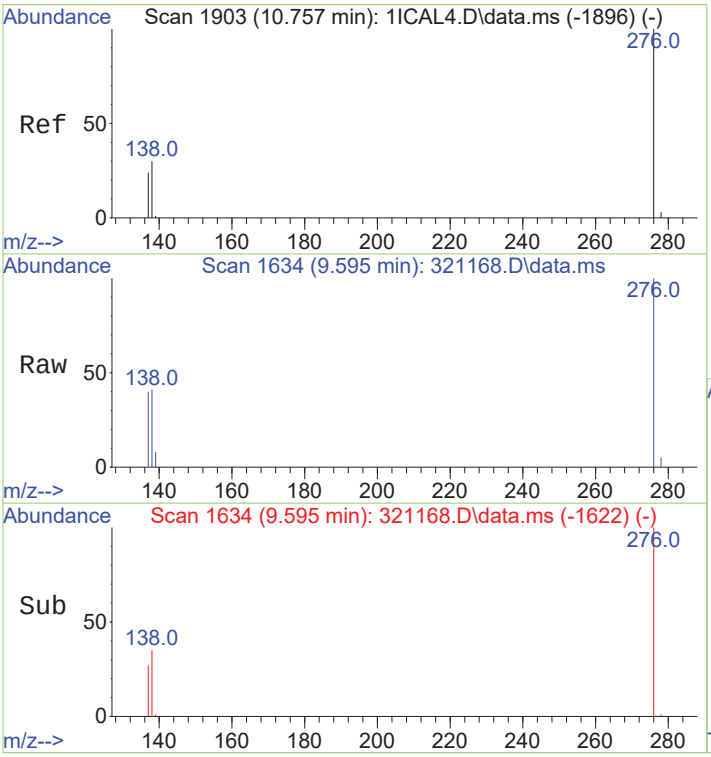


#24
Dib[ah]anthr
Concen: 136.20 ng/mL
RT: 9.329 min Scan# 1576
Delta R.T. 0.000 min
Lab File: 321168.D
Acq: 9 Sep 2019 23:37

Tgt Ion:278 Resp: 4196

Ion	Ratio	Lower	Upper
278	100		
139	32.4	0.0	59.3
138	38.2	0.0	56.3

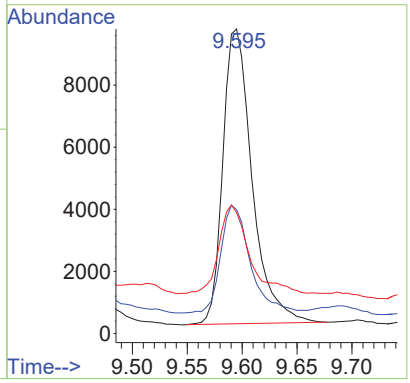


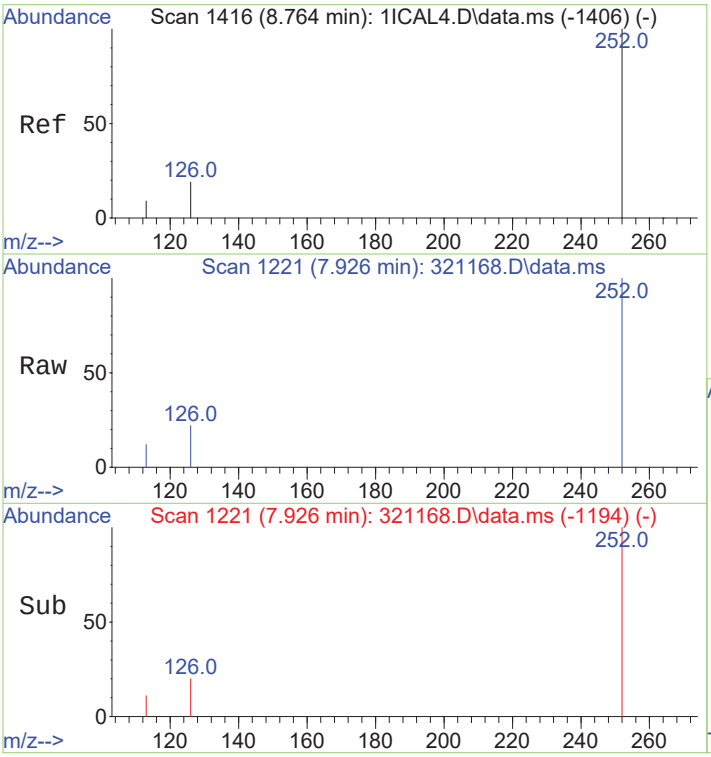


#25
B[ghi]perylen
Concen: 443.30 ng/mL
RT: 9.595 min Scan# 1634
Delta R.T. 0.005 min
Lab File: 321168.D
Acq: 9 Sep 2019 23:37

Tgt Ion:276 Resp: 17645

Ion	Ratio	Lower	Upper
276	100		
138	34.8	7.7	67.7
137	27.3	0.6	60.6

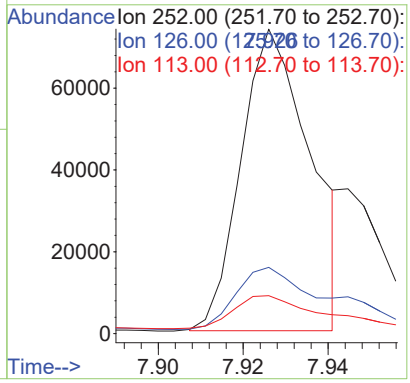




#20
B[b]fluoranth
Concen: 1632.90 ng/mL m
RT: 7.926 min Scan# 1221
Delta R.T. 0.000 min
Lab File: 321168.D
Acq: 9 Sep 2019 23:37

Tgt Ion:252 Resp: 83787

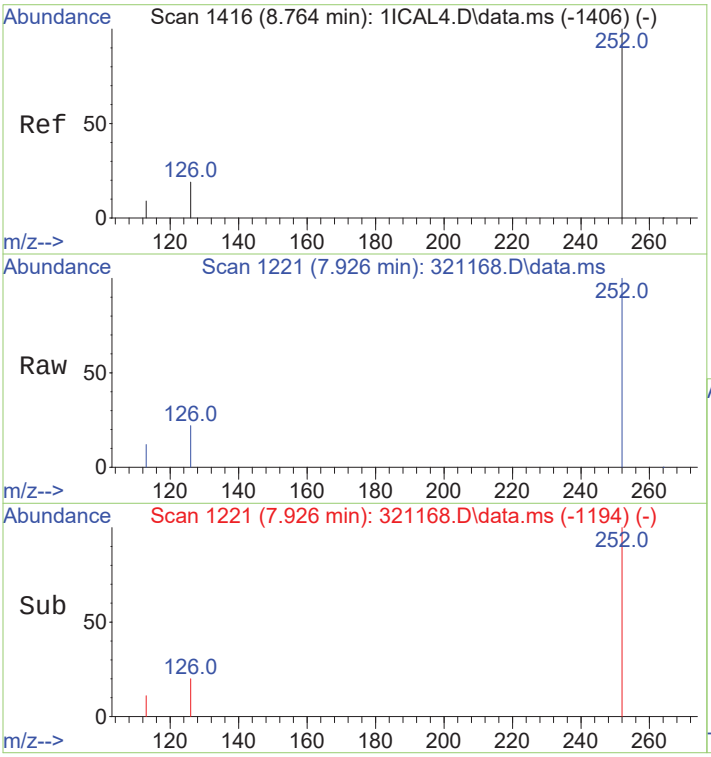
Ion	Ratio	Lower	Upper
252	100		
126	21.8	0.0	52.1
113	12.4	0.0	40.0



RED
9/12/2019

After Manual Integration

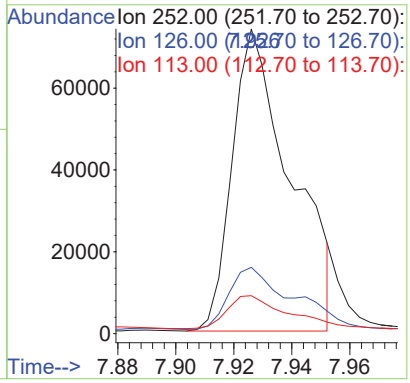
Reason#3 JJY
9/11/19



#20
B[b]fluoranth
Concen: 2010.81 ng/mL
RT: 7.926 min Scan# 1221
Delta R.T. 0.000 min
Lab File: 321168.D
Acq: 9 Sep 2019 23:37

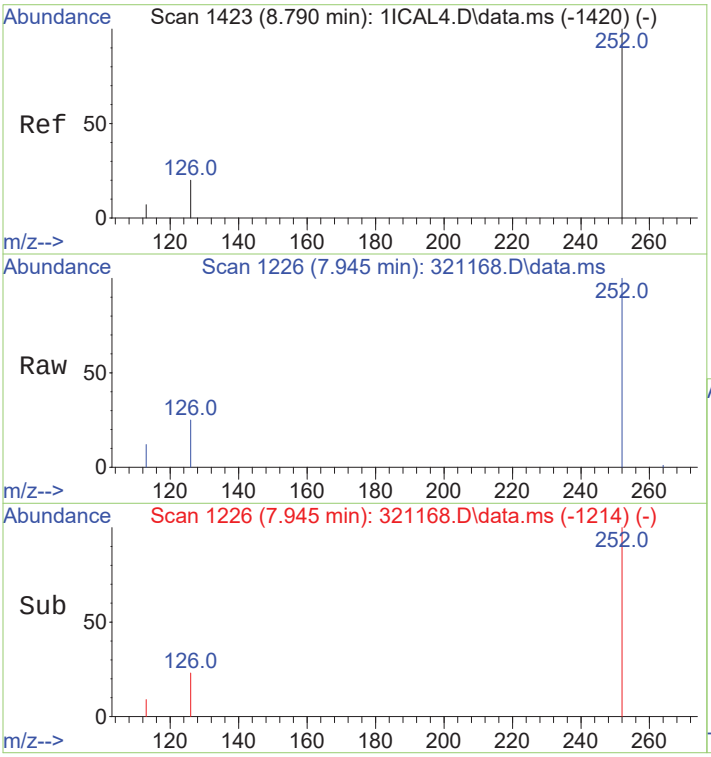
Tgt Ion:252 Resp: 103516

Ion	Ratio	Lower	Upper
252	100		
126	20.6	0.0	52.1
113	10.9	0.0	40.0



Before Manual Integration

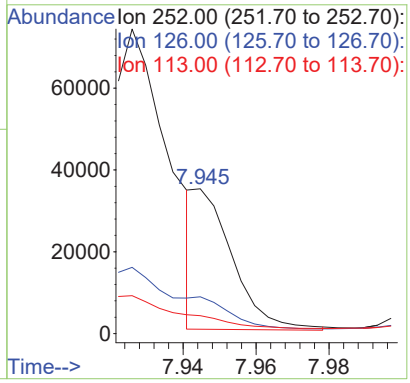
Reason#3 JJY 9/11/19



#21
B[k]fluoranth
Concen: 399.04 ng/mL m
RT: 7.945 min Scan# 1226
Delta R.T. -0.004 min
Lab File: 321168.D
Acq: 9 Sep 2019 23:37

Tgt Ion:252 Resp: 24925

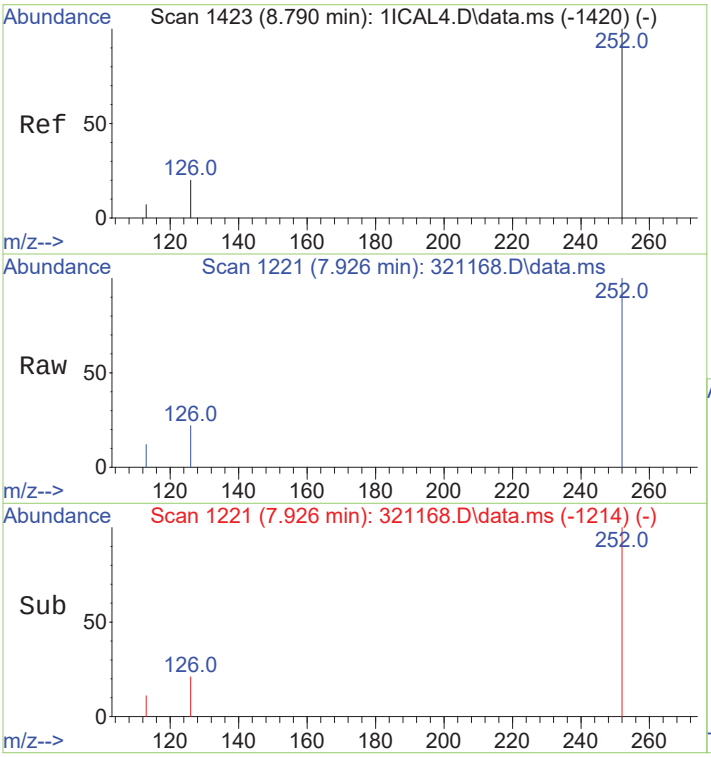
Ion	Ratio	Lower	Upper
252	100		
126	25.4	0.0	54.3
113	12.4	0.0	39.4



RED
9/12/2019

After Manual Integration

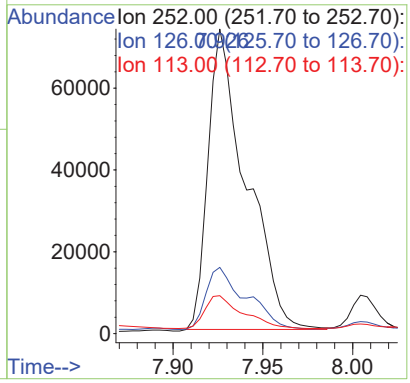
Reason#3 JJY
9/11/19



#21
B[k]fluoranth
Concen: 1727.16 ng/mL
RT: 7.926 min Scan# 1221
Delta R.T. -0.022 min
Lab File: 321168.D
Acq: 9 Sep 2019 23:37

Tgt Ion:252 Resp: 108229

Ion	Ratio	Lower	Upper
252	100		
126	20.6	0.0	54.3
113	10.8	0.0	39.4



Before Manual Integration

Reason#3

JJY
9/11/19

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321169.D Vial: 25
Acq On : 9 Sep 2019 23:57 Operator: JJY
Sample : 164274,321169, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 13:34:53 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 13:13:41 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

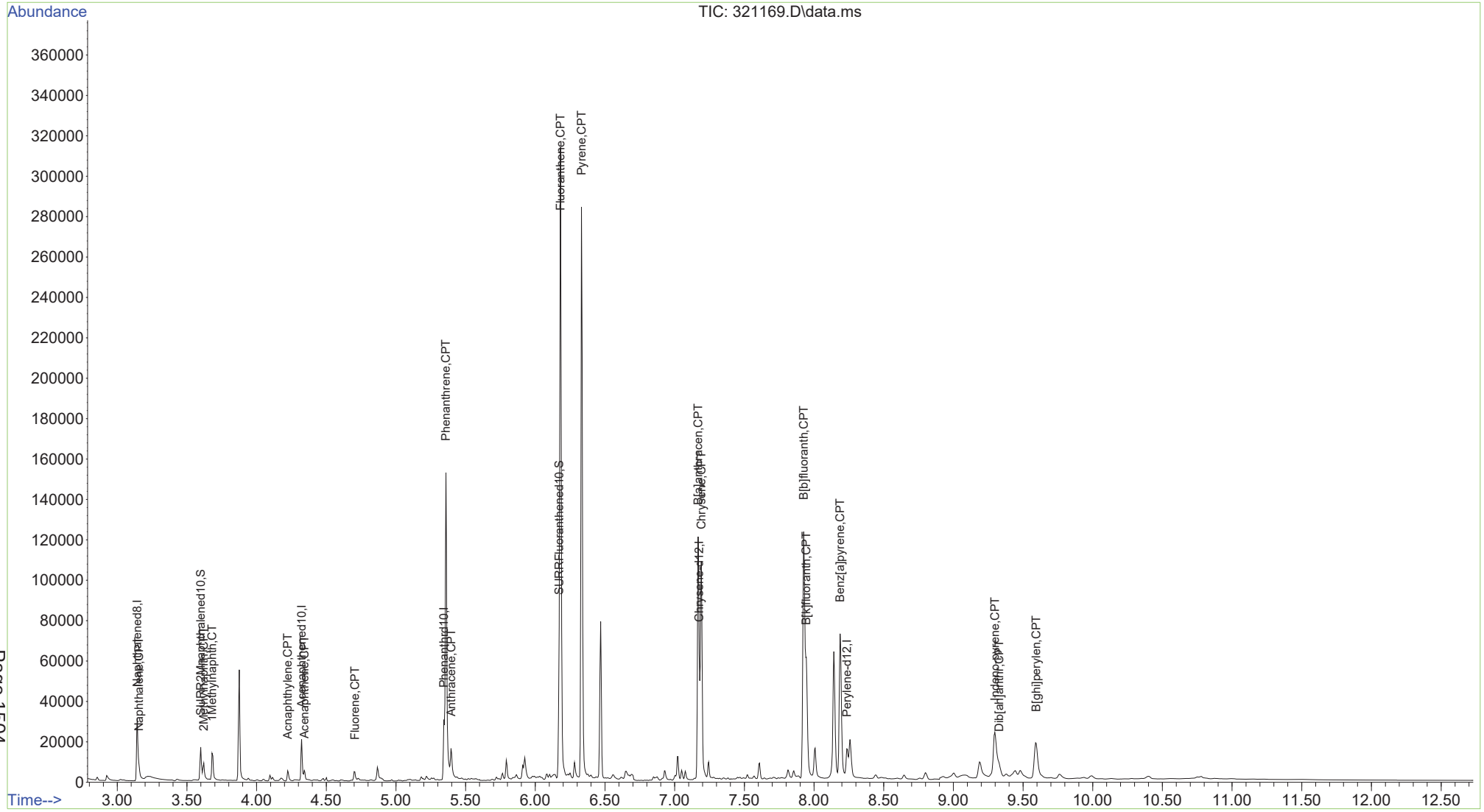
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.144	136	26904	400.00	ng/mL	0.00
6) Acenaphthened10	4.323	164	13854	400.00	ng/mL	0.00
10) Phenanthrd10	5.343	188	22809	400.00	ng/mL	0.00
15) Chrysene-d12	7.176	240	16733	400.00	ng/mL	0.00
19) Perylene-d12	8.236	264	15717	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.599	152	11372	76.21	%REC	0.00
Spiked Amount 100.000			Recovery = 76.21%			
13) SURRFluoranthened10	6.171	212	19252	85.48	%REC	0.00
Spiked Amount 100.000			Recovery = 85.48%			
Target Compounds						Qvalue
2) Naphthalene	3.155	128	2285	34.5397	ng/ml	98
4) 2Methylnaphth	3.620	142	2898	79.8300	ng/mL	83
5) 1Methylnaphth	3.680	141	4512	127.2279	ng/mL	78
7) Acnaphthylene	4.223	152	3400	58.5205	ng/mL	89
8) Acenaphthene	4.341	154	2132	54.1840	ng/mL	81
9) Fluorene	4.705	166	3820	91.9847	ng/mL	82
11) Phenanthrene	5.358	178	93582	1660.1691	ng/mL	99
12) Anthracene	5.395	178	14278	251.3982	ng/mL	98
14) Fluoranthene	6.180	202	198796	3061.2237	ng/mL	96
16) Pyrene	6.331	202	163997	2423.8364	ng/mL	97
17) B[a]anthracen	7.168	228	72302	1484.1707	ng/mL	99
18) Chrysene	7.191	228	76825	1307.1455	ng/mL	99
20) B[b]fluoranth	7.926	252	103091m	1992.3710	ng/mL	
21) B[k]fluoranth	7.944	252	31343m	498.7582	ng/mL	
22) Benz[a]pyrene	8.187	252	59793	1194.3608	ng/mL	99
23) Indeno-pyrene	9.297	276	25288	529.8061	ng/mL	97
24) Dib[ah]anthr	9.329	278	5022	154.6608	ng/mL	92
25) B[ghi]perylen	9.595	276	19397	480.3967	ng/mL	94

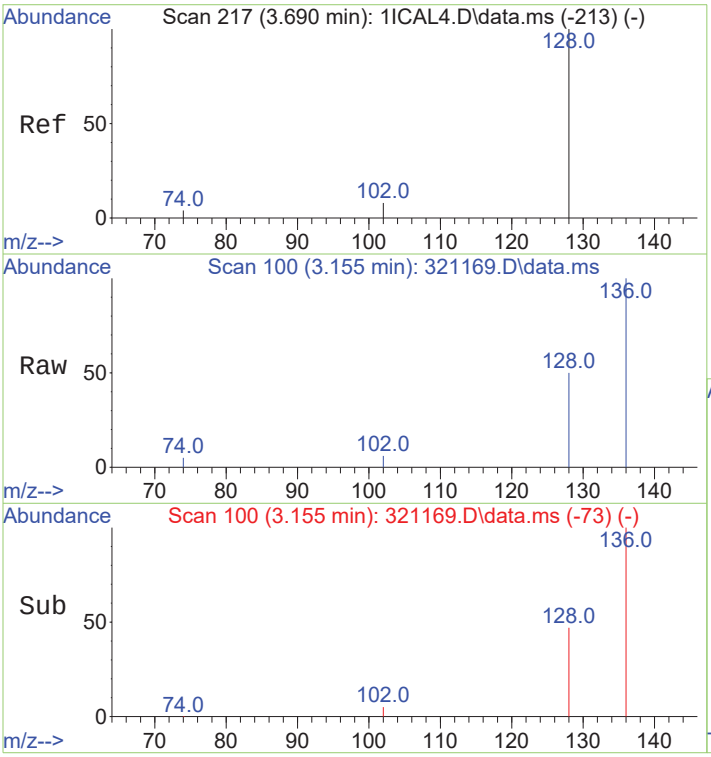
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321169.D Vial: 25
Acq On : 9 Sep 2019 23:57 Operator: JJY
Sample : 164274,321169, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 13:34:53 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 13:13:41 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

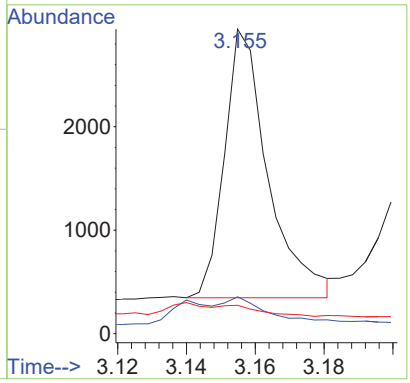


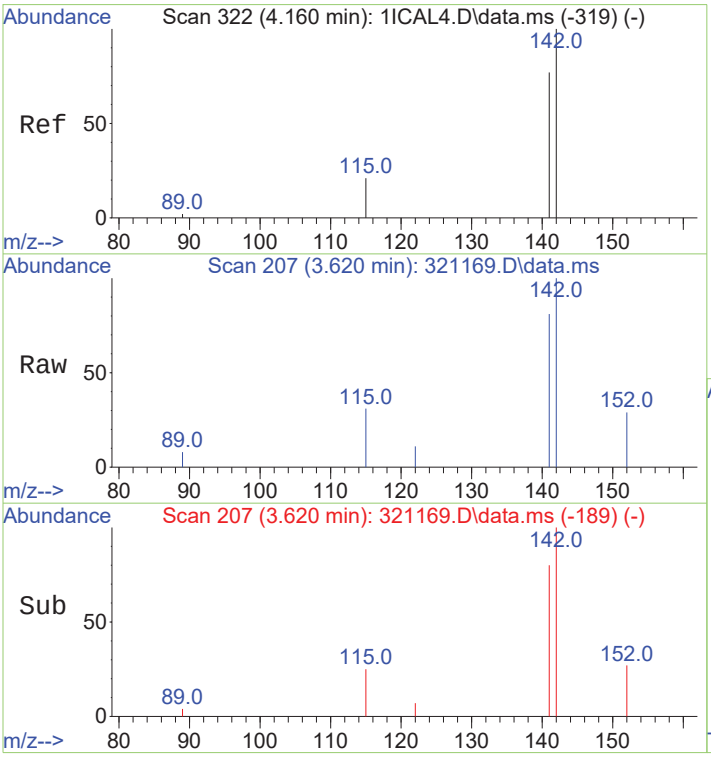


#2
Naphthalene
Concen: 34.54 ng/ml
RT: 3.155 min Scan# 100
Delta R.T. -0.000 min
Lab File: 321169.D
Acq: 9 Sep 2019 23:57

Tgt Ion:128 Resp: 2285

Ion	Ratio	Lower	Upper
128	100		
102	8.5	0.0	37.6
74	3.8	0.0	33.6

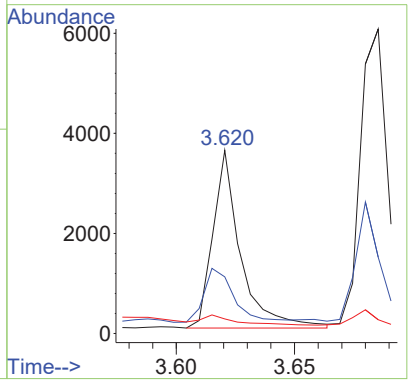


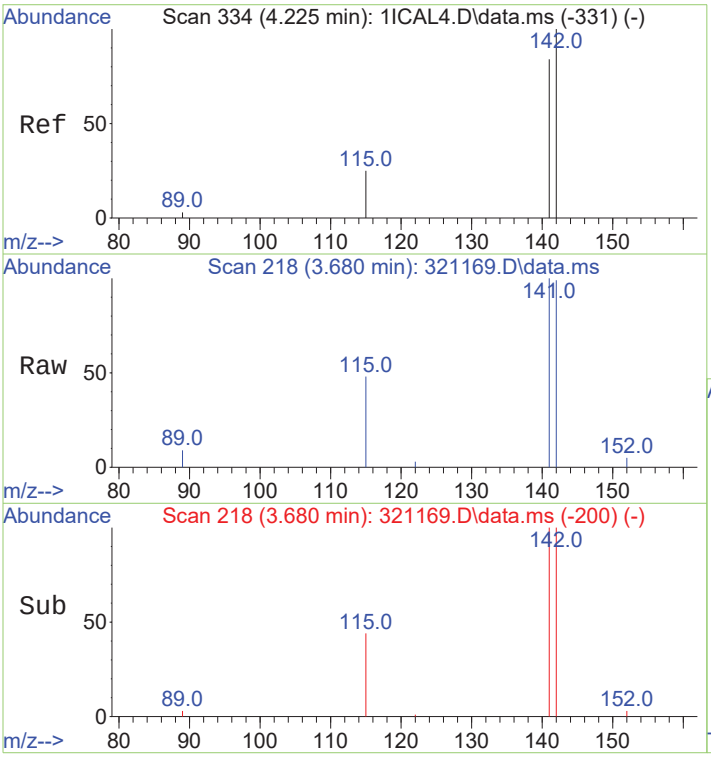


#4
2Methylnaphth
Concen: 79.83 ng/mL
RT: 3.620 min Scan# 207
Delta R.T. -0.000 min
Lab File: 321169.D
Acq: 9 Sep 2019 23:57

Tgt Ion:142 Resp: 2898

Ion	Ratio	Lower	Upper
142	100		
115	25.5	6.9	66.9
89	3.3	0.0	34.9

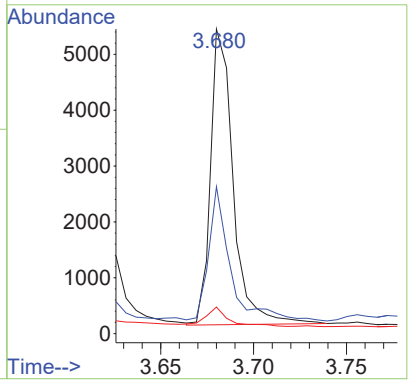


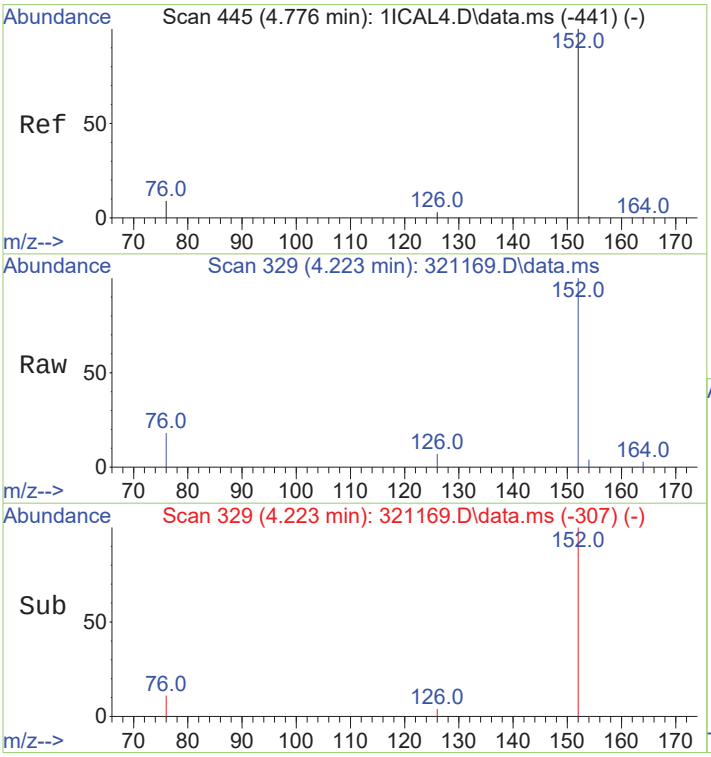


#5
1Methylnaphth
Concen: 127.23 ng/mL
RT: 3.680 min Scan# 218
Delta R.T. -0.000 min
Lab File: 321169.D
Acq: 9 Sep 2019 23:57

Tgt Ion:141 Resp: 4512

Ion	Ratio	Lower	Upper
141	100		
115	45.6	2.5	62.5
89	6.7	0.0	34.0

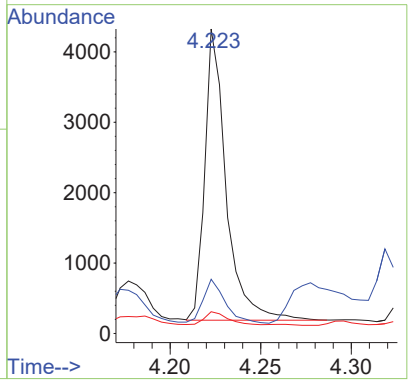


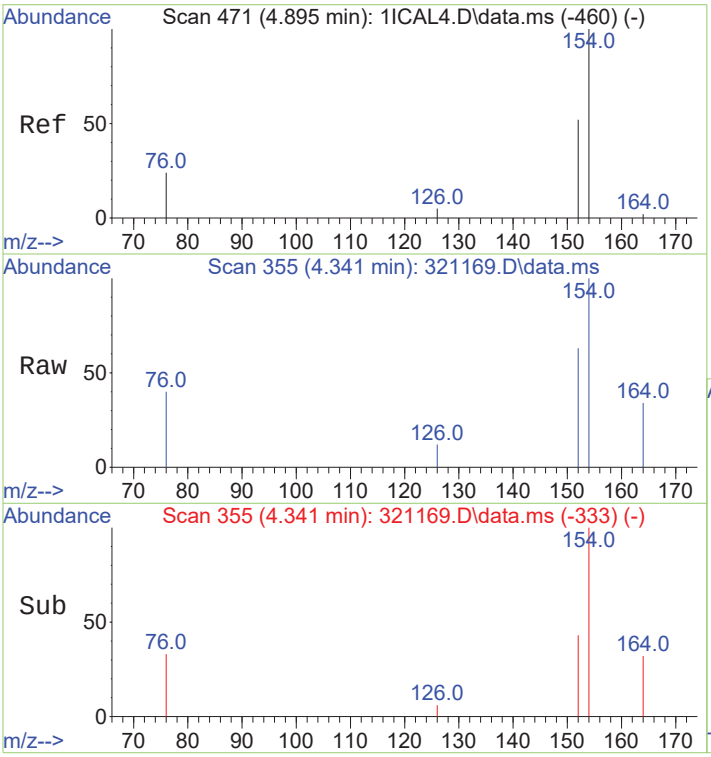


#7
Acnaphthylene
Concen: 58.52 ng/mL
RT: 4.223 min Scan# 329
Delta R.T. -0.000 min
Lab File: 321169.D
Acq: 9 Sep 2019 23:57

Tgt Ion:152 Resp: 3400

Ion	Ratio	Lower	Upper
152	100		
76	14.8	0.0	39.9
126	4.4	0.0	33.1

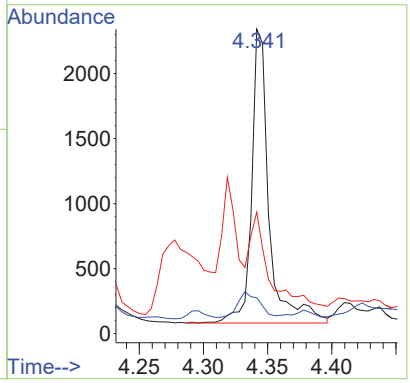


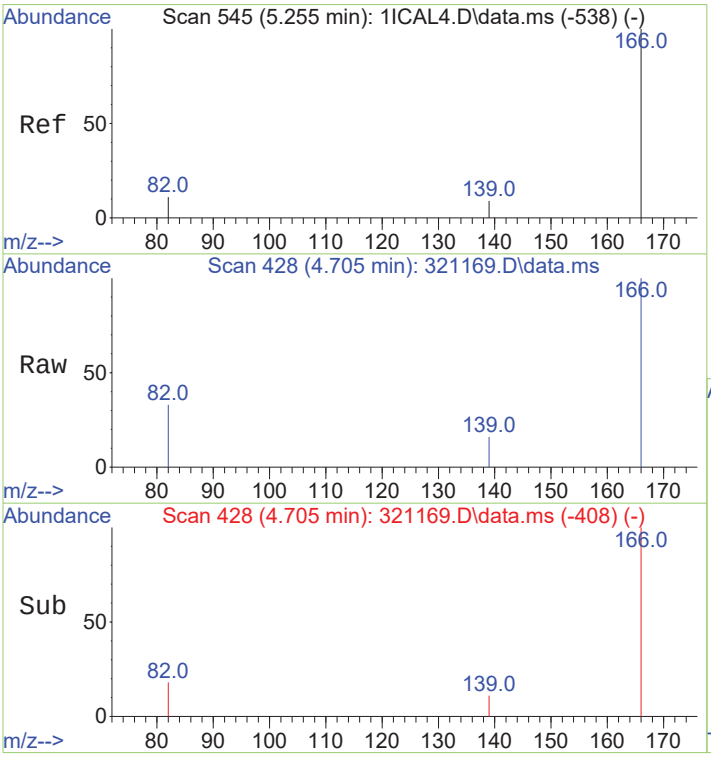


#8
Acenaphthene
Concen: 54.18 ng/mL
RT: 4.341 min Scan# 355
Delta R.T. -0.000 min
Lab File: 321169.D
Acq: 9 Sep 2019 23:57

Tgt Ion:154 Resp: 2132

Ion	Ratio	Lower	Upper
154	100		
126	6.5	0.0	34.3
76	32.0	0.0	51.6

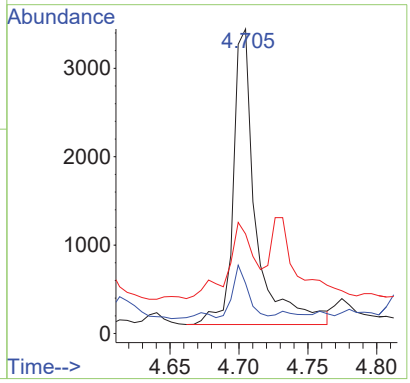


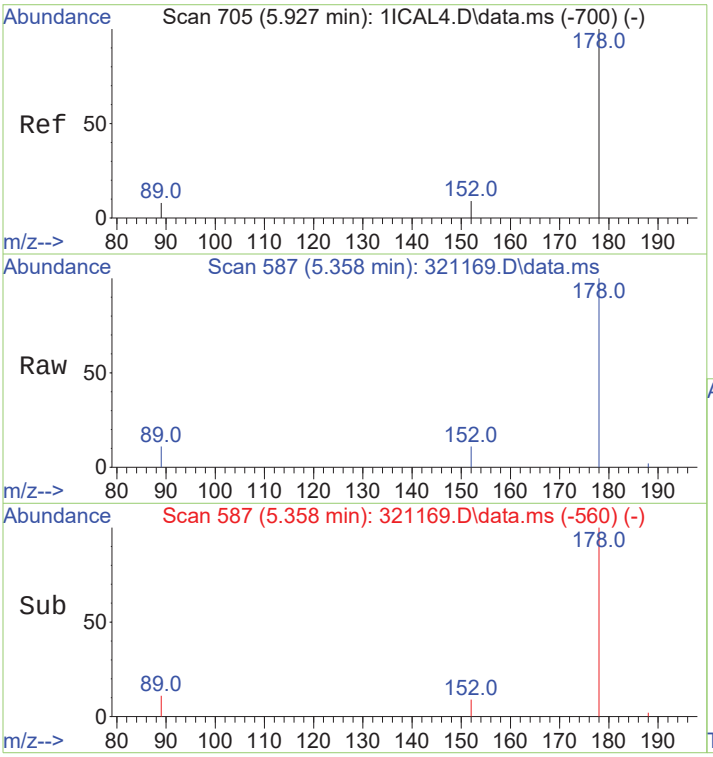


#9
Fluorene
Concen: 91.98 ng/mL
RT: 4.705 min Scan# 428
Delta R.T. 0.005 min
Lab File: 321169.D
Acq: 9 Sep 2019 23:57

Tgt Ion:166 Resp: 3820

Ion	Ratio	Lower	Upper
166	100		
139	11.6	0.0	38.6
82	21.9	0.0	42.4

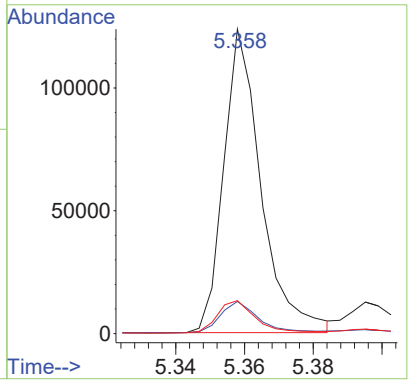


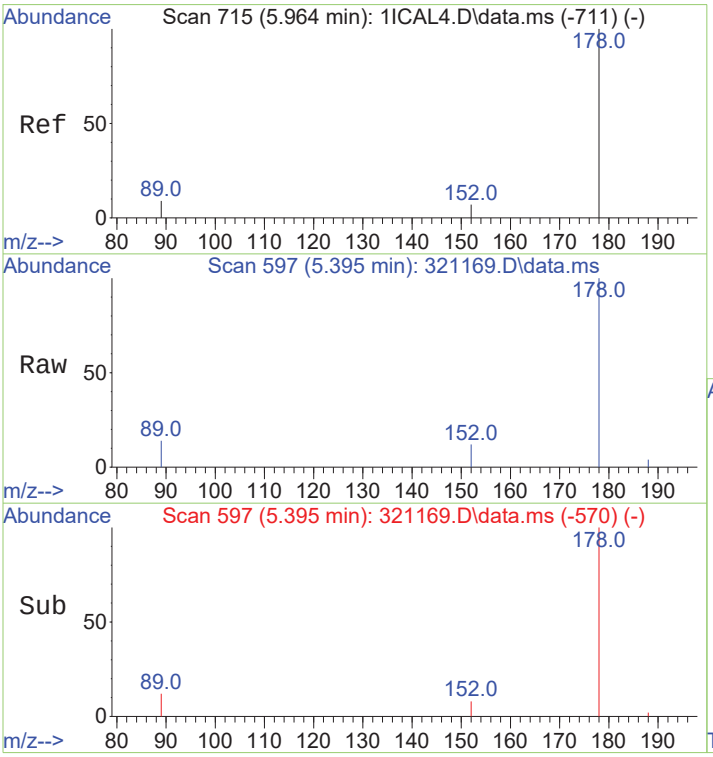


#11
Phenanthrene
Concen: 1660.17 ng/mL
RT: 5.358 min Scan# 587
Delta R.T. -0.000 min
Lab File: 321169.D
Acq: 9 Sep 2019 23:57

Tgt Ion:178 Resp: 93582

Ion	Ratio	Lower	Upper
178	100		
152	10.5	0.0	40.1
89	11.0	0.0	41.4

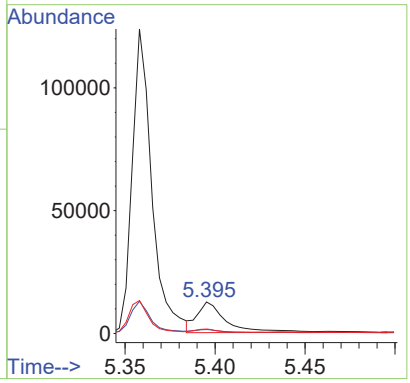


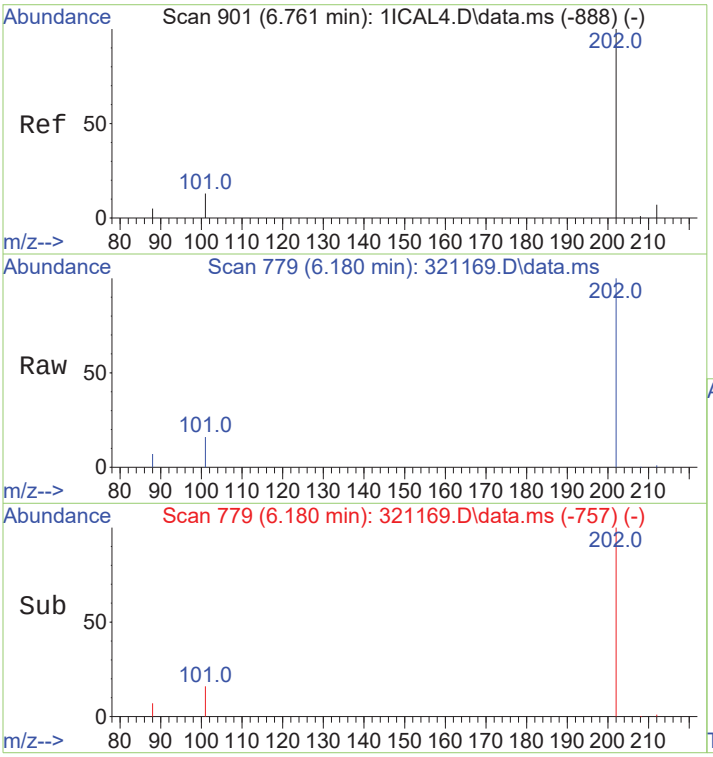


#12
Anthracene
Concen: 251.40 ng/mL
RT: 5.395 min Scan# 597
Delta R.T. -0.000 min
Lab File: 321169.D
Acq: 9 Sep 2019 23:57

Tgt Ion:178 Resp: 14278

Ion	Ratio	Lower	Upper
178	100		
152	8.8	0.0	37.8
89	12.0	0.0	31.3

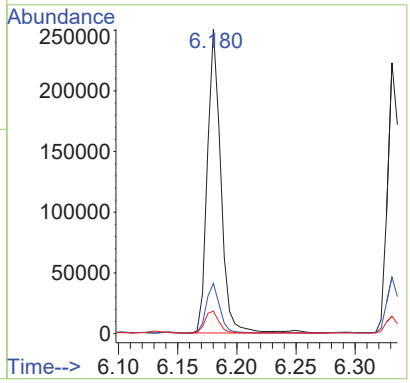


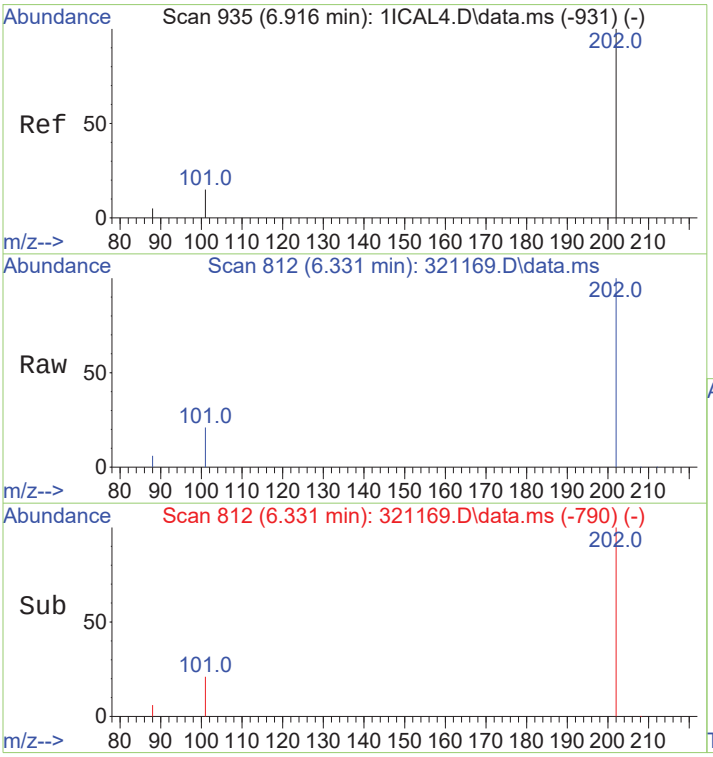


#14
Fluoranthene
Concen: 3061.22 ng/mL
RT: 6.180 min Scan# 779
Delta R.T. -0.000 min
Lab File: 321169.D
Acq: 9 Sep 2019 23:57

Tgt Ion:202 Resp: 198796

Ion	Ratio	Lower	Upper
202	100		
101	16.4	0.0	48.3
88	7.2	0.0	38.8

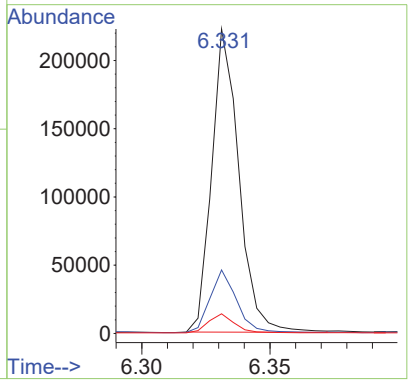


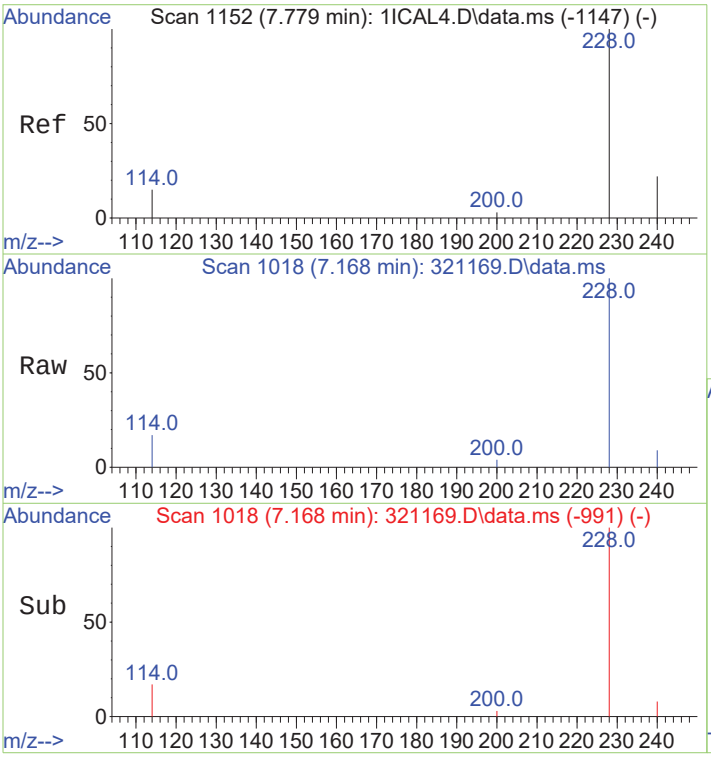


#16
Pyrene
Concen: 2423.84 ng/mL
RT: 6.331 min Scan# 812
Delta R.T. -0.000 min
Lab File: 321169.D
Acq: 9 Sep 2019 23:57

Tgt Ion:202 Resp: 163997

Ion	Ratio	Lower	Upper
202	100		
101	20.6	0.0	49.4
88	6.3	0.0	35.5

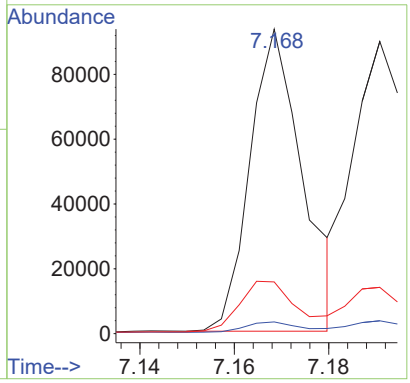


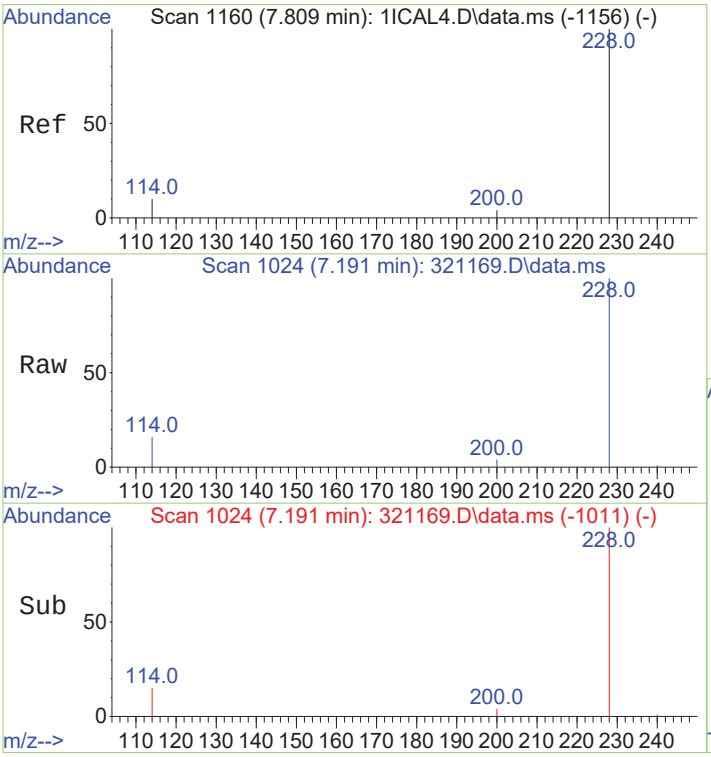


#17
B[a]anthracen
Concen: 1484.17 ng/mL
RT: 7.168 min Scan# 1018
Delta R.T. -0.000 min
Lab File: 321169.D
Acq: 9 Sep 2019 23:57

Tgt Ion:228 Resp: 72302

Ion	Ratio	Lower	Upper
228	100		
200	3.4	0.0	33.6
114	16.5	0.0	47.0

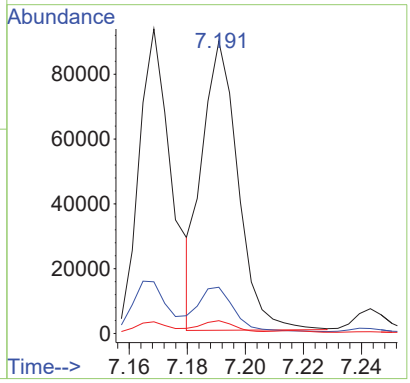


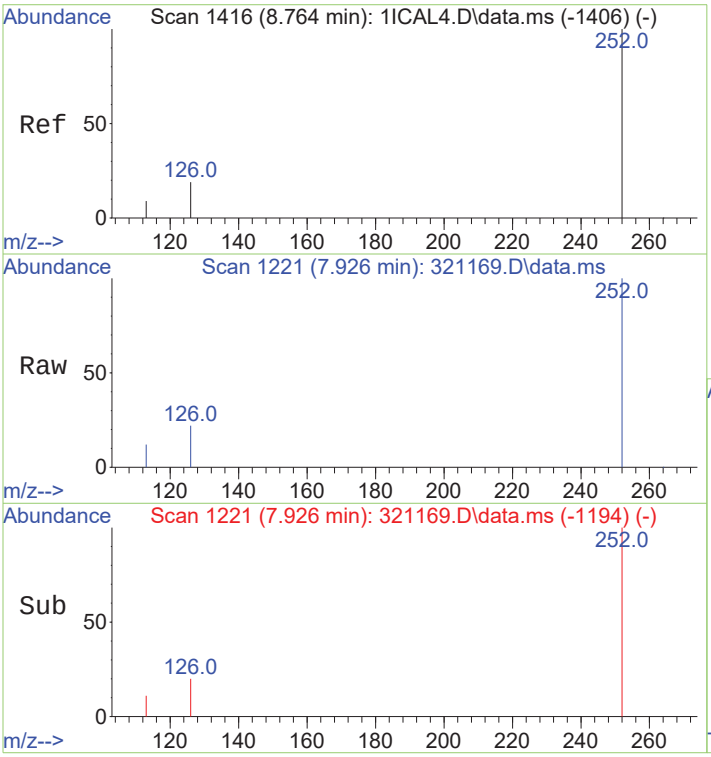


#18
Chrysene
Concen: 1307.15 ng/mL
RT: 7.191 min Scan# 1024
Delta R.T. -0.000 min
Lab File: 321169.D
Acq: 9 Sep 2019 23:57

Tgt Ion:228 Resp: 76825

Ion	Ratio	Lower	Upper
228	100		
114	15.4	0.0	46.1
200	4.0	0.0	33.8

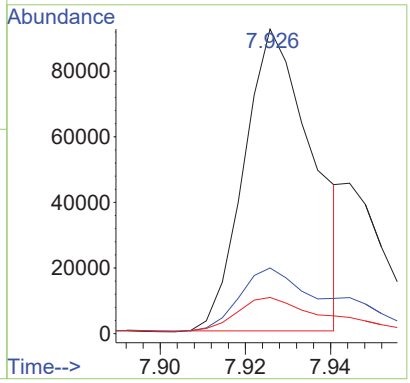


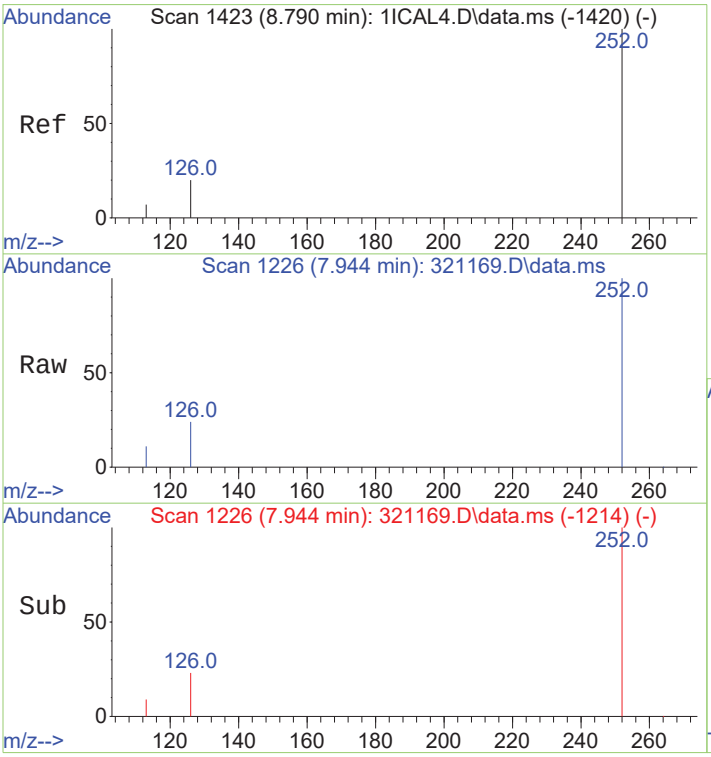


#20
B[b]fluoranth
Concen: 1992.37 ng/mL m
RT: 7.926 min Scan# 1221
Delta R.T. -0.000 min
Lab File: 321169.D
Acq: 9 Sep 2019 23:57

Tgt Ion:252 Resp: 103091

Ion	Ratio	Lower	Upper
252	100		
126	21.5	0.0	52.1
113	11.9	0.0	40.0

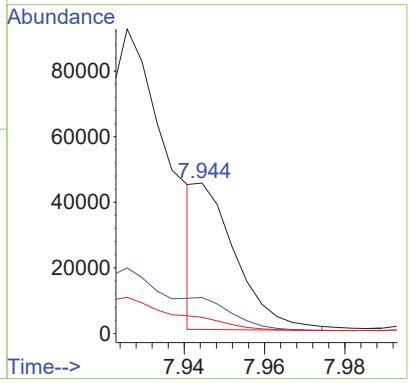


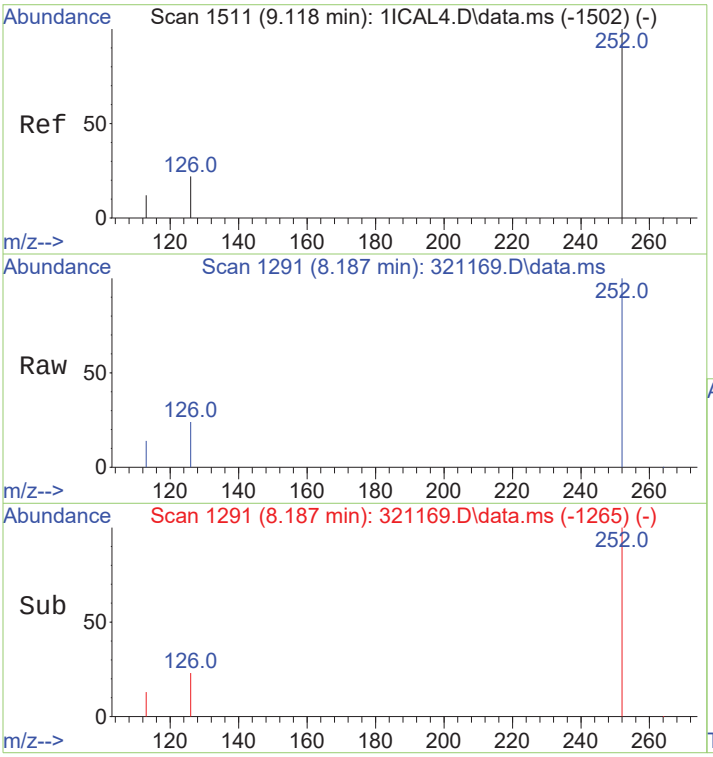


#21
B[k]fluoranth
Concen: 498.76 ng/mL m
RT: 7.944 min Scan# 1226
Delta R.T. -0.004 min
Lab File: 321169.D
Acq: 9 Sep 2019 23:57

Tgt Ion:252 Resp: 31343

Ion	Ratio	Lower	Upper
252	100		
126	24.0	0.0	54.3
113	10.8	0.0	39.4

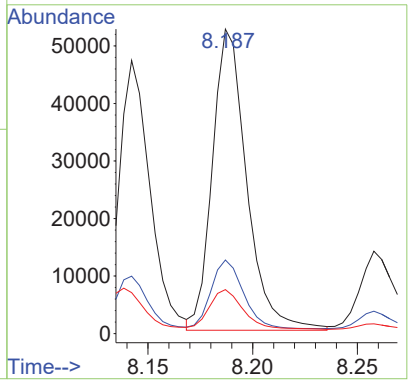


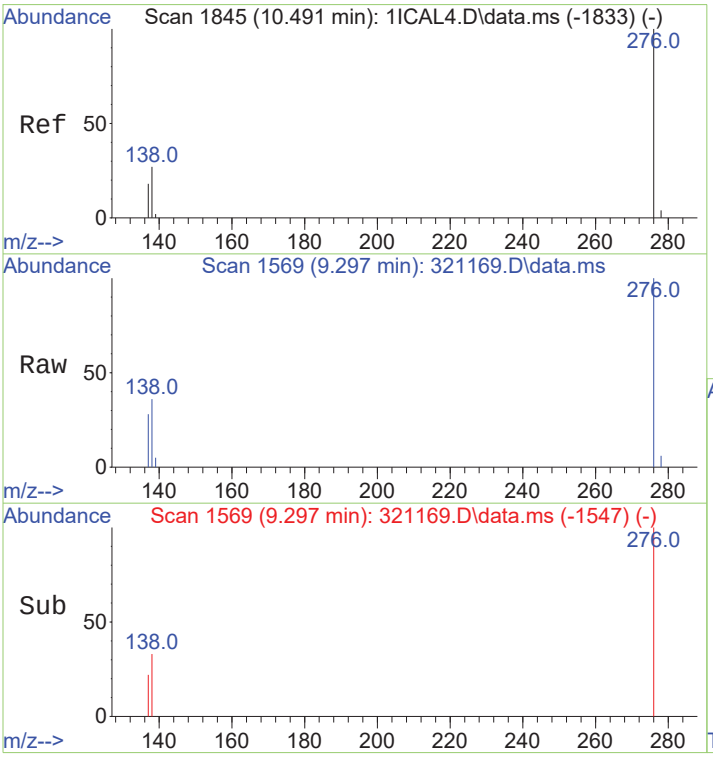


#22
Benz[a]pyrene
Concen: 1194.36 ng/mL
RT: 8.187 min Scan# 1291
Delta R.T. -0.004 min
Lab File: 321169.D
Acq: 9 Sep 2019 23:57

Tgt Ion:252 Resp: 59793

Ion	Ratio	Lower	Upper
252	100		
126	23.0	0.0	52.7
113	13.4	0.0	42.2

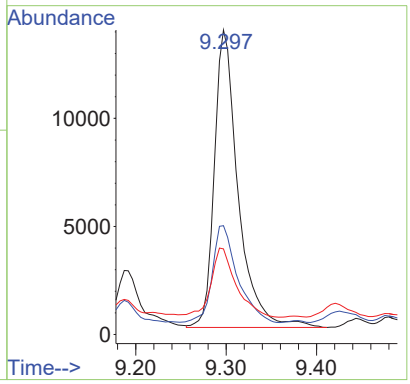


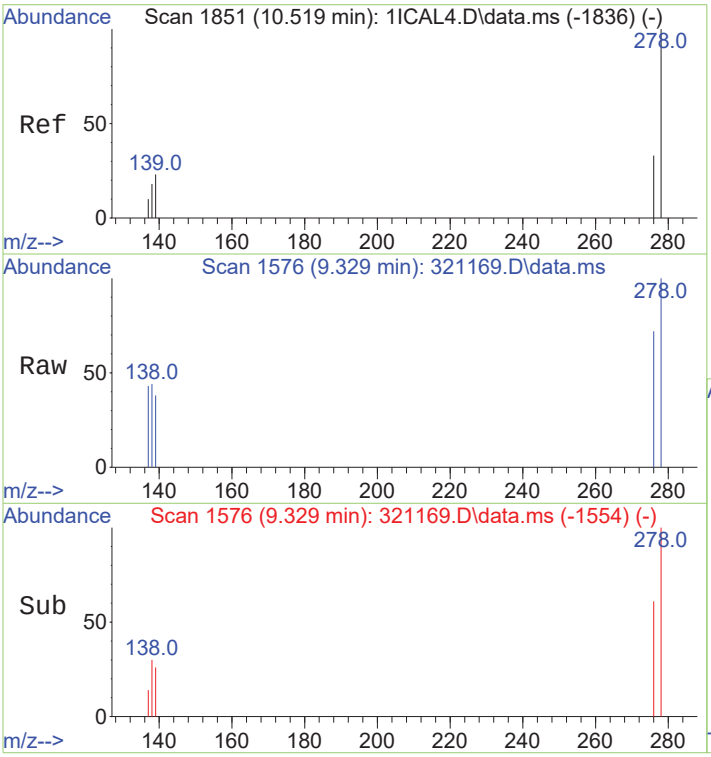


#23
Indeno-pyrene
Concen: 529.81 ng/mL
RT: 9.297 min Scan# 1569
Delta R.T. -0.000 min
Lab File: 321169.D
Acq: 9 Sep 2019 23:57

Tgt Ion:276 Resp: 25288

Ion	Ratio	Lower	Upper
276	100		
138	32.3	4.1	64.1
137	22.0	0.0	52.8

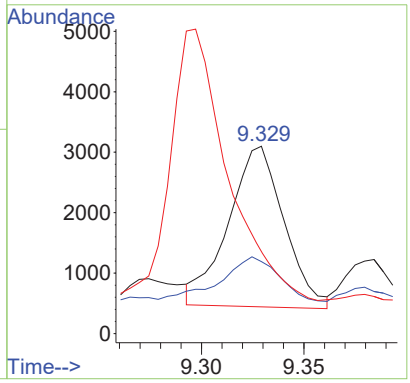


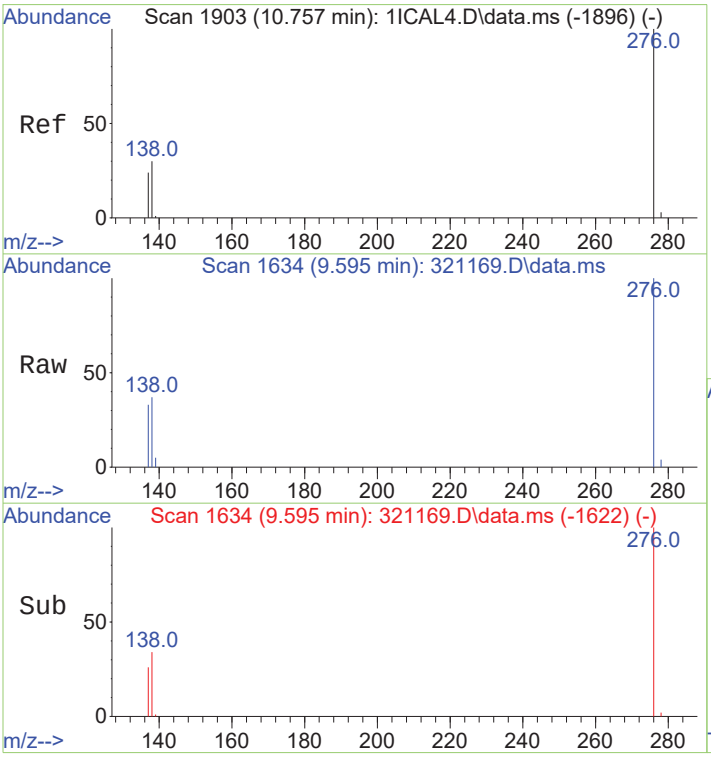


#24
Dib[ah]anthr
Concen: 154.66 ng/mL
RT: 9.329 min Scan# 1576
Delta R.T. -0.000 min
Lab File: 321169.D
Acq: 9 Sep 2019 23:57

Tgt Ion:278 Resp: 5022

Ion	Ratio	Lower	Upper
278	100		
139	26.5	0.0	59.3
138	31.9	0.0	56.3

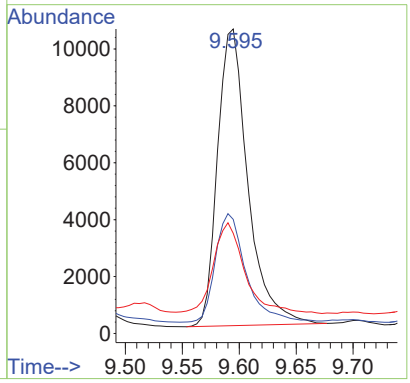


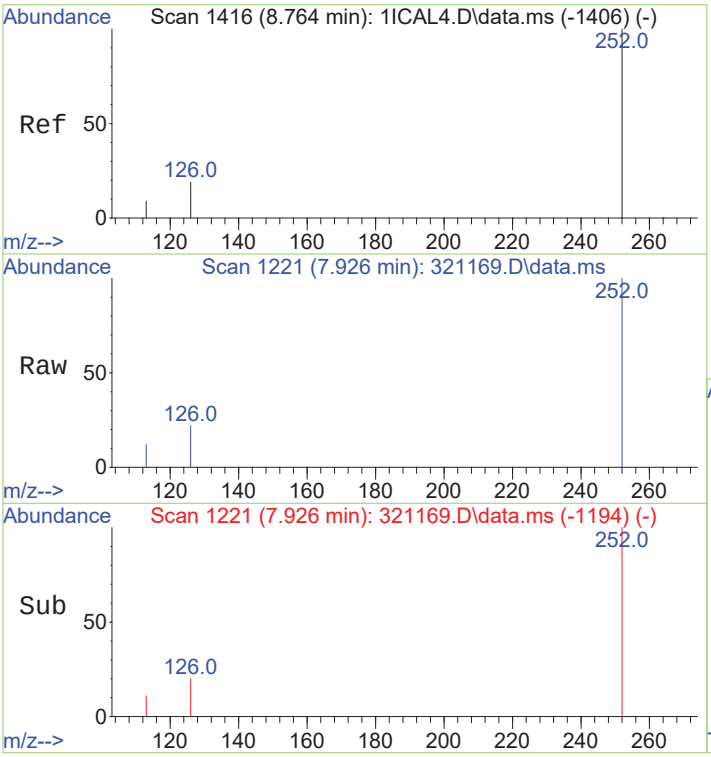


#25
B[ghi]perylen
Concen: 480.40 ng/mL
RT: 9.595 min Scan# 1634
Delta R.T. 0.004 min
Lab File: 321169.D
Acq: 9 Sep 2019 23:57

Tgt Ion:276 Resp: 19397

Ion	Ratio	Lower	Upper
276	100		
138	34.6	7.7	67.7
137	26.8	0.6	60.6

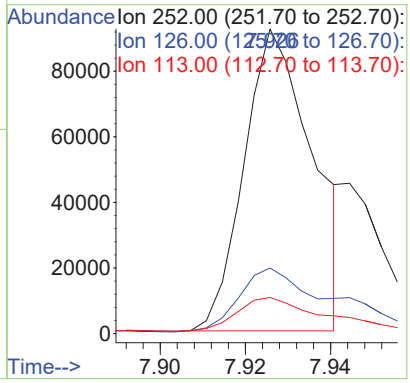




#20
B[b]fluoranth
Concen: 1992.37 ng/mL m
RT: 7.926 min Scan# 1221
Delta R.T. -0.000 min
Lab File: 321169.D
Acq: 9 Sep 2019 23:57

Tgt Ion:252 Resp: 103091

Ion	Ratio	Lower	Upper
252	100		
126	21.5	0.0	52.1
113	11.9	0.0	40.0

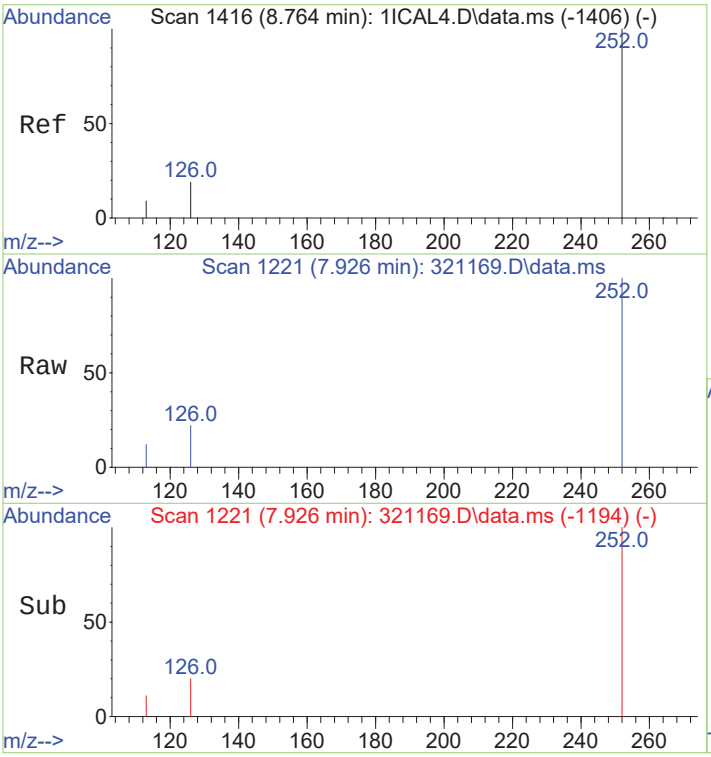


After Manual Integration

RED
9/12/2019

Reason#3

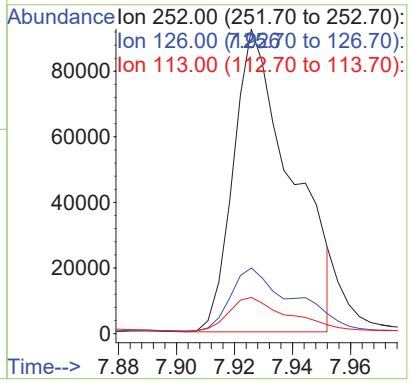
JJY
9/11/19



#20
B[b]fluoranth
Concen: 2476.13 ng/mL
RT: 7.926 min Scan# 1221
Delta R.T. -0.000 min
Lab File: 321169.D
Acq: 9 Sep 2019 23:57

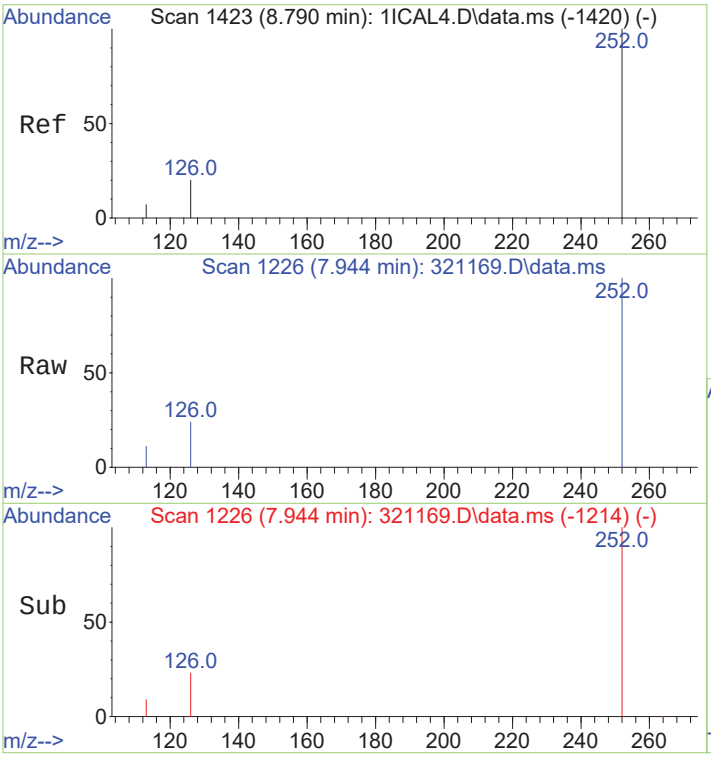
Tgt Ion:252 Resp: 128478

Ion	Ratio	Lower	Upper
252	100		
126	20.9	0.0	52.1
113	11.1	0.0	40.0



Before Manual Integration

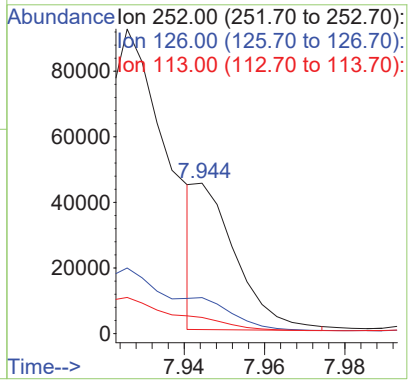
Reason#3 JJY 9/11/19



#21
B[k]fluoranth
Concen: 498.76 ng/mL m
RT: 7.944 min Scan# 1226
Delta R.T. -0.004 min
Lab File: 321169.D
Acq: 9 Sep 2019 23:57

Tgt Ion:252 Resp: 31343

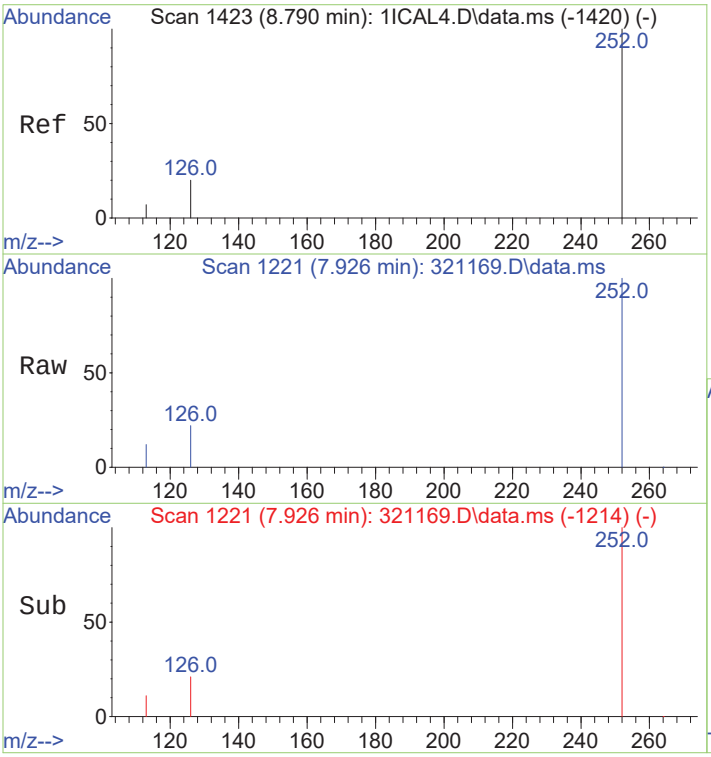
Ion	Ratio	Lower	Upper
252	100		
126	24.0	0.0	54.3
113	10.8	0.0	39.4



RED
9/12/2019

After Manual Integration

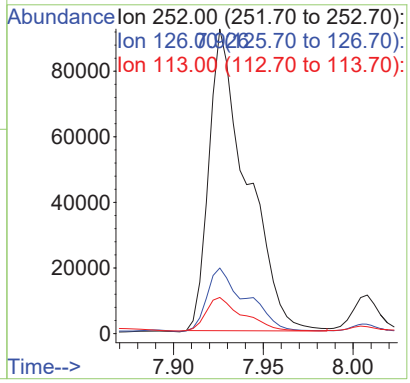
Reason#3 JJY
9/11/19



#21
B[k]fluoranth
Concen: 2149.05 ng/mL
RT: 7.926 min Scan# 1221
Delta R.T. -0.023 min
Lab File: 321169.D
Acq: 9 Sep 2019 23:57

Tgt Ion:252 Resp: 135398

Ion	Ratio	Lower	Upper
252	100		
126	20.9	0.0	54.3
113	11.0	0.0	39.4



Before Manual Integration

Reason#3 JJY 9/11/19

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321170.D Vial: 26
Acq On : 10 Sep 2019 00:17 Operator: JJY
Sample : 164274,321170, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 13:39:37 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 13:13:41 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

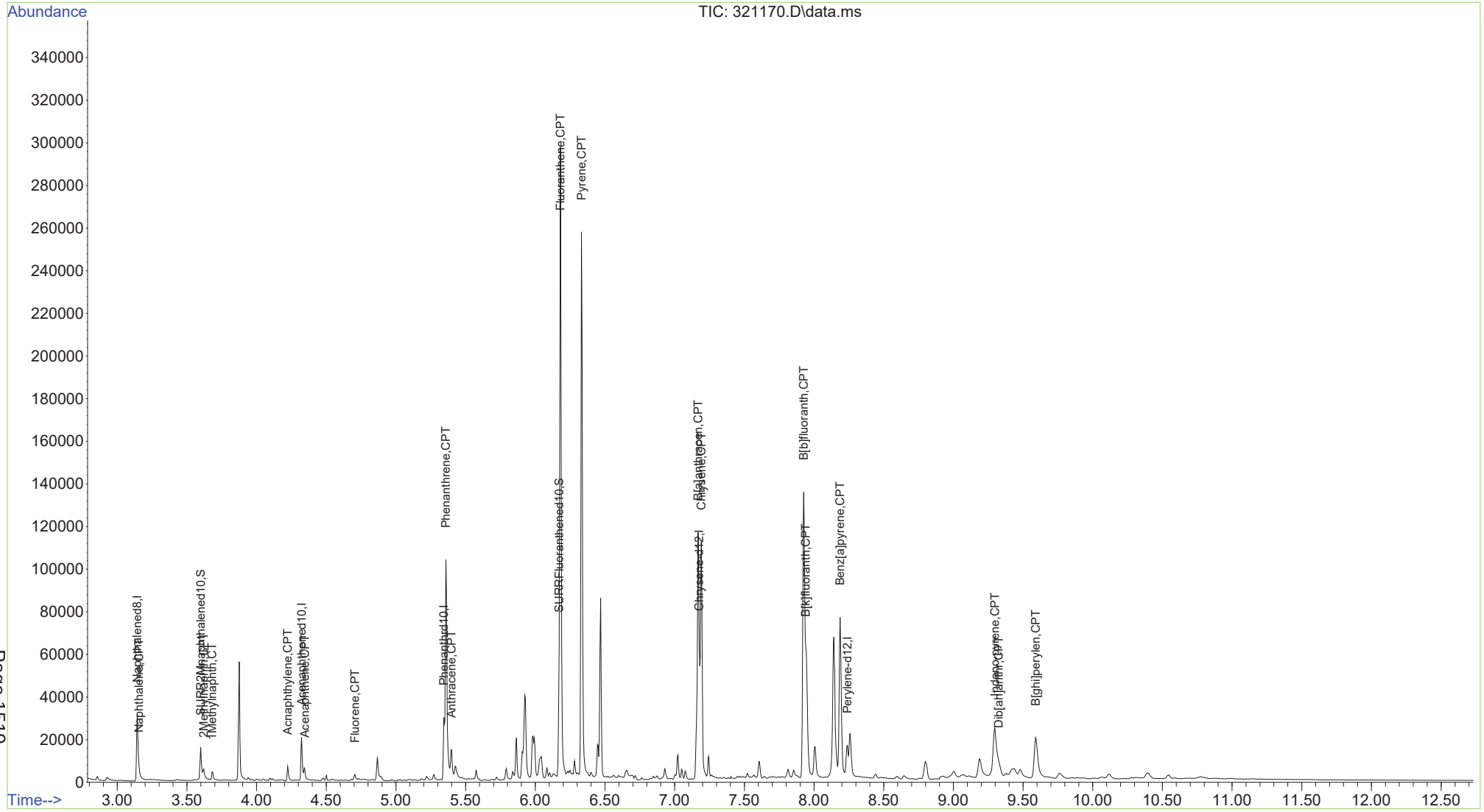
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.144	136	28042	400.00	ng/mL	0.00
6) Acenaphthened10	4.323	164	14350	400.00	ng/mL	0.00
10) Phenanthrd10	5.343	188	24110	400.00	ng/mL	0.00
15) Chrysene-d12	7.176	240	17593	400.00	ng/mL	0.00
19) Perylene-d12	8.239	264	16384	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.599	152	10968	70.52	%REC	0.00
Spiked Amount 100.000			Recovery = 70.52%			
13) SURRFluoranthened10	6.171	212	18968	79.67	%REC	0.00
Spiked Amount 100.000			Recovery = 79.67%			
Target Compounds						Qvalue
2) Naphthalene	3.155	128	1335	19.3607	ng/ml	92
4) 2Methylnaphth	3.620	142	1683	44.4795	ng/mL	83
5) 1Methylnaphth	3.680	141	1269	34.3307	ng/mL	77
7) Acnaphthylene	4.223	152	4458	74.0786	ng/mL	95
8) Acenaphthene	4.346	154	2550	62.5673	ng/mL	97
9) Fluorene	4.705	166	2522	58.6301	ng/mL	78
11) Phenanthrene	5.358	178	68596	1143.3164	ng/mL	99
12) Anthracene	5.399	178	10682	177.9330	ng/mL	90
14) Fluoranthene	6.180	202	173555	2528.3290	ng/mL	96
16) Pyrene	6.331	202	149219	2097.6133	ng/mL	96
17) B[a]anthracen	7.168	228	78558	1532.2381	ng/mL	100
18) Chrysene	7.191	228	76299	1234.7360	ng/mL	99
20) B[b]fluoranth	7.926	252	115279m	2135.1914	ng/mL	
21) B[k]fluoranth	7.941	252	31205m	476.4218	ng/mL	
22) Benz[a]pyrene	8.187	252	59610	1143.7898	ng/mL	99
23) Indeno-pyrene	9.297	276	26485	532.0754	ng/mL	96
24) Dib[ah]anthr	9.325	278	5361	157.4340	ng/mL	89
25) B[ghi]perylen	9.590	276	20360	483.3949	ng/mL	99

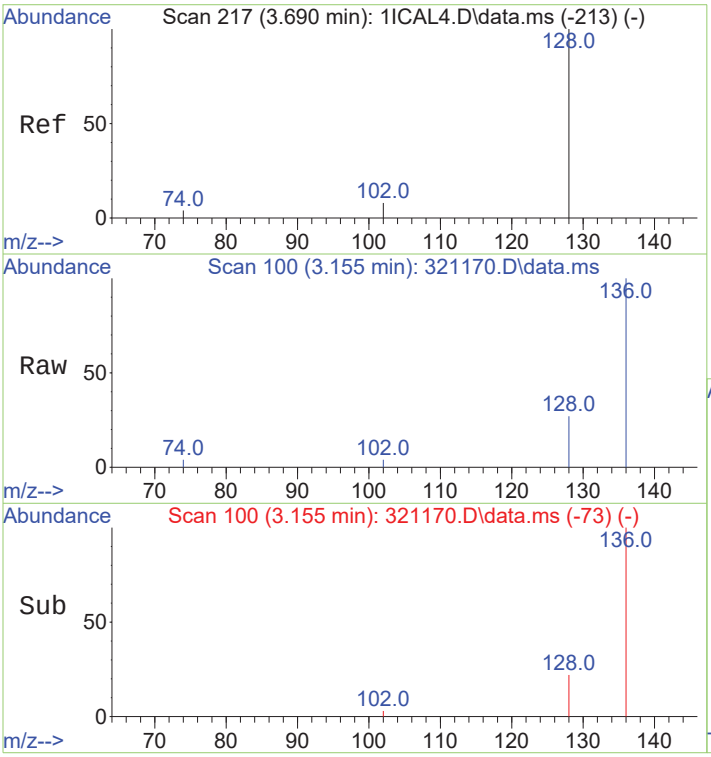
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321170.D Vial: 26
Acq On : 10 Sep 2019 00:17 Operator: JJY
Sample : 164274,321170, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 13:39:37 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 13:13:41 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

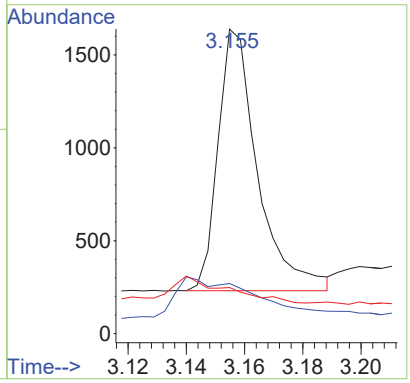


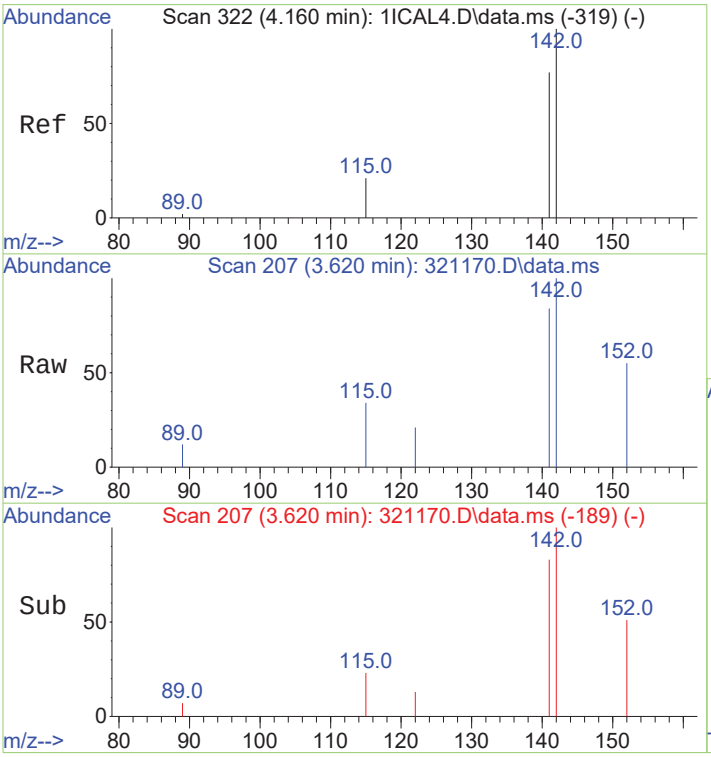


#2
Naphthalene
Concen: 19.36 ng/ml
RT: 3.155 min Scan# 100
Delta R.T. -0.000 min
Lab File: 321170.D
Acq: 10 Sep 2019 00:17

Tgt Ion:128 Resp: 1335

Ion	Ratio	Lower	Upper
128	100		
102	10.6	0.0	37.6
74	5.5	0.0	33.6

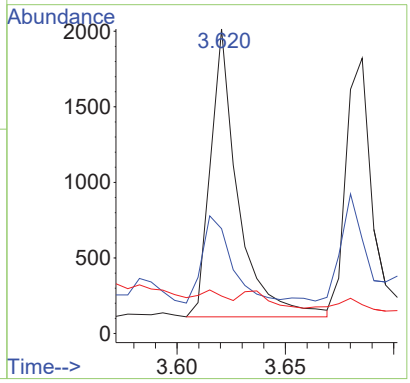


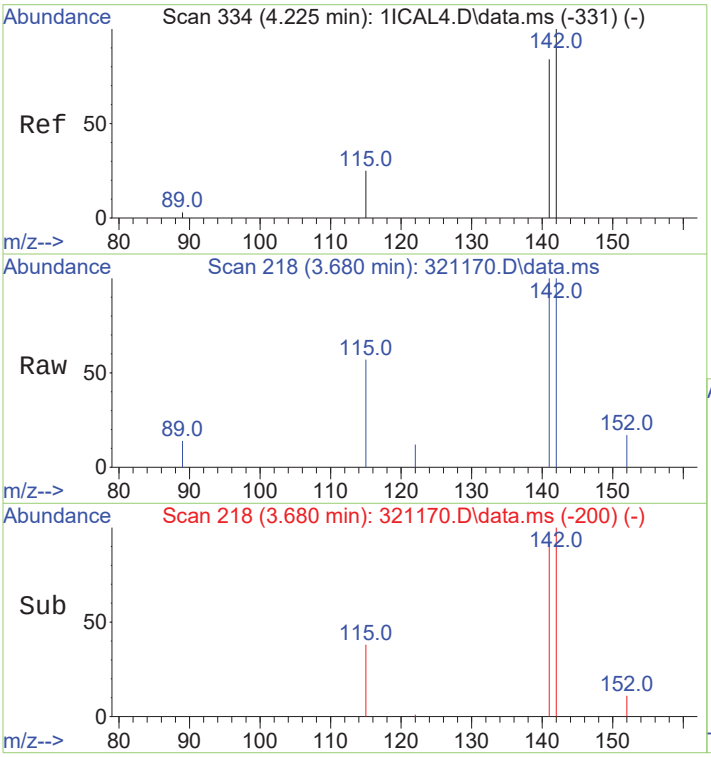


#4
2Methylnaphth
Concen: 44.48 ng/mL
RT: 3.620 min Scan# 207
Delta R.T. -0.000 min
Lab File: 321170.D
Acq: 10 Sep 2019 00:17

Tgt Ion:142 Resp: 1683

Ion	Ratio	Lower	Upper
142	100		
115	25.8	6.9	66.9
89	3.7	0.0	34.9

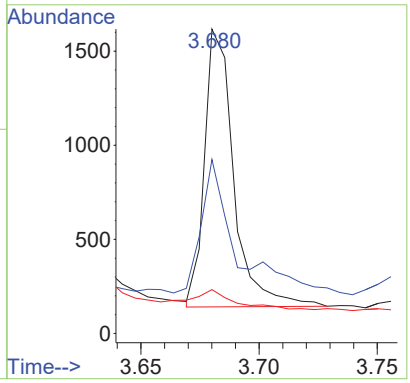


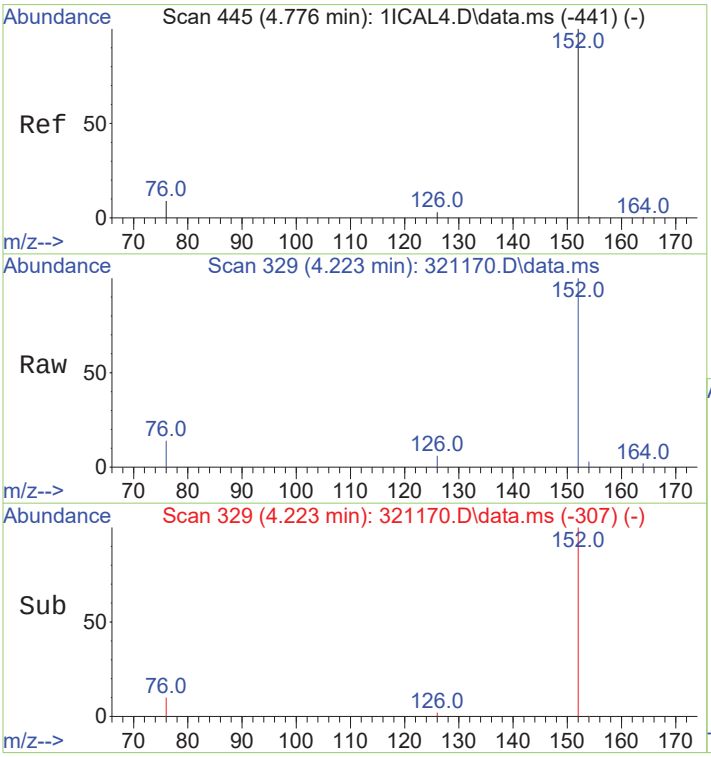


#5
1Methylnaphth
Concen: 34.33 ng/mL
RT: 3.680 min Scan# 218
Delta R.T. -0.000 min
Lab File: 321170.D
Acq: 10 Sep 2019 00:17

Tgt Ion:141 Resp: 1269

Ion	Ratio	Lower	Upper
141	100		
115	46.5	2.5	62.5
89	6.9	0.0	34.0

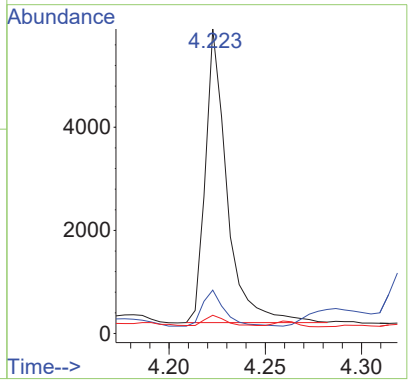


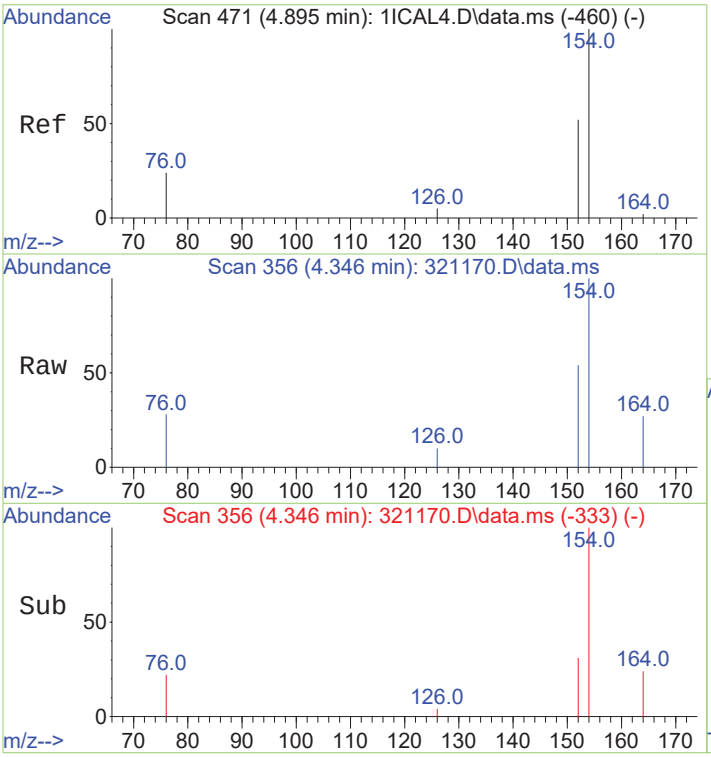


#7
Acnaphthylene
Concen: 74.08 ng/mL
RT: 4.223 min Scan# 329
Delta R.T. -0.000 min
Lab File: 321170.D
Acq: 10 Sep 2019 00:17

Tgt Ion:152 Resp: 4458

Ion	Ratio	Lower	Upper
152	100		
76	12.2	0.0	39.9
126	3.9	0.0	33.1

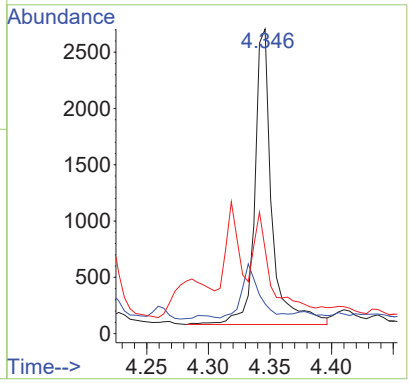


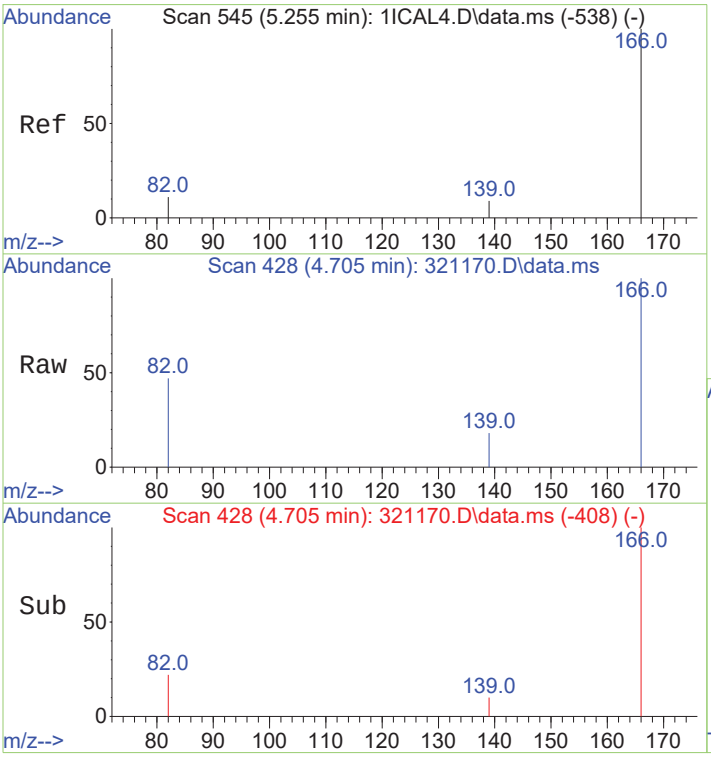


#8
Acenaphthene
Concen: 62.57 ng/mL
RT: 4.346 min Scan# 356
Delta R.T. 0.004 min
Lab File: 321170.D
Acq: 10 Sep 2019 00:17

Tgt Ion:154 Resp: 2550

Ion	Ratio	Lower	Upper
154	100		
126	5.0	0.0	34.3
76	19.8	0.0	51.6

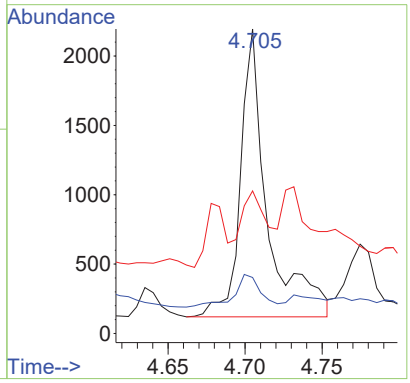


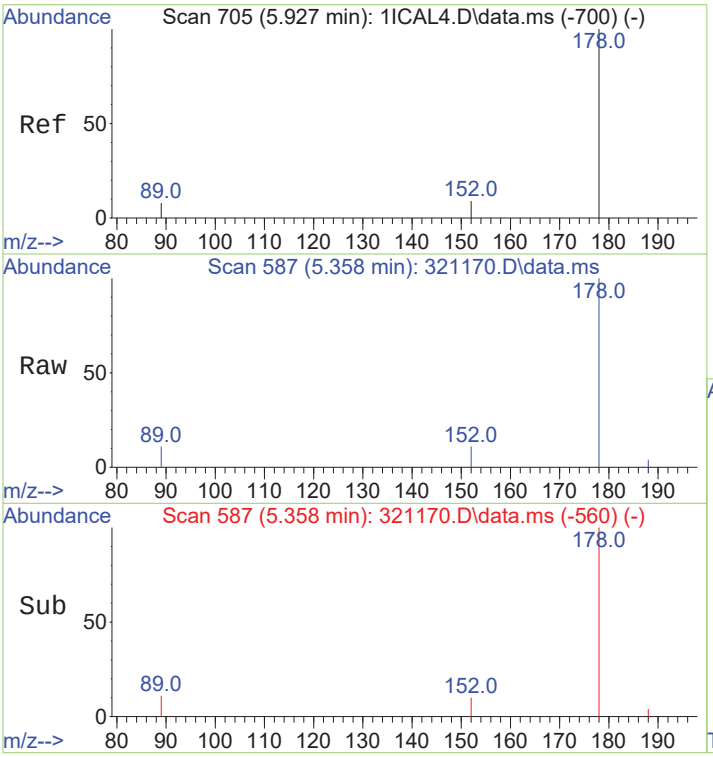


#9
Fluorene
Concen: 58.63 ng/mL
RT: 4.705 min Scan# 428
Delta R.T. 0.005 min
Lab File: 321170.D
Acq: 10 Sep 2019 00:17

Tgt Ion:166 Resp: 2522

Ion	Ratio	Lower	Upper
166	100		
139	10.3	0.0	38.6
82	25.8	0.0	42.4

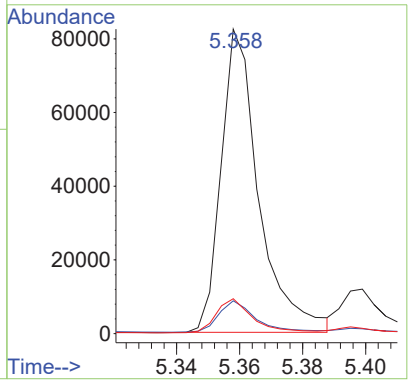


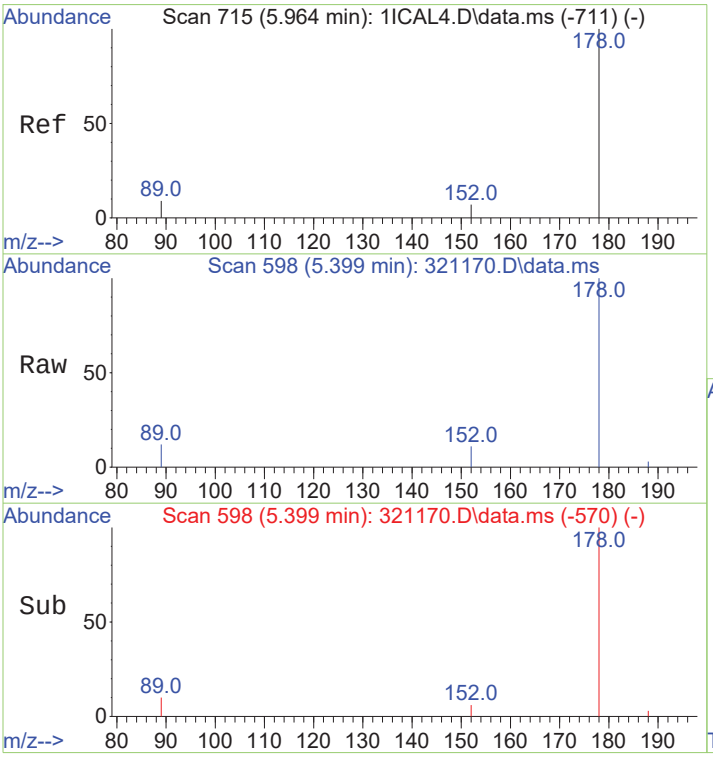


#11
Phenanthrene
Concen: 1143.32 ng/mL
RT: 5.358 min Scan# 587
Delta R.T. -0.000 min
Lab File: 321170.D
Acq: 10 Sep 2019 00:17

Tgt Ion:178 Resp: 68596

Ion	Ratio	Lower	Upper
178	100		
152	9.9	0.0	40.1
89	10.8	0.0	41.4

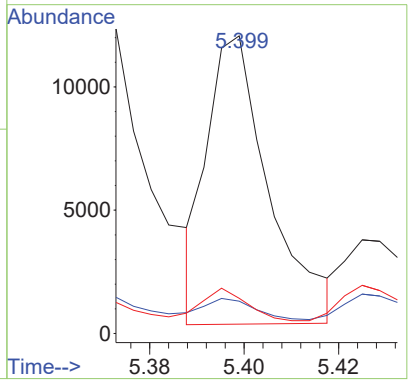


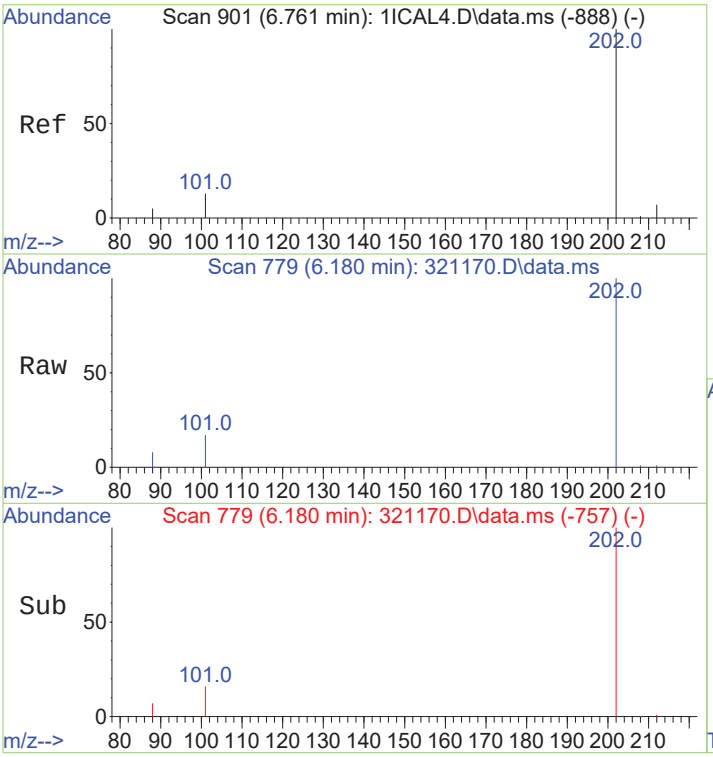


#12
Anthracene
Concen: 177.93 ng/mL
RT: 5.399 min Scan# 598
Delta R.T. 0.004 min
Lab File: 321170.D
Acq: 10 Sep 2019 00:17

Tgt Ion:178 Resp: 10682

Ion	Ratio	Lower	Upper
178	100		
152	5.9	0.0	37.8
89	6.1	0.0	31.3

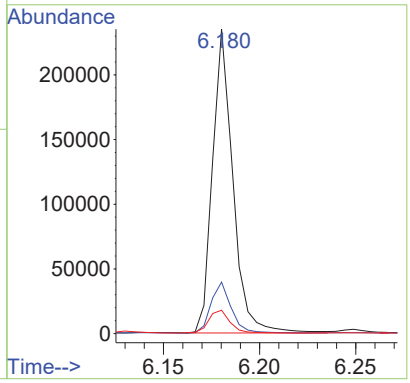


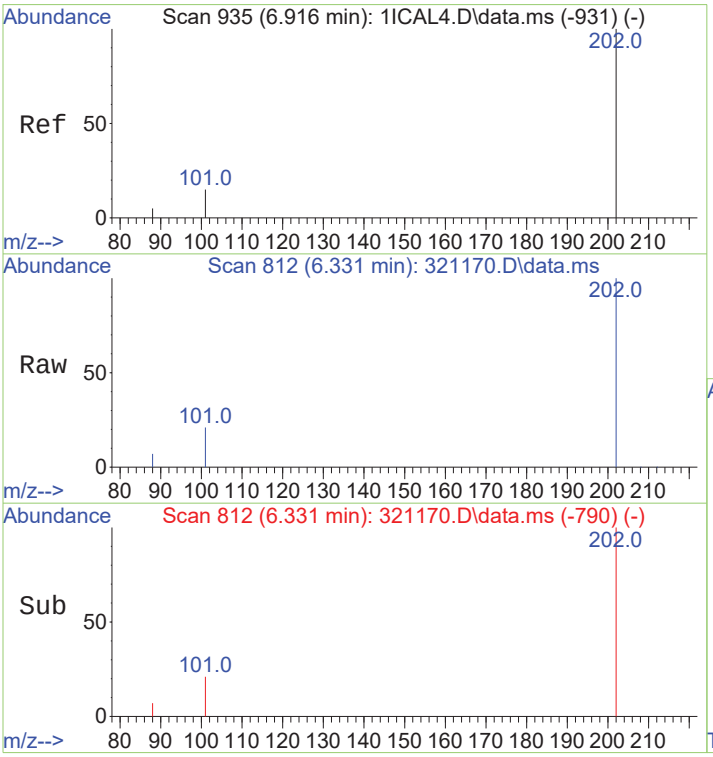


#14
Fluoranthene
Concen: 2528.33 ng/mL
RT: 6.180 min Scan# 779
Delta R.T. -0.000 min
Lab File: 321170.D
Acq: 10 Sep 2019 00:17

Tgt Ion:202 Resp: 173555

Ion	Ratio	Lower	Upper
202	100		
101	16.8	0.0	48.3
88	7.4	0.0	38.8

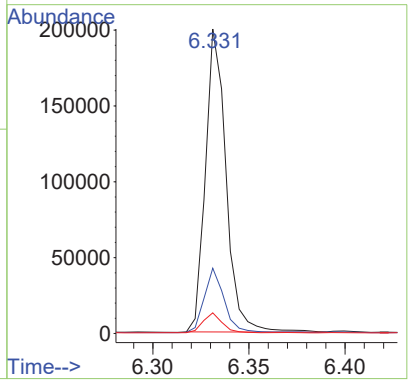


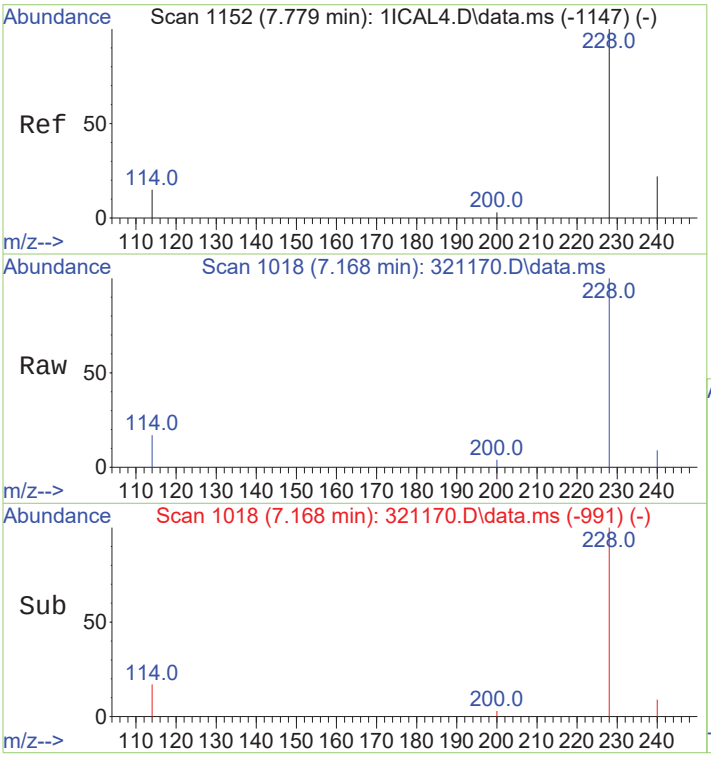


#16
Pyrene
Concen: 2097.61 ng/mL
RT: 6.331 min Scan# 812
Delta R.T. -0.000 min
Lab File: 321170.D
Acq: 10 Sep 2019 00:17

Tgt Ion:202 Resp: 149219

Ion	Ratio	Lower	Upper
202	100		
101	21.2	0.0	49.4
88	6.6	0.0	35.5

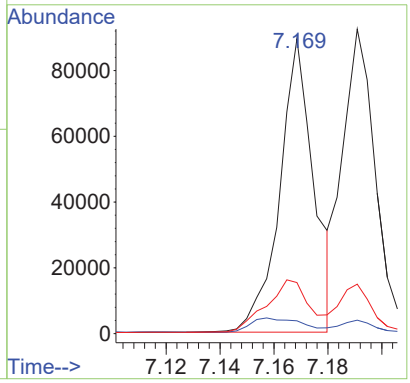


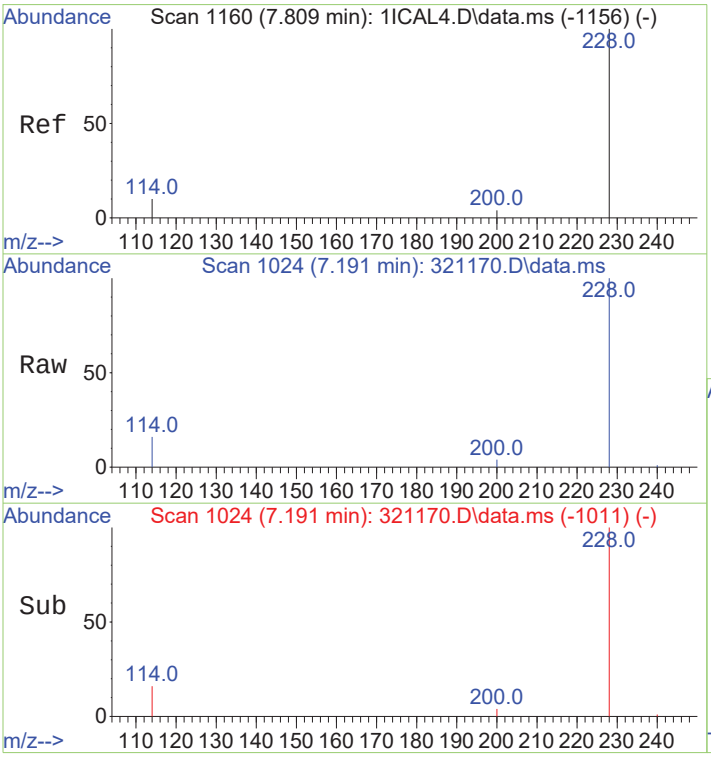


#17
B[a]anthracen
Concen: 1532.24 ng/mL
RT: 7.168 min Scan# 1018
Delta R.T. -0.000 min
Lab File: 321170.D
Acq: 10 Sep 2019 00:17

Tgt Ion:228 Resp: 78558

Ion	Ratio	Lower	Upper
228	100		
200	4.0	0.0	33.6
114	16.9	0.0	47.0

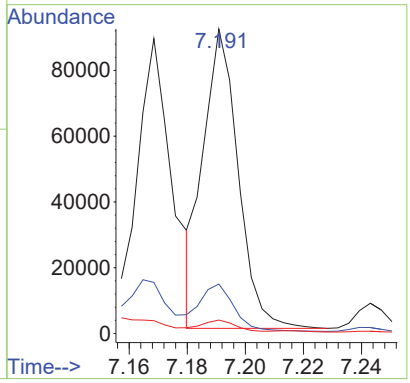


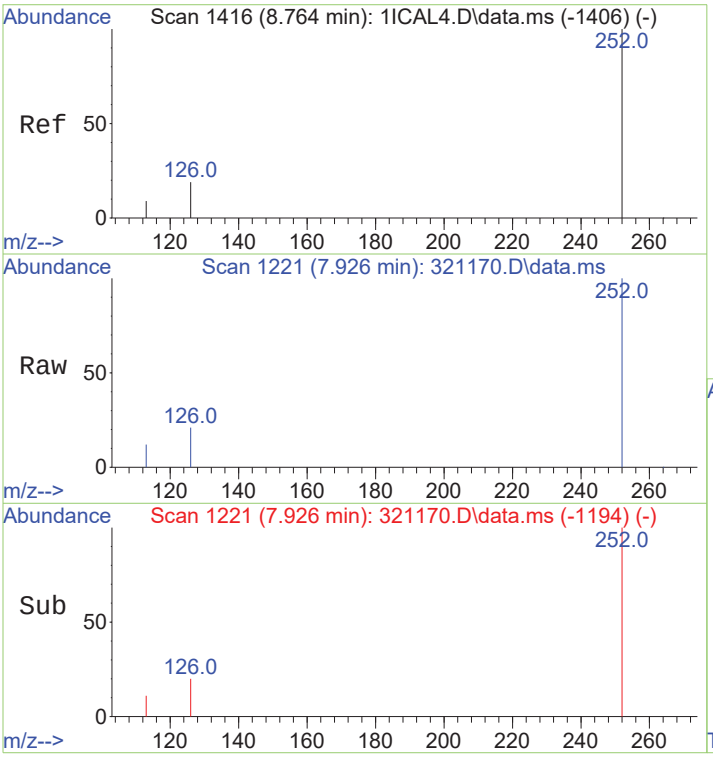


#18
Chrysene
Concen: 1234.74 ng/mL
RT: 7.191 min Scan# 1024
Delta R.T. -0.000 min
Lab File: 321170.D
Acq: 10 Sep 2019 00:17

Tgt Ion:228 Resp: 76299

Ion	Ratio	Lower	Upper
228	100		
114	15.8	0.0	46.1
200	4.0	0.0	33.8

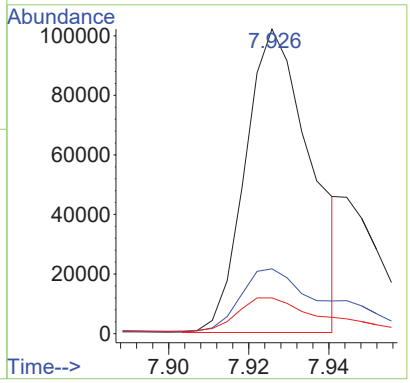


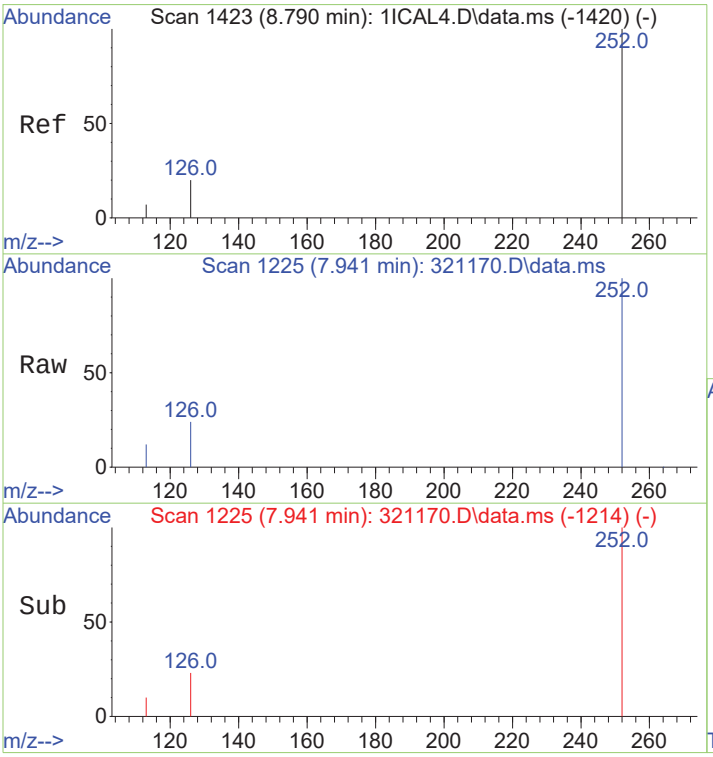


#20
B[b]fluoranth
Concen: 2135.19 ng/mL m
RT: 7.926 min Scan# 1221
Delta R.T. -0.000 min
Lab File: 321170.D
Acq: 10 Sep 2019 00:17

Tgt Ion:252 Resp: 115279

Ion	Ratio	Lower	Upper
252	100		
126	21.3	0.0	52.1
113	11.7	0.0	40.0

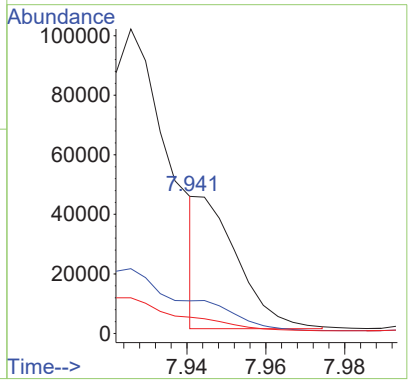


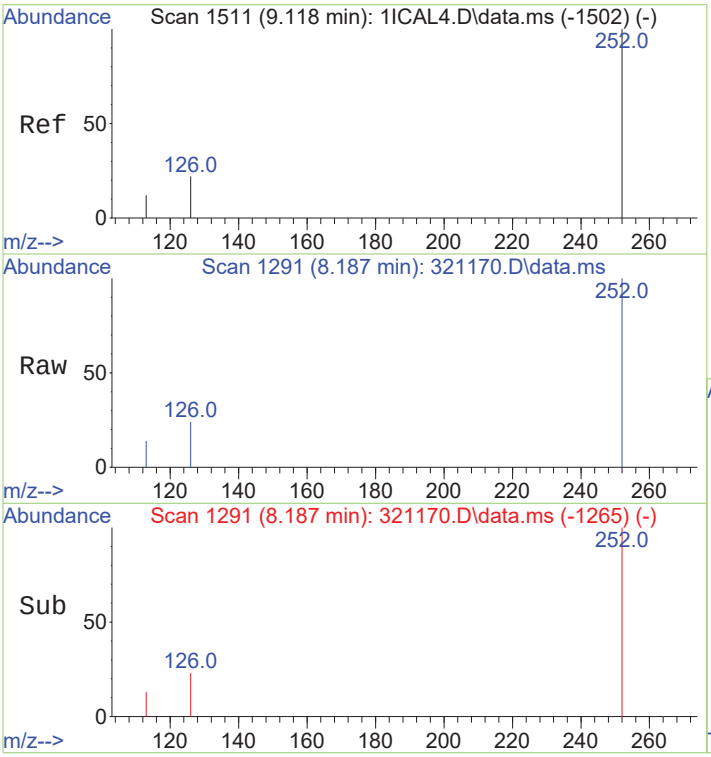


#21
B[k]fluoranth
Concen: 476.42 ng/mL m
RT: 7.941 min Scan# 1225
Delta R.T. -0.008 min
Lab File: 321170.D
Acq: 10 Sep 2019 00:17

Tgt Ion:252 Resp: 31205

Ion	Ratio	Lower	Upper
252	100		
126	23.8	0.0	54.3
113	11.9	0.0	39.4

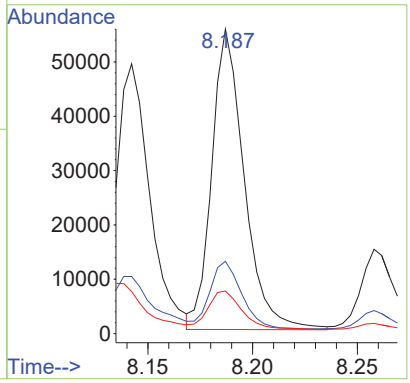


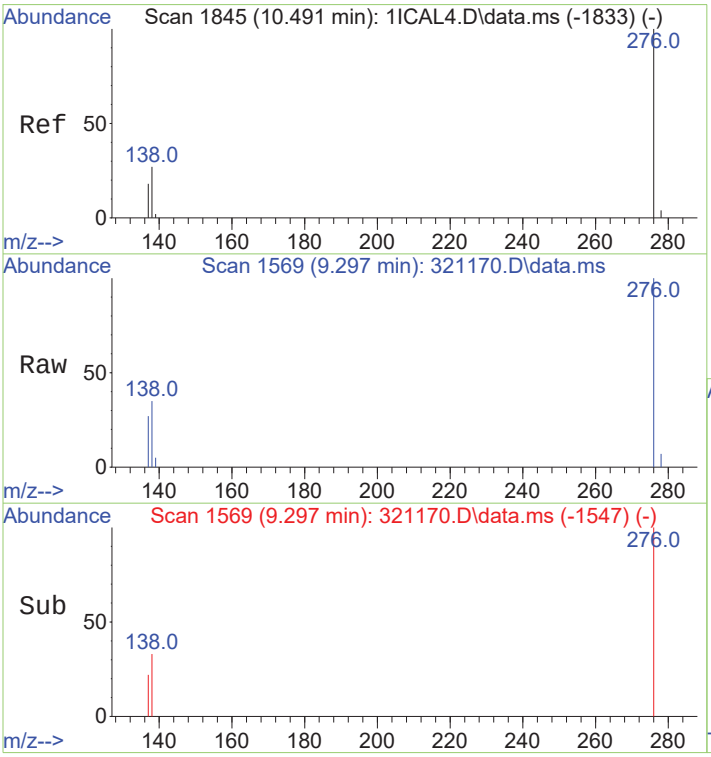


#22
Benz[a]pyrene
Concen: 1143.79 ng/mL
RT: 8.187 min Scan# 1291
Delta R.T. -0.004 min
Lab File: 321170.D
Acq: 10 Sep 2019 00:17

Tgt Ion:252 Resp: 59610

Ion	Ratio	Lower	Upper
252	100		
126	22.6	0.0	52.7
113	12.8	0.0	42.2

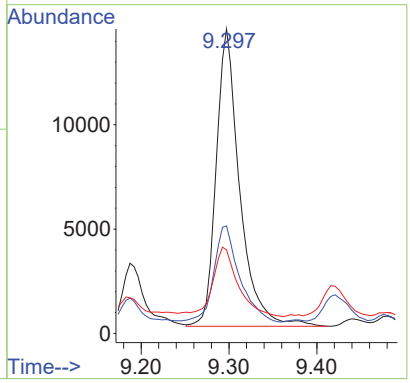


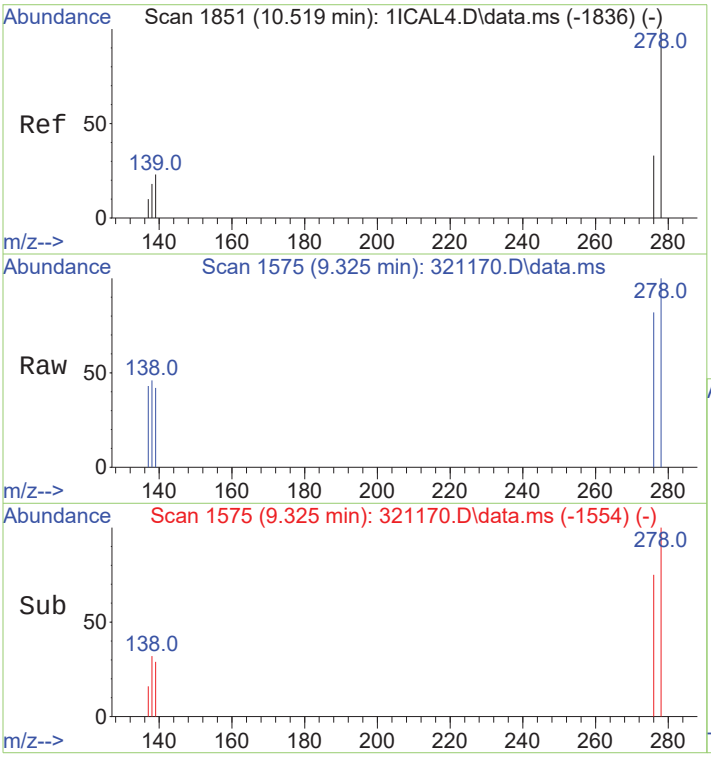


#23
Indeno-pyrene
Concen: 532.08 ng/mL
RT: 9.297 min Scan# 1569
Delta R.T. -0.000 min
Lab File: 321170.D
Acq: 10 Sep 2019 00:17

Tgt Ion:276 Resp: 26485

Ion	Ratio	Lower	Upper
276	100		
138	31.6	4.1	64.1
137	20.9	0.0	52.8

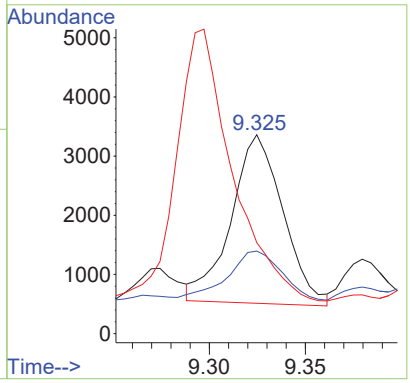


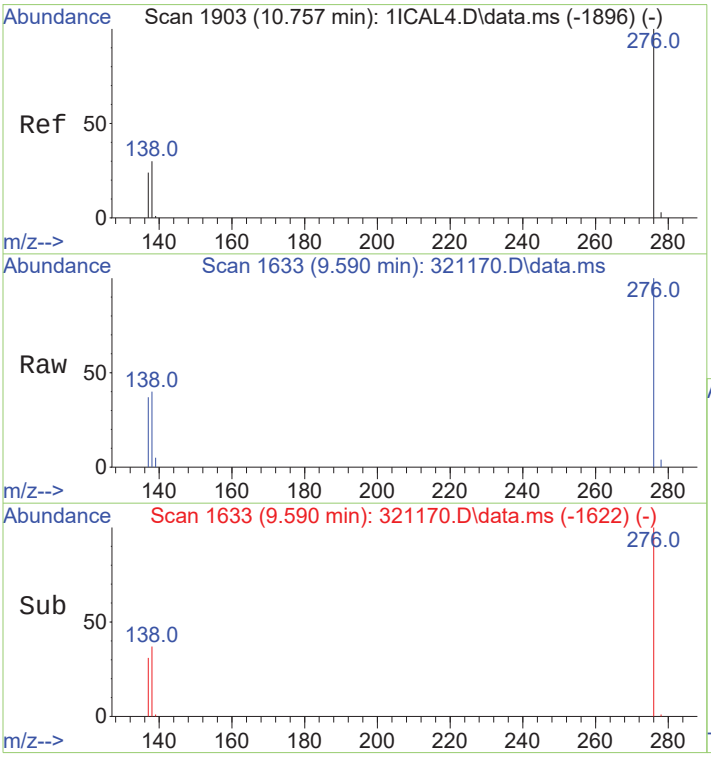


#24
Dib[ah]anthr
Concen: 157.43 ng/mL
RT: 9.325 min Scan# 1575
Delta R.T. -0.005 min
Lab File: 321170.D
Acq: 10 Sep 2019 00:17

Tgt Ion:278 Resp: 5361

Ion	Ratio	Lower	Upper
278	100		
139	30.8	0.0	59.3
138	36.6	0.0	56.3

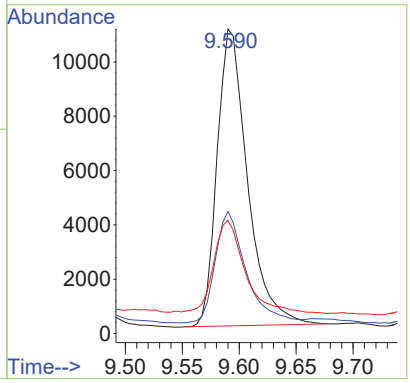


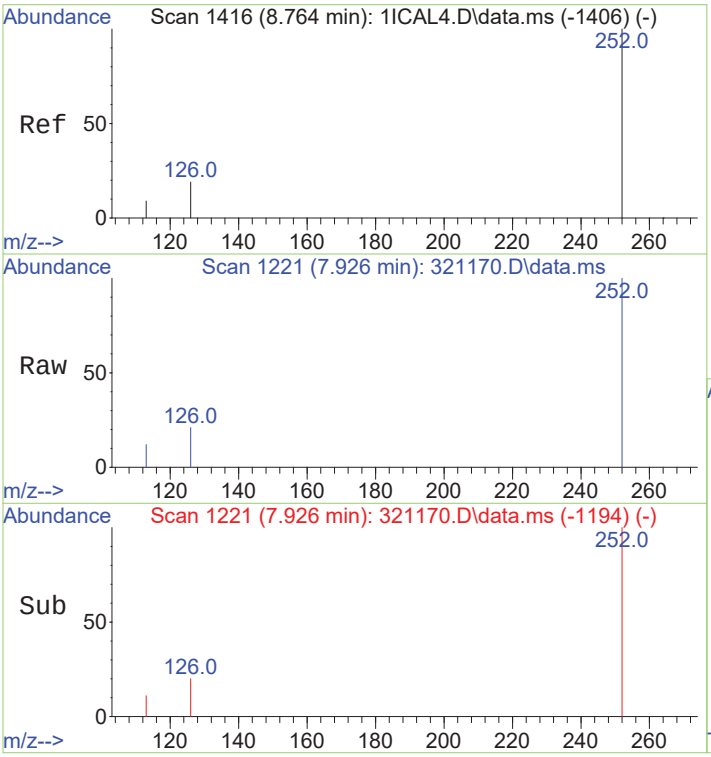


#25
B[ghi]perylen
Concen: 483.39 ng/mL
RT: 9.590 min Scan# 1633
Delta R.T. -0.000 min
Lab File: 321170.D
Acq: 10 Sep 2019 00:17

Tgt Ion:276 Resp: 20360

Ion	Ratio	Lower	Upper
276	100		
138	37.3	7.7	67.7
137	31.3	0.6	60.6

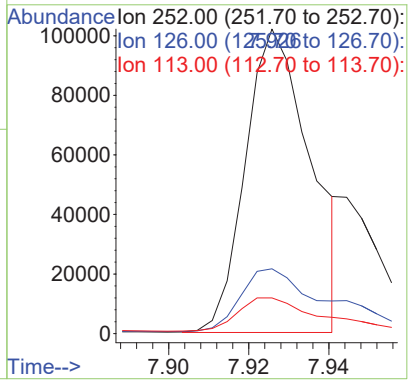




#20
B[b]fluoranth
Concen: 2135.19 ng/mL m
RT: 7.926 min Scan# 1221
Delta R.T. -0.000 min
Lab File: 321170.D
Acq: 10 Sep 2019 00:17

Tgt Ion:252 Resp: 115279

Ion	Ratio	Lower	Upper
252	100		
126	21.3	0.0	52.1
113	11.7	0.0	40.0

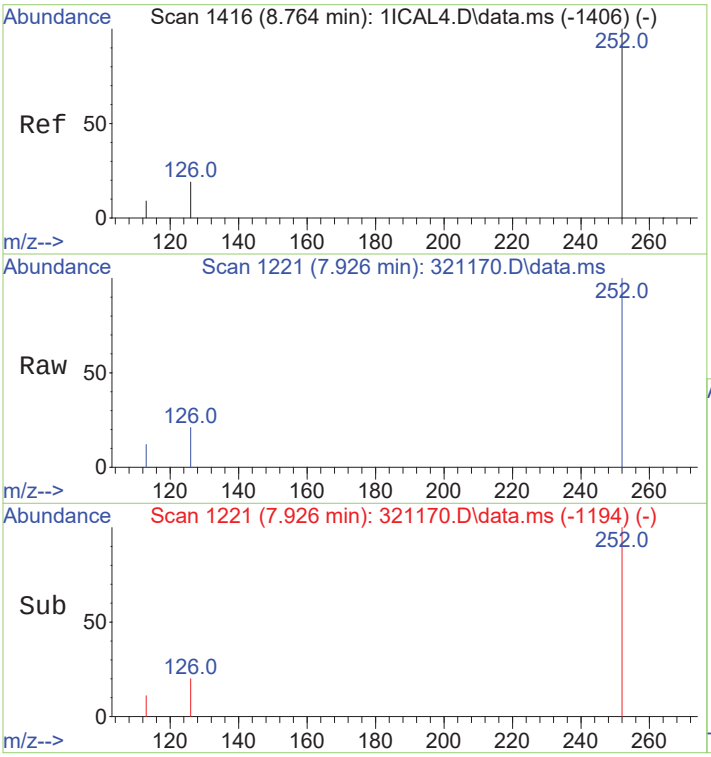


RED
9/12/2019

After Manual Integration

Reason#3

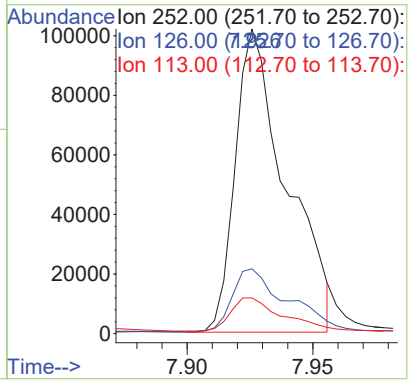
JJY
9/11/19



#20
B[b]fluoranth
Concen: 2653.59 ng/mL
RT: 7.926 min Scan# 1221
Delta R.T. -0.000 min
Lab File: 321170.D
Acq: 10 Sep 2019 00:17

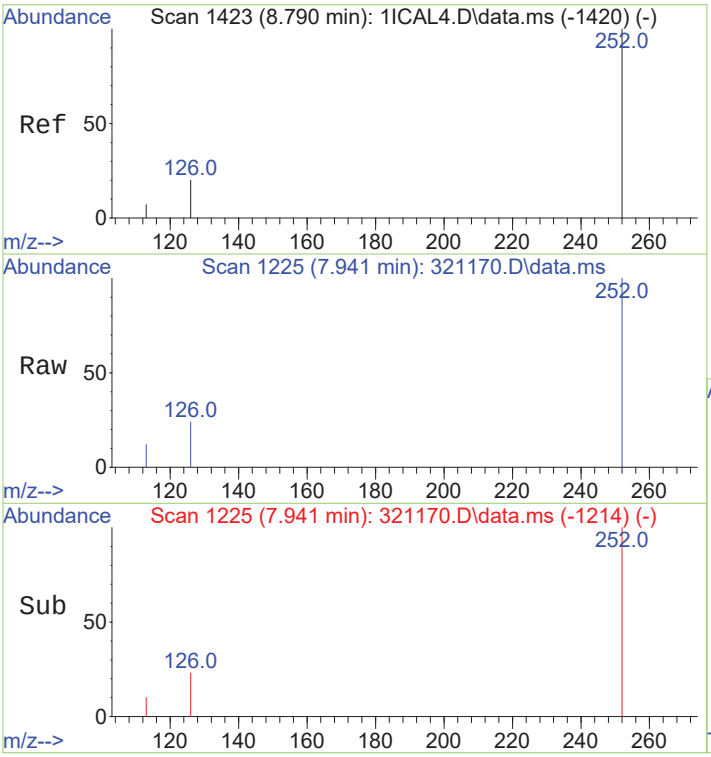
Tgt Ion:252 Resp: 143638

Ion	Ratio	Lower	Upper
252	100		
126	20.7	0.0	52.1
113	11.0	0.0	40.0



Before Manual Integration

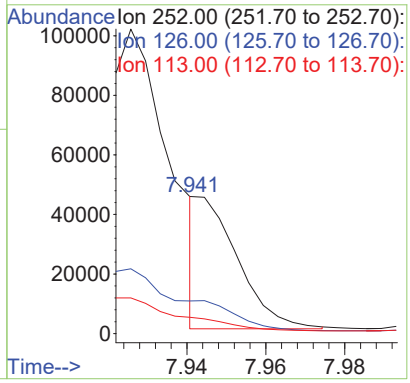
Reason#3 JJY 9/11/19



#21
B[k]fluoranth
Concen: 476.42 ng/mL m
RT: 7.941 min Scan# 1225
Delta R.T. -0.008 min
Lab File: 321170.D
Acq: 10 Sep 2019 00:17

Tgt Ion:252 Resp: 31205

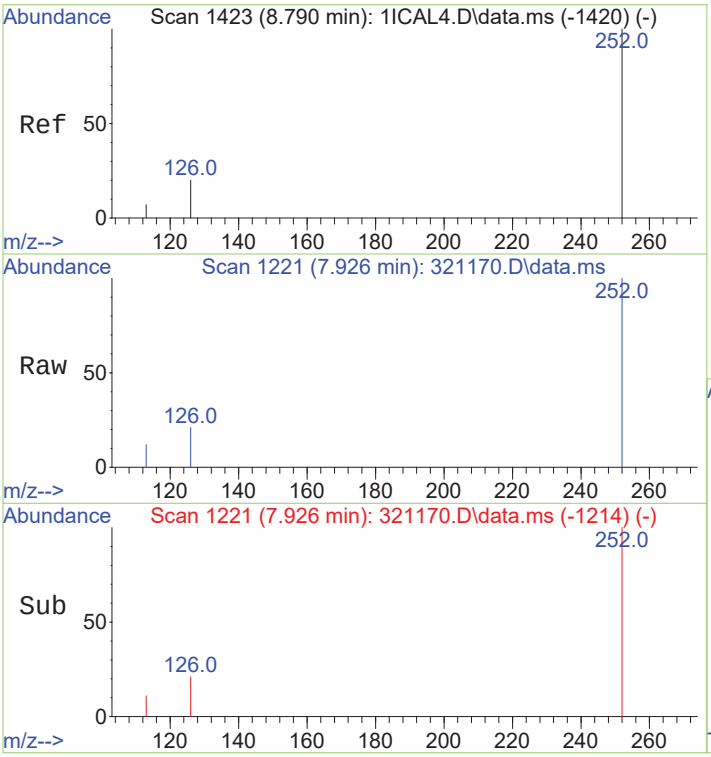
Ion	Ratio	Lower	Upper
252	100		
126	23.8	0.0	54.3
113	11.9	0.0	39.4



After Manual Integration

Reason#3 JJY 9/11/19

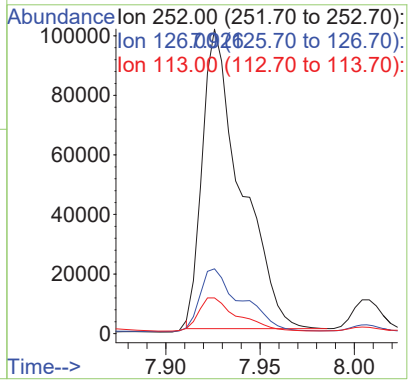
RED 9/12/2019



#21
B[k]fluoranth
Concen: 2179.42 ng/mL
RT: 7.926 min Scan# 1221
Delta R.T. -0.023 min
Lab File: 321170.D
Acq: 10 Sep 2019 00:17

Tgt Ion:252 Resp: 143140

Ion	Ratio	Lower	Upper
252	100		
126	20.7	0.0	54.3
113	11.0	0.0	39.4



Before Manual Integration

Reason#3 JJY 9/11/19

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321171.D Vial: 27
Acq On : 10 Sep 2019 00:37 Operator: JJY
Sample : 164274,321171, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 13:45:38 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 13:13:41 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

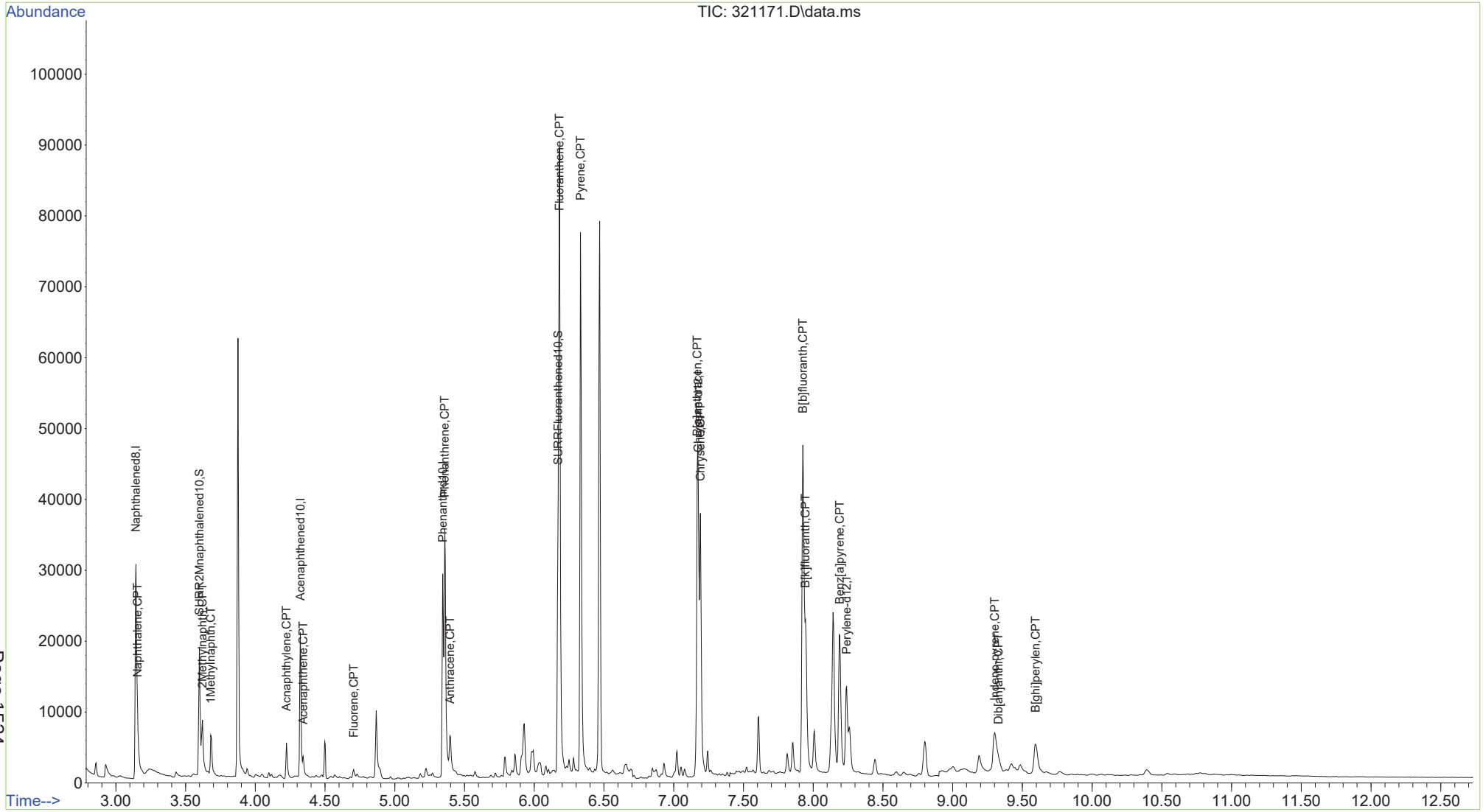
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.144	136	28639	400.00	ng/mL	0.00
6) Acenaphthened10	4.323	164	14625	400.00	ng/mL	0.00
10) Phenanthrd10	5.343	188	24569	400.00	ng/mL	0.00
15) Chrysene-d12	7.176	240	18396	400.00	ng/mL	0.00
19) Perylene-d12	8.239	264	14120	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.599	152	12599	79.32	%REC	0.00
Spiked Amount 100.000			Recovery = 79.32%			
13) SURRFluoranthened10	6.171	212	19218	79.21	%REC	0.00
Spiked Amount 100.000			Recovery = 79.21%			
Target Compounds						Qvalue
2) Naphthalene	3.155	128	2661	37.7864	ng/ml	92
4) 2Methylnaphth	3.621	142	2638	68.2655	ng/mL	85
5) 1Methylnaphth	3.680	141	1993	52.7934	ng/mL	78
7) Acnaphthylene	4.223	152	3304	53.8702	ng/mL	96
8) Acenaphthene	4.342	154	1032	24.8452	ng/mL	71
9) Fluorene	4.705	166	1002	22.8560	ng/mL	74
11) Phenanthrene	5.358	178	21289	330.2157	ng/mL	99
12) Anthracene	5.395	178	5345	87.3698	ng/mL	97
14) Fluoranthene	6.180	202	54286	776.0577	ng/mL	96
16) Pyrene	6.331	202	45660	613.8379	ng/mL	97
17) B[a]anthracen	7.169	228	24515	489.2696	ng/mL	99
18) Chrysene	7.191	228	26759	414.1347	ng/mL	97
20) B[b]fluoranth	7.926	252	40064m	877.7021	ng/mL	
21) B[k]fluoranth	7.945	252	13106m	233.0323	ng/mL	
22) Benz[a]pyrene	8.191	252	17683	417.1201	ng/mL	98
23) Indeno-pyrene	9.302	276	7204	199.8746	ng/mL	96
24) Dib[ah]anthr	9.329	278	1176	69.3869	ng/mL	81
25) B[ghi]perylen	9.595	276	4940	169.7437	ng/mL	100

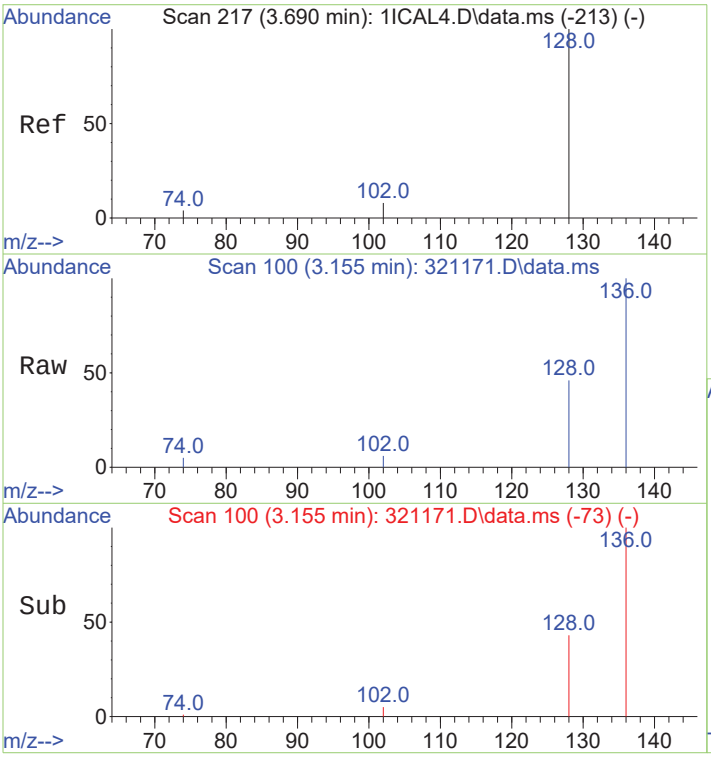
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321171.D Vial: 27
Acq On : 10 Sep 2019 00:37 Operator: JJY
Sample : 164274,321171, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 13:45:38 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 13:13:41 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

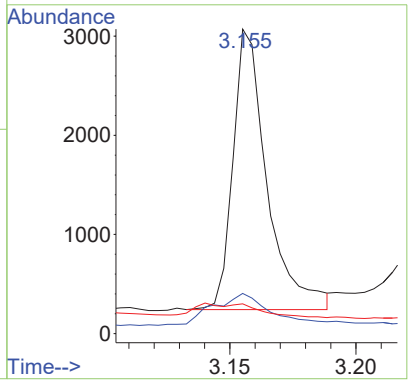


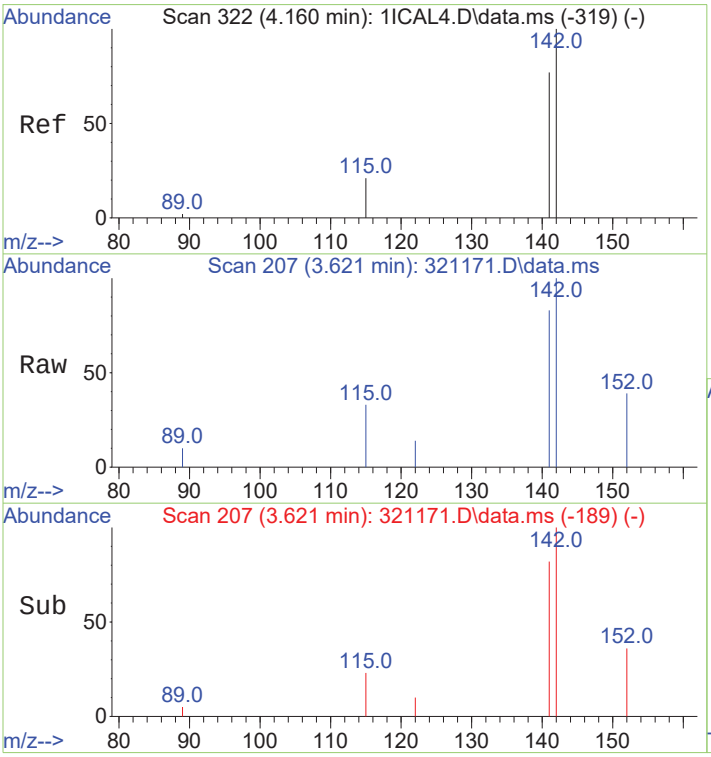


#2
Naphthalene
Concen: 37.79 ng/ml
RT: 3.155 min Scan# 100
Delta R.T. 0.000 min
Lab File: 321171.D
Acq: 10 Sep 2019 00:37

Tgt Ion:128 Resp: 2661

Ion	Ratio	Lower	Upper
128	100		
102	10.9	0.0	37.6
74	4.9	0.0	33.6

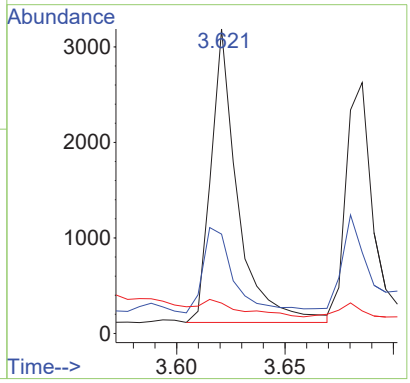


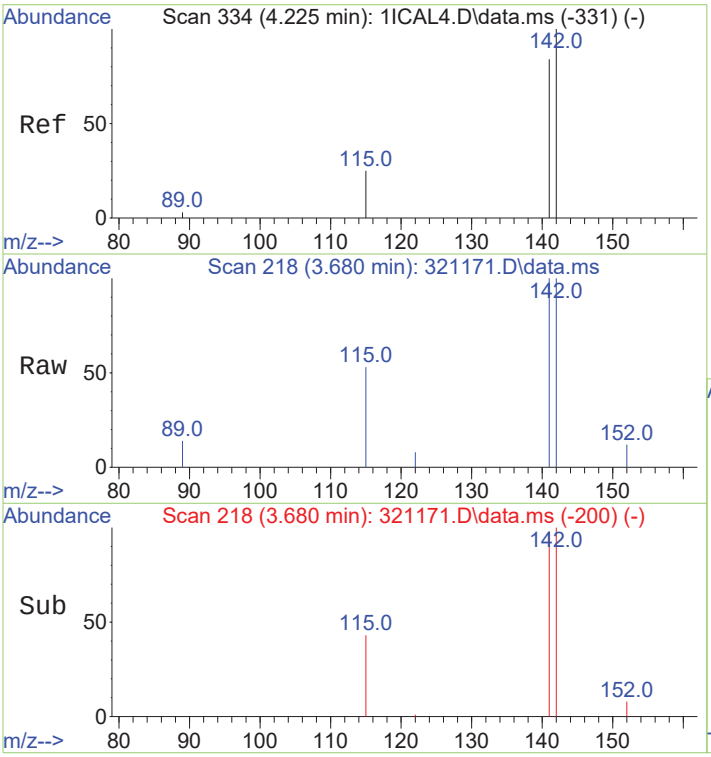


#4
2Methylnaphth
Concen: 68.27 ng/mL
RT: 3.621 min Scan# 207
Delta R.T. 0.000 min
Lab File: 321171.D
Acq: 10 Sep 2019 00:37

Tgt Ion:142 Resp: 2638

Ion	Ratio	Lower	Upper
142	100		
115	26.8	6.9	66.9
89	3.8	0.0	34.9

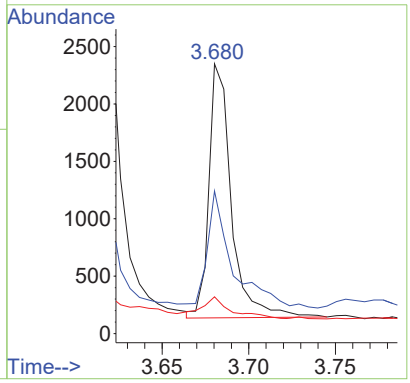


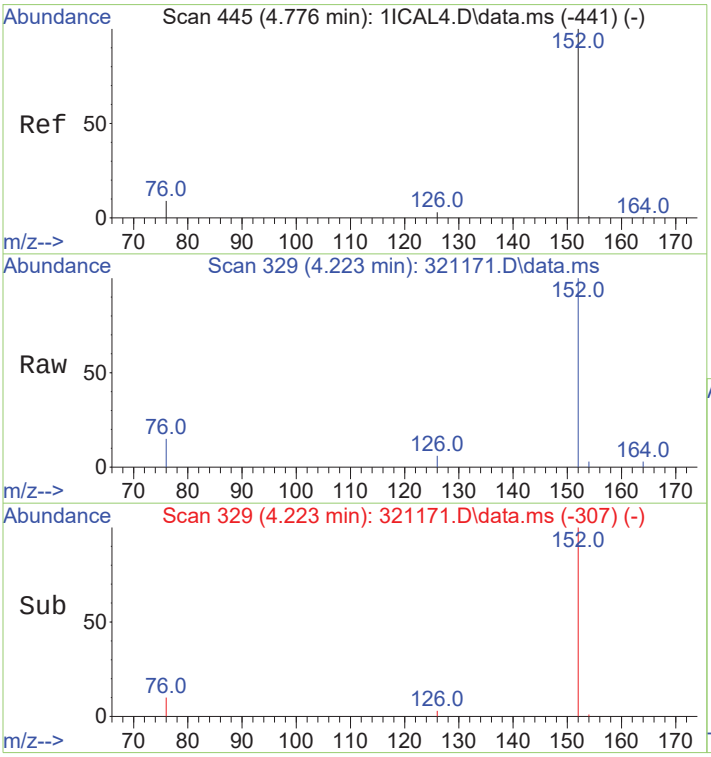


#5
1Methylnaphth
Concen: 52.79 ng/mL
RT: 3.680 min Scan# 218
Delta R.T. 0.000 min
Lab File: 321171.D
Acq: 10 Sep 2019 00:37

Tgt Ion:141 Resp: 1993

Ion	Ratio	Lower	Upper
141	100		
115	45.4	2.5	62.5
89	8.7	0.0	34.0

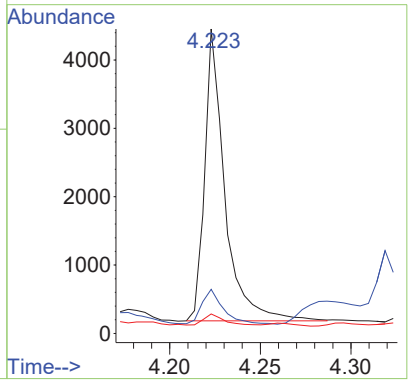


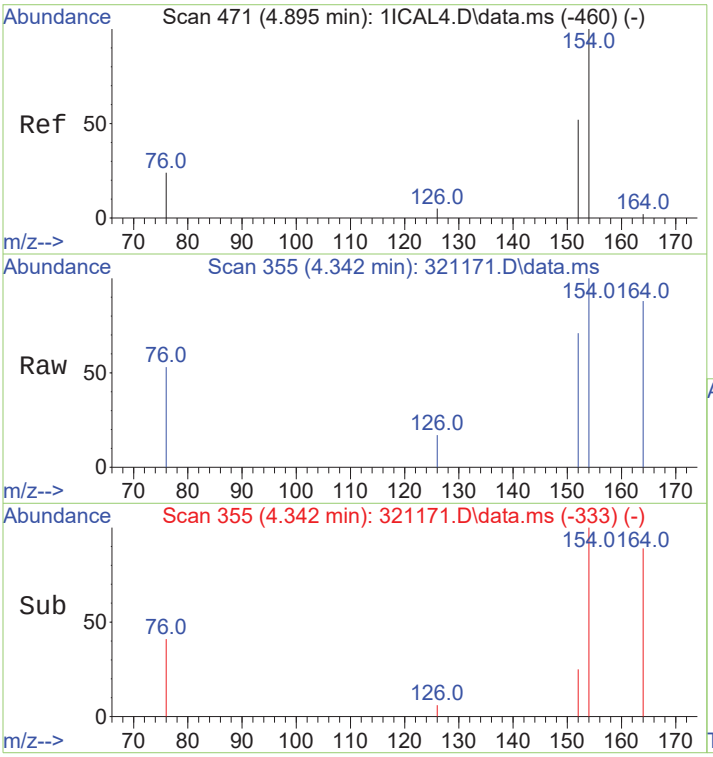


#7
Acnaphthylene
Concen: 53.87 ng/mL
RT: 4.223 min Scan# 329
Delta R.T. 0.000 min
Lab File: 321171.D
Acq: 10 Sep 2019 00:37

Tgt Ion:152 Resp: 3304

Ion	Ratio	Lower	Upper
152	100		
76	11.8	0.0	39.9
126	3.7	0.0	33.1

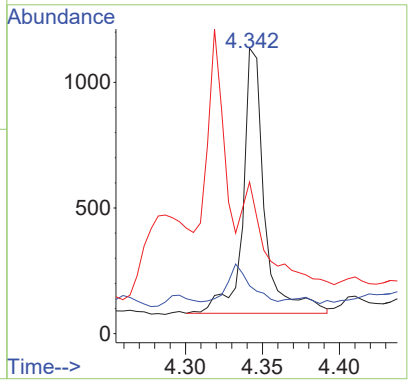


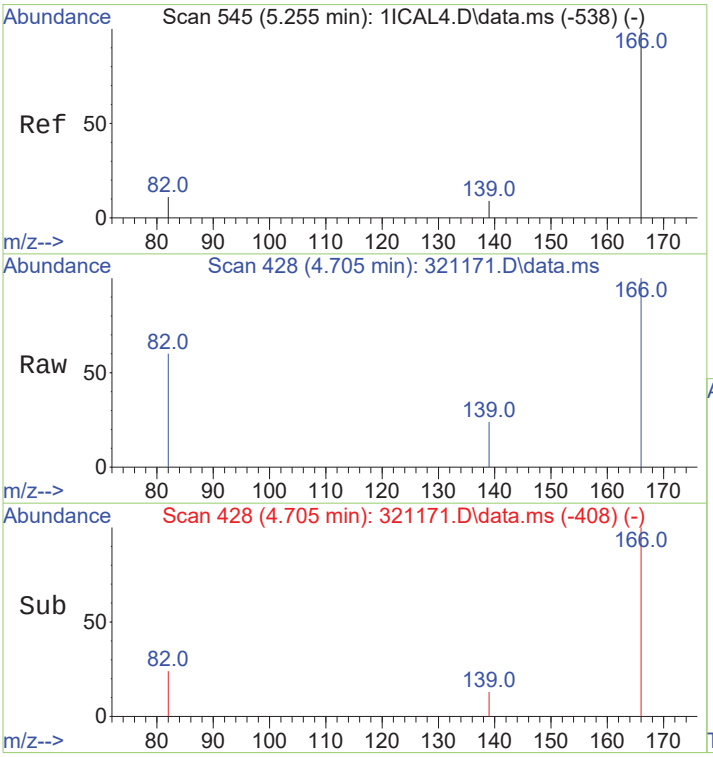


#8
Acenaphthene
Concen: 24.85 ng/mL
RT: 4.342 min Scan# 355
Delta R.T. 0.000 min
Lab File: 321171.D
Acq: 10 Sep 2019 00:37

Tgt Ion:154 Resp: 1032

Ion	Ratio	Lower	Upper
154	100		
126	5.6	0.0	34.3
76	37.5	0.0	51.6

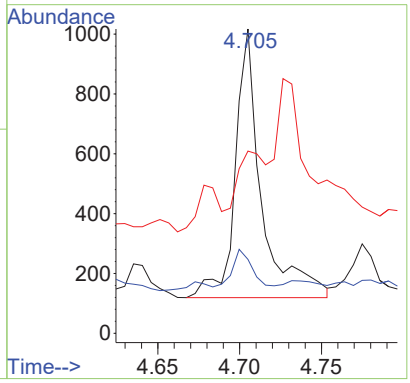


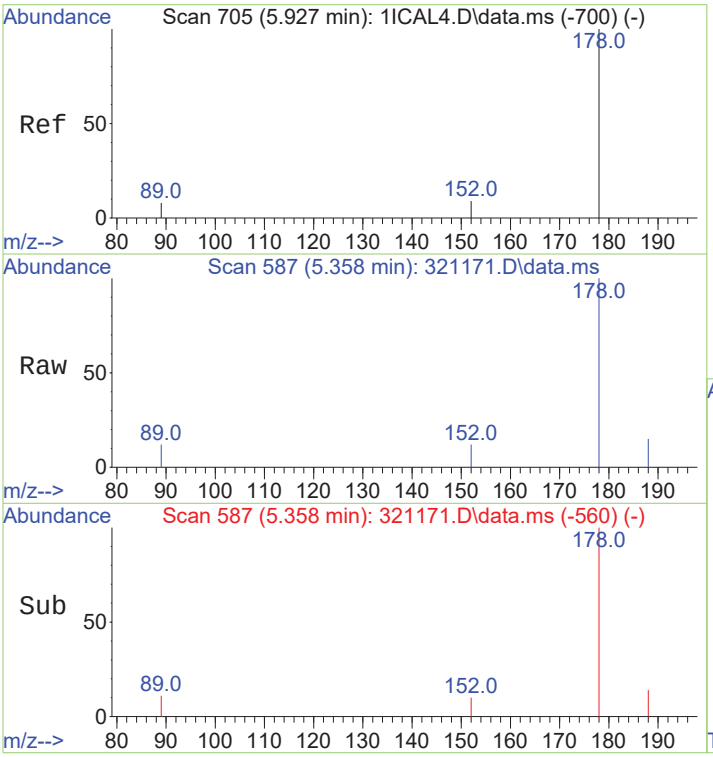


#9
Fluorene
Concen: 22.86 ng/mL
RT: 4.705 min Scan# 428
Delta R.T. 0.005 min
Lab File: 321171.D
Acq: 10 Sep 2019 00:37

Tgt Ion:166 Resp: 1002

Ion	Ratio	Lower	Upper
166	100		
139	10.5	0.0	38.6
82	28.5	0.0	42.4

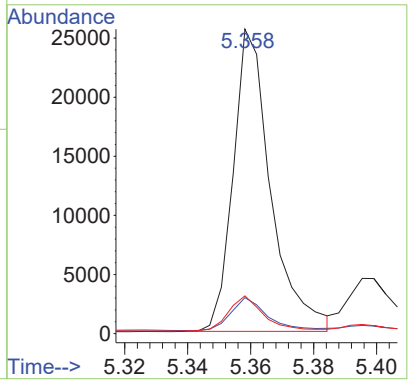


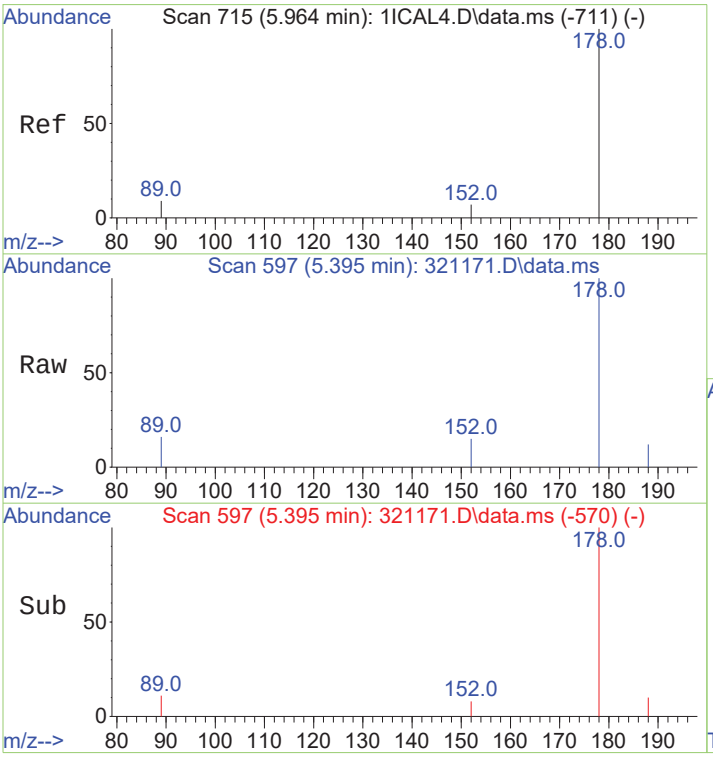


#11
Phenanthrene
Concen: 330.22 ng/mL
RT: 5.358 min Scan# 587
Delta R.T. 0.000 min
Lab File: 321171.D
Acq: 10 Sep 2019 00:37

Tgt Ion:178 Resp: 21289

Ion	Ratio	Lower	Upper
178	100		
152	10.3	0.0	40.1
89	11.0	0.0	41.4

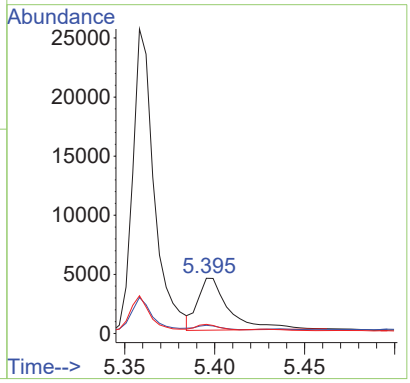


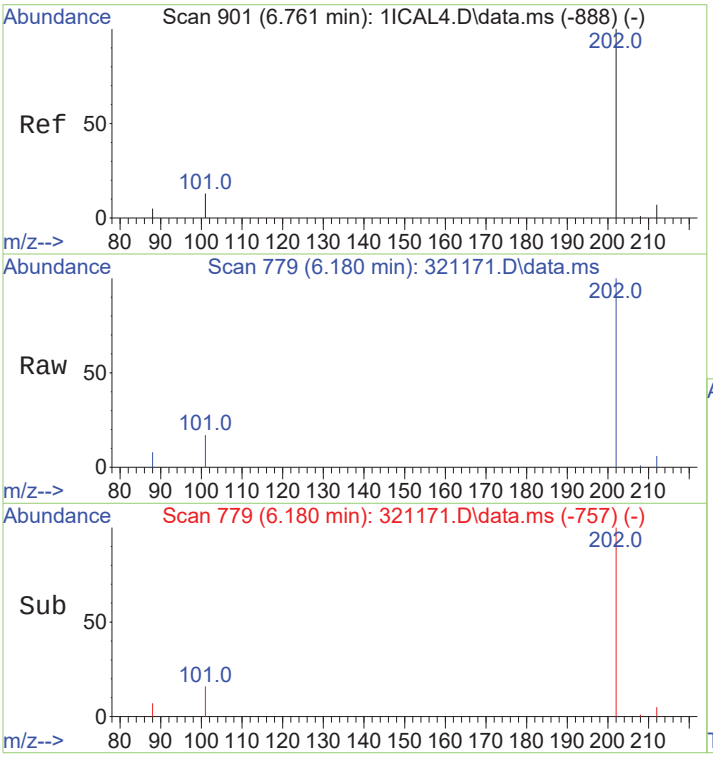


#12
Anthracene
Concen: 87.37 ng/mL
RT: 5.395 min Scan# 597
Delta R.T. 0.000 min
Lab File: 321171.D
Acq: 10 Sep 2019 00:37

Tgt Ion:178 Resp: 5345

Ion	Ratio	Lower	Upper
178	100		
152	9.0	0.0	37.8
89	12.2	0.0	31.3

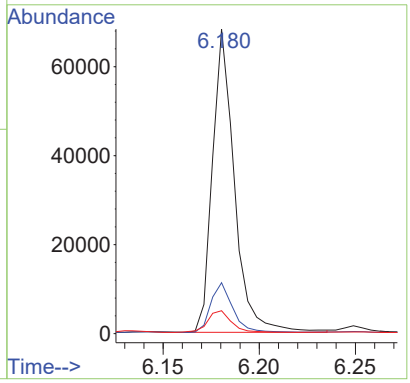


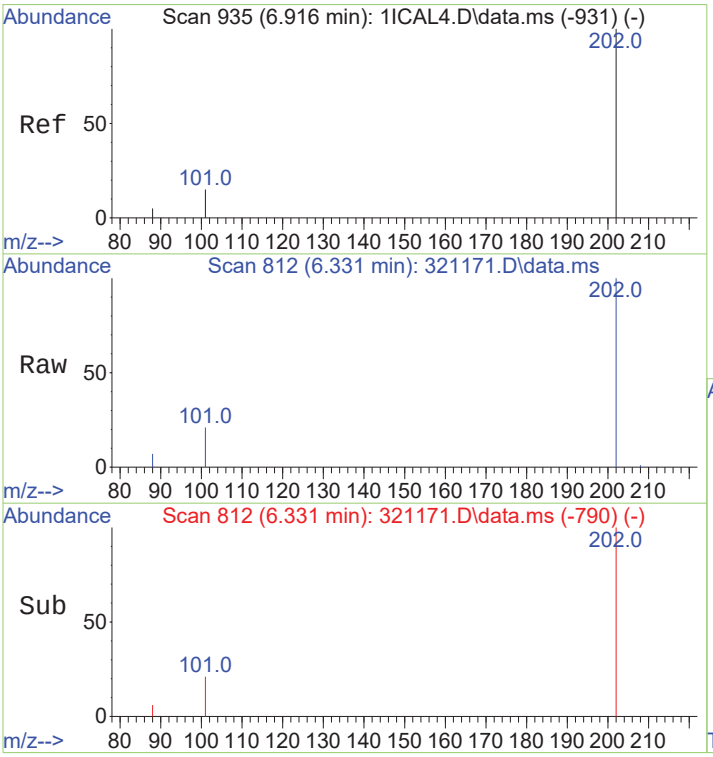


#14
Fluoranthene
Concen: 776.06 ng/mL
RT: 6.180 min Scan# 779
Delta R.T. 0.000 min
Lab File: 321171.D
Acq: 10 Sep 2019 00:37

Tgt Ion:202 Resp: 54286

Ion	Ratio	Lower	Upper
202	100		
101	16.4	0.0	48.3
88	7.1	0.0	38.8

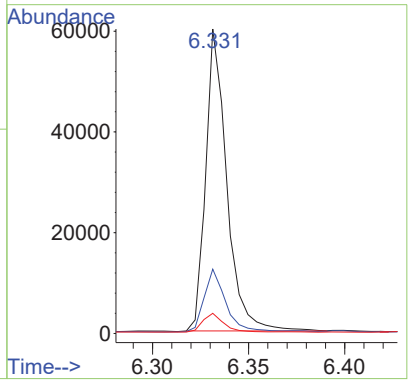


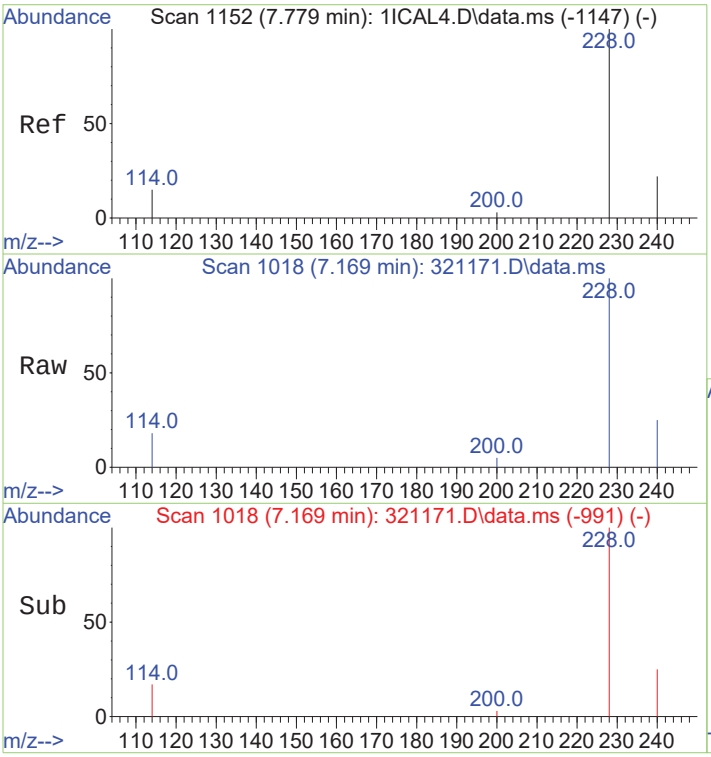


#16
Pyrene
Concen: 613.84 ng/mL
RT: 6.331 min Scan# 812
Delta R.T. 0.000 min
Lab File: 321171.D
Acq: 10 Sep 2019 00:37

Tgt Ion:202 Resp: 45660

Ion	Ratio	Lower	Upper
202	100		
101	20.7	0.0	49.4
88	6.3	0.0	35.5

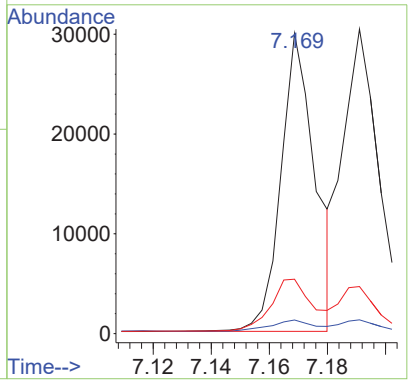


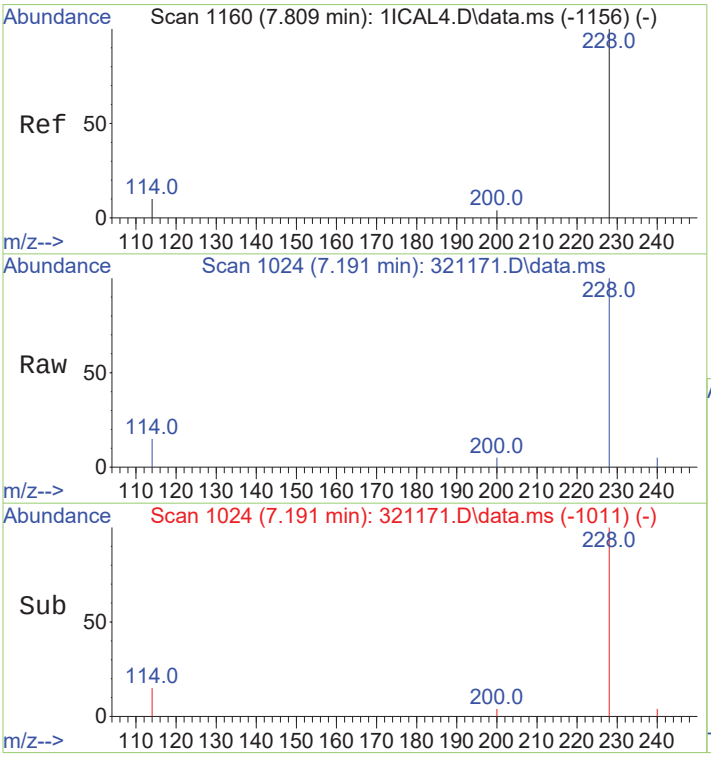


#17
B[a]anthracen
Concen: 489.27 ng/mL
RT: 7.169 min Scan# 1018
Delta R.T. 0.000 min
Lab File: 321171.D
Acq: 10 Sep 2019 00:37

Tgt Ion:228 Resp: 24515

Ion	Ratio	Lower	Upper
228	100		
200	3.9	0.0	33.6
114	17.4	0.0	47.0

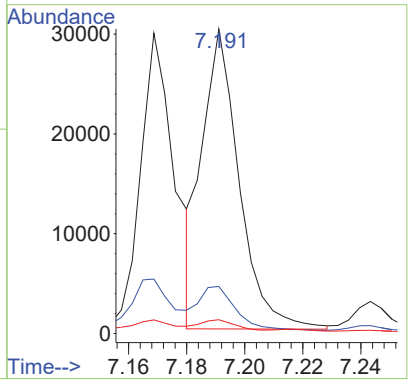


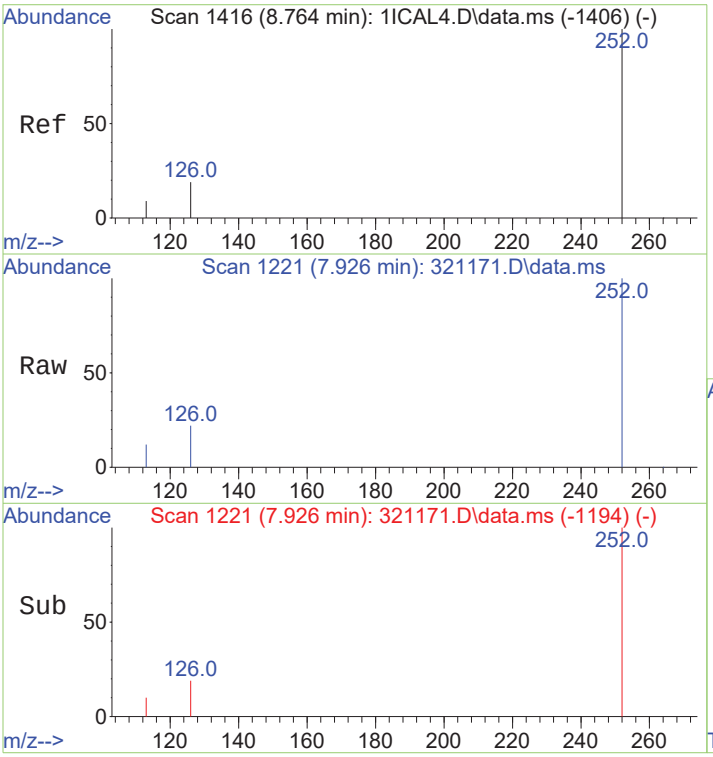


#18
Chrysene
Concen: 414.13 ng/mL
RT: 7.191 min Scan# 1024
Delta R.T. 0.000 min
Lab File: 321171.D
Acq: 10 Sep 2019 00:37

Tgt Ion:228 Resp: 26759

Ion	Ratio	Lower	Upper
228	100		
114	14.8	0.0	46.1
200	3.8	0.0	33.8

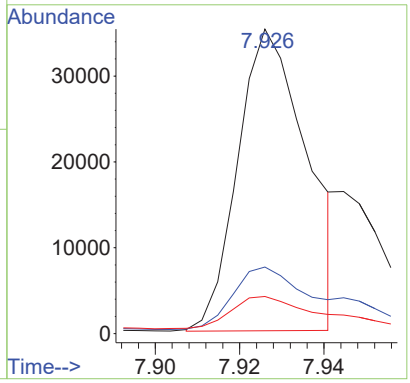


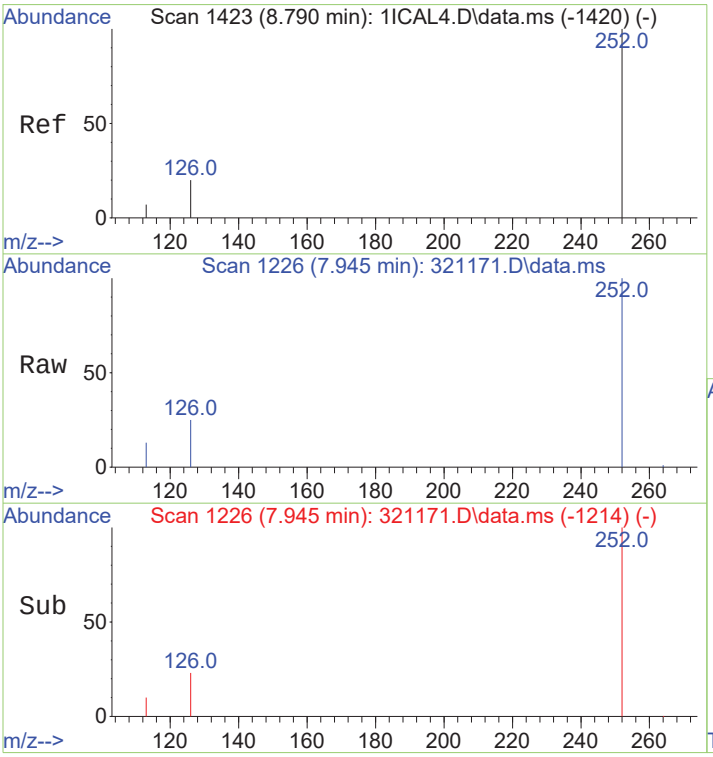


#20
B[b]fluoranth
Concen: 877.70 ng/mL m
RT: 7.926 min Scan# 1221
Delta R.T. 0.000 min
Lab File: 321171.D
Acq: 10 Sep 2019 00:37

Tgt Ion:252 Resp: 40064

Ion	Ratio	Lower	Upper
252	100		
126	21.9	0.0	52.1
113	12.2	0.0	40.0

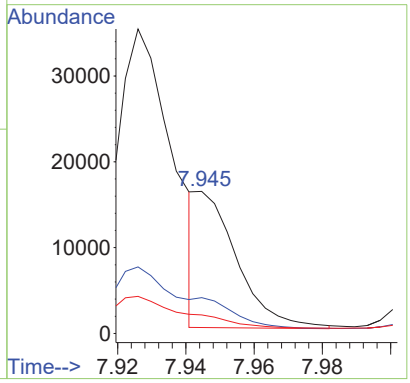


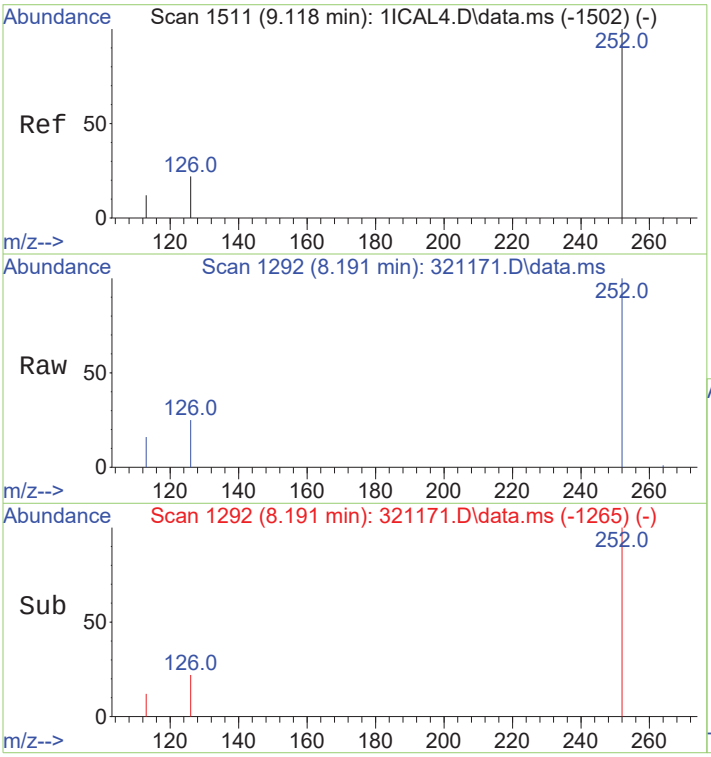


#21
B[k]fluoranth
Concen: 233.03 ng/mL m
RT: 7.945 min Scan# 1226
Delta R.T. -0.004 min
Lab File: 321171.D
Acq: 10 Sep 2019 00:37

Tgt Ion:252 Resp: 13106

Ion	Ratio	Lower	Upper
252	100		
126	25.2	0.0	54.3
113	13.0	0.0	39.4

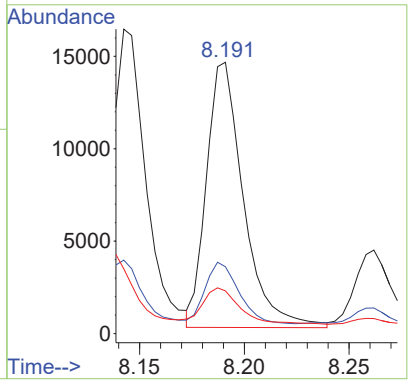


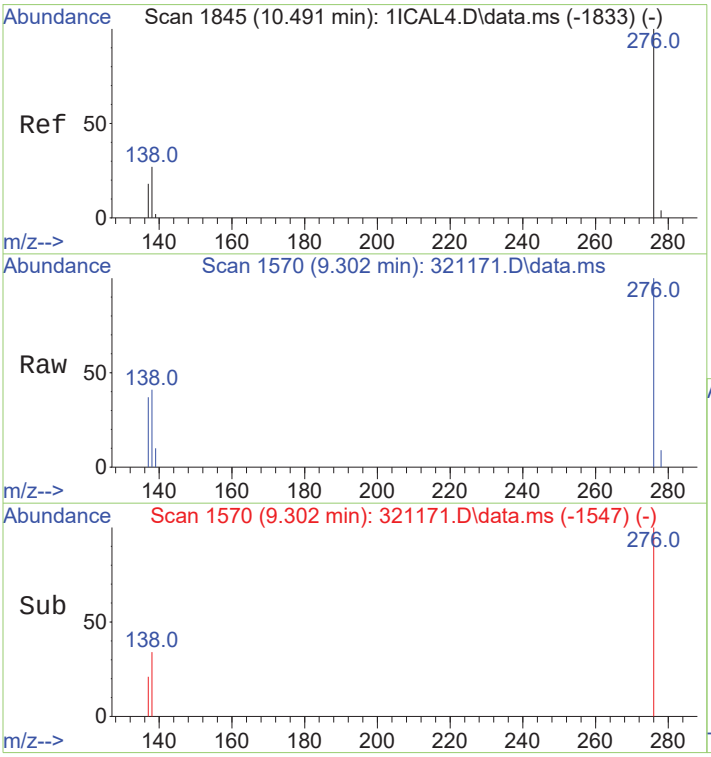


#22
Benz[a]pyrene
Concen: 417.12 ng/mL
RT: 8.191 min Scan# 1292
Delta R.T. 0.000 min
Lab File: 321171.D
Acq: 10 Sep 2019 00:37

Tgt Ion:252 Resp: 17683

Ion	Ratio	Lower	Upper
252	100		
126	21.6	0.0	52.7
113	12.8	0.0	42.2

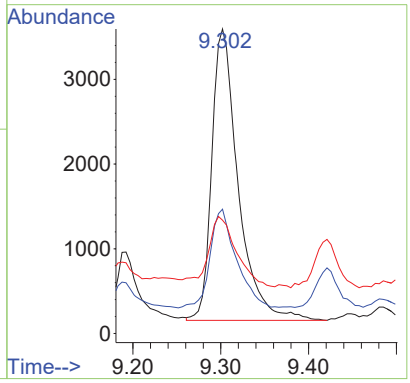


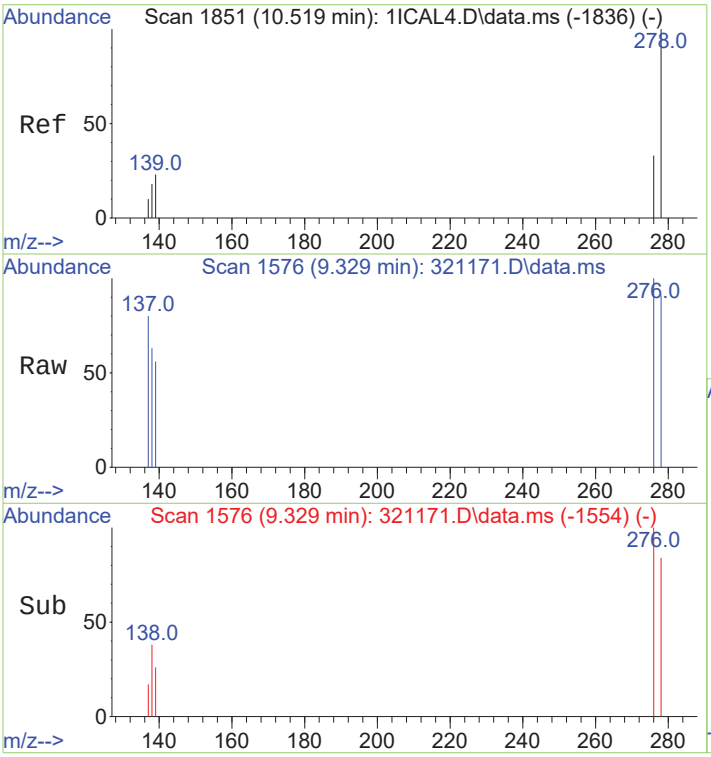


#23
Indeno-pyrene
Concen: 199.87 ng/mL
RT: 9.302 min Scan# 1570
Delta R.T. 0.005 min
Lab File: 321171.D
Acq: 10 Sep 2019 00:37

Tgt Ion:276 Resp: 7204

Ion	Ratio	Lower	Upper
276	100		
138	32.8	4.1	64.1
137	19.9	0.0	52.8

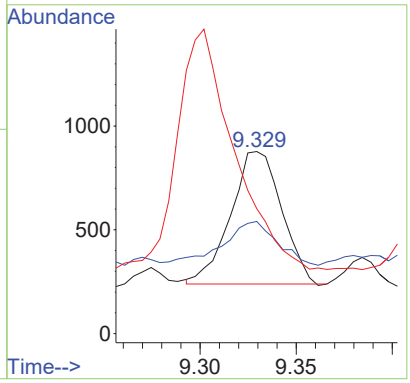


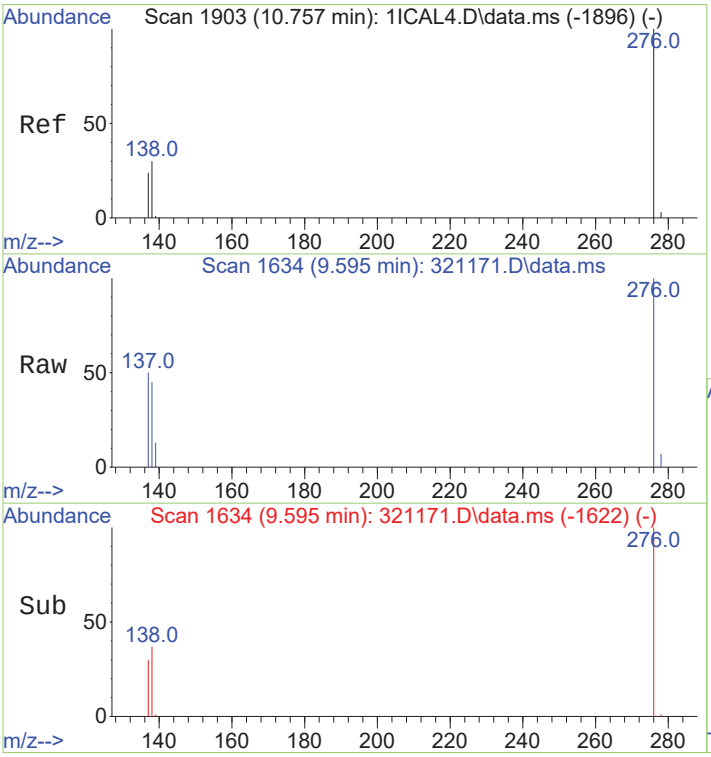


#24
Dib[ah]anthr
Concen: 69.39 ng/mL
RT: 9.329 min Scan# 1576
Delta R.T. 0.000 min
Lab File: 321171.D
Acq: 10 Sep 2019 00:37

Tgt Ion:278 Resp: 1176

Ion	Ratio	Lower	Upper
278	100		
139	30.6	0.0	59.3
138	45.9	0.0	56.3

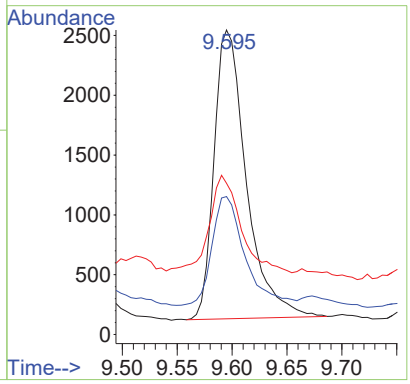


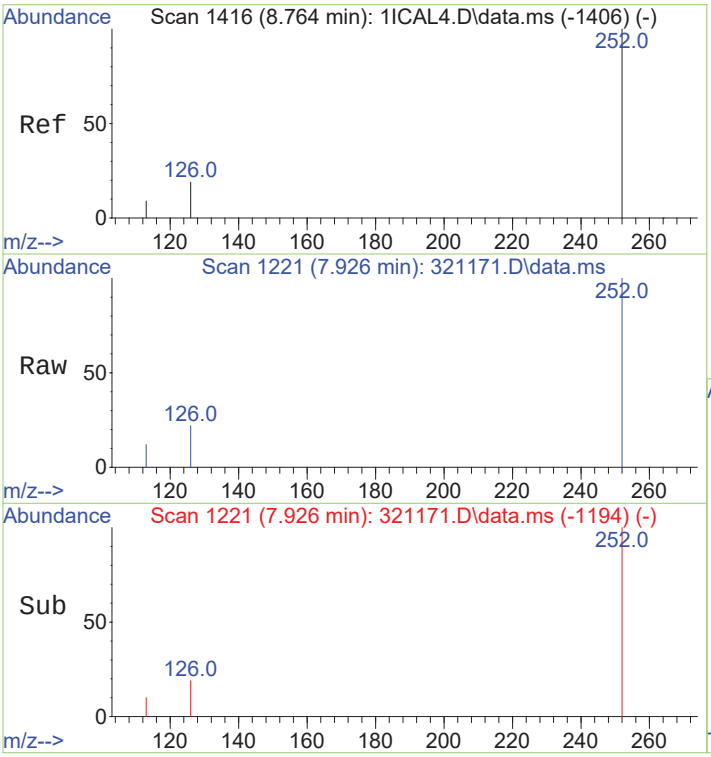


#25
B[ghi]perylen
Concen: 169.74 ng/mL
RT: 9.595 min Scan# 1634
Delta R.T. 0.005 min
Lab File: 321171.D
Acq: 10 Sep 2019 00:37

Tgt Ion:276 Resp: 4940

Ion	Ratio	Lower	Upper
276	100		
138	37.2	7.7	67.7
137	30.6	0.6	60.6

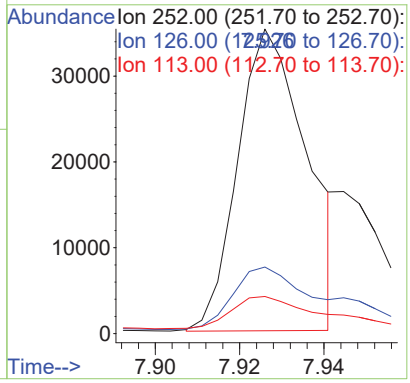




#20
B[b]fluoranth
Concen: 877.70 ng/mL m
RT: 7.926 min Scan# 1221
Delta R.T. 0.000 min
Lab File: 321171.D
Acq: 10 Sep 2019 00:37

Tgt Ion:252 Resp: 40064

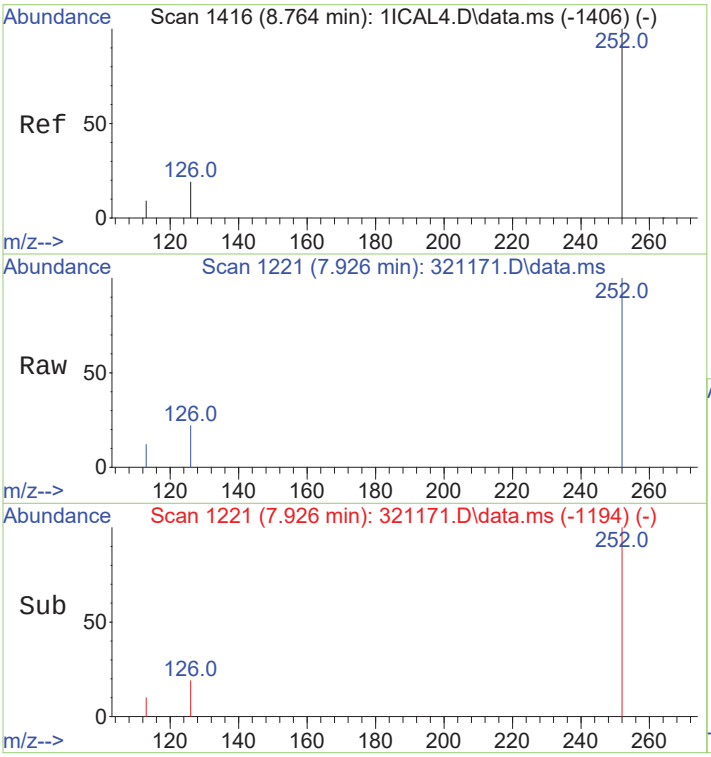
Ion	Ratio	Lower	Upper
252	100		
126	21.9	0.0	52.1
113	12.2	0.0	40.0



RED
9/12/2019

After Manual Integration

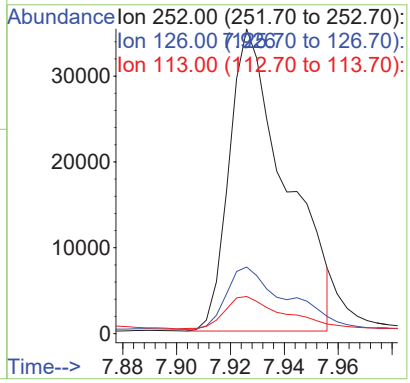
Reason#3 JJY 9/11/19



#20
B[b]fluoranth
Concen: 1117.21 ng/mL
RT: 7.926 min Scan# 1221
Delta R.T. 0.000 min
Lab File: 321171.D
Acq: 10 Sep 2019 00:37

Tgt Ion:252 Resp: 51356

Ion	Ratio	Lower	Upper
252	100		
126	20.7	0.0	52.1
113	10.6	0.0	40.0

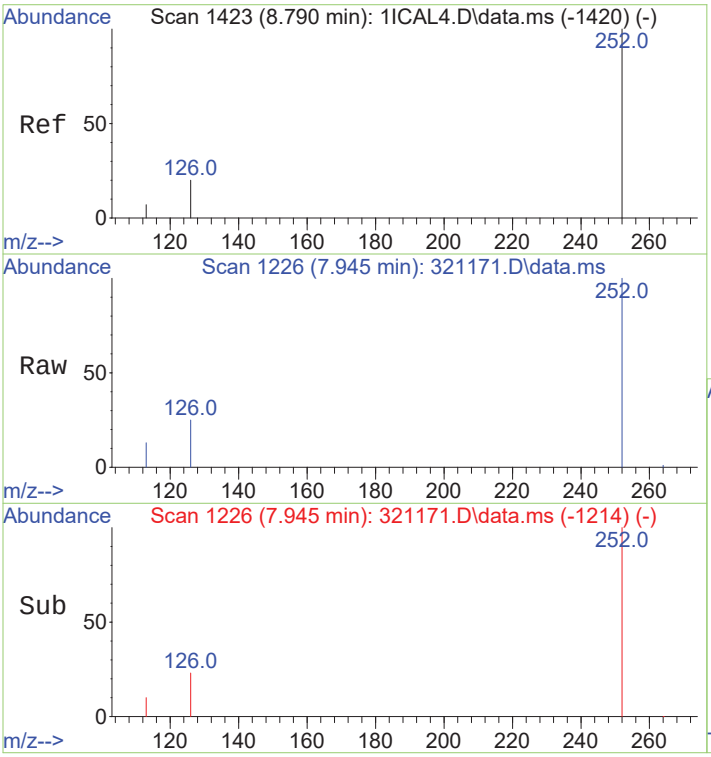


RED
9/12/2019

Before Manual Integration

Reason#3

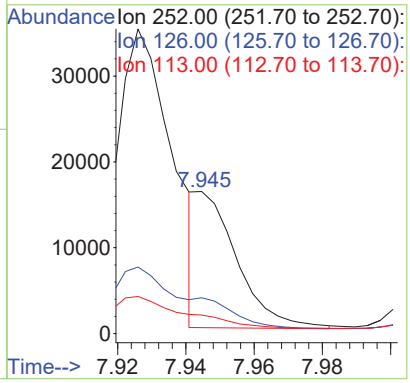
JJY
9/11/19



#21
B[k]fluoranth
Concen: 233.03 ng/mL m
RT: 7.945 min Scan# 1226
Delta R.T. -0.004 min
Lab File: 321171.D
Acq: 10 Sep 2019 00:37

Tgt Ion:252 Resp: 13106

Ion	Ratio	Lower	Upper
252	100		
126	25.2	0.0	54.3
113	13.0	0.0	39.4

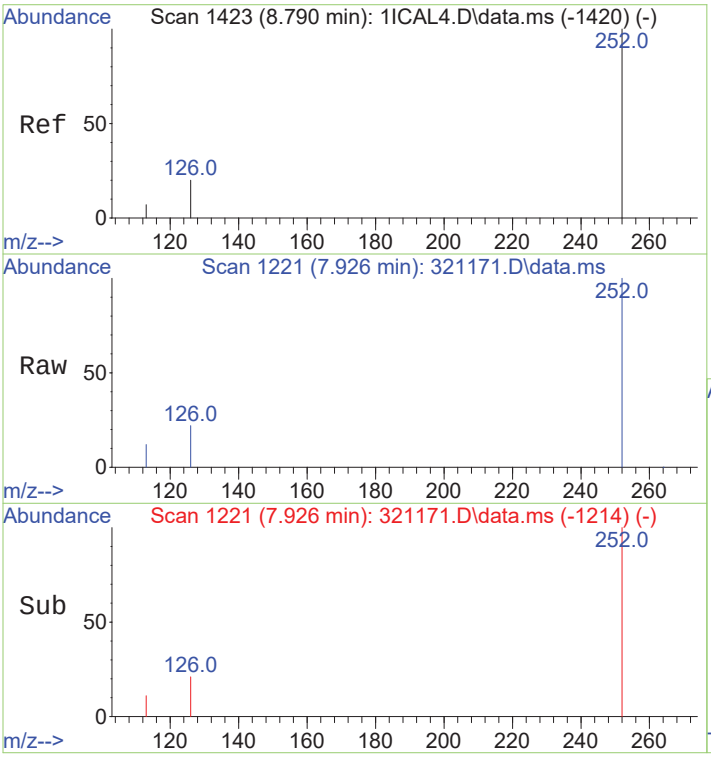


RED
9/12/2019

After Manual Integration

Reason#3

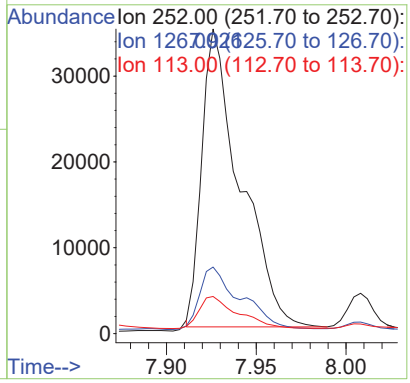
JJY
9/11/19



#21
B[k]fluoranth
Concen: 915.48 ng/mL
RT: 7.926 min Scan# 1221
Delta R.T. -0.022 min
Lab File: 321171.D
Acq: 10 Sep 2019 00:37

Tgt Ion:252 Resp: 51764

Ion	Ratio	Lower	Upper
252	100		
126	20.7	0.0	54.3
113	10.7	0.0	39.4



Before Manual Integration

Reason#3 JJY 9/11/19

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321172.D Vial: 28
Acq On : 10 Sep 2019 00:57 Operator: JJY
Sample : 164274,321172, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 13:50:51 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 13:13:41 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

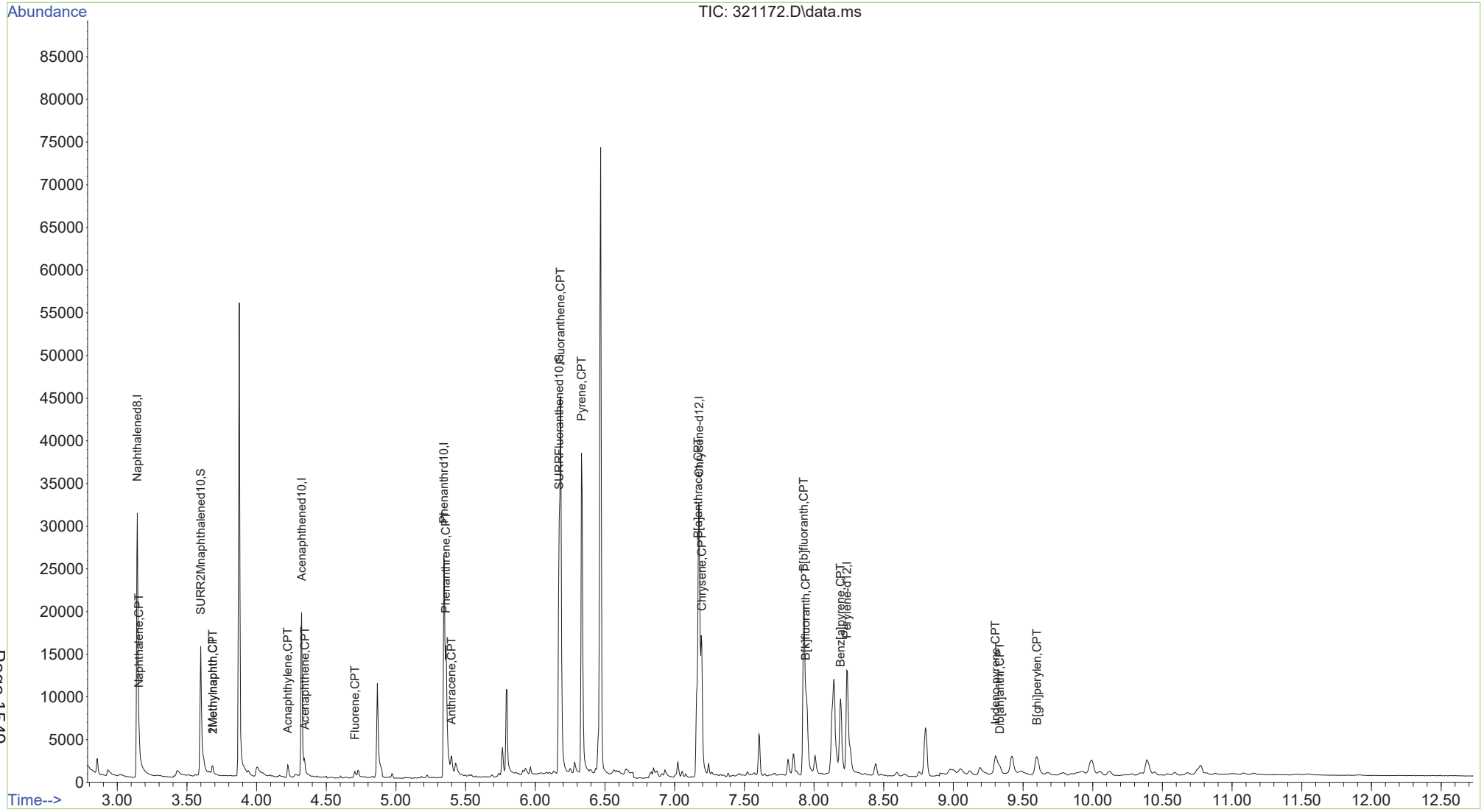
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.144	136	28346	400.00	ng/mL	0.00
6) Acenaphthened10	4.323	164	14541	400.00	ng/mL	0.00
10) Phenanthrd10	5.343	188	24234	400.00	ng/mL	0.00
15) Chrysene-d12	7.176	240	18618	400.00	ng/mL	0.00
19) Perylene-d12	8.236	264	15029	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.599	152	11118	70.72	%REC	0.00
Spiked Amount 100.000			Recovery = 70.72%			
13) SURRFluoranthened10	6.171	212	17991	75.18	%REC	0.00
Spiked Amount 100.000			Recovery = 75.18%			
Target Compounds						Qvalue
2) Naphthalene	3.155	128	509	7.3026	ng/ml	85
4) 2Methylnaphth	3.686	142	371	9.6999	ng/mL	93
5) 1Methylnaphth	3.686	141	325	8.6980	ng/mL	83
7) Acnaphthylene	4.223	152	1218	19.9737	ng/mL	94
8) Acenaphthene	4.346	154	651	15.7633	ng/mL	88
9) Fluorene	4.705	166	552	12.6640	ng/mL#	24
11) Phenanthrene	5.358	178	8757	122.6299	ng/mL	98
12) Anthracene	5.399	178	1785	29.5811	ng/mL	92
14) Fluoranthene	6.180	202	25611	371.1890	ng/mL	97
16) Pyrene	6.331	202	24629	327.1560	ng/mL	97
17) B[a]anthracen	7.169	228	13979	295.5714	ng/mL	93
18) Chrysene	7.195	228	12076	184.6653	ng/mL	96
20) B[b]fluoranth	7.926	252	17526m	377.1691	ng/mL	
21) B[k]fluoranth	7.941	252	6882m	115.8082	ng/mL	
22) Benz[a]pyrene	8.191	252	8079	199.4281	ng/mL	98
23) Indeno-pyrene	9.302	276	2730	101.2190	ng/mL	98
24) Dib[ah]anthr	9.334	278	599	53.7104	ng/mL	77
25) B[ghi]perylen	9.599	276	1998	93.5402	ng/mL	74

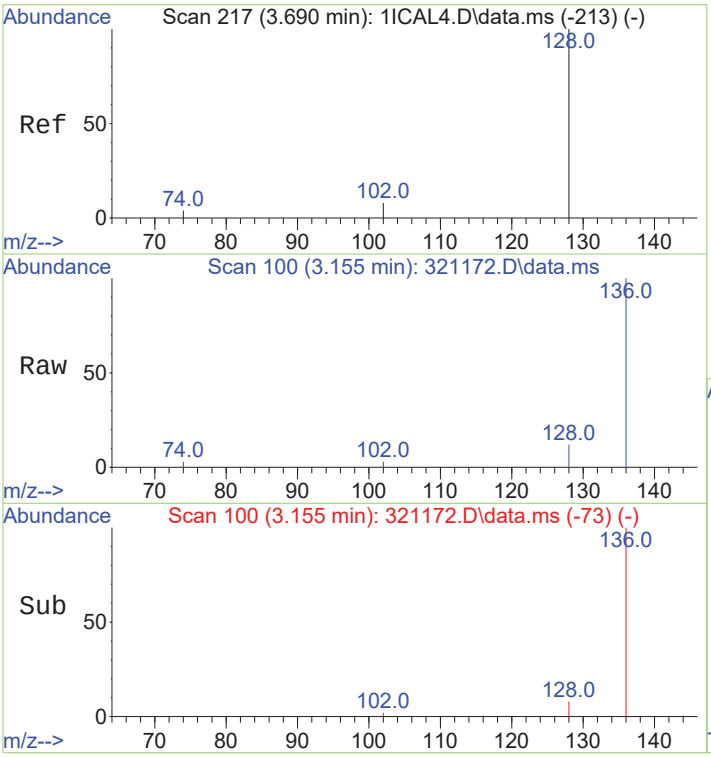
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321172.D Vial: 28
Acq On : 10 Sep 2019 00:57 Operator: JJY
Sample : 164274,321172, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 13:50:51 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 13:13:41 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

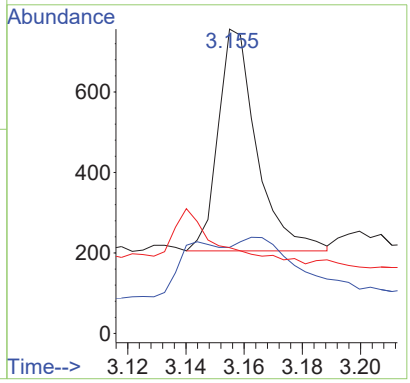


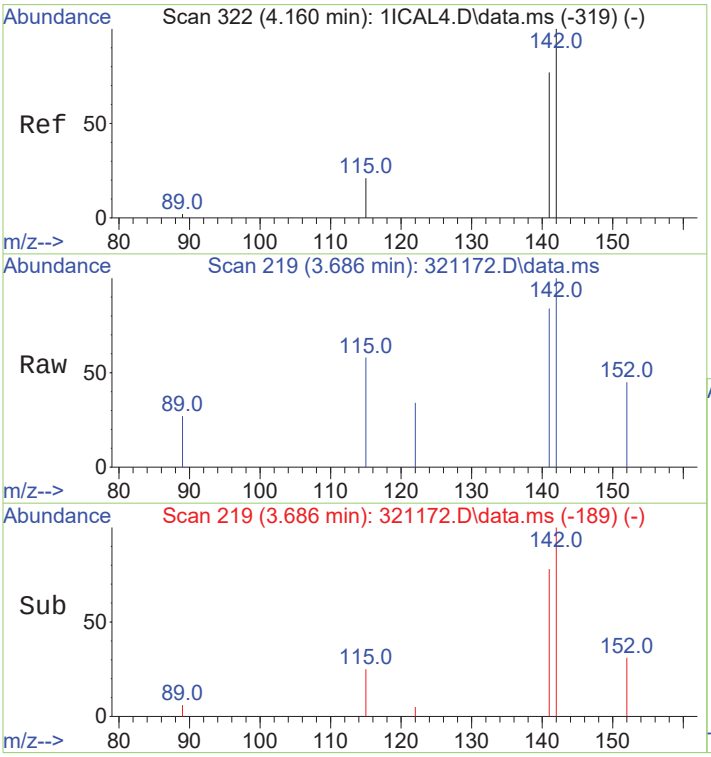


#2
Naphthalene
Concen: 7.30 ng/ml
RT: 3.155 min Scan# 100
Delta R.T. 0.000 min
Lab File: 321172.D
Acq: 10 Sep 2019 00:57

Tgt Ion:128 Resp: 509

Ion	Ratio	Lower	Upper
128	100		
102	14.3	0.0	37.6
74	5.4	0.0	33.6

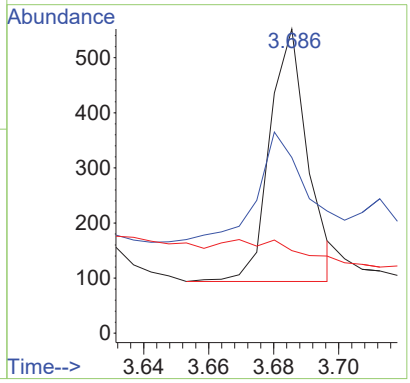


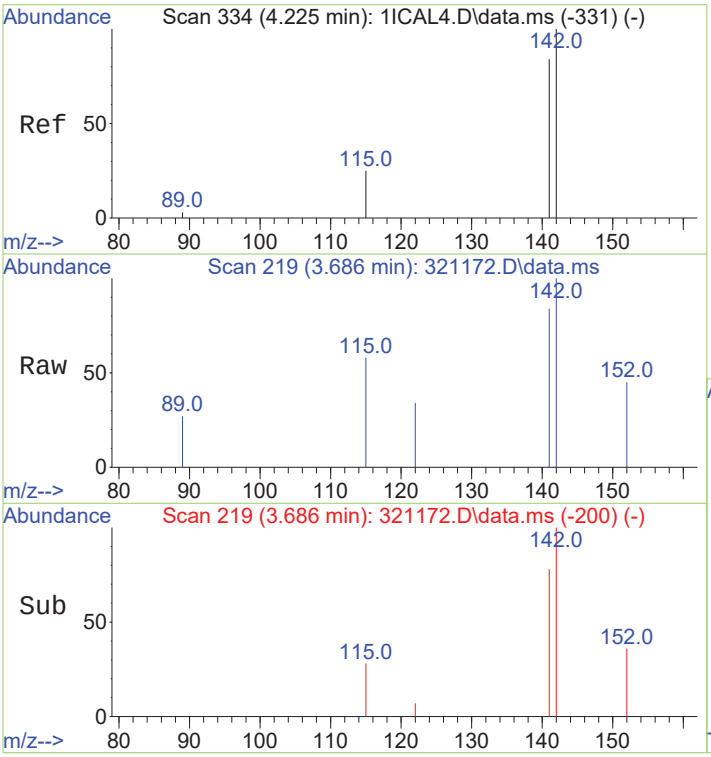


#4
2Methylnaphth
Concen: 9.70 ng/mL
RT: 3.686 min Scan# 219
Delta R.T. 0.065 min
Lab File: 321172.D
Acq: 10 Sep 2019 00:57

Tgt Ion:142 Resp: 371

Ion	Ratio	Lower	Upper
142	100		
115	32.5	6.9	66.9
89	2.2	0.0	34.9

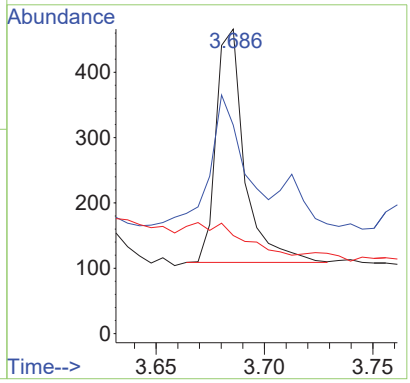


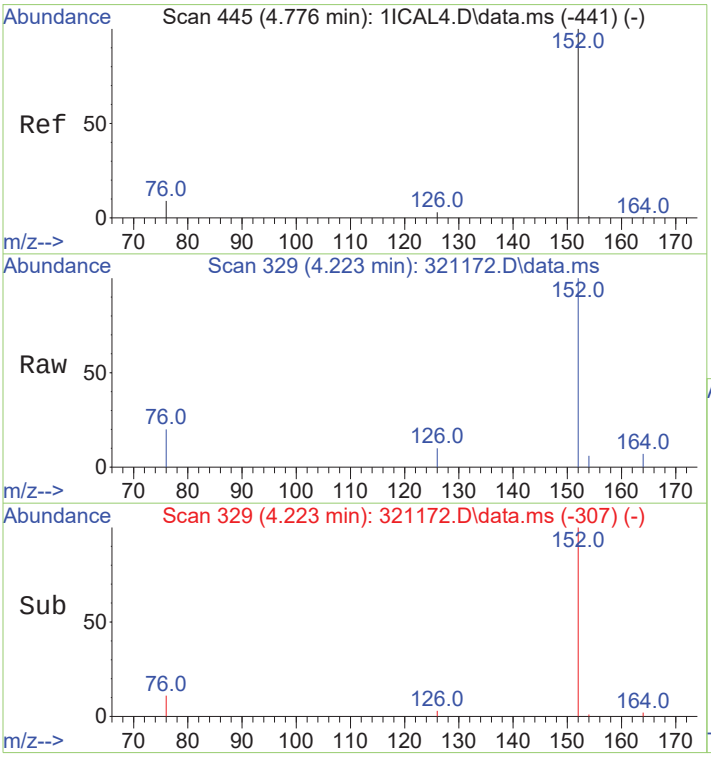


#5
1Methylnaphth
Concen: 8.70 ng/mL
RT: 3.686 min Scan# 219
Delta R.T. 0.005 min
Lab File: 321172.D
Acq: 10 Sep 2019 00:57

Tgt Ion:141 Resp: 325

Ion	Ratio	Lower	Upper
141	100		
115	42.3	2.5	62.5
89	7.6	0.0	34.0

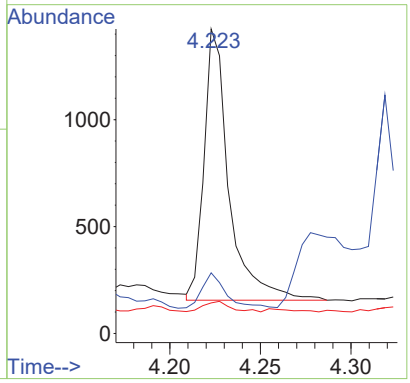


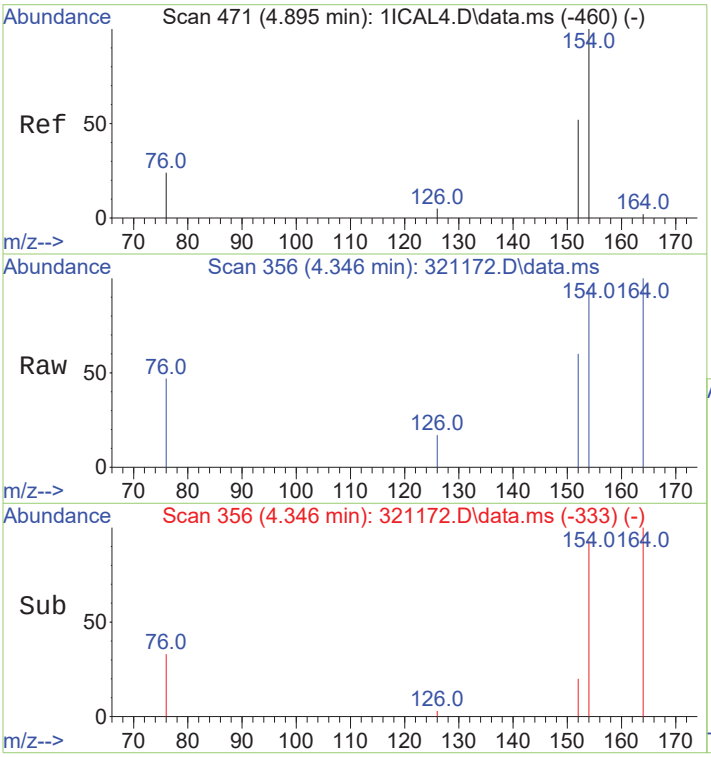


#7
Acnaphthylene
Concen: 19.97 ng/mL
RT: 4.223 min Scan# 329
Delta R.T. 0.000 min
Lab File: 321172.D
Acq: 10 Sep 2019 00:57

Tgt Ion:152 Resp: 1218

Ion	Ratio	Lower	Upper
152	100		
76	12.8	0.0	39.9
126	3.2	0.0	33.1

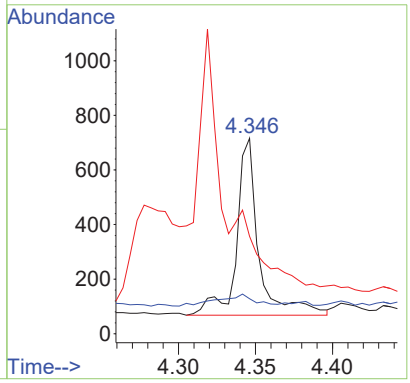


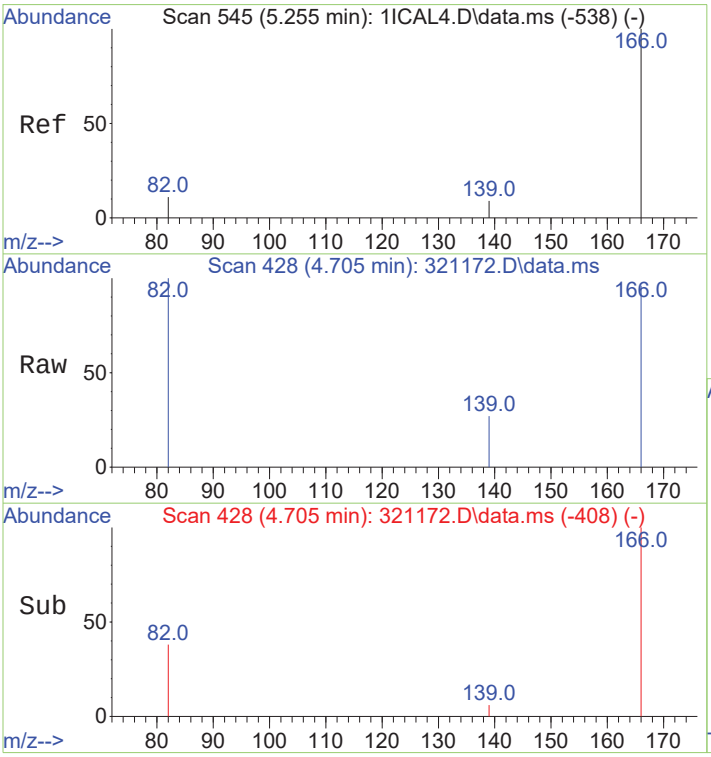


#8
Acenaphthene
Concen: 15.76 ng/mL
RT: 4.346 min Scan# 356
Delta R.T. 0.005 min
Lab File: 321172.D
Acq: 10 Sep 2019 00:57

Tgt Ion:154 Resp: 651

Ion	Ratio	Lower	Upper
154	100		
126	3.1	0.0	34.3
76	28.1	0.0	51.6

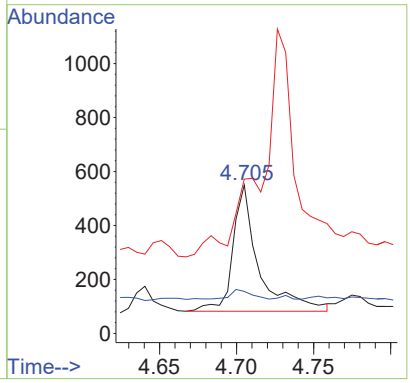


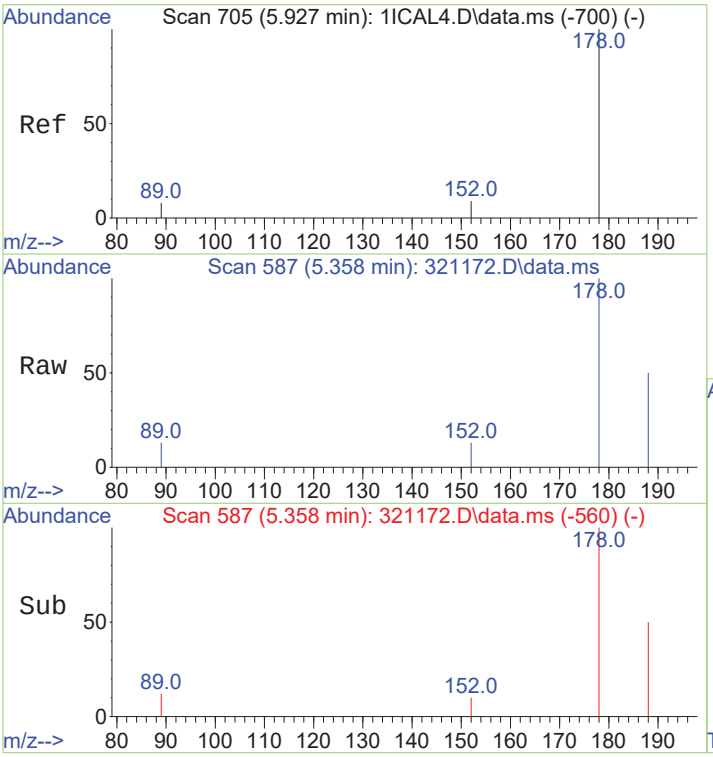


#9
Fluorene
Concen: 12.66 ng/mL
RT: 4.705 min Scan# 428
Delta R.T. 0.005 min
Lab File: 321172.D
Acq: 10 Sep 2019 00:57

Tgt Ion:166 Resp: 552

Ion	Ratio	Lower	Upper
166	100		
139	6.4	0.0	38.6
82	61.5	0.0	42.4#

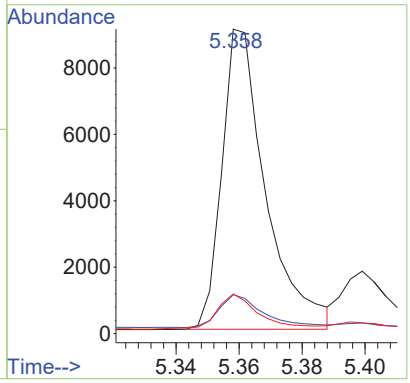


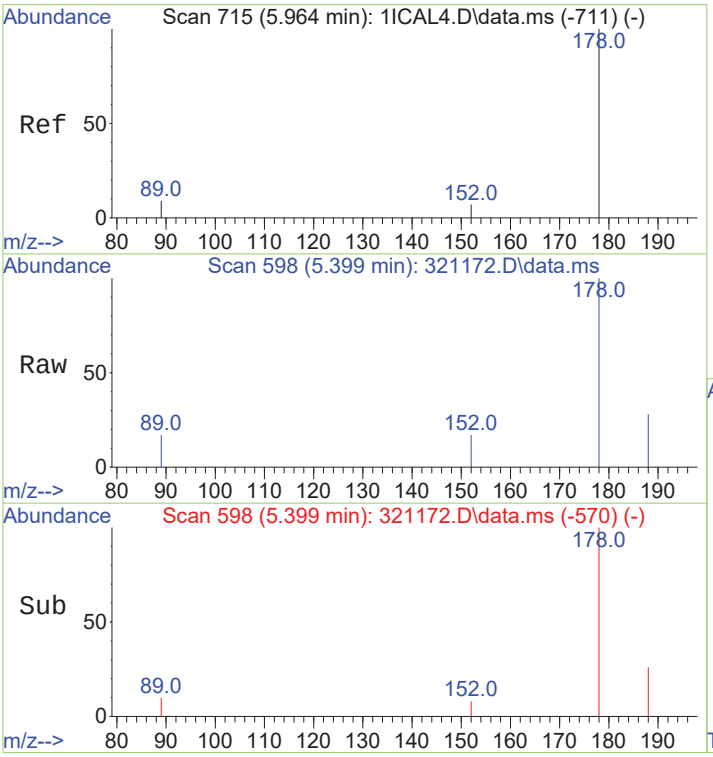


#11
Phenanthrene
Concen: 122.63 ng/mL
RT: 5.358 min Scan# 587
Delta R.T. 0.000 min
Lab File: 321172.D
Acq: 10 Sep 2019 00:57

Tgt Ion:178 Resp: 8757

Ion	Ratio	Lower	Upper
178	100		
152	11.3	0.0	40.1
89	11.2	0.0	41.4

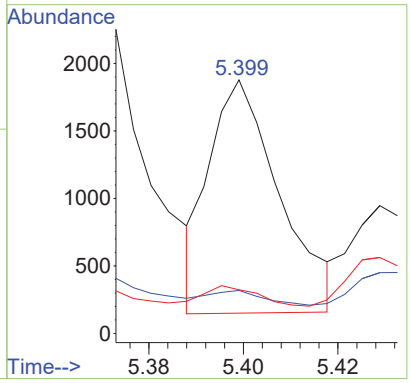


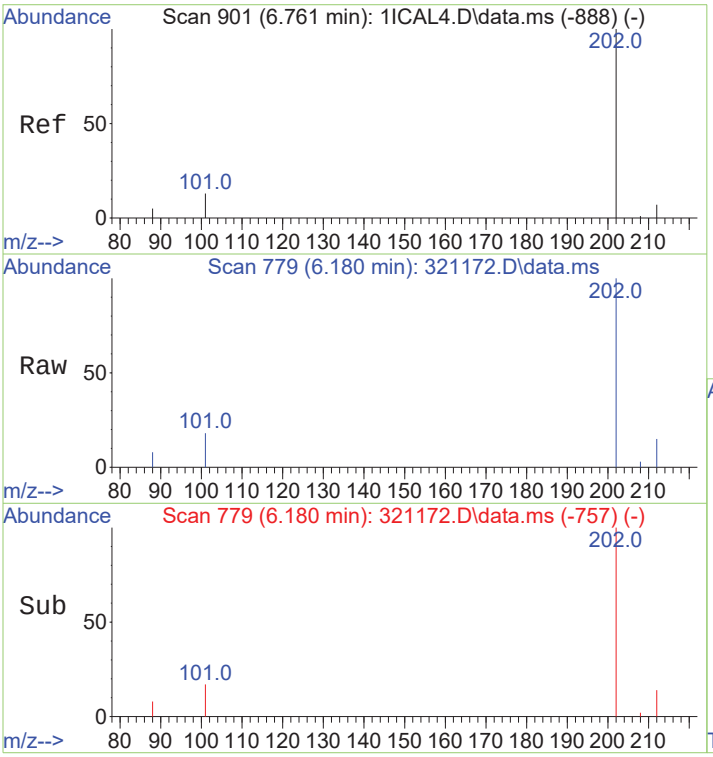


#12
Anthracene
Concen: 29.58 ng/mL
RT: 5.399 min Scan# 598
Delta R.T. 0.004 min
Lab File: 321172.D
Acq: 10 Sep 2019 00:57

Tgt Ion:178 Resp: 1785

Ion	Ratio	Lower	Upper
178	100		
152	7.2	0.0	37.8
89	6.3	0.0	31.3

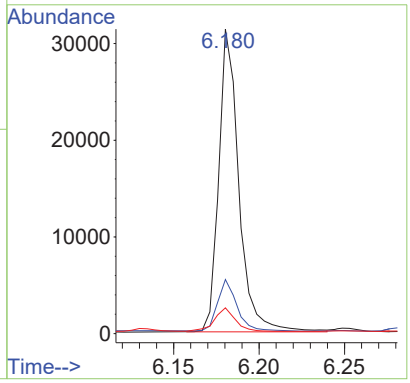


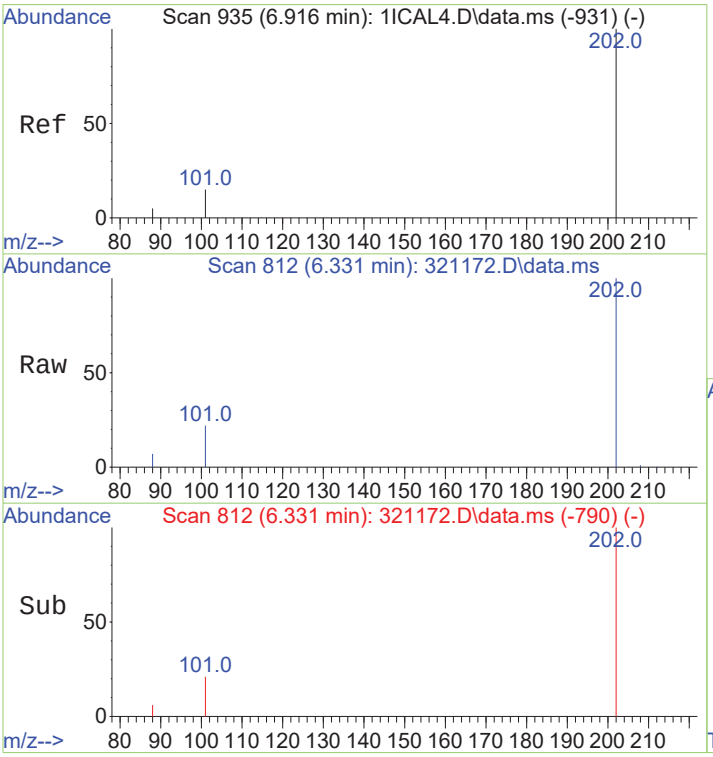


#14
Fluoranthene
Concen: 371.19 ng/mL
RT: 6.180 min Scan# 779
Delta R.T. 0.000 min
Lab File: 321172.D
Acq: 10 Sep 2019 00:57

Tgt Ion:202 Resp: 25611

Ion	Ratio	Lower	Upper
202	100		
101	17.0	0.0	48.3
88	7.7	0.0	38.8

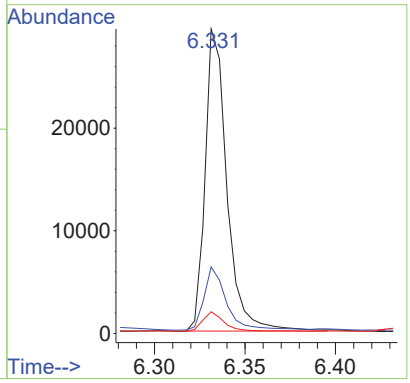


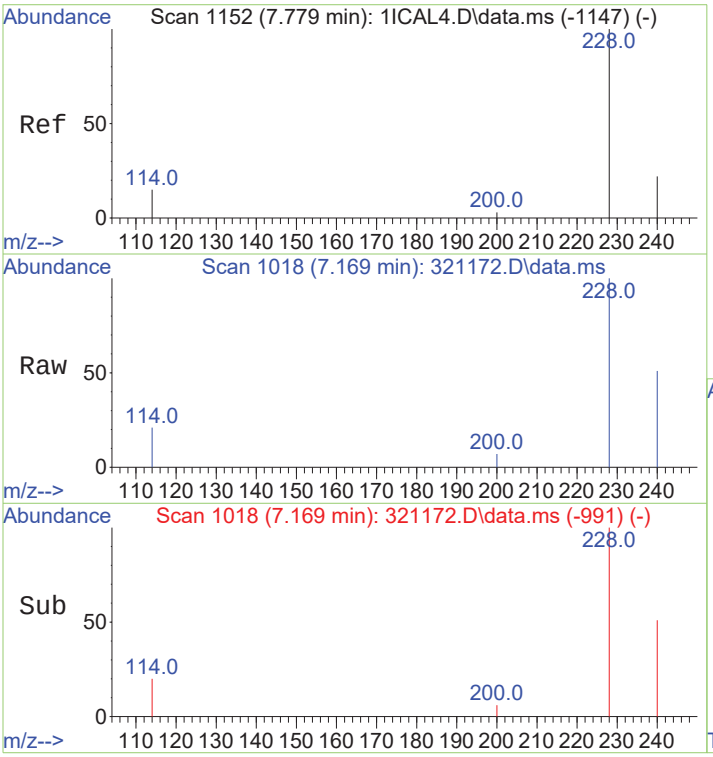


#16
Pyrene
Concen: 327.16 ng/mL
RT: 6.331 min Scan# 812
Delta R.T. 0.000 min
Lab File: 321172.D
Acq: 10 Sep 2019 00:57

Tgt Ion:202 Resp: 24629

Ion	Ratio	Lower	Upper
202	100		
101	20.8	0.0	49.4
88	6.4	0.0	35.5

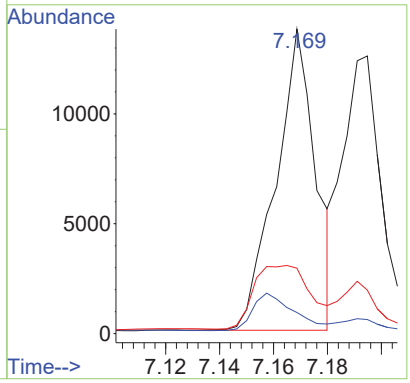


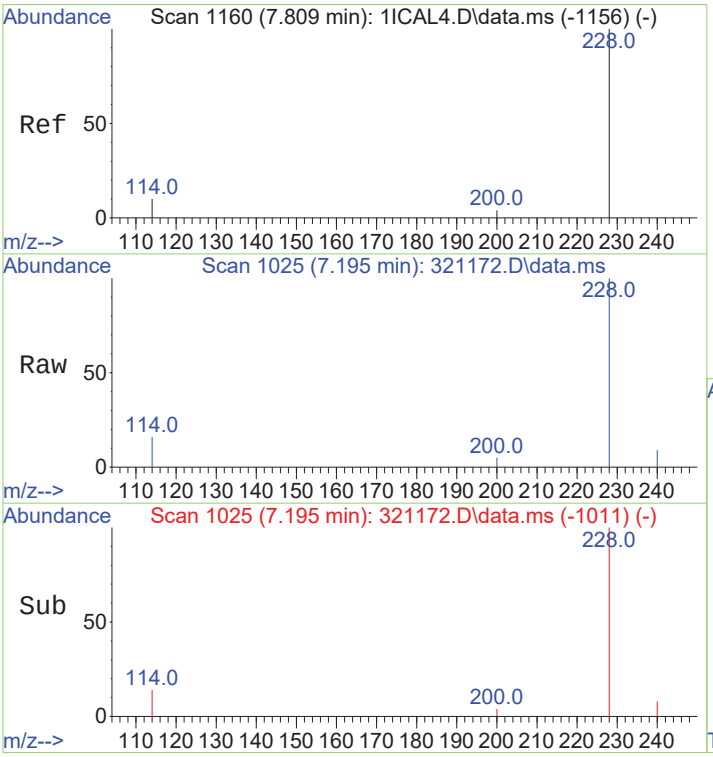


#17
B[a]anthracen
Concen: 295.57 ng/mL
RT: 7.169 min Scan# 1018
Delta R.T. 0.000 min
Lab File: 321172.D
Acq: 10 Sep 2019 00:57

Tgt Ion:228 Resp: 13979

Ion	Ratio	Lower	Upper
228	100		
200	5.9	0.0	33.6
114	20.1	0.0	47.0

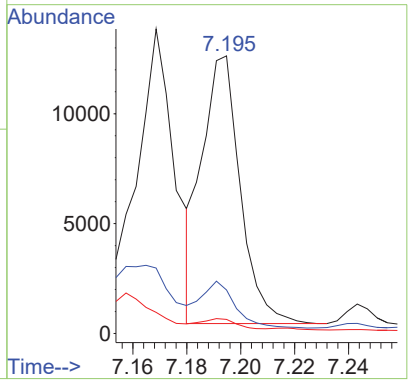


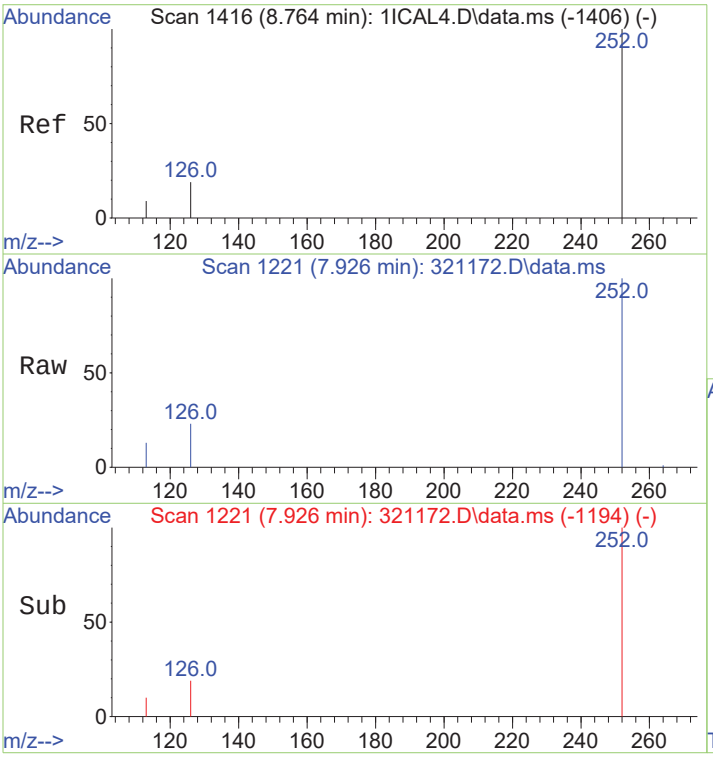


#18
Chrysene
Concen: 184.67 ng/mL
RT: 7.195 min Scan# 1025
Delta R.T. 0.004 min
Lab File: 321172.D
Acq: 10 Sep 2019 00:57

Tgt Ion:228 Resp: 12076

Ion	Ratio	Lower	Upper
228	100		
114	14.1	0.0	46.1
200	3.9	0.0	33.8

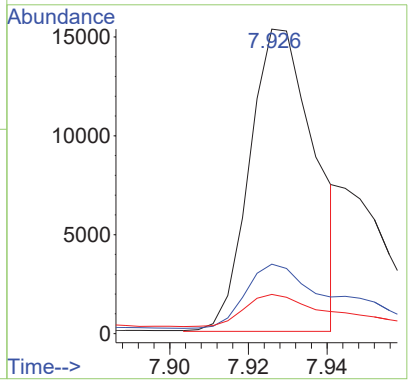


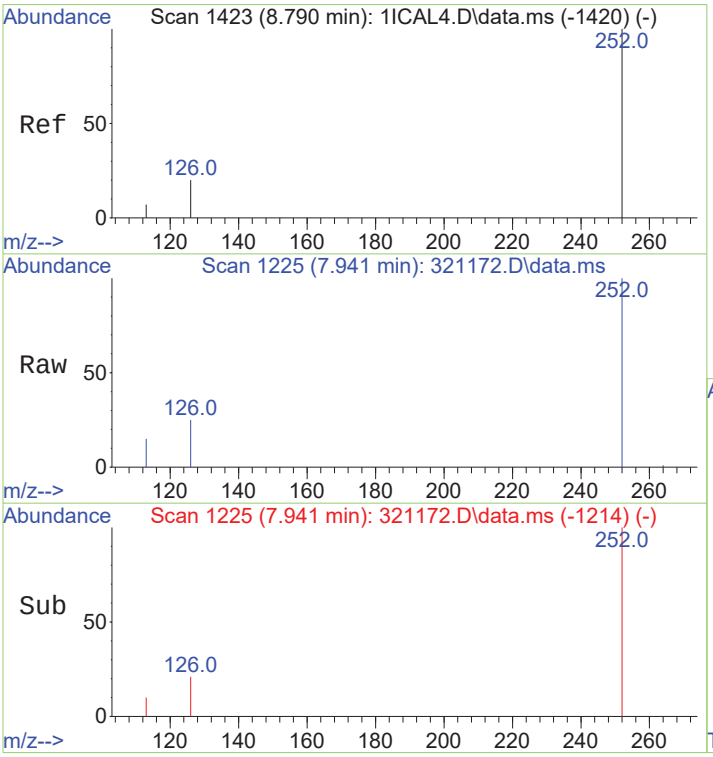


#20
B[b]fluoranth
Concen: 377.17 ng/mL m
RT: 7.926 min Scan# 1221
Delta R.T. 0.000 min
Lab File: 321172.D
Acq: 10 Sep 2019 00:57

Tgt Ion:252 Resp: 17526

Ion	Ratio	Lower	Upper
252	100		
126	22.8	0.0	52.1
113	12.9	0.0	40.0

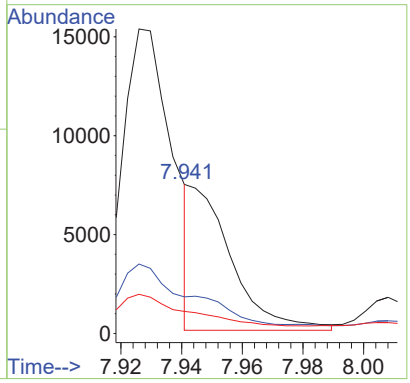


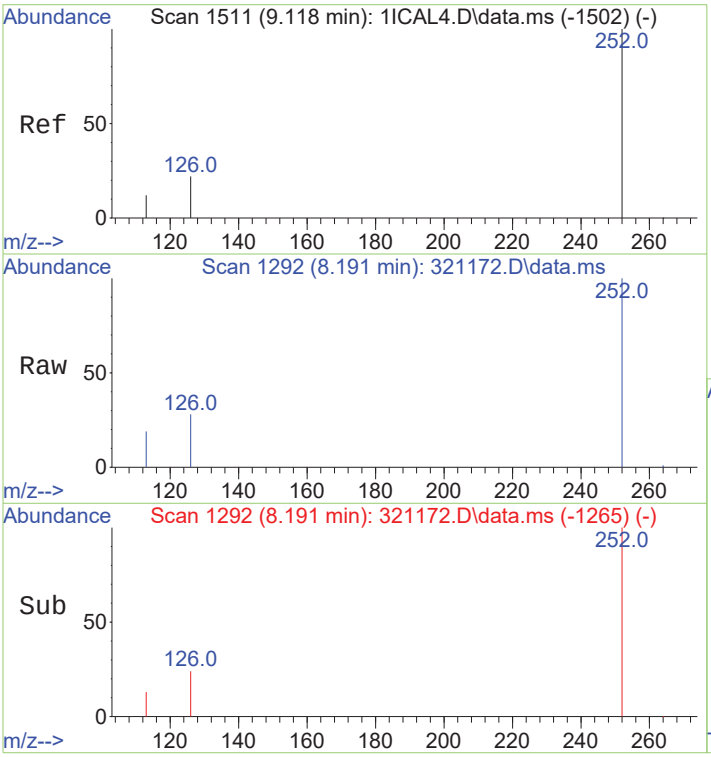


#21
B[k]fluoranth
Concen: 115.81 ng/mL m
RT: 7.941 min Scan# 1225
Delta R.T. -0.007 min
Lab File: 321172.D
Acq: 10 Sep 2019 00:57

Tgt Ion:252 Resp: 6882

Ion	Ratio	Lower	Upper
252	100		
126	24.6	0.0	54.3
113	14.8	0.0	39.4

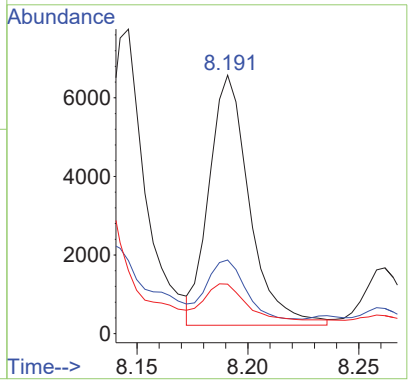


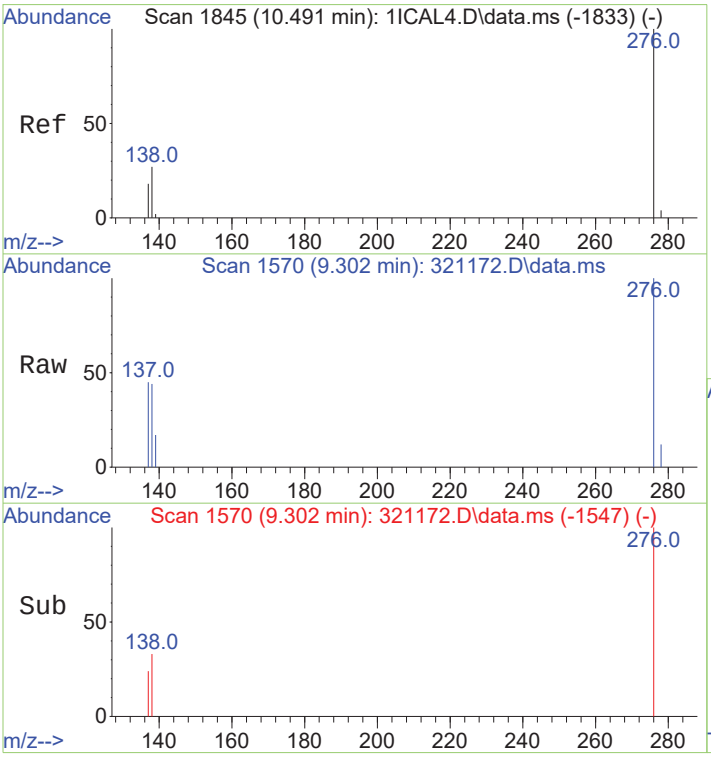


#22
Benz[a]pyrene
Concen: 199.43 ng/mL
RT: 8.191 min Scan# 1292
Delta R.T. 0.000 min
Lab File: 321172.D
Acq: 10 Sep 2019 00:57

Tgt Ion:252 Resp: 8079

Ion	Ratio	Lower	Upper
252	100		
126	22.8	0.0	52.7
113	14.6	0.0	42.2

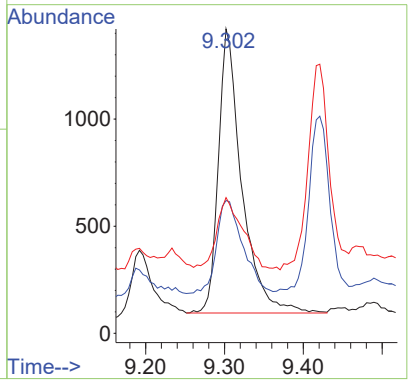


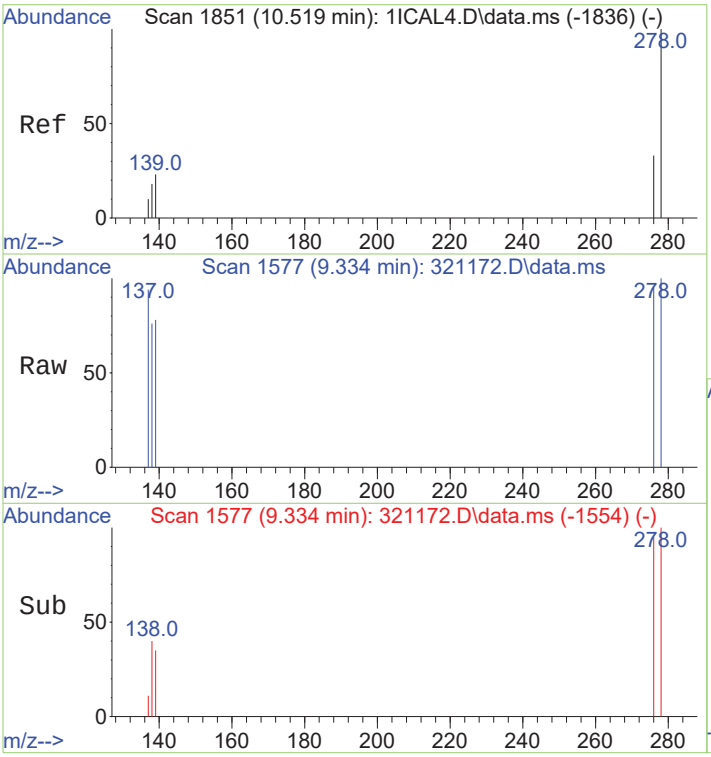


#23
Indeno-pyrene
Concen: 101.22 ng/mL
RT: 9.302 min Scan# 1570
Delta R.T. 0.005 min
Lab File: 321172.D
Acq: 10 Sep 2019 00:57

Tgt Ion:276 Resp: 2730

Ion	Ratio	Lower	Upper
276	100		
138	32.8	4.1	64.1
137	23.4	0.0	52.8

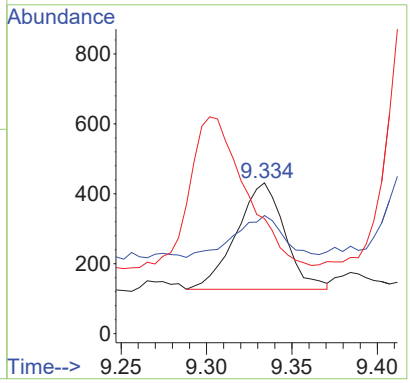


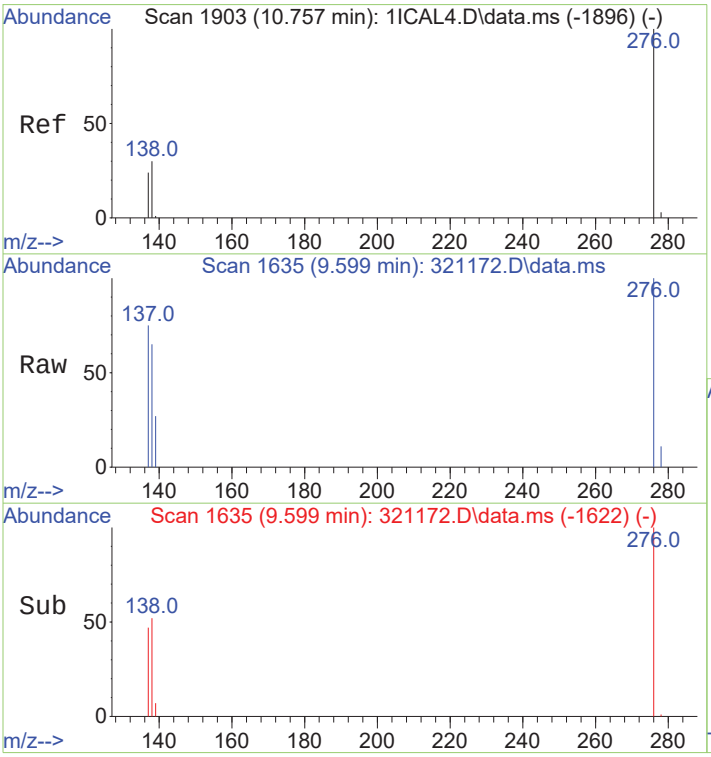


#24
Dib[ah]anthr
Concen: 53.71 ng/mL
RT: 9.334 min Scan# 1577
Delta R.T. 0.005 min
Lab File: 321172.D
Acq: 10 Sep 2019 00:57

Tgt Ion:278 Resp: 599

Ion	Ratio	Lower	Upper
278	100		
139	39.5	0.0	59.3
138	40.5	0.0	56.3

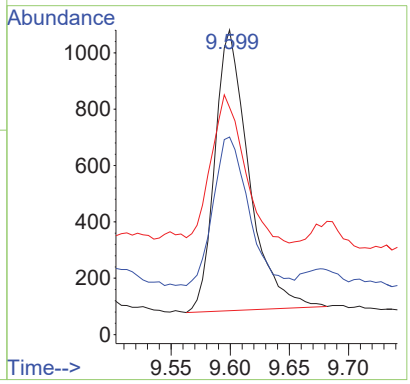


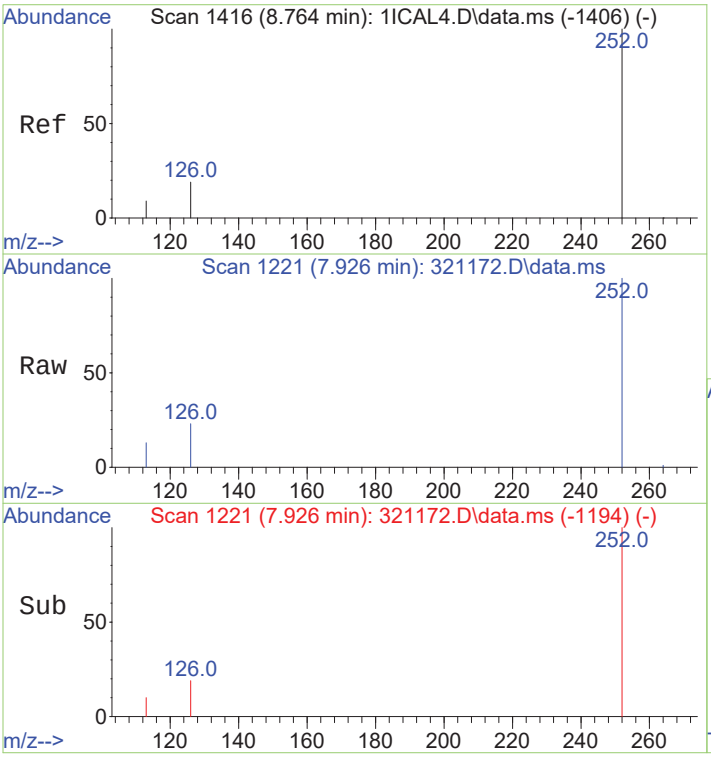


#25
B[ghi]perylen
Concen: 93.54 ng/mL
RT: 9.599 min Scan# 1635
Delta R.T. 0.009 min
Lab File: 321172.D
Acq: 10 Sep 2019 00:57

Tgt Ion:276 Resp: 1998

Ion	Ratio	Lower	Upper
276	100		
138	52.5	7.7	67.7
137	46.1	0.6	60.6

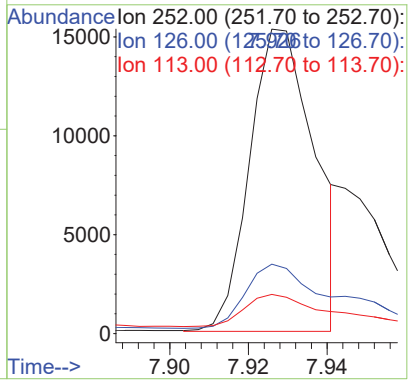




#20
B[b]fluoranth
Concen: 377.17 ng/mL m
RT: 7.926 min Scan# 1221
Delta R.T. 0.000 min
Lab File: 321172.D
Acq: 10 Sep 2019 00:57

Tgt Ion:252 Resp: 17526

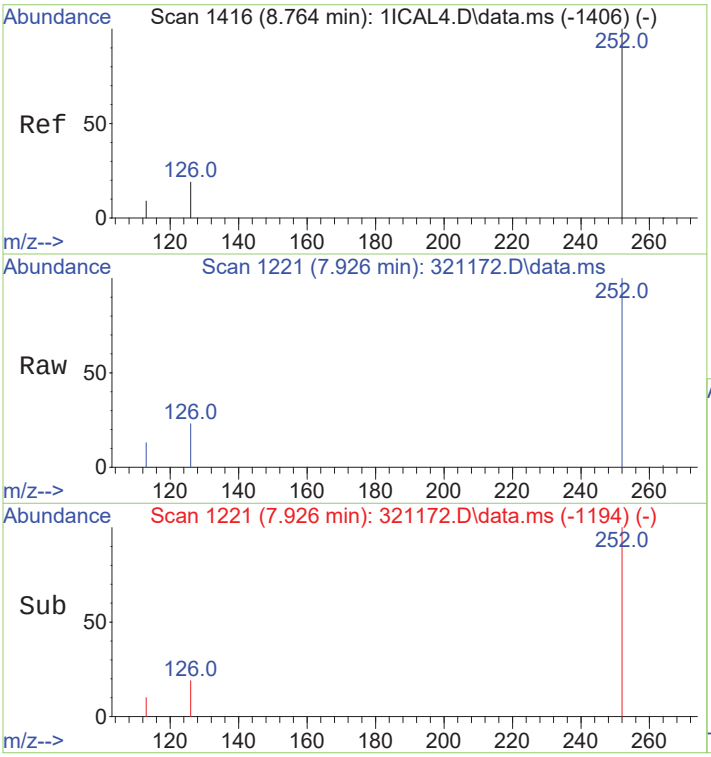
Ion	Ratio	Lower	Upper
252	100		
126	22.8	0.0	52.1
113	12.9	0.0	40.0



RED
9/12/2019

After Manual Integration

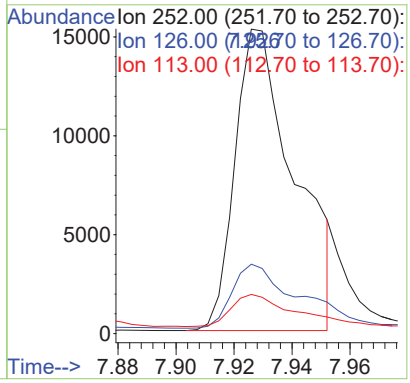
Reason#3 JJY
9/11/19



#20
B[b]fluoranth
Concen: 462.38 ng/mL
RT: 7.926 min Scan# 1221
Delta R.T. 0.000 min
Lab File: 321172.D
Acq: 10 Sep 2019 00:57

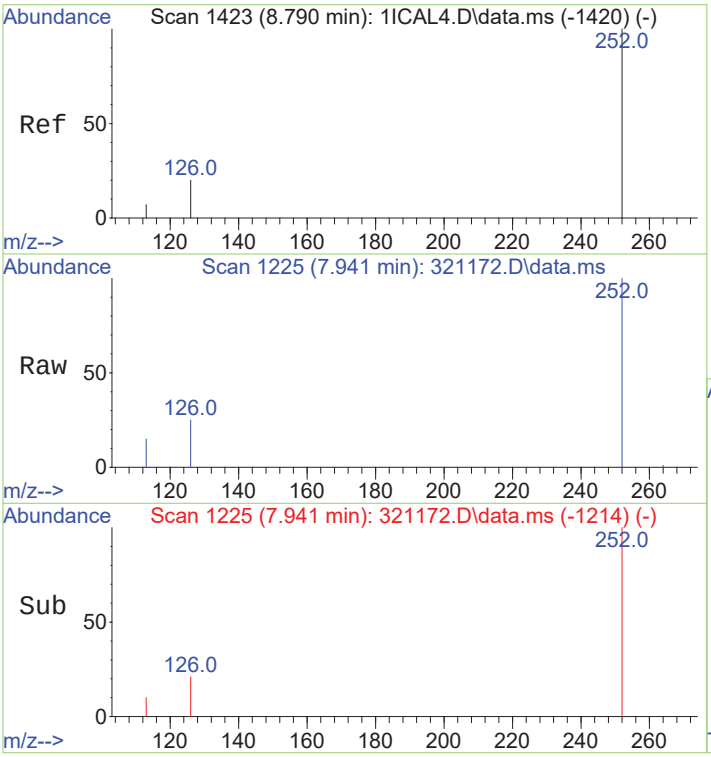
Tgt Ion:252 Resp: 21802

Ion	Ratio	Lower	Upper
252	100		
126	21.2	0.0	52.1
113	10.7	0.0	40.0



Before Manual Integration

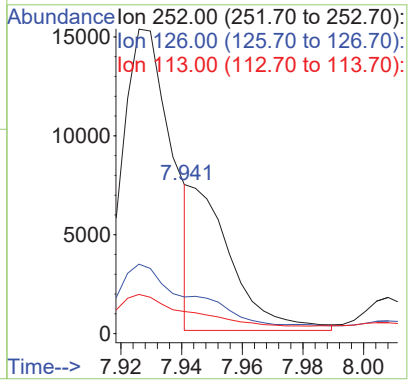
Reason#3 JJY 9/11/19



#21
B[k]fluoranth
Concen: 115.81 ng/mL m
RT: 7.941 min Scan# 1225
Delta R.T. -0.007 min
Lab File: 321172.D
Acq: 10 Sep 2019 00:57

Tgt Ion:252 Resp: 6882

Ion	Ratio	Lower	Upper
252	100		
126	24.6	0.0	54.3
113	14.8	0.0	39.4

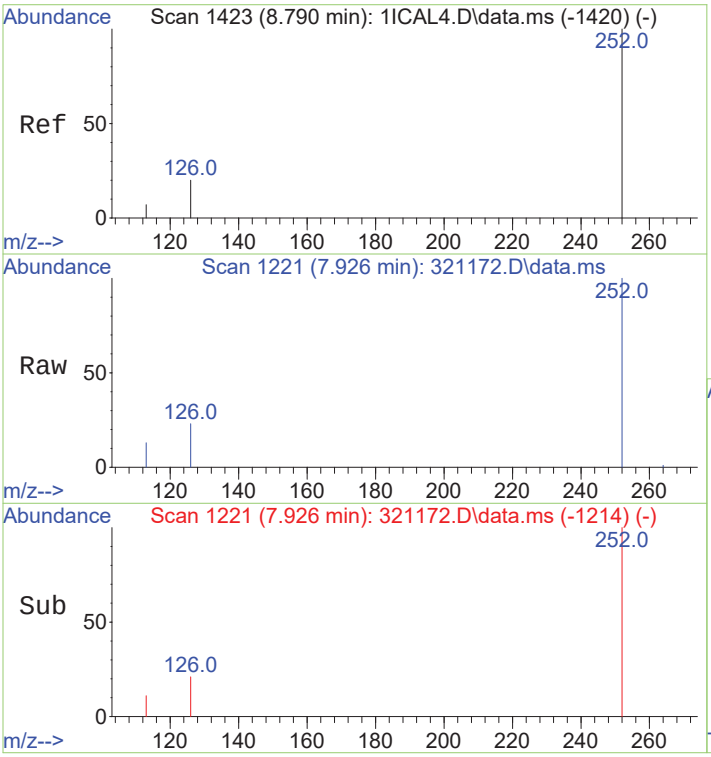


RED
9/12/2019

After Manual Integration

Reason#3

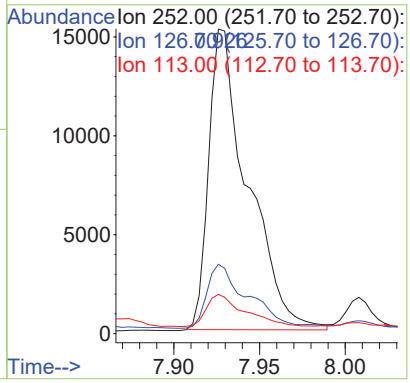
JJY
9/11/19



#21
B[k]fluoranth
Concen: 401.75 ng/mL
RT: 7.926 min Scan# 1221
Delta R.T. -0.022 min
Lab File: 321172.D
Acq: 10 Sep 2019 00:57

Tgt Ion:252 Resp: 24122

Ion	Ratio	Lower	Upper
252	100		
126	21.2	0.0	54.3
113	10.6	0.0	39.4



Before Manual Integration

Reason#3 JJY 9/11/19

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321161.D Vial: 29
Acq On : 10 Sep 2019 1:17 Operator: JJY
Sample : 164274,321161, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 13:58:13 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 13:13:41 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

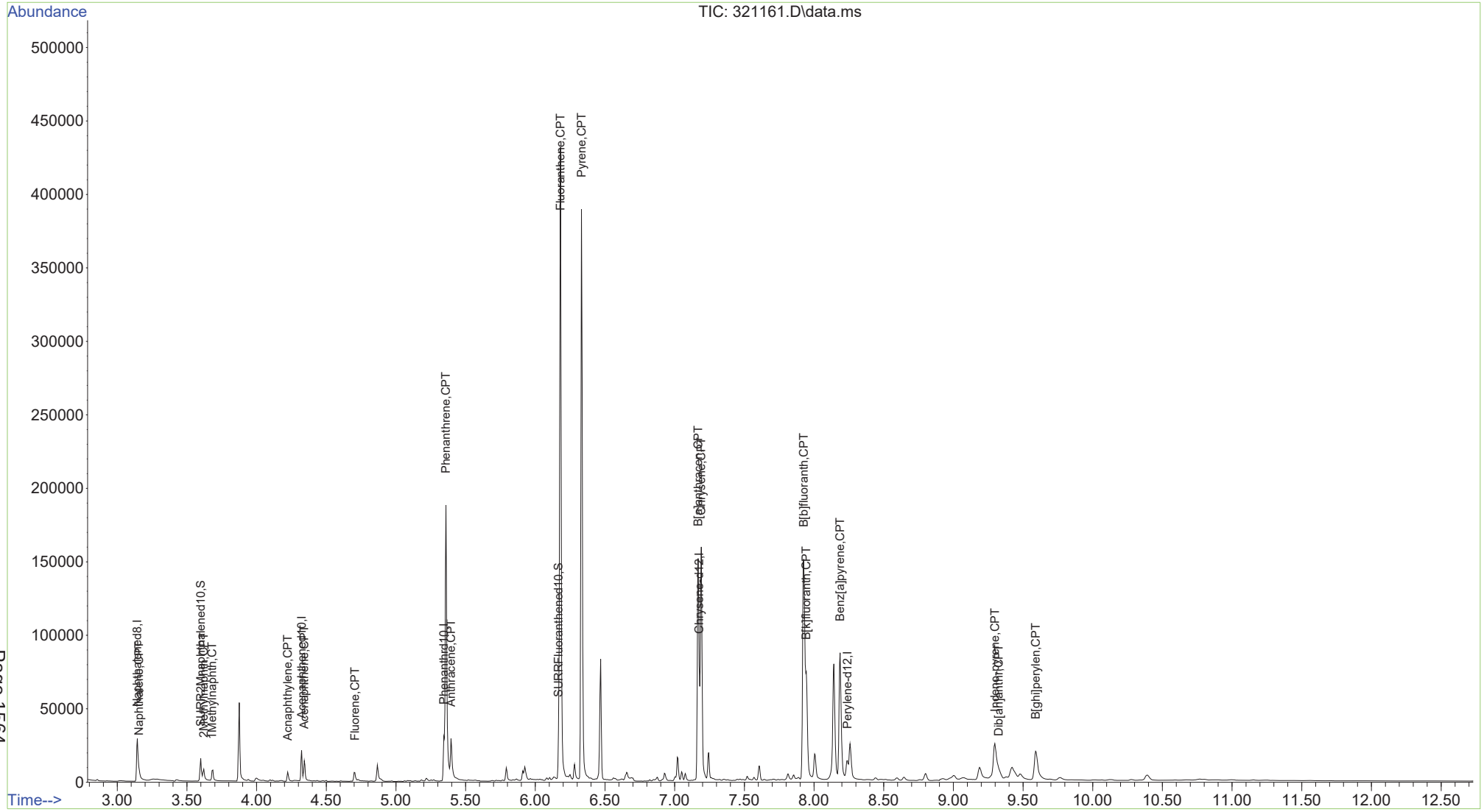
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.144	136	27707	400.00	ng/mL	0.00
6) Acenaphthened10	4.323	164	14306	400.00	ng/mL	0.00
10) Phenanthrd10	5.343	188	24628	400.00	ng/mL	0.00
15) Chrysene-d12	7.176	240	17427	400.00	ng/mL	0.00
19) Perylene-d12	8.239	264	14154	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.599	152	10426	67.85	%REC	0.00
Spiked Amount 100.000			Recovery = 67.85%			
13) SURRFluoranthened10	6.167	212	19189	78.91	%REC	0.00
Spiked Amount 100.000			Recovery = 78.91%			
Target Compounds						Qvalue
2) Naphthalene	3.155	128	2621	38.4704	ng/ml	92
4) 2Methylnaphth	3.621	142	2860	76.4999	ng/mL	84
5) 1Methylnaphth	3.680	141	2247	61.5239	ng/mL#	47
7) Acnaphthylene	4.223	152	4177	69.6227	ng/mL	95
8) Acenaphthene	4.342	154	5876	144.6182	ng/mL	87
9) Fluorene	4.705	166	5769	134.5271	ng/mL	94
11) Phenanthrene	5.358	178	119225	1963.5182	ng/mL	99
12) Anthracene	5.395	178	24267	395.7200	ng/mL	98
14) Fluoranthene	6.180	202	262234	3739.8444	ng/mL	97
16) Pyrene	6.331	202	226064	3208.1154	ng/mL	96
17) B[a]anthracen	7.169	228	101403	1982.8393	ng/mL	99
18) Chrysene	7.191	228	107072	1749.2362	ng/mL	97
20) B[b]fluoranth	7.926	252	139730m	2984.5781	ng/mL	
21) B[k]fluoranth	7.945	252	38801m	684.9955	ng/mL	
22) Benz[a]pyrene	8.187	252	70801	1559.1740	ng/mL	99
23) Indeno-pyrene	9.297	276	27058	620.7078	ng/mL	96
24) Dib[ah]anthr	9.325	278	5021	167.3717	ng/mL	85
25) B[ghi]perylen	9.590	276	20622	558.6786	ng/mL	99

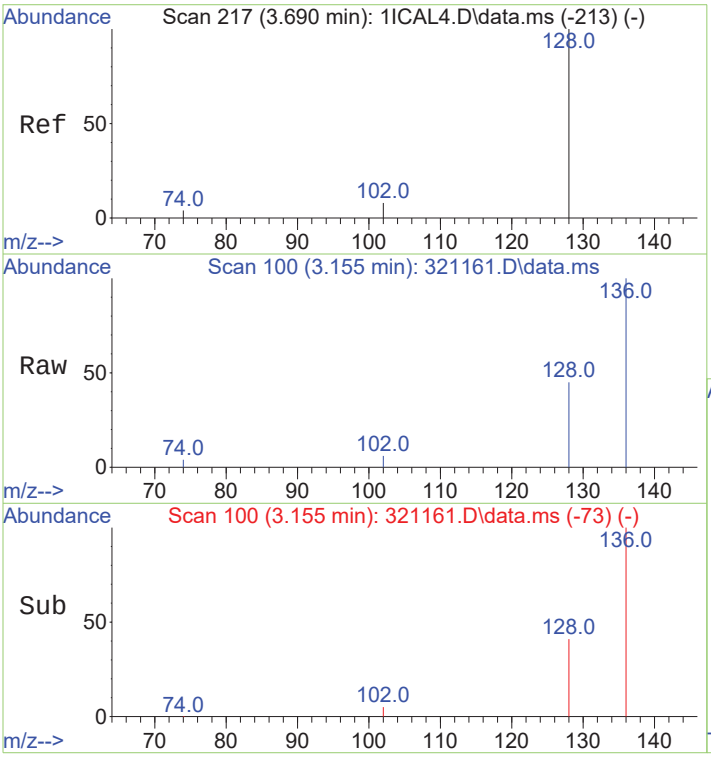
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321161.D Vial: 29
Acq On : 10 Sep 2019 1:17 Operator: JJY
Sample : 164274,321161, Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 13:58:13 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 13:13:41 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

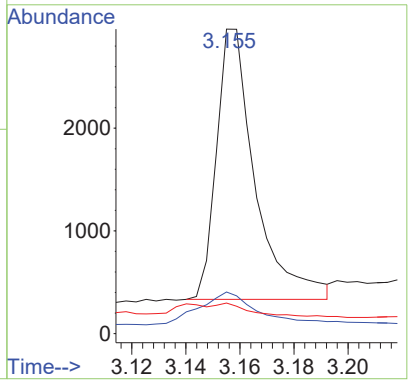


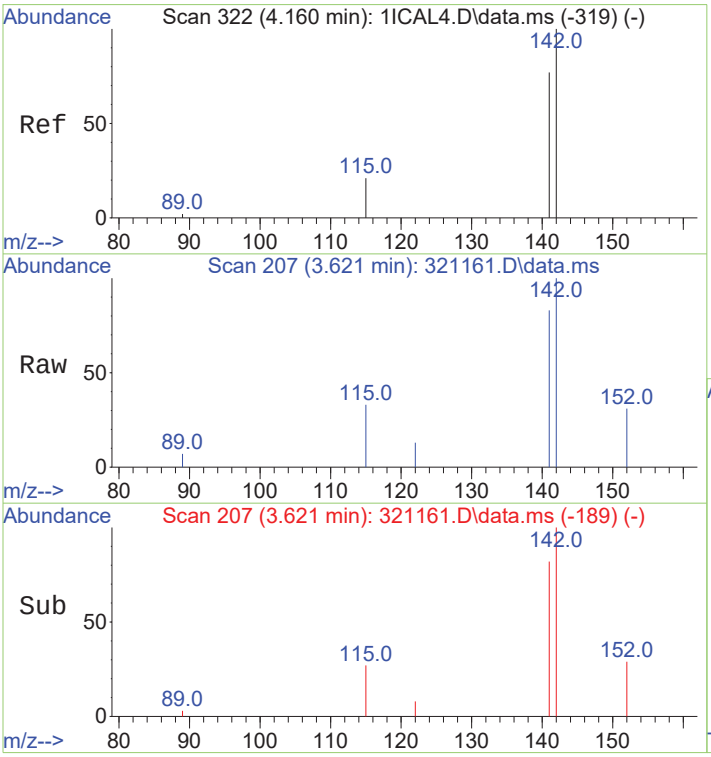


#2
Naphthalene
Concen: 38.47 ng/ml
RT: 3.155 min Scan# 100
Delta R.T. 0.000 min
Lab File: 321161.D
Acq: 10 Sep 2019 1:17

Tgt Ion:128 Resp: 2621

Ion	Ratio	Lower	Upper
128	100		
102	10.9	0.0	37.6
74	5.0	0.0	33.6

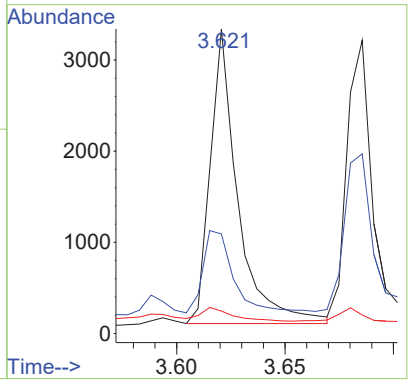


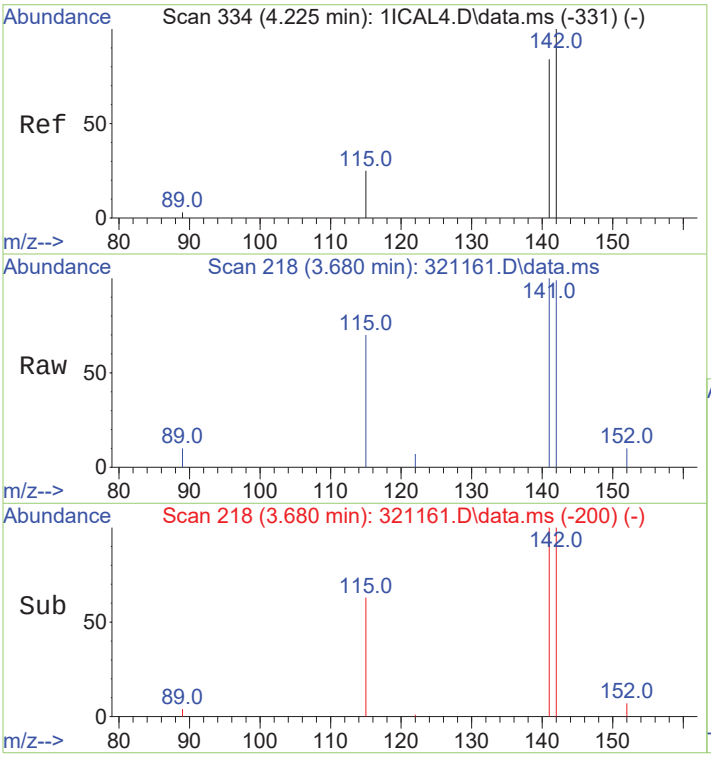


#4
2Methylnaphth
Concen: 76.50 ng/mL
RT: 3.621 min Scan# 207
Delta R.T. 0.000 min
Lab File: 321161.D
Acq: 10 Sep 2019 1:17

Tgt Ion:142 Resp: 2860

Ion	Ratio	Lower	Upper
142	100		
115	26.8	6.9	66.9
89	3.1	0.0	34.9

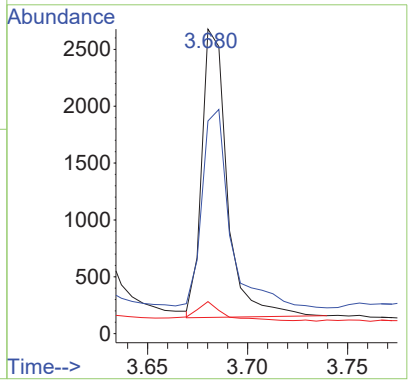


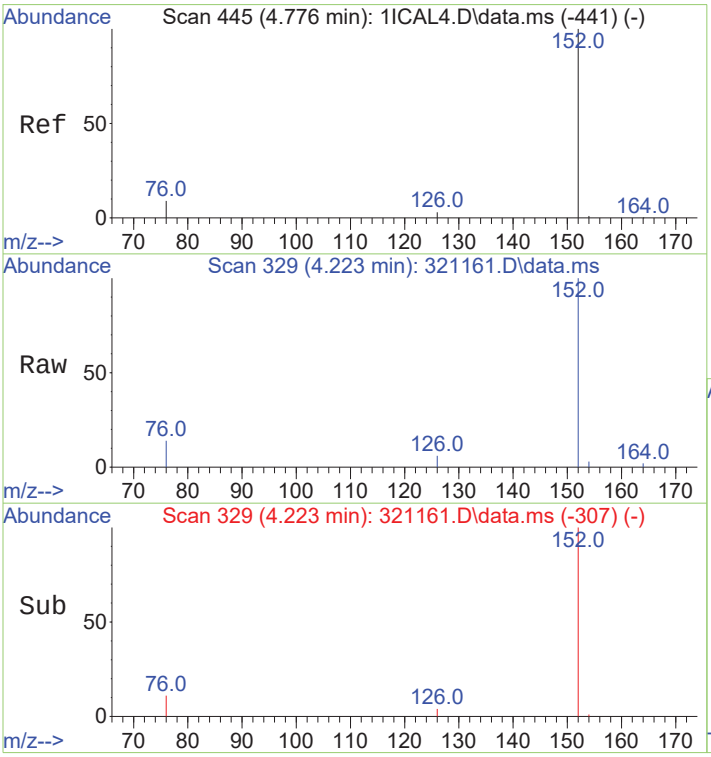


#5
1Methylnaphth
Concen: 61.52 ng/mL
RT: 3.680 min Scan# 218
Delta R.T. 0.000 min
Lab File: 321161.D
Acq: 10 Sep 2019 1:17

Tgt Ion:141 Resp: 2247

Ion	Ratio	Lower	Upper
141	100		
115	65.2	2.5	62.5#
89	6.4	0.0	34.0

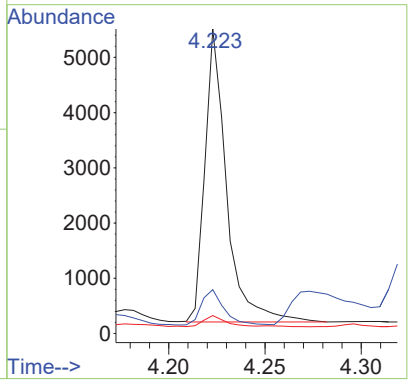


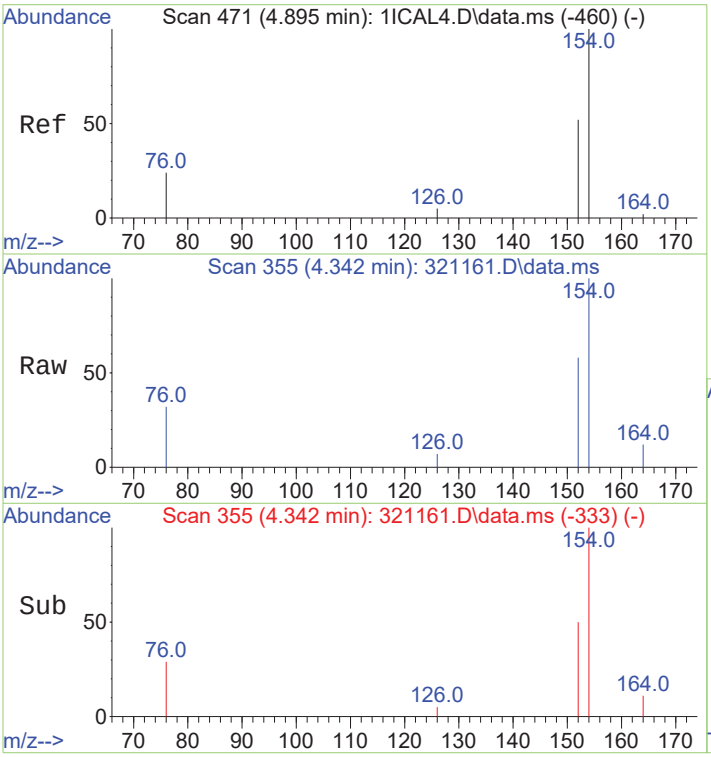


#7
Acnaphthylene
Concen: 69.62 ng/mL
RT: 4.223 min Scan# 329
Delta R.T. 0.000 min
Lab File: 321161.D
Acq: 10 Sep 2019 1:17

Tgt Ion:152 Resp: 4177

Ion	Ratio	Lower	Upper
152	100		
76	12.0	0.0	39.9
126	3.8	0.0	33.1

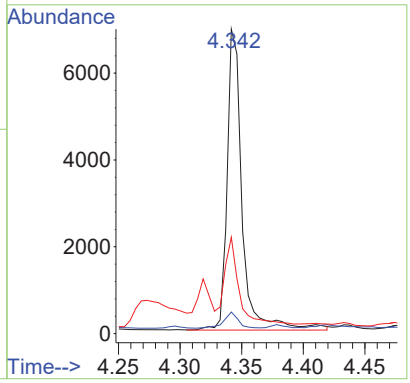


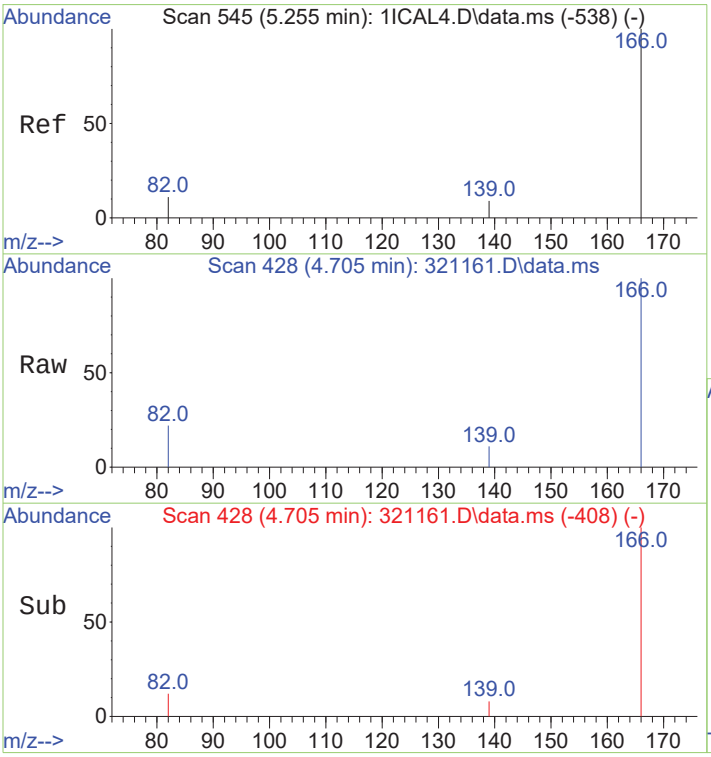


#8
Acenaphthene
Concen: 144.62 ng/mL
RT: 4.342 min Scan# 355
Delta R.T. 0.000 min
Lab File: 321161.D
Acq: 10 Sep 2019 1:17

Tgt Ion:154 Resp: 5876

Ion	Ratio	Lower	Upper
154	100		
126	5.2	0.0	34.3
76	28.8	0.0	51.6

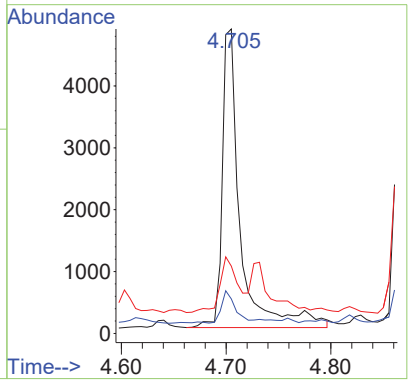


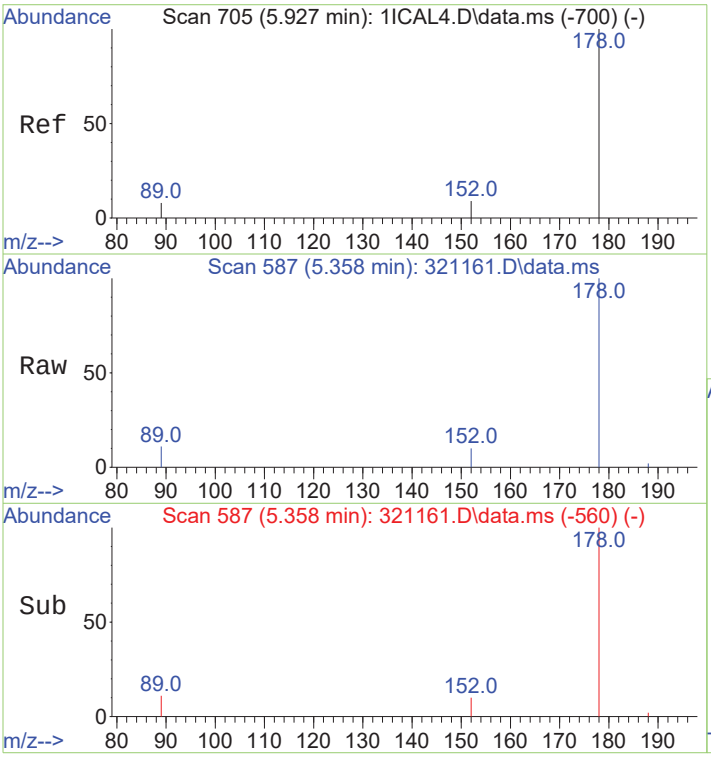


#9
Fluorene
Concen: 134.53 ng/mL
RT: 4.705 min Scan# 428
Delta R.T. 0.005 min
Lab File: 321161.D
Acq: 10 Sep 2019 1:17

Tgt Ion:166 Resp: 5769

Ion	Ratio	Lower	Upper
166	100		
139	7.9	0.0	38.6
82	15.5	0.0	42.4

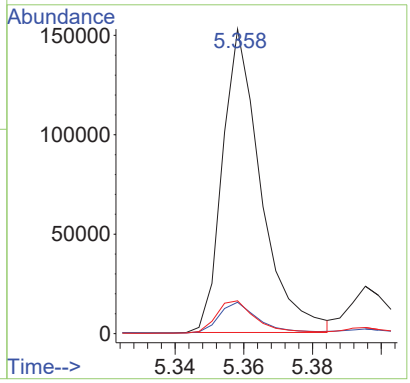


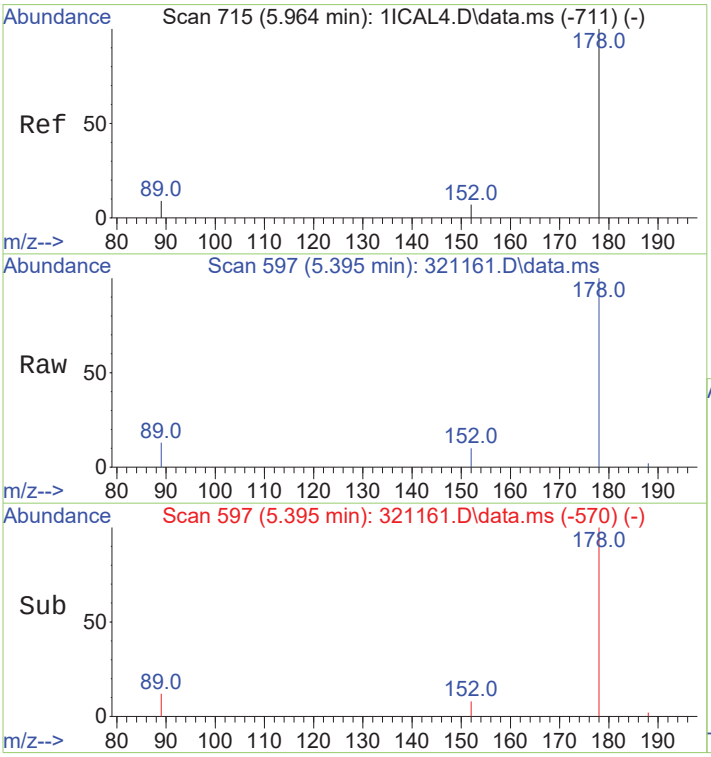


#11
Phenanthrene
Concen: 1963.52 ng/mL
RT: 5.358 min Scan# 587
Delta R.T. 0.000 min
Lab File: 321161.D
Acq: 10 Sep 2019 1:17

Tgt Ion:178 Resp: 119225

Ion	Ratio	Lower	Upper
178	100		
152	10.3	0.0	40.1
89	11.1	0.0	41.4

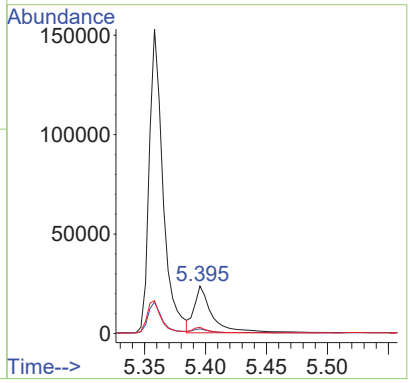


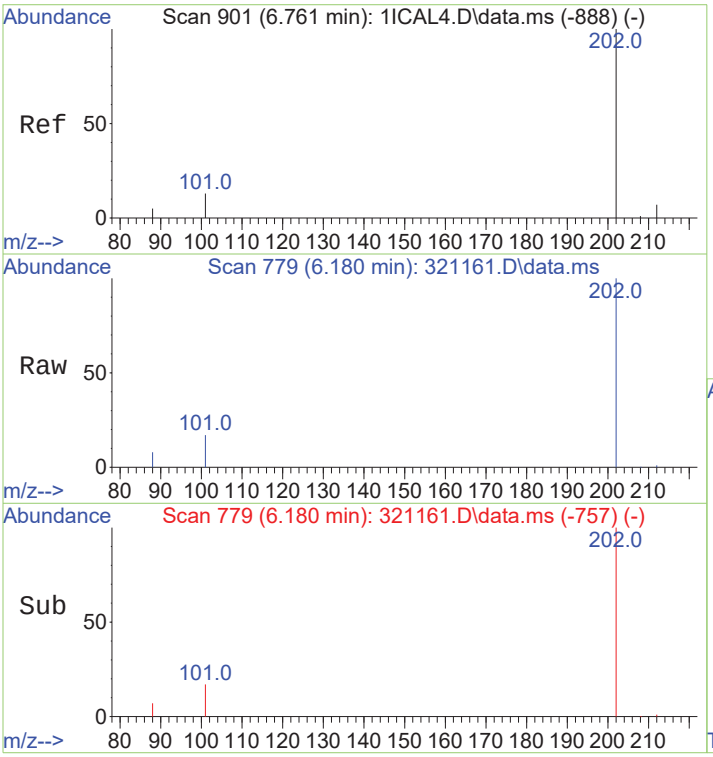


#12
Anthracene
Concen: 395.72 ng/mL
RT: 5.395 min Scan# 597
Delta R.T. 0.000 min
Lab File: 321161.D
Acq: 10 Sep 2019 1:17

Tgt Ion:178 Resp: 24267

Ion	Ratio	Lower	Upper
178	100		
152	8.4	0.0	37.8
89	11.9	0.0	31.3

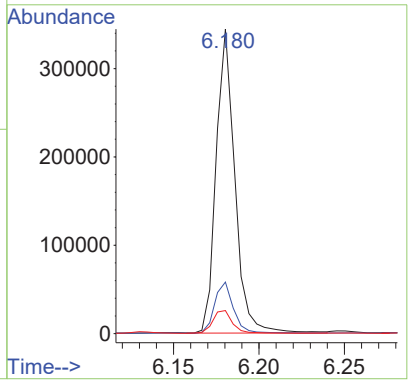


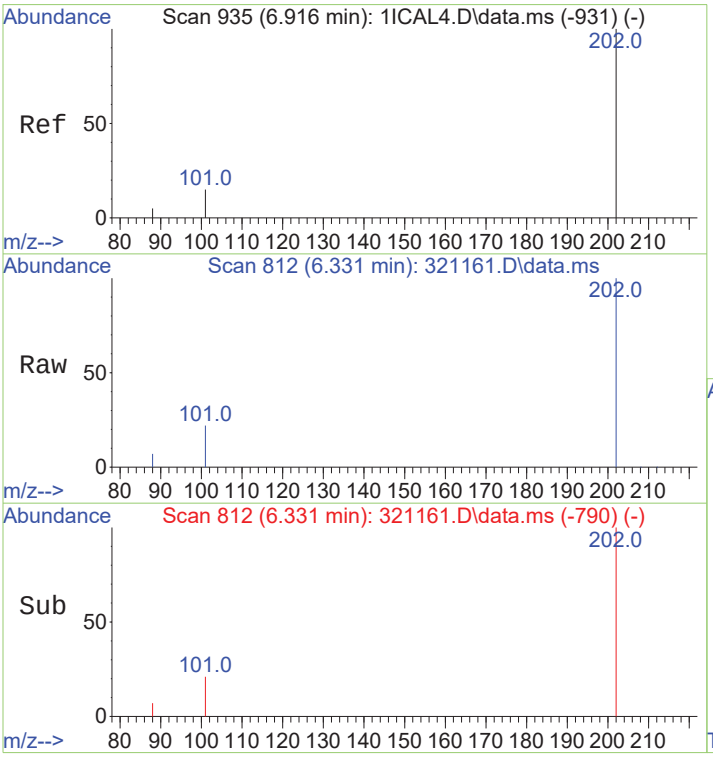


#14
Fluoranthene
Concen: 3739.84 ng/mL
RT: 6.180 min Scan# 779
Delta R.T. 0.000 min
Lab File: 321161.D
Acq: 10 Sep 2019 1:17

Tgt Ion:202 Resp: 262234

Ion	Ratio	Lower	Upper
202	100		
101	16.8	0.0	48.3
88	7.5	0.0	38.8

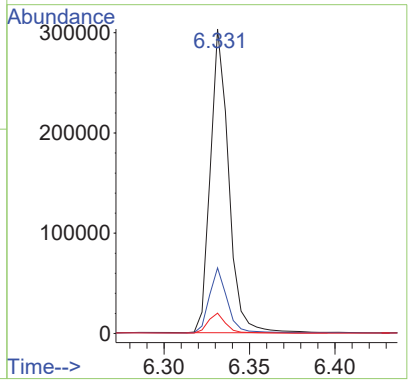


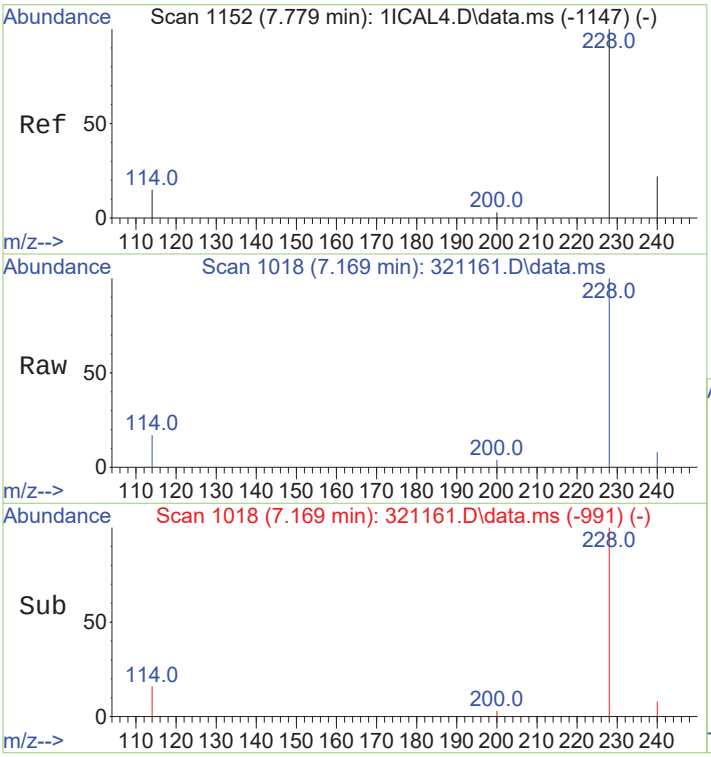


#16
Pyrene
Concen: 3208.12 ng/mL
RT: 6.331 min Scan# 812
Delta R.T. 0.000 min
Lab File: 321161.D
Acq: 10 Sep 2019 1:17

Tgt Ion:202 Resp: 226064

Ion	Ratio	Lower	Upper
202	100		
101	21.4	0.0	49.4
88	6.6	0.0	35.5

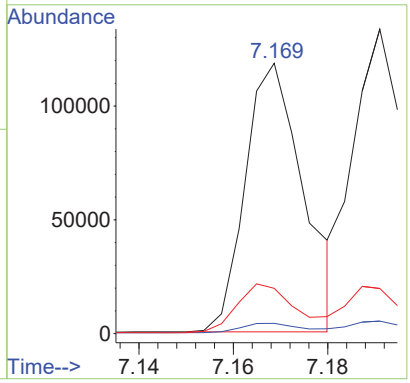


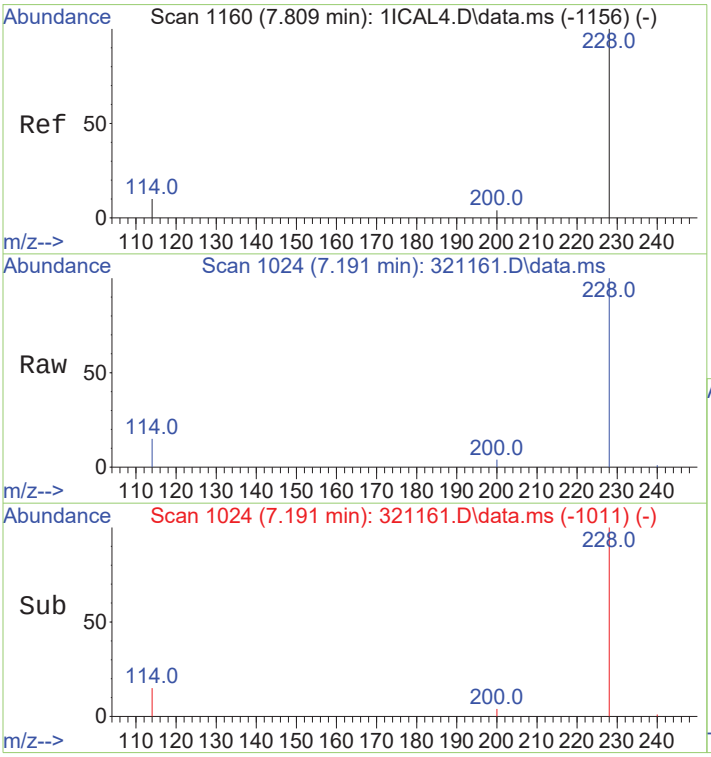


#17
B[a]anthracen
Concen: 1982.84 ng/mL
RT: 7.169 min Scan# 1018
Delta R.T. 0.000 min
Lab File: 321161.D
Acq: 10 Sep 2019 1:17

Tgt Ion:228 Resp: 101403

Ion	Ratio	Lower	Upper
228	100		
200	3.5	0.0	33.6
114	16.5	0.0	47.0

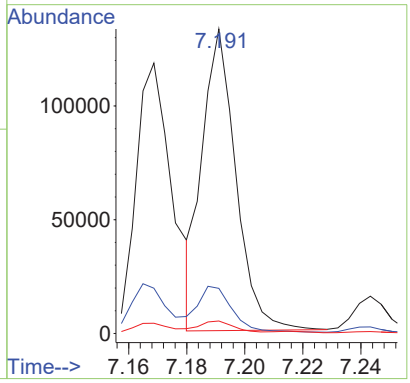


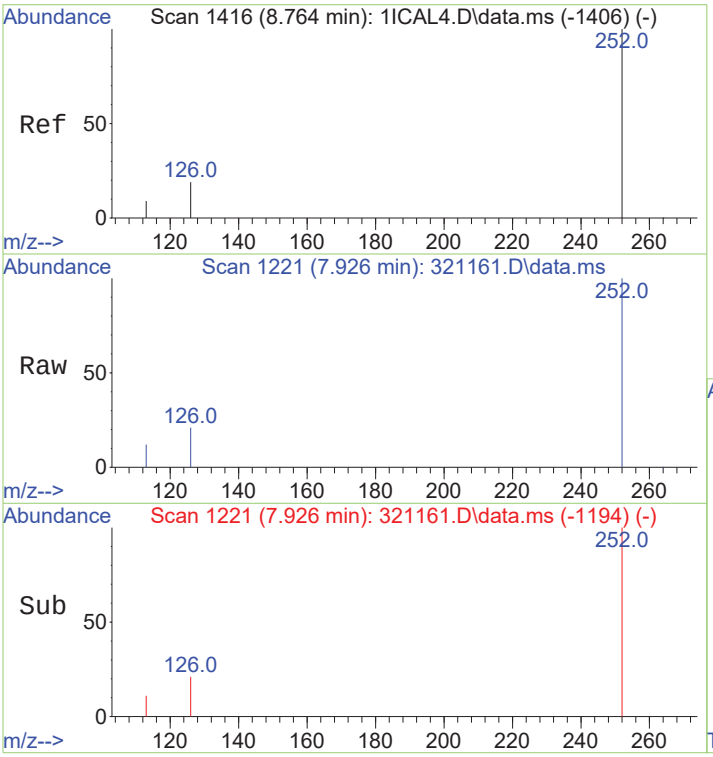


#18
Chrysene
Concen: 1749.24 ng/mL
RT: 7.191 min Scan# 1024
Delta R.T. 0.000 min
Lab File: 321161.D
Acq: 10 Sep 2019 1:17

Tgt Ion:228 Resp: 107072

Ion	Ratio	Lower	Upper
228	100		
114	14.6	0.0	46.1
200	3.9	0.0	33.8

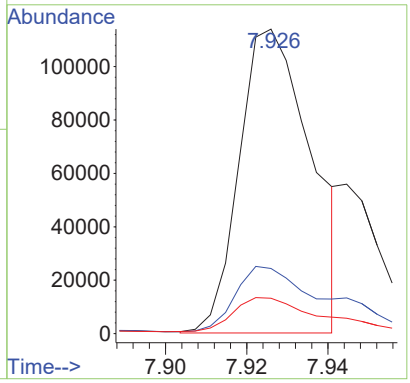


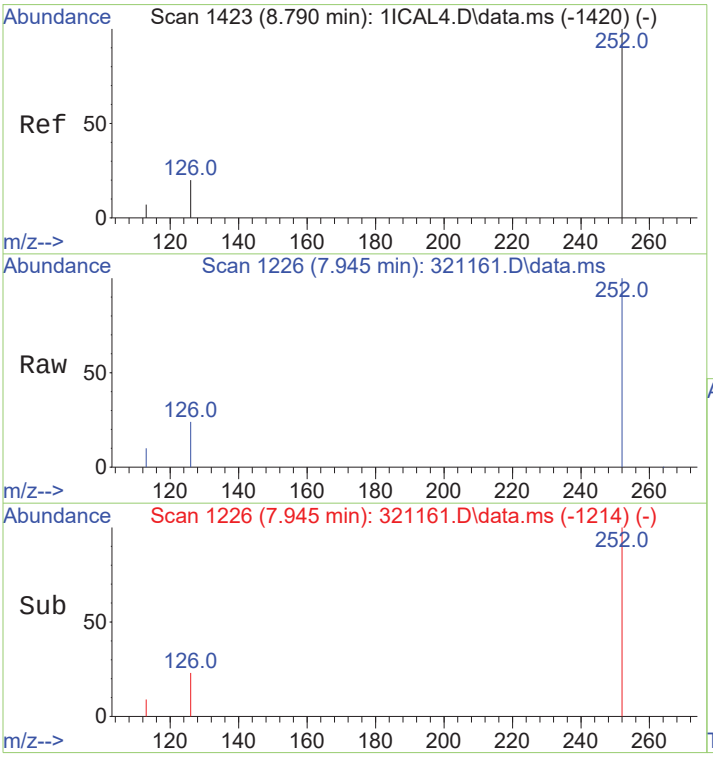


#20
B[b]fluoranth
Concen: 2984.58 ng/mL m
RT: 7.926 min Scan# 1221
Delta R.T. 0.000 min
Lab File: 321161.D
Acq: 10 Sep 2019 1:17

Tgt Ion:252 Resp: 139730

Ion	Ratio	Lower	Upper
252	100		
126	21.4	0.0	52.1
113	11.6	0.0	40.0

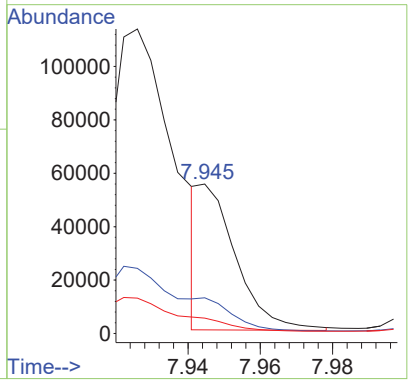


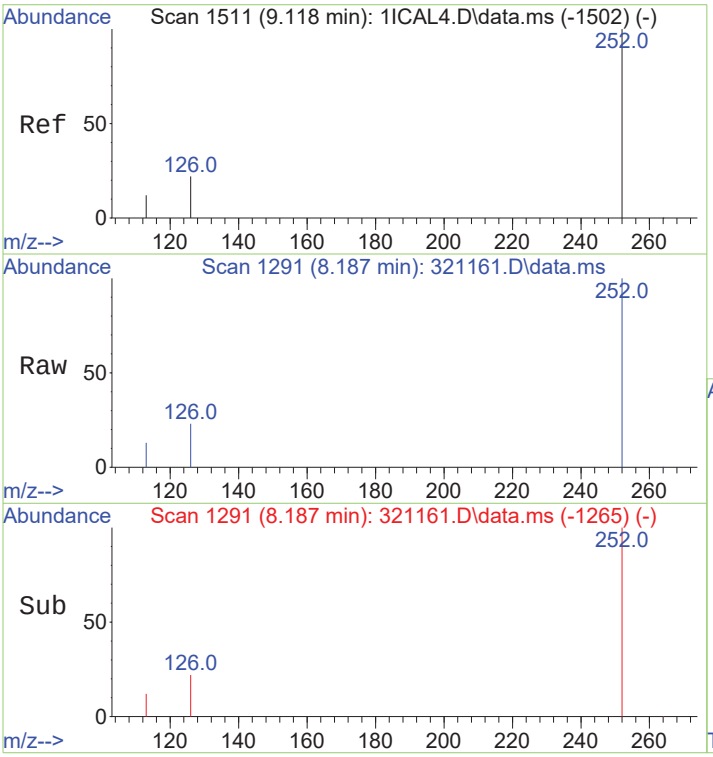


#21
B[k]fluoranth
Concen: 685.00 ng/mL m
RT: 7.945 min Scan# 1226
Delta R.T. -0.004 min
Lab File: 321161.D
Acq: 10 Sep 2019 1:17

Tgt Ion:252 Resp: 38801

Ion	Ratio	Lower	Upper
252	100		
126	23.9	0.0	54.3
113	10.3	0.0	39.4

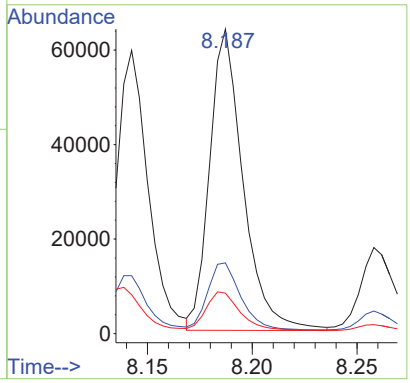


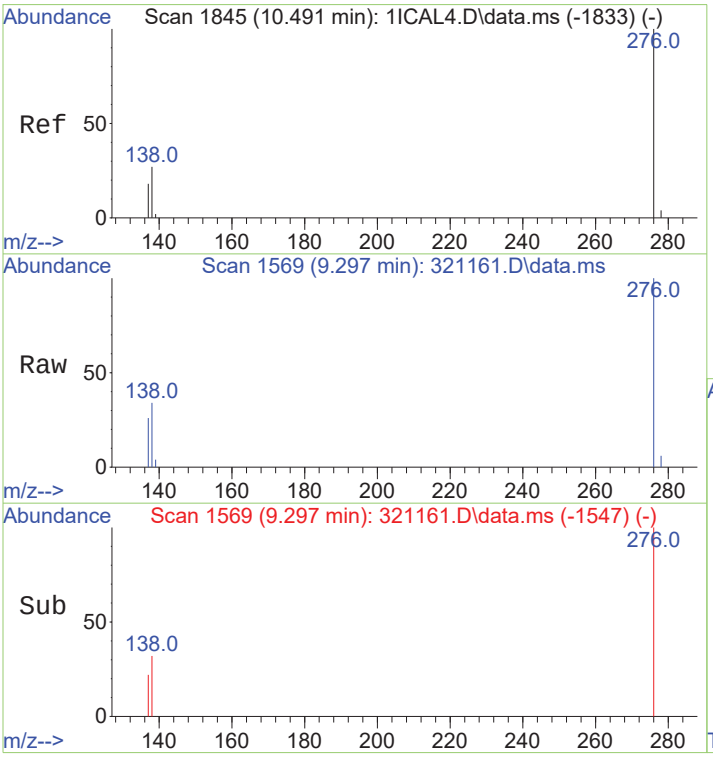


#22
Benz[a]pyrene
Concen: 1559.17 ng/mL
RT: 8.187 min Scan# 1291
Delta R.T. -0.004 min
Lab File: 321161.D
Acq: 10 Sep 2019 1:17

Tgt Ion:252 Resp: 70801

Ion	Ratio	Lower	Upper
252	100		
126	22.4	0.0	52.7
113	12.6	0.0	42.2

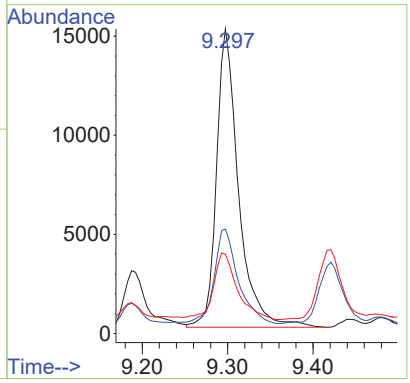


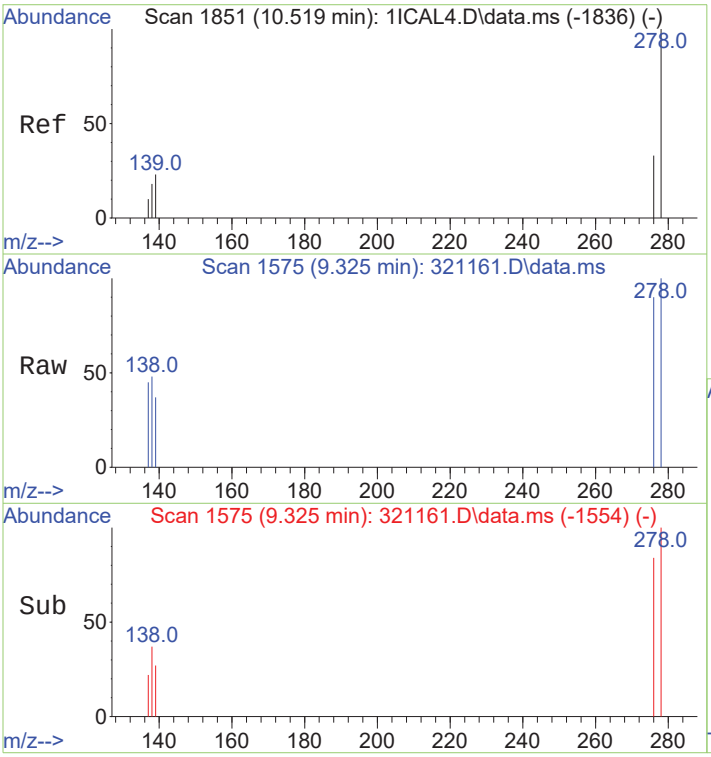


#23
Indeno-pyrene
Concen: 620.71 ng/mL
RT: 9.297 min Scan# 1569
Delta R.T. 0.000 min
Lab File: 321161.D
Acq: 10 Sep 2019 1:17

Tgt Ion:276 Resp: 27058

Ion	Ratio	Lower	Upper
276	100		
138	31.2	4.1	64.1
137	21.1	0.0	52.8

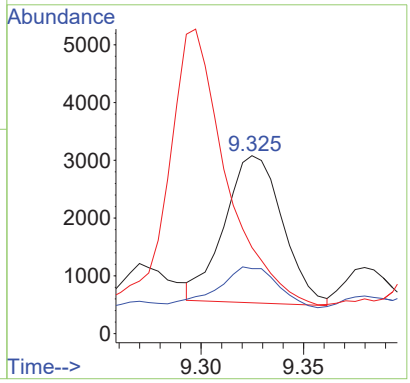


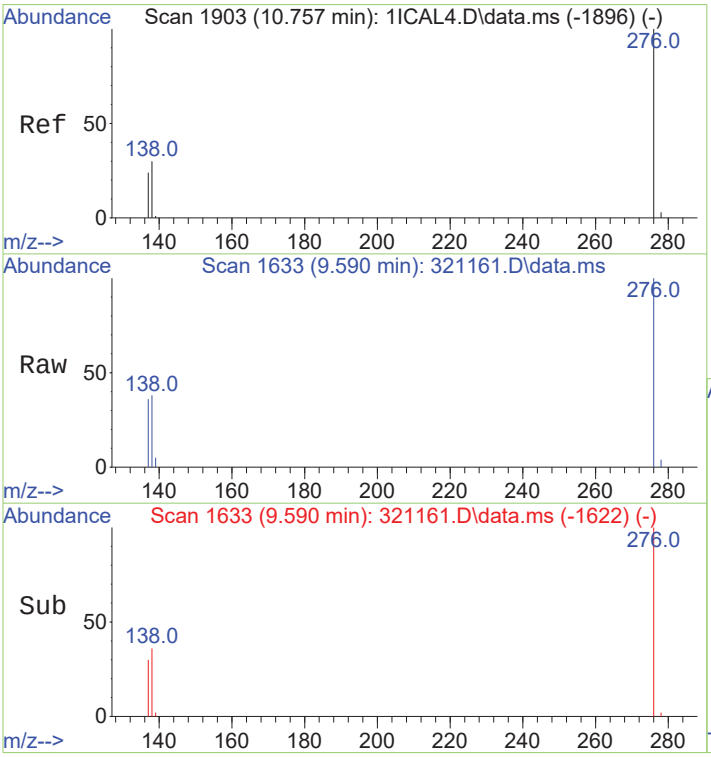


#24
Dib[ah]anthr
Concen: 167.37 ng/mL
RT: 9.325 min Scan# 1575
Delta R.T. -0.005 min
Lab File: 321161.D
Acq: 10 Sep 2019 1:17

Tgt Ion:278 Resp: 5021

Ion	Ratio	Lower	Upper
278	100		
139	26.5	0.0	59.3
138	39.8	0.0	56.3

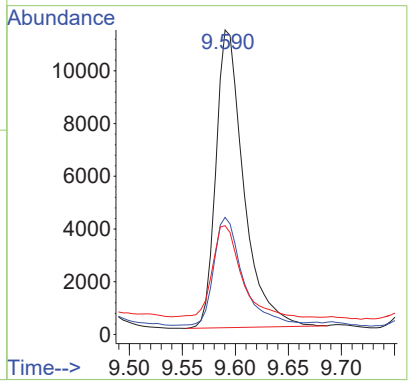


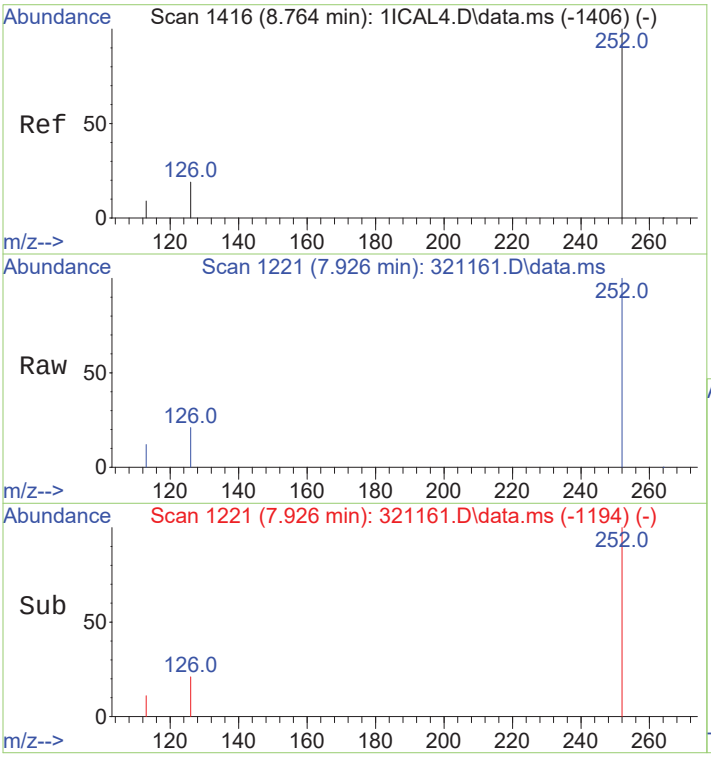


#25
B[ghi]perylen
Concen: 558.68 ng/mL
RT: 9.590 min Scan# 1633
Delta R.T. 0.000 min
Lab File: 321161.D
Acq: 10 Sep 2019 1:17

Tgt Ion:276 Resp: 20622

Ion	Ratio	Lower	Upper
276	100		
138	36.1	7.7	67.7
137	30.6	0.6	60.6

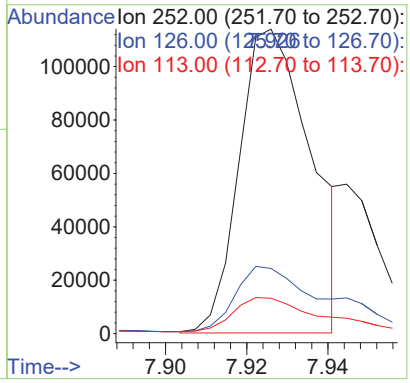




#20
B[b]fluoranth
Concen: 2984.58 ng/mL m
RT: 7.926 min Scan# 1221
Delta R.T. 0.000 min
Lab File: 321161.D
Acq: 10 Sep 2019 1:17

Tgt Ion:252 Resp: 139730

Ion	Ratio	Lower	Upper
252	100		
126	21.4	0.0	52.1
113	11.6	0.0	40.0

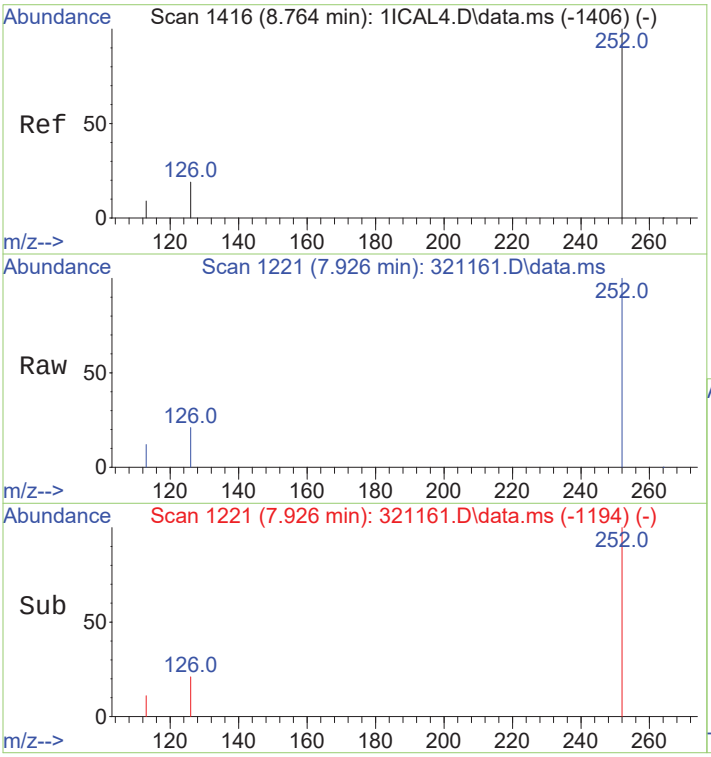


After Manual Integration

RED
9/12/2019

Reason#3

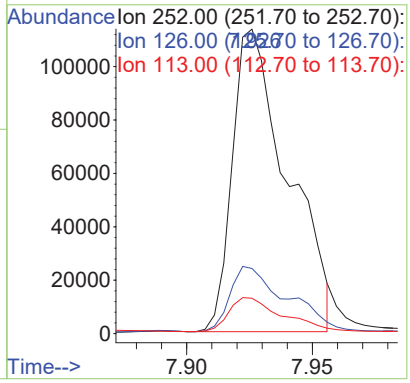
JJY
9/11/19



#20
B[b]fluoranth
Concen: 3698.89 ng/mL
RT: 7.926 min Scan# 1221
Delta R.T. 0.000 min
Lab File: 321161.D
Acq: 10 Sep 2019 1:17

Tgt Ion:252 Resp: 173488

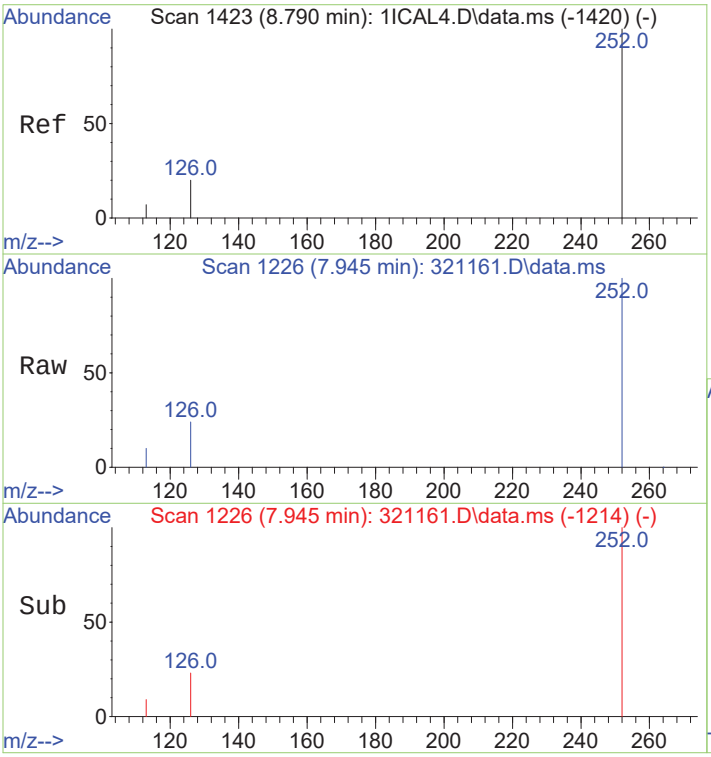
Ion	Ratio	Lower	Upper
252	100		
126	20.9	0.0	52.1
113	11.1	0.0	40.0



Before Manual Integration

Reason#3

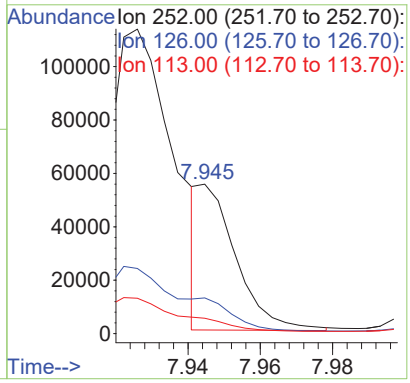
JJY
9/11/19



#21
B[k]fluoranth
Concen: 685.00 ng/mL m
RT: 7.945 min Scan# 1226
Delta R.T. -0.004 min
Lab File: 321161.D
Acq: 10 Sep 2019 1:17

Tgt Ion:252 Resp: 38801

Ion	Ratio	Lower	Upper
252	100		
126	23.9	0.0	54.3
113	10.3	0.0	39.4

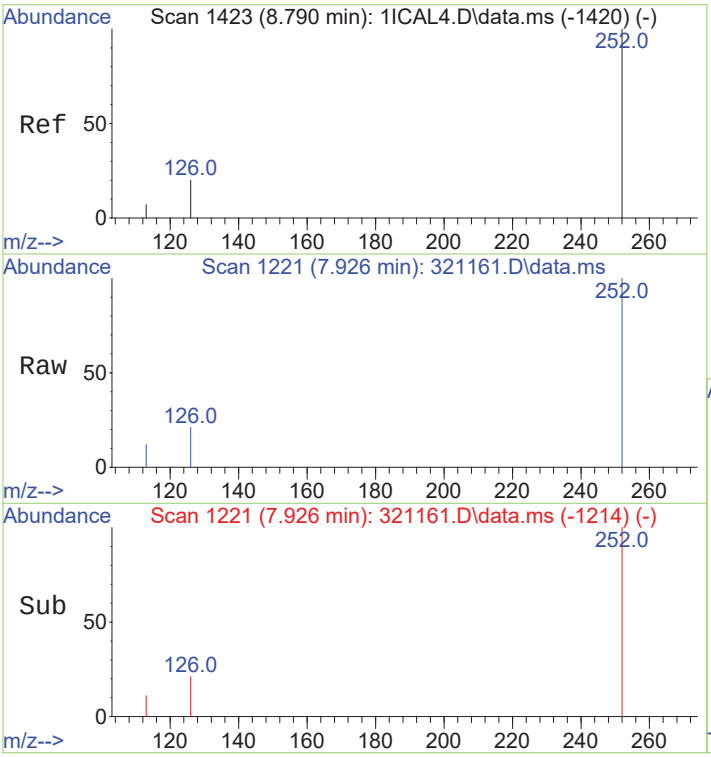


After Manual Integration

RED
9/12/2019

Reason#3

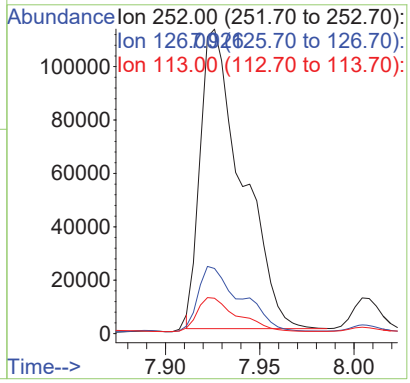
JJY
9/11/19



#21
B[k]fluoranth
Concen: 3040.03 ng/mL
RT: 7.926 min Scan# 1221
Delta R.T. -0.022 min
Lab File: 321161.D
Acq: 10 Sep 2019 1:17

Tgt Ion:252 Resp: 172525

Ion	Ratio	Lower	Upper
252	100		
126	20.9	0.0	54.3
113	11.1	0.0	39.4



Before Manual Integration

Reason#3

JJY
9/11/19

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091019\321162D.D Vial: 7
Acq On : 10 Sep 2019 13:07 Operator: JJY
Sample : 164274,321162,2 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 14:11:50 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 14:11:05 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

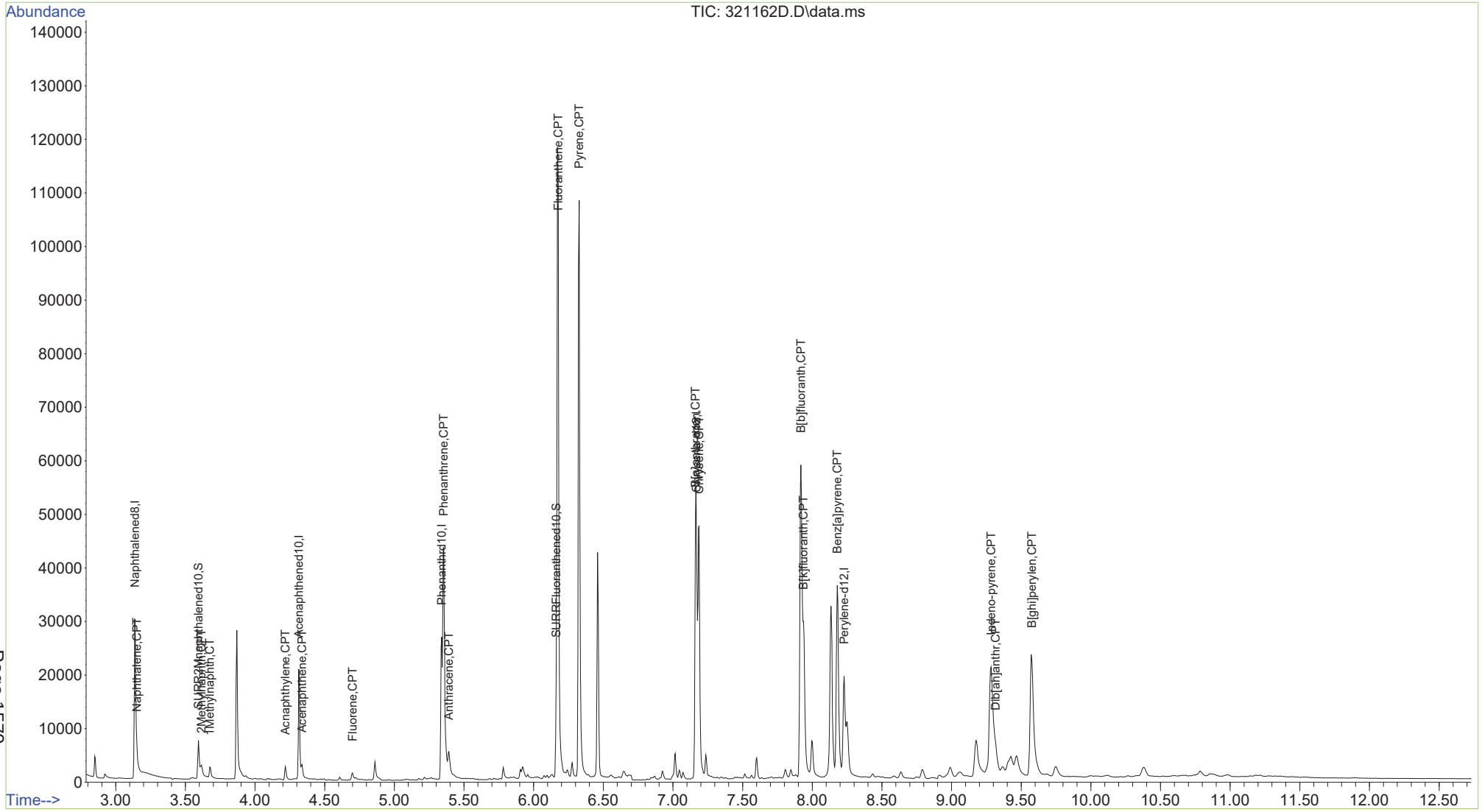
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.136	136	27569	400.00	ng/mL	0.00
6) Acenaphthened10	4.314	164	14719	400.00	ng/mL	0.00
10) Phenanthrd10	5.339	188	24305	400.00	ng/mL	0.00
15) Chrysene-d12	7.168	240	18959	400.00	ng/mL	0.00
19) Perylene-d12	8.228	264	21246	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.593	152	5763	37.69	%REC	0.00
Spiked Amount 100.000			Recovery = 37.69%			
13) SURRFluoranthened10	6.162	212	10081	42.00	%REC	0.00
Spiked Amount 100.000			Recovery = 42.00%			
Target Compounds						Qvalue
2) Naphthalene	3.151	128	1088	16.0493	ng/ml	98
4) 2Methylnaphth	3.615	142	816	21.9358	ng/mL	90
5) 1Methylnaphth	3.675	141	694	19.0972	ng/mL	68
7) Acnaphthylene	4.218	152	1862	30.1652	ng/mL	96
8) Acenaphthene	4.337	154	1001	23.9450	ng/mL	82
9) Fluorene	4.699	166	1268	28.7388	ng/mL	93
11) Phenanthrene	5.354	178	31101	499.9817	ng/mL	99
12) Anthracene	5.391	178	5642	93.2263	ng/mL	99
14) Fluoranthene	6.176	202	80934	1169.5776	ng/mL	93
16) Pyrene	6.327	202	70170	915.3291	ng/mL	99
17) B[a]anthracen	7.161	228	29228	558.8578	ng/mL	96
18) Chrysene	7.187	228	37263	559.5741	ng/mL	95
20) B[b]fluoranth	7.918	252	52875m	773.2706	ng/mL	
21) B[k]fluoranth	7.937	252	18318m	216.5803	ng/mL	
22) Benz[a]pyrene	8.180	252	31138	482.0694	ng/mL	99
23) Indeno-pyrene	9.283	276	24444	392.1487	ng/mL	98
24) Dib[ah]anthr	9.315	278	4385	113.8234	ng/mL	89
25) B[ghi]perylen	9.576	276	23747	439.4960	ng/mL	95

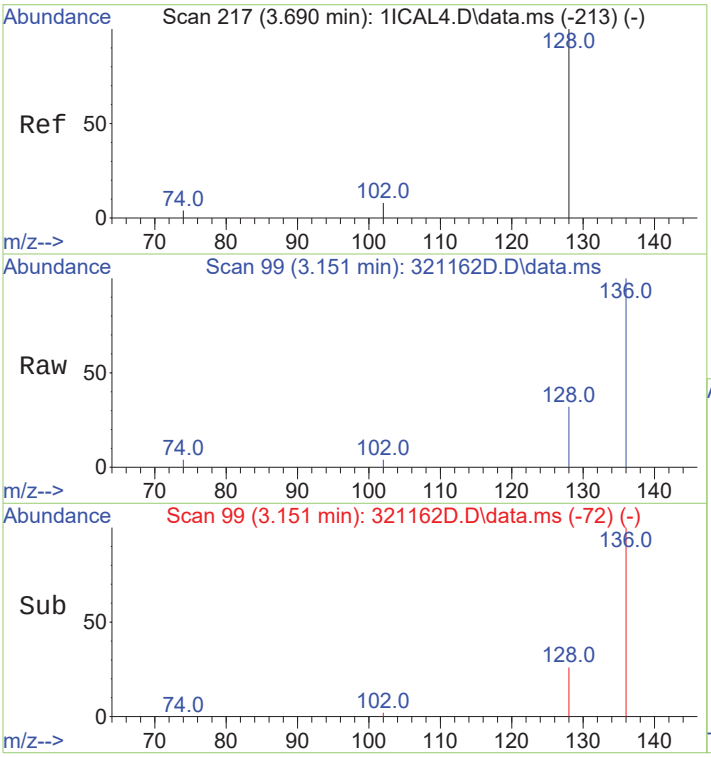
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091019\321162D.D Vial: 7
Acq On : 10 Sep 2019 13:07 Operator: JJY
Sample : 164274,321162,2 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 14:11:50 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 14:11:05 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

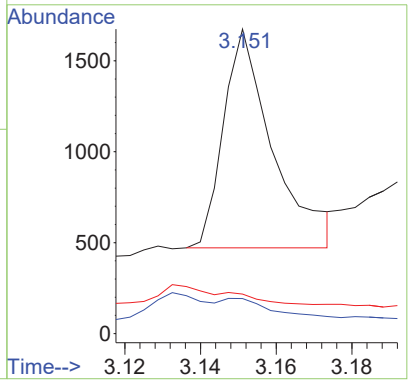


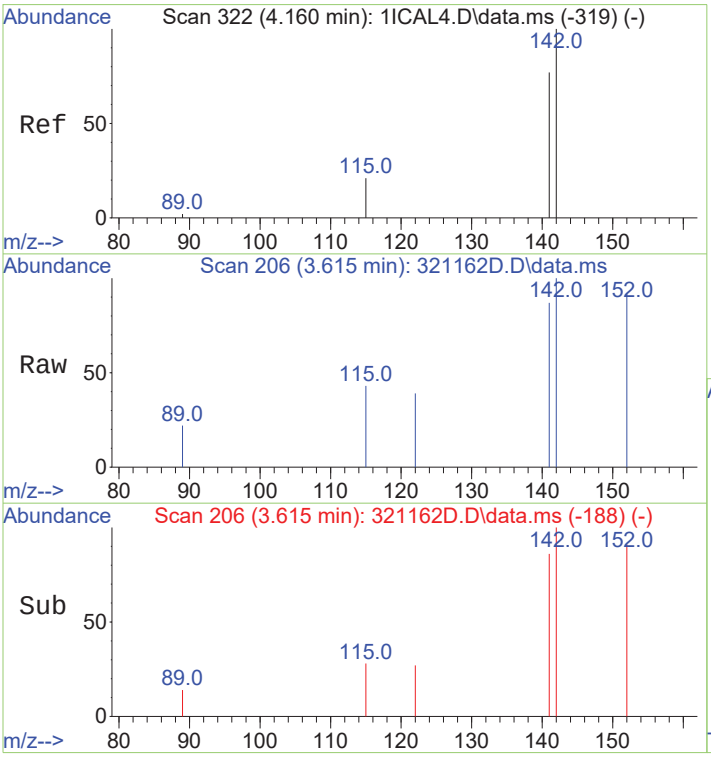


#2
Naphthalene
Concen: 16.05 ng/ml
RT: 3.151 min Scan# 99
Delta R.T. -0.000 min
Lab File: 321162D.D
Acq: 10 Sep 2019 13:07

Tgt Ion:128 Resp: 1088

Ion	Ratio	Lower	Upper
128	100		
102	8.2	0.0	37.6
74	4.7	0.0	33.6

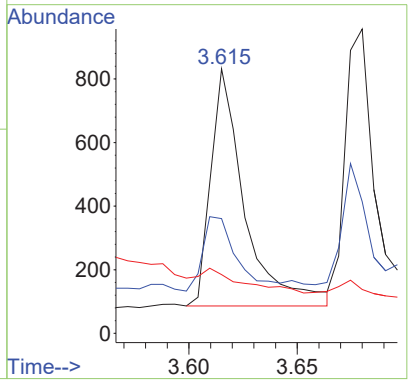


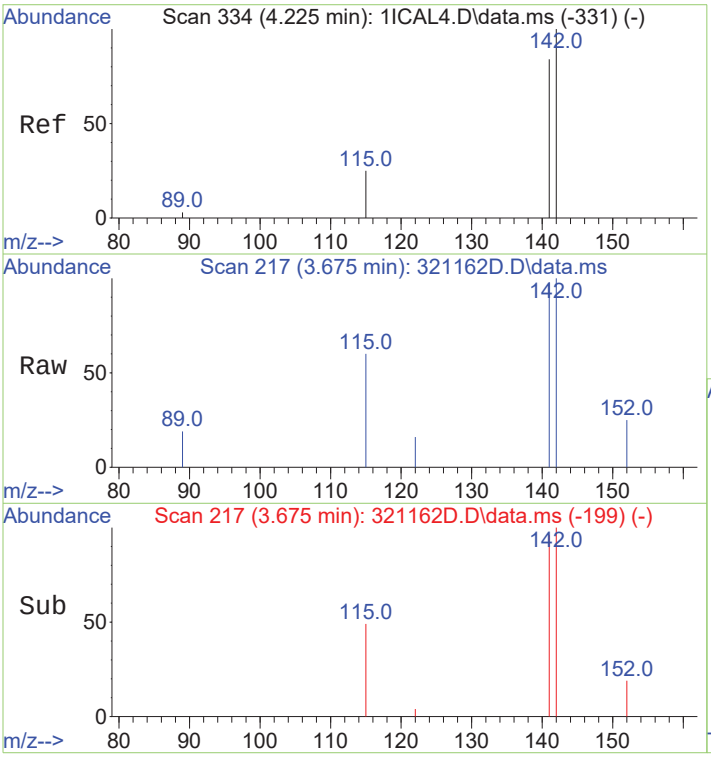


#4
2Methylnaphth
Concen: 21.94 ng/mL
RT: 3.615 min Scan# 206
Delta R.T. -0.000 min
Lab File: 321162D.D
Acq: 10 Sep 2019 13:07

Tgt Ion:142 Resp: 816

Ion	Ratio	Lower	Upper
142	100		
115	30.6	6.9	66.9
89	7.1	0.0	34.9

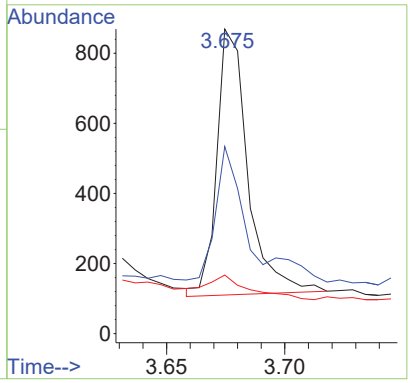


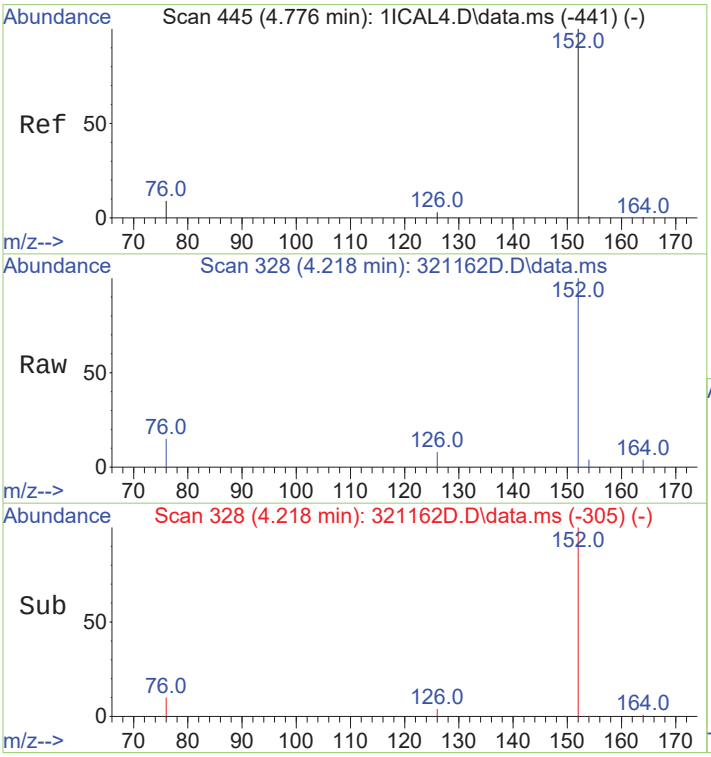


#5
1Methylnaphth
Concen: 19.10 ng/mL
RT: 3.675 min Scan# 217
Delta R.T. -0.000 min
Lab File: 321162D.D
Acq: 10 Sep 2019 13:07

Tgt Ion:141 Resp: 694

Ion	Ratio	Lower	Upper
141	100		
115	51.7	2.5	62.5
89	8.3	0.0	34.0

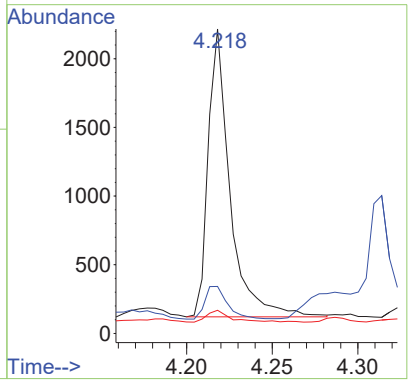


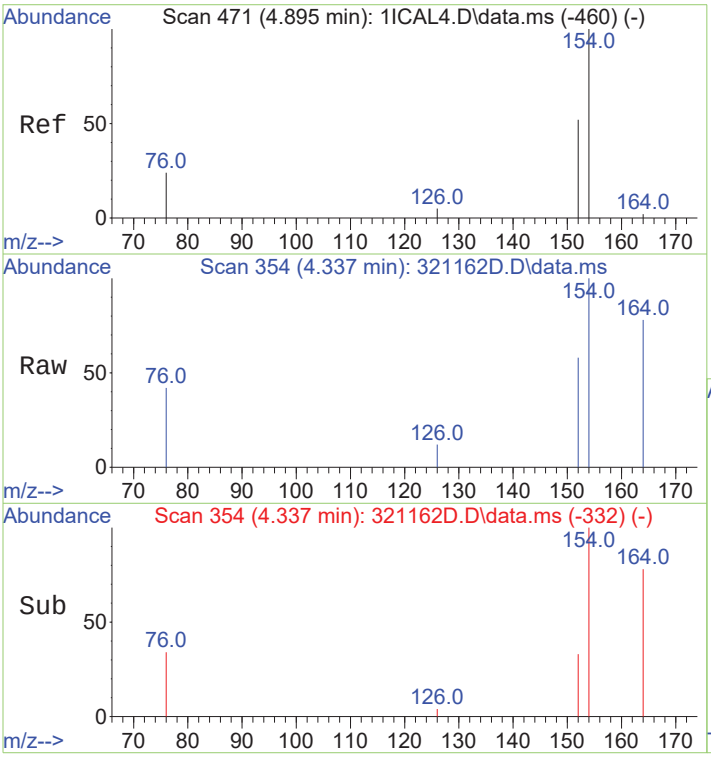


#7
Acnaphthylene
Concen: 30.17 ng/mL
RT: 4.218 min Scan# 328
Delta R.T. 0.004 min
Lab File: 321162D.D
Acq: 10 Sep 2019 13:07

Tgt Ion:152 Resp: 1862

Ion	Ratio	Lower	Upper
152	100		
76	11.4	0.0	39.9
126	4.1	0.0	33.1

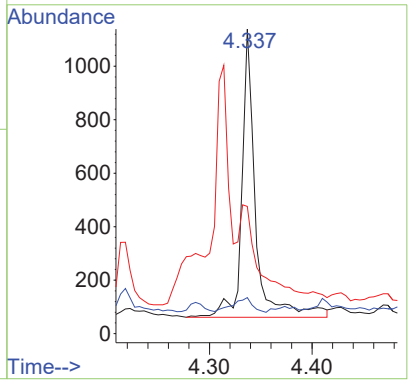


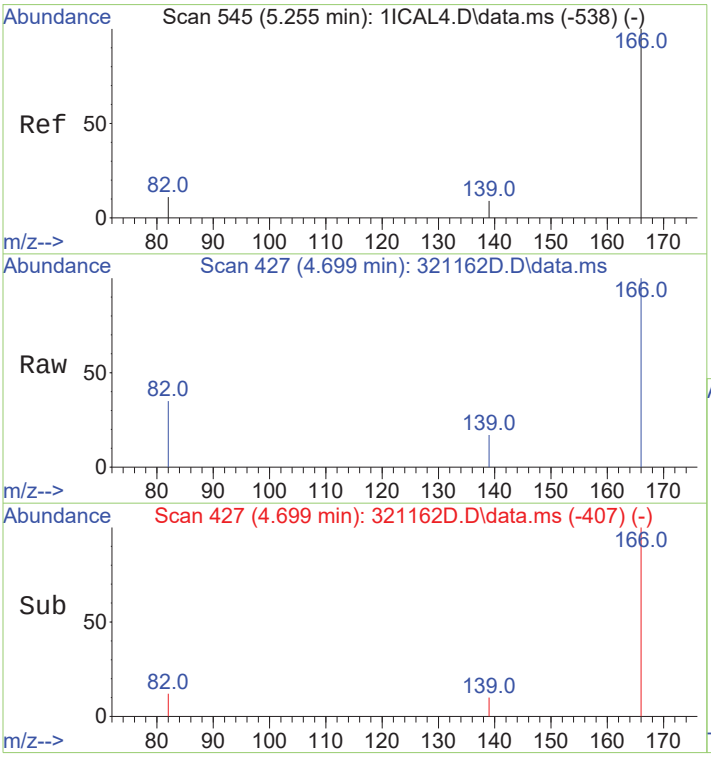


#8
Acenaphthene
Concen: 23.95 ng/mL
RT: 4.337 min Scan# 354
Delta R.T. -0.000 min
Lab File: 321162D.D
Acq: 10 Sep 2019 13:07

Tgt Ion:154 Resp: 1001

Ion	Ratio	Lower	Upper
154	100		
126	4.4	0.0	34.3
76	31.6	0.0	51.6

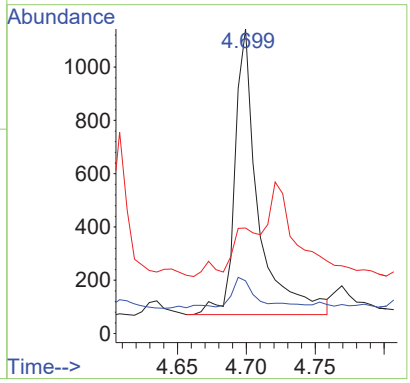


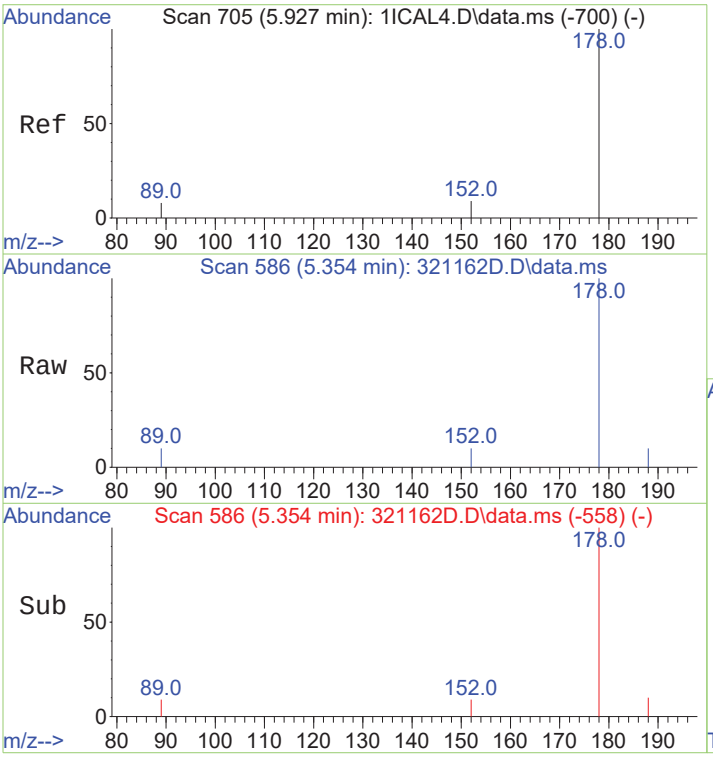


#9
Fluorene
Concen: 28.74 ng/mL
RT: 4.699 min Scan# 427
Delta R.T. 0.005 min
Lab File: 321162D.D
Acq: 10 Sep 2019 13:07

Tgt Ion:166 Resp: 1268

Ion	Ratio	Lower	Upper
166	100		
139	9.4	0.0	38.6
82	16.5	0.0	42.4

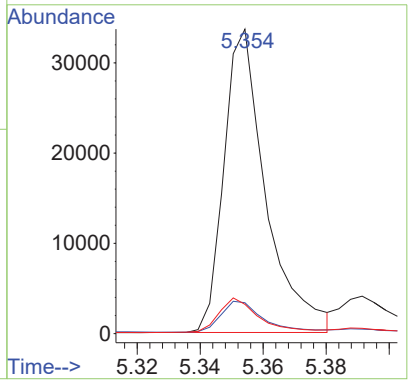


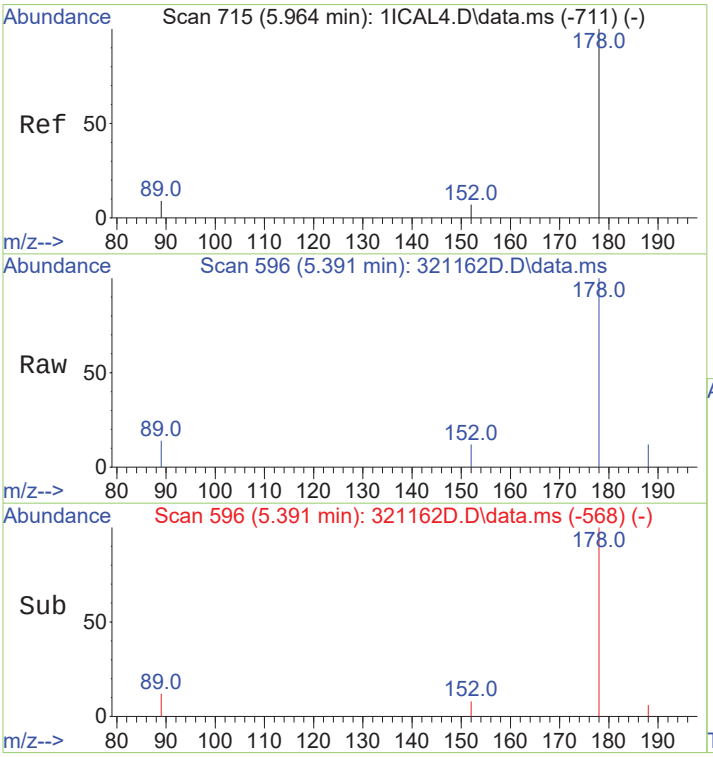


#11
Phenanthrene
Concen: 499.98 ng/mL
RT: 5.354 min Scan# 586
Delta R.T. 0.004 min
Lab File: 321162D.D
Acq: 10 Sep 2019 13:07

Tgt Ion:178 Resp: 31101

Ion	Ratio	Lower	Upper
178	100		
152	10.3	0.0	40.1
89	11.0	0.0	41.4

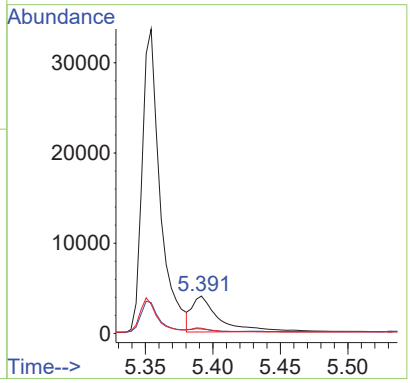


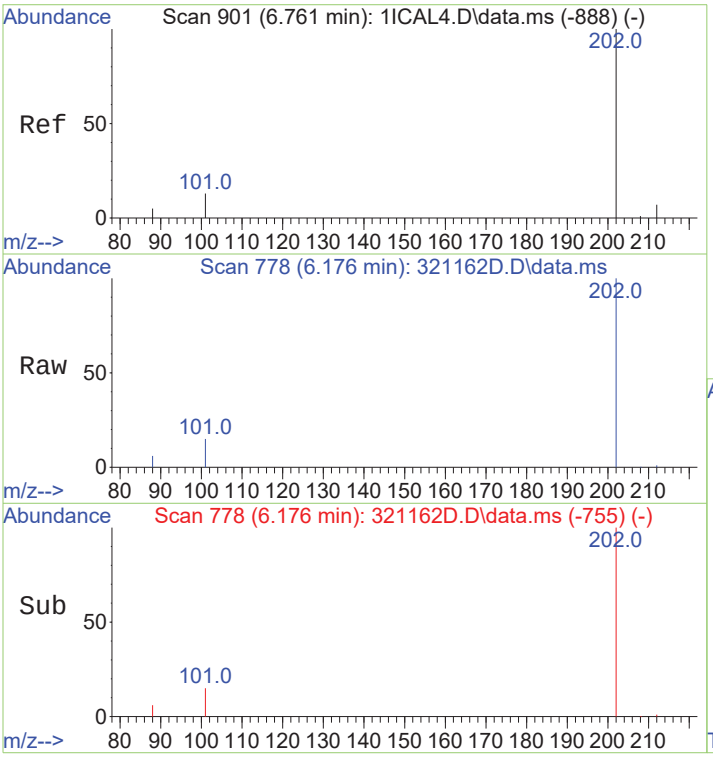


#12
Anthracene
Concen: 93.23 ng/mL
RT: 5.391 min Scan# 596
Delta R.T. 0.004 min
Lab File: 321162D.D
Acq: 10 Sep 2019 13:07

Tgt Ion:178 Resp: 5642

Ion	Ratio	Lower	Upper
178	100		
152	8.2	0.0	37.8
89	11.2	0.0	31.3

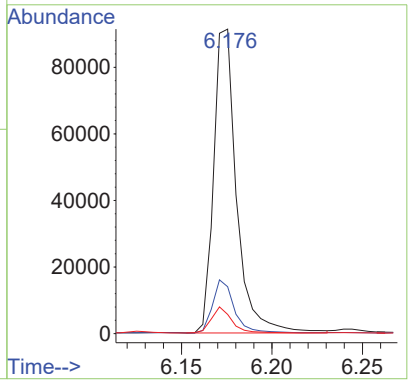


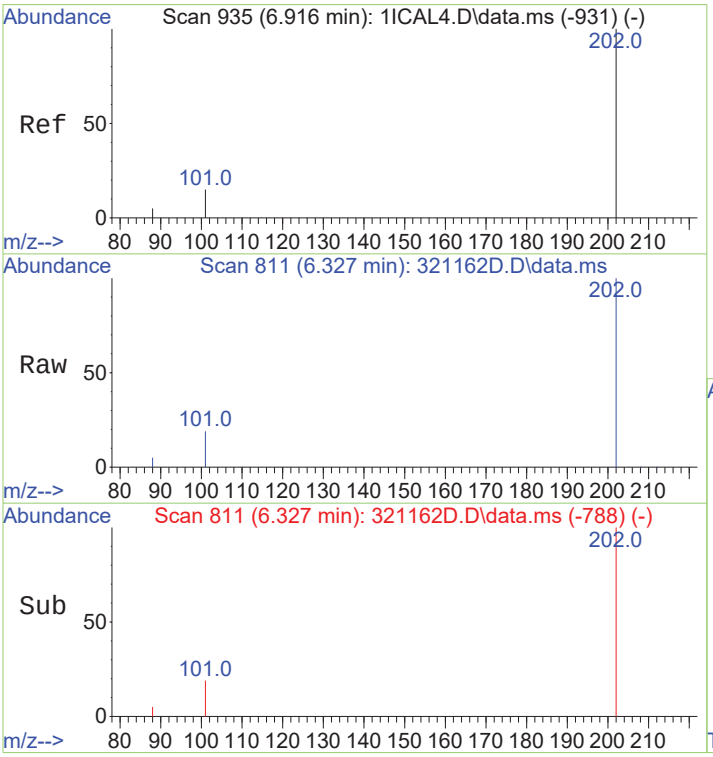


#14
Fluoranthene
Concen: 1169.58 ng/mL
RT: 6.176 min Scan# 778
Delta R.T. 0.004 min
Lab File: 321162D.D
Acq: 10 Sep 2019 13:07

Tgt Ion:202 Resp: 80934

Ion	Ratio	Lower	Upper
202	100		
101	15.2	0.0	48.3
88	6.1	0.0	38.8

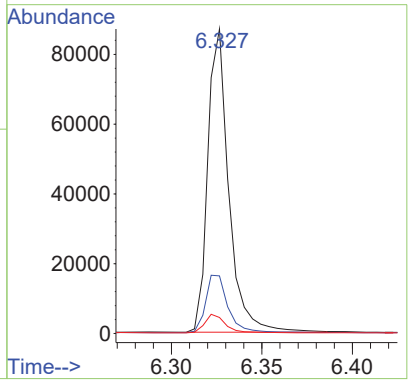


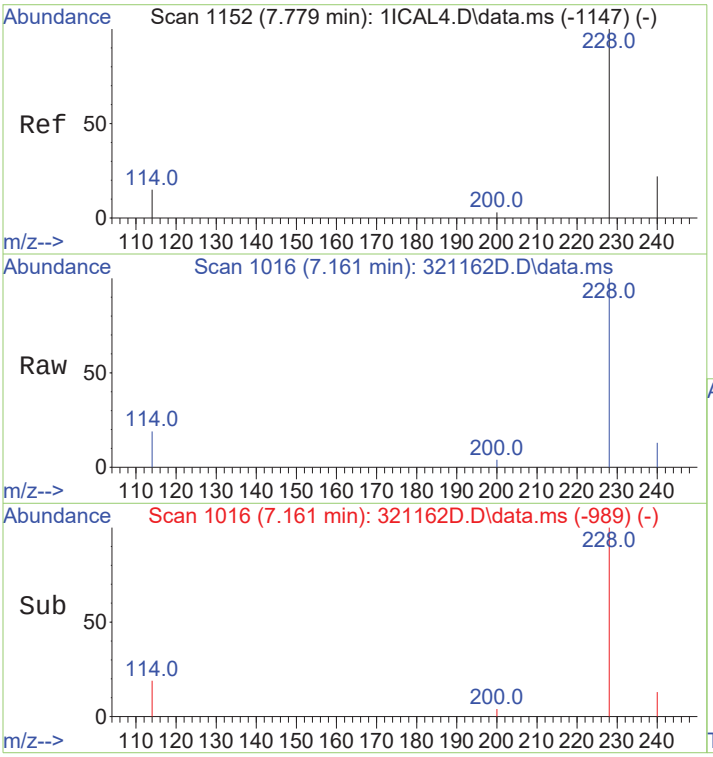


#16
Pyrene
Concen: 915.33 ng/mL
RT: 6.327 min Scan# 811
Delta R.T. 0.004 min
Lab File: 321162D.D
Acq: 10 Sep 2019 13:07

Tgt Ion:202 Resp: 70170

Ion	Ratio	Lower	Upper
202	100		
101	18.7	0.0	49.4
88	5.0	0.0	35.5

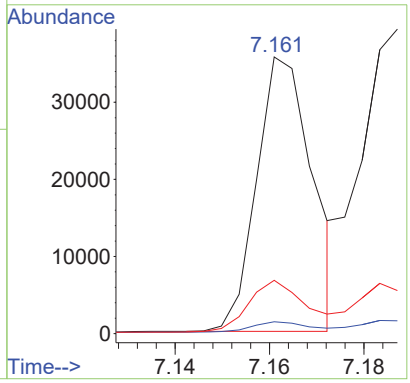


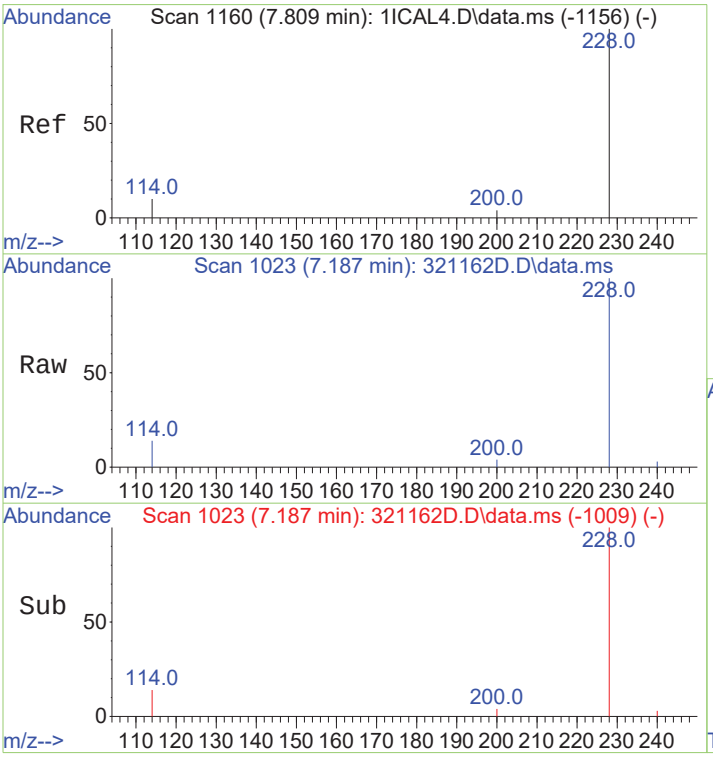


#17
B[a]anthracen
Concen: 558.86 ng/mL
RT: 7.161 min Scan# 1016
Delta R.T. -0.000 min
Lab File: 321162D.D
Acq: 10 Sep 2019 13:07

Tgt Ion:228 Resp: 29228

Ion	Ratio	Lower	Upper
228	100		
200	3.8	0.0	33.6
114	18.9	0.0	47.0

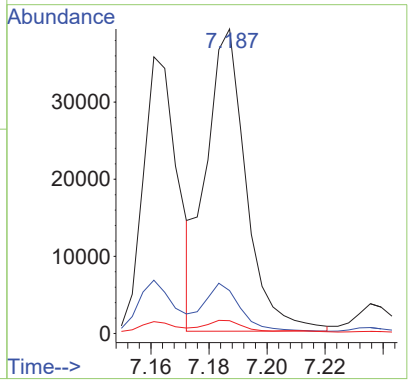


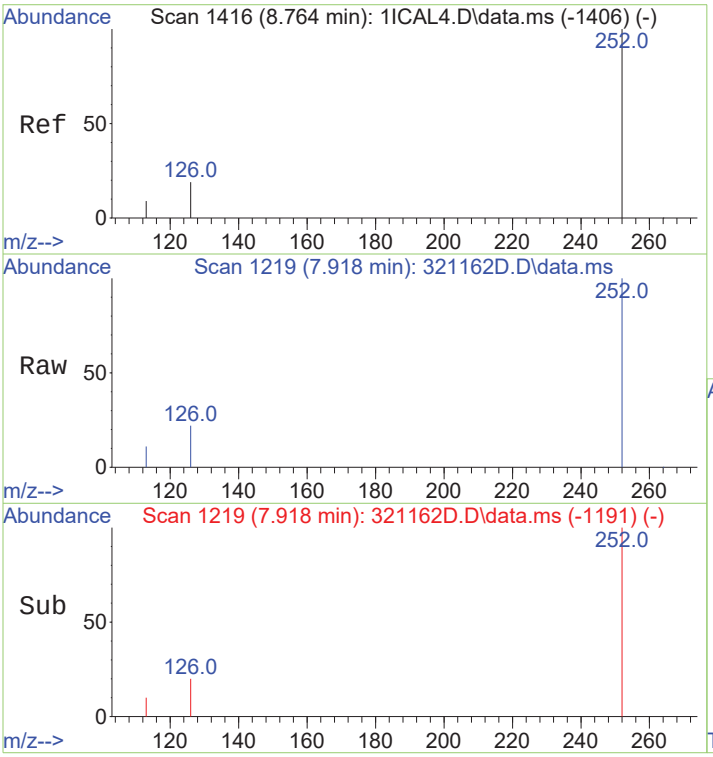


#18
Chrysene
Concen: 559.57 ng/mL
RT: 7.187 min Scan# 1023
Delta R.T. 0.004 min
Lab File: 321162D.D
Acq: 10 Sep 2019 13:07

Tgt Ion:228 Resp: 37263

Ion	Ratio	Lower	Upper
228	100		
114	13.7	0.0	46.1
200	3.7	0.0	33.8

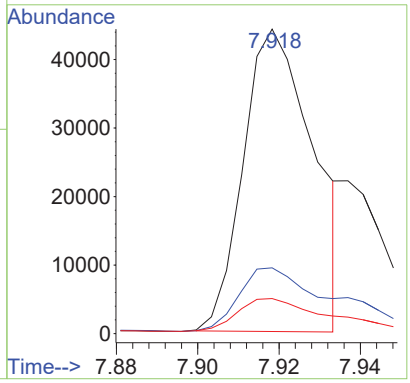


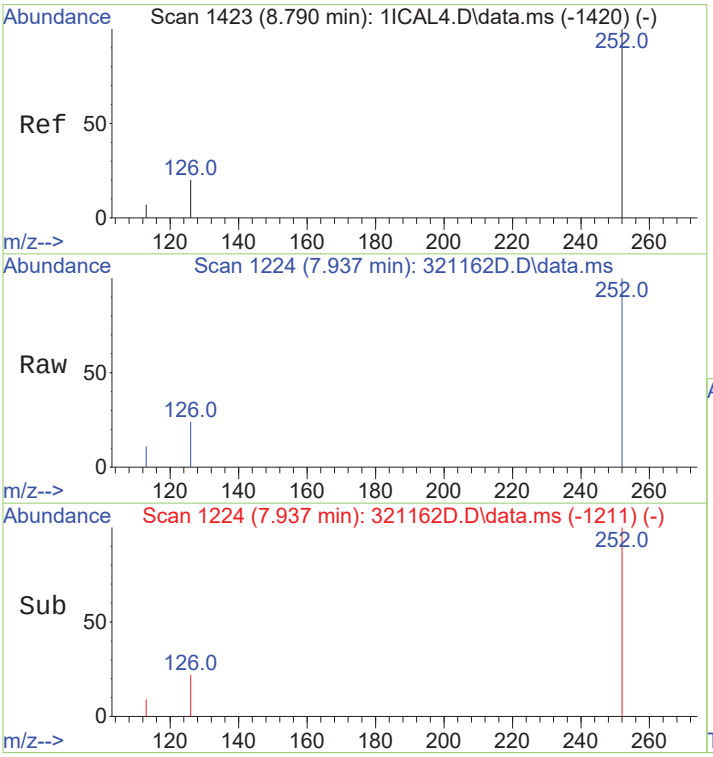


#20
B[b]fluoranth
Concen: 773.27 ng/mL m
RT: 7.918 min Scan# 1219
Delta R.T. 0.004 min
Lab File: 321162D.D
Acq: 10 Sep 2019 13:07

Tgt Ion:252 Resp: 52875

Ion	Ratio	Lower	Upper
252	100		
126	21.6	0.0	52.1
113	11.5	0.0	40.0

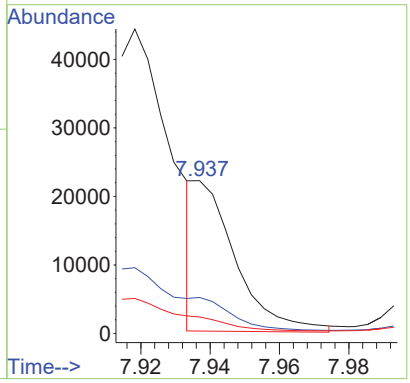


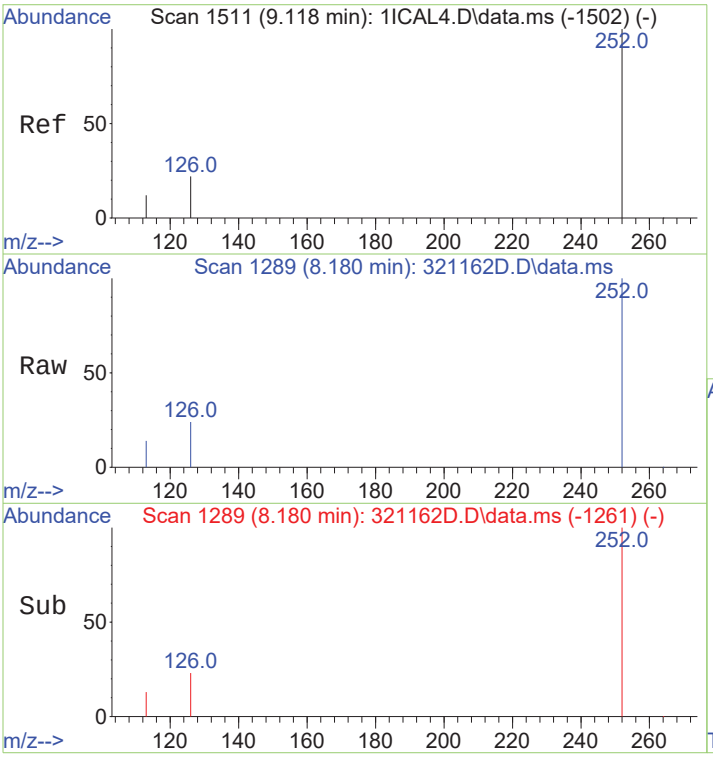


#21
B[k]fluoranth
Concen: 216.58 ng/mL m
RT: 7.937 min Scan# 1224
Delta R.T. -0.000 min
Lab File: 321162D.D
Acq: 10 Sep 2019 13:07

Tgt Ion:252 Resp: 18318

Ion	Ratio	Lower	Upper
252	100		
126	23.6	0.0	54.3
113	10.8	0.0	39.4

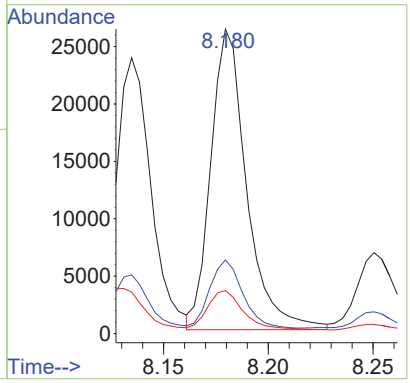


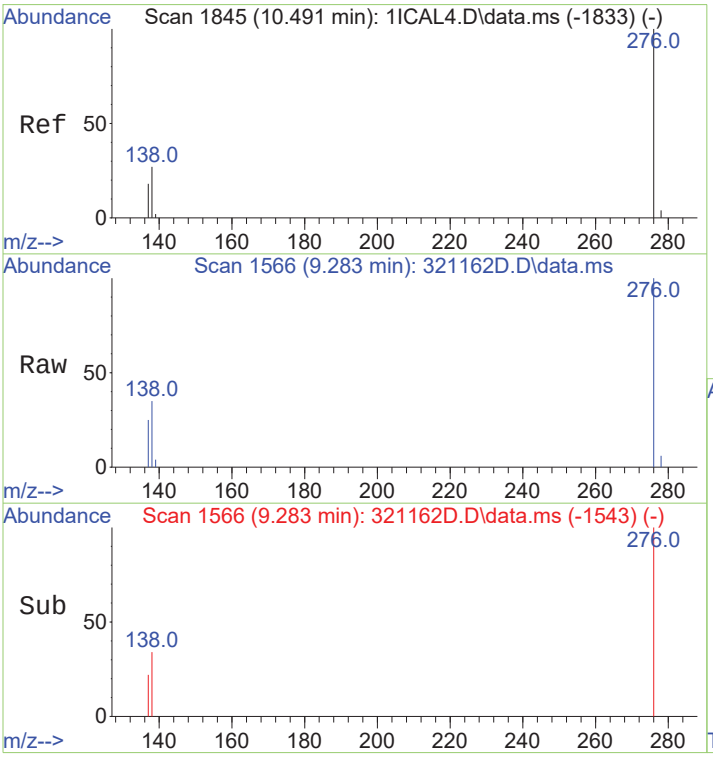


#22
Benz[a]pyrene
Concen: 482.07 ng/mL
RT: 8.180 min Scan# 1289
Delta R.T. 0.004 min
Lab File: 321162D.D
Acq: 10 Sep 2019 13:07

Tgt Ion:252 Resp: 31138

Ion	Ratio	Lower	Upper
252	100		
126	22.9	0.0	52.7
113	13.2	0.0	42.2

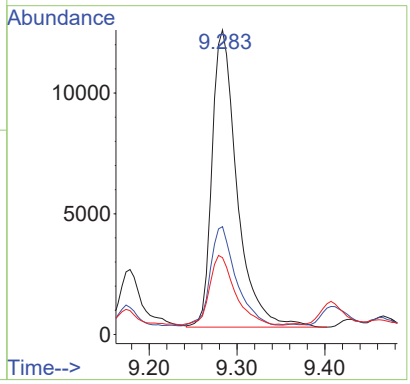


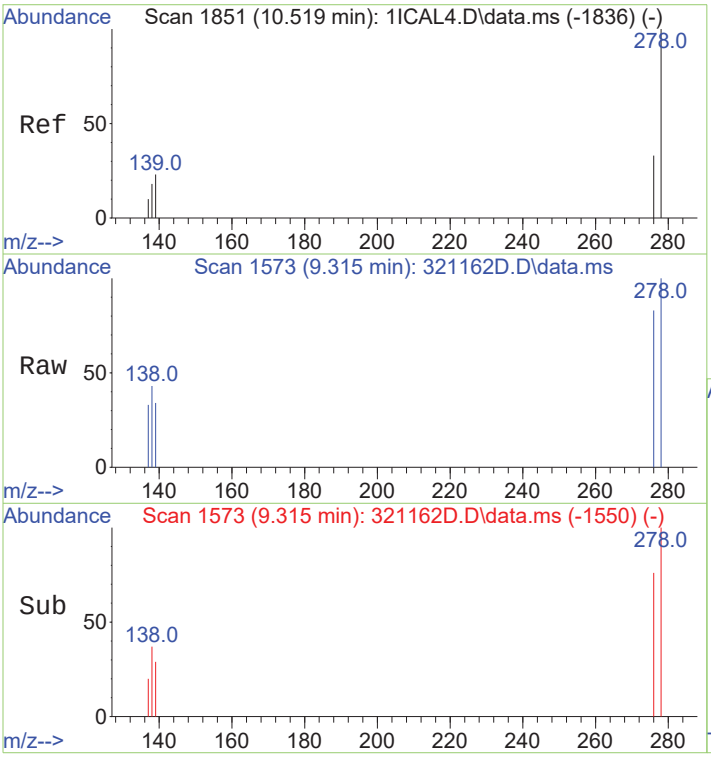


#23
Indeno-pyrene
Concen: 392.15 ng/mL
RT: 9.283 min Scan# 1566
Delta R.T. 0.004 min
Lab File: 321162D.D
Acq: 10 Sep 2019 13:07

Tgt Ion:276 Resp: 24444

Ion	Ratio	Lower	Upper
276	100		
138	33.0	4.1	64.1
137	22.3	0.0	52.8

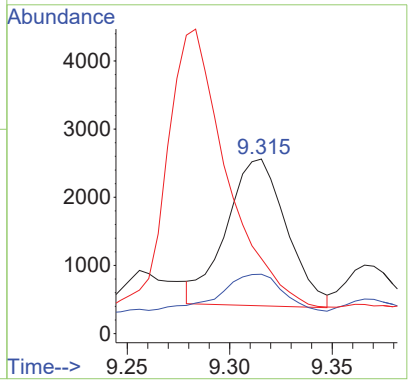


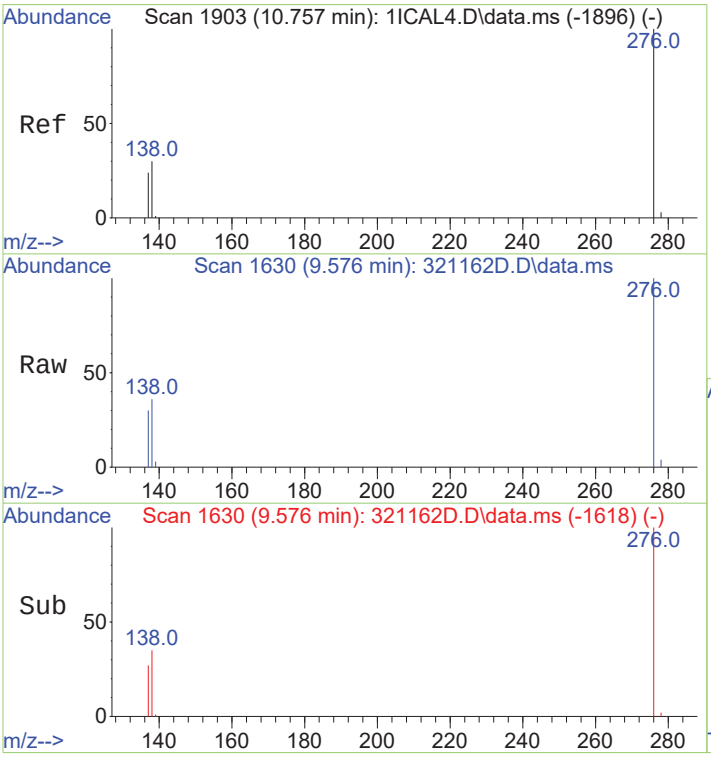


#24
Dib[ah]anthr
Concen: 113.82 ng/mL
RT: 9.315 min Scan# 1573
Delta R.T. 0.004 min
Lab File: 321162D.D
Acq: 10 Sep 2019 13:07

Tgt Ion:278 Resp: 4385

Ion	Ratio	Lower	Upper
278	100		
139	27.2	0.0	59.3
138	35.6	0.0	56.3

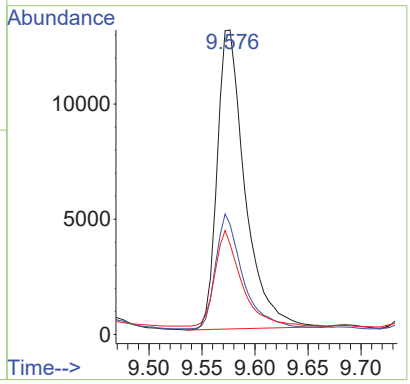


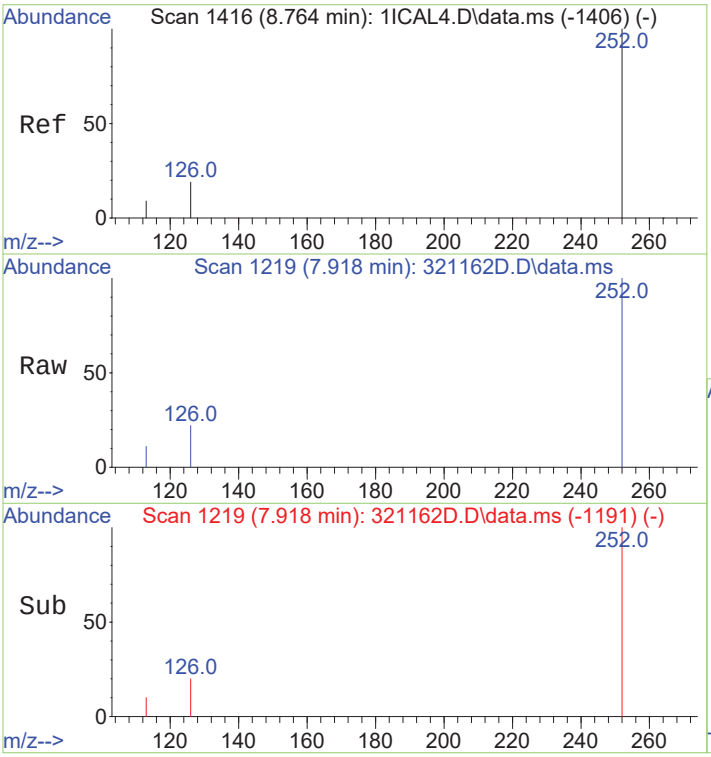


#25
B[ghi]perylen
Concen: 439.50 ng/mL
RT: 9.576 min Scan# 1630
Delta R.T. 0.004 min
Lab File: 321162D.D
Acq: 10 Sep 2019 13:07

Tgt Ion:276 Resp: 23747

Ion	Ratio	Lower	Upper
276	100		
138	34.8	7.7	67.7
137	27.3	0.6	60.6

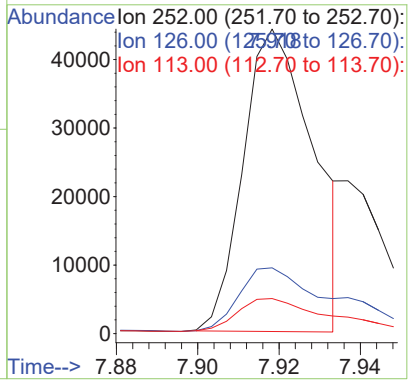




#20
B[b]fluoranth
Concen: 773.27 ng/mL m
RT: 7.918 min Scan# 1219
Delta R.T. 0.004 min
Lab File: 321162D.D
Acq: 10 Sep 2019 13:07

Tgt Ion:252 Resp: 52875

Ion	Ratio	Lower	Upper
252	100		
126	21.6	0.0	52.1
113	11.5	0.0	40.0

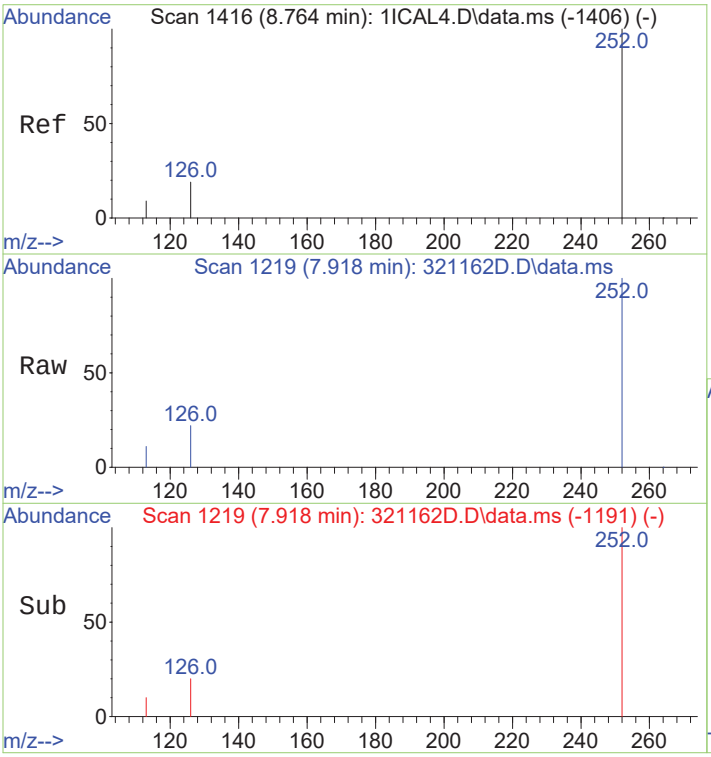


After Manual Integration

RED
9/12/2019

Reason#3

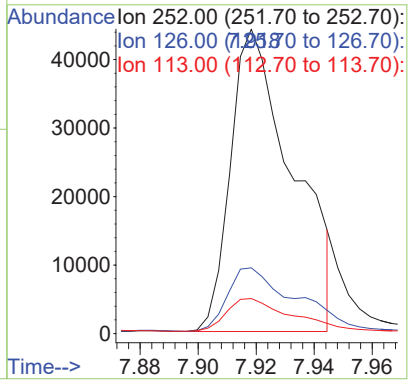
JJY
9/11/19



#20
B[b]fluoranth
Concen: 954.10 ng/mL
RT: 7.918 min Scan# 1219
Delta R.T. 0.004 min
Lab File: 321162D.D
Acq: 10 Sep 2019 13:07

Tgt Ion:252 Resp: 65703

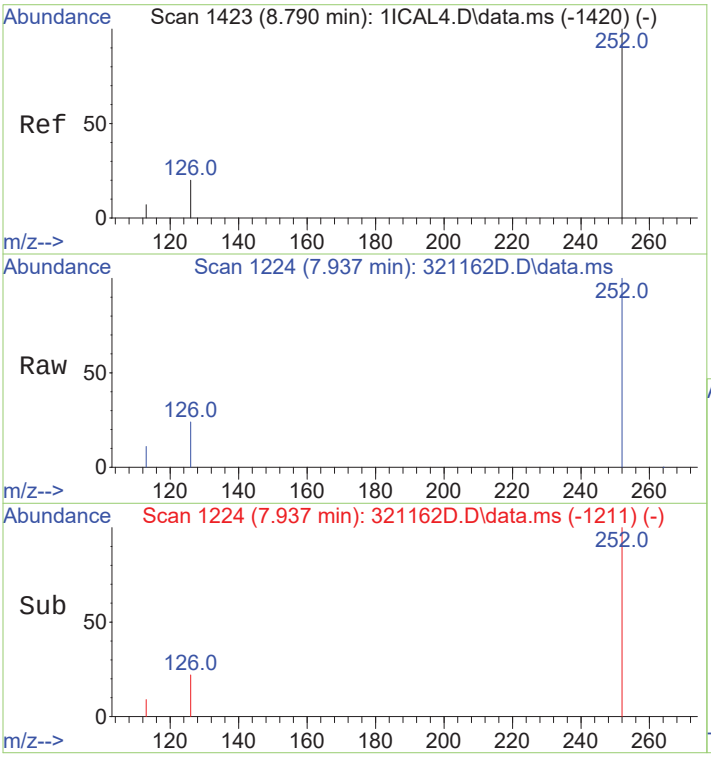
Ion	Ratio	Lower	Upper
252	100		
126	21.0	0.0	52.1
113	10.8	0.0	40.0



Before Manual Integration

Reason#3

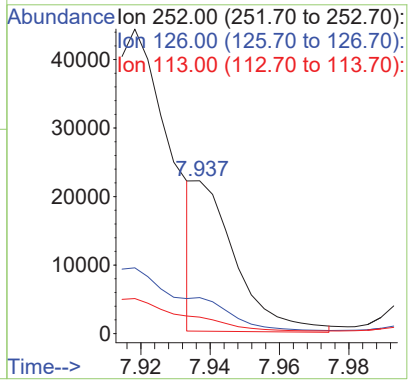
JJY
9/11/19



#21
B[k]fluoranth
Concen: 216.58 ng/mL m
RT: 7.937 min Scan# 1224
Delta R.T. -0.000 min
Lab File: 321162D.D
Acq: 10 Sep 2019 13:07

Tgt Ion:252 Resp: 18318

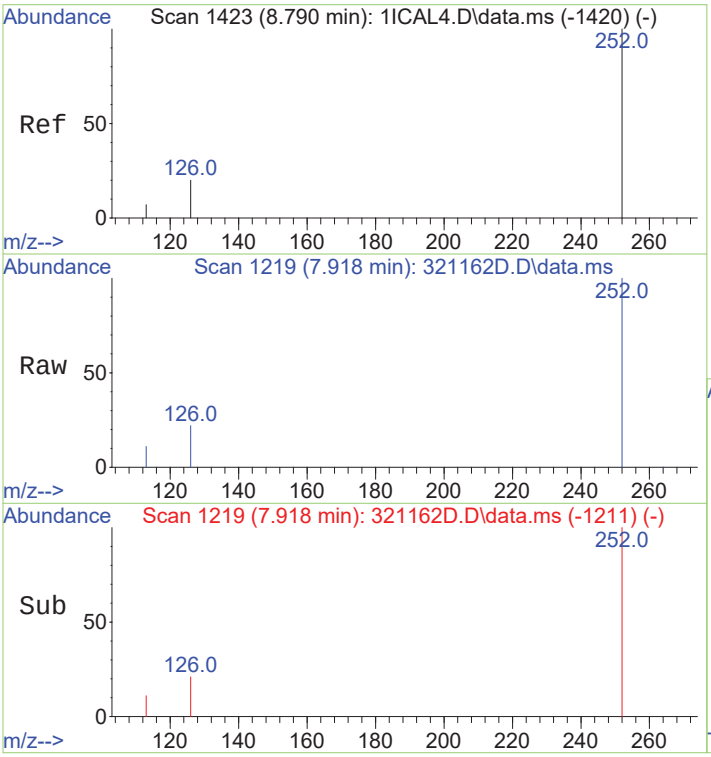
Ion	Ratio	Lower	Upper
252	100		
126	23.6	0.0	54.3
113	10.8	0.0	39.4



RED
9/12/2019

After Manual Integration

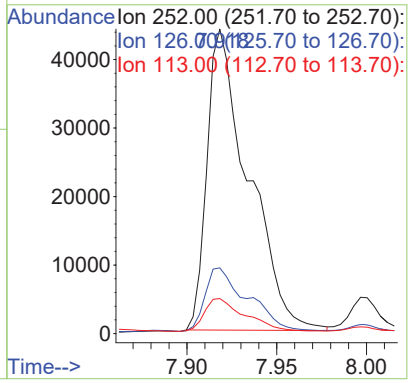
Reason#3 JJY
9/11/19



#21
B[k]fluoranth
Concen: 827.61 ng/mL
RT: 7.918 min Scan# 1219
Delta R.T. -0.019 min
Lab File: 321162D.D
Acq: 10 Sep 2019 13:07

Tgt Ion:252 Resp: 70398

Ion	Ratio	Lower	Upper
252	100		
126	20.9	0.0	54.3
113	10.8	0.0	39.4



Before Manual Integration

Reason#3 JJY 9/11/19

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091019\321163D.D Vial: 8
Acq On : 10 Sep 2019 13:27 Operator: JJY
Sample : 164274,321163,2 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 14:15:41 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 14:11:05 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

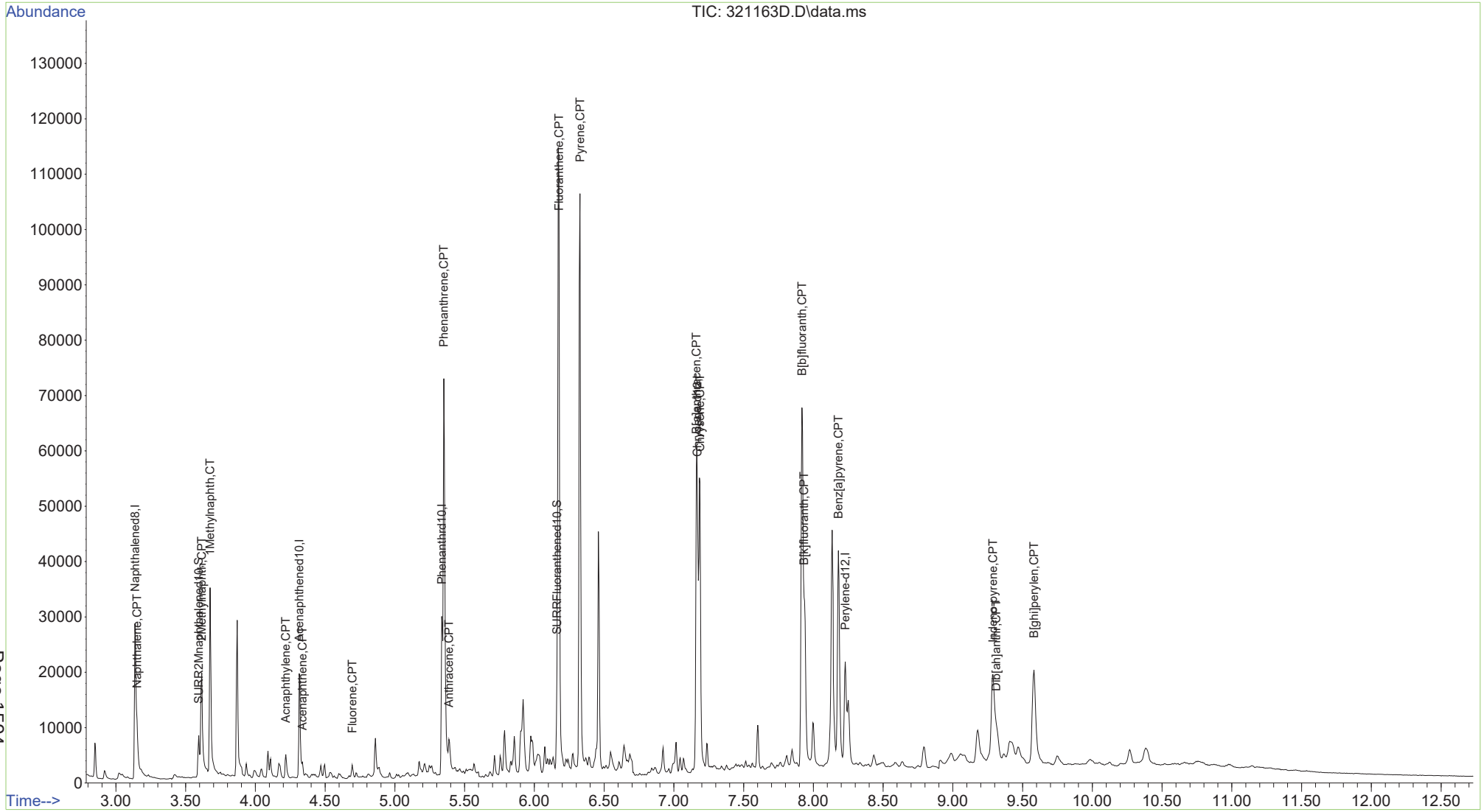
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.136	136	24330	400.00	ng/mL	0.00
6) Acenaphthened10	4.314	164	14258	400.00	ng/mL	0.00
10) Phenanthrd10	5.336	188	24318	400.00	ng/mL	0.00
15) Chrysene-d12	7.169	240	19468	400.00	ng/mL	0.00
19) Perylene-d12	8.228	264	21276	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.593	152	6008	44.52	%REC	0.00
Spiked Amount 100.000			Recovery = 44.52%			
13) SURRFluoranthened10	6.162	212	9730	40.52	%REC	0.00
Spiked Amount 100.000			Recovery = 40.52%			
Target Compounds						Qvalue
2) Naphthalene	3.151	128	4798	80.1986	ng/ml	100
4) 2Methylnaphth	3.615	142	8333	253.8305	ng/mL	80
5) 1Methylnaphth	3.675	141	10241	319.3232	ng/mL	89
7) Acnaphthylene	4.218	152	3024	50.5740	ng/mL	85
8) Acenaphthene	4.337	154	1203	29.7075	ng/mL	80
9) Fluorene	4.694	166	1373	32.1247	ng/mL#	1
11) Phenanthrene	5.351	178	47045	769.1329	ng/mL	99
12) Anthracene	5.388	178	4057	67.0005	ng/mL	91
14) Fluoranthene	6.176	202	74757	1079.7363	ng/mL	92
16) Pyrene	6.327	202	66234	841.3968	ng/mL	99
17) B[a]anthracen	7.161	228	32780	606.1829	ng/mL	97
18) Chrysene	7.187	228	41547	607.5941	ng/mL	95
20) B[b]fluoranth	7.918	252	57170m	832.6792	ng/mL	
21) B[k]fluoranth	7.933	252	17284m	204.1629	ng/mL	
22) Benz[a]pyrene	8.180	252	31505	486.6935	ng/mL	99
23) Indeno-pyrene	9.288	276	17729	296.8902	ng/mL	98
24) Dib[ah]anthr	9.311	278	3656	101.3503	ng/mL	79
25) B[ghi]perylen	9.581	276	18210	347.5165	ng/mL	98

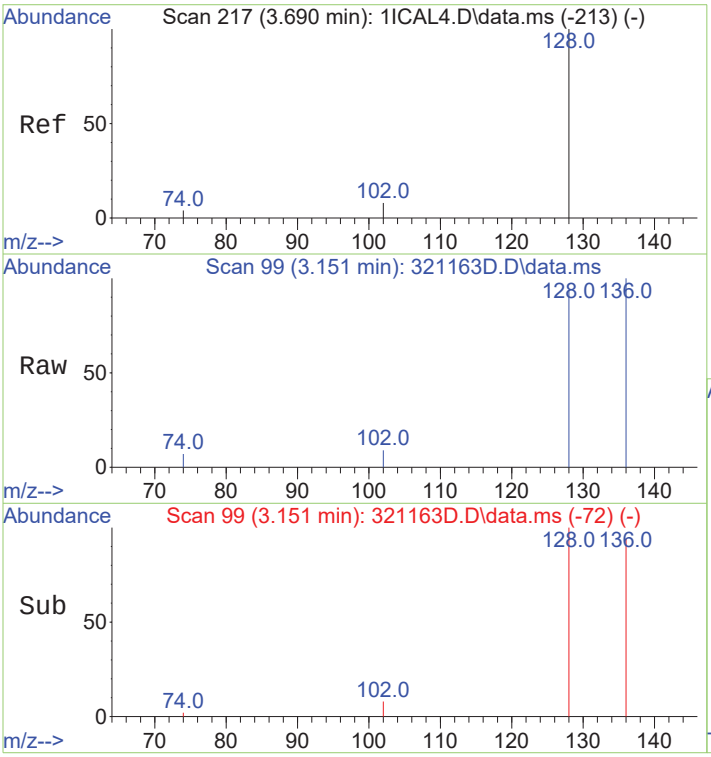
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091019\321163D.D Vial: 8
Acq On : 10 Sep 2019 13:27 Operator: JJY
Sample : 164274,321163,2 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 14:15:41 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 14:11:05 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

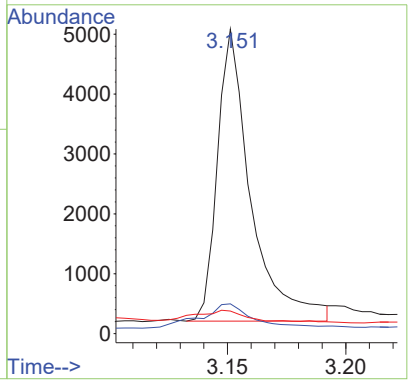


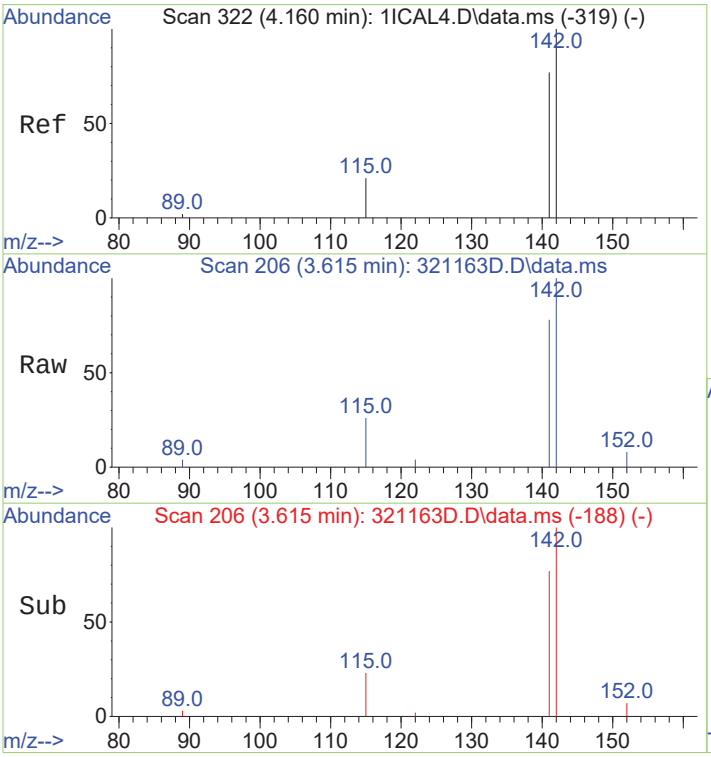


#2
Naphthalene
Concen: 80.20 ng/ml
RT: 3.151 min Scan# 99
Delta R.T. -0.000 min
Lab File: 321163D.D
Acq: 10 Sep 2019 13:27

Tgt Ion:128 Resp: 4798

Ion	Ratio	Lower	Upper
128	100		
102	7.6	0.0	37.6
74	3.7	0.0	33.6

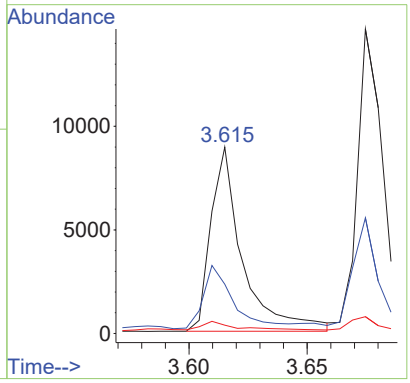


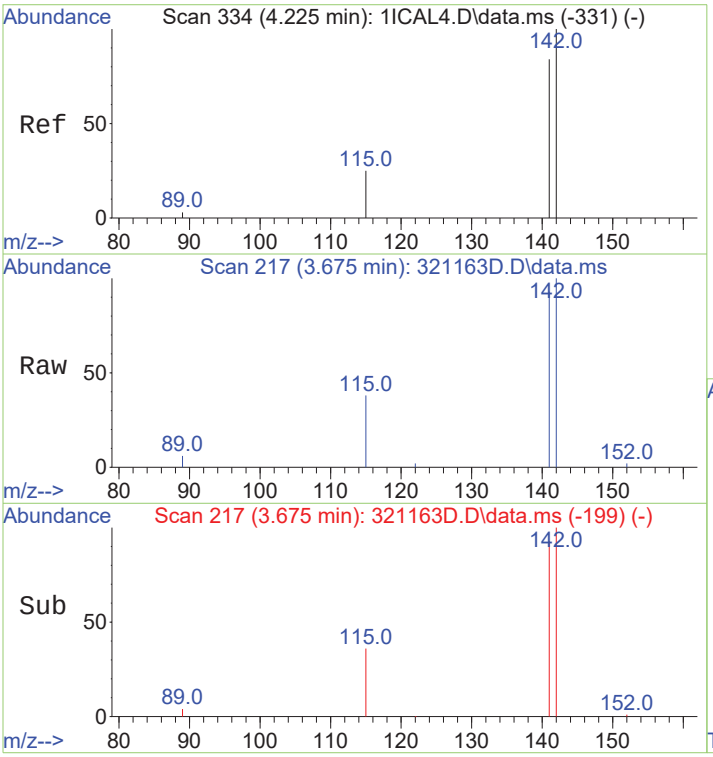


#4
2Methylnaphth
Concen: 253.83 ng/mL
RT: 3.615 min Scan# 206
Delta R.T. -0.000 min
Lab File: 321163D.D
Acq: 10 Sep 2019 13:27

Tgt Ion:142 Resp: 8333

Ion	Ratio	Lower	Upper
142	100		
115	23.8	6.9	66.9
89	2.6	0.0	34.9

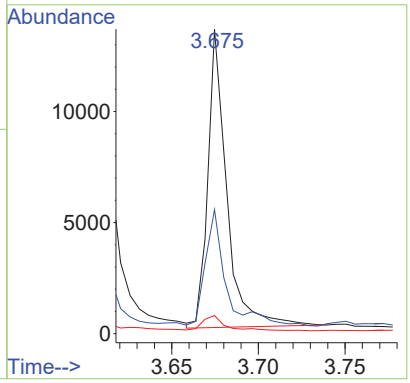


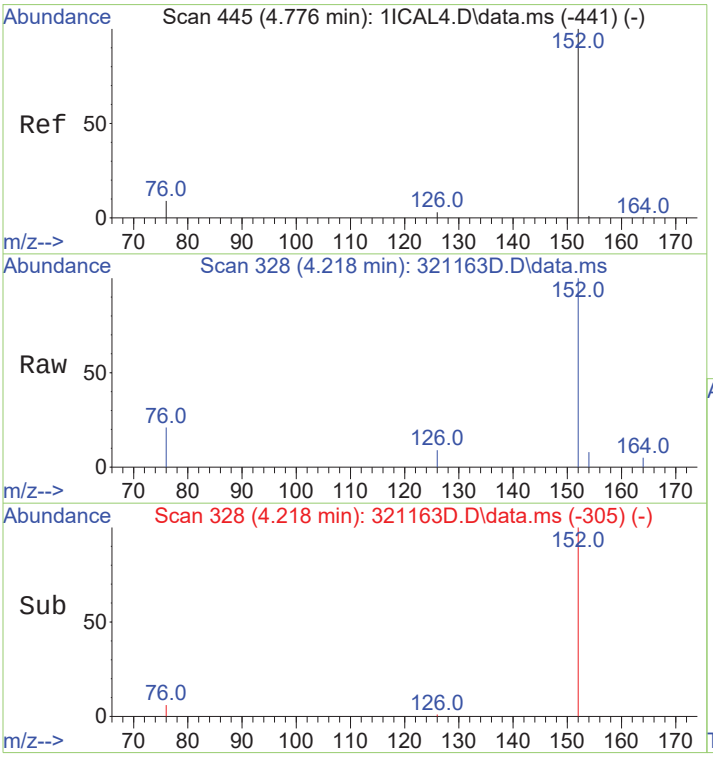


#5
1Methylnaphth
Concen: 319.32 ng/mL
RT: 3.675 min Scan# 217
Delta R.T. -0.000 min
Lab File: 321163D.D
Acq: 10 Sep 2019 13:27

Tgt Ion:141 Resp: 10241

Ion	Ratio	Lower	Upper
141	100		
115	39.0	2.5	62.5
89	5.0	0.0	34.0

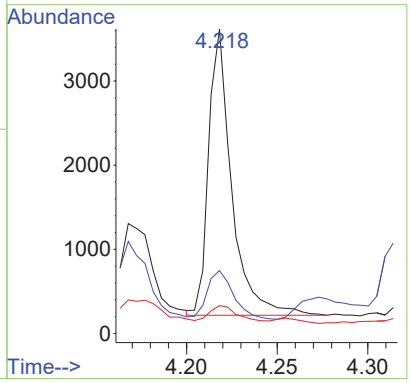


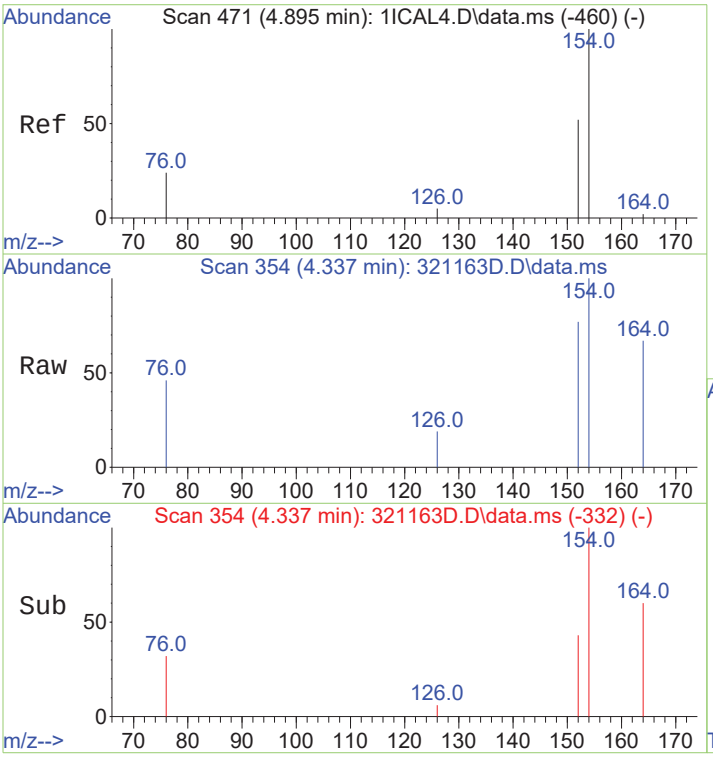


#7
Acnaphthylene
Concen: 50.57 ng/mL
RT: 4.218 min Scan# 328
Delta R.T. 0.005 min
Lab File: 321163D.D
Acq: 10 Sep 2019 13:27

Tgt Ion:152 Resp: 3024

Ion	Ratio	Lower	Upper
152	100		
76	16.1	0.0	39.9
126	6.0	0.0	33.1

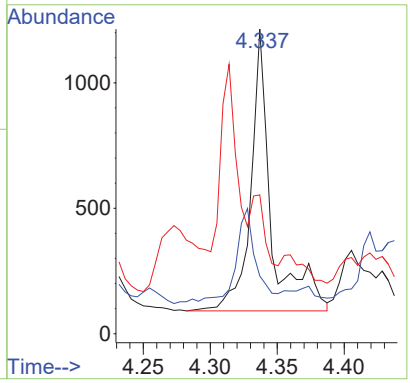


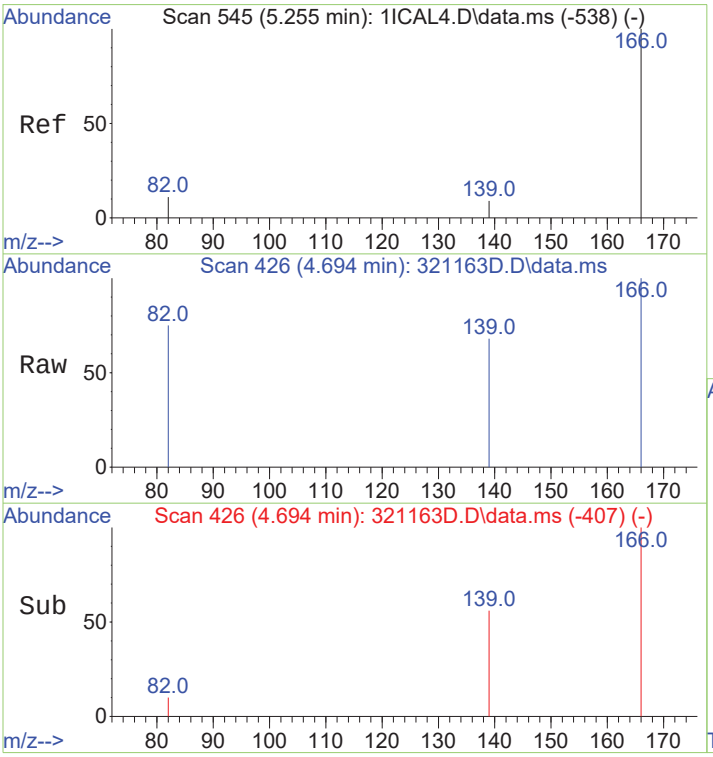


#8
Acenaphthene
Concen: 29.71 ng/mL
RT: 4.337 min Scan# 354
Delta R.T. -0.000 min
Lab File: 321163D.D
Acq: 10 Sep 2019 13:27

Tgt Ion:154 Resp: 1203

Ion	Ratio	Lower	Upper
154	100		
126	9.2	0.0	34.3
76	31.3	0.0	51.6

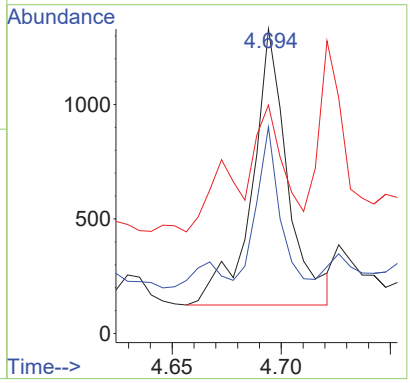


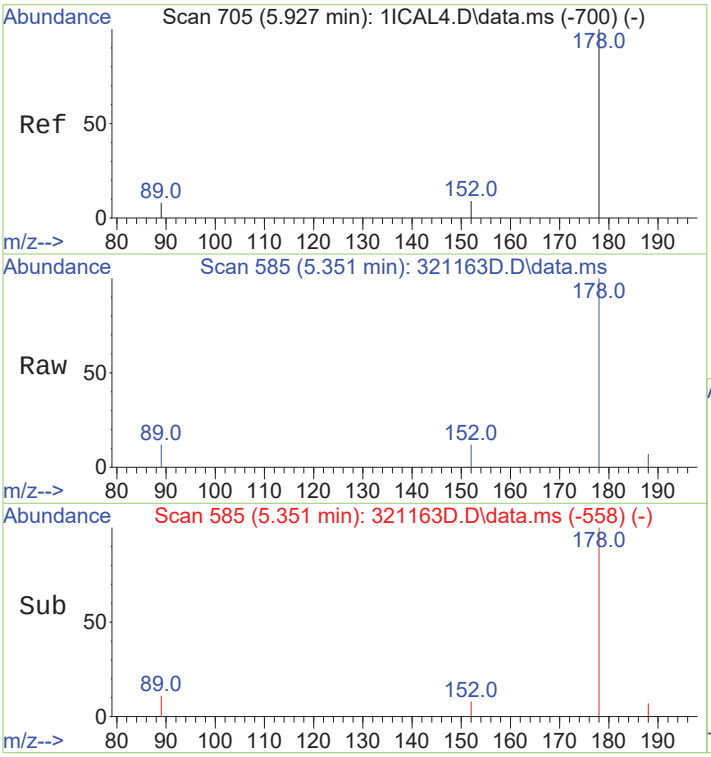


#9
Fluorene
Concen: 32.12 ng/mL
RT: 4.694 min Scan# 426
Delta R.T. -0.000 min
Lab File: 321163D.D
Acq: 10 Sep 2019 13:27

Tgt Ion:166 Resp: 1373

Ion	Ratio	Lower	Upper
166	100		
139	55.6	0.0	38.6#
82	45.9	0.0	42.4#

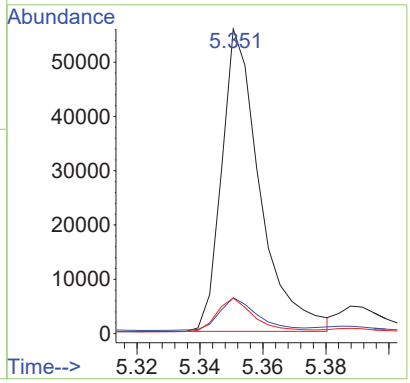


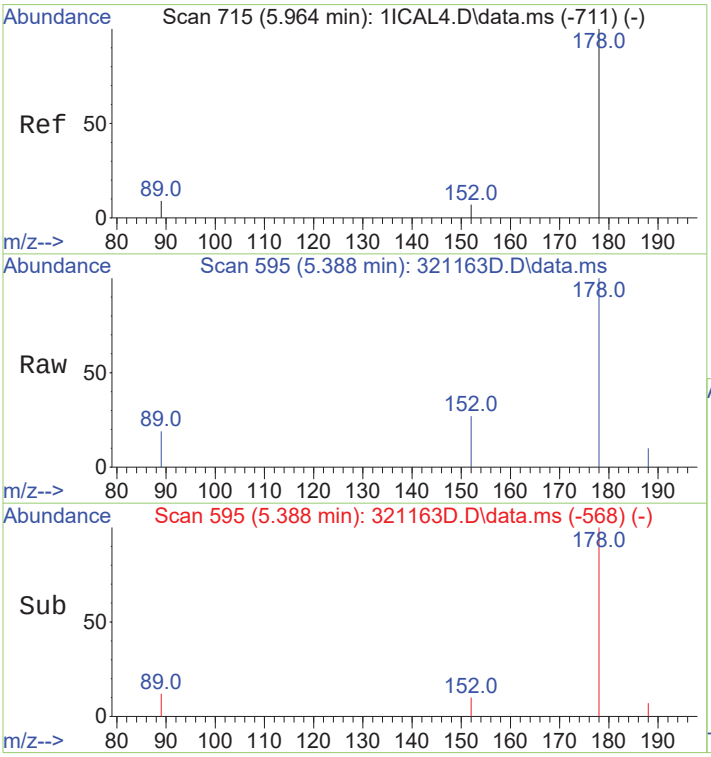


#11
Phenanthrene
Concen: 769.13 ng/mL
RT: 5.351 min Scan# 585
Delta R.T. -0.000 min
Lab File: 321163D.D
Acq: 10 Sep 2019 13:27

Tgt Ion:178 Resp: 47045

Ion	Ratio	Lower	Upper
178	100		
152	10.2	0.0	40.1
89	11.1	0.0	41.4

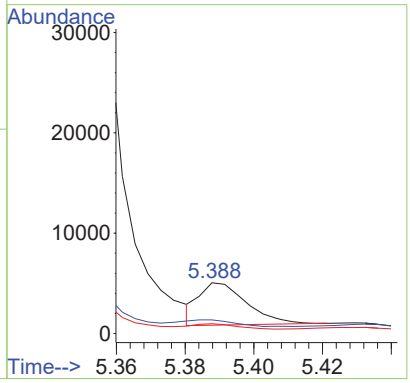


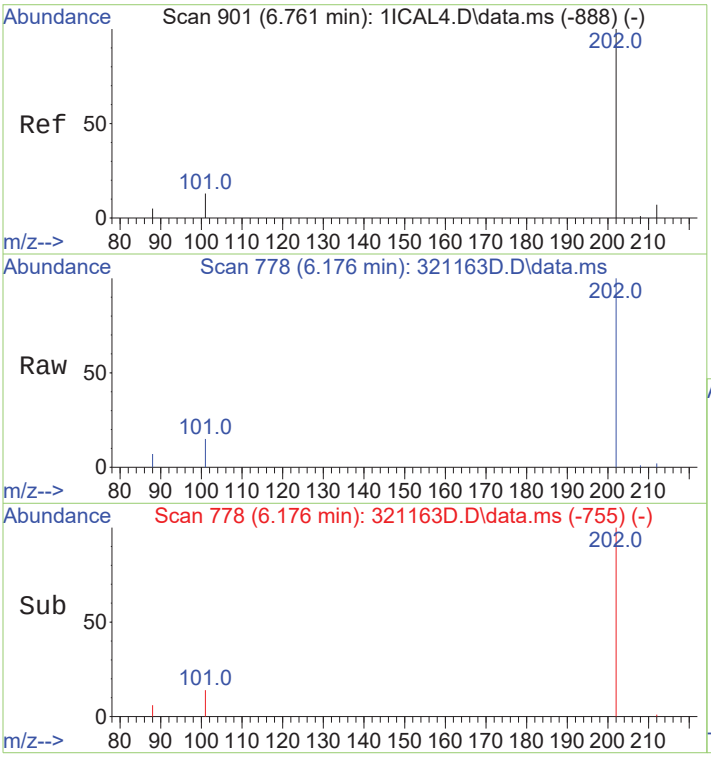


#12
Anthracene
Concen: 67.00 ng/mL
RT: 5.388 min Scan# 595
Delta R.T. -0.000 min
Lab File: 321163D.D
Acq: 10 Sep 2019 13:27

Tgt Ion:178 Resp: 4057

Ion	Ratio	Lower	Upper
178	100		
152	14.2	0.0	37.8
89	10.3	0.0	31.3

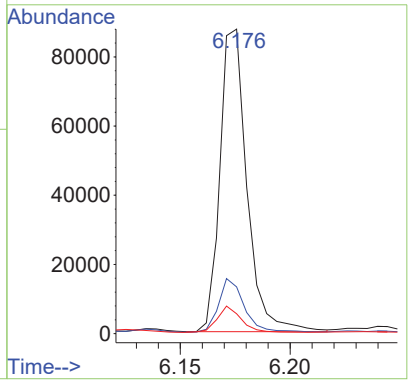


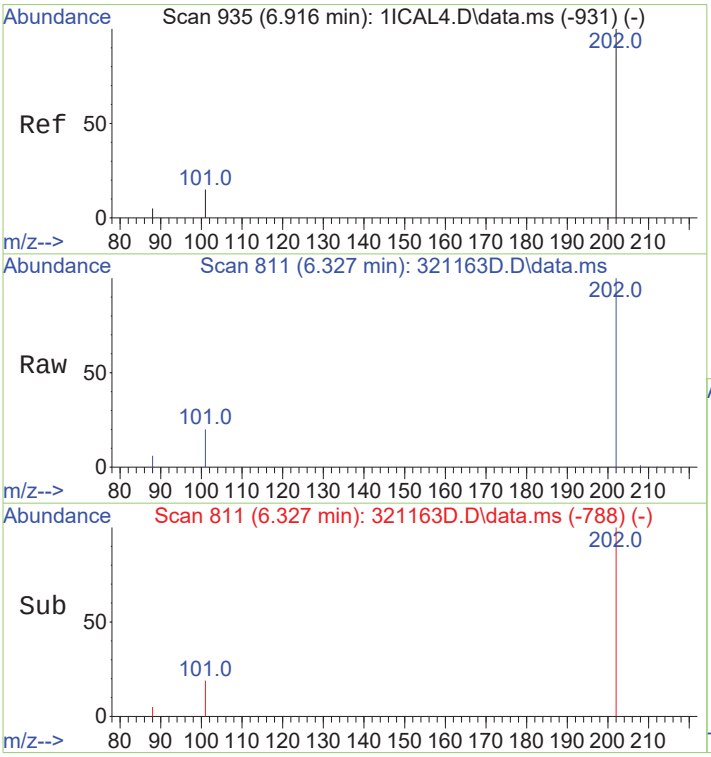


#14
Fluoranthene
Concen: 1079.74 ng/mL
RT: 6.176 min Scan# 778
Delta R.T. 0.005 min
Lab File: 321163D.D
Acq: 10 Sep 2019 13:27

Tgt Ion:202 Resp: 74757

Ion	Ratio	Lower	Upper
202	100		
101	15.0	0.0	48.3
88	6.1	0.0	38.8

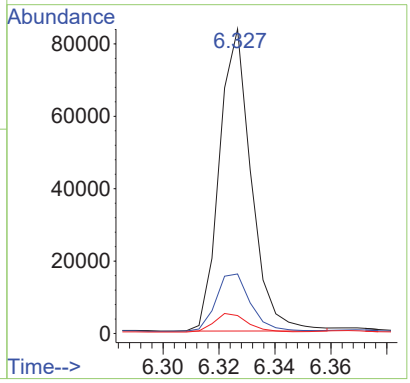


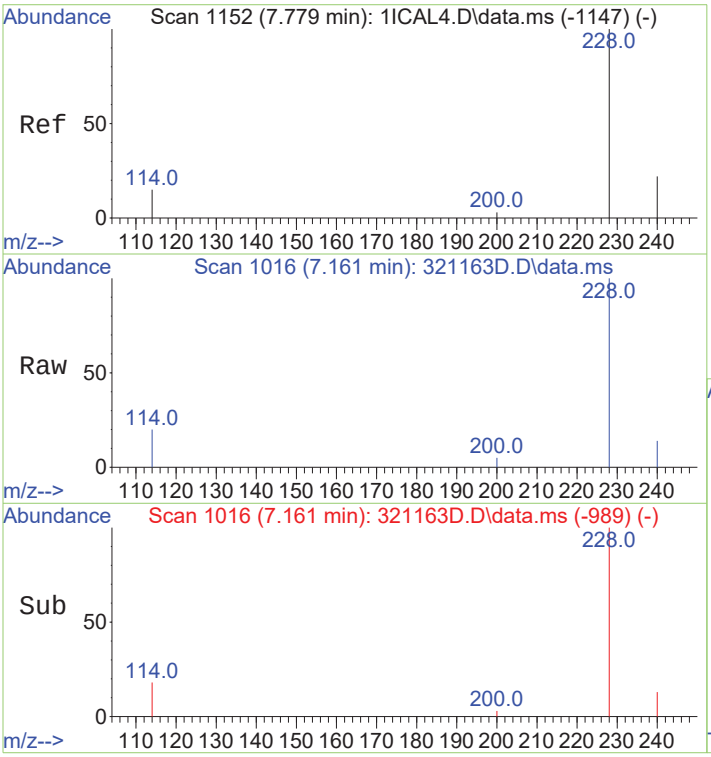


#16
Pyrene
Concen: 841.40 ng/mL
RT: 6.327 min Scan# 811
Delta R.T. 0.005 min
Lab File: 321163D.D
Acq: 10 Sep 2019 13:27

Tgt Ion:202 Resp: 66234

Ion	Ratio	Lower	Upper
202	100		
101	18.9	0.0	49.4
88	5.5	0.0	35.5

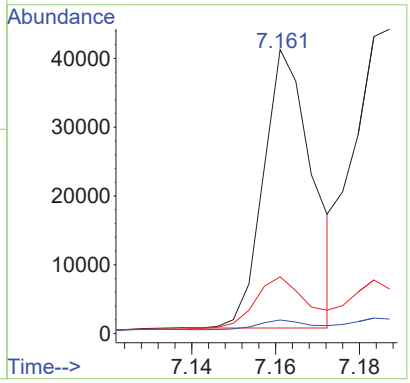


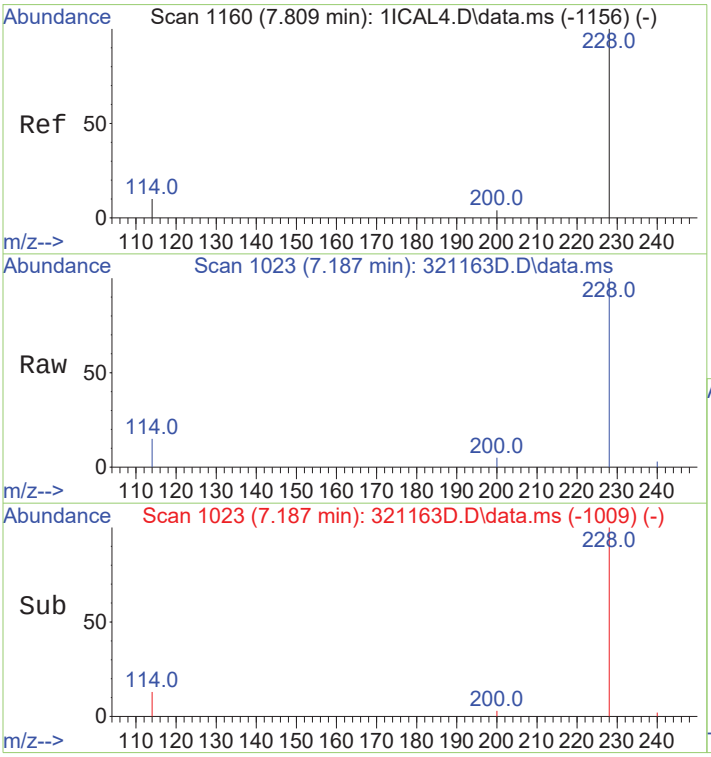


#17
B[a]anthracen
Concen: 606.18 ng/mL
RT: 7.161 min Scan# 1016
Delta R.T. -0.000 min
Lab File: 321163D.D
Acq: 10 Sep 2019 13:27

Tgt Ion:228 Resp: 32780

Ion	Ratio	Lower	Upper
228	100		
200	3.5	0.0	33.6
114	18.7	0.0	47.0

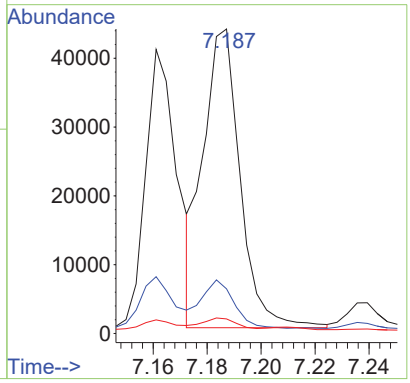


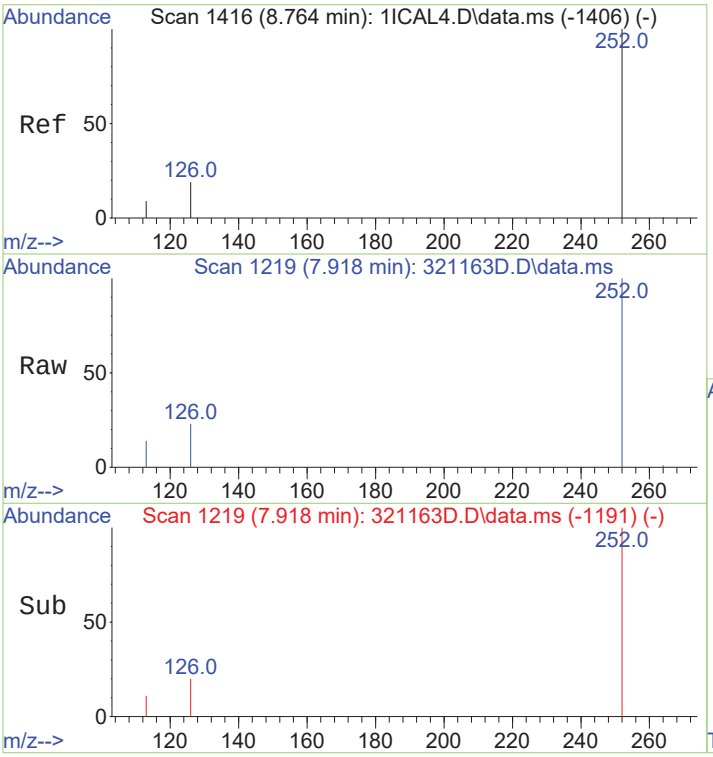


#18
Chrysene
Concen: 607.59 ng/mL
RT: 7.187 min Scan# 1023
Delta R.T. 0.004 min
Lab File: 321163D.D
Acq: 10 Sep 2019 13:27

Tgt Ion:228 Resp: 41547

Ion	Ratio	Lower	Upper
228	100		
114	13.4	0.0	46.1
200	3.6	0.0	33.8

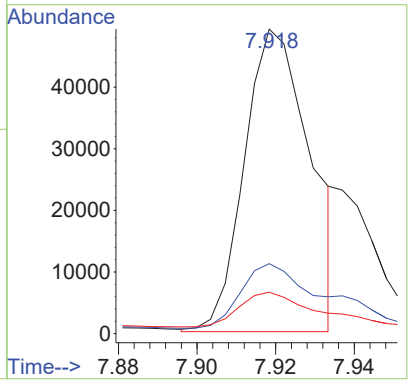


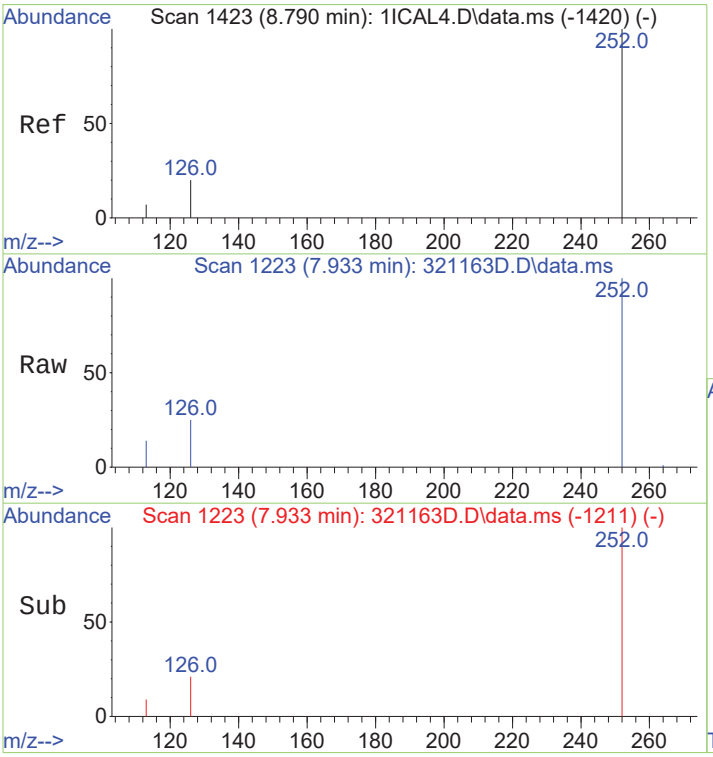


#20
B[b]fluoranth
Concen: 832.68 ng/mL m
RT: 7.918 min Scan# 1219
Delta R.T. 0.004 min
Lab File: 321163D.D
Acq: 10 Sep 2019 13:27

Tgt Ion:252 Resp: 57170

Ion	Ratio	Lower	Upper
252	100		
126	22.9	0.0	52.1
113	13.6	0.0	40.0

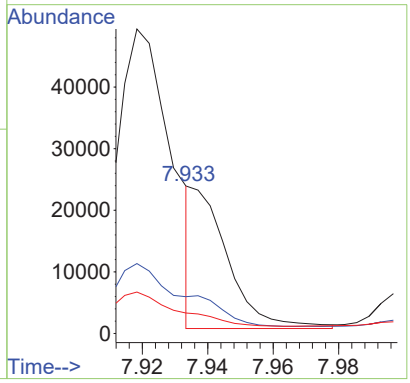


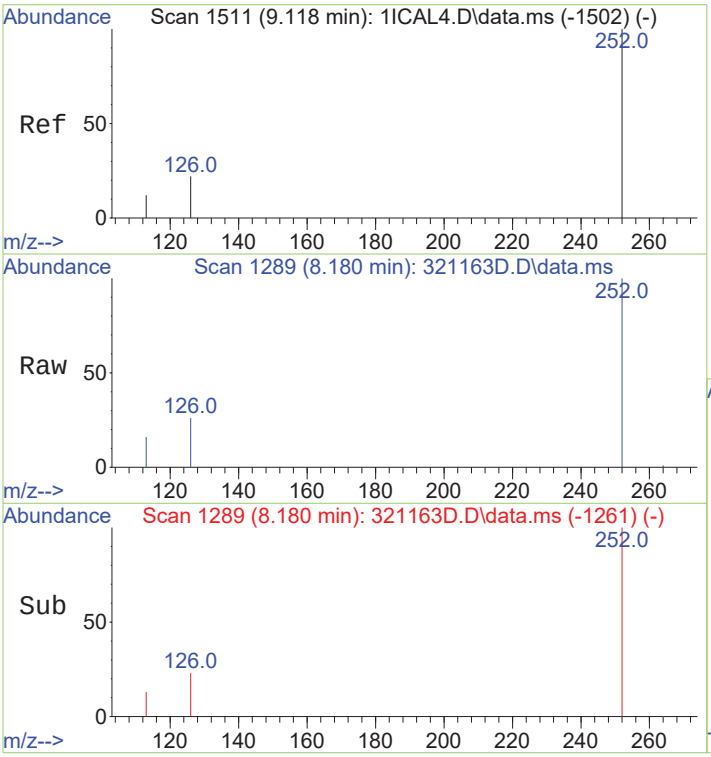


#21
B[k]fluoranth
Concen: 204.16 ng/mL m
RT: 7.933 min Scan# 1223
Delta R.T. -0.004 min
Lab File: 321163D.D
Acq: 10 Sep 2019 13:27

Tgt Ion:252 Resp: 17284

Ion	Ratio	Lower	Upper
252	100		
126	24.9	0.0	54.3
113	13.9	0.0	39.4

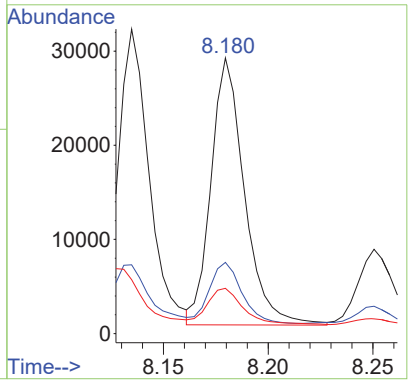


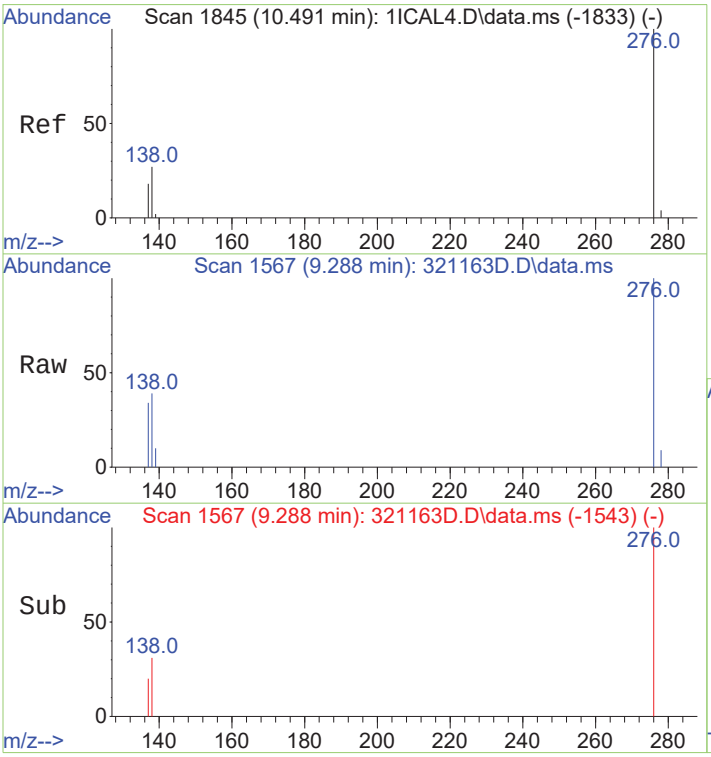


#22
Benz[a]pyrene
Concen: 486.69 ng/mL
RT: 8.180 min Scan# 1289
Delta R.T. 0.004 min
Lab File: 321163D.D
Acq: 10 Sep 2019 13:27

Tgt Ion:252 Resp: 31505

Ion	Ratio	Lower	Upper
252	100		
126	22.8	0.0	52.7
113	13.7	0.0	42.2

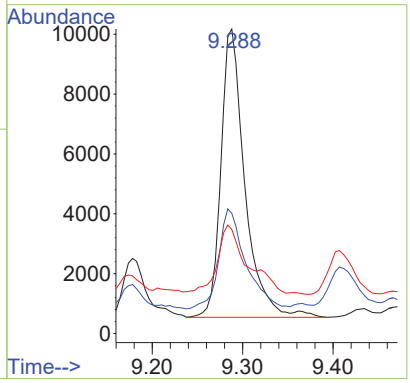


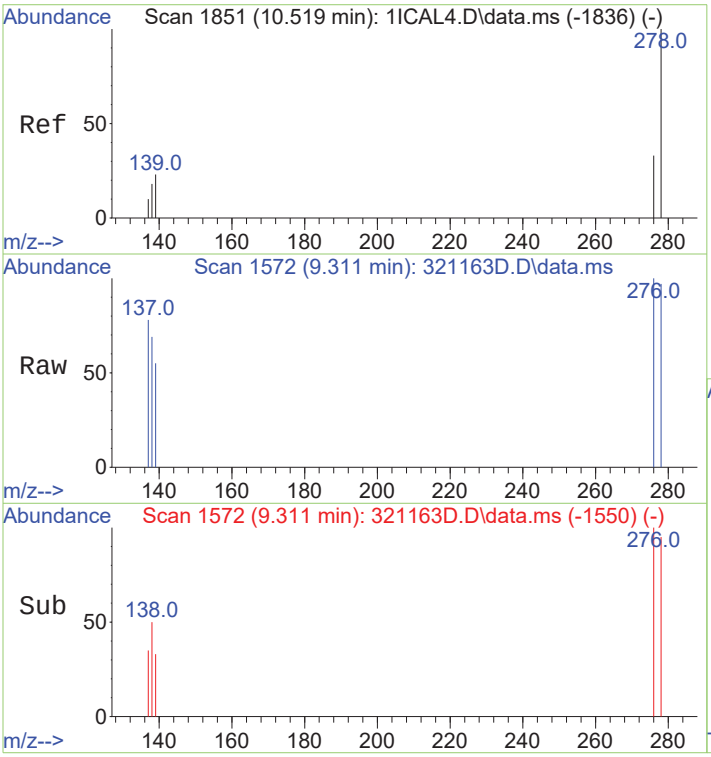


#23
Indeno-pyrene
Concen: 296.89 ng/mL
RT: 9.288 min Scan# 1567
Delta R.T. 0.009 min
Lab File: 321163D.D
Acq: 10 Sep 2019 13:27

Tgt Ion:276 Resp: 17729

Ion	Ratio	Lower	Upper
276	100		
138	33.1	4.1	64.1
137	21.6	0.0	52.8

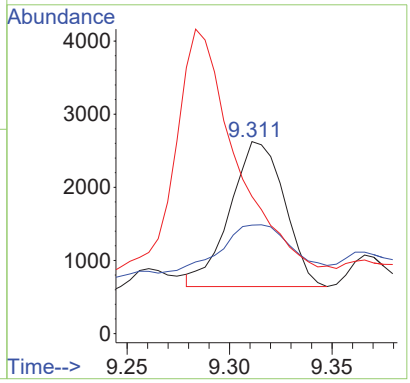


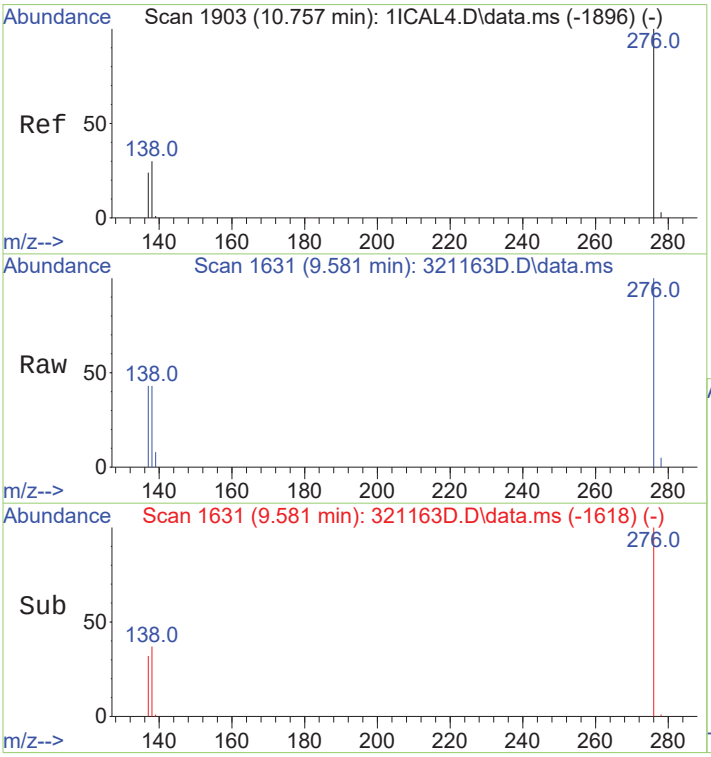


#24
Dib[ah]anthr
Concen: 101.35 ng/mL
RT: 9.311 min Scan# 1572
Delta R.T. -0.000 min
Lab File: 321163D.D
Acq: 10 Sep 2019 13:27

Tgt Ion:278 Resp: 3656

Ion	Ratio	Lower	Upper
278	100		
139	28.1	0.0	59.3
138	48.1	0.0	56.3

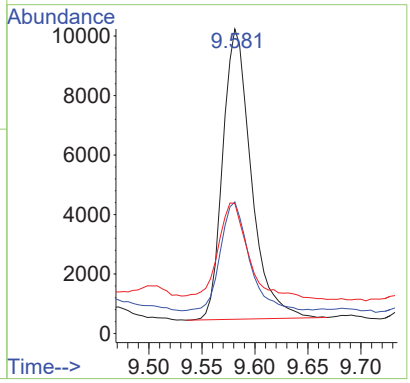


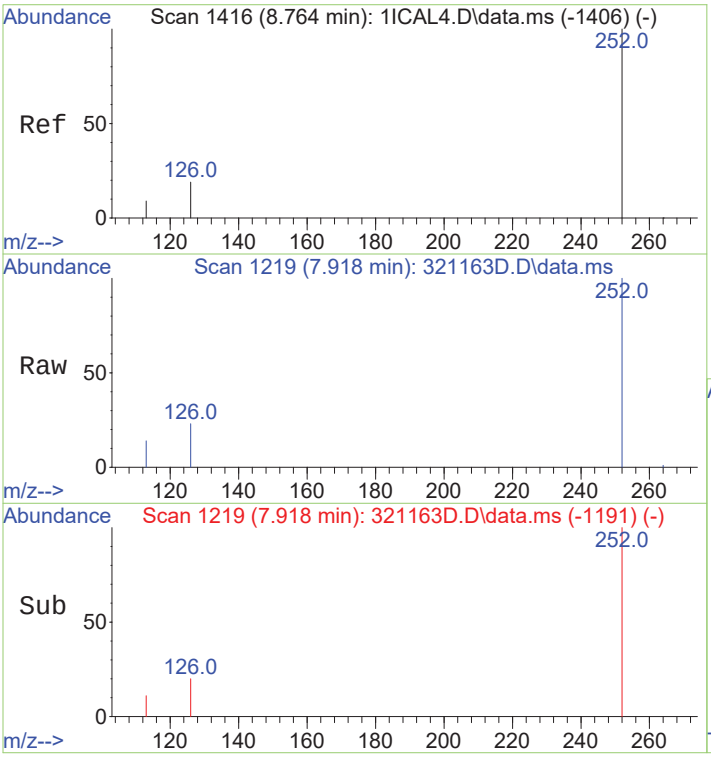


#25
B[ghi]perylen
Concen: 347.52 ng/mL
RT: 9.581 min Scan# 1631
Delta R.T. 0.009 min
Lab File: 321163D.D
Acq: 10 Sep 2019 13:27

Tgt Ion:276 Resp: 18210

Ion	Ratio	Lower	Upper
276	100		
138	37.2	7.7	67.7
137	32.9	0.6	60.6

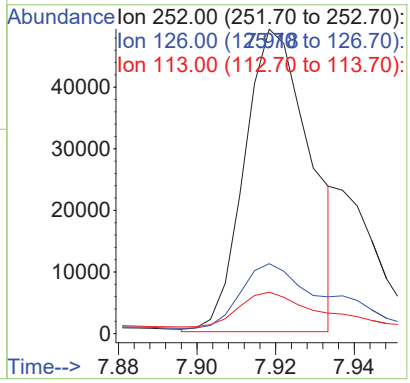




#20
B[b]fluoranth
Concen: 832.68 ng/mL m
RT: 7.918 min Scan# 1219
Delta R.T. 0.004 min
Lab File: 321163D.D
Acq: 10 Sep 2019 13:27

Tgt Ion:252 Resp: 57170

Ion	Ratio	Lower	Upper
252	100		
126	22.9	0.0	52.1
113	13.6	0.0	40.0

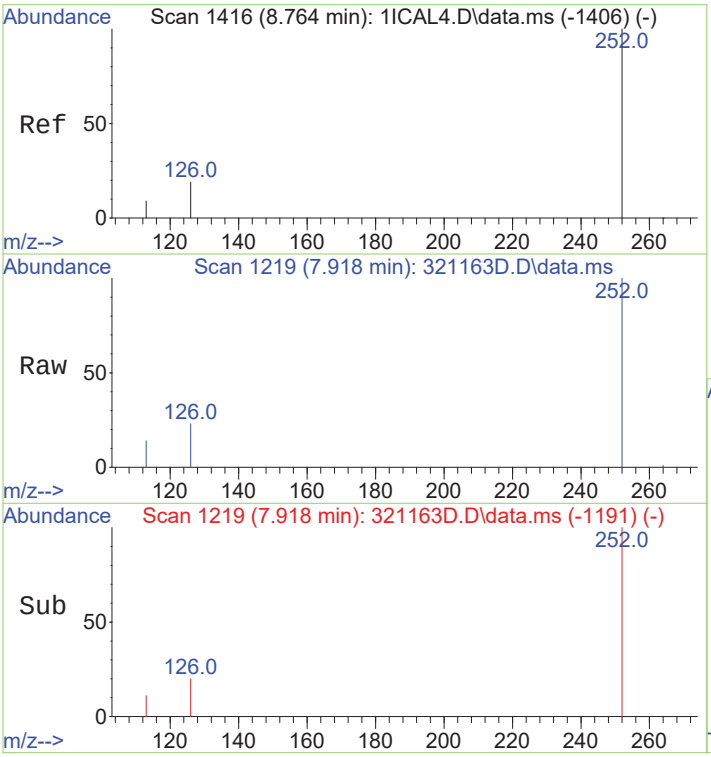


After Manual Integration

RED
9/12/2019

Reason#3

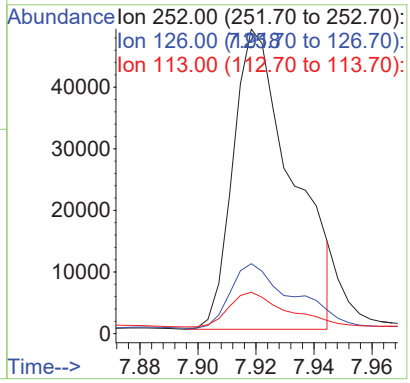
JJY
9/11/19



#20
B[b]fluoranth
Concen: 999.90 ng/mL
RT: 7.918 min Scan# 1219
Delta R.T. 0.004 min
Lab File: 321163D.D
Acq: 10 Sep 2019 13:27

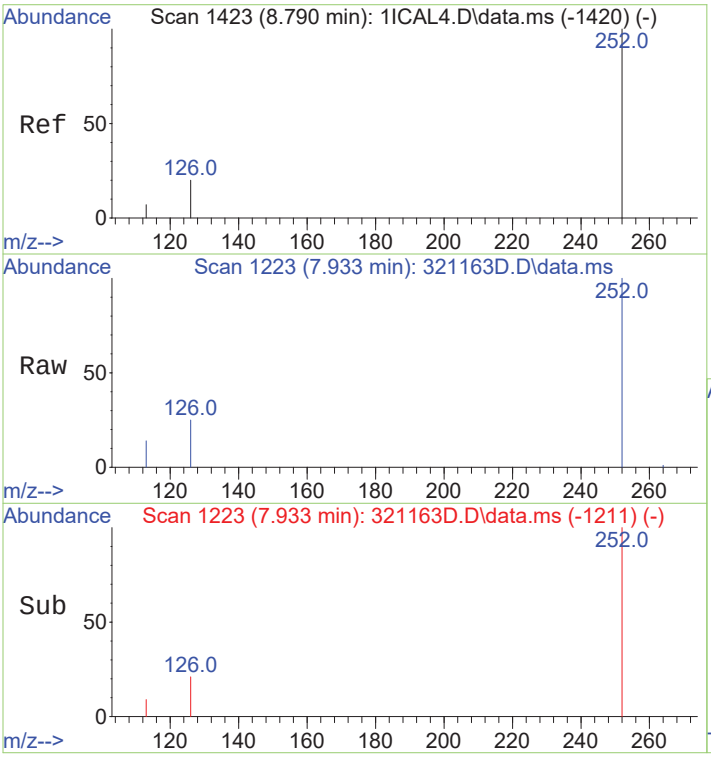
Tgt Ion:252 Resp: 69049

Ion	Ratio	Lower	Upper
252	100		
126	21.5	0.0	52.1
113	11.6	0.0	40.0



Before Manual Integration

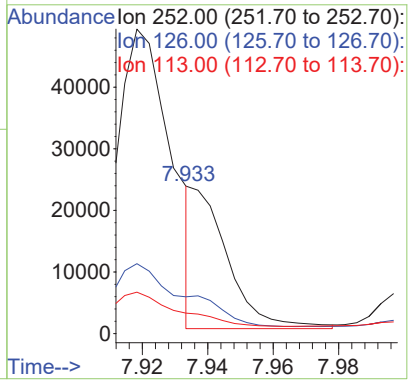
Reason#3 JJY 9/11/19



#21
B[k]fluoranth
Concen: 204.16 ng/mL m
RT: 7.933 min Scan# 1223
Delta R.T. -0.004 min
Lab File: 321163D.D
Acq: 10 Sep 2019 13:27

Tgt Ion:252 Resp: 17284

Ion	Ratio	Lower	Upper
252	100		
126	24.9	0.0	54.3
113	13.9	0.0	39.4

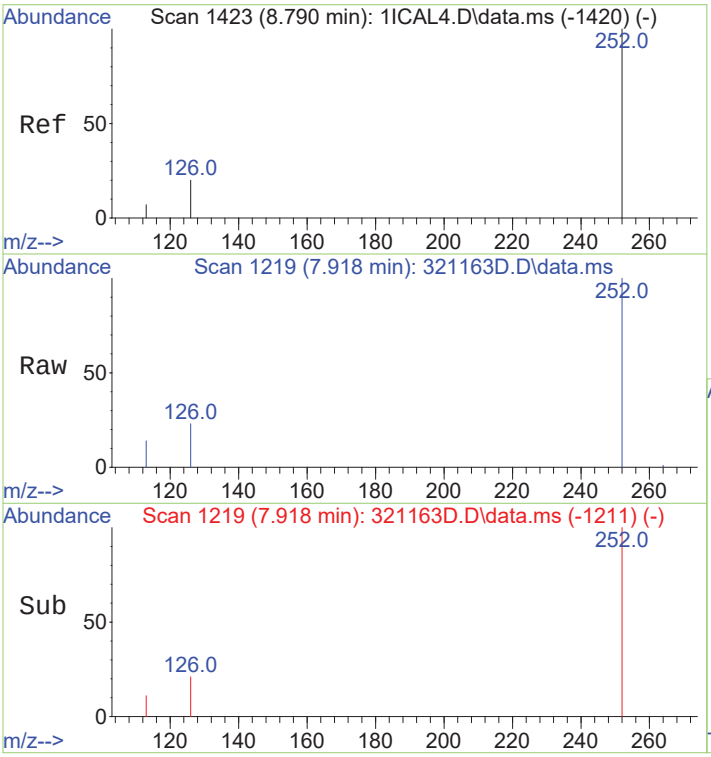


After Manual Integration

RED
9/12/2019

Reason#3

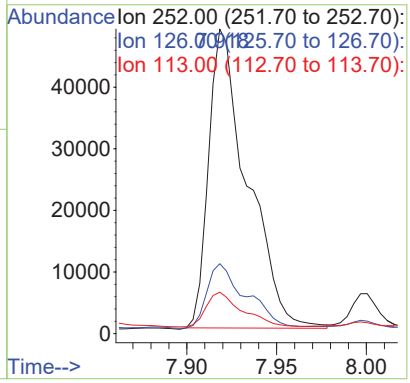
JJY
9/11/19



#21
B[k]fluoranth
Concen: 855.45 ng/mL
RT: 7.918 min Scan# 1219
Delta R.T. -0.019 min
Lab File: 321163D.D
Acq: 10 Sep 2019 13:27

Tgt Ion:252 Resp: 72874

Ion	Ratio	Lower	Upper
252	100		
126	21.5	0.0	54.3
113	11.6	0.0	39.4



Before Manual Integration

Reason#3 JJY 9/11/19

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091019\321169D.D Vial: 10
Acq On : 10 Sep 2019 14:08 Operator: JJY
Sample : 164274,321169,2 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 14:32:39 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 14:11:05 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

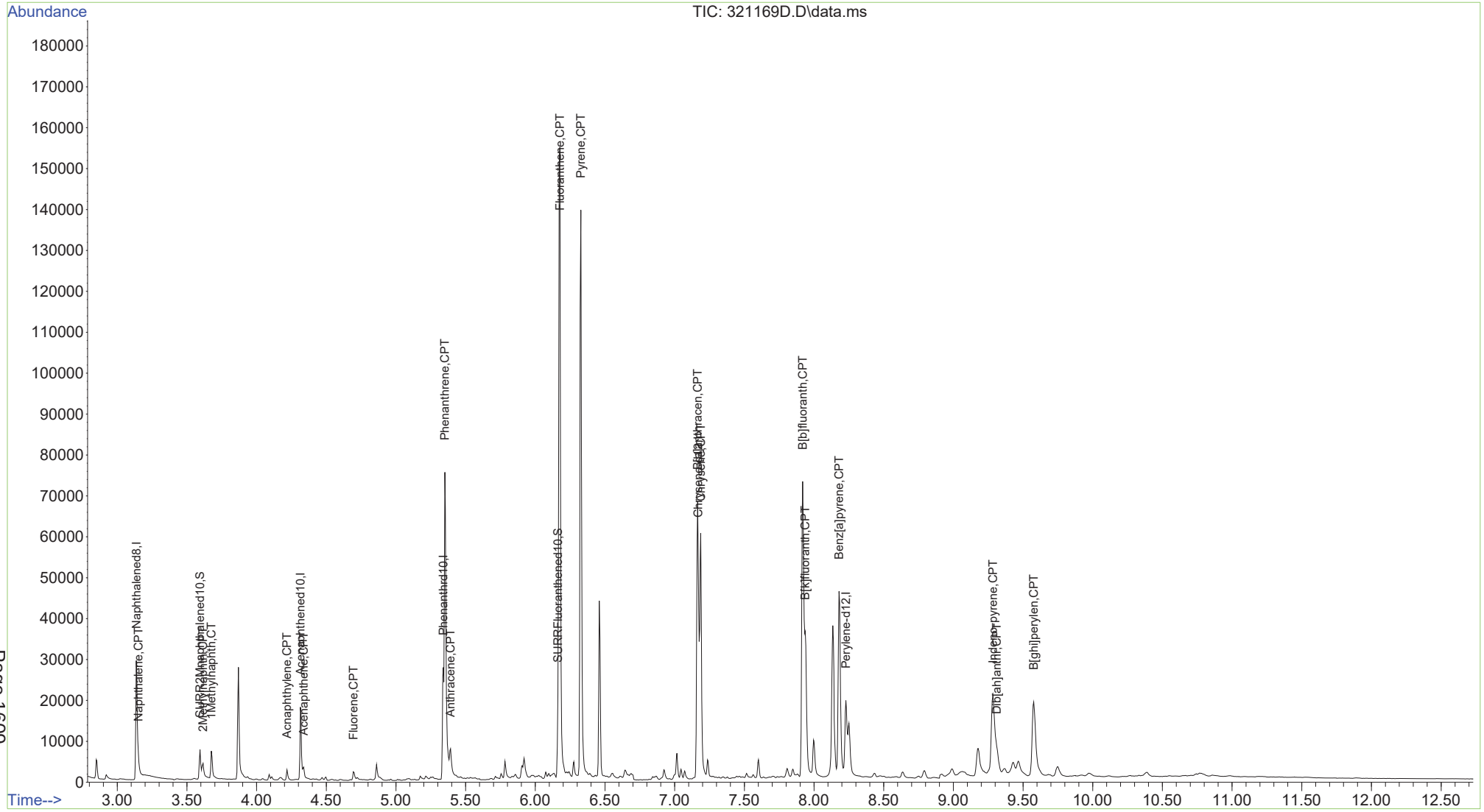
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.136	136	26815	400.00	ng/mL	0.00
6) Acenaphthened10	4.314	164	13917	400.00	ng/mL	0.00
10) Phenanthrd10	5.339	188	23239	400.00	ng/mL	0.00
15) Chrysene-d12	7.168	240	18600	400.00	ng/mL	0.00
19) Perylene-d12	8.228	264	20935	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.593	152	5748	38.65	%REC	0.00
Spiked Amount 100.000			Recovery = 38.65%			
13) SURRFluoranthened10	6.162	212	10123	44.11	%REC	0.00
Spiked Amount 100.000			Recovery = 44.11%			
Target Compounds						Qvalue
2) Naphthalene	3.151	128	1183	17.9414	ng/ml	98
4) 2Methylnaphth	3.615	142	1440	39.7987	ng/mL	83
5) 1Methylnaphth	3.675	141	2237	63.2876	ng/mL	83
7) Acnaphthylene	4.218	152	1621	27.7742	ng/mL	92
8) Acenaphthene	4.337	154	1118	28.2850	ng/mL	90
9) Fluorene	4.694	166	2104	50.4345	ng/mL	78
11) Phenanthrene	5.351	178	49607	851.3497	ng/mL	99
12) Anthracene	5.391	178	6934	119.8305	ng/mL	98
14) Fluoranthene	6.176	202	109200	1650.4367	ng/mL	94
16) Pyrene	6.327	202	90058	1197.4312	ng/mL	99
17) B[a]anthracen	7.165	228	38150	728.4645	ng/mL	97
18) Chrysene	7.187	228	45725	699.8999	ng/mL	97
20) B[b]fluoranth	7.918	252	62664m	924.3849	ng/mL	
21) B[k]fluoranth	7.937	252	21713m	260.1965	ng/mL	
22) Benz[a]pyrene	8.180	252	39053	603.8467	ng/mL	99
23) Indeno-pyrene	9.283	276	22819	373.9731	ng/mL	97
24) Dib[ah]anthr	9.311	278	4286	113.2231	ng/mL	82
25) B[ghi]perylen	9.576	276	19730	377.9208	ng/mL	96

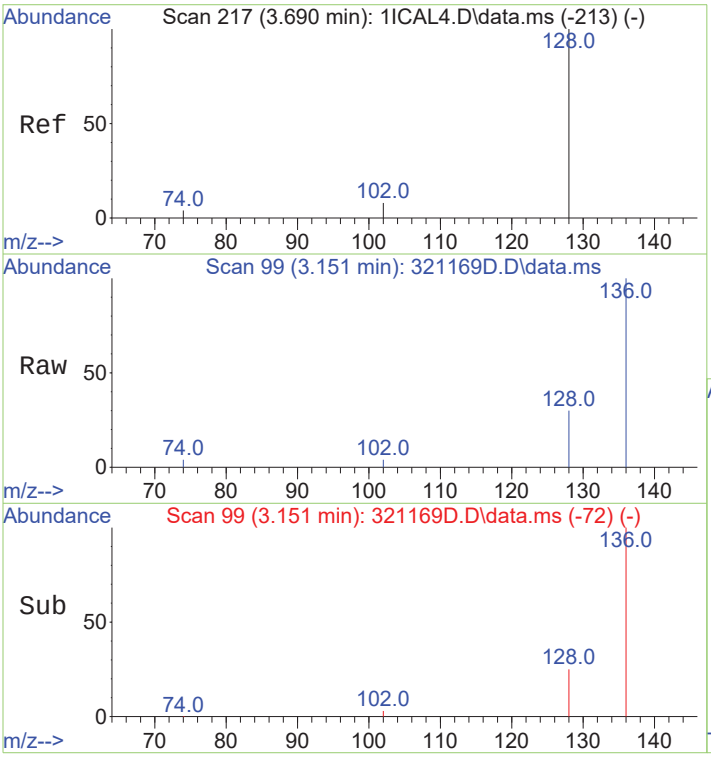
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091019\321169D.D Vial: 10
Acq On : 10 Sep 2019 14:08 Operator: JJY
Sample : 164274,321169,2 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 14:32:39 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 14:11:05 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

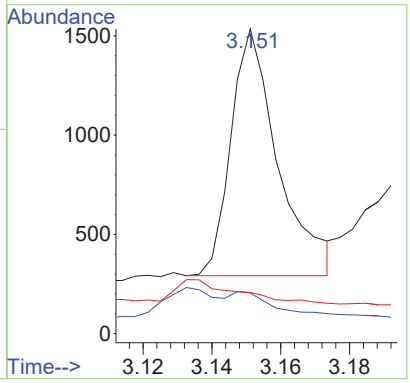


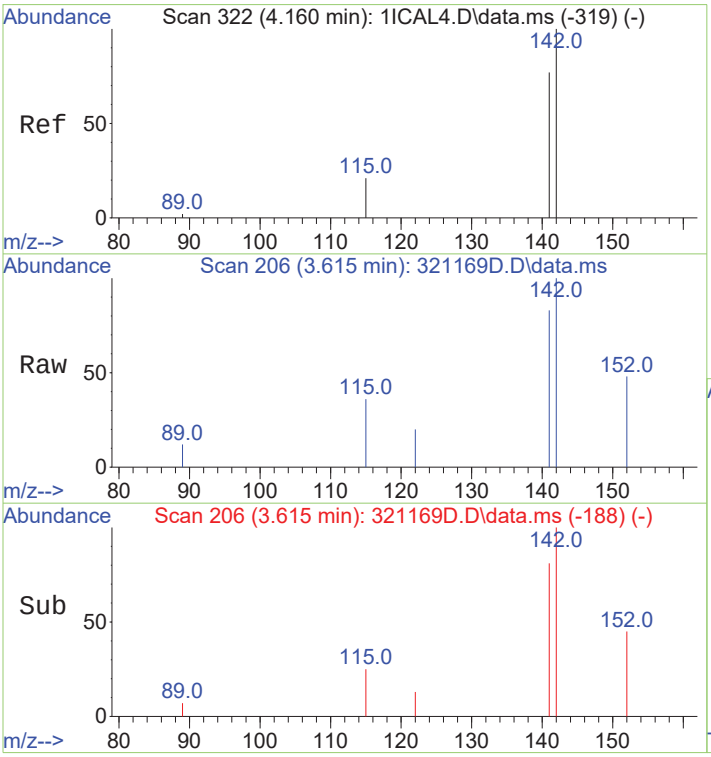


#2
Naphthalene
Concen: 17.94 ng/ml
RT: 3.151 min Scan# 99
Delta R.T. -0.000 min
Lab File: 321169D.D
Acq: 10 Sep 2019 14:08

Tgt Ion:128 Resp: 1183

Ion	Ratio	Lower	Upper
128	100		
102	8.4	0.0	37.6
74	4.4	0.0	33.6

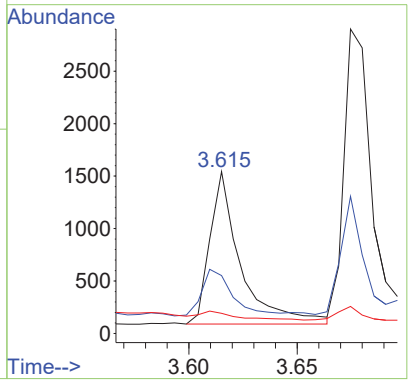


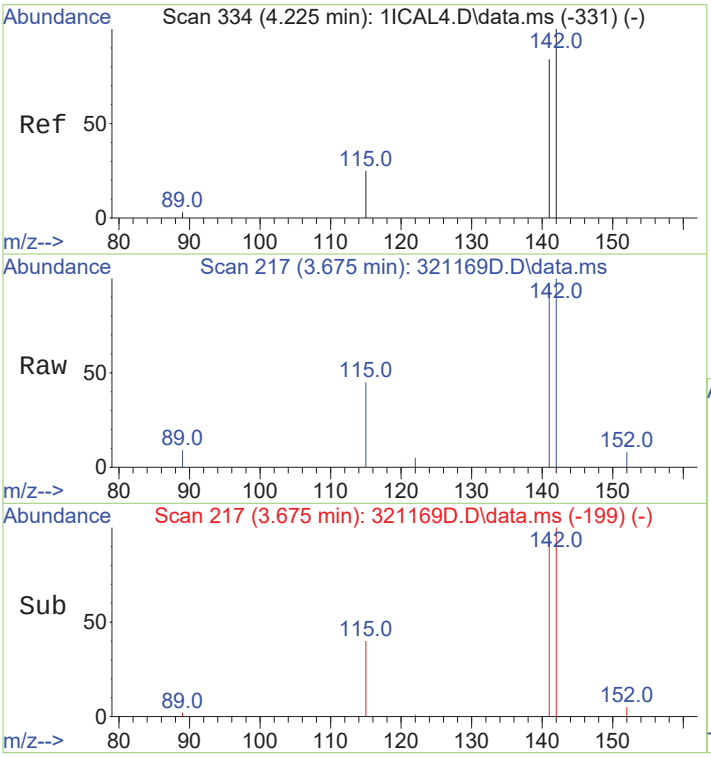


#4
2Methylnaphth
Concen: 39.80 ng/mL
RT: 3.615 min Scan# 206
Delta R.T. -0.000 min
Lab File: 321169D.D
Acq: 10 Sep 2019 14:08

Tgt Ion:142 Resp: 1440

Ion	Ratio	Lower	Upper
142	100		
115	25.9	6.9	66.9
89	3.4	0.0	34.9

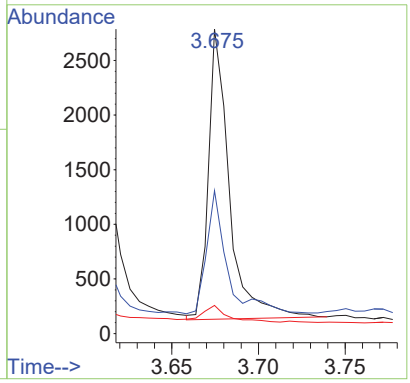


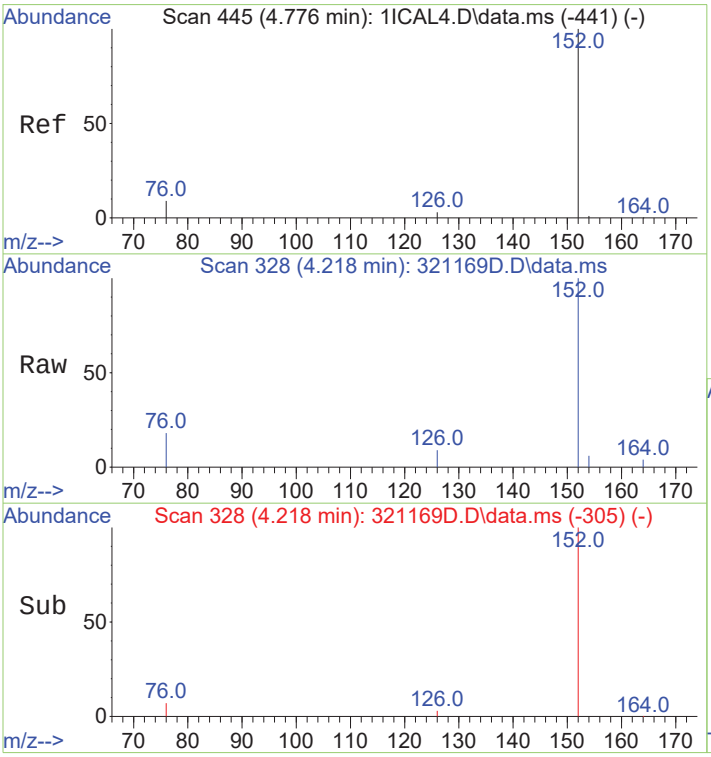


#5
1Methylnaphth
Concen: 63.29 ng/mL
RT: 3.675 min Scan# 217
Delta R.T. -0.000 min
Lab File: 321169D.D
Acq: 10 Sep 2019 14:08

Tgt Ion:141 Resp: 2237

Ion	Ratio	Lower	Upper
141	100		
115	42.8	2.5	62.5
89	5.9	0.0	34.0

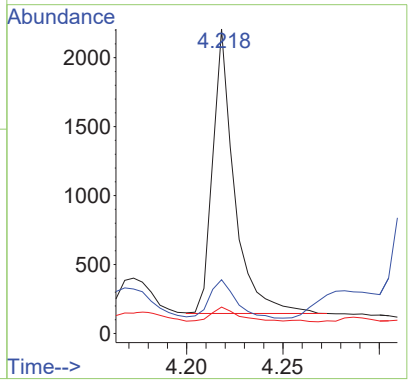


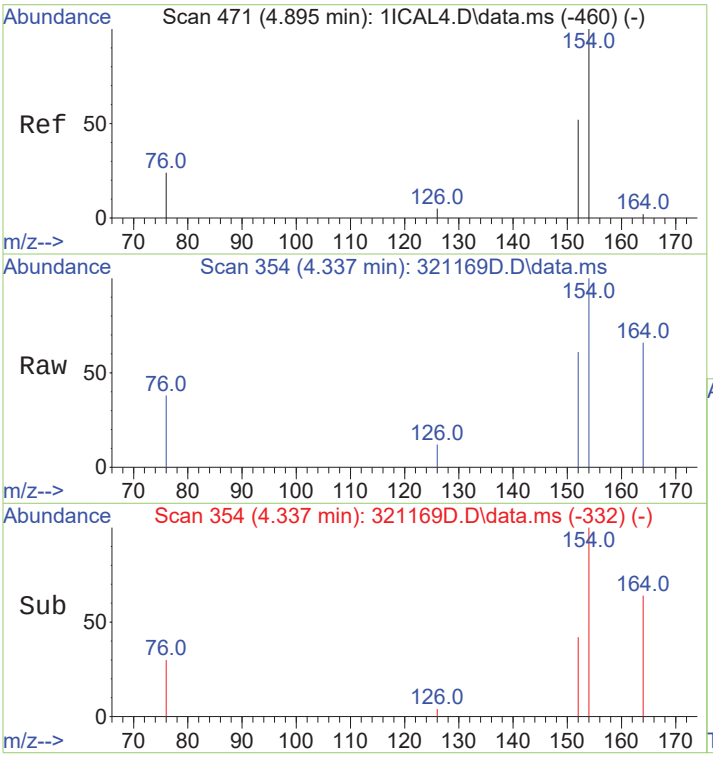


#7
Acnaphthylene
Concen: 27.77 ng/mL
RT: 4.218 min Scan# 328
Delta R.T. 0.004 min
Lab File: 321169D.D
Acq: 10 Sep 2019 14:08

Tgt Ion:152 Resp: 1621

Ion	Ratio	Lower	Upper
152	100		
76	13.0	0.0	39.9
126	4.9	0.0	33.1

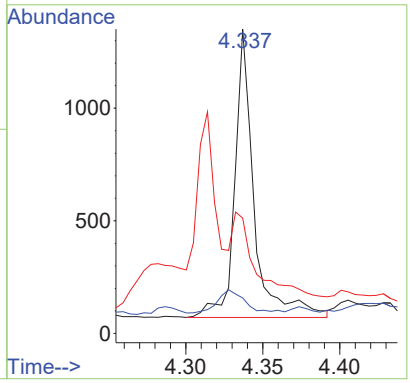


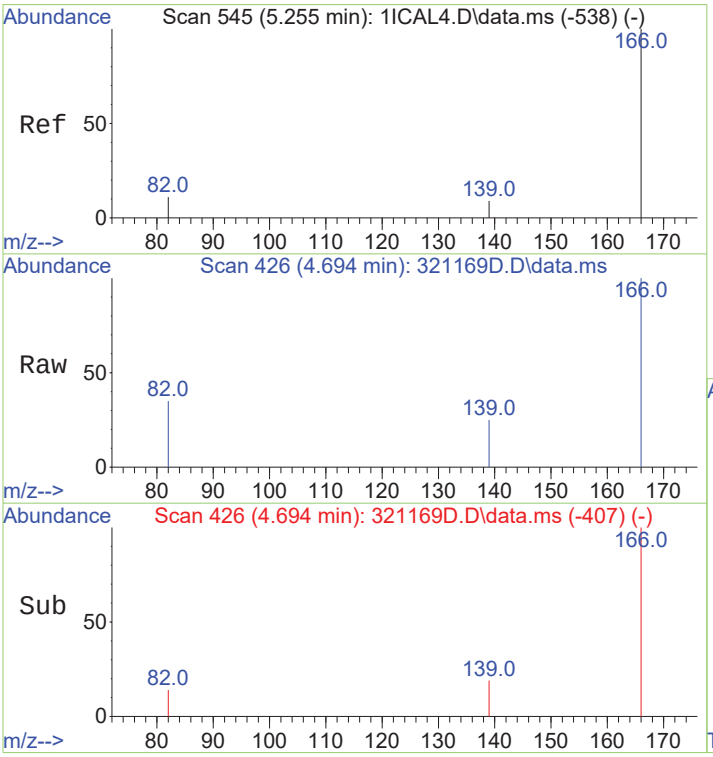


#8
Acenaphthene
Concen: 28.28 ng/mL
RT: 4.337 min Scan# 354
Delta R.T. -0.000 min
Lab File: 321169D.D
Acq: 10 Sep 2019 14:08

Tgt Ion:154 Resp: 1118

Ion	Ratio	Lower	Upper
154	100		
126	5.2	0.0	34.3
76	27.3	0.0	51.6

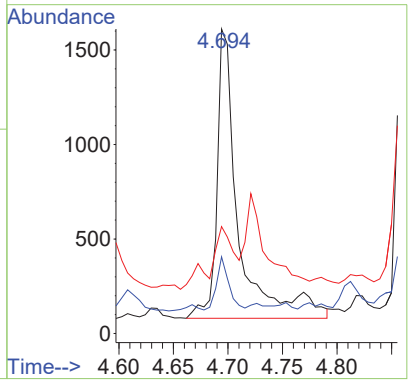


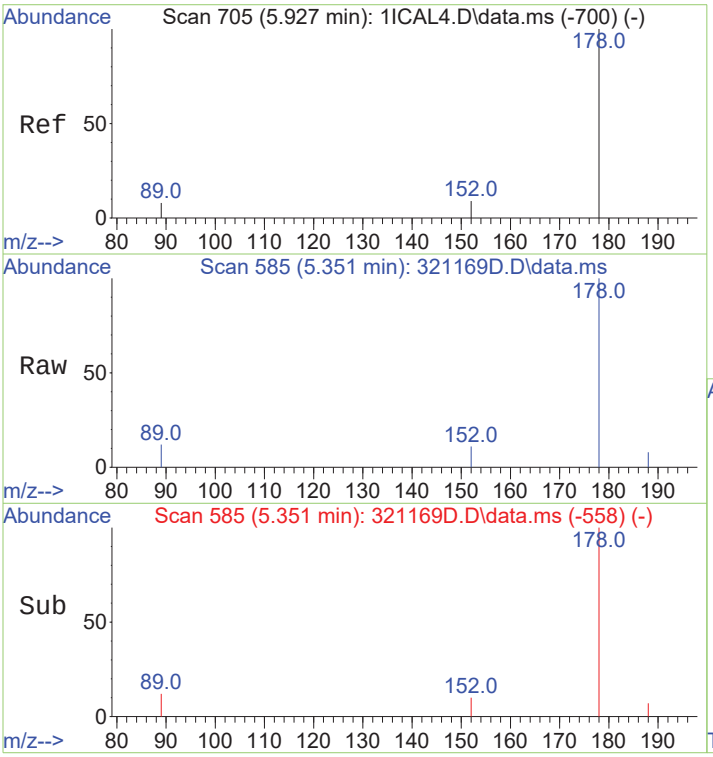


#9
Fluorene
Concen: 50.43 ng/mL
RT: 4.694 min Scan# 426
Delta R.T. -0.000 min
Lab File: 321169D.D
Acq: 10 Sep 2019 14:08

Tgt Ion:166 Resp: 2104

Ion	Ratio	Lower	Upper
166	100		
139	17.6	0.0	38.6
82	20.1	0.0	42.4

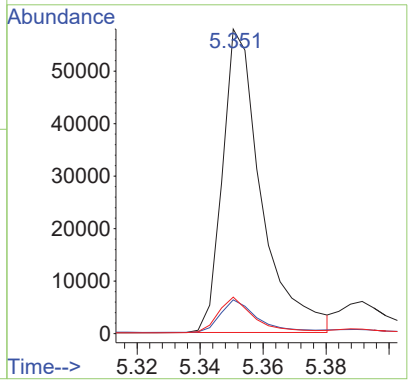


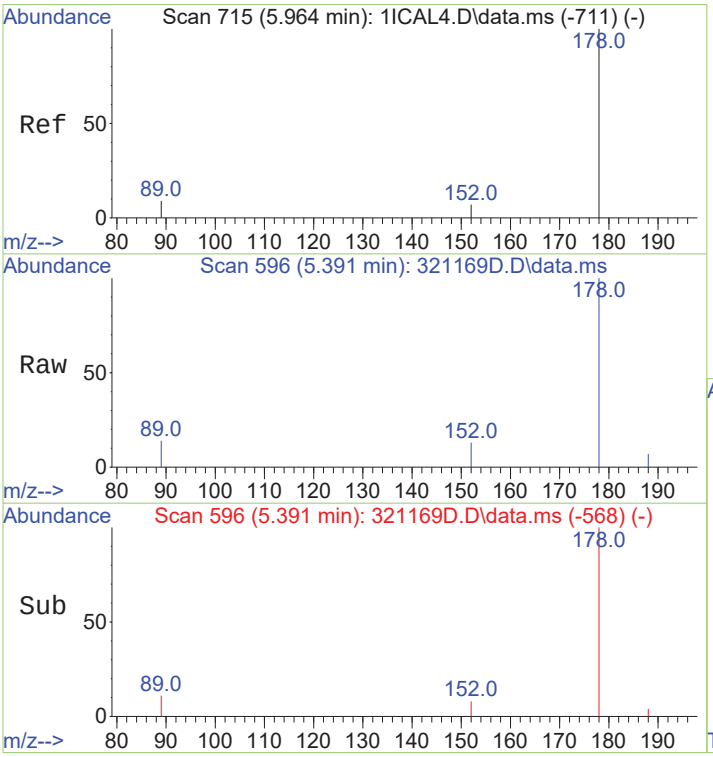


#11
Phenanthrene
Concen: 851.35 ng/mL
RT: 5.351 min Scan# 585
Delta R.T. -0.000 min
Lab File: 321169D.D
Acq: 10 Sep 2019 14:08

Tgt Ion:178 Resp: 49607

Ion	Ratio	Lower	Upper
178	100		
152	10.3	0.0	40.1
89	10.7	0.0	41.4

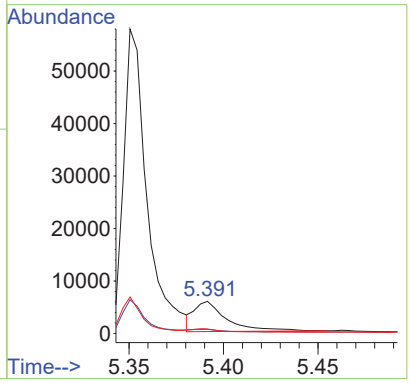


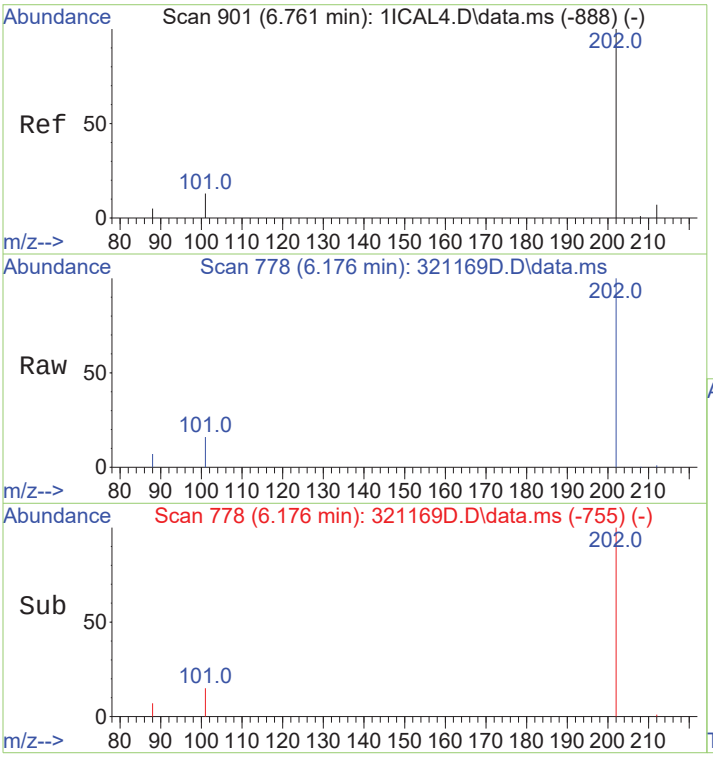


#12
Anthracene
Concen: 119.83 ng/mL
RT: 5.391 min Scan# 596
Delta R.T. 0.004 min
Lab File: 321169D.D
Acq: 10 Sep 2019 14:08

Tgt Ion:178 Resp: 6934

Ion	Ratio	Lower	Upper
178	100		
152	8.6	0.0	37.8
89	10.8	0.0	31.3

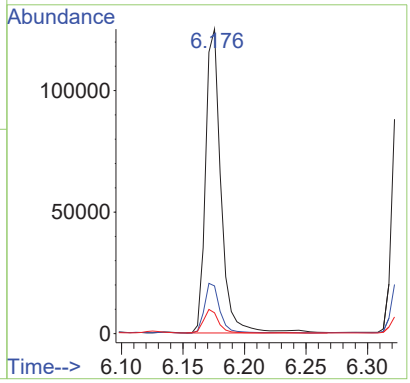


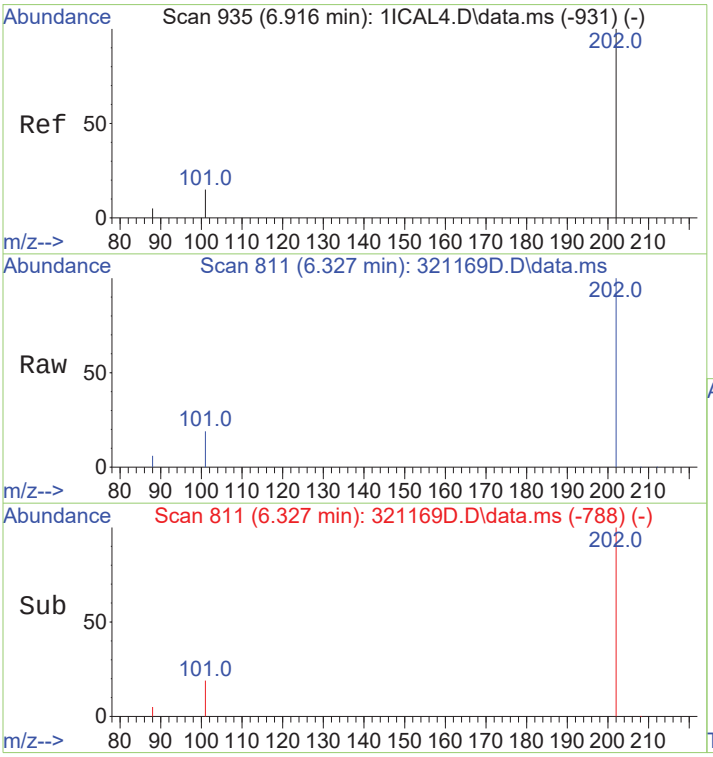


#14
Fluoranthene
Concen: 1650.44 ng/mL
RT: 6.176 min Scan# 778
Delta R.T. 0.005 min
Lab File: 321169D.D
Acq: 10 Sep 2019 14:08

Tgt Ion:202 Resp: 109200

Ion	Ratio	Lower	Upper
202	100		
101	15.5	0.0	48.3
88	6.6	0.0	38.8

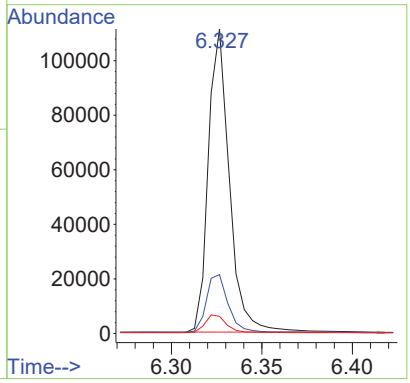


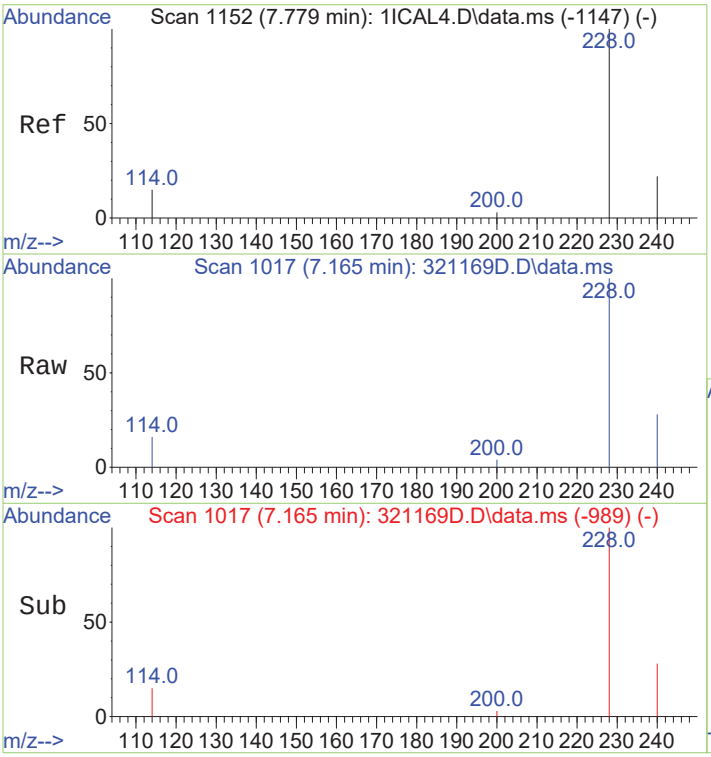


#16
Pyrene
Concen: 1197.43 ng/mL
RT: 6.327 min Scan# 811
Delta R.T. 0.004 min
Lab File: 321169D.D
Acq: 10 Sep 2019 14:08

Tgt Ion:202 Resp: 90058

Ion	Ratio	Lower	Upper
202	100		
101	19.1	0.0	49.4
88	5.4	0.0	35.5

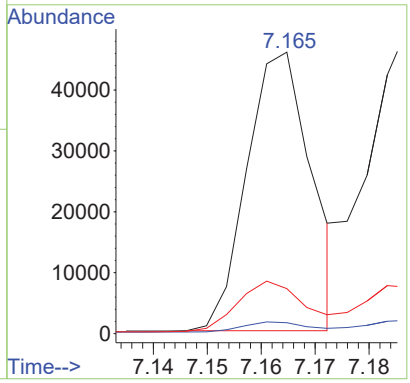


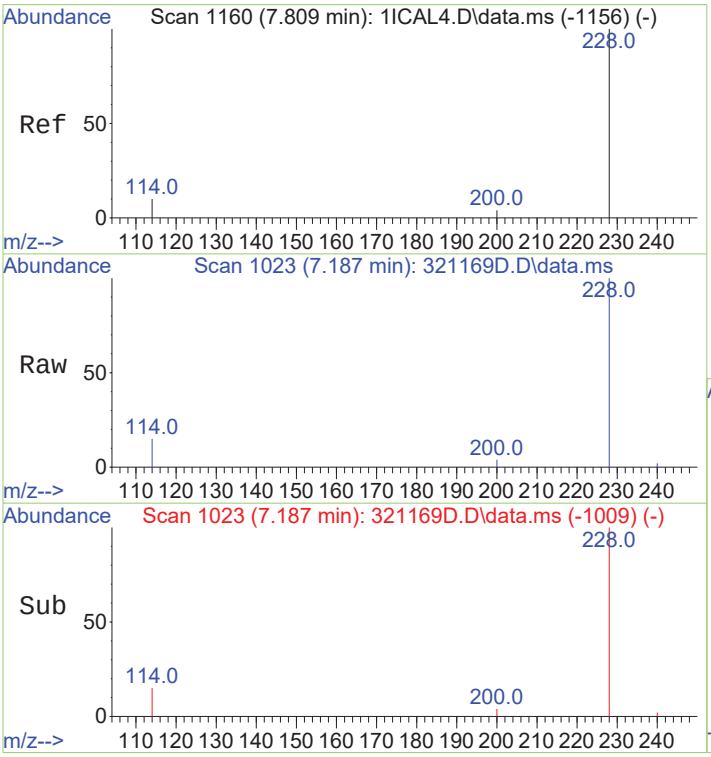


#17
B[a]anthracen
Concen: 728.46 ng/mL
RT: 7.165 min Scan# 1017
Delta R.T. 0.004 min
Lab File: 321169D.D
Acq: 10 Sep 2019 14:08

Tgt Ion:228 Resp: 38150

Ion	Ratio	Lower	Upper
228	100		
200	3.3	0.0	33.6
114	15.4	0.0	47.0

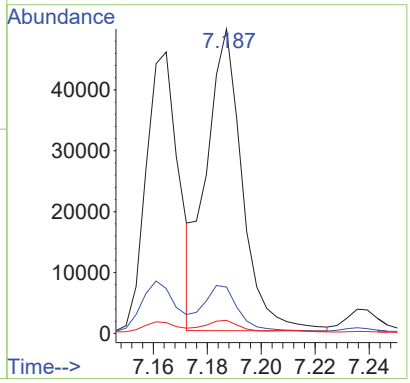


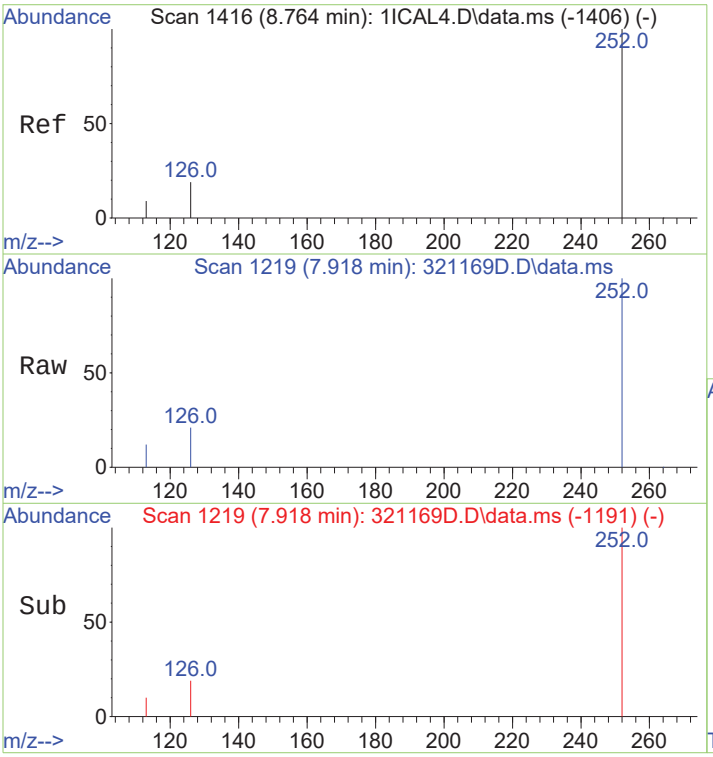


#18
Chrysene
Concen: 699.90 ng/mL
RT: 7.187 min Scan# 1023
Delta R.T. 0.004 min
Lab File: 321169D.D
Acq: 10 Sep 2019 14:08

Tgt Ion:228 Resp: 45725

Ion	Ratio	Lower	Upper
228	100		
114	14.7	0.0	46.1
200	3.9	0.0	33.8

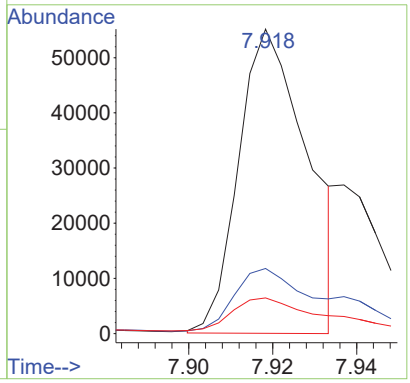


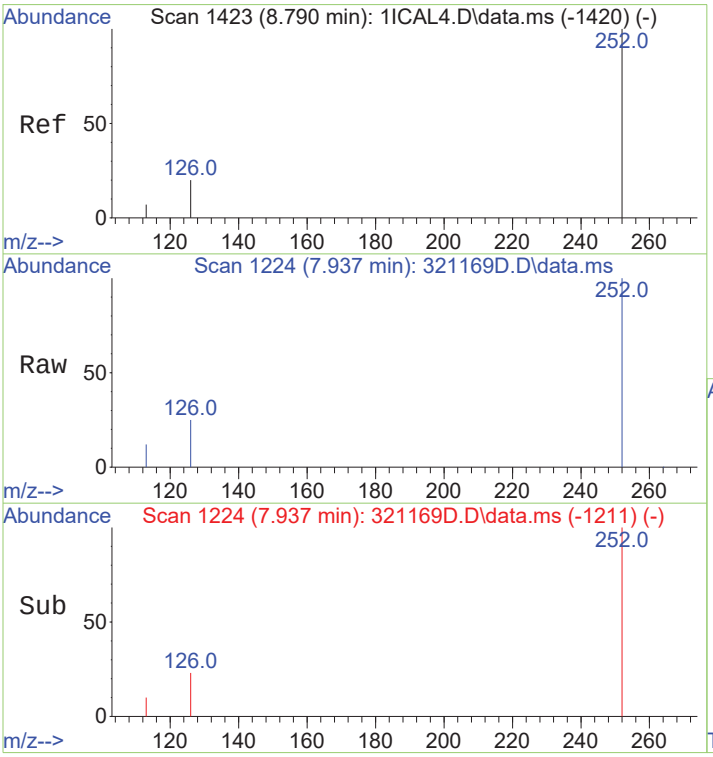


#20
B[b]fluoranth
Concen: 924.38 ng/mL m
RT: 7.918 min Scan# 1219
Delta R.T. 0.004 min
Lab File: 321169D.D
Acq: 10 Sep 2019 14:08

Tgt Ion:252 Resp: 62664

Ion	Ratio	Lower	Upper
252	100		
126	21.4	0.0	52.1
113	11.7	0.0	40.0

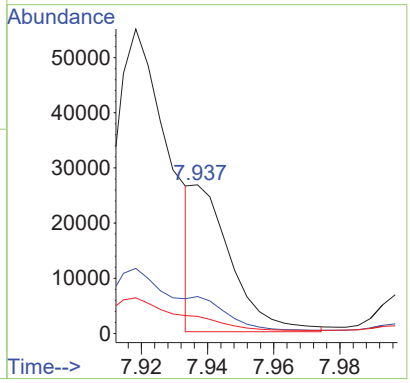


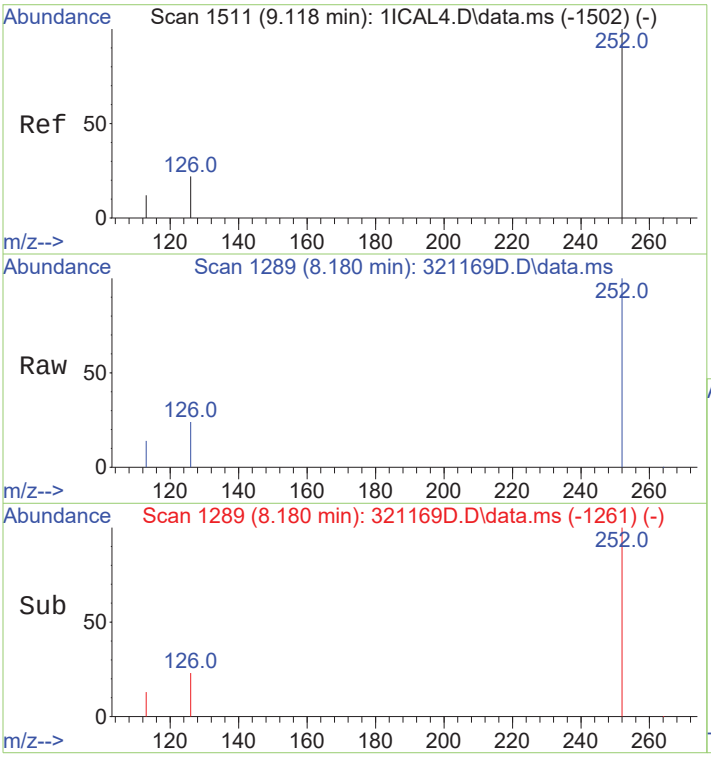


#21
B[k]fluoranth
Concen: 260.20 ng/mL m
RT: 7.937 min Scan# 1224
Delta R.T. -0.000 min
Lab File: 321169D.D
Acq: 10 Sep 2019 14:08

Tgt Ion:252 Resp: 21713

Ion	Ratio	Lower	Upper
252	100		
126	24.8	0.0	54.3
113	11.5	0.0	39.4

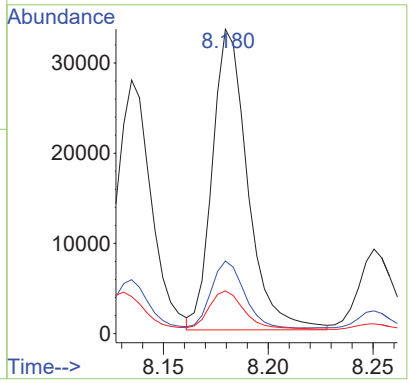


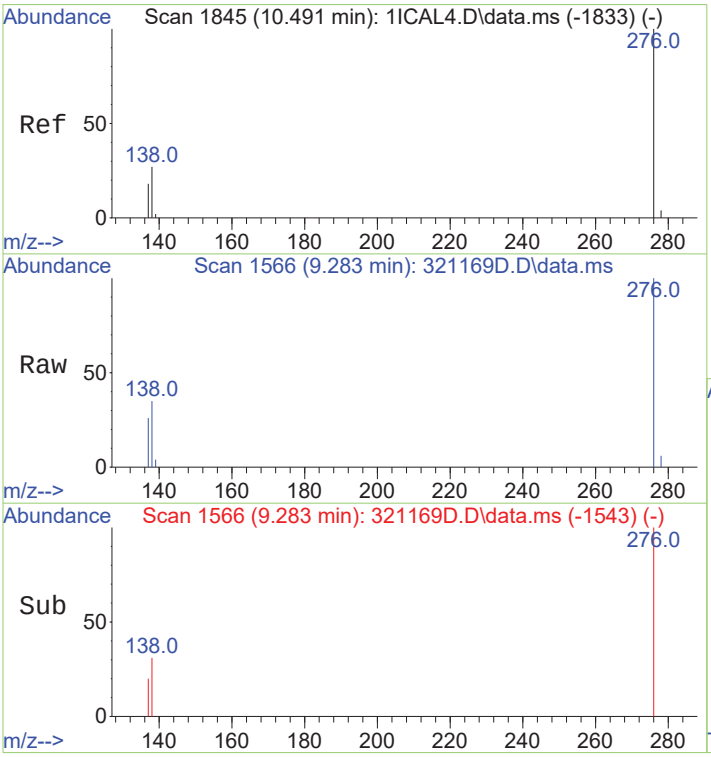


#22
Benz[a]pyrene
Concen: 603.85 ng/mL
RT: 8.180 min Scan# 1289
Delta R.T. 0.004 min
Lab File: 321169D.D
Acq: 10 Sep 2019 14:08

Tgt Ion:252 Resp: 39053

Ion	Ratio	Lower	Upper
252	100		
126	22.5	0.0	52.7
113	12.9	0.0	42.2

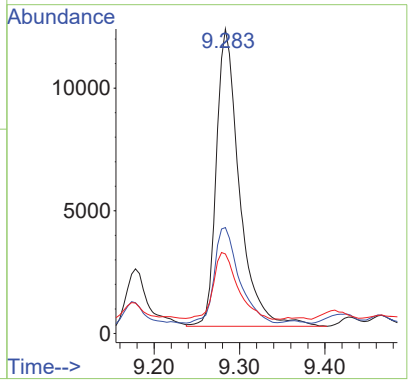


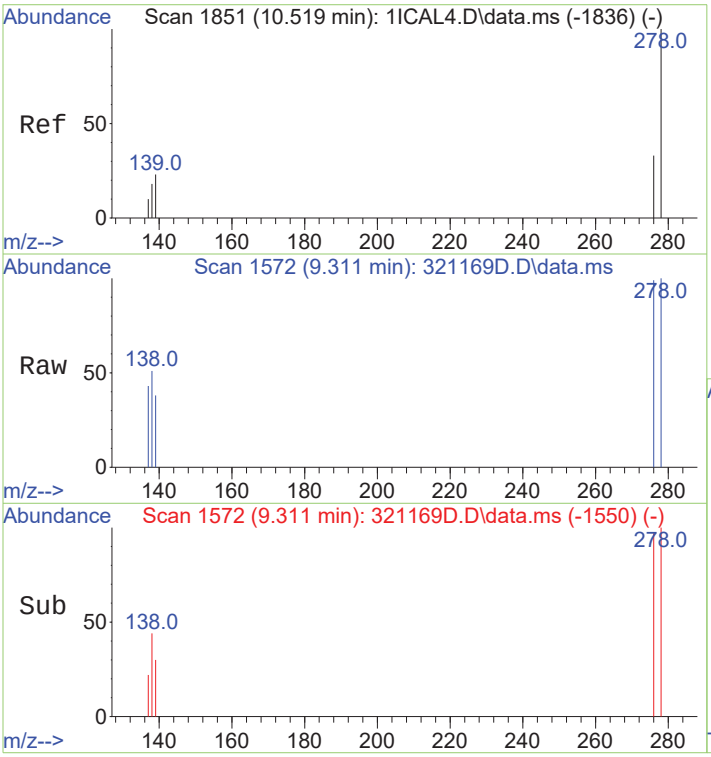


#23
Indeno-pyrene
Concen: 373.97 ng/mL
RT: 9.283 min Scan# 1566
Delta R.T. 0.005 min
Lab File: 321169D.D
Acq: 10 Sep 2019 14:08

Tgt Ion:276 Resp: 22819

Ion	Ratio	Lower	Upper
276	100		
138	32.1	4.1	64.1
137	21.7	0.0	52.8

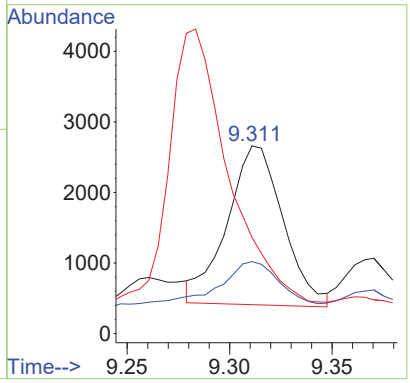


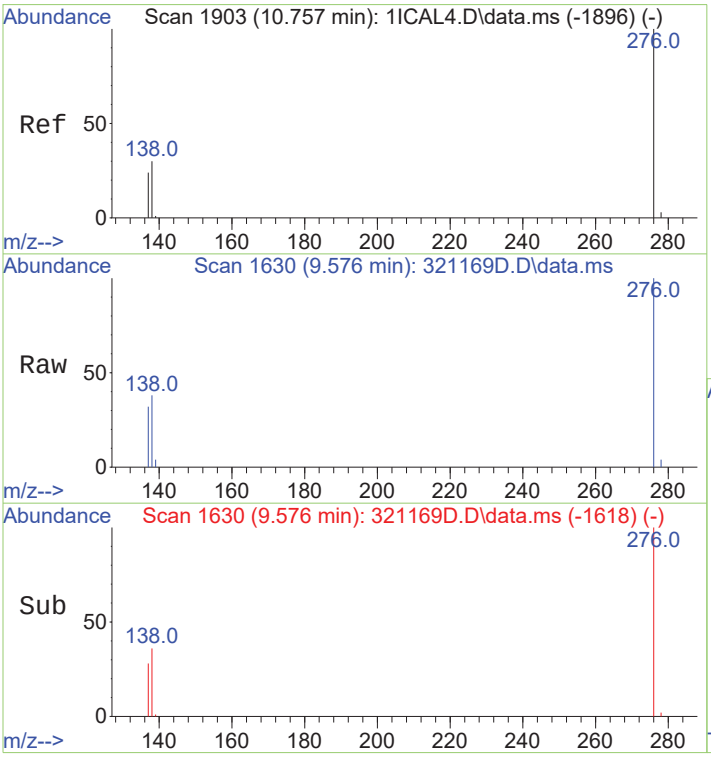


#24
Dib[ah]anthr
Concen: 113.22 ng/mL
RT: 9.311 min Scan# 1572
Delta R.T. -0.000 min
Lab File: 321169D.D
Acq: 10 Sep 2019 14:08

Tgt Ion:278 Resp: 4286

Ion	Ratio	Lower	Upper
278	100		
139	28.1	0.0	59.3
138	44.0	0.0	56.3

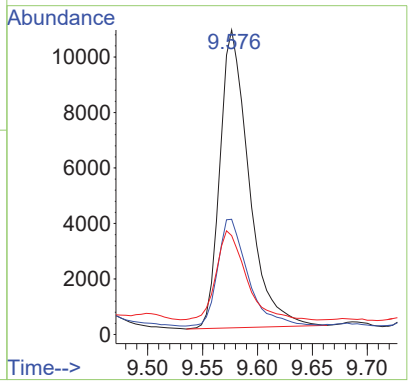


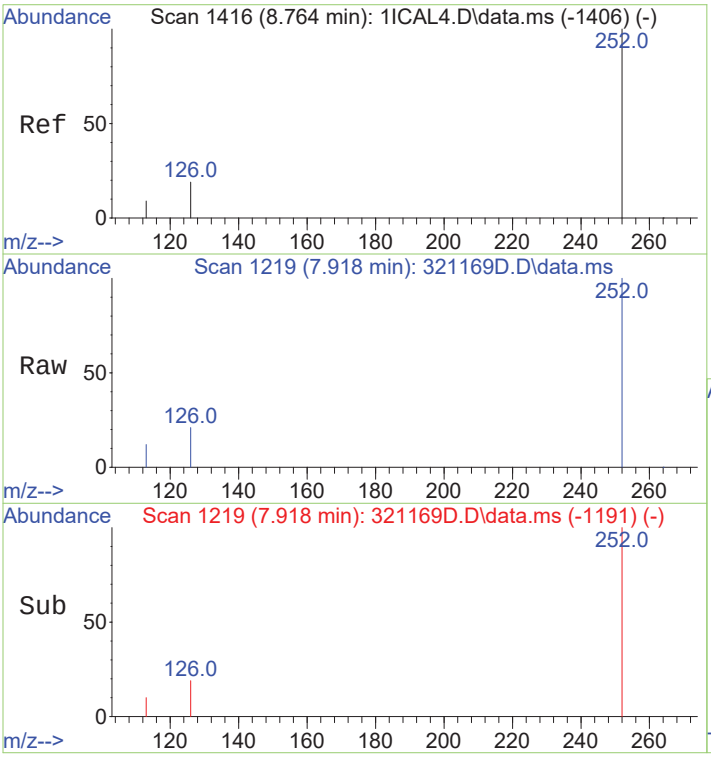


#25
B[ghi]perylen
Concen: 377.92 ng/mL
RT: 9.576 min Scan# 1630
Delta R.T. 0.005 min
Lab File: 321169D.D
Acq: 10 Sep 2019 14:08

Tgt Ion:276 Resp: 19730

Ion	Ratio	Lower	Upper
276	100		
138	35.7	7.7	67.7
137	28.1	0.6	60.6

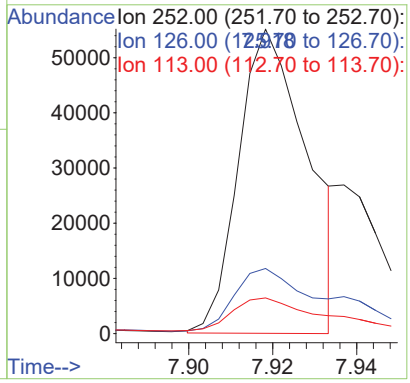




#20
B[b]fluoranth
Concen: 924.38 ng/mL m
RT: 7.918 min Scan# 1219
Delta R.T. 0.004 min
Lab File: 321169D.D
Acq: 10 Sep 2019 14:08

Tgt Ion:252 Resp: 62664

Ion	Ratio	Lower	Upper
252	100		
126	21.4	0.0	52.1
113	11.7	0.0	40.0

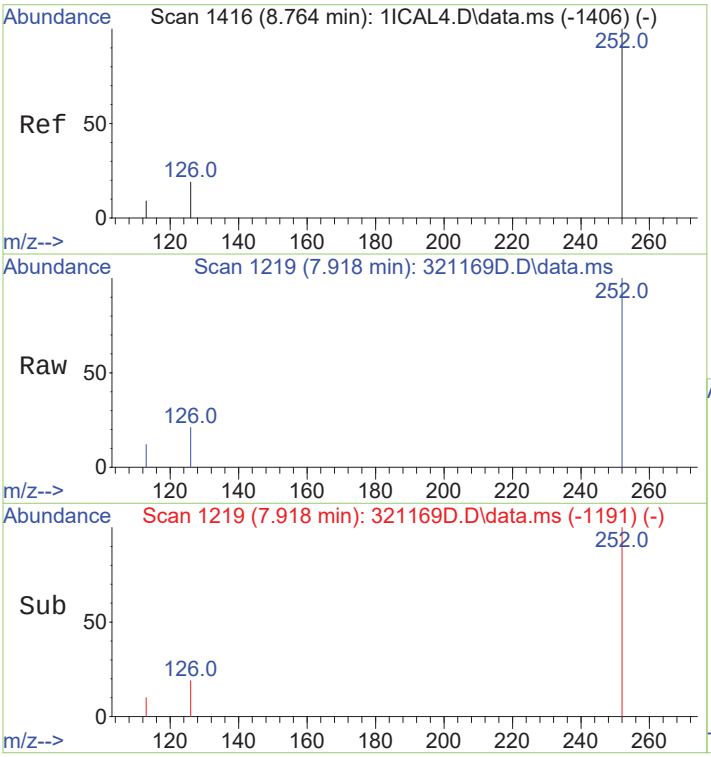


After Manual Integration

RED
9/12/2019

Reason#3

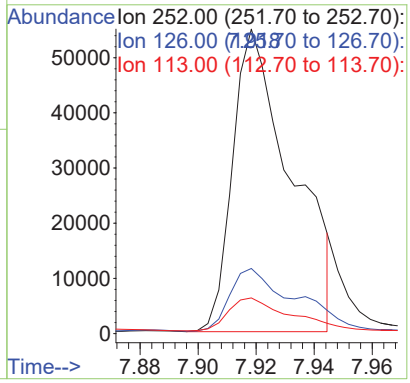
JJY
9/11/19



#20
B[b]fluoranth
Concen: 1137.17 ng/mL
RT: 7.918 min Scan# 1219
Delta R.T. 0.004 min
Lab File: 321169D.D
Acq: 10 Sep 2019 14:08

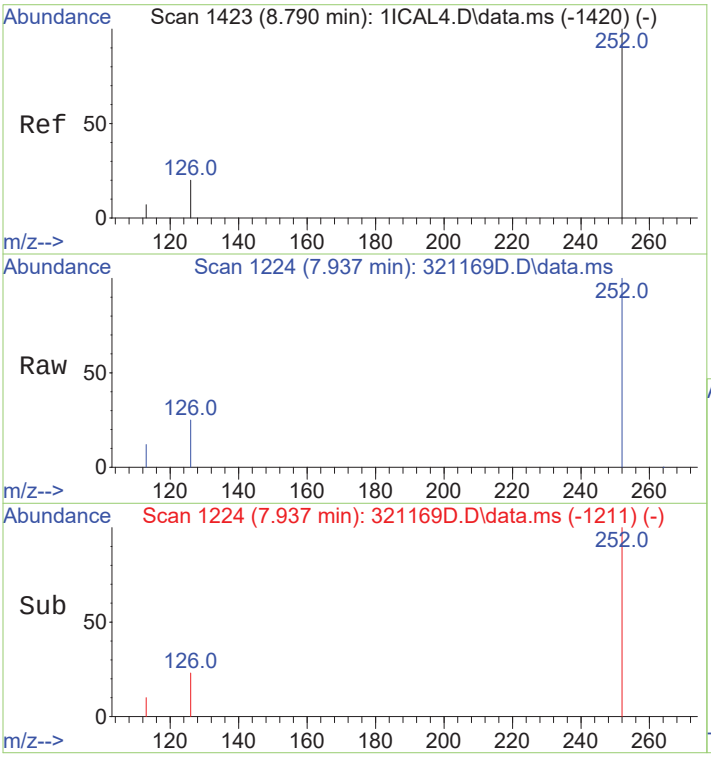
Tgt Ion:252 Resp: 77538

Ion	Ratio	Lower	Upper
252	100		
126	20.7	0.0	52.1
113	10.9	0.0	40.0



Before Manual Integration

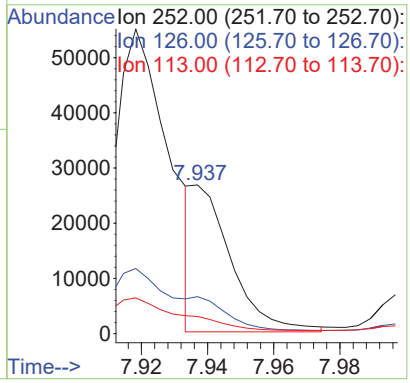
Reason#3 JJY 9/11/19



#21
B[k]fluoranth
Concen: 260.20 ng/mL m
RT: 7.937 min Scan# 1224
Delta R.T. -0.000 min
Lab File: 321169D.D
Acq: 10 Sep 2019 14:08

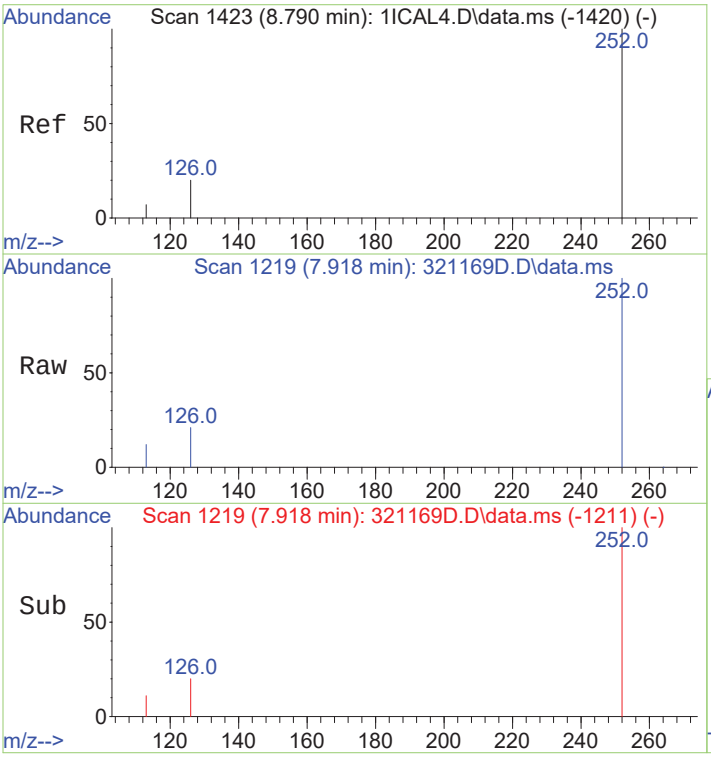
Tgt Ion:252 Resp: 21713

Ion	Ratio	Lower	Upper
252	100		
126	24.8	0.0	54.3
113	11.5	0.0	39.4



After Manual Integration RED 9/12/2019

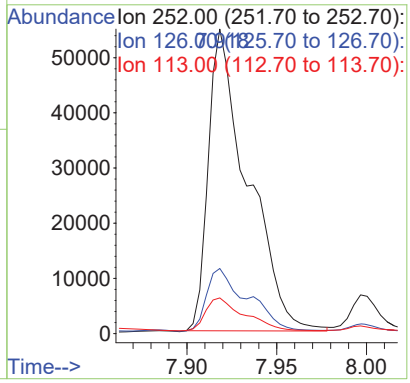
Reason#3 JJY 9/11/19



#21
B[k]fluoranth
Concen: 992.83 ng/mL
RT: 7.918 min Scan# 1219
Delta R.T. -0.019 min
Lab File: 321169D.D
Acq: 10 Sep 2019 14:08

Tgt Ion:252 Resp: 83244

Ion	Ratio	Lower	Upper
252	100		
126	20.7	0.0	54.3
113	10.8	0.0	39.4



Before Manual Integration

Reason#3

JJY
9/11/19

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091019\321170D.D Vial: 11
Acq On : 10 Sep 2019 14:28 Operator: JJY
Sample : 164274,321170,2 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 14:37:09 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 14:11:05 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

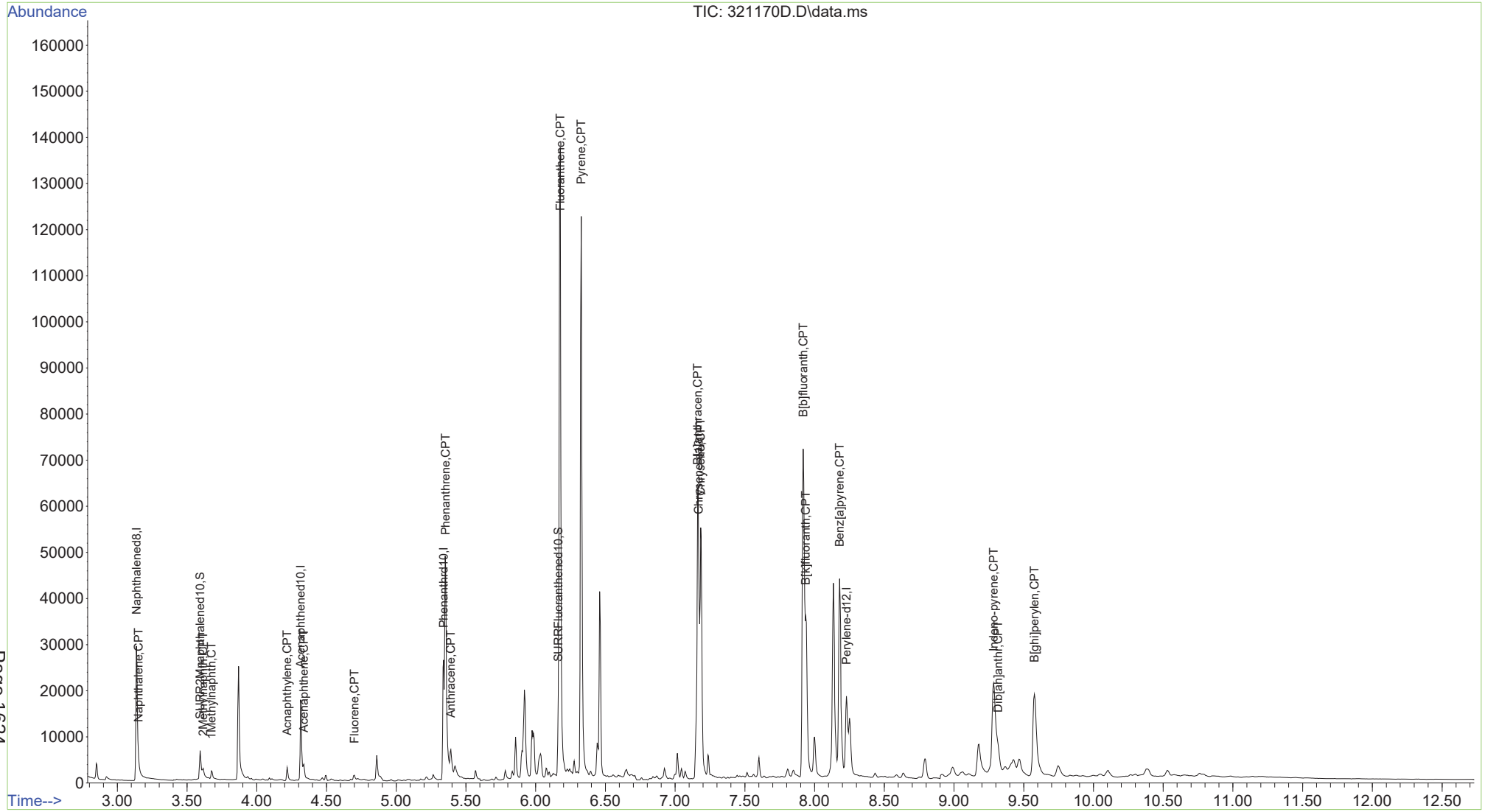
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.136	136	26912	400.00	ng/mL	0.00
6) Acenaphthened10	4.314	164	13968	400.00	ng/mL	0.00
10) Phenanthrd10	5.339	188	23170	400.00	ng/mL	0.00
15) Chrysene-d12	7.168	240	18242	400.00	ng/mL	0.00
19) Perylene-d12	8.228	264	20165	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.593	152	5318	35.63	%REC	0.00
Spiked Amount 100.000			Recovery = 35.63%			
13) SURRFluoranthened10	6.162	212	9479	41.43	%REC	0.00
Spiked Amount 100.000			Recovery = 41.43%			
Target Compounds						Qvalue
2) Naphthalene	3.151	128	625	9.4446	ng/ml	93
4) 2Methylnaphth	3.615	142	763	21.0118	ng/mL	90
5) 1Methylnaphth	3.675	141	628	17.7029	ng/mL	77
7) Acnaphthylene	4.218	152	2043	34.8770	ng/mL	97
8) Acenaphthene	4.337	154	1267	31.9376	ng/mL	89
9) Fluorene	4.699	166	1243	29.6869	ng/mL	88
11) Phenanthrene	5.354	178	33955	576.3591	ng/mL	100
12) Anthracene	5.391	178	5734	99.3877	ng/mL	91
14) Fluoranthene	6.176	202	90638	1373.9722	ng/mL	93
16) Pyrene	6.327	202	77404	1049.3785	ng/mL	100
17) B[a]anthracen	7.161	228	39252	761.9784	ng/mL	95
18) Chrysene	7.183	228	41705	650.8949	ng/mL	98
20) B[b]fluoranth	7.918	252	63499	971.0184	ng/mL	98
21) B[k]fluoranth	7.937	252	22463	279.3396	ng/mL	98
22) Benz[a]pyrene	8.180	252	36933	593.5219	ng/mL	99
23) Indeno-pyrene	9.283	276	23240	392.7401	ng/mL	97
24) Dib[ah]anthr	9.315	278	4519	120.2158	ng/mL	92
25) B[ghi]perylen	9.576	276	19805	391.8699	ng/mL	98

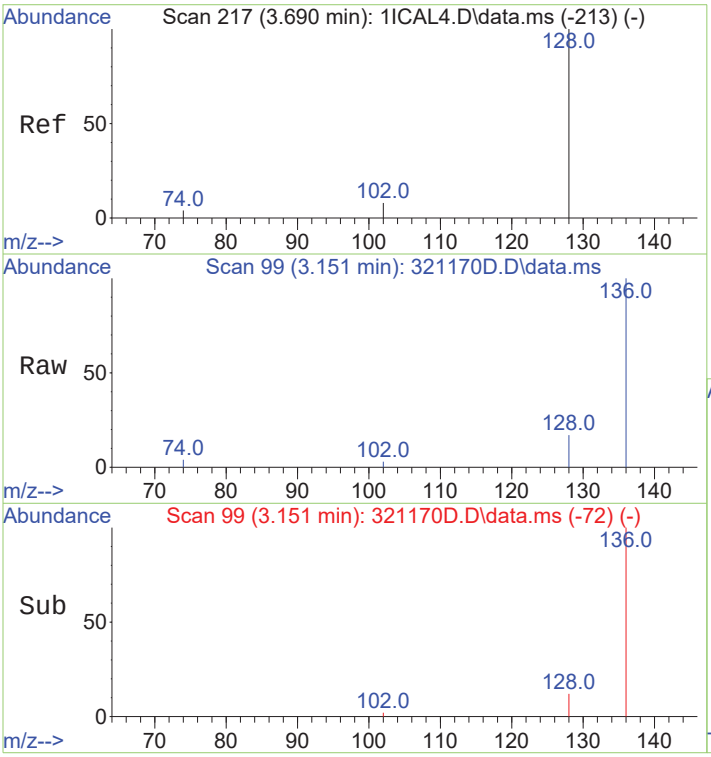
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091019\321170D.D Vial: 11
Acq On : 10 Sep 2019 14:28 Operator: JJY
Sample : 164274,321170,2 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 14:37:09 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 14:11:05 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

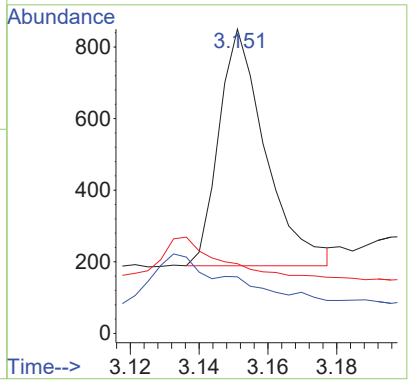


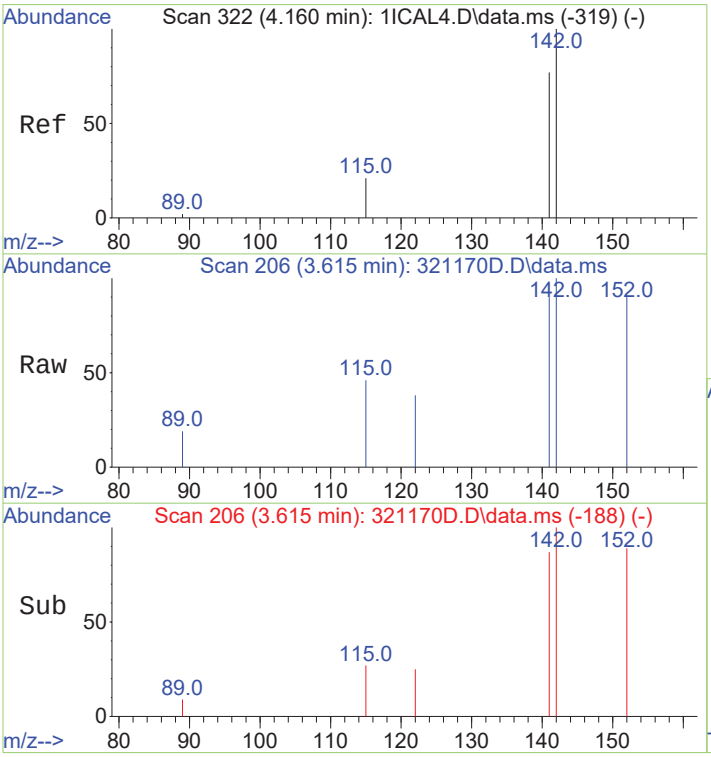


#2
Naphthalene
Concen: 9.44 ng/ml
RT: 3.151 min Scan# 99
Delta R.T. -0.000 min
Lab File: 321170D.D
Acq: 10 Sep 2019 14:28

Tgt Ion:128 Resp: 625

Ion	Ratio	Lower	Upper
128	100		
102	10.0	0.0	37.6
74	5.7	0.0	33.6

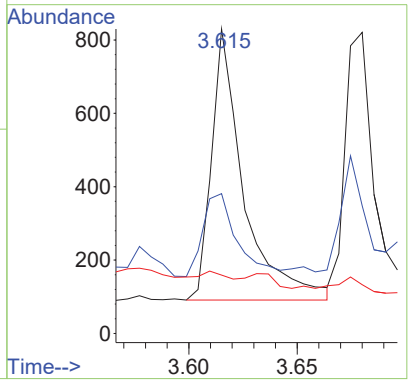


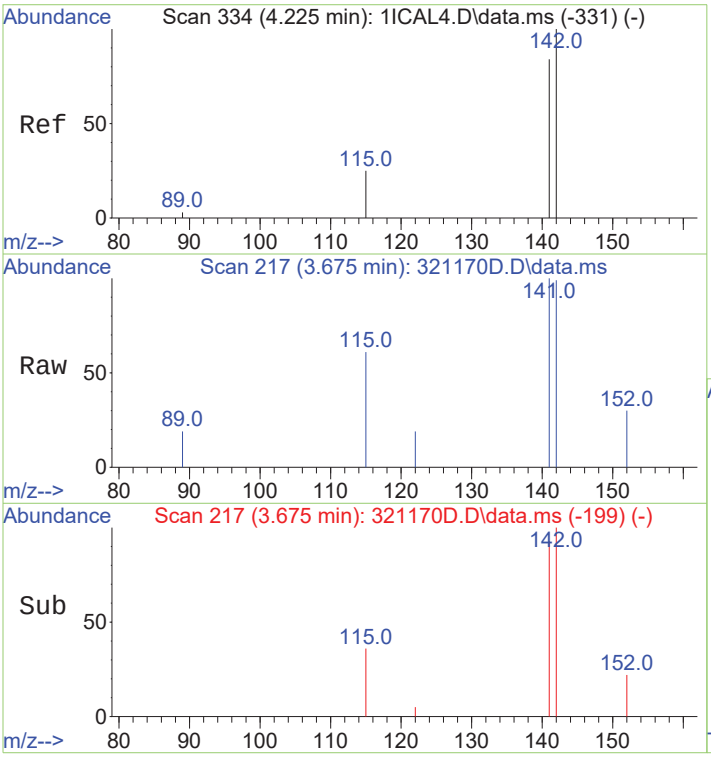


#4
2Methylnaphth
Concen: 21.01 ng/mL
RT: 3.615 min Scan# 206
Delta R.T. -0.000 min
Lab File: 321170D.D
Acq: 10 Sep 2019 14:28

Tgt Ion:142 Resp: 763

Ion	Ratio	Lower	Upper
142	100		
115	30.6	6.9	66.9
89	3.9	0.0	34.9

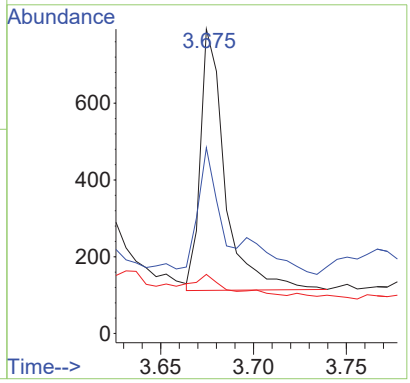


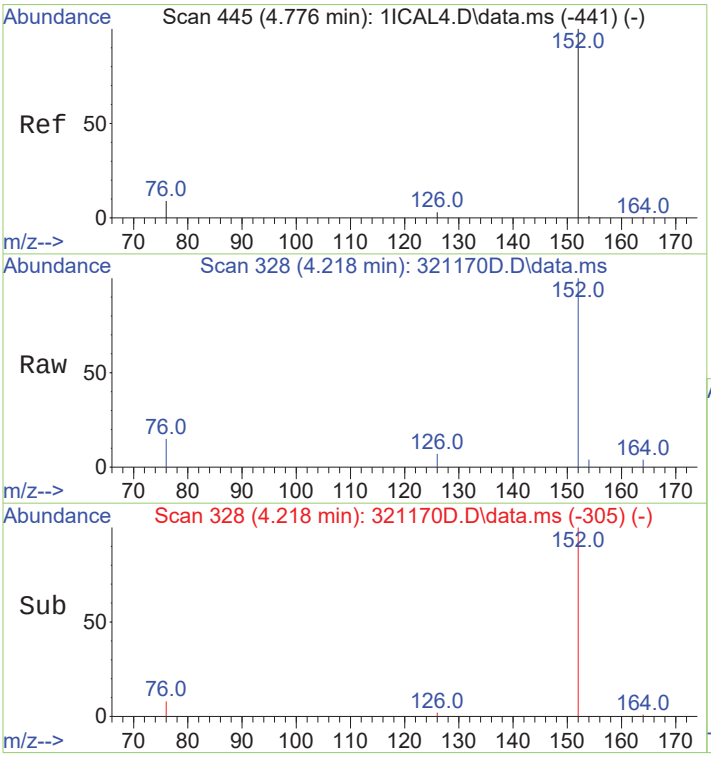


#5
1Methylnaphth
Concen: 17.70 ng/mL
RT: 3.675 min Scan# 217
Delta R.T. -0.000 min
Lab File: 321170D.D
Acq: 10 Sep 2019 14:28

Tgt Ion:141 Resp: 628

Ion	Ratio	Lower	Upper
141	100		
115	45.9	2.5	62.5
89	8.0	0.0	34.0

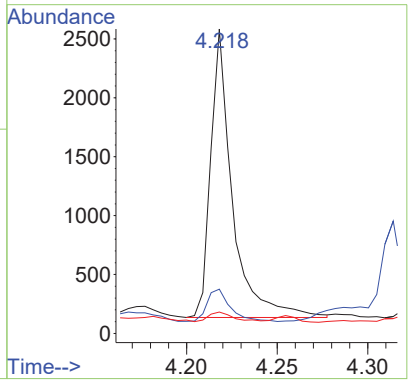


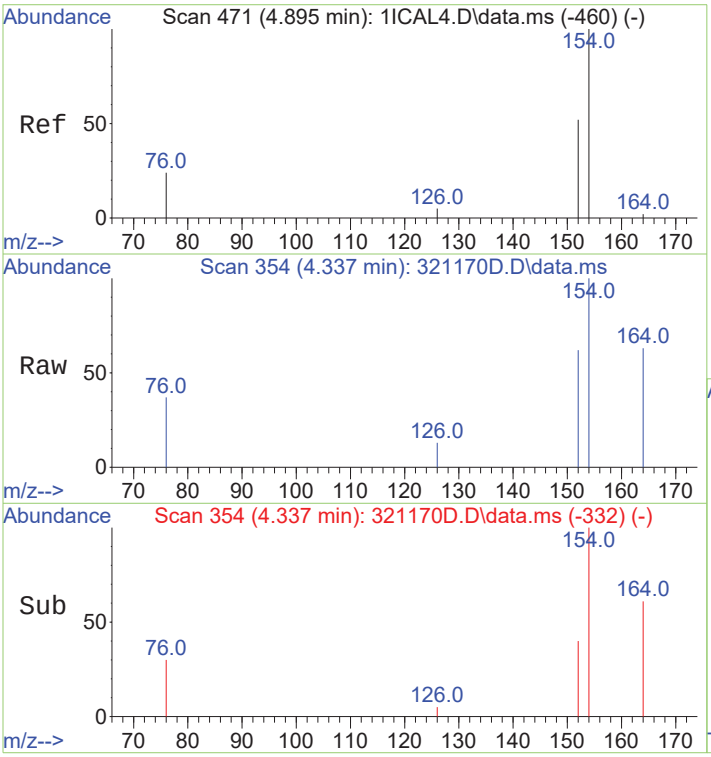


#7
Acnaphthylene
Concen: 34.88 ng/mL
RT: 4.218 min Scan# 328
Delta R.T. 0.005 min
Lab File: 321170D.D
Acq: 10 Sep 2019 14:28

Tgt Ion:152 Resp: 2043

Ion	Ratio	Lower	Upper
152	100		
76	11.1	0.0	39.9
126	3.3	0.0	33.1

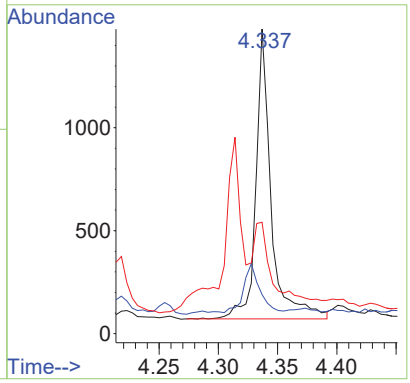


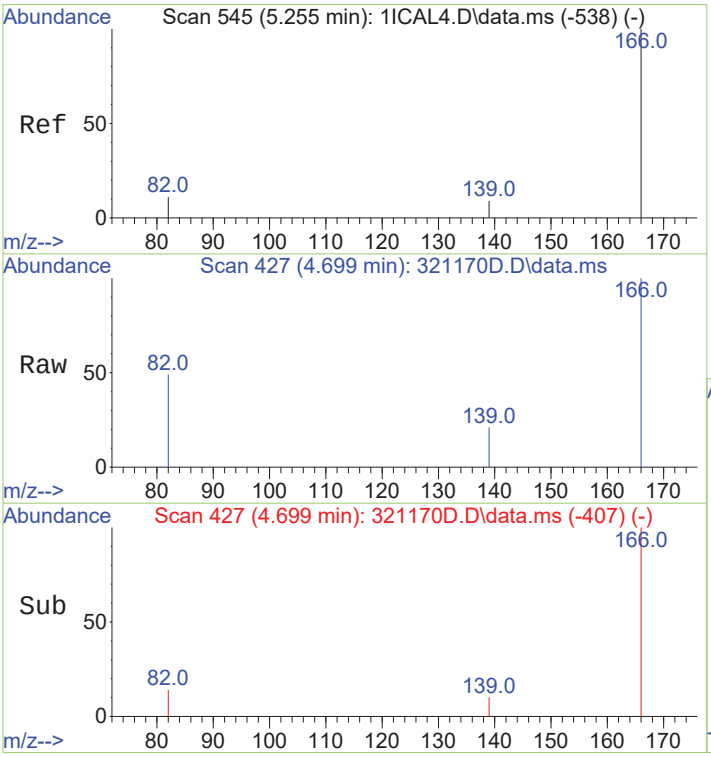


#8
Acenaphthene
Concen: 31.94 ng/mL
RT: 4.337 min Scan# 354
Delta R.T. -0.000 min
Lab File: 321170D.D
Acq: 10 Sep 2019 14:28

Tgt Ion:154 Resp: 1267

Ion	Ratio	Lower	Upper
154	100		
126	6.8	0.0	34.3
76	26.9	0.0	51.6

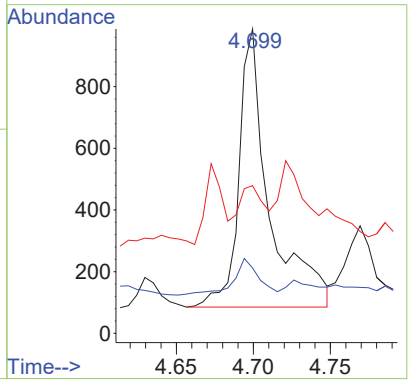


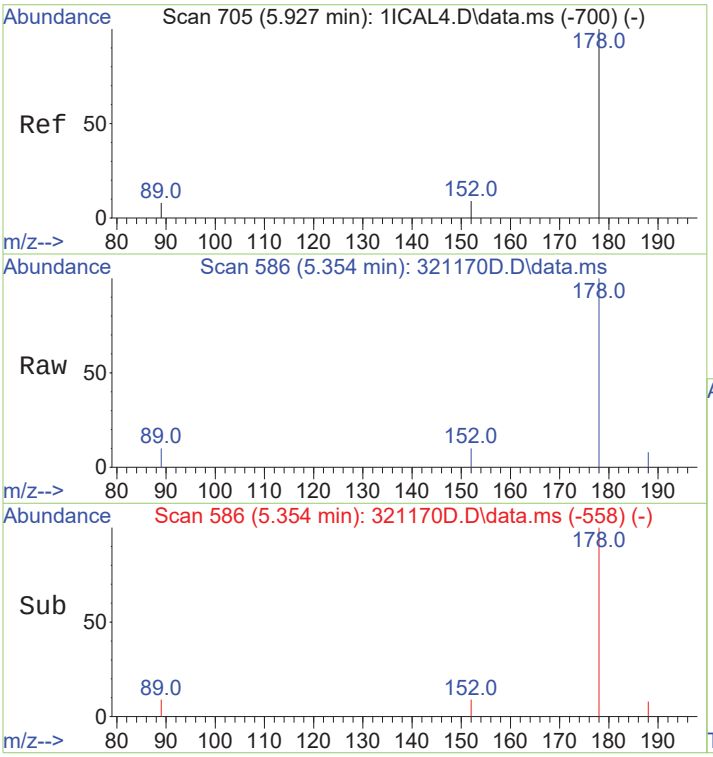


#9
Fluorene
Concen: 29.69 ng/mL
RT: 4.699 min Scan# 427
Delta R.T. 0.005 min
Lab File: 321170D.D
Acq: 10 Sep 2019 14:28

Tgt Ion:166 Resp: 1243

Ion	Ratio	Lower	Upper
166	100		
139	9.4	0.0	38.6
82	19.8	0.0	42.4

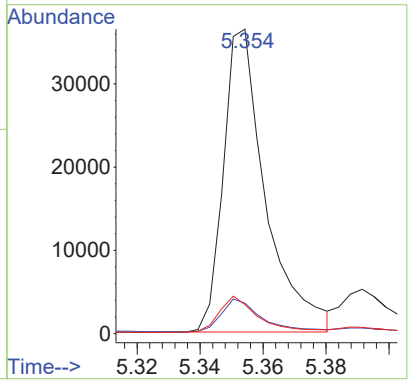


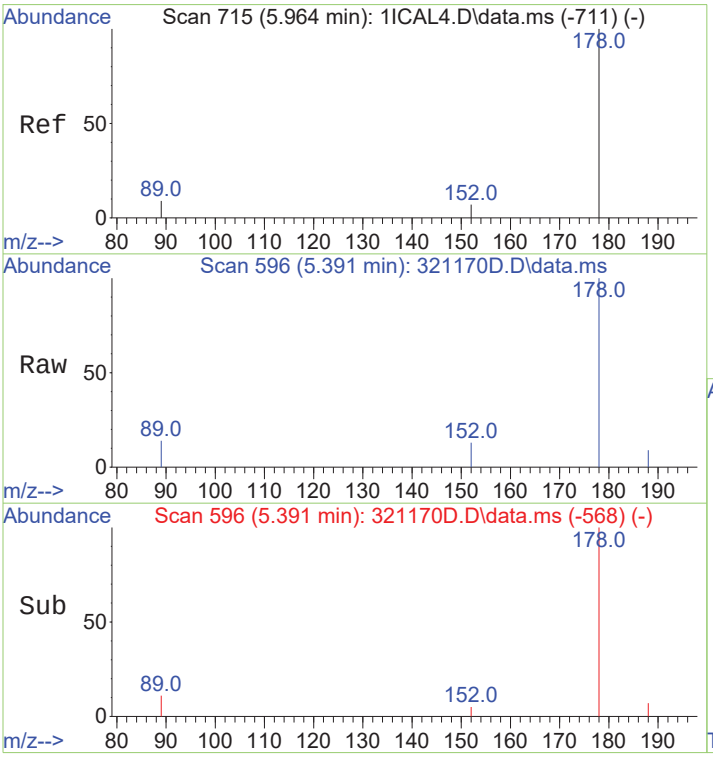


#11
Phenanthrene
Concen: 576.36 ng/mL
RT: 5.354 min Scan# 586
Delta R.T. 0.004 min
Lab File: 321170D.D
Acq: 10 Sep 2019 14:28

Tgt Ion:178 Resp: 33955

Ion	Ratio	Lower	Upper
178	100		
152	10.2	0.0	40.1
89	11.2	0.0	41.4

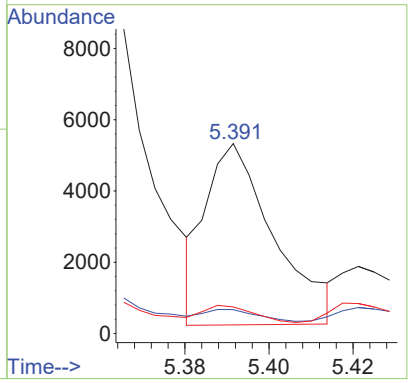


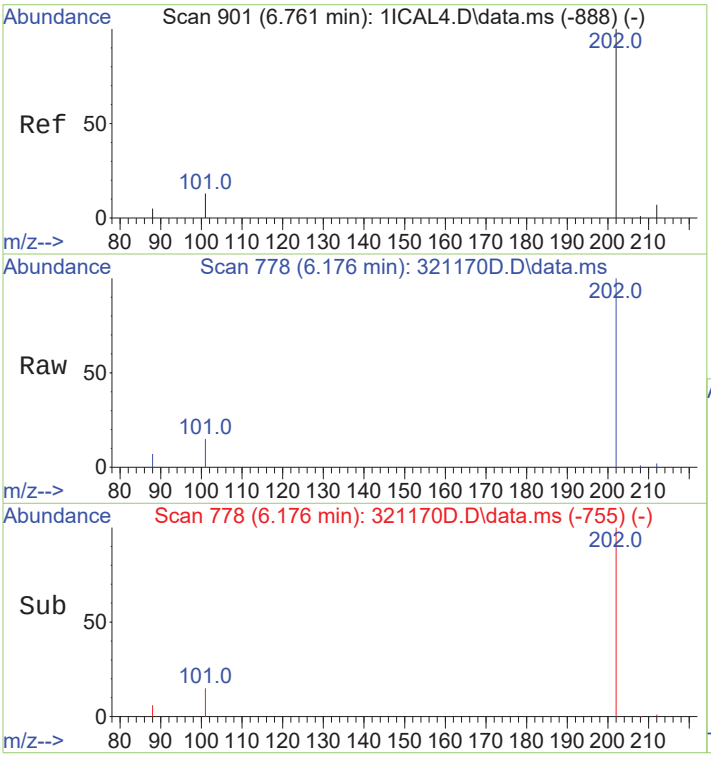


#12
Anthracene
Concen: 99.39 ng/mL
RT: 5.391 min Scan# 596
Delta R.T. 0.004 min
Lab File: 321170D.D
Acq: 10 Sep 2019 14:28

Tgt Ion:178 Resp: 5734

Ion	Ratio	Lower	Upper
178	100		
152	5.1	0.0	37.8
89	7.6	0.0	31.3

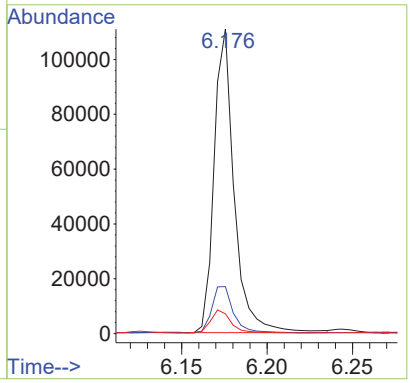


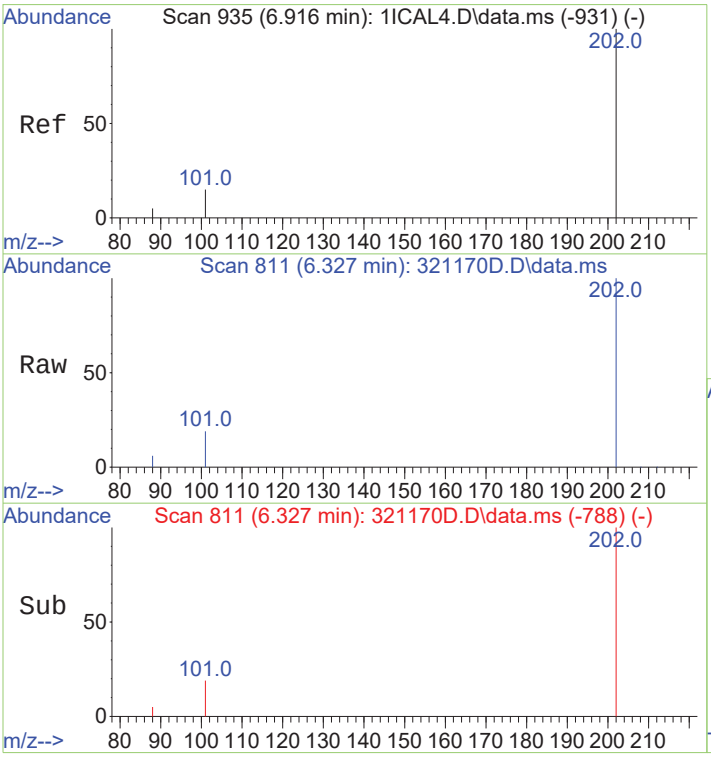


#14
Fluoranthene
Concen: 1373.97 ng/mL
RT: 6.176 min Scan# 778
Delta R.T. 0.005 min
Lab File: 321170D.D
Acq: 10 Sep 2019 14:28

Tgt Ion:202 Resp: 90638

Ion	Ratio	Lower	Upper
202	100		
101	15.3	0.0	48.3
88	6.3	0.0	38.8

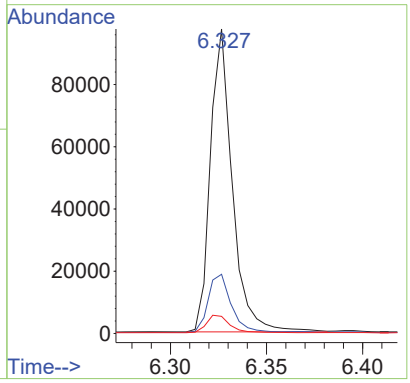


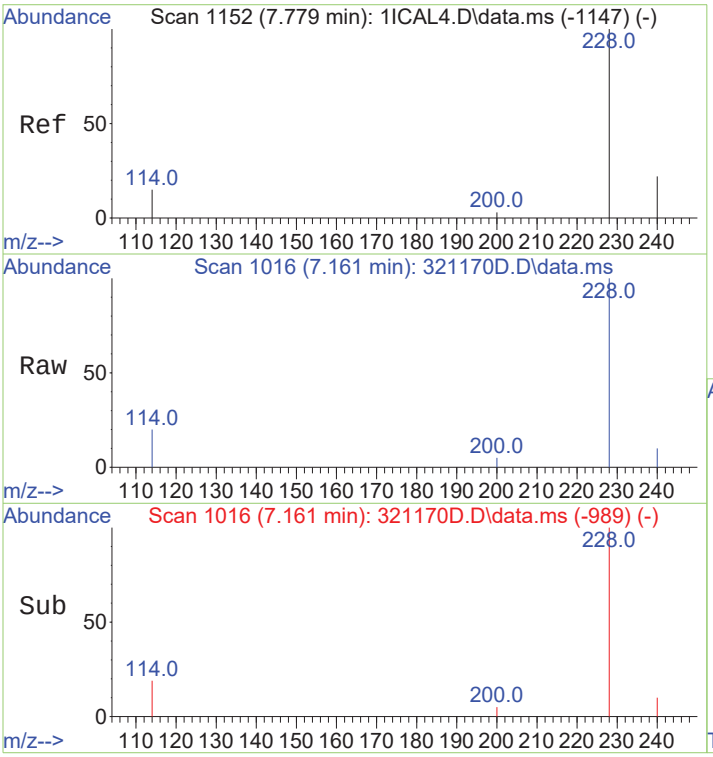


#16
Pyrene
Concen: 1049.38 ng/mL
RT: 6.327 min Scan# 811
Delta R.T. 0.005 min
Lab File: 321170D.D
Acq: 10 Sep 2019 14:28

Tgt Ion:202 Resp: 77404

Ion	Ratio	Lower	Upper
202	100		
101	19.2	0.0	49.4
88	5.4	0.0	35.5

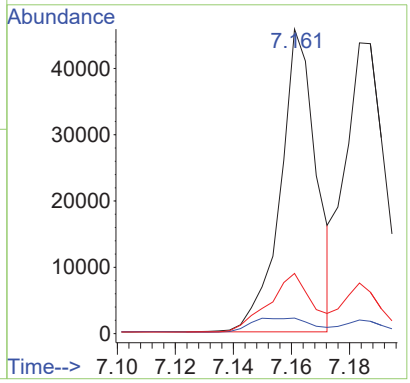


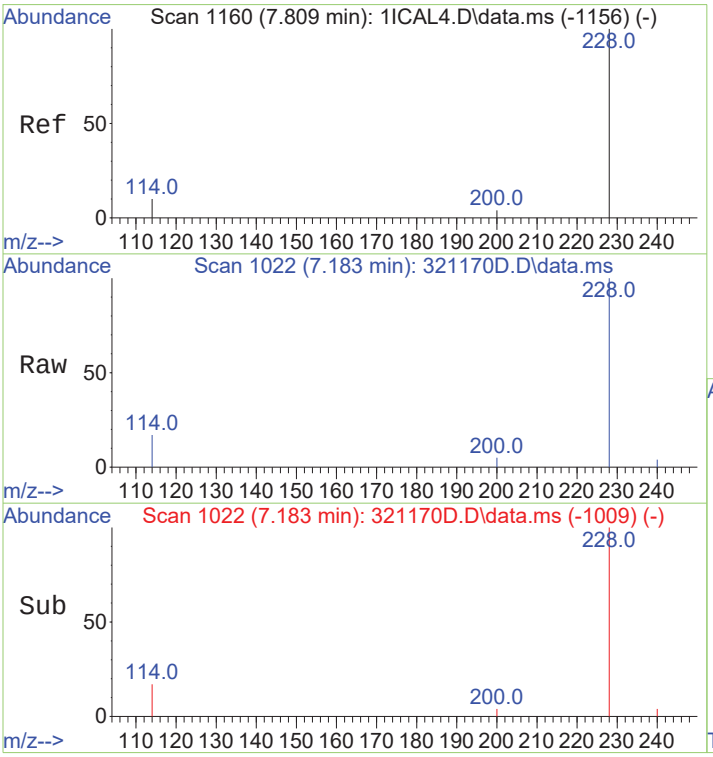


#17
B[a]anthracen
Concen: 761.98 ng/mL
RT: 7.161 min Scan# 1016
Delta R.T. -0.000 min
Lab File: 321170D.D
Acq: 10 Sep 2019 14:28

Tgt Ion:228 Resp: 39252

Ion	Ratio	Lower	Upper
228	100		
200	4.6	0.0	33.6
114	19.4	0.0	47.0

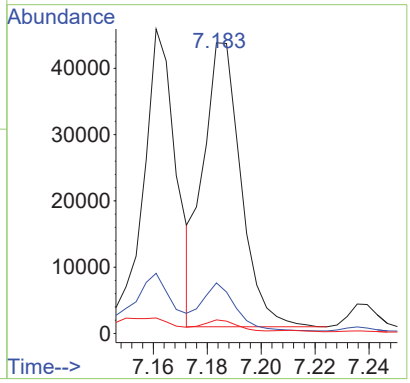


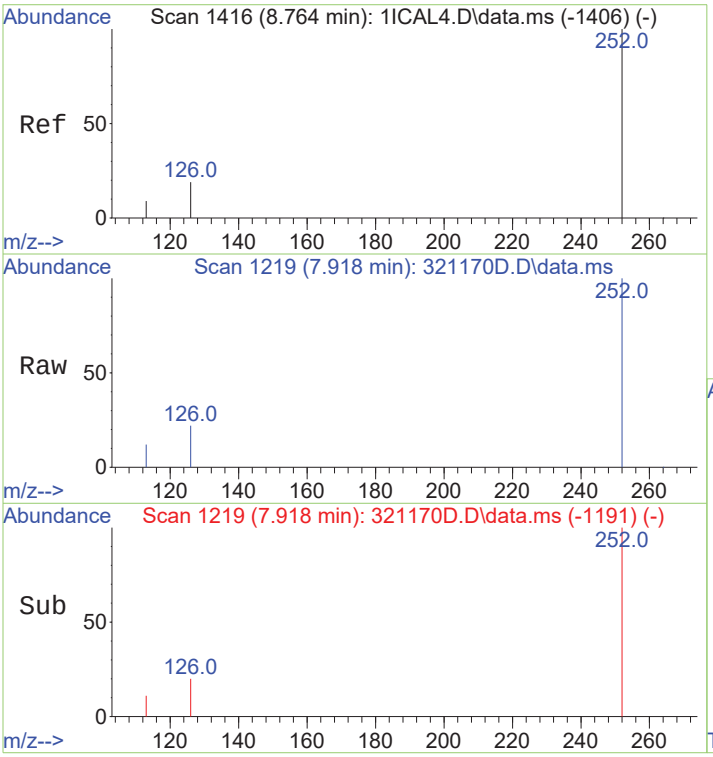


#18
Chrysene
Concen: 650.89 ng/mL
RT: 7.183 min Scan# 1022
Delta R.T. -0.000 min
Lab File: 321170D.D
Acq: 10 Sep 2019 14:28

Tgt Ion:228 Resp: 41705

Ion	Ratio	Lower	Upper
228	100		
114	16.9	0.0	46.1
200	4.2	0.0	33.8

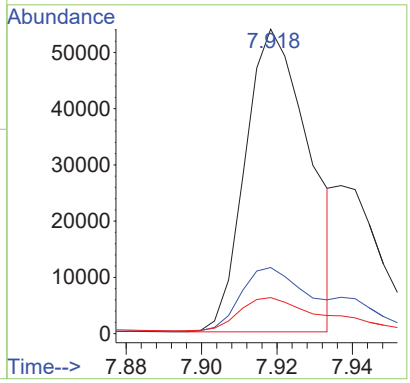


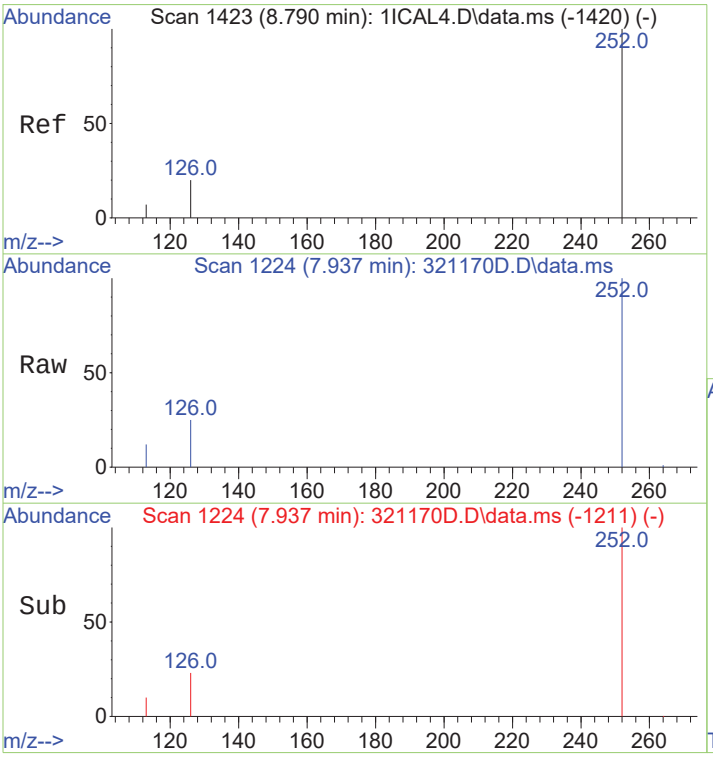


#20
B[b]fluoranth
Concen: 971.02 ng/mL
RT: 7.918 min Scan# 1219
Delta R.T. 0.004 min
Lab File: 321170D.D
Acq: 10 Sep 2019 14:28

Tgt Ion:252 Resp: 63499

Ion	Ratio	Lower	Upper
252	100		
126	21.1	0.0	52.1
113	11.0	0.0	40.0

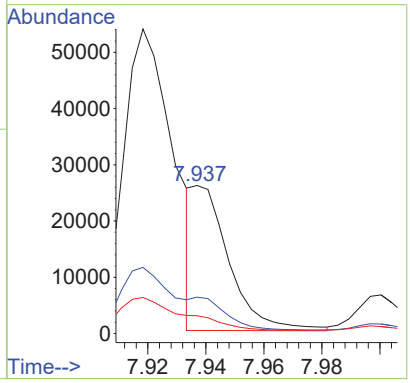


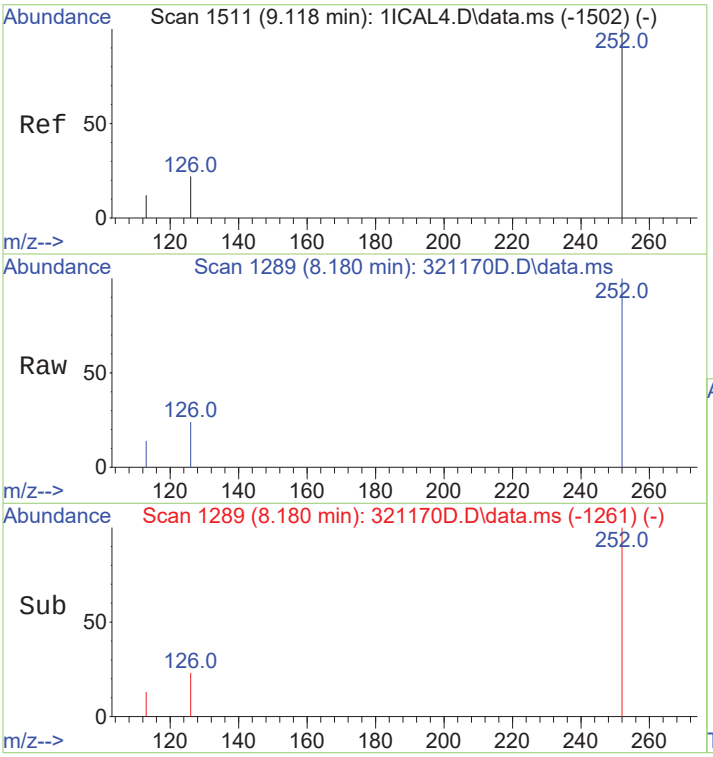


#21
B[k]fluoranth
Concen: 279.34 ng/mL
RT: 7.937 min Scan# 1224
Delta R.T. -0.000 min
Lab File: 321170D.D
Acq: 10 Sep 2019 14:28

Tgt Ion:252 Resp: 22463

Ion	Ratio	Lower	Upper
252	100		
126	23.3	0.0	54.3
113	10.2	0.0	39.4

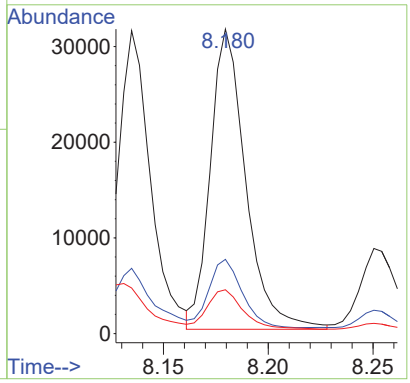


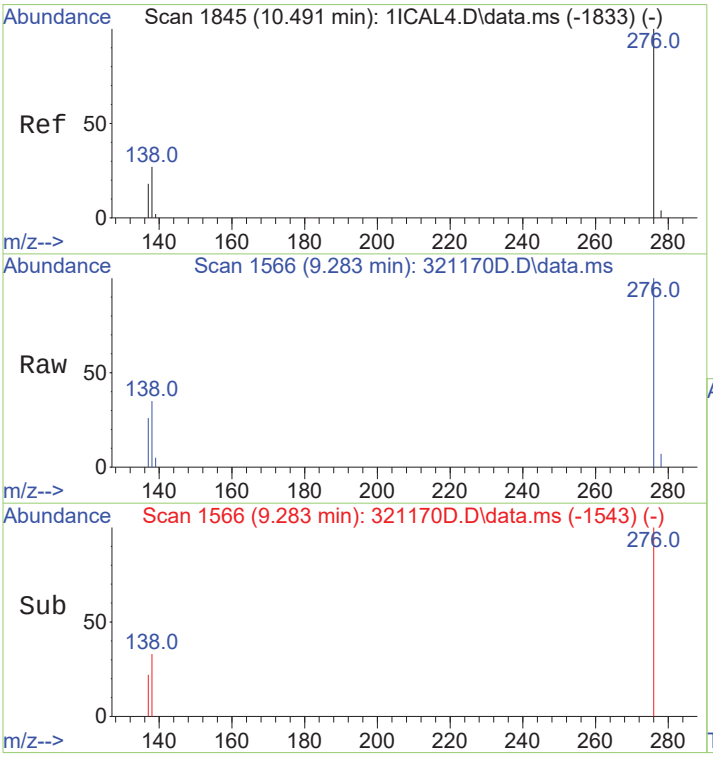


#22
Benz[a]pyrene
Concen: 593.52 ng/mL
RT: 8.180 min Scan# 1289
Delta R.T. 0.004 min
Lab File: 321170D.D
Acq: 10 Sep 2019 14:28

Tgt Ion:252 Resp: 36933

Ion	Ratio	Lower	Upper
252	100		
126	23.1	0.0	52.7
113	13.3	0.0	42.2

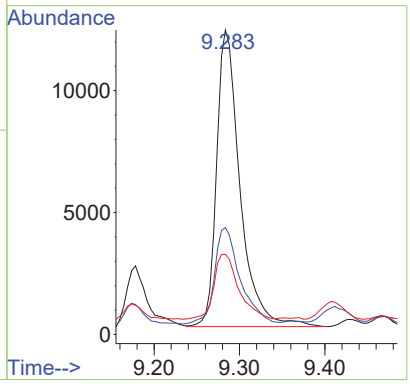


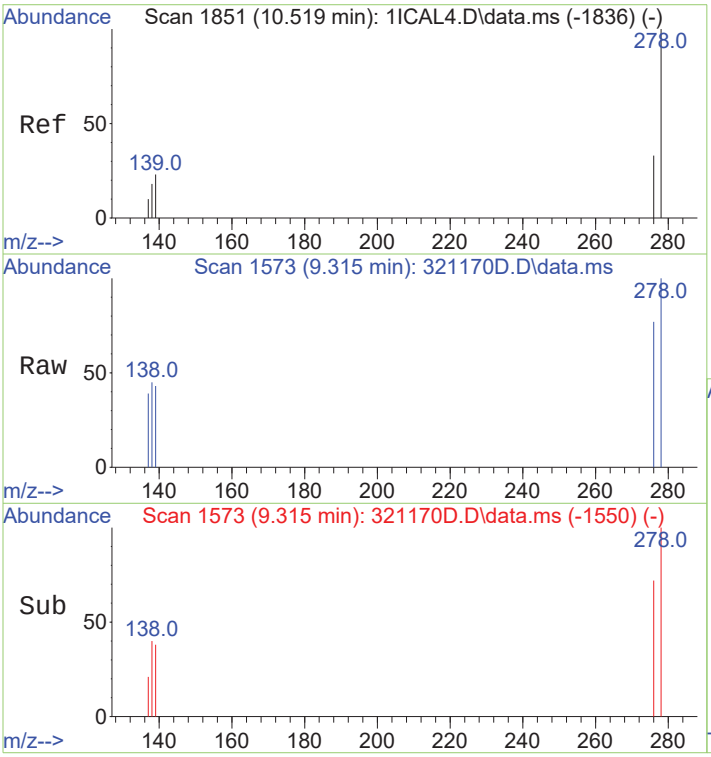


#23
Indeno-pyrene
Concen: 392.74 ng/mL
RT: 9.283 min Scan# 1566
Delta R.T. 0.005 min
Lab File: 321170D.D
Acq: 10 Sep 2019 14:28

Tgt Ion:276 Resp: 23240

Ion	Ratio	Lower	Upper
276	100		
138	32.3	4.1	64.1
137	21.8	0.0	52.8

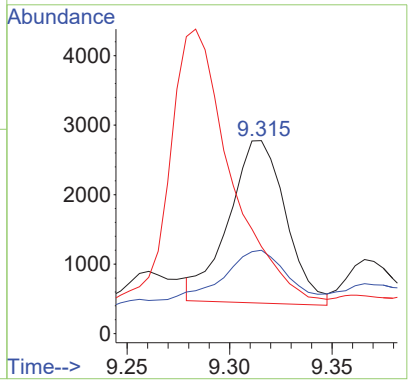


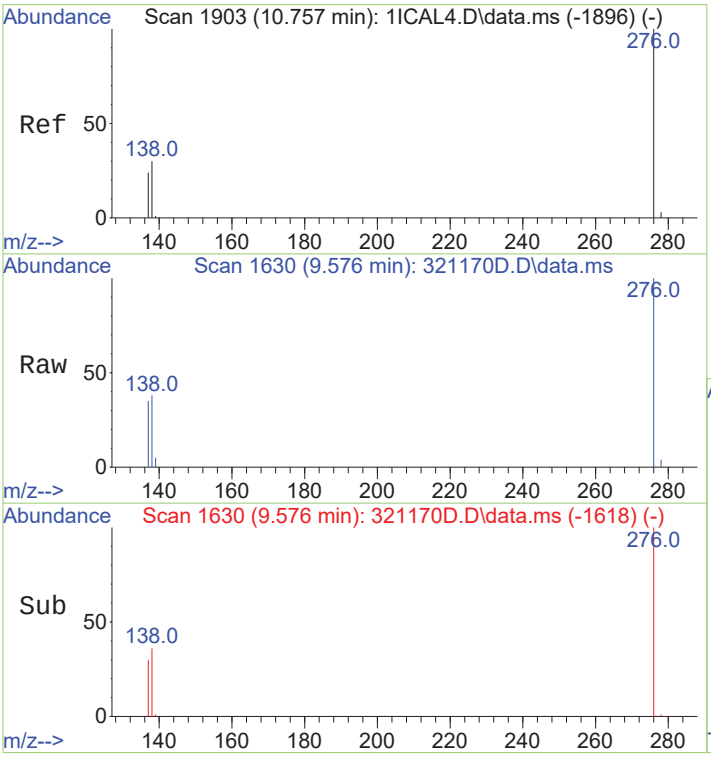


#24
Dib[ah]anthr
Concen: 120.22 ng/mL
RT: 9.315 min Scan# 1573
Delta R.T. 0.005 min
Lab File: 321170D.D
Acq: 10 Sep 2019 14:28

Tgt Ion:278 Resp: 4519

Ion	Ratio	Lower	Upper
278	100		
139	28.4	0.0	59.3
138	34.4	0.0	56.3

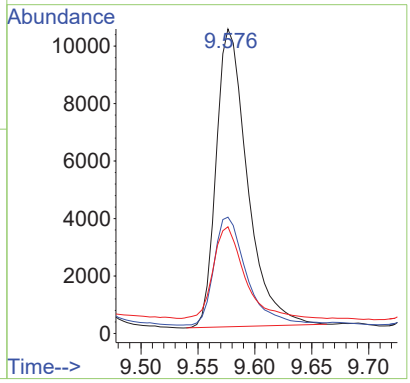




#25
B[ghi]perylen
Concen: 391.87 ng/mL
RT: 9.576 min Scan# 1630
Delta R.T. 0.005 min
Lab File: 321170D.D
Acq: 10 Sep 2019 14:28

Tgt Ion:276 Resp: 19805

Ion	Ratio	Lower	Upper
276	100		
138	36.0	7.7	67.7
137	30.7	0.6	60.6



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091019\321161D.D Vial: 12
Acq On : 10 Sep 2019 14:48 Operator: JJY
Sample : 164274,321161,5 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 14:38:22 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 14:11:05 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

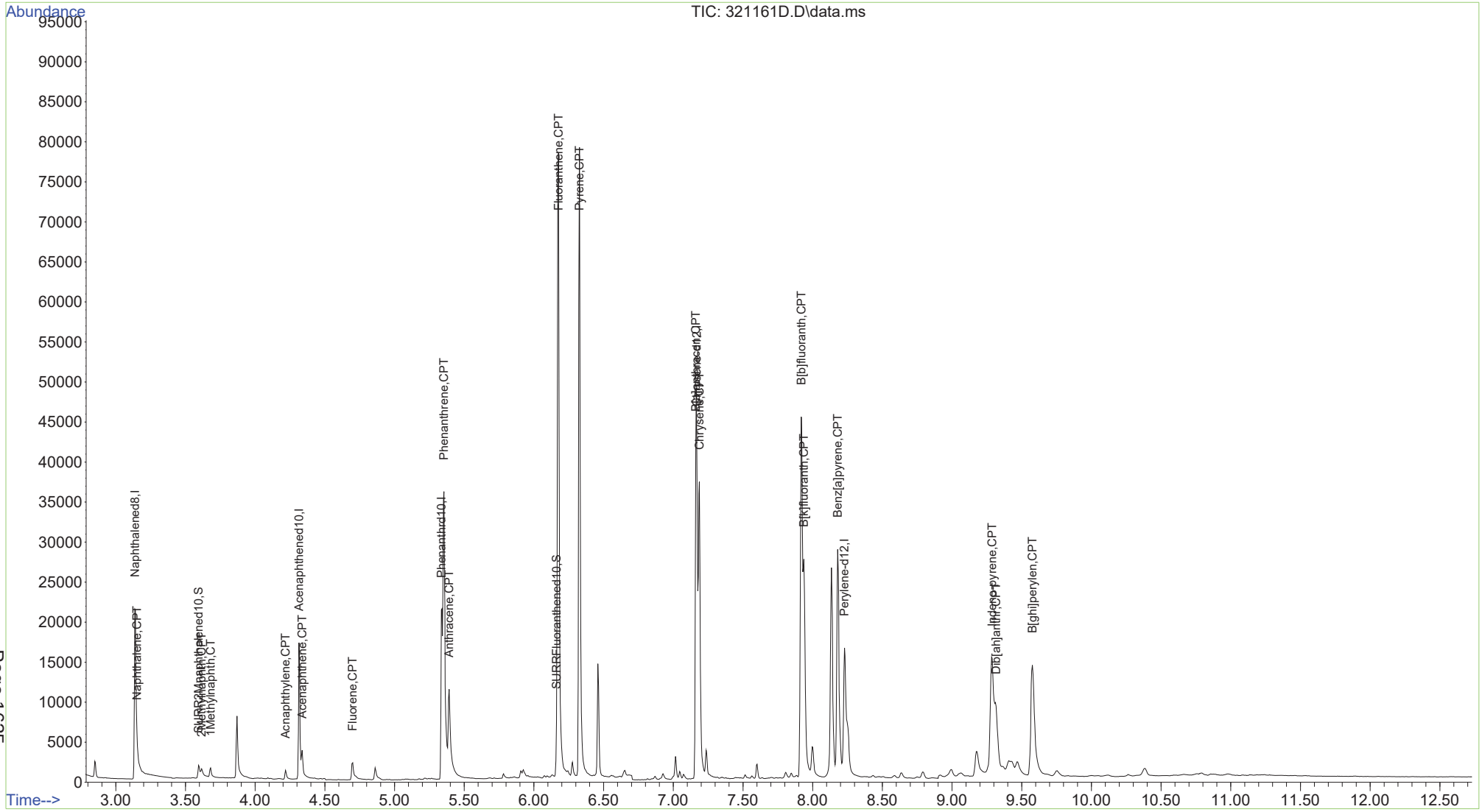
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.136	136	23449	400.00	ng/mL	0.00
6) Acenaphthened10	4.314	164	13004	400.00	ng/mL	0.00
10) Phenanthrd10	5.336	188	21407	400.00	ng/mL	0.00
15) Chrysene-d12	7.169	240	17373	400.00	ng/mL	0.00
19) Perylene-d12	8.228	264	18967	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.593	152	1749	13.45	%REC	0.00
Spiked Amount 100.000			Recovery = 13.45%			
13) SURRFluoranthened10	6.162	212	3456	16.35	%REC	0.00
Spiked Amount 100.000			Recovery = 16.35%			
Target Compounds						Qvalue
2) Naphthalene	3.151	128	469	8.1339	ng/ml	88
4) 2Methylnaphth	3.615	142	454	14.3488	ng/mL	88
5) 1Methylnaphth	3.680	141	356	11.5174	ng/mL#	38
7) Acnaphthylene	4.218	152	907	16.6316	ng/mL	95
8) Acenaphthene	4.337	154	1265	34.2510	ng/mL	96
9) Fluorene	4.699	166	2409	61.7998	ng/mL	93
11) Phenanthrene	5.354	178	26036	473.9381	ng/mL	99
12) Anthracene	5.392	178	11388	213.6450	ng/mL	99
14) Fluoranthene	6.176	202	58882	966.0963	ng/mL	94
16) Pyrene	6.327	202	50909	724.7045	ng/mL	100
17) B[a]anthracen	7.161	228	27055	564.0712	ng/mL	97
18) Chrysene	7.187	228	27252	446.6000	ng/mL	97
20) B[b]fluoranth	7.918	252	35699	591.6140	ng/mL	99
21) B[k]fluoranth	7.937	252	21010	277.7826	ng/mL	99
22) Benz[a]pyrene	8.180	252	24950	436.3395	ng/mL	99
23) Indeno-pyrene	9.288	276	17988	331.4513	ng/mL	96
24) Dib[ah]anthr	9.316	278	7720	186.2435	ng/mL	85
25) B[ghi]perylen	9.576	276	15438	332.7779	ng/mL	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091019\321161D.D Vial: 12
Acq On : 10 Sep 2019 14:48 Operator: JJY
Sample : 164274,321161,5 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 14:38:22 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 14:11:05 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091019\321155D2.D Vial: 16
Acq On : 10 Sep 2019 16:10 Operator: JJY
Sample : 164274,321155,10 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 14:42:11 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 14:11:05 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

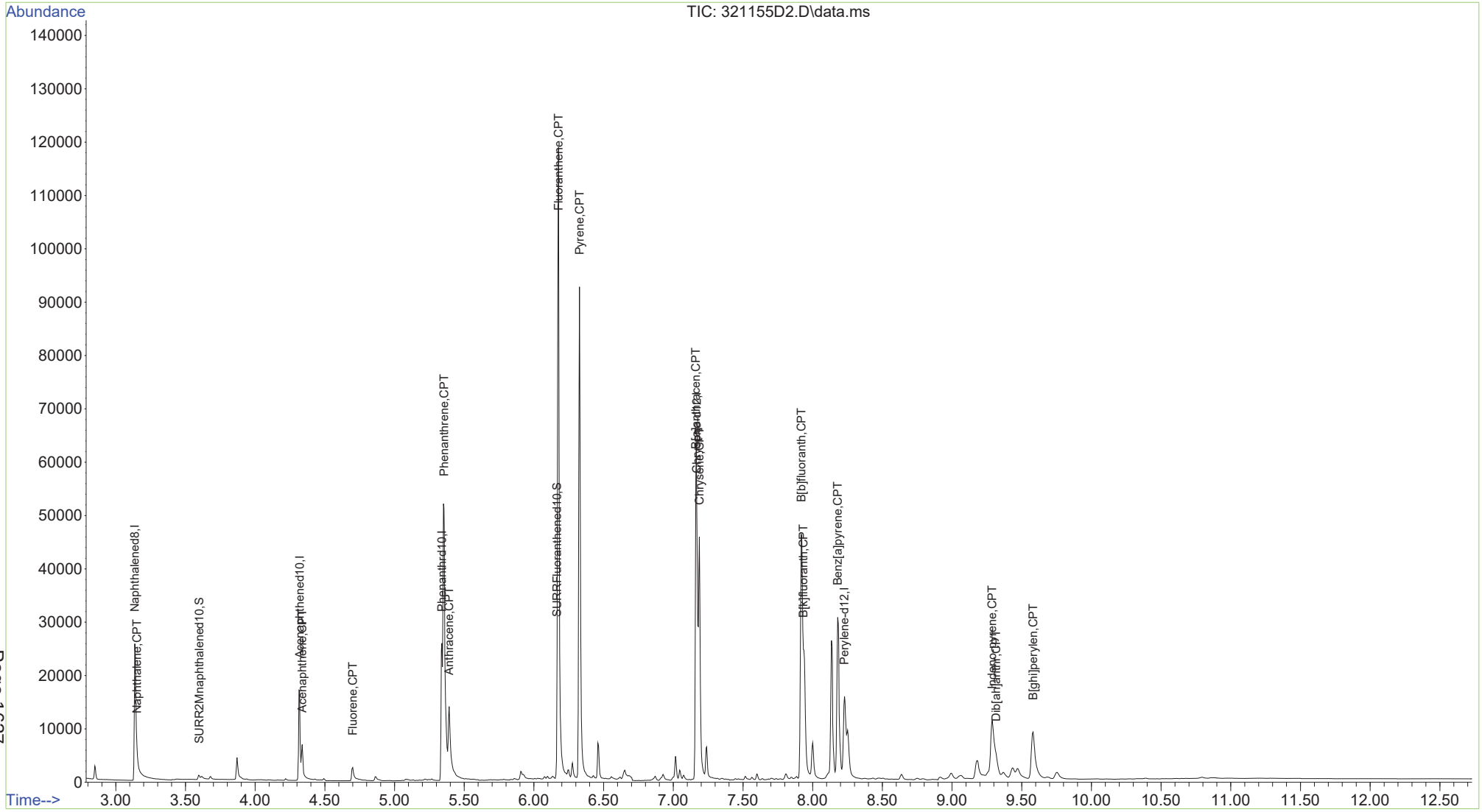
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.136	136	26906	400.00	ng/mL	0.00
6) Acenaphthened10	4.319	164	14798	400.00	ng/mL	0.00
10) Phenanthrd10	5.339	188	24633	400.00	ng/mL	0.00
15) Chrysene-d12	7.168	240	19344	400.00	ng/mL	0.00
19) Perylene-d12	8.228	264	19886	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.599	152	975	6.53	%REC	0.00
Spiked Amount 100.000			Recovery =	6.53%		
13) SURRFluoranthened10	6.166	212	1630	6.70	%REC	0.00
Spiked Amount 100.000			Recovery =	6.70%		
Target Compounds						Qvalue
2) Naphthalene	3.151	128	461	6.9679	ng/ml	94
8) Acenaphthene	4.337	154	2582	61.4345	ng/mL	94
9) Fluorene	4.699	166	2988	67.3605	ng/mL	92
11) Phenanthrene	5.354	178	39375	631.0114	ng/mL	100
12) Anthracene	5.391	178	14139	230.5167	ng/mL	98
14) Fluoranthene	6.176	202	78649	1121.4233	ng/mL	93
16) Pyrene	6.327	202	60890	778.4682	ng/mL	97
17) B[a]anthracen	7.161	228	36228	669.1205	ng/mL	96
18) Chrysene	7.187	228	32513	478.5264	ng/mL	97
20) B[b]fluoranth	7.918	252	41364m	650.8822	ng/mL	
21) B[k]fluoranth	7.933	252	16815m	212.4384	ng/mL	
22) Benz[a]pyrene	8.180	252	26613	443.2943	ng/mL	98
23) Indeno-pyrene	9.288	276	12569	236.4646	ng/mL	99
24) Dib[ah]anthr	9.315	278	2541	85.4469	ng/mL	85
25) B[ghi]perylen	9.581	276	9984	223.2135	ng/mL	97

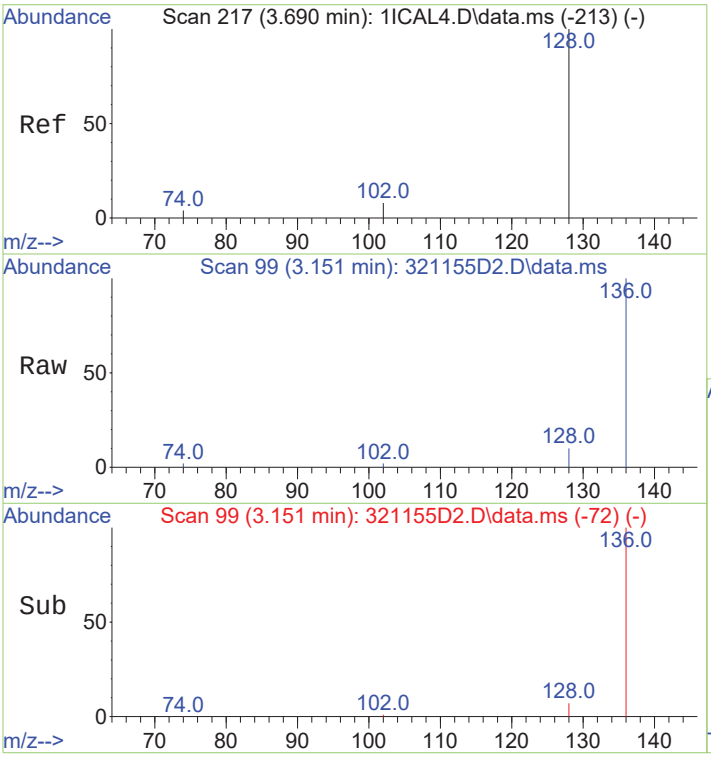
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091019\321155D2.D Vial: 16
Acq On : 10 Sep 2019 16:10 Operator: JJY
Sample : 164274,321155,10 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 14:42:11 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 14:11:05 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

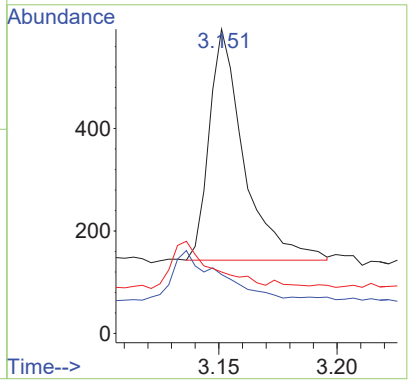


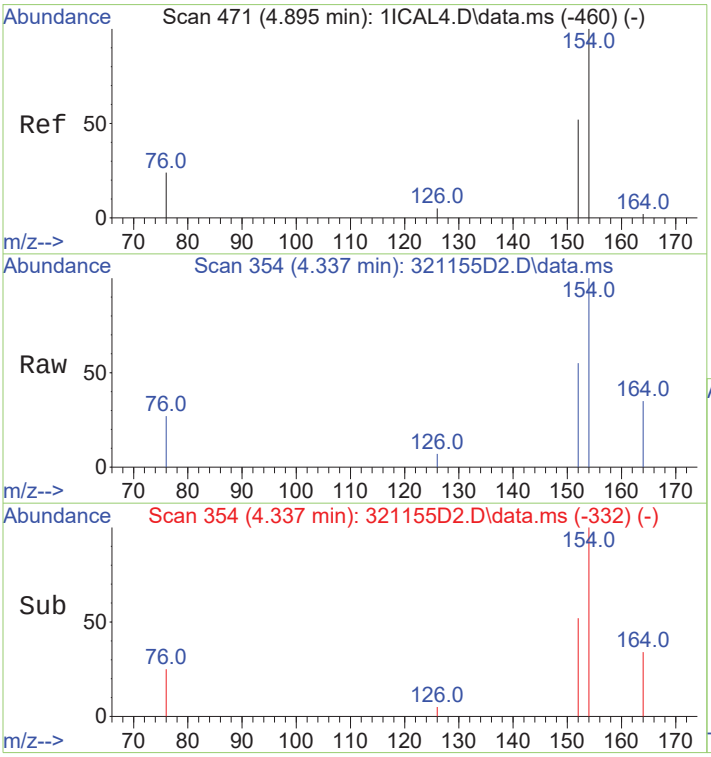


#2
Naphthalene
Concen: 6.97 ng/ml
RT: 3.151 min Scan# 99
Delta R.T. -0.000 min
Lab File: 321155D2.D
Acq: 10 Sep 2019 16:10

Tgt Ion:128 Resp: 461

Ion	Ratio	Lower	Upper
128	100		
102	9.8	0.0	37.6
74	5.8	0.0	33.6

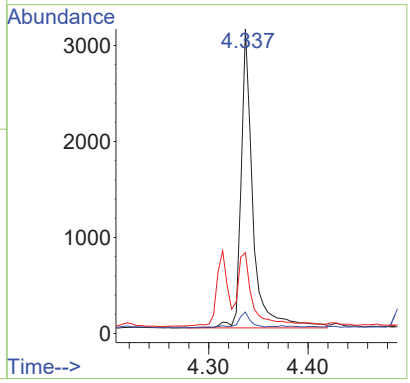


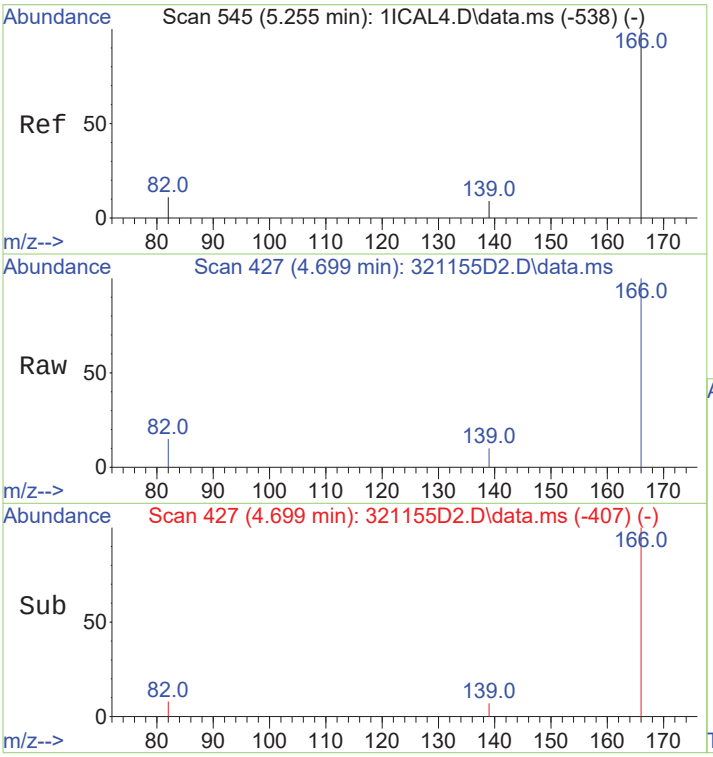


#8
Acenaphthene
Concen: 61.43 ng/mL
RT: 4.337 min Scan# 354
Delta R.T. -0.000 min
Lab File: 321155D2.D
Acq: 10 Sep 2019 16:10

Tgt Ion:154 Resp: 2582

Ion	Ratio	Lower	Upper
154	100		
126	5.1	0.0	34.3
76	24.5	0.0	51.6

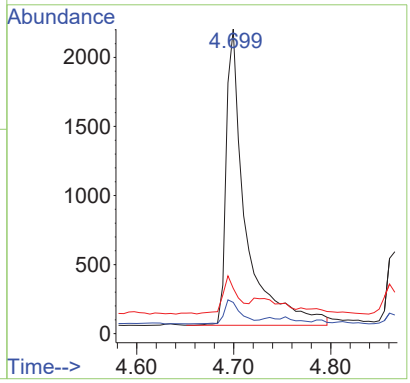


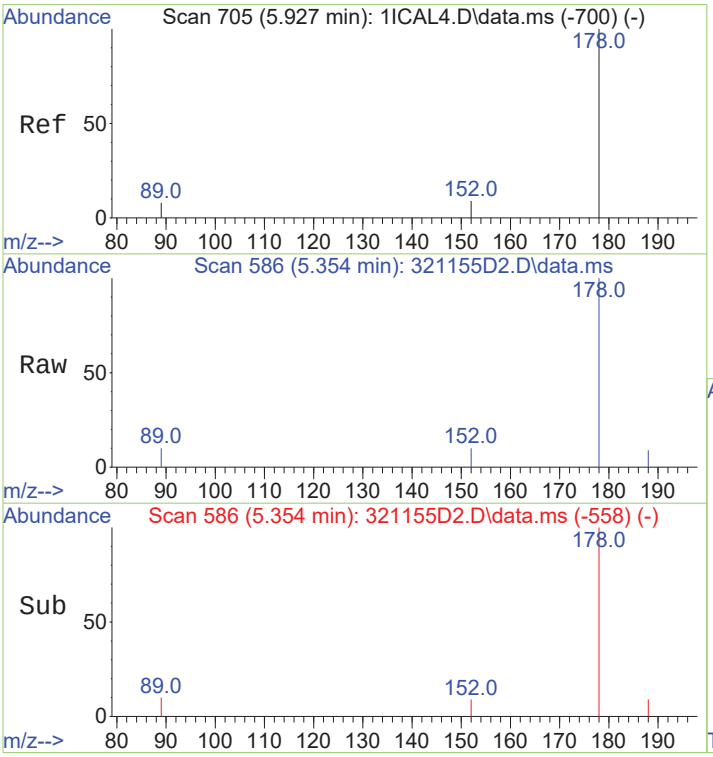


#9
Fluorene
Concen: 67.36 ng/mL
RT: 4.699 min Scan# 427
Delta R.T. 0.005 min
Lab File: 321155D2.D
Acq: 10 Sep 2019 16:10

Tgt Ion:166 Resp: 2988

Ion	Ratio	Lower	Upper
166	100		
139	7.2	0.0	38.6
82	8.4	0.0	42.4

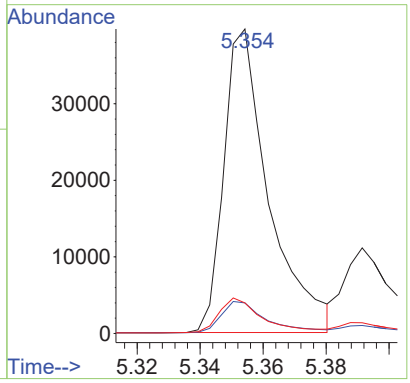


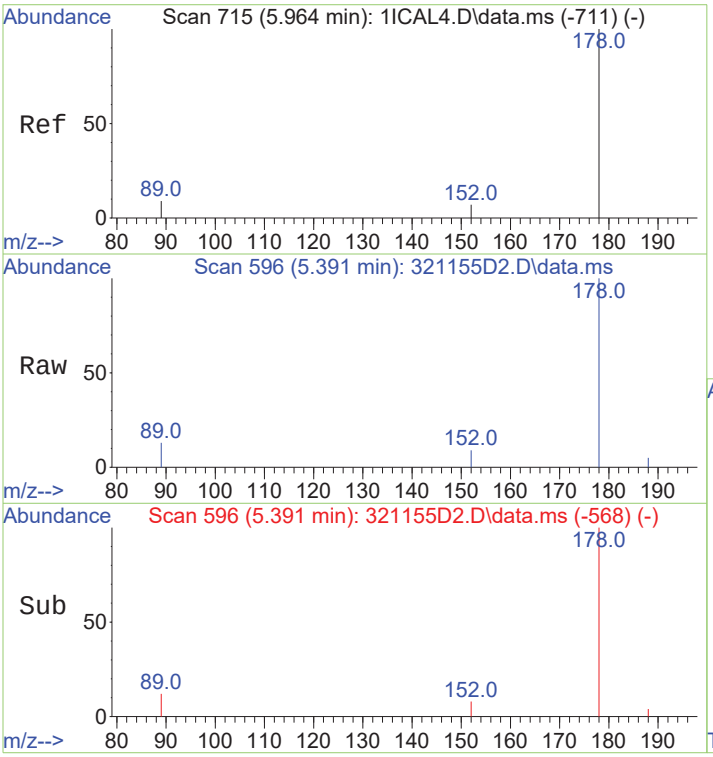


#11
Phenanthrene
Concen: 631.01 ng/mL
RT: 5.354 min Scan# 586
Delta R.T. 0.004 min
Lab File: 321155D2.D
Acq: 10 Sep 2019 16:10

Tgt Ion:178 Resp: 39375

Ion	Ratio	Lower	Upper
178	100		
152	10.3	0.0	40.1
89	11.3	0.0	41.4

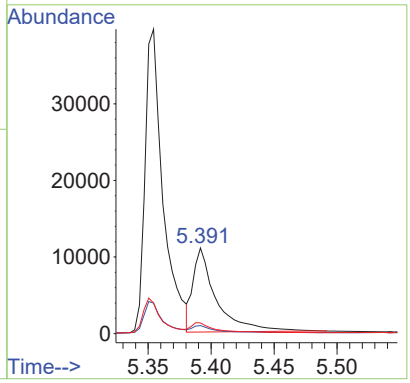


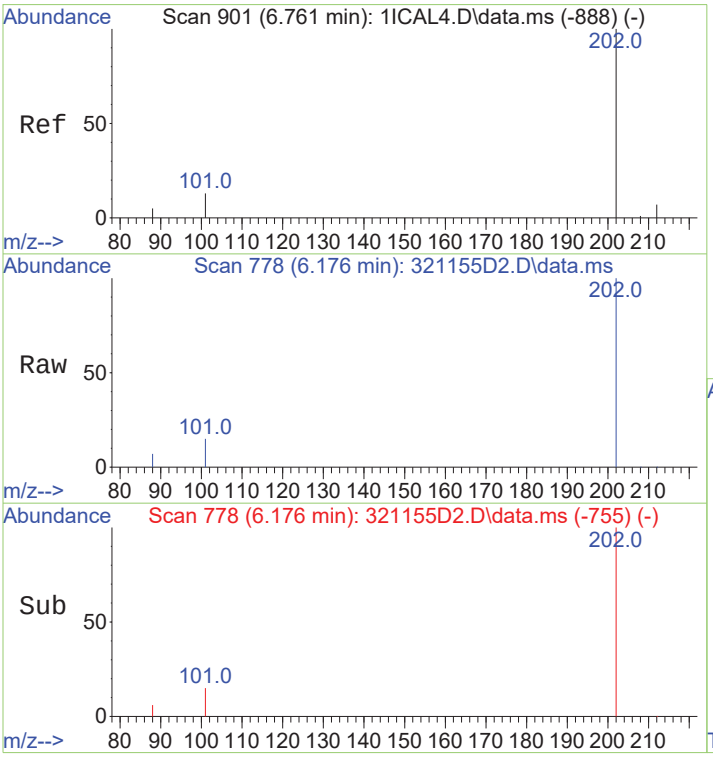


#12
Anthracene
Concen: 230.52 ng/mL
RT: 5.391 min Scan# 596
Delta R.T. 0.004 min
Lab File: 321155D2.D
Acq: 10 Sep 2019 16:10

Tgt Ion:178 Resp: 14139

Ion	Ratio	Lower	Upper
178	100		
152	8.6	0.0	37.8
89	11.8	0.0	31.3

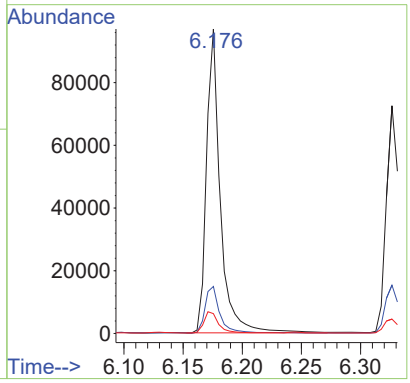


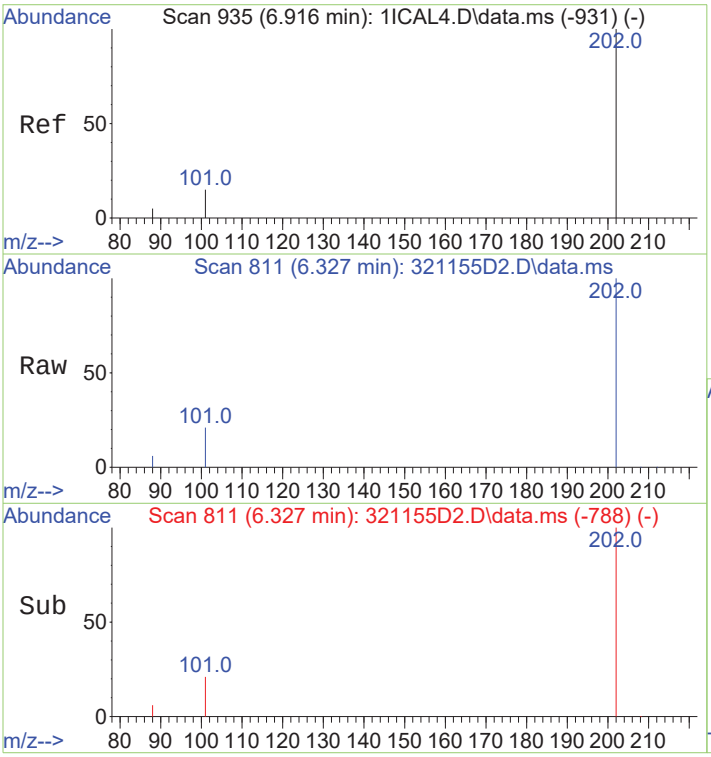


#14
Fluoranthene
Concen: 1121.42 ng/mL
RT: 6.176 min Scan# 778
Delta R.T. 0.005 min
Lab File: 321155D2.D
Acq: 10 Sep 2019 16:10

Tgt Ion:202 Resp: 78649

Ion	Ratio	Lower	Upper
202	100		
101	15.4	0.0	48.3
88	6.4	0.0	38.8

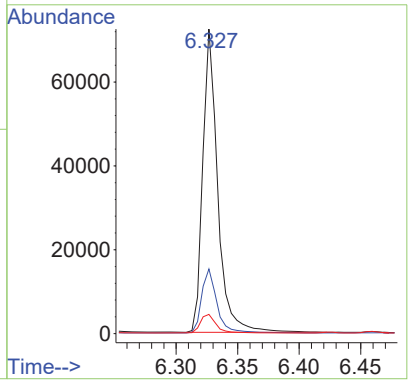


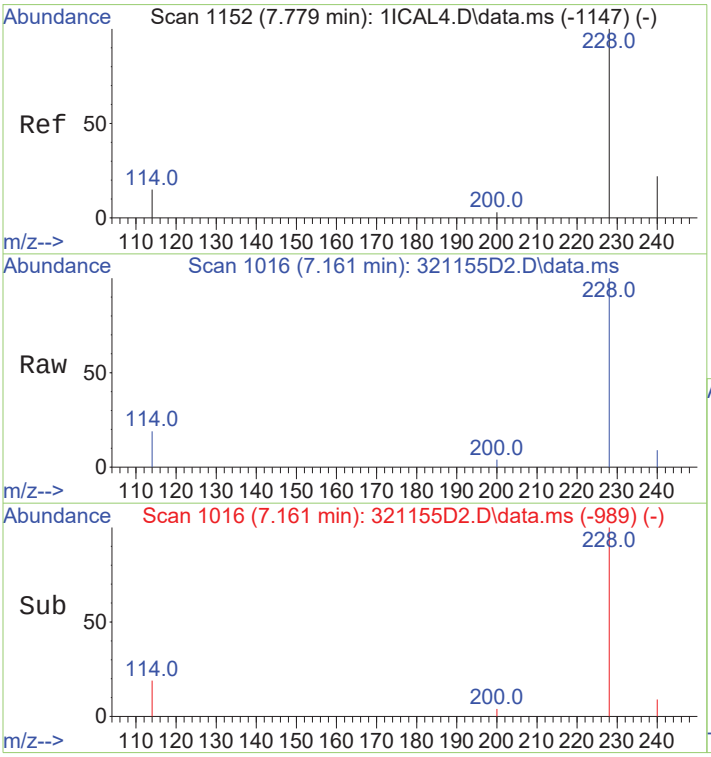


#16
Pyrene
Concen: 778.47 ng/mL
RT: 6.327 min Scan# 811
Delta R.T. 0.004 min
Lab File: 321155D2.D
Acq: 10 Sep 2019 16:10

Tgt Ion:202 Resp: 60890

Ion	Ratio	Lower	Upper
202	100		
101	21.1	0.0	49.4
88	6.1	0.0	35.5

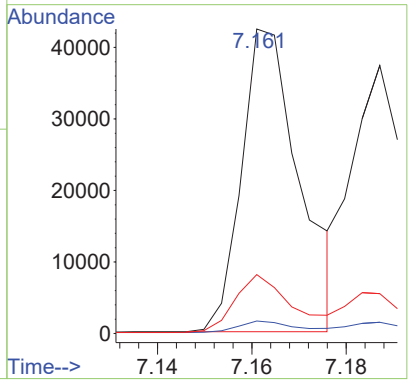


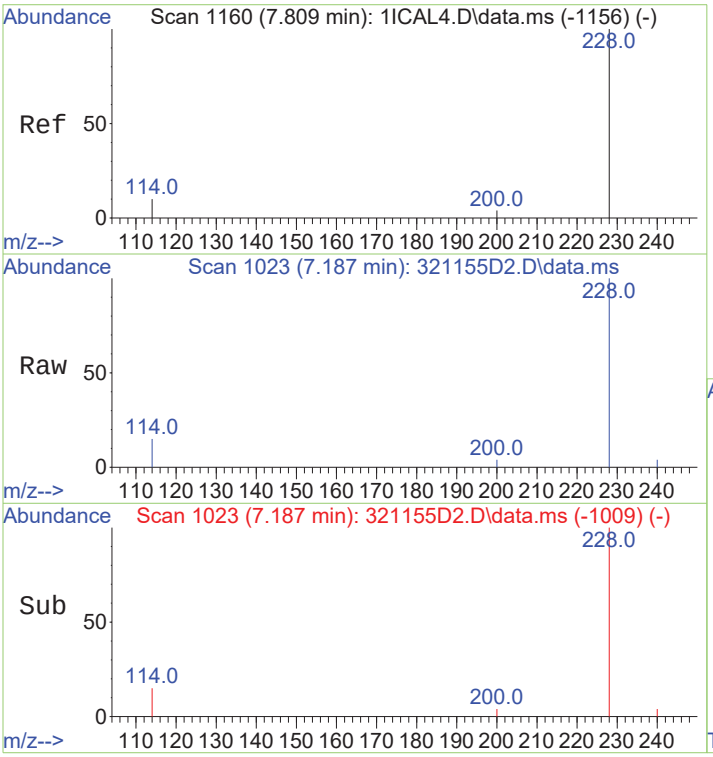


#17
B[a]anthracen
Concen: 669.12 ng/mL
RT: 7.161 min Scan# 1016
Delta R.T. -0.000 min
Lab File: 321155D2.D
Acq: 10 Sep 2019 16:10

Tgt Ion:228 Resp: 36228

Ion	Ratio	Lower	Upper
228	100		
200	3.8	0.0	33.6
114	19.1	0.0	47.0

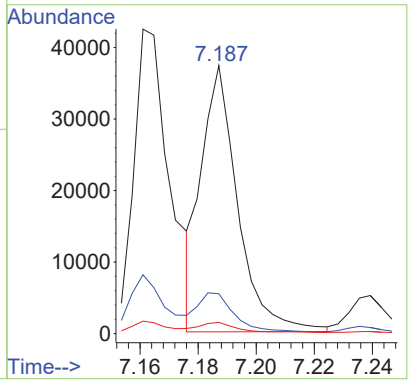


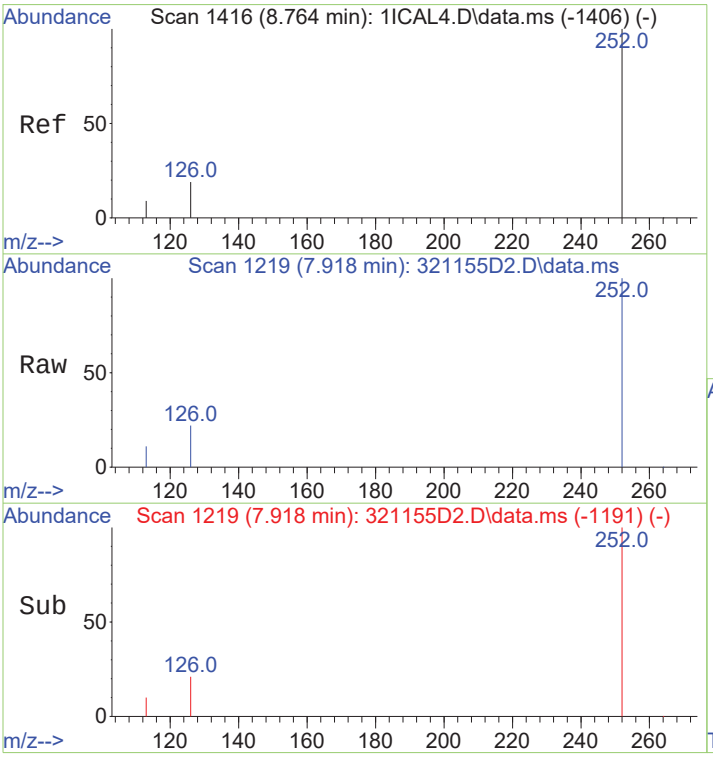


#18
Chrysene
Concen: 478.53 ng/mL
RT: 7.187 min Scan# 1023
Delta R.T. 0.004 min
Lab File: 321155D2.D
Acq: 10 Sep 2019 16:10

Tgt Ion:228 Resp: 32513

Ion	Ratio	Lower	Upper
228	100		
114	14.5	0.0	46.1
200	3.9	0.0	33.8

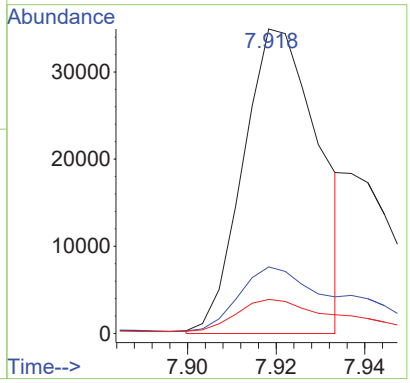


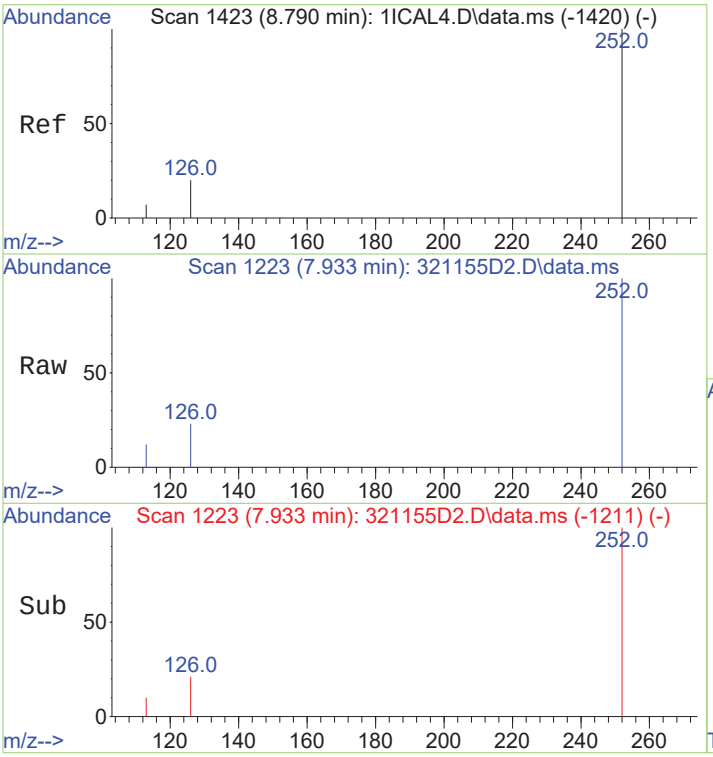


#20
B[b]fluoranth
Concen: 650.88 ng/mL m
RT: 7.918 min Scan# 1219
Delta R.T. 0.004 min
Lab File: 321155D2.D
Acq: 10 Sep 2019 16:10

Tgt Ion:252 Resp: 41364

Ion	Ratio	Lower	Upper
252	100		
126	21.9	0.0	52.1
113	11.2	0.0	40.0

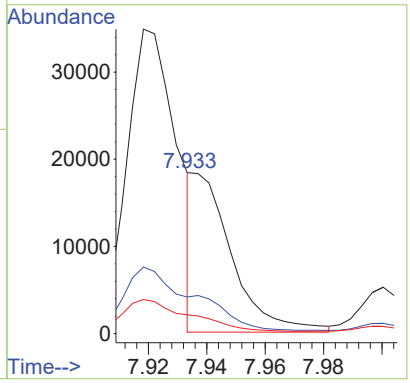


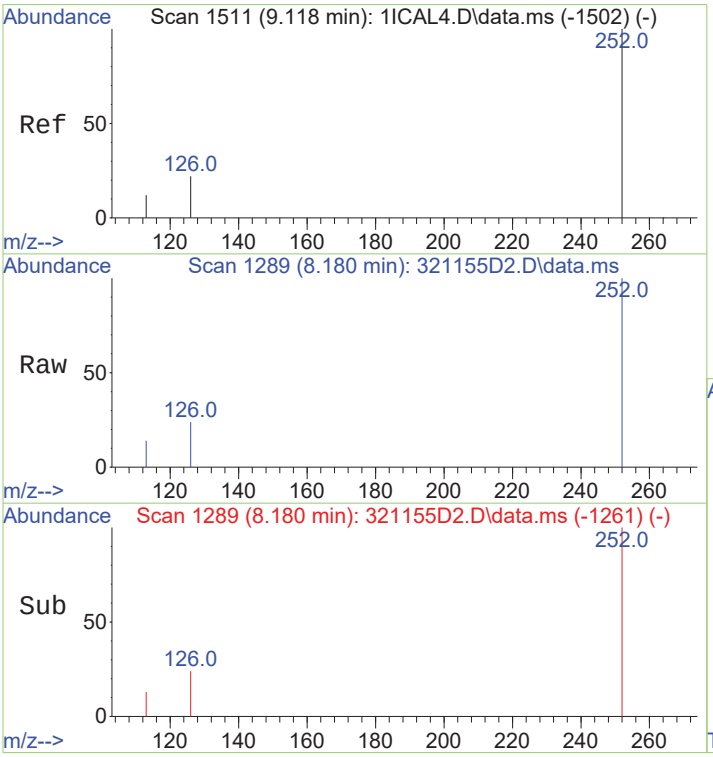


#21
B[k]fluoranth
Concen: 212.44 ng/mL m
RT: 7.933 min Scan# 1223
Delta R.T. -0.004 min
Lab File: 321155D2.D
Acq: 10 Sep 2019 16:10

Tgt Ion:252 Resp: 16815

Ion	Ratio	Lower	Upper
252	100		
126	22.7	0.0	54.3
113	11.6	0.0	39.4

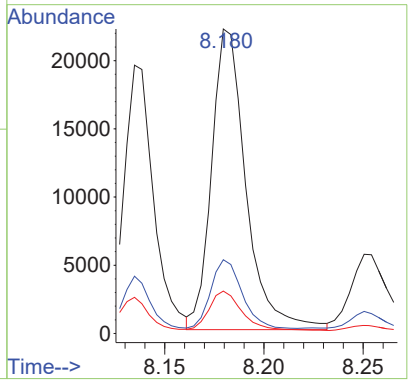


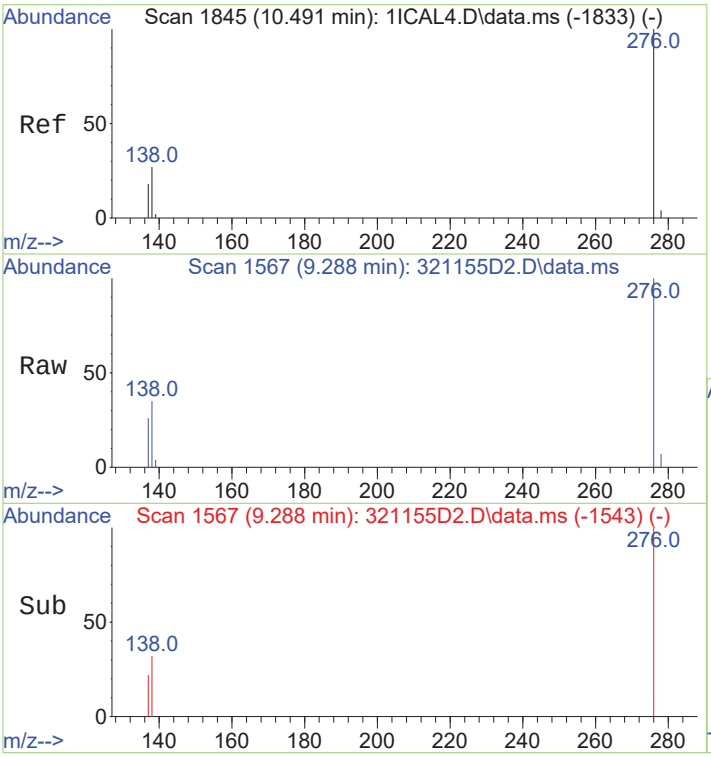


#22
Benz[a]pyrene
Concen: 443.29 ng/mL
RT: 8.180 min Scan# 1289
Delta R.T. 0.004 min
Lab File: 321155D2.D
Acq: 10 Sep 2019 16:10

Tgt Ion:252 Resp: 26613

Ion	Ratio	Lower	Upper
252	100		
126	23.2	0.0	52.7
113	13.4	0.0	42.2

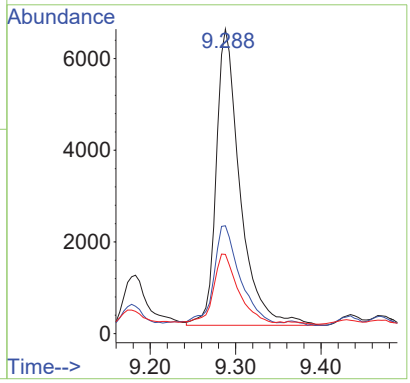


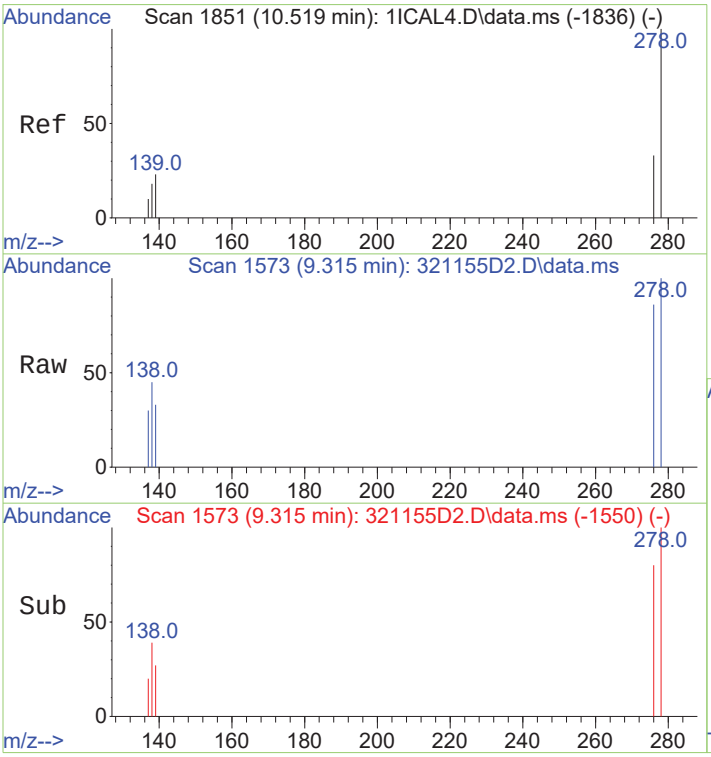


#23
Indeno-pyrene
Concen: 236.46 ng/mL
RT: 9.288 min Scan# 1567
Delta R.T. 0.009 min
Lab File: 321155D2.D
Acq: 10 Sep 2019 16:10

Tgt Ion:276 Resp: 12569

Ion	Ratio	Lower	Upper
276	100		
138	33.6	4.1	64.1
137	23.2	0.0	52.8

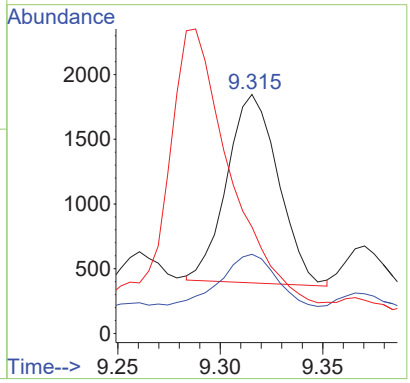


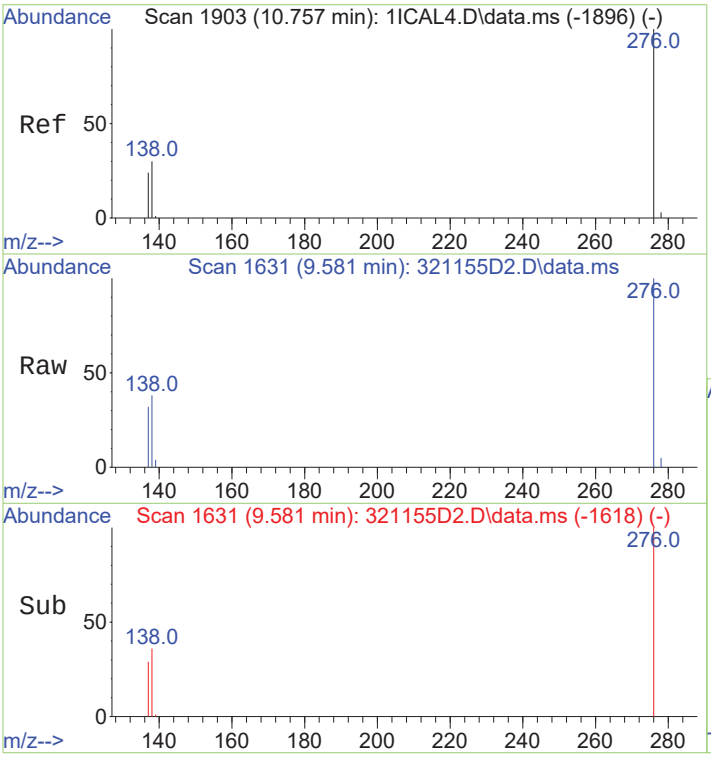


#24
Dib[ah]anthr
Concen: 85.45 ng/mL
RT: 9.315 min Scan# 1573
Delta R.T. 0.005 min
Lab File: 321155D2.D
Acq: 10 Sep 2019 16:10

Tgt Ion:278 Resp: 2541

Ion	Ratio	Lower	Upper
278	100		
139	27.7	0.0	59.3
138	40.6	0.0	56.3

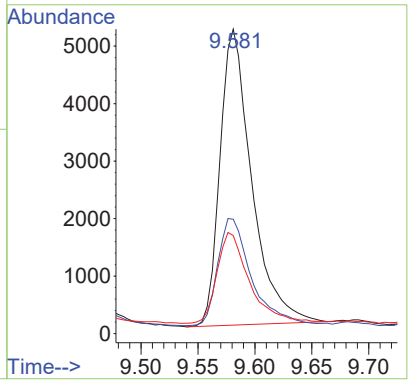


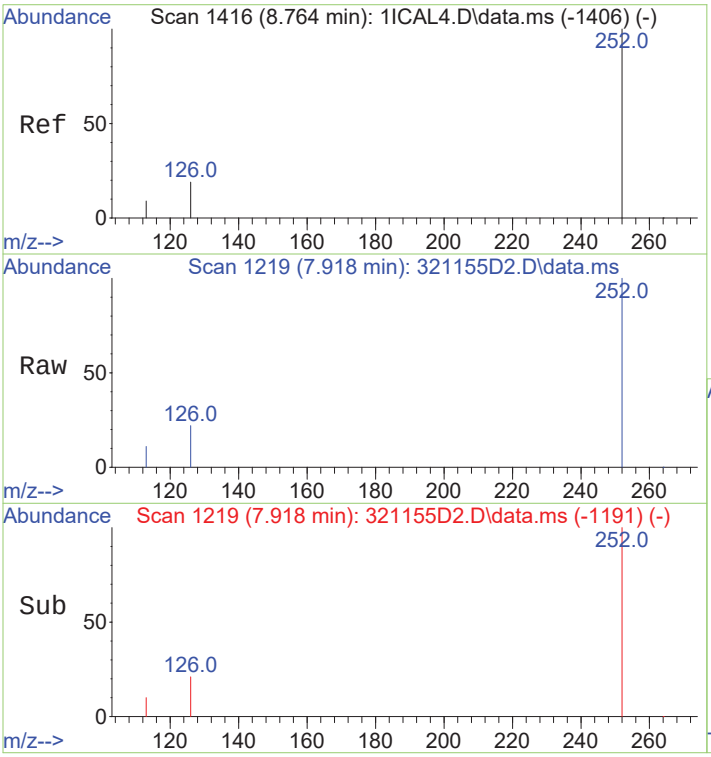


#25
B[ghi]perylen
Concen: 223.21 ng/mL
RT: 9.581 min Scan# 1631
Delta R.T. 0.009 min
Lab File: 321155D2.D
Acq: 10 Sep 2019 16:10

Tgt Ion:276 Resp: 9984

Ion	Ratio	Lower	Upper
276	100		
138	35.8	7.7	67.7
137	29.4	0.6	60.6

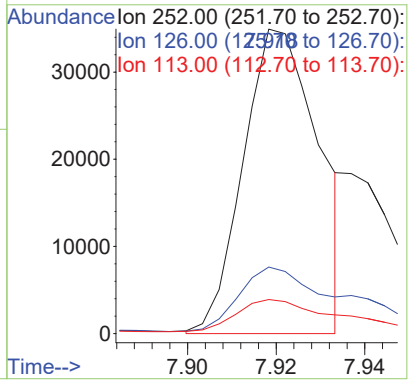




#20
B[b]fluoranth
Concen: 650.88 ng/mL m
RT: 7.918 min Scan# 1219
Delta R.T. 0.004 min
Lab File: 321155D2.D
Acq: 10 Sep 2019 16:10

Tgt Ion:252 Resp: 41364

Ion	Ratio	Lower	Upper
252	100		
126	21.9	0.0	52.1
113	11.2	0.0	40.0

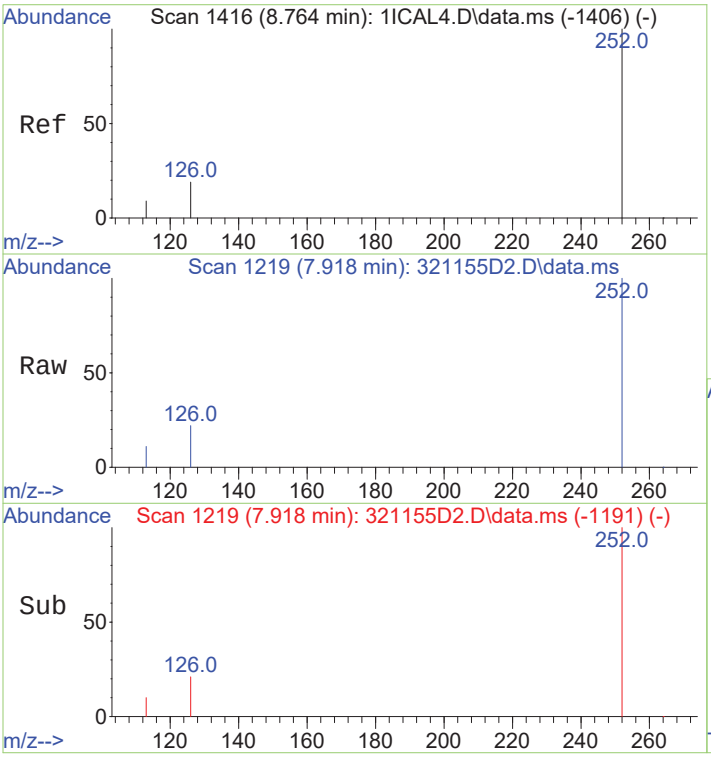


After Manual Integration

RED
9/12/2019

Reason#3

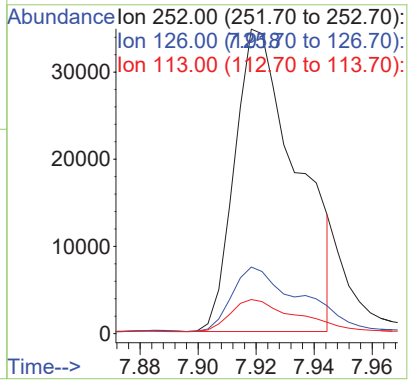
JJY
9/11/19



#20
B[b]fluoranth
Concen: 807.72 ng/mL
RT: 7.918 min Scan# 1219
Delta R.T. 0.004 min
Lab File: 321155D2.D
Acq: 10 Sep 2019 16:10

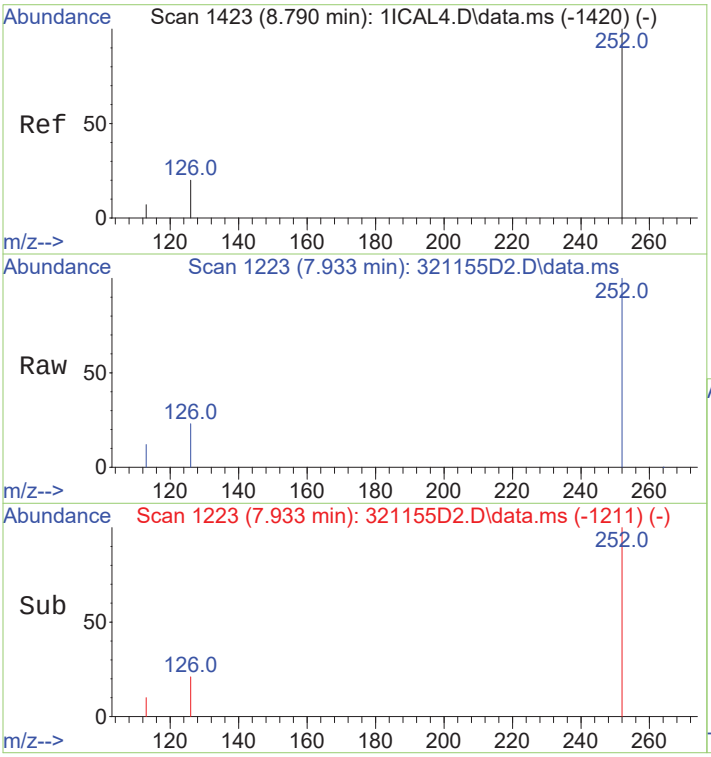
Tgt Ion:252 Resp: 51778

Ion	Ratio	Lower	Upper
252	100		
126	21.3	0.0	52.1
113	10.6	0.0	40.0



Before Manual Integration

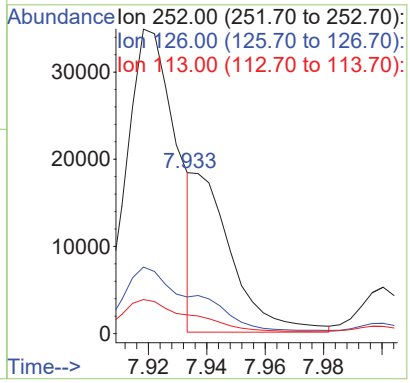
Reason#3 JJY 9/11/19



#21
B[k]fluoranth
Concen: 212.44 ng/mL m
RT: 7.933 min Scan# 1223
Delta R.T. -0.004 min
Lab File: 321155D2.D
Acq: 10 Sep 2019 16:10

Tgt Ion:252 Resp: 16815

Ion	Ratio	Lower	Upper
252	100		
126	22.7	0.0	54.3
113	11.6	0.0	39.4

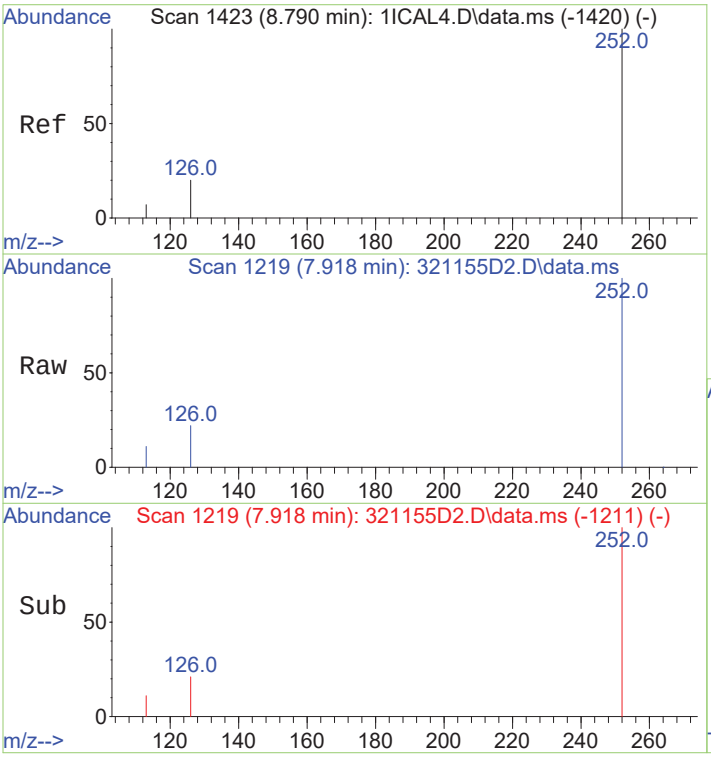


After Manual Integration

RED
9/12/2019

Reason#3

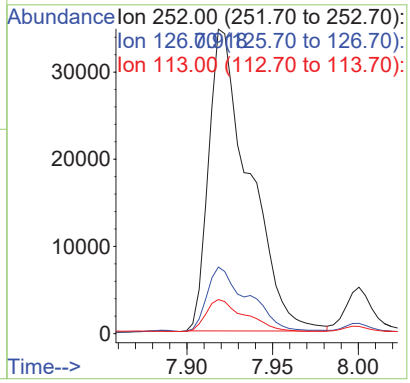
JJY
9/11/19



#21
B[k]fluoranth
Concen: 718.28 ng/mL
RT: 7.918 min Scan# 1219
Delta R.T. -0.019 min
Lab File: 321155D2.D
Acq: 10 Sep 2019 16:10

Tgt Ion:252 Resp: 57170

Ion	Ratio	Lower	Upper
252	100		
126	21.3	0.0	54.3
113	10.6	0.0	39.4



Before Manual Integration

Reason#3 JJY 9/11/19

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091019\321157D2.D Vial: 17
Acq On : 10 Sep 2019 16:30 Operator: JJY
Sample : 164274,321157,20 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 14:46:06 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 14:11:05 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

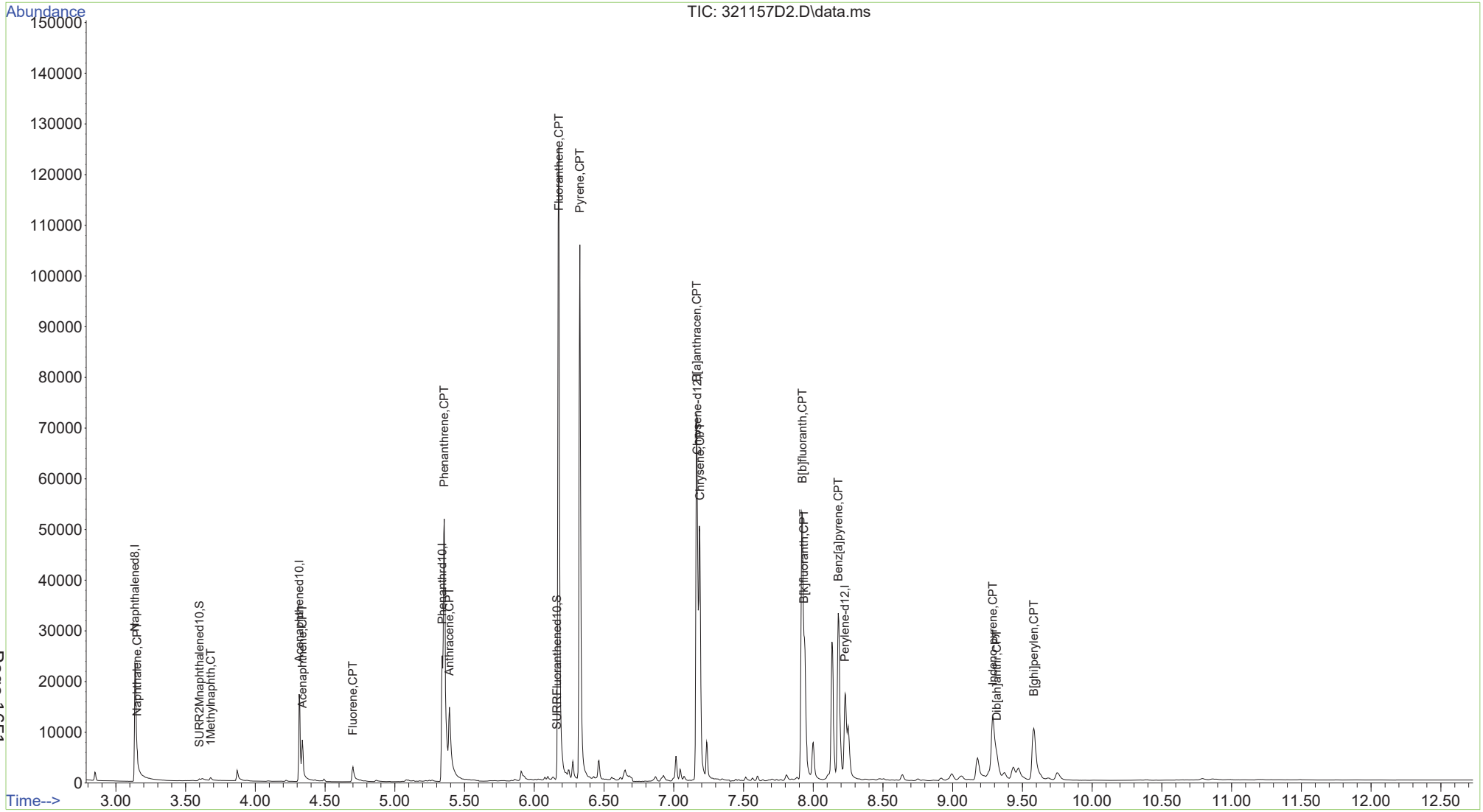
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.136	136	25760	400.00	ng/mL	0.00
6) Acenaphthened10	4.314	164	14574	400.00	ng/mL	0.00
10) Phenanthrd10	5.339	188	24447	400.00	ng/mL	0.00
15) Chrysene-d12	7.169	240	20012	400.00	ng/mL	0.00
19) Perylene-d12	8.228	264	20931	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.599	152	572	4.00	%REC	0.00
Spiked Amount 100.000			Recovery =	4.00%		
13) SURRFluoranthened10	6.162	212	1012	4.19	%REC	0.00
Spiked Amount 100.000			Recovery =	4.19%		
Target Compounds						Qvalue
2) Naphthalene	3.151	128	494	7.7988	ng/ml	91
5) 1Methylnaphth	3.680	141	214	6.3023	ng/mL	100
8) Acenaphthene	4.337	154	3433	82.9381	ng/mL	91
9) Fluorene	4.699	166	3632	83.1370	ng/mL	96
11) Phenanthrene	5.354	178	37597	606.1218	ng/mL	99
12) Anthracene	5.392	178	16121	264.8302	ng/mL	97
14) Fluoranthene	6.176	202	90063	1293.9411	ng/mL	93
16) Pyrene	6.327	202	70152	866.9434	ng/mL	97
17) B[a]anthracen	7.165	228	42479	752.3029	ng/mL	95
18) Chrysene	7.187	228	37608	535.0384	ng/mL	96
20) B[b]fluoranth	7.922	252	47386m	705.9471	ng/mL	
21) B[k]fluoranth	7.933	252	18878m	226.4837	ng/mL	
22) Benz[a]pyrene	8.180	252	30525	479.8674	ng/mL	99
23) Indeno-pyrene	9.288	276	14883	260.1858	ng/mL	99
24) Dib[ah]anthr	9.316	278	2944	90.0940	ng/mL	81
25) B[ghi]perylen	9.581	276	11850	245.7266	ng/mL	98

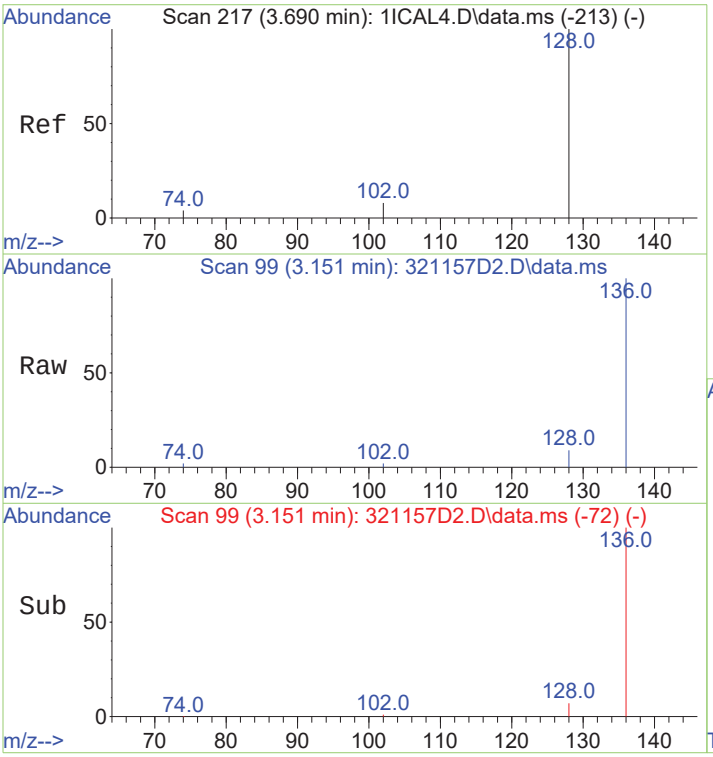
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091019\321157D2.D Vial: 17
Acq On : 10 Sep 2019 16:30 Operator: JJY
Sample : 164274,321157,20 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 14:46:06 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 14:11:05 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

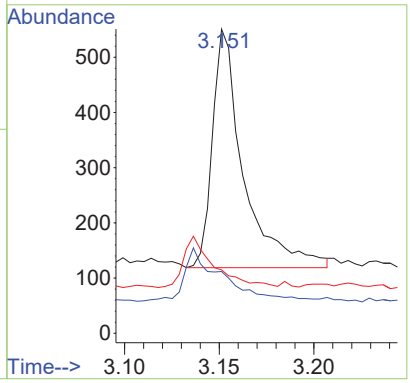


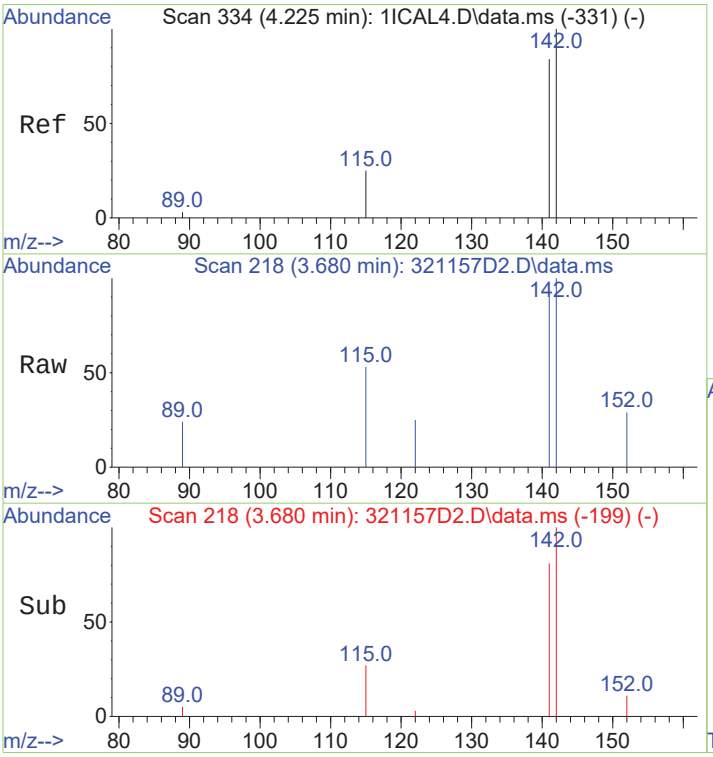


#2
Naphthalene
Concen: 7.80 ng/ml
RT: 3.151 min Scan# 99
Delta R.T. -0.000 min
Lab File: 321157D2.D
Acq: 10 Sep 2019 16:30

Tgt Ion:128 Resp: 494

Ion	Ratio	Lower	Upper
128	100		
102	10.9	0.0	37.6
74	6.0	0.0	33.6

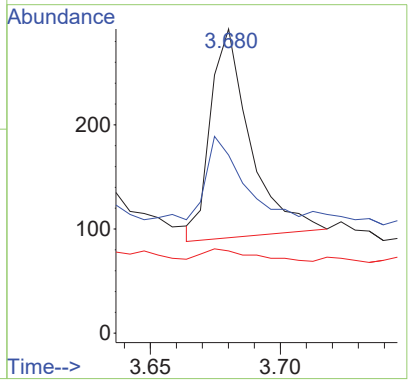


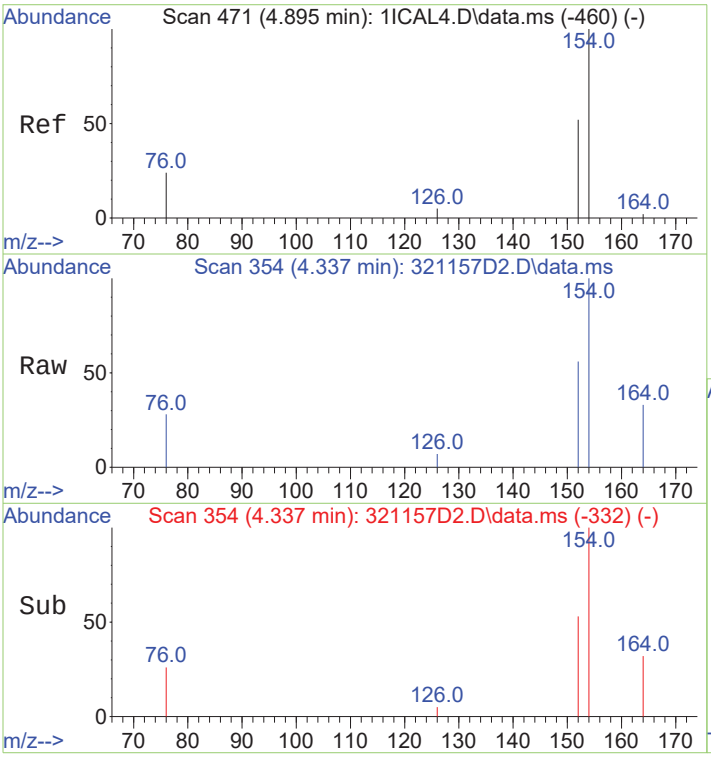


#5
1Methylnaphth
Concen: 6.30 ng/mL
RT: 3.680 min Scan# 218
Delta R.T. 0.005 min
Lab File: 321157D2.D
Acq: 10 Sep 2019 16:30

Tgt Ion:141 Resp: 214

Ion	Ratio	Lower	Upper
141	100		
115	32.3	2.5	62.5
89	4.2	0.0	34.0

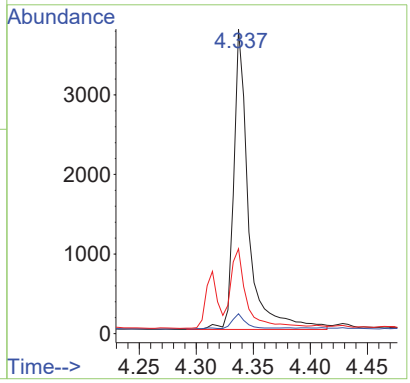


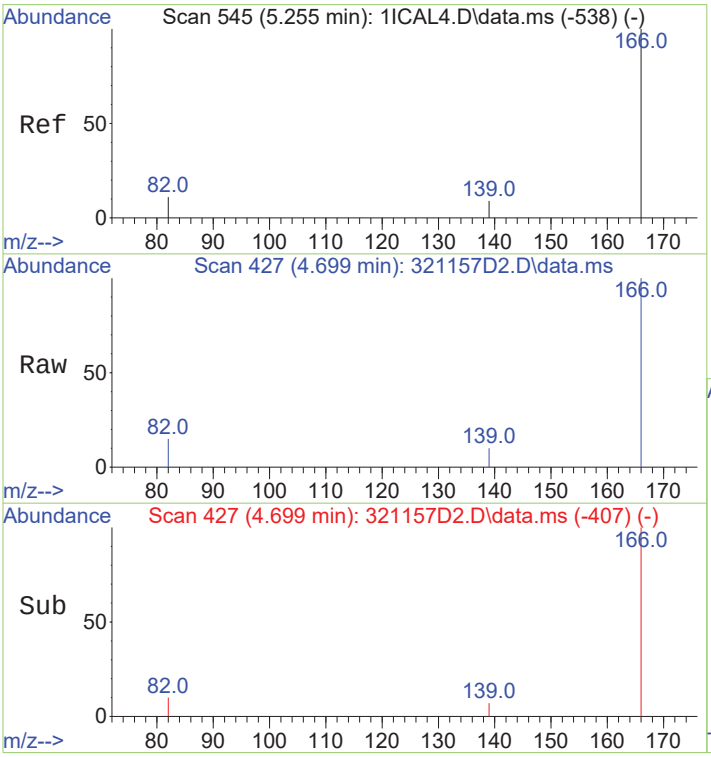


#8
Acenaphthene
Concen: 82.94 ng/mL
RT: 4.337 min Scan# 354
Delta R.T. -0.000 min
Lab File: 321157D2.D
Acq: 10 Sep 2019 16:30

Tgt Ion:154 Resp: 3433

Ion	Ratio	Lower	Upper
154	100		
126	5.0	0.0	34.3
76	26.4	0.0	51.6

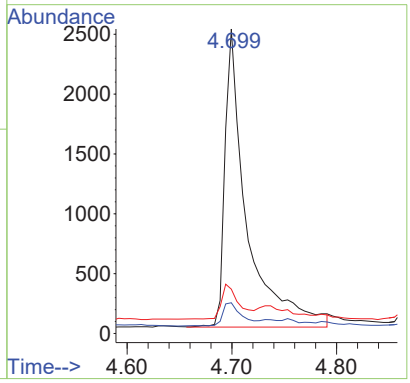


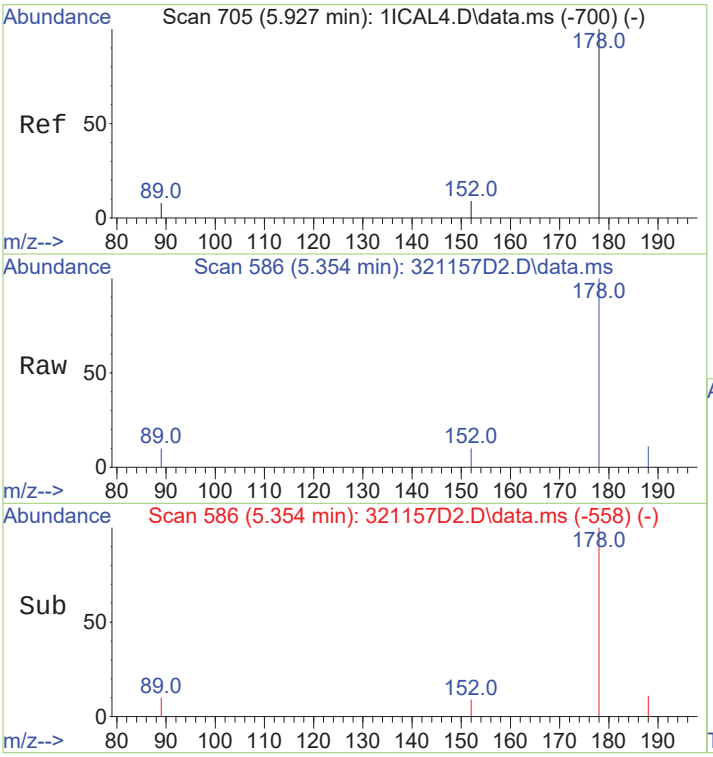


#9
Fluorene
Concen: 83.14 ng/mL
RT: 4.699 min Scan# 427
Delta R.T. 0.005 min
Lab File: 321157D2.D
Acq: 10 Sep 2019 16:30

Tgt Ion:166 Resp: 3632

Ion	Ratio	Lower	Upper
166	100		
139	7.8	0.0	38.6
82	10.1	0.0	42.4

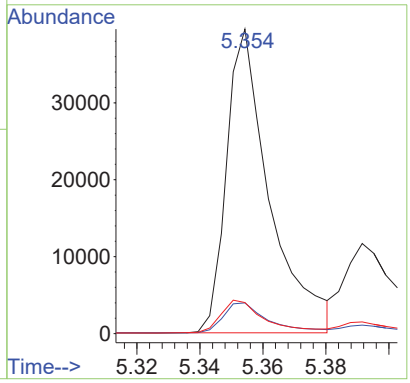


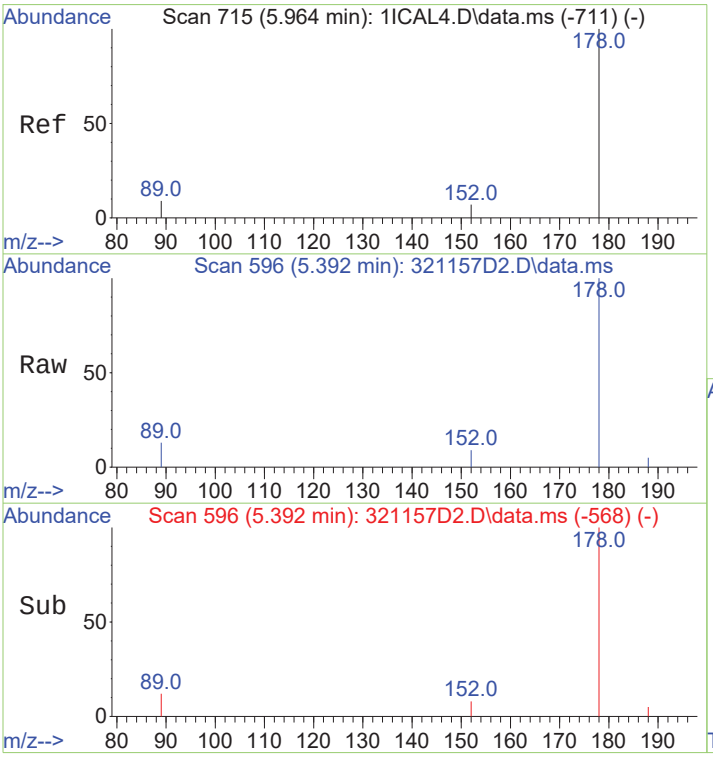


#11
Phenanthrene
Concen: 606.12 ng/mL
RT: 5.354 min Scan# 586
Delta R.T. 0.004 min
Lab File: 321157D2.D
Acq: 10 Sep 2019 16:30

Tgt Ion:178 Resp: 37597

Ion	Ratio	Lower	Upper
178	100		
152	10.3	0.0	40.1
89	10.6	0.0	41.4

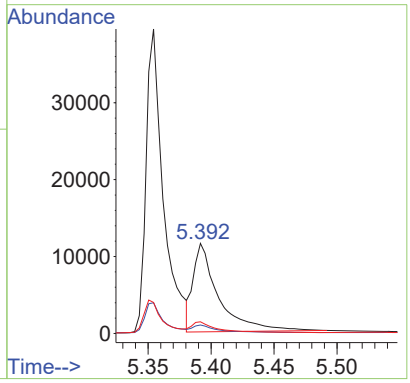


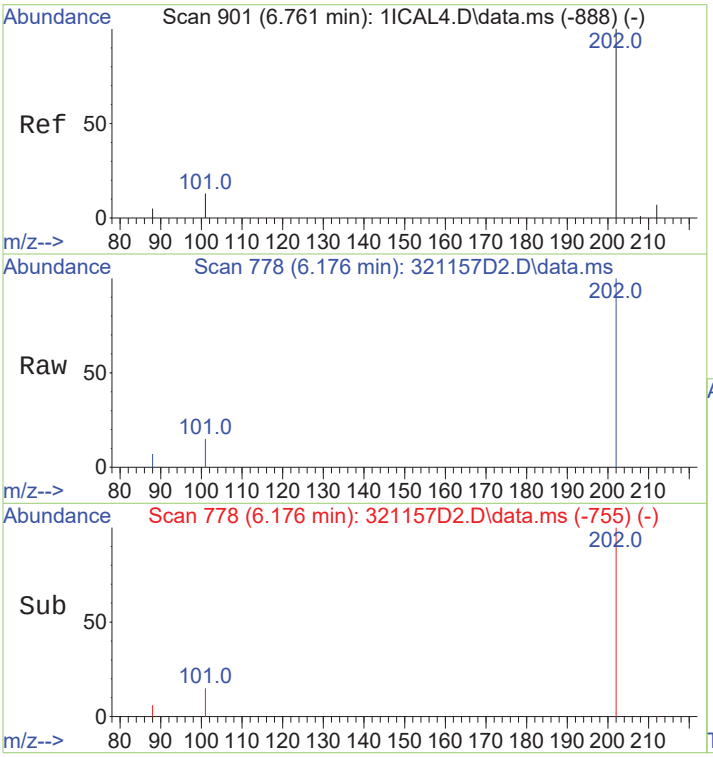


#12
Anthracene
Concen: 264.83 ng/mL
RT: 5.392 min Scan# 596
Delta R.T. 0.004 min
Lab File: 321157D2.D
Acq: 10 Sep 2019 16:30

Tgt Ion:178 Resp: 16121

Ion	Ratio	Lower	Upper
178	100		
152	8.6	0.0	37.8
89	12.4	0.0	31.3

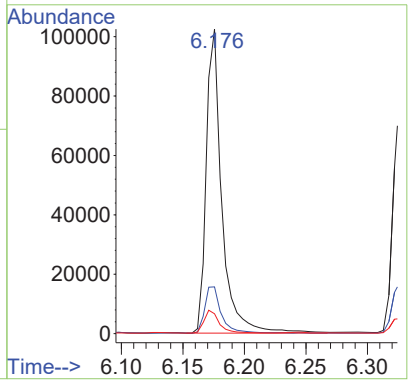


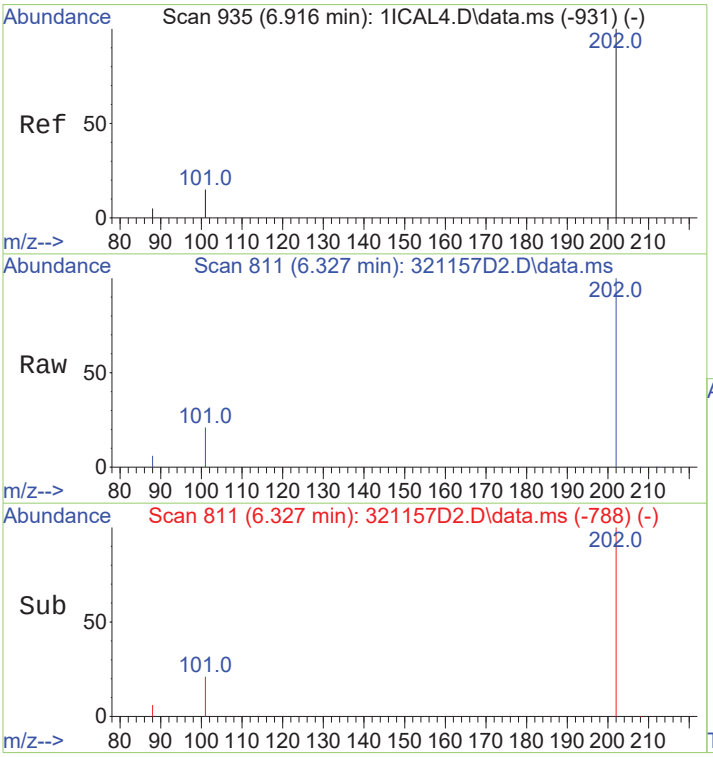


#14
Fluoranthene
Concen: 1293.94 ng/mL
RT: 6.176 min Scan# 778
Delta R.T. 0.005 min
Lab File: 321157D2.D
Acq: 10 Sep 2019 16:30

Tgt Ion:202 Resp: 90063

Ion	Ratio	Lower	Upper
202	100		
101	15.2	0.0	48.3
88	6.4	0.0	38.8

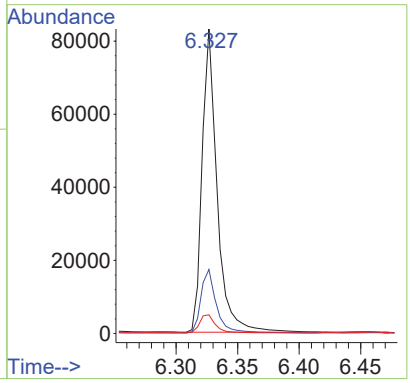


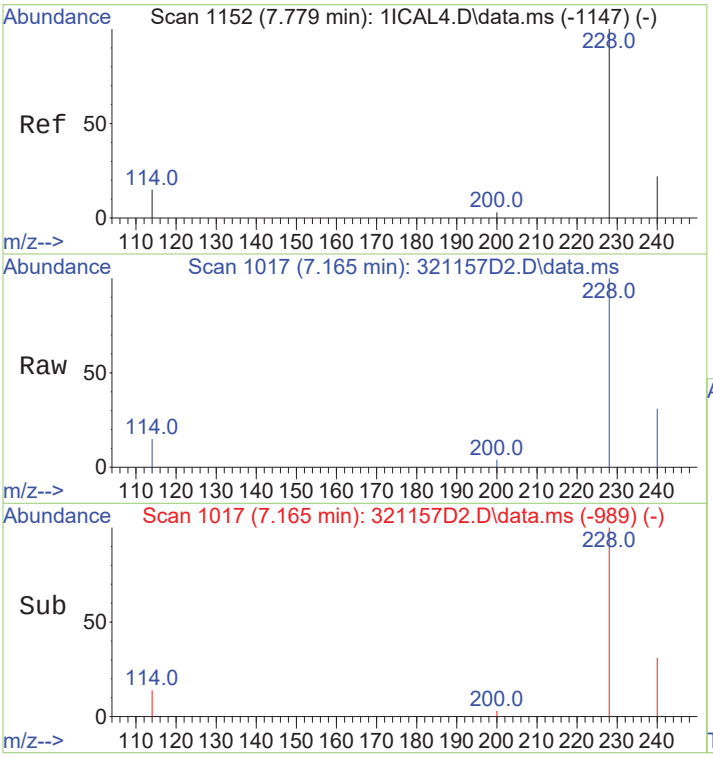


#16
Pyrene
Concen: 866.94 ng/mL
RT: 6.327 min Scan# 811
Delta R.T. 0.005 min
Lab File: 321157D2.D
Acq: 10 Sep 2019 16:30

Tgt Ion:202 Resp: 70152

Ion	Ratio	Lower	Upper
202	100		
101	20.9	0.0	49.4
88	6.0	0.0	35.5

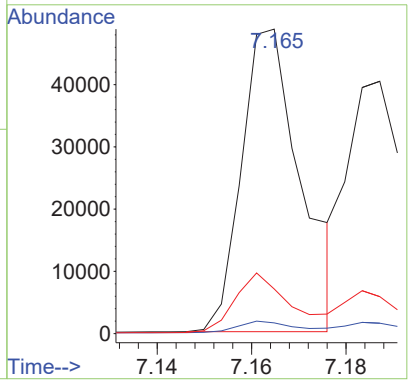


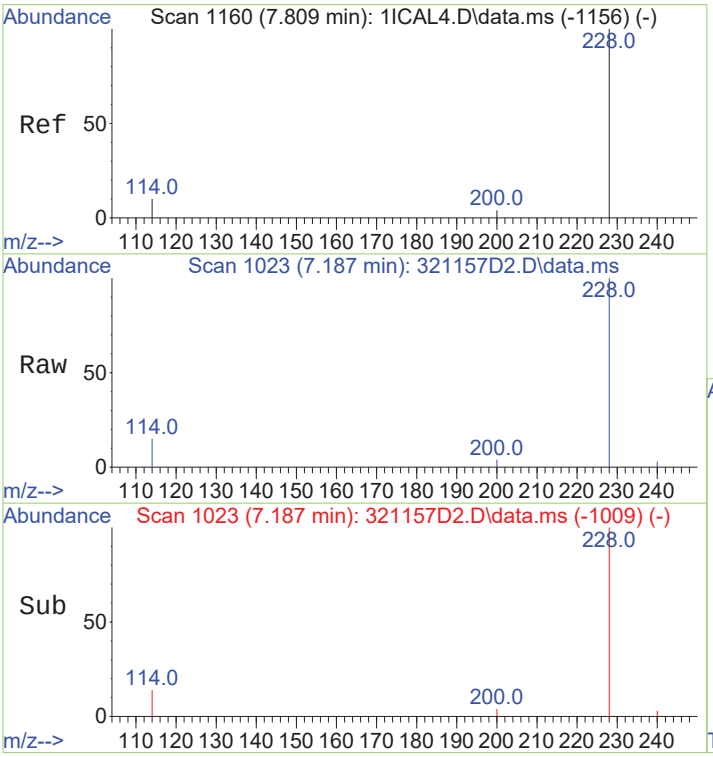


#17
B[a]anthracen
Concen: 752.30 ng/mL
RT: 7.165 min Scan# 1017
Delta R.T. 0.004 min
Lab File: 321157D2.D
Acq: 10 Sep 2019 16:30

Tgt Ion:228 Resp: 42479

Ion	Ratio	Lower	Upper
228	100		
200	3.2	0.0	33.6
114	14.4	0.0	47.0

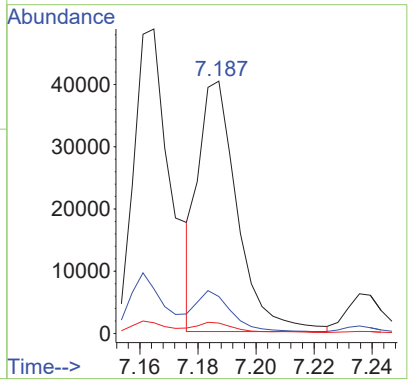


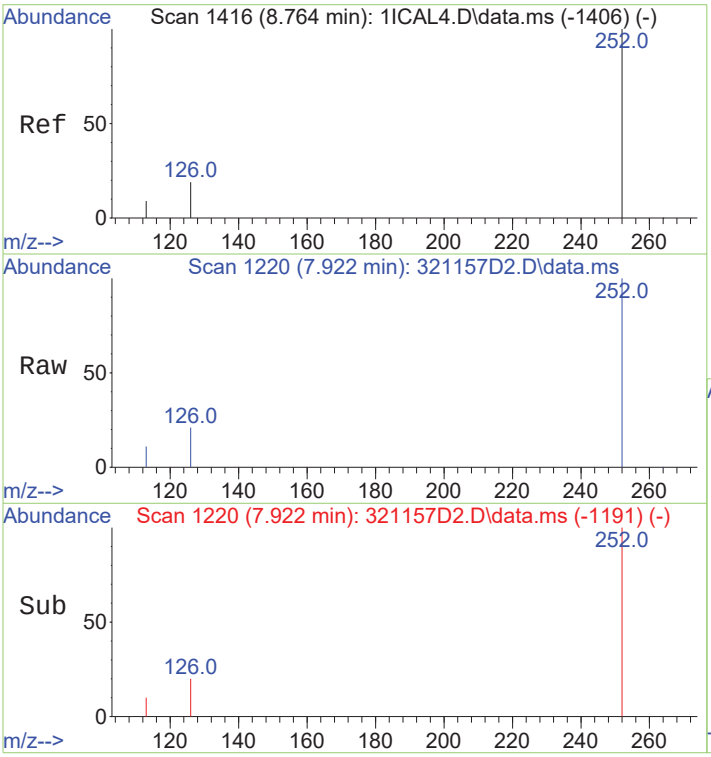


#18
Chrysene
Concen: 535.04 ng/mL
RT: 7.187 min Scan# 1023
Delta R.T. 0.004 min
Lab File: 321157D2.D
Acq: 10 Sep 2019 16:30

Tgt Ion:228 Resp: 37608

Ion	Ratio	Lower	Upper
228	100		
114	14.3	0.0	46.1
200	3.8	0.0	33.8

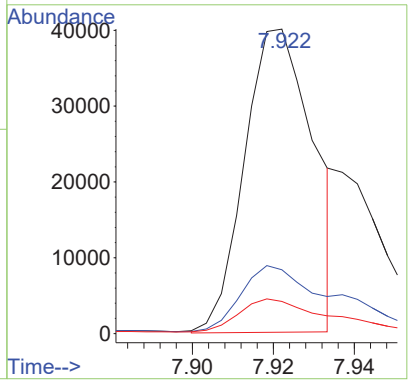


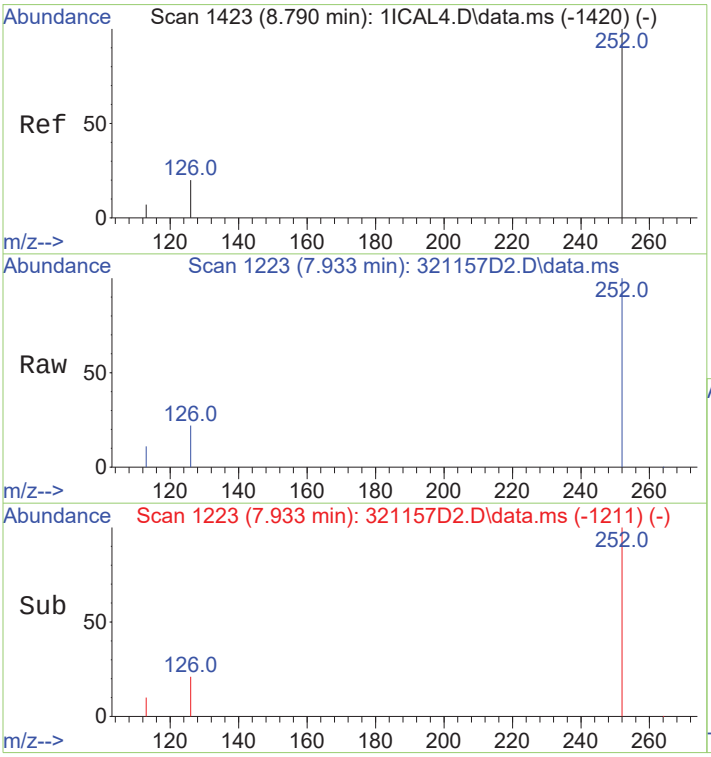


#20
B[b]fluoranth
Concen: 705.95 ng/mL m
RT: 7.922 min Scan# 1220
Delta R.T. 0.007 min
Lab File: 321157D2.D
Acq: 10 Sep 2019 16:30

Tgt Ion:252 Resp: 47386

Ion	Ratio	Lower	Upper
252	100		
126	21.0	0.0	52.1
113	10.5	0.0	40.0

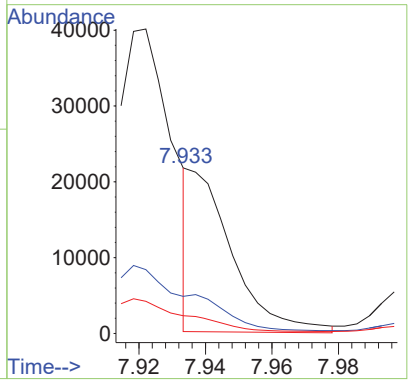


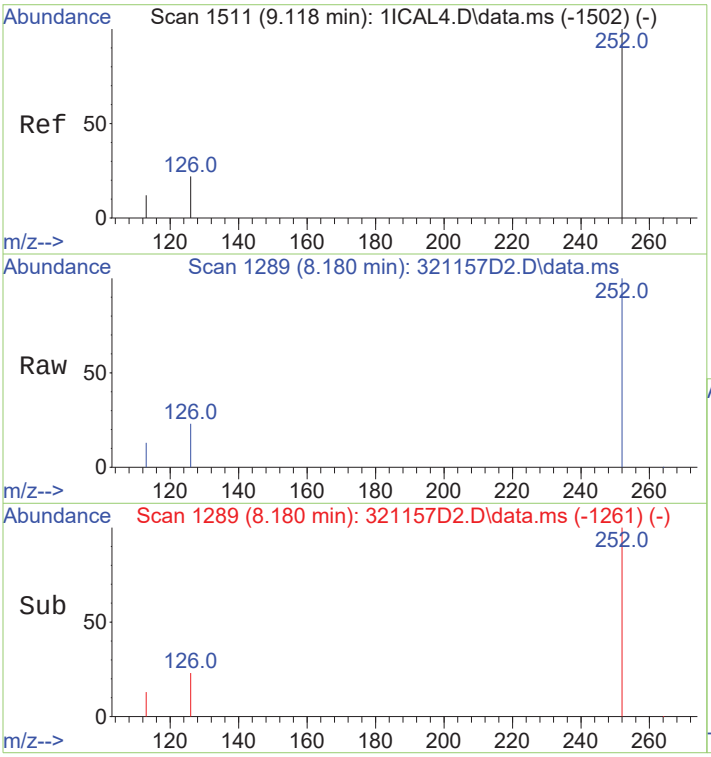


#21
B[k]fluoranth
Concen: 226.48 ng/mL m
RT: 7.933 min Scan# 1223
Delta R.T. -0.004 min
Lab File: 321157D2.D
Acq: 10 Sep 2019 16:30

Tgt Ion:252 Resp: 18878

Ion	Ratio	Lower	Upper
252	100		
126	22.4	0.0	54.3
113	10.8	0.0	39.4

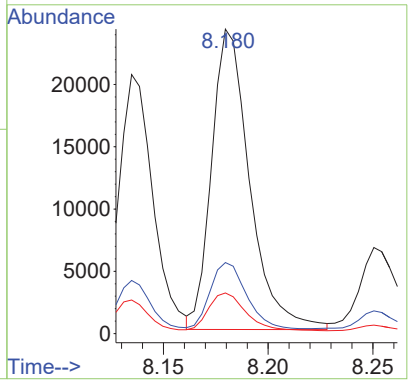


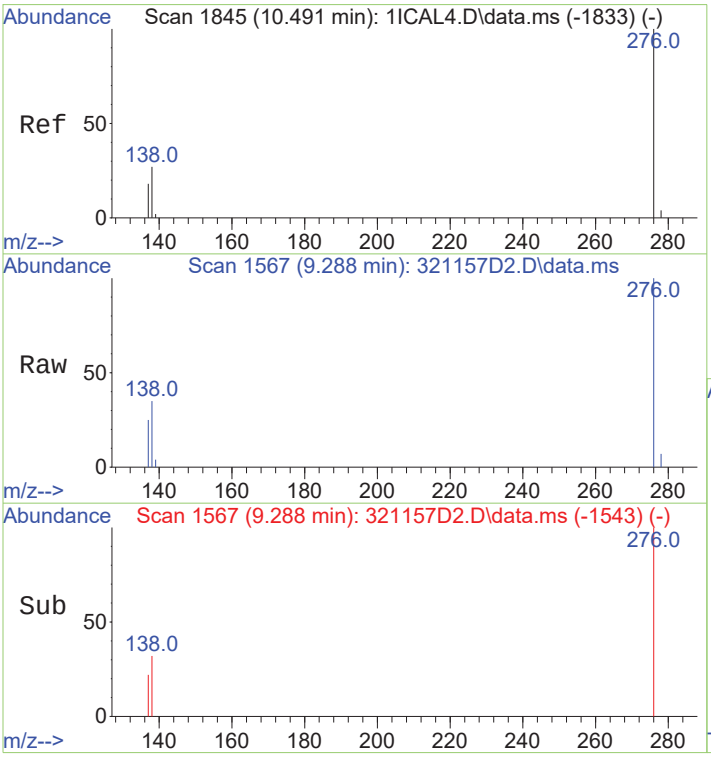


#22
Benz[a]pyrene
Concen: 479.87 ng/mL
RT: 8.180 min Scan# 1289
Delta R.T. 0.004 min
Lab File: 321157D2.D
Acq: 10 Sep 2019 16:30

Tgt Ion:252 Resp: 30525

Ion	Ratio	Lower	Upper
252	100		
126	22.4	0.0	52.7
113	12.8	0.0	42.2

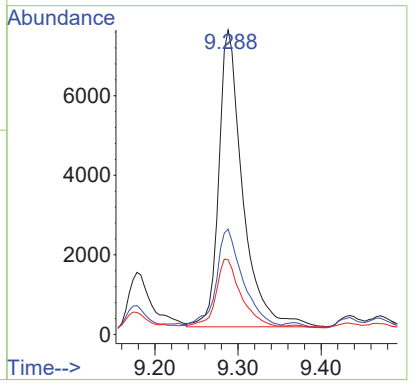


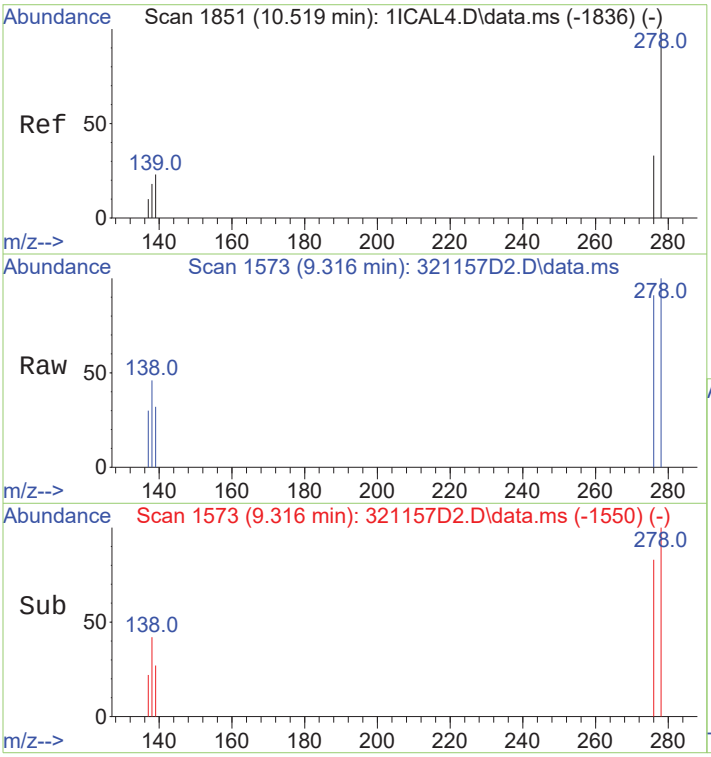


#23
Indeno-pyrene
Concen: 260.19 ng/mL
RT: 9.288 min Scan# 1567
Delta R.T. 0.009 min
Lab File: 321157D2.D
Acq: 10 Sep 2019 16:30

Tgt Ion:276 Resp: 14883

Ion	Ratio	Lower	Upper
276	100		
138	33.2	4.1	64.1
137	22.9	0.0	52.8

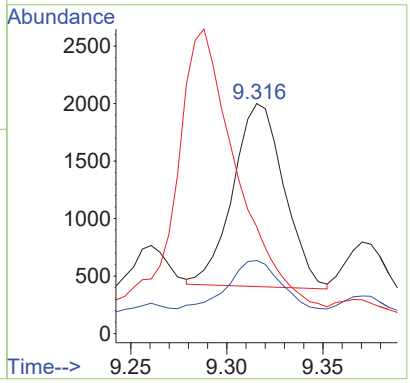


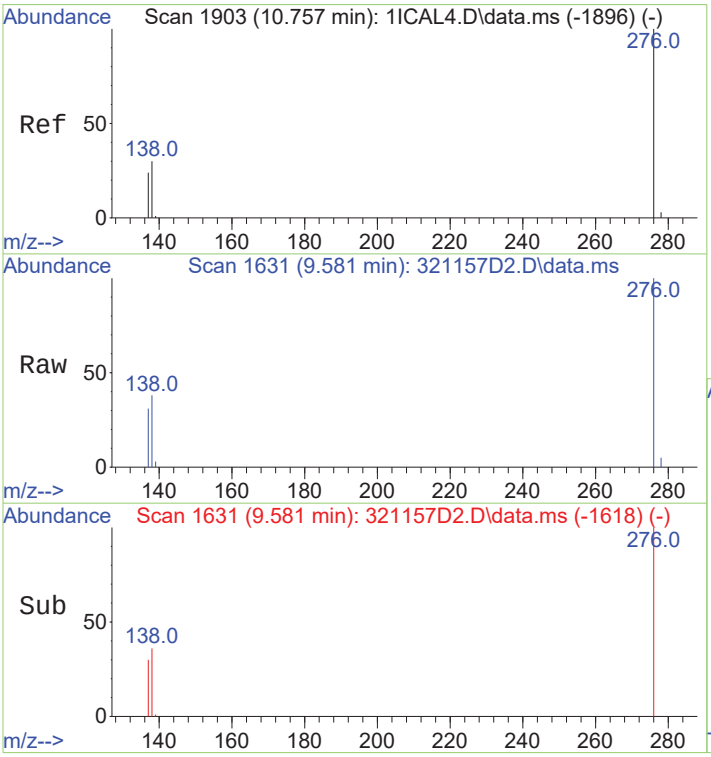


#24
Dib[ah]anthr
Concen: 90.09 ng/mL
RT: 9.316 min Scan# 1573
Delta R.T. 0.005 min
Lab File: 321157D2.D
Acq: 10 Sep 2019 16:30

Tgt Ion:278 Resp: 2944

Ion	Ratio	Lower	Upper
278	100		
139	26.8	0.0	59.3
138	44.3	0.0	56.3

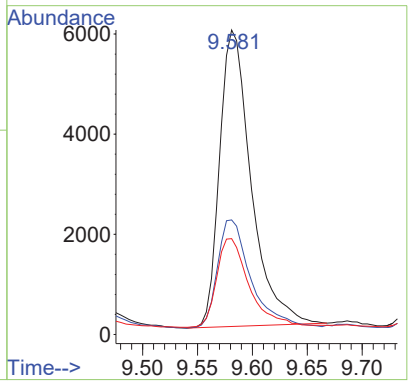


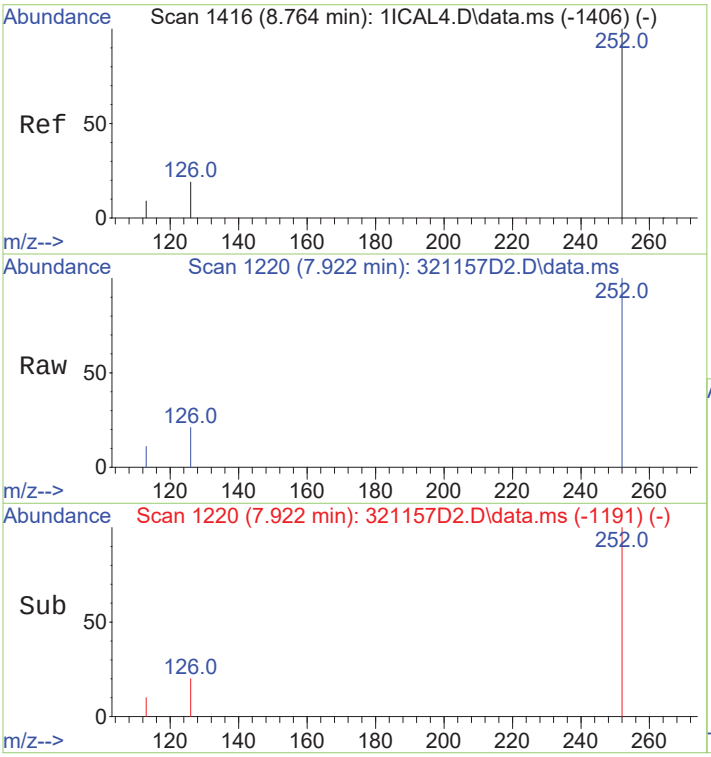


#25
B[ghi]perylen
Concen: 245.73 ng/mL
RT: 9.581 min Scan# 1631
Delta R.T. 0.009 min
Lab File: 321157D2.D
Acq: 10 Sep 2019 16:30

Tgt Ion:276 Resp: 11850

Ion	Ratio	Lower	Upper
276	100		
138	36.3	7.7	67.7
137	29.7	0.6	60.6

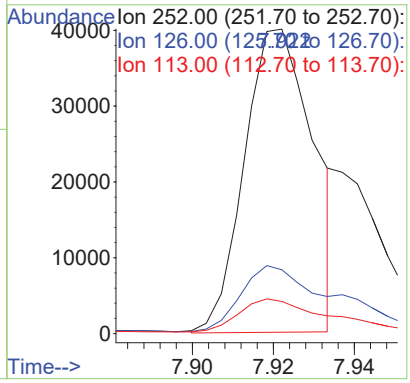




#20
B[b]fluoranth
Concen: 705.95 ng/mL m
RT: 7.922 min Scan# 1220
Delta R.T. 0.007 min
Lab File: 321157D2.D
Acq: 10 Sep 2019 16:30

Tgt Ion:252 Resp: 47386

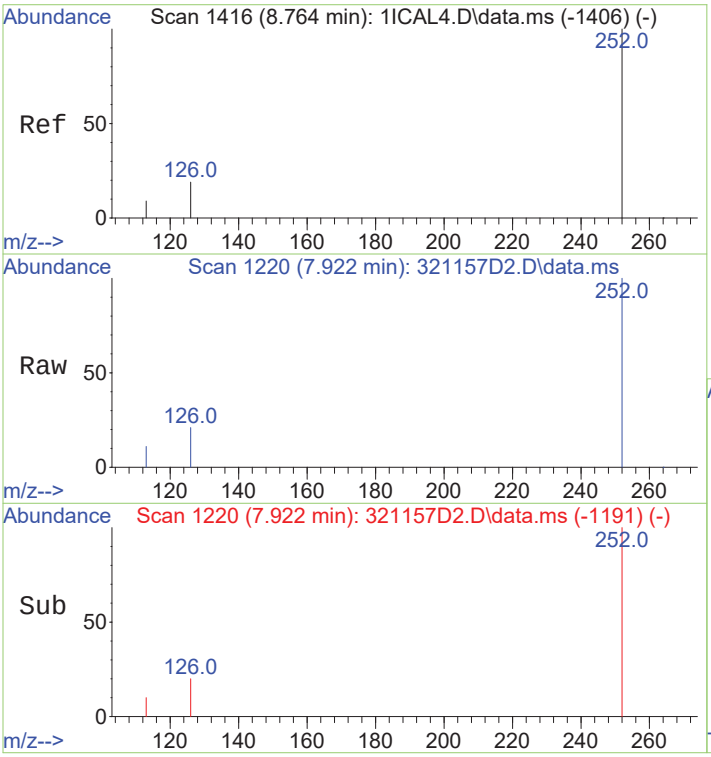
Ion	Ratio	Lower	Upper
252	100		
126	21.0	0.0	52.1
113	10.5	0.0	40.0



RED
9/12/2019

After Manual Integration

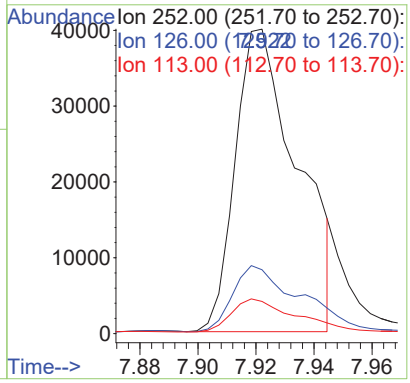
Reason#3 JJY
9/11/19



#20
B[b]fluoranth
Concen: 881.30 ng/mL
RT: 7.922 min Scan# 1220
Delta R.T. 0.007 min
Lab File: 321157D2.D
Acq: 10 Sep 2019 16:30

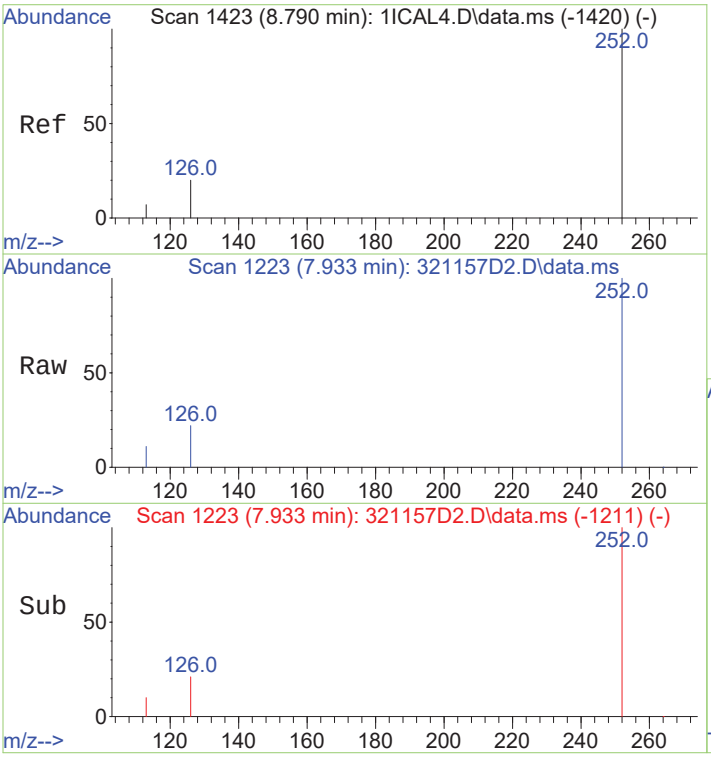
Tgt Ion:252 Resp: 59641

Ion	Ratio	Lower	Upper
252	100		
126	20.5	0.0	52.1
113	10.1	0.0	40.0



Before Manual Integration

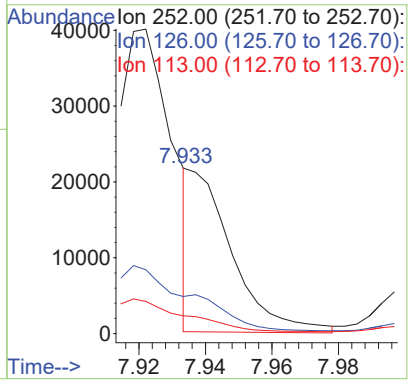
Reason#3 JJY 9/11/19



#21
B[k]fluoranth
Concen: 226.48 ng/mL m
RT: 7.933 min Scan# 1223
Delta R.T. -0.004 min
Lab File: 321157D2.D
Acq: 10 Sep 2019 16:30

Tgt Ion:252 Resp: 18878

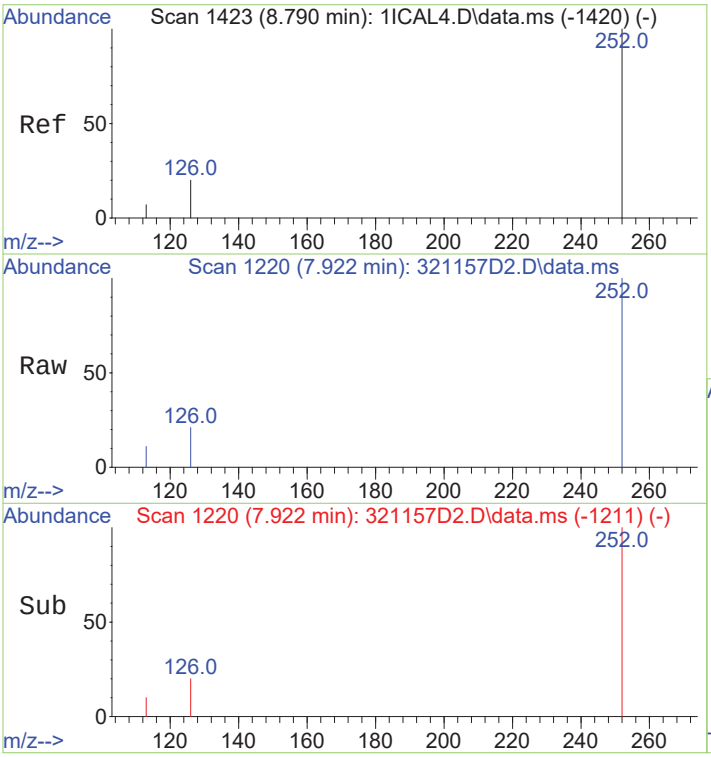
Ion	Ratio	Lower	Upper
252	100		
126	22.4	0.0	54.3
113	10.8	0.0	39.4



RED
9/12/2019

After Manual Integration

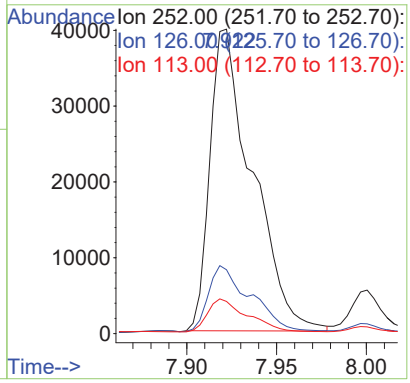
Reason#3 JJY
9/11/19



#21
B[k]fluoranth
Concen: 779.87 ng/mL
RT: 7.922 min Scan# 1220
Delta R.T. -0.015 min
Lab File: 321157D2.D
Acq: 10 Sep 2019 16:30

Tgt Ion:252 Resp: 65346

Ion	Ratio	Lower	Upper
252	100		
126	20.5	0.0	54.3
113	10.1	0.0	39.4



Before Manual Integration

Reason#3 JJY 9/11/19

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091019\321160D2.D Vial: 18
Acq On : 10 Sep 2019 16:50 Operator: JJY
Sample : 164274,321160,10 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 14:51:48 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 14:11:05 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

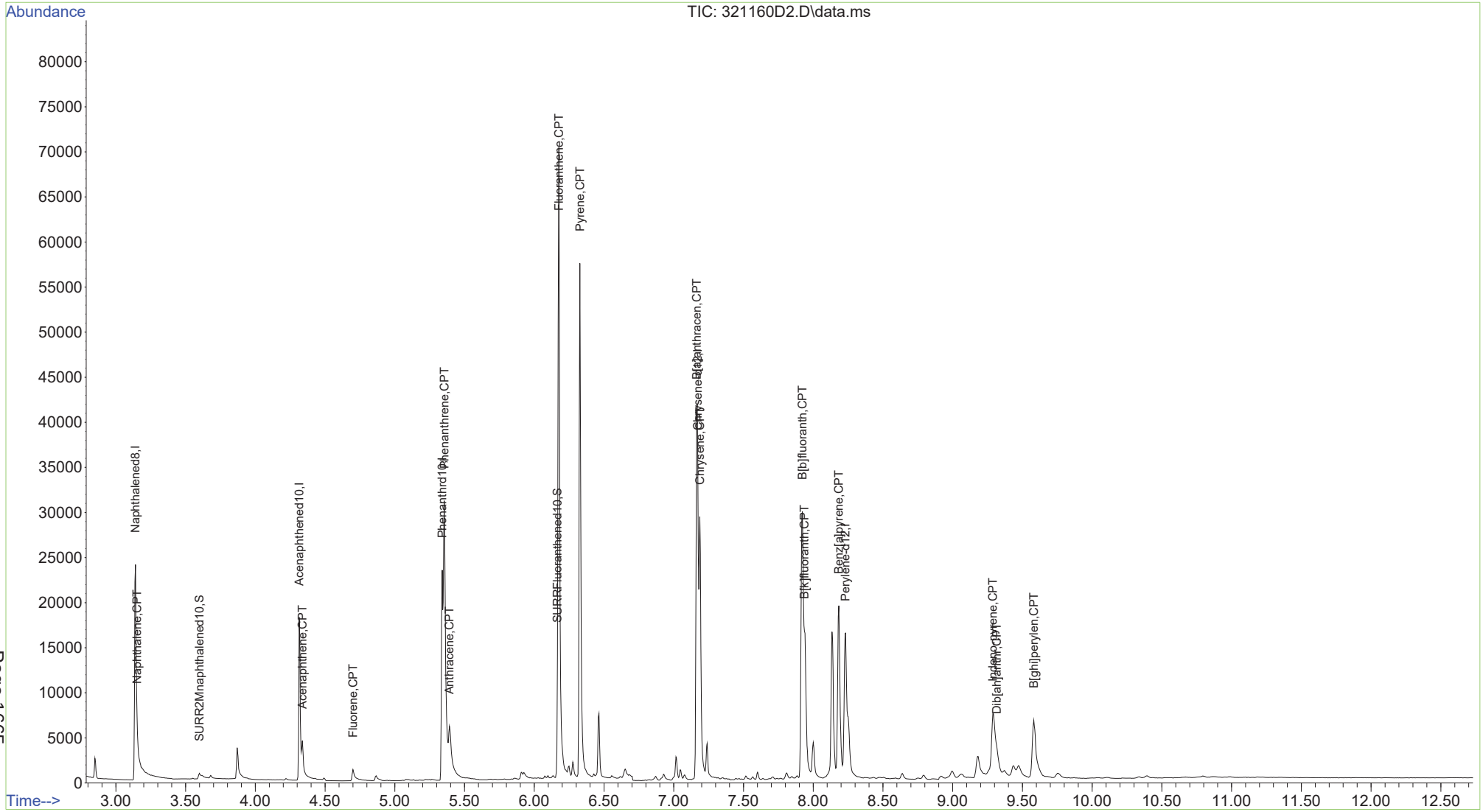
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.140	136	26661	400.00	ng/mL	0.00
6) Acenaphthened10	4.314	164	15018	400.00	ng/mL	0.00
10) Phenanthrd10	5.339	188	24899	400.00	ng/mL	0.00
15) Chrysene-d12	7.172	240	19998	400.00	ng/mL	0.00
19) Perylene-d12	8.232	264	20713	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.599	152	885	5.99	%REC	0.00
Spiked Amount 100.000			Recovery =	5.99%		
13) SURRFluoranthened10	6.166	212	1873	7.62	%REC	0.00
Spiked Amount 100.000			Recovery =	7.62%		
Target Compounds						Qvalue
2) Naphthalene	3.151	128	286	4.3625	ng/ml	84
8) Acenaphthene	4.337	154	1530	35.8706	ng/mL	92
9) Fluorene	4.699	166	1579	35.0750	ng/mL	97
11) Phenanthrene	5.354	178	22070	338.3862	ng/mL	100
12) Anthracene	5.391	178	7298	117.7126	ng/mL	97
14) Fluoranthene	6.176	202	50091	706.5965	ng/mL	95
16) Pyrene	6.327	202	38711	478.7282	ng/mL	97
17) B[a]anthracen	7.165	228	21590	405.0314	ng/mL	99
18) Chrysene	7.187	228	22204	316.1112	ng/mL	100
20) B[b]fluoranth	7.922	252	30030	462.1269	ng/mL	98
21) B[k]fluoranth	7.937	252	9225m	112.6818	ng/mL	
22) Benz[a]pyrene	8.183	252	17247	289.3051	ng/mL	98
23) Indeno-pyrene	9.288	276	8595	171.2759	ng/mL	99
24) Dib[ah]anthr	9.316	278	1667	68.3743	ng/mL	78
25) B[ghi]perylen	9.581	276	7066	166.6803	ng/mL	99

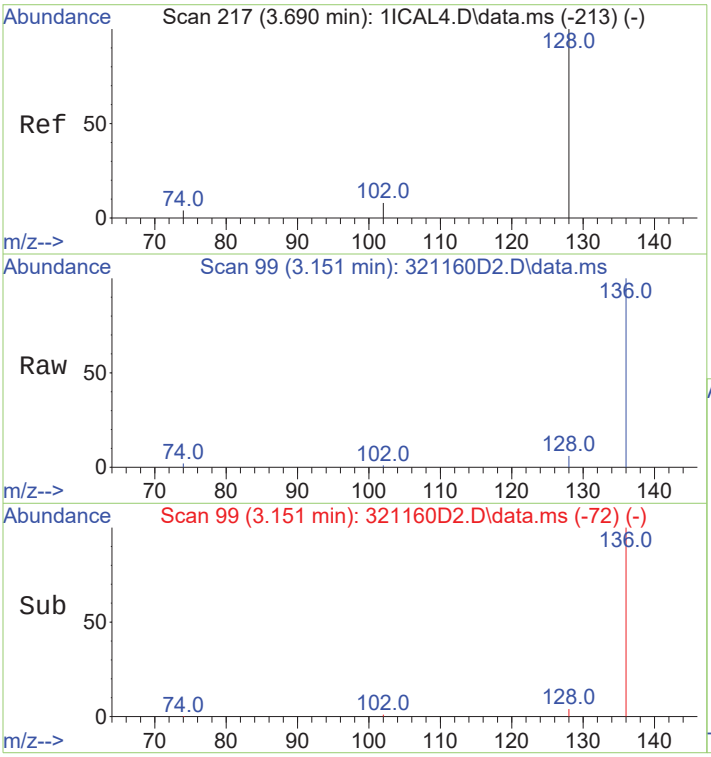
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091019\321160D2.D Vial: 18
Acq On : 10 Sep 2019 16:50 Operator: JJY
Sample : 164274,321160,10 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 14:51:48 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 14:11:05 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

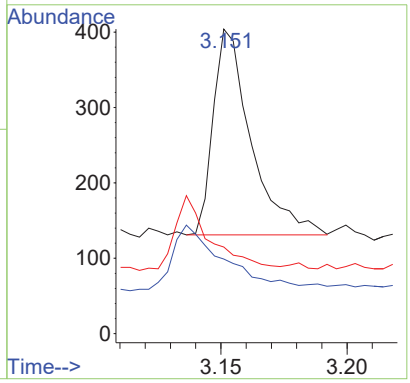


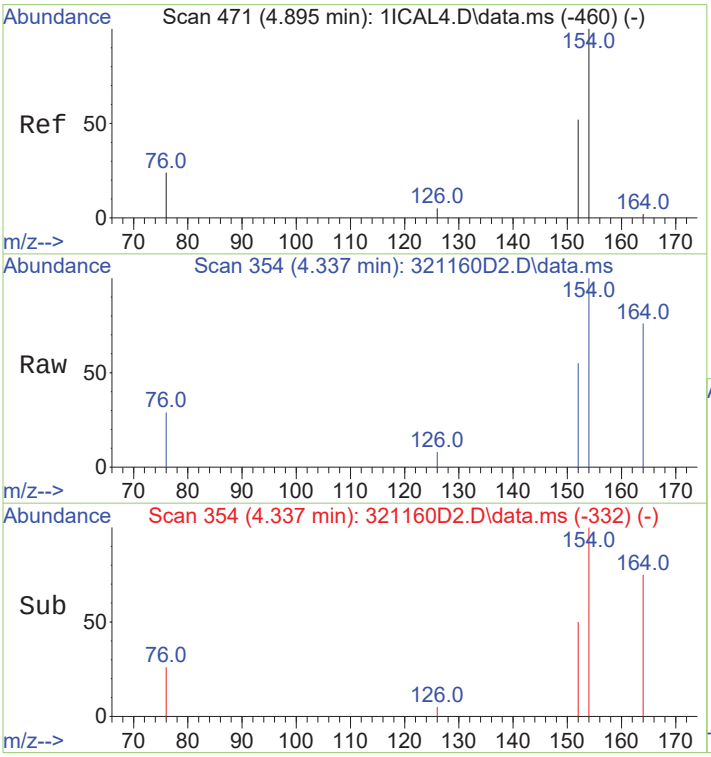


#2
Naphthalene
Concen: 4.36 ng/ml
RT: 3.151 min Scan# 99
Delta R.T. -0.000 min
Lab File: 321160D2.D
Acq: 10 Sep 2019 16:50

Tgt Ion:128 Resp: 286

Ion	Ratio	Lower	Upper
128	100		
102	13.2	0.0	37.6
74	8.4	0.0	33.6

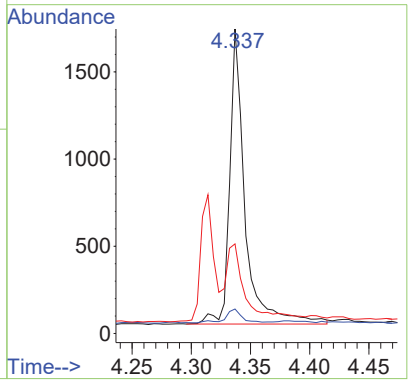


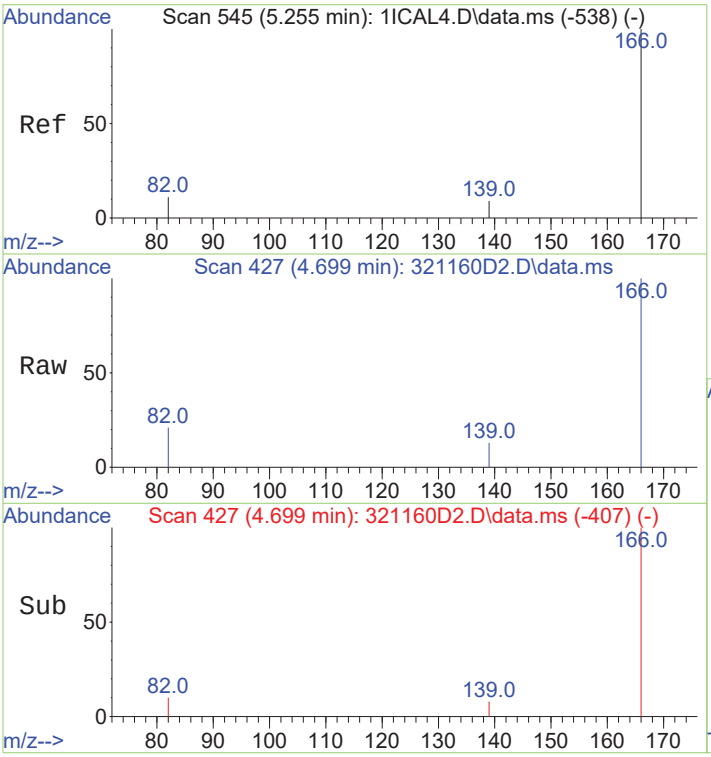


#8
Acenaphthene
Concen: 35.87 ng/mL
RT: 4.337 min Scan# 354
Delta R.T. -0.000 min
Lab File: 321160D2.D
Acq: 10 Sep 2019 16:50

Tgt Ion:154 Resp: 1530

Ion	Ratio	Lower	Upper
154	100		
126	4.6	0.0	34.3
76	26.1	0.0	51.6

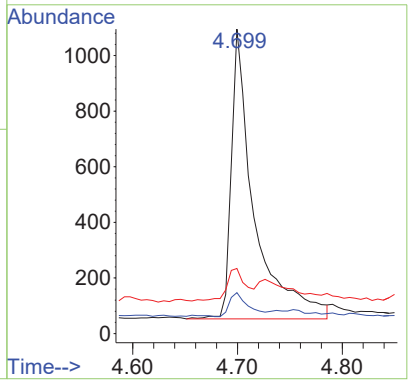


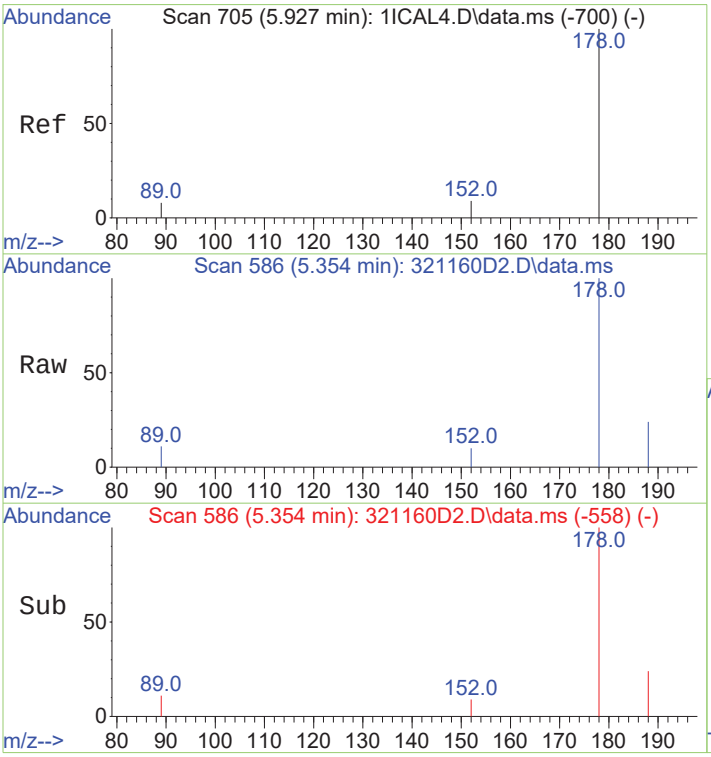


#9
Fluorene
Concen: 35.07 ng/mL
RT: 4.699 min Scan# 427
Delta R.T. 0.005 min
Lab File: 321160D2.D
Acq: 10 Sep 2019 16:50

Tgt Ion:166 Resp: 1579

Ion	Ratio	Lower	Upper
166	100		
139	8.2	0.0	38.6
82	11.0	0.0	42.4

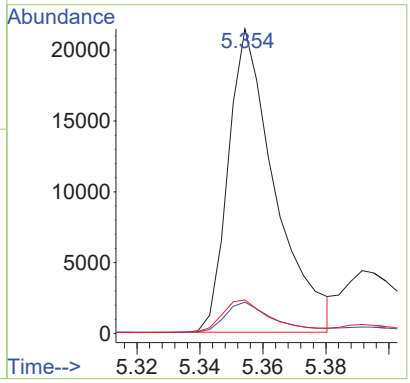


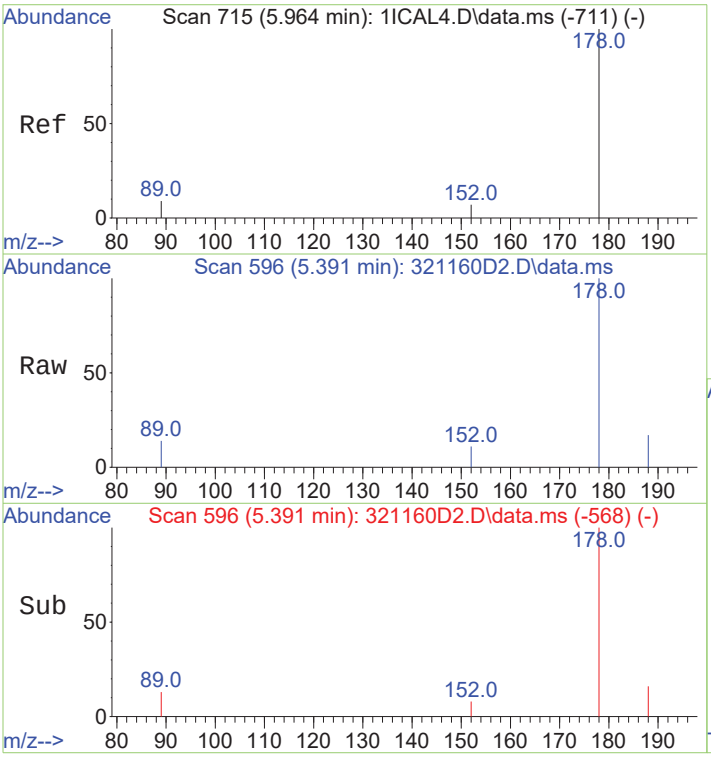


#11
Phenanthrene
Concen: 338.39 ng/mL
RT: 5.354 min Scan# 586
Delta R.T. 0.004 min
Lab File: 321160D2.D
Acq: 10 Sep 2019 16:50

Tgt Ion:178 Resp: 22070

Ion	Ratio	Lower	Upper
178	100		
152	10.1	0.0	40.1
89	11.4	0.0	41.4

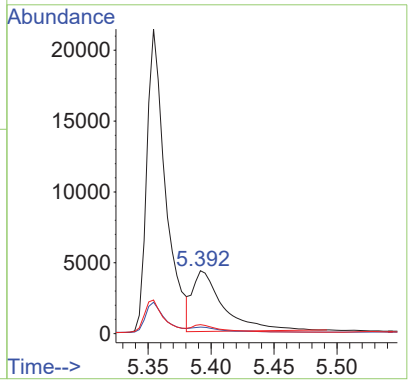


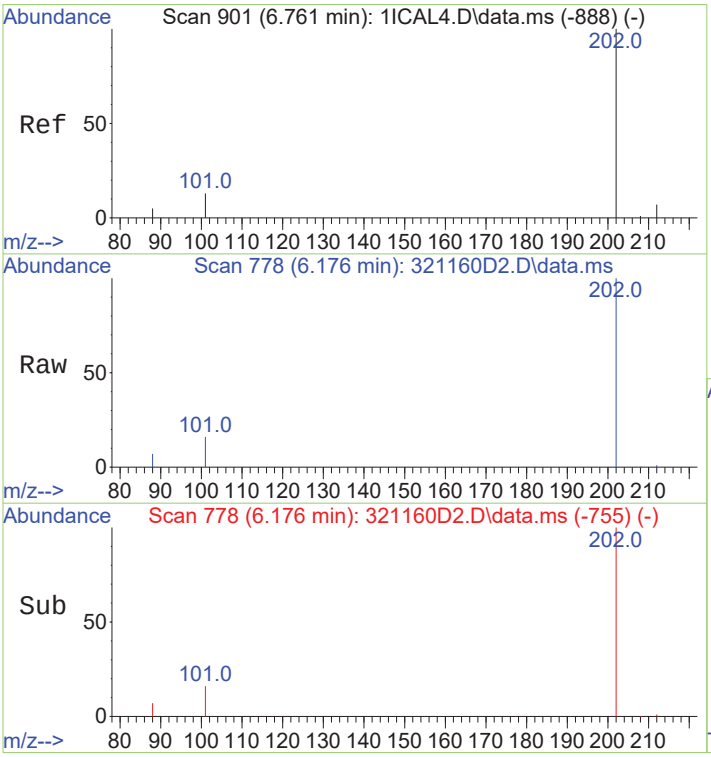


#12
Anthracene
Concen: 117.71 ng/mL
RT: 5.391 min Scan# 596
Delta R.T. 0.004 min
Lab File: 321160D2.D
Acq: 10 Sep 2019 16:50

Tgt Ion:178 Resp: 7298

Ion	Ratio	Lower	Upper
178	100		
152	8.8	0.0	37.8
89	12.8	0.0	31.3

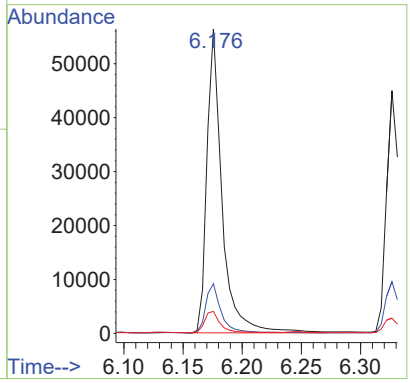


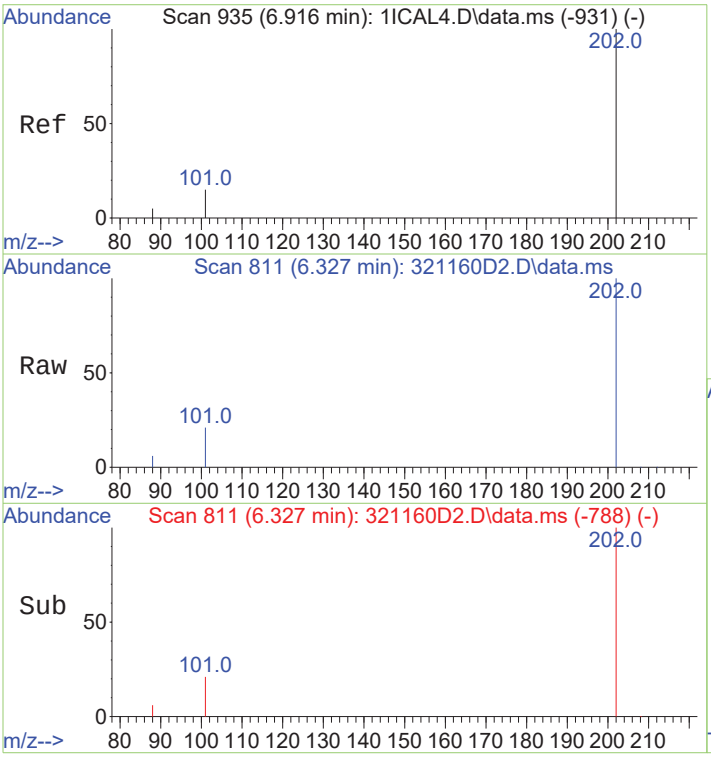


#14
Fluoranthene
Concen: 706.60 ng/mL
RT: 6.176 min Scan# 778
Delta R.T. 0.005 min
Lab File: 321160D2.D
Acq: 10 Sep 2019 16:50

Tgt Ion:202 Resp: 50091

Ion	Ratio	Lower	Upper
202	100		
101	16.2	0.0	48.3
88	7.0	0.0	38.8

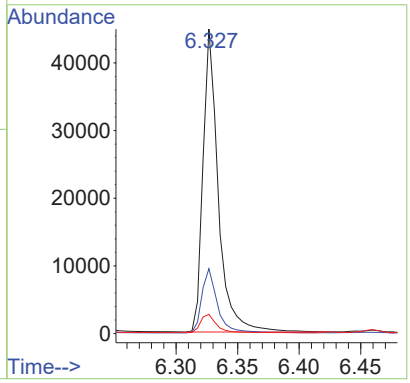


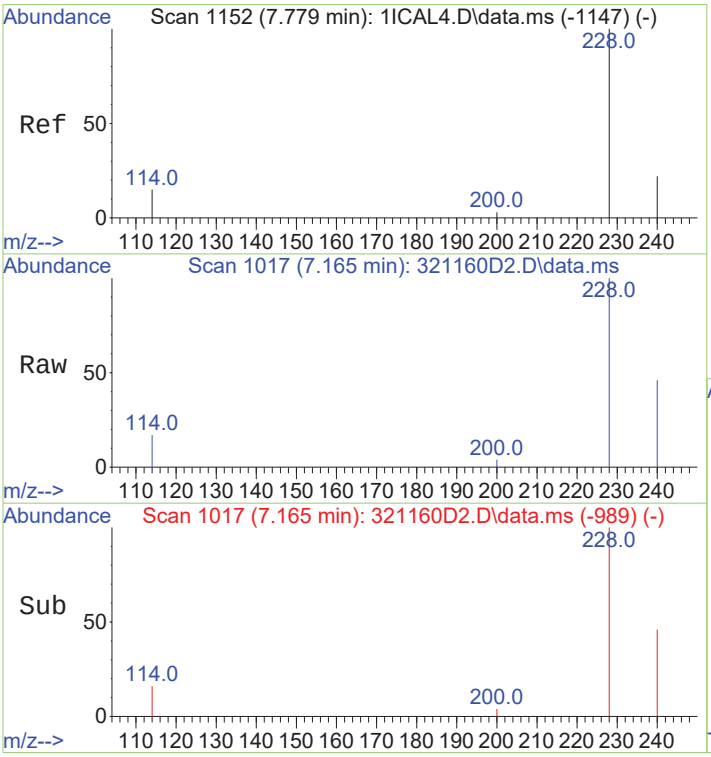


#16
Pyrene
Concen: 478.73 ng/mL
RT: 6.327 min Scan# 811
Delta R.T. 0.005 min
Lab File: 321160D2.D
Acq: 10 Sep 2019 16:50

Tgt Ion:202 Resp: 38711

Ion	Ratio	Lower	Upper
202	100		
101	21.2	0.0	49.4
88	6.1	0.0	35.5

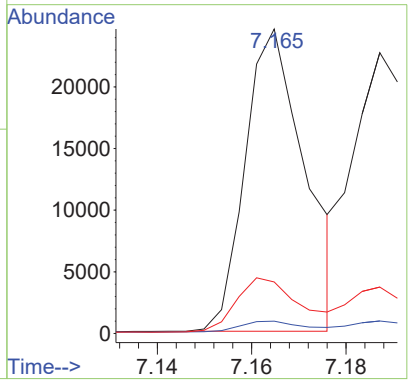


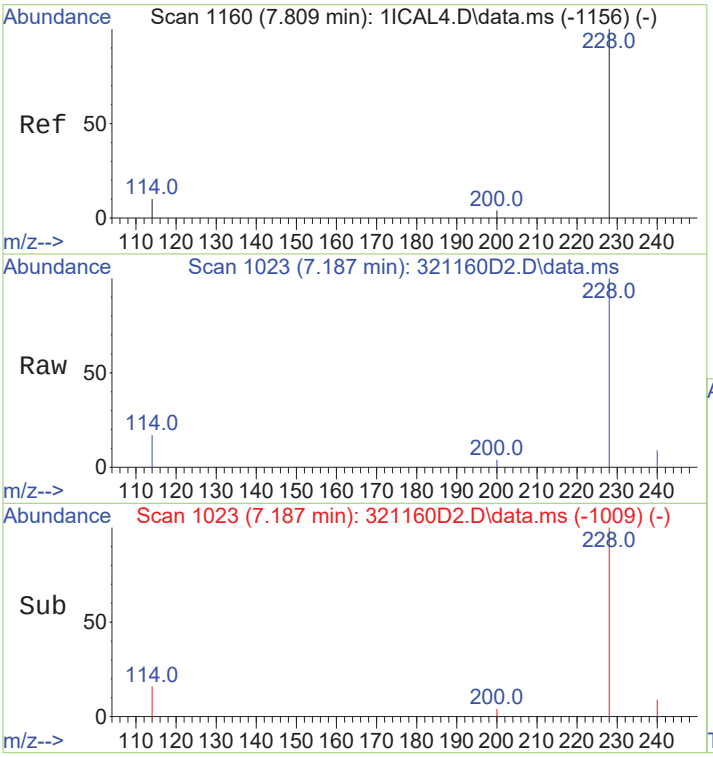


#17
B[a]anthracen
Concen: 405.03 ng/mL
RT: 7.165 min Scan# 1017
Delta R.T. 0.004 min
Lab File: 321160D2.D
Acq: 10 Sep 2019 16:50

Tgt Ion:228 Resp: 21590

Ion	Ratio	Lower	Upper
228	100		
200	3.5	0.0	33.6
114	16.5	0.0	47.0

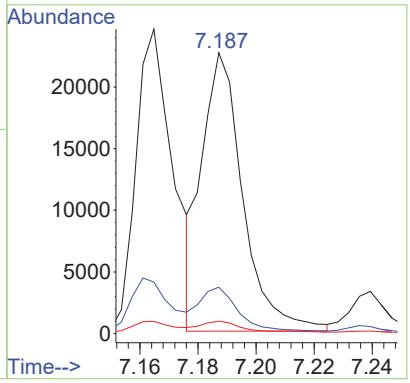


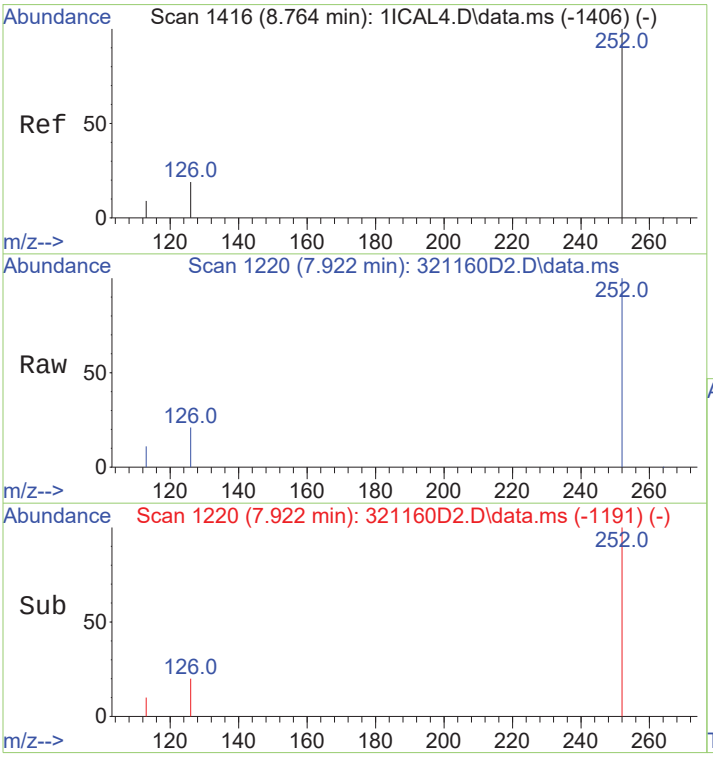


#18
Chrysene
Concen: 316.11 ng/mL
RT: 7.187 min Scan# 1023
Delta R.T. 0.004 min
Lab File: 321160D2.D
Acq: 10 Sep 2019 16:50

Tgt Ion:228 Resp: 22204

Ion	Ratio	Lower	Upper
228	100		
114	16.1	0.0	46.1
200	4.1	0.0	33.8

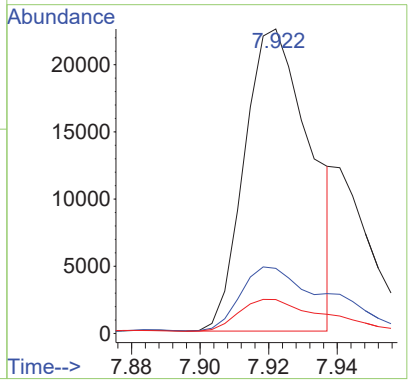


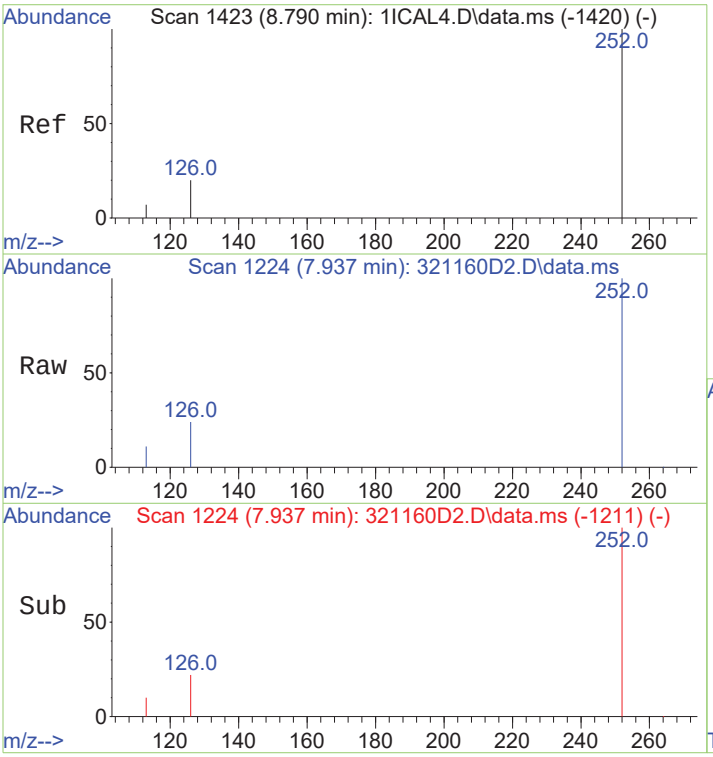


#20
B[b]fluoranth
Concen: 462.13 ng/mL
RT: 7.922 min Scan# 1220
Delta R.T. 0.007 min
Lab File: 321160D2.D
Acq: 10 Sep 2019 16:50

Tgt Ion:252 Resp: 30030

Ion	Ratio	Lower	Upper
252	100		
126	20.7	0.0	52.1
113	10.5	0.0	40.0

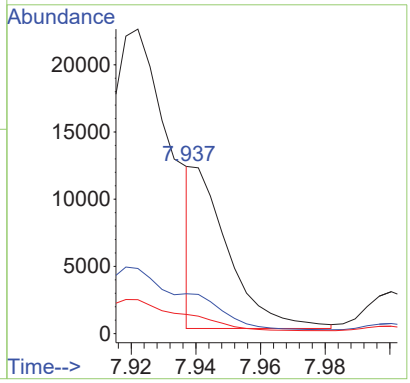


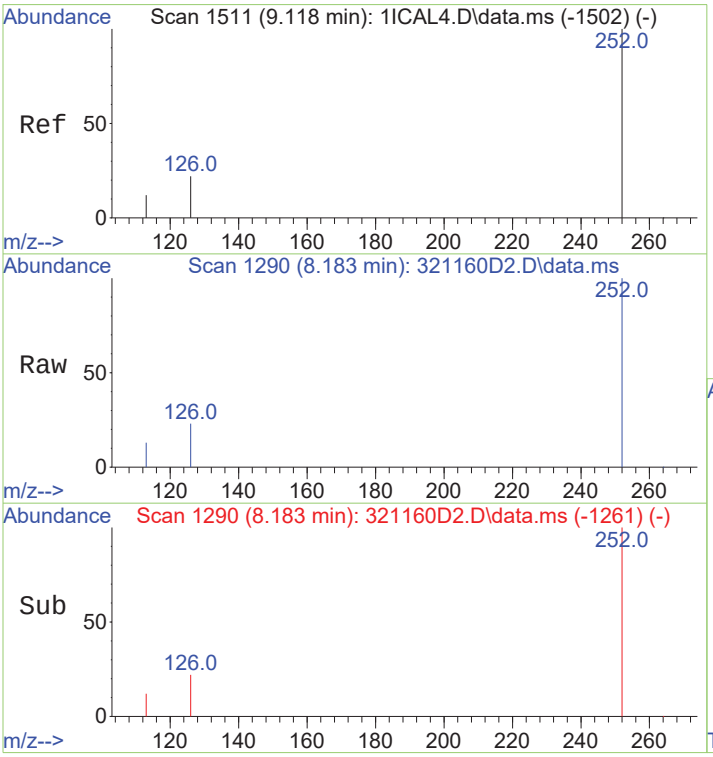


#21
B[k]fluoranth
Concen: 112.68 ng/mL m
RT: 7.937 min Scan# 1224
Delta R.T. -0.000 min
Lab File: 321160D2.D
Acq: 10 Sep 2019 16:50

Tgt Ion:252 Resp: 9225

Ion	Ratio	Lower	Upper
252	100		
126	23.8	0.0	54.3
113	11.4	0.0	39.4

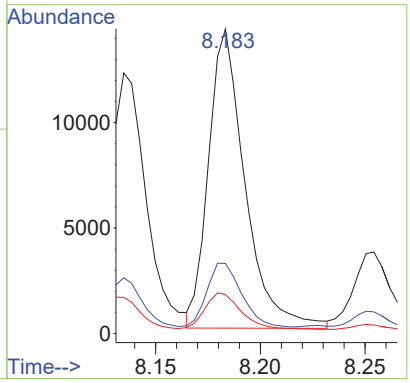


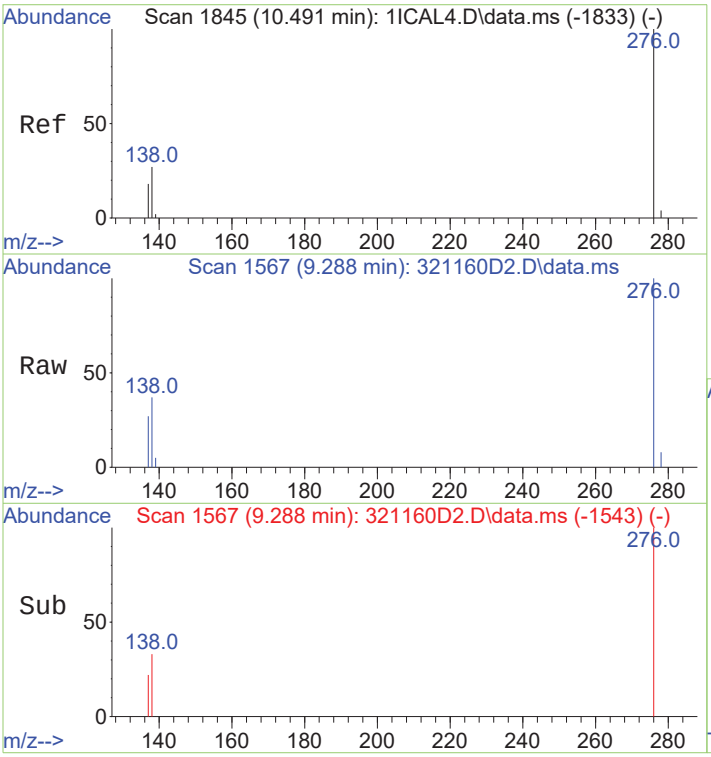


#22
Benz[a]pyrene
Concen: 289.31 ng/mL
RT: 8.183 min Scan# 1290
Delta R.T. 0.007 min
Lab File: 321160D2.D
Acq: 10 Sep 2019 16:50

Tgt Ion:252 Resp: 17247

Ion	Ratio	Lower	Upper
252	100		
126	21.5	0.0	52.7
113	11.9	0.0	42.2

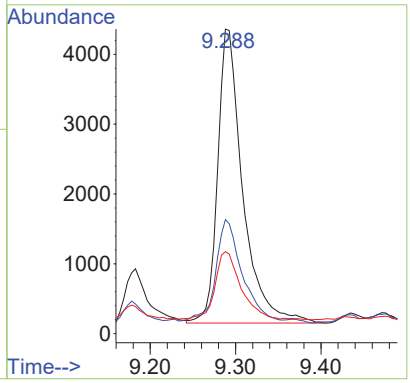


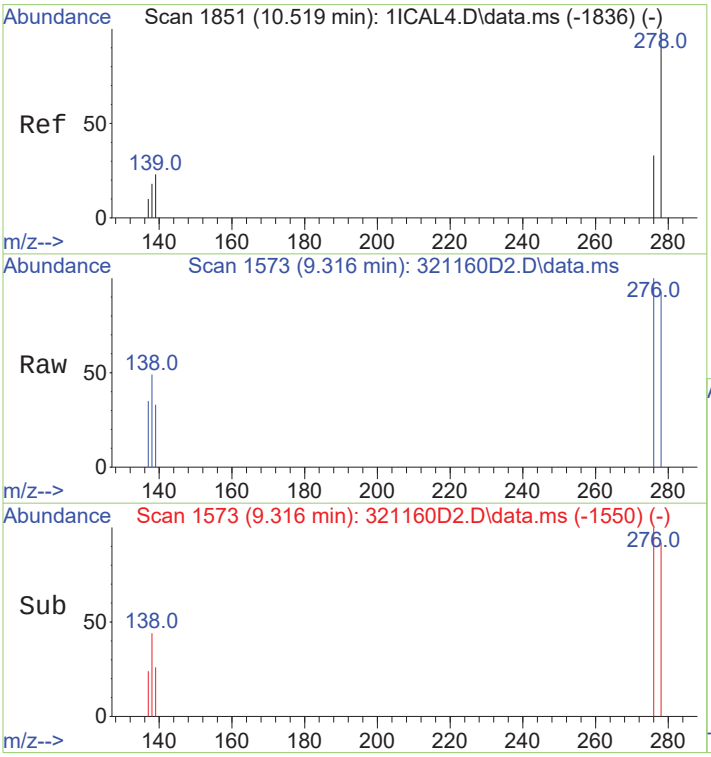


#23
Indeno-pyrene
Concen: 171.28 ng/mL
RT: 9.288 min Scan# 1567
Delta R.T. 0.009 min
Lab File: 321160D2.D
Acq: 10 Sep 2019 16:50

Tgt Ion:276 Resp: 8595

Ion	Ratio	Lower	Upper
276	100		
138	34.8	4.1	64.1
137	22.8	0.0	52.8

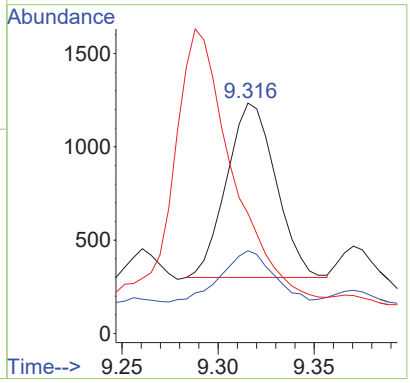


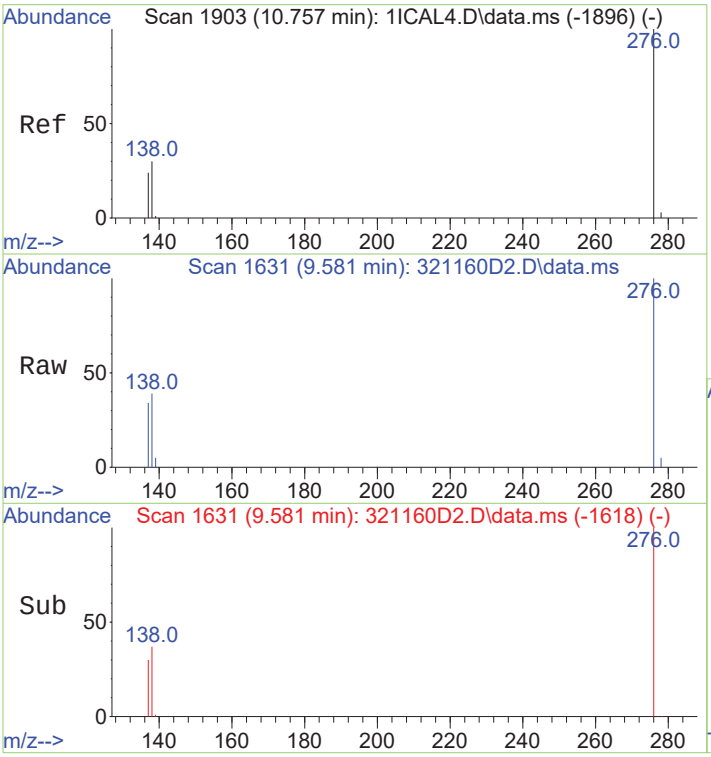


#24
Dib[ah]anthr
Concen: 68.37 ng/mL
RT: 9.316 min Scan# 1573
Delta R.T. 0.005 min
Lab File: 321160D2.D
Acq: 10 Sep 2019 16:50

Tgt Ion:278 Resp: 1667

Ion	Ratio	Lower	Upper
278	100		
139	27.7	0.0	59.3
138	48.1	0.0	56.3

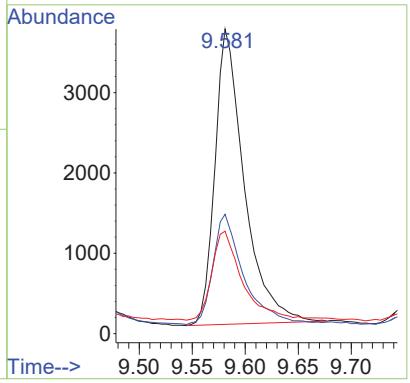


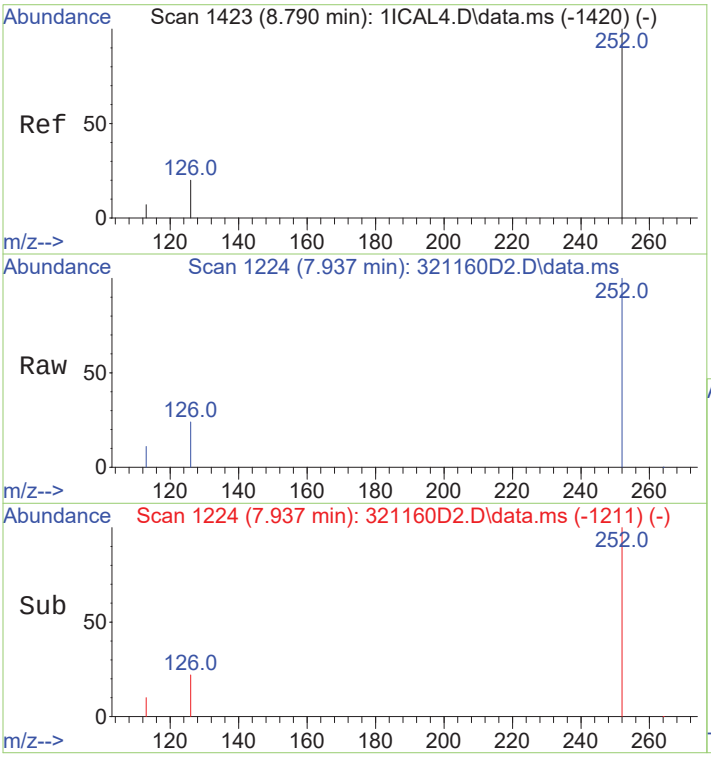


#25
B[ghi]perylen
Concen: 166.68 ng/mL
RT: 9.581 min Scan# 1631
Delta R.T. 0.009 min
Lab File: 321160D2.D
Acq: 10 Sep 2019 16:50

Tgt Ion:276 Resp: 7066

Ion	Ratio	Lower	Upper
276	100		
138	37.2	7.7	67.7
137	30.0	0.6	60.6

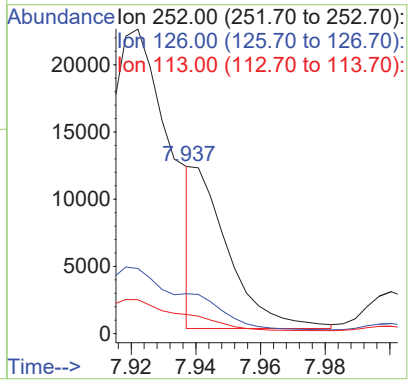




#21
B[k]fluoranth
Concen: 112.68 ng/mL m
RT: 7.937 min Scan# 1224
Delta R.T. -0.000 min
Lab File: 321160D2.D
Acq: 10 Sep 2019 16:50

Tgt Ion:252 Resp: 9225

Ion	Ratio	Lower	Upper
252	100		
126	23.8	0.0	54.3
113	11.4	0.0	39.4

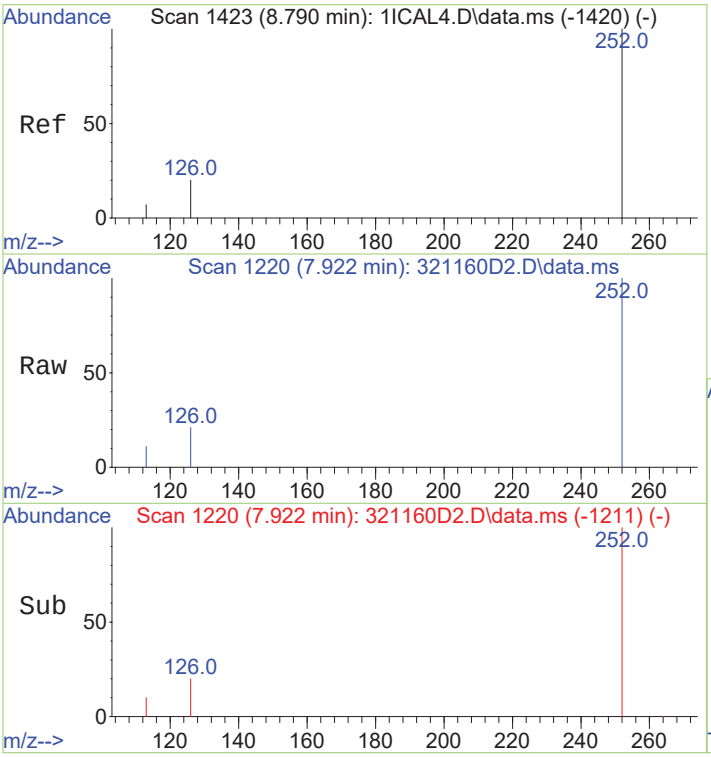


RED
9/12/2019

After Manual Integration

Reason#3

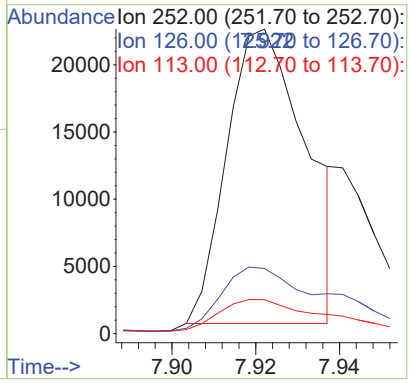
JJY
9/11/19



#21
B[k]fluoranth
Concen: 347.59 ng/mL
RT: 7.922 min Scan# 1220
Delta R.T. -0.015 min
Lab File: 321160D2.D
Acq: 10 Sep 2019 16:50

Tgt Ion:252 Resp: 28745

Ion	Ratio	Lower	Upper
252	100		
126	20.3	0.0	54.3
113	10.2	0.0	39.4



Before Manual Integration

Reason#3 JJY 9/11/19

SEMI - VOLATILE ORGANIC ANALYSIS
INITIAL CALIBRATION
DOCUMENTS

Injection Log Summary Report

Method : C:\INSTARCH\METHOD\1S082019.M (RTE Integrator)
Title : Method for 8270 Analysis
Start (Tune) File ID : C:\INSTARCH\DATA\1S082019\1DFTP449.D
Injection Date : 20 Aug 2019 Log Time Period (hrs) : ALL
Injection Time : 09:39 Total files within period : 29
Sample Directory : C:\INSTARCH\DATA\1S082019\

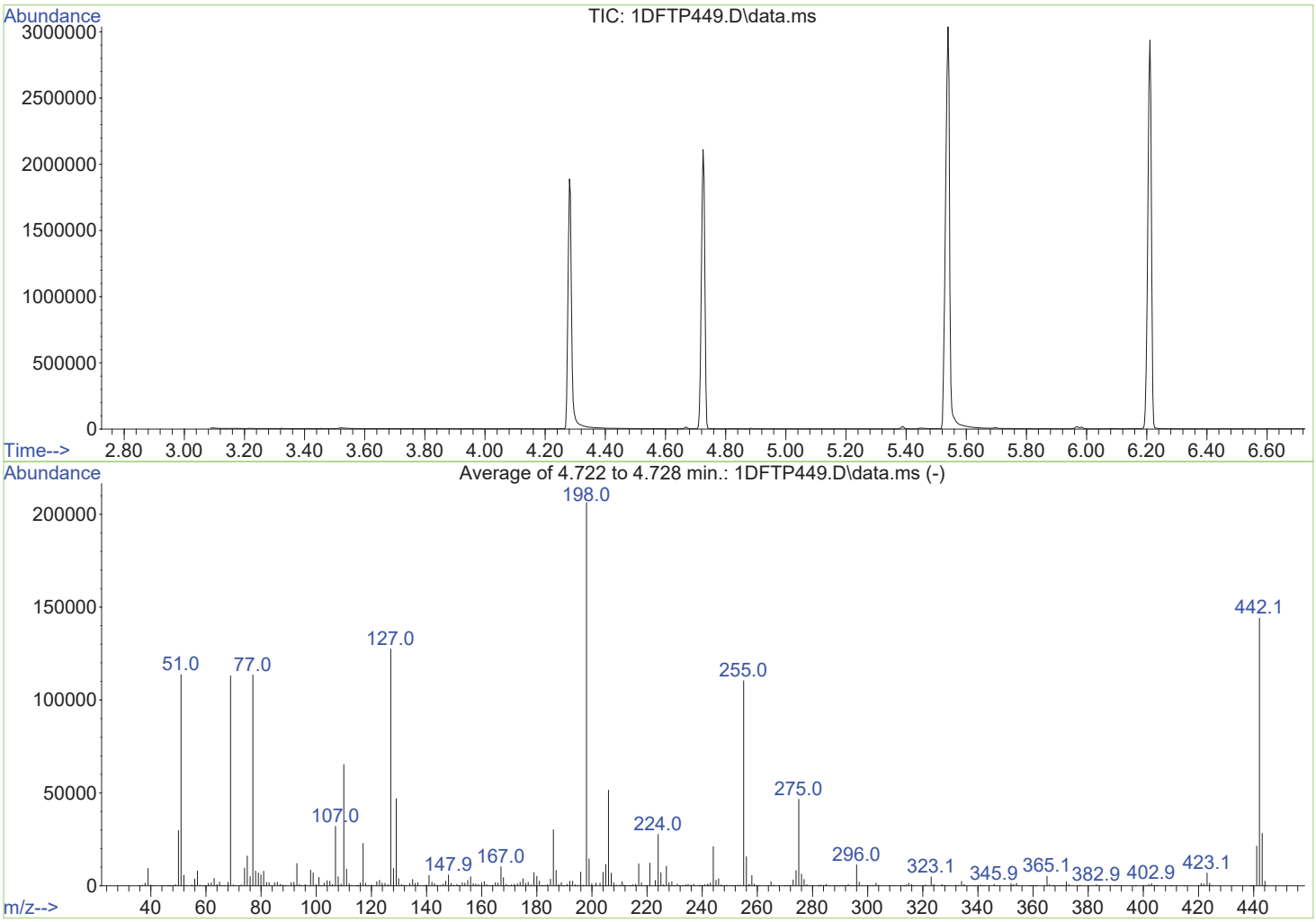
Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name / Misc Info	Date	Time
1IB01	1.00	1.00	1.00	InstrumentBlank 500ul+5ul S4077D	20 Aug 2019	09:54
1ICAL7	1.00	1.00	1.00	ICAL 50ug/mL SVMS8430 500ul+5ul S4077D	20 Aug 2019	10:12
1ICAL6	1.00	1.00	1.00	ICAL 40ug/mL SVMS8429 500ul+5ul S4077D	20 Aug 2019	10:31
1ICAL5	1.00	1.00	1.00	ICAL 30ug/mL SVMS8428 500ul+5ul S4077D	20 Aug 2019	10:50
1ICAL4	1.00	1.00	1.00	ICAL 20ug/mL SVMS8427 500ul+5ul S4077D	20 Aug 2019	11:08
1ICAL3	1.00	1.00	1.00	ICAL 10ug/mL SVMS8426 500ul+5ul S4077D	20 Aug 2019	11:27
1ICAL2	1.00	1.00	1.00	ICAL 5ug/mL SVMS8425 500ul+5ul S4077D	20 Aug 2019	11:45
1ICAL1	1.00	1.00	1.00	ICAL 1ug/mL SVMS8424 500ul+5ul S4077D	20 Aug 2019	12:04
1ICV1	1.00	1.00	1.00	ICV 20ug/mL SVMS8431 500ul+5ul S4077D	20 Aug 2019	12:23
1ICV2	1.00	1.00	1.00	ICV 40ug/mL SVMS8432 500ul+5ul S4077D	20 Aug 2019	12:41

Data Path : C:\INSTARCH\DATA\1S082019\
Data File : 1DFTP449.D
Acq On : 20 Aug 2019 9:39
Operator : RPN
Sample : DFTPP TUNE SVMS8353
Misc : SVMS1,25ng DFTPP
ALS Vial : 1 Sample Multiplier: 1

Integration File: DDD.p

Method : C:\INSTARCH\METHOD\1DFTPP.M
Title : DFTPP TUNE
Last Update : Tue Aug 20 13:27:55 2019



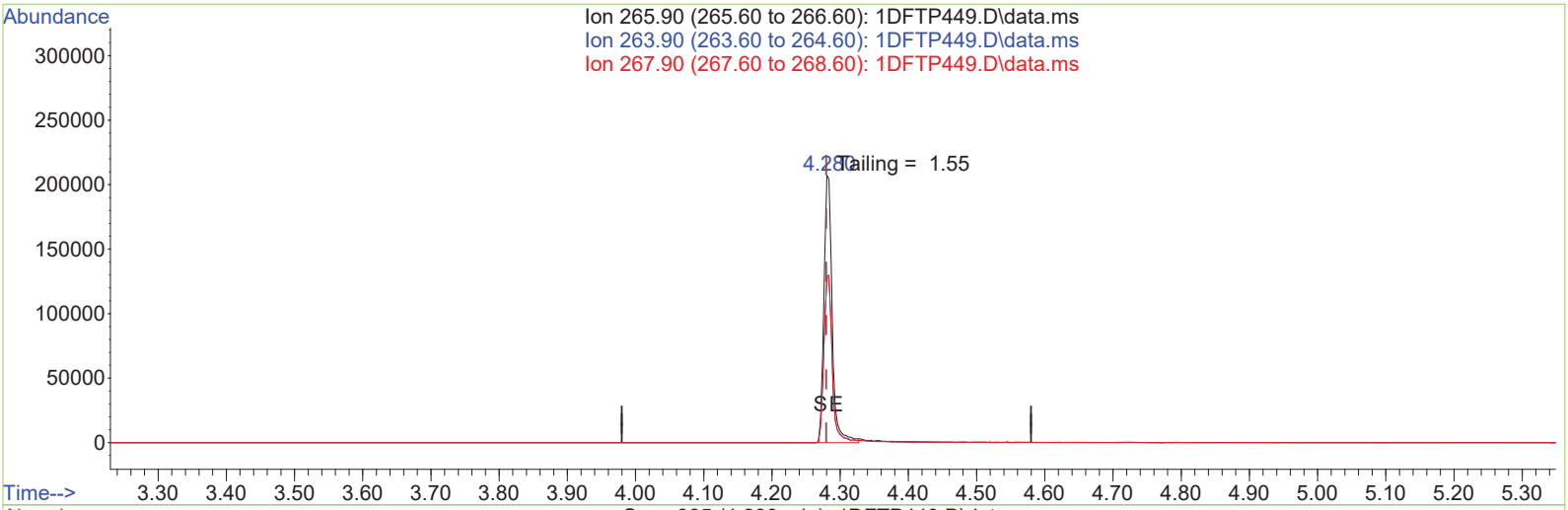
AutoFind: Scans 527, 528, 529; Background Corrected with Scan 519

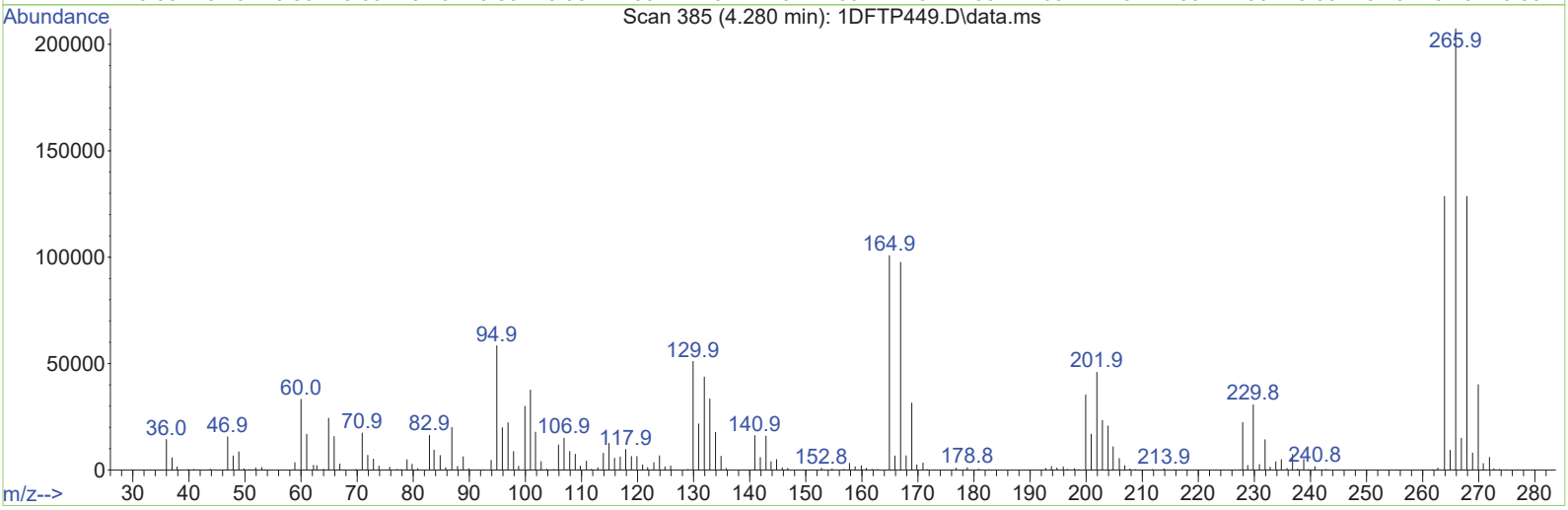
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	55.1	113641	PASS
68	69	0.00	2	1.7	1900	PASS
70	69	0.00	2	0.4	459	PASS
127	198	10	80	61.8	127472	PASS
197	198	0.00	2	0.2	360	PASS
198	198	50	100	100.0	206251	PASS
199	198	5	9	7.0	14479	PASS
275	198	10	60	22.6	46597	PASS
365	198	1	100	2.5	5125	PASS
441	442	0.01	24	14.8	21362	PASS
442	198	50	100	69.8	144029	PASS
443	442	15	24	19.6	28237	PASS

Quantitation Report (Qedit)

Data File : C:\INSTARCH\DATA\1S082019\1DFTP449.D Vial: 1
Acq On : 20 Aug 2019 9:39 Operator: RPN
Sample : DFTPP TUNE SVMS8353 Inst : SVMS1
Misc : SVMS1,25ng DFTPP Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:28:03 2019

Quant Method : C:\INSTARCH\METHOD\1DFTPP.M
Quant Title : DFTPP TUNE
QLast Update : Tue Aug 20 13:27:55 2019
Response via : Initial Calibration
DataAcq Meth:1DFTPP.M





TIC: 1DFTP449.D\data.ms

(1) Pentachlorophenol

4.280min (+ 0.000) 25.00 ng

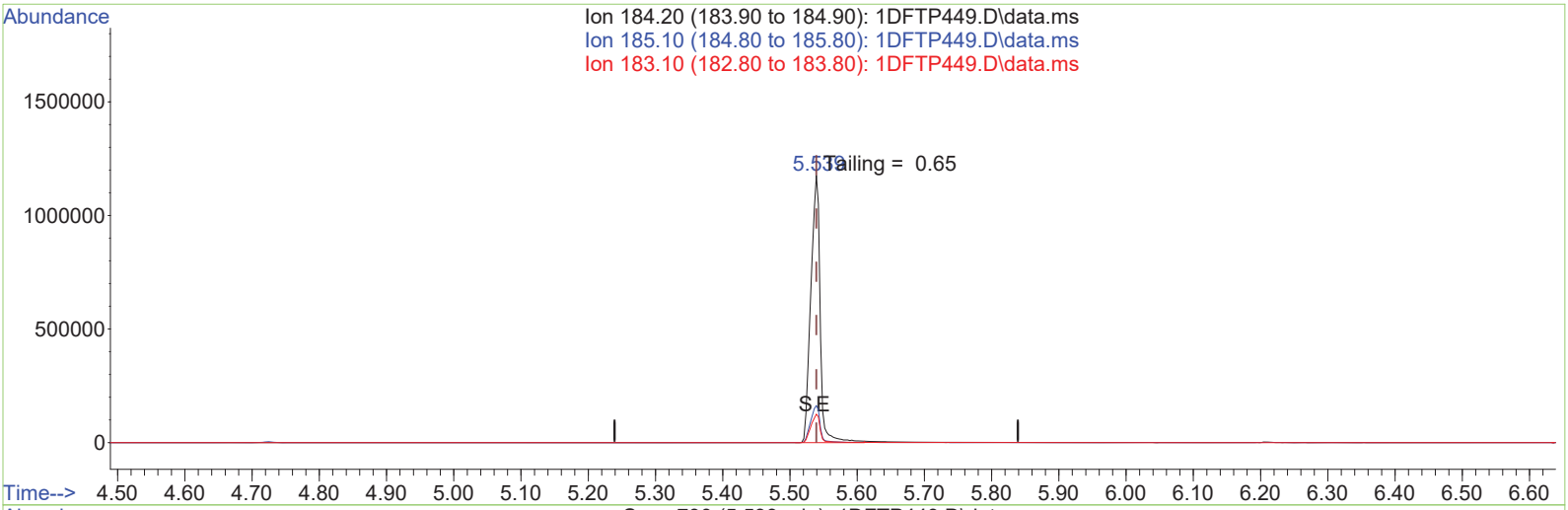
response 175927

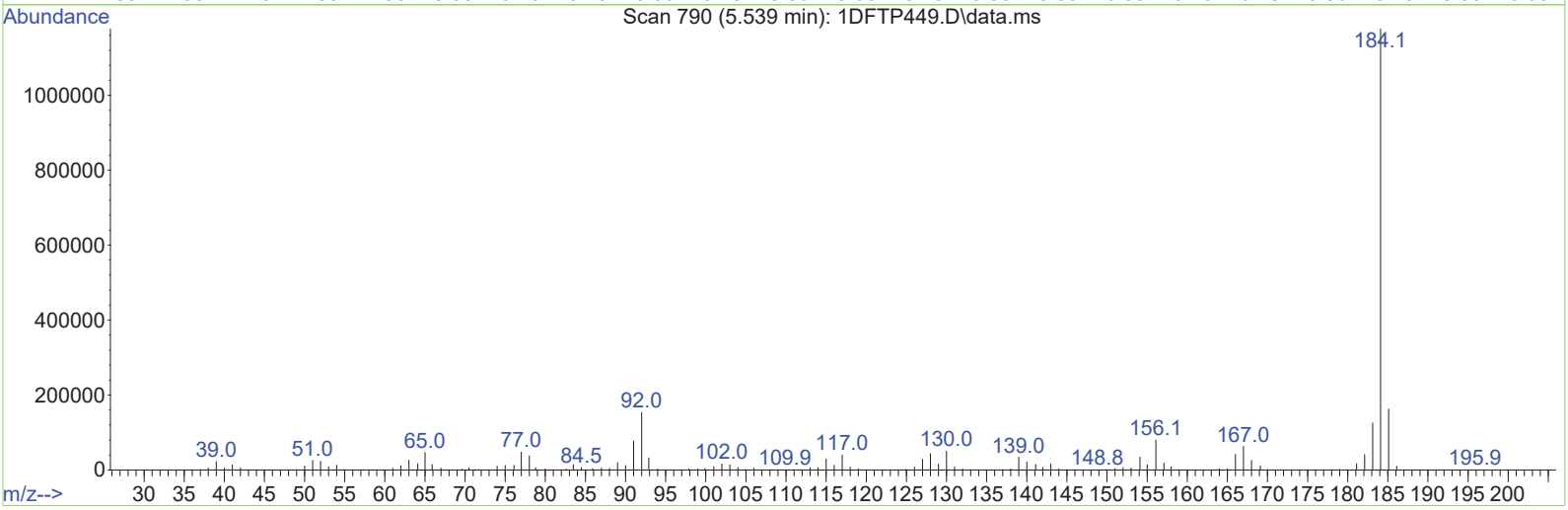
Ion	Exp%	Act%
265.90	100.00	100.00
263.90	64.60	62.84
267.90	65.00	63.58
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\INSTARCH\DATA\1S082019\1DFTP449.D Vial: 1
Acq On : 20 Aug 2019 9:39 Operator: RPN
Sample : DFTPP TUNE SVMS8353 Inst : SVMS1
Misc : SVMS1,25ng DFTPP Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:28:03 2019

Quant Method : C:\INSTARCH\METHOD\1DFTPP.M
Quant Title : DFTPP TUNE
QLast Update : Tue Aug 20 13:27:55 2019
Response via : Initial Calibration
DataAcq Meth:1DFTPP.M





TIC: 1DFTP449.D\data.ms

(3) Benzidine

5.539min (0.000) 25.00 ng

response 1141651

Ion	Exp%	Act%
184.20	100.00	100.00
185.10	15.90	13.89
183.10	12.20	10.55
0.00	0.00	0.00

Data File Name	1DFTP449.D
Vial Number	1
Data File Path	C:\INSTARCH\DATA\1S082019\
Operator	RPN
Date Acquired	8/20/2019 9:39
Instrument Name	SVMS1
Sample Name	DFTPP TUNE SVMS8353
Sample Multiplier	1
Misc Info	SVMS1,25ng DFTPP
Calibration Title	DFTPP TUNE
Last Calibration Update	Tue Aug 20 13:27:55 2019

#	Name	Ret Time	Target Response
1)	Pentachlorophenol	4.28	175927
2)	DFTPP	4.72	179353
3)	Benzidine	5.54	1141651
4)	DDE	5.70	794
5)	DDD	5.97	4118
6)	DDT	6.21	450497

DDT % Degradation

$$\frac{DDD+DDEx100}{DDD+DDE+DDT} \quad 1.08\ \%$$

Response Factor Report SVMS1

Method Path : C:\INSTARCH\METHOD\
Method File : 1S082019.M
Title : Method for 8270 Analysis
Last Update : Tue Aug 20 13:23:38 2019
Response Via : Initial Calibration

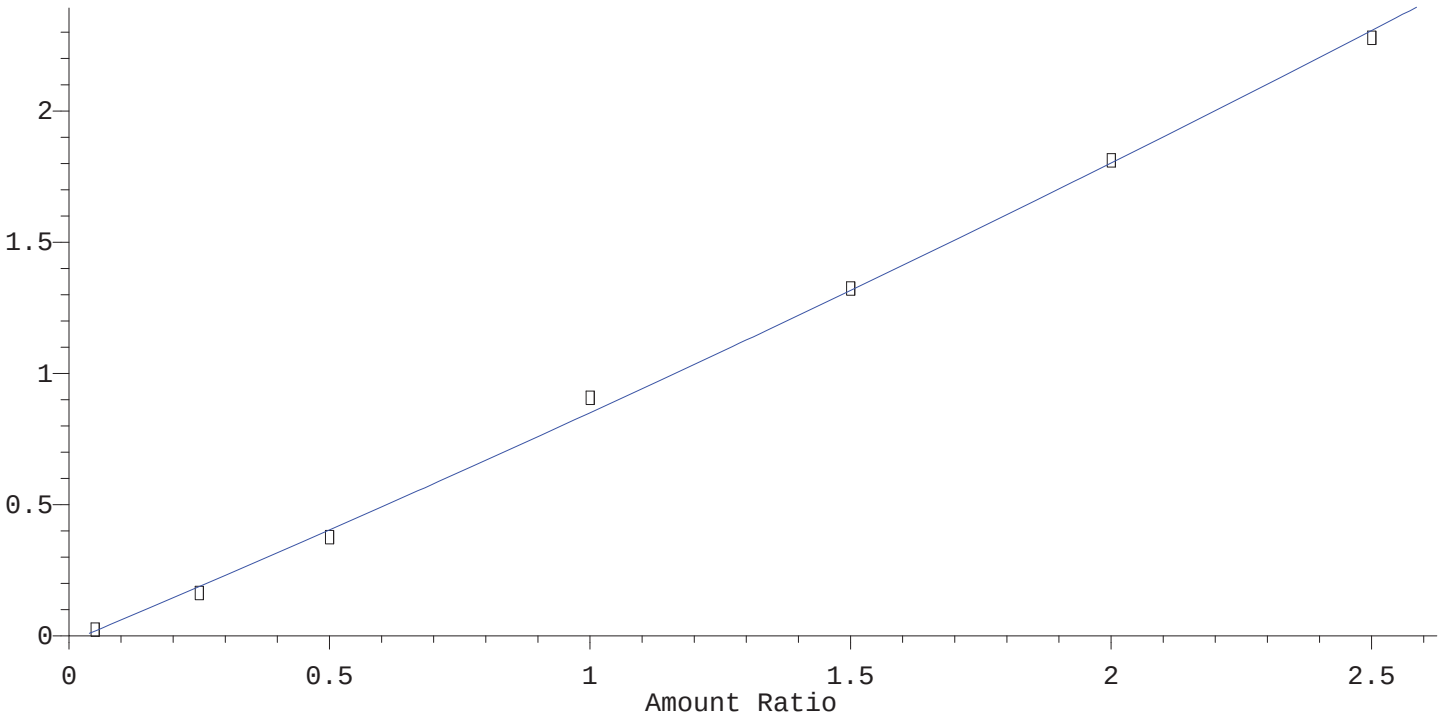
Calibration Files
1 =1ICAL1.D 5 =1ICAL2.D 10 =1ICAL3.D 20 =1ICAL4.D 30 =1ICAL5.D 40 =1ICAL6.D 50 =1ICAL7.D

	Compound		1	5	10	20	30	40	50	Avg	%RSD
1)	I	14Diclbenzd4	----------ISTD----------								
2)	CT	Ntrsdimeth	0.470	0.654	0.752	0.907	0.882	0.906	0.912	0.783	21.62#
3)	CT	Pyridine	0.791	0.983	1.141	1.422	1.419	1.421	1.427	1.229	21.26#
4)	S	SURR2Flphenol	0.371	0.390	0.445	0.536	0.529	0.542	0.533	0.478	15.58
5)	CT	Aniline	1.652	1.586	1.847	2.169	2.112	2.119	2.051	1.934	12.38
6)	CPT	bis2Clethletr	1.190	1.073	1.197	1.364	1.317	1.333	1.281	1.251	8.19
7)	S	SURRPhenol-d5	0.451	0.465	0.553	0.634	0.618	0.632	0.612	0.566	13.96
8)	CPT	Phenol	1.514	1.469	1.725	1.913	1.864	1.863	1.814	1.737	10.26
9)	CPT	2-Cl-phenol	1.255	1.127	1.274	1.480	1.448	1.477	1.423	1.355	10.09
10)	CT	13Diclbenz	1.513	1.249	1.400	1.593	1.540	1.552	1.498	1.478	7.94
11)	CT	14Diclbenz	1.654	1.294	1.413	1.608	1.528	1.562	1.515	1.511	8.09
12)	CT	12Diclbenz	1.572	1.216	1.342	1.511	1.447	1.414	1.419	1.417	8.13
13)	CT	Benzyl alcoho	0.444	0.601	0.716	0.877	0.870	0.855	0.867	0.747	22.70#
14)	CPT	bis2clispreth	2.320	1.902	2.066	2.300	2.204	2.203	2.104	2.157	6.75
15)	CPT	2Methylphenol	0.896	0.834	0.939	1.107	1.095	1.082	1.044	1.000	10.88
16)	CT	Ntrspyrrol	0.524	0.524	0.618	0.730	0.713	0.726	0.706	0.649	14.36
17)	CPT	Acetophenone	1.674	1.580	1.730	2.033	1.962	1.979	1.927	1.841	9.57
18)	CPT	Hexaclethane	0.629	0.527	0.565	0.661	0.642	0.638	0.616	0.611	7.80
19)	CPT	N-Ntrsdinprop	0.927	0.815	0.891	0.995	0.975	0.976	0.947	0.932	6.69
20)	CPT	3&4Methylphenol	1.022	1.068	1.211	1.403	1.382	1.396	1.363	1.264	12.94
21)	I	Naphthalened8	----------ISTD----------								
22)	S	SURRNitrbenzened5	0.050	0.054	0.064	0.075	0.071	0.072	0.072	0.065	14.73
23)	CPT	Nitrobenzene	0.273	0.267	0.317	0.377	0.361	0.365	0.361	0.332	13.86
24)	CPT	Isophorone	0.638	0.549	0.600	0.699	0.665	0.679	0.665	0.642	8.08
25)	CPT	2-Nitrophenol	0.124	0.136	0.165	0.202	0.196	0.198	0.196	0.174	18.65
26)	CPT	24Dimthpheno	0.240	0.245	0.276	0.313	0.296	0.301	0.295	0.281	10.11
27)	CPT	bis2clethoxym	0.341	0.326	0.368	0.426	0.408	0.410	0.402	0.383	9.99
28)	CPT	24Diclphenol	0.189	0.209	0.249	0.287	0.281	0.283	0.282	0.254	15.80
29)	CT	124Triclbenz	0.300	0.255	0.277	0.315	0.299	0.301	0.297	0.292	6.76
30)	CT	Benzoic acid		0.043	0.077	0.146	0.152	0.172	0.171	0.127	42.49#
31)	CPT	Naphthalene	1.115	0.885	0.980	1.079	1.039	1.029	1.032	1.023	7.24
32)	CPT	4-Cl-aniline	0.362	0.348	0.416	0.472	0.454	0.452	0.446	0.421	11.46
33)	CT	26Diclphenol	0.207	0.215	0.248	0.277	0.267	0.266	0.262	0.249	10.99
34)	CT	Hexaclprop	0.201	0.166	0.194	0.215	0.204	0.205	0.200	0.198	7.92
35)	CPT	Hexaclbutdien	0.192	0.159	0.174	0.196	0.182	0.187	0.182	0.182	6.90
36)	CPT	4Cl3methylphe	0.251	0.269	0.323	0.381	0.370	0.377	0.370	0.334	16.26
37)	CPT	2Methylnaphth	0.876	0.704	0.807	0.903	0.846	0.850	0.817	0.829	7.72
38)	CT	1Methylnaphth	0.706	0.593	0.666	0.737	0.683	0.695	0.672	0.679	6.61
39)	I	Acenaphthened10	----------ISTD----------								
40)	CPT	Hxclcycpentdi	0.142	0.190	0.242	0.300	0.289	0.298	0.284	0.249	24.77#
41)	CPT	1245Tetrclbenz	0.538	0.469	0.510	0.582	0.534	0.541	0.511	0.526	6.62
42)	CPT	246Triclpheno	0.268	0.271	0.327	0.381	0.371	0.376	0.369	0.338	14.70

Method Path : C:\INSTARCH\METHOD\
Method File : 1S082019.M

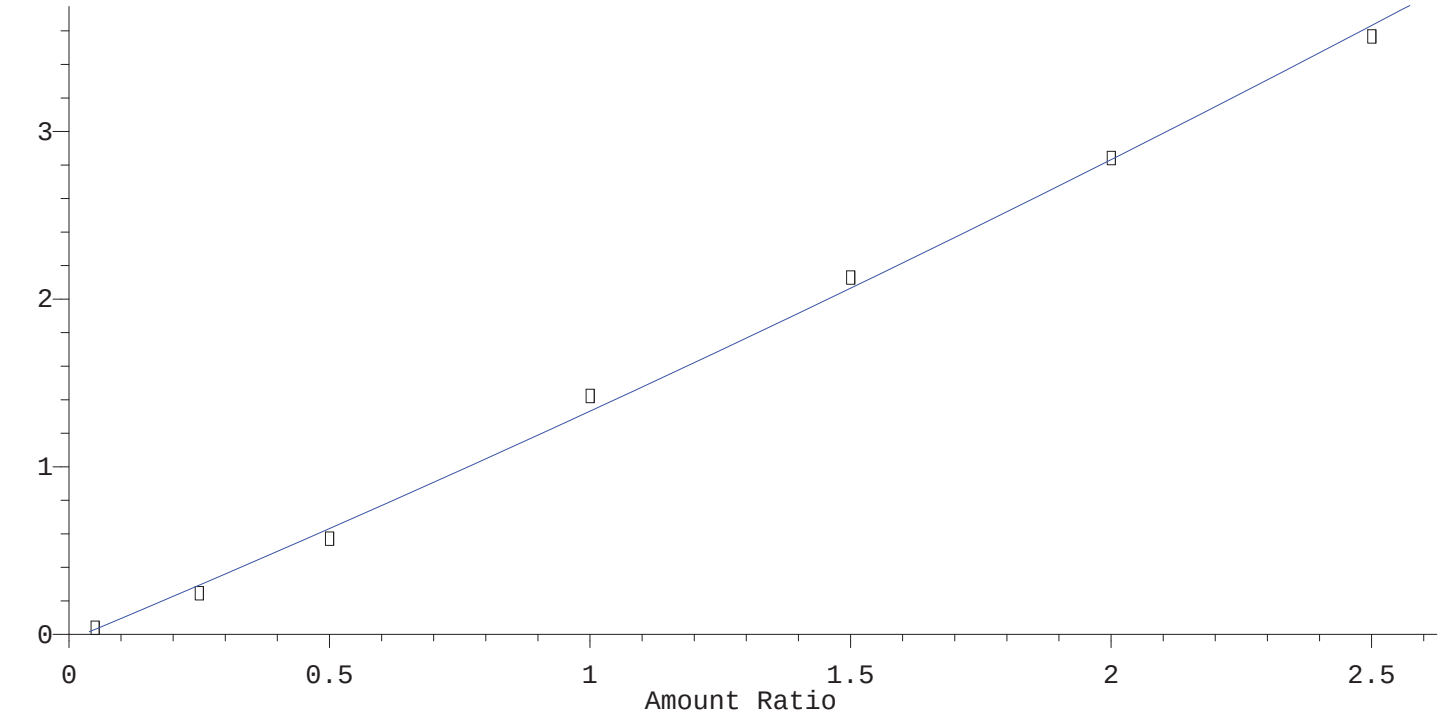
43)	CPT	245Triclpheno	0.257	0.323	0.366	0.428	0.412	0.425	0.409	0.374	17.01
44)	S	SURR2Flbiphenyl	0.280	0.235	0.259	0.287	0.271	0.272	0.261	0.266	6.37
45)	CPT	2Clnaphthalen	1.233	1.047	1.164	1.295	1.234	1.221	1.184	1.197	6.52
46)	CPT	2Nitroaniline	0.242	0.293	0.351	0.417	0.406	0.413	0.404	0.361	19.12
47)	CPT	Acnaphthylene	1.996	1.632	1.846	1.986	1.854	1.851	1.781	1.850	6.71
48)	CPT	Dimethylphtha	1.362	1.120	1.278	1.408	1.342	1.365	1.328	1.315	7.18
49)	CPT	26Dinitrotolu	0.282	0.260	0.303	0.329	0.310	0.301	0.293	0.297	7.34
50)	CPT	Acenaphthene	1.221	0.936	1.042	1.137	1.079	1.087	1.053	1.080	8.12
51)	CPT	3Nitroaniline	0.240	0.274	0.324	0.365	0.359	0.372	0.371	0.329	16.11
52)	CPT	24Dinitphenol		0.034	0.086	0.155	0.169	0.184	0.185	0.136	45.60#
53)	CPT	Dibenzofuran	1.770	1.416	1.591	1.772	1.624	1.625	1.560	1.622	7.61
54)	CPT	24Dinitrotolu	0.324	0.331	0.388	0.440	0.421	0.430	0.416	0.393	12.04
55)	CPT	4-Nitrophenol		0.149	0.201	0.274	0.264	0.278	0.272	0.240	22.05#
56)	CT	2,3,5,6-Tetrac...	0.182	0.208	0.256	0.293	0.284	0.285	0.283	0.256	17.15
57)	CPT	2,3,4,6-Tetrac...	0.290	0.245	0.280	0.320	0.305	0.308	0.295	0.292	8.41
58)	CPT	Fluorene	1.386	1.121	1.262	1.366	1.286	1.298	1.247	1.281	6.83
59)	CPT	4Clphlphlethr	0.624	0.506	0.553	0.607	0.568	0.570	0.541	0.567	7.00
60)	CPT	Diethylphthal	1.381	1.160	1.282	1.429	1.381	1.400	1.342	1.339	6.85
61)	CPT	4Nitroaniline	0.228	0.268	0.325	0.401	0.391	0.402	0.395	0.344	20.87#
62)	S	SURR246Tribrphenl	0.057	0.052	0.057	0.066	0.064	0.063	0.062	0.060	8.24
63)	I	Phenanthrd10	----------ISTD----------								
64)	CPT	46Dinit2mylph		0.088	0.115	0.142	0.142	0.142	0.145	0.129	17.74
65)	CPT	Ntrsdiphlam&Di...	0.615	0.506	0.557	0.579	0.542	0.517	0.510	0.547	7.36
66)	CT	Azobenz&12Diph...	0.197	0.166	0.176	0.189	0.173	0.170	0.167	0.177	6.68
67)	CPT	4Brphlphlethr	0.204	0.170	0.187	0.199	0.189	0.189	0.184	0.189	5.74
68)	CPT	Hexaclbenzene	0.216	0.190	0.205	0.218	0.209	0.200	0.195	0.205	5.04
69)	CPT	Pentaclphenol		0.083	0.104	0.128	0.128	0.129	0.131	0.117	16.70
70)	CPT	Phenanthrene	1.194	0.931	1.031	1.114	1.056	1.040	1.018	1.055	7.76
71)	CPT	Anthracene	1.211	0.985	1.081	1.162	1.085	1.053	1.028	1.086	7.13
72)	CPT	Carbazole	1.152	0.908	1.026	1.117	1.058	1.047	1.026	1.048	7.41#
73)	CPT	Dinbtylphthal	1.701	1.222	1.289	1.420	1.328	1.279	1.278	1.360	11.96
74)	CPT	Fluoranthene	0.830	0.684	0.753	0.805	0.771	0.736	0.728	0.758	6.43
75)	I	Chrysene-d12	----------ISTD----------								
76)	CT	Benzidine	1.345	1.303	1.574	1.765	1.708	1.727	1.690	1.587	11.94
77)	CPT	Pyrene	1.621	1.328	1.446	1.601	1.513	1.539	1.472	1.503	6.65
78)	S	SURRTerphenyl-d14	0.195	0.159	0.176	0.192	0.186	0.188	0.184	0.183	6.62
79)	CPT	Btylbzylphth	0.719	0.651	0.746	0.851	0.843	0.842	0.826	0.783	9.97#
80)	CT	bis2Ethlhxlad	0.532	0.518	0.601	0.678	0.663	0.682	0.680	0.622	11.60
81)	CPT	33Diclbnzidin	0.856	0.823	0.972	1.048	0.987	0.980	0.944	0.944	8.32
82)	CPT	B[a]anthracen	1.325	1.111	1.226	1.332	1.239	1.228	1.169	1.233	6.39
83)	CPT	Chrysene	1.437	1.129	1.223	1.350	1.291	1.256	1.245	1.276	7.66
84)	CPT	bis2Ethlhxlph	1.022	0.909	1.026	1.153	1.108	1.106	1.075	1.057	7.58
85)	CPT	Dinoctylphthl	1.327	1.422	1.714	2.045	2.028	2.037	2.053	1.804	17.63
86)	I	Perylene-d12	----------ISTD----------								
87)	CPT	B[b]fluoranth	0.968	0.903	1.025	1.140	1.155	1.165	1.266	1.089	11.72
88)	CPT	B[k]fluoranth	1.153	0.980	1.146	1.198	1.114	1.128	0.923	1.092	9.21
89)	CPT	Benz[a]pyrene	1.190	0.972	1.080	1.198	1.143	1.151	1.130	1.123	6.90
90)	CPT	Indeno-pyrene	1.129	0.987	1.123	1.277	1.213	1.228	1.179	1.162	8.14
91)	CPT	Dib[ah]anthr	0.932	0.812	0.919	1.044	0.977	0.971	0.943	0.943	7.51
92)	CPT	B[ghi]perylen	1.017	0.842	1.000	1.102	1.053	1.076	1.037	1.018	8.34

Ntrsdimeth

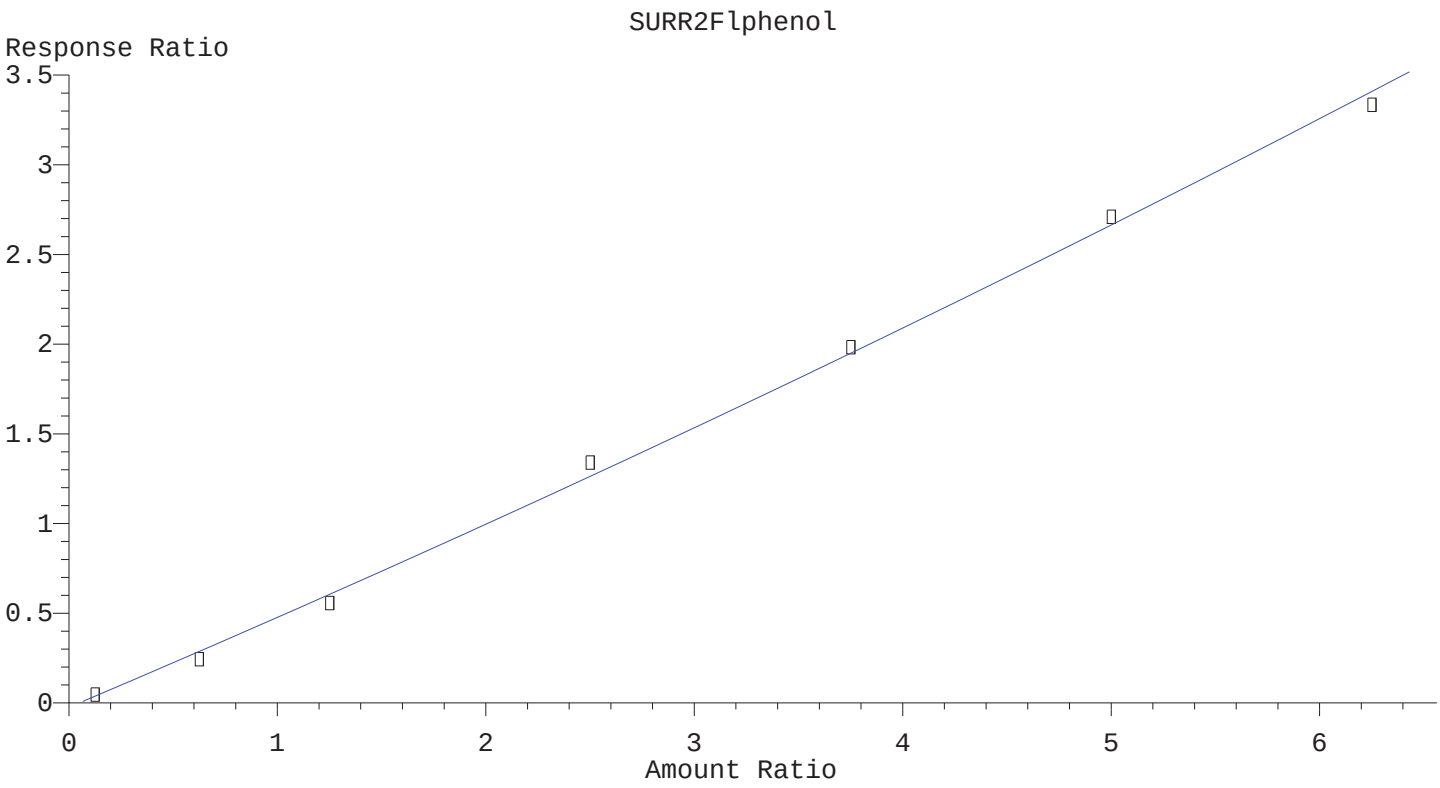


R = 3.900e-002 A*A + 8.343e-001 A - 2.311e-002
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)

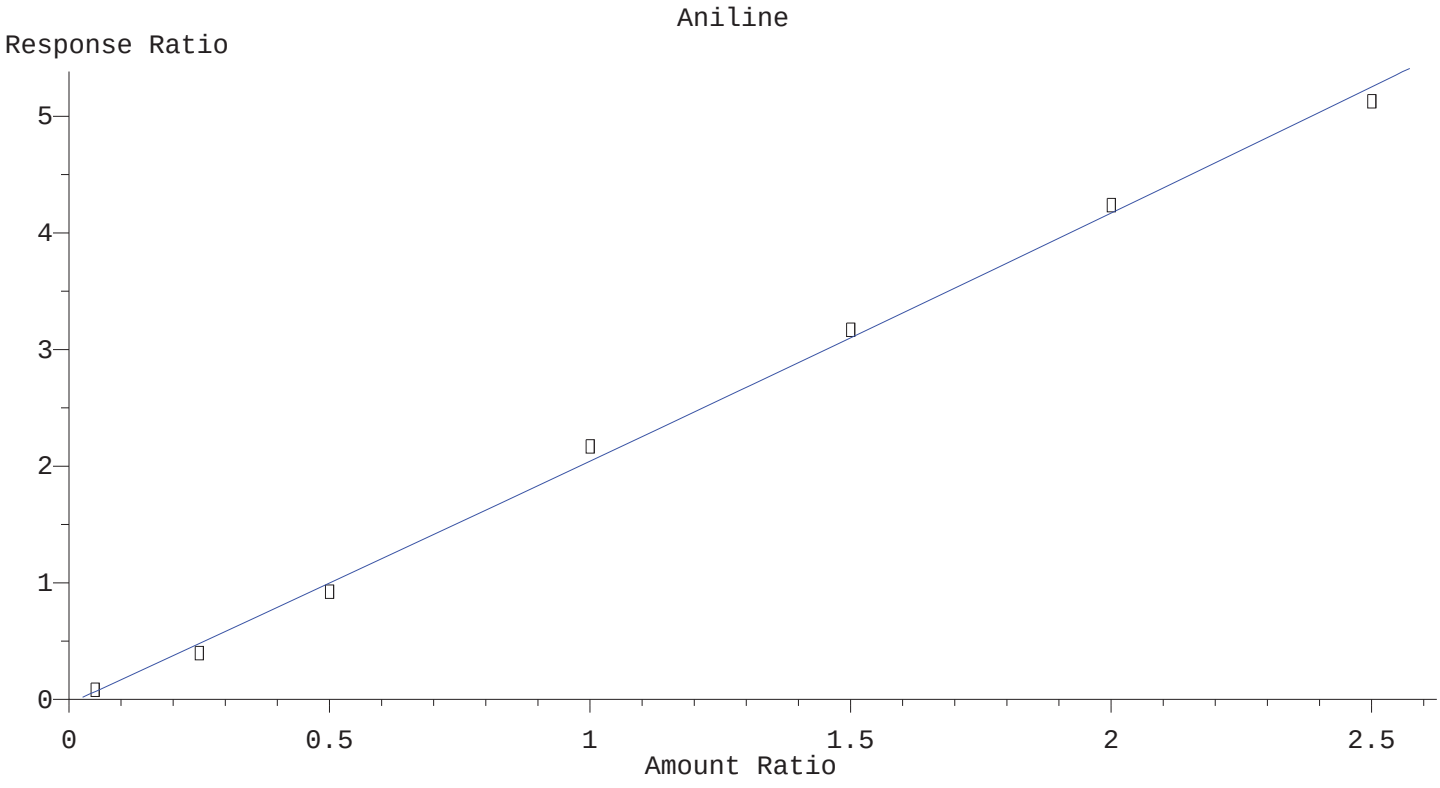
Pyridine



R = 6.661e-002 A*A + 1.301e+000 A - 3.572e-002
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w(1/a)

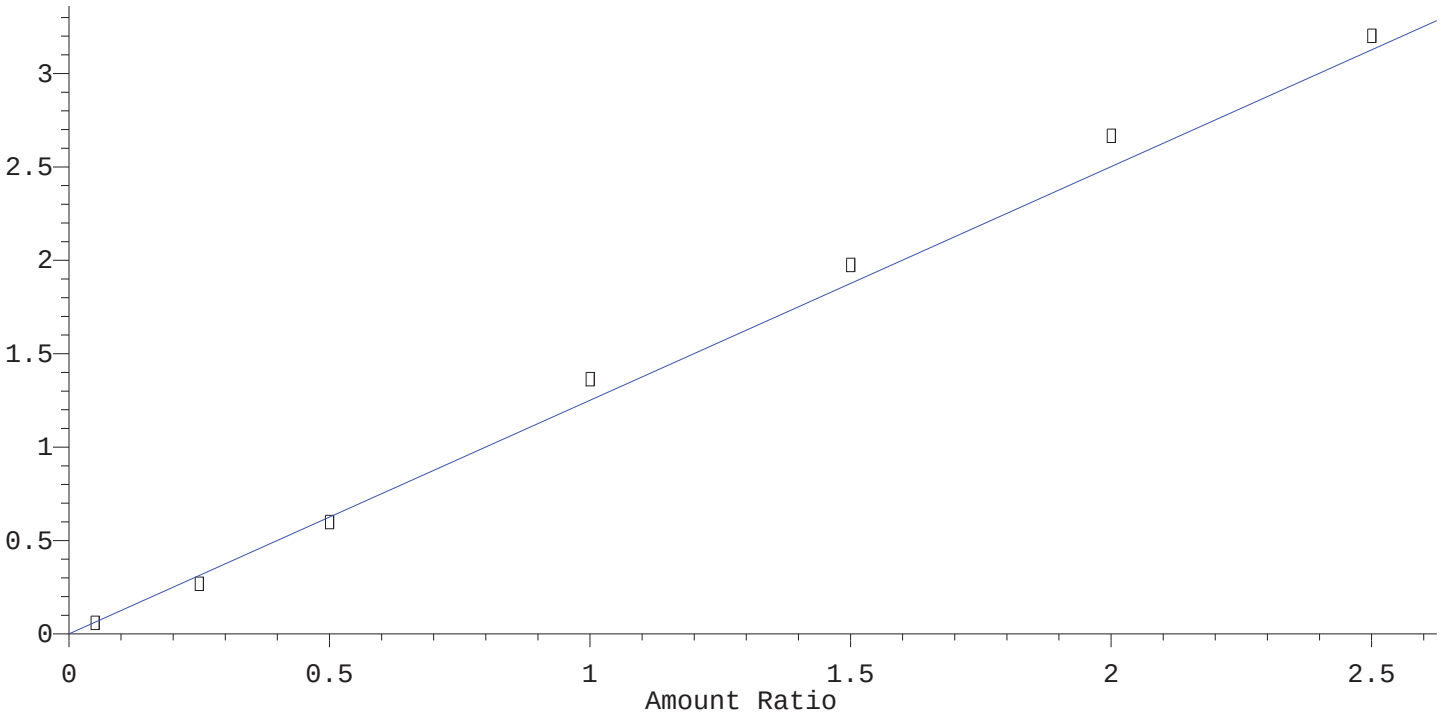


R = 9.214e-003 A*A + 4.916e-001 A - 2.399e-002
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)



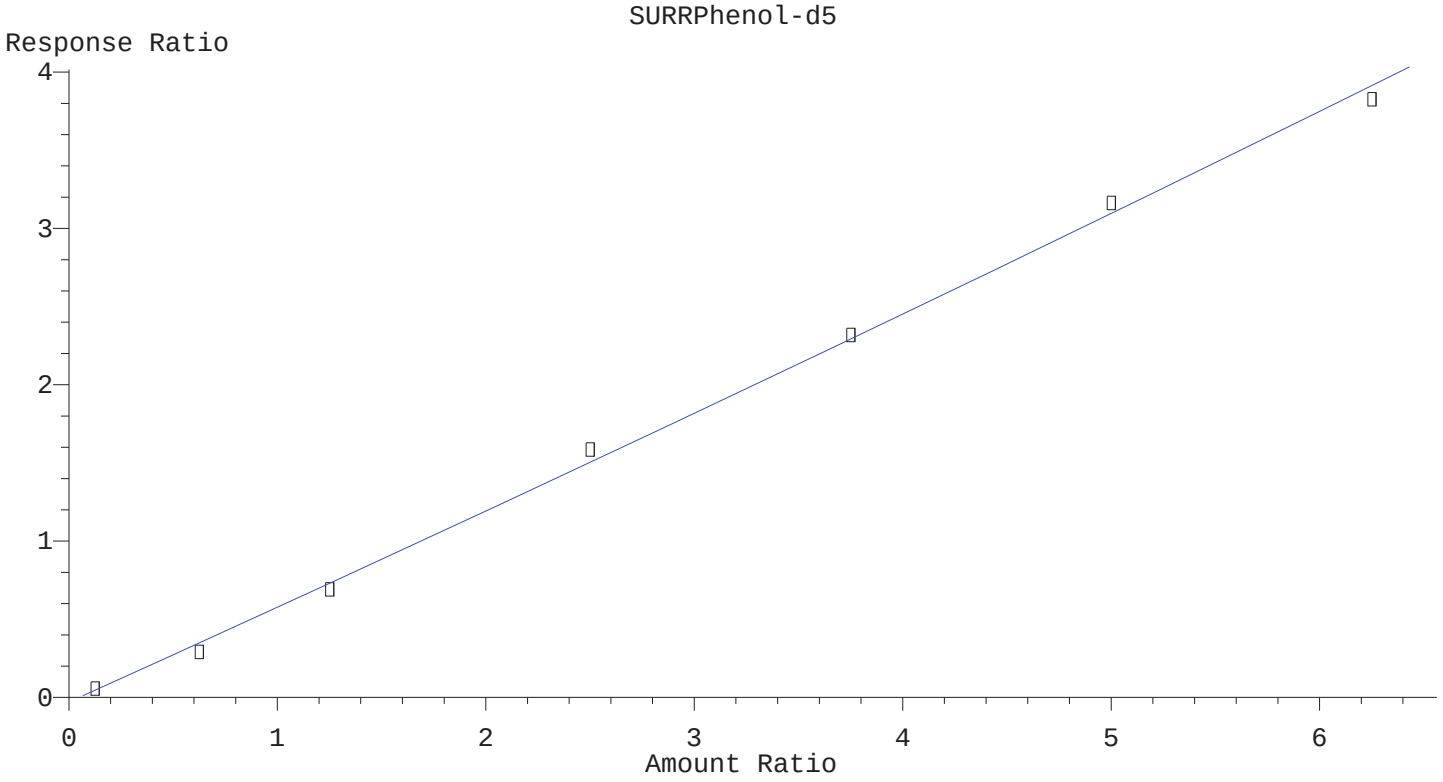
R = 2.443e-002 A*A + 2.054e+000 A - 3.615e-002
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w(1/a)

bis2Clethletr



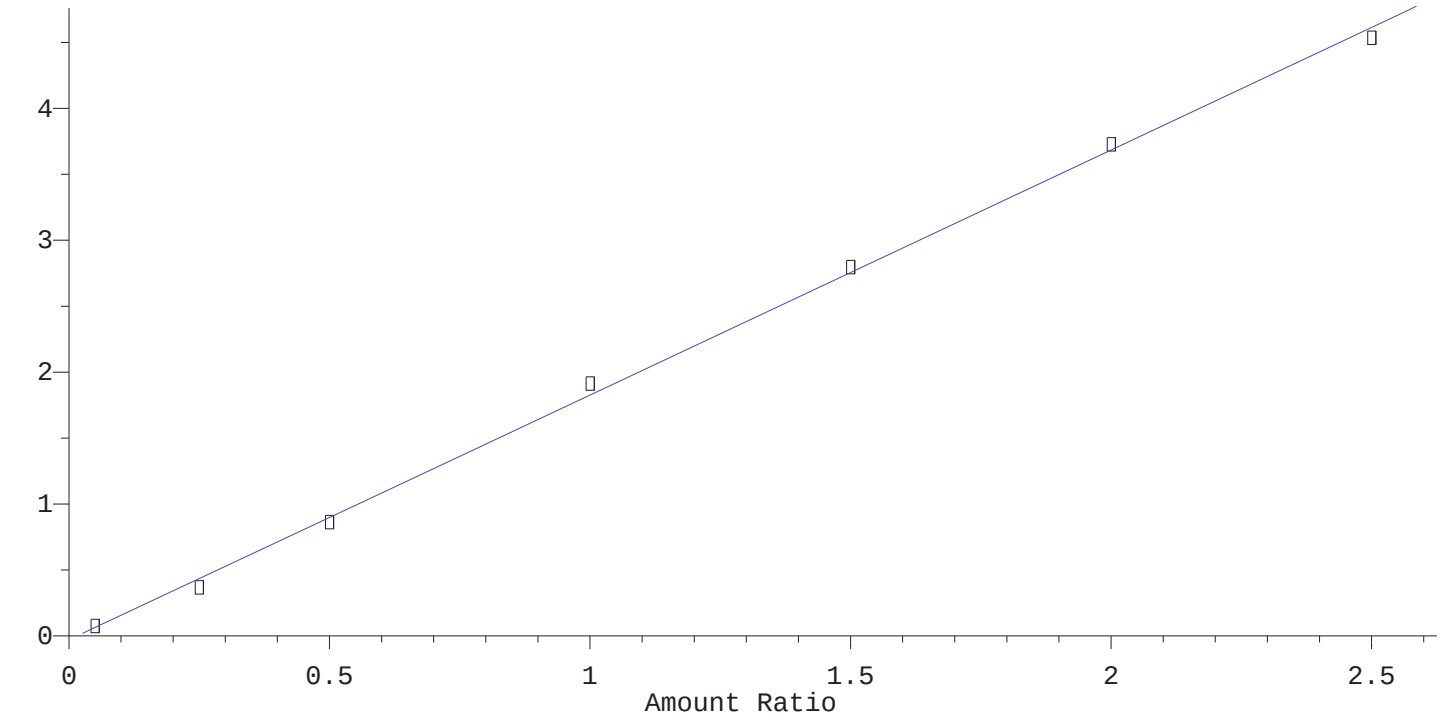
Resp Ratio = 1.251e+000 * Amt
RF Rel Std Dev = 8.195% Curve Fit: Avg RF

SURRPhenol-d5



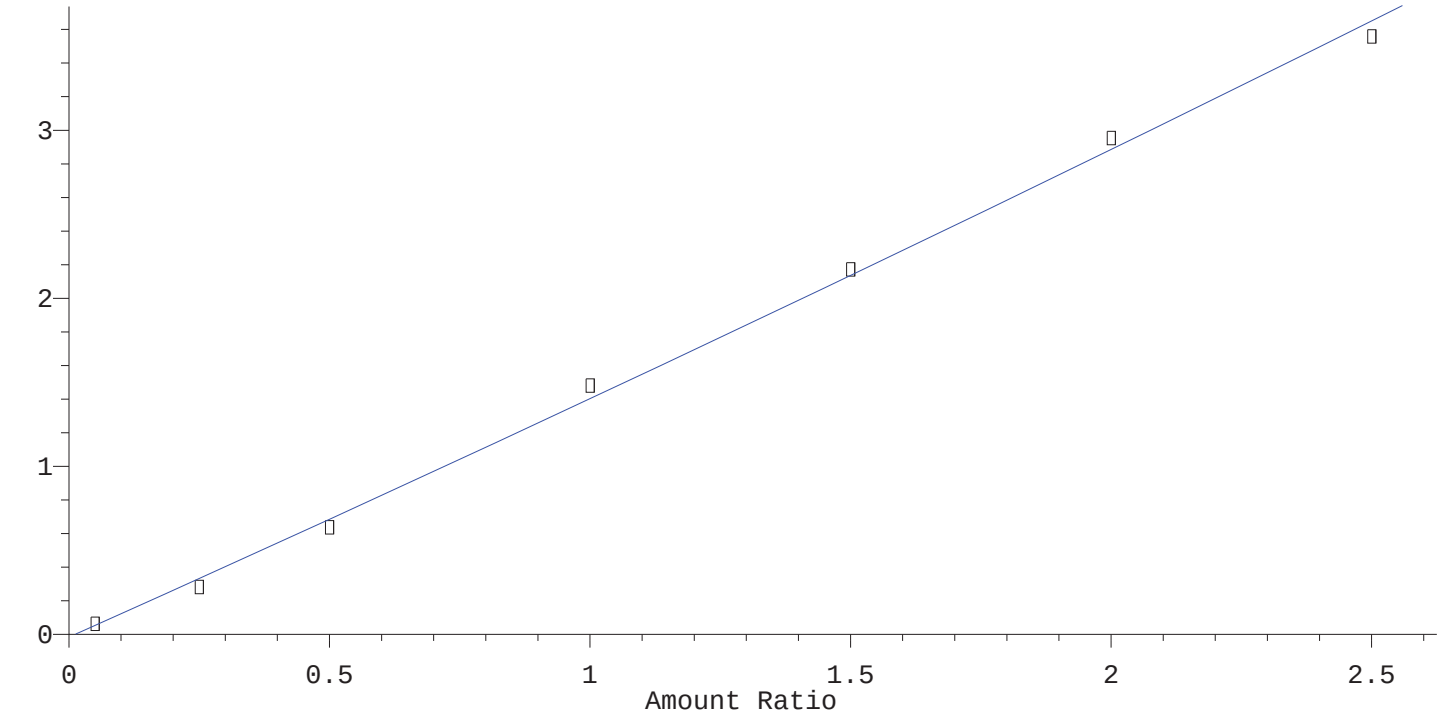
R = 4.710e-003 A*A + 6.014e-001 A - 2.949e-002
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)

Phenol

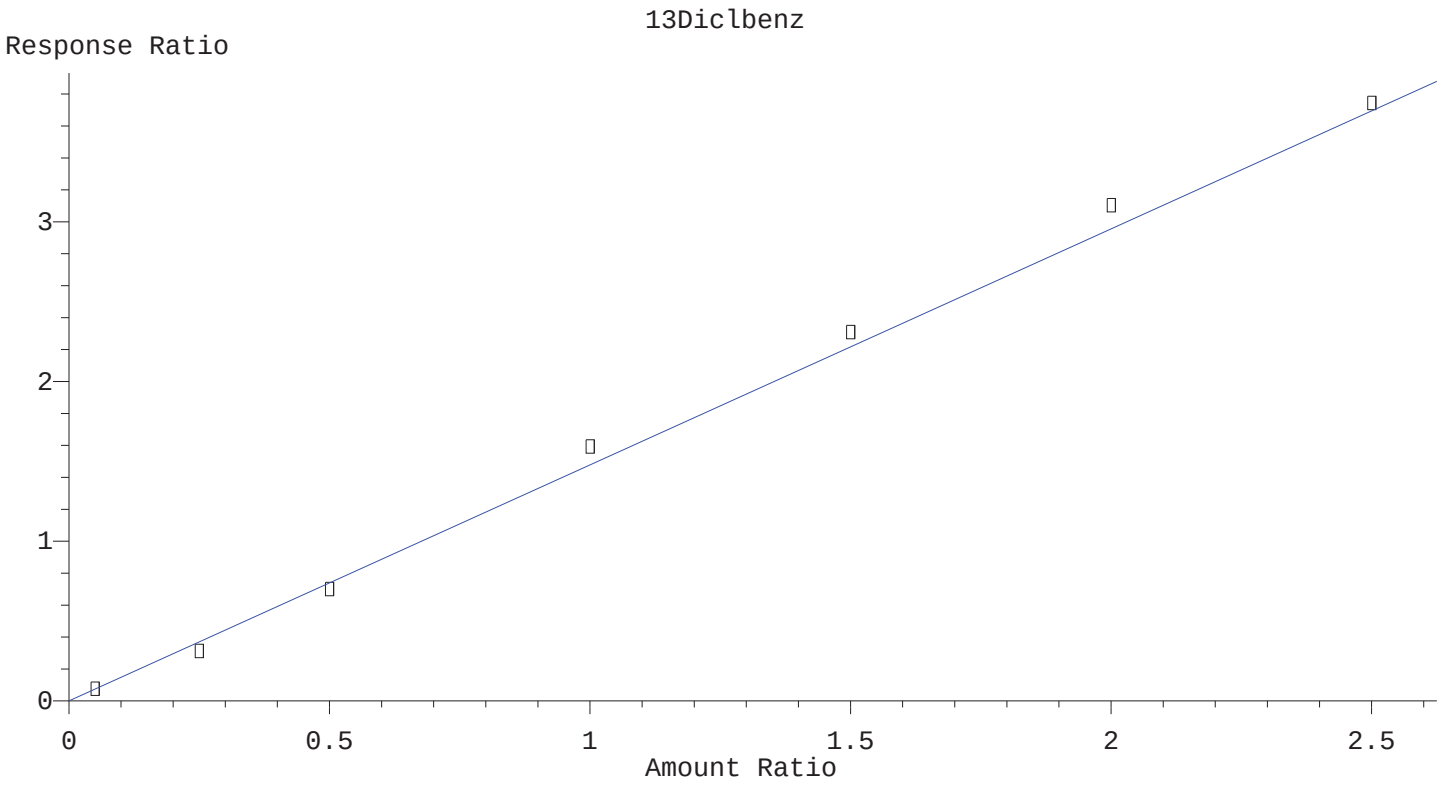


R = 1.810e-003 A*A + 1.853e+000 A - 2.877e-002
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)

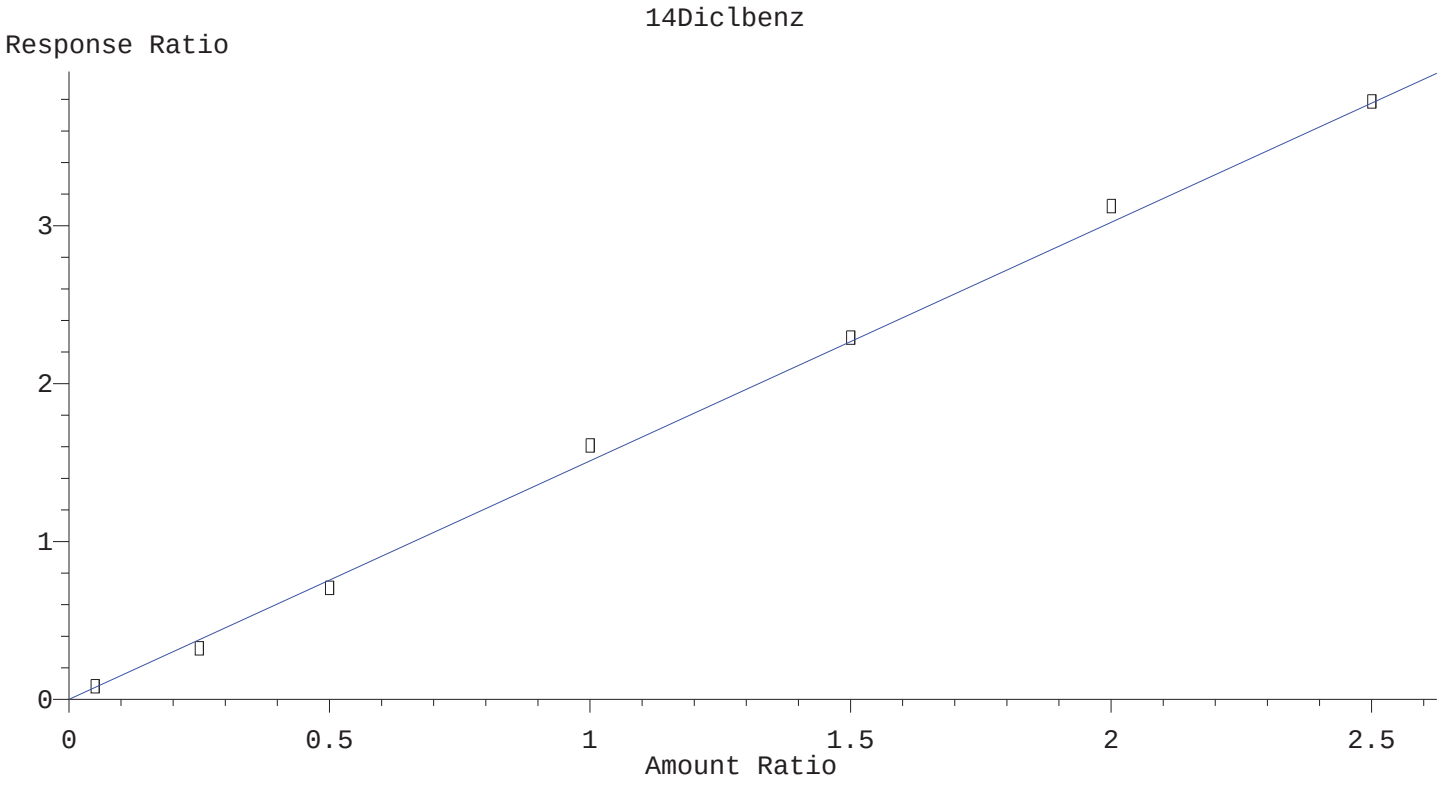
2-Cl-phenol



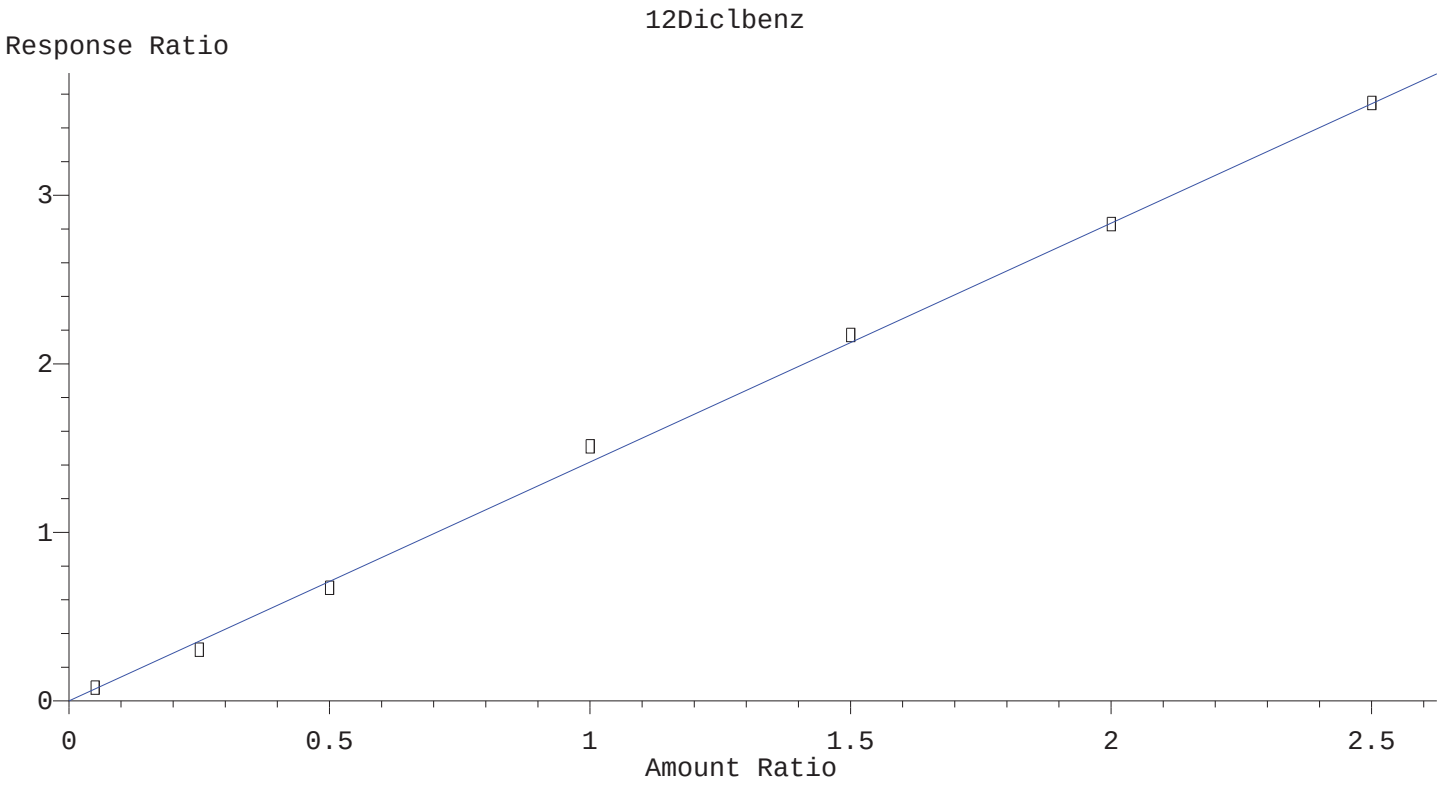
R = 3.153e-002 A*A + 1.388e+000 A - 1.672e-002
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)



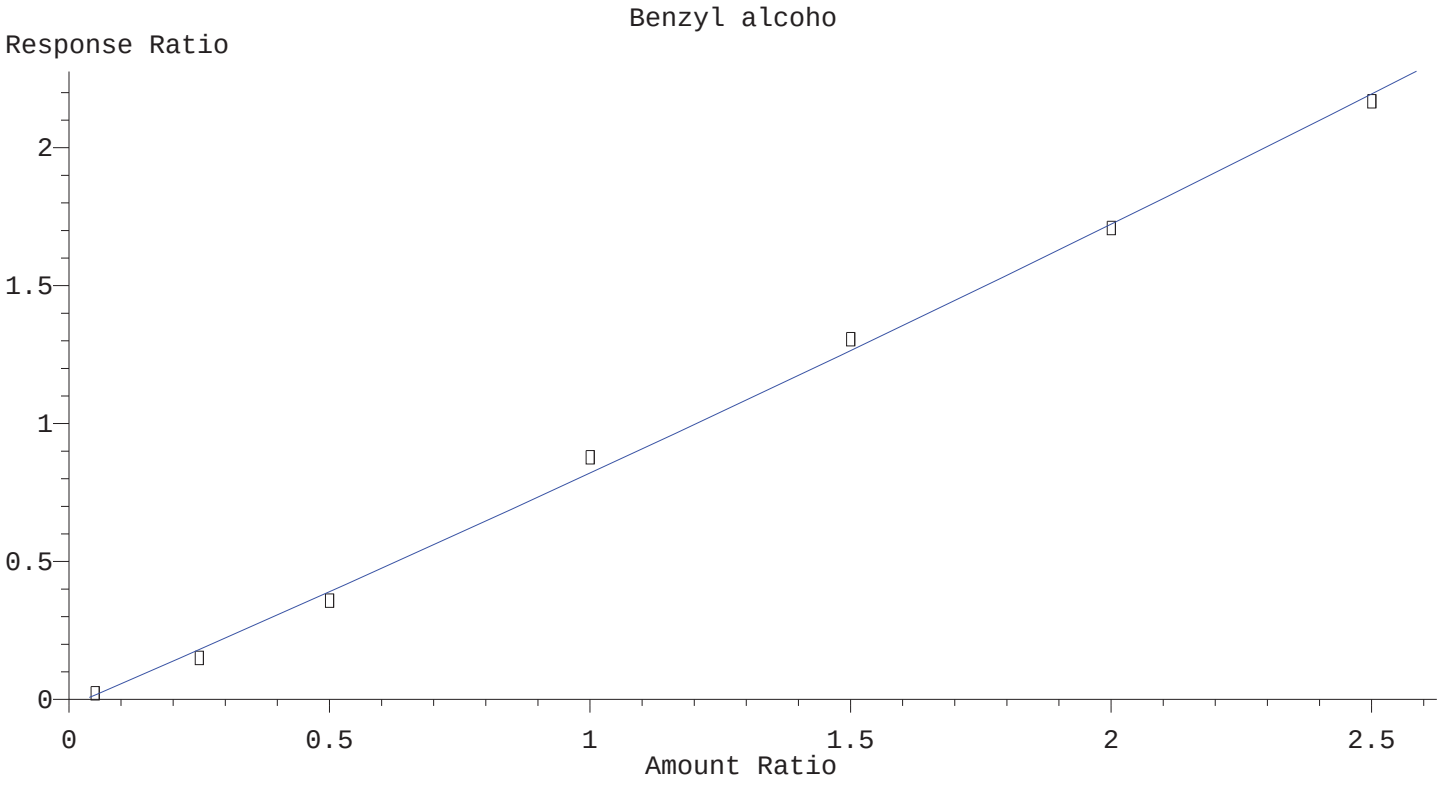
Resp Ratio = 1.478e+000 * Amt
RF Rel Std Dev = 7.938% Curve Fit: Avg RF



Resp Ratio = 1.511e+000 * Amt
RF Rel Std Dev = 8.088% Curve Fit: Avg RF

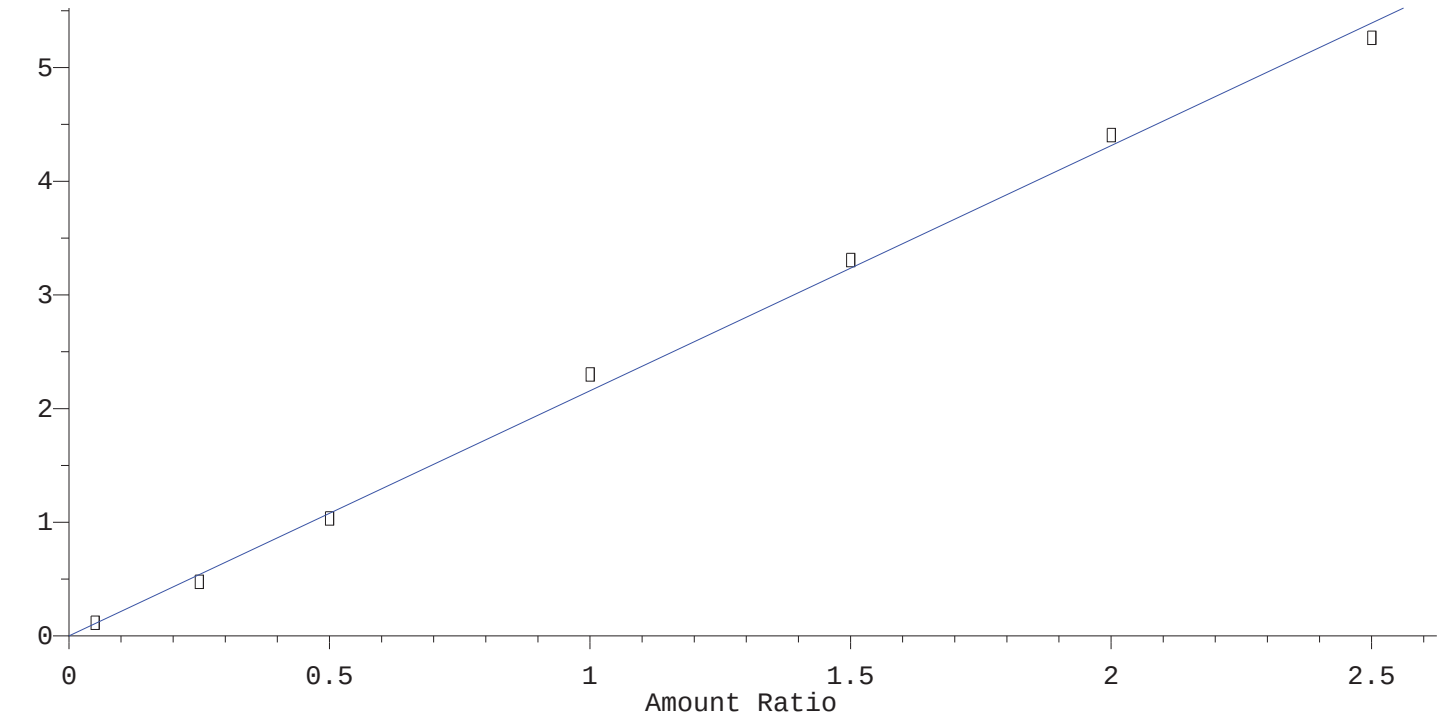


Resp Ratio = 1.417e+000 * Amt
RF Rel Std Dev = 8.129% Curve Fit: Avg RF



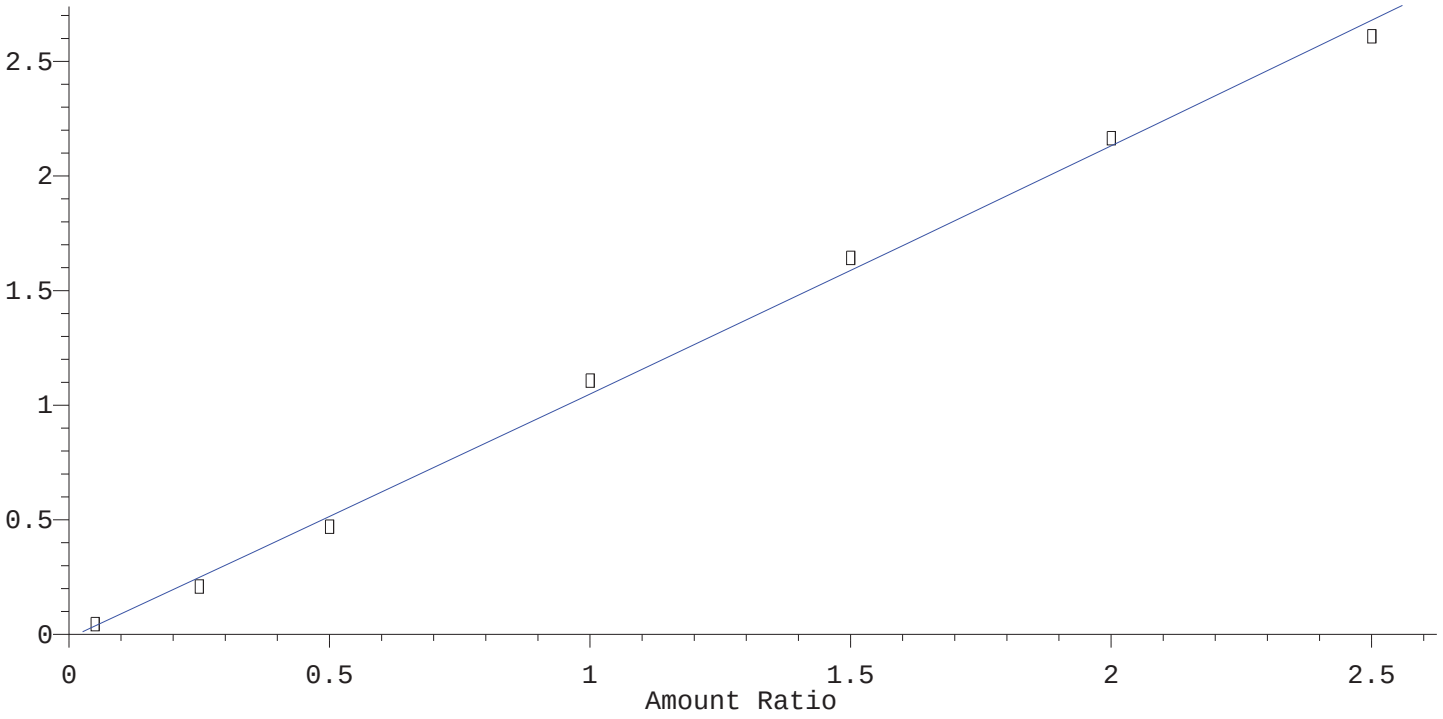
R = 2.855e-002 A*A + 8.166e-001 A - 2.483e-002
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)

bis2clispreth

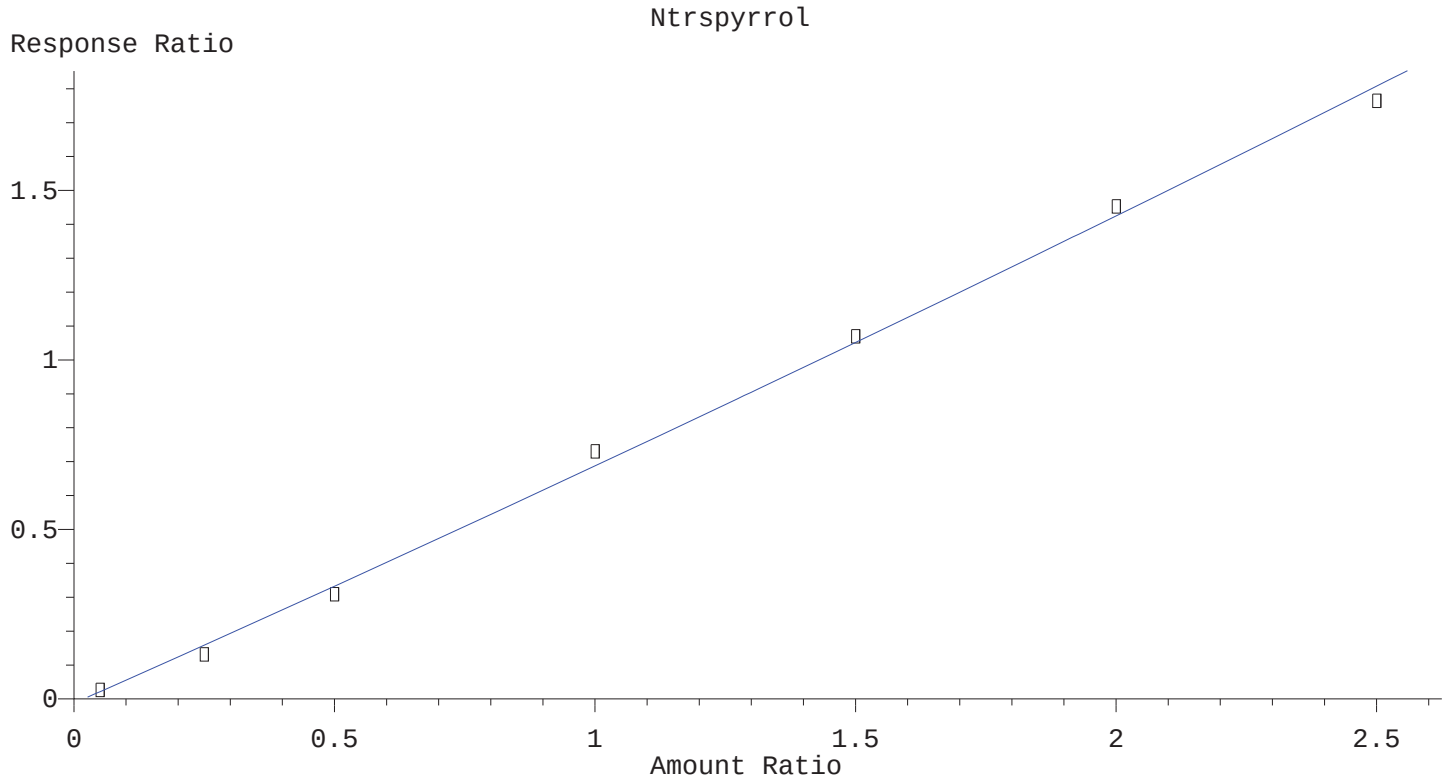


Resp Ratio = 2.157e+000 * Amt
RF Rel Std Dev = 6.751% Curve Fit: Avg RF

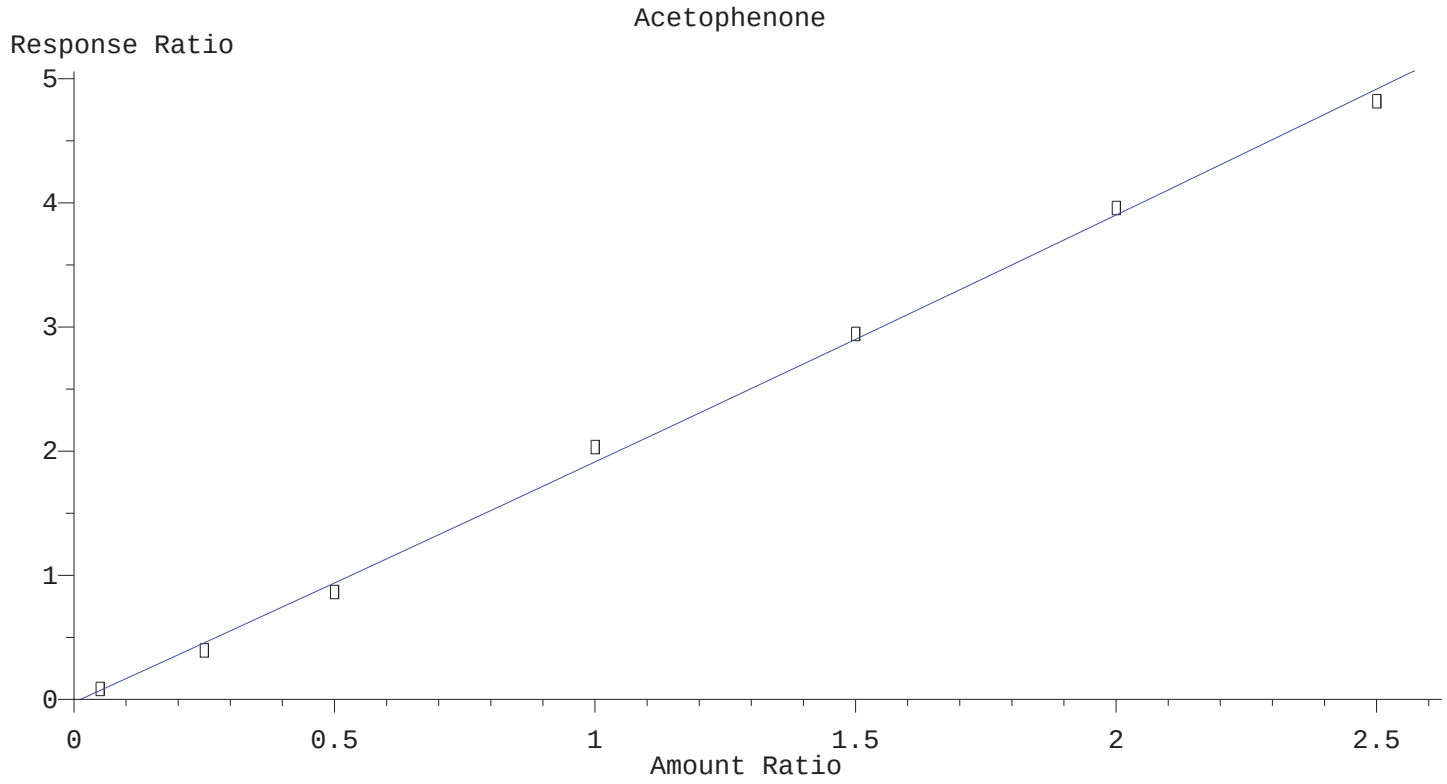
2Methylphenol



R = 8.624e-003 A*A + 1.056e+000 A - 1.629e-002
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w(1/a)

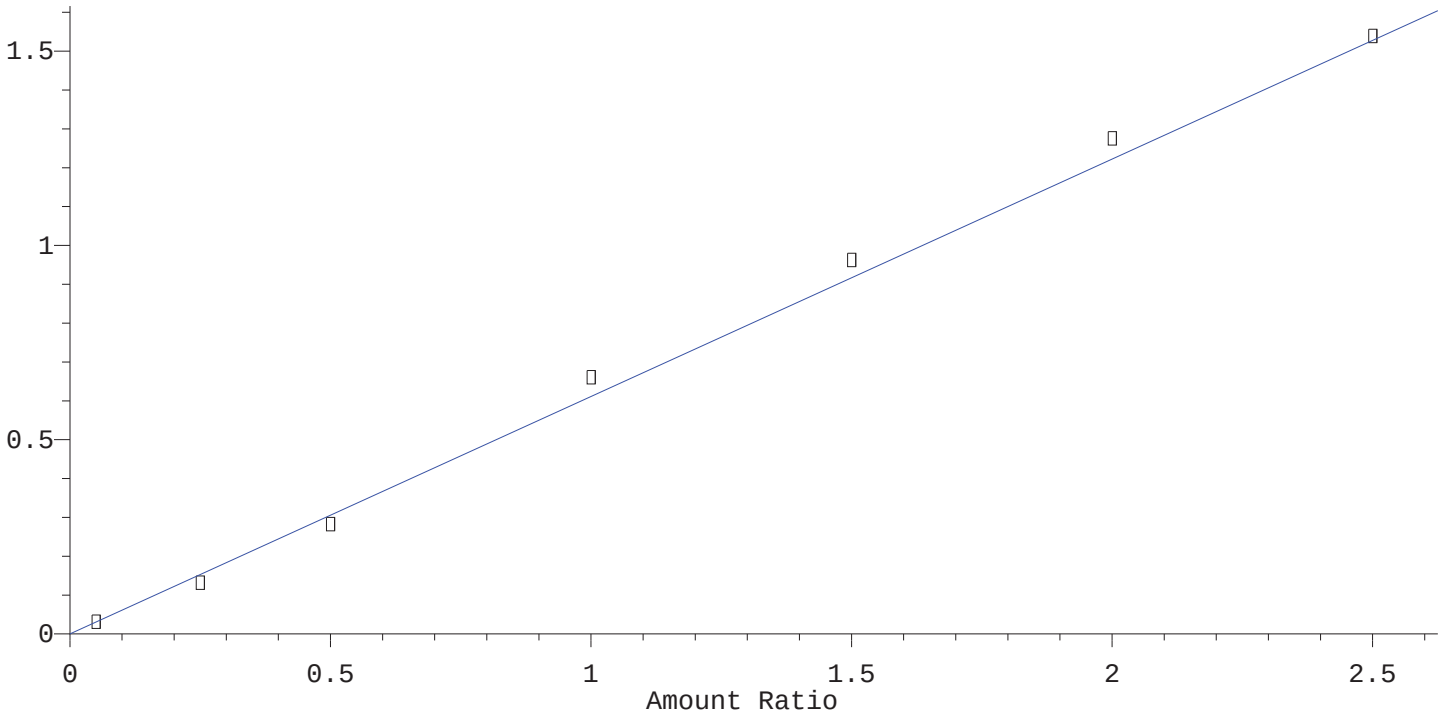


R = 1.843e-002 A*A + 6.821e-001 A - 1.323e-002
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)



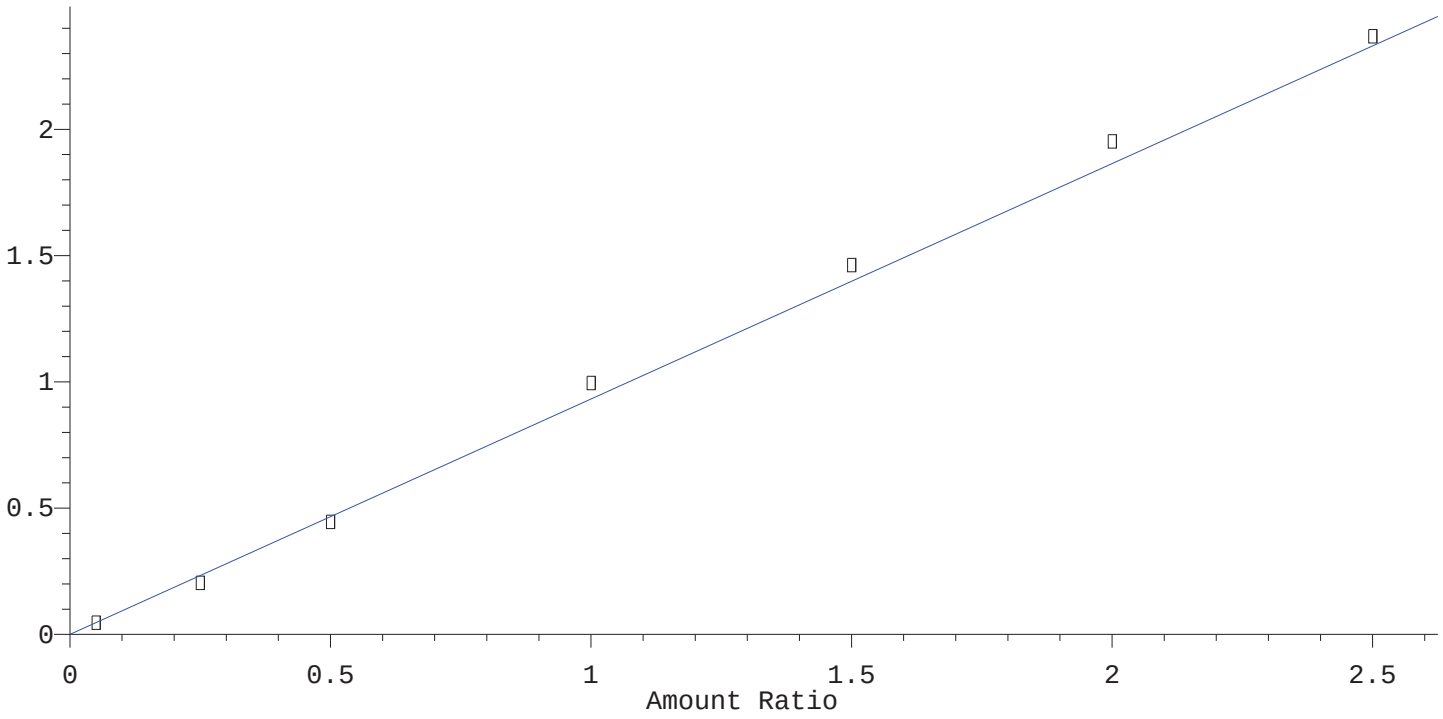
R = 2.601e-002 A*A + 1.911e+000 A - 2.435e-002
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)

Hexaclethane



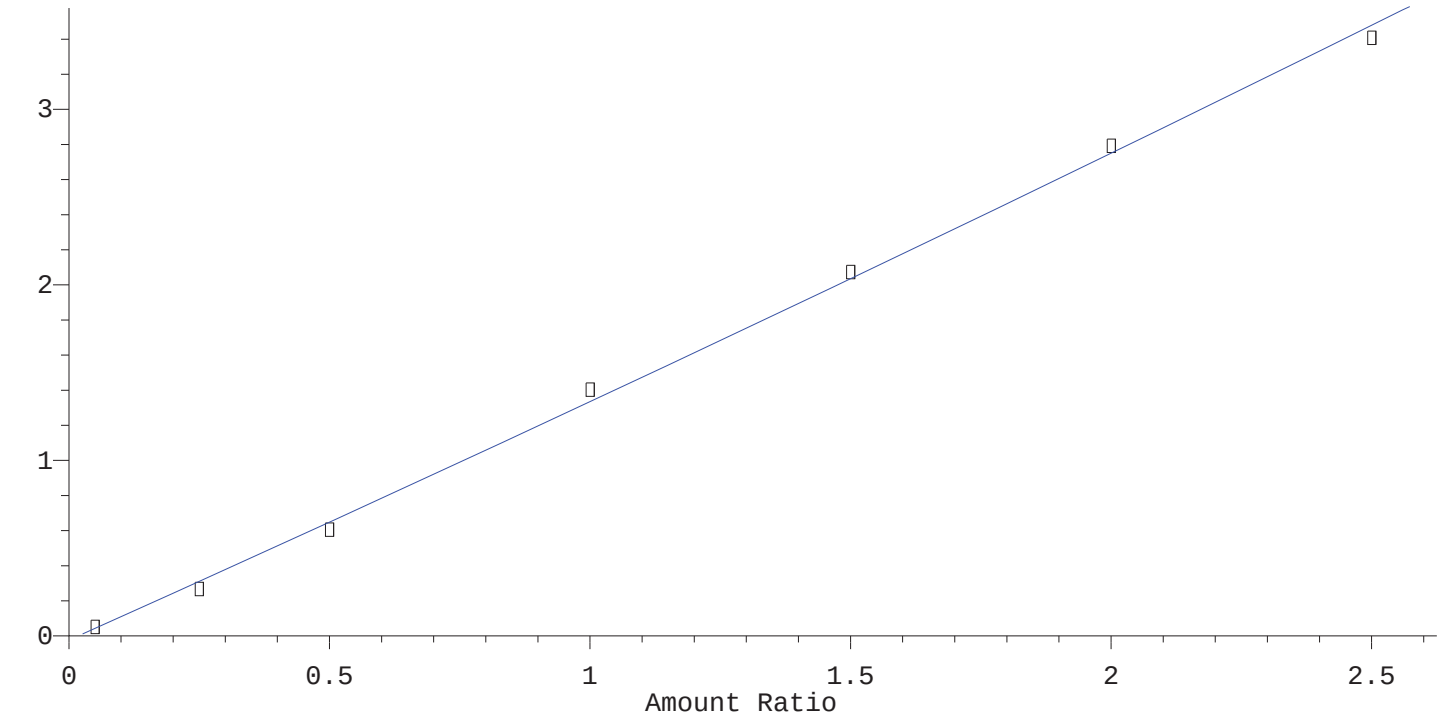
Resp Ratio = 6.111e-001 * Amt
RF Rel Std Dev = 7.796% Curve Fit: Avg RF

N-Ntrsdinprop



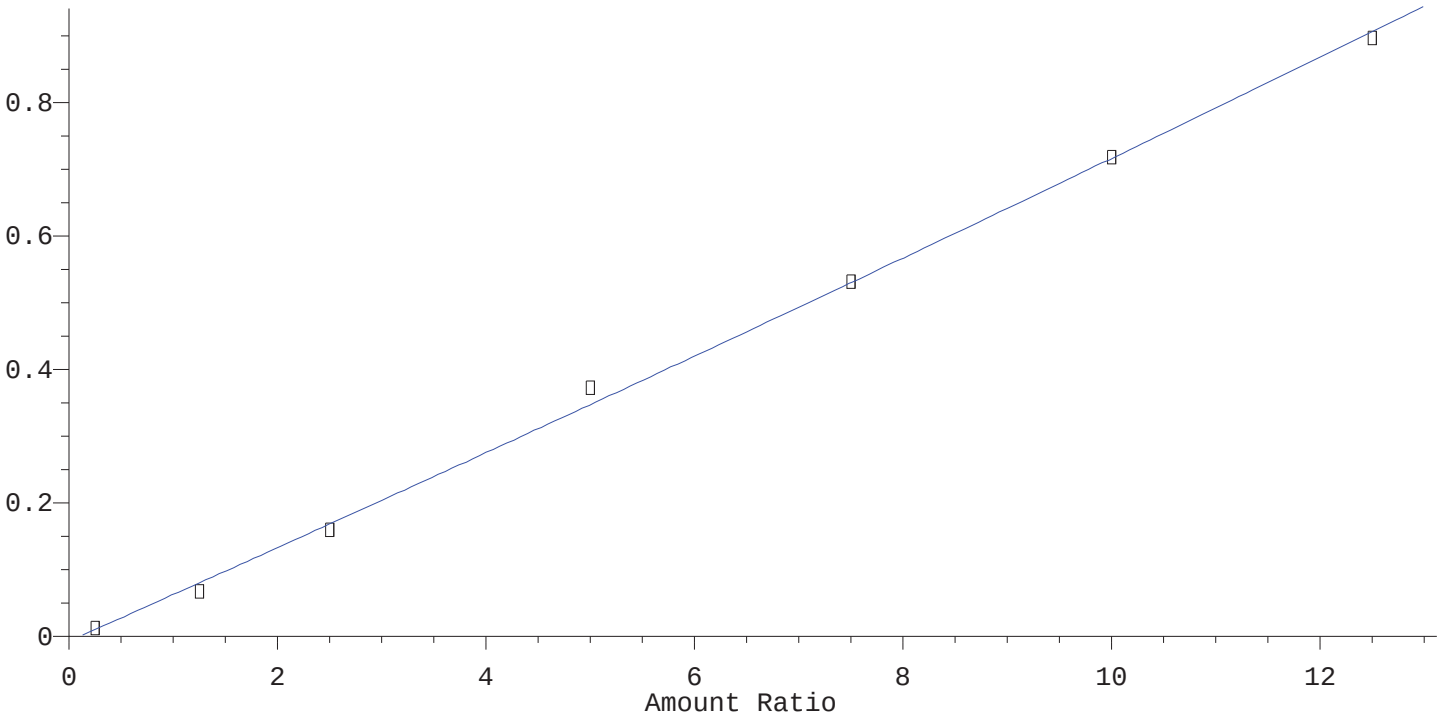
Resp Ratio = 9.323e-001 * Amt
RF Rel Std Dev = 6.688% Curve Fit: Avg RF

3&4Methylphenol



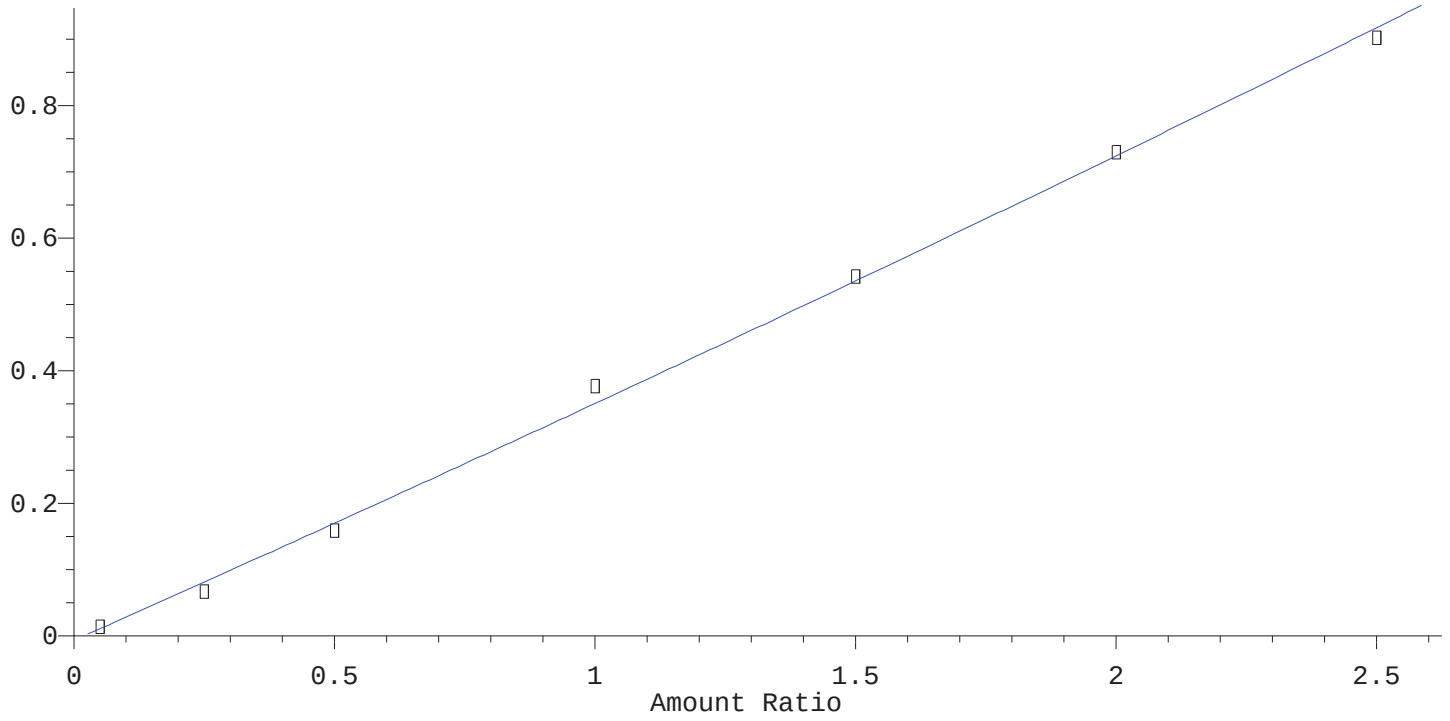
R = 2.822e-002 A*A + 1.331e+000 A - 2.411e-002
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)

SURRNitrbenzened5



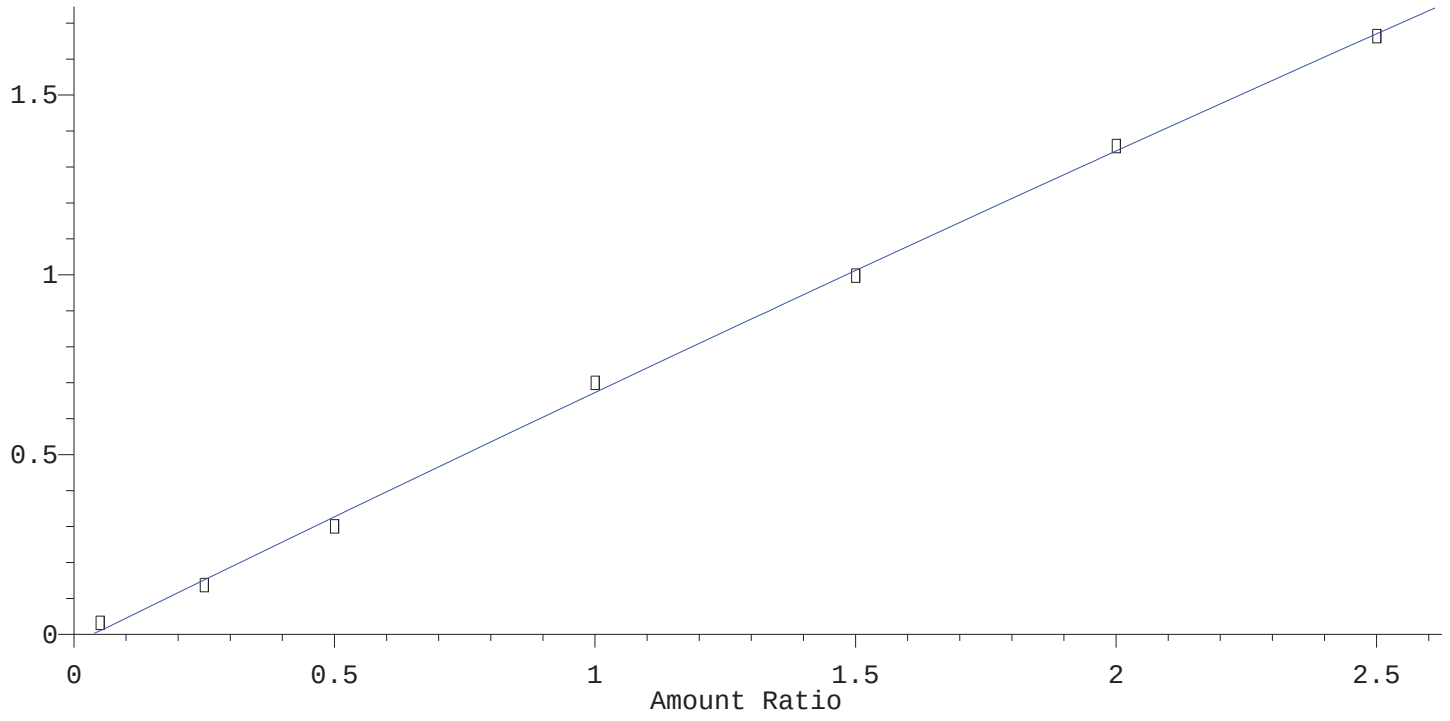
R = 2.930e-004 A*A + 6.941e-002 A - 7.029e-003
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)

Nitrobenzene



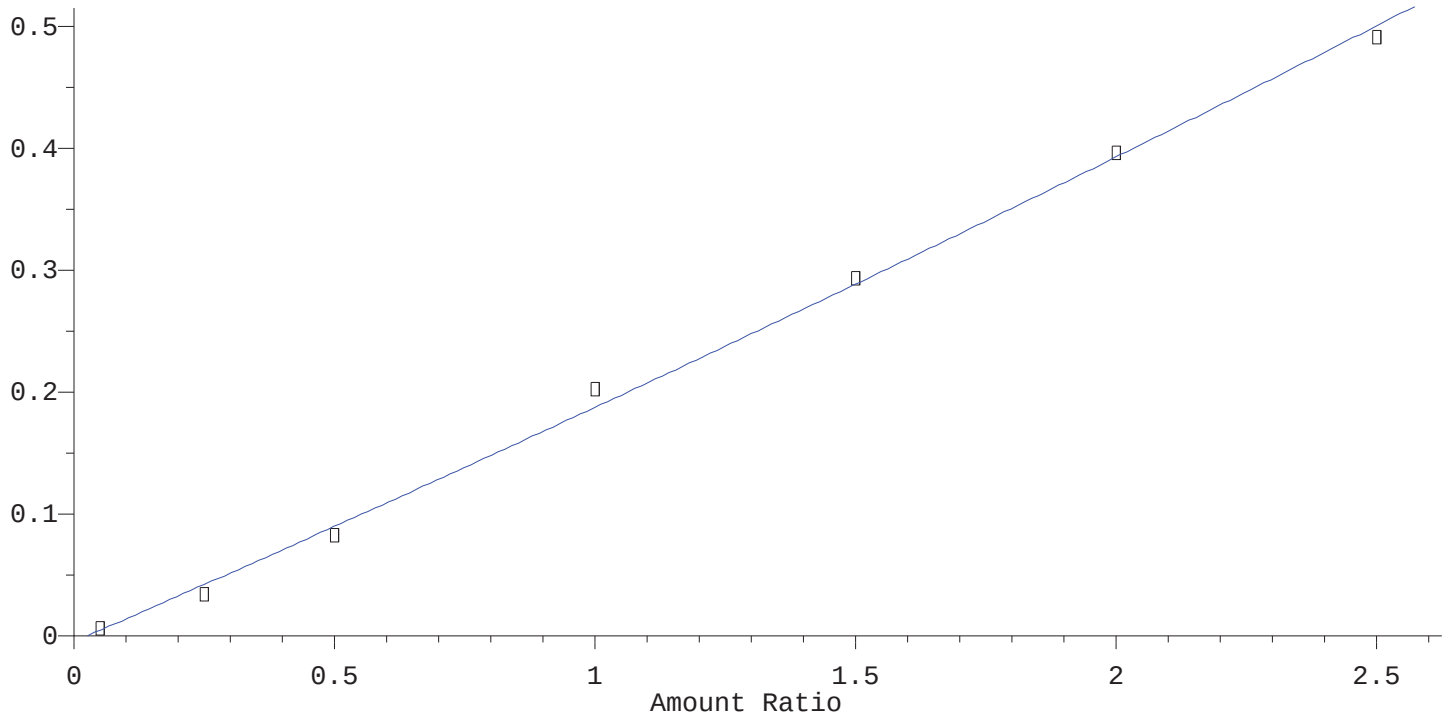
R = 8.325e-003 A*A + 3.487e-001 A - 6.458e-003
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w(1/a)

Isophorone



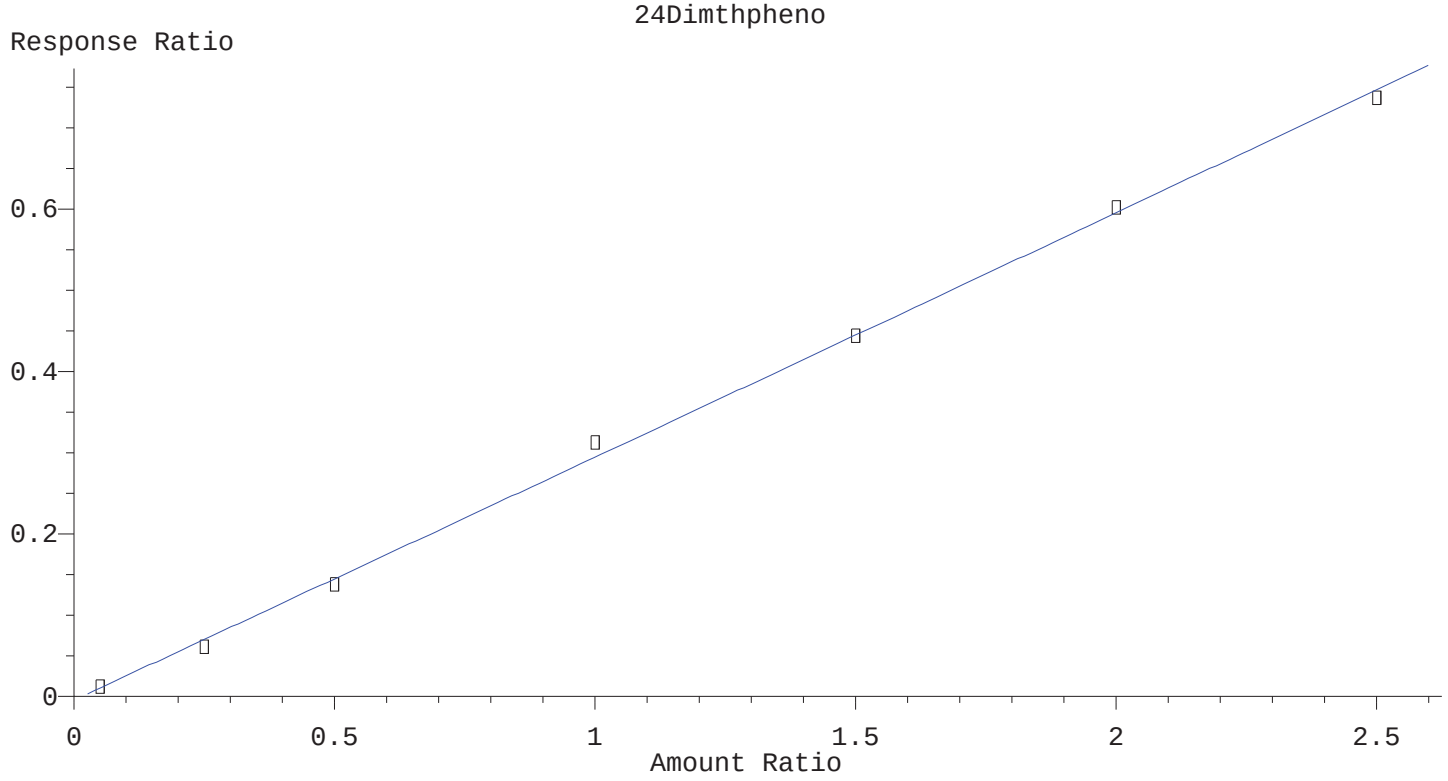
R = -1.336e-002 A*A + 7.117e-001 A - 2.549e-002
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic

2-Nitrophenol



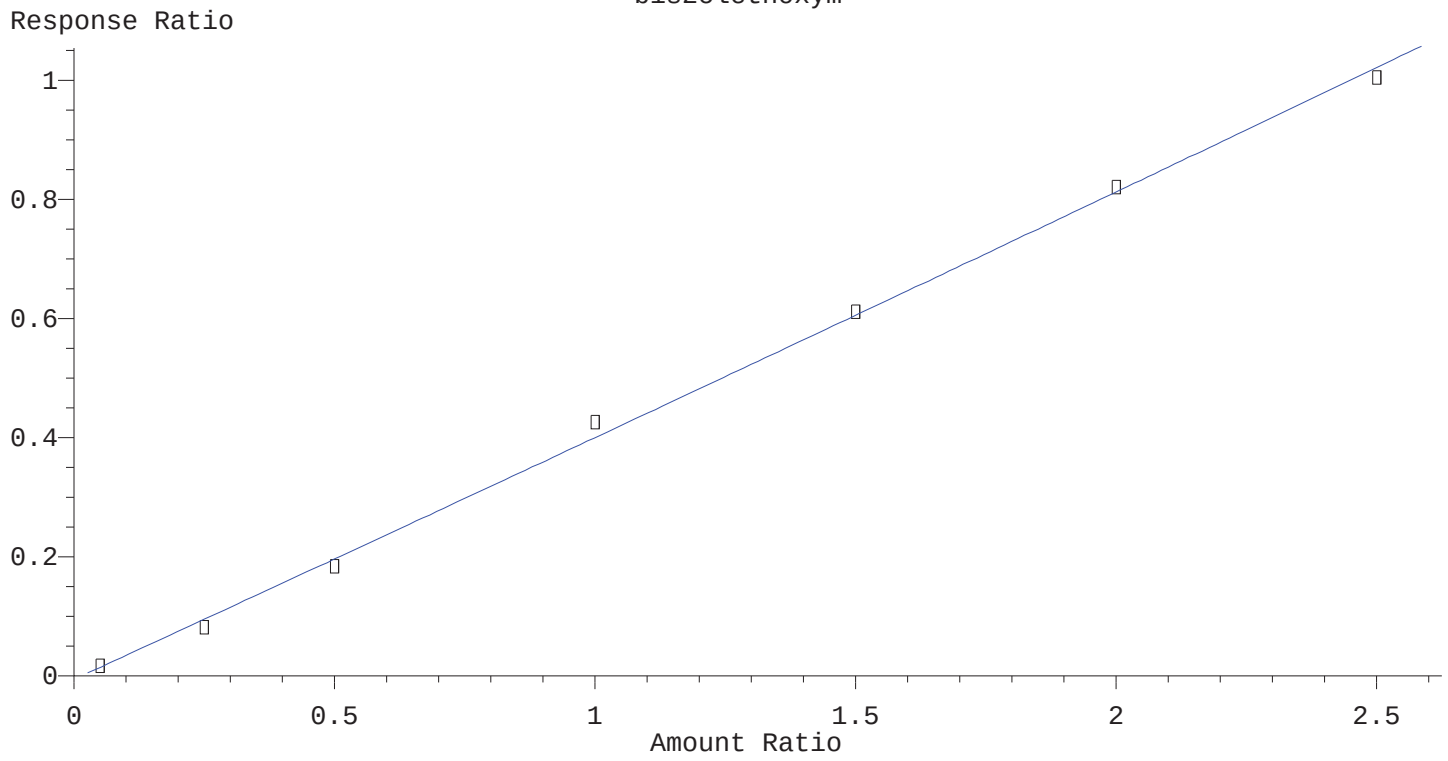
R = 6.635e-003 A*A + 1.855e-001 A - 4.608e-003
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w(1/a)

24Dimthpheno



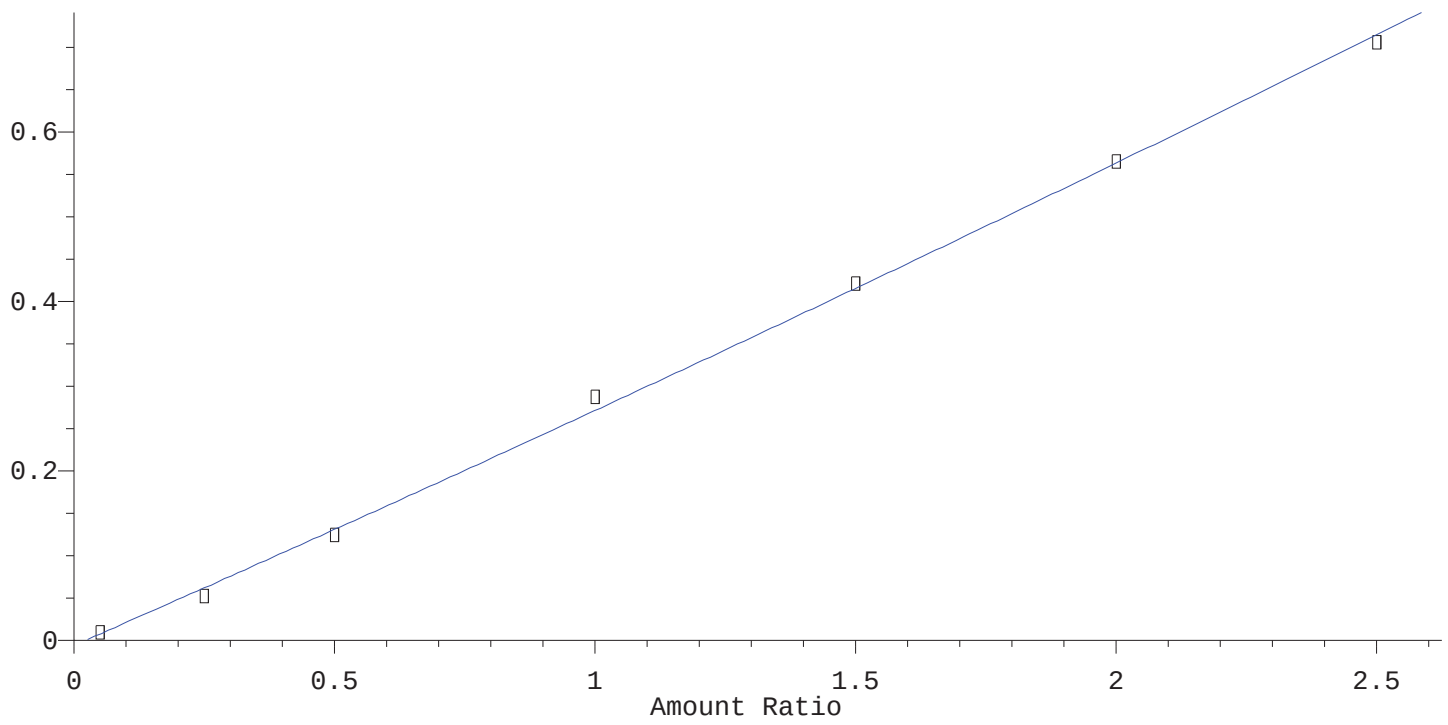
R = 1.004e-003 A*A + 2.980e-001 A - 4.505e-003
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)

bis2clethoxym

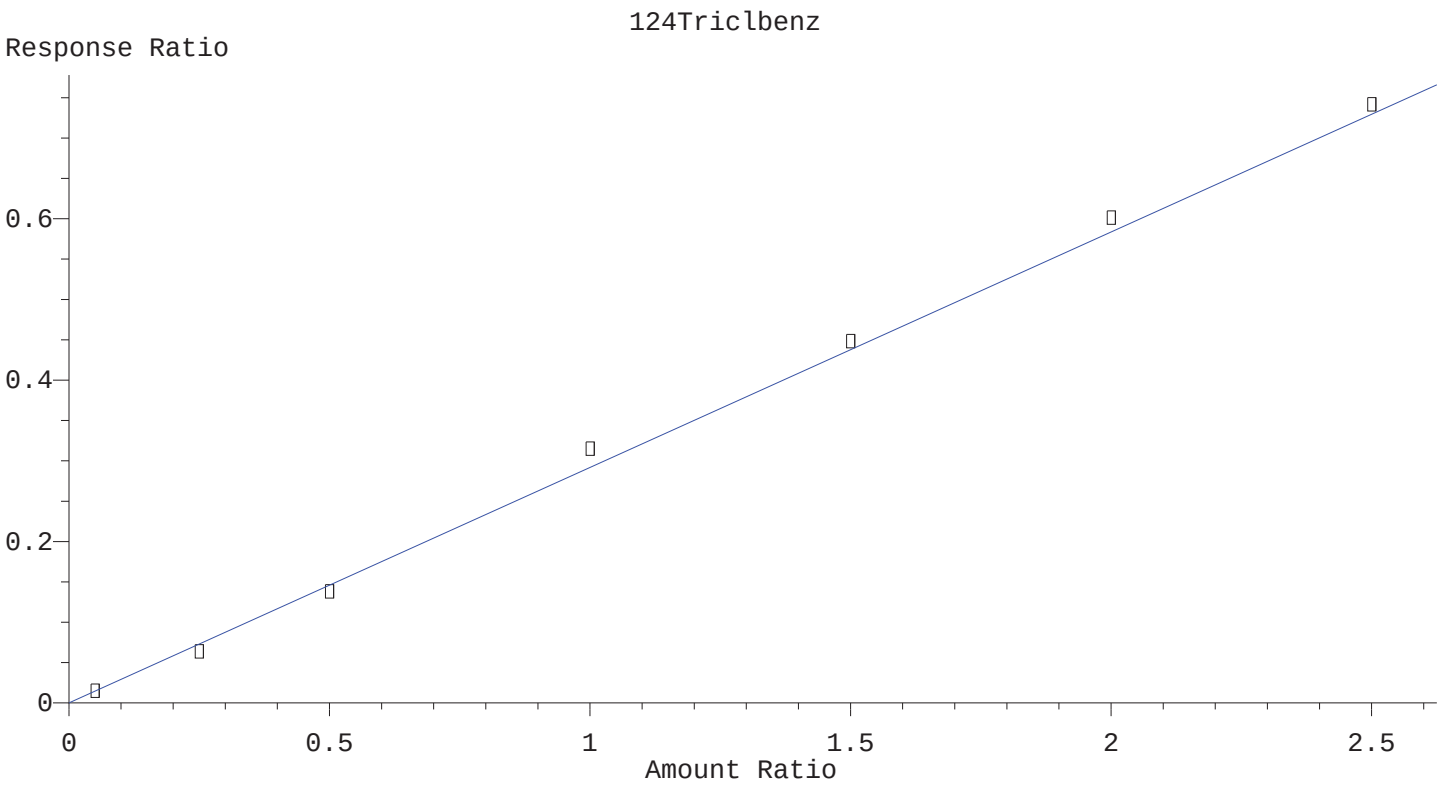


R = 3.398e-003 A*A + 4.023e-001 A - 5.673e-003
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)

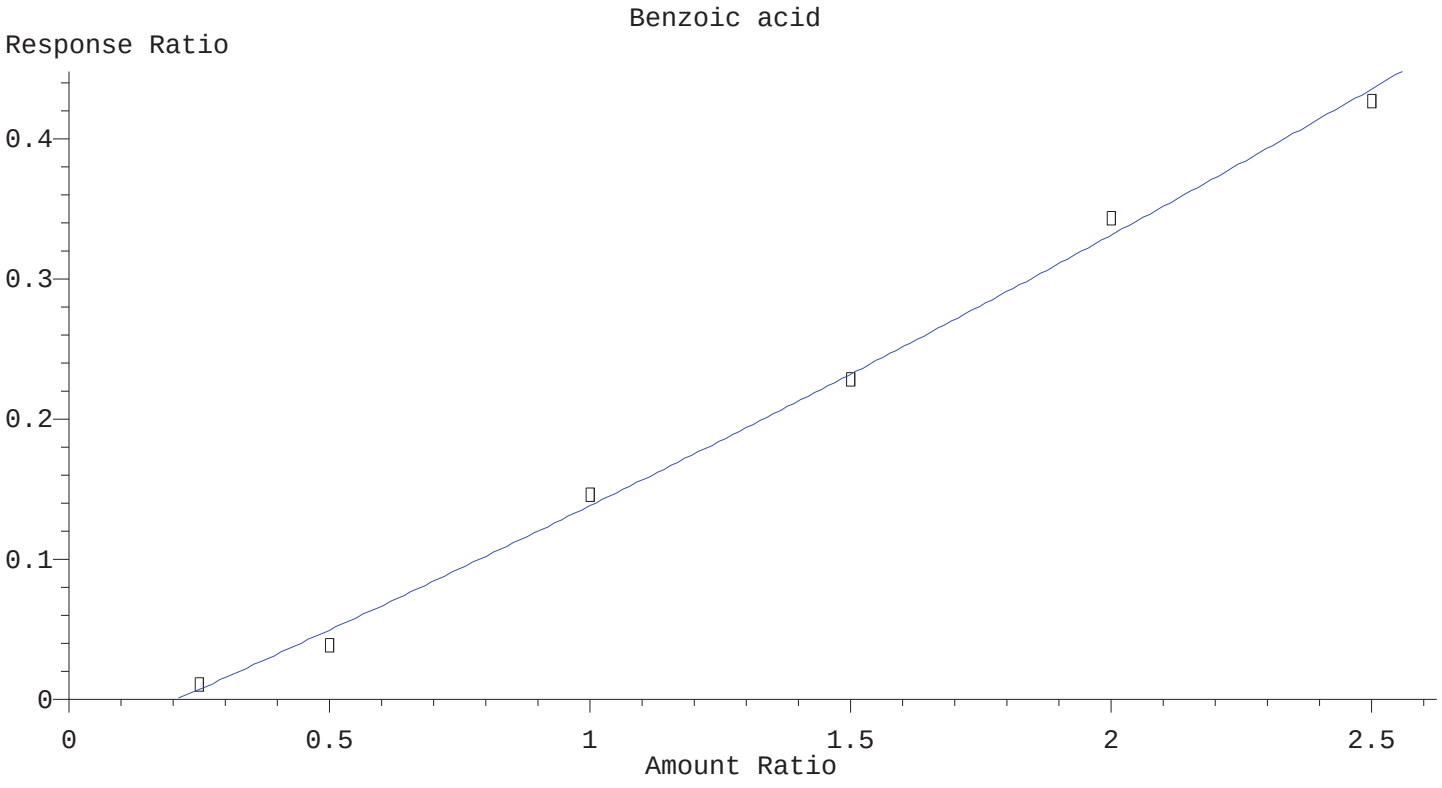
24Diclphenol



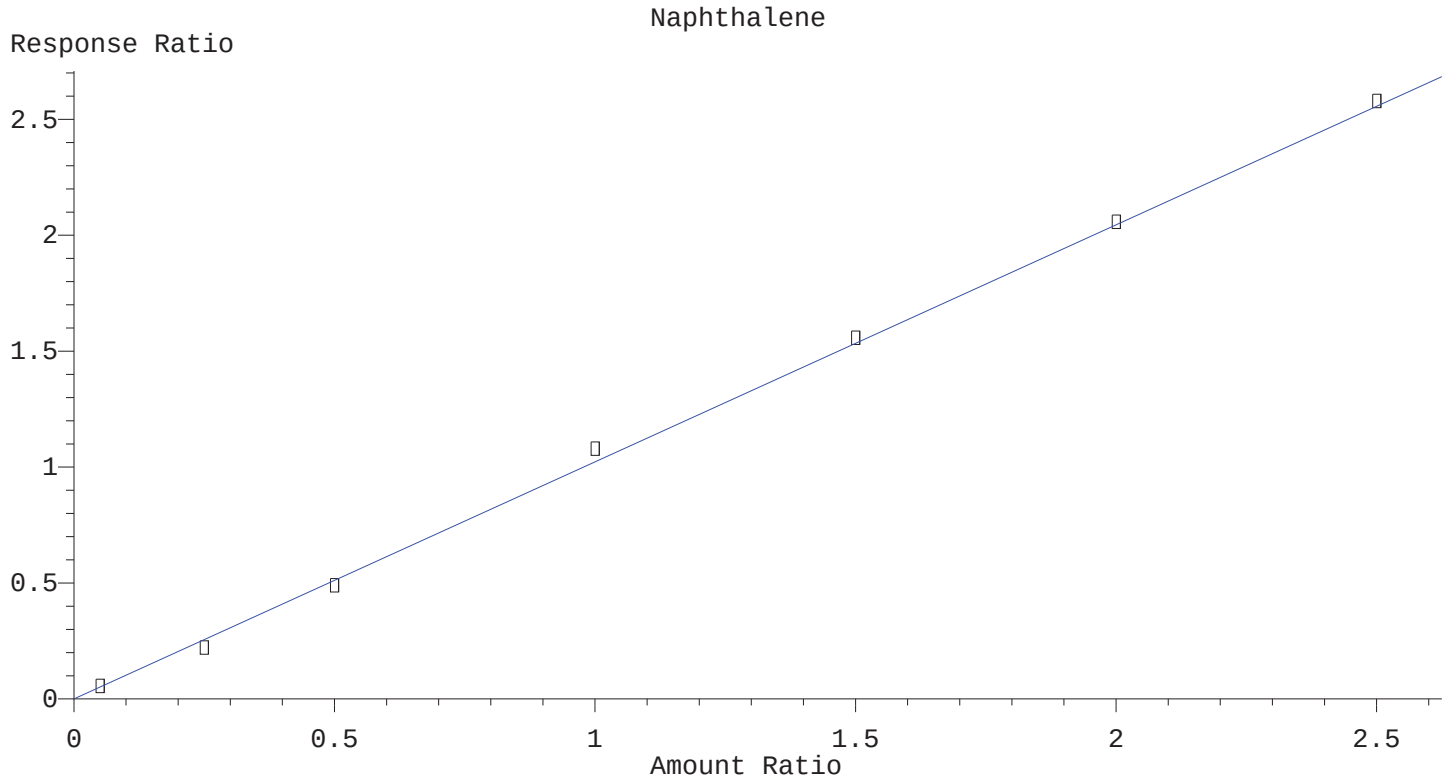
R = 7.477e-003 A*A + 2.696e-001 A - 5.786e-003
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)



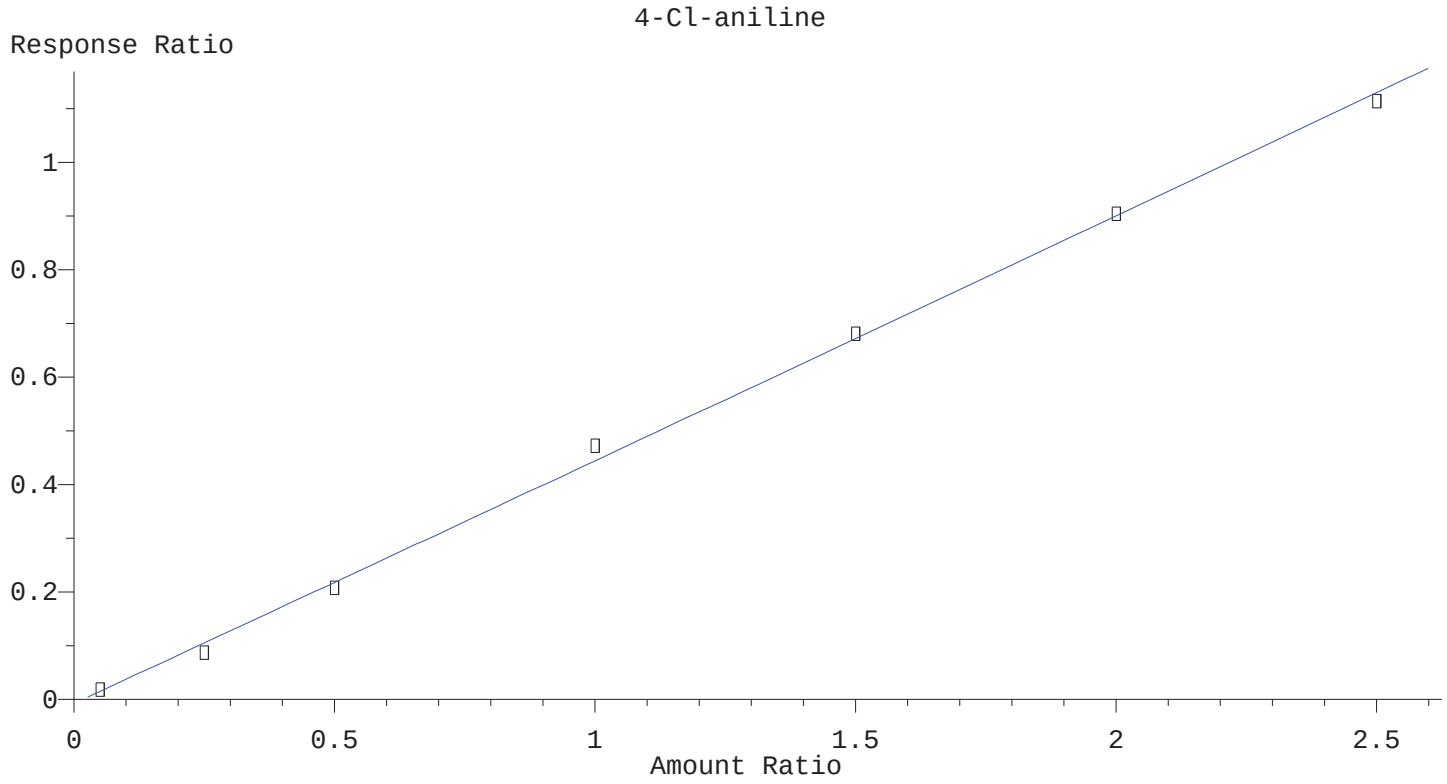
Resp Ratio = 2.919e-001 * Amt
RF Rel Std Dev = 6.757% Curve Fit: Avg RF



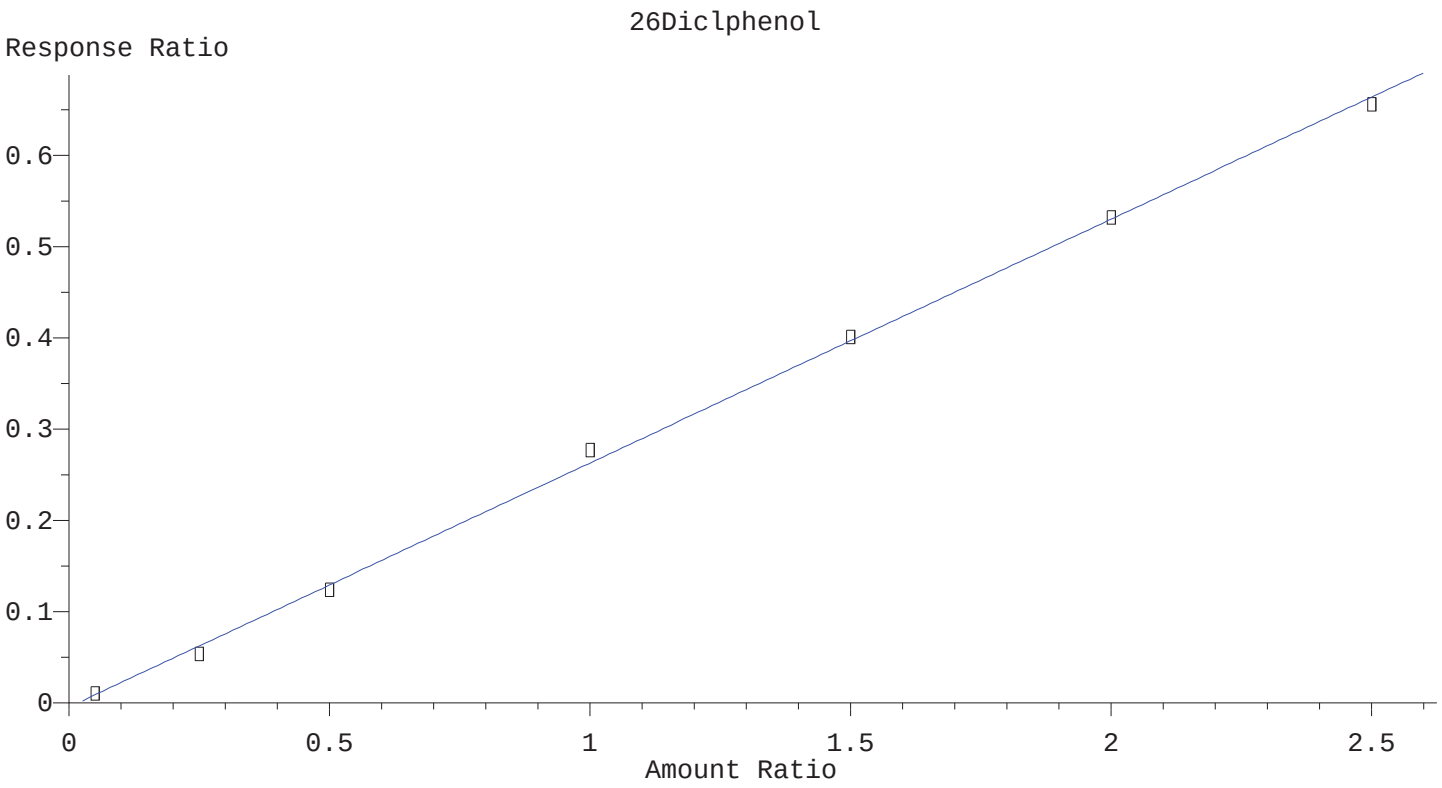
R = 1.048e-002 A*A + 1.616e-001 A - 3.390e-002
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w(1/a)



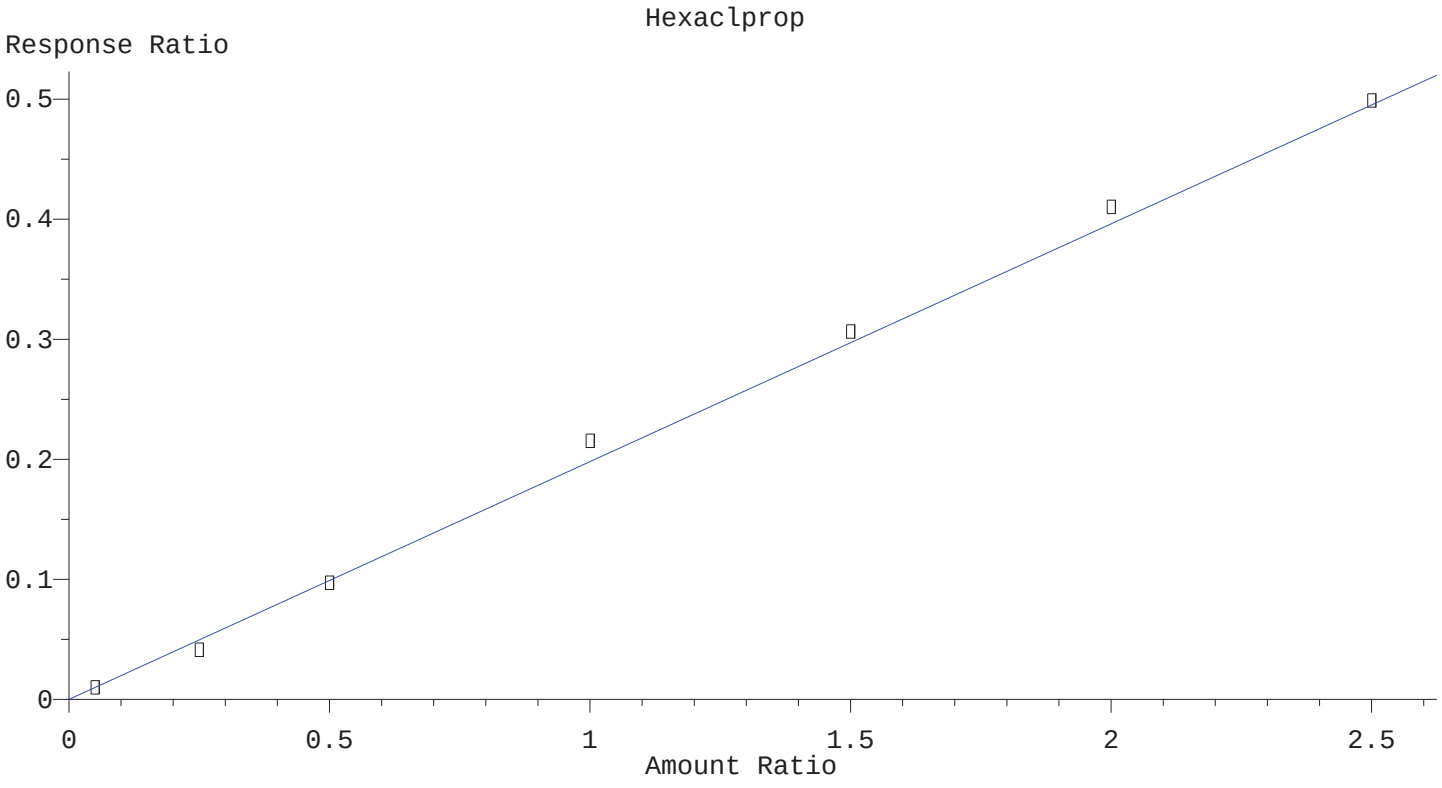
Resp Ratio = 1.023e+000 * Amt
RF Rel Std Dev = 7.237% Curve Fit: Avg RF



R = 2.109e-003 A*A + 4.497e-001 A - 7.489e-003
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)

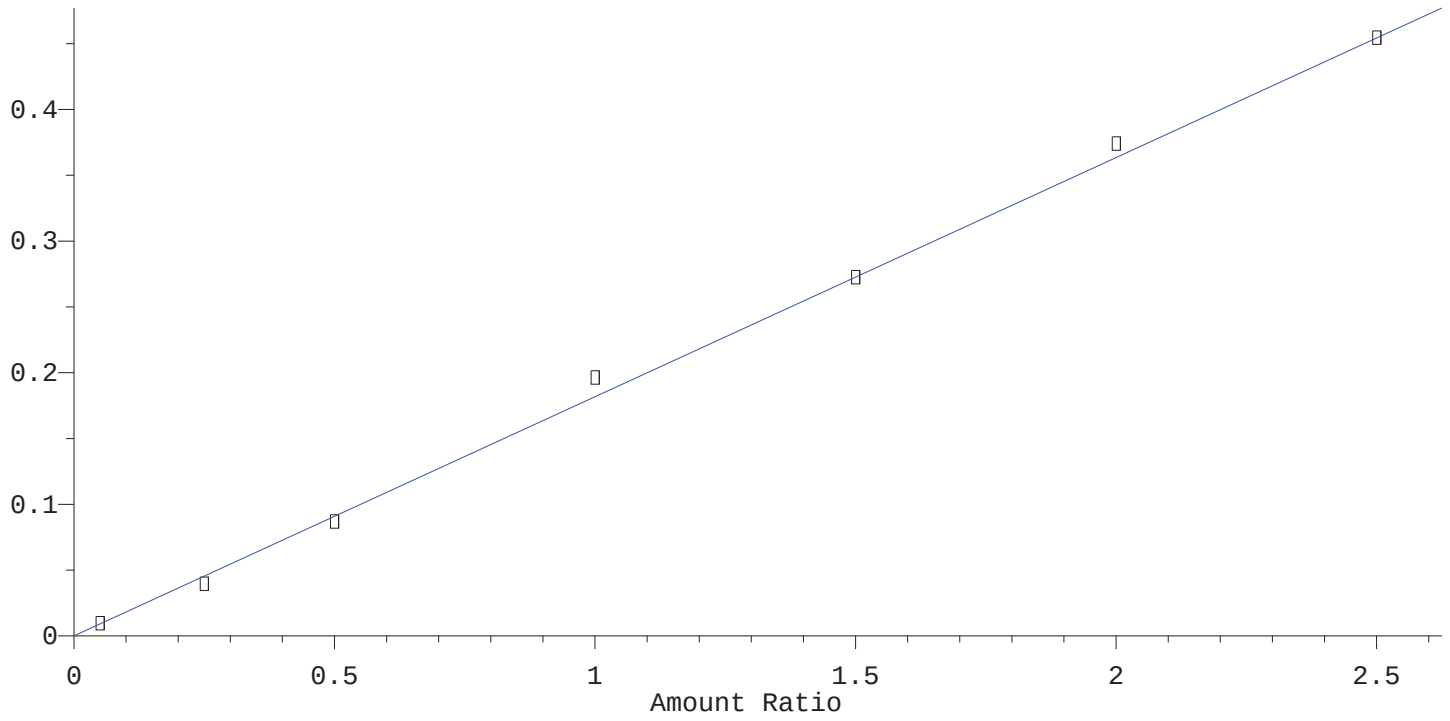


R = -1.803e-004 A*A + 2.678e-001 A - 4.544e-003
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)



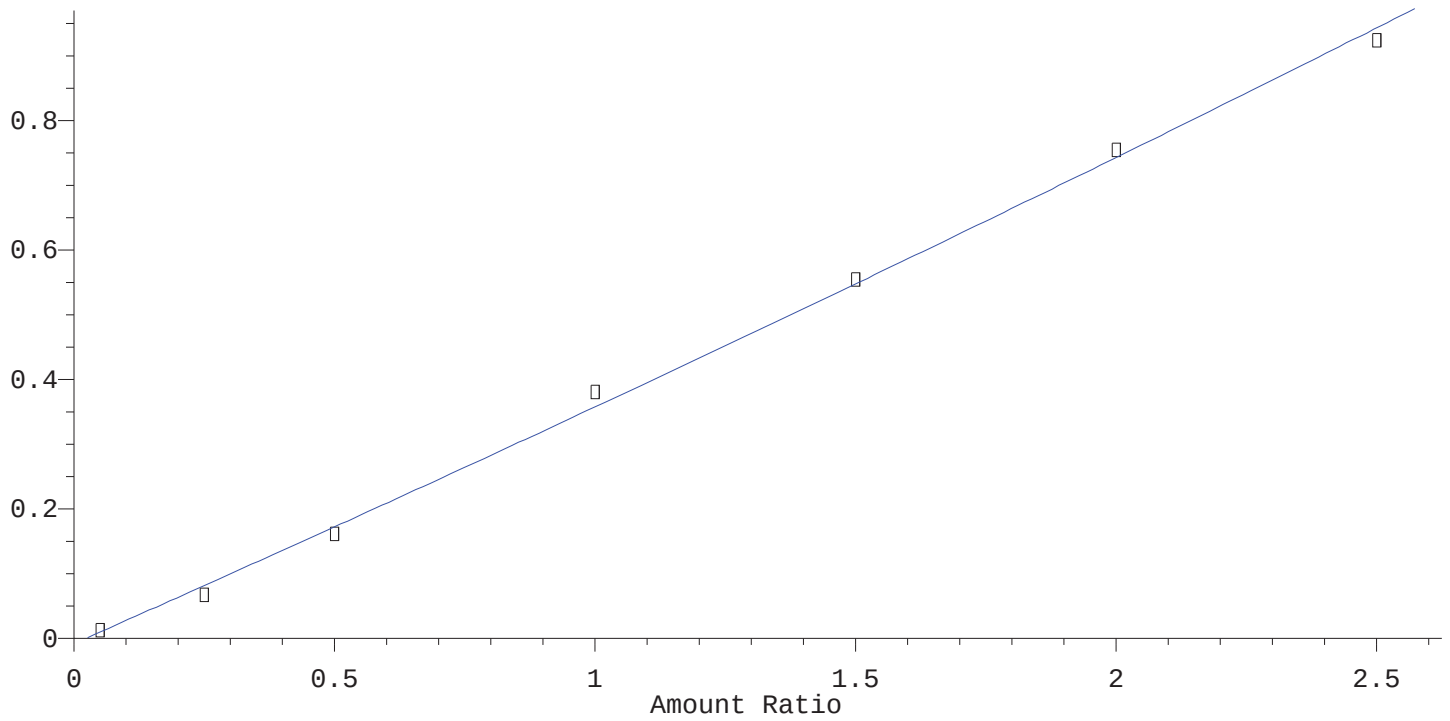
Resp Ratio = 1.979e-001 * Amt
RF Rel Std Dev = 7.917% Curve Fit: Avg RF

Hexaclbutdien

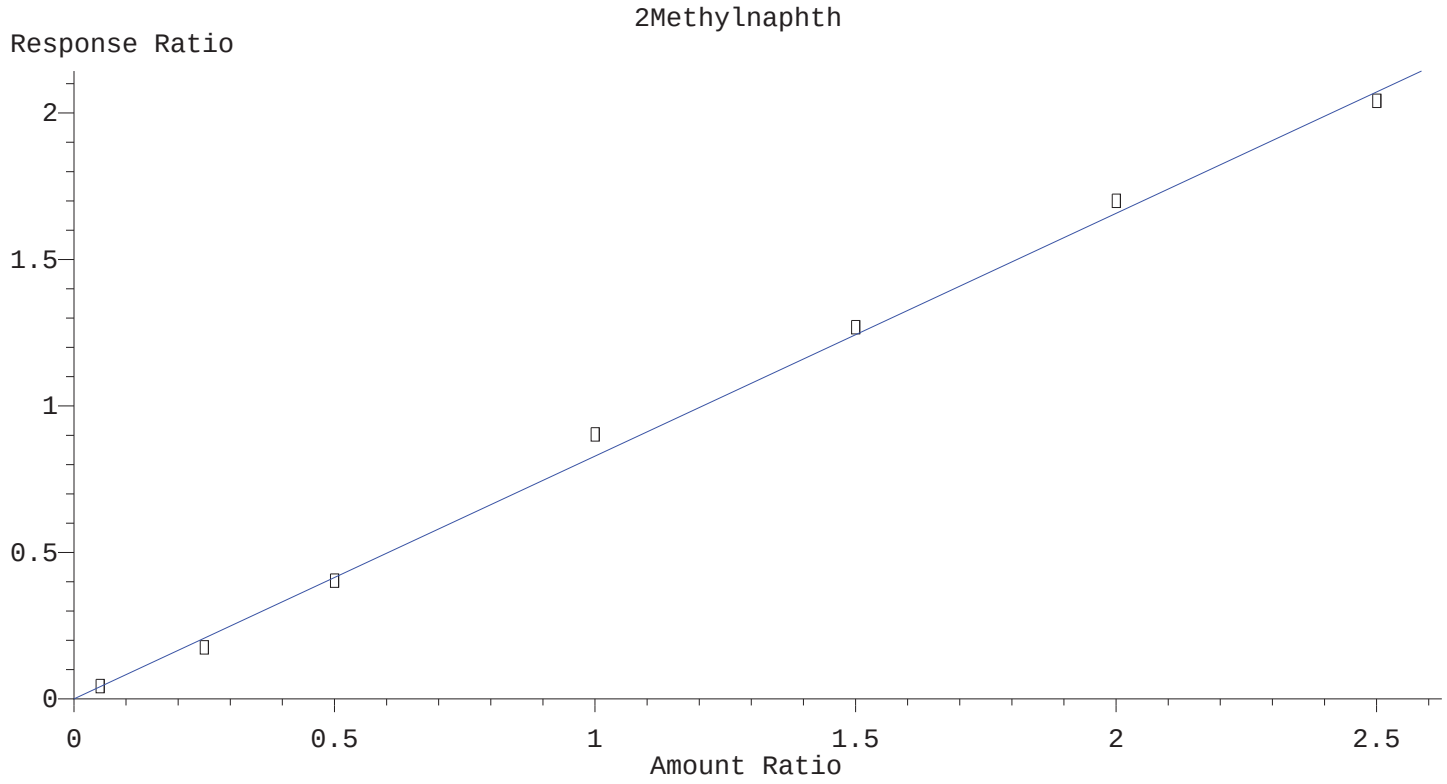


Resp Ratio = 1.816e-001 * Amt
RF Rel Std Dev = 6.900% Curve Fit: Avg RF

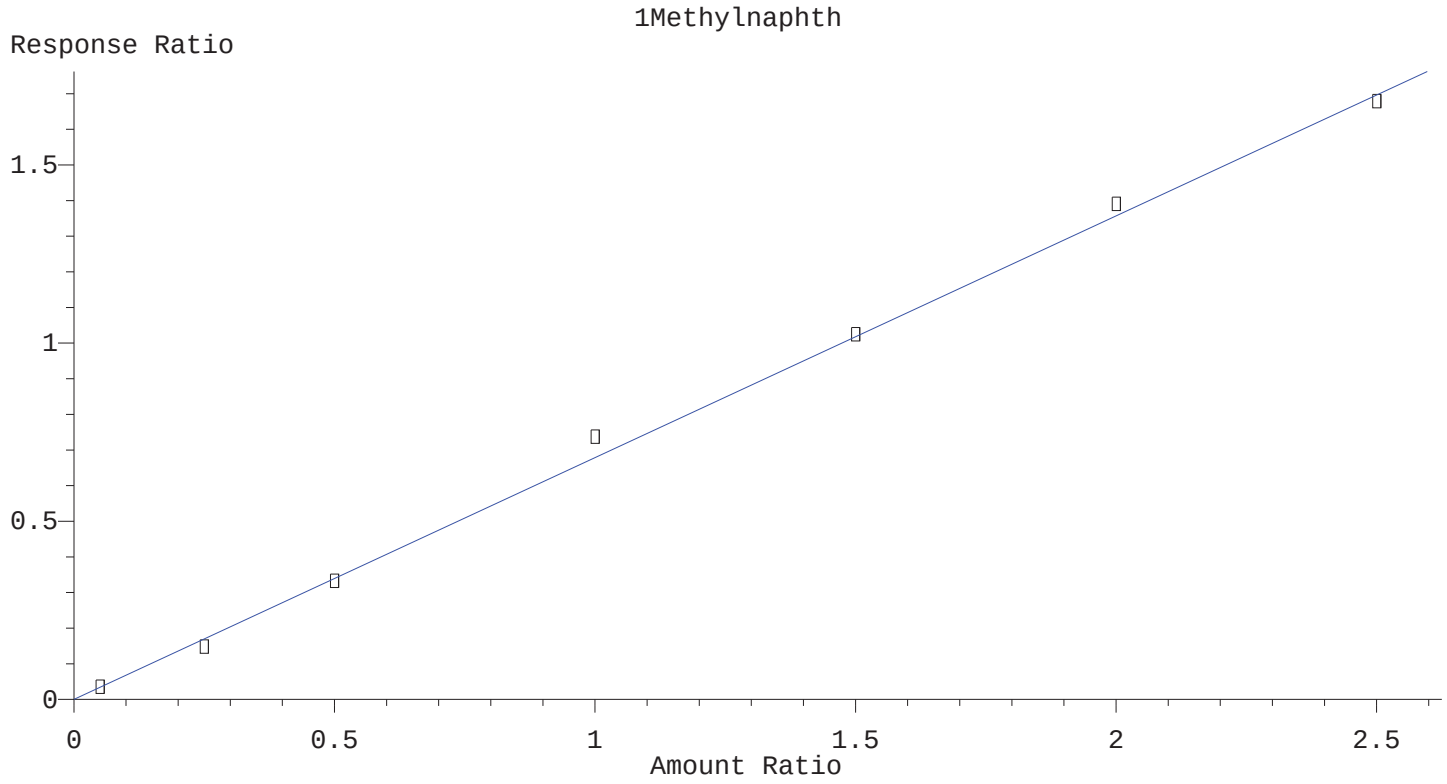
4Cl3methylphe



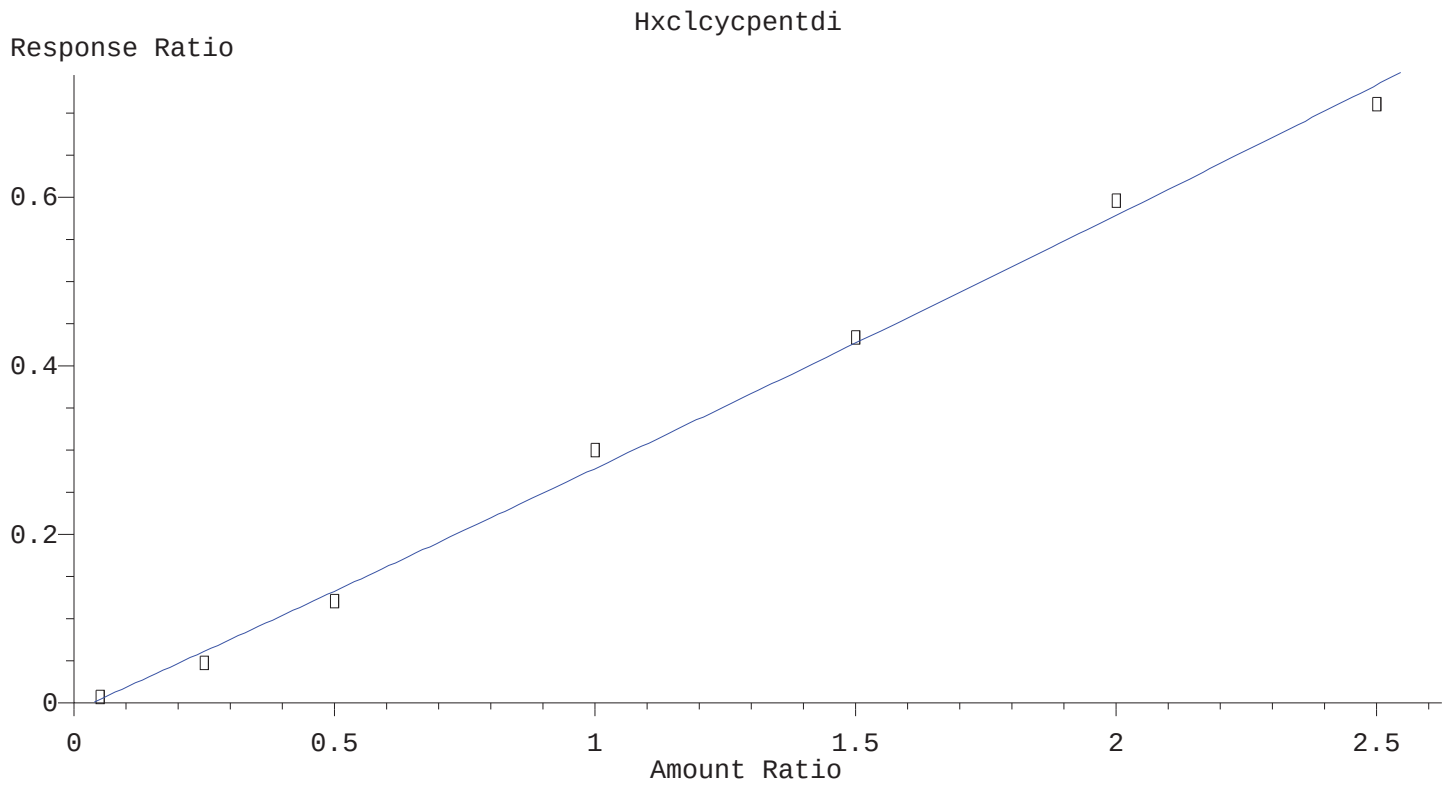
R = 1.005e-002 A*A + 3.554e-001 A - 7.873e-003
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)



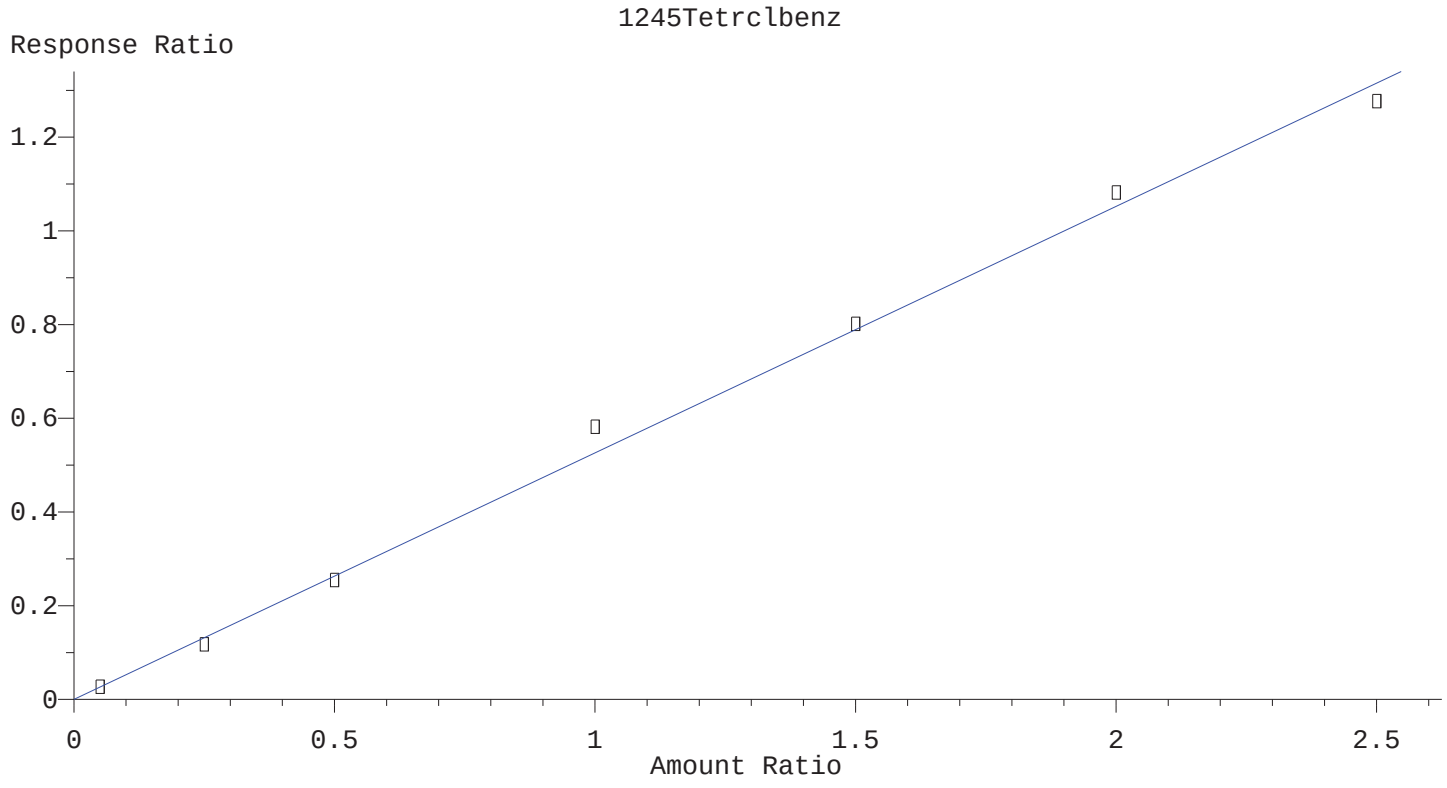
Resp Ratio = 8.290e-001 * Amt
RF Rel Std Dev = 7.725% Curve Fit: Avg RF



Resp Ratio = 6.788e-001 * Amt
RF Rel Std Dev = 6.614% Curve Fit: Avg RF

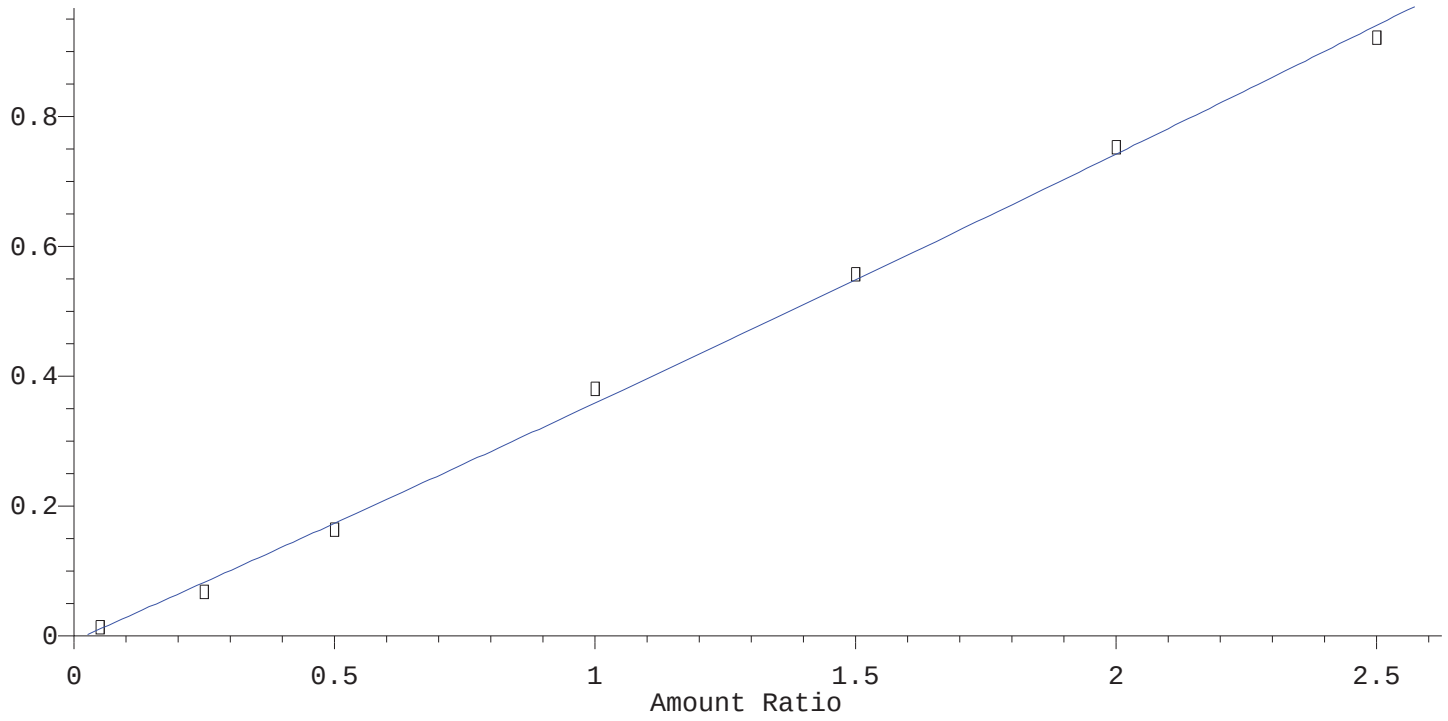


R = 6.243e-003 A*A + 2.816e-001 A - 9.639e-003
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w(1/a)



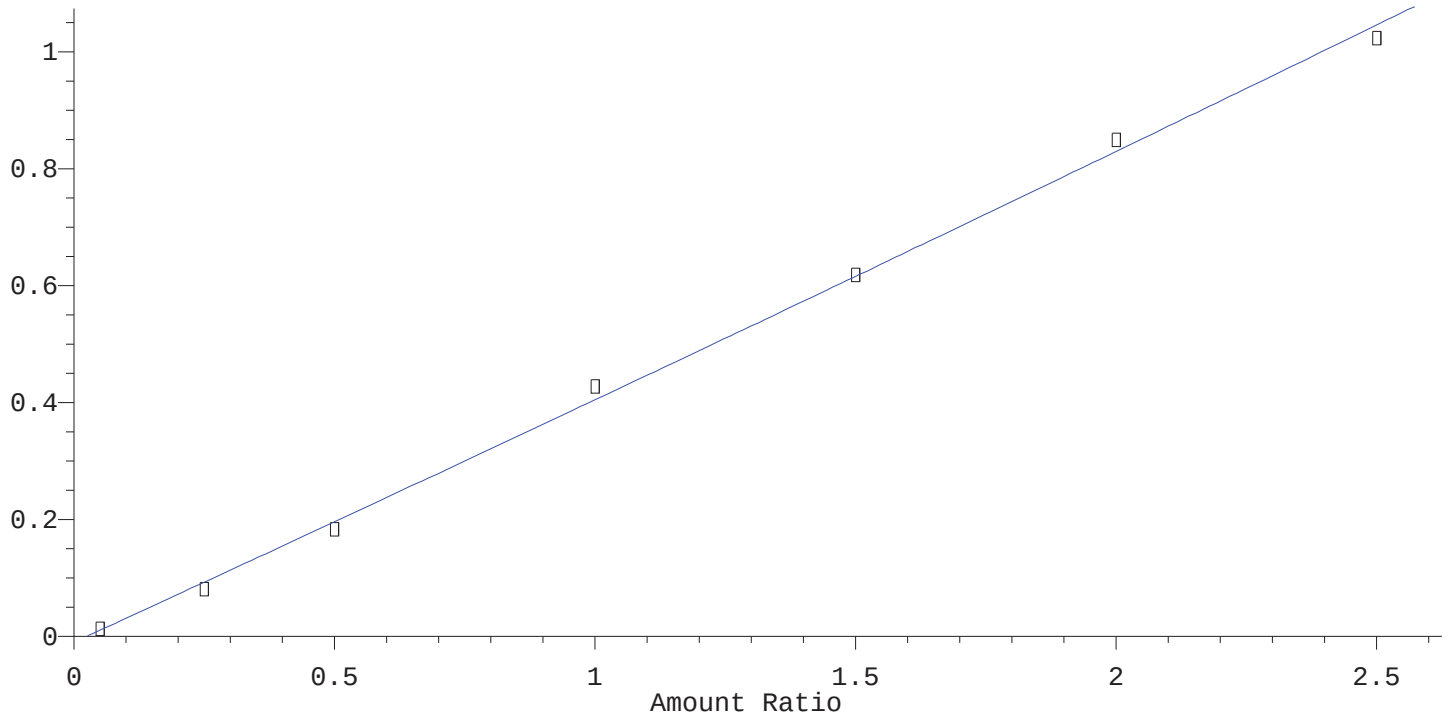
Resp Ratio = 5.265e-001 * Amt
RF Rel Std Dev = 6.620% Curve Fit: Avg RF

246Triclpheno



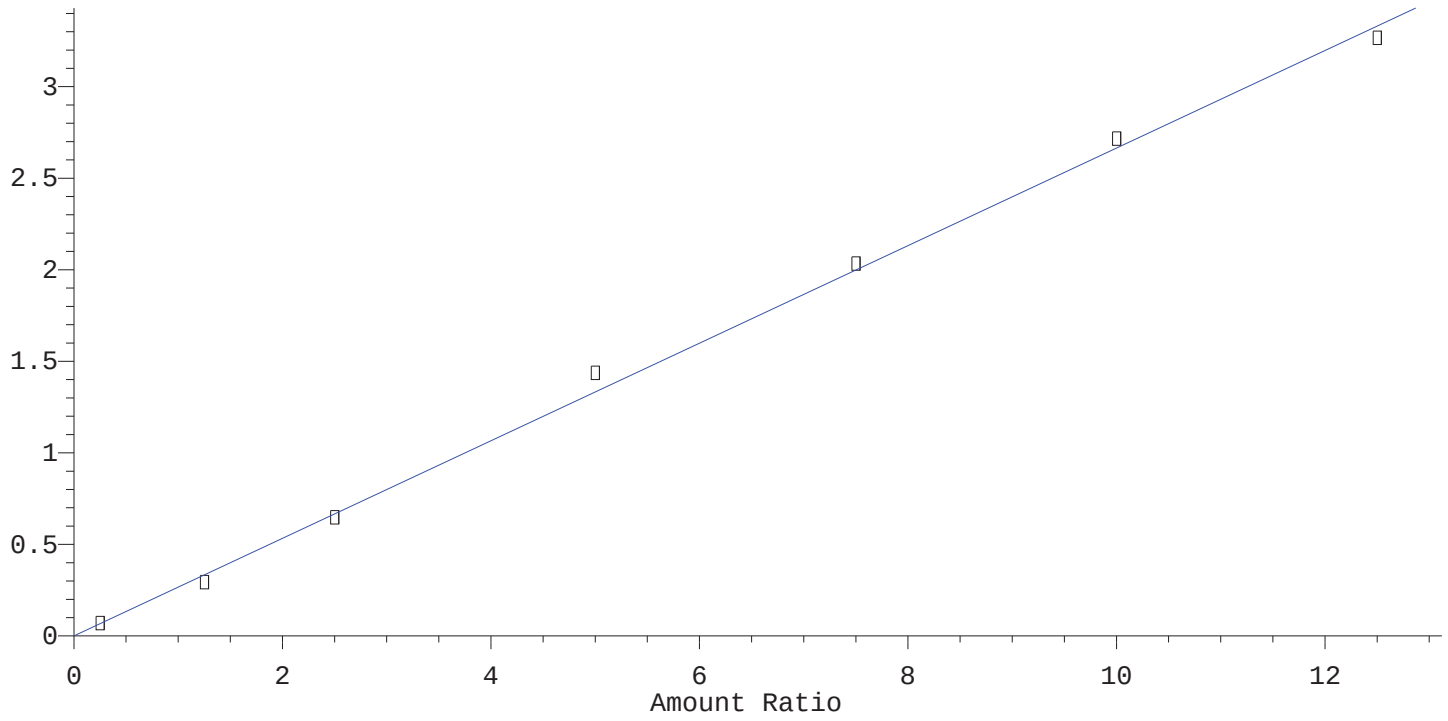
R = 8.803e-003 A*A + 3.570e-001 A - 7.162e-003
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)

245Triclpheno



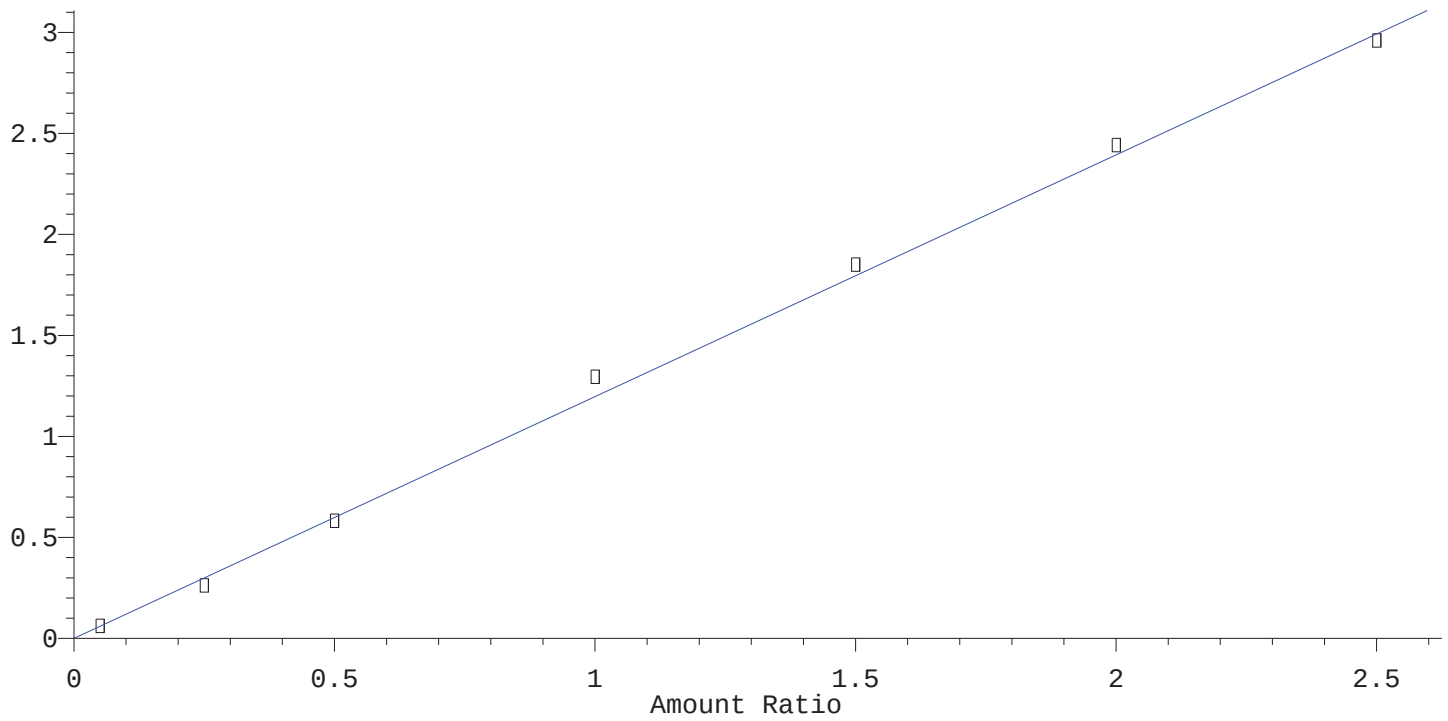
R = 5.112e-003 A*A + 4.096e-001 A - 1.001e-002
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)

SURR2Flbiphenyl



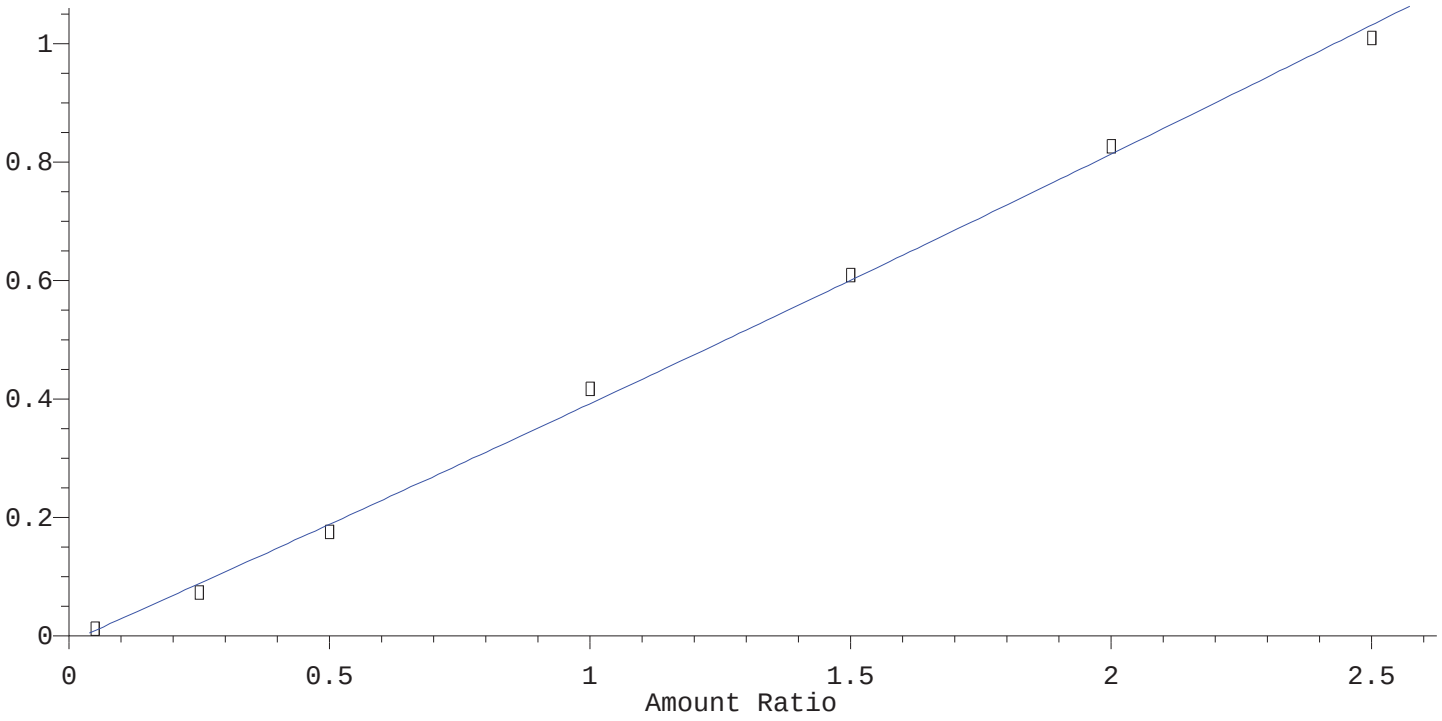
Resp Ratio = 2.664e-001 * Amt
RF Rel Std Dev = 6.373% Curve Fit: Avg RF

2Clnaphthalen



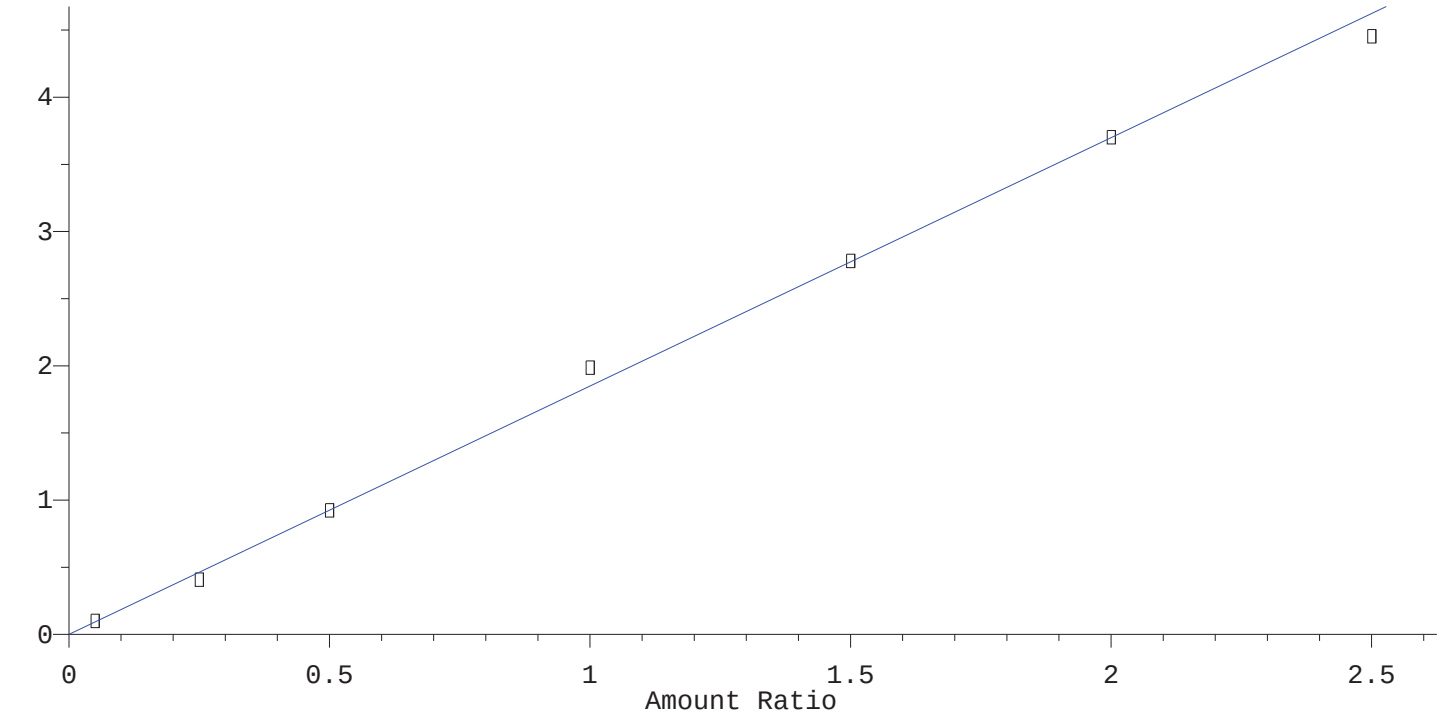
Resp Ratio = 1.197e+000 * Amt
RF Rel Std Dev = 6.515% Curve Fit: Avg RF

2Nitroaniline

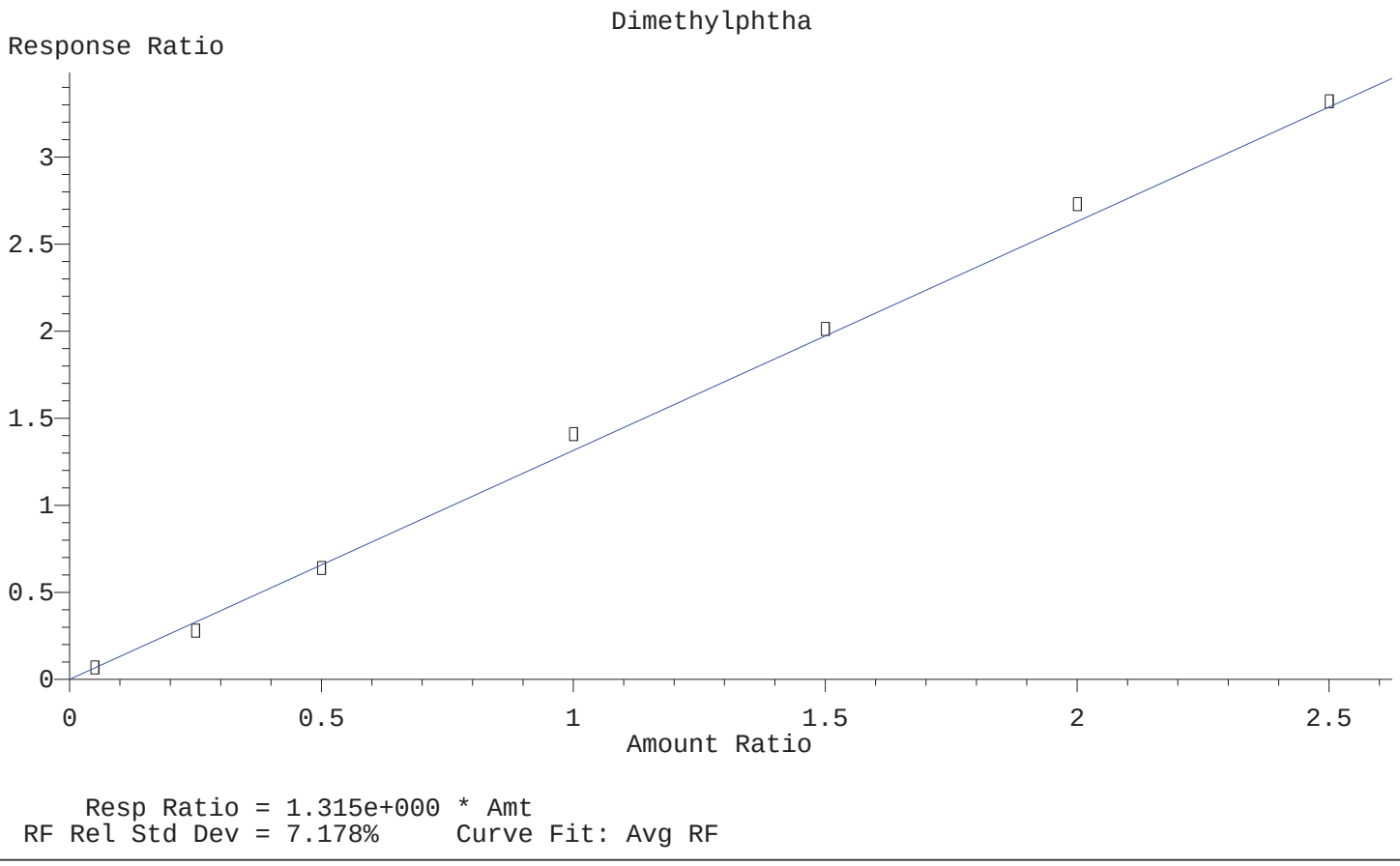


R = 9.504e-003 A*A + 3.929e-001 A - 1.044e-002
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)

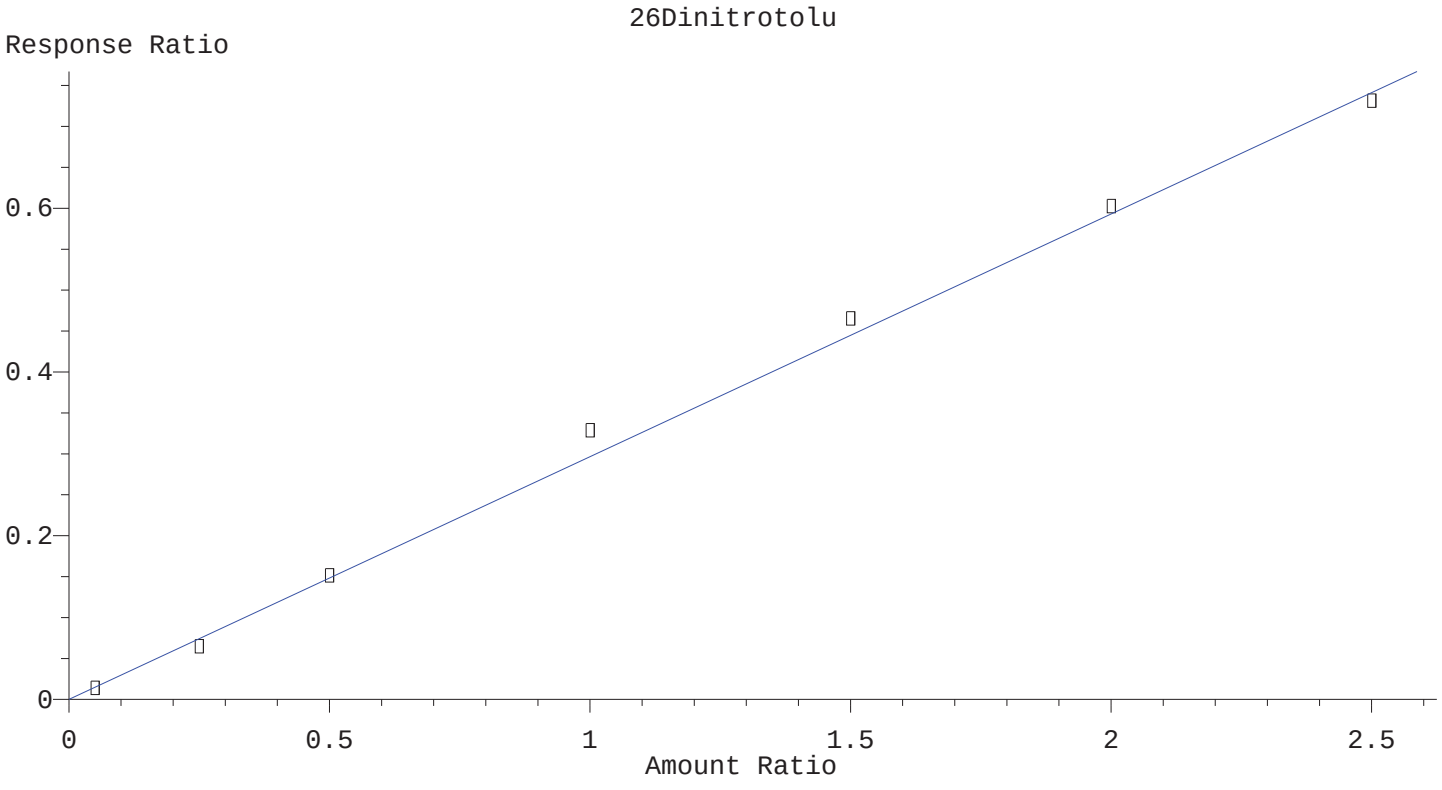
Acnaphthylene



Resp Ratio = 1.850e+000 * Amt
RF Rel Std Dev = 6.710% Curve Fit: Avg RF

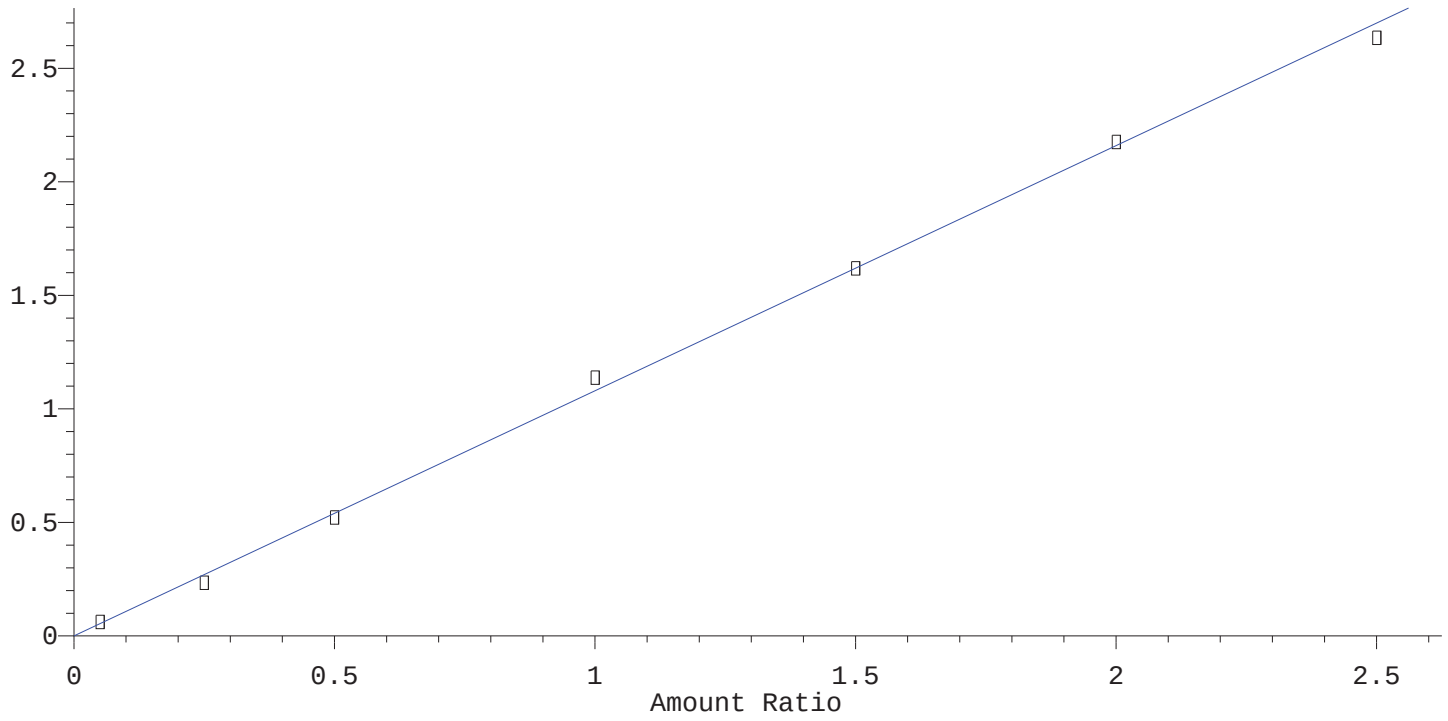


Resp Ratio = 1.315e+000 * Amt
RF Rel Std Dev = 7.178% Curve Fit: Avg RF



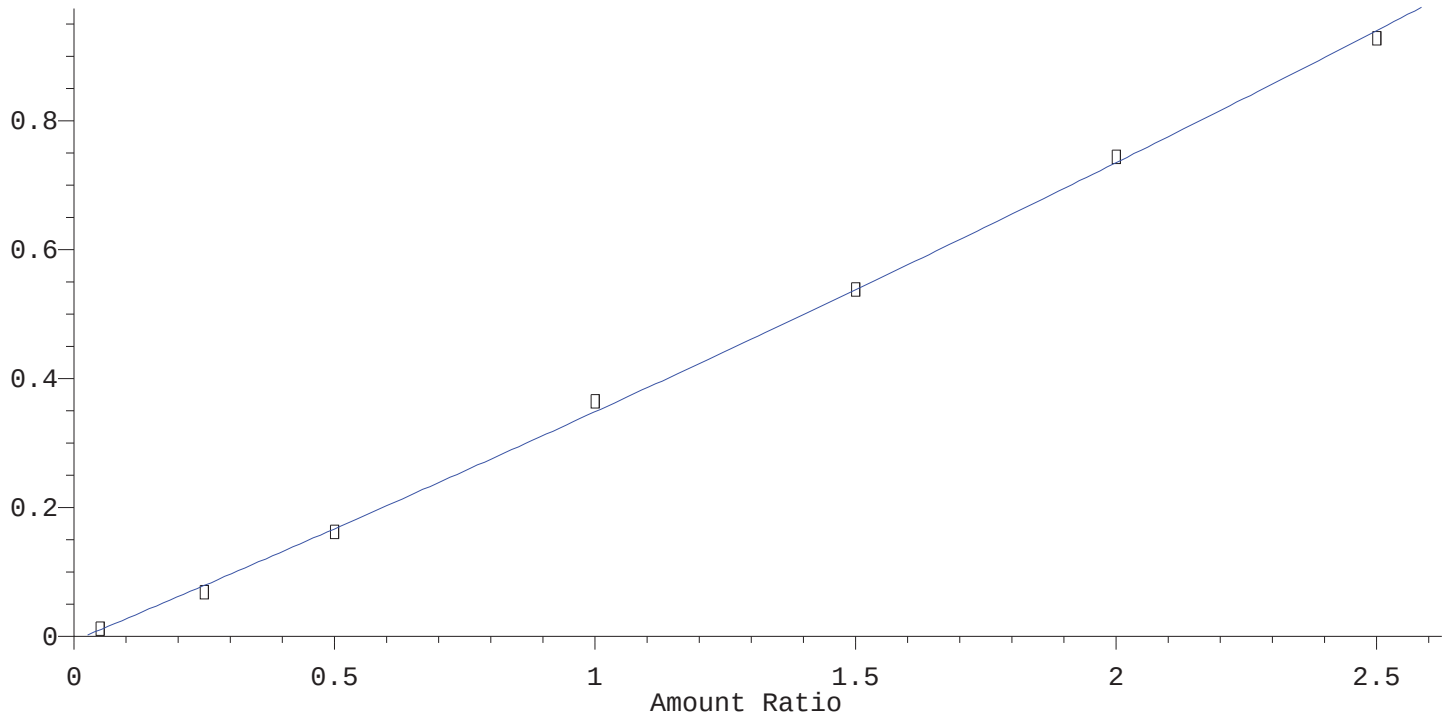
Resp Ratio = 2.969e-001 * Amt
RF Rel Std Dev = 7.345% Curve Fit: Avg RF

Acenaphthene

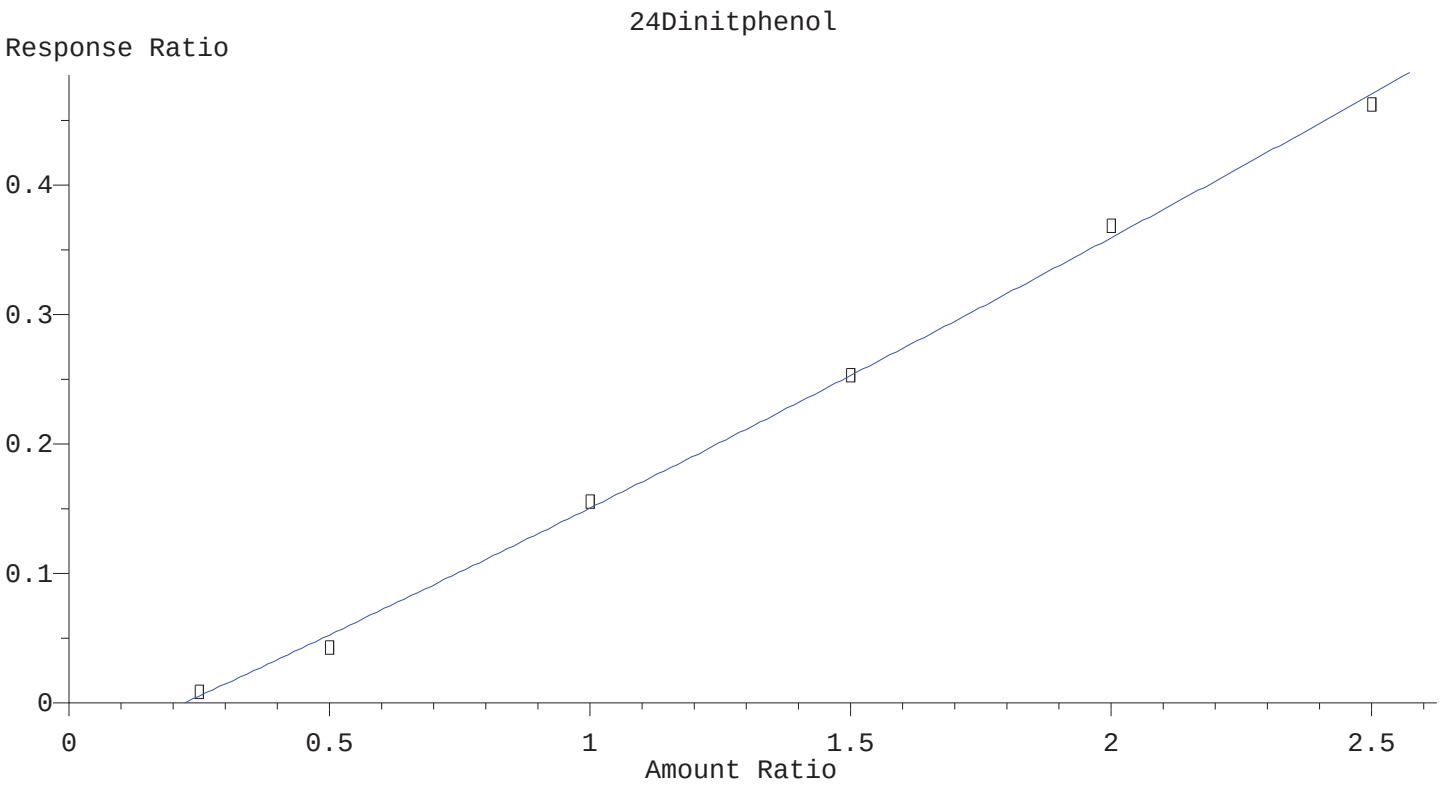


Resp Ratio = 1.080e+000 * Amt
RF Rel Std Dev = 8.116% Curve Fit: Avg RF

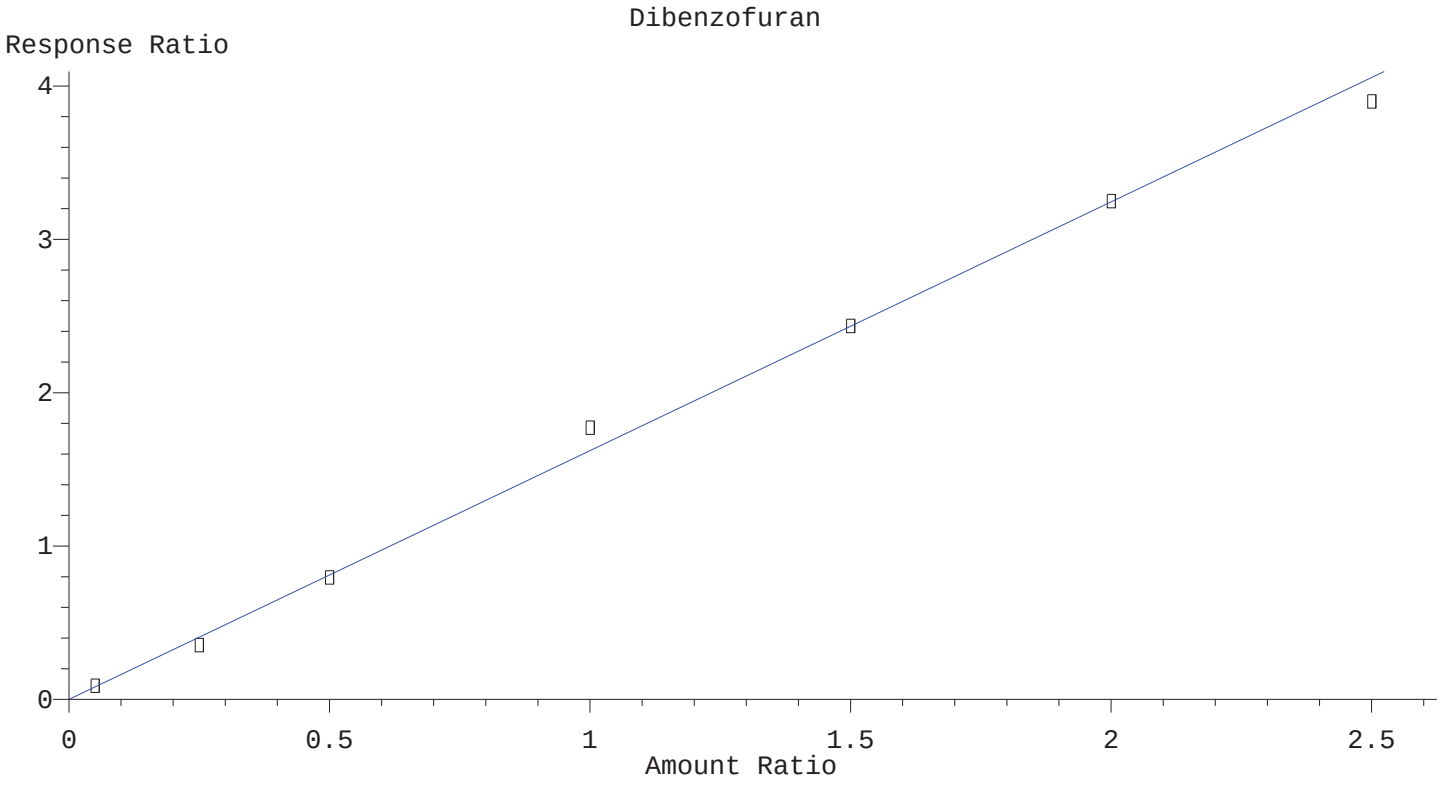
3Nitroaniline



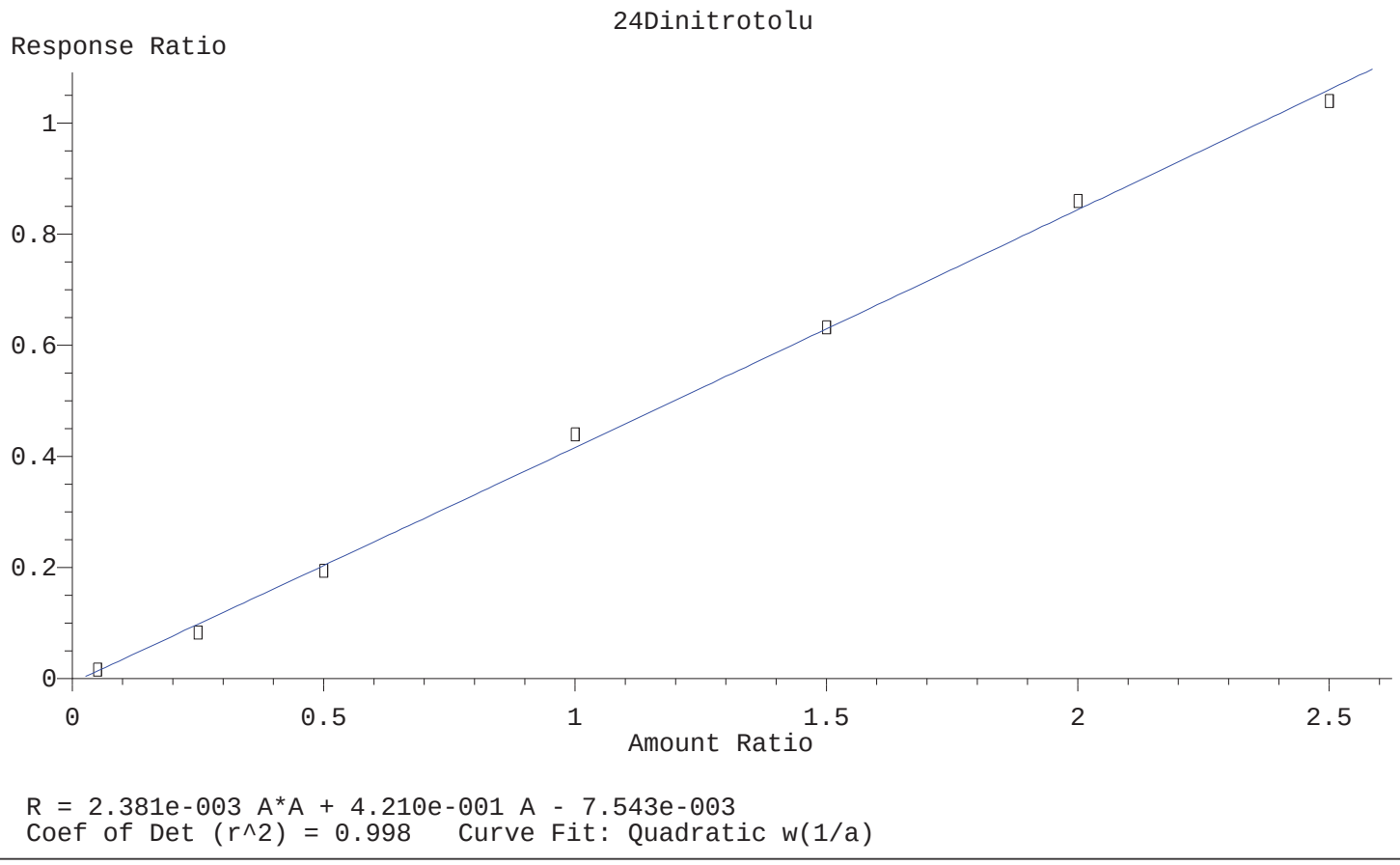
R = 1.554e-002 A*A + 3.398e-001 A - 6.856e-003
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)



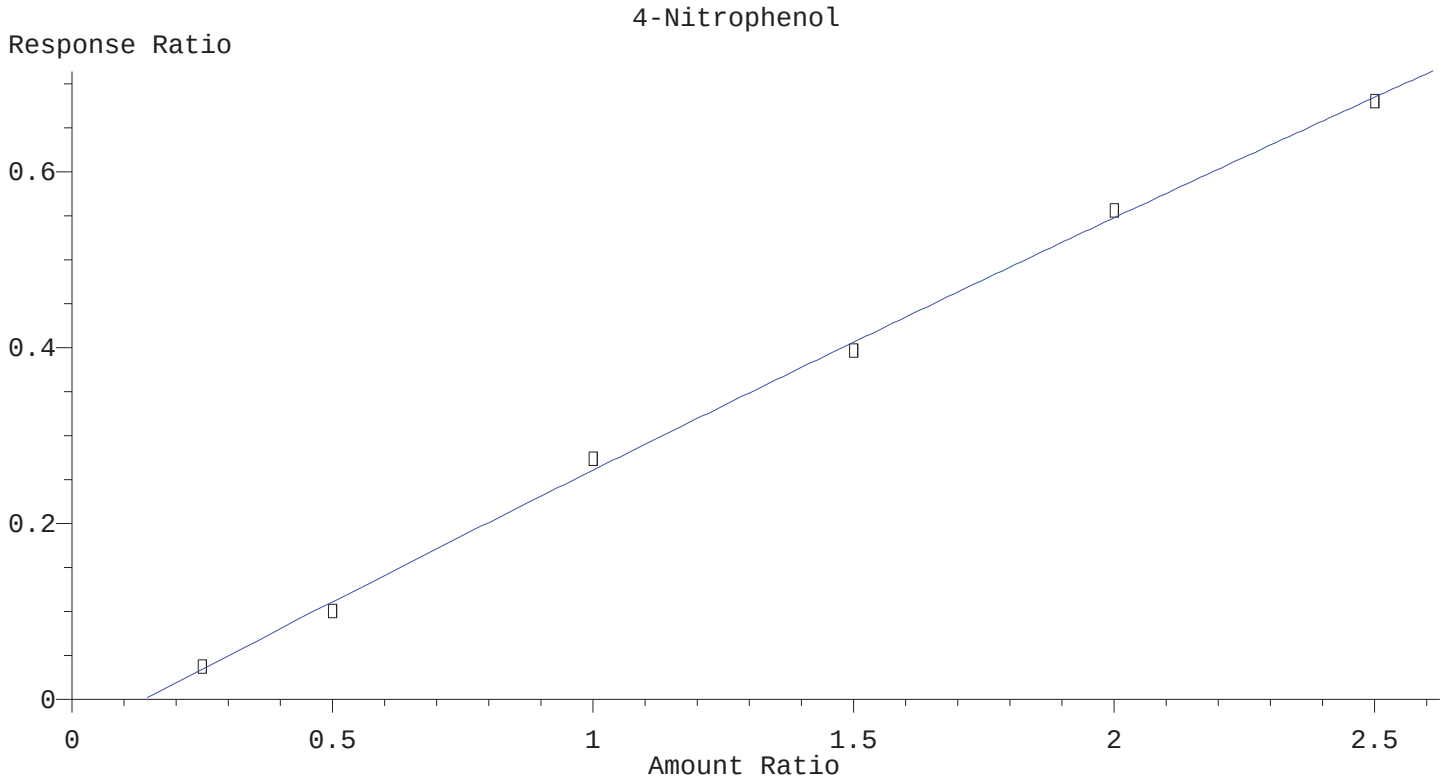
R = 8.565e-003 A*A + 1.831e-001 A - 4.104e-002
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)



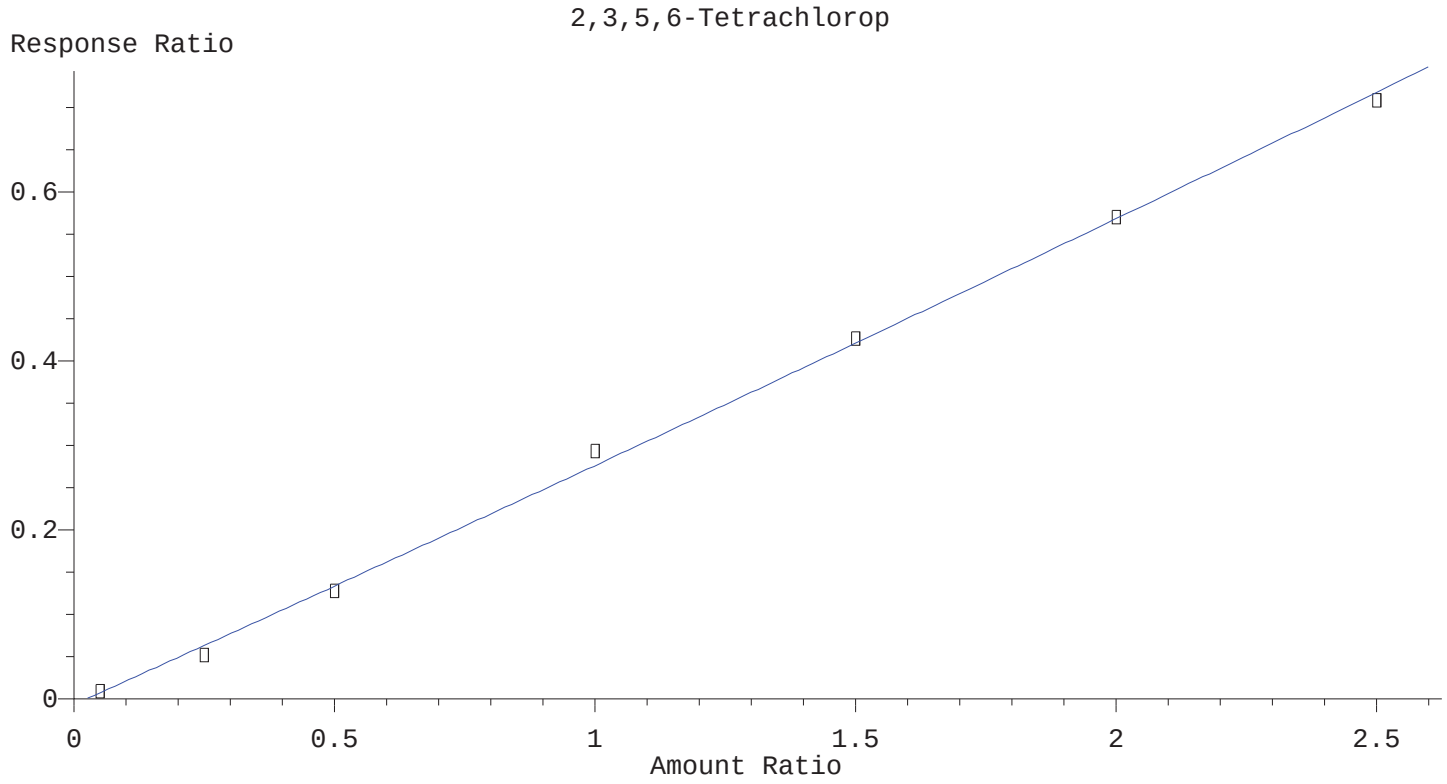
Resp Ratio = 1.622e+000 * Amt
RF Rel Std Dev = 7.609% Curve Fit: Avg RF



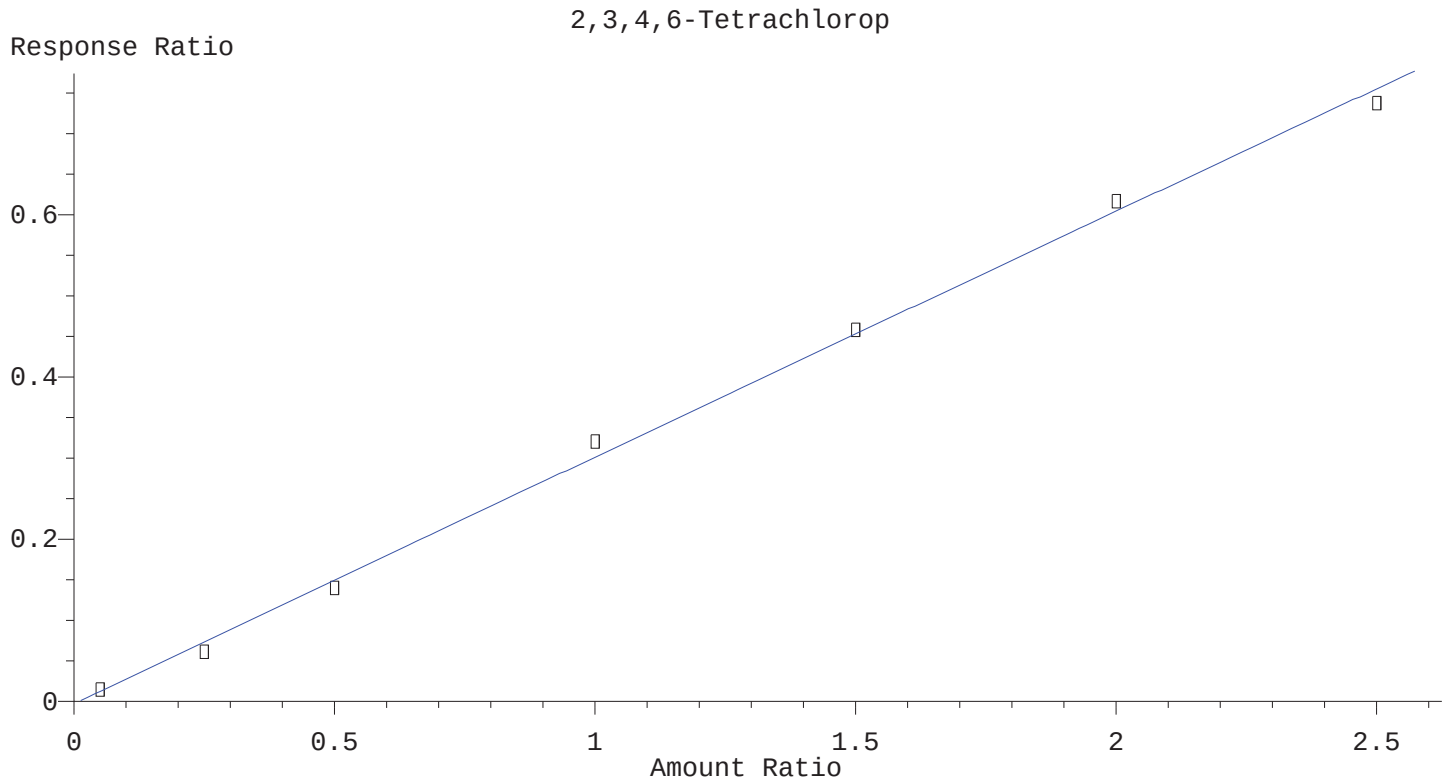
R = 2.381e-003 A*A + 4.210e-001 A - 7.543e-003
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)



R = -8.445e-003 A*A + 3.123e-001 A - 4.315e-002
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)

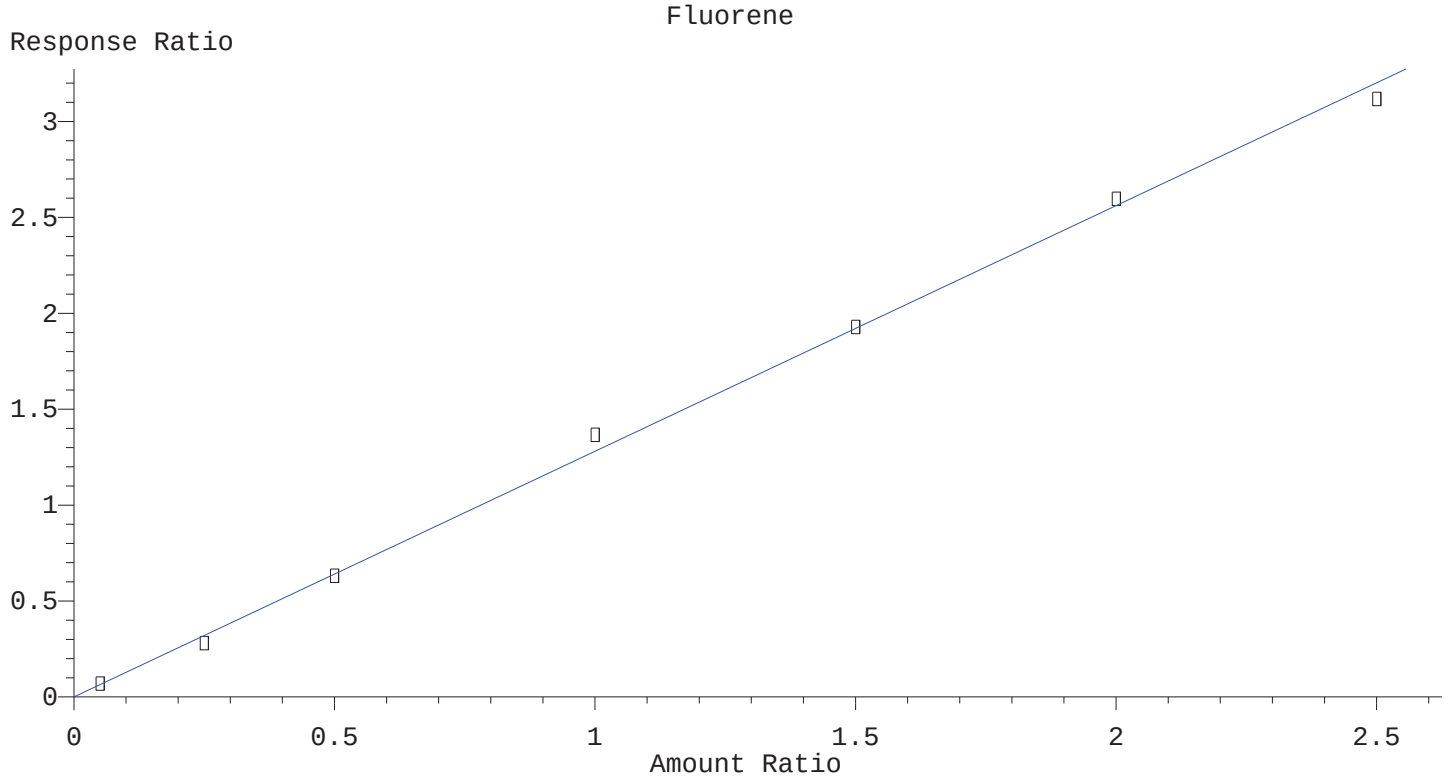


R = 4.599e-003 A*A + 2.783e-001 A - 6.737e-003
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)



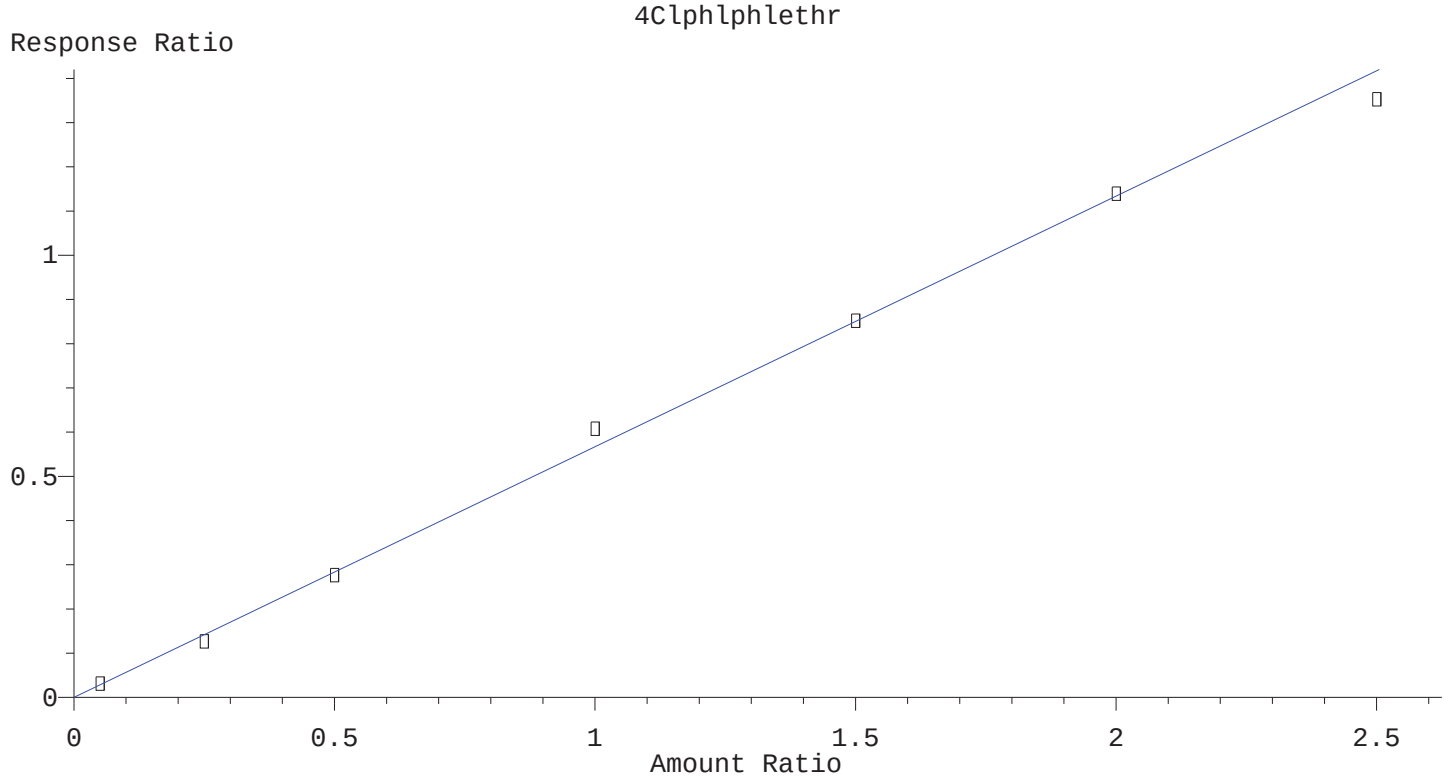
R = -5.631e-004 A*A + 3.047e-001 A - 2.948e-003
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w(1/a)

Fluorene



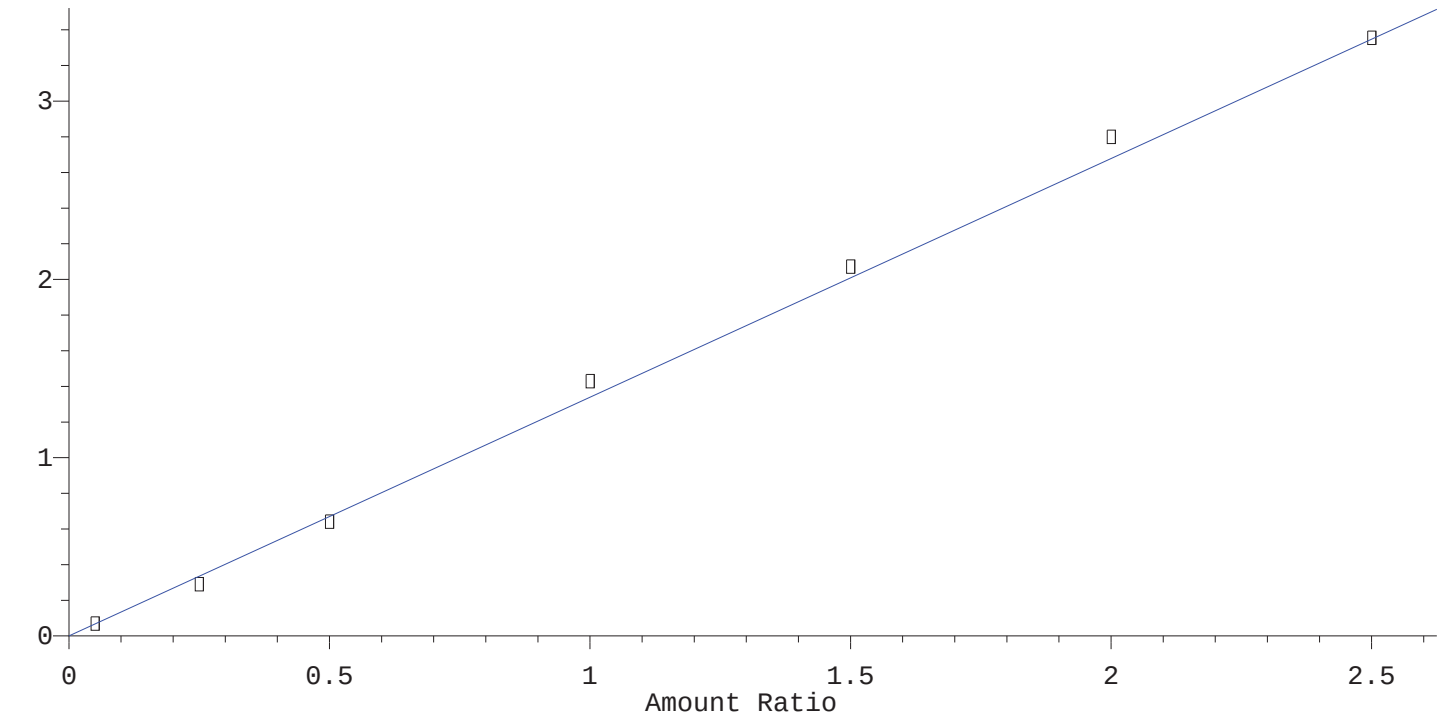
Resp Ratio = 1.281e+000 * Amt
RF Rel Std Dev = 6.832% Curve Fit: Avg RF

4Clphlphlethr



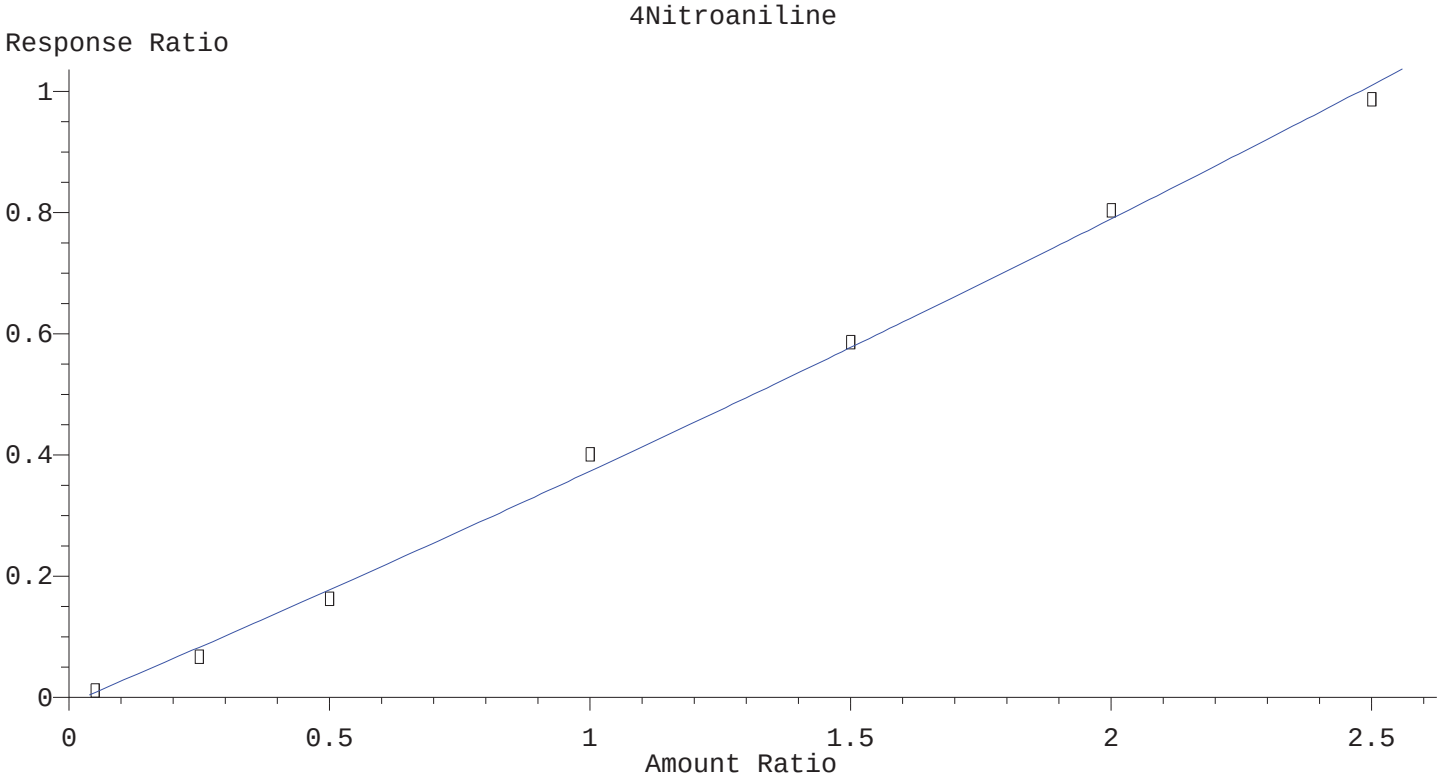
Resp Ratio = 5.670e-001 * Amt
RF Rel Std Dev = 6.998% Curve Fit: Avg RF

Diethylphthal



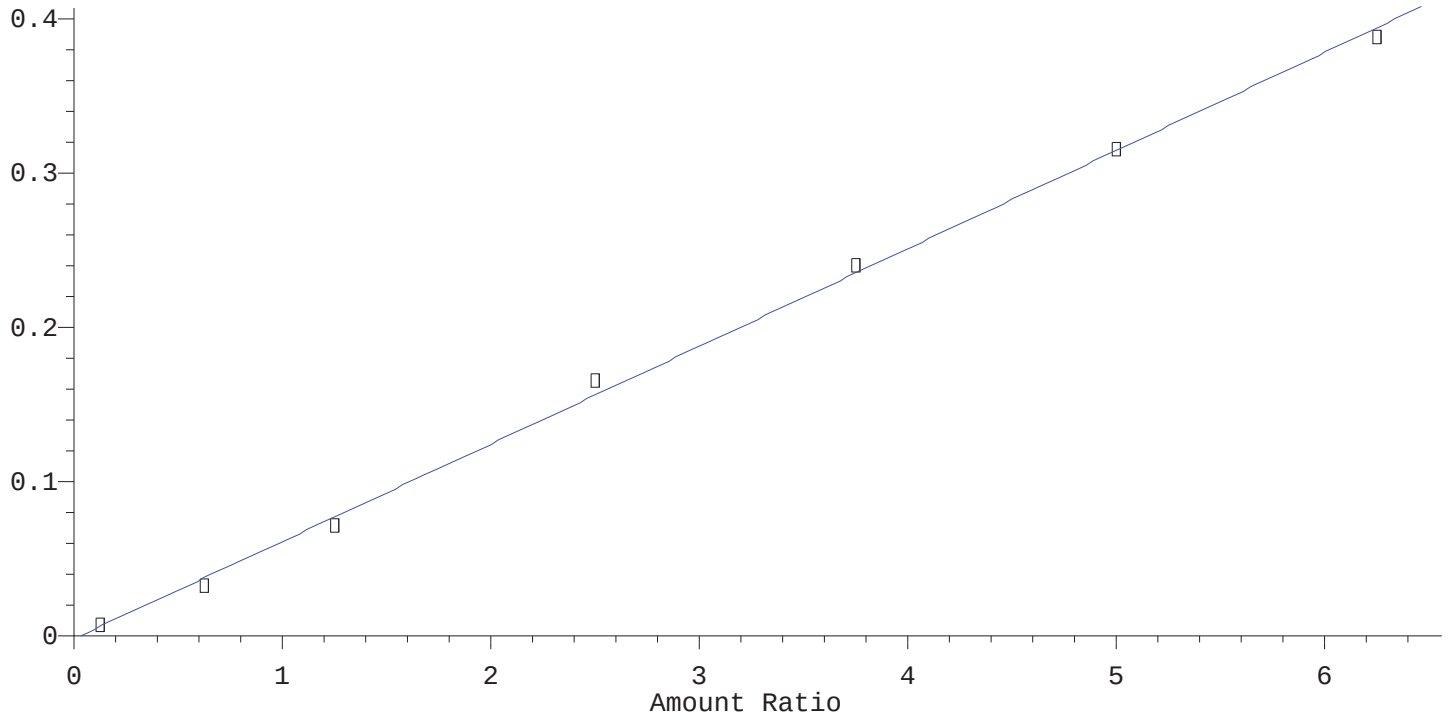
Resp Ratio = 1.339e+000 * Amt
RF Rel Std Dev = 6.853% Curve Fit: Avg RF

4Nitroaniline



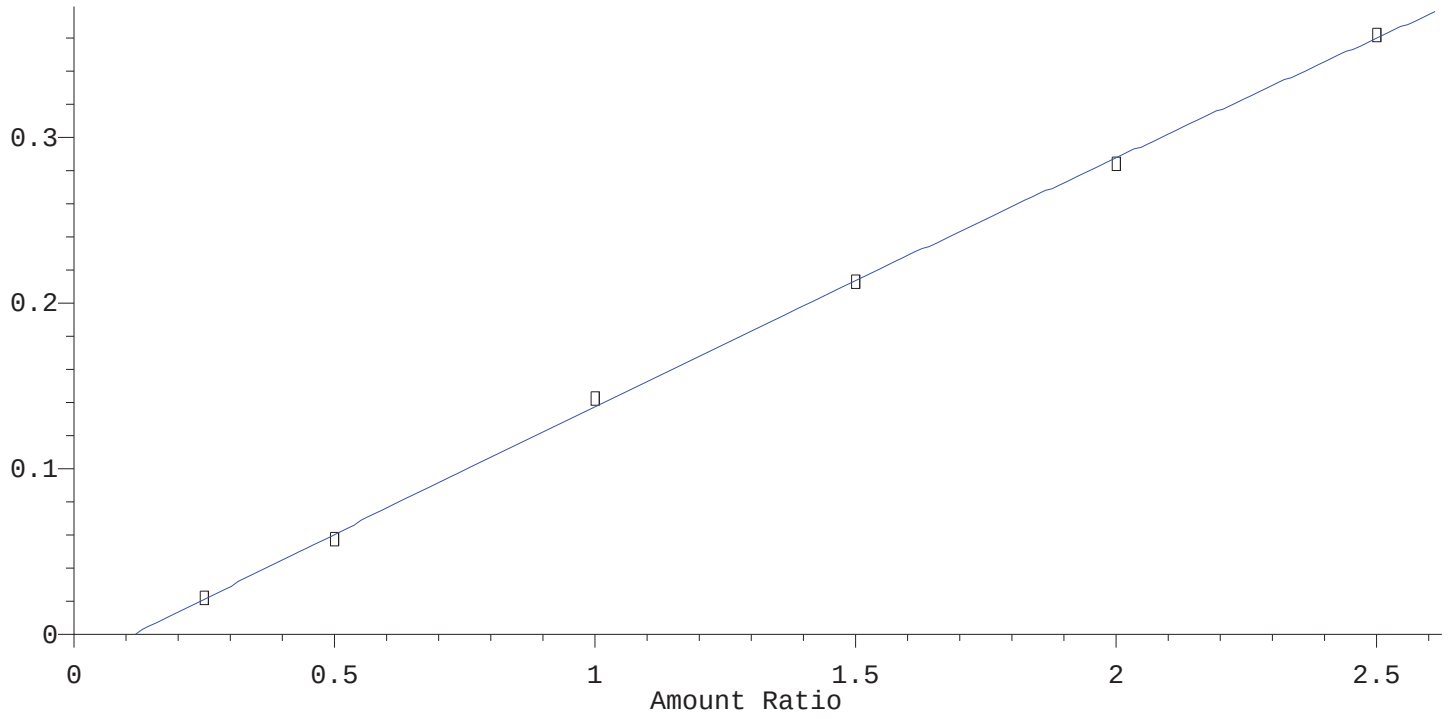
R = 1.659e-002 A*A + 3.666e-001 A - 1.003e-002
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w(1/a)

SURR246Tribrphenl

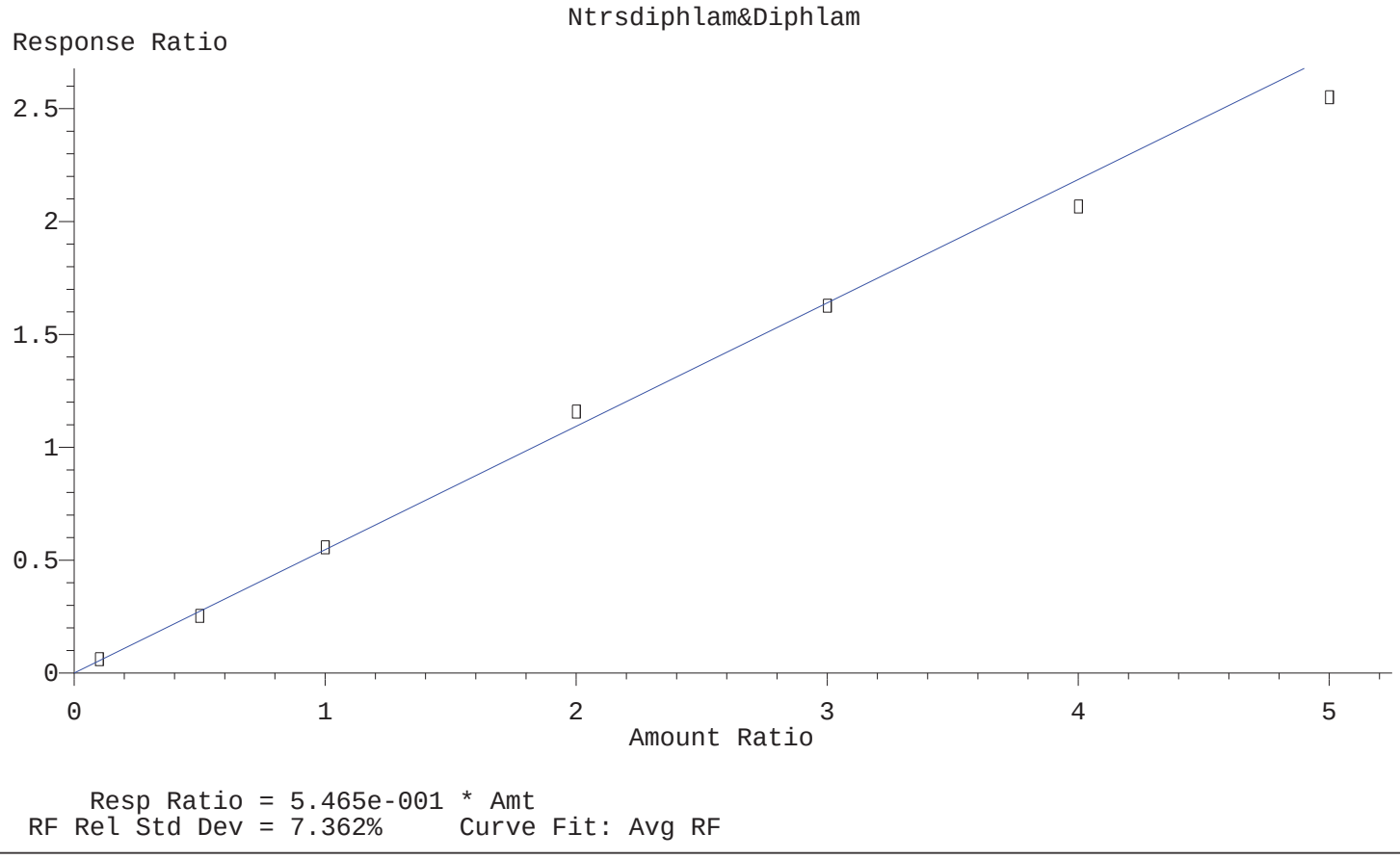


R = 6.863e-005 A*A + 6.293e-002 A - 1.746e-003
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)

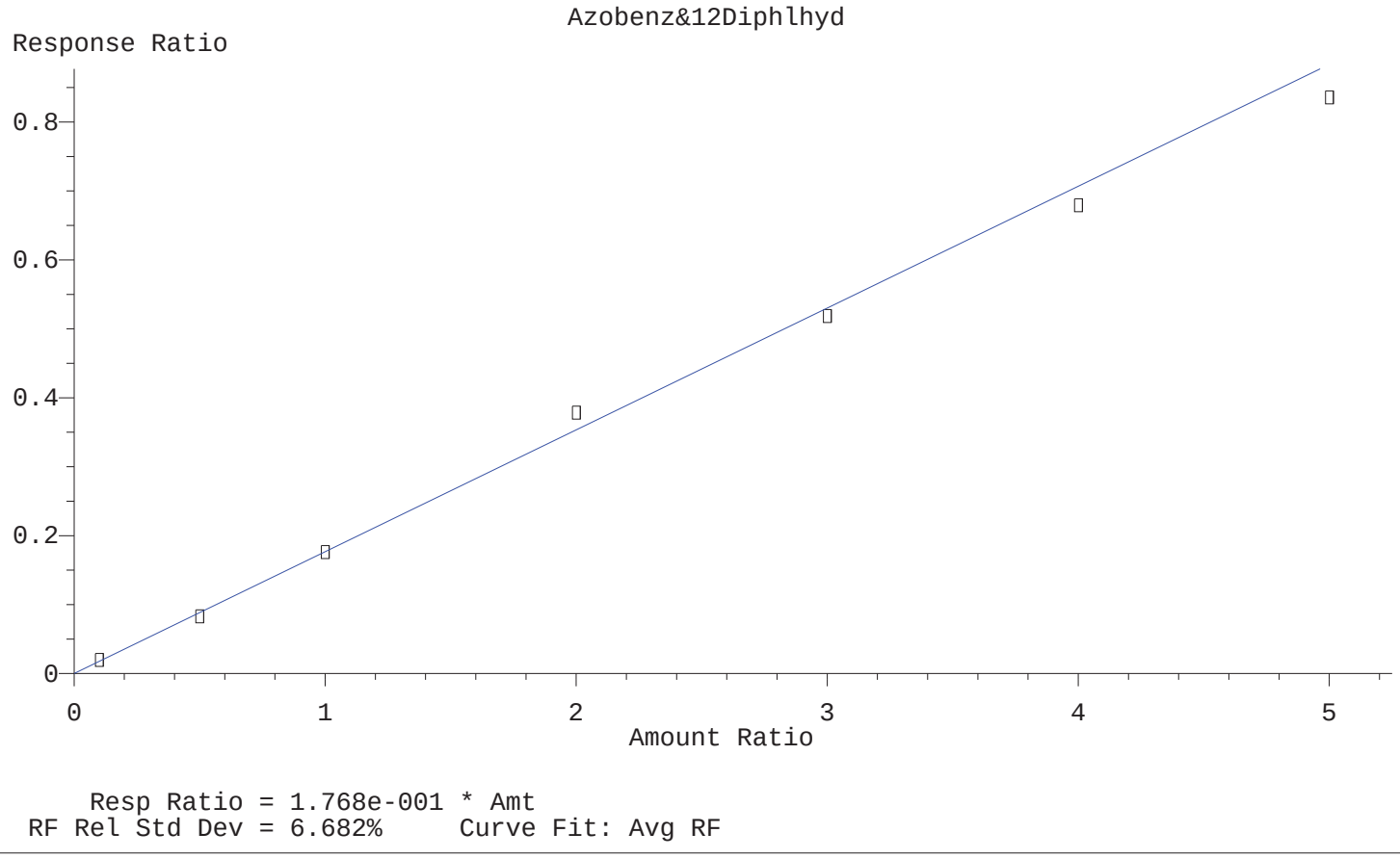
46Dinit2mylph



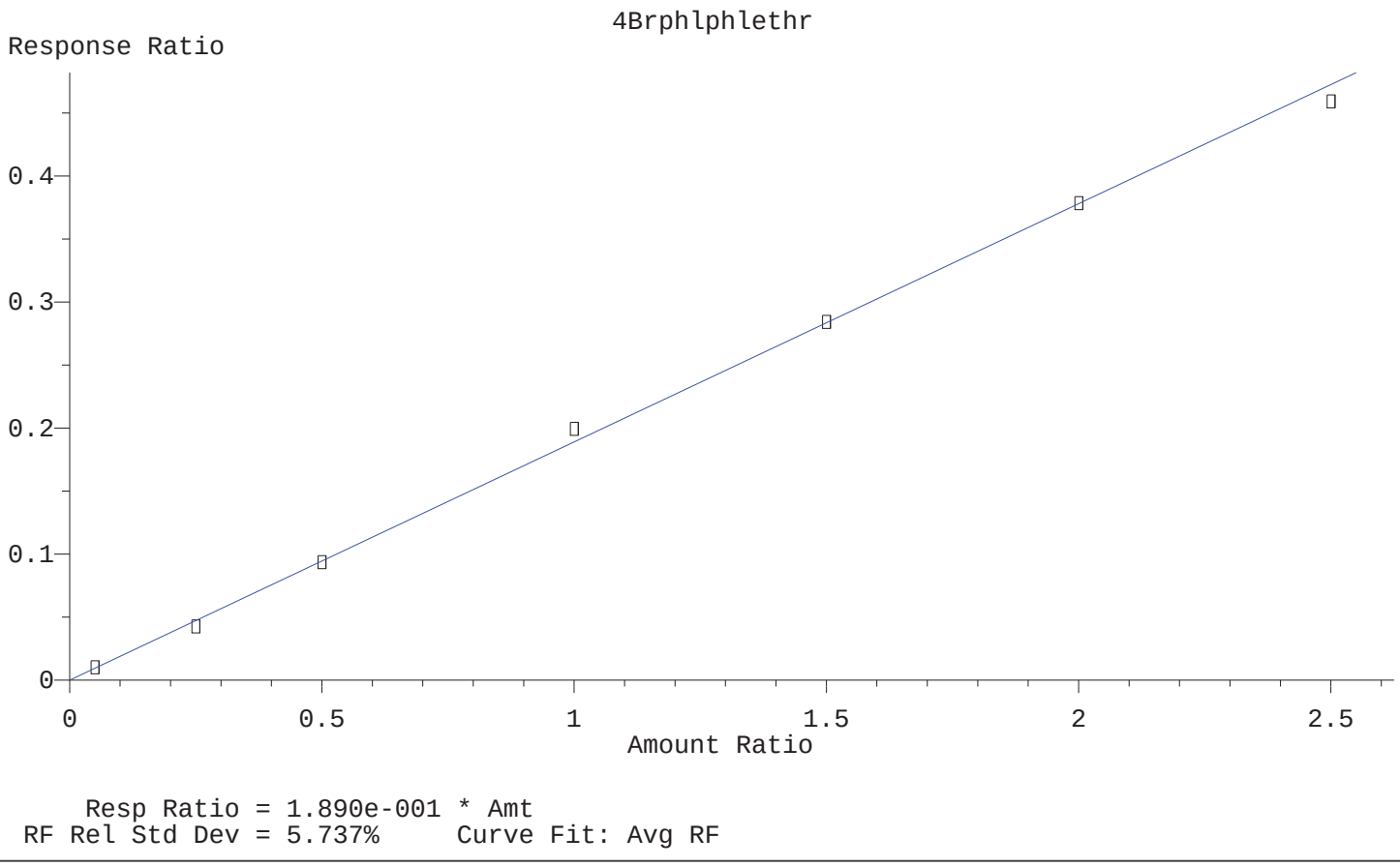
R = -3.216e-003 A*A + 1.594e-001 A - 1.833e-002
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)



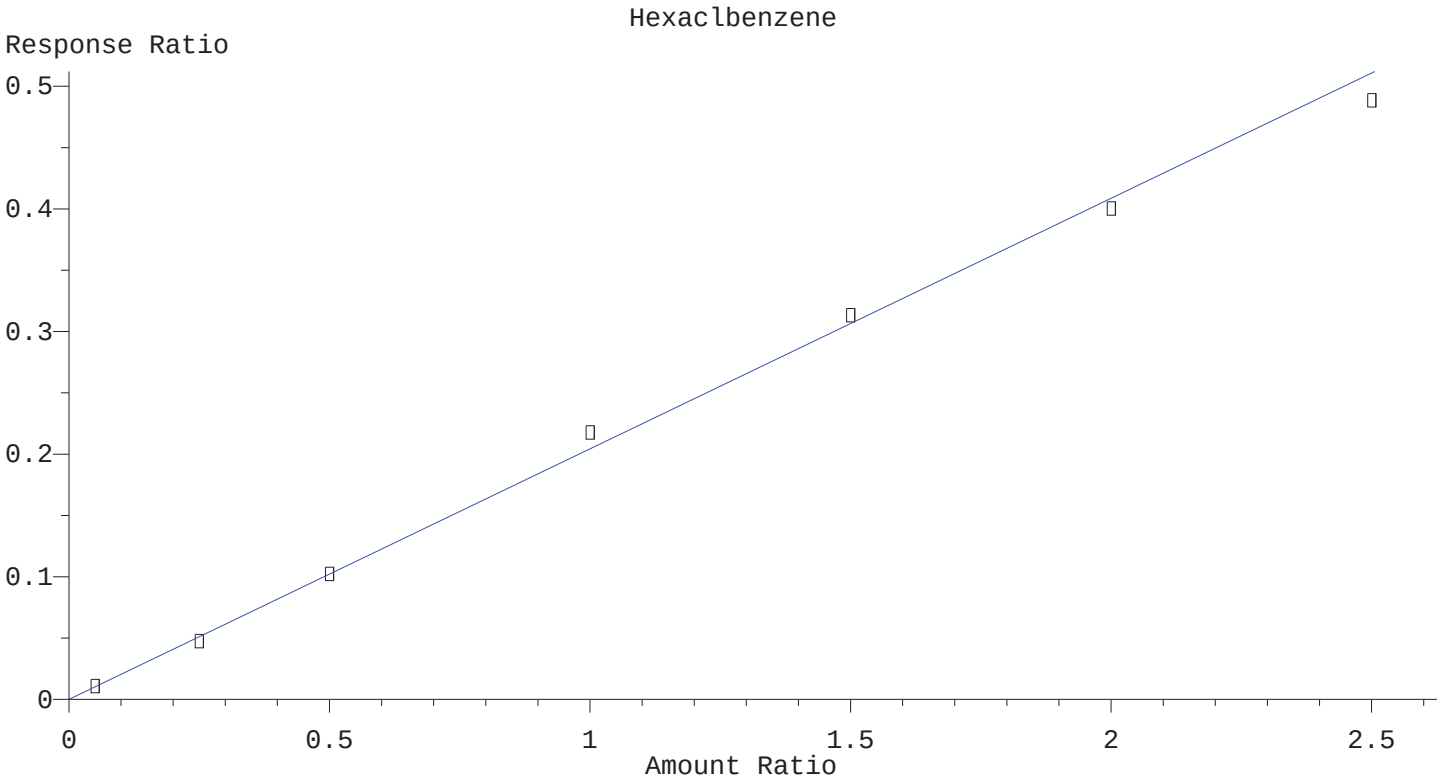
Resp Ratio = 5.465e-001 * Amt
RF Rel Std Dev = 7.362% Curve Fit: Avg RF



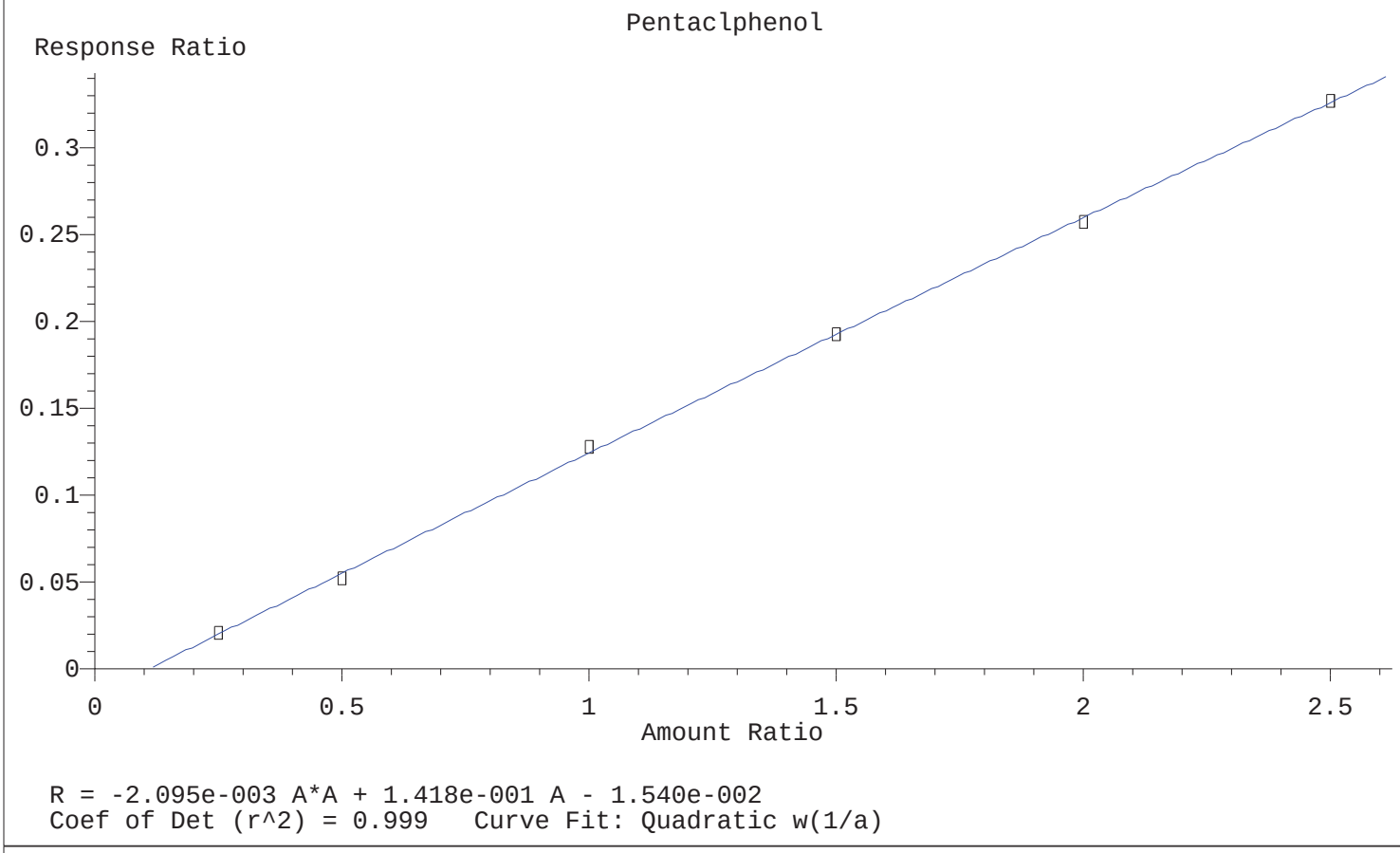
Resp Ratio = 1.768e-001 * Amt
RF Rel Std Dev = 6.682% Curve Fit: Avg RF



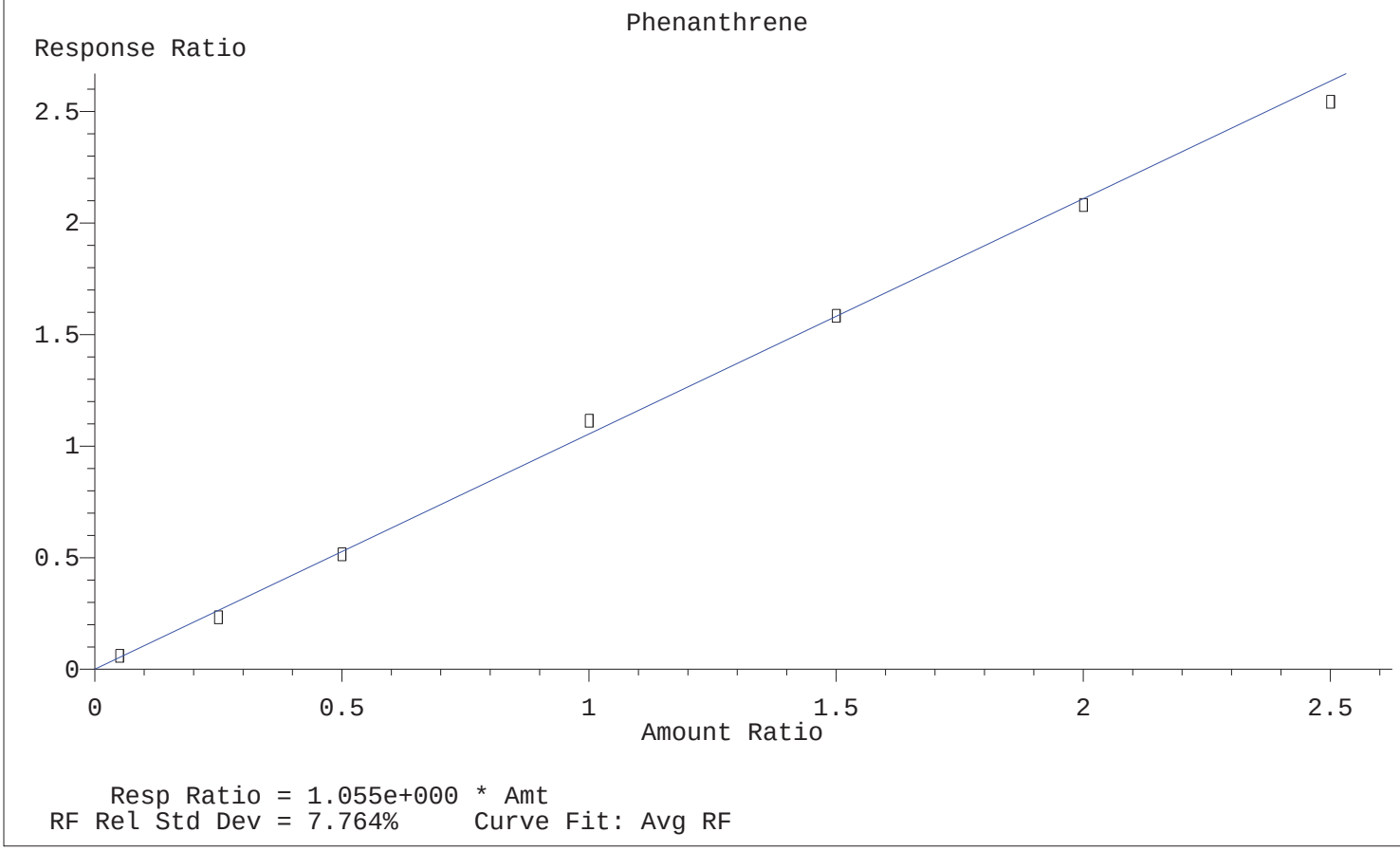
Resp Ratio = 1.890e-001 * Amt
RF Rel Std Dev = 5.737% Curve Fit: Avg RF



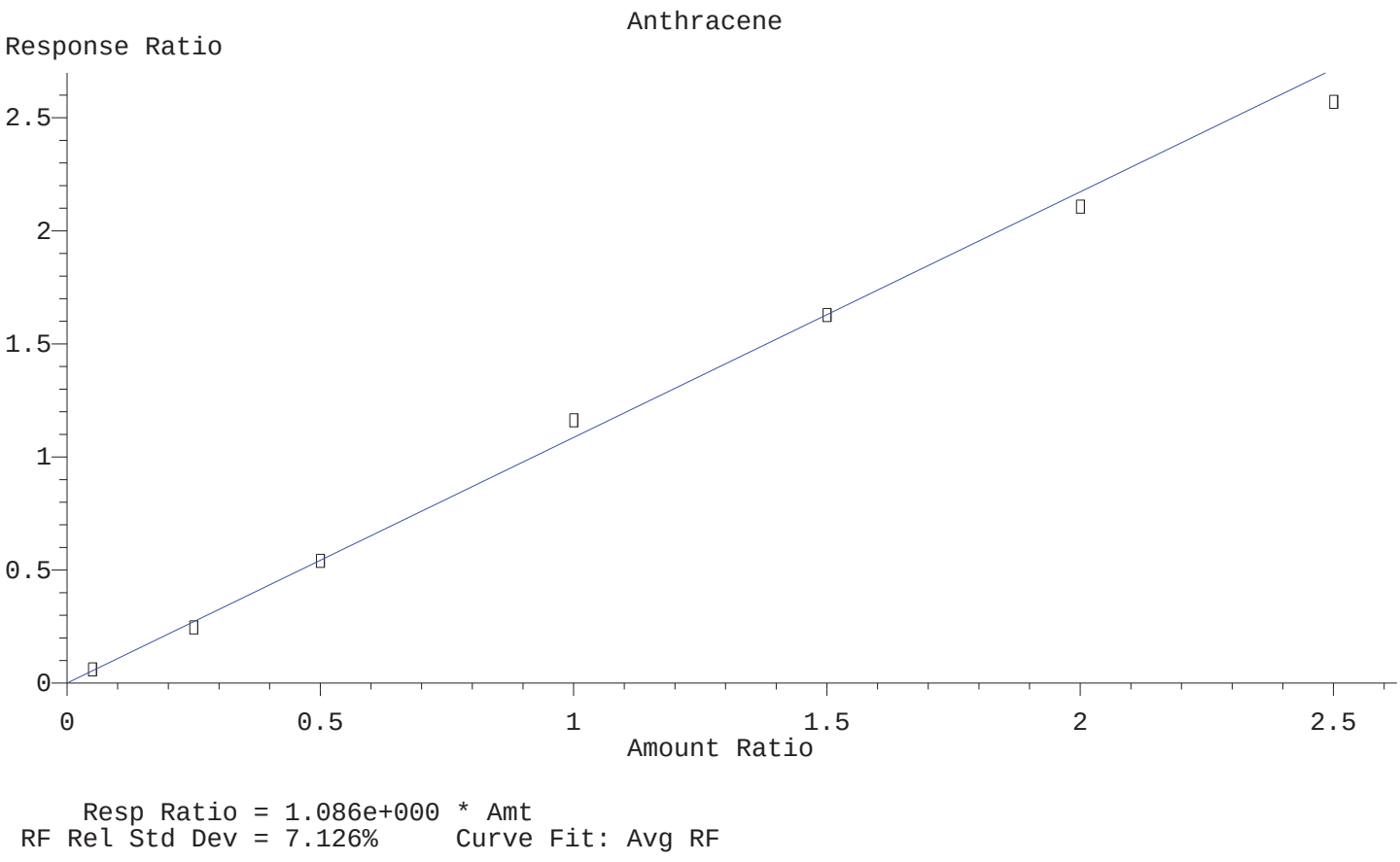
Resp Ratio = 2.047e-001 * Amt
RF Rel Std Dev = 5.035% Curve Fit: Avg RF



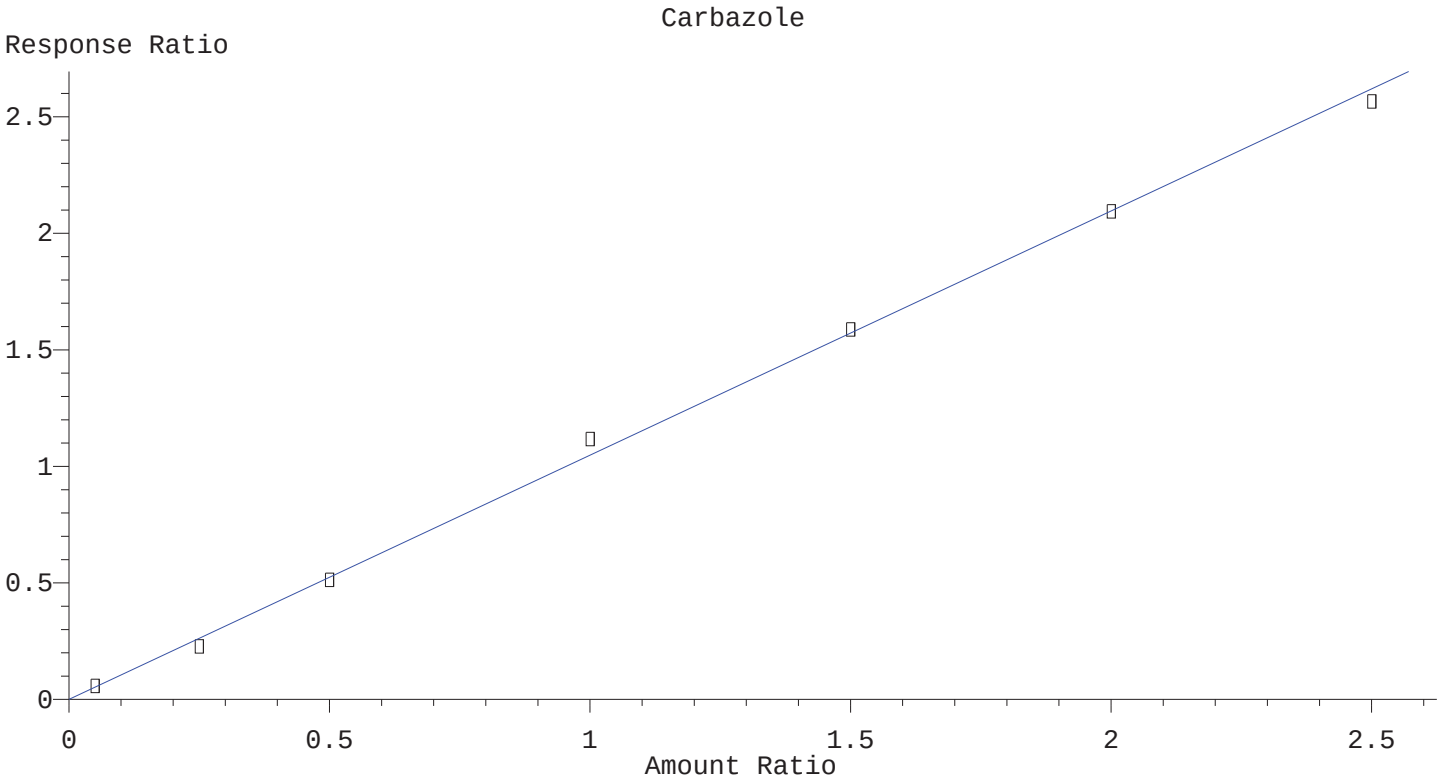
R = -2.095e-003 A*A + 1.418e-001 A - 1.540e-002
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)



Resp Ratio = 1.055e+000 * Amt
RF Rel Std Dev = 7.764% Curve Fit: Avg RF

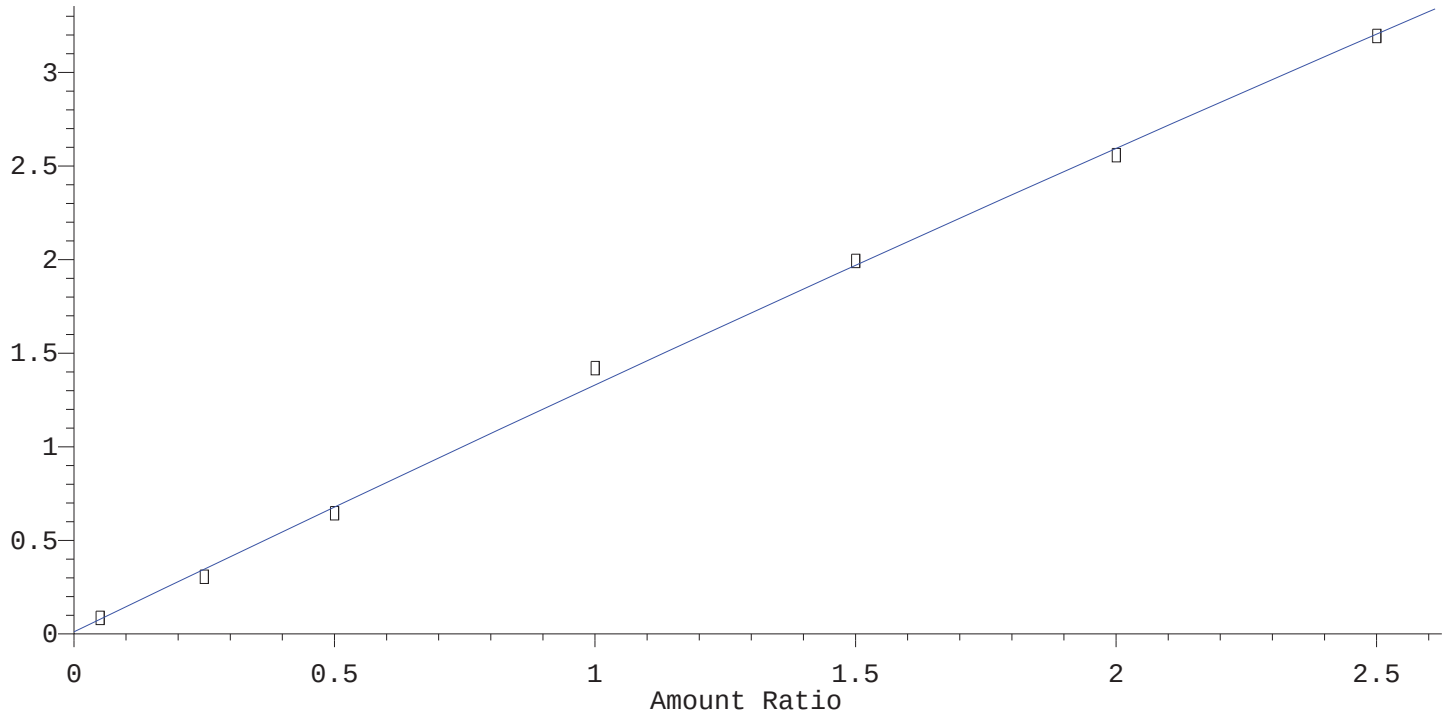


Resp Ratio = 1.086e+000 * Amt
RF Rel Std Dev = 7.126% Curve Fit: Avg RF



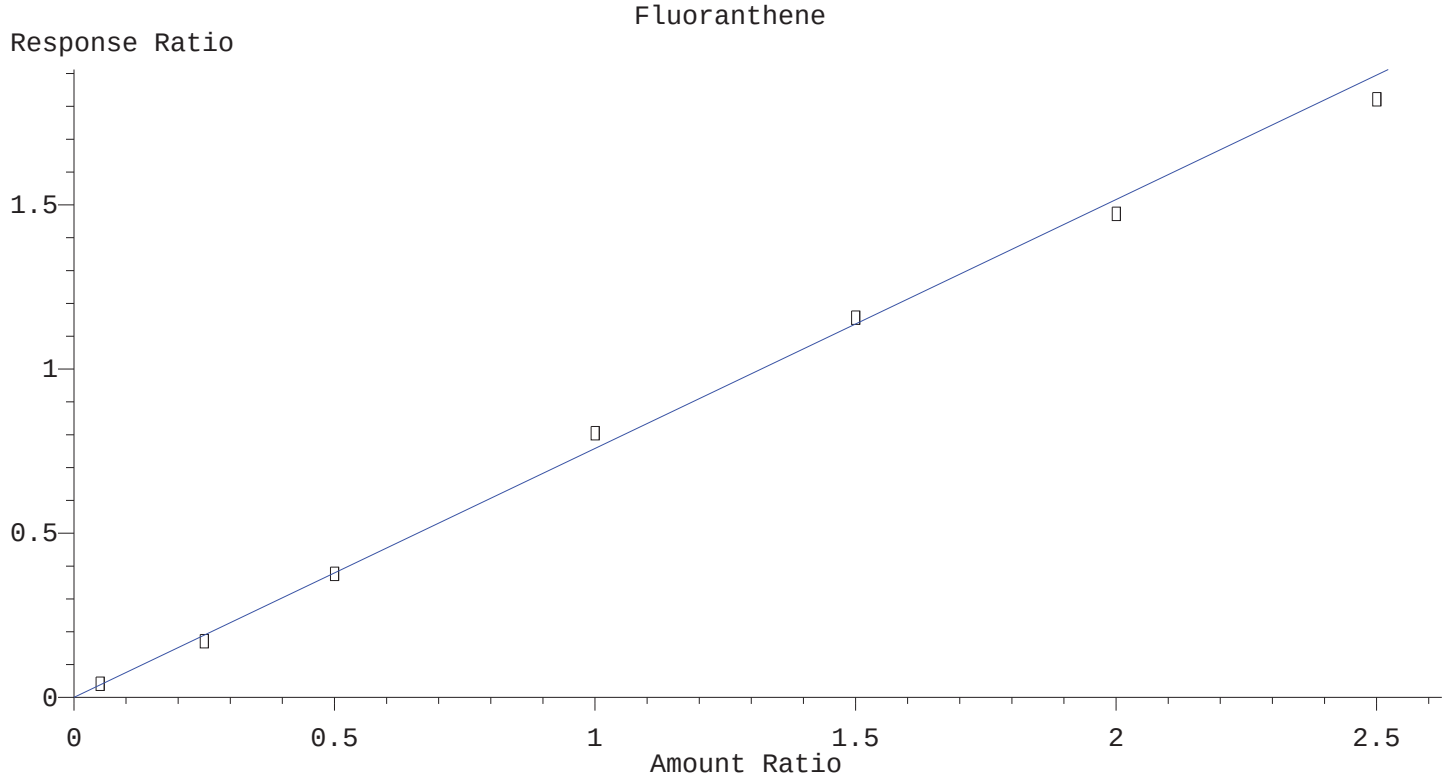
Resp Ratio = 1.048e+000 * Amt
RF Rel Std Dev = 7.411% Curve Fit: Avg RF

Dinbtylphthal



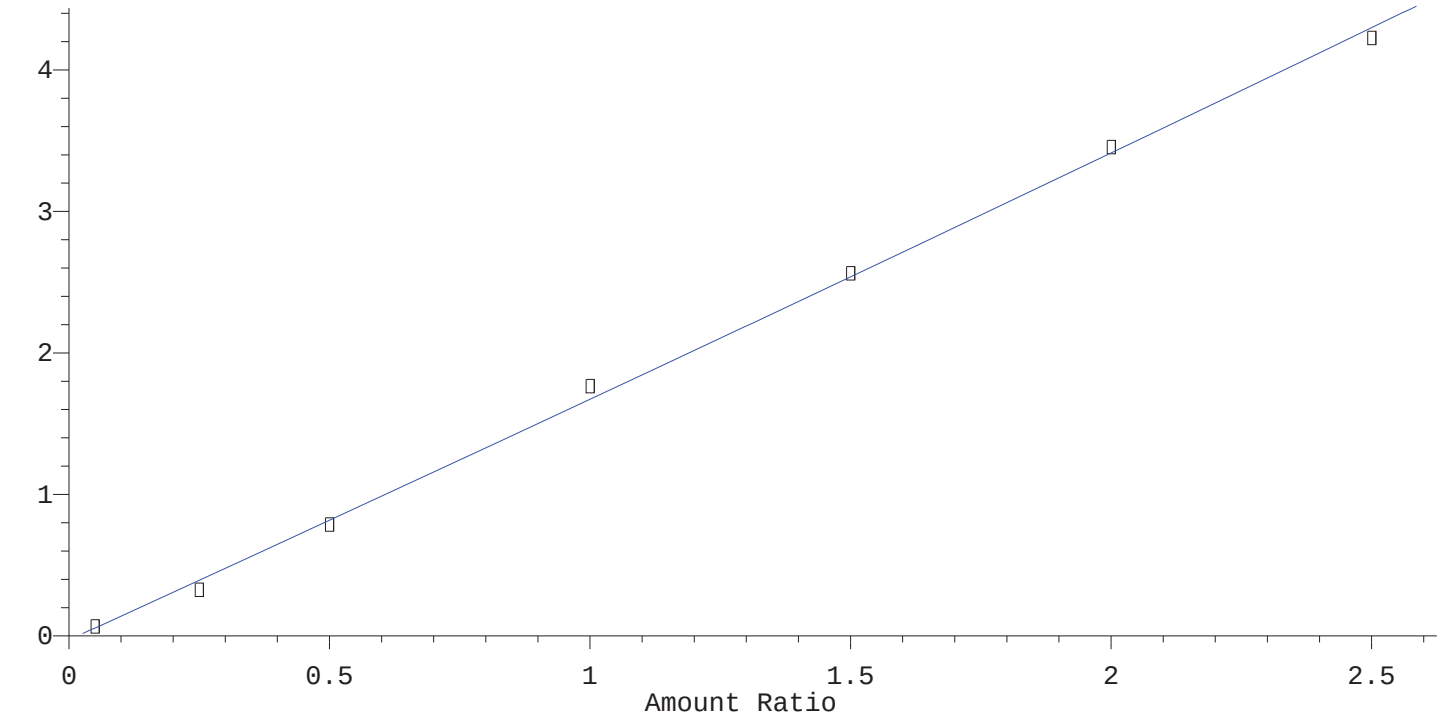
R = -2.818e-002 A*A + 1.348e+000 A + 1.051e-002
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)

Fluoranthene



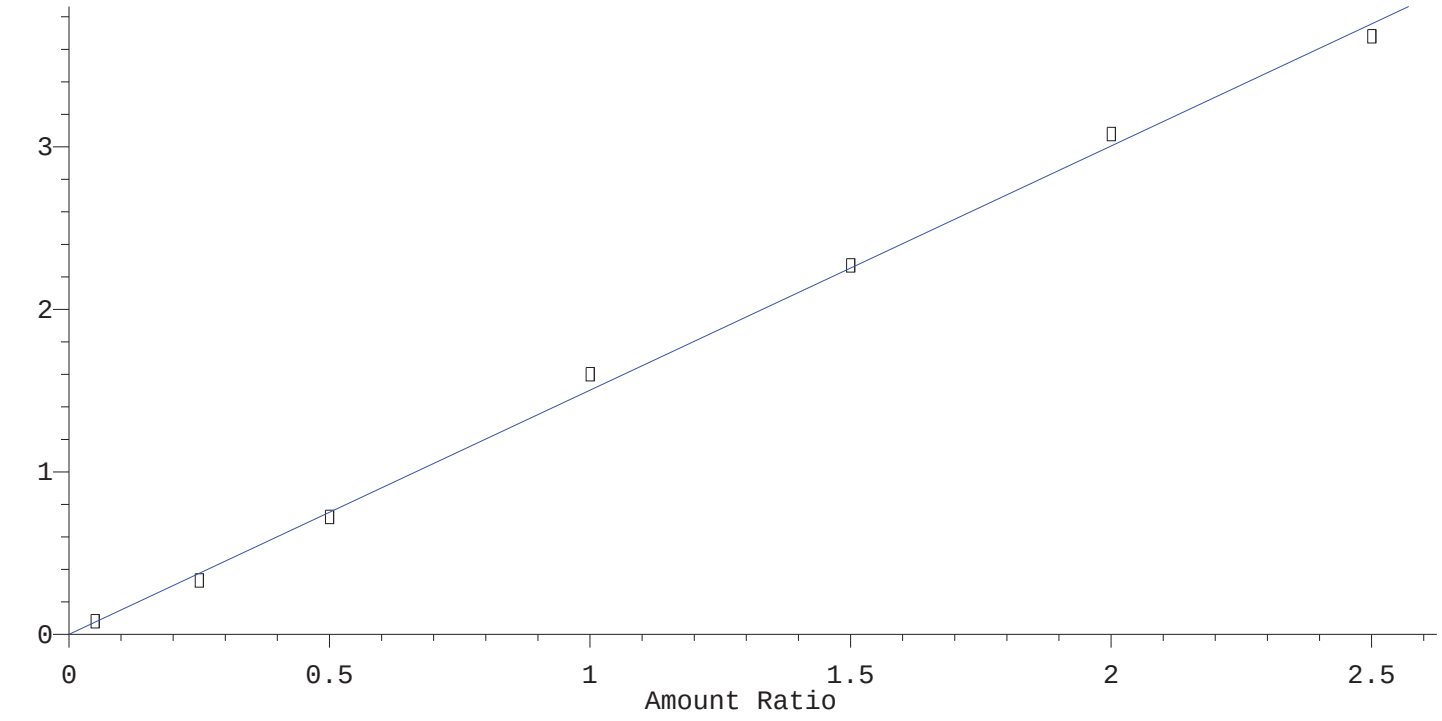
Resp Ratio = 7.582e-001 * Amt
RF Rel Std Dev = 6.432% Curve Fit: Avg RF

Benzidine



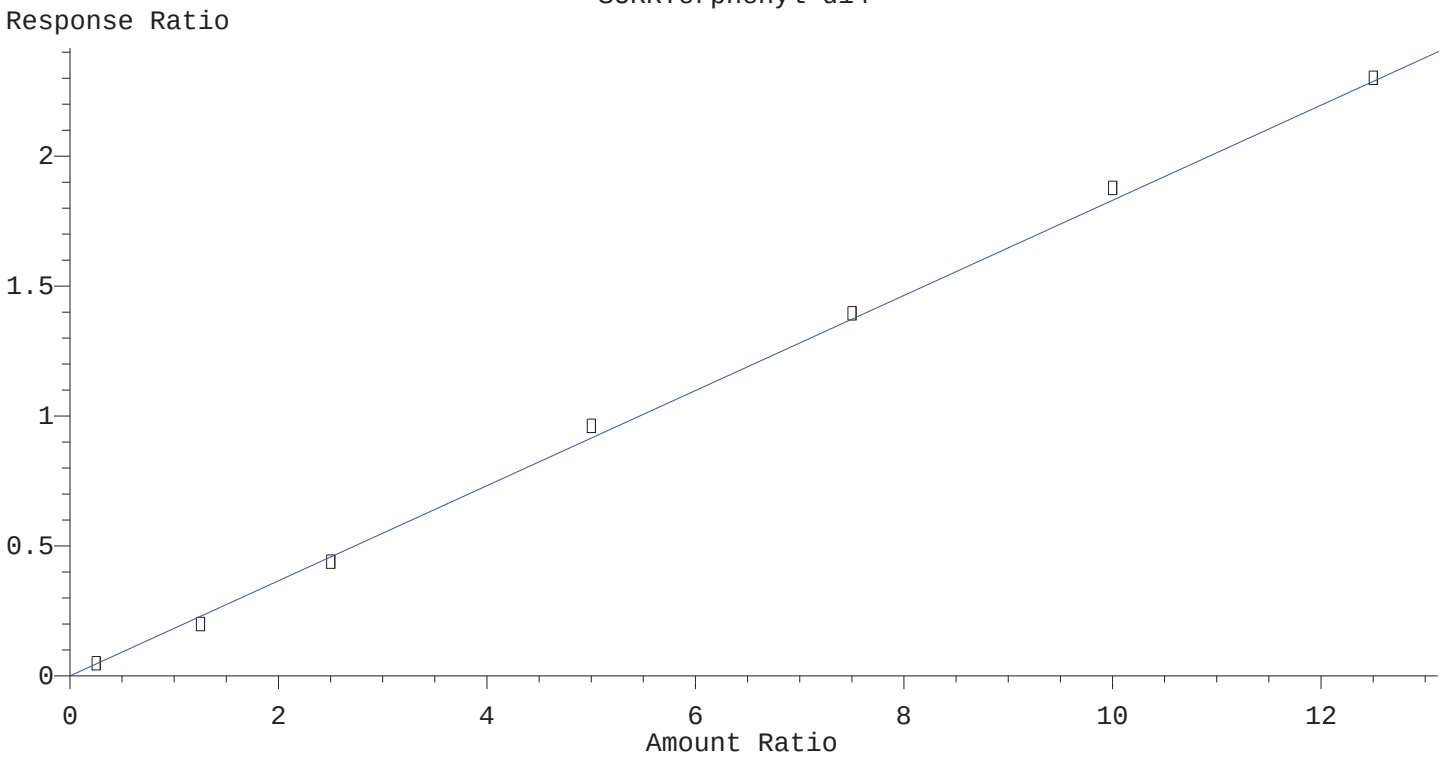
R = 2.002e-002 A*A + 1.681e+000 A - 2.827e-002
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)

Pyrene



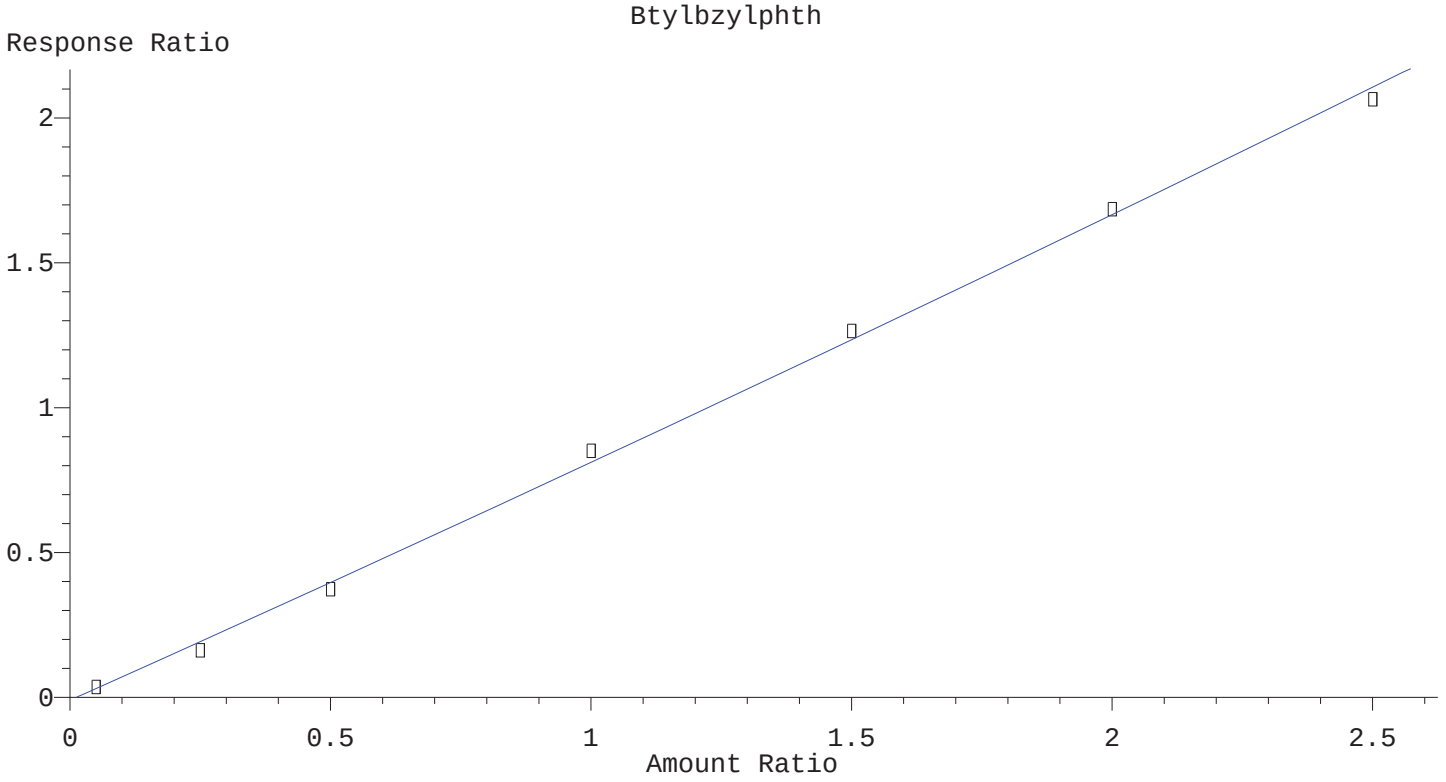
Resp Ratio = 1.503e+000 * Amt
RF Rel Std Dev = 6.649% Curve Fit: Avg RF

SURRTerphenyl-d14



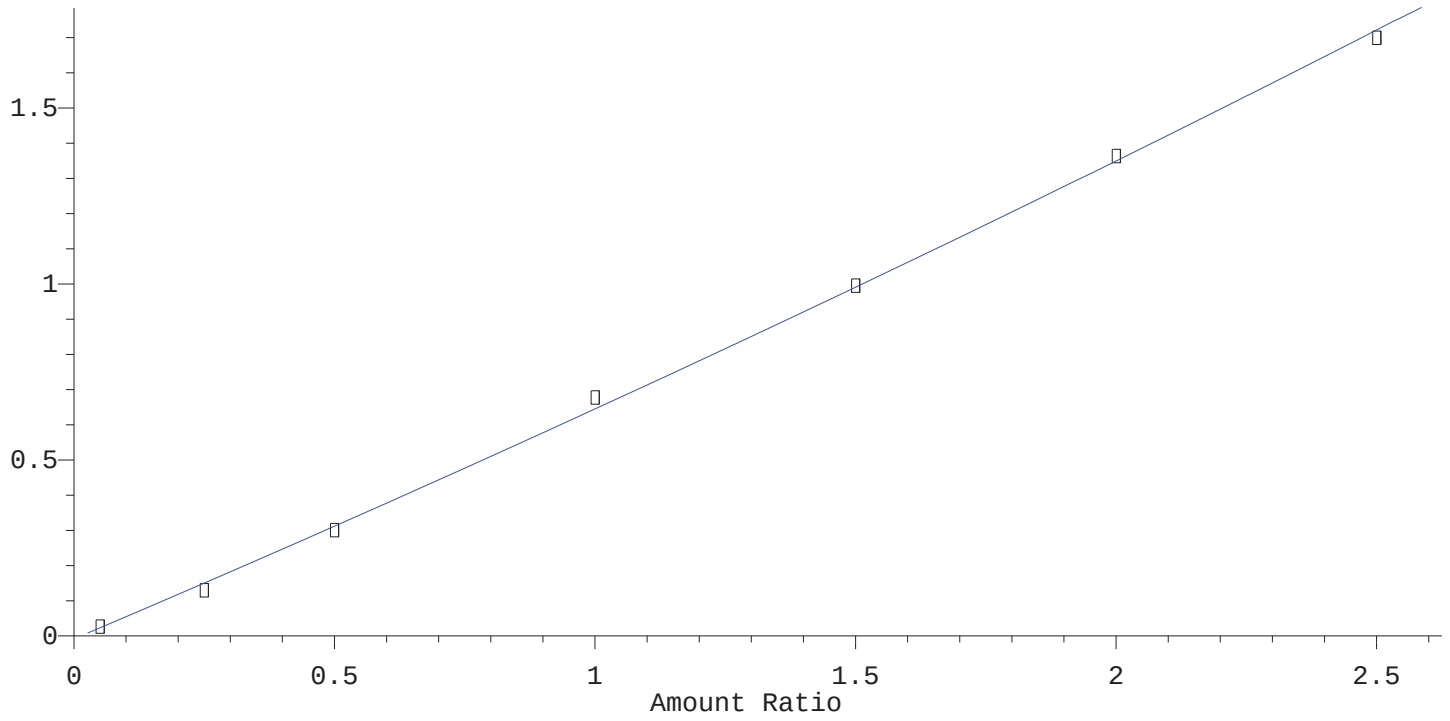
Resp Ratio = 1.831e-001 * Amt
RF Rel Std Dev = 6.623% Curve Fit: Avg RF

Btylbzylphth



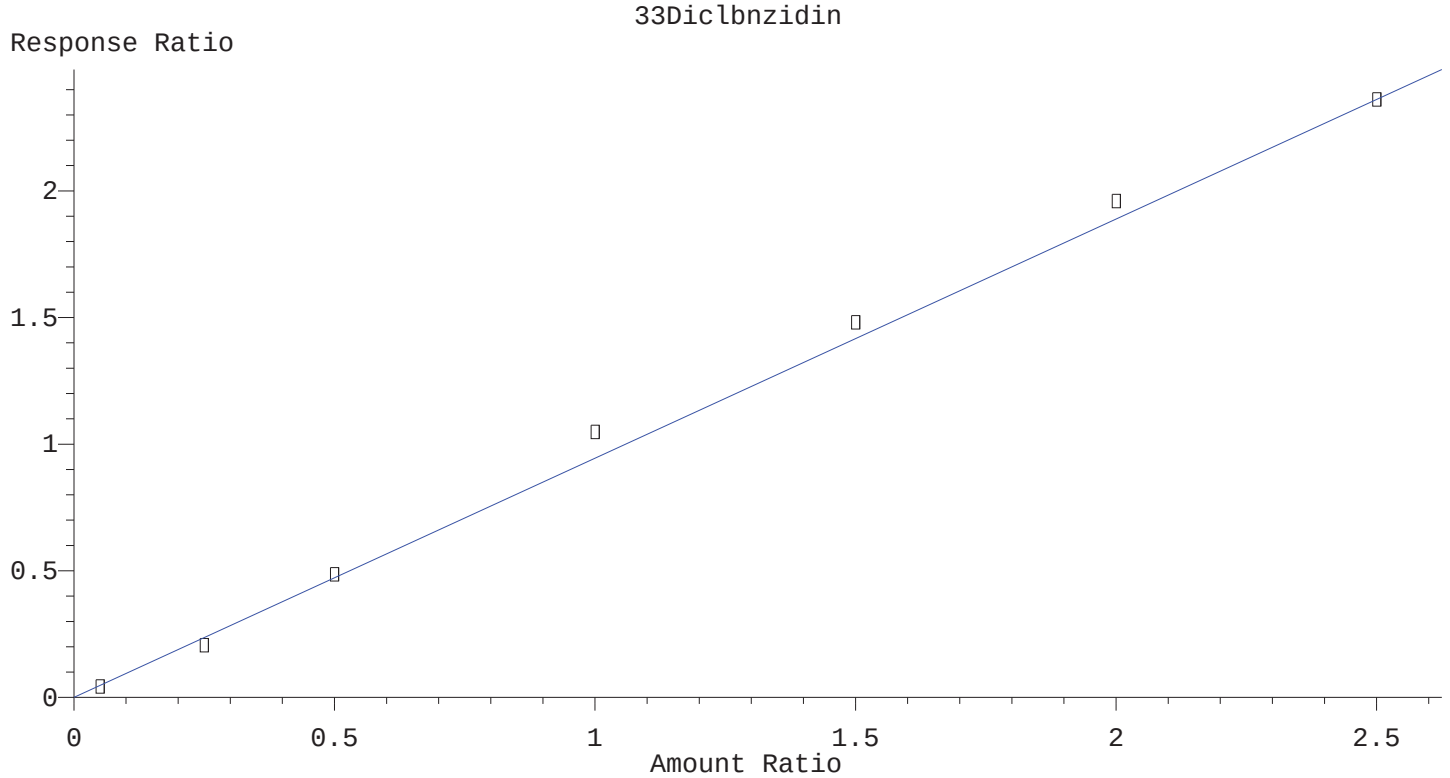
R = 1.680e-002 A*A + 8.044e-001 A - 9.909e-003
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)

bis2Ethlhxlad



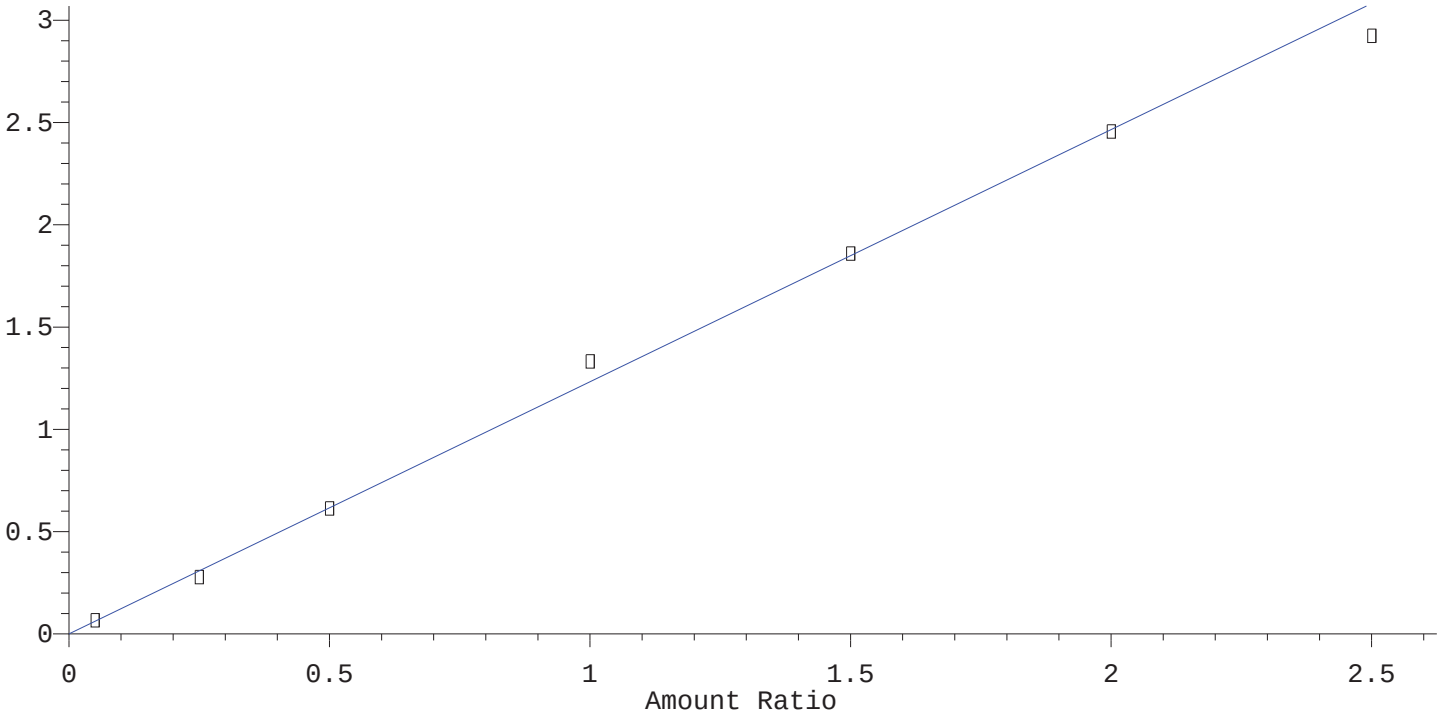
R = 2.579e-002 A*A + 6.275e-001 A - 8.435e-003
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)

33Diclbnzidin



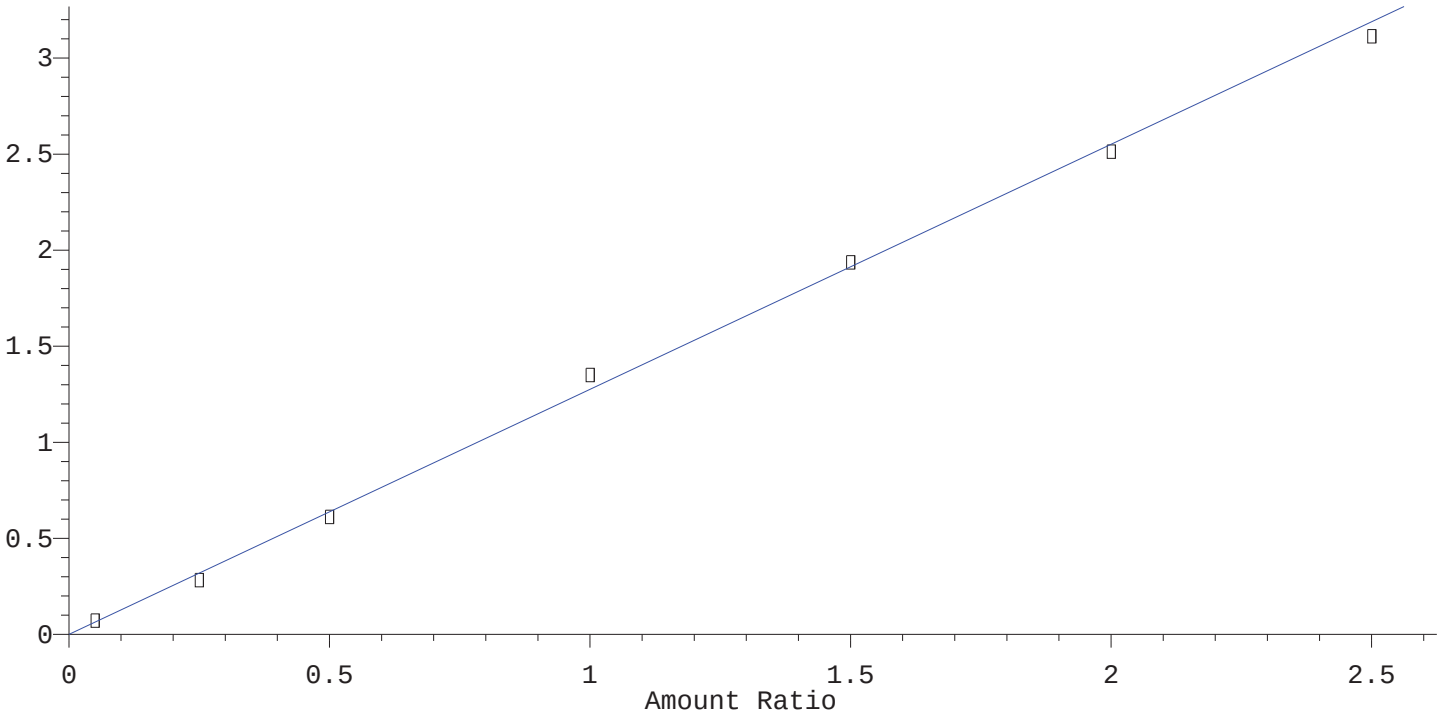
Resp Ratio = 9.444e-001 * Amt
RF Rel Std Dev = 8.323% Curve Fit: Avg RF

B[a]anthracen



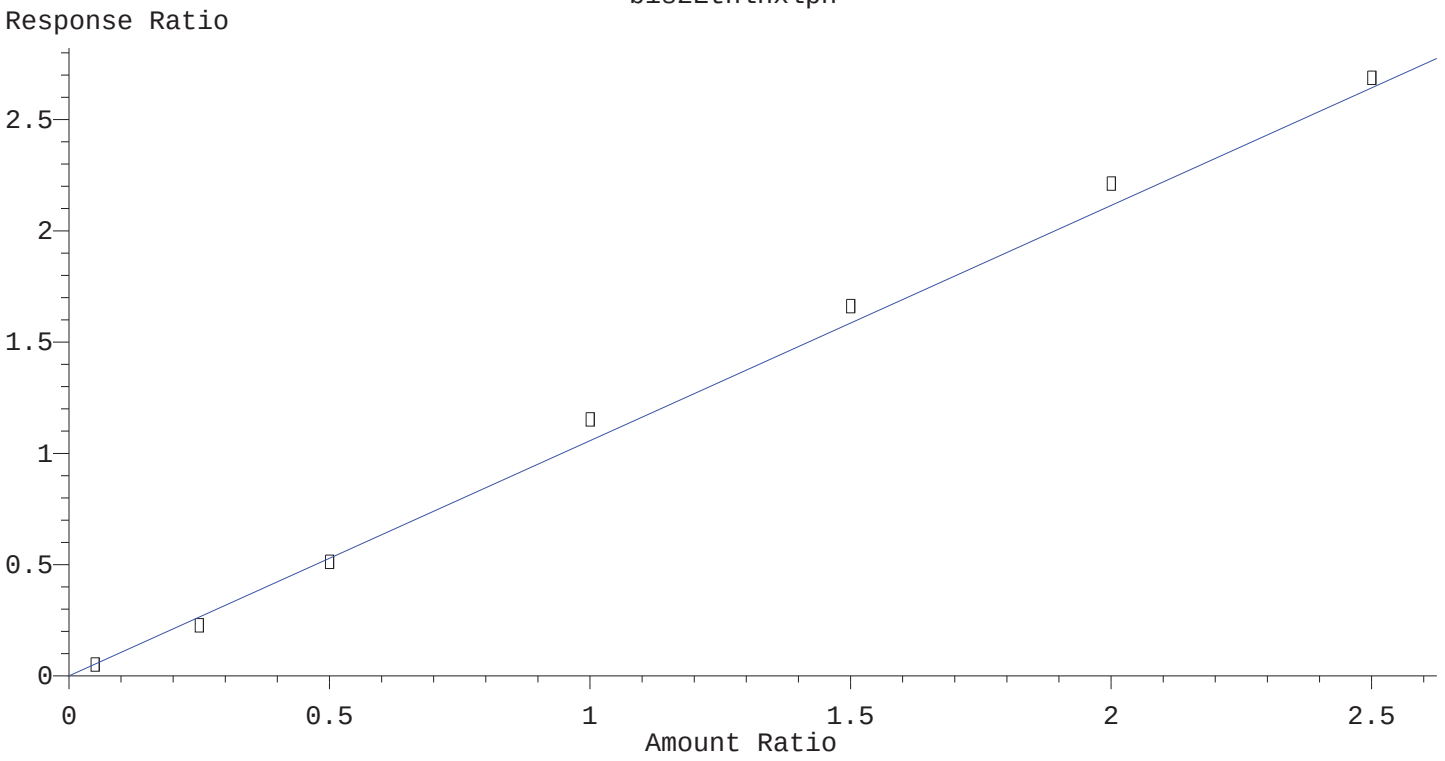
Resp Ratio = 1.233e+000 * Amt
RF Rel Std Dev = 6.391% Curve Fit: Avg RF

Chrysene



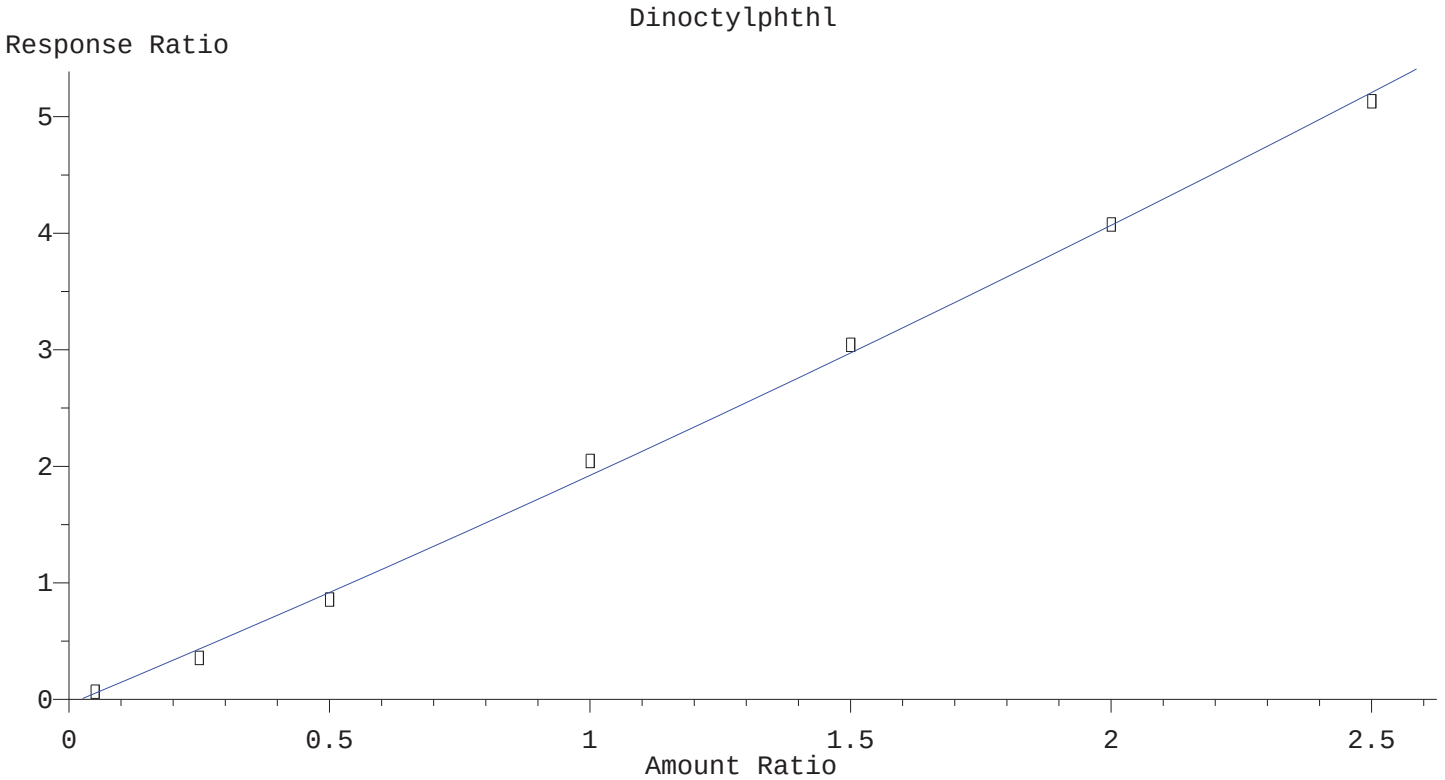
Resp Ratio = 1.276e+000 * Amt
RF Rel Std Dev = 7.659% Curve Fit: Avg RF

bis2Ethlhxlph

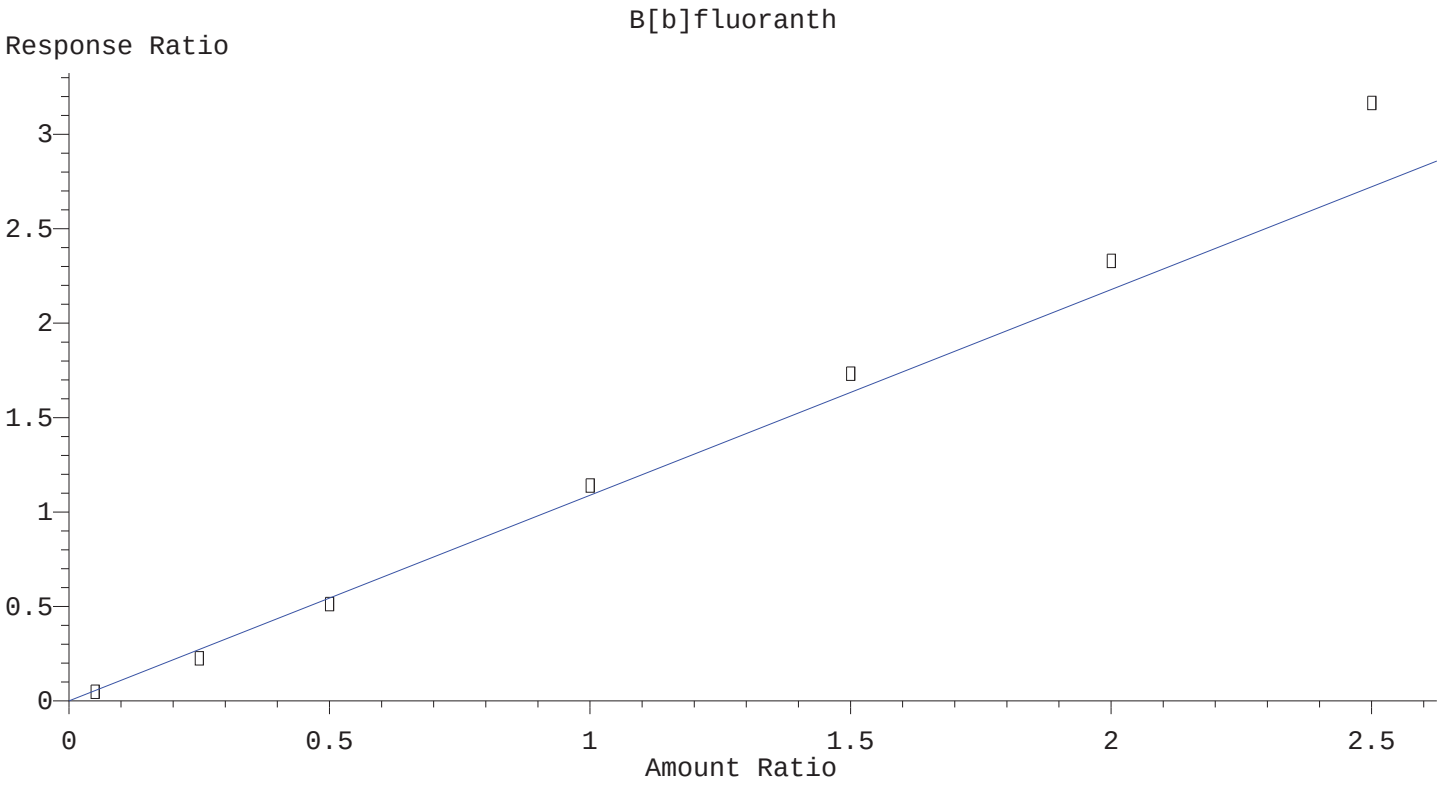


Resp Ratio = 1.057e+000 * Amt
RF Rel Std Dev = 7.575% Curve Fit: Avg RF

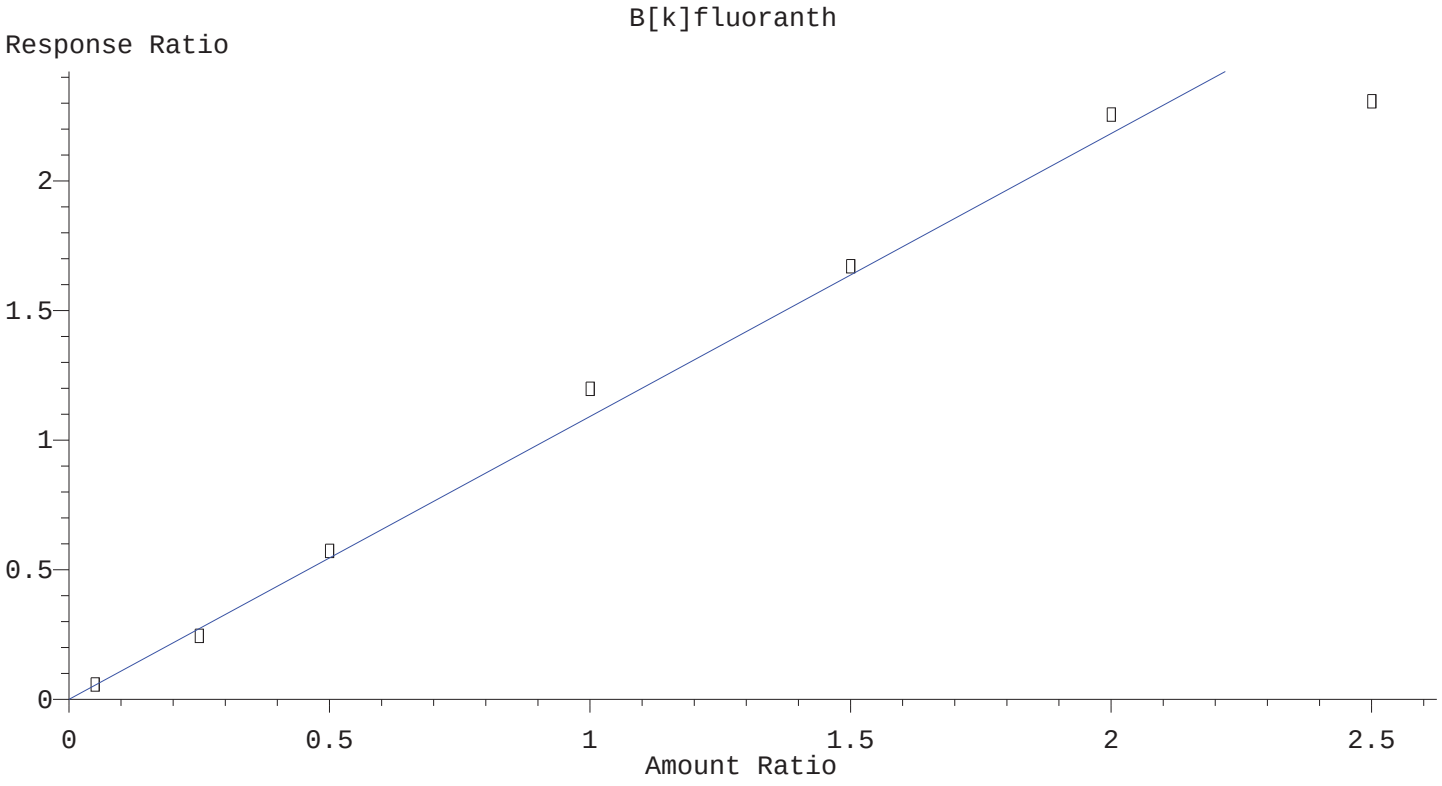
Dinoctylphthl



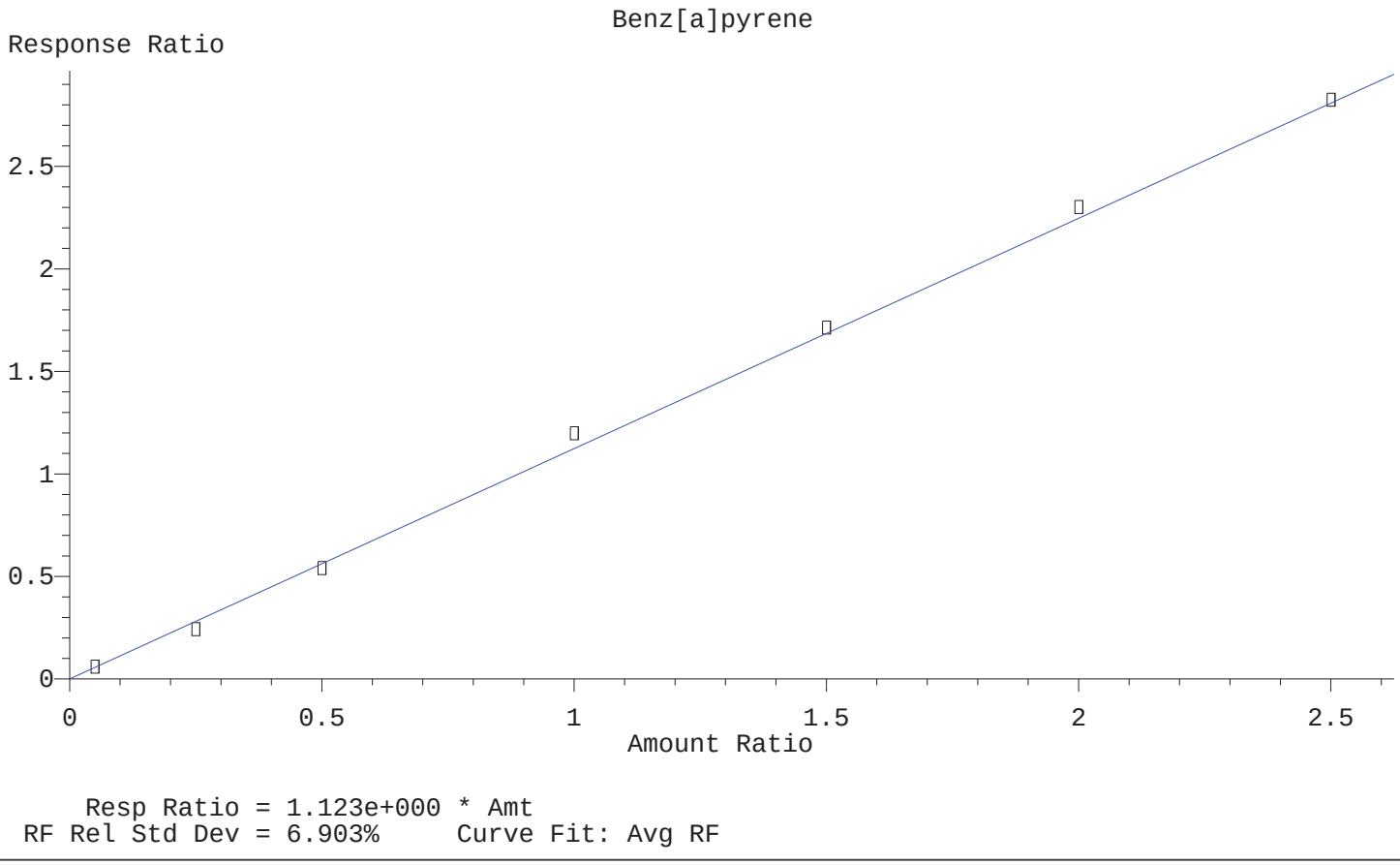
R = 9.097e-002 A*A + 1.873e+000 A - 4.179e-002
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)



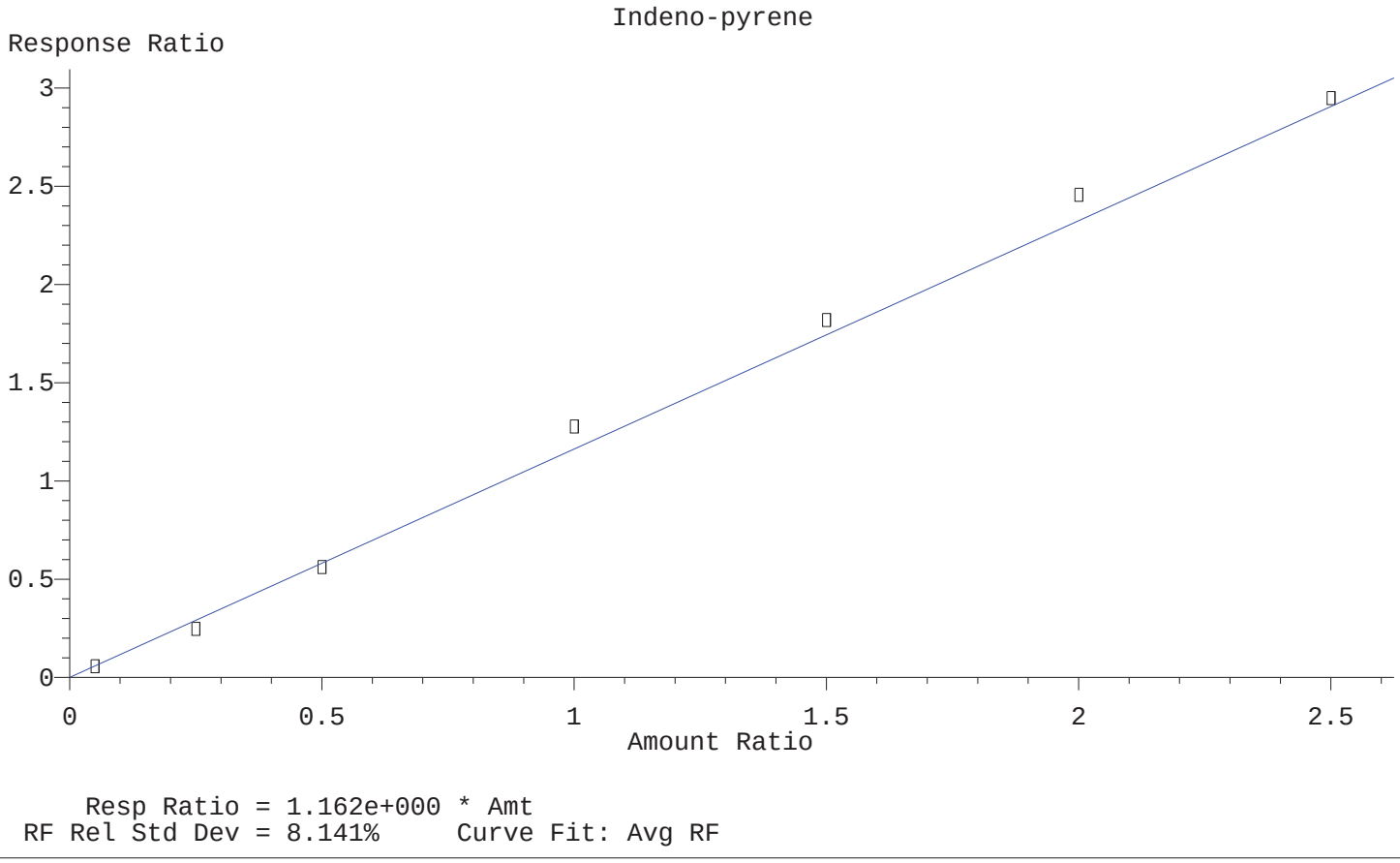
Resp Ratio = 1.089e+000 * Amt
RF Rel Std Dev = 11.725% Curve Fit: Avg RF



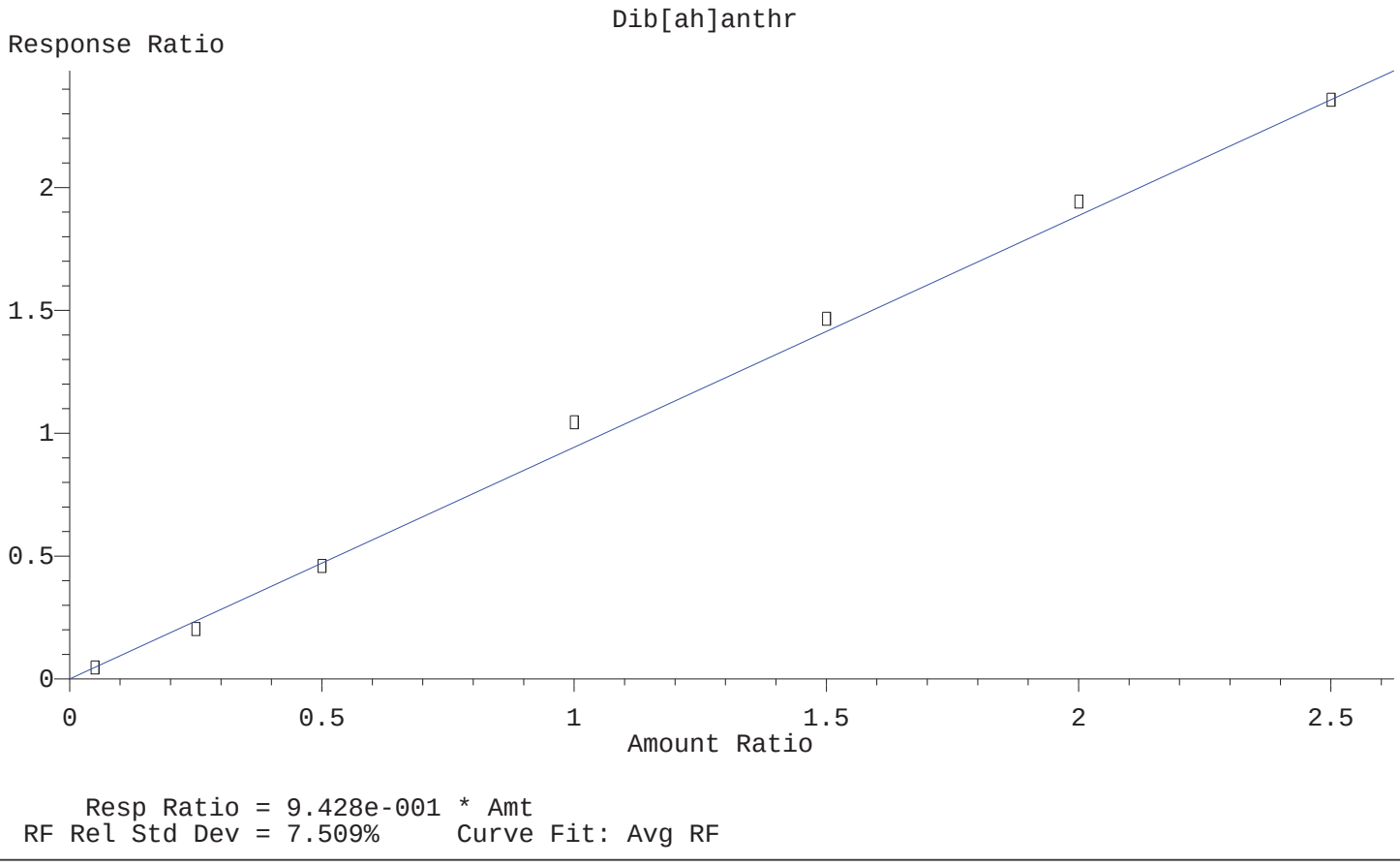
Resp Ratio = 1.092e+000 * Amt
RF Rel Std Dev = 9.213% Curve Fit: Avg RF



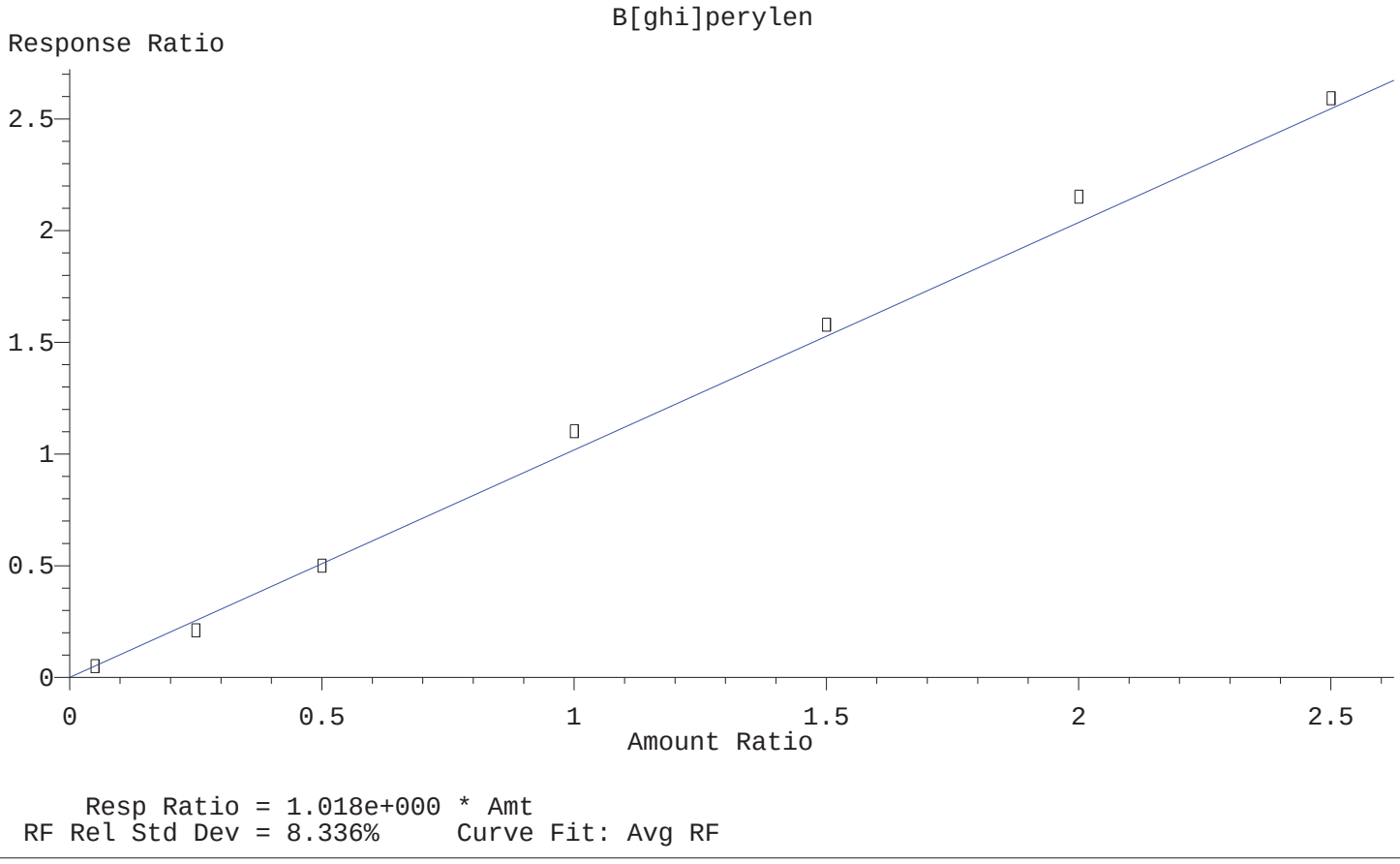
Resp Ratio = 1.123e+000 * Amt
RF Rel Std Dev = 6.903% Curve Fit: Avg RF



Resp Ratio = 1.162e+000 * Amt
RF Rel Std Dev = 8.141% Curve Fit: Avg RF



Resp Ratio = 9.428e-001 * Amt
RF Rel Std Dev = 7.509% Curve Fit: Avg RF



Resp Ratio = 1.018e+000 * Amt
RF Rel Std Dev = 8.336% Curve Fit: Avg RF

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1IB01.D Vial: 99
Acq On : 20 Aug 2019 9:54 Operator: RPN
Sample : InstrumentBlank Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:24:04 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 20 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

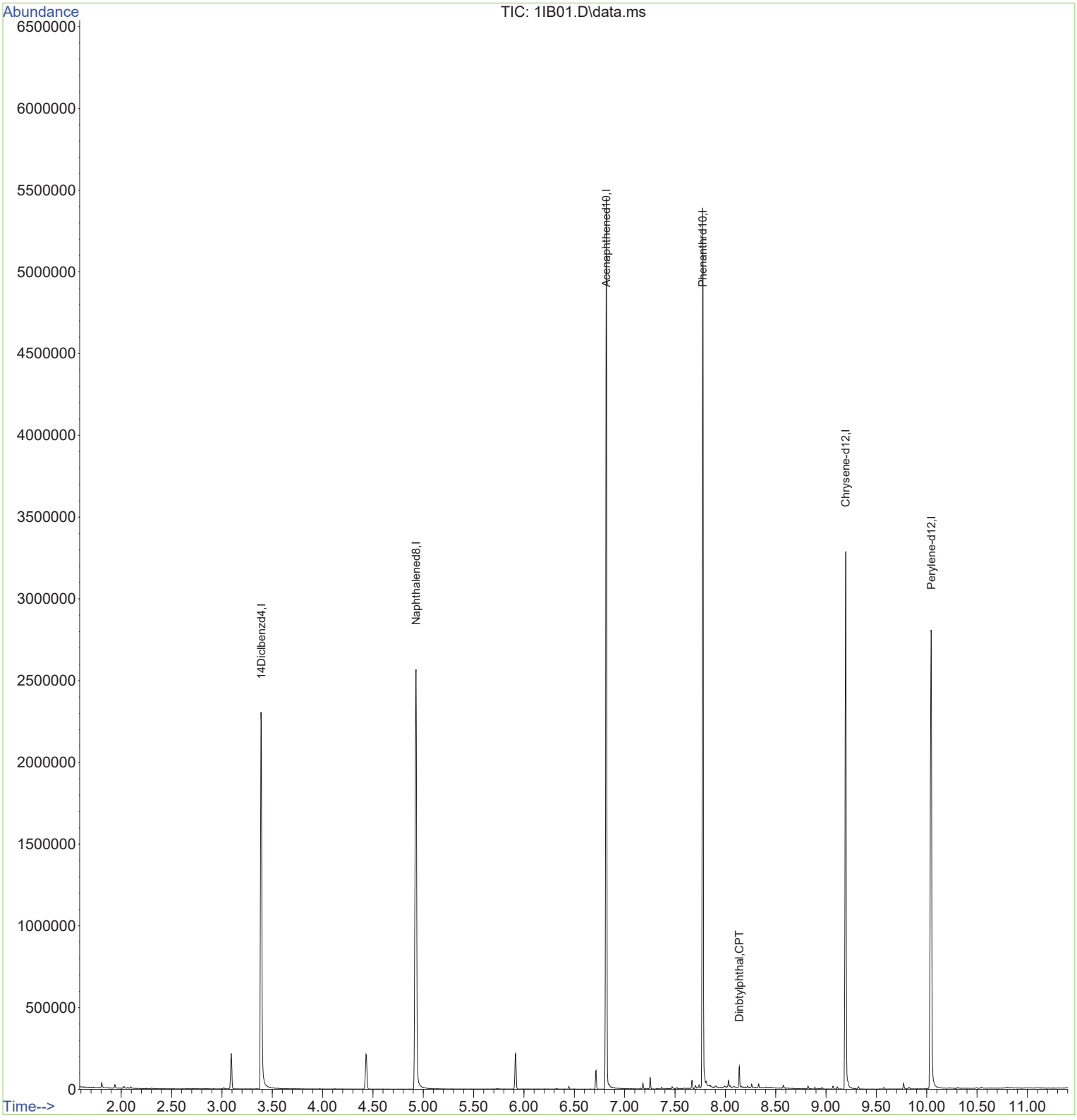
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.391	152	370481	20.00	ug/mL	0.00
21) Naphthalened8	4.928	136	1434250	20.00	ug/mL	0.00
39) Acenaphthened10	6.818	164	863895	20.00	ug/mL	0.00
63) Phenanthrd10	7.775	188	1358387	20.00	ug/mL	0.00
75) Chrysene-d12	9.196	240	749163	20.00	ug/mL	0.00
86) Perylene-d12	10.046	264	872488	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	0.000	112	0	0.00	%REC	
Spiked Amount 100.000			Recovery =	0.00%		
7) SURRPhenol-d5	0.000	99	0	0.00	%REC	
Spiked Amount 100.000			Recovery =	0.00%		
22) SURRNitrbenzened5	0.000	82	0	0.00	%REC	
Spiked Amount 100.000			Recovery =	0.00%		
44) SUR2Flbiphenyl	0.000	172	0	0.00	%REC	
Spiked Amount 100.000			Recovery =	0.00%		
62) SURR246Tribrphenl	0.000	330	0	0.00	%REC	
Spiked Amount 100.000			Recovery =	0.00%		
78) SURRTerphenyl-d14	0.000	244	0	0.00	%REC	
Spiked Amount 100.000			Recovery =	0.00%		
Target Compounds						Qvalue
73) Dinbtylphthal	8.139	149	38299	0.2625	ug/mL	97

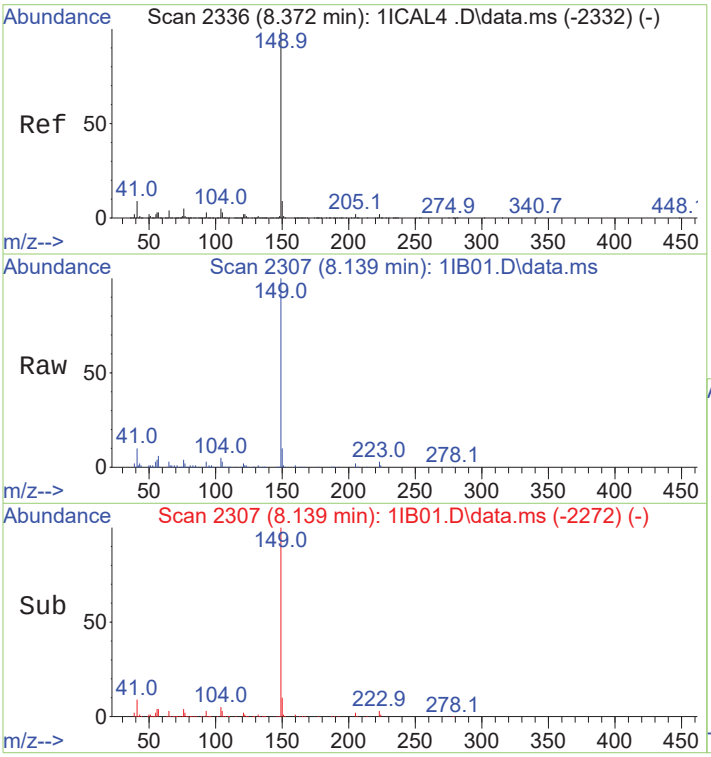
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1IB01.D Vial: 99
Acq On : 20 Aug 2019 9:54 Operator: RPN
Sample : InstrumentBlank Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:24:04 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 20 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

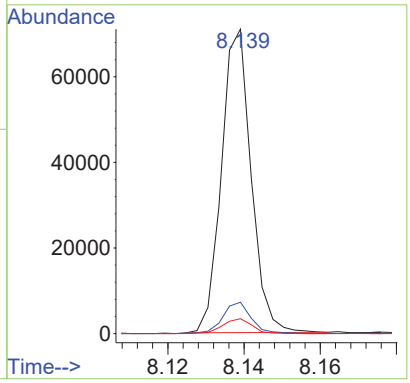




#73
Dinbtylphthal
Concen: 0.26 ug/mL
RT: 8.139 min Scan# 2307
Delta R.T. 0.000 min
Lab File: 1IB01.D
Acq: 20 Aug 2019 9:54

Tgt Ion:149 Resp: 38299

Ion	Ratio	Lower	Upper
149	100		
150	10.3	0.0	39.0
104	4.9	0.0	34.6



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICAL7.D Vial: 2
Acq On : 20 Aug 2019 10:12 Operator: RPN
Sample : ICAL 50ug/mL SVMS8430 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:07:57 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 20 13:07:50 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.391	152	125551	20.00	ug/mL	0.00
21) Naphthalened8	4.928	136	474737	20.00	ug/mL	0.00
39) Acenaphthened10	6.821	164	294312	20.00	ug/mL	0.00
63) Phenanthrd10	7.778	188	505687	20.00	ug/mL	0.00
75) Chrysene-d12	9.199	240	248016	20.00	ug/mL	0.00
86) Perylene-d12	10.043	264	308579	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.363	112	418621	125.00	%REC	0.00
Spiked Amount 100.000			Recovery = 125.00%			
7) SURRPhenol-d5	3.079	99	480253	125.00	%REC	0.00
Spiked Amount 100.000			Recovery = 125.00%			
22) SURRNitrbenzened5	4.016	82	425728	250.00	%REC	0.01
Spiked Amount 100.000			Recovery = 250.00%			
44) SURR2Flbiphenyl	6.307	172	961303	250.00	%REC	0.00
Spiked Amount 100.000			Recovery = 250.00%			
62) SURR246Tribrphenl	7.361	330	114258	125.00	%REC	0.00
Spiked Amount 100.000			Recovery = 125.00%			
78) SURRTerphenyl-d14	8.634	244	570778	250.00	%REC	0.00
Spiked Amount 100.000			Recovery = 250.00%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.695	74	286116	50.0000	ug/mL	99
3) Pyridine	1.698	79	447835	50.0000	ug/mL	100
5) Aniline	3.090	93	643766	50.0000	ug/mL	100
6) bis2Clethletr	3.161	93	401982	50.0000	ug/mL	100
8) Phenol	3.090	94	569264	50.0000	ug/mL	97
9) 2-Cl-phenol	3.190	128	446751	50.0000	ug/mL	99
10) 13Diclbenz	3.332	146	470065	50.0000	ug/mL	97
11) 14Diclbenz	3.408	146	475436	50.0000	ug/mL	98
12) 12Diclbenz	3.559	146	445419	50.0000	ug/mL	98
13) Benzyl alcoho	3.567	108	272176	50.0000	ug/mL	98
14) bis2clispreth	3.718	45	660463	50.0000	ug/mL	99
15) 2Methylphenol	3.704	107	327557	50.0000	ug/mL	93
16) Ntrspyrrol	3.846	100	221507	50.0000	ug/mL	96
17) Acetophenone	3.854	105	604916	50.0000	ug/mL	99
18) Hexaclethane	3.928	117	193237	50.0000	ug/mL	98
19) N-Ntrsdinprop	3.883	70	297315	50.0000	ug/mL	98
20) 3&4Methylphenol	3.903	107	427804	50.0000	ug/mL	97
23) Nitrobenzene	4.042	77	428319	50.0000	ug/mL	98
24) Isophorone	4.363	82	789732	50.0000	ug/mL	100
25) 2-Nitrophenol	4.437	139	233150	50.0000	ug/mL	98
26) 24Dimthpheno	4.568	122	349855	50.0000	ug/mL	98
27) bis2clethoxym	4.690	93	476959	50.0000	ug/mL	100
28) 24Diclphenol	4.778	162	335121	50.0000	ug/mL	99
29) 124Triclbenz	4.872	180	352139	50.0000	ug/mL	99
30) Benzoic acid	4.855	122	202676	50.0000	ug/mL	96
31) Naphthalene	4.960	128	1224455	50.0000	ug/mL	99
32) 4-Cl-aniline	5.096	127	528772	50.0000	ug/mL	99
33) 26Diclphenol	5.088	162	311411	50.0000	ug/mL	98
34) Hexaclprop	5.099	213	236819	50.0000	ug/mL	99
35) Hexaclbutdien	5.190	225	215797	50.0000	ug/mL	95
36) 4Cl3methylphe	5.838	107	438714	50.0000	ug/mL	98
37) 2Methylnaphth	5.917	142	969184	50.0000	ug/mL	99
38) 1Methylnaphth	6.017	141	797004	50.0000	ug/mL	97
40) Hxclcycpentdi	6.096	237	209083	50.0000	ug/mL	99

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICAL7.D Vial: 2
Acq On : 20 Aug 2019 10:12 Operator: RPN
Sample : ICAL 50ug/mL SVMS8430 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:07:57 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 20 13:07:50 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

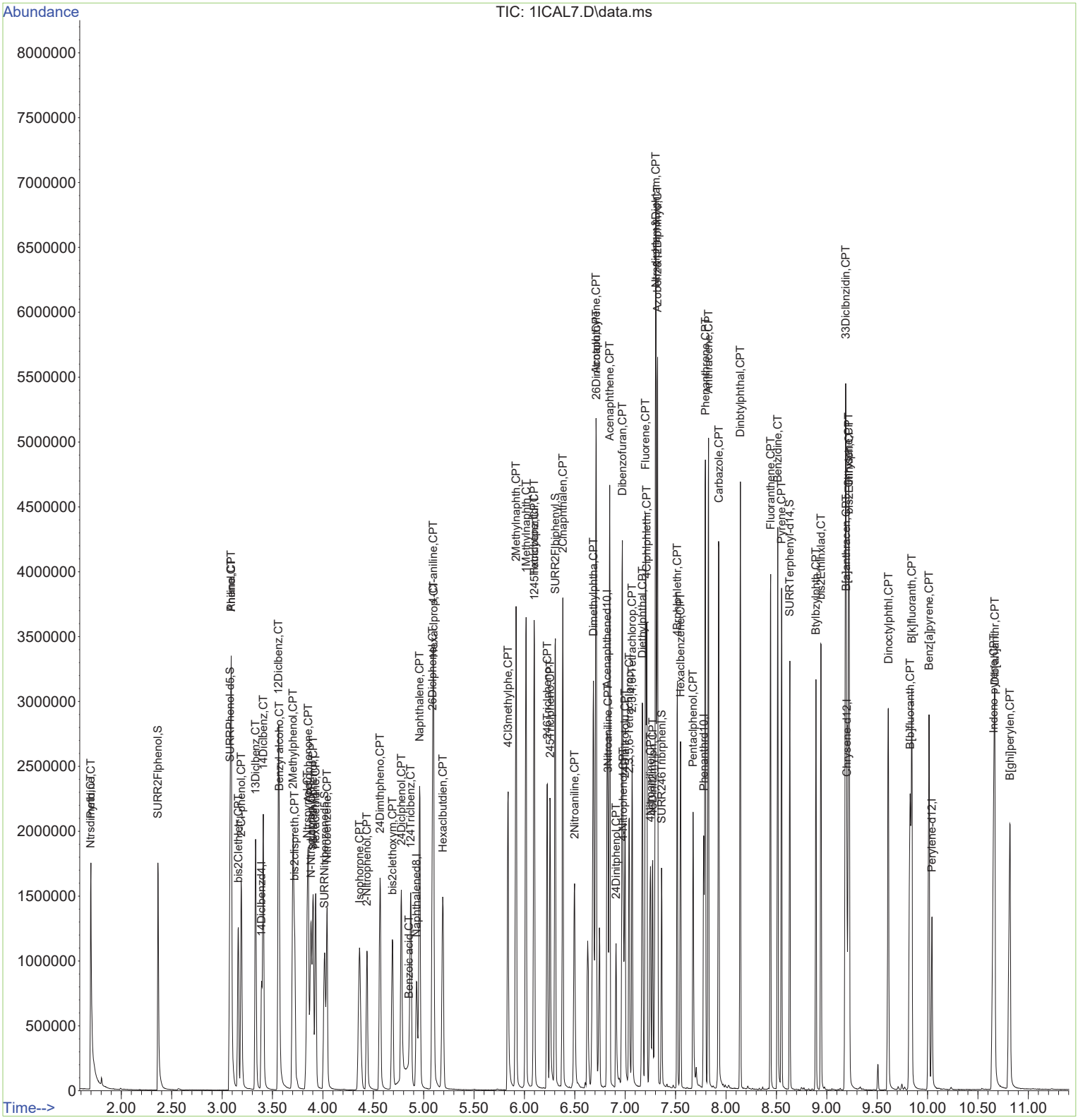
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) 1245Tetrclbenz	6.099	216	375819	50.0000	ug/mL	99
42) 246Triclpheno	6.227	196	271173	50.0000	ug/mL	99
43) 245Triclpheno	6.255	196	301180	50.0000	ug/mL	94
45) 2Clnaphthalen	6.380	162	871224	50.0000	ug/mL	100
46) 2Nitroaniline	6.497	65	297132	50.0000	ug/mL	94
47) Acnaphthylene	6.710	152	1310544	50.0000	ug/mL	99
48) Dimethylphtha	6.684	163	977014	50.0000	ug/mL	100
49) 26Dinitrotolu	6.713	165	215267	50.0000	ug/mL	85
50) Acenaphthene	6.846	154	775122	50.0000	ug/mL	99
51) 3Nitroaniline	6.829	138	273041	50.0000	ug/mL	94
52) 24Dinitphenol	6.909	184	136046	50.0000	ug/mL	93
53) Dibenzofuran	6.971	168	1147602	50.0000	ug/mL	98
54) 24Dinitrotolu	6.997	165	305969	50.0000	ug/mL	98
55) 4-Nitrophenol	6.980	65	200223	50.0000	ug/mL#	44
56) 2,3,5,6-Tetrachlorop	7.040	232	208498	50.0000	ug/mL	97
57) 2,3,4,6-Tetrachlorop	7.068	232	217086	50.0000	ug/mL	95
58) Fluorene	7.202	166	917490	50.0000	ug/mL	100
59) 4Clphlphlethr	7.213	204	398096	50.0000	ug/mL	98
60) Diethylphthal	7.170	149	987375	50.0000	ug/mL	100
61) 4Nitroaniline	7.250	138	290476	50.0000	ug/mL	94
64) 46Dinit2mylph	7.273	198	182973	50.0000	ug/mL	99
65) Ntrsdiphlam&Diphlam	7.304	169	1289783	100.0000	ug/mL	99
66) Azobenz&12Diphlhyd	7.321	182	422559	100.0000	ug/mL	90
67) 4Brphlphlethr	7.517	248	232184	50.0000	ug/mL	98
68) Hexaclbenzene	7.548	284	247027	50.0000	ug/mL	91
69) Pentaclphenol	7.673	266	165380	50.0000	ug/mL	99
70) Phenanthrene	7.795	178	1286348	50.0000	ug/mL	100
71) Anthracene	7.827	178	1299819	50.0000	ug/mL	100
72) Carbazole	7.929	167	1297553	50.0000	ug/mL	100
73) Dinbtylphthal	8.142	149	1615389	50.0000	ug/mL	100
74) Fluoranthene	8.443	202	920962	50.0000	ug/mL	98
76) Benzidine	8.514	184	1048130	50.0000	ug/mL	100
77) Pyrene	8.551	202	912694	50.0000	ug/mL	99
79) Btylbzylphth	8.892	149	512025	50.0000	ug/mL	98
80) bis2Ethlhxlad	8.943	129	421439	50.0000	ug/mL	98
81) 33Diclbnzidin	9.188	252	585591	50.0000	ug/mL	100
82) B[a]anthracen	9.194	228	725043	50.0000	ug/mL	100
83) Chrysene	9.216	228	772063	50.0000	ug/mL	100
84) bis2Ethlhxlph	9.222	149	666445	50.0000	ug/mL	99
85) Dinoctylphthl	9.611	149	1272674	50.0000	ug/mL	99
87) B[b]fluoranth	9.827	252	976902	50.0000	ug/mL	100
88) B[k]fluoranth	9.844	252	712022	50.0000	ug/mL	99
89) Benz[a]pyrene	10.015	252	871671	50.0000	ug/mL	99
90) Indeno-pyrene	10.657	276	909846	50.0000	ug/mL	92
91) Dib[ah]anthr	10.668	278	727418	50.0000	ug/mL	97
92) B[ghi]perylen	10.819	276	799996	50.0000	ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICAL7.D Vial: 2
Acq On : 20 Aug 2019 10:12 Operator: RPN
Sample : ICAL 50ug/mL SVMS8430 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:07:57 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 20 13:07:50 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICAL6.D Vial: 3
Acq On : 20 Aug 2019 10:31 Operator: RPN
Sample : ICAL 40ug/mL SVMS8429 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:08:57 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 20 13:07:50 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.391	152	124565	20.00	ug/mL	0.00
21) Naphthalened8	4.928	136	478910	20.00	ug/mL	0.00
39) Acenaphthened10	6.821	164	294788	20.00	ug/mL	0.00
63) Phenanthrd10	7.778	188	513045	20.00	ug/mL	0.00
75) Chrysene-d12	9.199	240	248572	20.00	ug/mL	0.00
86) Perylene-d12	10.043	264	296816	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.365	112	337528	101.58	%REC	0.00
Spiked Amount 100.000			Recovery = 101.58%			
7) SURRPhenol-d5	3.076	99	393882	103.33	%REC	0.00
Spiked Amount 100.000			Recovery = 103.33%			
22) SURRNitrbenzened5	4.013	82	343909	200.19	%REC	0.00
Spiked Amount 100.000			Recovery = 200.19%			
44) SURR2Flbiphenyl	6.306	172	800607	207.87	%REC	0.00
Spiked Amount 100.000			Recovery = 207.87%			
62) SURR246Tribrphenl	7.361	330	93019	101.60	%REC	0.00
Spiked Amount 100.000			Recovery = 101.60%			
78) SURRTerphenyl-d14	8.631	244	466831	204.01	%REC	0.00
Spiked Amount 100.000			Recovery = 204.01%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.698	74	225654	39.7461	ug/mL	99
3) Pyridine	1.703	79	353894	39.8244	ug/mL	98
5) Aniline	3.087	93	527821	41.3193	ug/mL	100
6) bis2Clethletr	3.158	93	332122	41.6376	ug/mL	99
8) Phenol	3.087	94	464124	41.0879	ug/mL	98
9) 2-Cl-phenol	3.189	128	367852	41.4956	ug/mL	98
10) 13Diclbenz	3.331	146	386548	41.4419	ug/mL	100
11) 14Diclbenz	3.408	146	389104	41.2447	ug/mL	100
12) 12Diclbenz	3.559	146	352353	39.8661	ug/mL	98
13) Benzyl alcoho	3.564	108	212885	39.4175	ug/mL	98
14) bis2clispreth	3.715	45	548818	41.8768	ug/mL	100
15) 2Methylphenol	3.701	107	269608	41.4801	ug/mL	96
16) Ntrspyrrol	3.837	100	180939	41.1660	ug/mL	98
17) Acetophenone	3.851	105	493112	41.0813	ug/mL	99
18) Hexaclethane	3.928	117	158869	41.4327	ug/mL	97
19) N-Ntrsdinprop	3.877	70	243104	41.2069	ug/mL	99
20) 3&4Methylphenol	3.897	107	347801	40.9713	ug/mL	97
23) Nitrobenzene	4.036	77	349406	40.4326	ug/mL	100
24) Isophorone	4.357	82	650380	40.8185	ug/mL	99
25) 2-Nitrophenol	4.437	139	189775	40.3434	ug/mL	99
26) 24Dimthpheno	4.565	122	288298	40.8435	ug/mL	99
27) bis2clethoxym	4.687	93	392940	40.8333	ug/mL	100
28) 24Diclphenol	4.775	162	270631	40.0263	ug/mL	98
29) 124Triclbenz	4.872	180	288017	40.5390	ug/mL	98
30) Benzoic acid	4.837	122	164438	40.2132	ug/mL	95
31) Naphthalene	4.960	128	985631	39.8970	ug/mL	99
32) 4-Cl-aniline	5.093	127	433063	40.5931	ug/mL	98
33) 26Diclphenol	5.087	162	254800	40.5541	ug/mL	96
34) Hexaclprop	5.096	213	196459	41.1173	ug/mL	99
35) Hexaclbutdien	5.190	225	179119	41.1401	ug/mL	96
36) 4Cl3methylphe	5.835	107	361469	40.8375	ug/mL	99
37) 2Methylnaphth	5.917	142	814254	41.6412	ug/mL	98
38) 1Methylnaphth	6.014	141	666060	41.4211	ug/mL	97
40) Hxclcycpentdi	6.093	237	175664	41.9404	ug/mL	100

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICAL6.D Vial: 3
Acq On : 20 Aug 2019 10:31 Operator: RPN
Sample : ICAL 40ug/mL SVMS8429 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:08:57 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 20 13:07:50 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

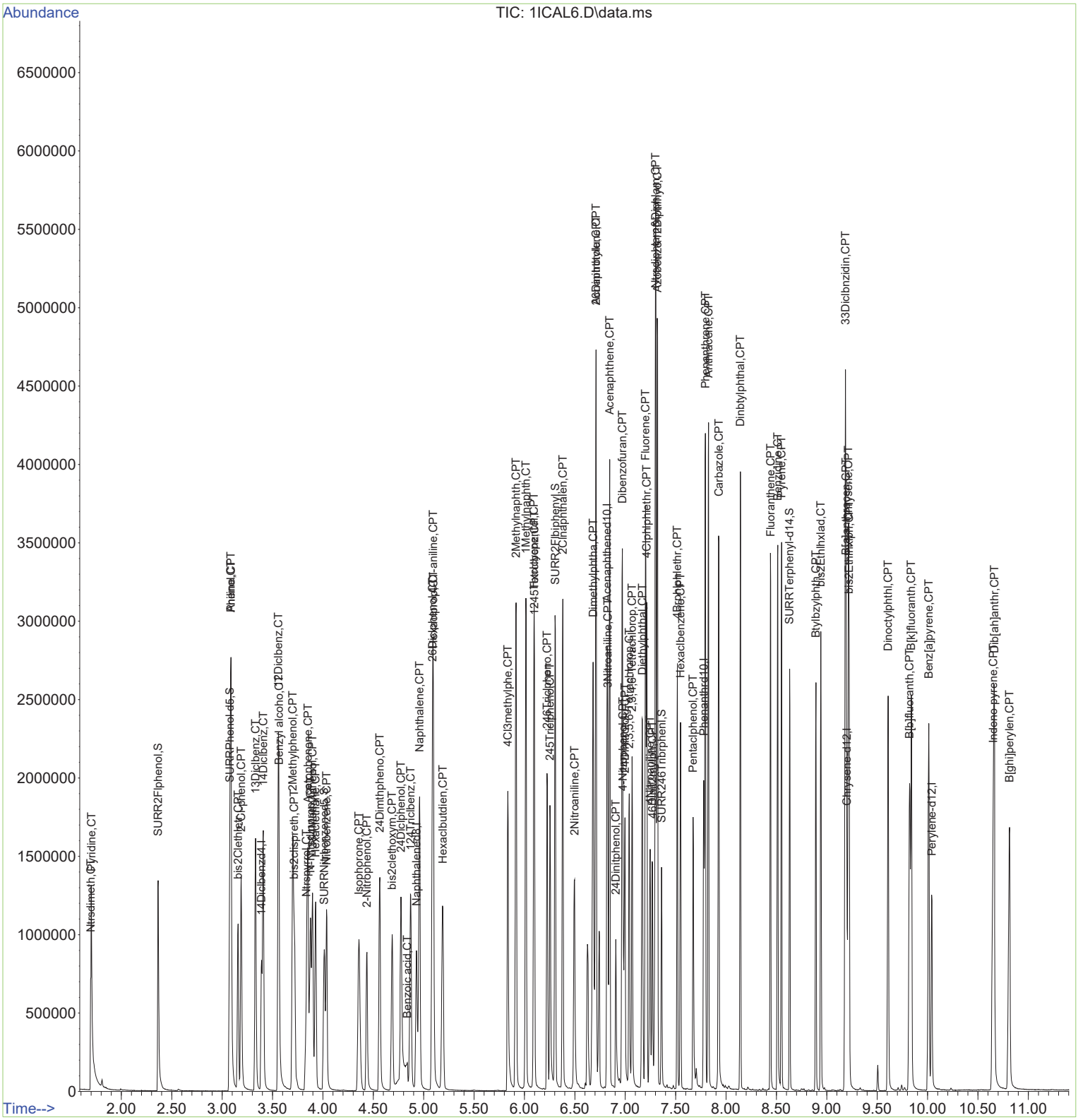
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) 1245Tetrclbenz	6.099	216	318920	42.3615 ug/mL	98
42) 246Triclpheno	6.224	196	221827	40.8353 ug/mL	99
43) 245Triclpheno	6.252	196	250330	41.4911 ug/mL	95
45) 2Clnaphthalen	6.380	162	719859	41.2464 ug/mL	98
46) 2Nitroaniline	6.497	65	243636	40.9317 ug/mL	94
47) Acnaphthylene	6.710	152	1091215	41.5649 ug/mL	99
48) Dimethylphtha	6.682	163	804584	41.1092 ug/mL	100
49) 26Dinitrotolu	6.710	165	177672	41.2012 ug/mL	82
50) Acenaphthene	6.846	154	641127	41.2897 ug/mL	99
51) 3Nitroaniline	6.826	138	219300	40.0940 ug/mL	93
52) 24Dinitphenol	6.906	184	108646	39.8654 ug/mL	97
53) Dibenzofuran	6.971	168	957879	41.6665 ug/mL	98
54) 24Dinitrotolu	6.997	165	253390	41.3409 ug/mL	99
55) 4-Nitrophenol	6.977	65	163914	40.8668 ug/mL#	60
56) 2,3,5,6-Tetrachlorop	7.040	232	168055	40.2363 ug/mL	97
57) 2,3,4,6-Tetrachlorop	7.068	232	181778	41.8001 ug/mL	97
58) Fluorene	7.202	166	765346	41.6413 ug/mL	100
59) 4Clphlphlethr	7.213	204	335826	42.1109 ug/mL	98
60) Diethylphthal	7.170	149	825290	41.7246 ug/mL	100
61) 4Nitroaniline	7.247	138	236877	40.7081 ug/mL	96
64) 46Dinit2mylph	7.270	198	145737	39.2536 ug/mL	98
65) Ntrsdiphlam&Diphlam	7.301	169	1060322	81.0303 ug/mL	99
66) Azobenz&12Diphlhyd	7.321	182	348466	81.2829 ug/mL#	85
67) 4Brphlphlethr	7.517	248	194147	41.2093 ug/mL	96
68) Hexaclbenzene	7.548	284	205406	40.9793 ug/mL	92
69) Pentaclphenol	7.673	266	132031	39.3450 ug/mL	99
70) Phenanthrene	7.795	178	1067596	40.9020 ug/mL	100
71) Anthracene	7.827	178	1080878	40.9817 ug/mL	100
72) Carbazole	7.929	167	1074272	40.8024 ug/mL	99
73) Dinbtylphthal	8.142	149	1312184	40.0326 ug/mL	99
74) Fluoranthene	8.443	202	755476	40.4274 ug/mL	97
76) Benzidine	8.514	184	858669	40.8703 ug/mL	98
77) Pyrene	8.551	202	765172	41.8246 ug/mL	100
79) Btylbzylphth	8.892	149	418750	40.8001 ug/mL	98
80) bis2Ethlhxlad	8.940	129	338864	40.1133 ug/mL	98
81) 33Diclbnzidin	9.185	252	487172	41.5036 ug/mL	100
82) B[a]anthracen	9.191	228	610486	42.0058 ug/mL	99
83) Chrysene	9.213	228	624470	40.3512 ug/mL	99
84) bis2Ethlhxlph	9.222	149	549794	41.1560 ug/mL	99
85) Dinoctylphthl	9.608	149	1012878	39.7043 ug/mL	100
87) B[b]fluoranth	9.821	252	691490	36.7946 ug/mL	99
88) B[k]fluoranth	9.838	252	669592	48.8839 ug/mL	100
89) Benz[a]pyrene	10.012	252	683167	40.7402 ug/mL	99
90) Indeno-pyrene	10.651	276	729096	41.6549 ug/mL	95
91) Dib[ah]anthr	10.662	278	576656	41.2080 ug/mL	99
92) B[ghi]perylen	10.813	276	638747	41.5040 ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICAL6.D Vial: 3
Acq On : 20 Aug 2019 10:31 Operator: RPN
Sample : ICAL 40ug/mL SVMS8429 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:08:57 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 20 13:07:50 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICAL5.D Vial: 4
Acq On : 20 Aug 2019 10:50 Operator: RPN
Sample : ICAL 30ug/mL SVMS8428 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:10:02 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 20 13:09:51 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.391	152	127412	20.00	ug/mL	0.00
21) Naphthalened8	4.925	136	488945	20.00	ug/mL	0.00
39) Acenaphthened10	6.821	164	301837	20.00	ug/mL	0.00
63) Phenanthrd10	7.778	188	512289	20.00	ug/mL	0.00
75) Chrysene-d12	9.196	240	260680	20.00	ug/mL	0.00
86) Perylene-d12	10.040	264	313756	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.362	112	252638	73.75	%REC	0.00
Spiked Amount 100.000			Recovery = 73.75%			
7) SURRPhenol-d5	3.073	99	295363	74.51	%REC	0.00
Spiked Amount 100.000			Recovery = 74.51%			
22) SURRNitrbenzened5	4.011	82	259980	148.16	%REC	0.00
Spiked Amount 100.000			Recovery = 148.16%			
44) SURR2Flbiphenyl	6.304	172	613736	152.63	%REC	0.00
Spiked Amount 100.000			Recovery = 152.63%			
62) SURR246Tribrphenl	7.361	330	72495	76.72	%REC	0.00
Spiked Amount 100.000			Recovery = 76.72%			
78) SURRTerphenyl-d14	8.631	244	363754	150.08	%REC	0.00
Spiked Amount 100.000			Recovery = 150.08%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.695	74	168639	29.1324	ug/mL	99
3) Pyridine	1.700	79	271189	29.9012	ug/mL	100
5) Aniline	3.087	93	403720	30.3968	ug/mL	100
6) bis2Clethletr	3.155	93	251703	30.2316	ug/mL	98
8) Phenol	3.084	94	356323	30.4259	ug/mL	98
9) 2-Cl-phenol	3.186	128	276646	29.9499	ug/mL	100
10) 13Diclbenz	3.331	146	294235	30.2941	ug/mL	98
11) 14Diclbenz	3.405	146	291949	29.7913	ug/mL	99
12) 12Diclbenz	3.559	146	276580	30.6450	ug/mL	99
13) Benzyl alcoho	3.559	108	166317	30.3278	ug/mL	98
14) bis2clispreth	3.715	45	421307	30.7085	ug/mL	98
15) 2Methylphenol	3.698	107	209280	30.9072	ug/mL	98
16) Ntrspyrrol	3.831	100	136281	29.8774	ug/mL	98
17) Acetophenone	3.846	105	375026	30.1381	ug/mL	98
18) Hexaclethane	3.928	117	122651	30.7222	ug/mL	99
19) N-Ntrsdinprop	3.871	70	186334	30.4195	ug/mL	98
20) 3&4Methylphenol	3.891	107	264157	30.0577	ug/mL	99
23) Nitrobenzene	4.033	77	264995	29.8738	ug/mL	100
24) Isophorone	4.351	82	487863	29.6866	ug/mL	100
25) 2-Nitrophenol	4.434	139	143425	29.7367	ug/mL	99
26) 24Dimthpheno	4.562	122	217097	29.8108	ug/mL	97
27) bis2clethoxym	4.684	93	298972	30.1170	ug/mL	100
28) 24Diclphenol	4.772	162	205917	29.8202	ug/mL	97
29) 124Triclbenz	4.869	180	219226	30.0210	ug/mL	99
30) Benzoic acid	4.812	122	111652	26.6730	ug/mL	95
31) Naphthalene	4.957	128	761734	30.2401	ug/mL	99
32) 4-Cl-aniline	5.087	127	332823	30.3319	ug/mL	99
33) 26Diclphenol	5.085	162	196101	30.3607	ug/mL	98
34) Hexaclprop	5.093	213	149804	30.2863	ug/mL	98
35) Hexaclbutdien	5.187	225	133235	29.5522	ug/mL	94
36) 4Cl3methylphe	5.832	107	271156	29.6946	ug/mL	99
37) 2Methylnaphth	5.914	142	620280	30.4457	ug/mL	99
38) 1Methylnaphth	6.014	141	501030	29.9860	ug/mL	97
40) Hxclcycpentdi	6.093	237	130871	29.7936	ug/mL	99

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICAL5.D Vial: 4
Acq On : 20 Aug 2019 10:50 Operator: RPN
Sample : ICAL 30ug/mL SVMS8428 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:10:02 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 20 13:09:51 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

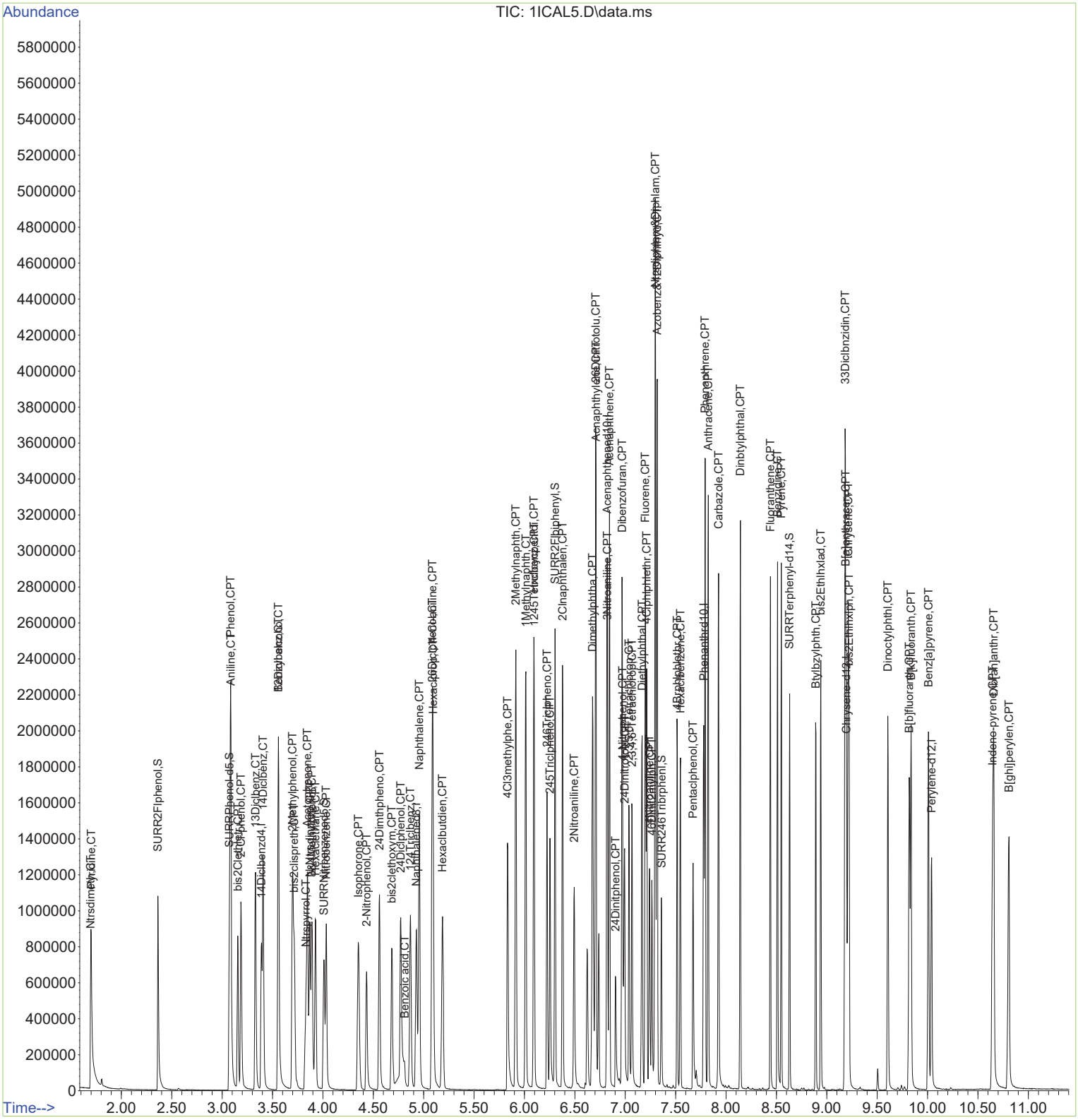
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) 1245Tetrclbenz	6.096	216	241868	30.4769 ug/mL	99
42) 246Triclpheno	6.224	196	168076	29.9057 ug/mL	97
43) 245Triclpheno	6.252	196	186586	29.6509 ug/mL	96
45) 2Clnaphthalen	6.377	162	558499	30.7740 ug/mL	98
46) 2Nitroaniline	6.494	65	183859	29.8203 ug/mL	97
47) Acnaphthylene	6.710	152	839479	30.6302 ug/mL	99
48) Dimethylphtha	6.676	163	607425	29.8963 ug/mL	100
49) 26Dinitrotolu	6.707	165	140461	31.3409 ug/mL	85
50) Acenaphthene	6.843	154	488614	30.2451 ug/mL	99
51) 3Nitroaniline	6.824	138	162432	28.9694 ug/mL	95
52) 24Dinitphenol	6.903	184	76411	27.4288 ug/mL	98
53) Dibenzofuran	6.968	168	735054	30.5900 ug/mL	98
54) 24Dinitrotolu	6.994	165	190824	29.9049 ug/mL	97
55) 4-Nitrophenol	6.974	65	119750	28.8461 ug/mL	89
56) 2,3,5,6-Tetrachlorop	7.037	232	128723	30.0109 ug/mL	99
57) 2,3,4,6-Tetrachlorop	7.068	232	138252	30.3655 ug/mL	99
58) Fluorene	7.199	166	582094	30.3094 ug/mL	98
59) 4Clphlphlethr	7.213	204	257121	30.6792 ug/mL	99
60) Diethylphthal	7.167	149	625214	30.2196 ug/mL	99
61) 4Nitroaniline	7.241	138	176932	29.4357 ug/mL	94
64) 46Dinit2mylph	7.264	198	109035	29.6884 ug/mL	98
65) Ntrsdiphlam&Diphlam	7.298	169	833421	63.3763 ug/mL	99
66) Azobenz&12Diphlhyd	7.318	182	265667	61.5671 ug/mL#	85
67) 4Brphlphlethr	7.517	248	145591	30.4876 ug/mL	99
68) Hexaclbenzene	7.548	284	160473	31.6745 ug/mL	99
69) Pentaclphenol	7.673	266	98680	29.6930 ug/mL	96
70) Phenanthrene	7.792	178	811367	30.7841 ug/mL	100
71) Anthracene	7.824	178	833635	31.2704 ug/mL	100
72) Carbazole	7.926	167	813045	30.6191 ug/mL	99
73) Dinbtylphthal	8.142	149	1020630	31.1710 ug/mL	99
74) Fluoranthene	8.440	202	592375	31.5775 ug/mL	99
76) Benzidine	8.511	184	667857	29.9855 ug/mL	99
77) Pyrene	8.548	202	591723	30.1538 ug/mL	99
79) Btylbzylphth	8.892	149	329679	30.3264 ug/mL	98
80) bis2Ethlhxlad	8.940	129	259372	29.2359 ug/mL	99
81) 33Diclbnzidin	9.182	252	385994	30.7781 ug/mL	100
82) B[a]anthracen	9.188	228	484535	31.0134 ug/mL	98
83) Chrysene	9.213	228	504807	30.9679 ug/mL	100
84) bis2Ethlhxlph	9.222	149	433183	30.4802 ug/mL	100
85) Dinoctylphthl	9.605	149	792927	29.7486 ug/mL	99
87) B[b]fluoranth	9.818	252	543493	28.5001 ug/mL	99
88) B[k]fluoranth	9.835	252	524330	32.5929 ug/mL	99
89) Benz[a]pyrene	10.009	252	537738	30.0582 ug/mL	99
90) Indeno-pyrene	10.645	276	570729	30.2214 ug/mL	98
91) Dib[ah]anthr	10.657	278	459997	30.6342 ug/mL	99
92) B[ghi]perylen	10.807	276	495403	29.8900 ug/mL	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICAL5.D Vial: 4
Acq On : 20 Aug 2019 10:50 Operator: RPN
Sample : ICAL 30ug/mL SVMS8428 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:10:02 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 20 13:09:51 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICAL4.D Vial: 5
Acq On : 20 Aug 2019 11:08 Operator: RPN
Sample : ICAL 20ug/mL SVMS8427 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:11:17 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 20 13:11:04 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.389	152	126239	20.00	ug/mL	0.00
21) Naphthalened8	4.926	136	470380	20.00	ug/mL	0.00
39) Acenaphthened10	6.818	164	293767	20.00	ug/mL	0.00
63) Phenanthrd10	7.776	188	502863	20.00	ug/mL	0.00
75) Chrysene-d12	9.194	240	262006	20.00	ug/mL	0.00
86) Perylene-d12	10.040	264	307726	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.363	112	169139	50.11	%REC	0.00
Spiked Amount 100.000			Recovery = 50.11%			
7) SURRPhenol-d5	3.070	99	200078	51.05	%REC	0.00
Spiked Amount 100.000			Recovery = 51.05%			
22) SURRNitrbenzened5	4.005	82	175266	104.25	%REC	0.00
Spiked Amount 100.000			Recovery = 104.25%			
44) SURR2Flbiphenyl	6.301	172	421915	107.18	%REC	0.00
Spiked Amount 100.000			Recovery = 107.18%			
62) SURR246Tribrphenl	7.355	330	48640	52.49	%REC	0.00
Spiked Amount 100.000			Recovery = 52.49%			
78) SURRTerphenyl-d14	8.631	244	252174	103.50	%REC	0.00
Spiked Amount 100.000			Recovery = 103.50%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.695	74	114525	20.1624	ug/mL	100
3) Pyridine	1.704	79	179570	20.0052	ug/mL	100
5) Aniline	3.084	93	273868	20.7203	ug/mL	100
6) bis2Clethletr	3.153	93	172134	20.8133	ug/mL	100
8) Phenol	3.082	94	241434	20.7093	ug/mL	100
9) 2-Cl-phenol	3.187	128	186839	20.4266	ug/mL	100
10) 13Diclbenz	3.329	146	201111	20.8305	ug/mL	100
11) 14Diclbenz	3.406	146	203031	20.9590	ug/mL	100
12) 12Diclbenz	3.556	146	190690	21.1730	ug/mL	100
13) Benzyl alcoho	3.556	108	110769	20.3123	ug/mL	100
14) bis2clispreth	3.712	45	290337	21.1921	ug/mL	100
15) 2Methylphenol	3.695	107	139728	20.6194	ug/mL	100
16) Ntrspyrrol	3.823	100	92146	20.4171	ug/mL	100
17) Acetophenone	3.843	105	256623	20.7826	ug/mL	100
18) Hexaclethane	3.926	117	83401	20.9169	ug/mL	100
19) N-Ntrsdinprop	3.866	70	125642	20.6059	ug/mL	100
20) 3&4Methylphenol	3.886	107	177101	20.3261	ug/mL	100
23) Nitrobenzene	4.031	77	177233	20.7978	ug/mL	100
24) Isophorone	4.346	82	328991	20.8820	ug/mL	100
25) 2-Nitrophenol	4.431	139	95211	20.5797	ug/mL	100
26) 24Dimthpheno	4.556	122	147088	21.0389	ug/mL	100
27) bis2clethoxym	4.681	93	200367	20.9534	ug/mL	100
28) 24Diclphenol	4.769	162	135166	20.3876	ug/mL	100
29) 124Triclbenz	4.869	180	148176	21.0873	ug/mL	100
30) Benzoic acid	4.778	122	68668	17.7064	ug/mL	100
31) Naphthalene	4.954	128	507626	20.8919	ug/mL	100
32) 4-Cl-aniline	5.085	127	222121	20.9647	ug/mL	100
33) 26Diclphenol	5.082	162	130346	20.8931	ug/mL	100
34) Hexaclprop	5.093	213	101325	21.2262	ug/mL	100
35) Hexaclbutdien	5.187	225	92366	21.4023	ug/mL	100
36) 4Cl3methylphe	5.829	107	179065	20.4530	ug/mL	100
37) 2Methylnaphth	5.912	142	424597	21.5566	ug/mL	100
38) 1Methylnaphth	6.011	141	346743	21.5745	ug/mL	100
40) Hxclcycpentdi	6.091	237	88100	20.6548	ug/mL	100

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICAL4.D Vial: 5
Acq On : 20 Aug 2019 11:08 Operator: RPN
Sample : ICAL 20ug/mL SVMS8427 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:11:17 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 20 13:11:04 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

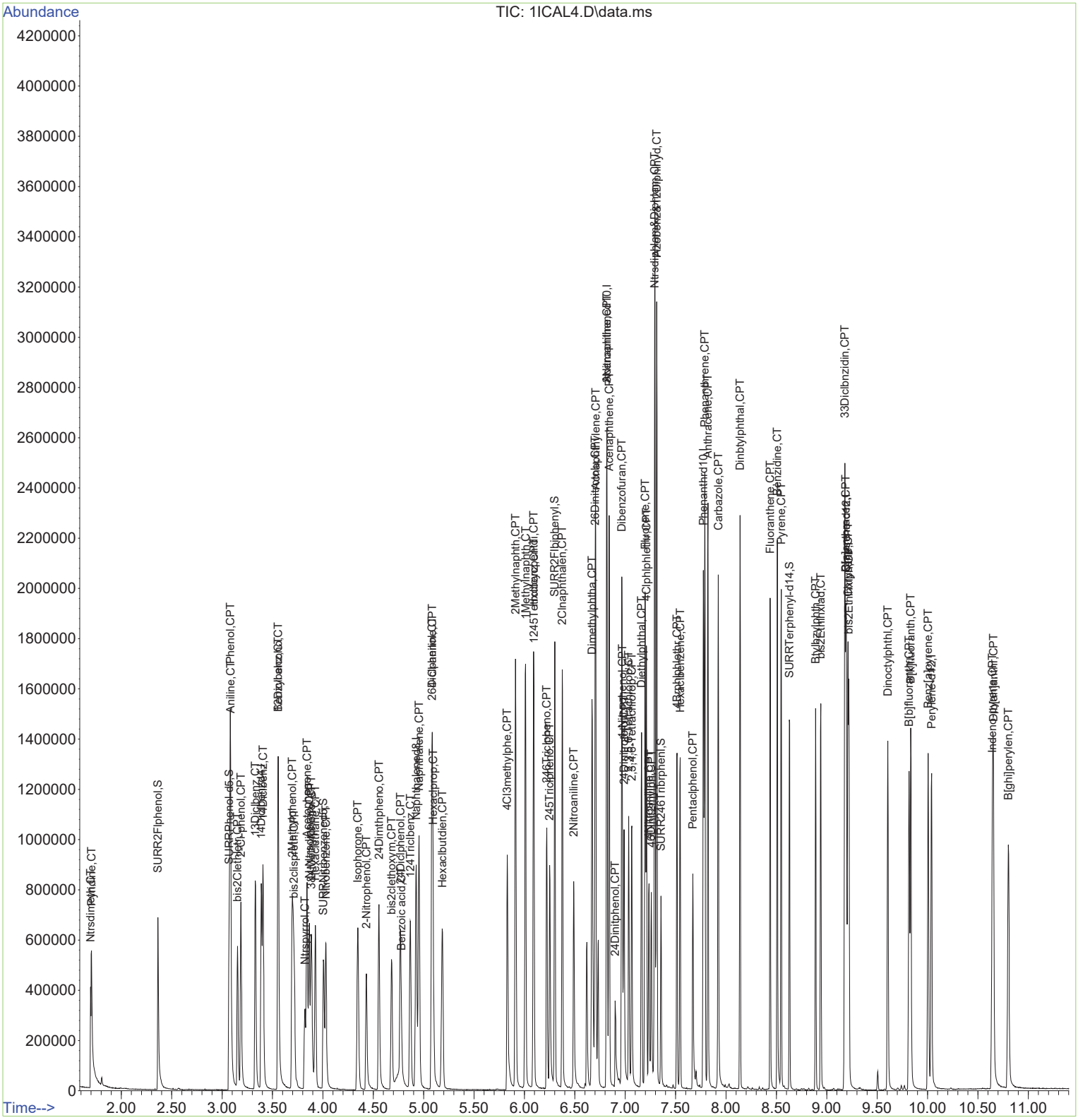
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) 1245Tetrclbenz	6.094	216	170970	22.0184 ug/mL	100
42) 246Triclpheno	6.221	196	111809	20.4621 ug/mL	100
43) 245Triclpheno	6.250	196	125602	20.5879 ug/mL	100
45) 2Clnaphthalen	6.375	162	380432	21.3545 ug/mL	100
46) 2Nitroaniline	6.489	65	122518	20.4581 ug/mL	100
47) Acnaphthylene	6.707	152	583536	21.7244 ug/mL	100
48) Dimethylphtha	6.670	163	413685	20.9442 ug/mL	100
49) 26Dinitrotolu	6.702	165	96568	21.8140 ug/mL	100
50) Acenaphthene	6.841	154	334130	21.1930 ug/mL	100
51) 3Nitroaniline	6.818	138	107145	19.8615 ug/mL	100
52) 24Dinitphenol	6.901	184	45676	17.3419 ug/mL	100
53) Dibenzofuran	6.966	168	520466	22.1098 ug/mL	100
54) 24Dinitrotolu	6.989	165	129115	20.8120 ug/mL	100
55) 4-Nitrophenol	6.972	65	80412	20.1607 ug/mL	100
56) 2,3,5,6-Tetrachlorop	7.034	232	86157	20.6362 ug/mL	100
57) 2,3,4,6-Tetrachlorop	7.065	232	94093	21.1483 ug/mL	100
58) Fluorene	7.199	166	401317	21.3969 ug/mL	100
59) 4Clphlphlethr	7.210	204	178441	21.7123 ug/mL	100
60) Diethylphthal	7.162	149	419787	20.7970 ug/mL	100
61) 4Nitroaniline	7.236	138	117774	20.2590 ug/mL	100
64) 46Dinit2mylph	7.259	198	71588	19.9266 ug/mL	100
65) Ntrsdiphlam&Diphlam	7.293	169	582248	44.2757 ug/mL	100
66) Azobenz&12Diphlhyd	7.313	182	190299	44.5398 ug/mL	100
67) 4Brphlphlethr	7.514	248	100249	21.2710 ug/mL	100
68) Hexaclbenzene	7.546	284	109473	21.6110 ug/mL	100
69) Pentaclphenol	7.671	266	64268	19.7683 ug/mL	100
70) Phenanthrene	7.790	178	560189	21.4655 ug/mL	100
71) Anthracene	7.821	178	584264	22.0163 ug/mL	100
72) Carbazole	7.923	167	561774	21.4056 ug/mL	100
73) Dinbtylphthal	8.139	149	713828	21.9244 ug/mL	100
74) Fluoranthene	8.438	202	404560	21.5915 ug/mL	100
76) Benzidine	8.509	184	462333	20.6561 ug/mL	100
77) Pyrene	8.549	202	419525	21.2342 ug/mL	100
79) Btylbzylphth	8.890	149	222986	20.3344 ug/mL	100
80) bis2Ethlhxlad	8.941	129	177523	20.0792 ug/mL	100
81) 33Diclbnzidin	9.179	252	274541	21.5937 ug/mL	100
82) B[a]anthracen	9.188	228	348955	21.9749 ug/mL	100
83) Chrysene	9.211	228	353755	21.3619 ug/mL	100
84) bis2Ethlhxlph	9.219	149	301999	21.0299 ug/mL	100
85) Dinoctylphthl	9.606	149	535927	20.0609 ug/mL	100
87) B[b]fluoranth	9.816	252	350767	19.0721 ug/mL	100
88) B[k]fluoranth	9.833	252	368666	22.7114 ug/mL	100
89) Benz[a]pyrene	10.006	252	368707	21.0001 ug/mL	100
90) Indeno-pyrene	10.643	276	392849	21.1578 ug/mL	100
91) Dib[ah]anthr	10.654	278	321359	21.6681 ug/mL	100
92) B[ghi]perylen	10.802	276	339178	20.8908 ug/mL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICAL4.D Vial: 5
Acq On : 20 Aug 2019 11:08 Operator: RPN
Sample : ICAL 20ug/mL SVMS8427 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:11:17 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 20 13:11:04 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICAL3.D Vial: 6
Acq On : 20 Aug 2019 11:27 Operator: RPN
Sample : ICAL 10ug/mL SVMS8426 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:12:21 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 20 13:12:11 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.388	152	128656	20.00	ug/mL	0.00
21) Naphthalened8	4.923	136	476298	20.00	ug/mL	0.00
39) Acenaphthened10	6.815	164	298460	20.00	ug/mL	0.00
63) Phenanthrd10	7.773	188	502201	20.00	ug/mL	0.00
75) Chrysene-d12	9.190	240	268281	20.00	ug/mL	0.00
86) Perylene-d12	10.037	264	311860	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.365	112	71560	20.79	%REC	0.00
Spiked Amount 100.000			Recovery = 20.79%			
7) SURRPhenol-d5	3.067	99	88854	22.13	%REC	0.00
Spiked Amount 100.000			Recovery = 22.13%			
22) SURRNitrbenzened5	4.002	82	76026	44.19	%REC	0.00
Spiked Amount 100.000			Recovery = 44.19%			
44) SURR2Flbiphenyl	6.301	172	193365	47.50	%REC	0.00
Spiked Amount 100.000			Recovery = 47.50%			
62) SURR246Tribrphenl	7.352	330	21358	22.41	%REC	0.00
Spiked Amount 100.000			Recovery = 22.41%			
78) SURRTerphenyl-d14	8.628	244	118004	46.89	%REC	0.00
Spiked Amount 100.000			Recovery = 46.89%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.698	74	48399	8.3437	ug/mL	98
3) Pyridine	1.709	79	73397	8.0228	ug/mL	100
5) Aniline	3.081	93	118786	8.7396	ug/mL	99
6) bis2Clethletr	3.152	93	77028	9.0468	ug/mL	98
8) Phenol	3.079	94	110961	9.2569	ug/mL	97
9) 2-Cl-phenol	3.187	128	81972	8.7468	ug/mL	99
10) 13Diclbenz	3.331	146	90091	9.0620	ug/mL	98
11) 14Diclbenz	3.405	146	90909	9.0992	ug/mL	99
12) 12Diclbenz	3.556	146	86333	9.2699	ug/mL	97
13) Benzyl alcoho	3.553	108	46039	8.2516	ug/mL	97
14) bis2clispreth	3.712	45	132901	9.3786	ug/mL	96
15) 2Methylphenol	3.695	107	60410	8.6799	ug/mL	95
16) Ntrspyrrol	3.812	100	39727	8.5923	ug/mL	96
17) Acetophenone	3.837	105	111267	8.7560	ug/mL	99
18) Hexaclethane	3.922	117	36350	8.8439	ug/mL	98
19) N-Ntrsdinprop	3.857	70	57323	9.1553	ug/mL	97
20) 3&4Methylphenol	3.880	107	77922	8.7396	ug/mL	97
23) Nitrobenzene	4.028	77	75585	8.6730	ug/mL	98
24) Isophorone	4.340	82	142959	8.8636	ug/mL	100
25) 2-Nitrophenol	4.431	139	39292	8.3270	ug/mL	100
26) 24Dimthpheno	4.553	122	65672	9.1578	ug/mL	99
27) bis2clethoxym	4.678	93	87580	8.9384	ug/mL	98
28) 24Diclphenol	4.766	162	59271	8.7864	ug/mL	99
29) 124Triclbenz	4.866	180	65862	9.1324	ug/mL	98
30) Benzoic acid	4.729	122	18387	4.8205	ug/mL	88
31) Naphthalene	4.951	128	233319	9.3786	ug/mL	100
32) 4-Cl-aniline	5.082	127	98967	9.1149	ug/mL	99
33) 26Diclphenol	5.079	162	59055	9.2451	ug/mL	99
34) Hexaclprop	5.090	213	46305	9.4351	ug/mL	100
35) Hexaclbutdien	5.184	225	41414	9.3136	ug/mL	98
36) 4Cl3methylphe	5.829	107	76911	8.6269	ug/mL	99
37) 2Methylnaphth	5.911	142	192245	9.4550	ug/mL	100
38) 1Methylnaphth	6.008	141	158559	9.5550	ug/mL	99
40) Hxclcycpentdi	6.090	237	36063	8.2544	ug/mL	99

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICAL3.D Vial: 6
Acq On : 20 Aug 2019 11:27 Operator: RPN
Sample : ICAL 10ug/mL SVMS8426 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:12:21 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 20 13:12:11 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

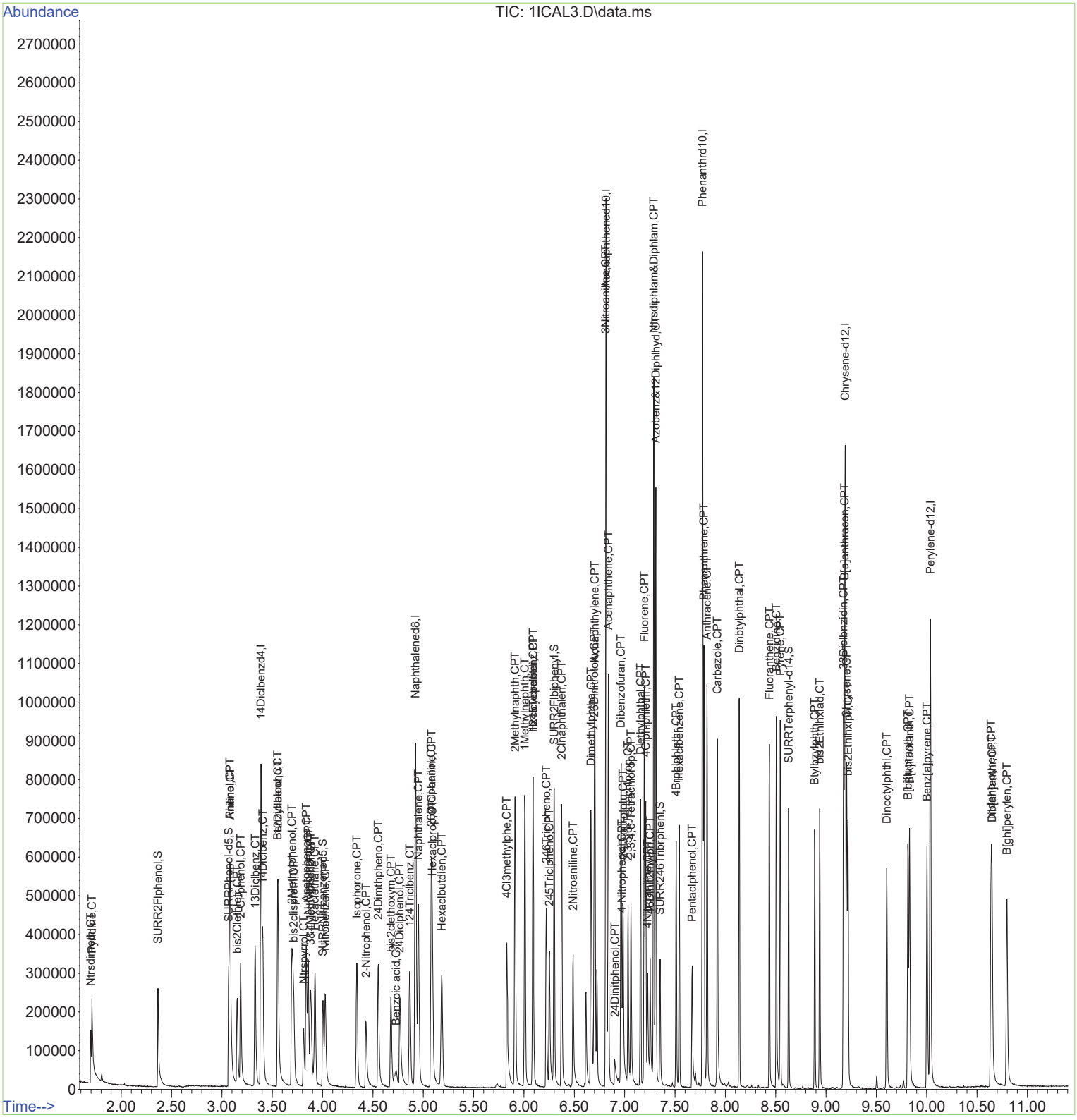
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) 1245Tetrclbenz	6.090	216	76081	9.4067	ug/mL	97
42) 246Triclpheno	6.221	196	48810	8.7417	ug/mL	99
43) 245Triclpheno	6.252	196	54681	8.7577	ug/mL	96
45) 2Clnaphthalen	6.375	162	173742	9.4394	ug/mL	97
46) 2Nitroaniline	6.488	65	52375	8.5591	ug/mL	95
47) Acnaphthylene	6.704	152	275453	9.8806	ug/mL	99
48) Dimethylphtha	6.664	163	190761	9.3952	ug/mL	99
49) 26Dinitrotolu	6.699	165	45220	9.8313	ug/mL	90
50) Acenaphthene	6.838	154	155566	9.5693	ug/mL	98
51) 3Nitroaniline	6.812	138	48353	8.8376	ug/mL	97
52) 24Dinitphenol	6.903	184	12777	4.9389	ug/mL	94
53) Dibenzofuran	6.963	168	237422	9.6722	ug/mL	98
54) 24Dinitrotolu	6.983	165	57936	9.0995	ug/mL	98
55) 4-Nitrophenol	6.971	65	29980	7.3835	ug/mL	98
56) 2,3,5,6-Tetrachlorop	7.034	232	38130	8.9183	ug/mL	98
57) 2,3,4,6-Tetrachlorop	7.062	232	41768	9.1094	ug/mL	97
58) Fluorene	7.196	166	188330	9.7136	ug/mL	99
59) 4Clphlphlethr	7.210	204	82569	9.6816	ug/mL	97
60) Diethylphthal	7.159	149	191254	9.2341	ug/mL	99
61) 4Nitroaniline	7.227	138	48507	8.1863	ug/mL	95
64) 46Dinit2mylph	7.253	198	28860	8.0512	ug/mL	97
65) Ntrsdiphlam&Diphlam	7.290	169	279527	20.7300	ug/mL	99
66) Azobenz&12Diphlhyd	7.309	182	88398	20.1454	ug/mL	91
67) 4Brphlphlethr	7.511	248	46982	9.8257	ug/mL	94
68) Hexaclbenzene	7.542	284	51401	9.9598	ug/mL	99
69) Pentaclphenol	7.670	266	26151	8.0778	ug/mL	100
70) Phenanthrene	7.787	178	258829	9.7523	ug/mL	100
71) Anthracene	7.818	178	271549	9.9941	ug/mL	100
72) Carbazole	7.920	167	257716	9.6631	ug/mL	99
73) Dinbtylphthal	8.139	149	323728	9.7222	ug/mL	99
74) Fluoranthene	8.438	202	188975	9.9020	ug/mL	97
76) Benzidine	8.506	184	211106	9.1363	ug/mL	99
77) Pyrene	8.545	202	193974	9.4427	ug/mL	98
79) Btylbzylphth	8.886	149	100135	8.8807	ug/mL	97
80) bis2Ethlhxlad	8.938	129	80644	8.8993	ug/mL	99
81) 33Diclbnzidin	9.173	252	130377	9.8192	ug/mL	98
82) B[a]anthracen	9.185	228	164402	9.8672	ug/mL	98
83) Chrysene	9.205	228	164051	9.5128	ug/mL	98
84) bis2Ethlhxlph	9.219	149	137605	9.2392	ug/mL	99
85) Dinoctylphthl	9.602	149	229900	8.3980	ug/mL	98
87) B[b]fluoranth	9.813	252	159766	8.6723	ug/mL	100
88) B[k]fluoranth	9.830	252	178653	10.5039	ug/mL	97
89) Benz[a]pyrene	10.003	252	168458	9.3506	ug/mL	99
90) Indeno-pyrene	10.640	276	175071	9.1711	ug/mL	97
91) Dib[ah]anthr	10.648	278	143324	9.3409	ug/mL	100
92) B[ghi]perylen	10.796	276	156002	9.3767	ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICAL3.D Vial: 6
Acq On : 20 Aug 2019 11:27 Operator: RPN
Sample : ICAL 10ug/mL SVMS8426 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:12:21 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 20 13:12:11 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICAL2.D Vial: 7
Acq On : 20 Aug 2019 11:45 Operator: RPN
Sample : ICAL 5ug/mL SVMS8425 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:13:44 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 20 13:13:31 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.388	152	149571	20.00	ug/mL	0.00
21) Naphthalened8	4.923	136	564611	20.00	ug/mL	0.00
39) Acenaphthened10	6.815	164	354957	20.00	ug/mL	0.00
63) Phenanthrd10	7.773	188	582522	20.00	ug/mL	0.00
75) Chrysene-d12	9.191	240	316213	20.00	ug/mL	0.00
86) Perylene-d12	10.037	264	368585	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.368	112	36447	9.43	%REC	0.00
Spiked Amount 100.000			Recovery = 9.43%			
7) SURRPhenol-d5	3.067	99	43487	9.54	%REC	0.00
Spiked Amount 100.000			Recovery = 9.54%			
22) SURRNitrbenzened5	4.005	82	38105	19.13	%REC	0.00
Spiked Amount 100.000			Recovery = 19.13%			
44) SURR2Flbiphenyl	6.298	172	104236	21.75	%REC	0.00
Spiked Amount 100.000			Recovery = 21.75%			
62) SURR246Tribrphenl	7.352	330	11555	10.41	%REC	0.00
Spiked Amount 100.000			Recovery = 10.41%			
78) SURRTerphenyl-d14	8.628	244	63044	21.52	%REC	0.00
Spiked Amount 100.000			Recovery = 21.52%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.701	74	24472	3.7532	ug/mL	99
3) Pyridine	1.718	79	36755	3.5980	ug/mL	97
5) Aniline	3.081	93	59292	3.8494	ug/mL	98
6) bis2Clethletr	3.152	93	40112	4.1311	ug/mL	98
8) Phenol	3.079	94	54934	4.0015	ug/mL	96
9) 2-Cl-phenol	3.187	128	42144	3.9676	ug/mL	99
10) 13Diclbenz	3.329	146	46700	4.1178	ug/mL	98
11) 14Diclbenz	3.405	146	48384	4.2421	ug/mL	96
12) 12Diclbenz	3.556	146	45471	4.2619	ug/mL	94
13) Benzyl alcoho	3.553	108	22465	3.5889	ug/mL	98
14) bis2clispreth	3.707	45	71128	4.3719	ug/mL	99
15) 2Methylphenol	3.692	107	31203	3.9610	ug/mL	91
16) Ntrspyrrol	3.809	100	19595	3.7510	ug/mL	96
17) Acetophenone	3.837	105	59082	4.1013	ug/mL	99
18) Hexaclethane	3.923	117	19714	4.2234	ug/mL	96
19) N-Ntrsdinprop	3.854	70	30485	4.2600	ug/mL	99
20) 3&4Methylphenol	3.880	107	39928	3.9516	ug/mL	91
23) Nitrobenzene	4.028	77	37684	3.7472	ug/mL	96
24) Isophorone	4.337	82	77488	4.1471	ug/mL	96
25) 2-Nitrophenol	4.431	139	19258	3.5621	ug/mL	97
26) 24Dimthpheno	4.550	122	34519	4.1303	ug/mL	96
27) bis2clethoxym	4.678	93	46072	4.0527	ug/mL	100
28) 24Diclphenol	4.769	162	29507	3.7818	ug/mL	99
29) 124Triclbenz	4.866	180	36031	4.2890	ug/mL	95
30) Benzoic acid	4.707	122	6019	1.4850	ug/mL	77
31) Naphthalene	4.951	128	124930	4.2896	ug/mL	98
32) 4-Cl-aniline	5.079	127	49191	3.8908	ug/mL	95
33) 26Diclphenol	5.079	162	30334	4.0674	ug/mL	99
34) Hexaclprop	5.090	213	23364	4.0619	ug/mL	96
35) Hexaclbutdien	5.181	225	22389	4.3066	ug/mL	96
36) 4Cl3methylphe	5.832	107	37981	3.6953	ug/mL	97
37) 2Methylnaphth	5.912	142	99390	4.1690	ug/mL	99
38) 1Methylnaphth	6.008	141	83640	4.2901	ug/mL	94
40) Hxclcycpentdi	6.088	237	16866	3.3634	ug/mL	100

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICAL2.D Vial: 7
Acq On : 20 Aug 2019 11:45 Operator: RPN
Sample : ICAL 5ug/mL SVMS8425 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:13:44 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 20 13:13:31 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

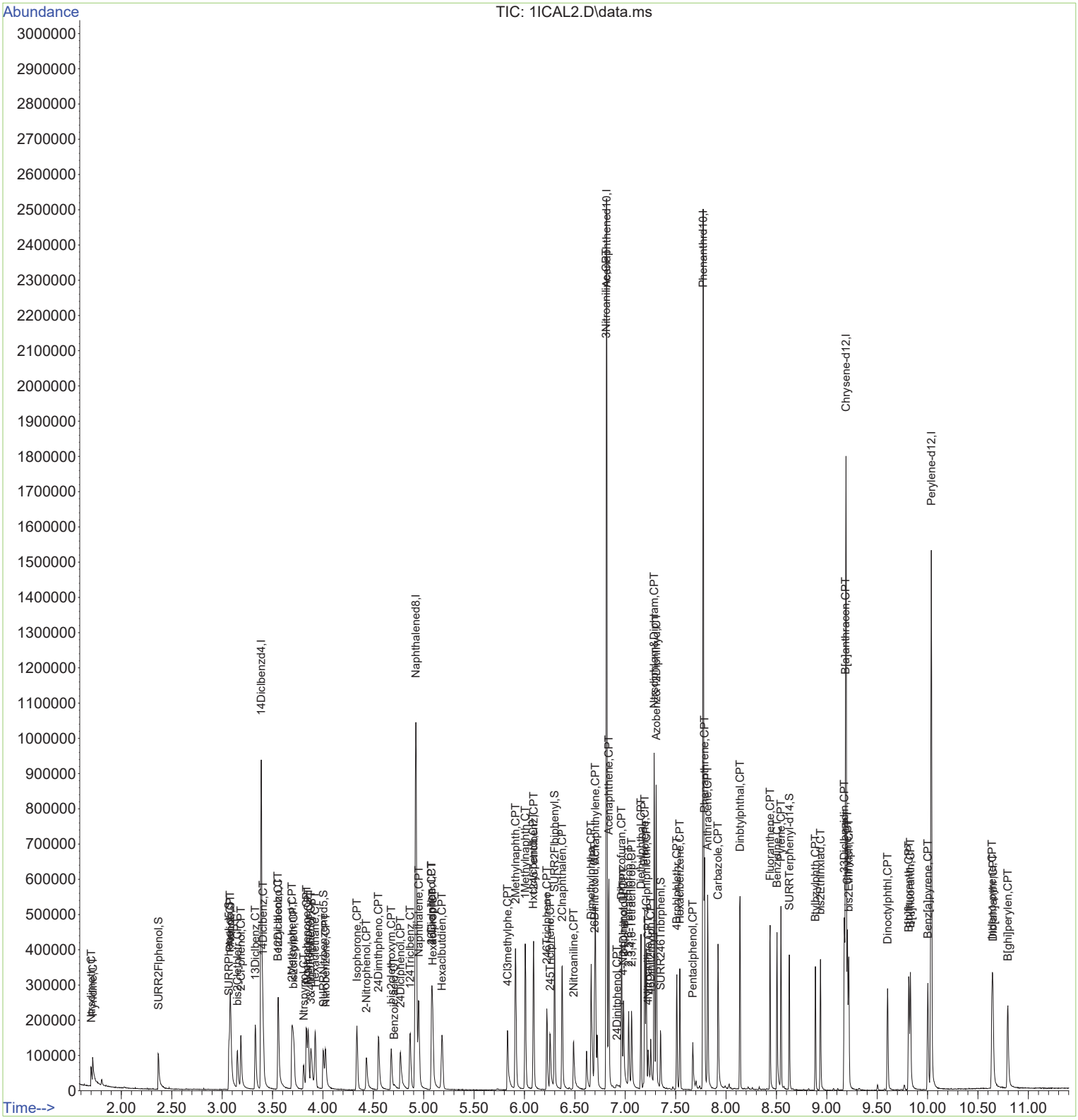
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) 1245Tetrclbenz	6.091	216	41644	4.3814 ug/mL	98
42) 246Triclpheno	6.221	196	24038	3.7134 ug/mL	97
43) 245Triclpheno	6.255	196	28706	3.9643 ug/mL	95
45) 2Clnaphthalen	6.375	162	92924	4.2931 ug/mL	98
46) 2Nitroaniline	6.488	65	25982	3.6761 ug/mL	97
47) Acnaphthylene	6.704	152	144806	4.3779 ug/mL	98
48) Dimethylphtha	6.662	163	99423	4.1677 ug/mL	99
49) 26Dinitrotolu	6.696	165	23056	4.2291 ug/mL	82
50) Acenaphthene	6.838	154	83104	4.3357 ug/mL	99
51) 3Nitroaniline	6.812	138	24290	3.8218 ug/mL	87
52) 24Dinitphenol	6.917	184	3026	1.0943 ug/mL	87
53) Dibenzofuran	6.963	168	125683	4.3336 ug/mL	98
54) 24Dinitrotolu	6.983	165	29400	3.9538 ug/mL	98
55) 4-Nitrophenol	6.980	65	13247	2.8947 ug/mL#	35
56) 2,3,5,6-Tetrachlorop	7.034	232	18448	3.7083 ug/mL	99
57) 2,3,4,6-Tetrachlorop	7.062	232	21734	4.0579 ug/mL	98
58) Fluorene	7.193	166	99439	4.3373 ug/mL	98
59) 4Clphlphlethr	7.210	204	44899	4.4550 ug/mL	98
60) Diethylphthal	7.156	149	102967	4.2452 ug/mL	100
61) 4Nitroaniline	7.227	138	23775	3.5007 ug/mL	97
64) 46Dinit2mylph	7.253	198	12851	3.2161 ug/mL	88
65) Ntrsdiphlam&Diphlam	7.287	169	147386	9.3549 ug/mL	99
66) Azobenz&12Diphlhyd	7.307	182	48263	9.4685 ug/mL	98
67) 4Brphlphlethr	7.511	248	24830	4.4925 ug/mL	98
68) Hexaclbenzene	7.543	284	27668	4.6257 ug/mL	98
69) Pentaclphenol	7.670	266	12052	3.3378 ug/mL	93
70) Phenanthrene	7.787	178	135649	4.4283 ug/mL	99
71) Anthracene	7.818	178	143395	4.5504 ug/mL	98
72) Carbazole	7.920	167	132218	4.3029 ug/mL	99
73) Dinbtylphthal	8.139	149	177929	4.6325 ug/mL	99
74) Fluoranthene	8.438	202	99682	4.5118 ug/mL	98
76) Benzidine	8.506	184	103045	3.8501 ug/mL	97
77) Pyrene	8.546	202	104946	4.3832 ug/mL	99
79) Btylbzylphth	8.886	149	51427	3.9582 ug/mL	99
80) bis2Ethlhxlad	8.938	129	40911	3.9165 ug/mL	99
81) 33Diclbnzidin	9.174	252	65065	4.1726 ug/mL	98
82) B[a]anthracen	9.185	228	87857	4.4857 ug/mL	99
83) Chrysene	9.205	228	89271	4.4351 ug/mL	99
84) bis2Ethlhxlph	9.219	149	71887	4.1583 ug/mL	98
85) Dinoctylphthl	9.603	149	112393	3.5986 ug/mL	99
87) B[b]fluoranth	9.813	252	83164	3.9237 ug/mL	99
88) B[k]fluoranth	9.830	252	90338	4.4492 ug/mL	99
89) Benz[a]pyrene	10.003	252	89524	4.2598 ug/mL	98
90) Indeno-pyrene	10.640	276	90933	4.0984 ug/mL	99
91) Dib[ah]anthr	10.648	278	74836	4.1818 ug/mL	96
92) B[ghi]perylen	10.796	276	77607	3.9966 ug/mL	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICAL2.D Vial: 7
Acq On : 20 Aug 2019 11:45 Operator: RPN
Sample : ICAL 5ug/mL SVMS8425 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:13:44 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 20 13:13:31 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICAL1.D Vial: 8
Acq On : 20 Aug 2019 12:04 Operator: RPN
Sample : ICAL 1ug/mL SVMS8424 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:14:52 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 20 13:14:42 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.388	152	128971	20.00	ug/mL	0.00
21) Naphthalened8	4.923	136	499980	20.00	ug/mL	0.00
39) Acenaphthened10	6.815	164	320492	20.00	ug/mL	0.00
63) Phenanthrd10	7.775	188	530897	20.00	ug/mL	0.00
75) Chrysene-d12	9.190	240	283951	20.00	ug/mL	0.00
86) Perylene-d12	10.034	264	330648	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.380	112	5989	1.87	%REC	0.02
Spiked Amount 100.000			Recovery = 1.87%			
7) SURRPhenol-d5	3.079	99	7264	1.92	%REC	0.00
Spiked Amount 100.000			Recovery = 1.92%			
22) SURRNitrbenzened5	4.011	82	6289	3.71	%REC	0.00
Spiked Amount 100.000			Recovery = 3.71%			
44) SURR2Flbiphenyl	6.301	172	22412	5.29	%REC	0.00
Spiked Amount 100.000			Recovery = 5.29%			
62) SURR246Tribrphenl	7.355	330	2285	2.35	%REC	0.00
Spiked Amount 100.000			Recovery = 2.35%			
78) SURRTerphenyl-d14	8.628	244	13877	5.40	%REC	0.00
Spiked Amount 100.000			Recovery = 5.40%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.712	74	3033	0.5629	ug/mL	88
3) Pyridine	1.791	79	5098	0.6071	ug/mL	83
5) Aniline	3.090	93	10651	0.8339	ug/mL	98
6) bis2Clethletr	3.158	93	7674	0.9439	ug/mL	97
8) Phenol	3.087	94	9760	0.8529	ug/mL	97
9) 2-Cl-phenol	3.192	128	8093	0.9151	ug/mL	92
10) 13Diclbenz	3.334	146	9758	1.0281	ug/mL	94
11) 14Diclbenz	3.405	146	10668	1.1128	ug/mL	94
12) 12Diclbenz	3.559	146	10136	1.1296	ug/mL	88
13) Benzyl alcoho	3.579	108	2861	0.5562	ug/mL	88
14) bis2clispreth	3.709	45	14958	1.0890	ug/mL	96
15) 2Methylphenol	3.698	107	5778	0.8811	ug/mL	89
16) Ntrspyrrol	3.820	100	3379	0.7827	ug/mL	92
17) Acetophenone	3.843	105	10798	0.8961	ug/mL	98
18) Hexaclethane	3.925	117	4059	1.0353	ug/mL	92
19) N-Ntrsdinprop	3.854	70	5976	0.9930	ug/mL	93
20) 3&4Methylphenol	3.897	107	6590	0.7838	ug/mL	89
23) Nitrobenzene	4.036	77	6830	0.8004	ug/mL	89
24) Isophorone	4.340	82	15946	0.9919	ug/mL	98
25) 2-Nitrophenol	4.445	139	3108	0.6819	ug/mL	83
26) 24Dimthpheno	4.562	122	6007	0.8359	ug/mL	97
27) bis2clethoxym	4.681	93	8515	0.8734	ug/mL	89
28) 24Diclphenol	4.783	162	4732	0.7139	ug/mL	94
29) 124Triclbenz	4.869	180	7511	1.0342	ug/mL	97
30) Benzoic acid	0.000		0	N.D.		
31) Naphthalene	4.951	128	27872	1.1069	ug/mL	99
32) 4-Cl-aniline	5.093	127	9059	0.8402	ug/mL	90
33) 26Diclphenol	5.087	162	5184	0.8102	ug/mL	87
34) Hexaclprop	5.087	213	5031	1.0196	ug/mL	93
35) Hexaclbutdien	5.181	225	4799	1.0671	ug/mL	87
36) 4Cl3methylphe	5.840	107	6287	0.7222	ug/mL	93
37) 2Methylnaphth	5.914	142	21905	1.0672	ug/mL	93
38) 1Methylnaphth	6.011	141	17646	1.0469	ug/mL	96
40) Hxclcycpentdi	6.090	237	2271	0.5305	ug/mL	96

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICAL1.D Vial: 8
Acq On : 20 Aug 2019 12:04 Operator: RPN
Sample : ICAL 1ug/mL SVMS8424 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:14:52 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 20 13:14:42 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

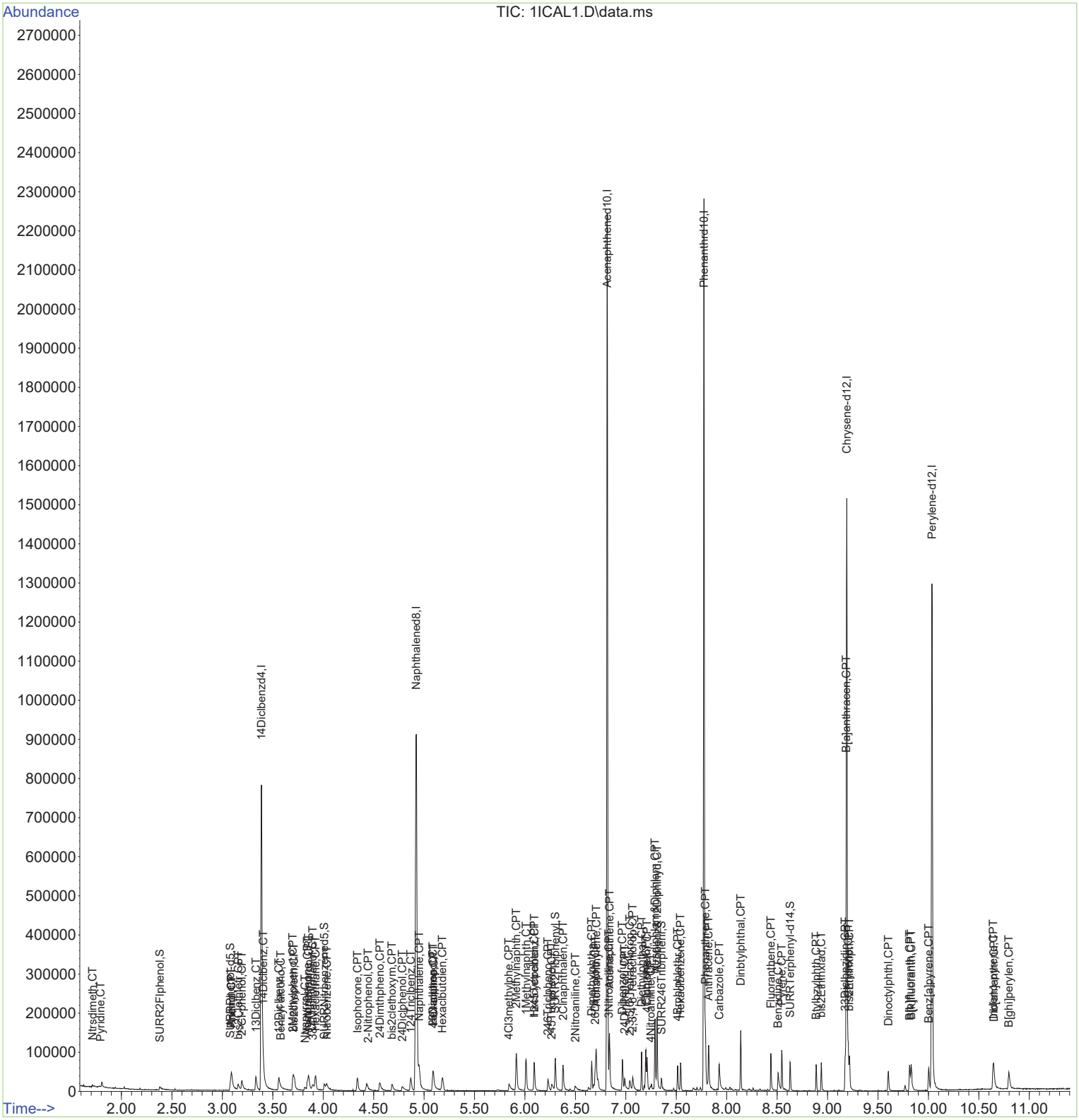
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) 1245Tetrclbenz	6.093	216	8628	1.0265 ug/mL	91
42) 246Triclpheno	6.227	196	4301	0.7688 ug/mL	89
43) 245Triclpheno	6.264	196	4125	0.6535 ug/mL	86
45) 2Clnaphthalen	6.377	162	19753	1.0351 ug/mL	91
46) 2Nitroaniline	6.500	65	3884	0.6367 ug/mL	86
47) Acnaphthylene	6.707	152	31991	1.0939 ug/mL	98
48) Dimethylphtha	6.662	163	21822	1.0420 ug/mL	96
49) 26Dinitrotolu	6.696	165	4525	0.9435 ug/mL	86
50) Acenaphthene	6.838	154	19574	1.1566 ug/mL	97
51) 3Nitroaniline	6.832	138	3838	0.6961 ug/mL	87
52) 24Dinitphenol	0.000		0	N.D.	
53) Dibenzofuran	6.966	168	28362	1.1077 ug/mL	100
54) 24Dinitrotolu	6.988	165	5193	0.8014 ug/mL	94
55) 4-Nitrophenol	0.000		0	N.D.	
56) 2,3,5,6-Tetrachlorop	7.040	232	2918	0.6789 ug/mL	96
57) 2,3,4,6-Tetrachlorop	7.068	232	4655	0.9938 ug/mL	93
58) Fluorene	7.199	166	22218	1.0976 ug/mL	98
59) 4Clphlphlethr	7.210	204	9995	1.1187 ug/mL	92
60) Diethylphthal	7.156	149	22130	1.0366 ug/mL	99
61) 4Nitroaniline	7.247	138	3653	0.6271 ug/mL	86
64) 46Dinit2mylph	0.000		0	N.D.	
65) Ntrsdiphlam&Diphlam	7.290	169	32649	2.2985 ug/mL	98
66) Azobenz&12Diphlhyd	7.309	182	10450	2.2696 ug/mL	99
67) 4Brphlphlethr	7.514	248	5414	1.0933 ug/mL	82
68) Hexaclbenzene	7.542	284	5734	1.0651 ug/mL	98
69) Pentaclphenol	0.000		0	N.D.	
70) Phenanthrene	7.790	178	31692	1.1572 ug/mL	99
71) Anthracene	7.821	178	32133	1.1359 ug/mL	98
72) Carbazole	7.926	167	30568	1.1175 ug/mL	99
73) Dinbtylphthal	8.139	149	45162	1.3062 ug/mL	99
74) Fluoranthene	8.437	202	22028	1.1121 ug/mL	97
76) Benzidine	8.509	184	19095	0.8262 ug/mL	95
77) Pyrene	8.545	202	23010	1.0927 ug/mL	95
79) Btylbzylphth	8.886	149	10210	0.9066 ug/mL	89
80) bis2Ethlhxlad	8.938	129	7548	0.8348 ug/mL	92
81) 33Diclbnzidin	9.173	252	12155	0.8927 ug/mL	95
82) B[a]anthracen	9.185	228	18816	1.0885 ug/mL	97
83) Chrysene	9.205	228	20400	1.1503 ug/mL	98
84) bis2Ethlhxlph	9.216	149	14506	0.9614 ug/mL	93
85) Dinoctylphthl	9.602	149	18834	0.7044 ug/mL	96
87) B[b]fluoranth	9.813	252	15998	0.8727 ug/mL	95
88) B[k]fluoranth	9.830	252	19068	1.0664 ug/mL	96
89) Benz[a]pyrene	10.003	252	19670	1.0697 ug/mL	97
90) Indeno-pyrene	10.642	276	18664	0.9668 ug/mL	93
91) Dib[ah]anthr	10.648	278	15408	0.9867 ug/mL	94
92) B[ghi]perylen	10.796	276	16808	0.9983 ug/mL	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICAL1.D Vial: 8
Acq On : 20 Aug 2019 12:04 Operator: RPN
Sample : ICAL 1ug/mL SVMS8424 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:14:52 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 20 13:14:42 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Evaluate Continuing Calibration Report

Data File : C:\INSTARCH\DATA\1S082019\1ICV1.D Vial: 9
Acq On : 20 Aug 2019 12:23 Operator: RPN
Sample : ICV 20ug/mL SVMS8431 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:24:20 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 20 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	14Diclbenzd4	20.000	20.000	0.0	109	0.00
2	CT	Ntrsdimeth	20.000	19.743	1.3	101	0.00
3	CT	Pyridine	20.000	20.274	-1.4	104	0.00
4	S	SURR2Flphenol	50.000	51.168	-2.3	106	0.00
5	CT	Aniline	20.000	20.403	-2.0	105	0.00
6	CPT	bis2Clethletr	20.000	20.792	-4.0	104	0.00
7	S	SURRPhenol-d5	50.000	50.896	-1.8	106	0.00
8	CPT	Phenol	20.000	20.066	-0.3	105	0.00
9	CPT	2-Cl-phenol	20.000	20.215	-1.1	105	0.00
10	CT	13Diclbenz	20.000	20.832	-4.2	106	0.00
11	CT	14Diclbenz	20.000	20.049	-0.2	103	0.00
12	CT	12Diclbenz	20.000	20.188	-0.9	104	0.00
13	CT	Benzyl alcoho	20.000	20.536	-2.7	105	0.00
14	CPT	bis2clispreth	20.000	20.586	-2.9	106	0.00
15	CPT	2Methylphenol	20.000	20.384	-1.9	106	0.00
16	CT	Ntrspyrrol	20.000	20.004	-0.0	103	0.00
17	CPT	Acetophenone	20.000	20.072	-0.4	103	0.00
18	CPT	Hexaclethane	20.000	20.543	-2.7	104	0.00
19	CPT	N-Ntrsdinprop	20.000	20.501	-2.5	105	0.00
20	CPT	3&4Methylphenol	20.000	20.311	-1.6	106	0.00
21	I	Naphthalened8	20.000	20.000	0.0	112	0.00
22	S	SURRNitrbenzened5	100.000	100.409	-0.4	105	0.00
23	CPT	Nitrobenzene	20.000	20.208	-1.0	105	0.00
24	CPT	Isophorone	20.000	19.903	0.5	107	0.00
25	CPT	2-Nitrophenol	20.000	20.127	-0.6	104	0.00
26	CPT	24Dimthpheno	20.000	20.482	-2.4	108	0.00
27	CPT	bis2clethoxym	20.000	20.325	-1.6	107	0.00
28	CPT	24Diclphenol	20.000	20.326	-1.6	107	0.00
29	CT	124Triclbenz	20.000	20.489	-2.4	106	0.00
30	CT	Benzoic acid	20.000	20.234	-1.2	107	0.00
31	CPT	Naphthalene	20.000	20.288	-1.4	107	0.00
32	CPT	4-Cl-aniline	20.000	20.365	-1.8	107	0.00
33	CT	26Diclphenol	20.000	20.149	-0.7	107	0.00
34	CT	Hexaclprop	20.000	20.799	-4.0	107	0.00
35	CPT	Hexaclbutdien	20.000	20.374	-1.9	105	0.00
36	CPT	4Cl3methylphe	20.000	19.930	0.4	105	0.00
37	CPT	2Methylnaphth	20.000	20.670	-3.4	106	0.00
38	CT	1Methylnaphth	20.000	20.838	-4.2	107	0.00
39	I	Acenaphthened10	20.000	20.000	0.0	110	0.00
40	CPT	Hxclcycpentdi	20.000	20.768	-3.8	107	0.00
41	CPT	1245Tetrclbenz	20.000	21.296	-6.5	106	0.00
42	CPT	246Triclpheno	20.000	20.155	-0.8	105	0.00
43	CPT	245Triclpheno	20.000	20.373	-1.9	107	0.00
44	S	SURR2Flbiphenyl	100.000	104.278	-4.3	107	0.00
45	CPT	2Clnaphthalen	20.000	20.778	-3.9	106	0.00
46	CPT	2Nitroaniline	20.000	20.080	-0.4	104	0.00
47	CPT	Acnaphthylene	20.000	20.884	-4.4	107	0.00
48	CPT	Dimethylphtha	20.000	20.940	-4.7	108	0.00
49	CPT	26Dinitrotolu	20.000	21.376	-6.9	107	0.00
50	CPT	Acenaphthene	20.000	20.319	-1.6	106	0.00
51	CPT	3Nitroaniline	20.000	20.649	-3.2	109	0.00

Evaluate Continuing Calibration Report

Data File : C:\INSTARCH\DATA\1S082019\1ICV1.D Vial: 9
Acq On : 20 Aug 2019 12:23 Operator: RPN
Sample : ICV 20ug/mL SVMS8431 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:24:20 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 20 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
52	CPT	24Dinitphenol	20.000	19.575	2.1	104	0.00
53	CPT	Dibenzofuran	20.000	20.816	-4.1	105	0.00
54	CPT	24Dinitrotolu	20.000	20.078	-0.4	105	0.00
55	CPT	4-Nitrophenol	20.000	19.488	2.6	102	0.00
56	CT	2,3,5,6-Tetrachlorop	20.000	20.403	-2.0	106	0.00
57	CPT	2,3,4,6-Tetrachlorop	20.000	20.190	-1.0	105	0.00
58	CPT	Fluorene	20.000	20.616	-3.1	107	0.00
59	CPT	4Clphlphlethr	20.000	20.564	-2.8	106	0.00
60	CPT	Diethylphthal	20.000	20.880	-4.4	108	0.00
61	CPT	4Nitroaniline	20.000	20.336	-1.7	105	0.00
62	S	SURR246Tribrphenl	50.000	50.974	-1.9	106	0.00
63	I	Phenanthrd10	20.000	20.000	0.0	109	0.00
64	CPT	46Dinit2mylph	20.000	20.051	-0.3	106	0.00
65	CPT	Ntrsdiphlam&Diphlam	40.000	40.900	-2.2	105	0.00
66	CT	Azobenz&12Diphlhyd	40.000	42.008	-5.0	107	0.00
67	CPT	4Brphlphlethr	20.000	21.129	-5.6	109	0.00
68	CPT	Hexaclbenzene	20.000	20.698	-3.5	106	0.00
69	CPT	Pentaclphenol	20.000	19.781	1.1	105	0.00
70	CPT	Phenanthrene	20.000	20.282	-1.4	105	0.00
71	CPT	Anthracene	20.000	20.559	-2.8	105	0.00
72	CPT	Carbazole	20.000	20.749	-3.7	106	0.00
73	CPT	Dinbtylphthal	20.000	20.327	-1.6	104	0.00
74	CPT	Fluoranthene	20.000	20.620	-3.1	106	0.00
75	I	Chrysene-d12	20.000	20.000	0.0	107	0.00
76	CT	Benzidine	20.000	20.963	-4.8	106	0.00
77	CPT	Pyrene	20.000	20.703	-3.5	104	0.00
78	S	SURRTerphenyl-d14	100.000	102.707	-2.7	104	0.00
79	CPT	Btylbzylphth	20.000	20.282	-1.4	103	0.00
80	CT	bis2Ethlhxlad	20.000	20.819	-4.1	106	0.00
81	CPT	33Diclbnzidin	20.000	21.284	-6.4	103	0.00
82	CPT	B[a]anthracen	20.000	20.892	-4.5	103	0.00
83	CPT	Chrysene	20.000	20.537	-2.7	104	0.00
84	CPT	bis2Ethlhxlph	20.000	21.399	-7.0	105	0.00
85	CPT	Dinoctylphthl	20.000	20.519	-2.6	103	0.00
86	I	Perylene-d12	20.000	20.000	0.0	109	0.00
87	CPT	B[b]fluoranth	20.000	21.315	-6.6	111	0.00
88	CPT	B[k]fluoranth	20.000	19.832	0.8	99	0.00
89	CPT	Benz[a]pyrene	20.000	20.524	-2.6	105	0.00
90	CPT	Indeno-pyrene	20.000	20.843	-4.2	104	0.00
91	CPT	Dib[ah]anthr	20.000	20.816	-4.1	103	0.00
92	CPT	B[ghi]perylen	20.000	20.582	-2.9	104	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : C:\INSTARCH\DATA\1S082019\1ICV1.D Vial: 9
Acq On : 20 Aug 2019 12:23 Operator: RPN
Sample : ICV 20ug/mL SVMS8431 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:24:20 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 20 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	14Diclbenzd4	1.000	1.000	0.0	109	0.00
2	CT	Ntrsdimeth	0.783	0.838	-7.0	101	0.00
3	CT	Pyridine	1.229	1.351	-9.9	104	0.00
4	S	SURR2Flphenol	0.478	0.518	-8.4	106	0.00
5	CT	Aniline	1.934	2.085	-7.8	105	0.00
6	CPT	bis2Clethletr	1.251	1.300	-3.9	104	0.00
7	S	SURRPhenol-d5	0.566	0.613	-8.3	106	0.00
8	CPT	Phenol	1.737	1.832	-5.5	105	0.00
9	CPT	2-Cl-phenol	1.355	1.418	-4.6	105	0.00
10	CT	13Diclbenz	1.478	1.539	-4.1	106	0.00
11	CT	14Diclbenz	1.511	1.514	-0.2	103	0.00
12	CT	12Diclbenz	1.417	1.431	-1.0	104	0.00
13	CT	Benzyl alcoho	0.747	0.844	-13.0	105	0.00
14	CPT	bis2clispreth	2.157	2.220	-2.9	106	0.00
15	CPT	2Methylphenol	1.000	1.069	-6.9	106	0.00
16	CT	Ntrspyrrol	0.649	0.687	-5.9	103	0.00
17	CPT	Acetophenone	1.841	1.920	-4.3	103	0.00
18	CPT	Hexaclethane	0.611	0.628	-2.8	104	0.00
19	CPT	N-Ntrsdinprop	0.932	0.956	-2.6	105	0.00
20	CPT	3&4Methylphenol	1.264	1.356	-7.3	106	0.00
21	I	Naphthalened8	1.000	1.000	0.0	112	0.00
22	S	SURRNitrbenzened5	0.065	0.070	-7.7	105	0.00
23	CPT	Nitrobenzene	0.332	0.354	-6.6	105	0.00
24	CPT	Isophorone	0.642	0.670	-4.4	107	0.00
25	CPT	2-Nitrophenol	0.174	0.189	-8.6	104	0.00
26	CPT	24Dimthpheno	0.281	0.302	-7.5	108	0.00
27	CPT	bis2clethoxym	0.383	0.407	-6.3	107	0.00
28	CPT	24Diclphenol	0.254	0.276	-8.7	107	0.00
29	CT	124Triclbenz	0.292	0.299	-2.4	106	0.00
30	CT	Benzoic acid	0.127	0.140	-10.2	107	0.00
31	CPT	Naphthalene	1.023	1.037	-1.4	107	0.00
32	CPT	4-Cl-aniline	0.421	0.453	-7.6	107	0.00
33	CT	26Diclphenol	0.249	0.265	-6.4	107	0.00
34	CT	Hexaclprop	0.198	0.206	-4.0	107	0.00
35	CPT	Hexaclbutdien	0.182	0.185	-1.6	105	0.00
36	CPT	4Cl3methylphe	0.334	0.356	-6.6	105	0.00
37	CPT	2Methylnaphth	0.829	0.857	-3.4	106	0.00
38	CT	1Methylnaphth	0.679	0.707	-4.1	107	0.00
39	I	Acenaphthened10	1.000	1.000	0.0	110	0.00
40	CPT	Hxclcycpentdi	0.249	0.289	-16.1	107	0.00
41	CPT	1245Tetrclbenz	0.526	0.561	-6.7	106	0.00
42	CPT	246Triclpheno	0.338	0.362	-7.1	105	0.00
43	CPT	245Triclpheno	0.374	0.413	-10.4	107	0.00
44	S	SURR2Flbiphenyl	0.266	0.278	-4.5	107	0.00
45	CPT	2Clnaphthalen	1.197	1.243	-3.8	106	0.00
46	CPT	2Nitroaniline	0.361	0.394	-9.1	104	0.00
47	CPT	Acnaphthylene	1.850	1.931	-4.4	107	0.00
48	CPT	Dimethylphtha	1.315	1.377	-4.7	108	0.00
49	CPT	26Dinitrotolu	0.297	0.317	-6.7	107	0.00
50	CPT	Acenaphthene	1.080	1.097	-1.6	106	0.00
51	CPT	3Nitroaniline	0.329	0.361	-9.7	109	0.00

Evaluate Continuing Calibration Report

Data File : C:\INSTARCH\DATA\1S082019\1ICV1.D Vial: 9
Acq On : 20 Aug 2019 12:23 Operator: RPN
Sample : ICV 20ug/mL SVMS8431 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:24:20 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 20 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
52	CPT	24Dinitphenol	0.136	0.146	-7.4	104	0.00
53	CPT	Dibenzofuran	1.622	1.689	-4.1	105	0.00
54	CPT	24Dinitrotolu	0.393	0.418	-6.4	105	0.00
55	CPT	4-Nitrophenol	0.240	0.253	-5.4	102	0.00
56	CT	2,3,5,6-Tetrachlorop	0.256	0.282	-10.2	106	0.00
57	CPT	2,3,4,6-Tetrachlorop	0.292	0.304	-4.1	105	0.00
58	CPT	Fluorene	1.281	1.320	-3.0	107	0.00
59	CPT	4Clphlphlethr	0.567	0.583	-2.8	106	0.00
60	CPT	Diethylphthal	1.339	1.398	-4.4	108	0.00
61	CPT	4Nitroaniline	0.344	0.380	-10.5	105	0.00
62	S	SURR246Tribrphenl	0.060	0.064	-6.7	106	0.00
63	I	Phenanthrd10	1.000	1.000	0.0	109	0.00
64	CPT	46Dinit2mylph	0.129	0.138	-7.0	106	0.00
65	CPT	Ntrsdiphlam&Diphlam	0.547	0.559	-2.2	105	0.00
66	CT	Azobenz&12Diphlhyd	0.177	0.186	-5.1	107	0.00
67	CPT	4Brphlphlethr	0.189	0.200	-5.8	109	0.00
68	CPT	Hexaclbenzene	0.205	0.212	-3.4	106	0.00
69	CPT	Pentaclphenol	0.117	0.123	-5.1	105	0.00
70	CPT	Phenanthrene	1.055	1.070	-1.4	105	0.00
71	CPT	Anthracene	1.086	1.117	-2.9	105	0.00
72	CPT	Carbazole	1.048	1.087	-3.7	106	0.00
73	CPT	Dinbtylphthal	1.360	1.351	0.7	104	0.00
74	CPT	Fluoranthene	0.758	0.782	-3.2	106	0.00
75	I	Chrysene-d12	1.000	1.000	0.0	107	0.00
76	CT	Benzidine	1.587	1.755	-10.6	106	0.00
77	CPT	Pyrene	1.503	1.556	-3.5	104	0.00
78	S	SURRTerphenyl-d14	0.183	0.188	-2.7	104	0.00
79	CPT	Btylbzylphth	0.783	0.823	-5.1	103	0.00
80	CT	bis2Ethlhxlad	0.622	0.673	-8.2	106	0.00
81	CPT	33Diclbnzidin	0.944	1.005	-6.5	103	0.00
82	CPT	B[a]anthracen	1.233	1.288	-4.5	103	0.00
83	CPT	Chrysene	1.276	1.310	-2.7	104	0.00
84	CPT	bis2Ethlhxlph	1.057	1.131	-7.0	105	0.00
85	CPT	Dinoctylphthl	1.804	1.975	-9.5	103	0.00
86	I	Perylene-d12	1.000	1.000	0.0	109	0.00
87	CPT	B[b]fluoranth	1.089	1.160	-6.5	111	0.00
88	CPT	B[k]fluoranth	1.092	1.083	0.8	99	0.00
89	CPT	Benz[a]pyrene	1.123	1.153	-2.7	105	0.00
90	CPT	Indeno-pyrene	1.162	1.211	-4.2	104	0.00
91	CPT	Dib[ah]anthr	0.943	0.981	-4.0	103	0.00
92	CPT	B[ghi]perylen	1.018	1.048	-2.9	104	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICV1.D Vial: 9
Acq On : 20 Aug 2019 12:23 Operator: RPN
Sample : ICV 20ug/mL SVMS8431 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:24:20 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 20 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.388	152	138167	20.00	ug/mL	0.00
21) Naphthalened8	4.926	136	525957	20.00	ug/mL	0.00
39) Acenaphthened10	6.818	164	324401	20.00	ug/mL	0.00
63) Phenanthrd10	7.778	188	549471	20.00	ug/mL	0.00
75) Chrysene-d12	9.193	240	280033	20.00	ug/mL	0.00
86) Perylene-d12	10.037	264	336282	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.363	112	178777	51.17	%REC	0.00
Spiked Amount 100.000			Recovery = 51.17%			
7) SURRPhenol-d5	3.070	99	211603	50.90	%REC	0.00
Spiked Amount 100.000			Recovery = 50.90%			
22) SURRNitrbenzened5	4.008	82	183461	100.41	%REC	0.00
Spiked Amount 100.000			Recovery = 100.41%			
44) SURR2Flbiphenyl	6.304	172	450645	104.28	%REC	0.00
Spiked Amount 100.000			Recovery = 104.28%			
62) SURR246Tribrphenl	7.358	330	51606	50.97	%REC	0.00
Spiked Amount 100.000			Recovery = 50.97%			
78) SURRTerphenyl-d14	8.631	244	263246	102.71	%REC	0.00
Spiked Amount 100.000			Recovery = 102.71%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.695	74	115848	19.7429	ug/mL	98
3) Pyridine	1.703	79	186680	20.2740	ug/mL	99
5) Aniline	3.084	93	288017	20.4026	ug/mL	99
6) bis2Clethletr	3.153	93	179645	20.7924	ug/mL	99
8) Phenol	3.082	94	253107	20.0663	ug/mL	99
9) 2-Cl-phenol	3.187	128	195968	20.2150	ug/mL	99
10) 13Diclbenz	3.329	146	212677	20.8323	ug/mL	100
11) 14Diclbenz	3.405	146	209225	20.0494	ug/mL	100
12) 12Diclbenz	3.556	146	197661	20.1877	ug/mL	100
13) Benzyl alcoho	3.556	108	116574	20.5357	ug/mL	96
14) bis2clispreth	3.712	45	306758	20.5856	ug/mL	99
15) 2Methylphenol	3.695	107	147765	20.3845	ug/mL	99
16) Ntrspyrrol	3.823	100	94981	20.0038	ug/mL	97
17) Acetophenone	3.843	105	265275	20.0719	ug/mL	100
18) Hexaclethane	3.925	117	86721	20.5428	ug/mL	99
19) N-Ntrsdinprop	3.866	70	132047	20.5012	ug/mL	99
20) 3&4Methylphenol	3.886	107	187388	20.3111	ug/mL	99
23) Nitrobenzene	4.031	77	186382	20.2080	ug/mL	100
24) Isophorone	4.346	82	352138	19.9035	ug/mL	100
25) 2-Nitrophenol	4.431	139	99272	20.1272	ug/mL	100
26) 24Dimthpheno	4.556	122	158692	20.4819	ug/mL	97
27) bis2clethoxym	4.681	93	213886	20.3248	ug/mL	99
28) 24Diclphenol	4.769	162	145127	20.3259	ug/mL	98
29) 124Triclbenz	4.866	180	157302	20.4888	ug/mL	99
30) Benzoic acid	4.769	122	73809	20.2335	ug/mL	97
31) Naphthalene	4.954	128	545595	20.2881	ug/mL	99
32) 4-Cl-aniline	5.085	127	238022	20.3646	ug/mL	99
33) 26Diclphenol	5.082	162	139399	20.1495	ug/mL	99
34) Hexaclprop	5.090	213	108262	20.7989	ug/mL	98
35) Hexaclbutdien	5.187	225	97312	20.3743	ug/mL	97
36) 4Cl3methylphe	5.832	107	187351	19.9297	ug/mL	97
37) 2Methylnaphth	5.914	142	450605	20.6700	ug/mL	98
38) 1Methylnaphth	6.011	141	371958	20.8375	ug/mL	96
40) Hxclcycpentdi	6.091	237	93914	20.7679	ug/mL	100

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICV1.D Vial: 9
Acq On : 20 Aug 2019 12:23 Operator: RPN
Sample : ICV 20ug/mL SVMS8431 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:24:20 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 20 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

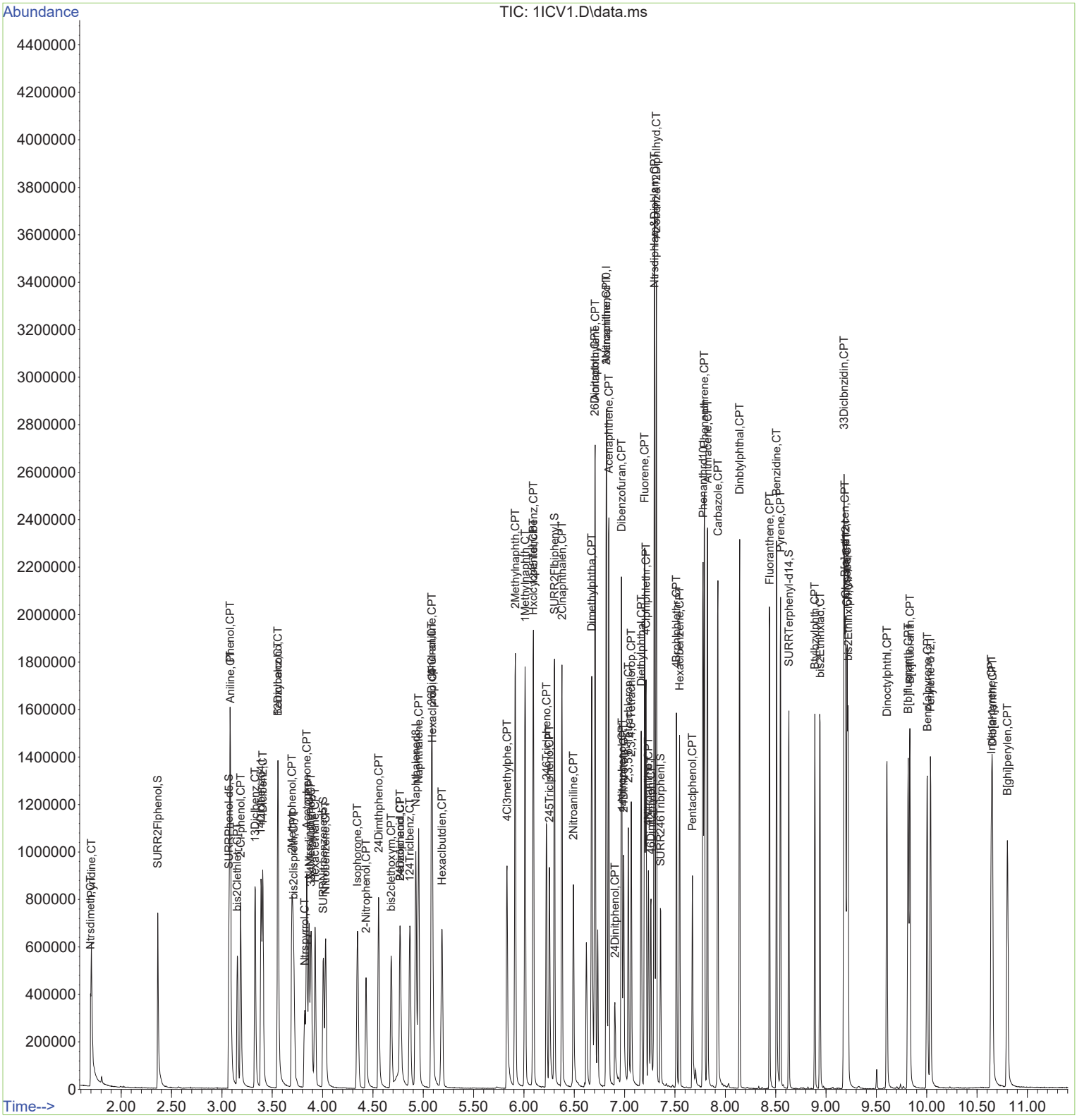
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) 1245Tetrclbenz	6.093	216	181862	21.2960 ug/mL	96
42) 246Triclpheno	6.224	196	117280	20.1546 ug/mL	98
43) 245Triclpheno	6.253	196	133818	20.3732 ug/mL	94
45) 2Clnaphthalen	6.378	162	403351	20.7780 ug/mL	99
46) 2Nitroaniline	6.491	65	127694	20.0795 ug/mL	95
47) Acnaphthylene	6.707	152	626494	20.8837 ug/mL	99
48) Dimethylphtha	6.673	163	446541	20.9404 ug/mL	99
49) 26Dinitrotolu	6.704	165	102932	21.3761 ug/mL	90
50) Acenaphthene	6.844	154	355842	20.3188 ug/mL	99
51) 3Nitroaniline	6.818	138	116947	20.6486 ug/mL	97
52) 24Dinitphenol	6.903	184	47472	19.5753 ug/mL	94
53) Dibenzofuran	6.969	168	547779	20.8159 ug/mL	95
54) 24Dinitrotolu	6.991	165	135445	20.0783 ug/mL	94
55) 4-Nitrophenol	6.974	65	82111	19.4883 ug/mL#	83
56) 2,3,5,6-Tetrachlorop	7.037	232	91464	20.4025 ug/mL	98
57) 2,3,4,6-Tetrachlorop	7.065	232	98641	20.1896 ug/mL	94
58) Fluorene	7.199	166	428300	20.6157 ug/mL	100
59) 4Clphlphlethr	7.213	204	189119	20.5637 ug/mL	99
60) Diethylphthal	7.165	149	453566	20.8802 ug/mL	100
61) 4Nitroaniline	7.236	138	123239	20.3365 ug/mL	96
64) 46Dinit2mylph	7.261	198	75937	20.0508 ug/mL	99
65) Ntrsdiphlam&Diphlam	7.295	169	614111	40.9005 ug/mL	99
66) Azobenz&12Diphlhyd	7.315	182	204043	42.0085 ug/mL	94
67) 4Brphlphlethr	7.514	248	109731	21.1286 ug/mL	96
68) Hexaclbenzene	7.545	284	116396	20.6981 ug/mL	93
69) Pentaclphenol	7.673	266	67470	19.7806 ug/mL	98
70) Phenanthrene	7.793	178	587795	20.2824 ug/mL	99
71) Anthracene	7.824	178	613650	20.5594 ug/mL	100
72) Carbazole	7.926	167	597279	20.7491 ug/mL	100
73) Dinbtylphthal	8.142	149	742587	20.3266 ug/mL	100
74) Fluoranthene	8.441	202	429493	20.6198 ug/mL	97
76) Benzidine	8.509	184	491514	20.9630 ug/mL	99
77) Pyrene	8.548	202	435634	20.7028 ug/mL	99
79) Btylbzylphth	8.889	149	230490	20.2823 ug/mL	100
80) bis2Ethlhxlad	8.941	129	188370	20.8187 ug/mL	99
81) 33Diclbnzidin	9.179	252	281429	21.2840 ug/mL	100
82) B[a]anthracen	9.188	228	360664	20.8920 ug/mL	100
83) Chrysene	9.208	228	366899	20.5370 ug/mL	99
84) bis2Ethlhxlph	9.219	149	316660	21.3989 ug/mL	99
85) Dinoctylphthl	9.605	149	553169	20.5190 ug/mL	99
87) B[b]fluoranth	9.816	252	390169	21.3150 ug/mL	98
88) B[k]fluoranth	9.833	252	364068	19.8322 ug/mL	98
89) Benz[a]pyrene	10.006	252	387654	20.5244 ug/mL	99
90) Indeno-pyrene	10.643	276	407302	20.8430 ug/mL	98
91) Dib[ah]anthr	10.654	278	329966	20.8159 ug/mL	97
92) B[ghi]perylen	10.802	276	352362	20.5824 ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICV1.D Vial: 9
Acq On : 20 Aug 2019 12:23 Operator: RPN
Sample : ICV 20ug/mL SVMS8431 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:24:20 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 20 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Evaluate Continuing Calibration Report

Data File : C:\INSTARCH\DATA\1S082019\1ICV2.D Vial: 10
Acq On : 20 Aug 2019 12:41 Operator: RPN
Sample : ICV 40ug/mL SVMS8432 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:25:33 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 20 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	14Diclbenzd4	20.000	20.000	0.0	98	0.09
2	CT	Ntrsdimeth	40.000	40.668	-1.7	100	0.06
3	CT	Pyridine	40.000	40.904	-2.3	100	0.05
4	S	SURR2Flphenol	100.000	102.197	-2.2	99	0.07
5	CT	Aniline	40.000	40.830	-2.1	99	0.09
6	CPT	bis2Clethletr	40.000	43.237	-8.1	100	0.09
7	S	SURRPhenol-d5	100.000	101.151	-1.2	97	0.09
8	CPT	Phenol	40.000	40.621	-1.6	99	0.09
9	CPT	2-Cl-phenol	40.000	40.750	-1.9	98	0.09
10	CT	13Diclbenz	40.000	42.789	-7.0	100	0.09
11	CT	14Diclbenz	40.000	41.903	-4.8	100	0.09
12	CT	12Diclbenz	40.000	41.311	-3.3	102	0.09
13	CT	Benzyl alcoho	40.000	40.837	-2.1	101	0.09
14	CPT	bis2clispreth	40.000	41.494	-3.7	100	0.10
15	CPT	2Methylphenol	40.000	40.658	-1.6	98	0.09
16	CT	Ntrspyrrol	40.000	39.953	0.1	96	0.11
17	CPT	Acetophenone	40.000	40.298	-0.7	98	0.10
18	CPT	Hexaclethane	40.000	41.646	-4.1	98	0.10
19	CPT	N-Ntrsdinprop	40.000	42.232	-5.6	99	0.10
20	CPT	3&4Methylphenol	40.000	40.160	-0.4	97	0.10
21	I	Naphthalened8	20.000	20.000	0.0	96	0.11
22	S	SURRNitrbenzened5	200.000	205.525	-2.8	99	0.10
23	CPT	Nitrobenzene	40.000	40.648	-1.6	97	0.11
24	CPT	Isophorone	40.000	41.222	-3.1	98	0.11
25	CPT	2-Nitrophenol	40.000	40.611	-1.5	97	0.11
26	CPT	24Dimthpheno	40.000	40.947	-2.4	98	0.11
27	CPT	bis2clethoxym	40.000	40.927	-2.3	98	0.11
28	CPT	24Diclphenol	40.000	40.203	-0.5	97	0.11
29	CT	124Triclbenz	40.000	41.282	-3.2	97	0.11
30	CT	Benzoic acid	40.000	40.083	-0.2	93	0.15
31	CPT	Naphthalene	40.000	41.106	-2.8	98	0.11
32	CPT	4-Cl-aniline	40.000	40.722	-1.8	98	0.11
33	CT	26Diclphenol	40.000	40.507	-1.3	97	0.11
34	CT	Hexaclprop	40.000	41.331	-3.3	96	0.12
35	CPT	Hexaclbutdien	40.000	41.556	-3.9	97	0.12
36	CPT	4Cl3methylphe	40.000	40.593	-1.5	96	0.09
37	CPT	2Methylnaphth	40.000	41.750	-4.4	98	0.09
38	CT	1Methylnaphth	40.000	41.414	-3.5	97	0.09
39	I	Acenaphthened10	20.000	20.000	0.0	98	0.07
40	CPT	Hxclcycpentdi	40.000	40.469	-1.2	96	0.08
41	CPT	1245Tetrclbenz	40.000	40.619	-1.5	96	0.09
42	CPT	246Triclpheno	40.000	40.705	-1.8	98	0.08
43	CPT	245Triclpheno	40.000	40.150	-0.4	96	0.07
44	S	SURR2Flbiphenyl	200.000	203.195	-1.6	97	0.08
45	CPT	2Clnaphthalen	40.000	40.531	-1.3	97	0.08
46	CPT	2Nitroaniline	40.000	40.004	-0.0	96	0.07
47	CPT	Acnaphthylene	40.000	40.324	-0.8	98	0.07
48	CPT	Dimethylphtha	40.000	40.838	-2.1	96	0.08
49	CPT	26Dinitrotolu	40.000	40.627	-1.6	98	0.07
50	CPT	Acenaphthene	40.000	40.202	-0.5	97	0.07
51	CPT	3Nitroaniline	40.000	39.909	0.2	96	0.08

Evaluate Continuing Calibration Report

Data File : C:\INSTARCH\DATA\1S082019\1ICV2.D Vial: 10
Acq On : 20 Aug 2019 12:41 Operator: RPN
Sample : ICV 40ug/mL SVMS8432 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:25:33 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 20 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
52	CPT	24Dinitphenol	40.000	40.039	-0.1	95	0.07
53	CPT	Dibenzofuran	40.000	40.463	-1.2	99	0.07
54	CPT	24Dinitrotolu	40.000	40.425	-1.1	97	0.08
55	CPT	4-Nitrophenol	40.000	39.482	1.3	95	0.07
56	CT	2,3,5,6-Tetrachlorop	40.000	39.952	0.1	97	0.07
57	CPT	2,3,4,6-Tetrachlorop	40.000	40.567	-1.4	97	0.07
58	CPT	Fluorene	40.000	40.348	-0.9	97	0.07
59	CPT	4Clphlphlethr	40.000	40.076	-0.2	97	0.07
60	CPT	Diethylphthal	40.000	41.484	-3.7	97	0.07
61	CPT	4Nitroaniline	40.000	40.558	-1.4	97	0.07
62	S	SURR246Tribrphenl	100.000	101.405	-1.4	99	0.07
63	I	Phenanthrd10	20.000	20.000	0.0	96	0.07
64	CPT	46Dinit2mylph	40.000	40.287	-0.7	98	0.07
65	CPT	Ntrsdiphlam&Diphlam	80.000	77.666	2.9	98	0.07
66	CT	Azobenz&12Diphlhyd	80.000	79.204	1.0	99	0.07
67	CPT	4Brphlphlethr	40.000	40.487	-1.2	97	0.07
68	CPT	Hexaclbenzene	40.000	39.335	1.7	96	0.07
69	CPT	Pentaclphenol	40.000	39.555	1.1	96	0.07
70	CPT	Phenanthrene	40.000	39.802	0.5	97	0.07
71	CPT	Anthracene	40.000	39.713	0.7	98	0.07
72	CPT	Carbazole	40.000	40.625	-1.6	97	0.07
73	CPT	Dinbtylphthal	40.000	40.565	-1.4	98	0.07
74	CPT	Fluoranthene	40.000	39.925	0.2	98	0.06
75	I	Chrysene-d12	20.000	20.000	0.0	99	0.08
76	CT	Benzidine	40.000	40.411	-1.0	99	0.06
77	CPT	Pyrene	40.000	40.650	-1.6	98	0.07
78	S	SURRTerphenyl-d14	200.000	204.853	-2.4	99	0.07
79	CPT	Btylbzylphth	40.000	41.209	-3.0	101	0.07
80	CT	bis2Ethlhxlad	40.000	41.383	-3.5	101	0.07
81	CPT	33Diclbnzidin	40.000	41.496	-3.7	99	0.08
82	CPT	B[a]anthracen	40.000	40.400	-1.0	100	0.08
83	CPT	Chrysene	40.000	39.236	1.9	98	0.08
84	CPT	bis2Ethlhxlph	40.000	41.695	-4.2	98	0.07
85	CPT	Dinoctylphthl	40.000	40.655	-1.6	100	0.08
86	I	Perylene-d12	20.000	20.000	0.0	100	0.09
87	CPT	B[b]fluoranth	40.000	43.640	-9.1	102	0.09
88	CPT	B[k]fluoranth	40.000	38.916	2.7	94	0.09
89	CPT	Benz[a]pyrene	40.000	41.034	-2.6	100	0.10
90	CPT	Indeno-pyrene	40.000	41.691	-4.2	99	0.11
91	CPT	Dib[ah]anthr	40.000	40.763	-1.9	99	0.12
92	CPT	B[ghi]perylen	40.000	41.806	-4.5	99	0.13

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICV2.D Vial: 10
Acq On : 20 Aug 2019 12:41 Operator: RPN
Sample : ICV 40ug/mL SVMS8432 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:25:33 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 20 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.391	152	122425	20.00	ug/mL	0.00
21) Naphthalened8	4.928	136	461456	20.00	ug/mL	0.00
39) Acenaphthened10	6.818	164	287744	20.00	ug/mL	0.00
63) Phenanthrd10	7.778	188	491617	20.00	ug/mL	0.00
75) Chrysene-d12	9.196	240	245252	20.00	ug/mL	0.00
86) Perylene-d12	10.040	264	296645	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.365	112	334019	102.20	%REC	0.00
Spiked Amount 100.000			Recovery = 102.20%			
7) SURRPhenol-d5	3.076	99	383522	101.15	%REC	0.00
Spiked Amount 100.000			Recovery = 101.15%			
22) SURRNitrbenzened5	4.014	82	340166	205.52	%REC	0.00
Spiked Amount 100.000			Recovery = 205.52%			
44) SURR2Flbiphenyl	6.304	172	778895	203.19	%REC	0.00
Spiked Amount 100.000			Recovery = 203.19%			
62) SURR246Tribrphenl	7.361	330	91810	101.40	%REC	0.00
Spiked Amount 100.000			Recovery = 101.40%			
78) SURRTerphenyl-d14	8.631	244	459841	204.85	%REC	0.00
Spiked Amount 100.000			Recovery = 204.85%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.701	74	224598	40.6675	ug/mL	98
3) Pyridine	1.703	79	355379	40.9040	ug/mL	99
5) Aniline	3.087	93	521380	40.8299	ug/mL	99
6) bis2Clethletr	3.158	93	331001	43.2367	ug/mL	98
8) Phenol	3.087	94	458063	40.6207	ug/mL	99
9) 2-Cl-phenol	3.190	128	360185	40.7501	ug/mL	98
10) 13Diclbenz	3.332	146	387066	42.7893	ug/mL	99
11) 14Diclbenz	3.408	146	387461	41.9034	ug/mL	100
12) 12Diclbenz	3.559	146	358403	41.3115	ug/mL	99
13) Benzyl alcoho	3.562	108	215655	40.8371	ug/mL	97
14) bis2clispreth	3.718	45	547877	41.4940	ug/mL	98
15) 2Methylphenol	3.701	107	265303	40.6576	ug/mL	96
16) Ntrspyrrol	3.840	100	174202	39.9535	ug/mL	96
17) Acetophenone	3.852	105	481402	40.2980	ug/mL	99
18) Hexaclethane	3.928	117	155777	41.6459	ug/mL	97
19) N-Ntrsdinprop	3.877	70	241020	42.2317	ug/mL	98
20) 3&4Methylphenol	3.897	107	338072	40.1605	ug/mL	98
23) Nitrobenzene	4.039	77	339921	40.6480	ug/mL	99
24) Isophorone	4.357	82	638916	41.2216	ug/mL	100
25) 2-Nitrophenol	4.437	139	184272	40.6115	ug/mL	98
26) 24Dimthpheno	4.565	122	281397	40.9473	ug/mL	99
27) bis2clethoxym	4.687	93	383833	40.9271	ug/mL	99
28) 24Diclphenol	4.775	162	261352	40.2031	ug/mL	99
29) 124Triclbenz	4.872	180	278072	41.2819	ug/mL	97
30) Benzoic acid	4.835	122	153250	40.0834	ug/mL	95
31) Naphthalene	4.960	128	969870	41.1060	ug/mL	100
32) 4-Cl-aniline	5.093	127	423067	40.7225	ug/mL	98
33) 26Diclphenol	5.088	162	247819	40.5073	ug/mL	98
34) Hexaclprop	5.096	213	188752	41.3310	ug/mL	97
35) Hexaclbutdien	5.190	225	174138	41.5555	ug/mL	95
36) 4Cl3methylphe	5.835	107	348289	40.5928	ug/mL	99
37) 2Methylnaphth	5.917	142	798538	41.7504	ug/mL	99
38) 1Methylnaphth	6.014	141	648601	41.4143	ug/mL	98
40) Hxclcycpentdi	6.093	237	168536	40.4688	ug/mL	99

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICV2.D Vial: 10
Acq On : 20 Aug 2019 12:41 Operator: RPN
Sample : ICV 40ug/mL SVMS8432 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:25:33 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 20 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

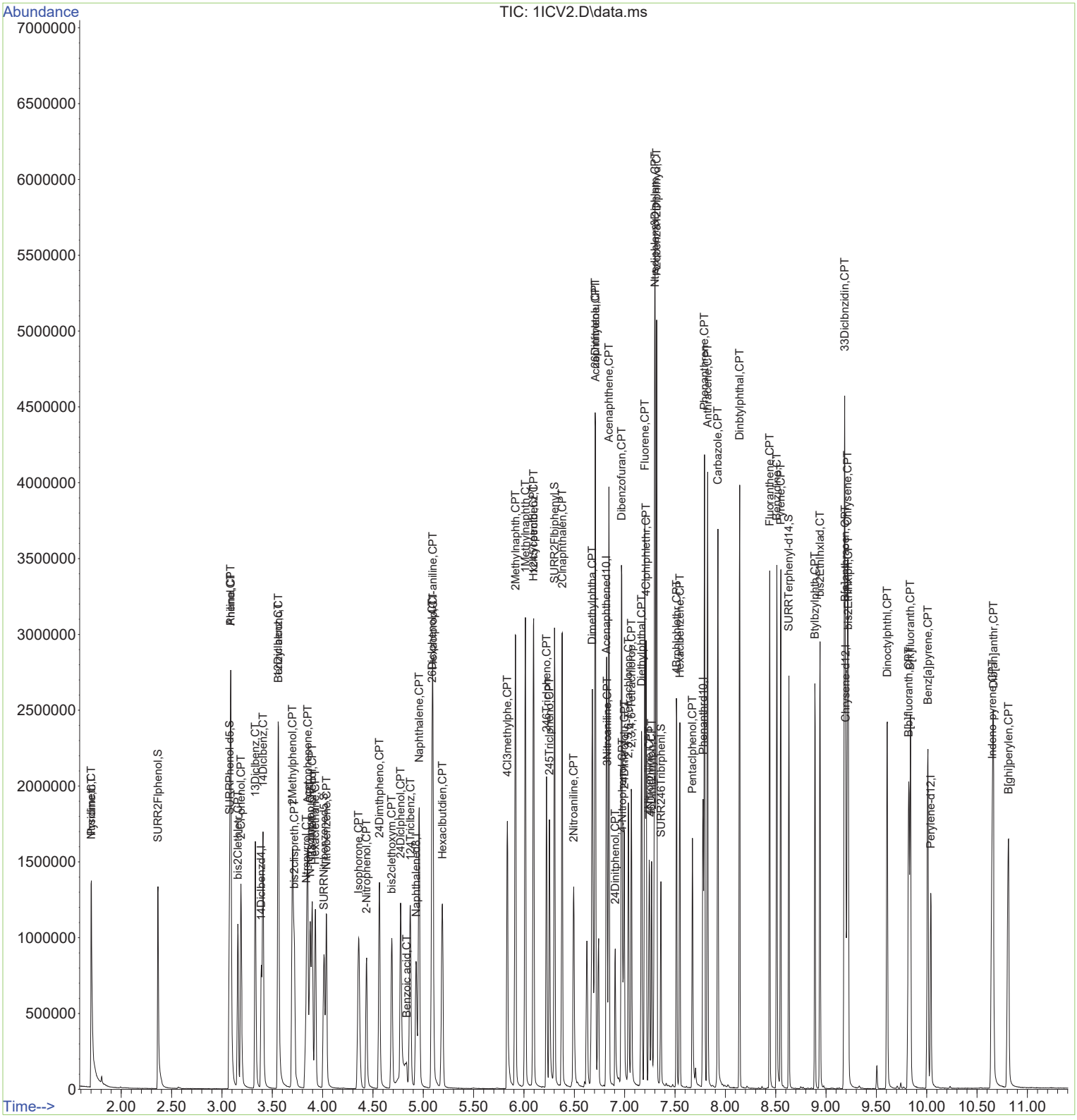
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) 1245Tetrclbenz	6.096	216	307678	40.6189 ug/mL	98
42) 246Triclpheno	6.224	196	217499	40.7055 ug/mL	97
43) 245Triclpheno	6.253	196	239633	40.1498 ug/mL	96
45) 2Clnaphthalen	6.380	162	697893	40.5308 ug/mL	99
46) 2Nitroaniline	6.494	65	234088	40.0045 ug/mL	94
47) Acnaphthylene	6.710	152	1072983	40.3237 ug/mL	99
48) Dimethylphtha	6.679	163	772439	40.8379 ug/mL	99
49) 26Dinitrotolu	6.707	165	173523	40.6267 ug/mL	84
50) Acenaphthene	6.844	154	624492	40.2017 ug/mL	98
51) 3Nitroaniline	6.827	138	210924	39.9091 ug/mL	91
52) 24Dinitphenol	6.906	184	103519	40.0386 ug/mL	95
53) Dibenzofuran	6.969	168	944483	40.4631 ug/mL	100
54) 24Dinitrotolu	6.997	165	245496	40.4252 ug/mL	97
55) 4-Nitrophenol	6.977	65	155499	39.4824 ug/mL#	53
56) 2,3,5,6-Tetrachlorop	7.037	232	163305	39.9516 ug/mL	97
57) 2,3,4,6-Tetrachlorop	7.068	232	176323	40.5667 ug/mL	98
58) Fluorene	7.202	166	743522	40.3478 ug/mL	99
59) 4Clphlphlethr	7.213	204	326918	40.0758 ug/mL	97
60) Diethylphthal	7.168	149	799294	41.4836 ug/mL	99
61) 4Nitroaniline	7.244	138	230668	40.5584 ug/mL	95
64) 46Dinit2mylph	7.267	198	142384	40.2871 ug/mL	99
65) Ntrsdiphlam&Diphlam	7.301	169	1043354	77.6660 ug/mL	99
66) Azobenz&12Diphlhyd	7.318	182	344201	79.2036 ug/mL	96
67) 4Brphlphlethr	7.517	248	188131	40.4873 ug/mL	99
68) Hexaclbenzene	7.548	284	197910	39.3350 ug/mL	92
69) Pentaclphenol	7.673	266	126268	39.5551 ug/mL	99
70) Phenanthrene	7.793	178	1032027	39.8018 ug/mL	100
71) Anthracene	7.824	178	1060522	39.7126 ug/mL	100
72) Carbazole	7.926	167	1046285	40.6247 ug/mL	99
73) Dinbtylphthal	8.142	149	1292338	40.5647 ug/mL	100
74) Fluoranthene	8.440	202	744047	39.9252 ug/mL	99
76) Benzidine	8.512	184	845904	40.4110 ug/mL	99
77) Pyrene	8.551	202	749122	40.6496 ug/mL	99
79) Btylbzylphth	8.889	149	421526	41.2090 ug/mL	99
80) bis2Ethlhxlad	8.941	129	343435	41.3831 ug/mL	99
81) 33Diclbnzidin	9.185	252	480531	41.4956 ug/mL	100
82) B[a]anthracen	9.191	228	610808	40.3998 ug/mL	99
83) Chrysene	9.213	228	613903	39.2362 ug/mL	99
84) bis2Ethlhxlph	9.222	149	540362	41.6945 ug/mL	100
85) Dinoctylphthl	9.608	149	1015590	40.6545 ug/mL	99
87) B[b]fluoranth	9.821	252	704664	43.6397 ug/mL	99
88) B[k]fluoranth	9.838	252	630191	38.9158 ug/mL	99
89) Benz[a]pyrene	10.012	252	683674	41.0339 ug/mL	100
90) Indeno-pyrene	10.651	276	718678	41.6913 ug/mL	94
91) Dib[ah]anthr	10.663	278	569999	40.7630 ug/mL	99
92) B[ghi]perylen	10.813	276	631337	41.8056 ug/mL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICV2.D Vial: 10
Acq On : 20 Aug 2019 12:41 Operator: RPN
Sample : ICV 40ug/mL SVMS8432 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:25:33 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 20 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Injection Log Summary Report

Method : C:\INSTARCH\METHOD\1S082019.M (RTE Integrator)
Title : Method for 8270 Analysis
Start (Tune) File ID : C:\INSTARCH\DATA\1S082019\1DFTP449.D
Injection Date : 20 Aug 2019 Log Time Period (hrs) : ALL
Injection Time : 09:39 Total files within period : 29
Sample Directory : C:\INSTARCH\DATA\1S082019\

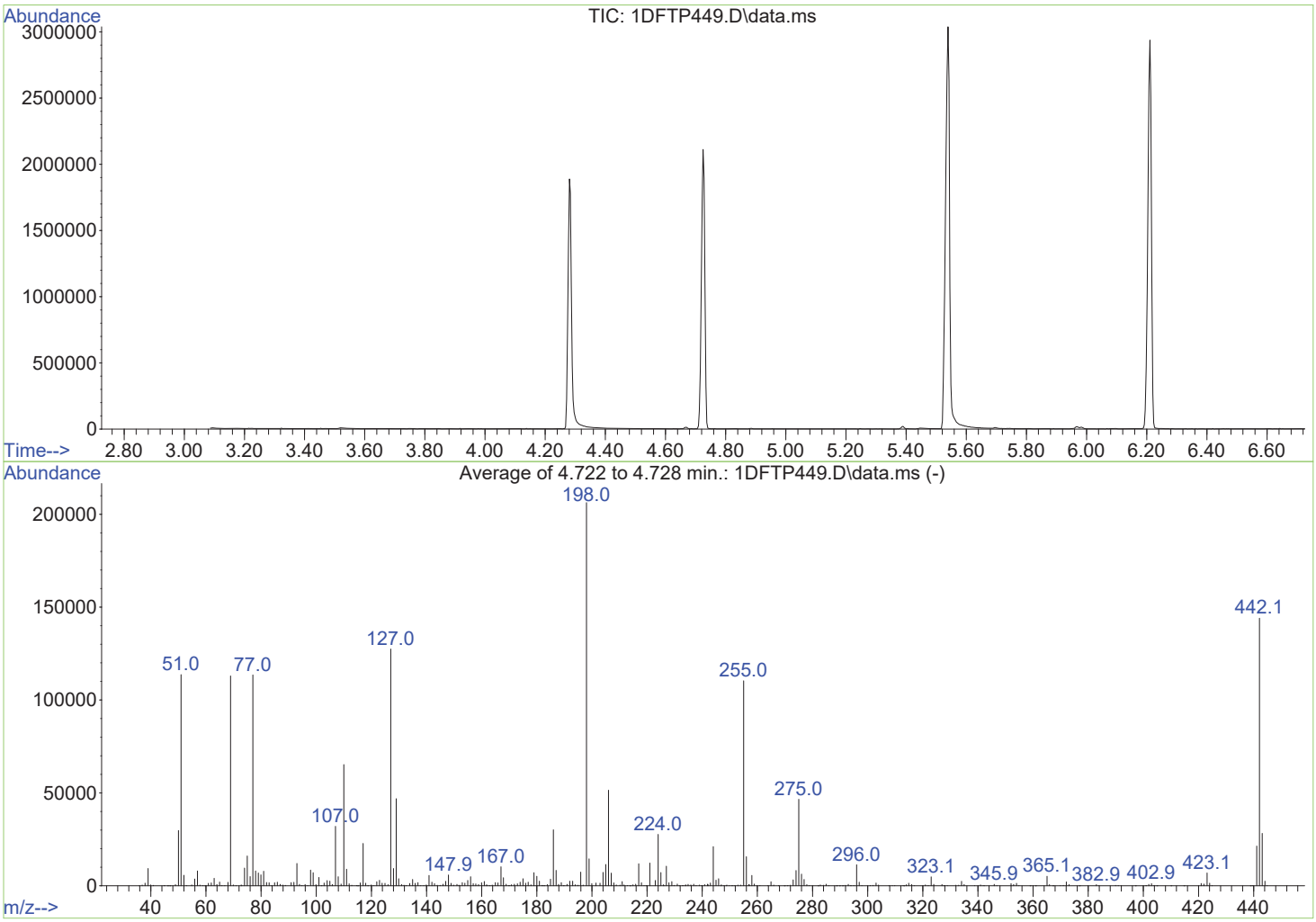
Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name / Misc Info	Date	Time
1IB02	1.00	1.00	1.00	InstrumentBlank 500ul+5ul S4077D	20 Aug 2019	14:01
1ICAL7A	1.00	1.00	1.00	ICAL A 50ug/mL SVMS8440 500ul+5ul S4077D	20 Aug 2019	14:19
1ICAL6A	1.00	1.00	1.00	ICAL A 40ug/mL SVMS8439 500ul+5ul S4077D	20 Aug 2019	14:37
1ICAL5A	1.00	1.00	1.00	ICAL A 30ug/mL SVMS8438 500ul+5ul S4077D	20 Aug 2019	14:56
1ICAL4A	1.00	1.00	1.00	ICAL A 20ug/mL SVMS8437 500ul+5ul S4077D	20 Aug 2019	15:15
1ICAL3A	1.00	1.00	1.00	ICAL A 10ug/mL SVMS8436 500ul+5ul S4077D	20 Aug 2019	15:33
1ICAL2A	1.00	1.00	1.00	ICAL A 5ug/mL SVMS8435 500ul+5ul S4077D	20 Aug 2019	15:52
1ICAL1A	1.00	1.00	1.00	ICAL A 1ug/mL SVMS8434 500ul+5ul S4077D	20 Aug 2019	16:11
1ICV1A	1.00	1.00	1.00	ICV A 20ug/mL SVMS8441 500ul+5ul S4077D	20 Aug 2019	16:30
1ICV2A	1.00	1.00	1.00	ICV A 40ug/mL SVMS8442 500ul+5ul S4077D	20 Aug 2019	16:48

Data Path : C:\INSTARCH\DATA\1S082019\
Data File : 1DFTP449.D
Acq On : 20 Aug 2019 9:39
Operator : RPN
Sample : DFTPP TUNE SVMS8353
Misc : SVMS1,25ng DFTPP
ALS Vial : 1 Sample Multiplier: 1

Integration File: DDD.p

Method : C:\INSTARCH\METHOD\1DFTPP.M
Title : DFTPP TUNE
Last Update : Tue Aug 20 13:27:55 2019



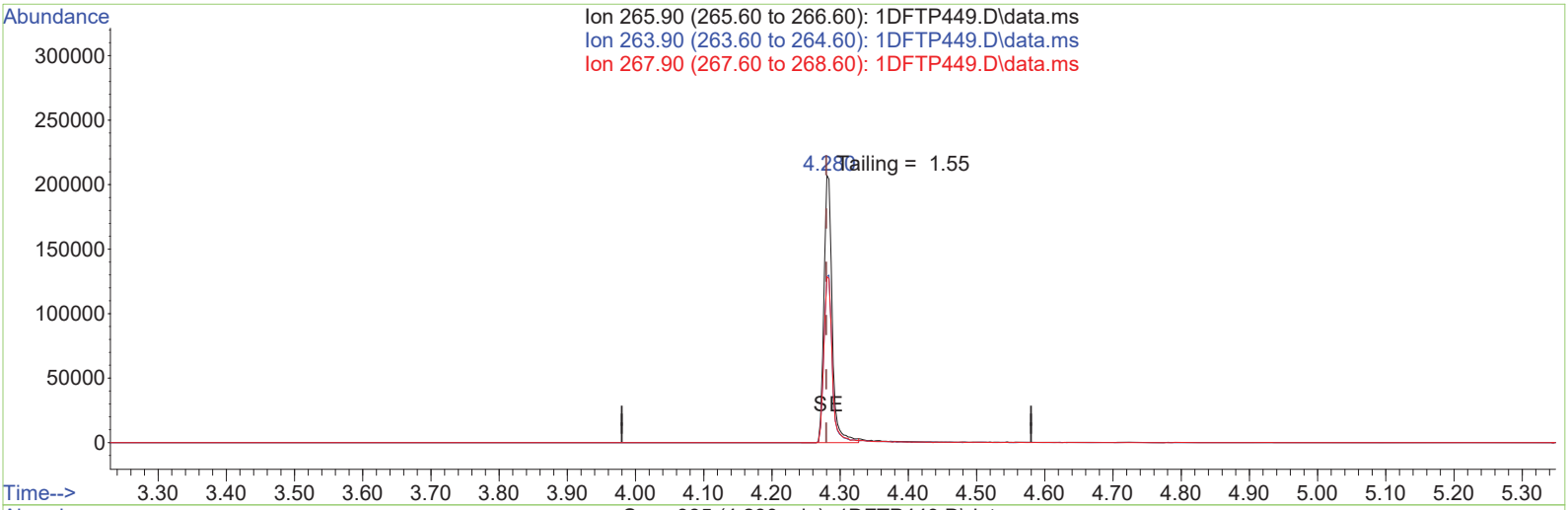
AutoFind: Scans 527, 528, 529; Background Corrected with Scan 519

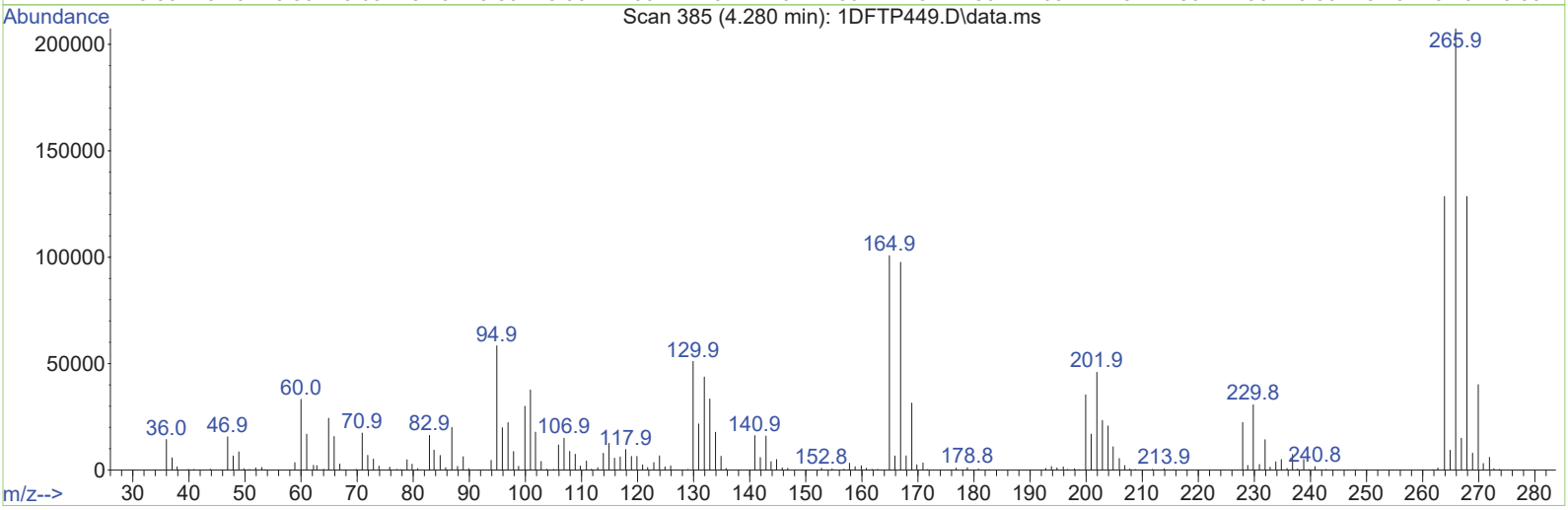
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	55.1	113641	PASS
68	69	0.00	2	1.7	1900	PASS
70	69	0.00	2	0.4	459	PASS
127	198	10	80	61.8	127472	PASS
197	198	0.00	2	0.2	360	PASS
198	198	50	100	100.0	206251	PASS
199	198	5	9	7.0	14479	PASS
275	198	10	60	22.6	46597	PASS
365	198	1	100	2.5	5125	PASS
441	442	0.01	24	14.8	21362	PASS
442	198	50	100	69.8	144029	PASS
443	442	15	24	19.6	28237	PASS

Quantitation Report (Qedit)

Data File : C:\INSTARCH\DATA\1S082019\1DFTP449.D Vial: 1
Acq On : 20 Aug 2019 9:39 Operator: RPN
Sample : DFTPP TUNE SVMS8353 Inst : SVMS1
Misc : SVMS1,25ng DFTPP Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:28:03 2019

Quant Method : C:\INSTARCH\METHOD\1DFTPP.M
Quant Title : DFTPP TUNE
QLast Update : Tue Aug 20 13:27:55 2019
Response via : Initial Calibration
DataAcq Meth:1DFTPP.M





TIC: 1DFTP449.D\data.ms

(1) Pentachlorophenol

4.280min (+ 0.000) 25.00 ng

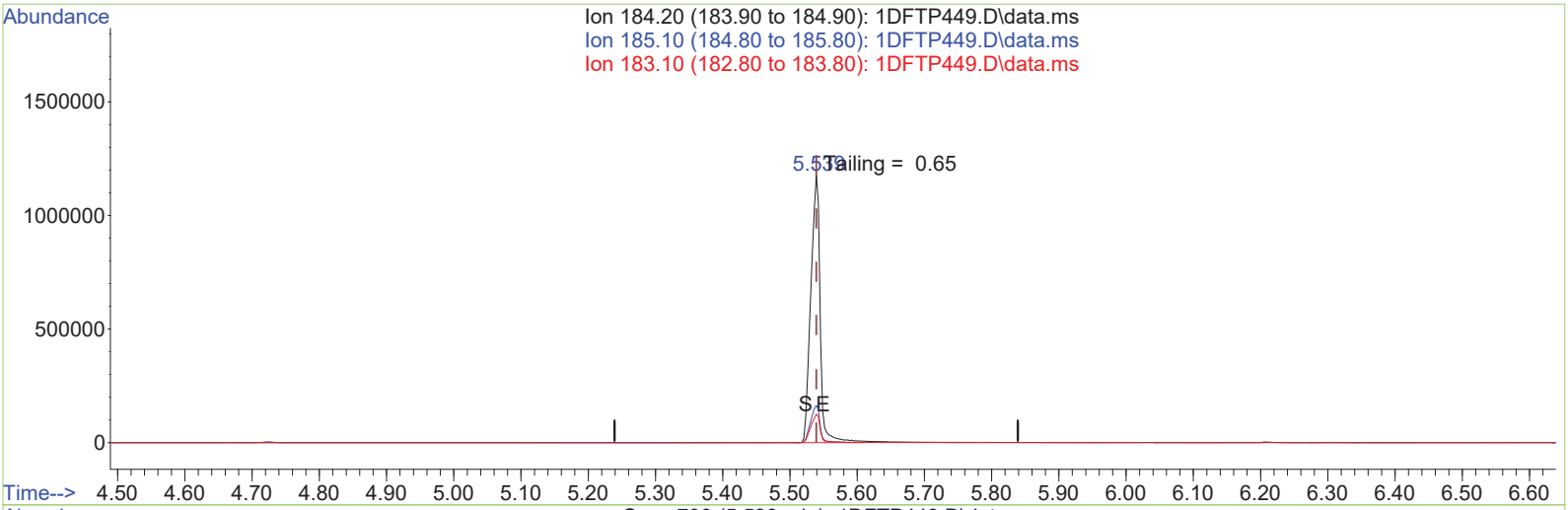
response 175927

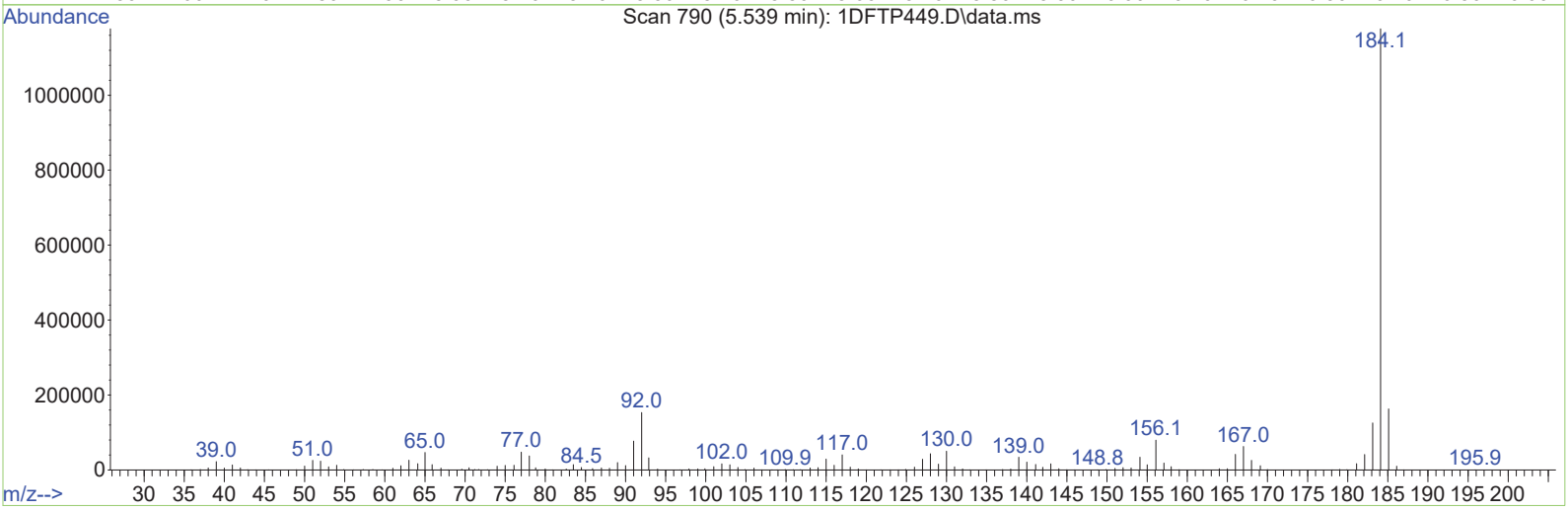
Ion	Exp%	Act%
265.90	100.00	100.00
263.90	64.60	62.84
267.90	65.00	63.58
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\INSTARCH\DATA\1S082019\1DFTP449.D Vial: 1
Acq On : 20 Aug 2019 9:39 Operator: RPN
Sample : DFTPP TUNE SVMS8353 Inst : SVMS1
Misc : SVMS1,25ng DFTPP Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 20 13:28:03 2019

Quant Method : C:\INSTARCH\METHOD\1DFTPP.M
Quant Title : DFTPP TUNE
QLast Update : Tue Aug 20 13:27:55 2019
Response via : Initial Calibration
DataAcq Meth:1DFTPP.M





TIC: 1DFTP449.D\data.ms

(3) Benzidine

5.539min (0.000) 25.00 ng

response 1141651

Ion	Exp%	Act%
184.20	100.00	100.00
185.10	15.90	13.89
183.10	12.20	10.55
0.00	0.00	0.00

Data File Name	1DFTP449.D
Vial Number	1
Data File Path	C:\INSTARCH\DATA\1S082019\
Operator	RPN
Date Acquired	8/20/2019 9:39
Instrument Name	SVMS1
Sample Name	DFTPP TUNE SVMS8353
Sample Multiplier	1
Misc Info	SVMS1,25ng DFTPP
Calibration Title	DFTPP TUNE
Last Calibration Update	Tue Aug 20 13:27:55 2019

#	Name	Ret Time	Target Response
1)	Pentachlorophenol	4.28	175927
2)	DFTPP	4.72	179353
3)	Benzidine	5.54	1141651
4)	DDE	5.70	794
5)	DDD	5.97	4118
6)	DDT	6.21	450497

DDT % Degradation

$$\frac{DDD+DDEx100}{DDD+DDE+DDT} \quad 1.08\ \%$$

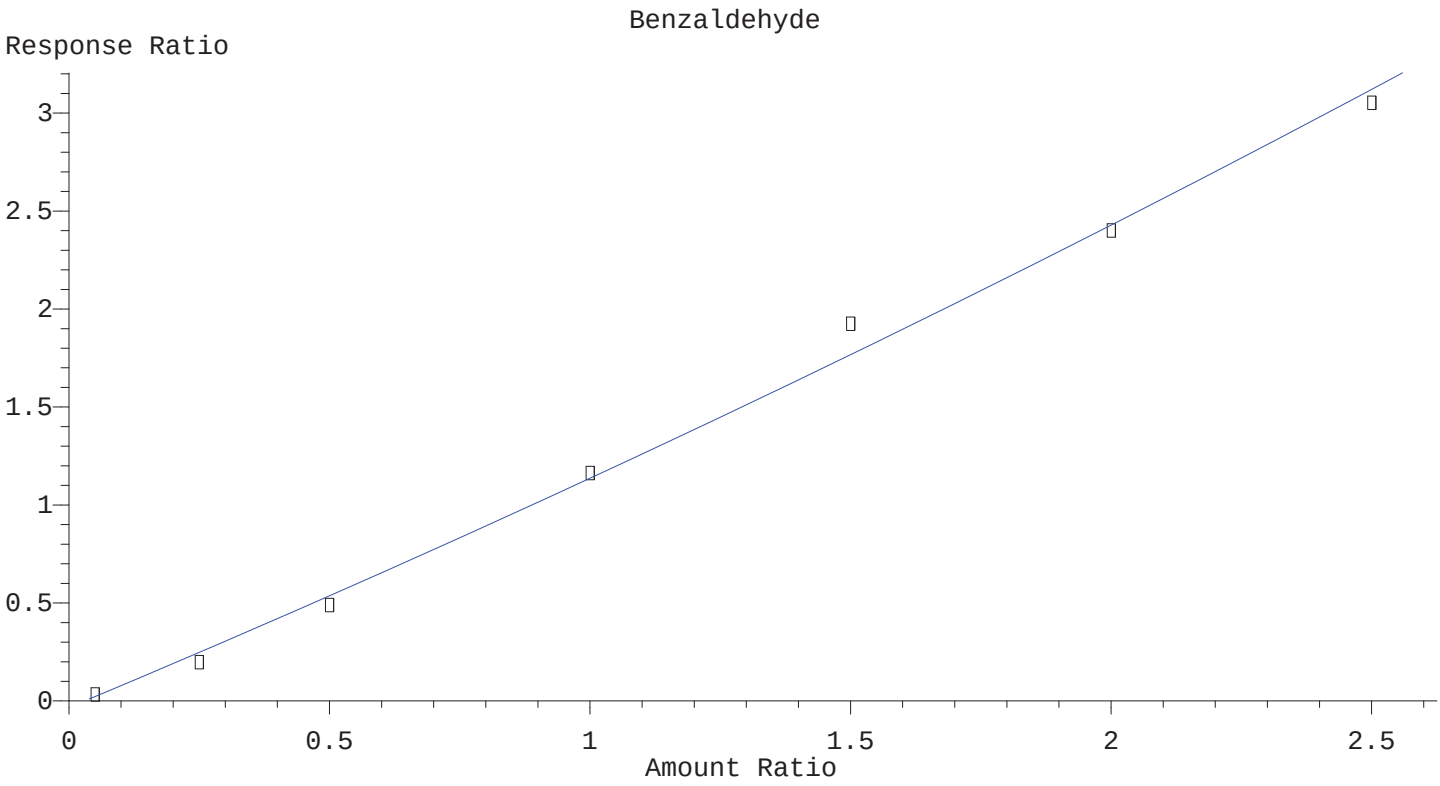
Response Factor Report SVMS1

Method Path : C:\INSTARCH\METHOD\
Method File : 1A082019.M
Title : Method for 8270 Analysis
Last Update : Wed Aug 21 09:14:43 2019
Response Via : Initial Calibration

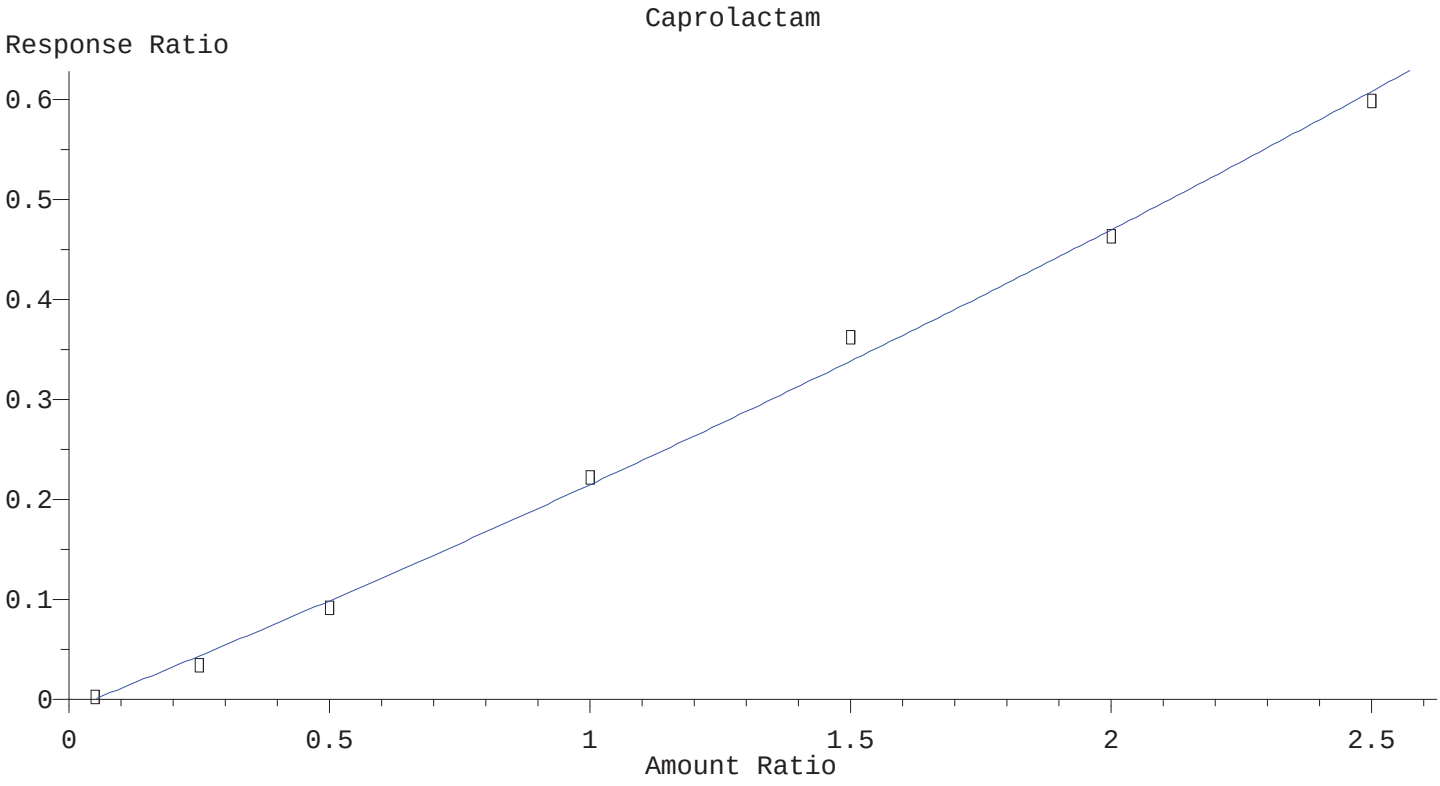
Calibration Files
1 =1ICAL1A.D 5 =1ICAL2A.D 10 =1ICAL3A.D 20 =1ICAL4A.D 30 =1ICAL5A.D 40 =1ICAL6A.D 50 =1ICAL7A.D

	Compound	1	5	10	20	30	40	50	Avg	%RSD
1)	I 14Diclbenzd4	ISTD								
2)	CPT Benzaldehyde	0.659	0.789	0.978	1.163	1.283	1.200	1.221	1.042	23.01#
3)	I Naphthalened8	ISTD								
4)	CPT Caprolactam	0.048	0.136	0.183	0.222	0.241	0.232	0.239	0.186	38.49#
5)	I Acenaphthened10	ISTD								
6)	CPT Biphenyl	1.435	1.258	1.433	1.528	1.575	1.495	1.465	1.456	6.93
7)	I Phenanthrd10	ISTD								
8)	CPT Atrazine	0.157	0.160	0.182	0.205	0.212	0.204	0.198	0.188	11.94
9)	I Chrysene-d12	ISTD								

(#) = Out of Range

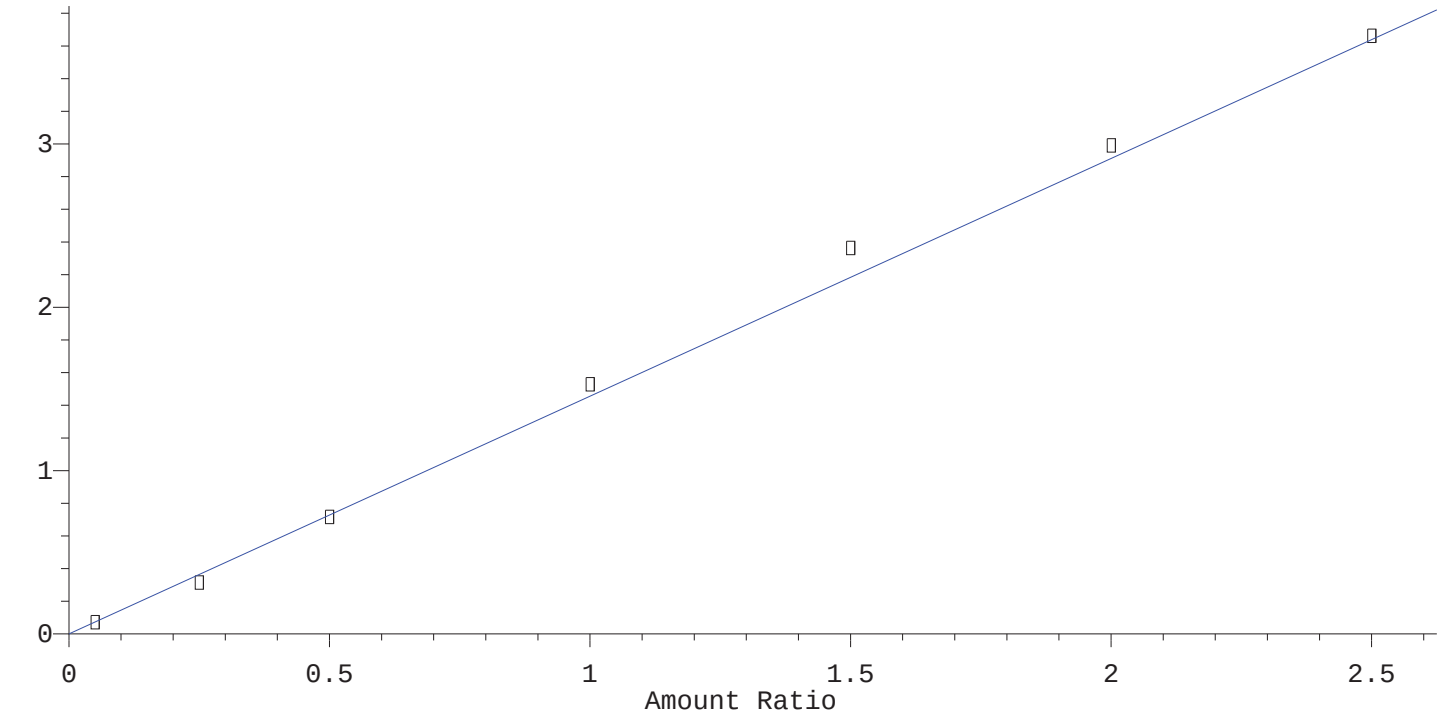


R = 6.138e-002 A*A + 1.108e+000 A - 3.297e-002
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w(1/a)



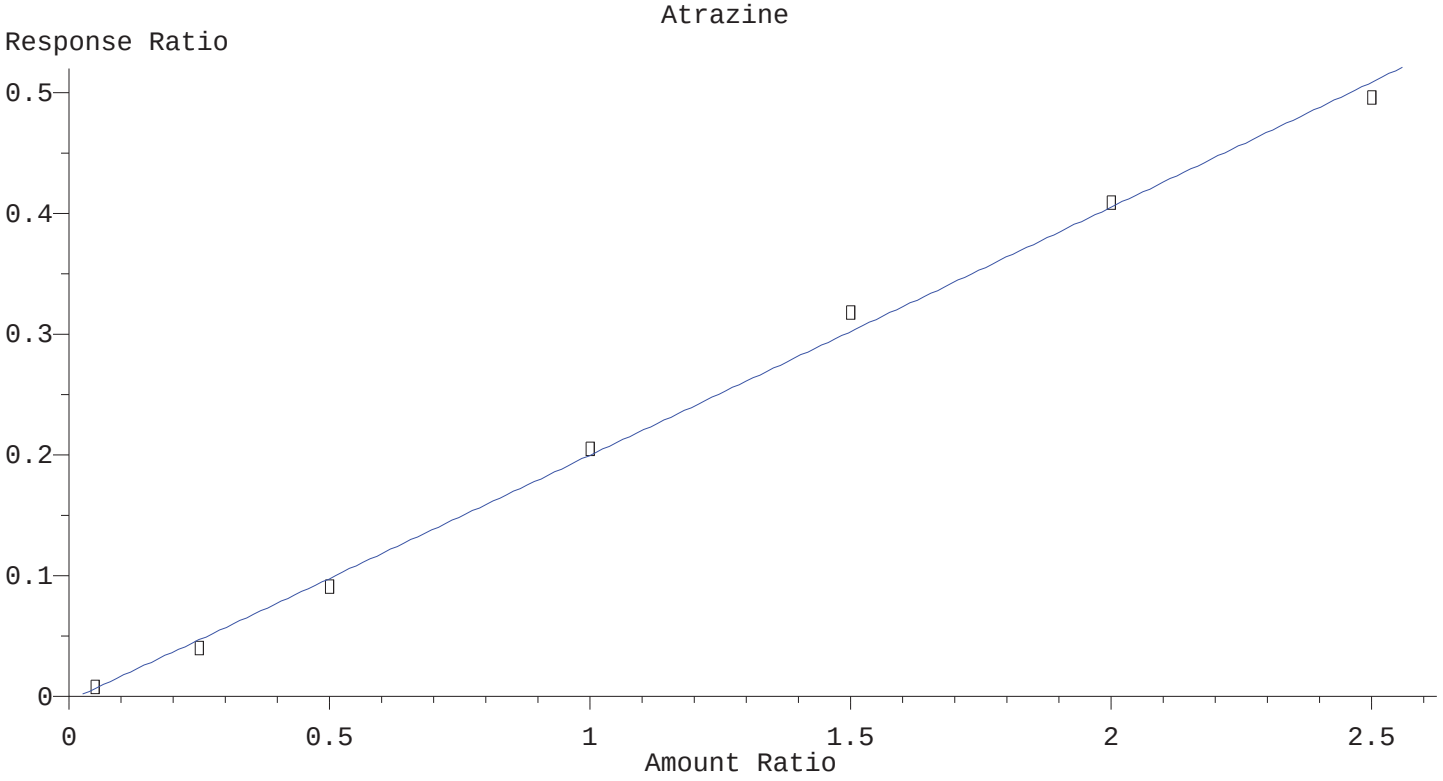
R = 1.497e-002 A*A + 2.098e-001 A - 9.922e-003
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w(1/a)

Biphenyl



Resp Ratio = 1.456e+000 * Amt
RF Rel Std Dev = 6.927% Curve Fit: Avg RF

Atrazine



R = 1.014e-003 A*A + 2.024e-001 A - 3.715e-003
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1IB02.D Vial: 11
Acq On : 20 Aug 2019 14:01 Operator: RPN
Sample : InstrumentBlank Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 21 09:20:01 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Aug 21 09:14:43 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

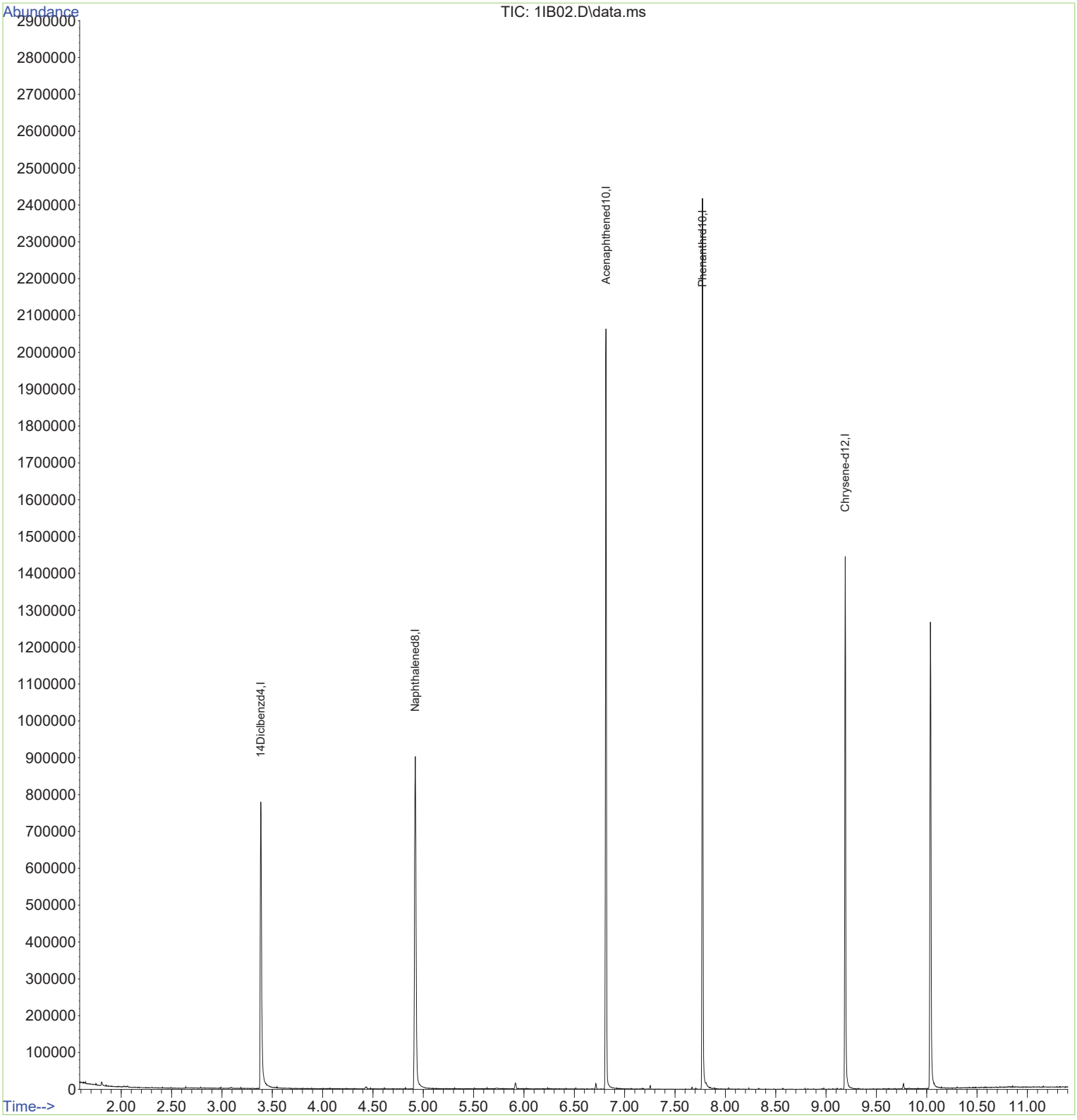
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.385	152	130130	20.00	ug/mL	0.00
3) Naphthalened8	4.920	136	488667	20.00	ug/mL	0.00
5) Acenaphthened10	6.815	164	318720	20.00	ug/mL	0.00
7) Phenanthrd10	7.773	188	524422	20.00	ug/mL	0.00
9) Chrysene-d12	9.191	240	277030	20.00	ug/mL	0.00
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1IB02.D Vial: 11
Acq On : 20 Aug 2019 14:01 Operator: RPN
Sample : InstrumentBlank Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 21 09:20:01 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Aug 21 09:14:43 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICAL7A.D Vial: 12
Acq On : 20 Aug 2019 14:19 Operator: RPN
Sample : ICAL A 50ug/mL SVMS8440 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 21 09:07:30 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Aug 21 09:07:23 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

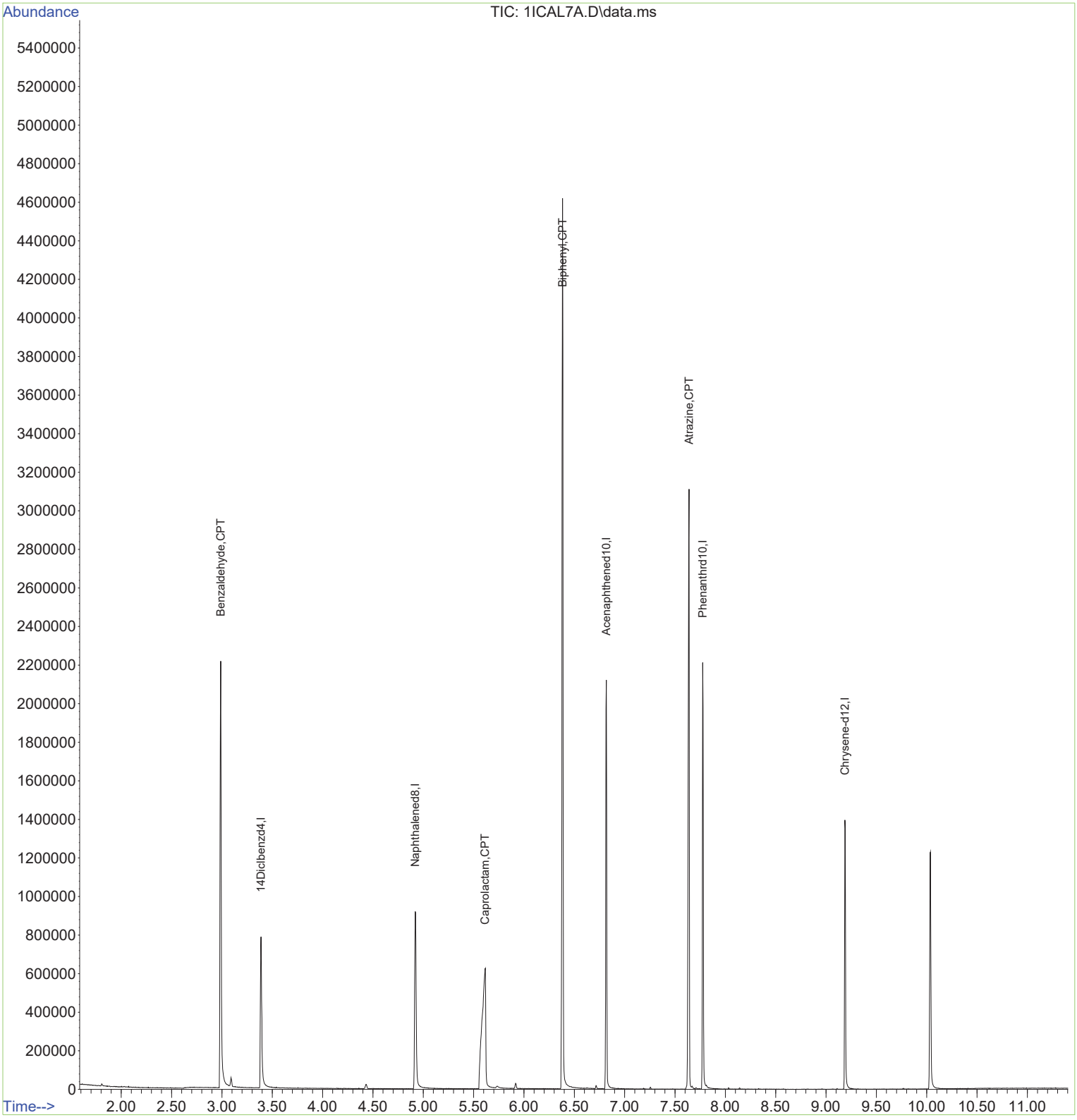
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.388	152	132685	20.00	ug/mL	0.00
3) Naphthalened8	4.920	136	499288	20.00	ug/mL	0.00
5) Acenaphthened10	6.818	164	322990	20.00	ug/mL	0.00
7) Phenanthrd10	7.775	188	532430	20.00	ug/mL	0.00
9) Chrysene-d12	9.188	240	282371	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	2.988	77	404928	50.0000	ug/mL	100
4) Caprolactam	5.613	55	298834	50.0000	ug/mL	98
6) Biphenyl	6.383	154	1182614	50.0000	ug/mL	100
8) Atrazine	7.639	200	264120	50.0000	ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICAL7A.D Vial: 12
Acq On : 20 Aug 2019 14:19 Operator: RPN
Sample : ICAL A 50ug/mL SVMS8440 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 21 09:07:30 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Aug 21 09:07:23 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICAL6A.D Vial: 13
Acq On : 20 Aug 2019 14:37 Operator: RPN
Sample : ICAL A 40ug/mL SVMS8439 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 21 09:08:21 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Aug 21 09:07:23 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

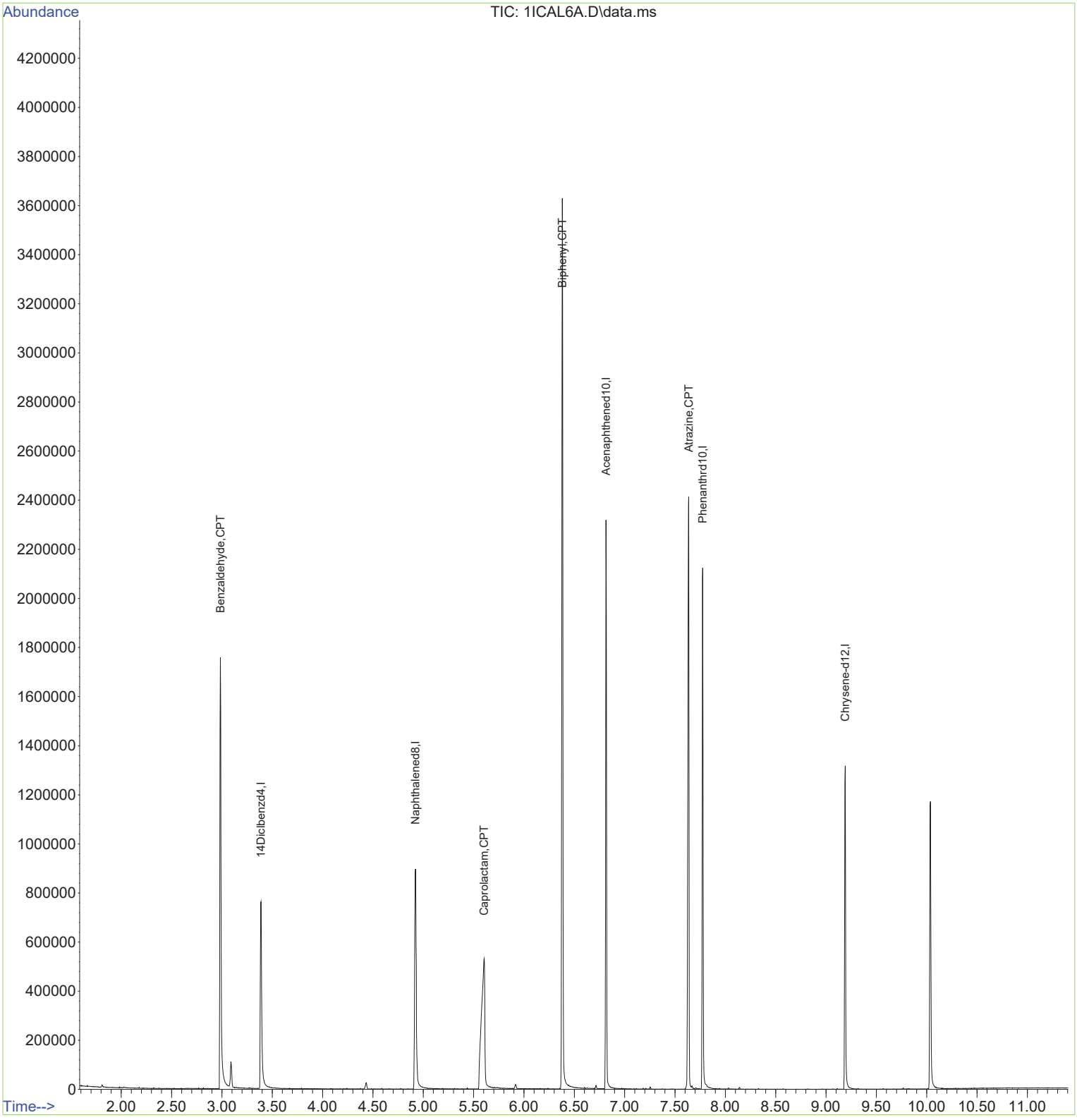
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.388	152	134003	20.00	ug/mL	0.00
3) Naphthalened8	4.923	136	501468	20.00	ug/mL	0.00
5) Acenaphthened10	6.815	164	322884	20.00	ug/mL	0.00
7) Phenanthrd10	7.776	188	523455	20.00	ug/mL	0.00
9) Chrysene-d12	9.191	240	276322	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	2.985	77	321642	39.3253	ug/mL	99
4) Caprolactam	5.602	55	232249	38.6903	ug/mL	99
6) Biphenyl	6.380	154	965588	40.8377	ug/mL	100
8) Atrazine	7.636	200	214051	41.2163	ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICAL6A.D Vial: 13
Acq On : 20 Aug 2019 14:37 Operator: RPN
Sample : ICAL A 40ug/mL SVMS8439 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 21 09:08:21 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Aug 21 09:07:23 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICAL5A.D Vial: 14
Acq On : 20 Aug 2019 14:56 Operator: RPN
Sample : ICAL A 30ug/mL SVMS8438 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 21 09:09:37 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Aug 21 09:08:34 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

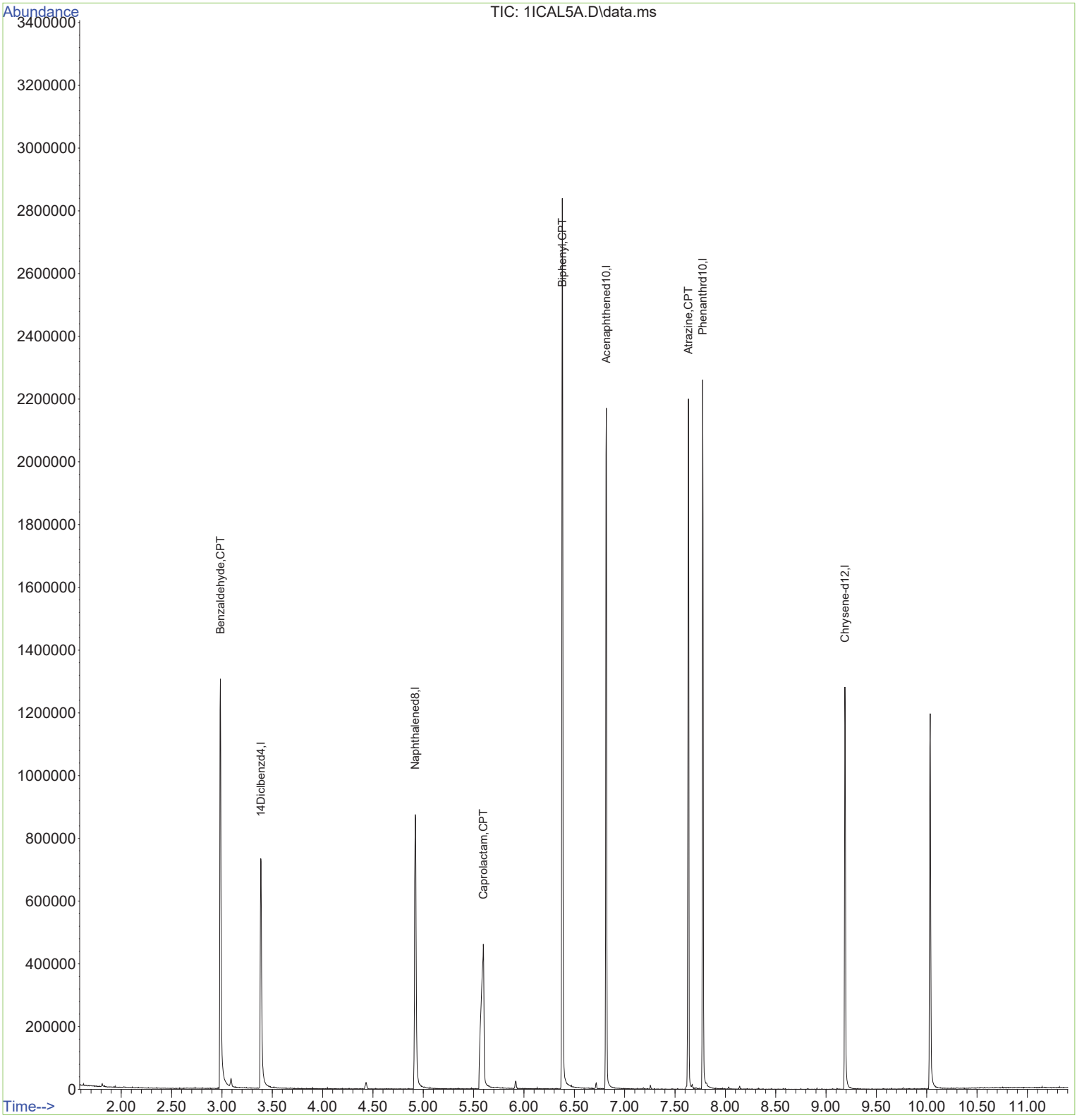
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.388	152	128411	20.00	ug/mL	0.00
3) Naphthalened8	4.920	136	489789	20.00	ug/mL	0.00
5) Acenaphthened10	6.818	164	320045	20.00	ug/mL	0.00
7) Phenanthrd10	7.776	188	518661	20.00	ug/mL	0.00
9) Chrysene-d12	9.188	240	265325	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	2.985	77	247165	31.8036	ug/mL	99
4) Caprolactam	5.596	55	177389	30.7594	ug/mL	98
6) Biphenyl	6.380	154	756135	31.9286	ug/mL	99
8) Atrazine	7.633	200	164912	31.5680	ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICAL5A.D Vial: 14
Acq On : 20 Aug 2019 14:56 Operator: RPN
Sample : ICAL A 30ug/mL SVMS8438 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 21 09:09:37 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Aug 21 09:08:34 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICAL4A.D Vial: 15
Acq On : 20 Aug 2019 15:15 Operator: RPN
Sample : ICAL A 20ug/mL SVMS8437 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 21 09:10:23 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Aug 21 09:09:52 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

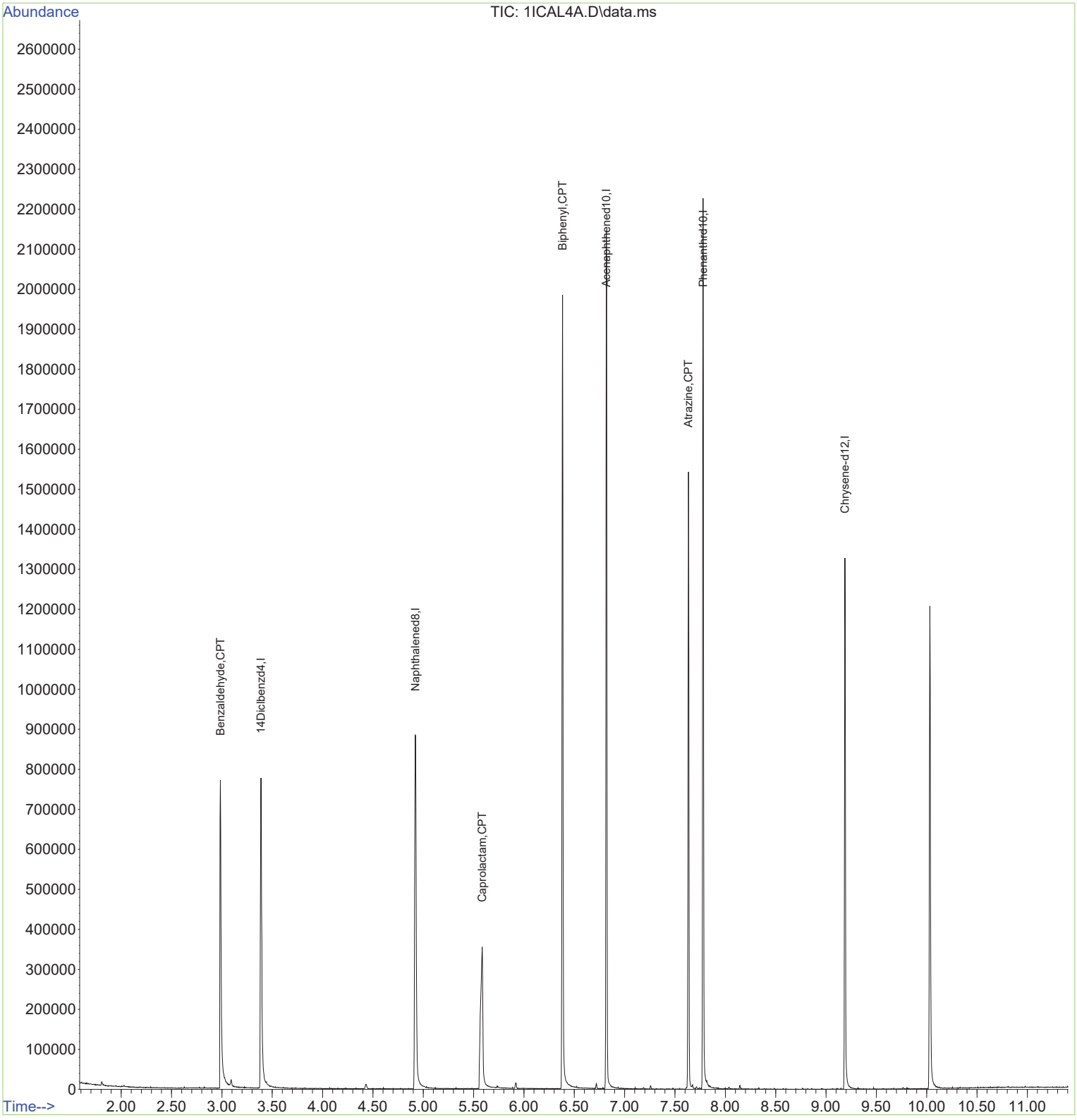
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.388	152	130004	20.00	ug/mL	0.00
3) Naphthalened8	4.923	136	493421	20.00	ug/mL	0.00
5) Acenaphthened10	6.818	164	323468	20.00	ug/mL	0.00
7) Phenanthrd10	7.778	188	526330	20.00	ug/mL	0.00
9) Chrysene-d12	9.188	240	265183	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	2.985	77	151145	18.8327	ug/mL	100
4) Caprolactam	5.585	55	109510	18.6916	ug/mL	100
6) Biphenyl	6.383	154	494290	20.2178	ug/mL	100
8) Atrazine	7.634	200	107923	20.0093	ug/mL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICAL4A.D Vial: 15
Acq On : 20 Aug 2019 15:15 Operator: RPN
Sample : ICAL A 20ug/mL SVMS8437 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 21 09:10:23 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Aug 21 09:09:52 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICAL3A.D Vial: 16
Acq On : 20 Aug 2019 15:33 Operator: RPN
Sample : ICAL A 10ug/mL SVMS8436 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 21 09:11:12 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Aug 21 09:10:58 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

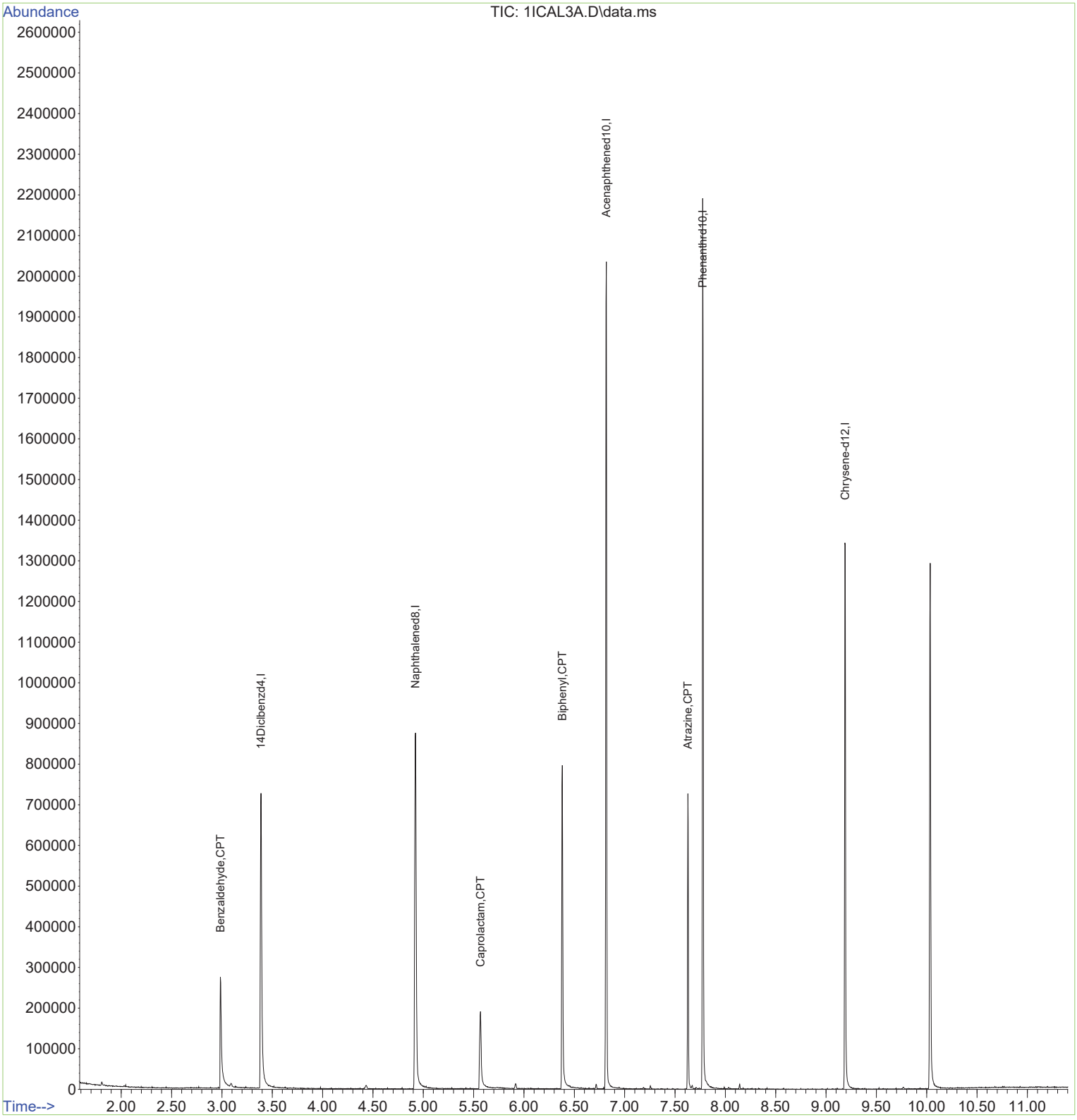
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.388	152	130233	20.00	ug/mL	0.00
3) Naphthalened8	4.923	136	483030	20.00	ug/mL	0.00
5) Acenaphthened10	6.818	164	313256	20.00	ug/mL	0.00
7) Phenanthrd10	7.775	188	525842	20.00	ug/mL	0.00
9) Chrysene-d12	9.191	240	271495	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	2.985	77	63668	8.0363	ug/mL	99
4) Caprolactam	5.568	55	44207	7.8359	ug/mL	100
6) Biphenyl	6.380	154	224408	9.4524	ug/mL	99
8) Atrazine	7.628	200	47815	8.8723	ug/mL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICAL3A.D Vial: 16
Acq On : 20 Aug 2019 15:33 Operator: RPN
Sample : ICAL A 10ug/mL SVMS8436 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 21 09:11:12 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Aug 21 09:10:58 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICAL2A.D Vial: 17
Acq On : 20 Aug 2019 15:52 Operator: RPN
Sample : ICAL A 5ug/mL SVMS8435 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 21 09:12:07 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Aug 21 09:11:54 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

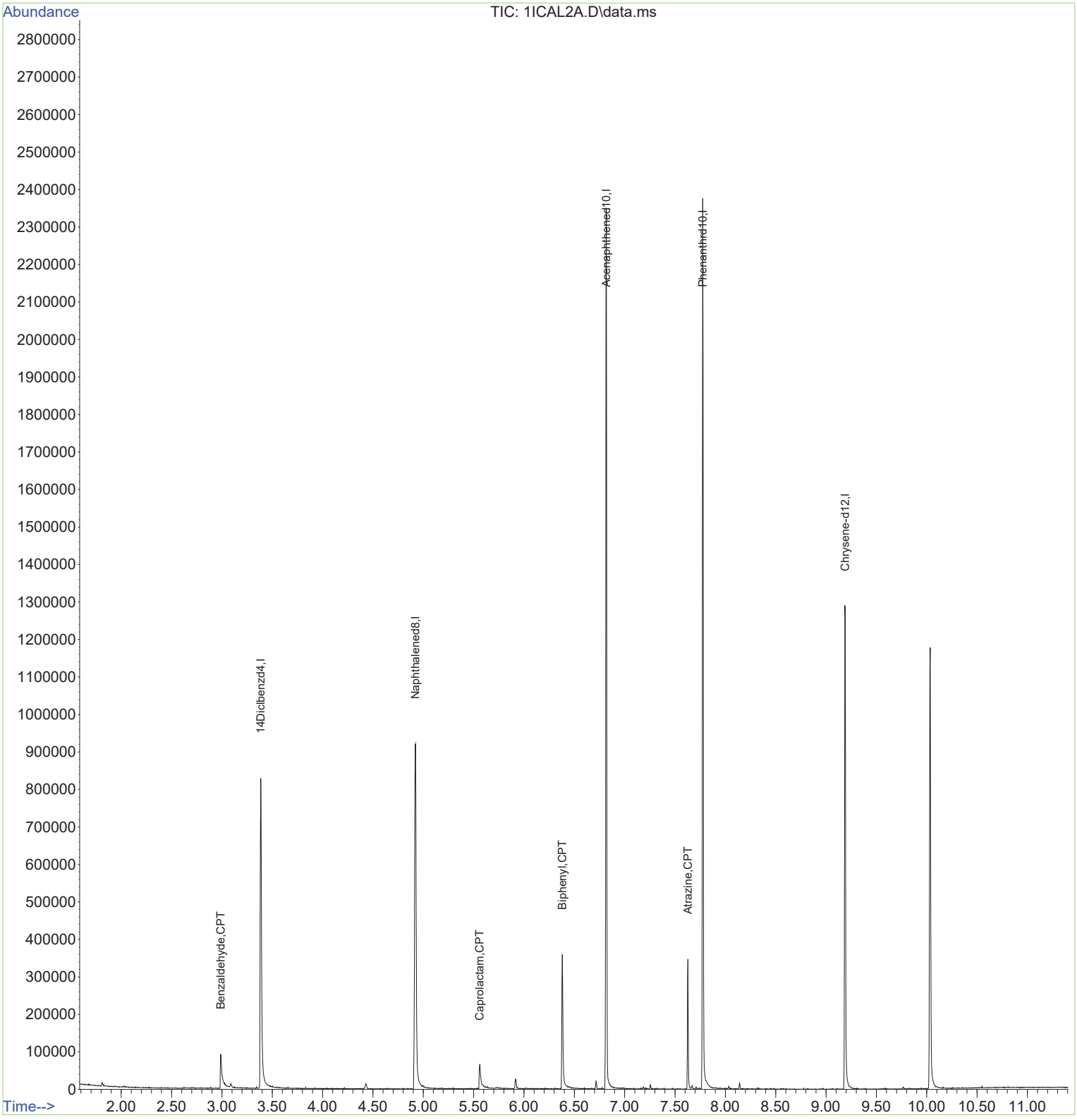
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.386	152	138742	20.00	ug/mL	0.00
3) Naphthalened8	4.923	136	520662	20.00	ug/mL	0.00
5) Acenaphthened10	6.818	164	344449	20.00	ug/mL	0.00
7) Phenanthrd10	7.776	188	557543	20.00	ug/mL	0.00
9) Chrysene-d12	9.191	240	275902	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	2.988	77	27359	3.3740	ug/mL	98
4) Caprolactam	5.559	55	17721	3.0459	ug/mL	96
6) Biphenyl	6.380	154	108372	4.1974	ug/mL	99
8) Atrazine	7.628	200	22328	3.9977	ug/mL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICAL2A.D Vial: 17
Acq On : 20 Aug 2019 15:52 Operator: RPN
Sample : ICAL A 5ug/mL SVMS8435 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 21 09:12:07 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Aug 21 09:11:54 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICAL1A.D Vial: 18
Acq On : 20 Aug 2019 16:11 Operator: RPN
Sample : ICAL A 1ug/mL SVMS8434 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 21 09:13:03 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Aug 21 09:12:41 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

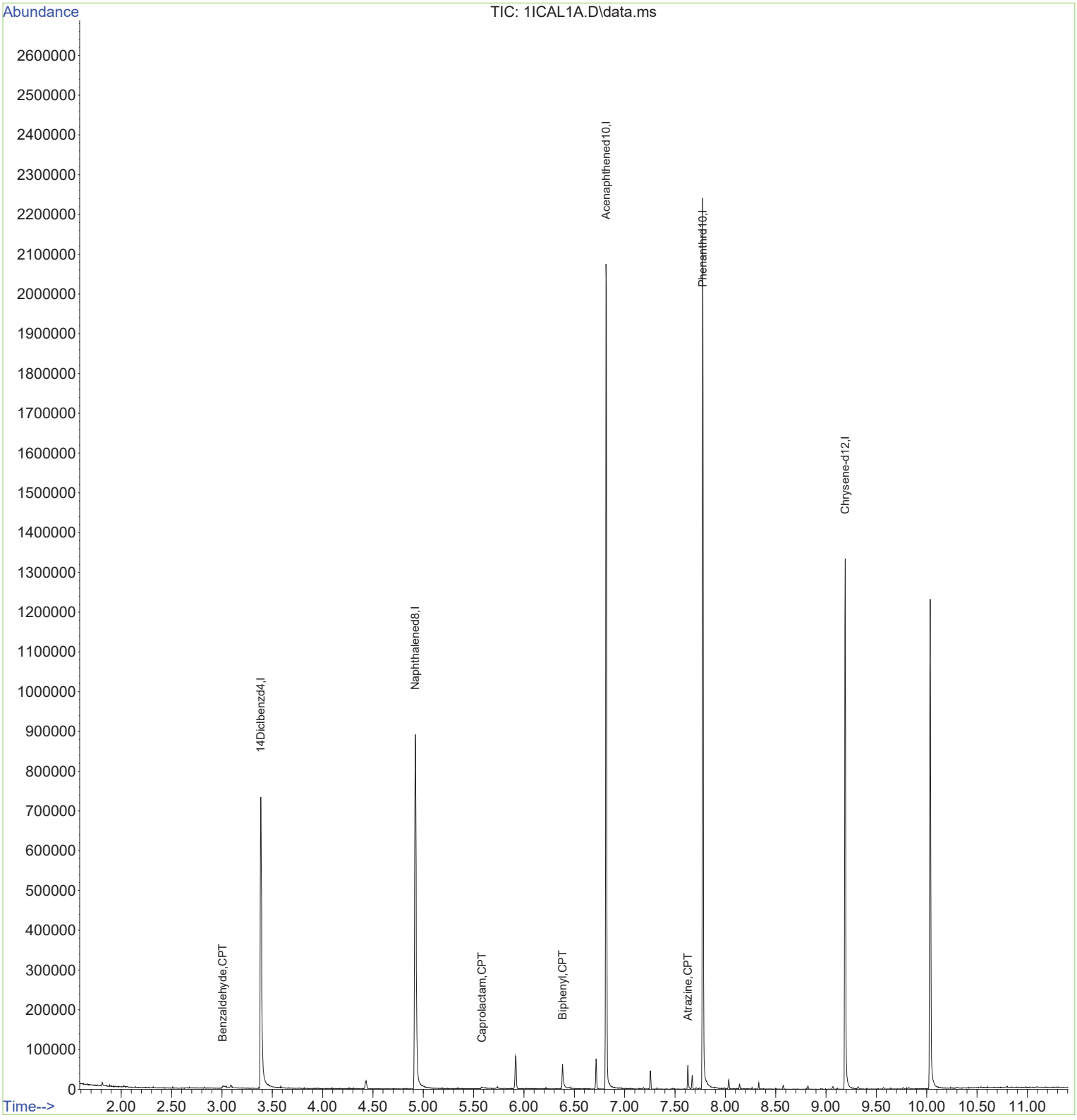
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.386	152	129557	20.00	ug/mL	0.00
3) Naphthalened8	4.920	136	497682	20.00	ug/mL	0.00
5) Acenaphthened10	6.815	164	322452	20.00	ug/mL	0.00
7) Phenanthrd10	7.776	188	535410	20.00	ug/mL	0.00
9) Chrysene-d12	9.191	240	264301	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	3.008	77	4267	0.5958	ug/mL	88
4) Caprolactam	5.582	55	1203	0.2314	ug/mL	72
6) Biphenyl	6.383	154	23130	0.9833	ug/mL	99
8) Atrazine	7.628	200	4195	0.8092	ug/mL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICAL1A.D Vial: 18
Acq On : 20 Aug 2019 16:11 Operator: RPN
Sample : ICAL A 1ug/mL SVMS8434 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 21 09:13:03 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Aug 21 09:12:41 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Evaluate Continuing Calibration Report

Data File : C:\INSTARCH\DATA\1S082019\1ICV1A.D Vial: 19
Acq On : 20 Aug 2019 16:30 Operator: RPN
Sample : ICV A 20ug/mL SVMS8441 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 21 09:16:11 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Aug 21 09:14:43 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	14Diclbenzd4	20.000	20.000	0.0	100	0.00
2	CPT	Benzaldehyde	20.000	20.083	-0.4	98	0.00
3	I	Naphthalened8	20.000	20.000	0.0	98	0.00
4	CPT	Caprolactam	20.000	20.443	-2.2	98	0.00
5	I	Acenaphthened10	20.000	20.000	0.0	98	0.00
6	CPT	Biphenyl	20.000	21.731	-8.7	101	0.00
7	I	Phenanthrd10	20.000	20.000	0.0	99	0.00
8	CPT	Atrazine	20.000	20.521	-2.6	99	0.00
9	I	Chrysene-d12	20.000	20.000	0.0	99	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : C:\INSTARCH\DATA\1S082019\1ICV1A.D Vial: 19
Acq On : 20 Aug 2019 16:30 Operator: RPN
Sample : ICV A 20ug/mL SVMS8441 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 21 09:16:11 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Aug 21 09:14:43 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	14Diclbenzd4	1.000	1.000	0.0	100	0.00
2	CPT	Benzaldehyde	1.042	1.141	-9.5	98	0.00
3	I	Naphthalened8	1.000	1.000	0.0	98	0.00
4	CPT	Caprolactam	0.186	0.220	-18.3	98	0.00
5	I	Acenaphthened10	1.000	1.000	0.0	98	0.00
6	CPT	Biphenyl	1.456	1.581	-8.6	101	0.00
7	I	Phenanthrd10	1.000	1.000	0.0	99	0.00
8	CPT	Atrazine	0.188	0.205	-9.0	99	0.00
9	I	Chrysene-d12	1.000	1.000	0.0	99	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICV1A.D Vial: 19
Acq On : 20 Aug 2019 16:30 Operator: RPN
Sample : ICV A 20ug/mL SVMS8441 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 21 09:16:11 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Aug 21 09:14:43 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

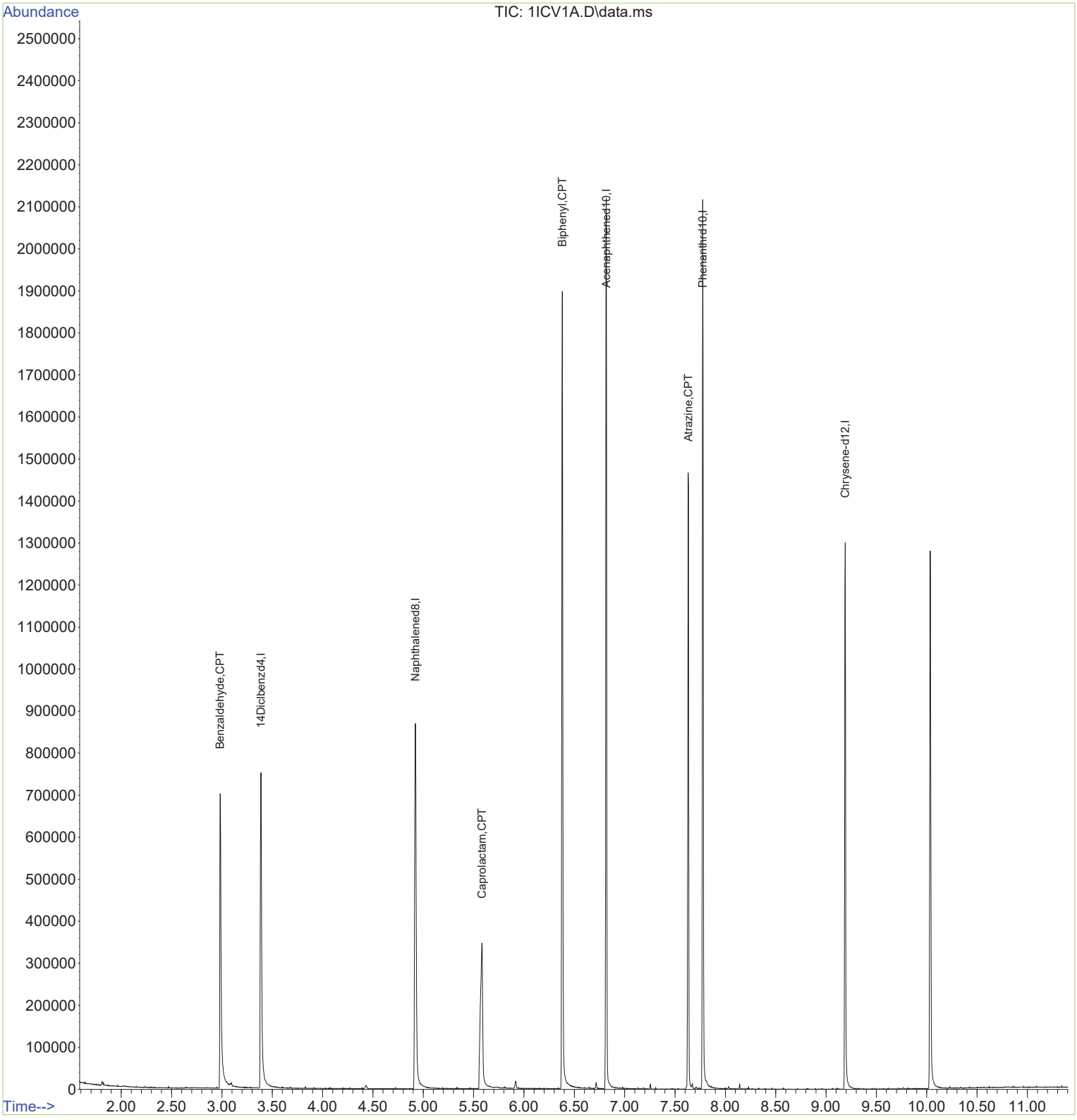
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.388	152	129846	20.00	ug/mL	0.00
3) Naphthalened8	4.923	136	485019	20.00	ug/mL	0.00
5) Acenaphthened10	6.818	164	316764	20.00	ug/mL	0.00
7) Phenanthrd10	7.775	188	518622	20.00	ug/mL	0.00
9) Chrysene-d12	9.190	240	263030	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	2.982	77	148206	20.0834	ug/mL	98
4) Caprolactam	5.582	55	106779	20.4426	ug/mL	98
6) Biphenyl	6.380	154	500961	21.7305	ug/mL	100
8) Atrazine	7.633	200	106336	20.5210	ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICV1A.D Vial: 19
Acq On : 20 Aug 2019 16:30 Operator: RPN
Sample : ICV A 20ug/mL SVMS8441 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 21 09:16:11 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Aug 21 09:14:43 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Evaluate Continuing Calibration Report

Data File : C:\INSTARCH\DATA\1S082019\1ICV2A.D Vial: 20
Acq On : 20 Aug 2019 16:48 Operator: RPN
Sample : ICV A 40ug/mL SVMS8442 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 21 09:18:08 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Aug 21 09:14:43 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	14Diclbenzd4	20.000	20.000	0.0	100	0.00
2	CPT	Benzaldehyde	40.000	37.608	6.0	95	0.00
3	I	Naphthalened8	20.000	20.000	0.0	101	0.00
4	CPT	Caprolactam	40.000	38.493	3.8	98	0.02
5	I	Acenaphthened10	20.000	20.000	0.0	100	0.00
6	CPT	Biphenyl	40.000	40.339	-0.8	99	0.00
7	I	Phenanthrd10	20.000	20.000	0.0	103	0.00
8	CPT	Atrazine	40.000	39.155	2.1	100	0.00
9	I	Chrysene-d12	20.000	20.000	0.0	103	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICV2A.D Vial: 20
Acq On : 20 Aug 2019 16:48 Operator: RPN
Sample : ICV A 40ug/mL SVMS8442 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 21 09:18:08 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Aug 21 09:14:43 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

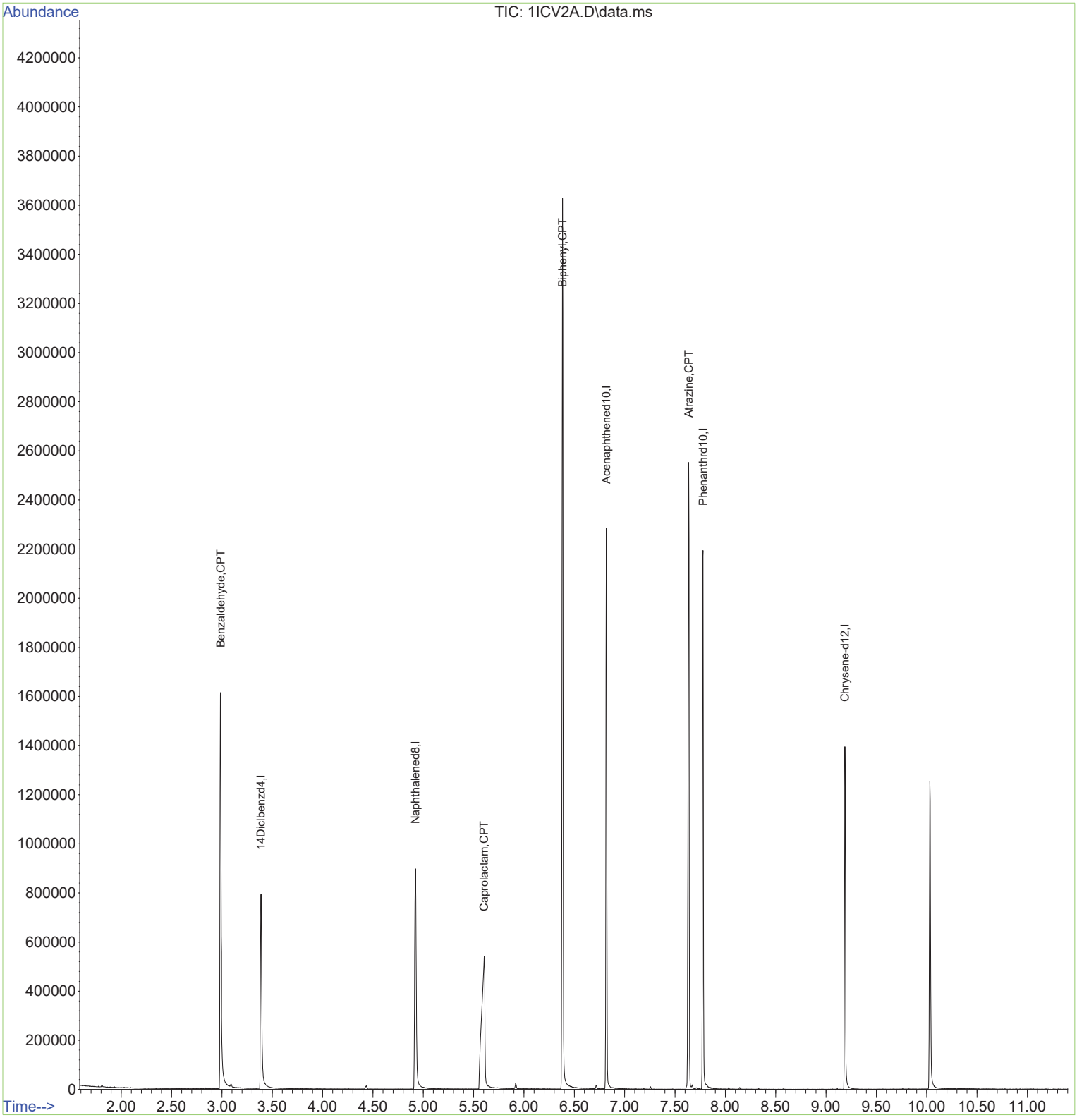
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.388	152	134164	20.00	ug/mL	0.00
3) Naphthalened8	4.923	136	505285	20.00	ug/mL	0.00
5) Acenaphthened10	6.818	164	324108	20.00	ug/mL	0.00
7) Phenanthrd10	7.778	188	537531	20.00	ug/mL	0.00
9) Chrysene-d12	9.188	240	284243	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	2.988	77	304190	37.6082	ug/mL	100
4) Caprolactam	5.605	55	227028	38.4928	ug/mL	99
6) Biphenyl	6.383	154	951503	40.3388	ug/mL	100
8) Atrazine	7.636	200	213101	39.1554	ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082019\1ICV2A.D Vial: 20
Acq On : 20 Aug 2019 16:48 Operator: RPN
Sample : ICV A 40ug/mL SVMS8442 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 21 09:18:08 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Aug 21 09:14:43 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Injection Log Summary Report

Method : C:\INSTARCH\METHOD\1P082619.M (RTE Integrator)
Title : Method for 8270 Analysis
Start (Tune) File ID : C:\INSTARCH\DATA\1S082619\1DFTP453.D
Injection Date : 26 Aug 2019 Log Time Period (hrs) : 12
Injection Time : 14:34 Total files within period : 35
Sample Directory : C:\INSTARCH\DATA\1S082619\

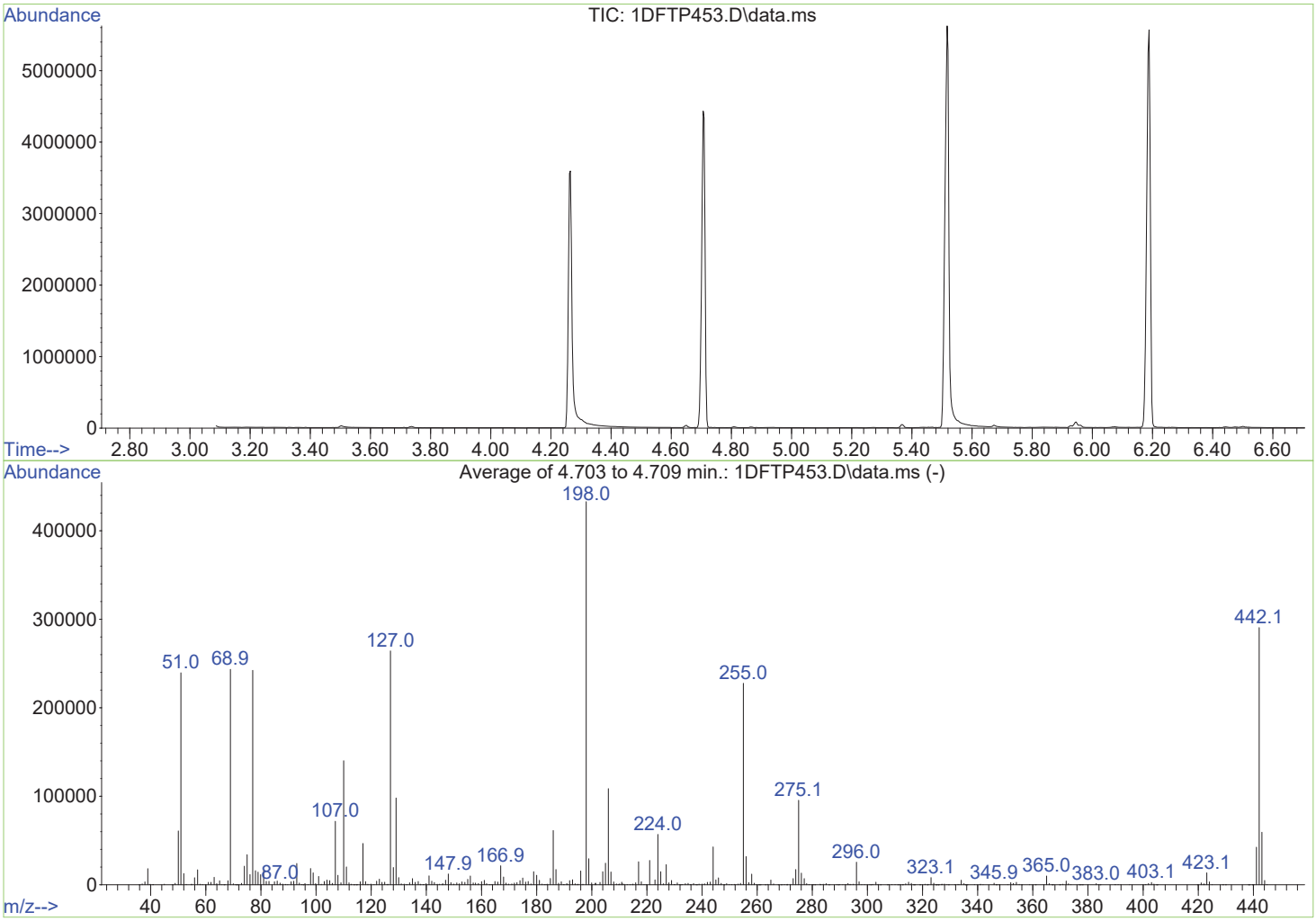
Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name Misc Info	Date	Time
1IB01	1.00	1.00	1.00	InstrumentBlank 500ul+5ul SVMS8389	26 Aug 2019	14:49
1ICAL1	1.00	1.00	1.00	ICAL 50ng/ml SVMS8401 500ul+5ul SVMS8389	26 Aug 2019	15:10
1ICAL2	1.00	1.00	1.00	ICAL 100ng/ml SVMS8402 500ul+5ul SVMS8389	26 Aug 2019	15:31
1ICAL3	1.00	1.00	1.00	ICAL 200ng/ml SVMS8403 500ul+5ul SVMS8389	26 Aug 2019	15:52
1ICAL4	1.00	1.00	1.00	ICAL 400ng/ml SVMS8404 500ul+5ul SVMS8389	26 Aug 2019	16:12
1ICAL5	1.00	1.00	1.00	ICAL 800ng/ml SVMS8405 500ul+5ul SVMS8389	26 Aug 2019	16:33
1ICAL6	1.00	1.00	1.00	ICAL 1500ng/ml SVMS8406 500ul+5ul SVMS8389	26 Aug 2019	16:54
1ICAL7	1.00	1.00	1.00	ICAL 2000ng/ml SVMS8407 500ul+5ul SVMS8389	26 Aug 2019	17:15
1ICV1	1.00	1.00	1.00	ICV 400ng/ml SVMS8408 500ul+5ul SVMS8389	26 Aug 2019	17:35
1IB02	1.00	1.00	1.00	InstrumentBlank 500ul+5ul SVMS8389	26 Aug 2019	17:56
1MBW01	1.00	1.00	1.00	163814,MBW, 316850,500ul+5ul SVMS8389	26 Aug 2019	18:17
1LCSW01	1.00	1.00	1.00	163814,LCSW, 316851,500ul+5ul SVMS8389	26 Aug 2019	18:37
315117	1.00	1.00	1.00	163814,315117, 500ul+5ul SVMS8389	26 Aug 2019	18:58
315810	1.00	1.00	1.00	163814,315810, 500ul+5ul SVMS8389	26 Aug 2019	19:19
315816	1.00	1.00	1.00	163814,315816, 500ul+5ul SVMS8389	26 Aug 2019	19:40
315818	1.00	1.00	1.00	163814,315818, 500ul+5ul SVMS8389	26 Aug 2019	20:00
316700	1.00	1.00	1.00	163814,316700, 500ul+5ul SVMS8389	26 Aug 2019	20:21
316705	1.00	1.00	1.00	163814,316705, 500ul+5ul SVMS8389	26 Aug 2019	20:42
316710	1.00	1.00	1.00	163814,316710, 500ul+5ul SVMS8389	26 Aug 2019	21:03
317012	1.00	1.00	1.00	163814,317012, 500ul+5ul SVMS8389	26 Aug 2019	21:23
317096	1.00	1.00	1.00	163814,317096, 500ul+5ul SVMS8389	26 Aug 2019	21:44
317100	1.00	1.00	1.00	163814,317100, 500ul+5ul SVMS8389	26 Aug 2019	22:05

Data Path : C:\INSTARCH\DATA\1S082619\
Data File : 1DFTP453.D
Acq On : 26 Aug 2019 14:34
Operator : JJY
Sample : DFTPP TUNE SVMS8353
Misc : SVMS1, 25ng DFTPP
ALS Vial : 1 Sample Multiplier: 1

Integration File: ddd.p

Method : C:\INSTARCH\METHOD\1DFTPAH.M
Title : DFTPP TUNE
Last Update : Mon Aug 26 14:45:29 2019



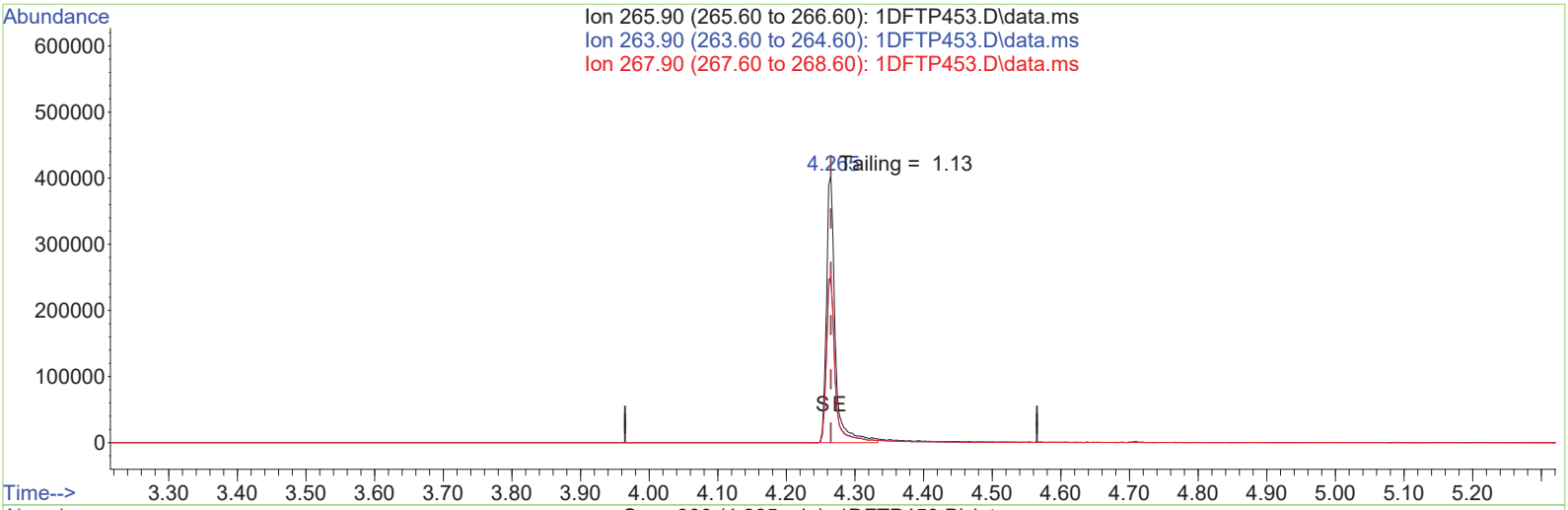
AutoFind: Scans 521, 522, 523; Background Corrected with Scan 513

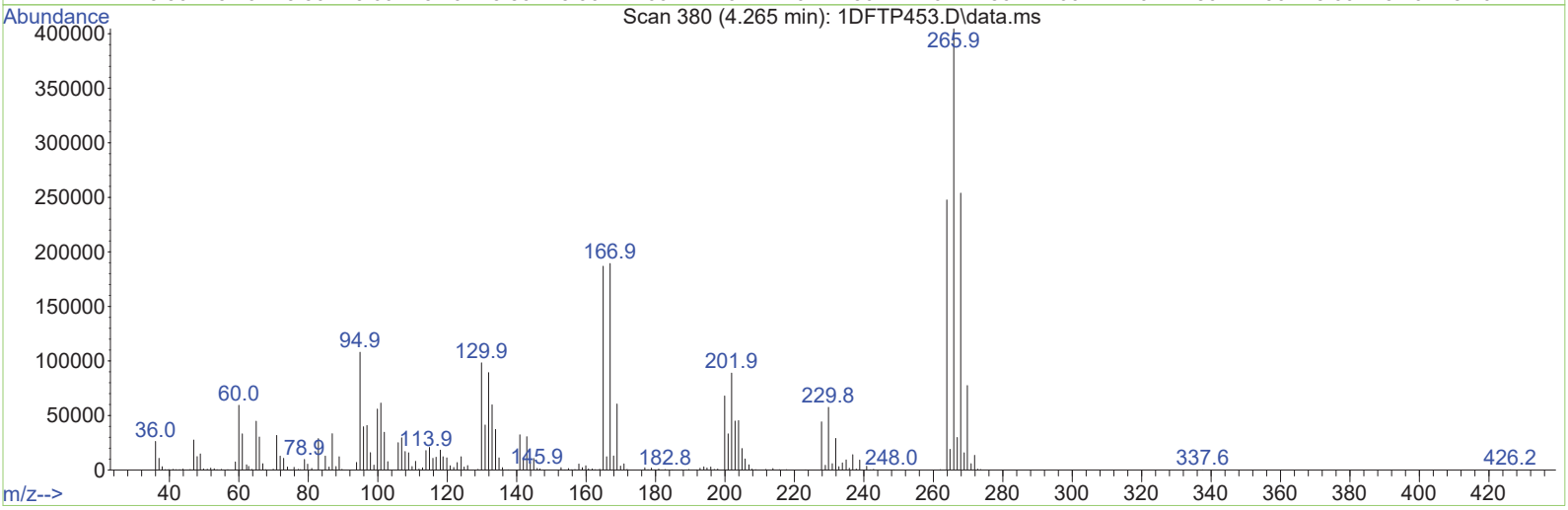
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	55.3	239478	PASS
68	69	0.00	2	1.8	4483	PASS
70	69	0.00	2	0.5	1191	PASS
127	198	10	80	61.1	264256	PASS
197	198	0.00	2	0.2	701	PASS
198	198	50	100	100.0	432768	PASS
199	198	5	9	6.8	29427	PASS
275	198	10	60	22.1	95475	PASS
365	198	1	100	2.3	9950	PASS
441	442	0.01	24	14.6	42389	PASS
442	198	50	100	67.1	290496	PASS
443	442	15	24	20.4	59339	PASS

Quantitation Report (Qedit)

Data File : C:\INSTARCH\DATA\1S082619\1DFTP453.D Vial: 1
Acq On : 26 Aug 2019 14:34 Operator: JJY
Sample : DFTPP TUNE SVMS8353 Inst : SVMS1
Misc : SVMS1, 25ng DFTPP Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 26 14:45:38 2019

Quant Method : C:\INSTARCH\METHOD\1DFTPAH.M
Quant Title : DFTPP TUNE
QLast Update : Mon Aug 26 14:45:29 2019
Response via : Initial Calibration
DataAcq Meth:1DFTPAH.M





TIC: 1DFTP453.D\data.ms

(1) Pentachlorophenol

4.265min (-0.000) 20.31 ng

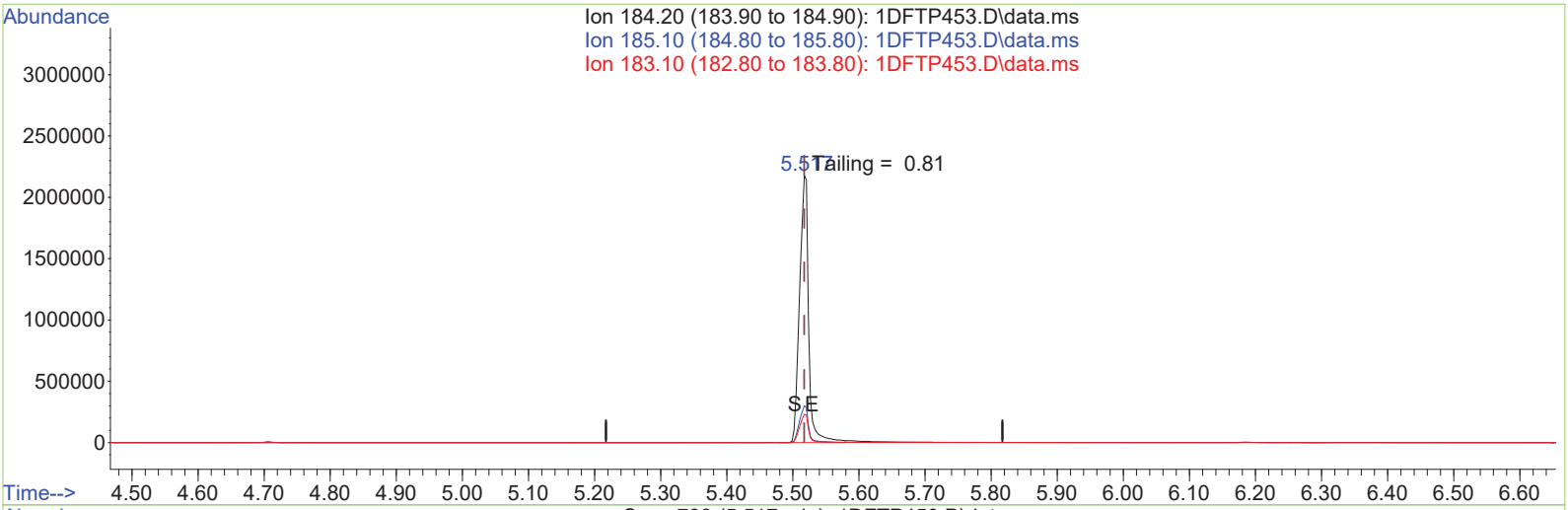
response 351946

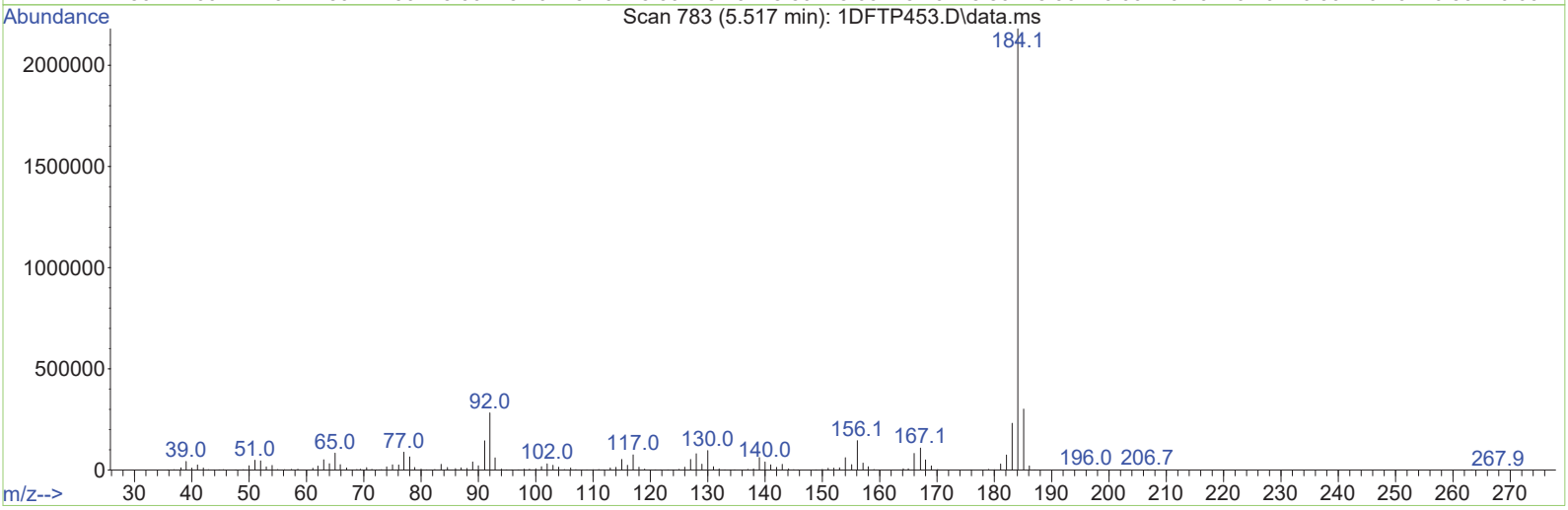
Ion	Exp%	Act%
265.90	100.00	100.00
263.90	62.70	64.39
267.90	61.80	62.58
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\INSTARCH\DATA\1S082619\1DFTP453.D Vial: 1
Acq On : 26 Aug 2019 14:34 Operator: JJY
Sample : DFTPP TUNE SVMS8353 Inst : SVMS1
Misc : SVMS1, 25ng DFTPP Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 26 14:45:38 2019

Quant Method : C:\INSTARCH\METHOD\1DFTPAH.M
Quant Title : DFTPP TUNE
QLast Update : Mon Aug 26 14:45:29 2019
Response via : Initial Calibration
DataAcq Meth:1DFTPAH.M





TIC: 1DFTP453.D\data.ms

(3) Benzidine

5.517min (0.000) 32.11 ng

response 2110437

Ion	Exp%	Act%
184.20	100.00	100.00
185.10	13.70	13.62
183.10	10.70	10.41
0.00	0.00	0.00

Data File Name	1DFTP453.D
Vial Number	1
Data File Path	C:\INSTARCH\DATA\1S082619\
Operator	JJY
Date Acquired	8/26/2019 14:34
Instrument Name	SVMS1
Sample Name	DFTPP TUNE SVMS8353
Sample Multiplier	1
Misc Info	SVMS1, 25ng DFTPP
Calibration Title	DFTPP TUNE
Last Calibration Update	Mon Aug 26 14:45:29 2019

#	Name	Ret Time	Target Response
1)	Pentachlorophenol	4.26	351946
2)	DFTPP	4.71	371082
3)	Benzidine	5.52	2110437
4)	DDE	5.68	1898
5)	DDD	5.95	14468
6)	DDT	6.19	861578

DDT % Degradation

$$\frac{DDD+DDEx100}{DDD+DDE+DDT} \quad 1.86\ \%$$

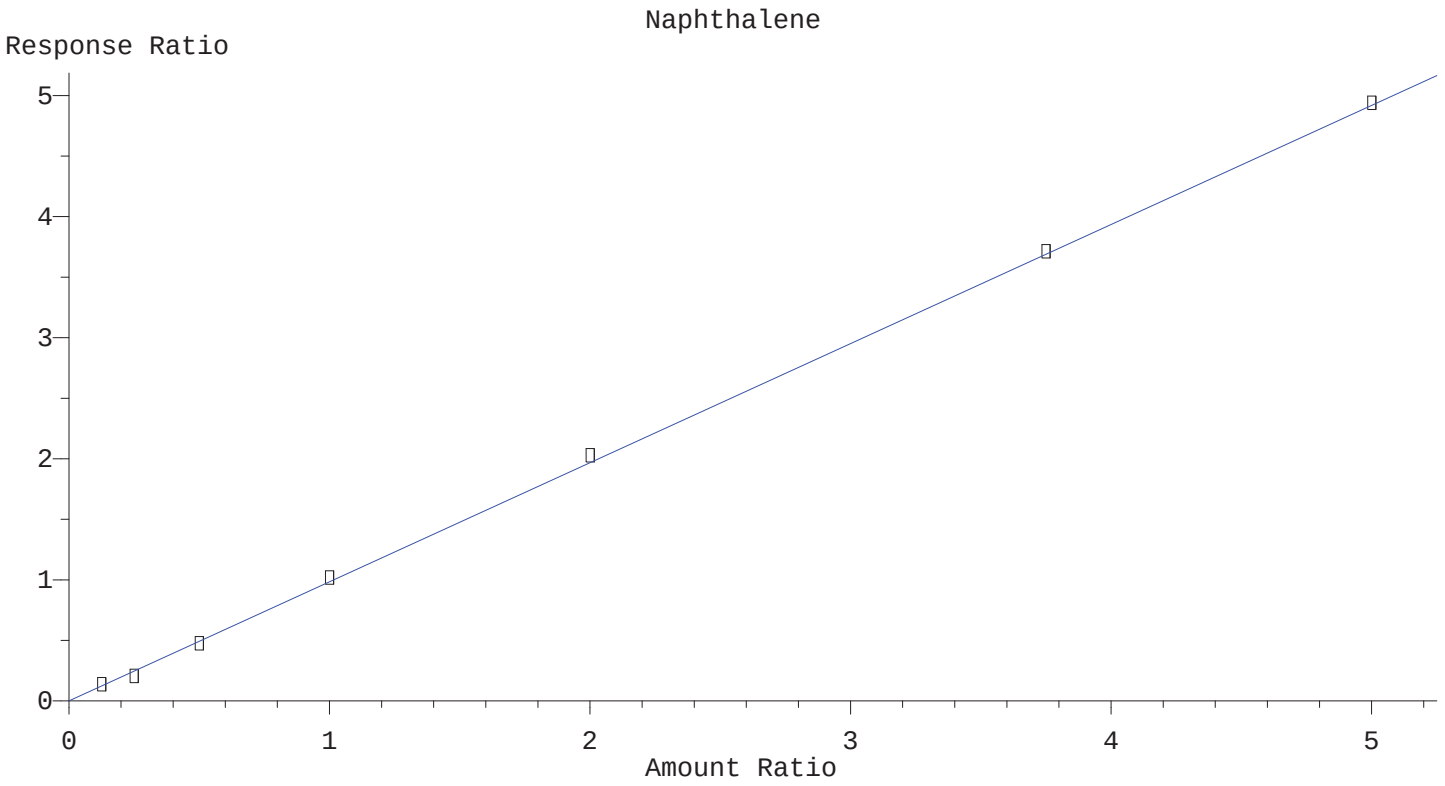
Response Factor Report SVMS1

Method Path : C:\INSTARCH\METHOD\
Method File : 1P082619.M
Title : Method for 8270 Analysis
Last Update : Tue Aug 27 15:37:47 2019
Response Via : Initial Calibration

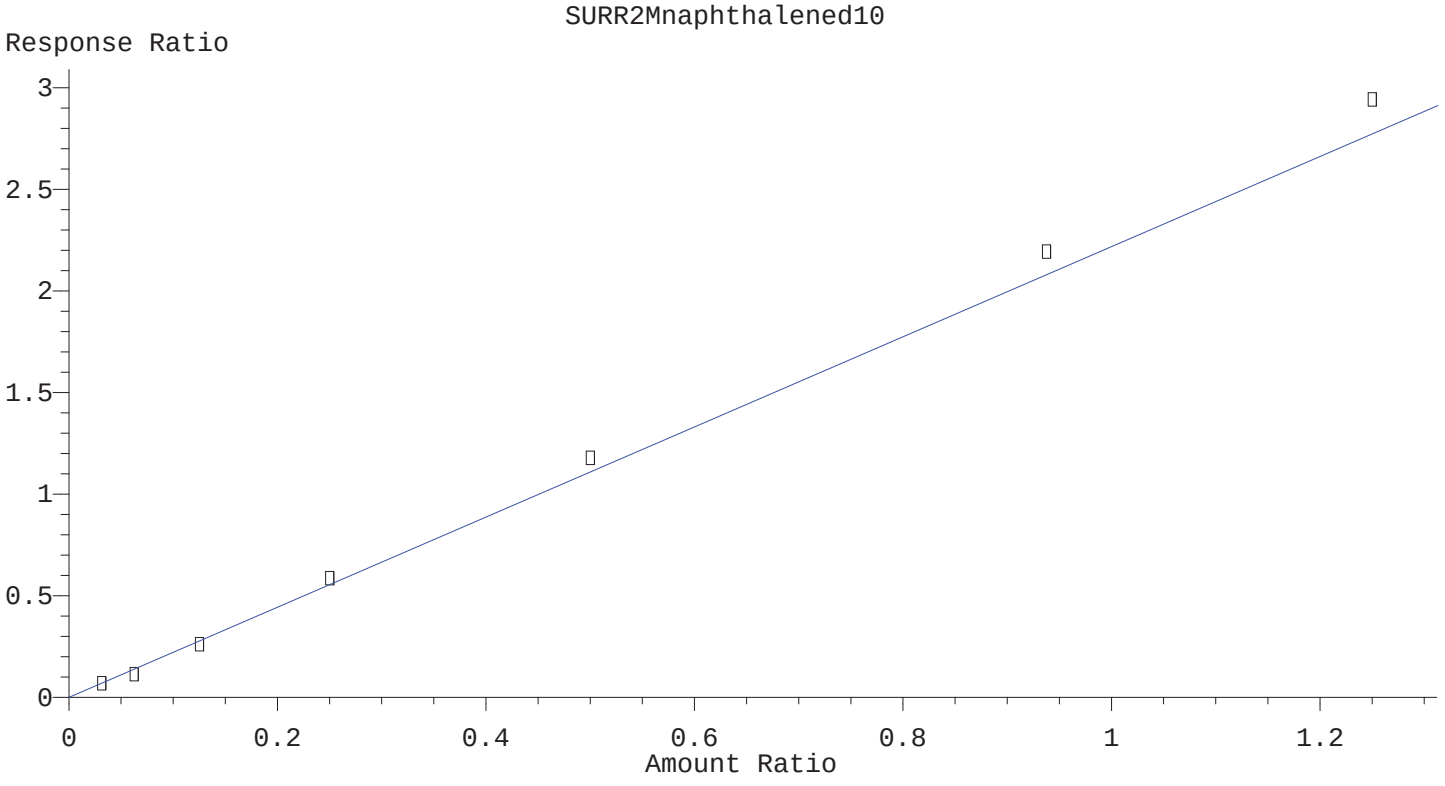
Calibration Files
1 =1ICAL1.D 2 =1ICAL2.D 3 =1ICAL3.D 4 =1ICAL4.D 5 =1ICAL5.D 6 =1ICAL6.D 7 =1ICAL7.D

	Compound	1	2	3	4	5	6	7	Avg	%RSD
1)	I Naphthalened8	ISTD								
2)	CPT Naphthalene	1.100	0.824	0.950	1.018	1.014	0.990	0.988	0.984	8.54
3)	S SURR2Mnaphthal...	2.217	1.826	2.089	2.347	2.356	2.340	2.354	2.218	9.00
4)	CPT 2Methylnaphth	0.528	0.430	0.503	0.563	0.576	0.585	0.593	0.540	10.75
5)	CT 1Methylnaphth	0.594	0.469	0.511	0.551	0.535	0.513	0.518	0.527	7.29
6)	I Acenaphthened10	ISTD								
7)	CPT Acnaphthylene	1.676	1.351	1.550	1.714	1.795	1.807	1.849	1.677	10.45
8)	CPT Acenaphthene	1.410	1.025	1.086	1.129	1.120	1.096	1.086	1.136	11.04
9)	CPT Fluorene	1.328	1.028	1.139	1.222	1.254	1.207	1.216	1.199	7.89
10)	I Phenanthrd10	ISTD								
11)	CPT Phenanthrene	1.658	1.128	1.065	1.047	1.018	0.981	0.989	1.127	21.27#
12)	CPT Anthracene	1.098	0.843	0.935	1.018	1.026	1.009	1.043	0.996	8.34
13)	S SURRFluoranthe...	4.194	3.381	3.921	4.156	4.092	3.971	3.934	3.950	6.91
14)	CPT Fluoranthene	1.398	1.034	1.114	1.148	1.123	1.074	1.081	1.139	10.56
15)	I Chrysene-d12	ISTD								
16)	CPT Pyrene	1.838	1.449	1.550	1.605	1.591	1.654	1.636	1.617	7.32
17)	CPT B[a]anthracen	0.991	0.784	0.861	1.015	1.097	1.137	1.197	1.012	14.68
18)	CPT Chrysene	1.533	1.189	1.370	1.475	1.449	1.407	1.413	1.405	7.77
19)	I Perylene-d12	ISTD								
20)	CPT B[b]fluoranth	1.188	0.874	1.041	1.200	1.334	1.285	1.327	1.179	14.28
21)	CPT B[k]fluoranth	1.607	1.417	1.619	1.672	1.581	1.586	1.613	1.585	5.03
22)	CPT Benz[a]pyrene	1.101	0.873	1.021	1.173	1.230	1.259	1.308	1.138	13.36
23)	CPT Indeno-pyrene	0.916	0.749	0.908	1.137	1.252	1.266	1.318	1.078	20.38
24)	CPT Dib[ah]anthr	0.858	0.688	0.820	0.980	1.049	1.050	1.105	0.936	16.15
25)	CPT B[ghi]perylen	0.806	0.650	0.829	0.973	1.050	1.072	1.134	0.931	18.73

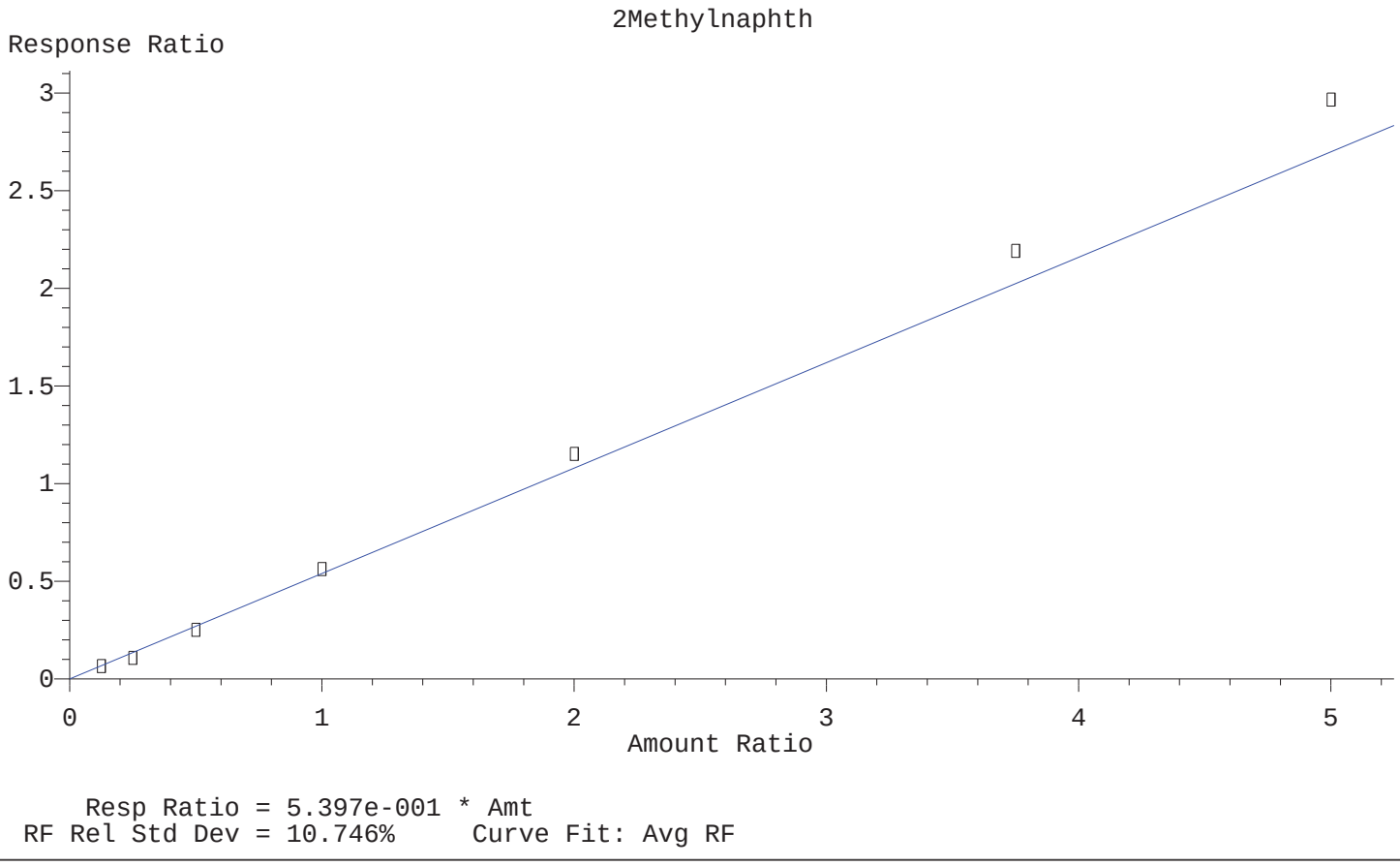
(#) = Out of Range



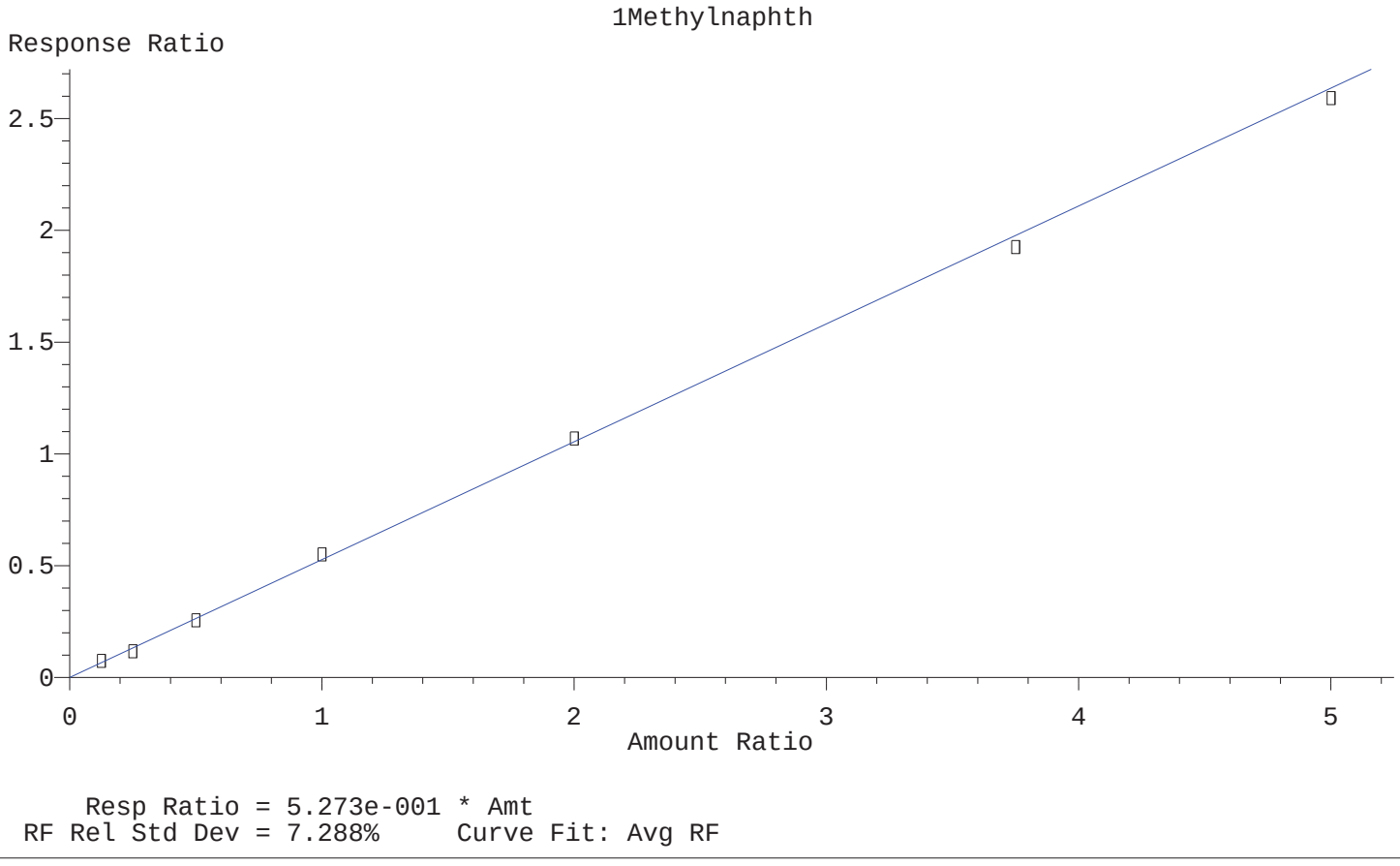
Resp Ratio = 9.836e-001 * Amt
RF Rel Std Dev = 8.541% Curve Fit: Avg RF



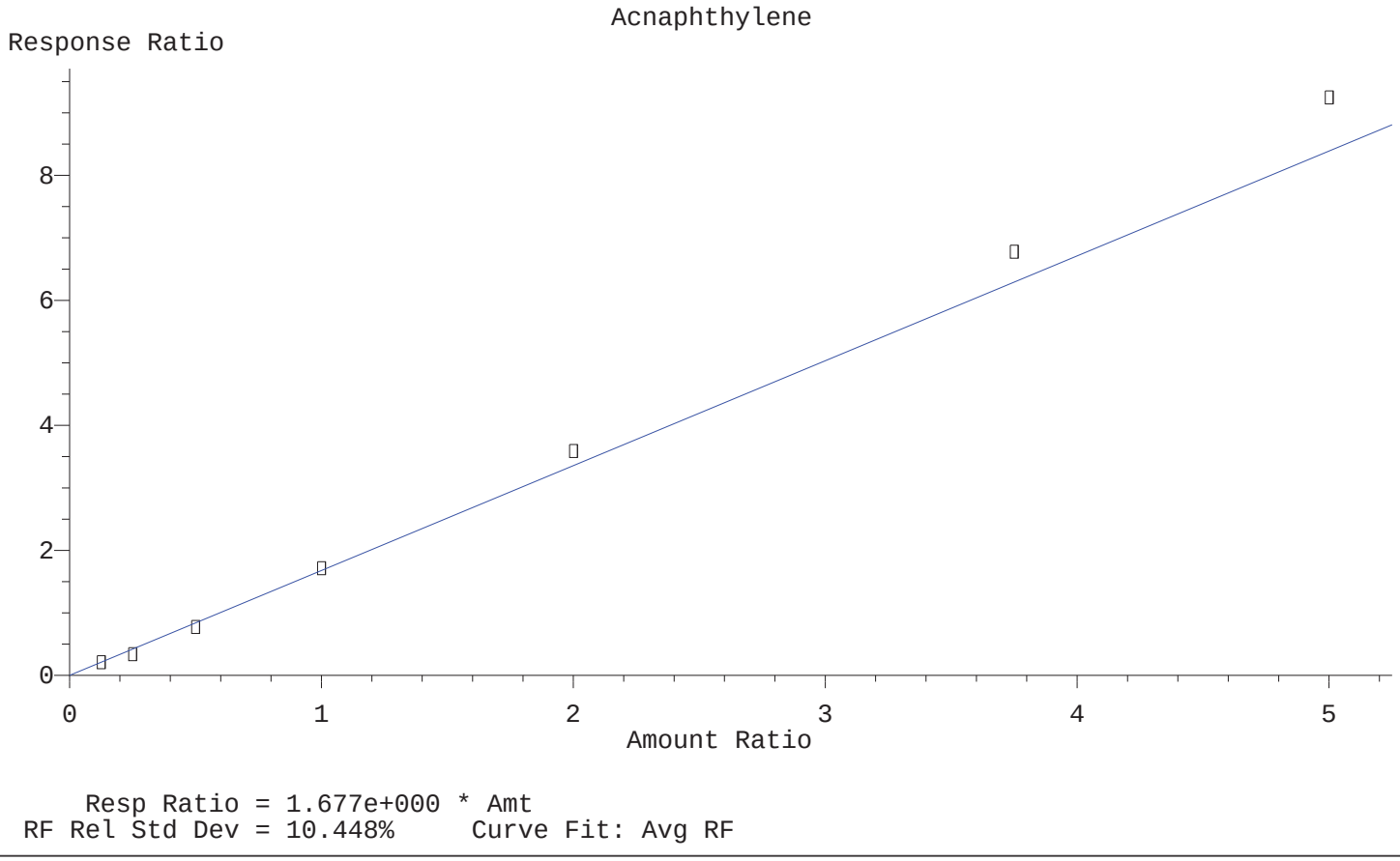
Resp Ratio = 2.218e+000 * Amt
RF Rel Std Dev = 8.996% Curve Fit: Avg RF



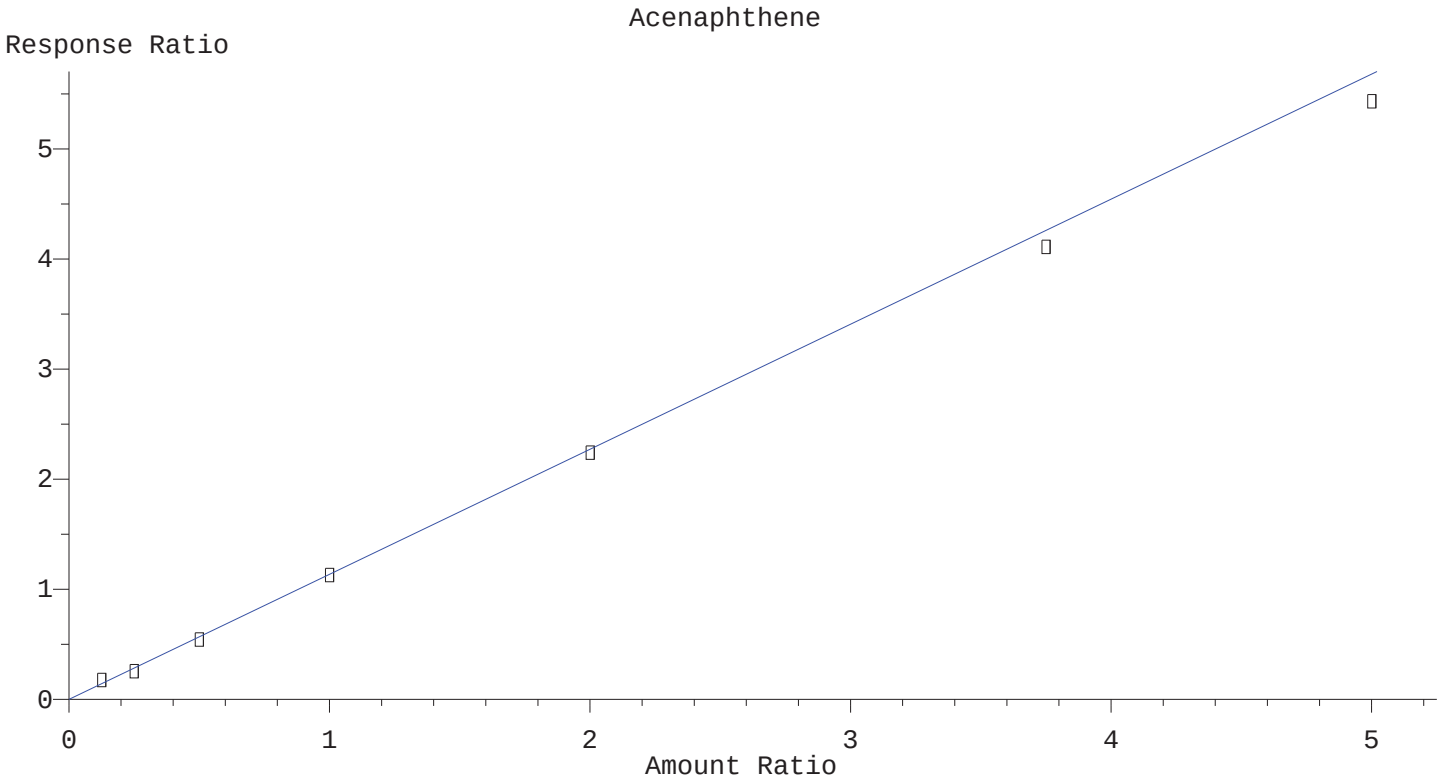
Resp Ratio = 5.397e-001 * Amt
RF Rel Std Dev = 10.746% Curve Fit: Avg RF



Resp Ratio = 5.273e-001 * Amt
RF Rel Std Dev = 7.288% Curve Fit: Avg RF

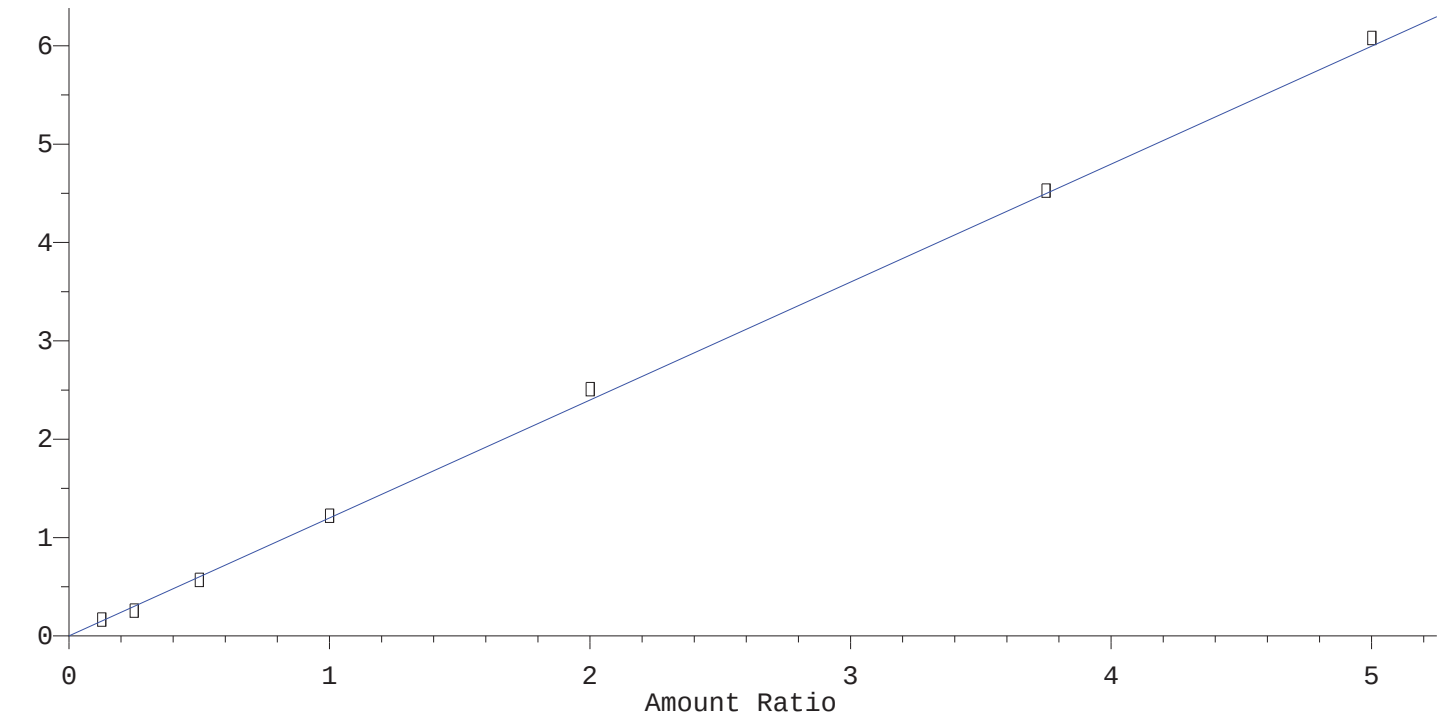


Resp Ratio = 1.677e+000 * Amt
RF Rel Std Dev = 10.448% Curve Fit: Avg RF



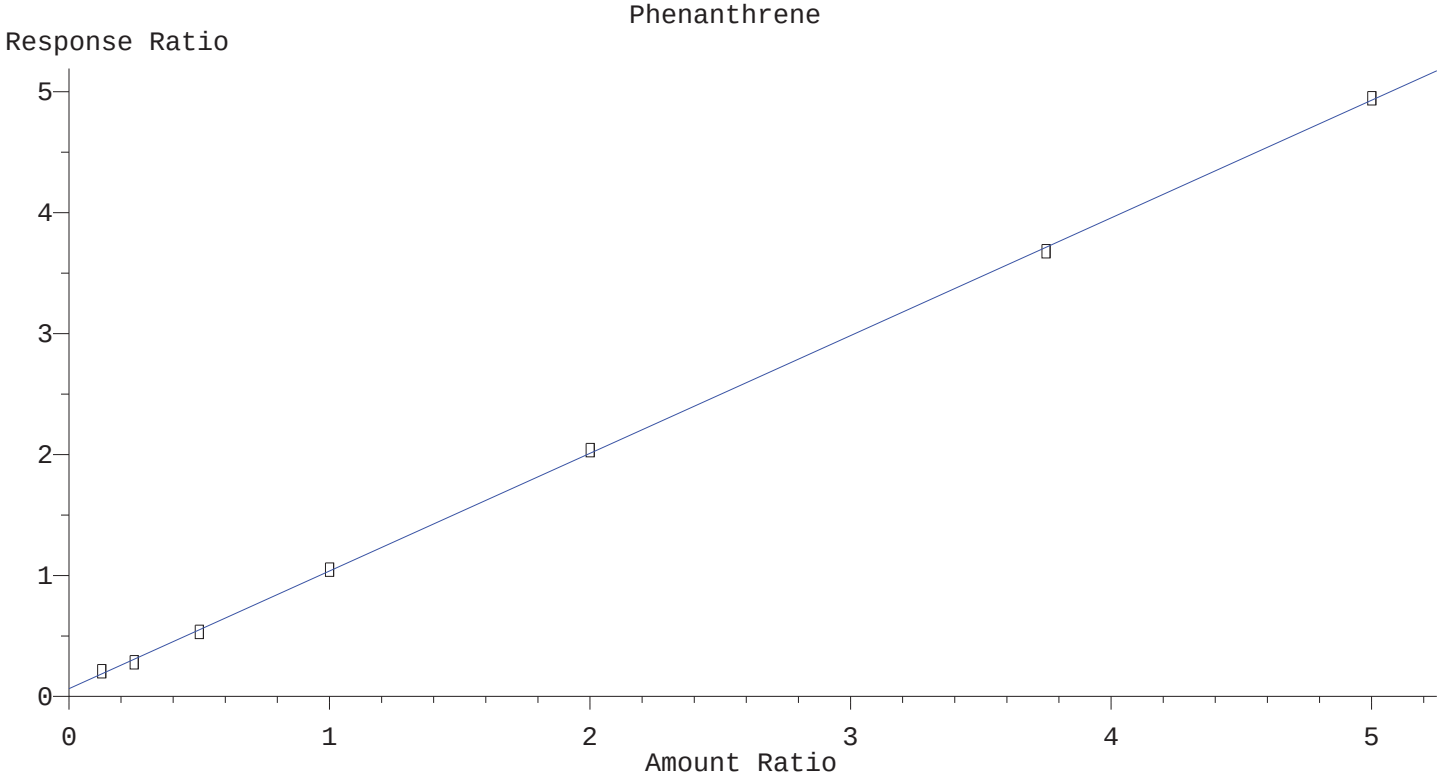
Resp Ratio = 1.136e+000 * Amt
RF Rel Std Dev = 11.039% Curve Fit: Avg RF

Fluorene

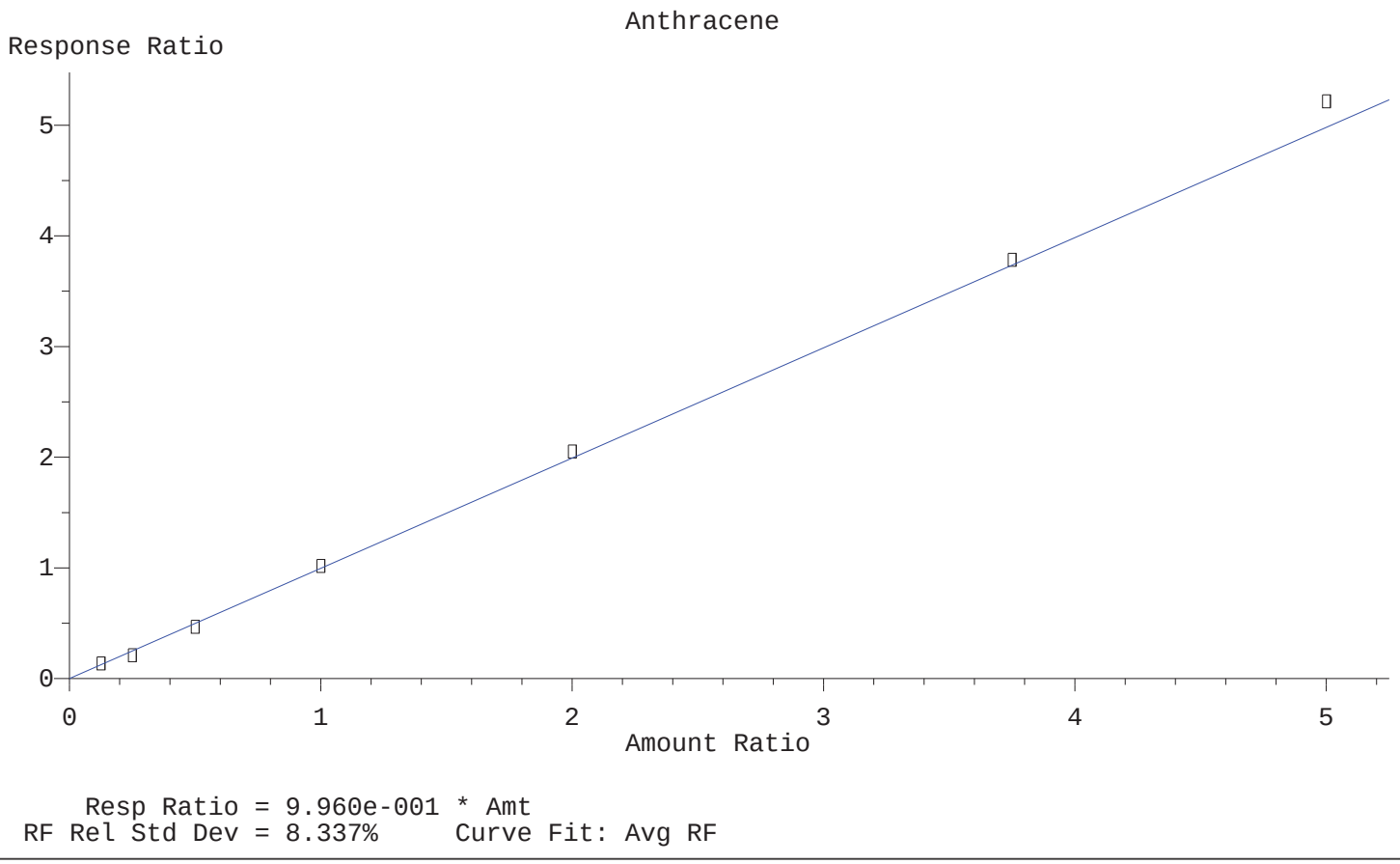


Resp Ratio = 1.199e+000 * Amt
RF Rel Std Dev = 7.887% Curve Fit: Avg RF

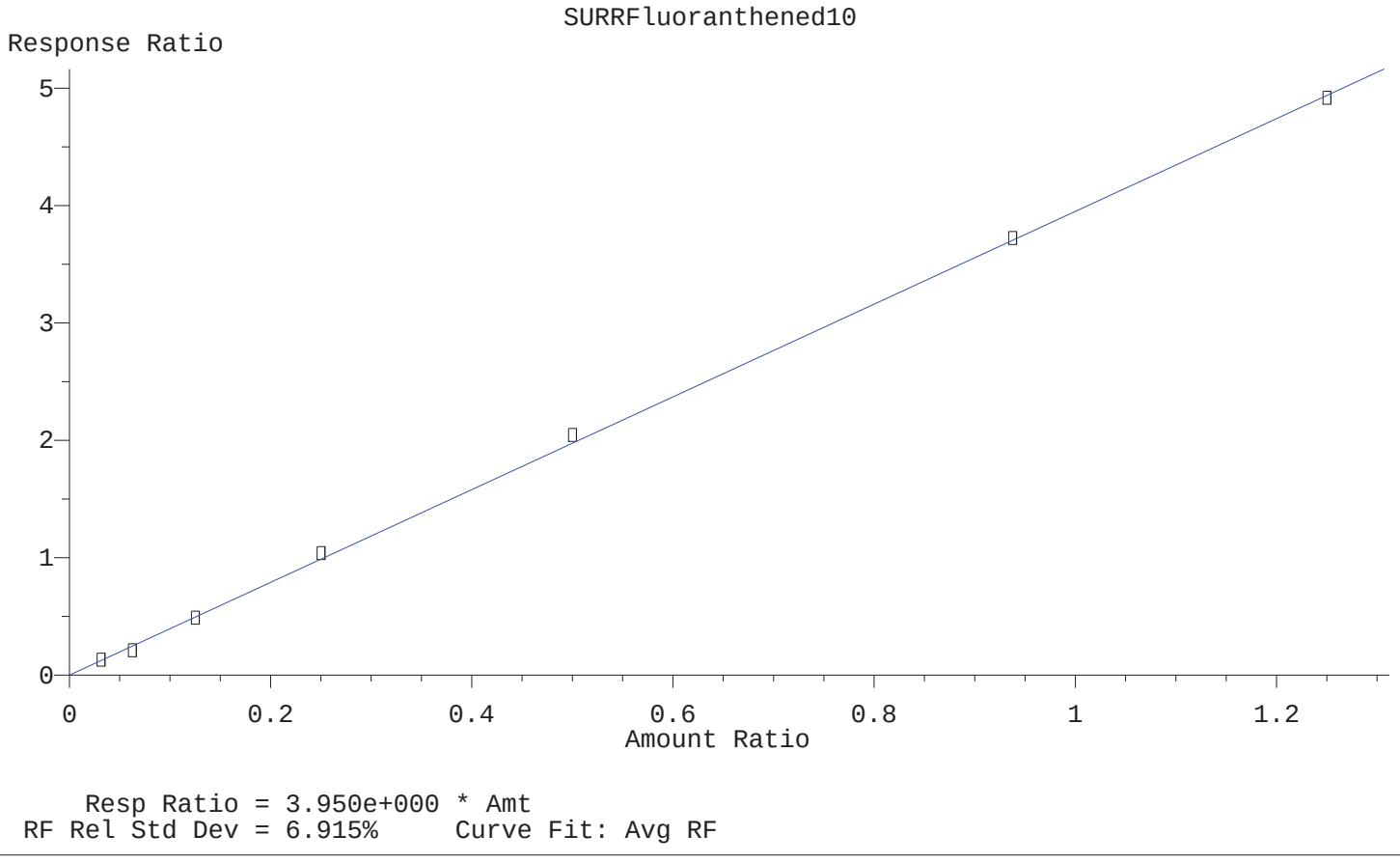
Phenanthrene



Resp Ratio = 9.734e-001 * Amt + 6.294e-002
Coef of Det (r^2) = 1.000 Curve Fit: Linear

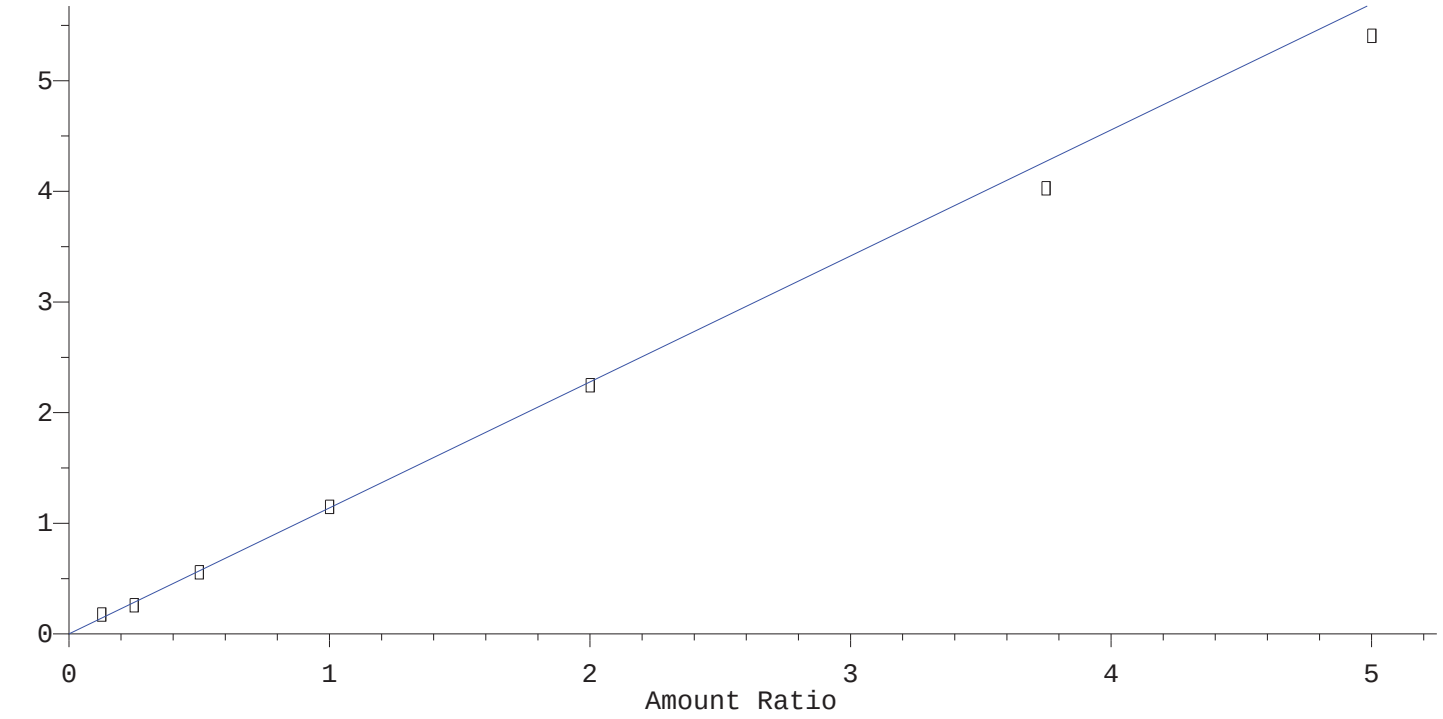


Resp Ratio = 9.960e-001 * Amt
RF Rel Std Dev = 8.337% Curve Fit: Avg RF



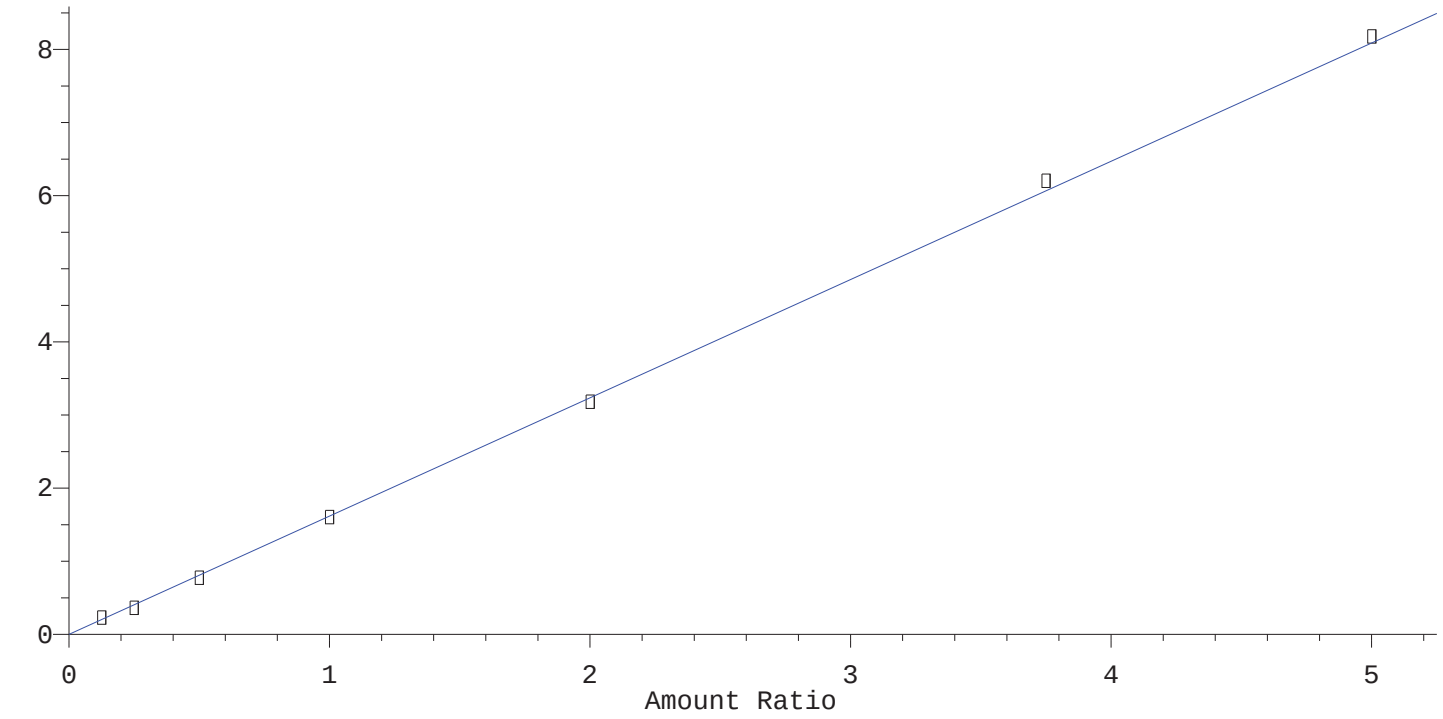
Resp Ratio = 3.950e+000 * Amt
RF Rel Std Dev = 6.915% Curve Fit: Avg RF

Fluoranthene



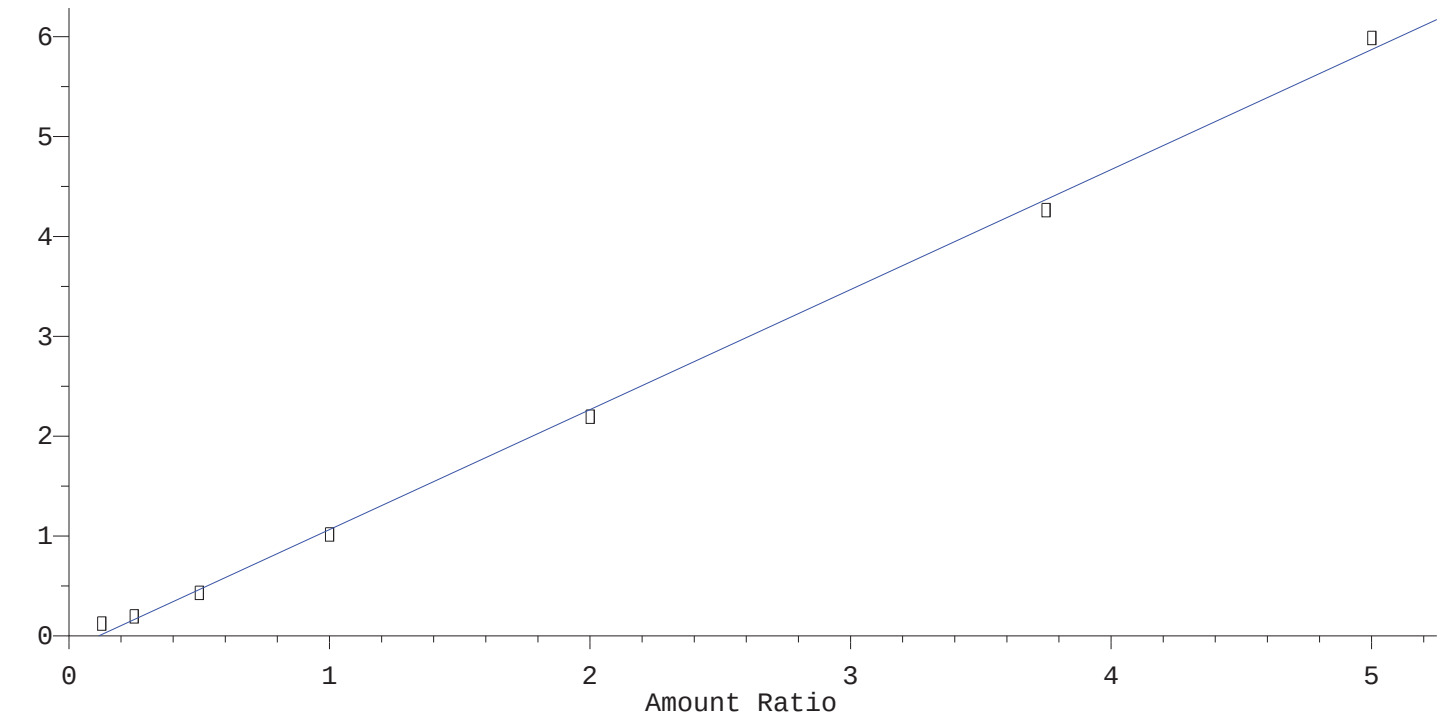
Resp Ratio = 1.139e+000 * Amt
RF Rel Std Dev = 10.562% Curve Fit: Avg RF

Pyrene



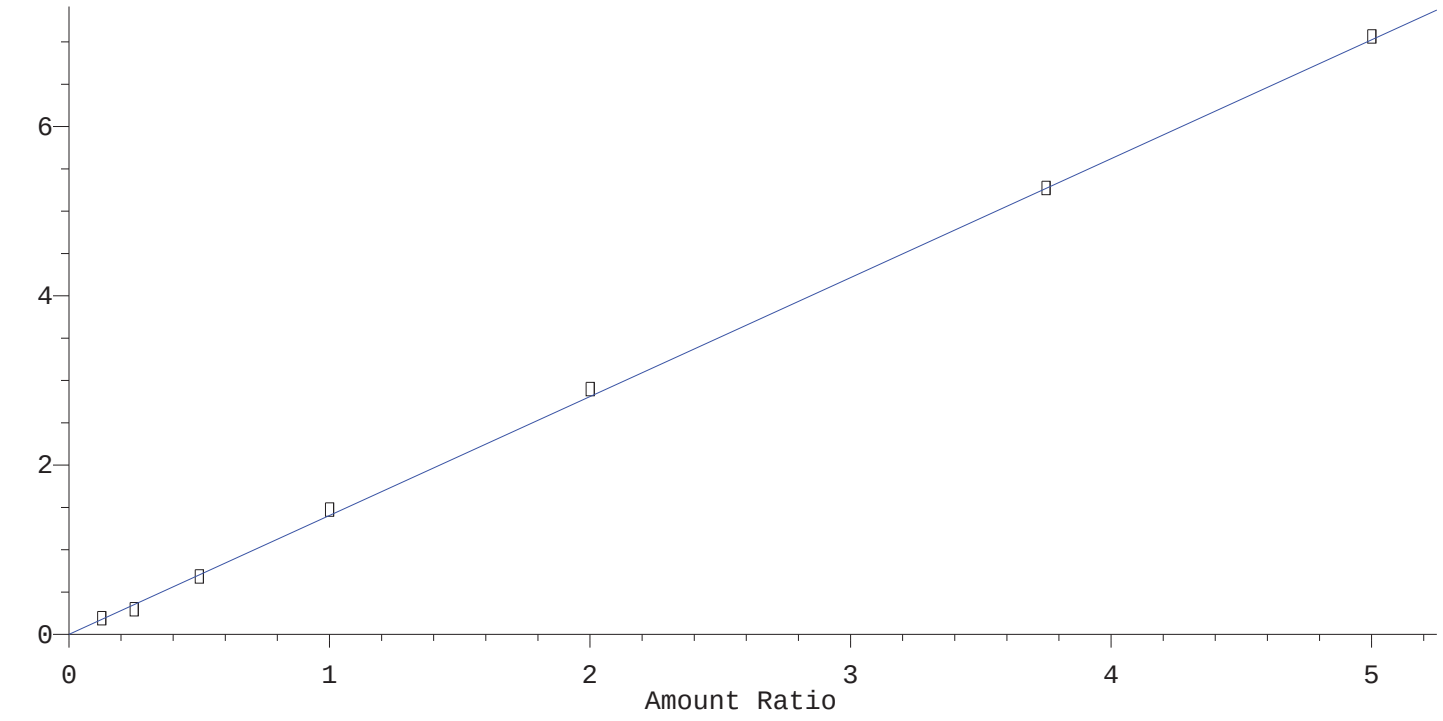
Resp Ratio = 1.617e+000 * Amt
RF Rel Std Dev = 7.316% Curve Fit: Avg RF

B[a]anthracen

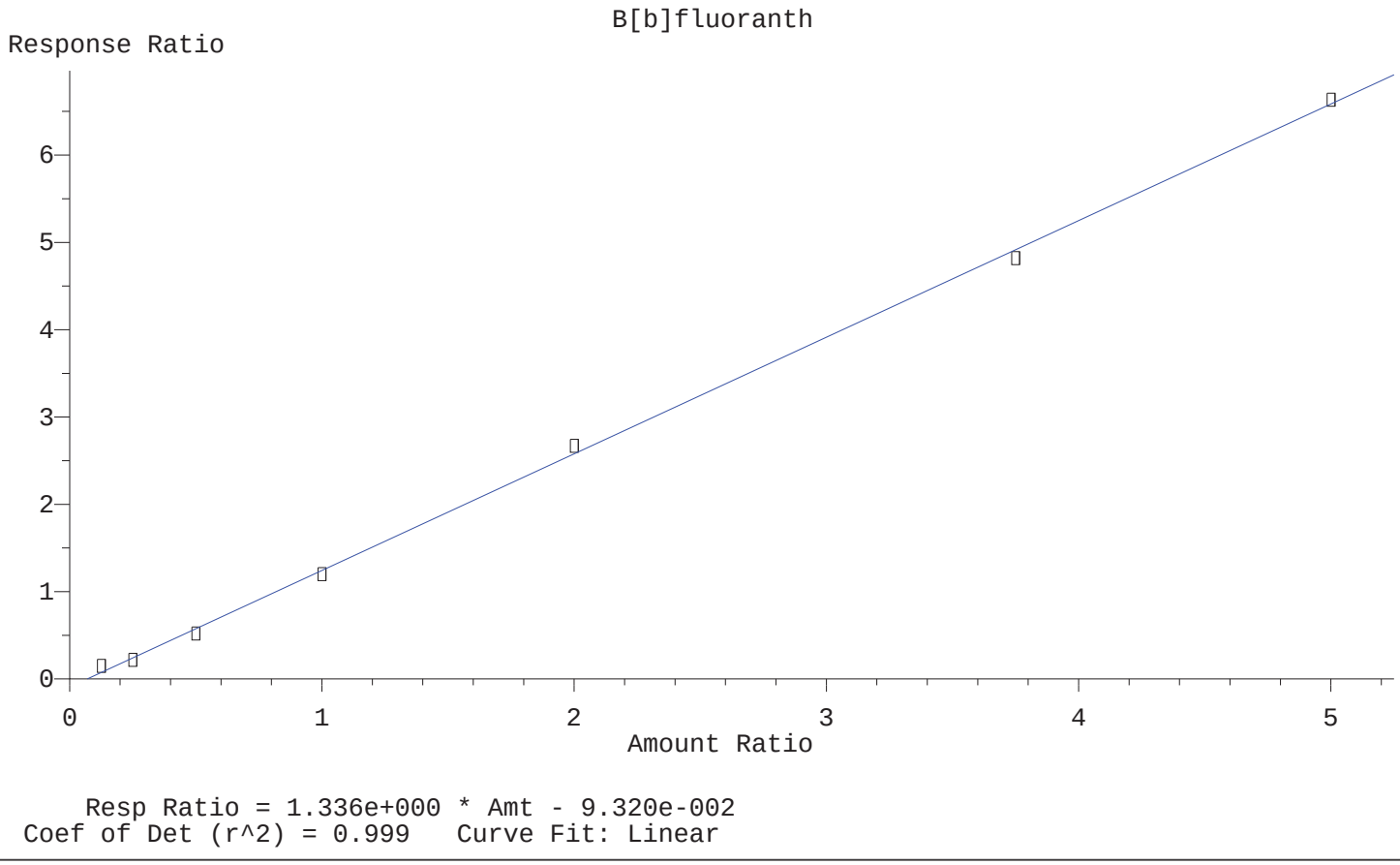


Resp Ratio = 1.201e+000 * Amt - 1.369e-001
Coef of Det (r^2) = 0.999 Curve Fit: Linear

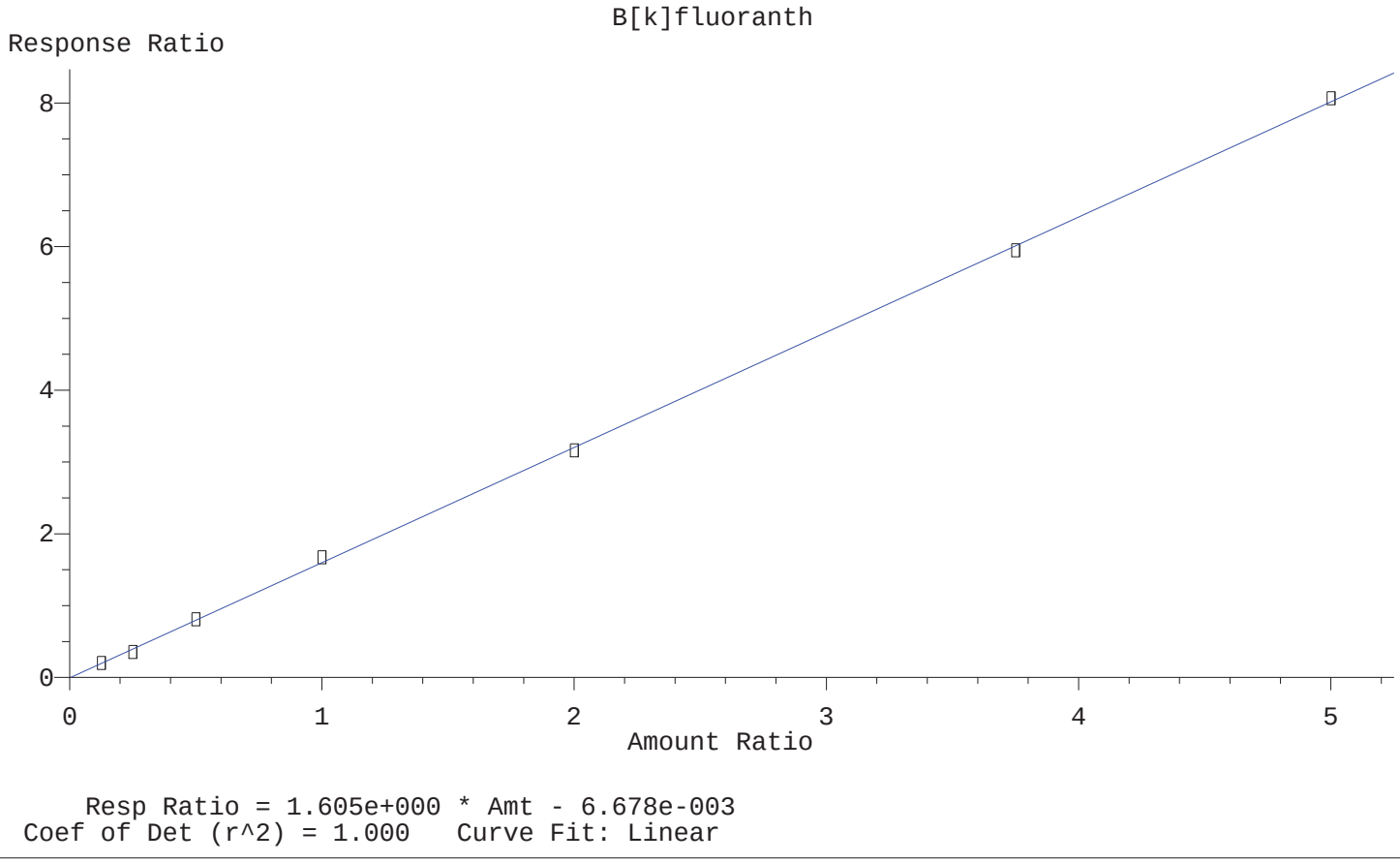
Chrysene



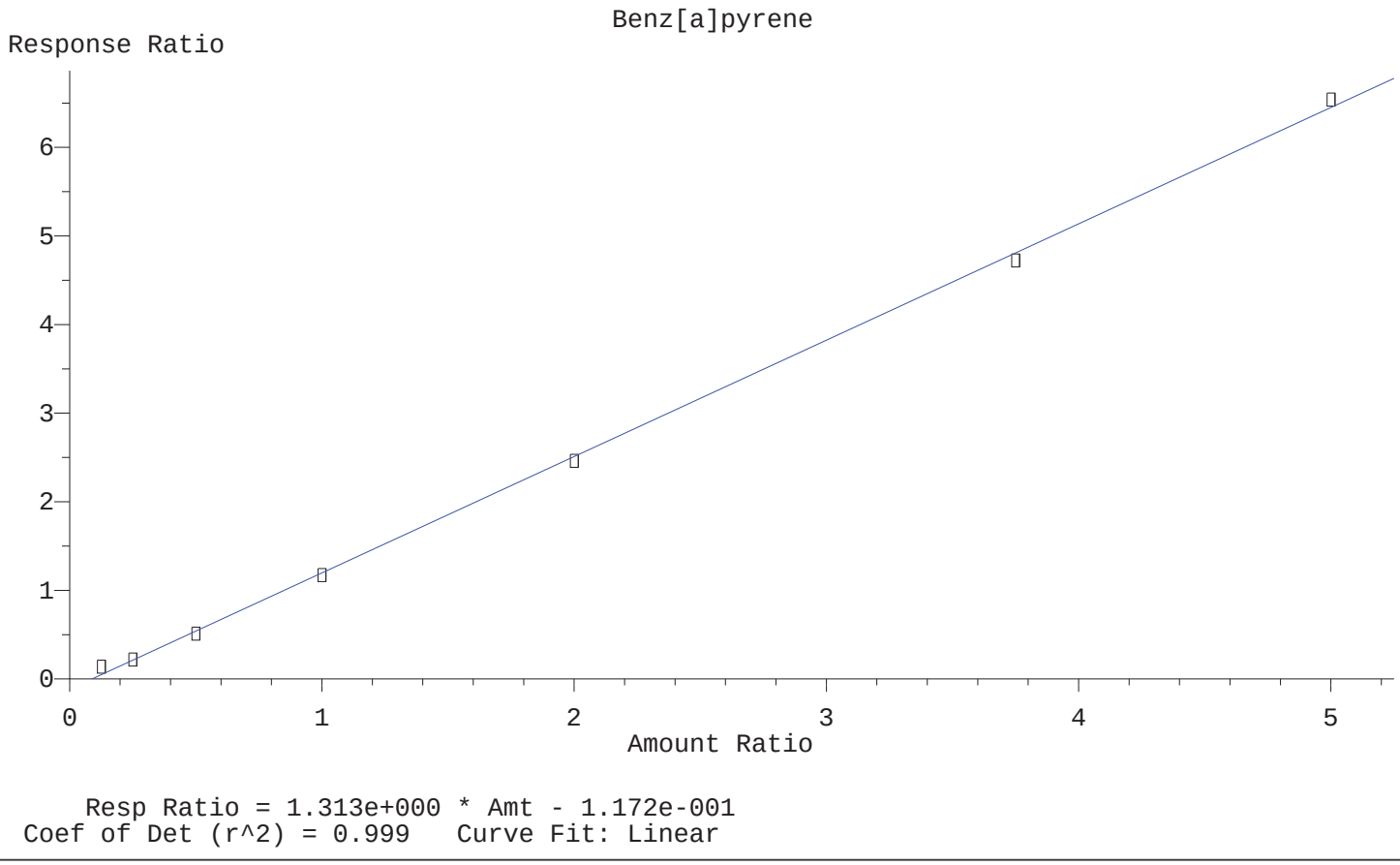
Resp Ratio = 1.405e+000 * Amt
RF Rel Std Dev = 7.768% Curve Fit: Avg RF



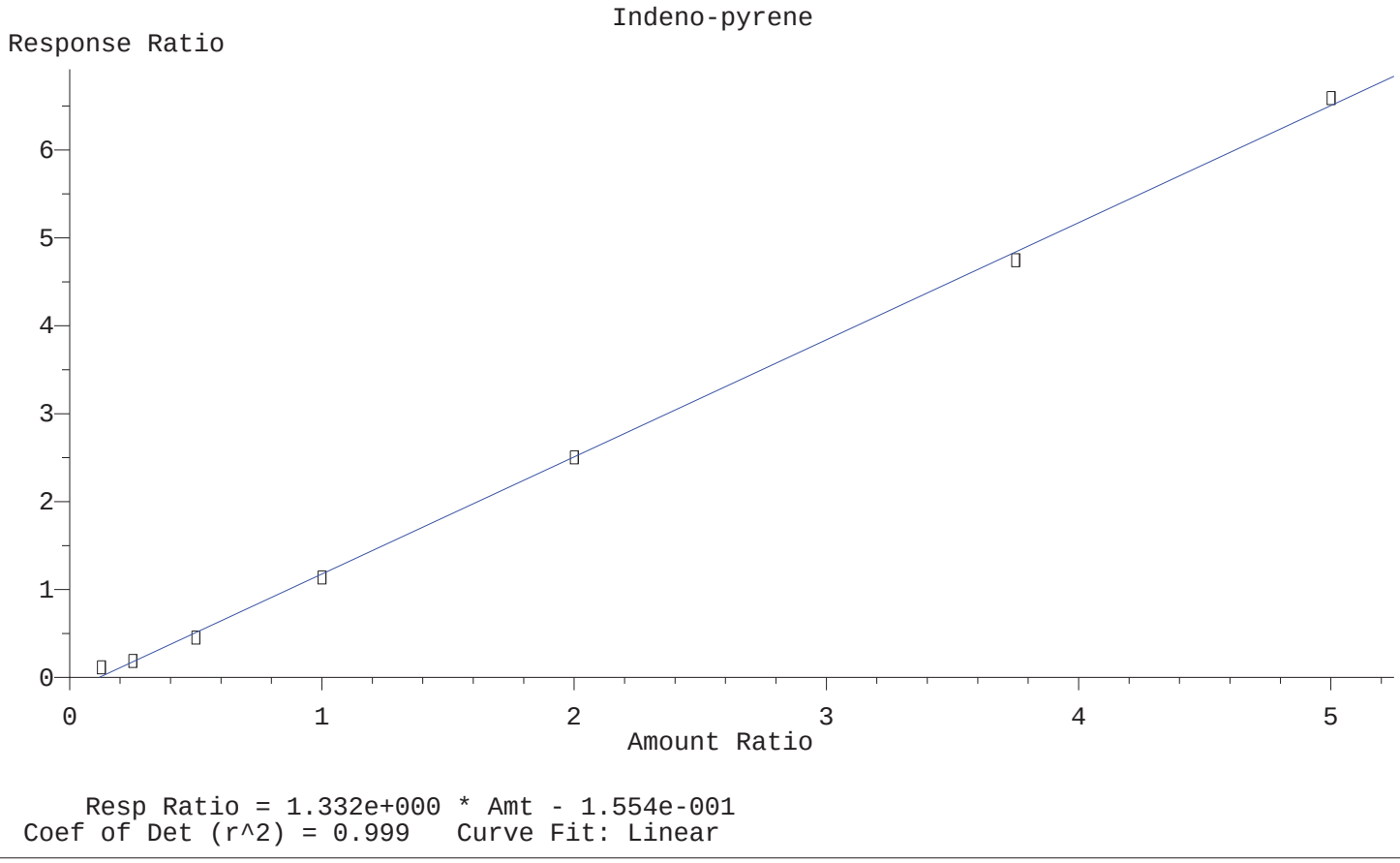
Resp Ratio = 1.336e+000 * Amt - 9.320e-002
Coef of Det (r^2) = 0.999 Curve Fit: Linear



Resp Ratio = 1.605e+000 * Amt - 6.678e-003
Coef of Det (r^2) = 1.000 Curve Fit: Linear

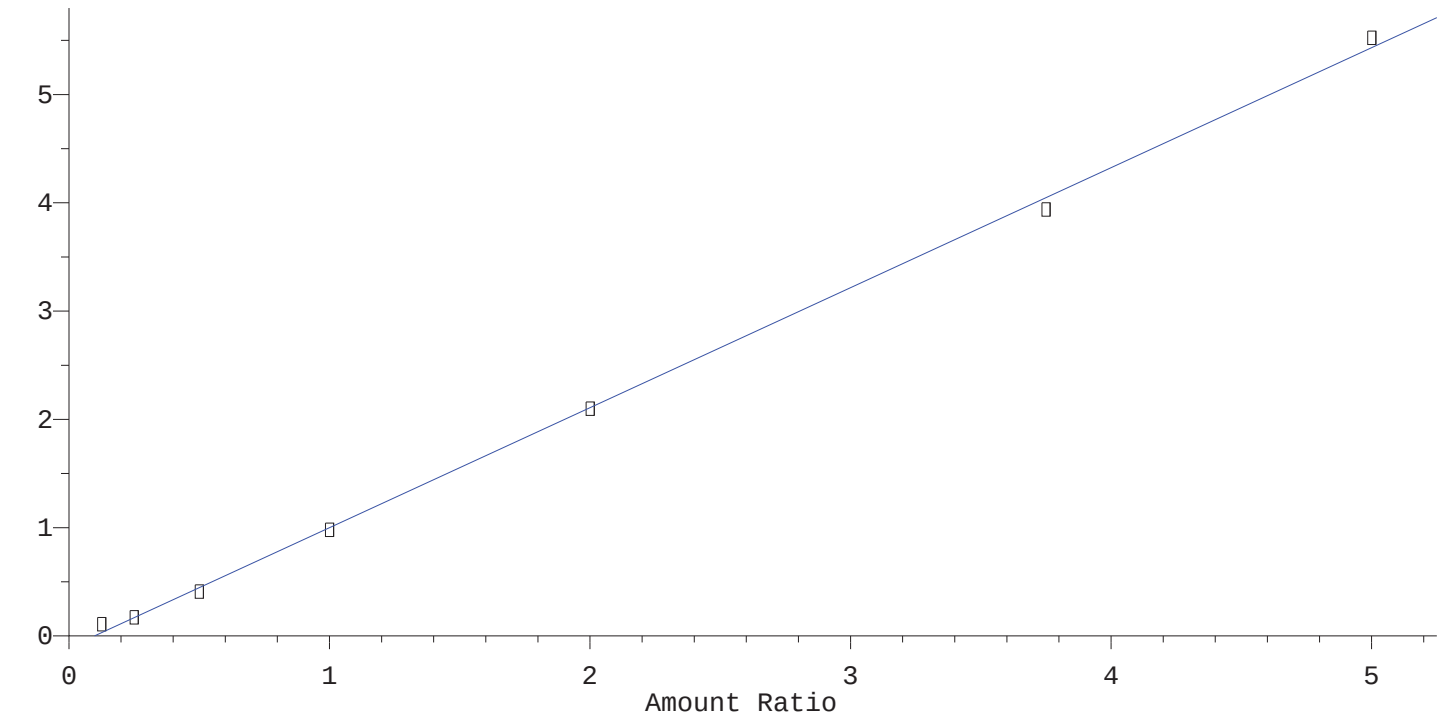


Resp Ratio = 1.313e+000 * Amt - 1.172e-001
Coef of Det (r^2) = 0.999 Curve Fit: Linear



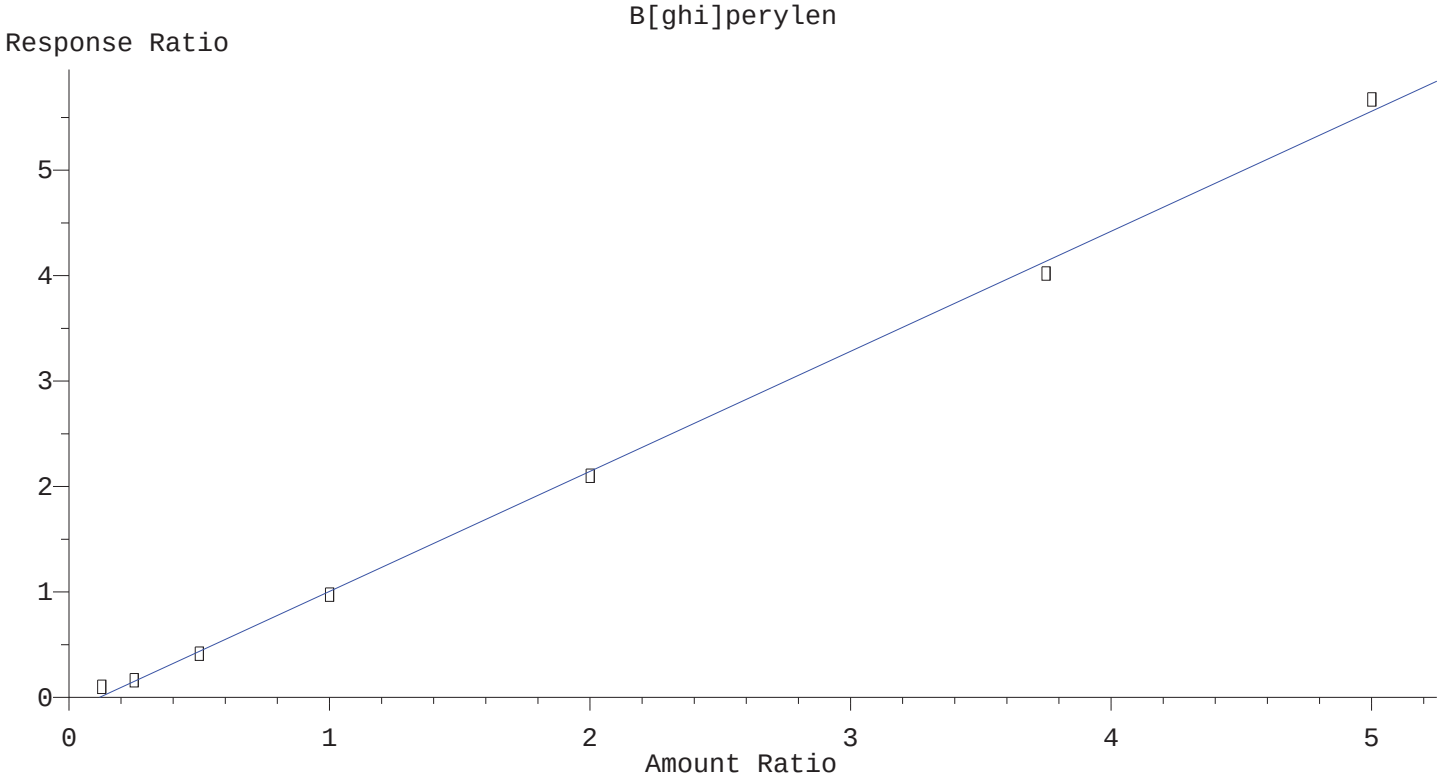
Resp Ratio = 1.332e+000 * Amt - 1.554e-001
Coef of Det (r^2) = 0.999 Curve Fit: Linear

Dib[ah]anthr



Resp Ratio = 1.108e+000 * Amt - 1.089e-001
Coef of Det (r^2) = 0.999 Curve Fit: Linear

B[ghi]perylen



Resp Ratio = 1.139e+000 * Amt - 1.333e-001
Coef of Det (r^2) = 0.999 Curve Fit: Linear

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082619\1IB01.D Vial: 2
Acq On : 26 Aug 2019 14:49 Operator: JJY
Sample : InstrumentBlank Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 27 16:35:30 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 27 16:29:24 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

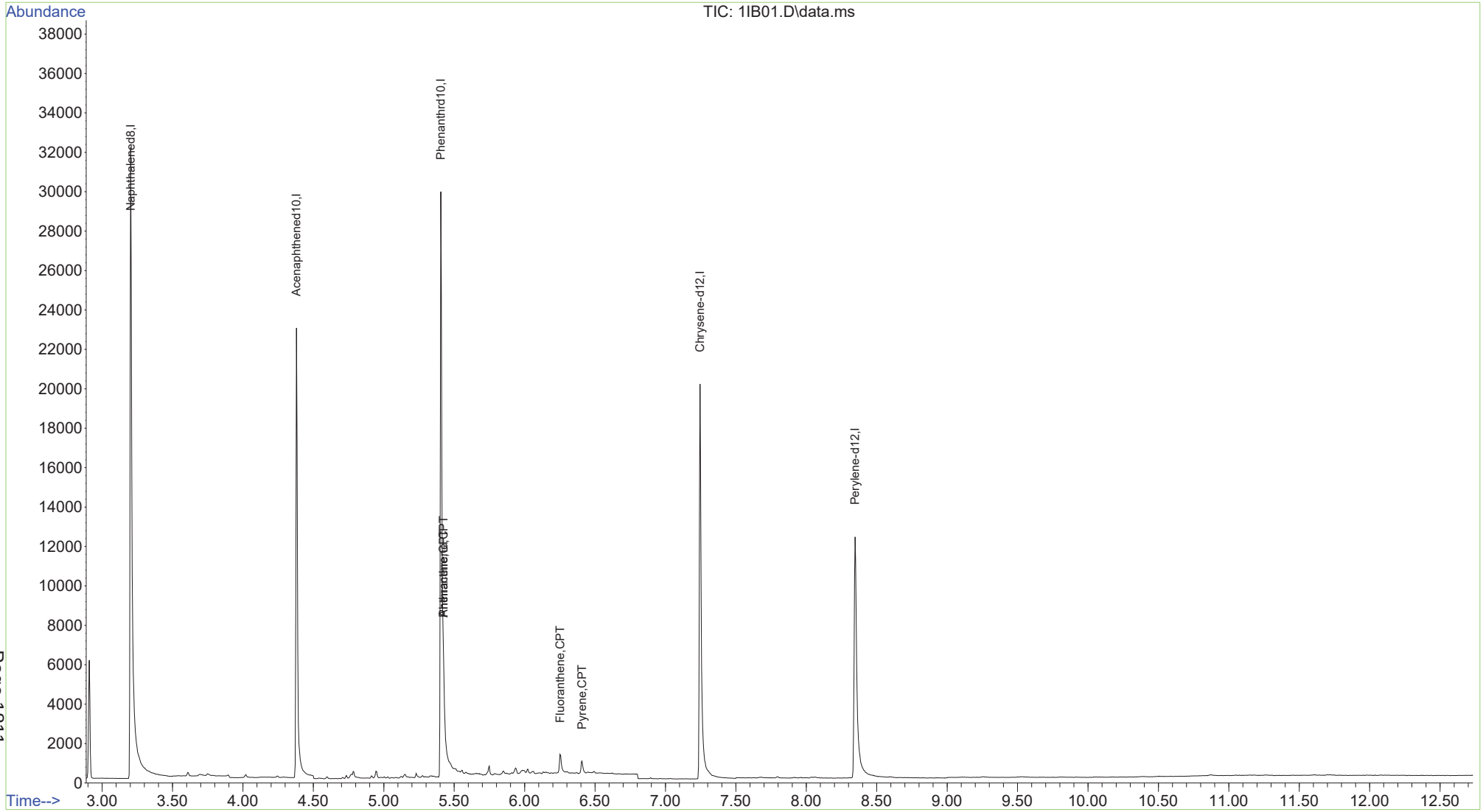
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.203	136	33148	400.00	ng/mL	0.00
6) Acenaphthened10	4.380	164	17117	400.00	ng/mL	0.00
10) Phenanthrd10	5.405	188	27207	400.00	ng/mL	0.00
15) Chrysene-d12	7.246	240	20009	400.00	ng/mL	0.00
19) Perylene-d12	8.346	264	16693	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	0.000	152	0	0.00	%REC	
Spiked Amount 100.000			Recovery =	0.00%		
13) SURRFluoranthened10	0.000	212	0	0.00	%REC	
Spiked Amount 100.000			Recovery =	0.00%		
Target Compounds						Qvalue
11) Phenanthrene	5.424	178	2872	17.5148	ng/mL	99
12) Anthracene	5.424	178	2872	42.3940	ng/mL	95
14) Fluoranthene	6.252	202	878	11.3346	ng/mL	96
16) Pyrene	6.408	202	529	6.5384	ng/mL	97

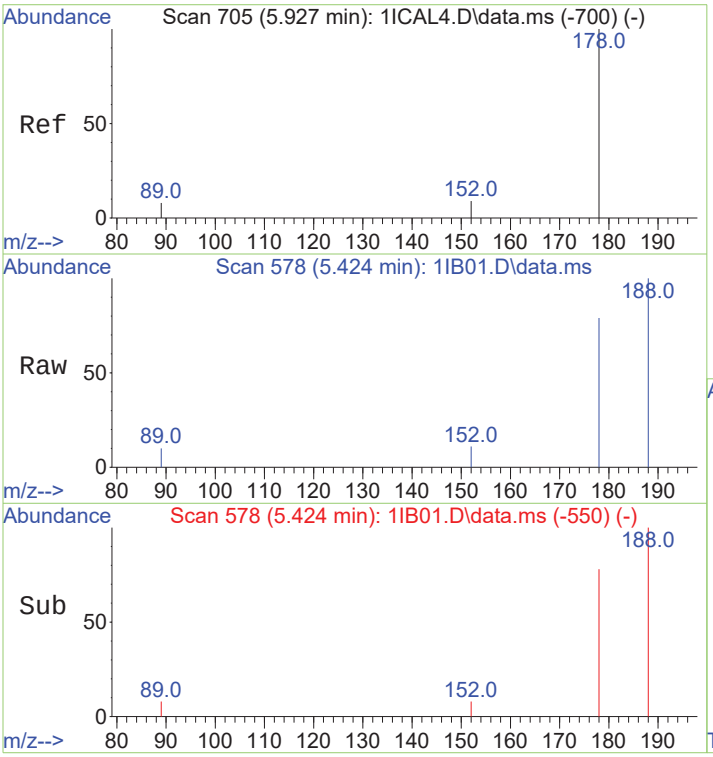
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082619\1IB01.D Vial: 2
Acq On : 26 Aug 2019 14:49 Operator: JJY
Sample : InstrumentBlank Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 27 16:35:30 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 27 16:29:24 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

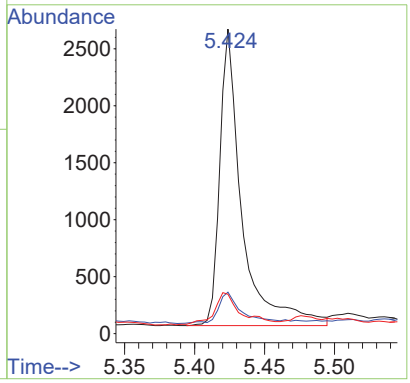


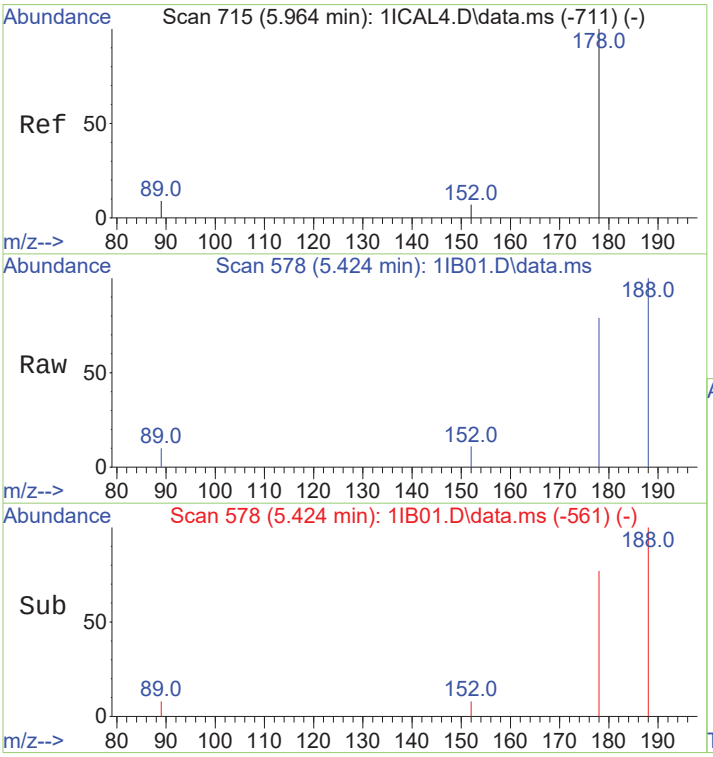


#11
Phenanthrene
Concen: 17.51 ng/mL
RT: 5.424 min Scan# 578
Delta R.T. 0.004 min
Lab File: 1IB01.D
Acq: 26 Aug 2019 14:49

Tgt Ion:178 Resp: 2872

Ion	Ratio	Lower	Upper
178	100		
152	9.8	0.0	40.1
89	10.8	0.0	41.4

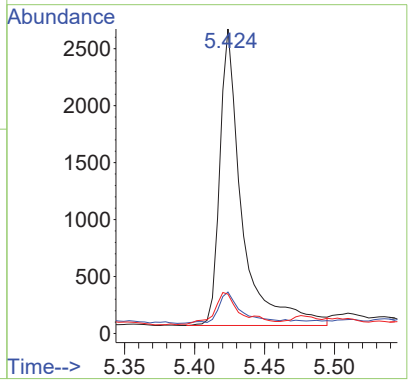


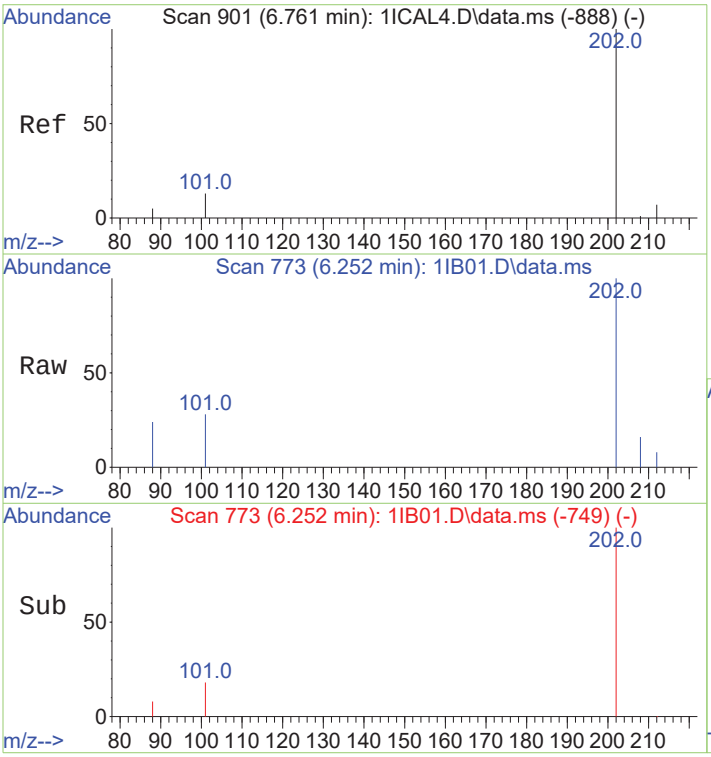


#12
Anthracene
Concen: 42.39 ng/mL
RT: 5.424 min Scan# 578
Delta R.T. -0.037 min
Lab File: 1IB01.D
Acq: 26 Aug 2019 14:49

Tgt Ion:178 Resp: 2872

Ion	Ratio	Lower	Upper
178	100		
152	10.4	0.0	37.8
89	10.1	0.0	31.3

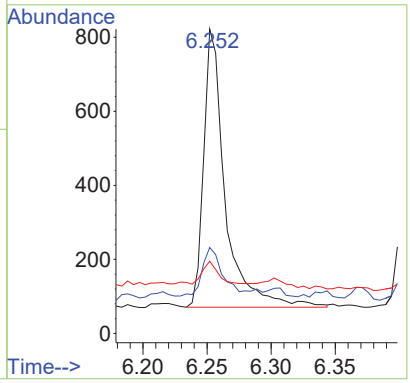


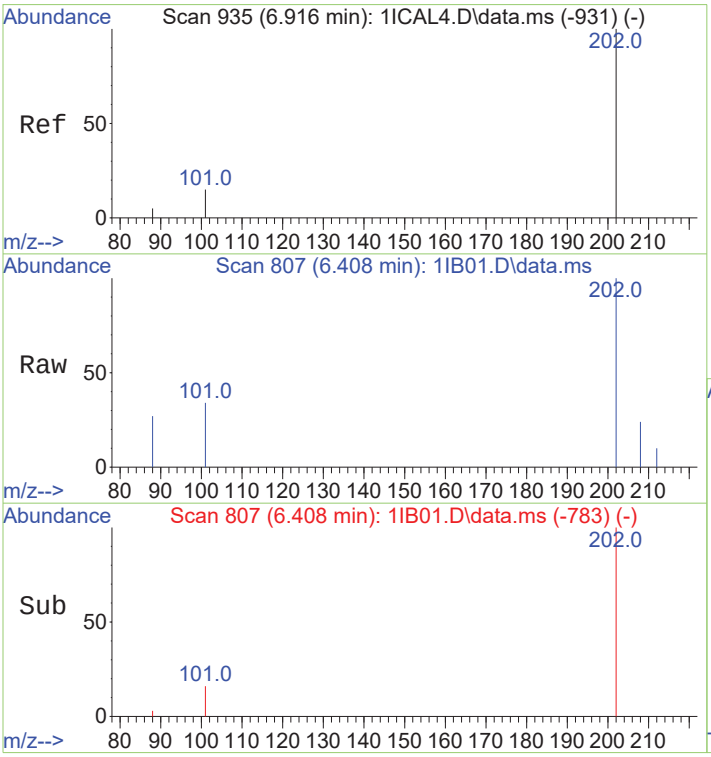


#14
Fluoranthene
Concen: 11.33 ng/mL
RT: 6.252 min Scan# 773
Delta R.T. 0.009 min
Lab File: 1IB01.D
Acq: 26 Aug 2019 14:49

Tgt Ion:202 Resp: 878

Ion	Ratio	Lower	Upper
202	100		
101	16.6	0.0	48.3
88	10.0	0.0	38.8

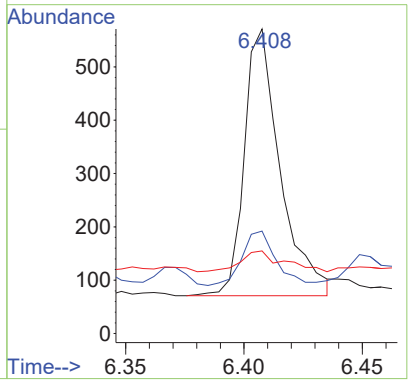




#16
Pyrene
Concen: 6.54 ng/mL
RT: 6.408 min Scan# 807
Delta R.T. 0.010 min
Lab File: 1IB01.D
Acq: 26 Aug 2019 14:49

Tgt Ion:202 Resp: 529

Ion	Ratio	Lower	Upper
202	100		
101	18.6	0.0	49.4
88	7.8	0.0	35.5



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082619\1ICAL1.D Vial: 3
Acq On : 26 Aug 2019 15:10 Operator: JJY
Sample : ICAL 50ng/ml SVMS8401 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 27 15:33:54 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 27 15:33:14 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

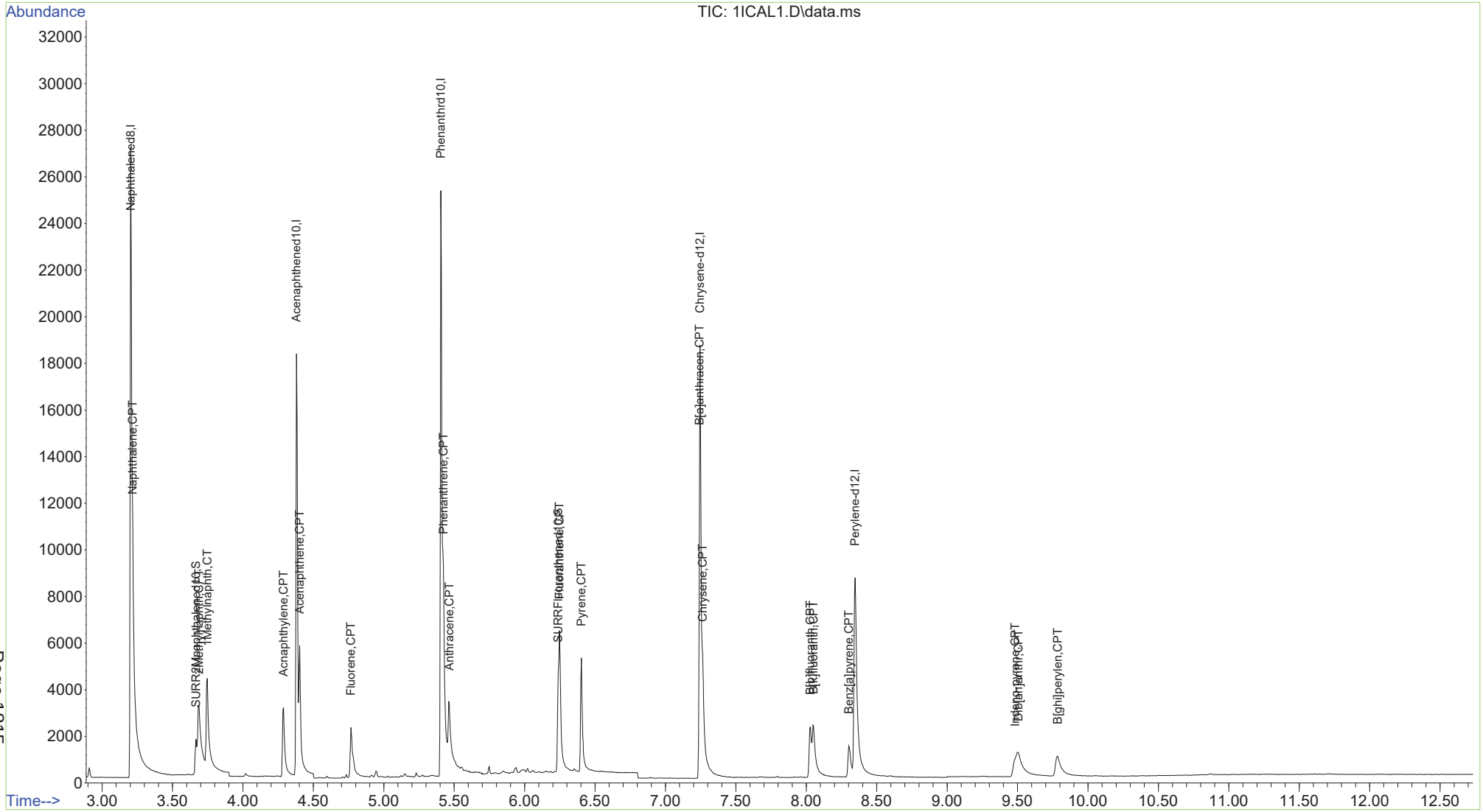
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.203	136	28641	400.00	ng/mL	0.00
6) Acenaphthened10	4.380	164	14694	400.00	ng/mL	0.00
10) Phenanthrd10	5.405	188	23162	400.00	ng/mL	0.00
15) Chrysene-d12	7.246	240	16617	400.00	ng/mL	0.00
19) Perylene-d12	8.346	264	13048	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.667	152	1984	12.50	%REC	0.00
Spiked Amount 100.000			Recovery = 12.50%			
13) SURRFluoranthened10	6.238	212	3036	12.50	%REC	0.00
Spiked Amount 100.000			Recovery = 12.50%			
Target Compounds						Qvalue
2) Naphthalene	3.218	128	3939	50.0000	ng/ml	98
4) 2Methylnaphth	3.688	142	1889	50.0000	ng/mL	87
5) 1Methylnaphth	3.748	141	2125	50.0000	ng/mL	98
7) Acnaphthylene	4.288	152	3078	50.0000	ng/mL	99
8) Acenaphthene	4.403	154	2590	50.0000	ng/mL	87
9) Fluorene	4.767	166	2440	50.0000	ng/mL	99
11) Phenanthrene	5.424	178	4801	50.0000	ng/mL	98
12) Anthracene	5.465	178	3180	50.0000	ng/mL	100
14) Fluoranthene	6.248	202	4048	50.0000	ng/mL	98
16) Pyrene	6.403	202	3817	50.0000	ng/mL	97
17) B[a]anthracen	7.242	228	2059	50.0000	ng/mL	93
18) Chrysene	7.264	228	3185	50.0000	ng/mL	100
20) B[b]fluoranth	8.029	252	1938	50.0000	ng/mL	100
21) B[k]fluoranth	8.051	252	2621	50.0000	ng/mL	100
22) Benz[a]pyrene	8.301	252	1795	50.0000	ng/mL	96
23) Indeno-pyrene	9.484	276	1494	50.0000	ng/mL	97
24) Dib[ah]anthr	9.506	278	1399	50.0000	ng/mL	89
25) B[ghi]perylen	9.786	276	1314	50.0000	ng/mL	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082619\1ICAL1.D Vial: 3
Acq On : 26 Aug 2019 15:10 Operator: JJY
Sample : ICAL 50ng/ml SVMS8401 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 27 15:33:54 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 27 15:33:14 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082619\1ICAL2.D Vial: 4
Acq On : 26 Aug 2019 15:31 Operator: JJY
Sample : ICAL 100ng/ml SVMS8402 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 27 15:34:28 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 27 15:33:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

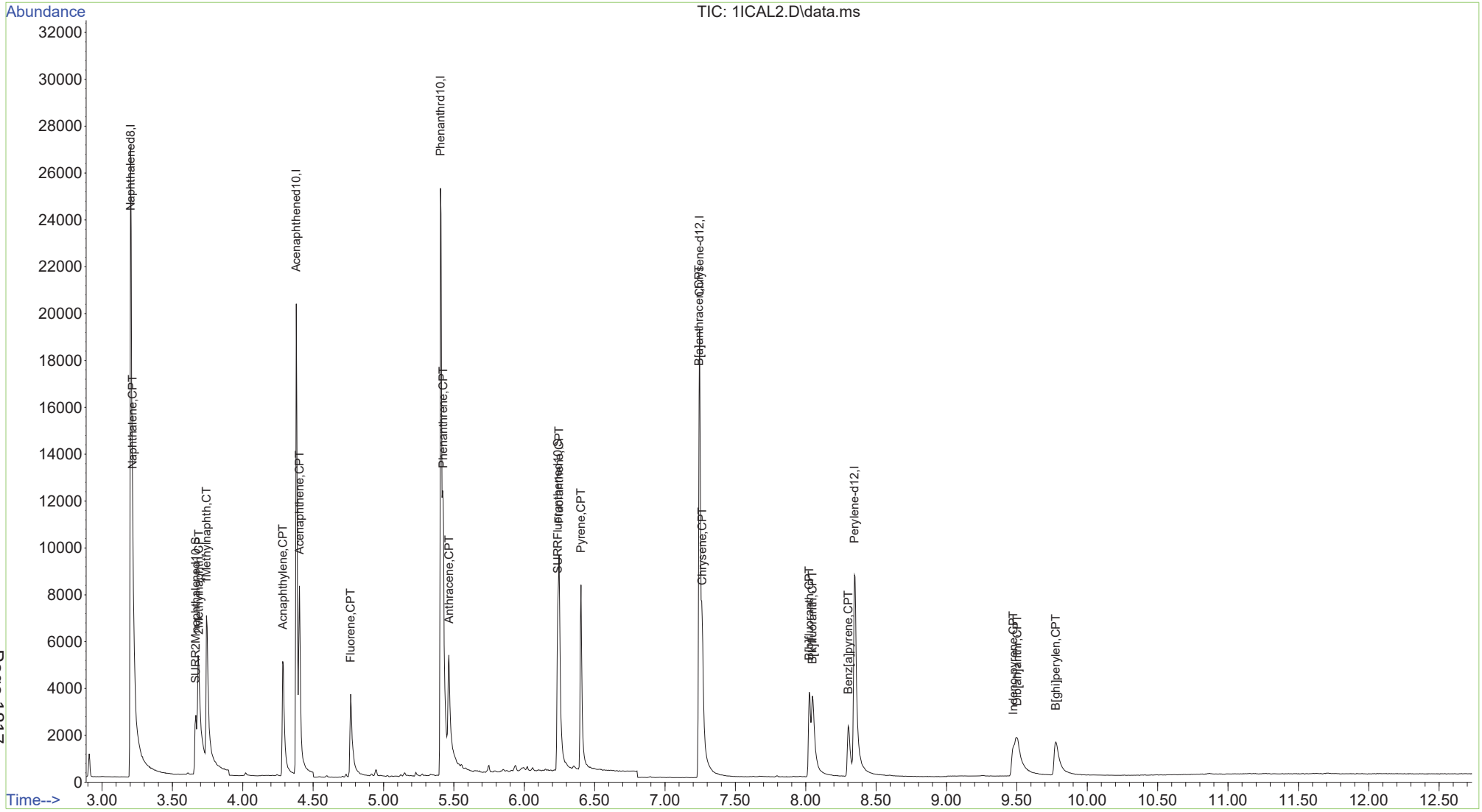
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.203	136	28365	400.00	ng/mL	0.00
6) Acenaphthened10	4.380	164	15107	400.00	ng/mL	0.00
10) Phenanthrd10	5.405	188	24041	400.00	ng/mL	0.00
15) Chrysene-d12	7.245	240	16804	400.00	ng/mL	0.00
19) Perylene-d12	8.346	264	13102	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.666	152	3238	20.60	%REC	0.00
Spiked Amount 100.000			Recovery = 20.60%			
13) SURRFluoranthened10	6.238	212	5080	20.15	%REC	0.00
Spiked Amount 100.000			Recovery = 20.15%			
Target Compounds						Qvalue
2) Naphthalene	3.218	128	5844	74.9031	ng/ml	98
4) 2Methylnaphth	3.688	142	3051	81.5428	ng/mL	85
5) 1Methylnaphth	3.742	141	3329	79.0916	ng/mL	86
7) Acnaphthylene	4.284	152	5102	80.6127	ng/mL	93
8) Acenaphthene	4.403	154	3871	72.6867	ng/mL	89
9) Fluorene	4.766	166	3881	77.3545	ng/mL	97
11) Phenanthrene	5.424	178	6780	68.0286	ng/mL	98
12) Anthracene	5.465	178	5067	76.7569	ng/mL	99
14) Fluoranthene	6.247	202	6213	73.9357	ng/mL	98
16) Pyrene	6.403	202	6086	78.8351	ng/mL	99
17) B[a]anthracen	7.242	228	3292	79.0521	ng/mL	98
18) Chrysene	7.264	228	4993	77.5108	ng/mL	98
20) B[b]fluoranth	8.025	252	2862	73.5347	ng/mL	98
21) B[k]fluoranth	8.047	252	4643	88.2080	ng/mL	98
22) Benz[a]pyrene	8.301	252	2858	79.2819	ng/mL	95
23) Indeno-pyrene	9.474	276	2454	81.7900	ng/mL	98
24) Dib[ah]anthr	9.502	278	2255	80.2611	ng/mL	91
25) B[ghi]perylen	9.776	276	2129	80.6783	ng/mL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082619\1ICAL2.D Vial: 4
Acq On : 26 Aug 2019 15:31 Operator: JJY
Sample : ICAL 100ng/ml SVMS8402 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 27 15:34:28 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 27 15:33:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082619\1ICAL3.D Vial: 5
Acq On : 26 Aug 2019 15:52 Operator: JJY
Sample : ICAL 200ng/ml SVMS8403 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 27 15:35:02 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 27 15:34:50 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

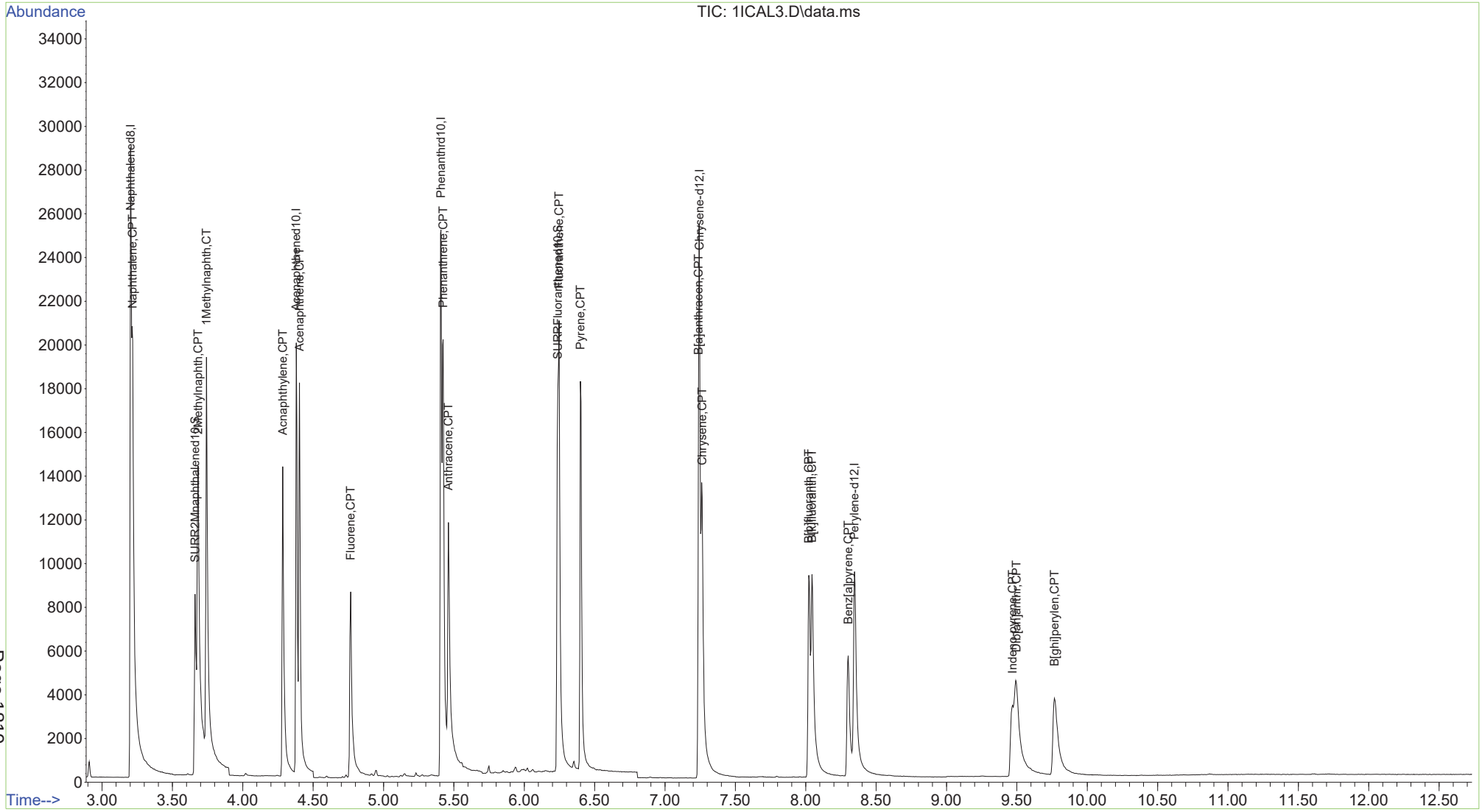
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.203	136	29559	400.00	ng/mL	0.00
6) Acenaphthened10	4.380	164	15099	400.00	ng/mL	0.00
10) Phenanthrd10	5.409	188	23780	400.00	ng/mL	0.00
15) Chrysene-d12	7.245	240	17124	400.00	ng/mL	0.00
19) Perylene-d12	8.346	264	13404	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.661	152	7719	51.67	%REC	0.00
Spiked Amount 100.000			Recovery = 51.67%			
13) SURRFluoranthened10	6.238	212	11654	51.75	%REC	0.00
Spiked Amount 100.000			Recovery = 51.75%			
Target Compounds						Qvalue
2) Naphthalene	3.218	128	14045	197.5317	ng/ml	100
4) 2Methylnaphth	3.683	142	7441	210.2416	ng/mL	85
5) 1Methylnaphth	3.742	141	7557	192.4039	ng/mL	97
7) Acnaphthylene	4.284	152	11703	204.8670	ng/mL	96
8) Acenaphthene	4.403	154	8197	178.3561	ng/mL	94
9) Fluorene	4.767	166	8596	193.3108	ng/mL	93
11) Phenanthrene	5.424	178	12667	152.9407	ng/mL	99
12) Anthracene	5.461	178	11115	192.6062	ng/mL	98
14) Fluoranthene	6.247	202	13248	183.2674	ng/mL	96
16) Pyrene	6.398	202	13272	188.6726	ng/mL	95
17) B[a]anthracen	7.238	228	7376	194.1478	ng/mL	96
18) Chrysene	7.264	228	11727	201.2798	ng/mL	96
20) B[b]fluoranth	8.021	252	6979	202.0053	ng/mL	98
21) B[k]fluoranth	8.044	252	10849	214.0889	ng/mL	98
22) Benz[a]pyrene	8.301	252	6846	207.0835	ng/mL	98
23) Indeno-pyrene	9.470	276	6083	218.0252	ng/mL	98
24) Dib[ah]anthr	9.497	278	5494	212.0696	ng/mL	96
25) B[ghi]perylen	9.767	276	5555	227.7678	ng/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082619\1ICAL3.D Vial: 5
Acq On : 26 Aug 2019 15:52 Operator: JJY
Sample : ICAL 200ng/ml SVMS8403 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 27 15:35:02 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 27 15:34:50 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082619\1ICAL4.D Vial: 6
Acq On : 26 Aug 2019 16:12 Operator: JJY
Sample : ICAL 400ng/ml SVMS8404 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 27 15:35:38 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 27 15:35:26 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

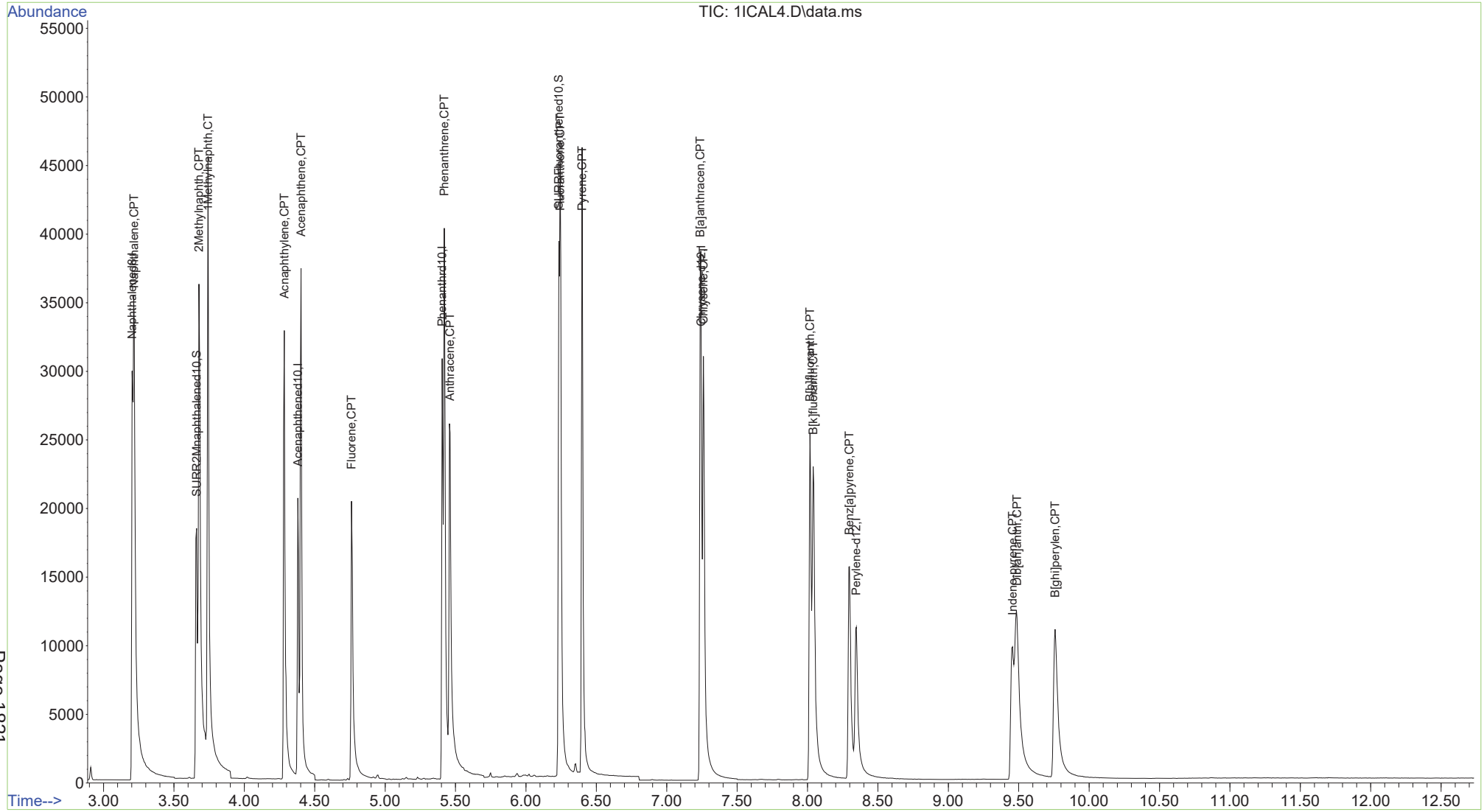
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.203	136	28968	400.00	ng/mL	0.00
6) Acenaphthened10	4.380	164	14868	400.00	ng/mL	0.00
10) Phenanthrd10	5.405	188	24124	400.00	ng/mL	0.00
15) Chrysene-d12	7.246	240	17846	400.00	ng/mL	0.00
19) Perylene-d12	8.346	264	14984	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.661	152	16998	114.83	%REC	0.00
Spiked Amount 100.000			Recovery = 114.83%			
13) SURRFluoranthened10	6.234	212	25063	108.45	%REC	0.00
Spiked Amount 100.000			Recovery = 108.45%			
Target Compounds						Qvalue
2) Naphthalene	3.218	128	29502	425.1361	ng/ml	100
4) 2Methylnaphth	3.677	142	16302	462.1138	ng/mL	100
5) 1Methylnaphth	3.742	141	15947	419.6120	ng/mL	100
7) Acnaphthylene	4.284	152	25485	449.4139	ng/mL	100
8) Acenaphthene	4.403	154	16789	384.8659	ng/mL	99
9) Fluorene	4.761	166	18167	419.5731	ng/mL	100
11) Phenanthrene	5.420	178	25265	326.2900	ng/mL	100
12) Anthracene	5.461	178	24558	424.7187	ng/mL	100
14) Fluoranthene	6.243	202	27688	388.3940	ng/mL	100
16) Pyrene	6.398	202	28634	398.1037	ng/mL	100
17) B[a]anthracen	7.238	228	18116	462.0564	ng/mL	100
18) Chrysene	7.260	228	26321	432.5682	ng/mL	100
20) B[b]fluoranth	8.018	252	17983	464.0761	ng/mL	100
21) B[k]fluoranth	8.040	252	25058	432.1928	ng/mL	100
22) Benz[a]pyrene	8.298	252	17573	469.9633	ng/mL	100
23) Indeno-pyrene	9.456	276	17030	530.0969	ng/mL	100
24) Dib[ah]anthr	9.488	278	14689	497.2091	ng/mL	100
25) B[ghi]perylen	9.758	276	14585	511.2973	ng/mL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082619\1ICAL4.D Vial: 6
Acq On : 26 Aug 2019 16:12 Operator: JJY
Sample : ICAL 400ng/ml SVMS8404 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 27 15:35:38 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 27 15:35:26 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082619\1ICAL5.D Vial: 7
Acq On : 26 Aug 2019 16:33 Operator: JJY
Sample : ICAL 800ng/ml SVMS8405 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 27 15:36:09 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 27 15:35:57 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

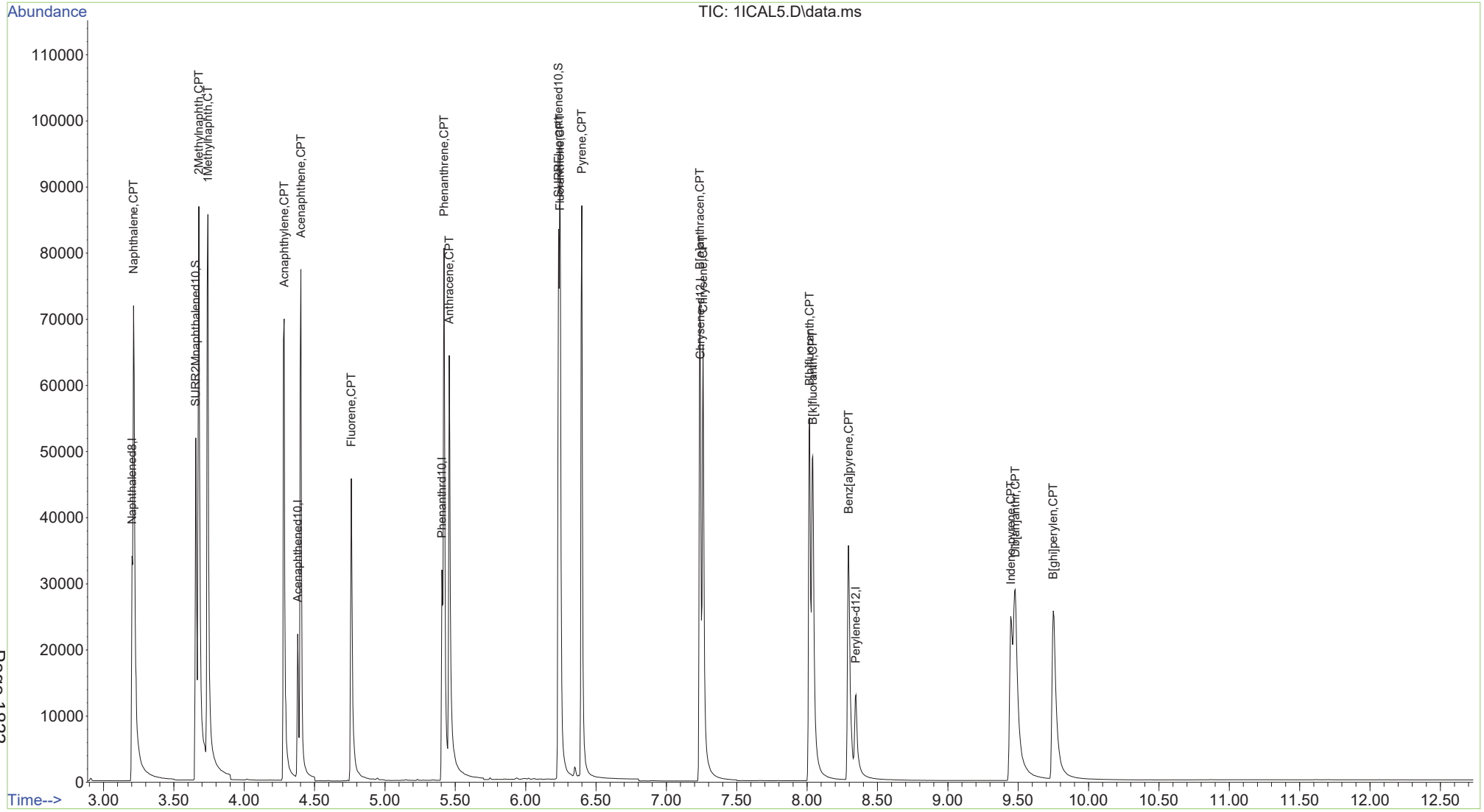
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.203	136	29672	400.00	ng/mL	0.00
6) Acenaphthened10	4.380	164	14908	400.00	ng/mL	0.00
10) Phenanthrd10	5.405	188	24507	400.00	ng/mL	0.00
15) Chrysene-d12	7.242	240	17904	400.00	ng/mL	0.00
19) Perylene-d12	8.346	264	15173	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.656	152	34961	222.33	%REC	0.00
Spiked Amount 100.000			Recovery = 222.33%			
13) SURRFluoranthened10	6.234	212	50137	209.14	%REC	0.00
Spiked Amount 100.000			Recovery = 209.14%			
Target Compounds						Qvalue
2) Naphthalene	3.214	128	60171	833.4235	ng/ml	99
4) 2Methylnaphth	3.677	142	34188	910.7783	ng/mL	85
5) 1Methylnaphth	3.742	141	31720	804.9758	ng/mL	96
7) Acnaphthylene	4.284	152	53520	913.0645	ng/mL	98
8) Acenaphthene	4.403	154	33403	770.9580	ng/mL	97
9) Fluorene	4.761	166	37385	850.6960	ng/mL	94
11) Phenanthrene	5.420	178	49892	664.9018	ng/mL	99
12) Anthracene	5.457	178	50282	842.9890	ng/mL	99
14) Fluoranthene	6.243	202	55064	765.8957	ng/mL	99
16) Pyrene	6.398	202	56978	790.5462	ng/mL	99
17) B[a]anthracen	7.238	228	39280	961.3227	ng/mL	98
18) Chrysene	7.260	228	51886	832.9940	ng/mL	98
20) B[b]fluoranth	8.018	252	40495	992.2740	ng/mL	98
21) B[k]fluoranth	8.040	252	47967	800.9003	ng/mL	98
22) Benz[a]pyrene	8.294	252	37338	944.7969	ng/mL	99
23) Indeno-pyrene	9.447	276	37980	1079.6959	ng/mL	96
24) Dib[ah]anthr	9.479	278	31840	1003.3694	ng/mL	99
25) B[ghi]perylen	9.749	276	31878	1031.8320	ng/mL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082619\1ICAL5.D Vial: 7
Acq On : 26 Aug 2019 16:33 Operator: JJY
Sample : ICAL 800ng/ml SVMS8405 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 27 15:36:09 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 27 15:35:57 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082619\1ICAL6.D Vial: 8
Acq On : 26 Aug 2019 16:54 Operator: JJY
Sample : ICAL 1500ng/ml SVMS8406 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 27 15:36:40 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 27 15:36:28 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

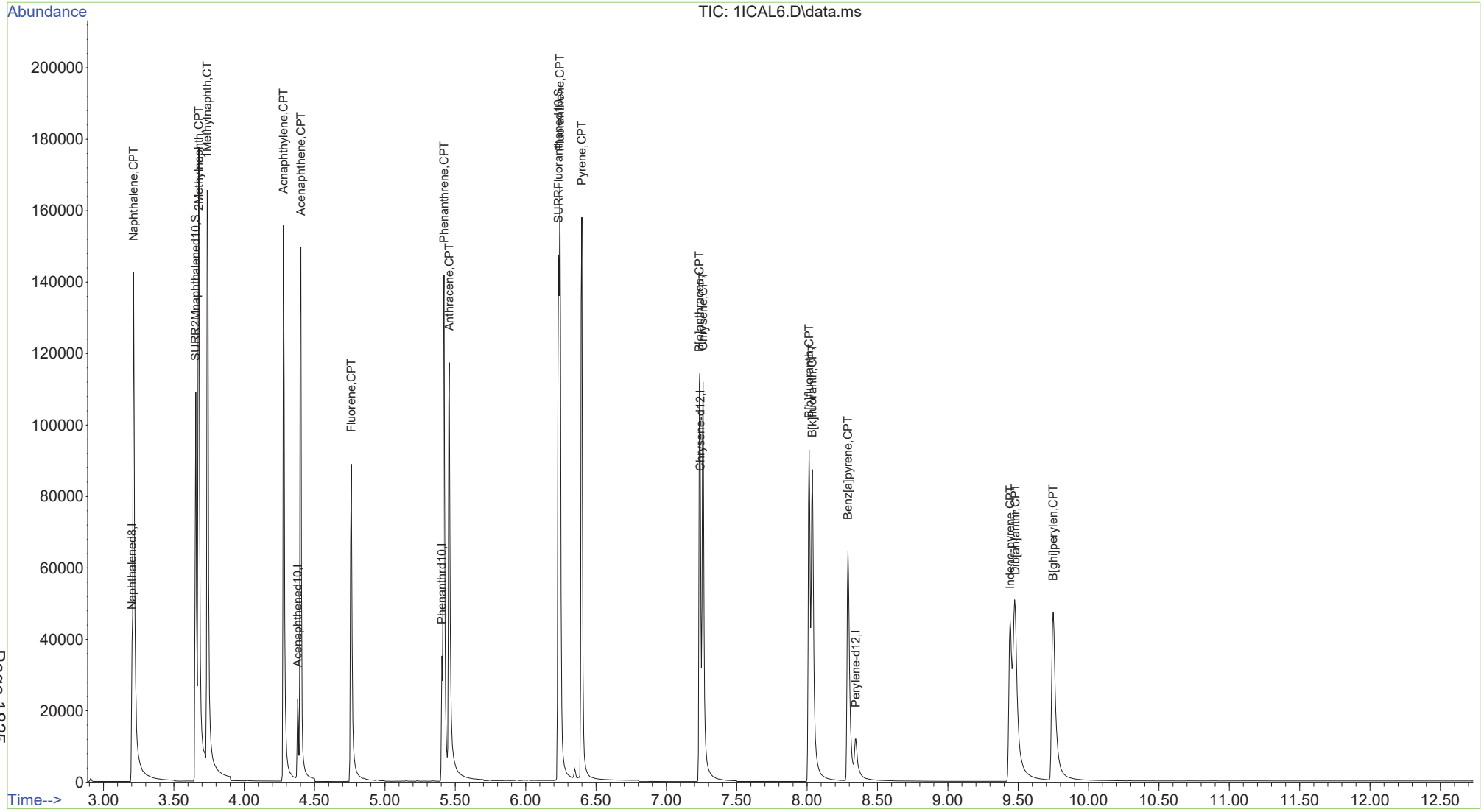
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.203	136	30446	400.00	ng/mL	0.00
6) Acenaphthened10	4.380	164	15297	400.00	ng/mL	0.00
10) Phenanthrd10	5.405	188	24360	400.00	ng/mL	0.00
15) Chrysene-d12	7.242	240	16440	400.00	ng/mL	0.00
19) Perylene-d12	8.346	264	13857	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.656	152	66784	404.86	%REC	0.00
Spiked Amount 100.000			Recovery = 404.86%			
13) SURRFluoranthened10	6.234	212	90693	377.14	%REC	0.00
Spiked Amount 100.000			Recovery = 377.14%			
Target Compounds						Qvalue
2) Naphthalene	3.214	128	113060	1513.5272	ng/ml	100
4) 2Methylnaphth	3.677	142	66741	1686.1034	ng/mL	81
5) 1Methylnaphth	3.737	141	58604	1447.6166	ng/mL	81
7) Acnaphthylene	4.279	152	103680	1676.4397	ng/mL	95
8) Acenaphthene	4.403	154	62859	1424.2641	ng/mL	94
9) Fluorene	4.761	166	69237	1516.2077	ng/mL	91
11) Phenanthrene	5.420	178	89646	1243.9185	ng/mL	100
12) Anthracene	5.457	178	92153	1537.7620	ng/mL	100
14) Fluoranthene	6.243	202	98088	1384.3609	ng/mL	98
16) Pyrene	6.398	202	101976	1544.5214	ng/mL	98
17) B[a]anthracen	7.234	228	70085	1795.5589	ng/mL	95
18) Chrysene	7.260	228	86711	1503.6493	ng/mL	97
20) B[b]fluoranth	8.014	252	66779	1709.5534	ng/mL	100
21) B[k]fluoranth	8.036	252	82427	1506.6415	ng/mL	100
22) Benz[a]pyrene	8.290	252	65439	1749.7784	ng/mL	98
23) Indeno-pyrene	9.442	276	65767	1913.3915	ng/mL	98
24) Dib[ah]anthr	9.479	278	54559	1791.5085	ng/mL	97
25) B[ghi]perylen	9.749	276	55694	1865.7787	ng/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082619\1ICAL6.D Vial: 8
Acq On : 26 Aug 2019 16:54 Operator: JJY
Sample : ICAL 1500ng/ml SVMS8406 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 27 15:36:40 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 27 15:36:28 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082619\1ICAL7.D Vial: 9
Acq On : 26 Aug 2019 17:15 Operator: JJY
Sample : ICAL 2000ng/ml SVMS8407 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 27 15:37:28 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 27 15:37:16 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

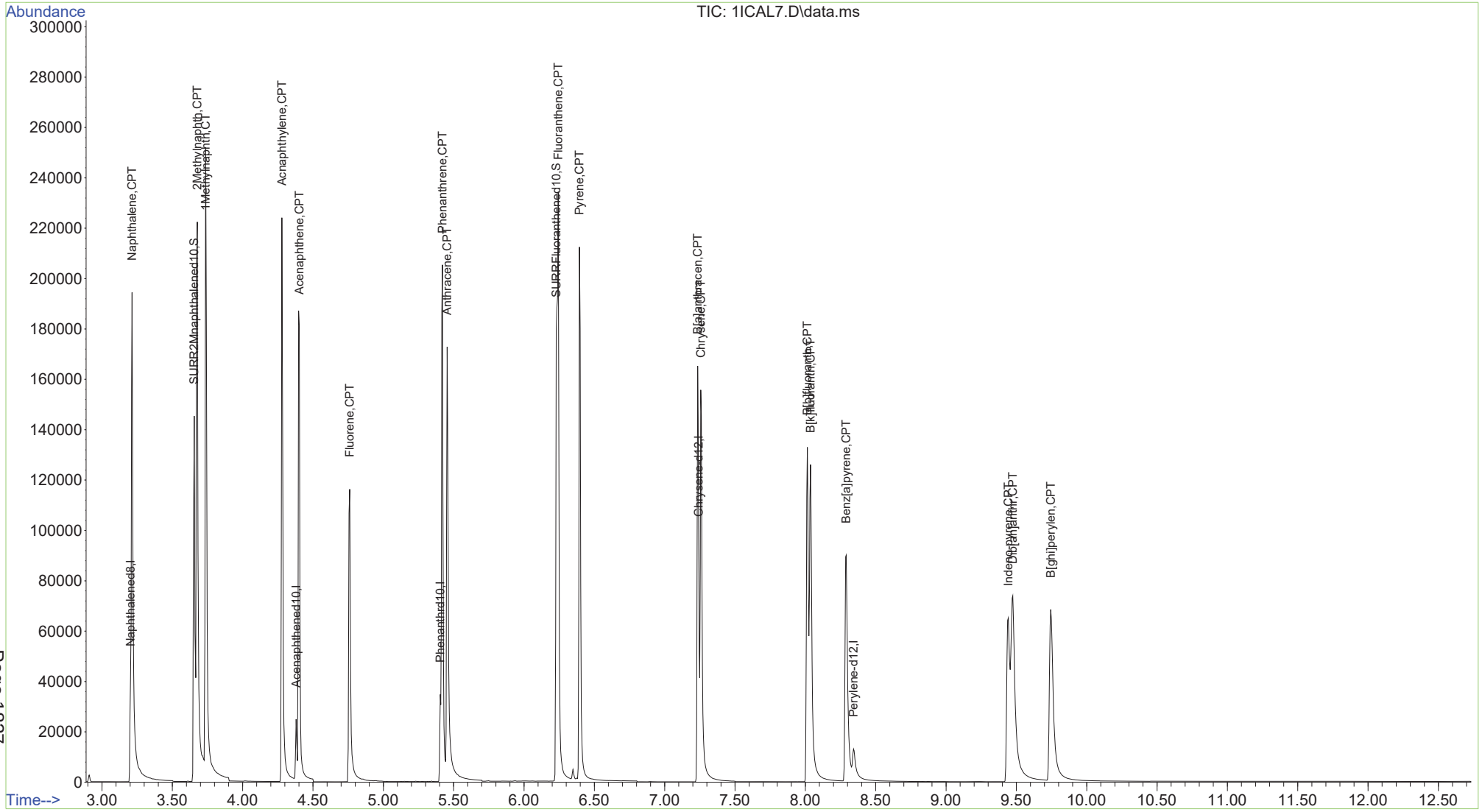
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.203	136	30547	400.00	ng/mL	0.00
6) Acenaphthened10	4.380	164	15317	400.00	ng/mL	0.00
10) Phenanthrd10	5.405	188	24517	400.00	ng/mL	0.00
15) Chrysene-d12	7.242	240	16651	400.00	ng/mL	0.00
19) Perylene-d12	8.342	264	14139	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.656	152	89870	535.90	%REC	0.00
Spiked Amount 100.000			Recovery = 535.90%			
13) SURRFluoranthened10	6.229	212	120567	497.69	%REC	0.00
Spiked Amount 100.000			Recovery = 497.69%			
Target Compounds						Qvalue
2) Naphthalene	3.214	128	150872	2010.0150	ng/ml	100
4) 2Methylnaphth	3.677	142	90622	2235.6201	ng/mL	79
5) 1Methylnaphth	3.737	141	79152	1960.1306	ng/mL	87
7) Acnaphthylene	4.279	152	141602	2242.6586	ng/mL	96
8) Acenaphthene	4.403	154	83193	1898.5083	ng/mL	92
9) Fluorene	4.761	166	93118	2032.8496	ng/mL	90
11) Phenanthrene	5.420	178	121219	1720.1965	ng/mL	100
12) Anthracene	5.454	178	127870	2111.2510	ng/mL	97
14) Fluoranthene	6.243	202	132504	1882.2994	ng/mL	96
16) Pyrene	6.394	202	136169	2026.2480	ng/mL	97
17) B[a]anthracen	7.234	228	99688	2441.4395	ng/mL	97
18) Chrysene	7.257	228	117621	2012.9948	ng/mL	98
20) B[b]fluoranth	8.014	252	93790	2299.6077	ng/mL	100
21) B[k]fluoranth	8.036	252	114043	2041.4522	ng/mL	99
22) Benz[a]pyrene	8.290	252	92442	2357.0969	ng/mL	99
23) Indeno-pyrene	9.442	276	93153	2539.4494	ng/mL	100
24) Dib[ah]anthr	9.474	278	78083	2433.9730	ng/mL	98
25) B[ghi]perylen	9.745	276	80176	2529.5616	ng/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082619\1ICAL7.D Vial: 9
Acq On : 26 Aug 2019 17:15 Operator: JJY
Sample : ICAL 2000ng/ml SVMS8407 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 27 15:37:28 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 27 15:37:16 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M



Evaluate Continuing Calibration Report

Data File : C:\INSTARCH\DATA\1S082619\1ICV1.D Vial: 10
Acq On : 26 Aug 2019 17:35 Operator: JJY
Sample : ICV 400ng/ml SVMS8408 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 27 16:30:18 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 27 16:29:24 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalened8	400.000	400.000	0.0	102	0.00
2	CPT	Naphthalene	400.000	416.880	-4.2	102	0.00
3	S	SURR2Mnaphthalened10	100.000	104.348	-4.3	100	0.00
4	CPT	2Methylnaphth	400.000	409.683	-2.4	100	0.00
5	CT	1Methylnaphth	400.000	416.871	-4.2	102	0.00
6	I	Acenaphthened10	400.000	400.000	0.0	102	0.00
7	CPT	Acnaphthylene	400.000	406.695	-1.7	102	0.00
8	CPT	Acenaphthene	400.000	390.288	2.4	100	0.00
9	CPT	Fluorene	400.000	413.869	-3.5	104	0.00
10	I	Phenanthrd10	400.000	400.000	0.0	103	0.00
11	CPT	Phenanthrene	400.000	405.911	-1.5	103	0.00
12	CPT	Anthracene	400.000	408.582	-2.1	103	0.00
13	S	SURRFluoranthened10	100.000	106.258	-6.3	104	0.00
14	CPT	Fluoranthene	400.000	406.205	-1.6	104	0.00
15	I	Chrysene-d12	400.000	400.000	0.0	103	0.00
16	CPT	Pyrene	400.000	397.009	0.7	103	0.00
17	CPT	B[a]anthracen	400.000	383.579	4.1	103	0.00
18	CPT	Chrysene	400.000	419.059	-4.8	103	0.00
19	I	Perylene-d12	400.000	400.000	0.0	101	0.00
20	CPT	B[b]fluoranth	400.000	387.653	3.1	101	0.00
21	CPT	B[k]fluoranth	400.000	427.712	-6.9	103	0.00
22	CPT	Benz[a]pyrene	400.000	389.923	2.5	100	0.00
23	CPT	Indeno-pyrene	400.000	383.449	4.1	100	0.00
24	CPT	Dib[ah]anthr	400.000	391.831	2.0	100	0.00
25	CPT	B[ghi]perylen	400.000	391.261	2.2	102	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : C:\INSTARCH\DATA\1S082619\1ICV1.D Vial: 10
Acq On : 26 Aug 2019 17:35 Operator: JJY
Sample : ICV 400ng/ml SVMS8408 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 27 16:30:18 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 27 16:29:24 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Naphthalened8	1.000	1.000	0.0	102	0.00
2	CPT	Naphthalene	0.984	1.025	-4.2	102	0.00
3	S	SURR2Mnaphthalened10	2.218	2.315	-4.4	100	0.00
4	CPT	2Methylnaphth	0.540	0.553	-2.4	100	0.00
5	CT	1Methylnaphth	0.527	0.550	-4.4	102	0.00
6	I	Acenaphthened10	1.000	1.000	0.0	102	0.00
7	CPT	Acnaphthylene	1.677	1.706	-1.7	102	0.00
8	CPT	Acenaphthene	1.136	1.108	2.5	100	0.00
9	CPT	Fluorene	1.199	1.241	-3.5	104	0.00
10	I	Phenanthrd10	1.000	1.000	0.0	103	0.00
11	CPT	Phenanthrene	1.127	1.051	6.7	103	0.00
12	CPT	Anthracene	0.996	1.017	-2.1	103	0.00
13	S	SURRFluoranthened10	3.950	4.197	-6.3	104	0.00
14	CPT	Fluoranthene	1.139	1.157	-1.6	104	0.00
15	I	Chrysene-d12	1.000	1.000	0.0	103	0.00
16	CPT	Pyrene	1.617	1.605	0.7	103	0.00
17	CPT	B[a]anthracen	1.012	1.015	-0.3	103	0.00
18	CPT	Chrysene	1.405	1.472	-4.8	103	0.00
19	I	Perylene-d12	1.000	1.000	0.0	101	0.00
20	CPT	B[b]fluoranth	1.179	1.201	-1.9	101	0.00
21	CPT	B[k]fluoranth	1.585	1.709	-7.8	103	0.00
22	CPT	Benz[a]pyrene	1.138	1.163	-2.2	100	0.00
23	CPT	Indeno-pyrene	1.078	1.122	-4.1	100	0.00
24	CPT	Dib[ah]anthr	0.936	0.977	-4.4	100	0.00
25	CPT	B[ghi]perylen	0.931	0.980	-5.3	102	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082619\1ICV1.D Vial: 10
Acq On : 26 Aug 2019 17:35 Operator: JJY
Sample : ICV 400ng/ml SVMS8408 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 27 16:30:18 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 27 16:29:24 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

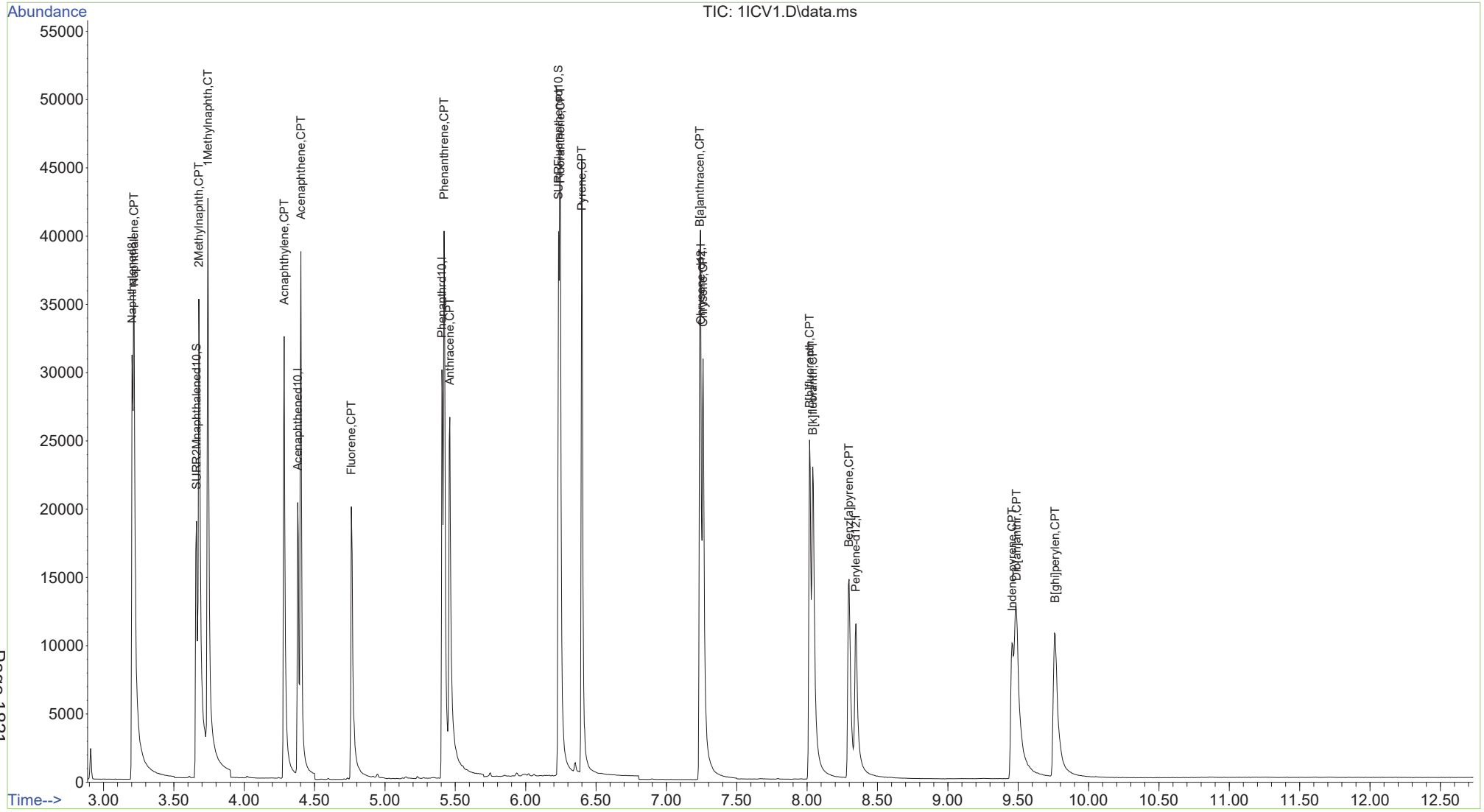
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.203	136	29492	400.00	ng/mL	0.00
6) Acenaphthened10	4.380	164	15174	400.00	ng/mL	0.00
10) Phenanthrd10	5.405	188	24873	400.00	ng/mL	0.00
15) Chrysene-d12	7.245	240	18455	400.00	ng/mL	0.00
19) Perylene-d12	8.346	264	15113	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.661	152	17068	104.35	%REC	0.00
Spiked Amount 100.000			Recovery = 104.35%			
13) SURRFluoranthened10	6.234	212	26098	106.26	%REC	0.00
Spiked Amount 100.000			Recovery = 106.26%			
Target Compounds						Qvalue
2) Naphthalene	3.218	128	30232	416.8802	ng/ml	99
4) 2Methylnaphth	3.677	142	16303	409.6829	ng/mL	98
5) 1Methylnaphth	3.742	141	16206	416.8712	ng/mL	98
7) Acnaphthylene	4.284	152	25880	406.6948	ng/mL	98
8) Acenaphthene	4.403	154	16820	390.2880	ng/mL	99
9) Fluorene	4.761	166	18825	413.8685	ng/mL	99
11) Phenanthrene	5.420	178	26134	405.9107	ng/mL	100
12) Anthracene	5.461	178	25305	408.5820	ng/mL	100
14) Fluoranthene	6.247	202	28766	406.2047	ng/mL	93
16) Pyrene	6.398	202	29626	397.0088	ng/mL	100
17) B[a]anthracen	7.238	228	18735	383.5786	ng/mL	100
18) Chrysene	7.260	228	27164	419.0587	ng/mL	98
20) B[b]fluoranth	8.018	252	18153	387.6532	ng/mL	99
21) B[k]fluoranth	8.040	252	25831	427.7119	ng/mL	100
22) Benz[a]pyrene	8.298	252	17577	389.9234	ng/mL	99
23) Indeno-pyrene	9.456	276	16950	383.4492	ng/mL	98
24) Dib[ah]anthr	9.488	278	14759	391.8308	ng/mL	98
25) B[ghi]perylen	9.763	276	14817	391.2611	ng/mL	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S082619\1ICV1.D Vial: 10
Acq On : 26 Aug 2019 17:35 Operator: JJY
Sample : ICV 400ng/ml SVMS8408 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 27 16:30:18 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Aug 27 16:29:24 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

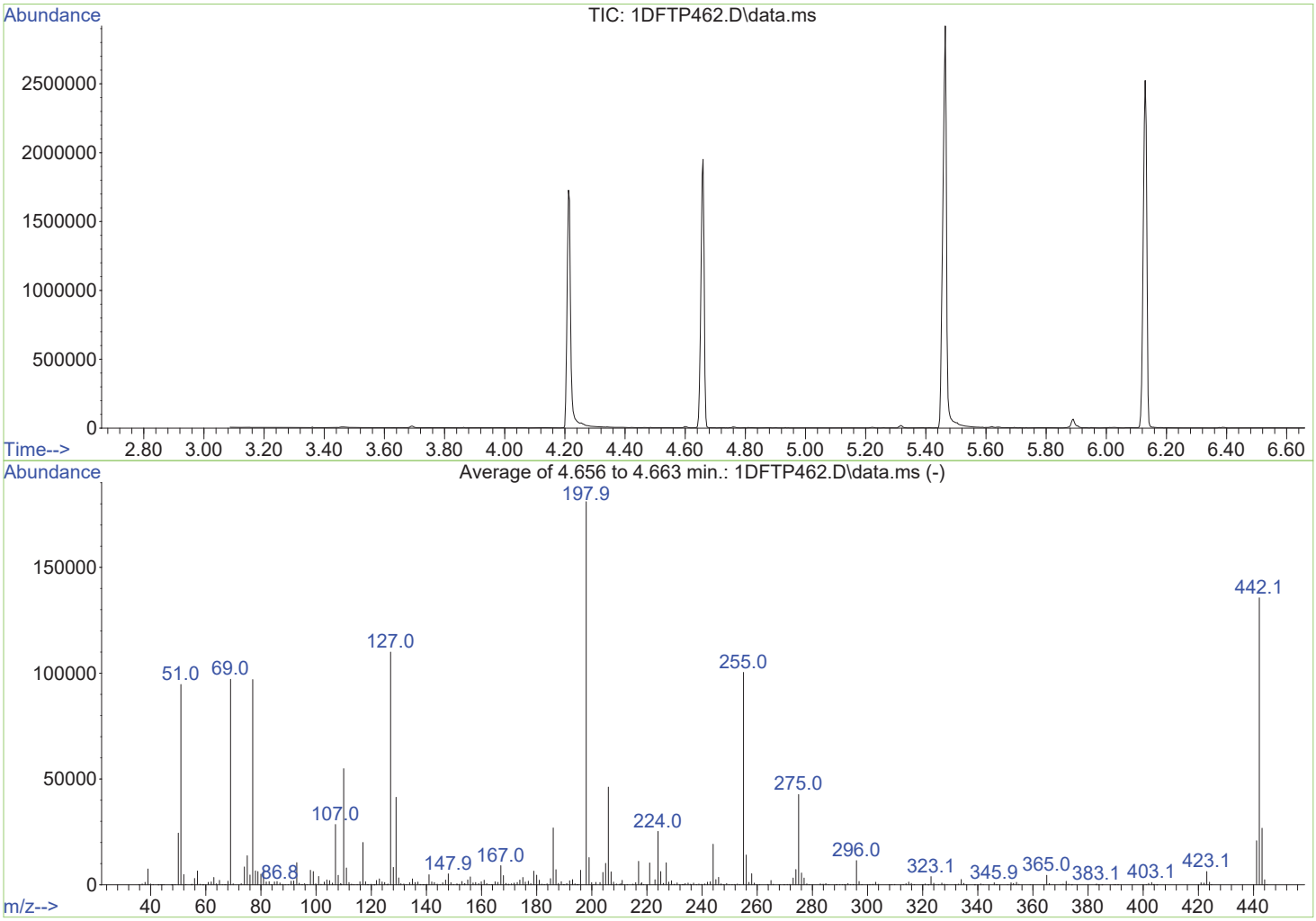


SEMI - VOLATILE ORGANIC ANALYSIS
CONTINUING CALIBRATION
DOCUMENTS

Data Path : C:\INSTARCH\DATA\1S090519\
Data File : 1DFTP462.D
Acq On : 5 Sep 2019 15:19
Operator : JJY
Sample : DFTPP TUNE SVMS8353
Misc : SVMS1,25ng DFTPP
ALS Vial : 1 Sample Multiplier: 1

Integration File: DDD.p

Method : C:\INSTARCH\METHOD\1DFTPP.M
Title : DFTPP TUNE
Last Update : Tue Sep 03 12:44:34 2019



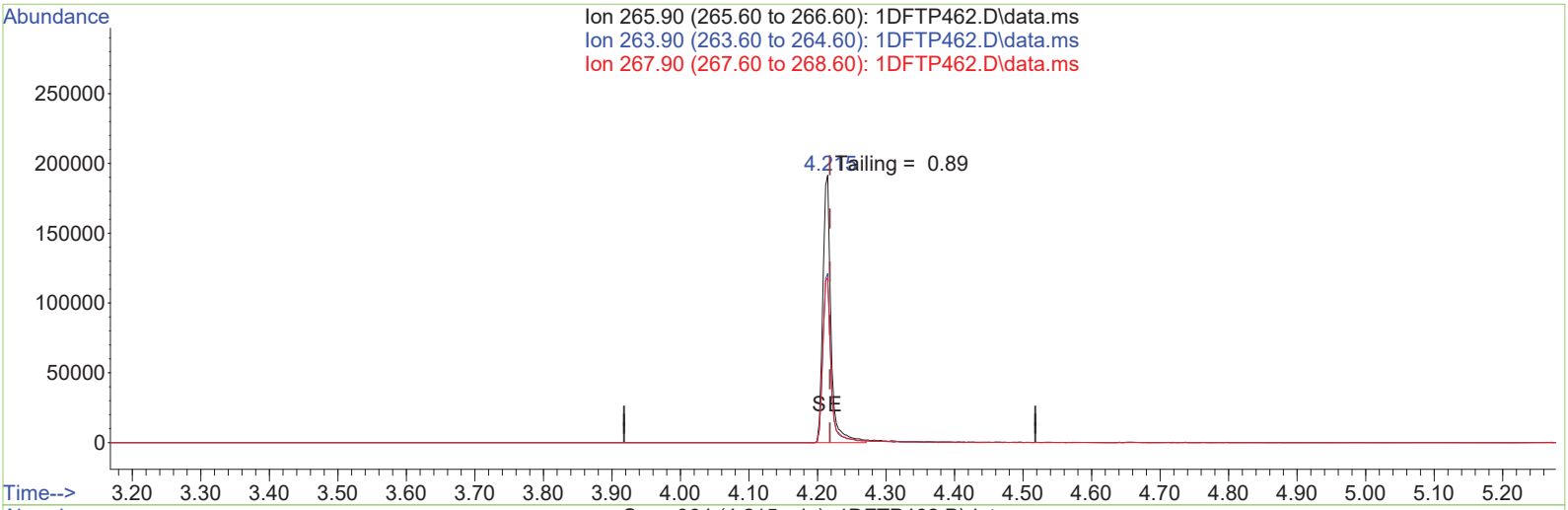
AutoFind: Scans 506, 507, 508; Background Corrected with Scan 497

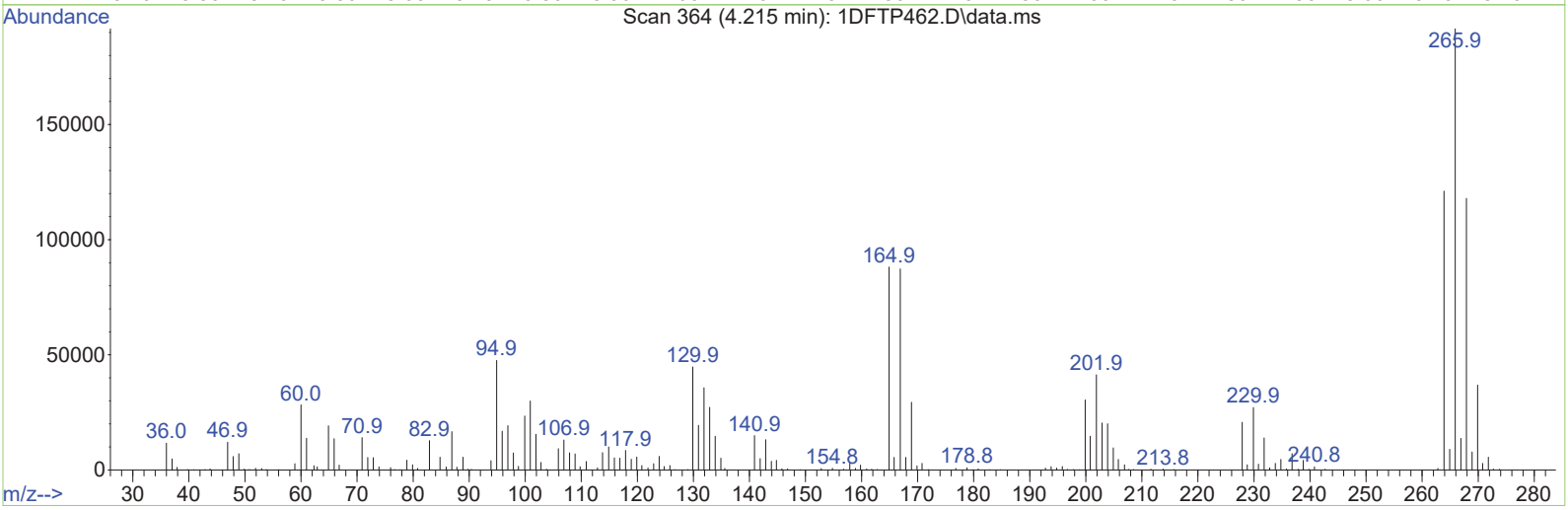
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	52.3	94679	PASS
68	69	0.00	2	1.8	1722	PASS
70	69	0.00	2	0.5	448	PASS
127	198	10	80	60.7	109965	PASS
197	198	0.00	2	0.0	0	PASS
198	198	50	100	100.0	181035	PASS
199	198	5	9	7.1	12857	PASS
275	198	10	60	23.6	42651	PASS
365	198	1	100	2.5	4523	PASS
441	442	0.01	24	15.3	20789	PASS
442	198	50	100	74.9	135640	PASS
443	442	15	24	19.7	26699	PASS

Quantitation Report (Qedit)

Data File : C:\INSTARCH\DATA\1S090519\1DFTP462.D Vial: 1
Acq On : 5 Sep 2019 15:19 Operator: JJY
Sample : DFTPP TUNE SVMS8353 Inst : SVMS1
Misc : SVMS1,25ng DFTPP Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 05 15:31:00 2019

Quant Method : C:\INSTARCH\METHOD\1DFTPP.M
Quant Title : DFTPP TUNE
QLast Update : Tue Sep 03 12:44:34 2019
Response via : Initial Calibration
DataAcq Meth:1DFTPP.M





TIC: 1DFTP462.D\data.ms

(1) Pentachlorophenol

4.215min (-0.003) 22.48 ng

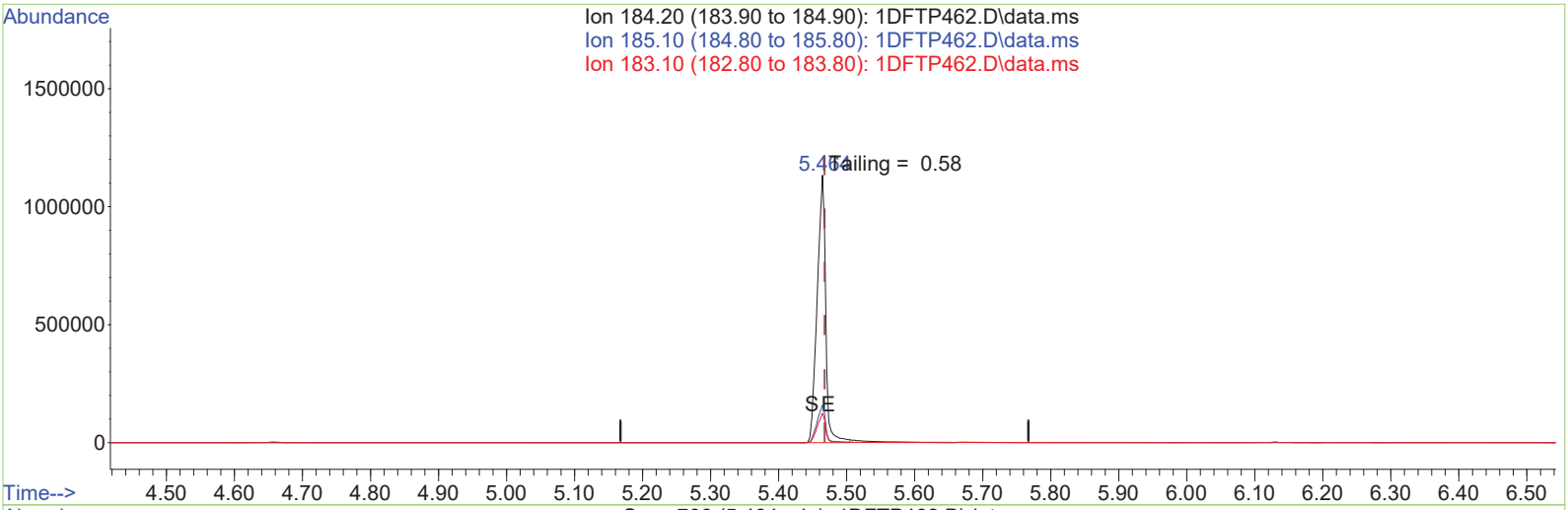
response 158187

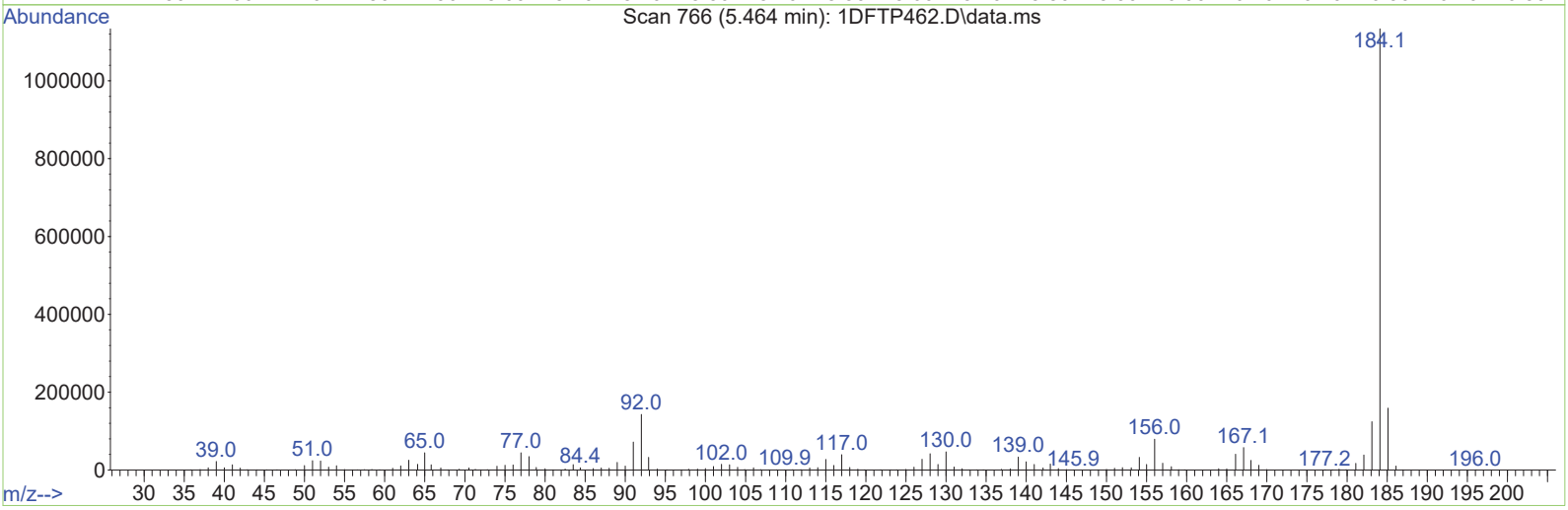
Ion	Exp%	Act%
265.90	100.00	100.00
263.90	64.60	63.19
267.90	65.00	61.99
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\INSTARCH\DATA\1S090519\1DFTP462.D Vial: 1
Acq On : 5 Sep 2019 15:19 Operator: JJY
Sample : DFTPP TUNE SVMS8353 Inst : SVMS1
Misc : SVMS1,25ng DFTPP Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 05 15:31:00 2019

Quant Method : C:\INSTARCH\METHOD\1DFTPP.M
Quant Title : DFTPP TUNE
QLast Update : Tue Sep 03 12:44:34 2019
Response via : Initial Calibration
DataAcq Meth:1DFTPP.M





TIC: 1DFTP462.D\data.ms

(3) Benzidine

5.464min (-0.003) 21.84 ng

response 997547

Ion	Exp%	Act%
184.20	100.00	100.00
185.10	15.90	14.13
183.10	12.20	10.55
0.00	0.00	0.00

Data File Name	1DFTP462.D
Vial Number	1
Data File Path	C:\INSTARCH\DATA\1S090519\
Operator	JJY
Date Acquired	9/5/2019 15:19
Instrument Name	SVMS1
Sample Name	DFTPP TUNE SVMS8353
Sample Multiplier	1
Misc Info	SVMS1,25ng DFTPP
Calibration Title	DFTPP TUNE
Last Calibration Update	Tue Sep 03 12:44:34 2019

#	Name	Ret Time	Target Response
1)	Pentachlorophenol	4.21	158187
2)	DFTPP	4.66	155978
3)	Benzidine	5.46	997547
4)	DDE	5.62	652
5)	DDD	5.89	11459
6)	DDT	6.13	375251

DDT % Degradation

$$\frac{DDD+DDEx100}{DDD+DDE+DDT} \qquad 3.13\ \%$$

Evaluate Continuing Calibration Report

Data File : C:\INSTARCH\DATA\1S090519\1CCV600.D Vial: 2
Acq On : 5 Sep 2019 15:35 Operator: JJY
Sample : CCV 20ug/mL SVMS8433 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 05 16:03:35 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Thu Sep 05 16:03:25 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	14Diclbenzd4	20.000	20.000	0.0	93	0.00
2	CT	Ntrsdimeth	20.000	19.960	0.2	87	0.00
3	CT	Pyridine	20.000	19.636	1.8	85	0.00
4	S	SURR2Flphenol	50.000	52.405	-4.8	92	0.00
5	CT	Aniline	20.000	20.856	-4.3	91	0.00
6	CPT	bis2Clethletr	20.000	21.621	-8.1	92	0.00
7	S	SURRPhenol-d5	50.000	52.565	-5.1	93	0.00
8	CPT	Phenol	20.000	21.278	-6.4	94	0.00
9	CPT	2-Cl-phenol	20.000	20.665	-3.3	91	0.00
10	CT	13Diclbenz	20.000	21.068	-5.3	91	0.00
11	CT	14Diclbenz	20.000	20.975	-4.9	91	0.00
12	CT	12Diclbenz	20.000	21.074	-5.4	92	0.00
13	CT	Benzyl alcoho	20.000	21.125	-5.6	92	0.00
14	CPT	bis2clispreth	20.000	20.327	-1.6	88	0.00
15	CPT	2Methylphenol	20.000	20.188	-0.9	89	0.00
16	CT	Ntrspyrrol	20.000	20.272	-1.4	89	0.00
17	CPT	Acetophenone	20.000	20.372	-1.9	89	0.00
18	CPT	Hexaclethane	20.000	21.345	-6.7	92	0.00
19	CPT	N-Ntrsdinprop	20.000	20.333	-1.7	88	0.00
20	CPT	3&4Methylphenol	20.000	20.391	-2.0	90	0.00
21	I	Naphthalened8	20.000	20.000	0.0	93	0.00
22	S	SURRNitrbenzened5	100.000	103.768	-3.8	90	0.00
23	CPT	Nitrobenzene	20.000	20.958	-4.8	91	0.00
24	CPT	Isophorone	20.000	20.172	-0.9	90	0.00
25	CPT	2-Nitrophenol	20.000	20.557	-2.8	88	0.00
26	CPT	24Dimthpheno	20.000	20.157	-0.8	88	0.00
27	CPT	bis2clethoxym	20.000	20.191	-1.0	88	0.00
28	CPT	24Diclphenol	20.000	20.954	-4.8	92	0.00
29	CT	124Triclbenz	20.000	21.266	-6.3	91	0.00
30	CT	Benzoic acid	20.000	21.431	-7.2	96	0.00
31	CPT	Naphthalene	20.000	20.861	-4.3	92	0.00
32	CPT	4-Cl-aniline	20.000	19.960	0.2	87	0.00
33	CT	26Diclphenol	20.000	20.229	-1.1	89	0.00
34	CT	Hexaclprop	20.000	20.630	-3.1	88	0.00
35	CPT	Hexaclbutdien	20.000	18.165	9.2	78	0.00
36	CPT	4Cl3methylphe	20.000	20.187	-0.9	88	0.00
37	CPT	2Methylnaphth	20.000	20.379	-1.9	87	0.00
38	CT	1Methylnaphth	20.000	20.385	-1.9	87	0.00
39	I	Acenaphthened10	20.000	20.000	0.0	91	0.00
40	CPT	Hxclcycpentdi	20.000	21.078	-5.4	89	0.00
41	CPT	1245Tetrclbenz	20.000	21.120	-5.6	86	0.00
42	CPT	246Triclpheno	20.000	20.742	-3.7	89	0.00
43	CPT	245Triclpheno	20.000	20.577	-2.9	88	0.00
44	S	SURR2Flbiphenyl	100.000	104.323	-4.3	88	0.00
45	CPT	2Clnaphthalen	20.000	21.101	-5.5	88	0.00
46	CPT	2Nitroaniline	20.000	20.863	-4.3	89	0.00
47	CPT	Acnaphthylene	20.000	21.171	-5.9	89	0.00
48	CPT	Dimethylphtha	20.000	21.390	-7.0	90	0.00
49	CPT	26Dinitrotolu	20.000	22.143	-10.7	90	0.00
50	CPT	Acenaphthene	20.000	20.933	-4.7	90	0.00
51	CPT	3Nitroaniline	20.000	20.830	-4.1	90	0.00

Evaluate Continuing Calibration Report

Data File : C:\INSTARCH\DATA\1S090519\1CCV600.D Vial: 2
Acq On : 5 Sep 2019 15:35 Operator: JJY
Sample : CCV 20ug/mL SVMS8433 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 05 16:03:35 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Thu Sep 05 16:03:25 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
52	CPT	24Dinitphenol	20.000	18.309	8.5	78	0.00
53	CPT	Dibenzofuran	20.000	21.222	-6.1	88	0.00
54	CPT	24Dinitrotolu	20.000	20.563	-2.8	88	0.00
55	CPT	4-Nitrophenol	20.000	20.622	-3.1	89	0.00
56	CT	2,3,5,6-Tetrachlorop	20.000	21.404	-7.0	91	0.00
57	CPT	2,3,4,6-Tetrachlorop	20.000	20.983	-4.9	89	0.00
58	CPT	Fluorene	20.000	21.108	-5.5	90	0.00
59	CPT	4Clphlphlethr	20.000	21.106	-5.5	89	0.00
60	CPT	Diethylphthal	20.000	21.168	-5.8	90	0.00
61	CPT	4Nitroaniline	20.000	20.676	-3.4	87	0.00
62	S	SURR246Tribrphenl	50.000	52.805	-5.6	90	0.00
63	I	Phenanthrd10	20.000	20.000	0.0	88	0.00
64	CPT	46Dinit2mylph	20.000	19.814	0.9	84	0.00
65	CPT	Ntrsdiphlam&Diphlam	40.000	43.188	-8.0	90	0.00
66	CT	Azobenz&12Diphlhyd	40.000	42.785	-7.0	88	0.00
67	CPT	4Brphlphlethr	20.000	21.693	-8.5	91	0.00
68	CPT	Hexaclbenzene	20.000	21.254	-6.3	88	0.00
69	CPT	Pentaclphenol	20.000	21.555	-7.8	93	0.00
70	CPT	Phenanthrene	20.000	21.187	-5.9	88	0.00
71	CPT	Anthracene	20.000	20.979	-4.9	86	0.00
72	CPT	Carbazole	20.000	21.504	-7.5	89	0.00
73	CPT	Dinbtylphthal	20.000	21.686	-8.4	89	0.00
74	CPT	Fluoranthene	20.000	21.677	-8.4	90	0.00
75	I	Chrysene-d12	20.000	20.000	0.0	89	0.00
76	CT	Benzidine	20.000	19.570	2.1	82	0.00
77	CPT	Pyrene	20.000	21.341	-6.7	89	0.00
78	S	SURRTerphenyl-d14	100.000	103.931	-3.9	88	0.00
79	CPT	Btylbzylphth	20.000	20.401	-2.0	87	0.00
80	CT	bis2Ethlhxlad	20.000	20.711	-3.6	88	0.00
81	CPT	33Diclbnzidin	20.000	22.124	-10.6	89	0.00
82	CPT	B[a]anthracen	20.000	21.567	-7.8	89	0.00
83	CPT	Chrysene	20.000	20.643	-3.2	87	0.00
84	CPT	bis2Ethlhxlph	20.000	21.443	-7.2	87	0.00
85	CPT	Dinoctylphthl	20.000	20.913	-4.6	88	0.00
86	I	Perylene-d12	20.000	20.000	0.0	88	0.00
87	CPT	B[b]fluoranth	20.000	22.356	-11.8	94	0.00
88	CPT	B[k]fluoranth	20.000	21.173	-5.9	85	0.00
89	CPT	Benz[a]pyrene	20.000	21.269	-6.3	88	0.00
90	CPT	Indeno-pyrene	20.000	20.455	-2.3	82	0.00
91	CPT	Dib[ah]anthr	20.000	20.584	-2.9	82	0.00
92	CPT	B[ghi]perylen	20.000	19.864	0.7	81	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : C:\INSTARCH\DATA\1S090519\1CCV600.D Vial: 2
Acq On : 5 Sep 2019 15:35 Operator: JJY
Sample : CCV 20ug/mL SVMS8433 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 05 16:03:35 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Thu Sep 05 16:03:25 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	14Diclbenzd4	1.000	1.000	0.0	93	0.00
2	CT	Ntrsdimeth	0.783	0.848	-8.3	87	0.00
3	CT	Pyridine	1.229	1.305	-6.2	85	0.00
4	S	SURR2Flphenol	0.478	0.531	-11.1	92	0.00
5	CT	Aniline	1.934	2.132	-10.2	91	0.00
6	CPT	bis2Clethletr	1.251	1.352	-8.1	92	0.00
7	S	SURRPhenol-d5	0.566	0.633	-11.8	93	0.00
8	CPT	Phenol	1.737	1.944	-11.9	94	0.00
9	CPT	2-Cl-phenol	1.355	1.451	-7.1	91	0.00
10	CT	13Diclbenz	1.478	1.557	-5.3	91	0.00
11	CT	14Diclbenz	1.511	1.584	-4.8	91	0.00
12	CT	12Diclbenz	1.417	1.493	-5.4	92	0.00
13	CT	Benzyl alcoho	0.747	0.870	-16.5	92	0.00
14	CPT	bis2clispreth	2.157	2.192	-1.6	88	0.00
15	CPT	2Methylphenol	1.000	1.059	-5.9	89	0.00
16	CT	Ntrspyrrol	0.649	0.697	-7.4	89	0.00
17	CPT	Acetophenone	1.841	1.949	-5.9	89	0.00
18	CPT	Hexaclethane	0.611	0.652	-6.7	92	0.00
19	CPT	N-Ntrsdinprop	0.932	0.948	-1.7	88	0.00
20	CPT	3&4Methylphenol	1.264	1.362	-7.8	90	0.00
21	I	Naphthalened8	1.000	1.000	0.0	93	0.00
22	S	SURRNitrbenzened5	0.065	0.072	-10.8	90	0.00
23	CPT	Nitrobenzene	0.332	0.368	-10.8	91	0.00
24	CPT	Isophorone	0.642	0.679	-5.8	90	0.00
25	CPT	2-Nitrophenol	0.174	0.193	-10.9	88	0.00
26	CPT	24Dimthpheno	0.281	0.297	-5.7	88	0.00
27	CPT	bis2clethoxym	0.383	0.404	-5.5	88	0.00
28	CPT	24Diclphenol	0.254	0.285	-12.2	92	0.00
29	CT	124Triclbenz	0.292	0.310	-6.2	91	0.00
30	CT	Benzoic acid	0.127	0.151	-18.9	96	0.00
31	CPT	Naphthalene	1.023	1.067	-4.3	92	0.00
32	CPT	4-Cl-aniline	0.421	0.443	-5.2	87	0.00
33	CT	26Diclphenol	0.249	0.266	-6.8	89	0.00
34	CT	Hexaclprop	0.198	0.204	-3.0	88	0.00
35	CPT	Hexaclbutdien	0.182	0.165	9.3	78	0.00
36	CPT	4Cl3methylphe	0.334	0.361	-8.1	88	0.00
37	CPT	2Methylnaphth	0.829	0.845	-1.9	87	0.00
38	CT	1Methylnaphth	0.679	0.692	-1.9	87	0.00
39	I	Acenaphthened10	1.000	1.000	0.0	91	0.00
40	CPT	Hxclcycpentdi	0.249	0.294	-18.1	89	0.00
41	CPT	1245Tetrclbenz	0.526	0.556	-5.7	86	0.00
42	CPT	246Triclpheno	0.338	0.373	-10.4	89	0.00
43	CPT	245Triclpheno	0.374	0.417	-11.5	88	0.00
44	S	SURR2Flbiphenyl	0.266	0.278	-4.5	88	0.00
45	CPT	2Clnaphthalen	1.197	1.263	-5.5	88	0.00
46	CPT	2Nitroaniline	0.361	0.410	-13.6	89	0.00
47	CPT	Acnaphthylene	1.850	1.958	-5.8	89	0.00
48	CPT	Dimethylphtha	1.315	1.406	-6.9	90	0.00
49	CPT	26Dinitrotolu	0.297	0.329	-10.8	90	0.00
50	CPT	Acenaphthene	1.080	1.130	-4.6	90	0.00
51	CPT	3Nitroaniline	0.329	0.364	-10.6	90	0.00

Evaluate Continuing Calibration Report

Data File : C:\INSTARCH\DATA\1S090519\1CCV600.D Vial: 2
Acq On : 5 Sep 2019 15:35 Operator: JJY
Sample : CCV 20ug/mL SVMS8433 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 05 16:03:35 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Thu Sep 05 16:03:25 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
52	CPT	24Dinitphenol	0.136	0.134	1.5	78	0.00
53	CPT	Dibenzofuran	1.622	1.722	-6.2	88	0.00
54	CPT	24Dinitrotolu	0.393	0.428	-8.9	88	0.00
55	CPT	4-Nitrophenol	0.240	0.270	-12.5	89	0.00
56	CT	2,3,5,6-Tetrachlorop	0.256	0.296	-15.6	91	0.00
57	CPT	2,3,4,6-Tetrachlorop	0.292	0.316	-8.2	89	0.00
58	CPT	Fluorene	1.281	1.352	-5.5	90	0.00
59	CPT	4Clphlphlethr	0.567	0.598	-5.5	89	0.00
60	CPT	Diethylphthal	1.339	1.417	-5.8	90	0.00
61	CPT	4Nitroaniline	0.344	0.387	-12.5	87	0.00
62	S	SURR246Tribrphenl	0.060	0.066	-10.0	90	0.00
63	I	Phenanthrd10	1.000	1.000	0.0	88	0.00
64	CPT	46Dinit2mylph	0.129	0.136	-5.4	84	0.00
65	CPT	Ntrsdiphlam&Diphlam	0.547	0.590	-7.9	90	0.00
66	CT	Azobenz&12Diphlhyd	0.177	0.189	-6.8	88	0.00
67	CPT	4Brphlphlethr	0.189	0.205	-8.5	91	0.00
68	CPT	Hexaclbenzene	0.205	0.218	-6.3	88	0.00
69	CPT	Pentaclphenol	0.117	0.135	-15.4	93	0.00
70	CPT	Phenanthrene	1.055	1.117	-5.9	88	0.00
71	CPT	Anthracene	1.086	1.140	-5.0	86	0.00
72	CPT	Carbazole	1.048	1.127	-7.5	89	0.00
73	CPT	Dinbtylphthal	1.360	1.439	-5.8	89	0.00
74	CPT	Fluoranthene	0.758	0.822	-8.4	90	0.00
75	I	Chrysene-d12	1.000	1.000	0.0	89	0.00
76	CT	Benzidine	1.587	1.635	-3.0	82	0.00
77	CPT	Pyrene	1.503	1.604	-6.7	89	0.00
78	S	SURRTerphenyl-d14	0.183	0.190	-3.8	88	0.00
79	CPT	Btylbzylphth	0.783	0.828	-5.7	87	0.00
80	CT	bis2Ethlhxlad	0.622	0.669	-7.6	88	0.00
81	CPT	33Diclbnzidin	0.944	1.045	-10.7	89	0.00
82	CPT	B[a]anthracen	1.233	1.330	-7.9	89	0.00
83	CPT	Chrysene	1.276	1.317	-3.2	87	0.00
84	CPT	bis2Ethlhxlph	1.057	1.133	-7.2	87	0.00
85	CPT	Dinoctylphthl	1.804	2.016	-11.8	88	0.00
86	I	Perylene-d12	1.000	1.000	0.0	88	0.00
87	CPT	B[b]fluoranth	1.089	1.217	-11.8	94	0.00
88	CPT	B[k]fluoranth	1.092	1.156	-5.9	85	0.00
89	CPT	Benz[a]pyrene	1.123	1.195	-6.4	88	0.00
90	CPT	Indeno-pyrene	1.162	1.189	-2.3	82	0.00
91	CPT	Dib[ah]anthr	0.943	0.970	-2.9	82	0.00
92	CPT	B[ghi]perylen	1.018	1.011	0.7	81	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090519\1CCV600.D Vial: 2
Acq On : 5 Sep 2019 15:35 Operator: JJY
Sample : CCV 20ug/mL SVMS8433 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 05 16:03:35 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Thu Sep 05 16:03:25 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.311	152	117023	20.00	ug/mL	0.00
21) Naphthalened8	4.829	136	435864	20.00	ug/mL	0.00
39) Acenaphthened10	6.752	164	265860	20.00	ug/mL	0.00
63) Phenanthrd10	7.710	188	443409	20.00	ug/mL	0.00
75) Chrysene-d12	9.122	240	233022	20.00	ug/mL	0.00
86) Perylene-d12	9.952	264	270717	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.306	112	155321	52.41	%REC	0.00
Spiked Amount 100.000			Recovery = 52.41%			
7) SURRPhenol-d5	2.999	99	185333	52.56	%REC	0.00
Spiked Amount 100.000			Recovery = 52.56%			
22) SURRNitrbenzened5	3.920	82	157335	103.77	%REC	0.00
Spiked Amount 100.000			Recovery = 103.77%			
44) SURR2Flbiphenyl	6.232	172	369482	104.32	%REC	0.00
Spiked Amount 100.000			Recovery = 104.32%			
62) SURR246Tribrphenl	7.292	330	43833	52.80	%REC	0.00
Spiked Amount 100.000			Recovery = 52.80%			
78) SURRTerphenyl-d14	8.571	244	221663	103.93	%REC	0.00
Spiked Amount 100.000			Recovery = 103.93%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.649	74	99277	19.9598	ug/mL	95
3) Pyridine	1.661	79	152764	19.6364	ug/mL	98
5) Aniline	3.010	93	249528	20.8563	ug/mL	99
6) bis2Clethletr	3.081	93	158218	21.6211	ug/mL	98
8) Phenol	3.010	94	227535	21.2780	ug/mL	95
9) 2-Cl-phenol	3.113	128	169803	20.6651	ug/mL	100
10) 13Diclbenz	3.252	146	182171	21.0683	ug/mL	99
11) 14Diclbenz	3.326	146	185392	20.9754	ug/mL	99
12) 12Diclbenz	3.476	146	174761	21.0738	ug/mL	99
13) Benzyl alcoho	3.476	108	101757	21.1254	ug/mL	98
14) bis2clispreth	3.630	45	256555	20.3274	ug/mL	97
15) 2Methylphenol	3.615	107	123919	20.1883	ug/mL	95
16) Ntrspyrrol	3.741	100	81573	20.2716	ug/mL	97
17) Acetophenone	3.760	105	228124	20.3717	ug/mL	98
18) Hexaclethane	3.837	117	76319	21.3452	ug/mL	95
19) N-Ntrsdinprop	3.783	70	110922	20.3331	ug/mL	99
20) 3&4Methylphenol	3.803	107	159358	20.3907	ug/mL	97
23) Nitrobenzene	3.942	77	160438	20.9583	ug/mL	98
24) Isophorone	4.261	82	295833	20.1724	ug/mL	99
25) 2-Nitrophenol	4.340	139	84131	20.5571	ug/mL	97
26) 24Dimthpheno	4.468	122	129388	20.1575	ug/mL	99
27) bis2clethoxym	4.593	93	176059	20.1914	ug/mL	98
28) 24Diclphenol	4.675	162	124167	20.9536	ug/mL	99
29) 124Triclbenz	4.772	180	135304	21.2663	ug/mL	97
30) Benzoic acid	4.709	122	65953	21.4309	ug/mL	93
31) Naphthalene	4.857	128	464903	20.8609	ug/mL	99
32) 4-Cl-aniline	4.988	127	193249	19.9601	ug/mL	99
33) 26Diclphenol	4.985	162	115982	20.2286	ug/mL	99
34) Hexaclprop	4.991	213	88989	20.6300	ug/mL	96
35) Hexaclbutdien	5.079	225	71899	18.1651	ug/mL	93
36) 4Cl3methylphe	5.755	107	157368	20.1874	ug/mL	99
37) 2Methylnaphth	5.835	142	368170	20.3794	ug/mL	99
38) 1Methylnaphth	5.934	141	301552	20.3852	ug/mL	97
40) Hxclcycpentdi	6.017	237	78180	21.0777	ug/mL	98

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090519\1CCV600.D Vial: 2
Acq On : 5 Sep 2019 15:35 Operator: JJY
Sample : CCV 20ug/mL SVMS8433 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 05 16:03:35 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Thu Sep 05 16:03:25 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

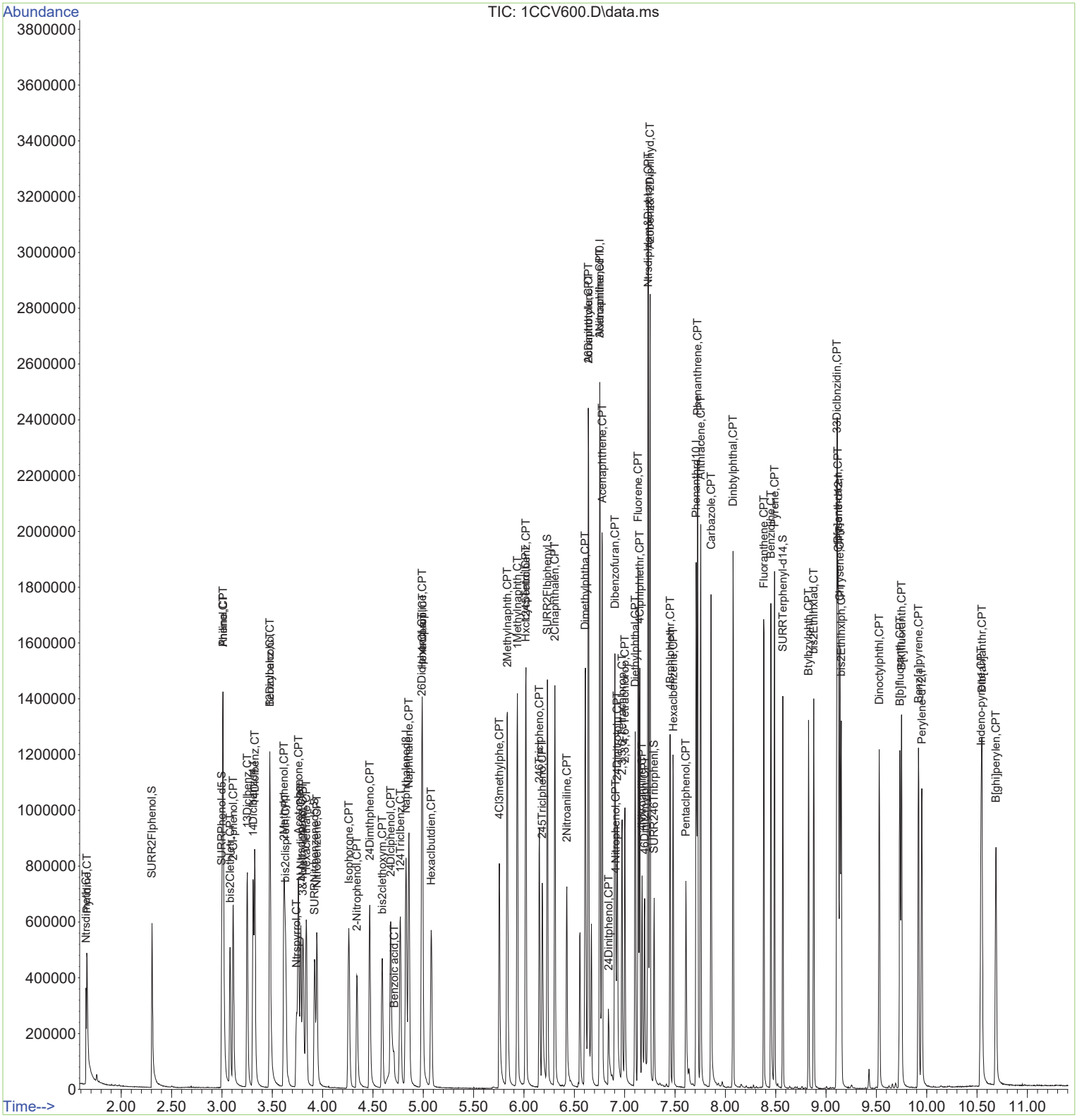
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) 1245Tetrclbenz	6.019	216	147811	21.1199 ug/mL	98
42) 246Triclpheno	6.153	196	99042	20.7416 ug/mL	97
43) 245Triclpheno	6.181	196	110808	20.5771 ug/mL	98
45) 2Clnaphthalen	6.306	162	335707	21.1013 ug/mL	98
46) 2Nitroaniline	6.426	65	108945	20.8629 ug/mL	99
47) Acnaphthylene	6.639	152	520499	21.1709 ug/mL	99
48) Dimethylphtha	6.608	163	373822	21.3903 ug/mL	99
49) 26Dinitrotolu	6.639	165	87383	22.1429 ug/mL	88
50) Acenaphthene	6.778	154	300436	20.9326 ug/mL	99
51) 3Nitroaniline	6.752	138	96738	20.8296 ug/mL	99
52) 24Dinitphenol	6.841	184	35550	18.3088 ug/mL	96
53) Dibenzofuran	6.903	168	457682	21.2218 ug/mL	97
54) 24Dinitrotolu	6.926	165	113749	20.5634 ug/mL	94
55) 4-Nitrophenol	6.912	65	71745	20.6222 ug/mL#	59
56) 2,3,5,6-Tetrachlorop	6.974	232	78793	21.4044 ug/mL	97
57) 2,3,4,6-Tetrachlorop	7.003	232	84040	20.9826 ug/mL	94
58) Fluorene	7.133	166	359389	21.1078 ug/mL	99
59) 4Clphlphlethr	7.150	204	159077	21.1059 ug/mL	99
60) Diethylphthal	7.105	149	376839	21.1680 ug/mL	99
61) 4Nitroaniline	7.173	138	102810	20.6764 ug/mL	91
64) 46Dinit2mylph	7.199	198	60476	19.8139 ug/mL	98
65) Ntrsdiphlam&Diphlam	7.233	169	523289	43.1880 ug/mL	99
66) Azobenz&12Diphlhyd	7.253	182	167701	42.7850 ug/mL	98
67) 4Brphlphlethr	7.451	248	90915	21.6929 ug/mL	97
68) Hexaclbenzene	7.483	284	96452	21.2542 ug/mL	98
69) Pentaclphenol	7.608	266	59853	21.5545 ug/mL	99
70) Phenanthrene	7.724	178	495498	21.1873 ug/mL	99
71) Anthracene	7.755	178	505301	20.9788 ug/mL	99
72) Carbazole	7.858	167	499524	21.5040 ug/mL	100
73) Dinbtylphthal	8.077	149	638096	21.6861 ug/mL	100
74) Fluoranthene	8.383	202	364357	21.6769 ug/mL	97
76) Benzidine	8.452	184	381067	19.5700 ug/mL	99
77) Pyrene	8.489	202	373677	21.3411 ug/mL	99
79) Btylbzylphth	8.827	149	192952	20.4006 ug/mL	99
80) bis2Ethlhxlad	8.878	129	155894	20.7112 ug/mL	100
81) 33Diclbnzidin	9.108	252	243421	22.1235 ug/mL	98
82) B[a]anthracen	9.117	228	309818	21.5673 ug/mL	99
83) Chrysene	9.136	228	306882	20.6431 ug/mL	100
84) bis2Ethlhxlph	9.151	149	264046	21.4432 ug/mL	100
85) Dinoctylphthl	9.529	149	469773	20.9132 ug/mL	99
87) B[b]fluoranth	9.733	252	329437	22.3559 ug/mL	99
88) B[k]fluoranth	9.750	252	312908	21.1735 ug/mL	98
89) Benz[a]pyrene	9.918	252	323392	21.2689 ug/mL	99
90) Indeno-pyrene	10.540	276	321788	20.4551 ug/mL	98
91) Dib[ah]anthr	10.549	278	262678	20.5843 ug/mL	99
92) B[ghi]perylen	10.688	276	273762	19.8640 ug/mL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090519\1CCV600.D Vial: 2
Acq On : 5 Sep 2019 15:35 Operator: JJY
Sample : CCV 20ug/mL SVMS8433 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 05 16:03:35 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Thu Sep 05 16:03:25 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Evaluate Continuing Calibration Report

Data File : C:\INSTARCH\DATA\1S090519\1CCV601.D Vial: 3
Acq On : 5 Sep 2019 15:53 Operator: JJY
Sample : CCV A 20ug/mL SVMS8443 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 05 16:06:53 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Thu Sep 05 16:06:44 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	14Diclbenzd4	20.000	20.000	0.0	81	0.00
2	CPT	Benzaldehyde	20.000	20.134	-0.7	80	0.00
3	I	Naphthalened8	20.000	20.000	0.0	79	0.00
4	CPT	Caprolactam	20.000	19.848	0.8	76	0.00
5	I	Acenaphthened10	20.000	20.000	0.0	77	0.00
6	CPT	Biphenyl	20.000	21.595	-8.0	79	0.00
7	I	Phenanthrd10	20.000	20.000	0.0	77	0.00
8	CPT	Atrazine	20.000	20.873	-4.4	78	0.00
9	I	Chrysene-d12	20.000	20.000	0.0	81	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : C:\INSTARCH\DATA\1S090519\1CCV601.D Vial: 3
Acq On : 5 Sep 2019 15:53 Operator: JJY
Sample : CCV A 20ug/mL SVMS8443 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 05 16:06:53 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Thu Sep 05 16:06:44 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	14Diclbenzd4	1.000	1.000	0.0	81	0.00
2	CPT	Benzaldehyde	1.042	1.145	-9.9	80	0.00
3	I	Naphthalened8	1.000	1.000	0.0	79	0.00
4	CPT	Caprolactam	0.186	0.213	-14.5	76	0.00
5	I	Acenaphthened10	1.000	1.000	0.0	77	0.00
6	CPT	Biphenyl	1.456	1.572	-8.0	79	0.00
7	I	Phenanthrd10	1.000	1.000	0.0	77	0.00
8	CPT	Atrazine	0.188	0.209	-11.2	78	0.00
9	I	Chrysene-d12	1.000	1.000	0.0	81	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090519\1CCV601.D Vial: 3
Acq On : 5 Sep 2019 15:53 Operator: JJY
Sample : CCV A 20ug/mL SVMS8443 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 05 16:06:53 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Thu Sep 05 16:06:44 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

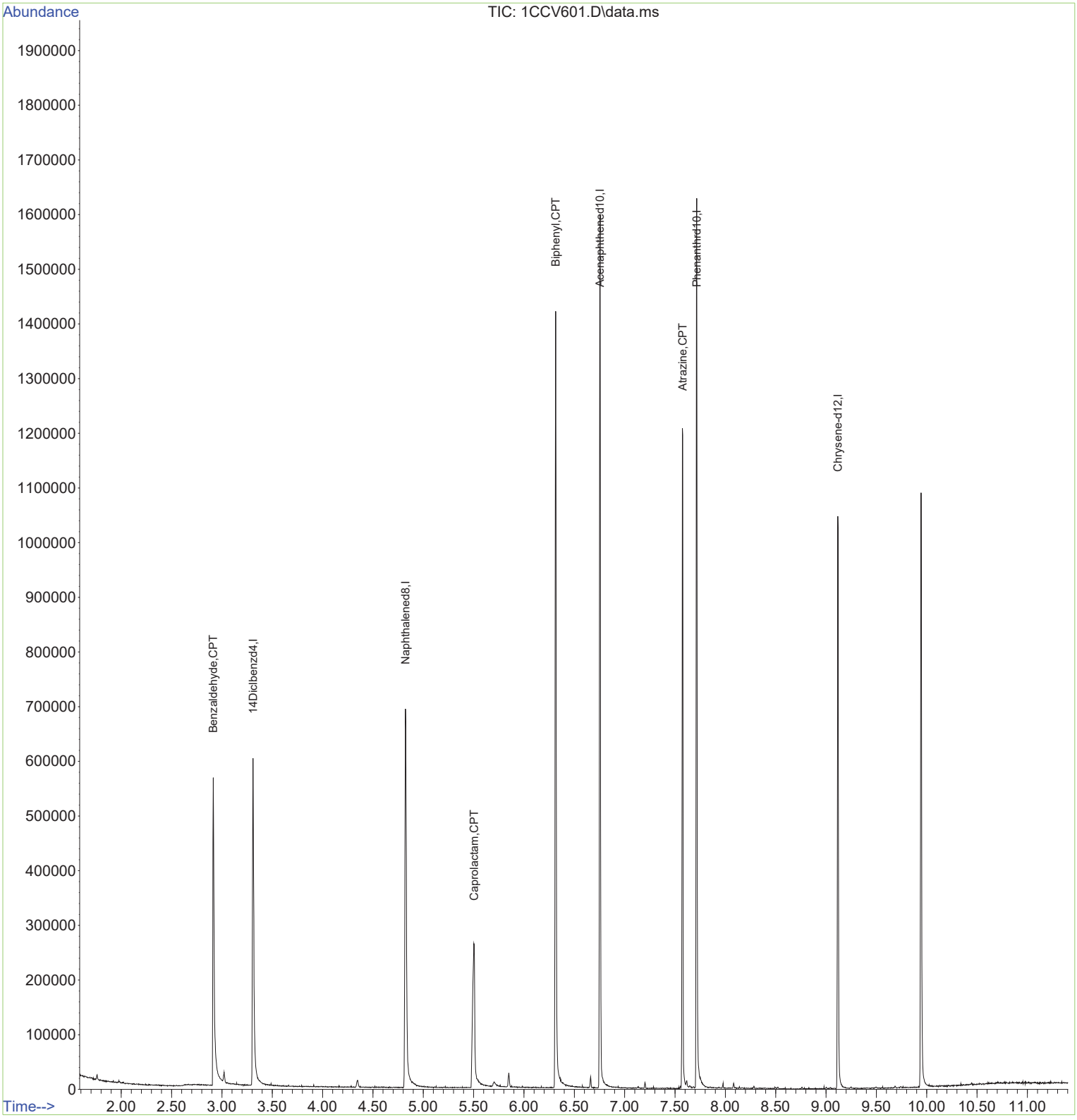
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.309	152	105704	20.00	ug/mL	0.00
3) Naphthalened8	4.823	136	388537	20.00	ug/mL	0.00
5) Acenaphthened10	6.755	164	248679	20.00	ug/mL	0.00
7) Phenanthrd10	7.716	188	405000	20.00	ug/mL	0.00
9) Chrysene-d12	9.117	240	215947	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	2.914	77	120980	20.1340	ug/mL	98
4) Caprolactam	5.505	55	82766	19.8479	ug/mL	98
6) Biphenyl	6.315	154	390828	21.5948	ug/mL	100
8) Atrazine	7.576	200	84496	20.8728	ug/mL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090519\1CCV601.D Vial: 3
Acq On : 5 Sep 2019 15:53 Operator: JJY
Sample : CCV A 20ug/mL SVMS8443 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 05 16:06:53 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Thu Sep 05 16:06:44 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Ending CCV %Recovery Report

Data File Name	1CCV602.D
Data File Path	C:\INSTARCH\DATA\1S090519\
Operator	JJY
Date Acquired	9/5/2019 17:26
Acq. Method File	1S082019.M
Sample Name	CCV 20ug/mL SVMS8433
Misc Info	500ul+5ul S4077D
Vial Number	8
Instrument Name	SVMS1
Sample Multiplier	1

#	Name	Ret Time	Amount	Units	Response	50-150 %REC
1	14Diclbenzd4	3.31	20.00	ug/mL	114070	ISTD
2	Ntrsdimeth	1.65	20.16	ug/mL	97814	101
3	Pyridine	1.66	19.73	ug/mL	149706	99
4	SURR2Flphenol	2.31	51.84	%REC	149662	104
5	Aniline	3.01	20.48	ug/mL	238722	102
6	bis2Clethletr	3.08	21.35	ug/mL	152266	107
7	SURRPhenol-d5	3.00	51.68	%REC	177495	103
8	Phenol	3.01	21.30	ug/mL	222012	106
9	2-Cl-phenol	3.11	20.63	ug/mL	165204	103
10	13Diclbenz	3.25	21.00	ug/mL	177027	105
11	14Diclbenz	3.33	20.94	ug/mL	180415	105
12	12Diclbenz	3.47	20.83	ug/mL	168413	104
13	Benzyl alcoho	3.48	20.52	ug/mL	96181	103
14	bis2clispreth	3.63	20.28	ug/mL	249454	101
15	2Methylphenol	3.62	20.38	ug/mL	121958	102
16	Ntrspyrrol	3.74	20.10	ug/mL	78827	101
17	Acetophenone	3.76	20.40	ug/mL	222703	102
18	Hexaclethane	3.84	20.99	ug/mL	73163	105
19	N-Ntrsdinprop	3.78	20.48	ug/mL	108879	102
20	3&4Methylphenol	3.80	20.37	ug/mL	155167	102
21	Naphthalened8	4.83	20.00	ug/mL	425279	ISTD
22	SURRNitrbenzened5	3.92	102.26	%REC	151198	102
23	Nitrobenzene	3.94	20.80	ug/mL	155331	104
24	Isophorone	4.26	19.92	ug/mL	285016	100
25	2-Nitrophenol	4.34	20.74	ug/mL	82873	104
26	24Dimthpheno	4.47	20.43	ug/mL	128001	102
27	bis2clethoxym	4.59	20.27	ug/mL	172446	101
28	24Diclphenol	4.68	20.65	ug/mL	119308	103
29	124Triclbenz	4.77	21.17	ug/mL	114070	106
30	Benzoic acid	4.70	21.26	ug/mL	131400	106
31	Naphthalene	4.86	20.72	ug/mL	450443	104
32	4-Cl-aniline	4.99	19.47	ug/mL	183822	97
33	26Diclphenol	4.99	19.85	ug/mL	111000	99
34	Hexaclprop	4.99	20.19	ug/mL	84976	101
35	Hexaclbutdien	5.08	17.68	ug/mL	68288	88
36	4Cl3methylphe	5.76	20.19	ug/mL	153603	101
37	2Methylnaphth	5.83	20.57	ug/mL	362552	103

38	1Methylnaphth	5.93	20.32	ug/mL	293299	102
39	Acenaphthened10	6.75	20.00	ug/mL	114070	ISTD
40	Hxclcycpentdi	6.02	21.13	ug/mL	253383	106
41	1245Tetrclbenz	6.02	22.02	ug/mL	146881	110
42	246Triclpheno	6.15	20.12	ug/mL	91443	101
43	245Triclpheno	6.18	21.89	ug/mL	112620	109
44	SURR2Flbiphenyl	6.23	105.98	%REC	357747	106
45	2Clnaphthalen	6.31	21.49	ug/mL	325847	107
46	2Nitroaniline	6.42	21.03	ug/mL	104726	105
47	Acnaphthylene	6.64	21.30	ug/mL	114070	107
48	Dimethylphtha	6.61	21.14	ug/mL	499179	106
49	26Dinitrotolu	6.64	21.95	ug/mL	82552	110
50	Acenaphthene	6.78	20.96	ug/mL	286674	105
51	3Nitroaniline	6.75	21.19	ug/mL	93906	106
52	24Dinitphenol	6.84	18.58	ug/mL	34560	93
53	Dibenzofuran	6.90	21.29	ug/mL	437665	106
54	24Dinitrotolu	6.93	20.66	ug/mL	114070	103
55	4-Nitrophenol	6.91	20.08	ug/mL	108934	100
56	2,3,5,6-Tetrachlorop	6.97	21.73	ug/mL	76293	109
57	2,3,4,6-Tetrachlorop	7.00	20.89	ug/mL	79735	104
58	Fluorene	7.13	21.18	ug/mL	343625	106
59	4Clphlphlethr	7.15	21.14	ug/mL	151876	106
60	Diethylphthal	7.10	21.36	ug/mL	362424	107
61	4Nitroaniline	7.17	21.11	ug/mL	100213	106
62	SURR246Tribrphenl	7.29	53.42	%REC	42272	107
63	Phenanthrd10	7.71	20.00	ug/mL	429603	ISTD
64	46Dinit2mylph	7.20	20.14	ug/mL	59667	101
65	Ntrsdiphlam&Diphlam	7.23	42.96	ug/mL	504266	107
66	Azobenz&12Diphlhyd	7.25	42.10	ug/mL	159889	105
67	4Brphlphlethr	7.45	21.42	ug/mL	86967	107
68	Hexaclbenzene	7.48	21.06	ug/mL	92604	105
69	Pentaclphenol	7.61	21.36	ug/mL	57427	107
70	Phenanthrene	7.72	21.12	ug/mL	478530	106
71	Anthracene	7.76	21.09	ug/mL	492092	105
72	Carbazole	7.86	21.37	ug/mL	480919	107
73	Dinbtylphthal	8.08	21.68	ug/mL	618187	108
74	Fluoranthene	8.38	21.80	ug/mL	355012	109
75	Chrysene-d12	9.12	20.00	ug/mL	228471	ISTD
76	Benzidine	8.45	20.43	ug/mL	390463	102
77	Pyrene	8.49	21.31	ug/mL	365819	107
78	SURRTerphenyl-d14	8.57	106.17	%REC	222022	106
79	Btylbzylphth	8.83	20.82	ug/mL	193227	104
80	bis2Ethlhxlad	8.88	20.92	ug/mL	154503	105
81	33Diclbnzidin	9.11	22.68	ug/mL	244654	113
82	B[a]anthracen	9.12	21.59	ug/mL	304088	108
83	Chrysene	9.14	20.62	ug/mL	300615	103
84	bis2Ethlhxlph	9.15	21.52	ug/mL	259847	108
85	Dinoctylphthl	9.53	21.30	ug/mL	469654	106
86	Perylene-d12	9.95	20.00	ug/mL	270865	ISTD
87	B[b]fluoranth	9.73	22.67	ug/mL	334264	113

88	B[k]fluoranth	9.75	21.21	ug/mL	313661	106
89	Benz[a]pyrene	9.92	21.35	ug/mL	324734	107
90	Indeno-pyrene	10.54	22.19	ug/mL	349196	111
91	Dib[ah]anthr	10.55	22.14	ug/mL	282627	111
92	B[ghi]perylen	10.69	21.78	ug/mL	300343	109

(#) = recovery out of range Average Percent Recovery = 105

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090519\1CCV602.D Vial: 8
Acq On : 5 Sep 2019 17:26 Operator: JJY
Sample : CCV 20ug/mL SVMS8433 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 05 17:37:30 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Thu Sep 05 16:03:25 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.309	152	114070	20.00	ug/mL	0.00
21) Naphthalened8	4.826	136	425279	20.00	ug/mL	0.00
39) Acenaphthened10	6.752	164	253383	20.00	ug/mL	0.00
63) Phenanthrd10	7.710	188	429603	20.00	ug/mL	0.00
75) Chrysene-d12	9.122	240	228471	20.00	ug/mL	0.00
86) Perylene-d12	9.952	264	270865	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.306	112	149662	51.84	%REC	0.00
Spiked Amount 100.000			Recovery = 51.84%			
7) SURRPhenol-d5	2.999	99	177495	51.68	%REC	0.00
Spiked Amount 100.000			Recovery = 51.68%			
22) SURRNitrbenzened5	3.920	82	151198	102.26	%REC	0.00
Spiked Amount 100.000			Recovery = 102.26%			
44) SURR2Flbiphenyl	6.232	172	357747	105.98	%REC	0.00
Spiked Amount 100.000			Recovery = 105.98%			
62) SURR246Tribrphenl	7.292	330	42272	53.42	%REC	0.00
Spiked Amount 100.000			Recovery = 53.42%			
78) SURRTerphenyl-d14	8.571	244	222022	106.17	%REC	0.00
Spiked Amount 100.000			Recovery = 106.17%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.646	74	97814	20.1601	ug/mL	94
3) Pyridine	1.658	79	149706	19.7339	ug/mL	99
5) Aniline	3.010	93	238722	20.4806	ug/mL	98
6) bis2Clethletr	3.078	93	152266	21.3464	ug/mL	99
8) Phenol	3.010	94	222012	21.2987	ug/mL	95
9) 2-Cl-phenol	3.110	128	165204	20.6272	ug/mL	98
10) 13Diclbenz	3.252	146	177027	21.0034	ug/mL	99
11) 14Diclbenz	3.326	146	180415	20.9408	ug/mL	99
12) 12Diclbenz	3.473	146	168413	20.8340	ug/mL	97
13) Benzyl alcoho	3.479	108	96181	20.5233	ug/mL	99
14) bis2clispreth	3.633	45	249454	20.2764	ug/mL	99
15) 2Methylphenol	3.616	107	121958	20.3786	ug/mL	98
16) Ntrspyrrol	3.741	100	78827	20.1040	ug/mL	99
17) Acetophenone	3.758	105	222703	20.4016	ug/mL	98
18) Hexaclethane	3.837	117	73163	20.9923	ug/mL	98
19) N-Ntrsdinprop	3.783	70	108879	20.4752	ug/mL	97
20) 3&4Methylphenol	3.803	107	155167	20.3693	ug/mL	100
23) Nitrobenzene	3.942	77	155331	20.8027	ug/mL	98
24) Isophorone	4.258	82	285016	19.9230	ug/mL	99
25) 2-Nitrophenol	4.340	139	82873	20.7425	ug/mL	99
26) 24Dimthpheno	4.468	122	128001	20.4326	ug/mL	98
27) bis2clethoxym	4.590	93	172446	20.2675	ug/mL	98
28) 24Diclphenol	4.675	162	119308	20.6495	ug/mL	98
29) 124Triclbenz	4.772	180	131400	21.1667	ug/mL	98
30) Benzoic acid	4.701	122	63702	21.2649	ug/mL	97
31) Naphthalene	4.857	128	450443	20.7152	ug/mL	99
32) 4-Cl-aniline	4.988	127	183822	19.4695	ug/mL	98
33) 26Diclphenol	4.985	162	111000	19.8478	ug/mL	98
34) Hexaclprop	4.994	213	84976	20.1900	ug/mL	97
35) Hexaclbutdien	5.079	225	68288	17.6822	ug/mL	94
36) 4Cl3methylphe	5.755	107	153603	20.1945	ug/mL	98
37) 2Methylnaphth	5.832	142	362552	20.5680	ug/mL	98
38) 1Methylnaphth	5.934	141	293299	20.3207	ug/mL	99
40) Hxclcycpentdi	6.017	237	74714	21.1321	ug/mL	96

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090519\1CCV602.D Vial: 8
Acq On : 5 Sep 2019 17:26 Operator: JJY
Sample : CCV 20ug/mL SVMS8433 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 05 17:37:30 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Thu Sep 05 16:03:25 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

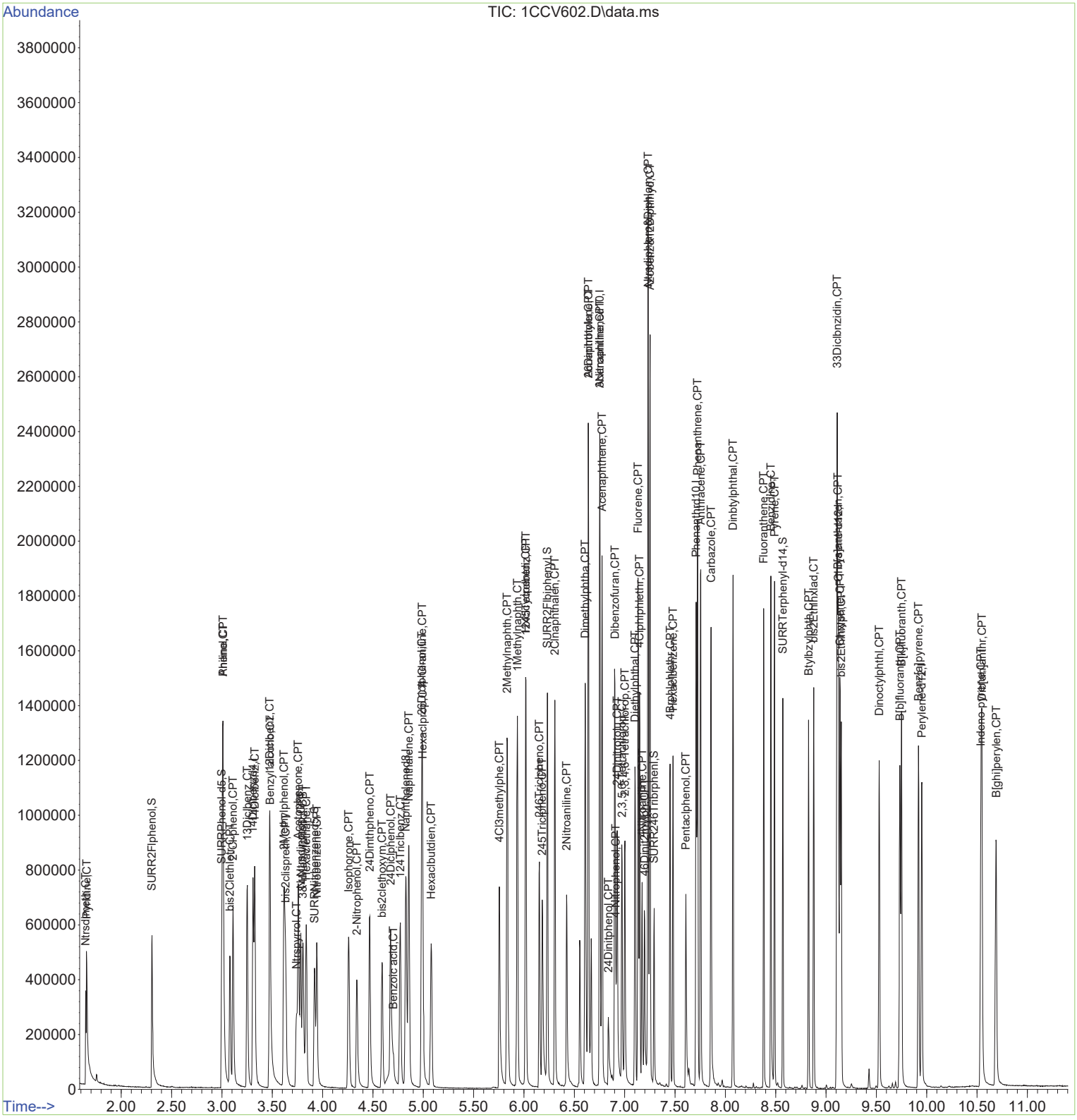
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) 1245Tetrclbenz	6.019	216	146881	22.0205 ug/mL	95
42) 246Triclpheno	6.153	196	91443	20.1205 ug/mL	98
43) 245Triclpheno	6.181	196	112620	21.8937 ug/mL	97
45) 2Clnaphthalen	6.306	162	325847	21.4901 ug/mL	98
46) 2Nitroaniline	6.423	65	104726	21.0338 ug/mL	97
47) Acnaphthylene	6.639	152	499179	21.3036 ug/mL	99
48) Dimethylphtha	6.608	163	352154	21.1427 ug/mL	99
49) 26Dinitrotolu	6.639	165	82552	21.9488 ug/mL	87
50) Acenaphthene	6.775	154	286674	20.9573 ug/mL	99
51) 3Nitroaniline	6.752	138	93906	21.1916 ug/mL	99
52) 24Dinitphenol	6.838	184	34560	18.5780 ug/mL	99
53) Dibenzofuran	6.903	168	437665	21.2930 ug/mL	97
54) 24Dinitrotolu	6.926	165	108934	20.6604 ug/mL	99
55) 4-Nitrophenol	6.912	65	66352	20.0803 ug/mL#	52
56) 2,3,5,6-Tetrachlorop	6.974	232	76293	21.7325 ug/mL	95
57) 2,3,4,6-Tetrachlorop	7.003	232	79735	20.8887 ug/mL	98
58) Fluorene	7.133	166	343625	21.1758 ug/mL	100
59) 4Clphlphlethr	7.147	204	151876	21.1427 ug/mL	98
60) Diethylphthal	7.102	149	362424	21.3607 ug/mL	100
61) 4Nitroaniline	7.173	138	100213	21.1147 ug/mL	93
64) 46Dinit2mylph	7.199	198	59667	20.1408 ug/mL	99
65) Ntrsdiphlam&Diphlam	7.233	169	504266	42.9555 ug/mL	100
66) Azobenz&12Diphlhyd	7.253	182	159889	42.1028 ug/mL	93
67) 4Brphlphlethr	7.451	248	86967	21.4177 ug/mL	97
68) Hexaclbenzene	7.480	284	92604	21.0620 ug/mL	94
69) Pentaclphenol	7.608	266	57427	21.3638 ug/mL	98
70) Phenanthrene	7.724	178	478530	21.1193 ug/mL	100
71) Anthracene	7.755	178	492092	21.0870 ug/mL	100
72) Carbazole	7.858	167	480919	21.3684 ug/mL	99
73) Dinbtylphthal	8.077	149	618187	21.6846 ug/mL	100
74) Fluoranthene	8.381	202	355012	21.7996 ug/mL	99
76) Benzidine	8.452	184	390463	20.4267 ug/mL	99
77) Pyrene	8.489	202	365819	21.3084 ug/mL	99
79) Btylbzylphth	8.827	149	193227	20.8225 ug/mL	99
80) bis2Ethlhxlad	8.878	129	154503	20.9237 ug/mL	100
81) 33Diclbnzidin	9.111	252	244654	22.6785 ug/mL	99
82) B[a]anthracen	9.117	228	304088	21.5901 ug/mL	100
83) Chrysene	9.139	228	300615	20.6243 ug/mL	99
84) bis2Ethlhxlph	9.151	149	259847	21.5225 ug/mL	100
85) Dinoctylphthl	9.529	149	469654	21.2972 ug/mL	99
87) B[b]fluoranth	9.733	252	334264	22.6711 ug/mL	99
88) B[k]fluoranth	9.750	252	313661	21.2128 ug/mL	98
89) Benz[a]pyrene	9.918	252	324734	21.3455 ug/mL	98
90) Indeno-pyrene	10.537	276	349196	22.1853 ug/mL	99
91) Dib[ah]anthr	10.549	278	282627	22.1355 ug/mL	99
92) B[ghi]perylen	10.691	276	300343	21.7808 ug/mL	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090519\1CCV602.D Vial: 8
Acq On : 5 Sep 2019 17:26 Operator: JJY
Sample : CCV 20ug/mL SVMS8433 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 05 17:37:30 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Thu Sep 05 16:03:25 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Ending CCV % Recovery- Additional analytes

Data File Name	1CCV603.D
Data File Path	C:\INSTARCH\DATA\1S090519\
Operator	JJY
Date Acquired	9/5/2019 17:44
Acq. Method File	1S082019.M
Sample Name	CCV A 20ug/mL SVMS8443
Misc Info	500ul+5ul S4077D
Vial Number	9
Instrument Name	SVMS1
Sample Multiplier	1

#	Name	Ret Time	Amount	Units	Response	50-150 %REC
1	14Diclbenzd4	3.31	20.00	ug/mL	107120	ISTD
2	Benzaldehyde	2.91	20.84	ug/mL	127294	104
3	Naphthalened8	4.82	20.00	ug/mL	398202	ISTD
4	Caprolactam	5.50	19.91	ug/mL	85142	100
5	Acenaphthened10	6.75	20.00	ug/mL	250594	ISTD
6	Biphenyl	6.31	22.08	ug/mL	402646	110
7	Phenanthrd10	7.71	20.00	ug/mL	415633	ISTD
8	Atrazine	7.57	21.18	ug/mL	88017	106

(#) = recovery out of range

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090519\1CCV603.D Vial: 9
Acq On : 5 Sep 2019 17:44 Operator: JJY
Sample : CCV A 20ug/mL SVMS8443 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 10:56:51 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Thu Sep 05 16:06:44 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

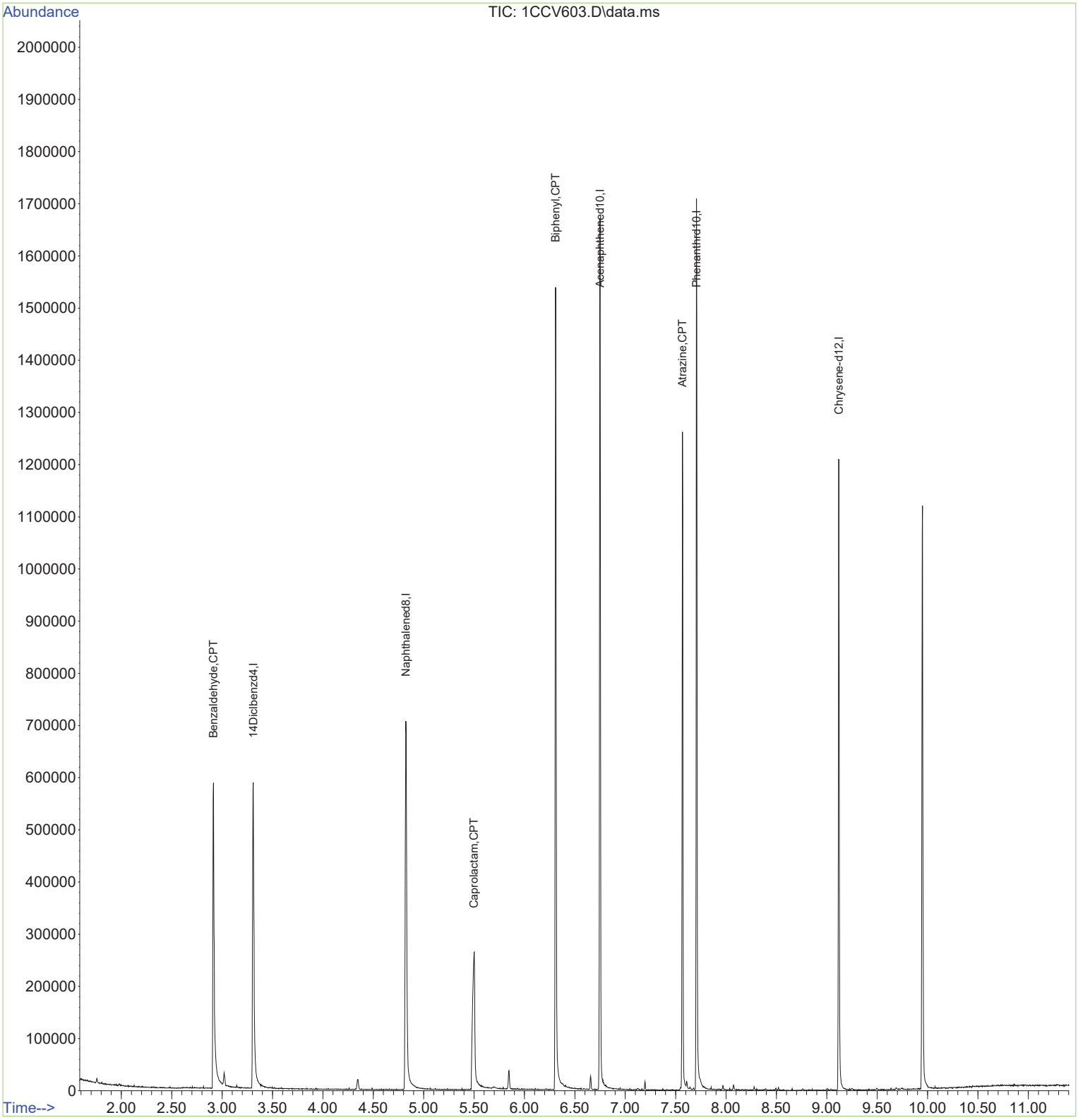
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.309	152	107120	20.00	ug/mL	0.00
3) Naphthalened8	4.823	136	398202	20.00	ug/mL	0.00
5) Acenaphthened10	6.750	164	250594	20.00	ug/mL	0.00
7) Phenanthrd10	7.707	188	415633	20.00	ug/mL	0.00
9) Chrysene-d12	9.120	240	227469	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	2.914	77	127294	20.8444	ug/mL	100
4) Caprolactam	5.500	55	85142	19.9144	ug/mL	100
6) Biphenyl	6.309	154	402646	22.0778	ug/mL	99
8) Atrazine	7.568	200	88017	21.1792	ug/mL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090519\1CCV603.D Vial: 9
Acq On : 5 Sep 2019 17:44 Operator: JJY
Sample : CCV A 20ug/mL SVMS8443 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 10:56:51 2019

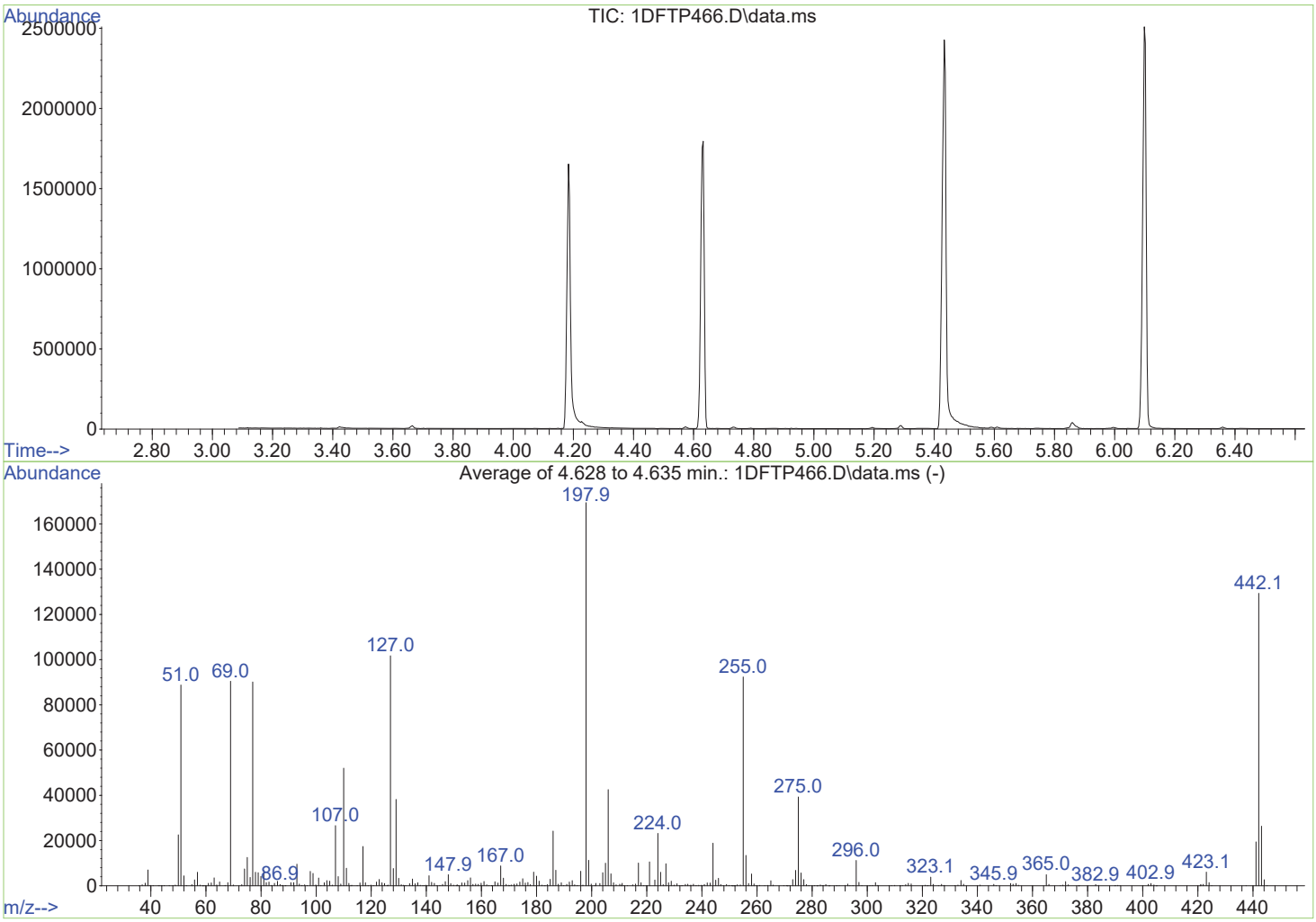
Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Thu Sep 05 16:06:44 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 1DFTP466.D
Acq On : 10 Sep 2019 18:33
Operator : JJY
Sample : DFTPP TUNE SVMS8353
Misc : SVMS1,25ng DFTPP
ALS Vial : 1 Sample Multiplier: 1

Integration File: DDD.p

Method : C:\INSTARCH\METHOD\1DFTPP.M
Title : DFTPP TUNE
Last Update : Tue Sep 10 18:49:02 2019



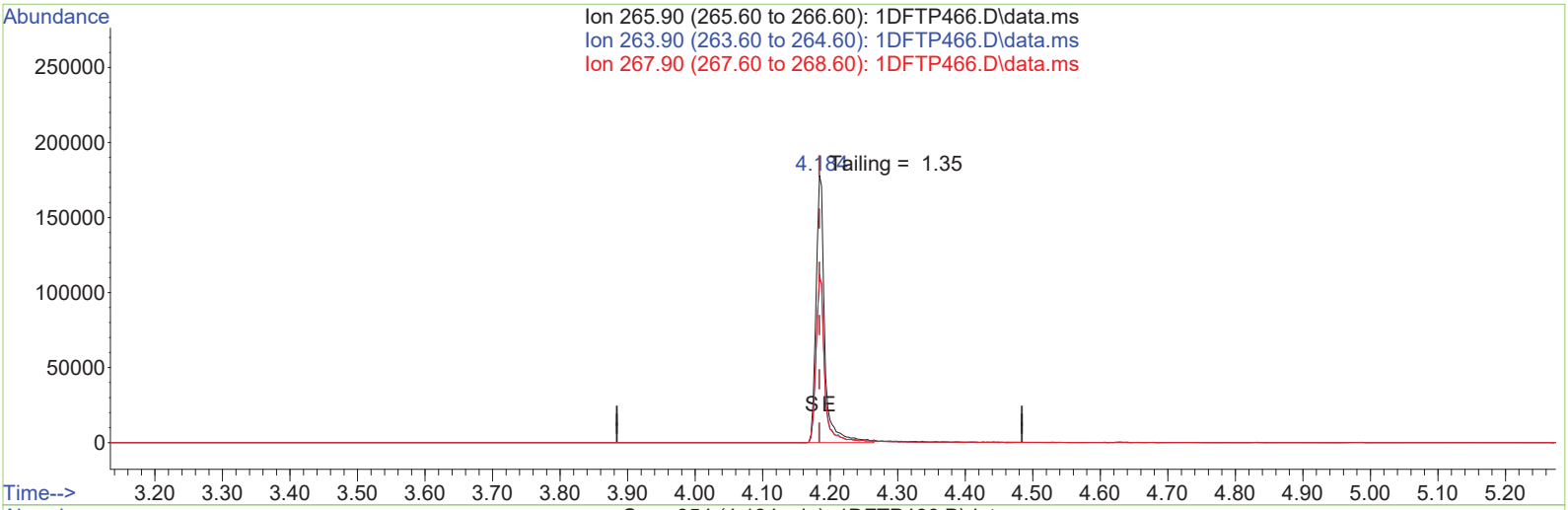
AutoFind: Scans 497, 498, 499; Background Corrected with Scan 488

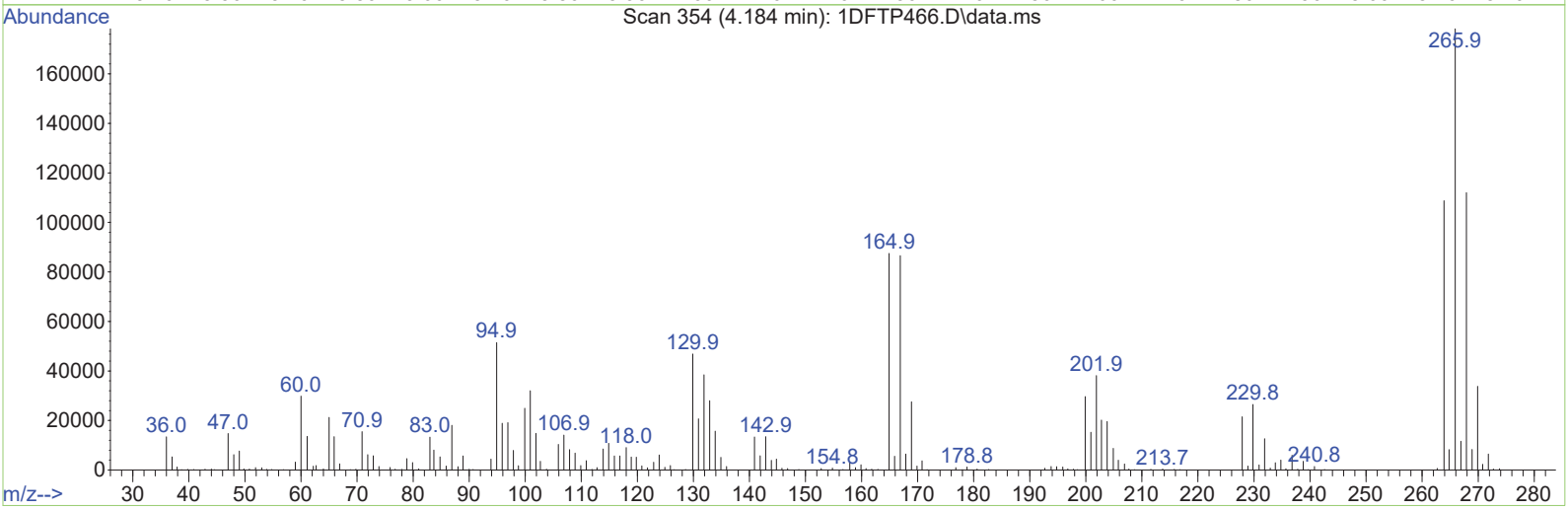
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	52.4	88770	PASS
68	69	0.00	2	1.6	1403	PASS
70	69	0.00	2	0.4	386	PASS
127	198	10	80	60.0	101693	PASS
197	198	0.00	2	0.2	329	PASS
198	198	50	100	100.0	169419	PASS
199	198	5	9	6.7	11274	PASS
275	198	10	60	23.2	39264	PASS
365	198	1	100	2.9	4920	PASS
441	442	0.01	24	15.0	19384	PASS
442	198	50	100	76.3	129336	PASS
443	442	15	24	20.4	26368	PASS

Quantitation Report (Qedit)

Data File : C:\INSTARCH\DATA\1S091119\1DFTP466.D Vial: 1
Acq On : 10 Sep 2019 18:33 Operator: JJY
Sample : DFTPP TUNE SVMS8353 Inst : SVMS1
Misc : SVMS1,25ng DFTPP Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 18:49:10 2019

Quant Method : C:\INSTARCH\METHOD\1DFTPP.M
Quant Title : DFTPP TUNE
QLast Update : Tue Sep 10 18:49:02 2019
Response via : Initial Calibration
DataAcq Meth:1DFTPP.M





TIC: 1DFTP466.D\data.ms

(1) Pentachlorophenol

4.184min (0.000) 22.74 ng

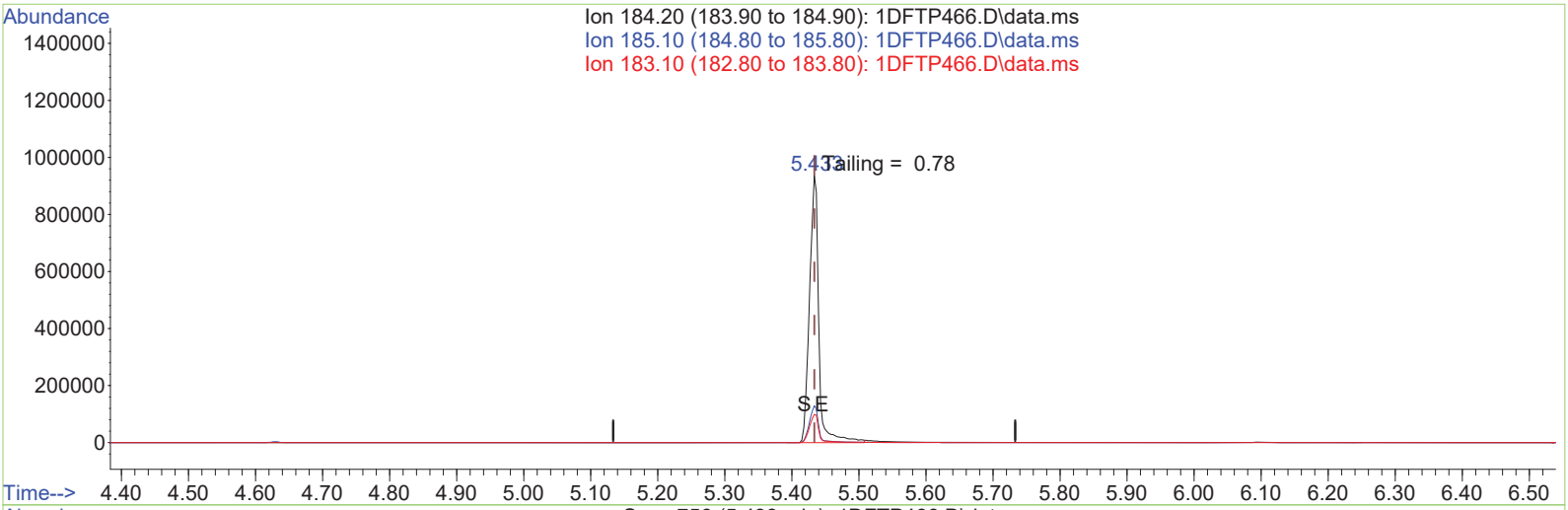
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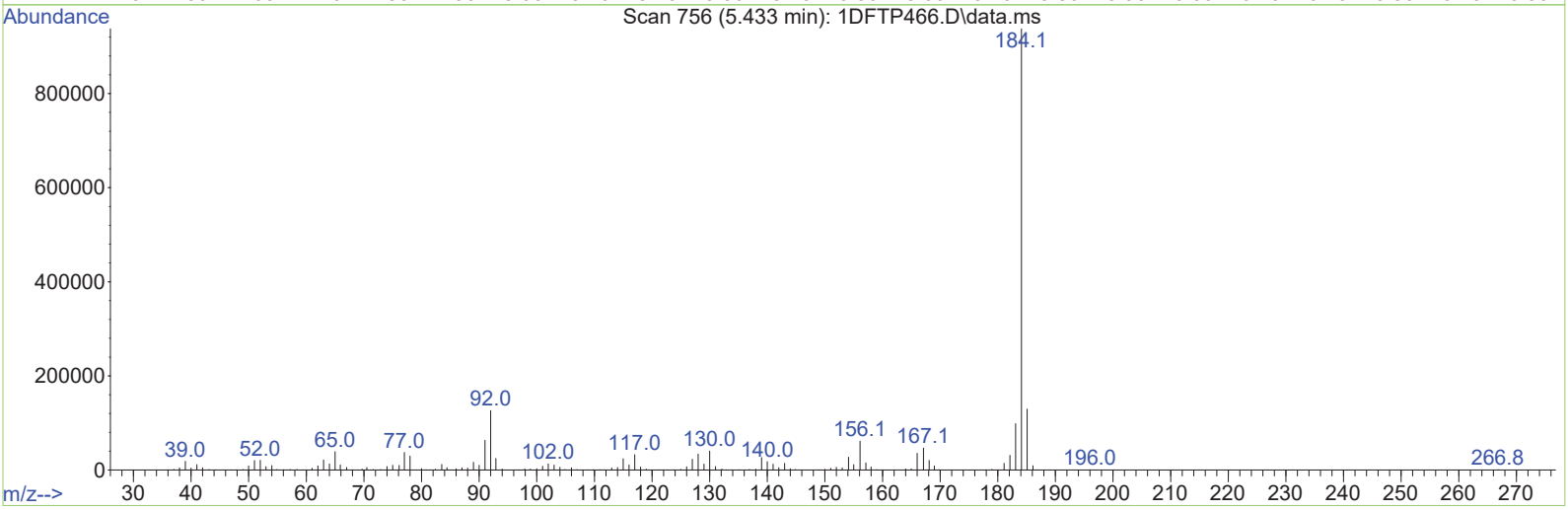
Ion	Exp%	Act%
265.90	100.00	100.00
263.90	64.60	60.30
267.90	65.00	61.40
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\INSTARCH\DATA\1S091119\1DFTP466.D Vial: 1
Acq On : 10 Sep 2019 18:33 Operator: JJY
Sample : DFTPP TUNE SVMS8353 Inst : SVMS1
Misc : SVMS1,25ng DFTPP Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 18:49:10 2019

Quant Method : C:\INSTARCH\METHOD\1DFTPP.M
Quant Title : DFTPP TUNE
QLast Update : Tue Sep 10 18:49:02 2019
Response via : Initial Calibration
DataAcq Meth:1DFTPP.M





TIC: 1DFTP466.D\data.ms

(3) Benzidine

5.433min (0.000) 19.92 ng

response 909703

Ion	Exp%	Act%
184.20	100.00	100.00
185.10	15.90	13.86
183.10	12.20	10.31
0.00	0.00	0.00

Data File Name	1DFTP466.D
Vial Number	1
Data File Path	C:\INSTARCH\DATA\1S091119\
Operator	JJY
Date Acquired	9/10/2019 18:33
Instrument Name	SVMS1
Sample Name	DFTPP TUNE SVMS8353
Sample Multiplier	1
Misc Info	SVMS1,25ng DFTPP
Calibration Title	DFTPP TUNE
Last Calibration Update	Tue Sep 10 18:49:02 2019

#	Name	Ret Time	Target Response
1)	Pentachlorophenol	4.18	160027
2)	DFTPP	4.63	152491
3)	Benzidine	5.43	909703
4)	DDE	5.59	658
5)	DDD	5.86	7736
6)	DDT	6.10	379203

DDT % Degradation

$$\frac{DDD+DDEx100}{DDD+DDE+DDT} \qquad 2.17\ \%$$

Evaluate Continuing Calibration Report

Data File : C:\INSTARCH\DATA\1S091119\1CCV609.D Vial: 2
Acq On : 10 Sep 2019 18:49 Operator: JJY
Sample : CCV 20ug/mL SVMS8433 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 19:03:46 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	14Diclbenzd4	20.000	20.000	0.0	88	0.00
2	CT	Ntrsdimeth	20.000	20.055	-0.3	83	0.00
3	CT	Pyridine	20.000	18.680	6.6	76	0.00
4	S	SURR2Flphenol	50.000	51.509	-3.0	86	0.00
5	CT	Aniline	20.000	20.254	-1.3	84	0.00
6	CPT	bis2Clethletr	20.000	21.535	-7.7	87	0.00
7	S	SURRPhenol-d5	50.000	50.817	-1.6	85	0.00
8	CPT	Phenol	20.000	20.865	-4.3	88	0.00
9	CPT	2-Cl-phenol	20.000	20.637	-3.2	86	0.00
10	CT	13Diclbenz	20.000	21.336	-6.7	87	0.00
11	CT	14Diclbenz	20.000	20.516	-2.6	85	0.00
12	CT	12Diclbenz	20.000	20.927	-4.6	86	0.00
13	CT	Benzyl alcoho	20.000	17.158	14.2	70	0.00
14	CPT	bis2clispreth	20.000	20.408	-2.0	84	0.00
15	CPT	2Methylphenol	20.000	19.628	1.9	82	0.00
16	CT	Ntrspyrrol	20.000	19.724	1.4	82	0.00
17	CPT	Acetophenone	20.000	20.108	-0.5	83	0.00
18	CPT	Hexaclethane	20.000	21.289	-6.4	87	0.00
19	CPT	N-Ntrsdinprop	20.000	20.266	-1.3	83	0.00
20	CPT	3&4Methylphenol	20.000	19.879	0.6	83	0.00
21	I	Naphthalened8	20.000	20.000	0.0	88	0.00
22	S	SURRNitrbenzened5	100.000	100.752	-0.8	82	0.00
23	CPT	Nitrobenzene	20.000	20.340	-1.7	83	0.00
24	CPT	Isophorone	20.000	19.785	1.1	83	0.00
25	CPT	2-Nitrophenol	20.000	20.453	-2.3	83	0.00
26	CPT	24Dimthpheno	20.000	20.223	-1.1	83	0.00
27	CPT	bis2clethoxym	20.000	19.976	0.1	82	0.00
28	CPT	24Diclphenol	20.000	20.698	-3.5	86	0.00
29	CT	124Triclbenz	20.000	21.460	-7.3	87	0.00
30	CT	Benzoic acid	20.000	20.744	-3.7	87	0.00
31	CPT	Naphthalene	20.000	20.934	-4.7	87	0.00
32	CPT	4-Cl-aniline	20.000	19.864	0.7	82	0.00
33	CT	26Diclphenol	20.000	19.867	0.7	83	0.00
34	CT	Hexaclprop	20.000	20.318	-1.6	82	0.00
35	CPT	Hexaclbutdien	20.000	17.354	13.2	70	0.00
36	CPT	4Cl3methylphe	20.000	19.757	1.2	81	0.00
37	CPT	2Methylnaphth	20.000	20.975	-4.9	84	0.00
38	CT	1Methylnaphth	20.000	20.648	-3.2	83	0.00
39	I	Acenaphthened10	20.000	20.000	0.0	86	0.00
40	CPT	Hxclcycpentdi	20.000	20.236	-1.2	81	0.00
41	CPT	1245Tetrclbenz	20.000	21.540	-7.7	84	0.00
42	CPT	246Triclpheno	20.000	19.993	0.0	81	0.00
43	CPT	245Triclpheno	20.000	20.995	-5.0	85	0.00
44	S	SURR2Flbiphenyl	100.000	104.506	-4.5	83	0.00
45	CPT	2Clnaphthalen	20.000	20.853	-4.3	83	0.00
46	CPT	2Nitroaniline	20.000	20.441	-2.2	83	0.00
47	CPT	Acnaphthylene	20.000	21.364	-6.8	85	0.00
48	CPT	Dimethylphtha	20.000	21.324	-6.6	85	0.00
49	CPT	26Dinitrotolu	20.000	21.525	-7.6	83	0.00
50	CPT	Acenaphthene	20.000	20.795	-4.0	85	0.00
51	CPT	3Nitroaniline	20.000	20.259	-1.3	83	0.00

Evaluate Continuing Calibration Report

Data File : C:\INSTARCH\DATA\1S091119\1CCV609.D Vial: 2
Acq On : 10 Sep 2019 18:49 Operator: JJY
Sample : CCV 20ug/mL SVMS8433 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 19:03:46 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
52	CPT	24Dinitphenol	20.000	20.027	-0.1	83	0.00
53	CPT	Dibenzofuran	20.000	21.131	-5.7	83	0.00
54	CPT	24Dinitrotolu	20.000	20.572	-2.9	84	0.00
55	CPT	4-Nitrophenol	20.000	21.845	-9.2	90	0.00
56	CT	2,3,5,6-Tetrachlorop	20.000	20.866	-4.3	84	0.00
57	CPT	2,3,4,6-Tetrachlorop	20.000	20.947	-4.7	85	0.00
58	CPT	Fluorene	20.000	21.401	-7.0	86	0.00
59	CPT	4Clphlphlethr	20.000	20.971	-4.9	84	0.00
60	CPT	Diethylphthal	20.000	21.477	-7.4	86	0.00
61	CPT	4Nitroaniline	20.000	20.345	-1.7	81	0.00
62	S	SURR246Tribrphenl	50.000	51.925	-3.8	84	0.00
63	I	Phenanthrd10	20.000	20.000	0.0	84	0.00
64	CPT	46Dinit2mylph	20.000	19.877	0.6	81	0.00
65	CPT	Ntrsdiphlam&Diphlam	40.000	42.808	-7.0	85	0.00
66	CT	Azobenz&12Diphlhyd	40.000	43.097	-7.7	84	0.00
67	CPT	4Brphlphlethr	20.000	21.872	-9.4	87	0.00
68	CPT	Hexaclbenzene	20.000	21.487	-7.4	85	0.00
69	CPT	Pentaclphenol	20.000	21.174	-5.9	87	0.00
70	CPT	Phenanthrene	20.000	21.182	-5.9	84	0.00
71	CPT	Anthracene	20.000	21.365	-6.8	84	0.00
72	CPT	Carbazole	20.000	21.115	-5.6	83	0.00
73	CPT	Dinbtylphthal	20.000	22.096	-10.5	87	0.00
74	CPT	Fluoranthene	20.000	22.376	-11.9	88	0.00
75	I	Chrysene-d12	20.000	20.000	0.0	86	0.00
76	CT	Benzidine	20.000	18.850	5.7	77	0.00
77	CPT	Pyrene	20.000	21.063	-5.3	85	0.00
78	S	SURRTerphenyl-d14	100.000	104.530	-4.5	86	0.00
79	CPT	Btylbzylphth	20.000	21.454	-7.3	88	0.00
80	CT	bis2Ethlhxlad	20.000	21.551	-7.8	89	0.00
81	CPT	33Diclbnzidin	20.000	22.141	-10.7	86	0.00
82	CPT	B[a]anthracen	20.000	21.662	-8.3	86	0.00
83	CPT	Chrysene	20.000	21.055	-5.3	86	0.00
84	CPT	bis2Ethlhxlph	20.000	22.953	-14.8	91	0.00
85	CPT	Dinoctylphthl	20.000	22.003	-10.0	90	0.00
86	I	Perylene-d12	20.000	20.000	0.0	89	0.00
87	CPT	B[b]fluoranth	20.000	21.862	-9.3	92	0.00
88	CPT	B[k]fluoranth	20.000	20.122	-0.6	81	0.00
89	CPT	Benz[a]pyrene	20.000	20.758	-3.8	86	0.00
90	CPT	Indeno-pyrene	20.000	21.265	-6.3	86	0.00
91	CPT	Dib[ah]anthr	20.000	21.289	-6.4	85	0.00
92	CPT	B[ghi]perylen	20.000	20.668	-3.3	85	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : C:\INSTARCH\DATA\1S091119\1CCV609.D Vial: 2
Acq On : 10 Sep 2019 18:49 Operator: JJY
Sample : CCV 20ug/mL SVMS8433 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 19:03:46 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	14Diclbenzd4	1.000	1.000	0.0	88	0.00
2	CT	Ntrsdimeth	0.783	0.853	-8.9	83	0.00
3	CT	Pyridine	1.229	1.237	-0.7	76	0.00
4	S	SURR2Flphenol	0.478	0.521	-9.0	86	0.00
5	CT	Aniline	1.934	2.069	-7.0	84	0.00
6	CPT	bis2Clethletr	1.251	1.347	-7.7	87	0.00
7	S	SURRPhenol-d5	0.566	0.612	-8.1	85	0.00
8	CPT	Phenol	1.737	1.906	-9.7	88	0.00
9	CPT	2-Cl-phenol	1.355	1.449	-6.9	86	0.00
10	CT	13Diclbenz	1.478	1.576	-6.6	87	0.00
11	CT	14Diclbenz	1.511	1.550	-2.6	85	0.00
12	CT	12Diclbenz	1.417	1.483	-4.7	86	0.00
13	CT	Benzyl alcoho	0.747	0.697	6.7	70	0.00
14	CPT	bis2clispreth	2.157	2.201	-2.0	84	0.00
15	CPT	2Methylphenol	1.000	1.029	-2.9	82	0.00
16	CT	Ntrspyrrol	0.649	0.677	-4.3	82	0.00
17	CPT	Acetophenone	1.841	1.923	-4.5	83	0.00
18	CPT	Hexaclethane	0.611	0.650	-6.4	87	0.00
19	CPT	N-Ntrsdinprop	0.932	0.945	-1.4	83	0.00
20	CPT	3&4Methylphenol	1.264	1.326	-4.9	83	0.00
21	I	Naphthalened8	1.000	1.000	0.0	88	0.00
22	S	SURRNitrbenzened5	0.065	0.070	-7.7	82	0.00
23	CPT	Nitrobenzene	0.332	0.357	-7.5	83	0.00
24	CPT	Isophorone	0.642	0.665	-3.6	83	0.00
25	CPT	2-Nitrophenol	0.174	0.192	-10.3	83	0.00
26	CPT	24Dimthpheno	0.281	0.298	-6.0	83	0.00
27	CPT	bis2clethoxym	0.383	0.400	-4.4	82	0.00
28	CPT	24Diclphenol	0.254	0.281	-10.6	86	0.00
29	CT	124Triclbenz	0.292	0.313	-7.2	87	0.00
30	CT	Benzoic acid	0.127	0.145	-14.2	87	0.00
31	CPT	Naphthalene	1.023	1.070	-4.6	87	0.00
32	CPT	4-Cl-aniline	0.421	0.441	-4.8	82	0.00
33	CT	26Diclphenol	0.249	0.261	-4.8	83	0.00
34	CT	Hexaclprop	0.198	0.201	-1.5	82	0.00
35	CPT	Hexaclbutdien	0.182	0.158	13.2	70	0.00
36	CPT	4Cl3methylphe	0.334	0.353	-5.7	81	0.00
37	CPT	2Methylnaphth	0.829	0.869	-4.8	84	0.00
38	CT	1Methylnaphth	0.679	0.701	-3.2	83	0.00
39	I	Acenaphthened10	1.000	1.000	0.0	86	0.00
40	CPT	Hxclcycpentdi	0.249	0.282	-13.3	81	0.00
41	CPT	1245Tetrclbenz	0.526	0.567	-7.8	84	0.00
42	CPT	246Triclpheno	0.338	0.358	-5.9	81	0.00
43	CPT	245Triclpheno	0.374	0.426	-13.9	85	0.00
44	S	SURR2Flbiphenyl	0.266	0.278	-4.5	83	0.00
45	CPT	2Clnaphthalen	1.197	1.248	-4.3	83	0.00
46	CPT	2Nitroaniline	0.361	0.401	-11.1	83	0.00
47	CPT	Acnaphthylene	1.850	1.976	-6.8	85	0.00
48	CPT	Dimethylphtha	1.315	1.402	-6.6	85	0.00
49	CPT	26Dinitrotolu	0.297	0.320	-7.7	83	0.00
50	CPT	Acenaphthene	1.080	1.123	-4.0	85	0.00
51	CPT	3Nitroaniline	0.329	0.353	-7.3	83	0.00

Evaluate Continuing Calibration Report

Data File : C:\INSTARCH\DATA\1S091119\1CCV609.D Vial: 2
Acq On : 10 Sep 2019 18:49 Operator: JJY
Sample : CCV 20ug/mL SVMS8433 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 19:03:46 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
52	CPT	24Dinitphenol	0.136	0.151	-11.0	83	0.00
53	CPT	Dibenzofuran	1.622	1.714	-5.7	83	0.00
54	CPT	24Dinitrotolu	0.393	0.428	-8.9	84	0.00
55	CPT	4-Nitrophenol	0.240	0.288	-20.0	90	0.00
56	CT	2,3,5,6-Tetrachlorop	0.256	0.289	-12.9	84	0.00
57	CPT	2,3,4,6-Tetrachlorop	0.292	0.316	-8.2	85	0.00
58	CPT	Fluorene	1.281	1.371	-7.0	86	0.00
59	CPT	4Clphlphlethr	0.567	0.595	-4.9	84	0.00
60	CPT	Diethylphthal	1.339	1.438	-7.4	86	0.00
61	CPT	4Nitroaniline	0.344	0.380	-10.5	81	0.00
62	S	SURR246Tribrphenl	0.060	0.065	-8.3	84	0.00
63	I	Phenanthrd10	1.000	1.000	0.0	84	0.00
64	CPT	46Dinit2mylph	0.129	0.137	-6.2	81	0.00
65	CPT	Ntrsdiphlam&Diphlam	0.547	0.585	-6.9	85	0.00
66	CT	Azobenz&12Diphlhyd	0.177	0.190	-7.3	84	0.00
67	CPT	4Brphlphlethr	0.189	0.207	-9.5	87	0.00
68	CPT	Hexaclbenzene	0.205	0.220	-7.3	85	0.00
69	CPT	Pentaclphenol	0.117	0.132	-12.8	87	0.00
70	CPT	Phenanthrene	1.055	1.117	-5.9	84	0.00
71	CPT	Anthracene	1.086	1.161	-6.9	84	0.00
72	CPT	Carbazole	1.048	1.106	-5.5	83	0.00
73	CPT	Dinbtylphthal	1.360	1.465	-7.7	87	0.00
74	CPT	Fluoranthene	0.758	0.848	-11.9	88	0.00
75	I	Chrysene-d12	1.000	1.000	0.0	86	0.00
76	CT	Benzidine	1.587	1.573	0.9	77	0.00
77	CPT	Pyrene	1.503	1.583	-5.3	85	0.00
78	S	SURRTerphenyl-d14	0.183	0.191	-4.4	86	0.00
79	CPT	Btylbzylphth	0.783	0.872	-11.4	88	0.00
80	CT	bis2Ethlhxlad	0.622	0.698	-12.2	89	0.00
81	CPT	33Diclbnzidin	0.944	1.045	-10.7	86	0.00
82	CPT	B[a]anthracen	1.233	1.335	-8.3	86	0.00
83	CPT	Chrysene	1.276	1.343	-5.3	86	0.00
84	CPT	bis2Ethlhxlph	1.057	1.213	-14.8	91	0.00
85	CPT	Dinoctylphthl	1.804	2.129	-18.0	90	0.00
86	I	Perylene-d12	1.000	1.000	0.0	89	0.00
87	CPT	B[b]fluoranth	1.089	1.190	-9.3	92	0.00
88	CPT	B[k]fluoranth	1.092	1.098	-0.5	81	0.00
89	CPT	Benz[a]pyrene	1.123	1.166	-3.8	86	0.00
90	CPT	Indeno-pyrene	1.162	1.236	-6.4	86	0.00
91	CPT	Dib[ah]anthr	0.943	1.004	-6.5	85	0.00
92	CPT	B[ghi]perylen	1.018	1.052	-3.3	85	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\1CCV609.D Vial: 2
Acq On : 10 Sep 2019 18:49 Operator: JJY
Sample : CCV 20ug/mL SVMS8433 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 19:03:46 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	111012	20.00	ug/mL	0.00
21) Naphthalened8	4.786	136	411920	20.00	ug/mL	0.00
39) Acenaphthened10	6.730	164	252018	20.00	ug/mL	0.00
63) Phenanthrd10	7.690	188	421709	20.00	ug/mL	0.00
75) Chrysene-d12	9.100	240	225921	20.00	ug/mL	0.00
86) Perylene-d12	9.921	264	272472	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.280	112	144658	51.51	%REC	0.00
Spiked Amount 100.000			Recovery = 51.51%			
7) SURRPhenol-d5	2.968	99	169742	50.82	%REC	0.00
Spiked Amount 100.000			Recovery = 50.82%			
22) SURRNitrbenzened5	3.883	82	144194	100.75	%REC	0.00
Spiked Amount 100.000			Recovery = 100.75%			
44) SURR2Flbiphenyl	6.210	172	350859	104.51	%REC	0.00
Spiked Amount 100.000			Recovery = 104.51%			
62) SURR246Tribrphenl	7.273	330	40849	51.92	%REC	0.00
Spiked Amount 100.000			Recovery = 51.92%			
78) SURRTerphenyl-d14	8.551	244	216148	104.53	%REC	0.00
Spiked Amount 100.000			Recovery = 104.53%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.638	74	94660	20.0551	ug/mL	97
3) Pyridine	1.646	79	137336	18.6800	ug/mL	99
5) Aniline	2.979	93	229671	20.2536	ug/mL	98
6) bis2Clethletr	3.047	93	149495	21.5353	ug/mL	97
8) Phenol	2.979	94	211593	20.8651	ug/mL	89
9) 2-Cl-phenol	3.079	128	160858	20.6374	ug/mL	98
10) 13Diclbenz	3.218	146	175006	21.3355	ug/mL	99
11) 14Diclbenz	3.292	146	172015	20.5158	ug/mL	98
12) 12Diclbenz	3.439	146	164628	20.9268	ug/mL	99
13) Benzyl alcoho	3.445	108	77345	17.1581	ug/mL	95
14) bis2clispreth	3.596	45	244344	20.4082	ug/mL	96
15) 2Methylphenol	3.582	107	114217	19.6283	ug/mL	97
16) Ntrspyrrol	3.704	100	75197	19.7238	ug/mL	100
17) Acetophenone	3.724	105	213529	20.1077	ug/mL	99
18) Hexaclethane	3.800	117	72207	21.2887	ug/mL	98
19) N-Ntrsdinprop	3.746	70	104876	20.2657	ug/mL	97
20) 3&4Methylphenol	3.769	107	147235	19.8794	ug/mL	99
23) Nitrobenzene	3.905	77	146965	20.3400	ug/mL	99
24) Isophorone	4.218	82	274120	19.7853	ug/mL	98
25) 2-Nitrophenol	4.303	139	79082	20.4529	ug/mL	96
26) 24Dimthpheno	4.431	122	122683	20.2227	ug/mL	99
27) bis2clethoxym	4.550	93	164572	19.9759	ug/mL	98
28) 24Diclphenol	4.639	162	115846	20.6982	ug/mL	98
29) 124Triclbenz	4.732	180	129034	21.4597	ug/mL	98
30) Benzoic acid	4.667	122	59729	20.7435	ug/mL	98
31) Naphthalene	4.815	128	440913	20.9345	ug/mL	99
32) 4-Cl-aniline	4.948	127	181736	19.8641	ug/mL	96
33) 26Diclphenol	4.945	162	107620	19.8672	ug/mL	97
34) Hexaclprop	4.951	213	82827	20.3177	ug/mL	96
35) Hexaclbutdien	5.039	225	64916	17.3542	ug/mL	94
36) 4Cl3methylphe	5.730	107	145395	19.7570	ug/mL	98
37) 2Methylnaphth	5.803	142	358105	20.9745	ug/mL	98
38) 1Methylnaphth	5.906	141	288661	20.6480	ug/mL	98
40) Hxclcycpentdi	5.988	237	70986	20.2360	ug/mL	99

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\1CCV609.D Vial: 2
Acq On : 10 Sep 2019 18:49 Operator: JJY
Sample : CCV 20ug/mL SVMS8433 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 19:03:46 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

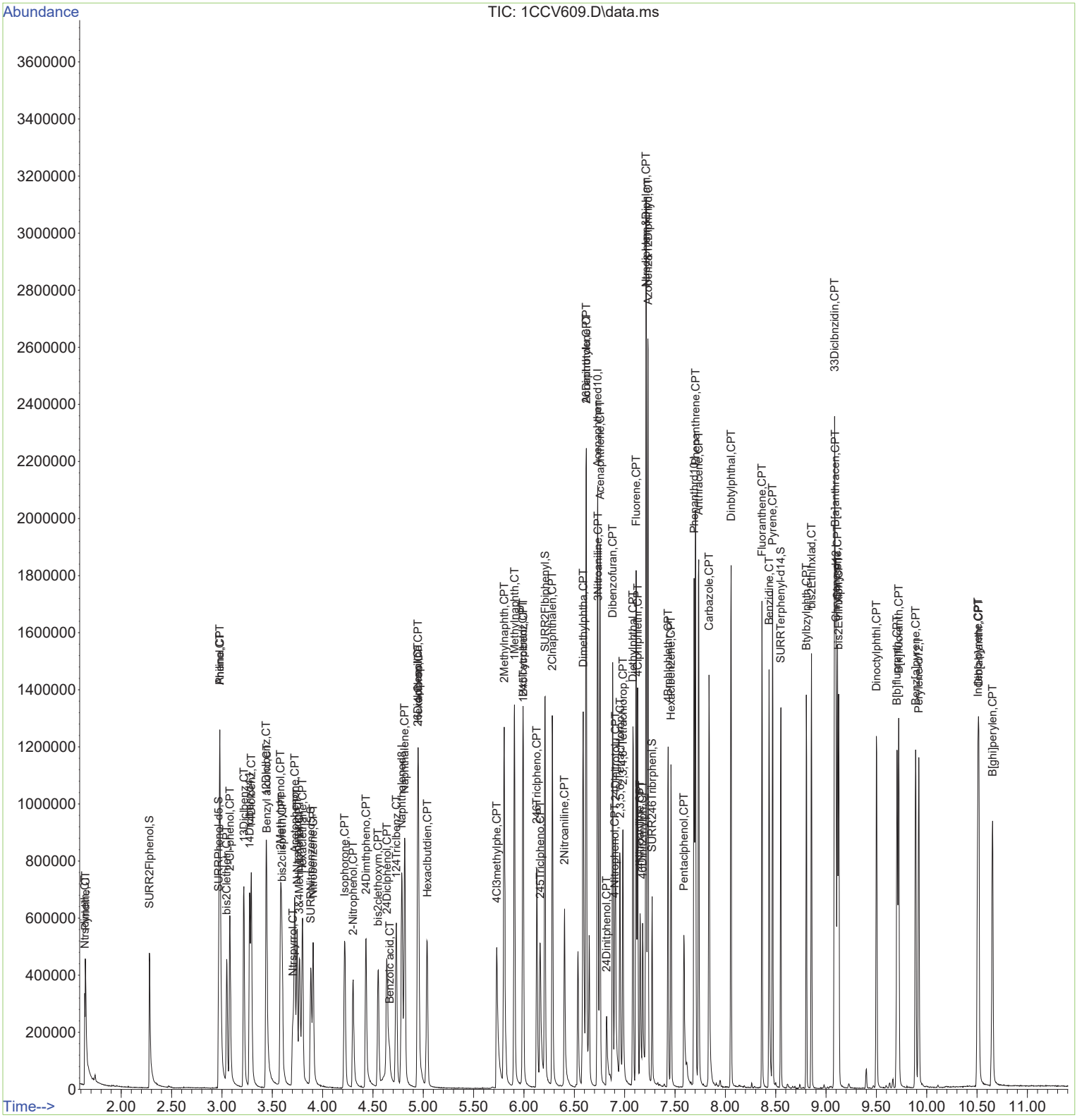
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) 1245Tetrclbenz	5.994	216	142899	21.5395 ug/mL	99
42) 246Triclpheno	6.127	196	90348	19.9929 ug/mL	100
43) 245Triclpheno	6.162	196	107251	20.9950 ug/mL	96
45) 2Clnaphthalen	6.281	162	314476	20.8525 ug/mL	99
46) 2Nitroaniline	6.403	65	101078	20.4408 ug/mL	95
47) Acnaphthylene	6.619	152	497902	21.3642 ug/mL	98
48) Dimethylphtha	6.588	163	353254	21.3236 ug/mL	99
49) 26Dinitrotolu	6.619	165	80522	21.5250 ug/mL	92
50) Acenaphthene	6.755	154	282920	20.7948 ug/mL	99
51) 3Nitroaniline	6.736	138	89029	20.2590 ug/mL	97
52) 24Dinitphenol	6.821	184	38019	20.0274 ug/mL	96
53) Dibenzofuran	6.880	168	432000	21.1312 ug/mL	99
54) 24Dinitrotolu	6.909	165	107872	20.5718 ug/mL	96
55) 4-Nitrophenol	6.900	65	72544	21.8447 ug/mL#	36
56) 2,3,5,6-Tetrachlorop	6.954	232	72735	20.8656 ug/mL	96
57) 2,3,4,6-Tetrachlorop	6.983	232	79527	20.9466 ug/mL	97
58) Fluorene	7.113	166	345406	21.4008 ug/mL	98
59) 4Clphlphlethr	7.130	204	149831	20.9710 ug/mL	97
60) Diethylphthal	7.082	149	362428	21.4767 ug/mL	99
61) 4Nitroaniline	7.153	138	95786	20.3454 ug/mL	93
64) 46Dinit2mylph	7.179	198	57719	19.8767 ug/mL	98
65) Ntrsdiphlam&Diphlam	7.213	169	493298	42.8078 ug/mL	99
66) Azobenz&12Diphlhyd	7.233	182	160658	43.0972 ug/mL	91
67) 4Brphlphlethr	7.432	248	87181	21.8723 ug/mL	96
68) Hexaclbenzene	7.460	284	92736	21.4869 ug/mL	92
69) Pentaclphenol	7.588	266	55823	21.1743 ug/mL	97
70) Phenanthrene	7.704	178	471129	21.1819 ug/mL	99
71) Anthracene	7.736	178	489413	21.3648 ug/mL	100
72) Carbazole	7.838	167	466487	21.1151 ug/mL	100
73) Dinbtylphthal	8.057	149	617976	22.0956 ug/mL	100
74) Fluoranthene	8.364	202	357696	22.3756 ug/mL	100
76) Benzidine	8.435	184	355466	18.8496 ug/mL	99
77) Pyrene	8.469	202	357561	21.0625 ug/mL	98
79) Btylbzylphth	8.804	149	197063	21.4542 ug/mL	97
80) bis2Ethlhxlad	8.855	129	157615	21.5513 ug/mL	99
81) 33Diclbnzidin	9.085	252	236193	22.1413 ug/mL	100
82) B[a]anthracen	9.091	228	301689	21.6615 ug/mL	99
83) Chrysene	9.114	228	303465	21.0548 ug/mL	100
84) bis2Ethlhxlph	9.125	149	274020	22.9526 ug/mL	100
85) Dinoctylphthl	9.500	149	480912	22.0029 ug/mL	98
87) B[b]fluoranth	9.705	252	324253	21.8624 ug/mL	100
88) B[k]fluoranth	9.722	252	299294	20.1218 ug/mL	99
89) Benz[a]pyrene	9.890	252	317677	20.7584 ug/mL	100
90) Indeno-pyrene	10.509	276	336699	21.2651 ug/mL	98
91) Dib[ah]anthr	10.517	278	273436	21.2894 ug/mL	98
92) B[ghi]perylen	10.654	276	286687	20.6679 ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\1CCV609.D Vial: 2
Acq On : 10 Sep 2019 18:49 Operator: JJY
Sample : CCV 20ug/mL SVMS8433 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 19:03:46 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Evaluate Continuing Calibration Report

Data File : C:\INSTARCH\DATA\1S091119\1CCV610.D Vial: 3
Acq On : 10 Sep 2019 19:09 Operator: JJY
Sample : CCV A 20ug/mL SVMS8443 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 11:00:17 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 11:00:08 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	14Diclbenzd4	20.000	20.000	0.0	82	0.00
2	CPT	Benzaldehyde	20.000	20.502	-2.5	82	0.00
3	I	Naphthalened8	20.000	20.000	0.0	80	0.00
4	CPT	Caprolactam	20.000	19.925	0.4	77	0.00
5	I	Acenaphthened10	20.000	20.000	0.0	78	0.00
6	CPT	Biphenyl	20.000	22.022	-10.1	82	0.00
7	I	Phenanthrd10	20.000	20.000	0.0	82	0.00
8	CPT	Atrazine	20.000	21.187	-5.9	85	0.00
9	I	Chrysene-d12	20.000	20.000	0.0	91	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : C:\INSTARCH\DATA\1S091119\1CCV610.D Vial: 3
Acq On : 10 Sep 2019 19:09 Operator: JJY
Sample : CCV A 20ug/mL SVMS8443 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 11:00:17 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 11:00:08 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	14Diclbenzd4	1.000	1.000	0.0	82	0.00
2	CPT	Benzaldehyde	1.042	1.167	-12.0	82	0.00
3	I	Naphthalened8	1.000	1.000	0.0	80	0.00
4	CPT	Caprolactam	0.186	0.214	-15.1	77	0.00
5	I	Acenaphthened10	1.000	1.000	0.0	78	0.00
6	CPT	Biphenyl	1.456	1.603	-10.1	82	0.00
7	I	Phenanthrd10	1.000	1.000	0.0	82	0.00
8	CPT	Atrazine	0.188	0.212	-12.8	85	0.00
9	I	Chrysene-d12	1.000	1.000	0.0	91	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\1CCV610.D Vial: 3
Acq On : 10 Sep 2019 19:09 Operator: JJY
Sample : CCV A 20ug/mL SVMS8443 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 11:00:17 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 11:00:08 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

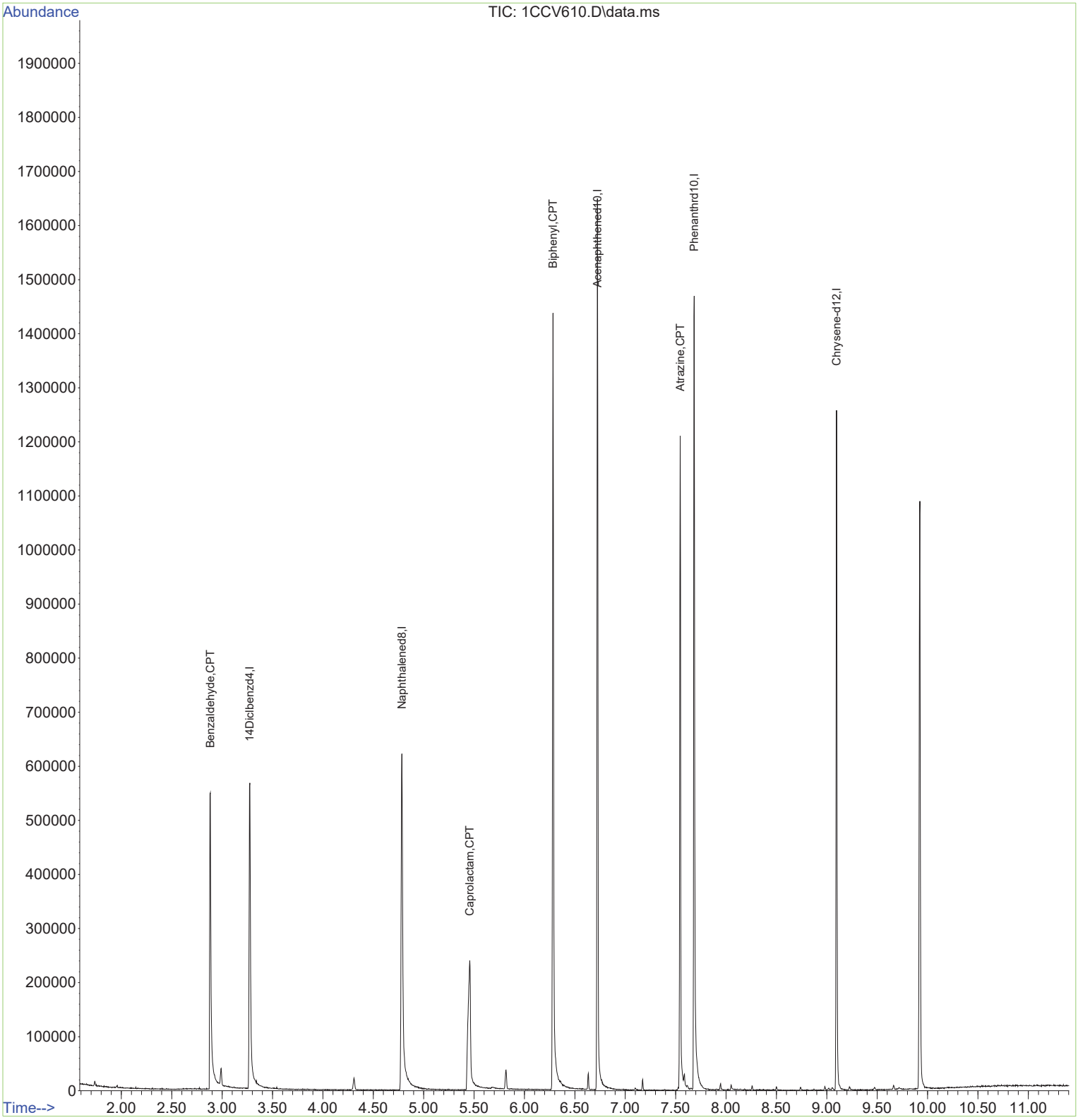
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.272	152	106797	20.00	ug/mL	0.00
3) Naphthalened8	4.784	136	394034	20.00	ug/mL	0.00
5) Acenaphthened10	6.724	164	252253	20.00	ug/mL	0.00
7) Phenanthrd10	7.685	188	431025	20.00	ug/mL	0.00
9) Chrysene-d12	9.097	240	241376	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	2.883	77	124650	20.5016	ug/mL	99
4) Caprolactam	5.457	55	84303	19.9254	ug/mL	99
6) Biphenyl	6.284	154	404296	22.0224	ug/mL	99
8) Atrazine	7.545	200	91310	21.1868	ug/mL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\1CCV610.D Vial: 3
Acq On : 10 Sep 2019 19:09 Operator: JJY
Sample : CCV A 20ug/mL SVMS8443 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 11:00:17 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 11:00:08 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Ending CCV %Recovery Report

Data File Name	1CCV611.D
Data File Path	C:\INSTARCH\DATA\1S091119\
Operator	JJY
Date Acquired	9/11/2019 2:45
Acq. Method File	1S082019.M
Sample Name	CCV 20ug/mL SVMS8433
Misc Info	500ul+5ul S4077D
Vial Number	27
Instrument Name	SVMS1
Sample Multiplier	1

#	Name	Ret Time	Amount	Units	Response	50-150 %REC	
1	14Diclbenzd4	3.28	20.00	ug/mL	141340	ISTD	
2	Ntrsdimeth	1.63	17.67	ug/mL	105219	88	
3	Pyridine	1.64	19.69	ug/mL	185042	98	
4	SURR2Flphenol	2.28	50.91	%REC	181914	102	
5	Aniline	2.98	11.96	ug/mL	169660	60	
6	bis2Clethletr	3.05	20.29	ug/mL	179341	101	
7	SURRPhenol-d5	2.97	49.37	%REC	209713	99	
8	Phenol	2.98	16.74	ug/mL	215341	84	
9	2-Cl-phenol	3.08	18.36	ug/mL	181453	92	
10	13Diclbenz	3.22	20.38	ug/mL	212805	102	
11	14Diclbenz	3.29	19.51	ug/mL	208238	98	
12	12Diclbenz	3.44	20.01	ug/mL	200437	100	
13	Benzyl alcoho	3.46	4.25	ug/mL	21225	21	#
14	bis2clispreth	3.60	16.56	ug/mL	252369	83	
15	2Methylphenol	3.59	17.85	ug/mL	131971	89	
16	Ntrspyrrol	3.71	17.58	ug/mL	84897	88	
17	Acetophenone	3.73	17.78	ug/mL	239557	89	
18	Hexaclethane	3.80	19.59	ug/mL	84615	98	
19	N-Ntrsdinprop	3.75	19.23	ug/mL	126695	96	
20	3&4Methylphenol	3.78	18.46	ug/mL	173582	92	
21	Naphthalened8	4.79	20.00	ug/mL	554695	ISTD	
22	SURRNitrbenzened5	3.89	93.53	%REC	179693	94	
23	Nitrobenzene	3.91	20.18	ug/mL	196321	101	
24	Isophorone	4.22	14.81	ug/mL	274127	74	
25	2-Nitrophenol	4.31	19.65	ug/mL	102064	98	
26	24Dimthpheno	4.44	16.74	ug/mL	136204	84	
27	bis2clethoxym	4.56	17.89	ug/mL	197991	89	
28	24Diclphenol	4.64	18.58	ug/mL	139328	93	
29	124Triclbenz	4.74	19.93	ug/mL	141340	100	
30	Benzoic acid	4.69	20.74	ug/mL	161412	104	
31	Naphthalene	4.82	19.99	ug/mL	566886	100	
32	4-Cl-aniline	4.95	16.26	ug/mL	199460	81	
33	26Diclphenol	4.95	18.12	ug/mL	131965	91	
34	Hexaclprop	4.95	12.28	ug/mL	67412	61	
35	Hexaclbutdien	5.04	16.68	ug/mL	84022	83	
36	4Cl3methylphe	5.75	18.47	ug/mL	182392	92	
37	2Methylnaphth	5.81	19.27	ug/mL	443138	96	

38	1Methylnaphth	5.91	19.91	ug/mL	374740	100	
39	Acenaphthened10	6.74	20.00	ug/mL	141340	ISTD	
40	Hxclcycpentdi	5.99	10.36	ug/mL	313220	52	
41	1245Tetrclbenz	5.99	21.19	ug/mL	174684	106	
42	246Triclpheno	6.13	19.75	ug/mL	110868	99	
43	245Triclpheno	6.17	22.62	ug/mL	143974	113	
44	SURR2Flbiphenyl	6.21	104.09	%REC	434350	104	
45	2Clnaphthalen	6.29	21.65	ug/mL	405782	108	
46	2Nitroaniline	6.41	20.84	ug/mL	128206	104	
47	Acnaphthylene	6.62	20.84	ug/mL	141340	104	
48	Dimethylphtha	6.59	21.65	ug/mL	603518	108	
49	26Dinitrotolu	6.62	22.24	ug/mL	103388	111	
50	Acenaphthene	6.76	20.67	ug/mL	349585	103	
51	3Nitroaniline	6.74	20.60	ug/mL	112638	103	
52	24Dinitphenol	6.83	17.11	ug/mL	38161	86	
53	Dibenzofuran	6.88	20.44	ug/mL	519429	102	
54	24Dinitrotolu	6.91	21.78	ug/mL	141340	109	
55	4-Nitrophenol	6.92	23.96	ug/mL	142118	120	
56	2,3,5,6-Tetrachlorop	6.96	20.92	ug/mL	90626	105	
57	2,3,4,6-Tetrachlorop	6.99	23.01	ug/mL	108630	115	
58	Fluorene	7.12	21.21	ug/mL	425554	106	
59	4Clphlphlethr	7.13	21.57	ug/mL	191504	108	
60	Diethylphthal	7.08	21.75	ug/mL	456213	109	
61	4Nitroaniline	7.16	19.40	ug/mL	113119	97	
62	SURR246Tribrphenl	7.28	52.97	%REC	51807	106	
63	Phenanthrd10	7.69	20.00	ug/mL	589331	ISTD	
64	46Dinit2mylph	7.19	13.03	ug/mL	49565	65	
65	Ntrsdiphlam&Diphlam	7.22	36.63	ug/mL	589902	92	
66	Azobenz&12Diphlhyd	7.24	38.93	ug/mL	202810	97	
67	4Brphlphlethr	7.43	20.19	ug/mL	112469	101	
68	Hexaclbenzene	7.47	20.16	ug/mL	121608	101	
69	Pentaclphenol	7.60	20.28	ug/mL	74372	101	
70	Phenanthrene	7.71	18.92	ug/mL	588139	95	
71	Anthracene	7.74	18.75	ug/mL	600255	94	
72	Carbazole	7.84	20.25	ug/mL	625048	101	
73	Dinbtylphthal	8.06	20.40	ug/mL	799182	102	
74	Fluoranthene	8.37	20.75	ug/mL	463555	104	
75	Chrysene-d12	9.10	20.00	ug/mL	361038	ISTD	
76	Benzidine	8.44	0.85	ug/mL	15521	4	#
77	Pyrene	8.47	17.60	ug/mL	477424	88	
78	SURRTerphenyl-d14	8.55	85.41	%REC	282243	85	
79	Btylbzylphth	8.81	18.58	ug/mL	271423	93	
80	bis2Ethlhxlad	8.86	16.75	ug/mL	193235	84	
81	33Diclbnzidin	9.09	9.25	ug/mL	157719	46	#
82	B[a]anthracen	9.10	19.18	ug/mL	426806	96	
83	Chrysene	9.12	17.45	ug/mL	401884	87	
84	bis2Ethlhxlph	9.13	19.07	ug/mL	363852	95	
85	Dinoctylphthl	9.50	19.53	ug/mL	676554	98	
86	Perylene-d12	9.93	20.00	ug/mL	301602	ISTD	
87	B[b]fluoranth	9.71	21.79	ug/mL	357749	109	

88	B[k]fluoranth	9.73	22.02	ug/mL	362561	110	
89	Benz[a]pyrene	9.90	20.12	ug/mL	340756	101	
90	Indeno-pyrene	10.51	10.12	ug/mL	177446	51	
91	Dib[ah]anthr	10.52	11.52	ug/mL	163753	58	
92	B[ghi]perylen	10.65	7.87	ug/mL	120870	39	#

(#) = recovery out of range Average Percent Recovery = 92

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\1CCV611.D Vial: 27
Acq On : 11 Sep 2019 2:45 Operator: JJY
Sample : CCV 20ug/mL SVMS8433 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 02:58:41 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.277	152	141340	20.00	ug/mL	0.00
21) Naphthalened8	4.792	136	554695	20.00	ug/mL	0.00
39) Acenaphthened10	6.735	164	313220	20.00	ug/mL	0.00
63) Phenanthrd10	7.693	188	589331	20.00	ug/mL	0.00
75) Chrysene-d12	9.102	240	361038	20.00	ug/mL	0.00
86) Perylene-d12	9.926	264	301602	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.283	112	181914	50.91	%REC	0.00
Spiked Amount 100.000			Recovery = 50.91%			
7) SURRPhenol-d5	2.973	99	209713	49.37	%REC	0.00
Spiked Amount 100.000			Recovery = 49.37%			
22) SURRNitrbenzened5	3.885	82	179693	93.53	%REC	0.00
Spiked Amount 100.000			Recovery = 93.53%			
44) SURR2Flbiphenyl	6.210	172	434350	104.09	%REC	0.00
Spiked Amount 100.000			Recovery = 104.09%			
62) SURR246Tribrphenl	7.278	330	51807	52.97	%REC	0.00
Spiked Amount 100.000			Recovery = 52.97%			
78) SURRTerphenyl-d14	8.554	244	282243	85.41	%REC	0.00
Spiked Amount 100.000			Recovery = 85.41%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.632	74	105219	17.6701	ug/mL	95
3) Pyridine	1.635	79	185042	19.6891	ug/mL	100
5) Aniline	2.979	93	169660	11.9554	ug/mL	83
6) bis2Clethletr	3.047	93	179341	20.2912	ug/mL	98
8) Phenol	2.985	94	215341	16.7439	ug/mL	95
9) 2-Cl-phenol	3.081	128	181453	18.3577	ug/mL	99
10) 13Diclbenz	3.218	146	212805	20.3769	ug/mL	99
11) 14Diclbenz	3.292	146	208238	19.5068	ug/mL	100
12) 12Diclbenz	3.439	146	200437	20.0116	ug/mL	98
13) Benzyl alcoho	3.465	108	21225	4.2545	ug/mL	96
14) bis2clispreth	3.596	45	252369	16.5556	ug/mL	85
15) 2Methylphenol	3.587	107	131971	17.8541	ug/mL	92
16) Ntrspyrrol	3.712	100	84897	17.5823	ug/mL	95
17) Acetophenone	3.726	105	239557	17.7759	ug/mL	98
18) Hexaclethane	3.800	117	84615	19.5939	ug/mL	96
19) N-Ntrsdinprop	3.752	70	126695	19.2287	ug/mL	96
20) 3&4Methylphenol	3.777	107	173582	18.4613	ug/mL	98
23) Nitrobenzene	3.908	77	196321	20.1838	ug/mL	97
24) Isophorone	4.224	82	274127	14.8104	ug/mL	100
25) 2-Nitrophenol	4.306	139	102064	19.6495	ug/mL	98
26) 24Dimthpheno	4.437	122	136204	16.7353	ug/mL	97
27) bis2clethoxym	4.556	93	197991	17.8920	ug/mL	99
28) 24Diclphenol	4.644	162	139328	18.5838	ug/mL	97
29) 124Triclbenz	4.735	180	161412	19.9349	ug/mL	99
30) Benzoic acid	4.692	122	80390	20.7353	ug/mL	94
31) Naphthalene	4.820	128	566886	19.9877	ug/mL	99
32) 4-Cl-aniline	4.954	127	199460	16.2649	ug/mL	99
33) 26Diclphenol	4.948	162	131965	18.1202	ug/mL	99
34) Hexaclprop	4.951	213	67412	12.2800	ug/mL	98
35) Hexaclbutdien	5.039	225	84022	16.6803	ug/mL	91
36) 4Cl3methylphe	5.747	107	182392	18.4672	ug/mL	99
37) 2Methylnaphth	5.806	142	443138	19.2744	ug/mL	98
38) 1Methylnaphth	5.909	141	374740	19.9058	ug/mL	98
40) Hxclcycpentdi	5.991	237	43187	10.3585	ug/mL	99

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\1CCV611.D Vial: 27
Acq On : 11 Sep 2019 2:45 Operator: JJY
Sample : CCV 20ug/mL SVMS8433 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 02:58:41 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

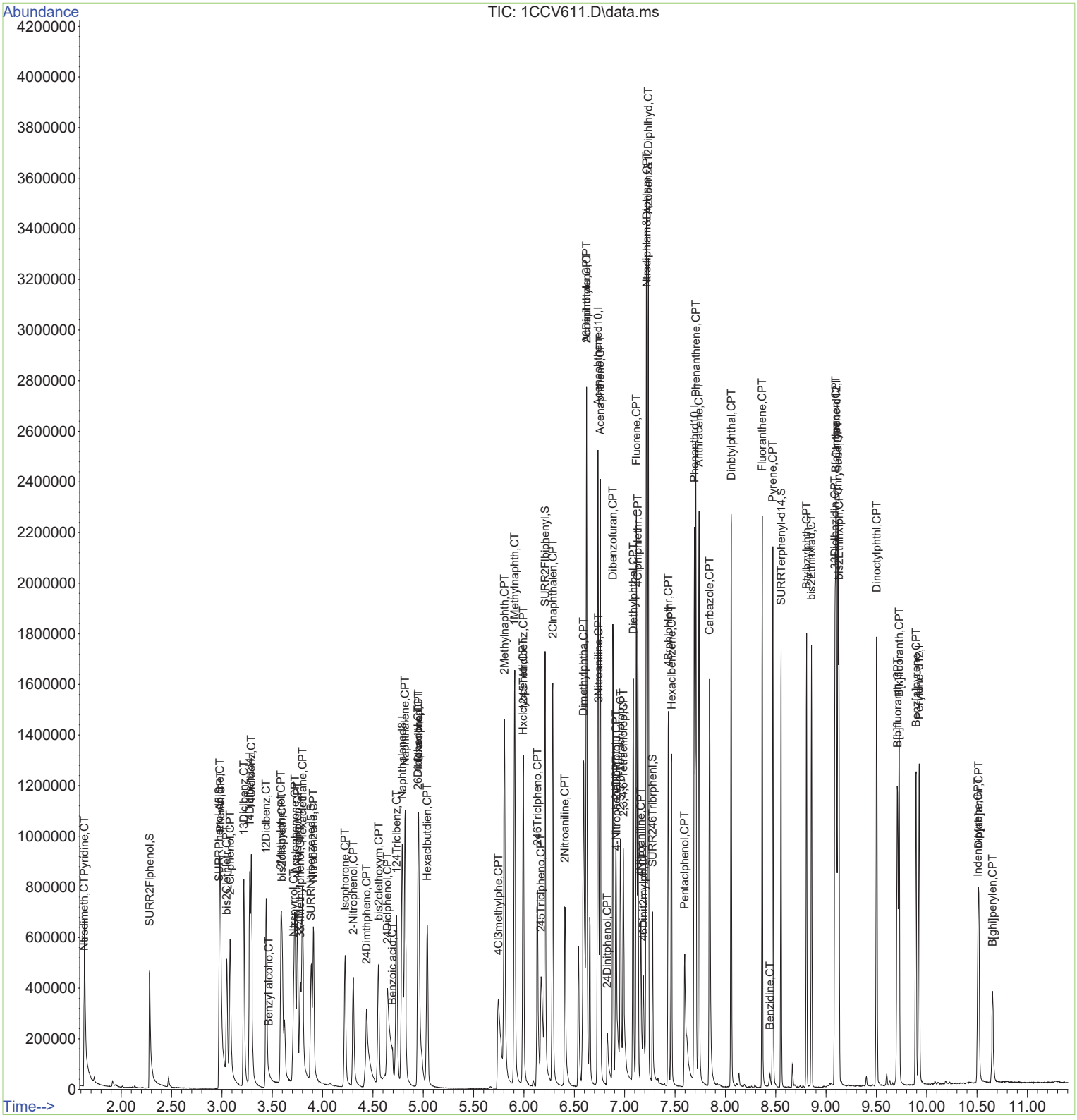
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) 1245Tetrclbenz	5.994	216	174684	21.1857 ug/mL	95
42) 246Triclpheno	6.133	196	110868	19.7506 ug/mL	98
43) 245Triclpheno	6.170	196	143974	22.6155 ug/mL	96
45) 2Clnaphthalen	6.287	162	405782	21.6494 ug/mL	98
46) 2Nitroaniline	6.406	65	128206	20.8403 ug/mL	98
47) Acnaphthylene	6.622	152	603518	20.8360 ug/mL	99
48) Dimethylphtha	6.591	163	445814	21.6526 ug/mL	100
49) 26Dinitrotolu	6.622	165	103388	22.2373 ug/mL	88
50) Acenaphthene	6.758	154	349585	20.6741 ug/mL	99
51) 3Nitroaniline	6.741	138	112638	20.6008 ug/mL	96
52) 24Dinitphenol	6.826	184	38161	17.1099 ug/mL	99
53) Dibenzofuran	6.883	168	519429	20.4432 ug/mL	99
54) 24Dinitrotolu	6.914	165	142118	21.7782 ug/mL	98
55) 4-Nitrophenol	6.917	65	99883	23.9638 ug/mL#	20
56) 2,3,5,6-Tetrachlorop	6.960	232	90626	20.9160 ug/mL	97
57) 2,3,4,6-Tetrachlorop	6.988	232	108630	23.0066 ug/mL	98
58) Fluorene	7.116	166	425554	21.2147 ug/mL	100
59) 4Clphlphlethr	7.130	204	191504	21.5664 ug/mL	98
60) Diethylphthal	7.085	149	456213	21.7518 ug/mL	100
61) 4Nitroaniline	7.162	138	113119	19.3980 ug/mL	92
64) 46Dinit2mylph	7.187	198	49565	13.0271 ug/mL	97
65) Ntrsdiphlam&Diphlam	7.218	169	589902	36.6308 ug/mL	99
66) Azobenz&12Diphlhyd	7.236	182	202810	38.9305 ug/mL#	88
67) 4Brphlphlethr	7.434	248	112469	20.1911 ug/mL	98
68) Hexaclbenzene	7.466	284	121608	20.1623 ug/mL	96
69) Pentaclphenol	7.596	266	74372	20.2757 ug/mL	98
70) Phenanthrene	7.707	178	588139	18.9216 ug/mL	99
71) Anthracene	7.738	178	600255	18.7505 ug/mL	100
72) Carbazole	7.844	167	625048	20.2452 ug/mL	98
73) Dinbtylphthal	8.060	149	799182	20.3982 ug/mL	100
74) Fluoranthene	8.366	202	463555	20.7499 ug/mL	99
76) Benzidine	8.443	184	15521	0.8477 ug/mL	97
77) Pyrene	8.472	202	477424	17.5982 ug/mL	99
79) Btylbzylphth	8.807	149	271423	18.5787 ug/mL	99
80) bis2Ethlhxlad	8.855	129	193235	16.7517 ug/mL	99
81) 33Diclbnzidin	9.088	252	157719	9.2518 ug/mL	100
82) B[a]anthracen	9.097	228	426806	19.1763 ug/mL	99
83) Chrysene	9.117	228	401884	17.4481 ug/mL	99
84) bis2Ethlhxlph	9.128	149	363852	19.0712 ug/mL	99
85) Dinoctylphthl	9.503	149	676554	19.5316 ug/mL	99
87) B[b]fluoranth	9.710	252	357749	21.7912 ug/mL	98
88) B[k]fluoranth	9.727	252	362561	22.0210 ug/mL	98
89) Benz[a]pyrene	9.895	252	340756	20.1159 ug/mL	98
90) Indeno-pyrene	10.509	276	177446	10.1247 ug/mL	96
91) Dib[ah]anthr	10.517	278	163753	11.5182 ug/mL	99
92) B[ghi]perylen	10.654	276	120870	7.8722 ug/mL	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\1CCV611.D Vial: 27
Acq On : 11 Sep 2019 2:45 Operator: JJY
Sample : CCV 20ug/mL SVMS8433 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 02:58:41 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Ending CCV % Recovery- Additional analytes

Data File Name	1CCV612.D
Data File Path	C:\INSTARCH\DATA\1S091119\
Operator	JJY
Date Acquired	9/11/2019 3:04
Acq. Method File	1S082019.M
Sample Name	CCV A 20ug/mL SVMS8443
Misc Info	500ul+5ul S4077D
Vial Number	28
Instrument Name	SVMS1
Sample Multiplier	1

#	Name	Ret Time	Amount	Units	Response	50-150 %REC
1	14Diclbenzd4	3.27	20.00	ug/mL	118135	ISTD
2	Benzaldehyde	2.88	18.15	ug/mL	120823	91
3	Naphthalened8	4.79	20.00	ug/mL	449042	ISTD
4	Caprolactam	5.46	18.43	ug/mL	88085	92
5	Acenaphthened10	6.73	20.00	ug/mL	297851	ISTD
6	Biphenyl	6.29	20.01	ug/mL	433739	100
7	Phenanthrd10	7.69	20.00	ug/mL	507511	ISTD
8	Atrazine	7.55	19.68	ug/mL	99702	98

(#) = recovery out of range

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\1CCV612.D Vial: 28
Acq On : 11 Sep 2019 3:04 Operator: JJY
Sample : CCV A 20ug/mL SVMS8443 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 11:02:07 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 11:00:08 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

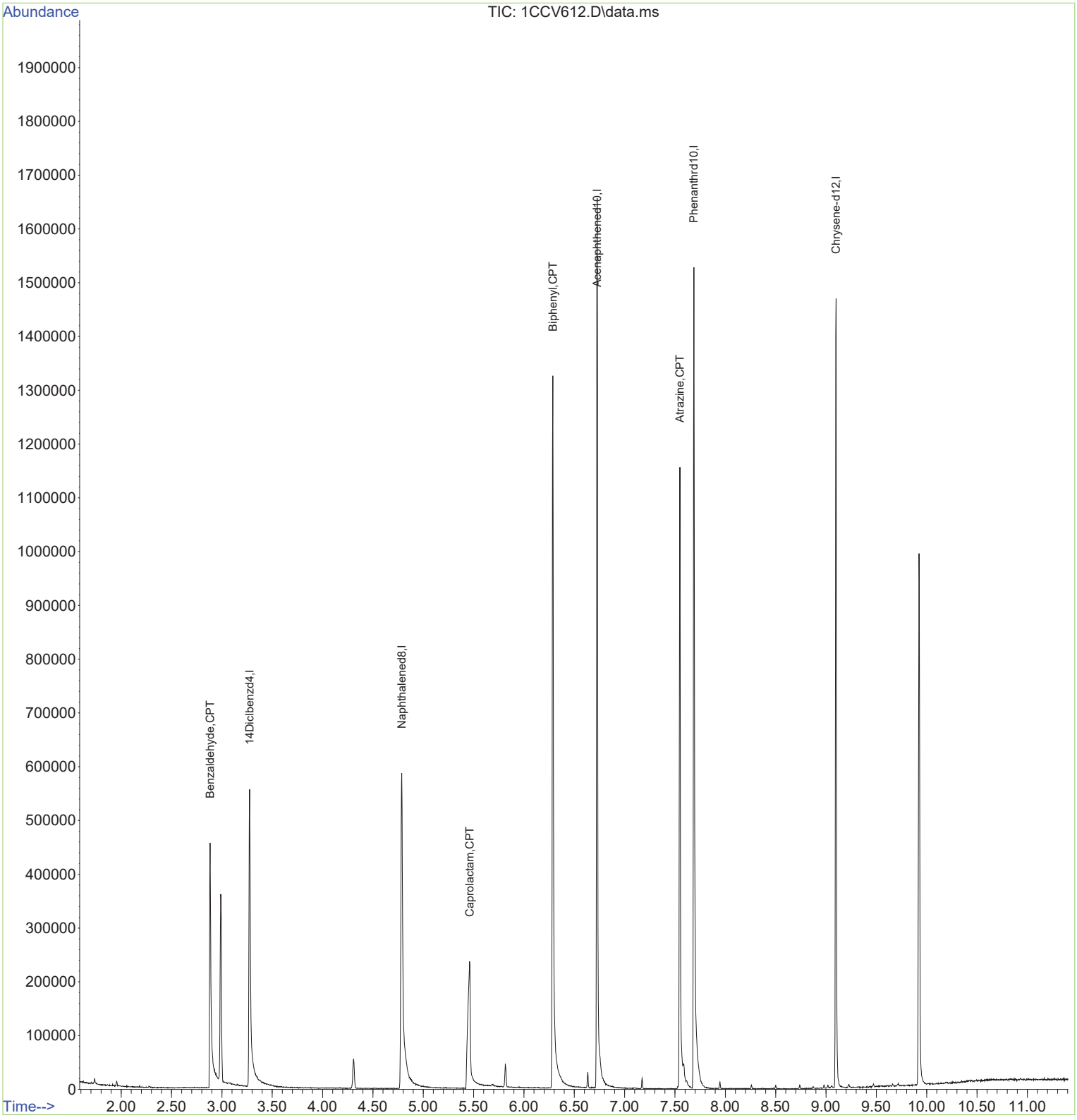
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	118135	20.00	ug/mL	0.00
3) Naphthalened8	4.786	136	449042	20.00	ug/mL	0.00
5) Acenaphthened10	6.727	164	297851	20.00	ug/mL	0.00
7) Phenanthrd10	7.688	188	507511	20.00	ug/mL	0.00
9) Chrysene-d12	9.100	240	303873	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	2.883	77	120823	18.1466	ug/mL	100
4) Caprolactam	5.460	55	88085	18.4339	ug/mL	99
6) Biphenyl	6.287	154	433739	20.0093	ug/mL	99
8) Atrazine	7.548	200	99702	19.6814	ug/mL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\1CCV612.D Vial: 28
Acq On : 11 Sep 2019 3:04 Operator: JJY
Sample : CCV A 20ug/mL SVMS8443 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 11:02:07 2019

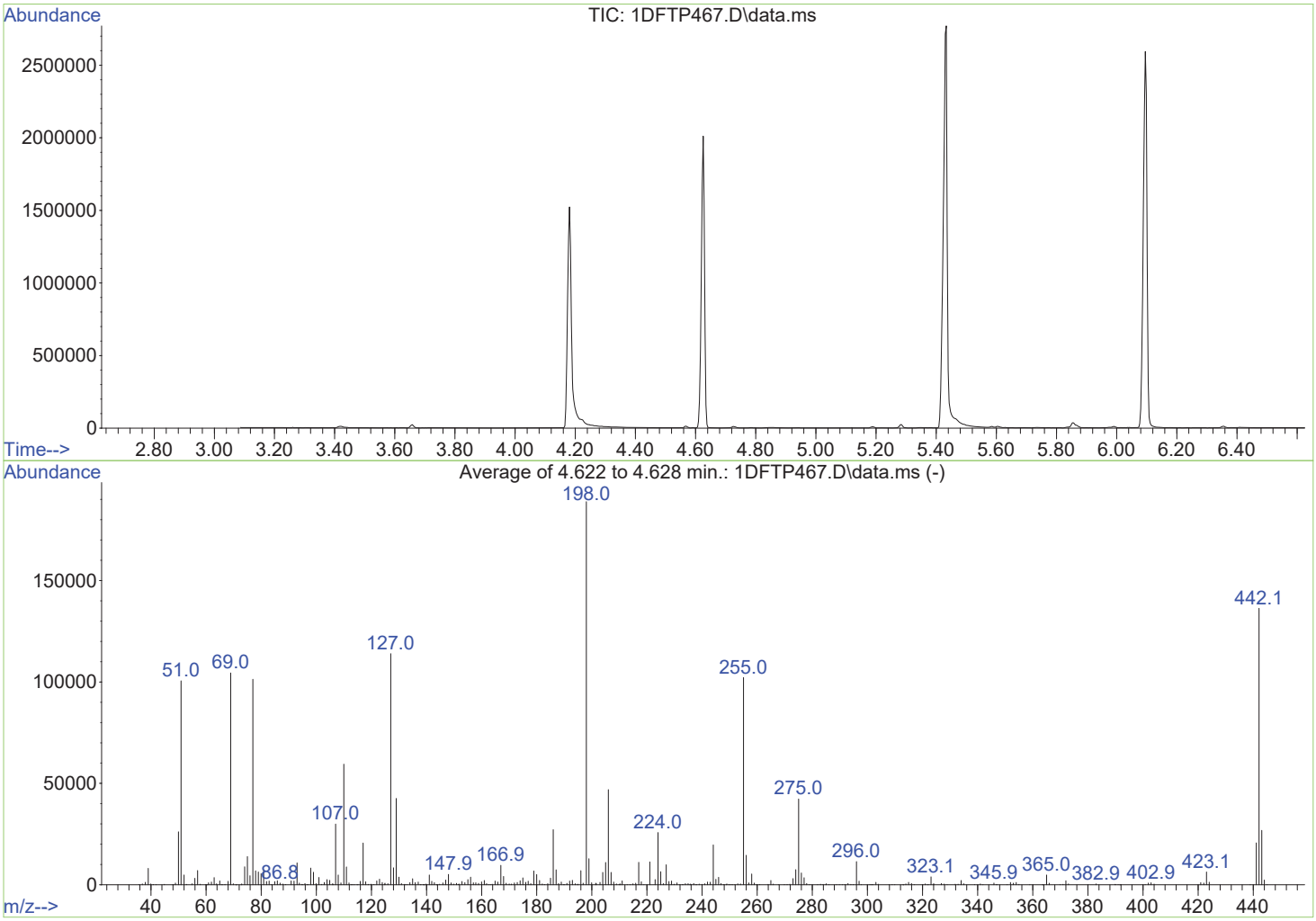
Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 11:00:08 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Data Path : C:\INSTARCH\DATA\1S091119\
Data File : 1DFTP467.D
Acq On : 11 Sep 2019 11:17
Operator : JJY
Sample : DFTPP TUNE SVMS8353
Misc : SVMS1,25ng DFTPP
ALS Vial : 30 Sample Multiplier: 1

Integration File: DDD.p

Method : C:\INSTARCH\METHOD\1DFTPP.M
Title : DFTPP TUNE
Last Update : Tue Sep 10 18:49:02 2019



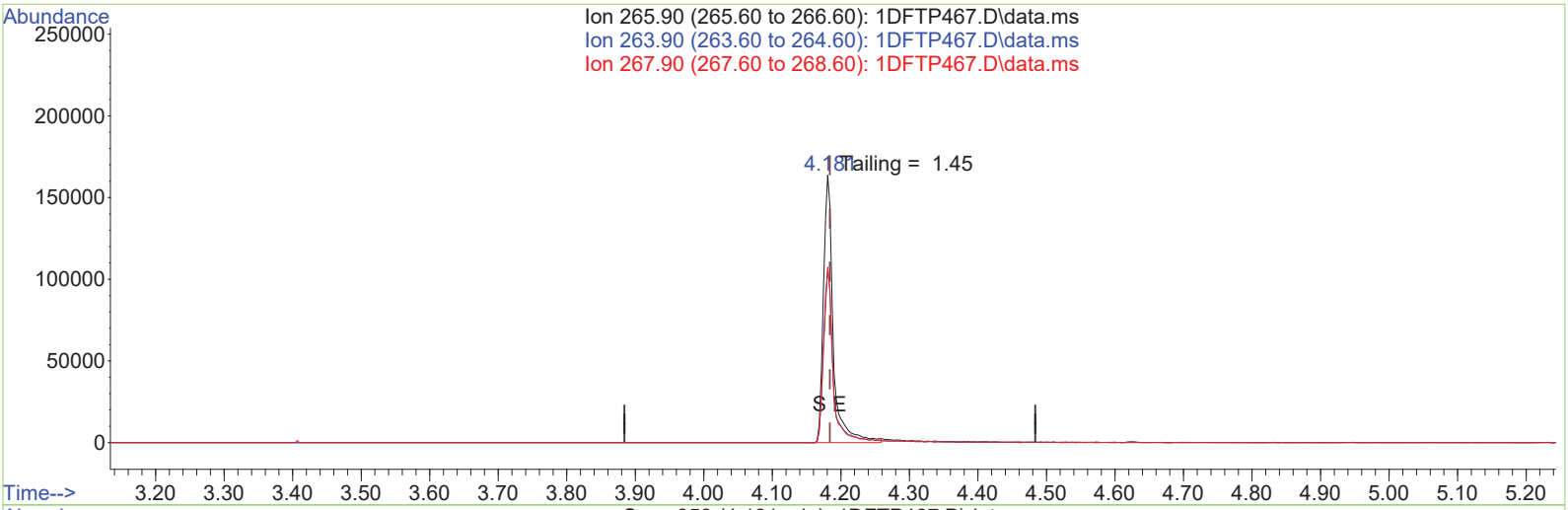
AutoFind: Scans 495, 496, 497; Background Corrected with Scan 487

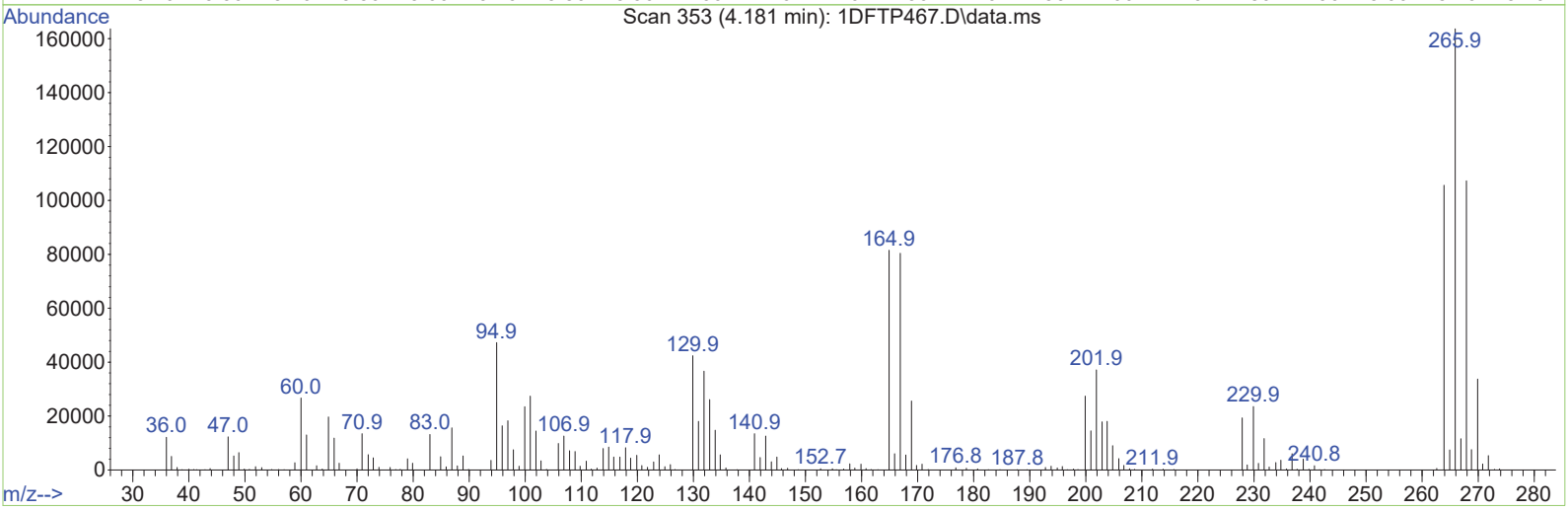
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	53.2	100563	PASS
68	69	0.00	2	1.6	1691	PASS
70	69	0.00	2	0.5	483	PASS
127	198	10	80	60.3	113987	PASS
197	198	0.00	2	0.4	755	PASS
198	198	50	100	100.0	188885	PASS
199	198	5	9	6.8	12823	PASS
275	198	10	60	22.4	42315	PASS
365	198	1	100	2.6	4861	PASS
441	442	0.01	24	15.2	20667	PASS
442	198	50	100	72.2	136285	PASS
443	442	15	24	19.7	26835	PASS

Quantitation Report (Qedit)

Data File : C:\INSTARCH\DATA\1S091119\1DFTP467.D Vial: 30
Acq On : 11 Sep 2019 11:17 Operator: JJY
Sample : DFTPP TUNE SVMS8353 Inst : SVMS1
Misc : SVMS1,25ng DFTPP Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 11:28:02 2019

Quant Method : C:\INSTARCH\METHOD\1DFTPP.M
Quant Title : DFTPP TUNE
QLast Update : Tue Sep 10 18:49:02 2019
Response via : Initial Calibration
DataAcq Meth:1DFTPP.M





TIC: 1DFTP467.D\data.ms

(1) Pentachlorophenol

4.181min (-0.003) 22.98 ng

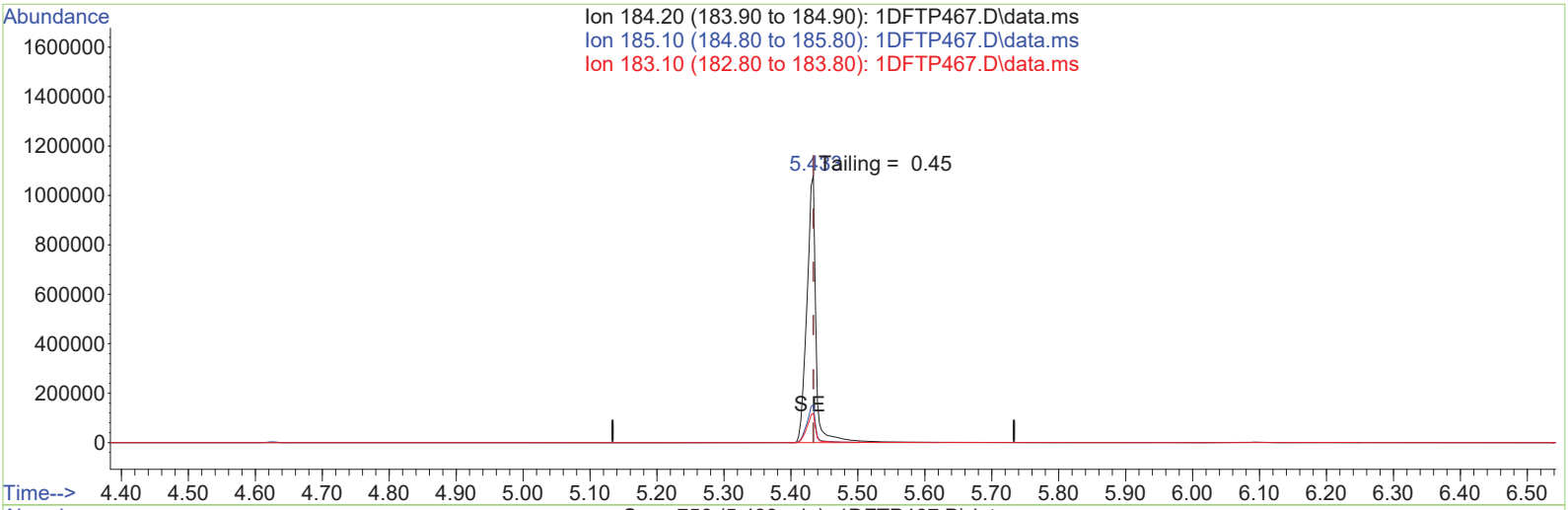
response 161683

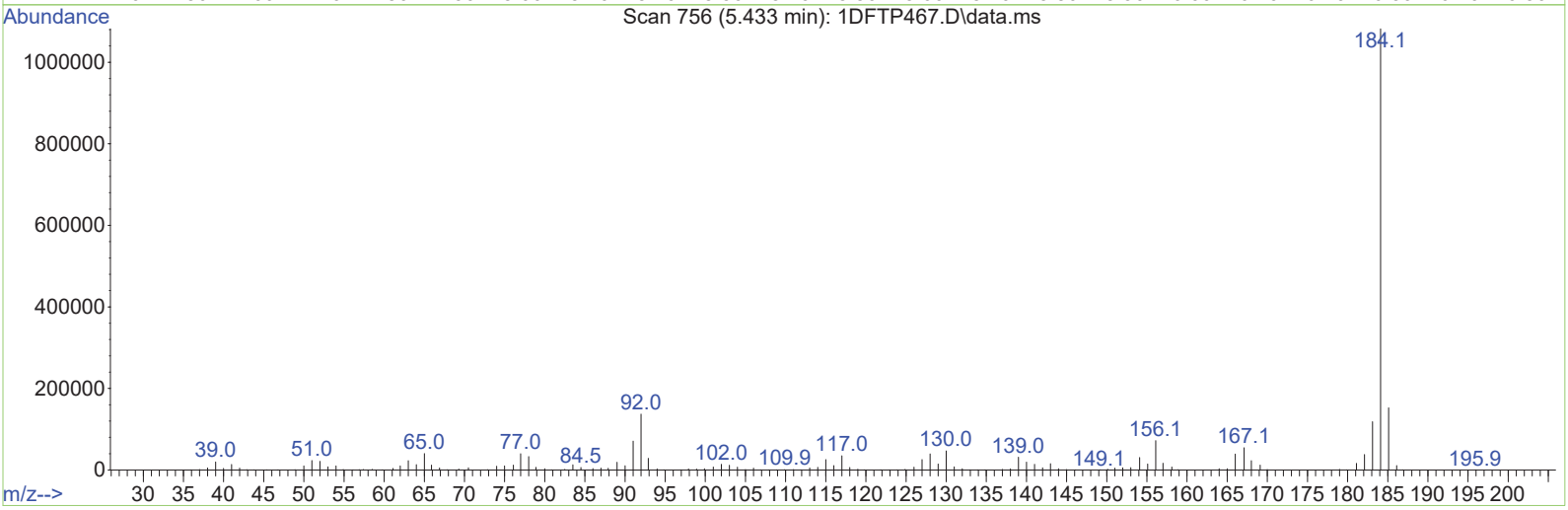
Ion	Exp%	Act%
265.90	100.00	100.00
263.90	64.60	66.02
267.90	65.00	63.16
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\INSTARCH\DATA\1S091119\1DFTP467.D Vial: 30
Acq On : 11 Sep 2019 11:17 Operator: JJY
Sample : DFTPP TUNE SVMS8353 Inst : SVMS1
Misc : SVMS1,25ng DFTPP Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 11:28:02 2019

Quant Method : C:\INSTARCH\METHOD\1DFTPP.M
Quant Title : DFTPP TUNE
QLast Update : Tue Sep 10 18:49:02 2019
Response via : Initial Calibration
DataAcq Meth:1DFTPP.M





TIC: 1DFTP467.D\data.ms

(3) Benzidine

5.433min (-0.000) 22.22 ng

response 1014649

Ion	Exp%	Act%
184.20	100.00	100.00
185.10	15.90	13.82
183.10	12.20	10.85
0.00	0.00	0.00

Data File Name	1DFTP467.D
Vial Number	30
Data File Path	C:\INSTARCH\DATA\1S091119\
Operator	JJY
Date Acquired	9/11/2019 11:17
Instrument Name	SVMS1
Sample Name	DFTPP TUNE SVMS8353
Sample Multiplier	1
Misc Info	SVMS1,25ng DFTPP
Calibration Title	DFTPP TUNE
Last Calibration Update	Tue Sep 10 18:49:02 2019

#	Name	Ret Time	Target Response
1)	Pentachlorophenol	4.18	161683
2)	DFTPP	4.63	159350
3)	Benzidine	5.43	1014649
4)	DDE	5.59	596
5)	DDD	5.85	7645
6)	DDT	6.10	404950

DDT % Degradation

$$\frac{DDD+DDEx100}{DDD+DDE+DDT} \quad 1.99\ \%$$

Evaluate Continuing Calibration Report

Data File : C:\INSTARCH\DATA\1S091119\1CCV613.D Vial: 31
Acq On : 11 Sep 2019 11:33 Operator: JJY
Sample : CCV 20ug/mL SVMS8433 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 17:24:30 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 17:23:44 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	14Diclbenzd4	20.000	20.000	0.0	92	0.00
2	CT	Ntrsdimeth	20.000	19.514	2.4	84	0.00
3	CT	Pyridine	20.000	17.500	12.5	74	0.00
4	S	SURR2Flphenol	50.000	51.088	-2.2	89	0.00
5	CT	Aniline	20.000	20.237	-1.2	88	0.00
6	CPT	bis2Clethletr	20.000	20.821	-4.1	88	0.00
7	S	SURRPhenol-d5	50.000	50.153	-0.3	87	0.00
8	CPT	Phenol	20.000	20.601	-3.0	90	0.00
9	CPT	2-Cl-phenol	20.000	20.316	-1.6	88	0.00
10	CT	13Diclbenz	20.000	20.735	-3.7	88	0.00
11	CT	14Diclbenz	20.000	20.572	-2.9	89	0.00
12	CT	12Diclbenz	20.000	20.674	-3.4	89	0.00
13	CT	Benzyl alcoho	20.000	11.150	44.3#	46	0.00
14	CPT	bis2clispreth	20.000	20.171	-0.9	87	0.00
15	CPT	2Methylphenol	20.000	19.323	3.4	84	0.00
16	CT	Ntrspyrrol	20.000	19.884	0.6	86	0.00
17	CPT	Acetophenone	20.000	20.066	-0.3	87	0.00
18	CPT	Hexaclethane	20.000	20.806	-4.0	88	0.00
19	CPT	N-Ntrsdinprop	20.000	20.014	-0.1	86	0.00
20	CPT	3&4Methylphenol	20.000	19.739	1.3	86	0.00
21	I	Naphthalened8	20.000	20.000	0.0	91	0.00
22	S	SURRNitrbenzened5	100.000	104.644	-4.6	89	0.00
23	CPT	Nitrobenzene	20.000	20.776	-3.9	88	0.00
24	CPT	Isophorone	20.000	20.012	-0.1	88	0.00
25	CPT	2-Nitrophenol	20.000	20.985	-4.9	89	0.00
26	CPT	24Dimthpheno	20.000	20.363	-1.8	87	0.00
27	CPT	bis2clethoxym	20.000	20.445	-2.2	87	0.00
28	CPT	24Diclphenol	20.000	20.567	-2.8	89	0.00
29	CT	124Triclbenz	20.000	21.343	-6.7	90	0.00
30	CT	Benzoic acid	20.000	22.208	-11.0	99	0.00
31	CPT	Naphthalene	20.000	20.928	-4.6	90	0.00
32	CPT	4-Cl-aniline	20.000	20.158	-0.8	86	0.00
33	CT	26Diclphenol	20.000	19.602	2.0	85	0.00
34	CT	Hexaclprop	20.000	20.829	-4.1	87	0.00
35	CPT	Hexaclbutdien	20.000	17.273	13.6	73	0.00
36	CPT	4Cl3methylphe	20.000	19.637	1.8	84	0.00
37	CPT	2Methylnaphth	20.000	21.162	-5.8	89	0.00
38	CT	1Methylnaphth	20.000	20.544	-2.7	86	0.00
39	I	Acenaphthened10	20.000	20.000	0.0	90	0.00
40	CPT	Hxclcycpentdi	20.000	20.677	-3.4	86	0.00
41	CPT	1245Tetrclbenz	20.000	21.268	-6.3	87	0.00
42	CPT	246Triclpheno	20.000	19.516	2.4	83	0.00
43	CPT	245Triclpheno	20.000	20.952	-4.8	89	0.00
44	S	SURR2Flbiphenyl	100.000	104.120	-4.1	87	0.00
45	CPT	2Clnaphthalen	20.000	20.611	-3.1	86	0.00
46	CPT	2Nitroaniline	20.000	20.660	-3.3	88	0.00
47	CPT	Acnaphthylene	20.000	21.195	-6.0	89	0.00
48	CPT	Dimethylphtha	20.000	20.866	-4.3	88	0.00
49	CPT	26Dinitrotolu	20.000	20.928	-4.6	85	0.00
50	CPT	Acenaphthene	20.000	20.596	-3.0	88	0.00
51	CPT	3Nitroaniline	20.000	20.725	-3.6	89	0.00

Evaluate Continuing Calibration Report

Data File : C:\INSTARCH\DATA\1S091119\1CCV613.D Vial: 31
Acq On : 11 Sep 2019 11:33 Operator: JJY
Sample : CCV 20ug/mL SVMS8433 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 17:24:30 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 17:23:44 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
52	CPT	24Dinitphenol	20.000	19.903	0.5	87	0.00
53	CPT	Dibenzofuran	20.000	21.177	-5.9	87	0.00
54	CPT	24Dinitrotolu	20.000	20.624	-3.1	88	0.00
55	CPT	4-Nitrophenol	20.000	20.760	-3.8	89	0.00
56	CT	2,3,5,6-Tetrachlorop	20.000	20.418	-2.1	87	0.00
57	CPT	2,3,4,6-Tetrachlorop	20.000	20.643	-3.2	87	0.00
58	CPT	Fluorene	20.000	21.133	-5.7	89	0.00
59	CPT	4Clphlphlethr	20.000	21.304	-6.5	89	0.00
60	CPT	Diethylphthal	20.000	21.323	-6.6	90	0.00
61	CPT	4Nitroaniline	20.000	20.317	-1.6	85	0.00
62	S	SURR246Tribrphenl	50.000	51.842	-3.7	88	0.00
63	I	Phenanthrd10	20.000	20.000	0.0	88	0.00
64	CPT	46Dinit2mylph	20.000	20.349	-1.7	86	0.00
65	CPT	Ntrsdiphlam&Diphlam	40.000	43.272	-8.2	89	0.00
66	CT	Azobenz&12Diphlhyd	40.000	41.810	-4.5	86	0.00
67	CPT	4Brphlphlethr	20.000	21.803	-9.0	91	0.00
68	CPT	Hexaclbenzene	20.000	21.458	-7.3	88	0.00
69	CPT	Pentaclphenol	20.000	20.720	-3.6	89	0.00
70	CPT	Phenanthrene	20.000	20.894	-4.5	87	0.00
71	CPT	Anthracene	20.000	20.709	-3.5	85	0.00
72	CPT	Carbazole	20.000	21.199	-6.0	87	0.00
73	CPT	Dinbtylphthal	20.000	21.924	-9.6	90	0.00
74	CPT	Fluoranthene	20.000	22.312	-11.6	92	0.00
75	I	Chrysene-d12	20.000	20.000	0.0	89	0.00
76	CT	Benzidine	20.000	18.664	6.7	78	0.00
77	CPT	Pyrene	20.000	21.369	-6.8	89	0.00
78	S	SURRTerphenyl-d14	100.000	106.144	-6.1	90	0.00
79	CPT	Btylbzylphth	20.000	20.939	-4.7	89	0.00
80	CT	bis2Ethlhxlad	20.000	21.589	-7.9	92	0.00
81	CPT	33Diclbnzidin	20.000	22.519	-12.6	90	0.00
82	CPT	B[a]anthracen	20.000	21.353	-6.8	88	0.00
83	CPT	Chrysene	20.000	20.950	-4.7	88	0.00
84	CPT	bis2Ethlhxlph	20.000	22.131	-10.7	90	0.00
85	CPT	Dinoctylphthl	20.000	21.555	-7.8	90	0.00
86	I	Perylene-d12	20.000	20.000	0.0	89	0.00
87	CPT	B[b]fluoranth	20.000	23.654	-18.3	100	0.00
88	CPT	B[k]fluoranth	20.000	19.705	1.5	80	0.00
89	CPT	Benz[a]pyrene	20.000	21.346	-6.7	89	0.00
90	CPT	Indeno-pyrene	20.000	19.925	0.4	80	0.00
91	CPT	Dib[ah]anthr	20.000	20.036	-0.2	80	0.00
92	CPT	B[ghi]perylen	20.000	19.246	3.8	79	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 1

Evaluate Continuing Calibration Report

Data File : C:\INSTARCH\DATA\1S091119\1CCV613.D Vial: 31
Acq On : 11 Sep 2019 11:33 Operator: JJY
Sample : CCV 20ug/mL SVMS8433 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 17:24:30 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 17:23:44 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	14Diclbenzd4	1.000	1.000	0.0	92	0.00
2	CT	Ntrsdimeth	0.783	0.828	-5.7	84	0.00
3	CT	Pyridine	1.229	1.153	6.2	74	0.00
4	S	SURR2Flphenol	0.478	0.517	-8.2	89	0.00
5	CT	Aniline	1.934	2.067	-6.9	88	0.00
6	CPT	bis2Clethletr	1.251	1.302	-4.1	88	0.00
7	S	SURRPhenol-d5	0.566	0.603	-6.5	87	0.00
8	CPT	Phenol	1.737	1.882	-8.3	90	0.00
9	CPT	2-Cl-phenol	1.355	1.426	-5.2	88	0.00
10	CT	13Diclbenz	1.478	1.532	-3.7	88	0.00
11	CT	14Diclbenz	1.511	1.554	-2.8	89	0.00
12	CT	12Diclbenz	1.417	1.465	-3.4	89	0.00
13	CT	Benzyl alcoho	0.747	0.439	41.2#	46#	0.00
14	CPT	bis2clispreth	2.157	2.175	-0.8	87	0.00
15	CPT	2Methylphenol	1.000	1.013	-1.3	84	0.00
16	CT	Ntrspyrrol	0.649	0.683	-5.2	86	0.00
17	CPT	Acetophenone	1.841	1.919	-4.2	87	0.00
18	CPT	Hexaclethane	0.611	0.636	-4.1	88	0.00
19	CPT	N-Ntrsdinprop	0.932	0.933	-0.1	86	0.00
20	CPT	3&4Methylphenol	1.264	1.317	-4.2	86	0.00
21	I	Naphthalened8	1.000	1.000	0.0	91	0.00
22	S	SURRNitrbenzened5	0.065	0.073	-12.3	89	0.00
23	CPT	Nitrobenzene	0.332	0.365	-9.9	88	0.00
24	CPT	Isophorone	0.642	0.673	-4.8	88	0.00
25	CPT	2-Nitrophenol	0.174	0.197	-13.2	89	0.00
26	CPT	24Dimthpheno	0.281	0.300	-6.8	87	0.00
27	CPT	bis2clethoxym	0.383	0.409	-6.8	87	0.00
28	CPT	24Diclphenol	0.254	0.279	-9.8	89	0.00
29	CT	124Triclbenz	0.292	0.312	-6.8	90	0.00
30	CT	Benzoic acid	0.127	0.158	-24.4#	99	0.00
31	CPT	Naphthalene	1.023	1.070	-4.6	90	0.00
32	CPT	4-Cl-aniline	0.421	0.448	-6.4	86	0.00
33	CT	26Diclphenol	0.249	0.258	-3.6	85	0.00
34	CT	Hexaclprop	0.198	0.206	-4.0	87	0.00
35	CPT	Hexaclbutdien	0.182	0.157	13.7	73	0.00
36	CPT	4Cl3methylphe	0.334	0.351	-5.1	84	0.00
37	CPT	2Methylnaphth	0.829	0.877	-5.8	89	0.00
38	CT	1Methylnaphth	0.679	0.697	-2.7	86	0.00
39	I	Acenaphthened10	1.000	1.000	0.0	90	0.00
40	CPT	Hxclcycpentdi	0.249	0.288	-15.7	86	0.00
41	CPT	1245Tetrclbenz	0.526	0.560	-6.5	87	0.00
42	CPT	246Triclpheno	0.338	0.350	-3.6	83	0.00
43	CPT	245Triclpheno	0.374	0.425	-13.6	89	0.00
44	S	SURR2Flbiphenyl	0.266	0.277	-4.1	87	0.00
45	CPT	2Clnaphthalen	1.197	1.233	-3.0	86	0.00
46	CPT	2Nitroaniline	0.361	0.406	-12.5	88	0.00
47	CPT	Acnaphthylene	1.850	1.960	-5.9	89	0.00
48	CPT	Dimethylphtha	1.315	1.372	-4.3	88	0.00
49	CPT	26Dinitrotolu	0.297	0.311	-4.7	85	0.00
50	CPT	Acenaphthene	1.080	1.112	-3.0	88	0.00
51	CPT	3Nitroaniline	0.329	0.362	-10.0	89	0.00

Evaluate Continuing Calibration Report

Data File : C:\INSTARCH\DATA\1S091119\1CCV613.D Vial: 31
Acq On : 11 Sep 2019 11:33 Operator: JJY
Sample : CCV 20ug/mL SVMS8433 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 17:24:30 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 17:23:44 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
52	CPT	24Dinitphenol	0.136	0.150	-10.3	87	0.00
53	CPT	Dibenzofuran	1.622	1.718	-5.9	87	0.00
54	CPT	24Dinitrotolu	0.393	0.429	-9.2	88	0.00
55	CPT	4-Nitrophenol	0.240	0.272	-13.3	89	0.00
56	CT	2,3,5,6-Tetrachlorop	0.256	0.282	-10.2	87	0.00
57	CPT	2,3,4,6-Tetrachlorop	0.292	0.311	-6.5	87	0.00
58	CPT	Fluorene	1.281	1.353	-5.6	89	0.00
59	CPT	4Clphlphlethr	0.567	0.604	-6.5	89	0.00
60	CPT	Diethylphthal	1.339	1.428	-6.6	90	0.00
61	CPT	4Nitroaniline	0.344	0.380	-10.5	85	0.00
62	S	SURR246Tribrphenl	0.060	0.065	-8.3	88	0.00
63	I	Phenanthrd10	1.000	1.000	0.0	88	0.00
64	CPT	46Dinit2mylph	0.129	0.140	-8.5	86	0.00
65	CPT	Ntrsdiphlam&Diphlam	0.547	0.591	-8.0	89	0.00
66	CT	Azobenz&12Diphlhyd	0.177	0.185	-4.5	86	0.00
67	CPT	4Brphlphlethr	0.189	0.206	-9.0	91	0.00
68	CPT	Hexaclbenzene	0.205	0.220	-7.3	88	0.00
69	CPT	Pentaclphenol	0.117	0.129	-10.3	89	0.00
70	CPT	Phenanthrene	1.055	1.102	-4.5	87	0.00
71	CPT	Anthracene	1.086	1.125	-3.6	85	0.00
72	CPT	Carbazole	1.048	1.111	-6.0	87	0.00
73	CPT	Dinbtylphthal	1.360	1.454	-6.9	90	0.00
74	CPT	Fluoranthene	0.758	0.846	-11.6	92	0.00
75	I	Chrysene-d12	1.000	1.000	0.0	89	0.00
76	CT	Benzidine	1.587	1.557	1.9	78	0.00
77	CPT	Pyrene	1.503	1.606	-6.9	89	0.00
78	S	SURRTerphenyl-d14	0.183	0.194	-6.0	90	0.00
79	CPT	Btylbzylphth	0.783	0.851	-8.7	89	0.00
80	CT	bis2Ethlhxlad	0.622	0.699	-12.4	92	0.00
81	CPT	33Diclbnzidin	0.944	1.063	-12.6	90	0.00
82	CPT	B[a]anthracen	1.233	1.316	-6.7	88	0.00
83	CPT	Chrysene	1.276	1.337	-4.8	88	0.00
84	CPT	bis2Ethlhxlph	1.057	1.169	-10.6	90	0.00
85	CPT	Dinoctylphthl	1.804	2.082	-15.4	90	0.00
86	I	Perylene-d12	1.000	1.000	0.0	89	0.00
87	CPT	B[b]fluoranth	1.089	1.288	-18.3	100	0.00
88	CPT	B[k]fluoranth	1.092	1.076	1.5	80	0.00
89	CPT	Benz[a]pyrene	1.123	1.199	-6.8	89	0.00
90	CPT	Indeno-pyrene	1.162	1.158	0.3	80	0.00
91	CPT	Dib[ah]anthr	0.943	0.944	-0.1	80	0.00
92	CPT	B[ghi]perylen	1.018	0.980	3.7	79	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 2

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\1CCV613.D Vial: 31
Acq On : 11 Sep 2019 11:33 Operator: JJY
Sample : CCV 20ug/mL SVMS8433 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 17:24:30 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 17:23:44 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.266	152	115936	20.00	ug/mL	0.00
21) Naphthalened8	4.778	136	428468	20.00	ug/mL	0.00
39) Acenaphthened10	6.721	164	264342	20.00	ug/mL	0.00
63) Phenanthrd10	7.682	188	440636	20.00	ug/mL	0.00
75) Chrysene-d12	9.097	240	232841	20.00	ug/mL	0.00
86) Perylene-d12	9.921	264	272723	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.277	112	149761	51.09	%REC	0.00
Spiked Amount 100.000			Recovery = 51.09%			
7) SURRPhenol-d5	2.962	99	174865	50.15	%REC	0.00
Spiked Amount 100.000			Recovery = 50.15%			
22) SURRNitrbenzened5	3.874	82	156025	104.64	%REC	0.00
Spiked Amount 100.000			Recovery = 104.64%			
44) SURR2Flbiphenyl	6.199	172	366657	104.12	%REC	0.00
Spiked Amount 100.000			Recovery = 104.12%			
62) SURR246Tribrphenl	7.264	330	42777	51.84	%REC	0.00
Spiked Amount 100.000			Recovery = 51.84%			
78) SURRTerphenyl-d14	8.546	244	226207	106.14	%REC	0.00
Spiked Amount 100.000			Recovery = 106.14%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.632	74	96000	19.5140	ug/mL	92
3) Pyridine	1.644	79	133703	17.4995	ug/mL	97
5) Aniline	2.971	93	239657	20.2371	ug/mL	97
6) bis2Clethletr	3.039	93	150946	20.8208	ug/mL	97
8) Phenol	2.974	94	218138	20.6012	ug/mL	92
9) 2-Cl-phenol	3.070	128	165284	20.3157	ug/mL	99
10) 13Diclbenz	3.207	146	177622	20.7348	ug/mL	98
11) 14Diclbenz	3.283	146	180134	20.5716	ug/mL	99
12) 12Diclbenz	3.428	146	169855	20.6742	ug/mL	97
13) Benzyl alcoho	3.445	108	50930	11.1502	ug/mL	100
14) bis2clispreth	3.587	45	252211	20.1706	ug/mL	92
15) 2Methylphenol	3.576	107	117386	19.3234	ug/mL	91
16) Ntrspyrrol	3.698	100	79199	19.8839	ug/mL	89
17) Acetophenone	3.712	105	222529	20.0663	ug/mL	99
18) Hexaclethane	3.789	117	73700	20.8060	ug/mL	97
19) N-Ntrsdinprop	3.735	70	108166	20.0138	ug/mL	97
20) 3&4Methylphenol	3.766	107	152635	19.7387	ug/mL	99
23) Nitrobenzene	3.894	77	156289	20.7764	ug/mL	97
24) Isophorone	4.210	82	288463	20.0122	ug/mL	99
25) 2-Nitrophenol	4.292	139	84530	20.9850	ug/mL	98
26) 24Dimthpheno	4.423	122	128515	20.3632	ug/mL	99
27) bis2clethoxym	4.542	93	175296	20.4451	ug/mL	99
28) 24Diclphenol	4.630	162	119700	20.5672	ug/mL	99
29) 124Triclbenz	4.721	180	133488	21.3430	ug/mL	98
30) Benzoic acid	4.664	122	67905	22.2080	ug/mL	98
31) Naphthalene	4.803	128	458480	20.9278	ug/mL	100
32) 4-Cl-aniline	4.940	127	191898	20.1584	ug/mL	98
33) 26Diclphenol	4.934	162	110423	19.6018	ug/mL	92
34) Hexaclprop	4.940	213	88324	20.8293	ug/mL	96
35) Hexaclbutdien	5.028	225	67207	17.2728	ug/mL	94
36) 4Cl3methylphe	5.727	107	150273	19.6371	ug/mL	100
37) 2Methylnaphth	5.792	142	375824	21.1622	ug/mL	98
38) 1Methylnaphth	5.895	141	298748	20.5442	ug/mL	99
40) Hxclcycpentdi	5.980	237	76172	20.6767	ug/mL	100

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\1CCV613.D Vial: 31
Acq On : 11 Sep 2019 11:33 Operator: JJY
Sample : CCV 20ug/mL SVMS8433 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 17:24:30 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 17:23:44 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

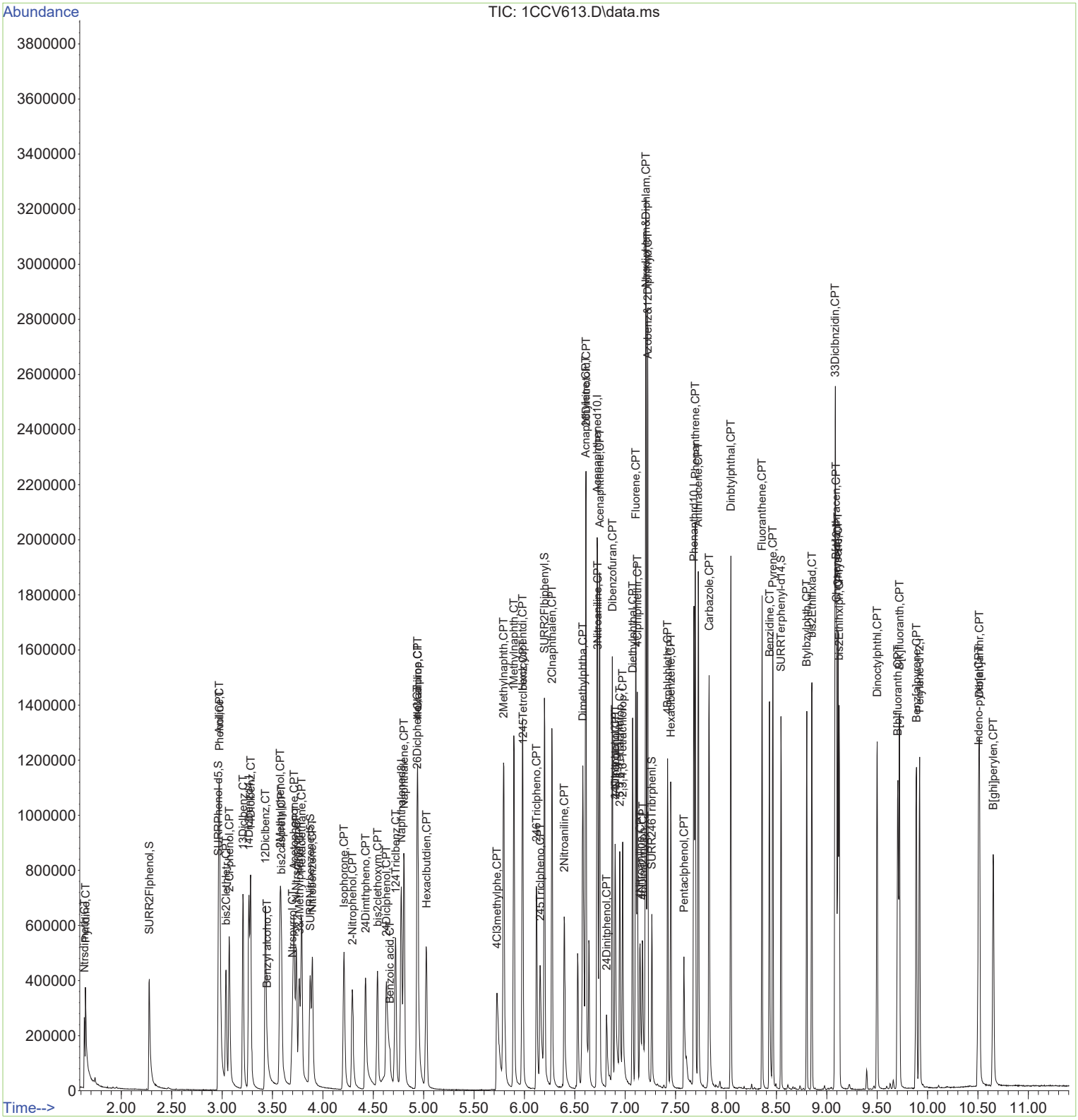
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) 1245Tetrclbenz	5.986	216	147998	21.2681 ug/mL	98
42) 246Triclpheno	6.119	196	92408	19.5163 ug/mL	98
43) 245Triclpheno	6.156	196	112258	20.9522 ug/mL	96
45) 2Clnaphthalen	6.273	162	326036	20.6111 ug/mL	99
46) 2Nitroaniline	6.395	65	107218	20.6604 ug/mL	100
47) Acnaphthylene	6.608	152	518125	21.1954 ug/mL	100
48) Dimethylphtha	6.579	163	362585	20.8665 ug/mL	99
49) 26Dinitrotolu	6.611	165	82118	20.9283 ug/mL	86
50) Acenaphthene	6.747	154	293913	20.5957 ug/mL	98
51) 3Nitroaniline	6.727	138	95672	20.7251 ug/mL	96
52) 24Dinitphenol	6.815	184	39550	19.9033 ug/mL	95
53) Dibenzofuran	6.872	168	454108	21.1770 ug/mL	99
54) 24Dinitrotolu	6.900	165	113441	20.6240 ug/mL	97
55) 4-Nitrophenol	6.900	65	71871	20.7596 ug/mL#	21
56) 2,3,5,6-Tetrachlorop	6.946	232	74591	20.4184 ug/mL	99
57) 2,3,4,6-Tetrachlorop	6.974	232	82199	20.6433 ug/mL	96
58) Fluorene	7.105	166	357760	21.1328 ug/mL	100
59) 4Clphlphlethr	7.119	204	159653	21.3039 ug/mL	98
60) Diethylphthal	7.074	149	377425	21.3226 ug/mL	99
61) 4Nitroaniline	7.148	138	100320	20.3171 ug/mL	95
64) 46Dinit2mylph	7.173	198	61900	20.3489 ug/mL	94
65) Ntrsdiphlam&Diphlam	7.205	169	521025	43.2718 ug/mL	99
66) Azobenz&12Diphlhyd	7.224	182	162856	41.8103 ug/mL#	82
67) 4Brphlphlethr	7.420	248	90807	21.8034 ug/mL	96
68) Hexaclbenzene	7.452	284	96767	21.4578 ug/mL	93
69) Pentaclphenol	7.582	266	56953	20.7200 ug/mL	96
70) Phenanthrene	7.696	178	485576	20.8937 ug/mL	100
71) Anthracene	7.724	178	495683	20.7090 ug/mL	100
72) Carbazole	7.832	167	489369	21.1994 ug/mL	100
73) Dinbtylphthal	8.048	149	640861	21.9244 ug/mL	100
74) Fluoranthene	8.358	202	372689	22.3121 ug/mL	99
76) Benzidine	8.432	184	362643	18.6641 ug/mL	98
77) Pyrene	8.463	202	373875	21.3690 ug/mL	99
79) Btylbzylphth	8.801	149	198063	20.9392 ug/mL	99
80) bis2Ethlhxlad	8.853	129	162742	21.5889 ug/mL	99
81) 33Diclbnzidin	9.083	252	247585	22.5195 ug/mL	98
82) B[a]anthracen	9.091	228	306499	21.3529 ug/mL	99
83) Chrysene	9.111	228	311201	20.9499 ug/mL	100
84) bis2Ethlhxlph	9.122	149	272302	22.1309 ug/mL	100
85) Dinoctylphthl	9.500	149	484848	21.5552 ug/mL	100
87) B[b]fluoranth	9.705	252	351141	23.6535 ug/mL	99
88) B[k]fluoranth	9.722	252	293359	19.7047 ug/mL	98
89) Benz[a]pyrene	9.890	252	326966	21.3458 ug/mL	99
90) Indeno-pyrene	10.506	276	315773	19.9251 ug/mL	98
91) Dib[ah]anthr	10.515	278	257572	20.0358 ug/mL	99
92) B[ghi]perylen	10.651	276	267208	19.2459 ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\1CCV613.D Vial: 31
Acq On : 11 Sep 2019 11:33 Operator: JJY
Sample : CCV 20ug/mL SVMS8433 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 17:24:30 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 17:23:44 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Ending CCV %Recovery Report

Data File Name	1CCV614.D
Data File Path	C:\INSTARCH\DATA\1S091119\
Operator	JJY
Date Acquired	9/11/2019 16:49
Acq. Method File	1S082019.M
Sample Name	CCV 20 ug/mL SVMS8433
Misc Info	500ul+5ul S4077D
Vial Number	47
Instrument Name	SVMS1
Sample Multiplier	1

#	Name	Ret Time	Amount	Units	Response	50-150 %REC
1	14Diclbenzd4	3.27	20.00	ug/mL	115384	ISTD
2	Ntrsdimeth	1.64	19.31	ug/mL	94449	97
3	Pyridine	1.65	17.48	ug/mL	132899	87
4	SURR2Flphenol	2.28	49.38	%REC	143734	99
5	Aniline	2.97	19.96	ug/mL	235154	100
6	bis2Clethletr	3.04	21.00	ug/mL	151546	105
7	SURRPhenol-d5	2.96	49.09	%REC	170208	98
8	Phenol	2.97	20.12	ug/mL	211959	101
9	2-Cl-phenol	3.07	20.40	ug/mL	165240	102
10	13Diclbenz	3.21	21.24	ug/mL	181119	106
11	14Diclbenz	3.28	21.12	ug/mL	184063	106
12	12Diclbenz	3.43	20.93	ug/mL	171157	105
13	Benzyl alcoho	3.44	13.36	ug/mL	61531	67
14	bis2clispreth	3.58	19.97	ug/mL	248470	100
15	2Methylphenol	3.58	19.37	ug/mL	117134	97
16	Ntrspyrrol	3.70	19.89	ug/mL	78838	99
17	Acetophenone	3.71	20.33	ug/mL	224506	102
18	Hexaclethane	3.79	21.32	ug/mL	75178	107
19	N-Ntrsdinprop	3.74	20.00	ug/mL	107556	100
20	3&4Methylphenol	3.76	19.23	ug/mL	147804	96
21	Naphthalened8	4.78	20.00	ug/mL	433361	ISTD
22	SURRNitrbenzened5	3.87	101.35	%REC	152643	101
23	Nitrobenzene	3.90	20.35	ug/mL	154670	102
24	Isophorone	4.21	19.49	ug/mL	284061	97
25	2-Nitrophenol	4.29	20.32	ug/mL	82645	102
26	24Dimthpheno	4.42	19.80	ug/mL	126320	99
27	bis2clethoxym	4.54	20.04	ug/mL	173723	100
28	24Diclphenol	4.63	20.27	ug/mL	119263	101
29	124Triclbenz	4.72	21.00	ug/mL	115384	105
30	Benzoic acid	4.65	18.94	ug/mL	132858	95
31	Naphthalene	4.81	20.62	ug/mL	456991	103
32	4-Cl-aniline	4.94	19.69	ug/mL	189436	98
33	26Diclphenol	4.94	18.95	ug/mL	107885	95
34	Hexaclprop	4.94	20.47	ug/mL	87794	102
35	Hexaclbutdien	5.03	17.36	ug/mL	68328	87
36	4Cl3methylphe	5.73	18.62	ug/mL	143774	93
37	2Methylnaphth	5.79	21.29	ug/mL	382465	106

38	1Methylnaphth	5.89	20.23	ug/mL	297467	101
39	Acenaphthened10	6.72	20.00	ug/mL	115384	ISTD
40	Hxclcycpentdi	5.98	19.89	ug/mL	264694	99
41	1245Tetrclbenz	5.98	21.39	ug/mL	149053	107
42	246Triclpheno	6.12	18.46	ug/mL	87321	92
43	245Triclpheno	6.16	20.67	ug/mL	110848	103
44	SURR2Flbiphenyl	6.20	104.05	%REC	366882	104
45	2Clnaphthalen	6.27	20.59	ug/mL	326208	103
46	2Nitroaniline	6.39	20.73	ug/mL	107750	104
47	Acnaphthylene	6.61	21.27	ug/mL	115384	106
48	Dimethylphtha	6.58	20.78	ug/mL	520639	104
49	26Dinitrotolu	6.61	21.40	ug/mL	84086	107
50	Acenaphthene	6.74	20.68	ug/mL	295440	103
51	3Nitroaniline	6.73	20.55	ug/mL	94945	103
52	24Dinitphenol	6.82	16.90	ug/mL	31701	85
53	Dibenzofuran	6.87	20.63	ug/mL	443072	103
54	24Dinitrotolu	6.90	20.66	ug/mL	115384	103
55	4-Nitrophenol	6.94	19.54	ug/mL	113785	98
56	2,3,5,6-Tetrachlorop	6.95	19.24	ug/mL	70205	96
57	2,3,4,6-Tetrachlorop	6.97	20.65	ug/mL	82342	103
58	Fluorene	7.10	20.75	ug/mL	351809	104
59	4Clphlphlethr	7.12	20.93	ug/mL	157027	105
60	Diethylphthal	7.07	21.06	ug/mL	373218	105
61	4Nitroaniline	7.15	20.27	ug/mL	100225	101
62	SURR246Tribrphenl	7.26	50.02	%REC	41311	100
63	Phenanthrd10	7.68	20.00	ug/mL	443766	ISTD
64	46Dinit2mylph	7.17	18.39	ug/mL	55682	92
65	Ntrsdiphlam&Diphlam	7.20	41.92	ug/mL	508384	105
66	Azobenz&12Diphlhyd	7.22	42.03	ug/mL	164855	105
67	4Brphlphlethr	7.42	21.33	ug/mL	89470	107
68	Hexaclbenzene	7.45	21.38	ug/mL	97083	107
69	Pentaclphenol	7.58	18.86	ug/mL	51667	94
70	Phenanthrene	7.69	20.87	ug/mL	488406	104
71	Anthracene	7.72	21.14	ug/mL	509510	106
72	Carbazole	7.83	21.23	ug/mL	493492	106
73	Dinbtylphthal	8.05	21.76	ug/mL	640600	109
74	Fluoranthene	8.36	22.30	ug/mL	375142	112
75	Chrysene-d12	9.10	20.00	ug/mL	239306	ISTD
76	Benzidine	8.43	19.45	ug/mL	388920	97
77	Pyrene	8.46	21.16	ug/mL	380415	106
78	SURRTerphenyl-d14	8.55	106.06	%REC	232296	106
79	Btylbzylphth	8.80	20.82	ug/mL	202360	104
80	bis2Ethlhxlad	8.85	20.77	ug/mL	160598	104
81	33Diclbnzidin	9.08	22.16	ug/mL	250377	111
82	B[a]anthracen	9.09	21.31	ug/mL	314351	107
83	Chrysene	9.11	20.56	ug/mL	313822	103
84	bis2Ethlhxlph	9.12	22.11	ug/mL	279662	111
85	Dinoctylphthl	9.50	21.42	ug/mL	494981	107
86	Perylene-d12	9.92	20.00	ug/mL	282900	ISTD
87	B[b]fluoranth	9.70	22.35	ug/mL	344165	112

88	B[k]fluoranth	9.72	21.25	ug/mL	328203	106
89	Benz[a]pyrene	9.89	21.58	ug/mL	342830	108
90	Indeno-pyrene	10.51	22.11	ug/mL	363444	111
91	Dib[ah]anthr	10.51	21.91	ug/mL	292183	110
92	B[ghi]perylen	10.65	21.65	ug/mL	311759	108

(#) = recovery out of range Average Percent Recovery = 102

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\1CCV614.D Vial: 47
Acq On : 11 Sep 2019 16:49 Operator: JJY
Sample : CCV 20 ug/mL SVMS8433 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 17:27:18 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 17:23:44 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.266	152	115384	20.00	ug/mL	0.00
21) Naphthalened8	4.778	136	433361	20.00	ug/mL	0.00
39) Acenaphthened10	6.721	164	264694	20.00	ug/mL	0.00
63) Phenanthrd10	7.679	188	443766	20.00	ug/mL	0.00
75) Chrysene-d12	9.097	240	239306	20.00	ug/mL	0.00
86) Perylene-d12	9.921	264	282900	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.277	112	143734	49.38	%REC	0.00
Spiked Amount 100.000			Recovery = 49.38%			
7) SURRPhenol-d5	2.962	99	170208	49.09	%REC	0.00
Spiked Amount 100.000			Recovery = 49.09%			
22) SURRNitrbenzened5	3.874	82	152643	101.35	%REC	0.00
Spiked Amount 100.000			Recovery = 101.35%			
44) SURR2Flbiphenyl	6.198	172	366882	104.05	%REC	0.00
Spiked Amount 100.000			Recovery = 104.05%			
62) SURR246Tribrphenl	7.264	330	41311	50.02	%REC	0.00
Spiked Amount 100.000			Recovery = 50.02%			
78) SURRTerphenyl-d14	8.545	244	232296	106.06	%REC	0.00
Spiked Amount 100.000			Recovery = 106.06%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.635	74	94449	19.3057	ug/mL	95
3) Pyridine	1.646	79	132899	17.4790	ug/mL	100
5) Aniline	2.971	93	235154	19.9600	ug/mL	99
6) bis2Clethletr	3.039	93	151546	21.0035	ug/mL	98
8) Phenol	2.973	94	211959	20.1212	ug/mL	89
9) 2-Cl-phenol	3.073	128	165240	20.4044	ug/mL	99
10) 13Diclbenz	3.206	146	181119	21.2441	ug/mL	99
11) 14Diclbenz	3.283	146	184063	21.1209	ug/mL	99
12) 12Diclbenz	3.431	146	171157	20.9324	ug/mL	99
13) Benzyl alcoho	3.439	108	61531	13.3574	ug/mL	98
14) bis2clispreth	3.584	45	248470	19.9665	ug/mL	88
15) 2Methylphenol	3.576	107	117134	19.3730	ug/mL	89
16) Ntrspyrrol	3.698	100	78838	19.8877	ug/mL	94
17) Acetophenone	3.712	105	224506	20.3343	ug/mL	98
18) Hexaclethane	3.789	117	75178	21.3248	ug/mL	99
19) N-Ntrsdinprop	3.738	70	107556	19.9961	ug/mL	97
20) 3&4Methylphenol	3.763	107	147804	19.2253	ug/mL	98
23) Nitrobenzene	3.897	77	154670	20.3470	ug/mL	99
24) Isophorone	4.209	82	284061	19.4939	ug/mL	99
25) 2-Nitrophenol	4.292	139	82645	20.3245	ug/mL	98
26) 24Dimthpheno	4.423	122	126320	19.7998	ug/mL	97
27) bis2clethoxym	4.542	93	173723	20.0419	ug/mL	99
28) 24Diclphenol	4.633	162	119263	20.2750	ug/mL	97
29) 124Triclbenz	4.721	180	132858	21.0025	ug/mL	99
30) Benzoic acid	4.650	122	55691	18.9353	ug/mL	95
31) Naphthalene	4.806	128	456991	20.6243	ug/mL	99
32) 4-Cl-aniline	4.940	127	189436	19.6852	ug/mL	97
33) 26Diclphenol	4.937	162	107885	18.9461	ug/mL	100
34) Hexaclprop	4.940	213	87794	20.4706	ug/mL	97
35) Hexaclbutdien	5.028	225	68328	17.3626	ug/mL	92
36) 4Cl3methylphe	5.730	107	143774	18.6250	ug/mL	98
37) 2Methylnaphth	5.792	142	382465	21.2930	ug/mL	98
38) 1Methylnaphth	5.894	141	297467	20.2252	ug/mL	97
40) Hxclcycpentdi	5.980	237	73225	19.8939	ug/mL	97

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\1CCV614.D Vial: 47
Acq On : 11 Sep 2019 16:49 Operator: JJY
Sample : CCV 20 ug/mL SVMS8433 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 17:27:18 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 17:23:44 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

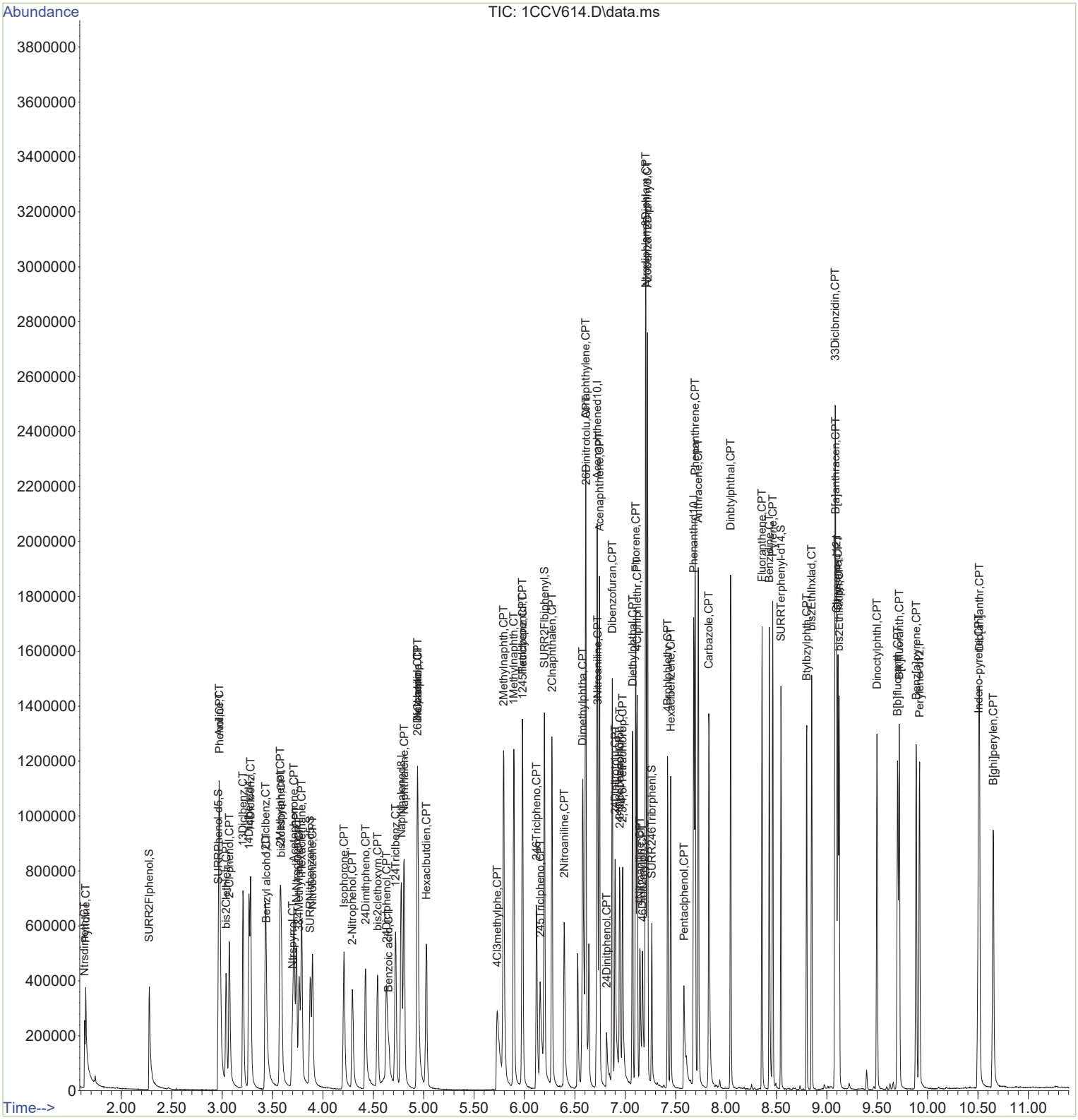
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) 1245Tetrclbenz	5.983	216	149053	21.3912 ug/mL	97
42) 246Triclpheno	6.119	196	87321	18.4629 ug/mL	98
43) 245Triclpheno	6.156	196	110848	20.6717 ug/mL	93
45) 2Clnaphthalen	6.272	162	326208	20.5946 ug/mL	99
46) 2Nitroaniline	6.395	65	107750	20.7316 ug/mL	96
47) Acnaphthylene	6.608	152	520639	21.2699 ug/mL	99
48) Dimethylphtha	6.576	163	361498	20.7763 ug/mL	98
49) 26Dinitrotolu	6.610	165	84086	21.4013 ug/mL	93
50) Acenaphthene	6.744	154	295440	20.6752 ug/mL	99
51) 3Nitroaniline	6.727	138	94945	20.5515 ug/mL	95
52) 24Dinitphenol	6.815	184	31701	16.9005 ug/mL	97
53) Dibenzofuran	6.872	168	443072	20.6349 ug/mL	97
54) 24Dinitrotolu	6.900	165	113785	20.6583 ug/mL	98
55) 4-Nitrophenol	6.943	65	67182	19.5352 ug/mL#	1
56) 2,3,5,6-Tetrachlorop	6.946	232	70205	19.2393 ug/mL	98
57) 2,3,4,6-Tetrachlorop	6.974	232	82342	20.6516 ug/mL	97
58) Fluorene	7.105	166	351809	20.7537 ug/mL	99
59) 4Clphlphlethr	7.119	204	157027	20.9257 ug/mL	100
60) Diethylphthal	7.074	149	373218	21.0569 ug/mL	99
61) 4Nitroaniline	7.148	138	100225	20.2739 ug/mL	96
64) 46Dinit2mylph	7.173	198	55682	18.3894 ug/mL	94
65) Ntrsdiphlam&Diphlam	7.204	169	508384	41.9241 ug/mL	99
66) Azobenz&12Diphlhyd	7.221	182	164855	42.0250 ug/mL	96
67) 4Brphlphlethr	7.420	248	89470	21.3309 ug/mL	94
68) Hexaclbenzene	7.452	284	97083	21.3760 ug/mL	94
69) Pentaclphenol	7.582	266	51667	18.8568 ug/mL	98
70) Phenanthrene	7.693	178	488406	20.8672 ug/mL	99
71) Anthracene	7.724	178	509510	21.1366 ug/mL	99
72) Carbazole	7.829	167	493492	21.2272 ug/mL	99
73) Dinbtylphthal	8.045	149	640600	21.7558 ug/mL	100
74) Fluoranthene	8.358	202	375142	22.3005 ug/mL	98
76) Benzidine	8.429	184	388920	19.4522 ug/mL	99
77) Pyrene	8.463	202	380415	21.1554 ug/mL	99
79) Btylbzylphth	8.801	149	202360	20.8195 ug/mL	97
80) bis2Ethlhxlad	8.850	129	160598	20.7726 ug/mL	99
81) 33Diclbnzidin	9.083	252	250377	22.1582 ug/mL	99
82) B[a]anthracen	9.088	228	314351	21.3083 ug/mL	99
83) Chrysene	9.111	228	313822	20.5556 ug/mL	100
84) bis2Ethlhxlph	9.122	149	279662	22.1150 ug/mL	98
85) Dinoctylphthl	9.497	149	494981	21.4206 ug/mL	100
87) B[b]fluoranth	9.702	252	344165	22.3496 ug/mL	99
88) B[k]fluoranth	9.719	252	328203	21.2520 ug/mL	98
89) Benz[a]pyrene	9.887	252	342830	21.5763 ug/mL	100
90) Indeno-pyrene	10.506	276	363444	22.1082 ug/mL	95
91) Dib[ah]anthr	10.515	278	292183	21.9104 ug/mL	100
92) B[ghi]perylen	10.651	276	311759	21.6469 ug/mL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\1CCV614.D Vial: 47
Acq On : 11 Sep 2019 16:49 Operator: JJY
Sample : CCV 20 ug/mL SVMS8433 Inst : SVMS1
Misc : 500ul+5ul S4077D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 17:27:18 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 17:23:44 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

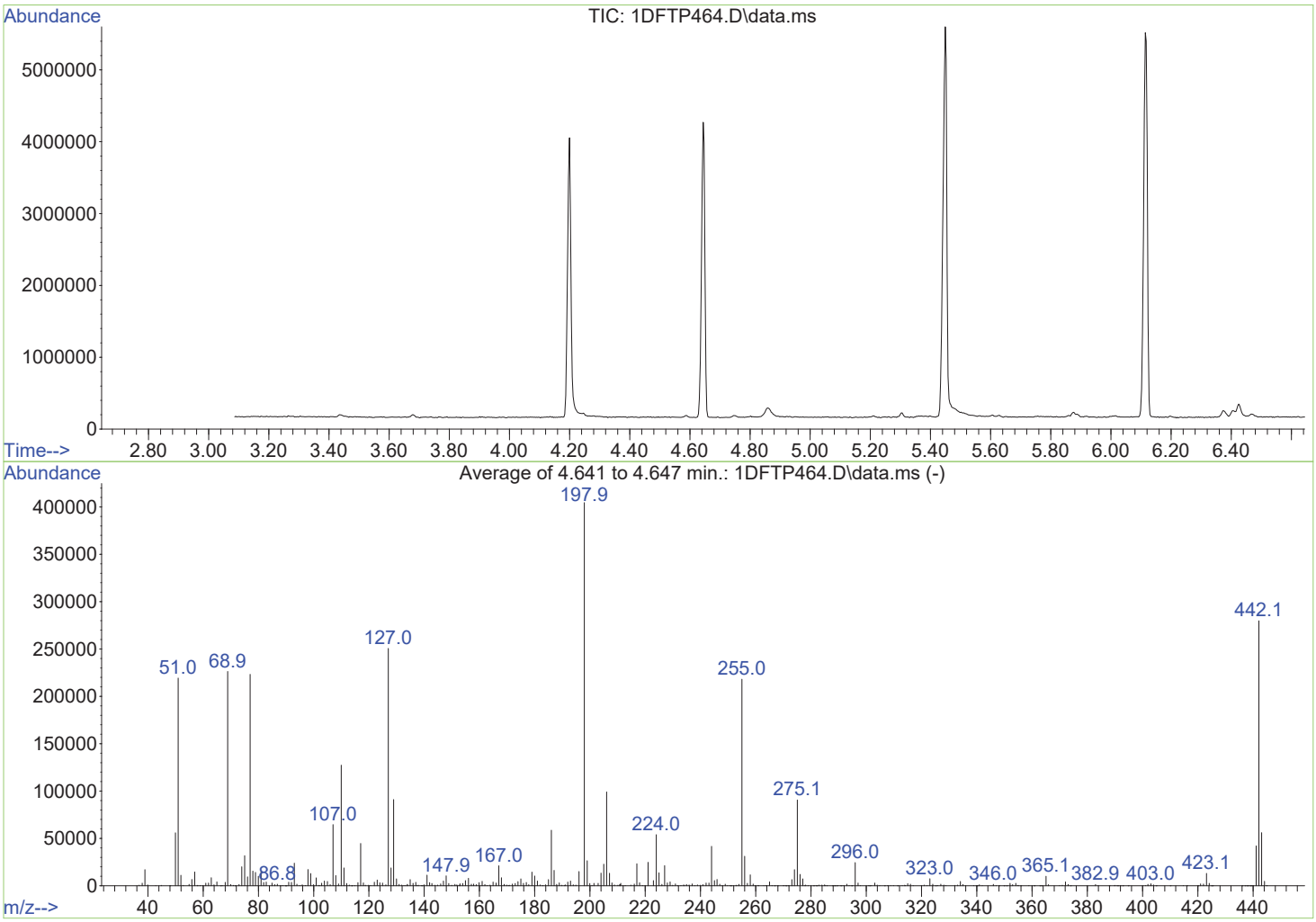


DFTPP

Data Path : C:\INSTARCH\DATA\1S090919\
Data File : 1DFTP464.D
Acq On : 9 Sep 2019 15:59
Operator : JJY
Sample : DFTPP TUNE SVMS8353
Misc : SVMS1, 25ng DFTPP
ALS Vial : 1 Sample Multiplier: 1

Integration File: ddd.p

Method : C:\INSTARCH\METHOD\1DFTPAH.M
Title : DFTPP TUNE
Last Update : Mon Sep 09 16:10:11 2019



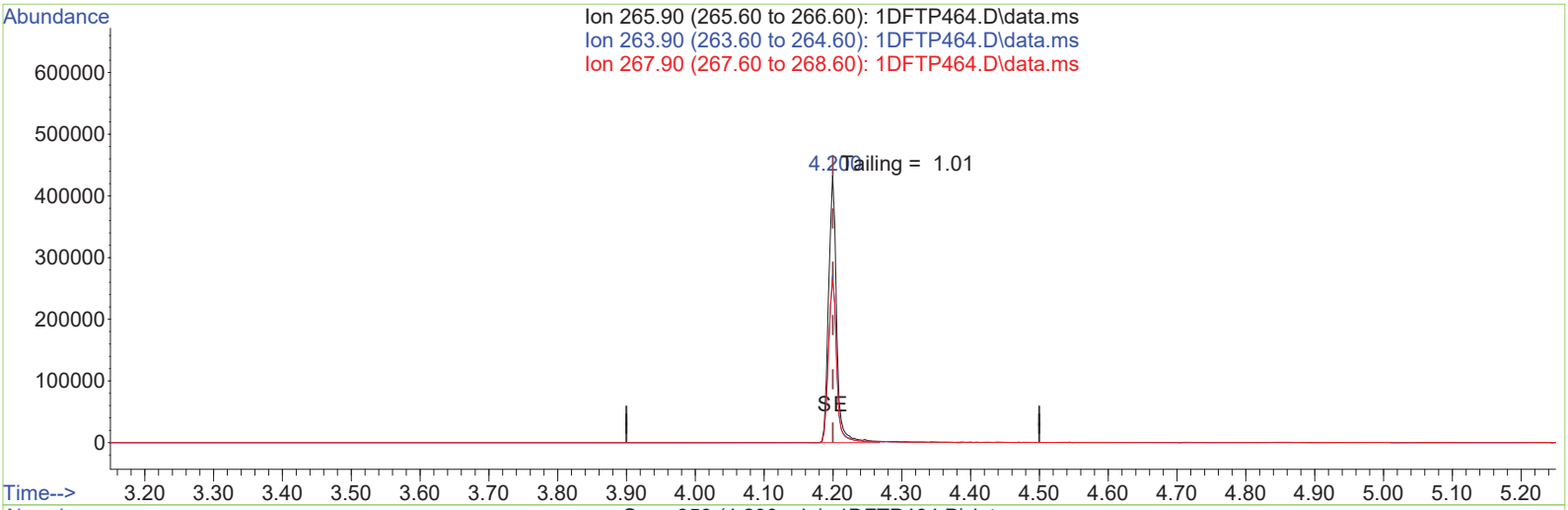
AutoFind: Scans 501, 502, 503; Background Corrected with Scan 493

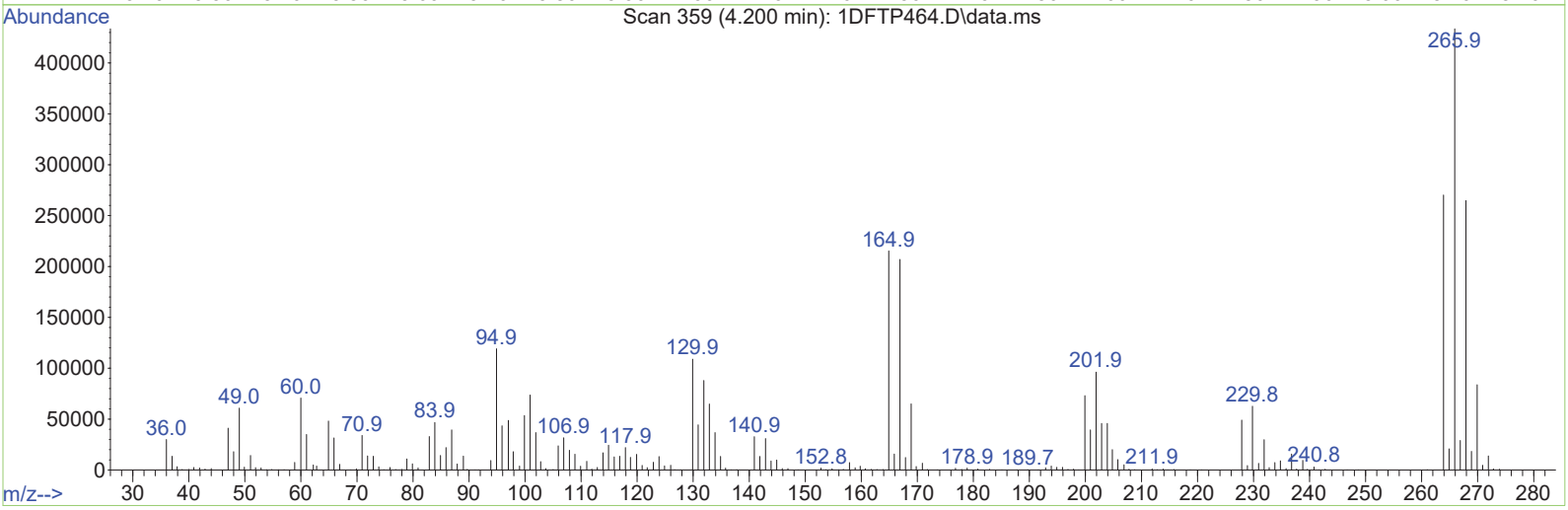
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	54.2	219352	PASS
68	69	0.00	2	1.6	3627	PASS
70	69	0.00	2	0.6	1351	PASS
127	198	10	80	61.9	250560	PASS
197	198	0.00	2	0.0	0	PASS
198	198	50	100	100.0	404565	PASS
199	198	5	9	6.5	26395	PASS
275	198	10	60	22.4	90608	PASS
365	198	1	100	2.5	9972	PASS
441	442	0.01	24	15.1	42109	PASS
442	198	50	100	69.2	279765	PASS
443	442	15	24	20.1	56133	PASS

Quantitation Report (Qedit)

Data File : C:\INSTARCH\DATA\1S090919\1DFTP464.D Vial: 1
Acq On : 9 Sep 2019 15:59 Operator: JJY
Sample : DFTPP TUNE SVMS8353 Inst : SVMS1
Misc : SVMS1, 25ng DFTPP Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 16:10:24 2019

Quant Method : C:\INSTARCH\METHOD\1DFTPAH.M
Quant Title : DFTPP TUNE
QLast Update : Mon Sep 09 16:10:11 2019
Response via : Initial Calibration
DataAcq Meth:1DFTPAH.M





TIC: 1DFTP464.D\data.ms

(1) Pentachlorophenol

4.200min (-0.000) 19.98 ng

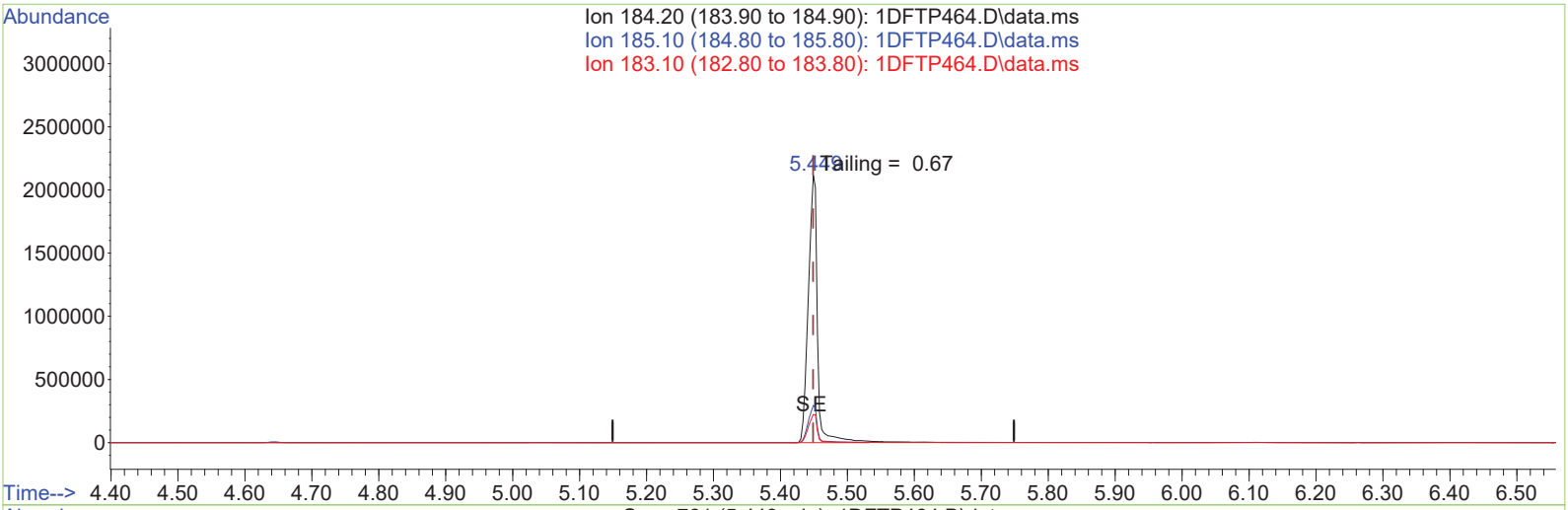
response 346290

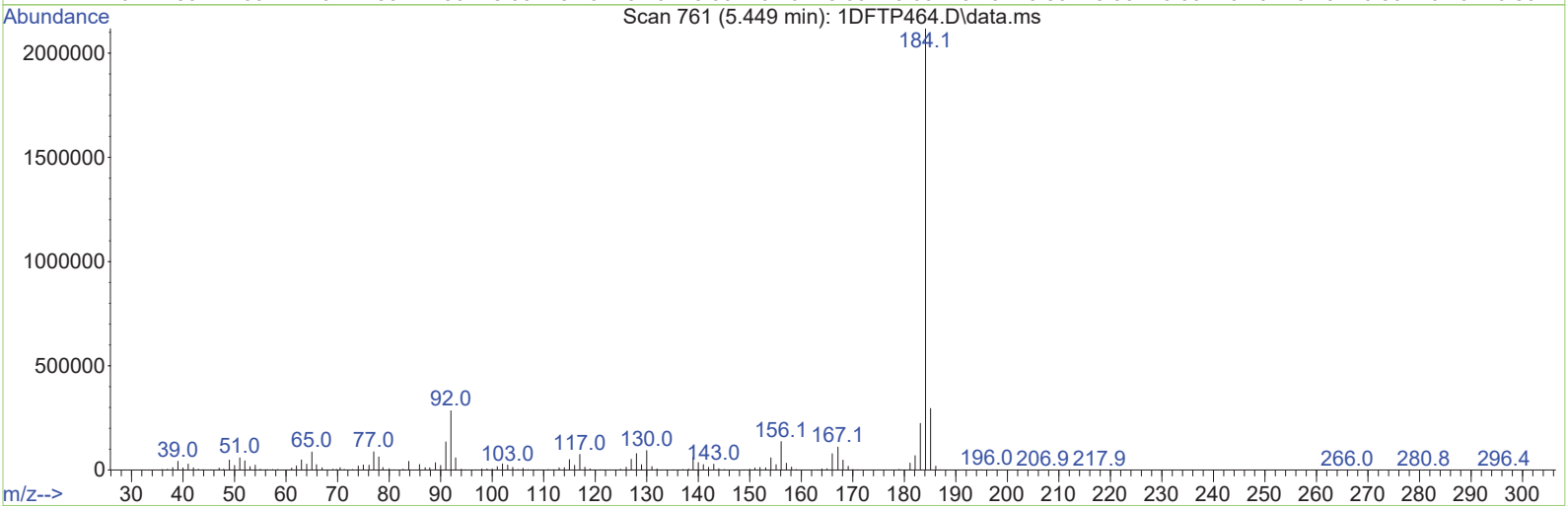
Ion	Exp%	Act%
265.90	100.00	100.00
263.90	62.70	63.17
267.90	61.80	64.32
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\INSTARCH\DATA\1S090919\1DFTP464.D Vial: 1
Acq On : 9 Sep 2019 15:59 Operator: JJY
Sample : DFTPP TUNE SVMS8353 Inst : SVMS1
Misc : SVMS1, 25ng DFTPP Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 16:10:24 2019

Quant Method : C:\INSTARCH\METHOD\1DFTPAH.M
Quant Title : DFTPP TUNE
QLast Update : Mon Sep 09 16:10:11 2019
Response via : Initial Calibration
DataAcq Meth:1DFTPAH.M





TIC: 1DFTP464.D\data.ms

(3) Benzidine

5.449min (0.000) 30.55 ng

response 2007803

Ion	Exp%	Act%
184.20	100.00	100.00
185.10	13.70	13.87
183.10	10.70	10.52
0.00	0.00	0.00

Data File Name	1DFTP464.D
Vial Number	1
Data File Path	C:\INSTARCH\DATA\1S090919\
Operator	JJY
Date Acquired	9/9/2019 15:59
Instrument Name	SVMS1
Sample Name	DFTPP TUNE SVMS8353
Sample Multiplier	1
Misc Info	SVMS1, 25ng DFTPP
Calibration Title	DFTPP TUNE
Last Calibration Update	Mon Sep 09 16:10:11 2019

#	Name	Ret Time	Target Response
1)	Pentachlorophenol	4.20	346290
2)	DFTPP	4.64	342030
3)	Benzidine	5.45	2007803
4)	DDE	5.61	1548
5)	DDD	5.87	14363
6)	DDT	6.12	841496

DDT % Degradation

$$\frac{DDD+DDEx100}{DDD+DDE+DDT} \quad 1.86\ \%$$

Evaluate Continuing Calibration Report

Data File : C:\INSTARCH\DATA\1S090919\1CCV605.D Vial: 2
Acq On : 9 Sep 2019 16:14 Operator: JJY
Sample : CCV 400ng/mL SVMS8409 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 16:29:57 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalened8	400.000	400.000	0.0	93	0.00
2	CPT	Naphthalene	400.000	399.063	0.2	90	0.00
3	S	SURR2Mnaphthalened10	100.000	108.574	-8.6	96	0.00
4	CPT	2Methylnaphth	400.000	442.546	-10.6	99	0.00
5	CT	1Methylnaphth	400.000	399.762	0.1	89	0.00
6	I	Acenaphthened10	400.000	400.000	0.0	93	0.00
7	CPT	Acnaphthylene	400.000	457.937	-14.5	105	0.00
8	CPT	Acenaphthene	400.000	385.256	3.7	90	0.00
9	CPT	Fluorene	400.000	428.799	-7.2	98	0.00
10	I	Phenanthrd10	400.000	400.000	0.0	94	0.00
11	CPT	Phenanthrene	400.000	387.482	3.1	90	0.00
12	CPT	Anthracene	400.000	437.055	-9.3	100	0.00
13	S	SURRFluoranthened10	100.000	98.797	1.2	88	0.00
14	CPT	Fluoranthene	400.000	399.299	0.2	93	0.00
15	I	Chrysene-d12	400.000	400.000	0.0	97	0.00
16	CPT	Pyrene	400.000	378.658	5.3	93	0.00
17	CPT	B[a]anthracen	400.000	467.256	-16.8	121	0.00
18	CPT	Chrysene	400.000	414.953	-3.7	96	0.00
19	I	Perylene-d12	400.000	400.000	0.0	116	0.00
20	CPT	B[b]fluoranth	400.000	411.174	-2.8	123	0.00
21	CPT	B[k]fluoranth	400.000	352.951	11.8	98	0.00
22	CPT	Benz[a]pyrene	400.000	410.597	-2.6	122	0.00
23	CPT	Indeno-pyrene	400.000	411.063	-2.8	124	0.00
24	CPT	Dib[ah]anthr	400.000	396.000	1.0	117	0.00
25	CPT	B[ghi]perylen	400.000	381.658	4.6	113	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : C:\INSTARCH\DATA\1S090919\1CCV605.D Vial: 2
Acq On : 9 Sep 2019 16:14 Operator: JJY
Sample : CCV 400ng/mL SVMS8409 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 16:29:57 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Naphthalened8	1.000	1.000	0.0	93	0.00
2	CPT	Naphthalene	0.984	0.981	0.3	90	0.00
3	S	SURR2Mnaphthalened10	2.218	2.409	-8.6	96	0.00
4	CPT	2Methylnaphth	0.540	0.597	-10.6	99	0.00
5	CT	1Methylnaphth	0.527	0.527	0.0	89	0.00
6	I	Acenaphthened10	1.000	1.000	0.0	93	0.00
7	CPT	Acnaphthylene	1.677	1.920	-14.5	105	0.00
8	CPT	Acenaphthene	1.136	1.094	3.7	90	0.00
9	CPT	Fluorene	1.199	1.285	-7.2	98	0.00
10	I	Phenanthrd10	1.000	1.000	0.0	94	0.00
11	CPT	Phenanthrene	1.127	1.006	10.7	90	0.00
12	CPT	Anthracene	0.996	1.088	-9.2	100	0.00
13	S	SURRFluoranthened10	3.950	3.902	1.2	88	0.00
14	CPT	Fluoranthene	1.139	1.137	0.2	93	0.00
15	I	Chrysene-d12	1.000	1.000	0.0	97	0.00
16	CPT	Pyrene	1.617	1.531	5.3	93	0.00
17	CPT	B[a]anthracen	1.012	1.267	-25.2#	121	0.00
18	CPT	Chrysene	1.405	1.457	-3.7	96	0.00
19	I	Perylene-d12	1.000	1.000	0.0	116	0.00
20	CPT	B[b]fluoranth	1.179	1.280	-8.6	123	0.00
21	CPT	B[k]fluoranth	1.585	1.409	11.1	98	0.00
22	CPT	Benz[a]pyrene	1.138	1.231	-8.2	122	0.00
23	CPT	Indeno-pyrene	1.078	1.214	-12.6	124	0.00
24	CPT	Dib[ah]anthr	0.936	0.988	-5.6	117	0.00
25	CPT	B[ghi]perylen	0.931	0.953	-2.4	113	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 1

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\1CCV605.D Vial: 2
Acq On : 9 Sep 2019 16:14 Operator: JJY
Sample : CCV 400ng/mL SVMS8409 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 16:29:57 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

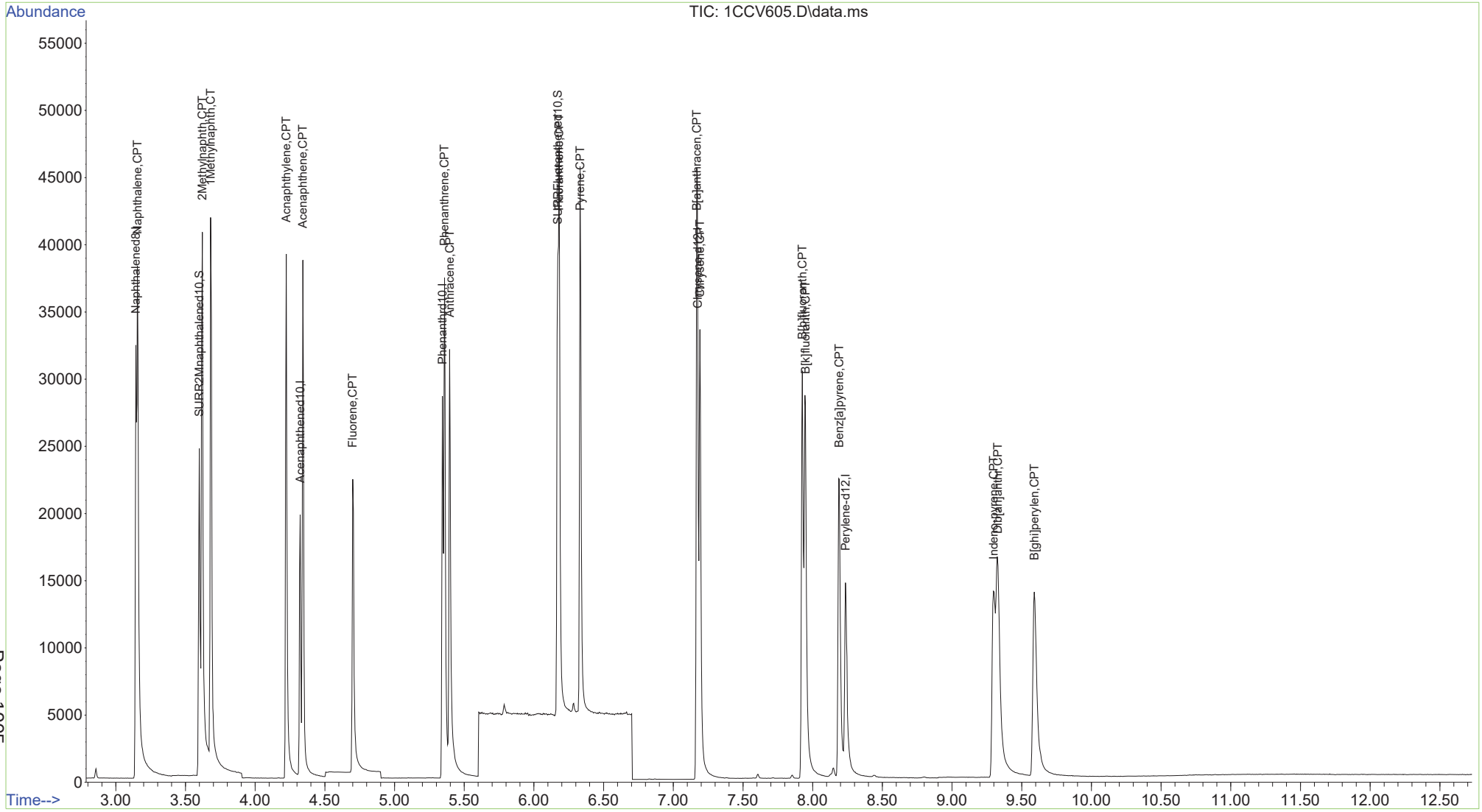
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.144	136	27029	400.00	ng/mL	0.00
6) Acenaphthened10	4.323	164	13877	400.00	ng/mL	0.00
10) Phenanthrd10	5.343	188	22557	400.00	ng/mL	0.00
15) Chrysene-d12	7.176	240	17358	400.00	ng/mL	0.00
19) Perylene-d12	8.236	264	17348	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.599	152	16276	108.57	%REC	0.00
Spiked Amount 100.000			Recovery = 108.57%			
13) SURRFluoranthened10	6.171	212	22006	98.80	%REC	0.00
Spiked Amount 100.000			Recovery = 98.80%			
Target Compounds						Qvalue
2) Naphthalene	3.155	128	26523	399.0629	ng/ml	98
4) 2Methylnaphth	3.621	142	16140	442.5457	ng/mL	81
5) 1Methylnaphth	3.680	141	14243	399.7622	ng/mL	86
7) Acnaphthylene	4.223	152	26650	457.9374	ng/mL	99
8) Acenaphthene	4.342	154	15184	385.2564	ng/mL	92
9) Fluorene	4.700	166	17837	428.7990	ng/mL	96
11) Phenanthrene	5.358	178	22689	387.4818	ng/mL	99
12) Anthracene	5.395	178	24548	437.0547	ng/mL	99
14) Fluoranthene	6.180	202	25644	399.2989	ng/mL	96
16) Pyrene	6.331	202	26577	378.6583	ng/mL	99
17) B[a]anthracen	7.169	228	21984	467.2557	ng/mL	100
18) Chrysene	7.191	228	25299	414.9529	ng/mL	100
20) B[b]fluoranth	7.926	252	22200	411.1742	ng/mL	99
21) B[k]fluoranth	7.948	252	24448	352.9509	ng/mL	98
22) Benz[a]pyrene	8.191	252	21354	410.5973	ng/mL	99
23) Indeno-pyrene	9.297	276	21052	411.0628	ng/mL	99
24) Dib[ah]anthr	9.329	278	17142	395.9996	ng/mL	98
25) B[ghi]perylen	9.590	276	16534	381.6578	ng/mL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\1CCV605.D Vial: 2
Acq On : 9 Sep 2019 16:14 Operator: JJY
Sample : CCV 400ng/mL SVMS8409 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 16:29:57 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M



End CCV SIM PAH QSM 5.1 %Rec

Data File Name 1CCV606.D
Data File Path C:\INSTARCH\DATA\1S090919\
Operator JJY
Date Acquired 9/10/2019 2:58
Acq. Method File 1P082619.M
Sample Name CCV 400ng/mL SVMS8409
Misc Info 500ul+5ul SVMS8389
Vial Number 34
Instrument Name SVMS1

#	Name	Ret Time	Amount	Units	Area	50-150 %REC
1	Naphthalened8	3.15	400	ng/mL	23575	ISTD
2	Naphthalene	3.16	428.39	ng/ml	24834	107
3	SURR2Mnaphthalened	3.60	114.60	%REC	14984	115
4	2Methylnaphth	3.62	441.43	ng/mL	14042	110
5	1Methylnaphth	3.68	453.86	ng/mL	14104	113
6	Acenaphthened10	4.32	400.00	ng/mL	12933	ISTD
7	Acnaphthylene	4.22	490.81	ng/mL	26620	123
8	Acenaphthene	4.35	409.67	ng/mL	15048	102
9	Fluorene	4.70	462.08	ng/mL	17914	116
10	Phenanthrd10	5.35	400.00	ng/mL	21112	ISTD
11	Phenanthrene	5.36	406.29	ng/mL	22202	102
12	Anthracene	5.40	511.35	ng/mL	26881	128
13	SURRFluoranthened10	6.17	109.22	%REC	22769	109
14	Fluoranthene	6.18	469.33	ng/mL	28211	117
15	Chrysene-d12	7.18	400.00	ng/mL	16375	ISTD
16	Pyrene	6.34	439.10	ng/mL	29074	110
17	B[a]anthracen	7.17	501.19	ng/mL	22408	125
18	Chrysene	7.19	469.39	ng/mL	26997	117
19	Perylene-d12	8.24	400.00	ng/mL	12237	ISTD
20	B[b]fluoranth	7.93	495.89	ng/mL	19121	124
21	B[k]fluoranth	7.95	484.13	ng/mL	23685	121
22	Benz[a]pyrene	8.19	466.10	ng/mL	17293	117
23	Indeno-pyrene	9.31	268.89	ng/mL	9056	67
24	Dib[ah]anthr	9.33	277.22	ng/mL	8065	69
25	B[ghi]perylen	9.60	211.57	ng/mL	5738	53

* = %REC <50% OR > 150%

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\1CCV606.D Vial: 34
Acq On : 10 Sep 2019 2:58 Operator: JJY
Sample : CCV 400ng/mL SVMS8409 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 03:12:21 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

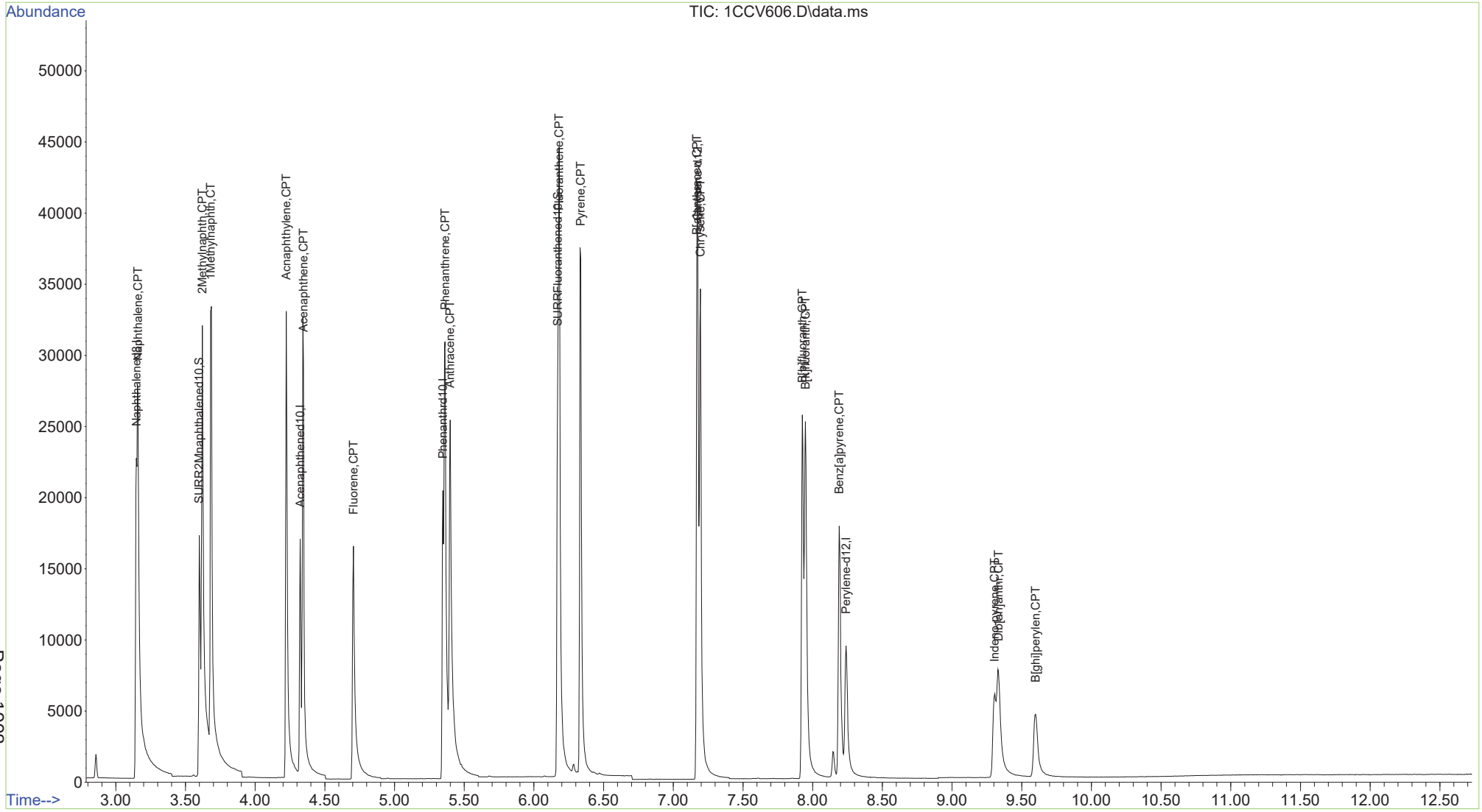
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.147	136	23575	400.00	ng/mL	0.00
6) Acenaphthened10	4.323	164	12933	400.00	ng/mL	0.00
10) Phenanthrd10	5.347	188	21112	400.00	ng/mL	0.00
15) Chrysene-d12	7.176	240	16375	400.00	ng/mL	0.00
19) Perylene-d12	8.239	264	12237	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.599	152	14984	114.60	%REC	0.00
Spiked Amount 100.000			Recovery = 114.60%			
13) SURRFluoranthened10	6.171	212	22769	109.22	%REC	0.00
Spiked Amount 100.000			Recovery = 109.22%			
Target Compounds						Qvalue
2) Naphthalene	3.159	128	24834	428.3942	ng/ml	100
4) 2Methylnaphth	3.620	142	14042	441.4300	ng/mL	90
5) 1Methylnaphth	3.680	141	14104	453.8589	ng/mL	78
7) Acnaphthylene	4.223	152	26620	490.8098	ng/mL	96
8) Acenaphthene	4.346	154	15048	409.6744	ng/mL	92
9) Fluorene	4.705	166	17914	462.0838	ng/mL	94
11) Phenanthrene	5.362	178	22202	406.2937	ng/mL	100
12) Anthracene	5.399	178	26881	511.3486	ng/mL	99
14) Fluoranthene	6.180	202	28211	469.3348	ng/mL	97
16) Pyrene	6.336	202	29074	439.1013	ng/mL	97
17) B[a]anthracen	7.168	228	22408	501.1889	ng/mL	96
18) Chrysene	7.195	228	26997	469.3852	ng/mL	97
20) B[b]fluoranth	7.926	252	19121	495.8927	ng/mL	99
21) B[k]fluoranth	7.948	252	23685	484.1295	ng/mL	99
22) Benz[a]pyrene	8.191	252	17293	466.1043	ng/mL	98
23) Indeno-pyrene	9.306	276	9056	268.8938	ng/mL	100
24) Dib[ah]anthr	9.334	278	8065	277.2219	ng/mL	98
25) B[ghi]perylen	9.599	276	5738	211.5656	ng/mL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\1CCV606.D Vial: 34
Acq On : 10 Sep 2019 2:58 Operator: JJY
Sample : CCV 400ng/mL SVMS8409 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 03:12:21 2019

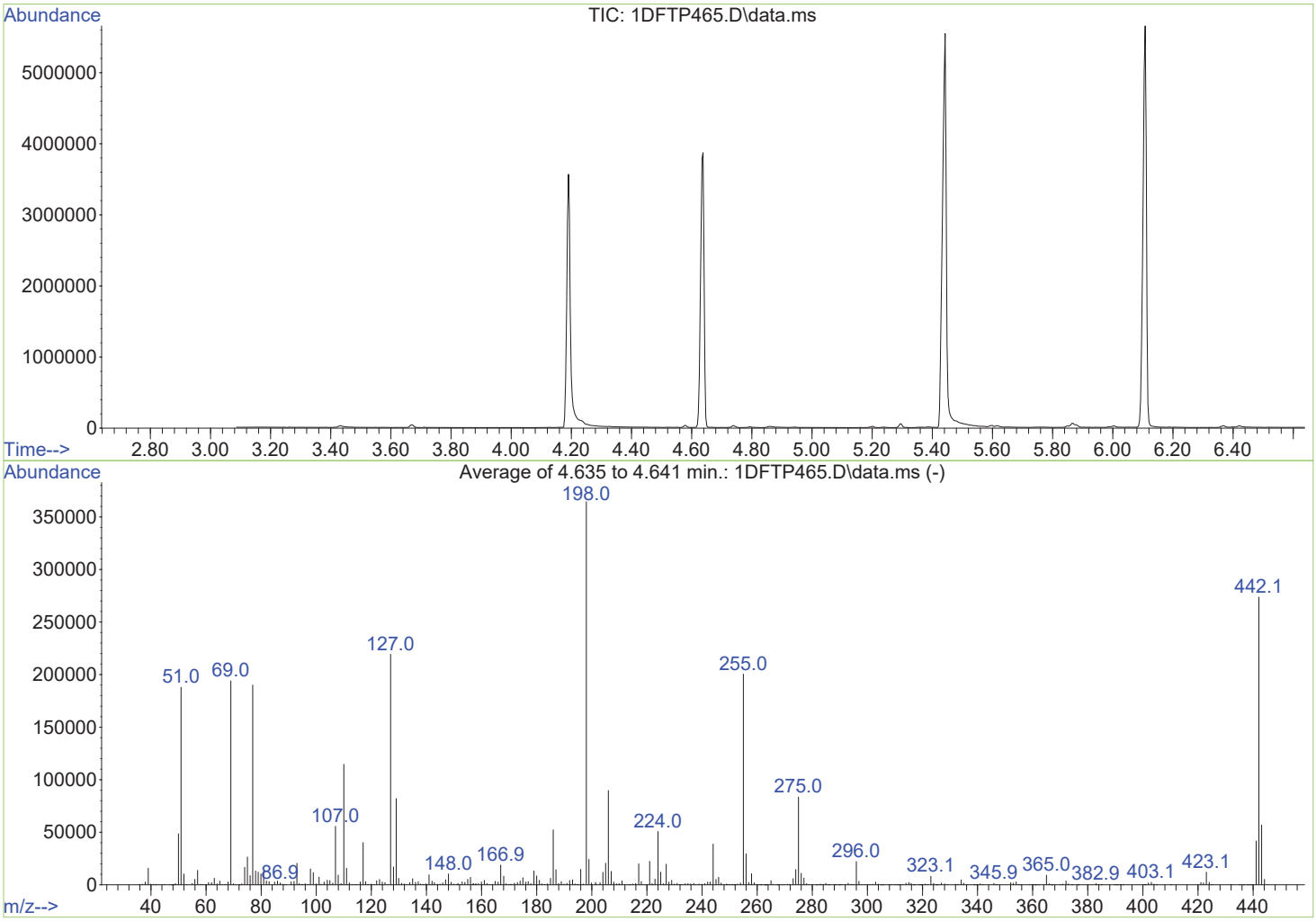
Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M



Data Path : C:\INSTARCH\DATA\1S091019\
Data File : 1DFTP465.D
Acq On : 10 Sep 2019 11:10
Operator : JJY
Sample : DFTPP TUNE SVMS8353
Misc : SVMS1, 25ng DFTPP
ALS Vial : 1 Sample Multiplier: 1

Integration File: ddd.p

Method : C:\INSTARCH\METHOD\1DFTPAH.M
Title : DFTPP TUNE
Last Update : Tue Sep 10 16:28:39 2019



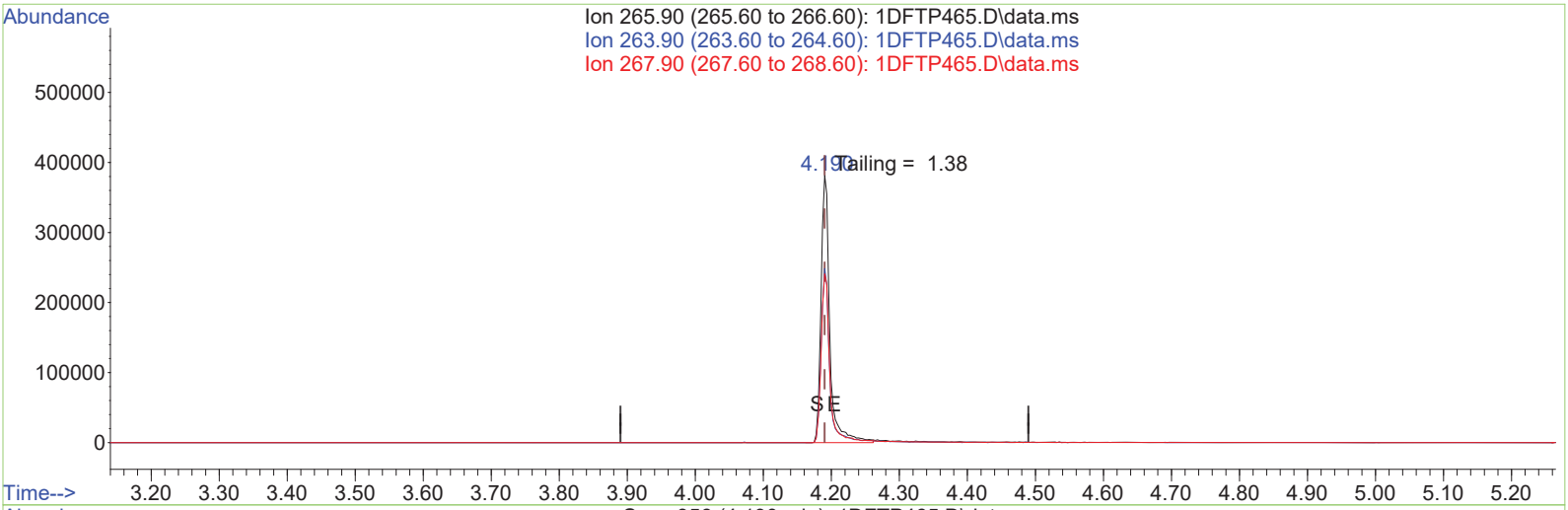
AutoFind: Scans 499, 500, 501; Background Corrected with Scan 490

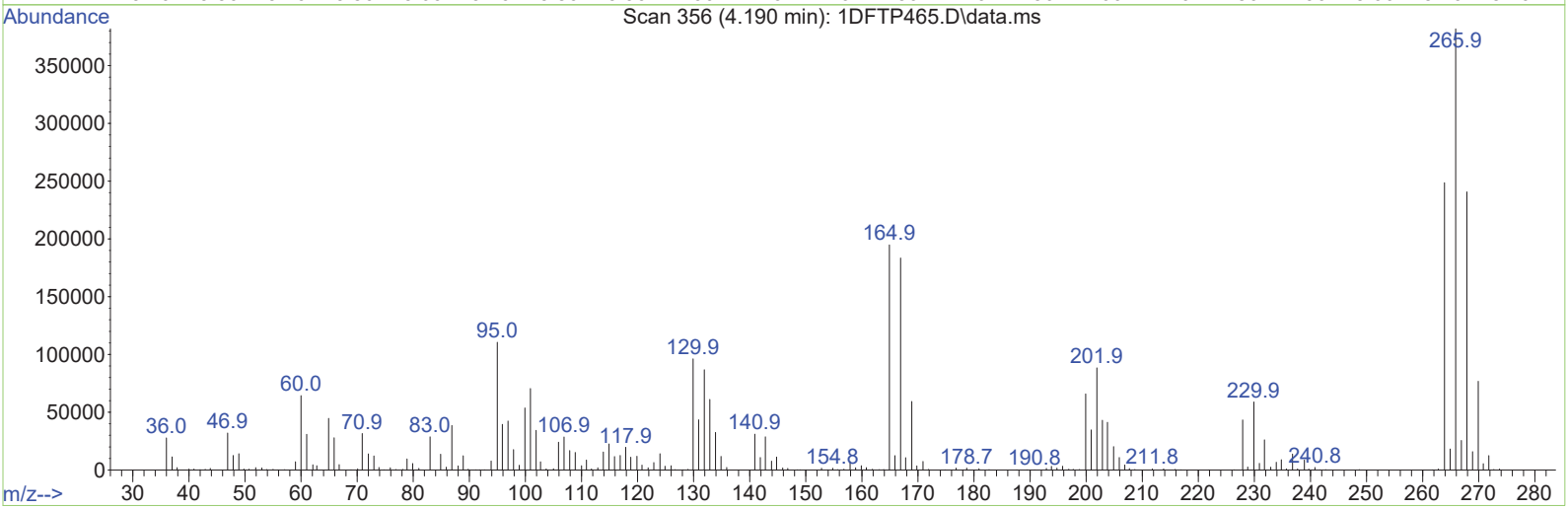
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	51.6	188047	PASS
68	69	0.00	2	1.4	2805	PASS
70	69	0.00	2	0.5	975	PASS
127	198	10	80	60.2	219349	PASS
197	198	0.00	2	0.2	761	PASS
198	198	50	100	100.0	364501	PASS
199	198	5	9	6.6	24075	PASS
275	198	10	60	22.9	83488	PASS
365	198	1	100	2.5	9173	PASS
441	442	0.01	24	15.2	41707	PASS
442	198	50	100	75.1	273792	PASS
443	442	15	24	20.8	56893	PASS

Quantitation Report (Qedit)

Data File : C:\INSTARCH\DATA\1S091019\1DFTP465.D Vial: 1
Acq On : 10 Sep 2019 11:10 Operator: JJY
Sample : DFTPP TUNE SVMS8353 Inst : SVMS1
Misc : SVMS1, 25ng DFTPP Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 16:28:47 2019

Quant Method : C:\INSTARCH\METHOD\1DFTPAH.M
Quant Title : DFTPP TUNE
QLast Update : Tue Sep 10 16:28:39 2019
Response via : Initial Calibration
DataAcq Meth:1DFTPAH.M





TIC: 1DFTP465.D\data.ms

(1) Pentachlorophenol

4.190min (+ 0.000) 19.74 ng

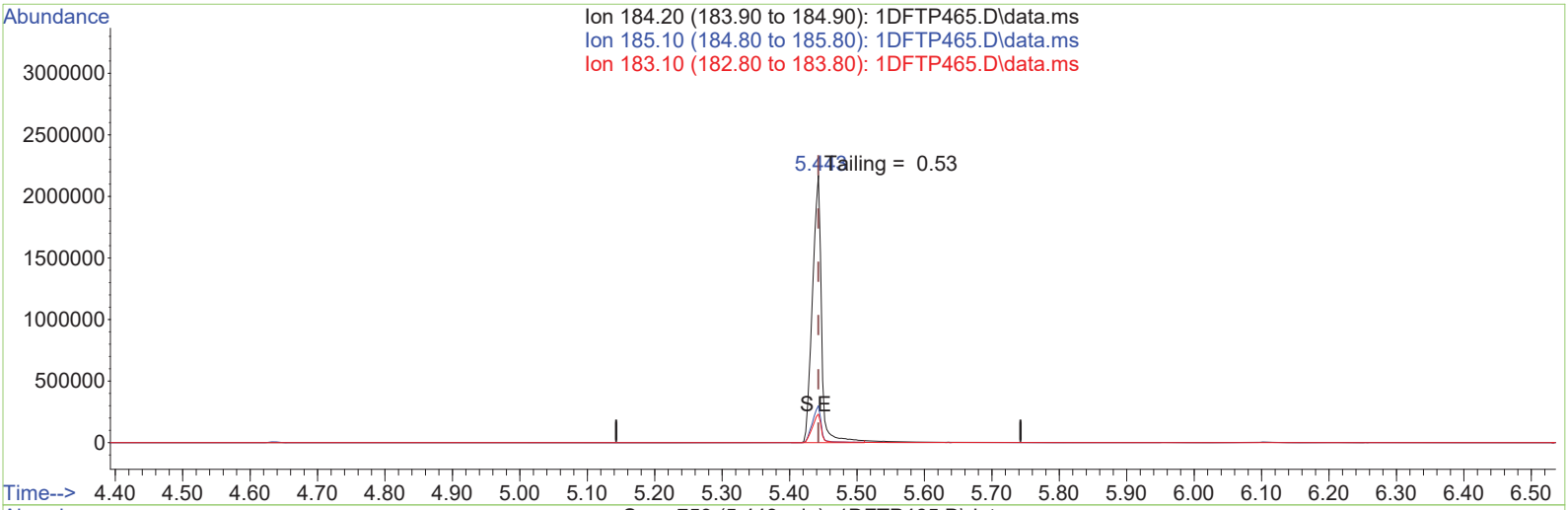
response 342129

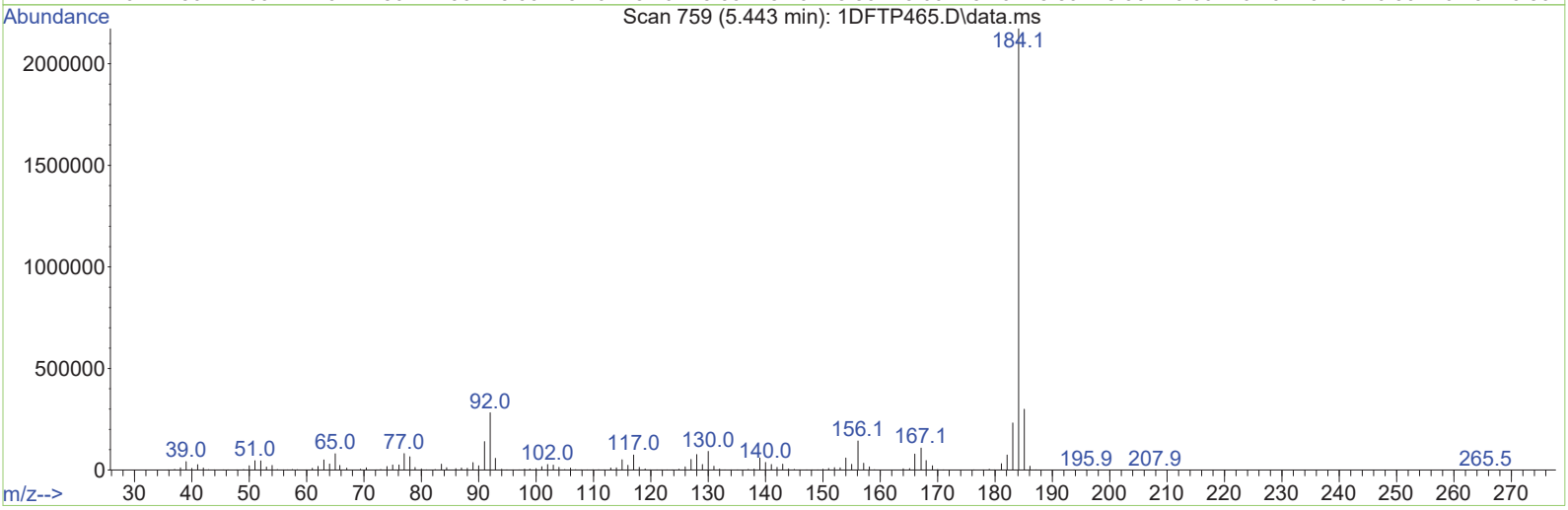
Ion	Exp%	Act%
265.90	100.00	100.00
263.90	62.70	62.79
267.90	61.80	63.66
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\INSTARCH\DATA\1S091019\1DFTP465.D Vial: 1
Acq On : 10 Sep 2019 11:10 Operator: JJY
Sample : DFTPP TUNE SVMS8353 Inst : SVMS1
Misc : SVMS1, 25ng DFTPP Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 16:28:47 2019

Quant Method : C:\INSTARCH\METHOD\1DFTPAH.M
Quant Title : DFTPP TUNE
QLast Update : Tue Sep 10 16:28:39 2019
Response via : Initial Calibration
DataAcq Meth:1DFTPAH.M





TIC: 1DFTP465.D\data.ms

(3) Benzidine

5.443min (0.000) 31.04 ng

response 2039790

Ion	Exp%	Act%
184.20	100.00	100.00
185.10	13.70	13.23
183.10	10.70	10.74
0.00	0.00	0.00

Data File Name	1DFTP465.D
Vial Number	1
Data File Path	C:\INSTARCH\DATA\1S091019\
Operator	JJY
Date Acquired	9/10/2019 11:10
Instrument Name	SVMS1
Sample Name	DFTPP TUNE SVMS8353
Sample Multiplier	1
Misc Info	SVMS1, 25ng DFTPP
Calibration Title	DFTPP TUNE
Last Calibration Update	Tue Sep 10 16:28:39 2019

#	Name	Ret Time	Target Response
1)	Pentachlorophenol	4.19	342129
2)	DFTPP	4.64	331946
3)	Benzidine	5.44	2039790
4)	DDE	5.60	1558
5)	DDD	5.87	12597
6)	DDT	6.11	834388

DDT % Degradation

$$\frac{DDD+DDEx100}{DDD+DDE+DDT} \qquad 1.67\ \%$$

Evaluate Continuing Calibration Report

Data File : C:\INSTARCH\DATA\1S091019\1CCV607.D Vial: 2
Acq On : 10 Sep 2019 11:26 Operator: JJY
Sample : CCV 400ng/mL SVMS8409 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 16:31:21 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 16:31:12 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalened8	400.000	400.000	0.0	80	0.00
2	CPT	Naphthalene	400.000	407.918	-2.0	79	0.00
3	S	SURR2Mnaphthalened10	100.000	106.749	-6.7	81	0.00
4	CPT	2Methylnaphth	400.000	405.081	-1.3	78	0.00
5	CT	1Methylnaphth	400.000	419.094	-4.8	81	0.00
6	I	Acenaphthened10	400.000	400.000	0.0	82	0.00
7	CPT	Acnaphthylene	400.000	467.417	-16.9	94	0.00
8	CPT	Acenaphthene	400.000	390.812	2.3	81	0.00
9	CPT	Fluorene	400.000	432.072	-8.0	87	0.00
10	I	Phenanthrd10	400.000	400.000	0.0	84	0.00
11	CPT	Phenanthrene	400.000	375.487	6.1	78	0.00
12	CPT	Anthracene	400.000	440.450	-10.1	90	0.00
13	S	SURRFluoranthened10	100.000	103.895	-3.9	83	0.00
14	CPT	Fluoranthene	400.000	403.494	-0.9	84	0.00
15	I	Chrysene-d12	400.000	400.000	0.0	89	0.00
16	CPT	Pyrene	400.000	375.209	6.2	84	0.00
17	CPT	B[a]anthracen	400.000	450.369	-12.6	107	0.00
18	CPT	Chrysene	400.000	416.343	-4.1	88	0.00
19	I	Perylene-d12	400.000	400.000	0.0	112	0.00
20	CPT	B[b]fluoranth	400.000	389.010	2.7	112	0.00
21	CPT	B[k]fluoranth	400.000	350.646	12.3	94	0.00
22	CPT	Benz[a]pyrene	400.000	400.839	-0.2	114	0.00
23	CPT	Indeno-pyrene	400.000	420.573	-5.1	123	0.00
24	CPT	Dib[ah]anthr	400.000	403.387	-0.8	115	0.00
25	CPT	B[ghi]perylen	400.000	398.477	0.4	115	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : C:\INSTARCH\DATA\1S091019\1CCV607.D Vial: 2
Acq On : 10 Sep 2019 11:26 Operator: JJY
Sample : CCV 400ng/mL SVMS8409 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 16:31:21 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 16:31:12 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Naphthalened8	1.000	1.000	0.0	80	0.00
2	CPT	Naphthalene	0.984	1.003	-1.9	79	0.00
3	S	SURR2Mnaphthalened10	2.218	2.368	-6.8	81	0.00
4	CPT	2Methylnaphth	0.540	0.547	-1.3	78	0.00
5	CT	1Methylnaphth	0.527	0.552	-4.7	81	0.00
6	I	Acenaphthened10	1.000	1.000	0.0	82	0.00
7	CPT	Acnaphthylene	1.677	1.960	-16.9	94	0.00
8	CPT	Acenaphthene	1.136	1.110	2.3	81	0.00
9	CPT	Fluorene	1.199	1.295	-8.0	87	0.00
10	I	Phenanthrd10	1.000	1.000	0.0	84	0.00
11	CPT	Phenanthrene	1.127	0.977	13.3	78	0.00
12	CPT	Anthracene	0.996	1.097	-10.1	90	0.00
13	S	SURRFluoranthened10	3.950	4.104	-3.9	83	0.00
14	CPT	Fluoranthene	1.139	1.149	-0.9	84	0.00
15	I	Chrysene-d12	1.000	1.000	0.0	89	0.00
16	CPT	Pyrene	1.617	1.517	6.2	84	0.00
17	CPT	B[a]anthracen	1.012	1.216	-20.2#	107	0.00
18	CPT	Chrysene	1.405	1.462	-4.1	88	0.00
19	I	Perylene-d12	1.000	1.000	0.0	112	0.00
20	CPT	B[b]fluoranth	1.179	1.206	-2.3	112	0.00
21	CPT	B[k]fluoranth	1.585	1.400	11.7	94	0.00
22	CPT	Benz[a]pyrene	1.138	1.199	-5.4	114	0.00
23	CPT	Indeno-pyrene	1.078	1.245	-15.5	123	0.00
24	CPT	Dib[ah]anthr	0.936	1.009	-7.8	115	0.00
25	CPT	B[ghi]perylen	0.931	1.001	-7.5	115	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 1

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091019\1CCV607.D Vial: 2
Acq On : 10 Sep 2019 11:26 Operator: JJY
Sample : CCV 400ng/mL SVMS8409 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 16:31:21 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 16:31:12 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

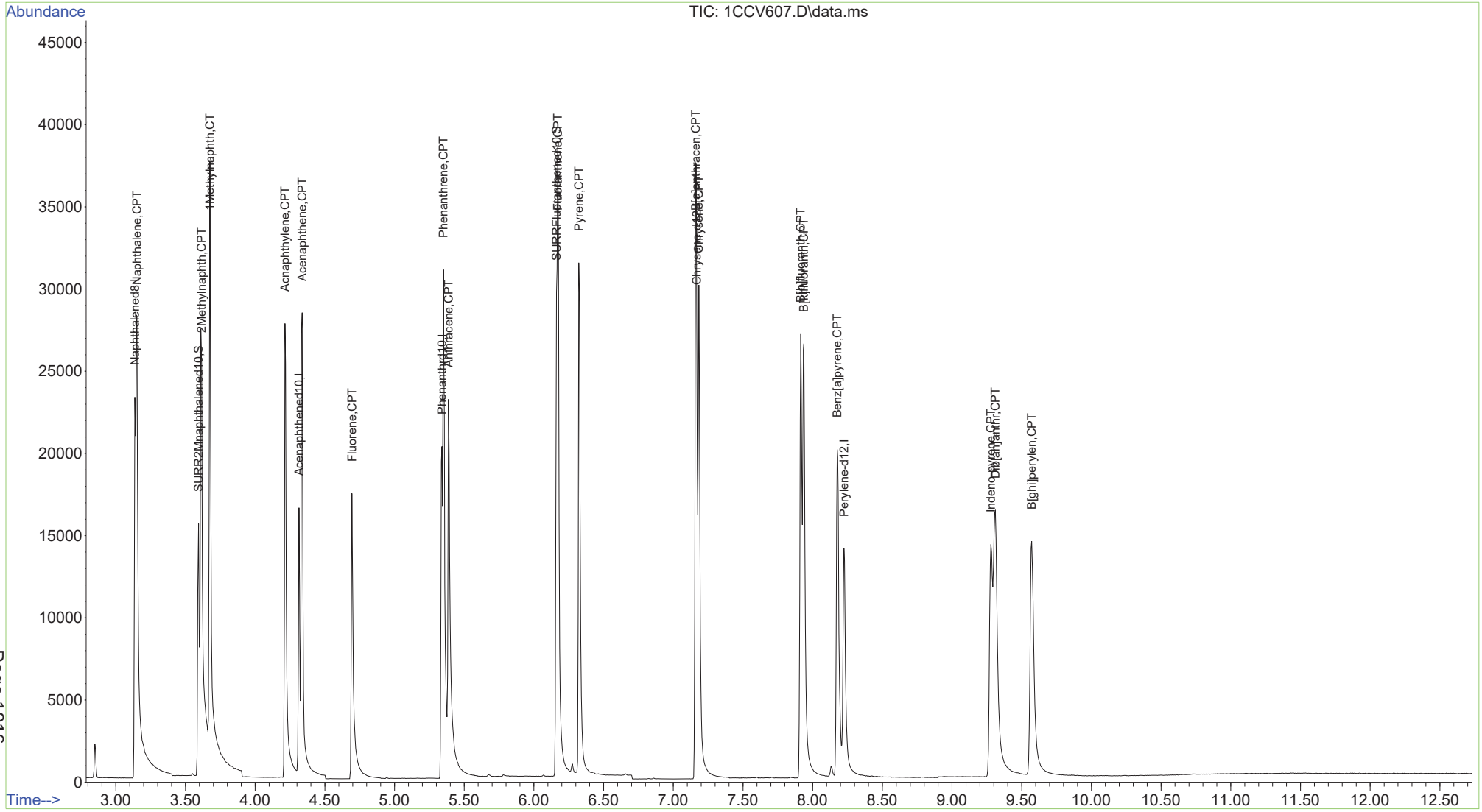
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.136	136	23248	400.00	ng/mL	0.00
6) Acenaphthened10	4.314	164	12186	400.00	ng/mL	0.00
10) Phenanthrd10	5.339	188	20182	400.00	ng/mL	0.00
15) Chrysene-d12	7.169	240	15877	400.00	ng/mL	0.00
19) Perylene-d12	8.224	264	16759	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.593	152	13764	106.75	%REC	0.00
Spiked Amount 100.000			Recovery = 106.75%			
13) SURRFluoranthened10	6.162	212	20705	103.90	%REC	0.00
Spiked Amount 100.000			Recovery = 103.90%			
Target Compounds						Qvalue
2) Naphthalene	3.151	128	23319	407.9181	ng/ml	100
4) 2Methylnaphth	3.615	142	12707	405.0811	ng/mL	79
5) 1Methylnaphth	3.675	141	12843	419.0937	ng/mL	97
7) Acnaphthylene	4.214	152	23887	467.4174	ng/mL	94
8) Acenaphthene	4.337	154	13526	390.8116	ng/mL	95
9) Fluorene	4.694	166	15783	432.0718	ng/mL	95
11) Phenanthrene	5.351	178	19711	375.4866	ng/mL	99
12) Anthracene	5.388	178	22134	440.4501	ng/mL	98
14) Fluoranthene	6.171	202	23185	403.4935	ng/mL	100
16) Pyrene	6.322	202	24088	375.2092	ng/mL	96
17) B[a]anthracen	7.161	228	19303	450.3688	ng/mL	99
18) Chrysene	7.183	228	23218	416.3433	ng/mL	100
20) B[b]fluoranth	7.915	252	20206	389.0097	ng/mL	100
21) B[k]fluoranth	7.937	252	23463	350.6463	ng/mL	98
22) Benz[a]pyrene	8.176	252	20092	400.8387	ng/mL	98
23) Indeno-pyrene	9.279	276	20868	420.5726	ng/mL	99
24) Dib[ah]anthr	9.311	278	16903	403.3874	ng/mL	98
25) B[ghi]perylen	9.572	276	16775	398.4770	ng/mL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091019\1CCV607.D Vial: 2
Acq On : 10 Sep 2019 11:26 Operator: JJY
Sample : CCV 400ng/mL SVMS8409 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 16:31:21 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 16:31:12 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M



End CCV SIM PAH QSM 5.1 %Rec

Data File Name 1CCV608.D
Data File Path C:\INSTARCH\DATA\1S091019\
Operator JJY
Date Acquired 9/10/2019 17:10
Acq. Method File 1P082619.M
Sample Name CCV 400ng/mL SVMS8409
Misc Info 500ul+5ul SVMS8389
Vial Number 19
Instrument Name SVMS1

#	Name	Ret Time	Amount	Units	Area	50-150 %REC
1	Naphthalened8	3.14	400	ng/mL	21766	ISTD
2	Naphthalene	3.15	404.56	ng/ml	21653	101
3	SURR2Mnaphthalened	3.59	106.40	%REC	12844	106
4	2Methylnaphth	3.62	400.18	ng/mL	11753	100
5	1Methylnaphth	3.67	449.58	ng/mL	12899	112
6	Acenaphthened10	4.31	400.00	ng/mL	12107	ISTD
7	Acnaphthylene	4.22	469.72	ng/mL	23849	117
8	Acenaphthene	4.34	384.20	ng/mL	13211	96
9	Fluorene	4.70	422.00	ng/mL	15315	105
10	Phenanthrd10	5.34	400.00	ng/mL	19859	ISTD
11	Phenanthrene	5.35	364.38	ng/mL	18859	91
12	Anthracene	5.39	450.42	ng/mL	22273	113
13	SURRFluoranthened10	6.17	106.88	%REC	20959	107
14	Fluoranthene	6.18	418.03	ng/mL	23636	105
15	Chrysene-d12	7.17	400.00	ng/mL	16102	ISTD
16	Pyrene	6.33	373.48	ng/mL	24317	93
17	B[a]anthracen	7.16	432.66	ng/mL	18720	108
18	Chrysene	7.19	411.67	ng/mL	23283	103
19	Perylene-d12	8.23	400.00	ng/mL	15544	ISTD
20	B[b]fluoranth	7.92	390.28	ng/mL	18807	98
21	B[k]fluoranth	7.94	385.93	ng/mL	23962	96
22	Benz[a]pyrene	8.18	406.96	ng/mL	18948	102
23	Indeno-pyrene	9.29	334.59	ng/mL	14904	84
24	Dib[ah]anthr	9.32	330.34	ng/mL	12532	83
25	B[ghi]perylen	9.58	284.14	ng/mL	10500	71

* = %REC <50% OR > 150%

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091019\1CCV608.D Vial: 19
Acq On : 10 Sep 2019 17:10 Operator: JJY
Sample : CCV 400ng/mL SVMS8409 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 14:09:20 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 14:09:04 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

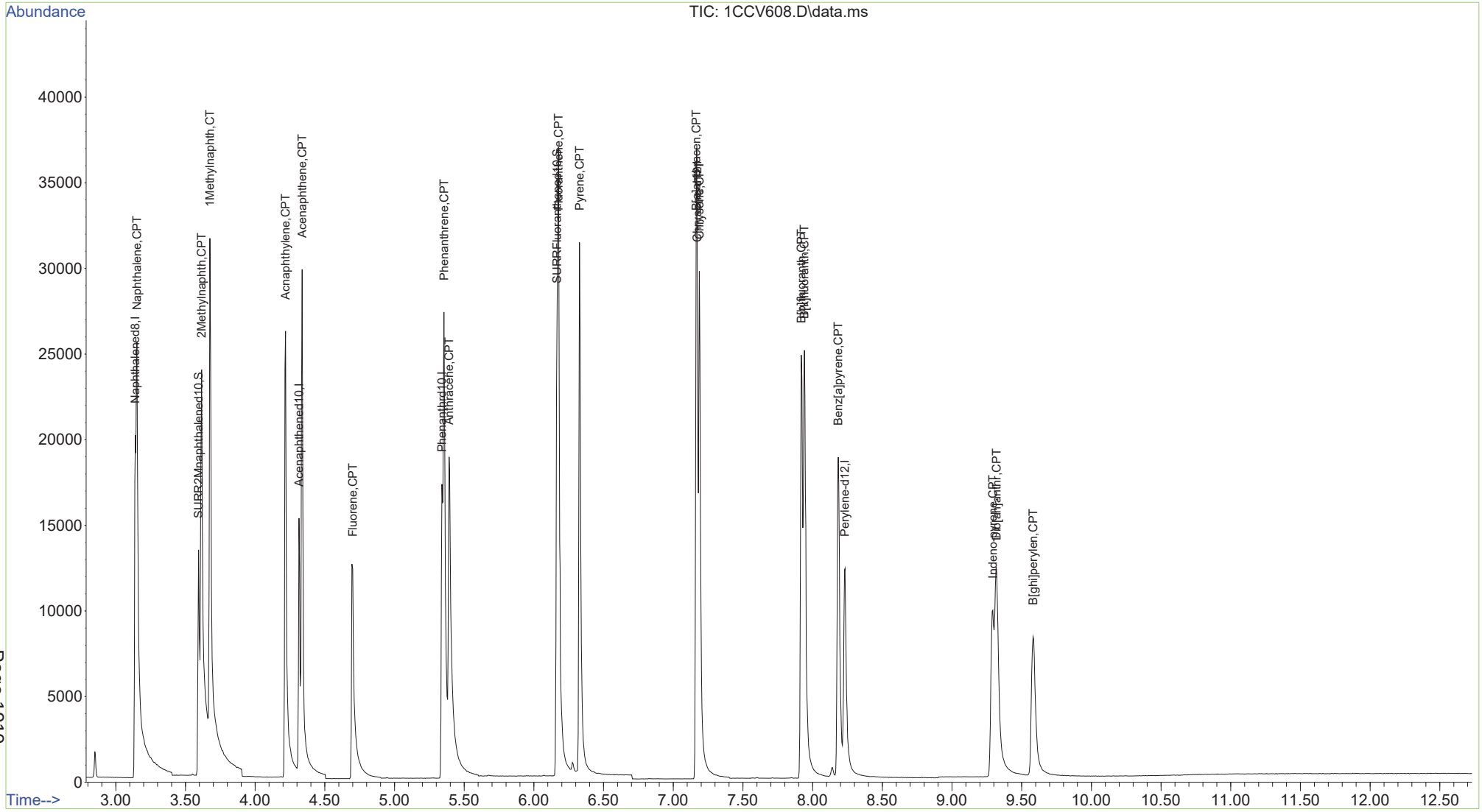
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.140	136	21766	400.00	ng/mL	0.00
6) Acenaphthened10	4.314	164	12107	400.00	ng/mL	0.00
10) Phenanthrd10	5.340	188	19859	400.00	ng/mL	0.00
15) Chrysene-d12	7.172	240	16102	400.00	ng/mL	0.00
19) Perylene-d12	8.232	264	15544	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.594	152	12844	106.40	%REC	0.00
Spiked Amount 100.000			Recovery = 106.40%			
13) SURRFluoranthened10	6.167	212	20959	106.88	%REC	0.00
Spiked Amount 100.000			Recovery = 106.88%			
Target Compounds						Qvalue
2) Naphthalene	3.151	128	21653	404.5648	ng/ml	100
4) 2Methylnaphth	3.615	142	11753	400.1794	ng/mL	85
5) 1Methylnaphth	3.675	141	12899	449.5807	ng/mL	86
7) Acnaphthylene	4.218	152	23849	469.7190	ng/mL	100
8) Acenaphthene	4.337	154	13211	384.2009	ng/mL	97
9) Fluorene	4.700	166	15315	421.9956	ng/mL	92
11) Phenanthrene	5.354	178	18859	364.3840	ng/mL	99
12) Anthracene	5.392	178	22273	450.4249	ng/mL	98
14) Fluoranthene	6.176	202	23636	418.0327	ng/mL	96
16) Pyrene	6.327	202	24317	373.4835	ng/mL	99
17) B[a]anthracen	7.165	228	18720	432.6584	ng/mL	99
18) Chrysene	7.187	228	23283	411.6748	ng/mL	99
20) B[b]fluoranth	7.919	252	18807	390.2795	ng/mL	99
21) B[k]fluoranth	7.941	252	23962	385.9267	ng/mL	98
22) Benz[a]pyrene	8.183	252	18948	406.9643	ng/mL	99
23) Indeno-pyrene	9.293	276	14904	334.5870	ng/mL	99
24) Dib[ah]anthr	9.320	278	12532	330.3413	ng/mL	97
25) B[ghi]perylen	9.581	276	10500	284.1438	ng/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091019\1CCV608.D Vial: 19
Acq On : 10 Sep 2019 17:10 Operator: JJY
Sample : CCV 400ng/mL SVMS8409 Inst : SVMS1
Misc : 500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 14:09:20 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 14:09:04 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M



SEMI - VOLATILE ORGANIC ANALYSIS
QUALITY CONTROL
DOCUMENTS

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090519\1MBW01.D Vial: 4
Acq On : 5 Sep 2019 16:12 Operator: JJY
Sample : 164171,MBW, Inst : SVMS1
Misc : 321838,500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 05 16:37:41 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Thu Sep 05 16:03:25 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

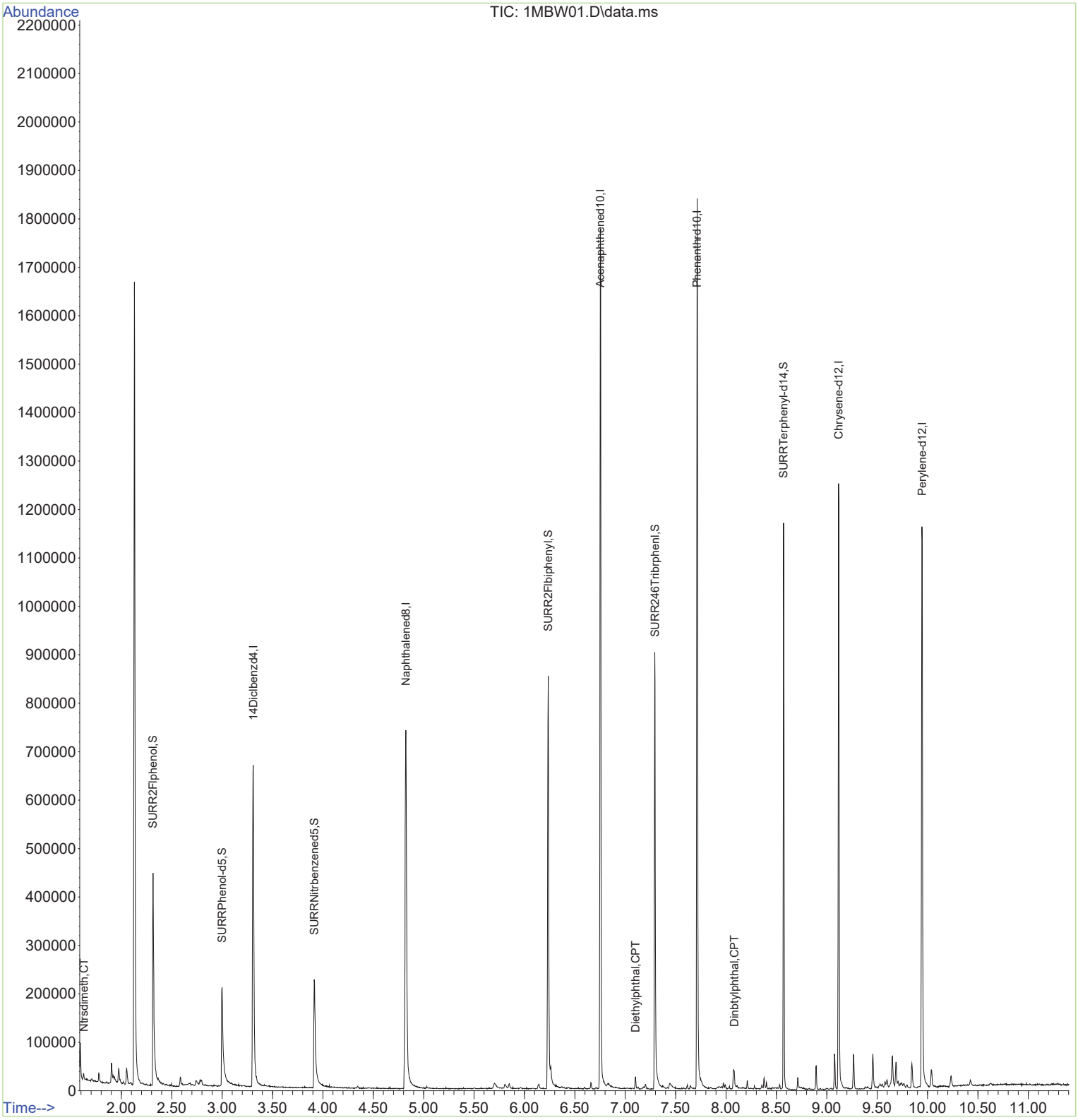
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.309	152	108699	20.00	ug/mL	0.00
21) Naphthalened8	4.823	136	424599	20.00	ug/mL	0.00
39) Acenaphthened10	6.753	164	269446	20.00	ug/mL	0.00
63) Phenanthrd10	7.713	188	451080	20.00	ug/mL	0.00
75) Chrysene-d12	9.117	240	249950	20.00	ug/mL	0.00
86) Perylene-d12	9.946	264	276924	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.314	112	121279	44.52	%REC	0.00
Spiked Amount 100.000			Recovery = 44.52%			
7) SURRPhenol-d5	2.999	99	97083	30.32	%REC	0.00
Spiked Amount 100.000			Recovery = 30.32%			
22) SURRNitrbenzened5	3.914	82	84755	58.81	%REC	0.00
Spiked Amount 100.000			Recovery = 58.81%			
44) SURR2Flbiphenyl	6.236	172	236398	65.86	%REC	0.00
Spiked Amount 100.000			Recovery = 65.86%			
62) SURR246Tribrphenl	7.295	330	64891	76.78	%REC	0.00
Spiked Amount 100.000			Recovery = 76.78%			
78) SURRTerphenyl-d14	8.571	244	192819	84.28	%REC	0.00
Spiked Amount 100.000			Recovery = 84.28%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.630	74	515	0.6666	ug/mL#	1
60) Diethylphthal	7.102	149	3435	0.1904	ug/mL	96
73) Dinbtylphthal	8.082	149	7612	0.0945	ug/mL	95

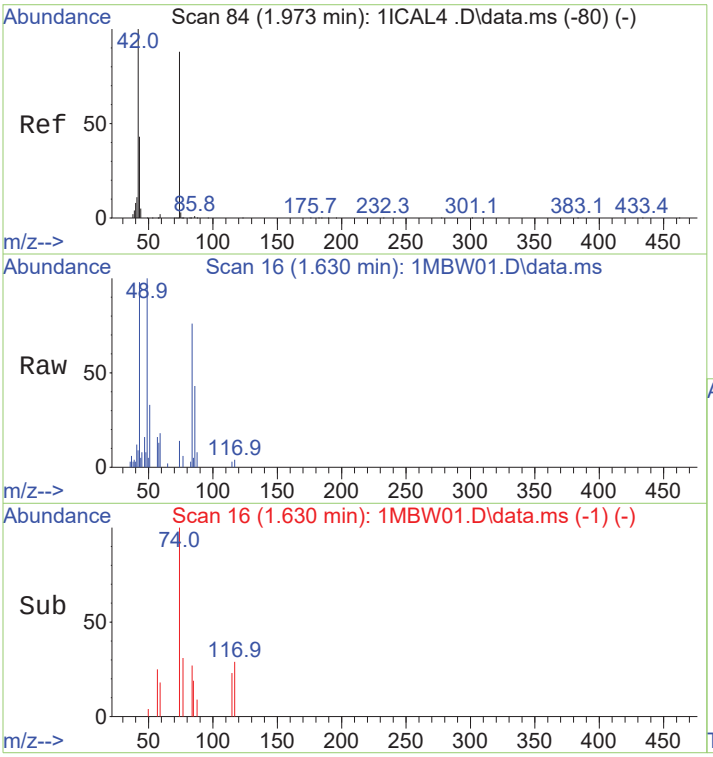
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090519\1MBW01.D Vial: 4
Acq On : 5 Sep 2019 16:12 Operator: JJY
Sample : 164171,MBW, Inst : SVMS1
Misc : 321838,500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 05 16:37:41 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Thu Sep 05 16:03:25 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

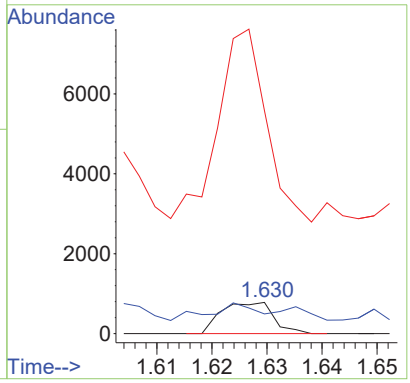


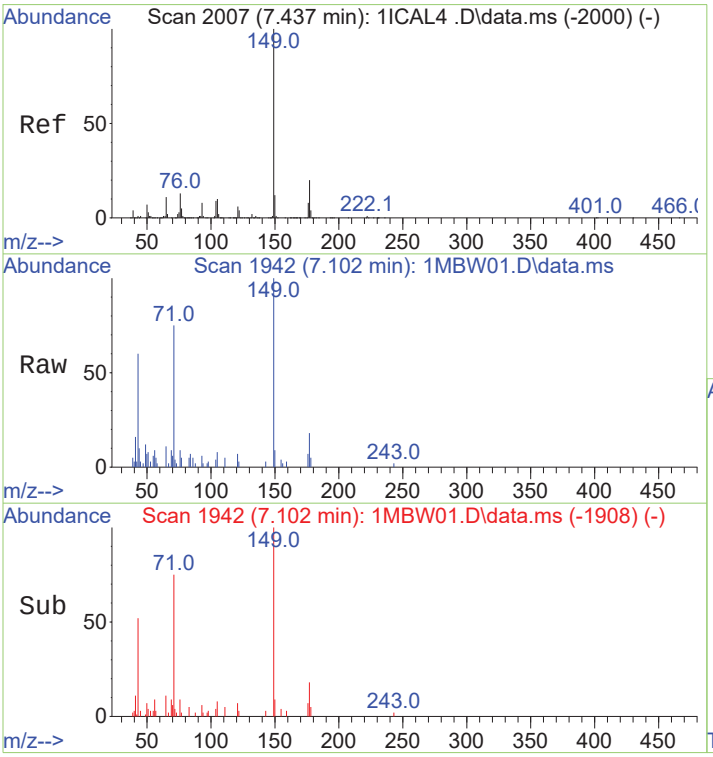


#2
Ntrsdimeth
Concen: 0.67 ug/mL
RT: 1.630 min Scan# 16
Delta R.T. -0.020 min
Lab File: 1MBW01.D
Acq: 5 Sep 2019 16:12

Tgt Ion: 74 Resp: 515

Ion	Ratio	Lower	Upper
74	100		
42	6.0	54.2	114.2#
43	281.3	5.5	65.5#

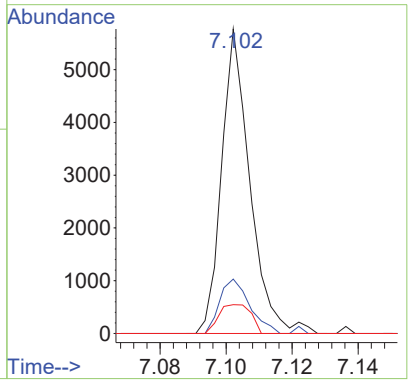


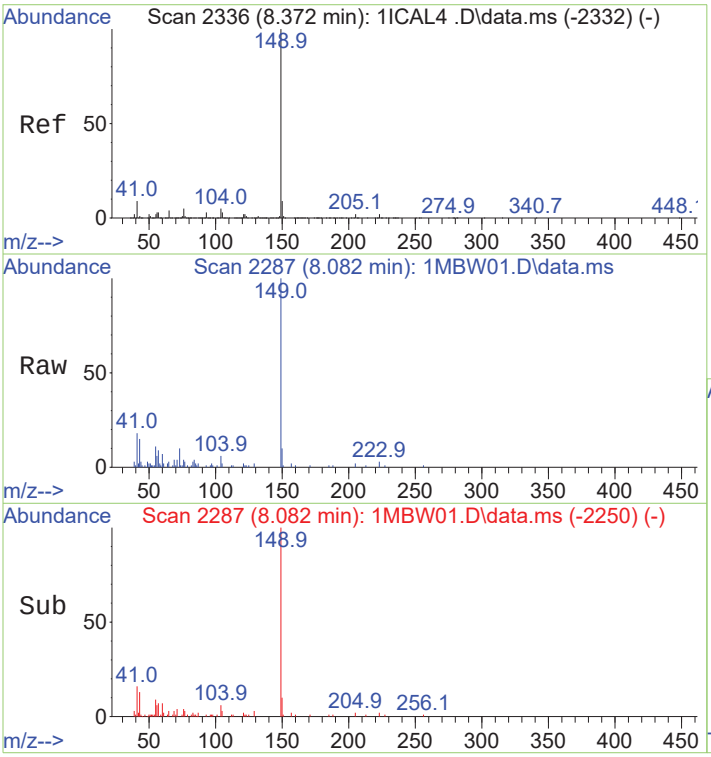


#60
Diethylphthal
Concen: 0.19 ug/mL
RT: 7.102 min Scan# 1942
Delta R.T. -0.003 min
Lab File: 1MBW01.D
Acq: 5 Sep 2019 16:12

Tgt Ion:149 Resp: 3435

Ion	Ratio	Lower	Upper
149	100		
177	17.9	0.0	49.3
150	9.5	0.0	41.9

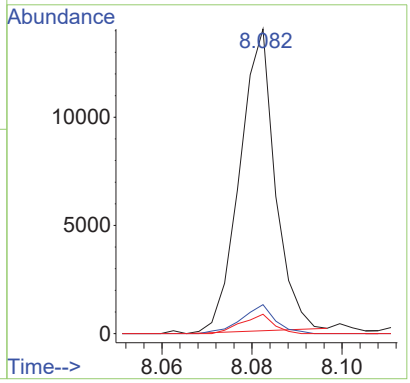




#73
Dinbtylphthal
Concen: 0.09 ug/mL
RT: 8.082 min Scan# 2287
Delta R.T. 0.006 min
Lab File: 1MBW01.D
Acq: 5 Sep 2019 16:12

Tgt Ion:149 Resp: 7612

Ion	Ratio	Lower	Upper
149	100		
150	10.5	0.0	39.0
104	6.4	0.0	34.6



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090519\1MBW01.D Vial: 4
Acq On : 5 Sep 2019 16:12 Operator: JJY
Sample : 164171,MBW, Inst : SVMS1
Misc : 321838,500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 05 16:39:39 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Thu Sep 05 16:06:44 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

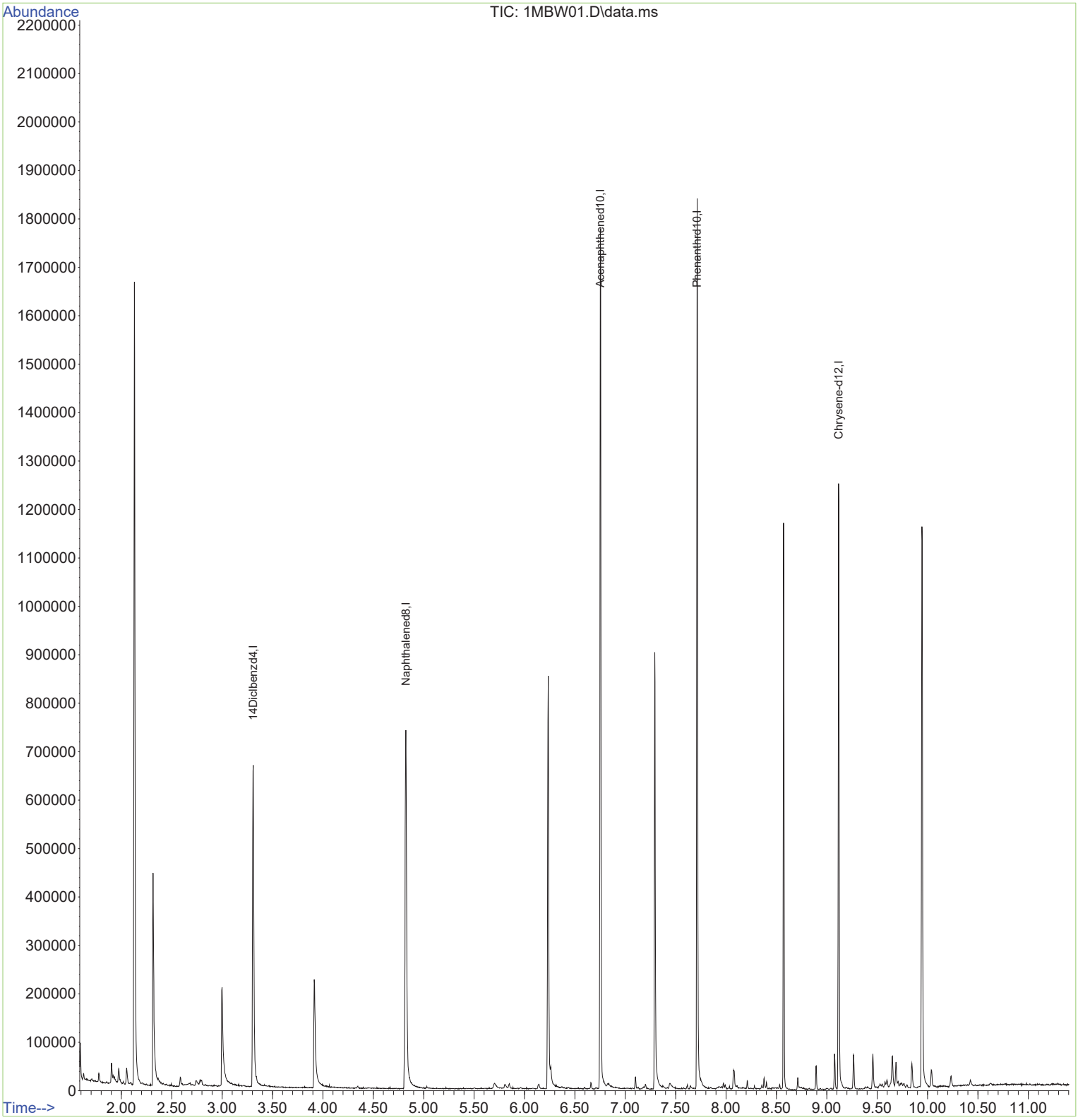
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.309	152	109499	20.00	ug/mL	0.00
3) Naphthalened8	4.823	136	424269	20.00	ug/mL	0.00
5) Acenaphthened10	6.753	164	278649	20.00	ug/mL	0.00
7) Phenanthrd10	7.713	188	455191	20.00	ug/mL	0.00
9) Chrysene-d12	9.117	240	248380	20.00	ug/mL	0.00
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090519\1MBW01.D Vial: 4
Acq On : 5 Sep 2019 16:12 Operator: JJY
Sample : 164171,MBW, Inst : SVMS1
Misc : 321838,500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 05 16:39:39 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Thu Sep 05 16:06:44 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090519\1LCSW01.D Vial: 5
Acq On : 5 Sep 2019 16:30 Operator: JJY
Sample : 164171,LCSW, Inst : SVMS1
Misc : 321839,500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 05 16:42:03 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Thu Sep 05 16:03:25 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.309	152	110955	20.00	ug/mL	0.00
21) Naphthalened8	4.826	136	431270	20.00	ug/mL	0.00
39) Acenaphthened10	6.752	164	264733	20.00	ug/mL	0.00
63) Phenanthrd10	7.713	188	440128	20.00	ug/mL	0.00
75) Chrysene-d12	9.122	240	231373	20.00	ug/mL	0.00
86) Perylene-d12	9.949	264	271571	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.317	112	126946	45.58	%REC	0.01
Spiked Amount 100.000			Recovery = 45.58%			
7) SURRPhenol-d5	2.999	99	106037	32.35	%REC	0.00
Spiked Amount 100.000			Recovery = 32.35%			
22) SURRNitrbenzened5	3.917	82	101019	68.53	%REC	0.00
Spiked Amount 100.000			Recovery = 68.53%			
44) SURR2Flbiphenyl	6.232	172	259732	73.65	%REC	0.00
Spiked Amount 100.000			Recovery = 73.65%			
62) SURR246Tribrphenl	7.295	330	76015	91.36	%REC	0.00
Spiked Amount 100.000			Recovery = 91.36%			
78) SURRTerphenyl-d14	8.571	244	197189	93.11	%REC	0.00
Spiked Amount 100.000			Recovery = 93.11%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.669	74	39295	8.8604	ug/mL	91
3) Pyridine	1.686	79	49907	7.3286	ug/mL	94
5) Aniline	3.010	93	68391	6.3302	ug/mL	95
6) bis2Clethletr	3.076	93	94905	13.6784	ug/mL	100
8) Phenol	3.010	94	58183	5.9696	ug/mL	80
9) 2-Cl-phenol	3.113	128	100127	13.0512	ug/mL	98
10) 13Diclbenz	3.249	146	105474	12.8653	ug/mL	98
11) 14Diclbenz	3.326	146	101203	12.0764	ug/mL	98
12) 12Diclbenz	3.473	146	103949	13.2203	ug/mL	98
13) Benzyl alcoho	3.479	108	55869	12.6606	ug/mL	97
14) bis2clispreth	3.624	45	137723	11.5089	ug/mL	78
15) 2Methylphenol	3.615	107	71649	12.4694	ug/mL	95
16) Ntrspyrrol	3.732	100	46385	12.4367	ug/mL	96
17) Acetophenone	3.755	105	136846	13.0453	ug/mL	97
18) Hexaclethane	3.834	117	40935	12.0750	ug/mL	99
19) N-Ntrsdinprop	3.775	70	73594	14.2283	ug/mL	97
20) 3&4Methylphenol	3.800	107	79324	10.9808	ug/mL	97
23) Nitrobenzene	3.939	77	103898	13.9556	ug/mL	100
24) Isophorone	4.252	82	146135	10.3392	ug/mL	100
25) 2-Nitrophenol	4.337	139	54261	13.7283	ug/mL	95
26) 24Dimthpheno	4.465	122	83095	13.2045	ug/mL	98
27) bis2clethoxym	4.587	93	107926	12.6557	ug/mL	99
28) 24Diclphenol	4.673	162	74633	13.0315	ug/mL	97
29) 124Triclbenz	4.769	180	81048	12.8744	ug/mL	98
30) Benzoic acid	4.647	122	19383	9.4661	ug/mL	88
31) Naphthalene	4.854	128	297145	13.4754	ug/mL	99
32) 4-Cl-aniline	4.985	127	88247	9.4136	ug/mL	97
33) 26Diclphenol	4.982	162	74320	13.2169	ug/mL	98
34) Hexaclprop	4.991	213	44110	10.3348	ug/mL	96
35) Hexaclbutdien	5.076	225	42266	10.7921	ug/mL	94
36) 4Cl3methylphe	5.761	107	112239	14.7816	ug/mL	98
37) 2Methylnaphth	5.832	142	234502	13.1187	ug/mL	100
38) 1Methylnaphth	5.934	141	213429	14.5817	ug/mL	98
40) Hxclcycpentdi	6.017	237	40254	11.3415	ug/mL	97

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090519\1LCSW01.D Vial: 5
Acq On : 5 Sep 2019 16:30 Operator: JJY
Sample : 164171,LCSW, Inst : SVMS1
Misc : 321839,500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 05 16:42:03 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Thu Sep 05 16:03:25 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

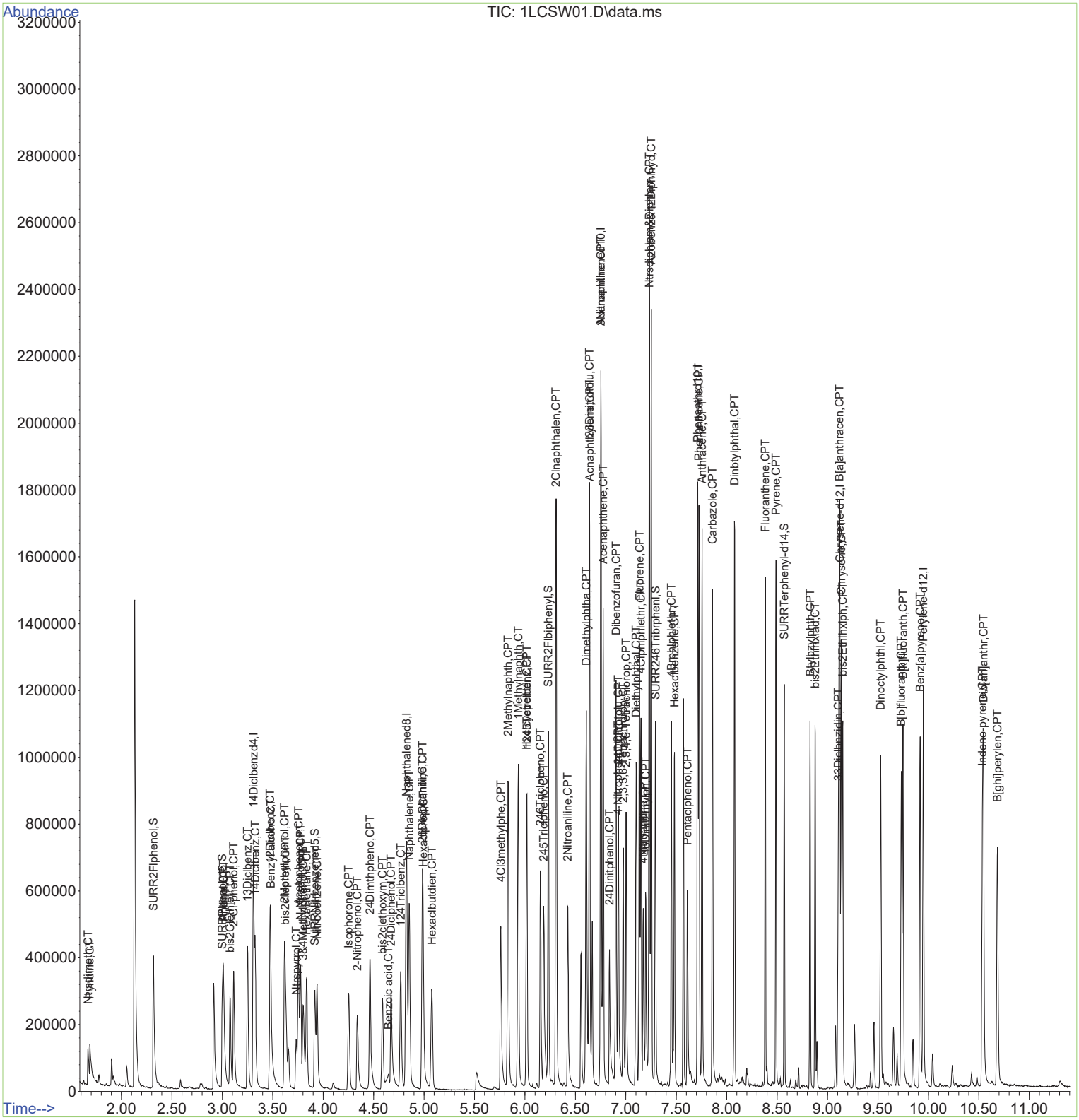
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) 1245Tetrclbenz	6.019	216	99095	14.2194 ug/mL	98
42) 246Triclpheno	6.153	196	72854	15.5219 ug/mL	98
43) 245Triclpheno	6.184	196	84554	15.9270 ug/mL	98
45) 2Clnaphthalen	6.306	162	225487	14.2336 ug/mL	99
46) 2Nitroaniline	6.423	65	85193	16.5790 ug/mL	98
47) Acnaphthylene	6.642	152	381072	15.5658 ug/mL	100
48) Dimethylphtha	6.608	163	296089	17.0145 ug/mL	99
49) 26Dinitrotolu	6.639	165	69671	17.7299 ug/mL	89
50) Acenaphthene	6.775	154	219279	15.3431 ug/mL	97
51) 3Nitroaniline	6.752	138	62249	13.8084 ug/mL	97
52) 24Dinitphenol	6.838	184	43631	21.4170 ug/mL	97
53) Dibenzofuran	6.903	168	334636	15.5825 ug/mL	96
54) 24Dinitrotolu	6.926	165	99159	18.0592 ug/mL	98
55) 4-Nitrophenol	6.923	65	25615	9.0719 ug/mL#	21
56) 2,3,5,6-Tetrachlorop	6.974	232	61702	16.9954 ug/mL	98
57) 2,3,4,6-Tetrachlorop	7.003	232	71403	17.9267 ug/mL	96
58) Fluorene	7.136	166	277552	16.3707 ug/mL	98
59) 4Clphlphlethr	7.150	204	122673	16.3452 ug/mL	99
60) Diethylphthal	7.102	149	312215	17.6125 ug/mL	99
61) 4Nitroaniline	7.173	138	74755	15.4145 ug/mL	94
64) 46Dinit2mylph	7.199	198	56752	18.8417 ug/mL	99
65) Ntrsdiphlam&Diphlam	7.233	169	432095	35.9275 ug/mL	99
66) Azobenz&12Diphlhyd	7.253	182	140469	36.1045 ug/mL	94
67) 4Brphlphlethr	7.451	248	73686	17.7130 ug/mL	94
68) Hexaclbenzene	7.483	284	81331	18.0557 ug/mL	97
69) Pentaclphenol	7.611	266	51584	18.9691 ug/mL	98
70) Phenanthrene	7.724	178	409933	17.6592 ug/mL	99
71) Anthracene	7.755	178	417483	17.4621 ug/mL	100
72) Carbazole	7.858	167	431019	18.6932 ug/mL	99
73) Dinbtylphthal	8.079	149	567295	19.3588 ug/mL	100
74) Fluoranthene	8.383	202	312404	18.7245 ug/mL	97
76) Benzidine	0.000		0	N.D.	
77) Pyrene	8.489	202	320862	18.4553 ug/mL	99
79) Btylbzylphth	8.827	149	169727	18.1424 ug/mL	100
80) bis2Ethlhxlad	8.878	129	127040	17.1644 ug/mL	98
81) 33Diclbnzidin	9.105	252	80861	7.4015 ug/mL	98
82) B[a]anthracen	9.117	228	268891	18.8517 ug/mL	99
83) Chrysene	9.136	228	265473	17.9849 ug/mL	99
84) bis2Ethlhxlph	9.151	149	227836	18.6344 ug/mL	100
85) Dinoctylphthl	9.526	149	401742	18.1857 ug/mL	100
87) B[b]fluoranth	9.730	252	247637	16.7521 ug/mL	99
88) B[k]fluoranth	9.747	252	261625	17.6477 ug/mL	98
89) Benz[a]pyrene	9.918	252	270670	17.7455 ug/mL	98
90) Indeno-pyrene	10.534	276	271739	17.2193 ug/mL	99
91) Dib[ah]anthr	10.546	278	237705	18.5688 ug/mL	99
92) B[ghi]perylen	10.685	276	233360	16.8792 ug/mL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090519\1LCSW01.D Vial: 5
Acq On : 5 Sep 2019 16:30 Operator: JJY
Sample : 164171,LCSW, Inst : SVMS1
Misc : 321839,500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 05 16:42:03 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Thu Sep 05 16:03:25 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090519\1LCSW01.D Vial: 5
Acq On : 5 Sep 2019 16:30 Operator: JJY
Sample : 164171,LCSW, Inst : SVMS1
Misc : 321839,500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 05 16:47:54 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Thu Sep 05 16:06:44 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

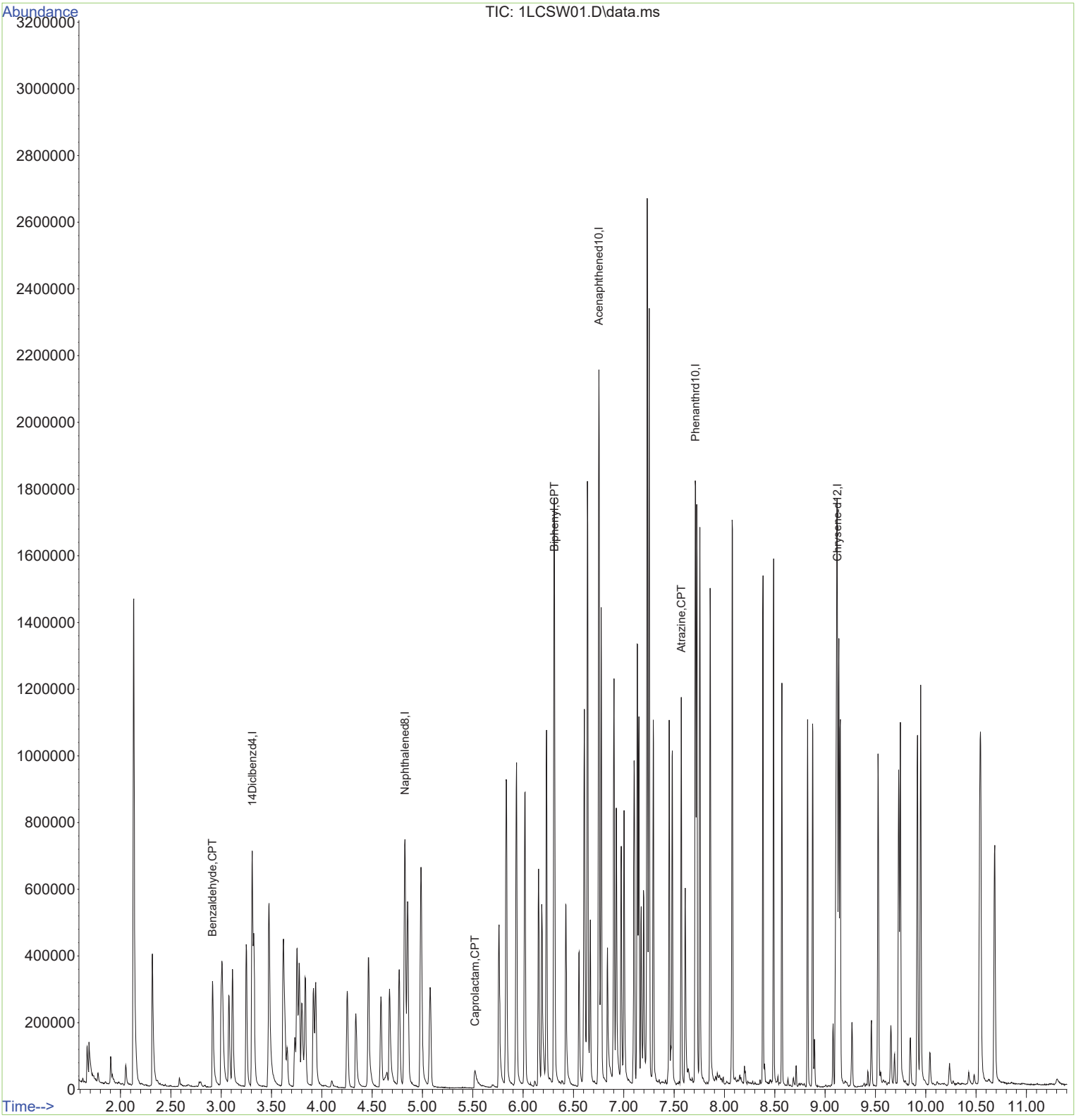
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.309	152	111252	20.00	ug/mL	0.00
3) Naphthalened8	4.826	136	431270	20.00	ug/mL	0.00
5) Acenaphthened10	6.752	164	268344	20.00	ug/mL	0.00
7) Phenanthrd10	7.713	188	445252	20.00	ug/mL	0.00
9) Chrysene-d12	9.122	240	230586	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	2.914	77	75005	12.3442	ug/mL	99
4) Caprolactam	5.522	55	22426	5.7837	ug/mL	96
6) Biphenyl	6.312	154	286121	14.6508	ug/mL	100
8) Atrazine	7.571	200	73901	16.6972	ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090519\1LCSW01.D Vial: 5
Acq On : 5 Sep 2019 16:30 Operator: JJY
Sample : 164171,LCSW, Inst : SVMS1
Misc : 321839,500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 05 16:47:54 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Thu Sep 05 16:06:44 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090519\1LCSDW01.D Vial: 7
Acq On : 5 Sep 2019 17:07 Operator: JJY
Sample : 164171,LCSDW, Inst : SVMS1
Misc : 321840,500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 05 17:18:58 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Thu Sep 05 16:03:25 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.309	152	112988	20.00	ug/mL	0.00
21) Naphthalened8	4.826	136	436580	20.00	ug/mL	0.00
39) Acenaphthened10	6.753	164	270269	20.00	ug/mL	0.00
63) Phenanthrd10	7.710	188	442713	20.00	ug/mL	0.00
75) Chrysene-d12	9.122	240	233765	20.00	ug/mL	0.00
86) Perylene-d12	9.952	264	267582	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.317	112	121855	43.11	%REC	0.01
Spiked Amount 100.000			Recovery = 43.11%			
7) SURRPhenol-d5	3.002	99	99194	29.83	%REC	0.00
Spiked Amount 100.000			Recovery = 29.83%			
22) SURRNitrbenzened5	3.917	82	95712	64.32	%REC	0.00
Spiked Amount 100.000			Recovery = 64.32%			
44) SURR2Flbiphenyl	6.233	172	255503	70.96	%REC	0.00
Spiked Amount 100.000			Recovery = 70.96%			
62) SURR246Tribrphenl	7.292	330	72627	85.56	%REC	0.00
Spiked Amount 100.000			Recovery = 85.56%			
78) SURRTerphenyl-d14	8.571	244	191081	89.31	%REC	0.00
Spiked Amount 100.000			Recovery = 89.31%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.669	74	41037	9.0685	ug/mL	94
3) Pyridine	1.686	79	52002	7.4834	ug/mL	97
5) Aniline	3.010	93	75087	6.7956	ug/mL	98
6) bis2Clethletr	3.079	93	87223	12.3450	ug/mL	97
8) Phenol	3.010	94	60829	6.1205	ug/mL	81
9) 2-Cl-phenol	3.113	128	98246	12.5907	ug/mL	99
10) 13Diclbenz	3.249	146	104484	12.5152	ug/mL	99
11) 14Diclbenz	3.326	146	100362	11.7606	ug/mL	99
12) 12Diclbenz	3.473	146	103128	12.8799	ug/mL	98
13) Benzyl alcoho	3.485	108	54616	12.1876	ug/mL	98
14) bis2clispreth	3.630	45	136422	11.1950	ug/mL	95
15) 2Methylphenol	3.616	107	71723	12.2639	ug/mL	95
16) Ntrspyrrol	3.732	100	47270	12.4455	ug/mL	97
17) Acetophenone	3.755	105	133401	12.5034	ug/mL	99
18) Hexaclethane	3.834	117	40944	11.8603	ug/mL	96
19) N-Ntrsdinprop	3.778	70	72202	13.7080	ug/mL	99
20) 3&4Methylphenol	3.800	107	79623	10.8307	ug/mL	95
23) Nitrobenzene	3.939	77	100555	13.3675	ug/mL	98
24) Isophorone	4.252	82	142371	9.9741	ug/mL	98
25) 2-Nitrophenol	4.337	139	51880	13.0095	ug/mL	98
26) 24Dimthpheno	4.465	122	81808	12.8509	ug/mL	97
27) bis2clethoxym	4.587	93	104633	12.1348	ug/mL	96
28) 24Diclphenol	4.675	162	75615	13.0419	ug/mL	99
29) 124Triclbenz	4.769	180	79619	12.4935	ug/mL	99
30) Benzoic acid	4.644	122	19152	9.3407	ug/mL	98
31) Naphthalene	4.852	128	296153	13.2671	ug/mL	99
32) 4-Cl-aniline	4.985	127	89263	9.4064	ug/mL	98
33) 26Diclphenol	4.982	162	73154	12.8605	ug/mL	97
34) Hexaclprop	4.991	213	43841	10.1469	ug/mL	98
35) Hexaclbutdien	5.076	225	42437	10.7040	ug/mL	93
36) 4Cl3methylphe	5.758	107	109973	14.3300	ug/mL	96
37) 2Methylnaphth	5.832	142	229755	12.6969	ug/mL	99
38) 1Methylnaphth	5.931	141	206589	13.9427	ug/mL	97
40) Hxclcycpentdi	6.014	237	38840	10.7629	ug/mL	96

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090519\1LCSDW01.D Vial: 7
Acq On : 5 Sep 2019 17:07 Operator: JJY
Sample : 164171,LCSDW, Inst : SVMS1
Misc : 321840,500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 05 17:18:58 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Thu Sep 05 16:03:25 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

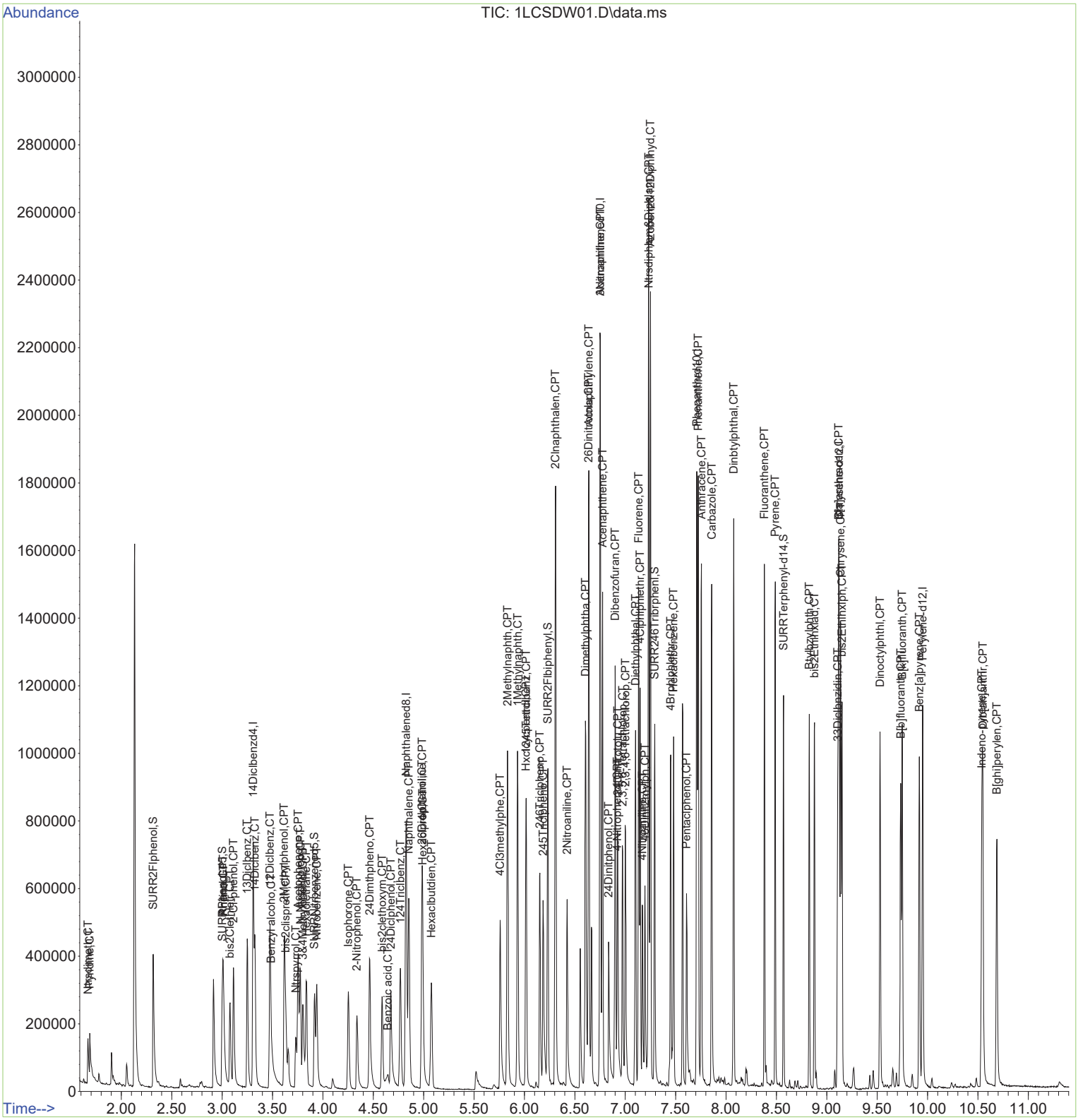
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) 1245Tetrclbenz	6.017	216	96658	13.5856 ug/mL	92
42) 246Triclpheno	6.153	196	72843	15.2154 ug/mL	98
43) 245Triclpheno	6.184	196	89457	16.4822 ug/mL	97
45) 2Clnaphthalen	6.306	162	225366	13.9346 ug/mL	98
46) 2Nitroaniline	6.423	65	85805	16.3671 ug/mL	99
47) Acnaphthylene	6.639	152	386501	15.4642 ug/mL	99
48) Dimethylphtha	6.605	163	293096	16.4975 ug/mL	99
49) 26Dinitrotolu	6.636	165	69002	17.1999 ug/mL	96
50) Acenaphthene	6.775	154	219230	15.0254 ug/mL	99
51) 3Nitroaniline	6.753	138	61165	13.3191 ug/mL	99
52) 24Dinitphenol	6.835	184	50387	23.5544 ug/mL	96
53) Dibenzofuran	6.900	168	330411	15.0706 ug/mL	99
54) 24Dinitrotolu	6.926	165	95645	17.0868 ug/mL	97
55) 4-Nitrophenol	6.920	65	24127	8.5807 ug/mL#	21
56) 2,3,5,6-Tetrachlorop	6.974	232	61581	16.6303 ug/mL	97
57) 2,3,4,6-Tetrachlorop	7.003	232	70159	17.2598 ug/mL	99
58) Fluorene	7.133	166	279102	16.1250 ug/mL	100
59) 4Clphlphlethr	7.147	204	121691	15.8822 ug/mL	99
60) Diethylphthal	7.102	149	308012	17.0195 ug/mL	99
61) 4Nitroaniline	7.170	138	73174	14.8205 ug/mL	92
64) 46Dinit2mylph	7.196	198	55289	18.3126 ug/mL	98
65) Ntrsdiphlam&Diphlam	7.233	169	421808	34.8673 ug/mL	100
66) Azobenz&12Diphlhyd	7.250	182	137277	35.0780 ug/mL	97
67) 4Brphlphlethr	7.452	248	73523	17.5706 ug/mL	99
68) Hexaclbenzene	7.480	284	80204	17.7016 ug/mL	97
69) Pentaclphenol	7.608	266	52030	19.0160 ug/mL	97
70) Phenanthrene	7.724	178	402624	17.2431 ug/mL	99
71) Anthracene	7.756	178	404989	16.8406 ug/mL	99
72) Carbazole	7.858	167	423461	18.2582 ug/mL	100
73) Dinbtylphthal	8.077	149	559279	18.9626 ug/mL	100
74) Fluoranthene	8.381	202	309138	18.4206 ug/mL	100
76) Benzidine	0.000		0	N.D.	
77) Pyrene	8.489	202	315907	17.9844 ug/mL	99
79) Btylbzylphth	8.827	149	167714	17.7561 ug/mL	99
80) bis2Ethlhxlad	8.878	129	124884	16.7221 ug/mL	99
81) 33Diclbnzidin	9.108	252	78151	7.0803 ug/mL	98
82) B[a]anthracen	9.117	228	266354	18.4827 ug/mL	100
83) Chrysene	9.136	228	259836	17.4229 ug/mL	99
84) bis2Ethlhxlph	9.151	149	224481	18.1722 ug/mL	99
85) Dinoctylphthl	9.529	149	393100	17.6479 ug/mL	99
87) B[b]fluoranth	9.733	252	257769	17.6974 ug/mL	99
88) B[k]fluoranth	9.747	252	235039	16.0907 ug/mL	99
89) Benz[a]pyrene	9.918	252	264954	17.6297 ug/mL	99
90) Indeno-pyrene	10.537	276	258392	16.6177 ug/mL	99
91) Dib[ah]anthr	10.549	278	225498	17.8778 ug/mL	100
92) B[ghi]perylen	10.688	276	220160	16.1619 ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090519\1LCSDW01.D Vial: 7
Acq On : 5 Sep 2019 17:07 Operator: JJY
Sample : 164171,LCSDW, Inst : SVMS1
Misc : 321840,500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 05 17:18:58 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Thu Sep 05 16:03:25 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090519\1LCSDW01.D Vial: 7
Acq On : 5 Sep 2019 17:07 Operator: JJY
Sample : 164171,LCSDW, Inst : SVMS1
Misc : 321840,500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 05 17:22:18 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Thu Sep 05 16:06:44 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

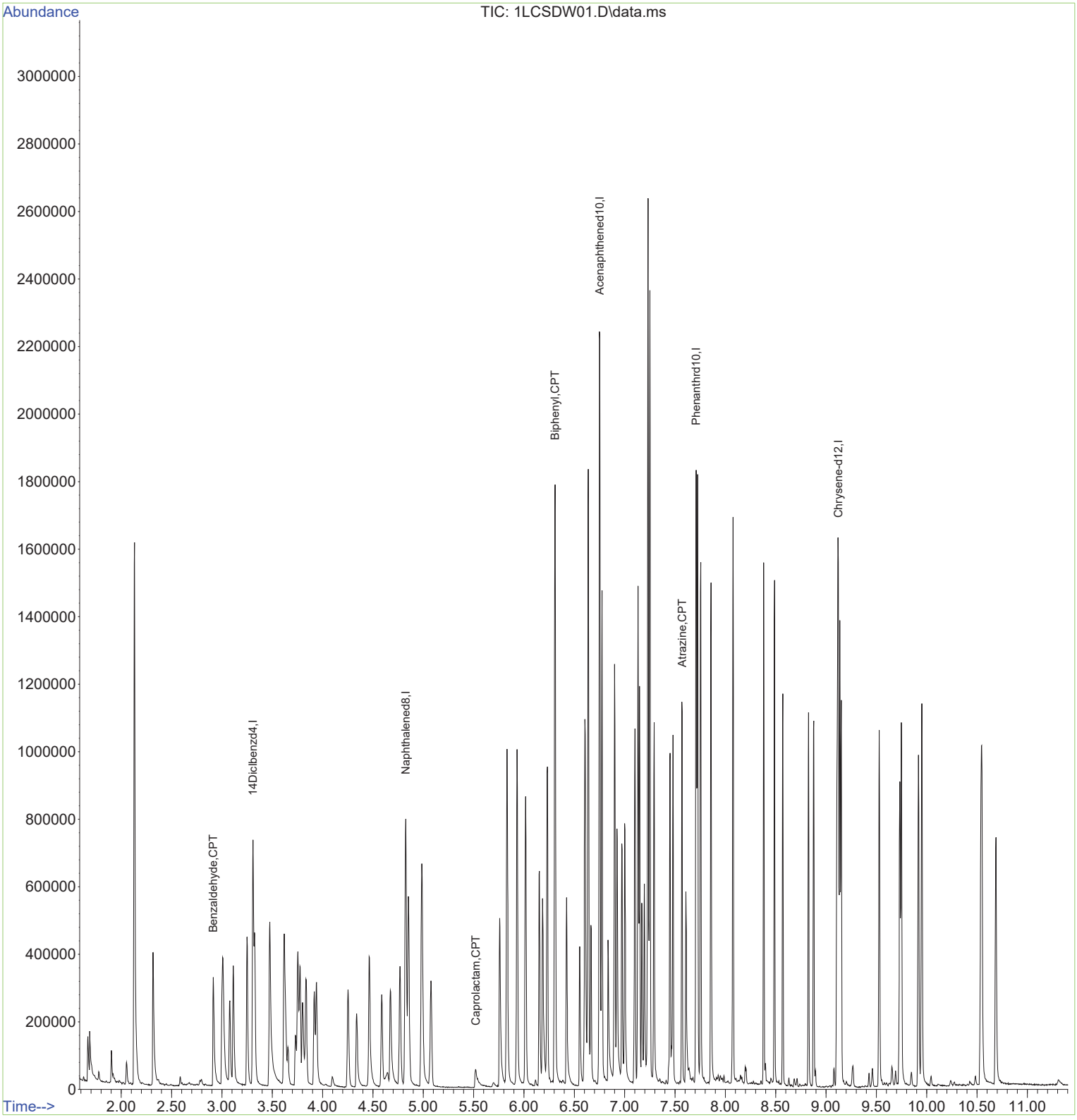
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.309	152	112988	20.00	ug/mL	0.00
3) Naphthalened8	4.826	136	436580	20.00	ug/mL	0.00
5) Acenaphthened10	6.753	164	274968	20.00	ug/mL	0.00
7) Phenanthrd10	7.710	188	447425	20.00	ug/mL	0.00
9) Chrysene-d12	9.122	240	232532	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	2.914	77	74095	12.0328	ug/mL	97
4) Caprolactam	5.522	55	21819	5.5984	ug/mL	93
6) Biphenyl	6.309	154	286452	14.3144	ug/mL	99
8) Atrazine	7.571	200	74398	16.7271	ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090519\1LCSDW01.D Vial: 7
Acq On : 5 Sep 2019 17:07 Operator: JJY
Sample : 164171,LCSDW, Inst : SVMS1
Misc : 321840,500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 05 17:22:18 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Thu Sep 05 16:06:44 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\1MBS01.D Vial: 4
Acq On : 10 Sep 2019 19:27 Operator: JJY
Sample : 164275,MBS, Inst : SVMS1
Misc : 321438,500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 19:40:45 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

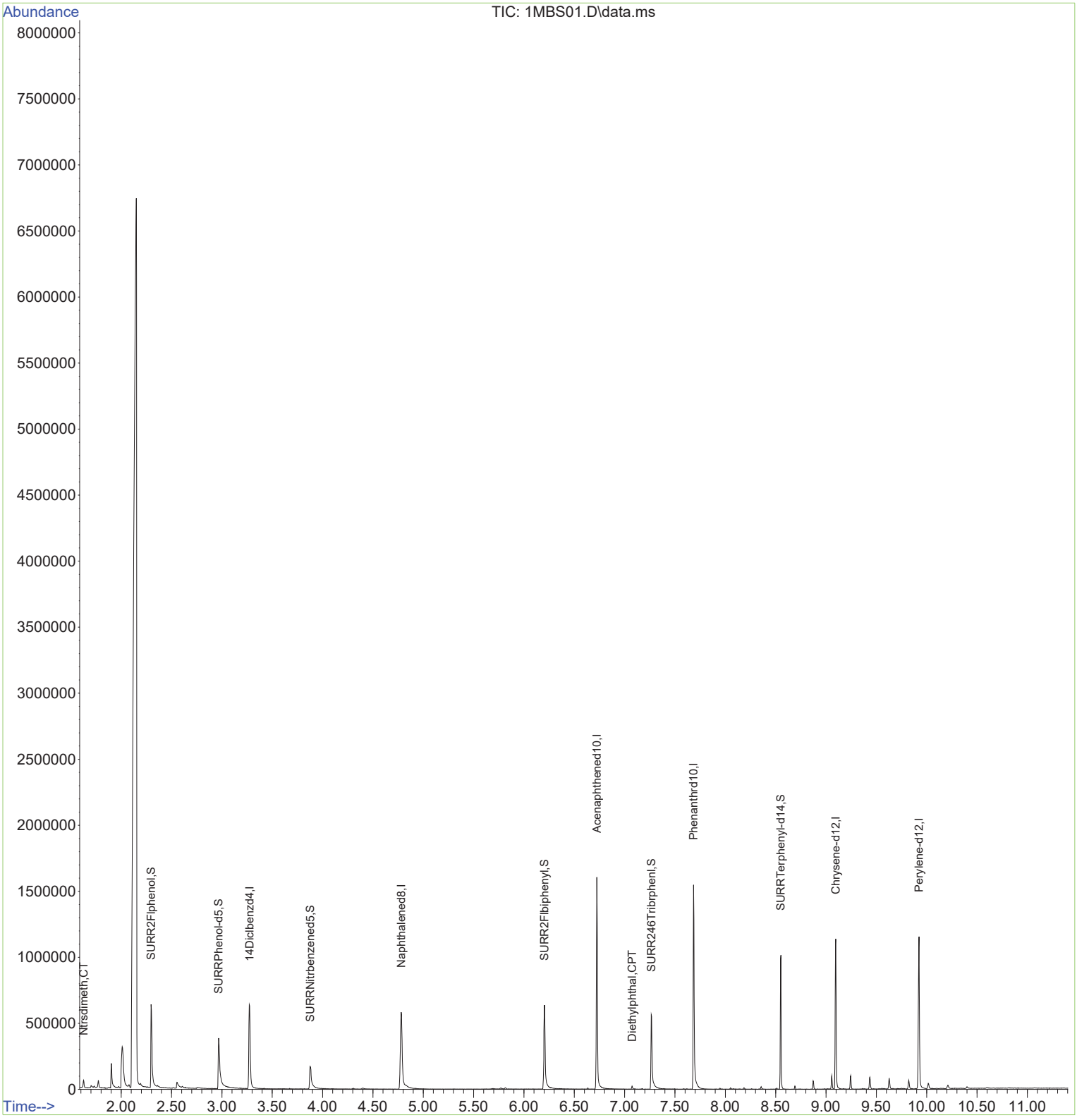
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	106784	20.00	ug/mL	0.00
21) Naphthalened8	4.781	136	409070	20.00	ug/mL	0.00
39) Acenaphthened10	6.724	164	246617	20.00	ug/mL	0.00
63) Phenanthrd10	7.685	188	422751	20.00	ug/mL	0.00
75) Chrysene-d12	9.097	240	239140	20.00	ug/mL	0.00
86) Perylene-d12	9.924	264	277561	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.297	112	162986	59.73	%REC	0.02
Spiked Amount 100.000			Recovery = 59.73%			
7) SURRPhenol-d5	2.968	99	184749	57.23	%REC	0.00
Spiked Amount 100.000			Recovery = 57.23%			
22) SURRNitrbenzened5	3.877	82	72458	52.48	%REC	0.00
Spiked Amount 100.000			Recovery = 52.48%			
44) SURR2Flbiphenyl	6.204	172	209921	63.90	%REC	0.00
Spiked Amount 100.000			Recovery = 63.90%			
62) SURR246Tribrphenl	7.267	330	54692	70.77	%REC	0.00
Spiked Amount 100.000			Recovery = 70.77%			
78) SURRTerphenyl-d14	8.551	244	176950	80.84	%REC	0.00
Spiked Amount 100.000			Recovery = 80.84%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.627	74	2778	1.1744	ug/mL#	1
60) Diethylphthal	7.074	149	5363	0.3248	ug/mL	98

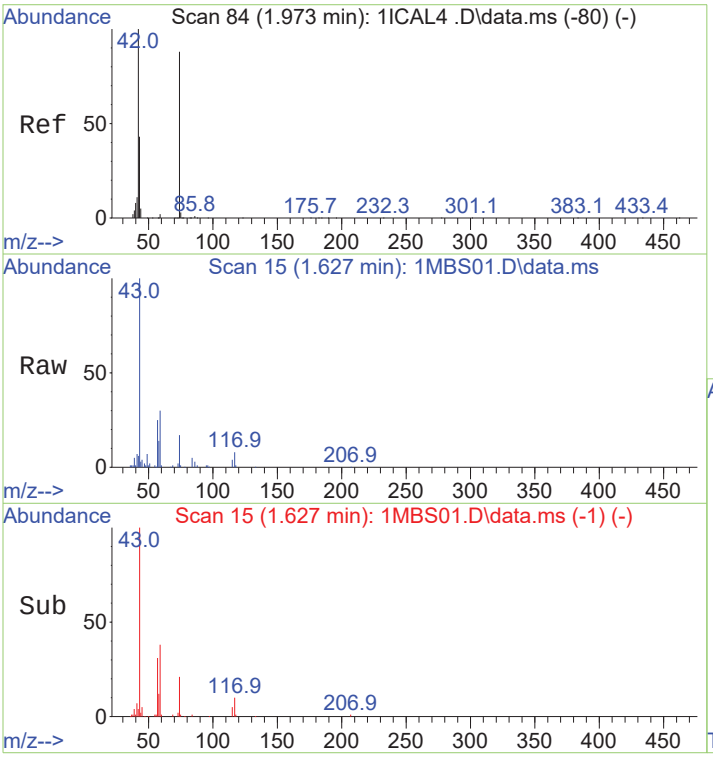
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\1MBS01.D Vial: 4
Acq On : 10 Sep 2019 19:27 Operator: JJY
Sample : 164275,MBS, Inst : SVMS1
Misc : 321438,500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 19:40:45 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

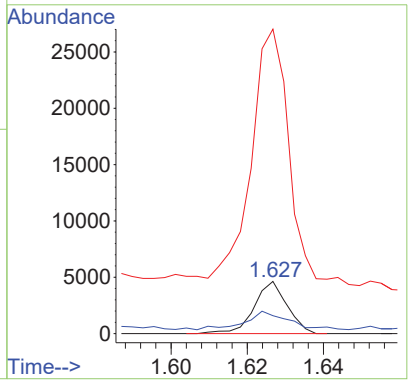


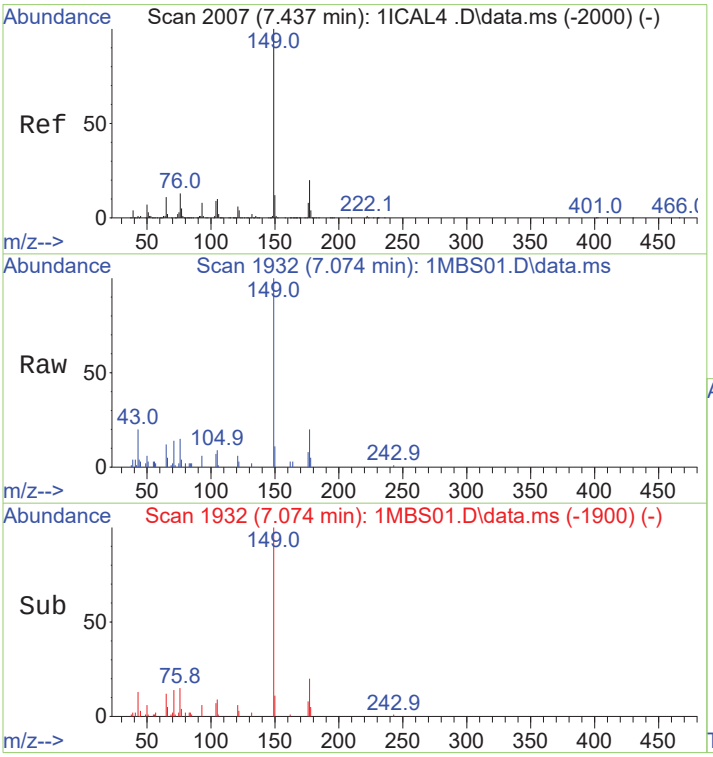


#2
Ntrsdimeth
Concen: 1.17 ug/mL
RT: 1.627 min Scan# 15
Delta R.T. -0.011 min
Lab File: 1MBS01.D
Acq: 10 Sep 2019 19:27

Tgt Ion: 74 Resp: 2778

Ion	Ratio	Lower	Upper
74	100		
42	22.8	54.2	114.2#
43	477.3	5.5	65.5#

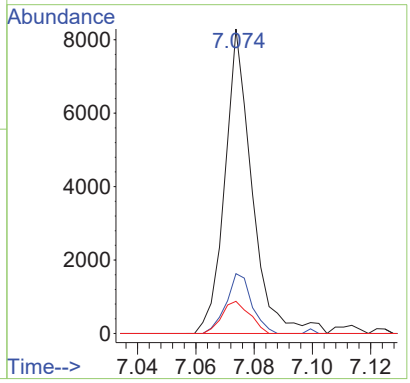




#60
Diethylphthal
Concen: 0.32 ug/mL
RT: 7.074 min Scan# 1932
Delta R.T. -0.008 min
Lab File: 1MBS01.D
Acq: 10 Sep 2019 19:27

Tgt Ion:149 Resp: 5363

Ion	Ratio	Lower	Upper
149	100		
177	19.7	0.0	49.3
150	10.6	0.0	41.9



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\1MBS01.D Vial: 4
Acq On : 10 Sep 2019 19:27 Operator: JJY
Sample : 164275,MBS, Inst : SVMS1
Misc : 321438,500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:18 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

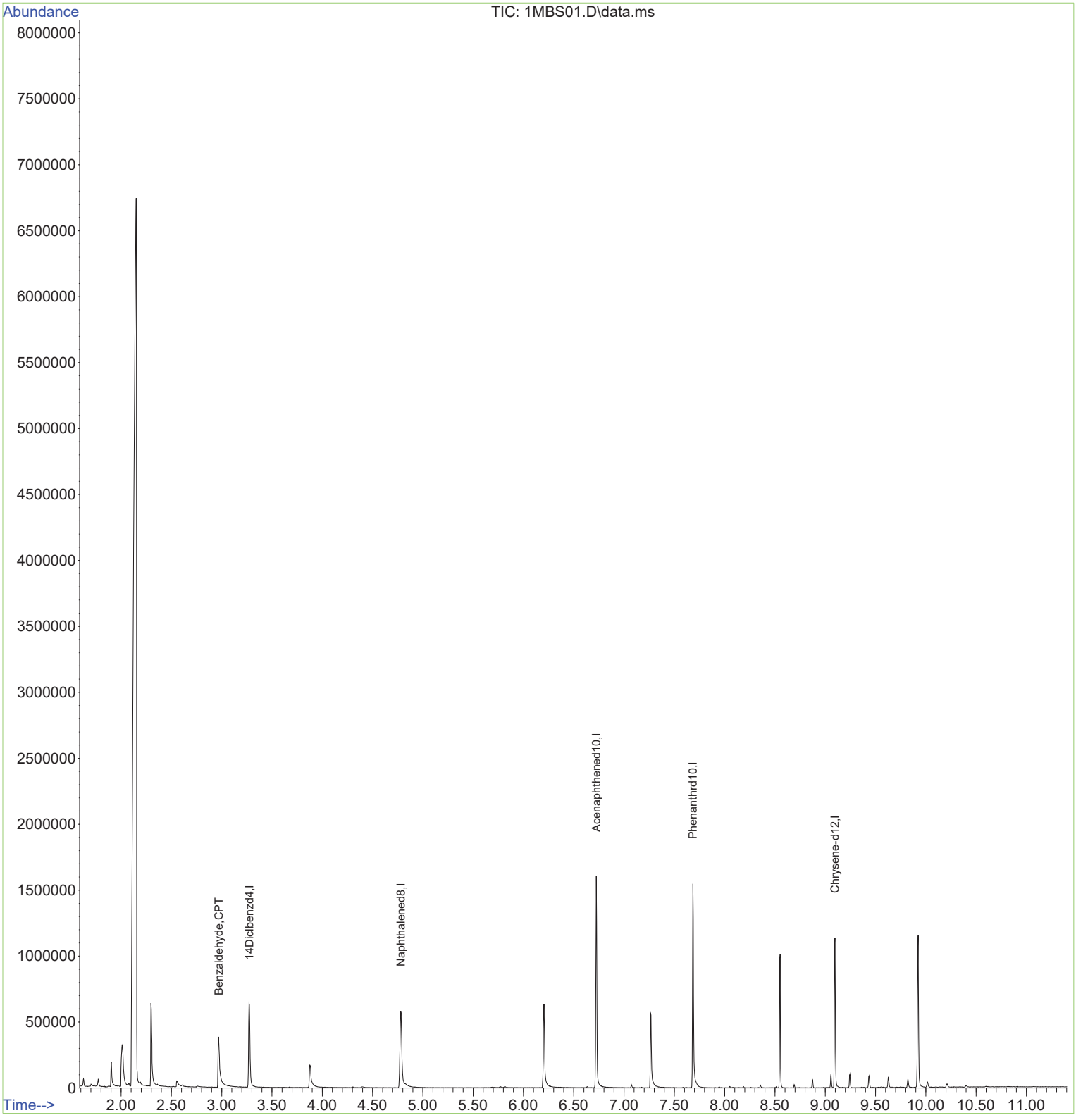
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	108861	20.00	ug/mL	0.00
3) Naphthalened8	4.781	136	408703	20.00	ug/mL	0.00
5) Acenaphthened10	6.724	164	259829	20.00	ug/mL	0.00
7) Phenanthrd10	7.685	188	428578	20.00	ug/mL	0.00
9) Chrysene-d12	9.097	240	238410	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	2.971	77	306	0.6448	ug/mL#	1

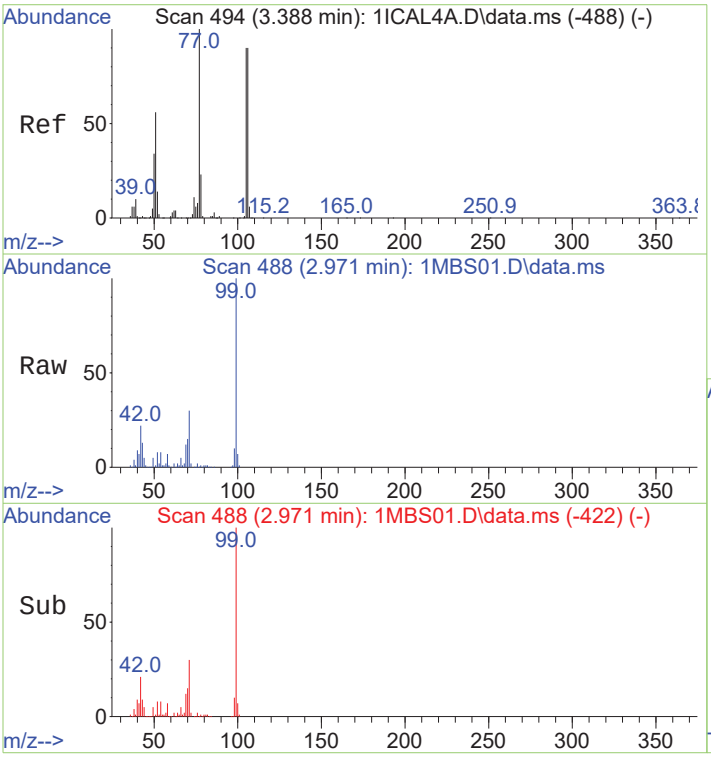
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\1MBS01.D Vial: 4
Acq On : 10 Sep 2019 19:27 Operator: JJY
Sample : 164275,MBS, Inst : SVMS1
Misc : 321438,500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:18 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

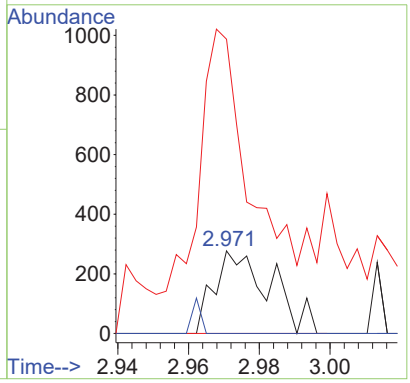




#2
Benzaldehyde
Concen: 0.64 ug/mL
RT: 2.971 min Scan# 488
Delta R.T. 0.088 min
Lab File: 1MBS01.D
Acq: 10 Sep 2019 19:27

Tgt Ion: 77 Resp: 306

Ion	Ratio	Lower	Upper
77	100		
105	0.0	67.4	127.4#
51	365.7	23.2	83.2#



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\1LCSS01.D Vial: 5
Acq On : 10 Sep 2019 19:46 Operator: JJY
Sample : 164275,LCSS, Inst : SVMS1
Misc : 321439,500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 19:59:29 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	104353	20.00	ug/mL	0.00
21) Naphthalened8	4.783	136	404832	20.00	ug/mL	0.00
39) Acenaphthened10	6.727	164	250773	20.00	ug/mL	0.00
63) Phenanthrd10	7.687	188	412086	20.00	ug/mL	0.00
75) Chrysene-d12	9.099	240	222573	20.00	ug/mL	0.00
86) Perylene-d12	9.924	264	261910	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.300	112	157969	59.28	%REC	0.02
Spiked Amount 100.000			Recovery = 59.28%			
7) SURRPhenol-d5	2.973	99	194842	61.59	%REC	0.00
Spiked Amount 100.000			Recovery = 61.59%			
22) SURRNitrbenzened5	3.877	82	81667	59.41	%REC	0.00
Spiked Amount 100.000			Recovery = 59.41%			
44) SURR2Flbiphenyl	6.204	172	210725	63.08	%REC	0.00
Spiked Amount 100.000			Recovery = 63.08%			
62) SURR246Tribrphenl	7.270	330	71710	90.99	%REC	0.00
Spiked Amount 100.000			Recovery = 90.99%			
78) SURRTerphenyl-d14	8.551	244	191502	94.00	%REC	0.00
Spiked Amount 100.000			Recovery = 94.00%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.663	74	47412	11.1548	ug/mL	96
3) Pyridine	1.678	79	95597	14.1258	ug/mL	94
5) Aniline	3.024	93	14708	1.7227	ug/mL#	1
6) bis2Clethletr	3.044	93	93573	14.3397	ug/mL	98
8) Phenol	2.985	94	105379	11.2057	ug/mL	71
9) 2-Cl-phenol	3.084	128	84843	11.7987	ug/mL	100
10) 13Diclbenz	3.215	146	88054	11.4200	ug/mL	98
11) 14Diclbenz	3.289	146	84702	10.7468	ug/mL	96
12) 12Diclbenz	3.436	146	89471	12.0989	ug/mL	98
13) Benzyl alcoho	3.451	108	34564	8.5915	ug/mL	95
14) bis2clispreth	3.587	45	108257	9.6189	ug/mL	69
15) 2Methylphenol	3.584	107	67734	12.5319	ug/mL	94
16) Ntrspyrrol	3.695	100	38121	10.9375	ug/mL	98
17) Acetophenone	3.715	105	108255	11.0278	ug/mL	99
18) Hexaclethane	3.797	117	36089	11.3190	ug/mL	99
19) N-Ntrsdinprop	3.738	70	55580	11.4254	ug/mL	92
20) 3&4Methylphenol	3.769	107	80281	11.7793	ug/mL	98
23) Nitrobenzene	3.900	77	84444	12.1578	ug/mL	97
24) Isophorone	4.209	82	115841	8.8310	ug/mL	99
25) 2-Nitrophenol	4.297	139	43638	11.8697	ug/mL	94
26) 24Dimthpheno	4.428	122	67049	11.3963	ug/mL	99
27) bis2clethoxym	4.545	93	84032	10.5545	ug/mL	100
28) 24Diclphenol	4.638	162	63047	11.7896	ug/mL	98
29) 124Triclbenz	4.726	180	70621	11.9506	ug/mL	98
30) Benzoic acid	4.621	122	35110	14.2673	ug/mL	94
31) Naphthalene	4.809	128	251588	12.1545	ug/mL	100
32) 4-Cl-aniline	4.962	127	33051	3.9607	ug/mL	94
33) 26Diclphenol	4.942	162	58931	11.2165	ug/mL	98
34) Hexaclprop	4.948	213	36401	9.0856	ug/mL	97
35) Hexaclbutdien	5.033	225	36098	9.8192	ug/mL	94
36) 4Cl3methylphe	5.738	107	105500	14.8005	ug/mL	99
37) 2Methylnaphth	5.798	142	204239	12.1719	ug/mL	97
38) 1Methylnaphth	5.900	141	177506	12.9194	ug/mL	98
40) Hxclcycpentdi	5.985	237	28554	8.6880	ug/mL	94

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\1LCSS01.D Vial: 5
Acq On : 10 Sep 2019 19:46 Operator: JJY
Sample : 164275,LCSS, Inst : SVMS1
Misc : 321439,500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 19:59:29 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

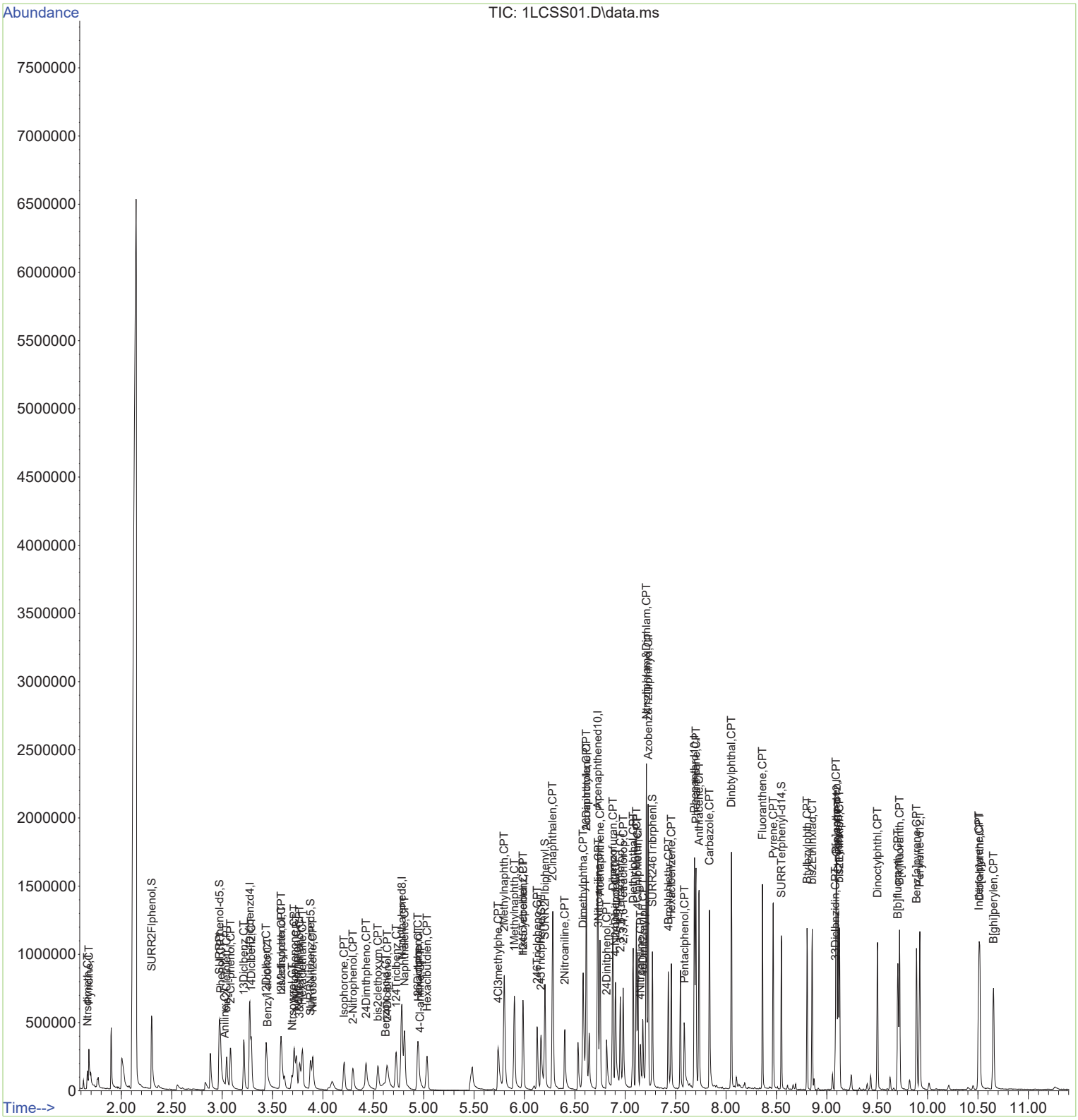
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) 1245Tetrclbenz	5.985	216	84329	12.7742 ug/mL	97
42) 246Triclpheno	6.127	196	61364	13.8730 ug/mL	98
43) 245Triclpheno	6.164	196	82309	16.3496 ug/mL	97
45) 2Clnaphthalen	6.278	162	188782	12.5801 ug/mL	98
46) 2Nitroaniline	6.400	65	79464	16.3376 ug/mL	97
47) Acnaphthylene	6.613	152	329634	14.2143 ug/mL	99
48) Dimethylphtha	6.582	163	268944	16.3150 ug/mL	100
49) 26Dinitrotolu	6.613	165	64229	17.2549 ug/mL	90
50) Acenaphthene	6.750	154	184995	13.6648 ug/mL	99
51) 3Nitroaniline	6.733	138	28323	6.9415 ug/mL	93
52) 24Dinitphenol	6.815	184	46960	23.6359 ug/mL	98
53) Dibenzofuran	6.877	168	288868	14.2001 ug/mL	97
54) 24Dinitrotolu	6.903	165	93400	17.9598 ug/mL	94
55) 4-Nitrophenol	6.900	65	69007	20.9830 ug/mL#	25
56) 2,3,5,6-Tetrachlorop	6.951	232	57850	16.8286 ug/mL	99
57) 2,3,4,6-Tetrachlorop	6.980	232	69224	18.3433 ug/mL	97
58) Fluorene	7.110	166	249574	15.5400 ug/mL	99
59) 4Clphlphlethr	7.125	204	108059	15.1995 ug/mL	98
60) Diethylphthal	7.079	149	305456	18.1905 ug/mL	100
61) 4Nitroaniline	7.150	138	59443	13.0909 ug/mL	95
64) 46Dinit2mylph	7.176	198	55462	19.5786 ug/mL	98
65) Ntrsdiphlam&Diphlam	7.210	169	373139	33.1367 ug/mL	98
66) Azobenz&12Diphlhyd	7.227	182	124820	34.2654 ug/mL	98
67) 4Brphlphlethr	7.429	248	67284	17.2747 ug/mL	95
68) Hexaclbenzene	7.457	284	77452	18.3646 ug/mL	95
69) Pentaclphenol	7.588	266	51148	19.9737 ug/mL	99
70) Phenanthrene	7.701	178	395587	18.2009 ug/mL	99
71) Anthracene	7.733	178	400194	17.8780 ug/mL	100
72) Carbazole	7.835	167	408438	18.9193 ug/mL	100
73) Dinbtylphthal	8.054	149	556079	20.2951 ug/mL	100
74) Fluoranthene	8.361	202	308938	19.7769 ug/mL	99
76) Benzidine	0.000		0	N.D.	
77) Pyrene	8.469	202	318581	19.0486 ug/mL	99
79) Btylbzylphth	8.804	149	172538	19.1388 ug/mL	98
80) bis2Ethlhxlad	8.855	129	130101	18.2180 ug/mL	99
81) 33Diclbnzidin	9.085	252	16244	1.5457 ug/mL	92
82) B[a]anthracen	9.091	228	272592	19.8668 ug/mL	98
83) Chrysene	9.114	228	265895	18.7257 ug/mL	98
84) bis2Ethlhxlph	9.125	149	233589	19.8603 ug/mL	100
85) Dinoctylphthl	9.503	149	408865	19.1712 ug/mL	100
87) B[b]fluoranth	9.705	252	260324	18.2599 ug/mL	98
88) B[k]fluoranth	9.722	252	259990	18.1843 ug/mL	98
89) Benz[a]pyrene	9.889	252	272217	18.5052 ug/mL	99
90) Indeno-pyrene	10.509	276	281682	18.5078 ug/mL	97
91) Dib[ah]anthr	10.517	278	242838	19.6695 ug/mL	99
92) B[ghi]perylen	10.654	276	243031	18.2272 ug/mL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\1LCSS01.D Vial: 5
Acq On : 10 Sep 2019 19:46 Operator: JJY
Sample : 164275,LCSS, Inst : SVMS1
Misc : 321439,500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 10 19:59:29 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Tue Sep 10 19:03:38 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\1LCSS01.D Vial: 5
Acq On : 10 Sep 2019 19:46 Operator: JJY
Sample : 164275,LCSS, Inst : SVMS1
Misc : 321439,500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:15 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

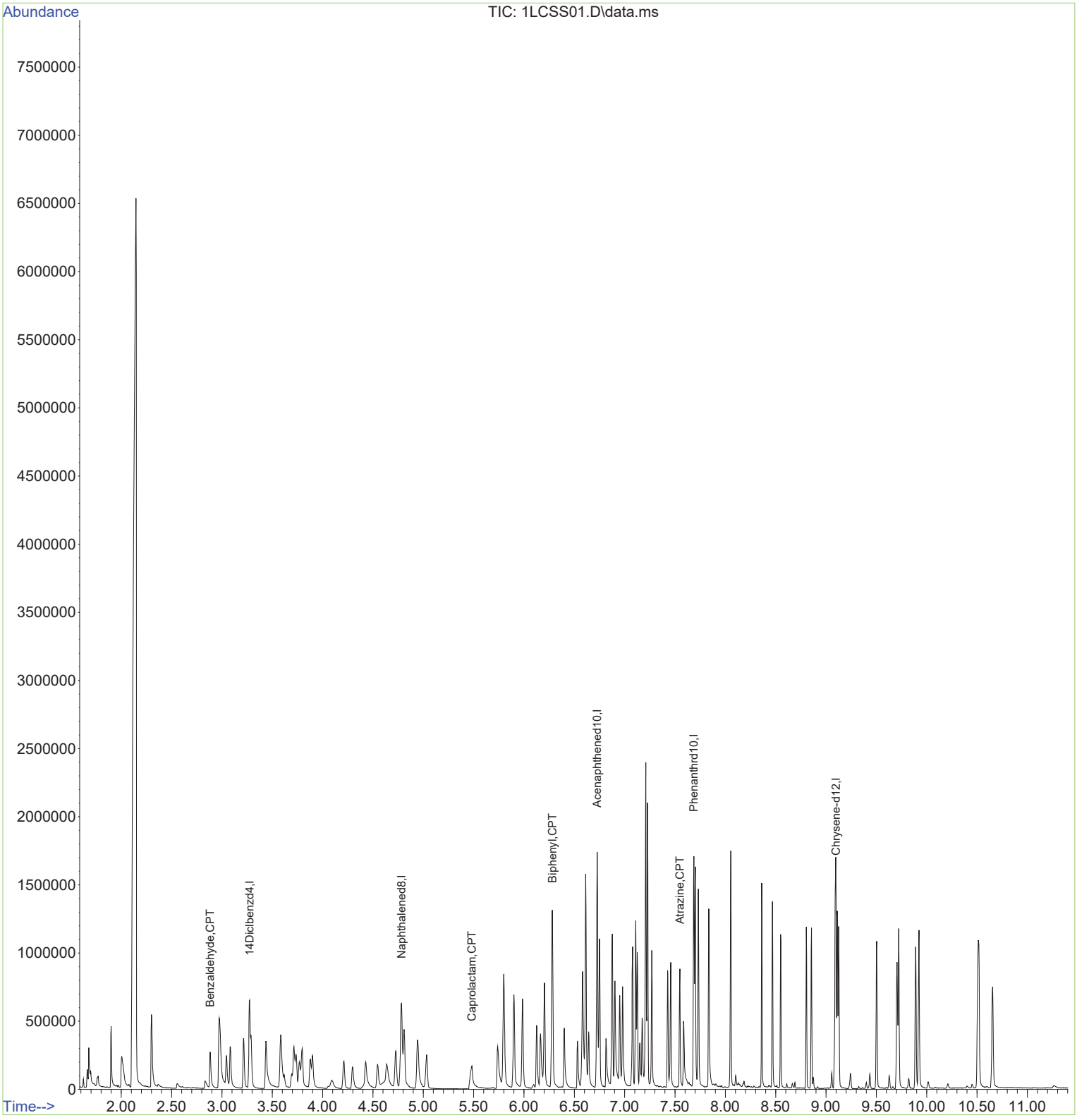
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	104544	20.00	ug/mL	0.00
3) Naphthalened8	4.783	136	404832	20.00	ug/mL	0.00
5) Acenaphthened10	6.727	164	253613	20.00	ug/mL	0.00
7) Phenanthrd10	7.687	188	416750	20.00	ug/mL	0.00
9) Chrysene-d12	9.099	240	222338	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	2.882	77	58438	10.3875	ug/mL	99
4) Caprolactam	5.482	55	68114	16.0649	ug/mL	98
6) Biphenyl	6.284	154	242500	13.1384	ug/mL	99
8) Atrazine	7.548	200	60846	14.7390	ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\1LCSS01.D Vial: 5
Acq On : 10 Sep 2019 19:46 Operator: JJY
Sample : 164275,LCSS, Inst : SVMS1
Misc : 321439,500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:15 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321161MS.D Vial: 25
Acq On : 11 Sep 2019 2:07 Operator: JJY
Sample : 164275,MSS321161, Inst : SVMS1
Misc : 321441,500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 15:56:22 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 15:16:59 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	112293	20.00	ug/mL	0.00
21) Naphthalened8	4.786	136	433578	20.00	ug/mL	0.00
39) Acenaphthened10	6.733	164	273656	20.00	ug/mL	0.00
63) Phenanthrd10	7.693	188	456381	20.00	ug/mL	0.00
75) Chrysene-d12	9.100	240	257391	20.00	ug/mL	0.00
86) Perylene-d12	9.924	264	244892	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.306	112	167514	58.47	%REC	0.03
Spiked Amount 100.000			Recovery = 58.47%			
7) SURRPhenol-d5	2.982	99	235492	68.86	%REC	0.01
Spiked Amount 100.000			Recovery = 68.86%			
22) SURRNitrbenzened5	3.883	82	109051	73.36	%REC	0.00
Spiked Amount 100.000			Recovery = 73.36%			
44) SURR2Flbiphenyl	6.210	172	263659	72.32	%REC	0.00
Spiked Amount 100.000			Recovery = 72.32%			
62) SURR246Tribrphenl	7.276	330	51808	60.53	%REC	0.00
Spiked Amount 100.000			Recovery = 60.53%			
78) SURRTerphenyl-d14	8.551	244	177105	75.18	%REC	0.00
Spiked Amount 100.000			Recovery = 75.18%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.655	74	59865	12.9424	ug/mL#	82
3) Pyridine	1.706	79	11519	2.1153	ug/mL	81
5) Aniline	2.996	93	3075	0.6184	ug/mL#	1
6) bis2Clethletr	3.047	93	94570	13.4677	ug/mL	99
8) Phenol	2.993	94	118439	11.6898	ug/mL	70
9) 2-Cl-phenol	3.090	128	96911	12.4996	ug/mL	99
10) 13Diclbenz	3.218	146	119091	14.3531	ug/mL	99
11) 14Diclbenz	3.292	146	114111	13.4545	ug/mL	100
12) 12Diclbenz	3.440	146	116380	14.6250	ug/mL	99
13) Benzyl alcoho	3.442	108	783	0.7778	ug/mL#	16
14) bis2clispreth	3.593	45	143413	11.8416	ug/mL	89
15) 2Methylphenol	3.596	107	48944	8.5298	ug/mL#	72
16) Ntrspyrrol	3.698	100	51006	13.4614	ug/mL	98
17) Acetophenone	3.721	105	144199	13.5672	ug/mL	99
18) Hexaclethane	3.798	117	46114	13.4406	ug/mL	96
19) N-Ntrsdinprop	3.741	70	74836	14.2960	ug/mL	96
20) 3&4Methylphenol	3.783	107	70408	9.6876	ug/mL	97
23) Nitrobenzene	3.903	77	110767	14.7630	ug/mL	99
24) Isophorone	4.212	82	144951	10.2093	ug/mL	97
25) 2-Nitrophenol	4.301	139	58892	14.7556	ug/mL	96
26) 24Dimthpheno	4.454	122	7376	1.4438	ug/mL	89
27) bis2clethoxym	4.548	93	111089	12.9490	ug/mL	100
28) 24Diclphenol	4.653	162	70011	12.2014	ug/mL	96
29) 124Triclbenz	4.730	180	93556	14.7821	ug/mL	99
30) Benzoic acid	4.627	122	34583	13.4765	ug/mL	95
31) Naphthalene	4.815	128	332843	15.0139	ug/mL	99
32) 4-Cl-aniline	4.980	127	10659	1.4261	ug/mL	87
33) 26Diclphenol	4.948	162	54496	9.7306	ug/mL	99
34) Hexaclprop	4.948	213	35457	8.2632	ug/mL	99
35) Hexaclbutdien	5.036	225	49016	12.4491	ug/mL	92
36) 4Cl3methylphe	5.761	107	90017	11.9269	ug/mL	96
37) 2Methylnaphth	5.804	142	276432	15.3821	ug/mL	98
38) 1Methylnaphth	5.906	141	224183	15.2349	ug/mL	99
40) Hxclcycpentdi	5.988	237	10948	3.5123	ug/mL	97

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321161MS.D Vial: 25
Acq On : 11 Sep 2019 2:07 Operator: JJY
Sample : 164275,MSS321161, Inst : SVMS1
Misc : 321441,500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 15:56:22 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 15:16:59 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

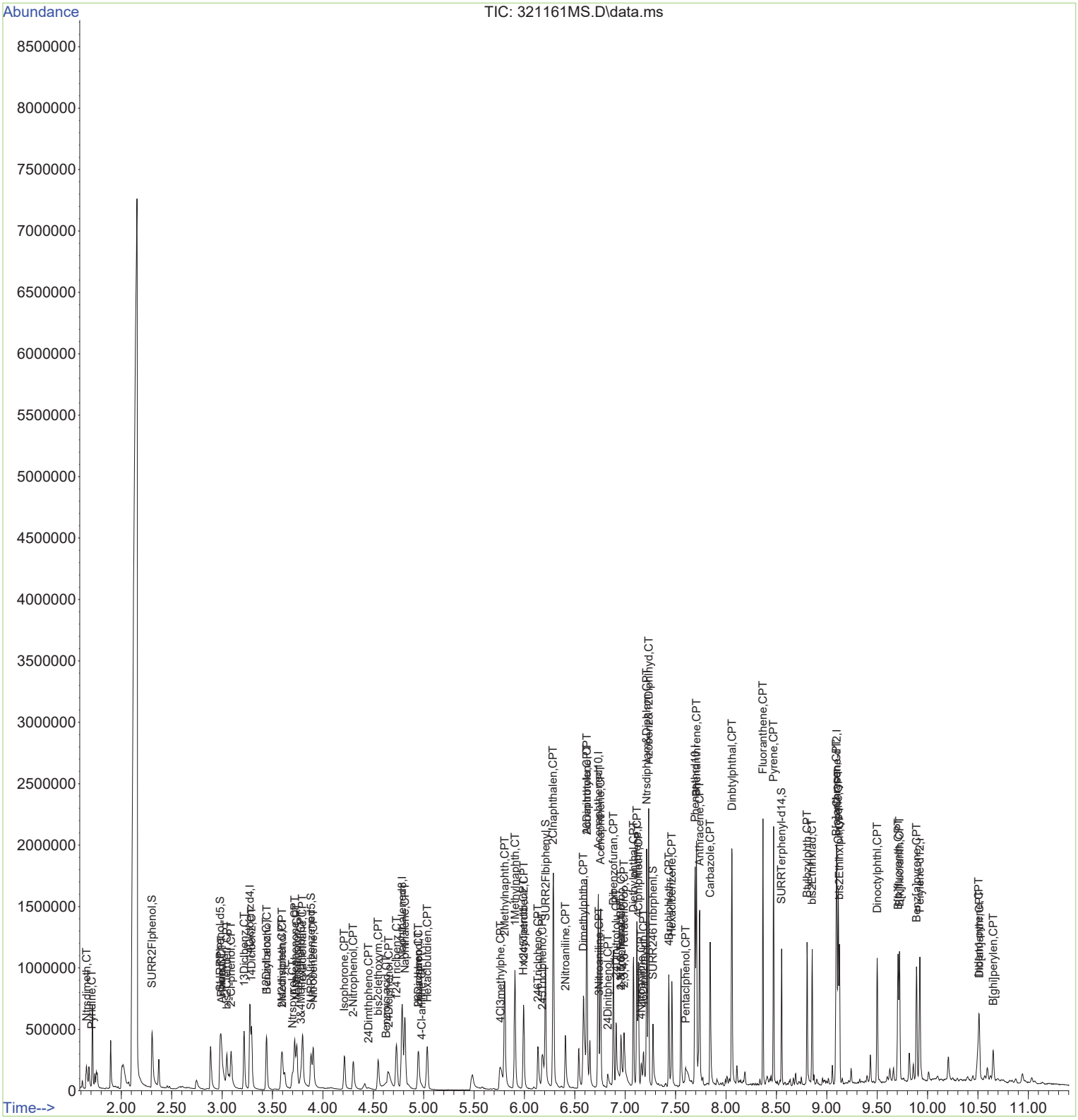
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) 1245Tetrclbenz	5.994	216	110672	15.3628 ug/mL	98
42) 246Triclpheno	6.133	196	54675	11.4334 ug/mL	99
43) 245Triclpheno	6.179	196	83151	15.1826 ug/mL	99
45) 2Clnaphthalen	6.284	162	241401	14.7413 ug/mL	98
46) 2Nitroaniline	6.406	65	79420	15.0303 ug/mL	97
47) Acnaphthylene	6.619	152	393811	15.5617 ug/mL	99
48) Dimethylphtha	6.585	163	270100	15.0150 ug/mL	100
49) 26Dinitrotolu	6.619	165	65199	16.0508 ug/mL	90
50) Acenaphthene	6.756	154	229675	15.5465 ug/mL	99
51) 3Nitroaniline	6.741	138	26077	5.9322 ug/mL	97
52) 24Dinitphenol	6.827	184	21078	12.5317 ug/mL	97
53) Dibenzofuran	6.883	168	334059	15.0484 ug/mL	99
54) 24Dinitrotolu	6.909	165	88623	15.6729 ug/mL	99
55) 4-Nitrophenol	6.957	65	31597	10.3021 ug/mL#	18
56) 2,3,5,6-Tetrachlorop	6.957	232	40489	11.0168 ug/mL	99
57) 2,3,4,6-Tetrachlorop	6.989	232	61631	14.9967 ug/mL	96
58) Fluorene	7.116	166	275449	15.7169 ug/mL	100
59) 4Clphlphlethr	7.131	204	118433	15.2657 ug/mL	98
60) Diethylphthal	7.082	149	293455	16.0145 ug/mL	99
61) 4Nitroaniline	7.159	138	46538	9.6154 ug/mL	94
64) 46Dinit2mylph	7.182	198	34036	11.8008 ug/mL	96
65) Ntrsdiphlam&Diphlam	7.213	169	312446	25.0538 ug/mL	99
66) Azobenz&12Diphlhyd	7.233	182	131852	32.6828 ug/mL	91
67) 4Brphlphlethr	7.435	248	69374	16.0826 ug/mL	98
68) Hexaclbenzene	7.463	284	76392	16.3553 ug/mL	94
69) Pentaclphenol	7.599	266	38693	14.2811 ug/mL	91
70) Phenanthrene	7.707	178	484414	20.1246 ug/mL	99
71) Anthracene	7.739	178	394405	15.9093 ug/mL	99
72) Carbazole	7.844	167	407461	17.0422 ug/mL	99
73) Dinbtylphthal	8.060	149	535470	17.5743 ug/mL	100
74) Fluoranthene	8.367	202	423835	24.4987 ug/mL	99
76) Benzidine	0.000		0	N.D.	
77) Pyrene	8.472	202	411664	21.2846 ug/mL	98
79) Btylbzylphth	8.804	149	164891	15.9108 ug/mL	99
80) bis2Ethlhxlad	8.855	129	121348	14.8431 ug/mL	99
81) 33Diclbnzidin	0.000		0	N.D.	
82) B[a]anthracen	9.094	228	319165	20.1145 ug/mL	100
83) Chrysene	9.114	228	297944	18.1443 ug/mL	99
84) bis2Ethlhxlph	9.125	149	223595	16.4390 ug/mL	100
85) Dinoctylphthl	9.500	149	396357	16.2498 ug/mL	99
87) B[b]fluoranth	9.708	252	282926	21.2244 ug/mL	99
88) B[k]fluoranth	9.722	252	258139	19.3095 ug/mL	98
89) Benz[a]pyrene	9.890	252	244649	17.7869 ug/mL	99
90) Indeno-pyrene	10.506	276	119454	8.3941 ug/mL	97
91) Dib[ah]anthr	10.515	278	103630	8.9772 ug/mL	98
92) B[ghi]perylen	10.651	276	77938	6.2515 ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321161MS.D Vial: 25
Acq On : 11 Sep 2019 2:07 Operator: JJY
Sample : 164275,MSS321161, Inst : SVMS1
Misc : 321441,500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 15:56:22 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 15:16:59 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321161MS.D Vial: 25
Acq On : 11 Sep 2019 2:07 Operator: JJY
Sample : 164275,MSS321161, Inst : SVMS1
Misc : 321441,500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:36 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

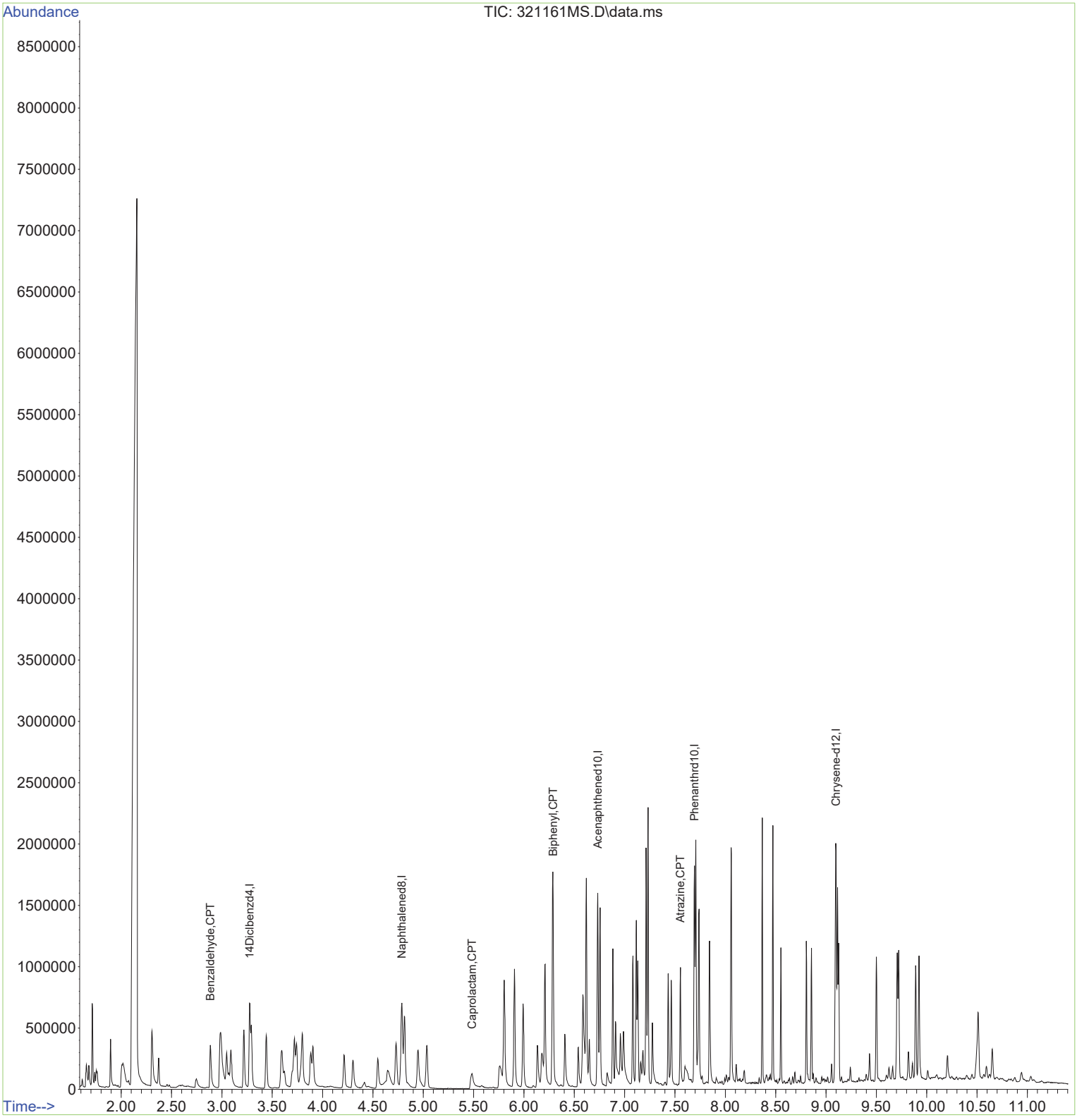
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.275	152	112512	20.00	ug/mL	0.00
3) Naphthalened8	4.786	136	433413	20.00	ug/mL	0.00
5) Acenaphthened10	6.733	164	277475	20.00	ug/mL	0.00
7) Phenanthrd10	7.693	188	457297	20.00	ug/mL	0.00
9) Chrysene-d12	9.100	240	257039	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	2.886	77	83857	13.5423	ug/mL	98
4) Caprolactam	5.485	55	52986	12.0798	ug/mL	96
6) Biphenyl	6.290	154	305637	15.1351	ug/mL	100
8) Atrazine	7.554	200	68627	15.1381	ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321161MS.D Vial: 25
Acq On : 11 Sep 2019 2:07 Operator: JJY
Sample : 164275,MSS321161, Inst : SVMS1
Misc : 321441,500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:36 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321161SD.D Vial: 26
Acq On : 11 Sep 2019 2:26 Operator: JJY
Sample : 164275,MSDS321161, Inst : SVMS1
Misc : 321442,500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 15:58:17 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 15:16:59 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.277	152	109976	20.00	ug/mL	0.00
21) Naphthalened8	4.786	136	425182	20.00	ug/mL	0.00
39) Acenaphthened10	6.727	164	257777	20.00	ug/mL	0.00
63) Phenanthrd10	7.690	188	431746	20.00	ug/mL	0.00
75) Chrysene-d12	9.108	240	236883	20.00	ug/mL	0.00
86) Perylene-d12	9.932	264	207258	20.00	ug/mL	0.01
System Monitoring Compounds						
4) SURR2Flphenol	2.306	112	147790	53.02	%REC	0.03
Spiked Amount 100.000			Recovery = 53.02%			
7) SURRPhenol-d5	2.982	99	222290	66.47	%REC	0.01
Spiked Amount 100.000			Recovery = 66.47%			
22) SURRNitrbenzened5	3.883	82	100774	69.31	%REC	0.00
Spiked Amount 100.000			Recovery = 69.31%			
44) SURR2Flbiphenyl	6.204	172	259359	75.53	%REC	0.00
Spiked Amount 100.000			Recovery = 75.53%			
62) SURR246Tribrphenl	7.273	330	42016	52.21	%REC	0.00
Spiked Amount 100.000			Recovery = 52.21%			
78) SURRTerphenyl-d14	8.554	244	182556	84.20	%REC	0.00
Spiked Amount 100.000			Recovery = 84.20%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.655	74	58996	13.0177	ug/mL	92
3) Pyridine	1.675	79	46172	6.8841	ug/mL	100
5) Aniline	2.999	93	3181	0.6334	ug/mL#	1
6) bis2Clethletr	3.047	93	91370	13.2861	ug/mL	97
8) Phenol	2.993	94	108479	10.9529	ug/mL	72
9) 2-Cl-phenol	3.090	128	87124	11.5063	ug/mL	98
10) 13Diclbenz	3.218	146	110706	13.6237	ug/mL	99
11) 14Diclbenz	3.295	146	105215	12.6669	ug/mL	100
12) 12Diclbenz	3.442	146	109513	14.0520	ug/mL	97
13) Benzyl alcoho	3.439	108	624	0.7461	ug/mL#	39
14) bis2clispreth	3.590	45	139510	11.7620	ug/mL	98
15) 2Methylphenol	3.596	107	28451	5.1948	ug/mL#	49
16) Ntrspyrrol	3.698	100	49588	13.3673	ug/mL	99
17) Acetophenone	3.721	105	138203	13.2850	ug/mL	99
18) Hexaclethane	3.800	117	42433	12.6283	ug/mL	93
19) N-Ntrsdinprop	3.741	70	70591	13.7692	ug/mL	98
20) 3&4Methylphenol	3.786	107	53203	7.5733	ug/mL	93
23) Nitrobenzene	3.905	77	104575	14.2354	ug/mL	99
24) Isophorone	4.212	82	142398	10.2264	ug/mL	99
25) 2-Nitrophenol	4.303	139	55904	14.3102	ug/mL	97
26) 24Dimthpheno	4.451	122	7099	1.4226	ug/mL	87
27) bis2clethoxym	4.550	93	107956	12.8354	ug/mL	99
28) 24Diclphenol	4.650	162	64475	11.4953	ug/mL	98
29) 124Triclbenz	4.732	180	89914	14.4872	ug/mL	97
30) Benzoic acid	4.619	122	32416	13.0752	ug/mL	96
31) Naphthalene	4.815	128	346050	15.9179	ug/mL	99
32) 4-Cl-aniline	4.977	127	6201	0.9815	ug/mL	86
33) 26Diclphenol	4.951	162	46311	8.4774	ug/mL	99
34) Hexaclprop	4.948	213	27979	6.6492	ug/mL	99
35) Hexaclbutdien	5.039	225	46634	12.0780	ug/mL	95
36) 4Cl3methylphe	5.758	107	79469	10.7977	ug/mL	94
37) 2Methylnaphth	5.801	142	276148	15.6697	ug/mL	95
38) 1Methylnaphth	5.903	141	225503	15.6272	ug/mL	96
40) Hxclcycpentdi	5.985	237	7212	2.6638	ug/mL	96

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321161SD.D Vial: 26
Acq On : 11 Sep 2019 2:26 Operator: JJY
Sample : 164275,MSDS321161, Inst : SVMS1
Misc : 321442,500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 15:58:17 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 15:16:59 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

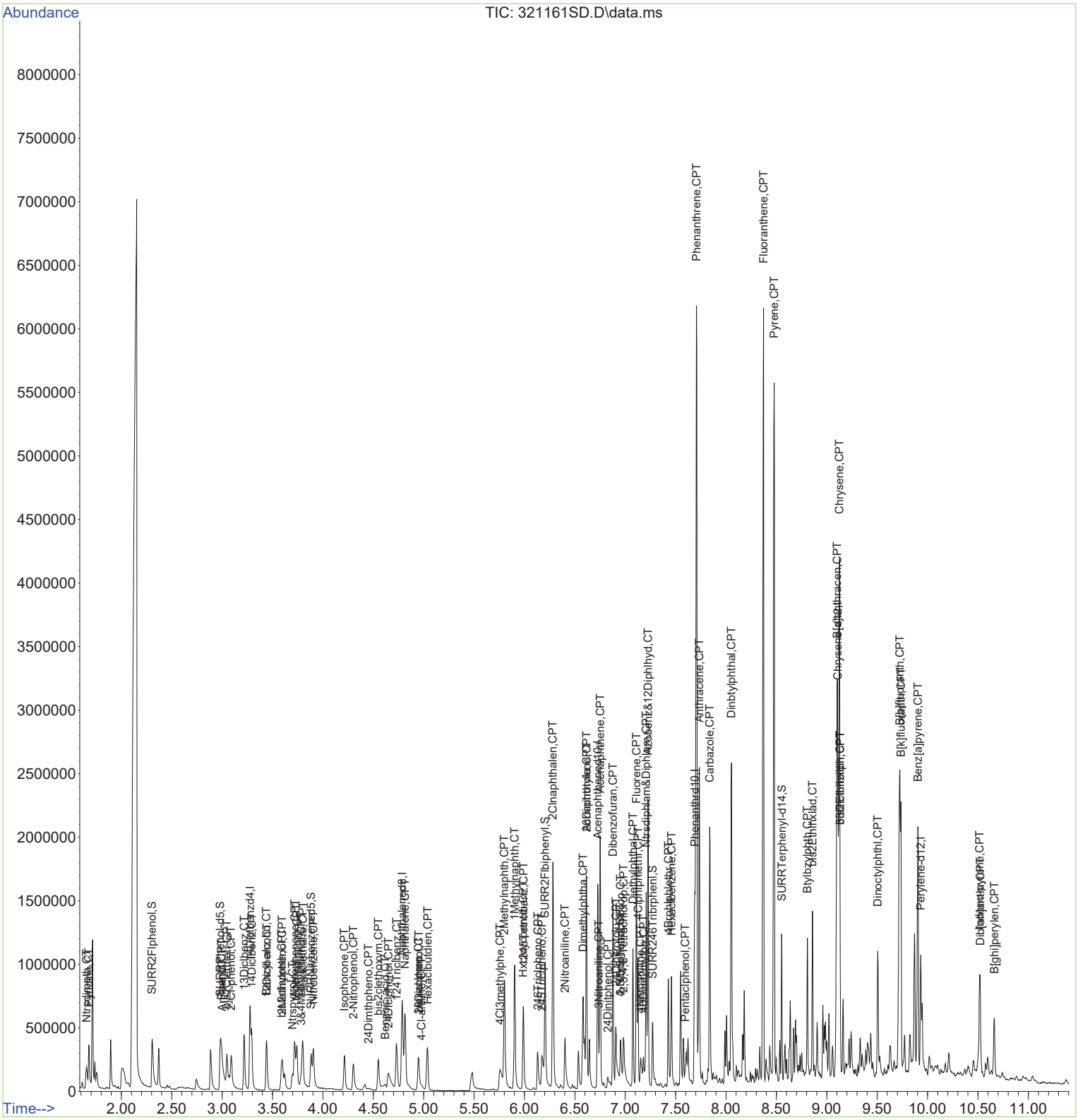
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) 1245Tetrclbenz	5.991	216	105614	15.5638 ug/mL	99
42) 246Triclpheno	6.133	196	47171	10.5168 ug/mL	90
43) 245Triclpheno	6.173	196	81090	15.6962 ug/mL	97
45) 2Clnaphthalen	6.281	162	234942	15.2307 ug/mL	97
46) 2Nitroaniline	6.403	65	76717	15.3932 ug/mL	97
47) Acnaphthylene	6.616	152	384143	16.1147 ug/mL	99
48) Dimethylphtha	6.582	163	267020	15.7582 ug/mL	99
49) 26Dinitrotolu	6.616	165	64017	16.7306 ug/mL	91
50) Acenaphthene	6.753	154	319309	22.9451 ug/mL	99
51) 3Nitroaniline	6.738	138	22671	5.5109 ug/mL	92
52) 24Dinitphenol	6.826	184	18275	11.8983 ug/mL	95
53) Dibenzofuran	6.878	168	424163	20.2843 ug/mL	99
54) 24Dinitrotolu	6.909	165	85499	16.0415 ug/mL	94
55) 4-Nitrophenol	6.951	65	30132	10.3963 ug/mL#	21
56) 2,3,5,6-Tetrachlorop	6.954	232	34914	10.1330 ug/mL	98
57) 2,3,4,6-Tetrachlorop	6.983	232	55409	14.3212 ug/mL	97
58) Fluorene	7.111	166	369241	22.3665 ug/mL	100
59) 4Clphlphlethr	7.128	204	119263	16.3196 ug/mL	98
60) Diethylphthal	7.076	149	284064	16.4569 ug/mL	99
61) 4Nitroaniline	7.153	138	42165	9.2760 ug/mL	95
64) 46Dinit2mylph	7.182	198	27706	10.4648 ug/mL	97
65) Ntrsdiphlam&Diphlam	7.207	169	250188	21.2063 ug/mL	99
66) Azobenz&12Diphlhyd	7.227	182	142210	37.2616 ug/mL	92
67) 4Brphlphlethr	7.429	248	68549	16.7980 ug/mL	97
68) Hexaclbenzene	7.460	284	76850	17.3922 ug/mL	98
69) Pentaclphenol	7.596	266	35861	14.0331 ug/mL	95
70) Phenanthrene	7.707	178	1865460	81.9211 ug/mL	99
71) Anthracene	7.736	178	655514	27.9505 ug/mL	99
72) Carbazole	7.838	167	622807	27.5355 ug/mL	99
73) Dinbtylphthal	8.054	149	501119	17.3800 ug/mL	100
74) Fluoranthene	8.372	202	1730344	105.7250 ug/mL	99
76) Benzidine	0.000		0	N.D.	
77) Pyrene	8.477	202	1461661	82.1163 ug/mL	95
79) Btylbzylphth	8.807	149	165893	17.3452 ug/mL	99
80) bis2Ethlhxlad	8.858	129	133374	17.5799 ug/mL	99
81) 33Diclbnzidin	9.131	252	2875	0.2570 ug/mL#	1
82) B[a]anthracen	9.102	228	857573	58.7251 ug/mL	99
83) Chrysene	9.125	228	748102	49.5025 ug/mL	98
84) bis2Ethlhxlph	9.131	149	217347	17.3631 ug/mL	99
85) Dinoctylphthl	9.506	149	402863	17.8355 ug/mL	99
87) B[b]fluoranth	9.725	252	907818	80.4681 ug/mL	98
88) B[k]fluoranth	9.736	252	357461	31.5943 ug/mL	99
89) Benz[a]pyrene	9.904	252	549991	47.2471 ug/mL	99
90) Indeno-pyrene	10.517	276	201982	16.7706 ug/mL	98
91) Dib[ah]anthr	10.523	278	122987	12.5886 ug/mL	96
92) B[ghi]perylen	10.662	276	143968	13.6447 ug/mL	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321161SD.D Vial: 26
Acq On : 11 Sep 2019 2:26 Operator: JJY
Sample : 164275,MSDS321161, Inst : SVMS1
Misc : 321442,500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 15:58:17 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 15:16:59 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321161SD.D Vial: 26
Acq On : 11 Sep 2019 2:26 Operator: JJY
Sample : 164275,MSDS321161, Inst : SVMS1
Misc : 321442,500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:38 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

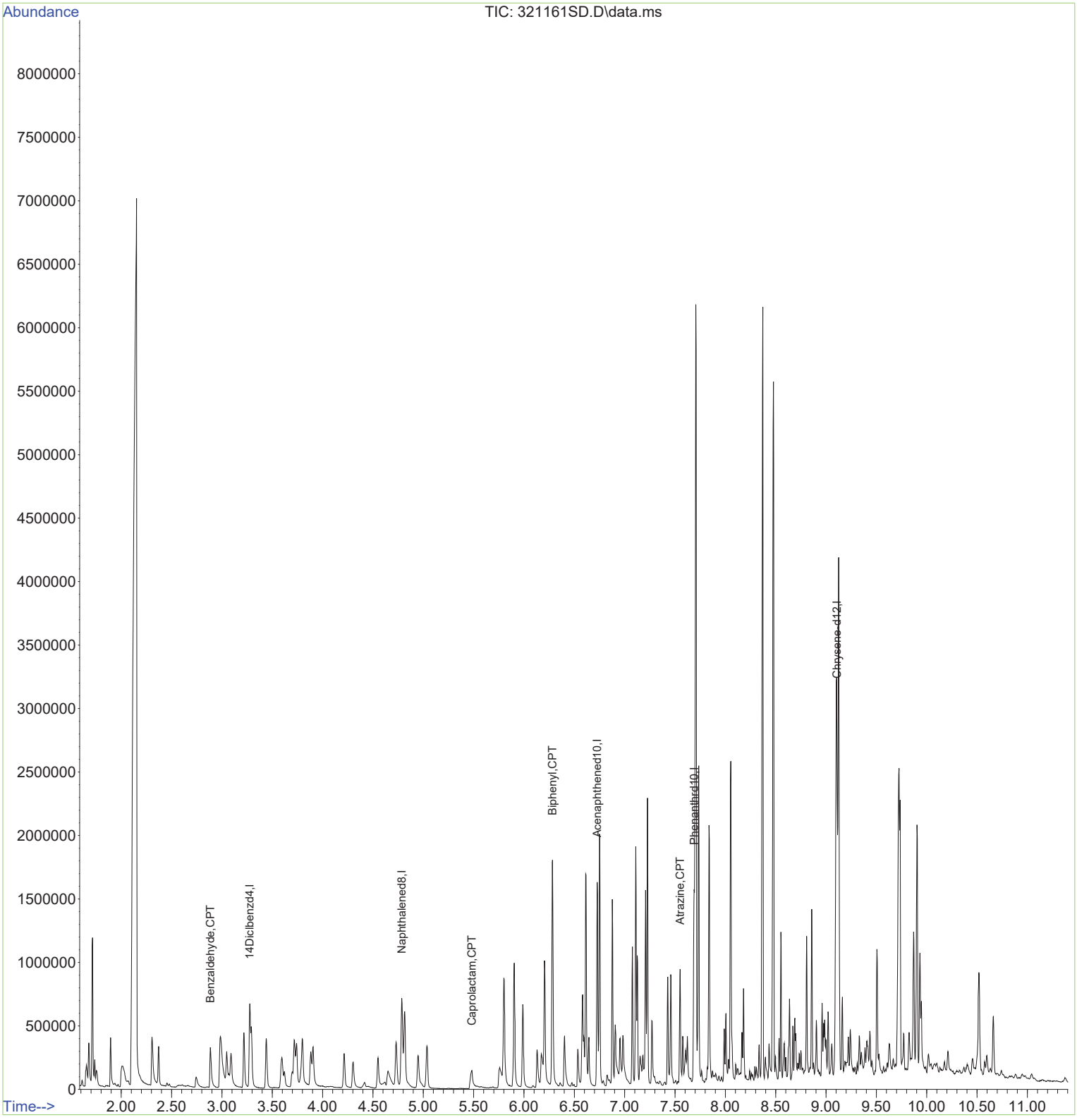
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.277	152	109976	20.00	ug/mL	0.00
3) Naphthalened8	4.786	136	425182	20.00	ug/mL	0.00
5) Acenaphthened10	6.727	164	262225	20.00	ug/mL	0.00
7) Phenanthrd10	7.690	188	432189	20.00	ug/mL	0.00
9) Chrysene-d12	9.108	240	236294	20.00	ug/mL	0.01
Target Compounds						Qvalue
2) Benzaldehyde	2.885	77	79580	13.1775	ug/mL	97
4) Caprolactam	5.482	55	55928	12.8926	ug/mL	98
6) Biphenyl	6.284	154	307909	16.1343	ug/mL	100
8) Atrazine	7.551	200	66455	15.5002	ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321161SD.D Vial: 26
Acq On : 11 Sep 2019 2:26 Operator: JJY
Sample : 164275,MSDS321161, Inst : SVMS1
Misc : 321442,500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 16 13:25:38 2019

Quant Method : C:\INSTARCH\METHOD\1A082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 16 13:24:33 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321161DR.D Vial: 46
Acq On : 11 Sep 2019 16:30 Operator: JJY
Sample : 164275,MSDS321161,10 Inst : SVMS1
Misc : 321442,500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 17:30:22 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 17:23:44 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.266	152	117309	20.00	ug/mL	0.00
21) Naphthalened8	4.775	136	446757	20.00	ug/mL	0.00
39) Acenaphthened10	6.721	164	288016	20.00	ug/mL	0.00
63) Phenanthrd10	7.682	188	491989	20.00	ug/mL	0.00
75) Chrysene-d12	9.091	240	276251	20.00	ug/mL	0.00
86) Perylene-d12	9.918	264	319684	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.292	112	10379	4.56	%REC	0.01
Spiked Amount 100.000			Recovery = 4.56%			
7) SURRPhenol-d5	2.982	99	15680	5.41	%REC	0.02
Spiked Amount 100.000			Recovery = 5.41%			
22) SURRNitrbenzened5	3.880	82	2101	3.38	%REC	0.00
Spiked Amount 100.000			Recovery = 3.38%			
44) SURR2Flbiphenyl	6.201	172	25470	6.64	%REC	0.00
Spiked Amount 100.000			Recovery = 6.64%			
62) SURR246Tribrphenl	7.267	330	3701	4.64	%REC	0.00
Spiked Amount 100.000			Recovery = 4.64%			
78) SURRTerphenyl-d14	8.546	244	18169	7.19	%REC	0.00
Spiked Amount 100.000			Recovery = 7.19%			
Target Compounds						Qvalue
2) Ntrsdimeth	1.655	74	3883	1.3433	ug/mL#	61
3) Pyridine	1.837	79	1171	0.7015	ug/mL#	62
5) Aniline	3.045	93	5143	0.7786	ug/mL	84
6) bis2Clethletr	3.045	93	8683	1.1837	ug/mL	82
8) Phenol	2.991	94	6310	0.8912	ug/mL	77
9) 2-Cl-phenol	3.084	128	6800	1.0749	ug/mL	95
10) 13Diclbenz	3.209	146	10004	1.1542	ug/mL	99
11) 14Diclbenz	3.280	146	10539	1.1895	ug/mL	90
12) 12Diclbenz	3.434	146	10813	1.3007	ug/mL	90
13) Benzyl alcoho	0.000		0	N.D.		
14) bis2clispreth	3.587	45	12333	0.9748	ug/mL	96
15) 2Methylphenol	3.607	107	1767	0.5935	ug/mL#	34
16) Ntrspyrrol	3.704	100	3373	1.2289	ug/mL	83
17) Acetophenone	3.724	105	9458	1.0977	ug/mL	79
18) Hexaclethane	3.786	117	4328	1.2075	ug/mL	89
19) N-Ntrsdinprop	3.729	70	5940	1.0862	ug/mL	90
20) 3&4Methylphenol	3.803	107	2084	0.6291	ug/mL	84
23) Nitrobenzene	3.906	77	6178	1.1619	ug/mL	95
24) Isophorone	4.201	82	11938	1.4693	ug/mL	91
25) 2-Nitrophenol	4.303	139	3479	1.3336	ug/mL	80
26) 24Dimthpheno	0.000		0	N.D.		
27) bis2clethoxym	4.553	93	7907	1.1613	ug/mL	91
28) 24Diclphenol	4.670	162	2810	0.8947	ug/mL#	72
29) 124Triclbenz	4.724	180	8028	1.2310	ug/mL	97
30) Benzoic acid	0.000		0	N.D.		
31) Naphthalene	4.803	128	33601	1.4710	ug/mL	98
32) 4-Cl-aniline	0.000		0	N.D.		
33) 26Diclphenol	4.954	162	1222	0.5437	ug/mL	94
34) Hexaclprop	4.937	213	3281	0.7421	ug/mL	95
35) Hexaclbutdien	5.028	225	4269	1.0523	ug/mL	93
36) 4Cl3methylphe	5.775	107	4436	1.0005	ug/mL#	65
37) 2Methylnaphth	5.798	142	23144	1.2499	ug/mL	89
38) 1Methylnaphth	5.897	141	21442	1.4142	ug/mL	99
40) Hxclcycpentdi	5.980	237	647	0.8434	ug/mL	87

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321161DR.D Vial: 46
Acq On : 11 Sep 2019 16:30 Operator: JJY
Sample : 164275,MSDS321161,10 Inst : SVMS1
Misc : 321442,500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 17:30:22 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 17:23:44 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M

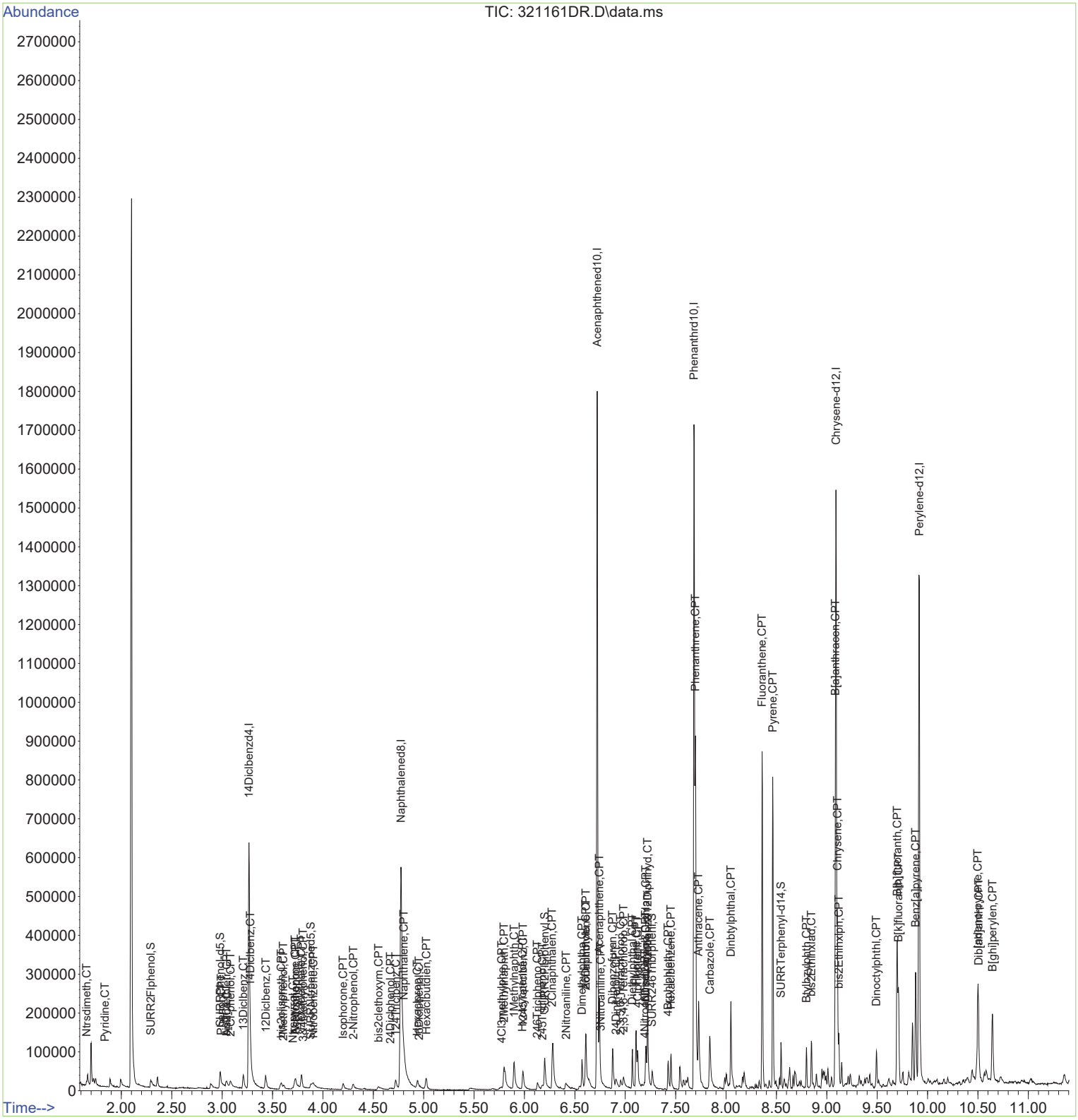
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) 1245Tetrclbenz	5.985	216	10775	1.4211 ug/mL	93
42) 246Triclpheno	6.128	196	3686	1.1167 ug/mL	85
43) 245Triclpheno	6.179	196	3981	1.1629 ug/mL	82
45) 2Clnaphthalen	6.275	162	23438	1.3599 ug/mL	99
46) 2Nitroaniline	6.415	65	6345	1.6495 ug/mL	79
47) Acnaphthylene	6.611	152	39806	1.4945 ug/mL	100
48) Dimethylphtha	6.571	163	27313	1.4426 ug/mL	99
49) 26Dinitrotolu	6.608	165	5989	1.4009 ug/mL#	71
50) Acenaphthene	6.744	154	32941	2.1186 ug/mL	99
51) 3Nitroaniline	6.758	138	1723	0.7544 ug/mL#	67
52) 24Dinitphenol	0.000		0	N.D.	
53) Dibenzofuran	6.875	168	45170	1.9333 ug/mL	98
54) 24Dinitrotolu	6.909	165	7603	1.6116 ug/mL	97
55) 4-Nitrophenol	0.000		0	N.D.	
56) 2,3,5,6-Tetrachlorop	6.954	232	2370	1.0746 ug/mL	84
57) 2,3,4,6-Tetrachlorop	6.983	232	5173	1.3726 ug/mL	95
58) Fluorene	7.108	166	40228	2.1809 ug/mL	95
59) 4Clphlphlethr	7.125	204	12704	1.5559 ug/mL	96
60) Diethylphthal	7.071	149	28739	1.4902 ug/mL	99
61) 4Nitroaniline	7.193	138	2993	1.1111 ug/mL	79
64) 46Dinit2mylph	7.202	198	1717	2.7461 ug/mL#	1
65) Ntrsdiphlam&Diphlam	7.204	169	26546	1.9746 ug/mL	97
66) Azobenz&12Diphlhyd	7.222	182	15286	3.5148 ug/mL#	75
67) 4Brphlphlethr	7.426	248	6858	1.4748 ug/mL	99
68) Hexaclbenzene	7.455	284	8053	1.5993 ug/mL	94
69) Pentaclphenol	0.000		0	N.D.	
70) Phenanthrene	7.696	178	222705	8.5825 ug/mL	99
71) Anthracene	7.727	178	76003	2.8439 ug/mL	98
72) Carbazole	7.841	167	65812	2.5534 ug/mL	97
73) Dinbtylphthal	8.048	149	50486	1.3685 ug/mL	99
74) Fluoranthene	8.358	202	210483	11.2859 ug/mL	100
76) Benzidine	0.000		0	N.D.	
77) Pyrene	8.463	202	175284	8.4441 ug/mL	96
79) Btylbzylphth	8.799	149	15533	1.6417 ug/mL	97
80) bis2Ethlhxlad	8.847	129	12702	1.7283 ug/mL	98
81) 33Diclbnzidin	0.000		0	N.D.	
82) B[a]anthracen	9.085	228	96074	5.6414 ug/mL	98
83) Chrysene	9.105	228	86115	4.8862 ug/mL	99
84) bis2Ethlhxlph	9.120	149	22010	1.5077 ug/mL	98
85) Dinoctylphthl	9.492	149	35681	1.8176 ug/mL	95
87) B[b]fluoranth	9.699	252	98081	5.6364 ug/mL	98
88) B[k]fluoranth	9.711	252	63499	3.6386 ug/mL	97
89) Benz[a]pyrene	9.881	252	82012	4.5676 ug/mL	98
90) Indeno-pyrene	10.498	276	65705	3.5369 ug/mL	98
91) Dib[ah]anthr	10.506	278	34346	2.2792 ug/mL	99
92) B[ghi]perylen	10.645	276	58063	3.5677 ug/mL	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091119\321161DR.D Vial: 46
Acq On : 11 Sep 2019 16:30 Operator: JJY
Sample : 164275,MSDS321161,10 Inst : SVMS1
Misc : 321442,500ul+5ul S4142A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 17:30:22 2019

Quant Method : C:\INSTARCH\METHOD\1S082019.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 17:23:44 2019
Response via : Initial Calibration
DataAcq Meth:1S082019.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\1MBW01.D Vial: 4
Acq On : 9 Sep 2019 16:54 Operator: JJY
Sample : 164170,MBW, Inst : SVMS1
Misc : 321835,500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 17:08:55 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

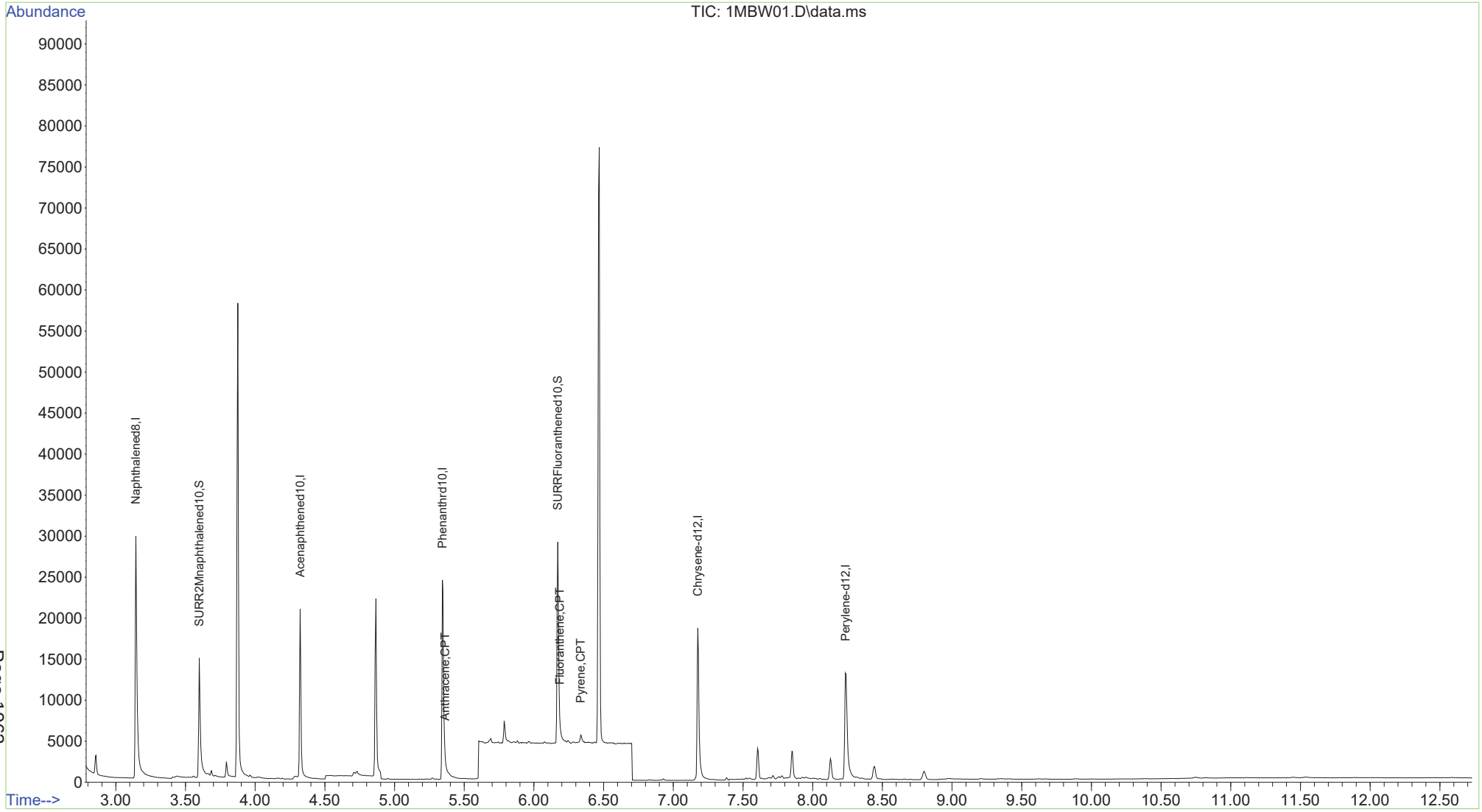
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.144	136	27402	400.00	ng/mL	0.00
6) Acenaphthened10	4.323	164	14288	400.00	ng/mL	0.00
10) Phenanthrd10	5.343	188	22737	400.00	ng/mL	0.00
15) Chrysene-d12	7.176	240	17789	400.00	ng/mL	0.00
19) Perylene-d12	8.236	264	17576	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.599	152	10257	67.49	%REC	0.00
Spiked Amount 100.000			Recovery = 67.49%			
13) SURRFluoranthened10	6.171	212	18130	80.75	%REC	0.00
Spiked Amount 100.000			Recovery = 80.75%			
Target Compounds						Qvalue
11) Phenanthrene	5.362	178	403	Below Cal	#	71
12) Anthracene	5.362	178	404	7.1359	ng/mL	79
14) Fluoranthene	6.185	202	322	4.9741	ng/mL	88
16) Pyrene	6.336	202	675	9.3841	ng/mL	57

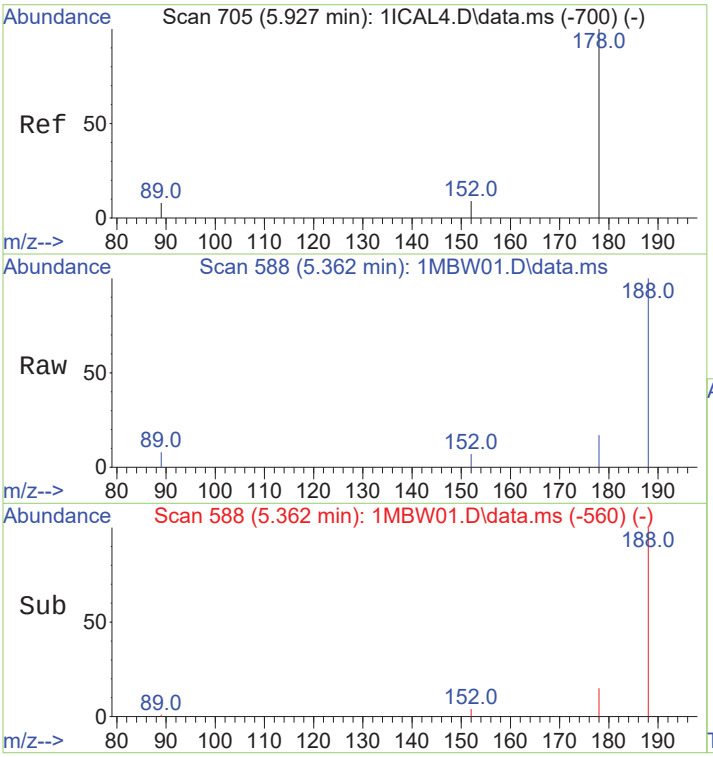
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\1MBW01.D Vial: 4
Acq On : 9 Sep 2019 16:54 Operator: JJY
Sample : 164170,MBW, Inst : SVMS1
Misc : 321835,500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 17:08:55 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

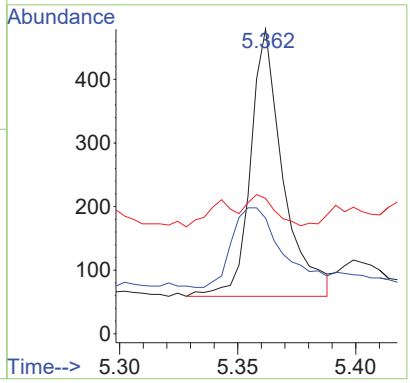


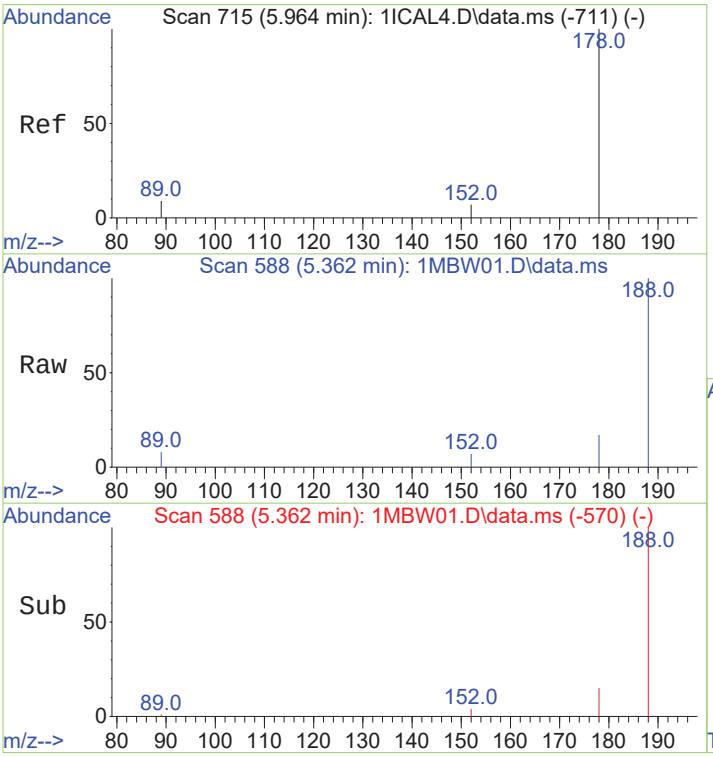


#11
Phenanthrene
Concen: Below Cal
RT: 5.362 min Scan# 588
Delta R.T. 0.004 min
Lab File: 1MBW01.D
Acq: 9 Sep 2019 16:54

Tgt Ion:178 Resp: 403

Ion	Ratio	Lower	Upper
178	100		
152	0.0	0.0	40.1
89	0.0	0.0	41.4

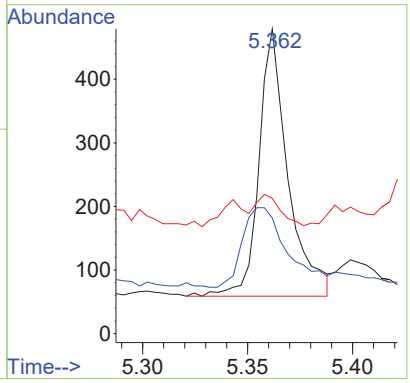


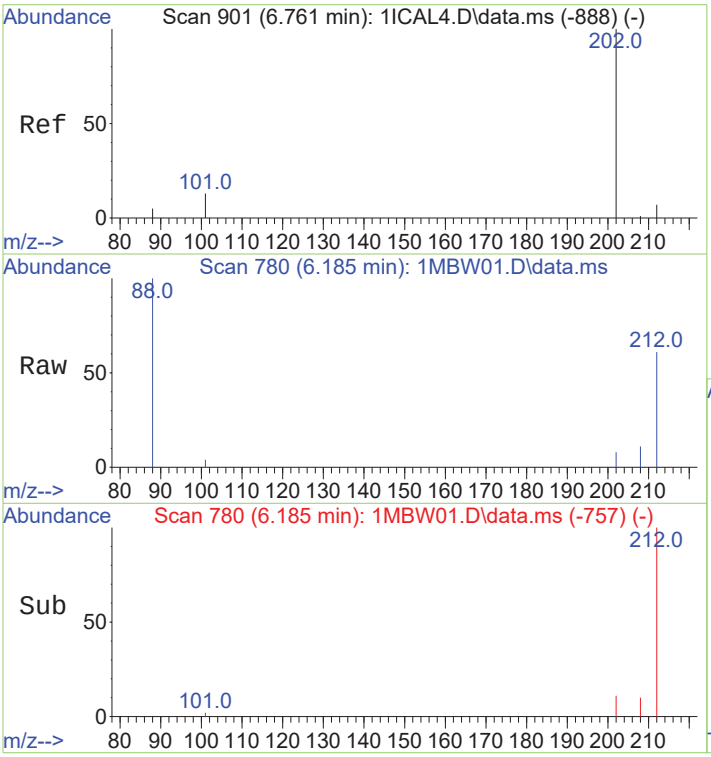


#12
Anthracene
Concen: 7.14 ng/mL
RT: 5.362 min Scan# 588
Delta R.T. -0.034 min
Lab File: 1MBW01.D
Acq: 9 Sep 2019 16:54

Tgt Ion:178 Resp: 404

Ion	Ratio	Lower	Upper
178	100		
152	24.3	0.0	37.8
89	10.0	0.0	31.3

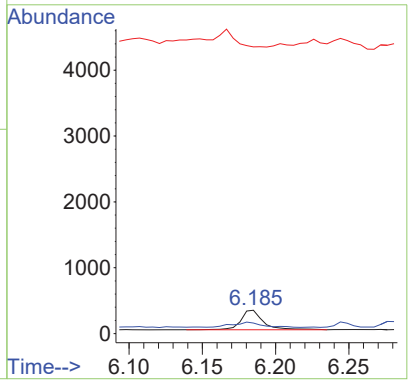


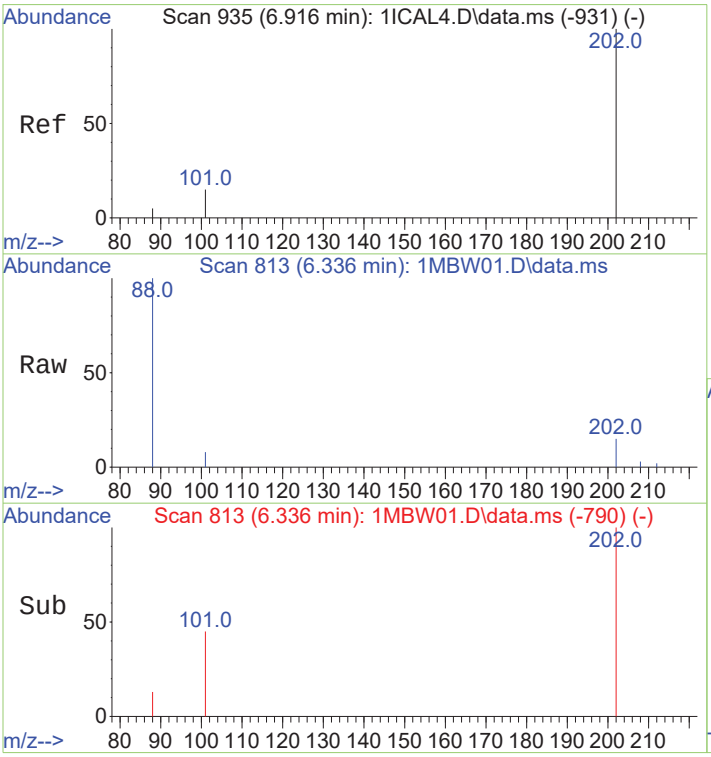


#14
Fluoranthene
Concen: 4.97 ng/mL
RT: 6.185 min Scan# 780
Delta R.T. 0.005 min
Lab File: 1MBW01.D
Acq: 9 Sep 2019 16:54

Tgt Ion:202 Resp: 322

Ion	Ratio	Lower	Upper
202	100		
101	21.1	0.0	48.3
88	0.0	0.0	38.8

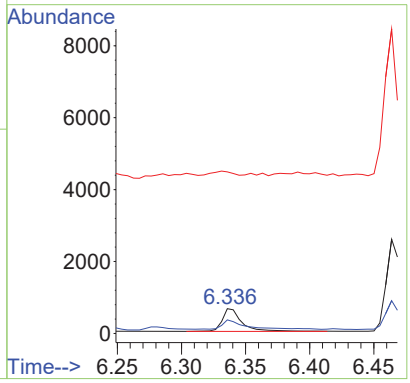




#16
Pyrene
Concen: 9.38 ng/mL
RT: 6.336 min Scan# 813
Delta R.T. 0.005 min
Lab File: 1MBW01.D
Acq: 9 Sep 2019 16:54

Tgt Ion:202 Resp: 675

Ion	Ratio	Lower	Upper
202	100		
101	40.7	0.0	49.4
88	15.2	0.0	35.5



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\1LCSW01.D Vial: 5
Acq On : 9 Sep 2019 17:14 Operator: JJY
Sample : 164170,LCSW, Inst : SVMS1
Misc : 321836,500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 17:29:11 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

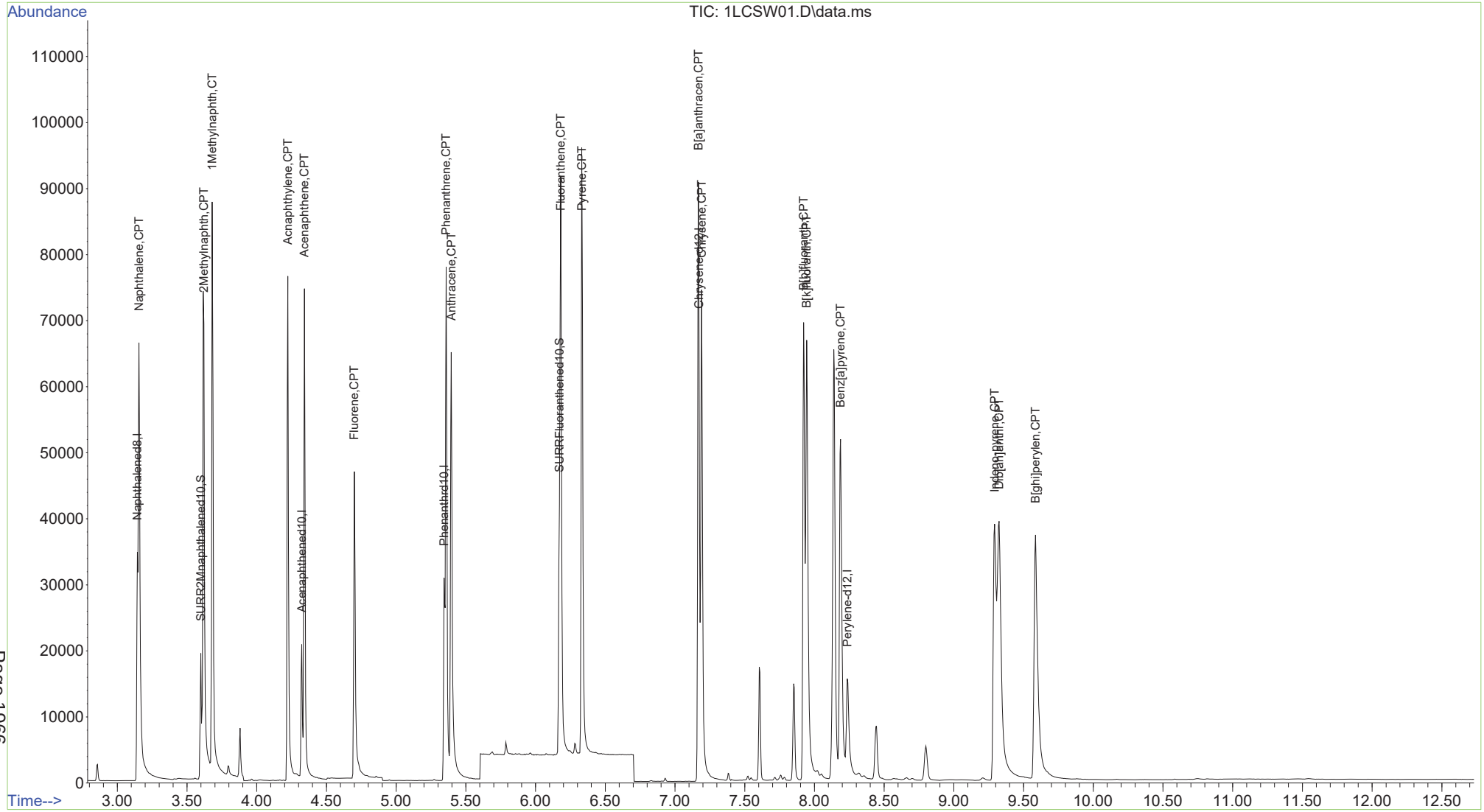
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.144	136	27048	400.00	ng/mL	0.00
6) Acenaphthened10	4.323	164	13845	400.00	ng/mL	0.00
10) Phenanthrd10	5.343	188	22904	400.00	ng/mL	0.00
15) Chrysene-d12	7.172	240	17075	400.00	ng/mL	0.00
19) Perylene-d12	8.236	264	18139	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.599	152	11780	78.53	%REC	0.00
Spiked Amount 100.000			Recovery = 78.53%			
13) SURRFluoranthened10	6.171	212	19597	86.65	%REC	0.00
Spiked Amount 100.000			Recovery = 86.65%			
Target Compounds						Qvalue
2) Naphthalene	3.155	128	49666	746.7456	ng/ml	99
4) 2Methylnaphth	3.621	142	30636	839.4242	ng/mL	76
5) 1Methylnaphth	3.680	141	26173	734.0888	ng/mL	87
7) Acnaphthylene	4.223	152	49548	853.3705	ng/mL	100
8) Acenaphthene	4.342	154	27951	710.8266	ng/mL	97
9) Fluorene	4.700	166	33178	799.4379	ng/mL	98
11) Phenanthrene	5.358	178	46134	801.8677	ng/mL	99
12) Anthracene	5.395	178	49149	861.7959	ng/mL	100
14) Fluoranthene	6.180	202	56569	867.4827	ng/mL	95
16) Pyrene	6.331	202	58937	853.6277	ng/mL	99
17) B[a]anthracen	7.169	228	49885	1018.2648	ng/mL	96
18) Chrysene	7.191	228	55035	917.6423	ng/mL	98
20) B[b]fluoranth	7.922	252	48239	824.3959	ng/mL	99
21) B[k]fluoranth	7.945	252	58369	803.7789	ng/mL	99
22) Benz[a]pyrene	8.187	252	50373	881.4876	ng/mL	99
23) Indeno-pyrene	9.293	276	51487	898.9989	ng/mL	99
24) Dib[ah]anthr	9.325	278	41740	869.9405	ng/mL	96
25) B[ghi]perylen	9.586	276	41812	856.6257	ng/mL	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\1LCSW01.D Vial: 5
Acq On : 9 Sep 2019 17:14 Operator: JJY
Sample : 164170,LCSW, Inst : SVMS1
Misc : 321836,500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 17:29:11 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\1LCSDW01.D Vial: 7
Acq On : 9 Sep 2019 17:55 Operator: JJY
Sample : 164170,LCSDW, Inst : SVMS1
Misc : 321837,500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 18:09:23 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

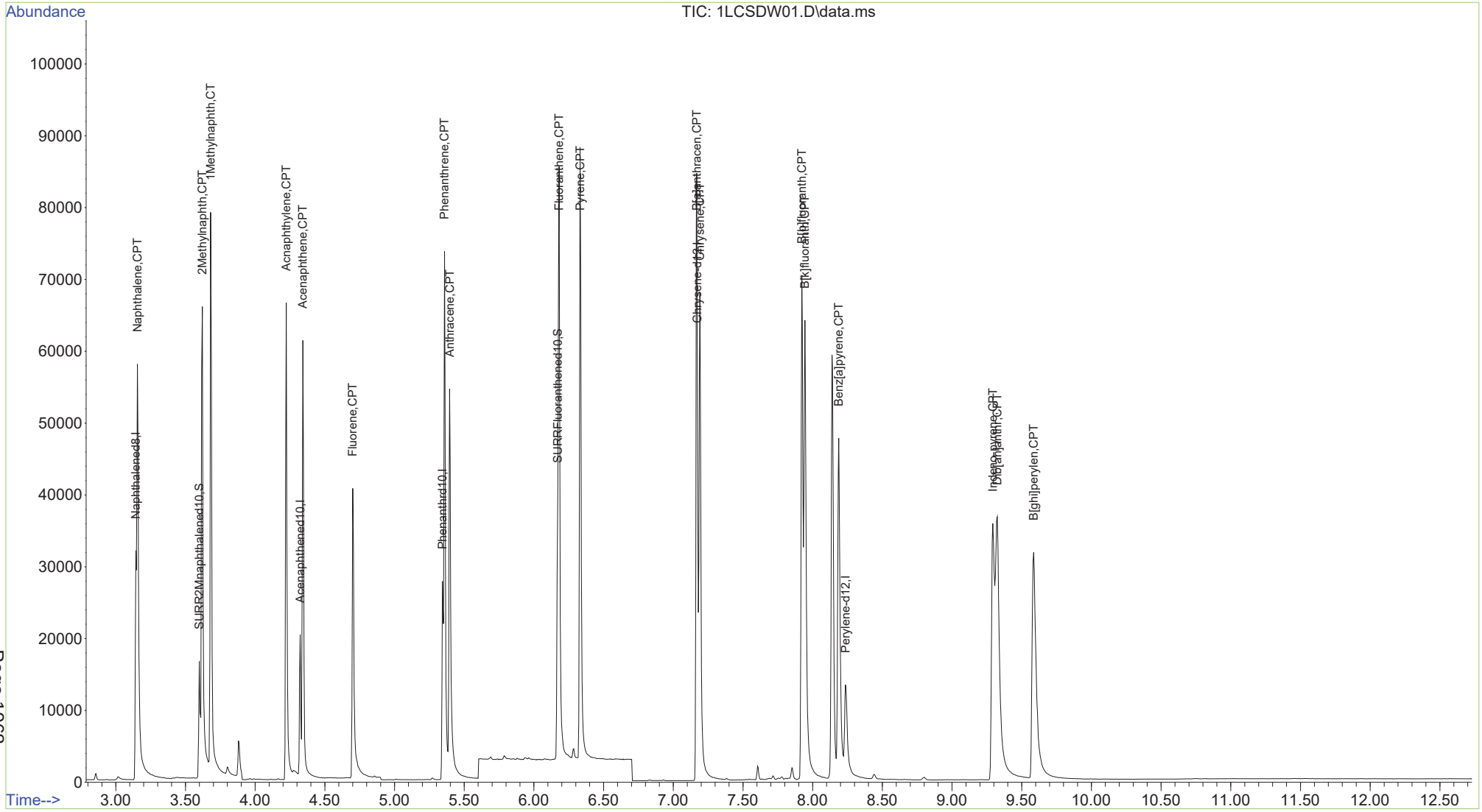
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.144	136	26020	400.00	ng/mL	0.00
6) Acenaphthened10	4.323	164	13063	400.00	ng/mL	0.00
10) Phenanthrd10	5.343	188	21314	400.00	ng/mL	0.00
15) Chrysene-d12	7.172	240	15903	400.00	ng/mL	0.00
19) Perylene-d12	8.236	264	16012	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.599	152	10179	70.53	%REC	0.00
Spiked Amount 100.000			Recovery = 70.53%			
13) SURRFluoranthened10	6.171	212	18582	88.29	%REC	0.00
Spiked Amount 100.000			Recovery = 88.29%			
Target Compounds						Qvalue
2) Naphthalene	3.155	128	43423	678.6740	ng/ml	99
4) 2Methylnaphth	3.620	142	26768	762.4181	ng/mL	77
5) 1Methylnaphth	3.680	141	23492	684.9249	ng/mL	79
7) Acnaphthylene	4.223	152	42782	780.9489	ng/mL	99
8) Acenaphthene	4.341	154	24677	665.1333	ng/mL	92
9) Fluorene	4.699	166	30346	774.9720	ng/mL	99
11) Phenanthrene	5.358	178	43151	806.1023	ng/mL	98
12) Anthracene	5.395	178	41484	781.6579	ng/mL	98
14) Fluoranthene	6.180	202	53612	883.4678	ng/mL	96
16) Pyrene	6.331	202	55715	866.4316	ng/mL	99
17) B[a]anthracen	7.168	228	46682	1022.8920	ng/mL	95
18) Chrysene	7.191	228	52045	931.7409	ng/mL	98
20) B[b]fluoranth	7.922	252	47882	923.5216	ng/mL	99
21) B[k]fluoranth	7.944	252	56015	873.6839	ng/mL	99
22) Benz[a]pyrene	8.187	252	45214	895.7112	ng/mL	99
23) Indeno-pyrene	9.293	276	47613	939.5700	ng/mL	99
24) Dib[ah]anthr	9.325	278	38539	908.1170	ng/mL	98
25) B[ghi]perylen	9.586	276	39042	903.4222	ng/mL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\1LCSDW01.D Vial: 7
Acq On : 9 Sep 2019 17:55 Operator: JJY
Sample : 164170,LCSDW, Inst : SVMS1
Misc : 321837,500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 18:09:23 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\1MBS01.D Vial: 9
Acq On : 9 Sep 2019 18:35 Operator: JJY
Sample : 164274,MBS, Inst : SVMS1
Misc : 321427,500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 18:49:34 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

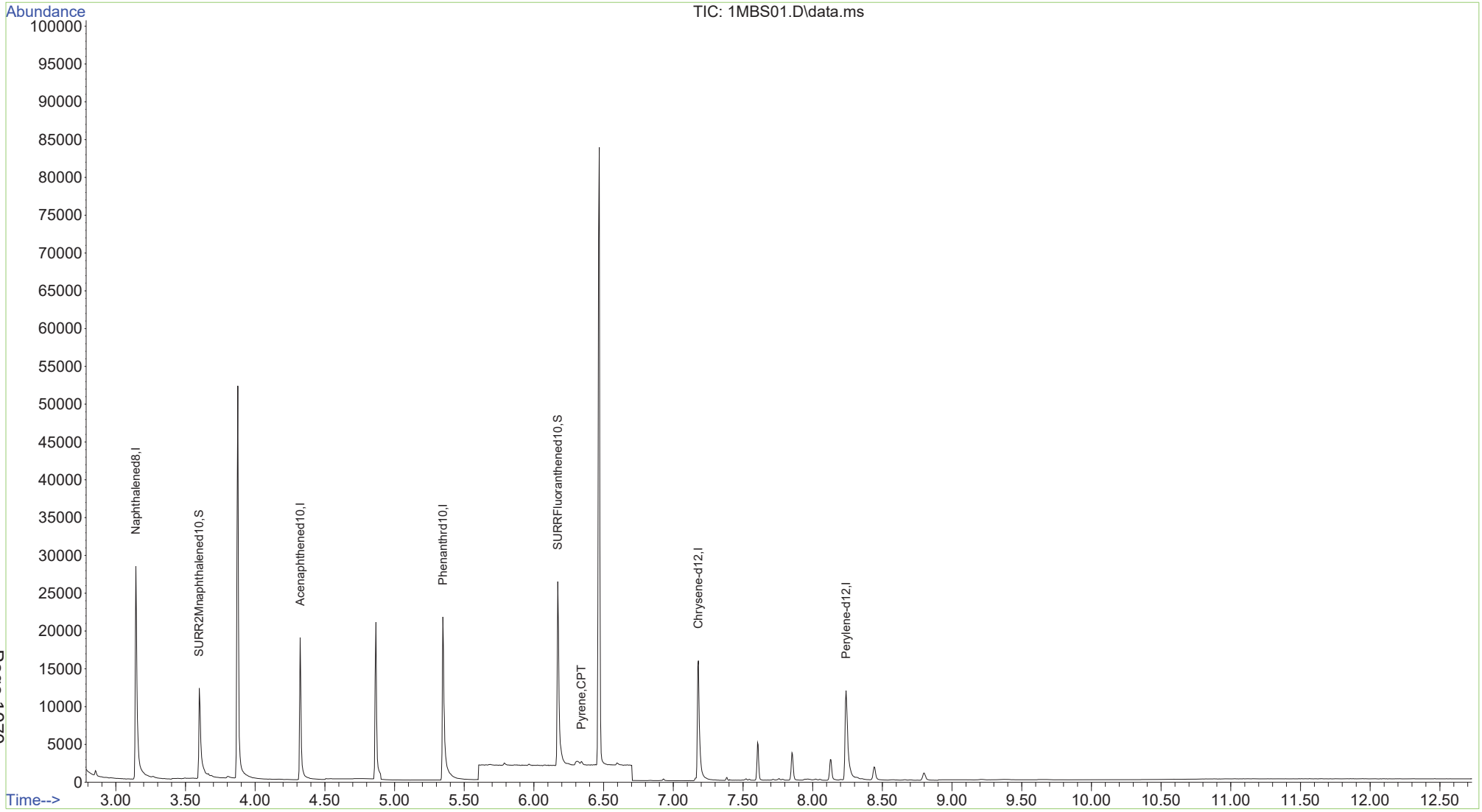
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.144	136	27368	400.00	ng/mL	0.00
6) Acenaphthened10	4.323	164	13829	400.00	ng/mL	0.00
10) Phenanthrd10	5.347	188	22000	400.00	ng/mL	0.00
15) Chrysene-d12	7.180	240	17616	400.00	ng/mL	0.00
19) Perylene-d12	8.239	264	17105	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.599	152	10390	68.45	%REC	0.00
Spiked Amount 100.000			Recovery = 68.45%			
13) SURRFluoranthened10	6.171	212	18605	85.64	%REC	0.00
Spiked Amount 100.000			Recovery = 85.64%			
Target Compounds						Qvalue
16) Pyrene	6.340	202	310	4.3521	ng/mL	71

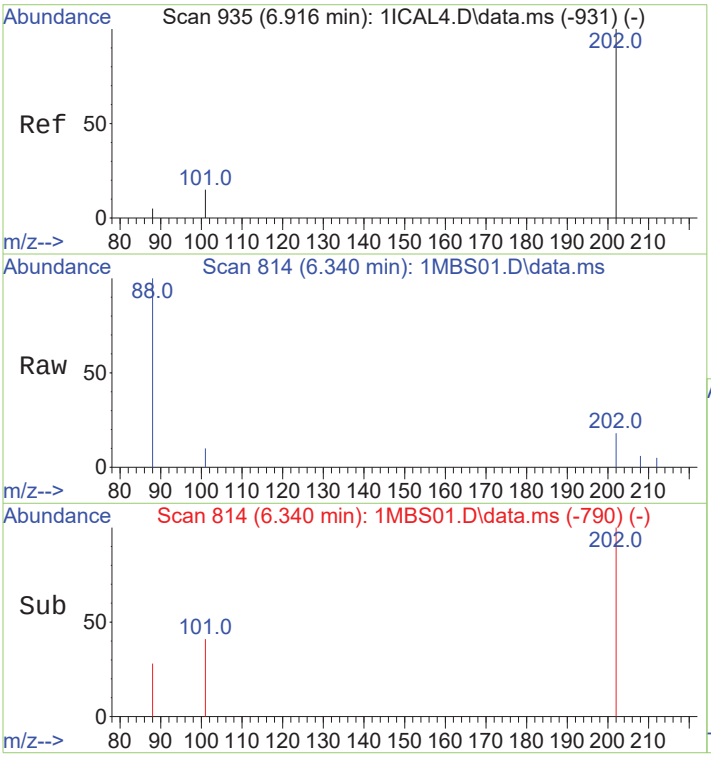
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\1MBS01.D Vial: 9
Acq On : 9 Sep 2019 18:35 Operator: JJY
Sample : 164274,MBS, Inst : SVMS1
Misc : 321427,500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 18:49:34 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

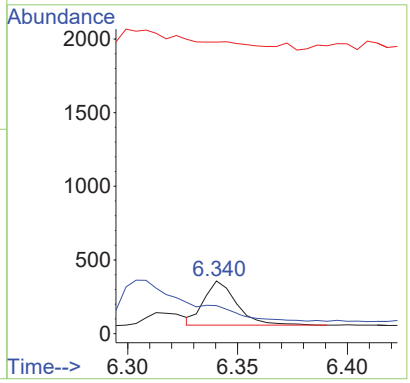




#16
Pyrene
Concen: 4.35 ng/mL
RT: 6.340 min Scan# 814
Delta R.T. 0.009 min
Lab File: 1MBS01.D
Acq: 9 Sep 2019 18:35

Tgt Ion:202 Resp: 310

Ion	Ratio	Lower	Upper
202	100		
101	35.3	0.0	49.4
88	8.3	0.0	35.5



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\1LCSS01.D Vial: 10
Acq On : 9 Sep 2019 18:55 Operator: JJY
Sample : 164274,LCSS, Inst : SVMS1
Misc : 321428,500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 19:09:37 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

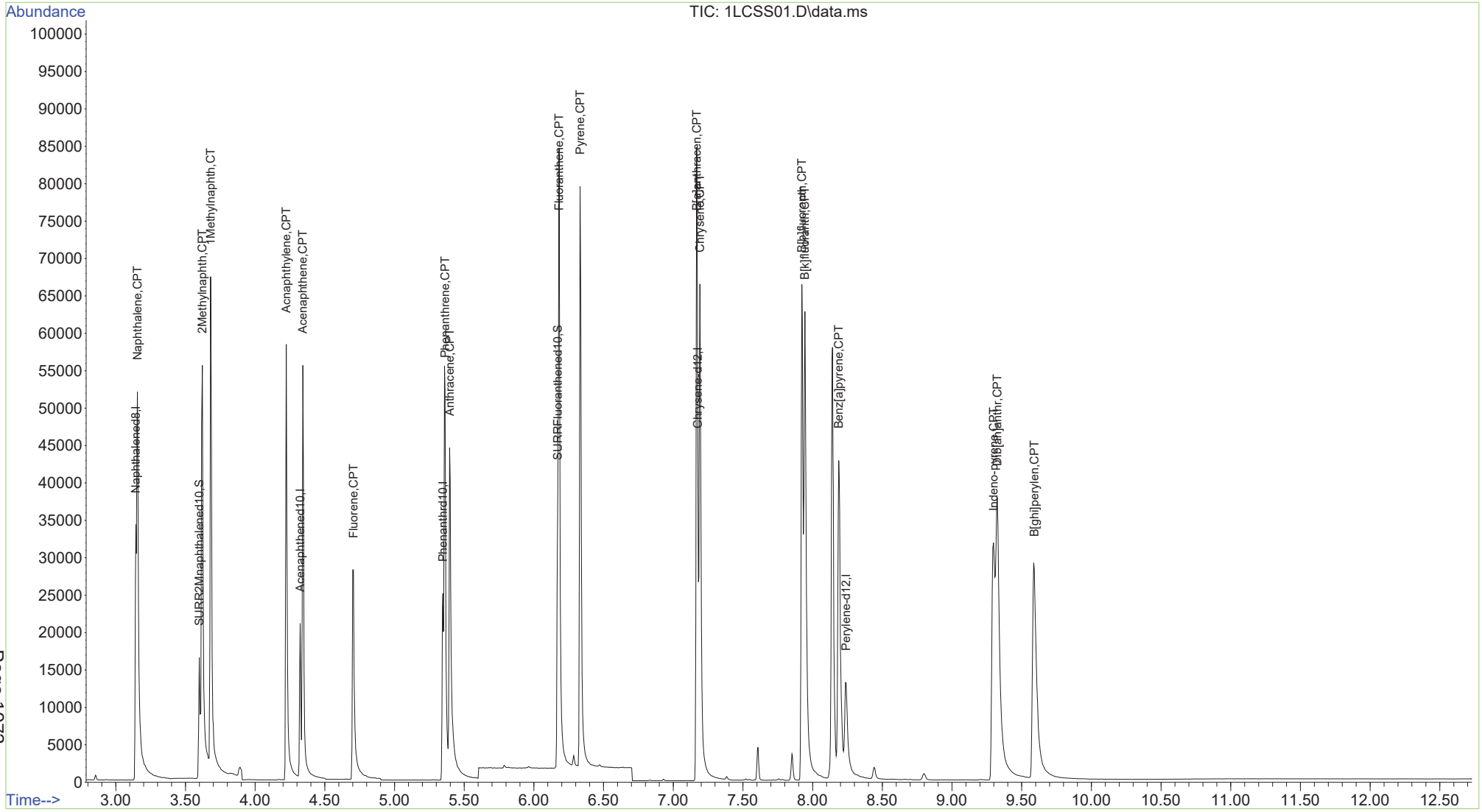
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.144	136	27802	400.00	ng/mL	0.00
6) Acenaphthened10	4.323	164	13645	400.00	ng/mL	0.00
10) Phenanthrd10	5.347	188	22222	400.00	ng/mL	0.00
15) Chrysene-d12	7.176	240	16943	400.00	ng/mL	0.00
19) Perylene-d12	8.239	264	16718	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.599	152	10704	69.42	%REC	0.00
Spiked Amount 100.000			Recovery = 69.42%			
13) SURRFluoranthened10	6.171	212	21010	95.75	%REC	0.00
Spiked Amount 100.000			Recovery = 95.75%			
Target Compounds						Qvalue
2) Naphthalene	3.155	128	41530	607.4836	ng/ml	100
4) 2Methylnaphth	3.621	142	24418	650.9065	ng/mL	81
5) 1Methylnaphth	3.680	141	21752	593.5446	ng/mL	91
7) Acnaphthylene	4.223	152	40062	700.1056	ng/mL	98
8) Acenaphthene	4.342	154	22622	583.7363	ng/mL	91
9) Fluorene	4.705	166	26942	658.6941	ng/mL	91
11) Phenanthrene	5.362	178	36879	656.1225	ng/mL	99
12) Anthracene	5.395	178	39371	711.5319	ng/mL	96
14) Fluoranthene	6.180	202	52267	826.1104	ng/mL	96
16) Pyrene	6.331	202	54302	792.6231	ng/mL	100
17) B[a]anthracen	7.169	228	45295	935.6485	ng/mL	97
18) Chrysene	7.191	228	53694	902.2578	ng/mL	98
20) B[b]fluoranth	7.922	252	45171	837.1336	ng/mL	99
21) B[k]fluoranth	7.945	252	56984	851.3065	ng/mL	98
22) Benz[a]pyrene	8.187	252	44357	843.7810	ng/mL	98
23) Indeno-pyrene	9.297	276	46955	890.0446	ng/mL	99
24) Dib[ah]anthr	9.325	278	38032	860.4811	ng/mL	99
25) B[ghi]perylen	9.590	276	36853	821.2500	ng/mL	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\1LCSS01.D Vial: 10
Acq On : 9 Sep 2019 18:55 Operator: JJY
Sample : 164274,LCSS, Inst : SVMS1
Misc : 321428,500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 09 19:09:37 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Mon Sep 09 16:29:48 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321161MS.D Vial: 30
Acq On : 10 Sep 2019 1:37 Operator: JJY
Sample : 164274,MSS321161, Inst : SVMS1
Misc : 321430,500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 14:02:23 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 13:13:41 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

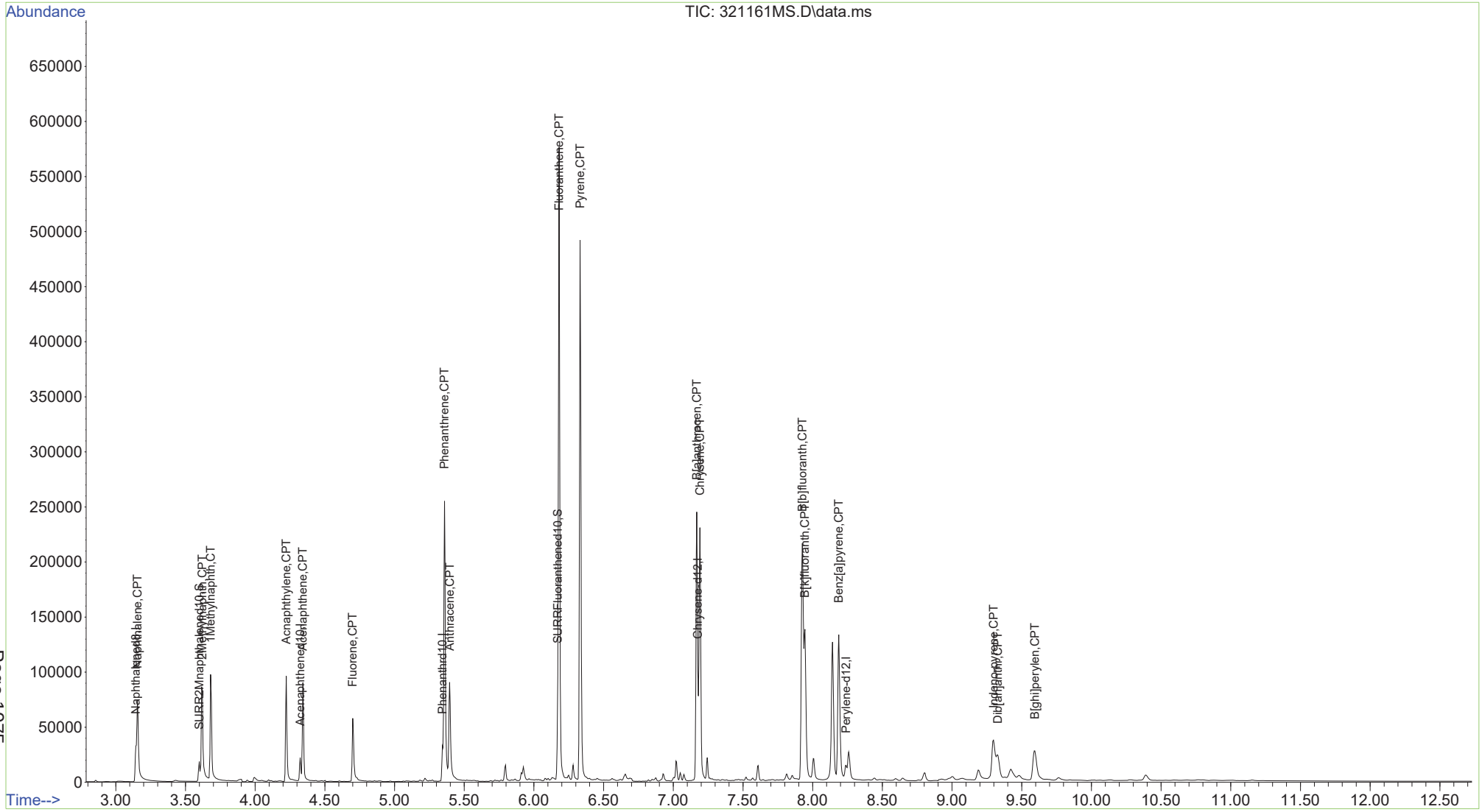
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.144	136	27671	400.00	ng/mL	0.00
6) Acenaphthened10	4.323	164	14316	400.00	ng/mL	0.00
10) Phenanthrd10	5.343	188	23862	400.00	ng/mL	0.00
15) Chrysene-d12	7.176	240	17219	400.00	ng/mL	0.00
19) Perylene-d12	8.239	264	13710	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.599	152	12313	80.23	%REC	0.00
Spiked Amount 100.000			Recovery = 80.23%			
13) SURRFluoranthened10	6.171	212	19042	80.81	%REC	0.00
Spiked Amount 100.000			Recovery = 80.81%			
Target Compounds						Qvalue
2) Naphthalene	3.155	128	56276	827.0791	ng/ml	99
4) 2Methylnaphth	3.620	142	36428	975.6522	ng/mL	75
5) 1Methylnaphth	3.680	141	30154	826.7045	ng/mL	86
7) Acnaphthylene	4.223	152	57938	965.0421	ng/mL	99
8) Acenaphthene	4.341	154	34935	859.2080	ng/mL	92
9) Fluorene	4.699	166	41300	962.4005	ng/mL	99
11) Phenanthrene	5.358	178	158033	2695.7154	ng/mL	99
12) Anthracene	5.395	178	71641	1205.7461	ng/mL	99
14) Fluoranthene	6.180	202	323086	4755.5962	ng/mL	97
16) Pyrene	6.331	202	281458	4042.4706	ng/mL	97
17) B[a]anthracen	7.168	228	153244	3008.5960	ng/mL	98
18) Chrysene	7.191	228	155764	2575.4573	ng/mL	100
20) B[b]fluoranth	7.926	252	177527	3906.0098	ng/mL	98
21) B[k]fluoranth	7.944	252	88523	1611.1462	ng/mL	98
22) Benz[a]pyrene	8.187	252	105282	2374.4868	ng/mL	99
23) Indeno-pyrene	9.297	276	43095	990.5400	ng/mL	98
24) Dib[ah]anthr	9.329	278	20145	569.7089	ng/mL	72
25) B[ghi]perylen	9.595	276	30438	826.7798	ng/mL	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S090919\321161MS.D Vial: 30
Acq On : 10 Sep 2019 1:37 Operator: JJY
Sample : 164274,MSS321161, Inst : SVMS1
Misc : 321430,500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 14:02:23 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 13:13:41 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091019\321161SD.D Vial: 13
Acq On : 10 Sep 2019 15:09 Operator: JJY
Sample : 164274,MSS321161,5 Inst : SVMS1
Misc : 321430,500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 14:39:22 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 14:11:05 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

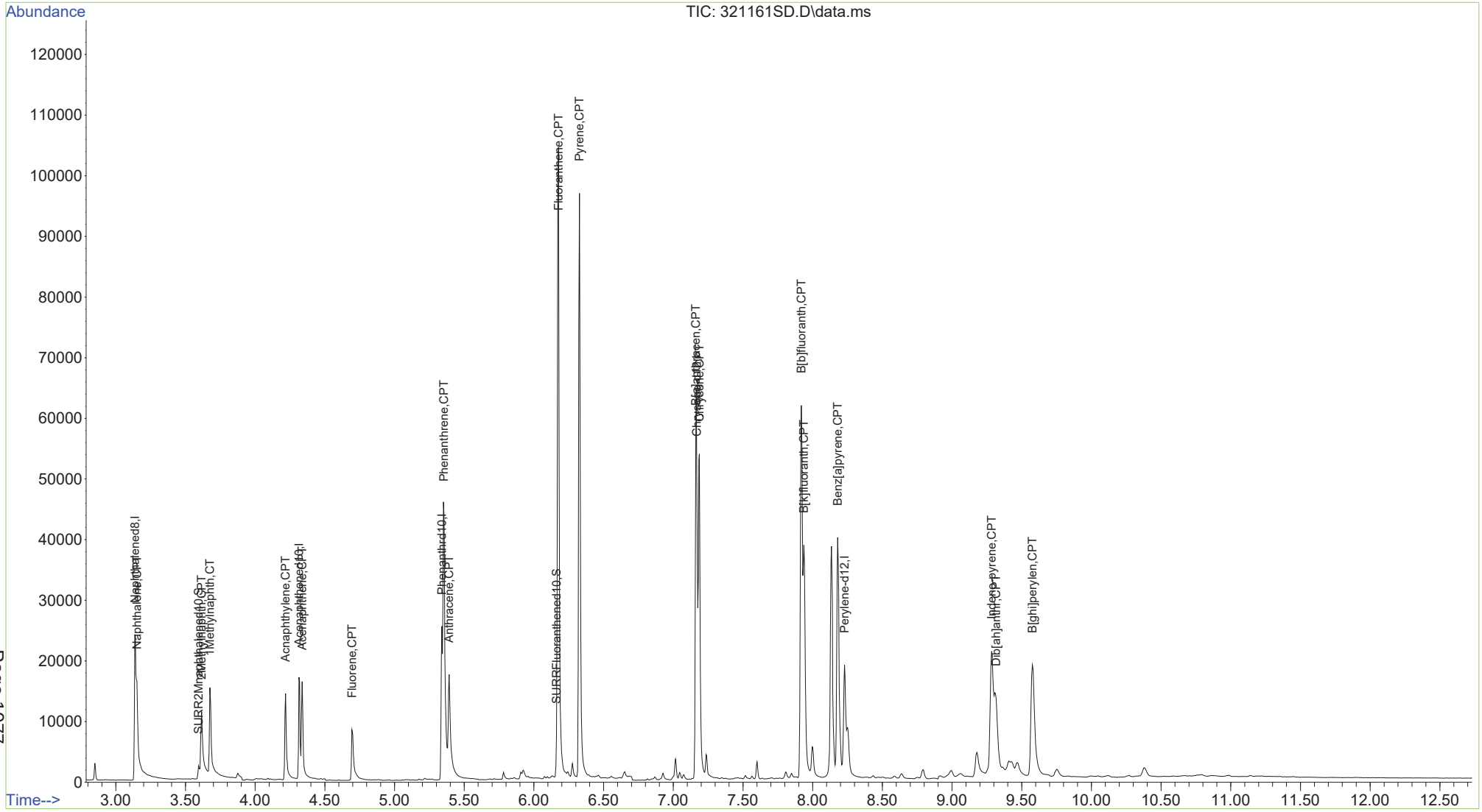
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.136	136	24948	400.00	ng/mL	0.00
6) Acenaphthened10	4.314	164	13688	400.00	ng/mL	0.00
10) Phenanthrd10	5.339	188	23370	400.00	ng/mL	0.00
15) Chrysene-d12	7.169	240	18612	400.00	ng/mL	0.00
19) Perylene-d12	8.228	264	20854	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.594	152	2227	16.10	%REC	0.00
Spiked Amount 100.000			Recovery = 16.10%			
13) SURRFluoranthened10	6.162	212	3820	16.55	%REC	0.00
Spiked Amount 100.000			Recovery = 16.55%			
Target Compounds						Qvalue
2) Naphthalene	3.151	128	10566	172.2358	ng/ml	99
4) 2Methylnaphth	3.615	142	5970	177.3467	ng/mL	89
5) 1Methylnaphth	3.675	141	6253	190.1441	ng/mL	87
7) Acnaphthylene	4.218	152	11361	197.9161	ng/mL	99
8) Acenaphthene	4.337	154	6885	177.1019	ng/mL	97
9) Fluorene	4.694	166	8585	209.2318	ng/mL	97
11) Phenanthrene	5.354	178	33283	559.3887	ng/mL	99
12) Anthracene	5.392	178	17066	293.2744	ng/mL	98
14) Fluoranthene	6.176	202	74811	1124.3471	ng/mL	93
16) Pyrene	6.327	202	65222	866.6471	ng/mL	99
17) B[a]anthracen	7.161	228	36665	701.4605	ng/mL	95
18) Chrysene	7.187	228	38006	581.3723	ng/mL	95
20) B[b]fluoranth	7.918	252	48711	727.4798	ng/mL	98
21) B[k]fluoranth	7.937	252	30096	361.4029	ng/mL	99
22) Benz[a]pyrene	8.180	252	34641	541.6190	ng/mL	99
23) Indeno-pyrene	9.284	276	24938	405.7558	ng/mL	99
24) Dib[ah]anthr	9.316	278	11573	239.6409	ng/mL	85
25) B[ghi]perylen	9.576	276	20651	394.7219	ng/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091019\321161SD.D Vial: 13
Acq On : 10 Sep 2019 15:09 Operator: JJY
Sample : 164274,MSS321161,5 Inst : SVMS1
Misc : 321430,500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 14:39:22 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 14:11:05 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091019\321161DD.D Vial: 14
Acq On : 10 Sep 2019 15:29 Operator: JJY
Sample : 164274,MSDS321161,5 Inst : SVMS1
Misc : 321431,500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 14:40:23 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 14:11:05 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

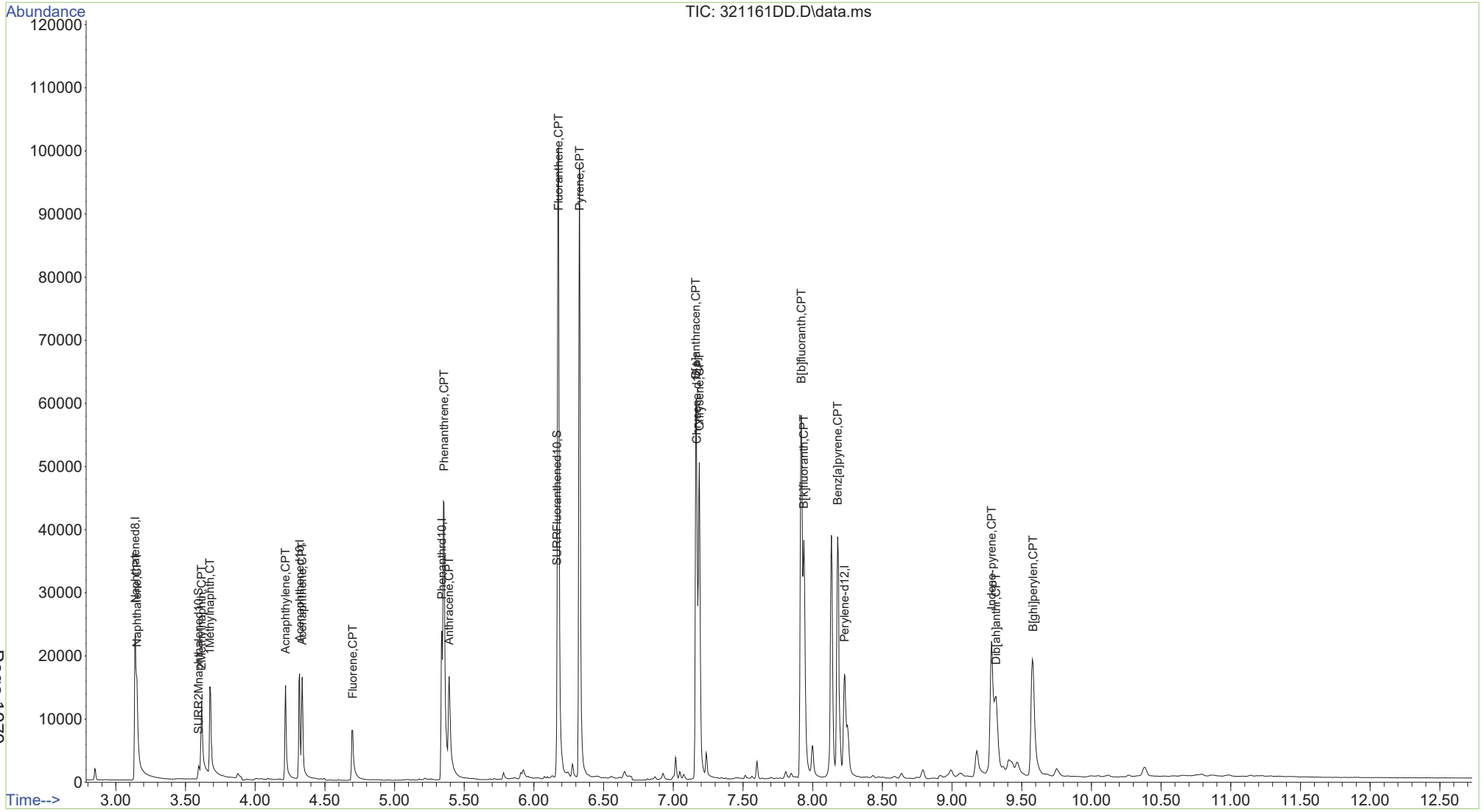
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.140	136	24309	400.00	ng/mL	0.00
6) Acenaphthened10	4.319	164	13409	400.00	ng/mL	0.00
10) Phenanthrd10	5.339	188	22720	400.00	ng/mL	0.00
15) Chrysene-d12	7.168	240	18297	400.00	ng/mL	0.00
19) Perylene-d12	8.228	264	20382	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.593	152	2252	16.70	%REC	0.00
Spiked Amount 100.000			Recovery = 16.70%			
13) SURRFluoranthened10	6.166	212	3719	16.58	%REC	0.00
Spiked Amount 100.000			Recovery = 16.58%			
Target Compounds						Qvalue
2) Naphthalene	3.151	128	10553	176.5458	ng/ml	99
4) 2Methylnaphth	3.615	142	5989	182.5878	ng/mL	90
5) 1Methylnaphth	3.675	141	6053	188.9008	ng/mL	81
7) Acnaphthylene	4.218	152	11255	200.1491	ng/mL	100
8) Acenaphthene	4.337	154	6815	178.9488	ng/mL	95
9) Fluorene	4.699	166	8469	210.6994	ng/mL	91
11) Phenanthrene	5.354	178	32541	562.7116	ng/mL	99
12) Anthracene	5.391	178	16488	291.4477	ng/mL	99
14) Fluoranthene	6.176	202	72355	1118.5461	ng/mL	93
16) Pyrene	6.327	202	63078	852.5880	ng/mL	100
17) B[a]anthracen	7.161	228	35858	698.0677	ng/mL	98
18) Chrysene	7.187	228	36968	575.2296	ng/mL	97
20) B[b]fluoranth	7.918	252	47790	730.1468	ng/mL	98
21) B[k]fluoranth	7.937	252	28549	350.8141	ng/mL	98
22) Benz[a]pyrene	8.180	252	33999	543.7415	ng/mL	99
23) Indeno-pyrene	9.283	276	24543	408.2520	ng/mL	97
24) Dib[ah]anthr	9.315	278	11250	238.5595	ng/mL	86
25) B[ghi]perylen	9.581	276	20152	394.1774	ng/mL	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091019\321161DD.D Vial: 14
Acq On : 10 Sep 2019 15:29 Operator: JJY
Sample : 164274,MSDS321161,5 Inst : SVMS1
Misc : 321431,500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 14:40:23 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 14:11:05 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M



Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091019\321161SR.D Vial: 15
Acq On : 10 Sep 2019 15:49 Operator: JJY
Sample : 164274,MSDS321161, Inst : SVMS1
Misc : 321431,500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 14:41:22 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 14:11:05 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M

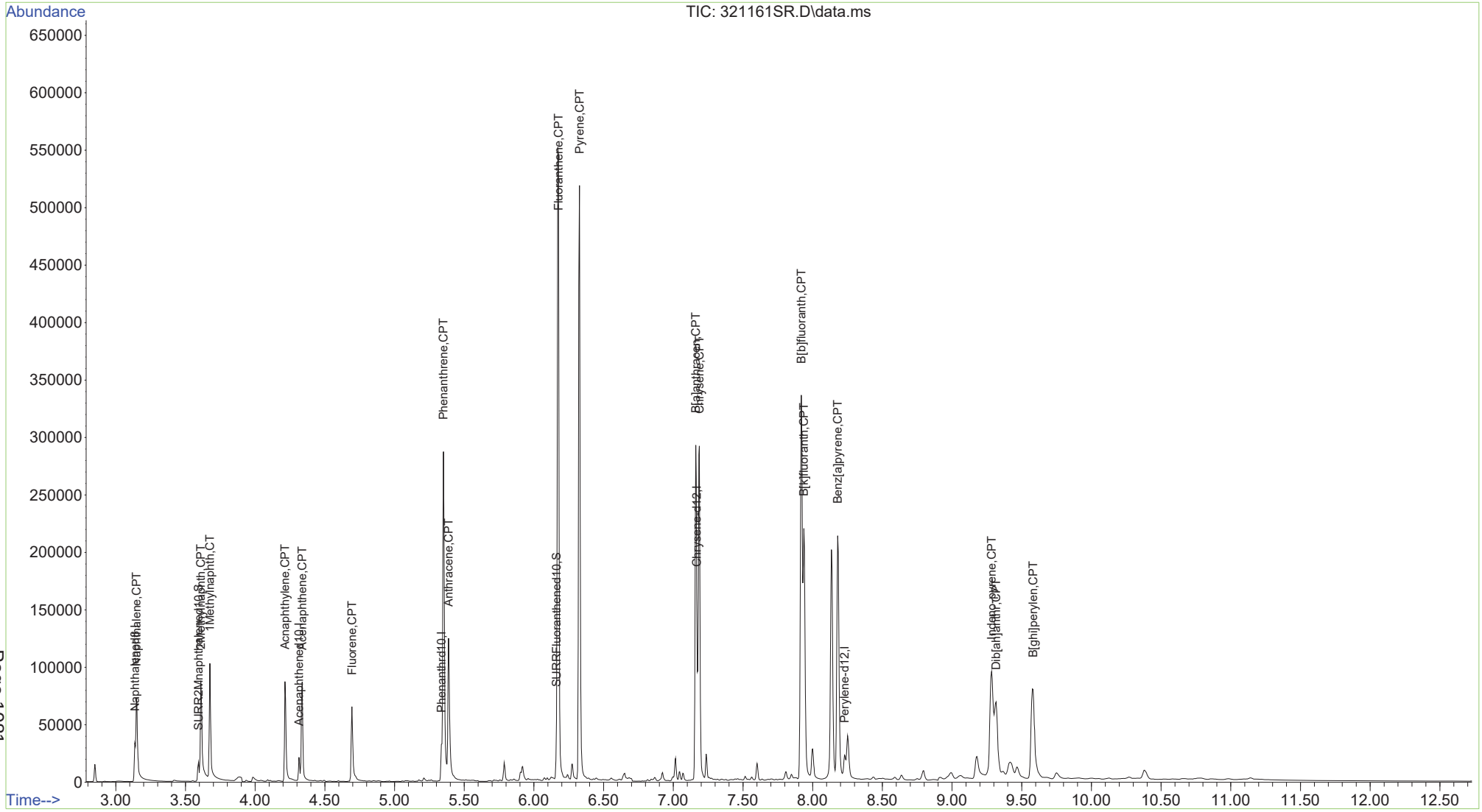
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalened8	3.136	136	27540	400.00	ng/mL	0.00
6) Acenaphthened10	4.314	164	14380	400.00	ng/mL	0.00
10) Phenanthrd10	5.336	188	25153	400.00	ng/mL	0.00
15) Chrysene-d12	7.169	240	19505	400.00	ng/mL	0.00
19) Perylene-d12	8.228	264	21201	400.00	ng/mL	0.00
System Monitoring Compounds						
3) SURR2Mnaphthalened10	3.594	152	12569	82.29	%REC	0.00
Spiked Amount 100.000			Recovery = 82.29%			
13) SURRFluoranthened10	6.162	212	20053	80.74	%REC	0.00
Spiked Amount 100.000			Recovery = 80.74%			
Target Compounds						Qvalue
2) Naphthalene	3.148	128	56716	837.5106	ng/ml	98
4) 2Methylnaphth	3.610	142	35086	944.1793	ng/mL	99
5) 1Methylnaphth	3.675	141	31266	861.2686	ng/mL	95
7) Acnaphthylene	4.214	152	61062	1012.5503	ng/mL	94
8) Acenaphthene	4.337	154	36719	899.0653	ng/mL	95
9) Fluorene	4.694	166	49235	1142.2010	ng/mL	96
11) Phenanthrene	5.351	178	184034	2980.8239	ng/mL	99
12) Anthracene	5.388	178	95443	1523.8961	ng/mL	99
14) Fluoranthene	6.176	202	363491	5075.7187	ng/mL	94
16) Pyrene	6.327	202	320446	4063.0307	ng/mL	99
17) B[a]anthracen	7.161	228	186662	3231.7449	ng/mL	98
18) Chrysene	7.187	228	206921	3020.3258	ng/mL	96
20) B[b]fluoranth	7.918	252	251555	3581.5109	ng/mL	99
21) B[k]fluoranth	7.937	252	153019	1800.7690	ng/mL	99
22) Benz[a]pyrene	8.180	252	173407	2526.7597	ng/mL	98
23) Indeno-pyrene	9.284	276	112362	1638.0910	ng/mL	99
24) Dib[ah]anthr	9.316	278	59989	1060.6790	ng/mL	83
25) B[ghi]perylen	9.581	276	84120	1440.7225	ng/mL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : C:\INSTARCH\DATA\1S091019\321161SR.D Vial: 15
Acq On : 10 Sep 2019 15:49 Operator: JJY
Sample : 164274,MSDS321161, Inst : SVMS1
Misc : 321431,500ul+5ul SVMS8389 Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 11 14:41:22 2019

Quant Method : C:\INSTARCH\METHOD\1P082619.M
Quant Title : Method for 8270 Analysis
QLast Update : Wed Sep 11 14:11:05 2019
Response via : Initial Calibration
DataAcq Meth:1P082619.M



SEMI - VOLATILE ORGANIC ANALYSIS
LOGBOOK
DOCUMENTS

S SVOC 8270 SOIL Analytical Run
164275 on 09/09/2019

Date Analyzed: _____ JJY 9/19/19 Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
147664	321149	GN-SO-01-1	08/26/2019 1023		HDR, INC	MEMPHIS DEPOT	SVOC 8270 QSM 5	73331	S	4	
147664	321154	GN-SO-01-2	08/26/2019 1115		HDR, INC	MEMPHIS DEPOT	SVOC 8270 QSM 5	73331	S	4	
147664	321155	GN-SO-02-1	08/26/2019 1130		HDR, INC	MEMPHIS DEPOT	SVOC 8270 QSM 5	73331	S	4	
147664	321157	GN-SO-DUP-1	08/26/2019 1100		HDR, INC	MEMPHIS DEPOT	SVOC 8270 QSM 5	73331	S	4	
147664	321158	GN-SO-02-2	08/26/2019 1153		HDR, INC	MEMPHIS DEPOT	SVOC 8270 QSM 5	73331	S	4	
147664	321159	GNSO-03-1	08/26/2019 1320		HDR, INC	MEMPHIS DEPOT	SVOC 8270 QSM 5	73331	S	4	
147664	321160	GN-SO-03-2	08/26/2019 1334		HDR, INC	MEMPHIS DEPOT	SVOC 8270 QSM 5	73331	S	4	
147664	321161	GN-SO-04-1	08/26/2019 1348	Designated MS/MSD	HDR, INC	MEMPHIS DEPOT	SVOC 8270 QSM 5	73331	S	4	
147664	321162	GN-SO-04-2	08/26/2019 1400		HDR, INC	MEMPHIS DEPOT	SVOC 8270 QSM 5	73331	S	4	
147664	321163	GN-SO-05-1	08/26/2019 1410		HDR, INC	MEMPHIS DEPOT	SVOC 8270 QSM 5	73331	S	4	
147664	321164	GN-SO-05-2	08/26/2019 1428		HDR, INC	MEMPHIS DEPOT	SVOC 8270 QSM 5	73331	S	4	
147664	321165	GN-SO-DUP-2	08/26/2019 1422		HDR, INC	MEMPHIS DEPOT	SVOC 8270 QSM 5	73331	S	4	
147664	321166	GN-SO-06-1	08/26/2019 1442		HDR, INC	MEMPHIS DEPOT	SVOC 8270 QSM 5	73331	S	4	
147664	321167	GN-SO-06-2	08/26/2019 1505		HDR, INC	MEMPHIS DEPOT	SVOC 8270 QSM 5	73331	S	4	
147664	321168	GN-SO-07-1	08/26/2019 1513		HDR, INC	MEMPHIS DEPOT	SVOC 8270 QSM 5	73331	S	4	
147664	321169	GN-SO-07-2	08/26/2019 1528		HDR, INC	MEMPHIS DEPOT	SVOC 8270 QSM 5	73331	S	4	
147664	321170	GN-SO-08-1	08/26/2019 1539		HDR, INC	MEMPHIS DEPOT	SVOC 8270 QSM 5	73331	S	4	
147664	321171	GN-SO-08-2	08/26/2019 1550		HDR, INC	MEMPHIS DEPOT	SVOC 8270 QSM 5	73331	S	4	
147664	321172	GN-SO-09C-1	08/26/2019 1601		HDR, INC	MEMPHIS DEPOT	SVOC 8270 QSM 5	73331	S	4	

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

S SVOC 8270 SOIL Analytical Run
164275 on 09/09/2019

Date Analyzed: _____ JJY 9/19/19 Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	321438								SVOC 8270 QSM 5				
					MBS					73331			
	321439								SVOC 8270 QSM 5				
					LCSS					73331			
	321441		08/26/2019	1348					SVOC 8270 QSM 5				
		GN-SO-04-1			MSS	321161				73331			
	321442		08/26/2019	1348					SVOC 8270 QSM 5				
		GN-SO-04-1			MSDS	321441				73331			

23 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

PREP WORKSHEET
on 09/09/2019

Prep Batch **73,331** Date Prepped: 09/04/2019 Prepped By JLH

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	321438	MBS		SVOC 8270 QSM 5	SOLID	1.0	10.00			
	321439	LCSS		SVOC 8270 QSM 5	SOLID	1.0	10.00			
147664	321149			SVOC 8270 QSM 5	SOIL	1.0	10.58		4	
	321154			SVOC 8270 QSM 5	SOIL	1.0	10.10		4	
	321155			SVOC 8270 QSM 5	SOIL	1.0	10.00		4	
	321157			SVOC 8270 QSM 5	SOIL	1.0	10.62		4	
	321158			SVOC 8270 QSM 5	SOIL	1.0	10.54		4	
	321159			SVOC 8270 QSM 5	SOIL	1.0	10.33		4	
	321160			SVOC 8270 QSM 5	SOIL	1.0	10.36		4	
	321161	sample designated for QC		SVOC 8270 QSM 5	SOIL	1.0	10.17		4	
	321162			SVOC 8270 QSM 5	SOIL	1.0	10.52		4	
	321163			SVOC 8270 QSM 5	SOIL	1.0	10.24		4	
	321164			SVOC 8270 QSM 5	SOIL	1.0	10.24		4	
	321165			SVOC 8270 QSM 5	SOIL	1.0	10.29		4	
	321166			SVOC 8270 QSM 5	SOIL	1.0	10.76		4	
	321167			SVOC 8270 QSM 5	SOIL	1.0	10.55		4	
	321168			SVOC 8270 QSM 5	SOIL	1.0	10.23		4	
	321169			SVOC 8270 QSM 5	SOIL	1.0	10.08		4	
	321170			SVOC 8270 QSM 5	SOIL	1.0	10.09		4	
	321171			SVOC 8270 QSM 5	SOIL	1.0	10.07		4	
	321172			SVOC 8270 QSM 5	SOIL	1.0	10.11		4	
	321441	MSS	321161	SVOC 8270 QSM 5	SOIL	1.0	10.08			
	321442	MSDS	321441	SVOC 8270 QSM 5	SOIL	1.0	10.65			

Notes:_____

Method 8270-SV GC/MS Extraction Bench Sheet

(SOP Reference #'s SV006 & SV007)

3510=WATER
3546=Microwave

Prep Batch #:	73331
Prep Method:	3546
Analyst:	JLH/MCM
Date:	09/04/2019
Start Time:	09:50
End Date:	09/09/2019
End Time:	16:00

Matrix: SOIL
Balance Used: SVB02
Ave MW temp(°C): 110.0

Reagent Lots>>>

Sodium Sulfate	MISC0635
Diatomaceous Earth	S4131
Dionex Solution	MISC0667A
Methylene Chloride	DX213
Acetone	NA
Sulfuric Acid	NA
Sodium Hydroxide	NA

Initial Concentration By: JLH/JAV
Date: 09/05/2019
GPC Cleanup? (yes/no): YES
Date: 09/06/2019
Final Concentration By: AJZ
Date: 09/09/2019

Microwave Cell #	Sample ID	Comments		(Solids) Sample Weight (g)	(Liquids) Sample Volume (L)	Final Volume (mL)	ph Adj. <2 (Yes/No)	pH Adj. >12 (Yes/No)
22	321438	MB		10.00		1.0	N	N
45	321439	LCS		10.00		1.0	N	N
24	321149			10.58		1.0	N	N
25	321154			10.10		1.0	N	**N**
26	321155			10.00		1.0	N	N
27	321157			10.62		1.0	N	N
28	321158			10.54		1.0	N	N
29	321159			10.33		1.0	N	N
30	321160			10.36		1.0	N	N
31	321161			10.17		1.0	N	N
32	321162			10.52		1.0	N	N
33	321163			10.24		1.0	N	N
34	321164			10.24		1.0	N	N
35	321165			10.29		1.0	N	N
36	321166			10.76		1.0	N	N
37	321167			10.55		1.0	N	N
38	321168			10.23		1.0	N	N
39	321169			10.08		1.0	N	N
40	321170			10.09		1.0	N	N
41	321171			10.07		1.0	N	N
42	321172			10.11		1.0	N	N
46	321441	(MS)	Parent Sample	10.08		1.0	N	N
47	321442	(MSD)	321430	10.65		1.0	N	N

MB=Method Blank, LCS=Laboratory Control Sample, MS=Matrix Spike & MSD=Matrix Spike Duplicate

MS/MSD/ LCS Spike Amount (mL): 1
Spike Concentration (µg/mL): 20
Spike Reference #: SVMS8400

Surrogate Spike Amount (mL): 1
Surrogate Spike Conc. (µg/mL): 20/40
Surrogate Spike Reference #: SVMS8386

Relinquished to: JJY
Date: 09/09/2019

Reviewed By: JJY
Date: 09/09/2019

Semi-Volatiles Sample Cleanup Record Sheet

FSV14-02, FSV25-01, FSV26-01, FSV28-01

Prep Batch Number(s): 73329 73331 _____ _____

GPC

Cleanup Performed (Y/N):	Y
Date:	09/06/2019
Time:	9:13
Analyst Initials:	JLH
$MeCl_2$ Lot:	DW675

Florisil

Cleanup Performed (Y/N):	N
Date:	
Time:	
Analyst Initials:	
Cartridge I.D. Number:	
Hexane Lot:	
Acetone Lot:	

Acid

Cleanup Performed (Y/N):	N
Date:	
Time:	
Analyst Initials:	
H_2SO_4 Lot:	
Number of treatments:	

Sulfur

Cleanup Performed (Y/N):	Y
Date:	09/09/2019
Time:	16:00
Analyst Initials:	AJZ
Copper Lot:	910140-BI

Comments:

8270 SVOC Analysis Data Review Checklist

Analytical Run #: 164275	**Independent Reviewer: AJZ**
Sequence Date: 09/11/2019	**Date of Review: 09/16/2019**
Analyst/Data Interpreter: JJY	**Approval: Yes**

Instructions: Complete one checklist per *analytical run* . Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirements:	Acceptance Criteria	Analyst Review		Independent Review		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
1. INITIAL CALIBRATION (ICAL)						
a. Was the initial calibration performed using a minimum of five standard concentration levels?	Lowest standard at or near MRL	X		X		
b. SPCC responses.	Avg. RRF ≥ 0.05	X		X		
c. Is the variation between calibration response factors for all concentration levels <15% RSD or r^2 > 0.990 for the regression line. RSD≤ 15%, ≤ 30% for CCCs.	RSD≤ 15%, ≤ 30% for CCCs	X		X		
d. Were the standards used for the ICAL uniquely identified?		X		X		
e. Was there a DFTPP standard analyzed prior to the ICAL?		X		X		
f. Was an instrument blank (IB) analyzed prior to the ICAL?		X		X		
g. Data reviewer: was the ICAL viewed on the data system (ChemStation) to verify that peaks are correctly identified?	Viewed on data system by 2nd analyst			X		
2. INITIAL CALIBRATION VERIFICATION (ICV)						
a. Were there a second source ICVs for all target analytes analyzed after the initial calibration and prior to analysis of any samples?	Second source	X		X		
b. Were the SPCC within QC limits	RRF ≥ 0.05	X		X		
c. Were the CCCs within QC limits	%D ≤ 20%	X		X		
d. Were the ICVs uniquely identified (i.e. Standard Number)?		X		X		
3. CONTINUING CALIBRATION VERIFICATION (CCV)						
a. Were CCVs for target analytes analyzed at the beginning of the sequence and after every 12 hours.		X		X		
b. Were SPCC compounds acceptable?	RRF ≥ 0.050	X		X		
c. Were the CCCs compounds acceptable?	%D ≤ 20%	X		X		
d. Were the recoveries for the CCVs acceptable?	%D≤20%		X		X	See below.
e. Was each CCV uniquely identified (i.e. Standard Number)?		X		X		

Additional Comments:
Ending CCV had low responses for 4 analytes: benzyl alcohol, benzidine, 3,3'-dichlorobenzidine, benzo(g,h,i)perylene. Qualified with "Z" in the associated samples.

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8270 SVOC Analysis Data Review Checklist

Requirements:	Acceptance Criteria	Analyst		Independent		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
4. DFTPP						
a. Was a DFTPP tune check ran at the beginning of every twelve hour shift?		X		X		
b. Were the relative abundance criteria met?		X		X		
c. Was the peak tailing <2 on Pentachlorophenol and <2 on Benzidine?	Tailing <2%	X		X		
d. Was the breakdown of DDT to DDE and DDD less than 20%	Breakdown ≤20%	X		X		
5. BLANKS						
a. Was method blank (MB) analyzed prior to the analysis of samples?		X		X		
b. Were the MB results less than the reporting limit (RL)?	< MRL	X		X		
c. Was a MB prepped and analyzed at a frequency of one per Prep Batch?	Batch <20 samples	X		X		
6. LABORATORY CONTROL SAMPLE (LCS)						
a. Was a LCS analyzed prior to the analysis of samples?		X		X		
b. Were the LCS recoveries in each LCS within the acceptance criteria?	In-house limits or client specified limits		X		X	See below.
7. MATRIX SPIKES						
a. Was a matrix spiked (MS) sample analyzed at a frequency one per Prep Batch?	Batch <20 samples	X		X		
b. Were MS recoveries in each MS within the acceptance criteria?	In-house limits or client specified limits		X		X	See below.
8. LABORATORY CONTROL SPIKE / MATRIX SPIKE DUPLICATE						
a. Was a duplicate matrix spike or laboratory control spike sample analyzed at a . frequency one per Prep Batch?	Batch <20 samples	X		X		
b. Were MSD or LCSD recoveries within the acceptance criteria?	In-house limits or client specified limits		X		X	See below.
c. Is the relative percent difference (RPD) between a matrix spike (MS) and its' duplicate (MSD) or laboratory control spike (LCS) and its' duplicate (LCSD) within the acceptance criteria?	In-house limits or client specified limits		X		X	See below.

Additional Comments:

LCS had low recoveries of aniline and 3,3'-dichlorobenzidine and high recoveries of 2,4-dinitrophenol and pyridine. Qualified with "Q" in associated samples.

MS and MSD analyzed on sample 321161 had low recoveries for multiple analytes and high recoveries for multiple other analytes. Qualified with "M" in parent sample.

High RPDs for 22 analytes. Qualified with "Y" in parent sample.

8270 SVOC Analysis Data Review Checklist

Requirements:	Acceptance Criteria	Analyst		Independent		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
9. SAMPLES (INCLUDING BLANKS, STANDARDS, AND QC SAMPLES)						
a. Are chromatogram characteristics, including peak shapes and areas, consistent with those of the CCV?		X		X		
b. Are surrogate recoveries for all samples, blanks, standards, and QC samples within acceptance criteria?			X		X	See below.
c. Were all samples having analytes detected in amounts exceeding the calibration range diluted and reanalyzed?		X		X		
d. Were all samples extracted within holding times?	Waters extracted within 7days of collection, soils 14 days of collection	X		X		
e.Were all samples analyzed within 40 days of extracting?	Analysis within 40 days of extraction	X		X		
f. Did the samples require additional cleanup steps? (i.e. acid treatment, acid-base fractioning, and GPC)	GPC, Acid/Base, Treatments	X		X		GPC, sulfur.
g. Where all manual integratinons performed properly?		X		X		
h. Was the rational for the manual integration verified?		X		X		
10. RECORDS AND REPORTING						
a. Are Run, Prep Batch and Extraction sheets, Summary sheets, Sequence file, initial and rerun raw and process data present in the data file?		X		X		
b. Are all chromatograms dated and initialed?		X		X		
c. Are reported results whose amounts exceeded the acceptance criteria flagged with an appropriate qualifier and, if needed, a NCR completed?		X		X		
d. Do all values, dilution factors and qualifiers listed on the raw reports match the LIMS data?		X		X		
e. Is the ICAL method referenced on the Raw Data?		X		X		

Additional Comments:
6 samples had low recoveries for one or more surrogate standards. "S".

S SVOC 8270 WATER Analytical Run
164171 on 09/05/2019

Date Analyzed: _____ JJY 9/19/19 Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
147687	321513		08/27/2019 1400		HDR, INC	MEMPHIS DEPOT	SVOC 8270 QSM 5		GW	4	
		GN-W-RB-01						73348			
	321838						SVOC 8270 QSM 5				
				MBW				73348			
	321839						SVOC 8270 QSM 5				
				LCSW				73348			
	321840						SVOC 8270 QSM 5				
				LCSDW 321839				73348			

4 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

PREP WORKSHEET
on 09/05/2019

Prep Batch **73,348** Date Prepped: 09/03/2019 Prepped By MCM

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	321838	MBW		SVOC 8270 QSM 5	LIQUID	1.0		1.00		
	321839	LCSW		SVOC 8270 QSM 5	LIQUID	1.0		1.00		
	321840	LCSD	321839	SVOC 8270 QSM 5	LIQUID	1.0		1.00		
147687	321513			SVOC 8270 QSM 5	GROUND WATER	1.0		0.96	4	

Notes:_____

Method 8270-SV GC/MS Extraction Bench Sheet

(SOP Reference #'s SV006 & SV007)

3510=WATER
3546=Microwave

Prep Batch #:	73348
Prep Method:	3510
Analyst:	MCM/JLH
Date:	09/03/2019
Start Time:	13:30
End Date:	09/04/2019
End Time:	14:30

Matrix: WATER
Balance Used: NA
Ave MW temp(°C): NA

Reagent Lots>>>

Sodium Sulfate: MISC0635
Diatomaceous Earth: S4131
Dionex Solution: NA
Methylene Chloride: DX213
Acetone: NA
Sulfuric Acid: MISC0634
Sodium Hydroxide: MISC0633

Initial Concentration By: NA
Date: NA
GPC Cleanup? (yes/no): NA
Date: NA
Final Concentration By: AJZ
Date: 09/04/2019

Microwave Cell #	Sample ID	Comments	(Solids) Sample Weight (g)	(Liquids) Sample Volume (L)	Final Volume (mL)	ph Adj. <2 (Yes/No)	pH Adj. >12 (Yes/No)
	321838	MB		1.00	1.0	Y	Y
	321839	LCS		1.00	1.0	Y	Y
	321840	LCSD		1.00	1.0	Y	Y
	321513			0.96	1.0	Y	**Y**
					1.0		
					1.0		
					1.0		
					1.0		
					1.0		
					1.0		
					1.0		
					1.0		
					1.0		
					1.0		
					1.0		
					1.0		
					1.0		
					1.0		
					1.0		
					1.0		
					1.0		
					1.0		
		(MS) Parent Sample			1.0		
		(MSD)			1.0		

MB=Method Blank, LCS=Laboratory Control Sample, MS=Matrix Spike & MSD=Matrix Spike Duplicate

MS/MSD/ LCS Spike Amount (mL): 1
Spike Concentration (µg/mL): 20
Spike Reference #: SVMS8400

Surrogate Spike Amount (mL): 1
Surrogate Spike Conc. (µg/mL): 20/40
Surrogate Spike Reference #: SVMS8469

Relinquished to: JJY
Date: 09/04/2019

Reviewed By: JJY
Date: 09/05/2019

8270 SVOC Analysis Data Review Checklist

Analytical Run #: 164171	**Independent Reviewer: AJZ**
Sequence Date: 09/05/2019	**Date of Review: 09/06/2019**
Analyst/Data Interpreter: JJY	**Approval: Yes**

Instructions: Complete one checklist per *analytical run* . Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirements:	Acceptance Criteria	Analyst Review		Independent Review		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
1. INITIAL CALIBRATION (ICAL)						
a. Was the initial calibration performed using a minimum of five standard concentration levels?	Lowest standard at or near MRL	X		X		
b. SPCC responses.	Avg. RRF ≥ 0.05	X		X		
c. Is the variation between calibration response factors for all concentration levels <15% RSD or r^2 > 0.990 for the regression line. RSD≤ 15%, ≤ 30% for CCCs.	RSD≤ 15%, ≤ 30% for CCCs	X		X		
d. Were the standards used for the ICAL uniquely identified?		X		X		
e. Was there a DFTPP standard analyzed prior to the ICAL?		X		X		
f. Was an instrument blank (IB) analyzed prior to the ICAL?		X		X		
g. Data reviewer: was the ICAL viewed on the data system (ChemStation) to verify that peaks are correctly identified?	Viewed on data system by 2nd analyst			X		
2. INITIAL CALIBRATION VERIFICATION (ICV)						
a. Were there a second source ICVs for all target analytes analyzed after the initial calibration and prior to analysis of any samples?	Second source	X		X		
b. Were the SPCC within QC limits	RRF ≥ 0.05	X		X		
c. Were the CCCs within QC limits	%D ≤ 20%	X		X		
d. Were the ICVs uniquely identified (i.e. Standard Number)?		X		X		
3. CONTINUING CALIBRATION VERIFICATION (CCV)						
a. Were CCVs for target analytes analyzed at the beginning of the sequence and after every 12 hours.		X		X		
b. Were SPCC compounds acceptable?	RRF ≥ 0.050	X		X		
c. Were the CCCs compounds acceptable?	%D ≤ 20%	X		X		
d. Were the recoveries for the CCVs acceptable?	%D≤20%	X		X		
e. Was each CCV uniquely identified (i.e. Standard Number)?		X		X		

Additional Comments:

8270 SVOC Analysis Data Review Checklist

Requirements:	Acceptance Criteria	Analyst		Independent		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
4. DFTPP						
a. Was a DFTPP tune check ran at the beginning of every twelve hour shift?		x		x		
b. Were the relative abundance criteria met?		x		x		
c. Was the peak tailing <2 on Pentachlorophenol and <2 on Benzidine?	Tailing <2%	x		x		
d. Was the breakdown of DDT to DDE and DDD less than 20%	Breakdown ≤20%	x		x		
5. BLANKS						
a. Was method blank (MB) analyzed prior to the analysis of samples?		x		x		
b. Were the MB results less than the reporting limit (RL)?	< MRL	x		x		
c. Was a MB prepped and analyzed at a frequency of one per Prep Batch?	Batch <20 samples	x		x		
6. LABORATORY CONTROL SAMPLE (LCS)						
a. Was a LCS analyzed prior to the analysis of samples?		x		x		
b. Were the LCS recoveries in each LCS within the acceptance criteria?	In-house limits or client specified limits	x		x		
7. MATRIX SPIKES						
a. Was a matrix spiked (MS) sample analyzed at a frequency one per Prep Batch?	Batch <20 samples		x		x	LCS/LCSD.
b. Were MS recoveries in each MS within the acceptance criteria?	In-house limits or client specified limits	na		na		
8. LABORATORY CONTROL SPIKE / MATRIX SPIKE DUPLICATE						
a. Was a duplicate matrix spike or laboratory control spike sample analyzed at a . frequency one per Prep Batch?	Batch <20 samples	x		x		
b. Were MSD or LCSD recoveries within the acceptance criteria?	In-house limits or client specified limits	x		x		
c. Is the relative percent difference (RPD) between a matrix spike (MS) and its' duplicate (MSD) or laboratory control spike (LCS) and its' duplicate (LCSD) within the acceptance criteria?	In-house limits or client specified limits	x		x		

Additional Comments:

8270 SVOC Analysis Data Review Checklist

Requirements:	Acceptance Criteria	Analyst		Independent		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
9. SAMPLES (INCLUDING BLANKS, STANDARDS, AND QC SAMPLES)						
a. Are chromatogram characteristics, including peak shapes and areas, consistent with those of the CCV?		X		X		
b. Are surrogate recoveries for all samples, blanks, standards, and QC samples within acceptance criteria?		X		X		
c. Were all samples having analytes detected in amounts exceeding the calibration range diluted and reanalyzed?		X		X		
d. Were all samples extracted within holding times?	Waters extracted within 7days of collection, soils 14 days of collection	X		X		
e.Were all samples analyzed within 40 days of extracting?	Analysis within 40 days of extraction	X		X		
f. Did the samples require additional cleanup steps? (i.e. acid treatment, acid-base fractioning, and GPC)	GPC, Acid/Base, Treatments		X		X	
g. Where all manual integratinons performed properly?		X		X		
h. Was the rational for the manual integration verified?		X		X		
10. RECORDS AND REPORTING						
a. Are Run, Prep Batch and Extraction sheets, Summary sheets, Sequence file, initial and rerun raw and process data present in the data file?		X		X		
b. Are all chromatograms dated and initialed?		X		X		
c. Are reported results whose amounts exceeded the acceptance criteria flagged with an appropriate qualifier and, if needed, a NCR completed?		X		X		
d. Do all values, dilution factors and qualifiers listed on the raw reports match the LIMS data?		X		X		
e. Is the ICAL method referenced on the Raw Data?		X		X		

Additional Comments:

Sequence Name: C:\INSTARCH\SEQUENCE\1S082019.S
Comment: 8270
Operator: RPN
Data Path: C:\INSTARCH\DATA\1S082019\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

JJY
9/4/19

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line			Sample Name/Misc Info	
1)	Sample	100	1PRIM01	1S082019 PRIMER 50ug/mL
2)	DFTPP	1	1DFTP449	1DFTPP DFTPP TUNE SVMS8353
3)	Sample	99	1IB01	1S082019 InstrumentBlank
4)	Sample	2	1ICAL7	1S082019 ICAL 50ug/mL SVMS8430
5)	Sample	3	1ICAL6	1S082019 ICAL 40ug/mL SVMS8429
6)	Sample	4	1ICAL5	1S082019 ICAL 30ug/mL SVMS8428
7)	Sample	5	1ICAL4	1S082019 ICAL 20ug/mL SVMS8427
8)	Sample	6	1ICAL3	1S082019 ICAL 10ug/mL SVMS8426
9)	Sample	7	1ICAL2	1S082019 ICAL 5ug/mL SVMS8425
10)	Sample	8	1ICAL1	1S082019 ICAL 1ug/mL SVMS8424
11)	Sample	9	1ICV1	1S082019 ICV 20ug/mL SVMS8431
12)	Sample	10	1ICV2	1S082019 ICV 40ug/mL SVMS8432
13)	Sample	11	1IB02	1S082019 InstrumentBlank
14)	Sample	12	1ICAL7A	1S082019 ICAL A 50ug/mL SVMS8440
15)	Sample	13	1ICAL6A	1S082019 ICAL A 40ug/mL SVMS8439
16)	Sample	14	1ICAL5A	1S082019 ICAL A 30ug/mL SVMS8438
17)	Sample	15	1ICAL4A	1S082019 ICAL A 20ug/mL SVMS8437
18)	Sample	16	1ICAL3A	1S082019 ICAL A 10ug/mL SVMS8436
19)	Sample	17	1ICAL2A	1S082019 ICAL A 5ug/mL SVMS8435
20)	Sample	18	1ICAL1A	1S082019 ICAL A 1ug/mL SVMS8434
21)	Sample	19	1ICV1A	1S082019 ICV A 20ug/mL SVMS8441
22)	Sample	20	1ICV2A	1S082019 ICV A 40ug/mL SVMS8442
23)	Sample	21	1IB03	1S082019 InstrumentBlank
24)	Sample	22	1MBW01	1S082019 163485,MBW,
25)	Sample	23	1LCSW01	1S082019 163485,LCSW,
26)	Sample	24	314232	1S082019 163485,314232,
27)	Sample	25	314234	1S082019 163485,314234,
28)	Sample	26	314236	1S082019 163485,314236,
29)	Sample	27	1LCSDW01	1S082019 163485,LCSDW,
30)	Sample	28	1CCV578	1S082019 CCV 20ug/mL SVMS8433
31)	Sample	29	1CCV579	1S082019 CCV A 20ug/mL SVMS8443

Sequence Name: C:\INSTARCH\SEQUENCE\1S090519.s
Comment: 8270
Operator: JJY
Data Path: C:\INSTARCH\DATA\1S090519\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

JJY
9/19/19

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line		Sample Name/Misc Info		
1) Sample	100	1PRIM01	1S082019	PRIMER 50ug/mL
2) DFTPP	1	1DFTP462	1DFTPP	DFTPP TUNE SVMS8353
3) Sample	2	1CCV600	1S082019	CCV 20ug/mL SVMS8433
4) Sample	3	1CCV601	1S082019	CCV A 20ug/mL SVMS8443
5) Sample	4	1MBW01	1S082019	164171,MBW,
6) Sample	5	1LCSW01	1S082019	164171,LCSW,
7) Sample	6	321513	1S082019	164171,321513,
8) Sample	7	1LCSDW01	1S082019	164171,LCSDW,
9) Sample	8	1CCV602	1S082019	CCV 20ug/mL SVMS8433
10) Sample	9	1CCV603	1S082019	CCV A 20ug/mL SVMS8443
11) Sample	10	1MBS01	1S082019	164169,MBS,
12) Sample	11	1LCSS01	1S082019	164169,LCSS,
13) Sample	12	320880	1S082019	164169,320880,
14) Sample	13	320882	1S082019	164169,320882,
15) Sample	14	320886	1S082019	164169,320886,
16) Sample	15	320888	1S082019	164169,320888,
17) Sample	16	320890	1S082019	164169,320890,
18) Sample	17	320895	1S082019	164169,320895,
19) Sample	18	320897	1S082019	164169,320897,
20) Sample	19	321495	1S082019	164169,321495,
21) Sample	20	320893	1S082019	164169,320893,
22) Sample	21	320893MS	1S082019	164169,MSS320893,
23) Sample	22	320893SD	1S082019	164169,MSDS320893,

Sequence Name: C:\INSTARCH\SEQUENCE\1S091119.s
Comment: 8270
Operator: JJY
Data Path: C:\INSTARCH\DATA\1S091119\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

JJY
9/19/19

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line			Sample Name/Misc Info	
1)	Sample	100	1PRIM01	1S082019 PRIMER 50ug/mL
2)	DFTPP	1	1DFTP466	1DFTPP DFTPP TUNE SVMS8353
3)	Sample	2	1CCV609	1S082019 CCV 20ug/mL SVMS8433
4)	Sample	3	1CCV610	1S082019 CCV A 20ug/mL SVMS8443
5)	Sample	4	1MBS01	1S082019 164275,MBS,
6)	Sample	5	1LCSS01	1S082019 164275,LCSS,
7)	Sample	6	321149	1S082019 164275,321149,
8)	Sample	7	321154	1S082019 164275,321154,
9)	Sample	8	321155	1S082019 164275,321155,
10)	Sample	9	321157	1S082019 164275,321157,
11)	Sample	10	321158	1S082019 164275,321158,
12)	Sample	11	321159	1S082019 164275,321159,
13)	Sample	12	321160	1S082019 164275,321160,
14)	Sample	13	321162	1S082019 164275,321162,
15)	Sample	14	321163	1S082019 164275,321163,
16)	Sample	15	321164	1S082019 164275,321164,
17)	Sample	16	321165	1S082019 164275,321165,
18)	Sample	17	321166	1S082019 164275,321166,
19)	Sample	18	321167	1S082019 164275,321167,
20)	Sample	19	321168	1S082019 164275,321168,
21)	Sample	20	321169	1S082019 164275,321169,
22)	Sample	21	321170	1S082019 164275,321170,
23)	Sample	22	321171	1S082019 164275,321171,
24)	Sample	23	321172	1S082019 164275,321172,
25)	Sample	24	321161	1S082019 164275,321161,
26)	Sample	25	321161MS	1S082019 164275,MSS321161,
27)	Sample	26	321161SD	1S082019 164275,MSDS321161,
28)	Sample	27	1CCV611	1S082019 CCV 20ug/mL SVMS8433
29)	Sample	28	1CCV612	1S082019 CCV A 20ug/mL SVMS8443
30)	Sample	29	1PRIM02	1S082019 PRIMER 50ug/mL
31)	DFTPP	30	1DFTP467	1DFTPP DFTPP TUNE SVMS8353
32)	Sample	31	1CCV613	1S082019 CCV 20ug/mL SVMS8433
33)	Sample	32	1MBTS01	1S082019 164265,MBTS,
34)	Sample	33	1MBTV01	1S082019 164265,MBTV,
35)	Sample	34	1MBW01	1S082019 164265,MBW,
36)	Sample	35	1LCSW01	1S082019 164265,LCSW,
37)	Sample	36	320881	1S082019 164265,320881,
38)	Sample	37	320883	1S082019 164265,320883,
39)	Sample	38	320887	1S082019 164265,320887,
40)	Sample	39	320889	1S082019 164265,320889,
41)	Sample	40	320892	1S082019 164265,320892,
42)	Sample	41	320896	1S082019 164265,320896,
43)	Sample	42	320898	1S082019 164265,320898,

Sequence Name: C:\INSTARCH\SEQUENCE\1S091119.s

	Line	Type	Vial	DataFile	Method	Sample Name
44)		Sample	43	321496	1S082019	164265,321496,
45)		Sample	44	320894	1S082019	164265,320894,
46)		Sample	45	320894MS	1S082019	164265,MSW320894,
47)		Sample	46	321161DR	1S082019	164275,MSDS321161,10
48)		Sample	47	1CCV614	1S082019	CCV 20 ug/mL SVMS8433

JJY
9/19/19

S SVOC SIM Analytical Run
164274 on 09/09/2019

Date Analyzed: _____ JJY 9/19/19 Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
147664	321149	GN-SO-01-1	08/26/2019 1023		HDR, INC	MEMPHIS DEPOT	PAH SIM QSM 5.1	73329	S	4	
147664	321154	GN-SO-01-2	08/26/2019 1115		HDR, INC	MEMPHIS DEPOT	PAH SIM QSM 5.1	73329	S	4	
147664	321155	GN-SO-02-1	08/26/2019 1130		HDR, INC	MEMPHIS DEPOT	PAH SIM QSM 5.1	73329	S	4	
147664	321157	GN-SO-DUP-1	08/26/2019 1100		HDR, INC	MEMPHIS DEPOT	PAH SIM QSM 5.1	73329	S	4	
147664	321158	GN-SO-02-2	08/26/2019 1153		HDR, INC	MEMPHIS DEPOT	PAH SIM QSM 5.1	73329	S	4	
147664	321159	GNSO-03-1	08/26/2019 1320		HDR, INC	MEMPHIS DEPOT	PAH SIM QSM 5.1	73329	S	4	
147664	321160	GN-SO-03-2	08/26/2019 1334		HDR, INC	MEMPHIS DEPOT	PAH SIM QSM 5.1	73329	S	4	
147664	321161	GN-SO-04-1	08/26/2019 1348		HDR, INC	MEMPHIS DEPOT	PAH SIM QSM 5.1	73329	S	4	
147664	321162	GN-SO-04-2	08/26/2019 1400	Designated MS/MSD	HDR, INC	MEMPHIS DEPOT	PAH SIM QSM 5.1	73329	S	4	
147664	321163	GN-SO-05-1	08/26/2019 1410		HDR, INC	MEMPHIS DEPOT	PAH SIM QSM 5.1	73329	S	4	
147664	321164	GN-SO-05-2	08/26/2019 1428		HDR, INC	MEMPHIS DEPOT	PAH SIM QSM 5.1	73329	S	4	
147664	321165	GN-SO-DUP-2	08/26/2019 1422		HDR, INC	MEMPHIS DEPOT	PAH SIM QSM 5.1	73329	S	4	
147664	321166	GN-SO-06-1	08/26/2019 1442		HDR, INC	MEMPHIS DEPOT	PAH SIM QSM 5.1	73329	S	4	
147664	321167	GN-SO-06-2	08/26/2019 1505		HDR, INC	MEMPHIS DEPOT	PAH SIM QSM 5.1	73329	S	4	
147664	321168	GN-SO-07-1	08/26/2019 1513		HDR, INC	MEMPHIS DEPOT	PAH SIM QSM 5.1	73329	S	4	
147664	321169	GN-SO-07-2	08/26/2019 1528		HDR, INC	MEMPHIS DEPOT	PAH SIM QSM 5.1	73329	S	4	
147664	321170	GN-SO-08-1	08/26/2019 1539		HDR, INC	MEMPHIS DEPOT	PAH SIM QSM 5.1	73329	S	4	
147664	321171	GN-SO-08-2	08/26/2019 1550		HDR, INC	MEMPHIS DEPOT	PAH SIM QSM 5.1	73329	S	4	
147664	321172	GN-SO-09C-1	08/26/2019 1601		HDR, INC	MEMPHIS DEPOT	PAH SIM QSM 5.1	73329	S	4	

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Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

S SVOC SIM Analytical Run
164274 on 09/09/2019

Date Analyzed: _____ JJY Date Reviewed: _____

Date Entered: _____ 9/19/19 Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	321427								PAH SIM QSM 5.1				
					MBS					73329			
	321428								PAH SIM QSM 5.1				
					LCSS					73329			
	321430		08/26/2019	1348					PAH SIM QSM 5.1				
		GN-SO-04-1			MSS	321161				73329			
	321431		08/26/2019	1348					PAH SIM QSM 5.1				
		GN-SO-04-1			MSDS	321430				73329			

23 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

PREP WORKSHEET
on 09/09/2019

Prep Batch **73,329** Date Prepped: 09/04/2019 Prepped By JLH

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	321427	MBS		PAH SIM QSM 5.1	SOLID	1.0	10.00			
	321428	LCSS		PAH SIM QSM 5.1	SOLID	1.0	10.00			
147664	321149			PAH SIM QSM 5.1	SOIL	1.0	10.58		4	
	321154			PAH SIM QSM 5.1	SOIL	1.0	10.10		4	
	321155			PAH SIM QSM 5.1	SOIL	1.0	10.00		4	
	321157			PAH SIM QSM 5.1	SOIL	1.0	10.62		4	
	321158			PAH SIM QSM 5.1	SOIL	1.0	10.54		4	
	321159			PAH SIM QSM 5.1	SOIL	1.0	10.33		4	
	321160			PAH SIM QSM 5.1	SOIL	1.0	10.36		4	
	321161	sample designated for QC		PAH SIM QSM 5.1	SOIL	1.0	10.17		4	
	321162			PAH SIM QSM 5.1	SOIL	1.0	10.52		4	
	321163			PAH SIM QSM 5.1	SOIL	1.0	10.24		4	
	321164			PAH SIM QSM 5.1	SOIL	1.0	10.24		4	
	321165			PAH SIM QSM 5.1	SOIL	1.0	10.29		4	
	321166			PAH SIM QSM 5.1	SOIL	1.0	10.76		4	
	321167			PAH SIM QSM 5.1	SOIL	1.0	10.55		4	
	321168			PAH SIM QSM 5.1	SOIL	1.0	10.23		4	
	321169			PAH SIM QSM 5.1	SOIL	1.0	10.08		4	
	321170			PAH SIM QSM 5.1	SOIL	1.0	10.09		4	
	321171			PAH SIM QSM 5.1	SOIL	1.0	10.07		4	
	321172			PAH SIM QSM 5.1	SOIL	1.0	10.11		4	
	321430	MSS	321161	PAH SIM QSM 5.1	SOIL	1.0	10.08			
	321431	MSDS	321430	PAH SIM QSM 5.1	SOIL	1.0	10.65			

Notes:_____

Method 8270-SV GC/MS Extraction Bench Sheet

(SOP Reference #'s SV006 & SV007)

3510=WATER
3546=Microwave

Prep Batch #:	73329
Prep Method:	3546
Analyst:	JLH/MCM
Date:	09/04/2019
Start Time:	09:50
End Date:	09/09/2019
End Time:	16:00

Matrix: SOIL
Balance Used: SVB02
Ave MW temp(°C): 110.0

Reagent Lots>>>

Sodium Sulfate	MISC0635
Diatomaceous Earth	S4131
Dionex Solution	MISC0667A
Methylene Chloride	DX213
Acetone	NA
Sulfuric Acid	NA
Sodium Hydroxide	NA

Initial Concentration By: JLH/JAV
Date: 09/05/2019
GPC Cleanup? (yes/no): YES
Date: 09/06/2019
Final Concentration By: AJZ
Date: 09/09/2019

Microwave Cell #	Sample ID	Comments		(Solids) Sample Weight (g)	(Liquids) Sample Volume (L)	Final Volume (mL)	ph Adj. <2 (Yes/No)	pH Adj. >12 (Yes/No)
22	321427	MB		10.00		1.0	N	N
N	321428	LCS		10.00		1.0	N	N
24	321149			10.58		1.0	N	N
25	321154			10.10		1.0	N	**N**
26	321155			10.00		1.0	N	N
27	321157			10.62		1.0	N	N
28	321158			10.54		1.0	N	N
29	321159			10.33		1.0	N	N
30	321160			10.36		1.0	N	N
31	321161			10.17		1.0	N	N
32	321162			10.52		1.0	N	N
33	321163			10.24		1.0	N	N
34	321164			10.24		1.0	N	N
35	321165			10.29		1.0	N	N
36	321166			10.76		1.0	N	N
37	321167			10.55		1.0	N	N
38	321168			10.23		1.0	N	N
39	321169			10.08		1.0	N	N
40	321170			10.09		1.0	N	N
41	321171			10.07		1.0	N	N
42	321172			10.11		1.0	N	N
43	321430	(MS)	Parent Sample	10.08		1.0	N	N
44	321431	(MSD)	321430	10.65		1.0	N	N

MB=Method Blank, LCS=Laboratory Control Sample, MS=Matrix Spike & MSD=Matrix Spike Duplicate

MS/MSD/ LCS Spike Amount (mL): 1
Spike Concentration (µg/mL): 1
Spike Reference #: SVMS8358

Surrogate Spike Amount (mL): 1
Surrogate Spike Conc. (µg/mL): 0.4
Surrogate Spike Reference #: SVMS8294

Relinquished to: JJY
Date: 09/09/2019

Reviewed By: JJY
Date: 09/09/2019

Semi-Volatiles Sample Cleanup Record Sheet

FSV14-02, FSV25-01, FSV26-01, FSV28-01

Prep Batch Number(s): 73329 73331 _____ _____

GPC

Cleanup Performed (Y/N):	Y
Date:	09/06/2019
Time:	9:13
Analyst Initials:	JLH
$MeCl_2$ Lot:	DW675

Florisil

Cleanup Performed (Y/N):	N
Date:	
Time:	
Analyst Initials:	
Cartridge I.D. Number:	
Hexane Lot:	
Acetone Lot:	

Acid

Cleanup Performed (Y/N):	N
Date:	
Time:	
Analyst Initials:	
H_2SO_4 Lot:	
Number of treatments:	

Sulfur

Cleanup Performed (Y/N):	Y
Date:	09/09/2019
Time:	16:00
Analyst Initials:	AJZ
Copper Lot:	910140-BI

Comments:

8270 SIM Analysis Data Review Checklist

Analytical Run #: 164274		**Independent Reviewer: RED**				
Sequence Date: 09/09/2019, 09/10/2019		**Date of Review: 9/12/2019**				
Analyst/Data Interpreter: JJY		**Approval: Yes**				
Requirements:	**Acceptance Criteria**	**Analyst Review**		**Independent Review**		**Comments-explain each "no" response (indicate reference to an attachment if necessary)**
		Yes	**No**	**Yes**	**No**	
INITIAL CALIBRATION (ICAL)						
Was the initial calibration performed using a minimum of five standard concentration levels (six levels for non-linear calibration)?	Lowest standard at or near MRL	x		X		
Were the standards used for the ICAL uniquely identified?	standard number	x		X		
Was there a DFTPP standard analyzed prior to the ICAL? (see DFTPP section below for acceptable tune criteria)		x		X		
Was an instrument blank analyzed prior to the ICAL?		x		X		
Were linearity acceptance criteria met for all surrogates and analytes of interest? Note: QSM 5.1 does not allow non-linear (quadratic) calibration.	RSD≤ 20%, linear least squares regression r^2>0.990, non-linear r^2>0.990.	x		X		
INITIAL CALIBRATION VERIFICATION (ICV)						
Was there a second source ICV for all target analytes analyzed after the initial calibration and prior to analysis of any samples? Note: If non-linear calibration is used, then it will be necessary to run ICVs at two different concentrations.	Second source	x		X		
Was each ICV uniquely identified?	standard number	x		X		
Was the recovery for each analyte within QC limits?	± 20%, unless otherwise specified by project/client/program	x		X		
CONTINUING CALIBRATION VERIFICATION (CCV)						
Were CCVs for target analytes analyzed at the beginning of the sequence and after every 12 hours? Note: QSM 5.0 and above also requires a CCV at the end of the analytical batch.	Concentration ≤ concentration of the mid-point ICAL standard	x		X		
Was each CCV uniquely identified?	standard number	x		X		
Was the recovery for each analyte within QC limits?	± 20%, unless otherwise specified by project/client/program Ending CCV (if applicable) ± 50%	x		X		

Additional Comments:

8270 SIM Analysis Data Review Checklist

Requirements:	Acceptance Criteria	Analyst		Independent		Comments-explain each "no" response (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
DFTPP						
Was a DFTPP tune check ran at the beginning of every sequence and after every 12 hours?		x		X		
Were the relative abundance criteria met?		x		X		
Was the peak tailing acceptable for Pentachlorophenol and Benzidine?	Tailing Factor < 2	x		X		
Was the breakdown of DDT to DDD and DDE acceptable?	≤ 20%	x		X		
BLANKS						
Was method blank (MB) analyzed prior to the analysis of samples?		x		X		
Did MB results meet the required criteria?	QSM-the greater of the following: < 1/2 RL, < 1/10 amount in sample, or < 1/10 regulatory limit Non-QSM: < MDL, < 5% amount in sample, or < 5% regulatory limit	x		X		
Was a MB prepped and analyzed at a frequency of one per prep batch?	Batch ≤ 20 samples	x		X		
LABORATORY CONTROL SAMPLE (LCS)						
Was an LCS analyzed at a frequency of one per prep batch?	Batch ≤ 20 samples	x		X		
Were the LCS recoveries within the acceptance criteria?	For QSM: Use Appendix C limits when available; All others, use in-house or client-specified limits	x		X		
MATRIX SPIKES						
Was a matrix spike (MS) sample analyzed at a frequency one per prep batch?	Batch ≤ 20 samples	x		X		
Were MS recoveries in each MS within the acceptance criteria?	For QSM: Use Appendix C limits when available; All others, use in-house or client-specified limits		x		X	See below.

Additional Comments:
MS analyzed on sample 321161 had high recovery of benzo(a)anthracene and low recoveries of indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene, benzo(g,h,i)perylene. Qualified with "M" in parent sample.

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CT Laboratories
Organic Laboratory Section

Analytical Run #: 164274

8270 SIM Analysis Data Review Checklist

Requirements:	Acceptance Criteria	Analyst		Independent		Comments-explain each "no" response (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
LABORATORY CONTROL SPIKE / MATRIX SPIKE DUPLICATE						
Were duplicate spikes (MSD/LCSD) analyzed at a frequency one per prep batch?	Batch ≤ 20 samples	x		X		
Were MSD or LCSD recoveries within the acceptance criteria?	QSM Use Appendix C limits when available, else use in-house or client-specified limits		x		X	See below.
Is the relative percent difference (RPD) for each analyte between the MS/MSD or LCS/LCSD within the acceptance criteria?	QSM 4.2 ≤ 30%; QSM 5.0 ≤ 20%; QSM 5.1 ≤ 40%; Non-QSM use in-house or client-specified limits		x		X	See below.
SAMPLES (INCLUDING BLANKS, STANDARDS, AND QC SAMPLES)						
Are chromatogram characteristics, including peak shapes and areas, consistent with those of the CCV?		x		X		
Were the appropriate surrogates used?	PAH vs. non-PAH	x		X		
For QSM 5.1 PAH analysis, was the minimum RRF met for each surrogate?	RRF ≥ 0.40	x		X		
Are surrogate recoveries for all samples, blanks, standards, and QC samples within acceptance criteria?	QSM 5.1 PAH 50-150%; Other QSM use Appendix C limits; else use in-house or client-specified limits		x		X	Sample 321165 high recovery of surrogate fluoranthene-d10. Qualified with "S".
Were all samples having analytes detected in amounts exceeding the calibration range diluted and reanalyzed?		x		X		
Were all samples extracted within holding times and analyzed within hold time?	Analysis within 40 days of extraction	x		X		
Did the samples require additional cleanup steps? (i.e. GPC or sulfur cleanup)	GPC, Sulfur cleanup	x		X		GPC, sulfur.
RECORDS AND REPORTING						
Have all data files and relative QC forms been pdf'd?		x		X		
Do all chromatograms contain analysis date, time, and analyst initials?		x		X		
Are results exceding acceptance criteria qualified and recorded in the NCR?		x		X		
Do the raw reports match the LIMS data?		x		X		
Is the ICAL method referenced on the raw data?		x		X		

Additional Comments:
MSD analyzed on sample 321161 had high recovery of benzo(a)anthracene and low recoveries of fluoranthene, pyrene. Qualified with "M" in parent sample.
RPDs high for indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene, benzo(g,h,i)perylene. Qualified with "Y" in parent sample.

S SVOC SIM Analytical Run
164170 on 09/05/2019

Date Analyzed: _____ JJY Date Reviewed: _____

Date Entered: _____ 9/19/19 Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
147687	321513		08/27/2019 1400		HDR, INC	MEMPHIS DEPOT	PAH SIM QSM 5.1		GW	4	
		GN-W-RB-01						73347			
	321835						PAH SIM QSM 5.1				
				MBW				73347			
	321836						PAH SIM QSM 5.1				
				LCSW				73347			
	321837						PAH SIM QSM 5.1				
				LCSDW 321836				73347			

4 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

PREP WORKSHEET
on 09/05/2019

Prep Batch **73,347** Date Prepped: 09/03/2019 Prepped By MCM

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	321835	MBW		PAH SIM QSM 5.1	LIQUID	1.0		1.00		
	321836	LCSW		PAH SIM QSM 5.1	LIQUID	1.0		1.00		
	321837	LCSD	321836	PAH SIM QSM 5.1	LIQUID	1.0		1.00		
147687	321513			PAH SIM QSM 5.1	GROUND WATER	1.0		0.96	4	

Notes:_____

Method 8270-SV GC/MS Extraction Bench Sheet

(SOP Reference #'s SV006 & SV007)

3510=WATER
3546=Microwave

Prep Batch #:	73347
Prep Method:	3510
Analyst:	MCM/JLH
Date:	09/03/2019
Start Time:	13:30
End Date:	09/04/2019
End Time:	14:30

Matrix: WATER
Balance Used: NA
Ave MW temp(°C): NA

Reagent Lots>>>

Sodium Sulfate	MISC0635
Diatomaceous Earth	NA
Dionex Solution	NA
Methylene Chloride	DX213
Acetone	NA
Sulfuric Acid	MISC0634
Sodium Hydroxide	MISC0634

Initial Concentration By:	NA
Date:	NA
GPC Cleanup? (yes/no):	NA
Date:	NA
Final Concentration By:	AJZ
Date:	09/04/2019

Microwave Cell #	Sample ID	Comments	(Solids) Sample Weight (g)	(Liquids) Sample Volume (L)	Final Volume (mL)	ph Adj. <2 (Yes/No)	pH Adj. >12 (Yes/No)
	321835	MB		1.00	1.0	Y	Y
	321836	LCS		1.00	1.0	Y	Y
	321837	LCSD		1.00	1.0	Y	Y
	321513			0.96	1.0	Y	**Y**
					1.0		
					1.0		
					1.0		
					1.0		
					1.0		
					1.0		
					1.0		
					1.0		
					1.0		
					1.0		
					1.0		
					1.0		
					1.0		
					1.0		
					1.0		
					1.0		
					1.0		
					1.0		
		(MS) Parent Sample			1.0		
		(MSD)			1.0		

MB=Method Blank, LCS=Laboratory Control Sample, MS=Matrix Spike & MSD=Matrix Spike Duplicate

MS/MSD/ LCS Spike Amount (mL):	1	Surrogate Spike Amount (mL):	1
Spike Concentration (µg/mL):	1	Surrogate Spike Conc. (µg/mL):	0.4
Spike Reference #:	SVMS8358	Surrogate Spike Reference #:	SVMS8294

Relinquished to: JJY
Date: 09/04/2019

Reviewed By: JJY
Date: 09/05/2019

8270 SIM Analysis Data Review Checklist

Analytical Run #: 164170		**Independent Reviewer: AJZ**
Sequence Date: 09/09/2019		**Date of Review: 09/11/2019**
Analyst/Data Interpreter: JJY		**Approval: Yes**

Requirements:	Acceptance Criteria	Analyst Review		Independent Review		Comments-explain each "no" response (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
INITIAL CALIBRATION (ICAL)						
Was the initial calibration performed using a minimum of five standard concentration levels (six levels for non-linear calibration)?	Lowest standard at or near MRL	X		X		
Were the standards used for the ICAL uniquely identified?	standard number	X		X		
Was there a DFTPP standard analyzed prior to the ICAL? (see DFTPP section below for acceptable tune criteria)		X		X		
Was an instrument blank analyzed prior to the ICAL?		X		X		
Were linearity acceptance criteria met for all surrogates and analytes of interest? Note: QSM 5.1 does not allow non-linear (quadratic) calibration.	RSD≤ 20%, linear least squares regression r^2>0.990, non-linear r^2>0.990.	X		X		
INITIAL CALIBRATION VERIFICATION (ICV)						
Was there a second source ICV for all target analytes analyzed after the initial calibration and prior to analysis of any samples? Note: If non-linear calibration is used, then it will be necessary to run ICVs at two different concentrations.	Second source	X		X		
Was each ICV uniquely identified?	standard number	X		X		
Was the recovery for each analyte within QC limits?	± 20%, unless otherwise specified by project/client/program	X		X		
CONTINUING CALIBRATION VERIFICATION (CCV)						
Were CCVs for target analytes analyzed at the beginning of the sequence and after every 12 hours? Note: QSM 5.0 and above also requires a CCV at the end of the analytical batch.	Concentration ≤ concentration of the mid-point ICAL standard	X		X		
Was each CCV uniquely identified?	standard number	X		X		
Was the recovery for each analyte within QC limits?	± 20%, unless otherwise specified by project/client/program Ending CCV (if applicable) ± 50%	X		X		

Additional Comments:

8270 SIM Analysis Data Review Checklist

Requirements:	Acceptance Criteria	Analyst		Independent		Comments-explain each "no" response (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
DFTPP						
Was a DFTPP tune check ran at the beginning of every sequence and after every 12 hours?		x		x		
Were the relative abundance criteria met?		x		x		
Was the peak tailing acceptable for Pentachlorophenol and Benzidine?	Tailing Factor < 2	x		x		
Was the breakdown of DDT to DDD and DDE acceptable?	≤ 20%	x		x		
BLANKS						
Was method blank (MB) analyzed prior to the analysis of samples?		x		x		
Did MB results meet the required criteria?	QSM-the greater of the following: < 1/2 RL, < 1/10 amount in sample, or < 1/10 regulatory limit Non-QSM: < MDL, < 5% amount in sample, or < 5% regulatory limit	x		x		Pyrene detected > lod, < 1/2 RL. "B" flagged in sample.
Was a MB prepped and analyzed at a frequency of one per prep batch?	Batch ≤ 20 samples	x		x		
LABORATORY CONTROL SAMPLE (LCS)						
Was an LCS analyzed at a frequency of one per prep batch?	Batch ≤ 20 samples	x		x		
Were the LCS recoveries within the acceptance criteria?	For QSM: Use Appendix C limits when available; All others, use in-house or client-specified limits	x		x		
MATRIX SPIKES						
Was a matrix spike (MS) sample analyzed at a frequency one per prep batch?	Batch ≤ 20 samples		x		x	LCS/LCSD.
Were MS recoveries in each MS within the acceptance criteria?	For QSM: Use Appendix C limits when available; All others, use in-house or client-specified limits	na		na		

Additional Comments:

CT Laboratories
Organic Laboratory Section

Analytical Run #: 164170

8270 SIM Analysis Data Review Checklist

Requirements:	Acceptance Criteria	Analyst		Independent		Comments-explain each "no" response (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
LABORATORY CONTROL SPIKE / MATRIX SPIKE DUPLICATE						
Were duplicate spikes (MSD/LCSD) analyzed at a frequency one per prep batch?	Batch ≤ 20 samples	X		X		
Were MSD or LCSD recoveries within the acceptance criteria?	QSM Use Appendix C limits when available, else use in-house or client-specified limits	X		X		
Is the relative percent difference (RPD) for each analyte between the MS/MSD or LCS/LCSD within the acceptance criteria?	QSM 4.2 ≤ 30%; QSM 5.0 ≤ 20%; QSM 5.1 ≤ 40%; Non-QSM use in-house or client-specified limits	X		X		
SAMPLES (INCLUDING BLANKS, STANDARDS, AND QC SAMPLES)						
Are chromatogram characteristics, including peak shapes and areas, consistent with those of the CCV?		X		X		
Were the appropriate surrogates used?	PAH vs. non-PAH	X		X		
For QSM 5.1 PAH analysis, was the minimum RRF met for each surrogate?	RRF ≥ 0.40	X		X		
Are surrogate recoveries for all samples, blanks, standards, and QC samples within acceptance criteria?	QSM 5.1 PAH 50-150%; Other QSM use Appendix C limits; else use in-house or client-specified limits	X		X		
Were all samples having analytes detected in amounts exceeding the calibration range diluted and reanalyzed?		X		X		
Were all samples extracted within holding times and analyzed within hold time?	Analysis within 40 days of extraction	X		X		
Did the samples require additional cleanup steps? (i.e. GPC or sulfur cleanup)	GPC, Sulfur cleanup		X		X	
RECORDS AND REPORTING						
Have all data files and relative QC forms been pdf'd?		X		X		
Do all chromatograms contain analysis date, time, and analyst initials?		X		X		
Are results exceding acceptance criteria qualified and recorded in the NCR?		X		X		
Do the raw reports match the LIMS data?		X		X		
Is the ICAL method referenced on the raw data?		X		X		

Additional Comments:

Sequence Name: C:\INSTARCH\SEQUENCE\1S082619.s
Comment: 8270 SIM PAH 5.1
Operator: JJY
Data Path: C:\INSTARCH\DATA\1S082619\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

JJY
9/19/19

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line			Sample Name/Misc Info	
1)	Sample	100	1PRIM01	1P082619 PRIMER 2000ug/mL
2)	DFTPP	1	1DFTP453	1DFTPAH DFTPP TUNE SVMS8353
3)	Sample	2	1IB01	1P082619 InstrumentBlank
4)	Sample	3	1ICAL1	1P082619 ICAL 50ng/ml SVMS8401
5)	Sample	4	1ICAL2	1P082619 ICAL 100ng/ml SVMS8402
6)	Sample	5	1ICAL3	1P082619 ICAL 200ng/ml SVMS8403
7)	Sample	6	1ICAL4	1P082619 ICAL 400ng/ml SVMS8404
8)	Sample	7	1ICAL5	1P082619 ICAL 800ng/ml SVMS8405
9)	Sample	8	1ICAL6	1P082619 ICAL 1500ng/ml SVMS8406
10)	Sample	9	1ICAL7	1P082619 ICAL 2000ng/ml SVMS8407
11)	Sample	10	1ICV1	1P082619 ICV 400ng/ml SVMS8408
12)	Sample	11	1IB02	1P082619 InstrumentBlank
13)	Sample	12	1MBW01	1P082619 163814,MBW,
14)	Sample	13	1LCSW01	1P082619 163814,LCSW,
15)	Sample	14	315117	1P082619 163814,315117,
16)	Sample	15	315810	1P082619 163814,315810,
17)	Sample	16	315816	1P082619 163814,315816,
18)	Sample	17	315818	1P082619 163814,315818,
19)	Sample	18	316700	1P082619 163814,316700,
20)	Sample	19	316705	1P082619 163814,316705,
21)	Sample	20	316710	1P082619 163814,316710,
22)	Sample	21	317012	1P082619 163814,317012,
23)	Sample	22	317096	1P082619 163814,317096,
24)	Sample	23	317100	1P082619 163814,317100,
25)	Sample	24	317102	1P082619 163814,317102,
26)	Sample	25	1LCSDW01	1P082619 163814,LCSDW,
27)	Sample	26	1MBW02	1P082619 163364,MBW,
28)	Sample	27	312620	1P082619 163364,312620,
29)	Sample	28	312623	1P082619 163364,312623,
30)	Sample	29	312628	1P082619 163364,312628,
31)	Sample	30	1MBW03	1P082619 163625,MBW,
32)	Sample	31	315081	1P082619 163625,315081,
33)	Sample	32	315082	1P082619 163625,315082,
34)	Sample	33	315083	1P082619 163625,315083,
35)	Sample	34	315084	1P082619 163625,315084,
36)	DFTPP	35	1DFTP454	1DFTPAH DFTPP TUNE SVMS8353
37)	Sample	36	1CCV589	1P082619 CCV 400ng/mL SVMS8409
38)	Sample	37	1MBS01	1P082619 163812,MBS,
39)	Sample	38	1LCSS01	1P082619 163812,LCSS,
40)	Sample	39	315103	1P082619 163812,315103,
41)	Sample	40	315114	1P082619 163812,315114,
42)	Sample	41	315115	1P082619 163812,315115,
43)	Sample	42	315116	1P082619 163812,315116,

Sequence Name: C:\INSTARCH\SEQUENCE\1S090919.s
Comment: 8270 SIM PAH 5.1
Operator: JJY
Data Path: C:\INSTARCH\DATA\1S090919\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

JJY
9/19/19

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line			Sample Name/Misc Info	
1)	Sample	100	1PRIM01	1P082619 PRIMER 400ug/mL
2)	DFTPP	1	1DFTP464	1DFTPAH DFTPP TUNE SVMS8353
3)	Sample	2	1CCV605	1P082619 CCV 400ng/mL SVMS8409
4)	Sample	3	1IB01	1P082619 Instrument blank
5)	Sample	4	1MBW01	1P082619 164170,MBW,
6)	Sample	5	1LCSW01	1P082619 164170,LCSW,
7)	Sample	6	321513	1P082619 164170,321513,
8)	Sample	7	1LCSDW01	1P082619 164170,LCSDW,
9)	Sample	8	1IB02	1P082619 Instrument blank
10)	Sample	9	1MBS01	1P082619 164274,MBS,
11)	Sample	10	1LCSS01	1P082619 164274,LCSS,
12)	Sample	11	321149	1P082619 164274,321149,
13)	Sample	12	321154	1P082619 164274,321154,
14)	Sample	13	321155	1P082619 164274,321155,
15)	Sample	14	321157	1P082619 164274,321157,
16)	Sample	15	321158	1P082619 164274,321158,
17)	Sample	16	321159	1P082619 164274,321159,
18)	Sample	17	321160	1P082619 164274,321160,
19)	Sample	18	321162	1P082619 164274,321162,
20)	Sample	19	321163	1P082619 164274,321163,
21)	Sample	20	321164	1P082619 164274,321164,
22)	Sample	21	321165	1P082619 164274,321165,
23)	Sample	22	321166	1P082619 164274,321166,
24)	Sample	23	321167	1P082619 164274,321167,
25)	Sample	24	321168	1P082619 164274,321168,
26)	Sample	25	321169	1P082619 164274,321169,
27)	Sample	26	321170	1P082619 164274,321170,
28)	Sample	27	321171	1P082619 164274,321171,
29)	Sample	28	321172	1P082619 164274,321172,
30)	Sample	29	321161	1P082619 164274,321161,
31)	Sample	30	321161MS	1P082619 164274,MSS321161,
32)	Sample	31	321161SD	1P082619 164274,MSDS321161,
33)	Sample	32	1MBS01R	1P082619 164274,MBS,
34)	Sample	33	1MBW01R	1P082619 164170,MBW,
35)	Sample	34	1CCV606	1P082619 CCV 400ng/mL SVMS8409

Sequence Name: C:\INSTARCH\SEQUENCE\1S091019.s
Comment: 8270 SIM PAH 5.1
Operator: JJY
Data Path: C:\INSTARCH\DATA\1S091019\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

JJY
9/19/19

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run	Sequence Barcode Options
(X) Full Method	(X) On Mismatch, Inject Anyway
( ) Reprocessing Only	( ) On Mismatch, Don't Inject
	( ) Barcode Disabled

Line			Sample Name/Misc Info	
1)	Sample	100	1PRIM01	1P082619 PRIMER 400ug/mL
2)	DFTPP	1	1DFTP465	1DFTPAH DFTPP TUNE SVMS8353
3)	Sample	2	1CCV607	1P082619 CCV 400ng/mL SVMS8409
4)	Sample	3	1IB01	1P082619 Instrument blank
5)	Sample	4	321155D	1P082619 164274,321155,10
6)	Sample	5	321157D	1P082619 164274,321157,20
7)	Sample	6	321160D	1P082619 164274,321160,10
8)	Sample	7	321162D	1P082619 164274,321162,2
9)	Sample	8	321163D	1P082619 164274,321163,2
10)	Sample	9	321168D	1P082619 164274,321168,2
11)	Sample	10	321169D	1P082619 164274,321169,2
12)	Sample	11	321170D	1P082619 164274,321170,2
13)	Sample	12	321161D	1P082619 164274,321161,5
14)	Sample	13	321161SD	1P082619 164274,MSS321161,5
15)	Sample	14	321161DD	1P082619 164274,MSDS321161,5
16)	Sample	15	321161SR	1P082619 164274,MSDS321161,
17)	Sample	16	321155D2	1P082619 164274,321155,10
18)	Sample	17	321157D2	1P082619 164274,321157,20
19)	Sample	18	321160D2	1P082619 164274,321160,10
20)	Sample	19	1CCV608	1P082619 CCV 400ng/mL SVMS8409

SVOC Logbook-02
Semi-Volatiles Prep Logbook
Logbook Created: 04/10/18

NOTEBOOK VIEW: LTN_SVOC_Logbook_02_Default, NOTEBOOK: SVOC_Logbook_02, PAGE: 80
Page is Unlocked
Page is not Witnessed
Project: Unassigned
Page Title: 042219

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
SVMS8294	8270 SIM PAH Surrogates QSM 5.1	Acetone ChemPure lot DR774	JJY	04/22/2019	10/22/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ul)	Final Volume (ml)	Final Concentration (ug/ml)
S3814	2000	ug/ml	50	250	0.40

1

CT Laboratories, LLC

SVOC Logbook-02
Semi-Volatiles Prep Logbook
Logbook Created: 04/10/18

NOTEBOOK VIEW: LTN_SVOC_Logbook_02_Default, NOTEBOOK: SVOC_Logbook_02, PAGE: 85
Page is Unlocked
Page is not Witnessed
Project: Unassigned
Page Title: 050619

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
SVMS8315	8270 Spike	Acetone ChemPure lot DR774	JJY	05/06/2019	11/06/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ul)	Final Volume (ml)	Final Concentration (ug/ml)
S4074A	1000	ug/ml	1000	50.0	20
S4072/S4073	1000	ug/ml	1000	50.0	20
S4080	2000	ug/ml	500	50.0	20
S4040	2000	ug/ml	500	50.0	20

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
SVMS8316	8270 Additionals ICAL Intermediate Std	Methylene choride ChemPure lot DV482-US	JJY	05/06/2019	11/06/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ul)	Final Volume (ml)	Final Concentration (ug/ml)
S4072	1000	ug/ml	500	5.0	100

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
SVMS8317	8270 Additionals ICV Intermediated Std	Methylene chloride ChemPure lot DV482-US	JJY	05/06/2019	11/06/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ul)	Final Volume (ml)	Final Concentration (ug/ml)
S4073	1000	ug/ml	500	5.0	100

SVOC Logbook-02
Semi-Volatiles Prep Logbook
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Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
SVMS8353	DFTPP TUNING MIX	Methylene chloride ChemPure lot DV482-US	JJY	05/20/2019	11/20/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ul)	Final Volume (ml)	Final Concentration (ug/ml)
S4076	1000	ug/ml	500	10	50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
SVMS8354	DFTPP TUNING MIX	Methylene chloride ChemPure lot DV482-US	JJY	05/20/2019	11/20/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ul)	Final Volume (ml)	Final Concentration (ug/ml)
S4076	1000	ug/ml	250	10	25

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SVOC Logbook-02
Semi-Volatiles Prep Logbook
Logbook Created: 04/10/18

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Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
SVMS8358	8270 SIM PAH Spike	Acetone ChemPure lot DR774	JJY	06/17/2019	12/17/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ul)	Final Volume (ml)	Final Concentration (ug/ml)
S4101	2000	ug/ml	50	100	1.0
S4095	2000	ug/ml	50	100	1.0

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SVOC Logbook-02
Semi-Volatiles Prep Logbook
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Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
SVMS8386	8270 Surrogate Standards	Acetone ChemPure lot DR774	JJY	07/15/2019	01/15/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ul)	Final Volume (ml)	Final Concentration (ug/ml)
S4039C	10000	ug/ml	1000	250	40
S4038C	5000	ug/ml	1000	250	20

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SVOC Logbook-02
Semi-Volatiles Prep Logbook
Logbook Created: 04/10/18

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Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
SVMS8400	8270 Spike	Acetone ChemPure DR774	RPN	08/05/19	02/05/20

STD Parent ID	Parent Concentration	Units	Standard Volume (ul)	Final Volume (ml)	Final Concentration (ug/ml)
S4075	1000	ug/mL	1000	50	20
S4089C	1000	ug/mL	1000	50	20
S4088A	2000	ug/mL	500	50	20
S4064A	2000	ug/mL	500	50	20

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SVOC Logbook_03
Semi-Volatiles Standard Prep Logbook
Issued 08/07/2019

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	Initial Calibration	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
	8270 SIM PAH QSM 5.1	Methylene Chloride ChemPure DV482-US	RPN	08/07/19	01/03/20

Standard Number	Standard Description	Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
SVMS8401	ICAL 1	SVMS8372	5	ug/mL	0.010	1	0.050
SVMS8402	ICAL 2	SVMS8372	5	ug/mL	0.020	1	0.100
SVMS8403	ICAL 3	SVMS8372	5	ug/mL	0.040	1	0.200
SVMS8404	ICAL 4	SVMS8372	5	ug/mL	0.080	1	0.400
SVMS8405	ICAL 5	SVMS8372	5	ug/mL	0.160	1	0.800
SVMS8406	ICAL 6	SVMS8372	5	ug/mL	0.300	1	1.500
SVMS8407	ICAL 7	SVMS8372	5	ug/mL	0.400	1	2.000
SVMS8408	ICV	SVMS8373	5	ug/mL	0.080	1	0.400
SVMS8409	CCV	SVMS8372	5	ug/mL	0.080	1	0.400
SVMS		SVMS					
SVMS		SVMS					
SVMS		SVMS					
SVMS		SVMS					

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Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
SVMS8422	8270 ICAL Intermediate Standard	Methylene Chloride ChemPure DV482-US	RPN	08/13/19	02/13/19

STD Parent ID	Parent Concentration	Units	Standard Volume (ul)	Final Volume (ml)	Final Concentration (ug/ml)
S4063A	1000	ug/mL	500	5	100
S4081	2000	ug/mL	250	5	100
S4064B	2000	ug/mL	250	5	100
S4039D	10000	ug/mL	50	5	100
S4038D	5000	ug/mL	100	5	100

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
SVMS8423	8270 ICV Intermediate Standard	Methylene Chloride ChemPure DV482-US	RPN	08/13/19	12/08/19

STD Parent ID	Parent Concentration	Units	Standard Volume (ul)	Final Volume (ml)	Final Concentration (ug/ml)
S4045	1000	ug/mL	100	1	100
S4080	2000	ug/mL	50	1	100
S3979	2000	ug/mL	50	1	100
S4039D	10000	ug/mL	10	1	100
S4038D	5000	ug/mL	20	1	100

	Initial Calibration	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
	8270 I CAL Standards	Methylene Chloride ChemPure DV482-US	RPN	08/13/19	12/08/19

Standard Number	Standard Description	Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
SVMS8424	ICAL 1	SVMS8422	100	ug/mL	0.005	0.5	1
SVMS8425	ICAL 2	SVMS8422	100	ug/mL	0.025	0.5	5
SVMS8426	ICAL 3	SVMS8422	100	ug/mL	0.050	0.5	10
SVMS8427	ICAL 4	SVMS8422	100	ug/mL	0.100	0.5	20
SVMS8428	ICAL 5	SVMS8422	100	ug/mL	0.150	0.5	30
SVMS8429	ICAL 6	SVMS8422	100	ug/mL	0.200	0.5	40
SVMS8430	ICAL 7	SVMS8422	100	ug/mL	0.250	0.5	50
SVMS8431	ICV1	SVMS8423	100	ug/mL	0.100	0.5	20
SVMS8432	ICV2	SVMS8423	100	ug/mL	0.200	0.5	40
SVMS8433	CCV	SVMS8422	100	ug/mL	0.100	0.5	20
SVMS		SVMS					
SVMS		SVMS					
SVMS		SVMS					

SVOC Logbook_03
Semi-Volatiles Standard Prep Logbook
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	Initial Calibration	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
	8270 Additionals I CAL	Methylene Chloride ChemPure DV482-US	RPN	08/14/19	11/06/19

Standard Number	Standard Description	Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
SVMS8434	ICAL 1	SVMS8316	100	ug/mL	0.005	0.5	1
SVMS8435	ICAL 2	SVMS8316	100	ug/mL	0.025	0.5	5
SVMS8436	ICAL 3	SVMS8316	100	ug/mL	0.050	0.5	10
SVMS8437	ICAL 4	SVMS8316	100	ug/mL	0.100	0.5	20
SVMS8438	ICAL 5	SVMS8316	100	ug/mL	0.150	0.5	30
SVMS8439	ICAL 6	SVMS8316	100	ug/mL	0.200	0.5	40
SVMS8440	ICAL 7	SVMS8316	100	ug/mL	0.250	0.5	50
SVMS8441	ICV1	SVMS8317	100	ug/mL	0.100	0.5	20
SVMS8442	ICV2	SVMS8317	100	ug/mL	0.200	0.5	40
SVMS8443	CCV	SVMS8316	100	ug/mL	0.100	0.5	20
SVMS		SVMS					
SVMS		SVMS					
SVMS		SVMS					

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SVOC Logbook_03
Semi-Volatiles Standard Prep Logbook
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Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
SVMS8457	8270 SIM PEST ICAL Stock	Methylene chloride ChemPure lot DV482-US	JJY	08/23/2019	02/23/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ul)	Final Volume (ml)	Final Concentration (ug/ml)
S4145	500	ug/ml	100	10.0	5.0
S4083B	5000	ug/ml	10	10.0	5.0

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
SVMS8458	8270 SIM PEST ICV Stock	Methylene chloride ChemPure lot DV482-US	JJY	08/23/2019	02/23/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ul)	Final Volume (ml)	Final Concentration (ug/ml)
S4147	100	ug/ml	500	10.0	5.0
S4148	100	ug/ml	500	10.0	5.0
S4146	1000	ug/ml	50	10.0	5.0
S4083B	5000	ug/ml	10	10.0	5.0

	Initial Calibration	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
	8270 SIM PEST ICAL	Methylene chloride ChemPure lot DV482-US	JJY	08/23/2019	02/23/2020

Standard Number	Standard Description	Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
SVMS8459	ICAL 1	SVMS8457	5.0	ug/ml	0.010	1.0	0.05
SVMS8460	ICAL 2	SVMS8457	5.0	ug/ml	0.020	1.0	0.10
SVMS8461	ICAL 3	SVMS8457	5.0	ug/ml	0.050	1.0	0.25
SVMS8462	ICAL 4	SVMS8457	5.0	ug/ml	0.100	1.0	0.50
SVMS8463	ICAL 5	SVMS8457	5.0	ug/ml	0.200	1.0	1.00
SVMS8464	ICAL 6	SVMS8457	5.0	ug/ml	0.300	1.0	1.50
SVMS8465	ICAL 7	SVMS8457	5.0	ug/ml	0.400	1.0	2.00
SVMS8466	ICV1	SVMS8458	5.0	ug/ml	0.100	1.0	0.50
SVMS8467	ICV2	SVMS8458	5.0	ug/ml	0.300	1.0	1.50
SVMS8468	CCV	SVMS8457	5.0	ug/ml	0.100	1.0	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
SVMS8469	8270 Surrogates	Acetone ChemPure lot DR774	JJY	08/23/2019	02/23/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ul)	Final Volume (ml)	Final Concentration (ug/ml)
S4084B	10000	ug/ml	1000	250	40
S4083B	5000	ug/ml	1000	250	20

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PESTICIDE/HERBICIDE
QUALITY CONTROL SUMMARY
DOCUMENTS

CT LABORATORIES
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1D-1

PESTICIDE ORGANICS ANALYSIS

Sample Description

GN-SO-01-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.07 (g/L)	CTL Sample ID:	321149
% Solids:	95.2	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8081B	Analytical Prep Batch #	73335
Analytical Run #:	164272	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 18:05		
Cleanup Date/Time/Type:	09/06/2019 09:13 (GPC) , 09/10/2019 12:00 (Sulfur) , , 09/10/2019 09:00 (Florisil)		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	090519pstic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
72-54-8	4,4'-DDD	1.46	J P	0.31	1.0	2.1	2.1
72-55-9	4,4'-DDE	5.32		0.31	1.0	2.1	2.1
50-29-3	4,4'-DDT	2.71		0.52	1.0	2.1	2.1
309-00-2	Aldrin	1.0	U	0.52	1.0	2.1	2.1
319-84-6	alpha-BHC	2.1	U	0.63	2.1	4.2	4.2
5103-71-9	alpha-Chlordane	1.0	U	0.31	1.0	2.1	2.1
319-85-7	beta-BHC	2.1	U	0.63	2.1	4.2	4.2
12789-03-6	Chlordane (Technical)	21	U	5.2	21	42	42
319-86-8	delta-BHC	1.0	U	0.31	1.0	2.1	2.1
60-57-1	Dieldrin	0.522	J P	0.31	1.0	2.1	2.1
959-98-8	Endosulfan I	2.1	U	0.73	2.1	4.2	4.2
33213-65-9	Endosulfan II	0.834	J	0.31	1.0	2.1	2.1
1031-07-8	Endosulfan sulfate	2.1	U	0.94	2.1	4.2	4.2
72-20-8	Endrin	1.0	U	0.42	1.0	2.1	2.1
7421-93-4	Endrin aldehyde	2.1	U	1.1	2.1	4.2	4.2
53494-70-5	Endrin ketone	2.1	U	0.83	2.1	4.2	4.2
5103-74-2	gamma-Chlordane	2.61	P	0.31	1.0	2.1	2.1
76-44-8	Heptachlor	1.0	U	0.42	1.0	2.1	2.1
1024-57-3	Heptachlor epoxide	1.36	J	0.52	1.0	2.1	2.1
58-89-9	Lindane	0.522	J P	0.52	1.0	2.1	2.1
72-43-5	Methoxychlor	2.1	U	0.73	2.1	4.2	4.2
8001-35-2	Toxaphene	21	U	9.4	21	42	42

CT LABORATORIES
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PESTICIDE ORGANICS ANALYSIS

Sample Description

GN-SO-01-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.13 (g/L)	CTL Sample ID:	321154
% Solids:	93.2	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8081B	Analytical Prep Batch #	73335
Analytical Run #:	164272	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 18:22		
Cleanup Date/Time/Type:	09/06/2019 09:13 (GPC) , 09/10/2019 12:00 (Sulfur) , , 09/10/2019 09:00 (Florisil)		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	090519pstic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
72-54-8	4,4'-DDD	0.847	J	0.32	1.1	2.1	2.1
72-55-9	4,4'-DDE	1.91	J	0.32	1.1	2.1	2.1
50-29-3	4,4'-DDT	2.01	J P	0.53	1.1	2.1	2.1
309-00-2	Aldrin	1.1	U	0.53	1.1	2.1	2.1
319-84-6	alpha-BHC	2.1	U	0.64	2.1	4.2	4.2
5103-71-9	alpha-Chlordane	1.1	U	0.32	1.1	2.1	2.1
319-85-7	beta-BHC	2.1	U	0.64	2.1	4.2	4.2
12789-03-6	Chlordane (Technical)	21	U	5.3	21	42	42
319-86-8	delta-BHC	1.1	U	0.32	1.1	2.1	2.1
60-57-1	Dieldrin	1.1	U	0.32	1.1	2.1	2.1
959-98-8	Endosulfan I	2.1	U	0.74	2.1	4.2	4.2
33213-65-9	Endosulfan II	1.1	U	0.32	1.1	2.1	2.1
1031-07-8	Endosulfan sulfate	2.1	U	0.95	2.1	4.2	4.2
72-20-8	Endrin	1.1	U	0.42	1.1	2.1	2.1
7421-93-4	Endrin aldehyde	2.1	U	1.2	2.1	4.2	4.2
53494-70-5	Endrin ketone	2.1	U	0.85	2.1	4.2	4.2
5103-74-2	gamma-Chlordane	2.12	P	0.32	1.1	2.1	2.1
76-44-8	Heptachlor	1.1	U	0.42	1.1	2.1	2.1
1024-57-3	Heptachlor epoxide	1.1	U	0.53	1.1	2.1	2.1
58-89-9	Lindane	1.1	U	0.53	1.1	2.1	2.1
72-43-5	Methoxychlor	2.1	U	0.74	2.1	4.2	4.2
8001-35-2	Toxaphene	21	U	9.5	21	42	42

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PESTICIDE ORGANICS ANALYSIS

Sample Description

GN-SO-02-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.82 (g/L)	CTL Sample ID:	321155
% Solids:	97.2	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8081B	Analytical Prep Batch #	73335
Analytical Run #:	164272	Dilution Factor:	5.00
Date & Time Analyzed:	09/11/2019 / 11:24		
Cleanup Date/Time/Type:	, 09/10/2019 12:00 (Sulfur) ,		, 09/10/2019 09:00 (Florisil)
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	090519pstic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
72-55-9	4,4'-DDE	82.2		1.4	4.8	9.5	9.5

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PESTICIDE ORGANICS ANALYSIS

Sample Description

GN-SO-02-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.82 (g/L)	CTL Sample ID:	321155
% Solids:	97.2	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8081B	Analytical Prep Batch #	73335
Analytical Run #:	164272	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 18:38		
Cleanup Date/Time/Type:	09/06/2019 09:13 (GPC) , 09/10/2019 12:00 (Sulfur) , , 09/10/2019 09:00 (Florisil)		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	090519pstic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
72-54-8	4,4'-DDD	11.7		0.29	0.95	1.9	1.9
50-29-3	4,4'-DDT	42.2		0.48	0.95	1.9	1.9
309-00-2	Aldrin	0.95	U	0.48	0.95	1.9	1.9
319-84-6	alpha-BHC	1.9	U	0.57	1.9	3.8	3.8
5103-71-9	alpha-Chlordane	0.95	U	0.29	0.95	1.9	1.9
319-85-7	beta-BHC	1.9	U	0.57	1.9	3.8	3.8
12789-03-6	Chlordane (Technical)	19	U	4.8	19	38	38
319-86-8	delta-BHC	0.571	J	0.29	0.95	1.9	1.9
60-57-1	Dieldrin	0.571	J	0.29	0.95	1.9	1.9
959-98-8	Endosulfan I	1.9	U	0.67	1.9	3.8	3.8
33213-65-9	Endosulfan II	0.571	J P	0.29	0.95	1.9	1.9
1031-07-8	Endosulfan sulfate	1.9	U	0.86	1.9	3.8	3.8
72-20-8	Endrin	0.95	U	0.38	0.95	1.9	1.9
7421-93-4	Endrin aldehyde	1.9	U	1.0	1.9	3.8	3.8
53494-70-5	Endrin ketone	1.9	U	0.76	1.9	3.8	3.8
5103-74-2	gamma-Chlordane	4.66		0.29	0.95	1.9	1.9
76-44-8	Heptachlor	0.95	U	0.38	0.95	1.9	1.9
1024-57-3	Heptachlor epoxide	9.41	P	0.48	0.95	1.9	1.9
58-89-9	Lindane	0.571	J P	0.48	0.95	1.9	1.9
72-43-5	Methoxychlor	1.9	U	0.67	1.9	3.8	3.8
8001-35-2	Toxaphene	19	U	8.6	19	38	38

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PESTICIDE ORGANICS ANALYSIS

Sample Description: **GN-SO-02-2**

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.53 (g/L)	CTL Sample ID:	321158
% Solids:	89.9	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8081B	Analytical Prep Batch #	73335
Analytical Run #:	164272	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 18:54		
Cleanup Date/Time/Type:	09/06/2019 09:13 (GPC) , 09/10/2019 12:00 (Sulfur) , , 09/10/2019 09:00 (Florisil)		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	090519pstic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
72-54-8	4,4'-DDD	1.37	J	0.32	1.1	2.1	2.1
72-55-9	4,4'-DDE	8.13		0.32	1.1	2.1	2.1
50-29-3	4,4'-DDT	5.39		0.53	1.1	2.1	2.1
309-00-2	Aldrin	1.1	U	0.53	1.1	2.1	2.1
319-84-6	alpha-BHC	2.1	U	0.63	2.1	4.2	4.2
5103-71-9	alpha-Chlordane	1.1	U	0.32	1.1	2.1	2.1
319-85-7	beta-BHC	2.1	U	0.63	2.1	4.2	4.2
12789-03-6	Chlordane (Technical)	21	U	5.3	21	42	42
319-86-8	delta-BHC	1.1	U	0.32	1.1	2.1	2.1
60-57-1	Dieldrin	1.1	U	0.32	1.1	2.1	2.1
959-98-8	Endosulfan I	2.1	U	0.74	2.1	4.2	4.2
33213-65-9	Endosulfan II	1.1	U	0.32	1.1	2.1	2.1
1031-07-8	Endosulfan sulfate	2.1	U	0.95	2.1	4.2	4.2
72-20-8	Endrin	1.1	U	0.42	1.1	2.1	2.1
7421-93-4	Endrin aldehyde	2.1	U	1.2	2.1	4.2	4.2
53494-70-5	Endrin ketone	2.1	U	0.85	2.1	4.2	4.2
5103-74-2	gamma-Chlordane	1.90	J P	0.32	1.1	2.1	2.1
76-44-8	Heptachlor	1.1	U	0.42	1.1	2.1	2.1
1024-57-3	Heptachlor epoxide	1.37	J P	0.53	1.1	2.1	2.1
58-89-9	Lindane	1.1	U	0.53	1.1	2.1	2.1
72-43-5	Methoxychlor	2.1	U	0.74	2.1	4.2	4.2
8001-35-2	Toxaphene	21	U	9.5	21	42	42

CT LABORATORIES
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PESTICIDE ORGANICS ANALYSIS

Sample Description

GNSO-03-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.00 (g/L)	CTL Sample ID:	321159
% Solids:	91.3	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8081B	Analytical Prep Batch #	73335
Analytical Run #:	164272	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 19:11		
Cleanup Date/Time/Type:	09/06/2019 09:13 (GPC) , 09/10/2019 12:00 (Sulfur) , , 09/10/2019 09:00 (Florisil)		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	090519pstic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
72-54-8	4,4'-DDD	2.30		0.33	1.1	2.2	2.2
72-55-9	4,4'-DDE	16.3		0.33	1.1	2.2	2.2
50-29-3	4,4'-DDT	6.46		0.55	1.1	2.2	2.2
309-00-2	Aldrin	1.1	U	0.55	1.1	2.2	2.2
319-84-6	alpha-BHC	2.2	U	0.66	2.2	4.4	4.4
5103-71-9	alpha-Chlordane	1.1	U	0.33	1.1	2.2	2.2
319-85-7	beta-BHC	2.2	U	0.66	2.2	4.4	4.4
12789-03-6	Chlordane (Technical)	22	U	5.5	22	44	44
319-86-8	delta-BHC	1.1	U	0.33	1.1	2.2	2.2
60-57-1	Dieldrin	6.46		0.33	1.1	2.2	2.2
959-98-8	Endosulfan I	2.2	U	0.77	2.2	4.4	4.4
33213-65-9	Endosulfan II	1.20	J P	0.33	1.1	2.2	2.2
1031-07-8	Endosulfan sulfate	2.2	U	0.99	2.2	4.4	4.4
72-20-8	Endrin	1.1	U	0.44	1.1	2.2	2.2
7421-93-4	Endrin aldehyde	2.2	U	1.2	2.2	4.4	4.4
53494-70-5	Endrin ketone	2.2	U	0.88	2.2	4.4	4.4
5103-74-2	gamma-Chlordane	2.19	J P	0.33	1.1	2.2	2.2
76-44-8	Heptachlor	1.1	U	0.44	1.1	2.2	2.2
1024-57-3	Heptachlor epoxide	1.1	U	0.55	1.1	2.2	2.2
58-89-9	Lindane	1.1	U	0.55	1.1	2.2	2.2
72-43-5	Methoxychlor	2.2	U	0.77	2.2	4.4	4.4
8001-35-2	Toxaphene	22	U	9.9	22	44	44

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PESTICIDE ORGANICS ANALYSIS

Sample Description

GN-SO-03-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.09 (g/L)	CTL Sample ID:	321160
% Solids:	90.6	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8081B	Analytical Prep Batch #	73335
Analytical Run #:	164272	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 20:15		
Cleanup Date/Time/Type:	09/06/2019 09:13 (GPC) , 09/10/2019 12:00 (Sulfur) , , 09/10/2019 09:00 (Florisil)		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	090519pstic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
72-54-8	4,4'-DDD	2.73		0.33	1.1	2.2	2.2
72-55-9	4,4'-DDE	18.5		0.33	1.1	2.2	2.2
50-29-3	4,4'-DDT	6.24		0.55	1.1	2.2	2.2
309-00-2	Aldrin	1.1	U	0.55	1.1	2.2	2.2
319-84-6	alpha-BHC	2.2	U	0.66	2.2	4.4	4.4
5103-71-9	alpha-Chlordane	1.1	U	0.33	1.1	2.2	2.2
319-85-7	beta-BHC	2.2	U	0.66	2.2	4.4	4.4
12789-03-6	Chlordane (Technical)	22	U	5.5	22	44	44
319-86-8	delta-BHC	1.1	U	0.33	1.1	2.2	2.2
60-57-1	Dieldrin	4.16		0.33	1.1	2.2	2.2
959-98-8	Endosulfan I	2.2	U	0.77	2.2	4.4	4.4
33213-65-9	Endosulfan II	0.766	J	0.33	1.1	2.2	2.2
1031-07-8	Endosulfan sulfate	2.2	U	0.98	2.2	4.4	4.4
72-20-8	Endrin	1.1	U	0.44	1.1	2.2	2.2
7421-93-4	Endrin aldehyde	2.2	U	1.2	2.2	4.4	4.4
53494-70-5	Endrin ketone	2.2	U	0.88	2.2	4.4	4.4
5103-74-2	gamma-Chlordane	1.1	U	0.33	1.1	2.2	2.2
76-44-8	Heptachlor	1.1	U	0.44	1.1	2.2	2.2
1024-57-3	Heptachlor epoxide	1.1	U	0.55	1.1	2.2	2.2
58-89-9	Lindane	1.1	U	0.55	1.1	2.2	2.2
72-43-5	Methoxychlor	2.2	U	0.77	2.2	4.4	4.4
8001-35-2	Toxaphene	22	U	9.8	22	44	44

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PESTICIDE ORGANICS ANALYSIS

Sample Description: **GN-SO-04-1**

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.35 (g/L)	CTL Sample ID:	321161
% Solids:	86.8	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8081B	Analytical Prep Batch #	73335
Analytical Run #:	164272	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 12:29		
Cleanup Date/Time/Type:	09/06/2019 09:13 (GPC) , 09/10/2019 12:00 (Sulfur) , , 09/10/2019 09:00 (Florisil)		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	090519pstic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
72-54-8	4,4'-DDD	1.1	U	0.33	1.1	2.2	2.2
72-55-9	4,4'-DDE	5.12	M	0.33	1.1	2.2	2.2
50-29-3	4,4'-DDT	6.46		0.56	1.1	2.2	2.2
309-00-2	Aldrin	1.1	U	0.56	1.1	2.2	2.2
319-84-6	alpha-BHC	2.2	U	0.67	2.2	4.5	4.5
5103-71-9	alpha-Chlordane	1.1	U	0.33	1.1	2.2	2.2
319-85-7	beta-BHC	2.2	U	0.67	2.2	4.5	4.5
12789-03-6	Chlordane (Technical)	22	U	5.6	22	45	45
319-86-8	delta-BHC	0.334	J P	0.33	1.1	2.2	2.2
60-57-1	Dieldrin	0.890	J	0.33	1.1	2.2	2.2
959-98-8	Endosulfan I	2.2	U	0.78	2.2	4.5	4.5
33213-65-9	Endosulfan II	0.779	J	0.33	1.1	2.2	2.2
1031-07-8	Endosulfan sulfate	2.2	U M	1.0	2.2	4.5	4.5
72-20-8	Endrin	1.1	U	0.45	1.1	2.2	2.2
7421-93-4	Endrin aldehyde	2.2	U	1.2	2.2	4.5	4.5
53494-70-5	Endrin ketone	2.2	U M	0.89	2.2	4.5	4.5
5103-74-2	gamma-Chlordane	2.78	M,P	0.33	1.1	2.2	2.2
76-44-8	Heptachlor	1.1	U	0.45	1.1	2.2	2.2
1024-57-3	Heptachlor epoxide	1.1	U	0.56	1.1	2.2	2.2
58-89-9	Lindane	1.1	U	0.56	1.1	2.2	2.2
72-43-5	Methoxychlor	2.2	U	0.78	2.2	4.5	4.5
8001-35-2	Toxaphene	22	U	10	22	45	45

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PESTICIDE ORGANICS ANALYSIS

Sample Description: **GN-SO-04-2**

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.76 (g/L)	CTL Sample ID:	321162
% Solids:	89.1	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8081B	Analytical Prep Batch #	73335
Analytical Run #:	164272	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 20:32		
Cleanup Date/Time/Type:	09/06/2019 09:13 (GPC) , 09/10/2019 12:00 (Sulfur) , , 09/10/2019 09:00 (Florisil)		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	090519pstic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
72-54-8	4,4'-DDD	1.0	U	0.31	1.0	2.1	2.1
72-55-9	4,4'-DDE	2.61		0.31	1.0	2.1	2.1
50-29-3	4,4'-DDT	4.90		0.52	1.0	2.1	2.1
309-00-2	Aldrin	1.0	U	0.52	1.0	2.1	2.1
319-84-6	alpha-BHC	2.1	U	0.63	2.1	4.2	4.2
5103-71-9	alpha-Chlordane	1.0	U	0.31	1.0	2.1	2.1
319-85-7	beta-BHC	2.1	U	0.63	2.1	4.2	4.2
12789-03-6	Chlordane (Technical)	21	U	5.2	21	42	42
319-86-8	delta-BHC	1.0	U	0.31	1.0	2.1	2.1
60-57-1	Dieldrin	1.36	J	0.31	1.0	2.1	2.1
959-98-8	Endosulfan I	2.1	U	0.73	2.1	4.2	4.2
33213-65-9	Endosulfan II	0.939	J P	0.31	1.0	2.1	2.1
1031-07-8	Endosulfan sulfate	2.1	U	0.94	2.1	4.2	4.2
72-20-8	Endrin	1.0	U	0.42	1.0	2.1	2.1
7421-93-4	Endrin aldehyde	2.1	U	1.1	2.1	4.2	4.2
53494-70-5	Endrin ketone	2.1	U	0.83	2.1	4.2	4.2
5103-74-2	gamma-Chlordane	2.19	P	0.31	1.0	2.1	2.1
76-44-8	Heptachlor	1.0	U	0.42	1.0	2.1	2.1
1024-57-3	Heptachlor epoxide	1.0	U	0.52	1.0	2.1	2.1
58-89-9	Lindane	1.0	U	0.52	1.0	2.1	2.1
72-43-5	Methoxychlor	2.1	U	0.73	2.1	4.2	4.2
8001-35-2	Toxaphene	21	U	9.4	21	42	42

CT LABORATORIES
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PESTICIDE ORGANICS ANALYSIS

Sample Description

GN-SO-05-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.09 (g/L)	CTL Sample ID:	321163
% Solids:	96.2	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8081B	Analytical Prep Batch #	73335
Analytical Run #:	164272	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 00:03		
Cleanup Date/Time/Type:	09/06/2019 09:13 (GPC) , 09/10/2019 12:00 (Sulfur) , , 09/10/2019 09:00 (Florisil)		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):		/	
ICAL Calibration #:	090519pstic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
72-54-8	4,4'-DDD	0.824	J P	0.31	1.0	2.1	2.1
72-55-9	4,4'-DDE	6.49		0.31	1.0	2.1	2.1
50-29-3	4,4'-DDT	10.9		0.52	1.0	2.1	2.1
309-00-2	Aldrin	1.0	U	0.52	1.0	2.1	2.1
319-84-6	alpha-BHC	3.71	J P	0.62	2.1	4.1	4.1
5103-71-9	alpha-Chlordane	1.0	U	0.31	1.0	2.1	2.1
319-85-7	beta-BHC	2.1	U	0.62	2.1	4.1	4.1
12789-03-6	Chlordane (Technical)	21	U	5.2	21	41	41
319-86-8	delta-BHC	1.0	U	0.31	1.0	2.1	2.1
60-57-1	Dieldrin	6.90		0.31	1.0	2.1	2.1
959-98-8	Endosulfan I	2.1	U	0.72	2.1	4.1	4.1
33213-65-9	Endosulfan II	1.0	U	0.31	1.0	2.1	2.1
1031-07-8	Endosulfan sulfate	2.1	U	0.93	2.1	4.1	4.1
72-20-8	Endrin	4.64	P	0.41	1.0	2.1	2.1
7421-93-4	Endrin aldehyde	2.1	U	1.1	2.1	4.1	4.1
53494-70-5	Endrin ketone	1.13	J P	0.82	2.1	4.1	4.1
5103-74-2	gamma-Chlordane	2.37		0.31	1.0	2.1	2.1
76-44-8	Heptachlor	1.0	U	0.41	1.0	2.1	2.1
1024-57-3	Heptachlor epoxide	1.0	U	0.52	1.0	2.1	2.1
58-89-9	Lindane	1.0	U	0.52	1.0	2.1	2.1
72-43-5	Methoxychlor	2.1	U	0.72	2.1	4.1	4.1
8001-35-2	Toxaphene	21	U	9.3	21	41	41

CT LABORATORIES
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PESTICIDE ORGANICS ANALYSIS

Sample Description

GN-SO-05-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.21 (g/L)	CTL Sample ID:	321164
% Solids:	86.8	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8081B	Analytical Prep Batch #	73335
Analytical Run #:	164272	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 20:48		
Cleanup Date/Time/Type:	09/06/2019 09:13 (GPC) , 09/10/2019 12:00 (Sulfur) , , 09/10/2019 09:00 (Florisil)		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	090519pstic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
72-54-8	4,4'-DDD	1.1	U	0.34	1.1	2.3	2.3
72-55-9	4,4'-DDE	0.677	J	0.34	1.1	2.3	2.3
50-29-3	4,4'-DDT	1.47	J	0.56	1.1	2.3	2.3
309-00-2	Aldrin	1.1	U	0.56	1.1	2.3	2.3
319-84-6	alpha-BHC	2.3	U	0.68	2.3	4.5	4.5
5103-71-9	alpha-Chlordane	1.1	U	0.34	1.1	2.3	2.3
319-85-7	beta-BHC	2.3	U	0.68	2.3	4.5	4.5
12789-03-6	Chlordane (Technical)	23	U	5.6	23	45	45
319-86-8	delta-BHC	1.1	U	0.34	1.1	2.3	2.3
60-57-1	Dieldrin	1.24	J	0.34	1.1	2.3	2.3
959-98-8	Endosulfan I	2.3	U	0.79	2.3	4.5	4.5
33213-65-9	Endosulfan II	1.1	U	0.34	1.1	2.3	2.3
1031-07-8	Endosulfan sulfate	2.3	U	1.0	2.3	4.5	4.5
72-20-8	Endrin	1.1	U	0.45	1.1	2.3	2.3
7421-93-4	Endrin aldehyde	2.3	U	1.2	2.3	4.5	4.5
53494-70-5	Endrin ketone	2.3	U	0.90	2.3	4.5	4.5
5103-74-2	gamma-Chlordane	1.1	U	0.34	1.1	2.3	2.3
76-44-8	Heptachlor	1.1	U	0.45	1.1	2.3	2.3
1024-57-3	Heptachlor epoxide	1.1	U	0.56	1.1	2.3	2.3
58-89-9	Lindane	1.1	U	0.56	1.1	2.3	2.3
72-43-5	Methoxychlor	2.3	U	0.79	2.3	4.5	4.5
8001-35-2	Toxaphene	23	U	10	23	45	45

CT LABORATORIES
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PESTICIDE ORGANICS ANALYSIS

Sample Description: **GN-SO-06-1**

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.49 (g/L)	CTL Sample ID:	321166
% Solids:	96.7	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8081B	Analytical Prep Batch #	73335
Analytical Run #:	164272	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 00:19		
Cleanup Date/Time/Type:	09/06/2019 09:13 (GPC) , 09/10/2019 12:00 (Sulfur) , , 09/10/2019 09:00 (Florisil)		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	090519pstic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
72-54-8	4,4'-DDD	0.99	U	0.30	0.99	2.0	2.0
72-55-9	4,4'-DDE	8.18		0.30	0.99	2.0	2.0
50-29-3	4,4'-DDT	3.06		0.49	0.99	2.0	2.0
309-00-2	Aldrin	0.99	U	0.49	0.99	2.0	2.0
319-84-6	alpha-BHC	2.0	U	0.59	2.0	3.9	3.9
5103-71-9	alpha-Chlordane	0.99	U	0.30	0.99	2.0	2.0
319-85-7	beta-BHC	2.0	U	0.59	2.0	3.9	3.9
12789-03-6	Chlordane (Technical)	20	U	4.9	20	39	39
319-86-8	delta-BHC	0.99	U	0.30	0.99	2.0	2.0
60-57-1	Dieldrin	1.68	J P	0.30	0.99	2.0	2.0
959-98-8	Endosulfan I	2.0	U	0.69	2.0	3.9	3.9
33213-65-9	Endosulfan II	0.99	U	0.30	0.99	2.0	2.0
1031-07-8	Endosulfan sulfate	2.0	U	0.89	2.0	3.9	3.9
72-20-8	Endrin	0.99	U	0.39	0.99	2.0	2.0
7421-93-4	Endrin aldehyde	2.0	U	1.1	2.0	3.9	3.9
53494-70-5	Endrin ketone	0.986	J P	0.79	2.0	3.9	3.9
5103-74-2	gamma-Chlordane	2.37	P	0.30	0.99	2.0	2.0
76-44-8	Heptachlor	0.99	U	0.39	0.99	2.0	2.0
1024-57-3	Heptachlor epoxide	0.99	U	0.49	0.99	2.0	2.0
58-89-9	Lindane	0.99	U	0.49	0.99	2.0	2.0
72-43-5	Methoxychlor	2.0	U	0.69	2.0	3.9	3.9
8001-35-2	Toxaphene	20	U	8.9	20	39	39

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PESTICIDE ORGANICS ANALYSIS

Sample Description: **GN-SO-06-2**

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.81 (g/L)	CTL Sample ID:	321167
% Solids:	90.5	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8081B	Analytical Prep Batch #	73335
Analytical Run #:	164272	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 21:20		
Cleanup Date/Time/Type:	09/06/2019 09:13 (GPC) , 09/10/2019 12:00 (Sulfur) , , 09/10/2019 09:00 (Florisil)		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	090519pstic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
72-54-8	4,4'-DDD	1.0	U	0.31	1.0	2.0	2.0
72-55-9	4,4'-DDE	1.0	U	0.31	1.0	2.0	2.0
50-29-3	4,4'-DDT	1.12	J P	0.51	1.0	2.0	2.0
309-00-2	Aldrin	1.0	U	0.51	1.0	2.0	2.0
319-84-6	alpha-BHC	2.0	U	0.61	2.0	4.1	4.1
5103-71-9	alpha-Chlordane	1.0	U	0.31	1.0	2.0	2.0
319-85-7	beta-BHC	2.0	U	0.61	2.0	4.1	4.1
12789-03-6	Chlordane (Technical)	20	U	5.1	20	41	41
319-86-8	delta-BHC	1.0	U	0.31	1.0	2.0	2.0
60-57-1	Dieldrin	1.0	U	0.31	1.0	2.0	2.0
959-98-8	Endosulfan I	2.0	U	0.72	2.0	4.1	4.1
33213-65-9	Endosulfan II	1.0	U	0.31	1.0	2.0	2.0
1031-07-8	Endosulfan sulfate	2.0	U	0.92	2.0	4.1	4.1
72-20-8	Endrin	1.0	U	0.41	1.0	2.0	2.0
7421-93-4	Endrin aldehyde	2.0	U	1.1	2.0	4.1	4.1
53494-70-5	Endrin ketone	2.0	U	0.82	2.0	4.1	4.1
5103-74-2	gamma-Chlordane	1.0	U	0.31	1.0	2.0	2.0
76-44-8	Heptachlor	1.0	U	0.41	1.0	2.0	2.0
1024-57-3	Heptachlor epoxide	1.0	U	0.51	1.0	2.0	2.0
58-89-9	Lindane	1.0	U	0.51	1.0	2.0	2.0
72-43-5	Methoxychlor	2.0	U	0.72	2.0	4.1	4.1
8001-35-2	Toxaphene	20	U	9.2	20	41	41

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PESTICIDE ORGANICS ANALYSIS

Sample Description

GN-SO-07-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.11 (g/L)	CTL Sample ID:	321168
% Solids:	92.0	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8081B	Analytical Prep Batch #	73335
Analytical Run #:	164272	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 00:35		
Cleanup Date/Time/Type:	09/06/2019 09:13 (GPC) , 09/10/2019 12:00 (Sulfur) , , 09/10/2019 09:00 (Florisil)		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	090519pstic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
72-54-8	4,4'-DDD	1.1	U	0.32	1.1	2.2	2.2
72-55-9	4,4'-DDE	3.55		0.32	1.1	2.2	2.2
50-29-3	4,4'-DDT	3.87		0.54	1.1	2.2	2.2
309-00-2	Aldrin	1.1	U	0.54	1.1	2.2	2.2
319-84-6	alpha-BHC	2.2	U	0.65	2.2	4.3	4.3
5103-71-9	alpha-Chlordane	1.1	U	0.32	1.1	2.2	2.2
319-85-7	beta-BHC	2.2	U	0.65	2.2	4.3	4.3
12789-03-6	Chlordane (Technical)	22	U	5.4	22	43	43
319-86-8	delta-BHC	1.1	U	0.32	1.1	2.2	2.2
60-57-1	Dieldrin	4.09		0.32	1.1	2.2	2.2
959-98-8	Endosulfan I	2.2	U	0.75	2.2	4.3	4.3
33213-65-9	Endosulfan II	1.1	U	0.32	1.1	2.2	2.2
1031-07-8	Endosulfan sulfate	2.2	U	0.97	2.2	4.3	4.3
72-20-8	Endrin	1.1	U	0.43	1.1	2.2	2.2
7421-93-4	Endrin aldehyde	2.2	U	1.2	2.2	4.3	4.3
53494-70-5	Endrin ketone	2.2	U	0.86	2.2	4.3	4.3
5103-74-2	gamma-Chlordane	11.0		0.32	1.1	2.2	2.2
76-44-8	Heptachlor	0.645	J	0.43	1.1	2.2	2.2
1024-57-3	Heptachlor epoxide	2.37		0.54	1.1	2.2	2.2
58-89-9	Lindane	1.1	U	0.54	1.1	2.2	2.2
72-43-5	Methoxychlor	2.2	U	0.75	2.2	4.3	4.3
8001-35-2	Toxaphene	22	U	9.7	22	43	43

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PESTICIDE ORGANICS ANALYSIS

Sample Description: **GN-SO-07-2**

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.29 (g/L)	CTL Sample ID:	321169
% Solids:	90.8	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8081B	Analytical Prep Batch #	73335
Analytical Run #:	164272	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 21:37		
Cleanup Date/Time/Type:	09/06/2019 09:13 (GPC) , 09/10/2019 12:00 (Sulfur) , , 09/10/2019 09:00 (Florisil)		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	090519pstic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
72-54-8	4,4'-DDD	0.428	J	0.32	1.1	2.1	2.1
72-55-9	4,4'-DDE	2.14		0.32	1.1	2.1	2.1
50-29-3	4,4'-DDT	4.82		0.54	1.1	2.1	2.1
309-00-2	Aldrin	1.1	U	0.54	1.1	2.1	2.1
319-84-6	alpha-BHC	2.1	U	0.64	2.1	4.3	4.3
5103-71-9	alpha-Chlordane	1.1	U	0.32	1.1	2.1	2.1
319-85-7	beta-BHC	2.1	U	0.64	2.1	4.3	4.3
12789-03-6	Chlordane (Technical)	21	U	5.4	21	43	43
319-86-8	delta-BHC	1.1	U	0.32	1.1	2.1	2.1
60-57-1	Dieldrin	1.28	J	0.32	1.1	2.1	2.1
959-98-8	Endosulfan I	2.1	U	0.75	2.1	4.3	4.3
33213-65-9	Endosulfan II	0.428	J	0.32	1.1	2.1	2.1
1031-07-8	Endosulfan sulfate	2.1	U	0.96	2.1	4.3	4.3
72-20-8	Endrin	1.1	U	0.43	1.1	2.1	2.1
7421-93-4	Endrin aldehyde	2.1	U	1.2	2.1	4.3	4.3
53494-70-5	Endrin ketone	2.1	U	0.86	2.1	4.3	4.3
5103-74-2	gamma-Chlordane	5.14	P	0.32	1.1	2.1	2.1
76-44-8	Heptachlor	1.1	U	0.43	1.1	2.1	2.1
1024-57-3	Heptachlor epoxide	1.18	J P	0.54	1.1	2.1	2.1
58-89-9	Lindane	1.1	U	0.54	1.1	2.1	2.1
72-43-5	Methoxychlor	2.1	U	0.75	2.1	4.3	4.3
8001-35-2	Toxaphene	21	U	9.6	21	43	43

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PESTICIDE ORGANICS ANALYSIS

Sample Description

GN-SO-08-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.04 (g/L)	CTL Sample ID:	321170
% Solids:	95.9	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8081B	Analytical Prep Batch #	73335
Analytical Run #:	164272	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 21:53		
Cleanup Date/Time/Type:	09/06/2019 09:13 (GPC) , 09/10/2019 12:00 (Sulfur) , , 09/10/2019 09:00 (Florisil)		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	090519pstic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
72-54-8	4,4'-DDD	0.415	J	0.31	1.0	2.1	2.1
72-55-9	4,4'-DDE	4.26		0.31	1.0	2.1	2.1
50-29-3	4,4'-DDT	3.32		0.52	1.0	2.1	2.1
309-00-2	Aldrin	1.0	U	0.52	1.0	2.1	2.1
319-84-6	alpha-BHC	2.1	U	0.62	2.1	4.2	4.2
5103-71-9	alpha-Chlordane	1.0	U	0.31	1.0	2.1	2.1
319-85-7	beta-BHC	2.1	U	0.62	2.1	4.2	4.2
12789-03-6	Chlordane (Technical)	21	U	5.2	21	42	42
319-86-8	delta-BHC	1.0	U	0.31	1.0	2.1	2.1
60-57-1	Dieldrin	1.0	U	0.31	1.0	2.1	2.1
959-98-8	Endosulfan I	2.1	U	0.73	2.1	4.2	4.2
33213-65-9	Endosulfan II	1.0	U	0.31	1.0	2.1	2.1
1031-07-8	Endosulfan sulfate	2.1	U	0.93	2.1	4.2	4.2
72-20-8	Endrin	1.0	U	0.42	1.0	2.1	2.1
7421-93-4	Endrin aldehyde	2.1	U	1.1	2.1	4.2	4.2
53494-70-5	Endrin ketone	2.1	U	0.83	2.1	4.2	4.2
5103-74-2	gamma-Chlordane	4.57	P	0.31	1.0	2.1	2.1
76-44-8	Heptachlor	1.0	U	0.42	1.0	2.1	2.1
1024-57-3	Heptachlor epoxide	1.66	J	0.52	1.0	2.1	2.1
58-89-9	Lindane	0.727	J P	0.52	1.0	2.1	2.1
72-43-5	Methoxychlor	2.1	U	0.73	2.1	4.2	4.2
8001-35-2	Toxaphene	21	U	9.3	21	42	42

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PESTICIDE ORGANICS ANALYSIS

Sample Description: **GN-SO-08-2**

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.38 (g/L)	CTL Sample ID:	321171
% Solids:	93.5	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8081B	Analytical Prep Batch #	73335
Analytical Run #:	164272	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 11:40		
Cleanup Date/Time/Type:	09/06/2019 09:13 (GPC) , 09/10/2019 12:00 (Sulfur) , , 09/10/2019 09:00 (Florisil)		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	090519pstic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
72-54-8	4,4'-DDD	0.618	J P	0.31	1.0	2.1	2.1
72-55-9	4,4'-DDE	8.24		0.31	1.0	2.1	2.1
50-29-3	4,4'-DDT	16.1		0.52	1.0	2.1	2.1
309-00-2	Aldrin	1.0	U	0.52	1.0	2.1	2.1
319-84-6	alpha-BHC	2.1	U	0.62	2.1	4.1	4.1
5103-71-9	alpha-Chlordane	1.0	U	0.31	1.0	2.1	2.1
319-85-7	beta-BHC	0.721	J P	0.62	2.1	4.1	4.1
12789-03-6	Chlordane (Technical)	21	U	5.2	21	41	41
319-86-8	delta-BHC	1.0	U	0.31	1.0	2.1	2.1
60-57-1	Dieldrin	0.824	J	0.31	1.0	2.1	2.1
959-98-8	Endosulfan I	2.1	U	0.72	2.1	4.1	4.1
33213-65-9	Endosulfan II	1.0	U	0.31	1.0	2.1	2.1
1031-07-8	Endosulfan sulfate	2.1	U	0.93	2.1	4.1	4.1
72-20-8	Endrin	1.0	U	0.41	1.0	2.1	2.1
7421-93-4	Endrin aldehyde	2.1	U	1.1	2.1	4.1	4.1
53494-70-5	Endrin ketone	2.1	U	0.82	2.1	4.1	4.1
5103-74-2	gamma-Chlordane	4.22		0.31	1.0	2.1	2.1
76-44-8	Heptachlor	1.0	U	0.41	1.0	2.1	2.1
1024-57-3	Heptachlor epoxide	1.0	U	0.52	1.0	2.1	2.1
58-89-9	Lindane	1.0	U	0.52	1.0	2.1	2.1
72-43-5	Methoxychlor	2.1	U	0.72	2.1	4.1	4.1
8001-35-2	Toxaphene	21	U	9.3	21	41	41

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PESTICIDE ORGANICS ANALYSIS

Sample Description

GN-SO-09C-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.19 (g/L)	CTL Sample ID:	321172
% Solids:	90.0	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8081B	Analytical Prep Batch #	73335
Analytical Run #:	164272	Dilution Factor:	10.00
Date & Time Analyzed:	09/11/2019 / 11:57		
Cleanup Date/Time/Type:	, 09/10/2019 12:00 (Sulfur) ,		, 09/10/2019 09:00 (Florisil)
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	090519pstic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
72-55-9	4,4'-DDE	243		3.3	11	22	22
50-29-3	4,4'-DDT	497		5.5	11	22	22

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PESTICIDE ORGANICS ANALYSIS

Sample Description

GN-SO-09C-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.19 (g/L)	CTL Sample ID:	321172
% Solids:	90.0	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8081B	Analytical Prep Batch #	73335
Analytical Run #:	164272	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 22:25		
Cleanup Date/Time/Type:	09/06/2019 09:13 (GPC) , 09/10/2019 12:00 (Sulfur) , , 09/10/2019 09:00 (Florisil)		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	090519pstic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
72-54-8	4,4'-DDD	8.29		0.33	1.1	2.2	2.2
309-00-2	Aldrin	1.1	U	0.55	1.1	2.2	2.2
319-84-6	alpha-BHC	2.2	U	0.65	2.2	4.4	4.4
5103-71-9	alpha-Chlordane	1.1	U	0.33	1.1	2.2	2.2
319-85-7	beta-BHC	2.2	U	0.65	2.2	4.4	4.4
12789-03-6	Chlordane (Technical)	22	U	5.5	22	44	44
319-86-8	delta-BHC	1.1	U	0.33	1.1	2.2	2.2
60-57-1	Dieldrin	21.3		0.33	1.1	2.2	2.2
959-98-8	Endosulfan I	2.2	U	0.76	2.2	4.4	4.4
33213-65-9	Endosulfan II	1.1	U	0.33	1.1	2.2	2.2
1031-07-8	Endosulfan sulfate	2.2	U	0.98	2.2	4.4	4.4
72-20-8	Endrin	1.1	U	0.44	1.1	2.2	2.2
7421-93-4	Endrin aldehyde	2.2	U	1.2	2.2	4.4	4.4
53494-70-5	Endrin ketone	2.2	U	0.87	2.2	4.4	4.4
5103-74-2	gamma-Chlordane	2.29	P	0.33	1.1	2.2	2.2
76-44-8	Heptachlor	1.1	U	0.44	1.1	2.2	2.2
1024-57-3	Heptachlor epoxide	1.1	U	0.55	1.1	2.2	2.2
58-89-9	Lindane	1.1	U	0.55	1.1	2.2	2.2
72-43-5	Methoxychlor	2.07	J	0.76	2.2	4.4	4.4
8001-35-2	Toxaphene	22	U	9.8	22	44	44

CT LABORATORIES
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PESTICIDE ORGANICS ANALYSIS

Sample Description

GN-SO-DUP-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.07 (g/L)	CTL Sample ID:	321157
% Solids:	95.8	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8081B	Analytical Prep Batch #	73335
Analytical Run #:	164272	Dilution Factor:	50.00
Date & Time Analyzed:	09/11/2019 / 16:31		
Cleanup Date/Time/Type:	, 09/10/2019 12:00 (Sulfur) ,		, 09/10/2019 09:00 (Florisil)
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	090519pstic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
72-54-8	4,4'-DDD	472		16	52	100	100
72-55-9	4,4'-DDE	2440		16	52	100	100
1024-57-3	Heptachlor epoxide	52	U V	26	52	100	100

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PESTICIDE ORGANICS ANALYSIS

Sample Description

GN-SO-DUP-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.07 (g/L)	CTL Sample ID:	321157
% Solids:	95.8	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8081B	Analytical Prep Batch #	73335
Analytical Run #:	164272	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 23:30		
Cleanup Date/Time/Type:	09/06/2019 09:13 (GPC) , 09/10/2019 12:00 (Sulfur) , , 09/10/2019 09:00 (Florisil)		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	090519pstic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
50-29-3	4,4'-DDT	51.0		0.52	1.0	2.1	2.1
309-00-2	Aldrin	1.0	U	0.52	1.0	2.1	2.1
319-84-6	alpha-BHC	1.24	J P	0.62	2.1	4.1	4.1
5103-71-9	alpha-Chlordane	1.0	U	0.31	1.0	2.1	2.1
319-85-7	beta-BHC	2.1	U	0.62	2.1	4.1	4.1
12789-03-6	Chlordane (Technical)	21	U	5.2	21	41	41
319-86-8	delta-BHC	0.933	J	0.31	1.0	2.1	2.1
60-57-1	Dieldrin	1.0	U	0.31	1.0	2.1	2.1
959-98-8	Endosulfan I	2.1	U	0.73	2.1	4.1	4.1
33213-65-9	Endosulfan II	3.42	P	0.31	1.0	2.1	2.1
1031-07-8	Endosulfan sulfate	2.38	J P	0.93	2.1	4.1	4.1
72-20-8	Endrin	28.1	P	0.41	1.0	2.1	2.1
7421-93-4	Endrin aldehyde	2.1	U	1.1	2.1	4.1	4.1
53494-70-5	Endrin ketone	14.3	P	0.83	2.1	4.1	4.1
5103-74-2	gamma-Chlordane	1.0	U	0.31	1.0	2.1	2.1
76-44-8	Heptachlor	0.933	J P	0.41	1.0	2.1	2.1
58-89-9	Lindane	1.0	U	0.52	1.0	2.1	2.1
72-43-5	Methoxychlor	2.1	U	0.73	2.1	4.1	4.1
8001-35-2	Toxaphene	21	U	9.3	21	41	41

CT LABORATORIES
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1D-1

PESTICIDE ORGANICS ANALYSIS

Sample Description

GN-SO-DUP-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.23 (g/L)	CTL Sample ID:	321165
% Solids:	84.1	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8081B	Analytical Prep Batch #	73335
Analytical Run #:	164272	Dilution Factor:	1.00
Date & Time Analyzed:	09/10/2019 / 21:04		
Cleanup Date/Time/Type:	09/06/2019 09:13 (GPC) , 09/10/2019 12:00 (Sulfur) , , 09/10/2019 09:00 (Florisil)		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	090519pstic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
72-54-8	4,4'-DDD	1.2	U	0.35	1.2	2.3	2.3
72-55-9	4,4'-DDE	0.697	J	0.35	1.2	2.3	2.3
50-29-3	4,4'-DDT	1.16	J	0.58	1.2	2.3	2.3
309-00-2	Aldrin	1.2	U	0.58	1.2	2.3	2.3
319-84-6	alpha-BHC	2.3	U	0.70	2.3	4.6	4.6
5103-71-9	alpha-Chlordane	1.2	U	0.35	1.2	2.3	2.3
319-85-7	beta-BHC	2.3	U	0.70	2.3	4.6	4.6
12789-03-6	Chlordane (Technical)	23	U	5.8	23	46	46
319-86-8	delta-BHC	1.2	U	0.35	1.2	2.3	2.3
60-57-1	Dieldrin	1.05	J	0.35	1.2	2.3	2.3
959-98-8	Endosulfan I	2.3	U	0.81	2.3	4.6	4.6
33213-65-9	Endosulfan II	1.2	U	0.35	1.2	2.3	2.3
1031-07-8	Endosulfan sulfate	2.3	U	1.0	2.3	4.6	4.6
72-20-8	Endrin	1.05	J P	0.46	1.2	2.3	2.3
7421-93-4	Endrin aldehyde	2.3	U	1.3	2.3	4.6	4.6
53494-70-5	Endrin ketone	2.3	U	0.93	2.3	4.6	4.6
5103-74-2	gamma-Chlordane	1.2	U	0.35	1.2	2.3	2.3
76-44-8	Heptachlor	1.2	U	0.46	1.2	2.3	2.3
1024-57-3	Heptachlor epoxide	1.2	U	0.58	1.2	2.3	2.3
58-89-9	Lindane	1.2	U	0.58	1.2	2.3	2.3
72-43-5	Methoxychlor	2.3	U	0.81	2.3	4.6	4.6
8001-35-2	Toxaphene	23	U	10	23	46	46

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PESTICIDE ORGANICS ANALYSIS

Sample Description

GN-W-RB-01

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	GROUND WATER	SDG No.:	147664
Sample wt/vol:	0.97 (g/L)	CTL Sample ID:	321513
% Solids:		Date Received:	08/29/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/03/2019 / 09:10
Analytical Method:	EPA 8081B	Analytical Prep Batch #	73349
Analytical Run #:	164079	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 22:57		
Cleanup Date/Time/Type:	, 09/03/2019 15:00 (Sulfur) ,		,
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	090519pstic	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
72-54-8	4,4'-DDD	0.010	U	0.0062	0.010	0.025	0.025
72-55-9	4,4'-DDE	0.010	U	0.0062	0.010	0.041	0.041
50-29-3	4,4'-DDT	0.010	U	0.0072	0.010	0.025	0.025
309-00-2	Aldrin	0.0021	J P	0.0020	0.0041	0.010	0.010
319-84-6	alpha-BHC	0.010	U	0.0052	0.010	0.025	0.025
5103-71-9	alpha-Chlordane	0.010	U	0.0093	0.010	0.041	0.041
319-85-7	beta-BHC	0.010	U	0.0093	0.010	0.041	0.041
12789-03-6	Chlordane (Technical)	0.21	U	0.11	0.21	0.62	0.62
319-86-8	delta-BHC	0.010	U	0.0052	0.010	0.025	0.025
60-57-1	Dieldrin	0.0041	U	0.0014	0.0041	0.010	0.010
959-98-8	Endosulfan I	0.010	U	0.0093	0.010	0.041	0.041
33213-65-9	Endosulfan II	0.010	U	0.0072	0.010	0.025	0.025
1031-07-8	Endosulfan sulfate	0.010	U	0.0062	0.010	0.025	0.025
72-20-8	Endrin	0.010	U	0.0062	0.010	0.025	0.025
7421-93-4	Endrin aldehyde	0.010	U	0.0093	0.010	0.041	0.041
53494-70-5	Endrin ketone	0.010	U	0.0072	0.010	0.025	0.025
5103-74-2	gamma-Chlordane	0.010	U	0.0072	0.010	0.025	0.025
76-44-8	Heptachlor	0.010	U	0.0062	0.010	0.025	0.025
1024-57-3	Heptachlor epoxide	0.010	U	0.0072	0.010	0.025	0.025
58-89-9	Lindane	0.010	U	0.0072	0.010	0.025	0.025
72-43-5	Methoxychlor	0.010	U	0.0062	0.010	0.041	0.041
8001-35-2	Toxaphene	0.21	U	0.18	0.21	0.62	0.62

CT LABORATORIES
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1D-3

Sample Description

METHOD BLANK

PESTICIDE ORGANICS ANALYSIS (MB)

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:		SDG No.:	147664
Sample wt/vol:	10.00 (g/L)	CTL Sample ID:	321454
% Solids:		Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8081B	Analytical Prep Batch #	73335
Analytical Run #:	164272	Dilution Factor:	1.00
Cleanup Date/Time/Type:	09/06/2019 09:13 (GPC) , 09/10/2019 12:00 (Sulfur) , , 09/10/2019 (Florisil)		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	090519pstic	Concentration Units:	ug/kg

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
72-54-8	4,4'-DDD	09/10/2019	17:00	0.30	U	0.30	2.00	***1.00***
72-55-9	4,4'-DDE	09/10/2019	17:00	0.30	U	0.30	2.00	***1.00***
50-29-3	4,4'-DDT	09/10/2019	17:00	0.50	U	0.50	2.00	***1.00***
309-00-2	Aldrin	09/10/2019	17:00	0.50	U	0.50	2.00	***1.00***
319-84-6	alpha-BHC	09/10/2019	17:00	0.60	U	0.60	4.00	***2.00***
5103-71-9	alpha-Chlordane	09/10/2019	17:00	0.30	U	0.30	2.00	***1.00***
319-85-7	beta-BHC	09/10/2019	17:00	0.60	U	0.60	4.00	***2.00***
12789-03-6	Chlordane (Technical)	09/10/2019	17:00	5	U	5	40	***20***
319-86-8	delta-BHC	09/10/2019	17:00	0.30	U	0.30	2.00	***1.00***
60-57-1	Dieldrin	09/10/2019	17:00	0.30	U	0.30	2.00	***1.00***
959-98-8	Endosulfan I	09/10/2019	17:00	0.70	U	0.70	4.00	***2.00***
33213-65-9	Endosulfan II	09/10/2019	17:00	0.30	U	0.30	2.00	***1.00***
1031-07-8	Endosulfan sulfate	09/10/2019	17:00	0.90	U	0.90	4.00	***2.00***
72-20-8	Endrin	09/10/2019	17:00	0.40	U	0.40	2.00	***1.00***
7421-93-4	Endrin aldehyde	09/10/2019	17:00	1.10	U	1.10	4.00	***2.00***
53494-70-5	Endrin ketone	09/10/2019	17:00	0.80	U	0.80	4.00	***2.00***
5103-74-2	gamma-Chlordane	09/10/2019	17:00	0.30	U	0.30	2.00	***1.00***
76-44-8	Heptachlor	09/10/2019	17:00	0.40	U	0.40	2.00	***1.00***
1024-57-3	Heptachlor epoxide	09/10/2019	17:00	0.50	U	0.50	2.00	***1.00***
58-89-9	Lindane	09/10/2019	17:00	0.50	U	0.50	2.00	***1.00***
72-43-5	Methoxychlor	09/10/2019	17:00	0.70	U	0.70	4.00	***2.00***
8001-35-2	Toxaphene	09/10/2019	17:00	9	U	9	40	***20***

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1D-3

Sample Description

METHOD BLANK

PESTICIDE ORGANICS ANALYSIS (MB)

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:		SDG No.:	147664
Sample wt/vol:	1.00 (g/L)	CTL Sample ID:	321841
% Solids:		Date Received:	08/29/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/03/2019 / 09:10
Analytical Method:	EPA 8081B	Analytical Prep Batch #	73349
Analytical Run #:	164079	Dilution Factor:	1.00
Cleanup Date/Time/Type:	09/03/2019 15:00 (Sulfur)		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	090519pstic	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
72-54-8	4,4'-DDD	09/05/2019	21:52	0.006	U	0.006	0.024	***0.012***
72-55-9	4,4'-DDE	09/05/2019	21:52	0.006	U	0.006	0.040	***0.020***
50-29-3	4,4'-DDT	09/05/2019	21:52	0.007	U	0.007	0.024	***0.012***
309-00-2	Aldrin	09/05/2019	21:52	0.0019	U	0.0019	0.0100	***0.0050***
319-84-6	alpha-BHC	09/05/2019	21:52	0.005	U	0.005	0.024	***0.012***
5103-71-9	alpha-Chlordane	09/05/2019	21:52	0.009	U	0.009	0.040	***0.020***
319-85-7	beta-BHC	09/05/2019	21:52	0.009	U	0.009	0.040	***0.020***
12789-03-6	Chlordane (Technical)	09/05/2019	21:52	0.102	U	0.102	0.600	***0.300***
319-86-8	delta-BHC	09/05/2019	21:52	0.005	U	0.005	0.024	***0.012***
60-57-1	Dieldrin	09/05/2019	21:52	0.0014	U	0.0014	0.0100	***0.0050***
959-98-8	Endosulfan I	09/05/2019	21:52	0.009	U	0.009	0.040	***0.020***
33213-65-9	Endosulfan II	09/05/2019	21:52	0.007	U	0.007	0.024	***0.012***
1031-07-8	Endosulfan sulfate	09/05/2019	21:52	0.006	U	0.006	0.024	***0.012***
72-20-8	Endrin	09/05/2019	21:52	0.006	U	0.006	0.024	***0.012***
7421-93-4	Endrin aldehyde	09/05/2019	21:52	0.009	U	0.009	0.040	***0.020***
53494-70-5	Endrin ketone	09/05/2019	21:52	0.007	U	0.007	0.024	***0.012***
5103-74-2	gamma-Chlordane	09/05/2019	21:52	0.007	U	0.007	0.024	***0.012***
76-44-8	Heptachlor	09/05/2019	21:52	0.006	U	0.006	0.024	***0.012***
1024-57-3	Heptachlor epoxide	09/05/2019	21:52	0.007	U	0.007	0.024	***0.012***
58-89-9	Lindane	09/05/2019	21:52	0.007	U	0.007	0.024	***0.012***
72-43-5	Methoxychlor	09/05/2019	21:52	0.006	U	0.006	0.040	***0.020***
8001-35-2	Toxaphene	09/05/2019	21:52	0.176	U	0.176	0.600	***0.300***

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2E-1

WATER PESTICIDE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CT Laboratories | Contract: HDR, INC-MEMPHIS DEPOT

Analytical Method: EPA 8081B | SDG: 147664

Analytical Run #: 164079 | ICAL Calibration #: 090519pstic

GC Column(1): Restek RTX ID: 0.32 (mm) | GC Column(2): Restek RTX C2 ID: 0.32 (mm)

CTLab #	321513				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
SURR:2,4,5,6-CL4-m-xylene	100	74	44	124	
SURR:Decachlorobiphenyl	100	54	39	146	

CTLab #	321841	Sample Type:	Method Blank		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
SURR:2,4,5,6-CL4-m-xylene	100	65.3	44	124	
SURR:Decachlorobiphenyl	100	77.1	39	146	

CTLab #	321842	Sample Type:	Lab Control Spike		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
SURR:2,4,5,6-CL4-m-xylene	100	66.6	44	124	
SURR:Decachlorobiphenyl	100	70.5	39	146	

CTLab #	321843	Sample Type:	Lab Control Spike Duplicate		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
SURR:2,4,5,6-CL4-m-xylene	100	71.0	44	124	
SURR:Decachlorobiphenyl	100	72.9	39	146	

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2F-1

SOIL PESTICIDE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CT Laboratories | Contract: HDR, INC-MEMPHIS DEPOT

Analytical Method: EPA 8081B | SDG: 147664

Analytical Run #: 164272 | ICAL Calibration #: 090519pstic

GC Column(1): Restek RTX ID: 0.32 (mm) | GC Column(2): Restek RTX C2 ID: 0.32 (mm)

CTLab #	321149				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
SURR:2,4,5,6-CL4-m-xylene	100	88	42	129	
SURR:Decachlorobiphenyl	100	66	40	138	
CTLab #	**321154**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
SURR:2,4,5,6-CL4-m-xylene	100	64	42	129	
SURR:Decachlorobiphenyl	100	64	40	138	
CTLab #	**321155**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
SURR:2,4,5,6-CL4-m-xylene	100	83	42	129	
SURR:Decachlorobiphenyl	100	62	40	138	
CTLab #	**321157**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
SURR:2,4,5,6-CL4-m-xylene	100	59	42	129	
SURR:Decachlorobiphenyl	100	119	40	138	
CTLab #	**321158**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
SURR:2,4,5,6-CL4-m-xylene	100	59	42	129	
SURR:Decachlorobiphenyl	100	64	40	138	
CTLab #	**321159**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
SURR:2,4,5,6-CL4-m-xylene	100	61	42	129	
SURR:Decachlorobiphenyl	100	73	40	138	
CTLab #	**321160**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
SURR:2,4,5,6-CL4-m-xylene	100	62	42	129	
SURR:Decachlorobiphenyl	100	65	40	138	
CTLab #	**321161**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
SURR:2,4,5,6-CL4-m-xylene	100	61	42	129	
SURR:Decachlorobiphenyl	100	69	40	138	
CTLab #	**321162**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
SURR:2,4,5,6-CL4-m-xylene	100	70	42	129	
SURR:Decachlorobiphenyl	100	76	40	138	
CTLab #	**321163**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
SURR:2,4,5,6-CL4-m-xylene	100	63	42	129	
SURR:Decachlorobiphenyl	100	69	40	138	

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2F-1

SOIL PESTICIDE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CT Laboratories | Contract: HDR, INC-MEMPHIS DEPOT

Analytical Method: EPA 8081B | SDG: 147664

Analytical Run #: 164272 | ICAL Calibration #: 090519pstic

GC Column(1): Restek RTX ID: 0.32 (mm) | GC Column(2): Restek RTX C2 ID: 0.32 (mm)

CTLab #	321164				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
SURR:2,4,5,6-CL4-m-xylene	100	54	42	129	
SURR:Decachlorobiphenyl	100	63	40	138	
CTLab #	**321165**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
SURR:2,4,5,6-CL4-m-xylene	100	48	42	129	
SURR:Decachlorobiphenyl	100	56	40	138	
CTLab #	**321166**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
SURR:2,4,5,6-CL4-m-xylene	100	82	42	129	
SURR:Decachlorobiphenyl	100	71	40	138	
CTLab #	**321167**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
SURR:2,4,5,6-CL4-m-xylene	100	58	42	129	
SURR:Decachlorobiphenyl	100	61	40	138	
CTLab #	**321168**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
SURR:2,4,5,6-CL4-m-xylene	100	62	42	129	
SURR:Decachlorobiphenyl	100	74	40	138	
CTLab #	**321169**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
SURR:2,4,5,6-CL4-m-xylene	100	63	42	129	
SURR:Decachlorobiphenyl	100	131	40	138	
CTLab #	**321170**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
SURR:2,4,5,6-CL4-m-xylene	100	61	42	129	
SURR:Decachlorobiphenyl	100	70	40	138	
CTLab #	**321171**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
SURR:2,4,5,6-CL4-m-xylene	100	91	42	129	
SURR:Decachlorobiphenyl	100	112	40	138	
CTLab #	**321172**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
SURR:2,4,5,6-CL4-m-xylene	100	66	42	129	
SURR:Decachlorobiphenyl	100	75	40	138	
CTLab #	**321454**	Sample Type:		Method Blank	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
SURR:2,4,5,6-CL4-m-xylene		86.8	42	129	
SURR:Decachlorobiphenyl		96.8	40	138	

CT LABORATORIES
delivering more than data from your environmental analyses

2F-1

SOIL PESTICIDE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CT Laboratories | Contract: HDR, INC-MEMPHIS DEPOT

Analytical Method: EPA 8081B | SDG: 147664

Analytical Run #: 164272 | ICAL Calibration #: 090519pstic

GC Column(1): Restek RTX ID: 0.32 (mm) | GC Column(2): Restek RTX C2 ID: 0.32 (mm)

CTLab #	321455	Sample Type:	Lab Control Spike		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
SURR:2,4,5,6-CL4-m-xylene	0.04	84.2	42	129	
SURR:Decachlorobiphenyl	0.04	95.8	40	138	

CTLab #	321457	Sample Type:	Matrix Spike		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
SURR:2,4,5,6-CL4-m-xylene	100	65.9	42	129	
SURR:Decachlorobiphenyl	100	70.3	40	138	

CTLab #	321458	Sample Type:	Matrix Spike Duplicate		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
SURR:2,4,5,6-CL4-m-xylene	100	57.6	42	129	
SURR:Decachlorobiphenyl	100	59.7	40	138	

CT LABORATORIES
delivering more than data from your environmental analyses

3E

Sample Description

WATER PESTICIDE LAB CONTROL SAMPLE

LCS

Lab Name: CT Laboratories | Contract: HDR, INC-MEMPHIS DEPOT

Sample No.: 321842 | SDG No.: 147664

Analytical Method: EPA 8081B | Concentration Units: ug/L

Sample No.: 321842 | Parent Sample No.: 0

Analytical Prep Batch #: 73349 | Analytical Preparation Date/Time: 09/03/2019 09:10

Analytical Run #: 164079 | ICAL Calibration #: 090519pstic

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
4,4'-DDD	09/05/2019	22:08	56-143	0.350		0.400	88
4,4'-DDE	09/05/2019	22:08	57-135	0.319		0.400	80
4,4'-DDT	09/05/2019	22:08	51-143	0.366		0.400	92
Aldrin	09/05/2019	22:08	45-134	0.261		0.400	65
alpha-BHC	09/05/2019	22:08	54-138	0.281		0.400	70
alpha-Chlordane	09/05/2019	22:08	60-129	0.310		0.400	78
beta-BHC	09/05/2019	22:08	56-136	0.307		0.400	77
delta-BHC	09/05/2019	22:08	52-142	0.323		0.400	81
Dieldrin	09/05/2019	22:08	60-136	0.331		0.400	83
Endosulfan I	09/05/2019	22:08	62-136	0.311		0.400	78
Endosulfan II	09/05/2019	22:08	52-135	0.360		0.400	90
Endosulfan sulfate	09/05/2019	22:08	62-133	0.365		0.400	91
Endrin	09/05/2019	22:08	60-138	0.494		0.400	124
Endrin aldehyde	09/05/2019	22:08	51-132	0.335		0.400	84
Endrin ketone	09/05/2019	22:08	58-134	0.335		0.400	84
gamma-Chlordane	09/05/2019	22:08	56-136	0.309		0.400	77
Heptachlor	09/05/2019	22:08	54-130	0.274		0.400	68
Heptachlor epoxide	09/05/2019	22:08	61-133	0.307		0.400	77
Lindane	09/05/2019	22:08	59-134	0.285		0.400	71
Methoxychlor	09/05/2019	22:08	54-145	0.420		0.400	105

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
Chlordane (Technical)	09/05/2019	22:24	62-140	2.03		2.50	81
Toxaphene	09/05/2019	22:24	33-134	2.20		2.50	88

CT LABORATORIES
delivering more than data from your environmental analyses

3E

Sample Description

LCS

WATER PESTICIDE LAB CONTROL SAMPLE

Lab Name:	CT Laboratories	Contract	HDR, INC-MEMPHIS DEPOT
Sample No.:	321842	SDG No.:	147664
Analytical Method:	EPA 8081B	Concentration Units:	ug/L

Spike Recovery: 0 out of 22 outside limits

CT LABORATORIES
delivering more than data from your environmental analyses

3E

WATER PESTICIDE LAB CONTROL SAMPLE

Sample Description: **LCSD**

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT
Sample No.: 321843
SDG No.: 147664
Analytical Method: EPA 8081B
Concentration Units: ug/L

Analytical Run #: 164079 Sample No.: 321843 Parent Sample No.: 321842
Analytical Prep Batch #: 73349 Analytical Preparation Date/Time: 09/03/2019 09:10
ICAL Calibration #: 090519pstic

Analyte	Analysis Date/Time	Spike Result	Parent Result	Spike Amount	%R	%RPD	Control Limit (%R)	Control Limit (%RPD)
4,4'-DDD	09/05/2019 23:13	0.340	0.350	0.400	85	3	56-143	30
4,4'-DDE	09/05/2019 23:13	0.319	0.319	0.400	80	0	57-135	30
4,4'-DDT	09/05/2019 23:13	0.356	0.366	0.400	89	3	51-143	30
Aldrin	09/05/2019 23:13	0.279	0.261	0.400	70	7	45-134	30
alpha-BHC	09/05/2019 23:13	0.305	0.281	0.400	76	8	54-138	30
alpha-Chlordane	09/05/2019 23:13	0.311	0.310	0.400	78	0	60-129	30
beta-BHC	09/05/2019 23:13	0.321	0.307	0.400	80	4	56-136	30
delta-BHC	09/05/2019 23:13	0.325	0.323	0.400	81	1	52-142	30
Dieldrin	09/05/2019 23:13	0.324	0.331	0.400	81	2	60-136	30
Endosulfan I	09/05/2019 23:13	0.310	0.311	0.400	78	0	62-136	30
Endosulfan II	09/05/2019 23:13	0.346	0.360	0.400	86	4	52-135	30
Endosulfan sulfate	09/05/2019 23:13	0.351	0.365	0.400	88	4	62-133	30
Endrin	09/05/2019 23:13	0.487	0.494	0.400	122	1	60-138	30
Endrin aldehyde	09/05/2019 23:13	0.323	0.335	0.400	81	4	51-132	30
Endrin ketone	09/05/2019 23:13	0.323	0.335	0.400	81	4	58-134	30
gamma-Chlordane	09/05/2019 23:13	0.311	0.309	0.400	78	1	56-136	30
Heptachlor	09/05/2019 23:13	0.293	0.274	0.400	73	7	54-130	30
Heptachlor epoxide	09/05/2019 23:13	0.307	0.307	0.400	77	0	61-133	30
Lindane	09/05/2019 23:13	0.300	0.285	0.400	75	5	59-134	30
Methoxychlor	09/05/2019 23:13	0.410	0.420	0.400	102	2	54-145	30

RPD or Spike Recovery: 0 out of 20 outside QC limits

CT LABORATORIES
delivering more than data from your environmental analyses

3F

Sample Description

GN-SO-04-1

SOIL PESTICIDE MATRIX SPIKE RECOVERY

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

Matrix: SOIL SDG No.: 147664

Analytical Method: EPA 8081B Concentration Units: ug/kg

Analytical Run #: 164272 Sample No.: 321457 Parent Sample No.: 321161

Analytical Prep Batch #: 73335 Analytical Preparation Date/Time: 09/04/2019 08:40

ICAL Calibration #: 090519pstic

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R	
4,4'-DDD	09/11/2019	00:51	56-139	28.4	BDL	45.3	63	
4,4'-DDE	09/11/2019	00:51	56-134	29.2	5.12	45.3	53	*FAIL*
4,4'-DDT	09/11/2019	00:51	50-141	35.6	6.46	45.3	64	
Aldrin	09/11/2019	00:51	45-136	26.5	BDL	45.3	58	
alpha-BHC	09/11/2019	00:51	45-137	28.5	BDL	45.3	63	
alpha-Chlordane	09/11/2019	00:51	54-133	29.9	BDL	45.3	66	
beta-BHC	09/11/2019	00:51	50-136	27.8	BDL	45.3	61	
delta-BHC	09/11/2019	00:51	47-139	28.1	0.334	45.3	61	
Dieldrin	09/11/2019	00:51	56-136	30.0	0.890	45.3	64	
Endosulfan I	09/11/2019	00:51	53-132	27.4	BDL	45.3	60	
Endosulfan II	09/11/2019	00:51	53-134	28.7	0.779	45.3	62	
Endosulfan sulfate	09/11/2019	00:51	55-136	24.8	BDL	45.3	55	
Endrin	09/11/2019	00:51	57-140	50.0	BDL	45.3	110	
Endrin aldehyde	09/11/2019	00:51	35-137	20.6	BDL	45.3	45	
Endrin ketone	09/11/2019	00:51	55-136	24.3	BDL	45.3	54	*FAIL*
gamma-Chlordane	09/11/2019	00:51	53-135	29.4	2.78	45.3	59	
Heptachlor	09/11/2019	00:51	47-136	29.0	BDL	45.3	64	
Heptachlor epoxide	09/11/2019	00:51	52-136	28.0	BDL	45.3	62	
Lindane	09/11/2019	00:51	49-135	29.8	BDL	45.3	66	
Methoxychlor	09/11/2019	00:51	52-143	33.5	BDL	45.3	74	

Spike Recovery: 2 out of 20 outside QC limits

CT LABORATORIES
delivering more than data from your environmental analyses

3F

Sample Description

GN-SO-04-1

SOIL PESTICIDE MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

Matrix: SOIL SDG No.: 147664

Analytical Method: EPA 8081B Concentration Units: ug/kg

Analytical Run #: 164272 Sample No.: 321458 Parent Sample No.: 321457

Analytical Prep Batch #: 73335 Analytical Preparation Date/Time: 09/04/2019 08:40

ICAL Calibration #: 090519pstic

Analyte	Analysis Date/Time		Spike Result	Spike Amount	%R	%RPD	Control Limits (%R)	Control Limits (%RPD)	
4,4'-DDD	09/11/2019	01:08	25.8	43.8	59	6	56-139	30	
4,4'-DDE	09/11/2019	01:08	28.7	43.8	54	2	56-134	30	*FAIL*
4,4'-DDT	09/11/2019	01:08	39.2	43.8	75	13	50-141	30	
Aldrin	09/11/2019	01:08	23.4	43.8	53	9	45-136	30	
alpha-BHC	09/11/2019	01:08	25.1	43.8	57	10	45-137	30	
alpha-Chlordane	09/11/2019	01:08	26.4	43.8	60	9	54-133	30	
beta-BHC	09/11/2019	01:08	23.1	43.8	53	15	50-136	30	
delta-BHC	09/11/2019	01:08	24.7	43.8	56	9	47-139	30	
Dieldrin	09/11/2019	01:08	26.2	43.8	58	10	56-136	30	
Endosulfan I	09/11/2019	01:08	23.2	43.8	53	13	53-132	30	
Endosulfan II	09/11/2019	01:08	25.6	43.8	57	8	53-134	30	
Endosulfan sulfate	09/11/2019	01:08	21.9	43.8	50	9	55-136	30	*FAIL*
Endrin	09/11/2019	01:08	45.3	43.8	103	7	57-140	30	
Endrin aldehyde	09/11/2019	01:08	18.4	43.8	42	8	35-137	30	
Endrin ketone	09/11/2019	01:08	20.6	43.8	47	13	55-136	30	*FAIL*
gamma-Chlordane	09/11/2019	01:08	25.3	43.8	51	12	53-135	30	*FAIL*
Heptachlor	09/11/2019	01:08	26.1	43.8	60	7	47-136	30	
Heptachlor epoxide	09/11/2019	01:08	24.5	43.8	56	10	52-136	30	
Lindane	09/11/2019	01:08	26.1	43.8	60	10	49-135	30	
Methoxychlor	09/11/2019	01:08	32.4	43.8	74	0	52-143	30	

RPD or Spike Recovery: 4 out of 20 outside QC limits

CT LABORATORIES
delivering more than data from your environmental analyses

3F

Sample Description

LCS

SOIL PESTICIDE LAB CONTROL SAMPLE

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT
Sample No.: 321455
SDG No.: 147664
Analytical Method: EPA 8081B
Concentration Units: ug/kg

Sample No.: 321455
Parent Sample No.: 0
Analytical Prep Batch #: 73335
Analytical Preparation Date/Time: 09/04/2019 08:40
Analytical Run #: 164272
ICAL Calibration #: 090519pstic

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
4,4'-DDD	09/10/2019	17:17	56-139	37.6		40.0	94
4,4'-DDE	09/10/2019	17:17	56-134	36.9		40.0	92
4,4'-DDT	09/10/2019	17:17	50-141	39.1		40.0	98
Aldrin	09/10/2019	17:17	45-136	34.8		40.0	87
alpha-BHC	09/10/2019	17:17	45-137	34.2		40.0	86
alpha-Chlordane	09/10/2019	17:17	54-133	35.7		40.0	89
beta-BHC	09/10/2019	17:17	50-136	35.8		40.0	90
delta-BHC	09/10/2019	17:17	47-139	36.8		40.0	92
Dieldrin	09/10/2019	17:17	56-136	36.3		40.0	91
Endosulfan I	09/10/2019	17:17	53-132	35.1		40.0	88
Endosulfan II	09/10/2019	17:17	53-134	37.3		40.0	93
Endosulfan sulfate	09/10/2019	17:17	55-136	37.6		40.0	94
Endrin	09/10/2019	17:17	57-140	53.4		40.0	134
Endrin aldehyde	09/10/2019	17:17	35-137	31.1		40.0	78
Endrin ketone	09/10/2019	17:17	55-136	34.7		40.0	87
gamma-Chlordane	09/10/2019	17:17	53-135	36.0		40.0	90
Heptachlor	09/10/2019	17:17	47-136	34.8		40.0	87
Heptachlor epoxide	09/10/2019	17:17	52-136	35.2		40.0	88
Lindane	09/10/2019	17:17	49-135	35.0		40.0	88
Methoxychlor	09/10/2019	17:17	52-143	43.3		40.0	108

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
Chlordane (Technical)	09/10/2019	17:33	43-149	211		250	84
Toxaphene	09/10/2019	17:33	33-141	227		250	91

CT LABORATORIES
delivering more than data from your environmental analyses

3F

Sample Description

LCS

SOIL PESTICIDE LAB CONTROL SAMPLE

Lab Name:	CT Laboratories	Contract	HDR, INC-MEMPHIS DEPOT
Sample No.:	321455	SDG No.:	147664
Analytical Method:	EPA 8081B	Concentration Units:	ug/kg

Spike Recovery: 0 out of 22 outside limits

CT Laboratories

4C-1

PESTICIDE METHOD BLANK SUMMARY

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Sample ID:	321454	SDG No.:	147664
Matrix:	SOLID	Date Extracted:	09/04/2019
Date Analyzed:	09/10/2019	Time Analyzed:	17:00
Analytical Method:	EPA 8081B	Extraction Method:	SW3546
Analytical Run #:	164272	Extraction Batch #:	73335
		ICAL Calibration #:	090519pstic

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC:

SEQUENCE	SAMPLE DESCRIPTION	SAMPLE ID	DATE/TIME ANALYZED	CALIBRATION REFERENCE #
1	GN-SO-01-1	321149	09/10/2019 18:05	090519pstic
2	GN-SO-01-2	321154	09/10/2019 18:22	090519pstic
3	GN-SO-02-1	321155	09/10/2019 18:38	090519pstic
4	GN-SO-02-1	321155	09/11/2019 11:24	090519pstic
5	GN-SO-DUP-1	321157	09/10/2019 23:30	090519pstic
6	GN-SO-DUP-1	321157	09/11/2019 16:31	090519pstic
7	GN-SO-02-2	321158	09/10/2019 18:54	090519pstic
8	GNSO-03-1	321159	09/10/2019 19:11	090519pstic
9	GN-SO-03-2	321160	09/10/2019 20:15	090519pstic
10	GN-SO-04-1	321161	09/11/2019 12:29	090519pstic
11	GN-SO-04-2	321162	09/10/2019 20:32	090519pstic
12	GN-SO-05-1	321163	09/11/2019 00:03	090519pstic
13	GN-SO-05-2	321164	09/10/2019 20:48	090519pstic
14	GN-SO-DUP-2	321165	09/10/2019 21:04	090519pstic
15	GN-SO-06-1	321166	09/11/2019 00:19	090519pstic
16	GN-SO-06-2	321167	09/10/2019 21:20	090519pstic
17	GN-SO-07-1	321168	09/11/2019 00:35	090519pstic
18	GN-SO-07-2	321169	09/10/2019 21:37	090519pstic
19	GN-SO-08-1	321170	09/10/2019 21:53	090519pstic
20	GN-SO-08-2	321171	09/11/2019 11:40	090519pstic
21	GN-SO-09C-1	321172	09/10/2019 22:25	090519pstic
22	GN-SO-09C-1	321172	09/11/2019 11:57	090519pstic
23	MBS	321454	09/10/2019 17:00	090519pstic
24	LCSS	321455	09/10/2019 17:17	090519pstic
25	LCSS	321455	09/10/2019 17:33	090519pstic
26	GN-SO-04-1MSS	321457	09/11/2019 00:51	090519pstic
27	GN-SO-04-1MSDS	321458	09/11/2019 01:08	090519pstic

CT Laboratories

4C-1

PESTICIDE METHOD BLANK SUMMARY

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Sample ID:	321841	SDG No.:	147664
Matrix:	LIQUID	Date Extracted:	09/03/2019
Date Analyzed:	09/05/2019	Time Analyzed:	21:52
Analytical Method:	EPA 8081B	Extraction Method:	SW3510
Analytical Run #:	164079	Extraction Batch #:	73349
		ICAL Calibration #:	090519pstic

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC:

SEQUENCE	SAMPLE DESCRIPTION	SAMPLE ID	DATE/TIME ANALYZED	CALIBRATION REFERENCE #
1	GN-W-RB-01	321513	09/05/2019 22:57	090519pstic
2	MBW	321841	09/05/2019 21:52	090519pstic
3	LCSW	321842	09/05/2019 22:08	090519pstic
4	LCSW	321842	09/05/2019 22:24	090519pstic
5	LCSDW	321843	09/05/2019 23:13	090519pstic

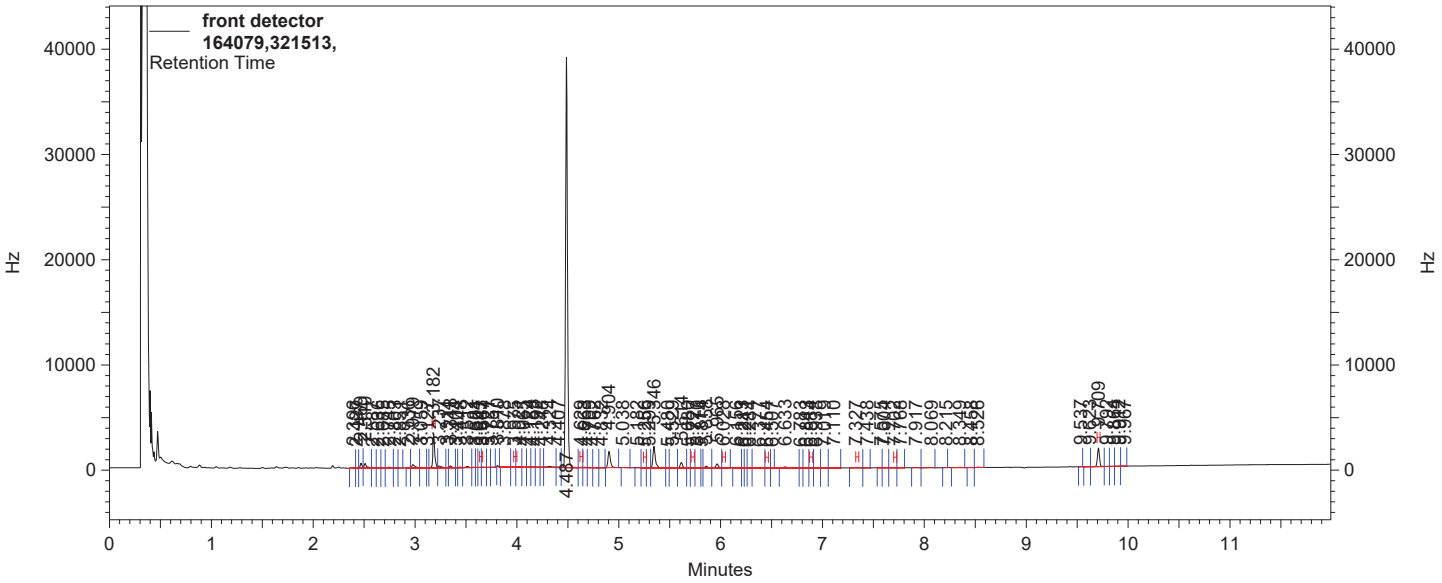
PESTICIDE/HERBICIDE
SAMPLE DATA
DOCUMENTS

Pesticide Analysis Report *(Channel A)*

AJZ
09/19/2019

Data File: C:\Instarch\Semi1\data\090519pstic\029.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
User: AJZ
Sample ID: 164079,321513,
Acquired: Sep 05, 2019 22:57:11
Printed: Sep 06, 2019 10:05:44

Data Summary: {Data Description}



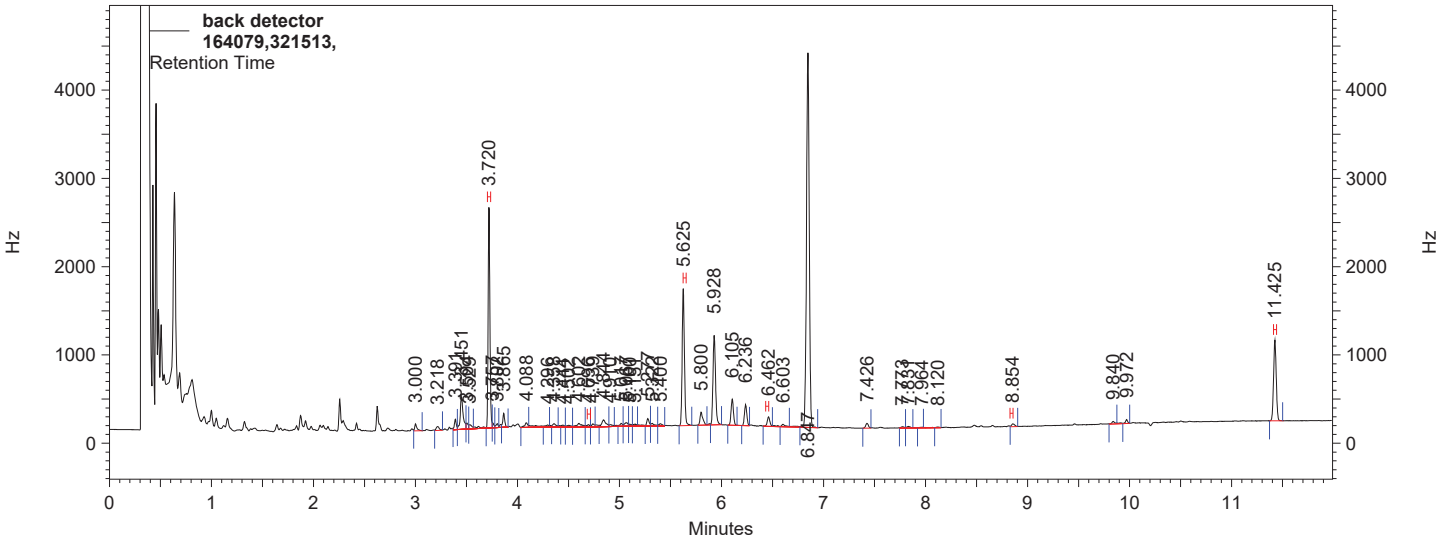
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.182	31903528	74.2224
ALPHABHC	3.643	336733	0.0001
LINDANE			0.0000 BDL
BETABHC	3.975	290159	0.0001
DELTABHC			0.0000 BDL
HEPTACHLOR			0.0000 BDL
ALDRIN	4.629	479367	0.0002
HEPTAEPOX	5.256	157491	0.0000
GAMMACHLOR			0.0000 BDL
ALPHACHLOR			0.0000 BDL
44DDE			0.0000 BDL
ENDOI	5.727	326010	0.0000
DIELDRIN	6.028	480562	0.0001
ENDRIN			0.0000 BDL
44DDD	6.454	194688	0.0001
ENDOII			0.0000 BDL
44DDT	6.884	265419	0.0002
ENDRINALDEH	7.327	564635	0.0001
METHOXYCL	7.702	98517	0.0001
ENDOSULFATE			0.0000 BDL
ENDRINKETONE			0.0000 BDL
SURRDCBPEST	9.709	18779202	54.3230

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\090519pstic\029.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
User: AJZ
Sample ID: 164079,321513,
Acquired: Sep 05, 2019 22:57:11
Printed: Sep 06, 2019 10:05:44

Data Summary: {Data Description}



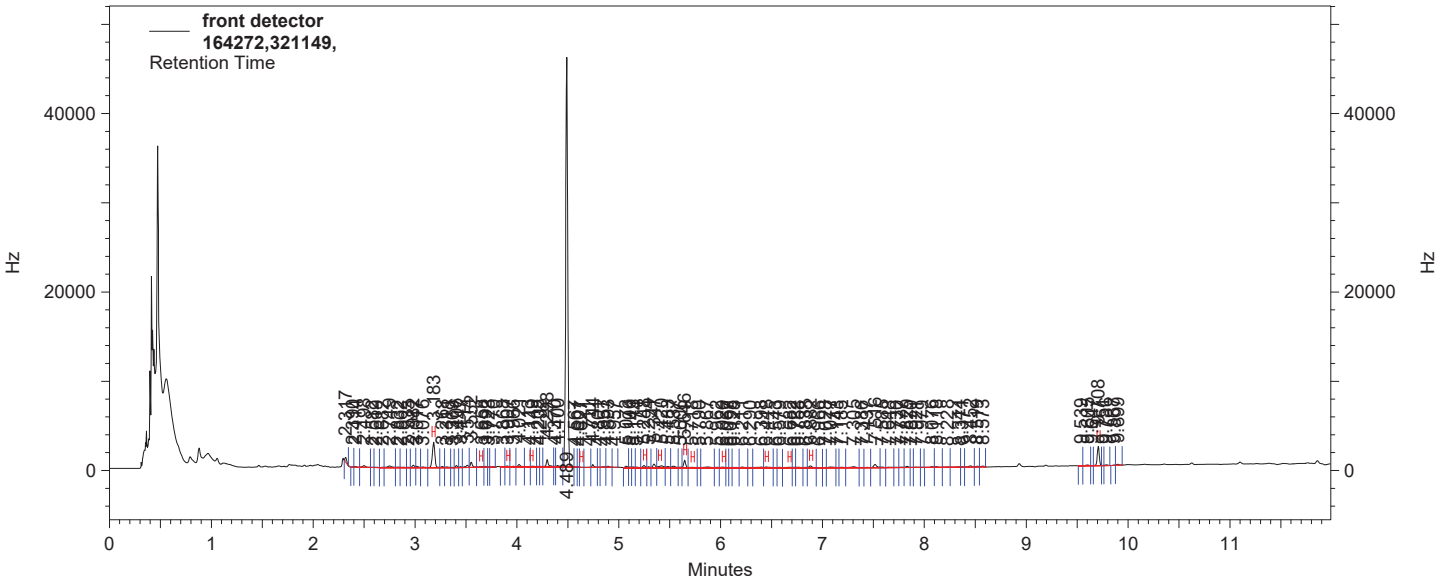
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.720	23316320	72.5470
ALPHABHC			0.0000 BDL
LINDANE	4.696	386776	0.0000
BETABHC			0.0000 BDL
DELTABHC			0.0000 BDL
HEPTACHLOR			0.0000 BDL
ALDRIN	5.625	18233099	0.0124
HEPTAEPOX	6.462	1505061	0.0008
GAMMACHLOR			0.0000 BDL
ALPHACHLOR			0.0000 BDL
ENDOI			0.0000 BDL
44DDE			0.0000 BDL
DIELDRIN			0.0000 BDL
ENDRIN			0.0000 BDL
44DDD			0.0000 BDL
ENDOII			0.0000 BDL
44DDT			0.0000 BDL
ENDRINALDEH	8.854	523214	0.0002
ENDOSULFATE			0.0000 BDL
METHOXYCL			0.0000 BDL
ENDRINKETONE			0.0000 BDL
SURRDCBPEST	11.425	12926136	54.4991

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091019pst\011.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,321149,
Acquired: 09/10/2019 18:05:54
Printed: 09/11/2019 08:51:06

Data Summary: {Data Description}



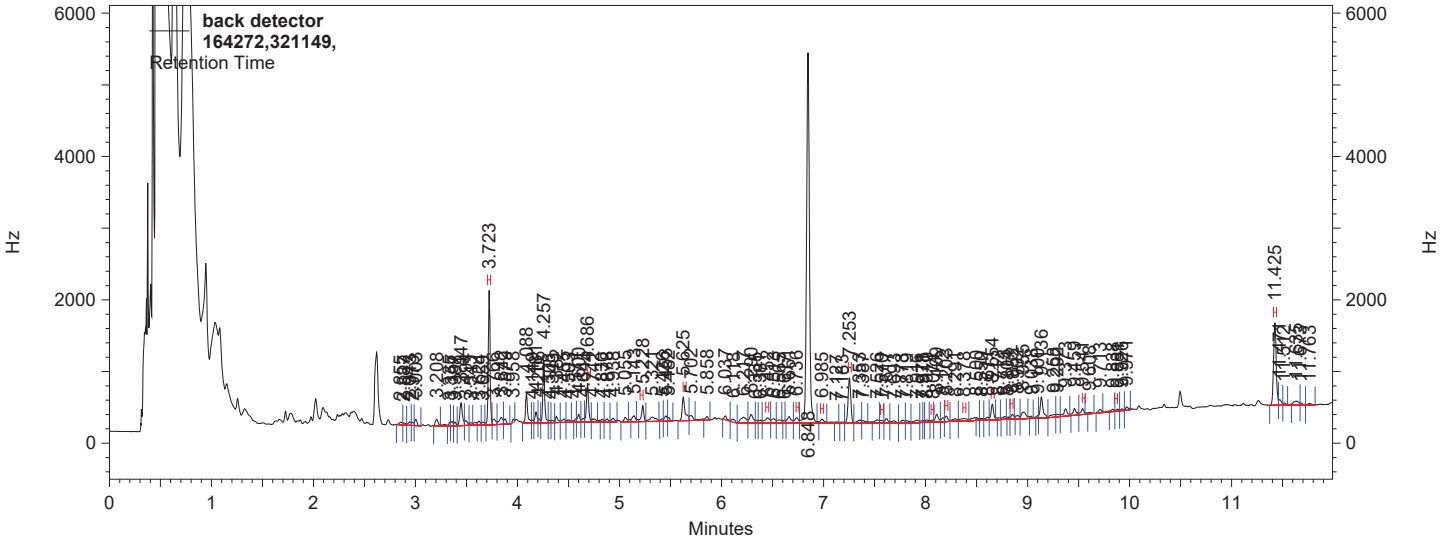
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.183	37861890	88.0764
ALPHABHC	3.658	2191976	0.0009
LINDANE	3.907	1102854	0.0005
BETABHC			0.0000 BDL
DELTABHC	4.149	2055875	0.0009
HEPTACHLOR			0.0000 BDL
ALDRIN	4.627	173166	0.0000
HEPTAEPOX	5.248	2815881	0.0013
GAMMACHLOR	5.420	5089349	0.0025
ALPHACHLOR			0.0000 BDL
44DDE	5.646	8750111	0.0051
ENDOI	5.718	956882	0.0003
DIELDRIN	6.020	1256187	0.0005
ENDRIN			0.0000 BDL
44DDD	6.448	1943039	0.0014
ENDOII	6.682	1504931	0.0008
44DDT	6.882	3477489	0.0026
ENDRINALDEH			0.0000 BDL
METHOXYCL			0.0000 BDL
ENDOSULFATE			0.0000 BDL
ENDRINKETONE			0.0000 BDL
SURRDCBPEST	9.708	22408727	65.6791

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091019pst\011.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,321149,
Acquired: 09/10/2019 18:05:54
Printed: 09/11/2019 08:51:06

Data Summary: {Data Description}



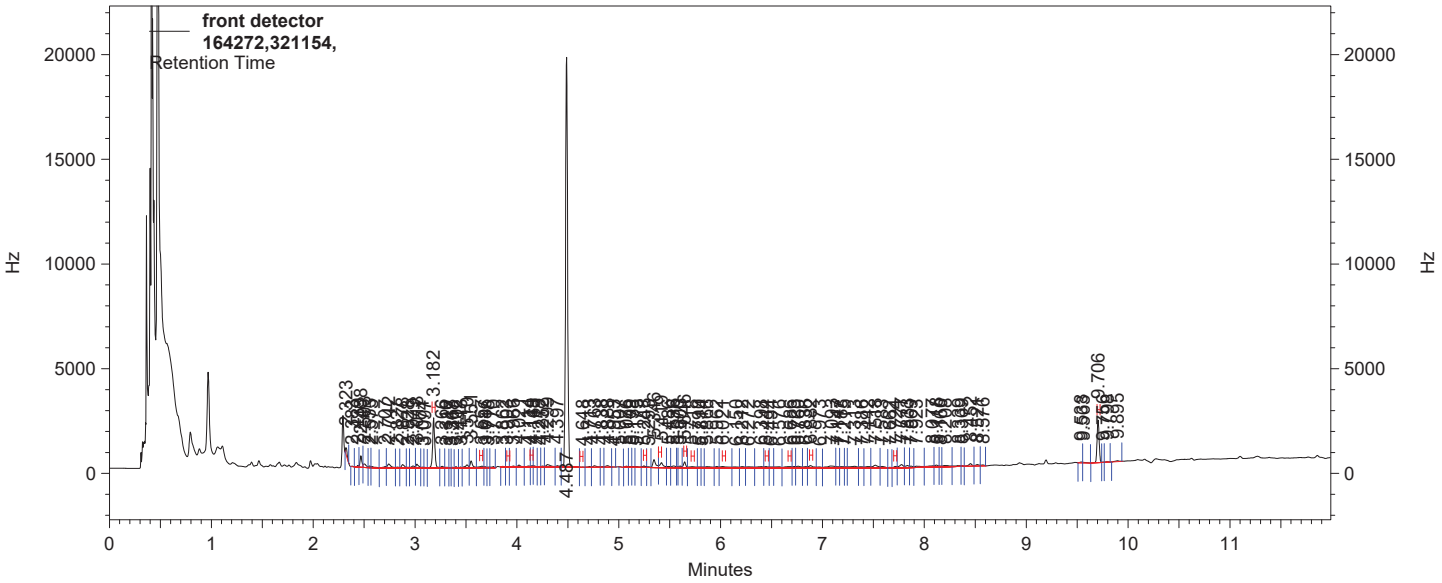
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.723	17599108	54.4170
ALPHABHC			0.0000 BDL
LINDANE	4.686	5989019	0.0035
BETABHC			0.0000 BDL
DELTABHC			0.0000 BDL
HEPTACHLOR	5.228	2775457	0.0015
ALDRIN	5.625	5285247	0.0034
HEPTAEPOX	6.452	2040468	0.0012
GAMMACHLOR	6.736	1553078	0.0008
ALPHACHLOR	6.985	1263976	0.0006
ENDOI			0.0000 BDL
44DDE	7.253	9045051	0.0070
DIELDRIN	7.570	738581	0.0003
ENDRIN	8.074	449583	0.0004
44DDD	8.203	1188073	0.0009
ENDOII	8.378	1262257	0.0008
44DDT	8.654	2888146	0.0029
ENDRINALDEH	8.852	946237	0.0006
ENDOSULFATE			0.0000 BDL
METHOXYCL	9.541	1244697	0.0030
ENDRINKETONE	9.881	416012	0.0000
SURRDCBPEST	11.425	15954603	68.3032

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091019pst\012.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,321154,
Acquired: 09/10/2019 18:22:12
Printed: 09/11/2019 08:51:10

Data Summary: {Data Description}



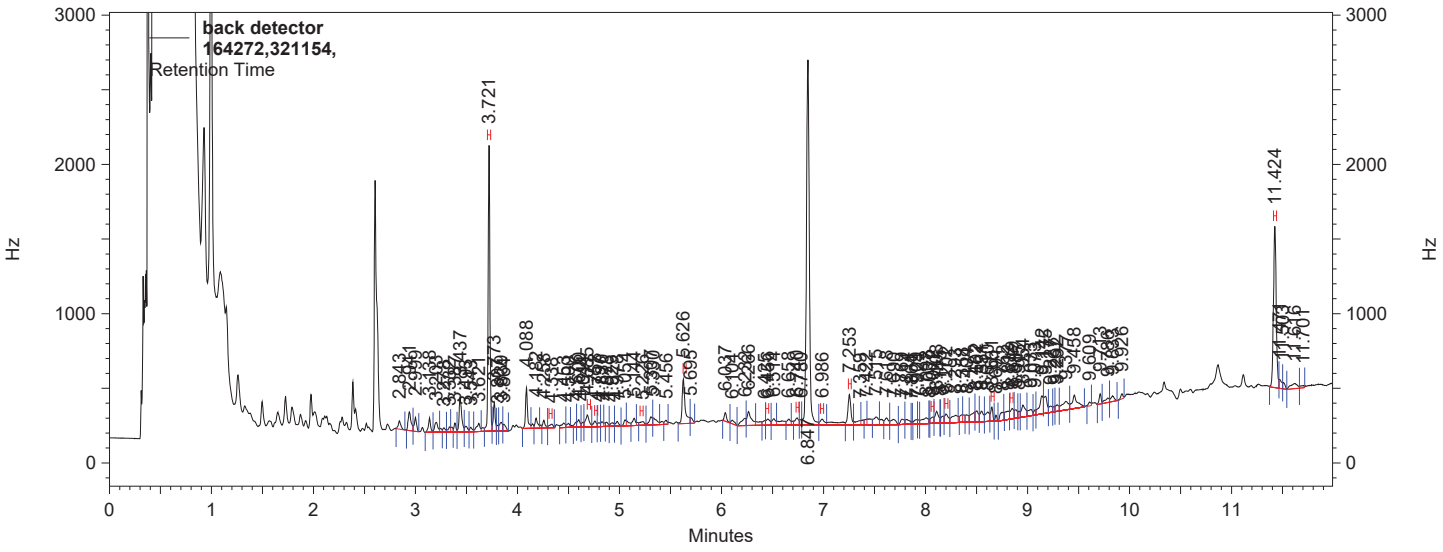
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.182	27319949	63.5290
ALPHABHC	3.657	1818530	0.0008
LINDANE	3.903	204060	0.0000
BETABHC			0.0000 BDL
DELTABHC	4.149	668832	0.0002
HEPTACHLOR			0.0000 BDL
ALDRIN	4.648	127081	0.0000
HEPTAEPOX	5.248	1033639	0.0003
GAMMACHLOR	5.419	4183474	0.0020
ALPHACHLOR			0.0000 BDL
44DDE	5.646	3131907	0.0018
ENDOI	5.718	1455279	0.0006
DIELDRIN	6.021	2075294	0.0010
ENDRIN			0.0000 BDL
44DDD	6.444	1105454	0.0008
ENDOII	6.686	2119050	0.0012
44DDT	6.882	2561404	0.0019
ENDRINALDEH			0.0000 BDL
METHOXYCL	7.724	1165144	0.0018
ENDOSULFATE			0.0000 BDL
ENDRINKETONE			0.0000 BDL
SURRDCBPEST	9.706	21802551	63.7659

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091019pst\012.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,321154,
Acquired: 09/10/2019 18:22:12
Printed: 09/11/2019 08:51:10

Data Summary: {Data Description}



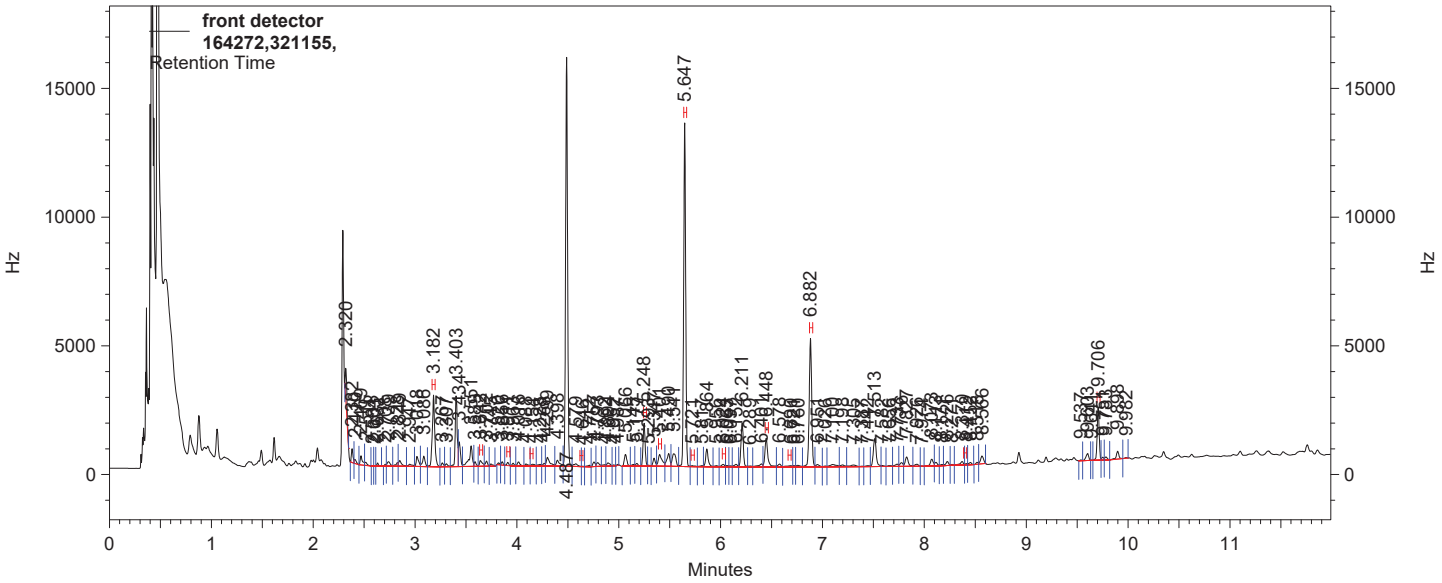
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.721	18013873	55.7297
ALPHABHC	4.338	477596	0.0001
LINDANE	4.685	1555421	0.0007
BETABHC	4.758	634602	0.0003
DELTABHC			0.0000 BDL
HEPTACHLOR	5.226	599483	0.0000
ALDRIN	5.626	4770957	0.0030
HEPTAEPOX	6.456	889049	0.0003
GAMMACHLOR	6.740	980831	0.0004
ALPHACHLOR	6.986	913430	0.0004
ENDOI			0.0000 BDL
44DDE	7.253	3175943	0.0023
DIELDRIN			0.0000 BDL
ENDRIN	8.072	707761	0.0008
44DDD	8.202	1159785	0.0009
ENDOII			0.0000 BDL
44DDT	8.651	1092642	0.0010
ENDRINALDEH	8.849	1249957	0.0009
ENDOSULFATE			0.0000 BDL
METHOXYCL			0.0000 BDL
ENDRINKETONE			0.0000 BDL
SURRDCBPEST	11.424	15549121	66.4364

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091019pst\013.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,321155,
Acquired: 09/10/2019 18:38:30
Printed: 09/11/2019 08:51:14

Data Summary: {Data Description}



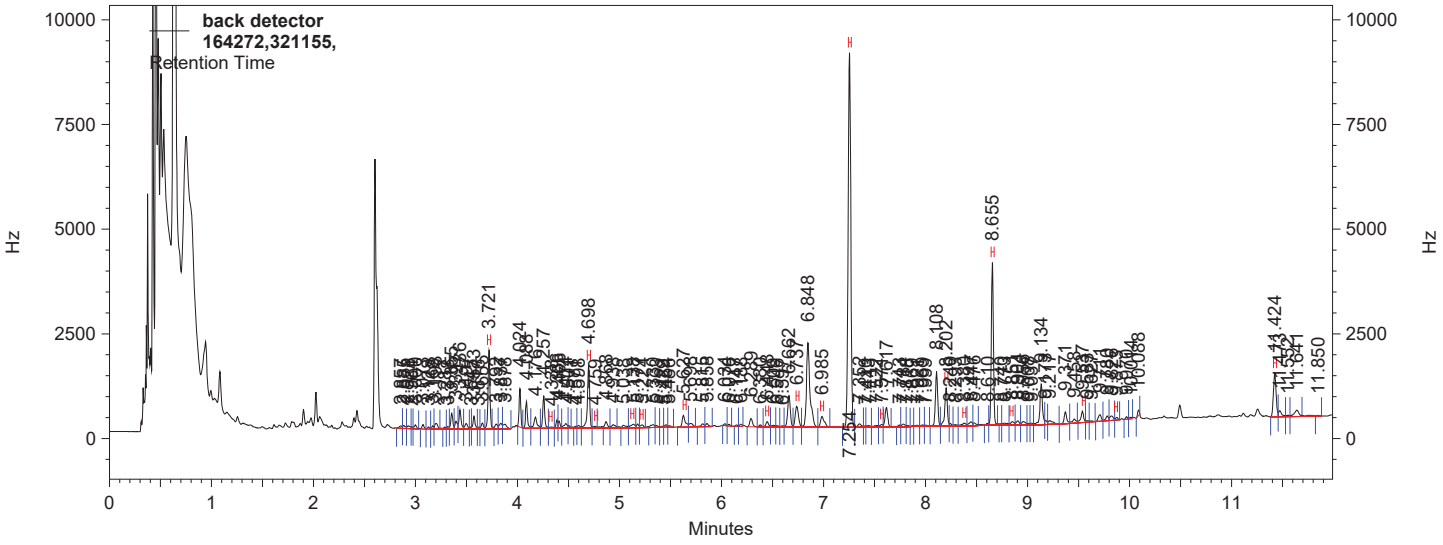
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.182	35668121	82.9817
ALPHABHC	3.642	3542169	0.0015
LINDANE	3.911	1259163	0.0006
BETABHC			0.0000 BDL
DELTABHC	4.154	1344601	0.0006
HEPTACHLOR			0.0000 BDL
ALDRIN	4.646	161879	0.0000
HEPTAEPOX	5.248	18069323	0.0099
GAMMACHLOR	5.401	9408433	0.0049
ALPHACHLOR			0.0000 BDL
44DDE	5.647	143361344	0.0774
ENDOI	5.721	646652	0.0001
DIELDRIN	6.024	1356327	0.0006
ENDRIN			0.0000 BDL
44DDD	6.448	16570040	0.0123
ENDOII	6.690	1242867	0.0006
44DDT	6.882	64468870	0.0444
ENDRINALDEH			0.0000 BDL
METHOXYCL			0.0000 BDL
ENDOSULFATE			0.0000 BDL
ENDRINKETONE	8.412	495835	0.0000
SURRDCBPEST	9.706	21147608	61.7064

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091019pst\013.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,321155,
Acquired: 09/10/2019 18:38:30
Printed: 09/11/2019 08:51:14

Data Summary: {Data Description}



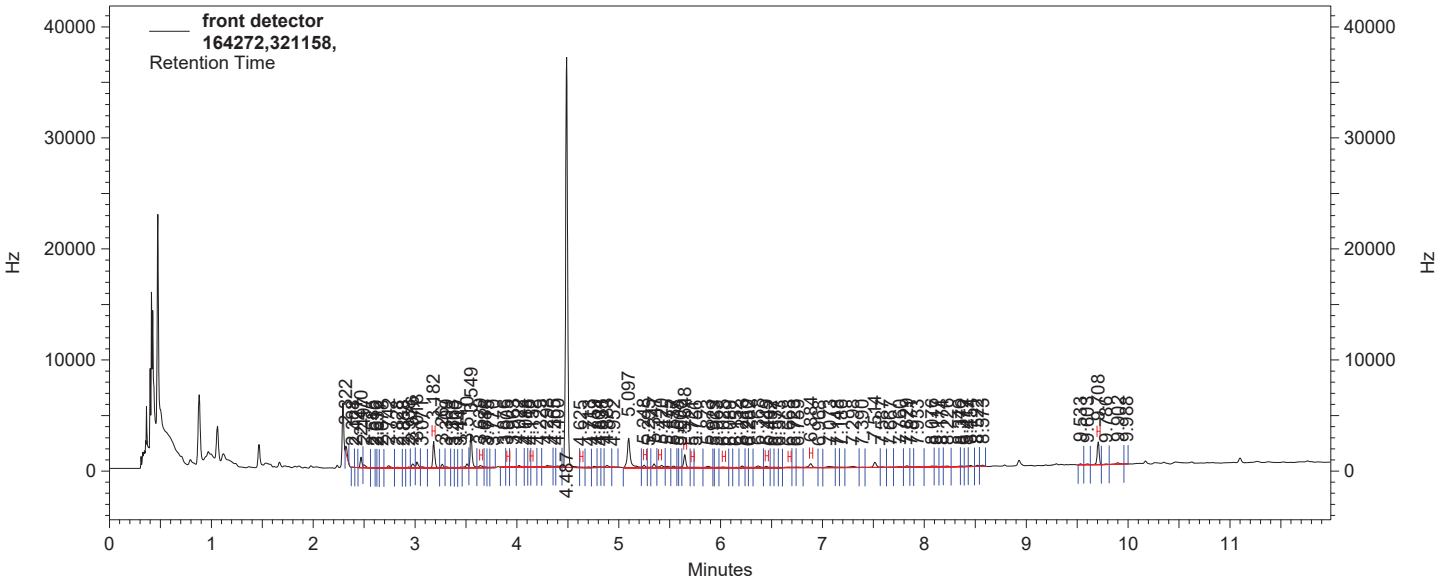
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.721	18699325	57.9000
ALPHABHC	4.338	516744	0.0001
LINDANE	4.698	17345835	0.0108
BETABHC	4.759	638982	0.0003
DELTABHC	5.138	1782306	0.0008
HEPTACHLOR	5.224	1081965	0.0004
ALDRIN	5.627	4846865	0.0031
HEPTAEPOX	6.448	1830543	0.0010
GAMMACHLOR	6.737	8560160	0.0061
ALPHACHLOR	6.985	5307688	0.0037
ENDOI			0.0000 BDL
44DDE	7.254	124187927	0.0954
DIELDRIN	7.571	934074	0.0004
ENDRIN			0.0000 BDL
44DDD	8.202	12211291	0.0120
ENDOII	8.380	1386204	0.0010
44DDT	8.655	42797184	0.0444
ENDRINALDEH	8.851	1481794	0.0011
ENDOSULFATE			0.0000 BDL
METHOXYCL	9.537	3992072	0.0099
ENDRINKETONE	9.873	847702	0.0002
SURRDCBPEST	11.424	14821868	63.1027

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091019pst\014.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,321158,
Acquired: 09/10/2019 18:54:52
Printed: 09/11/2019 08:51:17

Data Summary: {Data Description}



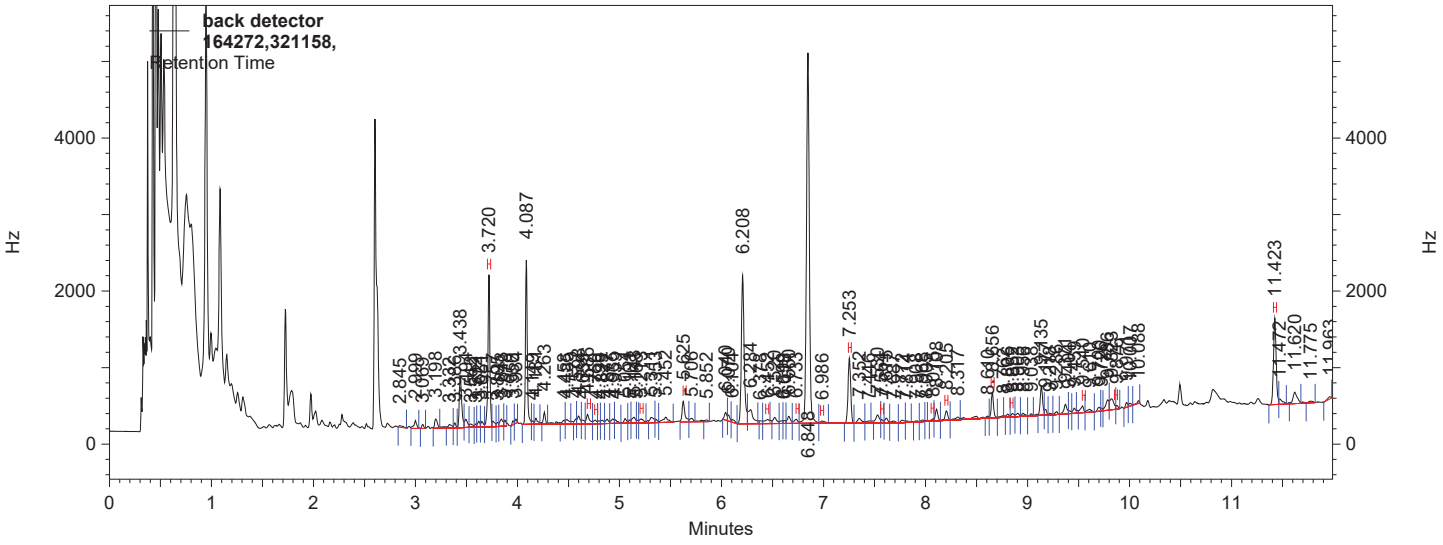
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.182	25370881	58.9724
ALPHABHC	3.639	4018291	0.0017
LINDANE	3.905	338552	0.0001
BETABHC			0.0000 BDL
DELTABHC	4.152	1371793	0.0006
HEPTACHLOR			0.0000 BDL
ALDRIN	4.625	820908	0.0003
HEPTAEPOX	5.248	2669390	0.0013
GAMMACHLOR	5.420	3805724	0.0018
ALPHACHLOR			0.0000 BDL
44DDE	5.648	13071765	0.0077
ENDOI	5.721	486664	0.0000
DIELDRIN	6.025	1536422	0.0007
ENDRIN			0.0000 BDL
44DDD	6.449	1810024	0.0013
ENDOII	6.668	1392709	0.0007
44DDT	6.884	6934484	0.0051
ENDRINALDEH			0.0000 BDL
METHOXYCL			0.0000 BDL
ENDOSULFATE			0.0000 BDL
ENDRINKETONE			0.0000 BDL
SURRDCBPEST	9.708	21807179	63.7805

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091019pst\014.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,321158,
Acquired: 09/10/2019 18:54:52
Printed: 09/11/2019 08:51:17

Data Summary: {Data Description}



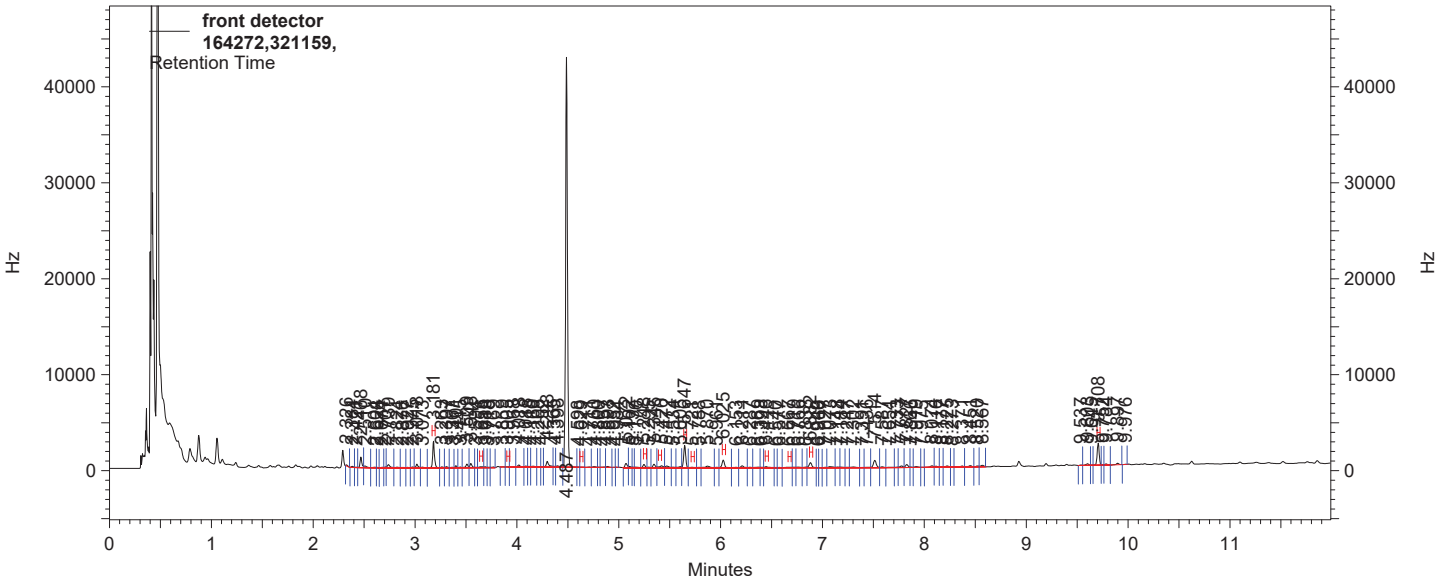
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.720	20283847	62.9212
ALPHABHC			0.0000 BDL
LINDANE	4.686	1985146	0.0010
BETABHC	4.759	770750	0.0005
DELTABHC			0.0000 BDL
HEPTACHLOR	5.213	1132687	0.0004
ALDRIN	5.625	4039077	0.0025
HEPTAEPOX	6.452	1371414	0.0007
GAMMACHLOR	6.733	1066410	0.0005
ALPHACHLOR	6.986	777999	0.0002
ENDOI			0.0000 BDL
44DDE	7.253	11788662	0.0092
DIELDRIN	7.564	525181	0.0001
ENDRIN	8.075	378286	0.0003
44DDD	8.205	1778281	0.0015
ENDOII			0.0000 BDL
44DDT	8.656	3845552	0.0039
ENDRINALDEH	8.852	664320	0.0003
ENDOSULFATE			0.0000 BDL
METHOXYCL	9.540	1506820	0.0036
ENDRINKETONE	9.876	576424	0.0000
SURRDCBPEST	11.423	15905659	68.0776

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091019pst\015.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,321159,
Acquired: 09/10/2019 19:11:11
Printed: 09/11/2019 08:51:21

Data Summary: {Data Description}



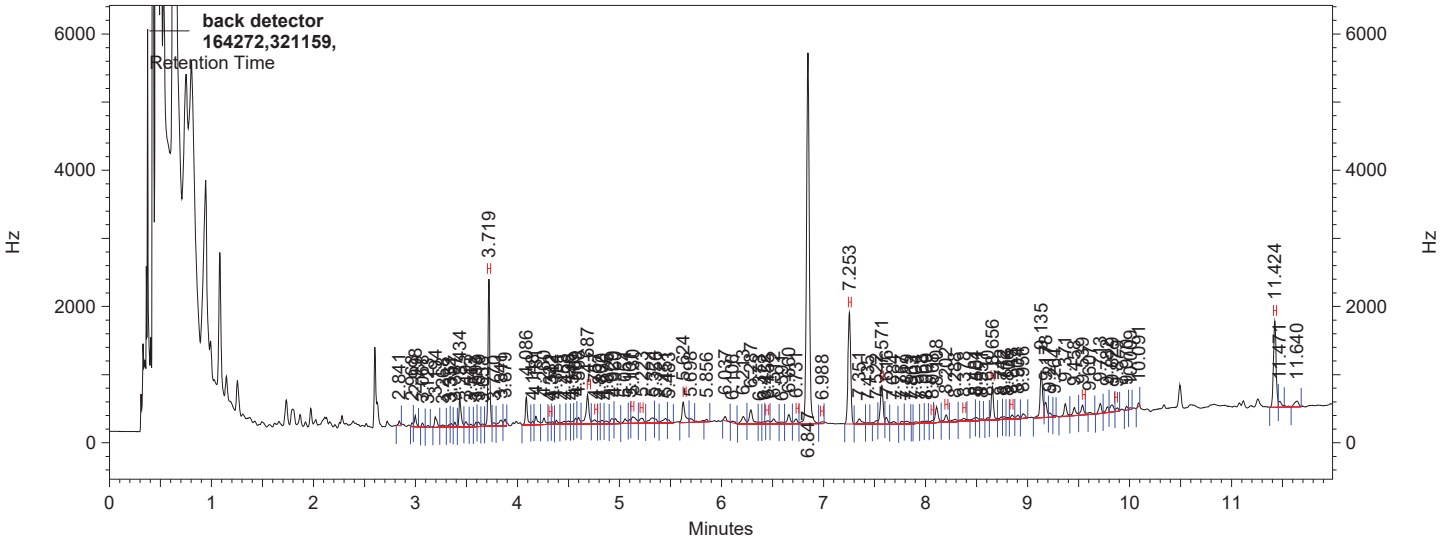
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.181	26439736	61.4719
ALPHABHC	3.656	1970865	0.0008
LINDANE	3.905	336361	0.0001
BETABHC			0.0000 BDL
DELTABHC			0.0000 BDL
HEPTACHLOR			0.0000 BDL
ALDRIN	4.629	280257	0.0001
HEPTAEPOX	5.248	3872232	0.0019
GAMMACHLOR	5.420	4128410	0.0020
ALPHACHLOR			0.0000 BDL
44DDE	5.647	25307788	0.0149
ENDOI	5.721	1298402	0.0005
DIELDRIN	6.025	10741812	0.0059
ENDRIN			0.0000 BDL
44DDD	6.446	2869626	0.0021
ENDOII	6.667	1969563	0.0011
44DDT	6.882	8035946	0.0059
ENDRINALDEH			0.0000 BDL
METHOXYCL			0.0000 BDL
ENDOSULFATE			0.0000 BDL
ENDRINKETONE			0.0000 BDL
SURRDCBPEST	9.708	24609256	72.6821

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091019pst\015.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,321159,
Acquired: 09/10/2019 19:11:11
Printed: 09/11/2019 08:51:21

Data Summary: {Data Description}



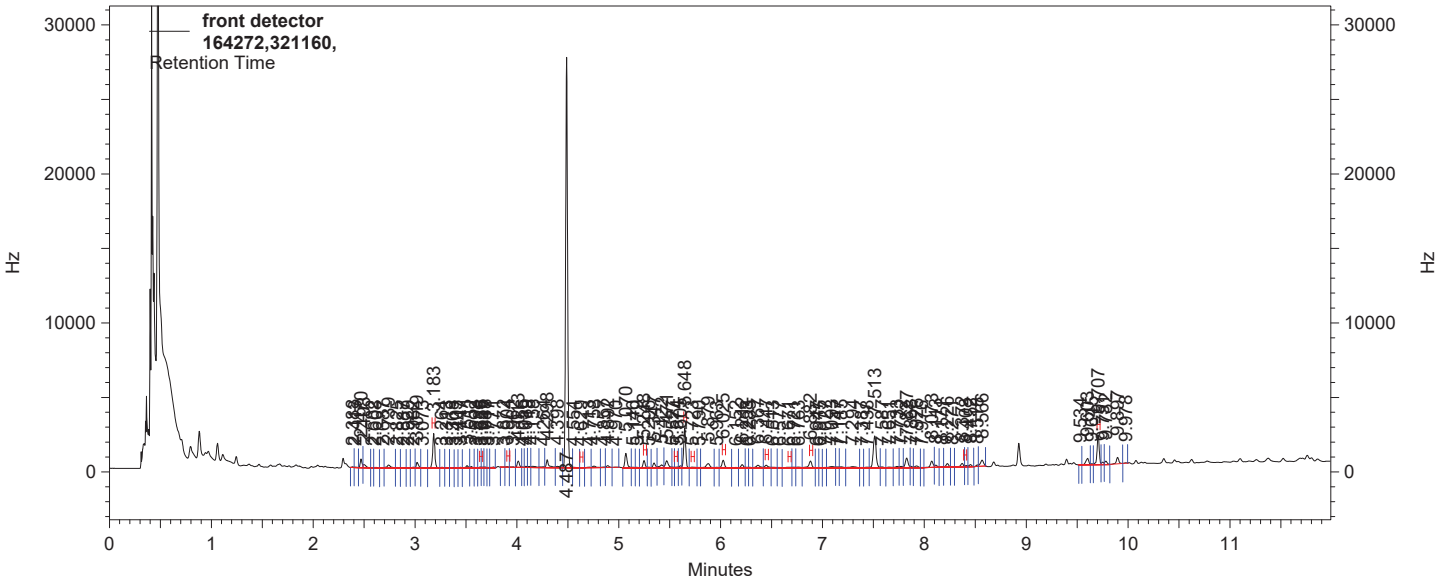
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.719	20088148	62.3007
ALPHABHC	4.322	510738	0.0001
LINDANE	4.687	6651923	0.0040
BETABHC	4.757	1244423	0.0011
DELTABHC	5.130	2341835	0.0011
HEPTACHLOR	5.223	1597547	0.0007
ALDRIN	5.624	4809274	0.0030
HEPTAEPOX	6.455	758757	0.0002
GAMMACHLOR	6.731	1131288	0.0005
ALPHACHLOR	6.988	421899	0.0000
ENDOI			0.0000 BDL
44DDE	7.253	22982462	0.0181
DIELDRIN	7.571	8130356	0.0060
ENDRIN	8.068	516433	0.0005
44DDD	8.202	1740888	0.0015
ENDOII	8.378	1120449	0.0007
44DDT	8.656	5925780	0.0061
ENDRINALDEH	8.848	916523	0.0006
ENDOSULFATE			0.0000 BDL
METHOXYCL	9.539	2146306	0.0052
ENDRINKETONE	9.879	748139	0.0002
SURRDCBPEST	11.424	17586966	75.8793

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091019pst\019.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,321160,
Acquired: 09/10/2019 20:15:53
Printed: 09/11/2019 08:55:11

Data Summary: {Data Description}



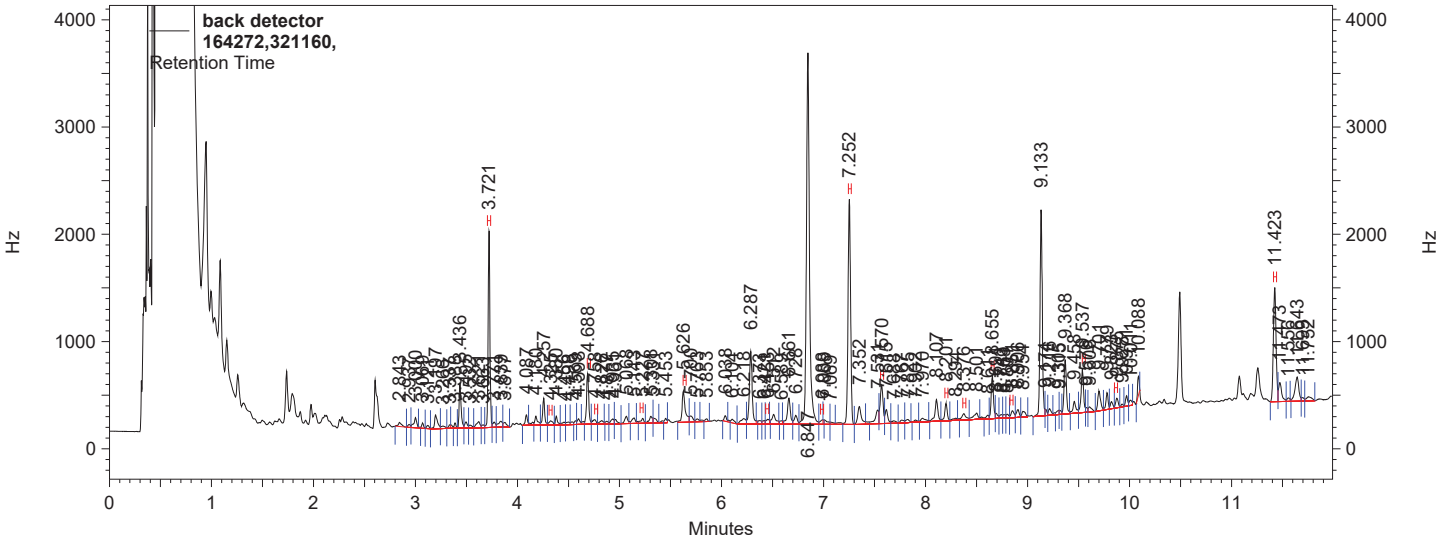
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.183	26570259	61.7770
ALPHABHC	3.656	716945	0.0003
LINDANE	3.904	630341	0.0002
BETABHC			0.0000 BDL
DELTABHC			0.0000 BDL
HEPTACHLOR			0.0000 BDL
ALDRIN	4.629	152554	0.0000
HEPTAEPOX	5.248	5452190	0.0028
GAMMACHLOR			0.0000 BDL
ALPHACHLOR	5.574	821014	0.0002
44DDE	5.648	28850554	0.0169
ENDOI	5.723	1154685	0.0004
DIELDRIN	6.025	7042652	0.0038
ENDRIN			0.0000 BDL
44DDD	6.447	3338858	0.0025
ENDOII	6.671	1320861	0.0007
44DDT	6.882	7664388	0.0057
ENDRINALDEH			0.0000 BDL
METHOXYCL			0.0000 BDL
ENDOSULFATE			0.0000 BDL
ENDRINKETONE	8.408	1042098	0.0003
SURRDCBPEST	9.707	22224376	65.0965

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091019pst\019.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,321160,
Acquired: 09/10/2019 20:15:53
Printed: 09/11/2019 08:55:11

Data Summary: {Data Description}



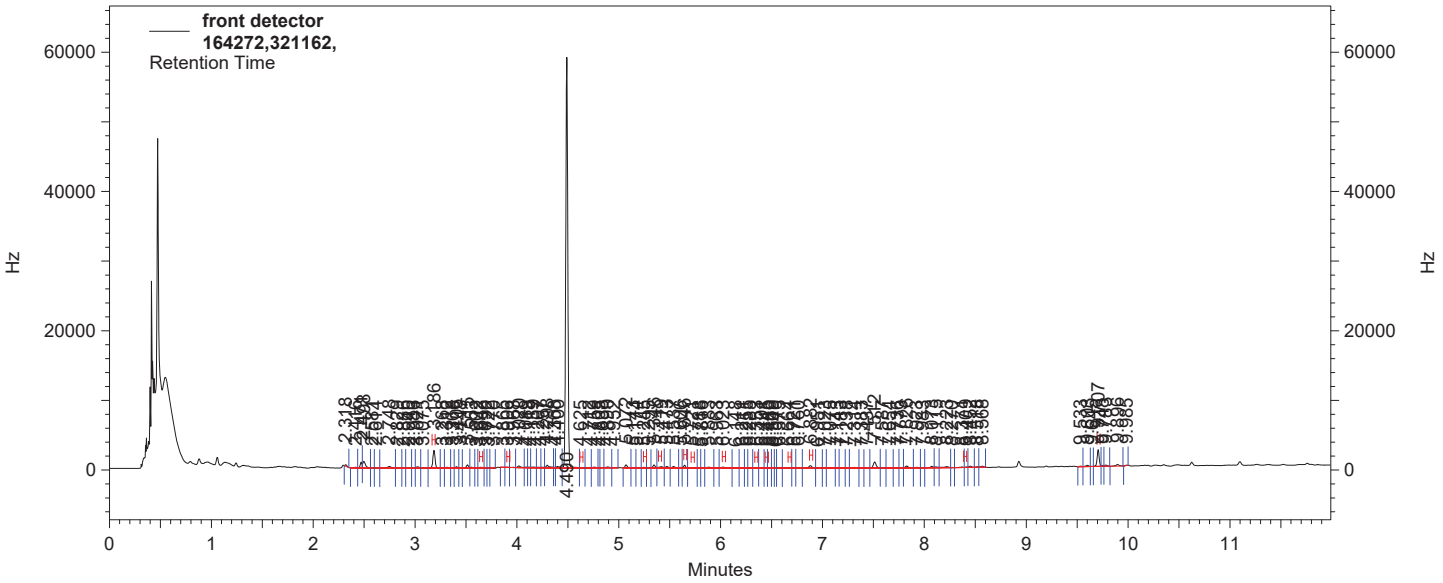
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.721	17267330	53.3672
ALPHABHC	4.325	772992	0.0002
LINDANE	4.688	5348945	0.0031
BETABHC	4.758	780161	0.0005
DELTABHC			0.0000 BDL
HEPTACHLOR	5.227	723768	0.0001
ALDRIN	5.626	4890050	0.0031
HEPTAEPOX	6.453	756267	0.0002
GAMMACHLOR			0.0000 BDL
ALPHACHLOR	6.988	589158	0.0001
ENDOI			0.0000 BDL
44DDE	7.252	28206489	0.0222
DIELDRIN	7.570	5377010	0.0039
ENDRIN			0.0000 BDL
44DDD	8.201	2178100	0.0019
ENDOII	8.376	1303523	0.0009
44DDT	8.655	4772491	0.0049
ENDRINALDEH	8.851	1067313	0.0007
ENDOSULFATE			0.0000 BDL
METHOXYCL	9.537	5221380	0.0130
ENDRINKETONE	9.875	1197317	0.0005
SURRDCBPEST	11.423	15079559	64.2818

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091019pst\020.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,321162,
Acquired: 09/10/2019 20:32:04
Printed: 09/11/2019 08:55:14

Data Summary: {Data Description}



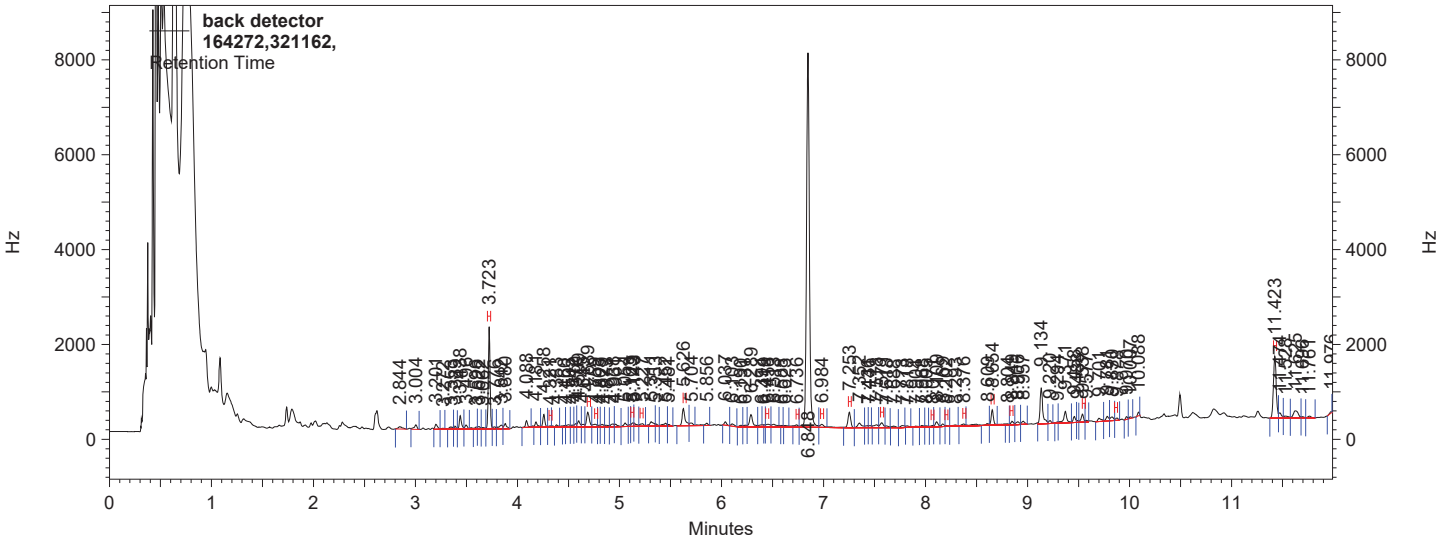
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.186	30134910	70.0999
ALPHABHC	3.642	2125873	0.0009
LINDANE	3.906	473670	0.0002
BETABHC			0.0000 BDL
DELTABHC			0.0000 BDL
HEPTACHLOR			0.0000 BDL
ALDRIN	4.625	455889	0.0001
HEPTAEPOX	5.245	1187356	0.0004
GAMMACHLOR	5.419	4283955	0.0021
ALPHACHLOR			0.0000 BDL
44DDE	5.646	4429682	0.0025
ENDOI	5.721	1155857	0.0004
DIELDRIN	6.023	2644936	0.0013
ENDRIN	6.353	993972	0.0010
44DDD	6.445	482205	0.0003
ENDOII	6.664	1603861	0.0009
44DDT	6.882	6372142	0.0047
ENDRINALDEH			0.0000 BDL
METHOXYCL			0.0000 BDL
ENDOSULFATE			0.0000 BDL
ENDRINKETONE	8.409	925475	0.0003
SURRDCBPEST	9.707	25752689	76.3577

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091019pst\020.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,321162,
Acquired: 09/10/2019 20:32:04
Printed: 09/11/2019 08:55:14

Data Summary: {Data Description}



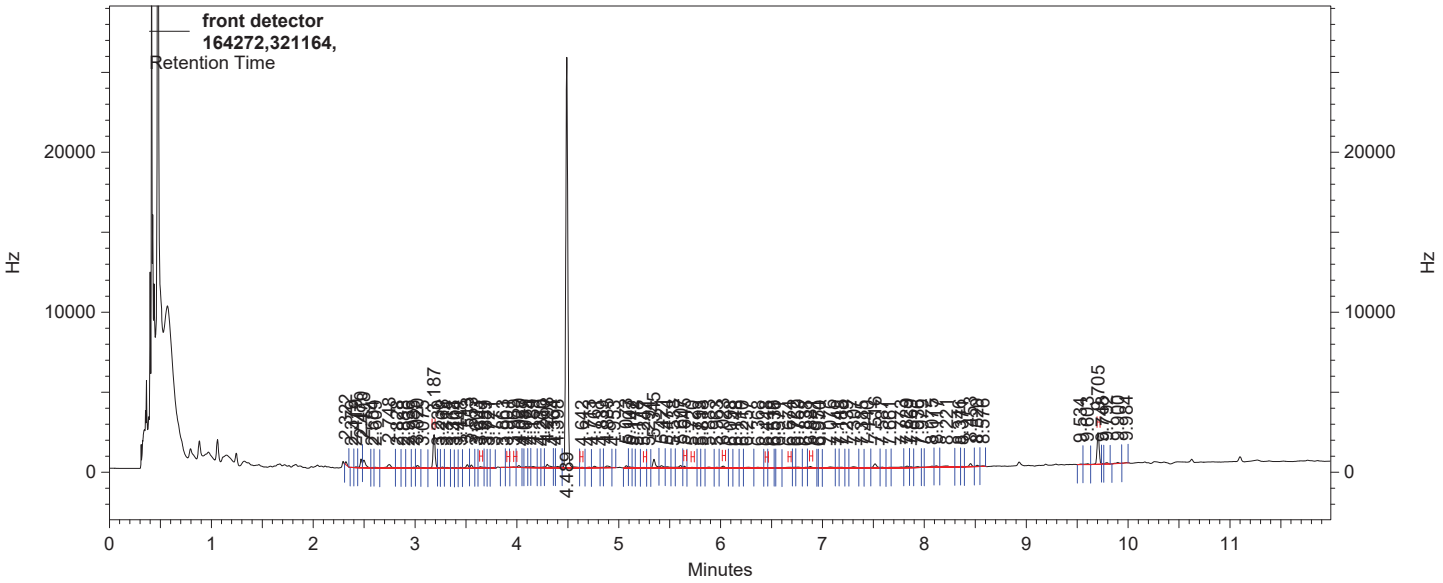
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.723	20159068	62.5256
ALPHABHC	4.321	422215	0.0000
LINDANE	4.689	4610943	0.0027
BETABHC	4.759	1186049	0.0010
DELTABHC	5.129	905184	0.0003
HEPTACHLOR	5.227	1167465	0.0004
ALDRIN	5.626	5793001	0.0037
HEPTAEPOX	6.456	1289327	0.0006
GAMMACHLOR	6.736	1036052	0.0005
ALPHACHLOR	6.984	1354807	0.0007
ENDOI			0.0000 BDL
44DDE	7.253	4648995	0.0035
DIELDRIN	7.571	1894646	0.0012
ENDRIN	8.071	412976	0.0004
44DDD	8.202	279869	0.0000
ENDOII	8.376	850989	0.0005
44DDT	8.654	3970619	0.0041
ENDRINALDEH	8.849	991126	0.0007
ENDOSULFATE			0.0000 BDL
METHOXYCL	9.538	2264906	0.0055
ENDRINKETONE	9.878	735952	0.0002
SURRDCBPEST	11.423	19049784	82.7532

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091019pst\021.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,321164,
Acquired: 09/10/2019 20:48:16
Printed: 09/11/2019 08:55:18

Data Summary: {Data Description}



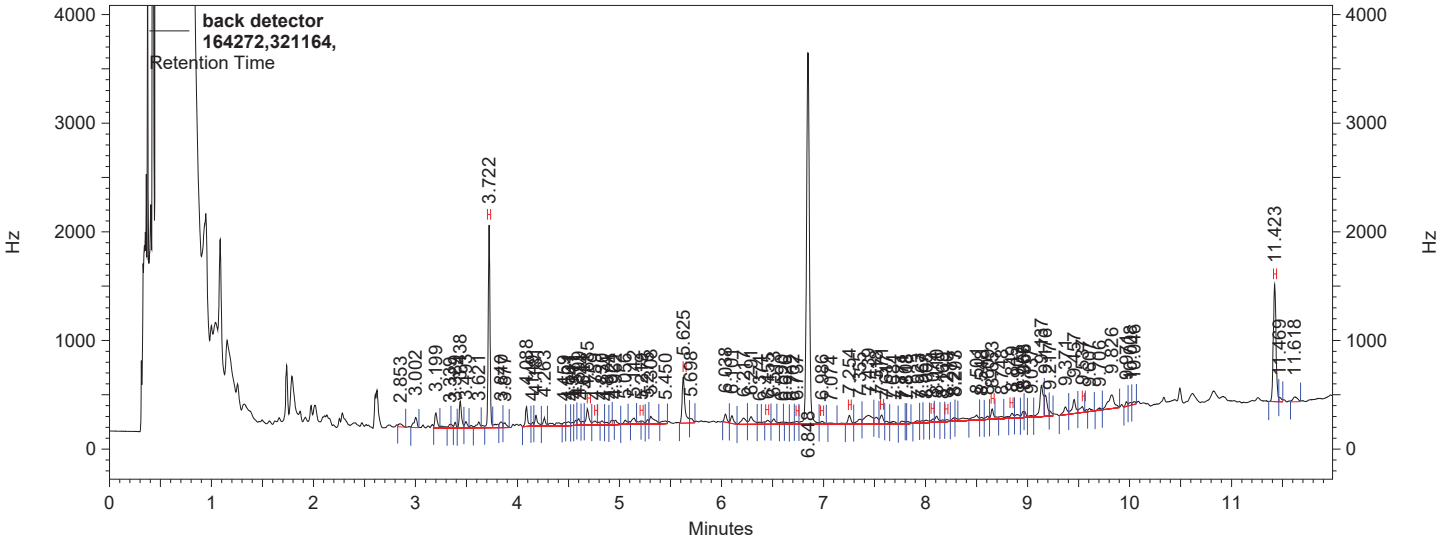
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.187	23187267	53.8607
ALPHABHC	3.641	1774690	0.0007
LINDANE	3.901	230297	0.0000
BETABHC	3.969	575663	0.0004
DELTABHC			0.0000 BDL
HEPTACHLOR			0.0000 BDL
ALDRIN	4.642	545794	0.0002
HEPTAEPOX	5.247	535909	0.0001
GAMMACHLOR			0.0000 BDL
ALPHACHLOR			0.0000 BDL
44DDE	5.645	1151085	0.0006
ENDOI	5.720	1094735	0.0004
DIELDRIN	6.023	2202800	0.0011
ENDRIN			0.0000 BDL
44DDD	6.448	394289	0.0002
ENDOII	6.674	1491296	0.0008
44DDT	6.881	1802230	0.0013
ENDRINALDEH			0.0000 BDL
METHOXYCL			0.0000 BDL
ENDOSULFATE			0.0000 BDL
ENDRINKETONE			0.0000 BDL
SURRDCBPEST	9.705	21582242	63.0722

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091019pst\021.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,321164,
Acquired: 09/10/2019 20:48:16
Printed: 09/11/2019 08:55:18

Data Summary: {Data Description}



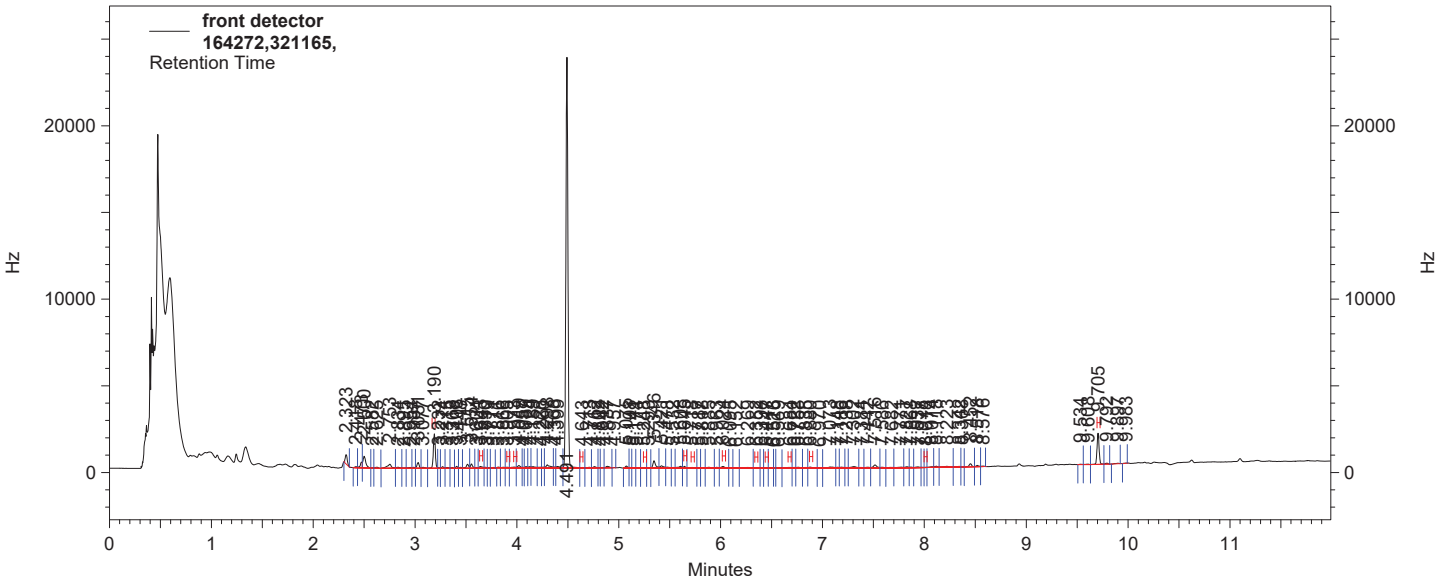
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.722	17806366	55.0729
ALPHABHC			0.0000 BDL
LINDANE	4.685	2316945	0.0012
BETABHC	4.759	754069	0.0004
DELTABHC			0.0000 BDL
HEPTACHLOR	5.219	421986	0.0000
ALDRIN	5.625	6184134	0.0040
HEPTAEPOX	6.455	813991	0.0003
GAMMACHLOR	6.737	499606	0.0001
ALPHACHLOR	6.986	586037	0.0001
ENDOI			0.0000 BDL
44DDE	7.254	1338193	0.0008
DIELDRIN	7.571	1483228	0.0009
ENDRIN	8.074	494035	0.0005
44DDD	8.210	346080	0.0001
ENDOII			0.0000 BDL
44DDT	8.653	1205398	0.0011
ENDRINALDEH	8.849	722726	0.0004
ENDOSULFATE			0.0000 BDL
METHOXYCL	9.537	1137354	0.0027
ENDRINKETONE			0.0000 BDL
SURRDCBPEST	11.423	15352237	65.5320

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091019pst\022.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,321165,
Acquired: 09/10/2019 21:04:30
Printed: 09/11/2019 08:55:22

Data Summary: {Data Description}



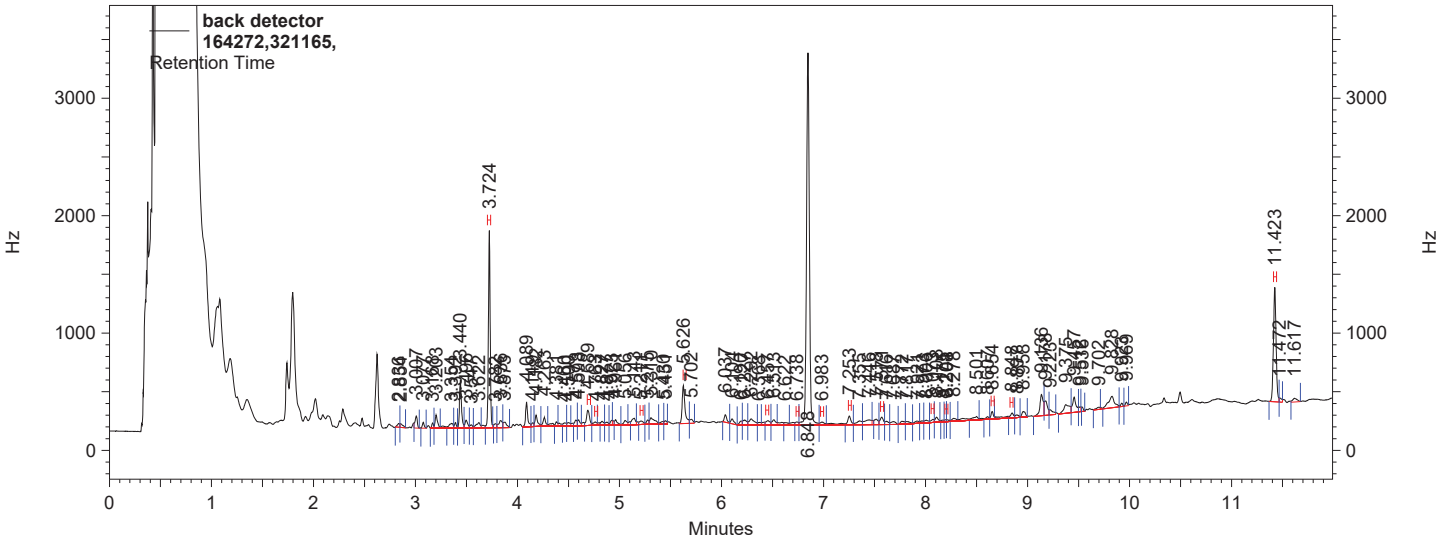
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.190	20671887	47.9633
ALPHABHC	3.643	1867472	0.0008
LINDANE	3.905	373127	0.0001
BETABHC	3.973	744432	0.0005
DELTABHC			0.0000 BDL
HEPTACHLOR			0.0000 BDL
ALDRIN	4.643	509016	0.0002
HEPTAEPOX	5.248	433880	0.0000
GAMMACHLOR			0.0000 BDL
ALPHACHLOR			0.0000 BDL
44DDE	5.645	1149244	0.0006
ENDOI	5.718	1118298	0.0004
DIELDRIN	6.024	1997152	0.0009
ENDRIN	6.352	853993	0.0009
44DDD	6.447	491831	0.0003
ENDOII	6.684	1272042	0.0006
44DDT	6.880	1355805	0.0010
ENDRINALDEH			0.0000 BDL
METHOXYCL			0.0000 BDL
ENDOSULFATE	8.018	99830	0.0000
ENDRINKETONE			0.0000 BDL
SURRDCBPEST	9.705	19187575	55.5890

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091019pst\022.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,321165,
Acquired: 09/10/2019 21:04:30
Printed: 09/11/2019 08:55:22

Data Summary: {Data Description}



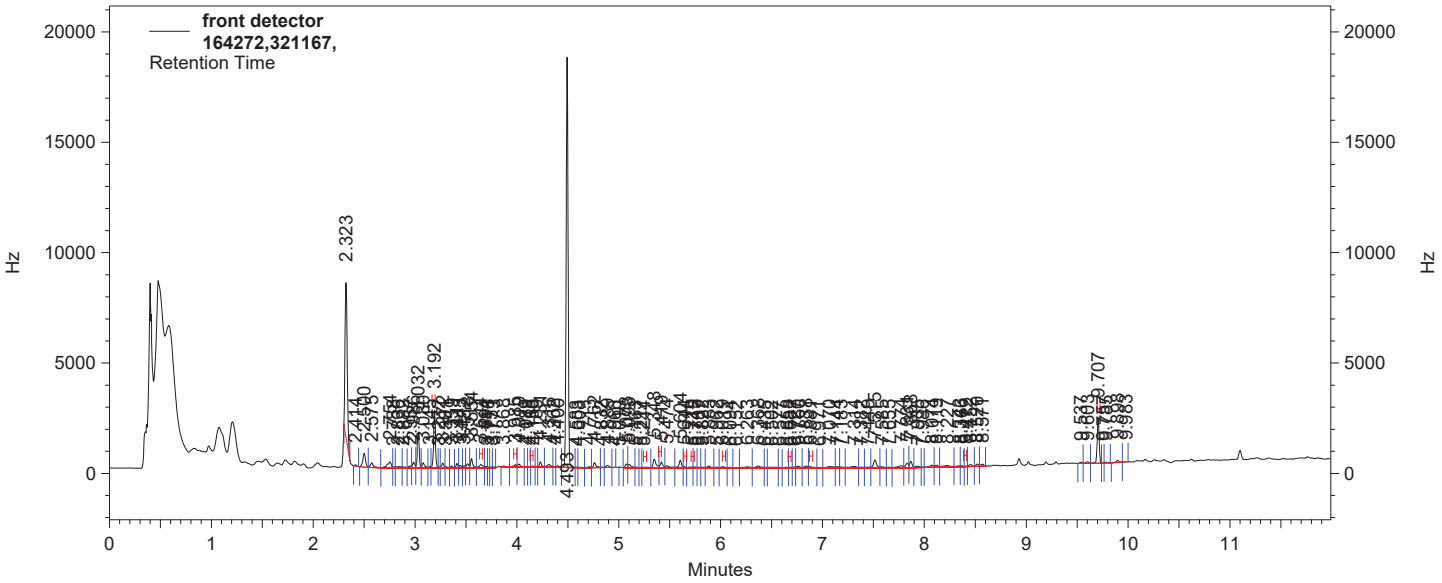
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.724	15753562	48.5806
ALPHABHC			0.0000 BDL
LINDANE	4.689	2104579	0.0011
BETABHC	4.763	568655	0.0002
DELTABHC			0.0000 BDL
HEPTACHLOR	5.211	634130	0.0001
ALDRIN	5.626	4776829	0.0030
HEPTAEPOX	6.457	785463	0.0003
GAMMACHLOR	6.738	409768	0.0000
ALPHACHLOR	6.983	509206	0.0000
ENDOI			0.0000 BDL
44DDE	7.253	1209747	0.0007
DIELDRIN	7.571	1108000	0.0006
ENDRIN	8.073	445146	0.0004
44DDD	8.208	220630	0.0000
ENDOII			0.0000 BDL
44DDT	8.654	797156	0.0007
ENDRINALDEH	8.848	678281	0.0003
ENDOSULFATE			0.0000 BDL
METHOXYCL			0.0000 BDL
ENDRINKETONE			0.0000 BDL
SURRDCBPEST	11.423	13672917	57.8736

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091019pst\023.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,321167,
Acquired: 09/10/2019 21:20:44
Printed: 09/11/2019 08:55:25

Data Summary: {Data Description}



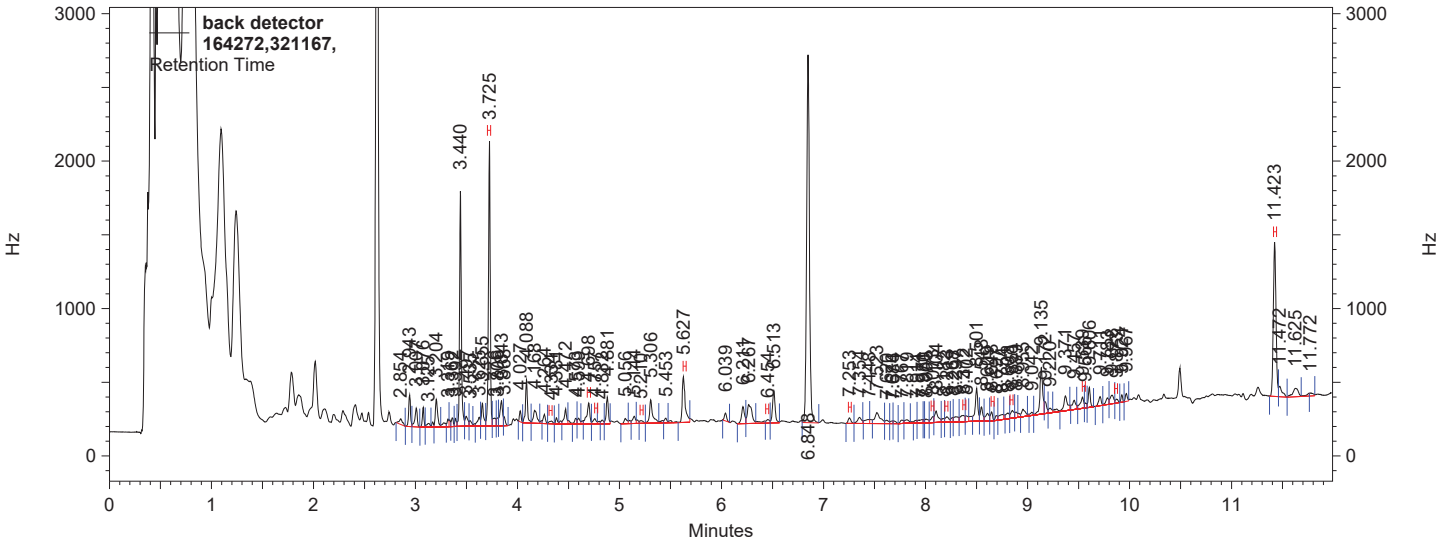
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.192	24890622	57.8487
ALPHABHC	3.644	2834652	0.0012
LINDANE			0.0000 BDL
BETABHC	3.985	1649611	0.0015
DELTABHC	4.153	713228	0.0003
HEPTACHLOR			0.0000 BDL
ALDRIN			0.0000 BDL
HEPTAEPOX	5.244	772227	0.0002
GAMMACHLOR	5.419	3514139	0.0016
ALPHACHLOR			0.0000 BDL
44DDE	5.644	539415	0.0002
ENDOI	5.719	757164	0.0002
DIELDRIN	6.019	1161986	0.0005
ENDRIN			0.0000 BDL
44DDD			0.0000 BDL
ENDOII	6.682	563241	0.0002
44DDT	6.881	1462587	0.0011
ENDRINALDEH			0.0000 BDL
METHOXYCL			0.0000 BDL
ENDOSULFATE			0.0000 BDL
ENDRINKETONE	8.412	350526	0.0000
SURRDCBPEST	9.707	20810221	60.6485

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091019pst\023.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,321167,
Acquired: 09/10/2019 21:20:44
Printed: 09/11/2019 08:55:25

Data Summary: {Data Description}



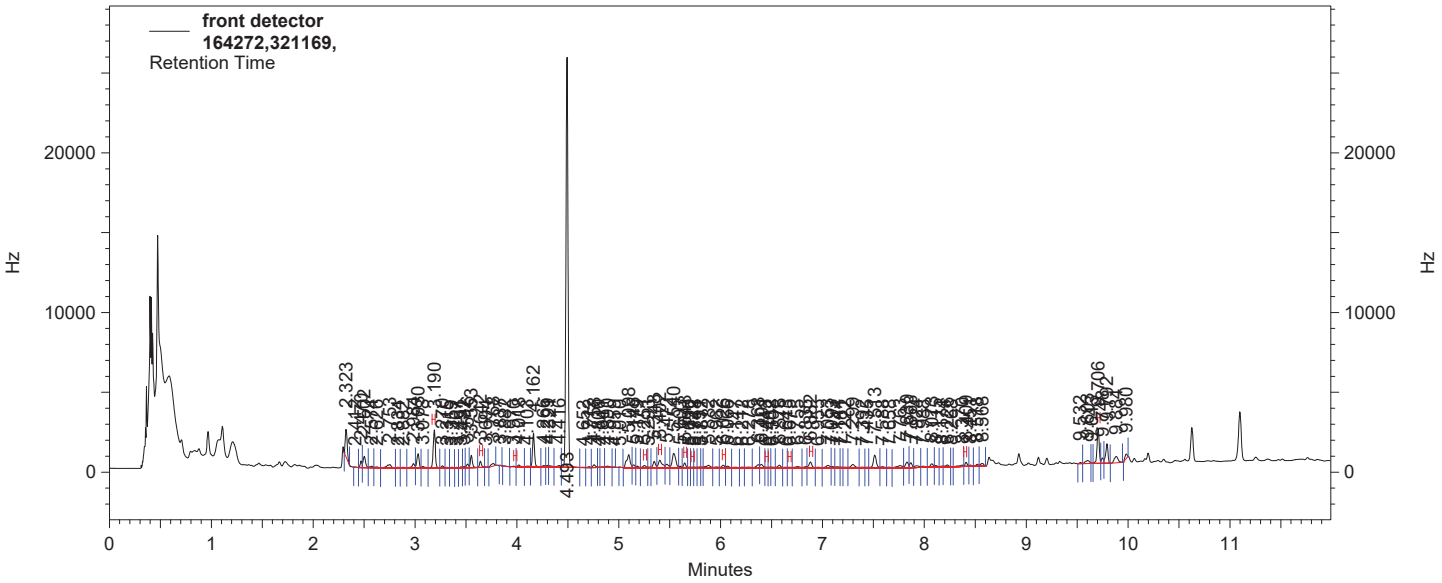
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.725	18221467	56.3869
ALPHABHC	4.334	352068	0.0000
LINDANE	4.698	2210768	0.0011
BETABHC	4.757	581722	0.0002
DELTABHC			0.0000 BDL
HEPTACHLOR	5.210	362822	0.0000
ALDRIN	5.627	4779610	0.0030
HEPTAEPOX	6.454	388735	0.0000
GAMMACHLOR			0.0000 BDL
ALPHACHLOR			0.0000 BDL
ENDOI			0.0000 BDL
44DDE	7.253	544492	0.0002
DIELDRIN			0.0000 BDL
ENDRIN	8.073	596802	0.0007
44DDD	8.213	703194	0.0004
ENDOII	8.372	1032221	0.0006
44DDT	8.648	672312	0.0005
ENDRINALDEH	8.851	897948	0.0006
ENDOSULFATE			0.0000 BDL
METHOXYCL	9.539	1332504	0.0032
ENDRINKETONE	9.873	379655	0.0000
SURRDCBPEST	11.423	14828137	63.1313

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091019pst\024.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,321169,
Acquired: 09/10/2019 21:37:01
Printed: 09/11/2019 08:55:29

Data Summary: {Data Description}



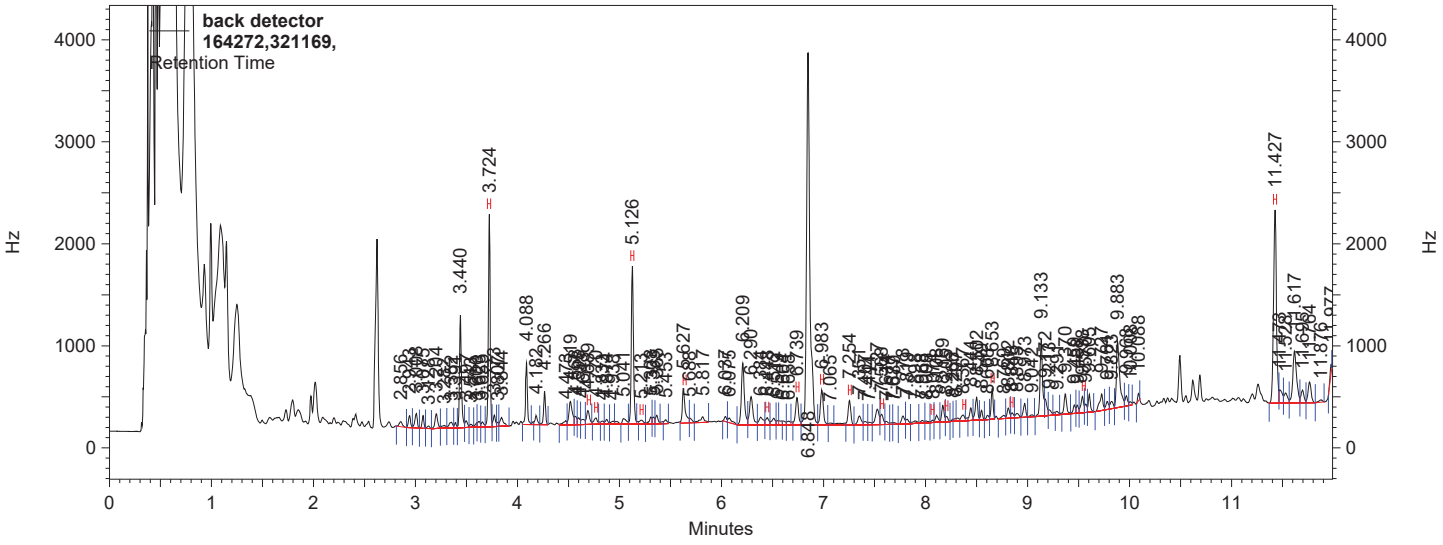
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.190	27170818	63.1806
ALPHABHC	3.642	4298545	0.0018
LINDANE			0.0000 BDL
BETABHC	3.970	565634	0.0004
DELTABHC			0.0000 BDL
HEPTACHLOR			0.0000 BDL
ALDRIN			0.0000 BDL
HEPTAEPOX	5.251	2333051	0.0011
GAMMACHLOR	5.402	9323927	0.0048
ALPHACHLOR			0.0000 BDL
44DDE	5.648	3574077	0.0020
ENDOI	5.722	616379	0.0001
DIELDRIN	6.026	2466399	0.0012
ENDRIN			0.0000 BDL
44DDD	6.443	633046	0.0004
ENDOII	6.675	901770	0.0004
44DDT	6.882	6062046	0.0045
ENDRINALDEH			0.0000 BDL
METHOXYCL			0.0000 BDL
ENDOSULFATE			0.0000 BDL
ENDRINKETONE	8.409	3258108	0.0015
SURRDCBPEST	9.706	24186137	71.3285

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091019pst\024.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,321169,
Acquired: 09/10/2019 21:37:01
Printed: 09/11/2019 08:55:29

Data Summary: {Data Description}



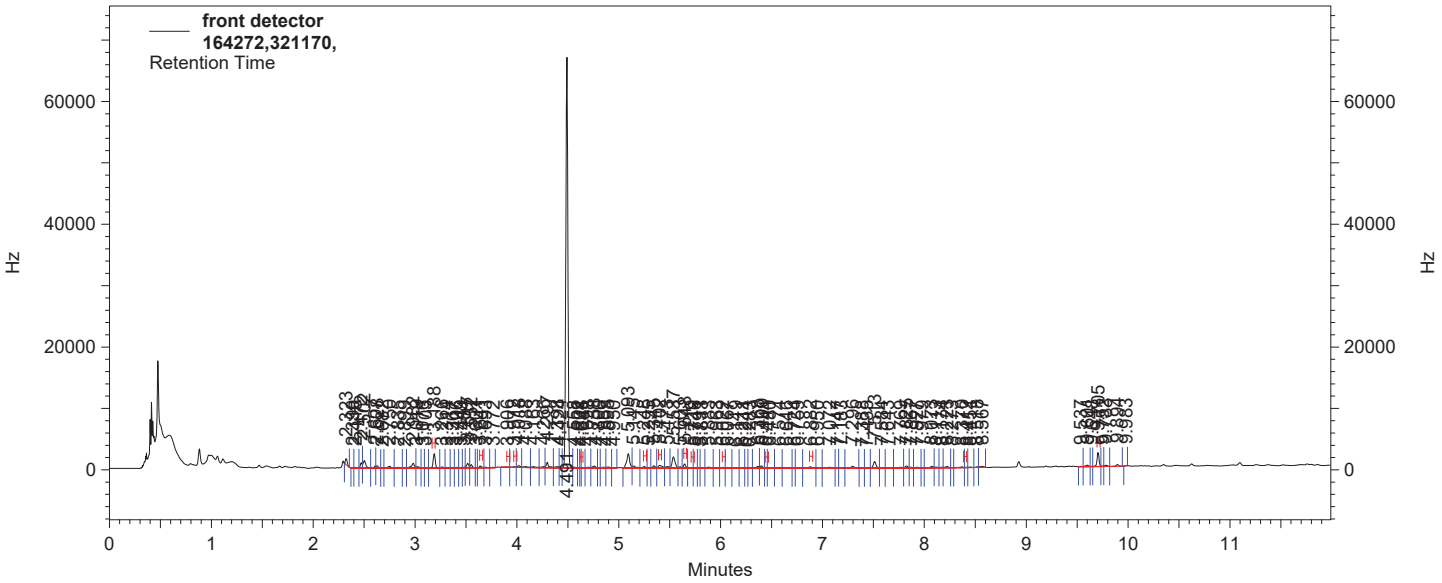
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.724	19462543	60.3179
ALPHABHC			0.0000 BDL
LINDANE	4.689	2136699	0.0011
BETABHC	4.770	1146609	0.0010
DELTABHC	5.126	17681325	0.0105
HEPTACHLOR	5.213	749867	0.0001
ALDRIN	5.627	4996404	0.0032
HEPTAEPOX	6.448	1220245	0.0006
GAMMACHLOR	6.739	4208100	0.0029
ALPHACHLOR	6.983	5403731	0.0038
ENDOI			0.0000 BDL
44DDE	7.254	3420311	0.0025
DIELDRIN	7.568	1532207	0.0009
ENDRIN	8.074	308191	0.0002
44DDD	8.205	645165	0.0004
ENDOII	8.367	1036928	0.0006
44DDT	8.653	3109246	0.0031
ENDRINALDEH	8.848	676666	0.0003
ENDOSULFATE			0.0000 BDL
METHOXYCL	9.538	2293517	0.0056
ENDRINKETONE			0.0000 BDL
SURRDCBPEST	11.427	28806463	130.8845

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091019pst\025.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,321170,
Acquired: 09/10/2019 21:53:15
Printed: 09/11/2019 08:55:33

Data Summary: {Data Description}



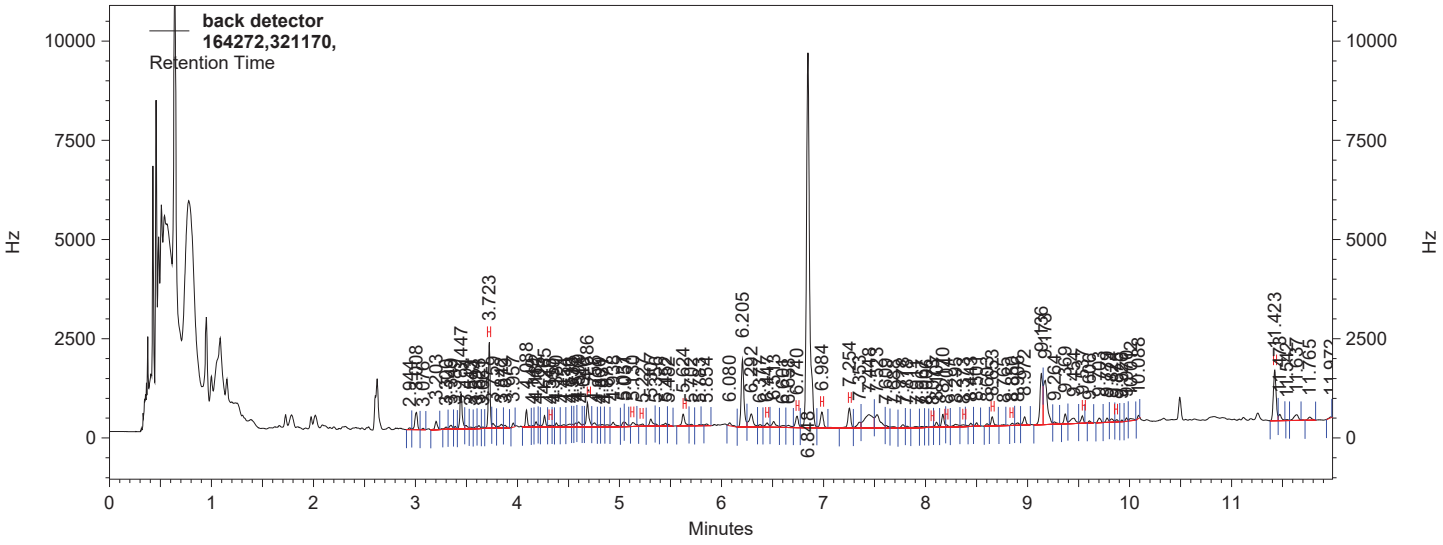
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.188	26419590	61.4248
ALPHABHC	3.641	3534899	0.0015
LINDANE	3.906	1568590	0.0007
BETABHC	3.972	1750485	0.0016
DELTABHC			0.0000 BDL
HEPTACHLOR			0.0000 BDL
ALDRIN	4.624	61390	0.0000
HEPTAEPOX	5.248	3238448	0.0016
GAMMACHLOR	5.402	8440508	0.0044
ALPHACHLOR			0.0000 BDL
44DDE	5.648	7032447	0.0041
ENDOI	5.719	1118390	0.0004
DIELDRIN	6.022	1461688	0.0006
ENDRIN			0.0000 BDL
44DDD	6.444	628471	0.0004
ENDOII			0.0000 BDL
44DDT	6.882	4372609	0.0032
ENDRINALDEH			0.0000 BDL
METHOXYCL			0.0000 BDL
ENDOSULFATE			0.0000 BDL
ENDRINKETONE	8.412	577362	0.0001
SURRDCBPEST	9.705	23822366	70.1674

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091019pst\025.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,321170,
Acquired: 09/10/2019 21:53:15
Printed: 09/11/2019 08:55:33

Data Summary: {Data Description}



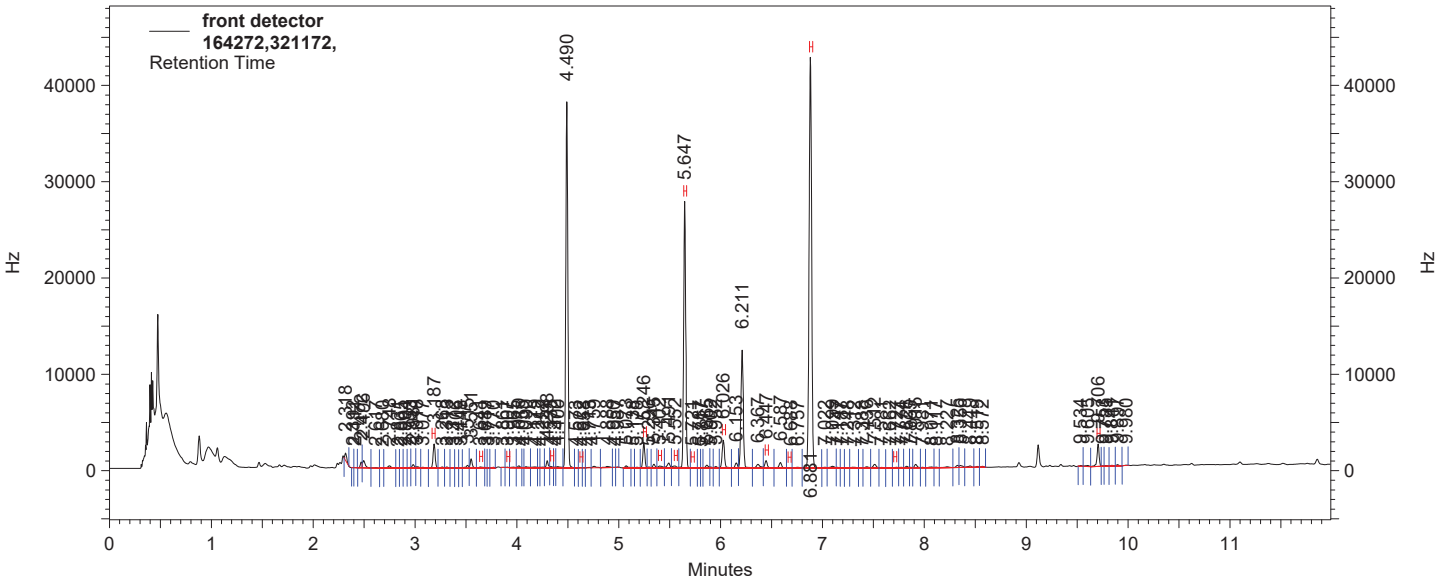
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.723	20183679	62.6036
ALPHABHC	4.318	761296	0.0002
LINDANE	4.686	7892067	0.0047
BETABHC			0.0000 BDL
DELTABHC	5.130	1921030	0.0009
HEPTACHLOR	5.227	1168454	0.0004
ALDRIN	5.624	4763955	0.0030
HEPTAEPOX	6.447	2145695	0.0013
GAMMACHLOR	6.740	4337857	0.0029
ALPHACHLOR	6.984	6207863	0.0044
ENDOI			0.0000 BDL
44DDE	7.254	7335453	0.0056
DIELDRIN			0.0000 BDL
ENDRIN	8.073	349422	0.0003
44DDD	8.204	706883	0.0004
ENDOII	8.373	960112	0.0006
44DDT	8.653	3118161	0.0031
ENDRINALDEH	8.850	754910	0.0004
ENDOSULFATE			0.0000 BDL
METHOXYCL	9.537	2452360	0.0060
ENDRINKETONE	9.875	774151	0.0002
SURRDCBPEST	11.423	18274392	79.0994

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091019pst\027.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,321172,
Acquired: 09/10/2019 22:25:49
Printed: 09/11/2019 08:55:41

Data Summary: {Data Description}



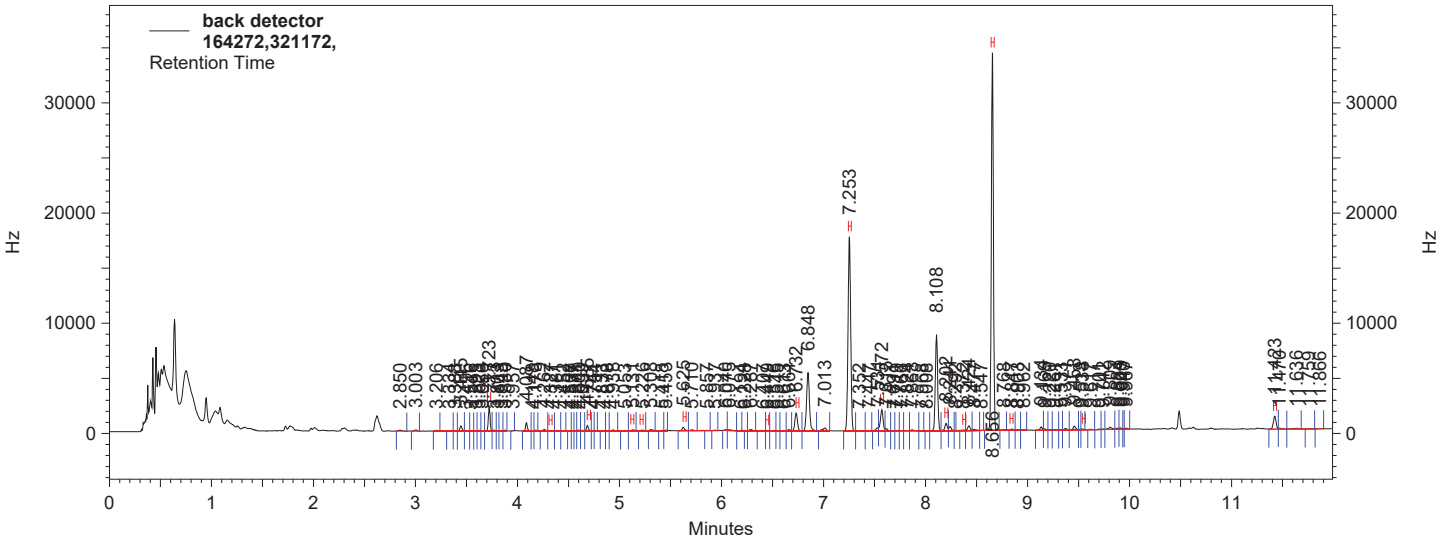
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.187	28364062	65.9677
ALPHABHC	3.641	2498170	0.0011
LINDANE	3.907	481001	0.0002
BETABHC			0.0000 BDL
DELTABHC			0.0000 BDL
HEPTACHLOR	4.333	1831400	0.0007
ALDRIN	4.622	246419	0.0000
HEPTAEPOX	5.246	27178375	0.0151
GAMMACHLOR	5.402	4414622	0.0021
ALPHACHLOR	5.552	4460366	0.0022
44DDE	5.647	304311647	0.1496
ENDOI	5.721	955197	0.0003
DIELDRIN	6.026	35293646	0.0195
ENDRIN			0.0000 BDL
44DDD	6.447	10155655	0.0076
ENDOII	6.688	530584	0.0001
44DDT	6.881	565472144	0.2710
ENDRINALDEH			0.0000 BDL
METHOXYCL	7.727	1249077	0.0019
ENDOSULFATE			0.0000 BDL
ENDRINKETONE			0.0000 BDL
SURRDCBPEST	9.706	25481566	75.4839

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091019pst\027.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,321172,
Acquired: 09/10/2019 22:25:49
Printed: 09/11/2019 08:55:41

Data Summary: {Data Description}



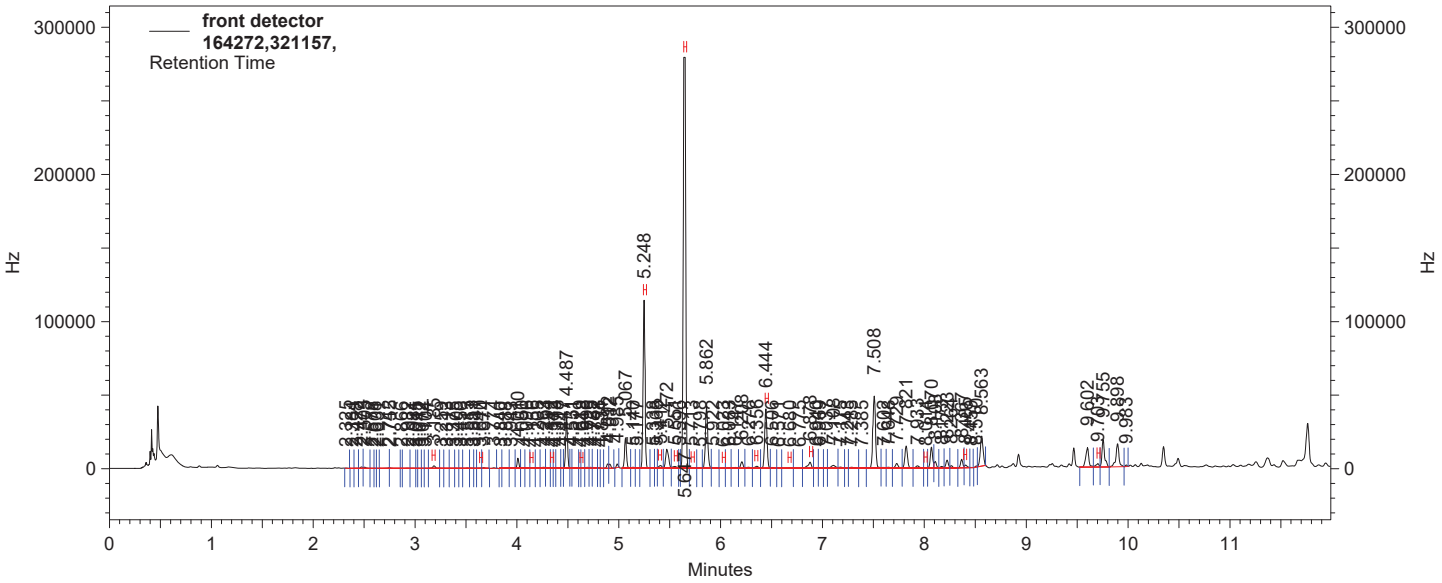
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.723	20436318	63.4047
ALPHABHC	4.327	699189	0.0002
LINDANE	4.685	5023569	0.0029
BETABHC			0.0000 BDL
DELTABHC	5.131	1729426	0.0008
HEPTACHLOR	5.226	1141324	0.0004
ALDRIN	5.625	3982508	0.0025
HEPTAEPOX	6.449	676913	0.0002
GAMMACHLOR	6.732	21926546	0.0162
ALPHACHLOR			0.0000 BDL
ENDOI			0.0000 BDL
44DDE	7.253	242051909	0.1796
DIELDRIN	7.572	26898215	0.0204
ENDRIN			0.0000 BDL
44DDD	8.202	8305067	0.0081
ENDOII	8.372	745451	0.0004
44DDT	8.656	366229626	0.3186
ENDRINALDEH	8.847	1612833	0.0013
ENDOSULFATE			0.0000 BDL
METHOXYCL	9.538	923565	0.0021
ENDRINKETONE			0.0000 BDL
SURRDCBPEST	11.423	17080192	73.5168

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091019pst\031.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,321157,
Acquired: 09/10/2019 23:30:52
Printed: 09/11/2019 08:56:05

Data Summary: {Data Description}



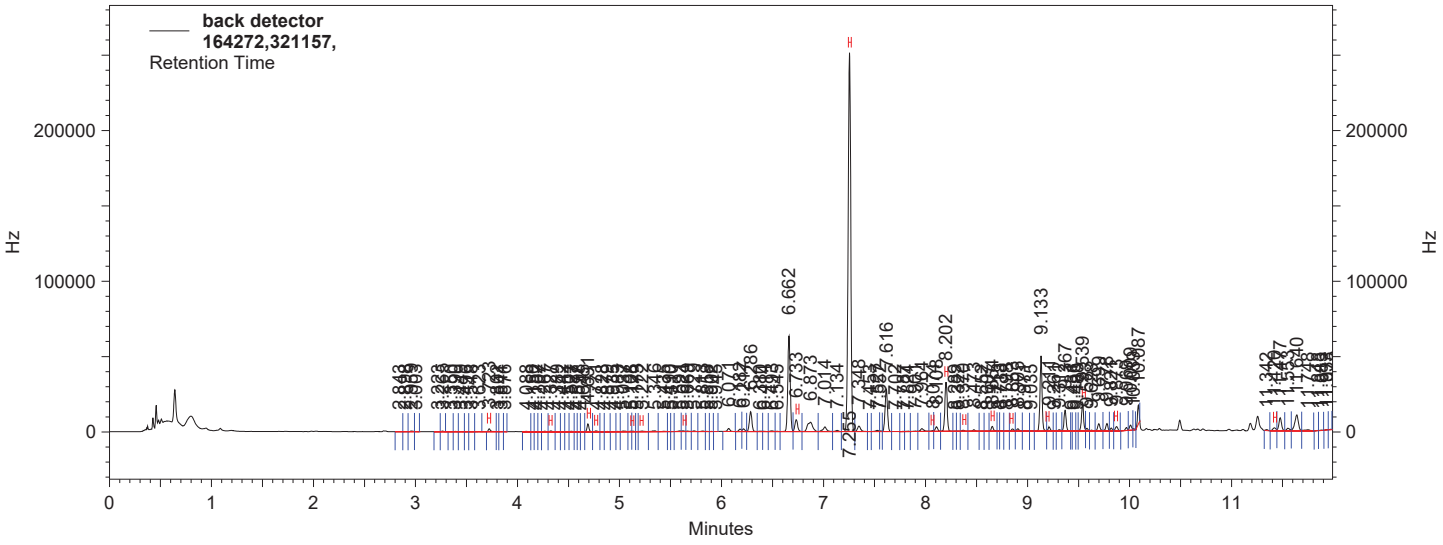
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.185	25197462	58.5667
ALPHABHC	3.640	2717735	0.0012
LINDANE			0.0000 BDL
BETABHC			0.0000 BDL
DELTABHC	4.156	2133339	0.0009
HEPTACHLOR	4.342	2375755	0.0009
ALDRIN	4.619	587351	0.0002
HEPTAEPOX	5.248	1152822699	0.6832
GAMMACHLOR	5.412	29594782	0.0159
ALPHACHLOR	5.551	25332999	0.0139
44DDE	5.647	3701967330	0.9230
ENDOI	5.713	6429860	0.0035
DIELDRIN	6.023	2836208	0.0014
ENDRIN	6.356	23794362	0.0271
44DDD	6.444	500574247	0.2691
ENDOII	6.680	5208324	0.0033
44DDT	6.878	72139974	0.0492
ENDRINALDEH			0.0000 BDL
METHOXYCL			0.0000 BDL
ENDOSULFATE	8.014	3948684	0.0023
ENDRINKETONE	8.405	26121273	0.0138
SURRDCBPEST	9.703	38367858	118.7510

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091019pst\031.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,321157,
Acquired: 09/10/2019 23:30:52
Printed: 09/11/2019 08:56:05

Data Summary: {Data Description}



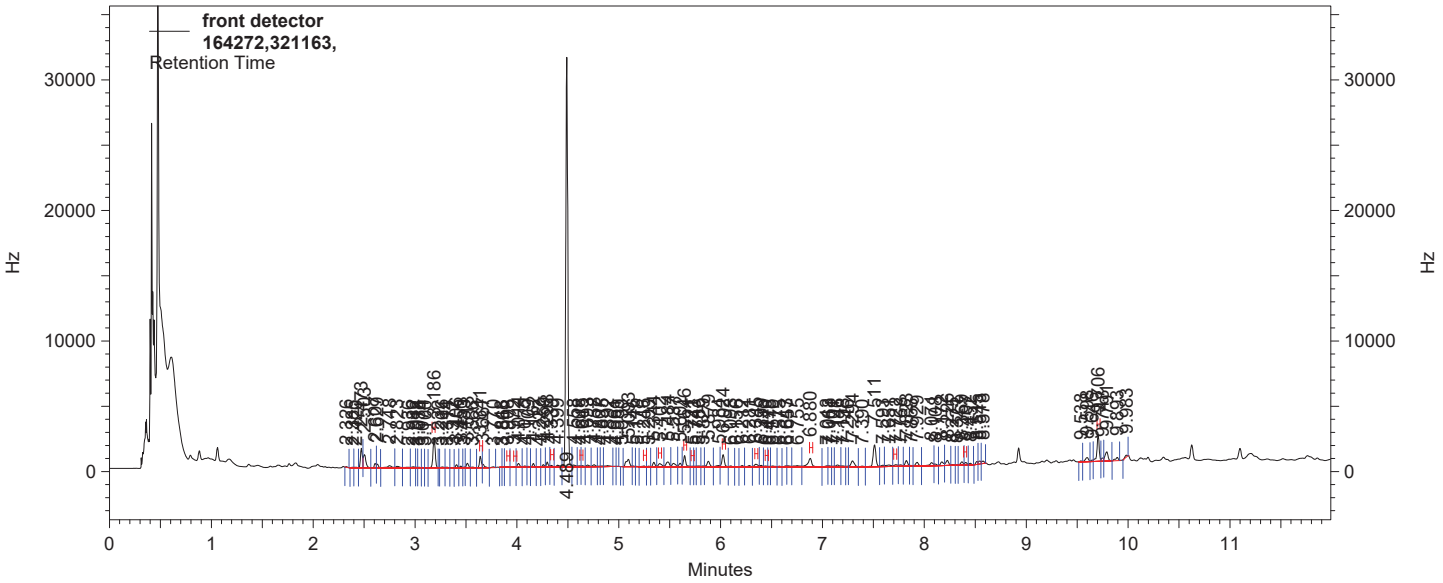
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.723	21127151	65.5959
ALPHABHC	4.327	5265508	0.0028
LINDANE	4.691	50229524	0.0316
BETABHC	4.771	5738906	0.0073
DELTABHC	5.125	2594941	0.0013
HEPTACHLOR	5.222	6902832	0.0043
ALDRIN	5.624	6951252	0.0045
HEPTAEPOX			0.0000 BDL
GAMMACHLOR	6.733	111459979	0.0829
ALPHACHLOR			0.0000 BDL
ENDOI			0.0000 BDL
44DDE	7.255	3443936703	1.6070
DIELDRIN			0.0000 BDL
ENDRIN	8.074	7673416	0.0113
44DDD	8.202	393330073	0.3707
ENDOII	8.370	12569912	0.0113
44DDT	8.654	43780293	0.0454
ENDRINALDEH	8.853	23098655	0.0233
ENDOSULFATE	9.211	35186059	0.0325
METHOXYCL	9.539	207110564	0.4403
ENDRINKETONE	9.873	39430130	0.0311
SURRDCBPEST	11.420	32914004	152.5146

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091019pst\033.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,321163,
Acquired: Sep 11, 2019 00:03:14
Printed: Sep 11, 2019 09:44:07

Data Summary: {Data Description}



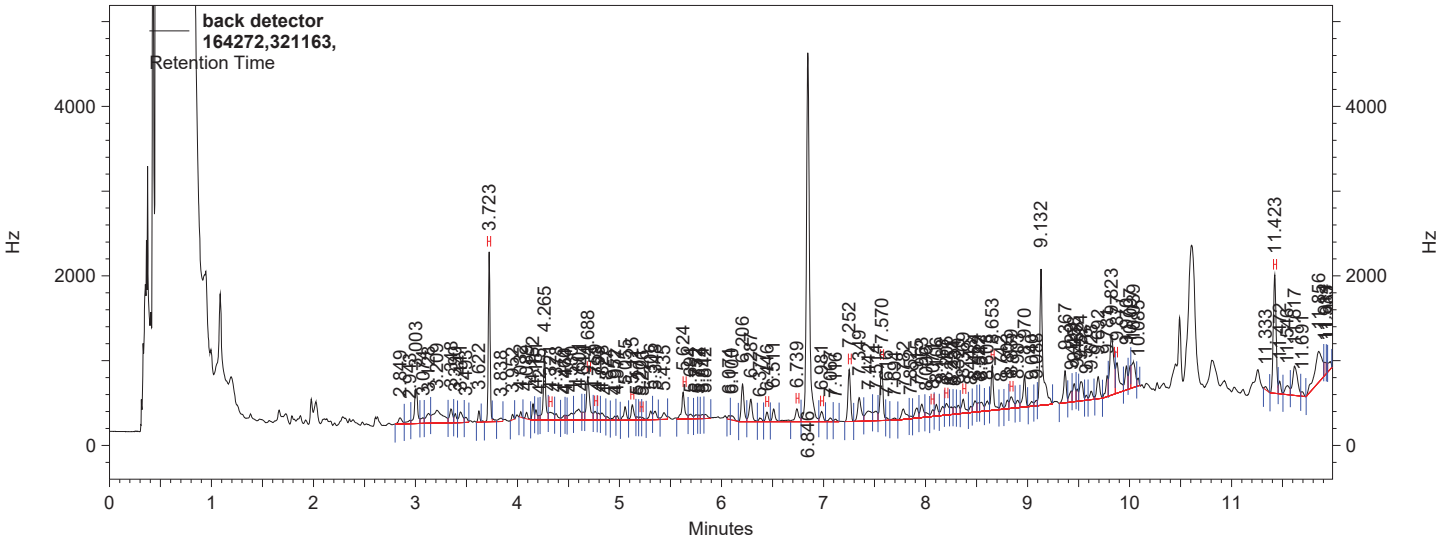
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.186	27039834	62.8745
ALPHABHC	3.641	8487168	0.0036
LINDANE	3.908	714445	0.0003
BETABHC	3.972	567970	0.0004
DELTABHC			0.0000 BDL
HEPTACHLOR	4.339	1638565	0.0006
ALDRIN	4.645	1129135	0.0005
HEPTAEPOX	5.246	1220263	0.0004
GAMMACHLOR	5.402	4685237	0.0023
ALPHACHLOR			0.0000 BDL
44DDE	5.646	10767057	0.0063
ENDOI	5.721	765179	0.0002
DIELDRIN	6.024	12179031	0.0067
ENDRIN	6.345	3901292	0.0045
44DDD	6.440	1095137	0.0008
ENDOII			0.0000 BDL
44DDT	6.880	14400759	0.0106
ENDRINALDEH			0.0000 BDL
METHOXYCL	7.722	2356426	0.0037
ENDOSULFATE			0.0000 BDL
ENDRINKETONE	8.407	2588844	0.0011
SURRDCBPEST	9.706	23442012	68.9561

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091019pst\033.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,321163,
Acquired: Sep 11, 2019 00:03:14
Printed: Sep 11, 2019 09:44:07

Data Summary: {Data Description}



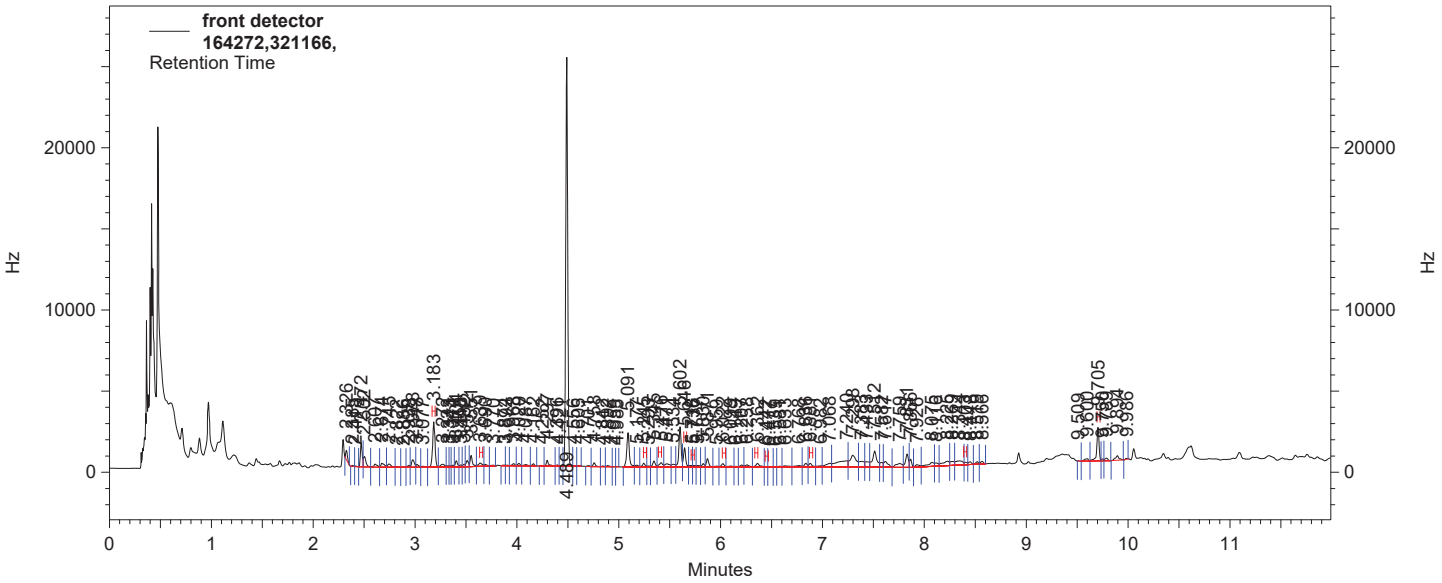
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.723	18777011	58.1461
ALPHABHC	4.321	2309491	0.0011
LINDANE	4.688	8582935	0.0052
BETABHC	4.759	1603385	0.0016
DELTABHC	5.125	2606128	0.0013
HEPTACHLOR	5.226	351829	0.0000
ALDRIN	5.624	5017329	0.0032
HEPTAEPOX	6.446	1485136	0.0008
GAMMACHLOR	6.739	2793088	0.0018
ALPHACHLOR	6.981	1880248	0.0011
ENDOI			0.0000 BDL
44DDE	7.252	8287429	0.0064
DIELDRIN	7.570	9500541	0.0070
ENDRIN	8.071	1136595	0.0015
44DDD	8.205	2515437	0.0022
ENDOII	8.369	2933702	0.0024
44DDT	8.653	6966992	0.0073
ENDRINALDEH	8.839	2737849	0.0024
ENDOSULFATE			0.0000 BDL
METHOXYCL			0.0000 BDL
ENDRINKETONE	9.877	6916285	0.0050
SURRDCBPEST	11.423	20805511	91.1133

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091019pst\034.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,321166,
Acquired: Sep 11, 2019 00:19:25
Printed: Sep 11, 2019 09:44:11

Data Summary: {Data Description}



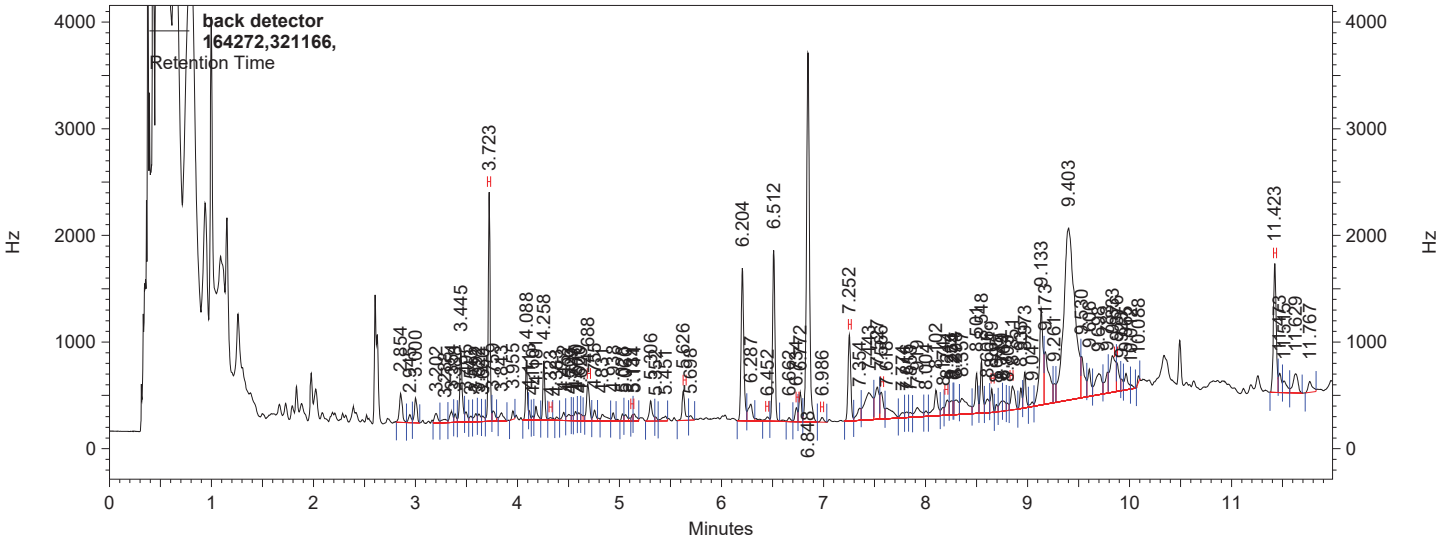
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.183	35442367	82.4570
ALPHABHC	3.639	4391255	0.0019
LINDANE			0.0000 BDL
BETABHC			0.0000 BDL
DELTABHC			0.0000 BDL
HEPTACHLOR			0.0000 BDL
ALDRIN			0.0000 BDL
HEPTAEPOX	5.245	3407575	0.0017
GAMMACHLOR	5.416	4939802	0.0024
ALPHACHLOR			0.0000 BDL
44DDE	5.646	14042290	0.0083
ENDOI	5.718	1638656	0.0007
DIELDRIN	6.022	3320484	0.0017
ENDRIN	6.362	5074992	0.0059
44DDD	6.442	351182	0.0002
ENDOII			0.0000 BDL
44DDT	6.881	4222205	0.0031
ENDRINALDEH			0.0000 BDL
METHOXYCL			0.0000 BDL
ENDOSULFATE			0.0000 BDL
ENDRINKETONE	8.403	2325624	0.0010
SURRDCBPEST	9.705	24173676	71.2886

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091019pst\034.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,321166,
Acquired: Sep 11, 2019 00:19:25
Printed: Sep 11, 2019 09:44:11

Data Summary: {Data Description}



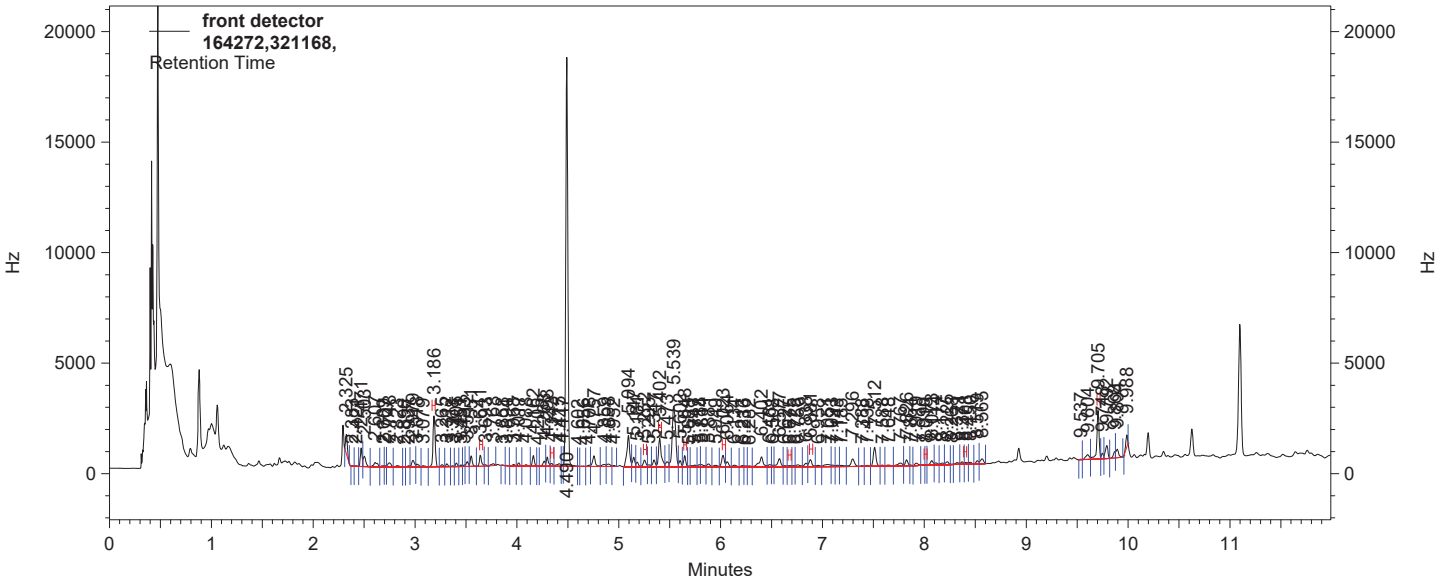
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.723	20884107	64.8249
ALPHABHC	4.323	456488	0.0001
LINDANE	4.688	5134453	0.0030
BETABHC			0.0000 BDL
DELTABHC	5.131	519981	0.0000
HEPTACHLOR			0.0000 BDL
ALDRIN	5.626	3932808	0.0024
HEPTAEPOX	6.452	747919	0.0002
GAMMACHLOR	6.734	1676676	0.0009
ALPHACHLOR	6.986	683116	0.0002
ENDOI			0.0000 BDL
44DDE	7.252	11347681	0.0088
DIELDRIN	7.566	4398758	0.0031
ENDRIN			0.0000 BDL
44DDD	8.214	2575199	0.0023
ENDOII			0.0000 BDL
44DDT	8.649	2625894	0.0026
ENDRINALDEH	8.851	4519072	0.0042
ENDOSULFATE			0.0000 BDL
METHOXYCL			0.0000 BDL
ENDRINKETONE	9.876	3775880	0.0025
SURRDCBPEST	11.423	17777641	76.7707

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091019pst\035.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,321168,
Acquired: Sep 11, 2019 00:35:36
Printed: Sep 11, 2019 09:44:16

Data Summary: {Data Description}



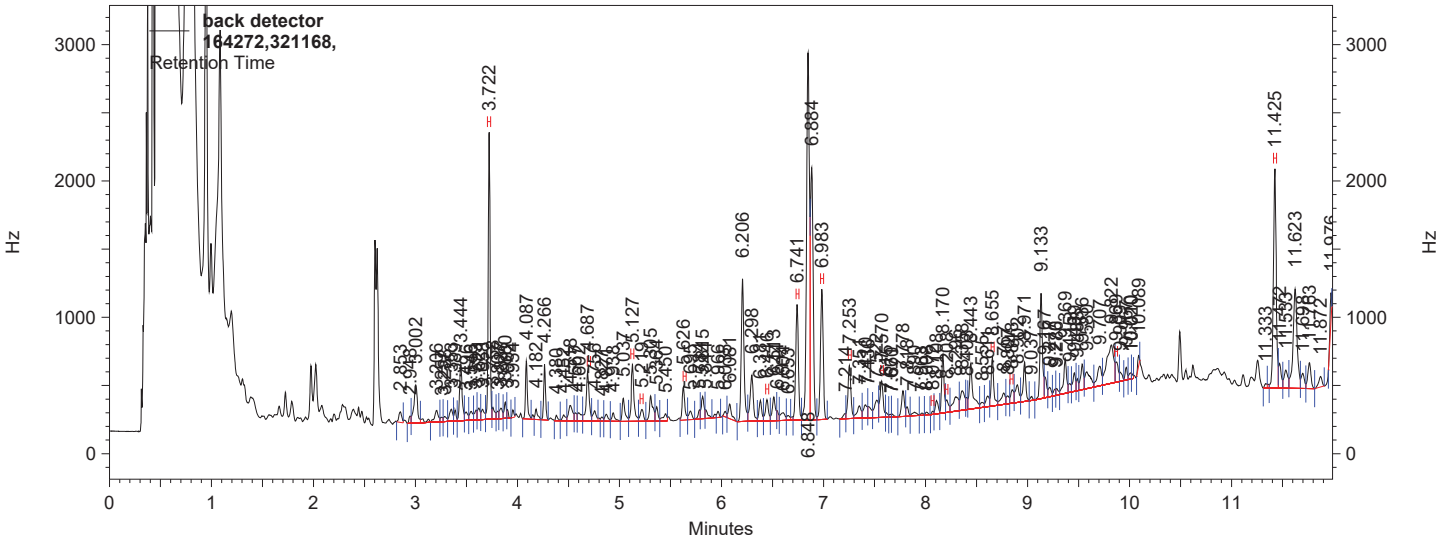
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.186	26818697	62.3577
ALPHABHC	3.641	5557356	0.0024
LINDANE			0.0000 BDL
BETABHC			0.0000 BDL
DELTABHC			0.0000 BDL
HEPTACHLOR	4.343	1618725	0.0006
ALDRIN			0.0000 BDL
HEPTAEPOX	5.252	4360744	0.0022
GAMMACHLOR	5.402	19043543	0.0102
ALPHACHLOR			0.0000 BDL
44DDE	5.648	5663603	0.0033
ENDOI			0.0000 BDL
DIELDRIN	6.023	7024451	0.0038
ENDRIN			0.0000 BDL
44DDD			0.0000 BDL
ENDOII	6.675	848669	0.0003
44DDT	6.881	4853324	0.0036
ENDRINALDEH			0.0000 BDL
METHOXYCL			0.0000 BDL
ENDOSULFATE	8.018	214112	0.0000
ENDRINKETONE	8.408	1252593	0.0004
SURRDCBPEST	9.705	25059598	74.1267

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091019pst\035.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,321168,
Acquired: Sep 11, 2019 00:35:36
Printed: Sep 11, 2019 09:44:16

Data Summary: {Data Description}



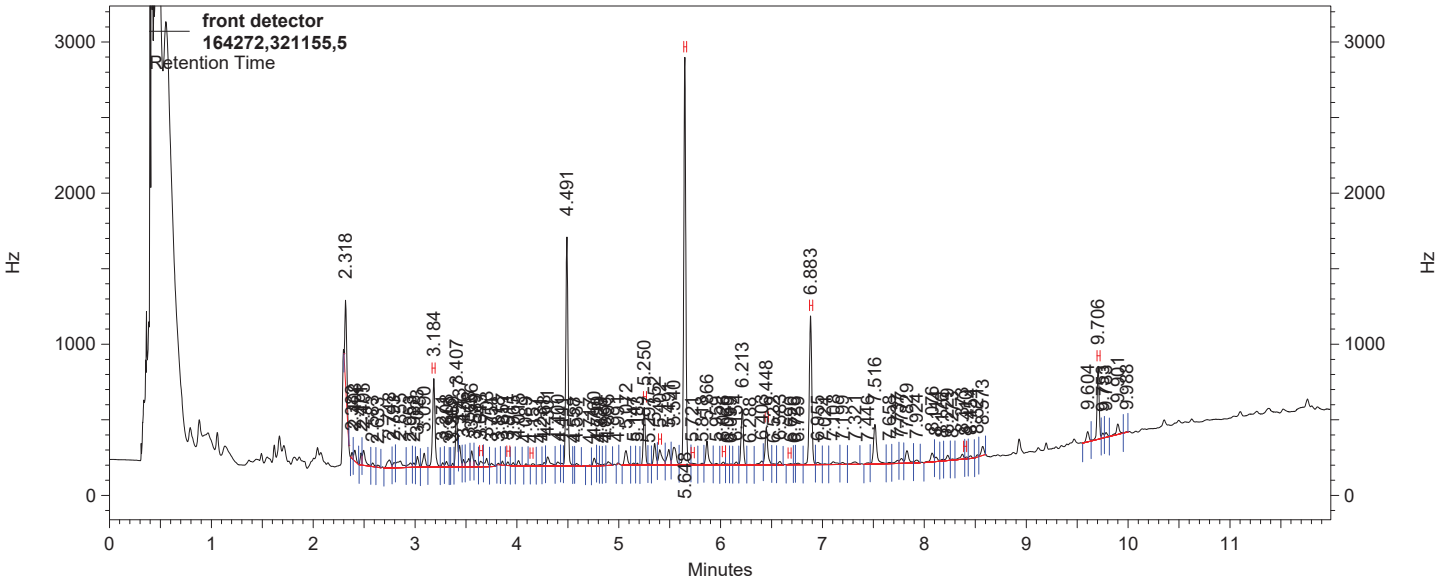
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.722	20665780	64.1324
ALPHABHC			0.0000 BDL
LINDANE	4.687	5555692	0.0033
BETABHC			0.0000 BDL
DELTABHC	5.127	5830680	0.0033
HEPTACHLOR	5.219	1485562	0.0006
ALDRIN	5.626	3360797	0.0020
HEPTAEPOX	6.446	2522502	0.0016
GAMMACHLOR	6.741	11958907	0.0087
ALPHACHLOR	6.983	13638357	0.0101
ENDOI			0.0000 BDL
44DDE	7.253	5904253	0.0045
DIELDRIN	7.570	4401834	0.0031
ENDRIN	8.072	244007	0.0001
44DDD	8.208	1361744	0.0011
ENDOII			0.0000 BDL
44DDT	8.655	4743076	0.0049
ENDRINALDEH	8.848	1585829	0.0013
ENDOSULFATE			0.0000 BDL
METHOXYCL			0.0000 BDL
ENDRINKETONE	9.869	2261501	0.0014
SURRDCBPEST	11.425	23935070	106.3287

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091119pst\007.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091119pst.met
User: AJZ
Sample ID: 164272,321155,5
Acquired: 09/11/2019 11:24:43
Printed: Sep 11, 2019 15:48:42

Data Summary: {Data Description}



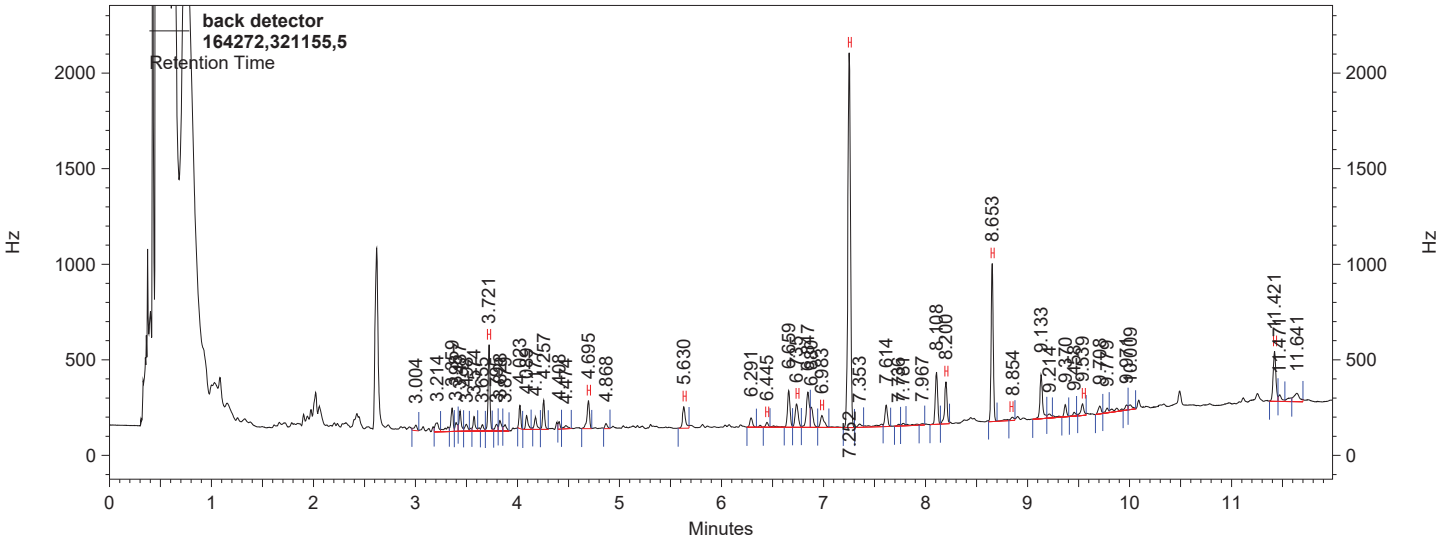
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.184	7791277	17.6134
ALPHABHC	3.643	561830	0.0002
LINDANE	3.911	254237	0.0001
BETABHC			0.0000 BDL
DELTABHC	4.157	230810	0.0000
HEPTACHLOR			0.0000 BDL
ALDRIN			0.0000 BDL
HEPTAEPOX	5.250	4073012	0.0020
GAMMACHLOR	5.402	1953159	0.0008
ALPHACHLOR			0.0000 BDL
44DDE	5.648	29487918	0.0173
ENDOI	5.721	270781	0.0000
DIELDRIN	6.026	279655	0.0000
ENDRIN			0.0000 BDL
44DDD	6.448	3402506	0.0025
ENDOII	6.690	153008	0.0000
44DDT	6.883	12895772	0.0095
ENDRINALDEH			0.0000 BDL
METHOXYCL			0.0000 BDL
ENDOSULFATE			0.0000 BDL
ENDRINKETONE	8.410	158695	0.0000
SURRDCBPEST	9.706	5261042	13.9449

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091119pst\007.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091119pst.met
User: AJZ
Sample ID: 164272,321155,5
Acquired: 09/11/2019 11:24:43
Printed: Sep 11, 2019 15:48:42

Data Summary: {Data Description}



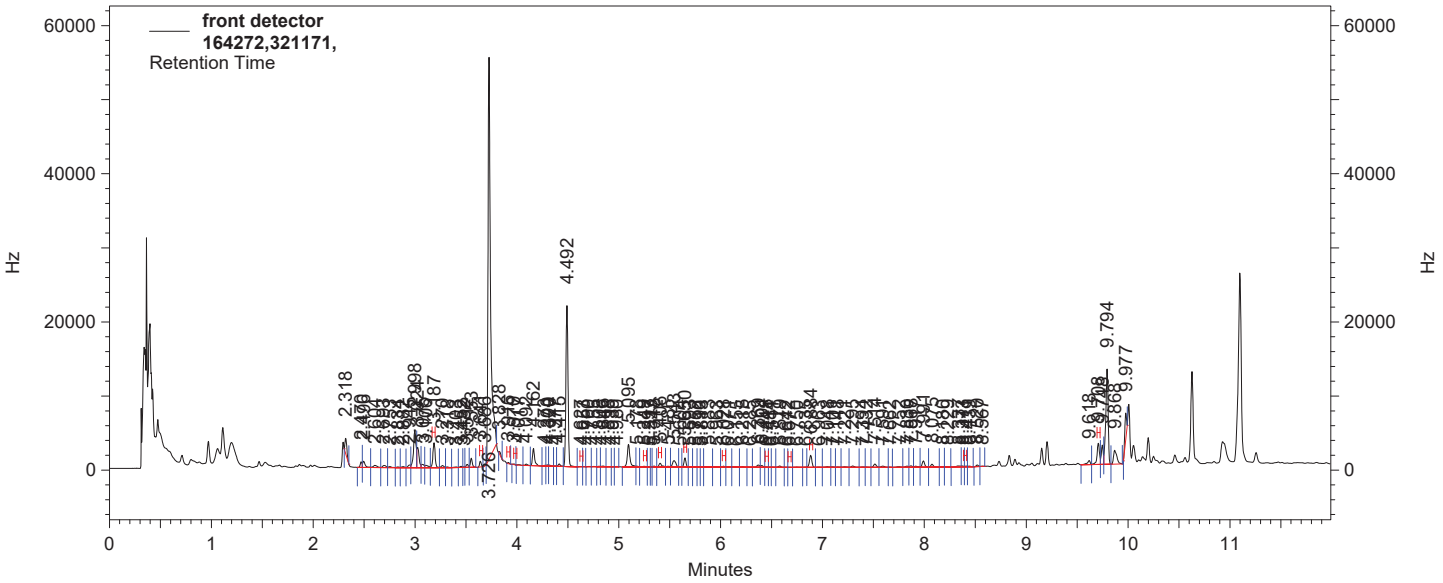
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.721	4437628	12.9652
ALPHABHC			0.0000 BDL
LINDANE	4.695	1913680	0.0009
BETABHC			0.0000 BDL
DELTABHC			0.0000 BDL
HEPTACHLOR			0.0000 BDL
ALDRIN	5.630	1683779	0.0008
HEPTAEPOX	6.445	359477	0.0000
GAMMACHLOR	6.735	2024669	0.0012
ALPHACHLOR	6.983	1212808	0.0006
ENDOI			0.0000 BDL
44DDE	7.252	26970215	0.0212
DIELDRIN			0.0000 BDL
ENDRIN			0.0000 BDL
44DDD	8.200	2760567	0.0025
ENDOII			0.0000 BDL
44DDT	8.653	8967936	0.0094
ENDRINALDEH	8.854	301887	0.0000
ENDOSULFATE			0.0000 BDL
METHOXYCL	9.539	986673	0.0023
ENDRINKETONE			0.0000 BDL
SURRDCBPEST	11.421	3761593	14.5253

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091119pst\008.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091119pst.met
User: AJZ
Sample ID: 164272,321171,
Acquired: 09/11/2019 11:40:58
Printed: Sep 11, 2019 15:48:45

Data Summary: {Data Description}



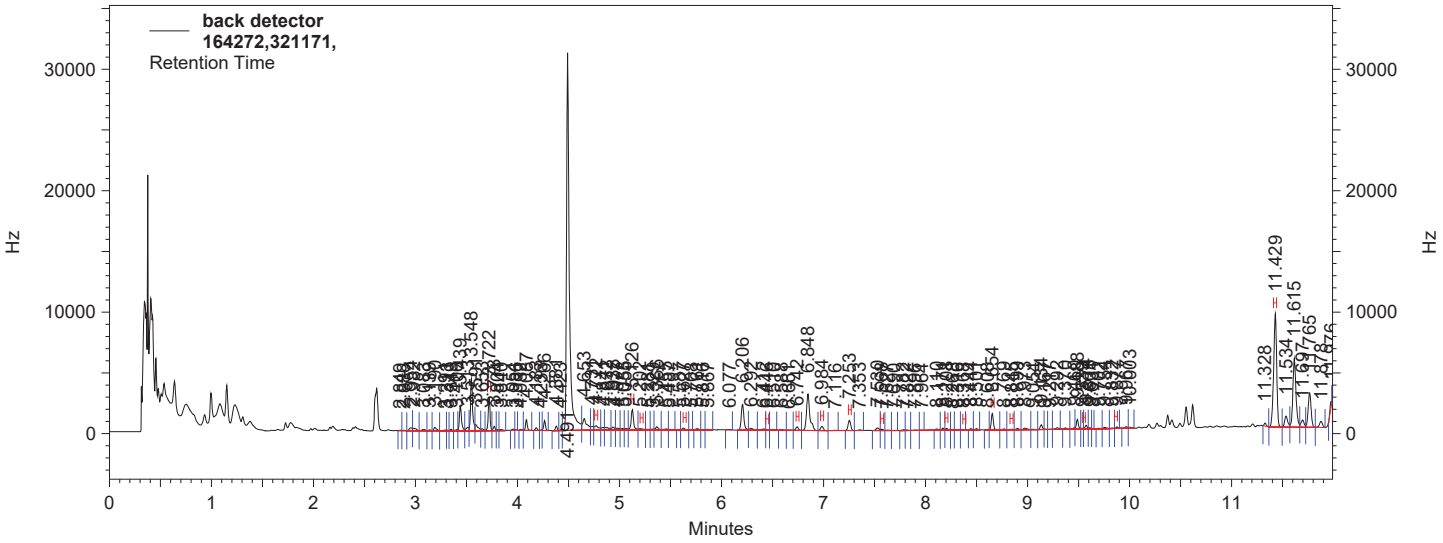
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.187	39142424	91.0471
ALPHABHC	3.641	6879203	0.0029
LINDANE	3.916	1196634	0.0005
BETABHC	3.970	872320	0.0007
DELTABHC			0.0000 BDL
HEPTACHLOR			0.0000 BDL
ALDRIN	4.627	214644	0.0000
HEPTAEPOX	5.249	1996404	0.0009
GAMMACHLOR	5.406	7990746	0.0041
ALPHACHLOR			0.0000 BDL
44DDE	5.650	13512857	0.0080
ENDOI			0.0000 BDL
DIELDRIN	6.028	1752293	0.0008
ENDRIN			0.0000 BDL
44DDD	6.448	843350	0.0006
ENDOII	6.672	230185	0.0000
44DDT	6.884	21467176	0.0156
ENDRINALDEH			0.0000 BDL
METHOXYCL			0.0000 BDL
ENDOSULFATE			0.0000 BDL
ENDRINKETONE	8.411	1222630	0.0004
SURRDCBPEST	9.708	36555772	112.4369

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091119pst\008.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091119pst.met
User: AJZ
Sample ID: 164272,321171,
Acquired: 09/11/2019 11:40:58
Printed: Sep 11, 2019 15:48:45

Data Summary: {Data Description}



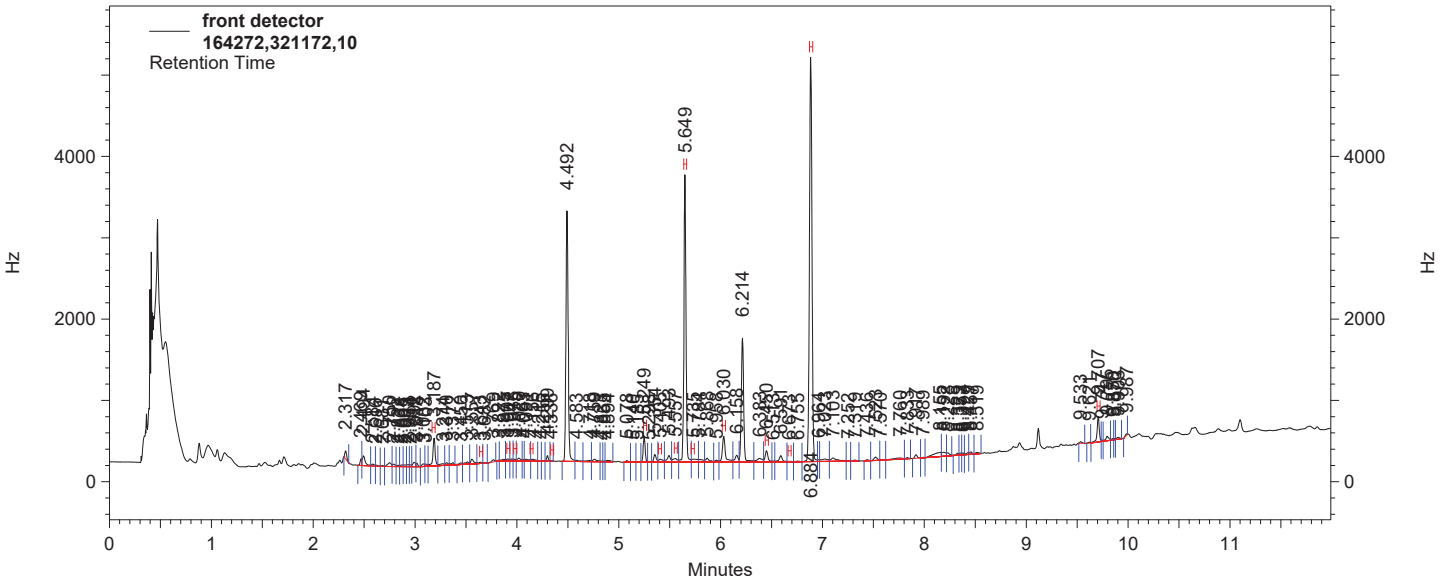
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.722	25808088	80.4726
ALPHABHC			0.0000 BDL
LINDANE			0.0000 BDL
BETABHC	4.772	9138651	0.0121
DELTABHC	5.126	22749864	0.0136
HEPTACHLOR	5.202	3370326	0.0019
ALDRIN	5.627	2627783	0.0015
HEPTAEPOX	6.446	857250	0.0003
GAMMACHLOR	6.742	4239015	0.0029
ALPHACHLOR	6.984	4929960	0.0034
ENDOI			0.0000 BDL
44DDE	7.253	11811552	0.0092
DIELDRIN	7.568	1304172	0.0007
ENDRIN			0.0000 BDL
44DDD	8.208	1828852	0.0016
ENDOII	8.368	721675	0.0003
44DDT	8.654	15480033	0.0163
ENDRINALDEH	8.845	1039909	0.0007
ENDOSULFATE			0.0000 BDL
METHOXYCL	9.539	802777	0.0018
ENDRINKETONE	9.877	1428692	0.0007
SURRDCBPEST	11.429	149328765	0.0000

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091119pst\009.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091119pst.met
User: AJZ
Sample ID: 164272,321172,10
Acquired: 09/11/2019 11:57:17
Printed: Sep 11, 2019 15:48:49

Data Summary: {Data Description}



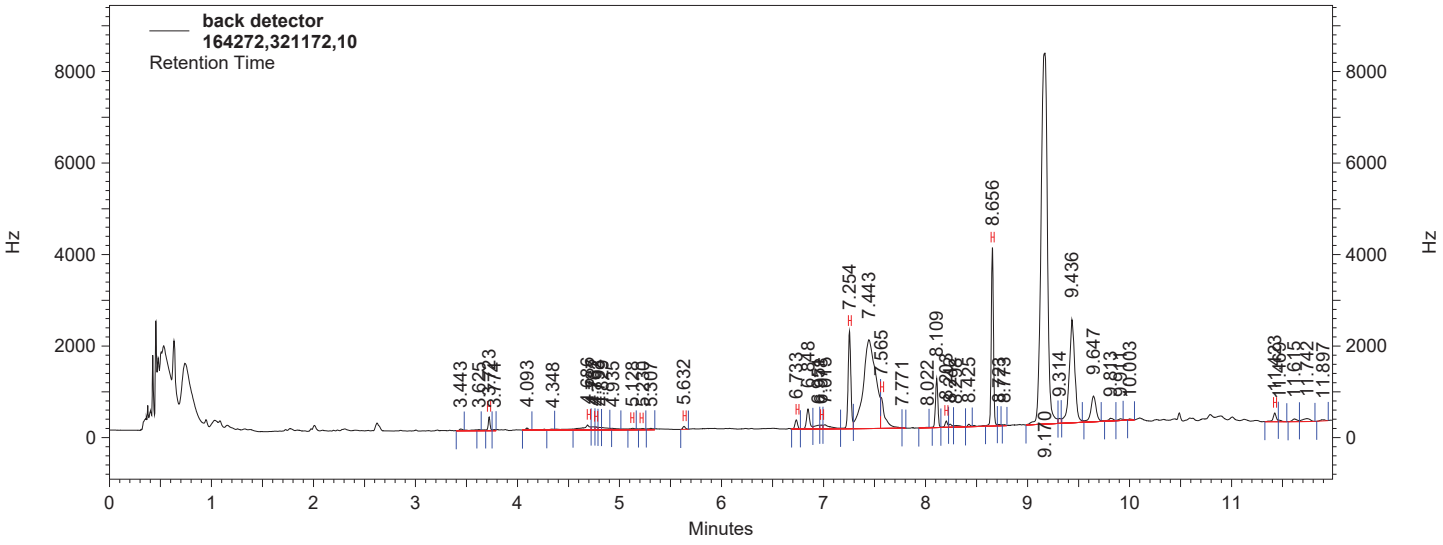
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.187	4170740	9.0363
ALPHABHC	3.643	287527	0.0001
LINDANE	3.907	355328	0.0001
BETABHC	3.975	260819	0.0001
DELTABHC	4.156	508981	0.0002
HEPTACHLOR	4.336	87668	0.0000
ALDRIN			0.0000 BDL
HEPTAEPOX	5.249	3305823	0.0016
GAMMACHLOR	5.405	830547	0.0002
ALPHACHLOR	5.557	1084412	0.0003
44DDE	5.649	38376723	0.0223
ENDOI	5.735	1043682	0.0004
DIELDRIN	6.030	4935128	0.0026
ENDRIN			0.0000 BDL
44DDD	6.450	1944387	0.0014
ENDOII	6.673	85207	0.0000
44DDT	6.884	66351533	0.0456
ENDRINALDEH			0.0000 BDL
METHOXYCL			0.0000 BDL
ENDOSULFATE			0.0000 BDL
ENDRINKETONE			0.0000 BDL
SURRDCBPEST	9.707	3504757	8.8997

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091119pst\009.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091119pst.met
User: AJZ
Sample ID: 164272,321172,10
Acquired: 09/11/2019 11:57:17
Printed: Sep 11, 2019 15:48:49

Data Summary: {Data Description}



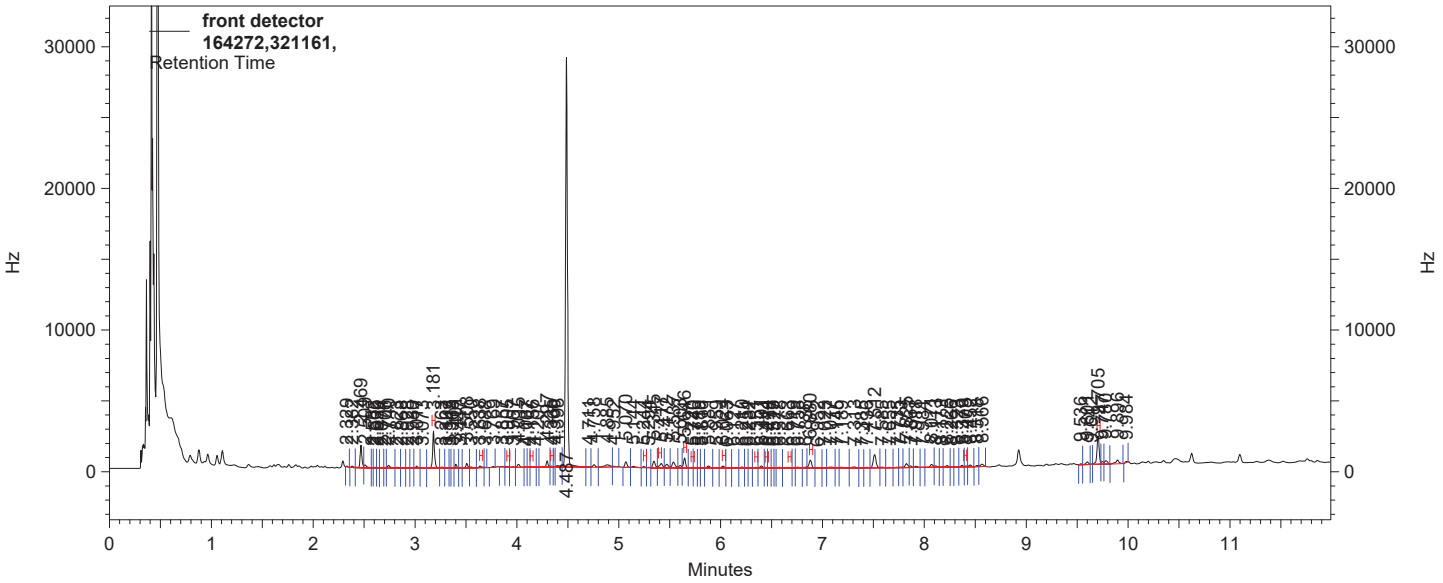
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.723	2976221	8.3867
ALPHABHC			0.0000 BDL
LINDANE	4.686	3790613	0.0021
BETABHC	4.762	831615	0.0006
DELTABHC	5.128	756650	0.0002
HEPTACHLOR	5.230	617945	0.0001
ALDRIN	5.632	894247	0.0003
HEPTAEPOX			0.0000 BDL
GAMMACHLOR	6.733	2661530	0.0017
ALPHACHLOR	6.978	1150487	0.0005
ENDOI			0.0000 BDL
44DDE	7.254	30464291	0.0239
DIELDRIN	7.565	14669557	0.0110
ENDRIN			0.0000 BDL
44DDD	8.203	1851643	0.0016
ENDOII			0.0000 BDL
44DDT	8.656	44743217	0.0463
ENDRINALDEH			0.0000 BDL
ENDOSULFATE			0.0000 BDL
METHOXYCL			0.0000 BDL
ENDRINKETONE			0.0000 BDL
SURRDCBPEST	11.423	3325732	12.6858

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091119pst\011.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091119pst.met
User: AJZ
Sample ID: 164272,321161,
Acquired: 09/11/2019 12:29:48
Printed: Sep 11, 2019 15:48:56

Data Summary: {Data Description}



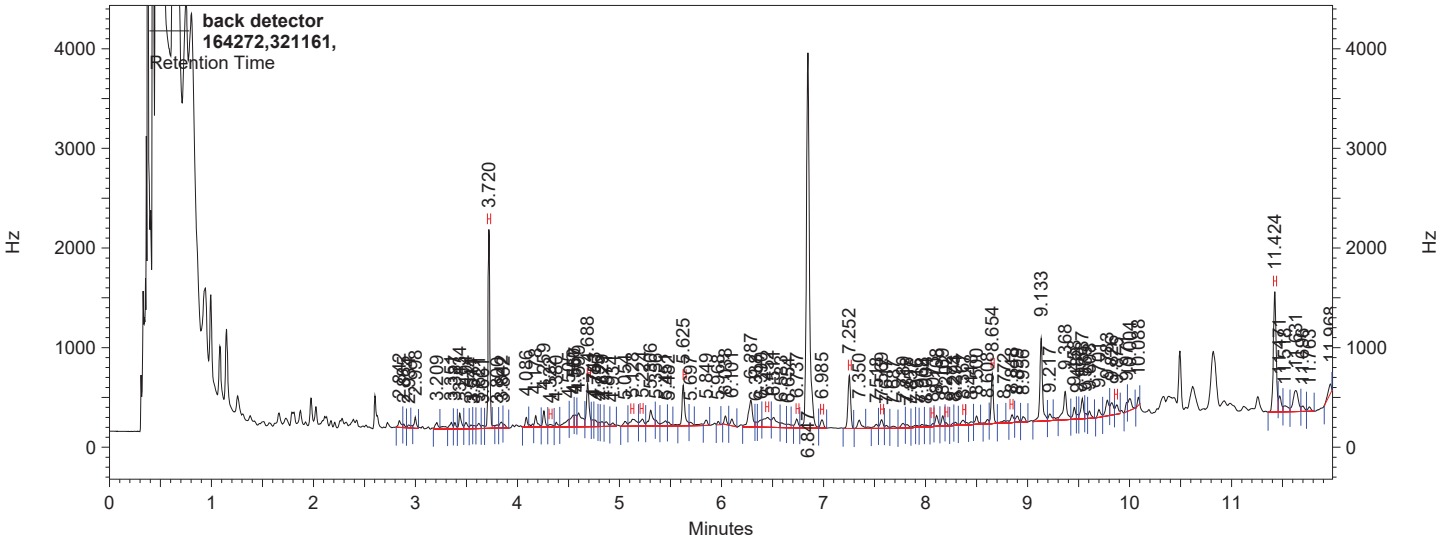
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.181	26049783	60.5602
ALPHABHC	3.638	1699645	0.0007
LINDANE	3.905	454907	0.0002
BETABHC			0.0000 BDL
DELTABHC	4.156	806402	0.0003
HEPTACHLOR	4.335	942208	0.0002
ALDRIN			0.0000 BDL
HEPTAEPOX	5.244	959581	0.0003
GAMMACHLOR	5.417	5051634	0.0025
ALPHACHLOR			0.0000 BDL
44DDE	5.646	7782911	0.0046
ENDOI	5.720	602064	0.0001
DIELDRIN	6.024	1743538	0.0008
ENDRIN	6.351	563383	0.0005
44DDD	6.444	425637	0.0003
ENDOII	6.663	1325903	0.0007
44DDT	6.880	7803322	0.0058
ENDRINALDEH			0.0000 BDL
METHOXYCL			0.0000 BDL
ENDOSULFATE			0.0000 BDL
ENDRINKETONE	8.408	826883	0.0002
SURRDCBPEST	9.705	23319155	68.5654

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091119pst\011.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091119pst.met
User: AJZ
Sample ID: 164272,321161,
Acquired: 09/11/2019 12:29:48
Printed: Sep 11, 2019 15:48:56

Data Summary: {Data Description}



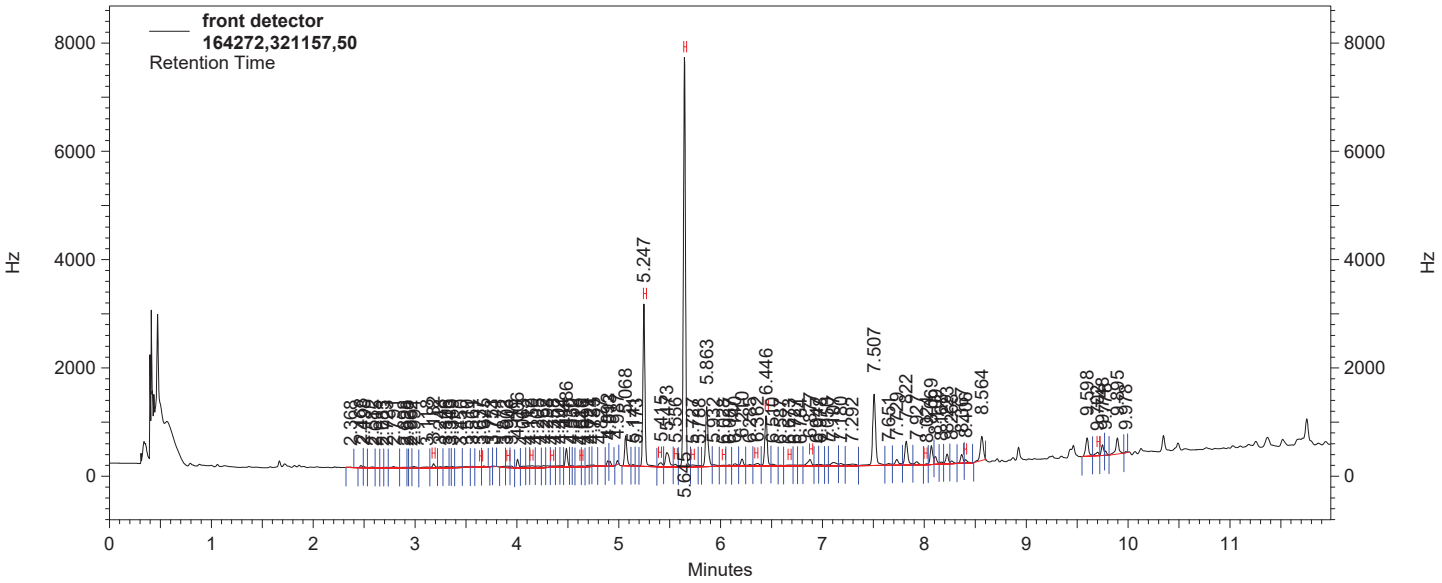
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.720	18357548	56.8177
ALPHABHC	4.322	496447	0.0001
LINDANE	4.688	6129155	0.0036
BETABHC			0.0000 BDL
DELTABHC	5.128	2360795	0.0012
HEPTACHLOR	5.224	1519397	0.0007
ALDRIN	5.625	5887788	0.0038
HEPTAEPOX	6.452	3654805	0.0024
GAMMACHLOR	6.737	1407200	0.0007
ALPHACHLOR	6.985	1329876	0.0007
ENDOI			0.0000 BDL
44DDE	7.252	7394302	0.0057
DIELDRIN	7.569	1314195	0.0007
ENDRIN	8.073	364267	0.0003
44DDD	8.202	373371	0.0001
ENDOII	8.367	922353	0.0005
44DDT	8.654	5781909	0.0060
ENDRINALDEH	8.848	1194814	0.0009
ENDOSULFATE			0.0000 BDL
METHOXYCL			0.0000 BDL
ENDRINKETONE	9.875	1575094	0.0008
SURRDCBPEST	11.424	17720464	76.5033

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091119pst\016.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091119pst.met
User: AJZ
Sample ID: 164272,321157,50
Acquired: Sep 11, 2019 16:31:43
Printed: Sep 11, 2019 16:53:19

Data Summary: {Data Description}



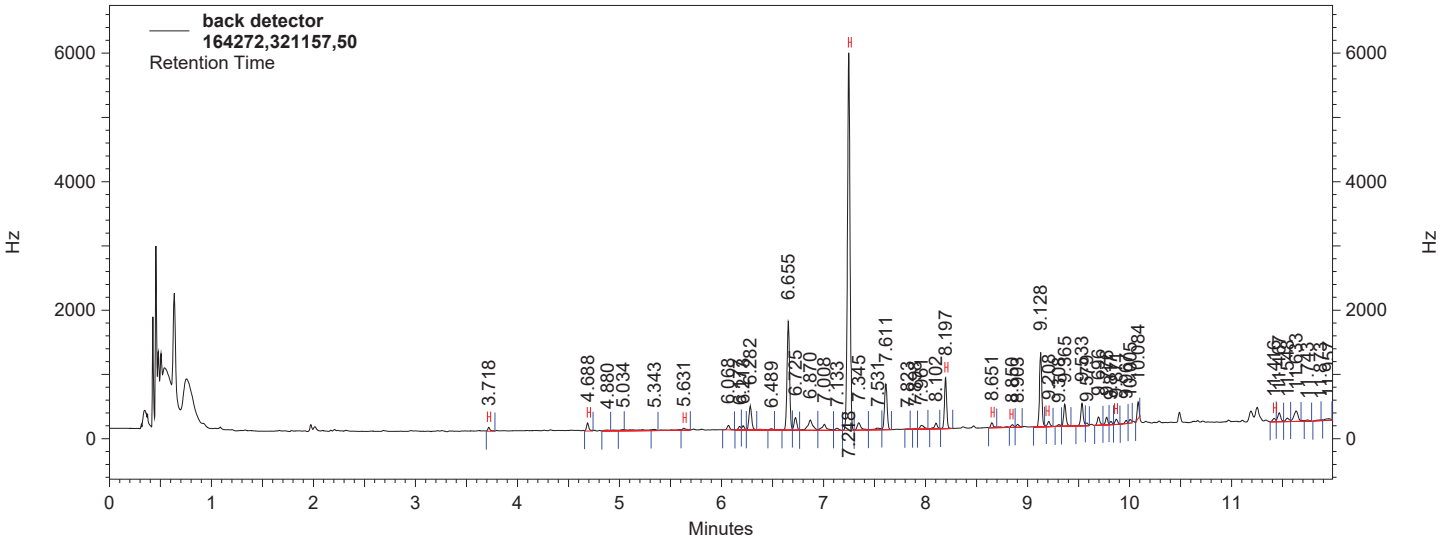
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.182	1275827	2.1634
ALPHABHC	3.637	204401	0.0001
LINDANE	3.903	508964	0.0002
BETABHC			0.0000 BDL
DELTABHC	4.150	853186	0.0003
HEPTACHLOR	4.358	554300	0.0001
ALDRIN	4.646	176772	0.0000
HEPTAEPOX	5.247	32519742	0.0181
GAMMACHLOR	5.415	1362267	0.0005
ALPHACHLOR	5.556	661997	0.0001
44DDE	5.645	83651571	0.0471
ENDOI	5.727	825830	0.0002
DIELDRIN	6.028	558648	0.0001
ENDRIN	6.362	1282763	0.0014
44DDD	6.446	12152849	0.0091
ENDOII	6.673	660731	0.0002
44DDT	6.877	2574970	0.0019
ENDRINALDEH			0.0000 BDL
METHOXYCL			0.0000 BDL
ENDOSULFATE	8.024	243286	0.0000
ENDRINKETONE	8.406	979400	0.0003
SURRDCBPEST	9.702	1207463	2.3643

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091119pst\016.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091119pst.met
User: AJZ
Sample ID: 164272,321157,50
Acquired: Sep 11, 2019 16:31:43
Printed: Sep 11, 2019 16:53:19

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.718	750922	1.4241
ALPHABHC			0.0000 BDL
LINDANE	4.688	1599687	0.0007
BETABHC			0.0000 BDL
DELTABHC			0.0000 BDL
HEPTACHLOR			0.0000 BDL
ALDRIN	5.631	700749	0.0002
HEPTAEPOX			0.0000 BDL
GAMMACHLOR			0.0000 BDL
ALPHACHLOR			0.0000 BDL
ENDOI			0.0000 BDL
44DDE	7.248	77884928	0.0606
DIELDRIN			0.0000 BDL
ENDRIN			0.0000 BDL
44DDD	8.197	9170543	0.0089
ENDOII			0.0000 BDL
44DDT	8.651	1113471	0.0010
ENDRINALDEH	8.850	614229	0.0003
ENDOSULFATE	9.208	1088515	0.0006
METHOXYCL			0.0000 BDL
ENDRINKETONE	9.871	1106534	0.0005
SURRDCBPEST	11.416	786120	2.0699

PESTICIDE/HERBICIDE
INITIAL CALIBRATION
DOCUMENTS

Pesticide Analysis Breakdown Report

AJZ
09/19/2019

Data File: C:\Instarch\Semi1\data\090519pstic\001.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\eval.met
User: AJZ
Instrument: Semi 1
Sample ID: EVAL PP5902
Acquired: Sep 05, 2019 15:22:55
Printed: Sep 05, 2019 15:36:05

Channel A: **DDT Breakdown 1.0 %** **Endrin Breakdown 11.6 %**

Channel B: **DDT Breakdown 1.2 %** **Endrin Breakdown 11.8 %**

Channel A

Compound	Area	Compound	Area
44DDT	75675606	ENDRIN	65550338
44DDD	640030	ENDRINALDEH	2745854
44DDE	120543	ENDRINKETONE	5831386

Channel B

Compound	Area	Compound	Area
44DDT	53017067	ENDRIN	50755309
44DDD	479449	ENDRINALDEH	2312708
44DDE	153576	ENDRINKETONE	4456090

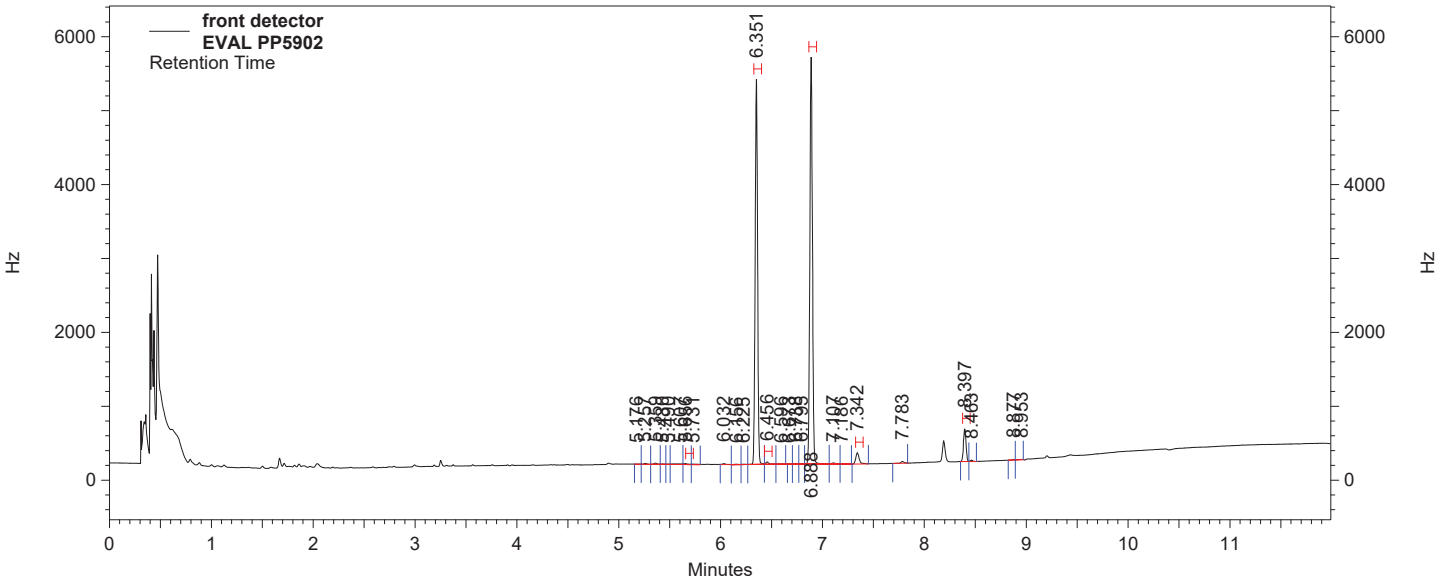
DDT Breakdown $= \frac{44DDD + 44DDE}{44DDD + 44DDE + 44DDT} \times 100\ \%$

Endrin Breakdown $= \frac{\text{Endrin aldehyde + Endrin ketone}}{\text{Endrin + Endrin aldehyde + Endrin ketone}} \times 1...\ \%$

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\090519pstic\001.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\eval.met
User: AJZ
Sample ID: EVAL PP5902
Acquired: Sep 05, 2019 15:22:55
Printed: 09/06/2019 09:52:38

Data Summary: {Data Description}



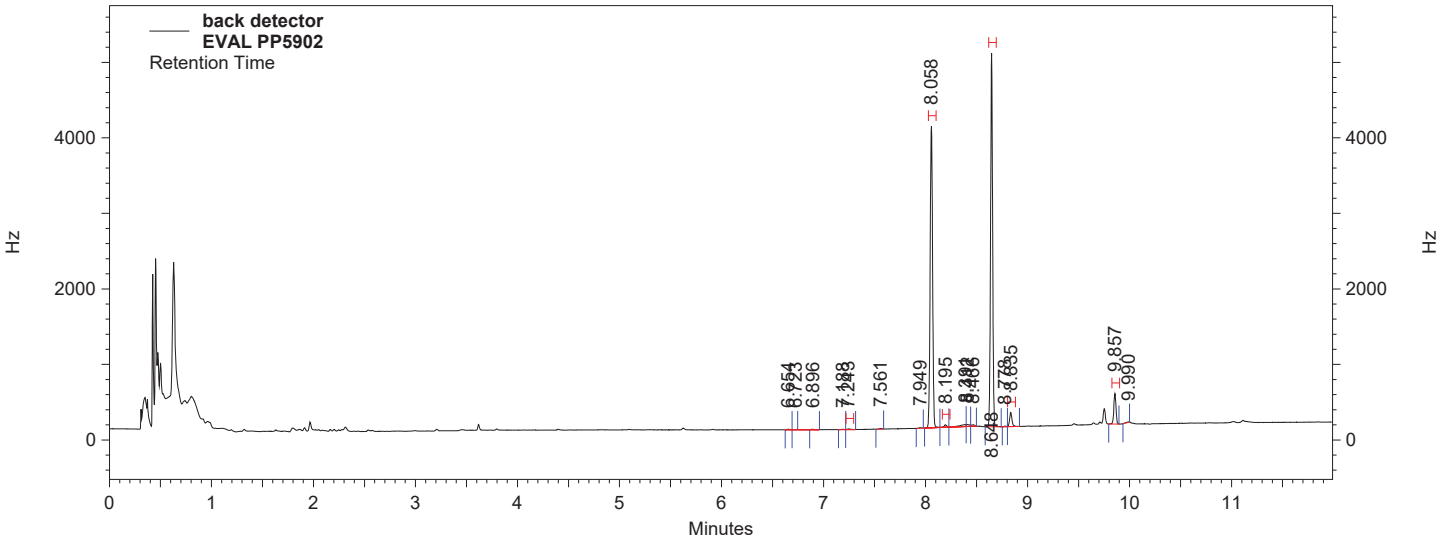
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
44DDE	5.731	120543	0.0003
ENDRIN	6.351	65550338	0.0219
44DDD	6.456	640030	0.0005
44DDT	6.888	75675606	0.0262
ENDRINALDEH	7.342	2745854	0.0011
ENDRINKETONE	8.397	5831386	0.0017

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\090519pstic\001.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\eval.met
User: AJZ
Sample ID: EVAL PP5902
Acquired: Sep 05, 2019 15:22:55
Printed: 09/06/2019 09:52:38

Data Summary: {Data Description}



back detector Results

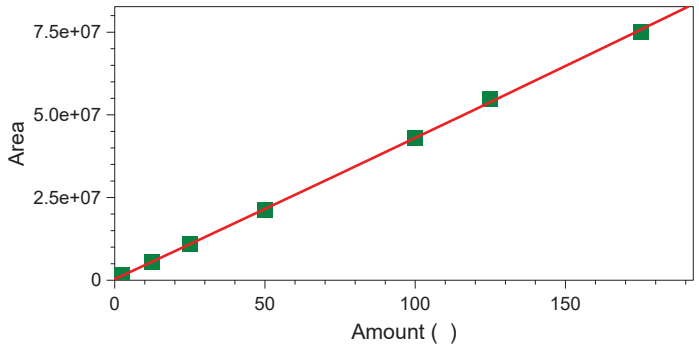
Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
44DDE	7.243	153576	0.0001
ENDRIN	8.058	50755309	0.0127
44DDD	8.195	479449	0.0003
44DDT	8.648	53017067	0.0125
ENDRINALDEH	8.835	2312708	0.0004
ENDRINKETONE	9.857	4456090	0.0008

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:55:29
User: AJZ
Instrument: Semi 1 (Offline)

SURRTCMXPEST (front detector)
Average RF: 454186. RF StDev: 50632.9 RF %RSD: 11.1481
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = 58.6949x^2 + 420553.x + 365709.
Goodness of fit (r^2): 0.999642

Peak: SURRTCMXPEST -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	2.5	12.5	25	50	100
Area	1416691	5662817	11006771	21078053	42858594
RF	566676.4	453025.36	440270.84	421561.06	428585.94
Last Area Residual	0.00182711	-0.0734977	-0.213789	1.08375	0.345648
Rep StDev					
Rep %RSD					
Rep 1 Area	1416691	5662817	11006771	21078053	42858594
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	125	175
Area	54918913	75220056

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:55:29
User: AJZ
Instrument: Semi 1 (Offline)

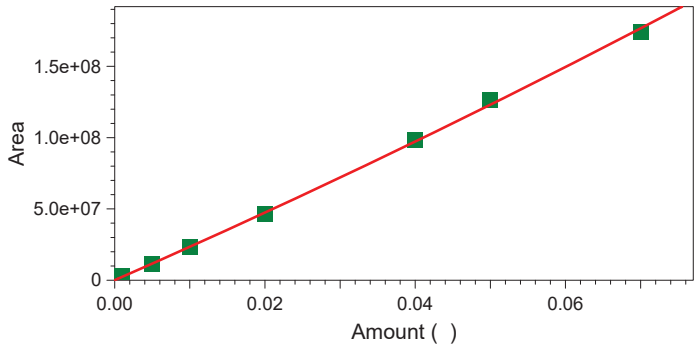
RF	439351.304	429828.891428571
Last Area Residual	-2.45057	1.22453
Rep StDev		
Rep %RSD		
Rep 1 Area	54918913	75220056
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:55:35
User: AJZ
Instrument: Semi 1 (Offline)

ALPHABHC (front detector)
Average RF: 2.40611e+009 RF StDev: 1.00076e+008 RF %RSD: 4.15926
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = 3.10545e+009x^2 + 2.30579e+009x + 58616.7
Goodness of fit (r^2): 0.999408

Peak: ALPHABHC -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	2468579	11357453	23098397	46568079	98010260
RF	2468579000	2271490600	2309839700	2328403950	2450256500
Last Area Residual	-4.37131e-005	0.00013171	0.00013881	0.000349309	-0.000294103
Rep StDev					
Rep %RSD					
Rep 1 Area	2468579	11357453	23098397	46568079	98010260
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	126078935	174481166

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:55:35
User: AJZ
Instrument: Semi 1 (Offline)

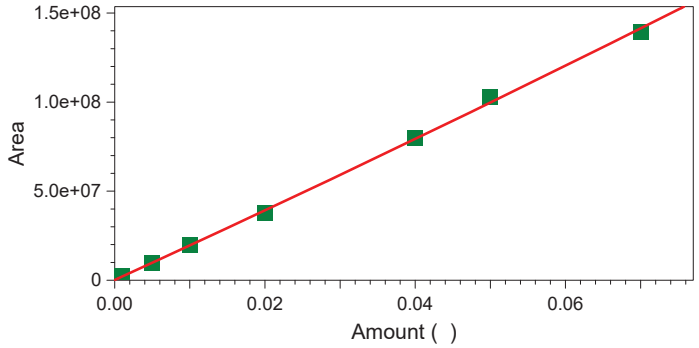
RF	2521578700	2492588085.71429
Last Area Residual	-0.00113265	0.000803195
Rep StDev		
Rep %RSD		
Rep 1 Area	126078935	174481166
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:55:36
User: AJZ
Instrument: Semi 1 (Offline)

LINDANE (front detector)
Average RF: 1.99506e+009 RF StDev: 6.60569e+007 RF %RSD: 3.31103
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = 1.30304e+009x^2 + 1.92653e+009x + 154987.
Goodness of fit (r^2): 0.999201

Peak: LINDANE -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	2098766	9920941	19516758	37887636	79572815
RF	2098766000	1984188200	1951675800	1894381800	1989320375
Last Area					
Residual	-8.2634e-006	-5.19203e-005	1.73494e-005	0.000667035	-0.000133728
Rep StDev					
Rep %RSD					
Rep 1 Area	2098766	9920941	19516758	37887636	79572815
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	102606392	139645231

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:55:36
User: AJZ
Instrument: Semi 1 (Offline)

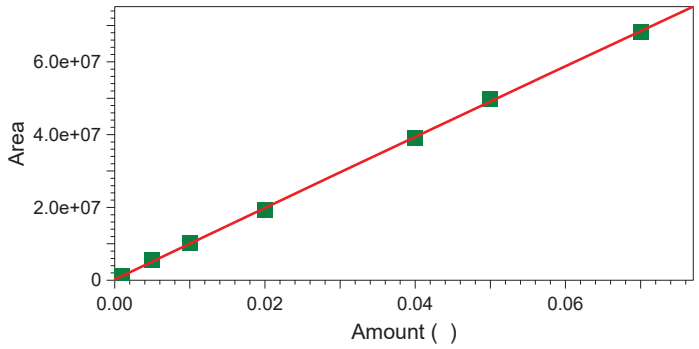
RF	2052127840	1994931871.42857
Last Area Residual	-0.0013927	0.00083119
Rep StDev		
Rep %RSD		
Rep 1 Area	102606392	139645231
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:55:38
User: AJZ
Instrument: Semi 1 (Offline)

BETABHC (front detector)
Average RF: 1.02308e+009 RF StDev: 6.46839e+007 RF %RSD: 6.32245
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = -1.67282e+008x^2 + 9.86518e+008x + 204555.
Goodness of fit (r^2): 0.999764

Peak: BETABHC -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	1130732	5463779	10270515	19280793	39095262
RF	1130732000	1092755800	1027051500	964039650	977381550
Last Area					
Residual	6.1016e-005	-0.000335927	-0.000221241	0.000599234	0.000310685
Rep StDev					
Rep %RSD					
Rep 1 Area	1130732	5463779	10270515	19280793	39095262
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	49659653	68349337
RF	993193060	976419100

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:55:38
User: AJZ
Instrument: Semi 1 (Offline)

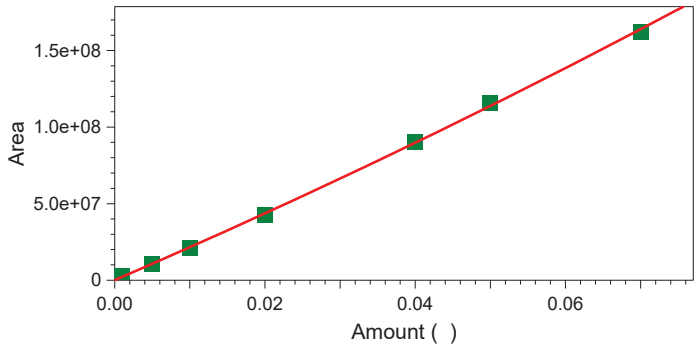
Last Area Residual	-0.000564519	9.53005e-005
Rep StDev		
Rep %RSD		
Rep 1 Area	49659653	68349337
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:55:39
User: AJZ
Instrument: Semi 1 (Offline)

DELTABHC (front detector)
Average RF: 2.23099e+009 RF StDev: 8.16413e+007 RF %RSD: 3.65941
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = 3.31421e+009x^2 + 2.10774e+009x + 148460.
Goodness of fit (r^2): 0.999629

Peak: DELTABHC -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	2271307	10944443	21259368	42722319	90143723
RF	2271307000	2188888600	2125936800	2136115950	2253593075
Last Area Residual	-5.57919e-006	-8.14732e-005	0.000137045	0.000404898	-0.000161401
Rep StDev					
Rep %RSD					
Rep 1 Area	2271307	10944443	21259368	42722319	90143723
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	116023925	162444925

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:55:39
User: AJZ
Instrument: Semi 1 (Offline)

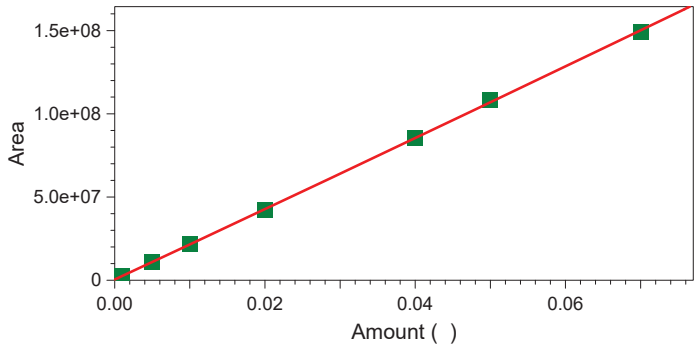
RF	2320478500	2320641785.71429
Last Area Residual	-0.000902123	0.000577754
Rep StDev		
Rep %RSD		
Rep 1 Area	116023925	162444925
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:55:41
User: AJZ
Instrument: Semi 1 (Offline)

HEPTACHLOR (front detector)
Average RF: 2.20374e+009 RF StDev: 1.46313e+008 RF %RSD: 6.63930
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = 4.93466e+008x^2 + 2.10482e+009x + 421635.
Goodness of fit (r^2): 0.999878

Peak: HEPTACHLOR -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	2527460	11041567	21528396	42022269	85670221
RF	2527460000	2208313400	2152839600	2101113450	2141755525
Last Area Residual	-2.40811e-007	-3.95652e-005	-4.337e-006	0.000326322	-0.000124078
Rep StDev					
Rep %RSD					
Rep 1 Area	2527460	11041567	21528396	42022269	85670221
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	107981035	149454108

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:55:41
User: AJZ
Instrument: Semi 1 (Offline)

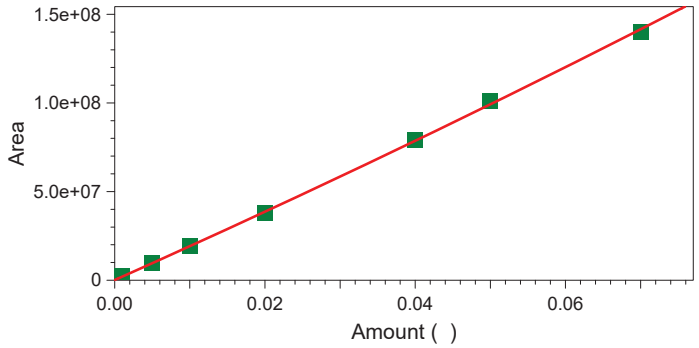
RF	2159620700	2135058685.71429
Last Area Residual	-0.000503393	0.000332703
Rep StDev		
Rep %RSD		
Rep 1 Area	107981035	149454108
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:55:42
User: AJZ
Instrument: Semi 1 (Offline)

ALDRIN (front detector)
Average RF: 1.97522e+009 RF StDev: 7.65553e+007 RF %RSD: 3.87579
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = 1.93837e+009x^2 + 1.88419e+009x + 178467.
Goodness of fit (r^2): 0.999690

Peak: ALDRIN -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	2108559	9564650	19049052	37978605	79124744
RF	2108559000	1912930000	1904905200	1898930250	1978118600
Last Area					
Residual	-2.32829e-005	4.37311e-005	8.59079e-005	0.000336077	-0.000233936
Rep StDev					
Rep %RSD					
Rep 1 Area	2108559	9564650	19049052	37978605	79124744
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	100920419	140326567

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:55:42
User: AJZ
Instrument: Semi 1 (Offline)

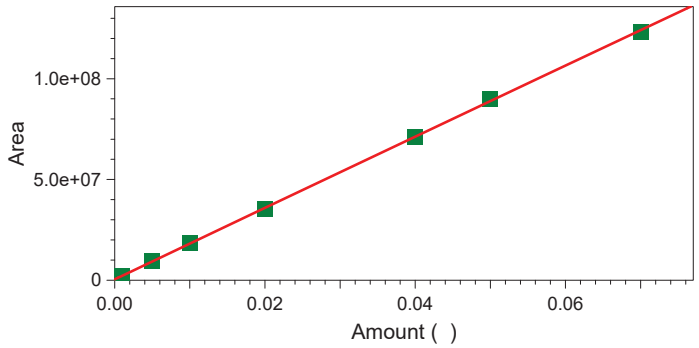
RF	2018408380	2004665242.85714
Last Area Residual	-0.000810913	0.000577141
Rep StDev		
Rep %RSD		
Rep 1 Area	100920419	140326567
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:55:46
User: AJZ
Instrument: Semi 1 (Offline)

HEPTAEPOX (front detector)
Average RF: 1.86172e+009 RF StDev: 1.56494e+008 RF %RSD: 8.40590
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = -1.29931e+008x^2 + 1.77556e+009x + 446731.
Goodness of fit (r^2): 0.999796

Peak: HEPTAEPOX -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	2199015	9501325	18285853	35149277	71213689
RF	2199015000	1900265000	1828585300	1757463850	1780342225
Last Area Residual	1.30394e-005	-0.000101468	-5.44222e-005	0.000427432	2.7e-005
Rep StDev					
Rep %RSD					
Rep 1 Area	2199015	9501325	18285853	35149277	71213689
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	90138050	123453344
RF	1802761000	1763619200

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:55:46
User: AJZ
Instrument: Semi 1 (Offline)

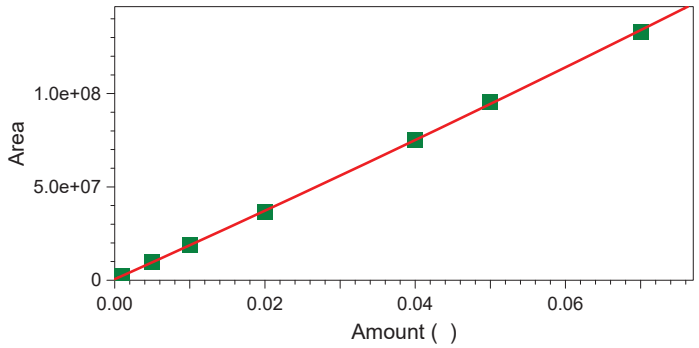
Last Area Residual	-0.000702427	0.000367648
Rep StDev		
Rep %RSD		
Rep 1 Area	90138050	123453344
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:55:48
User: AJZ
Instrument: Semi 1 (Offline)

GAMMACHLOR (front detector)
Average RF: 1.95657e+009 RF StDev: 1.77064e+008 RF %RSD: 9.04974
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = 1.41940e+009x^2 + 1.80657e+009x + 546963.
Goodness of fit (r^2): 0.999834

Peak: GAMMACHLOR -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	2350189	9695923	18851406	36505946	75242444
RF	2350189000	1939184600	1885140600	1825297300	1881061100
Last Area					
Residual	2.63508e-006	-4.42658e-005	-5.27257e-005	0.000397403	-8.40725e-005
Rep StDev					
Rep %RSD					
Rep 1 Area	2350189	9695923	18851406	36505946	75242444
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	95577103	133249892

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:55:48
User: AJZ
Instrument: Semi 1 (Offline)

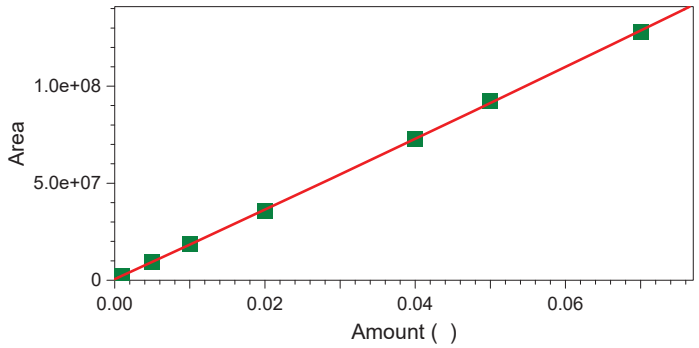
RF	1911542060	1903569885.71429
Last Area Residual	-0.00059142	0.000355343
Rep StDev		
Rep %RSD		
Rep 1 Area	95577103	133249892
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:55:49
User: AJZ
Instrument: Semi 1 (Offline)

ALPHACHLOR (front detector)
Average RF: 1.90444e+009 RF StDev: 1.67860e+008 RF %RSD: 8.81410
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = 7.70403e+008x^2 + 1.77716e+009x + 527318.
Goodness of fit (r^2): 0.999867

Peak: ALPHACHLOR -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	2271800	9645730	18488453	35682850	72775009
RF	2271800000	1929146000	1848845300	1784142500	1819375225
Last Area					
Residual	1.88027e-005	-0.000119541	-6.27797e-005	0.000384881	3.87073e-005
Rep StDev					
Rep %RSD					
Rep 1 Area	2271800	9645730	18488453	35682850	72775009
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	92312286	128208730

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:55:49
User: AJZ
Instrument: Semi 1 (Offline)

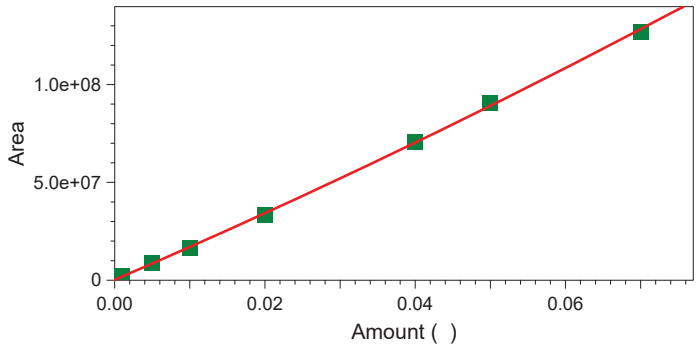
RF	1846245720	1831553285.71429
Last Area Residual	-0.000539836	0.000262332
Rep StDev		
Rep %RSD		
Rep 1 Area	92312286	128208730
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:55:51
User: AJZ
Instrument: Semi 1 (Offline)

44DDE (front detector)
Average RF: 1.76700e+009 RF StDev: 7.62143e+007 RF %RSD: 4.31321
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = 2.55653e+009x^2 + 1.65071e+009x + 218976.
Goodness of fit (r^2): 0.999638

Peak: 44DDE -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	1871366	8784339	16648951	33469052	70876409
RF	1871366000	1756867800	1664895100	1673452600	1771910225
Last Area					
Residual	5.30577e-007	-0.000147848	0.000195607	0.000449114	-0.000290154
Rep StDev					
Rep %RSD					
Rep 1 Area	1871366	8784339	16648951	33469052	70876409
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	90710102	127139324

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:55:51
User: AJZ
Instrument: Semi 1 (Offline)

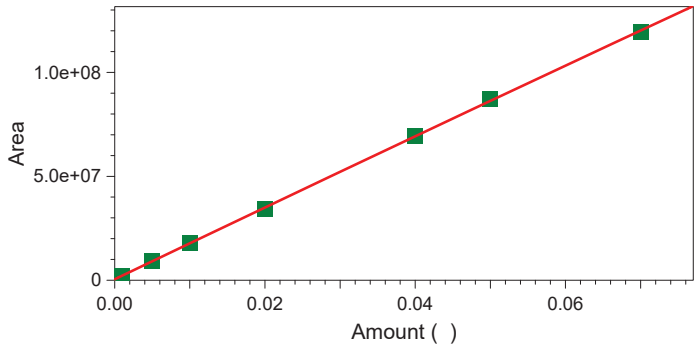
RF	1814202040	1816276057.14286
Last Area Residual	-0.000819624	0.000576169
Rep StDev		
Rep %RSD		
Rep 1 Area	90710102	127139324
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:55:53
User: AJZ
Instrument: Semi 1 (Offline)

ENDOI (front detector)
Average RF: 1.81051e+009 RF StDev: 1.48407e+008 RF %RSD: 8.19698
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = -3.57211e+008x^2 + 1.73460e+009x + 428645.
Goodness of fit (r^2): 0.999867

Peak: ENDOI -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	2121976	9365479	17808437	34316073	69134955
RF	2121976000	1873095800	1780843700	1715803650	1728373875
Last Area					
Residual	2.35939e-005	-0.000157585	-4.02529e-005	0.000384578	6.21723e-005
Rep StDev					
Rep %RSD					
Rep 1 Area	2121976	9365479	17808437	34316073	69134955
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	87193572	119671756

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:55:53
User: AJZ
Instrument: Semi 1 (Offline)

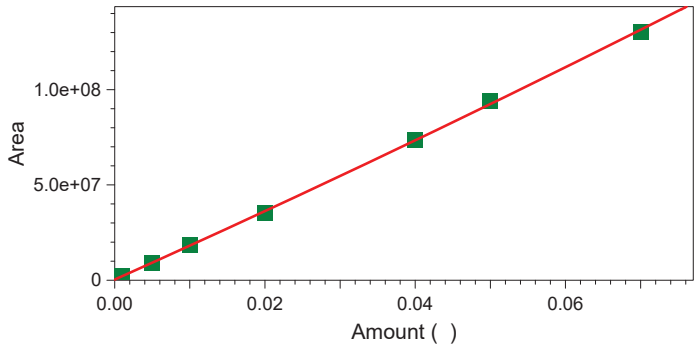
RF	1743871440	1709596514.28571
Last Area Residual	-0.000546341	0.000254297
Rep StDev		
Rep %RSD		
Rep 1 Area	87193572	119671756
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:55:55
User: AJZ
Instrument: Semi 1 (Offline)

DIELDRIN (front detector)
Average RF: 1.87770e+009 RF StDev: 1.08781e+008 RF %RSD: 5.79331
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = 1.52902e+009x^2 + 1.76589e+009x + 340985.
Goodness of fit (r^2): 0.999755

Peak: DIELDRIN -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	2111726	9264952	18240668	35426791	73681180
RF	2111726000	1852990400	1824066800	1771339550	1842029500
Last Area Residual	-1.87945e-006	-3.16101e-005	-4.89314e-005	0.000461879	-0.000136764
Rep StDev					
Rep %RSD					
Rep 1 Area	2111726	9264952	18240668	35426791	73681180
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	93830598	130558218

Calibration Report

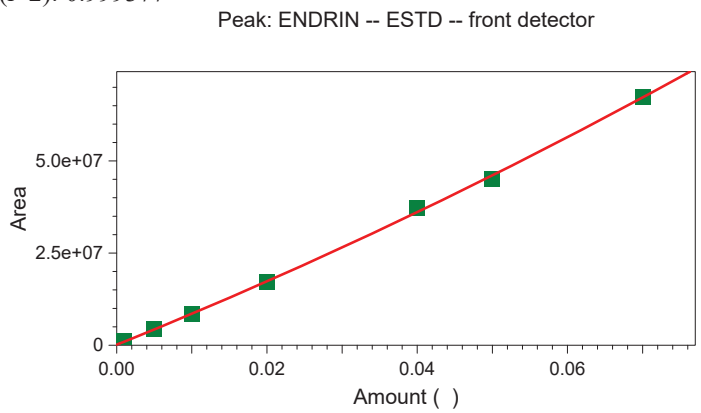
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:55:55
User: AJZ
Instrument: Semi 1 (Offline)

RF	1876611960	1865117400
Last Area Residual	-0.000714989	0.000448186
Rep StDev		
Rep %RSD		
Rep 1 Area	93830598	130558218
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:55:57
User: AJZ
Instrument: Semi 1 (Offline)

ENDRIN (front detector)
Average RF: 9.05258e+008 RF StDev: 5.20644e+007 RF %RSD: 5.75133
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = 1.98496e+009x^2 + 8.19481e+008x + 148549.
Goodness of fit (r^2): 0.999377



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	975407	4294777	8470590	17260796	37123970
RF	975407000	858955400	847059000	863039800	928099250
Last Area Residual	-6.54808e-006	9.52092e-007	8.29564e-005	7.93886e-005	-0.00104072
Rep StDev					
Rep %RSD					
Rep 1 Area	975407	4294777	8470590	17260796	37123970
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	44999635	67497722

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:55:57
User: AJZ
Instrument: Semi 1 (Offline)

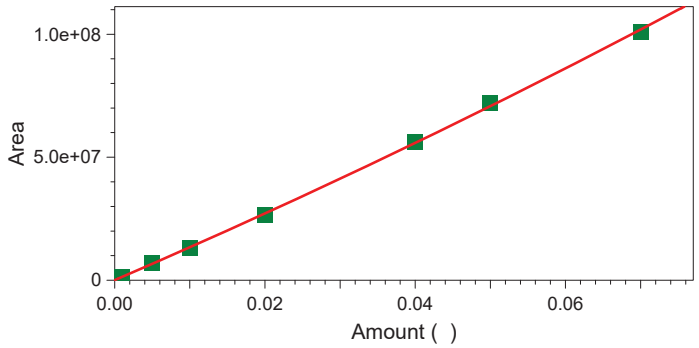
RF	899992700	964253171.428571
Last Area Residual	0.0010684	-0.000236128
Rep StDev		
Rep %RSD		
Rep 1 Area	44999635	67497722
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:55:58
User: AJZ
Instrument: Semi 1 (Offline)

44DDD (front detector)
Average RF: 1.38398e+009 RF StDev: 4.94892e+007 RF %RSD: 3.57587
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = 2.03474e+009x^2 + 1.31248e+009x + 69994.2
Goodness of fit (r^2): 0.999713

Peak: 44DDD -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	1370525	6926424	13222472	26460062	56180831
RF	1370525000	1385284800	1322247200	1323003100	1404520775
Last Area Residual	1.06223e-005	-0.000182387	0.000129944	0.000483486	-0.000241251
Rep StDev					
Rep %RSD					
Rep 1 Area	1370525	6926424	13222472	26460062	56180831
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	71867425	101144065

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:55:58
User: AJZ
Instrument: Semi 1 (Offline)

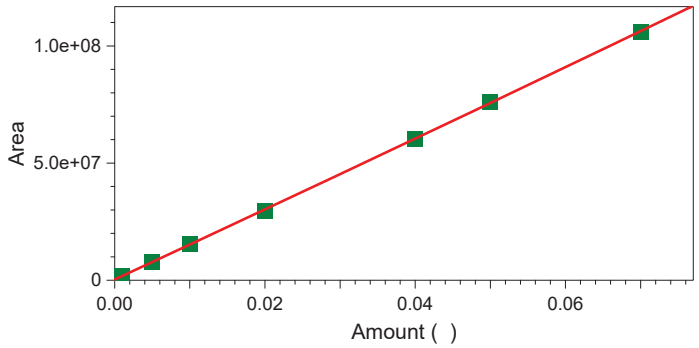
RF	1437348500	1444915214.28571
Last Area Residual	-0.000716053	0.000482224
Rep StDev		
Rep %RSD		
Rep 1 Area	71867425	101144065
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:00
User: AJZ
Instrument: Semi 1 (Offline)

ENDOII (front detector)
Average RF: 1.56520e+009 RF StDev: 1.01306e+008 RF %RSD: 6.47240
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = 3.92387e+008x^2 + 1.48672e+009x + 337388.
Goodness of fit (r^2): 0.999888

Peak: ENDOII -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	1778822	7959729	15610204	29556592	60204594
RF	1778822000	1591945800	1561020400	1477829600	1505114850
Last Area Residual	3.07091e-005	-0.00012003	-0.000245118	0.000447443	0.000151144
Rep StDev					
Rep %RSD					
Rep 1 Area	1778822	7959729	15610204	29556592	60204594
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	76241398	106180216

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:00
User: AJZ
Instrument: Semi 1 (Offline)

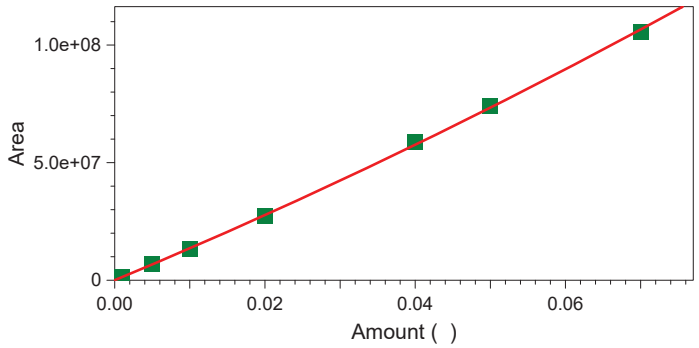
RF	1524827960	1516860228.57143
Last Area Residual	-0.00038464	9.75096e-005
Rep StDev		
Rep %RSD		
Rep 1 Area	76241398	106180216
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:01
User: AJZ
Instrument: Semi 1 (Offline)

44DDT (front detector)
Average RF: 1.41469e+009 RF StDev: 7.16219e+007 RF %RSD: 5.06273
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = 2.80230e+009x^2 + 1.32719e+009x + 42548.0
Goodness of fit (r^2): 0.999732

Peak: 44DDT -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	1403016	6756732	13281818	27241639	58633977
RF	1403016000	1351346400	1328181800	1362081950	1465849425
Last Area Residual	-2.28621e-005	-6.01994e-006	0.000226309	0.000323768	-0.000656706
Rep StDev					
Rep %RSD					
Rep 1 Area	1403016	6756732	13281818	27241639	58633977
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	74034578	105816768

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:01
User: AJZ
Instrument: Semi 1 (Offline)

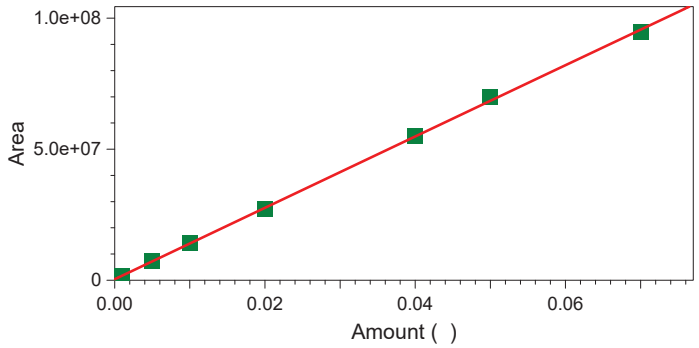
RF	1480691560	1511668114.28571
Last Area Residual	-0.000389554	0.000500895
Rep StDev		
Rep %RSD		
Rep 1 Area	74034578	105816768
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:03
User: AJZ
Instrument: Semi 1 (Offline)

ENDRINALDEH (front detector)
Average RF: 1.43780e+009 RF StDev: 1.35422e+008 RF %RSD: 9.41866
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = -4.52933e+007x^2 + 1.36432e+009x + 369828.
Goodness of fit (r^2): 0.999658

Peak: ENDRINALDEH -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	1735258	7236810	14097387	26987679	54867218
RF	1735258000	1447362000	1409738700	1349383950	1371680450
Last Area Residual	-8.45195e-007	-3.40961e-005	-6.5178e-005	0.000477405	2.23138e-006
Rep StDev					
Rep %RSD					
Rep 1 Area	1735258	7236810	14097387	26987679	54867218
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	69745771	94939496

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:03
User: AJZ
Instrument: Semi 1 (Offline)

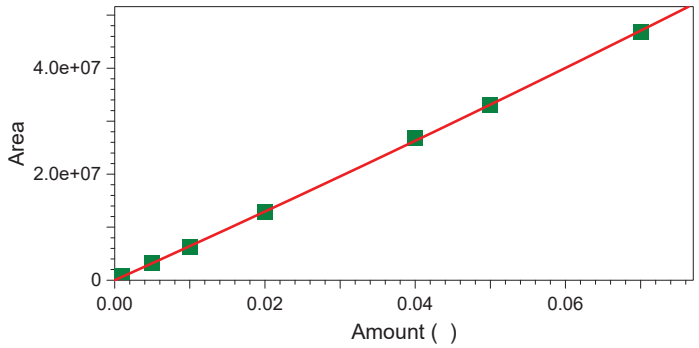
RF	1394915420	1356278514.28571
Last Area Residual	-0.000936243	0.000523534
Rep StDev		
Rep %RSD		
Rep 1 Area	69745771	94939496
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:05
User: AJZ
Instrument: Semi 1 (Offline)

METHOXYCL (front detector)
Average RF: 6.55577e+008 RF StDev: 1.62720e+007 RF %RSD: 2.48209
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = 5.16779e+008x^2 + 6.35995e+008x + 24555.2
Goodness of fit (r^2): 0.999749

Peak: METHOXYCL -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	665661	3268463	6290638	12779856	26886811
RF	665661000	653692600	629063800	638992800	672170275
Last Area Residual	-7.21194e-006	-7.95602e-005	0.000225224	0.000260927	-0.000878762
Rep StDev					
Rep %RSD					
Rep 1 Area	665661	3268463	6290638	12779856	26886811
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	32956541	46922697

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:05
User: AJZ
Instrument: Semi 1 (Offline)

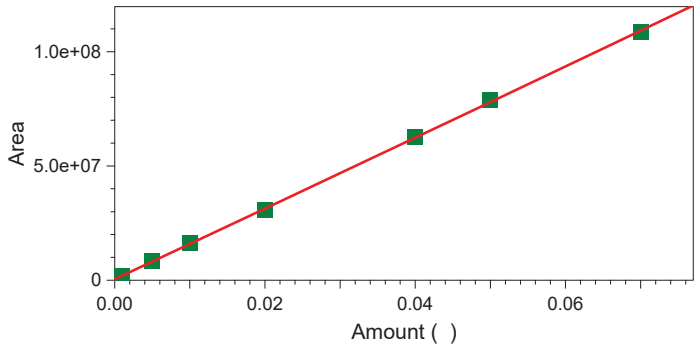
RF	659130820	670324242.857143
Last Area Residual	0.000232275	0.000217034
Rep StDev		
Rep %RSD		
Rep 1 Area	32956541	46922697
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:06
User: AJZ
Instrument: Semi 1 (Offline)

ENDOSULFATE (front detector)
Average RF: 1.64119e+009 RF StDev: 1.59588e+008 RF %RSD: 9.72393
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = 2.30190e+008x^2 + 1.53731e+009x + 486565.
Goodness of fit (r^2): 0.999856

Peak: ENDOSULFATE -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	1986562	8362890	16144233	30513404	62457891
RF	1986562000	1672578000	1614423300	1525670200	1561447275
Last Area					
Residual	2.4413e-005	-0.000119526	-0.000169631	0.00052471	-7.11417e-005
Rep StDev					
Rep %RSD					
Rep 1 Area	1986562	8362890	16144233	30513404	62457891
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	78626989	108857502

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:06
User: AJZ
Instrument: Semi 1 (Offline)

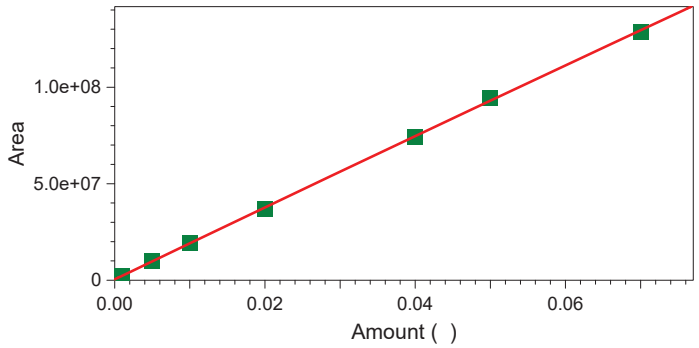
RF	1572539780	1555107171.42857
Last Area Residual	-0.000448286	0.000234852
Rep StDev		
Rep %RSD		
Rep 1 Area	78626989	108857502
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:08
User: AJZ
Instrument: Semi 1 (Offline)

ENDRINKETONE (front detector)
Average RF: 1.95008e+009 RF StDev: 1.60498e+008 RF %RSD: 8.23034
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = -3.81838e+008x^2 + 1.87027e+009x + 450549.
Goodness of fit (r^2): 0.999747

Peak: ENDRINKETONE -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	2293383	9940945	19350618	36926854	74269647
RF	2293383000	1988189000	1935061800	1846342700	1856741175
Last Area					
Residual	1.4469e-005	-7.96253e-005	-0.00012649	0.000418441	0.000206861
Rep StDev					
Rep %RSD					
Rep 1 Area	2293383	9940945	19350618	36926854	74269647
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	94504398	128853215

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:08
User: AJZ
Instrument: Semi 1 (Offline)

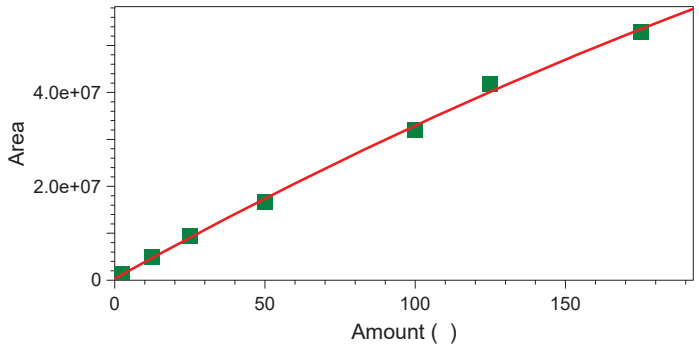
RF	1890087960	1840760214.28571
Last Area Residual	-0.000816242	0.000354944
Rep StDev		
Rep %RSD		
Rep 1 Area	94504398	128853215
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:10
User: AJZ
Instrument: Semi 1 (Offline)

SURRDCBPEST (front detector)
Average RF: 363904. RF StDev: 61467.7 RF %RSD: 16.8912
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = -293.394x^2 + 354818.x + 370200.
Goodness of fit (r^2): 0.998209

Peak: SURRDCBPEST -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	2.5	12.5	25	50	100
Area	1206357	4963806	9391892	16702206	32094782
RF	482542.8	397104.48	375675.68	334044.12	320947.82
Last Area					
Residual	0.138814	-0.587996	-0.984526	2.07133	2.77257
Rep StDev					
Rep %RSD					
Rep 1 Area	1206357	4963806	9391892	16702206	32094782
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	125	175
Area	41779413	52985842
RF	334235.304	302776.24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:10
User: AJZ
Instrument: Semi 1 (Offline)

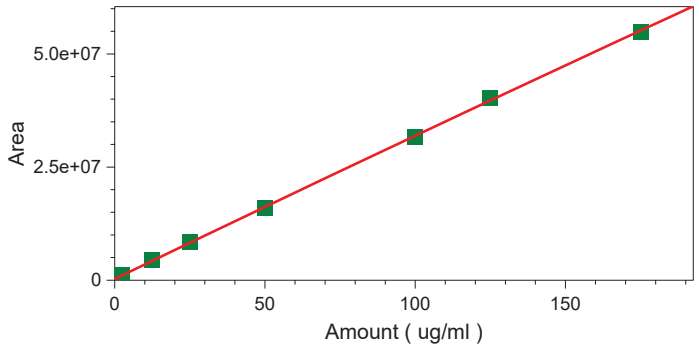
Last Area Residual	-5.86665	1.94852
Rep StDev		
Rep %RSD		
Rep 1 Area	41779413	52985842
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:17
User: AJZ
Instrument: Semi 1 (Offline)

SURRTCMXPEST (back detector)
Average RF: 341077. RF StDev: 41655.4 RF %RSD: 12.2129
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = -36.3927x^2 + 319965.x + 295339.
Goodness of fit (r^2): 0.999777

Peak: SURRTCMXPEST -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	2.5	12.5	25	50	100
Area	1078045	4352243	8433619	15849054	31746150
RF	431218	348179.44	337344.76	316981.08	317461.5
Last Area					
Residual	0.0530955	-0.197546	-0.508909	1.11756	0.58129
Rep StDev					
Rep %RSD					
Rep 1 Area	1078045	4352243	8433619	15849054	31746150
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	125	175
Area	40288035	54958415

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:17
User: AJZ
Instrument: Semi 1 (Offline)

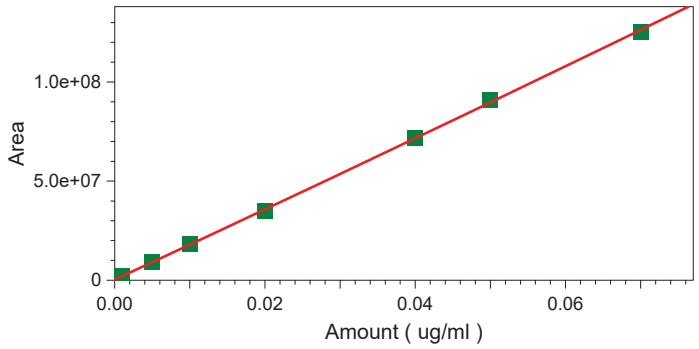
RF	322304.28	314048.085714286
Last Area Residual	-1.82011	0.70396
Rep StDev		
Rep %RSD		
Rep 1 Area	40288035	54958415
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:19
User: AJZ
Instrument: Semi 1 (Offline)

ALPHABHC (back detector)
Average RF: 1.84257e+009 RF StDev: 1.16517e+008 RF %RSD: 6.32358
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = 5.98867e+008x^2 + 1.75754e+009x + 337537.
Goodness of fit (r^2): 0.999759

Peak: ALPHABHC -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	2099654	9167185	18094869	34997851	71620886
RF	2099654000	1833437000	1809486900	1749892550	1790522150
Last Area					
Residual	-2.2609e-006	-1.52914e-005	-6.89587e-005	0.000409864	-1.30084e-005
Rep StDev					
Rep %RSD					
Rep 1 Area	2099654	9167185	18094869	34997851	71620886
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	91108861	125499150
RF	1822177220	1792845000

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:19
User: AJZ
Instrument: Semi 1 (Offline)

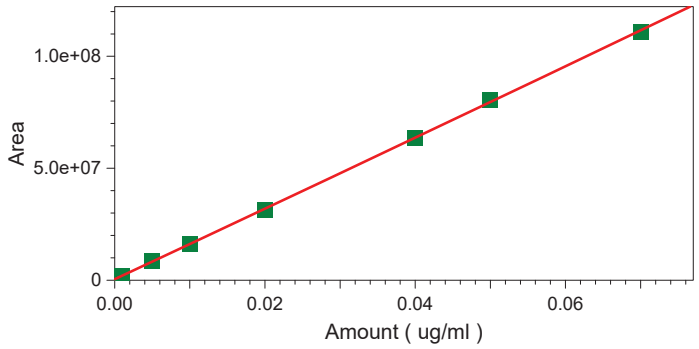
Last Area		
Residual	-0.000768508	0.000434935
Rep StDev		
Rep %RSD		
Rep 1 Area	91108861	125499150
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:21
User: AJZ
Instrument: Semi 1 (Offline)

LINDANE (back detector)
Average RF: 1.66409e+009 RF StDev: 1.45878e+008 RF %RSD: 8.76622
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = 2.73222e+008x^2 + 1.56894e+009x + 435709.
Goodness of fit (r^2): 0.999823

Peak: LINDANE -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	1982589	8426126	16307795	31242639	63575541
RF	1982589000	1685225200	1630779500	1562131950	1589388525
Last Area					
Residual	1.42325e-005	-8.83518e-005	-9.86486e-005	0.000431241	3.46467e-005
Rep StDev					
Rep %RSD					
Rep 1 Area	1982589	8426126	16307795	31242639	63575541
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	80577463	111087693

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:21
User: AJZ
Instrument: Semi 1 (Offline)

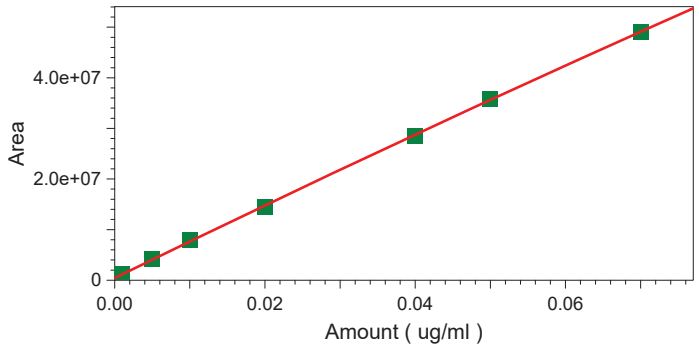
RF	1611549260	1586967042.85714
Last Area Residual	-0.000633571	0.00031917
Rep StDev		
Rep %RSD		
Rep 1 Area	80577463	111087693
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:34
User: AJZ
Instrument: Semi 1 (Offline)

BETABHC (back detector)
Average RF: 7.98881e+008 RF StDev: 1.44693e+008 RF %RSD: 18.1120
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = -4.41303e+008x^2 + 7.26177e+008x + 429901.
Goodness of fit (r^2): 0.999856

Peak: BETABHC -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	1105532	4228757	7858431	14465254	28517020
RF	1105532000	845751400	785843100	723262700	712925500
Last Area Residual	6.90791e-005	-0.000248046	-0.000294039	0.000439757	0.000367382
Rep StDev					
Rep %RSD					
Rep 1 Area	1105532	4228757	7858431	14465254	28517020
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	35832458	49154308
RF	716649160	702204400

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:34
User: AJZ
Instrument: Semi 1 (Offline)

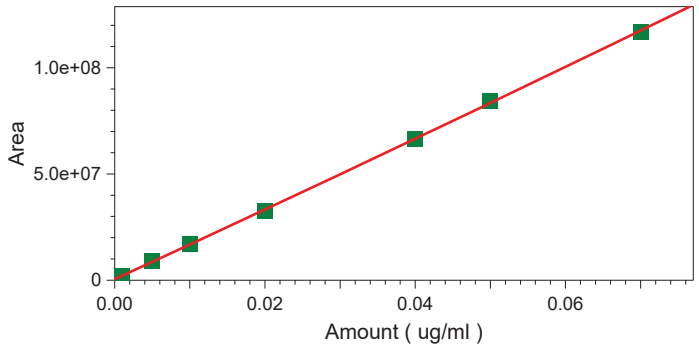
Last Area		
Residual	-0.000288843	-8.18922e-005
Rep StDev		
Rep %RSD		
Rep 1 Area	35832458	49154308
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:35
User: AJZ
Instrument: Semi 1 (Offline)

DELTABHC (back detector)
Average RF: 1.74205e+009 RF StDev: 1.48802e+008 RF %RSD: 8.54179
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = 6.56390e+008x^2 + 1.62623e+009x + 486960.
Goodness of fit (r^2): 0.999823

Peak: DELTABHC -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	2057315	8981649	16941775	32458534	66487650
RF	2057315000	1796329800	1694177500	1622926700	1662191250
Last Area					
Residual	3.47326e-005	-0.00021259	-7.74107e-005	0.000493608	5.87411e-005
Rep StDev					
Rep %RSD					
Rep 1 Area	2057315	8981649	16941775	32458534	66487650
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	84430892	117094037

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:35
User: AJZ
Instrument: Semi 1 (Offline)

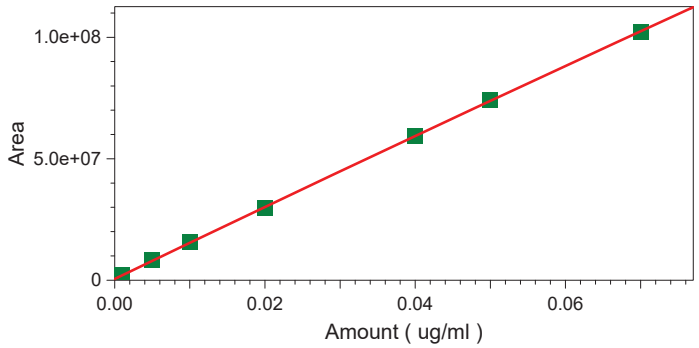
RF	1688617840	1672771957.14286
Last Area Residual	-0.000585973	0.000259096
Rep StDev		
Rep %RSD		
Rep 1 Area	84430892	117094037
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:37
User: AJZ
Instrument: Semi 1 (Offline)

HEPTACHLOR (back detector)
Average RF: 1.58392e+009 RF StDev: 1.84983e+008 RF %RSD: 11.6788
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = -4.91750e+008x^2 + 1.49081e+009x + 535621.
Goodness of fit (r^2): 0.999946

Peak: HEPTACHLOR -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	1979848	8176373	15614552	29644899	59289817
RF	1979848000	1635274600	1561455200	1482244950	1482245425
Last Area Residual	3.09386e-005	-0.000133921	-0.000148547	0.000346811	6.30337e-005
Rep StDev					
Rep %RSD					
Rep 1 Area	1979848	8176373	15614552	29644899	59289817
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	74166402	102411610
RF	1483328040	1463023000

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:37
User: AJZ
Instrument: Semi 1 (Offline)

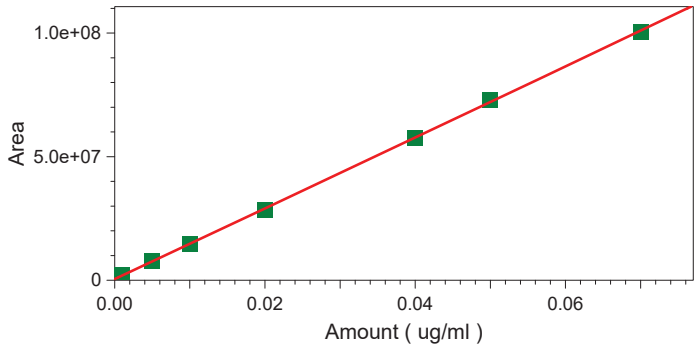
Last Area		
Residual	-0.00022167	5.01352e-005
Rep StDev		
Rep %RSD		
Rep 1 Area	74166402	102411610
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:38
User: AJZ
Instrument: Semi 1 (Offline)

ALDRIN (back detector)
Average RF: 1.52629e+009 RF StDev: 1.64329e+008 RF %RSD: 10.7665
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = 1.76296e+008x^2 + 1.42373e+009x + 486989.
Goodness of fit (r^2): 0.999892

Peak: ALDRIN -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	1886498	7752892	14854242	28495114	57713216
RF	1886498000	1550578400	1485424200	1424755700	1442830400
Last Area					
Residual	1.71341e-005	-0.000100195	-7.86742e-005	0.000375379	3.6048e-006
Rep StDev					
Rep %RSD					
Rep 1 Area	1886498	7752892	14854242	28495114	57713216
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	72793175	100666366

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:38
User: AJZ
Instrument: Semi 1 (Offline)

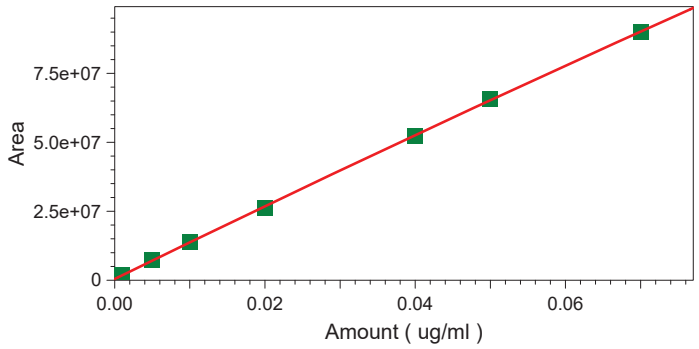
RF	1455863500	1438090942.85714
Last Area Residual	-0.000470899	0.00023876
Rep StDev		
Rep %RSD		
Rep 1 Area	72793175	100666366
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:40
User: AJZ
Instrument: Semi 1 (Offline)

HEPTAEPOX (back detector)
Average RF: 1.40193e+009 RF StDev: 1.54106e+008 RF %RSD: 10.9924
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = -7.40912e+008x^2 + 1.33314e+009x + 450032.
Goodness of fit (r^2): 0.999915

Peak: HEPTAEPOX -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	1717121	7386647	13959107	26332290	52287231
RF	1717121000	1477329400	1395910700	1316614500	1307180775
Last Area Residual	4.90412e-005	-0.000218358	-0.000191011	0.000371335	0.000237718
Rep StDev					
Rep %RSD					
Rep 1 Area	1717121	7386647	13959107	26332290	52287231
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	65543243	90192033

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:40
User: AJZ
Instrument: Semi 1 (Offline)

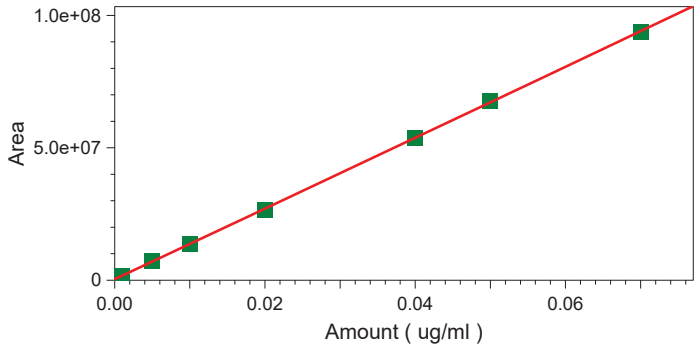
RF	1310864860	1288457614.28571
Last Area Residual	-0.000229244	-4.29549e-005
Rep StDev		
Rep %RSD		
Rep 1 Area	65543243	90192033
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:42
User: AJZ
Instrument: Semi 1 (Offline)

GAMMACHLOR (back detector)
Average RF: 1.41592e+009 RF StDev: 1.35326e+008 RF %RSD: 9.55747
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = 1.57098e+008x^2 + 1.32664e+009x + 425388.
Goodness of fit (r^2): 0.999920

Peak: GAMMACHLOR -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	1704958	7309080	13833919	26562994	53542467
RF	1704958000	1461816000	1383391900	1328149700	1338561675
Last Area					
Residual	3.55874e-005	-0.000185651	-9.51048e-005	0.000343573	0.000149108
Rep StDev					
Rep %RSD					
Rep 1 Area	1704958	7309080	13833919	26562994	53542467
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	67635255	93929131

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:42
User: AJZ
Instrument: Semi 1 (Offline)

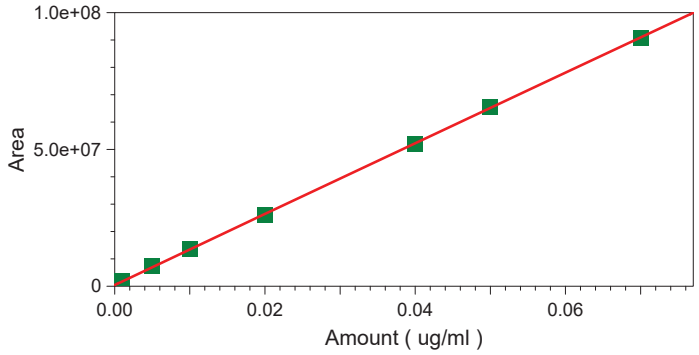
RF	1352705100	1341844728.57143
Last Area Residual	-0.000361565	9.67627e-005
Rep StDev		
Rep %RSD		
Rep 1 Area	67635255	93929131
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:44
User: AJZ
Instrument: Semi 1 (Offline)

ALPHACHLOR (back detector)
Average RF: 1.38780e+009 RF StDev: 1.46307e+008 RF %RSD: 10.5424
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = -1.10334e+008x^2 + 1.30027e+009x + 455293.
Goodness of fit (r^2): 0.999917

Peak: ALPHACHLOR -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	1696098	7223592	13665643	25937601	52012569
RF	1696098000	1444718400	1366564300	1296880050	1300314225
Last Area Residual	4.56557e-005	-0.000207602	-0.000168468	0.000369603	0.000214491
Rep StDev					
Rep %RSD					
Rep 1 Area	1696098	7223592	13665643	25937601	52012569
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	65555905	90925589

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:44
User: AJZ
Instrument: Semi 1 (Offline)

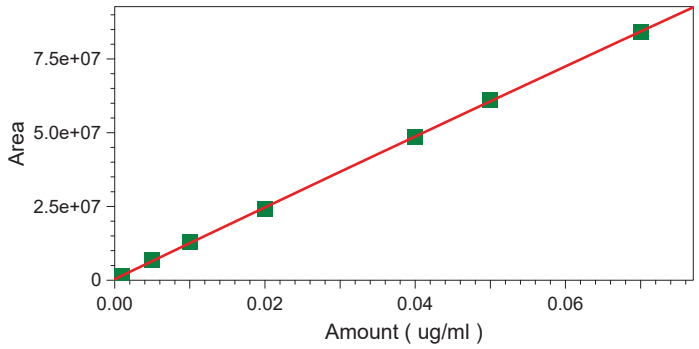
RF	1311118100	1298936985.71429
Last Area Residual	-0.000281509	6.22641e-006
Rep StDev		
Rep %RSD		
Rep 1 Area	65555905	90925589
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:46
User: AJZ
Instrument: Semi 1 (Offline)

ENDOI (back detector)
Average RF: 1.29076e+009 RF StDev: 1.29526e+008 RF %RSD: 10.0348
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = -3.22481e+008x^2 + 1.22104e+009x + 395569.
Goodness of fit (r^2): 0.999918

Peak: ENDOI -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	1558437	6754231	12805150	24206955	48501508
RF	1558437000	1350846200	1280515000	1210347750	1212537700
Last Area Residual	4.74017e-005	-0.000214761	-0.000190551	0.00039761	0.000183792
Rep StDev					
Rep %RSD					
Rep 1 Area	1558437	6754231	12805150	24206955	48501508
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	60910285	84312462

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:46
User: AJZ
Instrument: Semi 1 (Offline)

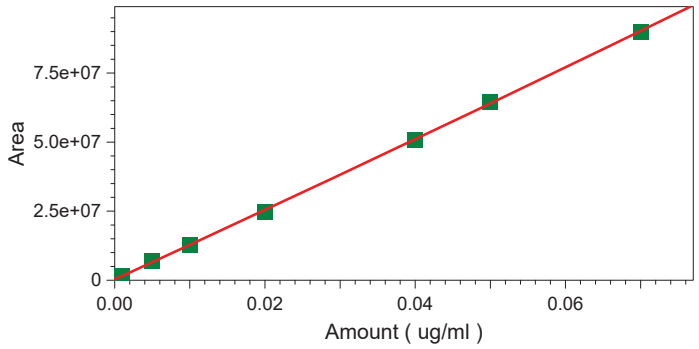
RF	1218205700	1204463742.85714
Last Area Residual	-0.00022623	-2.06296e-005
Rep StDev		
Rep %RSD		
Rep 1 Area	60910285	84312462
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:47
User: AJZ
Instrument: Semi 1 (Offline)

44DDE (back detector)
Average RF: 1.32317e+009 RF StDev: 8.73088e+007 RF %RSD: 6.59845
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = 5.58140e+008x^2 + 1.24591e+009x + 306962.
Goodness of fit (r^2): 0.999863

Peak: 44DDE -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	1490552	6966724	12842651	24862736	50913143
RF	1490552000	1393344800	1284265100	1243136800	1272828575
Last Area					
Residual	5.04198e-005	-0.000332581	-1.6564e-005	0.00046183	9.5354e-005
Rep StDev					
Rep %RSD					
Rep 1 Area	1490552	6966724	12842651	24862736	50913143
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	64576906	90057580

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:47
User: AJZ
Instrument: Semi 1 (Offline)

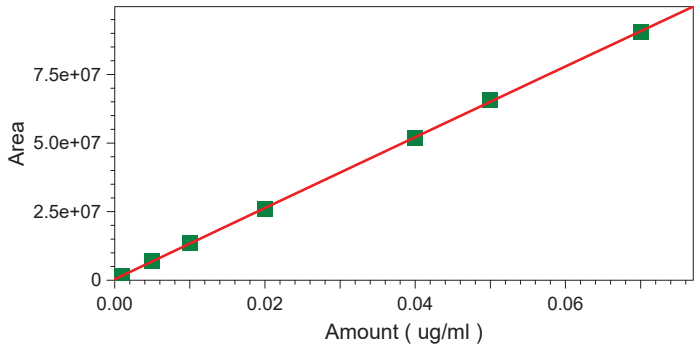
RF	1291538120	1286536857.14286
Last Area Residual	-0.000444965	0.000149278
Rep StDev		
Rep %RSD		
Rep 1 Area	64576906	90057580
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:49
User: AJZ
Instrument: Semi 1 (Offline)

DIELDRIN (back detector)
Average RF: 1.36792e+009 RF StDev: 1.16083e+008 RF %RSD: 8.48607
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = -1.34426e+008x^2 + 1.30083e+009x + 354965.
Goodness of fit (r^2): 0.999920

Peak: DIELDRIN -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	1612523	7055695	13543901	25879450	51923334
RF	1612523000	1411139000	1354390100	1293972500	1298083350
Last Area					
Residual	3.31663e-005	-0.000153874	-0.000149527	0.000338322	0.000193512
Rep StDev					
Rep %RSD					
Rep 1 Area	1612523	7055695	13543901	25879450	51923334
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	65501907	90670873

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:49
User: AJZ
Instrument: Semi 1 (Offline)

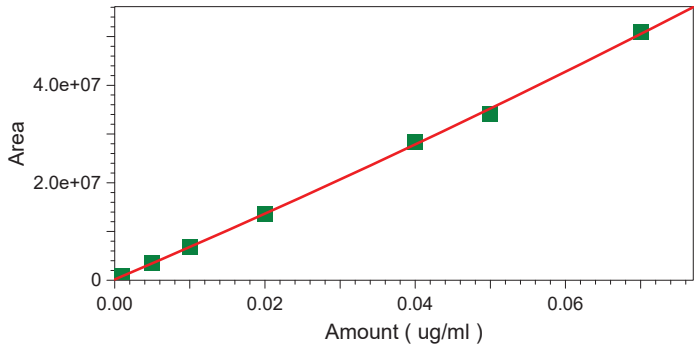
RF	1310038140	1295298185.71429
Last Area Residual	-0.000343058	6.49991e-005
Rep StDev		
Rep %RSD		
Rep 1 Area	65501907	90670873
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:51
User: AJZ
Instrument: Semi 1 (Offline)

ENDRIN (back detector)
Average RF: 7.14553e+008 RF StDev: 4.20815e+007 RF %RSD: 5.88920
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = 8.99280e+008x^2 + 6.56319e+008x + 165195.
Goodness of fit (r^2): 0.999078

Peak: ENDRIN -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	801148	3548658	6874450	13639411	28426929
RF	801148000	709731600	687445000	681970550	710673225
Last Area					
Residual	3.23141e-005	-0.000119303	-8.32444e-005	1.71508e-005	-0.000782112
Rep StDev					
Rep %RSD					
Rep 1 Area	801148	3548658	6874450	13639411	28426929
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	34086238	51042620

Calibration Report

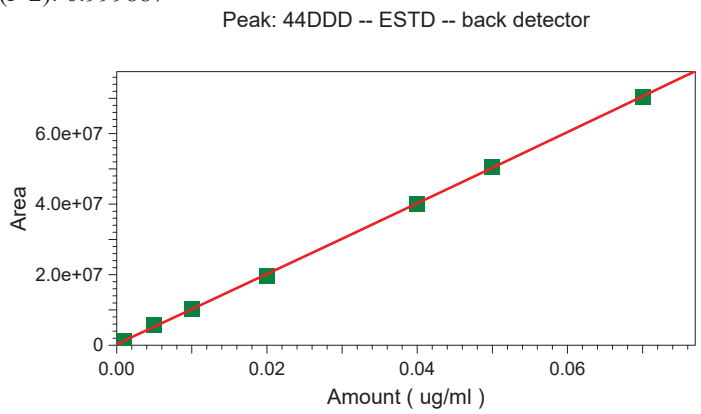
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:51
User: AJZ
Instrument: Semi 1 (Offline)

RF	681724760	729180285.714286
Last Area Residual	0.00153464	-0.00067529
Rep StDev		
Rep %RSD		
Rep 1 Area	34086238	51042620
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:52
User: AJZ
Instrument: Semi 1 (Offline)

44DDD (back detector)
Average RF: 1.05403e+009 RF StDev: 8.55967e+007 RF %RSD: 8.12091
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = 1.86258e+008x^2 + 9.91105e+008x + 288561.
Goodness of fit (r^2): 0.999887



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	1221607	5592441	10290601	19733388	40083613
RF	1221607000	1118488200	1029060100	986669400	1002090325
Last Area					
Residual	5.87459e-005	-0.000346113	-7.2744e-005	0.000452459	0.000146269
Rep StDev					
Rep %RSD					
Rep 1 Area	1221607	5592441	10290601	19733388	40083613
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	50633237	70533220

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:52
User: AJZ
Instrument: Semi 1 (Offline)

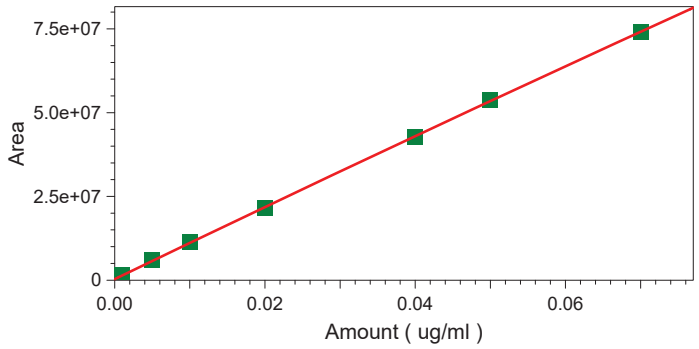
RF	1012664740	1007617428.57143
Last Area Residual	-0.000320663	4.45603e-005
Rep StDev		
Rep %RSD		
Rep 1 Area	50633237	70533220
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:54
User: AJZ
Instrument: Semi 1 (Offline)

ENDOII (back detector)
Average RF: 1.13997e+009 RF StDev: 1.14945e+008 RF %RSD: 10.0832
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = -3.96679e+008x^2 + 1.08198e+009x + 347282.
Goodness of fit (r^2): 0.999898

Peak: ENDOII -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	1376744	5938409	11441041	21402588	42694360
RF	1376744000	1187681800	1144104100	1070129400	1067359000
Last Area					
Residual	4.82086e-005	-0.000177312	-0.000292014	0.000399212	0.000283264
Rep StDev					
Rep %RSD					
Rep 1 Area	1376744	5938409	11441041	21402588	42694360
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	53667062	74228747

Calibration Report

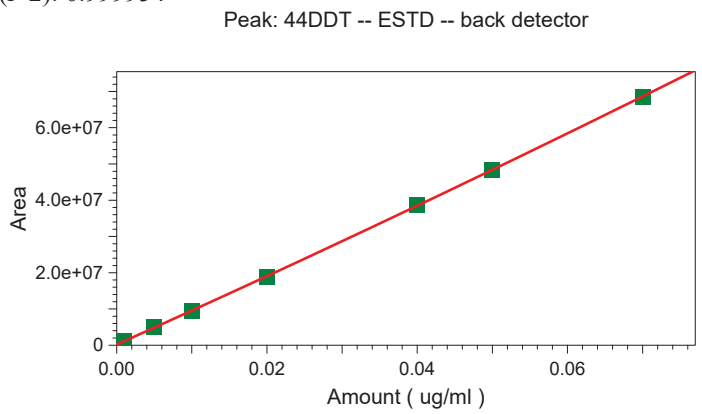
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:54
User: AJZ
Instrument: Semi 1 (Offline)

RF	1073341240	1060410671.42857
Last Area Residual	-0.000203755	-8.42037e-005
Rep StDev		
Rep %RSD		
Rep 1 Area	53667062	74228747
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:55
User: AJZ
Instrument: Semi 1 (Offline)

44DDT (back detector)
Average RF: 9.85672e+008 RF StDev: 4.93575e+007 RF %RSD: 5.00750
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = 6.87974e+008x^2 + 9.29768e+008x + 182753.
Goodness of fit (r^2): 0.999954



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	1087028	5027500	9544222	18764016	38711903
RF	1087028000	1005500000	954422200	938200800	967797575
Last Area					
Residual	2.81176e-005	-0.00019077	5.30513e-006	0.000302254	-0.00024131
Rep StDev					
Rep %RSD					
Rep 1 Area	1087028	5027500	9544222	18764016	38711903
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	48317291	68628438

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:55
User: AJZ
Instrument: Semi 1 (Offline)

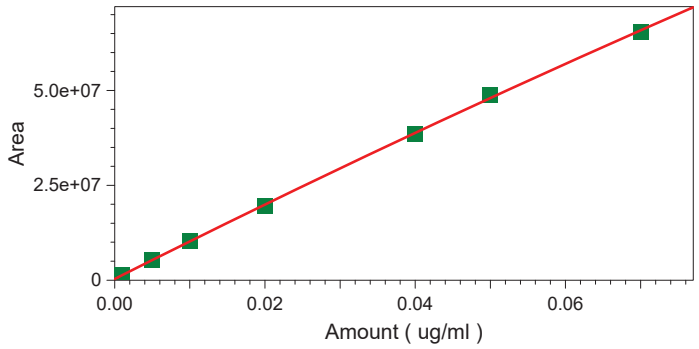
RF	966345820	980406257.142857
Last Area Residual	7.38913e-005	8.89386e-006
Rep StDev		
Rep %RSD		
Rep 1 Area	48317291	68628438
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:57
User: AJZ
Instrument: Semi 1 (Offline)

ENDRINALDEH (back detector)
Average RF: 1.04072e+009 RF StDev: 1.29989e+008 RF %RSD: 12.4903
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = -8.85873e+008x^2 + 9.97616e+008x + 339077.
Goodness of fit (r^2): 0.999759

Peak: ENDRINALDEH -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	1313377	5413940	10376377	19491170	38642108
RF	1313377000	1082788000	1037637700	974558500	966052700
Last Area					
Residual	2.25227e-005	-0.00011018	-0.000152821	0.000463203	0.00019873
Rep StDev					
Rep %RSD					
Rep 1 Area	1313377	5413940	10376377	19491170	38642108
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	48715337	65542552

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:57
User: AJZ
Instrument: Semi 1 (Offline)

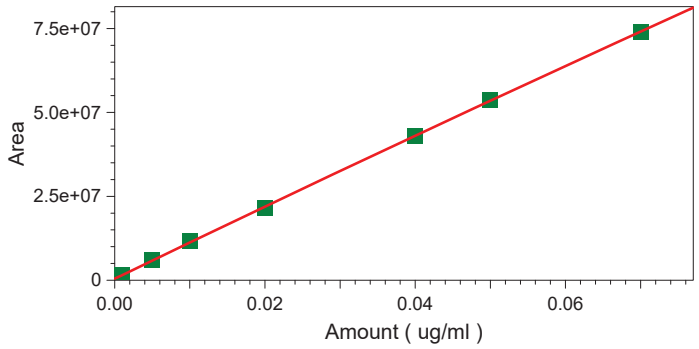
RF	974306740	936322171.428571
Last Area Residual	-0.000781813	0.000330544
Rep StDev		
Rep %RSD		
Rep 1 Area	48715337	65542552
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:59
User: AJZ
Instrument: Semi 1 (Offline)

ENDOSULFATE (back detector)
Average RF: 1.16028e+009 RF StDev: 1.49854e+008 RF %RSD: 12.9153
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = -4.44336e+008x^2 + 1.08299e+009x + 451798.
Goodness of fit (r^2): 0.999882

Peak: ENDOSULFATE -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	1472323	6103771	11540087	21387486	42902019
RF	1472323000	1220754200	1154008700	1069374300	1072550475
Last Area Residual	5.73171e-005	-0.000230062	-0.000281922	0.000512896	0.00015142
Rep StDev					
Rep %RSD					
Rep 1 Area	1472323	6103771	11540087	21387486	42902019
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	53702308	74124785
RF	1074046160	1058925500

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:56:59
User: AJZ
Instrument: Semi 1 (Offline)

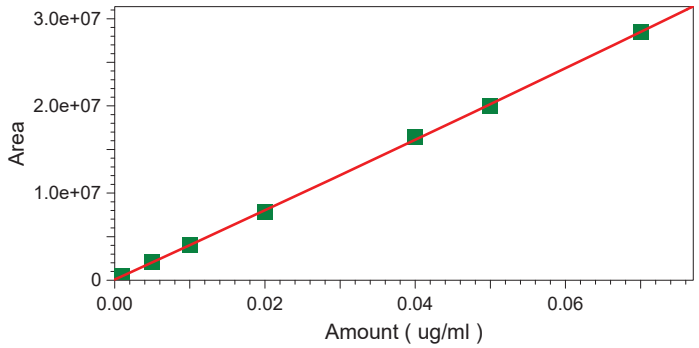
Last Area Residual	-0.000203793	-3.98021e-005
Rep StDev		
Rep %RSD		
Rep 1 Area	53702308	74124785
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:57:01
User: AJZ
Instrument: Semi 1 (Offline)

METHOXYCL (back detector)
Average RF: 4.14912e+008 RF StDev: 2.44665e+007 RF %RSD: 5.89681
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = 1.73977e+008x^2 + 3.93640e+008x + 81693.8
Goodness of fit (r^2): 0.999748

Peak: METHOXYCL -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	466442	2115276	4038317	7889472	16392123
RF	466442000	423055200	403831700	394473600	409803075
Last Area					
Residual	2.30116e-005	-0.000154348	-7.10327e-006	0.0003361	-0.000702627
Rep StDev					
Rep %RSD					
Rep 1 Area	466442	2115276	4038317	7889472	16392123
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	19952030	28541418

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:57:01
User: AJZ
Instrument: Semi 1 (Offline)

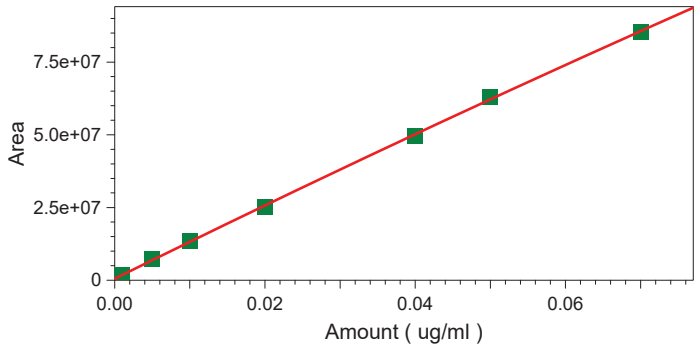
RF	399040600	407734542.857143
Last Area Residual	0.000600168	-0.000125365
Rep StDev		
Rep %RSD		
Rep 1 Area	19952030	28541418
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:57:02
User: AJZ
Instrument: Semi 1 (Offline)

ENDRINKETONE (back detector)
Average RF: 1.35738e+009 RF StDev: 1.83413e+008 RF %RSD: 13.5122
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = -8.59552e+008x^2 + 1.27618e+009x + 529517.
Goodness of fit (r^2): 0.999781

Peak: ENDRINKETONE -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.001	0.005	0.01	0.02	0.04
Area	1737240	7171660	13511164	25121040	49709475
RF	1737240000	1434332000	1351116400	1256052000	1242736875
Last Area					
Residual	5.30363e-005	-0.000223092	-0.000242956	0.000473518	0.000407245
Rep StDev					
Rep %RSD					
Rep 1 Area	1737240	7171660	13511164	25121040	49709475
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	0.05	0.07
Area	62918020	85528647

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:57:02
User: AJZ
Instrument: Semi 1 (Offline)

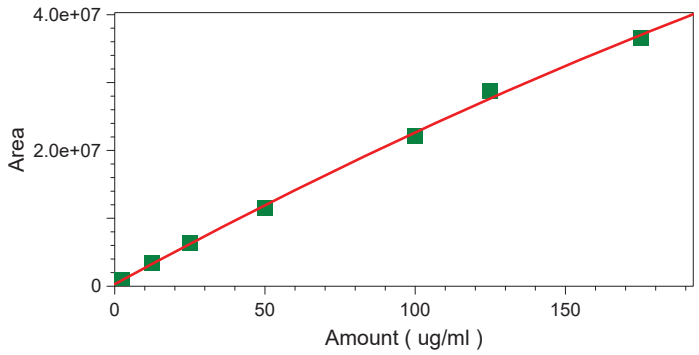
RF	1258360400	1221837814.28571
Last Area Residual	-0.000612352	0.000105096
Rep StDev		
Rep %RSD		
Rep 1 Area	62918020	85528647
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:57:04
User: AJZ
Instrument: Semi 1 (Offline)

SURRDCBPEST (back detector)
Average RF: 251964. RF StDev: 45834.3 RF %RSD: 18.1908
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Quadratic
y = -183.622x^2 + 241938.x + 286109.
Goodness of fit (r^2): 0.998379

Peak: SURRDCBPEST -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	2.5	12.5	25	50	100
Area	858807	3418626	6415162	11451586	22172275
RF	343522.8	273490.08	256606.48	229031.72	221722.75
Last Area					
Residual	0.128605	-0.577398	-0.839914	2.10914	2.29249
Rep StDev					
Rep %RSD					
Rep 1 Area	858807	3418626	6415162	11451586	22172275
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\013.dat	C:\Instarch\Semi1\data\090519pstic\014.dat	C:\Instarch\Semi1\data\090519pstic\015.dat	C:\Instarch\Semi1\data\090519pstic\016.dat	C:\Instarch\Semi1\data\090519pstic\017.dat
Rep 1 Sample ID	PEST ICAL 1 PP5907	PEST ICAL 2 PP5908	PEST ICAL 3 PP5909	PEST ICAL 4 PP5910	PEST ICAL 5 PP5911
Rep 1 Calib. Time	Sep 06, 2019 09:47:25	Sep 06, 2019 09:47:39	Sep 06, 2019 09:47:56	Sep 06, 2019 09:48:14	Sep 06, 2019 09:48:33

	Level 6	Level 7
Amount	125	175
Area	28750603	36639999

Calibration Report

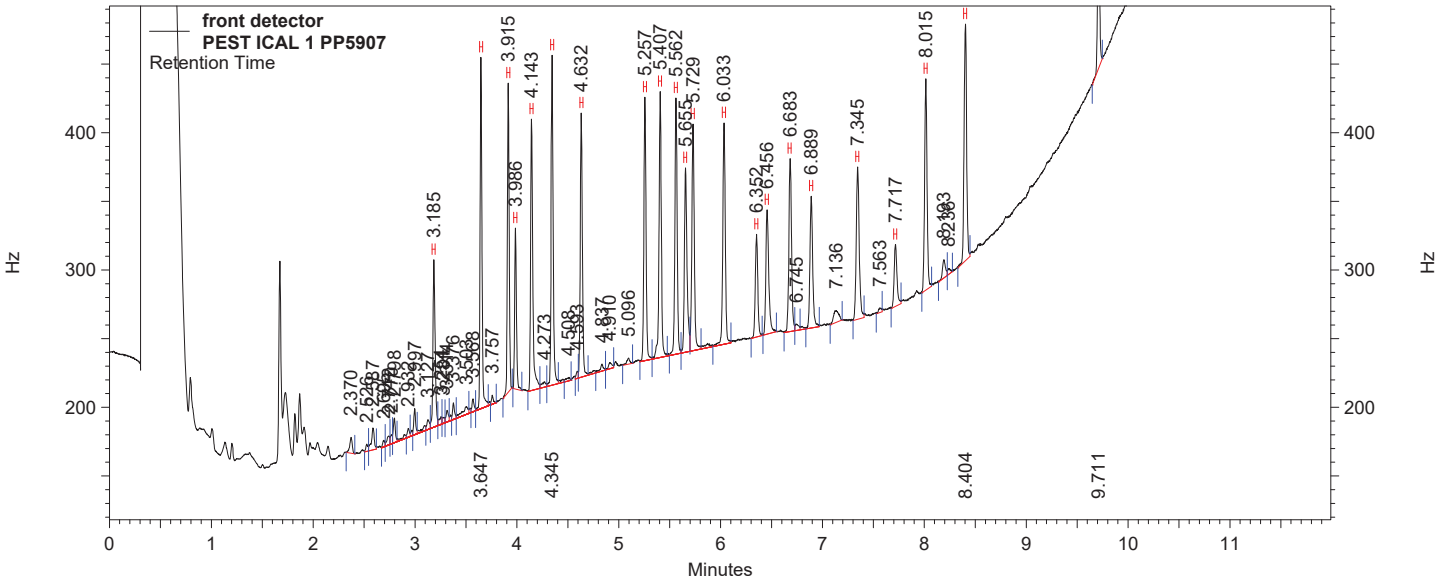
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
Print Time: 09/06/2019 09:57:04
User: AJZ
Instrument: Semi 1 (Offline)

RF	230004.824	209371.422857143
Last Area Residual	-5.59646	2.0323
Rep StDev		
Rep %RSD		
Rep 1 Area	28750603	36639999
Rep 1 User	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\018.dat	C:\Instarch\Semi1\data\090519pstic\019.dat
Rep 1 Sample ID	PEST ICAL 6 PP5912	PEST ICAL 7 PP5913
Rep 1 Calib. Time	Sep 06, 2019 09:49:02	Sep 06, 2019 09:49:24

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\090519pstic\013.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
User: AJZ
Sample ID: PEST ICAL 1 PP5907
Acquired: Sep 05, 2019 18:37:28
Printed: 09/06/2019 09:53:54

Data Summary: {Data Description}



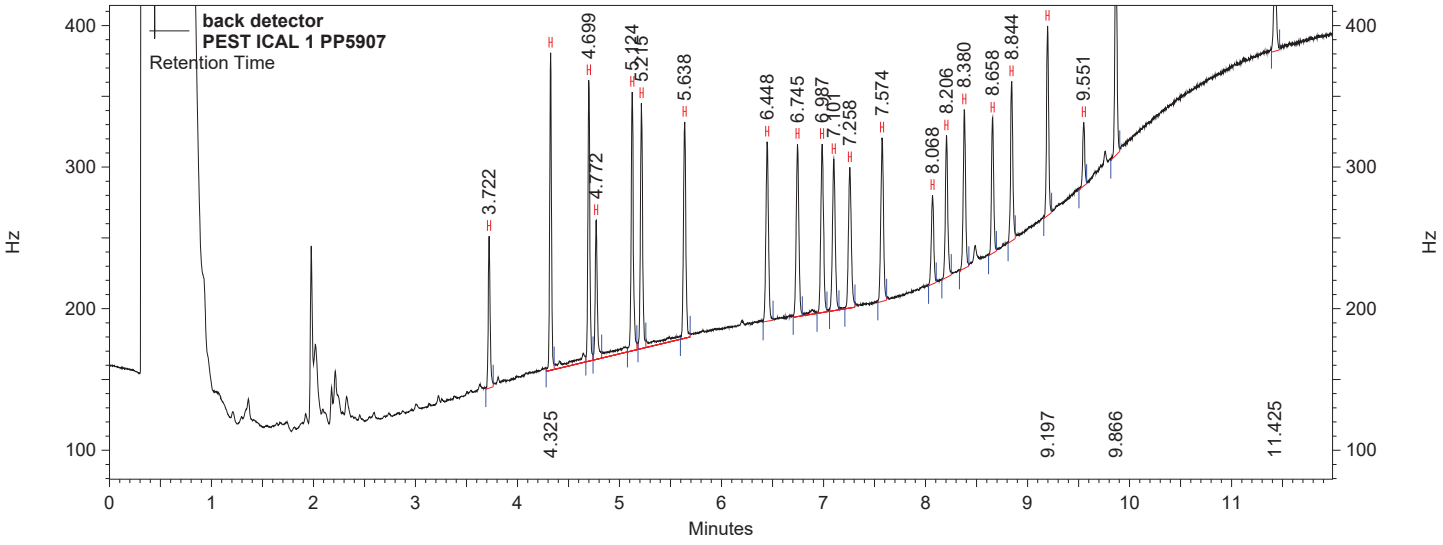
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.185	1416691	2.5000 CAL
ALPHABHC	3.647	2468579	0.0010 CAL
LINDANE	3.915	2098766	0.0010 CAL
BETABHC	3.986	1130732	0.0010 CAL
DELTABHC	4.143	2271307	0.0010 CAL
HEPTACHLOR	4.345	2527460	0.0010 CAL
ALDRIN	4.632	2108559	0.0010 CAL
HEPTAEPOX	5.257	2199015	0.0010 CAL
GAMMACHLOR	5.407	2350189	0.0010 CAL
ALPHACHLOR	5.562	2271800	0.0010 CAL
44DDE	5.655	1871366	0.0010 CAL
ENDOI	5.729	2121976	0.0010 CAL
DIELDRIN	6.033	2111726	0.0010 CAL
ENDRIN	6.352	975407	0.0010 CAL
44DDD	6.456	1370525	0.0010 CAL
ENDOII	6.683	1778822	0.0010 CAL
44DDT	6.889	1403016	0.0010 CAL
ENDRINALDEH	7.345	1735258	0.0010 CAL
METHOXYCL	7.717	665661	0.0010 CAL
ENDOSULFATE	8.015	1986562	0.0010 CAL
ENDRINKETONE	8.404	2293383	0.0010 CAL
SURRDCBPEST	9.711	1206357	2.5000 CAL

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\090519pstic\013.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
User: AJZ
Sample ID: PEST ICAL 1 PP5907
Acquired: Sep 05, 2019 18:37:28
Printed: 09/06/2019 09:53:54

Data Summary: {Data Description}



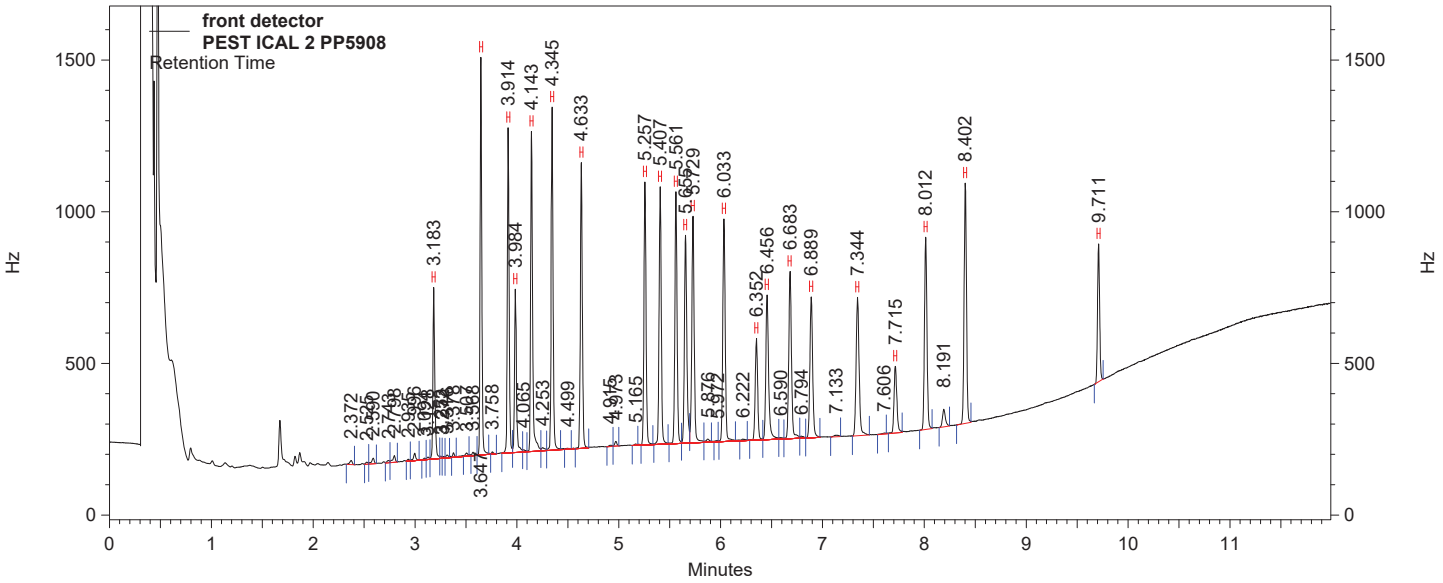
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.722	1078045	2.5000 CAL
ALPHABHC	4.325	2099654	0.0010 CAL
LINDANE	4.699	1982589	0.0010 CAL
BETABHC	4.772	1105532	0.0010 CAL
DELTABHC	5.124	2057315	0.0010 CAL
HEPTACHLOR	5.215	1979848	0.0010 CAL
ALDRIN	5.638	1886498	0.0010 CAL
HEPTAEPOX	6.448	1717121	0.0010 CAL
GAMMACHLOR	6.745	1704958	0.0010 CAL
ALPHACHLOR	6.987	1696098	0.0010 CAL
ENDOI	7.101	1558437	0.0010 CAL
44DDE	7.258	1490552	0.0010 CAL
DIELDRIN	7.574	1612523	0.0010 CAL
ENDRIN	8.068	801148	0.0010 CAL
44DDD	8.206	1221607	0.0010 CAL
ENDOII	8.380	1376744	0.0010 CAL
44DDT	8.658	1087028	0.0010 CAL
ENDRINALDEH	8.844	1313377	0.0010 CAL
ENDOSULFATE	9.197	1472323	0.0010 CAL
METHOXYCL	9.551	466442	0.0010 CAL
ENDRINKETONE	9.866	1737240	0.0010 CAL
SURRDCBPEST	11.425	858807	2.5000 CAL

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\090519pstic\014.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
User: AJZ
Sample ID: PEST ICAL 2 PP5908
Acquired: Sep 05, 2019 18:53:50
Printed: 09/06/2019 09:53:56

Data Summary: {Data Description}



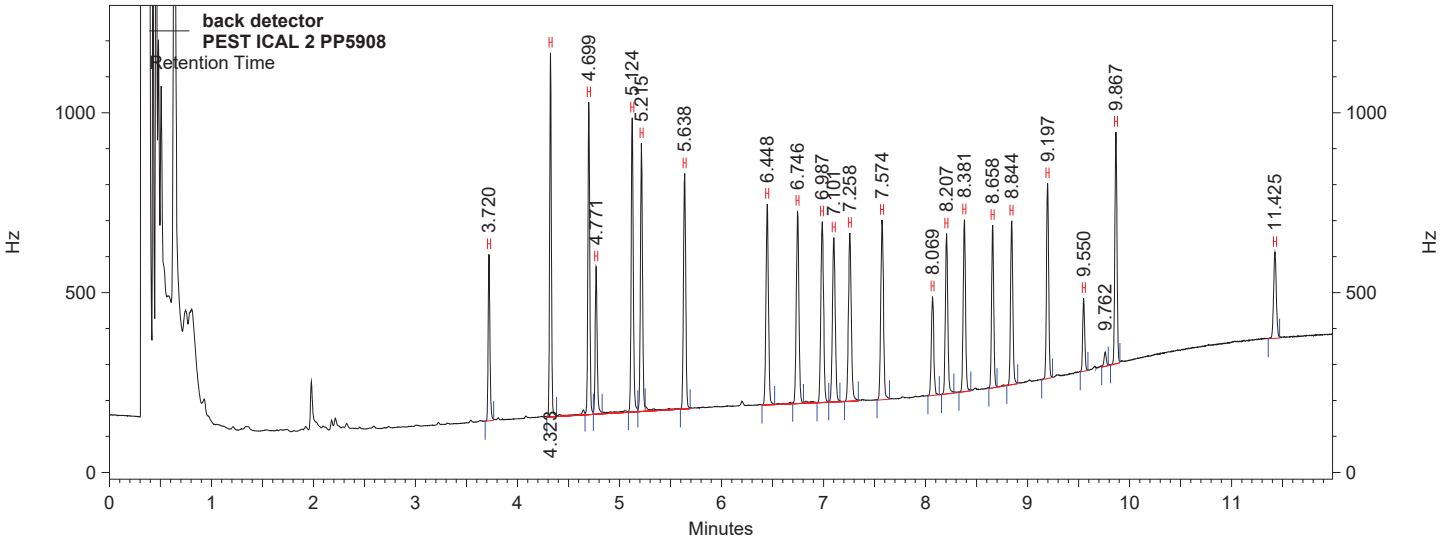
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.183	5662817	12.5000 CAL
ALPHABHC	3.647	11357453	0.0050 CAL
LINDANE	3.914	9920941	0.0050 CAL
BETABHC	3.984	5463779	0.0050 CAL
DELTABHC	4.143	10944443	0.0050 CAL
HEPTACHLOR	4.345	11041567	0.0050 CAL
ALDRIN	4.633	9564650	0.0050 CAL
HEPTAEPOX	5.257	9501325	0.0050 CAL
GAMMACHLOR	5.407	9695923	0.0050 CAL
ALPHACHLOR	5.561	9645730	0.0050 CAL
44DDE	5.655	8784339	0.0050 CAL
ENDOI	5.729	9365479	0.0050 CAL
DIELDRIN	6.033	9264952	0.0050 CAL
ENDRIN	6.352	4294777	0.0050 CAL
44DDD	6.456	6926424	0.0050 CAL
ENDOII	6.683	7959729	0.0050 CAL
44DDT	6.889	6756732	0.0050 CAL
ENDRINALDEH	7.344	7236810	0.0050 CAL
METHOXYCL	7.715	3268463	0.0050 CAL
ENDOSULFATE	8.012	8362890	0.0050 CAL
ENDRINKETONE	8.402	9940945	0.0050 CAL
SURRDCBPEST	9.711	4963806	12.5000 CAL

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\090519pstic\014.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
User: AJZ
Sample ID: PEST ICAL 2 PP5908
Acquired: Sep 05, 2019 18:53:50
Printed: 09/06/2019 09:53:56

Data Summary: {Data Description}



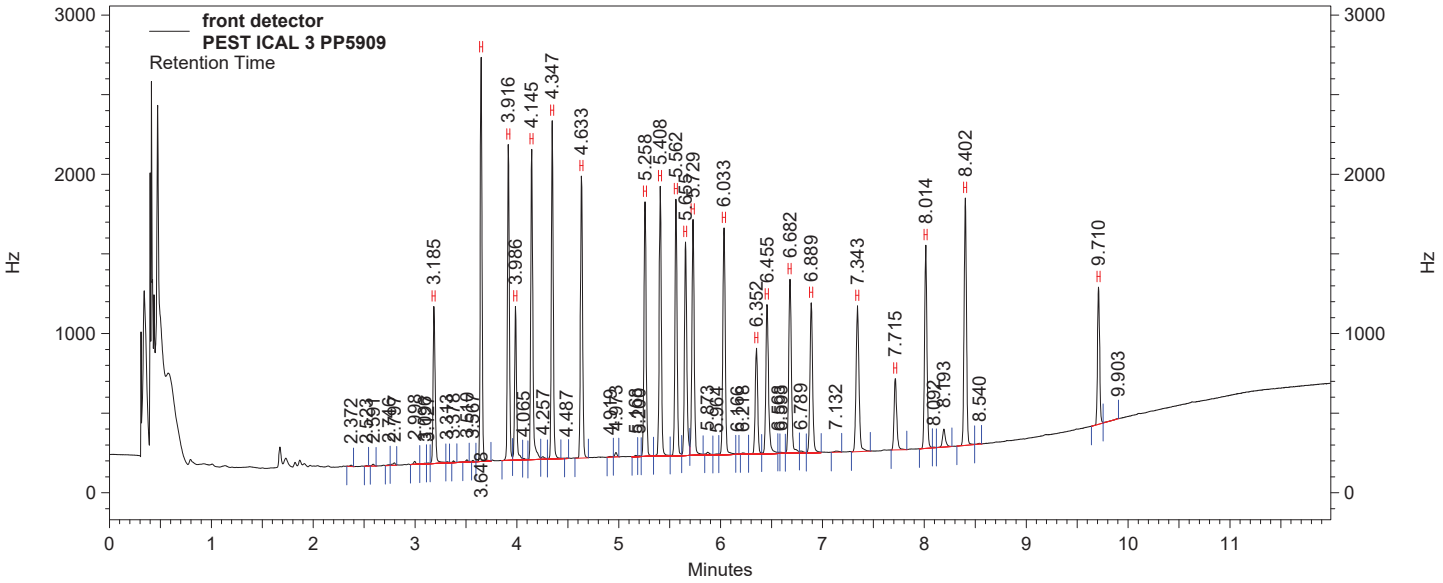
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.720	4352243	12.5000 CAL
ALPHABHC	4.323	9167185	0.0050 CAL
LINDANE	4.699	8426126	0.0050 CAL
BETABHC	4.771	4228757	0.0050 CAL
DELTABHC	5.124	8981649	0.0050 CAL
HEPTACHLOR	5.215	8176373	0.0050 CAL
ALDRIN	5.638	7752892	0.0050 CAL
HEPTAEPOX	6.448	7386647	0.0050 CAL
GAMMACHLOR	6.746	7309080	0.0050 CAL
ALPHACHLOR	6.987	7223592	0.0050 CAL
ENDOI	7.101	6754231	0.0050 CAL
44DDE	7.258	6966724	0.0050 CAL
DIELDRIN	7.574	7055695	0.0050 CAL
ENDRIN	8.069	3548658	0.0050 CAL
44DDD	8.207	5592441	0.0050 CAL
ENDOII	8.381	5938409	0.0050 CAL
44DDT	8.658	5027500	0.0050 CAL
ENDRINALDEH	8.844	5413940	0.0050 CAL
ENDOSULFATE	9.197	6103771	0.0050 CAL
METHOXYCL	9.550	2115276	0.0050 CAL
ENDRINKETONE	9.867	7171660	0.0050 CAL
SURRDCBPEST	11.425	3418626	12.5000 CAL

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\090519pstic\015.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
User: AJZ
Sample ID: PEST ICAL 3 PP5909
Acquired: Sep 05, 2019 19:10:06
Printed: 09/06/2019 09:53:59

Data Summary: {Data Description}



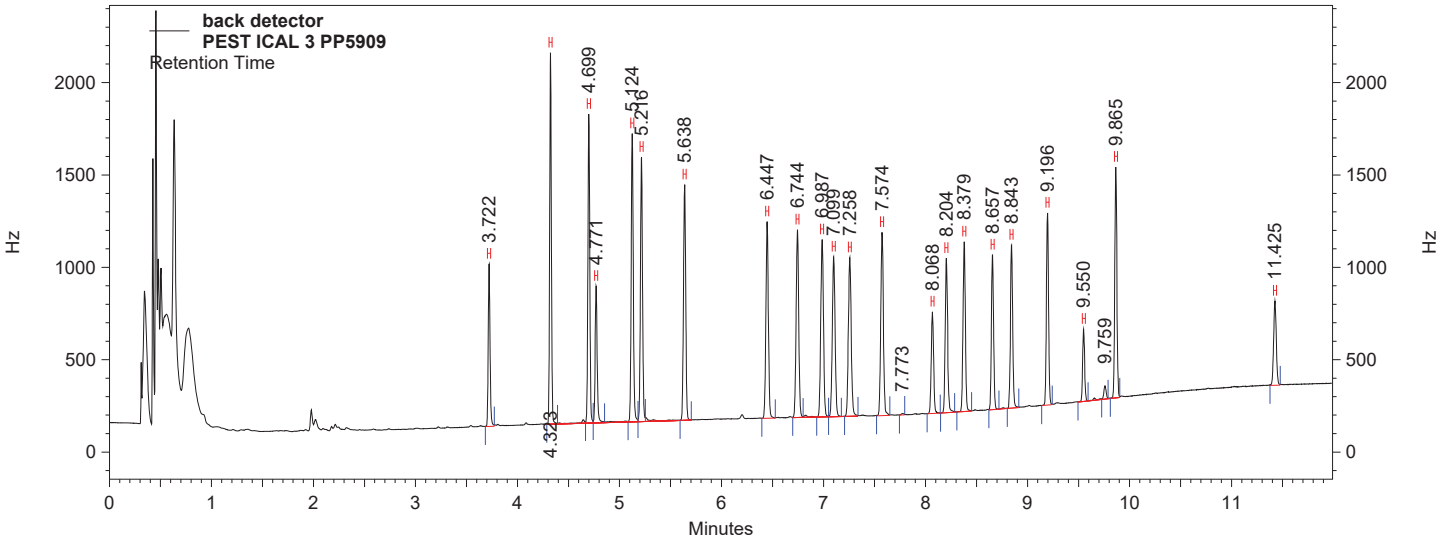
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.185	11006771	25.0000 CAL
ALPHABHC	3.648	23098397	0.0100 CAL
LINDANE	3.916	19516758	0.0100 CAL
BETABHC	3.986	10270515	0.0100 CAL
DELTABHC	4.145	21259368	0.0100 CAL
HEPTACHLOR	4.347	21528396	0.0100 CAL
ALDRIN	4.633	19049052	0.0100 CAL
HEPTAEPOX	5.258	18285853	0.0100 CAL
GAMMACHLOR	5.408	18851406	0.0100 CAL
ALPHACHLOR	5.562	18488453	0.0100 CAL
44DDE	5.655	16648951	0.0100 CAL
ENDOI	5.729	17808437	0.0100 CAL
DIELDRIN	6.033	18240668	0.0100 CAL
ENDRIN	6.352	8470590	0.0100 CAL
44DDD	6.455	13222472	0.0100 CAL
ENDOII	6.682	15610204	0.0100 CAL
44DDT	6.889	13281818	0.0100 CAL
ENDRINALDEH	7.343	14097387	0.0100 CAL
METHOXYCL	7.715	6290638	0.0100 CAL
ENDOSULFATE	8.014	16144233	0.0100 CAL
ENDRINKETONE	8.402	19350618	0.0100 CAL
SURRDCBPEST	9.710	9391892	25.0000 CAL

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\090519pstic\015.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
User: AJZ
Sample ID: PEST ICAL 3 PP5909
Acquired: Sep 05, 2019 19:10:06
Printed: 09/06/2019 09:53:59

Data Summary: {Data Description}



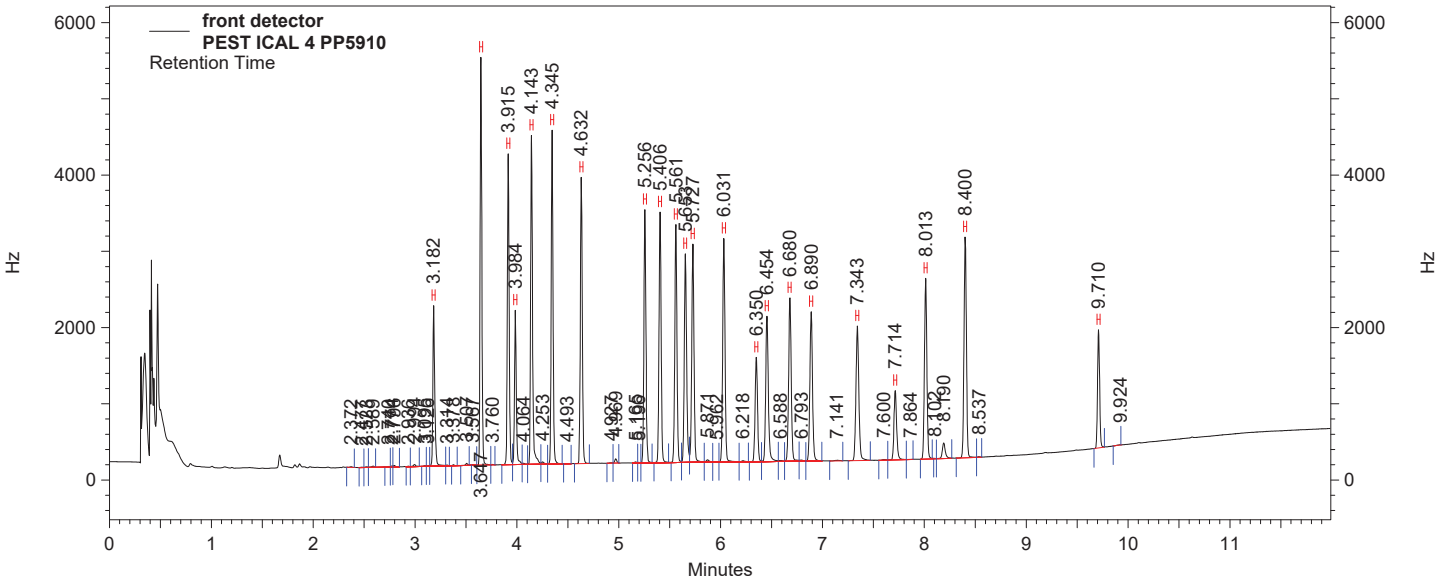
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.722	8433619	25.0000 CAL
ALPHABHC	4.323	18094869	0.0100 CAL
LINDANE	4.699	16307795	0.0100 CAL
BETABHC	4.771	7858431	0.0100 CAL
DELTABHC	5.124	16941775	0.0100 CAL
HEPTACHLOR	5.216	15614552	0.0100 CAL
ALDRIN	5.638	14854242	0.0100 CAL
HEPTAEPOX	6.447	13959107	0.0100 CAL
GAMMACHLOR	6.744	13833919	0.0100 CAL
ALPHACHLOR	6.987	13665643	0.0100 CAL
ENDOI	7.099	12805150	0.0100 CAL
44DDE	7.258	12842651	0.0100 CAL
DIELDRIN	7.574	13543901	0.0100 CAL
ENDRIN	8.068	6874450	0.0100 CAL
44DDD	8.204	10290601	0.0100 CAL
ENDOII	8.379	11441041	0.0100 CAL
44DDT	8.657	9544222	0.0100 CAL
ENDRINALDEH	8.843	10376377	0.0100 CAL
ENDOSULFATE	9.196	11540087	0.0100 CAL
METHOXYCL	9.550	4038317	0.0100 CAL
ENDRINKETONE	9.865	13511164	0.0100 CAL
SURRDCBPEST	11.425	6415162	25.0000 CAL

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\090519pstic\016.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
User: AJZ
Sample ID: PEST ICAL 4 PP5910
Acquired: Sep 05, 2019 19:26:17
Printed: 09/06/2019 09:54:01

Data Summary: {Data Description}



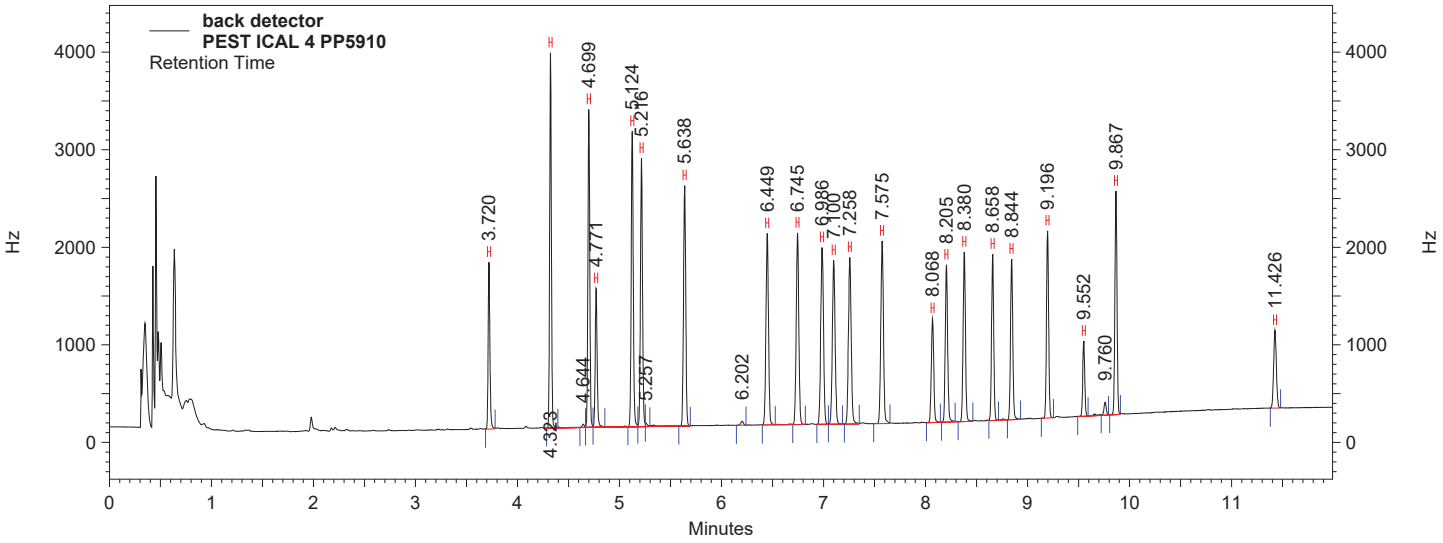
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.182	21078053	50.0000 CAL
ALPHABHC	3.647	46568079	0.0200 CAL
LINDANE	3.915	37887636	0.0200 CAL
BETABHC	3.984	19280793	0.0200 CAL
DELTABHC	4.143	42722319	0.0200 CAL
HEPTACHLOR	4.345	42022269	0.0200 CAL
ALDRIN	4.632	37978605	0.0200 CAL
HEPTAEPOX	5.256	35149277	0.0200 CAL
GAMMACHLOR	5.406	36505946	0.0200 CAL
ALPHACHLOR	5.561	35682850	0.0200 CAL
44DDE	5.653	33469052	0.0200 CAL
ENDOI	5.727	34316073	0.0200 CAL
DIELDRIN	6.031	35426791	0.0200 CAL
ENDRIN	6.350	17260796	0.0200 CAL
44DDD	6.454	26460062	0.0200 CAL
ENDOII	6.680	29556592	0.0200 CAL
44DDT	6.890	27241639	0.0200 CAL
ENDRINALDEH	7.343	26987679	0.0200 CAL
METHOXYCL	7.714	12779856	0.0200 CAL
ENDOSULFATE	8.013	30513404	0.0200 CAL
ENDRINKETONE	8.400	36926854	0.0200 CAL
SURRDCBPEST	9.710	16702206	50.0000 CAL

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\090519pstic\016.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
User: AJZ
Sample ID: PEST ICAL 4 PP5910
Acquired: Sep 05, 2019 19:26:17
Printed: 09/06/2019 09:54:01

Data Summary: {Data Description}



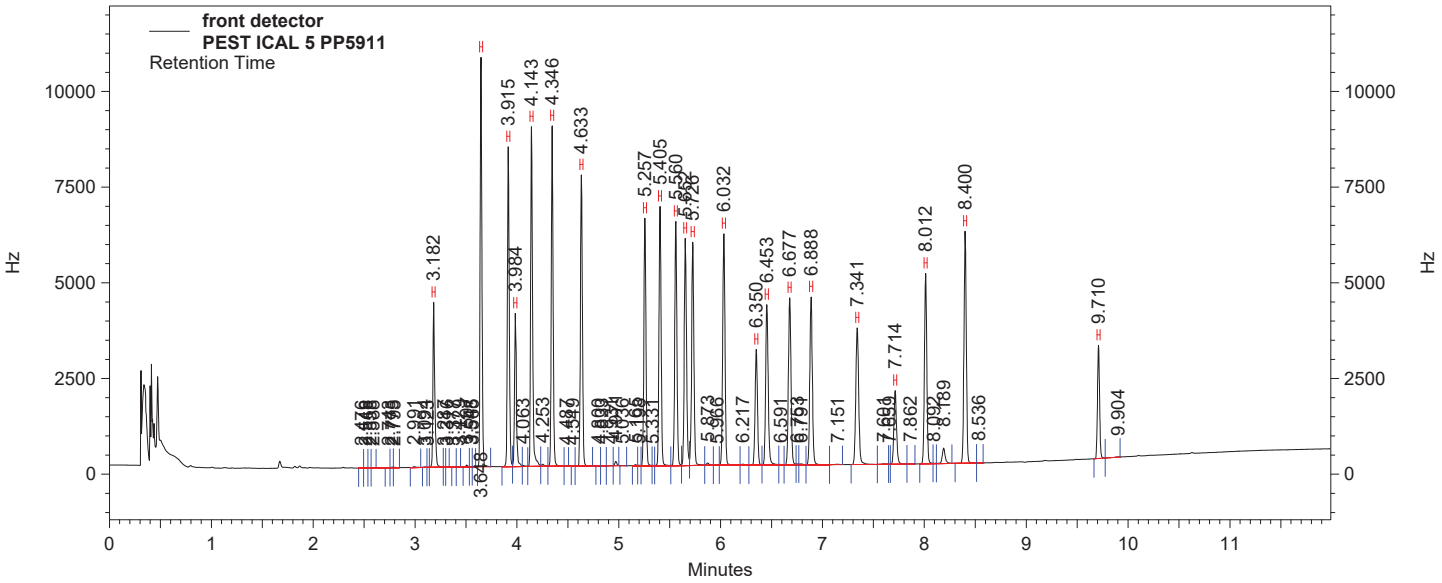
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.720	15849054	50.0000 CAL
ALPHABHC	4.323	34997851	0.0200 CAL
LINDANE	4.699	31242639	0.0200 CAL
BETABHC	4.771	14465254	0.0200 CAL
DELTABHC	5.124	32458534	0.0200 CAL
HEPTACHLOR	5.216	29644899	0.0200 CAL
ALDRIN	5.638	28495114	0.0200 CAL
HEPTAEPOX	6.449	26332290	0.0200 CAL
GAMMACHLOR	6.745	26562994	0.0200 CAL
ALPHACHLOR	6.986	25937601	0.0200 CAL
ENDOI	7.100	24206955	0.0200 CAL
44DDE	7.258	24862736	0.0200 CAL
DIELDRIN	7.575	25879450	0.0200 CAL
ENDRIN	8.068	13639411	0.0200 CAL
44DDD	8.205	19733388	0.0200 CAL
ENDOII	8.380	21402588	0.0200 CAL
44DDT	8.658	18764016	0.0200 CAL
ENDRINALDEH	8.844	19491170	0.0200 CAL
ENDOSULFATE	9.196	21387486	0.0200 CAL
METHOXYCL	9.552	7889472	0.0200 CAL
ENDRINKETONE	9.867	25121040	0.0200 CAL
SURRDCBPEST	11.426	11451586	50.0000 CAL

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\090519pstic\017.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
User: AJZ
Sample ID: PEST ICAL 5 PP5911
Acquired: Sep 05, 2019 19:42:27
Printed: 09/06/2019 09:54:03

Data Summary: {Data Description}



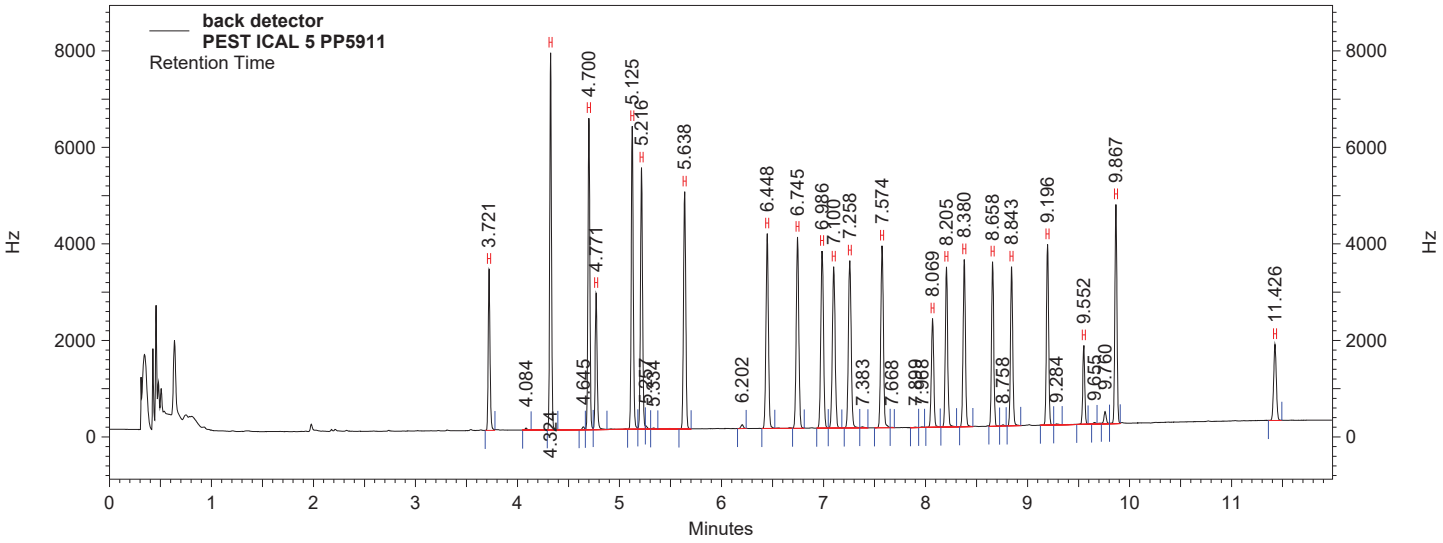
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.182	42858594	100.0000 CAL
ALPHABHC	3.648	98010260	0.0400 CAL
LINDANE	3.915	79572815	0.0400 CAL
BETABHC	3.984	39095262	0.0400 CAL
DELTABHC	4.143	90143723	0.0400 CAL
HEPTACHLOR	4.346	85670221	0.0400 CAL
ALDRIN	4.633	79124744	0.0400 CAL
HEPTAEPOX	5.257	71213689	0.0400 CAL
GAMMACHLOR	5.405	75242444	0.0400 CAL
ALPHACHLOR	5.560	72775009	0.0400 CAL
44DDE	5.652	70876409	0.0400 CAL
ENDOI	5.726	69134955	0.0400 CAL
DIELDRIN	6.032	73681180	0.0400 CAL
ENDRIN	6.350	37123970	0.0400 CAL
44DDD	6.453	56180831	0.0400 CAL
ENDOII	6.677	60204594	0.0400 CAL
44DDT	6.888	58633977	0.0400 CAL
ENDRINALDEH	7.341	54867218	0.0400 CAL
METHOXYCL	7.714	26886811	0.0400 CAL
ENDOSULFATE	8.012	62457891	0.0400 CAL
ENDRINKETONE	8.400	74269647	0.0400 CAL
SURRDCBPEST	9.710	32094782	100.0000 CAL

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\090519pstic\017.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
User: AJZ
Sample ID: PEST ICAL 5 PP5911
Acquired: Sep 05, 2019 19:42:27
Printed: 09/06/2019 09:54:03

Data Summary: {Data Description}



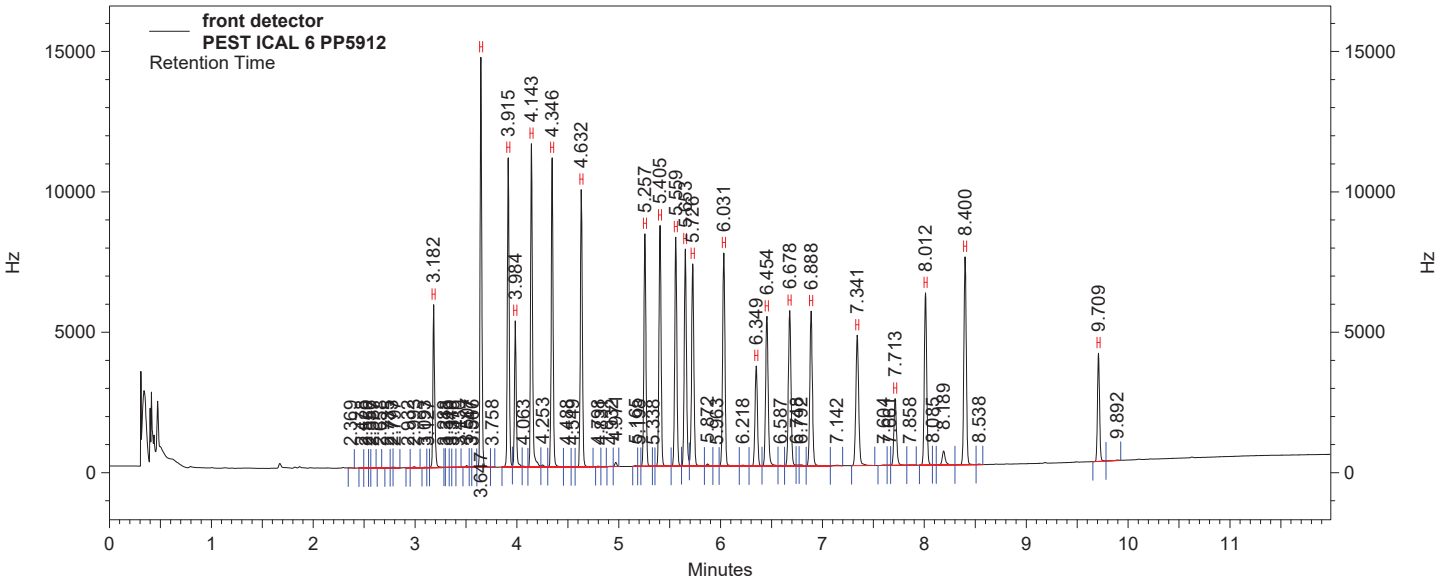
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.721	31746150	100.0000 CAL
ALPHABHC	4.324	71620886	0.0400 CAL
LINDANE	4.700	63575541	0.0400 CAL
BETABHC	4.771	28517020	0.0400 CAL
DELTABHC	5.125	66487650	0.0400 CAL
HEPTACHLOR	5.216	59289817	0.0400 CAL
ALDRIN	5.638	57713216	0.0400 CAL
HEPTAEPOX	6.448	52287231	0.0400 CAL
GAMMACHLOR	6.745	53542467	0.0400 CAL
ALPHACHLOR	6.986	52012569	0.0400 CAL
ENDOI	7.100	48501508	0.0400 CAL
44DDE	7.258	50913143	0.0400 CAL
DIELDRIN	7.574	51923334	0.0400 CAL
ENDRIN	8.069	28426929	0.0400 CAL
44DDD	8.205	40083613	0.0400 CAL
ENDOII	8.380	42694360	0.0400 CAL
44DDT	8.658	38711903	0.0400 CAL
ENDRINALDEH	8.843	38642108	0.0400 CAL
ENDOSULFATE	9.196	42902019	0.0400 CAL
METHOXYCL	9.552	16392123	0.0400 CAL
ENDRINKETONE	9.867	49709475	0.0400 CAL
SURRDCBPEST	11.426	22172275	100.0000 CAL

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\090519pstic\018.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
User: AJZ
Sample ID: PEST ICAL 6 PP5912
Acquired: Sep 05, 2019 19:58:37
Printed: 09/06/2019 09:54:06

Data Summary: {Data Description}



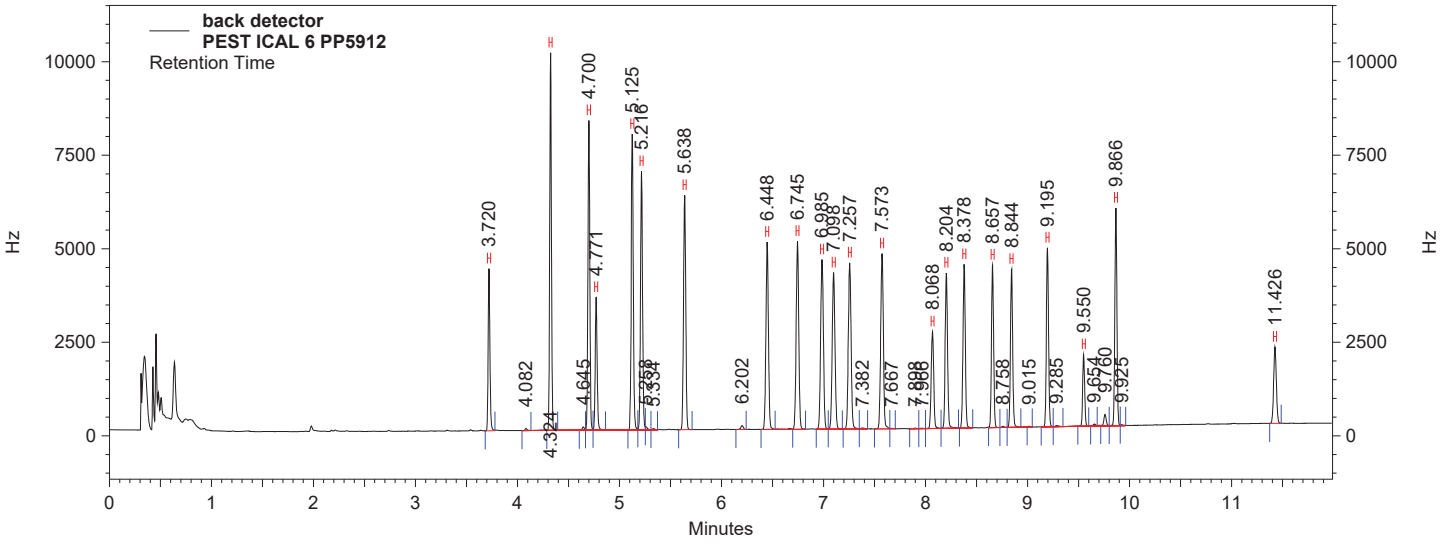
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.182	54918913	125.0000 CAL
ALPHABHC	3.647	126078935	0.0500 CAL
LINDANE	3.915	102606392	0.0500 CAL
BETABHC	3.984	49659653	0.0500 CAL
DELTABHC	4.143	116023925	0.0500 CAL
HEPTACHLOR	4.346	107981035	0.0500 CAL
ALDRIN	4.632	100920419	0.0500 CAL
HEPTAEPOX	5.257	90138050	0.0500 CAL
GAMMACHLOR	5.405	95577103	0.0500 CAL
ALPHACHLOR	5.559	92312286	0.0500 CAL
44DDE	5.653	90710102	0.0500 CAL
ENDOI	5.726	87193572	0.0500 CAL
DIELDRIN	6.031	93830598	0.0500 CAL
ENDRIN	6.349	44999635	0.0500 CAL
44DDD	6.454	71867425	0.0500 CAL
ENDOII	6.678	76241398	0.0500 CAL
44DDT	6.888	74034578	0.0500 CAL
ENDRINALDEH	7.341	69745771	0.0500 CAL
METHOXYCL	7.713	32956541	0.0500 CAL
ENDOSULFATE	8.012	78626989	0.0500 CAL
ENDRINKETONE	8.400	94504398	0.0500 CAL
SURRDCBPEST	9.709	41779413	125.0000 CAL

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\090519pstic\018.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
User: AJZ
Sample ID: PEST ICAL 6 PP5912
Acquired: Sep 05, 2019 19:58:37
Printed: 09/06/2019 09:54:06

Data Summary: {Data Description}



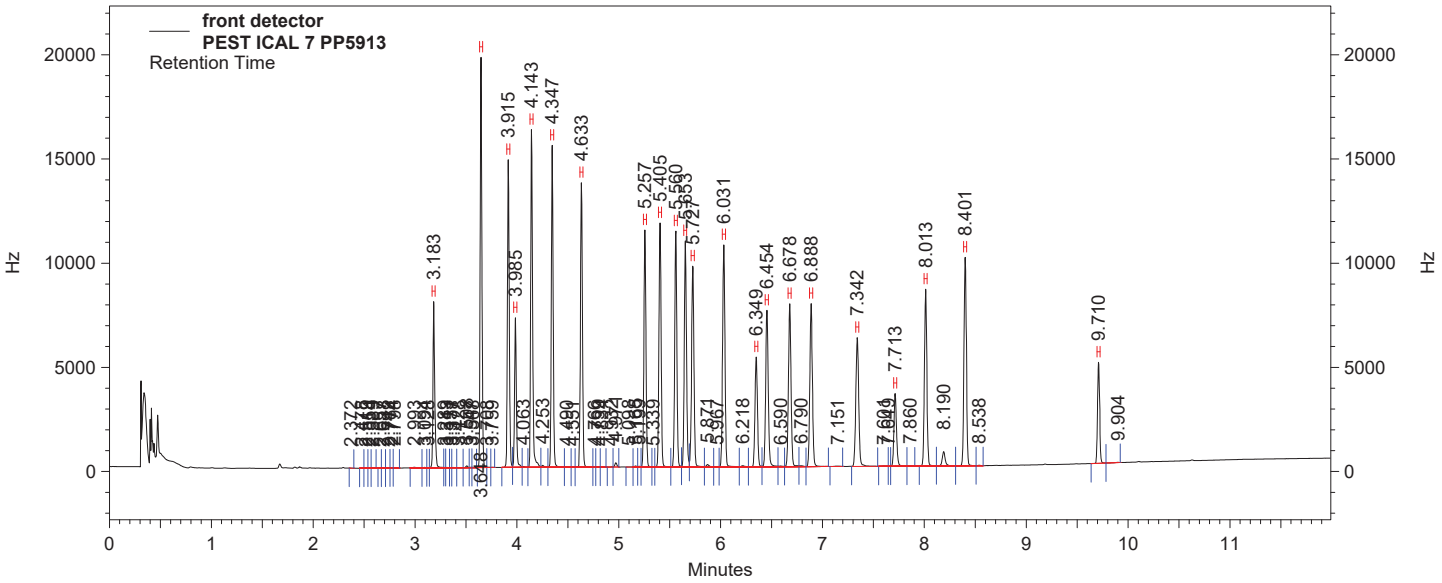
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.720	40288035	125.0000 CAL
ALPHABHC	4.324	91108861	0.0500 CAL
LINDANE	4.700	80577463	0.0500 CAL
BETABHC	4.771	35832458	0.0500 CAL
DELTABHC	5.125	84430892	0.0500 CAL
HEPTACHLOR	5.216	74166402	0.0500 CAL
ALDRIN	5.638	72793175	0.0500 CAL
HEPTAEPOX	6.448	65543243	0.0500 CAL
GAMMACHLOR	6.745	67635255	0.0500 CAL
ALPHACHLOR	6.985	65555905	0.0500 CAL
ENDOI	7.098	60910285	0.0500 CAL
44DDE	7.257	64576906	0.0500 CAL
DIELDRIN	7.573	65501907	0.0500 CAL
ENDRIN	8.068	34086238	0.0500 CAL
44DDD	8.204	50633237	0.0500 CAL
ENDOII	8.378	53667062	0.0500 CAL
44DDT	8.657	48317291	0.0500 CAL
ENDRINALDEH	8.844	48715337	0.0500 CAL
ENDOSULFATE	9.195	53702308	0.0500 CAL
METHOXYCL	9.550	19952030	0.0500 CAL
ENDRINKETONE	9.866	62918020	0.0500 CAL
SURRDCBPEST	11.426	28750603	125.0000 CAL

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\090519pstic\019.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
User: AJZ
Sample ID: PEST ICAL 7 PP5913
Acquired: Sep 05, 2019 20:14:47
Printed: 09/06/2019 09:54:08

Data Summary: {Data Description}



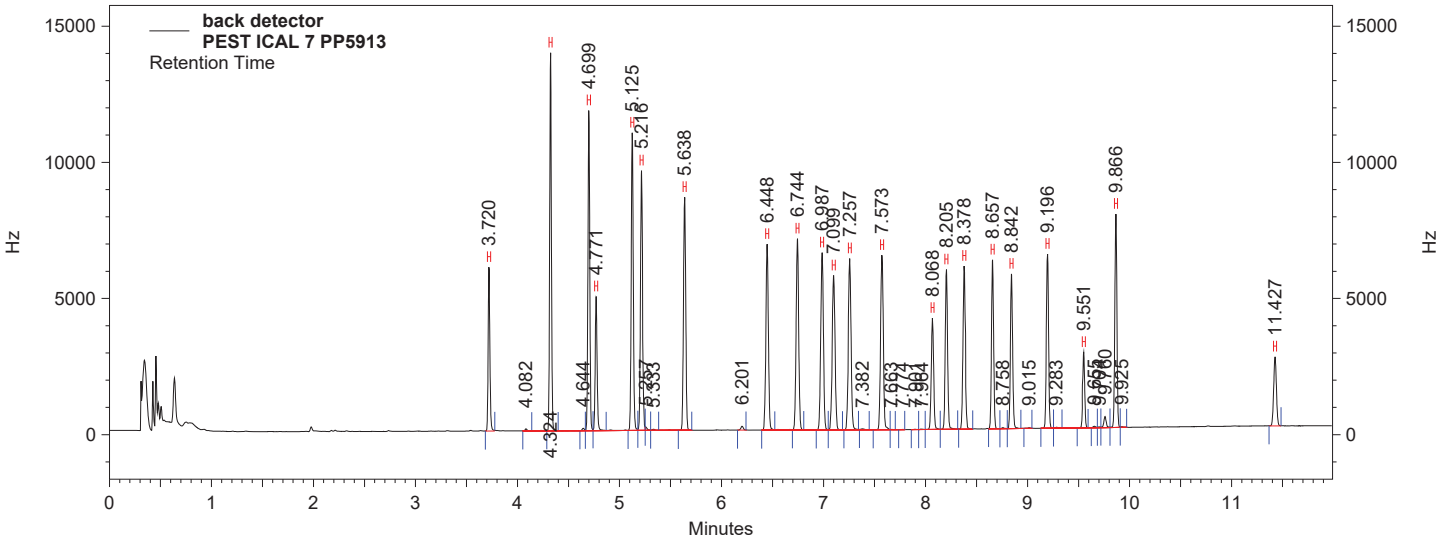
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.183	75220056	175.0000 CAL
ALPHABHC	3.648	174481166	0.0700 CAL
LINDANE	3.915	139645231	0.0700 CAL
BETABHC	3.985	68349337	0.0700 CAL
DELTABHC	4.143	162444925	0.0700 CAL
HEPTACHLOR	4.347	149454108	0.0700 CAL
ALDRIN	4.633	140326567	0.0700 CAL
HEPTAEPOX	5.257	123453344	0.0700 CAL
GAMMACHLOR	5.405	133249892	0.0700 CAL
ALPHACHLOR	5.560	128208730	0.0700 CAL
44DDE	5.653	127139324	0.0700 CAL
ENDOI	5.727	119671756	0.0700 CAL
DIELDRIN	6.031	130558218	0.0700 CAL
ENDRIN	6.349	67497722	0.0700 CAL
44DDD	6.454	101144065	0.0700 CAL
ENDOII	6.678	106180216	0.0700 CAL
44DDT	6.888	105816768	0.0700 CAL
ENDRINALDEH	7.342	94939496	0.0700 CAL
METHOXYCL	7.713	46922697	0.0700 CAL
ENDOSULFATE	8.013	108857502	0.0700 CAL
ENDRINKETONE	8.401	128853215	0.0700 CAL
SURRDCBPEST	9.710	52985842	175.0000 CAL

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\090519pstic\019.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
User: AJZ
Sample ID: PEST ICAL 7 PP5913
Acquired: Sep 05, 2019 20:14:47
Printed: 09/06/2019 09:54:08

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.720	54958415	175.0000 CAL
ALPHABHC	4.324	125499150	0.0700 CAL
LINDANE	4.699	111087693	0.0700 CAL
BETABHC	4.771	49154308	0.0700 CAL
DELTABHC	5.125	117094037	0.0700 CAL
HEPTACHLOR	5.216	102411610	0.0700 CAL
ALDRIN	5.638	100666366	0.0700 CAL
HEPTAEPOX	6.448	90192033	0.0700 CAL
GAMMACHLOR	6.744	93929131	0.0700 CAL
ALPHACHLOR	6.987	90925589	0.0700 CAL
ENDOI	7.099	84312462	0.0700 CAL
44DDE	7.257	90057580	0.0700 CAL
DIELDRIN	7.573	90670873	0.0700 CAL
ENDRIN	8.068	51042620	0.0700 CAL
44DDD	8.205	70533220	0.0700 CAL
ENDOII	8.378	74228747	0.0700 CAL
44DDT	8.657	68628438	0.0700 CAL
ENDRINALDEH	8.842	65542552	0.0700 CAL
ENDOSULFATE	9.196	74124785	0.0700 CAL
METHOXYCL	9.551	28541418	0.0700 CAL
ENDRINKETONE	9.866	85528647	0.0700 CAL
SURRDCBPEST	11.427	36639999	175.0000 CAL

QC Check Standard Report

Sequence : C:\Instarch\Semi1\Sequence\090519pstic.seq
User : AJZ
Printed : 09/06/2019 09:54:13

File	Sample ID	Acquired
C:\Instarch\Semi1\data\090519pstic\020.dat	PEST ICV 1 PP5914	09/06/2019 09:54:12

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	50.000	49.471	1.058	20.000	Passed
ALPHABHC	0.020	0.020	0.543	20.000	Passed
LINDANE	0.020	0.021	2.788	20.000	Passed
BETABHC	0.020	0.019	4.297	20.000	Passed
DELTABHC	0.020	0.020	1.499	20.000	Passed
HEPTACHLOR	0.020	0.020	0.052	20.000	Passed
ALDRIN	0.020	0.020	0.393	20.000	Passed
HEPTAEPOX	0.020	0.020	0.154	20.000	Passed
GAMMACHLOR	0.020	0.020	0.681	20.000	Passed
ALPHACHLOR	0.020	0.020	0.956	20.000	Passed
44DDE	0.020	0.020	1.475	20.000	Passed
ENDOI	0.020	0.020	1.295	20.000	Passed
DIELDRIN	0.020	0.020	2.042	20.000	Passed
ENDRIN	0.020	0.019	5.324	20.000	Passed
44DDD	0.020	0.020	1.326	20.000	Passed
ENDOII	0.020	0.020	2.118	20.000	Passed
44DDT	0.020	0.020	2.320	20.000	Passed
ENDRINALDEH	0.020	0.020	1.144	20.000	Passed
METHOXYCL	0.020	0.020	1.961	20.000	Passed
ENDOSULFATE	0.020	0.019	5.107	20.000	Passed
ENDRINKETONE	0.020	0.020	2.098	20.000	Passed
SURRDCBPEST	50.000	51.114	2.228	20.000	Passed

back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	50.000	49.608	0.784	20.000	Passed
ALPHABHC	0.020	0.020	0.171	20.000	Passed
LINDANE	0.020	0.020	2.150	20.000	Passed
BETABHC	0.020	0.019	3.579	20.000	Passed
DELTABHC	0.020	0.020	1.214	20.000	Passed
HEPTACHLOR	0.020	0.020	0.081	20.000	Passed
ALDRIN	0.020	0.020	0.570	20.000	Passed
HEPTAEPOX	0.020	0.020	0.184	20.000	Passed
GAMMACHLOR	0.020	0.020	1.424	20.000	Passed
ALPHACHLOR	0.020	0.020	0.338	20.000	Passed
ENDOI	0.020	0.020	0.827	20.000	Passed
44DDE	0.020	0.020	1.348	20.000	Passed
DIELDRIN	0.020	0.020	2.348	20.000	Passed
ENDRIN	0.020	0.019	5.040	20.000	Passed
44DDD	0.020	0.020	0.200	20.000	Passed
ENDOII	0.020	0.021	2.745	20.000	Passed
44DDT	0.020	0.020	1.463	20.000	Passed
ENDRINALDEH	0.020	0.020	0.980	20.000	Passed
ENDOSULFATE	0.020	0.019	3.244	20.000	Passed

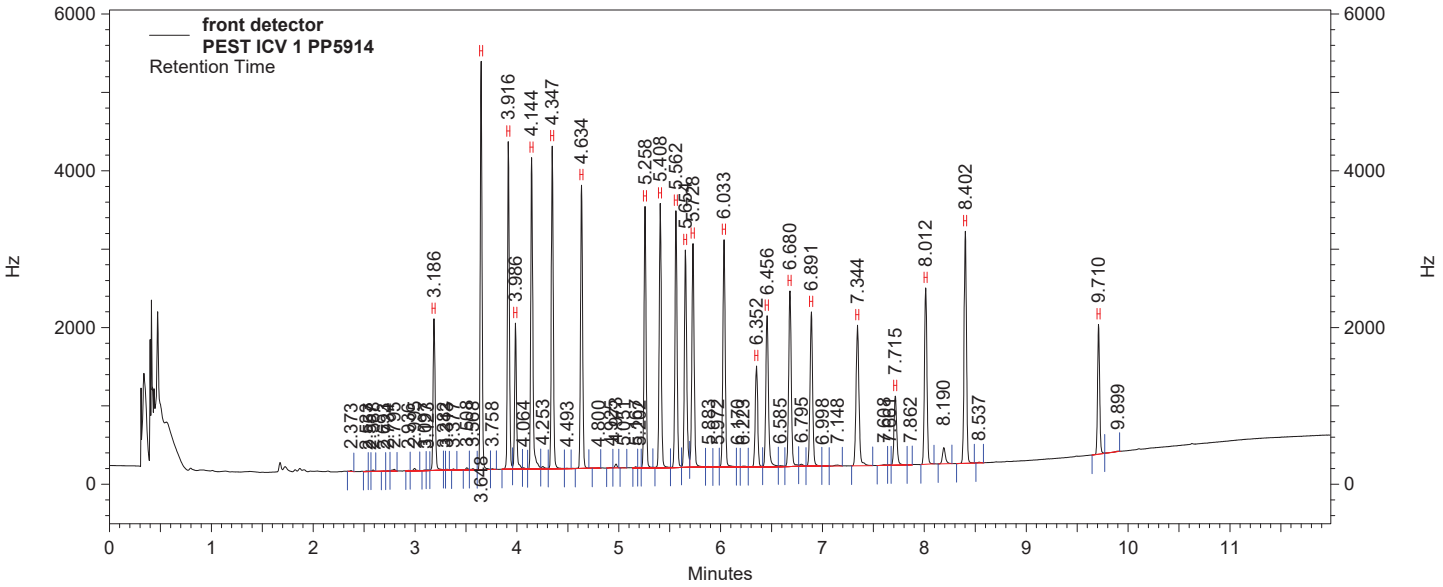
Sequence : C:\Instarch\Semi1\Sequence\090519pstic.seq
User : AJZ
Printed : 09/06/2019 09:54:13

METHOXYCL	0.020	0.020	1.136	20.000	**Passed**
ENDRINKETONE	0.020	0.020	1.874	20.000	**Passed**
SURRDCBPEST	50.000	51.486	2.972	20.000	**Passed**

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\090519pstic\020.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
User: AJZ
Sample ID: PEST ICV 1 PP5914
Acquired: Sep 05, 2019 20:31:01
Printed: 09/06/2019 09:54:11

Data Summary: {Data Description}



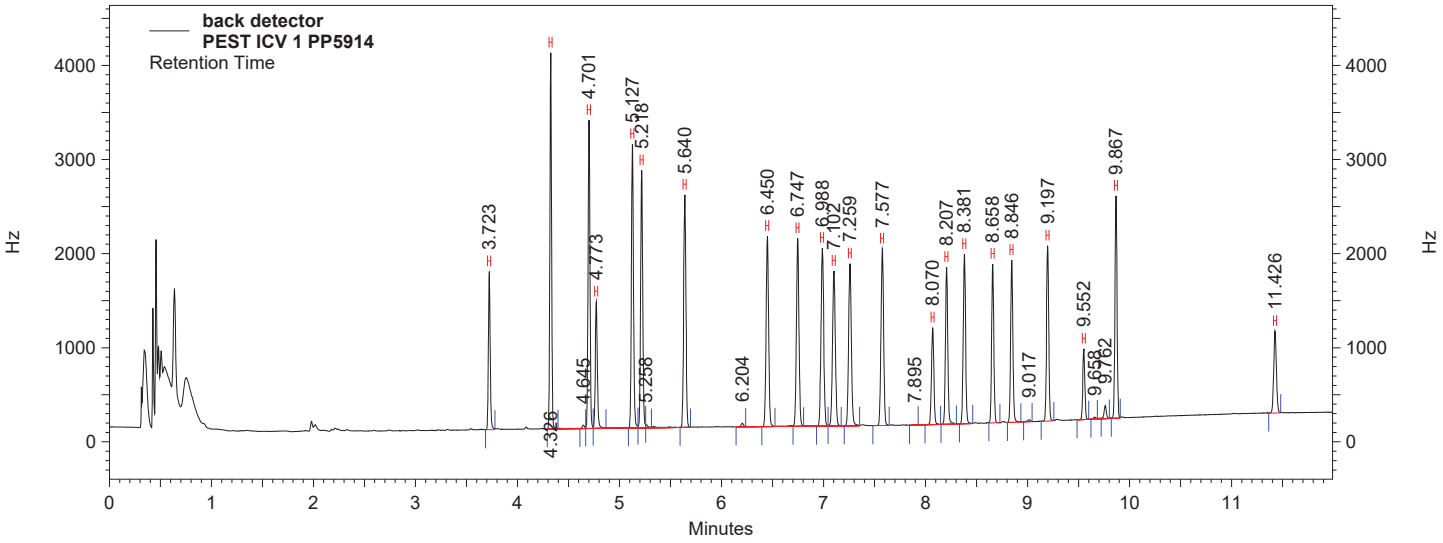
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.186	21314596	49.4711
ALPHABHC	3.648	47680262	0.0201
LINDANE	3.916	40310436	0.0206
BETABHC	3.986	19025893	0.0191
DELTABHC	4.144	42957662	0.0197
HEPTACHLOR	4.347	42737637	0.0200
ALDRIN	4.634	38483531	0.0199
HEPTAEPOX	5.258	35960652	0.0200
GAMMACHLOR	5.408	36992536	0.0199
ALPHACHLOR	5.562	36724340	0.0202
44DDE	5.654	33738875	0.0197
ENDOI	5.728	34531993	0.0197
DIELDRIN	6.033	35524445	0.0196
ENDRIN	6.352	16377239	0.0189
44DDD	6.456	26764108	0.0197
ENDOII	6.680	30865401	0.0204
44DDT	6.891	27040025	0.0195
ENDRINALDEH	7.344	27949937	0.0202
METHOXYCL	7.715	12693642	0.0196
ENDOSULFATE	8.012	29745593	0.0190
ENDRINKETONE	8.402	36924605	0.0196
SURRDCBPEST	9.710	17739788	51.1138

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\090519pstic\020.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
User: AJZ
Sample ID: PEST ICV 1 PP5914
Acquired: Sep 05, 2019 20:31:01
Printed: 09/06/2019 09:54:11

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.723	16078684	49.6082
ALPHABHC	4.326	35788706	0.0200
LINDANE	4.701	32603348	0.0204
BETABHC	4.773	14269572	0.0193
DELTABHC	5.127	32872734	0.0198
HEPTACHLOR	5.218	30131451	0.0200
ALDRIN	5.640	28868964	0.0199
HEPTAEPOX	6.450	26864520	0.0200
GAMMACHLOR	6.747	26641203	0.0197
ALPHACHLOR	6.988	26504204	0.0201
ENDOI	7.102	24487462	0.0198
44DDE	7.259	25106463	0.0197
DIELDRIN	7.577	25709250	0.0195
ENDRIN	8.070	12954334	0.0190
44DDD	8.207	20145292	0.0200
ENDOII	8.381	22413383	0.0205
44DDT	8.658	18773334	0.0197
ENDRINALDEH	8.846	20125591	0.0202
ENDOSULFATE	9.197	21242723	0.0194
METHOXYCL	9.552	7933098	0.0198
ENDRINKETONE	9.867	25243758	0.0196
SURRDCBPEST	11.426	12255818	51.4862

QC Check Standard Report

Sequence : C:\Instarch\Semi1\Sequence\090519pstic.seq
User : AJZ
Printed : 09/06/2019 09:54:20

File	Sample ID	Acquired
C:\Instarch\Semi1\data\090519pstic\021.dat	PEST ICV 2 PP5915	09/06/2019 09:54:19

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	100.000	98.778	1.222	20.000	Passed
ALPHABHC	0.040	0.040	0.089	20.000	Passed
LINDANE	0.040	0.039	3.313	20.000	Passed
BETABHC	0.040	0.037	6.255	20.000	Passed
DELTABHC	0.040	0.039	1.853	20.000	Passed
HEPTACHLOR	0.040	0.040	0.019	20.000	Passed
ALDRIN	0.040	0.040	0.257	20.000	Passed
HEPTAEPOX	0.040	0.039	2.136	20.000	Passed
GAMMACHLOR	0.040	0.039	1.417	20.000	Passed
ALPHACHLOR	0.040	0.040	0.164	20.000	Passed
44DDE	0.040	0.039	1.608	20.000	Passed
ENDOI	0.040	0.039	1.575	20.000	Passed
DIELDRIN	0.040	0.039	1.594	20.000	Passed
ENDRIN	0.040	0.041	1.363	20.000	Passed
44DDD	0.040	0.040	1.231	20.000	Passed
ENDOII	0.040	0.041	1.581	20.000	Passed
44DDT	0.040	0.040	0.837	20.000	Passed
ENDRINALDEH	0.040	0.040	0.694	20.000	Passed
METHOXYCL	0.040	0.039	1.969	20.000	Passed
ENDOSULFATE	0.040	0.038	6.079	20.000	Passed
ENDRINKETONE	0.040	0.038	4.692	20.000	Passed
SURRDCBPEST	100.000	95.902	4.098	20.000	Passed

back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	100.000	98.558	1.442	20.000	Passed
ALPHABHC	0.040	0.040	0.355	20.000	Passed
LINDANE	0.040	0.041	1.469	20.000	Passed
BETABHC	0.040	0.038	6.221	20.000	Passed
DELTABHC	0.040	0.039	3.002	20.000	Passed
HEPTACHLOR	0.040	0.040	0.555	20.000	Passed
ALDRIN	0.040	0.040	0.957	20.000	Passed
HEPTAEPOX	0.040	0.040	0.842	20.000	Passed
GAMMACHLOR	0.040	0.039	1.809	20.000	Passed
ALPHACHLOR	0.040	0.040	0.273	20.000	Passed
ENDOI	0.040	0.039	1.865	20.000	Passed
44DDE	0.040	0.039	2.565	20.000	Passed
DIELDRIN	0.040	0.039	3.723	20.000	Passed
ENDRIN	0.040	0.040	0.650	20.000	Passed
44DDD	0.040	0.039	1.881	20.000	Passed
ENDOII	0.040	0.040	0.763	20.000	Passed
44DDT	0.040	0.039	1.607	20.000	Passed
ENDRINALDEH	0.040	0.039	1.474	20.000	Passed
ENDOSULFATE	0.040	0.037	6.753	20.000	Passed

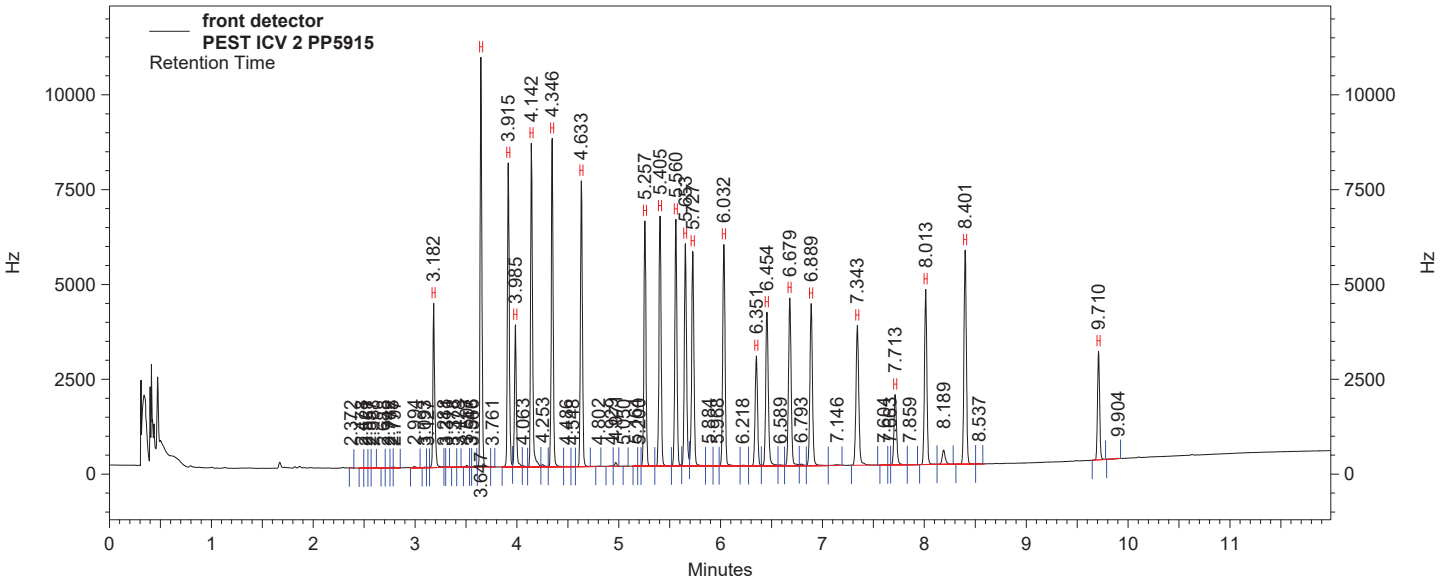
Sequence : C:\Instarch\Semi1\Sequence\090519pstic.seq
User : AJZ
Printed : 09/06/2019 09:54:20

METHOXYCL	0.040	0.039	1.736	20.000	Passed
ENDRINKETONE	0.040	0.038	5.076	20.000	Passed
SURRDCBPEST	100.000	95.341	4.659	20.000	Passed

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\090519pstic\021.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
User: AJZ
Sample ID: PEST ICV 2 PP5915
Acquired: Sep 05, 2019 20:47:12
Printed: 09/06/2019 09:54:18

Data Summary: {Data Description}



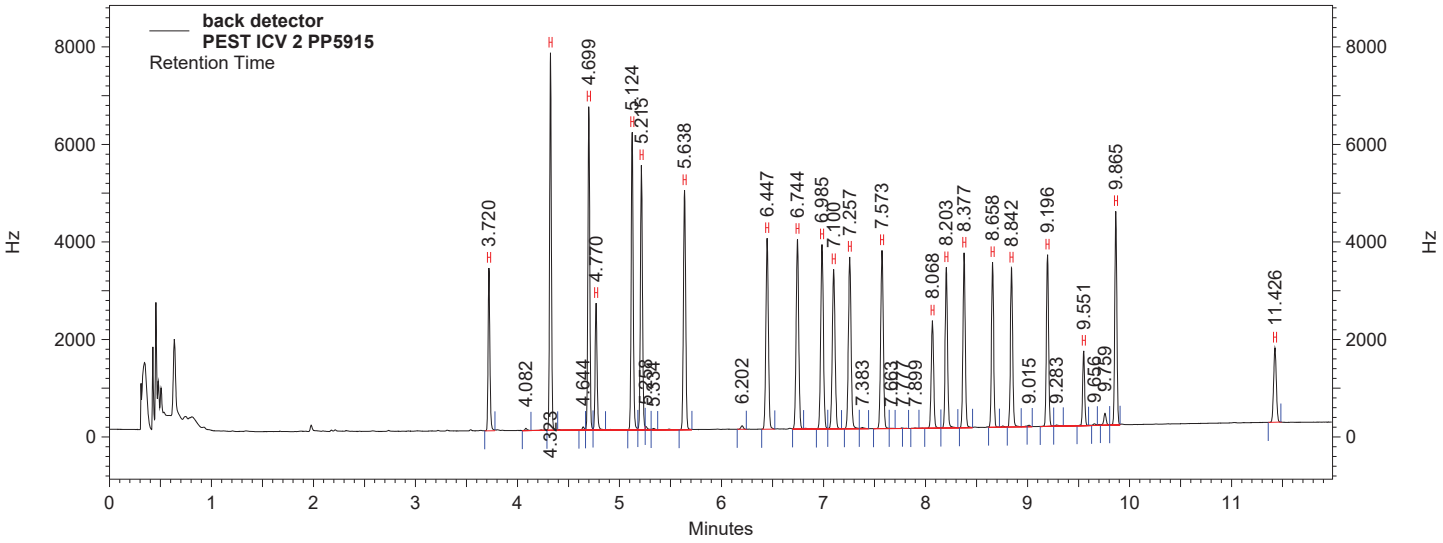
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.182	42480017	98.7784
ALPHABHC	3.647	97167494	0.0400
LINDANE	3.915	76612351	0.0387
BETABHC	3.985	36961974	0.0375
DELTABHC	4.142	88003628	0.0393
HEPTACHLOR	4.346	85387730	0.0400
ALDRIN	4.633	78438041	0.0399
HEPTAEPOX	5.257	69752782	0.0391
GAMMACHLOR	5.405	73993302	0.0394
ALPHACHLOR	5.560	72725461	0.0399
44DDE	5.653	69145346	0.0394
ENDOI	5.727	68166316	0.0394
DIELDRIN	6.032	72219281	0.0394
ENDRIN	6.351	36637545	0.0405
44DDD	6.454	55099018	0.0395
ENDOII	6.679	61394004	0.0406
44DDT	6.889	57094994	0.0397
ENDRINALDEH	7.343	54492660	0.0397
METHOXYCL	7.713	25758119	0.0392
ENDOSULFATE	8.013	58565688	0.0376
ENDRINKETONE	8.401	71195978	0.0381
SURRDCBPEST	9.710	31699658	95.9022

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\090519pstic\021.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
User: AJZ
Sample ID: PEST ICV 2 PP5915
Acquired: Sep 05, 2019 20:47:12
Printed: 09/06/2019 09:54:18

Data Summary: {Data Description}



back detector Results

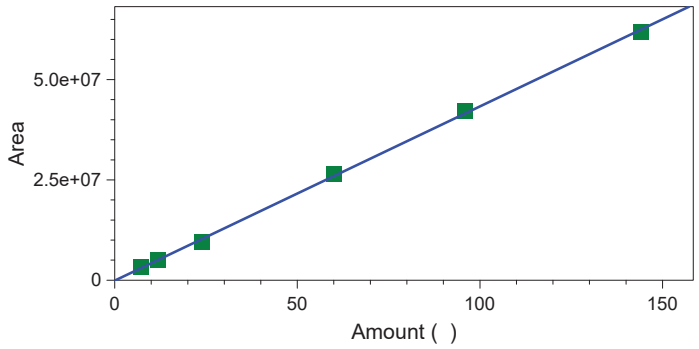
Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.720	31477078	98.5584
ALPHABHC	4.323	71341006	0.0399
LINDANE	4.699	64565537	0.0406
BETABHC	4.770	27048913	0.0375
DELTABHC	5.124	64571152	0.0388
HEPTACHLOR	5.215	59058803	0.0398
ALDRIN	5.638	57168133	0.0396
HEPTAEPOX	6.447	52160790	0.0397
GAMMACHLOR	6.744	52773291	0.0393
ALPHACHLOR	6.985	52148590	0.0399
ENDOI	7.100	47829158	0.0393
44DDE	7.257	49712688	0.0390
DIELDRIN	7.573	50251425	0.0385
ENDRIN	8.068	28046171	0.0403
44DDD	8.203	39474012	0.0392
ENDOII	8.377	43312264	0.0403
44DDT	8.658	37841304	0.0394
ENDRINALDEH	8.842	38279415	0.0394
ENDOSULFATE	9.196	40228179	0.0373
METHOXYCL	9.551	15822777	0.0393
ENDRINKETONE	9.865	47746439	0.0380
SURRDCBPEST	11.426	21683675	95.3413

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:58:48
User: AJZ
Instrument: Semi 1 (Offline)

SURRTCMXPEST (front detector)
Average RF: 430211. RF StDev: 17890.7 RF %RSD: 4.15859
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 434119.x - 92384.4
Goodness of fit (r^2): 0.999448

Peak: SURRTCMXPEST -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	7.2	12	24	60	96
Area	3217348	5112323	9530147	26452024	42237173
RF	446853.888888889	426026.916666667	397089.458333333	440867.066666667	439970.552083333
Last Area Residual	-0.424016	0.0108827	1.83436	-1.14542	-1.50673
Rep StDev					
Rep %RSD					
Rep 1 Area	3217348	5112323	9530147	26452024	42237173
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\004.dat	C:\Instarch\Semi1\data\090519pstic\005.dat	C:\Instarch\Semi1\data\090519pstic\006.dat	C:\Instarch\Semi1\data\090519pstic\007.dat	C:\Instarch\Semi1\data\090519pstic\008.dat
Rep 1 Sample ID	TC ICAL 1 PP5916	TC ICAL 2 PP5917	TC ICAL 3 PP5918	TC ICAL 4 PP5919	TC ICAL 5 PP5920
Rep 1 Calib. Time	Sep 06, 2019 08:47:38	Sep 06, 2019 08:47:56	Sep 06, 2019 08:48:09	Sep 06, 2019 08:48:26	Sep 06, 2019 08:48:41

	Level 6
Amount	144
Area	61986032

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:58:48
User: AJZ
Instrument: Semi 1 (Offline)

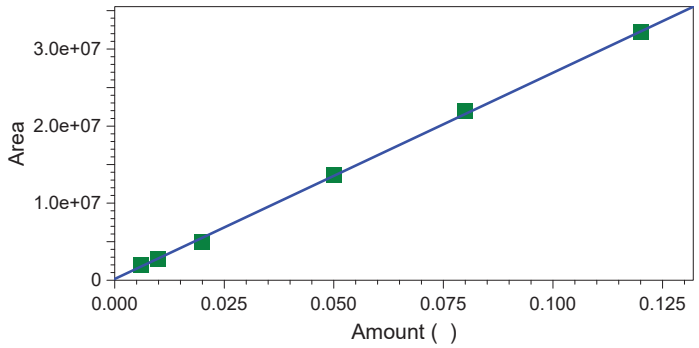
RF	430458.555555556
Last Area Residual	1.00149
Rep StDev	
Rep %RSD	
Rep 1 Area	61986032
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\009.dat
Rep 1 Sample ID	TC ICAL 6 PP5921
Rep 1 Calib. Time	Sep 06, 2019 08:48:56

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:58:51
User: AJZ
Instrument: Semi 1 (Offline)

Chlordane #1 (front detector)
Average RF: 2.79214e+008 RF StDev: 2.94816e+007 RF %RSD: 10.5588
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 2.67553e+008x + 166968.
Goodness of fit (r^2): 0.999316

Peak: Chlordane #1 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.006	0.01	0.02	0.05	0.08
Area	2015961	2736379	4973718	13703376	21910478
RF	335993500	273637900	248685900	274067520	273880975
Last Area Residual	-0.000910749	0.000396634	0.00203441	-0.000593346	-0.00126801
Rep StDev					
Rep %RSD					
Rep 1 Area	2015961	2736379	4973718	13703376	21910478
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\004.dat	C:\Instarch\Semi1\data\090519pstic\005.dat	C:\Instarch\Semi1\data\090519pstic\006.dat	C:\Instarch\Semi1\data\090519pstic\007.dat	C:\Instarch\Semi1\data\090519pstic\008.dat
Rep 1 Sample ID	TC ICAL 1 PP5916	TC ICAL 2 PP5917	TC ICAL 3 PP5918	TC ICAL 4 PP5919	TC ICAL 5 PP5920
Rep 1 Calib. Time	Sep 06, 2019 08:47:38	Sep 06, 2019 08:47:56	Sep 06, 2019 08:48:09	Sep 06, 2019 08:48:26	Sep 06, 2019 08:48:41

	Level 6
Amount	0.12
Area	32282323

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:58:51
User: AJZ
Instrument: Semi 1 (Offline)

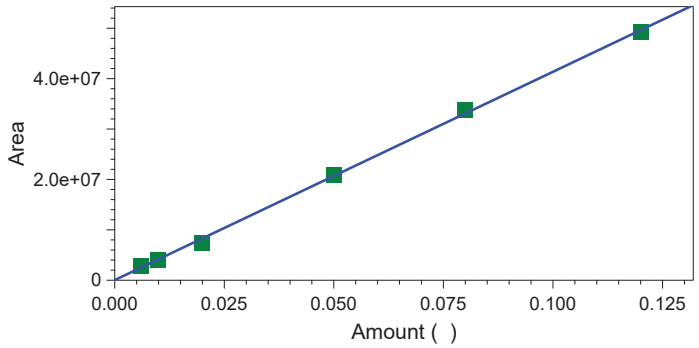
RF	269019358.333333
Last Area Residual	-3.35641e-005
Rep StDev	
Rep %RSD	
Rep 1 Area	32282323
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\009.dat
Rep 1 Sample ID	TC ICAL 6 PP5921
Rep 1 Calib. Time	Sep 06, 2019 08:48:56

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:58:52
User: AJZ
Instrument: Semi 1 (Offline)

Chlordane #2 (front detector)
Average RF: 4.16167e+008 RF StDev: 3.06917e+007 RF %RSD: 7.37487
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 4.13526e+008x + 13730.7
Goodness of fit (r^2): 0.999142

Peak: Chlordane #2 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.006	0.01	0.02	0.05	0.08
Area	2804199	4017037	7476102	20971408	33865807
RF	467366500	401703700	373805100	419428160	423322587.5
Last Area					
Residual	-0.000747985	0.000319097	0.00195429	-0.000680417	-0.001862
Rep StDev					
Rep %RSD					
Rep 1 Area	2804199	4017037	7476102	20971408	33865807
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\004.dat	C:\Instarch\Semi1\data\090519pstic\005.dat	C:\Instarch\Semi1\data\090519pstic\006.dat	C:\Instarch\Semi1\data\090519pstic\007.dat	C:\Instarch\Semi1\data\090519pstic\008.dat
Rep 1 Sample ID	TC ICAL 1 PP5916	TC ICAL 2 PP5917	TC ICAL 3 PP5918	TC ICAL 4 PP5919	TC ICAL 5 PP5920
Rep 1 Calib. Time	Sep 06, 2019 08:47:38	Sep 06, 2019 08:47:56	Sep 06, 2019 08:48:09	Sep 06, 2019 08:48:26	Sep 06, 2019 08:48:41

	Level 6
Amount	0.12
Area	49364900

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:58:52
User: AJZ
Instrument: Semi 1 (Offline)

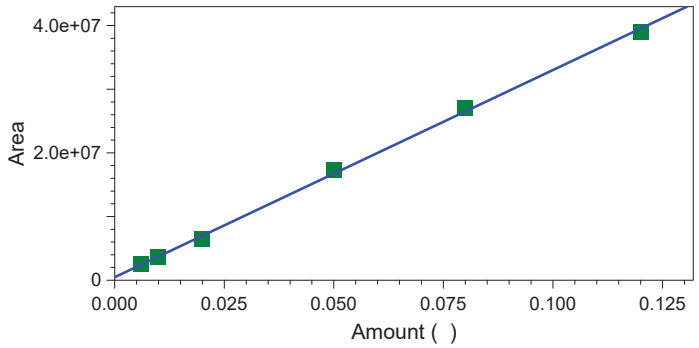
RF	411374166.666667
Last Area Residual	0.00065768
Rep StDev	
Rep %RSD	
Rep 1 Area	49364900
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\009.dat
Rep 1 Sample ID	TC ICAL 6 PP5921
Rep 1 Calib. Time	Sep 06, 2019 08:48:56

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:59:03
User: AJZ
Instrument: Semi 1 (Offline)

Chlordane #3 (front detector)
Average RF: 3.54875e+008 RF StDev: 4.31195e+007 RF %RSD: 12.1506
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 3.25550e+008x + 467558.
Goodness of fit (r^2): 0.999060

Peak: Chlordane #3 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.006	0.01	0.02	0.05	0.08
Area	2633308	3584621	6476998	17266142	26971422
RF	438884666.666667	358462100	323849900	345322840	337142775
Last Area Residual	-0.000652588	0.00042524	0.00154065	-0.00160063	-0.00141258
Rep StDev					
Rep %RSD					
Rep 1 Area	2633308	3584621	6476998	17266142	26971422
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\004.dat	C:\Instarch\Semi1\data\090519pstic\005.dat	C:\Instarch\Semi1\data\090519pstic\006.dat	C:\Instarch\Semi1\data\090519pstic\007.dat	C:\Instarch\Semi1\data\090519pstic\008.dat
Rep 1 Sample ID	TC ICAL 1 PP5916	TC ICAL 2 PP5917	TC ICAL 3 PP5918	TC ICAL 4 PP5919	TC ICAL 5 PP5920
Rep 1 Calib. Time	Sep 06, 2019 08:47:38	Sep 06, 2019 08:47:56	Sep 06, 2019 08:48:09	Sep 06, 2019 08:48:26	Sep 06, 2019 08:48:41

	Level 6
Amount	0.12
Area	39070532

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:59:03
User: AJZ
Instrument: Semi 1 (Offline)

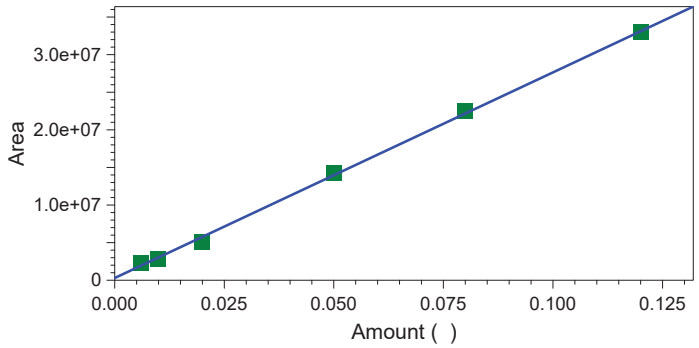
RF	325587766.666667
Last Area Residual	0.00142228
Rep StDev	
Rep %RSD	
Rep 1 Area	39070532
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\009.dat
Rep 1 Sample ID	TC ICAL 6 PP5921
Rep 1 Calib. Time	Sep 06, 2019 08:48:56

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:59:05
User: AJZ
Instrument: Semi 1 (Offline)

Chlordane #4 (front detector)
Average RF: 2.93404e+008 RF StDev: 4.30203e+007 RF %RSD: 14.6625
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 2.73562e+008x + 282941.
Goodness of fit (r^2): 0.998997

Peak: Chlordane #4 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.006	0.01	0.02	0.05	0.08
Area	2270395	2841429	5114345	14227982	22550010
RF	378399166.666667	284142900	255717250	284559640	281875125
Last Area					
Residual	-0.00126509	0.000647515	0.00233893	-0.000975737	-0.0013967
Rep StDev					
Rep %RSD					
Rep 1 Area	2270395	2841429	5114345	14227982	22550010
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\004.dat	C:\Instarch\Semi1\data\090519pstic\005.dat	C:\Instarch\Semi1\data\090519pstic\006.dat	C:\Instarch\Semi1\data\090519pstic\007.dat	C:\Instarch\Semi1\data\090519pstic\008.dat
Rep 1 Sample ID	TC ICAL 1 PP5916	TC ICAL 2 PP5917	TC ICAL 3 PP5918	TC ICAL 4 PP5919	TC ICAL 5 PP5920
Rep 1 Calib. Time	Sep 06, 2019 08:47:38	Sep 06, 2019 08:47:56	Sep 06, 2019 08:48:09	Sep 06, 2019 08:48:26	Sep 06, 2019 08:48:41

	Level 6
Amount	0.12
Area	33087652

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:59:05
User: AJZ
Instrument: Semi 1 (Offline)

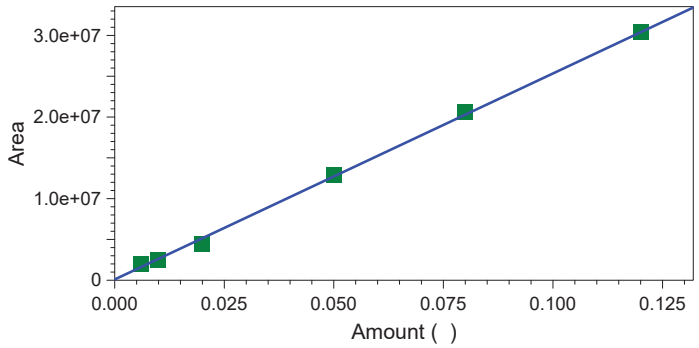
RF	275730433.333333
Last Area Residual	8.32247e-005
Rep StDev	
Rep %RSD	
Rep 1 Area	33087652
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\009.dat
Rep 1 Sample ID	TC ICAL 6 PP5921
Rep 1 Calib. Time	Sep 06, 2019 08:48:56

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:59:06
User: AJZ
Instrument: Semi 1 (Offline)

Chlordane #5 (front detector)
Average RF: 2.60898e+008 RF StDev: 3.43822e+007 RF %RSD: 13.1784
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 2.52367e+008x + 91884.9
Goodness of fit (r^2): 0.998717

Peak: Chlordane #5 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.006	0.01	0.02	0.05	0.08
Area	1949695	2486663	4418270	12932698	20655188
RF	324949166.666667	248666300	220913500	258653960	258189850
Last Area					
Residual	-0.00136154	0.000510733	0.00285677	-0.000881502	-0.00148174
Rep StDev					
Rep %RSD					
Rep 1 Area	1949695	2486663	4418270	12932698	20655188
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\004.dat	C:\Instarch\Semi1\data\090519pstic\005.dat	C:\Instarch\Semi1\data\090519pstic\006.dat	C:\Instarch\Semi1\data\090519pstic\007.dat	C:\Instarch\Semi1\data\090519pstic\008.dat
Rep 1 Sample ID	TC ICAL 1 PP5916	TC ICAL 2 PP5917	TC ICAL 3 PP5918	TC ICAL 4 PP5919	TC ICAL 5 PP5920
Rep 1 Calib. Time	Sep 06, 2019 08:47:38	Sep 06, 2019 08:47:56	Sep 06, 2019 08:48:09	Sep 06, 2019 08:48:26	Sep 06, 2019 08:48:41

	Level 6
Amount	0.12
Area	30481606

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:59:06
User: AJZ
Instrument: Semi 1 (Offline)

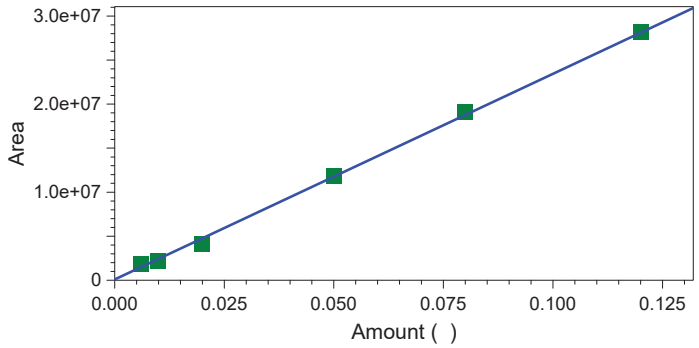
RF	254013383.333333
Last Area Residual	-0.00041875
Rep StDev	
Rep %RSD	
Rep 1 Area	30481606
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\009.dat
Rep 1 Sample ID	TC ICAL 6 PP5921
Rep 1 Calib. Time	Sep 06, 2019 08:48:56

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:59:08
User: AJZ
Instrument: Semi 1 (Offline)

Toxaphene #1 (front detector)
Average RF: 2.41779e+008 RF StDev: 3.66482e+007 RF %RSD: 15.1577
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 2.33541e+008x + 76136.9
Goodness of fit (r^2): 0.998551

Peak: Toxaphene #1 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.006	0.01	0.02	0.05	0.08
Area	1869442	2225588	4084754	11861381	19169776
RF	311573666.666667	222558800	204237700	237227620	239622200
Last Area					
Residual	-0.00167876	0.000796263	0.0028355	-0.000463251	-0.00175708
Rep StDev					
Rep %RSD					
Rep 1 Area	1869442	2225588	4084754	11861381	19169776
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\004.dat	C:\Instarch\Semi1\data\090519pstic\005.dat	C:\Instarch\Semi1\data\090519pstic\006.dat	C:\Instarch\Semi1\data\090519pstic\007.dat	C:\Instarch\Semi1\data\090519pstic\008.dat
Rep 1 Sample ID	TC ICAL 1 PP5916	TC ICAL 2 PP5917	TC ICAL 3 PP5918	TC ICAL 4 PP5919	TC ICAL 5 PP5920
Rep 1 Calib. Time	Sep 06, 2019 08:47:38	Sep 06, 2019 08:47:56	Sep 06, 2019 08:48:09	Sep 06, 2019 08:48:26	Sep 06, 2019 08:48:41

	Level 6
Amount	0.12
Area	28254357

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:59:08
User: AJZ
Instrument: Semi 1 (Offline)

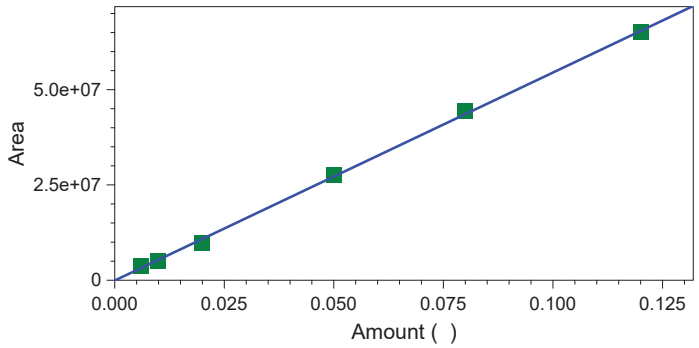
RF	235452975
Last Area	
Residual	-0.000656355
Rep StDev	
Rep %RSD	
Rep 1 Area	28254357
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\009.dat
Rep 1 Sample ID	TC ICAL 6 PP5921
Rep 1 Calib. Time	Sep 06, 2019 08:48:56

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:59:10
User: AJZ
Instrument: Semi 1 (Offline)

Toxaphene #2 (front detector)
Average RF: 5.44812e+008 RF StDev: 4.73528e+007 RF %RSD: 8.69159
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 5.46000e+008x - 78603.8
Goodness of fit (r^2): 0.999100

Peak: Toxaphene #2 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.006	0.01	0.02	0.05	0.08
Area	3730440	5104176	9647700	27738283	44438466
RF	621740000	510417600	482385000	554765660	555480825
Last Area Residual	-0.000976268	0.000507732	0.00218626	-0.000946662	-0.00153307
Rep StDev					
Rep %RSD					
Rep 1 Area	3730440	5104176	9647700	27738283	44438466
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\004.dat	C:\Instarch\Semi1\data\090519pstic\005.dat	C:\Instarch\Semi1\data\090519pstic\006.dat	C:\Instarch\Semi1\data\090519pstic\007.dat	C:\Instarch\Semi1\data\090519pstic\008.dat
Rep 1 Sample ID	TC ICAL 1 PP5916	TC ICAL 2 PP5917	TC ICAL 3 PP5918	TC ICAL 4 PP5919	TC ICAL 5 PP5920
Rep 1 Calib. Time	Sep 06, 2019 08:47:38	Sep 06, 2019 08:47:56	Sep 06, 2019 08:48:09	Sep 06, 2019 08:48:26	Sep 06, 2019 08:48:41

	Level 6
Amount	0.12
Area	65290032
RF	544083600

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:59:10
User: AJZ
Instrument: Semi 1 (Offline)

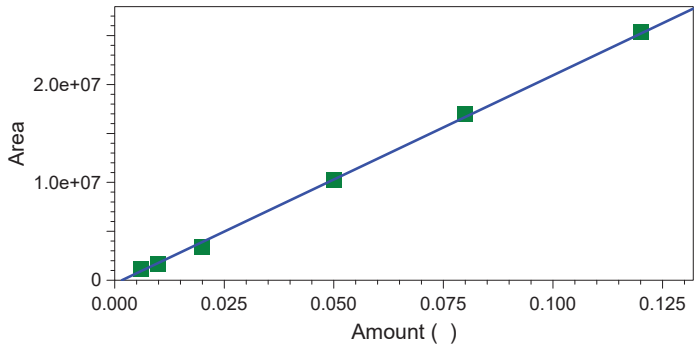
Last Area	
Residual	0.000277264
Rep StDev	
Rep %RSD	
Rep 1 Area	65290032
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\009.dat
Rep 1 Sample ID	TC ICAL 6 PP5921
Rep 1 Calib. Time	Sep 06, 2019 08:48:56

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:59:11
User: AJZ
Instrument: Semi 1 (Offline)

Toxaphene #3 (front detector)
Average RF: 1.93153e+008 RF StDev: 2.10661e+007 RF %RSD: 10.9064
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 2.12808e+008x - 348077.
Goodness of fit (r^2): 0.998861

Peak: Toxaphene #3 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.006	0.01	0.02	0.05	0.08
Area	1161416	1668938	3360005	10287466	17030172
RF	193569333.333333	166893800	168000250	205749320	212877150
Last Area Residual	-0.0010932	0.000521919	0.00257549	2.29054e-005	-0.0016615
Rep StDev					
Rep %RSD					
Rep 1 Area	1161416	1668938	3360005	10287466	17030172
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\004.dat	C:\Instarch\Semi1\data\090519pstic\005.dat	C:\Instarch\Semi1\data\090519pstic\006.dat	C:\Instarch\Semi1\data\090519pstic\007.dat	C:\Instarch\Semi1\data\090519pstic\008.dat
Rep 1 Sample ID	TC ICAL 1 PP5916	TC ICAL 2 PP5917	TC ICAL 3 PP5918	TC ICAL 4 PP5919	TC ICAL 5 PP5920
Rep 1 Calib. Time	Sep 06, 2019 08:47:38	Sep 06, 2019 08:47:56	Sep 06, 2019 08:48:09	Sep 06, 2019 08:48:26	Sep 06, 2019 08:48:41

	Level 6
Amount	0.12
Area	25419561

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:59:11
User: AJZ
Instrument: Semi 1 (Offline)

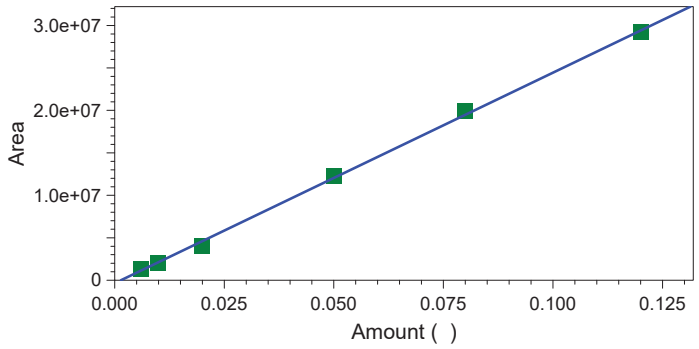
RF	211829675
Last Area	
Residual	-0.00108378
Rep StDev	
Rep %RSD	
Rep 1 Area	25419561
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\009.dat
Rep 1 Sample ID	TC ICAL 6 PP5921
Rep 1 Calib. Time	Sep 06, 2019 08:48:56

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:59:13
User: AJZ
Instrument: Semi 1 (Offline)

Toxaphene #4 (front detector)
Average RF: 2.27422e+008 RF StDev: 2.12101e+007 RF %RSD: 9.32634
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 2.47969e+008x - 354395.
Goodness of fit (r^2): 0.999049

Peak: Toxaphene #4 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.006	0.01	0.02	0.05	0.08
Area	1298420	2072005	4042120	12289983	19913982
RF	216403333.333333	207200500	202106000	245799660	248924775
Last Area Residual	-0.000665424	0.000214886	0.00226987	-0.000991865	-0.0017377
Rep StDev					
Rep %RSD					
Rep 1 Area	1298420	2072005	4042120	12289983	19913982
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\004.dat	C:\Instarch\Semi1\data\090519pstic\005.dat	C:\Instarch\Semi1\data\090519pstic\006.dat	C:\Instarch\Semi1\data\090519pstic\007.dat	C:\Instarch\Semi1\data\090519pstic\008.dat
Rep 1 Sample ID	TC ICAL 1 PP5916	TC ICAL 2 PP5917	TC ICAL 3 PP5918	TC ICAL 4 PP5919	TC ICAL 5 PP5920
Rep 1 Calib. Time	Sep 06, 2019 08:47:38	Sep 06, 2019 08:47:56	Sep 06, 2019 08:48:09	Sep 06, 2019 08:48:26	Sep 06, 2019 08:48:41

	Level 6
Amount	0.12
Area	29291497

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:59:13
User: AJZ
Instrument: Semi 1 (Offline)

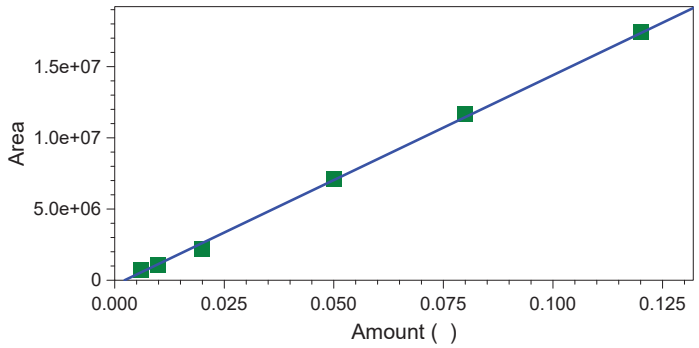
RF	244095808.333333
Last Area Residual	0.000444946
Rep StDev	
Rep %RSD	
Rep 1 Area	29291497
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\009.dat
Rep 1 Sample ID	TC ICAL 6 PP5921
Rep 1 Calib. Time	Sep 06, 2019 08:48:56

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:59:15
User: AJZ
Instrument: Semi 1 (Offline)

Toxaphene #5 (front detector)
Average RF: 1.27877e+008 RF StDev: 1.86407e+007 RF %RSD: 14.5770
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 1.47279e+008x - 333589.
Goodness of fit (r^2): 0.998797

Peak: Toxaphene #5 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.006	0.01	0.02	0.05	0.08
Area	697219	1070546	2201987	7110797	11689390
RF	116203166.666667	107054600	110099350	142215940	146117375
Last Area					
Residual	-0.000999033	0.000466132	0.00278381	-0.000546281	-0.00163425
Rep StDev					
Rep %RSD					
Rep 1 Area	697219	1070546	2201987	7110797	11689390
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\004.dat	C:\Instarch\Semi1\data\090519pstic\005.dat	C:\Instarch\Semi1\data\090519pstic\006.dat	C:\Instarch\Semi1\data\090519pstic\007.dat	C:\Instarch\Semi1\data\090519pstic\008.dat
Rep 1 Sample ID	TC ICAL 1 PP5916	TC ICAL 2 PP5917	TC ICAL 3 PP5918	TC ICAL 4 PP5919	TC ICAL 5 PP5920
Rep 1 Calib. Time	Sep 06, 2019 08:47:38	Sep 06, 2019 08:47:56	Sep 06, 2019 08:48:09	Sep 06, 2019 08:48:26	Sep 06, 2019 08:48:41

	Level 6
Amount	0.12
Area	17468820

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:59:15
User: AJZ
Instrument: Semi 1 (Offline)

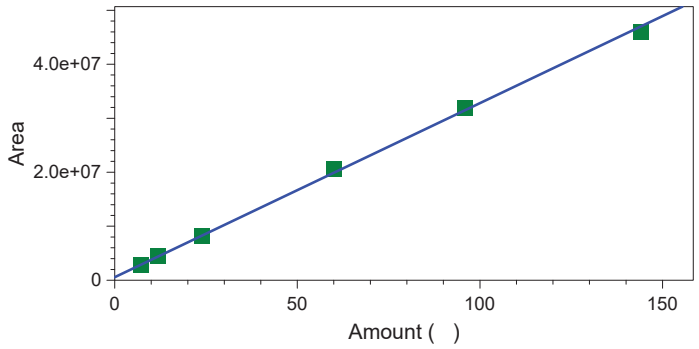
RF	145573500
Last Area	
Residual	-0.000875728
Rep StDev	
Rep %RSD	
Rep 1 Area	17468820
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\009.dat
Rep 1 Sample ID	TC ICAL 6 PP5921
Rep 1 Calib. Time	Sep 06, 2019 08:48:56

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:59:16
User: AJZ
Instrument: Semi 1 (Offline)

SURRDCBPEST (front detector)
Average RF: 349660. RF StDev: 25762.7 RF %RSD: 7.36793
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 322578.x + 546076.
Goodness of fit (r^2): 0.998932

Peak: SURRDCBPEST -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	7.2	12	24	60	96
Area	2769220	4528756	8153919	20669144	31847853
RF	384613.888888889	377396.333333333	339746.625	344485.733333333	331748.46875
Last Area Residual	0.308195	-0.346413	0.415486	-2.38204	-1.03634
Rep StDev					
Rep %RSD					
Rep 1 Area	2769220	4528756	8153919	20669144	31847853
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\004.dat	C:\Instarch\Semi1\data\090519pstic\005.dat	C:\Instarch\Semi1\data\090519pstic\006.dat	C:\Instarch\Semi1\data\090519pstic\007.dat	C:\Instarch\Semi1\data\090519pstic\008.dat
Rep 1 Sample ID	TC ICAL 1 PP5916	TC ICAL 2 PP5917	TC ICAL 3 PP5918	TC ICAL 4 PP5919	TC ICAL 5 PP5920
Rep 1 Calib. Time	Sep 06, 2019 08:47:38	Sep 06, 2019 08:47:56	Sep 06, 2019 08:48:09	Sep 06, 2019 08:48:26	Sep 06, 2019 08:48:41

	Level 6
Amount	144
Area	46075348

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:59:16
User: AJZ
Instrument: Semi 1 (Offline)

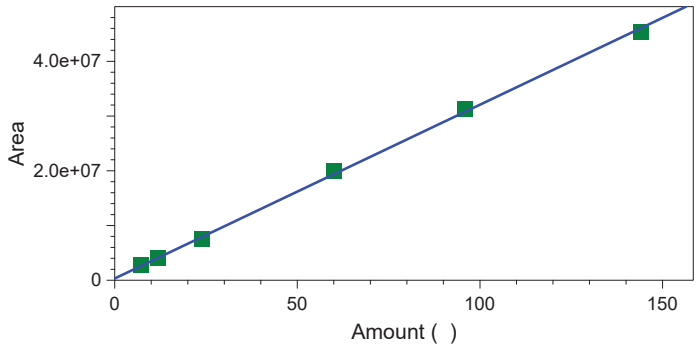
RF	319967.694444444
Last Area Residual	2.85805
Rep StDev	
Rep %RSD	
Rep 1 Area	46075348
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\009.dat
Rep 1 Sample ID	TC ICAL 6 PP5921
Rep 1 Calib. Time	Sep 06, 2019 08:48:56

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:58:00
User: AJZ
Instrument: Semi 1 (Offline)

SURRTCMXPEST (back detector)
Average RF: 332964. RF StDev: 23285.1 RF %RSD: 6.99329
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 317571.x + 298852.
Goodness of fit (r^2): 0.999225

Peak: SURRTCMXPEST -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	7.2	12	24	60	96
Area	2702830	4067408	7443387	19913820	31277483
RF	375393.055555556	338950.666666667	310141.125	331897	325807.114583333
Last Area Residual	-0.369893	0.133184	1.50256	-1.76562	-1.54869
Rep StDev					
Rep %RSD					
Rep 1 Area	2702830	4067408	7443387	19913820	31277483
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\004.dat	C:\Instarch\Semi1\data\090519pstic\005.dat	C:\Instarch\Semi1\data\090519pstic\006.dat	C:\Instarch\Semi1\data\090519pstic\007.dat	C:\Instarch\Semi1\data\090519pstic\008.dat
Rep 1 Sample ID	TC ICAL 1 PP5916	TC ICAL 2 PP5917	TC ICAL 3 PP5918	TC ICAL 4 PP5919	TC ICAL 5 PP5920
Rep 1 Calib. Time	Sep 06, 2019 08:47:38	Sep 06, 2019 08:47:56	Sep 06, 2019 08:48:09	Sep 06, 2019 08:48:26	Sep 06, 2019 08:48:41

	Level 6
Amount	144
Area	45445686

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:58:00
User: AJZ
Instrument: Semi 1 (Offline)

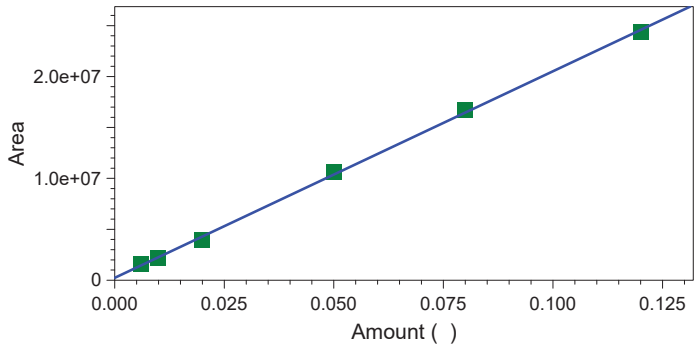
RF	315595.041666667
Last Area Residual	1.83703
Rep StDev	
Rep %RSD	
Rep 1 Area	45445686
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\009.dat
Rep 1 Sample ID	TC ICAL 6 PP5921
Rep 1 Calib. Time	Sep 06, 2019 08:48:56

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:58:02
User: AJZ
Instrument: Semi 1 (Offline)

Chlordane #1 (back detector)
Average RF: 2.18149e+008 RF StDev: 2.76807e+007 RF %RSD: 12.6889
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 2.02885e+008x + 232711.
Goodness of fit (r^2): 0.999167

Peak: Chlordane #1 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.006	0.01	0.02	0.05	0.08
Area	1637452	2147951	3916847	10625489	16743876
RF	272908666.666667	214795100	195842350	212509780	209298450
Last Area Residual	-0.000923819	0.000559986	0.00184128	-0.0012249	-0.00138178
Rep StDev					
Rep %RSD					
Rep 1 Area	1637452	2147951	3916847	10625489	16743876
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\004.dat	C:\Instarch\Semi1\data\090519pstic\005.dat	C:\Instarch\Semi1\data\090519pstic\006.dat	C:\Instarch\Semi1\data\090519pstic\007.dat	C:\Instarch\Semi1\data\090519pstic\008.dat
Rep 1 Sample ID	TC ICAL 1 PP5916	TC ICAL 2 PP5917	TC ICAL 3 PP5918	TC ICAL 4 PP5919	TC ICAL 5 PP5920
Rep 1 Calib. Time	Sep 06, 2019 08:47:38	Sep 06, 2019 08:47:56	Sep 06, 2019 08:48:09	Sep 06, 2019 08:48:26	Sep 06, 2019 08:48:41

	Level 6
Amount	0.12
Area	24424415

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:58:02
User: AJZ
Instrument: Semi 1 (Offline)

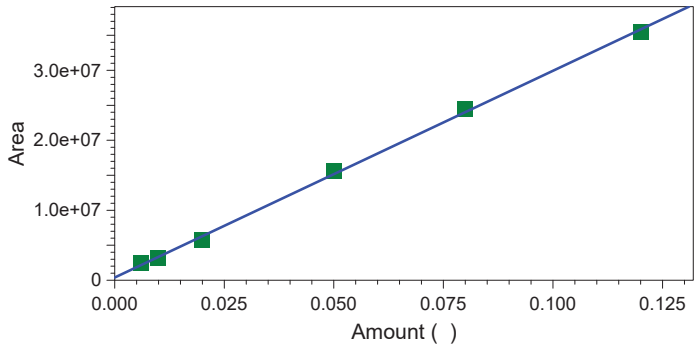
RF	203536791.666667
Last Area Residual	0.000761653
Rep StDev	
Rep %RSD	
Rep 1 Area	24424415
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\009.dat
Rep 1 Sample ID	TC ICAL 6 PP5921
Rep 1 Calib. Time	Sep 06, 2019 08:48:56

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:58:39
User: AJZ
Instrument: Semi 1 (Offline)

Chlordane #2 (back detector)
Average RF: 3.21030e+008 RF StDev: 4.32500e+007 RF %RSD: 13.4723
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 2.95453e+008x + 394003.
Goodness of fit (r^2): 0.999019

Peak: Chlordane #2 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.006	0.01	0.02	0.05	0.08
Area	2436988	3192505	5735122	15596363	24462770
RF	406164666.666667	319250500	286756100	311927260	305784625
Last Area					
Residual	-0.000914758	0.000528093	0.00192226	-0.00145444	-0.00146398
Rep StDev					
Rep %RSD					
Rep 1 Area	2436988	3192505	5735122	15596363	24462770
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\004.dat	C:\Instarch\Semi1\data\090519pstic\005.dat	C:\Instarch\Semi1\data\090519pstic\006.dat	C:\Instarch\Semi1\data\090519pstic\007.dat	C:\Instarch\Semi1\data\090519pstic\008.dat
Rep 1 Sample ID	TC ICAL 1 PP5916	TC ICAL 2 PP5917	TC ICAL 3 PP5918	TC ICAL 4 PP5919	TC ICAL 5 PP5920
Rep 1 Calib. Time	Sep 06, 2019 08:47:38	Sep 06, 2019 08:47:56	Sep 06, 2019 08:48:09	Sep 06, 2019 08:48:26	Sep 06, 2019 08:48:41

	Level 6
Amount	0.12
Area	35555527

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:58:39
User: AJZ
Instrument: Semi 1 (Offline)

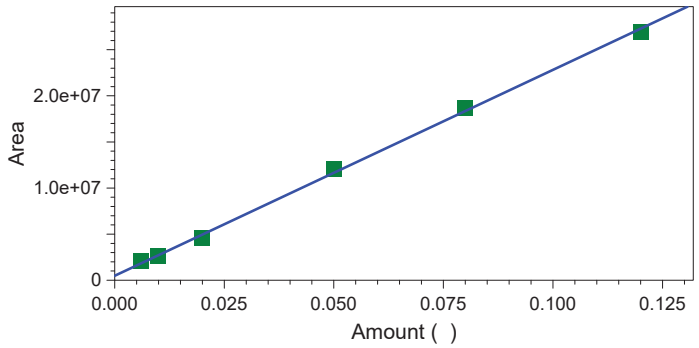
RF	296296058.333333
Last Area Residual	0.000991086
Rep StDev	
Rep %RSD	
Rep 1 Area	35555527
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\009.dat
Rep 1 Sample ID	TC ICAL 6 PP5921
Rep 1 Calib. Time	Sep 06, 2019 08:48:56

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:58:17
User: AJZ
Instrument: Semi 1 (Offline)

Chlordane #3 (back detector)
Average RF: 2.54127e+008 RF StDev: 4.32648e+007 RF %RSD: 17.0249
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 2.23369e+008x + 487886.
Goodness of fit (r^2): 0.998904

Peak: Chlordane #3 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.006	0.01	0.02	0.05	0.08
Area	2035397	2576865	4574554	12028951	18694152
RF	339232833.333333	257686500	228727700	240579020	233676900
Last Area					
Residual	-0.000928056	0.000647846	0.00170439	-0.00166821	-0.00150766
Rep StDev					
Rep %RSD					
Rep 1 Area	2035397	2576865	4574554	12028951	18694152
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\004.dat	C:\Instarch\Semi1\data\090519pstic\005.dat	C:\Instarch\Semi1\data\090519pstic\006.dat	C:\Instarch\Semi1\data\090519pstic\007.dat	C:\Instarch\Semi1\data\090519pstic\008.dat
Rep 1 Sample ID	TC ICAL 1 PP5916	TC ICAL 2 PP5917	TC ICAL 3 PP5918	TC ICAL 4 PP5919	TC ICAL 5 PP5920
Rep 1 Calib. Time	Sep 06, 2019 08:47:38	Sep 06, 2019 08:47:56	Sep 06, 2019 08:48:09	Sep 06, 2019 08:48:26	Sep 06, 2019 08:48:41

	Level 6
Amount	0.12
Area	26982943

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:58:17
User: AJZ
Instrument: Semi 1 (Offline)

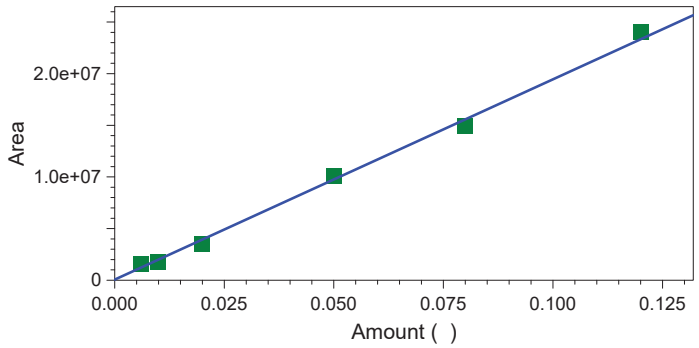
RF	224857858.333333
Last Area Residual	0.00138424
Rep StDev	
Rep %RSD	
Rep 1 Area	26982943
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\009.dat
Rep 1 Sample ID	TC ICAL 6 PP5921
Rep 1 Calib. Time	Sep 06, 2019 08:48:56

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:58:19
User: AJZ
Instrument: Semi 1 (Offline)

Chlordane #4 (back detector)
Average RF: 2.00245e+008 RF StDev: 3.14072e+007 RF %RSD: 15.6844
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 1.93950e+008x + 50018.6
Goodness of fit (r^2): 0.996568

Peak: Chlordane #4 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.006	0.01	0.02	0.05	0.08
Area	1560558	1746951	3548356	10075436	14962617
RF	260093000	174695100	177417800	201508720	187032712.5
Last Area					
Residual	-0.00178828	0.00125068	0.0019627	-0.00169068	0.0031112
Rep StDev					
Rep %RSD					
Rep 1 Area	1560558	1746951	3548356	10075436	14962617
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\004.dat	C:\Instarch\Semi1\data\090519pstic\005.dat	C:\Instarch\Semi1\data\090519pstic\006.dat	C:\Instarch\Semi1\data\090519pstic\007.dat	C:\Instarch\Semi1\data\090519pstic\008.dat
Rep 1 Sample ID	TC ICAL 1 PP5916	TC ICAL 2 PP5917	TC ICAL 3 PP5918	TC ICAL 4 PP5919	TC ICAL 5 PP5920
Rep 1 Calib. Time	Sep 06, 2019 08:47:38	Sep 06, 2019 08:47:56	Sep 06, 2019 08:48:09	Sep 06, 2019 08:48:26	Sep 06, 2019 08:48:41

	Level 6
Amount	0.12
Area	24086715
RF	200722625

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:58:19
User: AJZ
Instrument: Semi 1 (Offline)

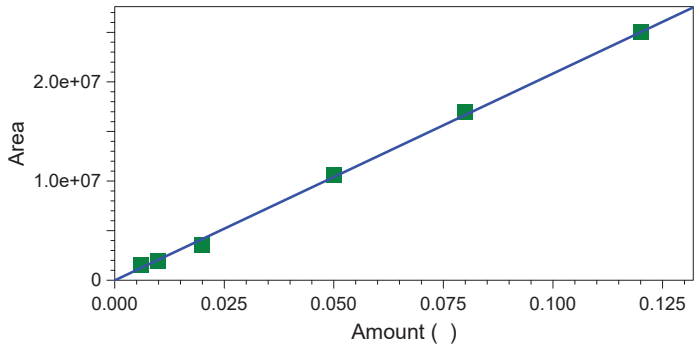
Last Area	
Residual	-0.0039323
Rep StDev	
Rep %RSD	
Rep 1 Area	24086715
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\009.dat
Rep 1 Sample ID	TC ICAL 6 PP5921
Rep 1 Calib. Time	Sep 06, 2019 08:48:56

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:58:21
User: AJZ
Instrument: Semi 1 (Offline)

Chlordane #5 (back detector)
Average RF: 2.09566e+008 RF StDev: 2.26180e+007 RF %RSD: 10.7928
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 2.08572e+008x - 16966.5
Goodness of fit (r^2): 0.998847

Peak: Chlordane #5 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.006	0.01	0.02	0.05	0.08
Area	1487937	1969544	3587882	10594030	16969154
RF	247989500	196954400	179394100	211880600	212114425
Last Area Residual	-0.00121526	0.000475672	0.00271655	-0.000874443	-0.00143999
Rep StDev					
Rep %RSD					
Rep 1 Area	1487937	1969544	3587882	10594030	16969154
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\004.dat	C:\Instarch\Semi1\data\090519pstic\005.dat	C:\Instarch\Semi1\data\090519pstic\006.dat	C:\Instarch\Semi1\data\090519pstic\007.dat	C:\Instarch\Semi1\data\090519pstic\008.dat
Rep 1 Sample ID	TC ICAL 1 PP5916	TC ICAL 2 PP5917	TC ICAL 3 PP5918	TC ICAL 4 PP5919	TC ICAL 5 PP5920
Rep 1 Calib. Time	Sep 06, 2019 08:47:38	Sep 06, 2019 08:47:56	Sep 06, 2019 08:48:09	Sep 06, 2019 08:48:26	Sep 06, 2019 08:48:41

	Level 6
Amount	0.12
Area	25087653
RF	209063775

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:58:21
User: AJZ
Instrument: Semi 1 (Offline)

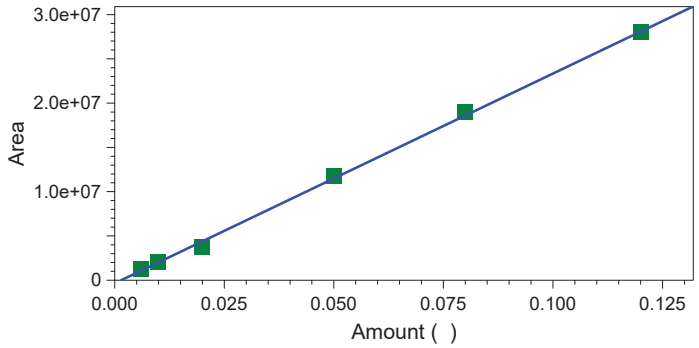
Last Area	
Residual	-0.000364146
Rep StDev	
Rep %RSD	
Rep 1 Area	25087653
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\009.dat
Rep 1 Sample ID	TC ICAL 6 PP5921
Rep 1 Calib. Time	Sep 06, 2019 08:48:56

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:58:22
User: AJZ
Instrument: Semi 1 (Offline)

Toxaphene #1 (back detector)
Average RF: 2.16691e+008 RF StDev: 2.12041e+007 RF %RSD: 9.78543
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 2.36913e+008x - 351321.
Goodness of fit (r^2): 0.998934

Peak: Toxaphene #1 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.006	0.01	0.02	0.05	0.08
Area	1234449	2009736	3753593	11718801	18982545
RF	205741500	200973600	187679650	234376020	237281812.5
Last Area Residual	-0.000693463	3.40871e-005	0.00267335	-0.000947422	-0.00160735
Rep StDev					
Rep %RSD					
Rep 1 Area	1234449	2009736	3753593	11718801	18982545
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\004.dat	C:\Instarch\Semi1\data\090519pstic\005.dat	C:\Instarch\Semi1\data\090519pstic\006.dat	C:\Instarch\Semi1\data\090519pstic\007.dat	C:\Instarch\Semi1\data\090519pstic\008.dat
Rep 1 Sample ID	TC ICAL 1 PP5916	TC ICAL 2 PP5917	TC ICAL 3 PP5918	TC ICAL 4 PP5919	TC ICAL 5 PP5920
Rep 1 Calib. Time	Sep 06, 2019 08:47:38	Sep 06, 2019 08:47:56	Sep 06, 2019 08:48:09	Sep 06, 2019 08:48:26	Sep 06, 2019 08:48:41

	Level 6
Amount	0.12
Area	28090862

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:58:22
User: AJZ
Instrument: Semi 1 (Offline)

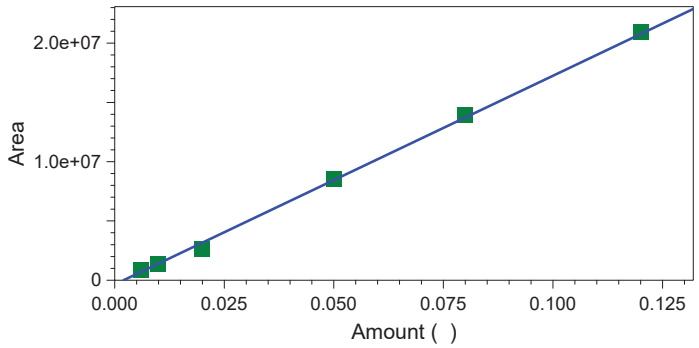
RF	234090516.666667
Last Area Residual	-5.31268e-005
Rep StDev	
Rep %RSD	
Rep 1 Area	28090862
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\009.dat
Rep 1 Sample ID	TC ICAL 6 PP5921
Rep 1 Calib. Time	Sep 06, 2019 08:48:56

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:58:24
User: AJZ
Instrument: Semi 1 (Offline)

Toxaphene #2 (back detector)
Average RF: 1.55456e+008 RF StDev: 1.97428e+007 RF %RSD: 12.7000
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 1.75975e+008x - 352590.
Goodness of fit (r^2): 0.998786

Peak: Toxaphene #2 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.006	0.01	0.02	0.05	0.08
Area	849247	1391150	2648929	8512866	13960899
RF	141541166.666667	139115000	132446450	170257320	174511237.5
Last Area Residual	-0.000829594	9.09735e-005	0.00294348	-0.000379084	-0.00133822
Rep StDev					
Rep %RSD					
Rep 1 Area	849247	1391150	2648929	8512866	13960899
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\004.dat	C:\Instarch\Semi1\data\090519pstic\005.dat	C:\Instarch\Semi1\data\090519pstic\006.dat	C:\Instarch\Semi1\data\090519pstic\007.dat	C:\Instarch\Semi1\data\090519pstic\008.dat
Rep 1 Sample ID	TC ICAL 1 PP5916	TC ICAL 2 PP5917	TC ICAL 3 PP5918	TC ICAL 4 PP5919	TC ICAL 5 PP5920
Rep 1 Calib. Time	Sep 06, 2019 08:47:38	Sep 06, 2019 08:47:56	Sep 06, 2019 08:48:09	Sep 06, 2019 08:48:26	Sep 06, 2019 08:48:41

	Level 6
Amount	0.12
Area	20983551

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:58:24
User: AJZ
Instrument: Semi 1 (Offline)

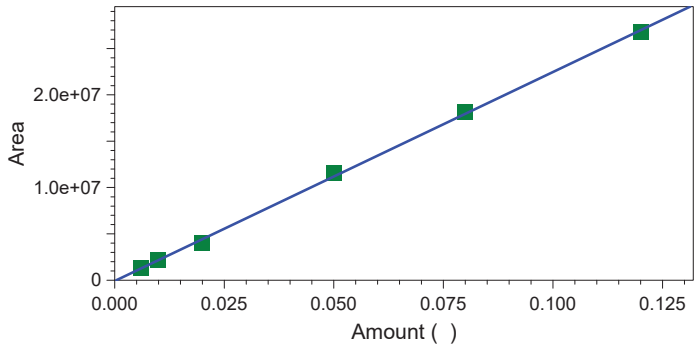
RF	174862925
Last Area Residual	-0.00124534
Rep StDev	
Rep %RSD	
Rep 1 Area	20983551
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\009.dat
Rep 1 Sample ID	TC ICAL 6 PP5921
Rep 1 Calib. Time	Sep 06, 2019 08:48:56

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:58:26
User: AJZ
Instrument: Semi 1 (Offline)

Toxaphene #3 (back detector)
Average RF: 2.21259e+008 RF StDev: 1.14663e+007 RF %RSD: 5.18230
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 2.25545e+008x - 80863.8
Goodness of fit (r^2): 0.999245

Peak: Toxaphene #3 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.006	0.01	0.02	0.05	0.08
Area	1350581	2225587	3970971	11516376	18188408
RF	225096833.333333	222558700	198548550	230327520	227355100
Last Area Residual	-0.000346603	-0.000226121	0.00203536	-0.00141873	-0.00100055
Rep StDev					
Rep %RSD					
Rep 1 Area	1350581	2225587	3970971	11516376	18188408
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\004.dat	C:\Instarch\Semi1\data\090519pstic\005.dat	C:\Instarch\Semi1\data\090519pstic\006.dat	C:\Instarch\Semi1\data\090519pstic\007.dat	C:\Instarch\Semi1\data\090519pstic\008.dat
Rep 1 Sample ID	TC ICAL 1 PP5916	TC ICAL 2 PP5917	TC ICAL 3 PP5918	TC ICAL 4 PP5919	TC ICAL 5 PP5920
Rep 1 Calib. Time	Sep 06, 2019 08:47:38	Sep 06, 2019 08:47:56	Sep 06, 2019 08:48:09	Sep 06, 2019 08:48:26	Sep 06, 2019 08:48:41

	Level 6
Amount	0.12
Area	26840008

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:58:26
User: AJZ
Instrument: Semi 1 (Offline)

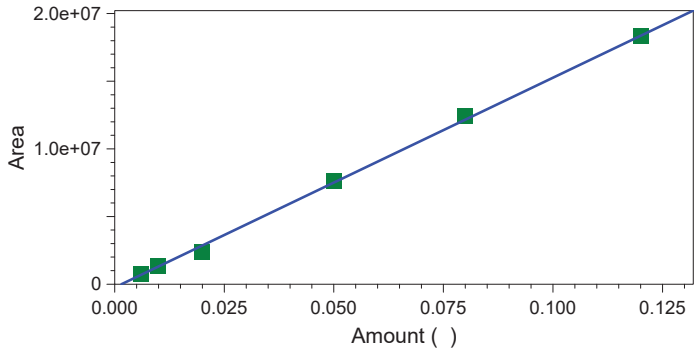
RF	223666733.333333
Last Area Residual	0.000640814
Rep StDev	
Rep %RSD	
Rep 1 Area	26840008
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\009.dat
Rep 1 Sample ID	TC ICAL 6 PP5921
Rep 1 Calib. Time	Sep 06, 2019 08:48:56

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:58:28
User: AJZ
Instrument: Semi 1 (Offline)

Toxaphene #4 (back detector)
Average RF: 1.41313e+008 RF StDev: 1.46724e+007 RF %RSD: 10.3829
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 1.54914e+008x - 236909.
Goodness of fit (r^2): 0.998763

Peak: Toxaphene #4 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.006	0.01	0.02	0.05	0.08
Area	775799	1372685	2402346	7636417	12424240
RF	129299833.333333	137268500	120117300	152728340	155303000
Last Area Residual	-0.000537237	-0.000390257	0.00296307	-0.000823916	-0.00173028
Rep StDev					
Rep %RSD					
Rep 1 Area	775799	1372685	2402346	7636417	12424240
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\004.dat	C:\Instarch\Semi1\data\090519pstic\005.dat	C:\Instarch\Semi1\data\090519pstic\006.dat	C:\Instarch\Semi1\data\090519pstic\007.dat	C:\Instarch\Semi1\data\090519pstic\008.dat
Rep 1 Sample ID	TC ICAL 1 PP5916	TC ICAL 2 PP5917	TC ICAL 3 PP5918	TC ICAL 4 PP5919	TC ICAL 5 PP5920
Rep 1 Calib. Time	Sep 06, 2019 08:47:38	Sep 06, 2019 08:47:56	Sep 06, 2019 08:48:09	Sep 06, 2019 08:48:26	Sep 06, 2019 08:48:41

	Level 6
Amount	0.12
Area	18379658

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:58:28
User: AJZ
Instrument: Semi 1 (Offline)

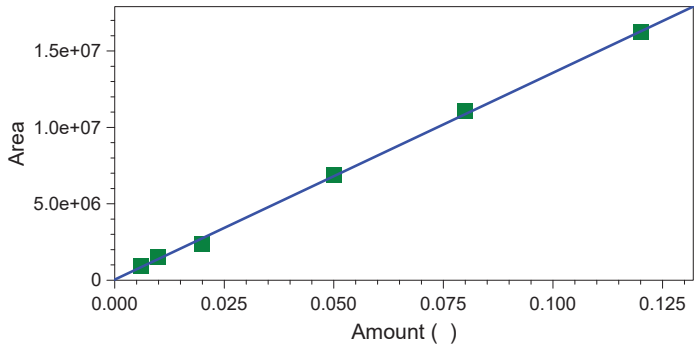
RF	153163816.666667
Last Area Residual	-0.000173714
Rep StDev	
Rep %RSD	
Rep 1 Area	18379658
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\009.dat
Rep 1 Sample ID	TC ICAL 6 PP5921
Rep 1 Calib. Time	Sep 06, 2019 08:48:56

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:58:29
User: AJZ
Instrument: Semi 1 (Offline)

Toxaphene #5 (back detector)
Average RF: 1.38602e+008 RF StDev: 1.16334e+007 RF %RSD: 8.39340
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 1.35355e+008x + 41798.0
Goodness of fit (r^2): 0.998919

Peak: Toxaphene #5 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.006	0.01	0.02	0.05	0.08
Area	908782	1492432	2377846	6884553	11093522
RF	151463666.666667	149243200	118892300	137691060	138669025
Last Area Residual	-0.000405261	-0.000717256	0.00274132	-0.00055414	-0.00164992
Rep StDev					
Rep %RSD					
Rep 1 Area	908782	1492432	2377846	6884553	11093522
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\004.dat	C:\Instarch\Semi1\data\090519pstic\005.dat	C:\Instarch\Semi1\data\090519pstic\006.dat	C:\Instarch\Semi1\data\090519pstic\007.dat	C:\Instarch\Semi1\data\090519pstic\008.dat
Rep 1 Sample ID	TC ICAL 1 PP5916	TC ICAL 2 PP5917	TC ICAL 3 PP5918	TC ICAL 4 PP5919	TC ICAL 5 PP5920
Rep 1 Calib. Time	Sep 06, 2019 08:47:38	Sep 06, 2019 08:47:56	Sep 06, 2019 08:48:09	Sep 06, 2019 08:48:26	Sep 06, 2019 08:48:41

	Level 6
Amount	0.12
Area	16278022

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:58:29
User: AJZ
Instrument: Semi 1 (Offline)

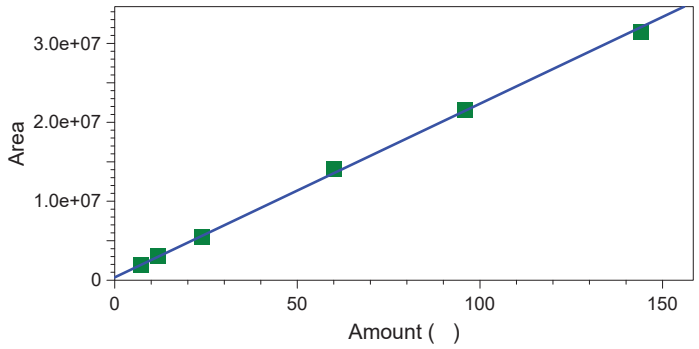
RF	135650183.333333
Last Area Residual	4.70946e-005
Rep StDev	
Rep %RSD	
Rep 1 Area	16278022
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\009.dat
Rep 1 Sample ID	TC ICAL 6 PP5921
Rep 1 Calib. Time	Sep 06, 2019 08:48:56

Calibration Report

Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:58:33
User: AJZ
Instrument: Semi 1 (Offline)

SURRDCBPEST (back detector)
Average RF: 237481. RF StDev: 17520.5 RF %RSD: 7.37764
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 220016.x + 351340.
Goodness of fit (r^2): 0.999085

Peak: SURRDCBPEST -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	7.2	12	24	60	96
Area	1902434	3033760	5489431	14113650	21610885
RF	264226.94444	252813.333333	228726.2916666	235227.5	225113.38541
		333	67		6667
Last Area Residual	0.150083	-0.191936	0.646731	-2.55143	-0.627301
Rep StDev					
Rep %RSD					
Rep 1 Area	1902434	3033760	5489431	14113650	21610885
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\004.dat	C:\Instarch\Semi1\data\090519pstic\005.dat	C:\Instarch\Semi1\data\090519pstic\006.dat	C:\Instarch\Semi1\data\090519pstic\007.dat	C:\Instarch\Semi1\data\090519pstic\008.dat
Rep 1 Sample ID	TC ICAL 1 PP5916	TC ICAL 2 PP5917	TC ICAL 3 PP5918	TC ICAL 4 PP5919	TC ICAL 5 PP5920
Rep 1 Calib. Time	Sep 06, 2019 08:47:38	Sep 06, 2019 08:47:56	Sep 06, 2019 08:48:09	Sep 06, 2019 08:48:26	Sep 06, 2019 08:48:41

	Level 6
Amount	144
Area	31504297

Calibration Report

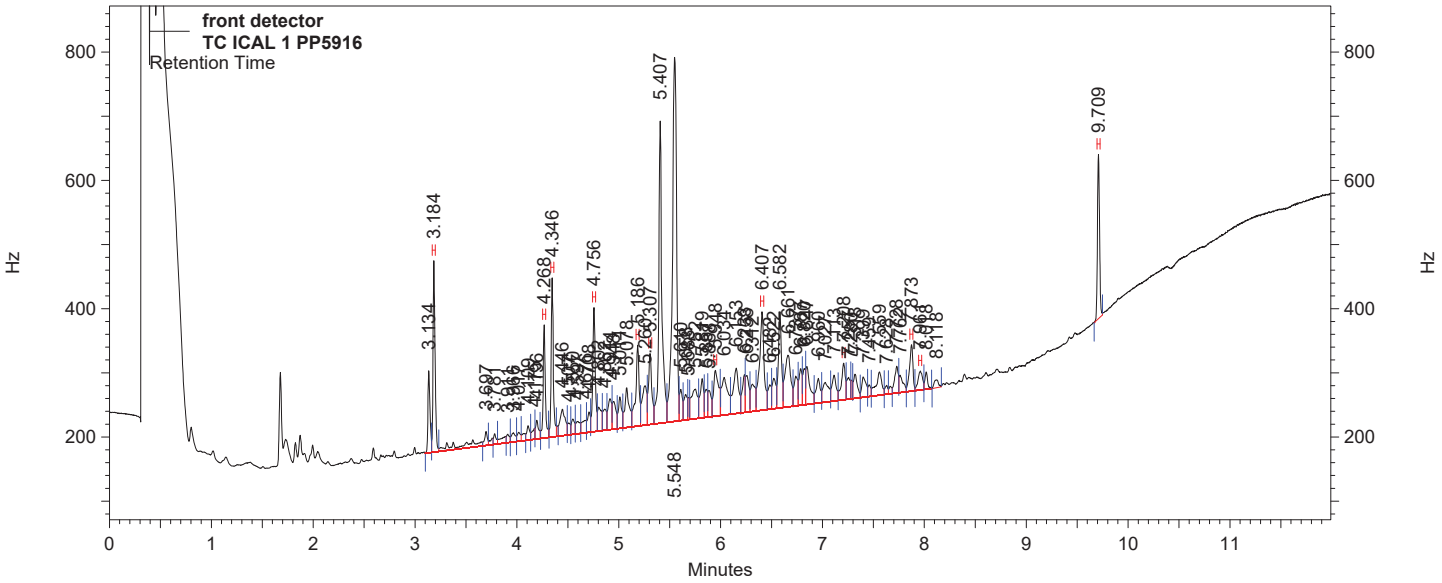
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
Print Time: 09/06/2019 09:58:33
User: AJZ
Instrument: Semi 1 (Offline)

RF	218779.840277778
Last Area Residual	2.4059
Rep StDev	
Rep %RSD	
Rep 1 Area	31504297
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi1\data\090519pstic\009.dat
Rep 1 Sample ID	TC ICAL 6 PP5921
Rep 1 Calib. Time	Sep 06, 2019 08:48:56

Pesticide (TOX/Chlordane) Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\090519pstic\004.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
User: AJZ
Sample ID: TC ICAL 1 PP5916
Acquired: Sep 05, 2019 16:11:20
Printed: 09/06/2019 09:53:13

Data Summary: {Data Description}



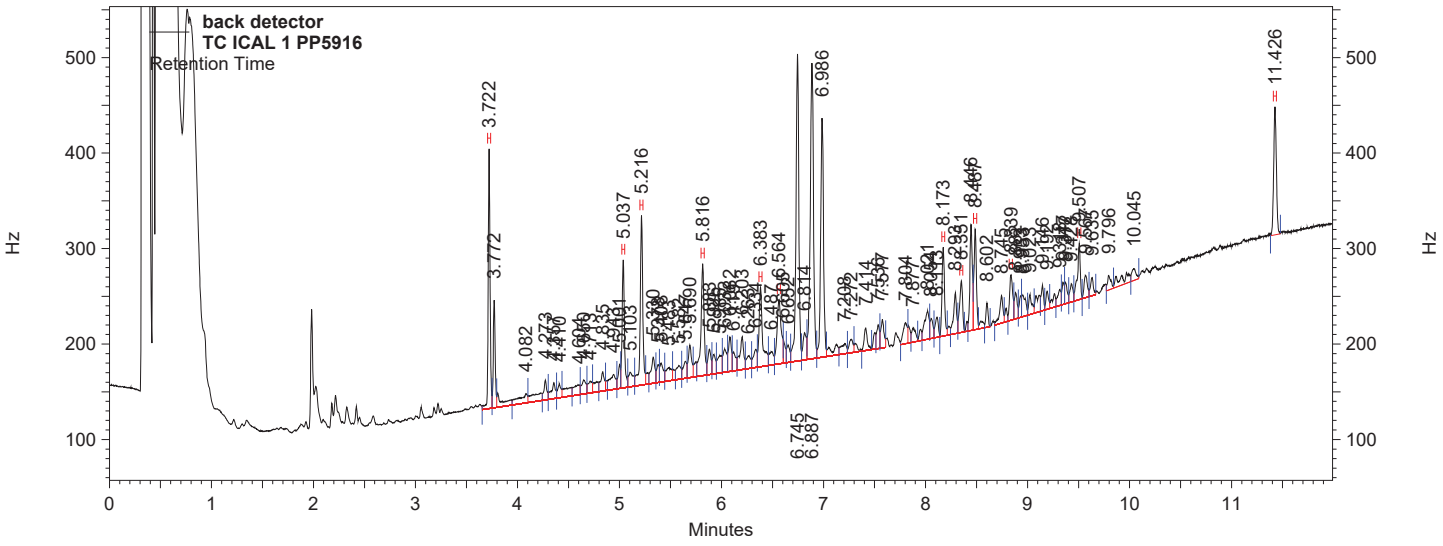
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.184	3217348	7.2000 CAL
Chlordane #1	4.268	2015961	0.0060 CAL
Chlordane #2	4.346	2804199	0.0060 CAL
Chlordane #3	4.756	2633308	0.0060 CAL
Chlordane #4	5.186	2270395	0.0060 CAL
Chlordane #5	5.307	1949695	0.0060 CAL
Toxaphene #1	5.948	1869442	0.0060 CAL
Toxaphene #2	6.407	3730440	0.0060 CAL
Toxaphene #3	7.208	1161416	0.0060 CAL
Toxaphene #4	7.873	1298420	0.0060 CAL
Toxaphene #5	7.961	697219	0.0060 CAL
SURRDCBPEST	9.709	2769220	7.2000 CAL
Chlordane		11673558	0.0300 CAL
Toxaphene		8756937	0.0300 CAL

Pesticide (TOX/Chlordane) Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\090519pstic\004.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
User: AJZ
Sample ID: TC ICAL 1 PP5916
Acquired: Sep 05, 2019 16:11:20
Printed: 09/06/2019 09:53:13

Data Summary: {Data Description}



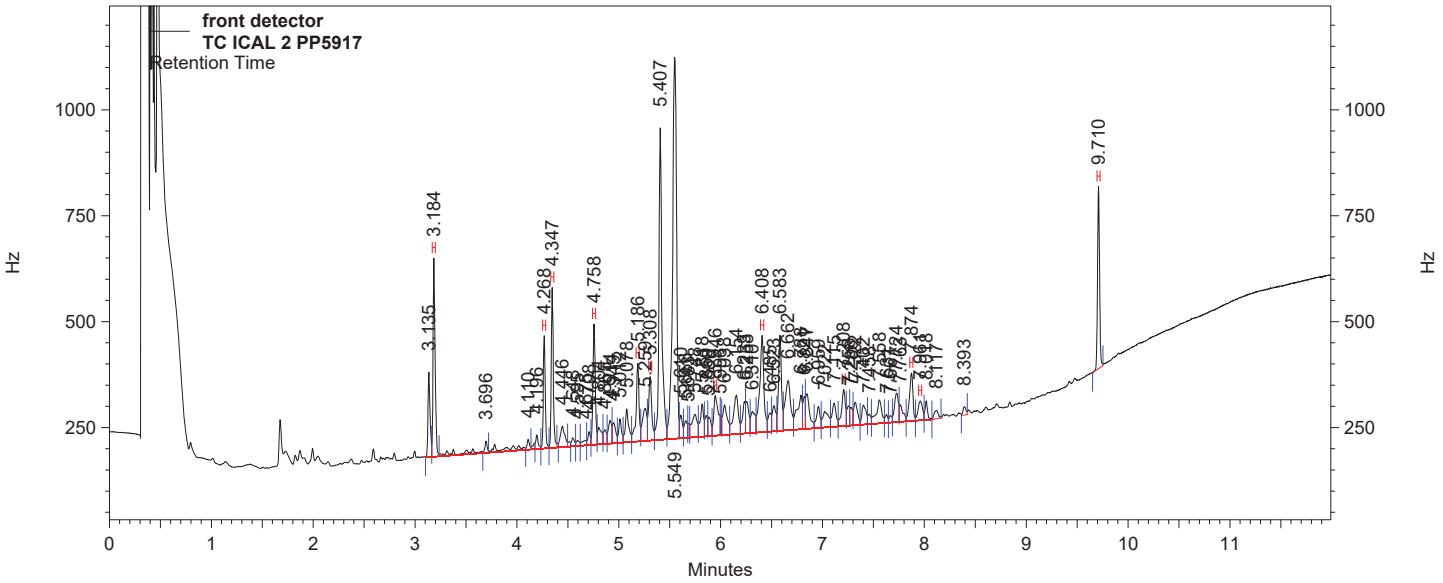
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.722	2702830	7.2000 CAL
Chlordane #1	5.037	1637452	0.0060 CAL
Chlordane #2	5.216	2436988	0.0060 CAL
Chlordane #3	5.816	2035397	0.0060 CAL
Chlordane #4	6.383	1560558	0.0060 CAL
Chlordane #5	6.564	1487937	0.0060 CAL
Toxaphene #1	8.173	1234449	0.0060 CAL
Toxaphene #2	8.351	849247	0.0060 CAL
Toxaphene #3	8.487	1350581	0.0060 CAL
Toxaphene #4	8.839	775799	0.0060 CAL
Toxaphene #5	9.507	908782	0.0060 CAL
SURRDCBPEST	11.426	1902434	7.2000 CAL
Chlordane		9158332	0.0300 CAL
Toxaphene		5118858	0.0300 CAL

Pesticide (TOX/Chlordane) Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\090519pstic\005.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
User: AJZ
Sample ID: TC ICAL 2 PP5917
Acquired: Sep 05, 2019 16:27:31
Printed: 09/06/2019 09:53:16

Data Summary: {Data Description}



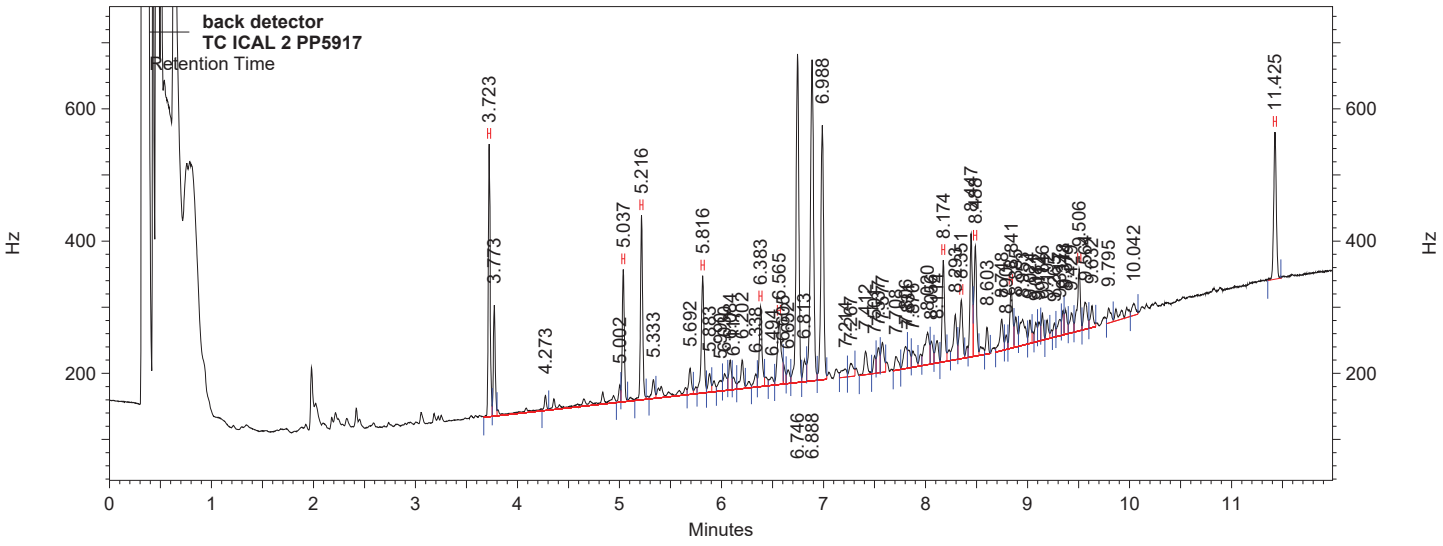
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.184	5112323	12.0000 CAL
Chlordane #1	4.268	2736379	0.0100 CAL
Chlordane #2	4.347	4017037	0.0100 CAL
Chlordane #3	4.758	3584621	0.0100 CAL
Chlordane #4	5.186	2841429	0.0100 CAL
Chlordane #5	5.308	2486663	0.0100 CAL
Toxaphene #1	5.946	2225588	0.0100 CAL
Toxaphene #2	6.408	5104176	0.0100 CAL
Toxaphene #3	7.208	1668938	0.0100 CAL
Toxaphene #4	7.874	2072005	0.0100 CAL
Toxaphene #5	7.961	1070546	0.0100 CAL
SURRDCBPEST	9.710	4528756	12.0000 CAL
Chlordane		15666129	0.0500 CAL
Toxaphene		12141253	0.0500 CAL

Pesticide (TOX/Chlordane) Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\090519pstic\005.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
User: AJZ
Sample ID: TC ICAL 2 PP5917
Acquired: Sep 05, 2019 16:27:31
Printed: 09/06/2019 09:53:16

Data Summary: {Data Description}



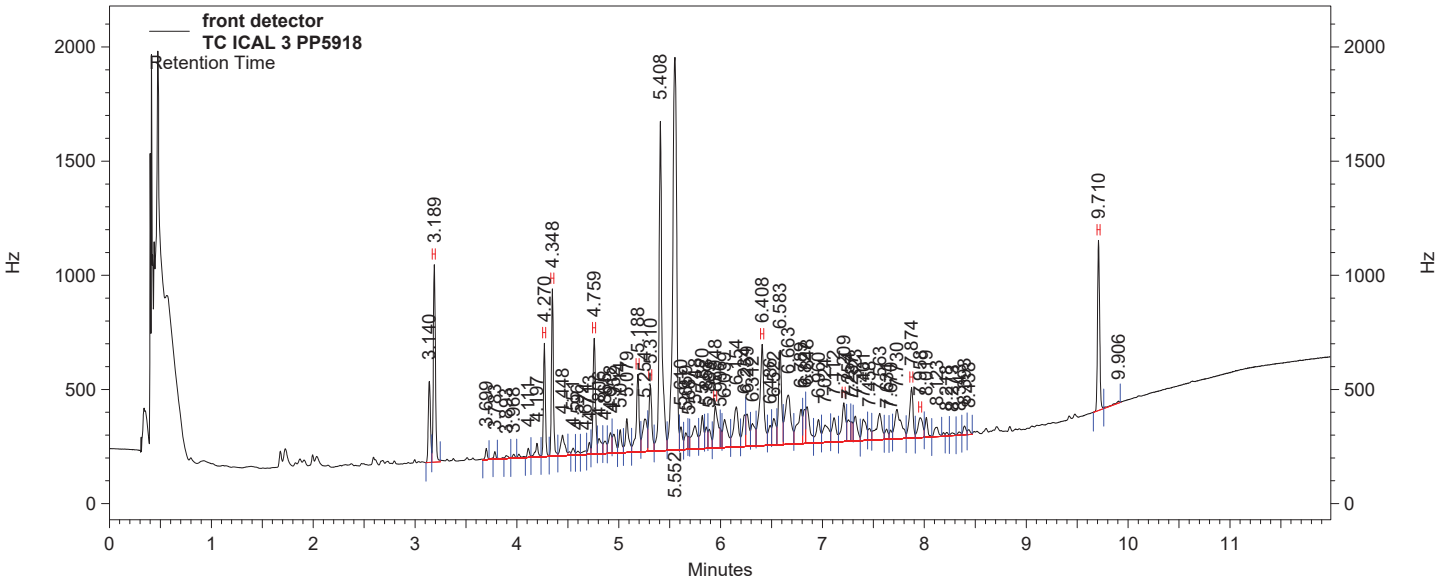
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.723	4067408	12.0000 CAL
Chlordane #1	5.037	2147951	0.0100 CAL
Chlordane #2	5.216	3192505	0.0100 CAL
Chlordane #3	5.816	2576865	0.0100 CAL
Chlordane #4	6.383	1746951	0.0100 CAL
Chlordane #5	6.565	1969544	0.0100 CAL
Toxaphene #1	8.174	2009736	0.0100 CAL
Toxaphene #2	8.351	1391150	0.0100 CAL
Toxaphene #3	8.488	2225587	0.0100 CAL
Toxaphene #4	8.841	1372685	0.0100 CAL
Toxaphene #5	9.506	1492432	0.0100 CAL
SURRDCBPEST	11.425	3033760	12.0000 CAL
Chlordane		11633816	0.0500 CAL
Toxaphene		8491590	0.0500 CAL

Pesticide (TOX/Chlordane) Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\090519pstic\006.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
User: AJZ
Sample ID: TC ICAL 3 PP5918
Acquired: Sep 05, 2019 16:43:45
Printed: 09/06/2019 09:53:19

Data Summary: {Data Description}



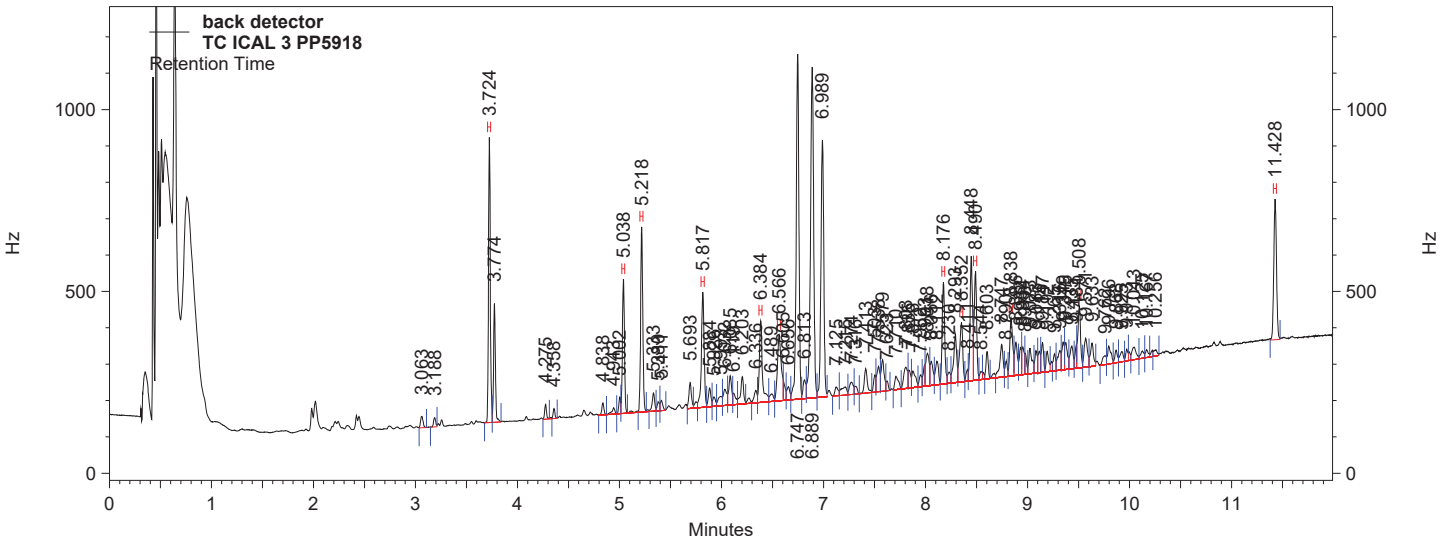
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.189	9530147	24.0000 CAL
Chlordane #1	4.270	4973718	0.0200 CAL
Chlordane #2	4.348	7476102	0.0200 CAL
Chlordane #3	4.759	6476998	0.0200 CAL
Chlordane #4	5.188	5114345	0.0200 CAL
Chlordane #5	5.310	4418270	0.0200 CAL
Toxaphene #1	5.948	4084754	0.0200 CAL
Toxaphene #2	6.408	9647700	0.0200 CAL
Toxaphene #3	7.209	3360005	0.0200 CAL
Toxaphene #4	7.874	4042120	0.0200 CAL
Toxaphene #5	7.958	2201987	0.0200 CAL
SURRDCBPEST	9.710	8153919	24.0000 CAL
Chlordane		28459433	0.1000 CAL
Toxaphene		23336566	0.1000 CAL

Pesticide (TOX/Chlordane) Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\090519pstic\006.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
User: AJZ
Sample ID: TC ICAL 3 PP5918
Acquired: Sep 05, 2019 16:43:45
Printed: 09/06/2019 09:53:19

Data Summary: {Data Description}



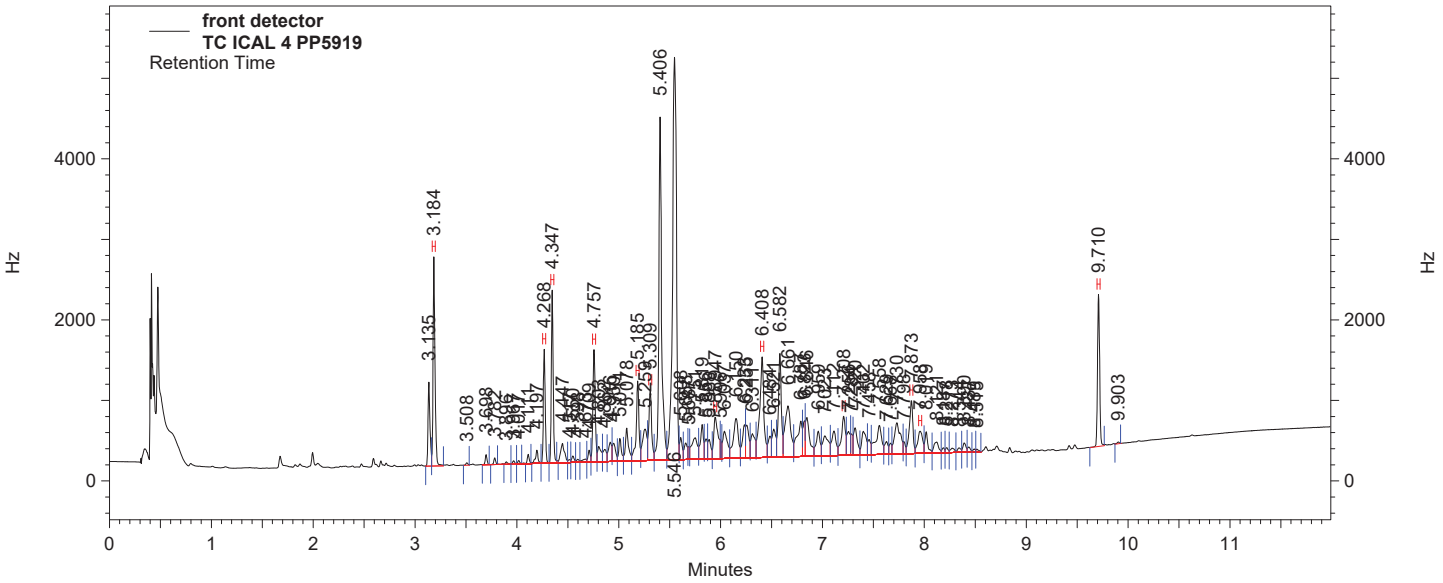
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.724	7443387	24.0000 CAL
Chlordane #1	5.038	3916847	0.0200 CAL
Chlordane #2	5.218	5735122	0.0200 CAL
Chlordane #3	5.817	4574554	0.0200 CAL
Chlordane #4	6.384	3548356	0.0200 CAL
Chlordane #5	6.566	3587882	0.0200 CAL
Toxaphene #1	8.176	3753593	0.0200 CAL
Toxaphene #2	8.352	2648929	0.0200 CAL
Toxaphene #3	8.490	3970971	0.0200 CAL
Toxaphene #4	8.838	2402346	0.0200 CAL
Toxaphene #5	9.508	2377846	0.0200 CAL
SURRDCBPEST	11.428	5489431	24.0000 CAL
Chlordane		21362761	0.1000 CAL
Toxaphene		15153685	0.1000 CAL

Pesticide (TOX/Chlordane) Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\090519pstic\007.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
User: AJZ
Sample ID: TC ICAL 4 PP5919
Acquired: Sep 05, 2019 16:59:58
Printed: 09/06/2019 09:53:22

Data Summary: {Data Description}



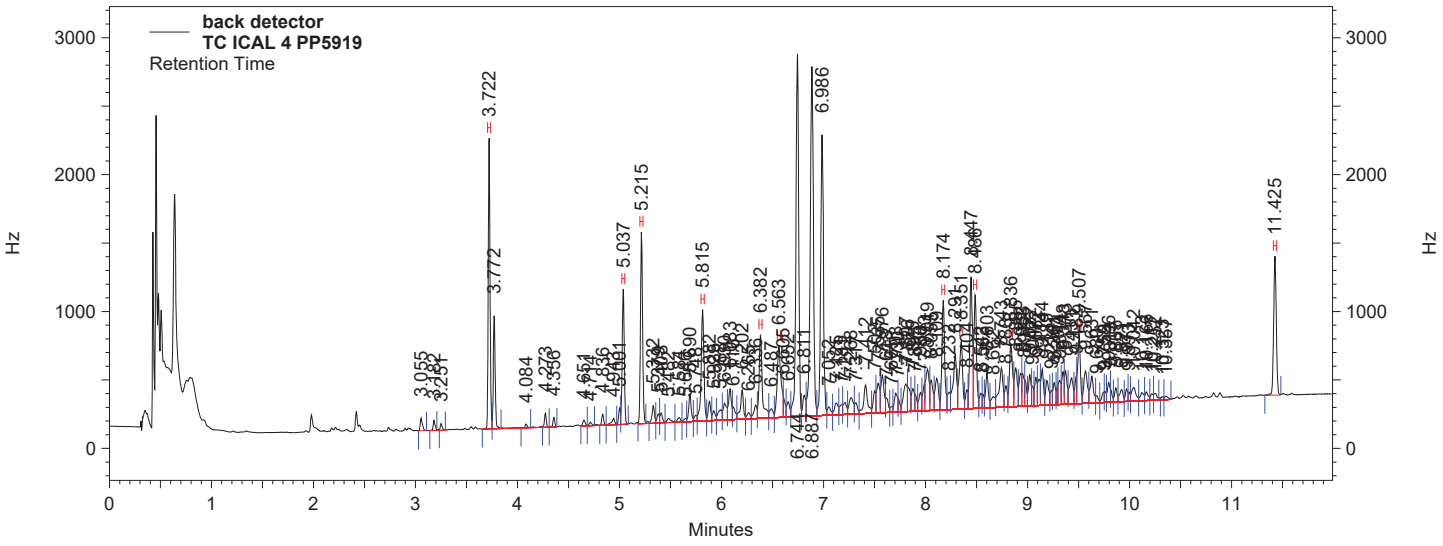
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.184	26452024	60.0000 CAL
Chlordane #1	4.268	13703376	0.0500 CAL
Chlordane #2	4.347	20971408	0.0500 CAL
Chlordane #3	4.757	17266142	0.0500 CAL
Chlordane #4	5.185	14227982	0.0500 CAL
Chlordane #5	5.309	12932698	0.0500 CAL
Toxaphene #1	5.947	11861381	0.0500 CAL
Toxaphene #2	6.408	27738283	0.0500 CAL
Toxaphene #3	7.208	10287466	0.0500 CAL
Toxaphene #4	7.873	12289983	0.0500 CAL
Toxaphene #5	7.958	7110797	0.0500 CAL
SURRDCBPEST	9.710	20669144	60.0000 CAL
Chlordane		79101606	0.2500 CAL
Toxaphene		69287910	0.2500 CAL

Pesticide (TOX/Chlordane) Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\090519pstic\007.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
User: AJZ
Sample ID: TC ICAL 4 PP5919
Acquired: Sep 05, 2019 16:59:58
Printed: 09/06/2019 09:53:22

Data Summary: {Data Description}



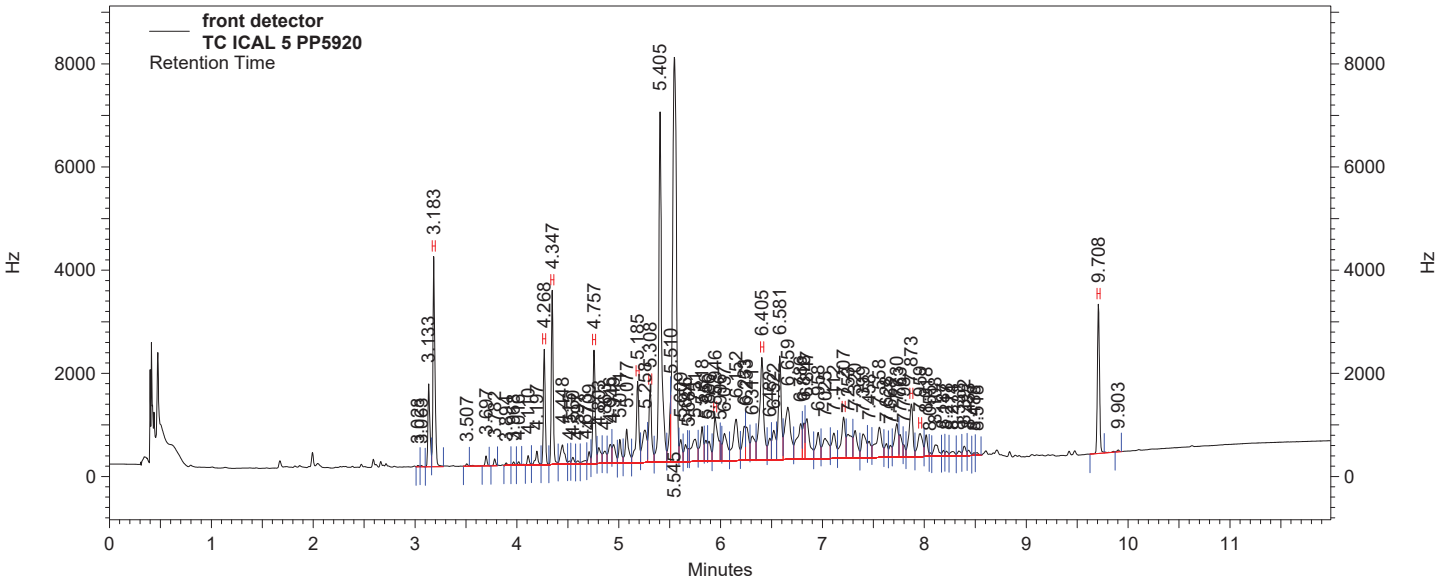
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.722	19913820	60.0000 CAL
Chlordane #1	5.037	10625489	0.0500 CAL
Chlordane #2	5.215	15596363	0.0500 CAL
Chlordane #3	5.815	12028951	0.0500 CAL
Chlordane #4	6.382	10075436	0.0500 CAL
Chlordane #5	6.563	10594030	0.0500 CAL
Toxaphene #1	8.174	11718801	0.0500 CAL
Toxaphene #2	8.351	8512866	0.0500 CAL
Toxaphene #3	8.486	11516376	0.0500 CAL
Toxaphene #4	8.836	7636417	0.0500 CAL
Toxaphene #5	9.507	6884553	0.0500 CAL
SURRDCBPEST	11.425	14113650	60.0000 CAL
Chlordane		58920269	0.2500 CAL
Toxaphene		46269013	0.2500 CAL

Pesticide (TOX/Chlordane) Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\090519pstic\008.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
User: AJZ
Sample ID: TC ICAL 5 PP5920
Acquired: Sep 05, 2019 17:16:10
Printed: 09/06/2019 09:53:25

Data Summary: {Data Description}



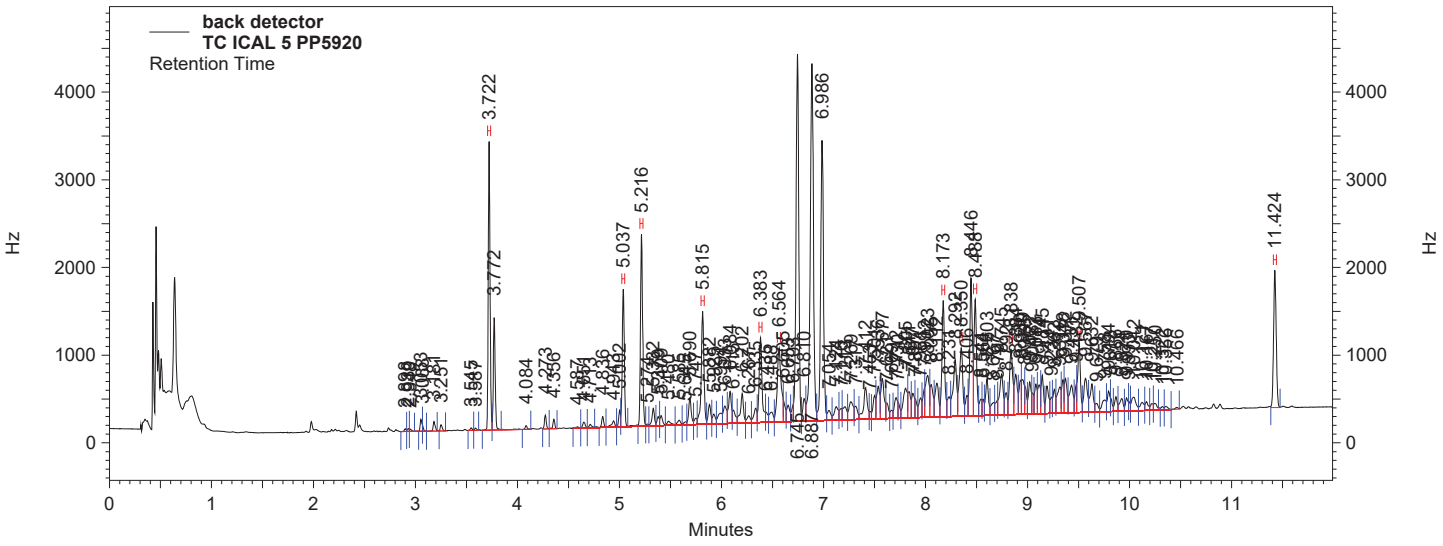
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.183	42237173	96.0000 CAL
Chlordane #1	4.268	21910478	0.0800 CAL
Chlordane #2	4.347	33865807	0.0800 CAL
Chlordane #3	4.757	26971422	0.0800 CAL
Chlordane #4	5.185	22550010	0.0800 CAL
Chlordane #5	5.308	20655188	0.0800 CAL
Toxaphene #1	5.946	19169776	0.0800 CAL
Toxaphene #2	6.405	44438466	0.0800 CAL
Toxaphene #3	7.207	17030172	0.0800 CAL
Toxaphene #4	7.873	19913982	0.0800 CAL
Toxaphene #5	7.959	11689390	0.0800 CAL
SURRDCBPEST	9.708	31847853	96.0000 CAL
Chlordane		125952905	0.4000 CAL
Toxaphene		112241786	0.4000 CAL

Pesticide (TOX/Chlordane) Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\090519pstic\008.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
User: AJZ
Sample ID: TC ICAL 5 PP5920
Acquired: Sep 05, 2019 17:16:10
Printed: 09/06/2019 09:53:25

Data Summary: {Data Description}



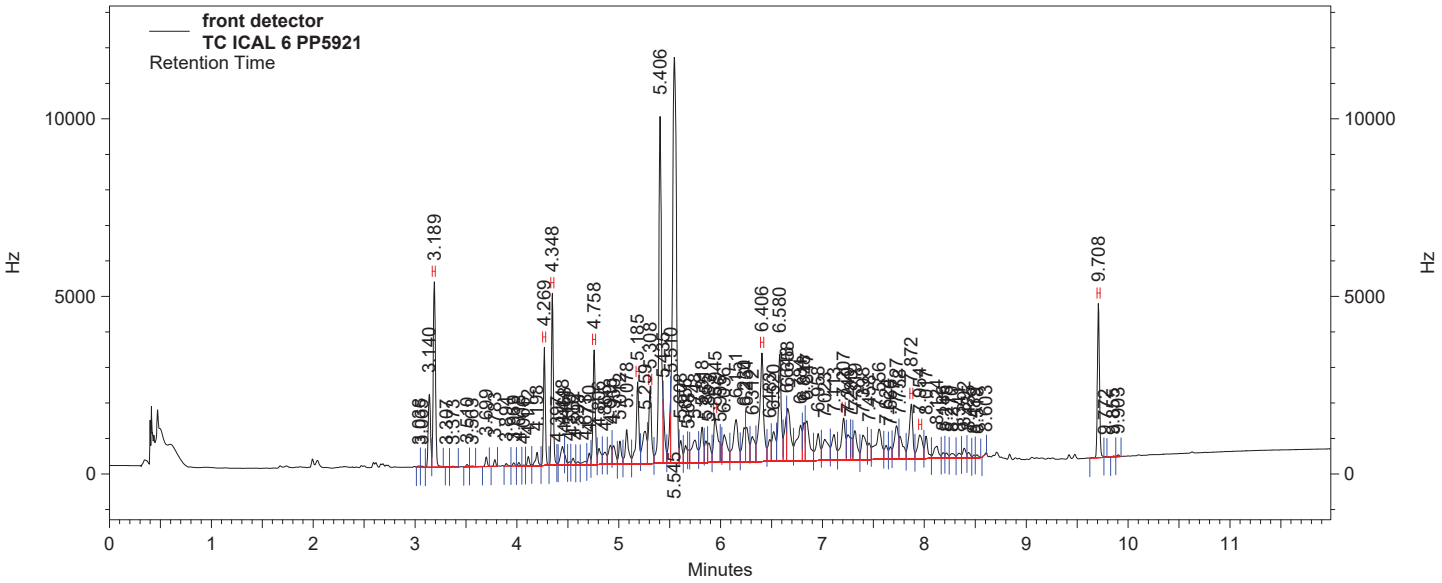
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.722	31277483	96.0000 CAL
Chlordane #1	5.037	16743876	0.0800 CAL
Chlordane #2	5.216	24462770	0.0800 CAL
Chlordane #3	5.815	18694152	0.0800 CAL
Chlordane #4	6.383	14962617	0.0800 CAL
Chlordane #5	6.564	16969154	0.0800 CAL
Toxaphene #1	8.173	18982545	0.0800 CAL
Toxaphene #2	8.350	13960899	0.0800 CAL
Toxaphene #3	8.488	18188408	0.0800 CAL
Toxaphene #4	8.838	12424240	0.0800 CAL
Toxaphene #5	9.507	11093522	0.0800 CAL
SURRDCBPEST	11.424	21610885	96.0000 CAL
Chlordane		91832569	0.4000 CAL
Toxaphene		74649614	0.4000 CAL

Pesticide (TOX/Chlordane) Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\090519pstic\009.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
User: AJZ
Sample ID: TC ICAL 6 PP5921
Acquired: Sep 05, 2019 17:32:26
Printed: 09/06/2019 09:53:28

Data Summary: {Data Description}



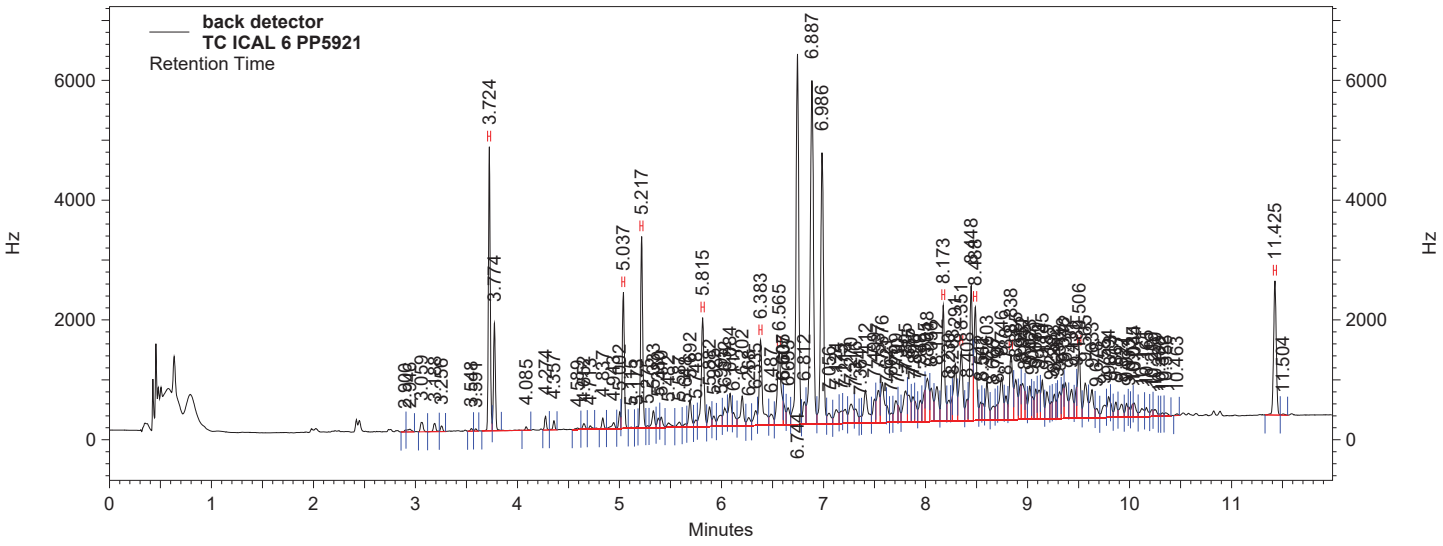
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.189	61986032	144.0000 CAL
Chlordane #1	4.269	32282323	0.1200 CAL
Chlordane #2	4.348	49364900	0.1200 CAL
Chlordane #3	4.758	39070532	0.1200 CAL
Chlordane #4	5.185	33087652	0.1200 CAL
Chlordane #5	5.308	30481606	0.1200 CAL
Toxaphene #1	5.945	28254357	0.1200 CAL
Toxaphene #2	6.406	65290032	0.1200 CAL
Toxaphene #3	7.207	25419561	0.1200 CAL
Toxaphene #4	7.872	29291497	0.1200 CAL
Toxaphene #5	7.954	17468820	0.1200 CAL
SURRDCBPEST	9.708	46075348	144.0000 CAL
Chlordane		184287013	0.6000 CAL
Toxaphene		165724267	0.6000 CAL

Pesticide (TOX/Chlordane) Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\090519pstic\009.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
User: AJZ
Sample ID: TC ICAL 6 PP5921
Acquired: Sep 05, 2019 17:32:26
Printed: 09/06/2019 09:53:28

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.724	45445686	144.0000 CAL
Chlordane #1	5.037	24424415	0.1200 CAL
Chlordane #2	5.217	35555527	0.1200 CAL
Chlordane #3	5.815	26982943	0.1200 CAL
Chlordane #4	6.383	24086715	0.1200 CAL
Chlordane #5	6.565	25087653	0.1200 CAL
Toxaphene #1	8.173	28090862	0.1200 CAL
Toxaphene #2	8.351	20983551	0.1200 CAL
Toxaphene #3	8.488	26840008	0.1200 CAL
Toxaphene #4	8.838	18379658	0.1200 CAL
Toxaphene #5	9.506	16278022	0.1200 CAL
SURRDCBPEST	11.425	31504297	144.0000 CAL
Chlordane		136137253	0.6000 CAL
Toxaphene		110572101	0.6000 CAL

QC Check Standard Report

Sequence : C:\Instarch\Semi1\Sequence\090519pstic.seq
User : AJZ
Printed : 09/06/2019 09:53:33

File	Sample ID	Acquired
C:\Instarch\Semi1\data\090519pstic\010.dat	TC ICV PP5922	09/06/2019 09:53:33

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	60.000	61.442	2.403	20.000	Passed
Chlordane #1	0.050	0.049	1.908	20.000	Passed
Chlordane #2	0.050	0.049	1.949	20.000	Passed
Chlordane #3	0.050	0.050	0.047	20.000	Passed
Chlordane #4	0.050	0.050	0.971	20.000	Passed
Chlordane #5	0.050	0.049	2.185	20.000	Passed
Toxaphene #1	0.050	0.049	2.225	20.000	Passed
Toxaphene #2	0.050	0.048	3.179	20.000	Passed
Toxaphene #3	0.050	0.049	2.605	20.000	Passed
Toxaphene #4	0.050	0.049	1.918	20.000	Passed
Toxaphene #5	0.050	0.048	4.256	20.000	Passed
SURRDCBPEST	60.000	63.609	6.015	20.000	Passed
Chlordane	0.250	0.247	1.394	20.000	Passed
Toxaphene	0.250	0.243	2.836	20.000	Passed

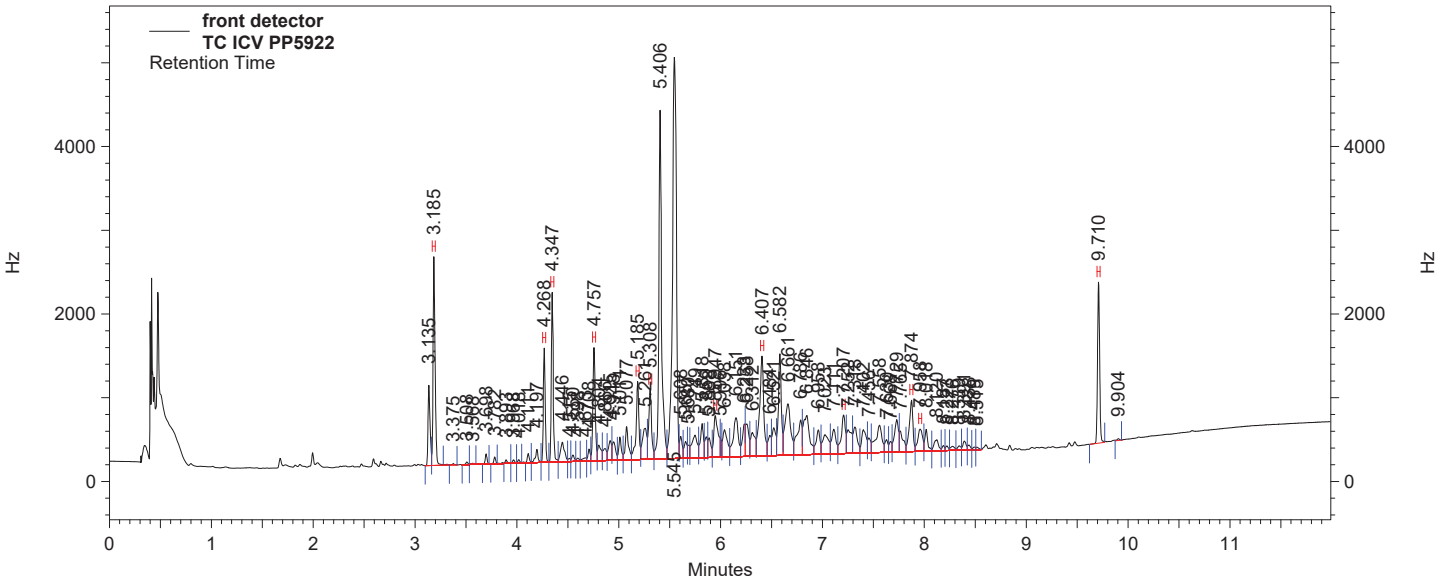
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	60.000	62.018	3.364	20.000	Passed
Chlordane #1	0.050	0.049	1.350	20.000	Passed
Chlordane #2	0.050	0.049	1.728	20.000	Passed
Chlordane #3	0.050	0.049	1.166	20.000	Passed
Chlordane #4	0.050	0.049	1.628	20.000	Passed
Chlordane #5	0.050	0.048	3.826	20.000	Passed
Toxaphene #1	0.050	0.049	2.967	20.000	Passed
Toxaphene #2	0.050	0.048	3.534	20.000	Passed
Toxaphene #3	0.050	0.049	2.450	20.000	Passed
Toxaphene #4	0.050	0.048	4.123	20.000	Passed
Toxaphene #5	0.050	0.049	2.572	20.000	Passed
SURRDCBPEST	60.000	63.665	6.109	20.000	Passed
Chlordane	0.250	0.245	1.940	20.000	Passed
Toxaphene	0.250	0.242	3.129	20.000	Passed

Pesticide (TOX/Chlordane) Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\090519pstic\010.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
User: AJZ
Sample ID: TC ICV PP5922
Acquired: Sep 05, 2019 17:48:39
Printed: 09/06/2019 09:53:31

Data Summary: {Data Description}



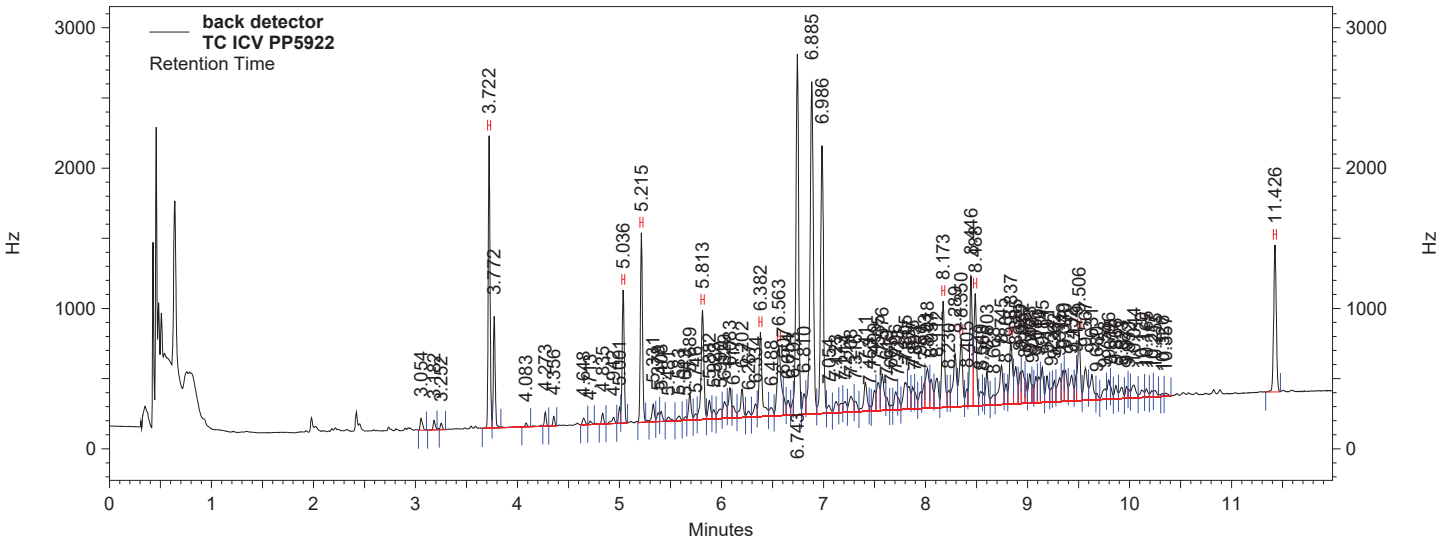
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.185	26580705	61.4418
Chlordane #1	4.268	13289321	0.0490
Chlordane #2	4.347	20286982	0.0490
Chlordane #3	4.757	16752631	0.0500
Chlordane #4	5.185	13828248	0.0495
Chlordane #5	5.308	12434465	0.0489
Toxaphene #1	5.947	11493340	0.0489
Toxaphene #2	6.407	26353569	0.0484
Toxaphene #3	7.207	10015193	0.0487
Toxaphene #4	7.874	11806237	0.0490
Toxaphene #5	7.958	6716964	0.0479
SURRDCBPEST	9.710	21064886	63.6089
Chlordane		76591647	0.2465
Toxaphene		66385303	0.2429

Pesticide (TOX/Chlordane) Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\090519pstic\010.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
User: AJZ
Sample ID: TC ICV PP5922
Acquired: Sep 05, 2019 17:48:39
Printed: 09/06/2019 09:53:31

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.722	19994126	62.0185
Chlordane #1	5.036	10240039	0.0493
Chlordane #2	5.215	14911332	0.0491
Chlordane #3	5.813	11526062	0.0494
Chlordane #4	6.382	9589691	0.0492
Chlordane #5	6.563	10012668	0.0481
Toxaphene #1	8.173	11142885	0.0485
Toxaphene #2	8.350	8135207	0.0482
Toxaphene #3	8.488	10920054	0.0488
Toxaphene #4	8.837	7189449	0.0479
Toxaphene #5	9.506	6635457	0.0487
SURRDCBPEST	11.426	14358723	63.6653
Chlordane		56279792	0.2452
Toxaphene		44023052	0.2422

PESTICIDE/HERBICIDE
CONTINUING AND ENDING STANDARDS
DOCUMENTS

Pesticide Analysis Breakdown Report

Data File: C:\Instarch\Semi1\data\090519pstic\001.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\eval.met
User: AJZ
Instrument: Semi 1
Sample ID: EVAL PP5902
Acquired: Sep 05, 2019 15:22:55
Printed: Sep 05, 2019 15:36:05

AJZ
09/19/2019

Channel A: **DDT Breakdown** **1.0** **%** **Endrin Breakdown** **11.6** **%**

Channel B: **DDT Breakdown** **1.2** **%** **Endrin Breakdown** **11.8** **%**

Channel A

Compound	Area	Compound	Area
44DDT	75675606	ENDRIN	65550338
44DDD	640030	ENDRINALDEH	2745854
44DDE	120543	ENDRINKETONE	5831386

Channel B

Compound	Area	Compound	Area
44DDT	53017067	ENDRIN	50755309
44DDD	479449	ENDRINALDEH	2312708
44DDE	153576	ENDRINKETONE	4456090

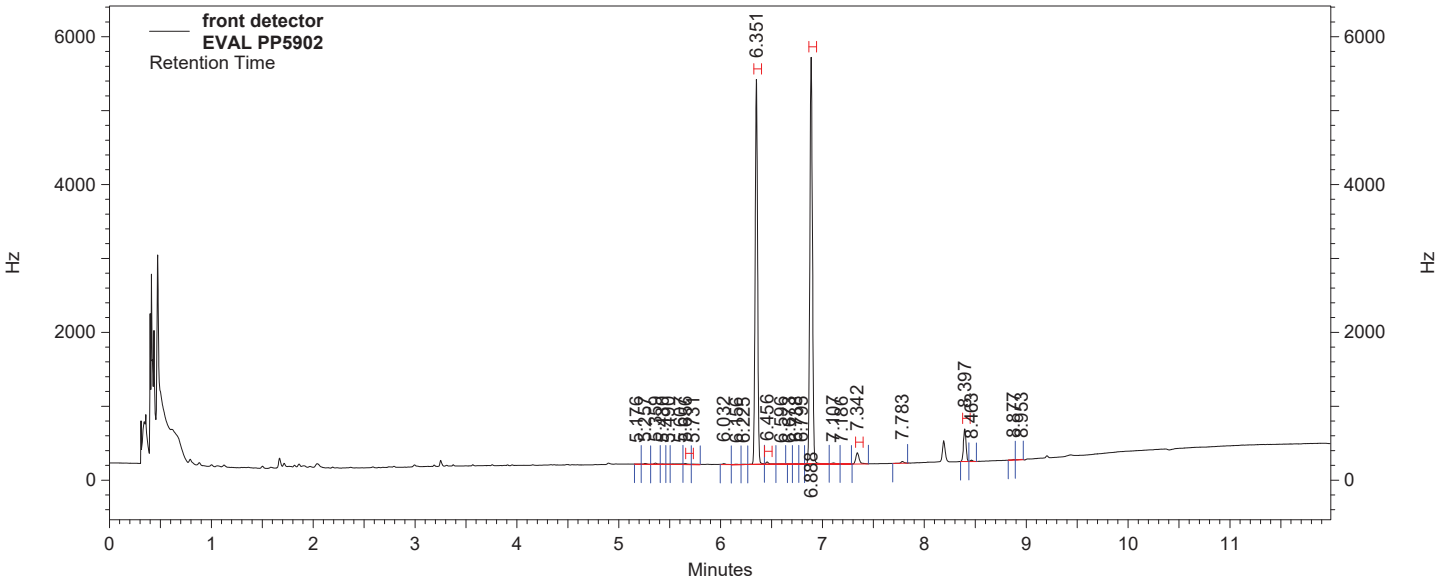
DDT Breakdown $= \frac{44DDD + 44DDE}{44DDD + 44DDE + 44DDT} \times 100\ \%$

Endrin Breakdown $= \frac{\text{Endrin aldehyde + Endrin ketone}}{\text{Endrin + Endrin aldehyde + Endrin ketone}} \times 1...\ \%$

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\090519pstic\001.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\eval.met
User: AJZ
Sample ID: EVAL PP5902
Acquired: Sep 05, 2019 15:22:55
Printed: 09/06/2019 09:52:38

Data Summary: {Data Description}



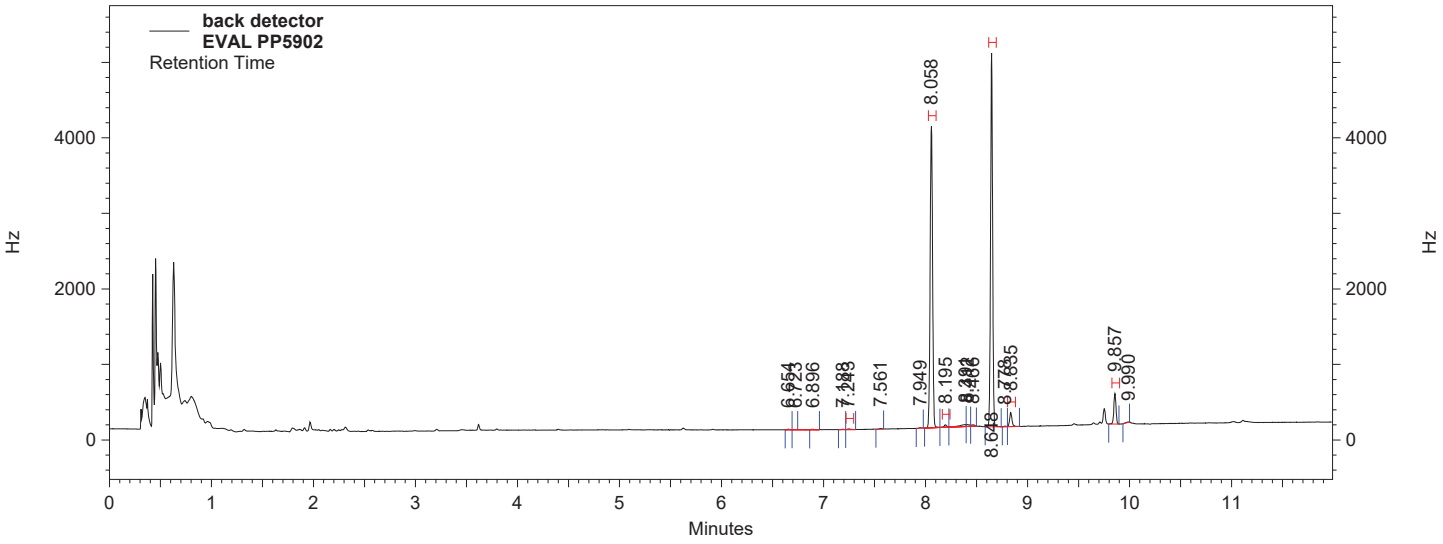
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
44DDE	5.731	120543	0.0003
ENDRIN	6.351	65550338	0.0219
44DDD	6.456	640030	0.0005
44DDT	6.888	75675606	0.0262
ENDRINALDEH	7.342	2745854	0.0011
ENDRINKETONE	8.397	5831386	0.0017

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\090519pstic\001.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\eval.met
User: AJZ
Sample ID: EVAL PP5902
Acquired: Sep 05, 2019 15:22:55
Printed: 09/06/2019 09:52:38

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
44DDE	7.243	153576	0.0001
ENDRIN	8.058	50755309	0.0127
44DDD	8.195	479449	0.0003
44DDT	8.648	53017067	0.0125
ENDRINALDEH	8.835	2312708	0.0004
ENDRINKETONE	9.857	4456090	0.0008

QC Check Standard Report

Sequence : C:\Instarch\Semi1\Sequence\090519pstic.seq
User : AJZ
Printed : 09/06/2019 09:54:24

File	Sample ID	Acquired
C:\Instarch\Semi1\data\090519pstic\022.dat	PEST CCV PP5923	09/06/2019 09:54:24

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	100.000	100.270	0.270	20.000	Passed
ALPHABHC	0.040	0.040	0.617	20.000	Passed
LINDANE	0.040	0.040	0.652	20.000	Passed
BETABHC	0.040	0.040	0.542	20.000	Passed
DELTABHC	0.040	0.040	0.432	20.000	Passed
HEPTACHLOR	0.040	0.040	0.662	20.000	Passed
ALDRIN	0.040	0.040	0.255	20.000	Passed
HEPTAEPOX	0.040	0.040	1.122	20.000	Passed
GAMMACHLOR	0.040	0.040	1.088	20.000	Passed
ALPHACHLOR	0.040	0.039	1.544	20.000	Passed
44DDE	0.040	0.039	1.375	20.000	Passed
ENDOI	0.040	0.039	1.514	20.000	Passed
DIELDRIN	0.040	0.040	1.129	20.000	Passed
ENDRIN	0.040	0.039	2.002	20.000	Passed
44DDD	0.040	0.039	1.994	20.000	Passed
ENDOII	0.040	0.039	1.315	20.000	Passed
44DDT	0.040	0.039	2.922	20.000	Passed
ENDRINALDEH	0.040	0.040	0.786	20.000	Passed
METHOXYCL	0.040	0.038	4.110	20.000	Passed
ENDOSULFATE	0.040	0.039	1.588	20.000	Passed
ENDRINKETONE	0.040	0.039	2.411	20.000	Passed
SURRDCBPEST	100.000	99.202	0.798	20.000	Passed

back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	100.000	100.329	0.329	20.000	Passed
ALPHABHC	0.040	0.040	0.304	20.000	Passed
LINDANE	0.040	0.040	0.001	20.000	Passed
BETABHC	0.040	0.040	0.619	20.000	Passed
DELTABHC	0.040	0.040	0.008	20.000	Passed
HEPTACHLOR	0.040	0.040	1.114	20.000	Passed
ALDRIN	0.040	0.040	0.911	20.000	Passed
HEPTAEPOX	0.040	0.039	1.671	20.000	Passed
GAMMACHLOR	0.040	0.039	1.615	20.000	Passed
ALPHACHLOR	0.040	0.039	1.971	20.000	Passed
ENDOI	0.040	0.039	1.825	20.000	Passed
44DDE	0.040	0.039	2.175	20.000	Passed
DIELDRIN	0.040	0.039	1.931	20.000	Passed
ENDRIN	0.040	0.039	2.391	20.000	Passed
44DDD	0.040	0.039	2.374	20.000	Passed
ENDOII	0.040	0.039	1.883	20.000	Passed
44DDT	0.040	0.039	3.728	20.000	Passed
ENDRINALDEH	0.040	0.040	1.246	20.000	Passed
ENDOSULFATE	0.040	0.039	2.023	20.000	Passed

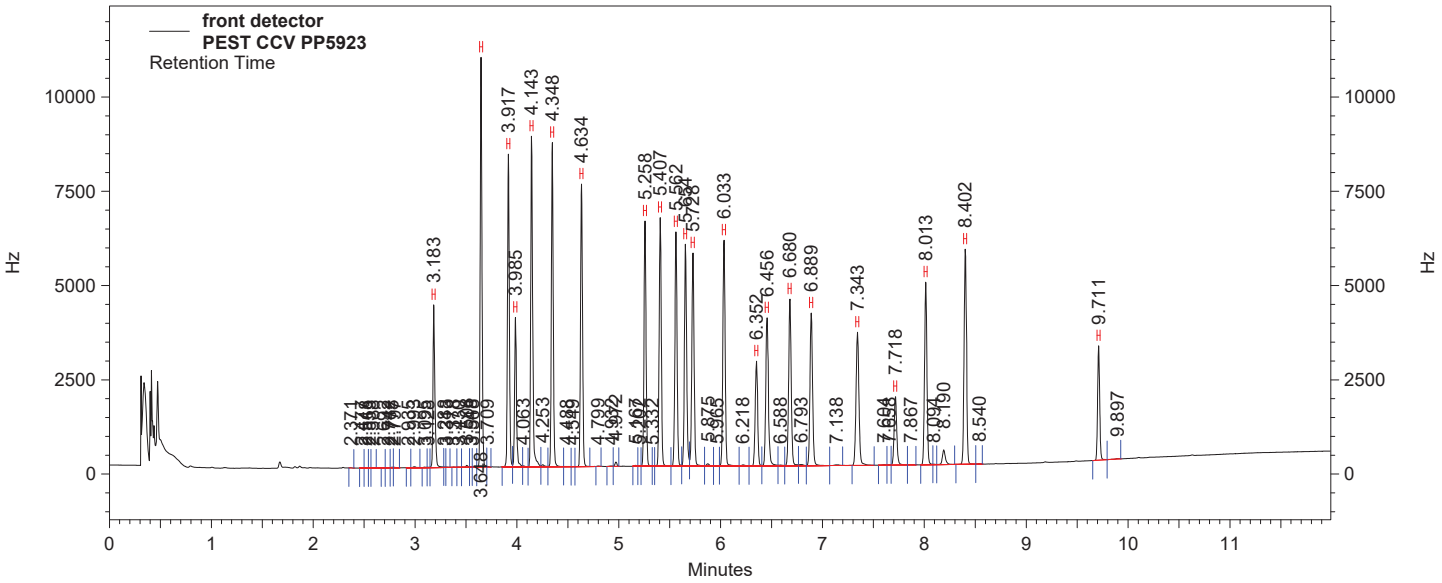
Sequence : C:\Instarch\Semi1\Sequence\090519pstic.seq
User : AJZ
Printed : 09/06/2019 09:54:24

METHOXYCL	0.040	0.038	4.011	20.000	Passed
ENDRINKETONE	0.040	0.039	2.576	20.000	Passed
SURRDCBPEST	100.000	99.786	0.214	20.000	Passed

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\090519pstic\022.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
User: AJZ
Sample ID: PEST CCV PP5923
Acquired: Sep 05, 2019 21:03:24
Printed: 09/06/2019 09:54:22

Data Summary: {Data Description}



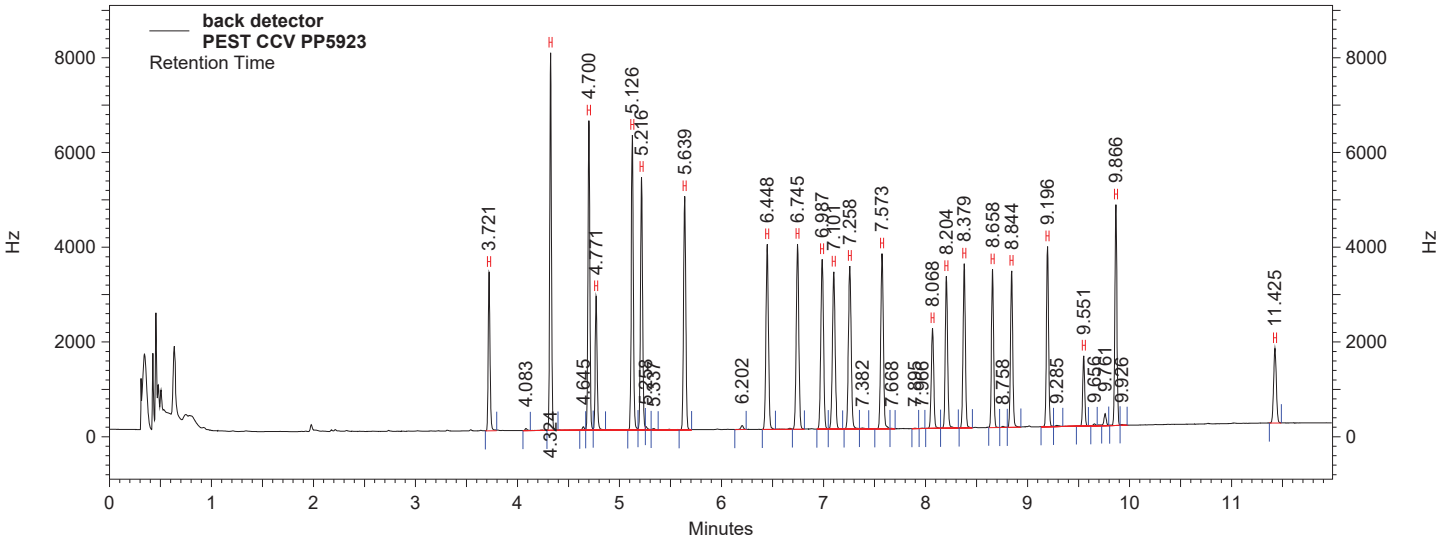
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.183	43124645	100.2698
ALPHABHC	3.648	97889527	0.0402
LINDANE	3.917	78771766	0.0397
BETABHC	3.985	39186671	0.0398
DELTABHC	4.143	90170557	0.0402
HEPTACHLOR	4.348	84836729	0.0397
ALDRIN	4.634	78439749	0.0399
HEPTAEPOX	5.258	70469289	0.0396
GAMMACHLOR	5.407	74245315	0.0396
ALPHACHLOR	5.562	71710841	0.0394
44DDE	5.654	69318217	0.0394
ENDOI	5.728	68208025	0.0394
DIELDRIN	6.033	72570682	0.0395
ENDRIN	6.352	35321583	0.0392
44DDD	6.456	54649383	0.0392
ENDOII	6.680	59635428	0.0395
44DDT	6.889	55804665	0.0388
ENDRINALDEH	7.343	54442199	0.0397
METHOXYCL	7.718	25179000	0.0384
ENDOSULFATE	8.013	61358961	0.0394
ENDRINKETONE	8.402	72875598	0.0390
SURRDCBPEST	9.711	32681630	99.2021

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\090519pstic\022.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
User: AJZ
Sample ID: PEST CCV PP5923
Acquired: Sep 05, 2019 21:03:24
Printed: 09/06/2019 09:54:22

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.721	32030678	100.3286
ALPHABHC	4.324	71816945	0.0401
LINDANE	4.700	63630210	0.0400
BETABHC	4.771	28599769	0.0398
DELTABHC	5.126	66581203	0.0400
HEPTACHLOR	5.216	58734405	0.0396
ALDRIN	5.639	57194503	0.0396
HEPTAEPOX	6.448	51738489	0.0393
GAMMACHLOR	6.745	52876887	0.0394
ALPHACHLOR	6.987	51271136	0.0392
ENDOI	7.101	47848674	0.0393
44DDE	7.258	49913601	0.0391
DIELDRIN	7.573	51176501	0.0392
ENDRIN	8.068	27161099	0.0390
44DDD	8.204	39275524	0.0391
ENDOII	8.379	42200521	0.0392
44DDT	8.658	37007223	0.0385
ENDRINALDEH	8.844	38364169	0.0395
ENDOSULFATE	9.196	42212840	0.0392
METHOXYCL	9.551	15452158	0.0384
ENDRINKETONE	9.866	48956208	0.0390
SURRDCBPEST	11.425	22599867	99.7865

QC Check Standard Report

Sequence : C:\Instarch\Semi1\Sequence\090519pstic.seq
User : AJZ
Printed : 09/06/2019 09:54:32

File	Sample ID	Acquired
C:\Instarch\Semi1\data\090519pstic\023.dat	TC CCV PP5924	09/06/2019 09:54:32

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	60.000	57.285	4.525	20.000	Passed
Chlordane #1	0.050	0.048	4.656	20.000	Passed
Chlordane #2	0.050	0.049	2.742	20.000	Passed
Chlordane #3	0.050	0.049	2.025	20.000	Passed
Chlordane #4	0.050	0.048	3.129	20.000	Passed
Chlordane #5	0.050	0.048	4.033	20.000	Passed
Toxaphene #1	0.050	0.048	3.886	20.000	Passed
Toxaphene #2	0.050	0.049	1.955	20.000	Passed
Toxaphene #3	0.050	0.049	2.354	20.000	Passed
Toxaphene #4	0.050	0.050	0.650	20.000	Passed
Toxaphene #5	0.050	0.048	4.141	20.000	Passed
SURRDCBPEST	60.000	63.031	5.052	20.000	Passed
Chlordane	0.250	0.242	3.317	20.000	Passed
Toxaphene	0.250	0.244	2.597	20.000	Passed

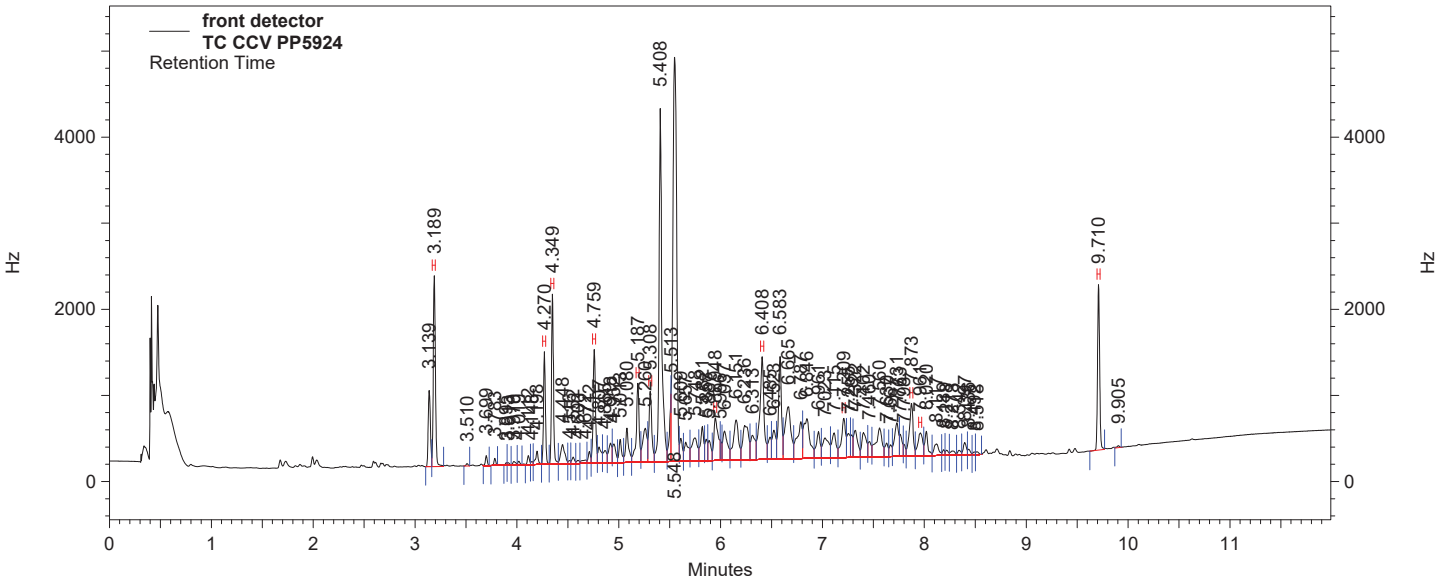
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	60.000	57.527	4.122	20.000	Passed
Chlordane #1	0.050	0.048	3.416	20.000	Passed
Chlordane #2	0.050	0.049	1.932	20.000	Passed
Chlordane #3	0.050	0.050	0.165	20.000	Passed
Chlordane #4	0.050	0.044	12.154	20.000	Passed
Chlordane #5	0.050	0.049	1.889	20.000	Passed
Toxaphene #1	0.050	0.053	6.602	20.000	Passed
Toxaphene #2	0.050	0.052	4.902	20.000	Passed
Toxaphene #3	0.050	0.050	0.898	20.000	Passed
Toxaphene #4	0.050	0.053	5.636	20.000	Passed
Toxaphene #5	0.050	0.050	0.667	20.000	Passed
SURRDCBPEST	60.000	63.725	6.208	20.000	Passed
Chlordane	0.250	0.240	3.911	20.000	Passed
Toxaphene	0.250	0.259	3.741	20.000	Passed

Pesticide (TOX/Chlordane) Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\090519pstic\023.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
User: AJZ
Sample ID: TC CCV PP5924
Acquired: Sep 05, 2019 21:19:36
Printed: 09/06/2019 09:54:29

Data Summary: {Data Description}



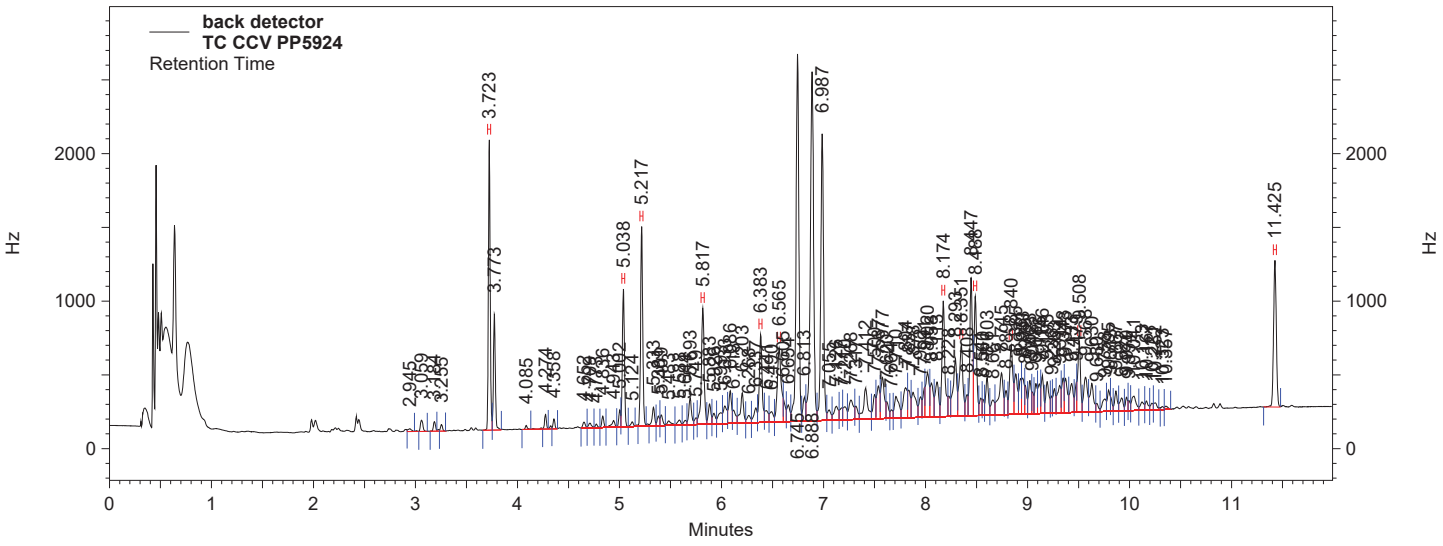
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.189	24776118	57.2849
Chlordane #1	4.270	12921738	0.0477
Chlordane #2	4.349	20123171	0.0486
Chlordane #3	4.759	16415388	0.0490
Chlordane #4	5.187	13533110	0.0484
Chlordane #5	5.308	12201367	0.0480
Toxaphene #1	5.948	11299421	0.0481
Toxaphene #2	6.408	26687557	0.0490
Toxaphene #3	7.209	10041878	0.0488
Toxaphene #4	7.873	11963460	0.0497
Toxaphene #5	7.961	6725400	0.0479
SURRDCBPEST	9.710	20878633	63.0315
Chlordane		75194774	0.2417
Toxaphene		66717716	0.2435

Pesticide (TOX/Chlordane) Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\090519pstic\023.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
User: AJZ
Sample ID: TC CCV PP5924
Acquired: Sep 05, 2019 21:19:36
Printed: 09/06/2019 09:54:29

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.723	18567755	57.5270
Chlordane #1	5.038	10030415	0.0483
Chlordane #2	5.217	14881166	0.0490
Chlordane #3	5.817	11637925	0.0499
Chlordane #4	6.383	8568922	0.0439
Chlordane #5	6.565	10214678	0.0491
Toxaphene #1	8.174	12276369	0.0533
Toxaphene #2	8.351	8877490	0.0525
Toxaphene #3	8.488	11297607	0.0504
Toxaphene #4	8.840	7945337	0.0528
Toxaphene #5	9.508	6854722	0.0503
SURRDCBPEST	11.425	14371846	63.7250
Chlordane		55333106	0.2402
Toxaphene		47251525	0.2594

QC Check Standard Report

Sequence : C:\Instarch\Semi1\Sequence\090519pstic.seq
User : AJZ
Printed : 09/06/2019 09:55:03

File	Sample ID	Acquired
C:\Instarch\Semi1\data\090519pstic\031.dat	PEST CCV PP5923	09/06/2019 09:55:03

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	100.000	105.768	5.768	20.000	Passed
ALPHABHC	0.040	0.042	6.165	20.000	Passed
LINDANE	0.040	0.043	6.682	20.000	Passed
BETABHC	0.040	0.041	3.682	20.000	Passed
DELTABHC	0.040	0.042	4.420	20.000	Passed
HEPTACHLOR	0.040	0.042	4.996	20.000	Passed
ALDRIN	0.040	0.042	4.737	20.000	Passed
HEPTAEPOX	0.040	0.042	4.194	20.000	Passed
GAMMACHLOR	0.040	0.041	3.611	20.000	Passed
ALPHACHLOR	0.040	0.041	3.217	20.000	Passed
44DDE	0.040	0.041	3.337	20.000	Passed
ENDOI	0.040	0.041	2.873	20.000	Passed
DIELDRIN	0.040	0.041	3.506	20.000	Passed
ENDRIN	0.040	0.042	5.760	20.000	Passed
44DDD	0.040	0.041	3.547	20.000	Passed
ENDOII	0.040	0.041	3.349	20.000	Passed
44DDT	0.040	0.042	4.144	20.000	Passed
ENDRINALDEH	0.040	0.040	0.392	20.000	Passed
METHOXYCL	0.040	0.043	6.514	20.000	Passed
ENDOSULFATE	0.040	0.041	2.433	20.000	Passed
ENDRINKETONE	0.040	0.041	2.095	20.000	Passed
SURRDCBPEST	100.000	101.616	1.616	20.000	Passed

back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	100.000	104.932	4.932	20.000	Passed
ALPHABHC	0.040	0.043	6.673	20.000	Passed
LINDANE	0.040	0.043	6.710	20.000	Passed
BETABHC	0.040	0.042	5.079	20.000	Passed
DELTABHC	0.040	0.042	5.319	20.000	Passed
HEPTACHLOR	0.040	0.042	5.722	20.000	Passed
ALDRIN	0.040	0.042	5.420	20.000	Passed
HEPTAEPOX	0.040	0.042	4.802	20.000	Passed
GAMMACHLOR	0.040	0.042	4.126	20.000	Passed
ALPHACHLOR	0.040	0.041	3.745	20.000	Passed
ENDOI	0.040	0.042	4.136	20.000	Passed
44DDE	0.040	0.041	2.618	20.000	Passed
DIELDRIN	0.040	0.042	3.859	20.000	Passed
ENDRIN	0.040	0.043	6.370	20.000	Passed
44DDD	0.040	0.042	4.624	20.000	Passed
ENDOII	0.040	0.042	4.063	20.000	Passed
44DDT	0.040	0.042	4.451	20.000	Passed
ENDRINALDEH	0.040	0.041	1.397	20.000	Passed
ENDOSULFATE	0.040	0.042	3.995	20.000	Passed

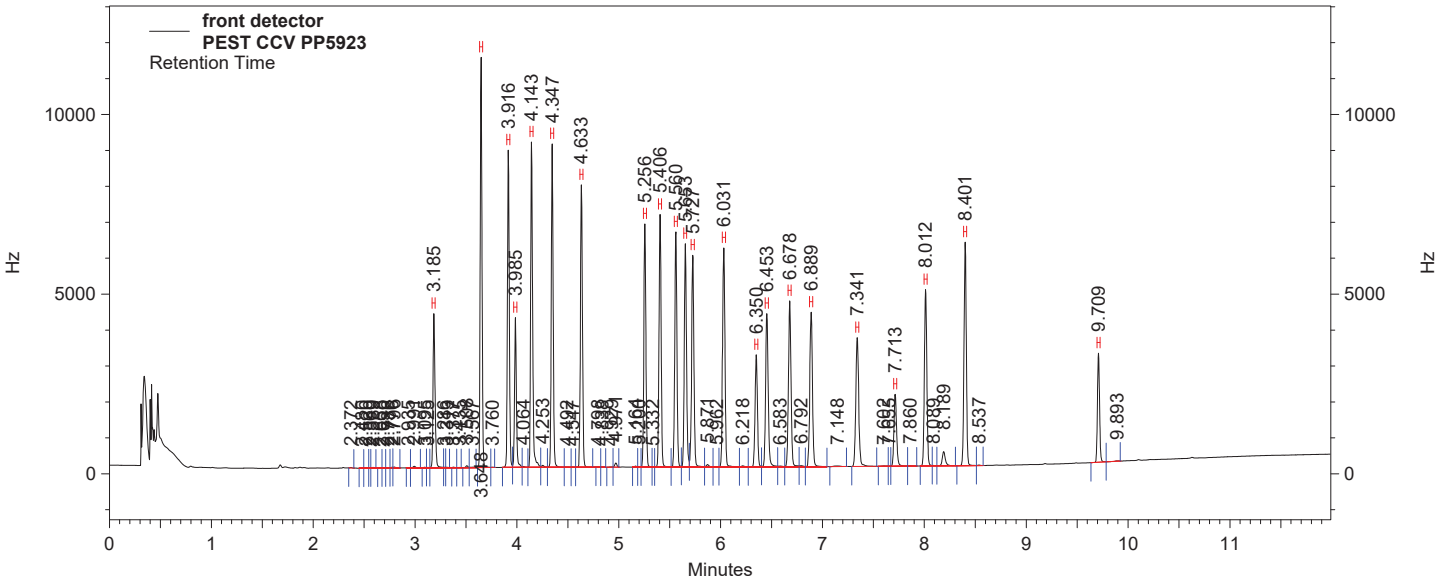
Sequence : C:\Instarch\Semi1\Sequence\090519pstic.seq
User : AJZ
Printed : 09/06/2019 09:55:03

METHOXYCL	0.040	0.043	7.893	20.000	**Passed**
ENDRINKETONE	0.040	0.042	4.071	20.000	**Passed**
SURRDCBPEST	100.000	102.677	2.677	20.000	**Passed**

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\090519pstic\031.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
User: AJZ
Sample ID: PEST CCV PP5923
Acquired: Sep 05, 2019 23:29:40
Printed: 09/06/2019 09:55:01

Data Summary: {Data Description}



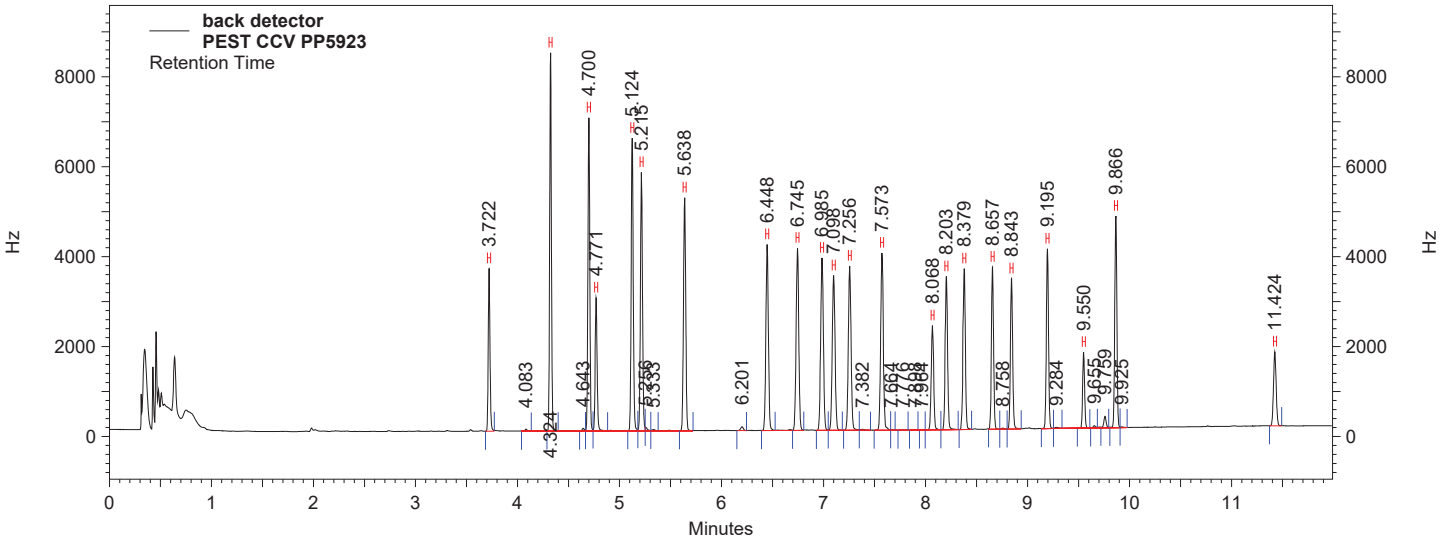
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.185	45503322	105.7678
ALPHABHC	3.648	103576167	0.0425
LINDANE	3.916	84738124	0.0427
BETABHC	3.985	40830369	0.0415
DELTABHC	4.143	93966288	0.0418
HEPTACHLOR	4.347	89691200	0.0420
ALDRIN	4.633	82518298	0.0419
HEPTAEPOX	5.256	74222357	0.0417
GAMMACHLOR	5.406	77857088	0.0414
ALPHACHLOR	5.560	75213638	0.0413
44DDE	5.653	72818615	0.0413
ENDOI	5.727	71201387	0.0411
DIELDRIN	6.031	76073981	0.0414
ENDRIN	6.350	38368320	0.0423
44DDD	6.453	57921997	0.0414
ENDOII	6.678	62468519	0.0413
44DDT	6.889	60193149	0.0417
ENDRINALDEH	7.341	55083660	0.0402
METHOXYCL	7.713	28059584	0.0426
ENDOSULFATE	8.012	63861270	0.0410
ENDRINKETONE	8.401	76191527	0.0408
SURRDCBPEST	9.709	33396014	101.6164

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\090519pstic\031.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
User: AJZ
Sample ID: PEST CCV PP5923
Acquired: Sep 05, 2019 23:29:40
Printed: 09/06/2019 09:55:01

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.722	33469103	104.9317
ALPHABHC	4.324	76420856	0.0427
LINDANE	4.700	67902535	0.0427
BETABHC	4.771	30172569	0.0420
DELTABHC	5.124	70160978	0.0421
HEPTACHLOR	5.215	62701040	0.0423
ALDRIN	5.638	60836337	0.0422
HEPTAEPOX	6.448	55034274	0.0419
GAMMACHLOR	6.745	55953027	0.0417
ALPHACHLOR	6.985	54224150	0.0415
ENDOI	7.098	50697520	0.0417
44DDE	7.256	52388249	0.0410
DIELDRIN	7.573	54163894	0.0415
ENDRIN	8.068	29718316	0.0425
44DDD	8.203	42092208	0.0418
ENDOII	8.379	44697880	0.0416
44DDT	8.657	40229885	0.0418
ENDRINALDEH	8.843	39343917	0.0406
ENDOSULFATE	9.195	44733319	0.0416
METHOXYCL	9.550	17394088	0.0432
ENDRINKETONE	9.866	52165257	0.0416
SURRDCBPEST	11.424	23191633	102.6765

QC Check Standard Report

Sequence : C:\Instarch\Semi1\Sequence\090519pstic.seq
User : AJZ
Printed : 09/06/2019 09:55:11

File	Sample ID	Acquired
C:\Instarch\Semi1\data\090519pstic\032.dat	TC CCV PP5924	09/06/2019 09:55:11

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	60.000	61.102	1.836	20.000	Passed
Chlordane #1	0.050	0.051	1.150	20.000	Passed
Chlordane #2	0.050	0.052	3.404	20.000	Passed
Chlordane #3	0.050	0.052	3.940	20.000	Passed
Chlordane #4	0.050	0.052	3.009	20.000	Passed
Chlordane #5	0.050	0.049	1.874	20.000	Passed
Toxaphene #1	0.050	0.050	0.925	20.000	Passed
Toxaphene #2	0.050	0.052	3.288	20.000	Passed
Toxaphene #3	0.050	0.051	2.881	20.000	Passed
Toxaphene #4	0.050	0.051	2.936	20.000	Passed
Toxaphene #5	0.050	0.051	1.432	20.000	Passed
SURRDCBPEST	60.000	58.333	2.779	20.000	Passed
Chlordane	0.250	0.255	1.926	20.000	Passed
Toxaphene	0.250	0.255	1.923	20.000	Passed

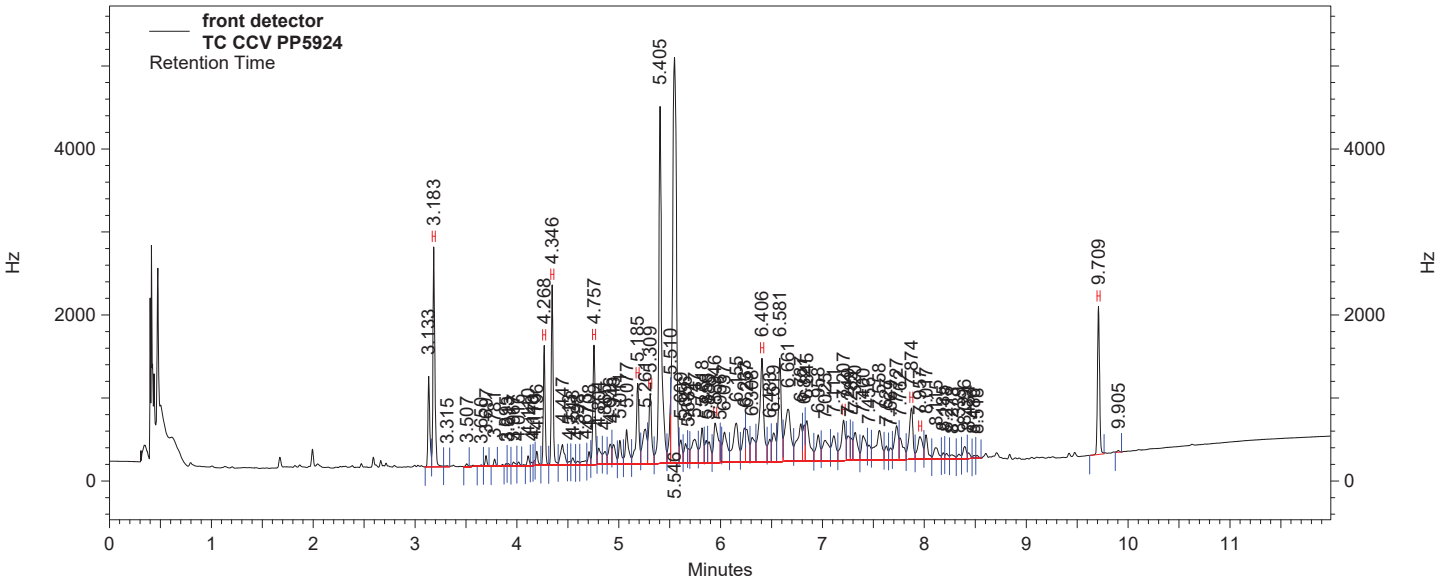
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	60.000	61.246	2.076	20.000	Passed
Chlordane #1	0.050	0.051	2.797	20.000	Passed
Chlordane #2	0.050	0.053	5.143	20.000	Passed
Chlordane #3	0.050	0.054	8.621	20.000	Passed
Chlordane #4	0.050	0.049	2.176	20.000	Passed
Chlordane #5	0.050	0.052	4.283	20.000	Passed
Toxaphene #1	0.050	0.056	11.191	20.000	Passed
Toxaphene #2	0.050	0.056	11.255	20.000	Passed
Toxaphene #3	0.050	0.054	8.359	20.000	Passed
Toxaphene #4	0.050	0.056	11.839	20.000	Passed
Toxaphene #5	0.050	0.051	2.803	20.000	Passed
SURRDCBPEST	60.000	58.834	1.944	20.000	Passed
Chlordane	0.250	0.259	3.734	20.000	Passed
Toxaphene	0.250	0.273	9.090	20.000	Passed

Pesticide (TOX/Chlordane) Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\090519pstic\032.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
User: AJZ
Sample ID: TC CCV PP5924
Acquired: Sep 05, 2019 23:45:48
Printed: 09/06/2019 09:55:09

Data Summary: {Data Description}



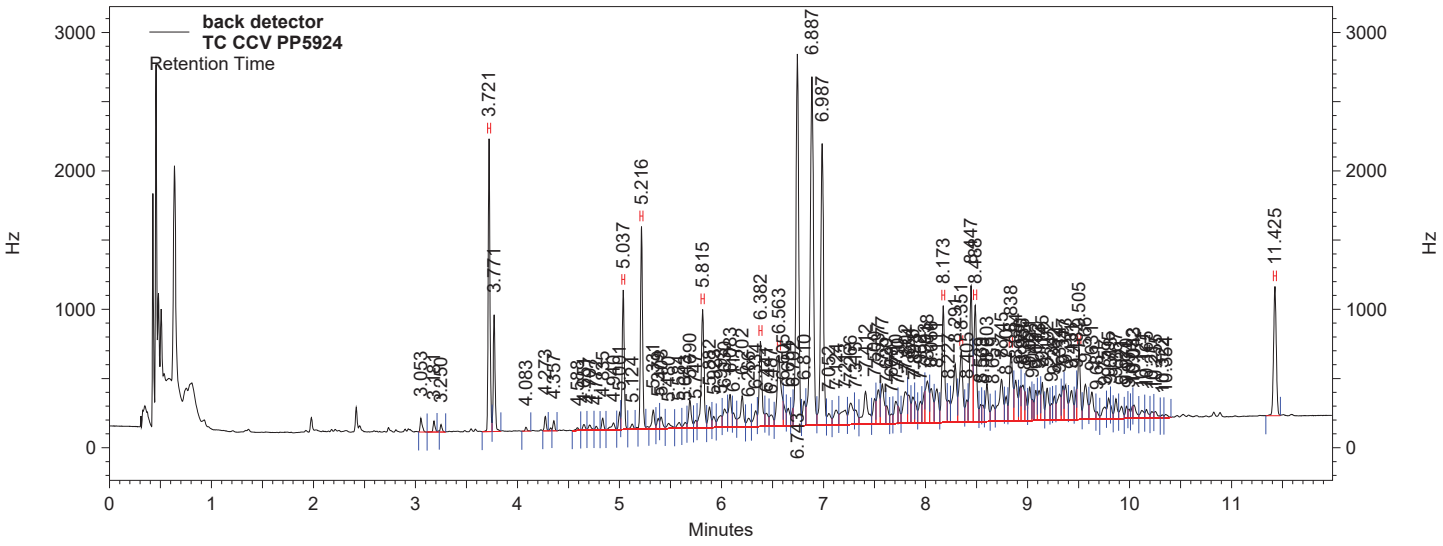
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.183	26433042	61.1017
Chlordane #1	4.268	13698504	0.0506
Chlordane #2	4.346	21393795	0.0517
Chlordane #3	4.757	17386332	0.0520
Chlordane #4	5.185	14372654	0.0515
Chlordane #5	5.309	12473805	0.0491
Toxaphene #1	5.946	11645211	0.0495
Toxaphene #2	6.406	28119155	0.0516
Toxaphene #3	7.207	10598932	0.0514
Toxaphene #4	7.874	12408039	0.0515
Toxaphene #5	7.957	7135758	0.0507
SURRDCBPEST	9.709	19362937	58.3328
Chlordane		79325090	0.2548
Toxaphene		69907095	0.2548

Pesticide (TOX/Chlordane) Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\090519pstic\032.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
User: AJZ
Sample ID: TC CCV PP5924
Acquired: Sep 05, 2019 23:45:48
Printed: 09/06/2019 09:55:09

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.721	19748763	61.2459
Chlordane #1	5.037	10660730	0.0514
Chlordane #2	5.216	15926357	0.0526
Chlordane #3	5.815	12619151	0.0543
Chlordane #4	6.382	9536553	0.0489
Chlordane #5	6.563	10858268	0.0521
Toxaphene #1	8.173	12820046	0.0556
Toxaphene #2	8.351	9436472	0.0556
Toxaphene #3	8.488	12139067	0.0542
Toxaphene #4	8.838	8425821	0.0559
Toxaphene #5	9.505	6999226	0.0514
SURRDCBPEST	11.425	13295648	58.8335
Chlordane		59601059	0.2593
Toxaphene		49820632	0.2727

Pesticide Analysis Breakdown Report

Data File: C:\Instarch\Semi1\data\091019pst\001.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\eval.met
User: AJZ
Instrument: Semi 1
Sample ID: EVAL PP5902
Acquired: 09/10/2019 15:22:27
Printed: 09/11/2019 08:49:59

Channel A: **DDT Breakdown 1.4 %** **Endrin Breakdown 11.7 %**

Channel B: **DDT Breakdown 1.5 %** **Endrin Breakdown 12.4 %**

Channel A

Compound	Area	Compound	Area
44DDT	48914134	ENDRIN	43328177
44DDD	316780	ENDRINALDEH	1772551
44DDE	386534	ENDRINKETONE	3983709

Channel B

Compound	Area	Compound	Area
44DDT	35451517	ENDRIN	34359962
44DDD	429683	ENDRINALDEH	1693193
44DDE	96490	ENDRINKETONE	3179777

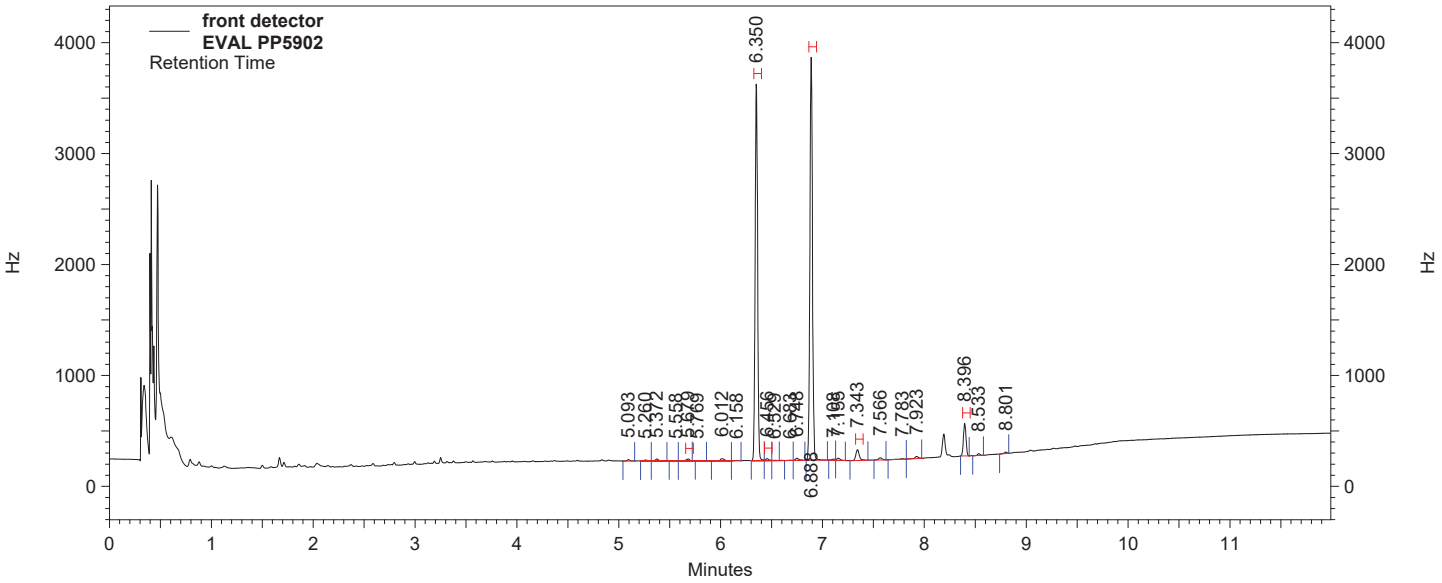
DDT Breakdown $\frac{44DDD + 44DDE}{44DDD + 44DDE + 44DDT} \times 100\ \%$

Endrin Breakdown $\frac{\text{Endrin aldehyde + Endrin ketone}}{\text{Endrin + Endrin aldehyde + Endrin ketone}} \times 1...\ \%$

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091019pst\001.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\eval.met
User: AJZ
Sample ID: EVAL PP5902
Acquired: 09/10/2019 15:22:27
Printed: 09/11/2019 08:50:00

Data Summary: {Data Description}



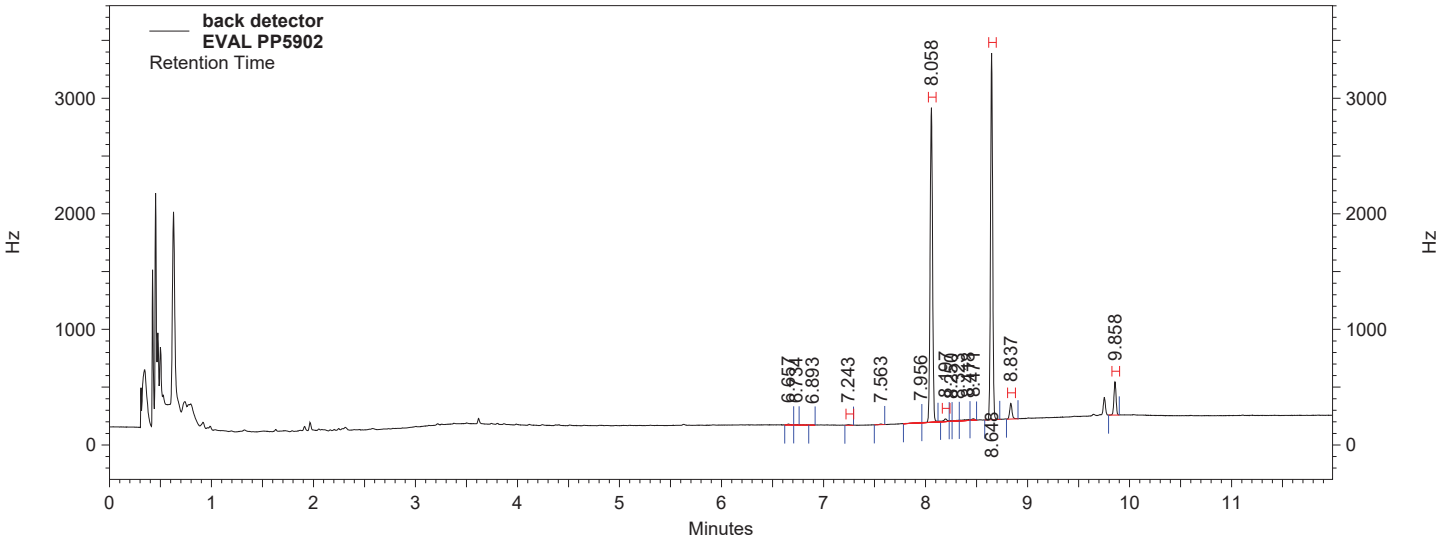
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
44DDE	5.679	386534	0.0004
ENDRIN	6.350	43328177	0.0149
44DDD	6.456	316780	0.0004
44DDT	6.888	48914134	0.0177
ENDRINALDEH	7.343	1772551	0.0008
ENDRINKETONE	8.396	3983709	0.0013

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091019pst\001.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\eval.met
User: AJZ
Sample ID: EVAL PP5902
Acquired: 09/10/2019 15:22:27
Printed: 09/11/2019 08:50:00

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
44DDE	7.243	96490	0.0001
ENDRIN	8.058	34359962	0.0086
44DDD	8.197	429683	0.0003
44DDT	8.648	35451517	0.0085
ENDRINALDEH	8.837	1693193	0.0003
ENDRINKETONE	9.858	3179777	0.0006

QC Check Standard Report

Sequence : C:\Instarch\Semi1\Sequence\091019pst.seq
User : AJZ
Printed : 09/11/2019 08:50:33

File	Sample ID	Acquired
C:\Instarch\Semi1\data\091019pst\004.dat	PEST CCV PP5923	09/11/2019 08:50:33

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	100.000	96.168	3.832	20.000	Passed
ALPHABHC	0.040	0.038	4.652	20.000	Passed
LINDANE	0.040	0.036	9.323	20.000	Passed
BETABHC	0.040	0.037	6.403	20.000	Passed
DELTABHC	0.040	0.038	5.619	20.000	Passed
HEPTACHLOR	0.040	0.038	6.127	20.000	Passed
ALDRIN	0.040	0.038	5.202	20.000	Passed
HEPTAEPOX	0.040	0.037	7.562	20.000	Passed
GAMMACHLOR	0.040	0.038	6.164	20.000	Passed
ALPHACHLOR	0.040	0.037	6.810	20.000	Passed
44DDE	0.040	0.038	5.944	20.000	Passed
ENDOI	0.040	0.037	6.437	20.000	Passed
DIELDRIN	0.040	0.038	6.210	20.000	Passed
ENDRIN	0.040	0.040	1.066	20.000	Passed
44DDD	0.040	0.037	6.661	20.000	Passed
ENDOII	0.040	0.038	5.582	20.000	Passed
44DDT	0.040	0.037	7.026	20.000	Passed
ENDRINALDEH	0.040	0.037	7.665	20.000	Passed
METHOXYCL	0.040	0.037	6.282	20.000	Passed
ENDOSULFATE	0.040	0.038	5.278	20.000	Passed
ENDRINKETONE	0.040	0.037	8.012	20.000	Passed
SURRDCBPEST	100.000	94.027	5.973	20.000	Passed

back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	100.000	98.249	1.751	20.000	Passed
ALPHABHC	0.040	0.039	2.680	20.000	Passed
LINDANE	0.040	0.039	3.344	20.000	Passed
BETABHC	0.040	0.038	4.489	20.000	Passed
DELTABHC	0.040	0.038	4.765	20.000	Passed
HEPTACHLOR	0.040	0.038	5.168	20.000	Passed
ALDRIN	0.040	0.038	4.345	20.000	Passed
HEPTAEPOX	0.040	0.038	5.139	20.000	Passed
GAMMACHLOR	0.040	0.038	4.759	20.000	Passed
ALPHACHLOR	0.040	0.038	4.955	20.000	Passed
ENDOI	0.040	0.038	4.870	20.000	Passed
44DDE	0.040	0.039	3.745	20.000	Passed
DIELDRIN	0.040	0.038	4.328	20.000	Passed
ENDRIN	0.040	0.040	0.637	20.000	Passed
44DDD	0.040	0.038	5.925	20.000	Passed
ENDOII	0.040	0.038	4.857	20.000	Passed
44DDT	0.040	0.037	7.448	20.000	Passed
ENDRINALDEH	0.040	0.037	6.612	20.000	Passed
ENDOSULFATE	0.040	0.038	5.420	20.000	Passed
METHOXYCL	0.040	0.037	6.389	20.000	Passed

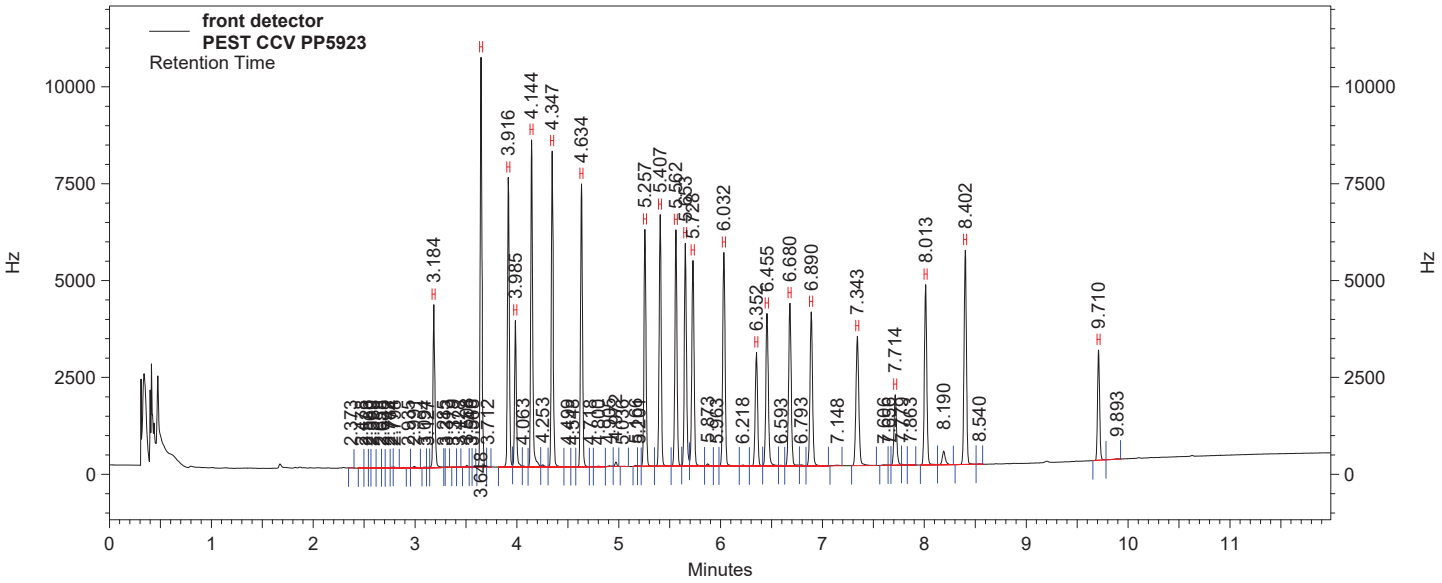
Sequence : C:\Instarch\Semi1\Sequence\091019pst.seq
User : AJZ
Printed : 09/11/2019 08:50:33

ENDRINKETONE	0.040	0.037	7.125	20.000	**Passed**
SURRDCBPEST	100.000	94.297	5.703	20.000	**Passed**

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091019pst\004.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: PEST CCV PP5923
Acquired: 09/10/2019 16:12:17
Printed: 09/11/2019 08:50:31

Data Summary: {Data Description}



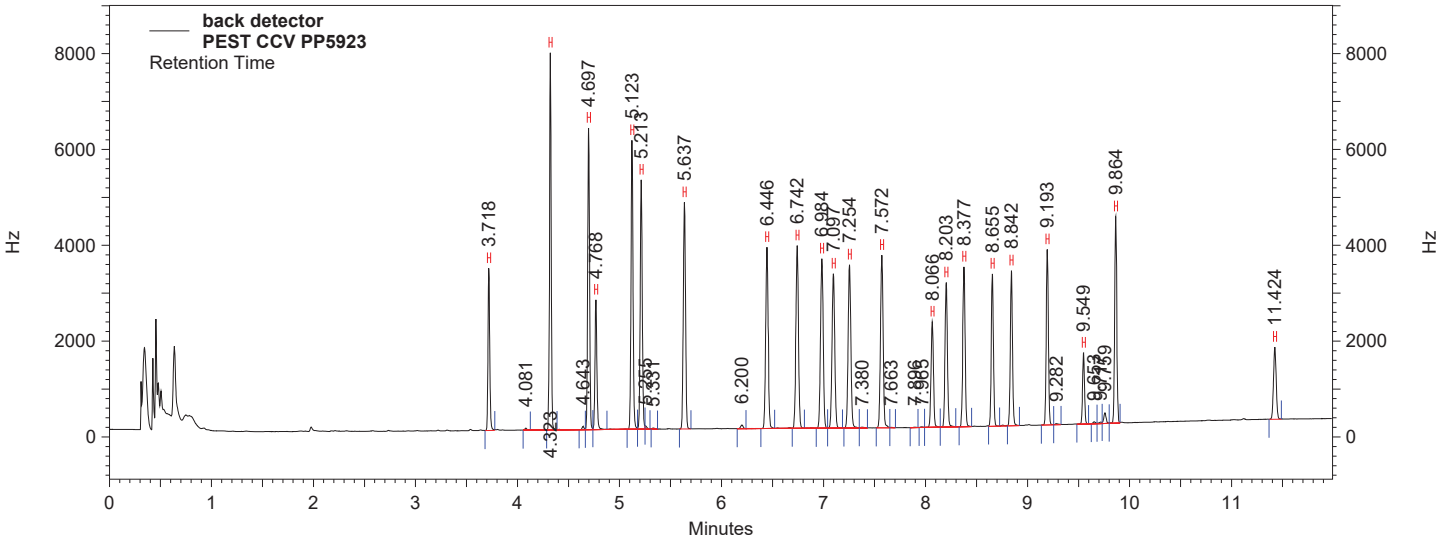
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.184	41352309	96.1680
ALPHABHC	3.648	92516660	0.0381
LINDANE	3.916	71746540	0.0363
BETABHC	3.985	36903972	0.0374
DELTABHC	4.144	84443913	0.0378
HEPTACHLOR	4.347	80151761	0.0375
ALDRIN	4.634	74412337	0.0379
HEPTAEPOX	5.257	65920755	0.0370
GAMMACHLOR	5.407	70355746	0.0375
ALPHACHLOR	5.562	67842947	0.0373
44DDE	5.653	65941605	0.0376
ENDOI	5.728	64845707	0.0374
DIELDRIN	6.032	68742136	0.0375
ENDRIN	6.352	36521387	0.0404
44DDD	6.455	51908632	0.0373
ENDOII	6.680	57046202	0.0378
44DDT	6.890	53276139	0.0372
ENDRINALDEH	7.343	50697699	0.0369
METHOXYCL	7.714	24592442	0.0375
ENDOSULFATE	8.013	59063530	0.0379
ENDRINKETONE	8.402	68750544	0.0368
SURRDCBPEST	9.710	31138695	94.0267

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091019pst\004.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: PEST CCV PP5923
Acquired: 09/10/2019 16:12:17
Printed: 09/11/2019 08:50:31

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.718	31380219	98.2487
ALPHABHC	4.323	69662808	0.0389
LINDANE	4.697	61503567	0.0387
BETABHC	4.768	27528869	0.0382
DELTABHC	5.123	63388852	0.0381
HEPTACHLOR	5.213	56378677	0.0379
ALDRIN	5.637	55220224	0.0383
HEPTAEPOX	6.446	49968543	0.0379
GAMMACHLOR	6.742	51193502	0.0381
ALPHACHLOR	6.984	49729308	0.0380
ENDOI	7.097	46391763	0.0381
44DDE	7.254	49104209	0.0385
DIELDRIN	7.572	49939348	0.0383
ENDRIN	8.066	28042514	0.0403
44DDD	8.203	37847753	0.0376
ENDOII	8.377	40950010	0.0381
44DDT	8.655	35546267	0.0370
ENDRINALDEH	8.842	36369161	0.0374
ENDOSULFATE	9.193	40787770	0.0378
METHOXYCL	9.549	15065292	0.0374
ENDRINKETONE	9.864	46753000	0.0371
SURRDCBPEST	11.424	21467486	94.2975

QC Check Standard Report

Sequence : C:\Instarch\Semi1\Sequence\091019pst.seq
User : AJZ
Printed : 09/11/2019 08:50:40

File	Sample ID	Acquired
C:\Instarch\Semi1\data\091019pst\005.dat	TC CCV PP5924	09/11/2019 08:50:40

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	60.000	55.102	8.164	20.000	Passed
Chlordane #1	0.050	0.046	8.705	20.000	Passed
Chlordane #2	0.050	0.046	7.634	20.000	Passed
Chlordane #3	0.050	0.047	6.497	20.000	Passed
Chlordane #4	0.050	0.046	7.493	20.000	Passed
Chlordane #5	0.050	0.044	11.191	20.000	Passed
Toxaphene #1	0.050	0.044	11.173	20.000	Passed
Toxaphene #2	0.050	0.046	7.530	20.000	Passed
Toxaphene #3	0.050	0.045	9.376	20.000	Passed
Toxaphene #4	0.050	0.047	6.947	20.000	Passed
Toxaphene #5	0.050	0.045	9.787	20.000	Passed
SURRDCBPEST	60.000	60.771	1.284	20.000	Passed
Chlordane	0.250	0.229	8.304	20.000	Passed
Toxaphene	0.250	0.228	8.963	20.000	Passed

back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	60.000	56.606	5.657	20.000	Passed
Chlordane #1	0.050	0.047	6.675	20.000	Passed
Chlordane #2	0.050	0.047	6.586	20.000	Passed
Chlordane #3	0.050	0.047	6.854	20.000	Passed
Chlordane #4	0.050	0.041	17.751	20.000	Passed
Chlordane #5	0.050	0.044	12.856	20.000	Passed
Toxaphene #1	0.050	0.046	8.475	20.000	Passed
Toxaphene #2	0.050	0.045	10.807	20.000	Passed
Toxaphene #3	0.050	0.045	9.336	20.000	Passed
Toxaphene #4	0.050	0.046	8.527	20.000	Passed
Toxaphene #5	0.050	0.043	13.908	20.000	Passed
SURRDCBPEST	60.000	60.888	1.480	20.000	Passed
Chlordane	0.250	0.225	10.145	20.000	Passed
Toxaphene	0.250	0.224	10.211	20.000	Passed

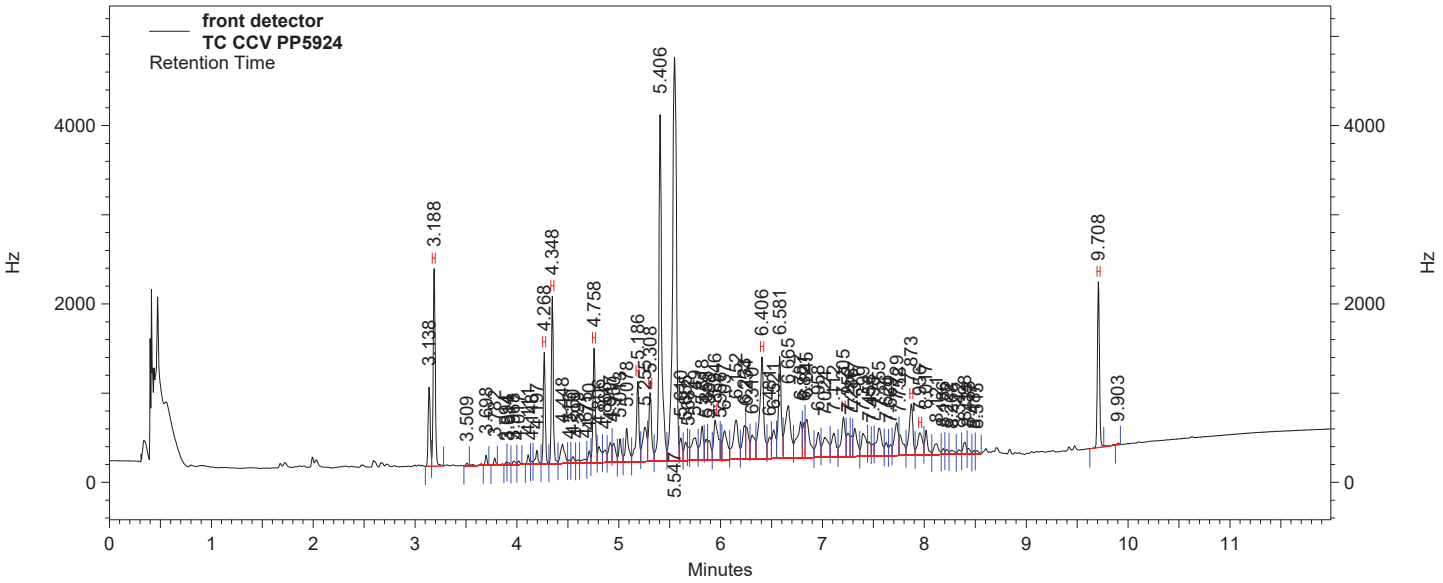
Pesticide (TOX/Chlordane) Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091019pst\005.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019tc.met
User: AJZ
Sample ID: TC CCV PP5924
Acquired: 09/10/2019 16:28:27
Printed: 09/11/2019 08:50:38

AJZ
9/12/19

After Manual Integration

Data Summary: M.I. Index Reason #2 AJZ 09/10/2019



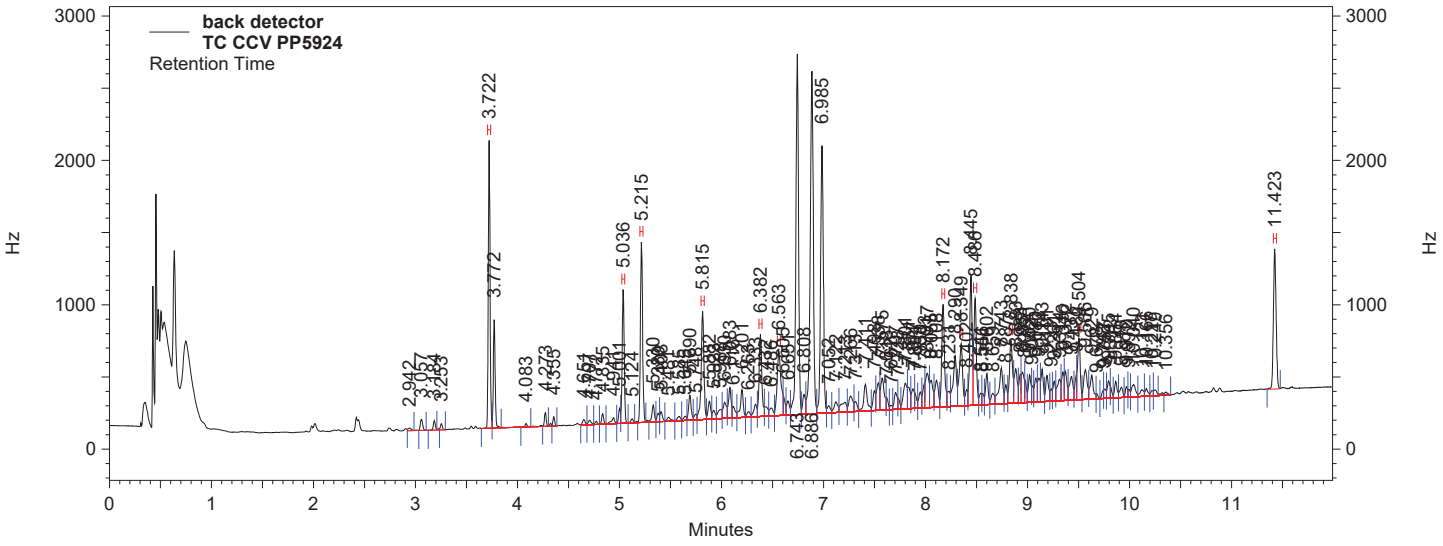
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.188	23828334	55.1017
Chlordane #1	4.268	12380125	0.0456
Chlordane #2	4.348	19111661	0.0462
Chlordane #3	4.758	15687579	0.0468
Chlordane #4	5.186	12936105	0.0463
Chlordane #5	5.308	11298061	0.0444
Toxaphene #1	5.946	10448566	0.0444
Toxaphene #2	6.406	25165657	0.0462
Toxaphene #3	7.205	9294705	0.0453
Toxaphene #4	7.873	11182765	0.0465
Toxaphene #5	7.956	6309607	0.0451
SURRDCBPEST	9.708	20149334	60.7706
Chlordane		71413531	0.2292
Toxaphene		62401300	0.2276

Pesticide (TOX/Chlordane) Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091019pst\005.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019tc.met
User: AJZ
Sample ID: TC CCV PP5924
Acquired: 09/10/2019 16:28:27
Printed: 09/11/2019 08:50:38

Data Summary: M.I. Index Reason #2 AJZ 09/10/2019



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.722	18275283	56.6060
Chlordane #1	5.036	9699808	0.0467
Chlordane #2	5.215	14193739	0.0467
Chlordane #3	5.815	10890887	0.0466
Chlordane #4	6.382	8026081	0.0411
Chlordane #5	6.563	9070914	0.0436
Toxaphene #1	8.172	10490370	0.0458
Toxaphene #2	8.349	7495240	0.0446
Toxaphene #3	8.486	10143543	0.0453
Toxaphene #4	8.838	6848331	0.0457
Toxaphene #5	9.504	5868319	0.0430
SURRDCBPEST	11.423	13747662	60.8880
Chlordane		51881429	0.2246
Toxaphene		40845803	0.2245

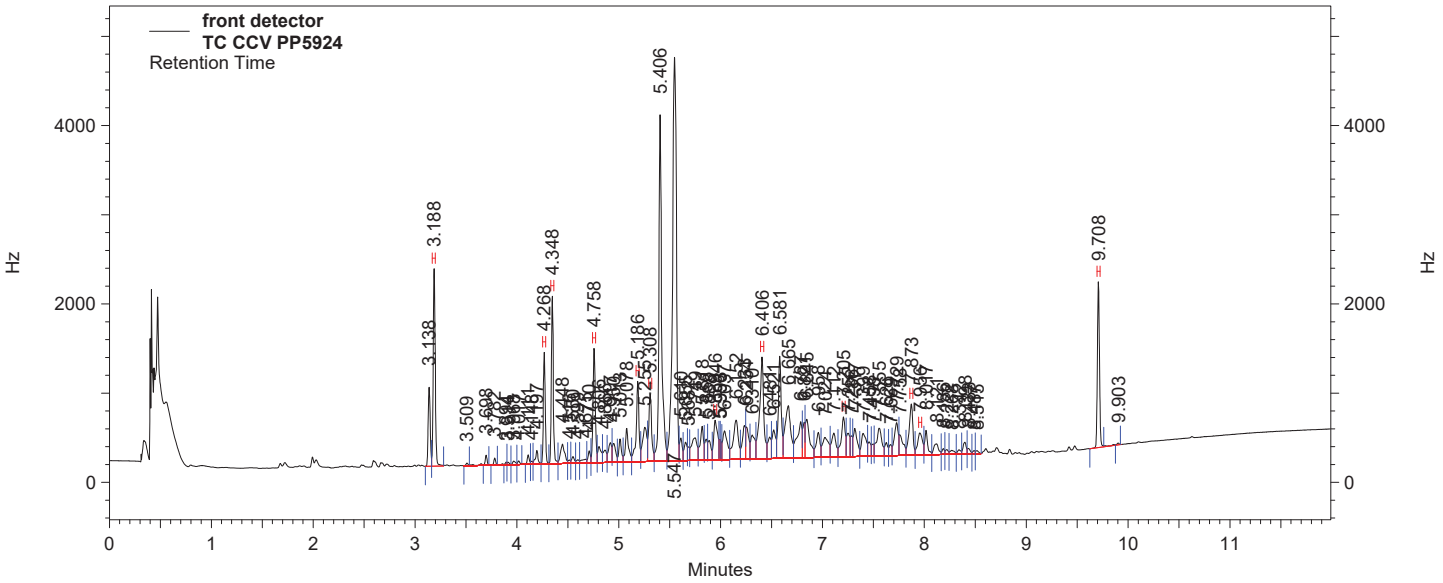
Pesticide (TOX/Chlordane) Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091019pst\005.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019tc.met
User: JJY
Sample ID: TC CCV PP5924
Acquired: 09/10/2019 16:28:27
Printed: 09/12/2019 11:45:53

JJY
9/12/19

Data Summary: M.I. Index Reason #2 AJZ 09/10/2019

Before Manual Integration



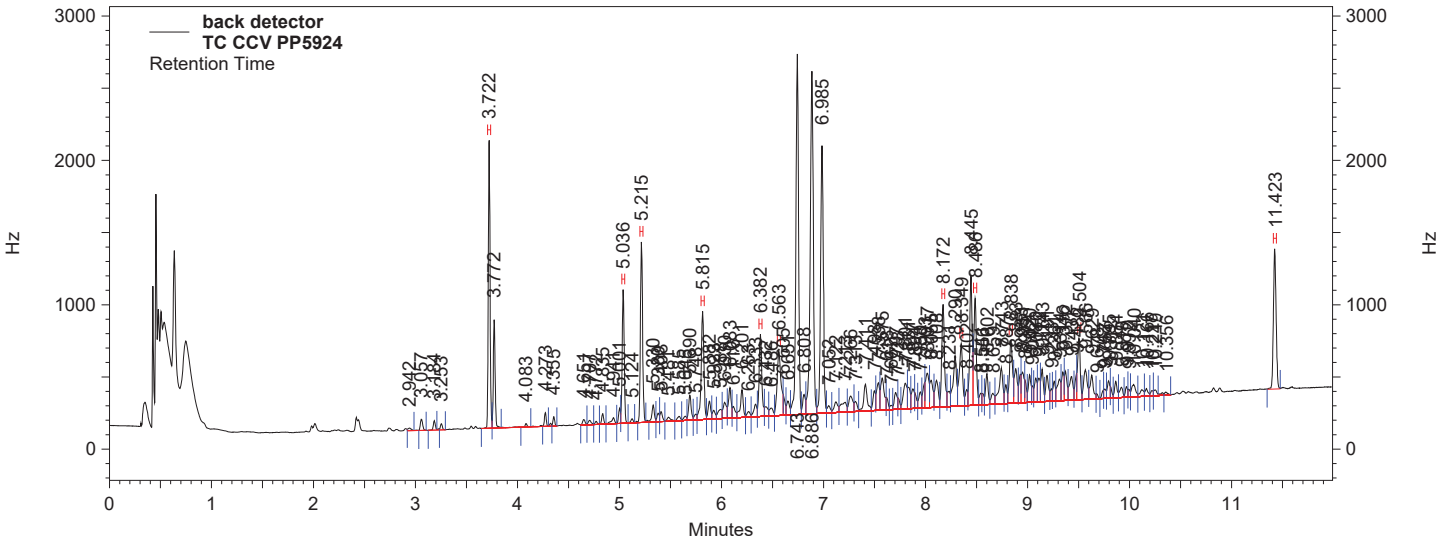
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.188	23828334	55.1017
Chlordane #1	4.268	12380125	0.0456
Chlordane #2	4.348	19111661	0.0462
Chlordane #3	4.758	15687579	0.0468
Chlordane #4	5.186	12936105	0.0463
Chlordane #5	5.308	11298061	0.0444
Toxaphene #1	5.946	9155819	0.0389
Toxaphene #2	6.406	25165657	0.0462
Toxaphene #3	7.205	9294705	0.0453
Toxaphene #4	7.873	11182765	0.0465
Toxaphene #5	7.956	6309607	0.0451
SURRDCBPEST	9.708	20149334	60.7706
Chlordane		71413531	0.2292
Toxaphene		61108553	0.2221

Pesticide (TOX/Chlordane) Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091019pst\005.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019tc.met
User: JJY
Sample ID: TC CCV PP5924
Acquired: 09/10/2019 16:28:27
Printed: 09/12/2019 11:45:53

Data Summary: M.I. Index Reason #2 AJZ 09/10/2019



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.722	18275283	56.6060
Chlordane #1	5.036	9699808	0.0467
Chlordane #2	5.215	14193739	0.0467
Chlordane #3	5.815	10890887	0.0466
Chlordane #4	6.382	8026081	0.0411
Chlordane #5	6.563	9070914	0.0436
Toxaphene #1	8.172	10490370	0.0458
Toxaphene #2	8.349	7495240	0.0446
Toxaphene #3	8.486	10143543	0.0453
Toxaphene #4	8.838	6848331	0.0457
Toxaphene #5	9.504	5868319	0.0430
SURRDCBPEST	11.423	13747662	60.8880
Chlordane		51881429	0.2246
Toxaphene		40845803	0.2245

QC Check Standard Report

Sequence : C:\Instarch\Semi1\Sequence\091019pst.seq
User : AJZ
Printed : 09/11/2019 08:52:48

File	Sample ID	Acquired
C:\Instarch\Semi1\data\091019pst\016.dat	PEST CCV PP5923	09/11/2019 08:52:47

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	100.000	97.510	2.490	20.000	Passed
ALPHABHC	0.040	0.039	2.403	20.000	Passed
LINDANE	0.040	0.039	1.343	20.000	Passed
BETABHC	0.040	0.038	4.933	20.000	Passed
DELTABHC	0.040	0.038	4.117	20.000	Passed
HEPTACHLOR	0.040	0.039	2.929	20.000	Passed
ALDRIN	0.040	0.039	2.501	20.000	Passed
HEPTAEPOX	0.040	0.038	3.826	20.000	Passed
GAMMACHLOR	0.040	0.039	3.749	20.000	Passed
ALPHACHLOR	0.040	0.038	4.235	20.000	Passed
44DDE	0.040	0.039	2.445	20.000	Passed
ENDOI	0.040	0.038	5.500	20.000	Passed
DIELDRIN	0.040	0.038	4.252	20.000	Passed
ENDRIN	0.040	0.045	11.484	20.000	Passed
44DDD	0.040	0.039	2.293	20.000	Passed
ENDOII	0.040	0.038	3.837	20.000	Passed
44DDT	0.040	0.040	0.058	20.000	Passed
ENDRINALDEH	0.040	0.036	10.660	20.000	Passed
METHOXYCL	0.040	0.043	8.724	20.000	Passed
ENDOSULFATE	0.040	0.039	3.673	20.000	Passed
ENDRINKETONE	0.040	0.038	6.218	20.000	Passed
SURRDCBPEST	100.000	96.923	3.077	20.000	Passed

back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	100.000	98.773	1.227	20.000	Passed
ALPHABHC	0.040	0.040	0.757	20.000	Passed
LINDANE	0.040	0.041	1.328	20.000	Passed
BETABHC	0.040	0.040	0.023	20.000	Passed
DELTABHC	0.040	0.040	0.569	20.000	Passed
HEPTACHLOR	0.040	0.039	2.751	20.000	Passed
ALDRIN	0.040	0.040	0.131	20.000	Passed
HEPTAEPOX	0.040	0.040	1.226	20.000	Passed
GAMMACHLOR	0.040	0.040	0.556	20.000	Passed
ALPHACHLOR	0.040	0.040	0.758	20.000	Passed
ENDOI	0.040	0.040	0.609	20.000	Passed
44DDE	0.040	0.040	1.084	20.000	Passed
DIELDRIN	0.040	0.040	0.494	20.000	Passed
ENDRIN	0.040	0.045	12.760	20.000	Passed
44DDD	0.040	0.040	0.979	20.000	Passed
ENDOII	0.040	0.039	2.054	20.000	Passed
44DDT	0.040	0.039	1.693	20.000	Passed
ENDRINALDEH	0.040	0.036	10.154	20.000	Passed
ENDOSULFATE	0.040	0.041	2.454	20.000	Passed
METHOXYCL	0.040	0.041	2.824	20.000	Passed

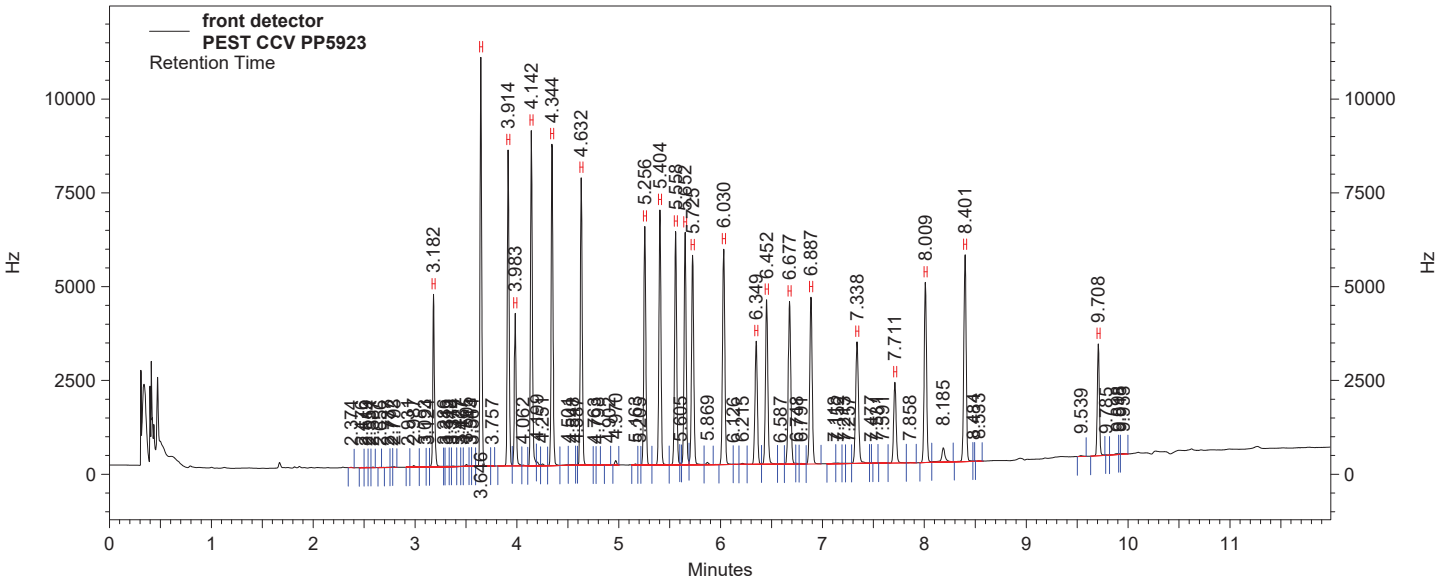
Sequence : C:\Instarch\Semi1\Sequence\091019pst.seq
User : AJZ
Printed : 09/11/2019 08:52:48

ENDRINKETONE	0.040	0.039	1.490	20.000	**Passed**
SURRDCBPEST	100.000	97.564	2.436	20.000	**Passed**

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091019pst\016.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: PEST CCV PP5923
Acquired: 09/10/2019 19:27:20
Printed: 09/11/2019 08:52:44

Data Summary: {Data Description}



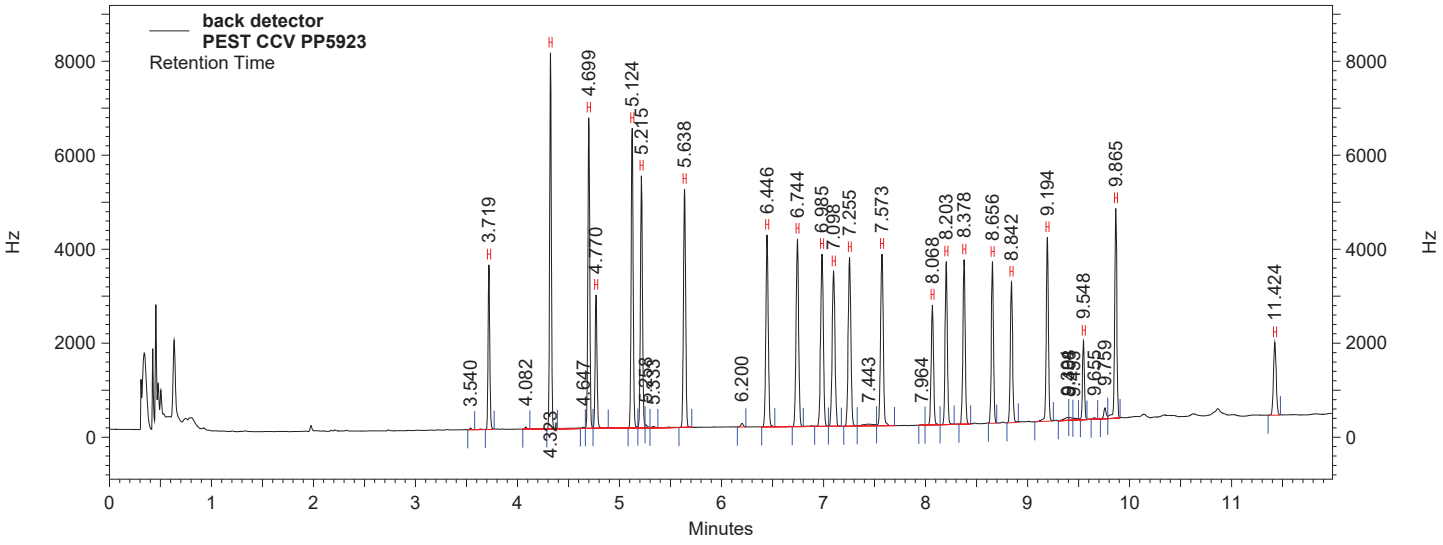
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.182	41932055	97.5102
ALPHABHC	3.646	94806402	0.0390
LINDANE	3.914	78210821	0.0395
BETABHC	3.983	37476604	0.0380
DELTABHC	4.142	85861716	0.0384
HEPTACHLOR	4.344	82892394	0.0388
ALDRIN	4.632	76609540	0.0390
HEPTAEPOX	5.256	68559311	0.0385
GAMMACHLOR	5.404	72204406	0.0385
ALPHACHLOR	5.558	69733586	0.0383
44DDE	5.652	68525853	0.0390
ENDOI	5.725	65485718	0.0378
DIELDRIN	6.030	70215663	0.0383
ENDRIN	6.349	40639245	0.0446
44DDD	6.452	54473607	0.0391
ENDOII	6.677	58104827	0.0385
44DDT	6.887	57649767	0.0400
ENDRINALDEH	7.338	49067667	0.0357
METHOXYCL	7.711	28661249	0.0435
ENDOSULFATE	8.009	60061805	0.0385
ENDRINKETONE	8.401	70071926	0.0375
SURRDCBPEST	9.708	32004148	96.9231

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091019pst\016.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: PEST CCV PP5923
Acquired: 09/10/2019 19:27:20
Printed: 09/11/2019 08:52:44

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.719	31544087	98.7726
ALPHABHC	4.323	72144206	0.0403
LINDANE	4.699	64476025	0.0405
BETABHC	4.770	28764440	0.0400
DELTABHC	5.124	66968057	0.0402
HEPTACHLOR	5.215	57783294	0.0389
ALDRIN	5.638	57794018	0.0401
HEPTAEPOX	6.446	51965068	0.0395
GAMMACHLOR	6.744	53444226	0.0398
ALPHACHLOR	6.985	51898016	0.0397
ENDOI	7.098	48429891	0.0398
44DDE	7.255	50476759	0.0396
DIELDRIN	7.573	51918075	0.0398
ENDRIN	8.068	31597373	0.0451
44DDD	8.203	39836975	0.0396
ENDOII	8.378	42128530	0.0392
44DDT	8.656	37807469	0.0393
ENDRINALDEH	8.842	35047532	0.0359
ENDOSULFATE	9.194	44088349	0.0410
METHOXYCL	9.548	16566201	0.0411
ENDRINKETONE	9.865	49481383	0.0394
SURRDCBPEST	11.424	22142618	97.5636

QC Check Standard Report

Sequence : C:\Instarch\Semi1\Sequence\091019pst.seq
User : AJZ
Printed : 09/11/2019 08:55:00

File	Sample ID	Acquired
C:\Instarch\Semi1\data\091019pst\017.dat	TC CCV PP5924	09/11/2019 08:55:00

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	60.000	56.857	5.239	20.000	Passed
Chlordane #1	0.050	0.047	5.931	20.000	Passed
Chlordane #2	0.050	0.048	4.521	20.000	Passed
Chlordane #3	0.050	0.049	2.715	20.000	Passed
Chlordane #4	0.050	0.048	4.073	20.000	Passed
Chlordane #5	0.050	0.046	7.627	20.000	Passed
Toxaphene #1	0.050	0.046	7.676	20.000	Passed
Toxaphene #2	0.050	0.048	4.248	20.000	Passed
Toxaphene #3	0.050	0.046	7.774	20.000	Passed
Toxaphene #4	0.050	0.047	6.538	20.000	Passed
Toxaphene #5	0.050	0.045	10.485	20.000	Passed
SURRDCBPEST	60.000	59.606	0.656	20.000	Passed
Chlordane	0.250	0.238	4.973	20.000	Passed
Toxaphene	0.250	0.232	7.344	20.000	Passed

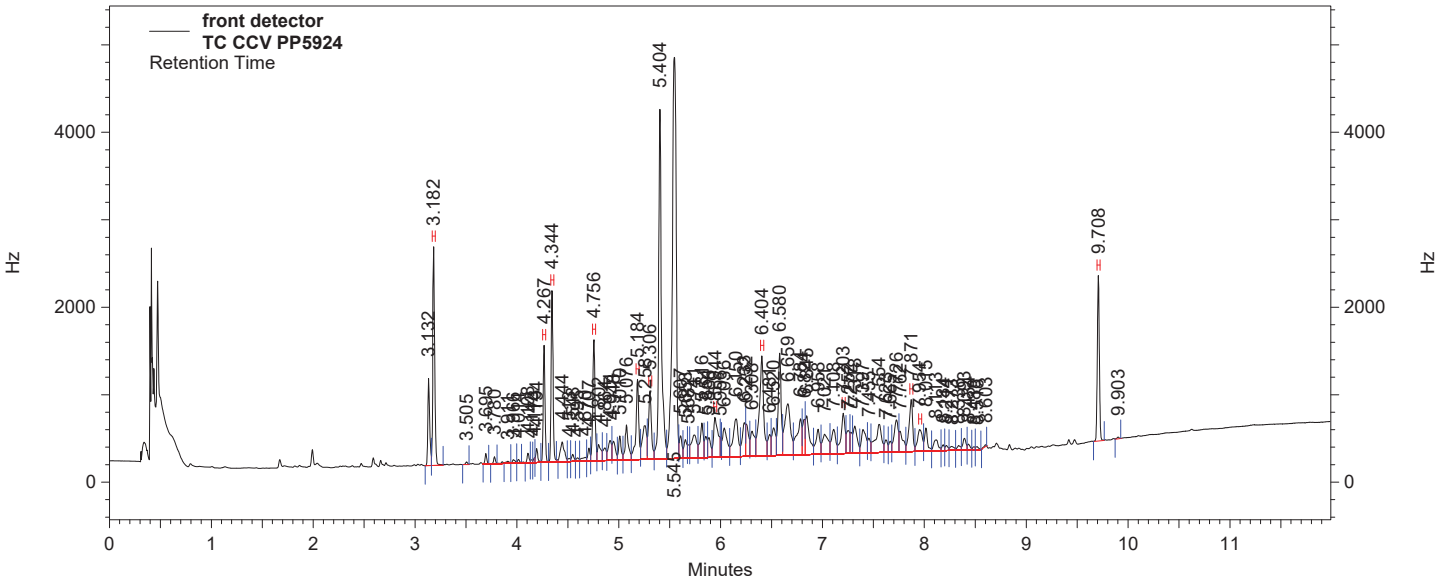
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	60.000	58.569	2.386	20.000	Passed
Chlordane #1	0.050	0.048	4.616	20.000	Passed
Chlordane #2	0.050	0.048	4.188	20.000	Passed
Chlordane #3	0.050	0.049	2.116	20.000	Passed
Chlordane #4	0.050	0.042	15.491	20.000	Passed
Chlordane #5	0.050	0.045	10.756	20.000	Passed
Toxaphene #1	0.050	0.046	7.020	20.000	Passed
Toxaphene #2	0.050	0.044	11.089	20.000	Passed
Toxaphene #3	0.050	0.046	7.665	20.000	Passed
Toxaphene #4	0.050	0.047	6.092	20.000	Passed
Toxaphene #5	0.050	0.046	8.705	20.000	Passed
SURRDCBPEST	60.000	61.279	2.131	20.000	Passed
Chlordane	0.250	0.231	7.433	20.000	Passed
Toxaphene	0.250	0.230	8.114	20.000	Passed

Pesticide (TOX/Chlordane) Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091019pst\017.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019tc.met
User: AJZ
Sample ID: TC CCV PP5924
Acquired: 09/10/2019 19:43:31
Printed: 09/11/2019 08:54:58

Data Summary: {Data Description}



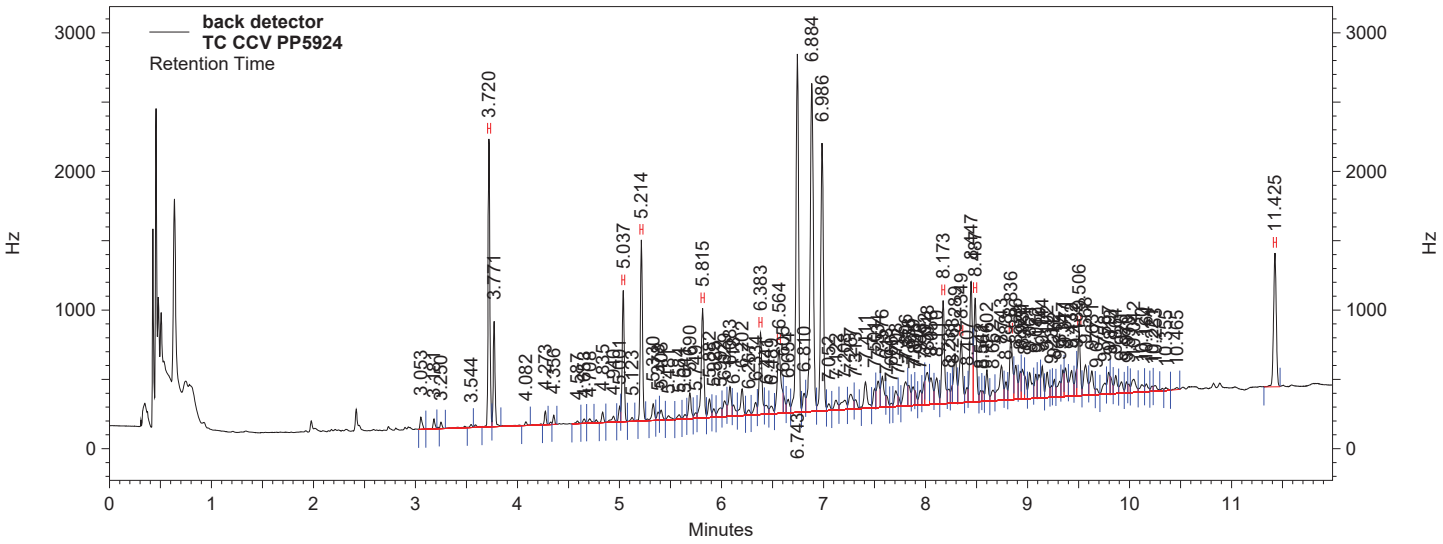
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.182	24590283	56.8569
Chlordane #1	4.267	12751261	0.0470
Chlordane #2	4.344	19755234	0.0477
Chlordane #3	4.756	16303100	0.0486
Chlordane #4	5.184	13403971	0.0480
Chlordane #5	5.306	11747824	0.0462
Toxaphene #1	5.944	10856884	0.0462
Toxaphene #2	6.404	26061687	0.0479
Toxaphene #3	7.203	9465191	0.0461
Toxaphene #4	7.871	11233482	0.0467
Toxaphene #5	7.954	6258233	0.0448
SURRDCBPEST	9.708	19773765	59.6063
Chlordane		73961390	0.2376
Toxaphene		63875477	0.2316

Pesticide (TOX/Chlordane) Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091019pst\017.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019tc.met
User: AJZ
Sample ID: TC CCV PP5924
Acquired: 09/10/2019 19:43:31
Printed: 09/11/2019 08:54:58

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.720	18898559	58.5687
Chlordane #1	5.037	9908741	0.0477
Chlordane #2	5.214	14548038	0.0479
Chlordane #3	5.815	11420014	0.0489
Chlordane #4	6.383	8245291	0.0423
Chlordane #5	6.564	9289950	0.0446
Toxaphene #1	8.173	10662767	0.0465
Toxaphene #2	8.349	7470437	0.0445
Toxaphene #3	8.487	10332003	0.0462
Toxaphene #4	8.836	7036930	0.0470
Toxaphene #5	9.506	6220391	0.0456
SURRDCBPEST	11.425	13833648	61.2788
Chlordane		53412034	0.2314
Toxaphene		41722528	0.2297

QC Check Standard Report

Sequence : C:\Instarch\Semi1\Sequence\091019pst.seq
User : AJZ
Printed : 09/11/2019 08:55:46

File	Sample ID	Acquired
C:\Instarch\Semi1\data\091019pst\028.dat	PEST CCV PP5923	09/11/2019 08:55:46

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	100.000	96.761	3.239	20.000	Passed
ALPHABHC	0.040	0.039	2.826	20.000	Passed
LINDANE	0.040	0.040	0.592	20.000	Passed
BETABHC	0.040	0.038	5.620	20.000	Passed
DELTABHC	0.040	0.039	3.604	20.000	Passed
HEPTACHLOR	0.040	0.039	2.824	20.000	Passed
ALDRIN	0.040	0.038	4.266	20.000	Passed
HEPTAEPOX	0.040	0.037	6.326	20.000	Passed
GAMMACHLOR	0.040	0.038	4.689	20.000	Passed
ALPHACHLOR	0.040	0.038	4.554	20.000	Passed
44DDE	0.040	0.039	2.041	20.000	Passed
ENDOI	0.040	0.037	6.312	20.000	Passed
DIELDRIN	0.040	0.038	3.832	20.000	Passed
ENDRIN	0.040	0.046	13.956	20.000	Passed
44DDD	0.040	0.039	1.566	20.000	Passed
ENDOII	0.040	0.039	2.434	20.000	Passed
44DDT	0.040	0.041	2.245	20.000	Passed
ENDRINALDEH	0.040	0.034	14.373	20.000	Passed
METHOXYCL	0.040	0.045	11.380	20.000	Passed
ENDOSULFATE	0.040	0.039	3.460	20.000	Passed
ENDRINKETONE	0.040	0.037	6.277	20.000	Passed
SURRDCBPEST	100.000	97.496	2.504	20.000	Passed

back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	100.000	98.473	1.527	20.000	Passed
ALPHABHC	0.040	0.040	0.646	20.000	Passed
LINDANE	0.040	0.040	1.190	20.000	Passed
BETABHC	0.040	0.040	0.399	20.000	Passed
DELTABHC	0.040	0.041	1.413	20.000	Passed
HEPTACHLOR	0.040	0.039	2.921	20.000	Passed
ALDRIN	0.040	0.040	0.634	20.000	Passed
HEPTAEPOX	0.040	0.039	1.365	20.000	Passed
GAMMACHLOR	0.040	0.039	1.269	20.000	Passed
ALPHACHLOR	0.040	0.039	2.210	20.000	Passed
ENDOI	0.040	0.040	0.059	20.000	Passed
44DDE	0.040	0.040	0.027	20.000	Passed
DIELDRIN	0.040	0.040	0.579	20.000	Passed
ENDRIN	0.040	0.047	17.724	20.000	Passed
44DDD	0.040	0.040	0.697	20.000	Passed
ENDOII	0.040	0.040	0.414	20.000	Passed
44DDT	0.040	0.037	8.144	20.000	Passed
ENDRINALDEH	0.040	0.035	12.529	20.000	Passed
ENDOSULFATE	0.040	0.042	6.076	20.000	Passed
METHOXYCL	0.040	0.042	3.951	20.000	Passed

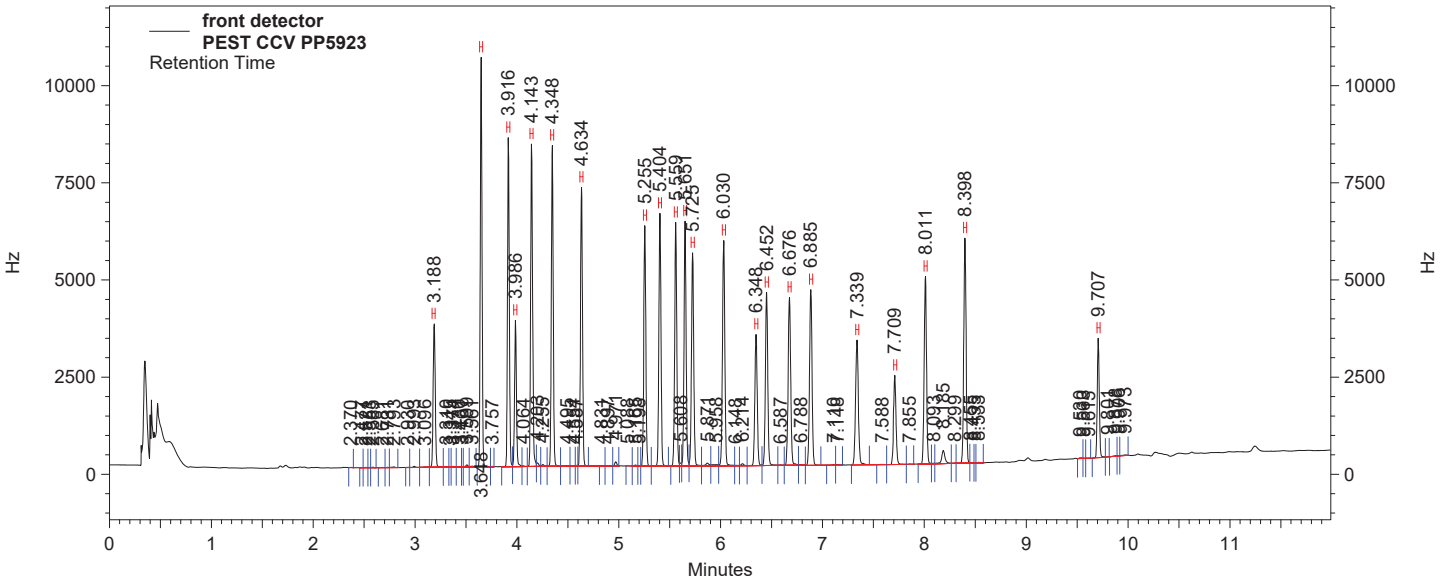
Sequence : C:\Instarch\Semi1\Sequence\091019pst.seq
User : AJZ
Printed : 09/11/2019 08:55:46

ENDRINKETONE	0.040	0.038	5.118	20.000	**Passed**
SURRDCBPEST	100.000	101.770	1.770	20.000	**Passed**

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091019pst\028.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: PEST CCV PP5923
Acquired: 09/10/2019 22:42:06
Printed: 09/11/2019 08:55:44

Data Summary: {Data Description}



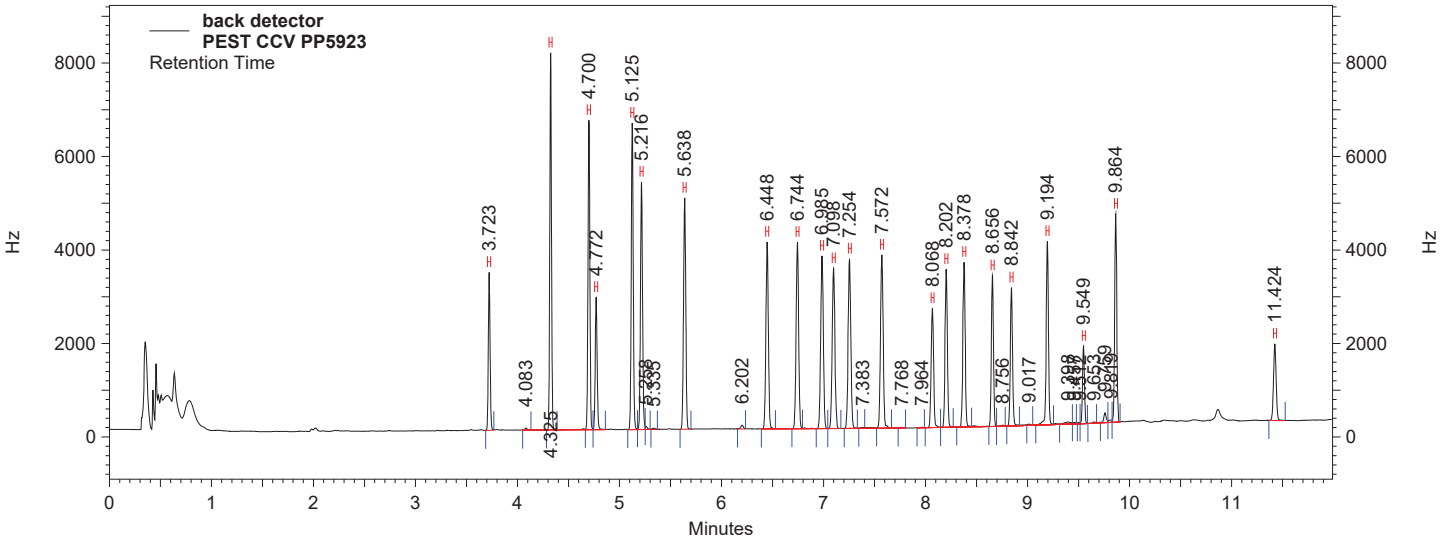
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.188	41608233	96.7605
ALPHABHC	3.648	94375638	0.0389
LINDANE	3.916	78820796	0.0398
BETABHC	3.986	37209272	0.0378
DELTABHC	4.143	86346978	0.0386
HEPTACHLOR	4.348	82982422	0.0389
ALDRIN	4.634	75173579	0.0383
HEPTAEPOX	5.255	66793717	0.0375
GAMMACHLOR	5.404	71484580	0.0381
ALPHACHLOR	5.559	69499398	0.0382
44DDE	5.651	68824911	0.0392
ENDOI	5.725	64931655	0.0375
DIELDRIN	6.030	70532518	0.0385
ENDRIN	6.348	41626856	0.0456
44DDD	6.452	54901257	0.0394
ENDOII	6.676	58956292	0.0390
44DDT	6.885	59009306	0.0409
ENDRINALDEH	7.339	47045699	0.0343
METHOXYCL	7.709	29385027	0.0446
ENDOSULFATE	8.011	60194838	0.0386
ENDRINKETONE	8.398	70028981	0.0375
SURRDCBPEST	9.707	32174728	97.4960

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091019pst\028.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: PEST CCV PP5923
Acquired: 09/10/2019 22:42:06
Printed: 09/11/2019 08:55:44

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.723	31450453	98.4733
ALPHABHC	4.325	72064036	0.0403
LINDANE	4.700	64388127	0.0405
BETABHC	4.772	28660688	0.0398
DELTABHC	5.125	67535379	0.0406
HEPTACHLOR	5.216	57684507	0.0388
ALDRIN	5.638	57353880	0.0397
HEPTAEPOX	6.448	51894590	0.0395
GAMMACHLOR	6.744	53062499	0.0395
ALPHACHLOR	6.985	51148074	0.0391
ENDOI	7.098	48749230	0.0400
44DDE	7.254	51022008	0.0400
DIELDRIN	7.572	51874356	0.0398
ENDRIN	8.068	33064931	0.0471
44DDD	8.202	40511367	0.0403
ENDOII	8.378	43165836	0.0402
44DDT	8.656	35273326	0.0367
ENDRINALDEH	8.842	34159490	0.0350
ENDOSULFATE	9.194	45603654	0.0424
METHOXYCL	9.549	16750215	0.0416
ENDRINKETONE	9.864	47726050	0.0380
SURRDCBPEST	11.424	23006252	101.7696

QC Check Standard Report

Sequence : C:\Instarch\Semi1\Sequence\091019pst.seq
User : AJZ
Printed : 09/11/2019 08:55:54

File	Sample ID	Acquired
C:\Instarch\Semi1\data\091019pst\029.dat	TC CCV PP5924	09/11/2019 08:55:54

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	60.000	57.064	4.893	20.000	Passed
Chlordane #1	0.050	0.047	5.203	20.000	Passed
Chlordane #2	0.050	0.049	2.950	20.000	Passed
Chlordane #3	0.050	0.049	1.471	20.000	Passed
Chlordane #4	0.050	0.049	2.989	20.000	Passed
Chlordane #5	0.050	0.048	3.750	20.000	Passed
Toxaphene #1	0.050	0.047	6.304	20.000	Passed
Toxaphene #2	0.050	0.048	4.229	20.000	Passed
Toxaphene #3	0.050	0.048	4.504	20.000	Passed
Toxaphene #4	0.050	0.048	4.173	20.000	Passed
Toxaphene #5	0.050	0.047	6.937	20.000	Passed
SURRDCBPEST	60.000	62.461	4.102	20.000	Passed
Chlordane	0.250	0.242	3.273	20.000	Passed
Toxaphene	0.250	0.237	5.229	20.000	Passed

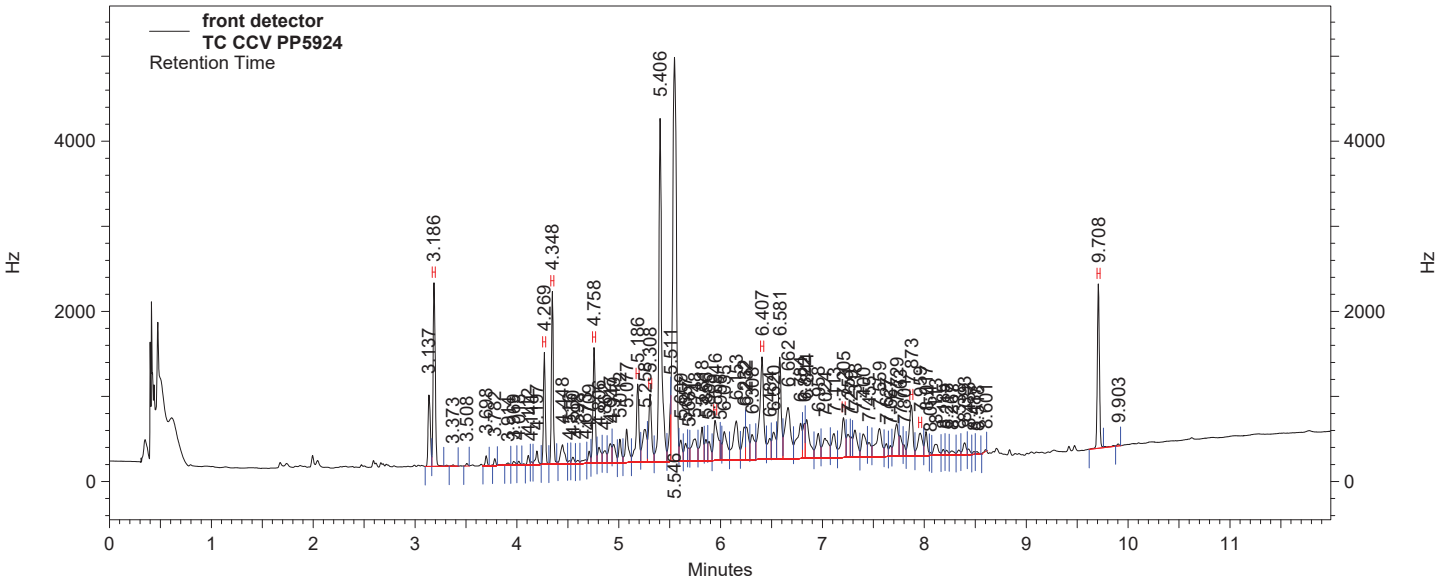
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	60.000	59.019	1.635	20.000	Passed
Chlordane #1	0.050	0.048	3.441	20.000	Passed
Chlordane #2	0.050	0.049	2.737	20.000	Passed
Chlordane #3	0.050	0.050	0.072	20.000	Passed
Chlordane #4	0.050	0.044	12.316	20.000	Passed
Chlordane #5	0.050	0.047	5.281	20.000	Passed
Toxaphene #1	0.050	0.050	0.903	20.000	Passed
Toxaphene #2	0.050	0.049	1.981	20.000	Passed
Toxaphene #3	0.050	0.049	2.952	20.000	Passed
Toxaphene #4	0.050	0.051	1.159	20.000	Passed
Toxaphene #5	0.050	0.048	4.860	20.000	Passed
SURRDCBPEST	60.000	63.251	5.418	20.000	Passed
Chlordane	0.250	0.238	4.770	20.000	Passed
Toxaphene	0.250	0.246	1.546	20.000	Passed

Pesticide (TOX/Chlordane) Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091019pst\029.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019tc.met
User: JJY
Sample ID: TC CCV PP5924
Acquired: 09/10/2019 22:58:22
Printed: 09/12/2019 11:50:17

Data Summary: {Data Description}



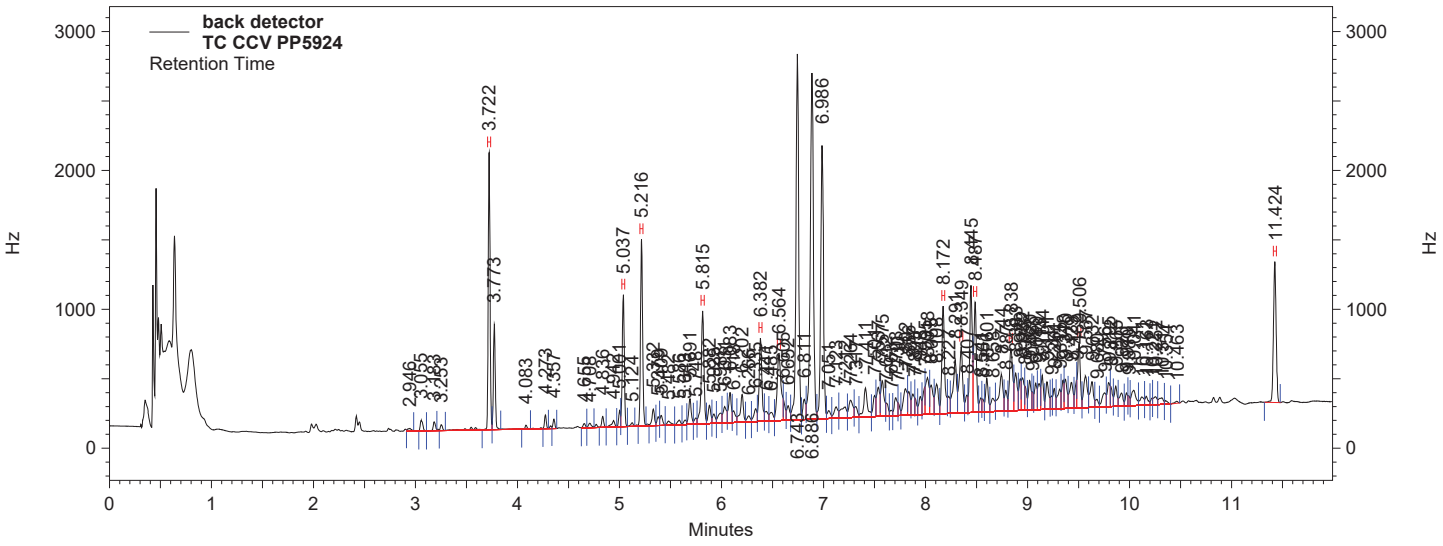
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.186	24680256	57.0641
Chlordane #1	4.269	12848541	0.0474
Chlordane #2	4.348	20080074	0.0485
Chlordane #3	4.758	16505604	0.0493
Chlordane #4	5.186	13552254	0.0485
Chlordane #5	5.308	12237094	0.0481
Toxaphene #1	5.946	11017047	0.0468
Toxaphene #2	6.407	26066885	0.0479
Toxaphene #3	7.205	9813122	0.0477
Toxaphene #4	7.873	11526644	0.0479
Toxaphene #5	7.959	6519504	0.0465
SURRDCBPEST	9.708	20694621	62.4610
Chlordane		75223567	0.2418
Toxaphene		64943202	0.2369

Pesticide (TOX/Chlordane) Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091019pst\029.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019tc.met
User: JJY
Sample ID: TC CCV PP5924
Acquired: 09/10/2019 22:58:22
Printed: 09/12/2019 11:50:17

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.722	19041628	59.0192
Chlordane #1	5.037	10027904	0.0483
Chlordane #2	5.216	14762258	0.0486
Chlordane #3	5.815	11648254	0.0500
Chlordane #4	6.382	8553167	0.0438
Chlordane #5	6.564	9860925	0.0474
Toxaphene #1	8.172	11601277	0.0505
Toxaphene #2	8.349	8271892	0.0490
Toxaphene #3	8.487	10863504	0.0485
Toxaphene #4	8.838	7598572	0.0506
Toxaphene #5	9.506	6480616	0.0476
SURRDCBPEST	11.424	14267562	63.2510
Chlordane		54852508	0.2381
Toxaphene		44815861	0.2461

QC Check Standard Report

Sequence : C:\Instarch\Semi1\Sequence\091019pst.seq
User : AJZ
Printed : 09/11/2019 08:56:32

File	Sample ID	Acquired
C:\Instarch\Semi1\data\091019pst\038.dat	PEST CCV PP5923	09/11/2019 08:56:32

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	100.000	97.633	2.367	20.000	Passed
ALPHABHC	0.040	0.039	1.606	20.000	Passed
LINDANE	0.040	0.041	1.366	20.000	Passed
BETABHC	0.040	0.038	3.850	20.000	Passed
DELTABHC	0.040	0.039	2.739	20.000	Passed
HEPTACHLOR	0.040	0.039	1.843	20.000	Passed
ALDRIN	0.040	0.039	2.245	20.000	Passed
HEPTAEPOX	0.040	0.038	5.916	20.000	Passed
GAMMACHLOR	0.040	0.038	4.271	20.000	Passed
ALPHACHLOR	0.040	0.038	4.738	20.000	Passed
44DDE	0.040	0.039	3.540	20.000	Passed
ENDOI	0.040	0.037	6.422	20.000	Passed
DIELDRIN	0.040	0.039	3.115	20.000	Passed
ENDRIN	0.040	0.047	16.381	20.000	Passed
44DDD	0.040	0.039	2.237	20.000	Passed
ENDOII	0.040	0.038	4.091	20.000	Passed
44DDT	0.040	0.039	1.434	20.000	Passed
ENDRINALDEH	0.040	0.032	19.857	20.000	Passed
METHOXYCL	0.040	0.043	8.609	20.000	Passed
ENDOSULFATE	0.040	0.038	5.225	20.000	Passed
ENDRINKETONE	0.040	0.037	7.918	20.000	Passed
SURRDCBPEST	100.000	99.830	0.170	20.000	Passed

back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	100.000	100.087	0.087	20.000	Passed
ALPHABHC	0.040	0.041	1.830	20.000	Passed
LINDANE	0.040	0.041	2.669	20.000	Passed
BETABHC	0.040	0.040	0.274	20.000	Passed
DELTABHC	0.040	0.041	1.636	20.000	Passed
HEPTACHLOR	0.040	0.039	2.217	20.000	Passed
ALDRIN	0.040	0.039	1.258	20.000	Passed
HEPTAEPOX	0.040	0.040	0.722	20.000	Passed
GAMMACHLOR	0.040	0.040	0.114	20.000	Passed
ALPHACHLOR	0.040	0.040	1.249	20.000	Passed
ENDOI	0.040	0.041	1.765	20.000	Passed
44DDE	0.040	0.040	1.103	20.000	Passed
DIELDRIN	0.040	0.041	2.875	20.000	Passed
ENDRIN	0.040	0.048	19.336	20.000	Passed
44DDD	0.040	0.040	0.942	20.000	Passed
ENDOII	0.040	0.039	1.947	20.000	Passed
44DDT	0.040	0.039	2.868	20.000	Passed
ENDRINALDEH	0.040	0.033	18.499	20.000	Passed
ENDOSULFATE	0.040	0.048	19.102	20.000	Passed
METHOXYCL	0.040	0.042	4.810	20.000	Passed

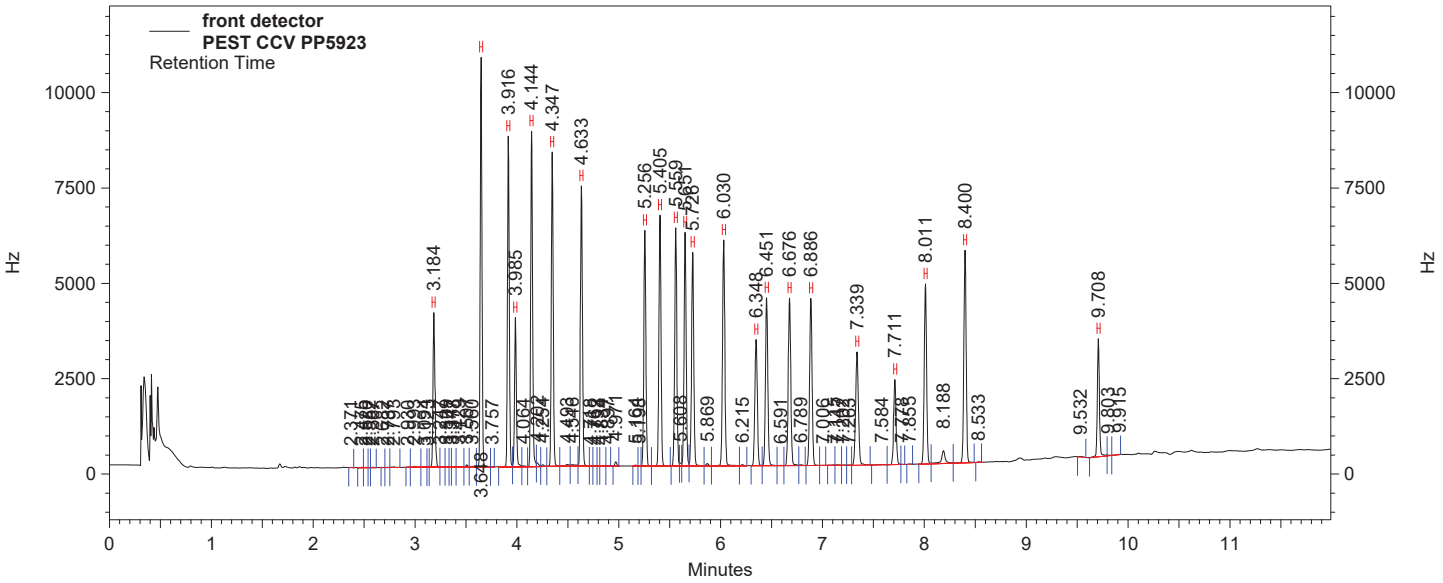
Sequence : C:\Instarch\Semi1\Sequence\091019pst.seq
User : AJZ
Printed : 09/11/2019 08:56:32

ENDRINKETONE	0.040	0.037	6.805	20.000	**Passed**
SURRDCBPEST	100.000	101.167	1.167	20.000	**Passed**

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091019pst\038.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: PEST CCV PP5923
Acquired: 09/11/2019 01:24:16
Printed: 09/11/2019 08:56:30

Data Summary: M.I. Index Reason #4 AJZ 09/11/2019



front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.184	41985177	97.6332
ALPHABHC	3.648	95619675	0.0394
LINDANE	3.916	80411139	0.0405
BETABHC	3.985	37898488	0.0385
DELTABHC	4.144	87164590	0.0389
HEPTACHLOR	4.347	83823553	0.0393
ALDRIN	4.633	76817685	0.0391
HEPTAEPOX	5.256	67083830	0.0376
GAMMACHLOR	5.405	71805152	0.0383
ALPHACHLOR	5.559	69363860	0.0381
44DDE	5.651	67716113	0.0386
ENDOI	5.726	64856145	0.0374
DIELDRIN	6.030	71072808	0.0388
ENDRIN	6.348	42598980	0.0466
44DDD	6.451	54506517	0.0391
ENDOII	6.676	57950897	0.0384
44DDT	6.886	56725226	0.0394
ENDRINALDEH	7.339	44059862	0.0321
METHOXYCL	7.711	28629818	0.0434
ENDOSULFATE	8.011	59096914	0.0379
ENDRINKETONE	8.400	68819892	0.0368
SURRDCBPEST	9.708	32867742	99.8300

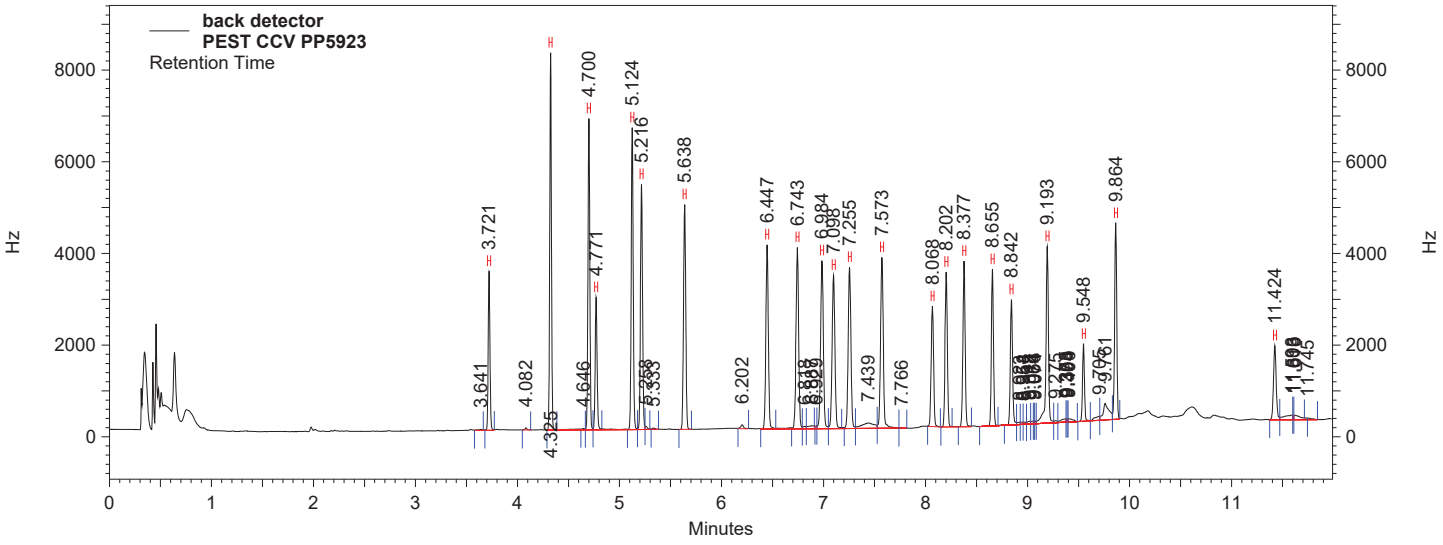
Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091019pst\038.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: PEST CCV PP5923
Acquired: 09/11/2019 01:24:16
Printed: 09/11/2019 08:56:30

AJZ
9/12/19

Data Summary: M.I. Index Reason #4 AJZ 09/11/2019

After Manual Integration



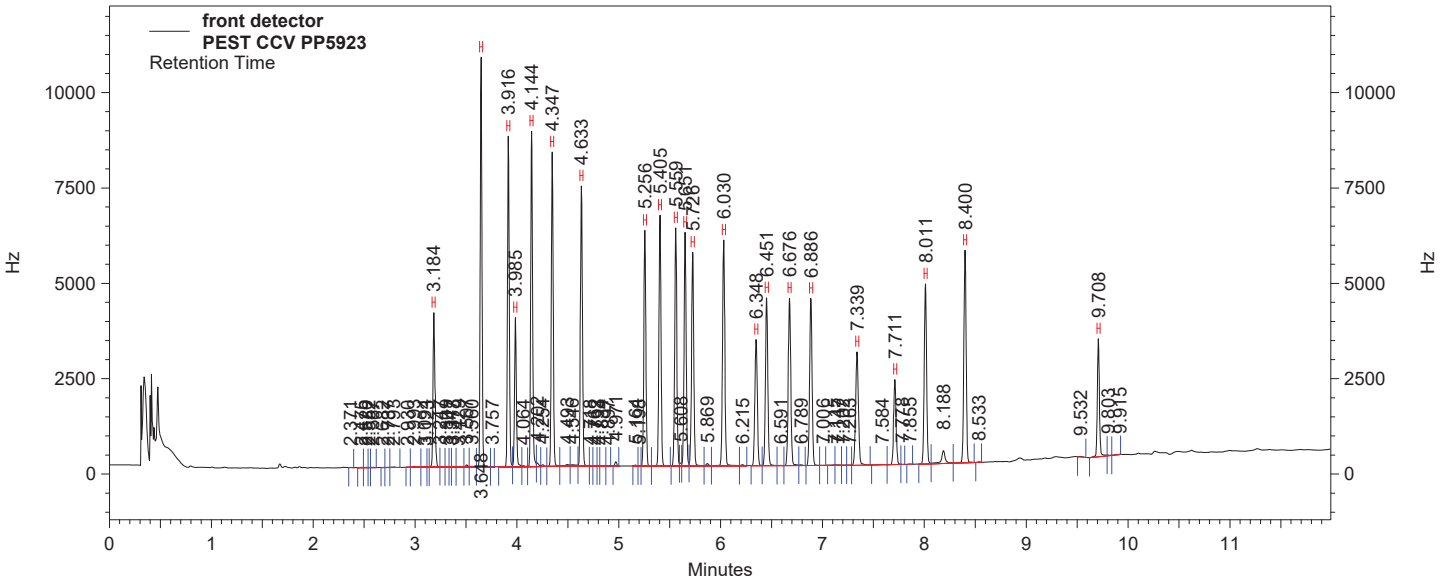
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.721	31955221	100.0873
ALPHABHC	4.325	72919186	0.0407
LINDANE	4.700	65329381	0.0411
BETABHC	4.771	28846642	0.0401
DELTABHC	5.124	67684937	0.0407
HEPTACHLOR	5.216	58093491	0.0391
ALDRIN	5.638	56994948	0.0395
HEPTAEPOX	6.447	52222079	0.0397
GAMMACHLOR	6.743	53681029	0.0400
ALPHACHLOR	6.984	52934720	0.0405
ENDOI	7.098	49565087	0.0407
44DDE	7.255	50467010	0.0396
DIELDRIN	7.573	53656199	0.0411
ENDRIN	8.068	33543227	0.0477
44DDD	8.202	39851640	0.0396
ENDOII	8.377	42173835	0.0392
44DDT	8.655	37345176	0.0389
ENDRINALDEH	8.842	31920296	0.0326
ENDOSULFATE	9.193	51037934	0.0476
METHOXYCL	9.548	16890415	0.0419
ENDRINKETONE	9.864	46908333	0.0373
SURRDCBPEST	11.424	22882888	101.1668

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091019pst\038.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: JJY
Sample ID: PEST CCV PP5923
Acquired: 09/11/2019 01:24:16
Printed: 09/12/2019 11:52:06

Data Summary: M.I. Index Reason #4 AJZ 09/11/2019



front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.184	41985177	97.6332
ALPHABHC	3.648	95619675	0.0394
LINDANE	3.916	80411139	0.0405
BETABHC	3.985	37898488	0.0385
DELTABHC	4.144	87164590	0.0389
HEPTACHLOR	4.347	83823553	0.0393
ALDRIN	4.633	76817685	0.0391
HEPTAEPOX	5.256	67083830	0.0376
GAMMACHLOR	5.405	71805152	0.0383
ALPHACHLOR	5.559	69363860	0.0381
44DDE	5.651	67716113	0.0386
ENDOI	5.726	64856145	0.0374
DIELDRIN	6.030	71072808	0.0388
ENDRIN	6.348	42598980	0.0466
44DDD	6.451	54506517	0.0391
ENDOII	6.676	57950897	0.0384
44DDT	6.886	56725226	0.0394
ENDRINALDEH	7.339	44059862	0.0321
METHOXYCL	7.711	28629818	0.0434
ENDOSULFATE	8.011	59096914	0.0379
ENDRINKETONE	8.400	68819892	0.0368
SURRDCBPEST	9.708	32867742	99.8300

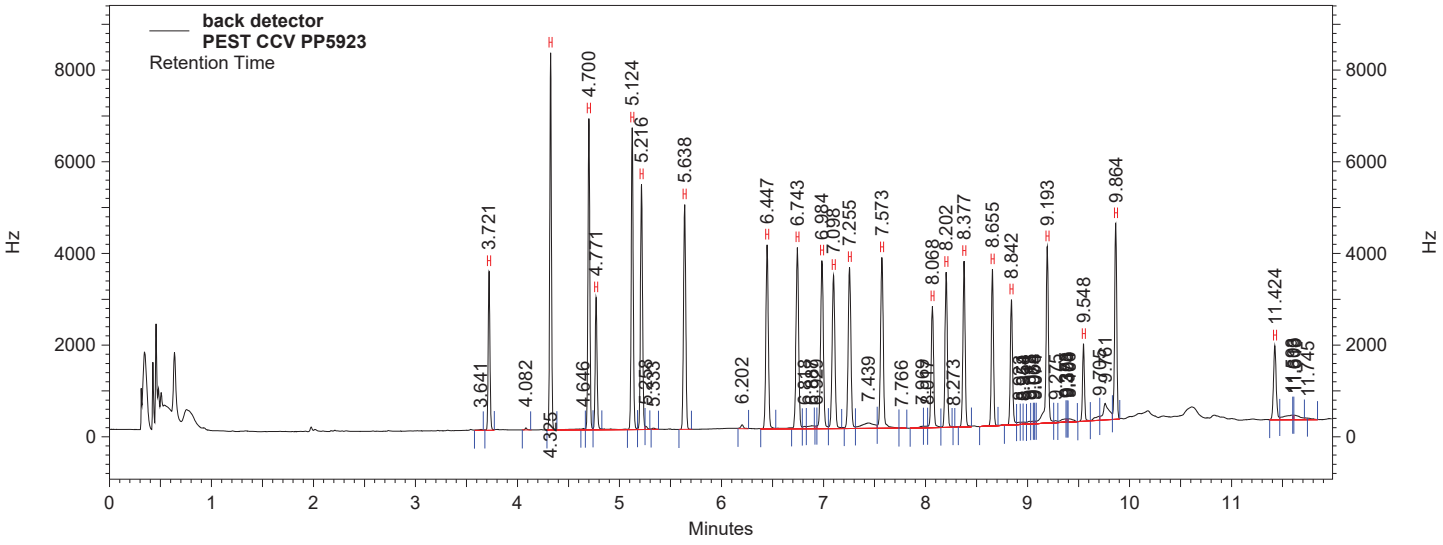
Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091019pst\038.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: JJY
Sample ID: PEST CCV PP5923
Acquired: 09/11/2019 01:24:16
Printed: 09/12/2019 11:52:06

JJY
9/12/19

Data Summary: M.I. Index Reason #4 AJZ 09/11/2019

Before Manual Integration



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.721	31955221	100.0873
ALPHABHC	4.325	72919186	0.0407
LINDANE	4.700	65329381	0.0411
BETABHC	4.771	28846642	0.0401
DELTABHC	5.124	67684937	0.0407
HEPTACHLOR	5.216	58093491	0.0391
ALDRIN	5.638	56994948	0.0395
HEPTAEPOX	6.447	52222079	0.0397
GAMMACHLOR	6.743	53681029	0.0400
ALPHACHLOR	6.984	52934720	0.0405
ENDOI	7.098	49565087	0.0407
44DDE	7.255	50467010	0.0396
DIELDRIN	7.573	53656199	0.0411
ENDRIN	8.068	34795646	0.0494
44DDD	8.202	40295356	0.0401
ENDOII	8.377	42399677	0.0394
44DDT	8.655	37345176	0.0389
ENDRINALDEH	8.842	31920296	0.0326
ENDOSULFATE	9.193	51037934	0.0476
METHOXYCL	9.548	16890415	0.0419
ENDRINKETONE	9.864	46908333	0.0373
SURRDCBPEST	11.424	22882888	101.1668

QC Check Standard Report

Sequence : C:\Instarch\Semi1\Sequence\091019pst.seq
User : AJZ
Printed : 09/11/2019 08:56:40

File	Sample ID	Acquired
C:\Instarch\Semi1\data\091019pst\039.dat	TC CCV PP5924	09/11/2019 08:56:40

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	60.000	56.422	5.963	20.000	Passed
Chlordane #1	0.050	0.047	6.878	20.000	Passed
Chlordane #2	0.050	0.048	4.317	20.000	Passed
Chlordane #3	0.050	0.048	3.994	20.000	Passed
Chlordane #4	0.050	0.046	7.623	20.000	Passed
Chlordane #5	0.050	0.045	10.319	20.000	Passed
Toxaphene #1	0.050	0.045	10.302	20.000	Passed
Toxaphene #2	0.050	0.045	9.660	20.000	Passed
Toxaphene #3	0.050	0.044	12.506	20.000	Passed
Toxaphene #4	0.050	0.044	11.372	20.000	Passed
Toxaphene #5	0.050	0.041	17.263	20.000	Passed
SURRDCBPEST	60.000	60.508	0.846	20.000	Passed
Chlordane	0.250	0.233	6.626	20.000	Passed
Toxaphene	0.250	0.219	12.221	20.000	Passed

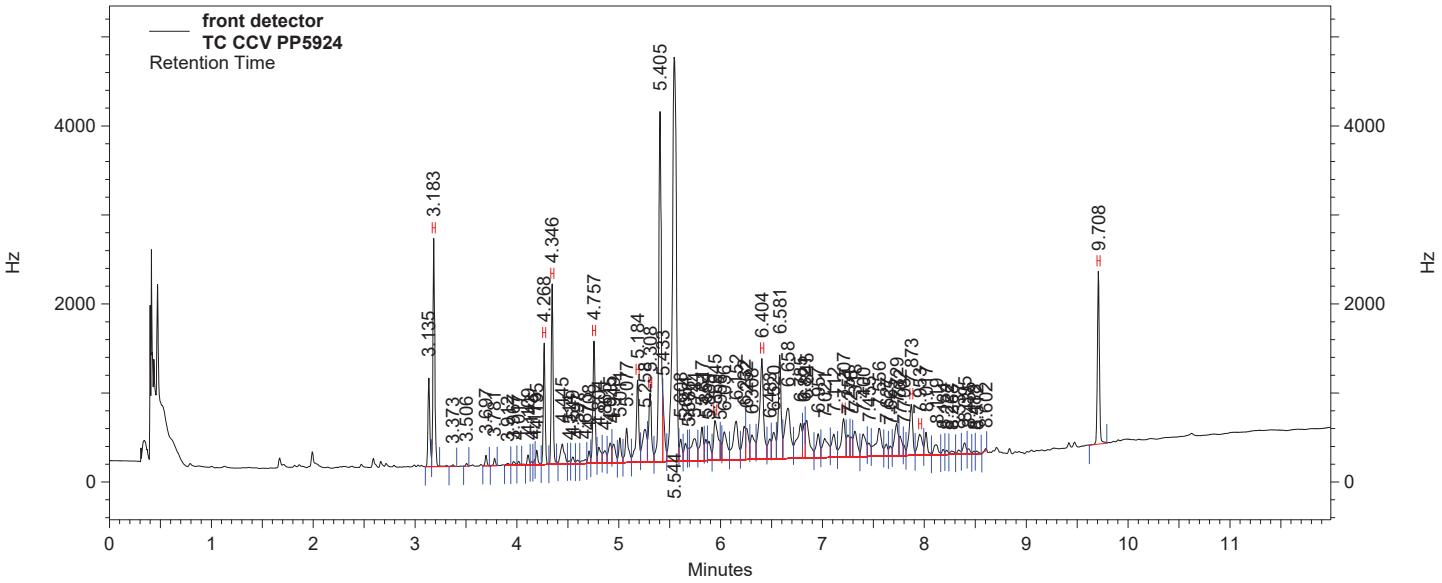
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	60.000	59.021	1.631	20.000	Passed
Chlordane #1	0.050	0.048	4.703	20.000	Passed
Chlordane #2	0.050	0.048	3.424	20.000	Passed
Chlordane #3	0.050	0.049	2.303	20.000	Passed
Chlordane #4	0.050	0.041	17.481	20.000	Passed
Chlordane #5	0.050	0.044	11.596	20.000	Passed
Toxaphene #1	0.050	0.044	12.013	20.000	Passed
Toxaphene #2	0.050	0.043	13.365	20.000	Passed
Toxaphene #3	0.050	0.044	12.142	20.000	Passed
Toxaphene #4	0.050	0.044	11.616	20.000	Passed
Toxaphene #5	0.050	0.043	13.054	20.000	Passed
SURRDCBPEST	60.000	58.673	2.212	20.000	Passed
Chlordane	0.250	0.230	7.901	20.000	Passed
Toxaphene	0.250	0.219	12.438	20.000	Passed

Pesticide (TOX/Chlordane) Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091019pst\039.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019tc.met
User: JJY
Sample ID: TC CCV PP5924
Acquired: 09/11/2019 01:40:32
Printed: 09/12/2019 11:50:27

Data Summary: {Data Description}



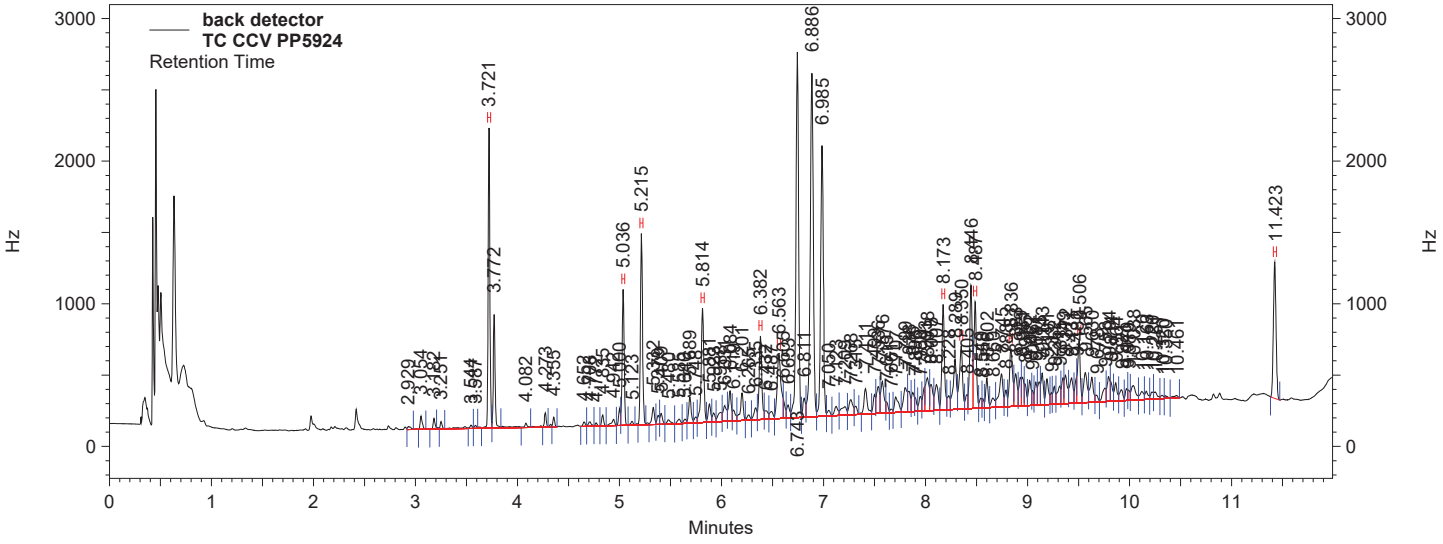
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.183	24401665	56.4224
Chlordane #1	4.268	12624448	0.0466
Chlordane #2	4.346	19797360	0.0478
Chlordane #3	4.757	16094881	0.0480
Chlordane #4	5.184	12918397	0.0462
Chlordane #5	5.308	11408111	0.0448
Toxaphene #1	5.945	10550221	0.0448
Toxaphene #2	6.404	24584269	0.0452
Toxaphene #3	7.207	8961653	0.0437
Toxaphene #4	7.873	10634073	0.0443
Toxaphene #5	7.953	5759112	0.0414
SURRDCBPEST	9.708	20064582	60.5079
Chlordane		72843197	0.2334
Toxaphene		60489328	0.2194

Pesticide (TOX/Chlordane) Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091019pst\039.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019tc.met
User: JJY
Sample ID: TC CCV PP5924
Acquired: 09/11/2019 01:40:32
Printed: 09/12/2019 11:50:27

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.721	19042357	59.0215
Chlordane #1	5.036	9899863	0.0476
Chlordane #2	5.215	14660879	0.0483
Chlordane #3	5.814	11399127	0.0488
Chlordane #4	6.382	8052324	0.0413
Chlordane #5	6.563	9202314	0.0442
Toxaphene #1	8.173	10071294	0.0440
Toxaphene #2	8.350	7270175	0.0433
Toxaphene #3	8.487	9827092	0.0439
Toxaphene #4	8.836	6609076	0.0442
Toxaphene #5	9.506	5926095	0.0435
SURRDCBPEST	11.423	13260256	58.6726
Chlordane		53214507	0.2302
Toxaphene		39703732	0.2189

Pesticide Analysis Breakdown Report

Data File: C:\Instarch\Semi1\data\091119pst\001.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\eval.met
User: AJZ
Instrument: Semi 1
Sample ID: EVAL PP5902
Acquired: 09/11/2019 09:47:38
Printed: 09/11/2019 15:49:36

Channel A: **DDT Breakdown** **1.6** **%** **Endrin Breakdown** **13.0** **%**

Channel B: **DDT Breakdown** **2.0** **%** **Endrin Breakdown** **13.6** **%**

Channel A

Compound	Area	Compound	Area
44DDT	57276994	ENDRIN	47366076
44DDD	733201	ENDRINALDEH	2389202
44DDE	225082	ENDRINKETONE	4695149

Channel B

Compound	Area	Compound	Area
44DDT	36611612	ENDRIN	35862793
44DDD	628378	ENDRINALDEH	2180625
44DDE	103086	ENDRINKETONE	3461344

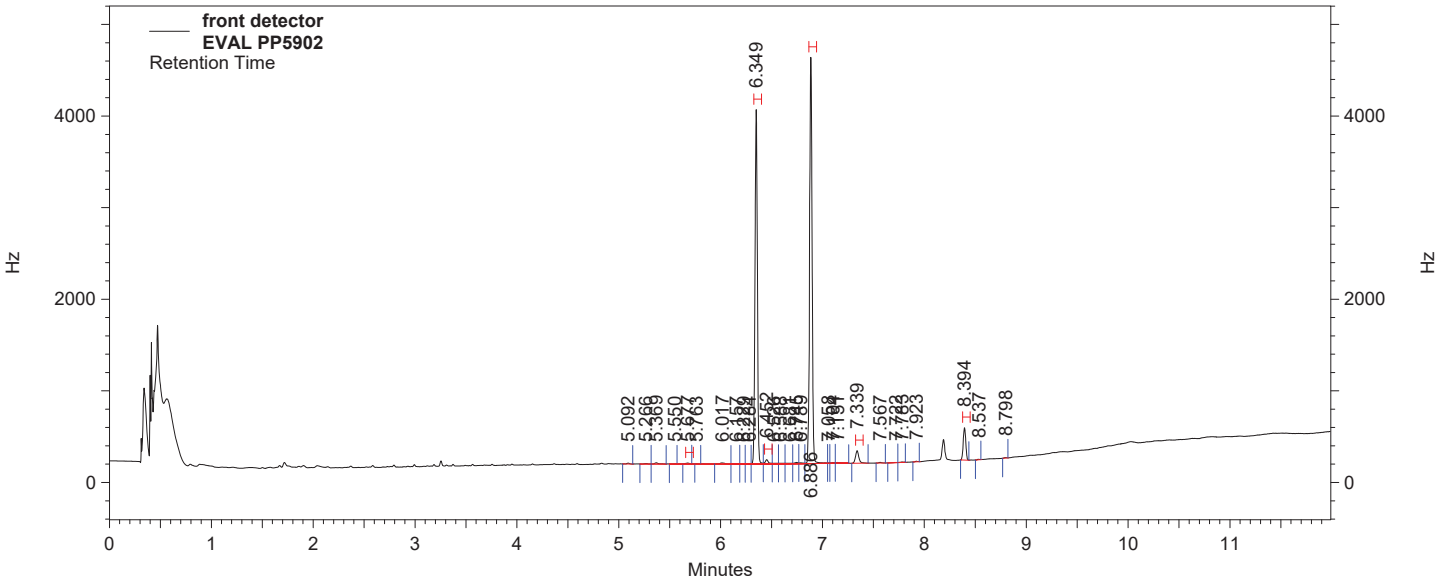
DDT Breakdown $= \frac{44DDD + 44DDE}{44DDD + 44DDE + 44DDT} \times 100\ \%$

Endrin Breakdown $= \frac{\text{Endrin aldehyde + Endrin ketone}}{\text{Endrin + Endrin aldehyde + Endrin ketone}} \times 1...\ \%$

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091119pst\001.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\eval.met
User: AJZ
Sample ID: EVAL PP5902
Acquired: 09/11/2019 09:47:38
Printed: Sep 11, 2019 15:49:37

Data Summary: {Data Description}



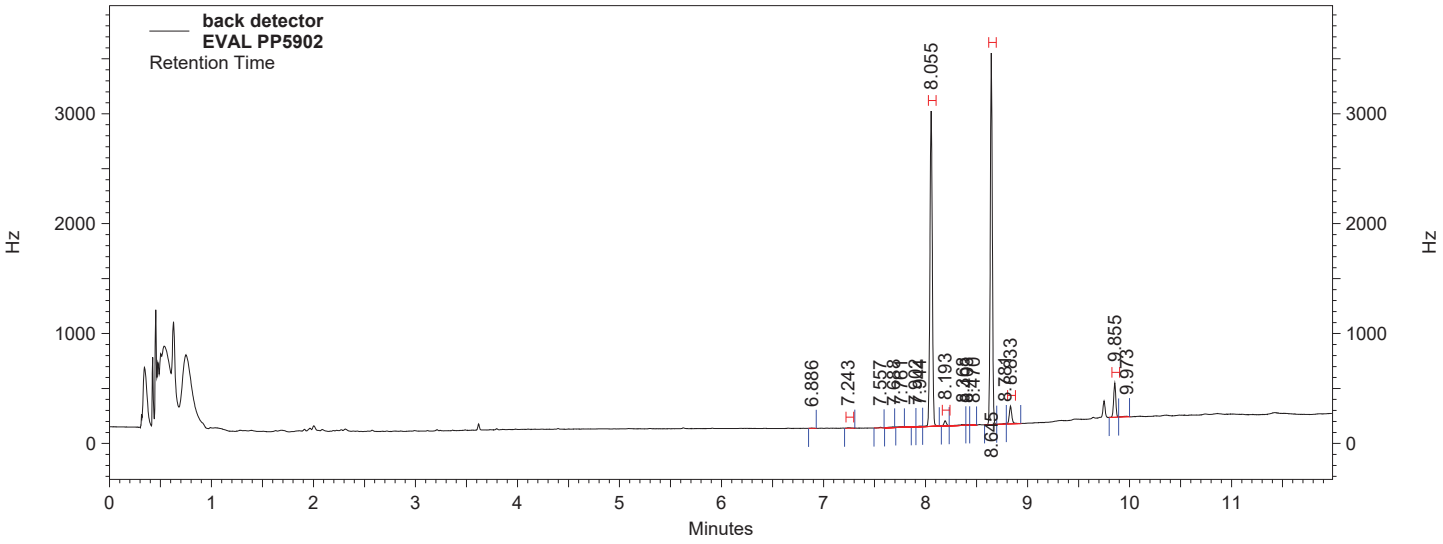
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
44DDE	5.677	225082	0.0004
ENDRIN	6.349	47366076	0.0162
44DDD	6.452	733201	0.0005
44DDT	6.886	57276994	0.0204
ENDRINALDEH	7.339	2389202	0.0010
ENDRINKETONE	8.394	4695149	0.0014

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091119pst\001.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\eval.met
User: AJZ
Sample ID: EVAL PP5902
Acquired: 09/11/2019 09:47:38
Printed: Sep 11, 2019 15:49:37

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
44DDE	7.243	103086	0.0001
ENDRIN	8.055	35862793	0.0090
44DDD	8.193	628378	0.0003
44DDT	8.645	36611612	0.0087
ENDRINALDEH	8.833	2180625	0.0004
ENDRINKETONE	9.855	3461344	0.0006

QC Check Standard Report

Sequence : C:\Instarch\Semi1\Sequence\091119pst.seq
User : AJZ
Printed : Sep 11, 2019 15:48:21

File	Sample ID	Acquired
C:\Instarch\Semi1\data\091119pst\004.dat	PEST CCV PP5923	Sep 11, 2019 15:48:21

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	100.000	98.515	1.485	20.000	Passed
ALPHABHC	0.040	0.040	0.863	20.000	Passed
LINDANE	0.040	0.041	2.714	20.000	Passed
BETABHC	0.040	0.039	2.527	20.000	Passed
DELTABHC	0.040	0.039	1.845	20.000	Passed
HEPTACHLOR	0.040	0.040	0.699	20.000	Passed
ALDRIN	0.040	0.040	1.065	20.000	Passed
HEPTAEPOX	0.040	0.038	5.012	20.000	Passed
GAMMACHLOR	0.040	0.039	3.408	20.000	Passed
ALPHACHLOR	0.040	0.037	7.743	20.000	Passed
44DDE	0.040	0.037	8.726	20.000	Passed
ENDOI	0.040	0.036	9.592	20.000	Passed
DIELDRIN	0.040	0.039	1.423	20.000	Passed
ENDRIN	0.040	0.047	16.844	20.000	Passed
44DDD	0.040	0.041	2.322	20.000	Passed
ENDOII	0.040	0.040	0.389	20.000	Passed
44DDT	0.040	0.041	1.862	20.000	Passed
ENDRINALDEH	0.040	0.035	11.715	20.000	Passed
METHOXYCL	0.040	0.044	10.580	20.000	Passed
ENDOSULFATE	0.040	0.040	0.352	20.000	Passed
ENDRINKETONE	0.040	0.039	3.203	20.000	Passed
SURRDCBPEST	100.000	99.354	0.646	20.000	Passed

back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	100.000	100.230	0.230	20.000	Passed
ALPHABHC	0.040	0.040	1.050	20.000	Passed
LINDANE	0.040	0.040	1.232	20.000	Passed
BETABHC	0.040	0.040	0.594	20.000	Passed
DELTABHC	0.040	0.040	1.156	20.000	Passed
HEPTACHLOR	0.040	0.039	2.626	20.000	Passed
ALDRIN	0.040	0.040	0.179	20.000	Passed
HEPTAEPOX	0.040	0.040	0.343	20.000	Passed
GAMMACHLOR	0.040	0.040	0.348	20.000	Passed
ALPHACHLOR	0.040	0.040	0.712	20.000	Passed
ENDOI	0.040	0.040	1.009	20.000	Passed
44DDE	0.040	0.040	1.027	20.000	Passed
DIELDRIN	0.040	0.040	1.081	20.000	Passed
ENDRIN	0.040	0.047	17.665	20.000	Passed
44DDD	0.040	0.041	2.615	20.000	Passed
ENDOII	0.040	0.040	0.104	20.000	Passed
44DDT	0.040	0.040	1.113	20.000	Passed
ENDRINALDEH	0.040	0.036	10.950	20.000	Passed
ENDOSULFATE	0.040	0.040	1.074	20.000	Passed
METHOXYCL	0.040	0.044	9.436	20.000	Passed

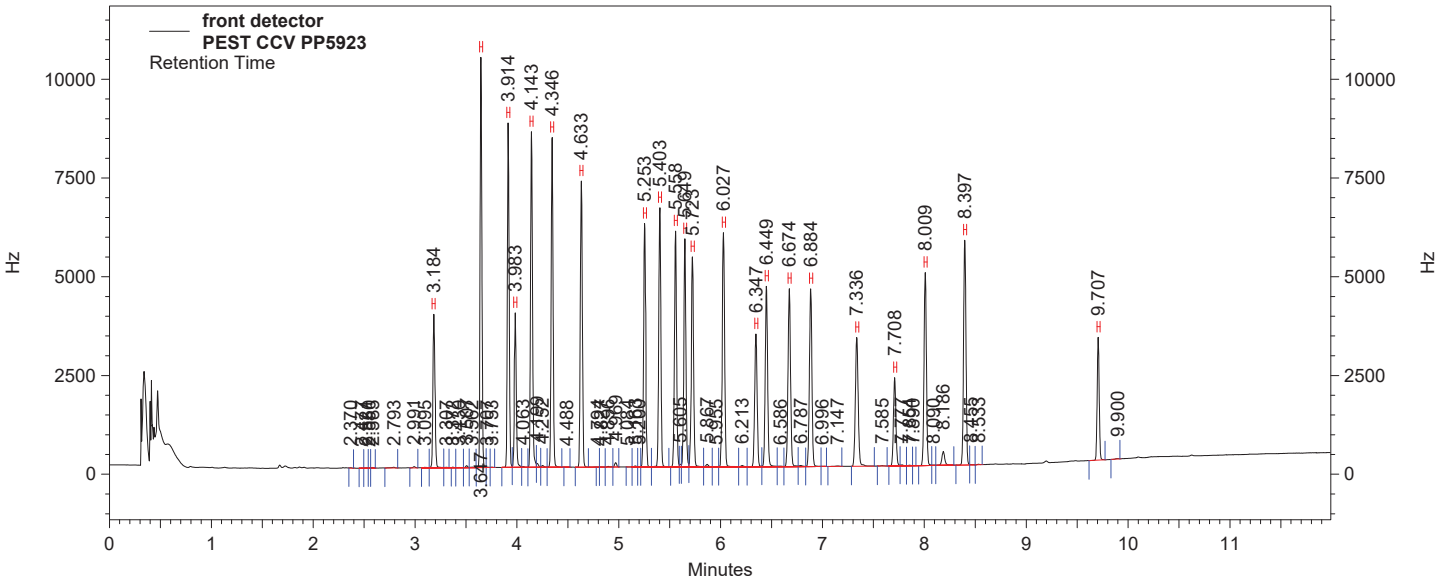
Sequence : C:\Instarch\Semi1\Sequence\091119pst.seq
User : AJZ
Printed : Sep 11, 2019 15:48:21

ENDRINKETONE	0.040	0.039	1.595	20.000	**Passed**
SURRDCBPEST	100.000	102.052	2.052	20.000	**Passed**

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091119pst\004.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091119pst.met
User: AJZ
Sample ID: PEST CCV PP5923
Acquired: 09/11/2019 10:36:04
Printed: Sep 11, 2019 15:48:19

Data Summary: {Data Description}



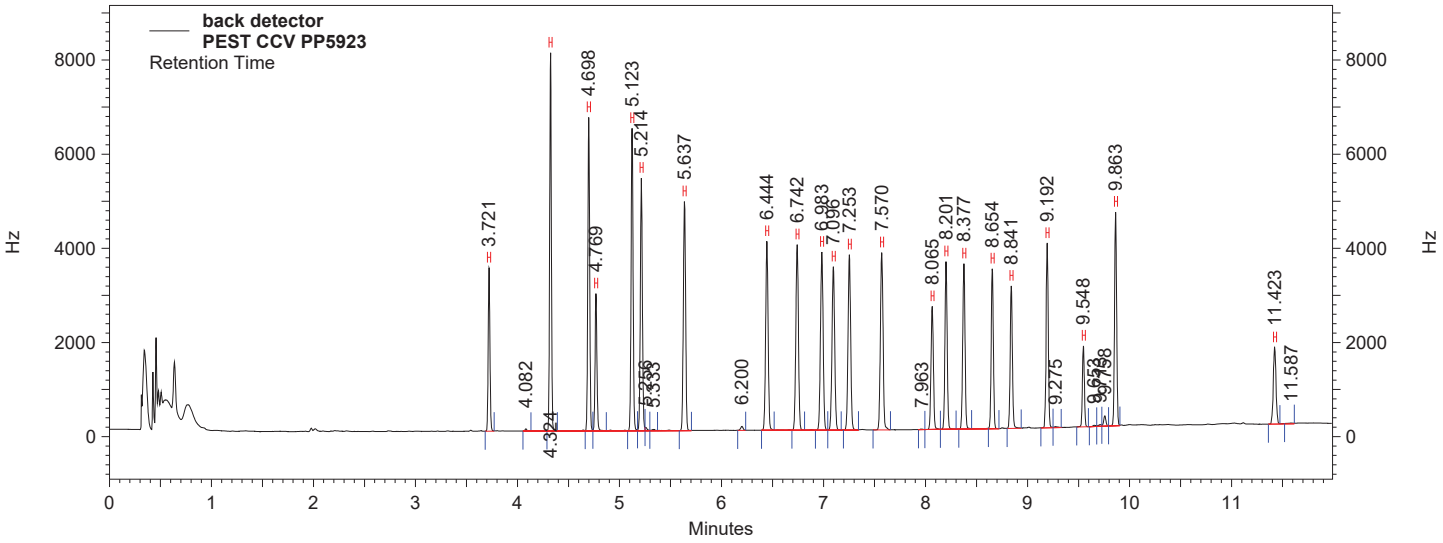
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.184	42366240	98.5151
ALPHABHC	3.647	96377138	0.0397
LINDANE	3.914	81507718	0.0411
BETABHC	3.983	38413684	0.0390
DELTABHC	4.143	88011684	0.0393
HEPTACHLOR	4.346	84804998	0.0397
ALDRIN	4.633	77778863	0.0396
HEPTAEPOX	5.253	67721841	0.0380
GAMMACHLOR	5.403	72466487	0.0386
ALPHACHLOR	5.558	67158417	0.0369
44DDE	5.649	63893371	0.0365
ENDOI	5.723	62690263	0.0362
DIELDRIN	6.027	72348509	0.0394
ENDRIN	6.347	42784900	0.0467
44DDD	6.449	57196575	0.0409
ENDOII	6.674	60197626	0.0398
44DDT	6.884	58770944	0.0407
ENDRINALDEH	7.336	48492854	0.0353
METHOXYCL	7.708	29167019	0.0442
ENDOSULFATE	8.009	62127891	0.0399
ENDRINKETONE	8.397	72292856	0.0387
SURRDCBPEST	9.707	32726690	99.3540

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091119pst\004.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091119pst.met
User: AJZ
Sample ID: PEST CCV PP5923
Acquired: 09/11/2019 10:36:04
Printed: Sep 11, 2019 15:48:19

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.721	31999968	100.2304
ALPHABHC	4.324	72355654	0.0404
LINDANE	4.698	64414499	0.0405
BETABHC	4.769	28606804	0.0398
DELTABHC	5.123	67362950	0.0405
HEPTACHLOR	5.214	57856077	0.0389
ALDRIN	5.637	57615397	0.0399
HEPTAEPOX	6.444	52415444	0.0399
GAMMACHLOR	6.742	53555686	0.0399
ALPHACHLOR	6.983	51921752	0.0397
ENDOI	7.096	49203710	0.0404
44DDE	7.253	51566370	0.0404
DIELDRIN	7.570	52731023	0.0404
ENDRIN	8.065	33047714	0.0471
44DDD	8.201	41283299	0.0410
ENDOII	8.377	42948188	0.0400
44DDT	8.654	38035862	0.0396
ENDRINALDEH	8.841	34750171	0.0356
ENDOSULFATE	9.192	43510461	0.0404
METHOXYCL	9.548	17646468	0.0438
ENDRINKETONE	9.863	49430597	0.0394
SURRDCBPEST	11.423	23063921	102.0515

QC Check Standard Report

Sequence : C:\Instarch\Semi1\Sequence\091119pst.seq
User : AJZ
Printed : Sep 11, 2019 15:48:30

File	Sample ID	Acquired
C:\Instarch\Semi1\data\091119pst\005.dat	TC CCV PP5924	Sep 11, 2019 15:48:30

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	60.000	60.877	1.461	20.000	Passed
Chlordane #1	0.050	0.050	0.997	20.000	Passed
Chlordane #2	0.050	0.052	3.541	20.000	Passed
Chlordane #3	0.050	0.053	5.323	20.000	Passed
Chlordane #4	0.050	0.052	4.717	20.000	Passed
Chlordane #5	0.050	0.050	0.261	20.000	Passed
Toxaphene #1	0.050	0.052	3.453	20.000	Passed
Toxaphene #2	0.050	0.052	4.725	20.000	Passed
Toxaphene #3	0.050	0.052	3.713	20.000	Passed
Toxaphene #4	0.050	0.052	3.485	20.000	Passed
Toxaphene #5	0.050	0.051	2.690	20.000	Passed
SURRDCBPEST	60.000	65.947	9.912	20.000	Passed
Chlordane	0.250	0.257	2.863	20.000	Passed
Toxaphene	0.250	0.259	3.613	20.000	Passed

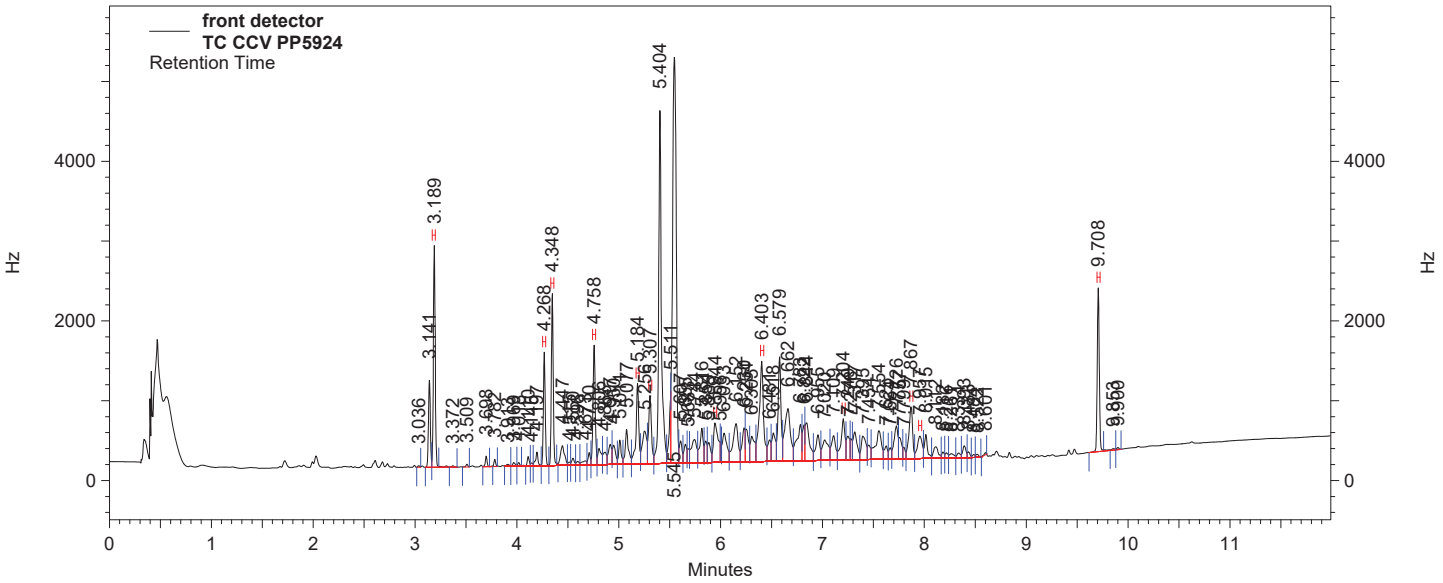
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	60.000	62.923	4.871	20.000	Passed
Chlordane #1	0.050	0.051	2.674	20.000	Passed
Chlordane #2	0.050	0.052	3.554	20.000	Passed
Chlordane #3	0.050	0.054	7.368	20.000	Passed
Chlordane #4	0.050	0.047	6.440	20.000	Passed
Chlordane #5	0.050	0.051	2.780	20.000	Passed
Toxaphene #1	0.050	0.054	7.785	20.000	Passed
Toxaphene #2	0.050	0.053	5.840	20.000	Passed
Toxaphene #3	0.050	0.052	3.654	20.000	Passed
Toxaphene #4	0.050	0.053	5.284	20.000	Passed
Toxaphene #5	0.050	0.050	0.720	20.000	Passed
SURRDCBPEST	60.000	68.040	13.400	20.000	Passed
Chlordane	0.250	0.255	1.987	20.000	Passed
Toxaphene	0.250	0.261	4.369	20.000	Passed

Pesticide (TOX/Chlordane) Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091119pst\005.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091119tc.met
User: AJZ
Sample ID: TC CCV PP5924
Acquired: 09/11/2019 10:52:18
Printed: Sep 11, 2019 15:48:28

Data Summary: {Data Description}



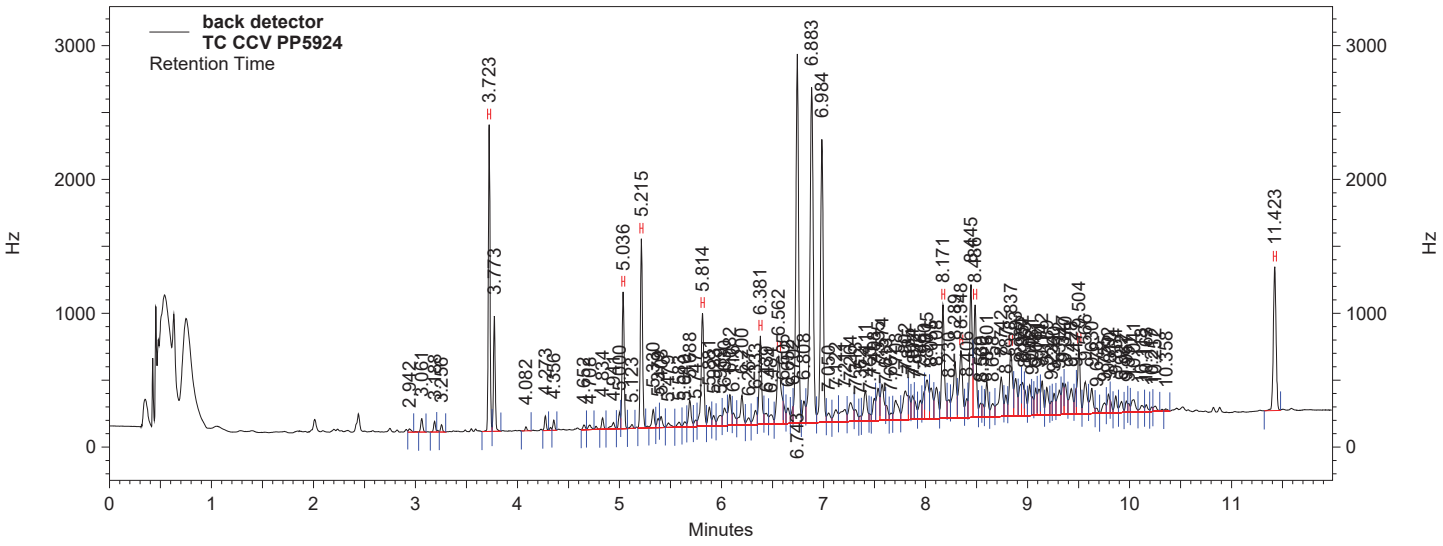
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.189	26335372	60.8767
Chlordane #1	4.268	13678025	0.0505
Chlordane #2	4.348	21422234	0.0518
Chlordane #3	4.758	17611575	0.0527
Chlordane #4	5.184	14606206	0.0524
Chlordane #5	5.307	12677291	0.0499
Toxaphene #1	5.944	12156402	0.0517
Toxaphene #2	6.403	28511354	0.0524
Toxaphene #3	7.204	10687434	0.0519
Toxaphene #4	7.867	12476093	0.0517
Toxaphene #5	7.957	7228447	0.0513
SURRDCBPEST	9.708	21819182	65.9472
Chlordane		79995331	0.2572
Toxaphene		71059730	0.2590

Pesticide (TOX/Chlordane) Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091119pst\005.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091119tc.met
User: AJZ
Sample ID: TC CCV PP5924
Acquired: 09/11/2019 10:52:18
Printed: Sep 11, 2019 15:48:28

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.723	20281247	62.9226
Chlordane #1	5.036	10648251	0.0513
Chlordane #2	5.215	15691684	0.0518
Chlordane #3	5.814	12479223	0.0537
Chlordane #4	6.381	9123055	0.0468
Chlordane #5	6.562	10701540	0.0514
Toxaphene #1	8.171	12416568	0.0539
Toxaphene #2	8.348	8959976	0.0529
Toxaphene #3	8.486	11608424	0.0518
Toxaphene #4	8.837	7918041	0.0526
Toxaphene #5	9.504	6760846	0.0496
SURRDCBPEST	11.423	15321256	68.0401
Chlordane		58643753	0.2550
Toxaphene		47663855	0.2609

QC Check Standard Report

Sequence : C:\Instarch\Semi1\Sequence\091119pst.seq
User : AJZ
Printed : Sep 11, 2019 15:49:05

File	Sample ID	Acquired
C:\Instarch\Semi1\data\091119pst\013.dat	PEST CCV PP5923	Sep 11, 2019 15:49:04

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	100.000	98.648	1.352	20.000	Passed
ALPHABHC	0.040	0.040	0.539	20.000	Passed
LINDANE	0.040	0.041	3.034	20.000	Passed
BETABHC	0.040	0.039	1.843	20.000	Passed
DELTABHC	0.040	0.039	1.654	20.000	Passed
HEPTACHLOR	0.040	0.040	0.188	20.000	Passed
ALDRIN	0.040	0.040	0.434	20.000	Passed
HEPTAEPOX	0.040	0.038	4.586	20.000	Passed
GAMMACHLOR	0.040	0.039	2.766	20.000	Passed
ALPHACHLOR	0.040	0.037	7.223	20.000	Passed
44DDE	0.040	0.036	9.147	20.000	Passed
ENDOI	0.040	0.036	9.748	20.000	Passed
DIELDRIN	0.040	0.039	1.677	20.000	Passed
ENDRIN	0.040	0.046	15.286	20.000	Passed
44DDD	0.040	0.041	1.701	20.000	Passed
ENDOII	0.040	0.039	1.798	20.000	Passed
44DDT	0.040	0.040	0.146	20.000	Passed
ENDRINALDEH	0.040	0.037	6.788	20.000	Passed
METHOXYCL	0.040	0.043	8.207	20.000	Passed
ENDOSULFATE	0.040	0.039	1.540	20.000	Passed
ENDRINKETONE	0.040	0.039	3.253	20.000	Passed
SURRDCBPEST	100.000	99.033	0.967	20.000	Passed

back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	100.000	100.941	0.941	20.000	Passed
ALPHABHC	0.040	0.041	2.289	20.000	Passed
LINDANE	0.040	0.041	2.881	20.000	Passed
BETABHC	0.040	0.040	0.990	20.000	Passed
DELTABHC	0.040	0.041	1.952	20.000	Passed
HEPTACHLOR	0.040	0.039	1.610	20.000	Passed
ALDRIN	0.040	0.040	0.077	20.000	Passed
HEPTAEPOX	0.040	0.040	0.870	20.000	Passed
GAMMACHLOR	0.040	0.040	0.868	20.000	Passed
ALPHACHLOR	0.040	0.040	0.060	20.000	Passed
ENDOI	0.040	0.041	1.465	20.000	Passed
44DDE	0.040	0.040	0.539	20.000	Passed
DIELDRIN	0.040	0.041	1.855	20.000	Passed
ENDRIN	0.040	0.047	16.759	20.000	Passed
44DDD	0.040	0.041	3.539	20.000	Passed
ENDOII	0.040	0.040	0.274	20.000	Passed
44DDT	0.040	0.039	2.289	20.000	Passed
ENDRINALDEH	0.040	0.036	10.092	20.000	Passed
ENDOSULFATE	0.040	0.041	1.697	20.000	Passed
METHOXYCL	0.040	0.044	9.891	20.000	Passed

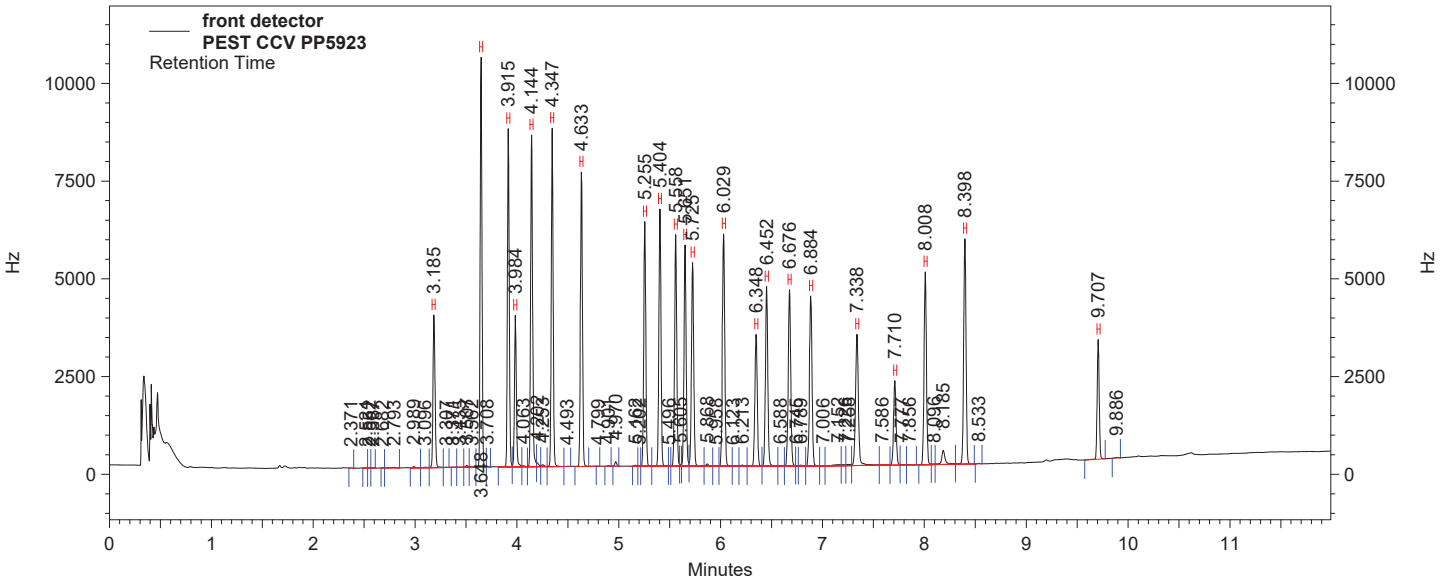
Sequence : C:\Instarch\Semi1\Sequence\091119pst.seq
User : AJZ
Printed : Sep 11, 2019 15:49:05

ENDRINKETONE	0.040	0.040	0.622	20.000	Passed
SURRDCBPEST	100.000	100.759	0.759	20.000	Passed

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091119pst\013.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091119pst.met
User: AJZ
Sample ID: PEST CCV PP5923
Acquired: 09/11/2019 13:02:27
Printed: Sep 11, 2019 15:49:03

Data Summary: {Data Description}



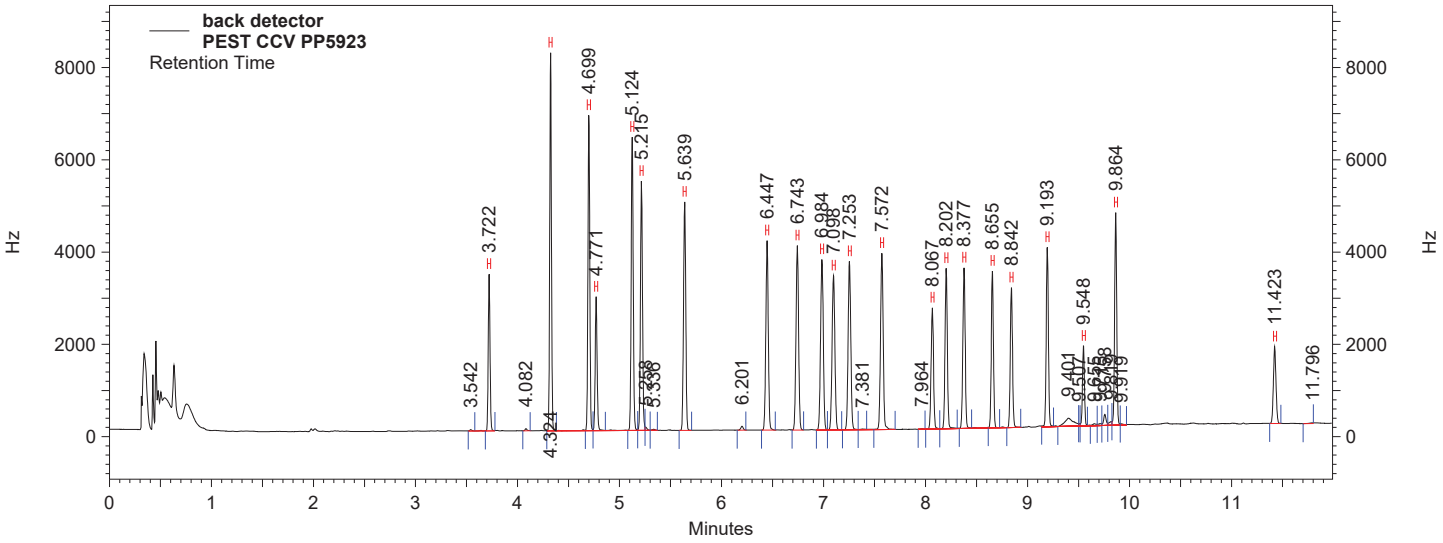
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.185	42423498	98.6476
ALPHABHC	3.648	96708343	0.0398
LINDANE	3.915	81767363	0.0412
BETABHC	3.984	38680174	0.0393
DELTABHC	4.144	88191779	0.0393
HEPTACHLOR	4.347	85242541	0.0399
ALDRIN	4.633	78293302	0.0398
HEPTAEPOX	5.255	68022987	0.0382
GAMMACHLOR	5.404	72958512	0.0389
ALPHACHLOR	5.558	67539978	0.0371
44DDE	5.651	63583832	0.0363
ENDOI	5.725	62583263	0.0361
DIELDRIN	6.029	72157358	0.0393
ENDRIN	6.348	42159472	0.0461
44DDD	6.452	56829486	0.0407
ENDOII	6.676	59342602	0.0393
44DDT	6.884	57704456	0.0401
ENDRINALDEH	7.338	51175221	0.0373
METHOXYCL	7.710	28520283	0.0433
ENDOSULFATE	8.008	61388900	0.0394
ENDRINKETONE	8.398	72255650	0.0387
SURRDCBPEST	9.707	32631415	99.0328

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091119pst\013.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091119pst.met
User: AJZ
Sample ID: PEST CCV PP5923
Acquired: 09/11/2019 13:02:27
Printed: Sep 11, 2019 15:49:03

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.722	32222226	100.9413
ALPHABHC	4.324	73251126	0.0409
LINDANE	4.699	65464011	0.0412
BETABHC	4.771	29044364	0.0404
DELTABHC	5.124	67897278	0.0408
HEPTACHLOR	5.215	58446271	0.0394
ALDRIN	5.639	57762953	0.0400
HEPTAEPOX	6.447	53033172	0.0403
GAMMACHLOR	6.743	54207155	0.0403
ALPHACHLOR	6.984	52320810	0.0400
ENDOI	7.098	49421474	0.0406
44DDE	7.253	51314296	0.0402
DIELDRIN	7.572	53130107	0.0407
ENDRIN	8.067	32779118	0.0467
44DDD	8.202	41655196	0.0414
ENDOII	8.377	42876760	0.0399
44DDT	8.655	37573143	0.0391
ENDRINALDEH	8.842	35070681	0.0360
ENDOSULFATE	9.193	43771375	0.0407
METHOXYCL	9.548	17720827	0.0440
ENDRINKETONE	9.864	50501544	0.0402
SURRDCBPEST	11.423	22799319	100.7589

QC Check Standard Report

Sequence : C:\Instarch\Semi1\Sequence\091119pst.seq
User : AJZ
Printed : Sep 11, 2019 15:49:14

File	Sample ID	Acquired
C:\Instarch\Semi1\data\091119pst\014.dat	TC CCV PP5924	Sep 11, 2019 15:49:14

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	60.000	61.114	1.857	20.000	Passed
Chlordane #1	0.050	0.051	1.930	20.000	Passed
Chlordane #2	0.050	0.052	4.647	20.000	Passed
Chlordane #3	0.050	0.053	5.714	20.000	Passed
Chlordane #4	0.050	0.052	4.628	20.000	Passed
Chlordane #5	0.050	0.051	1.063	20.000	Passed
Toxaphene #1	0.050	0.051	2.776	20.000	Passed
Toxaphene #2	0.050	0.053	6.567	20.000	Passed
Toxaphene #3	0.050	0.051	1.956	20.000	Passed
Toxaphene #4	0.050	0.052	4.045	20.000	Passed
Toxaphene #5	0.050	0.050	0.201	20.000	Passed
SURRDCBPEST	60.000	65.755	9.591	20.000	Passed
Chlordane	0.250	0.259	3.596	20.000	Passed
Toxaphene	0.250	0.258	3.029	20.000	Passed

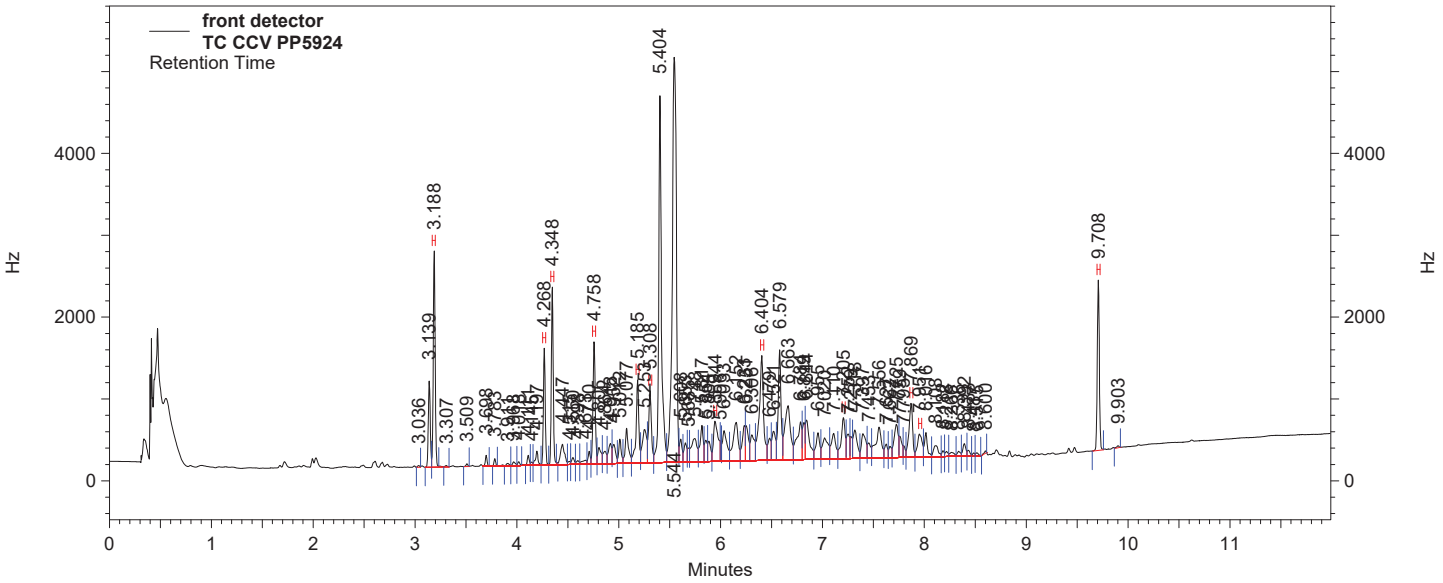
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	60.000	64.014	6.690	20.000	Passed
Chlordane #1	0.050	0.052	4.846	20.000	Passed
Chlordane #2	0.050	0.053	5.638	20.000	Passed
Chlordane #3	0.050	0.055	9.465	20.000	Passed
Chlordane #4	0.050	0.049	2.843	20.000	Passed
Chlordane #5	0.050	0.052	4.985	20.000	Passed
Toxaphene #1	0.050	0.055	10.299	20.000	Passed
Toxaphene #2	0.050	0.056	11.035	20.000	Passed
Toxaphene #3	0.050	0.054	8.982	20.000	Passed
Toxaphene #4	0.050	0.057	13.263	20.000	Passed
Toxaphene #5	0.050	0.055	10.078	20.000	Passed
SURRDCBPEST	60.000	68.136	13.560	20.000	Passed
Chlordane	0.250	0.261	4.418	20.000	Passed
Toxaphene	0.250	0.277	10.731	20.000	Passed

Pesticide (TOX/Chlordane) Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091119pst\014.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091119tc.met
User: AJZ
Sample ID: TC CCV PP5924
Acquired: 09/11/2019 13:18:45
Printed: Sep 11, 2019 15:49:11

Data Summary: {Data Description}



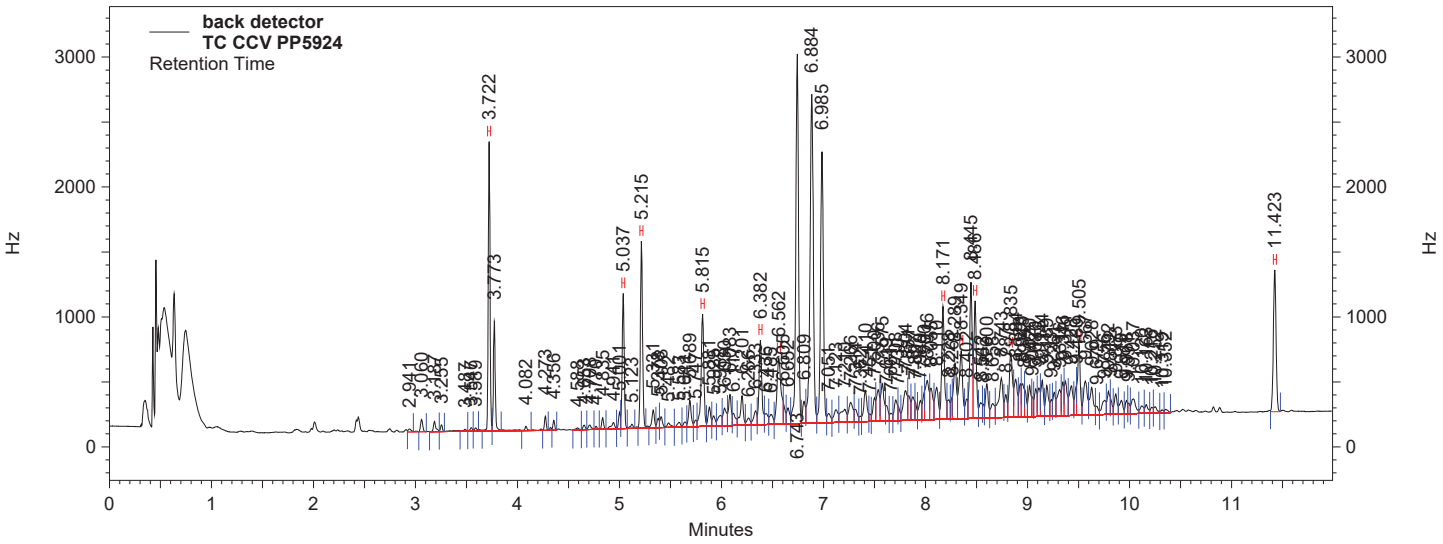
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.188	26438387	61.1140
Chlordane #1	4.268	13802766	0.0510
Chlordane #2	4.348	21650847	0.0523
Chlordane #3	4.758	17675201	0.0529
Chlordane #4	5.185	14594062	0.0523
Chlordane #5	5.308	12844310	0.0505
Toxaphene #1	5.944	12077392	0.0514
Toxaphene #2	6.404	29014187	0.0533
Toxaphene #3	7.205	10500425	0.0510
Toxaphene #4	7.869	12545524	0.0520
Toxaphene #5	7.951	7015536	0.0499
SURRDCBPEST	9.708	21757118	65.7548
Chlordane		80567186	0.2590
Toxaphene		71153064	0.2576

Pesticide (TOX/Chlordane) Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091119pst\014.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091119tc.met
User: AJZ
Sample ID: TC CCV PP5924
Acquired: 09/11/2019 13:18:45
Printed: Sep 11, 2019 15:49:11

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.722	20627759	64.0137
Chlordane #1	5.037	10868610	0.0524
Chlordane #2	5.215	15999517	0.0528
Chlordane #3	5.815	12713455	0.0547
Chlordane #4	6.382	9471834	0.0486
Chlordane #5	6.562	10931469	0.0525
Toxaphene #1	8.171	12714358	0.0551
Toxaphene #2	8.349	9417070	0.0555
Toxaphene #3	8.486	12209288	0.0545
Toxaphene #4	8.835	8536120	0.0566
Toxaphene #5	9.505	7491622	0.0550
SURRDCBPEST	11.423	15342394	68.1362
Chlordane		59984885	0.2610
Toxaphene		50368458	0.2768

QC Check Standard Report

Sequence : C:\Instarch\Semi1\Sequence\091119pst.seq
User : AJZ
Printed : Sep 11, 2019 17:03:30

File	Sample ID	Acquired
C:\Instarch\Semi1\data\091119pst\017.dat	PEST CCV PP5923	Sep 11, 2019 17:03:30

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	100.000	101.178	1.178	20.000	Passed
ALPHABHC	0.040	0.041	1.364	20.000	Passed
LINDANE	0.040	0.042	4.603	20.000	Passed
BETABHC	0.040	0.039	1.392	20.000	Passed
DELTABHC	0.040	0.040	0.715	20.000	Passed
HEPTACHLOR	0.040	0.040	1.189	20.000	Passed
ALDRIN	0.040	0.041	2.112	20.000	Passed
HEPTAEPOX	0.040	0.040	1.158	20.000	Passed
GAMMACHLOR	0.040	0.040	0.742	20.000	Passed
ALPHACHLOR	0.040	0.040	0.426	20.000	Passed
44DDE	0.040	0.041	1.707	20.000	Passed
ENDOI	0.040	0.039	1.649	20.000	Passed
DIELDRIN	0.040	0.040	0.520	20.000	Passed
ENDRIN	0.040	0.045	13.683	20.000	Passed
44DDD	0.040	0.042	4.508	20.000	Passed
ENDOII	0.040	0.041	1.325	20.000	Passed
44DDT	0.040	0.041	2.527	20.000	Passed
ENDRINALDEH	0.040	0.037	6.568	20.000	Passed
METHOXYCL	0.040	0.044	9.919	20.000	Passed
ENDOSULFATE	0.040	0.040	0.857	20.000	Passed
ENDRINKETONE	0.040	0.040	0.032	20.000	Passed
SURRDCBPEST	100.000	109.169	9.169	20.000	Passed

back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPEST	100.000	100.690	0.690	20.000	Passed
ALPHABHC	0.040	0.041	2.471	20.000	Passed
LINDANE	0.040	0.041	3.407	20.000	Passed
BETABHC	0.040	0.041	2.429	20.000	Passed
DELTABHC	0.040	0.041	2.098	20.000	Passed
HEPTACHLOR	0.040	0.039	1.361	20.000	Passed
ALDRIN	0.040	0.041	1.572	20.000	Passed
HEPTAEPOX	0.040	0.040	1.043	20.000	Passed
GAMMACHLOR	0.040	0.040	1.210	20.000	Passed
ALPHACHLOR	0.040	0.040	0.142	20.000	Passed
ENDOI	0.040	0.041	1.739	20.000	Passed
44DDE	0.040	0.041	2.486	20.000	Passed
DIELDRIN	0.040	0.041	2.663	20.000	Passed
ENDRIN	0.040	0.046	14.177	20.000	Passed
44DDD	0.040	0.042	3.792	20.000	Passed
ENDOII	0.040	0.041	2.052	20.000	Passed
44DDT	0.040	0.039	1.793	20.000	Passed
ENDRINALDEH	0.040	0.038	5.003	20.000	Passed
ENDOSULFATE	0.040	0.041	2.092	20.000	Passed
METHOXYCL	0.040	0.043	8.651	20.000	Passed

QC Check Standard Report

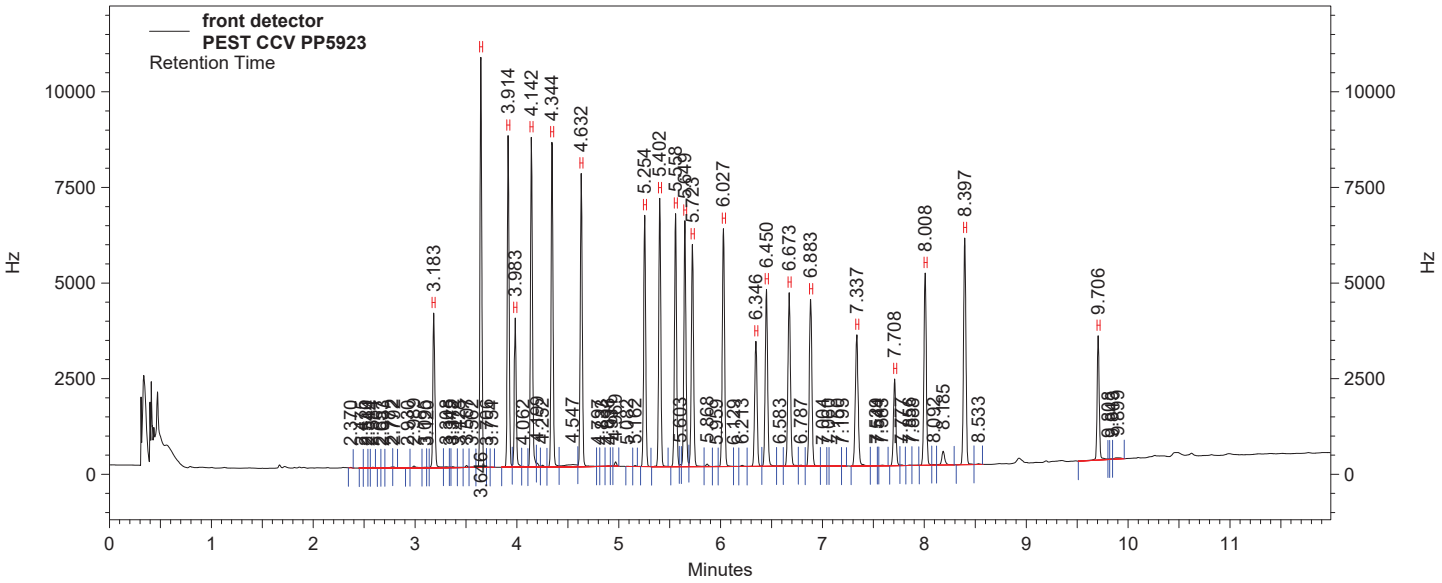
Sequence : C:\Instarch\Semi1\Sequence\091119pst.seq
User : AJZ
Printed : Sep 11, 2019 17:03:30

ENDRINKETONE	0.040	0.041	1.743	20.000	**Passed**
SURRDCBPEST	100.000	107.149	7.149	20.000	**Passed**

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091119pst\017.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091119pst.met
User: AJZ
Sample ID: PEST CCV PP5923
Acquired: Sep 11, 2019 16:47:55
Printed: Sep 11, 2019 17:03:03

Data Summary: {Data Description}



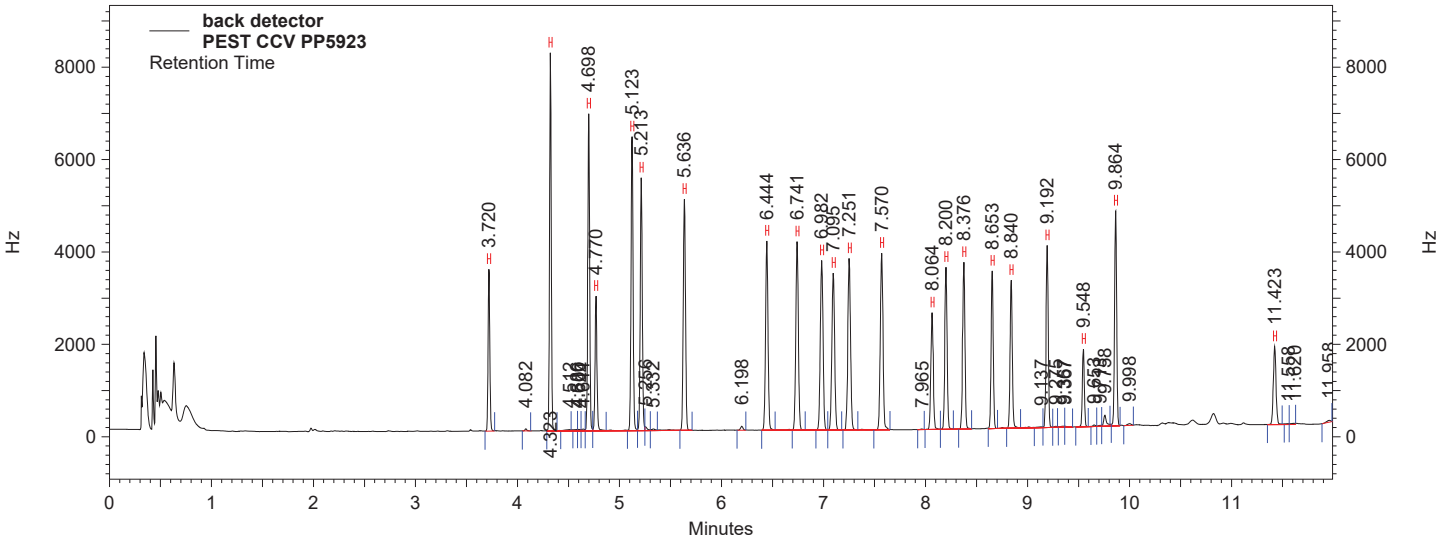
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.183	43517206	101.1777
ALPHABHC	3.646	98653307	0.0405
LINDANE	3.914	83044418	0.0418
BETABHC	3.983	38855656	0.0394
DELTABHC	4.142	89082176	0.0397
HEPTACHLOR	4.344	86424470	0.0405
ALDRIN	4.632	80371408	0.0408
HEPTAEPOX	5.254	70443683	0.0395
GAMMACHLOR	5.402	75651058	0.0403
ALPHACHLOR	5.558	73159868	0.0402
44DDE	5.649	71606193	0.0407
ENDOI	5.723	68115851	0.0393
DIELDRIN	6.027	73815680	0.0402
ENDRIN	6.346	41517432	0.0455
44DDD	6.450	58491544	0.0418
ENDOII	6.673	61238997	0.0405
44DDT	6.883	59184993	0.0410
ENDRINALDEH	7.337	51295205	0.0374
METHOXYCL	7.708	28986863	0.0440
ENDOSULFATE	8.008	62880299	0.0403
ENDRINKETONE	8.397	74673823	0.0400
SURRDCBPEST	9.706	35608614	109.1685

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091119pst\017.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091119pst.met
User: AJZ
Sample ID: PEST CCV PP5923
Acquired: Sep 11, 2019 16:47:55
Printed: Sep 11, 2019 17:03:03

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.720	32143737	100.6902
ALPHABHC	4.323	73382159	0.0410
LINDANE	4.698	65798885	0.0414
BETABHC	4.770	29441615	0.0410
DELTABHC	5.123	67995828	0.0408
HEPTACHLOR	5.213	58590726	0.0395
ALDRIN	5.636	58622606	0.0406
HEPTAEPOX	6.444	53121333	0.0404
GAMMACHLOR	6.741	54390459	0.0405
ALPHACHLOR	6.982	52362876	0.0401
ENDOI	7.095	49552667	0.0407
44DDE	7.251	52319875	0.0410
DIELDRIN	7.570	53546817	0.0411
ENDRIN	8.064	32015513	0.0457
44DDD	8.200	41756953	0.0415
ENDOII	8.376	43853845	0.0408
44DDT	8.653	37768296	0.0393
ENDRINALDEH	8.840	36968172	0.0380
ENDOSULFATE	9.192	43936716	0.0408
METHOXYCL	9.548	17517995	0.0435
ENDRINKETONE	9.864	51042942	0.0407
SURRDCBPEST	11.423	24101389	107.1491

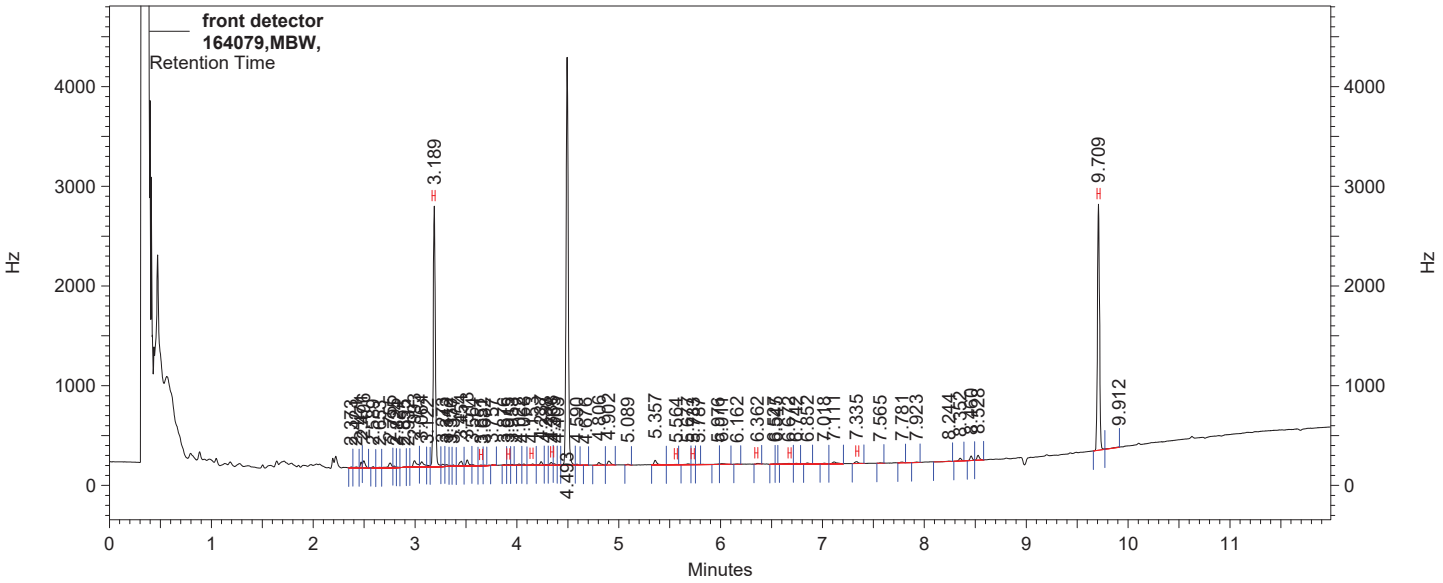
PESTICIDE/HERBICIDE QUALITY CONTROL DOCUMENTS

Pesticide Analysis Report *(Channel A)*

AJZ
09/19/2019

Data File: C:\Instarch\Semi1\data\090519pstic\025.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
User: AJZ
Sample ID: 164079,MBW,
Acquired: Sep 05, 2019 21:52:05
Printed: Sep 06, 2019 10:05:14

Data Summary: {Data Description}



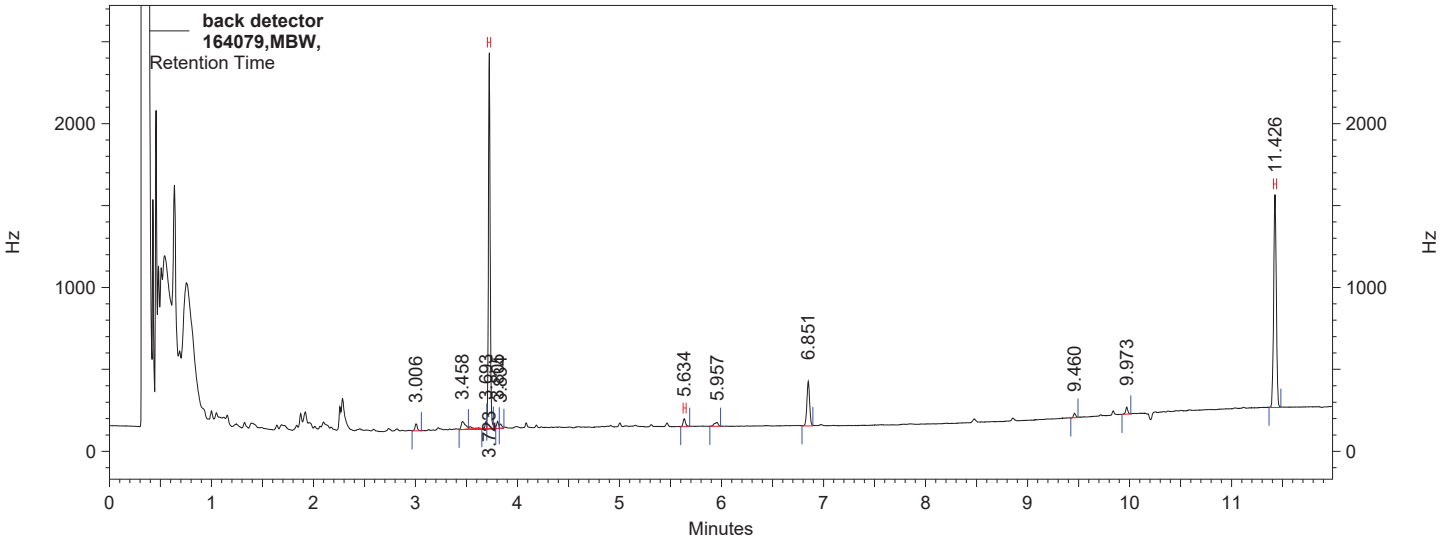
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.189	28068945	65.2785
ALPHABHC	3.651	96667	0.0000
LINDANE	3.915	103639	0.0000
BETABHC			0.0000 BDL
DELTABHC	4.153	276949	0.0001
HEPTACHLOR	4.338	424583	0.0000
ALDRIN			0.0000 BDL
HEPTAEPOX			0.0000 BDL
GAMMACHLOR			0.0000 BDL
ALPHACHLOR	5.564	130303	0.0000
44DDE			0.0000 BDL
ENDOI	5.733	61198	0.0000
DIELDRIN			0.0000 BDL
ENDRIN	6.362	83010	0.0000
44DDD			0.0000 BDL
ENDOII	6.672	339298	0.0000
44DDT			0.0000 BDL
ENDRINALDEH	7.335	375549	0.0000
METHOXYCL			0.0000 BDL
ENDOSULFATE			0.0000 BDL
ENDRINKETONE			0.0000 BDL
SURRDCBPEST	9.709	25979040	77.0883

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\090519pstic\025.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
User: AJZ
Sample ID: 164079,MBW,
Acquired: Sep 05, 2019 21:52:05
Printed: Sep 06, 2019 10:05:14

Data Summary: {Data Description}



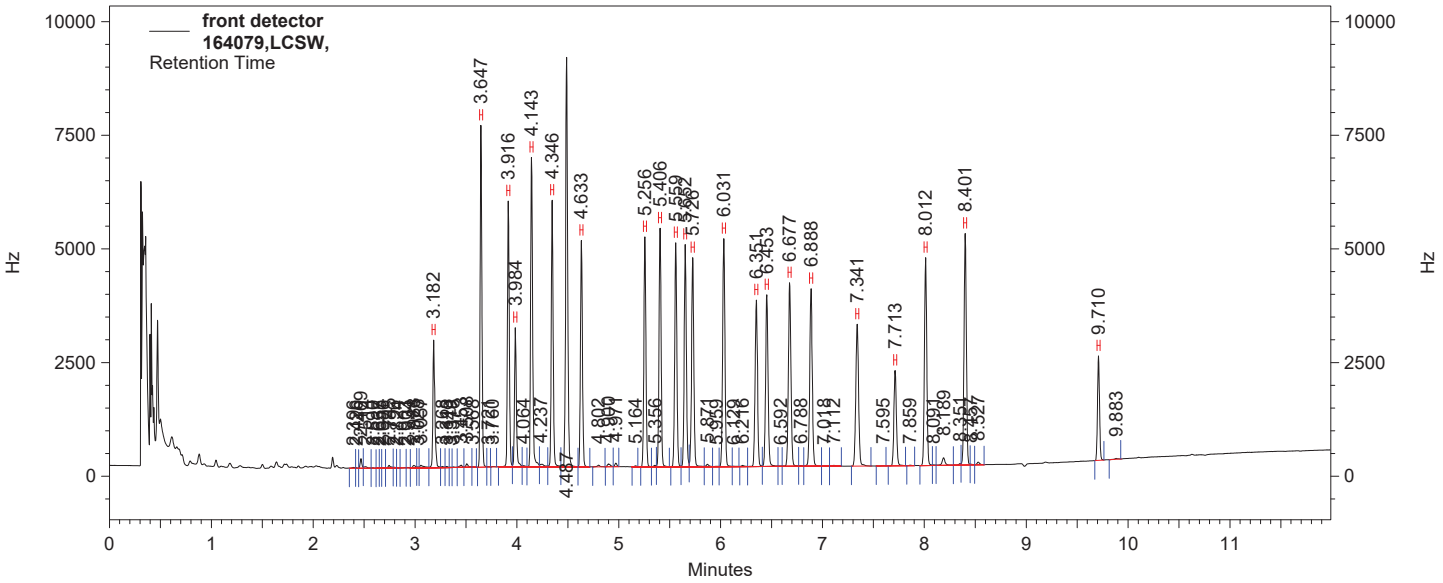
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.723	21061982	65.3892
ALPHABHC			0.0000 BDL
LINDANE			0.0000 BDL
BETABHC			0.0000 BDL
DELTABHC			0.0000 BDL
HEPTACHLOR			0.0000 BDL
ALDRIN	5.634	639054	0.0001
HEPTAEPOX			0.0000 BDL
GAMMACHLOR			0.0000 BDL
ALPHACHLOR			0.0000 BDL
ENDOI			0.0000 BDL
44DDE			0.0000 BDL
DIELDRIN			0.0000 BDL
ENDRIN			0.0000 BDL
44DDD			0.0000 BDL
ENDOII			0.0000 BDL
44DDT			0.0000 BDL
ENDRINALDEH			0.0000 BDL
ENDOSULFATE			0.0000 BDL
METHOXYCL			0.0000 BDL
ENDRINKETONE			0.0000 BDL
SURRDCBPEST	11.426	18061150	78.0986

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\090519pstic\026.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
User: AJZ
Sample ID: 164079,LCSW,
Acquired: Sep 05, 2019 22:08:22
Printed: Sep 06, 2019 10:05:32

Data Summary: {Data Description}



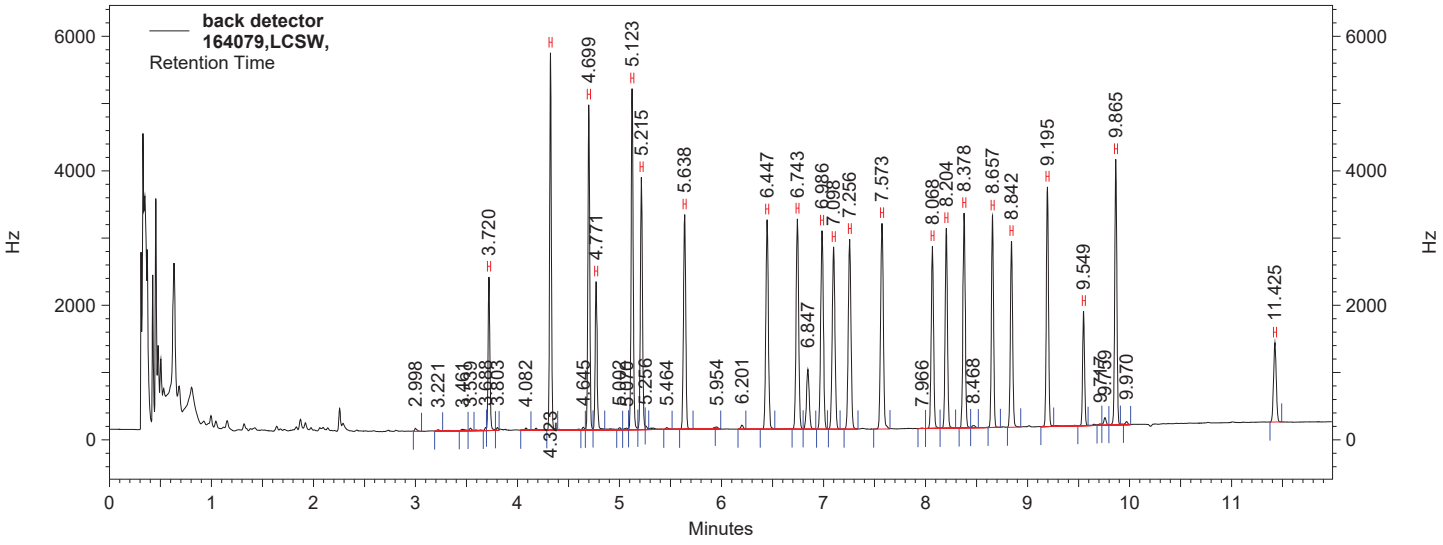
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.182	28614859	66.5532
ALPHABHC	3.647	67193687	0.0281
LINDANE	3.916	56118399	0.0285
BETABHC	3.984	30324215	0.0307
DELTABHC	4.143	71630206	0.0323
HEPTACHLOR	4.346	58371167	0.0274
ALDRIN	4.633	50768323	0.0261
HEPTAEPOX	5.256	54763741	0.0307
GAMMACHLOR	5.406	57708792	0.0309
ALPHACHLOR	5.559	56389137	0.0310
44DDE	5.652	55405352	0.0319
ENDOI	5.726	53997720	0.0311
DIELDRIN	6.031	60490367	0.0331
ENDRIN	6.351	45426291	0.0494
44DDD	6.453	48479567	0.0350
ENDOII	6.677	54347857	0.0360
44DDT	6.888	52384672	0.0366
ENDRINALDEH	7.341	46058934	0.0335
METHOXYCL	7.713	27660877	0.0420
ENDOSULFATE	8.012	56892435	0.0365
ENDRINKETONE	8.401	62748714	0.0335
SURRDCBPEST	9.710	23917458	70.4706

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\090519pstic\026.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
User: AJZ
Sample ID: 164079,LCSW,
Acquired: Sep 05, 2019 22:08:22
Printed: Sep 06, 2019 10:05:32

Data Summary: {Data Description}



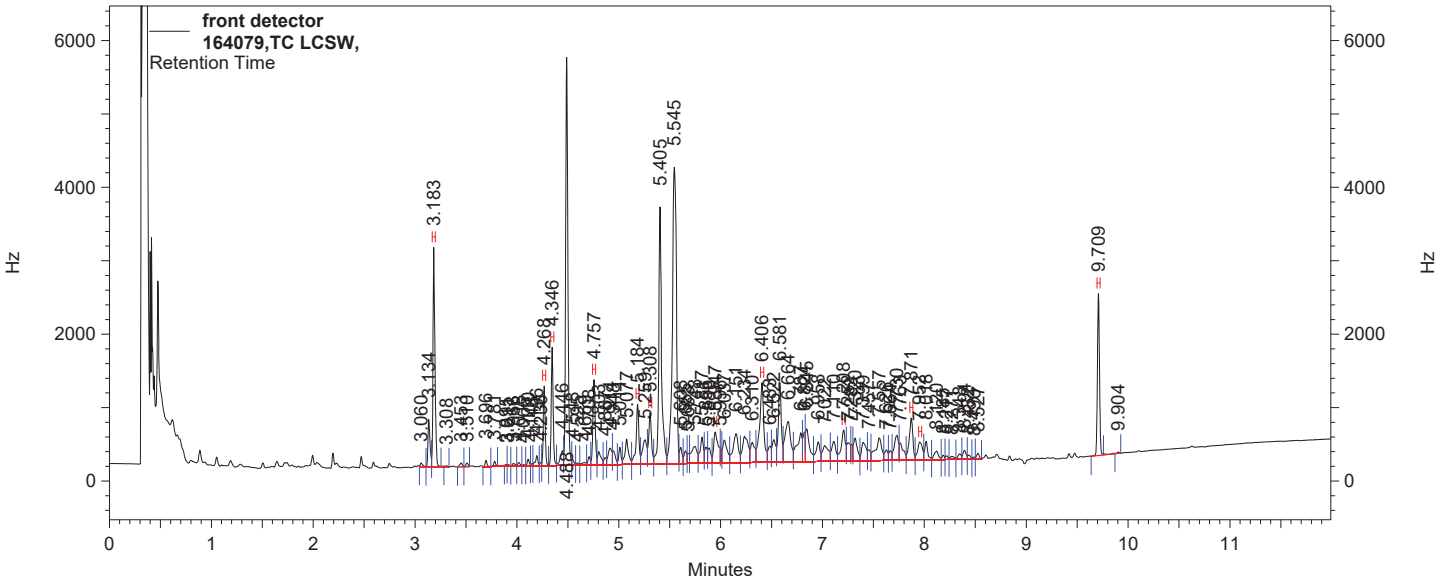
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.720	21661172	67.2905
ALPHABHC	4.323	50710146	0.0284
LINDANE	4.699	46020930	0.0289
BETABHC	4.771	22374971	0.0308
DELTABHC	5.123	53674960	0.0323
HEPTACHLOR	5.215	40798743	0.0273
ALDRIN	5.638	38023515	0.0263
HEPTAEPOX	6.447	41507810	0.0313
GAMMACHLOR	6.743	42000623	0.0312
ALPHACHLOR	6.986	41297574	0.0315
ENDOI	7.098	39219527	0.0321
44DDE	7.256	40217270	0.0316
DIELDRIN	7.573	43612724	0.0334
ENDRIN	8.068	33778969	0.0481
44DDD	8.204	35505431	0.0353
ENDOII	8.378	39088179	0.0363
44DDT	8.657	35073205	0.0365
ENDRINALDEH	8.842	32457153	0.0332
ENDOSULFATE	9.195	40019282	0.0371
METHOXYCL	9.549	17299388	0.0429
ENDRINKETONE	9.865	43653906	0.0346
SURRDCBPEST	11.425	16754128	72.0018

Pesticide (TOX/Chlordane) Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\090519pstic\027.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
User: AJZ
Sample ID: 164079,TC LCSW,
Acquired: Sep 05, 2019 22:24:38
Printed: Sep 06, 2019 10:05:38

Data Summary: {Data Description}



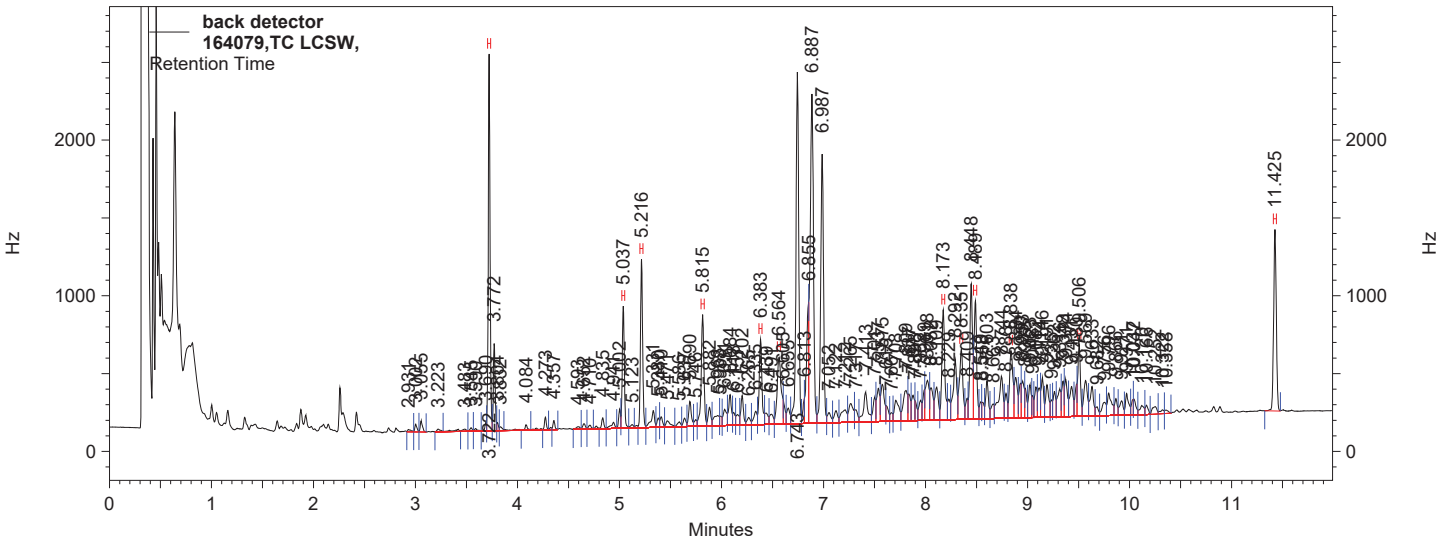
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.183	30510702	70.4946
Chlordane #1	4.268	10705704	0.0394
Chlordane #2	4.346	16185656	0.0391
Chlordane #3	4.757	14007946	0.0416
Chlordane #4	5.184	11820698	0.0422
Chlordane #5	5.308	10267418	0.0403
Toxaphene #1	5.947	9936222	0.0422
Toxaphene #2	6.406	24083805	0.0443
Toxaphene #3	7.208	9163383	0.0447
Toxaphene #4	7.871	10912531	0.0454
Toxaphene #5	7.952	6096694	0.0437
SURRDCBPEST	9.709	23605835	71.4859
Chlordane		62987422	0.2026
Toxaphene		60192635	0.2203

Pesticide (TOX/Chlordane) Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\090519pstic\027.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519tcic.met
User: AJZ
Sample ID: 164079,TC LCSW,
Acquired: Sep 05, 2019 22:24:38
Printed: Sep 06, 2019 10:05:38

Data Summary: {Data Description}



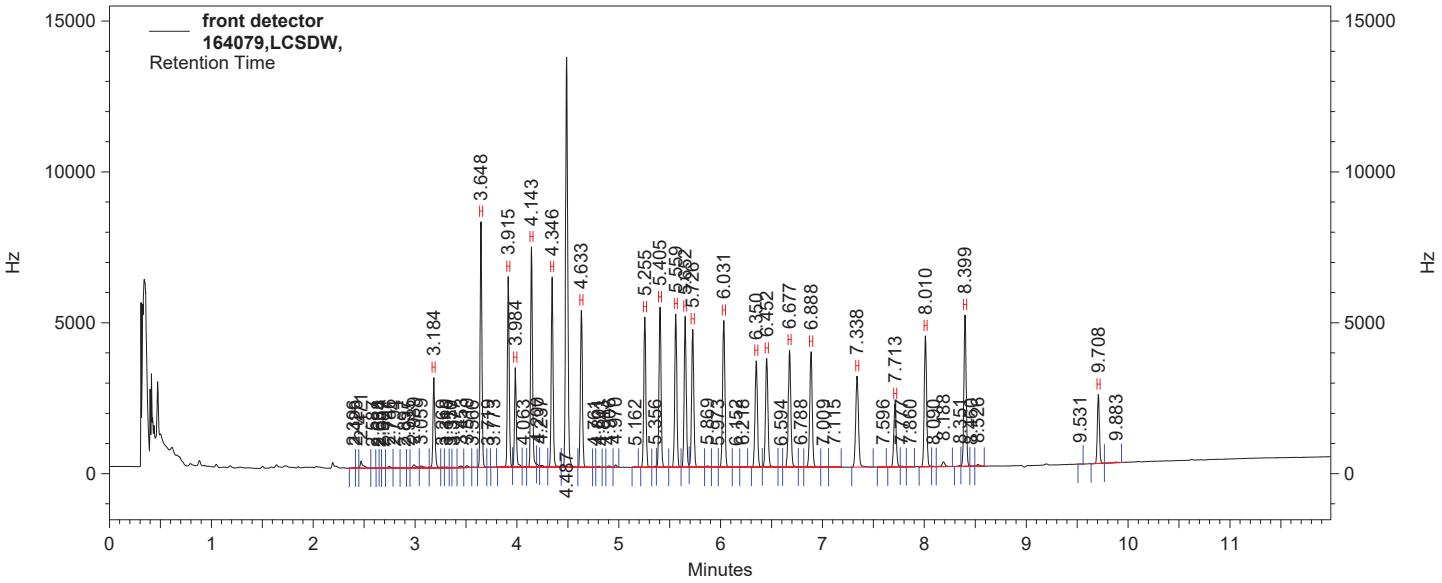
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.722	23018362	71.5415
Chlordane #1	5.037	8423669	0.0404
Chlordane #2	5.216	12149543	0.0398
Chlordane #3	5.815	10459244	0.0446
Chlordane #4	6.383	7807828	0.0400
Chlordane #5	6.564	9203409	0.0442
Toxaphene #1	8.173	11172912	0.0486
Toxaphene #2	8.351	8301847	0.0492
Toxaphene #3	8.489	10885705	0.0486
Toxaphene #4	8.838	7677416	0.0511
Toxaphene #5	9.506	6249353	0.0459
SURRDCBPEST	11.425	16360051	72.7616
Chlordane		48043693	0.2090
Toxaphene		44287233	0.2434

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\090519pstic\030.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
User: AJZ
Sample ID: 164079,LCSDW,
Acquired: Sep 05, 2019 23:13:28
Printed: Sep 06, 2019 10:05:49

Data Summary: {Data Description}



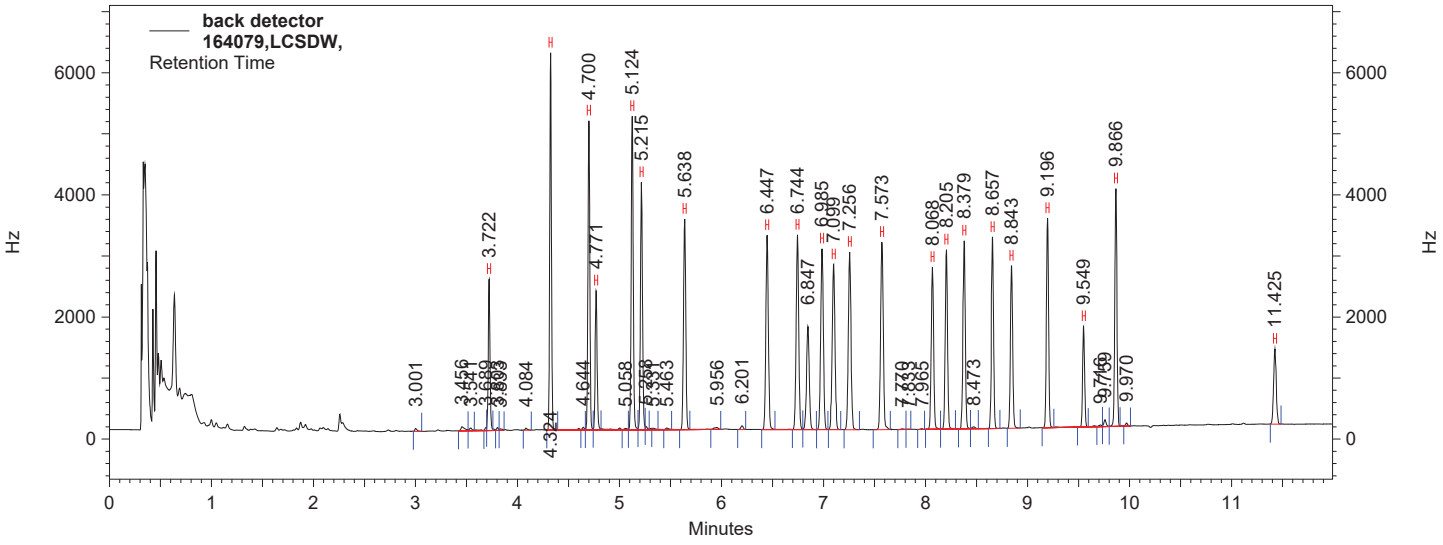
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.184	30532705	71.0276
ALPHABHC	3.648	73281646	0.0305
LINDANE	3.915	59084106	0.0300
BETABHC	3.984	31662170	0.0321
DELTABHC	4.143	72194601	0.0325
HEPTACHLOR	4.346	62585386	0.0293
ALDRIN	4.633	54227543	0.0279
HEPTAEPOX	5.255	54858234	0.0307
GAMMACHLOR	5.405	58181944	0.0311
ALPHACHLOR	5.559	56598862	0.0311
44DDE	5.652	55559458	0.0319
ENDOI	5.726	53779111	0.0310
DIELDRIN	6.031	59225216	0.0324
ENDRIN	6.350	44745052	0.0487
44DDD	6.452	47103215	0.0340
ENDOII	6.677	52177382	0.0346
44DDT	6.888	50767909	0.0356
ENDRINALDEH	7.338	44453189	0.0323
METHOXYCL	7.713	26995206	0.0410
ENDOSULFATE	8.010	54722502	0.0351
ENDRINKETONE	8.399	60385591	0.0323
SURRDCBPEST	9.708	24688129	72.9349

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\090519pstic\030.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\090519pstic.met
User: AJZ
Sample ID: 164079,LCSDW,
Acquired: Sep 05, 2019 23:13:28
Printed: Sep 06, 2019 10:05:49

Data Summary: {Data Description}



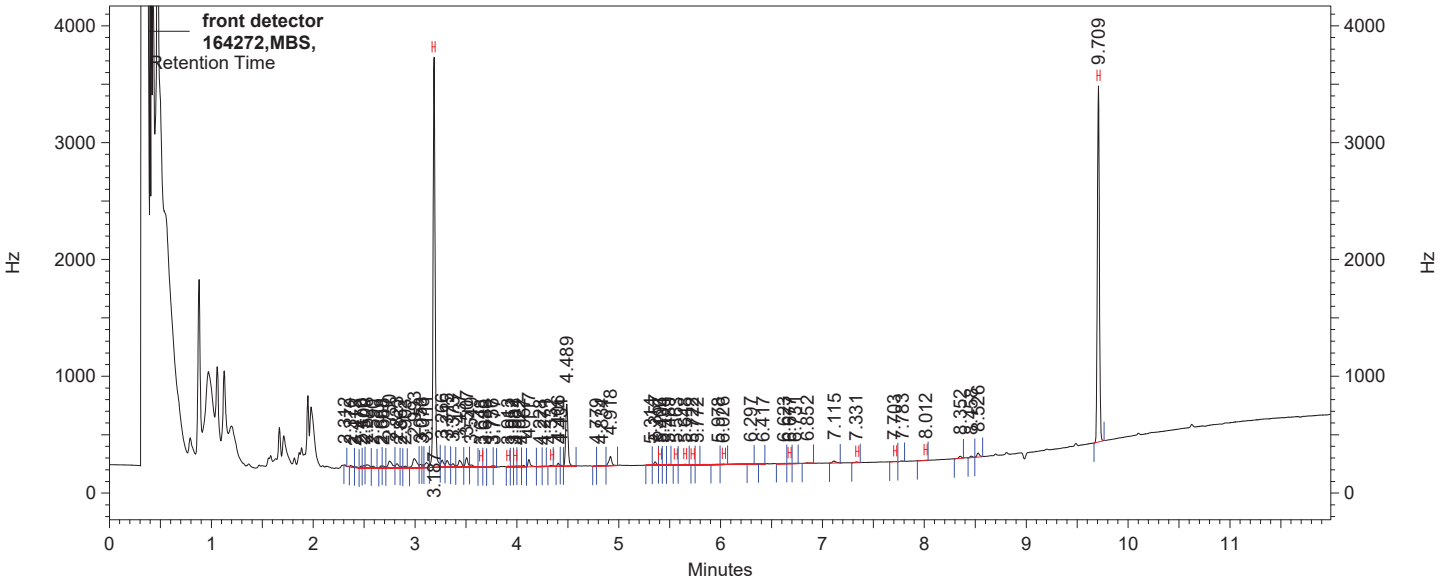
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.722	22713037	70.6304
ALPHABHC	4.324	55350286	0.0310
LINDANE	4.700	49441183	0.0311
BETABHC	4.771	23081505	0.0318
DELTABHC	5.124	54858310	0.0330
HEPTACHLOR	5.215	43859710	0.0293
ALDRIN	5.638	40789107	0.0282
HEPTAEPOX	6.447	42096786	0.0318
GAMMACHLOR	6.744	42509557	0.0316
ALPHACHLOR	6.985	41517492	0.0317
ENDOI	7.099	39143848	0.0320
44DDE	7.256	40362545	0.0317
DIELDRIN	7.573	43130655	0.0330
ENDRIN	8.068	33508387	0.0477
44DDD	8.205	34778908	0.0346
ENDOII	8.379	37718321	0.0350
44DDT	8.657	34429270	0.0359
ENDRINALDEH	8.843	31667605	0.0323
ENDOSULFATE	9.196	38750121	0.0359
METHOXYCL	9.549	17166493	0.0426
ENDRINKETONE	9.866	42633054	0.0338
SURRDCBPEST	11.425	17228056	74.2051

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091019pst\007.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,MBS,
Acquired: 09/10/2019 17:00:53
Printed: 09/11/2019 08:50:49

Data Summary: {Data Description}



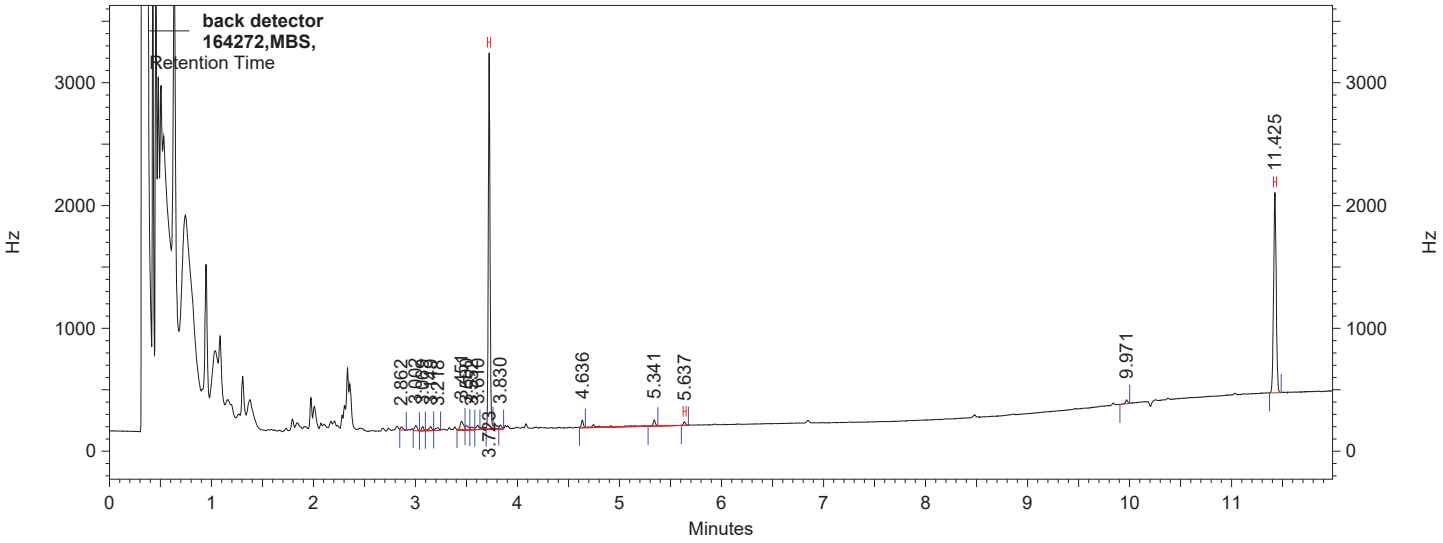
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.187	37295461	86.7617
ALPHABHC	3.648	94087	0.0000
LINDANE	3.913	77744	0.0000
BETABHC	3.981	92321	0.0000
DELTABHC			0.0000 BDL
HEPTACHLOR	4.332	138090	0.0000
ALDRIN			0.0000 BDL
HEPTAEPOX			0.0000 BDL
GAMMACHLOR	5.406	75124	0.0000
ALPHACHLOR	5.563	69399	0.0000
44DDE	5.648	167315	0.0000
ENDOI	5.722	58661	0.0000
DIELDRIN	6.026	97410	0.0000
ENDRIN			0.0000 BDL
44DDD			0.0000 BDL
ENDOII	6.677	61115	0.0000
44DDT			0.0000 BDL
ENDRINALDEH	7.331	120625	0.0000
METHOXYCL	7.703	52986	0.0000
ENDOSULFATE	8.012	54423	0.0000
ENDRINKETONE			0.0000 BDL
SURRDCBPEST	9.709	31961717	96.7807

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091019pst\007.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,MBS,
Acquired: 09/10/2019 17:00:53
Printed: 09/11/2019 08:50:49

Data Summary: {Data Description}



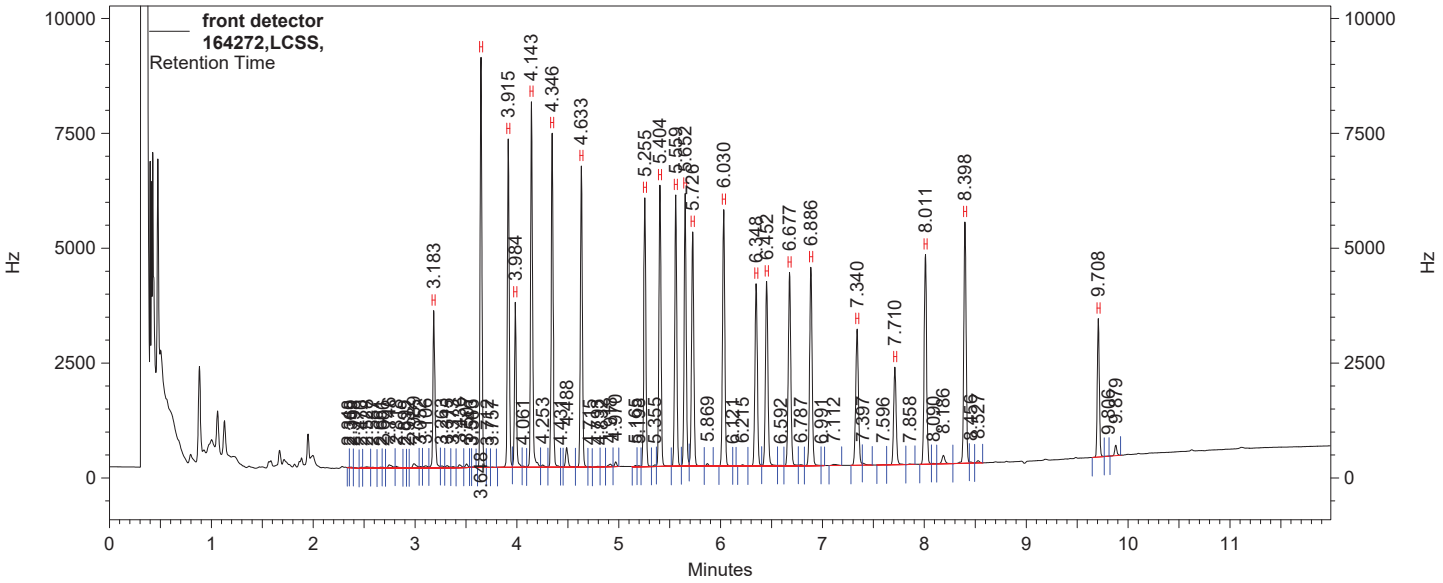
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.723	27738465	86.6226
ALPHABHC			0.0000 BDL
LINDANE			0.0000 BDL
BETABHC			0.0000 BDL
DELTABHC			0.0000 BDL
HEPTACHLOR			0.0000 BDL
ALDRIN	5.637	353046	0.0000
HEPTAEPOX			0.0000 BDL
GAMMACHLOR			0.0000 BDL
ALPHACHLOR			0.0000 BDL
ENDOI			0.0000 BDL
44DDE			0.0000 BDL
DIELDRIN			0.0000 BDL
ENDRIN			0.0000 BDL
44DDD			0.0000 BDL
ENDOII			0.0000 BDL
44DDT			0.0000 BDL
ENDRINALDEH			0.0000 BDL
ENDOSULFATE			0.0000 BDL
METHOXYCL			0.0000 BDL
ENDRINKETONE			0.0000 BDL
SURRDCBPEST	11.425	22233367	98.0041

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091019pst\008.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,LCSS,
Acquired: 09/10/2019 17:17:05
Printed: 09/11/2019 08:50:52

Data Summary: {Data Description}



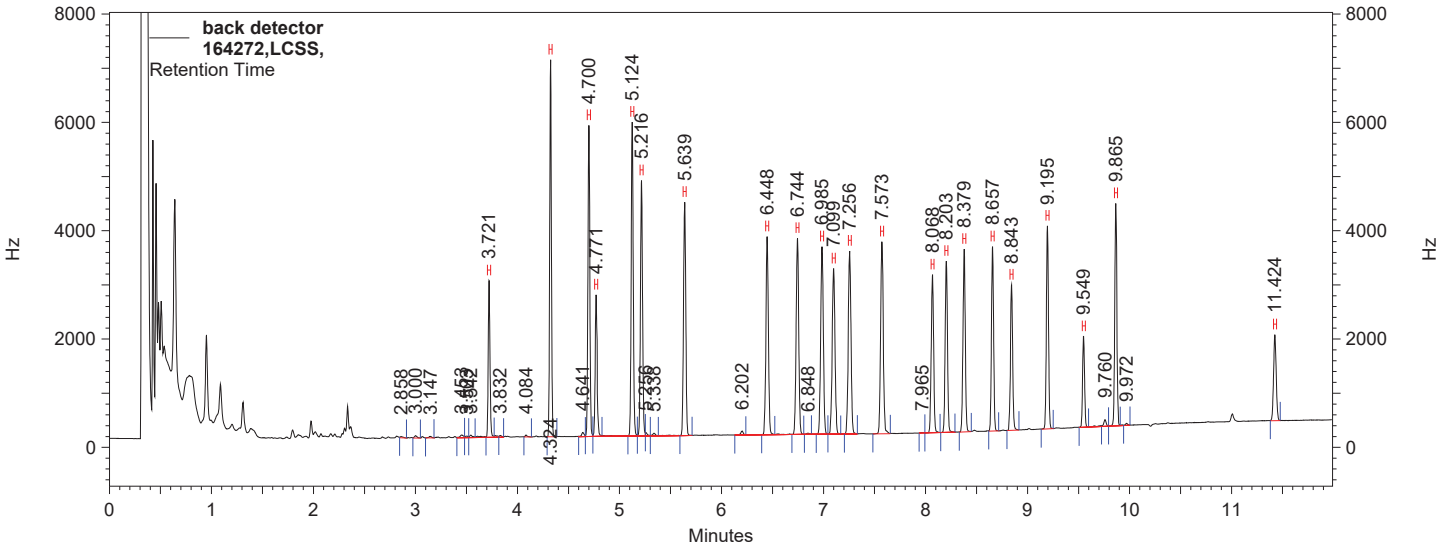
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.183	36183214	84.1786
ALPHABHC	3.648	82567546	0.0342
LINDANE	3.915	69159519	0.0350
BETABHC	3.984	35340002	0.0358
DELTABHC	4.143	82168006	0.0368
HEPTACHLOR	4.346	74240374	0.0348
ALDRIN	4.633	68095486	0.0348
HEPTAEPOX	5.255	62870345	0.0352
GAMMACHLOR	5.404	67346752	0.0360
ALPHACHLOR	5.559	64983831	0.0357
44DDE	5.652	64684092	0.0369
ENDOI	5.726	60931344	0.0351
DIELDRIN	6.030	66406364	0.0363
ENDRIN	6.348	49606937	0.0534
44DDD	6.452	52346499	0.0376
ENDOII	6.677	56293522	0.0373
44DDT	6.886	56280042	0.0391
ENDRINALDEH	7.340	42709664	0.0311
METHOXYCL	7.710	28534840	0.0433
ENDOSULFATE	8.011	58547962	0.0376
ENDRINKETONE	8.398	64892022	0.0347
SURRDCBPEST	9.708	31666099	95.7898

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091019pst\008.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,LCSS,
Acquired: 09/10/2019 17:17:05
Printed: 09/11/2019 08:50:52

Data Summary: {Data Description}



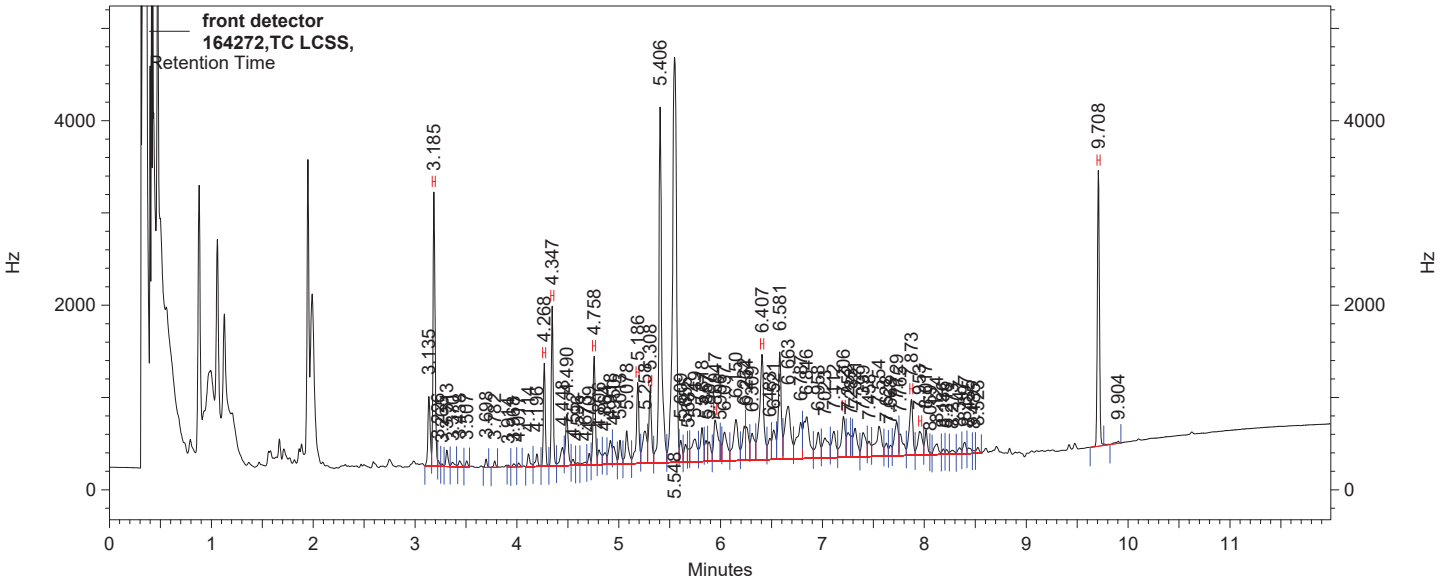
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.721	27033718	84.3763
ALPHABHC	4.324	62525739	0.0350
LINDANE	4.700	56435449	0.0355
BETABHC	4.771	26273190	0.0364
DELTABHC	5.124	61907502	0.0372
HEPTACHLOR	5.216	52003388	0.0349
ALDRIN	5.639	50670390	0.0351
HEPTAEPOX	6.448	47595370	0.0361
GAMMACHLOR	6.744	49193180	0.0366
ALPHACHLOR	6.985	47969950	0.0367
ENDOI	7.099	44679531	0.0366
44DDE	7.256	48154535	0.0378
DIELDRIN	7.573	48823835	0.0374
ENDRIN	8.068	36740464	0.0520
44DDD	8.203	38094667	0.0379
ENDOII	8.379	40783013	0.0379
44DDT	8.657	37918632	0.0394
ENDRINALDEH	8.843	30844000	0.0315
ENDOSULFATE	9.195	41023707	0.0381
METHOXYCL	9.549	17437662	0.0433
ENDRINKETONE	9.865	44559513	0.0353
SURRDCBPEST	11.424	22034931	97.0414

Pesticide (TOX/Chlordane) Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091019pst\009.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019tc.met
User: AJZ
Sample ID: 164272,TC LCSS,
Acquired: 09/10/2019 17:33:22
Printed: 09/11/2019 08:50:57

Data Summary: {Data Description}



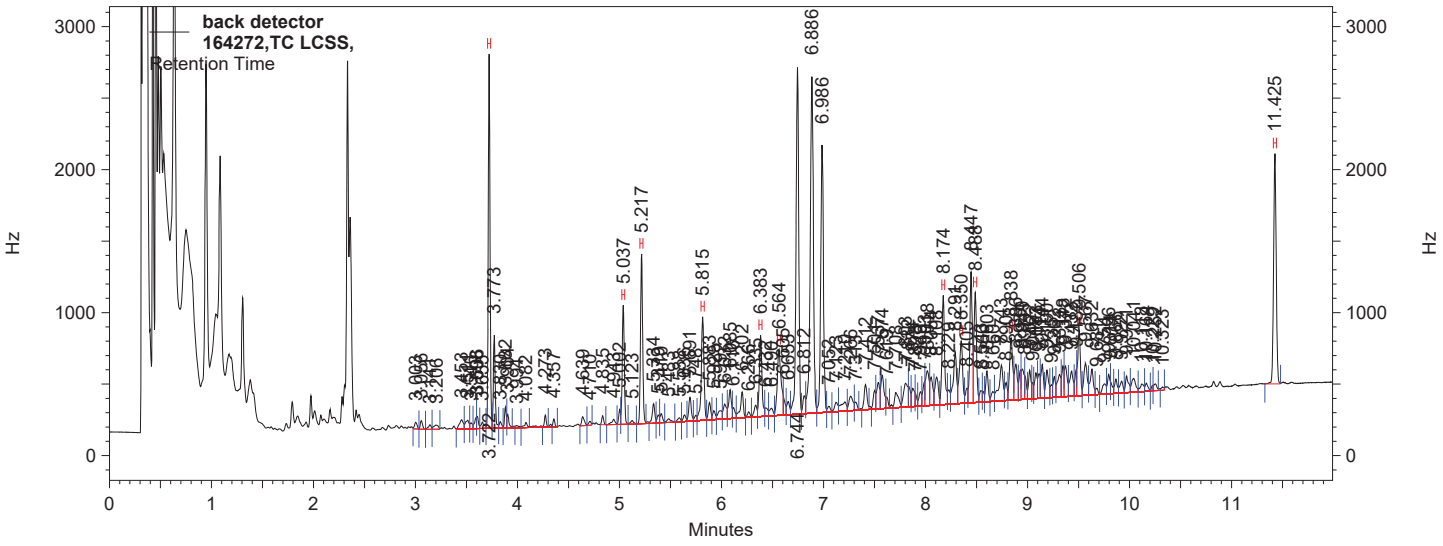
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.185	32090841	74.1345
Chlordane #1	4.268	11078138	0.0408
Chlordane #2	4.347	17396468	0.0420
Chlordane #3	4.758	13855788	0.0411
Chlordane #4	5.186	12233358	0.0437
Chlordane #5	5.308	11060649	0.0435
Toxaphene #1	5.947	10439947	0.0444
Toxaphene #2	6.407	25310958	0.0465
Toxaphene #3	7.206	9223852	0.0450
Toxaphene #4	7.873	11205174	0.0466
Toxaphene #5	7.953	6259321	0.0448
SURRDCBPEST	9.708	31924472	97.2739
Chlordane		65624401	0.2111
Toxaphene		62439252	0.2272

Pesticide (TOX/Chlordane) Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091019pst\009.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019tc.met
User: AJZ
Sample ID: 164272,TC LCSS,
Acquired: 09/10/2019 17:33:22
Printed: 09/11/2019 08:50:57

Data Summary: {Data Description}



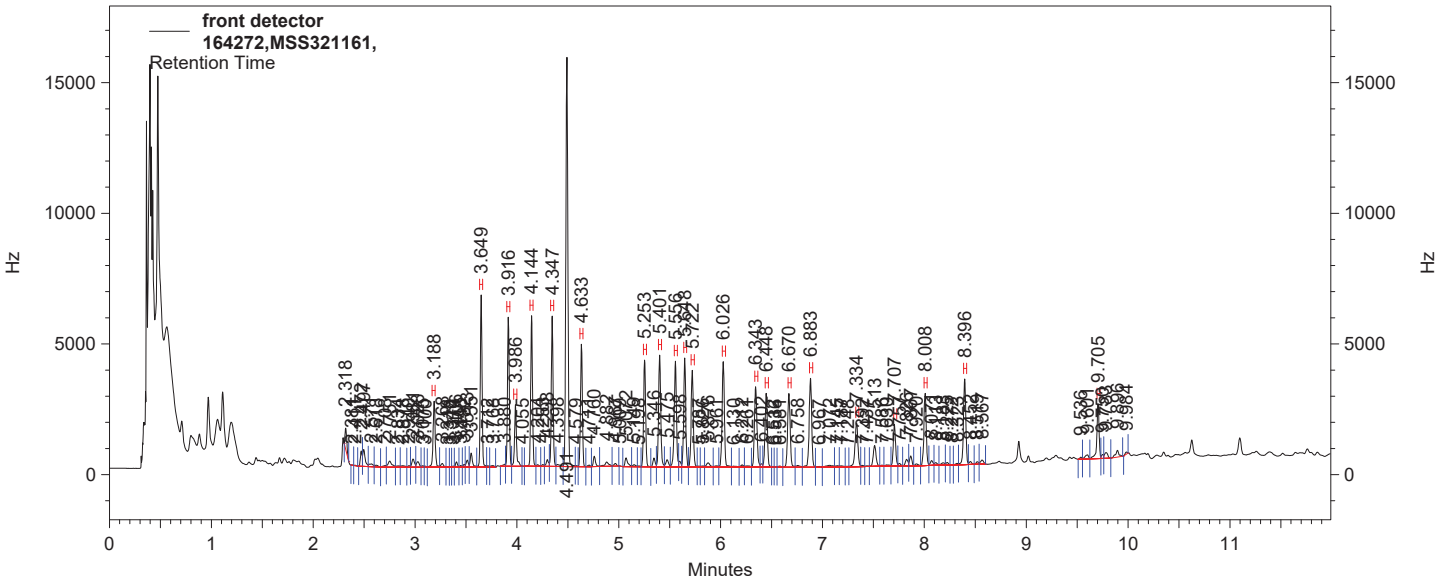
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.722	24582966	76.4683
Chlordane #1	5.037	8882546	0.0426
Chlordane #2	5.217	13264667	0.0436
Chlordane #3	5.815	10377276	0.0443
Chlordane #4	6.383	7864582	0.0403
Chlordane #5	6.564	9103991	0.0437
Toxaphene #1	8.174	10709934	0.0467
Toxaphene #2	8.350	7412887	0.0441
Toxaphene #3	8.488	10438919	0.0466
Toxaphene #4	8.838	7015867	0.0468
Toxaphene #5	9.506	6340180	0.0465
SURRDCBPEST	11.425	22152303	99.0881
Chlordane		49493062	0.2145
Toxaphene		41917787	0.2308

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091019pst\036.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,MSS321161,
Acquired: 09/11/2019 00:51:50
Printed: 09/11/2019 08:56:23

Data Summary: M.I. Index Reason #2 AJZ 09/11/2019



front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.188	28354680	65.9458
ALPHABHC	3.649	60164780	0.0252
LINDANE	3.916	51783680	0.0263
BETABHC	3.986	24393165	0.0246
DELTABHC	4.144	54570895	0.0248
HEPTACHLOR	4.347	54734016	0.0256
ALDRIN	4.633	45357209	0.0234
HEPTAEPOX	5.253	44252041	0.0247
GAMMACHLOR	5.401	48464456	0.0260
ALPHACHLOR	5.556	47969885	0.0264
44DDE	5.648	44524698	0.0258
ENDOI	5.722	42264055	0.0242
DIELDRIN	6.026	48269159	0.0265
ENDRIN	6.343	40235295	0.0442
44DDD	6.448	34333402	0.0251
ENDOII	6.670	38352318	0.0254
44DDT	6.883	44619714	0.0315
ENDRINALDEH	7.334	25178686	0.0182
METHOXYCL	7.707	19308809	0.0296
ENDOSULFATE	8.008	34252197	0.0219
ENDRINKETONE	8.396	40489309	0.0215
SURRDCBPEST	9.705	23851529	70.2604

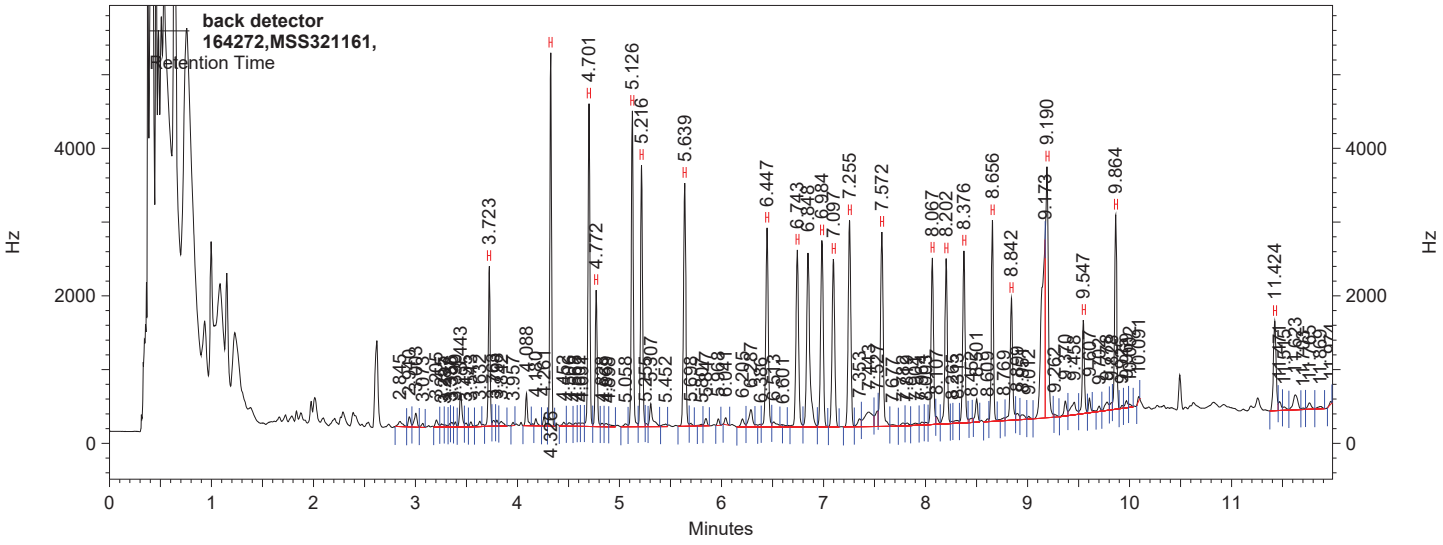
Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091019pst\036.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,MSS321161,
Acquired: 09/11/2019 00:51:50
Printed: 09/11/2019 08:56:23

JJY
9/12/19

Data Summary: M.I. Index Reason #2 AJZ 09/11/2019

After Manual Integration



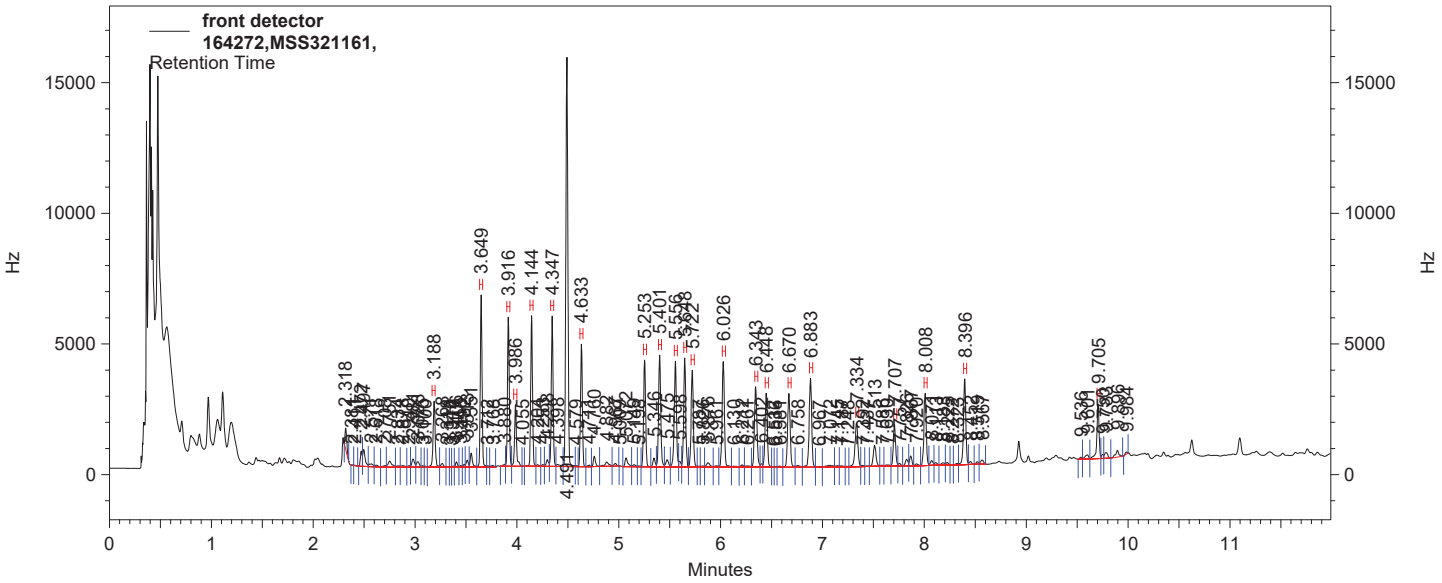
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.723	20090660	62.3087
ALPHABHC	4.326	45036477	0.0252
LINDANE	4.701	43411027	0.0273
BETABHC	4.772	18935264	0.0259
DELTABHC	5.126	45112288	0.0271
HEPTACHLOR	5.216	37560489	0.0250
ALDRIN	5.639	39398480	0.0272
HEPTAEPOX	6.447	35977204	0.0271
GAMMACHLOR	6.743	33472830	0.0248
ALPHACHLOR	6.984	34916815	0.0266
ENDOI	7.097	31736712	0.0258
44DDE	7.255	37996803	0.0299
DIELDRIN	7.572	37385757	0.0286
ENDRIN	8.067	28832331	0.0413
44DDD	8.202	27305624	0.0271
ENDOII	8.376	28806049	0.0266
44DDT	8.656	28704239	0.0300
ENDRINALDEH	8.842	20303719	0.0204
ENDOSULFATE	9.190	47961844	0.0447
METHOXYCL	9.547	13883373	0.0345
ENDRINKETONE	9.864	28722928	0.0224
SURRDCBPEST	11.424	17135702	73.7751

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091019pst\036.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: JJY
Sample ID: 164272,MSS321161,
Acquired: 09/11/2019 00:51:50
Printed: 09/12/2019 11:51:09

Data Summary: M.I. Index Reason #2 AJZ 09/11/2019



front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.188	28354680	65.9458
ALPHABHC	3.649	60164780	0.0252
LINDANE	3.916	51783680	0.0263
BETABHC	3.986	24393165	0.0246
DELTABHC	4.144	54570895	0.0248
HEPTACHLOR	4.347	54734016	0.0256
ALDRIN	4.633	45357209	0.0234
HEPTAEPOX	5.253	44252041	0.0247
GAMMACHLOR	5.401	48464456	0.0260
ALPHACHLOR	5.556	47969885	0.0264
44DDE	5.648	44524698	0.0258
ENDOI	5.722	42264055	0.0242
DIELDRIN	6.026	48269159	0.0265
ENDRIN	6.343	40235295	0.0442
44DDD	6.448	34333402	0.0251
ENDOII	6.670	38352318	0.0254
44DDT	6.883	44619714	0.0315
ENDRINALDEH	7.334	25178686	0.0182
METHOXYCL	7.707	19308809	0.0296
ENDOSULFATE	8.008	34252197	0.0219
ENDRINKETONE	8.396	40489309	0.0215
SURRDCBPEST	9.705	23851529	70.2604

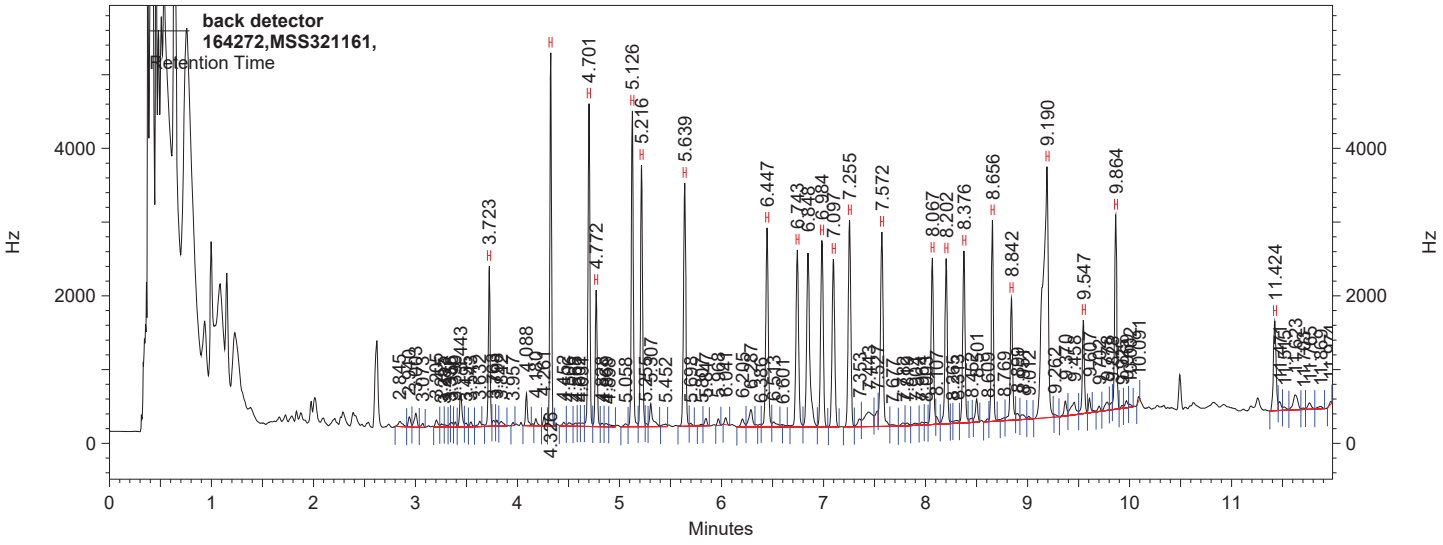
Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091019pst\036.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: JJY
Sample ID: 164272,MSS321161,
Acquired: 09/11/2019 00:51:50
Printed: 09/12/2019 11:51:09

JJY
9/12/19

Data Summary: M.I. Index Reason #2 AJZ 09/11/2019

Before Manual Integration



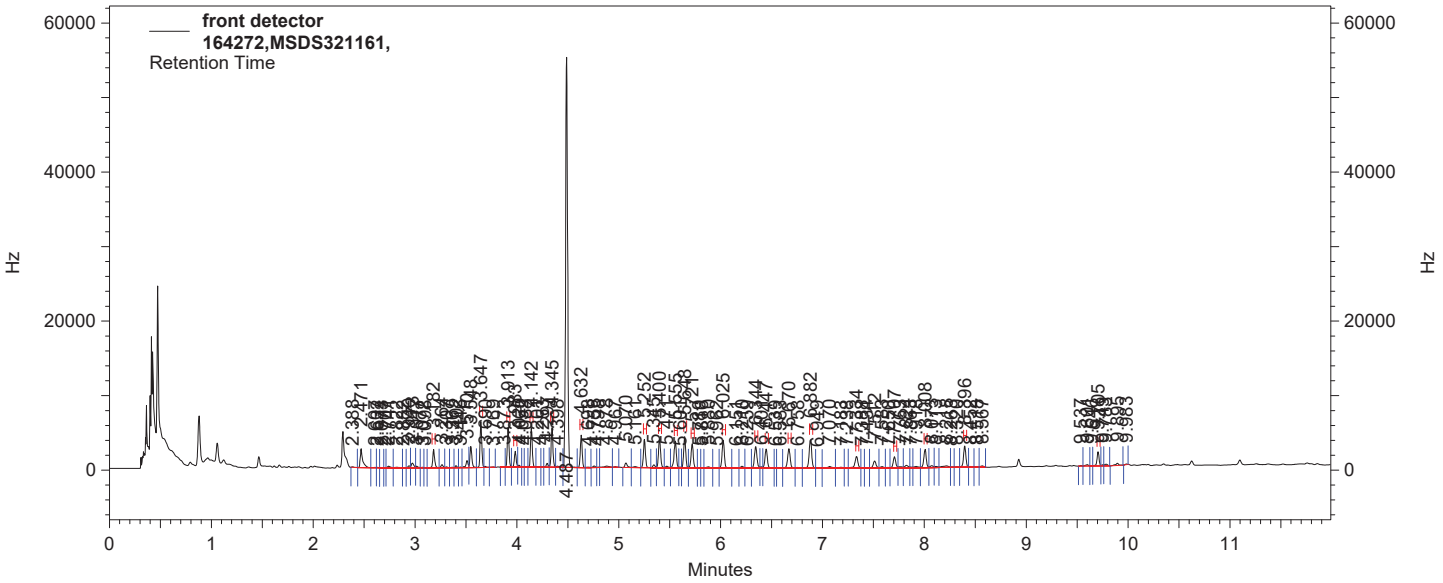
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.723	20090660	62.3087
ALPHABHC	4.326	45036477	0.0252
LINDANE	4.701	43411027	0.0273
BETABHC	4.772	18935264	0.0259
DELTABHC	5.126	45112288	0.0271
HEPTACHLOR	5.216	37560489	0.0250
ALDRIN	5.639	39398480	0.0272
HEPTAEPOX	6.447	35977204	0.0271
GAMMACHLOR	6.743	33472830	0.0248
ALPHACHLOR	6.984	34916815	0.0266
ENDOI	7.097	31736712	0.0258
44DDE	7.255	37996803	0.0299
DIELDRIN	7.572	37385757	0.0286
ENDRIN	8.067	28832331	0.0413
44DDD	8.202	27305624	0.0271
ENDOII	8.376	28806049	0.0266
44DDT	8.656	28704239	0.0300
ENDRINALDEH	8.842	20303719	0.0204
ENDOSULFATE	9.190	94208666	0.0899
METHOXYCL	9.547	13883373	0.0345
ENDRINKETONE	9.864	28722928	0.0224
SURRDCBPEST	11.424	17135702	73.7751

Pesticide Analysis Report *(Channel A)*

Data File: C:\Instarch\Semi1\data\091019pst\037.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,MSDS321161,
Acquired: 09/11/2019 01:08:02
Printed: 09/11/2019 08:56:27

Data Summary: {Data Description}



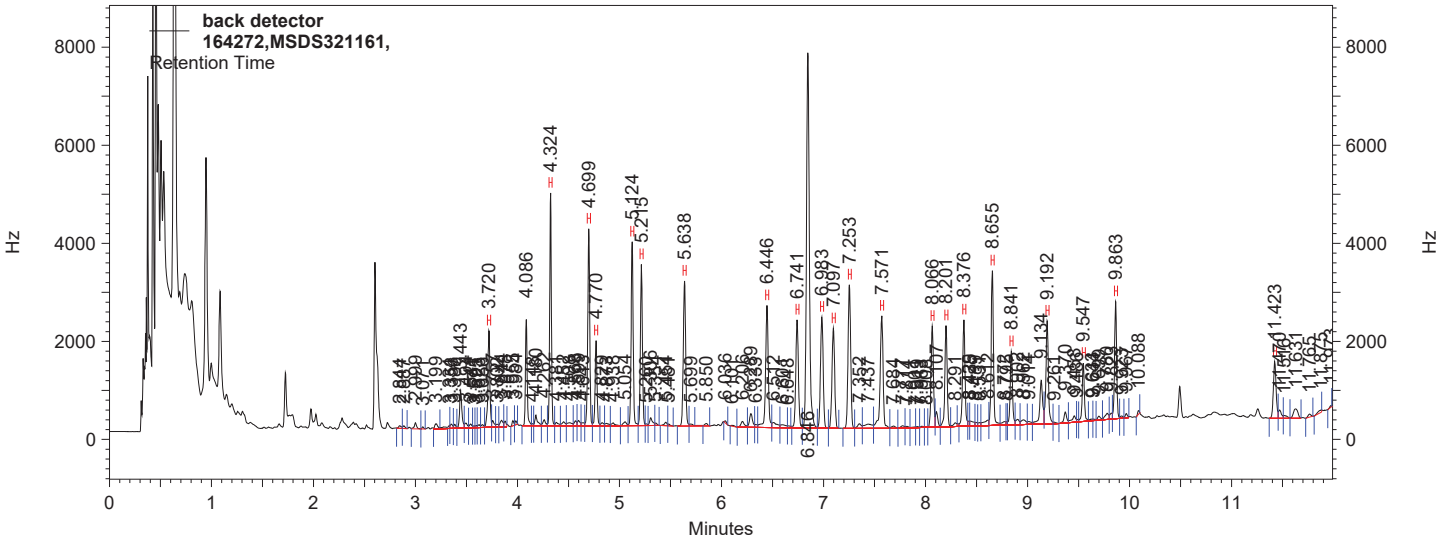
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.182	24785175	57.6020
ALPHABHC	3.647	54563317	0.0229
LINDANE	3.913	46825619	0.0238
BETABHC	3.983	20899332	0.0211
DELTABHC	4.142	49434592	0.0226
HEPTACHLOR	4.345	50885233	0.0238
ALDRIN	4.632	41400242	0.0214
HEPTAEPOX	5.252	40123008	0.0224
GAMMACHLOR	5.400	43098739	0.0231
ALPHACHLOR	5.555	43771194	0.0241
44DDE	5.648	45290257	0.0262
ENDOI	5.721	37123832	0.0212
DIELDRIN	6.025	43346843	0.0239
ENDRIN	6.344	37487471	0.0414
44DDD	6.447	32200154	0.0236
ENDOII	6.670	35393188	0.0234
44DDT	6.882	51153573	0.0358
ENDRINALDEH	7.334	23246471	0.0168
METHOXYCL	7.707	19301588	0.0296
ENDOSULFATE	8.008	31336865	0.0200
ENDRINKETONE	8.396	35481407	0.0188
SURRDCBPEST	9.705	20516252	59.7284

Pesticide Analysis Report *(Channel B)*

Data File: C:\Instarch\Semi1\data\091019pst\037.dat
Method: C:\Instarch\Semi1\Methods\Pest\090519pstic\091019pst.met
User: AJZ
Sample ID: 164272,MSDS321161,
Acquired: 09/11/2019 01:08:02
Printed: 09/11/2019 08:56:27

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPEST	3.720	20326648	63.0569
ALPHABHC	4.324	41672653	0.0233
LINDANE	4.699	41509420	0.0261
BETABHC	4.770	17513963	0.0239
DELTABHC	5.124	40284828	0.0242
HEPTACHLOR	5.215	34472466	0.0229
ALDRIN	5.638	36413245	0.0252
HEPTAEPOX	6.446	35659993	0.0268
GAMMACHLOR	6.741	30182635	0.0224
ALPHACHLOR	6.983	31618023	0.0240
ENDOI	7.097	28659912	0.0233
44DDE	7.253	40392946	0.0317
DIELDRIN	7.571	35505584	0.0271
ENDRIN	8.066	25547893	0.0368
44DDD	8.201	25198753	0.0250
ENDOII	8.376	27758705	0.0256
44DDT	8.655	37376043	0.0389
ENDRINALDEH	8.841	18391406	0.0184
ENDOSULFATE	9.192	27094402	0.0249
METHOXYCL	9.547	13604877	0.0338
ENDRINKETONE	9.863	26204099	0.0204
SURRDCBPEST	11.423	16574755	71.1700

PESTICIDE/HERBICIDE
LOGBOOK
DOCUMENTS

S PEST Analytical Run
164079 on 09/03/2019

AJZ
09/19/2019

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
147687	321513		08/27/2019 1400		HDR, INC	MEMPHIS DEPOT	PESTICIDES QSM 5		GW	4	
		GN-W-RB-01						73349			
	321841						PESTICIDES QSM 5				
				MBW				73349			
	321842						PESTICIDES QSM 5				
				LCSW				73349			
	321843						PESTICIDES QSM 5				
				LCSDW 321842				73349			

4 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

PREP WORKSHEET
on 09/03/2019

Prep Batch **73,349** Date Prepped: 09/03/2019 Prepped By MCM

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	321841	MBW		PESTICIDES QSM 5	LIQUID	10		1.00		
	321842	LCSW		PESTICIDES QSM 5	LIQUID	10		1.00		
	321843	LCSD	321842	PESTICIDES QSM 5	LIQUID	10		1.00		
147687	321513			PESTICIDES QSM 5	GROUND WATER	10		0.97	4	

Notes:_____

Pesticides/PCB Extraction Bench Sheet

(SOP Reference # SV002 & SV004)

3510=WATER
3545=PFE or 3546=Microwave >>
(PFE=Pressurized Fluid Extraction)

Prep Batch #:	73349
Prep Method:	3510/8081
Analyst:	MCM/JLH
Date:	09/03/2019
Start Time:	09:10
End Date:	09/03/2019
End Time:	13:10

Analysis Methods
8081 = Pesticides
8082 = PCBs

Matrix: WATER
Balance Used: NA
Ave MW Temp (°C): NA

Reagent Lots>>>

NA_2SO_4	MISC0635
Diatomaceous Earth	NA
Dionex Solution	NA
Methylene Chloride	DX213
Acetone	NA
Hexane	DT601
H_2SO_4	NA

Concentration By: MCM
Concentration Date: 09/03/2019

Microwave Cell #	Sample ID	Comments	(Solids) Sample Weight (g)	(Liquids) Sample Volume (L)	Final Volume (ml)	pH Adj. 5-9 (Yes/No)
	321841	MB		1.00	10	Y
	321842	LCS		1.00	10	Y
	321843			1.00	10	Y
	321513			0.97	10	Y
	T/C LCS			1.00	10	Y
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
		(MS) Parent Sample			10	
		(MSD)			10	

MB=Method Blank, LCS=Laboratory Control Sample, MS=Matrix Spike, MSD=Matrix Spike Duplicate, Tox=Toxaphene & Chlor=Technical chlordane

MS/MSD/ LCS Spike Amount (ml): 0.5
Spike Concentration (ug/mL): 0.8
Spike Reference #: PP6062

Surrogate Spike Amount (ml): 0.5
Surrogate Spike Conc. (ug/mL): 0.5
Surrogate Spike Reference #: PP6007

Tox/Chlor Spike Amount (ml): 0.5
Tox/Chlor Spike Conc. (ug/mL): 5

Tox/Chlor Spike Reference: PP5900

Relinquished to: AJZ
Date: 09/03/2019

Reviewed By: AJZ
Date: 09/03/2019

Semi-Volatiles Sample Cleanup Record Sheet

FSV14-02, FSV25-01, FSV26-01, FSV28-01

Prep Batch Number(s): 73349

GPC

Cleanup Performed (Y/N):	N
Date:	
Time:	
Analyst Initials:	
$MeCl_2$ Lot:	

Florisil

Cleanup Performed (Y/N):	N
Date:	
Time:	
Analyst Initials:	
Cartridge I.D. Number:	
Hexane Lot:	
Acetone Lot:	

Acid

Cleanup Performed (Y/N):	N
Date:	
Time:	
Analyst Initials:	
H_2SO_4 Lot:	
Number of treatments:	

Sulfur

Cleanup Performed (Y/N):	Y
Date:	09/03/2019
Time:	15:00
Analyst Initials:	AJZ
Copper Lot:	910140-BI

Comments:

8081 Pesticide Analysis Data Review Checklist

Analytical Run #: 164079	**Independent Reviewer: JJY**
Sequence Date: 09/05/2019	**Date of Review: 09/06/2019**
Analyst/Data Interpreter: AJZ	**Approval: Yes**

Instructions: Complete one checklist per *analytical run* . Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirements:	Acceptance Criteria	Analyst Review		Independent Review		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
1. INITIAL CALIBRATION (ICAL)						
a. Was the Pesticide initial calibration performed using a minimum of five varying standard concentration levels on two dissimilar columns?	Lowest standard at or near MRL	X		X		
b. Was there initial calibration performed using a minimum of five varying standard concentration levels for Toxaphene and tech-Chlordane.		X		X		
c. Is the variation between calibration response factors for all concentration levels <20% RSD, is r >.995, or r^2 > 0.990 for the regression line	RSD<20%, r^2>0.990, or r>0.990	X		X		
d. Was each ICAL uniquely identified (i.e. Standard Number)?		X		X		
e. Was an initial calibration blank (ICB) analyzed?		X		X		
f. Was there an Evaluation standard injected prior to initial calibration?	Breakdown ≤15%	X		X		
2. INITIAL CALIBRATION VERIFICATION (ICV)						
a. Were there a second source ICVs for all target analytes analyzed after the initial calibration and prior to analysis of any samples?		X		X		
b. Were the recoveries for the ICVs within program limits?	Second source	X		X		
c. Was the ICVs uniquely identified (i.e. Standard Number)?	%Recovery	X		X		
3. CONTINUING CALIBRATION VERIFICATION (CCV)						
a. Were CCVs analyzed at the beginning of the sequence, after every 12 hours or every 20 samples (which ever comes first) and at the end of the analytical run.		X		X		
b. Were there a CCV for Toxaphene and tech-Chlordane at the beginning or at the end of the analytical sequence?		X		X		
c. Were the recoveries for the CCVs within program limits?		X		X		
d. Was each CCV uniquely identified (i.e. Standard Number)?	%Recovery	X		X		

Additional Comments:

8081 Pesticide Analysis Data Review Checklist

Requirements:	Acceptance Criteria	Analyst		Independent		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
4. BLANKS						
a. Was method blank (MB) analyzed prior to the analysis of samples?		x		x		
b. Was the MB result less than ½ the reporting limit (RL) or 5% of the sample amount?	In-house limits or client specified limits	x		x		
c. Was a MB prepped and analyzed at a frequency of one per Prep Batch?	Batch <20 samples	x		x		
5. LABORATORY CONTROL SAMPLE (LCS)						
a. Was a LCS analyzed prior to the analysis of samples?		x		x		
b. Was there a Toxaphene and tech-Chlordane LCS preformed	Batch <20 samples	x		x		
c. Were the LCS recoveries in each LCS within the acceptance criteria?	In-house limits or client specified limits	x		x		
6. MATRIX SPIKES						
a. Was a matrix spiked (MS) sample analyzed at a frequency one per Prep Batch?	Batch <20 samples		x		x	LCS/LCSD
b. Were MS recoveries in each MS within the acceptance criteria?	In-house limits or client specified limits	na		na		
7. LABORATORY CONTROL SPIKE / MATRIX SPIKE DUPLICATE						
a. Was a duplicate matrix spike or laboratory control spike sample analyzed at a . frequency one per Prep Batch?	Batch <20 samples	x		x		LCS/LCSD
b. Were MSD or LCSD recoveries within the acceptance criteria?	In-house limits or client specified limits	x		x		
c. Is the relative percent difference (RPD) between a matrix spike (MS) and its' duplicate (MSD) or laboratory control spike (LCS) and its' duplicate (LCSD) within the acceptance criteria?	In-house limits or client specified limits	x		x		

Additional Comments:

8081 Pesticide Analysis Data Review Checklist

Requirements:	Acceptance Criteria	Analyst		Independent		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
8. SAMPLES (INCLUDING BLANKS, STANDARDS, AND QC SAMPLES)						
a. Are chromatogram characteristics, including peak shapes and areas, consistent with those of the CCV?		X		X		
b. Are surrogate recoveries for all samples, blanks, standards, and QC samples within acceptance criteria?		X		X		
c. Were all samples having analytes detected in amounts exceeding the calibration range diluted and reanalyzed?		X		X		
d. Were all pH checks and adjustments recorded on the sample prep bench sheet?		X		X		
e. Were all samples extracted within holding times and analyzed within 40 days of extracting?	Analysis within 40 days of extraction	X		X		
f. Did the samples require additional cleanup steps? (i.e. florisil, GPC, and sulfur treatment)	Florisil, GPC, and/or Sulfur Treatments	X		X		Sulfur
g. Was there a hexane injection performed prior to sample analysis?		X		X		
h. Was there a priming standard injected prior to sample analysis?		X		X		
i. Was there an Eval standard injected prior to sample analysis and every twelve hours?	Breakdown ≤15%	X		X		
9. RECORDS AND REPORTING						
a. Is the Analytical Run, Prep Batch and Extraction sheets, Summary sheets, Sequence file, analytical data, and method transferred to PDF format?		X		X		
b. Are reported results whose amounts exceeded the acceptance criteria flagged with an appropriate qualifier in LIMS and, if needed, a NCR completed?		X		X		
c. Do all values, dilution factors and qualifiers listed on the raw reports match the LIMS data?		X		X		

Additional Comments:

S PEST Analytical Run
164272 on 09/09/2019

AJZ
09/19/2019

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
147664	321149	GN-SO-01-1	08/26/2019 1023		HDR, INC	MEMPHIS DEPOT	PESTICIDES QSM 5	73335	S	4	
147664	321154	GN-SO-01-2	08/26/2019 1115		HDR, INC	MEMPHIS DEPOT	PESTICIDES QSM 5	73335	S	4	
147664	321155	GN-SO-02-1	08/26/2019 1130		HDR, INC	MEMPHIS DEPOT	PESTICIDES QSM 5	73335	S	4	
147664	321157	GN-SO-DUP-1	08/26/2019 1100		HDR, INC	MEMPHIS DEPOT	PESTICIDES QSM 5	73335	S	4	
147664	321158	GN-SO-02-2	08/26/2019 1153		HDR, INC	MEMPHIS DEPOT	PESTICIDES QSM 5	73335	S	4	
147664	321159	GNSO-03-1	08/26/2019 1320		HDR, INC	MEMPHIS DEPOT	PESTICIDES QSM 5	73335	S	4	
147664	321160	GN-SO-03-2	08/26/2019 1334		HDR, INC	MEMPHIS DEPOT	PESTICIDES QSM 5	73335	S	4	
147664	321161	GN-SO-04-1	08/26/2019 1348	Designated MS/MSD	HDR, INC	MEMPHIS DEPOT	PESTICIDES QSM 5	73335	S	4	
147664	321162	GN-SO-04-2	08/26/2019 1400		HDR, INC	MEMPHIS DEPOT	PESTICIDES QSM 5	73335	S	4	
147664	321163	GN-SO-05-1	08/26/2019 1410		HDR, INC	MEMPHIS DEPOT	PESTICIDES QSM 5	73335	S	4	
147664	321164	GN-SO-05-2	08/26/2019 1428		HDR, INC	MEMPHIS DEPOT	PESTICIDES QSM 5	73335	S	4	
147664	321165	GN-SO-DUP-2	08/26/2019 1422		HDR, INC	MEMPHIS DEPOT	PESTICIDES QSM 5	73335	S	4	
147664	321166	GN-SO-06-1	08/26/2019 1442		HDR, INC	MEMPHIS DEPOT	PESTICIDES QSM 5	73335	S	4	
147664	321167	GN-SO-06-2	08/26/2019 1505		HDR, INC	MEMPHIS DEPOT	PESTICIDES QSM 5	73335	S	4	
147664	321168	GN-SO-07-1	08/26/2019 1513		HDR, INC	MEMPHIS DEPOT	PESTICIDES QSM 5	73335	S	4	
147664	321169	GN-SO-07-2	08/26/2019 1528		HDR, INC	MEMPHIS DEPOT	PESTICIDES QSM 5	73335	S	4	
147664	321170	GN-SO-08-1	08/26/2019 1539		HDR, INC	MEMPHIS DEPOT	PESTICIDES QSM 5	73335	S	4	
147664	321171	GN-SO-08-2	08/26/2019 1550		HDR, INC	MEMPHIS DEPOT	PESTICIDES QSM 5	73335	S	4	
147664	321172	GN-SO-09C-1	08/26/2019 1601		HDR, INC	MEMPHIS DEPOT	PESTICIDES QSM 5	73335	S	4	

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Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

S PEST Analytical Run
164272 on 09/09/2019

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	321454								PESTICIDES QSM 5				
					MBS					73335			
	321455								PESTICIDES QSM 5				
					LCSS					73335			
	321457		08/26/2019	1348					PESTICIDES QSM 5				
		GN-SO-04-1			MSS	321161				73335			
	321458		08/26/2019	1348					PESTICIDES QSM 5				
		GN-SO-04-1			MSDS	321457				73335			

23 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

PREP WORKSHEET
on 09/09/2019

Prep Batch **73,335** Date Prepped: 09/04/2019 Prepped By JLH

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	321454	MBS		PESTICIDES QSM 5	SOLID	10	10.00			
	321455	LCSS		PESTICIDES QSM 5	SOLID	10	10.00			
147664	321149			PESTICIDES QSM 5	SOIL	10	10.07		4	
	321154			PESTICIDES QSM 5	SOIL	10	10.13		4	
	321155			PESTICIDES QSM 5	SOIL	10	10.82		4	
	321157			PESTICIDES QSM 5	SOIL	10	10.07		4	
	321158			PESTICIDES QSM 5	SOIL	10	10.53		4	
	321159			PESTICIDES QSM 5	SOIL	10	10.00		4	
	321160			PESTICIDES QSM 5	SOIL	10	10.09		4	
	321161	sample designated for QC		PESTICIDES QSM 5	SOIL	10	10.35		4	
	321162			PESTICIDES QSM 5	SOIL	10	10.76		4	
	321163			PESTICIDES QSM 5	SOIL	10	10.09		4	
	321164			PESTICIDES QSM 5	SOIL	10	10.21		4	
	321165			PESTICIDES QSM 5	SOIL	10	10.23		4	
	321166			PESTICIDES QSM 5	SOIL	10	10.49		4	
	321167			PESTICIDES QSM 5	SOIL	10	10.81		4	
	321168			PESTICIDES QSM 5	SOIL	10	10.11		4	
	321169			PESTICIDES QSM 5	SOIL	10	10.29		4	
	321170			PESTICIDES QSM 5	SOIL	10	10.04		4	
	321171			PESTICIDES QSM 5	SOIL	10	10.38		4	
	321172			PESTICIDES QSM 5	SOIL	10	10.19		4	
	321457	MSS	321161	PESTICIDES QSM 5	SOIL	10	10.18			
	321458	MSDS	321457	PESTICIDES QSM 5	SOIL	10	10.52			

Notes:_____

Pesticides/PCB Extraction Bench Sheet

(SOP Reference # SV002 & SV004)

3510=WATER
3545=PFE or 3546=Microwave >>
(PFE=Pressurized Fluid Extraction)

Prep Batch #:	73335
Prep Method:	3546/8081
Analyst:	JLH/MCM
Date:	09/04/2019
Start Time:	08:40
End Date:	09/09/2019
End Time:	15:45

Analysis Methods
8081 = Pesticides
8082 = PCBs

Matrix: SOIL
Balance Used: SVB02
Ave MW Temp (°C): 110.0

Reagent Lots>>>

NA_2SO_4	MISC0635
Diatomaceous Earth	S4131
Dionex Solution	MISC0667A
Methylene Chloride	DX213
Acetone	NA
Hexane	DT601
H_2SO_4	NA

Concentration By: AJZ

Concentration Date: 09/09/2019

Microwave Cell #	Sample ID	Comments	(Solids) Sample Weight (g)	(Liquids) Sample Volume (L)	Final Volume (ml)	pH Adj. 5-9 (Yes/No)
A	321454	MB	10.00		10	
B	321455	LCS	10.00		10	
C	321149		10.07		10	
D	321154		10.13		10	
E	321155		10.82		10	
F	321157		10.07		10	
G	321158		10.53		10	
H	321159		10.00		10	
I	321160		10.09		10	
J	321161		10.35		10	
K	321162		10.76		10	
L	321163		10.09		10	
M	321164		10.21		10	
N	321165		10.23		10	
O	321166		10.49		10	
P	321167		10.81		10	
Q	321168		10.11		10	
R	321169		10.29		10	
S	321170		10.04		10	
T	321171		10.38		10	
U	321172		10.19		10	
X	T/C LCSS		10.00		10	
V	321457	(MS) Parent Sample	10.18		10	
W	321458	(MSD) 321161	10.52		10	

MB=Method Blank, LCS=Laboratory Control Sample, MS=Matrix Spike, MSD=Matrix Spike Duplicate, Tox=Toxaphene & Chlor=Technical chlordane

MS/MSD/ LCS Spike Amount (ml): 0.5
Spike Concentration (ug/mL): 0.8
Spike Reference #: PP6062

Surrogate Spike Amount (ml): 0.5
Surrogate Spike Conc. (ug/mL): 0.5
Surrogate Spike Reference #: PP6007

Tox/Chlor Spike Amount (ml): 0.5
Tox/Chlor Spike Conc. (ug/mL): 5

Tox/Chlor Spike Reference: PP5900

Relinquished to: AJZ
Date: 09/09/2019

Reviewed By: JJY
Date: 09/09/2019

Semi-Volatiles Sample Cleanup Record Sheet

FSV14-02, FSV25-01, FSV26-01, FSV28-01

Prep Batch Number(s): 73335

GPC

Cleanup Performed (Y/N):	Y
Date:	09 06 2019
Time:	9:13
Analyst Initials:	JLH
$MeCl_2$ Lot:	DX213

Florisil

Cleanup Performed (Y/N):	Y
Date:	09 10 2019
Time:	9:00
Analyst Initials:	AJZ
Cartridge I.D. Number:	S4108
Hexane Lot:	DT601
Acetone Lot:	DR774

Acid

Cleanup Performed (Y/N):	N
Date:	
Time:	
Analyst Initials:	
H_2SO_4 Lot:	
Number of treatments:	

Sulfur

Cleanup Performed (Y/N):	Y
Date:	09 10 2019
Time:	12:00
Analyst Initials:	AJZ
Copper Lot:	910140-BI

Comments:

8081 Pesticide Analysis Data Review Checklist

Analytical Run #: 164272	**Independent Reviewer: JJY**
Sequence Date: 09/10/2019 09/11/2019	**Date of Review: 09/12/2019**
Analyst/Data Interpreter: AJZ	**Approval: Yes**

Instructions: Complete one checklist per *analytical run* . Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirements:	Acceptance Criteria	Analyst Review		Independent Review		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
1. INITIAL CALIBRATION (ICAL)						
a. Was the Pesticide initial calibration performed using a minimum of five varying standard concentration levels on two dissimilar columns?	Lowest standard at or near MRL	X		X		
b. Was there initial calibration performed using a minimum of five varying standard concentration levels for Toxaphene and tech-Chlordane.		X		X		
c. Is the variation between calibration response factors for all concentration levels <20% RSD, is r >.995, or r^2 > 0.990 for the regression line	RSD<20%, r^2>0.990, or r>0.990	X		X		
d. Was each ICAL uniquely identified (i.e. Standard Number)?		X		X		
e. Was an initial calibration blank (ICB) analyzed?		X		X		
f. Was there an Evaluation standard injected prior to initial calibration?	Breakdown ≤15%	X		X		
2. INITIAL CALIBRATION VERIFICATION (ICV)						
a. Were there a second source ICVs for all target analytes analyzed after the initial calibration and prior to analysis of any samples?		X		X		
b. Were the recoveries for the ICVs within program limits?	Second source	X		X		
c. Was the ICVs uniquely identified (i.e. Standard Number)?	%Recovery	X		X		
3. CONTINUING CALIBRATION VERIFICATION (CCV)						
a. Were CCVs analyzed at the beginning of the sequence, after every 12 hours or every 20 samples (which ever comes first) and at the end of the analytical run.		X		X		
b. Were there a CCV for Toxaphene and tech-Chlordane at the beginning or at the end of the analytical sequence?		X		X		
c. Were the recoveries for the CCVs within program limits?		X		X		
d. Was each CCV uniquely identified (i.e. Standard Number)?	%Recovery	X		X		

Additional Comments:

8081 Pesticide Analysis Data Review Checklist

Requirements:	Acceptance Criteria	Analyst		Independent		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
4. BLANKS						
a. Was method blank (MB) analyzed prior to the analysis of samples?		X		X		
b. Was the MB result less than ½ the reporting limit (RL) or 5% of the sample amount?	In-house limits or client specified limits	X		X		
c. Was a MB prepped and analyzed at a frequency of one per Prep Batch?	Batch <20 samples	X		X		
5. LABORATORY CONTROL SAMPLE (LCS)						
a. Was a LCS analyzed prior to the analysis of samples?		X		X		
b. Was there a Toxaphene and tech-Chlordane LCS preformed	Batch <20 samples	X		X		
c. Were the LCS recoveries in each LCS within the acceptance criteria?	In-house limits or client specified limits	X		X		
6. MATRIX SPIKES						
a. Was a matrix spiked (MS) sample analyzed at a frequency one per Prep Batch?	Batch <20 samples	X		X		
b. Were MS recoveries in each MS within the acceptance criteria?	In-house limits or client specified limits		X		X	See below
7. LABORATORY CONTROL SPIKE / MATRIX SPIKE DUPLICATE						
a. Was a duplicate matrix spike or laboratory control spike sample analyzed at a . frequency one per Prep Batch?	Batch <20 samples	X		X		
b. Were MSD or LCSD recoveries within the acceptance criteria?	In-house limits or client specified limits		X		X	
c. Is the relative percent difference (RPD) between a matrix spike (MS) and its' duplicate (MSD) or laboratory control spike (LCS) and its' duplicate (LCSD) within the acceptance criteria?	In-house limits or client specified limits	X		X		

Additional Comments:

The MS and MSD had failures for low recovery of multiple analytes. The failing analytes were 4,4-DDE, Endosulfan sulfate, Endrin keytone and Gamma chlordane.

The MS and MSD were reported and failing analytes were qualified with an "M" flag in the parent sample #321161.

8081 Pesticide Analysis Data Review Checklist

Requirements:	Acceptance Criteria	Analyst		Independent		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
8. SAMPLES (INCLUDING BLANKS, STANDARDS, AND QC SAMPLES)						
a. Are chromatogram characteristics, including peak shapes and areas, consistent with those of the CCV?		X				
b. Are surrogate recoveries for all samples, blanks, standards, and QC samples within acceptance criteria?		X				See below
c. Were all samples having analytes detected in amounts exceeding the calibration range diluted and reanalyzed?		X				
d. Were all pH checks and adjustments recorded on the sample prep bench sheet?		X				
e. Were all samples extracted within holding times and analyzed within 40 days of extracting?	Analysis within 40 days of extraction	X				
f. Did the samples require additional cleanup steps? (i.e. florisil, GPC, and sulfur treatment)	Florisil, GPC, and/or Sulfur Treatments	X				GPC, Florisil and Sulfur
g. Was there a hexane injection performed prior to sample analysis?		X				
h. Was there a priming standard injected prior to sample analysis?		X				
i. Was there an Eval standard injected prior to sample analysis and every twelve hours?	Breakdown ≤15%	X				
9. RECORDS AND REPORTING						
a. Is the Analytical Run, Prep Batch and Extraction sheets, Summary sheets, Sequence file, analytical data, and method transferred to PDF format?		X				
b. Are reported results whose amounts exceeded the acceptance criteria flagged with an appropriate qualifier in LIMS and, if needed, a NCR completed?		X				
c. Do all values, dilution factors and qualifiers listed on the raw reports match the LIMS data?		X				

Additional Comments:

All surrogates passed on channel A and were reported.
Sample #s 321157 and 321171 had a large peak co-elute with DCB on channel B causing the detect to be high.
The results were reported from channel A and no qualifiers were used.

Summary Report

AJZ
09/19/2019

Instrument I... **Semi 1 (Offline)**
Data Path: **C:\Instarch\Semi1\Sequence\090519pstic.seq**
User ID: **AJZ**
Printed Date: **Sep 05, 2019 15:36:05**

Run Number	Sample ID	Data Filename	Method Filename	Analysis Date	Data Description
1	EVAL PP5902	001.dat	eval.met	Sep 05, 2019 15:22:55	
2	TC PRIME PP5906 1:10	002.dat	090519tcic.met	Sep 05, 2019 15:39:01	
3	Hex	003.dat	090519pstic.met	Sep 05, 2019 15:55:11	
4	TC ICAL 1 PP5916	004.dat	090519tcic.met	Sep 05, 2019 16:11:20	
5	TC ICAL 2 PP5917	005.dat	090519tcic.met	Sep 05, 2019 16:27:31	
6	TC ICAL 3 PP5918	006.dat	090519tcic.met	Sep 05, 2019 16:43:45	
7	TC ICAL 4 PP5919	007.dat	090519tcic.met	Sep 05, 2019 16:59:58	
8	TC ICAL 5 PP5920	008.dat	090519tcic.met	Sep 05, 2019 17:16:10	
9	TC ICAL 6 PP5921	009.dat	090519tcic.met	Sep 05, 2019 17:32:26	
10	TC ICV PP5922	010.dat	090519tcic.met	Sep 05, 2019 17:48:39	
11	PEST PRIME PP5904 1:20	011.dat	090519pstic.met	Sep 05, 2019 18:04:57	
12	Hex	012.dat	090519pstic.met	Sep 05, 2019 18:21:11	
13	PEST ICAL 1 PP5907	013.dat	090519pstic.met	Sep 05, 2019 18:37:28	
14	PEST ICAL 2 PP5908	014.dat	090519pstic.met	Sep 05, 2019 18:53:50	
15	PEST ICAL 3 PP5909	015.dat	090519pstic.met	Sep 05, 2019 19:10:06	
16	PEST ICAL 4 PP5910	016.dat	090519pstic.met	Sep 05, 2019 19:26:17	
17	PEST ICAL 5 PP5911	017.dat	090519pstic.met	Sep 05, 2019 19:42:27	
18	PEST ICAL 6 PP5912	018.dat	090519pstic.met	Sep 05, 2019 19:58:37	
19	PEST ICAL 7 PP5913	019.dat	090519pstic.met	Sep 05, 2019 20:14:47	
20	PEST ICV 1 PP5914	020.dat	090519pstic.met	Sep 05, 2019 20:31:01	
21	PEST ICV 2 PP5915	021.dat	090519pstic.met	Sep 05, 2019 20:47:12	
22	PEST CCV PP5923	022.dat	090519pstic.met	Sep 05, 2019 21:03:24	
23	TC CCV PP5924	023.dat	090519tcic.met	Sep 05, 2019 21:19:36	
24	Hex	024.dat	090519pstic.met	Sep 05, 2019 21:35:49	
25	164079,MBW,	025.dat	090519pstic.met	Sep 05, 2019 21:52:05	
26	164079,LCSW,	026.dat	090519pstic.met	Sep 05, 2019 22:08:22	
27	164079,TC LCSW,	027.dat	090519tcic.met	Sep 05, 2019 22:24:38	
28	Hex	028.dat	090519pstic.met	Sep 05, 2019 22:40:53	
29	164079,321513,	029.dat	090519pstic.met	Sep 05, 2019 22:57:11	
30	164079,LCSDW,	030.dat	090519pstic.met	Sep 05, 2019 23:13:28	
31	PEST CCV PP5923	031.dat	090519pstic.met	Sep 05, 2019 23:29:40	
32	TC CCV PP5924	032.dat	090519tcic.met	Sep 05, 2019 23:45:48	
33	Hex	033.dat	090519pstic.met	Sep 06, 2019 00:02:00	

Summary Report

Instrument I... **Semi 1 (Offline)**
Data Path: **C:\Instarch\Semi1\Sequence\091019pst.seq**
User ID: **AJZ**
Printed Date: **09/11/2019 15:51:18**

AJZ
09/19/2019

Run Number	Sample ID	Data Filename	Method Filename	Analysis Date	Data Description
1	EVAL PP5902	001.dat	eval.met	09/10/2019 15:22:27	
2	PEST PRIME PP5904 1:20	002.dat	091019pst.met	09/10/2019 15:38:33	
3	Hex	003.dat	091019pst.met	09/10/2019 15:54:41	
4	PEST CCV PP5923	004.dat	091019pst.met	09/10/2019 16:12:17	
5	TC CCV PP5924	005.dat	091019tc.met	09/10/2019 16:28:27	M.I. Index Reason #2 AJ...
6	Hex	006.dat	091019pst.met	09/10/2019 16:44:42	
7	164272,MBS,	007.dat	091019pst.met	09/10/2019 17:00:53	
8	164272,LCSS,	008.dat	091019pst.met	09/10/2019 17:17:05	
9	164272,TC LCSS,	009.dat	091019tc.met	09/10/2019 17:33:22	
10	Hex	010.dat	091019pst.met	09/10/2019 17:49:38	
11	164272,321149,	011.dat	091019pst.met	09/10/2019 18:05:54	
12	164272,321154,	012.dat	091019pst.met	09/10/2019 18:22:12	
13	164272,321155,	013.dat	091019pst.met	09/10/2019 18:38:30	
14	164272,321158,	014.dat	091019pst.met	09/10/2019 18:54:52	
15	164272,321159,	015.dat	091019pst.met	09/10/2019 19:11:11	
16	PEST CCV PP5923	016.dat	091019pst.met	09/10/2019 19:27:20	
17	TC CCV PP5924	017.dat	091019tc.met	09/10/2019 19:43:31	
18	Hex	018.dat	091019pst.met	09/10/2019 19:59:42	
19	164272,321160,	019.dat	091019pst.met	09/10/2019 20:15:53	
20	164272,321162,	020.dat	091019pst.met	09/10/2019 20:32:04	
21	164272,321164,	021.dat	091019pst.met	09/10/2019 20:48:16	
22	164272,321165,	022.dat	091019pst.met	09/10/2019 21:04:30	
23	164272,321167,	023.dat	091019pst.met	09/10/2019 21:20:44	
24	164272,321169,	024.dat	091019pst.met	09/10/2019 21:37:01	
25	164272,321170,	025.dat	091019pst.met	09/10/2019 21:53:15	
26	164272,321171,	026.dat	091019pst.met	09/10/2019 22:09:31	
27	164272,321172,	027.dat	091019pst.met	09/10/2019 22:25:49	
28	PEST CCV PP5923	028.dat	091019pst.met	09/10/2019 22:42:06	
29	TC CCV PP5924	029.dat	091019tc.met	09/10/2019 22:58:22	
30	Hex	030.dat	091019pst.met	09/10/2019 23:14:42	
31	164272,321157,	031.dat	091019pst.met	09/10/2019 23:30:52	
32	164272,321161,	032.dat	091019pst.met	09/10/2019 23:47:01	
33	164272,321163,	033.dat	091019pst.met	09/11/2019 00:03:14	
34	164272,321166,	034.dat	091019pst.met	09/11/2019 00:19:25	
35	164272,321168,	035.dat	091019pst.met	09/11/2019 00:35:36	
36	164272,MSS321161,	036.dat	091019pst.met	09/11/2019 00:51:50	M.I. Index Reason #2 AJ...
37	164272,MSDS321161,	037.dat	091019pst.met	09/11/2019 01:08:02	
38	PEST CCV PP5923	038.dat	091019pst.met	09/11/2019 01:24:16	M.I. Index Reason #4 AJ...
39	TC CCV PP5924	039.dat	091019tc.met	09/11/2019 01:40:32	
40	Hex	040.dat	091019pst.met	09/11/2019 01:56:46	

Summary Report

AJZ
09/19/2019

Instrument I... **Semi 1 (Offline)**
Data Path: **C:\Instarch\Semi1\Sequence\091119pst.seq**
User ID: **AJZ**
Printed Date: **Sep 11, 2019 17:04:03**

Run Number	Sample ID	Data Filename	Method Filename	Analysis Date	Data Description
1	EVAL PP5902	001.dat	eval.met	Sep 11, 2019 09:47:38	
2	PEST PRIME PP5904 1:20	002.dat	091119pst.met	Sep 11, 2019 10:03:44	
3	Hex	003.dat	091119pst.met	Sep 11, 2019 10:19:55	
4	PEST CCV PP5923	004.dat	091119pst.met	Sep 11, 2019 10:36:04	
5	TC CCV PP5924	005.dat	091119tc.met	Sep 11, 2019 10:52:18	
6	Hex	006.dat	091119pst.met	Sep 11, 2019 11:08:32	
7	164272,321155,5	007.dat	091119pst.met	Sep 11, 2019 11:24:43	
8	164272,321171,	008.dat	091119pst.met	Sep 11, 2019 11:40:58	
9	164272,321172,10	009.dat	091119pst.met	Sep 11, 2019 11:57:17	
10	164272,321157,20	010.dat	091119pst.met	Sep 11, 2019 12:13:32	
11	164272,321161,	011.dat	091119pst.met	Sep 11, 2019 12:29:48	
12	Hex	012.dat	091119pst.met	Sep 11, 2019 12:46:06	
13	PEST CCV PP5923	013.dat	091119pst.met	Sep 11, 2019 13:02:27	
14	TC CCV PP5924	014.dat	091119tc.met	Sep 11, 2019 13:18:45	
15	Hex	015.dat	091119pst.met	Sep 11, 2019 16:15:38	
16	164272,321157,50	016.dat	091119pst.met	Sep 11, 2019 16:31:43	
17	PEST CCV PP5923	017.dat	091119pst.met	Sep 11, 2019 16:47:55	

PEST-PCB-LOGBOOK-02

SV Prep Logbook

Logbook created: 09/21/17

NOTEBOOK VIEW: LTN_PEST_PCB_LOGBOOK_02_Default, NOTEBOOK: PEST_PCB_LOGBOOK_02, PAGE: 44

Page is Unlocked

Page is not Witnessed

Project: Unassigned

Page Title: 032919

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5900	Tox/Chlor Spike	Acetone ChemPure Lot DR774	AJZ	03/29/2019	09/24/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3937	1000	ug/mL	0.250	50.0	5.0
S3938	1000	ug/mL	0.250	50.0	5.0

1

CT Laboratories, LLC

PEST-PCB-LOGBOOK-02
SV Prep Logbook
Logbook created: 09/21/17
NOTEBOOK VIEW: LTN_PEST_PCB_LOGBOOK_02_Default, NOTEBOOK: PEST_PCB_LOGBOOK_02, PAGE: 45
Page is Unlocked
Page is not Witnessed
Project: Unassigned
Page Title: 040219

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5901	Pest ICV Intermediate Std	Hexane ChemPure Lot DS721	AJZ	04/02/2019	09/24/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3942	1000	ug/mL	0.200	1.000	200

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5902	Pest Eval Solution	Hexane ChemPure Lot DS721	AJZ	04/02/2019	09/24/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3941	200	ug/mL	0.010	50.0	0.040

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5903	Pest ICAL Stock	Hexane ChemPure Lot DS721	AJZ	04/02/2019	09/24/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3936	200	ug/mL	0.100	10.0	2.00
S3882B	200	ug/mL	0.0625	10.0	1.25

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5904	Pest ICV Stock	Hexane ChemPure Lot DS721	AJZ	04/02/2019	09/24/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
PP5901	200	ug/mL	0.100	10.0	2.00
S3882B	200	ug/mL	0.0625	10.0	1.25

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5905	Tox/Chlor Stock	Hexane ChemPure Lot DS721	AJZ	04/02/2019	09/24/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3937	1000	ug/mL	0.100	10.0	10.0
S3938	1000	ug/mL	0.100	10.0	10.0
S3882B	200	ug/mL	0.030	10.0	0.60

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5906	Tox/Chlor ICV Stock	Hexane ChemPure Lot DS721	AJZ	04/02/2019	09/24/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3943	1000	ug/mL	0.100	10.0	10.0
S3944	1000	ug/mL	0.100	10.0	10.0
S3882B	200	ug/mL	0.030	10.0	0.60

	Initial Calibration	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
	Pest Tox/Chlor ICAL	Hexane ChemPure Lot DS721	AJZ	04/02/2019	09/24/2019

Standard Number	Standard Description	Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
PP5907	PEST ICAL PT 1	PP5903	2.0	ug/ml	0.005	10.0	0.001
PP5908	PEST ICAL PT 2	PP5903	2.0	ug/ml	0.025	10.0	0.005
PP5909	PEST ICAL PT 3	PP5903	2.0	ug/ml	0.050	10.0	0.010
PP5910	PEST ICAL PT 4	PP5903	2.0	ug/ml	0.100	10.0	0.020
PP5911	PEST ICAL PT 5	PP5903	2.0	ug/ml	0.200	10.0	0.040
PP5912	PEST ICAL PT 6	PP5903	2.0	ug/ml	0.250	10.0	0.050
PP5913	PEST ICAL PT 7	PP5903	2.0	ug/ml	0.350	10.0	0.070
PP5914	PEST ICV	PP5904	2.0	ug/ml	0.100	10.0	0.020
PP5915	PEST ICV 2	PP5904	2.0	ug/ml	0.200	10.0	0.040
PP5916	TOX/CHLOR PT 1	PP5905	10.0	ug/ml	0.030	10.0	0.030
PP5917	TOX/CHLOR PT 2	PP5905	10.0	ug/ml	0.050	10.0	0.050
PP5918	TOX/CHLOR PT 3	PP5905	10.0	ug/ml	0.100	10.0	0.100
PP5919	TOX/CHLOR PT 4	PP5905	10.0	ug/ml	0.250	10.0	0.250
PP5920	TOX/CHLOR PT 5	PP5905	10.0	ug/ml	0.400	10.0	0.400
PP5921	TOX/CHLOR PT 6	PP5905	10.0	ug/ml	0.600	10.0	0.600
PP5922	TOX/CHLOR ICV	PP5906	10.0	ug/ml	0.250	10.0	0.250
PP5923	PEST CCV	PP5903	2.0	ug/ml	0.200	10.0	0.040
PP5924	TOX/CHLOR CCV	PP5905	10.0	ug/ml	0.250	10.0	0.250

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CT Laboratories, LLC

PEST-PCB-LOGBOOK-02
SV Prep Logbook
Logbook created: 09/21/17
NOTEBOOK VIEW: LTN_PEST_PCB_LOGBOOK_02_Default, NOTEBOOK: PEST_PCB_LOGBOOK_02, PAGE: 54
Page is Locked
Author: jyoder on: 7/19/2019 2:30:33 PM
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Project: Unassigned
Page Title: 071919

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Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6003	Velsicol Pesticide Spike	Acetone ChemPure Lot DR774	AJZ	07/12/2019	01/12/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4116	1000	ug/mL	0.040	50.0	0.80
S4117	1000	ug/mL	0.040	50.0	0.80
S4118	1000	ug/mL	0.040	50.0	0.80
S4119	1000	ug/mL	0.040	50.0	0.80
S4120	1000	ug/mL	0.040	50.0	0.80
S4121	1000	ug/mL	0.040	50.0	0.80

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6004	HBB Stock	Hexane ChemPure Lot DT601	AJZ	07/12/2019	01/12/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4129	2000	ug/mL	0.125	10.0	25

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6005	HBB/PBB Spike	Acetone ChemPure Lot DR774	AJZ	07/12/2019	01/12/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4128A	100	ug/mL	0.200	10.0	2.0
PP6004	25	ug/mL	0.200	10.0	0.5

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6006	Pest/PCB Surrogates	Acetone ChemPure Lot DR774	JJY	07/19/2019	01/19/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3940D	200	ug/mL	0.500	200	0.500

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6007	Pest/PCB Surrogates	Acetone ChemPure Lot DR774	JJY	07/19/2019	01/19/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3940D	200	ug/mL	0.250	100	0.500

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6008	Pest/PCB Surrogates	Acetone ChemPure Lot DR774	JJY	07/19/2019	01/19/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3940D	200	ug/mL	0.250	100	0.500

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CT Laboratories, LLC

PEST-PCB-LOGBOOK-02

SV Prep Logbook

Logbook created: 09/21/17

NOTEBOOK VIEW: LTN_PEST_PCB_LOGBOOK_02_Default, NOTEBOOK: PEST_PCB_LOGBOOK_02, PAGE: 57

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Author: azurfluh on: 8/14/2019 9:36:58 AM

Witness: jyoder on: 8/15/2019 1:13:02 PM

Project: Unassigned

Page Title: 081419

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6062	Pesticide Spike	Acetone ChemPure Lot DR774	AJZ	08/14/2019	02/14/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4114	200	ug/mL	0.200	50.0	0.80

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CT Laboratories, LLC

POLYCHLORINATED BIPHENYL QUALITY CONTROL SUMMARY DOCUMENTS

CT LABORATORIES
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PCB ORGANICS ANALYSIS

Sample Description

GN-SO-01-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.07 (g/L)	CTL Sample ID:	321149
% Solids:	95.2	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8082A	Analytical Prep Batch #	73337
Analytical Run #:	164273	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 11:37		
Cleanup Date/Time/Type:	, , ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	091019pcbic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	21	U	5.2	21	31	31
11104-28-2	Aroclor-1221	21	U	7.3	21	31	31
11141-16-5	Aroclor-1232	21	U	9.4	21	31	31
53469-21-9	Aroclor-1242	21	U	7.3	21	31	31
12672-29-6	Aroclor-1248	21	U	7.3	21	31	31
11097-69-1	Aroclor-1254	21	U	9.4	21	31	31
11096-82-5	Aroclor-1260	21	U	6.3	21	31	31
37324-23-5	Aroclor-1262	21	U	7.3	21	31	31
11100-14-4	Aroclor-1268	21	U	5.2	21	31	31

CT LABORATORIES
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PCB ORGANICS ANALYSIS

Sample Description

GN-SO-01-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.13 (g/L)	CTL Sample ID:	321154
% Solids:	93.2	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8082A	Analytical Prep Batch #	73337
Analytical Run #:	164273	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 11:59		
Cleanup Date/Time/Type:	, , ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	091019pcbic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	21	U	5.3	21	32	32
11104-28-2	Aroclor-1221	21	U	7.4	21	32	32
11141-16-5	Aroclor-1232	21	U	9.5	21	32	32
53469-21-9	Aroclor-1242	21	U	7.4	21	32	32
12672-29-6	Aroclor-1248	21	U	7.4	21	32	32
11097-69-1	Aroclor-1254	21	U	9.5	21	32	32
11096-82-5	Aroclor-1260	21	U	6.4	21	32	32
37324-23-5	Aroclor-1262	21	U	7.4	21	32	32
11100-14-4	Aroclor-1268	21	U	5.3	21	32	32

CT LABORATORIES
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PCB ORGANICS ANALYSIS

Sample Description

GN-SO-02-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.82 (g/L)	CTL Sample ID:	321155
% Solids:	97.2	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8082A	Analytical Prep Batch #	73337
Analytical Run #:	164273	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 12:20		
Cleanup Date/Time/Type:	, , ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	091019pcbic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	19	U	4.8	19	29	29
11104-28-2	Aroclor-1221	19	U	6.7	19	29	29
11141-16-5	Aroclor-1232	19	U	8.6	19	29	29
53469-21-9	Aroclor-1242	19	U	6.7	19	29	29
12672-29-6	Aroclor-1248	19	U	6.7	19	29	29
11097-69-1	Aroclor-1254	19	U	8.6	19	29	29
11096-82-5	Aroclor-1260	19	U	5.7	19	29	29
37324-23-5	Aroclor-1262	19	U	6.7	19	29	29
11100-14-4	Aroclor-1268	19	U	4.8	19	29	29

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PCB ORGANICS ANALYSIS

Sample Description

GN-SO-02-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.53 (g/L)	CTL Sample ID:	321158
% Solids:	89.9	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8082A	Analytical Prep Batch #	73337
Analytical Run #:	164273	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 14:48		
Cleanup Date/Time/Type:	, , ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	091019pcbic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	21	U	5.3	21	32	32
11104-28-2	Aroclor-1221	21	U	7.4	21	32	32
11141-16-5	Aroclor-1232	21	U	9.5	21	32	32
53469-21-9	Aroclor-1242	21	U	7.4	21	32	32
12672-29-6	Aroclor-1248	21	U	7.4	21	32	32
11097-69-1	Aroclor-1254	21	U	9.5	21	32	32
11096-82-5	Aroclor-1260	21	U	6.3	21	32	32
37324-23-5	Aroclor-1262	21	U	7.4	21	32	32
11100-14-4	Aroclor-1268	21	U	5.3	21	32	32

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PCB ORGANICS ANALYSIS

Sample Description

GNSO-03-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.00 (g/L)	CTL Sample ID:	321159
% Solids:	91.3	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8082A	Analytical Prep Batch #	73337
Analytical Run #:	164273	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 15:10		
Cleanup Date/Time/Type:	, , ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	091019pcbic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	22	U	5.5	22	33	33
11104-28-2	Aroclor-1221	22	U	7.7	22	33	33
11141-16-5	Aroclor-1232	22	U	9.9	22	33	33
53469-21-9	Aroclor-1242	22	U	7.7	22	33	33
12672-29-6	Aroclor-1248	22	U	7.7	22	33	33
11097-69-1	Aroclor-1254	22	U	9.9	22	33	33
11096-82-5	Aroclor-1260	22	U	6.6	22	33	33
37324-23-5	Aroclor-1262	22	U	7.7	22	33	33
11100-14-4	Aroclor-1268	22	U	5.5	22	33	33

CT LABORATORIES
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PCB ORGANICS ANALYSIS

Sample Description

GN-SO-03-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.09 (g/L)	CTL Sample ID:	321160
% Solids:	90.6	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8082A	Analytical Prep Batch #	73337
Analytical Run #:	164273	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 15:31		
Cleanup Date/Time/Type:	,	,	,
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	091019pcbic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	22	U	5.5	22	33	33
11104-28-2	Aroclor-1221	22	U	7.7	22	33	33
11141-16-5	Aroclor-1232	22	U	9.8	22	33	33
53469-21-9	Aroclor-1242	22	U	7.7	22	33	33
12672-29-6	Aroclor-1248	22	U	7.7	22	33	33
11097-69-1	Aroclor-1254	22	U	9.8	22	33	33
11096-82-5	Aroclor-1260	22	U	6.6	22	33	33
37324-23-5	Aroclor-1262	22	U	7.7	22	33	33
11100-14-4	Aroclor-1268	22	U	5.5	22	33	33

CT LABORATORIES
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PCB ORGANICS ANALYSIS

Sample Description

GN-SO-04-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.35 (g/L)	CTL Sample ID:	321161
% Solids:	86.8	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8082A	Analytical Prep Batch #	73337
Analytical Run #:	164273	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 12:41		
Cleanup Date/Time/Type:	, , ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	091019pcbic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	22	U	5.6	22	33	33
11104-28-2	Aroclor-1221	22	U	7.8	22	33	33
11141-16-5	Aroclor-1232	22	U	10	22	33	33
53469-21-9	Aroclor-1242	22	U	7.8	22	33	33
12672-29-6	Aroclor-1248	22	U	7.8	22	33	33
11097-69-1	Aroclor-1254	22	U	10	22	33	33
11096-82-5	Aroclor-1260	22	U	6.7	22	33	33
37324-23-5	Aroclor-1262	22	U	7.8	22	33	33
11100-14-4	Aroclor-1268	22	U	5.6	22	33	33

CT LABORATORIES
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PCB ORGANICS ANALYSIS

Sample Description

GN-SO-04-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.76 (g/L)	CTL Sample ID:	321162
% Solids:	89.1	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8082A	Analytical Prep Batch #	73337
Analytical Run #:	164273	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 15:52		
Cleanup Date/Time/Type:	, , ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	091019pcbic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	21	U	5.2	21	31	31
11104-28-2	Aroclor-1221	21	U	7.3	21	31	31
11141-16-5	Aroclor-1232	21	U	9.4	21	31	31
53469-21-9	Aroclor-1242	21	U	7.3	21	31	31
12672-29-6	Aroclor-1248	21	U	7.3	21	31	31
11097-69-1	Aroclor-1254	21	U	9.4	21	31	31
11096-82-5	Aroclor-1260	21	U	6.3	21	31	31
37324-23-5	Aroclor-1262	21	U	7.3	21	31	31
11100-14-4	Aroclor-1268	21	U	5.2	21	31	31

CT LABORATORIES
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PCB ORGANICS ANALYSIS

Sample Description

GN-SO-05-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.09 (g/L)	CTL Sample ID:	321163
% Solids:	96.2	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8082A	Analytical Prep Batch #	73337
Analytical Run #:	164273	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 16:13		
Cleanup Date/Time/Type:	, , ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	091019pcbic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	21	U	5.2	21	31	31
11104-28-2	Aroclor-1221	21	U	7.2	21	31	31
11141-16-5	Aroclor-1232	21	U	9.3	21	31	31
53469-21-9	Aroclor-1242	21	U	7.2	21	31	31
12672-29-6	Aroclor-1248	21	U	7.2	21	31	31
11097-69-1	Aroclor-1254	21	U	9.3	21	31	31
11096-82-5	Aroclor-1260	21	U	6.2	21	31	31
37324-23-5	Aroclor-1262	21	U	7.2	21	31	31
11100-14-4	Aroclor-1268	21	U	5.2	21	31	31

CT LABORATORIES
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PCB ORGANICS ANALYSIS

Sample Description

GN-SO-05-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.21 (g/L)	CTL Sample ID:	321164
% Solids:	86.8	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8082A	Analytical Prep Batch #	73337
Analytical Run #:	164273	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 16:35		
Cleanup Date/Time/Type:	, , ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	091019pcbic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	23	U	5.6	23	34	34
11104-28-2	Aroclor-1221	23	U	7.9	23	34	34
11141-16-5	Aroclor-1232	23	U	10	23	34	34
53469-21-9	Aroclor-1242	23	U	7.9	23	34	34
12672-29-6	Aroclor-1248	23	U	7.9	23	34	34
11097-69-1	Aroclor-1254	23	U	10	23	34	34
11096-82-5	Aroclor-1260	23	U	6.8	23	34	34
37324-23-5	Aroclor-1262	23	U	7.9	23	34	34
11100-14-4	Aroclor-1268	23	U	5.6	23	34	34

CT LABORATORIES
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PCB ORGANICS ANALYSIS

Sample Description

GN-SO-06-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.49 (g/L)	CTL Sample ID:	321166
% Solids:	96.7	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8082A	Analytical Prep Batch #	73337
Analytical Run #:	164273	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 17:17		
Cleanup Date/Time/Type:	, , ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	091019pcbic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	20	U	4.9	20	30	30
11104-28-2	Aroclor-1221	20	U	6.9	20	30	30
11141-16-5	Aroclor-1232	20	U	8.9	20	30	30
53469-21-9	Aroclor-1242	20	U	6.9	20	30	30
12672-29-6	Aroclor-1248	20	U	6.9	20	30	30
11097-69-1	Aroclor-1254	20	U	8.9	20	30	30
11096-82-5	Aroclor-1260	20	U	5.9	20	30	30
37324-23-5	Aroclor-1262	20	U	6.9	20	30	30
11100-14-4	Aroclor-1268	20	U	4.9	20	30	30

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PCB ORGANICS ANALYSIS

Sample Description

GN-SO-06-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.81 (g/L)	CTL Sample ID:	321167
% Solids:	90.5	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8082A	Analytical Prep Batch #	73337
Analytical Run #:	164273	Dilution Factor:	1.00
Date & Time Analyzed:	09/13/2019 / 23:39		
Cleanup Date/Time/Type:	,	,	,
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	091019pcbic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	20	U	5.1	20	31	31
11104-28-2	Aroclor-1221	20	U	7.2	20	31	31
11141-16-5	Aroclor-1232	20	U	9.2	20	31	31
53469-21-9	Aroclor-1242	20	U	7.2	20	31	31
12672-29-6	Aroclor-1248	20	U	7.2	20	31	31
11097-69-1	Aroclor-1254	20	U	9.2	20	31	31
11096-82-5	Aroclor-1260	20	U	6.1	20	31	31
37324-23-5	Aroclor-1262	20	U	7.2	20	31	31
11100-14-4	Aroclor-1268	20	U	5.1	20	31	31

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PCB ORGANICS ANALYSIS

Sample Description

GN-SO-07-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.11 (g/L)	CTL Sample ID:	321168
% Solids:	92.0	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8082A	Analytical Prep Batch #	73337
Analytical Run #:	164273	Dilution Factor:	1.00
Date & Time Analyzed:	09/13/2019 / 23:18		
Cleanup Date/Time/Type:	, , ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	091019pcbic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	22	U	5.4	22	32	32
11104-28-2	Aroclor-1221	22	U	7.5	22	32	32
11141-16-5	Aroclor-1232	22	U	9.7	22	32	32
53469-21-9	Aroclor-1242	22	U	7.5	22	32	32
12672-29-6	Aroclor-1248	22	U	7.5	22	32	32
11097-69-1	Aroclor-1254	22	U	9.7	22	32	32
11096-82-5	Aroclor-1260	22	U	6.5	22	32	32
37324-23-5	Aroclor-1262	22	U	7.5	22	32	32
11100-14-4	Aroclor-1268	22	U	5.4	22	32	32

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PCB ORGANICS ANALYSIS

Sample Description

GN-SO-07-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.29 (g/L)	CTL Sample ID:	321169
% Solids:	90.8	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8082A	Analytical Prep Batch #	73337
Analytical Run #:	164273	Dilution Factor:	1.00
Date & Time Analyzed:	09/13/2019 / 22:57		
Cleanup Date/Time/Type:	, , ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	091019pcbic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	21	U	5.4	21	32	32
11104-28-2	Aroclor-1221	21	U	7.5	21	32	32
11141-16-5	Aroclor-1232	21	U	9.6	21	32	32
53469-21-9	Aroclor-1242	21	U	7.5	21	32	32
12672-29-6	Aroclor-1248	21	U	7.5	21	32	32
11097-69-1	Aroclor-1254	21	U	9.6	21	32	32
11096-82-5	Aroclor-1260	21	U	6.4	21	32	32
37324-23-5	Aroclor-1262	21	U	7.5	21	32	32
11100-14-4	Aroclor-1268	21	U	5.4	21	32	32

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PCB ORGANICS ANALYSIS

Sample Description

GN-SO-08-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.04 (g/L)	CTL Sample ID:	321170
% Solids:	95.9	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8082A	Analytical Prep Batch #	73337
Analytical Run #:	164273	Dilution Factor:	1.00
Date & Time Analyzed:	09/13/2019 / 22:36		
Cleanup Date/Time/Type:	, , ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	091019pcbic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	21	U	5.2	21	31	31
11104-28-2	Aroclor-1221	21	U	7.3	21	31	31
11141-16-5	Aroclor-1232	21	U	9.3	21	31	31
53469-21-9	Aroclor-1242	21	U	7.3	21	31	31
12672-29-6	Aroclor-1248	21	U	7.3	21	31	31
11097-69-1	Aroclor-1254	21	U	9.3	21	31	31
11096-82-5	Aroclor-1260	21	U	6.2	21	31	31
37324-23-5	Aroclor-1262	21	U	7.3	21	31	31
11100-14-4	Aroclor-1268	21	U	5.2	21	31	31

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PCB ORGANICS ANALYSIS

Sample Description

GN-SO-08-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.38 (g/L)	CTL Sample ID:	321171
% Solids:	93.5	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8082A	Analytical Prep Batch #	73337
Analytical Run #:	164273	Dilution Factor:	1.00
Date & Time Analyzed:	09/13/2019 / 22:14		
Cleanup Date/Time/Type:	, , ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	091019pcbic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	21	U	5.2	21	31	31
11104-28-2	Aroclor-1221	21	U	7.2	21	31	31
11141-16-5	Aroclor-1232	21	U	9.3	21	31	31
53469-21-9	Aroclor-1242	21	U	7.2	21	31	31
12672-29-6	Aroclor-1248	21	U	7.2	21	31	31
11097-69-1	Aroclor-1254	21	U	9.3	21	31	31
11096-82-5	Aroclor-1260	21	U	6.2	21	31	31
37324-23-5	Aroclor-1262	21	U	7.2	21	31	31
11100-14-4	Aroclor-1268	21	U	5.2	21	31	31

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PCB ORGANICS ANALYSIS

Sample Description

GN-SO-09C-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.19 (g/L)	CTL Sample ID:	321172
% Solids:	90.0	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8082A	Analytical Prep Batch #	73337
Analytical Run #:	164273	Dilution Factor:	1.00
Date & Time Analyzed:	09/13/2019 / 21:53		
Cleanup Date/Time/Type:	, , ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	091019pcbic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	22	U	5.5	22	33	33
11104-28-2	Aroclor-1221	22	U	7.6	22	33	33
11141-16-5	Aroclor-1232	22	U	9.8	22	33	33
53469-21-9	Aroclor-1242	22	U	7.6	22	33	33
12672-29-6	Aroclor-1248	22	U	7.6	22	33	33
11097-69-1	Aroclor-1254	22	U	9.8	22	33	33
11096-82-5	Aroclor-1260	22	U	6.5	22	33	33
37324-23-5	Aroclor-1262	22	U	7.6	22	33	33
11100-14-4	Aroclor-1268	22	U	5.5	22	33	33

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PCB ORGANICS ANALYSIS

Sample Description

GN-SO-DUP-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.07 (g/L)	CTL Sample ID:	321157
% Solids:	95.8	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8082A	Analytical Prep Batch #	73337
Analytical Run #:	164273	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 14:27		
Cleanup Date/Time/Type:	, , ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	091019pcbic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	21	U	5.2	21	31	31
11104-28-2	Aroclor-1221	21	U	7.3	21	31	31
11141-16-5	Aroclor-1232	21	U	9.3	21	31	31
53469-21-9	Aroclor-1242	21	U	7.3	21	31	31
12672-29-6	Aroclor-1248	21	U	7.3	21	31	31
11097-69-1	Aroclor-1254	21	U	9.3	21	31	31
11096-82-5	Aroclor-1260	21	U	6.2	21	31	31
37324-23-5	Aroclor-1262	21	U	7.3	21	31	31
11100-14-4	Aroclor-1268	21	U	5.2	21	31	31

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PCB ORGANICS ANALYSIS

Sample Description

GN-SO-DUP-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOIL	SDG No.:	147664
Sample wt/vol:	10.23 (g/L)	CTL Sample ID:	321165
% Solids:	84.1	Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8082A	Analytical Prep Batch #	73337
Analytical Run #:	164273	Dilution Factor:	1.00
Date & Time Analyzed:	09/11/2019 / 16:56		
Cleanup Date/Time/Type:	, , ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	091019pcbic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	23	U	5.8	23	35	35
11104-28-2	Aroclor-1221	23	U	8.1	23	35	35
11141-16-5	Aroclor-1232	23	U	10	23	35	35
53469-21-9	Aroclor-1242	23	U	8.1	23	35	35
12672-29-6	Aroclor-1248	23	U	8.1	23	35	35
11097-69-1	Aroclor-1254	23	U	10	23	35	35
11096-82-5	Aroclor-1260	23	U	7.0	23	35	35
37324-23-5	Aroclor-1262	23	U	8.1	23	35	35
11100-14-4	Aroclor-1268	23	U	5.8	23	35	35

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PCB ORGANICS ANALYSIS

Sample Description

GN-W-RB-01

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	GROUND WATER	SDG No.:	147664
Sample wt/vol:	0.97 (g/L)	CTL Sample ID:	321513
% Solids:		Date Received:	08/29/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/03/2019 / 09:10
Analytical Method:	EPA 8082A	Analytical Prep Batch #	73350
Analytical Run #:	164078	Dilution Factor:	1.00
Date & Time Analyzed:	09/05/2019 / 17:22		
Cleanup Date/Time/Type:	, 09/03/2019 15:30 (Sulfur) , 09/03/2019 15:00 (Acid) ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	072419pcbic	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	0.31	U	0.12	0.31	1.0	1.0
11104-28-2	Aroclor-1221	0.31	U	0.088	0.31	1.0	1.0
11141-16-5	Aroclor-1232	0.31	U	0.15	0.31	1.0	1.0
53469-21-9	Aroclor-1242	0.31	U	0.099	0.31	1.0	1.0
12672-29-6	Aroclor-1248	0.31	U	0.091	0.31	1.0	1.0
11097-69-1	Aroclor-1254	0.31	U	0.097	0.31	1.0	1.0
11096-82-5	Aroclor-1260	0.31	U	0.10	0.31	1.0	1.0
37324-23-5	Aroclor-1262	0.31	U	0.29	0.31	1.0	1.0
11100-14-4	Aroclor-1268	0.31	U	0.058	0.31	1.0	1.0

CT LABORATORIES
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1D-4

Sample Description

METHOD BLANK

PCB ORGANICS ANALYSIS (MB)

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:		SDG No.:	147664
Sample wt/vol:	10.00 (g/L)	CTL Sample ID:	321462
% Solids:		Date Received:	08/28/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/04/2019 / 08:40
Analytical Method:	EPA 8082A	Analytical Prep Batch #	73337
Analytical Run #:	164273	Dilution Factor:	1.00
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	091019pcbic	Concentration Units:	ug/kg

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
12674-11-2	Aroclor-1016	09/11/2019	10:34	5	U	5	30	***15***
11104-28-2	Aroclor-1221	09/11/2019	10:34	7	U	7	30	***15***
11141-16-5	Aroclor-1232	09/11/2019	10:34	9	U	9	30	***15***
53469-21-9	Aroclor-1242	09/11/2019	10:34	7	U	7	30	***15***
12672-29-6	Aroclor-1248	09/11/2019	10:34	7	U	7	30	***15***
11097-69-1	Aroclor-1254	09/11/2019	10:34	9	U	9	30	***15***
11096-82-5	Aroclor-1260	09/11/2019	10:34	6	U	6	30	***15***
37324-23-5	Aroclor-1262	09/11/2019	10:34	7	U	7	30	***15***
11100-14-4	Aroclor-1268	09/11/2019	10:34	5	U	5	30	***15***

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1D-4

Sample Description

METHOD BLANK

PCB ORGANICS ANALYSIS (MB)

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:		SDG No.:	147664
Sample wt/vol:	1.00 (g/L)	CTL Sample ID:	321844
% Solids:		Date Received:	08/29/2019
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	09/03/2019 / 09:10
Analytical Method:	EPA 8082A	Analytical Prep Batch #	73350
Analytical Run #:	164078	Dilution Factor:	1.00
Cleanup Date/Time/Type:	, 09/03/2019 15:30 (Sulfur) , 09/03/2019 15:00 (Acid) ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	072419pcbic	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
12674-11-2	Aroclor-1016	09/05/2019	16:18	0.113	U	0.113	1.0	***0.50***
11104-28-2	Aroclor-1221	09/05/2019	16:18	0.085	U	0.085	1.0	***0.50***
11141-16-5	Aroclor-1232	09/05/2019	16:18	0.145	U	0.145	1.0	***0.50***
53469-21-9	Aroclor-1242	09/05/2019	16:18	0.096	U	0.096	1.0	***0.50***
12672-29-6	Aroclor-1248	09/05/2019	16:18	0.088	U	0.088	1.0	***0.50***
11097-69-1	Aroclor-1254	09/05/2019	16:18	0.094	U	0.094	1.0	***0.50***
11096-82-5	Aroclor-1260	09/05/2019	16:18	0.099	U	0.099	1.0	***0.50***
37324-23-5	Aroclor-1262	09/05/2019	16:18	0.28	U	0.28	1.0	***0.50***
11100-14-4	Aroclor-1268	09/05/2019	16:18	0.056	U	0.056	1.0	***0.50***

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2E-1

WATER PCB SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CT Laboratories | Contract: HDR, INC-MEMPHIS DEPOT

Analytical Method: EPA 8082A | SDG: 147664

Analytical Run #: 164078 | ICAL Calibration #: 072419pcbic

GC Column(1): Restek RTX ID: 0.32 (mm) | GC Column(2): Restek RTX C2 ID: 0.32 (mm)

CTLab #	321513				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,5,6-TCMX	100	81	38	137	
Surr: DCBP	100	64	23	147	

CTLab #	321844	Sample Type:	Method Blank		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,5,6-TCMX	100	76.3	38	137	
Surr: DCBP	100	81.7	23	147	

CTLab #	321845	Sample Type:	Lab Control Spike		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,5,6-TCMX	100	89.8	38	137	
Surr: DCBP	100	77.2	23	147	

CTLab #	321846	Sample Type:	Lab Control Spike Duplicate		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,5,6-TCMX	100	85.3	38	137	
Surr: DCBP	100	88.4	23	147	

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2F-1

SOIL PCB SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CT Laboratories | Contract: HDR, INC-MEMPHIS DEPOT

Analytical Method: EPA 8082A | SDG: 147664

Analytical Run #: 164273 | ICAL Calibration #: 091019pcbic

GC Column(1): Restek RTX ID: 0.32 (mm) | GC Column(2): Restek RTX C2 ID: 0.32 (mm)

CTLab #	321149				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,5,6-TCMX	100	78	44	130	
Surr: DCBP	100	81	54	141	
CTLab #	**321154**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,5,6-TCMX	100	84	44	130	
Surr: DCBP	100	83	54	141	
CTLab #	**321155**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,5,6-TCMX	100	76	44	130	
Surr: DCBP	100	77	54	141	
CTLab #	**321157**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,5,6-TCMX	100	72	44	130	
Surr: DCBP	100	81	54	141	
CTLab #	**321158**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,5,6-TCMX	100	79	44	130	
Surr: DCBP	100	80	54	141	
CTLab #	**321159**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,5,6-TCMX	100	80	44	130	
Surr: DCBP	100	84	54	141	
CTLab #	**321160**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,5,6-TCMX	100	83	44	130	
Surr: DCBP	100	81	54	141	
CTLab #	**321161**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,5,6-TCMX	100	86	44	130	
Surr: DCBP	100	88	54	141	
CTLab #	**321162**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,5,6-TCMX	100	80	44	130	
Surr: DCBP	100	82	54	141	
CTLab #	**321163**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,5,6-TCMX	100	82	44	130	
Surr: DCBP	100	87	54	141	

CT LABORATORIES
delivering more than data from your environmental analyses

2F-1

SOIL PCB SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CT Laboratories | Contract: HDR, INC-MEMPHIS DEPOT

Analytical Method: EPA 8082A | SDG: 147664

Analytical Run #: 164273 | ICAL Calibration #: 091019pcbic

GC Column(1): Restek RTX ID: 0.32 (mm) | GC Column(2): Restek RTX C2 ID: 0.32 (mm)

CTLab #	321164				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,5,6-TCMX	100	79	44	130	
Surr: DCBP	100	76	54	141	
CTLab #	**321165**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,5,6-TCMX	100	79	44	130	
Surr: DCBP	100	78	54	141	
CTLab #	**321166**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,5,6-TCMX	100	83	44	130	
Surr: DCBP	100	87	54	141	
CTLab #	**321167**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,5,6-TCMX	100	83	44	130	
Surr: DCBP	100	75	54	141	
CTLab #	**321168**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,5,6-TCMX	100	82	44	130	
Surr: DCBP	100	84	54	141	
CTLab #	**321169**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,5,6-TCMX	100	79	44	130	
Surr: DCBP	100	86	54	141	
CTLab #	**321170**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,5,6-TCMX	100	78	44	130	
Surr: DCBP	100	83	54	141	
CTLab #	**321171**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,5,6-TCMX	100	76	44	130	
Surr: DCBP	100	71	54	141	
CTLab #	**321172**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,5,6-TCMX	100	77	44	130	
Surr: DCBP	100	76	54	141	
CTLab #	**321462**	Sample Type:		Method Blank	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,5,6-TCMX	100	89.0	44	130	
Surr: DCBP	100	91.2	54	141	

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2F-1

SOIL PCB SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

Analytical Method: EPA 8082A SDG: 147664

Analytical Run #: 164273 ICAL Calibration #: 091019pcbic

GC Column(1): Restek RTX ID: 0.32 (mm) GC Column(2): Restek RTX C2 ID: 0.32 (mm)

CTLab #	321463	Sample Type:	Lab Control Spike		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,5,6-TCMX	100	90.1	44	130	
Surr: DCBP	100	92.0	54	141	

CTLab #	321465	Sample Type:	Matrix Spike		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,5,6-TCMX	100	89.7	44	130	
Surr: DCBP	100	99.6	54	141	

CTLab #	321466	Sample Type:	Matrix Spike Duplicate		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,5,6-TCMX	100	87.6	44	130	
Surr: DCBP	100	83.8	54	141	

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3E

Sample Description

LCS

WATER PCB LAB CONTROL SAMPLE

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

Sample No.: 321845 SDG No.: 147664

Analytical Method: EPA 8082A Concentration Units: ug/L

Sample No.: 321845 Parent Sample No.: 0

Analytical Prep Batch #: 73350 Analytical Preparation Date/Time: 09/03/2019 09:10

Analytical Run #: 164078 ICAL Calibration #: 072419pcbic

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
Aroclor-1016	09/05/2019	16:40	46-129	4.57		5.00	91
Aroclor-1260	09/05/2019	16:40	45-134	5.24		5.00	105

Spike Recovery: 0 out of 2 outside limits

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3E

WATER PCB LAB CONTROL SAMPLE

Sample Description: **LCSD**

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT
Sample No.: 321846
SDG No.: 147664
Analytical Method: EPA 8082A
Concentration Units: ug/L

Analytical Run #: 164078
Sample No.: 321846
Parent Sample No.: 321845
Analytical Prep Batch #: 73350
Analytical Preparation Date/Time: 09/03/2019 09:10
ICAL Calibration #: 072419pcbic

Analyte	Analysis Date/Time	Spike Result	Parent Result	Spike Amount	%R	%RPD	Control Limit (%R)	Control Limit (%RPD)
Aroclor-1016	09/05/2019 17:43	4.60	4.57	5.00	92	1	46-129	30
Aroclor-1260	09/05/2019 17:43	5.64	5.24	5.00	113	7	45-134	30

RPD or Spike Recovery: 0 out of 2 outside QC limits

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3F

Sample Description

SOIL PCB MATRIX SPIKE RECOVERY

GN-SO-04-1

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

Matrix: SOIL SDG No.: 147664

Analytical Method: EPA 8082A Concentration Units: ug/kg

Analytical Run #: 164273 Sample No.: 321465 Parent Sample No.: 321161

Analytical Prep Batch #: 73337 Analytical Preparation Date/Time: 09/04/2019 08:40

ICAL Calibration #: 091019pcbic

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
Aroclor-1016	09/11/2019 13:02	47-134	436	BDL	569	77
Aroclor-1260	09/11/2019 13:02	53-140	486	BDL	569	85

Spike Recovery: 0 out of 2 outside QC limits

CT LABORATORIES
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3F

Sample Description

SOIL PCB MATRIX SPIKE DUPLICATE RECOVERY

GN-SO-04-1

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

Matrix: SOIL SDG No.: 147664

Analytical Method: EPA 8082A Concentration Units: ug/kg

Analytical Run #: 164273 Sample No.: 321466 Parent Sample No.: 321465

Analytical Prep Batch #: 73337 Analytical Preparation Date/Time: 09/04/2019 08:40

ICAL Calibration #: 091019pcbic

Analyte	Analysis Date/Time		Spike Result	Spike Amount	%R	%RPD	Control Limits (%R)	Control Limits (%RPD)
Aroclor-1016	09/11/2019	13:23	424	546	78	1	47-134	30
Aroclor-1260	09/11/2019	13:23	438	546	80	6	53-140	30

RPD or Spike Recovery: 0 out of 2 outside QC limits

CT LABORATORIES
delivering more than data from your environmental analyses

3F

Sample Description

LCS

SOIL PCB LAB CONTROL SAMPLE

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT
Sample No.: 321463
SDG No.: 147664
Analytical Method: EPA 8082A
Concentration Units: ug/kg

Sample No.: 321463
Parent Sample No.: 0
Analytical Prep Batch #: 73337
Analytical Preparation Date/Time: 09/04/2019 08:40
Analytical Run #: 164273
ICAL Calibration #: 091019pcbic

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
Aroclor-1016	09/11/2019	10:55	47-134	359		500	72
Aroclor-1260	09/11/2019	10:55	53-140	413		500	83

Spike Recovery: 0 out of 2 outside limits

CT Laboratories

4C-2

PCB METHOD BLANK SUMMARY

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Sample ID:	321462	SDG No.:	147664
Matrix:	SOLID	Date Extracted:	09/04/2019
Date Analyzed:	09/11/2019	Time Analyzed:	10:34
Analytical Method:	EPA 8082A	Extraction Method:	SW3546
Analytical Run #:	164273	Extraction Batch #:	73337
		ICAL Calibration #:	091019pcbic

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC:

SEQUENCE	SAMPLE DESCRIPTION	SAMPLE ID	DATE/TIME ANALYZED	CALIBRATION REFERENCE #
1	GN-SO-01-1	321149	09/11/2019 11:37	091019pcbic
2	GN-SO-01-2	321154	09/11/2019 11:59	091019pcbic
3	GN-SO-02-1	321155	09/11/2019 12:20	091019pcbic
4	GN-SO-DUP-1	321157	09/11/2019 14:27	091019pcbic
5	GN-SO-02-2	321158	09/11/2019 14:48	091019pcbic
6	GNSO-03-1	321159	09/11/2019 15:10	091019pcbic
7	GN-SO-03-2	321160	09/11/2019 15:31	091019pcbic
8	GN-SO-04-1	321161	09/11/2019 12:41	091019pcbic
9	GN-SO-04-2	321162	09/11/2019 15:52	091019pcbic
10	GN-SO-05-1	321163	09/11/2019 16:13	091019pcbic
11	GN-SO-05-2	321164	09/11/2019 16:35	091019pcbic
12	GN-SO-DUP-2	321165	09/11/2019 16:56	091019pcbic
13	GN-SO-06-1	321166	09/11/2019 17:17	091019pcbic
14	GN-SO-06-2	321167	09/13/2019 23:39	091019pcbic
15	GN-SO-07-1	321168	09/13/2019 23:18	091019pcbic
16	GN-SO-07-2	321169	09/13/2019 22:57	091019pcbic
17	GN-SO-08-1	321170	09/13/2019 22:36	091019pcbic
18	GN-SO-08-2	321171	09/13/2019 22:14	091019pcbic
19	GN-SO-09C-1	321172	09/13/2019 21:53	091019pcbic
20	MBS	321462	09/11/2019 10:34	091019pcbic
21	LCSS	321463	09/11/2019 10:55	091019pcbic
22	GN-SO-04-1MSS	321465	09/11/2019 13:02	091019pcbic
23	GN-SO-04-1MSDS	321466	09/11/2019 13:23	091019pcbic

CT Laboratories

4C-2

PCB METHOD BLANK SUMMARY

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Sample ID:	321844	SDG No.:	147664
Matrix:	LIQUID	Date Extracted:	09/03/2019
Date Analyzed:	09/05/2019	Time Analyzed:	16:18
Analytical Method:	EPA 8082A	Extraction Method:	SW3510
Analytical Run #:	164078	Extraction Batch #:	73350
		ICAL Calibration #:	072419pcbic

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC:

SEQUENCE	SAMPLE DESCRIPTION	SAMPLE ID	DATE/TIME ANALYZED	CALIBRATION REFERENCE #
1	GN-W-RB-01	321513	09/05/2019 17:22	072419pcbic
2	MBW	321844	09/05/2019 16:18	072419pcbic
3	LCSW	321845	09/05/2019 16:40	072419pcbic
4	LCSDW	321846	09/05/2019 17:43	072419pcbic

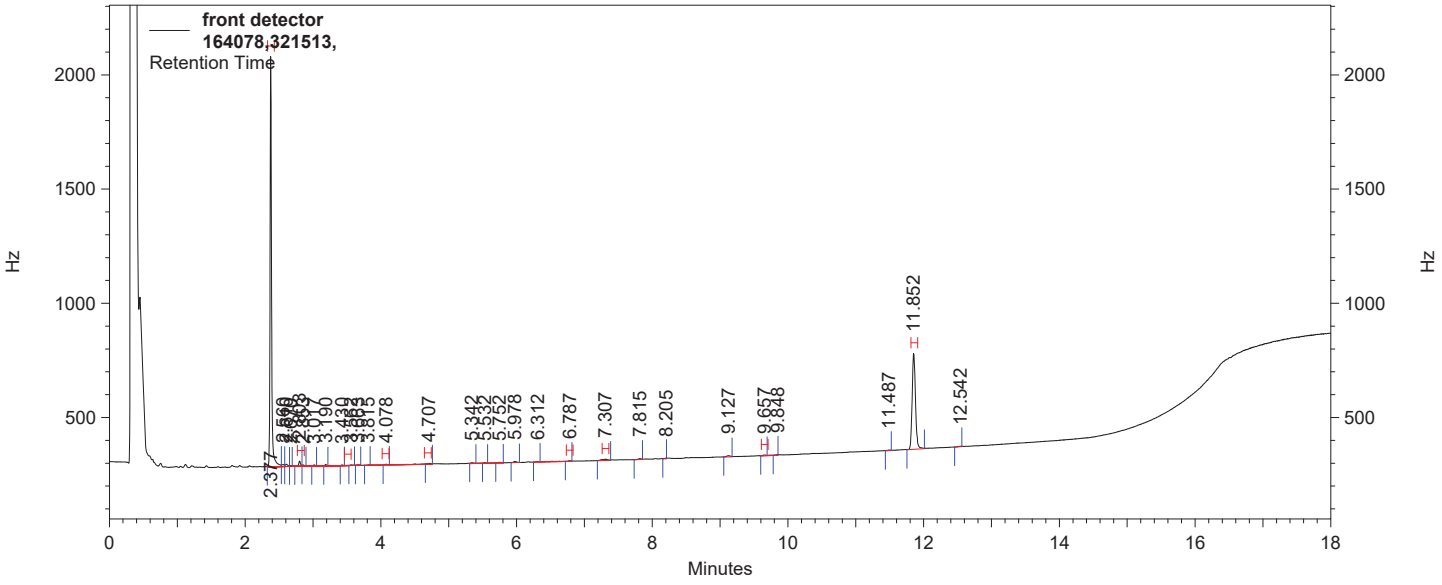
POLYCHLORINATED BIPHENYL
SAMPLE DATA
DOCUMENTS

PCB Analysis Report (1016/1260) *(Channel A)*

AJZ
09/19/2019

Data File: C:\Instarch\Semi7\Data\090519pcb\008.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\090519pcb.met
User: AJZ
Sample ID: 164078,321513,
Acquired: Sep 05, 2019 17:22:31
Printed: Sep 06, 2019 09:26:10

Data Summary: {Data Description}



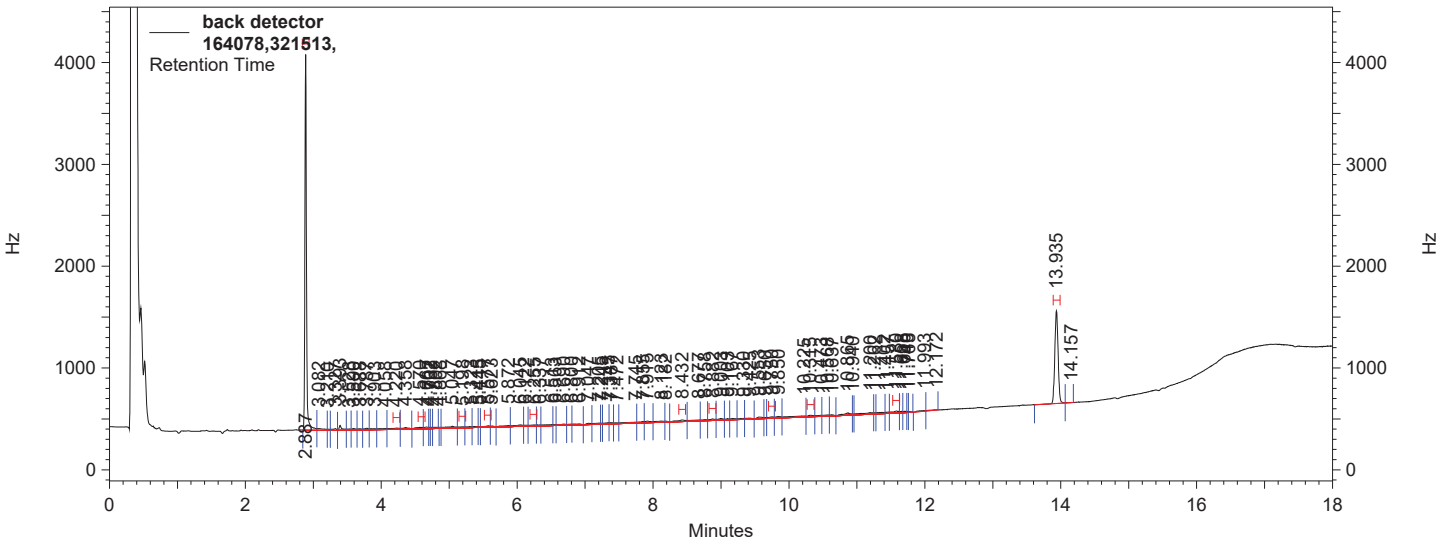
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.377	21205234	81.004
Aroclor 1016 #1	2.803	350277	0.000
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3	3.562	80180	0.000
Aroclor 1016 #4	4.078	68529	0.000
Aroclor 1016 #5	4.707	140165	0.000
Aroclor 1260 #1	6.787	74950	0.000
Aroclor 1260 #2	7.307	285814	0.000
Aroclor 1260 #3			0.000 BDL
Aroclor 1260 #4			0.000 BDL
Aroclor 1260 #5	9.657	79756	0.000
SURRDCBPCB	11.852	11048394	63.832
Aroclor 1016		639151	0.000
Aroclor 1260		440520	0.000

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\090519pcb\008.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\090519pcb.met
User: AJZ
Sample ID: 164078,321513,
Acquired: Sep 05, 2019 17:22:31
Printed: Sep 06, 2019 09:26:10

Data Summary: {Data Description}



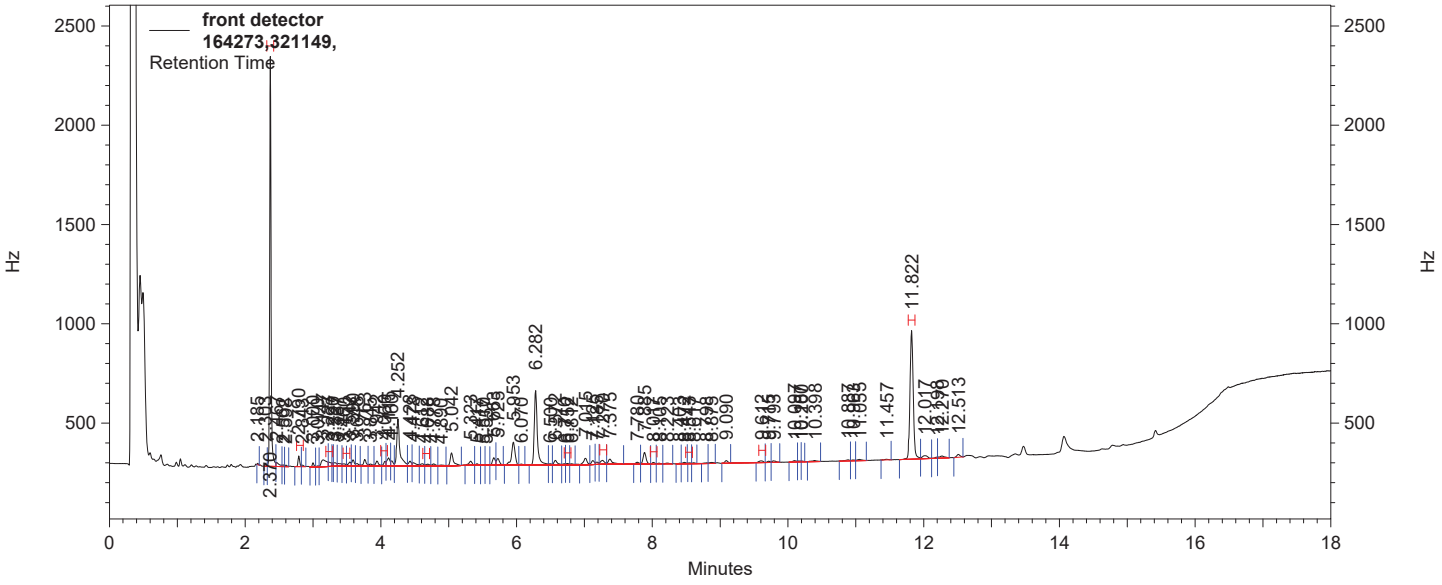
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.887	45099967	79.894
Aroclor 1016 #1	4.220	946569	0.000
Aroclor 1016 #2	4.570	889424	0.002
Aroclor 1016 #3	5.198	497450	0.000
Aroclor 1016 #4	5.577	661932	0.001
Aroclor 1016 #5	6.255	523848	0.000
Aroclor 1260 #1	8.432	1109982	0.000
Aroclor 1260 #2	8.882	664962	0.000
Aroclor 1260 #3	9.750	614529	0.000
Aroclor 1260 #4	10.315	698504	0.001
Aroclor 1260 #5	11.580	1033362	0.001
SURRDCBPCB	13.935	23463107	61.482
Aroclor 1016		3519223	0.004
Aroclor 1260		4121339	0.003

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\039.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: 164273,321149,
Acquired: 09/11/2019 11:37:48
Printed: 09/16/2019 09:11:08

Data Summary: {Data Description}



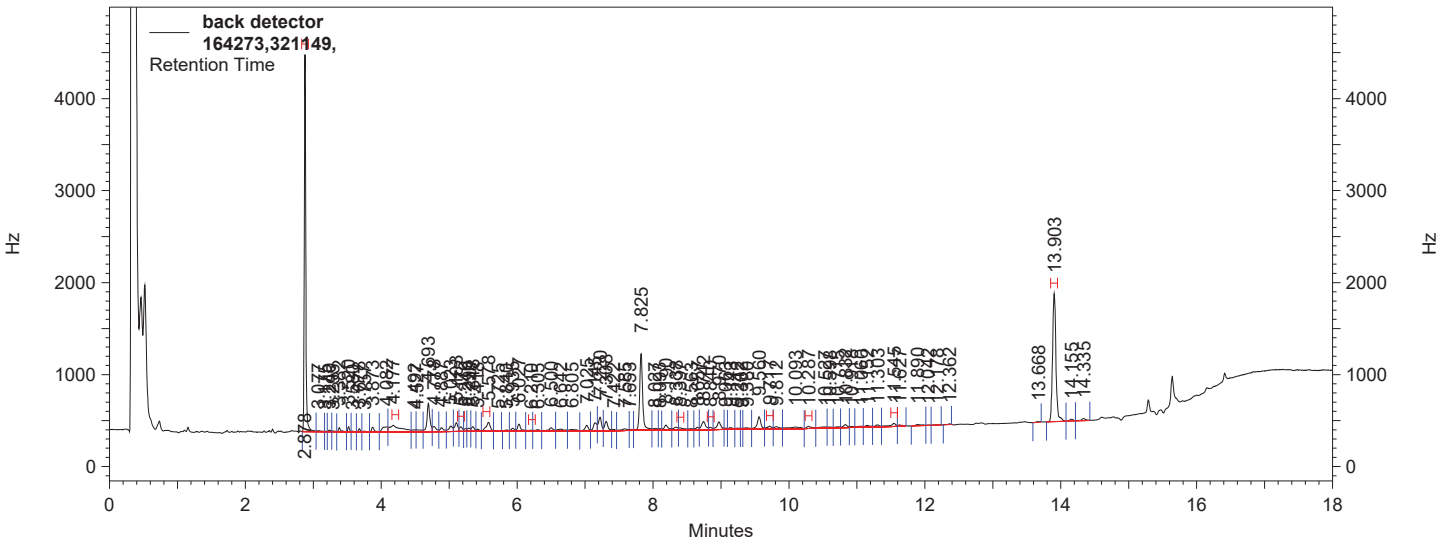
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.370	23374605	78.352
Aroclor 1016 #1	2.790	710326	0.005
Aroclor 1016 #2	3.227	492661	0.000
Aroclor 1016 #3	3.460	356621	0.001
Aroclor 1016 #4	4.060	414958	0.002
Aroclor 1016 #5	4.688	246532	0.000
Aroclor 1260 #1	6.752	145350	0.000
Aroclor 1260 #2	7.270	688601	0.001
Aroclor 1260 #3	8.017	180838	0.000
Aroclor 1260 #4	8.543	92212	0.000
Aroclor 1260 #5	9.612	316969	0.003
SURRDCBPCB	11.822	16728730	80.574
Aroclor 1016		2221098	0.008
Aroclor 1260		1423970	0.004

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\039.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: 164273,321149,
Acquired: 09/11/2019 11:37:48
Printed: 09/16/2019 09:11:08

Data Summary: {Data Description}



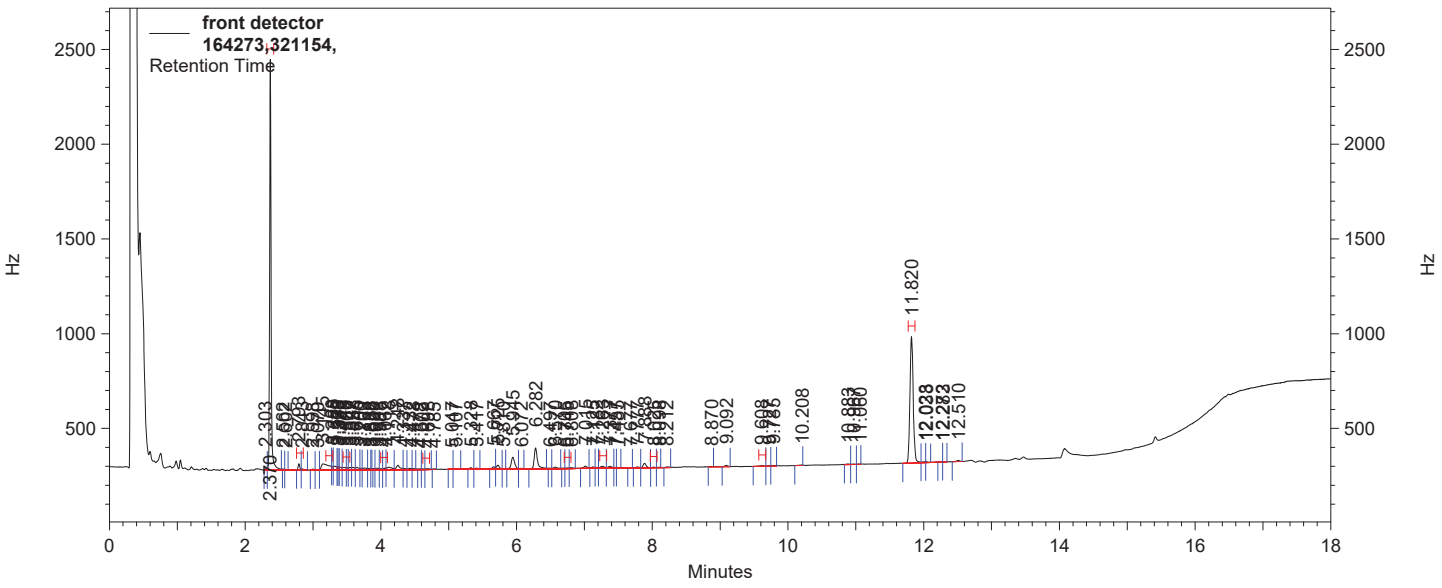
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.878	48499776	83.984
Aroclor 1016 #1	4.177	6196385	0.010
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3	5.172	1187114	0.001
Aroclor 1016 #4	5.578	3427554	0.012
Aroclor 1016 #5	6.210	419886	0.000
Aroclor 1260 #1	8.397	933888	0.001
Aroclor 1260 #2	8.840	589282	0.001
Aroclor 1260 #3	9.717	1094978	0.002
Aroclor 1260 #4	10.287	900614	0.002
Aroclor 1260 #5	11.545	1495962	0.003
SURRDCBPCB	13.903	36579953	84.411
Aroclor 1016		11230939	0.024
Aroclor 1260		5014724	0.009

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\040.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: 164273,321154,
Acquired: 09/11/2019 11:59:00
Printed: 09/16/2019 09:11:11

Data Summary: {Data Description}



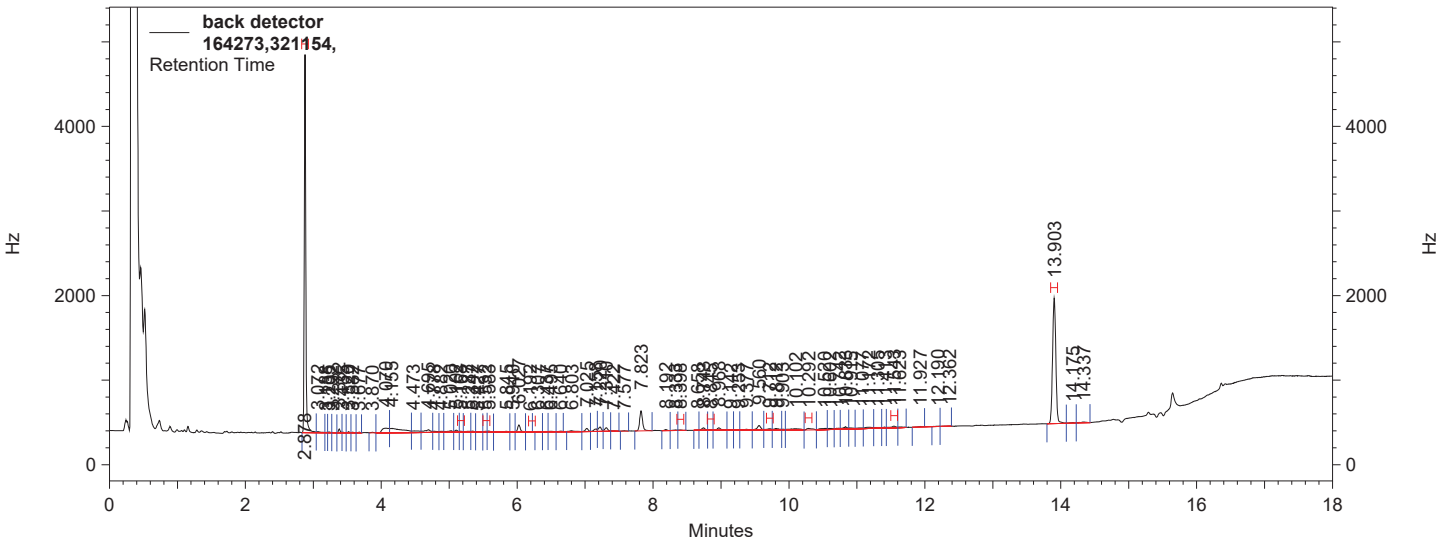
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.370	25171400	84.415
Aroclor 1016 #1	2.793	443739	0.002
Aroclor 1016 #2	3.288	206427	0.000
Aroclor 1016 #3	3.500	152597	0.000
Aroclor 1016 #4	4.062	161213	0.001
Aroclor 1016 #5	4.698	136406	0.000
Aroclor 1260 #1	6.745	89570	0.000
Aroclor 1260 #2	7.263	377892	0.000
Aroclor 1260 #3	8.025	100960	0.000
Aroclor 1260 #4			0.000 BDL
Aroclor 1260 #5	9.608	142922	0.002
SURRDCBPCB	11.820	17308262	83.436
Aroclor 1016		1100382	0.003
Aroclor 1260		711344	0.003

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\040.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: 164273,321154,
Acquired: 09/11/2019 11:59:00
Printed: 09/16/2019 09:11:11

Data Summary: {Data Description}



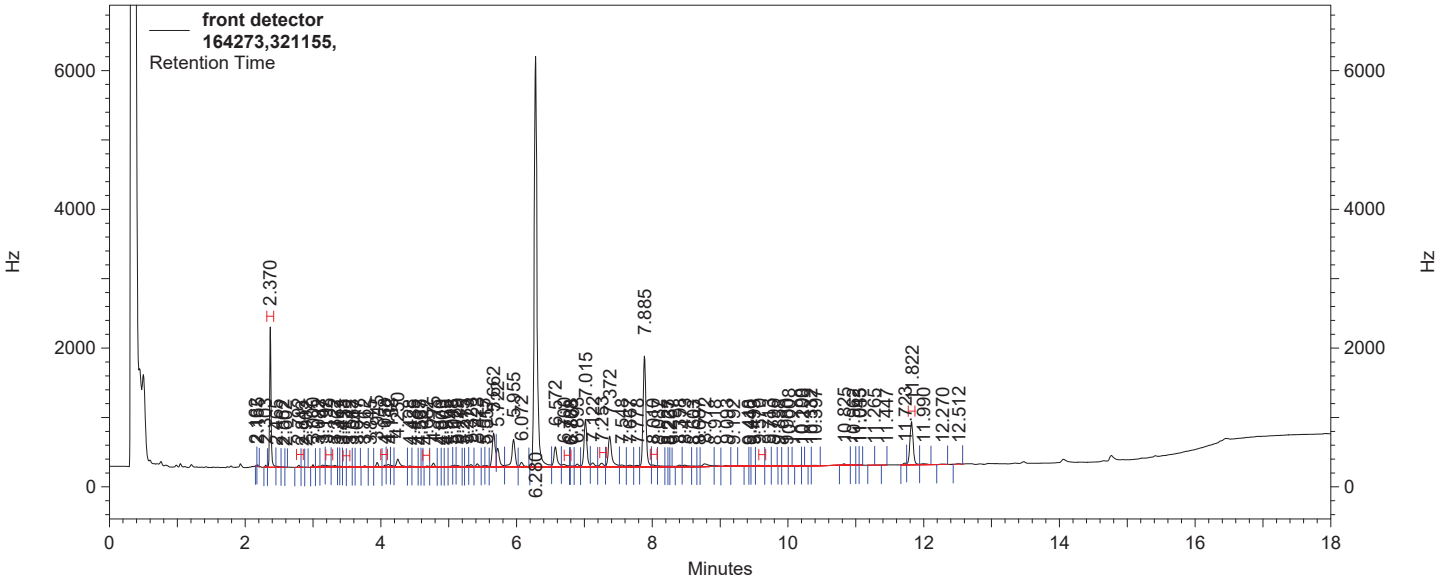
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.878	52367665	90.643
Aroclor 1016 #1			0.000 BDL
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3	5.168	305829	0.000
Aroclor 1016 #4	5.532	239442	0.000
Aroclor 1016 #5	6.192	154525	0.000
Aroclor 1260 #1	8.398	197808	0.000
Aroclor 1260 #2	8.845	228676	0.000
Aroclor 1260 #3	9.712	712119	0.001
Aroclor 1260 #4	10.292	836994	0.002
Aroclor 1260 #5	11.543	771317	0.002
SURRDCBPCB	13.903	37969804	87.641
Aroclor 1016		699796	0.000
Aroclor 1260		2746914	0.005

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\041.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: 164273,321155,
Acquired: 09/11/2019 12:20:17
Printed: 09/16/2019 09:11:13

Data Summary: {Data Description}



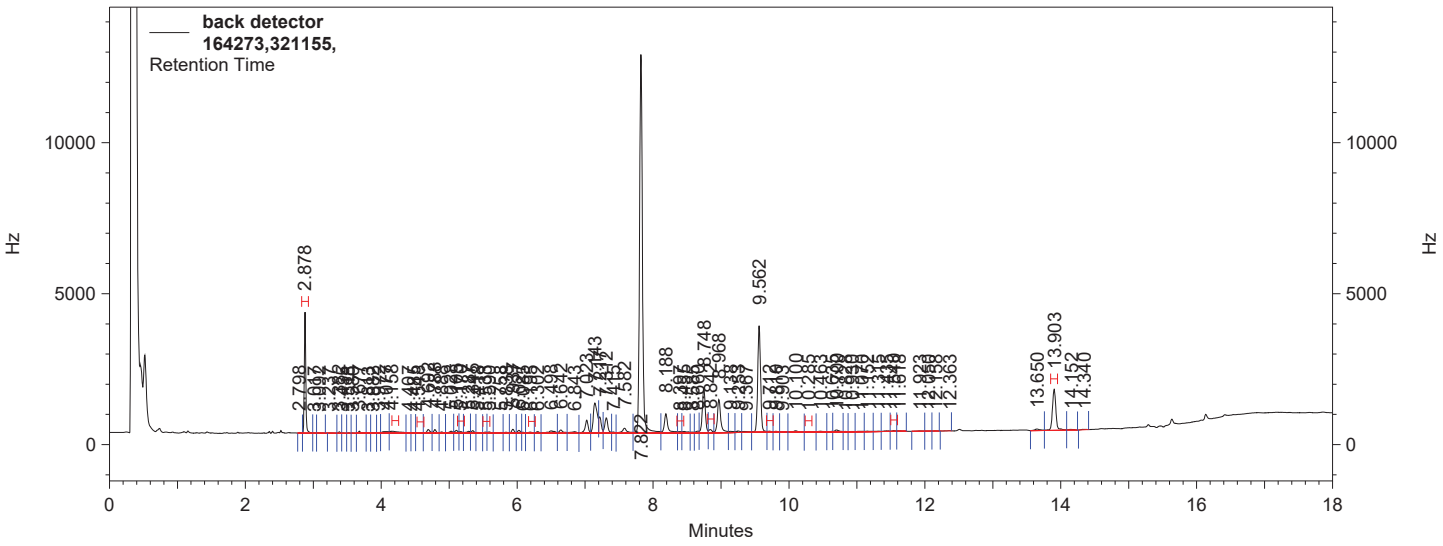
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.370	22709364	76.108
Aroclor 1016 #1	2.792	466724	0.003
Aroclor 1016 #2	3.198	935093	0.002
Aroclor 1016 #3	3.453	282746	0.000
Aroclor 1016 #4	4.058	525070	0.002
Aroclor 1016 #5	4.682	442404	0.001
Aroclor 1260 #1	6.788	75765	0.000
Aroclor 1260 #2	7.253	1550906	0.003
Aroclor 1260 #3	8.010	733574	0.003
Aroclor 1260 #4			0.000 BDL
Aroclor 1260 #5	9.570	506172	0.004
SURRDCBPCB	11.822	16066030	77.301
Aroclor 1016		2652037	0.008
Aroclor 1260		2866417	0.010

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\041.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: 164273,321155,
Acquired: 09/11/2019 12:20:17
Printed: 09/16/2019 09:11:13

Data Summary: {Data Description}



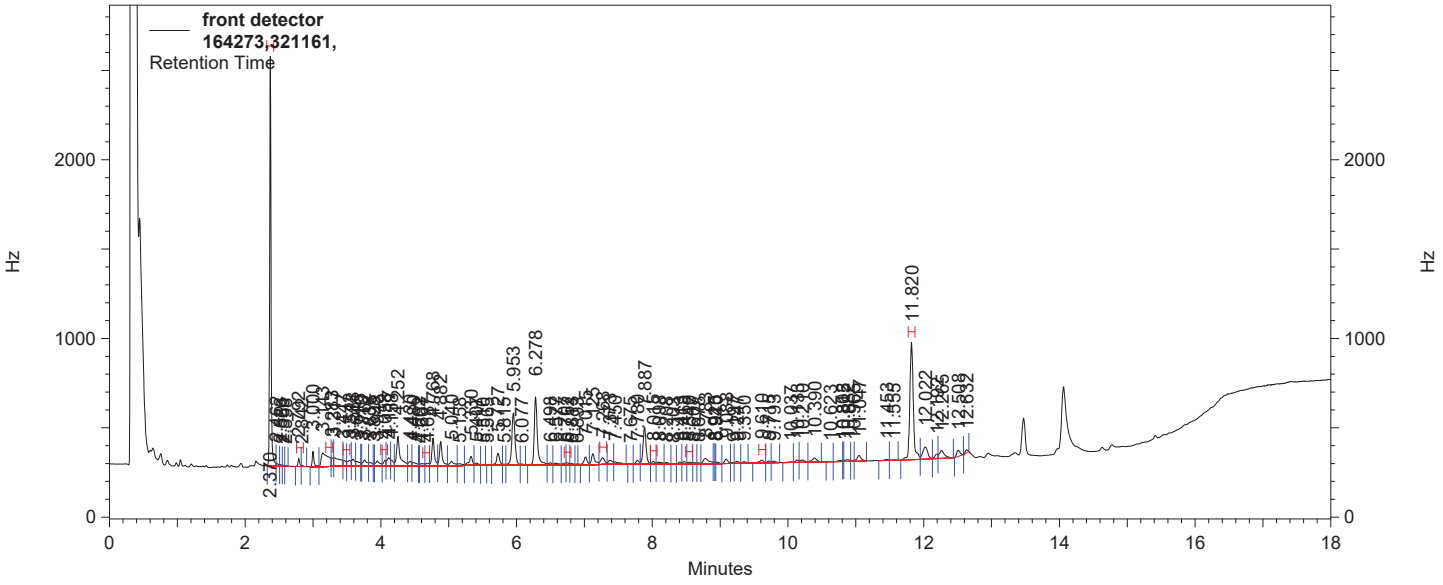
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.878	46396642	80.363
Aroclor 1016 #1	4.158	5098121	0.008
Aroclor 1016 #2	4.548	1188698	0.003
Aroclor 1016 #3	5.170	1365688	0.002
Aroclor 1016 #4	5.533	1000364	0.002
Aroclor 1016 #5	6.195	1892812	0.003
Aroclor 1260 #1	8.397	1105421	0.001
Aroclor 1260 #2	8.842	2689020	0.004
Aroclor 1260 #3	9.712	1235275	0.002
Aroclor 1260 #4	10.285	869766	0.002
Aroclor 1260 #5	11.540	788573	0.002
SURRDCBPCB	13.903	37175842	85.796
Aroclor 1016		10545683	0.018
Aroclor 1260		6688055	0.012

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\042.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: 164273,321161,
Acquired: 09/11/2019 12:41:32
Printed: 09/16/2019 09:11:15

Data Summary: {Data Description}



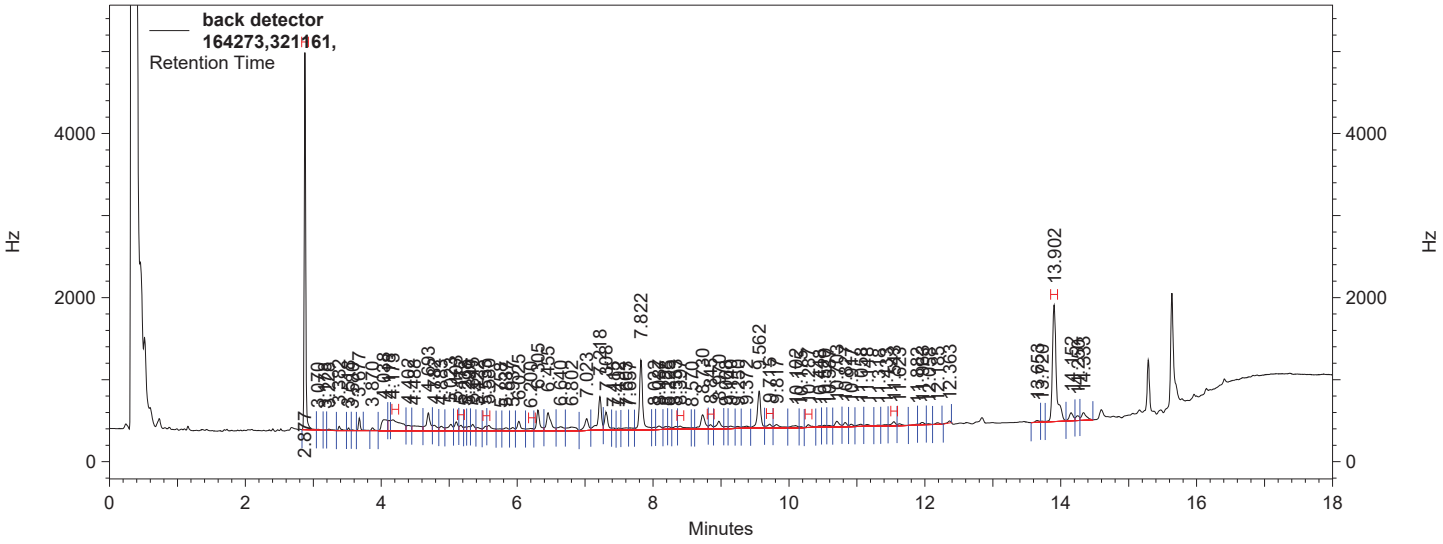
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.370	25633577	85.974
Aroclor 1016 #1	2.792	610855	0.004
Aroclor 1016 #2	3.283	836053	0.001
Aroclor 1016 #3	3.447	737084	0.003
Aroclor 1016 #4	4.058	608393	0.003
Aroclor 1016 #5	4.687	361739	0.001
Aroclor 1260 #1	6.752	228526	0.000
Aroclor 1260 #2	7.268	1269091	0.002
Aroclor 1260 #3	8.015	363205	0.001
Aroclor 1260 #4	8.540	300978	0.002
Aroclor 1260 #5	9.610	577446	0.004
SURRDCBPCB	11.820	18185759	87.770
Aroclor 1016		3154124	0.012
Aroclor 1260		2739246	0.010

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\042.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: 164273,321161,
Acquired: 09/11/2019 12:41:32
Printed: 09/16/2019 09:11:15

Data Summary: {Data Description}



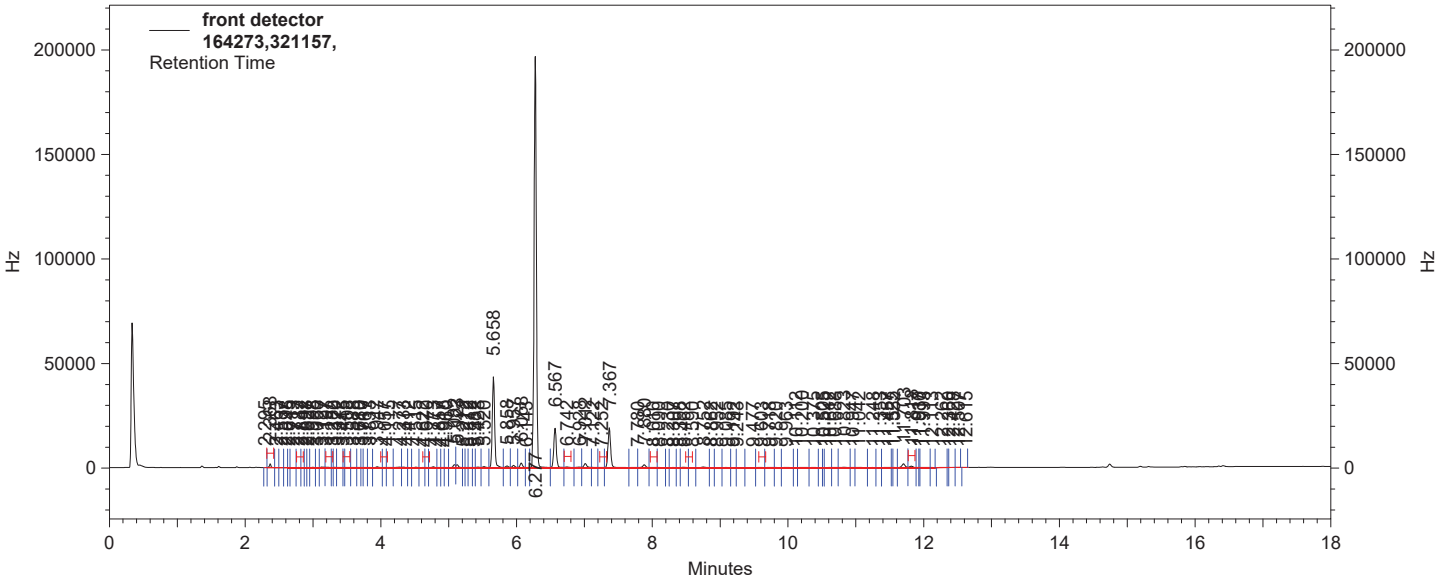
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.877	53272258	92.201
Aroclor 1016 #1	4.173	10362380	0.019
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3	5.172	1660192	0.002
Aroclor 1016 #4	5.533	1180446	0.003
Aroclor 1016 #5	6.200	1209586	0.001
Aroclor 1260 #1	8.397	2115574	0.003
Aroclor 1260 #2	8.845	1383322	0.002
Aroclor 1260 #3	9.715	1763346	0.004
Aroclor 1260 #4	10.287	1242455	0.003
Aroclor 1260 #5	11.543	1622551	0.003
SURRDCBPCB	13.902	44011073	101.684
Aroclor 1016		14412604	0.025
Aroclor 1260		8127248	0.015

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\047.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: 164273,321157,
Acquired: 09/11/2019 14:27:36
Printed: 09/16/2019 09:11:30

Data Summary: {Data Description}



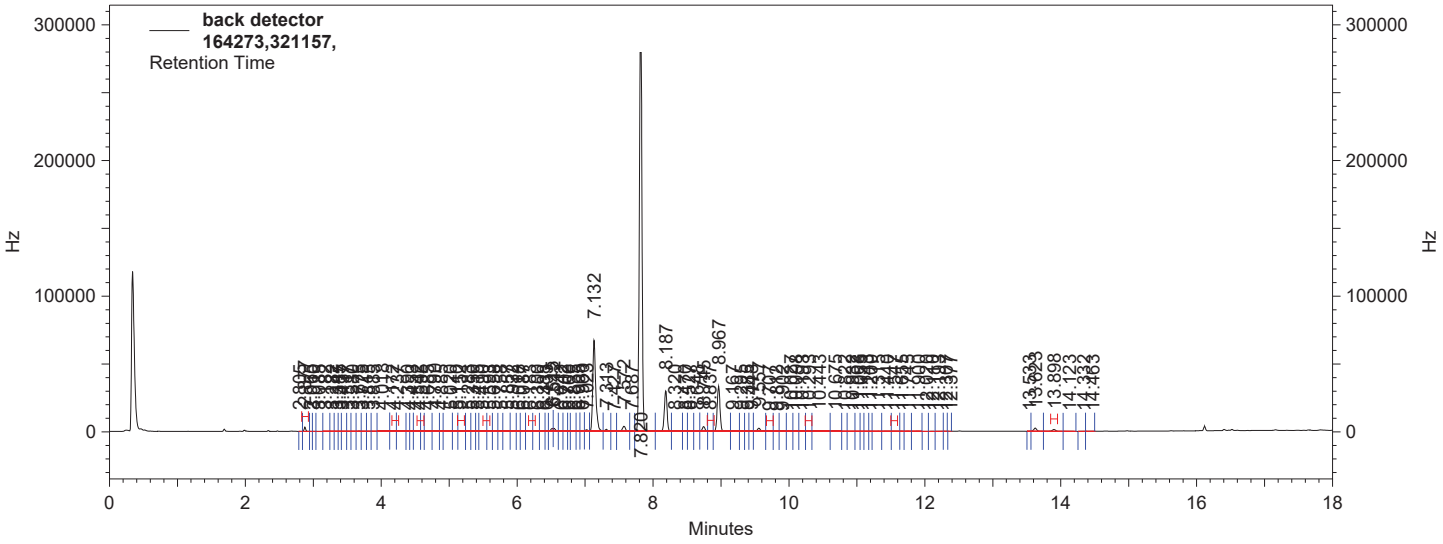
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.368	21521820	72.101
Aroclor 1016 #1	2.787	1058617	0.008
Aroclor 1016 #2	3.282	1191591	0.003
Aroclor 1016 #3	3.508	2890473	0.016
Aroclor 1016 #4	4.057	1555641	0.008
Aroclor 1016 #5	4.670	1216154	0.005
Aroclor 1260 #1	6.742	10272031	0.041
Aroclor 1260 #2	7.252	2631093	0.005
Aroclor 1260 #3	8.010	2642449	0.014
Aroclor 1260 #4	8.590	722749	0.006
Aroclor 1260 #5	9.603	1709665	0.010
SURRDCBPCB	11.818	16834570	81.096
Aroclor 1016		7912476	0.039
Aroclor 1260		17977987	0.075

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\047.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: 164273,321157,
Acquired: 09/11/2019 14:27:36
Printed: 09/16/2019 09:11:30

Data Summary: {Data Description}



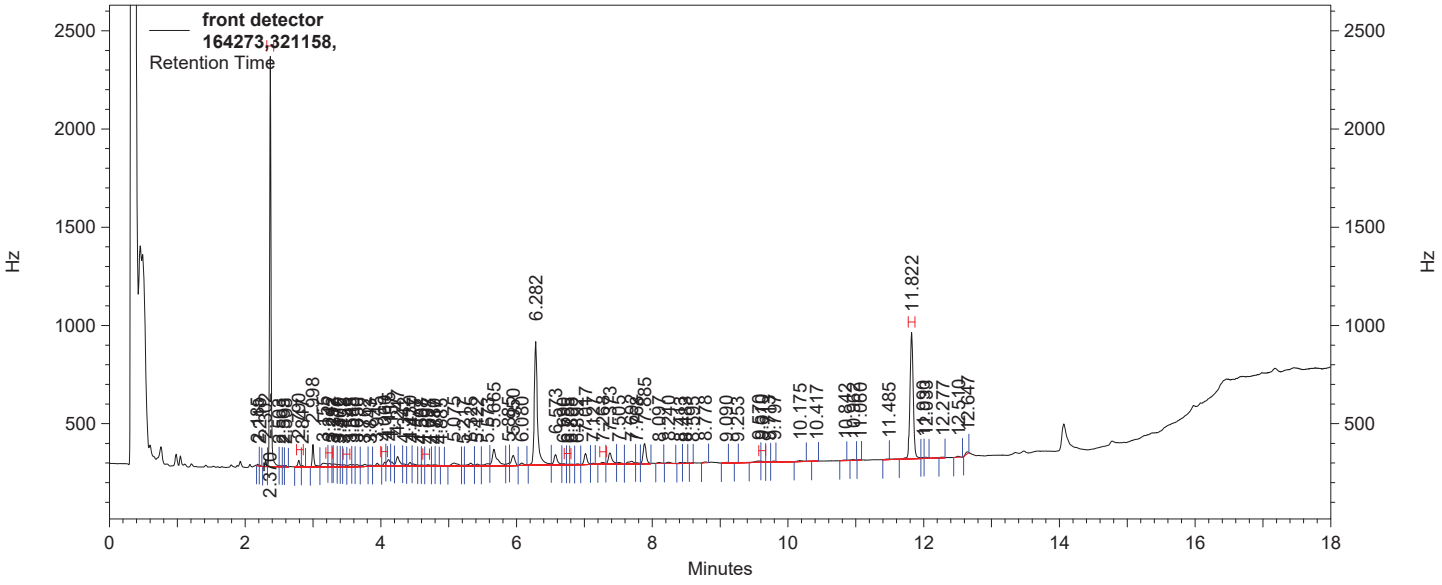
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.877	37023124	64.226
Aroclor 1016 #1	4.237	9965460	0.018
Aroclor 1016 #2	4.595	2675075	0.009
Aroclor 1016 #3	5.152	7954778	0.016
Aroclor 1016 #4	5.593	3435466	0.012
Aroclor 1016 #5	6.183	4656716	0.011
Aroclor 1260 #1			0.000 BDL
Aroclor 1260 #2	8.837	6794836	0.010
Aroclor 1260 #3	9.707	2885442	0.006
Aroclor 1260 #4	10.293	1962611	0.004
Aroclor 1260 #5	11.547	3041325	0.005
SURRDCBPCB	13.898	39673639	91.602
Aroclor 1016		28687495	0.066
Aroclor 1260		14684214	0.027

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\048.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: 164273,321158,
Acquired: 09/11/2019 14:48:52
Printed: 09/16/2019 09:11:32

Data Summary: {Data Description}



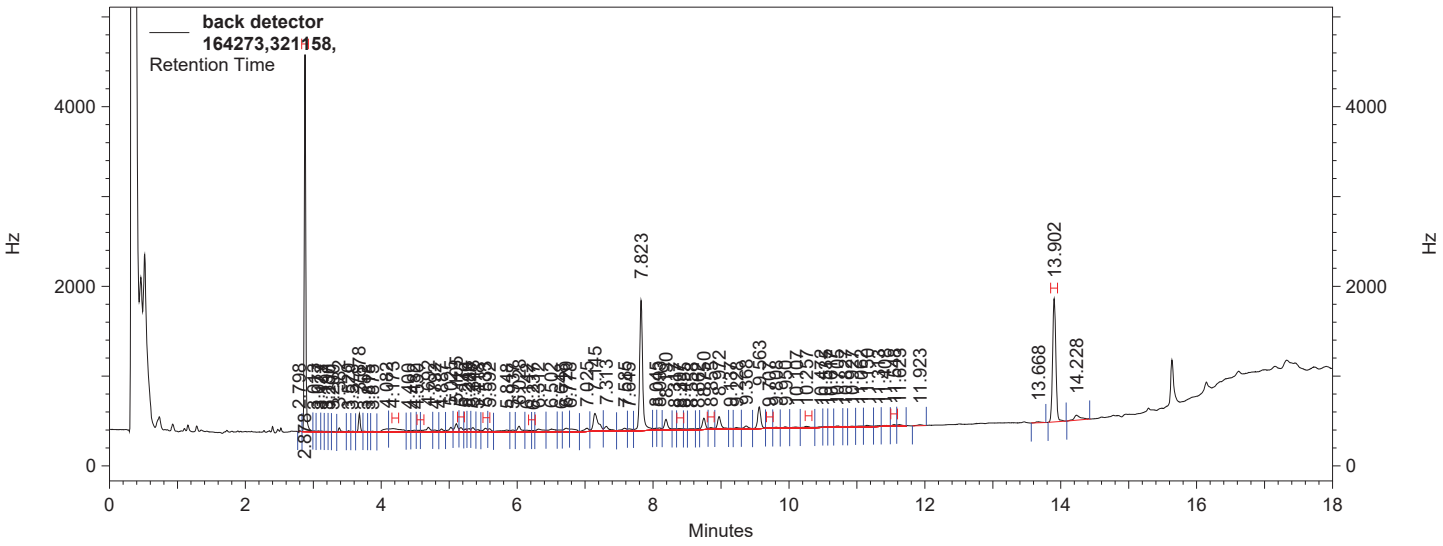
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.370	23563704	78.990
Aroclor 1016 #1	2.790	533354	0.003
Aroclor 1016 #2	3.242	410452	0.000
Aroclor 1016 #3	3.458	217688	0.000
Aroclor 1016 #4	4.060	364982	0.002
Aroclor 1016 #5	4.697	253475	0.000
Aroclor 1260 #1	6.755	56597	0.000
Aroclor 1260 #2	7.268	323386	0.000
Aroclor 1260 #3			0.000 BDL
Aroclor 1260 #4			0.000 BDL
Aroclor 1260 #5	9.610	114738	0.002
SURRDCBPCB	11.822	16677261	80.320
Aroclor 1016		1779951	0.005
Aroclor 1260		494721	0.002

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\048.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: 164273,321158,
Acquired: 09/11/2019 14:48:52
Printed: 09/16/2019 09:11:32

Data Summary: {Data Description}



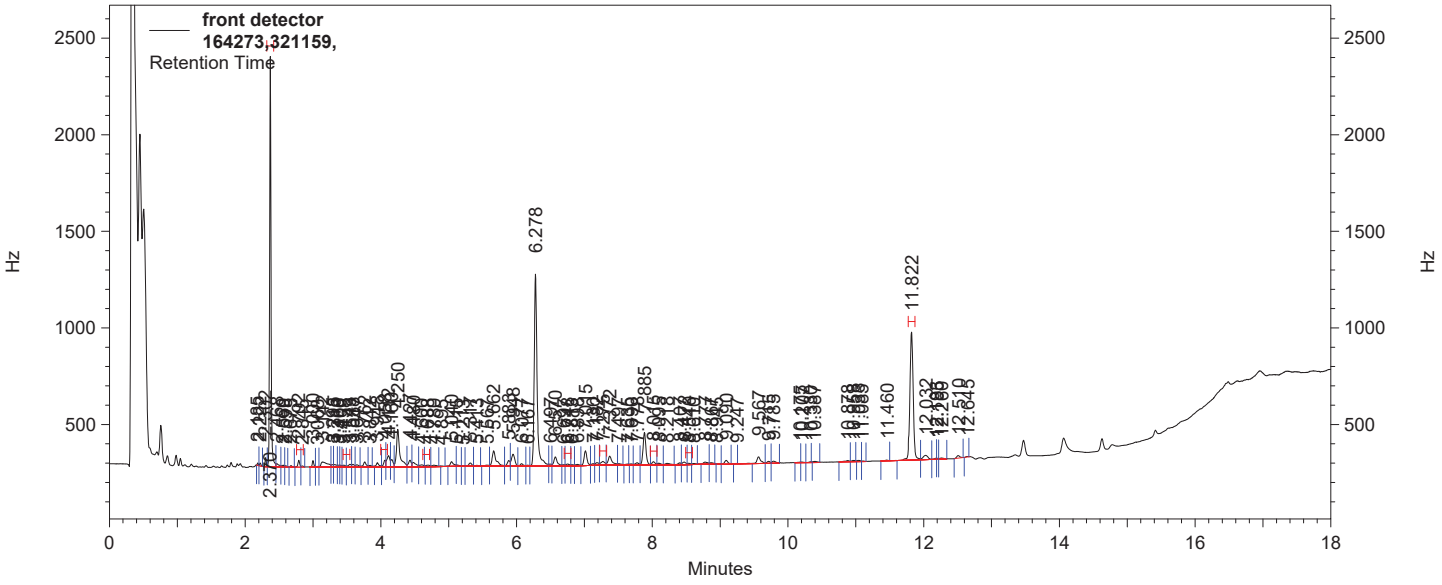
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.878	49269022	85.309
Aroclor 1016 #1	4.173	3797452	0.006
Aroclor 1016 #2	4.530	556528	0.000
Aroclor 1016 #3	5.172	1249604	0.001
Aroclor 1016 #4	5.533	1265494	0.003
Aroclor 1016 #5	6.237	301115	0.000
Aroclor 1260 #1	8.397	622071	0.001
Aroclor 1260 #2	8.855	702746	0.001
Aroclor 1260 #3	9.707	339291	0.000
Aroclor 1260 #4	10.257	649724	0.001
Aroclor 1260 #5	11.548	545253	0.002
SURRDCBPCB	13.902	35042532	80.837
Aroclor 1016		7170193	0.010
Aroclor 1260		2859085	0.005

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\049.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: 164273,321159,
Acquired: 09/11/2019 15:10:08
Printed: 09/16/2019 09:11:35

Data Summary: {Data Description}



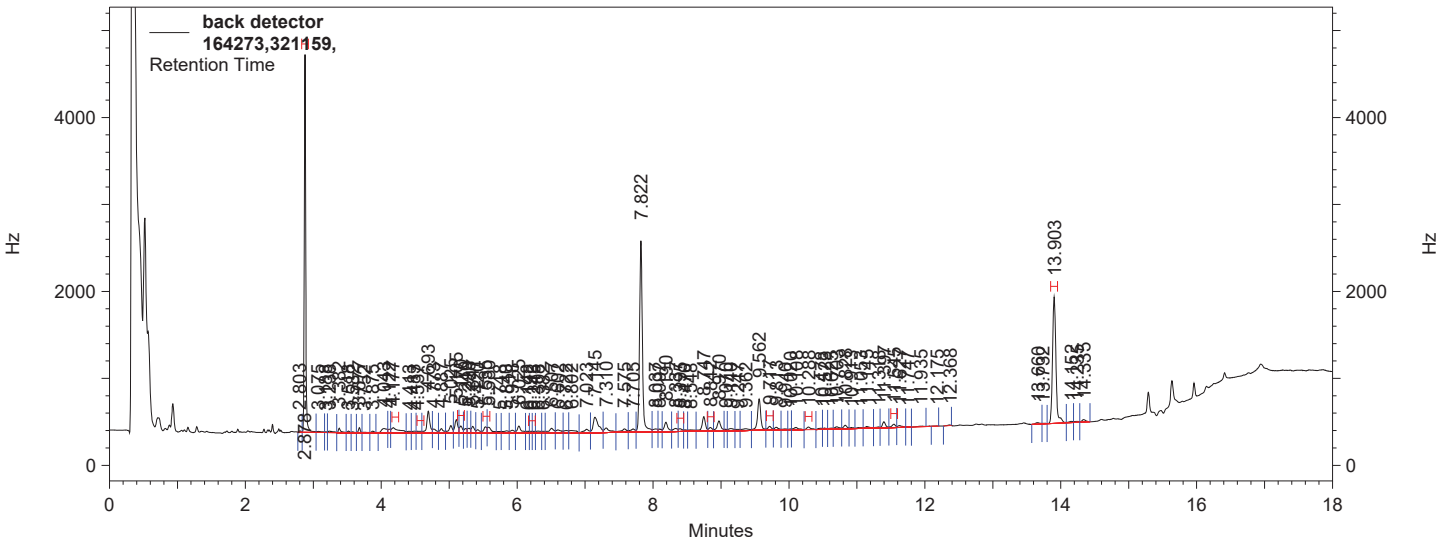
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.370	23766161	79.673
Aroclor 1016 #1	2.792	481576	0.003
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3	3.458	199184	0.000
Aroclor 1016 #4	4.058	556449	0.003
Aroclor 1016 #5	4.688	229894	0.000
Aroclor 1260 #1	6.748	239910	0.000
Aroclor 1260 #2	7.275	675515	0.001
Aroclor 1260 #3	8.015	413698	0.001
Aroclor 1260 #4	8.540	157144	0.001
Aroclor 1260 #5			0.000 BDL
SURRDCBPCB	11.822	17438821	84.081
Aroclor 1016		1467103	0.006
Aroclor 1260		1486267	0.003

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\049.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: 164273,321159,
Acquired: 09/11/2019 15:10:08
Printed: 09/16/2019 09:11:35

Data Summary: {Data Description}



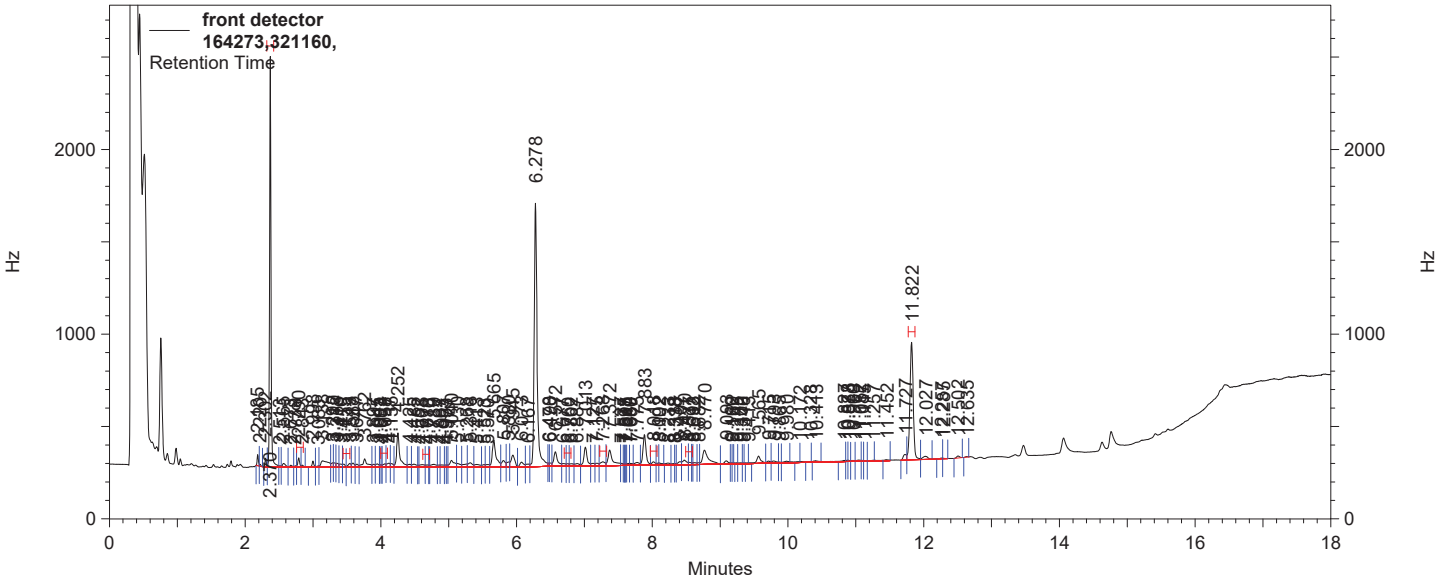
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.878	50131784	86.794
Aroclor 1016 #1	4.177	3404874	0.005
Aroclor 1016 #2	4.537	628765	0.000
Aroclor 1016 #3	5.170	1751444	0.002
Aroclor 1016 #4	5.535	1720281	0.005
Aroclor 1016 #5	6.192	314445	0.000
Aroclor 1260 #1	8.395	926505	0.001
Aroclor 1260 #2	8.842	1121044	0.002
Aroclor 1260 #3	9.717	1369202	0.003
Aroclor 1260 #4	10.288	1034595	0.002
Aroclor 1260 #5	11.545	1123744	0.002
SURRDCBPCB	13.903	38735929	89.422
Aroclor 1016		7819809	0.012
Aroclor 1260		5575090	0.010

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\050.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: 164273,321160,
Acquired: 09/11/2019 15:31:24
Printed: 09/16/2019 09:11:37

Data Summary: {Data Description}



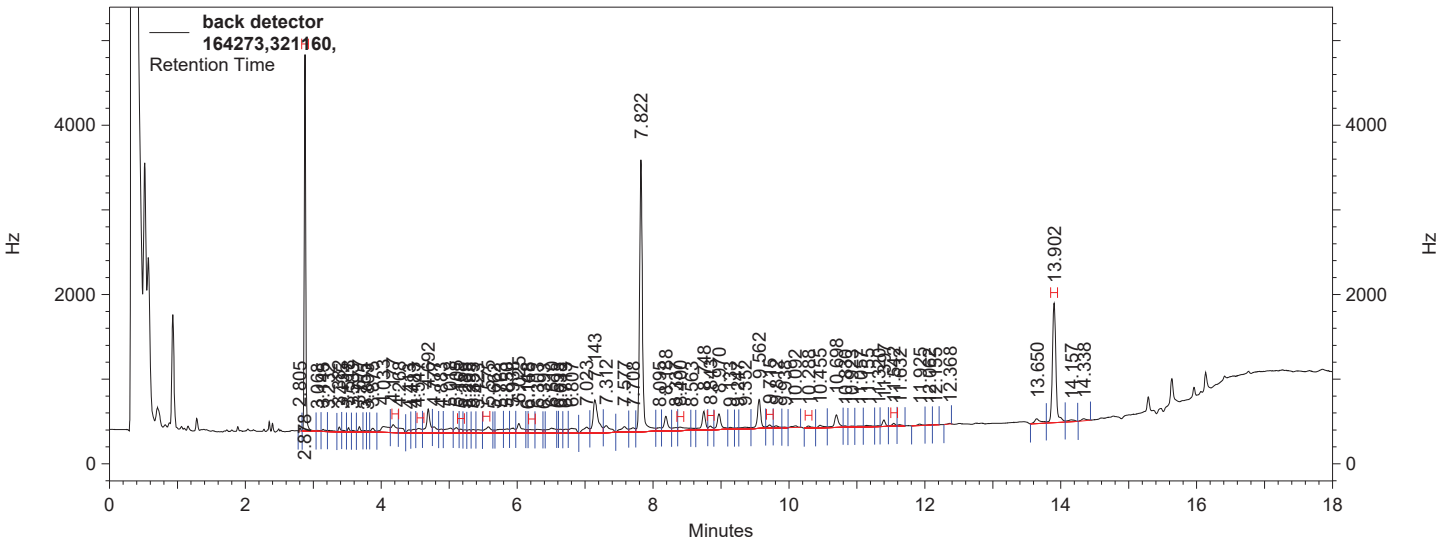
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.370	24690444	82.792
Aroclor 1016 #1	2.790	705056	0.005
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3	3.455	299983	0.000
Aroclor 1016 #4	4.058	397640	0.002
Aroclor 1016 #5	4.678	268484	0.000
Aroclor 1260 #1	6.760	266518	0.000
Aroclor 1260 #2	7.268	797978	0.001
Aroclor 1260 #3	8.018	477747	0.002
Aroclor 1260 #4	8.537	250486	0.001
Aroclor 1260 #5			0.000 BDL
SURRDCBPCB	11.822	16753219	80.695
Aroclor 1016		1671163	0.007
Aroclor 1260		1792729	0.004

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\050.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: 164273,321160,
Acquired: 09/11/2019 15:31:24
Printed: 09/16/2019 09:11:37

Data Summary: {Data Description}



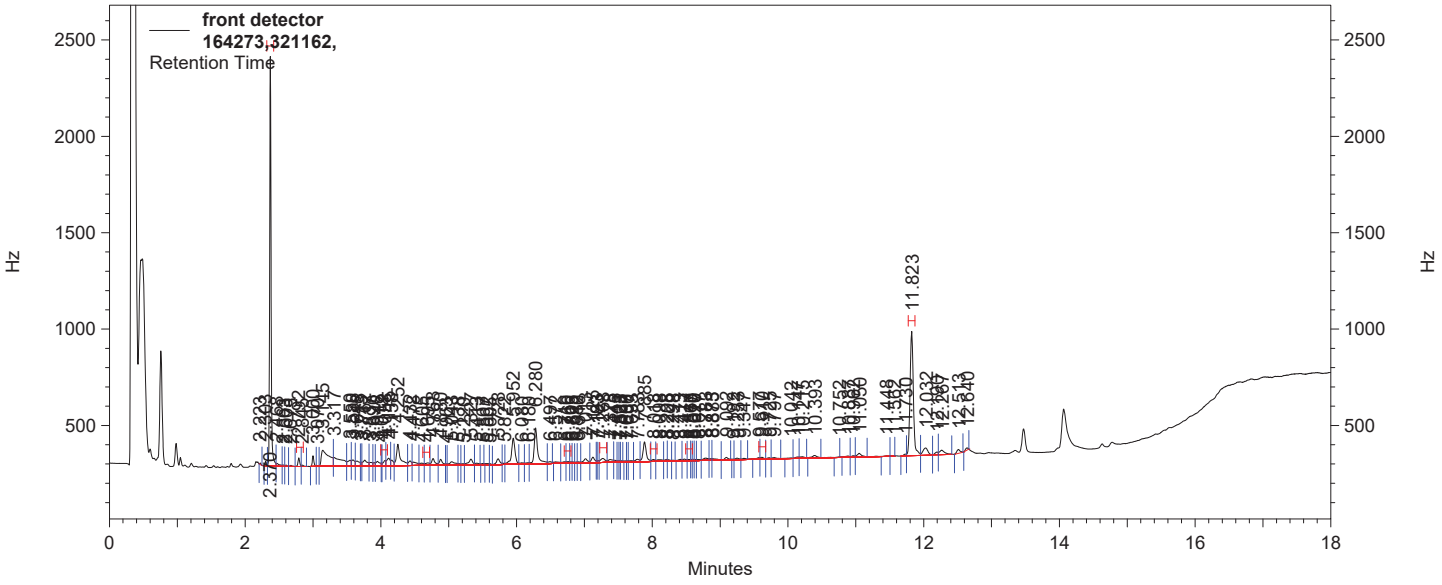
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.878	51363830	88.915
Aroclor 1016 #1	4.177	3726850	0.005
Aroclor 1016 #2	4.547	2035374	0.006
Aroclor 1016 #3	5.168	1128123	0.001
Aroclor 1016 #4	5.575	3526092	0.013
Aroclor 1016 #5	6.168	1991223	0.003
Aroclor 1260 #1	8.400	2906539	0.005
Aroclor 1260 #2	8.843	1298137	0.002
Aroclor 1260 #3	9.715	1241672	0.002
Aroclor 1260 #4	10.288	906294	0.002
Aroclor 1260 #5	11.542	997747	0.002
SURRDCBPCB	13.902	39023053	90.090
Aroclor 1016		12407662	0.029
Aroclor 1260		7350389	0.013

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\051.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: 164273,321162,
Acquired: 09/11/2019 15:52:34
Printed: 09/16/2019 09:11:40

Data Summary: {Data Description}



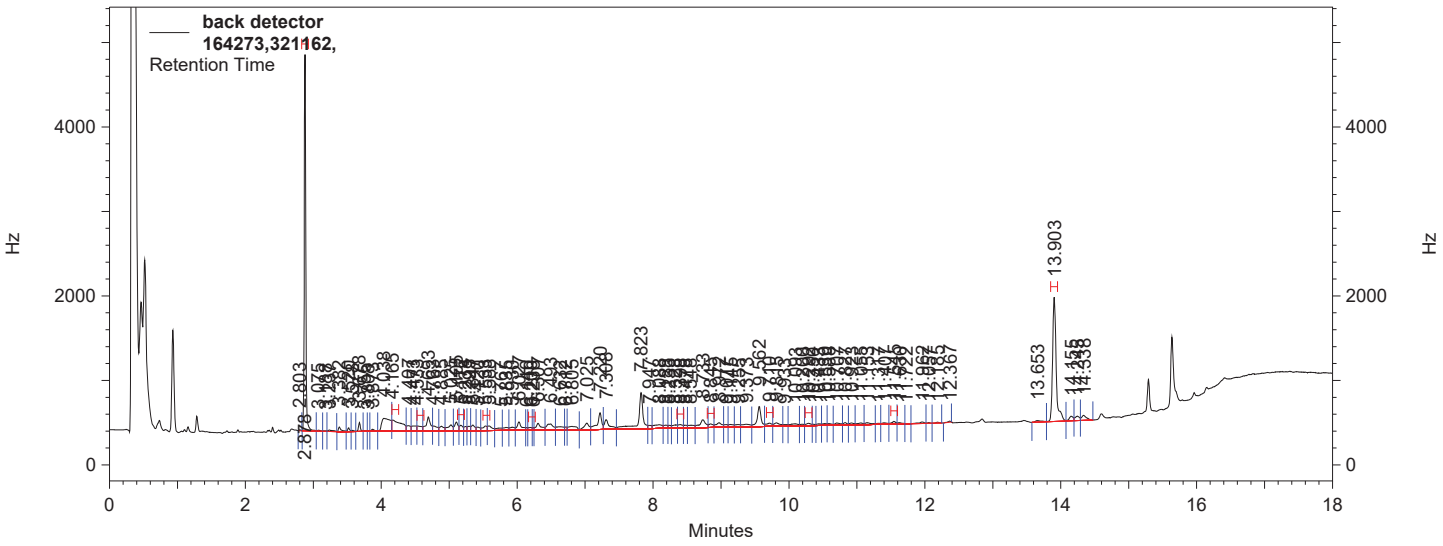
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.370	23986586	80.417
Aroclor 1016 #1	2.792	599877	0.004
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3			0.000 BDL
Aroclor 1016 #4	4.058	541923	0.003
Aroclor 1016 #5	4.695	413134	0.001
Aroclor 1260 #1	6.760	180964	0.000
Aroclor 1260 #2	7.268	771416	0.001
Aroclor 1260 #3	8.018	266658	0.000
Aroclor 1260 #4	8.560	154035	0.001
Aroclor 1260 #5	9.610	267317	0.003
SURRDCBPCB	11.823	17055999	82.190
Aroclor 1016		1554934	0.008
Aroclor 1260		1640390	0.005

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\051.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: 164273,321162,
Acquired: 09/11/2019 15:52:34
Printed: 09/16/2019 09:11:40

Data Summary: {Data Description}



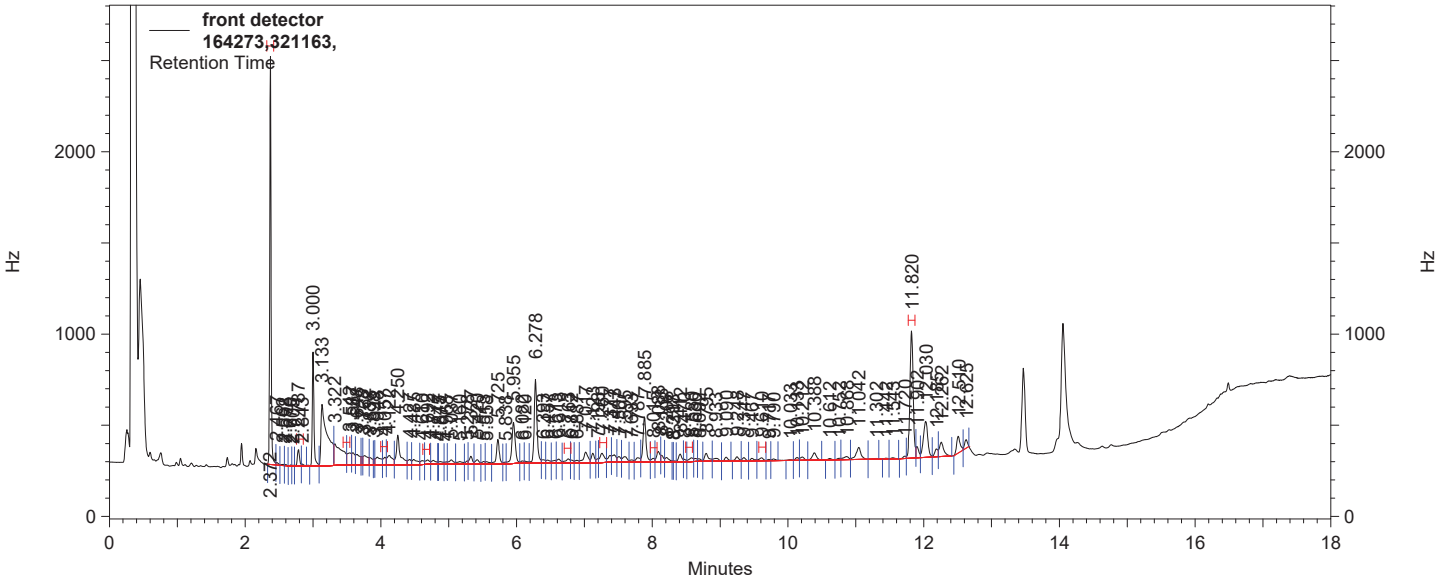
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.878	51753458	89.586
Aroclor 1016 #1	4.165	9751062	0.018
Aroclor 1016 #2	4.533	2244237	0.007
Aroclor 1016 #3	5.172	1709629	0.002
Aroclor 1016 #4	5.533	1812629	0.006
Aroclor 1016 #5	6.200	928037	0.001
Aroclor 1260 #1	8.398	1423080	0.002
Aroclor 1260 #2	8.845	1421095	0.002
Aroclor 1260 #3	9.710	1656926	0.003
Aroclor 1260 #4	10.292	1061383	0.002
Aroclor 1260 #5	11.545	1082213	0.002
SURRDCBPCB	13.903	41068154	94.844
Aroclor 1016		16445594	0.033
Aroclor 1260		6644697	0.012

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\052.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: 164273,321163,
Acquired: 09/11/2019 16:13:51
Printed: 09/16/2019 09:11:44

Data Summary: {Data Description}



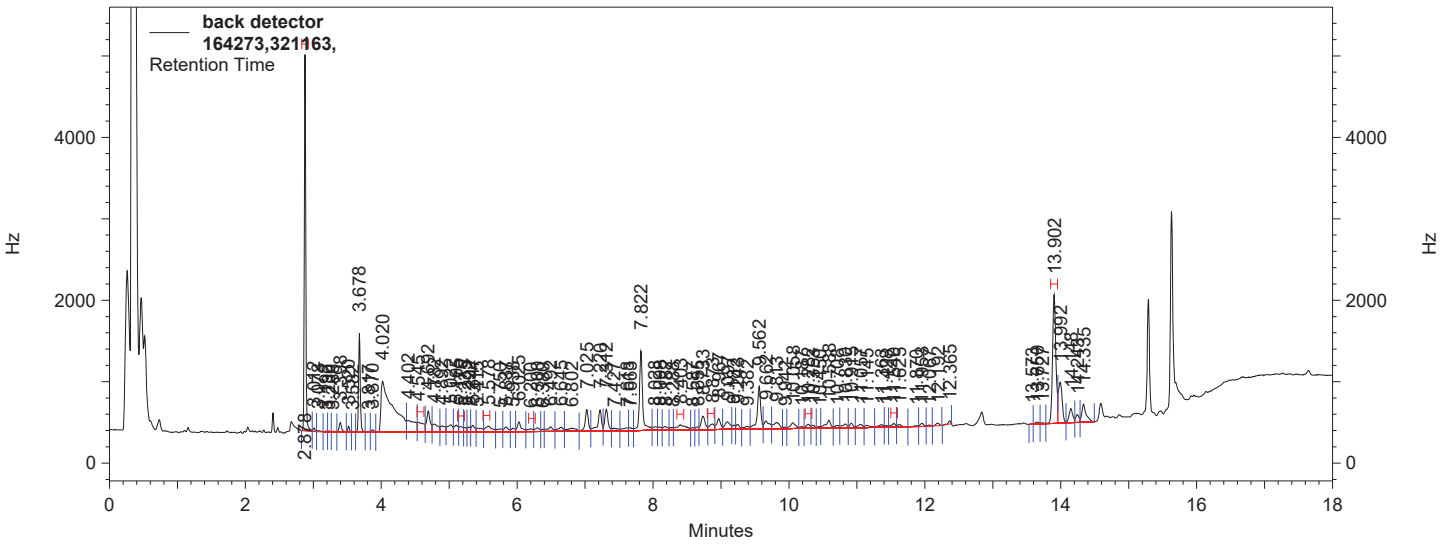
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.372	24505380	82.168
Aroclor 1016 #1	2.787	1525561	0.012
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3	3.542	2209070	0.012
Aroclor 1016 #4	4.057	971429	0.005
Aroclor 1016 #5	4.692	828507	0.003
Aroclor 1260 #1	6.763	797502	0.002
Aroclor 1260 #2	7.260	1813177	0.004
Aroclor 1260 #3	8.015	530491	0.002
Aroclor 1260 #4	8.580	693962	0.005
Aroclor 1260 #5	9.610	567096	0.004
SURRDCBPCB	11.820	17988210	86.794
Aroclor 1016		5534567	0.032
Aroclor 1260		4402228	0.018

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\052.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: 164273,321163,
Acquired: 09/11/2019 16:13:51
Printed: 09/16/2019 09:11:44

Data Summary: {Data Description}



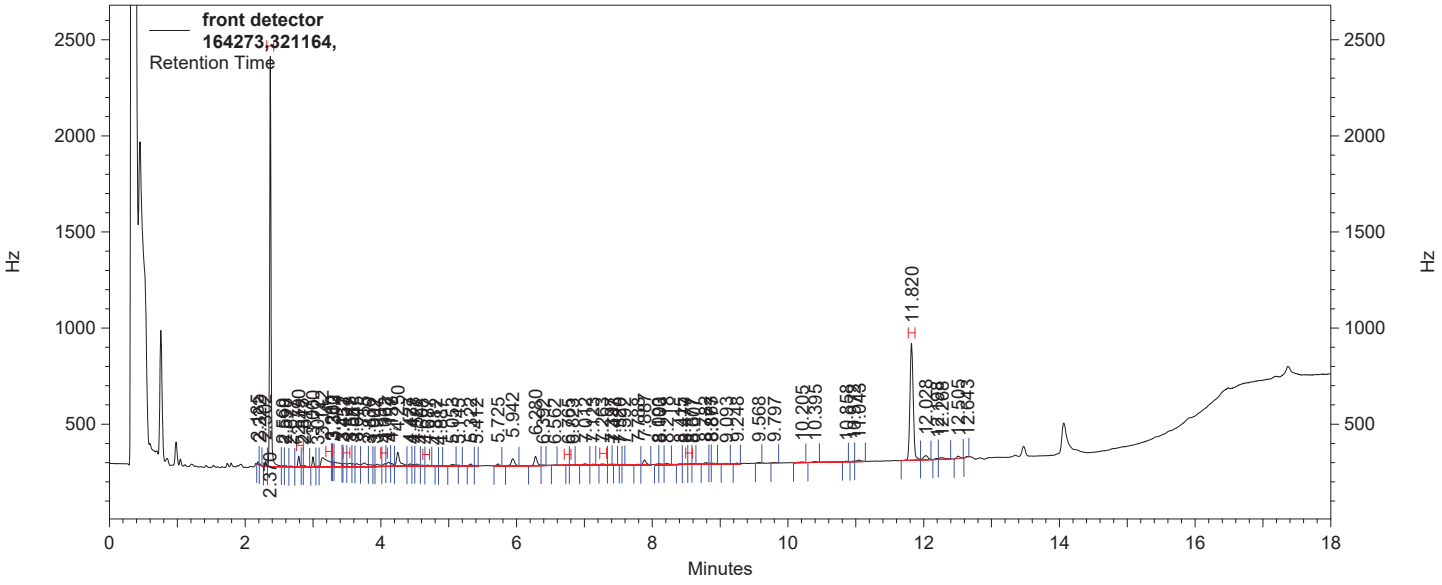
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.878	52981353	91.700
Aroclor 1016 #1			0.000 BDL
Aroclor 1016 #2	4.545	5764875	0.023
Aroclor 1016 #3	5.170	1932826	0.003
Aroclor 1016 #4	5.578	3606021	0.013
Aroclor 1016 #5	6.200	1370220	0.002
Aroclor 1260 #1	8.403	4523512	0.008
Aroclor 1260 #2	8.873	2590033	0.004
Aroclor 1260 #3			0.000 BDL
Aroclor 1260 #4	10.282	1498641	0.003
Aroclor 1260 #5	11.540	1538776	0.003
SURRDCBPCB	13.902	41178599	95.100
Aroclor 1016		12673942	0.040
Aroclor 1260		10150962	0.018

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\053.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: 164273,321164,
Acquired: 09/11/2019 16:35:05
Printed: 09/16/2019 09:11:48

Data Summary: {Data Description}



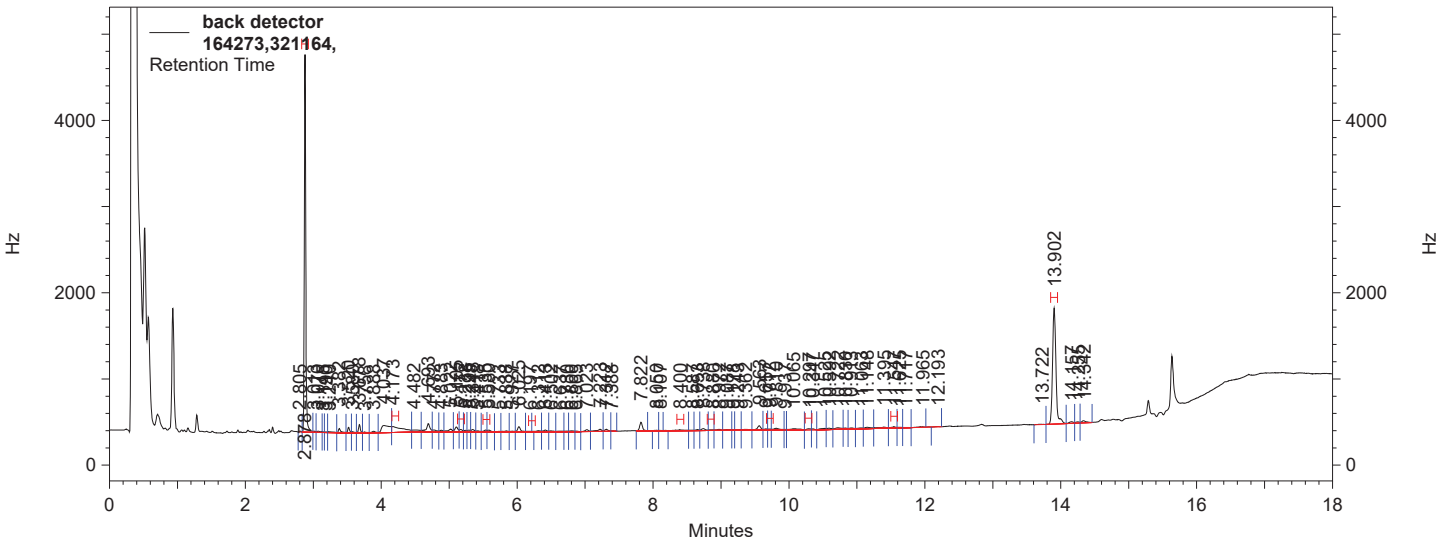
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.370	23526331	78.864
Aroclor 1016 #1	2.790	752911	0.005
Aroclor 1016 #2	3.280	168280	0.000
Aroclor 1016 #3	3.452	395421	0.001
Aroclor 1016 #4	4.062	283822	0.001
Aroclor 1016 #5	4.687	214411	0.000
Aroclor 1260 #1	6.765	50262	0.000
Aroclor 1260 #2	7.263	253088	0.000
Aroclor 1260 #3			0.000 BDL
Aroclor 1260 #4	8.577	81488	0.000
Aroclor 1260 #5			0.000 BDL
SURRDCBPCB	11.820	15797659	75.975
Aroclor 1016		1814845	0.007
Aroclor 1260		384838	0.000

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\053.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: 164273,321164,
Acquired: 09/11/2019 16:35:05
Printed: 09/16/2019 09:11:48

Data Summary: {Data Description}



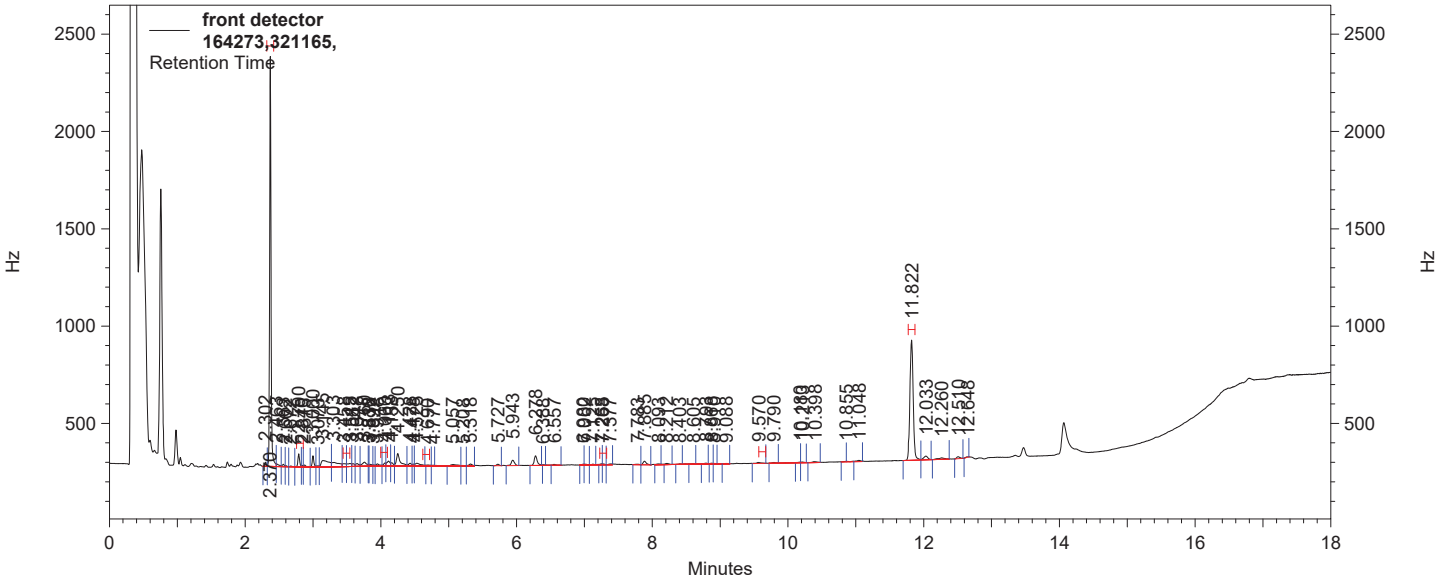
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.878	50198801	86.909
Aroclor 1016 #1	4.173	6264907	0.011
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3	5.172	775091	0.000
Aroclor 1016 #4	5.535	597751	0.001
Aroclor 1016 #5	6.197	268846	0.000
Aroclor 1260 #1	8.400	652705	0.001
Aroclor 1260 #2	8.880	287339	0.000
Aroclor 1260 #3	9.712	337807	0.000
Aroclor 1260 #4	10.297	486849	0.001
Aroclor 1260 #5	11.547	587371	0.002
SURRDCBPCB	13.902	35741194	82.461
Aroclor 1016		7906595	0.011
Aroclor 1260		2352071	0.004

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\054.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: 164273,321165,
Acquired: 09/11/2019 16:56:20
Printed: 09/16/2019 09:11:51

Data Summary: {Data Description}



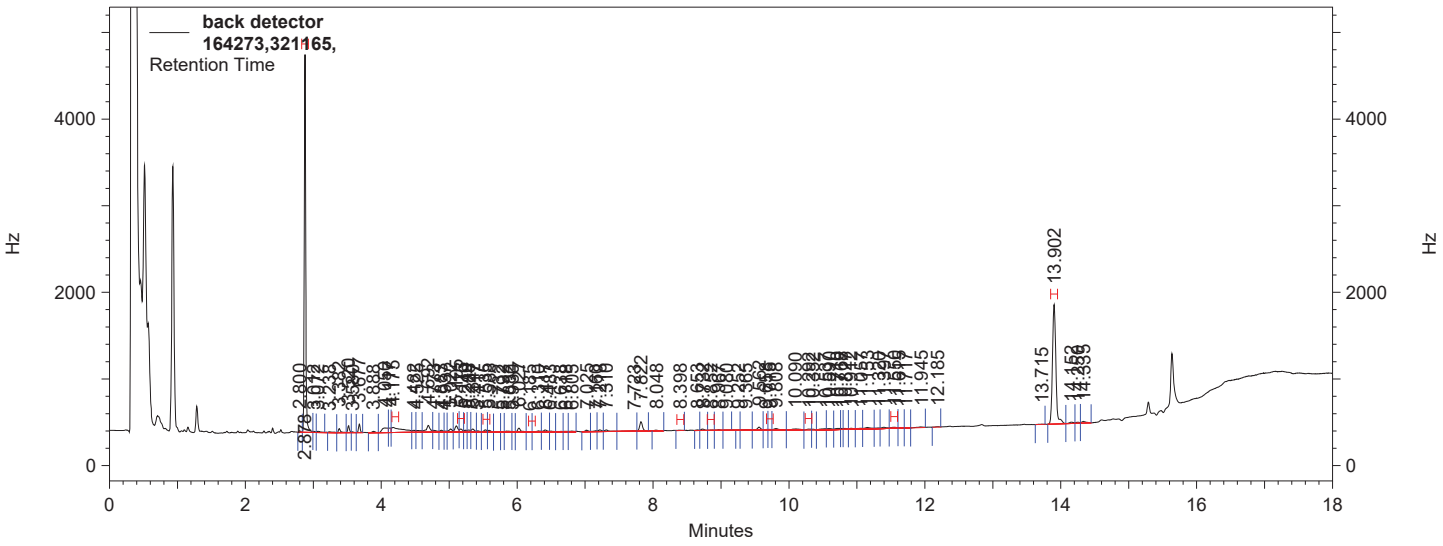
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.370	23420518	78.507
Aroclor 1016 #1	2.790	873576	0.006
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3	3.458	398222	0.001
Aroclor 1016 #4	4.060	305475	0.001
Aroclor 1016 #5	4.690	178597	0.000
Aroclor 1260 #1			0.000 BDL
Aroclor 1260 #2	7.268	80508	0.000
Aroclor 1260 #3			0.000 BDL
Aroclor 1260 #4			0.000 BDL
Aroclor 1260 #5	9.570	181739	0.003
SURRDCBPCB	11.822	16147541	77.703
Aroclor 1016		1755870	0.008
Aroclor 1260		262247	0.003

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\054.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: 164273,321165,
Acquired: 09/11/2019 16:56:20
Printed: 09/16/2019 09:11:51

Data Summary: {Data Description}



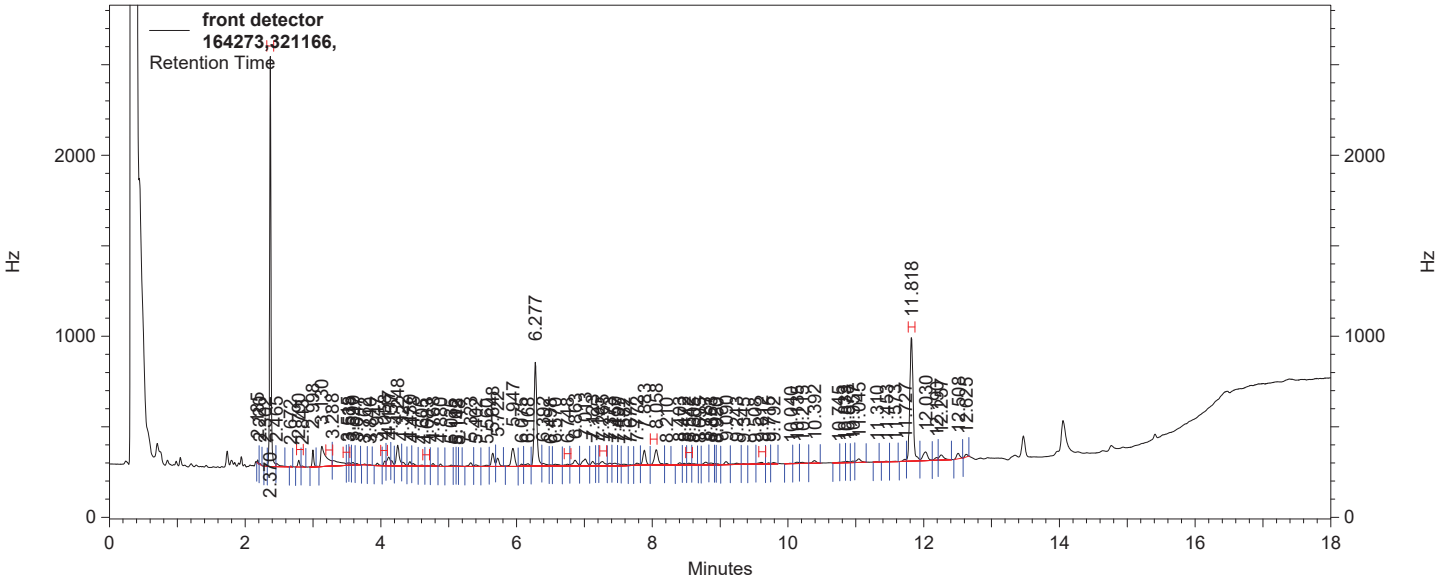
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.878	50631865	87.655
Aroclor 1016 #1	4.175	5429327	0.009
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3	5.173	922664	0.001
Aroclor 1016 #4	5.535	696095	0.001
Aroclor 1016 #5	6.185	156772	0.000
Aroclor 1260 #1	8.398	146777	0.000
Aroclor 1260 #2	8.852	127010	0.000
Aroclor 1260 #3	9.715	245079	0.000
Aroclor 1260 #4	10.292	420133	0.001
Aroclor 1260 #5	11.550	564986	0.002
SURRDCBPCB	13.902	36639899	84.550
Aroclor 1016		7204858	0.010
Aroclor 1260		1503985	0.003

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\055.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: 164273,321166,
Acquired: 09/11/2019 17:17:30
Printed: 09/16/2019 09:11:54

Data Summary: {Data Description}



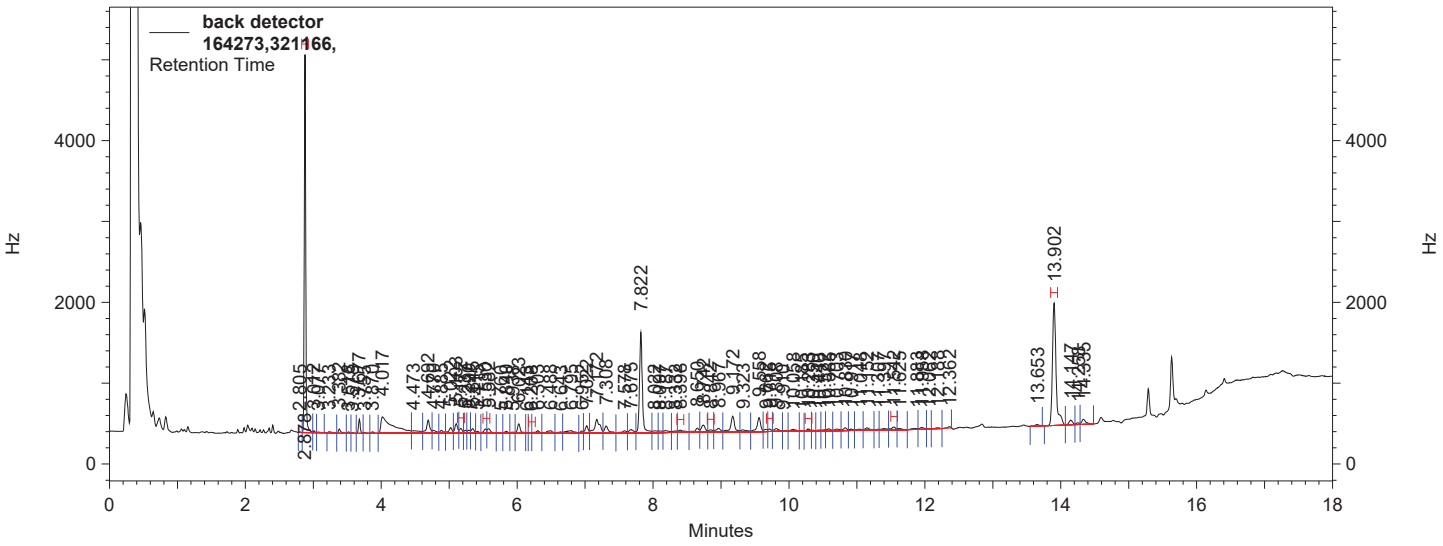
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.370	24777818	83.087
Aroclor 1016 #1	2.790	530394	0.003
Aroclor 1016 #2	3.288	1908977	0.006
Aroclor 1016 #3	3.515	213120	0.000
Aroclor 1016 #4	4.058	384364	0.002
Aroclor 1016 #5	4.683	98748	0.000
Aroclor 1260 #1	6.748	379568	0.000
Aroclor 1260 #2	7.265	892884	0.001
Aroclor 1260 #3	8.058	2731897	0.014
Aroclor 1260 #4	8.542	285966	0.002
Aroclor 1260 #5	9.612	370123	0.003
SURRDCBPCB	11.818	18037159	87.036
Aroclor 1016		3135603	0.011
Aroclor 1260		4660438	0.021

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\055.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: 164273,321166,
Acquired: 09/11/2019 17:17:30
Printed: 09/16/2019 09:11:54

Data Summary: {Data Description}



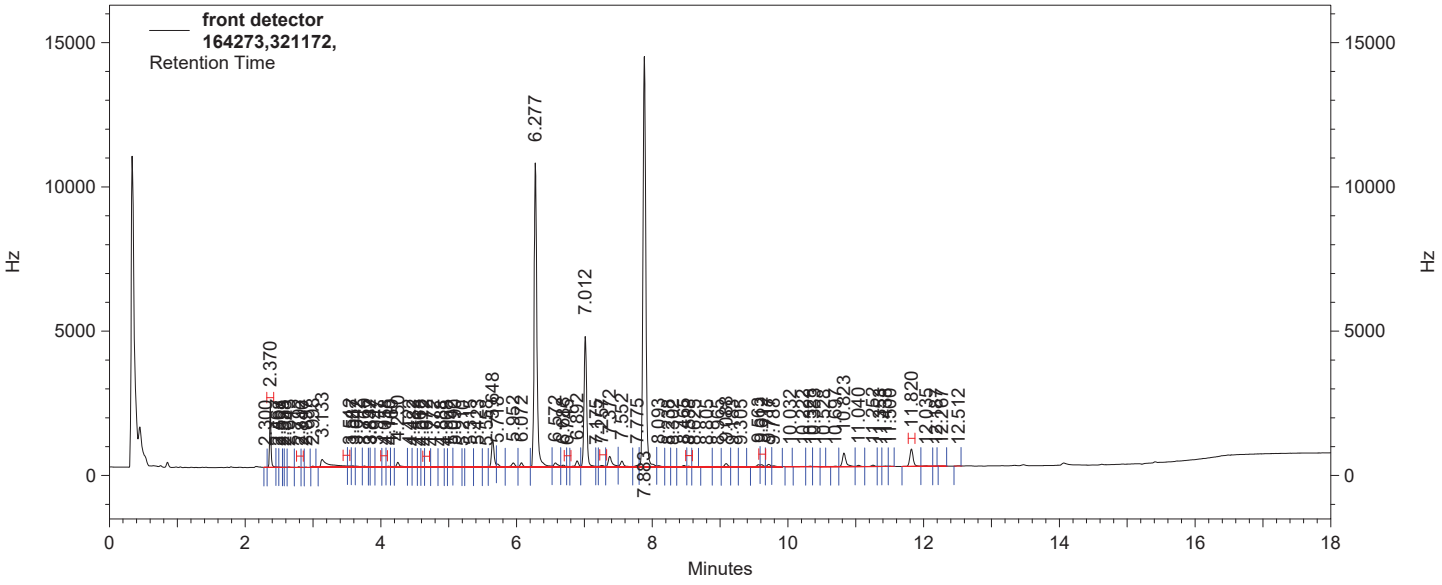
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.878	53351171	92.337
Aroclor 1016 #1			0.000 BDL
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3	5.172	1366803	0.002
Aroclor 1016 #4	5.530	1230838	0.003
Aroclor 1016 #5	6.208	260167	0.000
Aroclor 1260 #1	8.398	1293980	0.002
Aroclor 1260 #2	8.842	857974	0.001
Aroclor 1260 #3	9.715	732554	0.001
Aroclor 1260 #4	10.283	659918	0.001
Aroclor 1260 #5	11.542	1157524	0.003
SURRDCBPCB	13.902	43141561	99.663
Aroclor 1016		2857808	0.005
Aroclor 1260		4701950	0.008

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091319pcb\016.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091319pcb.met
User: AJZ
Sample ID: 164273,321172,
Acquired: 09/13/2019 21:53:49
Printed: 09/16/2019 09:28:10

Data Summary: {Data Description}



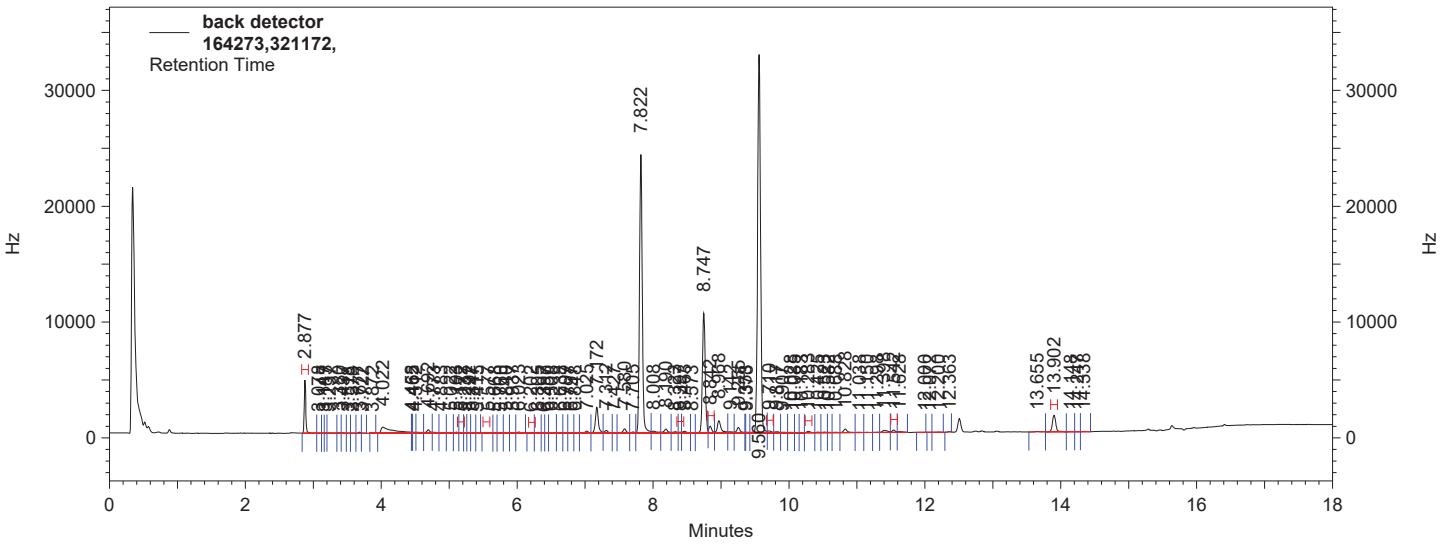
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.370	22913325	76.796
Aroclor 1016 #1	2.792	353998	0.002
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3	3.542	1290387	0.006
Aroclor 1016 #4	4.058	747373	0.004
Aroclor 1016 #5	4.672	472661	0.001
Aroclor 1260 #1	6.745	515073	0.001
Aroclor 1260 #2	7.257	1880670	0.004
Aroclor 1260 #3			0.000 BDL
Aroclor 1260 #4	8.538	605629	0.005
Aroclor 1260 #5	9.612	1680739	0.010
SURRDCBPCB	11.820	15895414	76.458
Aroclor 1016		2864419	0.013
Aroclor 1260		4682111	0.019

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091319pcb\016.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091319pcb.met
User: AJZ
Sample ID: 164273,321172,
Acquired: 09/13/2019 21:53:49
Printed: 09/16/2019 09:28:10

Data Summary: {Data Description}



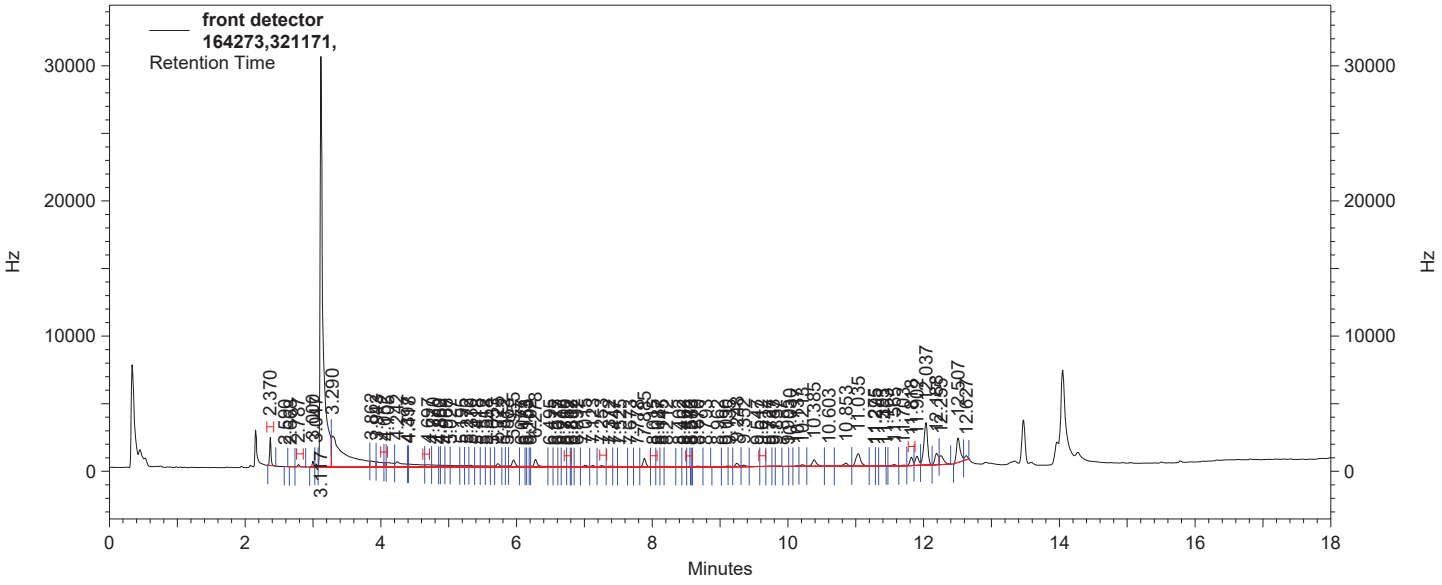
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.877	53295938	92.242
Aroclor 1016 #1			0.000 BDL
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3	5.172	1284400	0.001
Aroclor 1016 #4	5.577	2195919	0.007
Aroclor 1016 #5	6.202	397134	0.000
Aroclor 1260 #1	8.397	1188496	0.002
Aroclor 1260 #2	8.842	13019846	0.020
Aroclor 1260 #3	9.710	4553178	0.010
Aroclor 1260 #4	10.283	2912985	0.007
Aroclor 1260 #5	11.542	5240837	0.009
SURRDCBPCB	13.902	37938289	87.568
Aroclor 1016		3877453	0.008
Aroclor 1260		26915342	0.048

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091319pcb\017.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091319pcb.met
User: AJZ
Sample ID: 164273,321171,
Acquired: 09/13/2019 22:14:58
Printed: 09/16/2019 09:28:13

Data Summary: {Data Description}



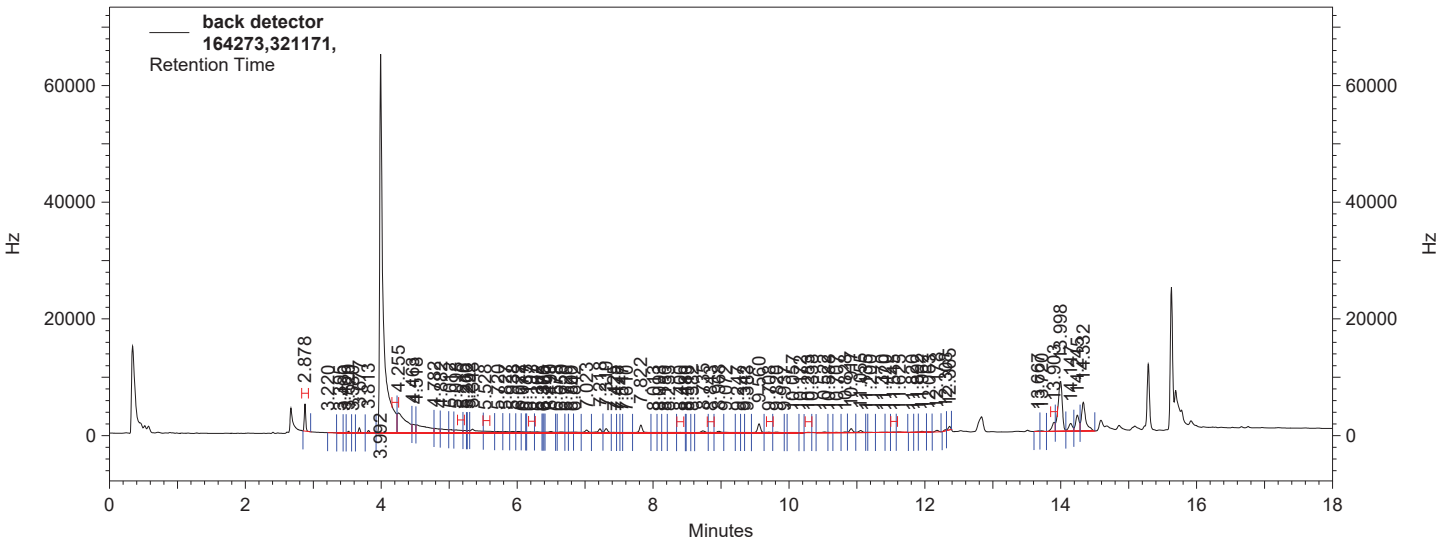
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.370	22537857	75.529
Aroclor 1016 #1	2.787	2677045	0.022
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3			0.000 BDL
Aroclor 1016 #4	4.052	4815803	0.024
Aroclor 1016 #5	4.697	6981537	0.033
Aroclor 1260 #1	6.752	725819	0.002
Aroclor 1260 #2	7.253	2577328	0.005
Aroclor 1260 #3	8.015	541120	0.002
Aroclor 1260 #4	8.542	192038	0.001
Aroclor 1260 #5	9.612	426567	0.004
SURRDCBPCB	11.818	14797446	71.036
Aroclor 1016		14474385	0.080
Aroclor 1260		4462872	0.014

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091319pcb\017.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091319pcb.met
User: AJZ
Sample ID: 164273,321171,
Acquired: 09/13/2019 22:14:58
Printed: 09/16/2019 09:28:13

Data Summary: {Data Description}



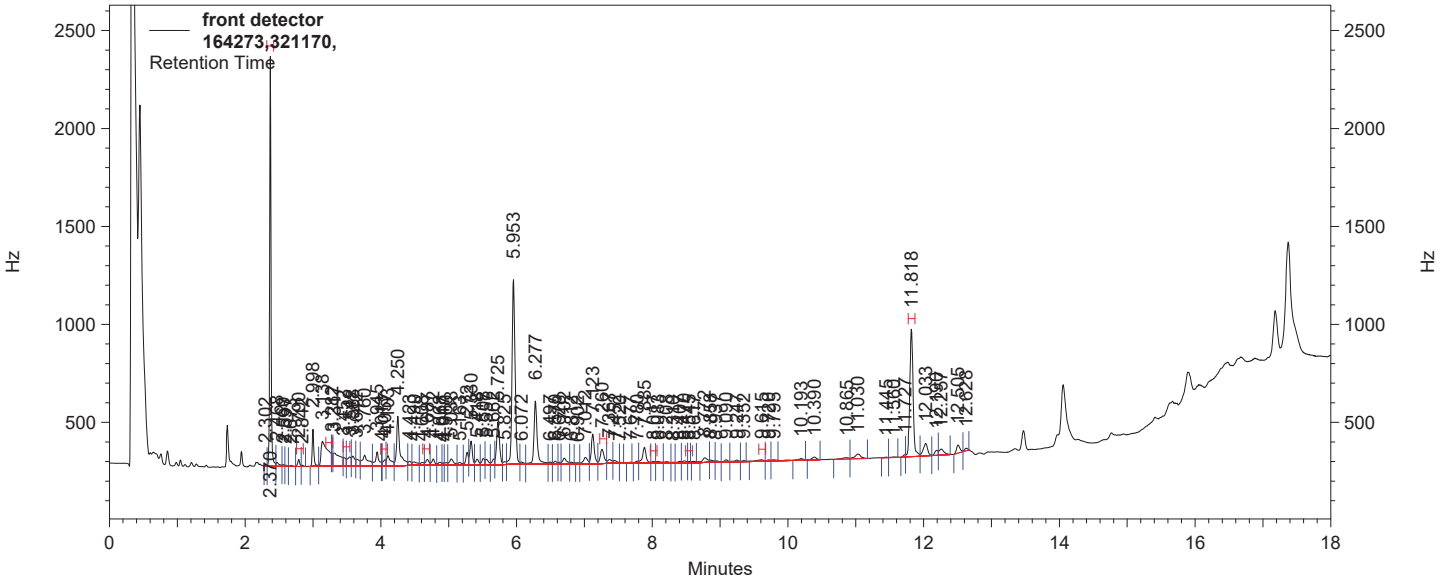
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.878	52066850	90.126
Aroclor 1016 #1	4.255	241238240	0.491
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3	5.210	9507944	0.019
Aroclor 1016 #4	5.528	20432261	0.082
Aroclor 1016 #5	6.197	8211755	0.020
Aroclor 1260 #1	8.400	2923928	0.005
Aroclor 1260 #2	8.843	2034750	0.003
Aroclor 1260 #3	9.708	3606068	0.008
Aroclor 1260 #4	10.283	1744844	0.004
Aroclor 1260 #5	11.545	1623600	0.003
SURRDCBPCB	13.903	39174155	90.441
Aroclor 1016		279390200	0.612
Aroclor 1260		11933190	0.023

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091319pcb\018.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091319pcb.met
User: AJZ
Sample ID: 164273,321170,
Acquired: 09/13/2019 22:36:09
Printed: 09/16/2019 09:28:17

Data Summary: {Data Description}



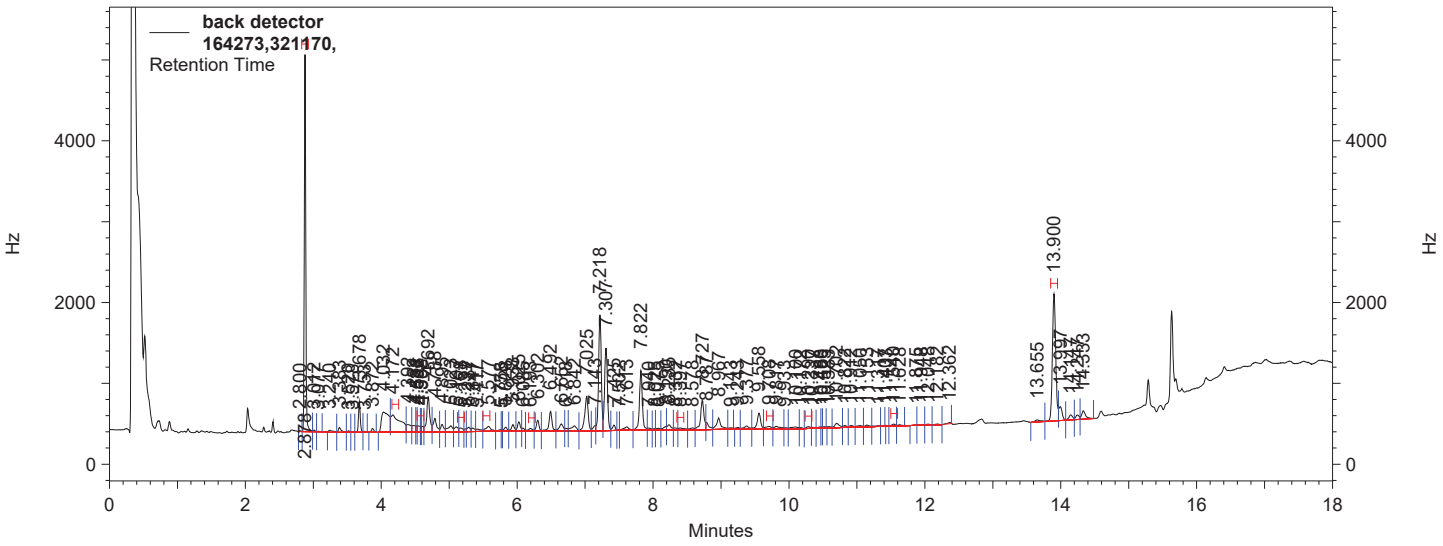
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.370	23190241	77.730
Aroclor 1016 #1	2.790	538716	0.003
Aroclor 1016 #2	3.282	662777	0.001
Aroclor 1016 #3	3.452	911707	0.004
Aroclor 1016 #4	4.057	648021	0.003
Aroclor 1016 #5	4.687	770819	0.003
Aroclor 1260 #1			0.000 BDL
Aroclor 1260 #2	7.260	2131707	0.004
Aroclor 1260 #3	8.017	188259	0.000
Aroclor 1260 #4	8.545	106109	0.000
Aroclor 1260 #5	9.615	415399	0.004
SURRDCBPCB	11.818	17210723	82.954
Aroclor 1016		3532040	0.014
Aroclor 1260		2841474	0.008

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091319pcb\018.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091319pcb.met
User: AJZ
Sample ID: 164273,321170,
Acquired: 09/13/2019 22:36:09
Printed: 09/16/2019 09:28:17

Data Summary: {Data Description}



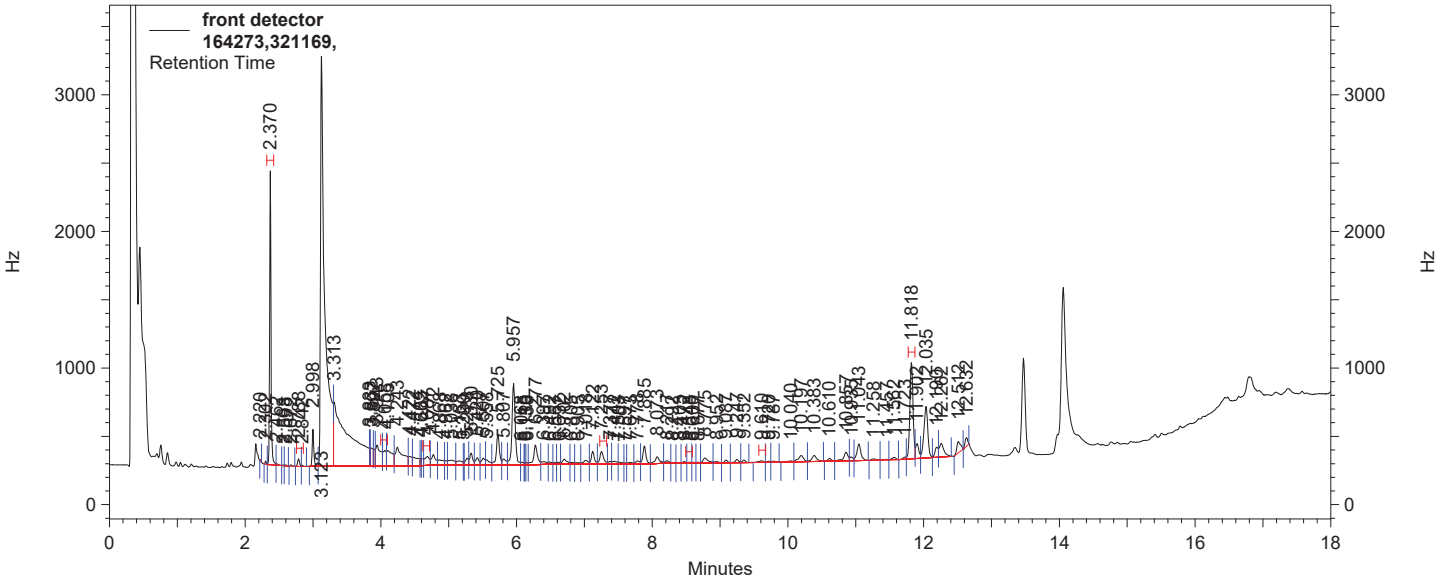
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.878	53537724	92.658
Aroclor 1016 #1	4.172	16220638	0.031
Aroclor 1016 #2	4.582	463683	0.000
Aroclor 1016 #3	5.168	1293189	0.001
Aroclor 1016 #4	5.577	2708726	0.009
Aroclor 1016 #5	6.193	1190393	0.001
Aroclor 1260 #1	8.397	1087802	0.001
Aroclor 1260 #2			0.000 BDL
Aroclor 1260 #3	9.708	1512478	0.003
Aroclor 1260 #4	10.290	737274	0.002
Aroclor 1260 #5	11.540	772751	0.002
SURRDCBPCB	13.900	40997107	94.678
Aroclor 1016		21876629	0.043
Aroclor 1260		4110305	0.008

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091319pcb\019.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091319pcb.met
User: AJZ
Sample ID: 164273,321169,
Acquired: 09/13/2019 22:57:19
Printed: 09/16/2019 09:28:20

Data Summary: {Data Description}



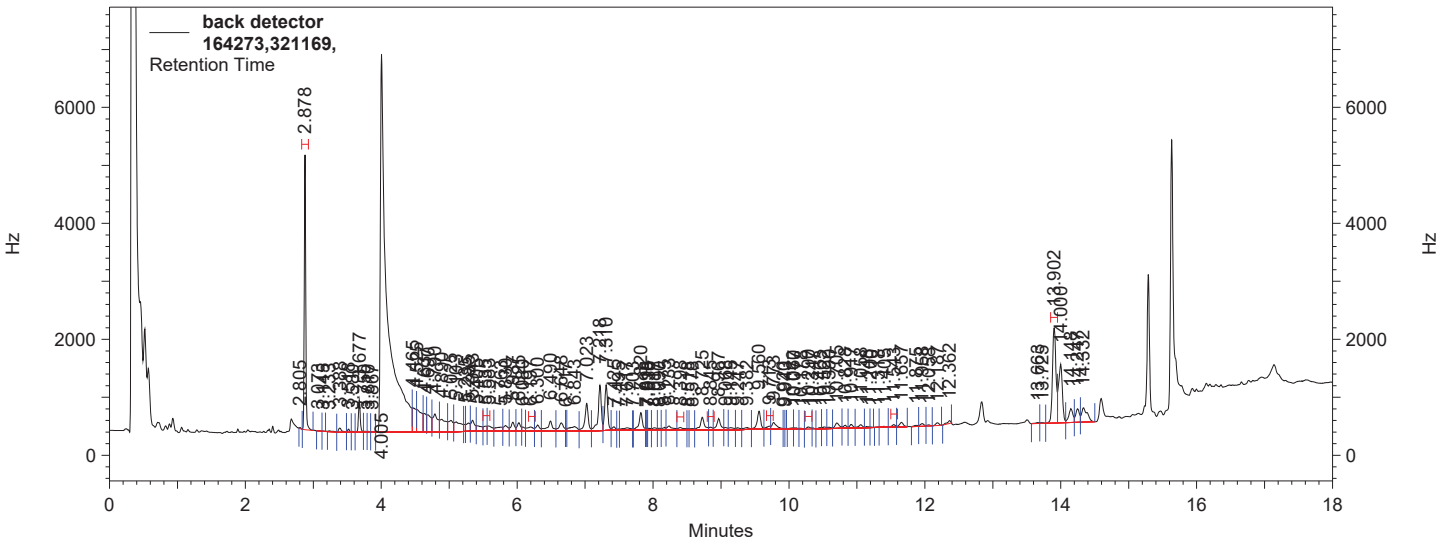
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.370	23655268	79.299
Aroclor 1016 #1	2.788	851679	0.006
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3			0.000 BDL
Aroclor 1016 #4	4.058	2831145	0.014
Aroclor 1016 #5	4.687	2485247	0.011
Aroclor 1260 #1			0.000 BDL
Aroclor 1260 #2	7.253	2712125	0.006
Aroclor 1260 #3			0.000 BDL
Aroclor 1260 #4	8.548	197293	0.001
Aroclor 1260 #5	9.610	431668	0.004
SURRDCBPCB	11.818	17760187	85.668
Aroclor 1016		6168071	0.032
Aroclor 1260		3341086	0.010

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091319pcb\019.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091319pcb.met
User: AJZ
Sample ID: 164273,321169,
Acquired: 09/13/2019 22:57:19
Printed: 09/16/2019 09:28:20

Data Summary: {Data Description}



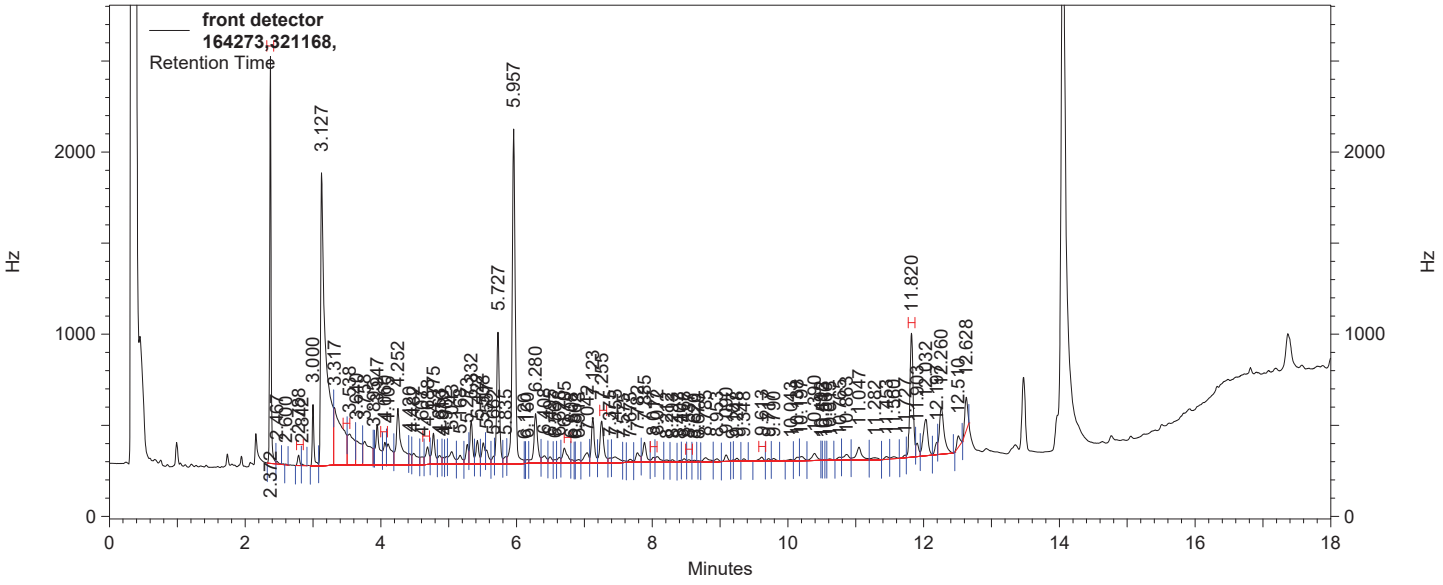
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.878	54385488	94.117
Aroclor 1016 #1			0.000 BDL
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3			0.000 BDL
Aroclor 1016 #4	5.535	2411801	0.008
Aroclor 1016 #5	6.197	3486137	0.007
Aroclor 1260 #1	8.398	2010652	0.003
Aroclor 1260 #2	8.845	1232712	0.002
Aroclor 1260 #3	9.713	1886980	0.004
Aroclor 1260 #4	10.290	1107226	0.003
Aroclor 1260 #5	11.543	1187710	0.003
SURRDCBPCB	13.902	44624600	103.111
Aroclor 1016		5897938	0.015
Aroclor 1260		7425280	0.014

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091319pcb\020.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091319pcb.met
User: AJZ
Sample ID: 164273,321168,
Acquired: 09/13/2019 23:18:30
Printed: 09/16/2019 09:28:24

Data Summary: {Data Description}



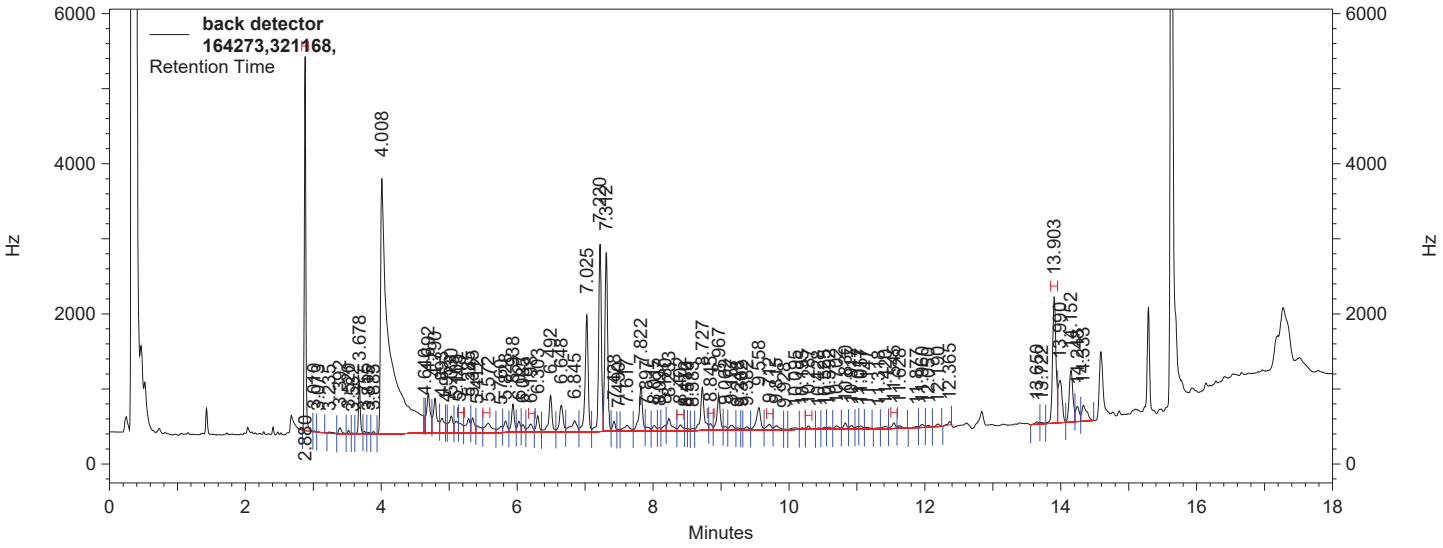
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.372	24395551	81.797
Aroclor 1016 #1	2.788	931444	0.007
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3	3.538	8813849	0.052
Aroclor 1016 #4	4.060	2809081	0.014
Aroclor 1016 #5	4.688	2625204	0.012
Aroclor 1260 #1	6.705	3072777	0.011
Aroclor 1260 #2	7.255	6691665	0.015
Aroclor 1260 #3	8.017	671883	0.003
Aroclor 1260 #4	8.537	311666	0.002
Aroclor 1260 #5	9.613	748203	0.005
SURRDCBPCB	11.820	17432604	84.050
Aroclor 1016		15179578	0.085
Aroclor 1260		11496194	0.036

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091319pcb\020.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091319pcb.met
User: AJZ
Sample ID: 164273,321168,
Acquired: 09/13/2019 23:18:30
Printed: 09/16/2019 09:28:24

Data Summary: {Data Description}



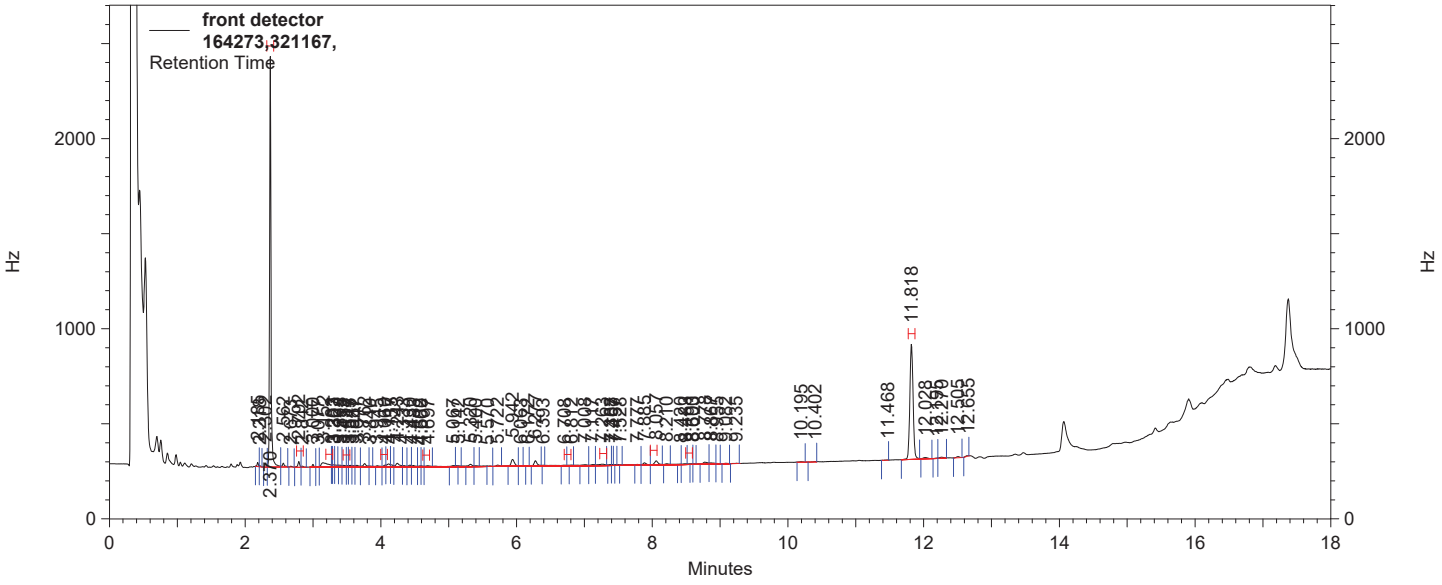
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.880	56743627	98.177
Aroclor 1016 #1			0.000 BDL
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3	5.148	4163333	0.007
Aroclor 1016 #4	5.572	7038471	0.027
Aroclor 1016 #5	6.198	4014627	0.009
Aroclor 1260 #1	8.402	2475554	0.004
Aroclor 1260 #2	8.845	2208900	0.003
Aroclor 1260 #3	9.712	2734153	0.006
Aroclor 1260 #4	10.287	1321529	0.003
Aroclor 1260 #5	11.545	2163551	0.004
SURRDCBPCB	13.903	44608614	103.073
Aroclor 1016		15216431	0.043
Aroclor 1260		10903687	0.020

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091319pcb\021.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091319pcb.met
User: AJZ
Sample ID: 164273,321167,
Acquired: 09/13/2019 23:39:40
Printed: 09/16/2019 09:28:27

Data Summary: {Data Description}



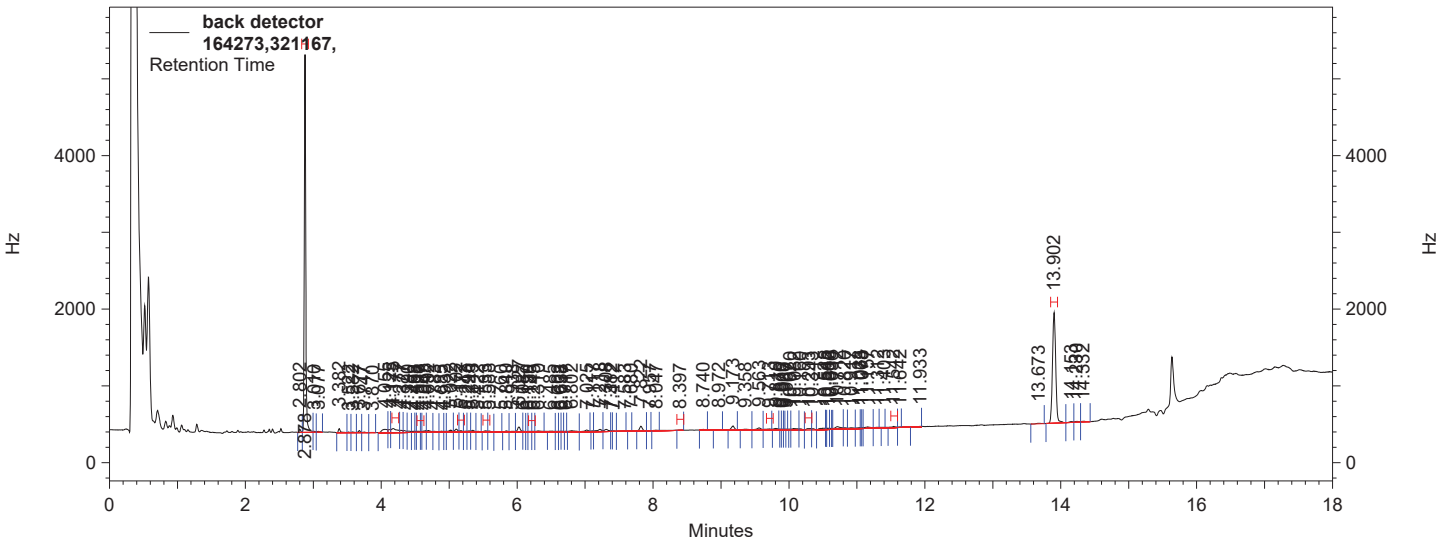
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.370	24609038	82.517
Aroclor 1016 #1	2.792	427963	0.002
Aroclor 1016 #2	3.283	91896	0.000
Aroclor 1016 #3	3.517	106415	0.000
Aroclor 1016 #4	4.060	179370	0.001
Aroclor 1016 #5	4.697	214460	0.000
Aroclor 1260 #1	6.708	107154	0.000
Aroclor 1260 #2	7.263	382883	0.000
Aroclor 1260 #3	8.057	662371	0.003
Aroclor 1260 #4	8.590	66986	0.000
Aroclor 1260 #5			0.000 BDL
SURRDCBPCB	11.818	15568069	74.842
Aroclor 1016		1020104	0.003
Aroclor 1260		1219394	0.003

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091319pcb\021.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091319pcb.met
User: AJZ
Sample ID: 164273,321167,
Acquired: 09/13/2019 23:39:40
Printed: 09/16/2019 09:28:27

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.878	57118903	98.823
Aroclor 1016 #1	4.175	2388924	0.003
Aroclor 1016 #2	4.587	157181	0.000
Aroclor 1016 #3	5.172	550744	0.000
Aroclor 1016 #4	5.533	513760	0.000
Aroclor 1016 #5	6.243	191209	0.000
Aroclor 1260 #1	8.397	147596	0.000
Aroclor 1260 #2			0.000 BDL
Aroclor 1260 #3	9.713	634870	0.001
Aroclor 1260 #4	10.293	607727	0.001
Aroclor 1260 #5	11.542	570442	0.002
SURRDCBPCB	13.902	36532144	84.300
Aroclor 1016		3801818	0.003
Aroclor 1260		1960635	0.004

POLYCHLORINATED BIPHENYL INITIAL CALIBRATION DOCUMENTS

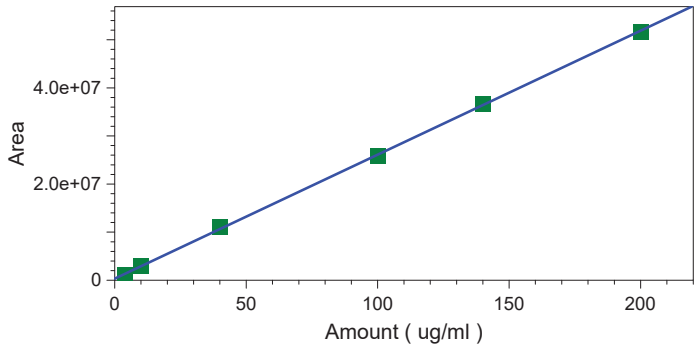
AJZ
09/19/2019

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:00
User: AJZ
Instrument: Semi 7

SURRTCMXPCB (front detector)
Average RF: 268886. RF StDev: 10739.6 RF %RSD: 3.99412
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 257861.x + 317498.
Goodness of fit (r^2): 0.999802

Peak: SURRTCMXPCB -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	4	10	40	100	140
Area	1091442	2848620	11043153	25866241	36708430
RF	272860.5	284862	276078.825	258662.41	262203.071428571
Last Area Residual	0.998595	0.184146	-1.59478	0.920338	-1.12637
Rep StDev					
Rep %RSD					
Rep 1 Area	1091442	2848620	11043153	25866241	36708430
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\020.dat	C:\Instarch\Semi7\Data\072419pcbic\021.dat	C:\Instarch\Semi7\Data\072419pcbic\022.dat	C:\Instarch\Semi7\Data\072419pcbic\023.dat	C:\Instarch\Semi7\Data\072419pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	07/25/2019 10:36:02	07/25/2019 10:36:14	07/25/2019 10:36:25	07/25/2019 10:36:35	07/25/2019 10:36:45

	Level 6
Amount	200
Area	51730248

Calibration Report

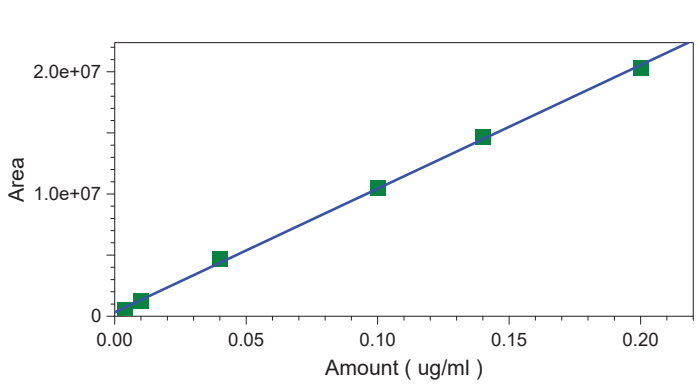
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:00
User: AJZ
Instrument: Semi 7

RF	258651.24
Last Area	
Residual	0.618063
Rep StDev	
Rep %RSD	
Rep 1 Area	51730248
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	07/25/2019 10:36:54

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:20
User: AJZ
Instrument: Semi 7

Aroclor 1016 #1 (front detector)
Average RF: 1.11791e+008 RF StDev: 9.19474e+006 RF %RSD: 8.22497
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 1.01155e+008x + 319481.
Goodness of fit (r^2): 0.999268



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	472291	1245762	4663772	10523930	14630709
RF	118072750	124576200	116594300	105239300	104505064.285714
Last Area Residual	0.00248935	0.000842974	-0.00294679	-0.000879149	-0.00147795
Rep StDev					
Rep %RSD					
Rep 1 Area	472291	1245762	4663772	10523930	14630709
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\020.dat	C:\Instarch\Semi7\Data\072419pcbic\021.dat	C:\Instarch\Semi7\Data\072419pcbic\022.dat	C:\Instarch\Semi7\Data\072419pcbic\023.dat	C:\Instarch\Semi7\Data\072419pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	07/25/2019 10:36:02	07/25/2019 10:36:14	07/25/2019 10:36:25	07/25/2019 10:36:35	07/25/2019 10:36:45

	Level 6
Amount	0.2
Area	20351084

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:20
User: AJZ
Instrument: Semi 7

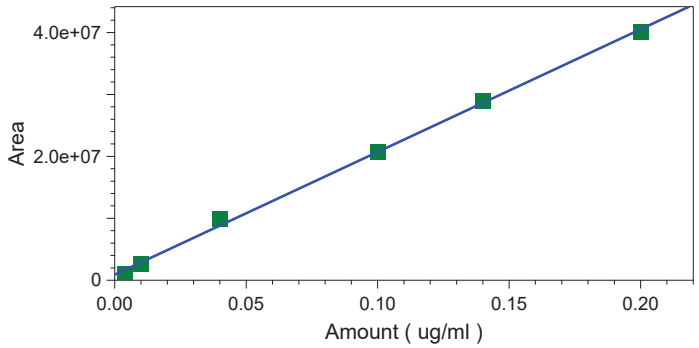
RF	101755420
Last Area	
Residual	0.00197156
Rep StDev	
Rep %RSD	
Rep 1 Area	20351084
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	07/25/2019 10:36:54

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:22
User: AJZ
Instrument: Semi 7

Aroclor 1016 #2 (front detector)
Average RF: 2.28205e+008 RF StDev: 2.69454e+007 RF %RSD: 11.8076
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 1.98194e+008x + 895248.
Goodness of fit (r^2): 0.998477

Peak: Aroclor 1016 #2 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	968388	2661187	9861449	20724155	28892410
RF	242097000	266118700	246536225	207241550	206374357.142857
Last Area Residual	0.00363097	0.00108987	-0.00523941	-4.77347e-005	-0.00126107
Rep StDev					
Rep %RSD					
Rep 1 Area	968388	2661187	9861449	20724155	28892410
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\020.dat	C:\Instarch\Semi7\Data\072419pcbic\021.dat	C:\Instarch\Semi7\Data\072419pcbic\022.dat	C:\Instarch\Semi7\Data\072419pcbic\023.dat	C:\Instarch\Semi7\Data\072419pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	07/25/2019 10:36:02	07/25/2019 10:36:14	07/25/2019 10:36:25	07/25/2019 10:36:35	07/25/2019 10:36:45

	Level 6
Amount	0.2
Area	40171963

Calibration Report

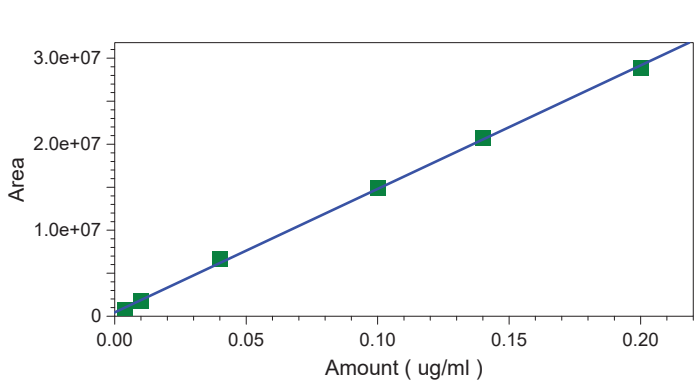
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:22
User: AJZ
Instrument: Semi 7

RF	200859815
Last Area	
Residual	0.00182739
Rep StDev	
Rep %RSD	
Rep 1 Area	40171963
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	07/25/2019 10:36:54

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:23
User: AJZ
Instrument: Semi 7

Aroclor 1016 #3 (front detector)
Average RF: 1.58315e+008 RF StDev: 1.27047e+007 RF %RSD: 8.02493
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 1.43638e+008x + 440712.
Goodness of fit (r^2): 0.999313



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	667664	1755083	6633951	14897449	20723166
RF	166916000	175508300	165848775	148974490	148022614.285714
Last Area Residual	0.00241997	0.000849433	-0.00311694	-0.000646883	-0.00120515
Rep StDev					
Rep %RSD					
Rep 1 Area	667664	1755083	6633951	14897449	20723166
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\020.dat	C:\Instarch\Semi7\Data\072419pcbic\021.dat	C:\Instarch\Semi7\Data\072419pcbic\022.dat	C:\Instarch\Semi7\Data\072419pcbic\023.dat	C:\Instarch\Semi7\Data\072419pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	07/25/2019 10:36:02	07/25/2019 10:36:14	07/25/2019 10:36:25	07/25/2019 10:36:35	07/25/2019 10:36:45

	Level 6
Amount	0.2
Area	28924229

Calibration Report

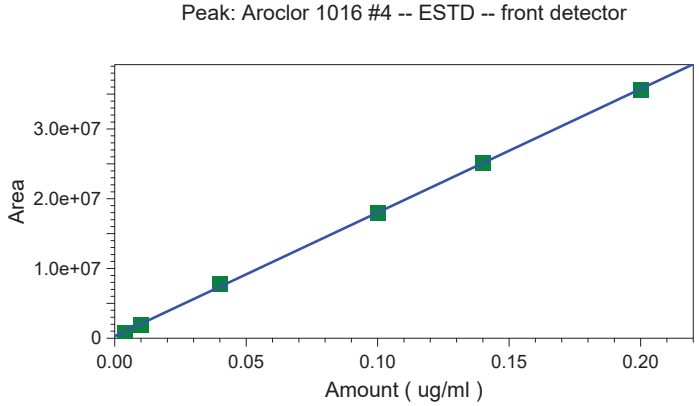
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:23
User: AJZ
Instrument: Semi 7

RF	144621145
Last Area	
Residual	0.00169957
Rep StDev	
Rep %RSD	
Rep 1 Area	28924229
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	07/25/2019 10:36:54

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:25
User: AJZ
Instrument: Semi 7

Aroclor 1016 #4 (front detector)
Average RF: 1.85632e+008 RF StDev: 8.05673e+006 RF %RSD: 4.34016
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 1.77306e+008x + 281577.
Goodness of fit (r^2): 0.999710



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	740684	1957503	7815628	17953297	25148999
RF	185171000	195750300	195390700	179532970	179635707.142857
Last Area Residual	0.00141065	0.000547827	-0.00249181	0.00033205	-0.000251484
Rep StDev					
Rep %RSD					
Rep 1 Area	740684	1957503	7815628	17953297	25148999
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\020.dat	C:\Instarch\Semi7\Data\072419pcbic\021.dat	C:\Instarch\Semi7\Data\072419pcbic\022.dat	C:\Instarch\Semi7\Data\072419pcbic\023.dat	C:\Instarch\Semi7\Data\072419pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	07/25/2019 10:36:02	07/25/2019 10:36:14	07/25/2019 10:36:25	07/25/2019 10:36:35	07/25/2019 10:36:45

	Level 6
Amount	0.2
Area	35662487

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:25
User: AJZ
Instrument: Semi 7

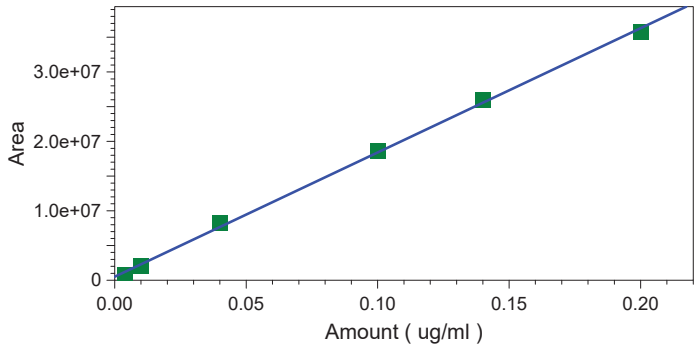
RF	178312435
Last Area	
Residual	0.000452772
Rep StDev	
Rep %RSD	
Rep 1 Area	35662487
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	07/25/2019 10:36:54

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:27
User: AJZ
Instrument: Semi 7

Aroclor 1016 #5 (front detector)
Average RF: 1.92179e+008 RF StDev: 1.04194e+007 RF %RSD: 5.42171
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 1.79056e+008x + 498095.
Goodness of fit (r^2): 0.998987

Peak: Aroclor 1016 #5 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	775377	2029145	8216739	18636630	25949565
RF	193844250	202914500	205418475	186366300	185354035.714286
Last Area Residual	0.00245142	0.00144932	-0.00310746	-0.00130098	-0.00214261
Rep StDev					
Rep %RSD					
Rep 1 Area	775377	2029145	8216739	18636630	25949565
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\020.dat	C:\Instarch\Semi7\Data\072419pcbic\021.dat	C:\Instarch\Semi7\Data\072419pcbic\022.dat	C:\Instarch\Semi7\Data\072419pcbic\023.dat	C:\Instarch\Semi7\Data\072419pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	07/25/2019 10:36:02	07/25/2019 10:36:14	07/25/2019 10:36:25	07/25/2019 10:36:35	07/25/2019 10:36:45

	Level 6
Amount	0.2
Area	35834715

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:27
User: AJZ
Instrument: Semi 7

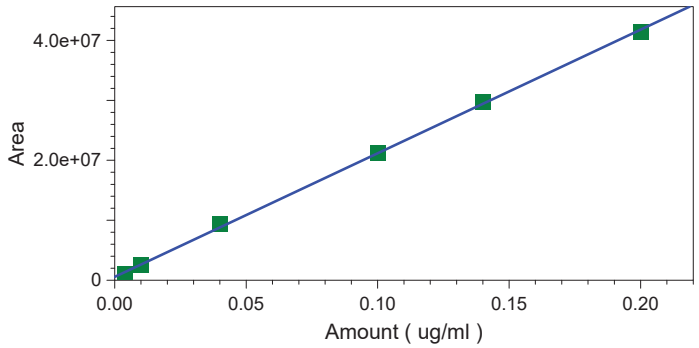
RF	179173575
Last Area	
Residual	0.00265032
Rep StDev	
Rep %RSD	
Rep 1 Area	35834715
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	07/25/2019 10:36:54

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:28
User: AJZ
Instrument: Semi 7

Aroclor 1260 #1 (front detector)
Average RF: 2.24743e+008 RF StDev: 1.60926e+007 RF %RSD: 7.16044
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 2.06266e+008x + 555889.
Goodness of fit (r^2): 0.999413

Peak: Aroclor 1260 #1 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	940932	2461290	9413035	21203004	29716865
RF	235233000	246129000	235325875	212030040	212263321.428571
Last Area Residual	0.00213327	0.000762397	-0.00294046	-9.95756e-005	-0.00137575
Rep StDev					
Rep %RSD					
Rep 1 Area	940932	2461290	9413035	21203004	29716865
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\020.dat	C:\Instarch\Semi7\Data\072419pcbic\021.dat	C:\Instarch\Semi7\Data\072419pcbic\022.dat	C:\Instarch\Semi7\Data\072419pcbic\023.dat	C:\Instarch\Semi7\Data\072419pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	07/25/2019 10:36:02	07/25/2019 10:36:14	07/25/2019 10:36:25	07/25/2019 10:36:35	07/25/2019 10:36:45

	Level 6
Amount	0.2
Area	41495493

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:28
User: AJZ
Instrument: Semi 7

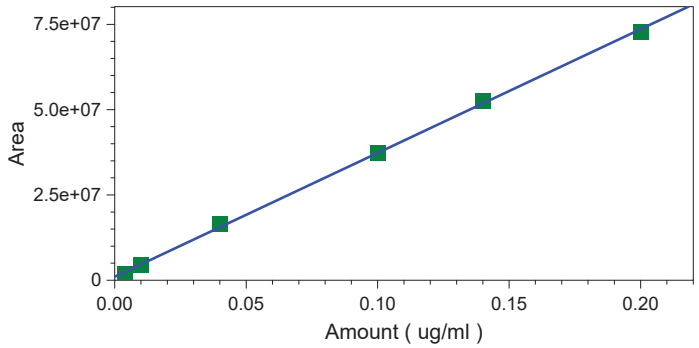
RF	207477465
Last Area	
Residual	0.00152012
Rep StDev	
Rep %RSD	
Rep 1 Area	41495493
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	07/25/2019 10:36:54

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:30
User: AJZ
Instrument: Semi 7

Aroclor 1260 #2 (front detector)
Average RF: 3.95975e+008 RF StDev: 2.85566e+007 RF %RSD: 7.21170
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 3.62914e+008x + 1.02233e+006
Goodness of fit (r^2): 0.999304

Peak: Aroclor 1260 #2 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	1647481	4355949	16587949	37416643	52497216
RF	411870250	435594900	414698725	374166430	374980114.285714
Last Area Residual	0.00227742	0.000814318	-0.0028906	-0.000283463	-0.00183754
Rep StDev					
Rep %RSD					
Rep 1 Area	1647481	4355949	16587949	37416643	52497216
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\020.dat	C:\Instarch\Semi7\Data\072419pcbic\021.dat	C:\Instarch\Semi7\Data\072419pcbic\022.dat	C:\Instarch\Semi7\Data\072419pcbic\023.dat	C:\Instarch\Semi7\Data\072419pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	07/25/2019 10:36:02	07/25/2019 10:36:14	07/25/2019 10:36:25	07/25/2019 10:36:35	07/25/2019 10:36:45

	Level 6
Amount	0.2
Area	72908459

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:30
User: AJZ
Instrument: Semi 7

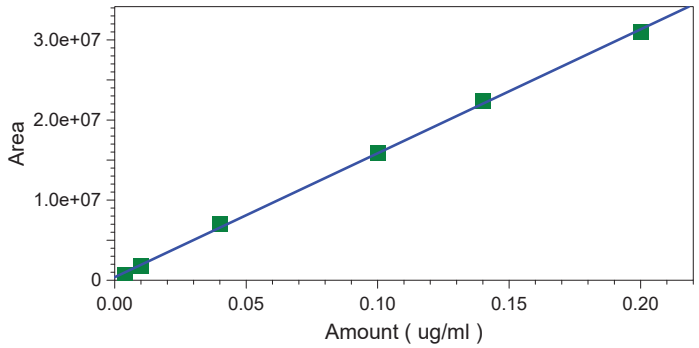
RF	364542295
Last Area	
Residual	0.00191987
Rep StDev	
Rep %RSD	
Rep 1 Area	72908459
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	07/25/2019 10:36:54

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:32
User: AJZ
Instrument: Semi 7

Aroclor 1260 #3 (front detector)
Average RF: 1.65914e+008 RF StDev: 1.00197e+007 RF %RSD: 6.03913
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 1.54749e+008x + 374969.
Goodness of fit (r^2): 0.999384

Peak: Aroclor 1260 #3 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	667527	1804519	6995356	15862258	22311300
RF	166881750	180451900	174883900	158622580	159366428.57 1429
Last Area Residual	0.00210947	0.000762149	-0.0027814	-7.99425e-005	-0.0017541
Rep StDev					
Rep %RSD					
Rep 1 Area	667527	1804519	6995356	15862258	22311300
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\020.dat	C:\Instarch\Semi7\Data\072419pcbic\021.dat	C:\Instarch\Semi7\Data\072419pcbic\022.dat	C:\Instarch\Semi7\Data\072419pcbic\023.dat	C:\Instarch\Semi7\Data\072419pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	07/25/2019 10:36:02	07/25/2019 10:36:14	07/25/2019 10:36:25	07/25/2019 10:36:35	07/25/2019 10:36:45

	Level 6
Amount	0.2
Area	31054949

Calibration Report

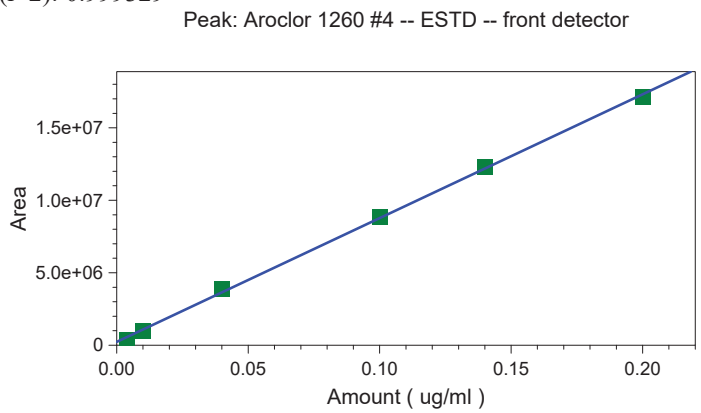
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:32
User: AJZ
Instrument: Semi 7

RF	155274745
Last Area	
Residual	0.00174383
Rep StDev	
Rep %RSD	
Rep 1 Area	31054949
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	07/25/2019 10:36:54

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:34
User: AJZ
Instrument: Semi 7

Aroclor 1260 #4 (front detector)
Average RF: 9.23934e+007 RF StDev: 5.61826e+006 RF %RSD: 6.08081
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 8.54081e+007x + 231631.
Goodness of fit (r^2): 0.999329



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	383492	987067	3902666	8877278	12267116
RF	95873000	98706700	97566650	88772780	87622257.1428571
Last Area Residual	0.00222194	0.00115499	-0.00298227	-0.00122745	-0.000917322
Rep StDev					
Rep %RSD					
Rep 1 Area	383492	987067	3902666	8877278	12267116
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\020.dat	C:\Instarch\Semi7\Data\072419pcbic\021.dat	C:\Instarch\Semi7\Data\072419pcbic\022.dat	C:\Instarch\Semi7\Data\072419pcbic\023.dat	C:\Instarch\Semi7\Data\072419pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	07/25/2019 10:36:02	07/25/2019 10:36:14	07/25/2019 10:36:25	07/25/2019 10:36:35	07/25/2019 10:36:45

	Level 6
Amount	0.2
Area	17163783

Calibration Report

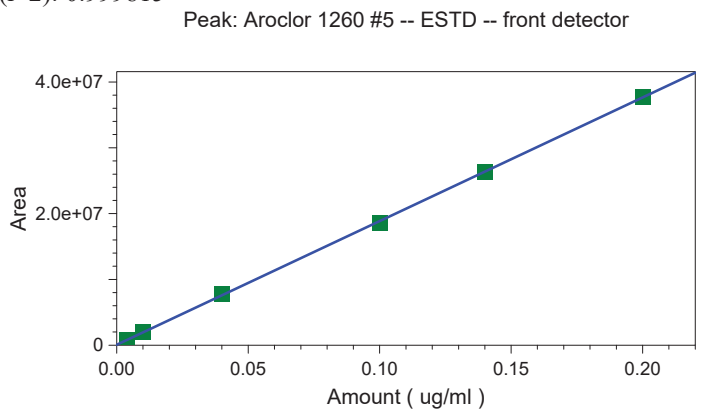
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:34
User: AJZ
Instrument: Semi 7

RF	85818915
Last Area	
Residual	0.00175012
Rep StDev	
Rep %RSD	
Rep 1 Area	17163783
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	07/25/2019 10:36:54

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:36
User: AJZ
Instrument: Semi 7

Aroclor 1260 #5 (front detector)
Average RF: 1.89746e+008 RF StDev: 7.38928e+006 RF %RSD: 3.89430
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 1.87922e+008x + 66107.6
Goodness of fit (r^2): 0.999815



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	718565	2000829	7851603	18560243	26304019
RF	179641250	200082900	196290075	185602430	187885850
Last Area Residual	0.00052804	-0.000295347	-0.00142941	0.00158607	0.000378659
Rep StDev					
Rep %RSD					
Rep 1 Area	718565	2000829	7851603	18560243	26304019
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\020.dat	C:\Instarch\Semi7\Data\072419pcbic\021.dat	C:\Instarch\Semi7\Data\072419pcbic\022.dat	C:\Instarch\Semi7\Data\072419pcbic\023.dat	C:\Instarch\Semi7\Data\072419pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	07/25/2019 10:36:02	07/25/2019 10:36:14	07/25/2019 10:36:25	07/25/2019 10:36:35	07/25/2019 10:36:45

	Level 6
Amount	0.2
Area	37794818
RF	188974090

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:36
User: AJZ
Instrument: Semi 7

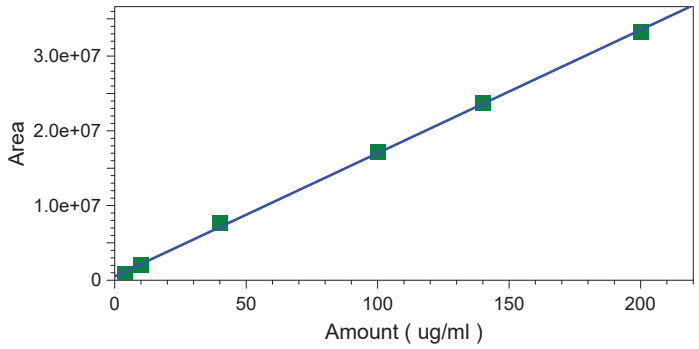
Last Area Residual	-0.000768006
Rep StDev	
Rep %RSD	
Rep 1 Area	37794818
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	07/25/2019 10:36:54

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:38
User: AJZ
Instrument: Semi 7

SURRDCBPCB (front detector)
Average RF: 182676. RF StDev: 15370.2 RF %RSD: 8.41389
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 165073.x + 511518.
Goodness of fit (r^2): 0.999390

Peak: SURRDCBPCB -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	4	10	40	100	140
Area	779931	2028902	7623050	17186752	23687861
RF	194982.75	202890.2	190576.25	171867.52	169199.00714 2857
Last Area Residual	2.37397	0.807788	-3.08118	-1.01745	-0.400727
Rep StDev					
Rep %RSD					
Rep 1 Area	779931	2028902	7623050	17186752	23687861
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\020.dat	C:\Instarch\Semi7\Data\072419pcbic\021.dat	C:\Instarch\Semi7\Data\072419pcbic\022.dat	C:\Instarch\Semi7\Data\072419pcbic\023.dat	C:\Instarch\Semi7\Data\072419pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	07/25/2019 10:36:02	07/25/2019 10:36:14	07/25/2019 10:36:25	07/25/2019 10:36:35	07/25/2019 10:36:45

	Level 6
Amount	200
Area	33308581

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:38
User: AJZ
Instrument: Semi 7

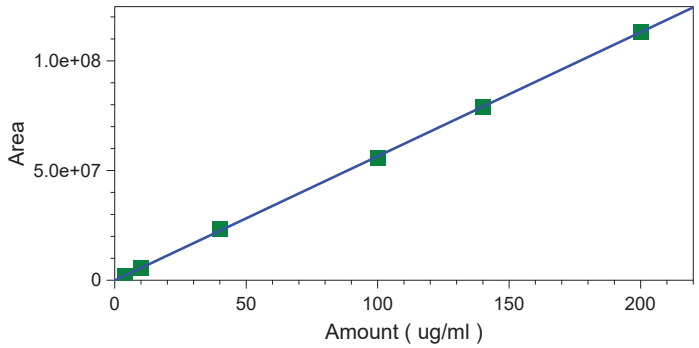
RF	166542.905
Last Area	
Residual	1.3176
Rep StDev	
Rep %RSD	
Rep 1 Area	33308581
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	07/25/2019 10:36:54

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:43
User: AJZ
Instrument: Semi 7

SURRTCMXPCB (back detector)
Average RF: 558556. RF StDev: 21175.5 RF %RSD: 3.79111
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 565368.x - 69725.1
Goodness of fit (r^2): 0.999862

Peak: SURRTCMXPCB -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	4	10	40	100	140
Area	2072753	5667755	23176277	55577476	79004614
RF	518188.25	566775.5	579406.925	555774.76	564318.671428571
Last Area Residual	0.210475	-0.148213	-1.11655	1.57357	0.136637
Rep StDev					
Rep %RSD					
Rep 1 Area	2072753	5667755	23176277	55577476	79004614
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\020.dat	C:\Instarch\Semi7\Data\072419pcbic\021.dat	C:\Instarch\Semi7\Data\072419pcbic\022.dat	C:\Instarch\Semi7\Data\072419pcbic\023.dat	C:\Instarch\Semi7\Data\072419pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	07/25/2019 10:36:02	07/25/2019 10:36:14	07/25/2019 10:36:25	07/25/2019 10:36:35	07/25/2019 10:36:45

	Level 6
Amount	200
Area	113374811

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:43
User: AJZ
Instrument: Semi 7

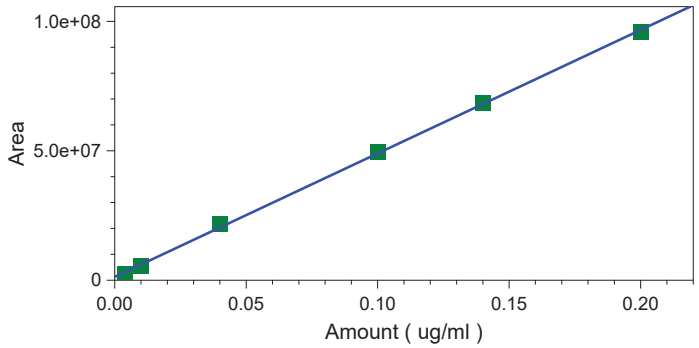
RF	566874.055
Last Area	
Residual	-0.655921
Rep StDev	
Rep %RSD	
Rep 1 Area	113374811
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	07/25/2019 10:36:54

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:45
User: AJZ
Instrument: Semi 7

Aroclor 1016 #1 (back detector)
Average RF: 5.19804e+008 RF StDev: 3.66045e+007 RF %RSD: 7.04198
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 4.76993e+008x + 1.27903e+006
Goodness of fit (r^2): 0.999496

Peak: Aroclor 1016 #1 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	2194555	5655800	21704262	49379042	68289184
RF	548638750	565580000	542606550	493790420	487779885.714286
Last Area Residual	0.00208064	0.00082425	-0.00282082	-0.000840076	-0.000484562
Rep StDev					
Rep %RSD					
Rep 1 Area	2194555	5655800	21704262	49379042	68289184
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\020.dat	C:\Instarch\Semi7\Data\072419pcbic\021.dat	C:\Instarch\Semi7\Data\072419pcbic\022.dat	C:\Instarch\Semi7\Data\072419pcbic\023.dat	C:\Instarch\Semi7\Data\072419pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	07/25/2019 10:36:02	07/25/2019 10:36:14	07/25/2019 10:36:25	07/25/2019 10:36:35	07/25/2019 10:36:45

	Level 6
Amount	0.2
Area	96085888

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:45
User: AJZ
Instrument: Semi 7

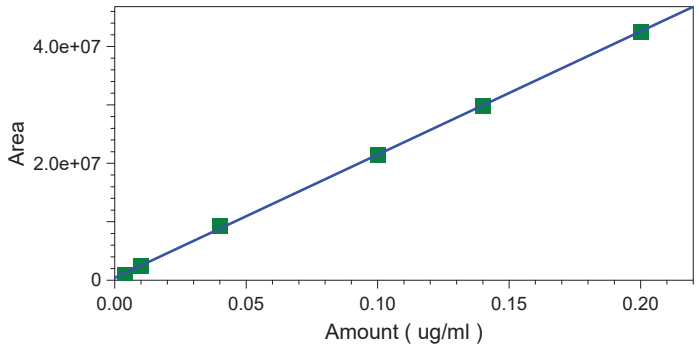
RF	480429440
Last Area	
Residual	0.00124057
Rep StDev	
Rep %RSD	
Rep 1 Area	96085888
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	07/25/2019 10:36:54

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:47
User: AJZ
Instrument: Semi 7

Aroclor 1016 #2 (back detector)
Average RF: 2.24827e+008 RF StDev: 1.35662e+007 RF %RSD: 6.03405
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 2.10942e+008x + 397362.
Goodness of fit (r^2): 0.999736

Peak: Aroclor 1016 #2 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	915390	2461762	9323429	21503596	29813629
RF	228847500	246176200	233085725	215035960	212954492.857143
Last Area Residual	0.00154422	0.00021344	-0.0023152	-5.68818e-005	0.000548312
Rep StDev					
Rep %RSD					
Rep 1 Area	915390	2461762	9323429	21503596	29813629
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\020.dat	C:\Instarch\Semi7\Data\072419pcbic\021.dat	C:\Instarch\Semi7\Data\072419pcbic\022.dat	C:\Instarch\Semi7\Data\072419pcbic\023.dat	C:\Instarch\Semi7\Data\072419pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	07/25/2019 10:36:02	07/25/2019 10:36:14	07/25/2019 10:36:25	07/25/2019 10:36:35	07/25/2019 10:36:45

	Level 6
Amount	0.2
Area	42571888

Calibration Report

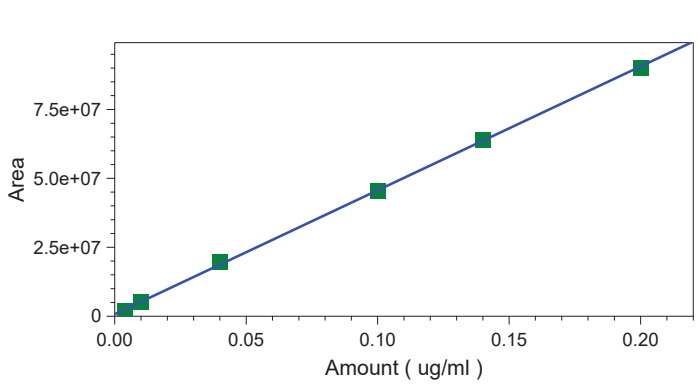
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:47
User: AJZ
Instrument: Semi 7

RF	212859440
Last Area	
Residual	6.61051e-005
Rep StDev	
Rep %RSD	
Rep 1 Area	42571888
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	07/25/2019 10:36:54

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:48
User: AJZ
Instrument: Semi 7

Aroclor 1016 #3 (back detector)
Average RF: 4.67221e+008 RF StDev: 2.36030e+007 RF %RSD: 5.05180
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 4.49554e+008x + 710105.
Goodness of fit (r^2): 0.999673



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	1780730	5004163	19749617	45542021	64048700
RF	445182500	500416300	493740425	455420210	457490714.285714
Last Area Residual	0.00161847	0.000448182	-0.002352	0.000274687	-0.000892065
Rep StDev					
Rep %RSD					
Rep 1 Area	1780730	5004163	19749617	45542021	64048700
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\020.dat	C:\Instarch\Semi7\Data\072419pcbic\021.dat	C:\Instarch\Semi7\Data\072419pcbic\022.dat	C:\Instarch\Semi7\Data\072419pcbic\023.dat	C:\Instarch\Semi7\Data\072419pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	07/25/2019 10:36:02	07/25/2019 10:36:14	07/25/2019 10:36:25	07/25/2019 10:36:35	07/25/2019 10:36:45

	Level 6
Amount	0.2
Area	90215087

Calibration Report

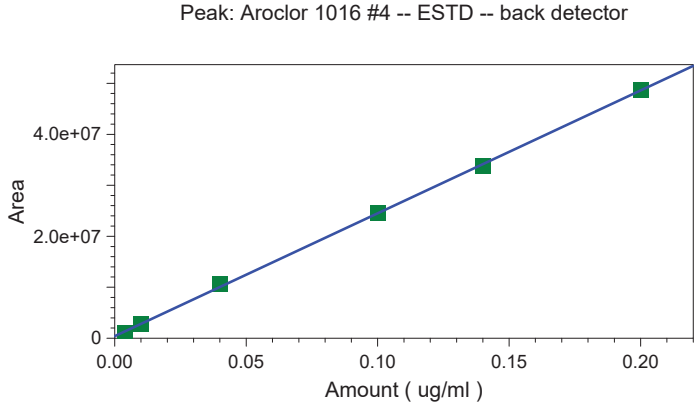
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:48
User: AJZ
Instrument: Semi 7

RF	451075435
Last Area	
Residual	0.000902724
Rep StDev	
Rep %RSD	
Rep 1 Area	90215087
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	07/25/2019 10:36:54

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:50
User: AJZ
Instrument: Semi 7

Aroclor 1016 #4 (back detector)
Average RF: 2.55185e+008 RF StDev: 1.49433e+007 RF %RSD: 5.85589
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 2.41047e+008x + 397830.
Goodness of fit (r^2): 0.999614



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	1025811	2788896	10640162	24490457	33722918
RF	256452750	278889600	266004050	244904570	240877985.714286
Last Area Residual	0.00139477	8.04872e-005	-0.00249107	4.99673e-005	0.00174842
Rep StDev					
Rep %RSD					
Rep 1 Area	1025811	2788896	10640162	24490457	33722918
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\020.dat	C:\Instarch\Semi7\Data\072419pcbic\021.dat	C:\Instarch\Semi7\Data\072419pcbic\022.dat	C:\Instarch\Semi7\Data\072419pcbic\023.dat	C:\Instarch\Semi7\Data\072419pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	07/25/2019 10:36:02	07/25/2019 10:36:14	07/25/2019 10:36:25	07/25/2019 10:36:35	07/25/2019 10:36:45

	Level 6
Amount	0.2
Area	48795813

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:50
User: AJZ
Instrument: Semi 7

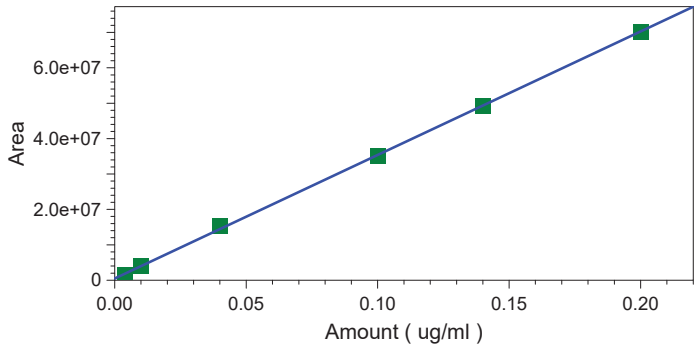
RF	243979065
Last Area	
Residual	-0.000782587
Rep StDev	
Rep %RSD	
Rep 1 Area	48795813
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	07/25/2019 10:36:54

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:52
User: AJZ
Instrument: Semi 7

Aroclor 1016 #5 (back detector)
Average RF: 3.61620e+008 RF StDev: 1.91659e+007 RF %RSD: 5.30001
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 3.48910e+008x + 494953.
Goodness of fit (r^2): 0.999668

Peak: Aroclor 1016 #5 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	1372002	3870342	15396222	35141992	49283420
RF	343000500	387034200	384905550	351419920	352024428.57 1429
Last Area Residual	0.00148632	0.000325901	-0.00270807	0.000699189	0.000168878
Rep StDev					
Rep %RSD					
Rep 1 Area	1372002	3870342	15396222	35141992	49283420
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\020.dat	C:\Instarch\Semi7\Data\072419pcbic\021.dat	C:\Instarch\Semi7\Data\072419pcbic\022.dat	C:\Instarch\Semi7\Data\072419pcbic\023.dat	C:\Instarch\Semi7\Data\072419pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	07/25/2019 10:36:02	07/25/2019 10:36:14	07/25/2019 10:36:25	07/25/2019 10:36:35	07/25/2019 10:36:45

	Level 6
Amount	0.2
Area	70267245

Calibration Report

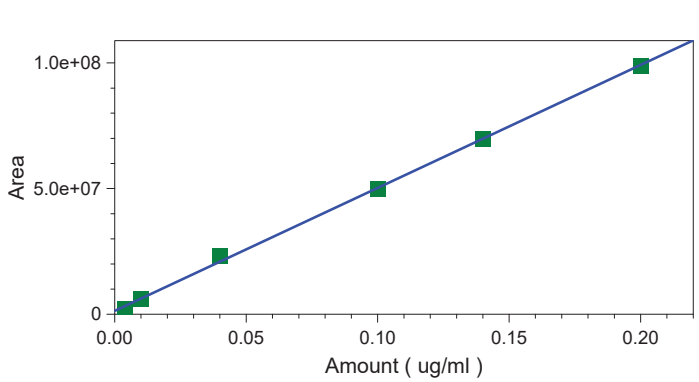
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:52
User: AJZ
Instrument: Semi 7

RF	351336225
Last Area	
Residual	2.77834e-005
Rep StDev	
Rep %RSD	
Rep 1 Area	70267245
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	07/25/2019 10:36:54

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:54
User: AJZ
Instrument: Semi 7

Aroclor 1260 #1 (back detector)
Average RF: 5.27909e+008 RF StDev: 4.18074e+007 RF %RSD: 7.91944
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 4.89582e+008x + 1.31991e+006
Goodness of fit (r^2): 0.999171



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	2044002	5877267	22985203	50021082	69841178
RF	511000500	587726700	574630075	500210820	498865557.142857
Last Area Residual	0.00252099	0.000691319	-0.00425267	0.000524915	4.11737e-005
Rep StDev					
Rep %RSD					
Rep 1 Area	2044002	5877267	22985203	50021082	69841178
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\020.dat	C:\Instarch\Semi7\Data\072419pcbic\021.dat	C:\Instarch\Semi7\Data\072419pcbic\022.dat	C:\Instarch\Semi7\Data\072419pcbic\023.dat	C:\Instarch\Semi7\Data\072419pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	07/25/2019 10:36:02	07/25/2019 10:36:14	07/25/2019 10:36:25	07/25/2019 10:36:35	07/25/2019 10:36:45

	Level 6
Amount	0.2
Area	99004040

Calibration Report

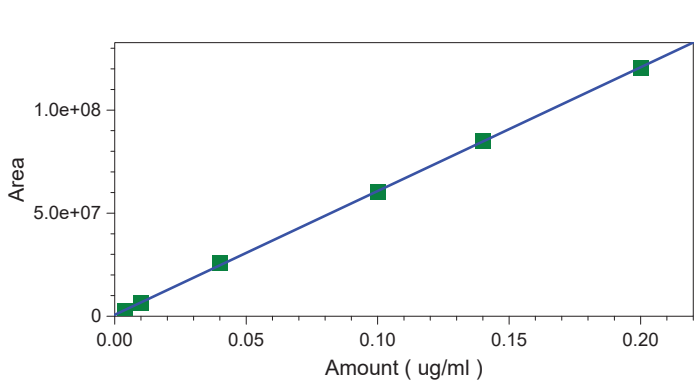
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:54
User: AJZ
Instrument: Semi 7

RF	495020200
Last Area	
Residual	0.000474269
Rep StDev	
Rep %RSD	
Rep 1 Area	99004040
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	07/25/2019 10:36:54

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:56
User: AJZ
Instrument: Semi 7

Aroclor 1260 #2 (back detector)
Average RF: 6.15608e+008 RF StDev: 2.76408e+007 RF %RSD: 4.49001
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 6.00735e+008x + 651015.
Goodness of fit (r^2): 0.999813



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	2325079	6514473	25883779	60490416	84771550
RF	581269750	651447300	647094475	604904160	605511071.428571
Last Area Residual	0.0012133	0.000239519	-0.00200319	0.000389611	-2.94638e-005
Rep StDev					
Rep %RSD					
Rep 1 Area	2325079	6514473	25883779	60490416	84771550
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\020.dat	C:\Instarch\Semi7\Data\072419pcbic\021.dat	C:\Instarch\Semi7\Data\072419pcbic\022.dat	C:\Instarch\Semi7\Data\072419pcbic\023.dat	C:\Instarch\Semi7\Data\072419pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	07/25/2019 10:36:02	07/25/2019 10:36:14	07/25/2019 10:36:25	07/25/2019 10:36:35	07/25/2019 10:36:45

	Level 6
Amount	0.2
Area	120683654

Calibration Report

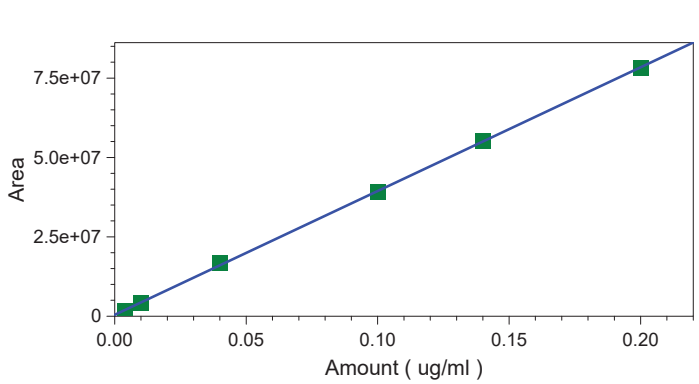
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:56
User: AJZ
Instrument: Semi 7

RF	603418270
Last Area	
Residual	0.000190214
Rep StDev	
Rep %RSD	
Rep 1 Area	120683654
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	07/25/2019 10:36:54

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:57
User: AJZ
Instrument: Semi 7

Aroclor 1260 #3 (back detector)
Average RF: 4.02548e+008 RF StDev: 1.59013e+007 RF %RSD: 3.95016
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 3.89748e+008x + 463456.
Goodness of fit (r^2): 0.999810



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	1566873	4248111	16848493	39271008	55031923
RF	391718250	424811100	421212325	392710080	393085164.285714
Last Area Residual	0.00116889	0.000289473	-0.00204012	0.000429018	-9.75538e-006
Rep StDev					
Rep %RSD					
Rep 1 Area	1566873	4248111	16848493	39271008	55031923
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\020.dat	C:\Instarch\Semi7\Data\072419pcbic\021.dat	C:\Instarch\Semi7\Data\072419pcbic\022.dat	C:\Instarch\Semi7\Data\072419pcbic\023.dat	C:\Instarch\Semi7\Data\072419pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	07/25/2019 10:36:02	07/25/2019 10:36:14	07/25/2019 10:36:25	07/25/2019 10:36:35	07/25/2019 10:36:45

	Level 6
Amount	0.2
Area	78349646

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:57
User: AJZ
Instrument: Semi 7

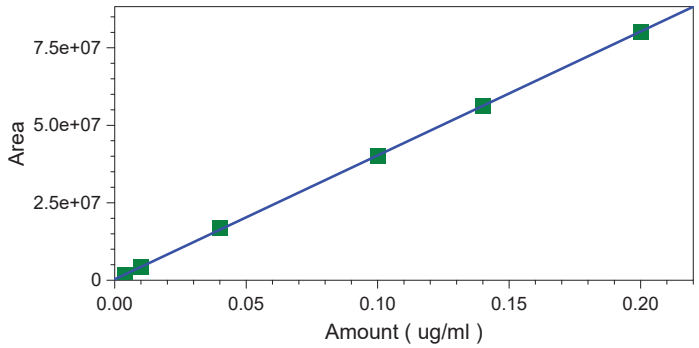
RF	391748230
Last Area	
Residual	0.000162493
Rep StDev	
Rep %RSD	
Rep 1 Area	78349646
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	07/25/2019 10:36:54

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:59
User: AJZ
Instrument: Semi 7

Aroclor 1260 #4 (back detector)
Average RF: 4.06015e+008 RF StDev: 1.50447e+007 RF %RSD: 3.70544
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 3.99828e+008x + 293082.
Goodness of fit (r^2): 0.999880

Peak: Aroclor 1260 #4 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	1540507	4242167	16926039	40048208	56247642
RF	385126750	424216700	423150975	400482080	401768871.428571
Last Area Residual	0.000880098	0.000123047	-0.00160025	0.000569503	5.35259e-005
Rep StDev					
Rep %RSD					
Rep 1 Area	1540507	4242167	16926039	40048208	56247642
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\020.dat	C:\Instarch\Semi7\Data\072419pcbic\021.dat	C:\Instarch\Semi7\Data\072419pcbic\022.dat	C:\Instarch\Semi7\Data\072419pcbic\023.dat	C:\Instarch\Semi7\Data\072419pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	07/25/2019 10:36:02	07/25/2019 10:36:14	07/25/2019 10:36:25	07/25/2019 10:36:35	07/25/2019 10:36:45

	Level 6
Amount	0.2
Area	80269106

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:15:59
User: AJZ
Instrument: Semi 7

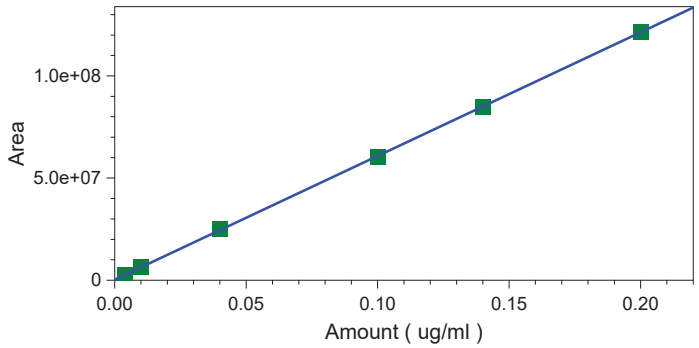
RF	401345530
Last Area Residual	-2.59239e-005
Rep StDev	
Rep %RSD	
Rep 1 Area	80269106
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	07/25/2019 10:36:54

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:16:01
User: AJZ
Instrument: Semi 7

Aroclor 1260 #5 (back detector)
Average RF: 6.22233e+008 RF StDev: 2.13367e+007 RF %RSD: 3.42905
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 6.05010e+008x + 309430.
Goodness of fit (r^2): 0.999904

Peak: Aroclor 1260 #5 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	2545421	6561715	25027897	60120414	84740550
RF	636355250	656171500	625697425	601204140	605289642.857143
Last Area Residual	0.000304212	-0.000334176	-0.000856261	0.00114059	0.000446851
Rep StDev					
Rep %RSD					
Rep 1 Area	2545421	6561715	25027897	60120414	84740550
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\020.dat	C:\Instarch\Semi7\Data\072419pcbic\021.dat	C:\Instarch\Semi7\Data\072419pcbic\022.dat	C:\Instarch\Semi7\Data\072419pcbic\023.dat	C:\Instarch\Semi7\Data\072419pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	07/25/2019 10:36:02	07/25/2019 10:36:14	07/25/2019 10:36:25	07/25/2019 10:36:35	07/25/2019 10:36:45

	Level 6
Amount	0.2
Area	121735770

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:16:01
User: AJZ
Instrument: Semi 7

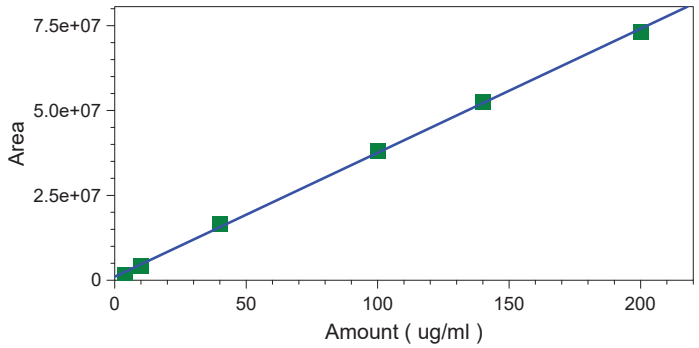
RF	608678850
Last Area	
Residual	-0.000701212
Rep StDev	
Rep %RSD	
Rep 1 Area	121735770
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	07/25/2019 10:36:54

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:16:03
User: AJZ
Instrument: Semi 7

SURRDCBPCB (back detector)
Average RF: 393323. RF StDev: 24740.6 RF %RSD: 6.29015
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 365391.x + 998214.
Goodness of fit (r^2): 0.999259

Peak: SURRDCBPCB -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	4	10	40	100	140
Area	1562677	4319368	16532197	38169519	52634398
RF	390669.25	431936.8	413304.925	381695.19	375959.985714286
Last Area Residual	2.45518	0.910673	-2.51337	-1.73035	-1.3178
Rep StDev					
Rep %RSD					
Rep 1 Area	1562677	4319368	16532197	38169519	52634398
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\020.dat	C:\Instarch\Semi7\Data\072419pcbic\021.dat	C:\Instarch\Semi7\Data\072419pcbic\022.dat	C:\Instarch\Semi7\Data\072419pcbic\023.dat	C:\Instarch\Semi7\Data\072419pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	07/25/2019 10:36:02	07/25/2019 10:36:14	07/25/2019 10:36:25	07/25/2019 10:36:35	07/25/2019 10:36:45

	Level 6
Amount	200
Area	73274038

Calibration Report

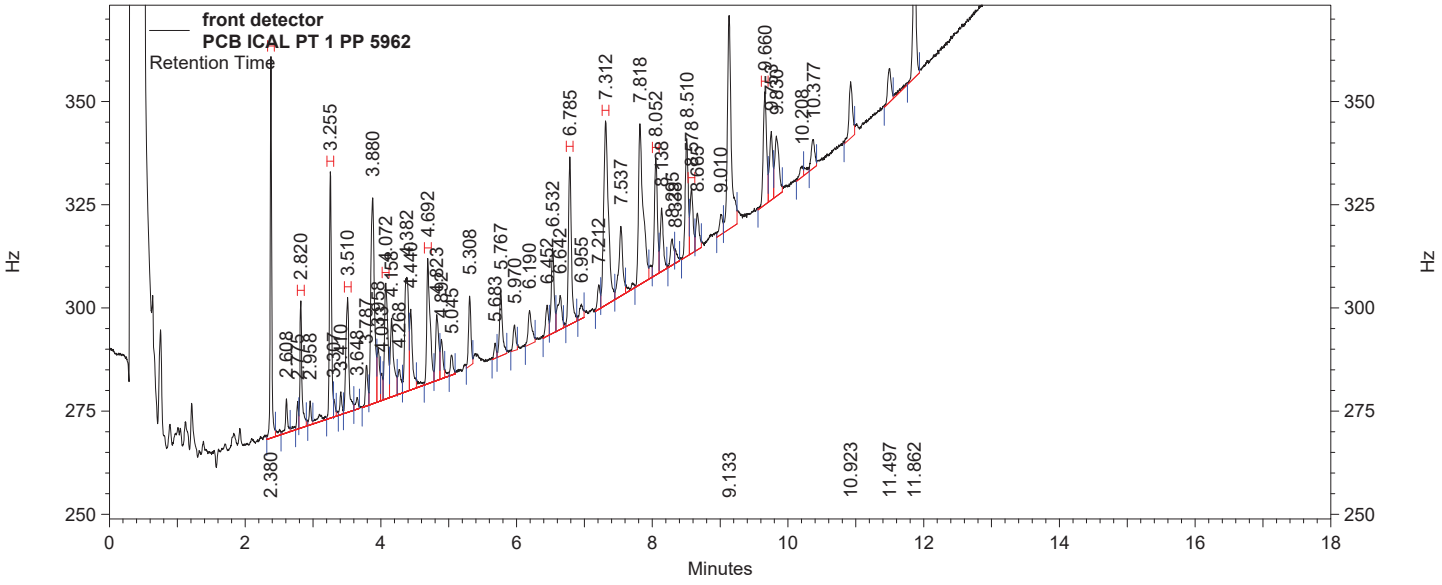
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
Print Time: Aug 06, 2019 11:16:03
User: AJZ
Instrument: Semi 7

RF	366370.19
Last Area	
Residual	2.19567
Rep StDev	
Rep %RSD	
Rep 1 Area	73274038
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	07/25/2019 10:36:54

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\020.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
User: JJY
Sample ID: PCB ICAL PT 1 PP 5962
Acquired: Jul 24, 2019 19:06:12
Printed: Jul 25, 2019 16:35:11

Data Summary: {Data Description}



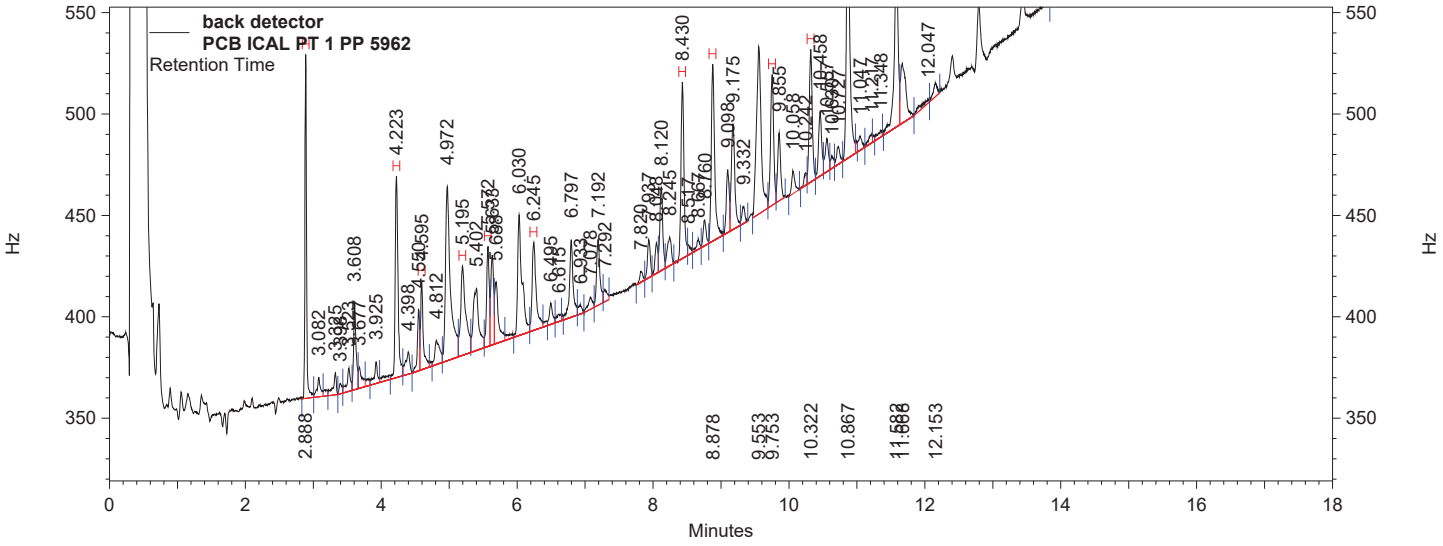
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.380	1091442	4.000 CAL
Aroclor 1016 #1	2.820	472291	0.004 CAL
Aroclor 1016 #2	3.255	968388	0.004 CAL
Aroclor 1016 #3	3.510	667664	0.004 CAL
Aroclor 1016 #4	4.072	740684	0.004 CAL
Aroclor 1016 #5	4.692	775377	0.004 CAL
Aroclor 1260 #1	6.785	940932	0.004 CAL
Aroclor 1260 #2	7.312	1647481	0.004 CAL
Aroclor 1260 #3	8.052	667527	0.004 CAL
Aroclor 1260 #4	8.578	383492	0.004 CAL
Aroclor 1260 #5	9.660	718565	0.004 CAL
SURRDCBPCB	11.862	779931	4.000 CAL
Aroclor 1016		3624404	0.020 CAL
Aroclor 1260		4357997	0.020 CAL

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\020.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
User: JJY
Sample ID: PCB ICAL PT 1 PP 5962
Acquired: Jul 24, 2019 19:06:12
Printed: Jul 25, 2019 16:35:11

Data Summary: {Data Description}



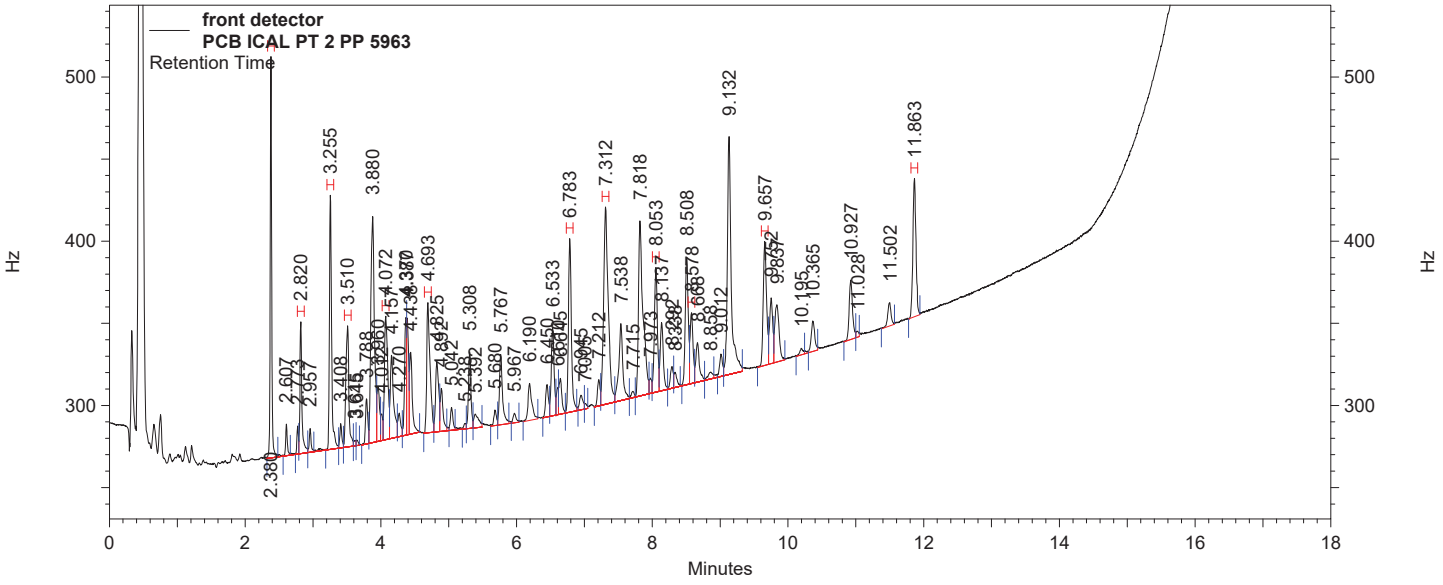
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.888	2072753	4.000 CAL
Aroclor 1016 #1	4.223	2194555	0.004 CAL
Aroclor 1016 #2	4.595	915390	0.004 CAL
Aroclor 1016 #3	5.195	1780730	0.004 CAL
Aroclor 1016 #4	5.572	1025811	0.004 CAL
Aroclor 1016 #5	6.245	1372002	0.004 CAL
Aroclor 1260 #1	8.430	2044002	0.004 CAL
Aroclor 1260 #2	8.878	2325079	0.004 CAL
Aroclor 1260 #3	9.753	1566873	0.004 CAL
Aroclor 1260 #4	10.322	1540507	0.004 CAL
Aroclor 1260 #5	11.582	2545421	0.004 CAL
SURRDCBPCB	13.943	1562677	4.000 CAL
Aroclor 1016		7288488	0.020 CAL
Aroclor 1260		10021882	0.020 CAL

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\021.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
User: JJY
Sample ID: PCB ICAL PT 2 PP 5963
Acquired: 07/24/2019 19:27:22
Printed: Jul 25, 2019 16:35:15

Data Summary: {Data Description}



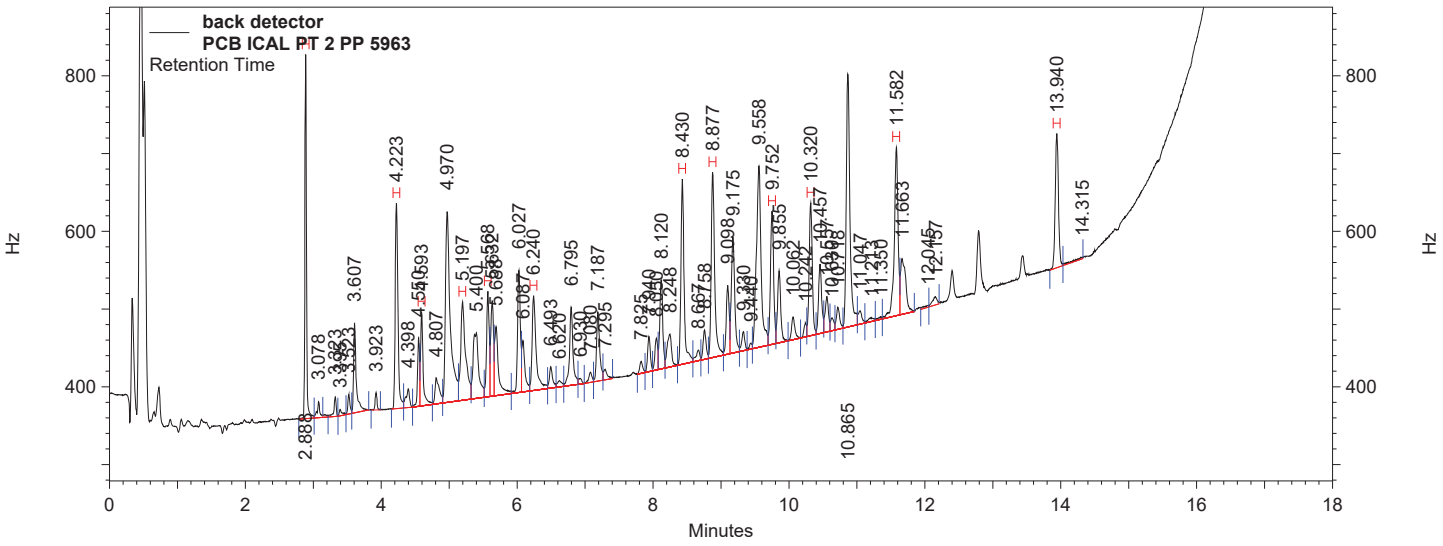
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.380	2848620	10.000 CAL
Aroclor 1016 #1	2.820	1245762	0.010 CAL
Aroclor 1016 #2	3.255	2661187	0.010 CAL
Aroclor 1016 #3	3.510	1755083	0.010 CAL
Aroclor 1016 #4	4.072	1957503	0.010 CAL
Aroclor 1016 #5	4.693	2029145	0.010 CAL
Aroclor 1260 #1	6.783	2461290	0.010 CAL
Aroclor 1260 #2	7.312	4355949	0.010 CAL
Aroclor 1260 #3	8.053	1804519	0.010 CAL
Aroclor 1260 #4	8.578	987067	0.010 CAL
Aroclor 1260 #5	9.657	2000829	0.010 CAL
SURRDCBPCB	11.863	2028902	10.000 CAL
Aroclor 1016		9648680	0.050 CAL
Aroclor 1260		11609654	0.050 CAL

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\021.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
User: JJY
Sample ID: PCB ICAL PT 2 PP 5963
Acquired: 07/24/2019 19:27:22
Printed: Jul 25, 2019 16:35:15

Data Summary: {Data Description}



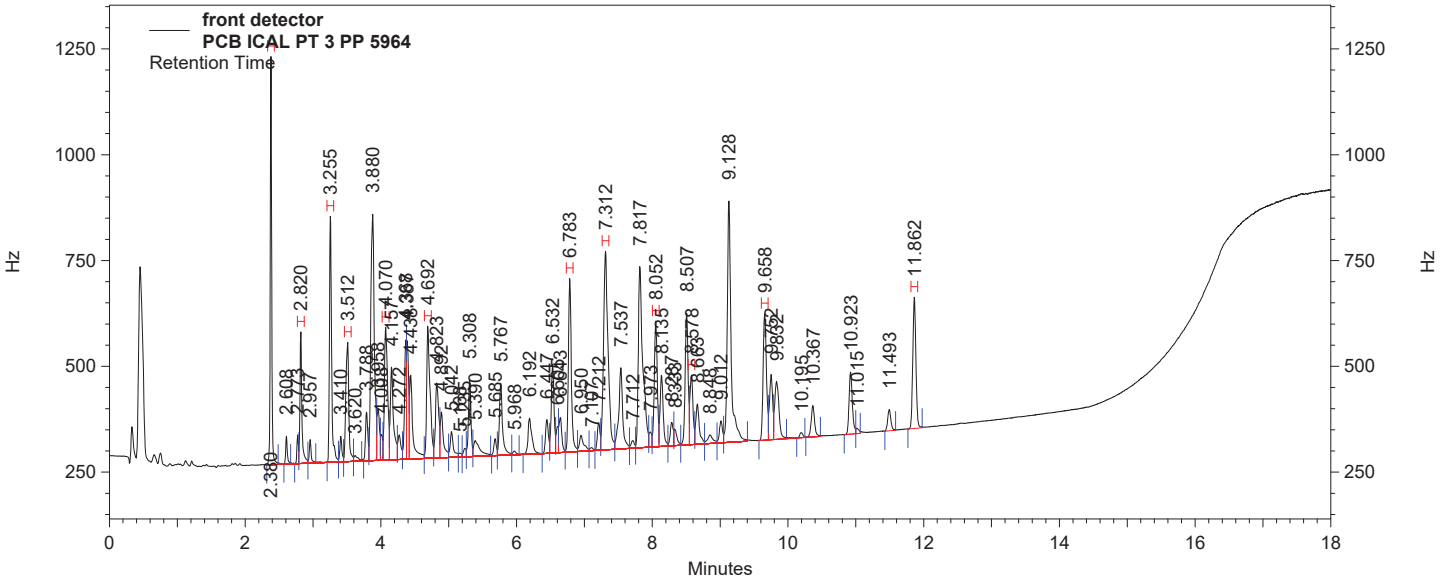
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.888	5667755	10.000 CAL
Aroclor 1016 #1	4.223	5655800	0.010 CAL
Aroclor 1016 #2	4.593	2461762	0.010 CAL
Aroclor 1016 #3	5.197	5004163	0.010 CAL
Aroclor 1016 #4	5.568	2788896	0.010 CAL
Aroclor 1016 #5	6.240	3870342	0.010 CAL
Aroclor 1260 #1	8.430	5877267	0.010 CAL
Aroclor 1260 #2	8.877	6514473	0.010 CAL
Aroclor 1260 #3	9.752	4248111	0.010 CAL
Aroclor 1260 #4	10.320	4242167	0.010 CAL
Aroclor 1260 #5	11.582	6561715	0.010 CAL
SURRDCBPCB	13.940	4319368	10.000 CAL
Aroclor 1016		19780963	0.050 CAL
Aroclor 1260		27443733	0.050 CAL

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\022.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
User: JJY
Sample ID: PCB ICAL PT 3 PP 5964
Acquired: 07/24/2019 19:48:33
Printed: Jul 25, 2019 16:35:17

Data Summary: {Data Description}



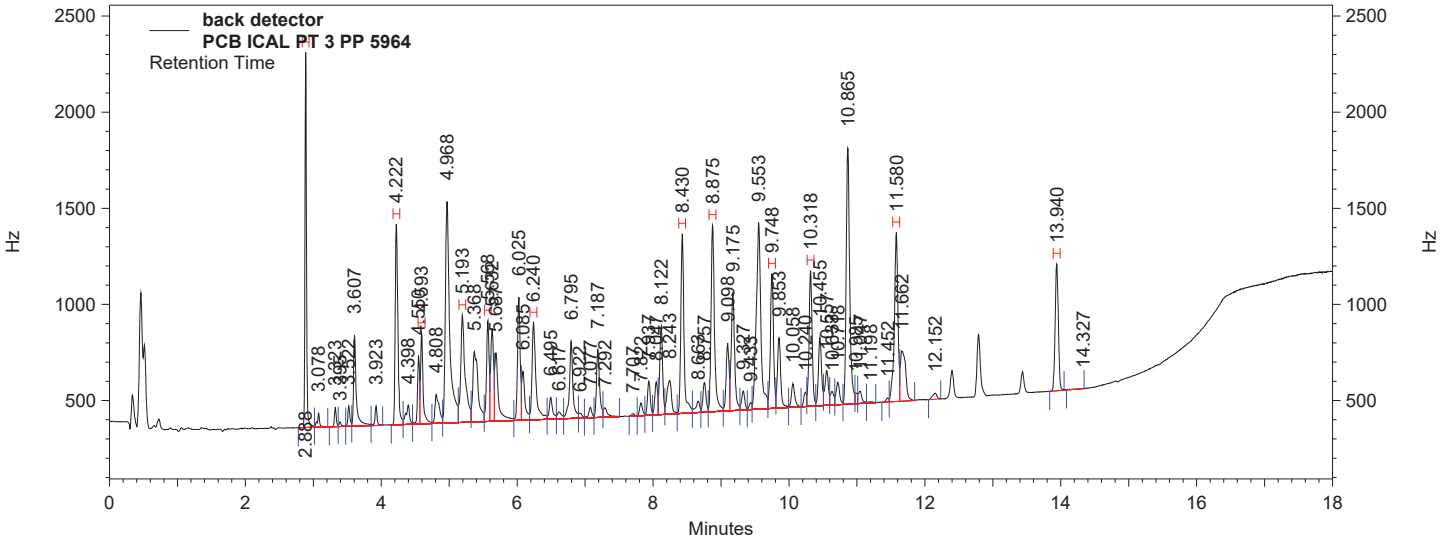
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.380	11043153	40.000 CAL
Aroclor 1016 #1	2.820	4663772	0.040 CAL
Aroclor 1016 #2	3.255	9861449	0.040 CAL
Aroclor 1016 #3	3.512	6633951	0.040 CAL
Aroclor 1016 #4	4.070	7815628	0.040 CAL
Aroclor 1016 #5	4.692	8216739	0.040 CAL
Aroclor 1260 #1	6.783	9413035	0.040 CAL
Aroclor 1260 #2	7.312	16587949	0.040 CAL
Aroclor 1260 #3	8.052	6995356	0.040 CAL
Aroclor 1260 #4	8.578	3902666	0.040 CAL
Aroclor 1260 #5	9.658	7851603	0.040 CAL
SURRDCBPCB	11.862	7623050	40.000 CAL
Aroclor 1016		37191539	0.200 CAL
Aroclor 1260		44750609	0.200 CAL

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\022.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
User: JJY
Sample ID: PCB ICAL PT 3 PP 5964
Acquired: 07/24/2019 19:48:33
Printed: Jul 25, 2019 16:35:17

Data Summary: {Data Description}



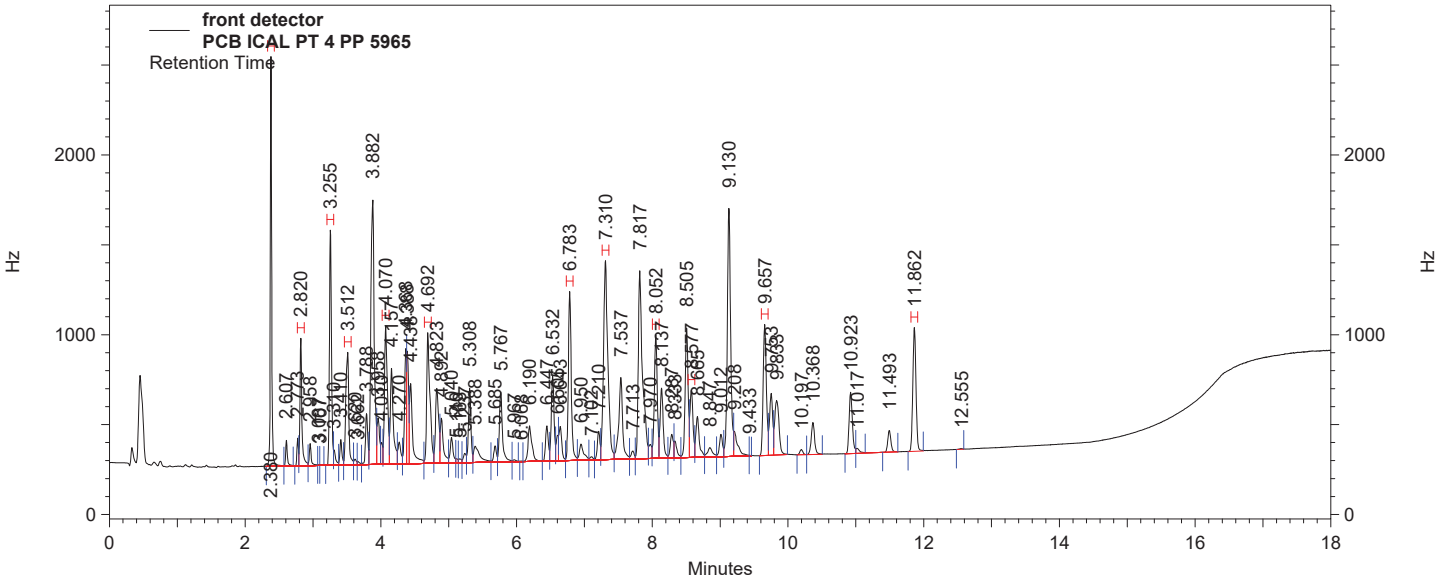
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.888	23176277	40.000 CAL
Aroclor 1016 #1	4.222	21704262	0.040 CAL
Aroclor 1016 #2	4.593	9323429	0.040 CAL
Aroclor 1016 #3	5.193	19749617	0.040 CAL
Aroclor 1016 #4	5.568	10640162	0.040 CAL
Aroclor 1016 #5	6.240	15396222	0.040 CAL
Aroclor 1260 #1	8.430	22985203	0.040 CAL
Aroclor 1260 #2	8.875	25883779	0.040 CAL
Aroclor 1260 #3	9.748	16848493	0.040 CAL
Aroclor 1260 #4	10.318	16926039	0.040 CAL
Aroclor 1260 #5	11.580	25027897	0.040 CAL
SURRDCBPCB	13.940	16532197	40.000 CAL
Aroclor 1016		76813692	0.200 CAL
Aroclor 1260		107671411	0.200 CAL

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\023.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
User: JJY
Sample ID: PCB ICAL PT 4 PP 5965
Acquired: 07/24/2019 20:09:45
Printed: Jul 25, 2019 16:35:20

Data Summary: {Data Description}



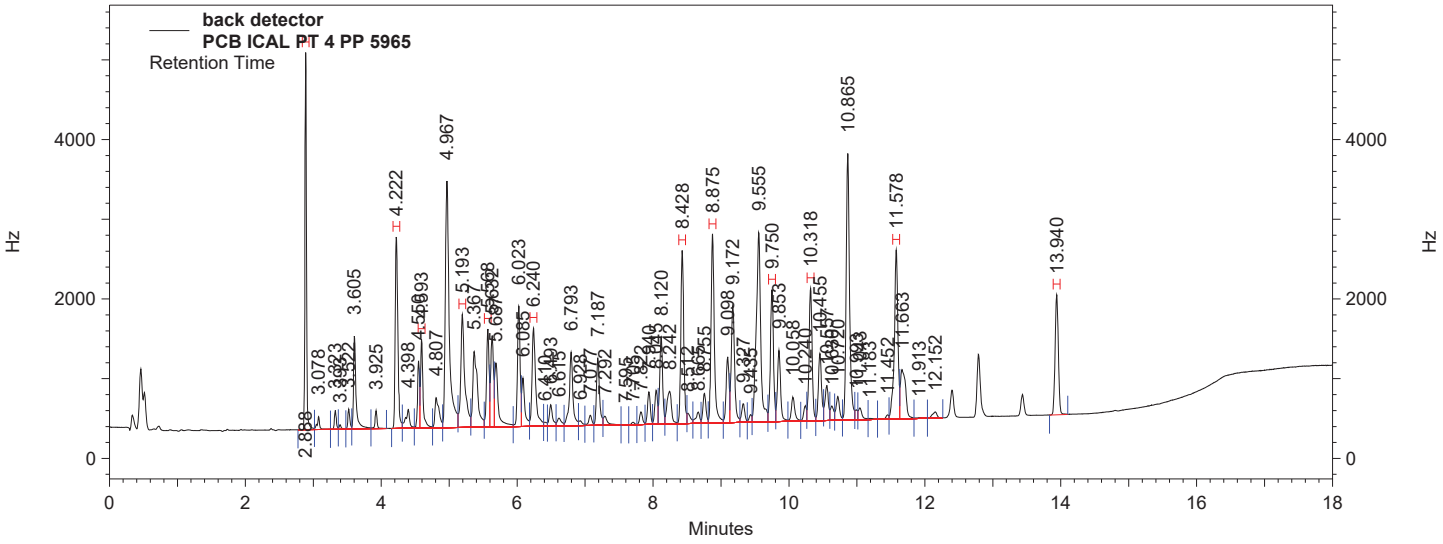
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.380	25866241	100.000 CAL
Aroclor 1016 #1	2.820	10523930	0.100 CAL
Aroclor 1016 #2	3.255	20724155	0.100 CAL
Aroclor 1016 #3	3.512	14897449	0.100 CAL
Aroclor 1016 #4	4.070	17953297	0.100 CAL
Aroclor 1016 #5	4.692	18636630	0.100 CAL
Aroclor 1260 #1	6.783	21203004	0.100 CAL
Aroclor 1260 #2	7.310	37416643	0.100 CAL
Aroclor 1260 #3	8.052	15862258	0.100 CAL
Aroclor 1260 #4	8.577	8877278	0.100 CAL
Aroclor 1260 #5	9.657	18560243	0.100 CAL
SURRDCBPCB	11.862	17186752	100.000 CAL
Aroclor 1016		82735461	0.500 CAL
Aroclor 1260		101919426	0.500 CAL

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\023.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
User: JJY
Sample ID: PCB ICAL PT 4 PP 5965
Acquired: 07/24/2019 20:09:45
Printed: Jul 25, 2019 16:35:20

Data Summary: {Data Description}



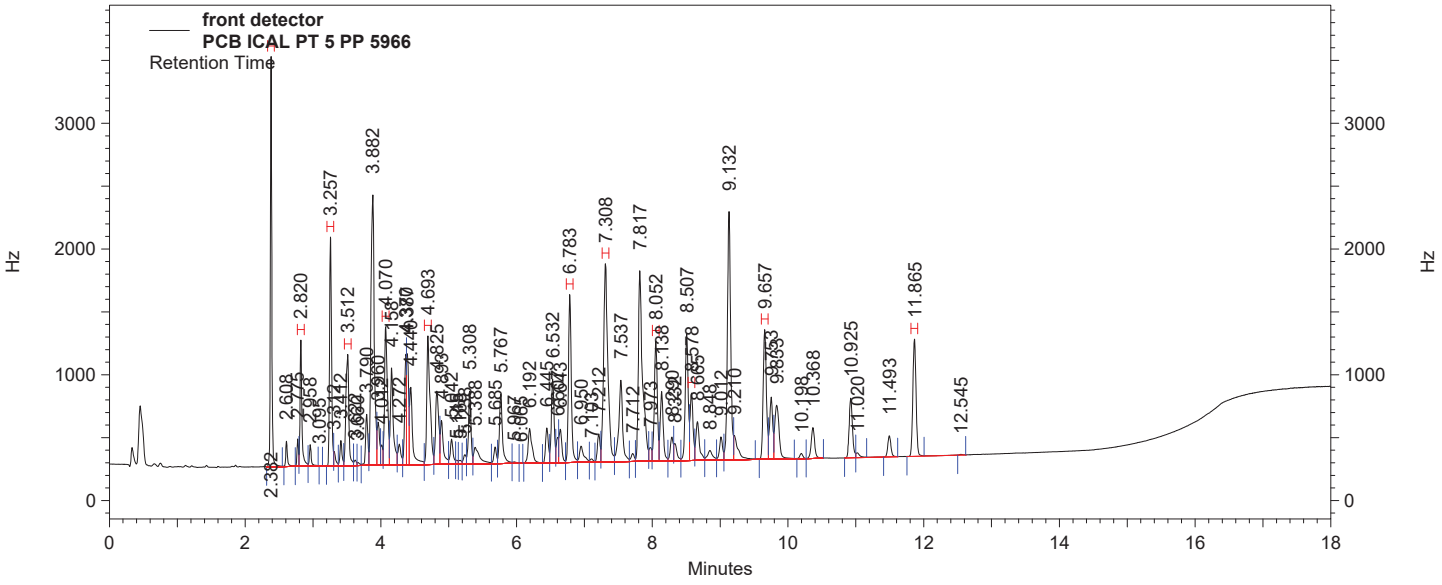
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.888	55577476	100.000 CAL
Aroclor 1016 #1	4.222	49379042	0.100 CAL
Aroclor 1016 #2	4.593	21503596	0.100 CAL
Aroclor 1016 #3	5.193	45542021	0.100 CAL
Aroclor 1016 #4	5.568	24490457	0.100 CAL
Aroclor 1016 #5	6.240	35141992	0.100 CAL
Aroclor 1260 #1	8.428	50021082	0.100 CAL
Aroclor 1260 #2	8.875	60490416	0.100 CAL
Aroclor 1260 #3	9.750	39271008	0.100 CAL
Aroclor 1260 #4	10.318	40048208	0.100 CAL
Aroclor 1260 #5	11.578	60120414	0.100 CAL
SURRDCBPCB	13.940	38169519	100.000 CAL
Aroclor 1016		176057108	0.500 CAL
Aroclor 1260		249951128	0.500 CAL

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\024.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
User: JJY
Sample ID: PCB ICAL PT 5 PP 5966
Acquired: 07/24/2019 20:30:54
Printed: Jul 25, 2019 16:35:23

Data Summary: {Data Description}



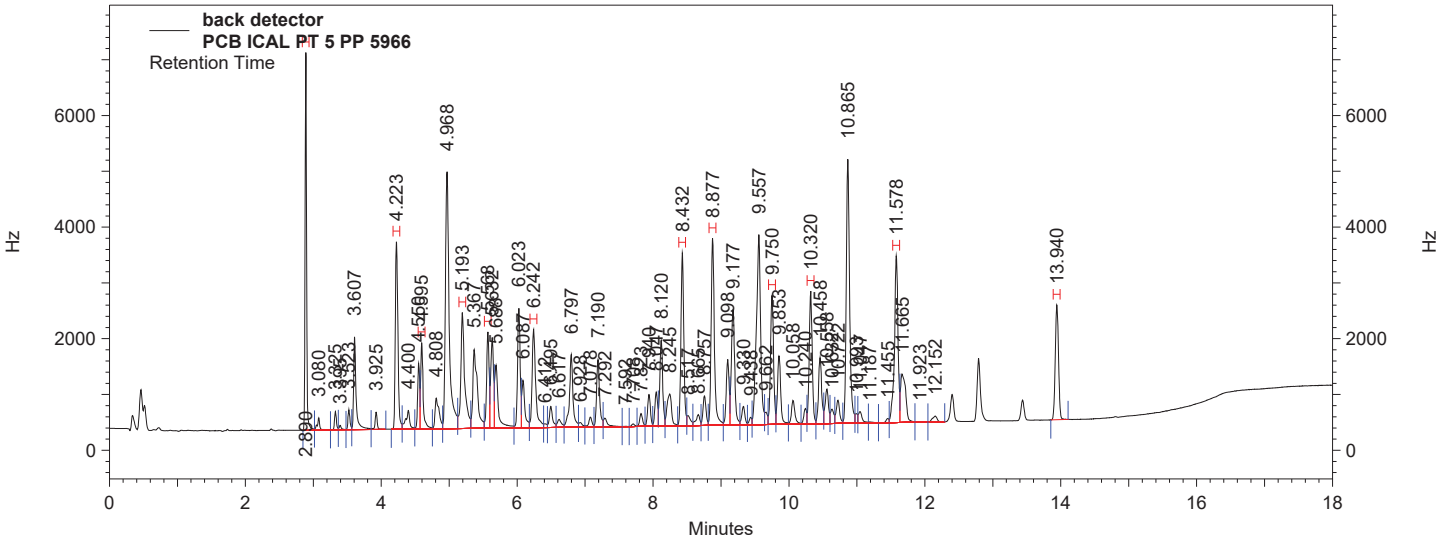
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.382	36708430	140.000 CAL
Aroclor 1016 #1	2.820	14630709	0.140 CAL
Aroclor 1016 #2	3.257	28892410	0.140 CAL
Aroclor 1016 #3	3.512	20723166	0.140 CAL
Aroclor 1016 #4	4.070	25148999	0.140 CAL
Aroclor 1016 #5	4.693	25949565	0.140 CAL
Aroclor 1260 #1	6.783	29716865	0.140 CAL
Aroclor 1260 #2	7.308	52497216	0.140 CAL
Aroclor 1260 #3	8.052	22311300	0.140 CAL
Aroclor 1260 #4	8.578	12267116	0.140 CAL
Aroclor 1260 #5	9.657	26304019	0.140 CAL
SURRDCBPCB	11.865	23687861	140.000 CAL
Aroclor 1016		115344849	0.700 CAL
Aroclor 1260		143096516	0.700 CAL

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\024.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
User: JJY
Sample ID: PCB ICAL PT 5 PP 5966
Acquired: 07/24/2019 20:30:54
Printed: Jul 25, 2019 16:35:23

Data Summary: {Data Description}



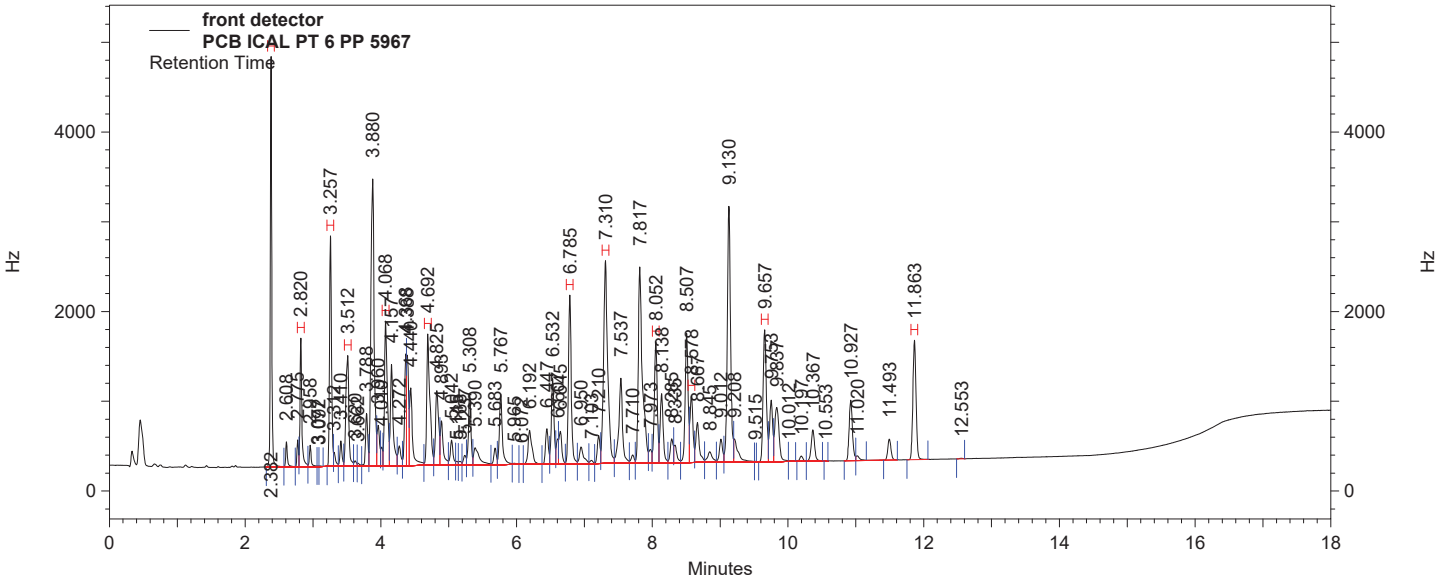
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.890	79004614	140.000 CAL
Aroclor 1016 #1	4.223	68289184	0.140 CAL
Aroclor 1016 #2	4.595	29813629	0.140 CAL
Aroclor 1016 #3	5.193	64048700	0.140 CAL
Aroclor 1016 #4	5.568	33722918	0.140 CAL
Aroclor 1016 #5	6.242	49283420	0.140 CAL
Aroclor 1260 #1	8.432	69841178	0.140 CAL
Aroclor 1260 #2	8.877	84771550	0.140 CAL
Aroclor 1260 #3	9.750	55031923	0.140 CAL
Aroclor 1260 #4	10.320	56247642	0.140 CAL
Aroclor 1260 #5	11.578	84740550	0.140 CAL
SURRDCBPCB	13.940	52634398	140.000 CAL
Aroclor 1016		245157851	0.700 CAL
Aroclor 1260		350632843	0.700 CAL

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\025.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
User: JJY
Sample ID: PCB ICAL PT 6 PP 5967
Acquired: 07/24/2019 20:52:07
Printed: Jul 25, 2019 16:35:27

Data Summary: {Data Description}



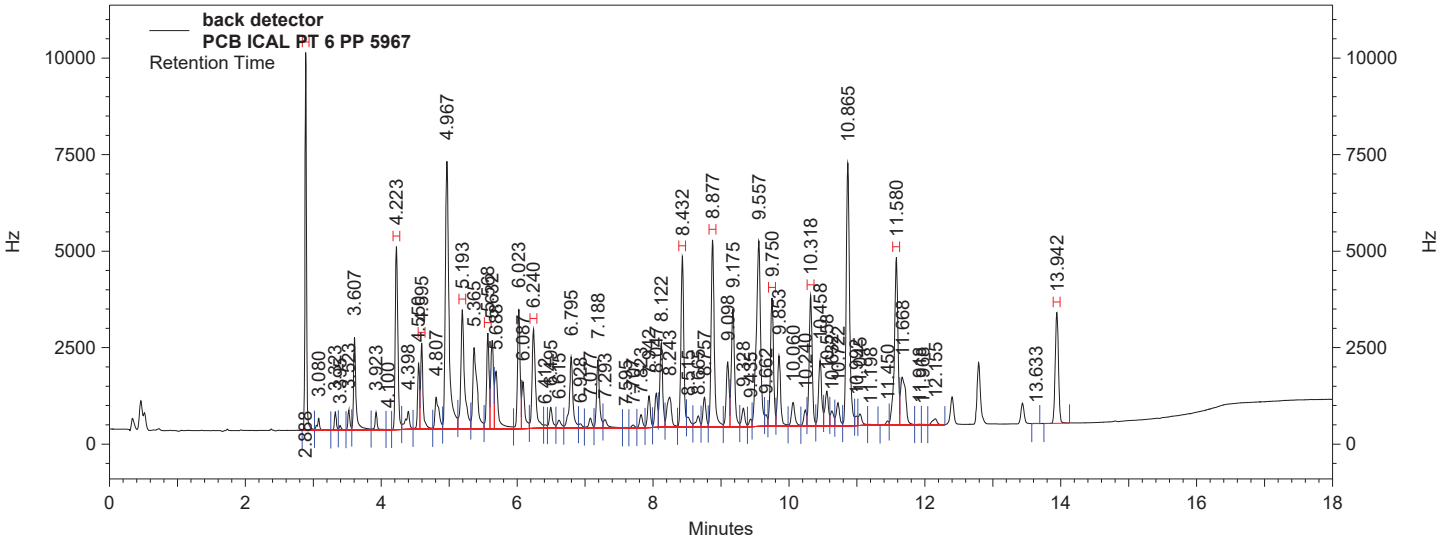
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.382	51730248	200.000 CAL
Aroclor 1016 #1	2.820	20351084	0.200 CAL
Aroclor 1016 #2	3.257	40171963	0.200 CAL
Aroclor 1016 #3	3.512	28924229	0.200 CAL
Aroclor 1016 #4	4.068	35662487	0.200 CAL
Aroclor 1016 #5	4.692	35834715	0.200 CAL
Aroclor 1260 #1	6.785	41495493	0.200 CAL
Aroclor 1260 #2	7.310	72908459	0.200 CAL
Aroclor 1260 #3	8.052	31054949	0.200 CAL
Aroclor 1260 #4	8.578	17163783	0.200 CAL
Aroclor 1260 #5	9.657	37794818	0.200 CAL
SURRDCBPCB	11.863	33308581	200.000 CAL
Aroclor 1016		160944478	1.000 CAL
Aroclor 1260		200417502	1.000 CAL

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\025.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
User: JJY
Sample ID: PCB ICAL PT 6 PP 5967
Acquired: 07/24/2019 20:52:07
Printed: Jul 25, 2019 16:35:27

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.888	113374811	200.000 CAL
Aroclor 1016 #1	4.223	96085888	0.200 CAL
Aroclor 1016 #2	4.595	42571888	0.200 CAL
Aroclor 1016 #3	5.193	90215087	0.200 CAL
Aroclor 1016 #4	5.568	48795813	0.200 CAL
Aroclor 1016 #5	6.240	70267245	0.200 CAL
Aroclor 1260 #1	8.432	99004040	0.200 CAL
Aroclor 1260 #2	8.877	120683654	0.200 CAL
Aroclor 1260 #3	9.750	78349646	0.200 CAL
Aroclor 1260 #4	10.318	80269106	0.200 CAL
Aroclor 1260 #5	11.580	121735770	0.200 CAL
SURRDCBPCB	13.942	73274038	200.000 CAL
Aroclor 1016		347935921	1.000 CAL
Aroclor 1260		500042216	1.000 CAL

QC Check Standard Report

Sequence : C:\Instarch\Semi7\Sequence\072419pcbic.seq
User : JJY
Printed : Jul 25, 2019 16:35:32

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\072419pcbic\026.dat	PCB ICV PP 5977	Jul 25, 2019 16:35:32

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	95.372	4.628	20.000	Passed
Aroclor 1016 #1	0.100	0.083	16.501	20.000	Passed
Aroclor 1016 #2	0.100	0.082	17.816	20.000	Passed
Aroclor 1016 #3	0.100	0.083	16.681	20.000	Passed
Aroclor 1016 #4	0.100	0.082	17.788	20.000	Passed
Aroclor 1016 #5	0.100	0.084	15.865	20.000	Passed
Aroclor 1260 #1	0.100	0.091	9.289	20.000	Passed
Aroclor 1260 #2	0.100	0.091	8.973	20.000	Passed
Aroclor 1260 #3	0.100	0.091	9.264	20.000	Passed
Aroclor 1260 #4	0.100	0.092	7.729	20.000	Passed
Aroclor 1260 #5	0.100	0.089	10.969	20.000	Passed
SURRDCBPCB	100.000	99.942	0.058	20.000	Passed
Aroclor 1016	0.500	0.415	16.930	20.000	Passed
Aroclor 1260	0.500	0.454	9.245	20.000	Passed

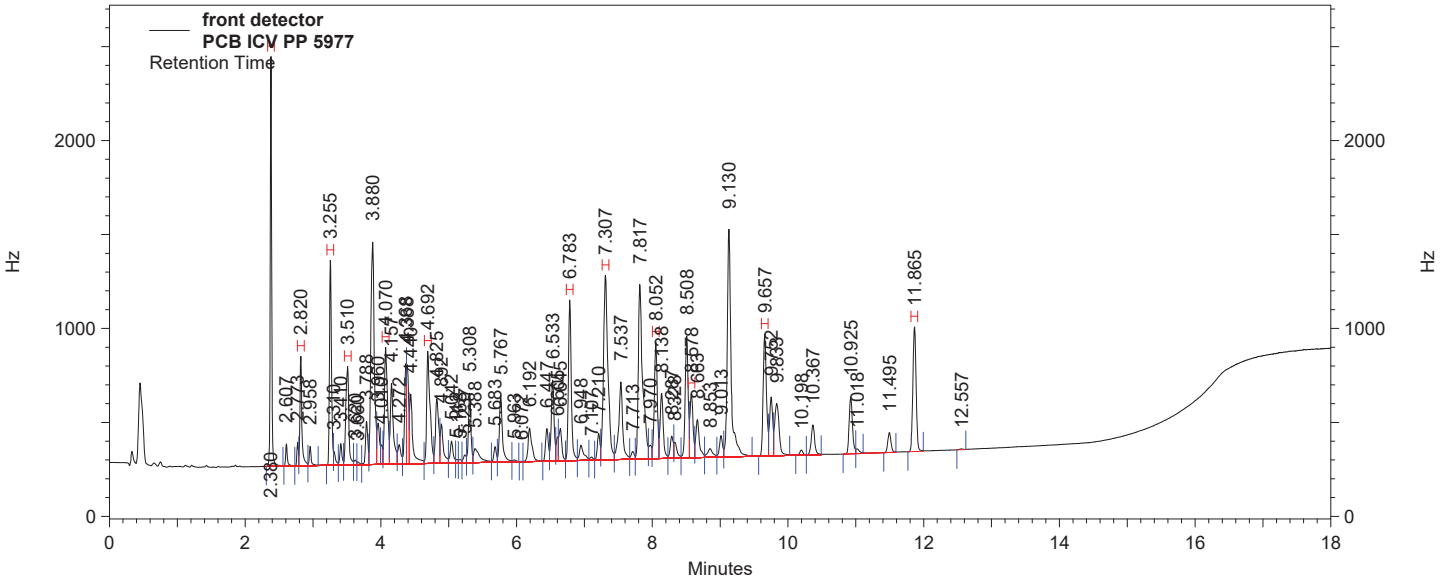
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	95.906	4.094	20.000	Passed
Aroclor 1016 #1	0.100	0.085	15.439	20.000	Passed
Aroclor 1016 #2	0.100	0.084	15.879	20.000	Passed
Aroclor 1016 #3	0.100	0.083	16.649	20.000	Passed
Aroclor 1016 #4	0.100	0.084	15.655	20.000	Passed
Aroclor 1016 #5	0.100	0.083	16.733	20.000	Passed
Aroclor 1260 #1	0.100	0.098	2.441	20.000	Passed
Aroclor 1260 #2	0.100	0.091	9.111	20.000	Passed
Aroclor 1260 #3	0.100	0.091	9.138	20.000	Passed
Aroclor 1260 #4	0.100	0.090	9.599	20.000	Passed
Aroclor 1260 #5	0.100	0.088	12.492	20.000	Passed
SURRDCBPCB	100.000	102.126	2.126	20.000	Passed
Aroclor 1016	0.500	0.420	16.071	20.000	Passed
Aroclor 1260	0.500	0.457	8.556	20.000	Passed

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\026.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
User: JJY
Sample ID: PCB ICV PP 5977
Acquired: 07/24/2019 21:13:18
Printed: Jul 25, 2019 16:35:30

Data Summary: {Data Description}



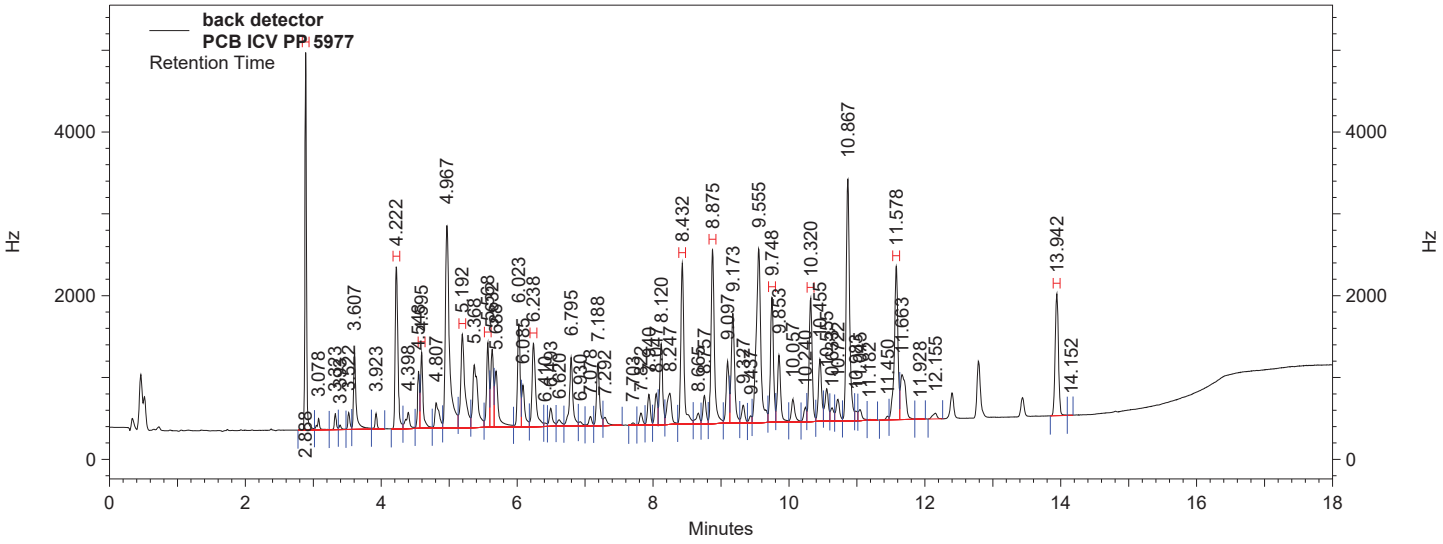
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.380	24910111	95.372
Aroclor 1016 #1	2.820	8765808	0.083
Aroclor 1016 #2	3.255	17183612	0.082
Aroclor 1016 #3	3.510	12408438	0.083
Aroclor 1016 #4	4.070	14858290	0.082
Aroclor 1016 #5	4.692	15563050	0.084
Aroclor 1260 #1	6.783	19266528	0.091
Aroclor 1260 #2	7.307	34057360	0.091
Aroclor 1260 #3	8.052	14416271	0.091
Aroclor 1260 #4	8.578	8112307	0.092
Aroclor 1260 #5	9.657	16796942	0.089
SURRDCBPCB	11.865	17009214	99.942
Aroclor 1016		68779198	0.415
Aroclor 1260		92649408	0.454

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\026.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
User: JJY
Sample ID: PCB ICV PP 5977
Acquired: 07/24/2019 21:13:18
Printed: Jul 25, 2019 16:35:30

Data Summary: {Data Description}



back detector Results

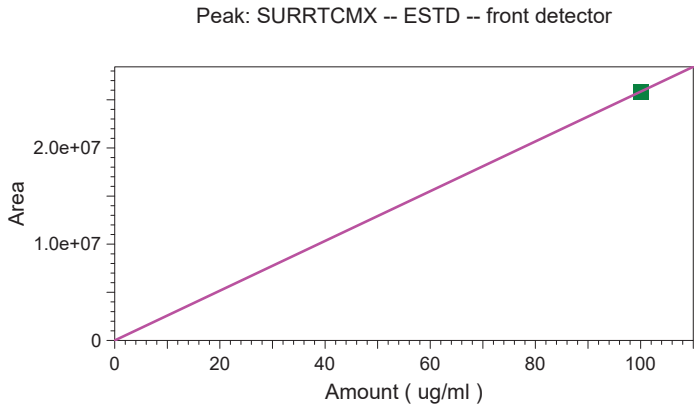
Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.888	54152538	95.906
Aroclor 1016 #1	4.222	41614151	0.085
Aroclor 1016 #2	4.595	18141951	0.084
Aroclor 1016 #3	5.192	38180935	0.083
Aroclor 1016 #4	5.568	20728824	0.084
Aroclor 1016 #5	6.238	29547787	0.083
Aroclor 1260 #1	8.432	49082761	0.098
Aroclor 1260 #2	8.875	55251309	0.091
Aroclor 1260 #3	9.748	35876556	0.091
Aroclor 1260 #4	10.320	36438034	0.090
Aroclor 1260 #5	11.578	53252715	0.088
SURRDCBPCB	13.942	38314077	102.126
Aroclor 1016		148213648	0.420
Aroclor 1260		229901375	0.457

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1221.met
Print Time: Aug 06, 2019 11:17:08
User: AJZ
Instrument: Semi 7

SURRTCMX (front detector)
Average RF: 258484.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 258484.



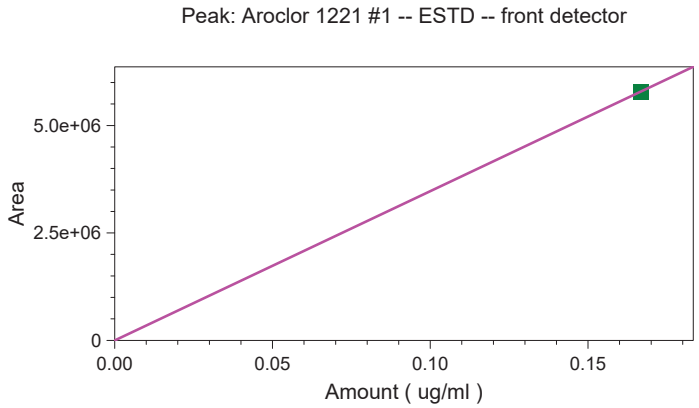
	Level 1
Amount	100
Area	25848352
RF	258483.52
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	25848352
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\003.dat
Rep 1 Sample ID	1221 CF PP5969
Rep 1 Calib. Time	07/25/2019 10:42:50

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1221.met
Print Time: Aug 06, 2019 11:17:10
User: AJZ
Instrument: Semi 7

Aroclor 1221 #1 (front detector)
Average RF: 3.47211e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 3.47211e+007



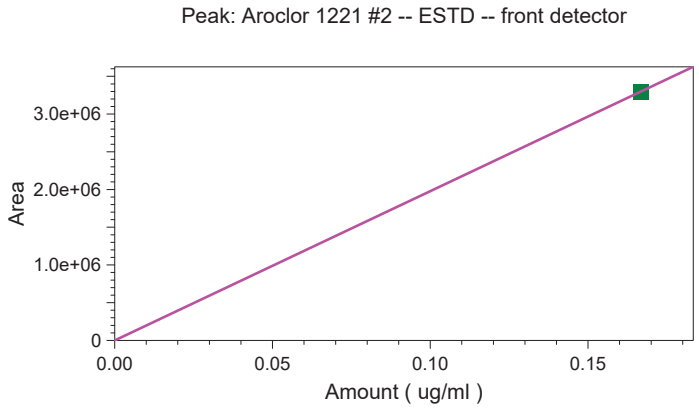
	Level 1
Amount	0.166667
Area	5786855
RF	34721130.00 00014
Last Area Residual	2.77556e-017
Rep StDev	
Rep %RSD	
Rep 1 Area	5786855
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\003.dat
Rep 1 Sample ID	1221 CF PP5969
Rep 1 Calib. Time	07/25/2019 10:42:50

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1221.met
Print Time: Aug 06, 2019 11:17:11
User: AJZ
Instrument: Semi 7

Aroclor 1221 #2 (front detector)
Average RF: 1.97806e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.97806e+007



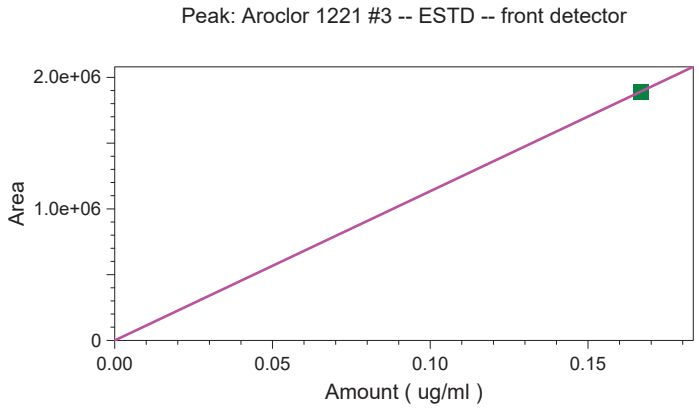
	Level 1
Amount	0.166667
Area	3296764
RF	19780584.00 00008
Last Area Residual	2.77556e-017
Rep StDev	
Rep %RSD	
Rep 1 Area	3296764
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\003.dat
Rep 1 Sample ID	1221 CF PP5969
Rep 1 Calib. Time	07/25/2019 10:42:50

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1221.met
Print Time: Aug 06, 2019 11:17:13
User: AJZ
Instrument: Semi 7

Aroclor 1221 #3 (front detector)
Average RF: 1.13456e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.13456e+007



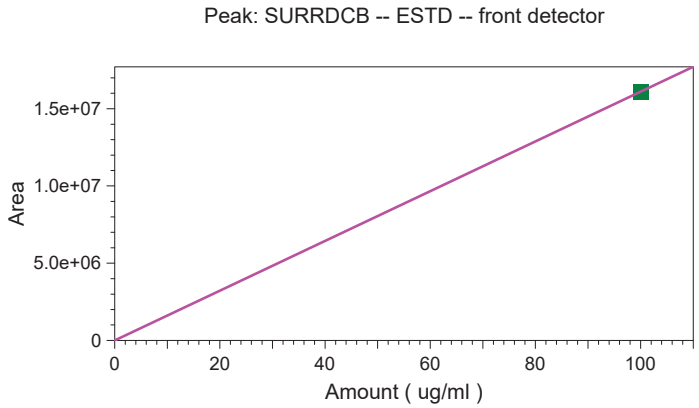
	Level 1
Amount	0.166667
Area	1890935
RF	11345610.00 00005
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	1890935
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\003.dat
Rep 1 Sample ID	1221 CF PP5969
Rep 1 Calib. Time	07/25/2019 10:42:50

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1221.met
Print Time: Aug 06, 2019 11:17:15
User: AJZ
Instrument: Semi 7

SURRDCB (front detector)
Average RF: 161058.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 161058.



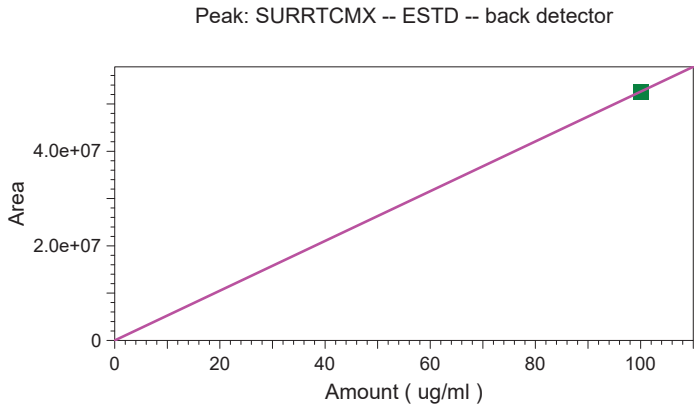
	Level 1
Amount	100
Area	16105754
RF	161057.54
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	16105754
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\003.dat
Rep 1 Sample ID	1221 CF PP5969
Rep 1 Calib. Time	07/25/2019 10:42:50

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1221.met
Print Time: Aug 06, 2019 11:16:55
User: AJZ
Instrument: Semi 7

SURRTCMX (back detector)
Average RF: 525939.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 525939.



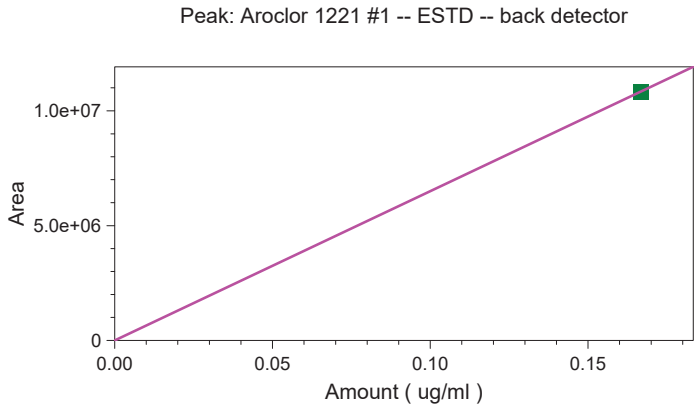
	Level 1
Amount	100
Area	52593895
RF	525938.95
Last Area	
Residual	-1.42109e-014
Rep StDev	
Rep %RSD	
Rep 1 Area	52593895
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\003.dat
Rep 1 Sample ID	1221 CF PP5969
Rep 1 Calib. Time	07/25/2019 10:42:50

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1221.met
Print Time: Aug 06, 2019 11:16:57
User: AJZ
Instrument: Semi 7

Aroclor 1221 #1 (back detector)
Average RF: 6.50018e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 6.50018e+007



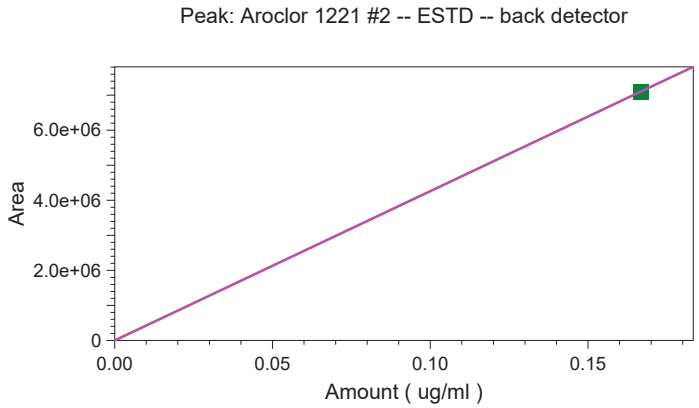
	Level 1
Amount	0.166667
Area	10833627
RF	65001762.00 00026
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	10833627
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\003.dat
Rep 1 Sample ID	1221 CF PP5969
Rep 1 Calib. Time	07/25/2019 10:42:50

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1221.met
Print Time: Aug 06, 2019 11:16:59
User: AJZ
Instrument: Semi 7

Aroclor 1221 #2 (back detector)
Average RF: 4.26011e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 4.26011e+007



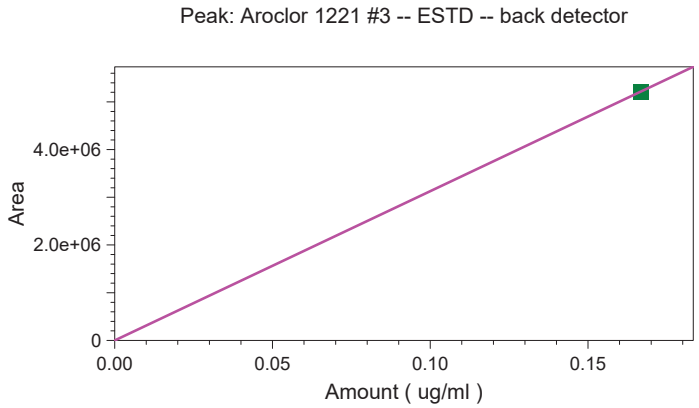
	Level 1
Amount	0.166667
Area	7100176
RF	42601056.00 00017
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	7100176
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\003.dat
Rep 1 Sample ID	1221 CF PP5969
Rep 1 Calib. Time	07/25/2019 10:42:50

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1221.met
Print Time: Aug 06, 2019 11:17:01
User: AJZ
Instrument: Semi 7

Aroclor 1221 #3 (back detector)
Average RF: 3.12823e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 3.12823e+007



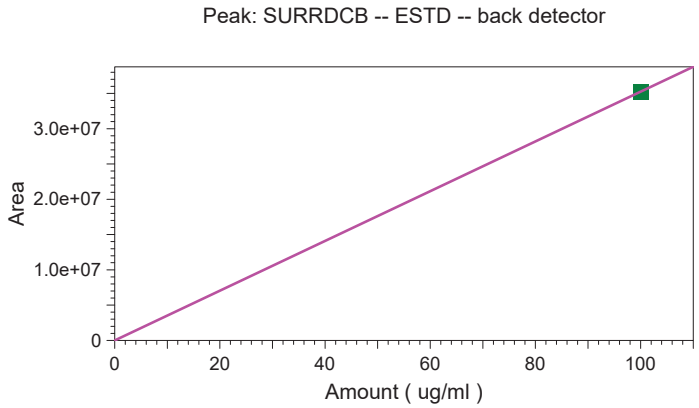
	Level 1
Amount	0.166667
Area	5213717
RF	31282302.00 00013
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	5213717
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\003.dat
Rep 1 Sample ID	1221 CF PP5969
Rep 1 Calib. Time	07/25/2019 10:42:50

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1221.met
Print Time: Aug 06, 2019 11:17:03
User: AJZ
Instrument: Semi 7

SURRDCB (back detector)
Average RF: 352472.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 352472.



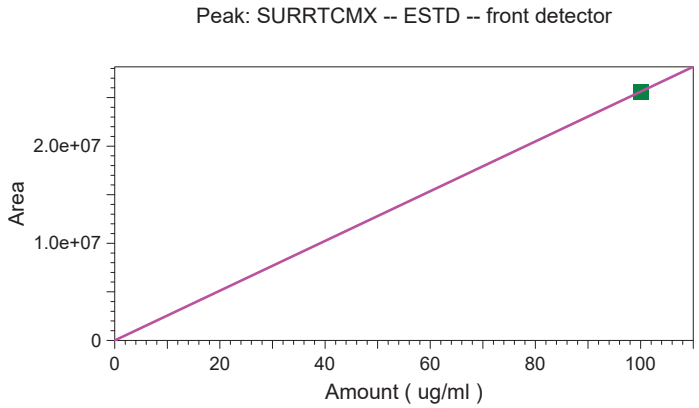
	Level 1
Amount	100
Area	35247183
RF	352471.83
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	35247183
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\003.dat
Rep 1 Sample ID	1221 CF PP5969
Rep 1 Calib. Time	07/25/2019 10:42:50

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1232.met
Print Time: Aug 06, 2019 11:17:51
User: AJZ
Instrument: Semi 7

SURRTCMX (front detector)
Average RF: 256088.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 256088.



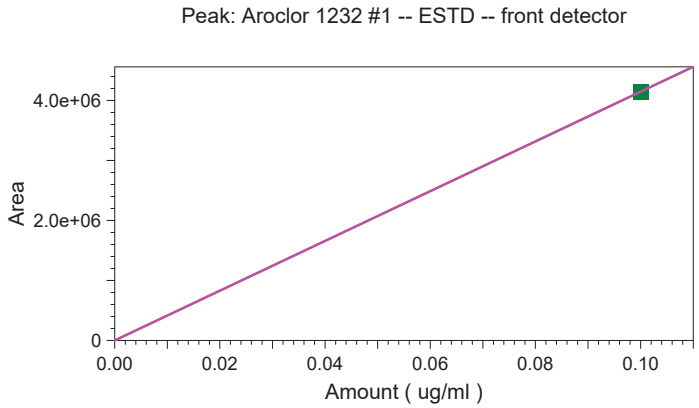
	Level 1
Amount	100
Area	25608806
RF	256088.06
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	25608806
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\004.dat
Rep 1 Sample ID	1232 CF PP5970
Rep 1 Calib. Time	07/25/2019 10:45:31

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1232.met
Print Time: Aug 06, 2019 11:17:53
User: AJZ
Instrument: Semi 7

Aroclor 1232 #1 (front detector)
Average RF: 4.14596e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 4.14596e+007



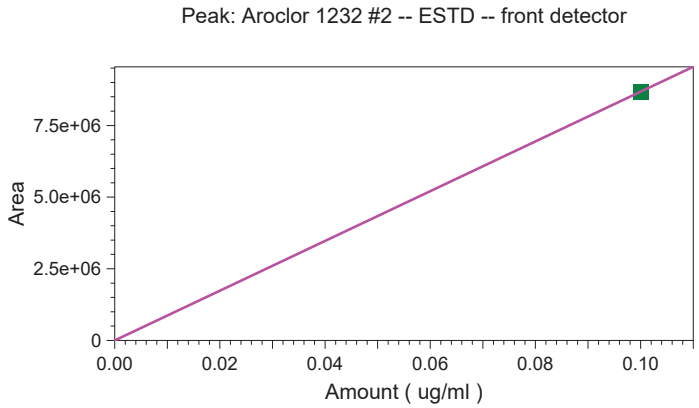
	Level 1
Amount	0.1
Area	4145960
RF	41459600
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	4145960
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\004.dat
Rep 1 Sample ID	1232 CF PP5970
Rep 1 Calib. Time	07/25/2019 10:45:31

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1232.met
Print Time: Aug 06, 2019 11:17:55
User: AJZ
Instrument: Semi 7

Aroclor 1232 #2 (front detector)
Average RF: 8.67910e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 8.67910e+007



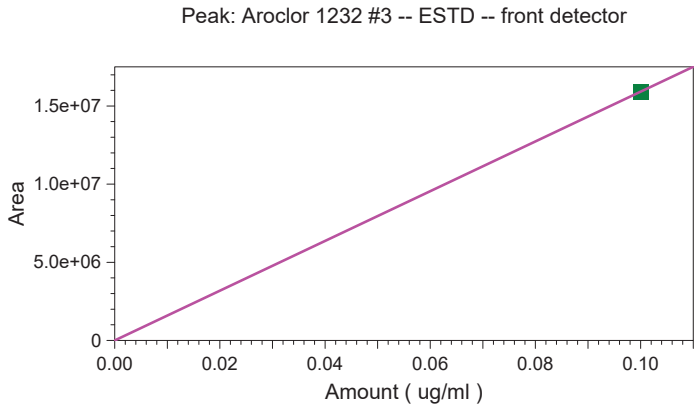
	Level 1
Amount	0.1
Area	8679096
RF	86790960
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	8679096
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\004.dat
Rep 1 Sample ID	1232 CF PP5970
Rep 1 Calib. Time	07/25/2019 10:45:31

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1232.met
Print Time: Aug 06, 2019 11:17:56
User: AJZ
Instrument: Semi 7

Aroclor 1232 #3 (front detector)
Average RF: 1.59178e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.59178e+008



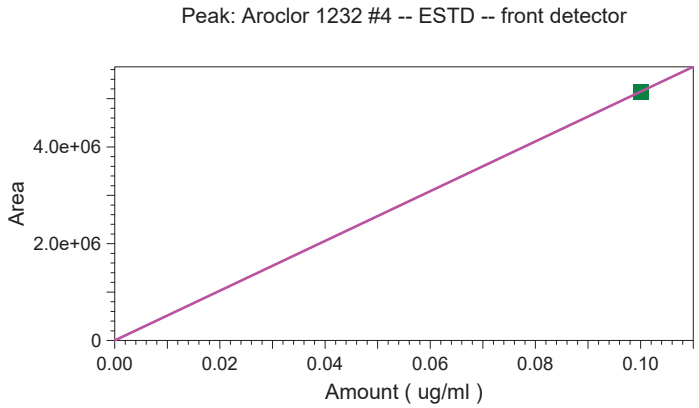
	Level 1
Amount	0.1
Area	15917783
RF	159177830
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	15917783
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\004.dat
Rep 1 Sample ID	1232 CF PP5970
Rep 1 Calib. Time	07/25/2019 10:45:31

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1232.met
Print Time: Aug 06, 2019 11:17:58
User: AJZ
Instrument: Semi 7

Aroclor 1232 #4 (front detector)
Average RF: 5.14383e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 5.14383e+007



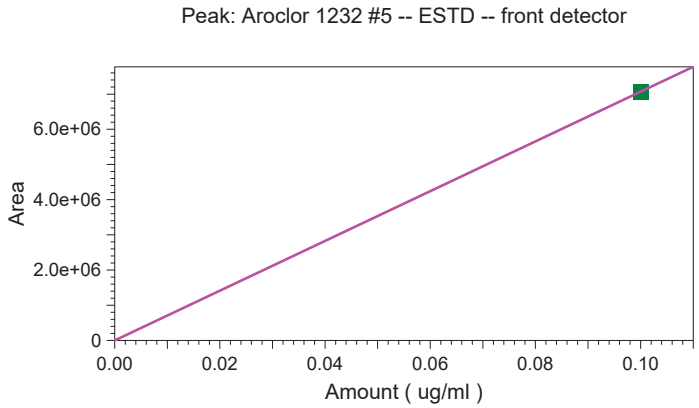
	Level 1
Amount	0.1
Area	5143825
RF	51438250
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	5143825
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\004.dat
Rep 1 Sample ID	1232 CF PP5970
Rep 1 Calib. Time	07/25/2019 10:45:31

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1232.met
Print Time: Aug 06, 2019 11:18:01
User: AJZ
Instrument: Semi 7

Aroclor 1232 #5 (front detector)
Average RF: 7.06854e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 7.06854e+007



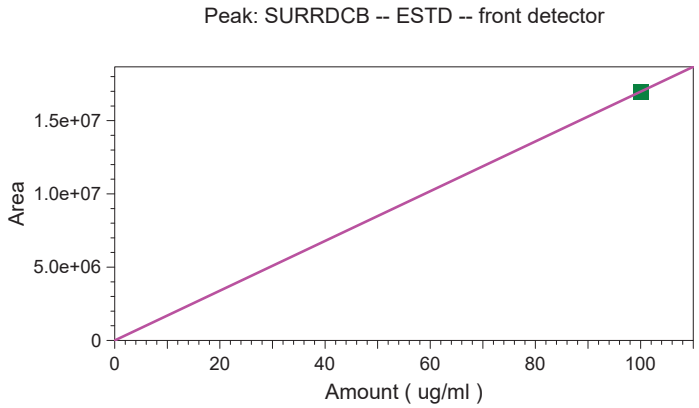
	Level 1
Amount	0.1
Area	7068544
RF	70685440
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	7068544
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\004.dat
Rep 1 Sample ID	1232 CF PP5970
Rep 1 Calib. Time	07/25/2019 10:45:31

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1232.met
Print Time: Aug 06, 2019 11:18:03
User: AJZ
Instrument: Semi 7

SURRDCB (front detector)
Average RF: 169779.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 169779.



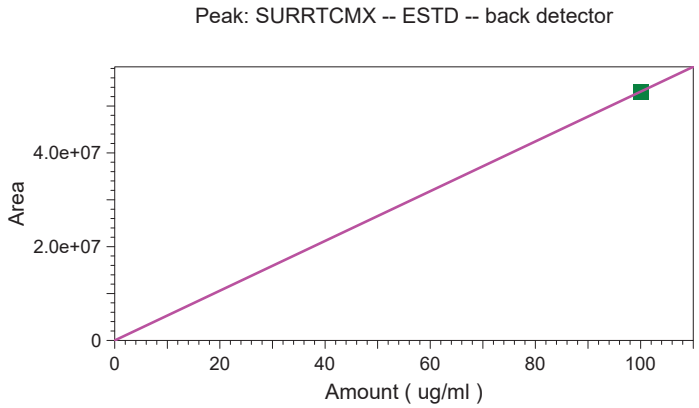
	Level 1
Amount	100
Area	16977899
RF	169778.99
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	16977899
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\004.dat
Rep 1 Sample ID	1232 CF PP5970
Rep 1 Calib. Time	07/25/2019 10:45:31

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1232.met
Print Time: Aug 06, 2019 11:18:07
User: AJZ
Instrument: Semi 7

SURRTCMX (back detector)
Average RF: 530538.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 530538.



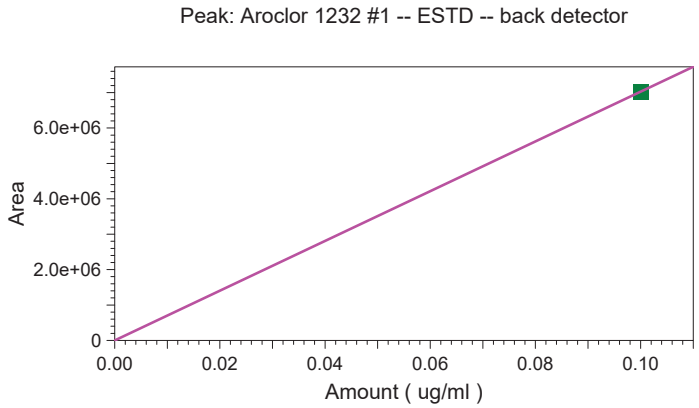
	Level 1
Amount	100
Area	53053801
RF	530538.01
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	53053801
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\004.dat
Rep 1 Sample ID	1232 CF PP5970
Rep 1 Calib. Time	07/25/2019 10:45:31

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1232.met
Print Time: Aug 06, 2019 11:18:10
User: AJZ
Instrument: Semi 7

Aroclor 1232 #1 (back detector)
Average RF: 7.02636e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 7.02636e+007



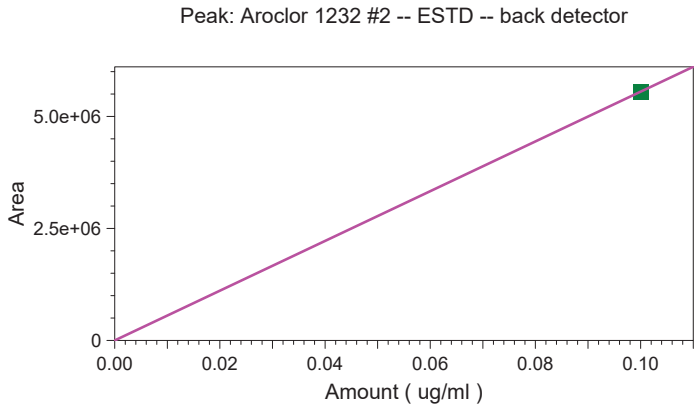
	Level 1
Amount	0.1
Area	7026364
RF	70263640
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	7026364
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\004.dat
Rep 1 Sample ID	1232 CF PP5970
Rep 1 Calib. Time	07/25/2019 10:45:31

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1232.met
Print Time: Aug 06, 2019 11:18:11
User: AJZ
Instrument: Semi 7

Aroclor 1232 #2 (back detector)
Average RF: 5.55311e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 5.55311e+007



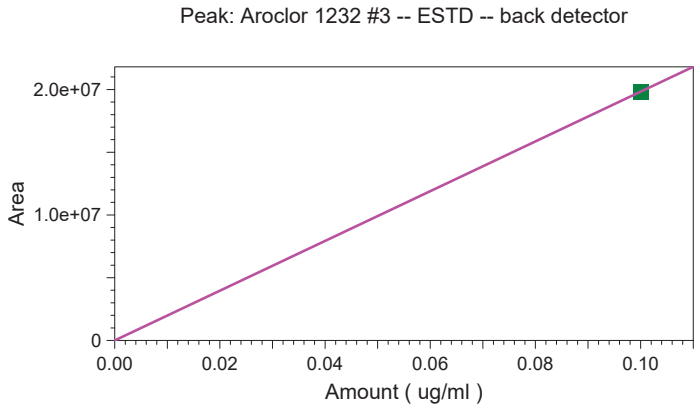
	Level 1
Amount	0.1
Area	5553110
RF	55531100
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	5553110
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\004.dat
Rep 1 Sample ID	1232 CF PP5970
Rep 1 Calib. Time	07/25/2019 10:45:31

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1232.met
Print Time: Aug 06, 2019 11:18:13
User: AJZ
Instrument: Semi 7

Aroclor 1232 #3 (back detector)
Average RF: 1.98292e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.98292e+008



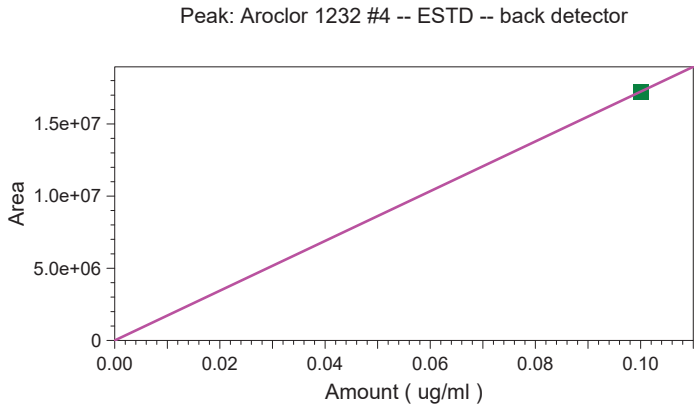
	Level 1
Amount	0.1
Area	19829151
RF	198291510
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	19829151
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\004.dat
Rep 1 Sample ID	1232 CF PP5970
Rep 1 Calib. Time	07/25/2019 10:45:31

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1232.met
Print Time: Aug 06, 2019 11:18:15
User: AJZ
Instrument: Semi 7

Aroclor 1232 #4 (back detector)
Average RF: 1.72388e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.72388e+008



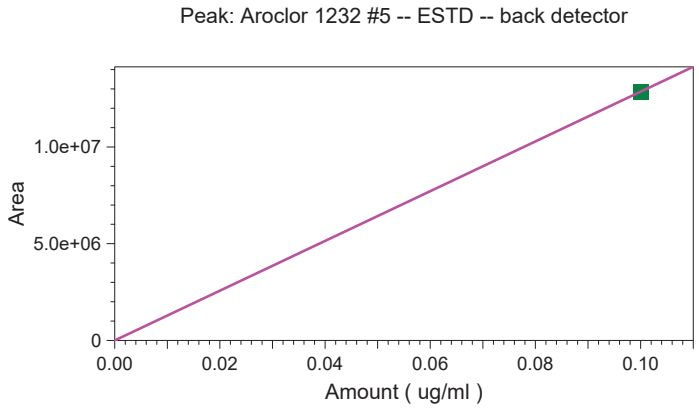
	Level 1
Amount	0.1
Area	17238847
RF	172388470
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	17238847
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\004.dat
Rep 1 Sample ID	1232 CF PP5970
Rep 1 Calib. Time	07/25/2019 10:45:31

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1232.met
Print Time: Aug 06, 2019 11:18:17
User: AJZ
Instrument: Semi 7

Aroclor 1232 #5 (back detector)
Average RF: 1.28597e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.28597e+008



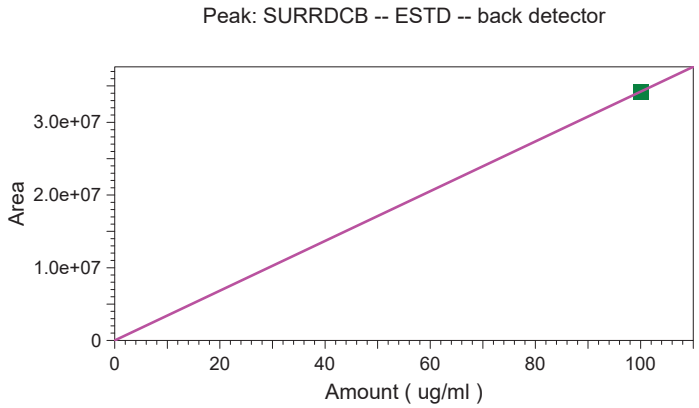
	Level 1
Amount	0.1
Area	12859697
RF	128596970
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	12859697
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\004.dat
Rep 1 Sample ID	1232 CF PP5970
Rep 1 Calib. Time	07/25/2019 10:45:31

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1232.met
Print Time: Aug 06, 2019 11:18:18
User: AJZ
Instrument: Semi 7

SURRDCB (back detector)
Average RF: 342191.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 342191.



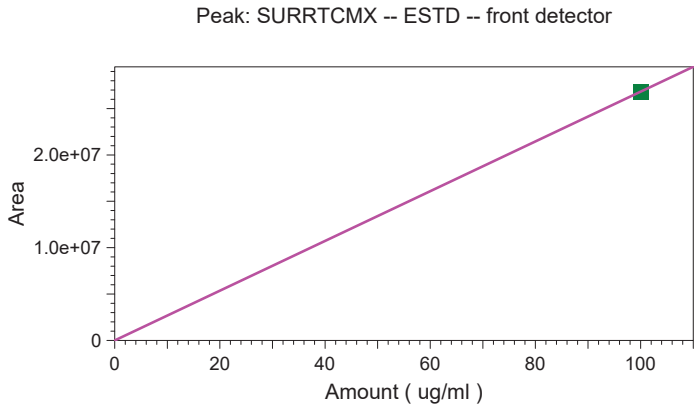
	Level 1
Amount	100
Area	34219104
RF	342191.04
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	34219104
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\004.dat
Rep 1 Sample ID	1232 CF PP5970
Rep 1 Calib. Time	07/25/2019 10:45:31

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1242.met
Print Time: Aug 06, 2019 11:19:17
User: AJZ
Instrument: Semi 7

SURRTCMX (front detector)
Average RF: 268212.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 268212.



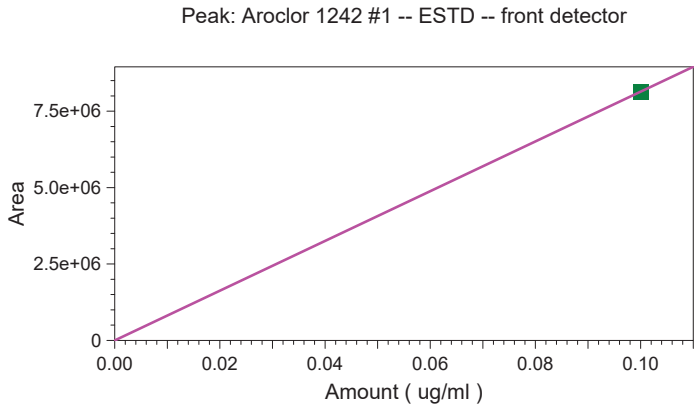
	Level 1
Amount	100
Area	26821157
RF	268211.57
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	26821157
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\005.dat
Rep 1 Sample ID	1242 CF PP5971
Rep 1 Calib. Time	07/25/2019 10:48:01

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1242.met
Print Time: Aug 06, 2019 11:19:19
User: AJZ
Instrument: Semi 7

Aroclor 1242 #1 (front detector)
Average RF: 8.13904e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 8.13904e+007



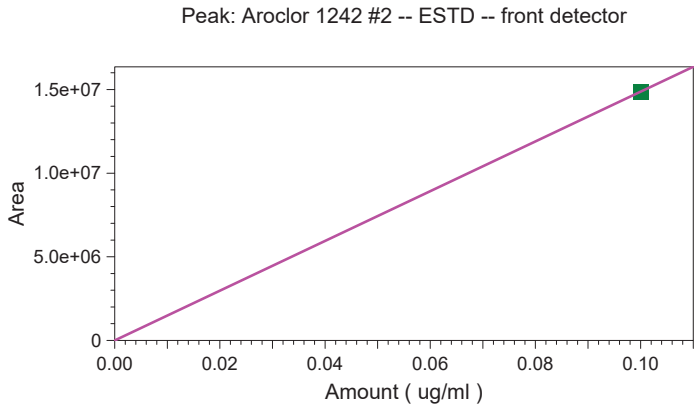
	Level 1
Amount	0.1
Area	8139042
RF	81390420
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	8139042
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\005.dat
Rep 1 Sample ID	1242 CF PP5971
Rep 1 Calib. Time	07/25/2019 10:48:01

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1242.met
Print Time: Aug 06, 2019 11:19:20
User: AJZ
Instrument: Semi 7

Aroclor 1242 #2 (front detector)
Average RF: 1.48717e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.48717e+008



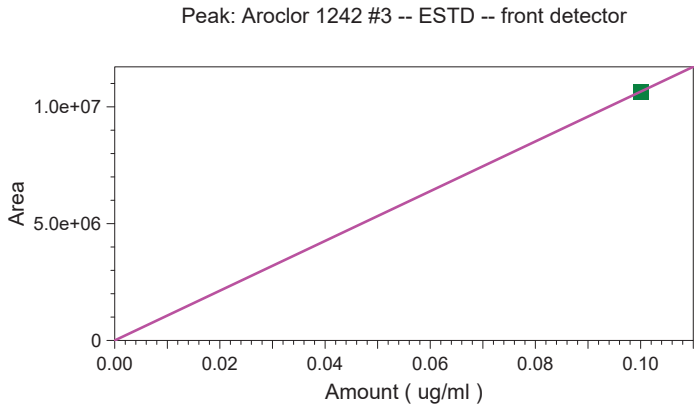
	Level 1
Amount	0.1
Area	14871675
RF	148716750
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	14871675
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\005.dat
Rep 1 Sample ID	1242 CF PP5971
Rep 1 Calib. Time	07/25/2019 10:48:01

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1242.met
Print Time: Aug 06, 2019 11:19:22
User: AJZ
Instrument: Semi 7

Aroclor 1242 #3 (front detector)
Average RF: 1.06476e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.06476e+008



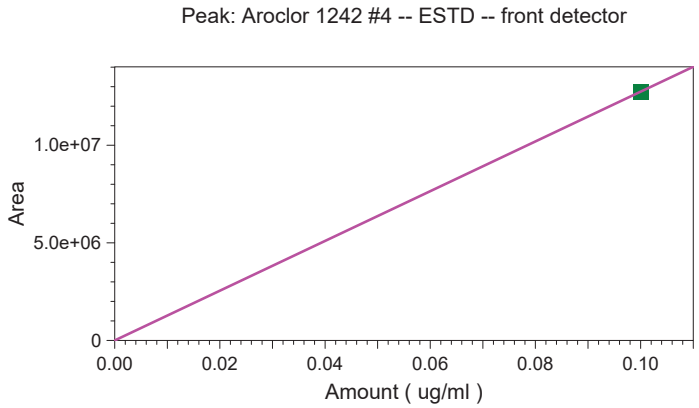
	Level 1
Amount	0.1
Area	10647594
RF	106475940
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	10647594
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\005.dat
Rep 1 Sample ID	1242 CF PP5971
Rep 1 Calib. Time	07/25/2019 10:48:01

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1242.met
Print Time: Aug 06, 2019 11:19:24
User: AJZ
Instrument: Semi 7

Aroclor 1242 #4 (front detector)
Average RF: 1.27454e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.27454e+008



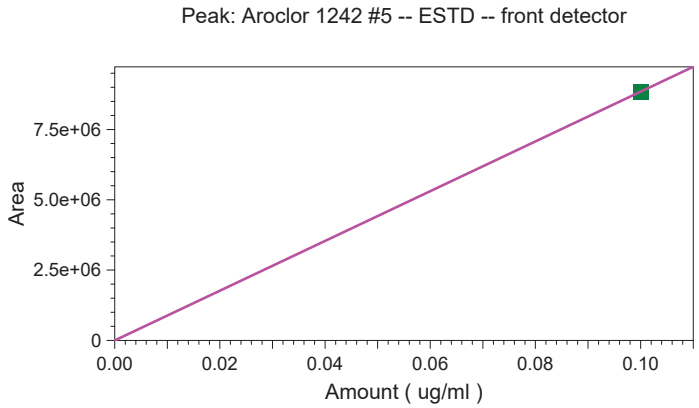
	Level 1
Amount	0.1
Area	12745371
RF	127453710
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	12745371
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\005.dat
Rep 1 Sample ID	1242 CF PP5971
Rep 1 Calib. Time	07/25/2019 10:48:01

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1242.met
Print Time: Aug 06, 2019 11:19:26
User: AJZ
Instrument: Semi 7

Aroclor 1242 #5 (front detector)
Average RF: 8.84483e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 8.84483e+007



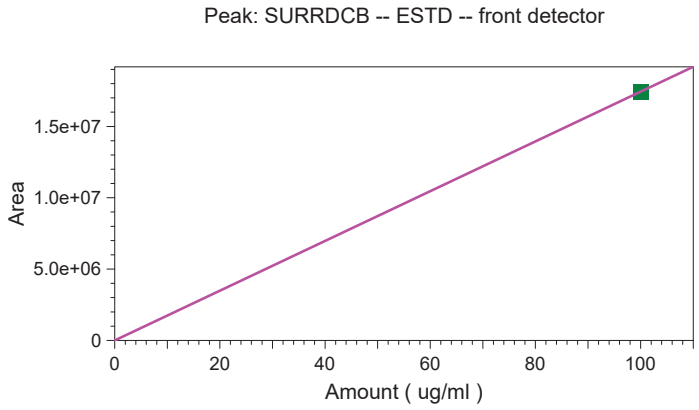
	Level 1
Amount	0.1
Area	8844830
RF	88448300
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	8844830
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\005.dat
Rep 1 Sample ID	1242 CF PP5971
Rep 1 Calib. Time	07/25/2019 10:48:01

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1242.met
Print Time: Aug 06, 2019 11:19:27
User: AJZ
Instrument: Semi 7

SURRDCB (front detector)
Average RF: 174376.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 174376.



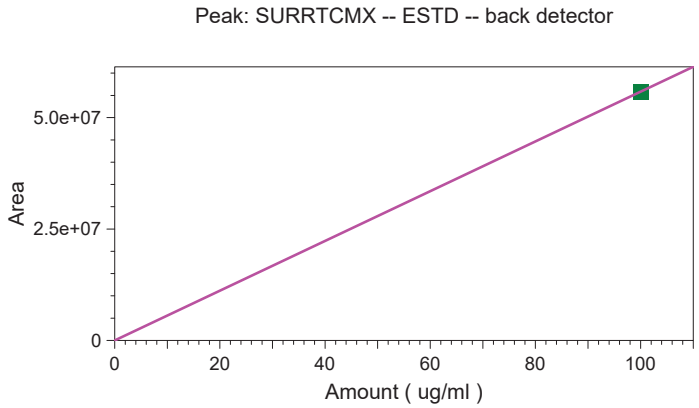
	Level 1
Amount	100
Area	17437595
RF	174375.95
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	17437595
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\005.dat
Rep 1 Sample ID	1242 CF PP5971
Rep 1 Calib. Time	07/25/2019 10:48:01

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1242.met
Print Time: Aug 06, 2019 11:18:59
User: AJZ
Instrument: Semi 7

SURRTCMX (back detector)
Average RF: 558303.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 558303.



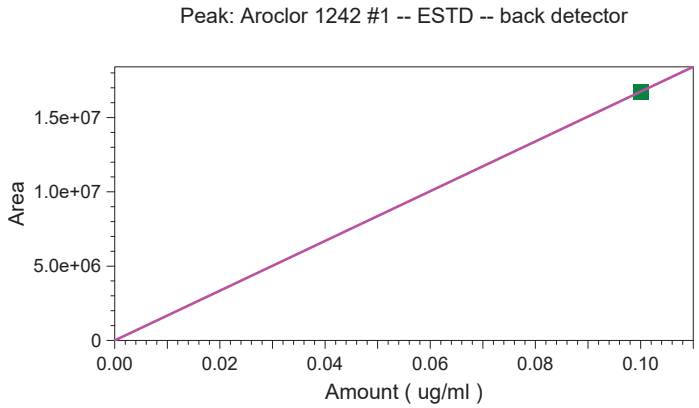
	Level 1
Amount	100
Area	55830347
RF	558303.47
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	55830347
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\005.dat
Rep 1 Sample ID	1242 CF PP5971
Rep 1 Calib. Time	07/25/2019 10:48:01

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1242.met
Print Time: Aug 06, 2019 11:19:01
User: AJZ
Instrument: Semi 7

Aroclor 1242 #1 (back detector)
Average RF: 1.67421e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.67421e+008



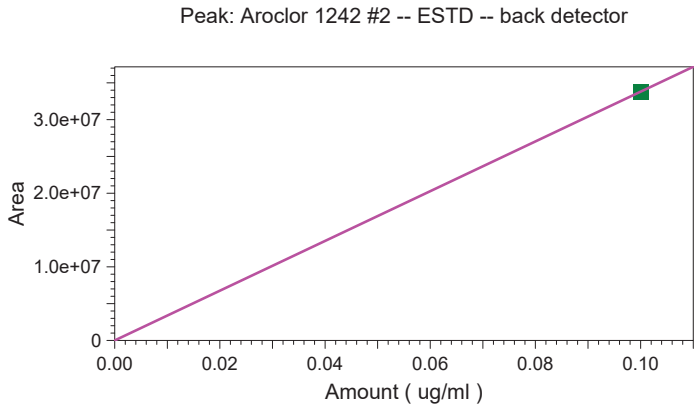
	Level 1
Amount	0.1
Area	16742129
RF	167421290
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	16742129
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\005.dat
Rep 1 Sample ID	1242 CF PP5971
Rep 1 Calib. Time	07/25/2019 10:48:01

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1242.met
Print Time: Aug 06, 2019 11:19:03
User: AJZ
Instrument: Semi 7

Aroclor 1242 #2 (back detector)
Average RF: 3.38025e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 3.38025e+008



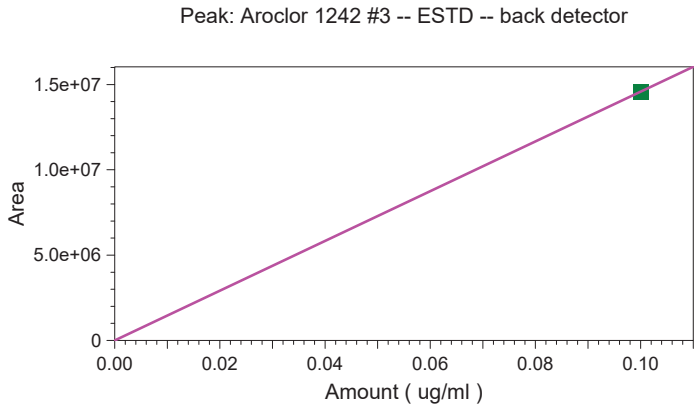
	Level 1
Amount	0.1
Area	33802456
RF	338024560
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	33802456
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\005.dat
Rep 1 Sample ID	1242 CF PP5971
Rep 1 Calib. Time	07/25/2019 10:48:01

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1242.met
Print Time: Aug 06, 2019 11:19:05
User: AJZ
Instrument: Semi 7

Aroclor 1242 #3 (back detector)
Average RF: 1.45801e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.45801e+008



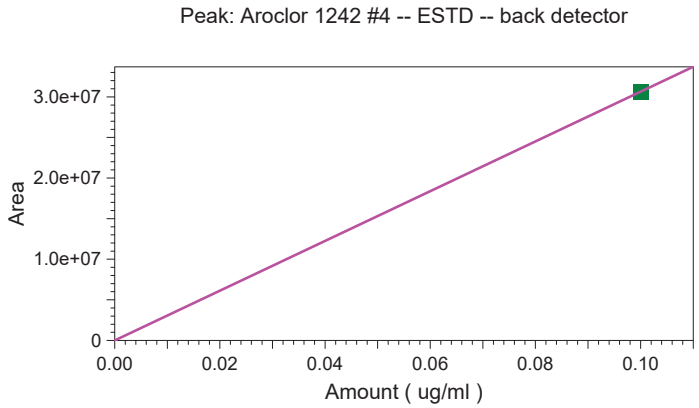
	Level 1
Amount	0.1
Area	14580105
RF	145801050
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	14580105
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\005.dat
Rep 1 Sample ID	1242 CF PP5971
Rep 1 Calib. Time	07/25/2019 10:48:01

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1242.met
Print Time: Aug 06, 2019 11:19:07
User: AJZ
Instrument: Semi 7

Aroclor 1242 #4 (back detector)
Average RF: 3.06387e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 3.06387e+008



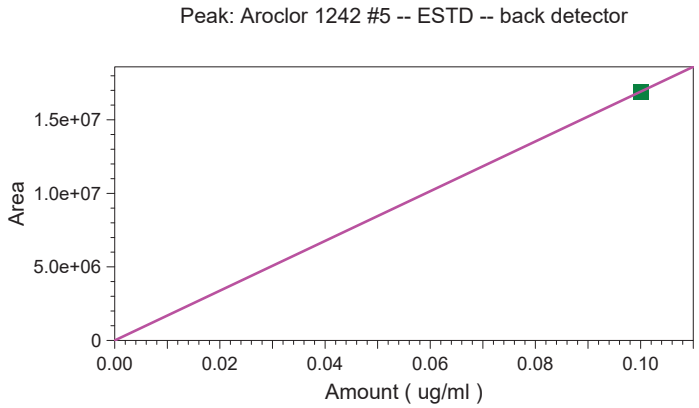
	Level 1
Amount	0.1
Area	30638699
RF	306386990
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	30638699
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\005.dat
Rep 1 Sample ID	1242 CF PP5971
Rep 1 Calib. Time	07/25/2019 10:48:01

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1242.met
Print Time: Aug 06, 2019 11:19:09
User: AJZ
Instrument: Semi 7

Aroclor 1242 #5 (back detector)
Average RF: 1.69164e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.69164e+008



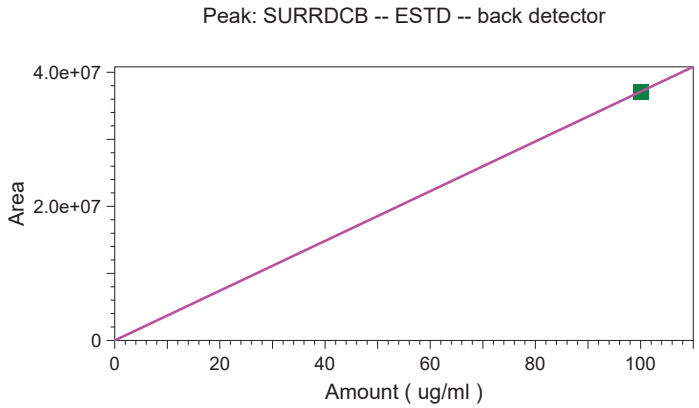
	Level 1
Amount	0.1
Area	16916378
RF	169163780
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	16916378
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\005.dat
Rep 1 Sample ID	1242 CF PP5971
Rep 1 Calib. Time	07/25/2019 10:48:01

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1242.met
Print Time: Aug 06, 2019 11:19:10
User: AJZ
Instrument: Semi 7

SURRDCB (back detector)
Average RF: 371093.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 371093.



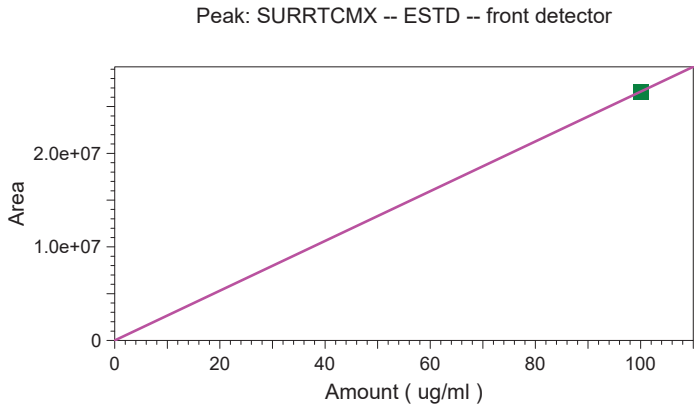
	Level 1
Amount	100
Area	37109268
RF	371092.68
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	37109268
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\005.dat
Rep 1 Sample ID	1242 CF PP5971
Rep 1 Calib. Time	07/25/2019 10:48:01

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1248.met
Print Time: Aug 06, 2019 11:19:58
User: AJZ
Instrument: Semi 7

SURRTCMX (front detector)
Average RF: 265961.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 265961.



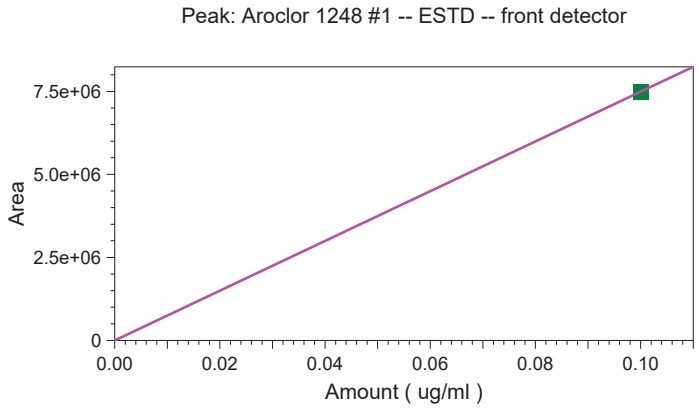
	Level 1
Amount	100
Area	26596055
RF	265960.55
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	26596055
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\006.dat
Rep 1 Sample ID	1248 CF PP5972
Rep 1 Calib. Time	07/25/2019 10:50:26

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1248.met
Print Time: Aug 06, 2019 11:20:00
User: AJZ
Instrument: Semi 7

Aroclor 1248 #1 (front detector)
Average RF: 7.49165e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 7.49165e+007



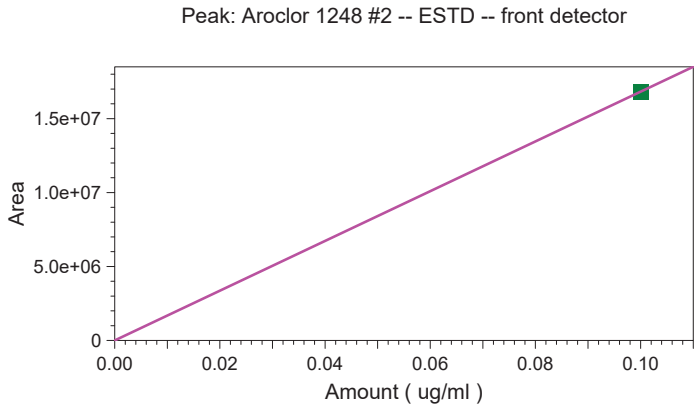
	Level 1
Amount	0.1
Area	7491648
RF	74916480
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	7491648
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\006.dat
Rep 1 Sample ID	1248 CF PP5972
Rep 1 Calib. Time	07/25/2019 10:50:26

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1248.met
Print Time: Aug 06, 2019 11:20:02
User: AJZ
Instrument: Semi 7

Aroclor 1248 #2 (front detector)
Average RF: 1.68237e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.68237e+008



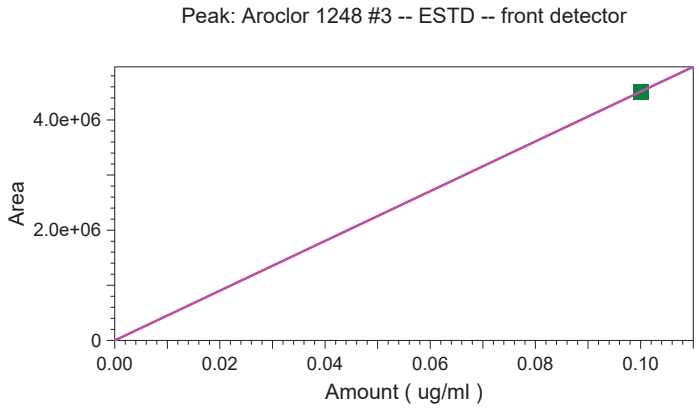
	Level 1
Amount	0.1
Area	16823726
RF	168237260
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	16823726
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\006.dat
Rep 1 Sample ID	1248 CF PP5972
Rep 1 Calib. Time	07/25/2019 10:50:26

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1248.met
Print Time: Aug 06, 2019 11:20:04
User: AJZ
Instrument: Semi 7

Aroclor 1248 #3 (front detector)
Average RF: 4.51179e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 4.51179e+007



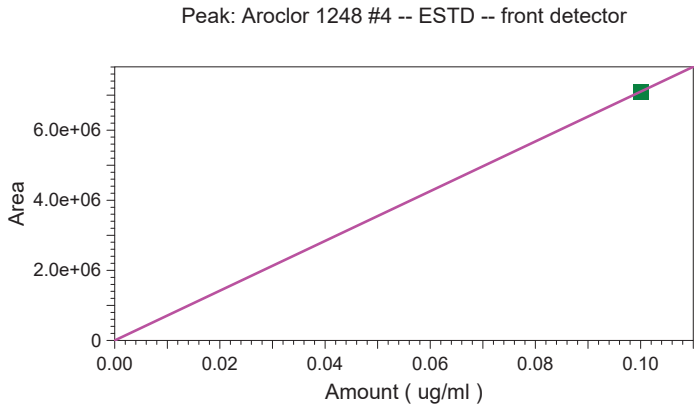
	Level 1
Amount	0.1
Area	4511794
RF	45117940
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	4511794
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\006.dat
Rep 1 Sample ID	1248 CF PP5972
Rep 1 Calib. Time	07/25/2019 10:50:26

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1248.met
Print Time: Aug 06, 2019 11:20:05
User: AJZ
Instrument: Semi 7

Aroclor 1248 #4 (front detector)
Average RF: 7.09807e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 7.09807e+007



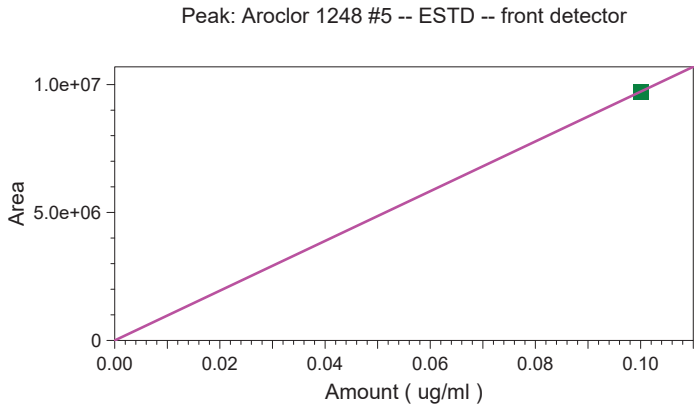
	Level 1
Amount	0.1
Area	7098065
RF	70980650
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	7098065
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\006.dat
Rep 1 Sample ID	1248 CF PP5972
Rep 1 Calib. Time	07/25/2019 10:50:26

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1248.met
Print Time: Aug 06, 2019 11:20:07
User: AJZ
Instrument: Semi 7

Aroclor 1248 #5 (front detector)
Average RF: 9.72088e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 9.72088e+007



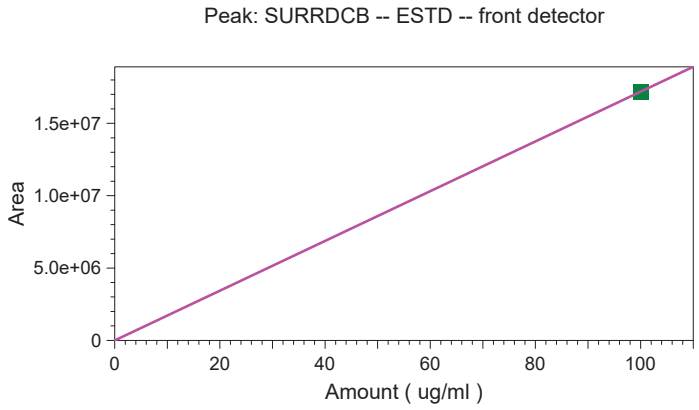
	Level 1
Amount	0.1
Area	9720875
RF	97208750
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	9720875
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\006.dat
Rep 1 Sample ID	1248 CF PP5972
Rep 1 Calib. Time	07/25/2019 10:50:26

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1248.met
Print Time: Aug 06, 2019 11:20:09
User: AJZ
Instrument: Semi 7

SURRDCB (front detector)
Average RF: 171852.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 171852.



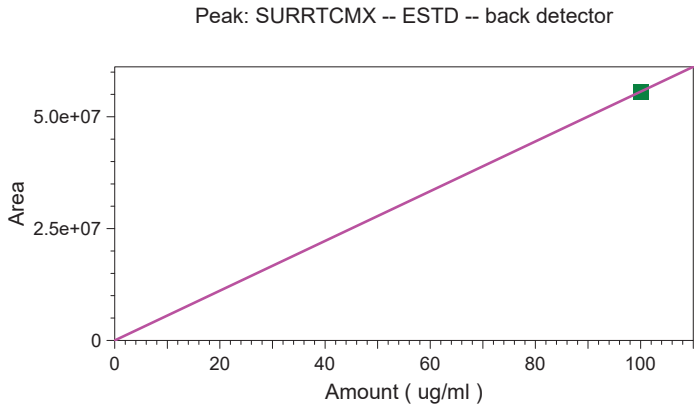
	Level 1
Amount	100
Area	17185198
RF	171851.98
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	17185198
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\006.dat
Rep 1 Sample ID	1248 CF PP5972
Rep 1 Calib. Time	07/25/2019 10:50:26

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1248.met
Print Time: Aug 06, 2019 11:20:15
User: AJZ
Instrument: Semi 7

SURRTCMX (back detector)
Average RF: 556185.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 556185.



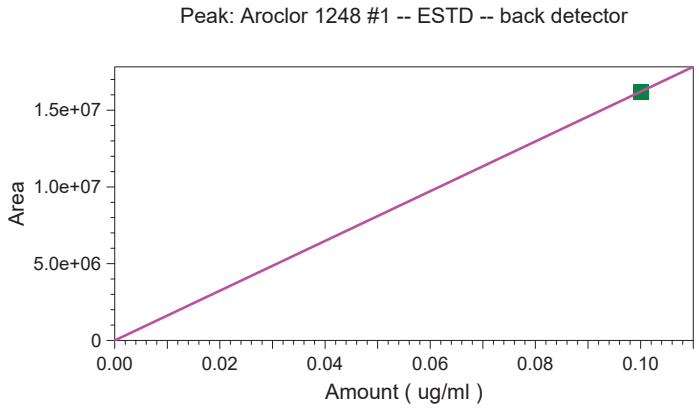
	Level 1
Amount	100
Area	55618491
RF	556184.91
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	55618491
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\006.dat
Rep 1 Sample ID	1248 CF PP5972
Rep 1 Calib. Time	07/25/2019 10:50:26

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1248.met
Print Time: Aug 06, 2019 11:20:17
User: AJZ
Instrument: Semi 7

Aroclor 1248 #1 (back detector)
Average RF: 1.62080e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.62080e+008



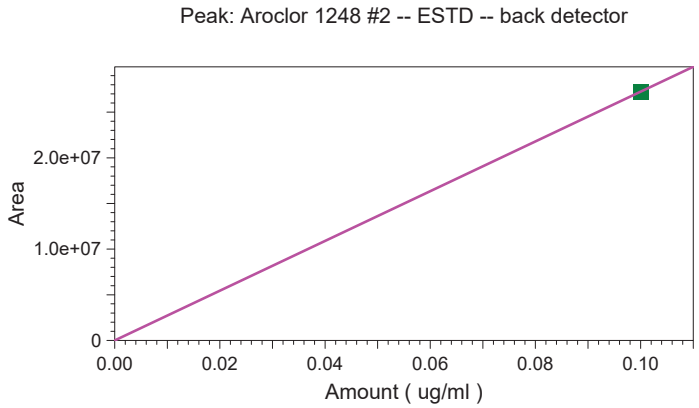
	Level 1
Amount	0.1
Area	16207984
RF	162079840
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	16207984
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\006.dat
Rep 1 Sample ID	1248 CF PP5972
Rep 1 Calib. Time	07/25/2019 10:50:26

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1248.met
Print Time: Aug 06, 2019 11:20:19
User: AJZ
Instrument: Semi 7

Aroclor 1248 #2 (back detector)
Average RF: 2.72442e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 2.72442e+008



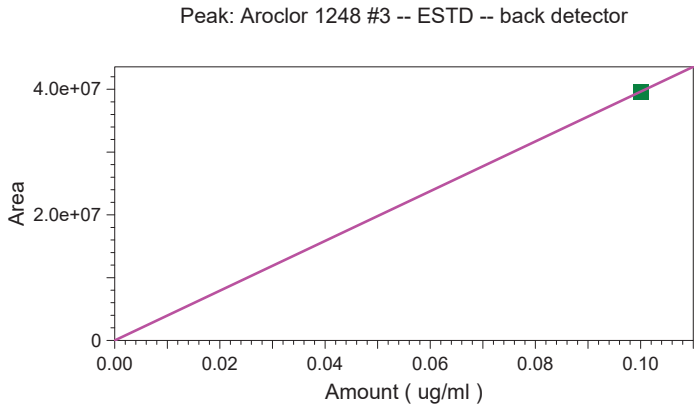
	Level 1
Amount	0.1
Area	27244221
RF	272442210
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	27244221
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\006.dat
Rep 1 Sample ID	1248 CF PP5972
Rep 1 Calib. Time	07/25/2019 10:50:26

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1248.met
Print Time: Aug 06, 2019 11:20:21
User: AJZ
Instrument: Semi 7

Aroclor 1248 #3 (back detector)
Average RF: 3.96241e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 3.96241e+008



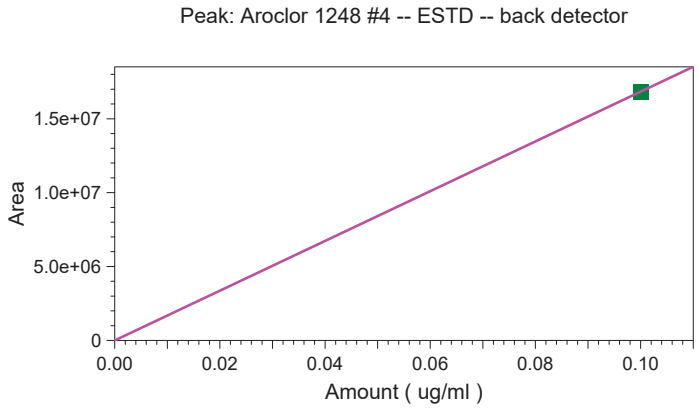
	Level 1
Amount	0.1
Area	39624080
RF	396240800
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	39624080
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\006.dat
Rep 1 Sample ID	1248 CF PP5972
Rep 1 Calib. Time	07/25/2019 10:50:26

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1248.met
Print Time: Aug 06, 2019 11:20:22
User: AJZ
Instrument: Semi 7

Aroclor 1248 #4 (back detector)
Average RF: 1.68321e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.68321e+008



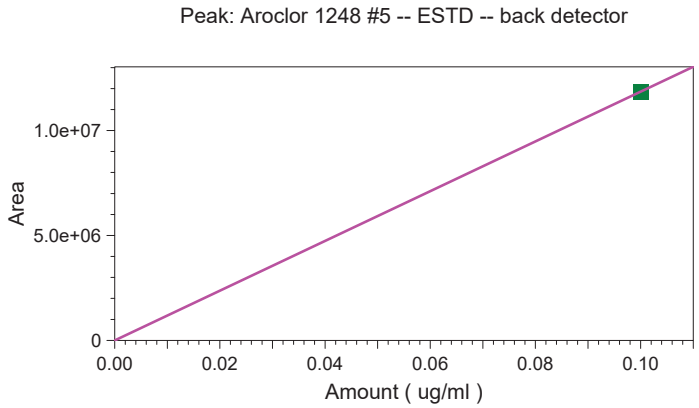
	Level 1
Amount	0.1
Area	16832114
RF	168321140
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	16832114
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\006.dat
Rep 1 Sample ID	1248 CF PP5972
Rep 1 Calib. Time	07/25/2019 10:50:26

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1248.met
Print Time: Aug 06, 2019 11:20:24
User: AJZ
Instrument: Semi 7

Aroclor 1248 #5 (back detector)
Average RF: 1.18509e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.18509e+008



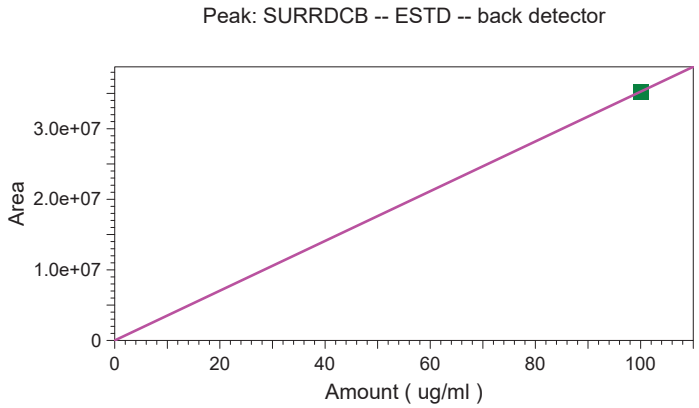
	Level 1
Amount	0.1
Area	11850946
RF	118509460
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	11850946
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\006.dat
Rep 1 Sample ID	1248 CF PP5972
Rep 1 Calib. Time	07/25/2019 10:50:26

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1248.met
Print Time: Aug 06, 2019 11:20:26
User: AJZ
Instrument: Semi 7

SURRDCB (back detector)
Average RF: 352500.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 352500.



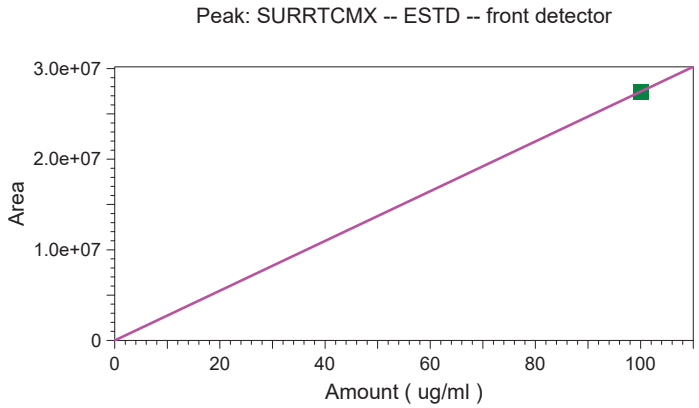
	Level 1
Amount	100
Area	35249971
RF	352499.71
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	35249971
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\006.dat
Rep 1 Sample ID	1248 CF PP5972
Rep 1 Calib. Time	07/25/2019 10:50:26

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1254.met
Print Time: Aug 06, 2019 11:21:19
User: AJZ
Instrument: Semi 7

SURRTCMX (front detector)
Average RF: 274533.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 274533.



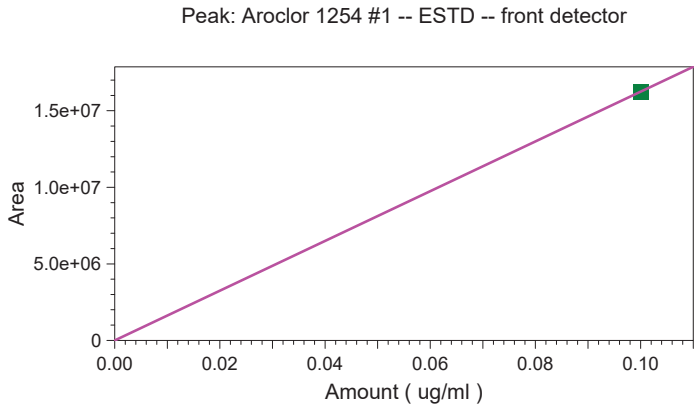
	Level 1
Amount	100
Area	27453318
RF	274533.18
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	27453318
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\007.dat
Rep 1 Sample ID	1254 CF PP5973
Rep 1 Calib. Time	07/25/2019 10:54:18

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1254.met
Print Time: Aug 06, 2019 11:21:22
User: AJZ
Instrument: Semi 7

Aroclor 1254 #1 (front detector)
Average RF: 1.62474e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.62474e+008



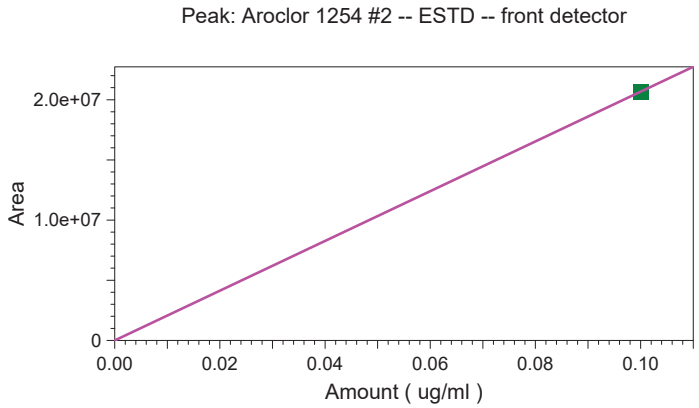
	Level 1
Amount	0.1
Area	16247430
RF	162474300
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	16247430
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\007.dat
Rep 1 Sample ID	1254 CF PP5973
Rep 1 Calib. Time	07/25/2019 10:54:18

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1254.met
Print Time: Aug 06, 2019 11:21:23
User: AJZ
Instrument: Semi 7

Aroclor 1254 #2 (front detector)
Average RF: 2.06721e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 2.06721e+008



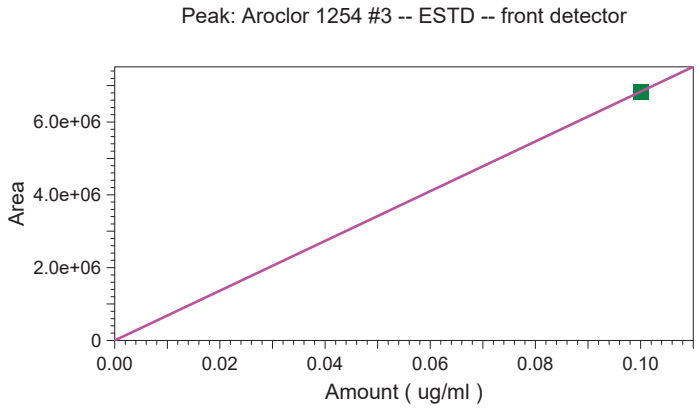
	Level 1
Amount	0.1
Area	20672054
RF	206720540
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	20672054
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\007.dat
Rep 1 Sample ID	1254 CF PP5973
Rep 1 Calib. Time	07/25/2019 10:54:18

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1254.met
Print Time: Aug 06, 2019 11:21:25
User: AJZ
Instrument: Semi 7

Aroclor 1254 #3 (front detector)
Average RF: 6.83329e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 6.83329e+007



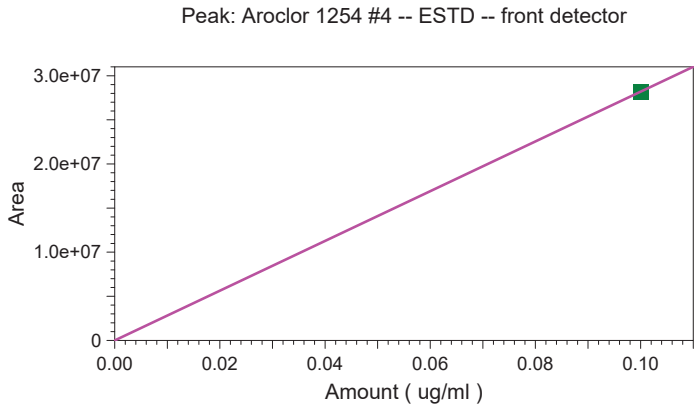
	Level 1
Amount	0.1
Area	6833291
RF	68332910
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	6833291
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\007.dat
Rep 1 Sample ID	1254 CF PP5973
Rep 1 Calib. Time	07/25/2019 10:54:18

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1254.met
Print Time: Aug 06, 2019 11:21:27
User: AJZ
Instrument: Semi 7

Aroclor 1254 #4 (front detector)
Average RF: 2.81932e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 2.81932e+008



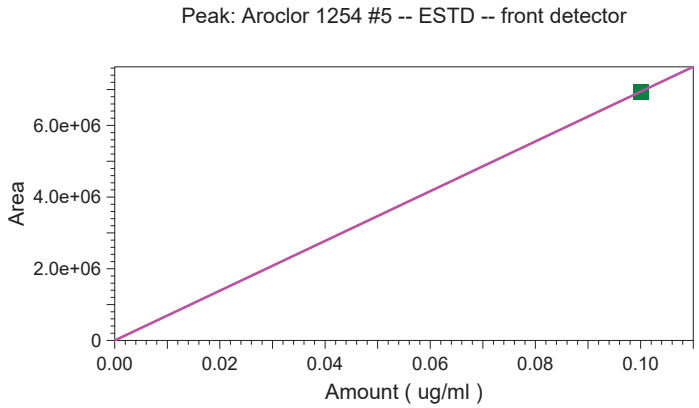
	Level 1
Amount	0.1
Area	28193171
RF	281931710
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	28193171
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\007.dat
Rep 1 Sample ID	1254 CF PP5973
Rep 1 Calib. Time	07/25/2019 10:54:18

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1254.met
Print Time: Aug 06, 2019 11:21:29
User: AJZ
Instrument: Semi 7

Aroclor 1254 #5 (front detector)
Average RF: 6.94166e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 6.94166e+007



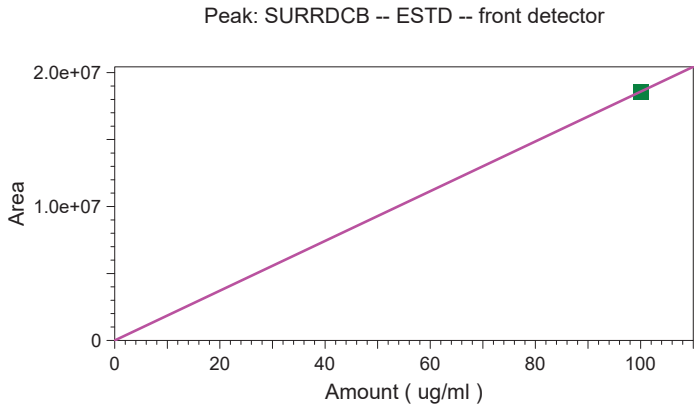
	Level 1
Amount	0.1
Area	6941658
RF	69416580
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	6941658
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\007.dat
Rep 1 Sample ID	1254 CF PP5973
Rep 1 Calib. Time	07/25/2019 10:54:18

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1254.met
Print Time: Aug 06, 2019 11:21:30
User: AJZ
Instrument: Semi 7

SURRDCB (front detector)
Average RF: 185779.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 185779.



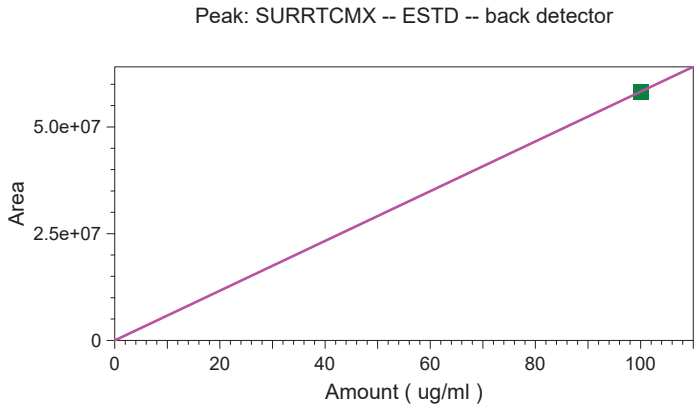
	Level 1
Amount	100
Area	18577933
RF	185779.33
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	18577933
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\007.dat
Rep 1 Sample ID	1254 CF PP5973
Rep 1 Calib. Time	07/25/2019 10:54:18

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1254.met
Print Time: Aug 06, 2019 11:21:03
User: AJZ
Instrument: Semi 7

SURRTCMX (back detector)
Average RF: 582486.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 582486.



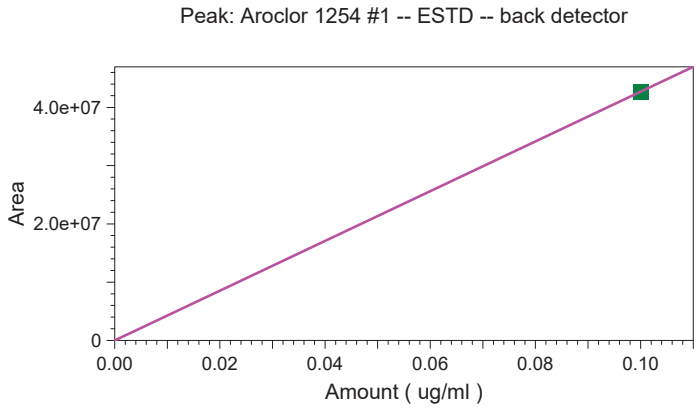
	Level 1
Amount	100
Area	58248558
RF	582485.58
Last Area	
Residual	-1.42109e-014
Rep StDev	
Rep %RSD	
Rep 1 Area	58248558
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\007.dat
Rep 1 Sample ID	1254 CF PP5973
Rep 1 Calib. Time	07/25/2019 10:54:18

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1254.met
Print Time: Aug 06, 2019 11:21:05
User: AJZ
Instrument: Semi 7

Aroclor 1254 #1 (back detector)
Average RF: 4.26984e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 4.26984e+008



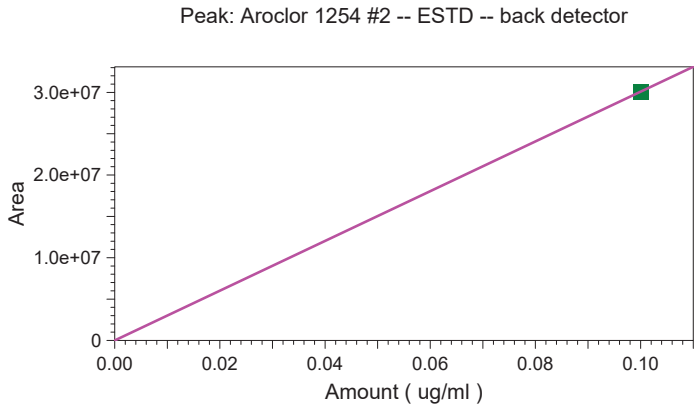
	Level 1
Amount	0.1
Area	42698369
RF	426983690
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	42698369
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\007.dat
Rep 1 Sample ID	1254 CF PP5973
Rep 1 Calib. Time	07/25/2019 10:54:18

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1254.met
Print Time: Aug 06, 2019 11:21:06
User: AJZ
Instrument: Semi 7

Aroclor 1254 #2 (back detector)
Average RF: 3.00840e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 3.00840e+008



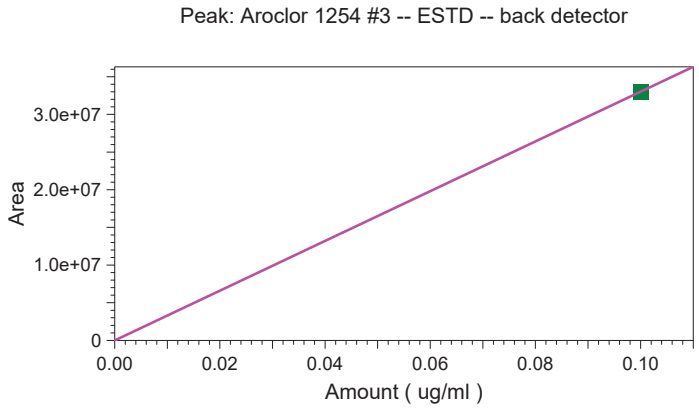
	Level 1
Amount	0.1
Area	30083955
RF	300839550
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	30083955
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\007.dat
Rep 1 Sample ID	1254 CF PP5973
Rep 1 Calib. Time	07/25/2019 10:54:18

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1254.met
Print Time: Aug 06, 2019 11:21:08
User: AJZ
Instrument: Semi 7

Aroclor 1254 #3 (back detector)
Average RF: 3.30174e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 3.30174e+008



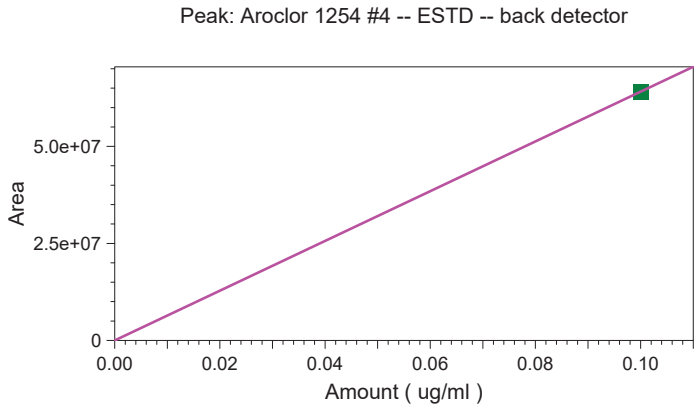
	Level 1
Amount	0.1
Area	33017408
RF	330174080
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	33017408
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\007.dat
Rep 1 Sample ID	1254 CF PP5973
Rep 1 Calib. Time	07/25/2019 10:54:18

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1254.met
Print Time: Aug 06, 2019 11:21:10
User: AJZ
Instrument: Semi 7

Aroclor 1254 #4 (back detector)
Average RF: 6.40932e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 6.40932e+008



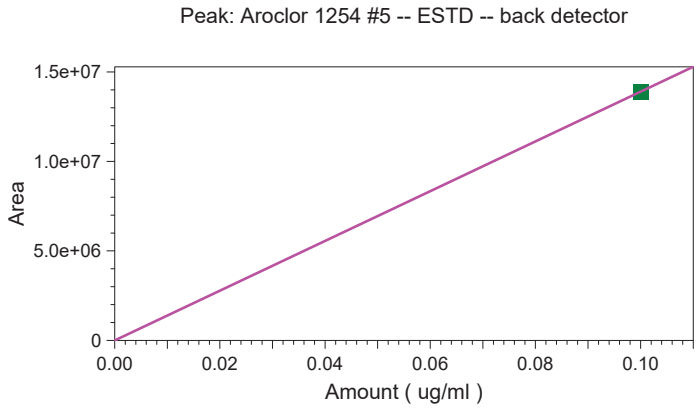
	Level 1
Amount	0.1
Area	64093176
RF	640931760
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	64093176
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\007.dat
Rep 1 Sample ID	1254 CF PP5973
Rep 1 Calib. Time	07/25/2019 10:54:18

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1254.met
Print Time: Aug 06, 2019 11:21:12
User: AJZ
Instrument: Semi 7

Aroclor 1254 #5 (back detector)
Average RF: 1.38971e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.38971e+008



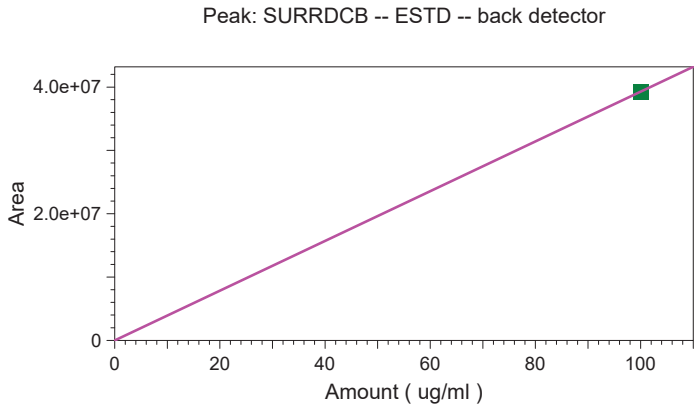
	Level 1
Amount	0.1
Area	13897085
RF	138970850
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	13897085
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\007.dat
Rep 1 Sample ID	1254 CF PP5973
Rep 1 Calib. Time	07/25/2019 10:54:18

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1254.met
Print Time: Aug 06, 2019 11:21:13
User: AJZ
Instrument: Semi 7

SURRDCB (back detector)
Average RF: 392752.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 392752.



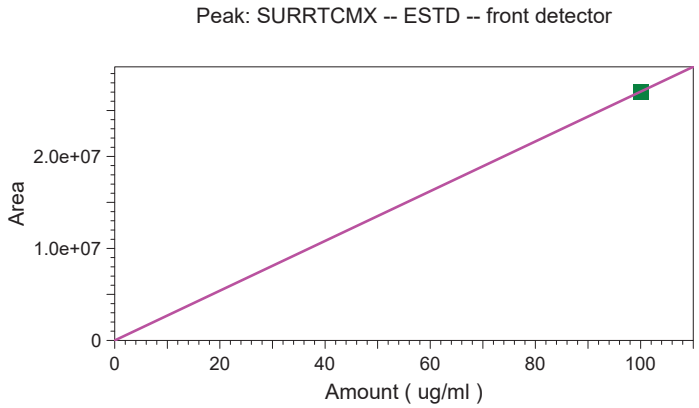
	Level 1
Amount	100
Area	39275210
RF	392752.1
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	39275210
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\007.dat
Rep 1 Sample ID	1254 CF PP5973
Rep 1 Calib. Time	07/25/2019 10:54:18

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1262.met
Print Time: Aug 06, 2019 11:22:10
User: AJZ
Instrument: Semi 7

SURRTCMX (front detector)
Average RF: 270410.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 270410.



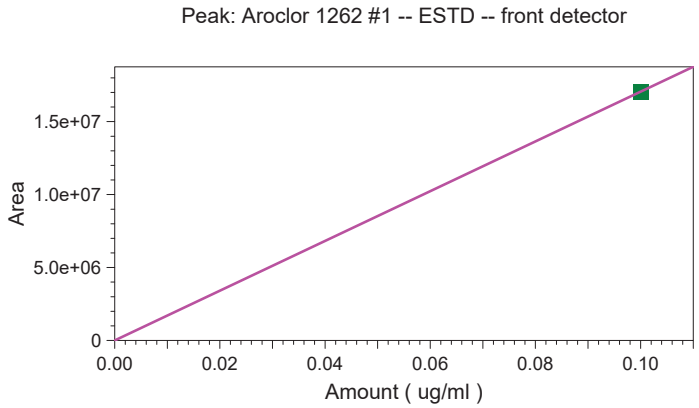
	Level 1
Amount	100
Area	27041018
RF	270410.18
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	27041018
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\008.dat
Rep 1 Sample ID	1262 CF PP5974
Rep 1 Calib. Time	07/25/2019 10:56:53

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1262.met
Print Time: Aug 06, 2019 11:22:13
User: AJZ
Instrument: Semi 7

Aroclor 1262 #1 (front detector)
Average RF: 1.70531e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.70531e+008



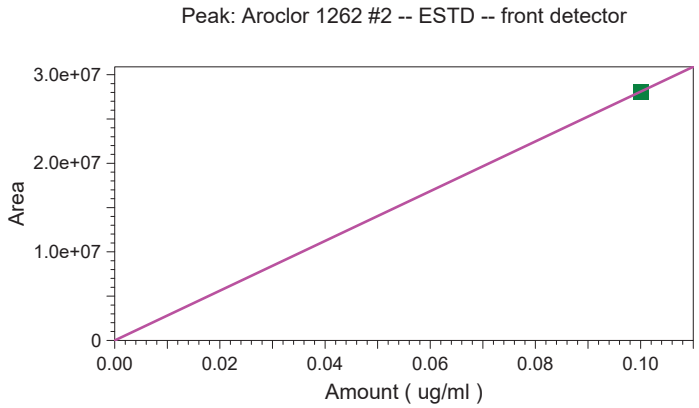
	Level 1
Amount	0.1
Area	17053071
RF	170530710
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	17053071
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\008.dat
Rep 1 Sample ID	1262 CF PP5974
Rep 1 Calib. Time	07/25/2019 10:56:53

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1262.met
Print Time: Aug 06, 2019 11:22:14
User: AJZ
Instrument: Semi 7

Aroclor 1262 #2 (front detector)
Average RF: 2.80864e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 2.80864e+008



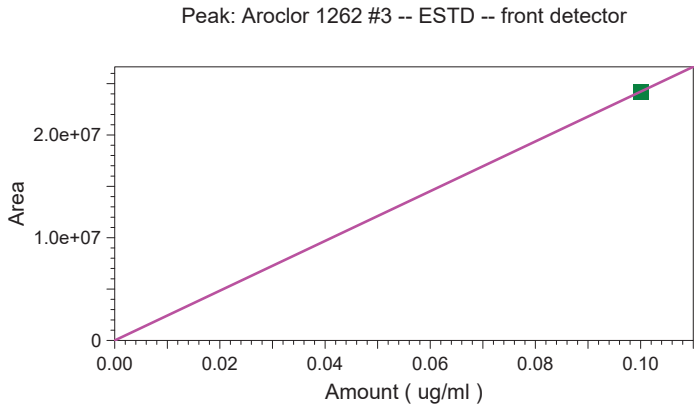
	Level 1
Amount	0.1
Area	28086412
RF	280864120
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	28086412
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\008.dat
Rep 1 Sample ID	1262 CF PP5974
Rep 1 Calib. Time	07/25/2019 10:56:53

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1262.met
Print Time: Aug 06, 2019 11:22:16
User: AJZ
Instrument: Semi 7

Aroclor 1262 #3 (front detector)
Average RF: 2.42159e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 2.42159e+008



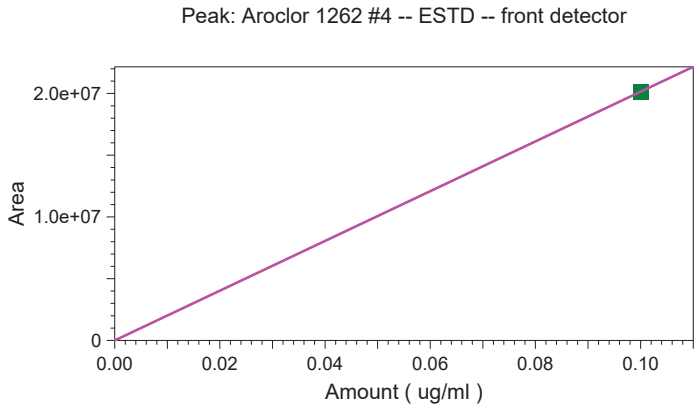
	Level 1
Amount	0.1
Area	24215894
RF	242158940
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	24215894
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\008.dat
Rep 1 Sample ID	1262 CF PP5974
Rep 1 Calib. Time	07/25/2019 10:56:53

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1262.met
Print Time: Aug 06, 2019 11:22:18
User: AJZ
Instrument: Semi 7

Aroclor 1262 #4 (front detector)
Average RF: 2.01448e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 2.01448e+008



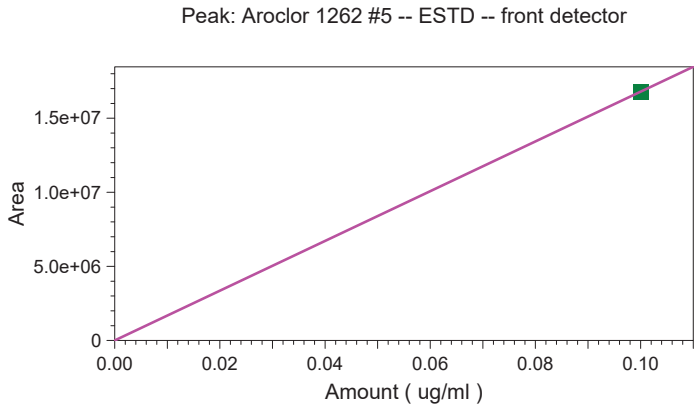
	Level 1
Amount	0.1
Area	20144788
RF	201447880
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	20144788
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\008.dat
Rep 1 Sample ID	1262 CF PP5974
Rep 1 Calib. Time	07/25/2019 10:56:53

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1262.met
Print Time: Aug 06, 2019 11:22:20
User: AJZ
Instrument: Semi 7

Aroclor 1262 #5 (front detector)
Average RF: 1.67945e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.67945e+008



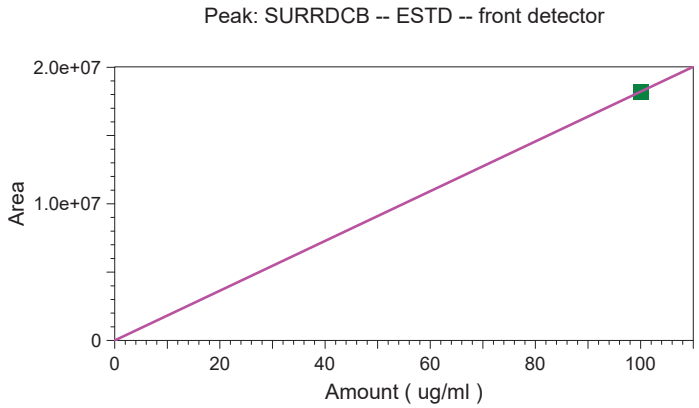
	Level 1
Amount	0.1
Area	16794521
RF	167945210
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	16794521
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\008.dat
Rep 1 Sample ID	1262 CF PP5974
Rep 1 Calib. Time	07/25/2019 10:56:53

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1262.met
Print Time: Aug 06, 2019 11:22:21
User: AJZ
Instrument: Semi 7

SURRDCB (front detector)
Average RF: 182140.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 182140.



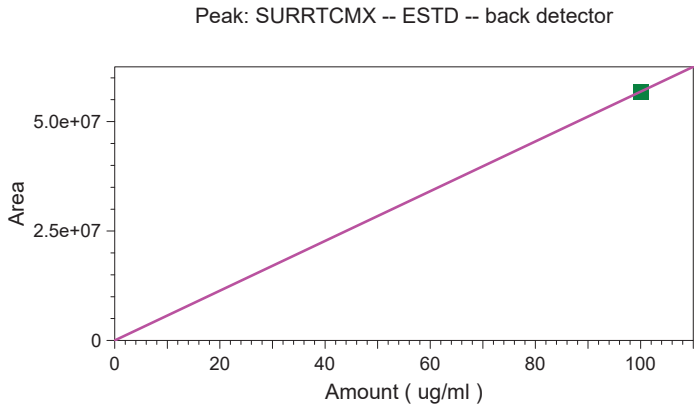
	Level 1
Amount	100
Area	18213966
RF	182139.66
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	18213966
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\008.dat
Rep 1 Sample ID	1262 CF PP5974
Rep 1 Calib. Time	07/25/2019 10:56:53

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1262.met
Print Time: Aug 06, 2019 11:22:28
User: AJZ
Instrument: Semi 7

SURRTCMX (back detector)
Average RF: 568439.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 568439.



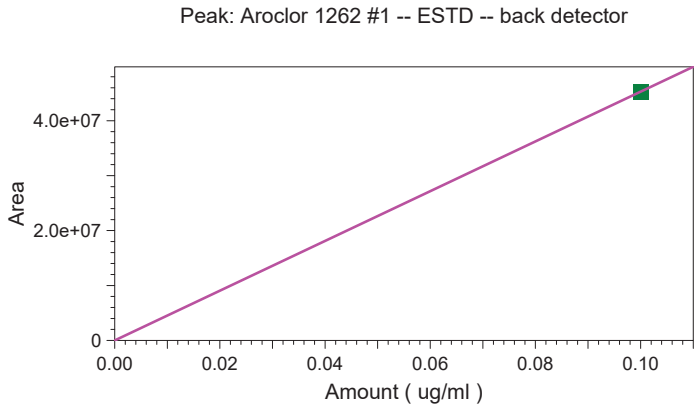
	Level 1
Amount	100
Area	56843931
RF	568439.31
Last Area	
Residual	1.42109e-014
Rep StDev	
Rep %RSD	
Rep 1 Area	56843931
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\008.dat
Rep 1 Sample ID	1262 CF PP5974
Rep 1 Calib. Time	07/25/2019 10:56:53

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1262.met
Print Time: Aug 06, 2019 11:22:30
User: AJZ
Instrument: Semi 7

Aroclor 1262 #1 (back detector)
Average RF: 4.52886e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 4.52886e+008



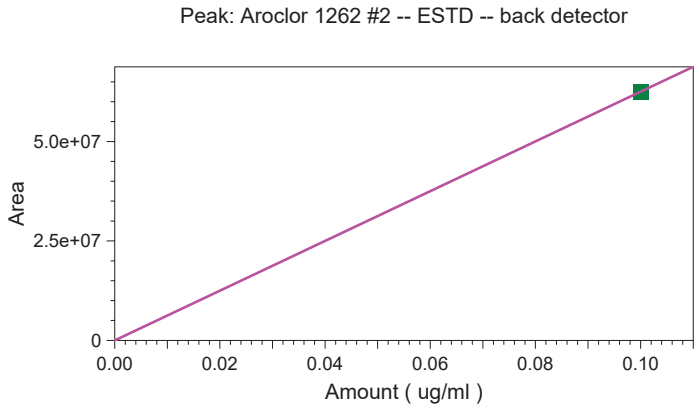
	Level 1
Amount	0.1
Area	45288598
RF	452885980
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	45288598
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\008.dat
Rep 1 Sample ID	1262 CF PP5974
Rep 1 Calib. Time	07/25/2019 10:56:53

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1262.met
Print Time: Aug 06, 2019 11:22:31
User: AJZ
Instrument: Semi 7

Aroclor 1262 #2 (back detector)
Average RF: 6.25236e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 6.25236e+008



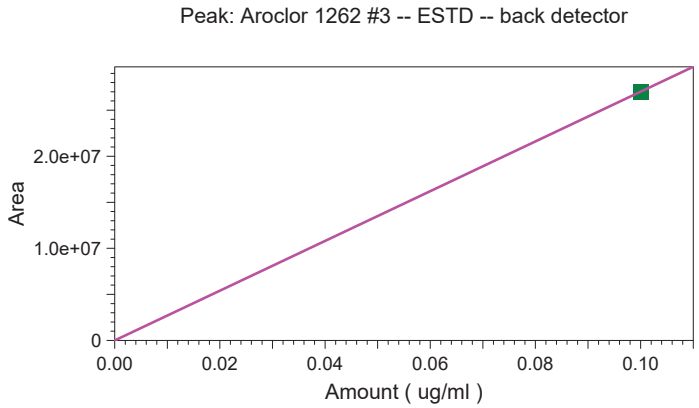
	Level 1
Amount	0.1
Area	62523622
RF	625236220
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	62523622
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\008.dat
Rep 1 Sample ID	1262 CF PP5974
Rep 1 Calib. Time	07/25/2019 10:56:53

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1262.met
Print Time: Aug 06, 2019 11:22:33
User: AJZ
Instrument: Semi 7

Aroclor 1262 #3 (back detector)
Average RF: 2.70104e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 2.70104e+008



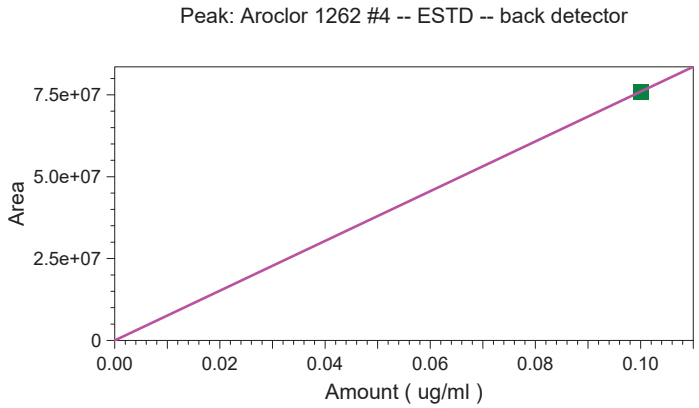
	Level 1
Amount	0.1
Area	27010368
RF	270103680
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	27010368
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\008.dat
Rep 1 Sample ID	1262 CF PP5974
Rep 1 Calib. Time	07/25/2019 10:56:53

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1262.met
Print Time: Aug 06, 2019 11:22:35
User: AJZ
Instrument: Semi 7

Aroclor 1262 #4 (back detector)
Average RF: 7.59765e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 7.59765e+008



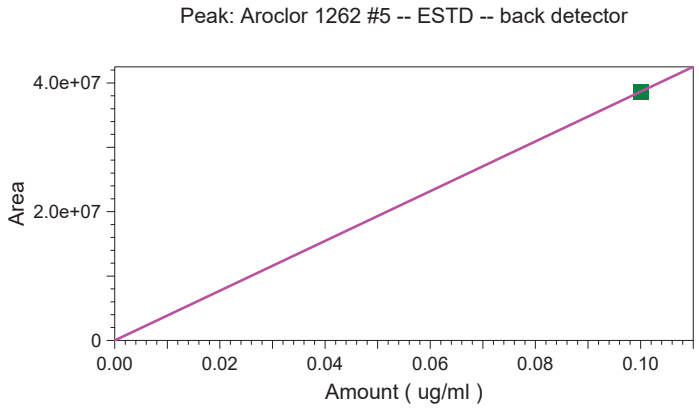
	Level 1
Amount	0.1
Area	75976540
RF	759765400
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	75976540
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\008.dat
Rep 1 Sample ID	1262 CF PP5974
Rep 1 Calib. Time	07/25/2019 10:56:53

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1262.met
Print Time: Aug 06, 2019 11:22:38
User: AJZ
Instrument: Semi 7

Aroclor 1262 #5 (back detector)
Average RF: 3.86424e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 3.86424e+008



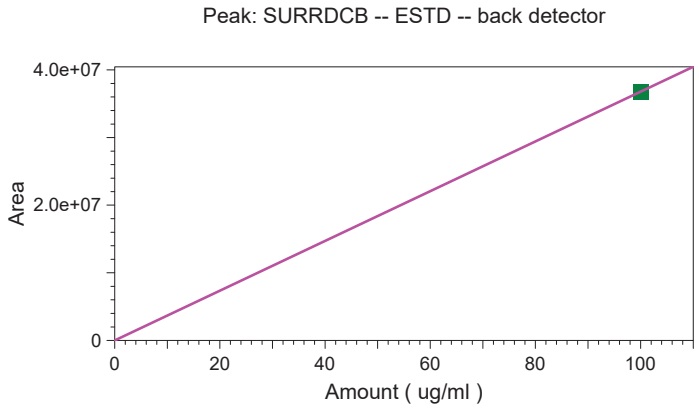
	Level 1
Amount	0.1
Area	38642379
RF	386423790
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	38642379
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\008.dat
Rep 1 Sample ID	1262 CF PP5974
Rep 1 Calib. Time	07/25/2019 10:56:53

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1262.met
Print Time: Aug 06, 2019 11:22:39
User: AJZ
Instrument: Semi 7

SURRDCB (back detector)
Average RF: 367895.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 367895.



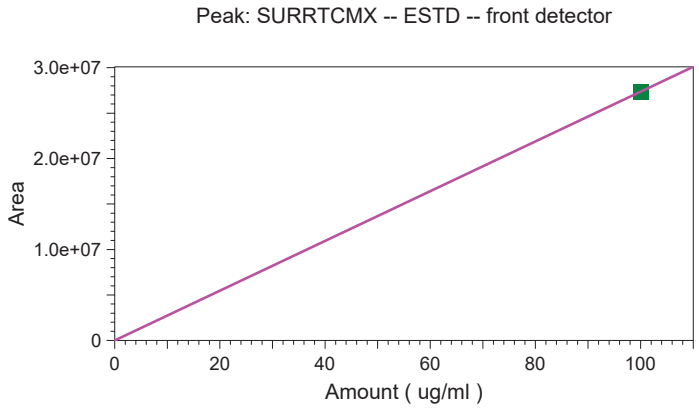
	Level 1
Amount	100
Area	36789505
RF	367895.05
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	36789505
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\008.dat
Rep 1 Sample ID	1262 CF PP5974
Rep 1 Calib. Time	07/25/2019 10:56:53

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1268.met
Print Time: Aug 06, 2019 11:24:35
User: AJZ
Instrument: Semi 7

SURRTCMX (front detector)
Average RF: 273608.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 273608.



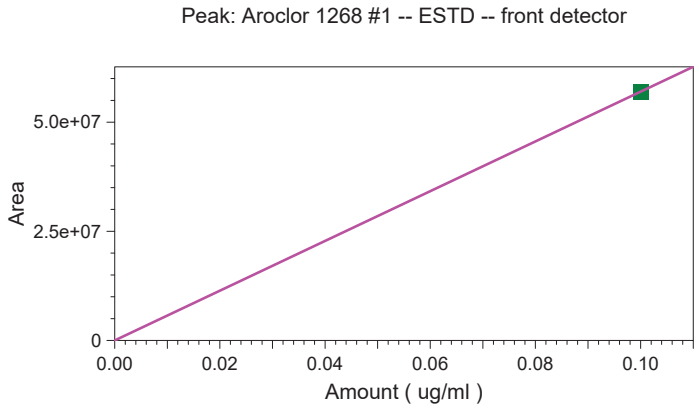
	Level 1
Amount	100
Area	27360829
RF	273608.29
Last Area	
Residual	-1.42109e-014
Rep StDev	
Rep %RSD	
Rep 1 Area	27360829
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\009.dat
Rep 1 Sample ID	1268 CF PP5975
Rep 1 Calib. Time	07/25/2019 11:00:23

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1268.met
Print Time: Aug 06, 2019 11:24:37
User: AJZ
Instrument: Semi 7

Aroclor 1268 #1 (front detector)
Average RF: 5.69940e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 5.69940e+008



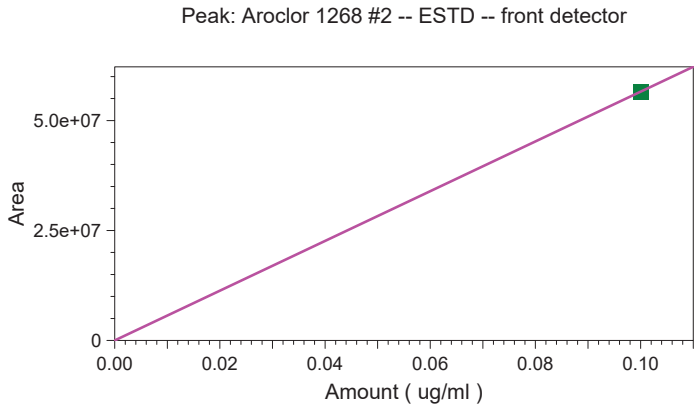
	Level 1
Amount	0.1
Area	56994032
RF	569940320
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	56994032
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\009.dat
Rep 1 Sample ID	1268 CF PP5975
Rep 1 Calib. Time	07/25/2019 11:00:23

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1268.met
Print Time: Aug 06, 2019 11:24:39
User: AJZ
Instrument: Semi 7

Aroclor 1268 #2 (front detector)
Average RF: 5.65644e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 5.65644e+008



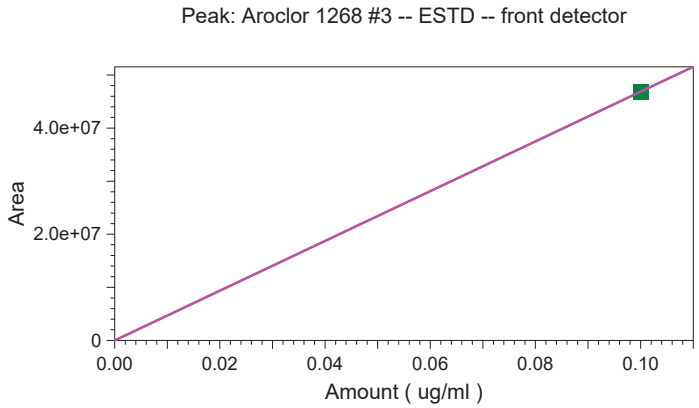
	Level 1
Amount	0.1
Area	56564429
RF	565644290
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	56564429
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\009.dat
Rep 1 Sample ID	1268 CF PP5975
Rep 1 Calib. Time	07/25/2019 11:00:23

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1268.met
Print Time: Aug 06, 2019 11:24:41
User: AJZ
Instrument: Semi 7

Aroclor 1268 #3 (front detector)
Average RF: 4.68589e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 4.68589e+008



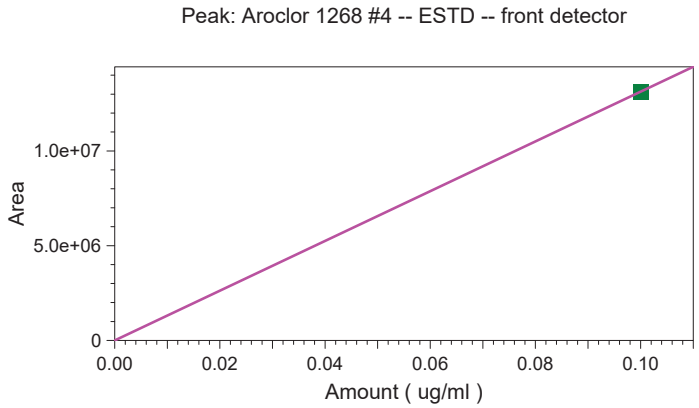
	Level 1
Amount	0.1
Area	46858867
RF	468588670
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	46858867
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\009.dat
Rep 1 Sample ID	1268 CF PP5975
Rep 1 Calib. Time	07/25/2019 11:00:23

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1268.met
Print Time: Aug 06, 2019 11:24:42
User: AJZ
Instrument: Semi 7

Aroclor 1268 #4 (front detector)
Average RF: 1.31284e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.31284e+008



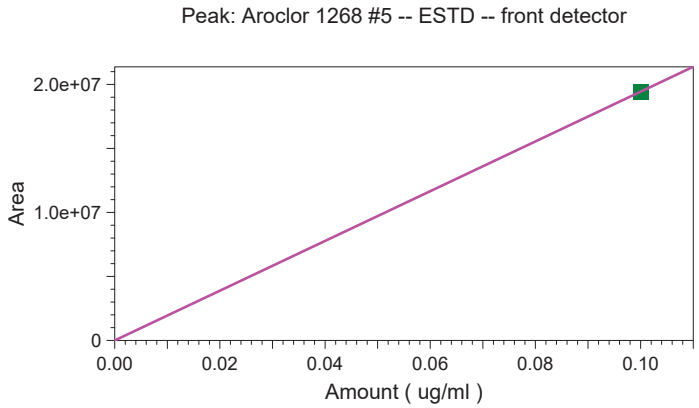
	Level 1
Amount	0.1
Area	13128424
RF	131284240
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	13128424
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\009.dat
Rep 1 Sample ID	1268 CF PP5975
Rep 1 Calib. Time	07/25/2019 11:00:23

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1268.met
Print Time: Aug 06, 2019 11:24:44
User: AJZ
Instrument: Semi 7

Aroclor 1268 #5 (front detector)
Average RF: 1.94305e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.94305e+008



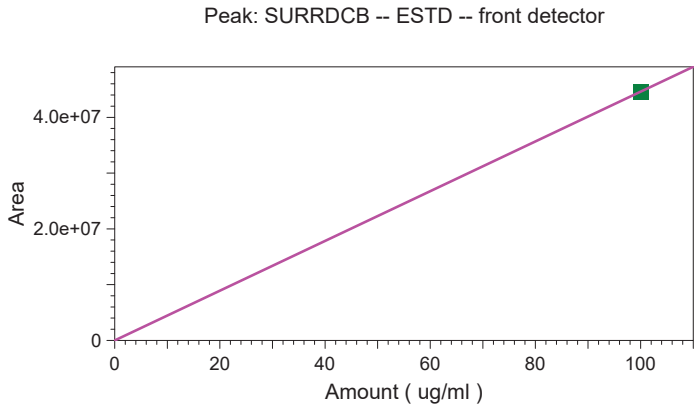
	Level 1
Amount	0.1
Area	19430509
RF	194305090
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	19430509
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\009.dat
Rep 1 Sample ID	1268 CF PP5975
Rep 1 Calib. Time	07/25/2019 11:00:23

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1268.met
Print Time: Aug 06, 2019 11:24:46
User: AJZ
Instrument: Semi 7

SURRDCB (front detector)
Average RF: 445927.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 445927.



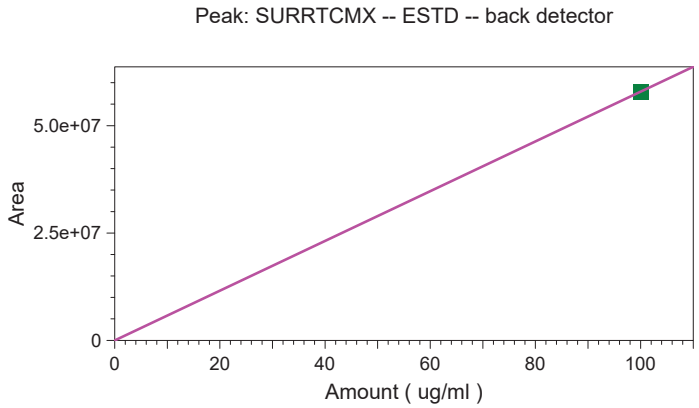
	Level 1
Amount	100
Area	44592730
RF	445927.3
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	44592730
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\009.dat
Rep 1 Sample ID	1268 CF PP5975
Rep 1 Calib. Time	07/25/2019 11:00:23

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1268.met
Print Time: Aug 06, 2019 11:24:17
User: AJZ
Instrument: Semi 7

SURRTCMX (back detector)
Average RF: 579187.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 579187.



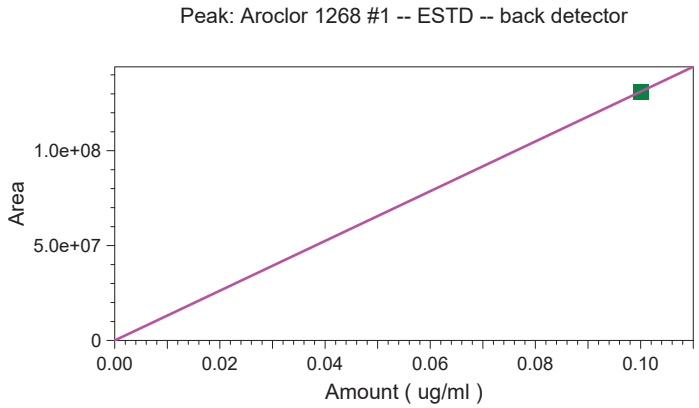
	Level 1
Amount	100
Area	57918668
RF	579186.68
Last Area	
Residual	1.42109e-014
Rep StDev	
Rep %RSD	
Rep 1 Area	57918668
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\009.dat
Rep 1 Sample ID	1268 CF PP5975
Rep 1 Calib. Time	07/25/2019 11:00:23

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1268.met
Print Time: Aug 06, 2019 11:24:21
User: AJZ
Instrument: Semi 7

Aroclor 1268 #1 (back detector)
Average RF: 1.31114e+009
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.31114e+009



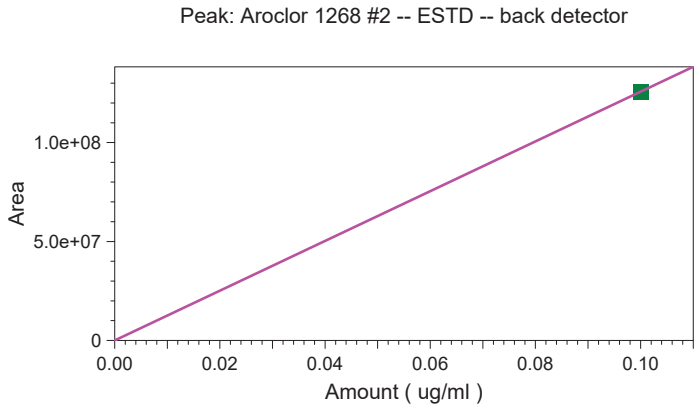
	Level 1
Amount	0.1
Area	131113651
RF	1311136510
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	131113651
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\009.dat
Rep 1 Sample ID	1268 CF PP5975
Rep 1 Calib. Time	07/25/2019 11:00:23

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1268.met
Print Time: Aug 06, 2019 11:24:23
User: AJZ
Instrument: Semi 7

Aroclor 1268 #2 (back detector)
Average RF: 1.25714e+009
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.25714e+009



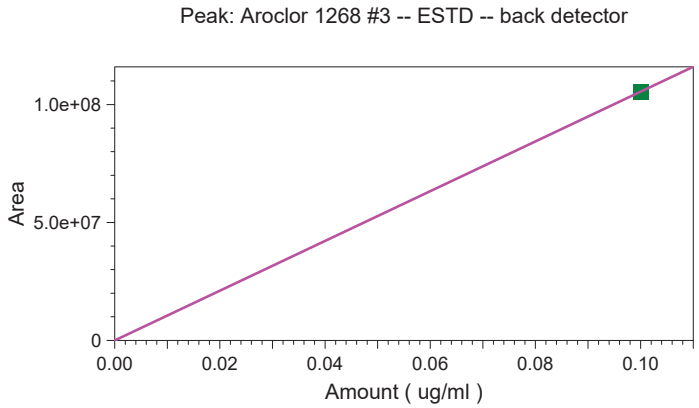
	Level 1
Amount	0.1
Area	125713902
RF	1257139020
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	125713902
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\009.dat
Rep 1 Sample ID	1268 CF PP5975
Rep 1 Calib. Time	07/25/2019 11:00:23

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1268.met
Print Time: Aug 06, 2019 11:24:25
User: AJZ
Instrument: Semi 7

Aroclor 1268 #3 (back detector)
Average RF: 1.05463e+009
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.05463e+009



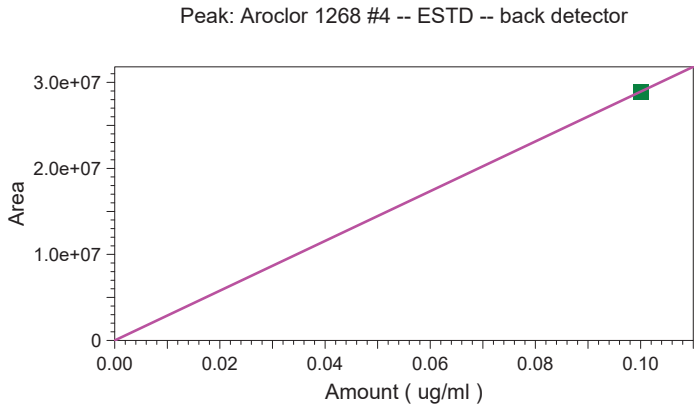
	Level 1
Amount	0.1
Area	105462894
RF	1054628940
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	105462894
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\009.dat
Rep 1 Sample ID	1268 CF PP5975
Rep 1 Calib. Time	07/25/2019 11:00:23

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1268.met
Print Time: Aug 06, 2019 11:24:27
User: AJZ
Instrument: Semi 7

Aroclor 1268 #4 (back detector)
Average RF: 2.89198e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 2.89198e+008



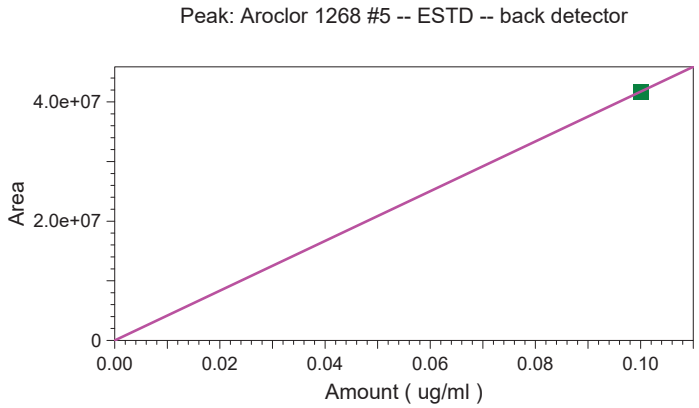
	Level 1
Amount	0.1
Area	28919843
RF	289198430
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	28919843
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\009.dat
Rep 1 Sample ID	1268 CF PP5975
Rep 1 Calib. Time	07/25/2019 11:00:23

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1268.met
Print Time: Aug 06, 2019 11:24:29
User: AJZ
Instrument: Semi 7

Aroclor 1268 #5 (back detector)
Average RF: 4.17159e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 4.17159e+008



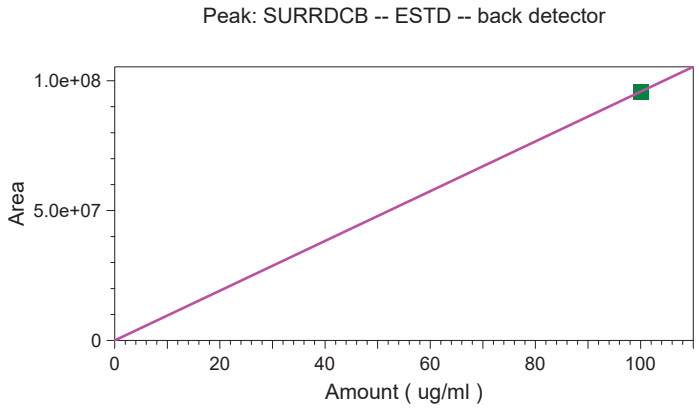
	Level 1
Amount	0.1
Area	41715874
RF	417158740
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	41715874
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\009.dat
Rep 1 Sample ID	1268 CF PP5975
Rep 1 Calib. Time	07/25/2019 11:00:23

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1268.met
Print Time: Aug 06, 2019 11:24:31
User: AJZ
Instrument: Semi 7

SURRDCB (back detector)
Average RF: 958180.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 958180.

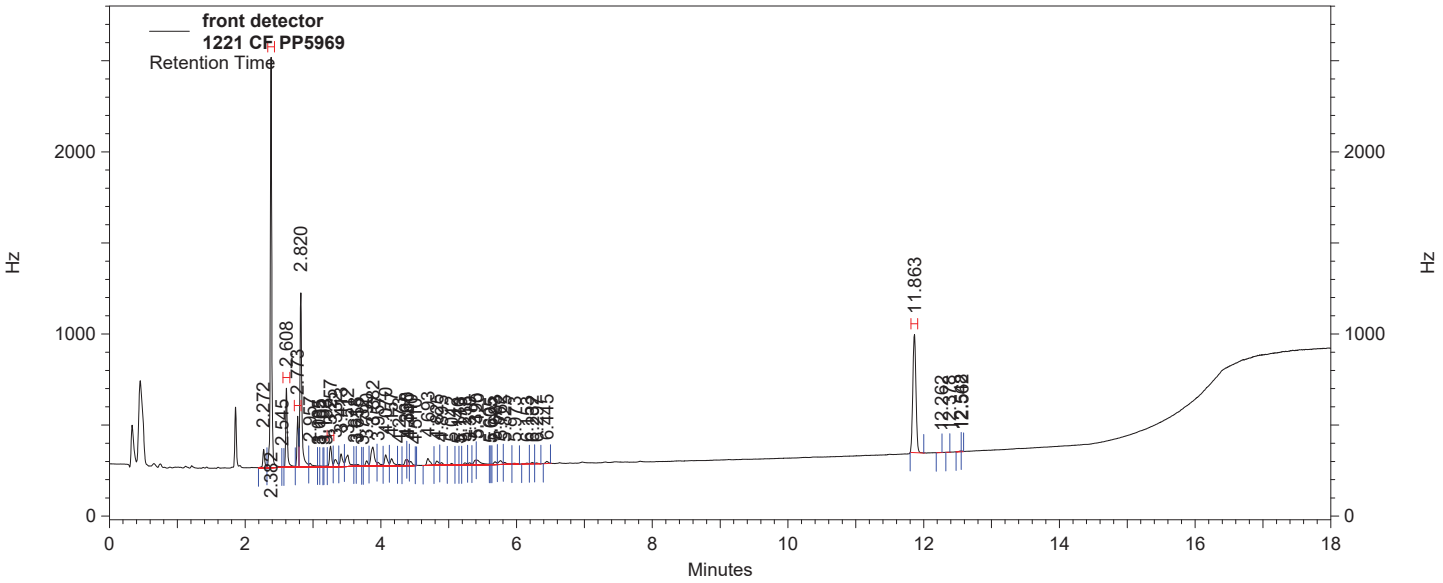


	Level 1
Amount	100
Area	95818006
RF	958180.06
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	95818006
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\072419pcbic\009.dat
Rep 1 Sample ID	1268 CF PP5975
Rep 1 Calib. Time	07/25/2019 11:00:23

PCB Analysis Report (1221) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\003.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1221.met
User: JJY
Sample ID: 1221 CF PP5969
Acquired: Jul 24, 2019 13:06:00
Printed: Jul 25, 2019 16:34:03

Data Summary: {Data Description}



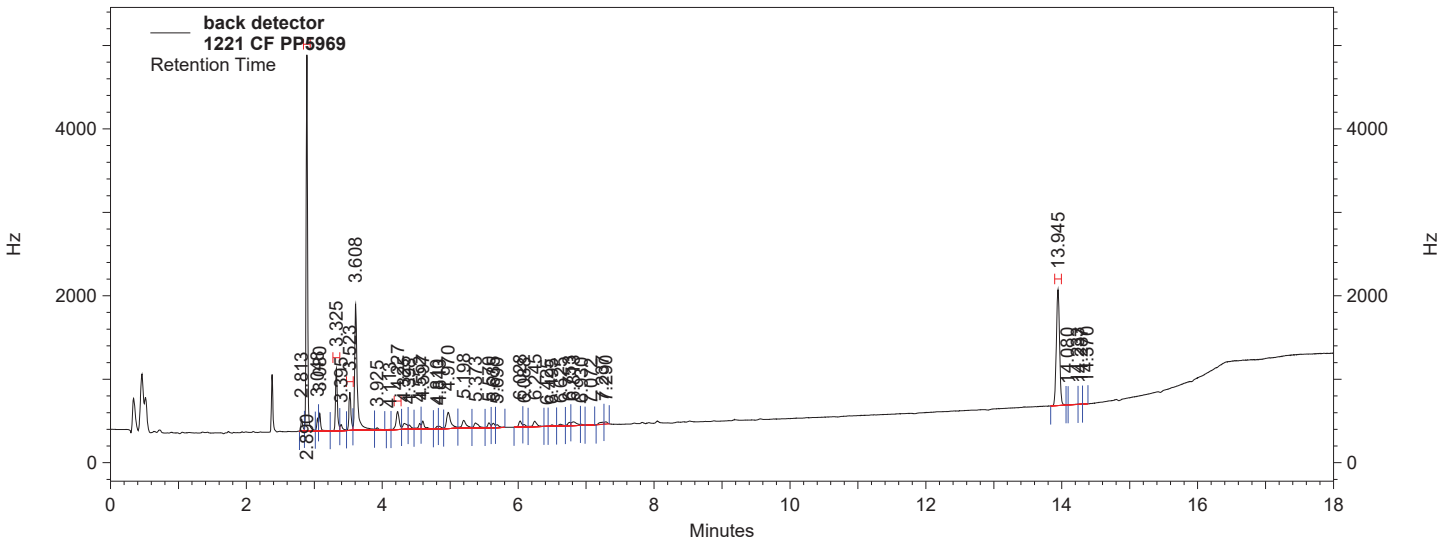
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.382	25848352	100.000 CAL
Aroclor 1221 #1	2.608	5786855	0.167 CAL
Aroclor 1221 #2	2.773	3296764	0.167 CAL
Aroclor 1221 #3	3.257	1890935	0.167 CAL
SURRDCB	11.863	16105754	100.000 CAL
Aroclor 1221		10974554	0.500 CAL

PCB Analysis Report (1221) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\003.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1221.met
User: JJY
Sample ID: 1221 CF PP5969
Acquired: Jul 24, 2019 13:06:00
Printed: Jul 25, 2019 16:34:03

Data Summary: {Data Description}



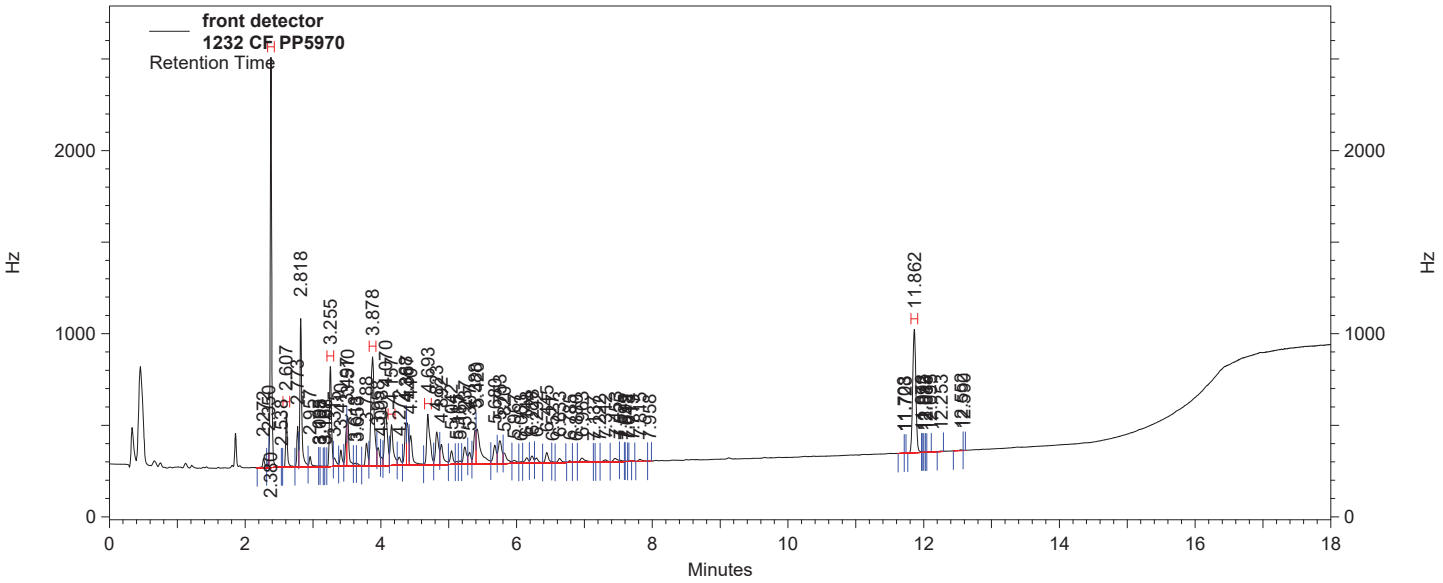
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.890	52593895	100.000 CAL
Aroclor 1221 #1	3.325	10833627	0.167 CAL
Aroclor 1221 #2	3.523	7100176	0.167 CAL
Aroclor 1221 #3	4.227	5213717	0.167 CAL
SURRDCB	13.945	35247183	100.000 CAL
Aroclor 1221		23147520	0.500 CAL

PCB Analysis Report (1232) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\004.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1232.met
User: JJY
Sample ID: 1232 CF PP5970
Acquired: Jul 24, 2019 13:27:10
Printed: Jul 25, 2019 16:34:06

Data Summary: {Data Description}



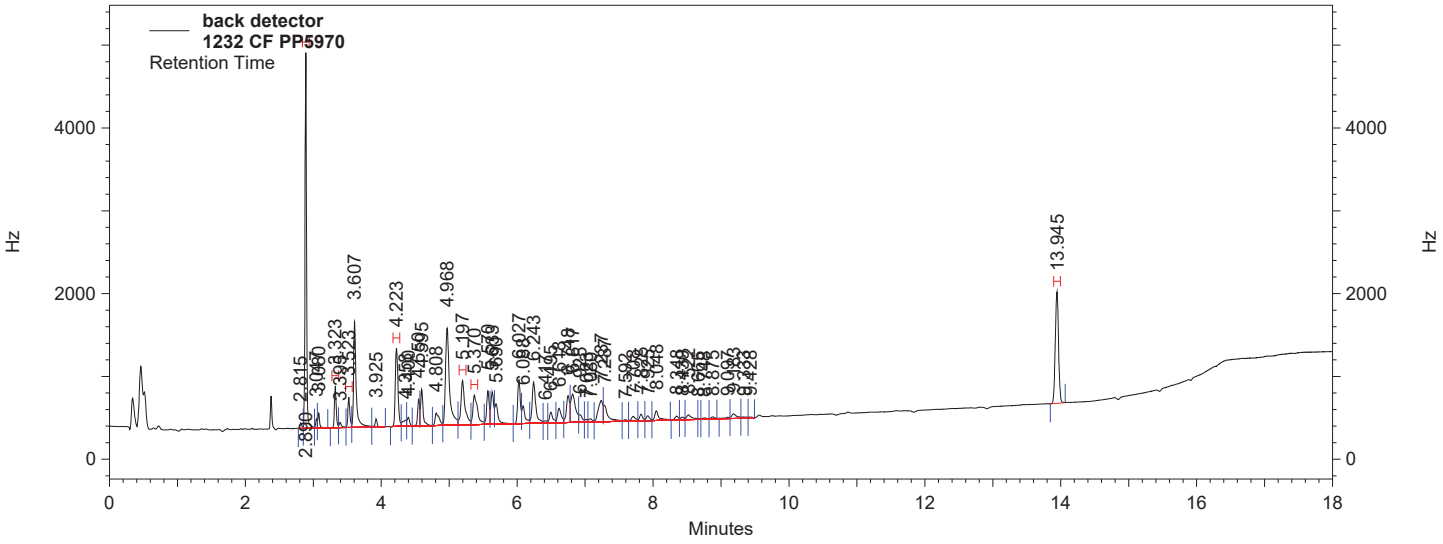
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.380	25608806	100.000 CAL
Aroclor 1232 #1	2.607	4145960	0.100 CAL
Aroclor 1232 #2	3.255	8679096	0.100 CAL
Aroclor 1232 #3	3.878	15917783	0.100 CAL
Aroclor 1232 #4	4.157	5143825	0.100 CAL
Aroclor 1232 #5	4.693	7068544	0.100 CAL
SURRDCB	11.862	16977899	100.000 CAL
Aroclor 1232		40955208	0.500 CAL

PCB Analysis Report (1232) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\004.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1232.met
User: JJY
Sample ID: 1232 CF PP5970
Acquired: Jul 24, 2019 13:27:10
Printed: Jul 25, 2019 16:34:06

Data Summary: {Data Description}



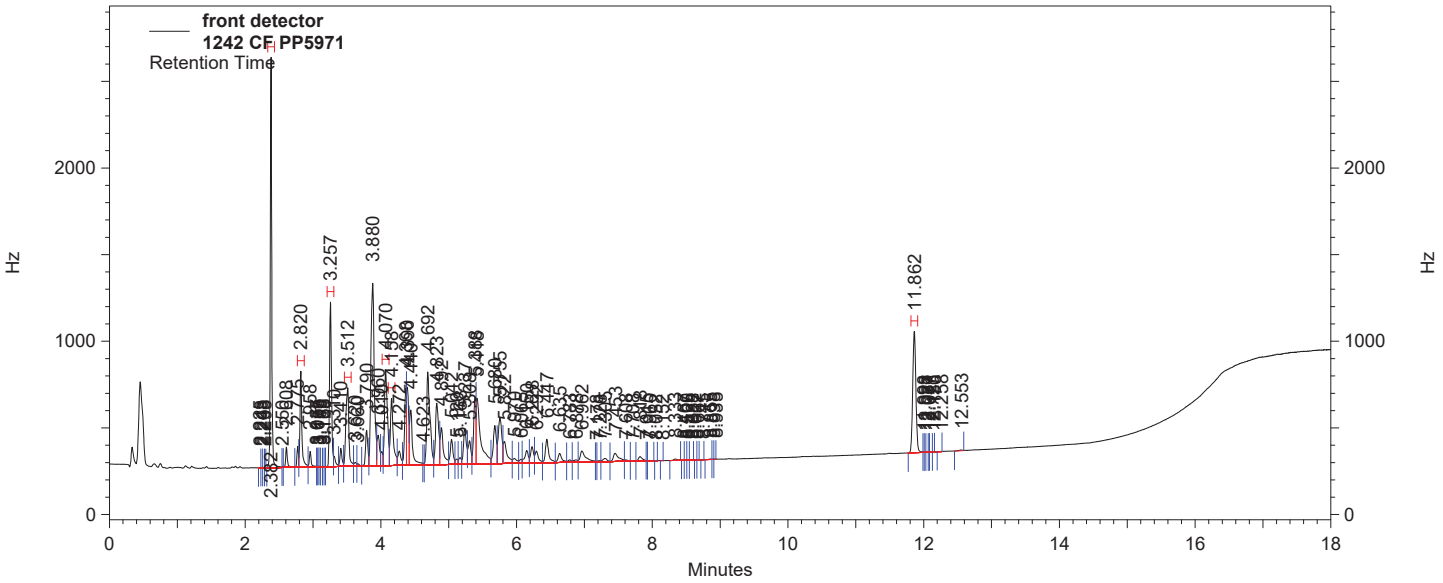
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.890	53053801	100.000 CAL
Aroclor 1232 #1	3.323	7026364	0.100 CAL
Aroclor 1232 #2	3.523	5553110	0.100 CAL
Aroclor 1232 #3	4.223	19829151	0.100 CAL
Aroclor 1232 #4	5.197	17238847	0.100 CAL
Aroclor 1232 #5	5.370	12859697	0.100 CAL
SURRDCB	13.945	34219104	100.000 CAL
Aroclor 1232		62507169	0.500 CAL

PCB Analysis Report (1242) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\005.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1242.met
User: JJY
Sample ID: 1242 CF PP5971
Acquired: Jul 24, 2019 13:48:18
Printed: Jul 25, 2019 16:34:09

Data Summary: {Data Description}



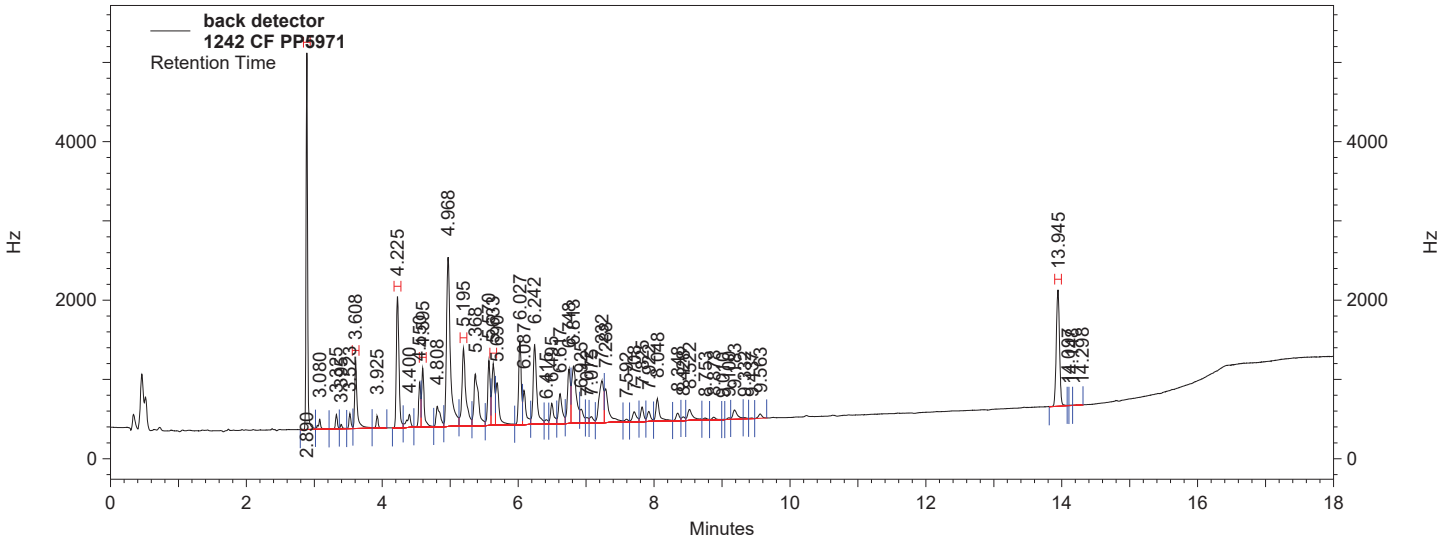
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.382	26821157	100.000 CAL
Aroclor 1242 #1	2.820	8139042	0.100 CAL
Aroclor 1242 #2	3.257	14871675	0.100 CAL
Aroclor 1242 #3	3.512	10647594	0.100 CAL
Aroclor 1242 #4	4.070	12745371	0.100 CAL
Aroclor 1242 #5	4.158	8844830	0.100 CAL
SURRDCB	11.862	17437595	100.000 CAL
Aroclor 1242		55248512	0.500 CAL

PCB Analysis Report (1242) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\005.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1242.met
User: JJY
Sample ID: 1242 CF PP5971
Acquired: Jul 24, 2019 13:48:18
Printed: Jul 25, 2019 16:34:09

Data Summary: {Data Description}



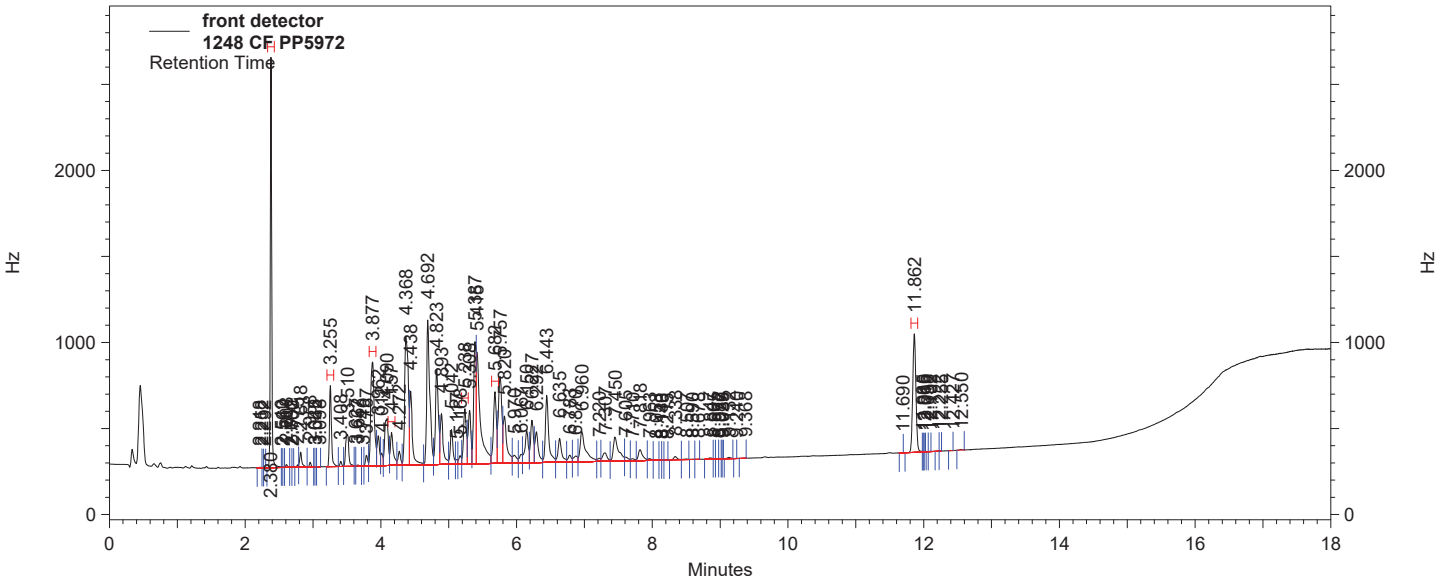
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.890	55830347	100.000 CAL
Aroclor 1242 #1	3.608	16742129	0.100 CAL
Aroclor 1242 #2	4.225	33802456	0.100 CAL
Aroclor 1242 #3	4.595	14580105	0.100 CAL
Aroclor 1242 #4	5.195	30638699	0.100 CAL
Aroclor 1242 #5	5.633	16916378	0.100 CAL
SURRDCB	13.945	37109268	100.000 CAL
Aroclor 1242		112679767	0.500 CAL

PCB Analysis Report (1248) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\006.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1248.met
User: JJY
Sample ID: 1248 CF PP5972
Acquired: Jul 24, 2019 14:09:29
Printed: Jul 25, 2019 16:34:12

Data Summary: {Data Description}



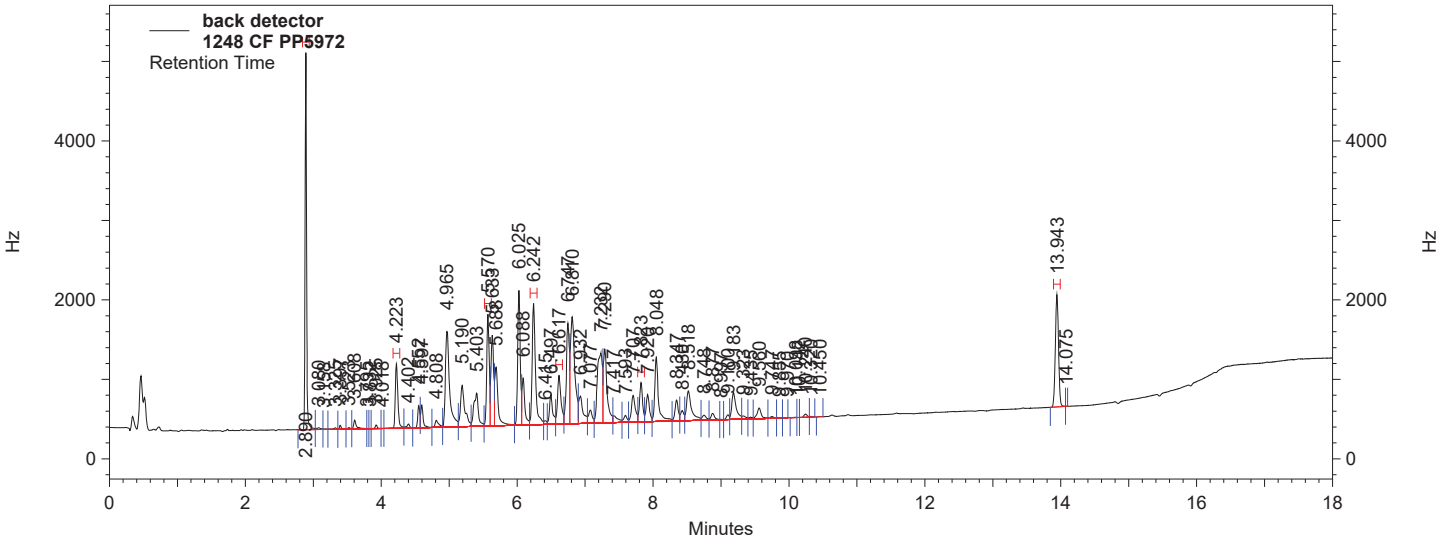
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.380	26596055	100.000 CAL
Aroclor 1248 #1	3.255	7491648	0.100 CAL
Aroclor 1248 #2	3.877	16823726	0.100 CAL
Aroclor 1248 #3	4.157	4511794	0.100 CAL
Aroclor 1248 #4	5.238	7098065	0.100 CAL
Aroclor 1248 #5	5.682	9720875	0.100 CAL
SURRDCB	11.862	17185198	100.000 CAL
Aroclor 1248		45646108	0.500 CAL

PCB Analysis Report (1248) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\006.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1248.met
User: JJY
Sample ID: 1248 CF PP5972
Acquired: Jul 24, 2019 14:09:29
Printed: Jul 25, 2019 16:34:12

Data Summary: {Data Description}



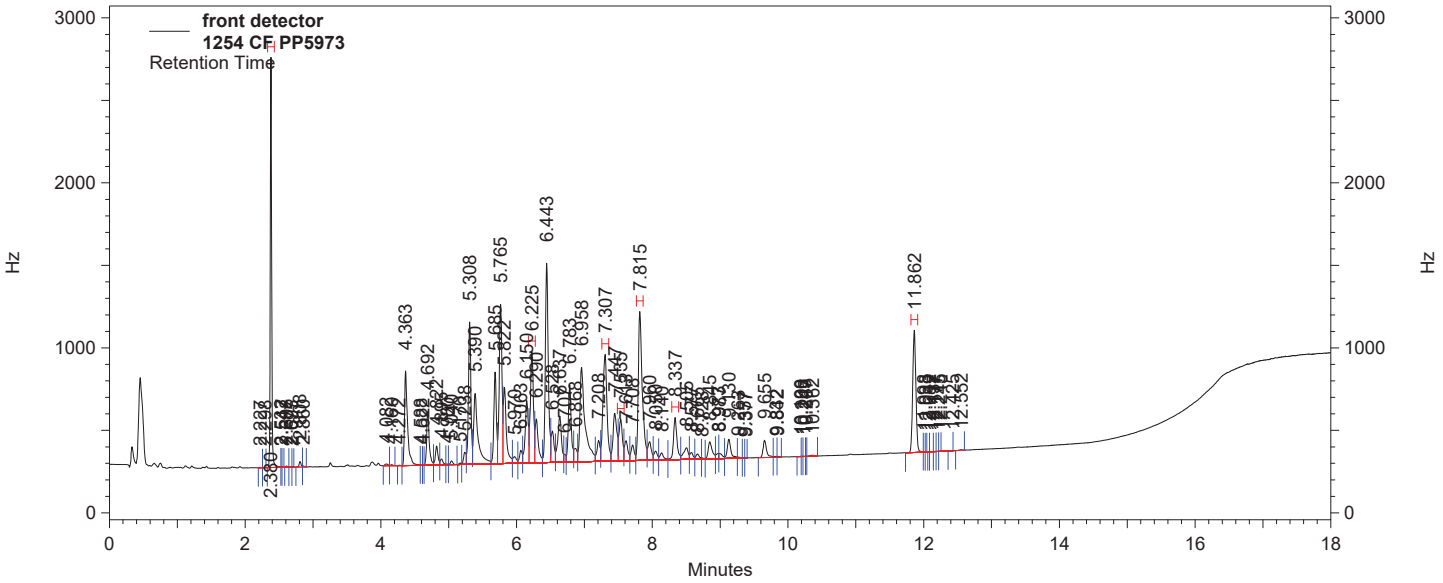
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.890	55618491	100.000 CAL
Aroclor 1248 #1	4.223	16207984	0.100 CAL
Aroclor 1248 #2	5.570	27244221	0.100 CAL
Aroclor 1248 #3	6.242	39624080	0.100 CAL
Aroclor 1248 #4	6.617	16832114	0.100 CAL
Aroclor 1248 #5	7.823	11850946	0.100 CAL
SURRDCB	13.943	35249971	100.000 CAL
Aroclor 1248		111759345	0.500 CAL

PCB Analysis Report (1254) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\007.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1254.met
User: JJY
Sample ID: 1254 CF PP5973
Acquired: Jul 24, 2019 14:30:41
Printed: Jul 25, 2019 16:34:15

Data Summary: {Data Description}



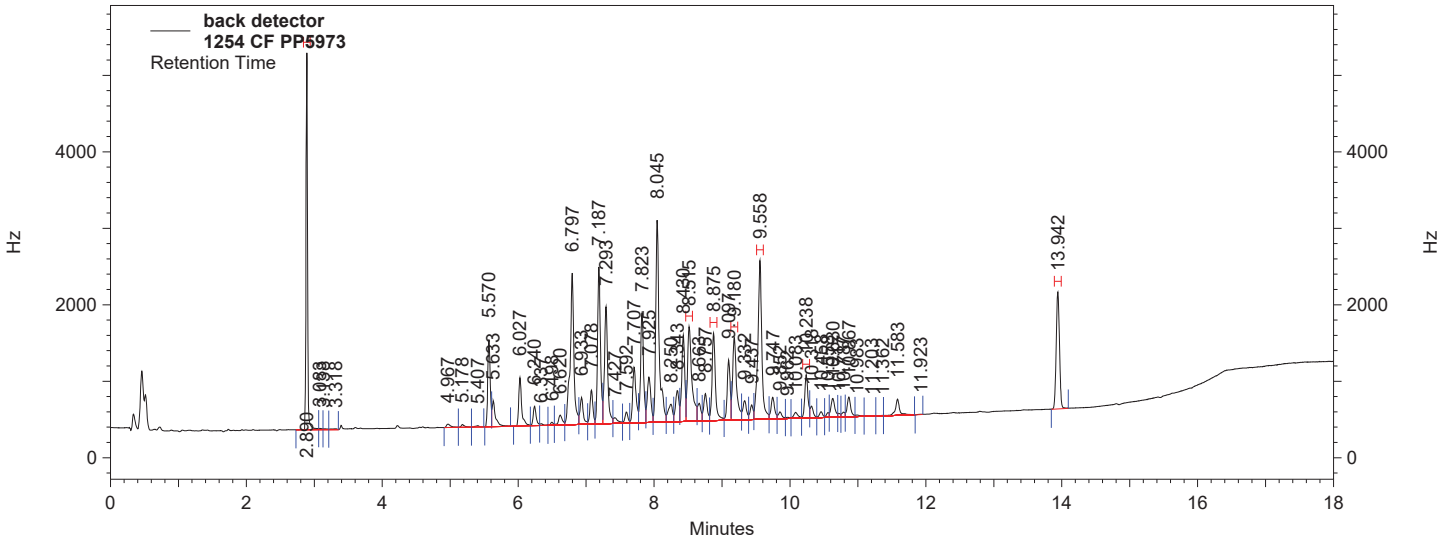
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.380	27453318	100.000 CAL
Aroclor 1254 #1	6.225	16247430	0.100 CAL
Aroclor 1254 #2	7.307	20672054	0.100 CAL
Aroclor 1254 #3	7.535	6833291	0.100 CAL
Aroclor 1254 #4	7.815	28193171	0.100 CAL
Aroclor 1254 #5	8.337	6941658	0.100 CAL
SURRDCB	11.862	18577933	100.000 CAL
Aroclor 1254		78887604	0.500 CAL

PCB Analysis Report (1254) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\007.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1254.met
User: JJY
Sample ID: 1254 CF PP5973
Acquired: Jul 24, 2019 14:30:41
Printed: Jul 25, 2019 16:34:15

Data Summary: {Data Description}



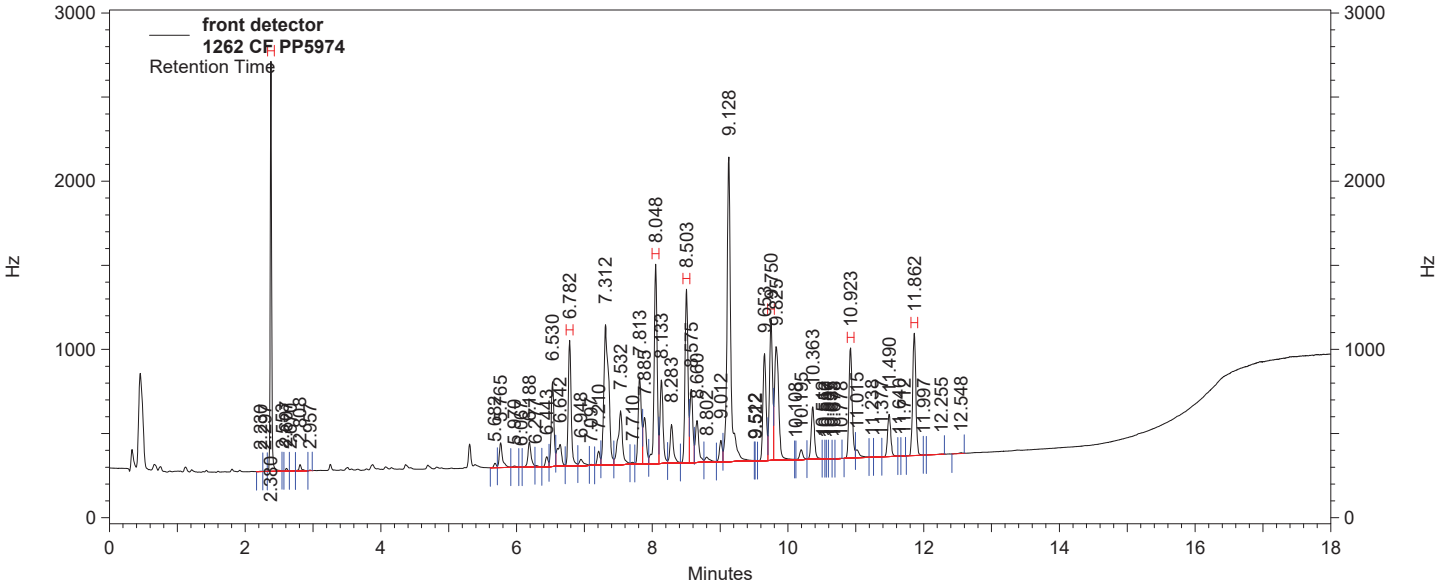
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.890	58248558	100.000 CAL
Aroclor 1254 #1	8.515	42698369	0.100 CAL
Aroclor 1254 #2	8.875	30083955	0.100 CAL
Aroclor 1254 #3	9.180	33017408	0.100 CAL
Aroclor 1254 #4	9.558	64093176	0.100 CAL
Aroclor 1254 #5	10.238	13897085	0.100 CAL
SURRDCB	13.942	39275210	100.000 CAL
Aroclor 1254		183789993	0.500 CAL

PCB Analysis Report (1262) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\008.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1262.met
User: JJY
Sample ID: 1262 CF PP5974
Acquired: Jul 24, 2019 14:51:51
Printed: Jul 25, 2019 16:34:18

Data Summary: {Data Description}



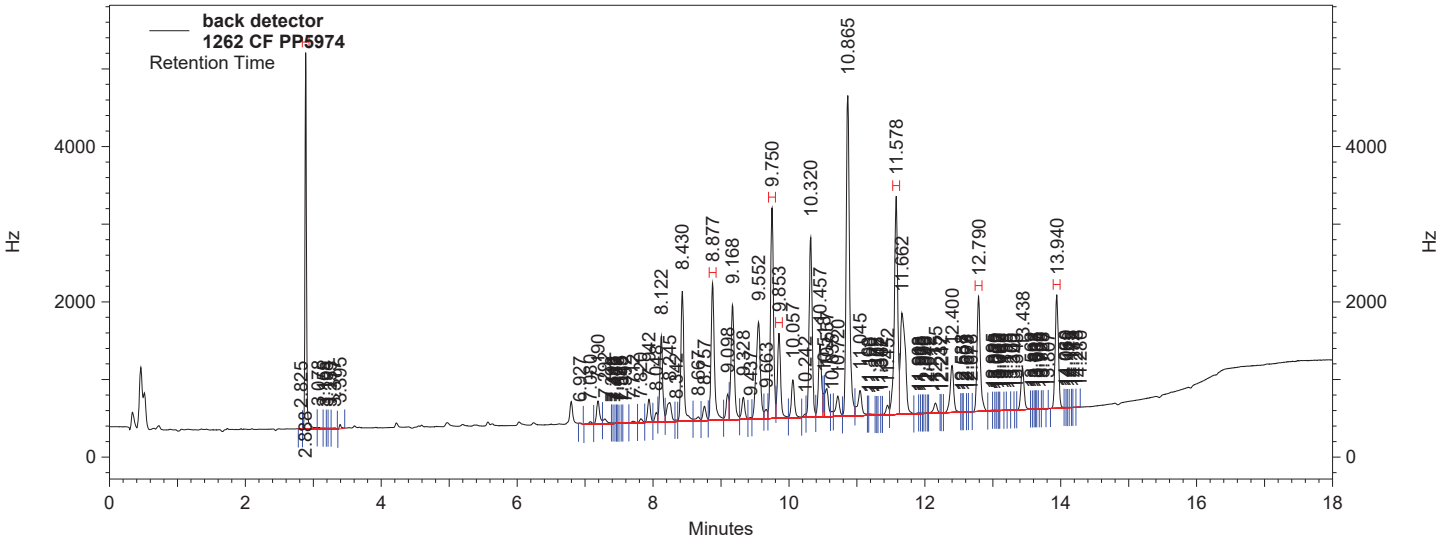
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.380	27041018	100.000 CAL
Aroclor 1262 #1	6.782	17053071	0.100 CAL
Aroclor 1262 #2	8.048	28086412	0.100 CAL
Aroclor 1262 #3	8.503	24215894	0.100 CAL
Aroclor 1262 #4	9.750	20144788	0.100 CAL
Aroclor 1262 #5	10.923	16794521	0.100 CAL
SURRDCB	11.862	18213966	100.000 CAL
Aroclor 1262		106294686	0.500 CAL

PCB Analysis Report (1262) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\008.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1262.met
User: JJY
Sample ID: 1262 CF PP5974
Acquired: Jul 24, 2019 14:51:51
Printed: Jul 25, 2019 16:34:18

Data Summary: {Data Description}



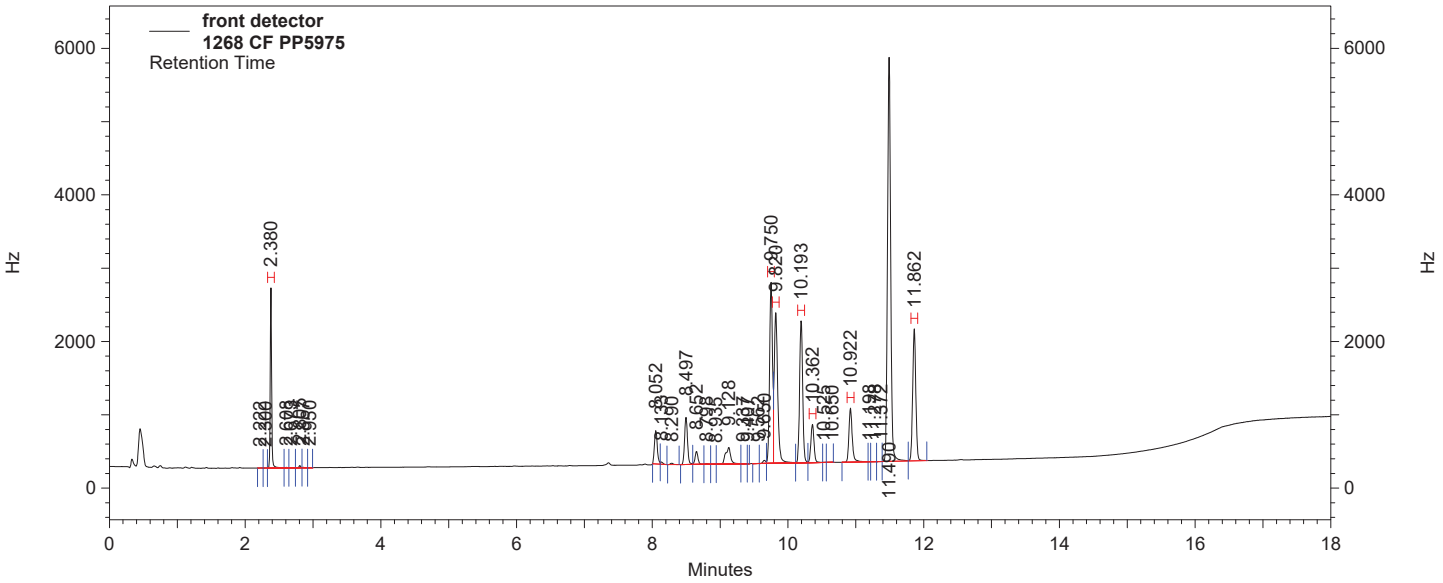
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.888	56843931	100.000 CAL
Aroclor 1262 #1	8.877	45288598	0.100 CAL
Aroclor 1262 #2	9.750	62523622	0.100 CAL
Aroclor 1262 #3	9.853	27010368	0.100 CAL
Aroclor 1262 #4	11.578	75976540	0.100 CAL
Aroclor 1262 #5	12.790	38642379	0.100 CAL
SURRDCB	13.940	36789505	100.000 CAL
Aroclor 1262		249441507	0.500 CAL

PCB Analysis Report (1268) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\009.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1268.met
User: JJY
Sample ID: 1268 CF PP5975
Acquired: Jul 24, 2019 15:13:02
Printed: Jul 25, 2019 16:34:21

Data Summary: {Data Description}



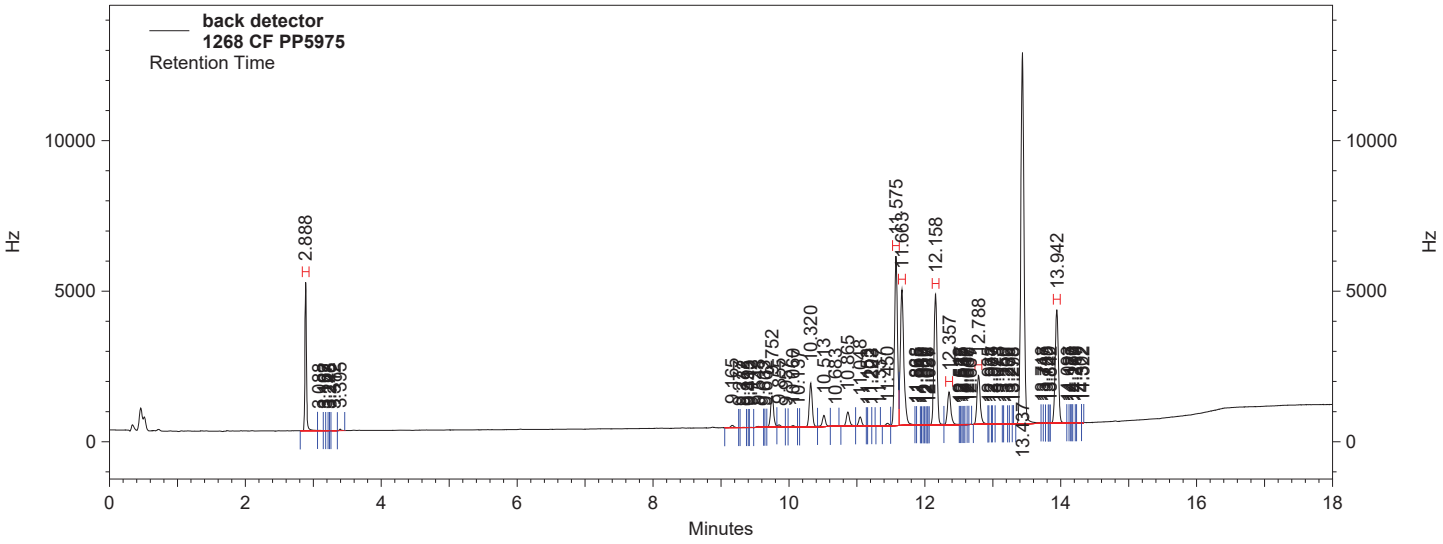
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.380	27360829	100.000 CAL
Aroclor 1268 #1	9.750	56994032	0.100 CAL
Aroclor 1268 #2	9.820	56564429	0.100 CAL
Aroclor 1268 #3	10.193	46858867	0.100 CAL
Aroclor 1268 #4	10.362	13128424	0.100 CAL
Aroclor 1268 #5	10.922	19430509	0.100 CAL
SURRDCB	11.862	44592730	100.000 CAL
Aroclor 1268		192976261	0.500 CAL

PCB Analysis Report (1268) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\009.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1268.met
User: JJY
Sample ID: 1268 CF PP5975
Acquired: Jul 24, 2019 15:13:02
Printed: Jul 25, 2019 16:34:21

Data Summary: {Data Description}



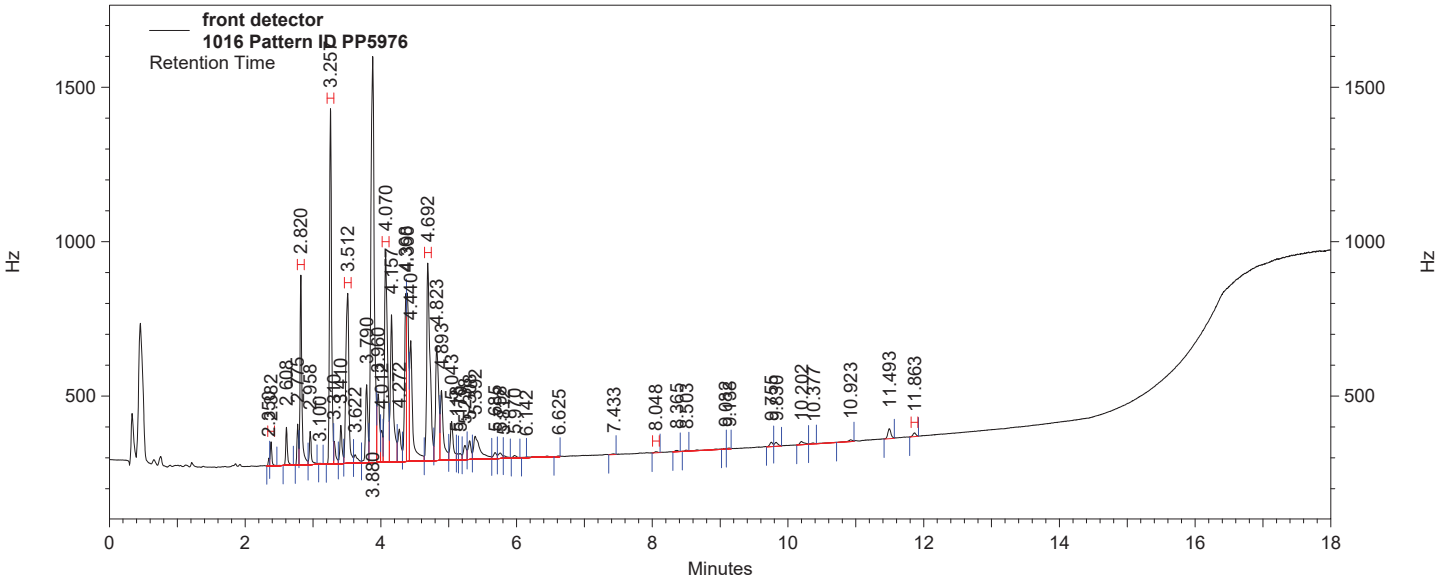
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.888	57918668	100.000 CAL
Aroclor 1268 #1	11.575	131113651	0.100 CAL
Aroclor 1268 #2	11.663	125713902	0.100 CAL
Aroclor 1268 #3	12.158	105462894	0.100 CAL
Aroclor 1268 #4	12.357	28919843	0.100 CAL
Aroclor 1268 #5	12.788	41715874	0.100 CAL
SURRDCB	13.942	95818006	100.000 CAL
Aroclor 1268		432926164	0.500 CAL

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\010.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
User: JJY
Sample ID: 1016 Pattern ID PP5976
Acquired: Jul 24, 2019 15:34:13
Printed: Jul 25, 2019 16:34:25

Data Summary: {Data Description}



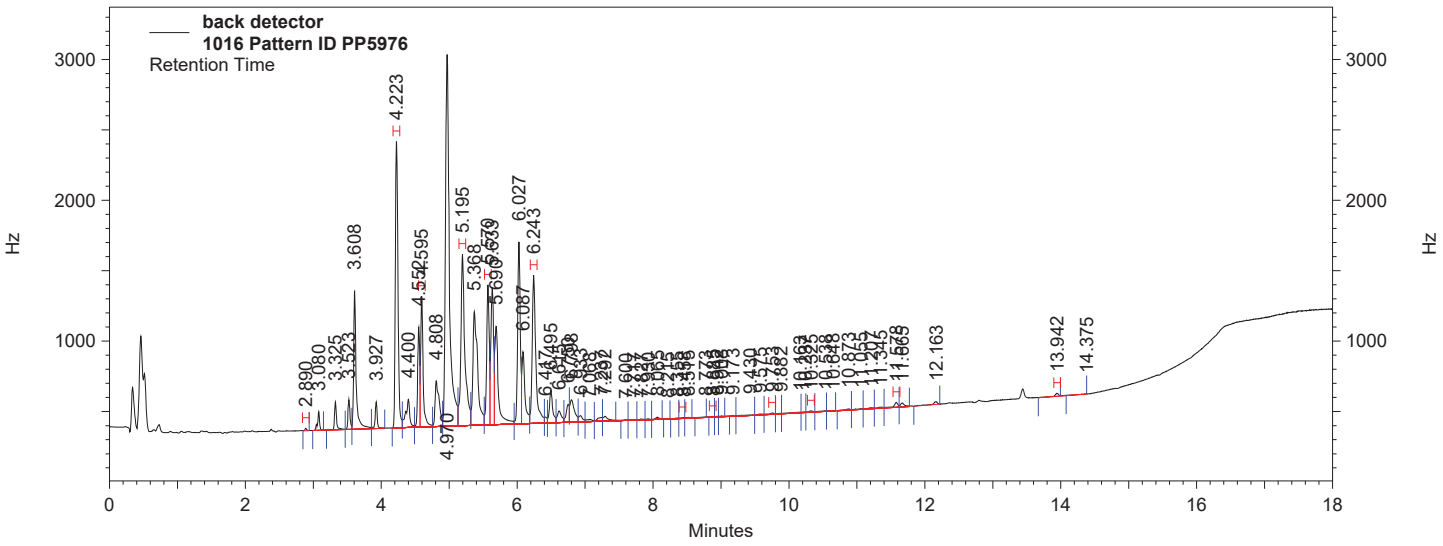
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.382	948692	0.994
Aroclor 1016 #1	2.820	8921353	0.058
Aroclor 1016 #2	3.257	18214757	0.059
Aroclor 1016 #3	3.512	13078329	0.059
Aroclor 1016 #4	4.070	15787138	0.057
Aroclor 1016 #5	4.692	16471006	0.058
Aroclor 1260 #1			0.000 BDL
Aroclor 1260 #2			0.000 BDL
Aroclor 1260 #3	8.048	88807	0.000
Aroclor 1260 #4			0.000 BDL
Aroclor 1260 #5			0.000 BDL
SURRDCBPCB	11.863	301065	0.000
Aroclor 1016		72472583	0.292
Aroclor 1260		88807	0.000

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\010.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\072419pcbic.met
User: JJY
Sample ID: 1016 Pattern ID PP5976
Acquired: Jul 24, 2019 15:34:13
Printed: Jul 25, 2019 16:34:25

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.890	221556	0.000
Aroclor 1016 #1	4.223	41658785	0.046
Aroclor 1016 #2	4.595	18007973	0.045
Aroclor 1016 #3	5.195	38689438	0.046
Aroclor 1016 #4	5.570	19879227	0.043
Aroclor 1016 #5	6.243	30071105	0.045
Aroclor 1260 #1	8.458	196387	0.000
Aroclor 1260 #2	8.885	125520	0.000
Aroclor 1260 #3	9.753	362657	0.000
Aroclor 1260 #4	10.325	318357	0.000
Aroclor 1260 #5	11.578	1071416	0.000
SURRDCBPCB	13.942	579189	0.000
Aroclor 1016		148306528	0.225
Aroclor 1260		2074337	0.000

QC Check Standard Report

Sequence : C:\Instarch\Semi7\Sequence\072419pcbic.seq
User : JJY
Printed : Jul 25, 2019 16:34:33

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\072419pcbic\012.dat	1221 ICV PP5977	Jul 25, 2019 16:34:32

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	85.764	14.236	20.000	Passed
Aroclor 1221 #1	0.167	0.141	15.717	20.000	Passed
Aroclor 1221 #2	0.167	0.137	17.739	20.000	Passed
Aroclor 1221 #3	0.167	0.145	12.938	20.000	Passed
SURRDCB	100.000	88.258	11.742	20.000	Passed
Aroclor 1221	0.500	0.424	15.296	20.000	Passed

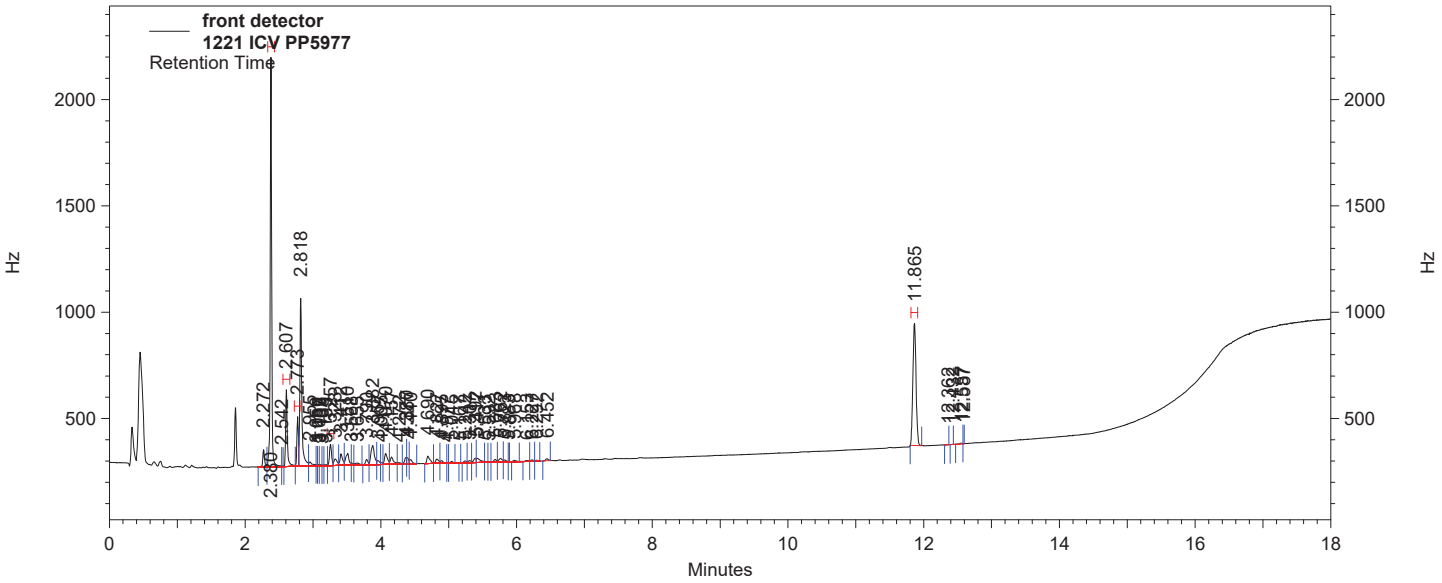
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	85.122	14.878	20.000	Passed
Aroclor 1221 #1	0.167	0.137	18.173	20.000	Passed
Aroclor 1221 #2	0.167	0.139	16.947	20.000	Passed
Aroclor 1221 #3	0.167	0.146	12.517	20.000	Passed
SURRDCB	100.000	88.916	11.084	20.000	Passed
Aroclor 1221	0.500	0.421	15.711	20.000	Passed

PCB Analysis Report (1221) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\012.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1221.met
User: JJY
Sample ID: 1221 ICV PP5977
Acquired: Jul 24, 2019 16:16:32
Printed: Jul 25, 2019 16:34:30

Data Summary: {Data Description}



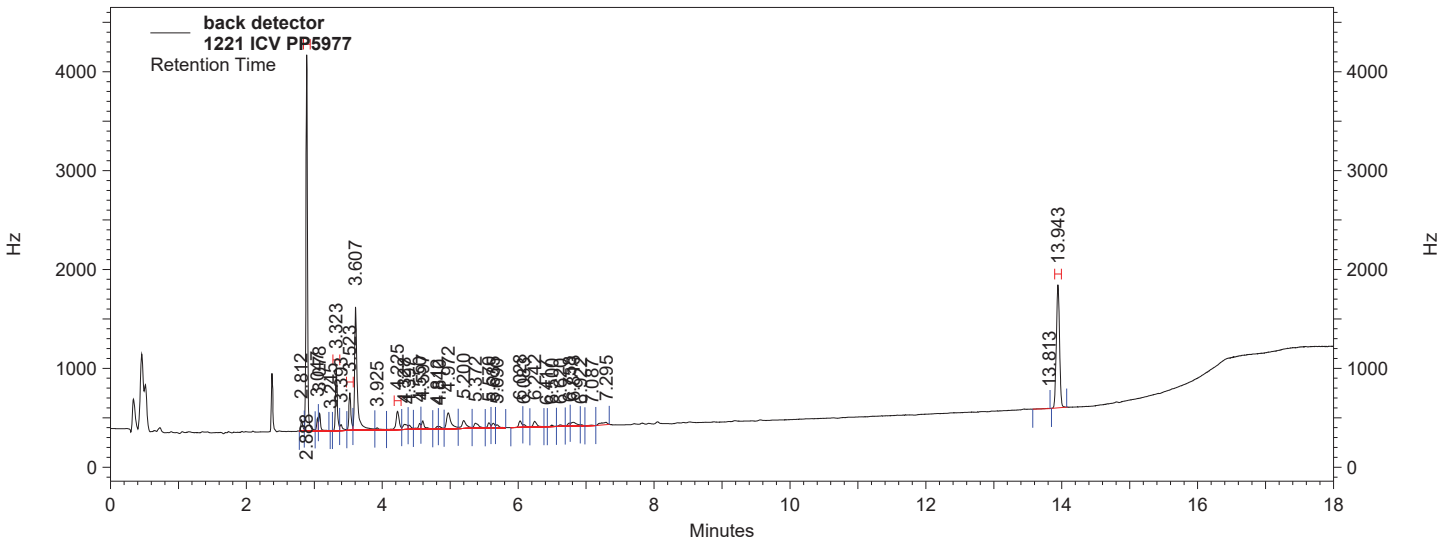
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.380	22168674	85.764
Aroclor 1221 #1	2.607	4887069	0.141
Aroclor 1221 #2	2.773	2717385	0.137
Aroclor 1221 #3	3.257	1649577	0.145
SURRDCB	11.865	14214587	88.258
Aroclor 1221		9254031	0.424

PCB Analysis Report (1221) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\012.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1221.met
User: JJY
Sample ID: 1221 ICV PP5977
Acquired: Jul 24, 2019 16:16:32
Printed: Jul 25, 2019 16:34:30

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.888	44769129	85.122
Aroclor 1221 #1	3.323	8882551	0.137
Aroclor 1221 #2	3.523	5908693	0.139
Aroclor 1221 #3	4.225	4570222	0.146
SURRDCB	13.943	31340401	88.916
Aroclor 1221		19361466	0.421

QC Check Standard Report

Sequence : C:\Instarch\Semi7\Sequence\072419pcbic.seq
User : JJY
Printed : Jul 25, 2019 16:34:39

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\072419pcbic\013.dat	1232 ICV PP5978	Jul 25, 2019 16:34:38

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	90.095	9.905	20.000	Passed
Aroclor 1232 #1	0.100	0.093	6.547	20.000	Passed
Aroclor 1232 #2	0.100	0.093	6.934	20.000	Passed
Aroclor 1232 #3	0.100	0.091	9.067	20.000	Passed
Aroclor 1232 #4	0.100	0.094	5.775	20.000	Passed
Aroclor 1232 #5	0.100	0.092	7.848	20.000	Passed
SURRDCB	100.000	91.490	8.510	20.000	Passed
Aroclor 1232	0.500	0.464	7.234	20.000	Passed

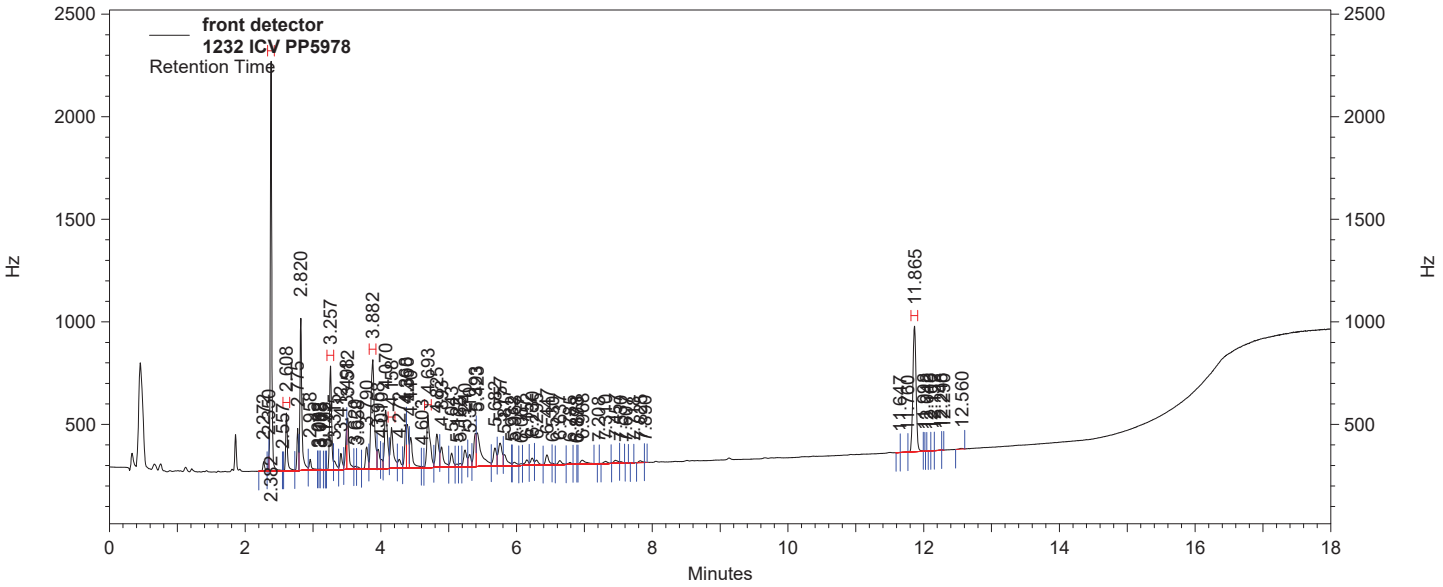
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	90.287	9.713	20.000	Passed
Aroclor 1232 #1	0.100	0.095	5.328	20.000	Passed
Aroclor 1232 #2	0.100	0.093	6.890	20.000	Passed
Aroclor 1232 #3	0.100	0.093	6.584	20.000	Passed
Aroclor 1232 #4	0.100	0.094	5.812	20.000	Passed
Aroclor 1232 #5	0.100	0.094	5.932	20.000	Passed
SURRDCB	100.000	96.450	3.550	20.000	Passed
Aroclor 1232	0.500	0.469	6.109	20.000	Passed

PCB Analysis Report (1232) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\013.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1232.met
User: JJY
Sample ID: 1232 ICV PP5978
Acquired: Jul 24, 2019 16:37:49
Printed: Jul 25, 2019 16:34:36

Data Summary: {Data Description}



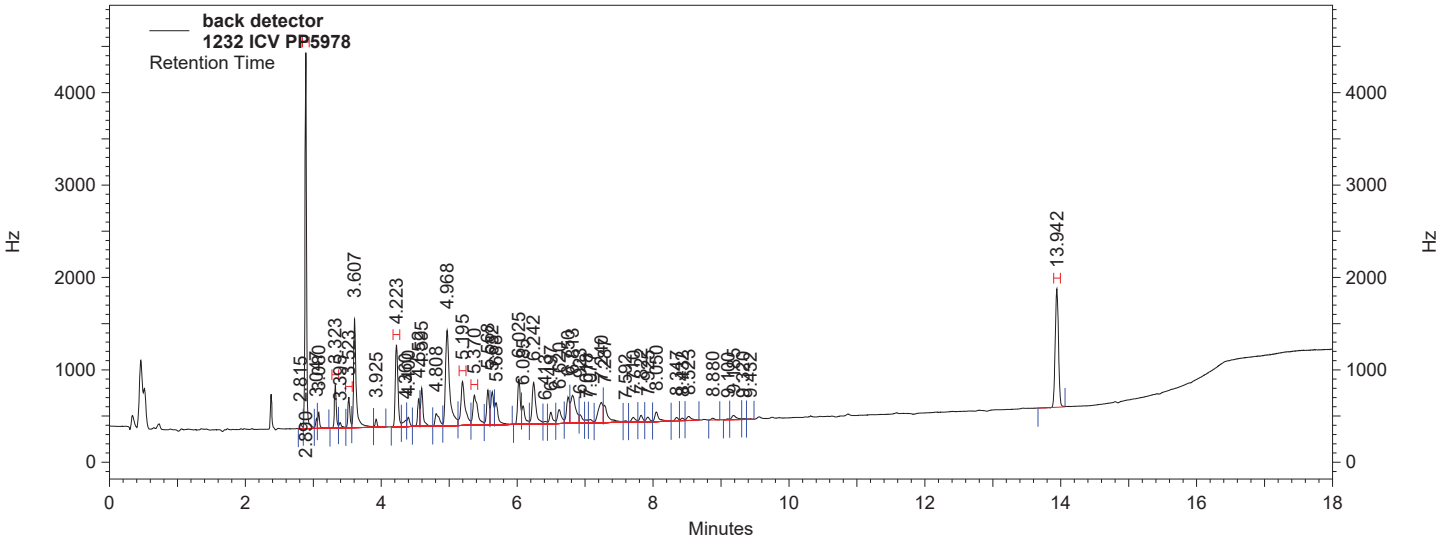
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.382	23072378	90.095
Aroclor 1232 #1	2.608	3874525	0.093
Aroclor 1232 #2	3.257	8077257	0.093
Aroclor 1232 #3	3.882	14474596	0.091
Aroclor 1232 #4	4.158	4846745	0.094
Aroclor 1232 #5	4.693	6513788	0.092
SURRDCB	11.865	15533049	91.490
Aroclor 1232		37786911	0.464

PCB Analysis Report (1232) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\013.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1232.met
User: JJY
Sample ID: 1232 ICV PP5978
Acquired: Jul 24, 2019 16:37:49
Printed: Jul 25, 2019 16:34:36

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.890	47900824	90.287
Aroclor 1232 #1	3.323	6651969	0.095
Aroclor 1232 #2	3.523	5170476	0.093
Aroclor 1232 #3	4.223	18523521	0.093
Aroclor 1232 #4	5.195	16236941	0.094
Aroclor 1232 #5	5.370	12096867	0.094
SURRDCB	13.942	33004323	96.450
Aroclor 1232		58679774	0.469

QC Check Standard Report

Sequence : C:\Instarch\Semi7\Sequence\072419pcbic.seq
User : JJY
Printed : Jul 25, 2019 16:34:44

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\072419pcbic\014.dat	1242 ICV PP5979	Jul 25, 2019 16:34:44

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	85.096	14.904	20.000	Passed
Aroclor 1242 #1	0.100	0.092	7.901	20.000	Passed
Aroclor 1242 #2	0.100	0.093	7.470	20.000	Passed
Aroclor 1242 #3	0.100	0.092	7.522	20.000	Passed
Aroclor 1242 #4	0.100	0.091	8.549	20.000	Passed
Aroclor 1242 #5	0.100	0.093	7.081	20.000	Passed
SURRDCB	100.000	91.463	8.537	20.000	Passed
Aroclor 1242	0.500	0.461	7.704	20.000	Passed

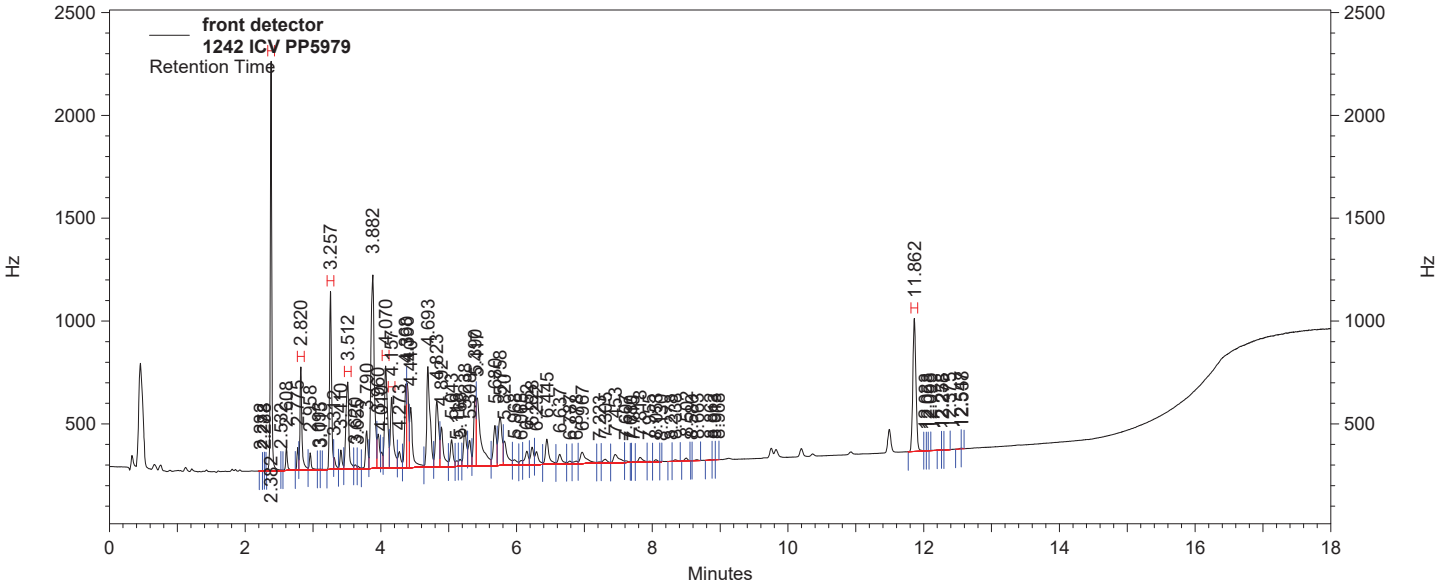
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	85.936	14.064	20.000	Passed
Aroclor 1242 #1	0.100	0.093	7.485	20.000	Passed
Aroclor 1242 #2	0.100	0.094	5.887	20.000	Passed
Aroclor 1242 #3	0.100	0.095	4.635	20.000	Passed
Aroclor 1242 #4	0.100	0.094	6.289	20.000	Passed
Aroclor 1242 #5	0.100	0.094	5.724	20.000	Passed
SURRDCB	100.000	91.949	8.051	20.000	Passed
Aroclor 1242	0.500	0.470	6.004	20.000	Passed

PCB Analysis Report (1242) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\014.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1242.met
User: JJY
Sample ID: 1242 ICV PP5979
Acquired: Jul 24, 2019 16:59:02
Printed: Jul 25, 2019 16:34:42

Data Summary: {Data Description}



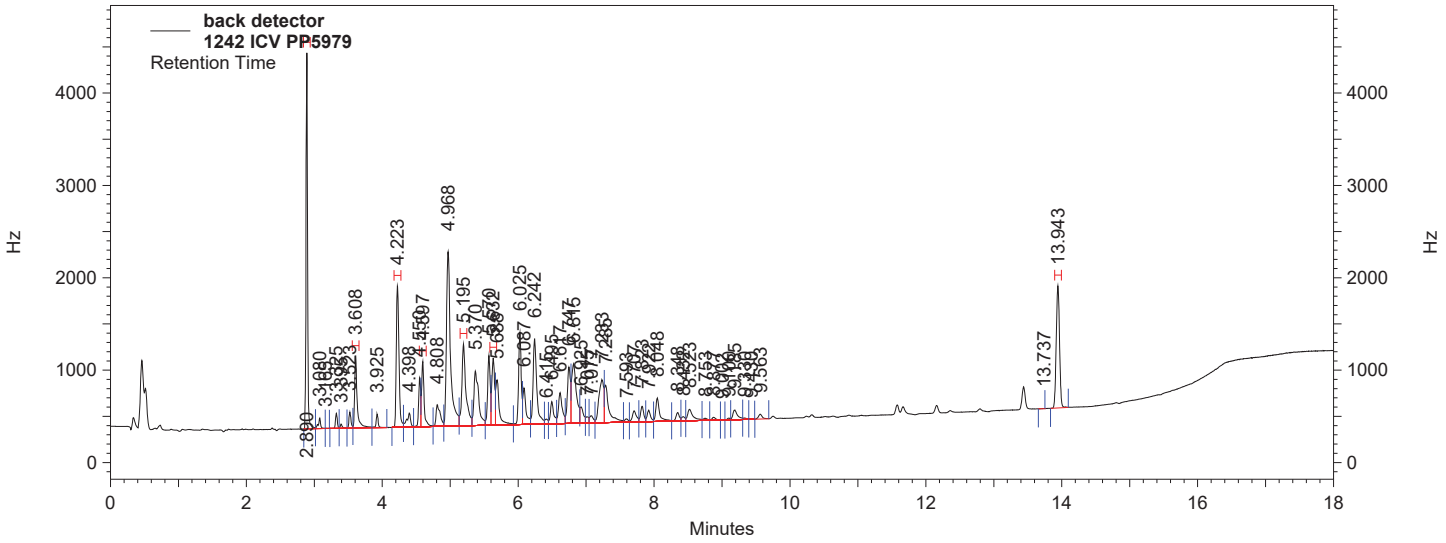
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.382	22823758	85.096
Aroclor 1242 #1	2.820	7495994	0.092
Aroclor 1242 #2	3.257	13760751	0.093
Aroclor 1242 #3	3.512	9846663	0.092
Aroclor 1242 #4	4.070	11655815	0.091
Aroclor 1242 #5	4.157	8218554	0.093
SURRDCB	11.862	15948977	91.463
Aroclor 1242		50977777	0.461

PCB Analysis Report (1242) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\014.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1242.met
User: JJY
Sample ID: 1242 ICV PP5979
Acquired: Jul 24, 2019 16:59:02
Printed: Jul 25, 2019 16:34:42

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.890	47978484	85.936
Aroclor 1242 #1	3.608	15488979	0.093
Aroclor 1242 #2	4.223	31812466	0.094
Aroclor 1242 #3	4.597	13904359	0.095
Aroclor 1242 #4	5.195	28711791	0.094
Aroclor 1242 #5	5.632	15948010	0.094
SURRDCB	13.943	34121474	91.949
Aroclor 1242		105865605	0.470

QC Check Standard Report

Sequence : C:\Instarch\Semi7\Sequence\072419pcbic.seq
User : JJY
Printed : Jul 25, 2019 16:34:49

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\072419pcbic\015.dat	1248 ICV PP5980	Jul 25, 2019 16:34:49

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	80.190	19.810	20.000	Passed
Aroclor 1248 #1	0.100	0.087	13.498	20.000	Passed
Aroclor 1248 #2	0.100	0.084	15.653	20.000	Passed
Aroclor 1248 #3	0.100	0.085	15.222	20.000	Passed
Aroclor 1248 #4	0.100	0.083	17.461	20.000	Passed
Aroclor 1248 #5	0.100	0.085	14.679	20.000	Passed
SURRDCB	100.000	82.734	17.266	20.000	Passed
Aroclor 1248	0.500	0.423	15.303	20.000	Passed

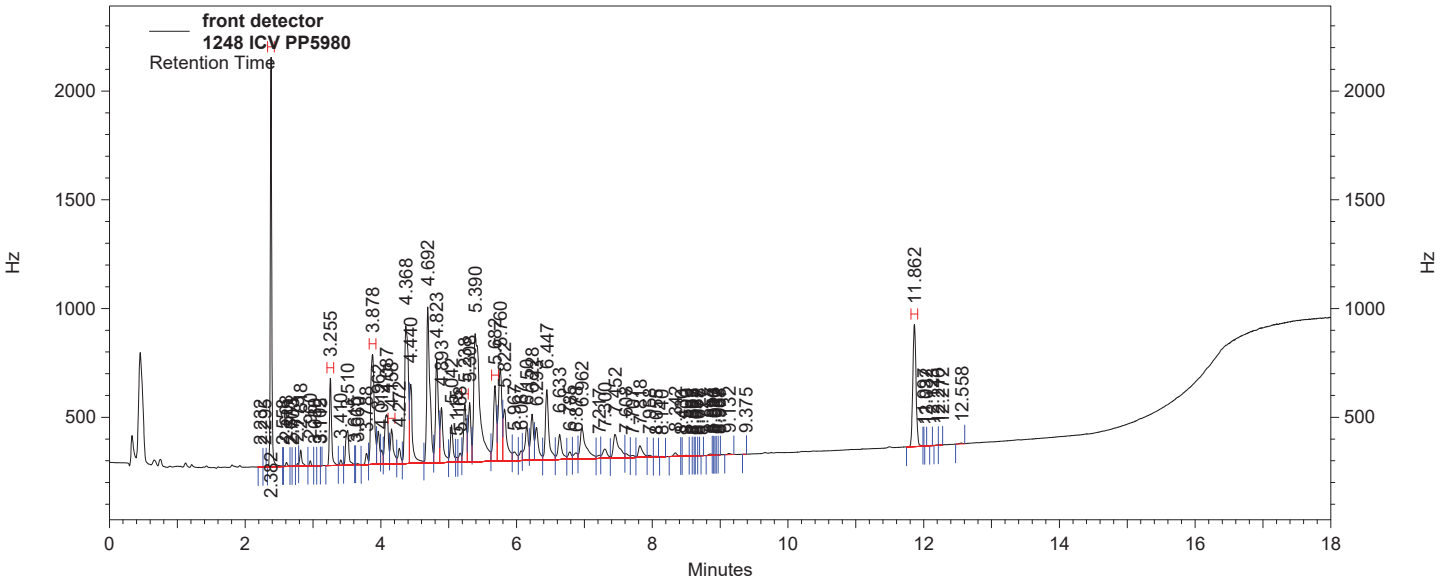
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	82.423	17.577	20.000	Passed
Aroclor 1248 #1	0.100	0.090	9.892	20.000	Passed
Aroclor 1248 #2	0.100	0.088	11.940	20.000	Passed
Aroclor 1248 #3	0.100	0.089	11.400	20.000	Passed
Aroclor 1248 #4	0.100	0.087	13.219	20.000	Passed
Aroclor 1248 #5	0.100	0.090	10.378	20.000	Passed
SURRDCB	100.000	85.381	14.619	20.000	Passed
Aroclor 1248	0.500	0.443	11.366	20.000	Passed

PCB Analysis Report (1248) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\015.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1248.met
User: JJY
Sample ID: 1248 ICV PP5980
Acquired: Jul 24, 2019 17:20:16
Printed: Jul 25, 2019 16:34:47

Data Summary: {Data Description}



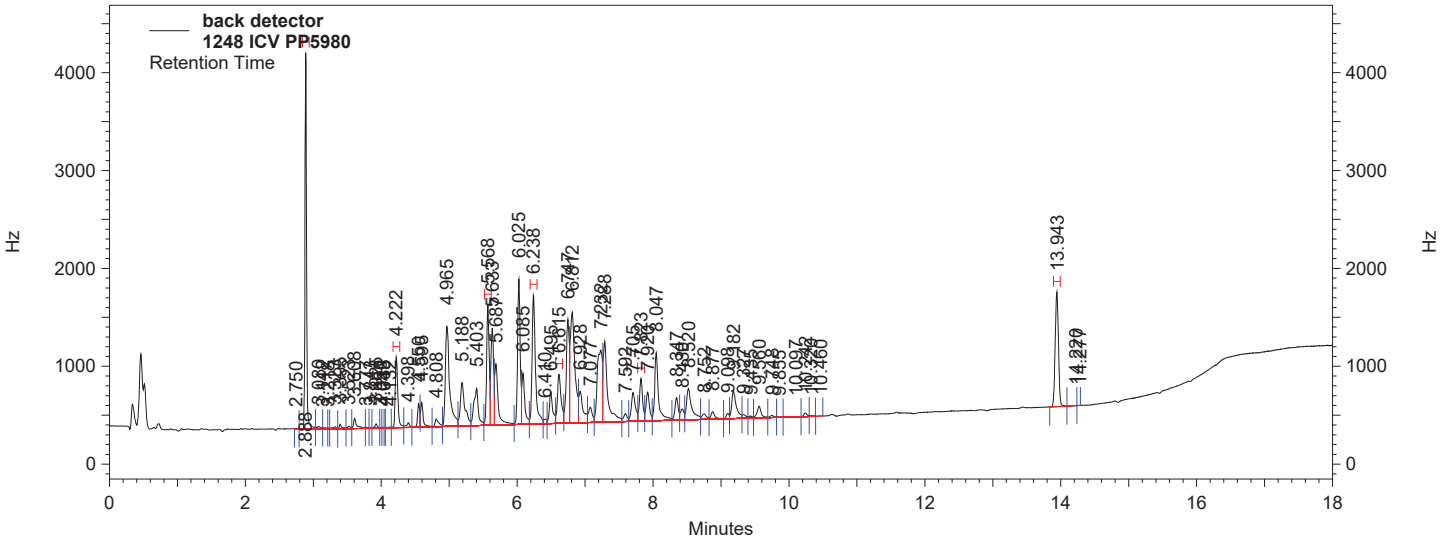
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.382	21327381	80.190
Aroclor 1248 #1	3.255	6480430	0.087
Aroclor 1248 #2	3.878	14190281	0.084
Aroclor 1248 #3	4.158	3825010	0.085
Aroclor 1248 #4	5.238	5858651	0.083
Aroclor 1248 #5	5.682	8293908	0.085
SURRDCB	11.862	14218060	82.734
Aroclor 1248		38648280	0.423

PCB Analysis Report (1248) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\015.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1248.met
User: JJY
Sample ID: 1248 ICV PP5980
Acquired: Jul 24, 2019 17:20:16
Printed: Jul 25, 2019 16:34:47

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.888	45842696	82.423
Aroclor 1248 #1	4.222	14604636	0.090
Aroclor 1248 #2	5.568	23991189	0.088
Aroclor 1248 #3	6.238	35106832	0.089
Aroclor 1248 #4	6.615	14607047	0.087
Aroclor 1248 #5	7.823	10621083	0.090
SURRDCB	13.943	30096876	85.381
Aroclor 1248		98930787	0.443

QC Check Standard Report

Sequence : C:\Instarch\Semi7\Sequence\072419pcbic.seq
User : JJY
Printed : Jul 25, 2019 16:34:54

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\072419pcbic\016.dat	1254 ICV PP5981	Jul 25, 2019 16:34:54

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	81.306	18.694	20.000	Passed
Aroclor 1254 #1	0.100	0.084	16.424	20.000	Passed
Aroclor 1254 #2	0.100	0.085	14.732	20.000	Passed
Aroclor 1254 #3	0.100	0.086	13.763	20.000	Passed
Aroclor 1254 #4	0.100	0.085	15.314	20.000	Passed
Aroclor 1254 #5	0.100	0.084	16.485	20.000	Passed
SURRDCB	100.000	80.016	19.984	20.000	Passed
Aroclor 1254	0.500	0.423	15.344	20.000	Passed

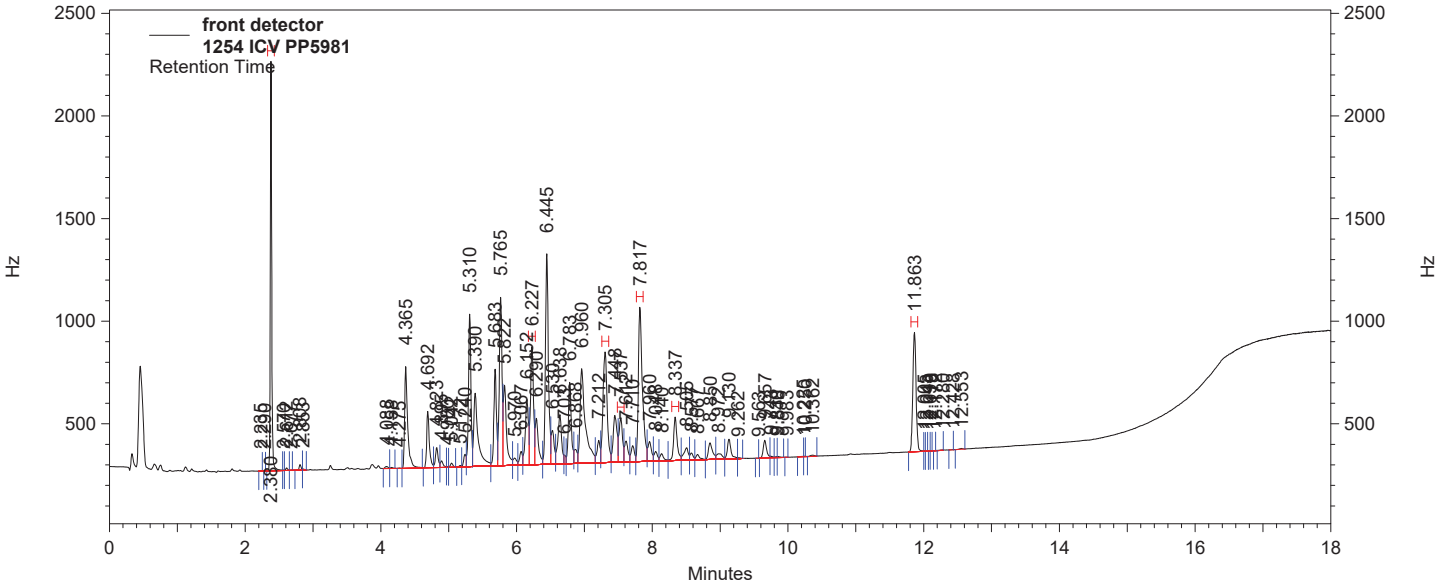
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	82.997	17.003	20.000	Passed
Aroclor 1254 #1	0.100	0.085	14.924	20.000	Passed
Aroclor 1254 #2	0.100	0.088	11.984	20.000	Passed
Aroclor 1254 #3	0.100	0.084	15.653	20.000	Passed
Aroclor 1254 #4	0.100	0.086	14.267	20.000	Passed
Aroclor 1254 #5	0.100	0.086	14.056	20.000	Passed
SURRDCB	100.000	80.422	19.578	20.000	Passed
Aroclor 1254	0.500	0.429	14.177	20.000	Passed

PCB Analysis Report (1254) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\016.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1254.met
User: JJY
Sample ID: 1254 ICV PP5981
Acquired: Jul 24, 2019 17:41:28
Printed: Jul 25, 2019 16:34:52

Data Summary: {Data Description}



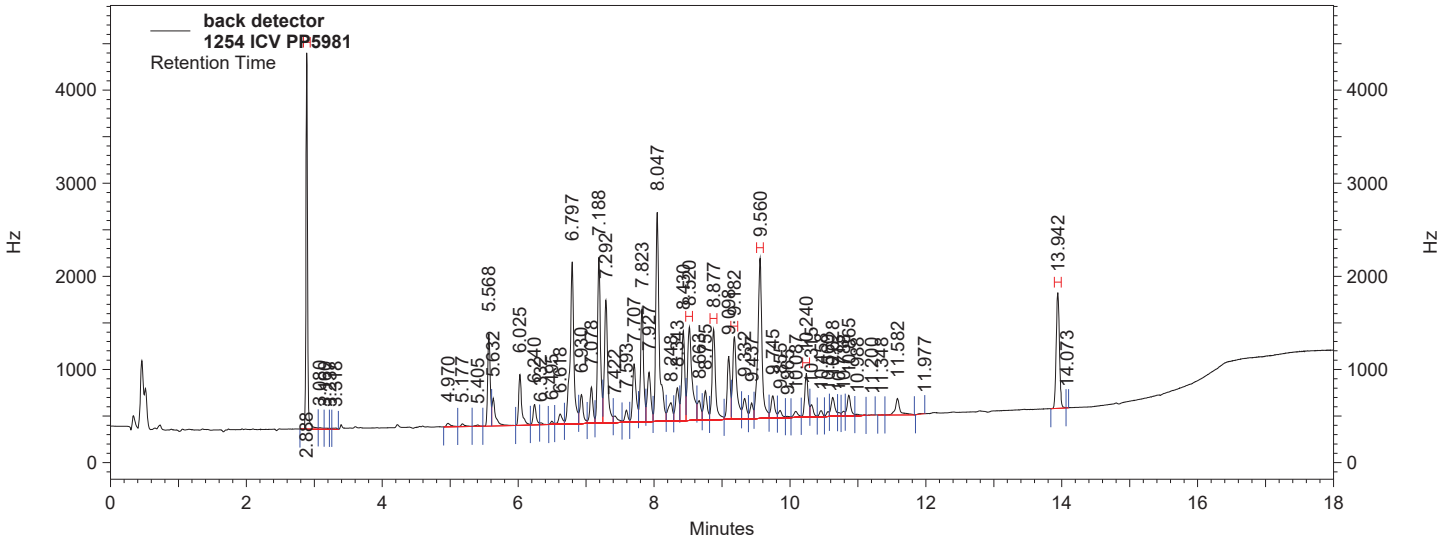
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.380	22321062	81.306
Aroclor 1254 #1	6.227	13578981	0.084
Aroclor 1254 #2	7.305	17626579	0.085
Aroclor 1254 #3	7.537	5892795	0.086
Aroclor 1254 #4	7.817	23875566	0.085
Aroclor 1254 #5	8.337	5797360	0.084
SURRDCB	11.863	14865265	80.016
Aroclor 1254		66771281	0.423

PCB Analysis Report (1254) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\016.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1254.met
User: JJY
Sample ID: 1254 ICV PP5981
Acquired: Jul 24, 2019 17:41:28
Printed: Jul 25, 2019 16:34:52

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.888	48344296	82.997
Aroclor 1254 #1	8.520	36326110	0.085
Aroclor 1254 #2	8.877	26478608	0.088
Aroclor 1254 #3	9.182	27849137	0.084
Aroclor 1254 #4	9.560	54949223	0.086
Aroclor 1254 #5	10.240	11943707	0.086
SURRDCB	13.942	31585914	80.422
Aroclor 1254		157546785	0.429

QC Check Standard Report

Sequence : C:\Instarch\Semi7\Sequence\072419pcbic.seq
User : JJY
Printed : Jul 25, 2019 16:34:59

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\072419pcbic\017.dat	1262 ICV PP5982	Jul 25, 2019 16:34:59

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	78.511	21.489	20.000	FAILED
Aroclor 1262 #1	0.100	0.089	11.473	20.000	Passed
Aroclor 1262 #2	0.100	0.088	11.895	20.000	Passed
Aroclor 1262 #3	0.100	0.087	12.827	20.000	Passed
Aroclor 1262 #4	0.100	0.088	11.935	20.000	Passed
Aroclor 1262 #5	0.100	0.087	13.301	20.000	Passed
SURRDCB	100.000	79.213	20.787	20.000	FAILED
Aroclor 1262	0.500	0.439	12.286	20.000	Passed

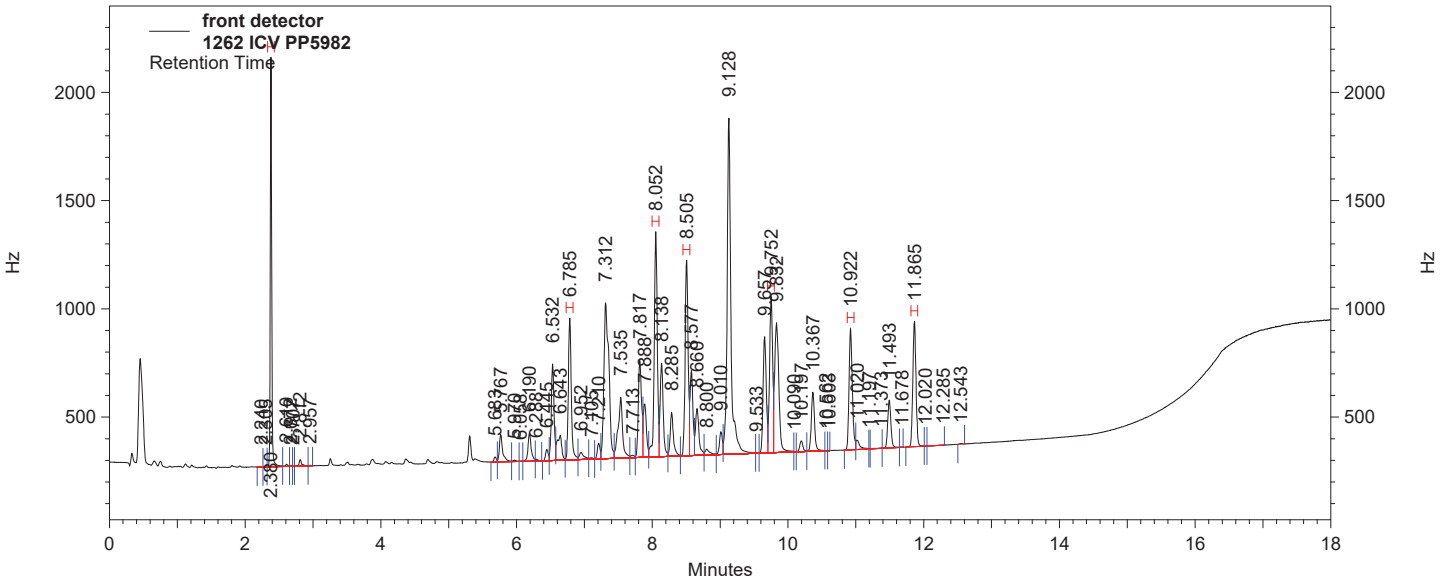
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	81.079	18.921	20.000	Passed
Aroclor 1262 #1	0.100	0.090	9.539	20.000	Passed
Aroclor 1262 #2	0.100	0.091	9.230	20.000	Passed
Aroclor 1262 #3	0.100	0.090	9.529	20.000	Passed
Aroclor 1262 #4	0.100	0.089	11.103	20.000	Passed
Aroclor 1262 #5	0.100	0.089	10.698	20.000	Passed
SURRDCB	100.000	85.110	14.890	20.000	Passed
Aroclor 1262	0.500	0.450	10.020	20.000	Passed

PCB Analysis Report (1262) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\017.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1262.met
User: JJY
Sample ID: 1262 ICV PP5982
Acquired: Jul 24, 2019 18:02:36
Printed: Jul 25, 2019 16:34:57

Data Summary: {Data Description}



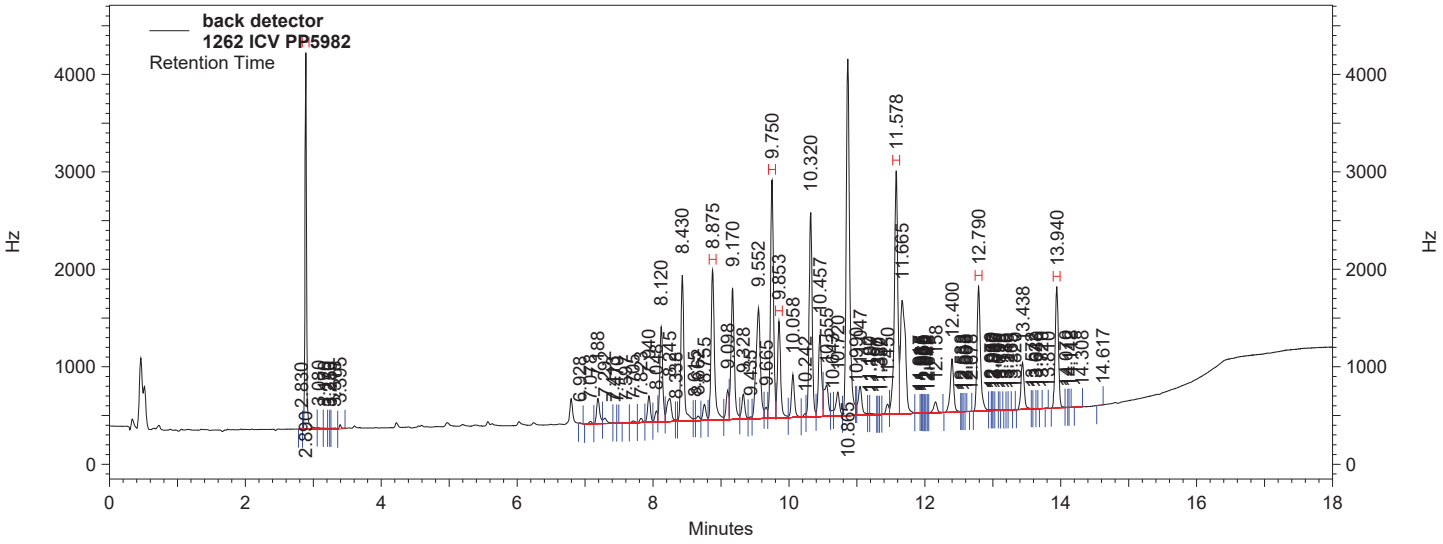
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.380	21230134	78.511
Aroclor 1262 #1	6.785	15096508	0.089
Aroclor 1262 #2	8.052	24745549	0.088
Aroclor 1262 #3	8.505	21109688	0.087
Aroclor 1262 #4	9.752	17740419	0.088
Aroclor 1262 #5	10.922	14560652	0.087
SURRDCB	11.865	14427778	79.213
Aroclor 1262		93252816	0.439

PCB Analysis Report (1262) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\017.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1262.met
User: JJY
Sample ID: 1262 ICV PP5982
Acquired: Jul 24, 2019 18:02:36
Printed: Jul 25, 2019 16:34:57

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.890	46088720	81.079
Aroclor 1262 #1	8.875	40968672	0.090
Aroclor 1262 #2	9.750	56752827	0.091
Aroclor 1262 #3	9.853	24436611	0.090
Aroclor 1262 #4	11.578	67540564	0.089
Aroclor 1262 #5	12.790	34508523	0.089
SURRDCB	13.940	31311548	85.110
Aroclor 1262		224207197	0.450

QC Check Standard Report

Sequence : C:\Instarch\Semi7\Sequence\072419pcbic.seq
User : JJY
Printed : Jul 25, 2019 16:35:05

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\072419pcbic\018.dat	1268 ICV PP5983	Jul 25, 2019 16:35:05

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	82.846	17.154	20.000	Passed
Aroclor 1268 #1	0.100	0.099	1.297	20.000	Passed
Aroclor 1268 #2	0.100	0.100	0.388	20.000	Passed
Aroclor 1268 #3	0.100	0.089	10.952	20.000	Passed
Aroclor 1268 #4	0.100	0.090	9.991	20.000	Passed
Aroclor 1268 #5	0.100	0.093	7.090	20.000	Passed
SURRDCB	100.000	78.477	21.523	20.000	FAILED
Aroclor 1268	0.500	0.470	5.943	20.000	Passed

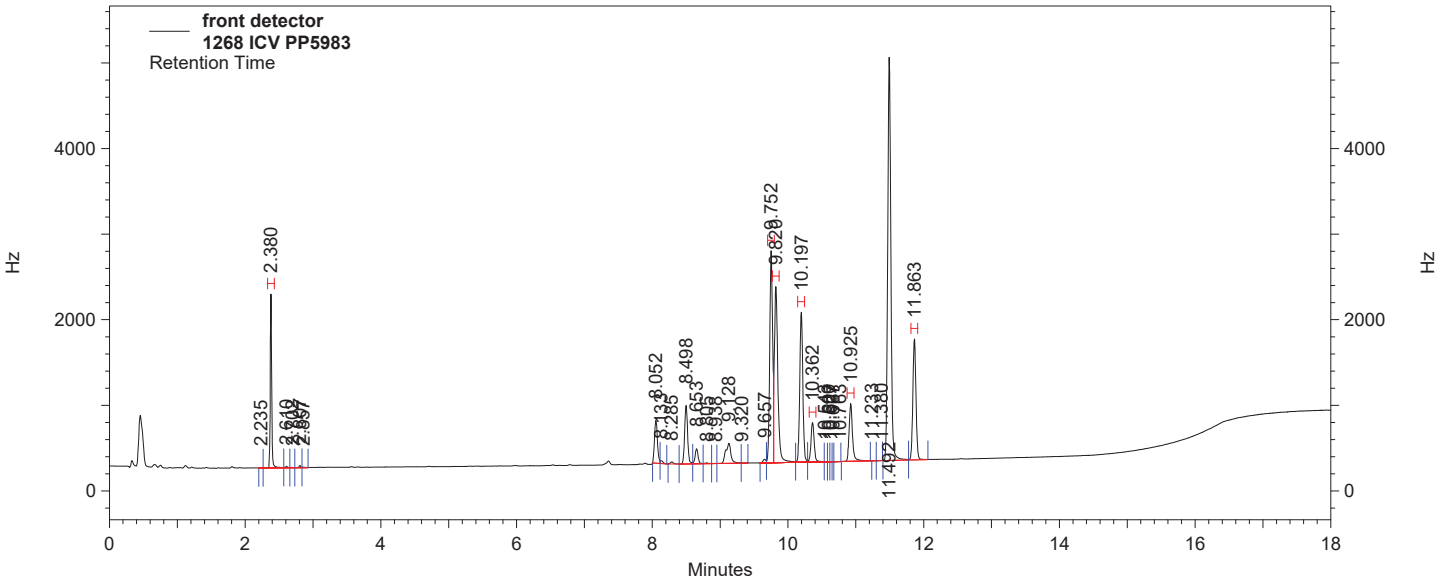
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	85.358	14.642	20.000	Passed
Aroclor 1268 #1	0.100	0.102	2.247	20.000	Passed
Aroclor 1268 #2	0.100	0.101	0.751	20.000	Passed
Aroclor 1268 #3	0.100	0.091	8.865	20.000	Passed
Aroclor 1268 #4	0.100	0.090	10.136	20.000	Passed
Aroclor 1268 #5	0.100	0.094	5.909	20.000	Passed
SURRDCB	100.000	78.372	21.628	20.000	FAILED
Aroclor 1268	0.500	0.478	4.382	20.000	Passed

PCB Analysis Report (1268) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\018.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1268.met
User: JJY
Sample ID: 1268 ICV PP5983
Acquired: Jul 24, 2019 18:23:50
Printed: Jul 25, 2019 16:35:03

Data Summary: {Data Description}



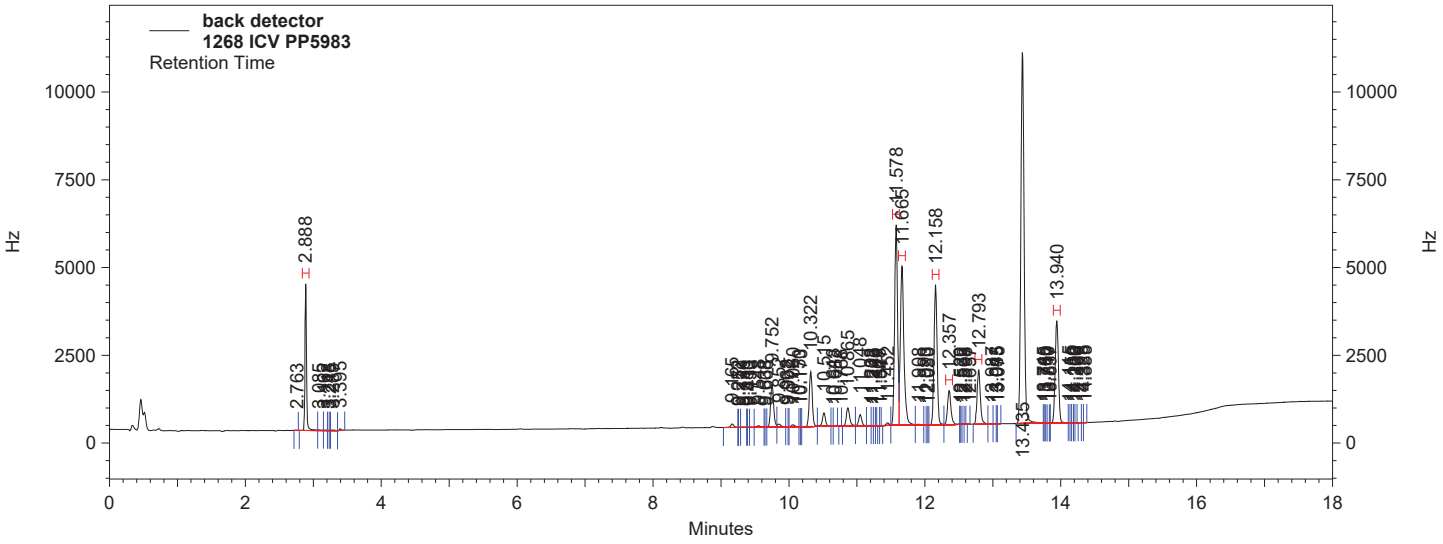
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.380	22667384	82.846
Aroclor 1268 #1	9.752	56255027	0.099
Aroclor 1268 #2	9.820	56345144	0.100
Aroclor 1268 #3	10.197	41726683	0.089
Aroclor 1268 #4	10.362	11816782	0.090
Aroclor 1268 #5	10.925	18052931	0.093
SURRDCB	11.863	34995027	78.477
Aroclor 1268		184196567	0.470

PCB Analysis Report (1268) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\072419pcbic\018.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\1268.met
User: JJY
Sample ID: 1268 ICV PP5983
Acquired: Jul 24, 2019 18:23:50
Printed: Jul 25, 2019 16:35:03

Data Summary: {Data Description}



back detector Results

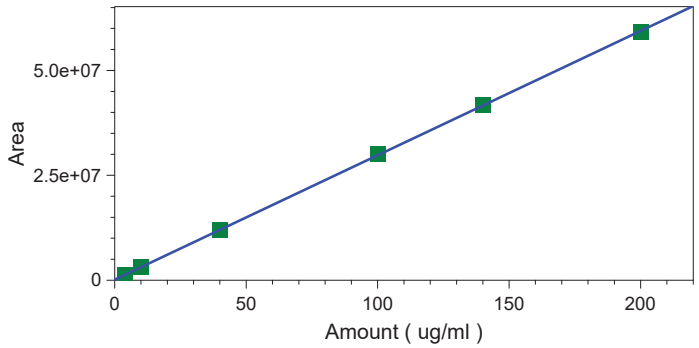
Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.888	49438131	85.358
Aroclor 1268 #1	11.578	134059224	0.102
Aroclor 1268 #2	11.665	126658220	0.101
Aroclor 1268 #3	12.158	96113434	0.091
Aroclor 1268 #4	12.357	25988515	0.090
Aroclor 1268 #5	12.793	39250884	0.094
SURRDCB	13.940	75094250	78.372
Aroclor 1268		422070277	0.478

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:12:57
User: JJY
Instrument: Semi 7

SURRTCMXPCB (front detector)
Average RF: 301685. RF StDev: 5559.88 RF %RSD: 1.84294
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 296377.x + 152791.
Goodness of fit (r^2): 0.999965

Peak: SURRTCMXPCB -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	4	10	40	100	140
Area	1216310	3117003	11994817	30032750	41673875
RF	304077.5	311700.3	299870.425	300327.5	297670.535714286
Last Area Residual	0.411606	-0.00147831	0.0440925	-0.817285	-0.0953385
Rep StDev					
Rep %RSD					
Rep 1 Area	1216310	3117003	11994817	30032750	41673875
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\020.dat	C:\Instarch\Semi7\Data\091019pcbic\021.dat	C:\Instarch\Semi7\Data\091019pcbic\022.dat	C:\Instarch\Semi7\Data\091019pcbic\023.dat	C:\Instarch\Semi7\Data\091019pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	09/11/2019 11:58:09	09/11/2019 11:58:37	09/11/2019 11:58:52	09/11/2019 11:59:10	09/11/2019 11:59:30

	Level 6
Amount	200
Area	59292399

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:12:57
User: JJY
Instrument: Semi 7

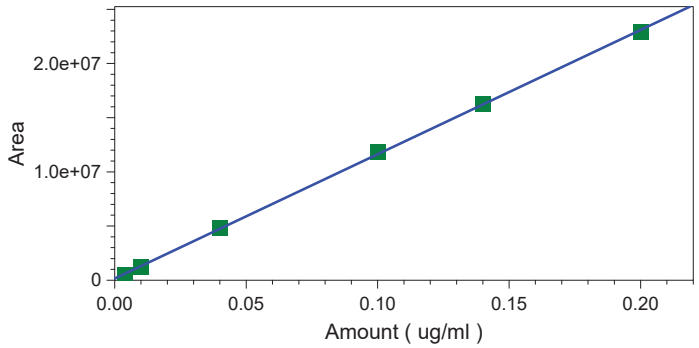
RF	296461.995
Last Area	
Residual	0.458403
Rep StDev	
Rep %RSD	
Rep 1 Area	59292399
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	09/11/2019 11:59:47

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:07
User: JJY
Instrument: Semi 7

Aroclor 1016 #1 (front detector)
Average RF: 1.19500e+008 RF StDev: 3.84179e+006 RF %RSD: 3.21490
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 1.14709e+008x + 157674.
Goodness of fit (r^2): 0.999758

Peak: Aroclor 1016 #1 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	489054	1250209	4812226	11857477	16247827
RF	122263500	125020900	120305650	118574770	116055907.142857
Last Area Residual	0.00111111	0.000475556	-0.0005772	-0.0019959	-0.000269854
Rep StDev					
Rep %RSD					
Rep 1 Area	489054	1250209	4812226	11857477	16247827
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\020.dat	C:\Instarch\Semi7\Data\091019pcbic\021.dat	C:\Instarch\Semi7\Data\091019pcbic\022.dat	C:\Instarch\Semi7\Data\091019pcbic\023.dat	C:\Instarch\Semi7\Data\091019pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	09/11/2019 11:58:09	09/11/2019 11:58:37	09/11/2019 11:58:52	09/11/2019 11:59:10	09/11/2019 11:59:30

	Level 6
Amount	0.2
Area	22955279

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:07
User: JJY
Instrument: Semi 7

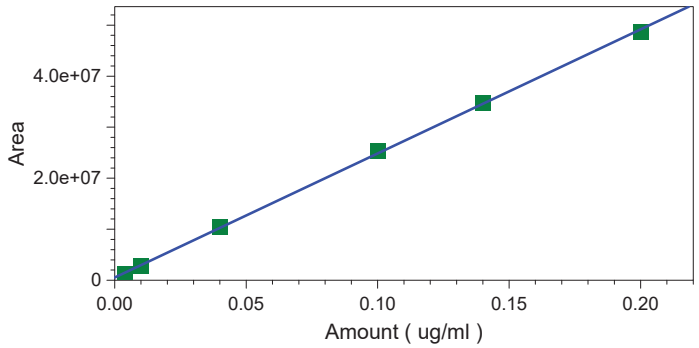
RF	114776395
Last Area	
Residual	0.00125629
Rep StDev	
Rep %RSD	
Rep 1 Area	22955279
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	09/11/2019 11:59:47

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:08
User: JJY
Instrument: Semi 7

Aroclor 1016 #2 (front detector)
Average RF: 2.61487e+008 RF StDev: 1.58608e+007 RF %RSD: 6.06561
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 2.43239e+008x + 527272.
Goodness of fit (r^2): 0.999615

Peak: Aroclor 1016 #2 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	1114596	2817882	10511942	25360108	34760929
RF	278649000	281788200	262798550	253601080	248292350
Last Area Residual	0.00158541	0.000582886	-0.0010488	-0.00209232	-0.000740806
Rep StDev					
Rep %RSD					
Rep 1 Area	1114596	2817882	10511942	25360108	34760929
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\020.dat	C:\Instarch\Semi7\Data\091019pcbic\021.dat	C:\Instarch\Semi7\Data\091019pcbic\022.dat	C:\Instarch\Semi7\Data\091019pcbic\023.dat	C:\Instarch\Semi7\Data\091019pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	09/11/2019 11:58:09	09/11/2019 11:58:37	09/11/2019 11:58:52	09/11/2019 11:59:10	09/11/2019 11:59:30

	Level 6
Amount	0.2
Area	48758256
RF	243791280

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:08
User: JJY
Instrument: Semi 7

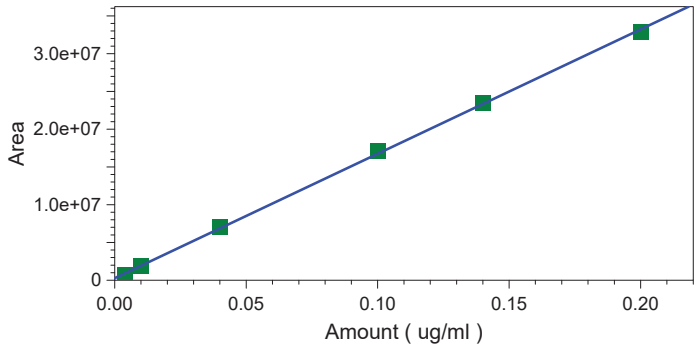
Last Area Residual	0.00171363
Rep StDev	
Rep %RSD	
Rep 1 Area	48758256
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	09/11/2019 11:59:47

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:10
User: JJY
Instrument: Semi 7

Aroclor 1016 #3 (front detector)
Average RF: 1.69900e+008 RF StDev: 8.71019e+006 RF %RSD: 5.12666
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 1.64817e+008x + 258704.
Goodness of fit (r^2): 0.999590

Peak: Aroclor 1016 #3 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	631093	1826705	7033775	17089483	23455914
RF	157773250	182670500	175844375	170894830	167542242.857143
Last Area Residual	0.00174059	0.000486414	-0.00110663	-0.00211799	-0.000745261
Rep StDev					
Rep %RSD					
Rep 1 Area	631093	1826705	7033775	17089483	23455914
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\020.dat	C:\Instarch\Semi7\Data\091019pcbic\021.dat	C:\Instarch\Semi7\Data\091019pcbic\022.dat	C:\Instarch\Semi7\Data\091019pcbic\023.dat	C:\Instarch\Semi7\Data\091019pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	09/11/2019 11:58:09	09/11/2019 11:58:37	09/11/2019 11:58:52	09/11/2019 11:59:10	09/11/2019 11:59:30

	Level 6
Amount	0.2
Area	32934847

Calibration Report

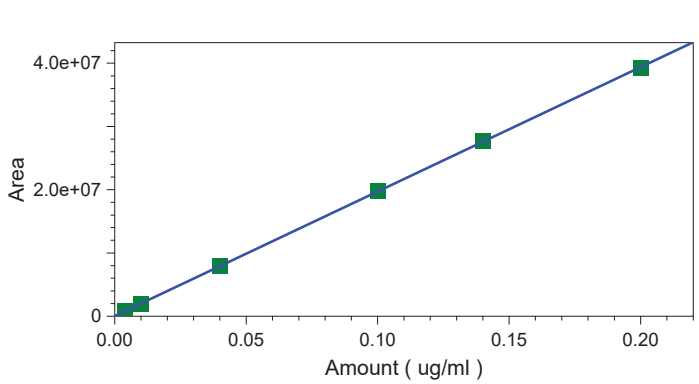
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Print Time: 09/16/2019 09:13:10
User: JJY
Instrument: Semi 7

RF	164674235
Last Area	
Residual	0.00174287
Rep StDev	
Rep %RSD	
Rep 1 Area	32934847
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	09/11/2019 11:59:47

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:11
User: JJY
Instrument: Semi 7

Aroclor 1016 #4 (front detector)
Average RF: 1.97213e+008 RF StDev: 2.19068e+006 RF %RSD: 1.11082
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 1.96737e+008x + 44188.1
Goodness of fit (r^2): 0.999986



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	773209	1991199	7974552	19733224	27653192
RF	193302250	199119900	199363800	197332240	197522800
Last Area Residual	0.000294441	0.000103488	-0.00030945	-7.79045e-005	-0.000334512
Rep StDev					
Rep %RSD					
Rep 1 Area	773209	1991199	7974552	19733224	27653192
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\020.dat	C:\Instarch\Semi7\Data\091019pcbic\021.dat	C:\Instarch\Semi7\Data\091019pcbic\022.dat	C:\Instarch\Semi7\Data\091019pcbic\023.dat	C:\Instarch\Semi7\Data\091019pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	09/11/2019 11:58:09	09/11/2019 11:58:37	09/11/2019 11:58:52	09/11/2019 11:59:10	09/11/2019 11:59:30

	Level 6
Amount	0.2
Area	39327876
RF	196639380

Calibration Report

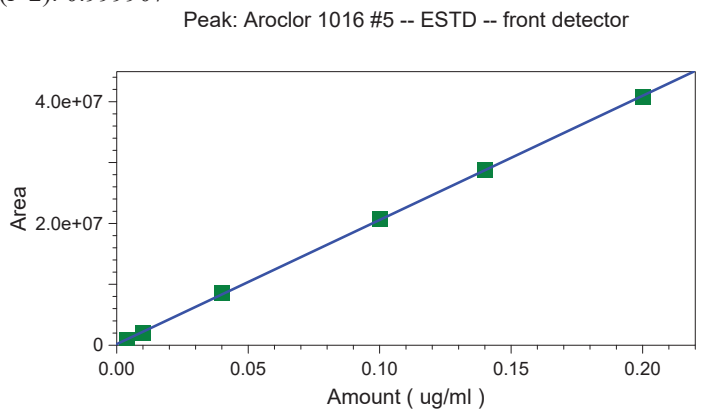
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Print Time: 09/16/2019 09:13:11
User: JJY
Instrument: Semi 7

Last Area Residual	0.000323938
Rep StDev	
Rep %RSD	
Rep 1 Area	39327876
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	09/11/2019 11:59:47

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:13
User: JJY
Instrument: Semi 7

Aroclor 1016 #5 (front detector)
Average RF: 2.09552e+008 RF StDev: 6.59738e+006 RF %RSD: 3.14832
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 2.03961e+008x + 172974.
Goodness of fit (r^2): 0.999907



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	885150	2058336	8533681	20740386	28729524
RF	221287500	205833600	213342025	207403860	205210885.714286
Last Area Residual	0.000508266	0.000756243	-0.000991779	-0.000840132	-1.01424e-005
Rep StDev					
Rep %RSD					
Rep 1 Area	885150	2058336	8533681	20740386	28729524
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\020.dat	C:\Instarch\Semi7\Data\091019pcbic\021.dat	C:\Instarch\Semi7\Data\091019pcbic\022.dat	C:\Instarch\Semi7\Data\091019pcbic\023.dat	C:\Instarch\Semi7\Data\091019pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	09/11/2019 11:58:09	09/11/2019 11:58:37	09/11/2019 11:58:52	09/11/2019 11:59:10	09/11/2019 11:59:30

	Level 6
Amount	0.2
Area	40847294

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:13
User: JJY
Instrument: Semi 7

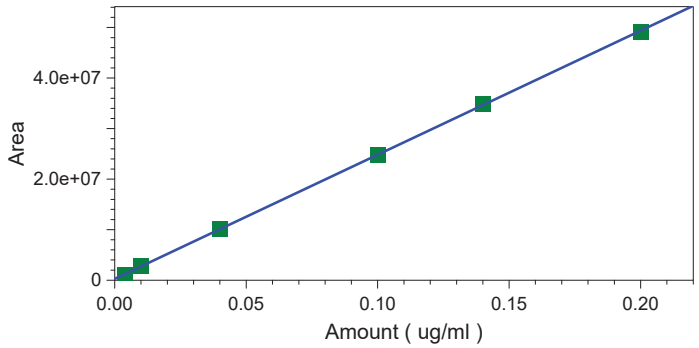
RF	204236470
Last Area	
Residual	0.000577544
Rep StDev	
Rep %RSD	
Rep 1 Area	40847294
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	09/11/2019 11:59:47

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:14
User: JJY
Instrument: Semi 7

Aroclor 1260 #1 (front detector)
Average RF: 2.57120e+008 RF StDev: 1.23891e+007 RF %RSD: 4.81843
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 2.45617e+008x + 265924.
Goodness of fit (r^2): 0.999932

Peak: Aroclor 1260 #1 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	1075813	2759655	10173303	24819313	34890261
RF	268953250	275965500	254332575	248193130	249216150
Last Area Residual	0.000702629	-0.000152942	-0.000336763	3.36792e-005	-0.000969036
Rep StDev					
Rep %RSD					
Rep 1 Area	1075813	2759655	10173303	24819313	34890261
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\020.dat	C:\Instarch\Semi7\Data\091019pcbic\021.dat	C:\Instarch\Semi7\Data\091019pcbic\022.dat	C:\Instarch\Semi7\Data\091019pcbic\023.dat	C:\Instarch\Semi7\Data\091019pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	09/11/2019 11:58:09	09/11/2019 11:58:37	09/11/2019 11:58:52	09/11/2019 11:59:10	09/11/2019 11:59:30

	Level 6
Amount	0.2
Area	49211805
RF	246059025

Calibration Report

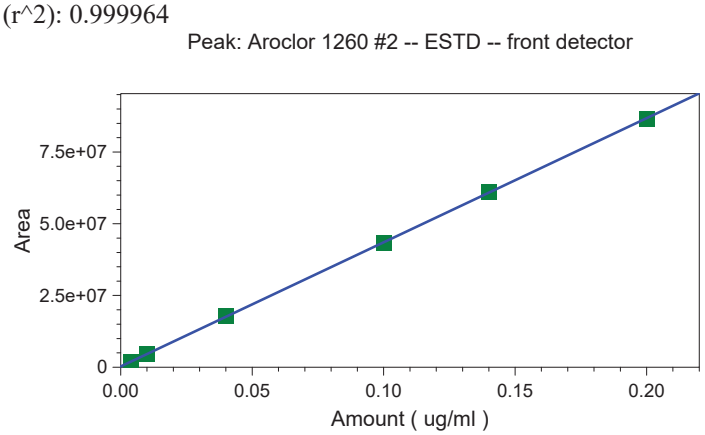
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:14
User: JJY
Instrument: Semi 7

Last Area Residual	0.000722433
Rep StDev	
Rep %RSD	
Rep 1 Area	49211805
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	09/11/2019 11:59:47

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:16
User: JJY
Instrument: Semi 7

Aroclor 1260 #2 (front detector)
Average RF: 4.44997e+008 RF StDev: 1.44435e+007 RF %RSD: 3.24575
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 4.32733e+008x + 255615.
Goodness of fit (r^2): 0.999964



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	1825611	4685388	17682772	43284335	61132765
RF	456402750	468538800	442069300	432843350	436662607.142857
Last Area Residual	0.000371903	-0.000236745	-0.000272348	0.000565102	-0.000680764
Rep StDev					
Rep %RSD					
Rep 1 Area	1825611	4685388	17682772	43284335	61132765
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\020.dat	C:\Instarch\Semi7\Data\091019pcbic\021.dat	C:\Instarch\Semi7\Data\091019pcbic\022.dat	C:\Instarch\Semi7\Data\091019pcbic\023.dat	C:\Instarch\Semi7\Data\091019pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	09/11/2019 11:58:09	09/11/2019 11:58:37	09/11/2019 11:58:52	09/11/2019 11:59:10	09/11/2019 11:59:30

	Level 6
Amount	0.2
Area	86692713

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:16
User: JJY
Instrument: Semi 7

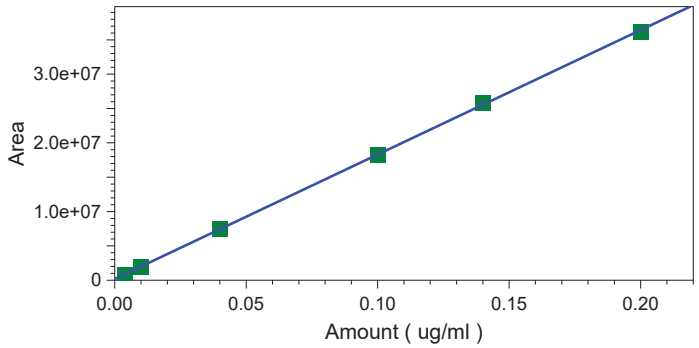
RF	433463565
Last Area	
Residual	0.000252853
Rep StDev	
Rep %RSD	
Rep 1 Area	86692713
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	09/11/2019 11:59:47

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:17
User: JJY
Instrument: Semi 7

Aroclor 1260 #3 (front detector)
Average RF: 1.87854e+008 RF StDev: 6.27129e+006 RF %RSD: 3.33839
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 1.81298e+008x + 181239.
Goodness of fit (r^2): 0.999829

Peak: Aroclor 1260 #3 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	771555	1974211	7521311	18285276	25874732
RF	192888750	197421100	188032775	182852760	184819514.285714
Last Area Residual	0.000743946	0.000110355	-0.00048625	0.000142045	-0.00171975
Rep StDev					
Rep %RSD					
Rep 1 Area	771555	1974211	7521311	18285276	25874732
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\020.dat	C:\Instarch\Semi7\Data\091019pcbic\021.dat	C:\Instarch\Semi7\Data\091019pcbic\022.dat	C:\Instarch\Semi7\Data\091019pcbic\023.dat	C:\Instarch\Semi7\Data\091019pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	09/11/2019 11:58:09	09/11/2019 11:58:37	09/11/2019 11:58:52	09/11/2019 11:59:10	09/11/2019 11:59:30

	Level 6
Amount	0.2
Area	36221509

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:17
User: JJY
Instrument: Semi 7

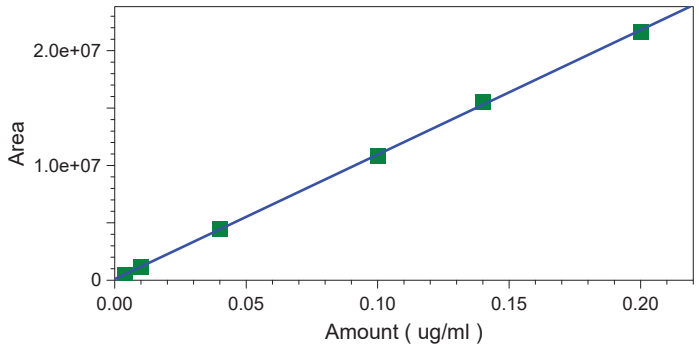
RF	181107545
Last Area	
Residual	0.00120966
Rep StDev	
Rep %RSD	
Rep 1 Area	36221509
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	09/11/2019 11:59:47

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:19
User: JJY
Instrument: Semi 7

Aroclor 1260 #4 (front detector)
Average RF: 1.12992e+008 RF StDev: 4.98443e+006 RF %RSD: 4.41130
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 1.08521e+008x + 98173.6
Goodness of fit (r^2): 0.999773

Peak: Aroclor 1260 #4 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	481467	1178860	4470144	10867610	15526163
RF	120366750	117886000	111753600	108676100	110901164.285714
Last Area Residual	0.000468029	4.16942e-005	-0.00028682	0.00076183	-0.00216579
Rep StDev					
Rep %RSD					
Rep 1 Area	481467	1178860	4470144	10867610	15526163
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\020.dat	C:\Instarch\Semi7\Data\091019pcbic\021.dat	C:\Instarch\Semi7\Data\091019pcbic\022.dat	C:\Instarch\Semi7\Data\091019pcbic\023.dat	C:\Instarch\Semi7\Data\091019pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	09/11/2019 11:58:09	09/11/2019 11:58:37	09/11/2019 11:58:52	09/11/2019 11:59:10	09/11/2019 11:59:30

	Level 6
Amount	0.2
Area	21674226

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:19
User: JJY
Instrument: Semi 7

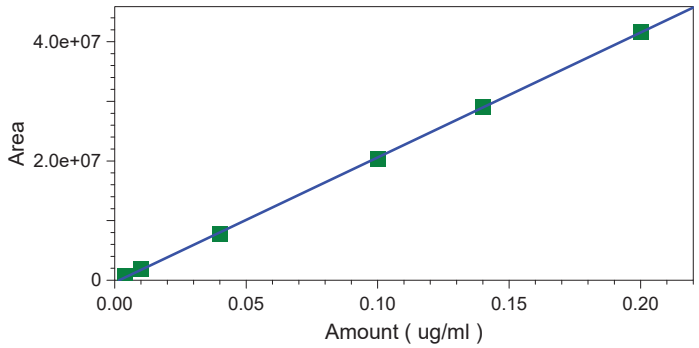
RF	108371130
Last Area	
Residual	0.00118106
Rep StDev	
Rep %RSD	
Rep 1 Area	21674226
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	09/11/2019 11:59:47

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:20
User: JJY
Instrument: Semi 7

Aroclor 1260 #5 (front detector)
Average RF: 1.97267e+008 RF StDev: 1.11371e+007 RF %RSD: 5.64571
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 2.09448e+008x - 351888.
Goodness of fit (r^2): 0.999756

Peak: Aroclor 1260 #5 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	717315	1932677	7694122	20285260	29011016
RF	179328750	193267700	192353050	202852600	207221542.857143
Last Area Residual	-0.00110485	-0.000907529	0.00158478	0.0014691	-0.000191535
Rep StDev					
Rep %RSD					
Rep 1 Area	717315	1932677	7694122	20285260	29011016
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\020.dat	C:\Instarch\Semi7\Data\091019pcbic\021.dat	C:\Instarch\Semi7\Data\091019pcbic\022.dat	C:\Instarch\Semi7\Data\091019pcbic\023.dat	C:\Instarch\Semi7\Data\091019pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	09/11/2019 11:58:09	09/11/2019 11:58:37	09/11/2019 11:58:52	09/11/2019 11:59:10	09/11/2019 11:59:30

	Level 6
Amount	0.2
Area	41715830

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:20
User: JJY
Instrument: Semi 7

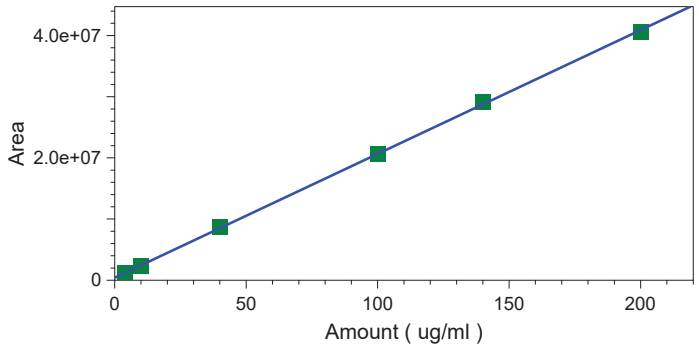
RF	208579150
Last Area	
Residual	-0.000849955
Rep StDev	
Rep %RSD	
Rep 1 Area	41715830
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	09/11/2019 11:59:47

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:22
User: JJY
Instrument: Semi 7

SURRDCBPCB (front detector)
Average RF: 224005. RF StDev: 26989.0 RF %RSD: 12.0484
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 202483.x + 413915.
Goodness of fit (r^2): 0.999843

Peak: SURRDCBPCB -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	4	10	40	100	140
Area	1091929	2374613	8641254	20644898	29083038
RF	272982.25	237461.3	216031.35	206448.98	207735.985714286
Last Area Residual	0.651501	0.316728	-0.632242	0.0855345	-1.58779
Rep StDev					
Rep %RSD					
Rep 1 Area	1091929	2374613	8641254	20644898	29083038
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\020.dat	C:\Instarch\Semi7\Data\091019pcbic\021.dat	C:\Instarch\Semi7\Data\091019pcbic\022.dat	C:\Instarch\Semi7\Data\091019pcbic\023.dat	C:\Instarch\Semi7\Data\091019pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	09/11/2019 11:58:09	09/11/2019 11:58:37	09/11/2019 11:58:52	09/11/2019 11:59:10	09/11/2019 11:59:30

	Level 6
Amount	200
Area	40674371

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:22
User: JJY
Instrument: Semi 7

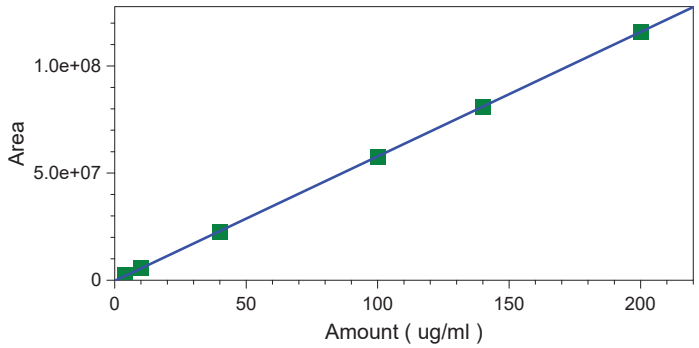
RF	203371.855
Last Area	
Residual	1.16626
Rep StDev	
Rep %RSD	
Rep 1 Area	40674371
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	09/11/2019 11:59:47

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:29
User: JJY
Instrument: Semi 7

SURRTCMXPCB (back detector)
Average RF: 576311. RF StDev: 8867.65 RF %RSD: 1.53869
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 580839.x - 281570.
Goodness of fit (r^2): 0.999957

Peak: SURRTCMXPCB -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	4	10	40	100	140
Area	2357651	5705571	22544041	57481345	81060859
RF	589412.75	570557.1	563601.025	574813.45	579006.135714286
Last Area Residual	-0.543808	-0.307746	0.702344	0.552623	-0.0429886
Rep StDev					
Rep %RSD					
Rep 1 Area	2357651	5705571	22544041	57481345	81060859
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\020.dat	C:\Instarch\Semi7\Data\091019pcbic\021.dat	C:\Instarch\Semi7\Data\091019pcbic\022.dat	C:\Instarch\Semi7\Data\091019pcbic\023.dat	C:\Instarch\Semi7\Data\091019pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	09/11/2019 11:58:09	09/11/2019 11:58:37	09/11/2019 11:58:52	09/11/2019 11:59:10	09/11/2019 11:59:30

	Level 6
Amount	200
Area	116095578

Calibration Report

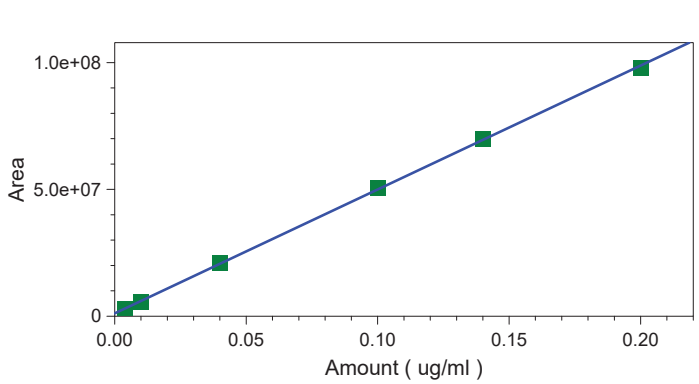
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Print Time: 09/16/2019 09:13:29
User: JJY
Instrument: Semi 7

RF	580477.89
Last Area	
Residual	-0.360425
Rep StDev	
Rep %RSD	
Rep 1 Area	116095578
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	09/11/2019 11:59:47

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:31
User: JJY
Instrument: Semi 7

Aroclor 1016 #1 (back detector)
Average RF: 5.42189e+008 RF StDev: 6.80684e+007 RF %RSD: 12.5544
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 4.88590e+008x + 1.10369e+006
Goodness of fit (r^2): 0.999762



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	2684969	5624931	20865970	50737667	70004952
RF	671242250	562493100	521649250	507376670	500035371.428571
Last Area Residual	0.000763585	0.000746346	-0.000447582	-0.00158617	-0.00102064
Rep StDev					
Rep %RSD					
Rep 1 Area	2684969	5624931	20865970	50737667	70004952
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\020.dat	C:\Instarch\Semi7\Data\091019pcbic\021.dat	C:\Instarch\Semi7\Data\091019pcbic\022.dat	C:\Instarch\Semi7\Data\091019pcbic\023.dat	C:\Instarch\Semi7\Data\091019pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	09/11/2019 11:58:09	09/11/2019 11:58:37	09/11/2019 11:58:52	09/11/2019 11:59:10	09/11/2019 11:59:30

	Level 6
Amount	0.2
Area	98067066

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:31
User: JJY
Instrument: Semi 7

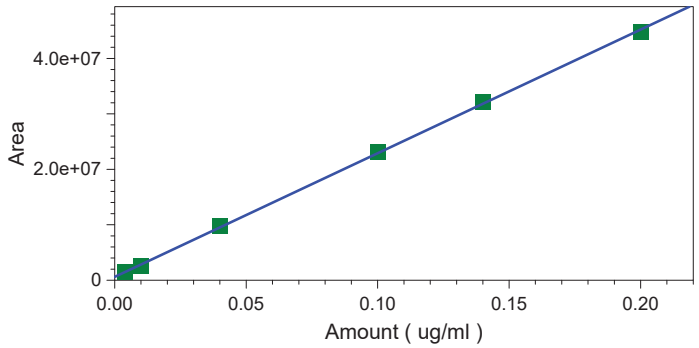
RF	490335330
Last Area	
Residual	0.00154446
Rep StDev	
Rep %RSD	
Rep 1 Area	98067066
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	09/11/2019 11:59:47

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:32
User: JJY
Instrument: Semi 7

Aroclor 1016 #2 (back detector)
Average RF: 2.53947e+008 RF StDev: 4.28030e+007 RF %RSD: 16.8551
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 2.23048e+008x + 596231.
Goodness of fit (r^2): 0.999750

Peak: Aroclor 1016 #2 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	1351337	2577664	9715871	23165136	32091955
RF	337834250	257766400	242896775	231651360	229228250
Last Area Residual	0.000614602	0.00111656	-0.000886458	-0.0011841	-0.00120608
Rep StDev					
Rep %RSD					
Rep 1 Area	1351337	2577664	9715871	23165136	32091955
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\020.dat	C:\Instarch\Semi7\Data\091019pcbic\021.dat	C:\Instarch\Semi7\Data\091019pcbic\022.dat	C:\Instarch\Semi7\Data\091019pcbic\023.dat	C:\Instarch\Semi7\Data\091019pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	09/11/2019 11:58:09	09/11/2019 11:58:37	09/11/2019 11:58:52	09/11/2019 11:59:10	09/11/2019 11:59:30

	Level 6
Amount	0.2
Area	44861102
RF	224305510

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:32
User: JJY
Instrument: Semi 7

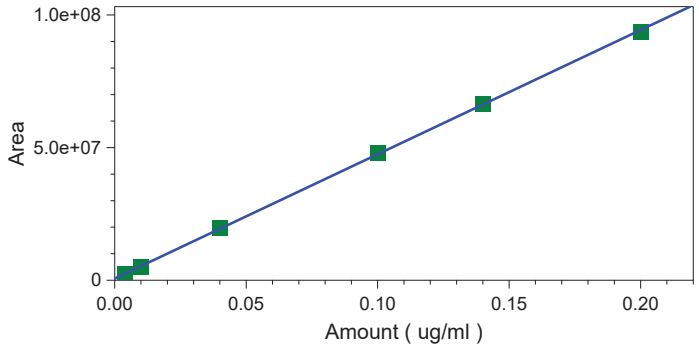
Last Area Residual	0.00154548
Rep StDev	
Rep %RSD	
Rep 1 Area	44861102
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	09/11/2019 11:59:47

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:34
User: JJY
Instrument: Semi 7

Aroclor 1016 #3 (back detector)
Average RF: 4.92917e+008 RF StDev: 2.26984e+007 RF %RSD: 4.60491
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 4.68531e+008x + 661792.
Goodness of fit (r^2): 0.999837

Peak: Aroclor 1016 #3 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	2113252	5104353	19733270	48062211	66612849
RF	528313000	510435300	493331750	480622110	475806064.285714
Last Area Residual	0.000902107	0.000518114	-0.00070481	-0.00116809	-0.000761261
Rep StDev					
Rep %RSD					
Rep 1 Area	2113252	5104353	19733270	48062211	66612849
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\020.dat	C:\Instarch\Semi7\Data\091019pcbic\021.dat	C:\Instarch\Semi7\Data\091019pcbic\022.dat	C:\Instarch\Semi7\Data\091019pcbic\023.dat	C:\Instarch\Semi7\Data\091019pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	09/11/2019 11:58:09	09/11/2019 11:58:37	09/11/2019 11:58:52	09/11/2019 11:59:10	09/11/2019 11:59:30

	Level 6
Amount	0.2
Area	93799282

Calibration Report

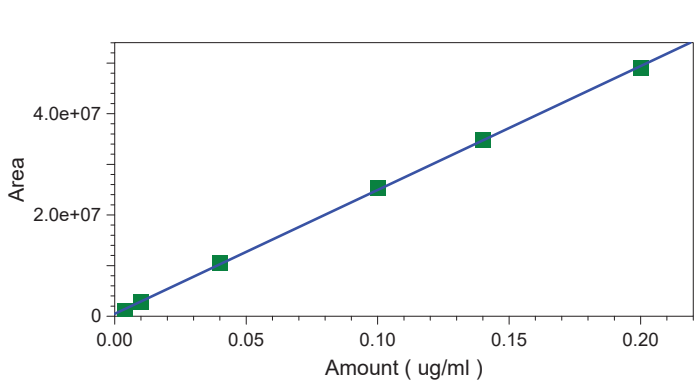
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:34
User: JJY
Instrument: Semi 7

RF	468996410
Last Area	
Residual	0.00121394
Rep StDev	
Rep %RSD	
Rep 1 Area	93799282
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	09/11/2019 11:59:47

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:35
User: JJY
Instrument: Semi 7

Aroclor 1016 #4 (back detector)
Average RF: 2.60725e+008 RF StDev: 1.39116e+007 RF %RSD: 5.33575
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 2.44679e+008x + 464733.
Goodness of fit (r^2): 0.999755



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	1095275	2793143	10566453	25298841	34782764
RF	273818750	279314300	264161325	252988410	248448314.285714
Last Area Residual	0.00142298	0.000483811	-0.00128564	-0.00149678	-0.000257483
Rep StDev					
Rep %RSD					
Rep 1 Area	1095275	2793143	10566453	25298841	34782764
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\020.dat	C:\Instarch\Semi7\Data\091019pcbic\021.dat	C:\Instarch\Semi7\Data\091019pcbic\022.dat	C:\Instarch\Semi7\Data\091019pcbic\023.dat	C:\Instarch\Semi7\Data\091019pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	09/11/2019 11:58:09	09/11/2019 11:58:37	09/11/2019 11:58:52	09/11/2019 11:59:10	09/11/2019 11:59:30

	Level 6
Amount	0.2
Area	49123244

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:35
User: JJY
Instrument: Semi 7

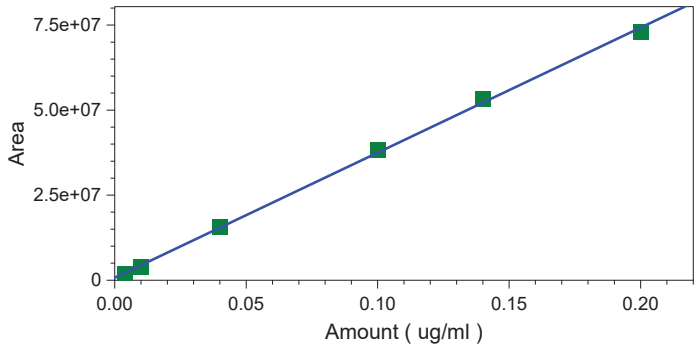
RF	245616220
Last Area	
Residual	0.0011331
Rep StDev	
Rep %RSD	
Rep 1 Area	49123244
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	09/11/2019 11:59:47

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:36
User: JJY
Instrument: Semi 7

Aroclor 1016 #5 (back detector)
Average RF: 3.94426e+008 RF StDev: 2.89353e+007 RF %RSD: 7.33604
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 3.67540e+008x + 741828.
Goodness of fit (r^2): 0.999192

Peak: Aroclor 1016 #5 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	1795747	3994519	15582073	38252163	53265489
RF	448936750	399451900	389551825	382521630	380467778.57 1429
Last Area Residual	0.00113251	0.00115011	-0.000377215	-0.00205781	-0.00290594
Rep StDev					
Rep %RSD					
Rep 1 Area	1795747	3994519	15582073	38252163	53265489
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\020.dat	C:\Instarch\Semi7\Data\091019pcbic\021.dat	C:\Instarch\Semi7\Data\091019pcbic\022.dat	C:\Instarch\Semi7\Data\091019pcbic\023.dat	C:\Instarch\Semi7\Data\091019pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	09/11/2019 11:58:09	09/11/2019 11:58:37	09/11/2019 11:58:52	09/11/2019 11:59:10	09/11/2019 11:59:30

	Level 6
Amount	0.2
Area	73125781

Calibration Report

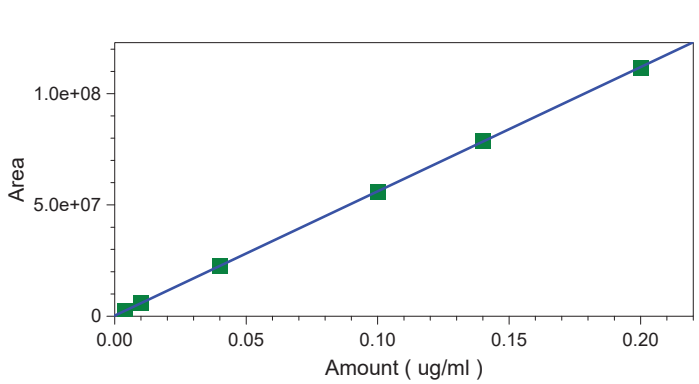
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:36
User: JJY
Instrument: Semi 7

RF	365628905
Last Area	
Residual	0.00305835
Rep StDev	
Rep %RSD	
Rep 1 Area	73125781
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	09/11/2019 11:59:47

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:38
User: JJY
Instrument: Semi 7

Aroclor 1260 #1 (back detector)
Average RF: 5.72029e+008 RF StDev: 1.54128e+007 RF %RSD: 2.69441
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 5.58331e+008x + 292198.
Goodness of fit (r^2): 0.999968



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	2351778	5944355	22748136	55894740	78865014
RF	587944500	594435500	568703400	558947400	563321528.571429
Last Area Residual	0.000311183	-0.000123314	-0.000219781	0.000412886	-0.000728098
Rep StDev					
Rep %RSD					
Rep 1 Area	2351778	5944355	22748136	55894740	78865014
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\020.dat	C:\Instarch\Semi7\Data\091019pcbic\021.dat	C:\Instarch\Semi7\Data\091019pcbic\022.dat	C:\Instarch\Semi7\Data\091019pcbic\023.dat	C:\Instarch\Semi7\Data\091019pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	09/11/2019 11:58:09	09/11/2019 11:58:37	09/11/2019 11:58:52	09/11/2019 11:59:10	09/11/2019 11:59:30

	Level 6
Amount	0.2
Area	111764526

Calibration Report

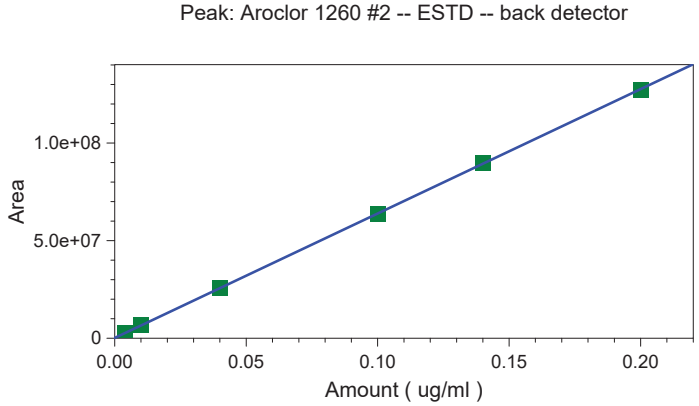
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Print Time: 09/16/2019 09:13:38
User: JJY
Instrument: Semi 7

RF	558822630
Last Area	
Residual	0.000347124
Rep StDev	
Rep %RSD	
Rep 1 Area	111764526
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	09/11/2019 11:59:47

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:39
User: JJY
Instrument: Semi 7

Aroclor 1260 #2 (back detector)
Average RF: 6.41516e+008 RF StDev: 7.68175e+006 RF %RSD: 1.19744
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 6.37660e+008x + 105878.
Goodness of fit (r^2): 0.999953



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	2546088	6555214	25723080	63431779	89946681
RF	636522000	655521400	643077000	634317790	642476292.857143
Last Area Residual	0.00017318	-0.000114068	-0.000173768	0.000690168	-0.000891404
Rep StDev					
Rep %RSD					
Rep 1 Area	2546088	6555214	25723080	63431779	89946681
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\020.dat	C:\Instarch\Semi7\Data\091019pcbic\021.dat	C:\Instarch\Semi7\Data\091019pcbic\022.dat	C:\Instarch\Semi7\Data\091019pcbic\023.dat	C:\Instarch\Semi7\Data\091019pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	09/11/2019 11:58:09	09/11/2019 11:58:37	09/11/2019 11:58:52	09/11/2019 11:59:10	09/11/2019 11:59:30

	Level 6
Amount	0.2
Area	127436433

Calibration Report

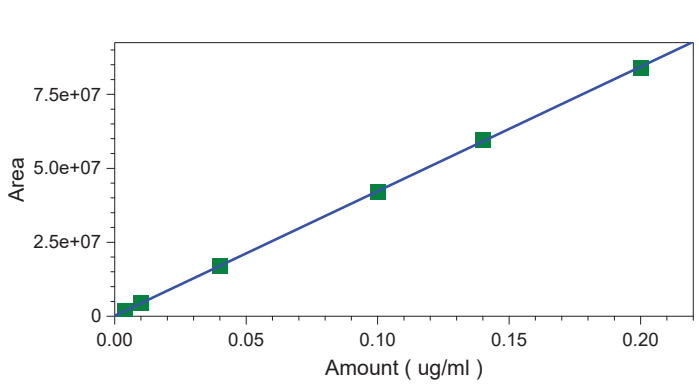
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Print Time: 09/16/2019 09:13:39
User: JJY
Instrument: Semi 7

RF	637182165
Last Area	
Residual	0.000315892
Rep StDev	
Rep %RSD	
Rep 1 Area	127436433
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	09/11/2019 11:59:47

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:43
User: JJY
Instrument: Semi 7

Aroclor 1260 #3 (back detector)
Average RF: 4.31031e+008 RF StDev: 1.19069e+007 RF %RSD: 2.76243
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 4.20695e+008x + 215317.
Goodness of fit (r^2): 0.999925



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	1792330	4436731	17092682	42070800	59636762
RF	448082500	443673100	427317050	420708000	425976871.428571
Last Area Residual	0.000251408	-3.43858e-005	-0.000117833	0.000508682	-0.00124596
Rep StDev					
Rep %RSD					
Rep 1 Area	1792330	4436731	17092682	42070800	59636762
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\020.dat	C:\Instarch\Semi7\Data\091019pcbic\021.dat	C:\Instarch\Semi7\Data\091019pcbic\022.dat	C:\Instarch\Semi7\Data\091019pcbic\023.dat	C:\Instarch\Semi7\Data\091019pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	09/11/2019 11:58:09	09/11/2019 11:58:37	09/11/2019 11:58:52	09/11/2019 11:59:10	09/11/2019 11:59:30

	Level 6
Amount	0.2
Area	84085843

Calibration Report

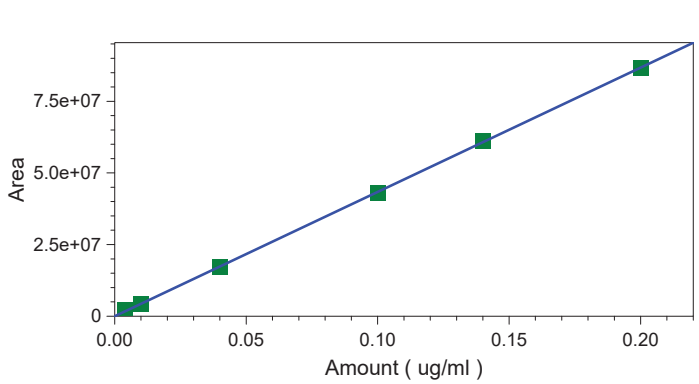
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Print Time: 09/16/2019 09:13:43
User: JJY
Instrument: Semi 7

RF	420429215
Last Area	
Residual	0.000638088
Rep StDev	
Rep %RSD	
Rep 1 Area	84085843
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	09/11/2019 11:59:47

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:45
User: JJY
Instrument: Semi 7

Aroclor 1260 #4 (back detector)
Average RF: 4.45115e+008 RF StDev: 2.97823e+007 RF %RSD: 6.69093
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 4.33603e+008x + 14324.9
Goodness of fit (r^2): 0.999921



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	2022322	4363583	17206436	42867806	61033017
RF	505580500	436358300	430160900	428678060	435950121.428571
Last Area Residual	-0.000630962	-3.05166e-005	0.000350535	0.00116876	-0.000724922
Rep StDev					
Rep %RSD					
Rep 1 Area	2022322	4363583	17206436	42867806	61033017
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\020.dat	C:\Instarch\Semi7\Data\091019pcbic\021.dat	C:\Instarch\Semi7\Data\091019pcbic\022.dat	C:\Instarch\Semi7\Data\091019pcbic\023.dat	C:\Instarch\Semi7\Data\091019pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	09/11/2019 11:58:09	09/11/2019 11:58:37	09/11/2019 11:58:52	09/11/2019 11:59:10	09/11/2019 11:59:30

	Level 6
Amount	0.2
Area	86792470

Calibration Report

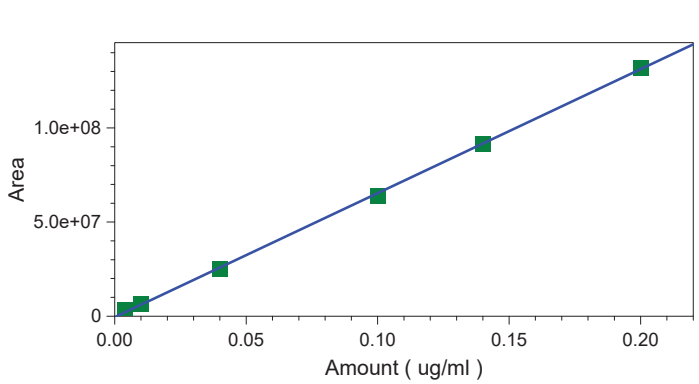
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Print Time: 09/16/2019 09:13:45
User: JJY
Instrument: Semi 7

RF	433962350
Last Area	
Residual	-0.000132898
Rep StDev	
Rep %RSD	
Rep 1 Area	86792470
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	09/11/2019 11:59:47

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:46
User: JJY
Instrument: Semi 7

Aroclor 1260 #5 (back detector)
Average RF: 6.69302e+008 RF StDev: 5.71388e+007 RF %RSD: 8.53707
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 6.58793e+008x - 499129.
Goodness of fit (r^2): 0.999653



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	3132737	6516166	25038608	63975600	91634195
RF	783184250	651616600	625965200	639756000	654529964.285714
Last Area Residual	-0.00151291	-0.000648711	0.00123556	0.00213201	0.000148257
Rep StDev					
Rep %RSD					
Rep 1 Area	3132737	6516166	25038608	63975600	91634195
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\020.dat	C:\Instarch\Semi7\Data\091019pcbic\021.dat	C:\Instarch\Semi7\Data\091019pcbic\022.dat	C:\Instarch\Semi7\Data\091019pcbic\023.dat	C:\Instarch\Semi7\Data\091019pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	09/11/2019 11:58:09	09/11/2019 11:58:37	09/11/2019 11:58:52	09/11/2019 11:59:10	09/11/2019 11:59:30

	Level 6
Amount	0.2
Area	132151573

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:46
User: JJY
Instrument: Semi 7

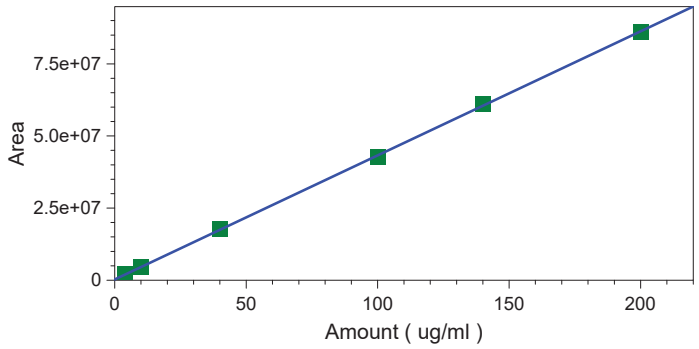
RF	660757865
Last Area	
Residual	-0.0013542
Rep StDev	
Rep %RSD	
Rep 1 Area	132151573
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	09/11/2019 11:59:47

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:48
User: JJY
Instrument: Semi 7

SURRDCBPCB (back detector)
Average RF: 447650. RF StDev: 23271.1 RF %RSD: 5.19850
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 430200.x + 266460.
Goodness of fit (r^2): 0.999870

Peak: SURRDCBPCB -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	4	10	40	100	140
Area	1943603	4658817	17630463	42636195	61018706
RF	485900.75	465881.7	440761.575	426361.95	435847.9
Last Area					
Residual	0.10148	-0.210035	-0.36263	1.51154	-1.21861
Rep StDev					
Rep %RSD					
Rep 1 Area	1943603	4658817	17630463	42636195	61018706
Rep 1 User	AJZ	AJZ	AJZ	AJZ	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\020.dat	C:\Instarch\Semi7\Data\091019pcbic\021.dat	C:\Instarch\Semi7\Data\091019pcbic\022.dat	C:\Instarch\Semi7\Data\091019pcbic\023.dat	C:\Instarch\Semi7\Data\091019pcbic\024.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP 5962	PCB ICAL PT 2 PP 5963	PCB ICAL PT 3 PP 5964	PCB ICAL PT 4 PP 5965	PCB ICAL PT 5 PP 5966
Rep 1 Calib. Time	09/11/2019 11:58:09	09/11/2019 11:58:37	09/11/2019 11:58:52	09/11/2019 11:59:10	09/11/2019 11:59:30

	Level 6
Amount	200
Area	86229773
RF	431148.865

Calibration Report

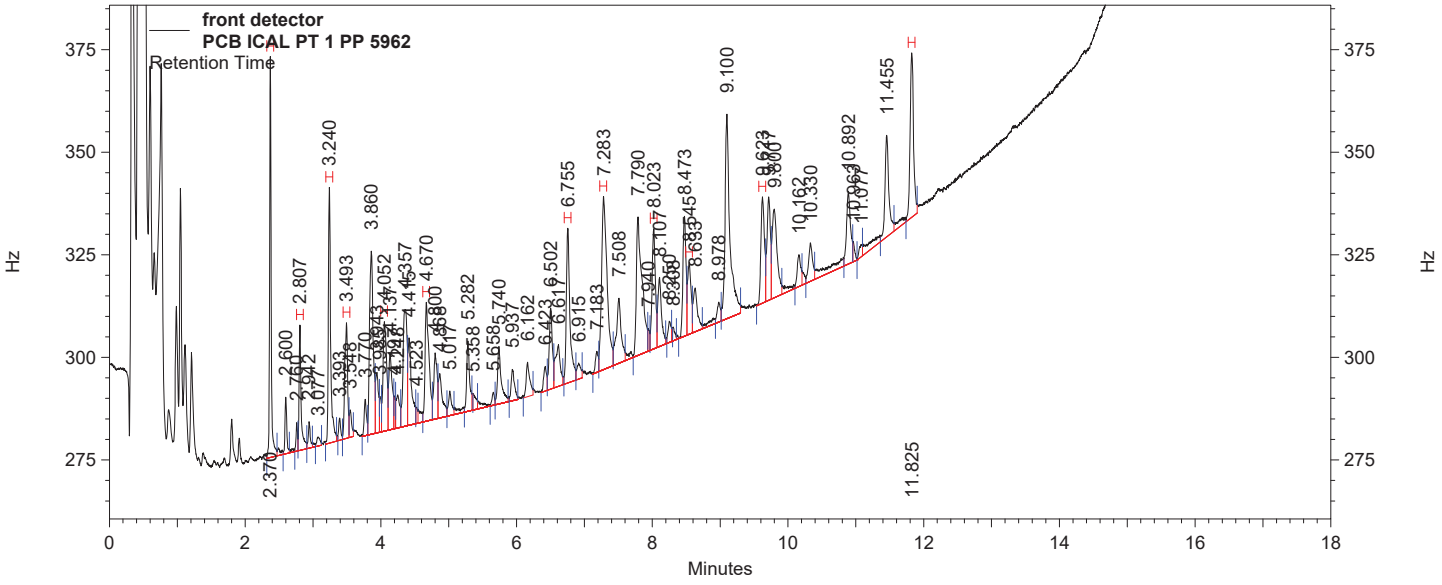
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
Print Time: 09/16/2019 09:13:48
User: JJY
Instrument: Semi 7

Last Area Residual	0.178256
Rep StDev	
Rep %RSD	
Rep 1 Area	86229773
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\025.dat
Rep 1 Sample ID	PCB ICAL PT 6 PP 5967
Rep 1 Calib. Time	09/11/2019 11:59:47

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\020.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: PCB ICAL PT 1 PP 5962
Acquired: 09/10/2019 23:34:25
Printed: 09/16/2019 09:09:56

Data Summary: {Data Description}



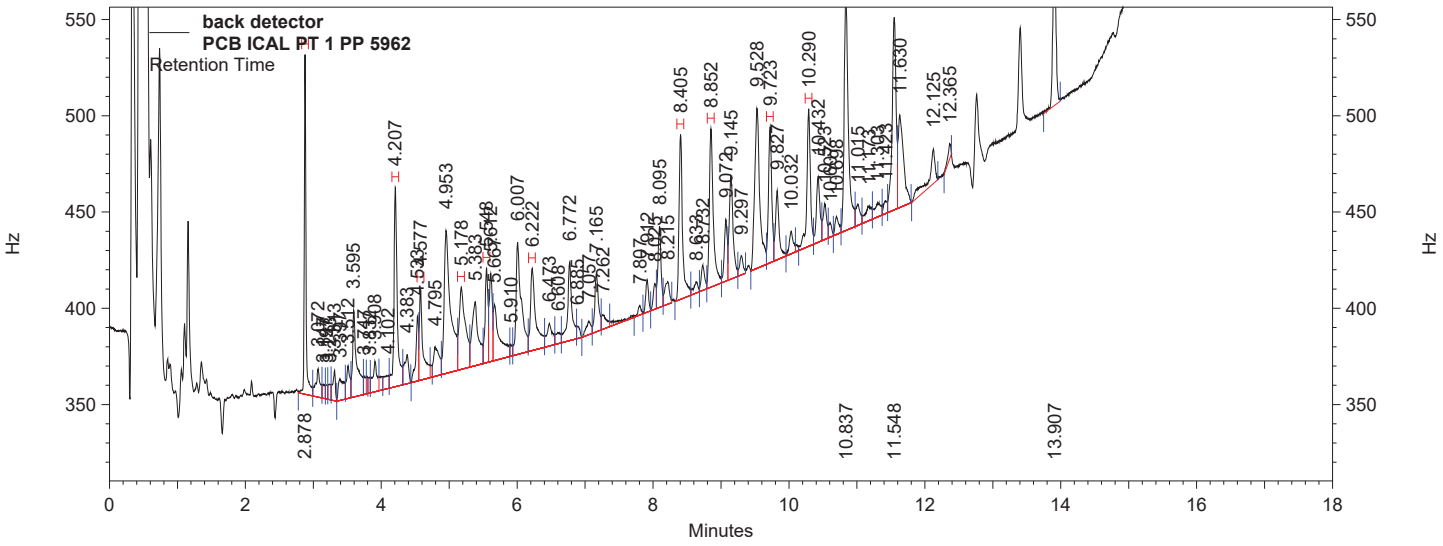
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.370	1216310	4.000 CAL
Aroclor 1016 #1	2.807	489054	0.004 CAL
Aroclor 1016 #2	3.240	1114596	0.004 CAL
Aroclor 1016 #3	3.493	631093	0.004 CAL
Aroclor 1016 #4	4.052	773209	0.004 CAL
Aroclor 1016 #5	4.670	885150	0.004 CAL
Aroclor 1260 #1	6.755	1075813	0.004 CAL
Aroclor 1260 #2	7.283	1825611	0.004 CAL
Aroclor 1260 #3	8.023	771555	0.004 CAL
Aroclor 1260 #4	8.545	481467	0.004 CAL
Aroclor 1260 #5	9.623	717315	0.004 CAL
SURRDCBPCB	11.825	1091929	4.000 CAL
Aroclor 1016		3893102	0.020 CAL
Aroclor 1260		4871761	0.020 CAL

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\020.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: PCB ICAL PT 1 PP 5962
Acquired: 09/10/2019 23:34:25
Printed: 09/16/2019 09:09:56

Data Summary: {Data Description}



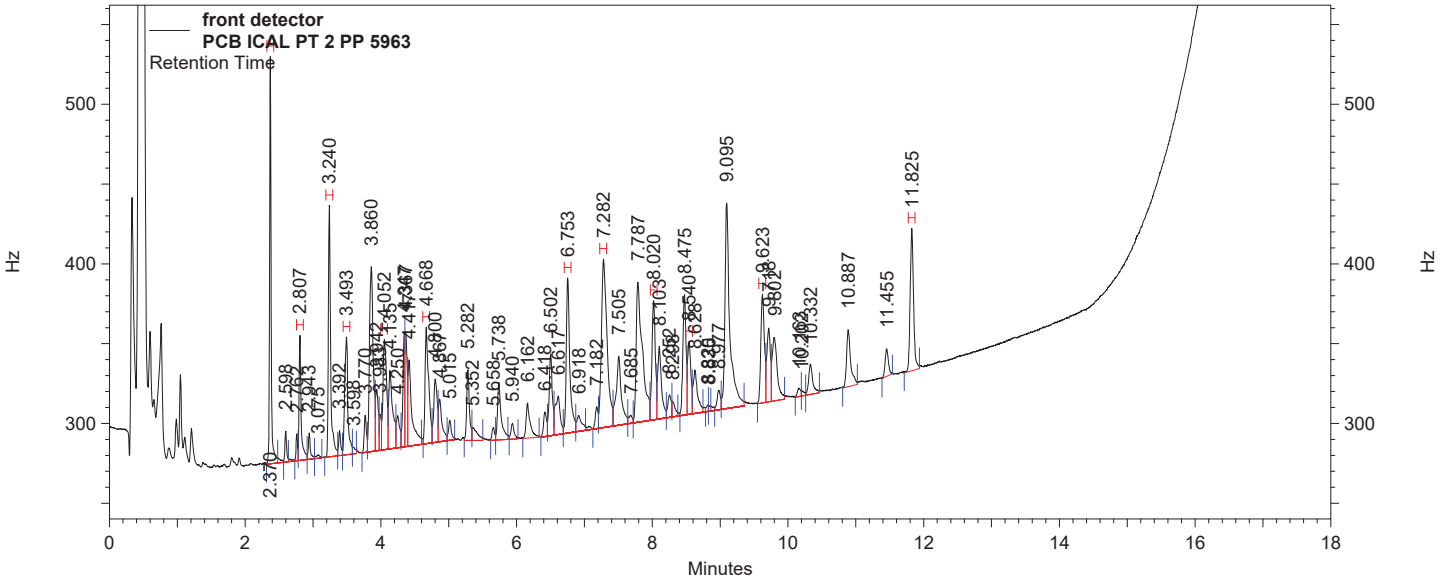
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.878	2357651	4.000 CAL
Aroclor 1016 #1	4.207	2684969	0.004 CAL
Aroclor 1016 #2	4.577	1351337	0.004 CAL
Aroclor 1016 #3	5.178	2113252	0.004 CAL
Aroclor 1016 #4	5.548	1095275	0.004 CAL
Aroclor 1016 #5	6.222	1795747	0.004 CAL
Aroclor 1260 #1	8.405	2351778	0.004 CAL
Aroclor 1260 #2	8.852	2546088	0.004 CAL
Aroclor 1260 #3	9.723	1792330	0.004 CAL
Aroclor 1260 #4	10.290	2022322	0.004 CAL
Aroclor 1260 #5	11.548	3132737	0.004 CAL
SURRDCBPCB	13.907	1943603	4.000 CAL
Aroclor 1016		9040580	0.020 CAL
Aroclor 1260		11845255	0.020 CAL

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\021.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: PCB ICAL PT 2 PP 5963
Acquired: 09/10/2019 23:55:42
Printed: 09/16/2019 09:10:13

Data Summary: {Data Description}



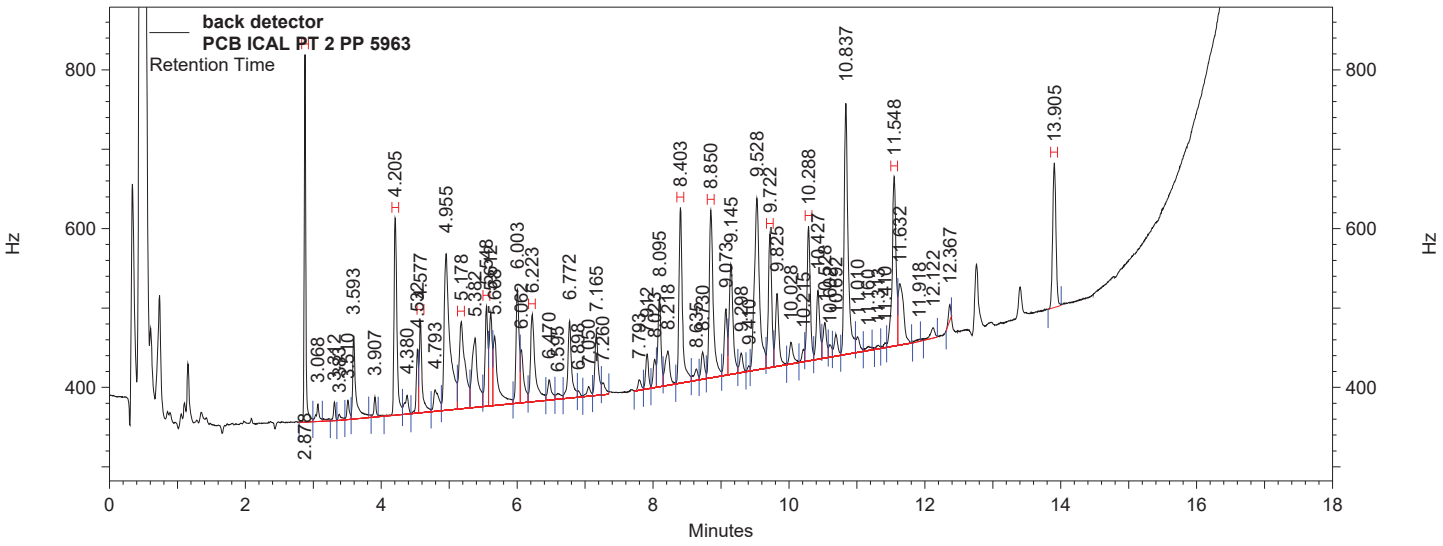
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.370	3117003	10.000 CAL
Aroclor 1016 #1	2.807	1250209	0.010 CAL
Aroclor 1016 #2	3.240	2817882	0.010 CAL
Aroclor 1016 #3	3.493	1826705	0.010 CAL
Aroclor 1016 #4	4.052	1991199	0.010 CAL
Aroclor 1016 #5	4.668	2058336	0.010 CAL
Aroclor 1260 #1	6.753	2759655	0.010 CAL
Aroclor 1260 #2	7.282	4685388	0.010 CAL
Aroclor 1260 #3	8.020	1974211	0.010 CAL
Aroclor 1260 #4	8.540	1178860	0.010 CAL
Aroclor 1260 #5	9.623	1932677	0.010 CAL
SURRDCBPCB	11.825	2374613	10.000 CAL
Aroclor 1016		9944331	0.050 CAL
Aroclor 1260		12530791	0.050 CAL

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\021.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: PCB ICAL PT 2 PP 5963
Acquired: 09/10/2019 23:55:42
Printed: 09/16/2019 09:10:13

Data Summary: {Data Description}



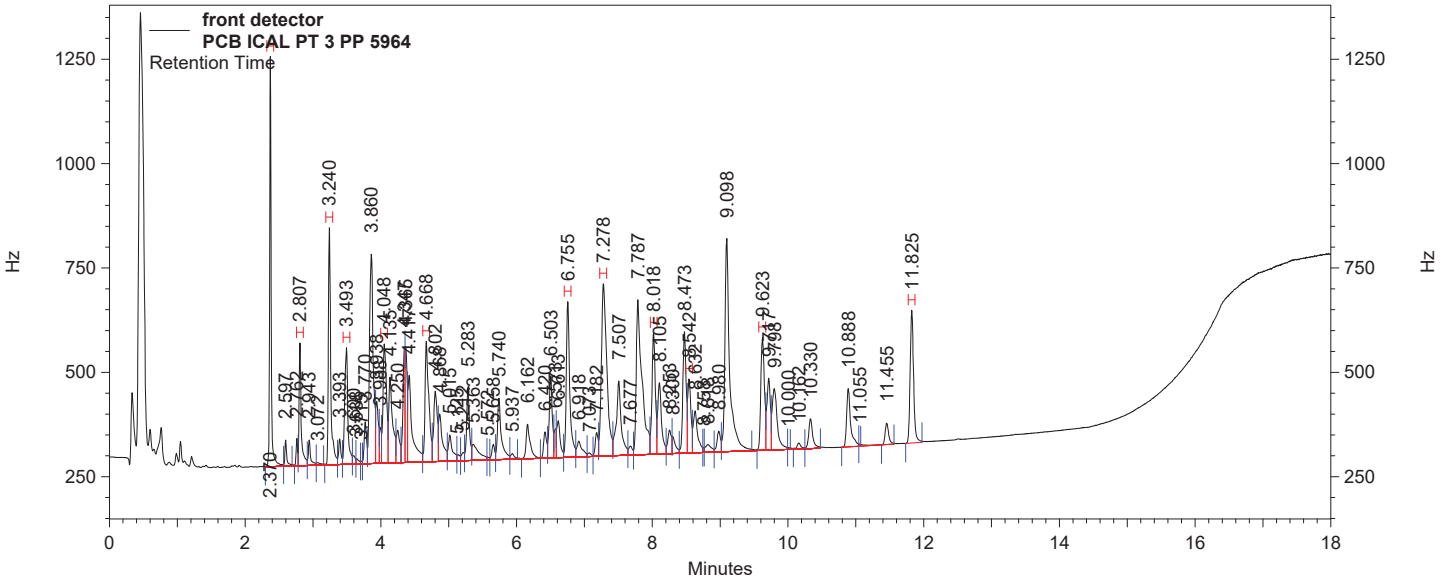
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.878	5705571	10.000 CAL
Aroclor 1016 #1	4.205	5624931	0.010 CAL
Aroclor 1016 #2	4.577	2577664	0.010 CAL
Aroclor 1016 #3	5.178	5104353	0.010 CAL
Aroclor 1016 #4	5.548	2793143	0.010 CAL
Aroclor 1016 #5	6.223	3994519	0.010 CAL
Aroclor 1260 #1	8.403	5944355	0.010 CAL
Aroclor 1260 #2	8.850	6555214	0.010 CAL
Aroclor 1260 #3	9.722	4436731	0.010 CAL
Aroclor 1260 #4	10.288	4363583	0.010 CAL
Aroclor 1260 #5	11.548	6516166	0.010 CAL
SURRDCBPCB	13.905	4658817	10.000 CAL
Aroclor 1016		20094610	0.050 CAL
Aroclor 1260		27816049	0.050 CAL

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\022.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: PCB ICAL PT 3 PP 5964
Acquired: 09/11/2019 00:16:51
Printed: 09/16/2019 09:10:16

Data Summary: {Data Description}



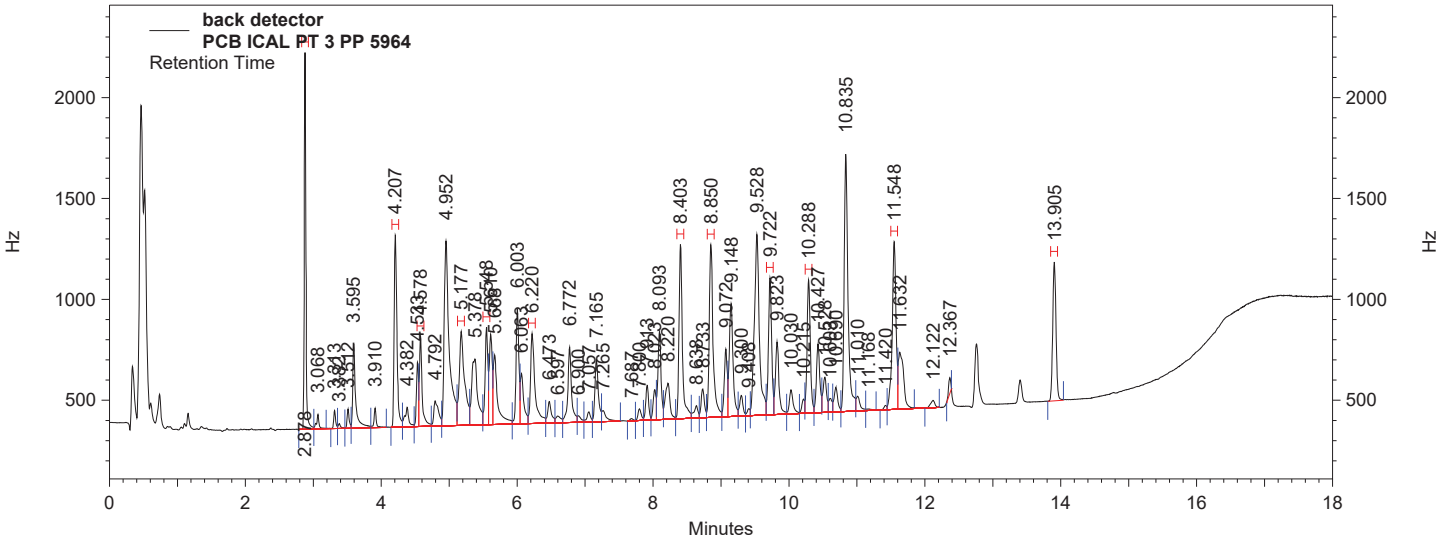
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.370	11994817	40.000 CAL
Aroclor 1016 #1	2.807	4812226	0.040 CAL
Aroclor 1016 #2	3.240	10511942	0.040 CAL
Aroclor 1016 #3	3.493	7033775	0.040 CAL
Aroclor 1016 #4	4.048	7974552	0.040 CAL
Aroclor 1016 #5	4.668	8533681	0.040 CAL
Aroclor 1260 #1	6.755	10173303	0.040 CAL
Aroclor 1260 #2	7.278	17682772	0.040 CAL
Aroclor 1260 #3	8.018	7521311	0.040 CAL
Aroclor 1260 #4	8.542	4470144	0.040 CAL
Aroclor 1260 #5	9.623	7694122	0.040 CAL
SURRDCBPCB	11.825	8641254	40.000 CAL
Aroclor 1016		38866176	0.200 CAL
Aroclor 1260		47541652	0.200 CAL

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\022.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: PCB ICAL PT 3 PP 5964
Acquired: 09/11/2019 00:16:51
Printed: 09/16/2019 09:10:16

Data Summary: {Data Description}



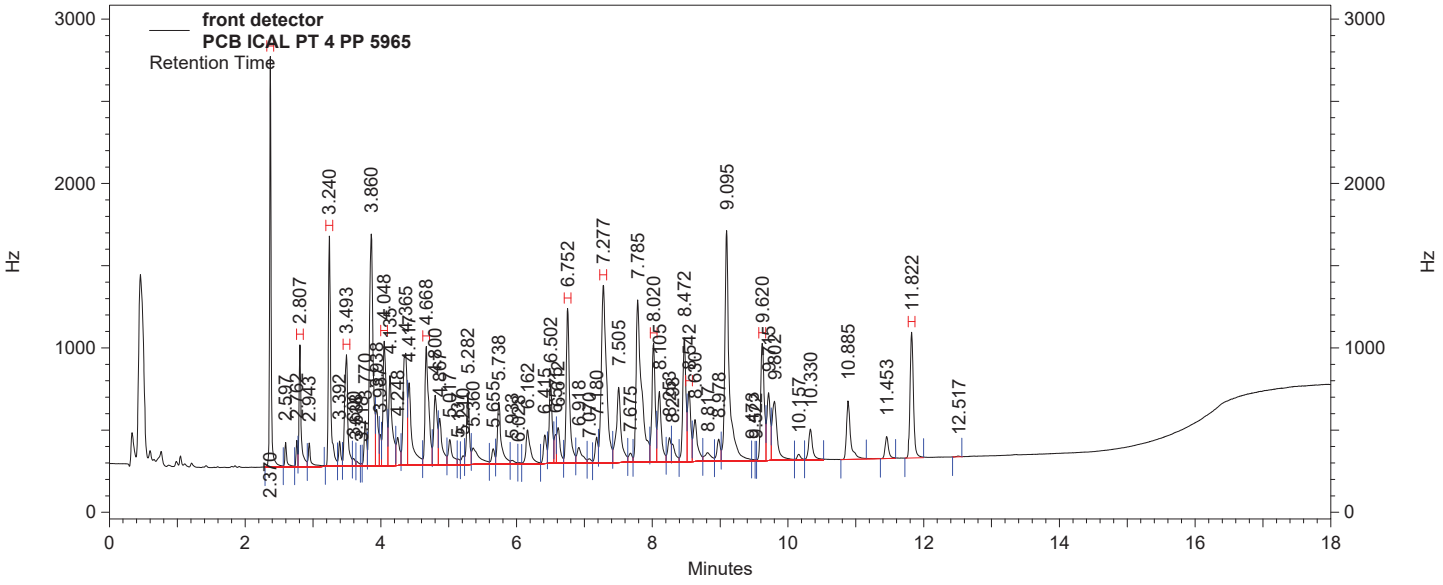
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.878	22544041	40.000 CAL
Aroclor 1016 #1	4.207	20865970	0.040 CAL
Aroclor 1016 #2	4.578	9715871	0.040 CAL
Aroclor 1016 #3	5.177	19733270	0.040 CAL
Aroclor 1016 #4	5.548	10566453	0.040 CAL
Aroclor 1016 #5	6.220	15582073	0.040 CAL
Aroclor 1260 #1	8.403	22748136	0.040 CAL
Aroclor 1260 #2	8.850	25723080	0.040 CAL
Aroclor 1260 #3	9.722	17092682	0.040 CAL
Aroclor 1260 #4	10.288	17206436	0.040 CAL
Aroclor 1260 #5	11.548	25038608	0.040 CAL
SURRDCBPCB	13.905	17630463	40.000 CAL
Aroclor 1016		76463637	0.200 CAL
Aroclor 1260		107808942	0.200 CAL

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\023.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: PCB ICAL PT 4 PP 5965
Acquired: 09/11/2019 00:38:07
Printed: 09/16/2019 09:10:18

Data Summary: {Data Description}



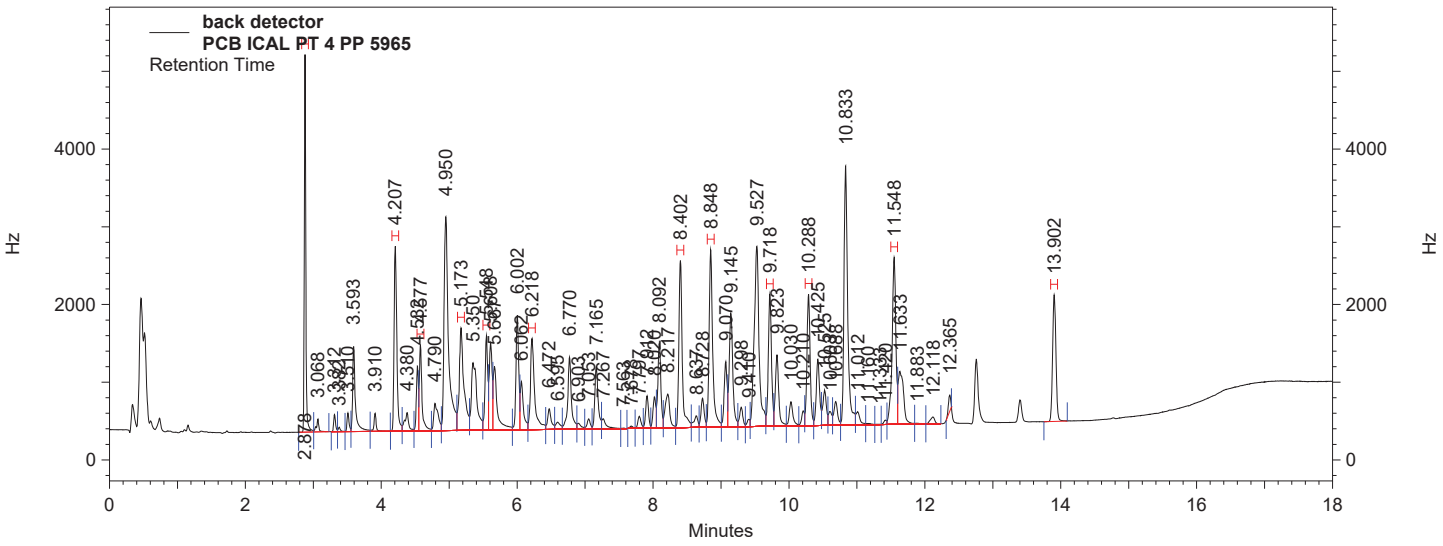
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.370	30032750	100.000 CAL
Aroclor 1016 #1	2.807	11857477	0.100 CAL
Aroclor 1016 #2	3.240	25360108	0.100 CAL
Aroclor 1016 #3	3.493	17089483	0.100 CAL
Aroclor 1016 #4	4.048	19733224	0.100 CAL
Aroclor 1016 #5	4.668	20740386	0.100 CAL
Aroclor 1260 #1	6.752	24819313	0.100 CAL
Aroclor 1260 #2	7.277	43284335	0.100 CAL
Aroclor 1260 #3	8.020	18285276	0.100 CAL
Aroclor 1260 #4	8.542	10867610	0.100 CAL
Aroclor 1260 #5	9.620	20285260	0.100 CAL
SURRDCBPCB	11.822	20644898	100.000 CAL
Aroclor 1016		94780678	0.500 CAL
Aroclor 1260		117541794	0.500 CAL

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\023.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: PCB ICAL PT 4 PP 5965
Acquired: 09/11/2019 00:38:07
Printed: 09/16/2019 09:10:18

Data Summary: {Data Description}



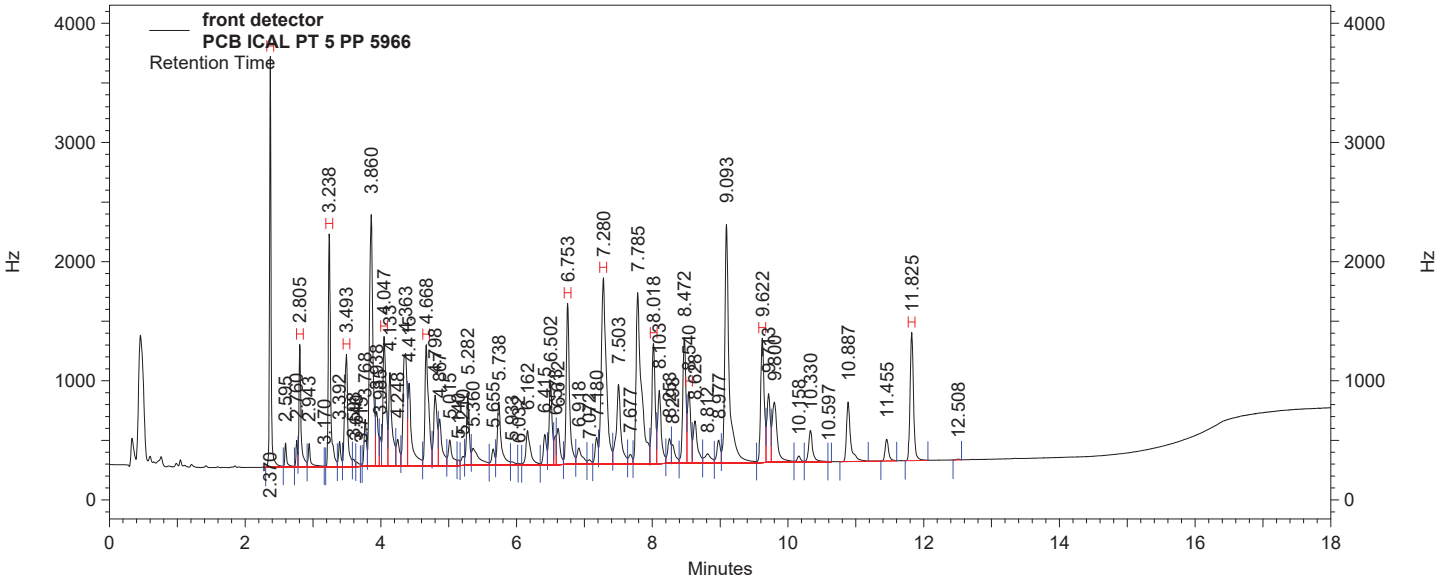
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.878	57481345	100.000 CAL
Aroclor 1016 #1	4.207	50737667	0.100 CAL
Aroclor 1016 #2	4.577	23165136	0.100 CAL
Aroclor 1016 #3	5.173	48062211	0.100 CAL
Aroclor 1016 #4	5.548	25298841	0.100 CAL
Aroclor 1016 #5	6.218	38252163	0.100 CAL
Aroclor 1260 #1	8.402	55894740	0.100 CAL
Aroclor 1260 #2	8.848	63431779	0.100 CAL
Aroclor 1260 #3	9.718	42070800	0.100 CAL
Aroclor 1260 #4	10.288	42867806	0.100 CAL
Aroclor 1260 #5	11.548	63975600	0.100 CAL
SURRDCBPCB	13.902	42636195	100.000 CAL
Aroclor 1016		185516018	0.500 CAL
Aroclor 1260		268240725	0.500 CAL

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\024.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: PCB ICAL PT 5 PP 5966
Acquired: 09/11/2019 00:59:23
Printed: 09/16/2019 09:10:20

Data Summary: {Data Description}



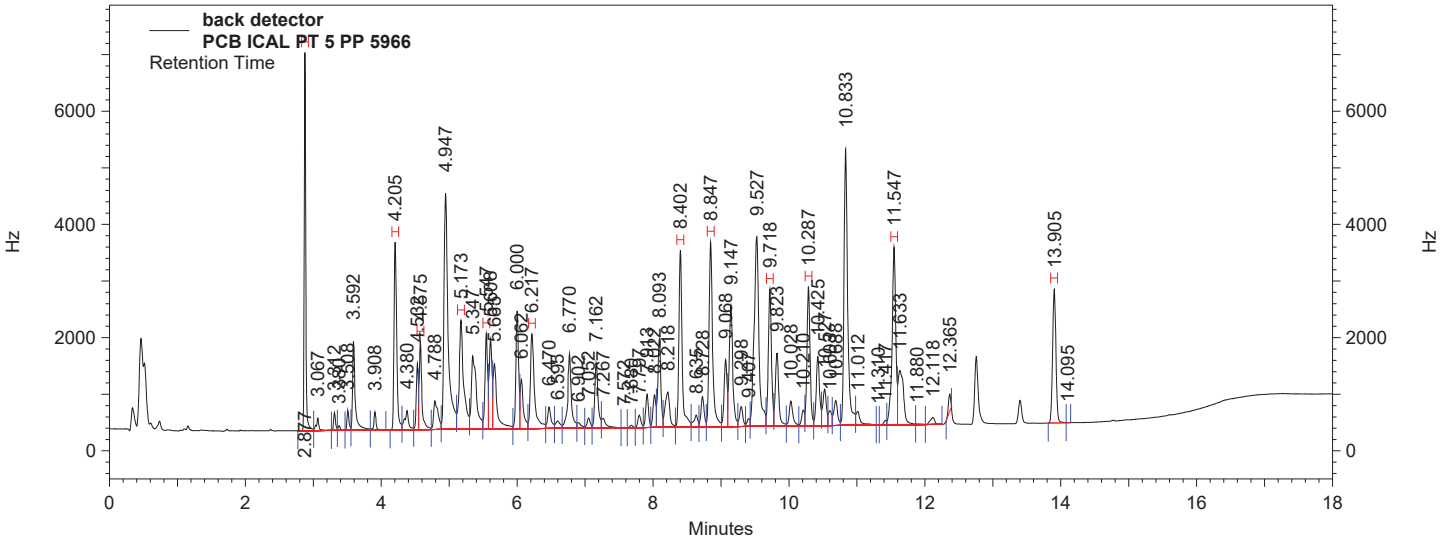
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.370	41673875	140.000 CAL
Aroclor 1016 #1	2.805	16247827	0.140 CAL
Aroclor 1016 #2	3.238	34760929	0.140 CAL
Aroclor 1016 #3	3.493	23455914	0.140 CAL
Aroclor 1016 #4	4.047	27653192	0.140 CAL
Aroclor 1016 #5	4.668	28729524	0.140 CAL
Aroclor 1260 #1	6.753	34890261	0.140 CAL
Aroclor 1260 #2	7.280	61132765	0.140 CAL
Aroclor 1260 #3	8.018	25874732	0.140 CAL
Aroclor 1260 #4	8.540	15526163	0.140 CAL
Aroclor 1260 #5	9.622	29011016	0.140 CAL
SURRDCBPCB	11.825	29083038	140.000 CAL
Aroclor 1016		130847386	0.700 CAL
Aroclor 1260		166434937	0.700 CAL

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\024.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: PCB ICAL PT 5 PP 5966
Acquired: 09/11/2019 00:59:23
Printed: 09/16/2019 09:10:20

Data Summary: {Data Description}



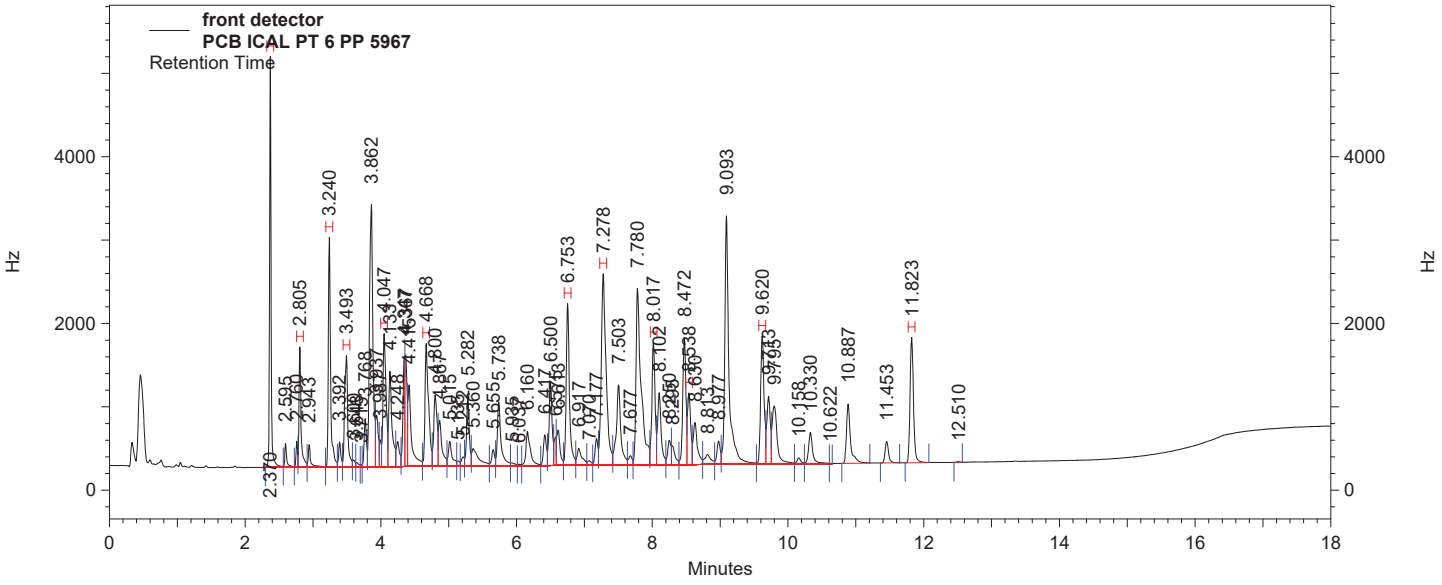
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.877	81060859	140.000 CAL
Aroclor 1016 #1	4.205	70004952	0.140 CAL
Aroclor 1016 #2	4.575	32091955	0.140 CAL
Aroclor 1016 #3	5.173	66612849	0.140 CAL
Aroclor 1016 #4	5.547	34782764	0.140 CAL
Aroclor 1016 #5	6.217	53265489	0.140 CAL
Aroclor 1260 #1	8.402	78865014	0.140 CAL
Aroclor 1260 #2	8.847	89946681	0.140 CAL
Aroclor 1260 #3	9.718	59636762	0.140 CAL
Aroclor 1260 #4	10.287	61033017	0.140 CAL
Aroclor 1260 #5	11.547	91634195	0.140 CAL
SURRDCBPCB	13.905	61018706	140.000 CAL
Aroclor 1016		256758009	0.700 CAL
Aroclor 1260		381115669	0.700 CAL

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\025.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: PCB ICAL PT 6 PP 5967
Acquired: 09/11/2019 01:20:31
Printed: 09/16/2019 09:10:23

Data Summary: {Data Description}



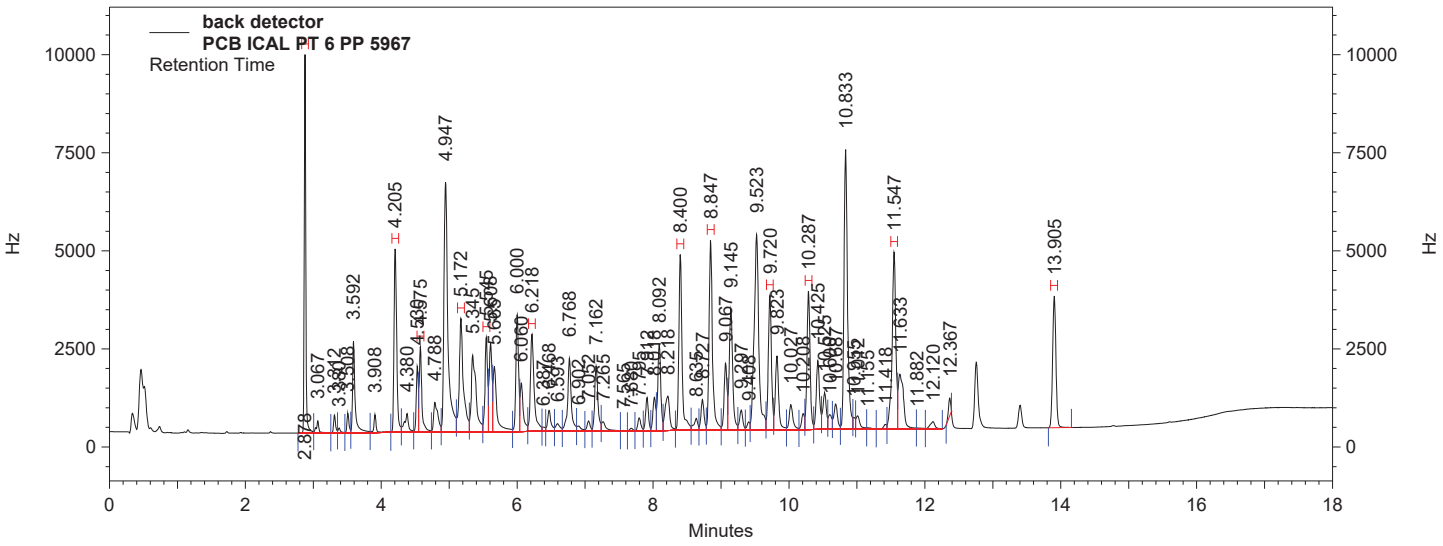
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.370	59292399	200.000 CAL
Aroclor 1016 #1	2.805	22955279	0.200 CAL
Aroclor 1016 #2	3.240	48758256	0.200 CAL
Aroclor 1016 #3	3.493	32934847	0.200 CAL
Aroclor 1016 #4	4.047	39327876	0.200 CAL
Aroclor 1016 #5	4.668	40847294	0.200 CAL
Aroclor 1260 #1	6.753	49211805	0.200 CAL
Aroclor 1260 #2	7.278	86692713	0.200 CAL
Aroclor 1260 #3	8.017	36221509	0.200 CAL
Aroclor 1260 #4	8.538	21674226	0.200 CAL
Aroclor 1260 #5	9.620	41715830	0.200 CAL
SURRDCBPCB	11.823	40674371	200.000 CAL
Aroclor 1016		184823552	1.000 CAL
Aroclor 1260		235516083	1.000 CAL

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\025.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: PCB ICAL PT 6 PP 5967
Acquired: 09/11/2019 01:20:31
Printed: 09/16/2019 09:10:23

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.878	116095578	200.000 CAL
Aroclor 1016 #1	4.205	98067066	0.200 CAL
Aroclor 1016 #2	4.575	44861102	0.200 CAL
Aroclor 1016 #3	5.172	93799282	0.200 CAL
Aroclor 1016 #4	5.545	49123244	0.200 CAL
Aroclor 1016 #5	6.218	73125781	0.200 CAL
Aroclor 1260 #1	8.400	111764526	0.200 CAL
Aroclor 1260 #2	8.847	127436433	0.200 CAL
Aroclor 1260 #3	9.720	84085843	0.200 CAL
Aroclor 1260 #4	10.287	86792470	0.200 CAL
Aroclor 1260 #5	11.547	132151573	0.200 CAL
SURRDCBPCB	13.905	86229773	200.000 CAL
Aroclor 1016		358976475	1.000 CAL
Aroclor 1260		542230845	1.000 CAL

QC Check Standard Report

Sequence : C:\Instarch\Semi7\Sequence\091019pcbic.seq
User : JJY
Printed : 09/16/2019 09:10:27

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\091019pcbic\026.dat	PCB ICV PP 5977	09/16/2019 09:10:27

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	98.667	1.333	20.000	Passed
Aroclor 1016 #1	0.100	0.086	14.229	20.000	Passed
Aroclor 1016 #2	0.100	0.086	13.828	20.000	Passed
Aroclor 1016 #3	0.100	0.087	13.317	20.000	Passed
Aroclor 1016 #4	0.100	0.085	15.186	20.000	Passed
Aroclor 1016 #5	0.100	0.086	13.600	20.000	Passed
Aroclor 1260 #1	0.100	0.095	4.969	20.000	Passed
Aroclor 1260 #2	0.100	0.095	5.197	20.000	Passed
Aroclor 1260 #3	0.100	0.096	4.252	20.000	Passed
Aroclor 1260 #4	0.100	0.097	3.040	20.000	Passed
Aroclor 1260 #5	0.100	0.094	6.420	20.000	Passed
SURRDCBPCB	100.000	105.939	5.939	20.000	Passed
Aroclor 1016	0.500	0.430	14.032	20.000	Passed
Aroclor 1260	0.500	0.476	4.776	20.000	Passed

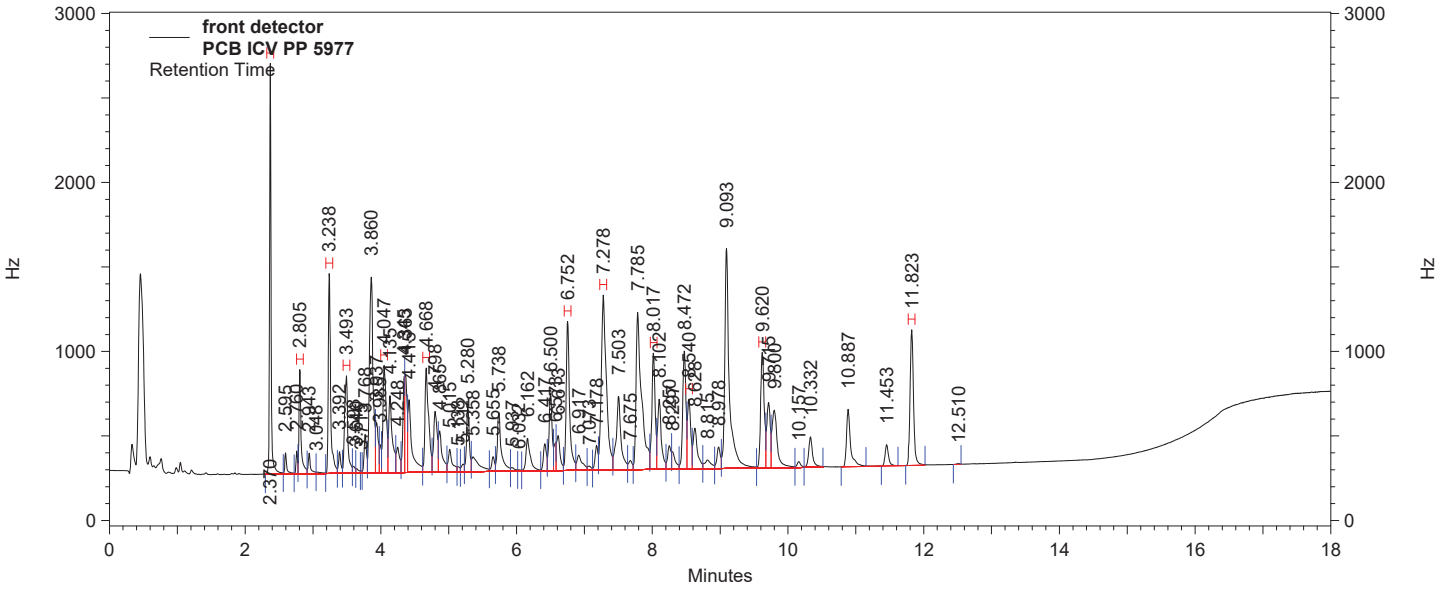
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	97.992	2.008	20.000	Passed
Aroclor 1016 #1	0.100	0.086	13.976	20.000	Passed
Aroclor 1016 #2	0.100	0.087	12.966	20.000	Passed
Aroclor 1016 #3	0.100	0.086	14.204	20.000	Passed
Aroclor 1016 #4	0.100	0.087	13.264	20.000	Passed
Aroclor 1016 #5	0.100	0.088	12.120	20.000	Passed
Aroclor 1260 #1	0.100	0.094	5.798	20.000	Passed
Aroclor 1260 #2	0.100	0.095	5.365	20.000	Passed
Aroclor 1260 #3	0.100	0.095	4.717	20.000	Passed
Aroclor 1260 #4	0.100	0.095	5.035	20.000	Passed
Aroclor 1260 #5	0.100	0.094	6.126	20.000	Passed
SURRDCBPCB	100.000	105.431	5.431	20.000	Passed
Aroclor 1016	0.500	0.433	13.306	20.000	Passed
Aroclor 1260	0.500	0.473	5.408	20.000	Passed

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\026.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: PCB ICV PP 5977
Acquired: 09/11/2019 01:41:41
Printed: 09/16/2019 09:10:26

Data Summary: {Data Description}



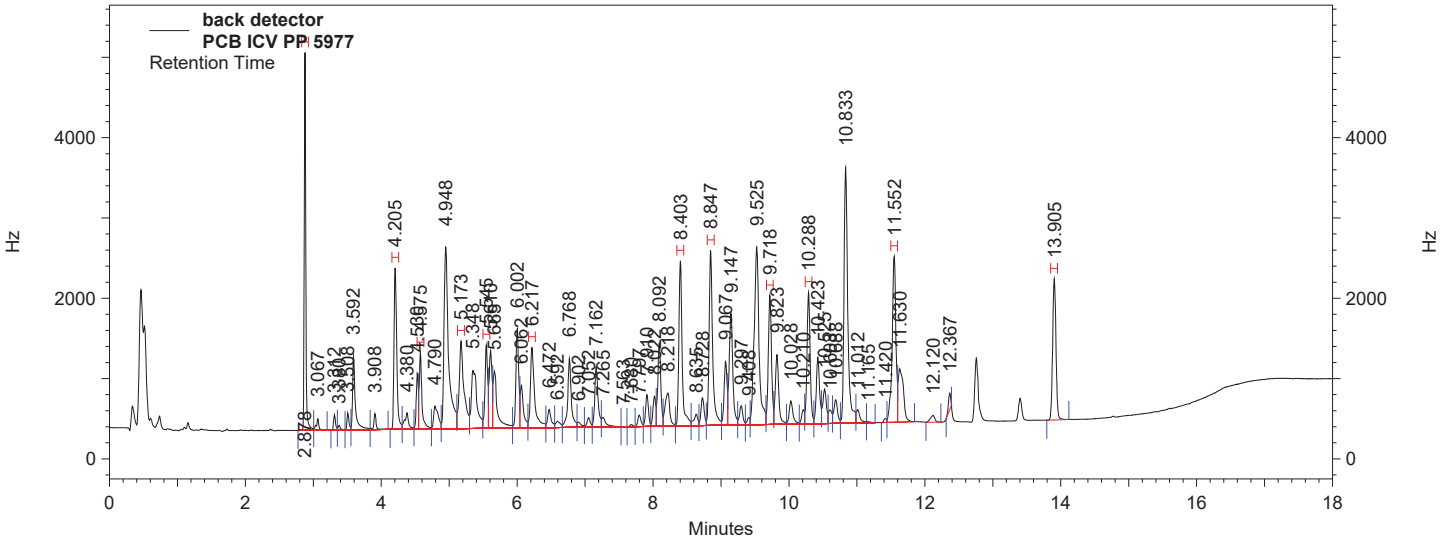
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.370	29395476	98.667
Aroclor 1016 #1	2.805	9996375	0.086
Aroclor 1016 #2	3.238	21487553	0.086
Aroclor 1016 #3	3.493	14545458	0.087
Aroclor 1016 #4	4.047	16730226	0.085
Aroclor 1016 #5	4.668	17795074	0.086
Aroclor 1260 #1	6.752	23607141	0.095
Aroclor 1260 #2	7.278	41279791	0.095
Aroclor 1260 #3	8.017	17540196	0.096
Aroclor 1260 #4	8.540	10620332	0.097
Aroclor 1260 #5	9.620	19248239	0.094
SURRDCBPCB	11.823	21864686	105.939
Aroclor 1016		80554686	0.430
Aroclor 1260		112295699	0.476

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\026.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: PCB ICV PP 5977
Acquired: 09/11/2019 01:41:41
Printed: 09/16/2019 09:10:26

Data Summary: {Data Description}



back detector Results

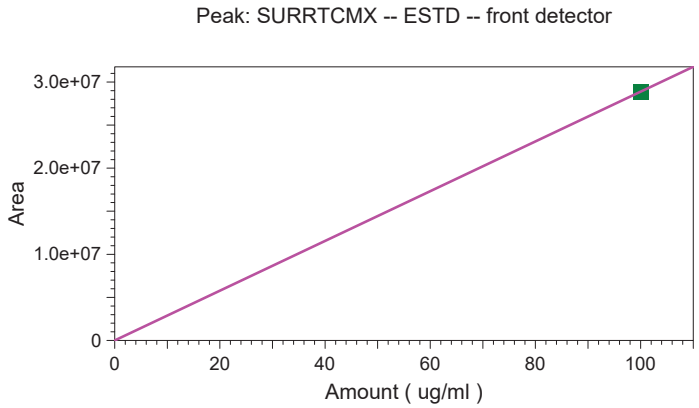
Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.878	56635787	97.992
Aroclor 1016 #1	4.205	43134048	0.086
Aroclor 1016 #2	4.575	20008992	0.087
Aroclor 1016 #3	5.173	40860130	0.086
Aroclor 1016 #4	5.545	21687297	0.087
Aroclor 1016 #5	6.217	33041333	0.088
Aroclor 1260 #1	8.403	52888222	0.094
Aroclor 1260 #2	8.847	60450740	0.095
Aroclor 1260 #3	9.718	40300386	0.095
Aroclor 1260 #4	10.288	41191600	0.095
Aroclor 1260 #5	11.552	61344206	0.094
SURRDCBPCB	13.905	45622939	105.431
Aroclor 1016		158731800	0.433
Aroclor 1260		256175154	0.473

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1221.met
Print Time: 09/16/2019 09:14:56
User: JJY
Instrument: Semi 7

SURRTCMX (front detector)
Average RF: 288832.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 288832.



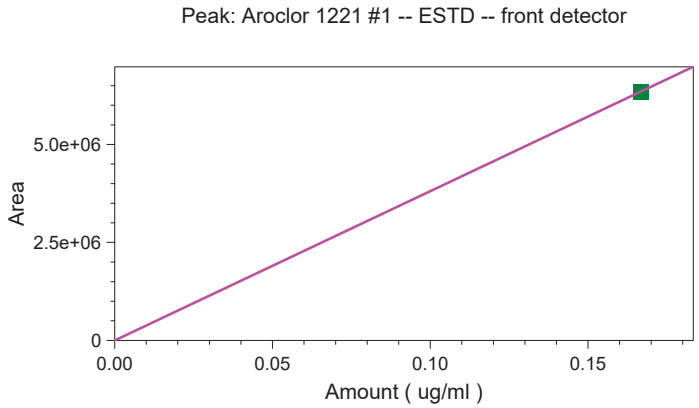
	Level 1
Amount	100
Area	28883174
RF	288831.74
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	28883174
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\003.dat
Rep 1 Sample ID	1221 CF PP5969
Rep 1 Calib. Time	09/11/2019 11:52:41

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1221.met
Print Time: 09/16/2019 09:14:58
User: JJY
Instrument: Semi 7

Aroclor 1221 #1 (front detector)
Average RF: 3.80815e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 3.80815e+007



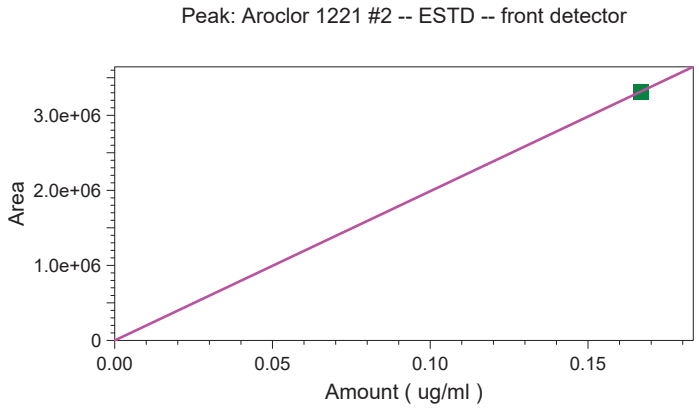
	Level 1
Amount	0.166667
Area	6346924
RF	38081544.00 00015
Last Area	
Residual	2.77556e-017
Rep StDev	
Rep %RSD	
Rep 1 Area	6346924
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\003.dat
Rep 1 Sample ID	1221 CF PP5969
Rep 1 Calib. Time	09/11/2019 11:52:41

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1221.met
Print Time: 09/16/2019 09:14:59
User: JJY
Instrument: Semi 7

Aroclor 1221 #2 (front detector)
Average RF: 1.98848e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.98848e+007



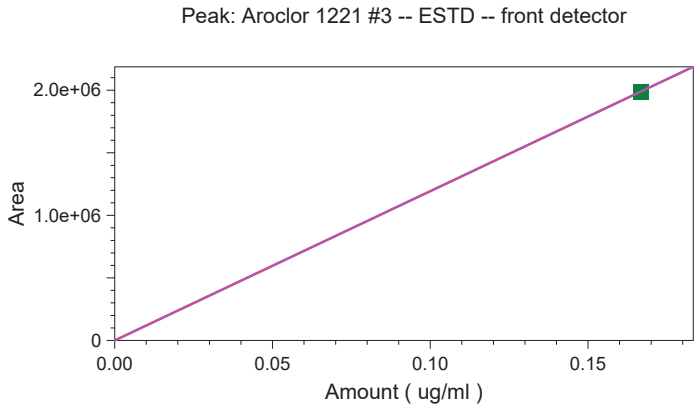
	Level 1
Amount	0.166667
Area	3314129
RF	19884774.00 00008
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	3314129
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\003.dat
Rep 1 Sample ID	1221 CF PP5969
Rep 1 Calib. Time	09/11/2019 11:52:41

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1221.met
Print Time: 09/16/2019 09:15:01
User: JJY
Instrument: Semi 7

Aroclor 1221 #3 (front detector)
Average RF: 1.19324e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.19324e+007



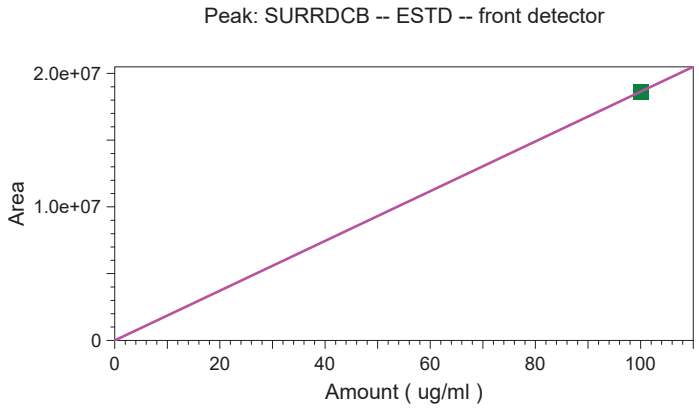
	Level 1
Amount	0.166667
Area	1988735
RF	11932410.00 00005
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	1988735
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\003.dat
Rep 1 Sample ID	1221 CF PP5969
Rep 1 Calib. Time	09/11/2019 11:52:41

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1221.met
Print Time: 09/16/2019 09:15:03
User: JJY
Instrument: Semi 7

SURRDCB (front detector)
Average RF: 186338.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 186338.



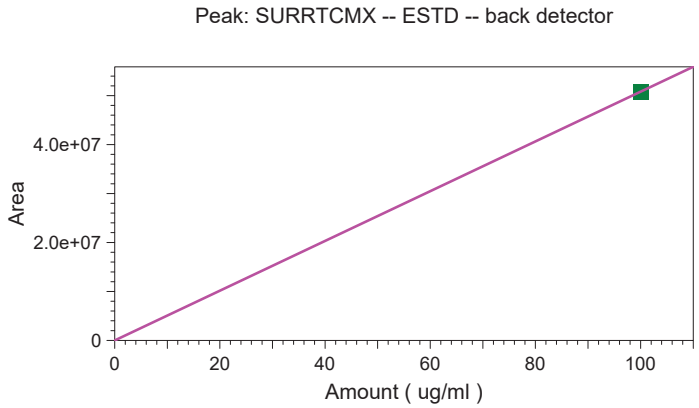
	Level 1
Amount	100
Area	18633756
RF	186337.56
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	18633756
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\003.dat
Rep 1 Sample ID	1221 CF PP5969
Rep 1 Calib. Time	09/11/2019 11:52:41

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1221.met
Print Time: 09/16/2019 09:14:43
User: JJY
Instrument: Semi 7

SURRTCMX (back detector)
Average RF: 508033.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 508033.



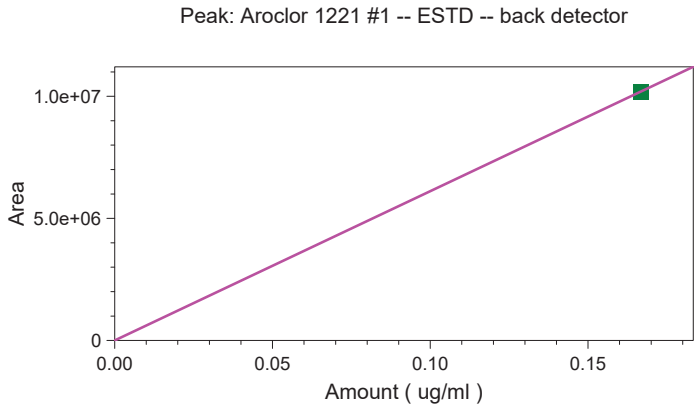
	Level 1
Amount	100
Area	50803271
RF	508032.71
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	50803271
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\003.dat
Rep 1 Sample ID	1221 CF PP5969
Rep 1 Calib. Time	09/11/2019 11:52:41

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1221.met
Print Time: 09/16/2019 09:14:45
User: JJY
Instrument: Semi 7

Aroclor 1221 #1 (back detector)
Average RF: 6.11393e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 6.11393e+007



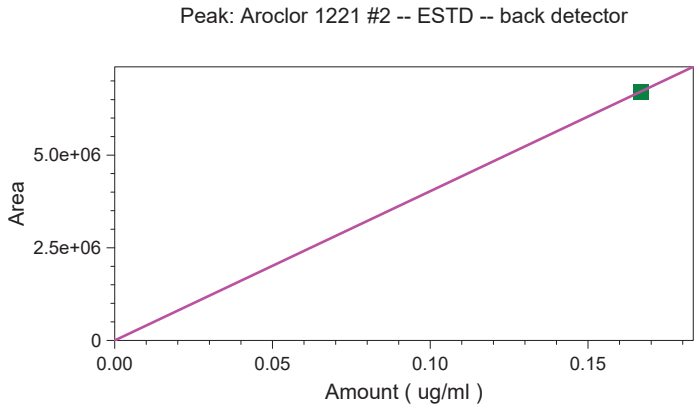
	Level 1
Amount	0.166667
Area	10189879
RF	61139274.00 00024
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	10189879
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\003.dat
Rep 1 Sample ID	1221 CF PP5969
Rep 1 Calib. Time	09/11/2019 11:52:41

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1221.met
Print Time: 09/16/2019 09:14:47
User: JJY
Instrument: Semi 7

Aroclor 1221 #2 (back detector)
Average RF: 4.02724e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 4.02724e+007



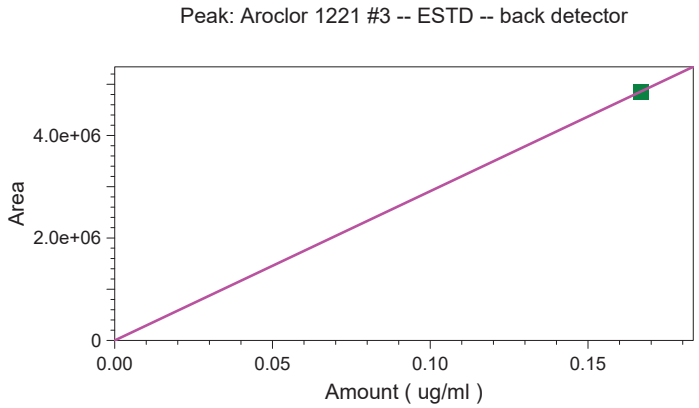
	Level 1
Amount	0.166667
Area	6712070
RF	40272420.00 00016
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	6712070
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\003.dat
Rep 1 Sample ID	1221 CF PP5969
Rep 1 Calib. Time	09/11/2019 11:52:41

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1221.met
Print Time: 09/16/2019 09:14:48
User: JJY
Instrument: Semi 7

Aroclor 1221 #3 (back detector)
Average RF: 2.91302e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 2.91302e+007



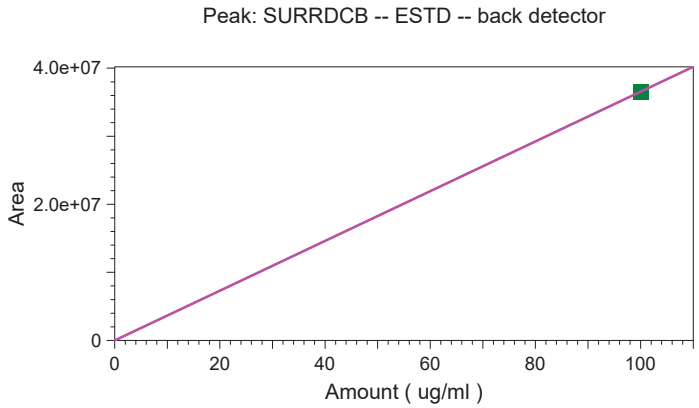
	Level 1
Amount	0.166667
Area	4855031
RF	29130186.00 00012
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	4855031
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\003.dat
Rep 1 Sample ID	1221 CF PP5969
Rep 1 Calib. Time	09/11/2019 11:52:41

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1221.met
Print Time: 09/16/2019 09:14:50
User: JJY
Instrument: Semi 7

SURRDCB (back detector)
Average RF: 365459.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 365459.



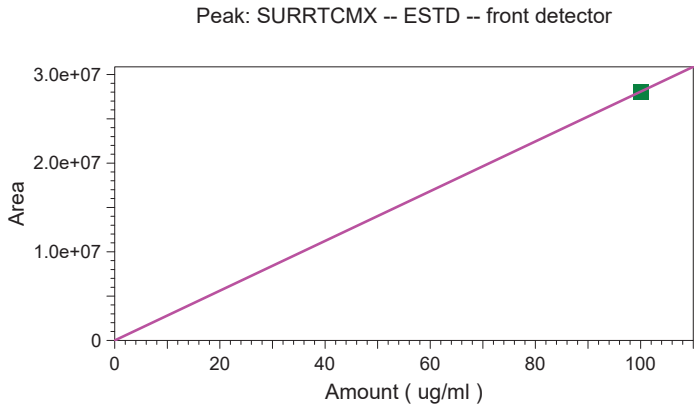
	Level 1
Amount	100
Area	36545918
RF	365459.18
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	36545918
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\003.dat
Rep 1 Sample ID	1221 CF PP5969
Rep 1 Calib. Time	09/11/2019 11:52:41

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1232.met
Print Time: 09/16/2019 09:15:45
User: JJY
Instrument: Semi 7

SURRTCMX (front detector)
Average RF: 280586.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 280586.



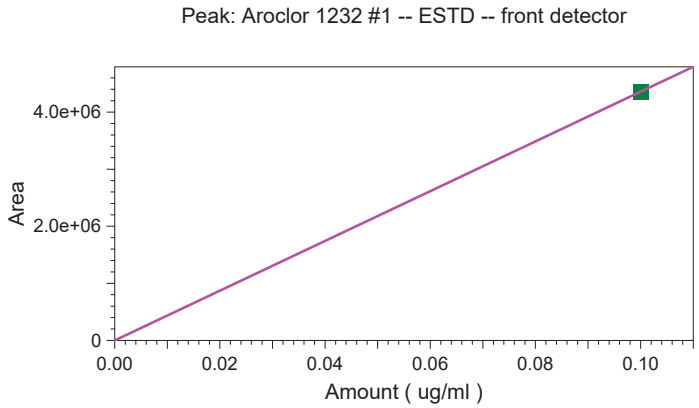
	Level 1
Amount	100
Area	28058598
RF	280585.98
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	28058598
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\004.dat
Rep 1 Sample ID	1232 CF PP5970
Rep 1 Calib. Time	09/11/2019 11:54:20

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1232.met
Print Time: 09/16/2019 09:15:48
User: JJY
Instrument: Semi 7

Aroclor 1232 #1 (front detector)
Average RF: 4.35792e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 4.35792e+007



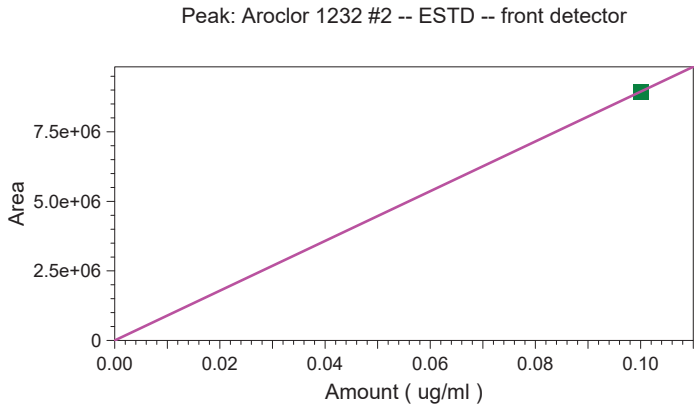
	Level 1
Amount	0.1
Area	4357921
RF	43579210
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	4357921
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\004.dat
Rep 1 Sample ID	1232 CF PP5970
Rep 1 Calib. Time	09/11/2019 11:54:20

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1232.met
Print Time: 09/16/2019 09:15:49
User: JJY
Instrument: Semi 7

Aroclor 1232 #2 (front detector)
Average RF: 8.94437e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 8.94437e+007



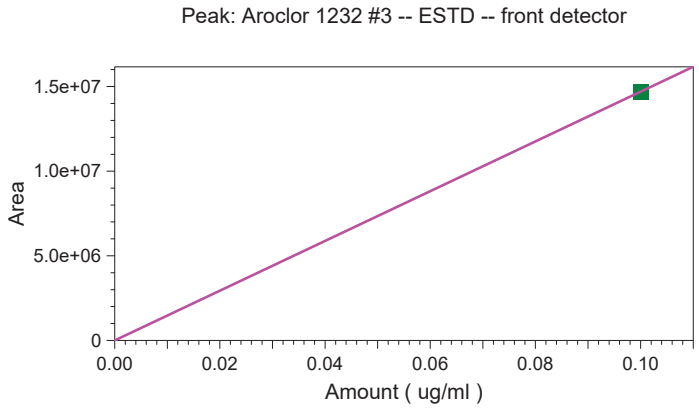
	Level 1
Amount	0.1
Area	8944366
RF	89443660
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	8944366
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\004.dat
Rep 1 Sample ID	1232 CF PP5970
Rep 1 Calib. Time	09/11/2019 11:54:20

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1232.met
Print Time: 09/16/2019 09:15:51
User: JJY
Instrument: Semi 7

Aroclor 1232 #3 (front detector)
Average RF: 1.46979e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.46979e+008



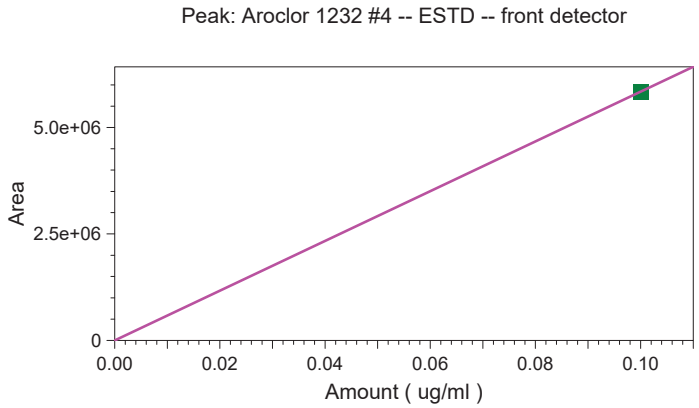
	Level 1
Amount	0.1
Area	14697919
RF	146979190
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	14697919
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\004.dat
Rep 1 Sample ID	1232 CF PP5970
Rep 1 Calib. Time	09/11/2019 11:54:20

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1232.met
Print Time: 09/16/2019 09:15:53
User: JJY
Instrument: Semi 7

Aroclor 1232 #4 (front detector)
Average RF: 5.84100e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 5.84100e+007



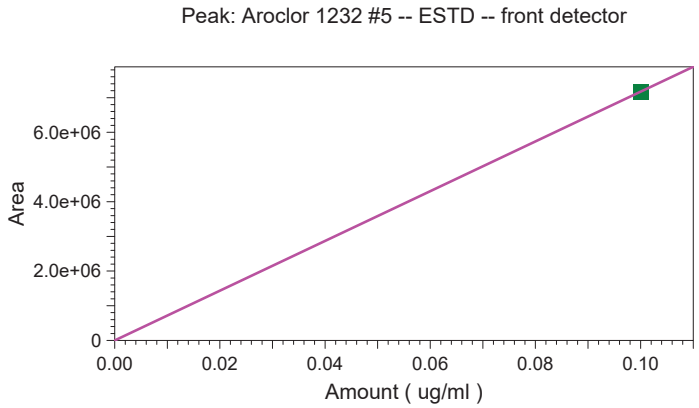
	Level 1
Amount	0.1
Area	5840995
RF	58409950
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	5840995
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\004.dat
Rep 1 Sample ID	1232 CF PP5970
Rep 1 Calib. Time	09/11/2019 11:54:20

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1232.met
Print Time: 09/16/2019 09:15:54
User: JJY
Instrument: Semi 7

Aroclor 1232 #5 (front detector)
Average RF: 7.17216e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 7.17216e+007



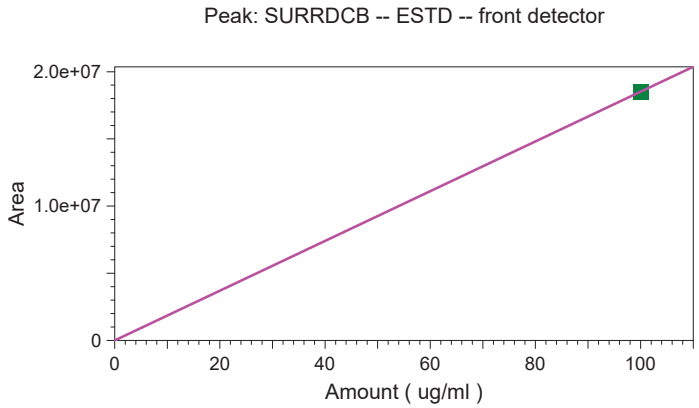
	Level 1
Amount	0.1
Area	7172161
RF	71721610
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	7172161
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\004.dat
Rep 1 Sample ID	1232 CF PP5970
Rep 1 Calib. Time	09/11/2019 11:54:20

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1232.met
Print Time: 09/16/2019 09:15:56
User: JJY
Instrument: Semi 7

SURRDCB (front detector)
Average RF: 185149.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 185149.



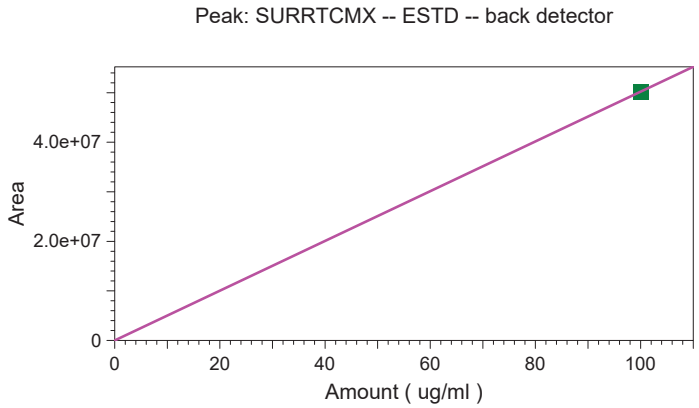
	Level 1
Amount	100
Area	18514883
RF	185148.83
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	18514883
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\004.dat
Rep 1 Sample ID	1232 CF PP5970
Rep 1 Calib. Time	09/11/2019 11:54:20

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1232.met
Print Time: 09/16/2019 09:16:00
User: JJY
Instrument: Semi 7

SURRTCMX (back detector)
Average RF: 502046.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 502046.



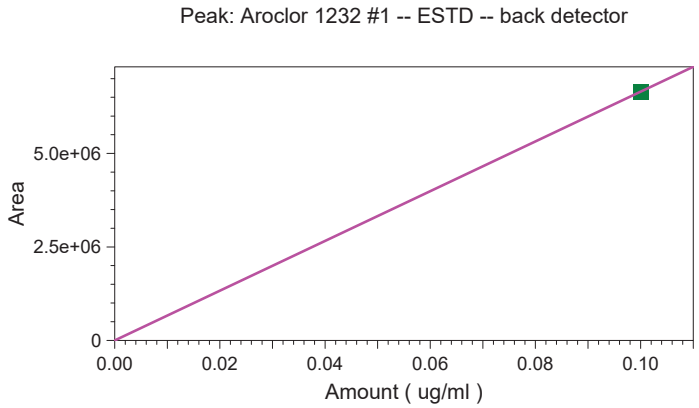
	Level 1
Amount	100
Area	50204610
RF	502046.1
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	50204610
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\004.dat
Rep 1 Sample ID	1232 CF PP5970
Rep 1 Calib. Time	09/11/2019 11:54:20

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1232.met
Print Time: 09/16/2019 09:16:02
User: JJY
Instrument: Semi 7

Aroclor 1232 #1 (back detector)
Average RF: 6.65126e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 6.65126e+007



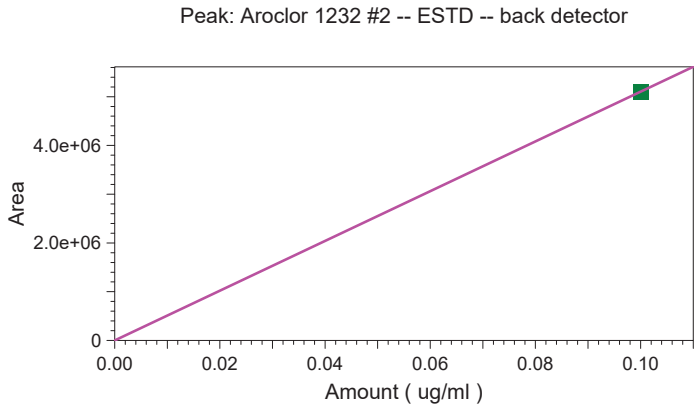
	Level 1
Amount	0.1
Area	6651257
RF	66512570
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	6651257
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\004.dat
Rep 1 Sample ID	1232 CF PP5970
Rep 1 Calib. Time	09/11/2019 11:54:20

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1232.met
Print Time: 09/16/2019 09:16:03
User: JJY
Instrument: Semi 7

Aroclor 1232 #2 (back detector)
Average RF: 5.10367e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 5.10367e+007



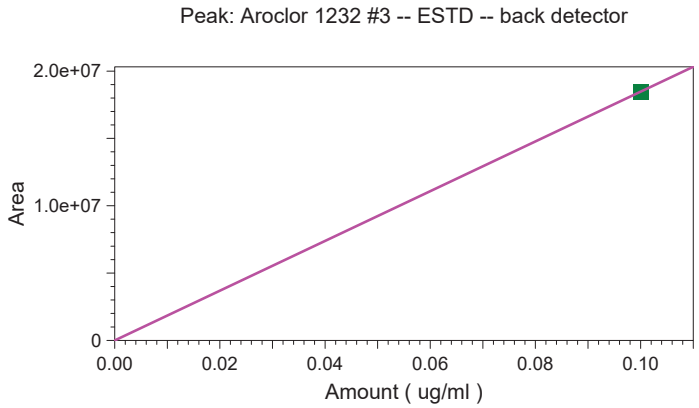
	Level 1
Amount	0.1
Area	5103671
RF	51036710
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	5103671
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\004.dat
Rep 1 Sample ID	1232 CF PP5970
Rep 1 Calib. Time	09/11/2019 11:54:20

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1232.met
Print Time: 09/16/2019 09:16:05
User: JJY
Instrument: Semi 7

Aroclor 1232 #3 (back detector)
Average RF: 1.84728e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.84728e+008



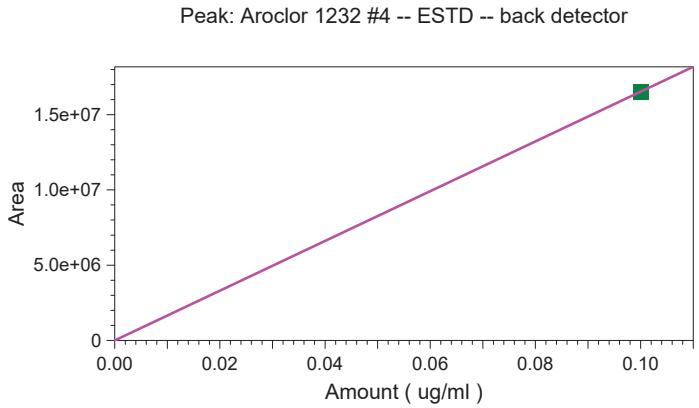
	Level 1
Amount	0.1
Area	18472772
RF	184727720
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	18472772
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\004.dat
Rep 1 Sample ID	1232 CF PP5970
Rep 1 Calib. Time	09/11/2019 11:54:20

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1232.met
Print Time: 09/16/2019 09:16:07
User: JJY
Instrument: Semi 7

Aroclor 1232 #4 (back detector)
Average RF: 1.65262e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.65262e+008



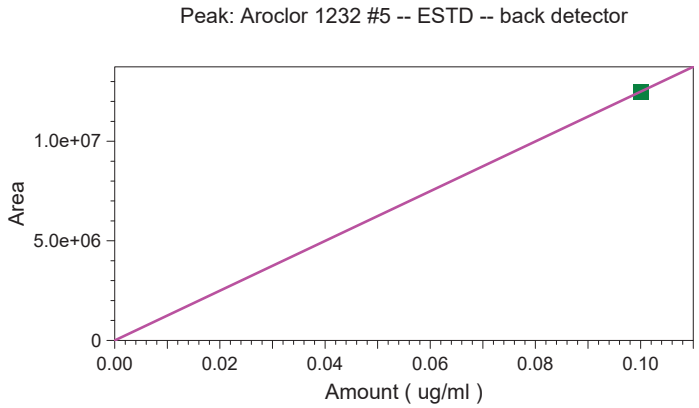
	Level 1
Amount	0.1
Area	16526201
RF	165262010
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	16526201
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\004.dat
Rep 1 Sample ID	1232 CF PP5970
Rep 1 Calib. Time	09/11/2019 11:54:20

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1232.met
Print Time: 09/16/2019 09:16:08
User: JJY
Instrument: Semi 7

Aroclor 1232 #5 (back detector)
Average RF: 1.24883e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.24883e+008



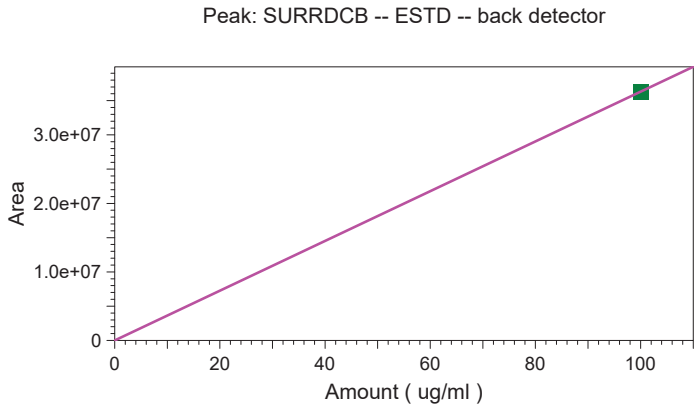
	Level 1
Amount	0.1
Area	12488345
RF	124883450
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	12488345
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\004.dat
Rep 1 Sample ID	1232 CF PP5970
Rep 1 Calib. Time	09/11/2019 11:54:20

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1232.met
Print Time: 09/16/2019 09:16:09
User: JJY
Instrument: Semi 7

SURRDCB (back detector)
Average RF: 363058.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 363058.



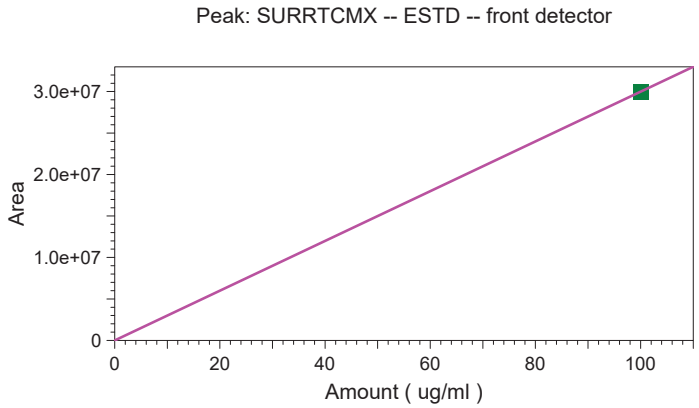
	Level 1
Amount	100
Area	36305825
RF	363058.25
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	36305825
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\004.dat
Rep 1 Sample ID	1232 CF PP5970
Rep 1 Calib. Time	09/11/2019 11:54:20

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1242.met
Print Time: 09/16/2019 09:17:03
User: JJY
Instrument: Semi 7

SURRTCMX (front detector)
Average RF: 299899.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 299899.



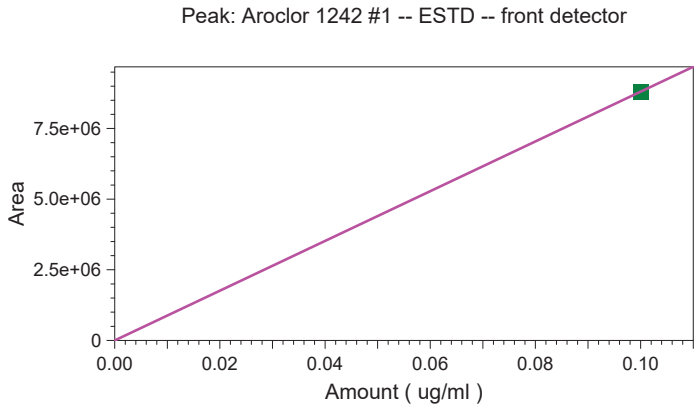
	Level 1
Amount	100
Area	29989917
RF	299899.17
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	29989917
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\005.dat
Rep 1 Sample ID	1242 CF PP5971
Rep 1 Calib. Time	09/11/2019 16:24:33

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1242.met
Print Time: 09/16/2019 09:17:04
User: JJY
Instrument: Semi 7

Aroclor 1242 #1 (front detector)
Average RF: 8.80496e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 8.80496e+007



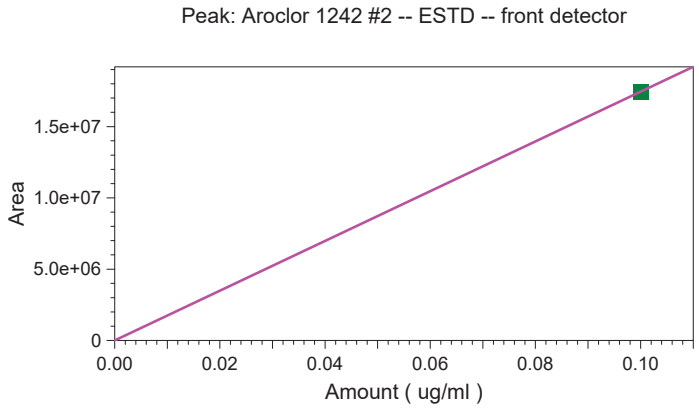
	Level 1
Amount	0.1
Area	8804960
RF	88049600
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	8804960
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\005.dat
Rep 1 Sample ID	1242 CF PP5971
Rep 1 Calib. Time	09/11/2019 16:24:33

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1242.met
Print Time: 09/16/2019 09:17:06
User: JJY
Instrument: Semi 7

Aroclor 1242 #2 (front detector)
Average RF: 1.74492e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.74492e+008



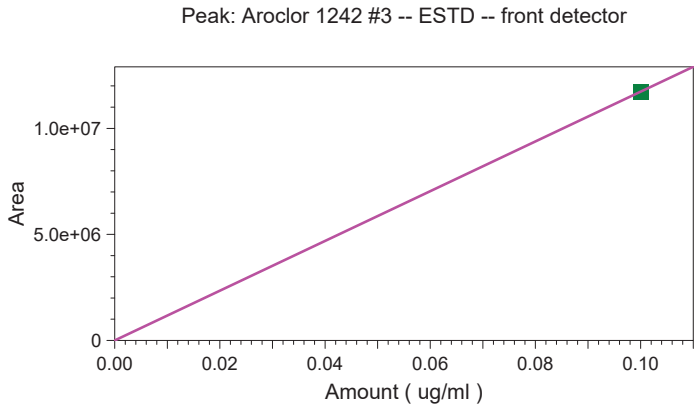
	Level 1
Amount	0.1
Area	17449201
RF	174492010
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	17449201
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\005.dat
Rep 1 Sample ID	1242 CF PP5971
Rep 1 Calib. Time	09/11/2019 16:24:33

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1242.met
Print Time: 09/16/2019 09:17:07
User: JJY
Instrument: Semi 7

Aroclor 1242 #3 (front detector)
Average RF: 1.17285e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.17285e+008



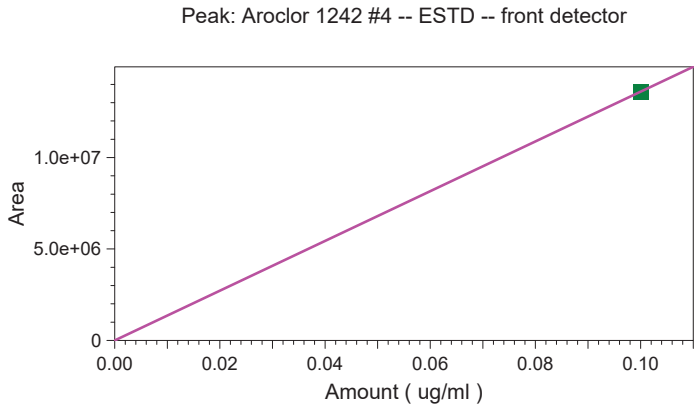
	Level 1
Amount	0.1
Area	11728490
RF	117284900
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	11728490
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\005.dat
Rep 1 Sample ID	1242 CF PP5971
Rep 1 Calib. Time	09/11/2019 16:24:33

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1242.met
Print Time: 09/16/2019 09:17:09
User: JJY
Instrument: Semi 7

Aroclor 1242 #4 (front detector)
Average RF: 1.36008e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.36008e+008



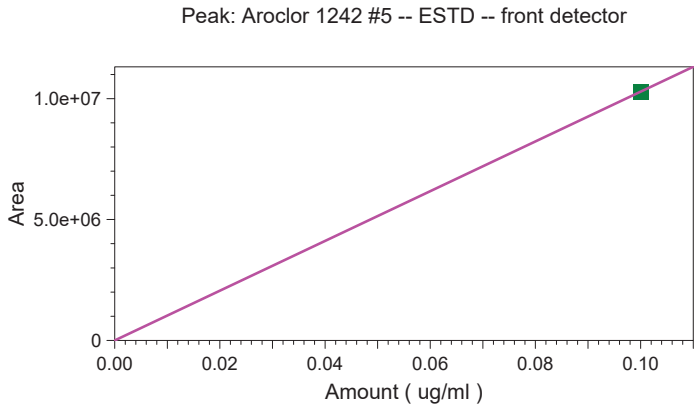
	Level 1
Amount	0.1
Area	13600761
RF	136007610
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	13600761
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\005.dat
Rep 1 Sample ID	1242 CF PP5971
Rep 1 Calib. Time	09/11/2019 16:24:33

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1242.met
Print Time: 09/16/2019 09:17:10
User: JJY
Instrument: Semi 7

Aroclor 1242 #5 (front detector)
Average RF: 1.02890e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.02890e+008



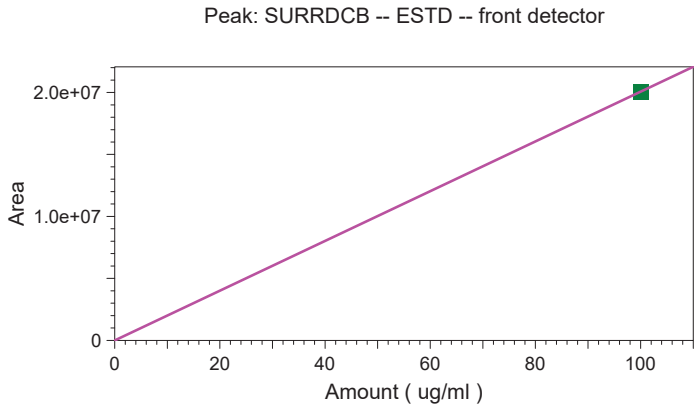
	Level 1
Amount	0.1
Area	10289035
RF	102890350
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	10289035
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\005.dat
Rep 1 Sample ID	1242 CF PP5971
Rep 1 Calib. Time	09/11/2019 16:24:33

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1242.met
Print Time: 09/16/2019 09:17:11
User: JJY
Instrument: Semi 7

SURRDCB (front detector)
Average RF: 200633.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 200633.



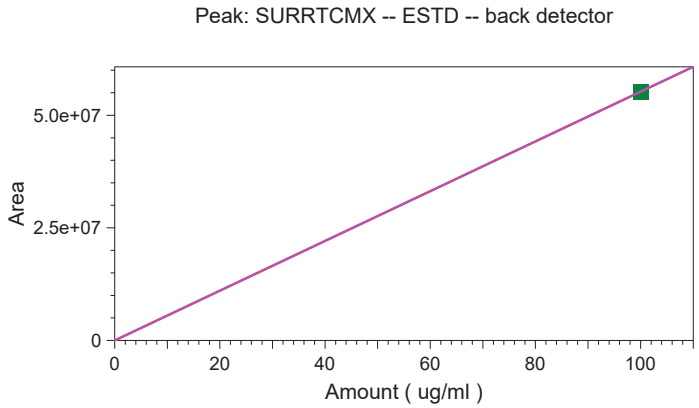
	Level 1
Amount	100
Area	20063271
RF	200632.71
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	20063271
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\005.dat
Rep 1 Sample ID	1242 CF PP5971
Rep 1 Calib. Time	09/11/2019 16:24:33

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1242.met
Print Time: 09/16/2019 09:16:41
User: JJY
Instrument: Semi 7

SURRTCMX (back detector)
Average RF: 552411.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 552411.



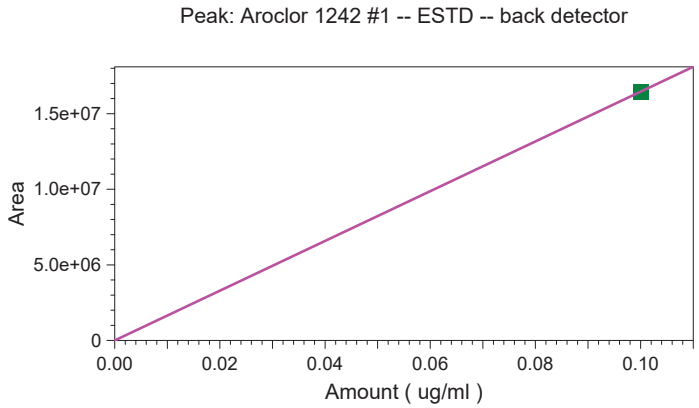
	Level 1
Amount	100
Area	55241111
RF	552411.11
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	55241111
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\005.dat
Rep 1 Sample ID	1242 CF PP5971
Rep 1 Calib. Time	09/11/2019 16:24:33

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1242.met
Print Time: 09/16/2019 09:16:48
User: JJY
Instrument: Semi 7

Aroclor 1242 #1 (back detector)
Average RF: 1.64582e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.64582e+008



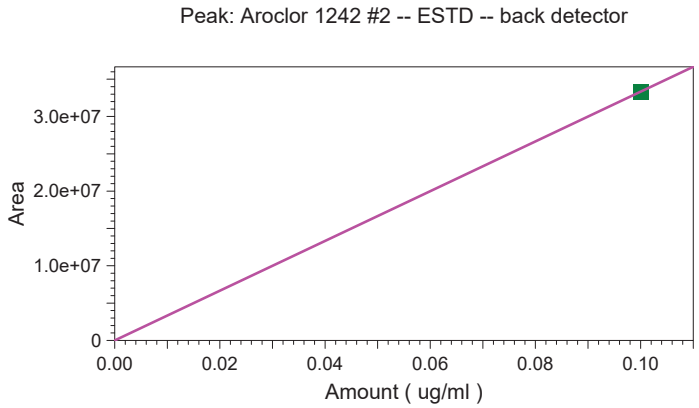
	Level 1
Amount	0.1
Area	16458174
RF	164581740
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	16458174
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\005.dat
Rep 1 Sample ID	1242 CF PP5971
Rep 1 Calib. Time	09/11/2019 16:24:33

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1242.met
Print Time: 09/16/2019 09:16:50
User: JJY
Instrument: Semi 7

Aroclor 1242 #2 (back detector)
Average RF: 3.33295e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 3.33295e+008



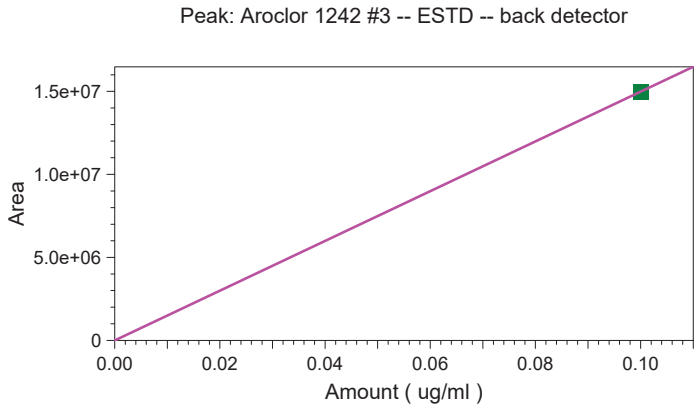
	Level 1
Amount	0.1
Area	33329487
RF	333294870
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	33329487
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\005.dat
Rep 1 Sample ID	1242 CF PP5971
Rep 1 Calib. Time	09/11/2019 16:24:33

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1242.met
Print Time: 09/16/2019 09:16:51
User: JJY
Instrument: Semi 7

Aroclor 1242 #3 (back detector)
Average RF: 1.49805e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.49805e+008



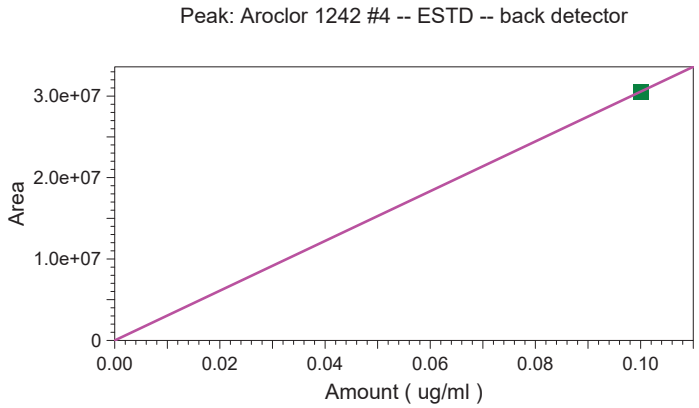
	Level 1
Amount	0.1
Area	14980452
RF	149804520
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	14980452
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\005.dat
Rep 1 Sample ID	1242 CF PP5971
Rep 1 Calib. Time	09/11/2019 16:24:33

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1242.met
Print Time: 09/16/2019 09:16:52
User: JJY
Instrument: Semi 7

Aroclor 1242 #4 (back detector)
Average RF: 3.05507e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 3.05507e+008



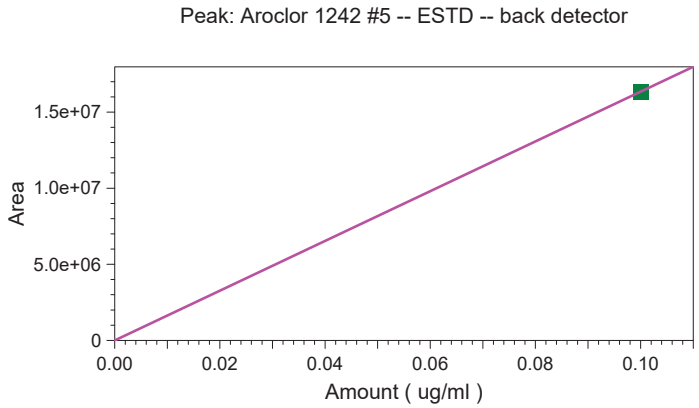
	Level 1
Amount	0.1
Area	30550655
RF	305506550
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	30550655
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\005.dat
Rep 1 Sample ID	1242 CF PP5971
Rep 1 Calib. Time	09/11/2019 16:24:33

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1242.met
Print Time: 09/16/2019 09:16:54
User: JJY
Instrument: Semi 7

Aroclor 1242 #5 (back detector)
Average RF: 1.63407e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.63407e+008



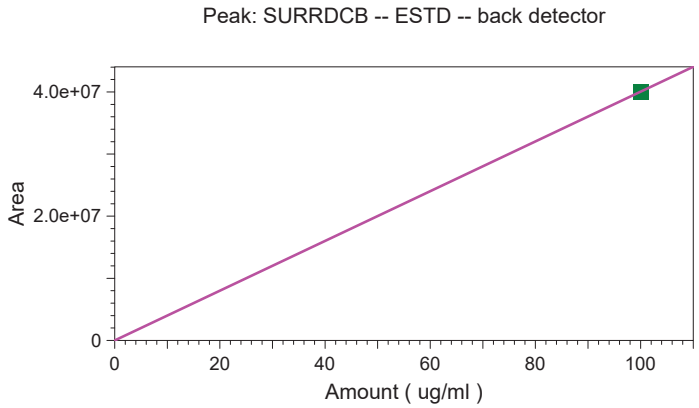
	Level 1
Amount	0.1
Area	16340662
RF	163406620
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	16340662
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\005.dat
Rep 1 Sample ID	1242 CF PP5971
Rep 1 Calib. Time	09/11/2019 16:24:33

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1242.met
Print Time: 09/16/2019 09:16:55
User: JJY
Instrument: Semi 7

SURRDCB (back detector)
Average RF: 400473.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 400473.



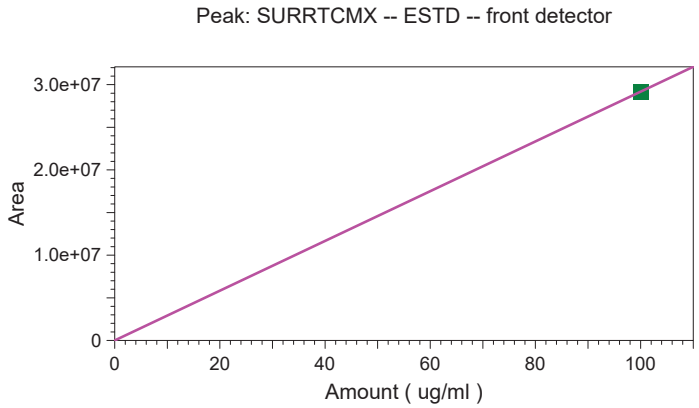
	Level 1
Amount	100
Area	40047265
RF	400472.65
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	40047265
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\005.dat
Rep 1 Sample ID	1242 CF PP5971
Rep 1 Calib. Time	09/11/2019 16:24:33

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1248.met
Print Time: 09/16/2019 09:18:41
User: JJY
Instrument: Semi 7

SURRTCMX (front detector)
Average RF: 291771.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 291771.



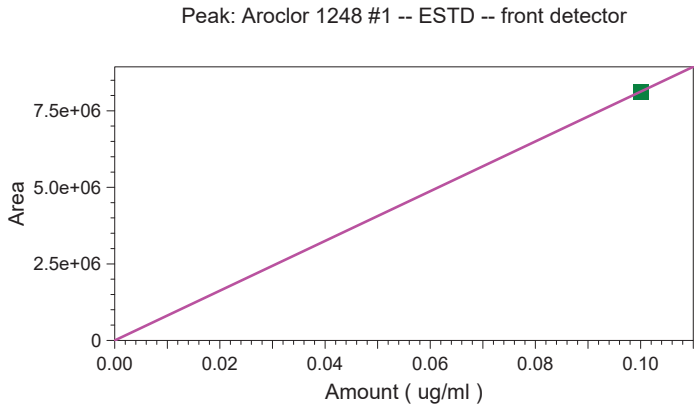
	Level 1
Amount	100
Area	29177097
RF	291770.97
Last Area	
Residual	-1.42109e-014
Rep StDev	
Rep %RSD	
Rep 1 Area	29177097
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\006.dat
Rep 1 Sample ID	1248 CF PP5972
Rep 1 Calib. Time	09/11/2019 16:26:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1248.met
Print Time: 09/16/2019 09:18:45
User: JJY
Instrument: Semi 7

Aroclor 1248 #1 (front detector)
Average RF: 8.12542e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 8.12542e+007



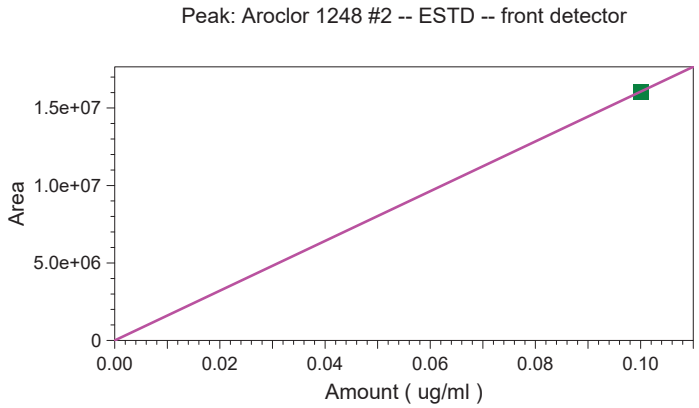
	Level 1
Amount	0.1
Area	8125415
RF	81254150
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	8125415
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\006.dat
Rep 1 Sample ID	1248 CF PP5972
Rep 1 Calib. Time	09/11/2019 16:26:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1248.met
Print Time: 09/16/2019 09:18:46
User: JJY
Instrument: Semi 7

Aroclor 1248 #2 (front detector)
Average RF: 1.60562e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.60562e+008



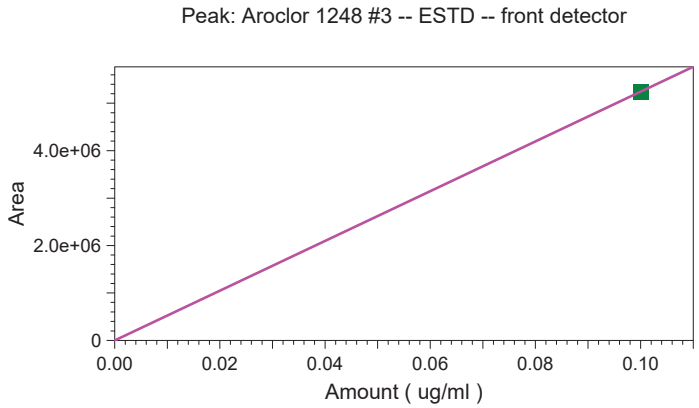
	Level 1
Amount	0.1
Area	16056155
RF	160561550
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	16056155
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\006.dat
Rep 1 Sample ID	1248 CF PP5972
Rep 1 Calib. Time	09/11/2019 16:26:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1248.met
Print Time: 09/16/2019 09:18:48
User: JJY
Instrument: Semi 7

Aroclor 1248 #3 (front detector)
Average RF: 5.24332e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 5.24332e+007



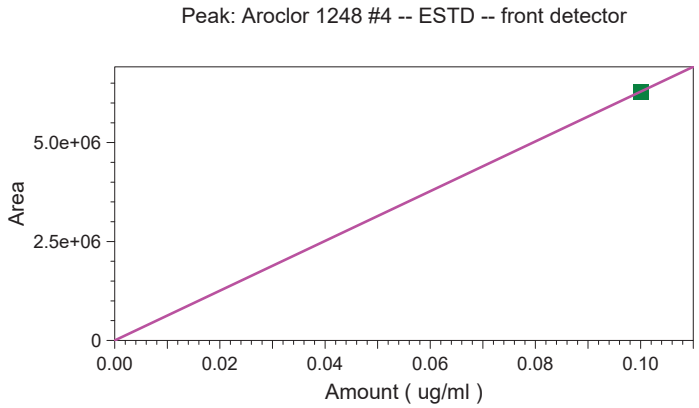
	Level 1
Amount	0.1
Area	5243315
RF	52433150
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	5243315
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\006.dat
Rep 1 Sample ID	1248 CF PP5972
Rep 1 Calib. Time	09/11/2019 16:26:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1248.met
Print Time: 09/16/2019 09:18:49
User: JJY
Instrument: Semi 7

Aroclor 1248 #4 (front detector)
Average RF: 6.28641e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 6.28641e+007



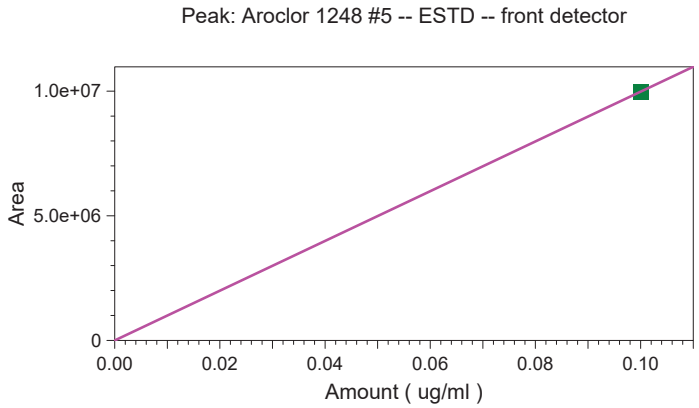
	Level 1
Amount	0.1
Area	6286413
RF	62864130
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	6286413
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\006.dat
Rep 1 Sample ID	1248 CF PP5972
Rep 1 Calib. Time	09/11/2019 16:26:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1248.met
Print Time: 09/16/2019 09:18:51
User: JJY
Instrument: Semi 7

Aroclor 1248 #5 (front detector)
Average RF: 9.97806e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 9.97806e+007



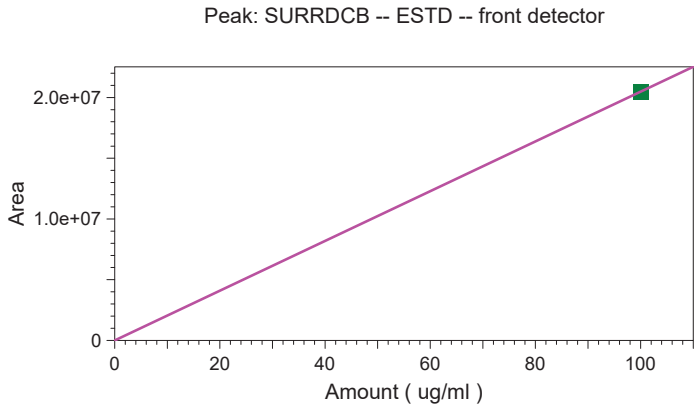
	Level 1
Amount	0.1
Area	9978059
RF	99780590
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	9978059
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\006.dat
Rep 1 Sample ID	1248 CF PP5972
Rep 1 Calib. Time	09/11/2019 16:26:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1248.met
Print Time: 09/16/2019 09:18:52
User: JJY
Instrument: Semi 7

SURRDCB (front detector)
Average RF: 204821.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 204821.



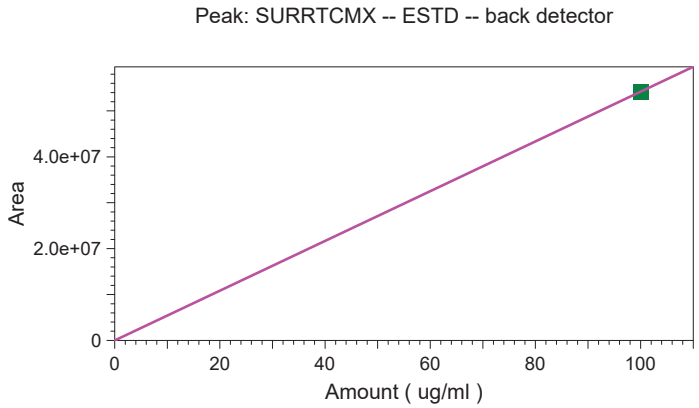
	Level 1
Amount	100
Area	20482051
RF	204820.51
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	20482051
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\006.dat
Rep 1 Sample ID	1248 CF PP5972
Rep 1 Calib. Time	09/11/2019 16:26:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1248.met
Print Time: 09/16/2019 09:18:57
User: JJY
Instrument: Semi 7

SURRTCMX (back detector)
Average RF: 541943.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 541943.



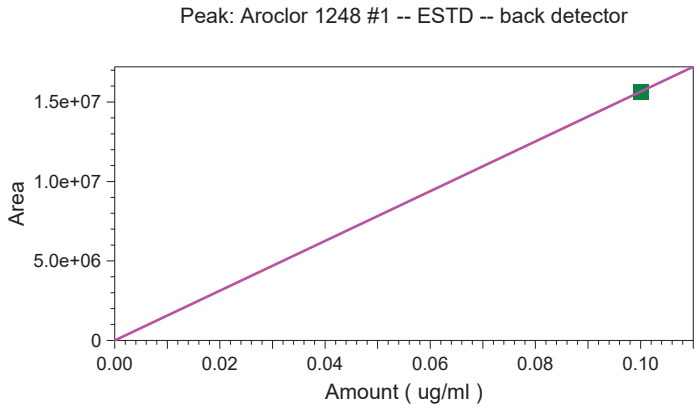
	Level 1
Amount	100
Area	54194292
RF	541942.92
Last Area	
Residual	1.42109e-014
Rep StDev	
Rep %RSD	
Rep 1 Area	54194292
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\006.dat
Rep 1 Sample ID	1248 CF PP5972
Rep 1 Calib. Time	09/11/2019 16:26:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1248.met
Print Time: 09/16/2019 09:18:59
User: JJY
Instrument: Semi 7

Aroclor 1248 #1 (back detector)
Average RF: 1.56489e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.56489e+008



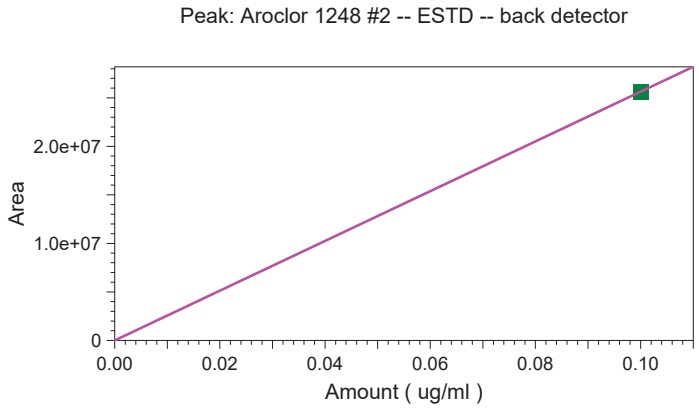
	Level 1
Amount	0.1
Area	15648908
RF	156489080
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	15648908
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\006.dat
Rep 1 Sample ID	1248 CF PP5972
Rep 1 Calib. Time	09/11/2019 16:26:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1248.met
Print Time: 09/16/2019 09:19:01
User: JJY
Instrument: Semi 7

Aroclor 1248 #2 (back detector)
Average RF: 2.56316e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 2.56316e+008



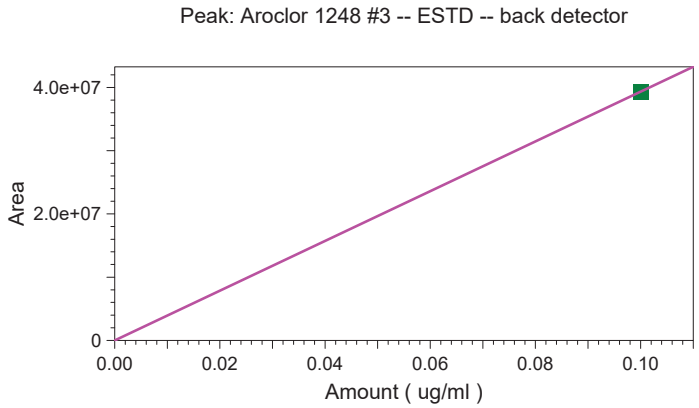
	Level 1
Amount	0.1
Area	25631636
RF	256316360
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	25631636
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\006.dat
Rep 1 Sample ID	1248 CF PP5972
Rep 1 Calib. Time	09/11/2019 16:26:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1248.met
Print Time: 09/16/2019 09:19:02
User: JJY
Instrument: Semi 7

Aroclor 1248 #3 (back detector)
Average RF: 3.93298e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 3.93298e+008



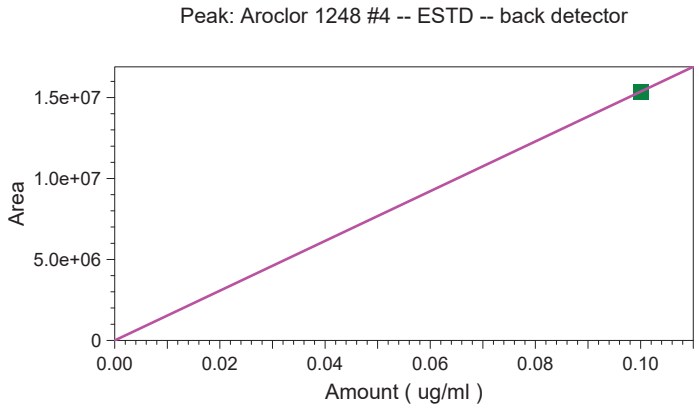
	Level 1
Amount	0.1
Area	39329789
RF	393297890
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	39329789
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\006.dat
Rep 1 Sample ID	1248 CF PP5972
Rep 1 Calib. Time	09/11/2019 16:26:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1248.met
Print Time: 09/16/2019 09:19:03
User: JJY
Instrument: Semi 7

Aroclor 1248 #4 (back detector)
Average RF: 1.53616e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.53616e+008



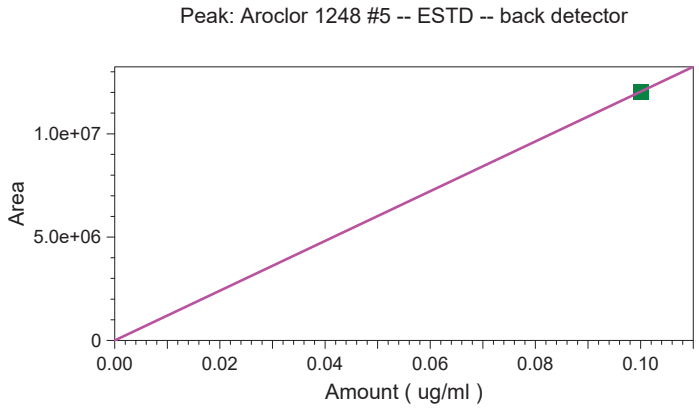
	Level 1
Amount	0.1
Area	15361551
RF	153615510
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	15361551
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\006.dat
Rep 1 Sample ID	1248 CF PP5972
Rep 1 Calib. Time	09/11/2019 16:26:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1248.met
Print Time: 09/16/2019 09:19:05
User: JJY
Instrument: Semi 7

Aroclor 1248 #5 (back detector)
Average RF: 1.20381e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.20381e+008



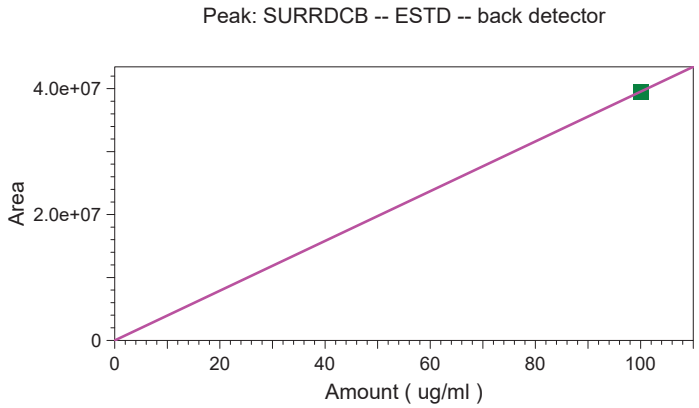
	Level 1
Amount	0.1
Area	12038085
RF	120380850
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	12038085
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\006.dat
Rep 1 Sample ID	1248 CF PP5972
Rep 1 Calib. Time	09/11/2019 16:26:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1248.met
Print Time: 09/16/2019 09:19:06
User: JJY
Instrument: Semi 7

SURRDCB (back detector)
Average RF: 395294.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 395294.



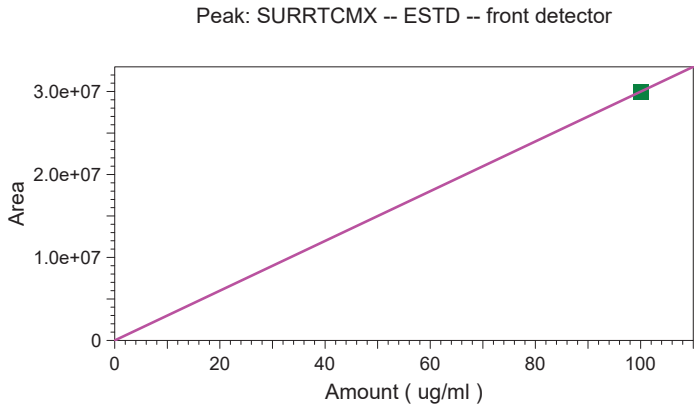
	Level 1
Amount	100
Area	39529372
RF	395293.72
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	39529372
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\006.dat
Rep 1 Sample ID	1248 CF PP5972
Rep 1 Calib. Time	09/11/2019 16:26:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1254.met
Print Time: 09/16/2019 09:20:04
User: JJY
Instrument: Semi 7

SURRTCMX (front detector)
Average RF: 299851.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 299851.



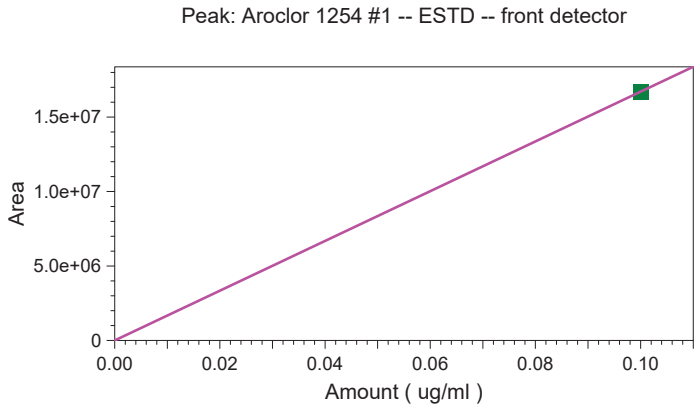
	Level 1
Amount	100
Area	29985127
RF	299851.27
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	29985127
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\007.dat
Rep 1 Sample ID	1254 CF PP5973
Rep 1 Calib. Time	09/11/2019 16:28:06

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1254.met
Print Time: 09/16/2019 09:20:05
User: JJY
Instrument: Semi 7

Aroclor 1254 #1 (front detector)
Average RF: 1.67060e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.67060e+008



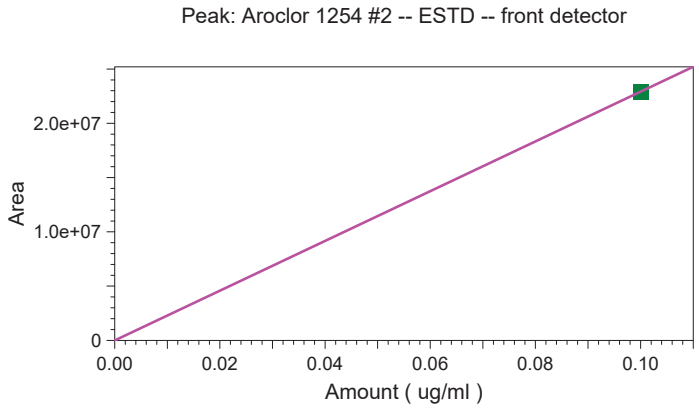
	Level 1
Amount	0.1
Area	16705977
RF	167059770
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	16705977
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\007.dat
Rep 1 Sample ID	1254 CF PP5973
Rep 1 Calib. Time	09/11/2019 16:28:06

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1254.met
Print Time: 09/16/2019 09:20:07
User: JJY
Instrument: Semi 7

Aroclor 1254 #2 (front detector)
Average RF: 2.29139e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 2.29139e+008



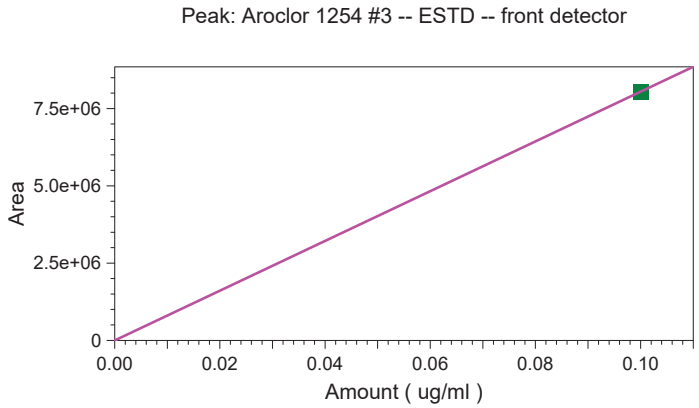
	Level 1
Amount	0.1
Area	22913936
RF	229139360
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	22913936
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\007.dat
Rep 1 Sample ID	1254 CF PP5973
Rep 1 Calib. Time	09/11/2019 16:28:06

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1254.met
Print Time: 09/16/2019 09:20:09
User: JJY
Instrument: Semi 7

Aroclor 1254 #3 (front detector)
Average RF: 8.04564e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 8.04564e+007



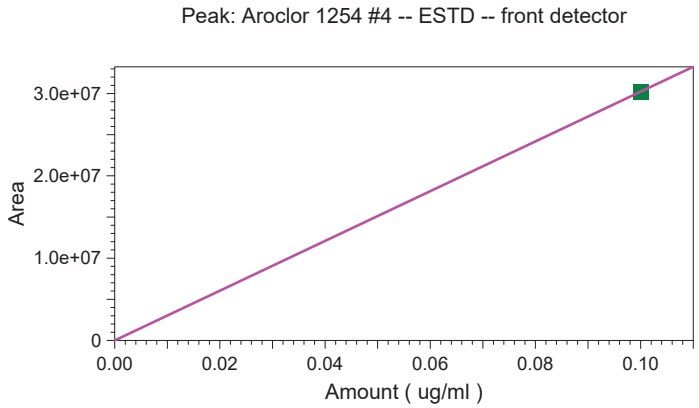
	Level 1
Amount	0.1
Area	8045635
RF	80456350
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	8045635
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\007.dat
Rep 1 Sample ID	1254 CF PP5973
Rep 1 Calib. Time	09/11/2019 16:28:06

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1254.met
Print Time: 09/16/2019 09:20:10
User: JJY
Instrument: Semi 7

Aroclor 1254 #4 (front detector)
Average RF: 3.02292e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 3.02292e+008



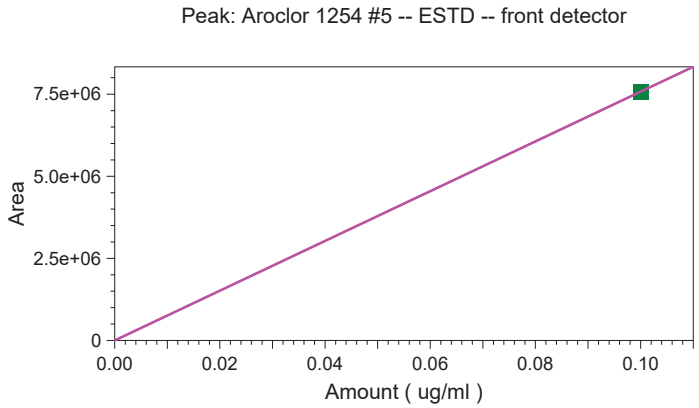
	Level 1
Amount	0.1
Area	30229204
RF	302292040
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	30229204
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\007.dat
Rep 1 Sample ID	1254 CF PP5973
Rep 1 Calib. Time	09/11/2019 16:28:06

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1254.met
Print Time: 09/16/2019 09:20:12
User: JJY
Instrument: Semi 7

Aroclor 1254 #5 (front detector)
Average RF: 7.57819e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 7.57819e+007



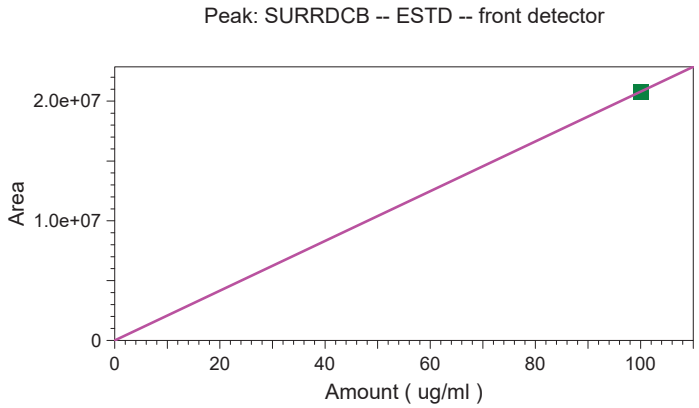
	Level 1
Amount	0.1
Area	7578191
RF	75781910
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	7578191
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\007.dat
Rep 1 Sample ID	1254 CF PP5973
Rep 1 Calib. Time	09/11/2019 16:28:06

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1254.met
Print Time: 09/16/2019 09:20:21
User: JJY
Instrument: Semi 7

SURRDCB (front detector)
Average RF: 207940.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 207940.



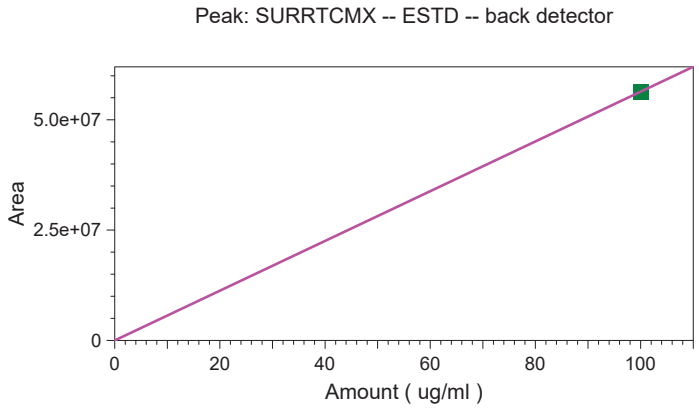
	Level 1
Amount	100
Area	20793985
RF	207939.85
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	20793985
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\007.dat
Rep 1 Sample ID	1254 CF PP5973
Rep 1 Calib. Time	09/11/2019 16:28:06

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1254.met
Print Time: 09/16/2019 09:19:50
User: JJY
Instrument: Semi 7

SURRTCMX (back detector)
Average RF: 563852.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 563852.



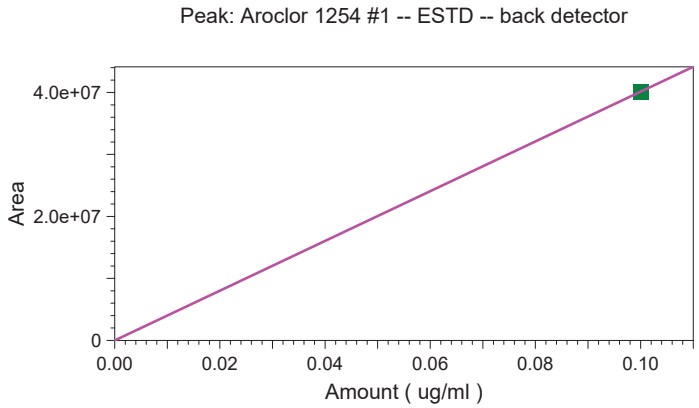
	Level 1
Amount	100
Area	56385238
RF	563852.38
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	56385238
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\007.dat
Rep 1 Sample ID	1254 CF PP5973
Rep 1 Calib. Time	09/11/2019 16:28:06

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1254.met
Print Time: 09/16/2019 09:19:52
User: JJY
Instrument: Semi 7

Aroclor 1254 #1 (back detector)
Average RF: 4.01249e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 4.01249e+008



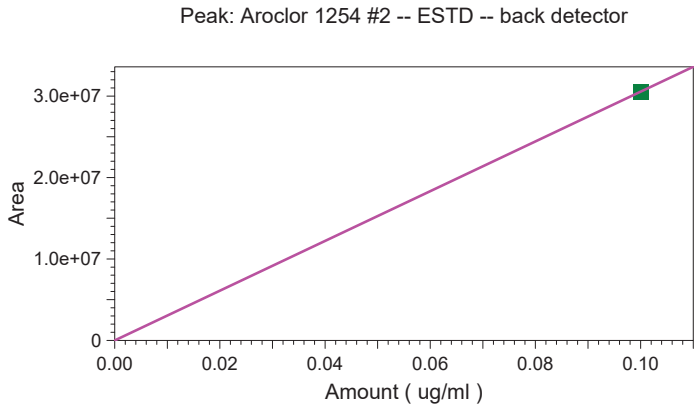
	Level 1
Amount	0.1
Area	40124868
RF	401248680
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	40124868
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\007.dat
Rep 1 Sample ID	1254 CF PP5973
Rep 1 Calib. Time	09/11/2019 16:28:06

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1254.met
Print Time: 09/16/2019 09:19:54
User: JJY
Instrument: Semi 7

Aroclor 1254 #2 (back detector)
Average RF: 3.05376e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 3.05376e+008



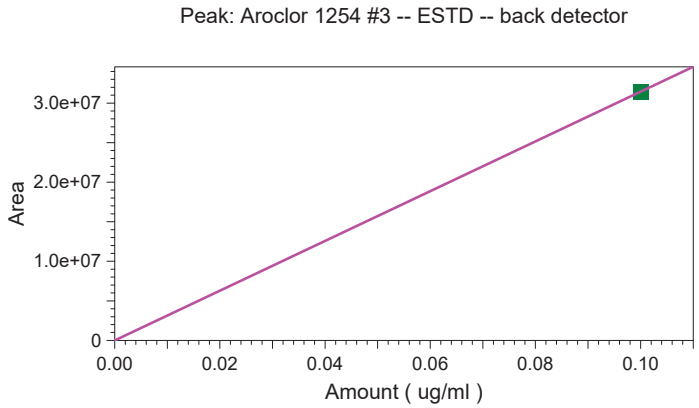
	Level 1
Amount	0.1
Area	30537629
RF	305376290
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	30537629
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\007.dat
Rep 1 Sample ID	1254 CF PP5973
Rep 1 Calib. Time	09/11/2019 16:28:06

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1254.met
Print Time: 09/16/2019 09:19:55
User: JJY
Instrument: Semi 7

Aroclor 1254 #3 (back detector)
Average RF: 3.14436e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 3.14436e+008



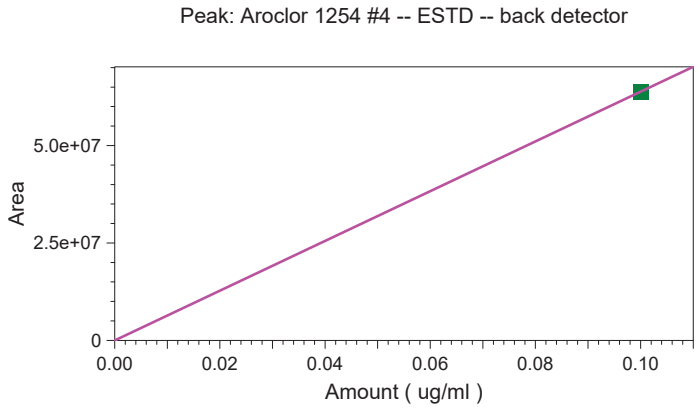
	Level 1
Amount	0.1
Area	31443582
RF	314435820
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	31443582
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\007.dat
Rep 1 Sample ID	1254 CF PP5973
Rep 1 Calib. Time	09/11/2019 16:28:06

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1254.met
Print Time: 09/16/2019 09:19:57
User: JJY
Instrument: Semi 7

Aroclor 1254 #4 (back detector)
Average RF: 6.38296e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 6.38296e+008



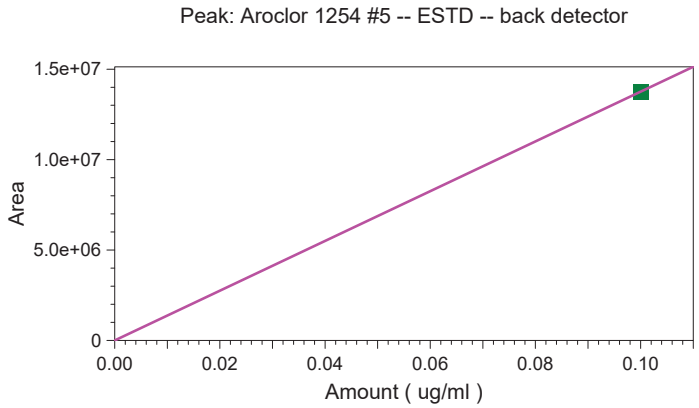
	Level 1
Amount	0.1
Area	63829598
RF	638295980
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	63829598
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\007.dat
Rep 1 Sample ID	1254 CF PP5973
Rep 1 Calib. Time	09/11/2019 16:28:06

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1254.met
Print Time: 09/16/2019 09:19:58
User: JJY
Instrument: Semi 7

Aroclor 1254 #5 (back detector)
Average RF: 1.37555e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.37555e+008



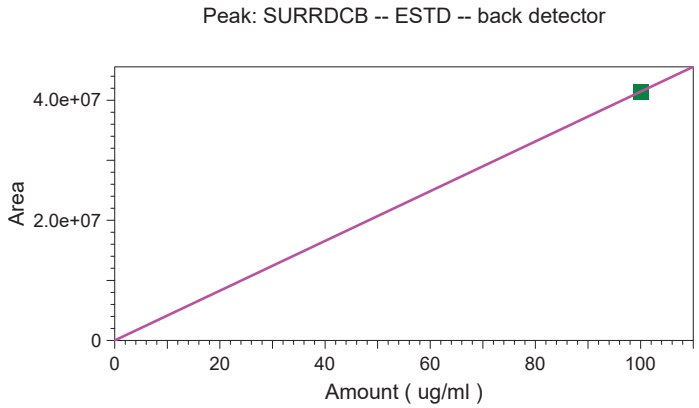
	Level 1
Amount	0.1
Area	13755529
RF	137555290
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	13755529
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\007.dat
Rep 1 Sample ID	1254 CF PP5973
Rep 1 Calib. Time	09/11/2019 16:28:06

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1254.met
Print Time: 09/16/2019 09:19:59
User: JJY
Instrument: Semi 7

SURRDCB (back detector)
Average RF: 414232.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 414232.



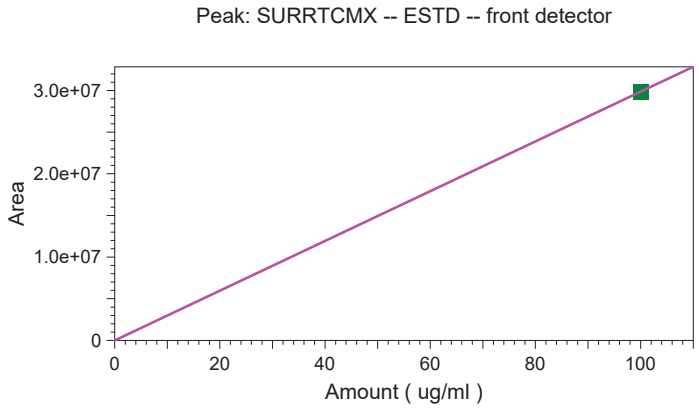
	Level 1
Amount	100
Area	41423248
RF	414232.48
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	41423248
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\007.dat
Rep 1 Sample ID	1254 CF PP5973
Rep 1 Calib. Time	09/11/2019 16:28:06

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1262.met
Print Time: 09/16/2019 09:21:01
User: JJY
Instrument: Semi 7

SURRTCMX (front detector)
Average RF: 298627.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 298627.



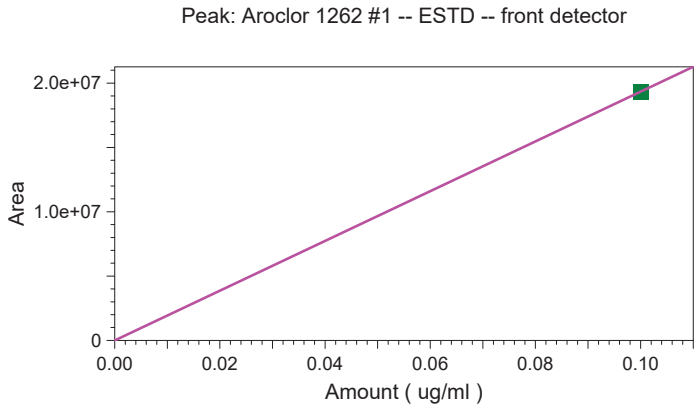
	Level 1
Amount	100
Area	29862704
RF	298627.04
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	29862704
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\008.dat
Rep 1 Sample ID	1262 CF PP5974
Rep 1 Calib. Time	09/11/2019 16:29:44

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1262.met
Print Time: 09/16/2019 09:21:04
User: JJY
Instrument: Semi 7

Aroclor 1262 #1 (front detector)
Average RF: 1.93345e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.93345e+008



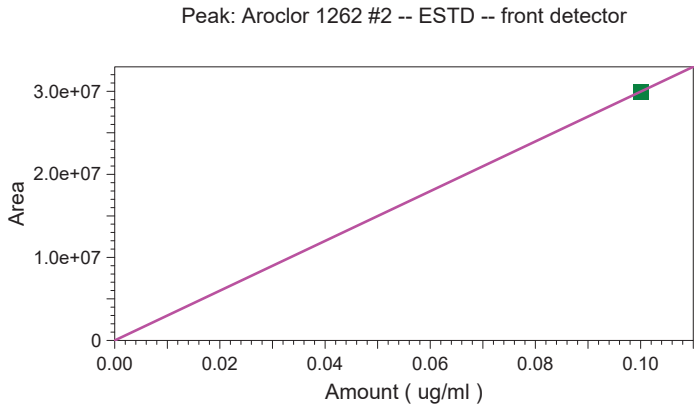
	Level 1
Amount	0.1
Area	19334519
RF	193345190
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	19334519
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\008.dat
Rep 1 Sample ID	1262 CF PP5974
Rep 1 Calib. Time	09/11/2019 16:29:44

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1262.met
Print Time: 09/16/2019 09:21:06
User: JJY
Instrument: Semi 7

Aroclor 1262 #2 (front detector)
Average RF: 2.99561e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 2.99561e+008



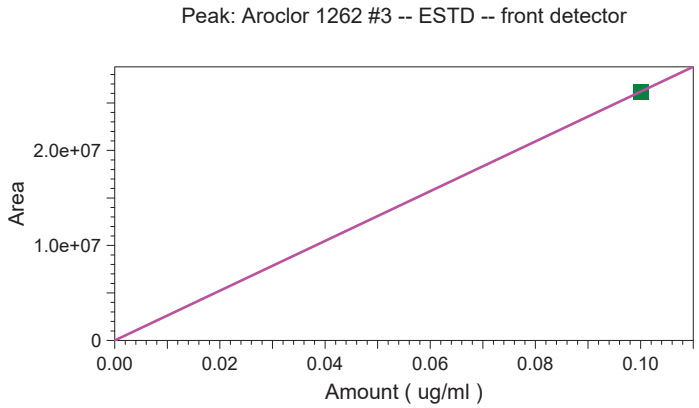
	Level 1
Amount	0.1
Area	29956064
RF	299560640
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	29956064
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\008.dat
Rep 1 Sample ID	1262 CF PP5974
Rep 1 Calib. Time	09/11/2019 16:29:44

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1262.met
Print Time: 09/16/2019 09:21:07
User: JJY
Instrument: Semi 7

Aroclor 1262 #3 (front detector)
Average RF: 2.61883e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 2.61883e+008



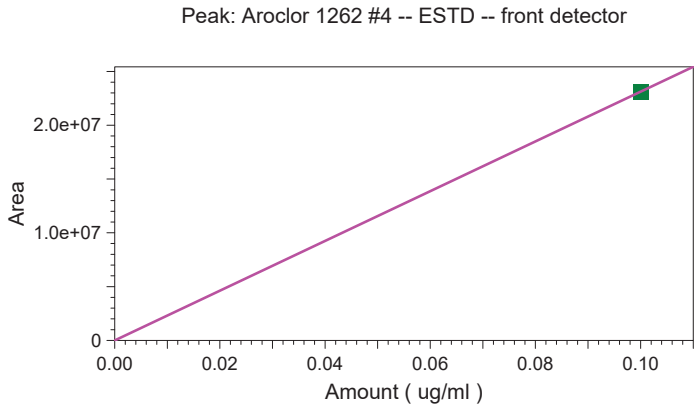
	Level 1
Amount	0.1
Area	26188325
RF	261883250
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	26188325
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\008.dat
Rep 1 Sample ID	1262 CF PP5974
Rep 1 Calib. Time	09/11/2019 16:29:44

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1262.met
Print Time: 09/16/2019 09:21:09
User: JJY
Instrument: Semi 7

Aroclor 1262 #4 (front detector)
Average RF: 2.31196e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 2.31196e+008



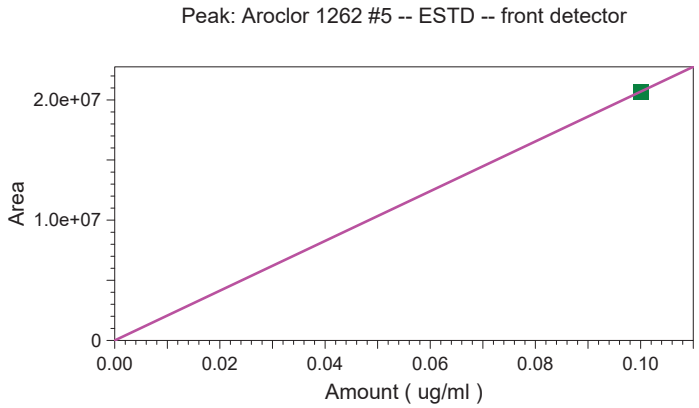
	Level 1
Amount	0.1
Area	23119582
RF	231195820
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	23119582
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\008.dat
Rep 1 Sample ID	1262 CF PP5974
Rep 1 Calib. Time	09/11/2019 16:29:44

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1262.met
Print Time: 09/16/2019 09:21:10
User: JJY
Instrument: Semi 7

Aroclor 1262 #5 (front detector)
Average RF: 2.06880e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 2.06880e+008



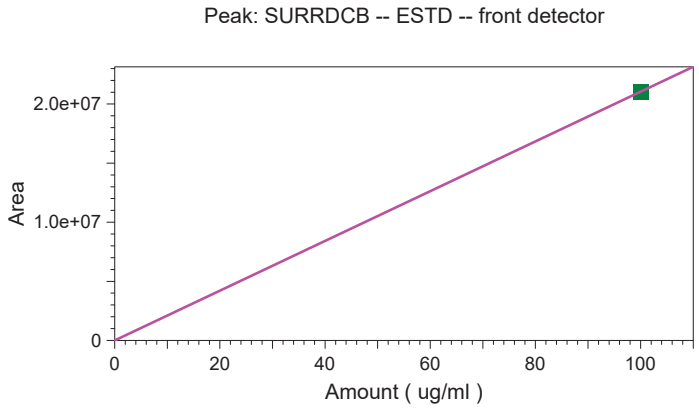
	Level 1
Amount	0.1
Area	20688042
RF	206880420
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	20688042
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\008.dat
Rep 1 Sample ID	1262 CF PP5974
Rep 1 Calib. Time	09/11/2019 16:29:44

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1262.met
Print Time: 09/16/2019 09:21:12
User: JJY
Instrument: Semi 7

SURRDCB (front detector)
Average RF: 210443.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 210443.



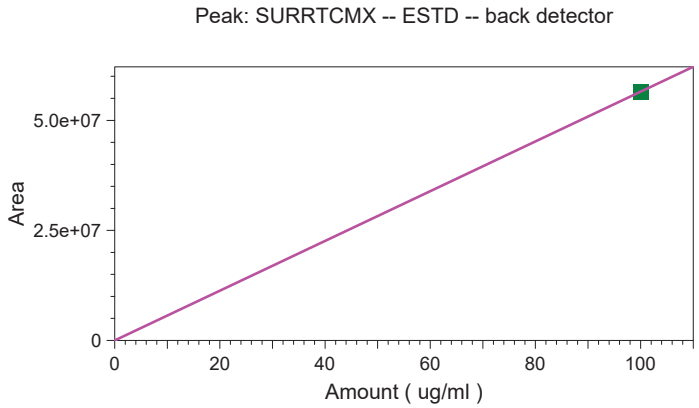
	Level 1
Amount	100
Area	21044308
RF	210443.08
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	21044308
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\008.dat
Rep 1 Sample ID	1262 CF PP5974
Rep 1 Calib. Time	09/11/2019 16:29:44

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1262.met
Print Time: 09/16/2019 09:21:16
User: JJY
Instrument: Semi 7

SURRTCMX (back detector)
Average RF: 565269.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 565269.



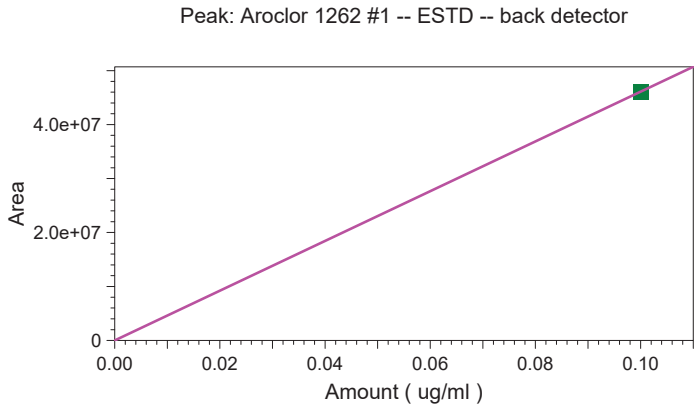
	Level 1
Amount	100
Area	56526860
RF	565268.6
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	56526860
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\008.dat
Rep 1 Sample ID	1262 CF PP5974
Rep 1 Calib. Time	09/11/2019 16:29:44

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1262.met
Print Time: 09/16/2019 09:21:18
User: JJY
Instrument: Semi 7

Aroclor 1262 #1 (back detector)
Average RF: 4.60928e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 4.60928e+008



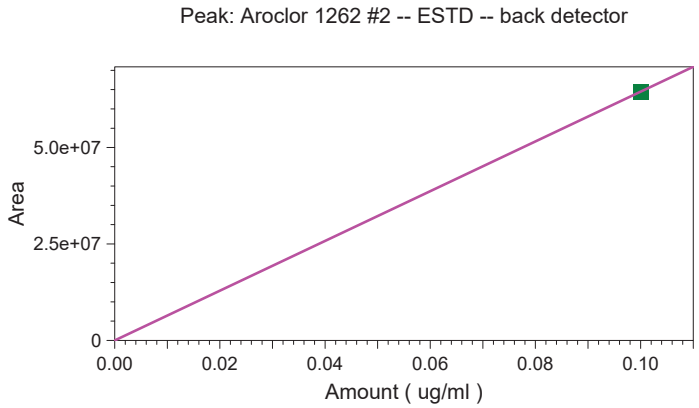
	Level 1
Amount	0.1
Area	46092846
RF	460928460
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	46092846
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\008.dat
Rep 1 Sample ID	1262 CF PP5974
Rep 1 Calib. Time	09/11/2019 16:29:44

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1262.met
Print Time: 09/16/2019 09:21:19
User: JJY
Instrument: Semi 7

Aroclor 1262 #2 (back detector)
Average RF: 6.44593e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 6.44593e+008



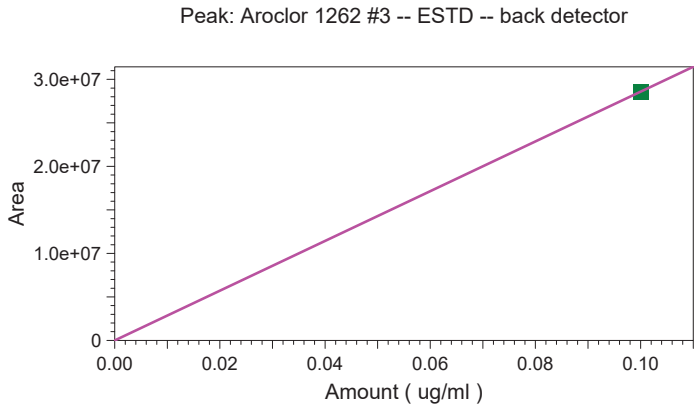
	Level 1
Amount	0.1
Area	64459268
RF	644592680
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	64459268
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\008.dat
Rep 1 Sample ID	1262 CF PP5974
Rep 1 Calib. Time	09/11/2019 16:29:44

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1262.met
Print Time: 09/16/2019 09:21:20
User: JJY
Instrument: Semi 7

Aroclor 1262 #3 (back detector)
Average RF: 2.85887e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 2.85887e+008



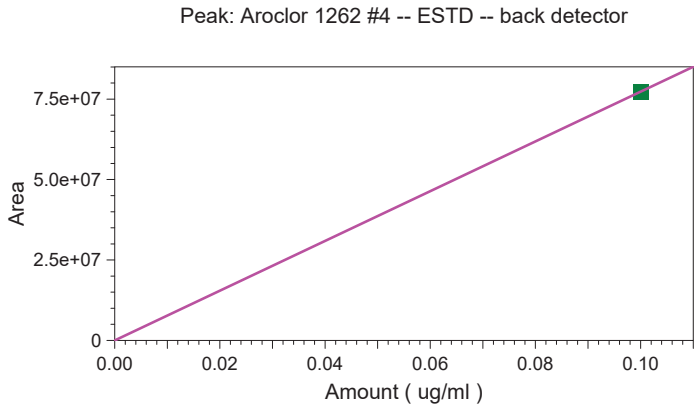
	Level 1
Amount	0.1
Area	28588723
RF	285887230
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	28588723
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\008.dat
Rep 1 Sample ID	1262 CF PP5974
Rep 1 Calib. Time	09/11/2019 16:29:44

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1262.met
Print Time: 09/16/2019 09:21:22
User: JJY
Instrument: Semi 7

Aroclor 1262 #4 (back detector)
Average RF: 7.73192e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 7.73192e+008



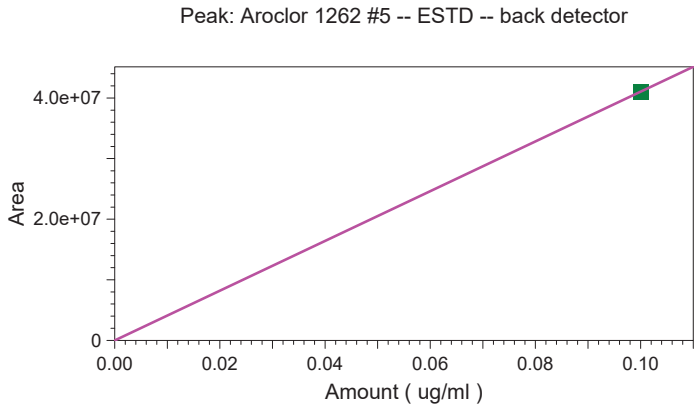
	Level 1
Amount	0.1
Area	77319241
RF	773192410
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	77319241
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\008.dat
Rep 1 Sample ID	1262 CF PP5974
Rep 1 Calib. Time	09/11/2019 16:29:44

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1262.met
Print Time: 09/16/2019 09:21:23
User: JJY
Instrument: Semi 7

Aroclor 1262 #5 (back detector)
Average RF: 4.10452e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 4.10452e+008



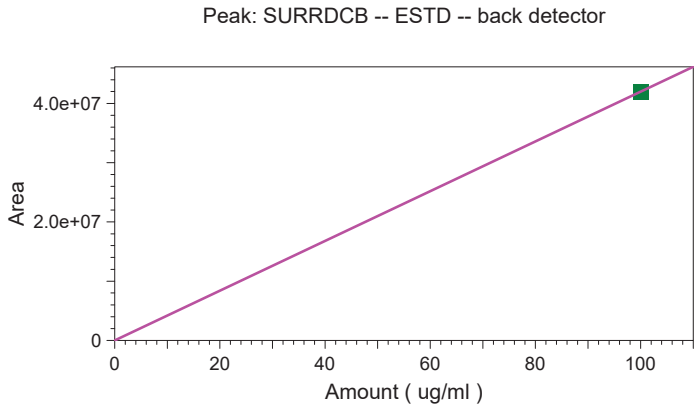
	Level 1
Amount	0.1
Area	41045168
RF	410451680
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	41045168
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\008.dat
Rep 1 Sample ID	1262 CF PP5974
Rep 1 Calib. Time	09/11/2019 16:29:44

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1262.met
Print Time: 09/16/2019 09:21:24
User: JJY
Instrument: Semi 7

SURRDCB (back detector)
Average RF: 419845.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 419845.



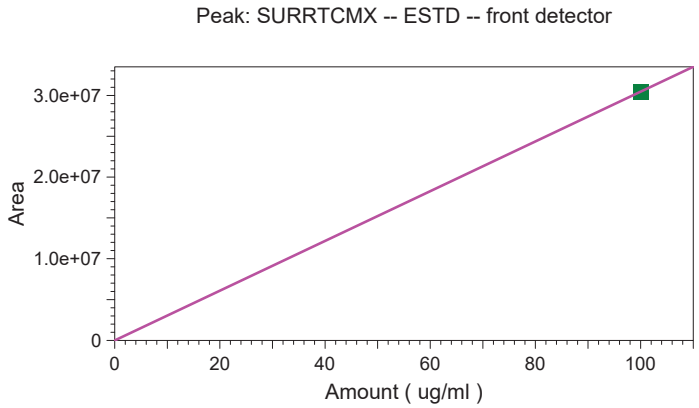
	Level 1
Amount	100
Area	41984510
RF	419845.1
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	41984510
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\008.dat
Rep 1 Sample ID	1262 CF PP5974
Rep 1 Calib. Time	09/11/2019 16:29:44

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1268.met
Print Time: 09/16/2019 09:22:13
User: JJY
Instrument: Semi 7

SURRTCMX (front detector)
Average RF: 304607.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 304607.



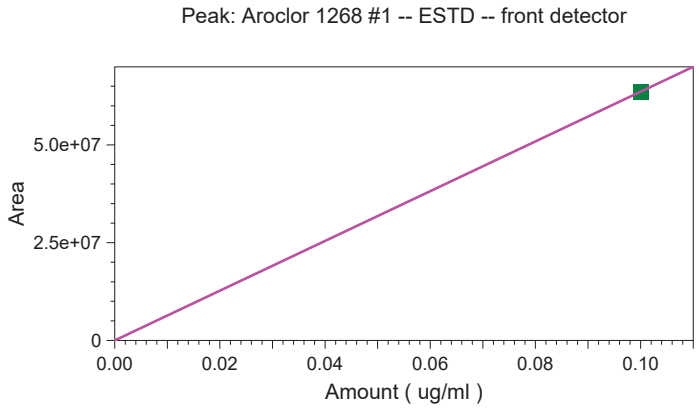
	Level 1
Amount	100
Area	30460682
RF	304606.82
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	30460682
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\009.dat
Rep 1 Sample ID	1268 CF PP5975
Rep 1 Calib. Time	09/11/2019 16:31:13

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1268.met
Print Time: 09/16/2019 09:22:15
User: JJY
Instrument: Semi 7

Aroclor 1268 #1 (front detector)
Average RF: 6.36222e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 6.36222e+008



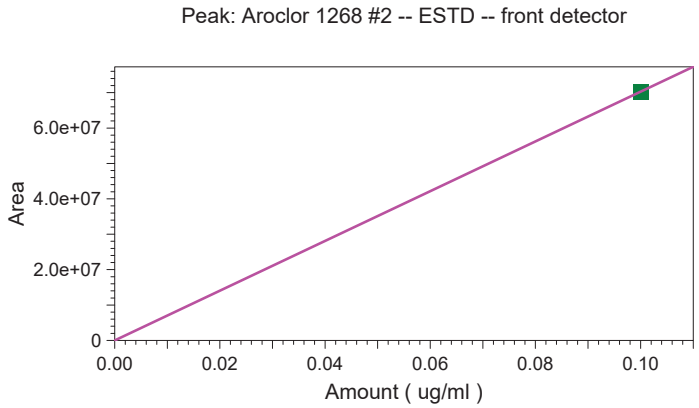
	Level 1
Amount	0.1
Area	63622176
RF	636221760
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	63622176
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\009.dat
Rep 1 Sample ID	1268 CF PP5975
Rep 1 Calib. Time	09/11/2019 16:31:13

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1268.met
Print Time: 09/16/2019 09:22:16
User: JJY
Instrument: Semi 7

Aroclor 1268 #2 (front detector)
Average RF: 7.02688e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 7.02688e+008



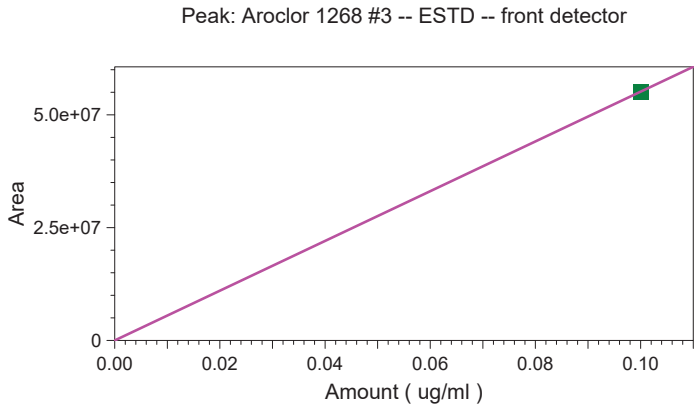
	Level 1
Amount	0.1
Area	70268776
RF	702687760
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	70268776
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\009.dat
Rep 1 Sample ID	1268 CF PP5975
Rep 1 Calib. Time	09/11/2019 16:31:13

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1268.met
Print Time: 09/16/2019 09:22:17
User: JJY
Instrument: Semi 7

Aroclor 1268 #3 (front detector)
Average RF: 5.51359e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 5.51359e+008



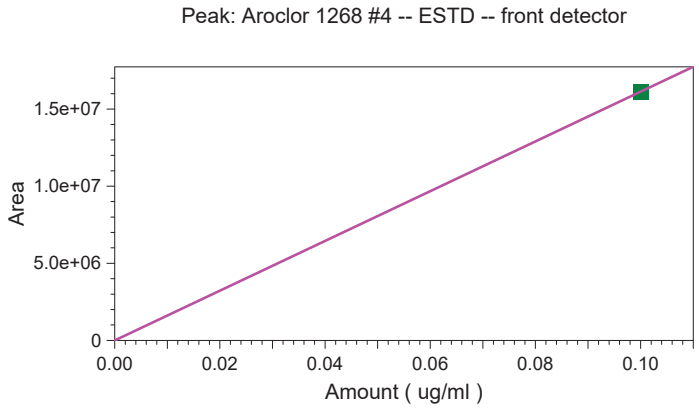
	Level 1
Amount	0.1
Area	55135886
RF	551358860
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	55135886
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\009.dat
Rep 1 Sample ID	1268 CF PP5975
Rep 1 Calib. Time	09/11/2019 16:31:13

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1268.met
Print Time: 09/16/2019 09:22:19
User: JJY
Instrument: Semi 7

Aroclor 1268 #4 (front detector)
Average RF: 1.61319e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.61319e+008



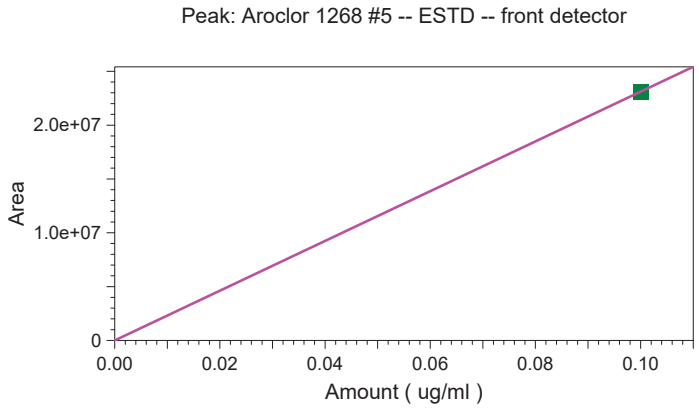
	Level 1
Amount	0.1
Area	16131888
RF	161318880
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	16131888
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\009.dat
Rep 1 Sample ID	1268 CF PP5975
Rep 1 Calib. Time	09/11/2019 16:31:13

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1268.met
Print Time: 09/16/2019 09:22:20
User: JJY
Instrument: Semi 7

Aroclor 1268 #5 (front detector)
Average RF: 2.31110e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 2.31110e+008



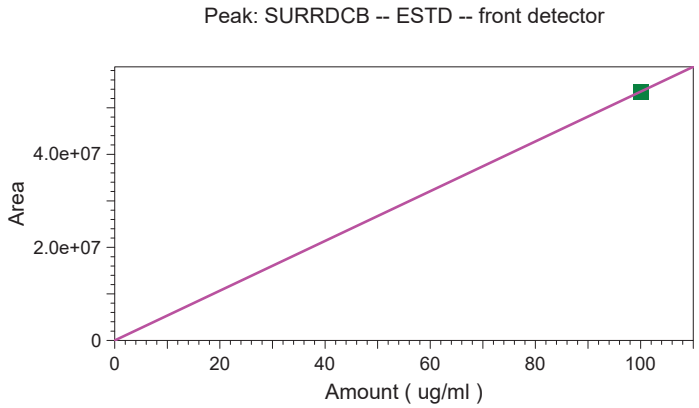
	Level 1
Amount	0.1
Area	23110974
RF	231109740
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	23110974
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\009.dat
Rep 1 Sample ID	1268 CF PP5975
Rep 1 Calib. Time	09/11/2019 16:31:13

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1268.met
Print Time: 09/16/2019 09:22:22
User: JJY
Instrument: Semi 7

SURRDCB (front detector)
Average RF: 534657.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 534657.



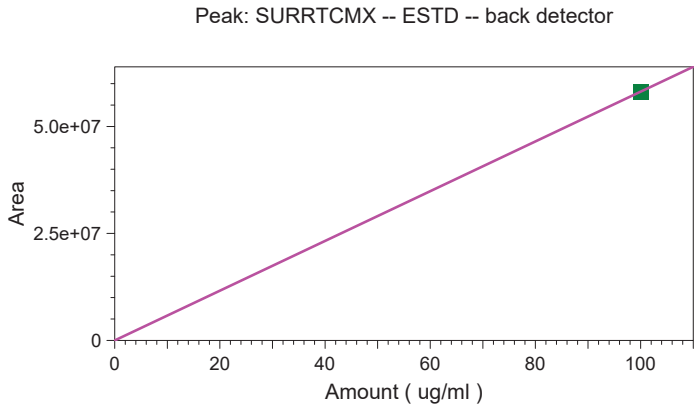
	Level 1
Amount	100
Area	53465685
RF	534656.85
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	53465685
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\009.dat
Rep 1 Sample ID	1268 CF PP5975
Rep 1 Calib. Time	09/11/2019 16:31:13

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1268.met
Print Time: 09/16/2019 09:21:58
User: JJY
Instrument: Semi 7

SURRTCMX (back detector)
Average RF: 581417.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 581417.



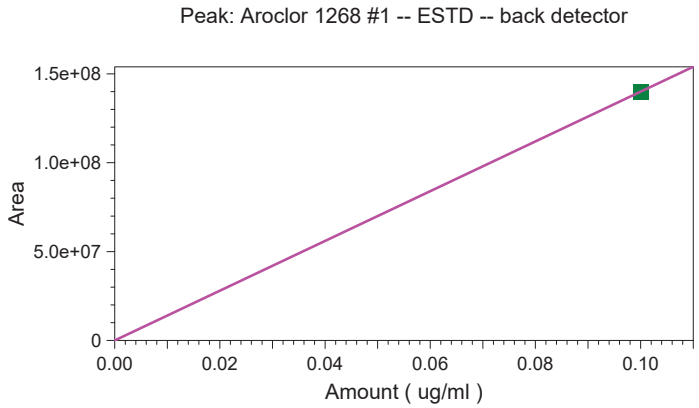
	Level 1
Amount	100
Area	58141728
RF	581417.28
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	58141728
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\009.dat
Rep 1 Sample ID	1268 CF PP5975
Rep 1 Calib. Time	09/11/2019 16:31:13

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1268.met
Print Time: 09/16/2019 09:22:01
User: JJY
Instrument: Semi 7

Aroclor 1268 #1 (back detector)
Average RF: 1.39985e+009
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.39985e+009



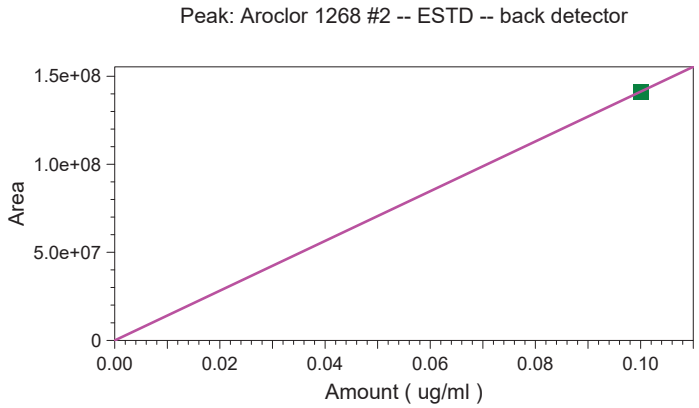
	Level 1
Amount	0.1
Area	139985190
RF	1399851900
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	139985190
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\009.dat
Rep 1 Sample ID	1268 CF PP5975
Rep 1 Calib. Time	09/11/2019 16:31:13

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1268.met
Print Time: 09/16/2019 09:22:02
User: JJY
Instrument: Semi 7

Aroclor 1268 #2 (back detector)
Average RF: 1.41216e+009
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.41216e+009



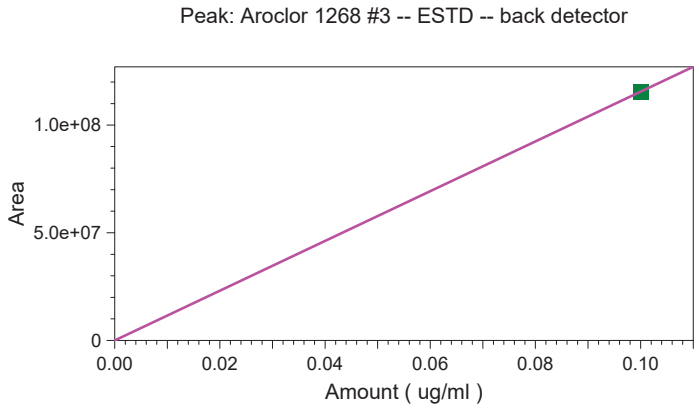
	Level 1
Amount	0.1
Area	141215777
RF	1412157770
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	141215777
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\009.dat
Rep 1 Sample ID	1268 CF PP5975
Rep 1 Calib. Time	09/11/2019 16:31:13

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1268.met
Print Time: 09/16/2019 09:22:03
User: JJY
Instrument: Semi 7

Aroclor 1268 #3 (back detector)
Average RF: 1.15514e+009
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.15514e+009



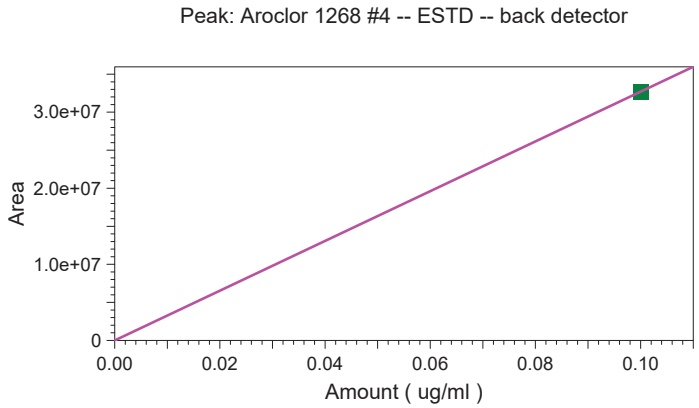
	Level 1
Amount	0.1
Area	115513708
RF	1155137080
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	115513708
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\009.dat
Rep 1 Sample ID	1268 CF PP5975
Rep 1 Calib. Time	09/11/2019 16:31:13

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1268.met
Print Time: 09/16/2019 09:22:05
User: JJY
Instrument: Semi 7

Aroclor 1268 #4 (back detector)
Average RF: 3.26994e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 3.26994e+008



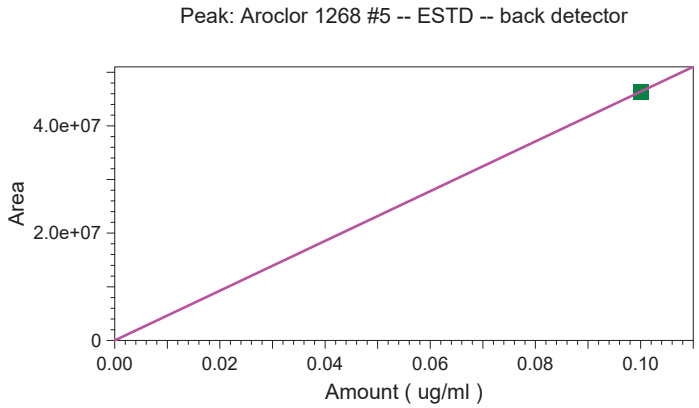
	Level 1
Amount	0.1
Area	32699408
RF	326994080
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	32699408
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\009.dat
Rep 1 Sample ID	1268 CF PP5975
Rep 1 Calib. Time	09/11/2019 16:31:13

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1268.met
Print Time: 09/16/2019 09:22:06
User: JJY
Instrument: Semi 7

Aroclor 1268 #5 (back detector)
Average RF: 4.63713e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 4.63713e+008



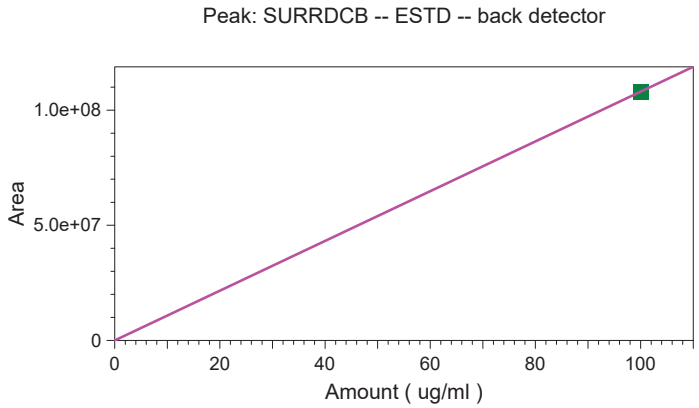
	Level 1
Amount	0.1
Area	46371280
RF	463712800
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	46371280
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\009.dat
Rep 1 Sample ID	1268 CF PP5975
Rep 1 Calib. Time	09/11/2019 16:31:13

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1268.met
Print Time: 09/16/2019 09:22:07
User: JJY
Instrument: Semi 7

SURRDCB (back detector)
Average RF: 1.08037e+006
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.08037e+006

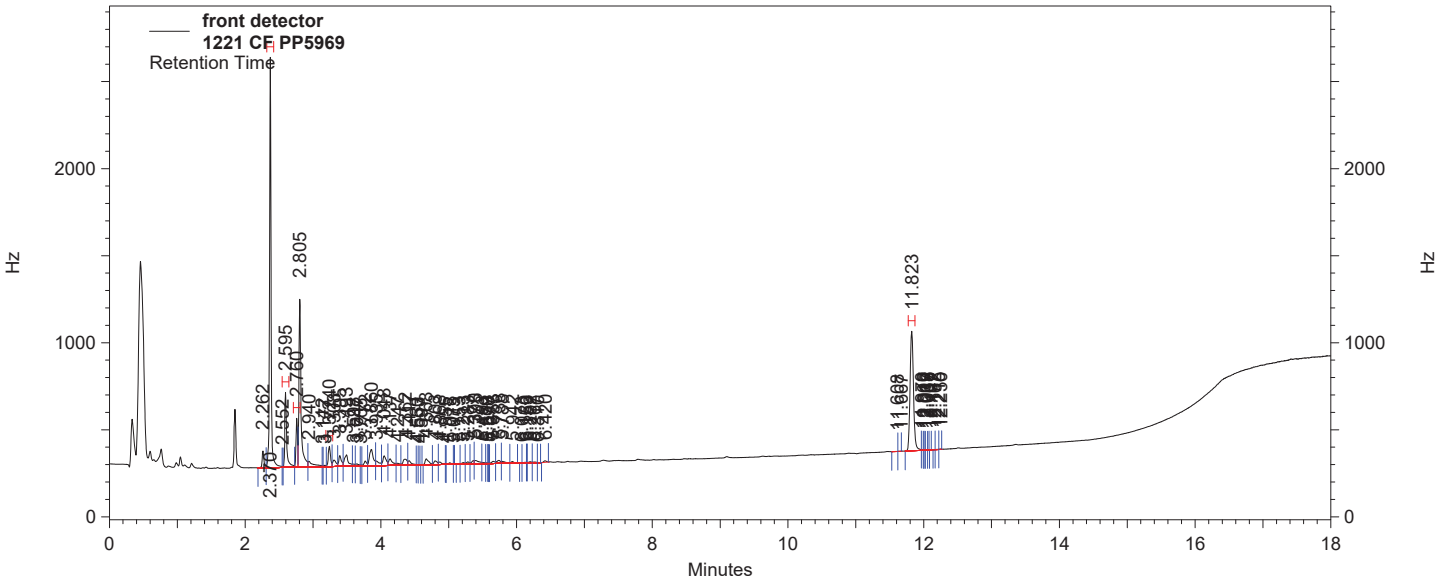


	Level 1
Amount	100
Area	108037028
RF	1080370.28
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	108037028
Rep 1 User	AJZ
Rep 1 Data File	C:\Instarch\Semi7\Data\091019pcbic\009.dat
Rep 1 Sample ID	1268 CF PP5975
Rep 1 Calib. Time	09/11/2019 16:31:13

PCB Analysis Report (1221) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\003.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1221.met
User: JJY
Sample ID: 1221 CF PP5969
Acquired: 09/10/2019 17:33:39
Printed: 09/16/2019 09:08:38

Data Summary: {Data Description}



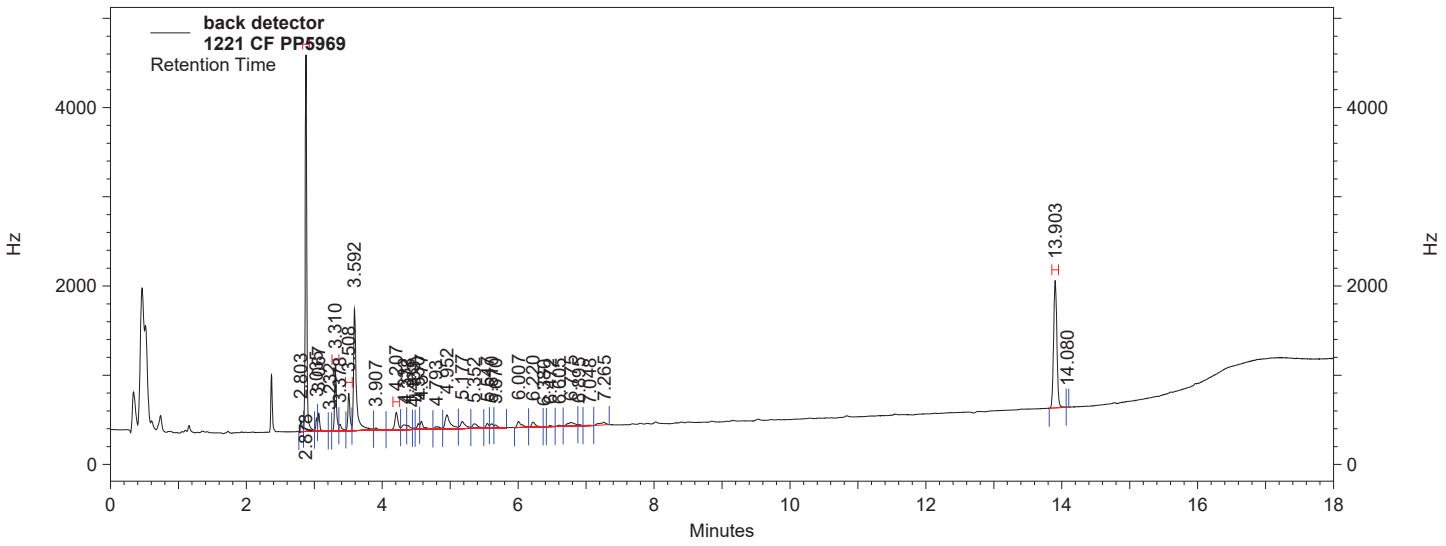
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.370	28883174	100.000 CAL
Aroclor 1221 #1	2.595	6346924	0.167 CAL
Aroclor 1221 #2	2.760	3314129	0.167 CAL
Aroclor 1221 #3	3.240	1988735	0.167 CAL
SURRDCB	11.823	18633756	100.000 CAL
Aroclor 1221		11649788	0.500 CAL

PCB Analysis Report (1221) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\003.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1221.met
User: JJY
Sample ID: 1221 CF PP5969
Acquired: 09/10/2019 17:33:39
Printed: 09/16/2019 09:08:38

Data Summary: {Data Description}



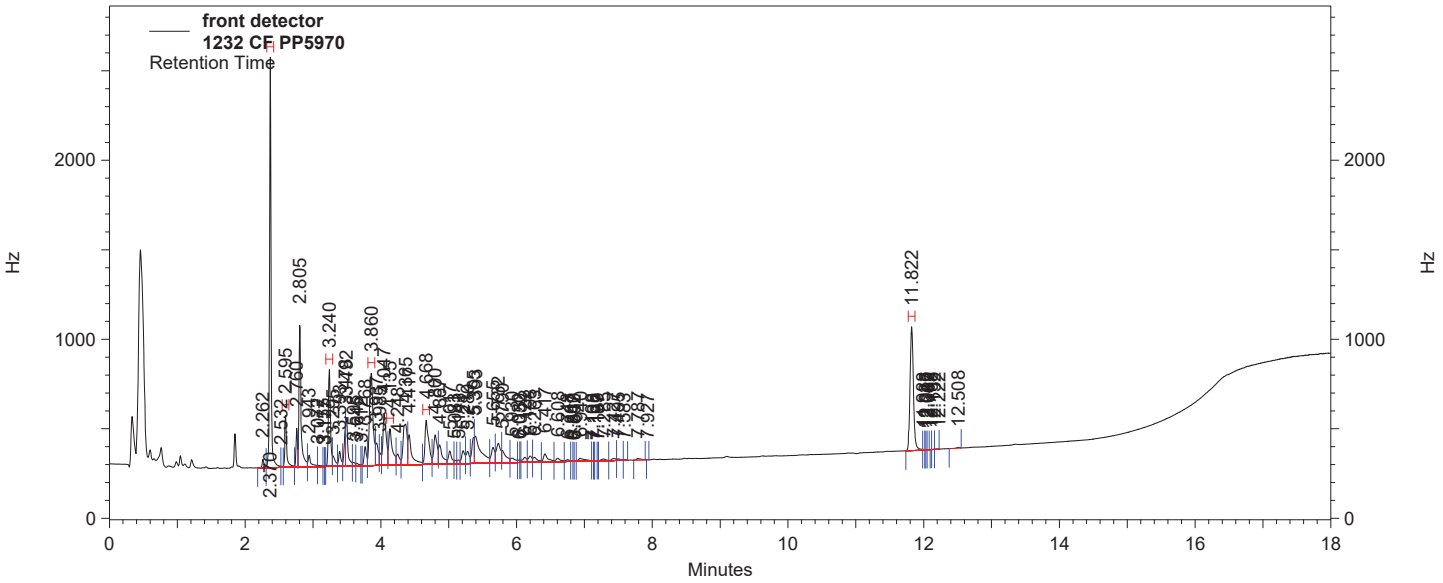
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.878	50803271	100.000 CAL
Aroclor 1221 #1	3.310	10189879	0.167 CAL
Aroclor 1221 #2	3.508	6712070	0.167 CAL
Aroclor 1221 #3	4.207	4855031	0.167 CAL
SURRDCB	13.903	36545918	100.000 CAL
Aroclor 1221		21756980	0.500 CAL

PCB Analysis Report (1232) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\004.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1232.met
User: JJY
Sample ID: 1232 CF PP5970
Acquired: 09/10/2019 17:54:54
Printed: 09/16/2019 09:08:42

Data Summary: {Data Description}



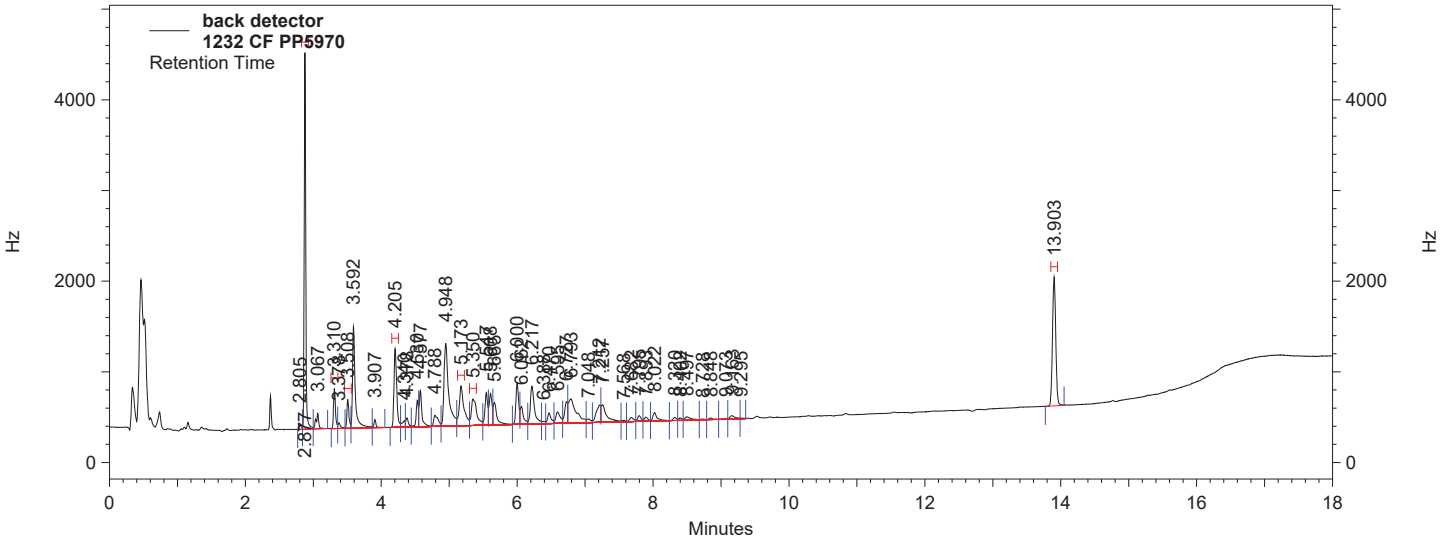
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.370	28058598	100.000 CAL
Aroclor 1232 #1	2.595	4357921	0.100 CAL
Aroclor 1232 #2	3.240	8944366	0.100 CAL
Aroclor 1232 #3	3.860	14697919	0.100 CAL
Aroclor 1232 #4	4.135	5840995	0.100 CAL
Aroclor 1232 #5	4.668	7172161	0.100 CAL
SURRDCB	11.822	18514883	100.000 CAL
Aroclor 1232		41013362	0.500 CAL

PCB Analysis Report (1232) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\004.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1232.met
User: JJY
Sample ID: 1232 CF PP5970
Acquired: 09/10/2019 17:54:54
Printed: 09/16/2019 09:08:42

Data Summary: {Data Description}



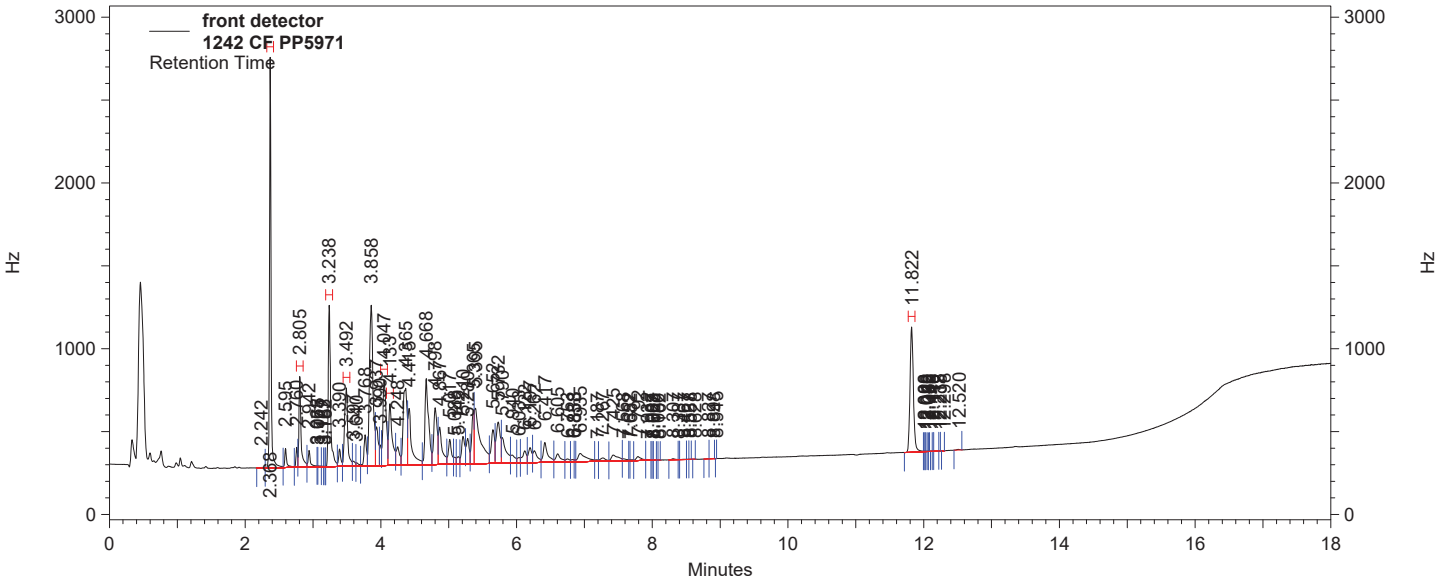
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.877	50204610	100.000 CAL
Aroclor 1232 #1	3.310	6651257	0.100 CAL
Aroclor 1232 #2	3.508	5103671	0.100 CAL
Aroclor 1232 #3	4.205	18472772	0.100 CAL
Aroclor 1232 #4	5.173	16526201	0.100 CAL
Aroclor 1232 #5	5.350	12488345	0.100 CAL
SURRDCB	13.903	36305825	100.000 CAL
Aroclor 1232		59242246	0.500 CAL

PCB Analysis Report (1242) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\005.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1242.met
User: JJY
Sample ID: 1242 CF PP5971
Acquired: 09/10/2019 18:16:08
Printed: 09/16/2019 09:08:45

Data Summary: {Data Description}



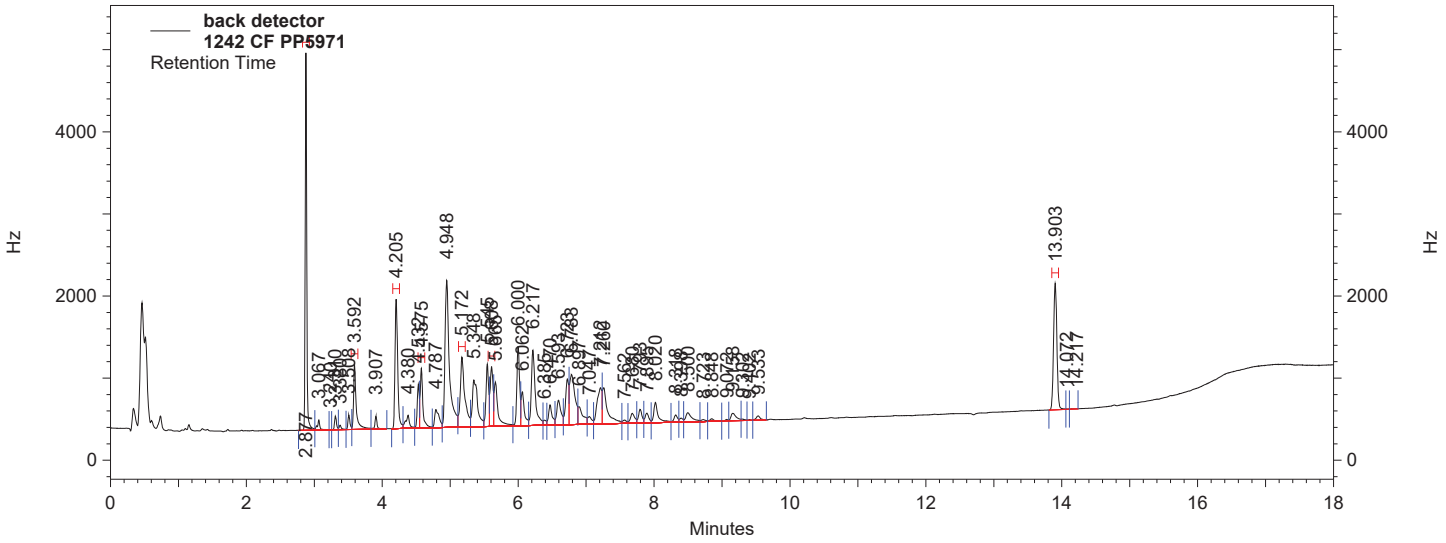
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.368	29989917	100.000 CAL
Aroclor 1242 #1	2.805	8804960	0.100 CAL
Aroclor 1242 #2	3.238	17449201	0.100 CAL
Aroclor 1242 #3	3.492	11728490	0.100 CAL
Aroclor 1242 #4	4.047	13600761	0.100 CAL
Aroclor 1242 #5	4.133	10289035	0.100 CAL
SURRDCB	11.822	20063271	100.000 CAL
Aroclor 1242		61872447	0.500 CAL

PCB Analysis Report (1242) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\005.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1242.met
User: JJY
Sample ID: 1242 CF PP5971
Acquired: 09/10/2019 18:16:08
Printed: 09/16/2019 09:08:45

Data Summary: {Data Description}



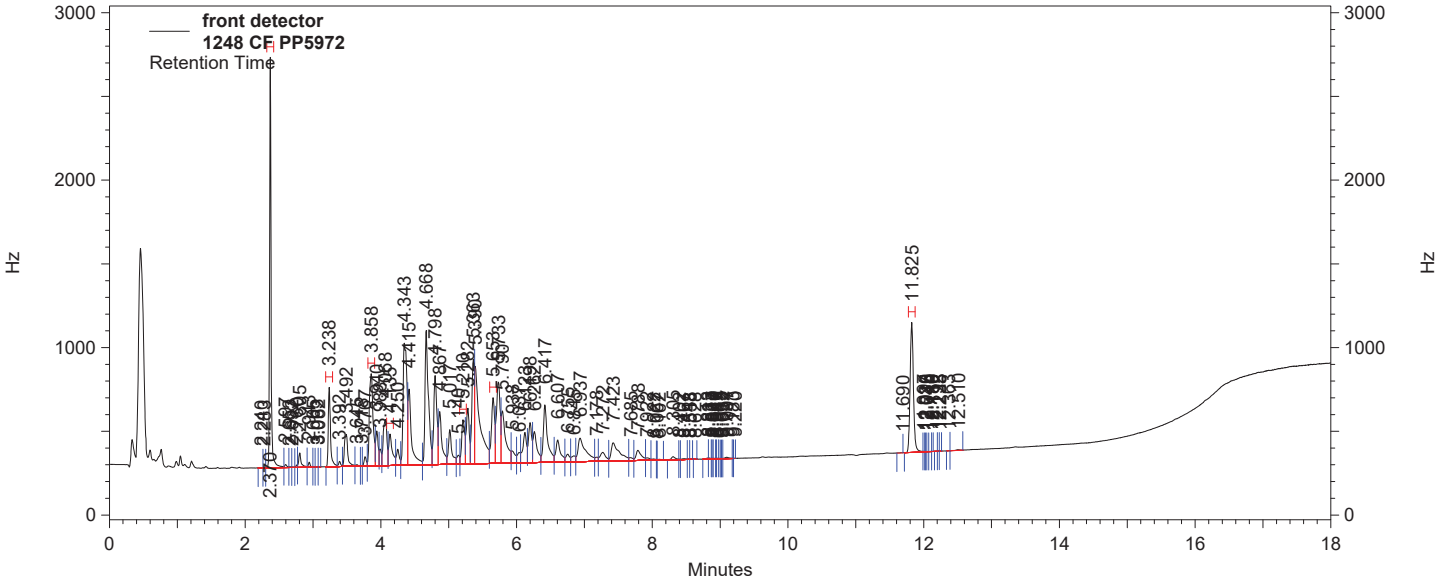
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.877	55241111	100.000 CAL
Aroclor 1242 #1	3.592	16458174	0.100 CAL
Aroclor 1242 #2	4.205	33329487	0.100 CAL
Aroclor 1242 #3	4.575	14980452	0.100 CAL
Aroclor 1242 #4	5.172	30550655	0.100 CAL
Aroclor 1242 #5	5.608	16340662	0.100 CAL
SURRDCB	13.903	40047265	100.000 CAL
Aroclor 1242		111659430	0.500 CAL

PCB Analysis Report (1248) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\006.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1248.met
User: JJY
Sample ID: 1248 CF PP5972
Acquired: 09/10/2019 18:37:25
Printed: 09/16/2019 09:08:48

Data Summary: {Data Description}



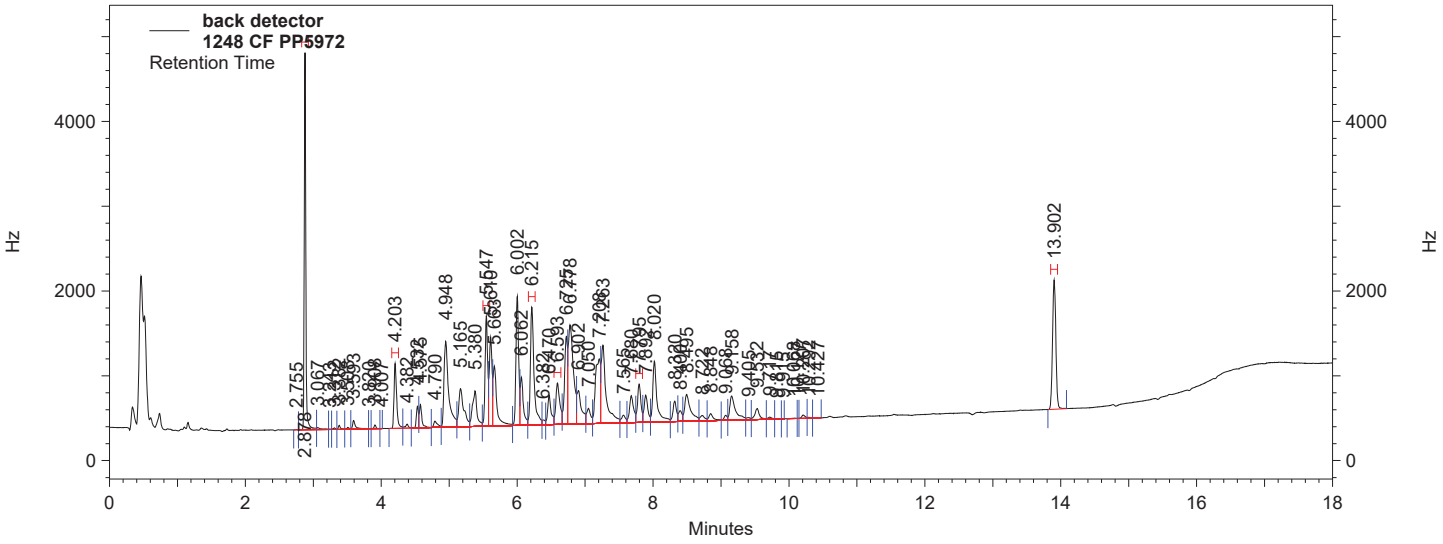
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.370	29177097	100.000 CAL
Aroclor 1248 #1	3.238	8125415	0.100 CAL
Aroclor 1248 #2	3.858	16056155	0.100 CAL
Aroclor 1248 #3	4.135	5243315	0.100 CAL
Aroclor 1248 #4	5.210	6286413	0.100 CAL
Aroclor 1248 #5	5.653	9978059	0.100 CAL
SURRDCB	11.825	20482051	100.000 CAL
Aroclor 1248		45689357	0.500 CAL

PCB Analysis Report (1248) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\006.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1248.met
User: JJY
Sample ID: 1248 CF PP5972
Acquired: 09/10/2019 18:37:25
Printed: 09/16/2019 09:08:48

Data Summary: {Data Description}



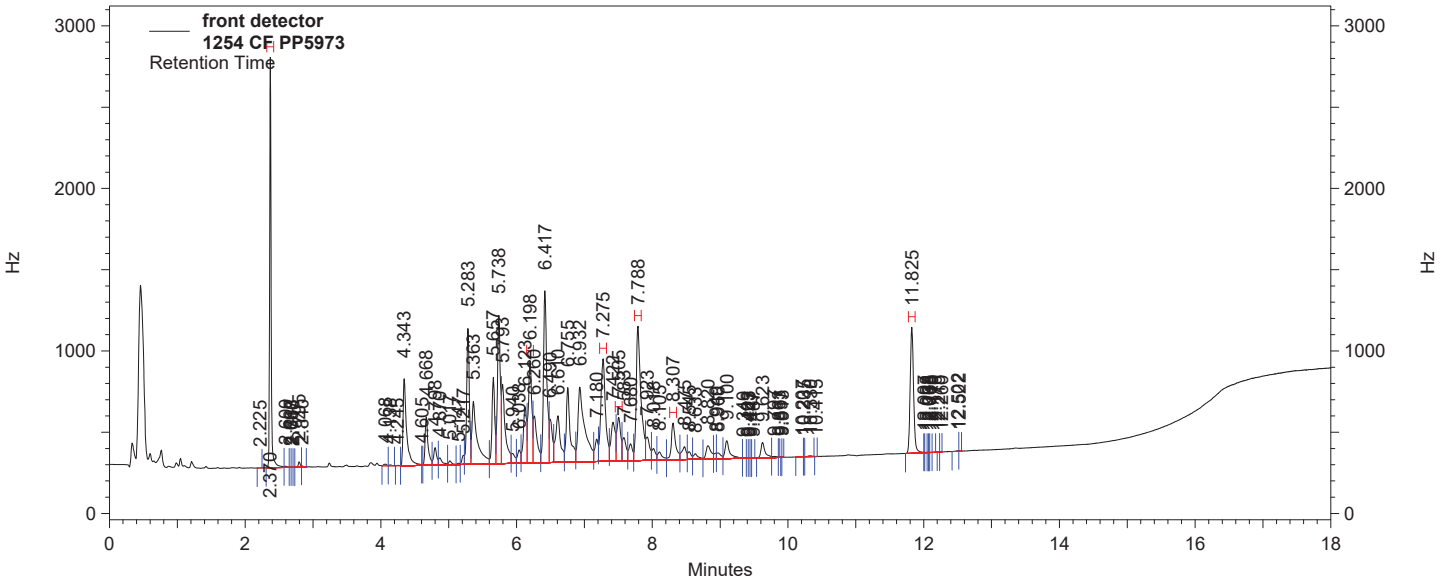
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.878	54194292	100.000 CAL
Aroclor 1248 #1	4.203	15648908	0.100 CAL
Aroclor 1248 #2	5.547	25631636	0.100 CAL
Aroclor 1248 #3	6.215	39329789	0.100 CAL
Aroclor 1248 #4	6.593	15361551	0.100 CAL
Aroclor 1248 #5	7.795	12038085	0.100 CAL
SURRDCB	13.902	39529372	100.000 CAL
Aroclor 1248		108009969	0.500 CAL

PCB Analysis Report (1254) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\007.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1254.met
User: JJY
Sample ID: 1254 CF PP5973
Acquired: 09/10/2019 18:58:39
Printed: 09/16/2019 09:08:53

Data Summary: {Data Description}



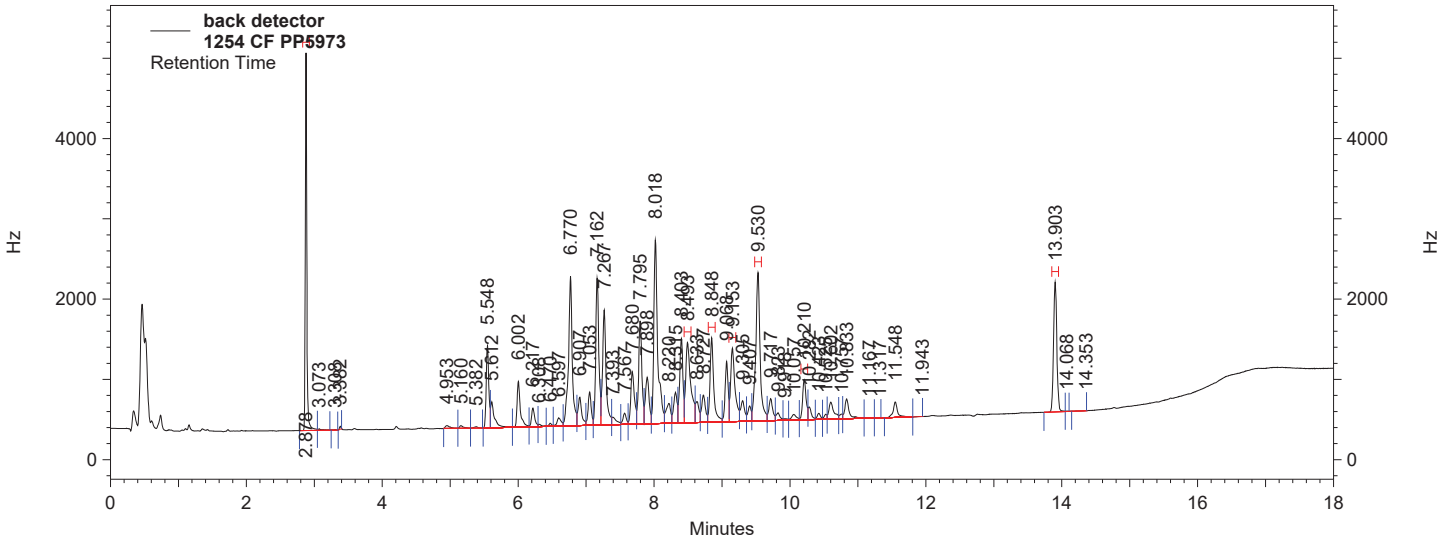
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.370	29985127	100.000 CAL
Aroclor 1254 #1	6.198	16705977	0.100 CAL
Aroclor 1254 #2	7.275	22913936	0.100 CAL
Aroclor 1254 #3	7.505	8045635	0.100 CAL
Aroclor 1254 #4	7.788	30229204	0.100 CAL
Aroclor 1254 #5	8.307	7578191	0.100 CAL
SURRDCB	11.825	20793985	100.000 CAL
Aroclor 1254		85472943	0.500 CAL

PCB Analysis Report (1254) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\007.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1254.met
User: JJY
Sample ID: 1254 CF PP5973
Acquired: 09/10/2019 18:58:39
Printed: 09/16/2019 09:08:53

Data Summary: {Data Description}



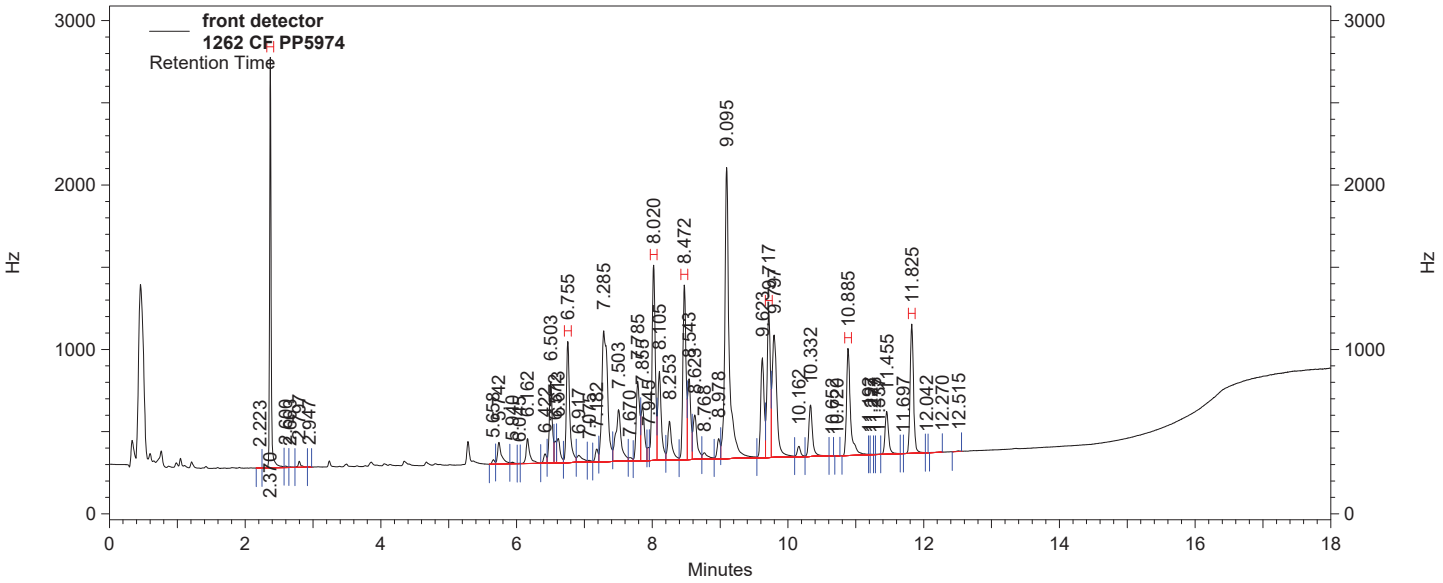
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.878	56385238	100.000 CAL
Aroclor 1254 #1	8.493	40124868	0.100 CAL
Aroclor 1254 #2	8.848	30537629	0.100 CAL
Aroclor 1254 #3	9.153	31443582	0.100 CAL
Aroclor 1254 #4	9.530	63829598	0.100 CAL
Aroclor 1254 #5	10.210	13755529	0.100 CAL
SURRDCB	13.903	41423248	100.000 CAL
Aroclor 1254		179691206	0.500 CAL

PCB Analysis Report (1262) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\008.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1262.met
User: JJY
Sample ID: 1262 CF PP5974
Acquired: 09/10/2019 19:19:55
Printed: 09/16/2019 09:08:57

Data Summary: {Data Description}



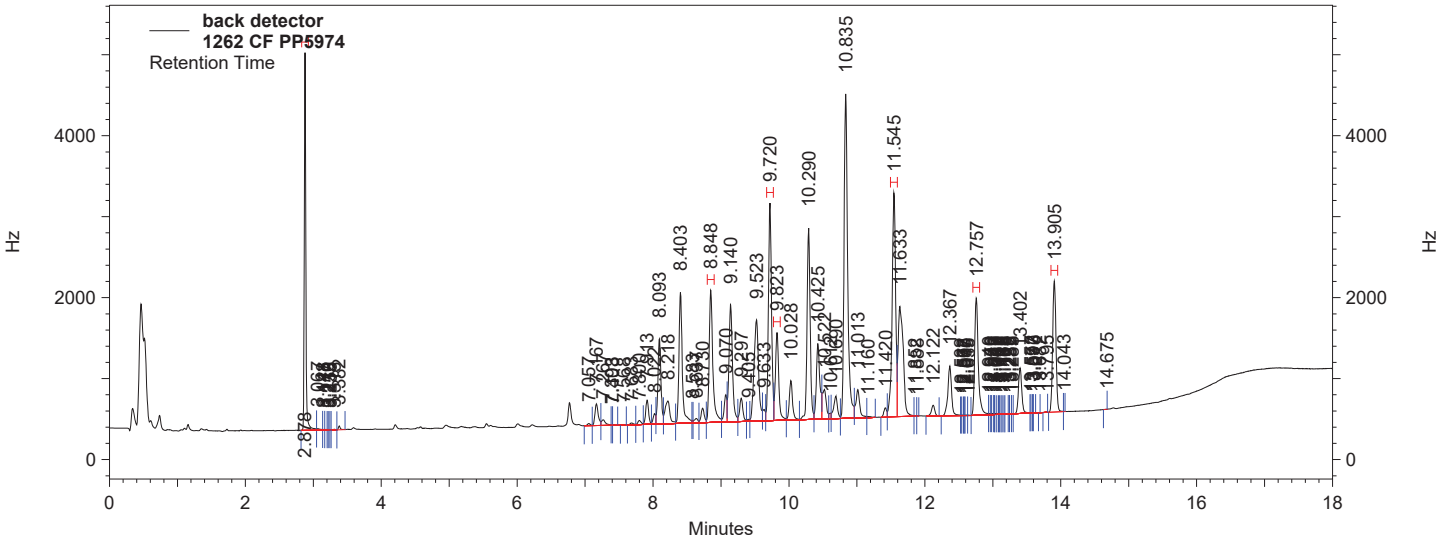
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.370	29862704	100.000 CAL
Aroclor 1262 #1	6.755	19334519	0.100 CAL
Aroclor 1262 #2	8.020	29956064	0.100 CAL
Aroclor 1262 #3	8.472	26188325	0.100 CAL
Aroclor 1262 #4	9.717	23119582	0.100 CAL
Aroclor 1262 #5	10.885	20688042	0.100 CAL
SURRDCB	11.825	21044308	100.000 CAL
Aroclor 1262		119286532	0.500 CAL

PCB Analysis Report (1262) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\008.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1262.met
User: JJY
Sample ID: 1262 CF PP5974
Acquired: 09/10/2019 19:19:55
Printed: 09/16/2019 09:08:57

Data Summary: {Data Description}



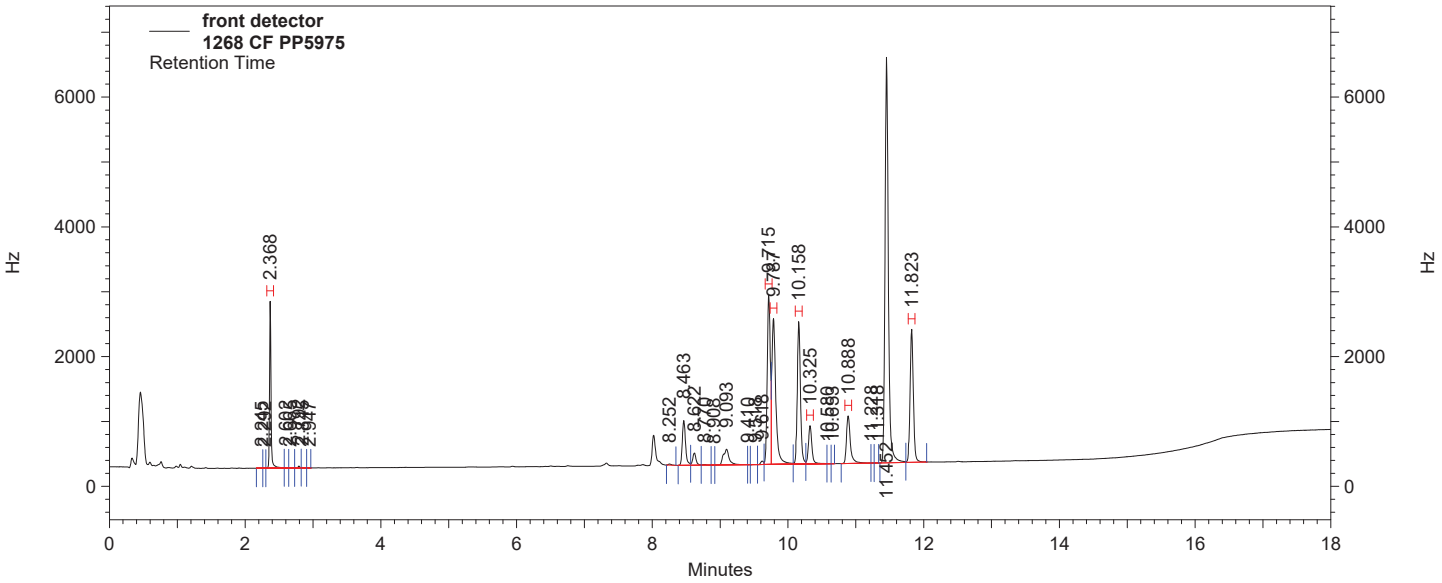
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.878	56526860	100.000 CAL
Aroclor 1262 #1	8.848	46092846	0.100 CAL
Aroclor 1262 #2	9.720	64459268	0.100 CAL
Aroclor 1262 #3	9.823	28588723	0.100 CAL
Aroclor 1262 #4	11.545	77319241	0.100 CAL
Aroclor 1262 #5	12.757	41045168	0.100 CAL
SURRDCB	13.905	41984510	100.000 CAL
Aroclor 1262		257505246	0.500 CAL

PCB Analysis Report (1268) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\009.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1268.met
User: JJY
Sample ID: 1268 CF PP5975
Acquired: 09/10/2019 19:41:04
Printed: 09/16/2019 09:09:00

Data Summary: {Data Description}



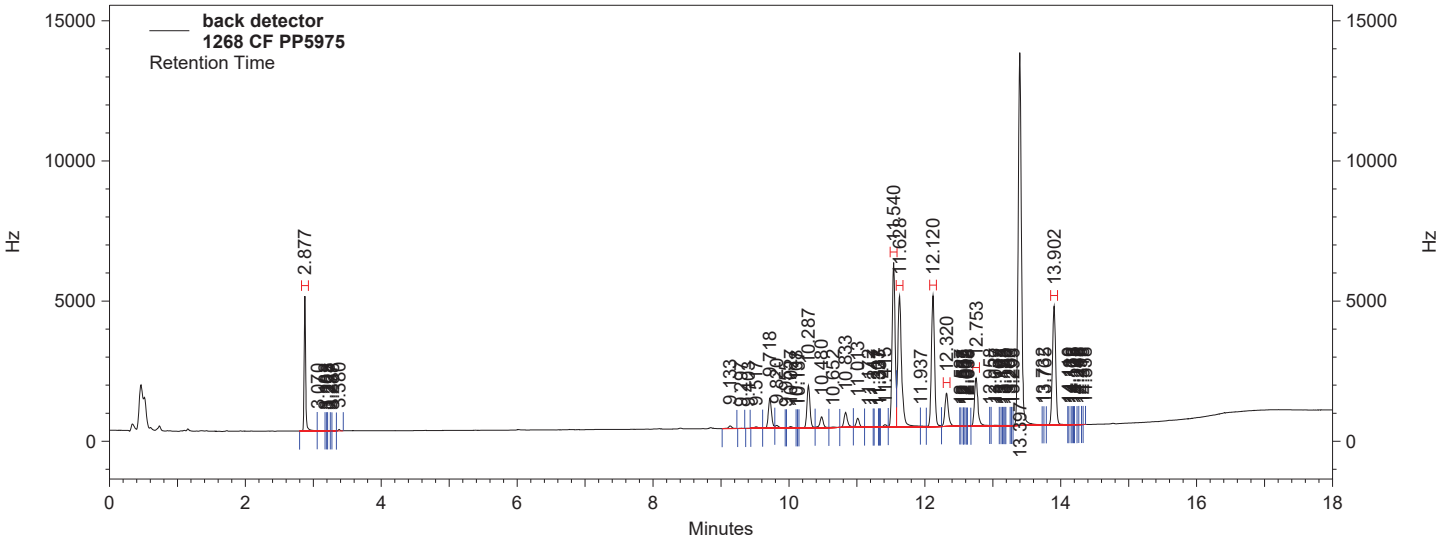
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.368	30460682	100.000 CAL
Aroclor 1268 #1	9.715	63622176	0.100 CAL
Aroclor 1268 #2	9.787	70268776	0.100 CAL
Aroclor 1268 #3	10.158	55135886	0.100 CAL
Aroclor 1268 #4	10.325	16131888	0.100 CAL
Aroclor 1268 #5	10.888	23110974	0.100 CAL
SURRDCB	11.823	53465685	100.000 CAL
Aroclor 1268		228269700	0.500 CAL

PCB Analysis Report (1268) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\009.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1268.met
User: JJY
Sample ID: 1268 CF PP5975
Acquired: 09/10/2019 19:41:04
Printed: 09/16/2019 09:09:00

Data Summary: {Data Description}



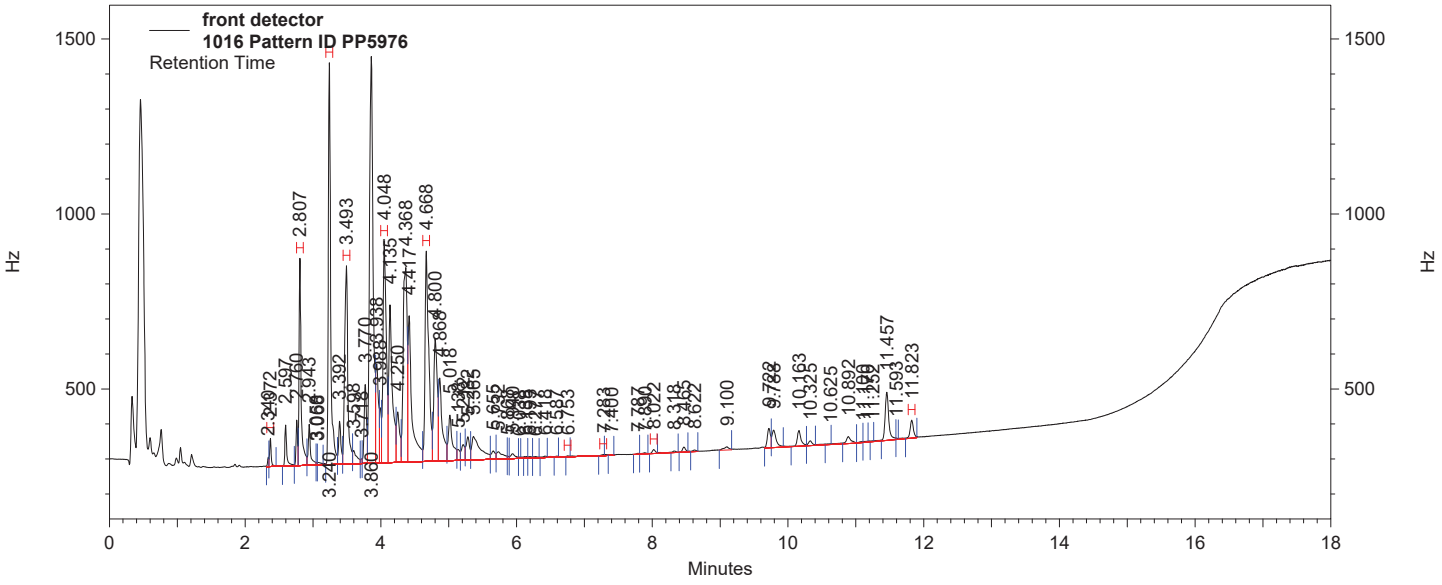
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.877	58141728	100.000 CAL
Aroclor 1268 #1	11.540	139985190	0.100 CAL
Aroclor 1268 #2	11.628	141215777	0.100 CAL
Aroclor 1268 #3	12.120	115513708	0.100 CAL
Aroclor 1268 #4	12.320	32699408	0.100 CAL
Aroclor 1268 #5	12.753	46371280	0.100 CAL
SURRDCB	13.902	108037028	100.000 CAL
Aroclor 1268		475785363	0.500 CAL

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\010.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: 1016 Pattern ID PP5976
Acquired: 09/10/2019 20:02:20
Printed: 09/16/2019 09:09:05

Data Summary: {Data Description}



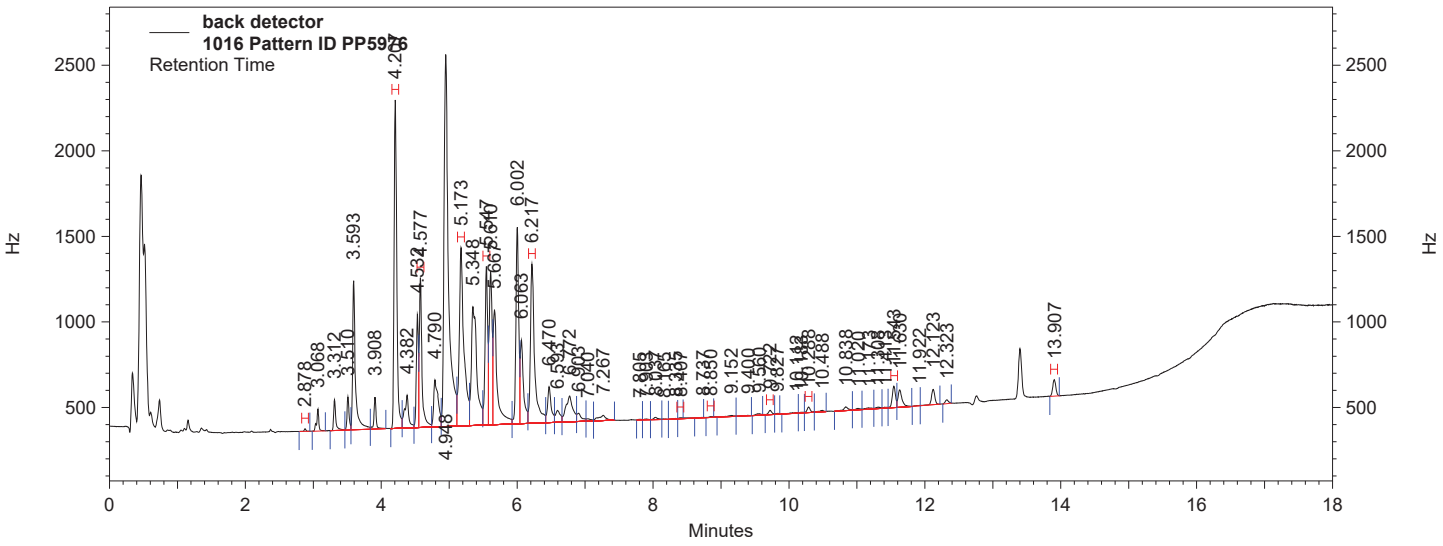
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.372	1016728	2.915
Aroclor 1016 #1	2.807	9382694	0.080
Aroclor 1016 #2	3.240	20898513	0.084
Aroclor 1016 #3	3.493	14101813	0.084
Aroclor 1016 #4	4.048	16467736	0.083
Aroclor 1016 #5	4.668	17336797	0.084
Aroclor 1260 #1	6.753	52985	0.000
Aroclor 1260 #2	7.283	62452	0.000
Aroclor 1260 #3	8.022	284147	0.001
Aroclor 1260 #4			0.000 BDL
Aroclor 1260 #5			0.000 BDL
SURRDCBPCB	11.823	1353705	4.641
Aroclor 1016		78187553	0.416
Aroclor 1260		399584	0.001

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\010.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: 1016 Pattern ID PP5976
Acquired: 09/10/2019 20:02:20
Printed: 09/16/2019 09:09:05

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.878	231952	0.884
Aroclor 1016 #1	4.207	40502454	0.081
Aroclor 1016 #2	4.577	18174030	0.079
Aroclor 1016 #3	5.173	38132762	0.080
Aroclor 1016 #4	5.547	19115328	0.076
Aroclor 1016 #5	6.217	30491984	0.081
Aroclor 1260 #1	8.407	208693	0.000
Aroclor 1260 #2	8.850	175749	0.000
Aroclor 1260 #3	9.722	703318	0.001
Aroclor 1260 #4	10.288	871493	0.002
Aroclor 1260 #5	11.543	3211866	0.006
SURRDCBPCB	13.907	2321368	4.777
Aroclor 1016		146416558	0.397
Aroclor 1260		5171119	0.009

QC Check Standard Report

Sequence : C:\Instarch\Semi7\Sequence\091019pcbic.seq
User : JJY
Printed : 09/16/2019 09:09:13

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\091019pcbic\012.dat	1221 ICV PP5977	09/16/2019 09:09:13

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	86.920	13.080	20.000	Passed
Aroclor 1221 #1	0.167	0.143	14.246	20.000	Passed
Aroclor 1221 #2	0.167	0.142	14.770	20.000	Passed
Aroclor 1221 #3	0.167	0.151	9.819	20.000	Passed
SURRDCB	100.000	90.406	9.594	20.000	Passed
Aroclor 1221	0.500	0.436	12.771	20.000	Passed

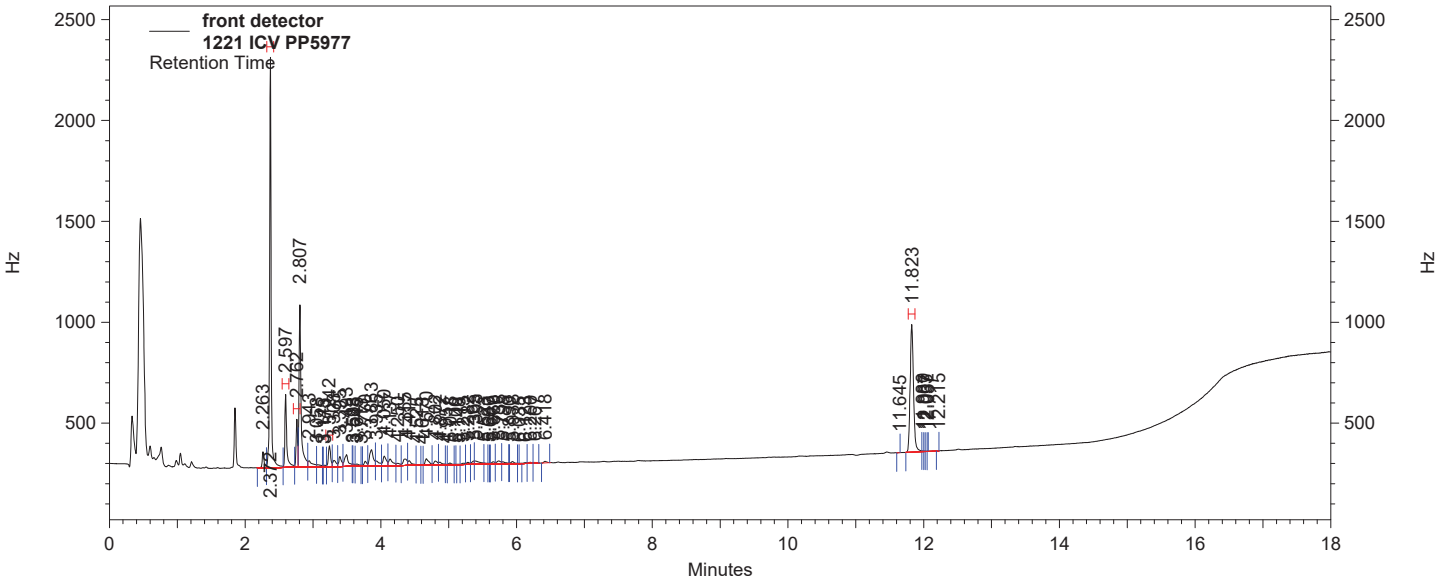
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	88.692	11.308	20.000	Passed
Aroclor 1221 #1	0.167	0.144	13.842	20.000	Passed
Aroclor 1221 #2	0.167	0.145	13.263	20.000	Passed
Aroclor 1221 #3	0.167	0.153	8.564	20.000	Passed
SURRDCB	100.000	93.093	6.907	20.000	Passed
Aroclor 1221	0.500	0.441	11.713	20.000	Passed

PCB Analysis Report (1221) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\012.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1221.met
User: JJY
Sample ID: 1221 ICV PP5977
Acquired: 09/10/2019 20:44:44
Printed: 09/16/2019 09:09:11

Data Summary: {Data Description}



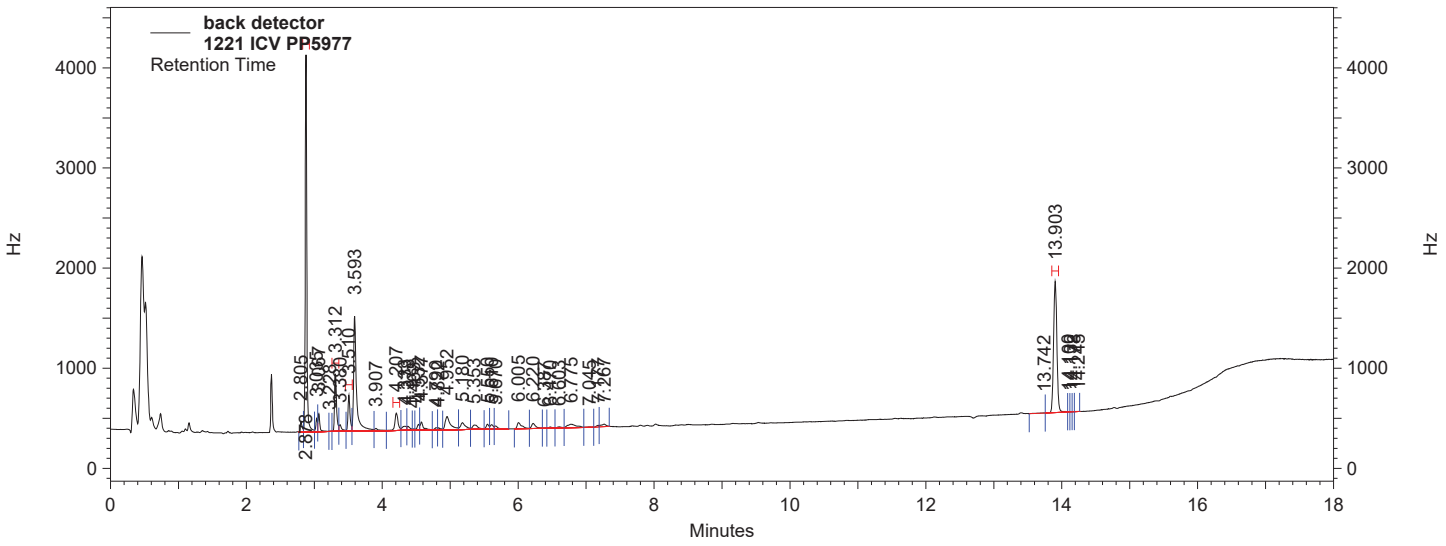
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.372	25105299	86.920
Aroclor 1221 #1	2.597	5453621	0.143
Aroclor 1221 #2	2.762	2830277	0.142
Aroclor 1221 #3	3.242	1797056	0.151
SURRDCB	11.823	16846106	90.406
Aroclor 1221		10080954	0.436

PCB Analysis Report (1221) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\012.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1221.met
User: JJY
Sample ID: 1221 ICV PP5977
Acquired: 09/10/2019 20:44:44
Printed: 09/16/2019 09:09:11

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.878	45058259	88.692
Aroclor 1221 #1	3.312	8796993	0.144
Aroclor 1221 #2	3.510	5833494	0.145
Aroclor 1221 #3	4.207	4448127	0.153
SURRDCB	13.903	34021849	93.093
Aroclor 1221		19078614	0.441

QC Check Standard Report

Sequence : C:\Instarch\Semi7\Sequence\091019pcbic.seq
User : JJY
Printed : 09/16/2019 09:09:20

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\091019pcbic\013.dat	1232 ICV PP5978	09/16/2019 09:09:20

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	91.335	8.665	20.000	Passed
Aroclor 1232 #1	0.100	0.095	4.553	20.000	Passed
Aroclor 1232 #2	0.100	0.094	5.743	20.000	Passed
Aroclor 1232 #3	0.100	0.092	8.211	20.000	Passed
Aroclor 1232 #4	0.100	0.096	4.153	20.000	Passed
Aroclor 1232 #5	0.100	0.096	4.419	20.000	Passed
SURRDCB	100.000	95.536	4.464	20.000	Passed
Aroclor 1232	0.500	0.473	5.416	20.000	Passed

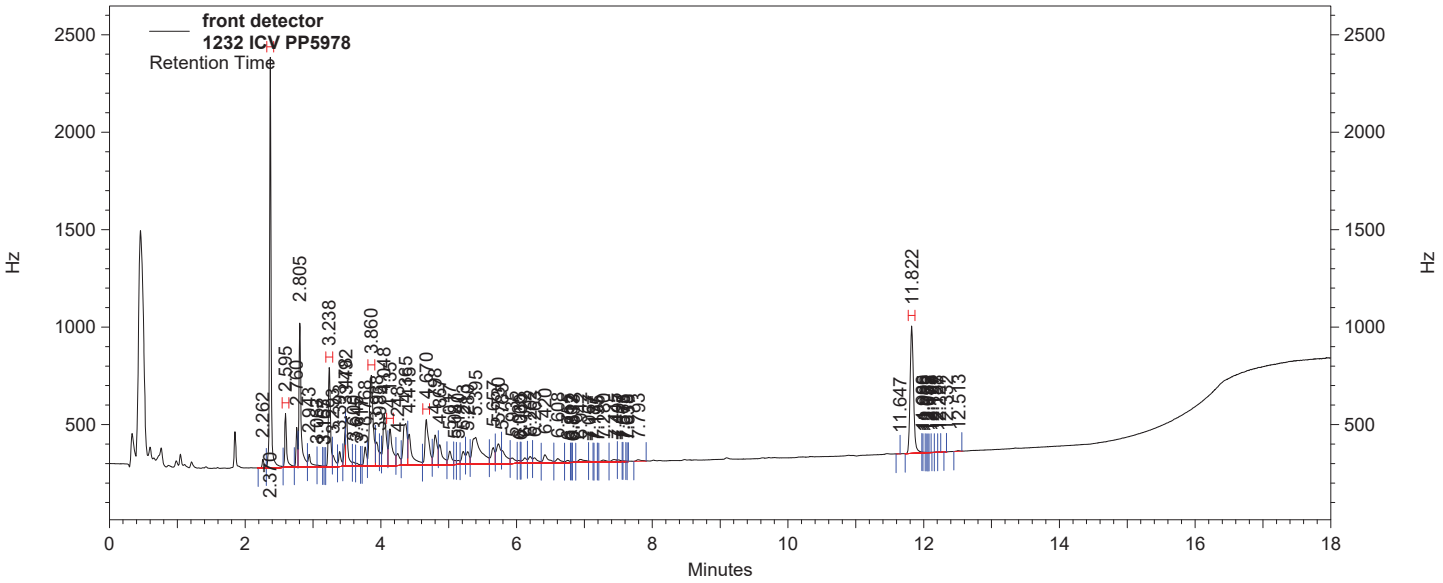
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	92.889	7.111	20.000	Passed
Aroclor 1232 #1	0.100	0.099	0.586	20.000	Passed
Aroclor 1232 #2	0.100	0.097	3.204	20.000	Passed
Aroclor 1232 #3	0.100	0.096	3.649	20.000	Passed
Aroclor 1232 #4	0.100	0.097	3.280	20.000	Passed
Aroclor 1232 #5	0.100	0.098	1.536	20.000	Passed
SURRDCB	100.000	98.978	1.022	20.000	Passed
Aroclor 1232	0.500	0.488	2.451	20.000	Passed

PCB Analysis Report (1232) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\013.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1232.met
User: JJY
Sample ID: 1232 ICV PP5978
Acquired: 09/10/2019 21:06:01
Printed: 09/16/2019 09:09:18

Data Summary: {Data Description}



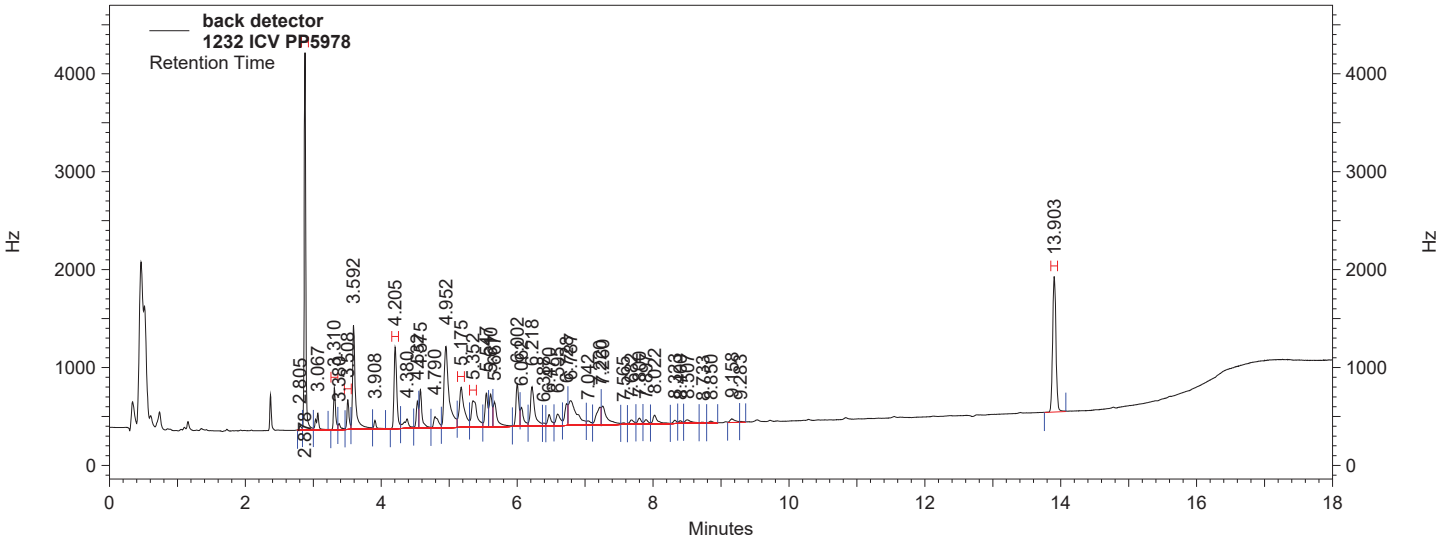
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.370	25627183	91.335
Aroclor 1232 #1	2.595	4159508	0.095
Aroclor 1232 #2	3.238	8430731	0.094
Aroclor 1232 #3	3.860	13491030	0.092
Aroclor 1232 #4	4.135	5598440	0.096
Aroclor 1232 #5	4.670	6855242	0.096
SURRDCB	11.822	17688380	95.536
Aroclor 1232		38534951	0.473

PCB Analysis Report (1232) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\013.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1232.met
User: JJY
Sample ID: 1232 ICV PP5978
Acquired: 09/10/2019 21:06:01
Printed: 09/16/2019 09:09:18

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.878	46634504	92.889
Aroclor 1232 #1	3.310	6612287	0.099
Aroclor 1232 #2	3.508	4940126	0.097
Aroclor 1232 #3	4.205	17798697	0.096
Aroclor 1232 #4	5.175	15984067	0.097
Aroclor 1232 #5	5.352	12296554	0.098
SURRDCB	13.903	35934724	98.978
Aroclor 1232		57631731	0.488

QC Check Standard Report

Sequence : C:\Instarch\Semi7\Sequence\091019pcbic.seq
User : JJY
Printed : 09/16/2019 09:09:26

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\091019pcbic\014.dat	1242 ICV PP5979	09/16/2019 09:09:26

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	85.168	14.832	20.000	Passed
Aroclor 1242 #1	0.100	0.092	7.986	20.000	Passed
Aroclor 1242 #2	0.100	0.093	7.458	20.000	Passed
Aroclor 1242 #3	0.100	0.093	7.300	20.000	Passed
Aroclor 1242 #4	0.100	0.092	8.147	20.000	Passed
Aroclor 1242 #5	0.100	0.093	6.693	20.000	Passed
SURRDCB	100.000	88.450	11.550	20.000	Passed
Aroclor 1242	0.500	0.462	7.517	20.000	Passed

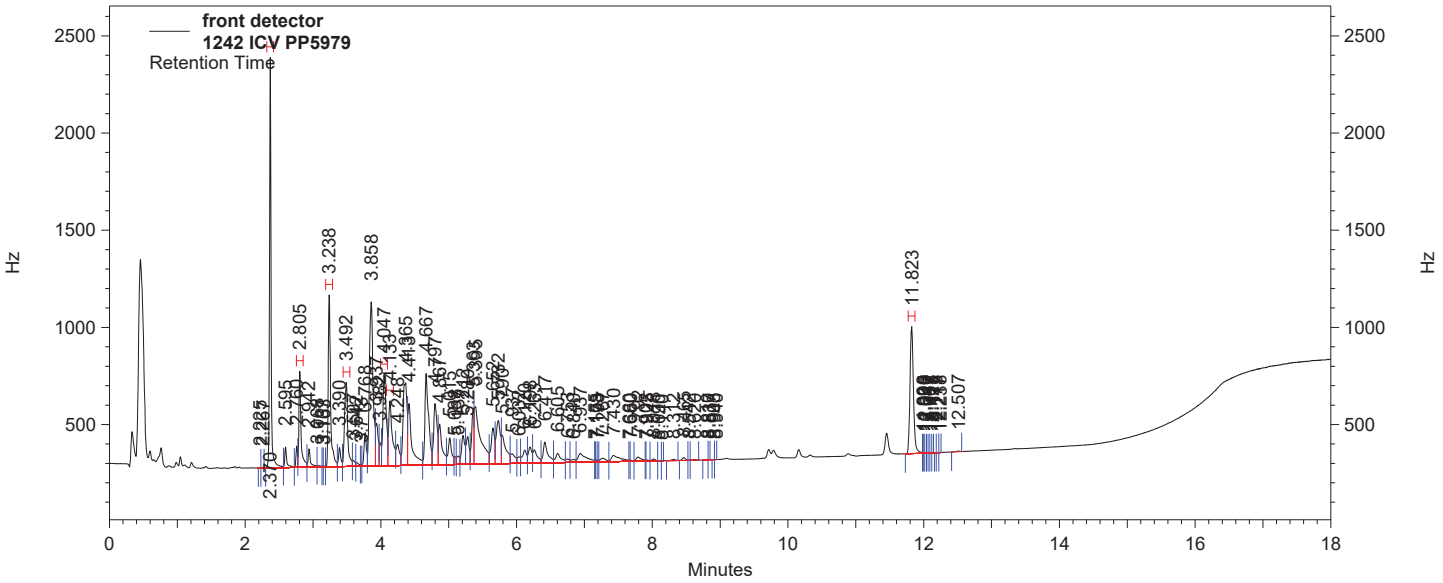
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	86.420	13.580	20.000	Passed
Aroclor 1242 #1	0.100	0.094	5.889	20.000	Passed
Aroclor 1242 #2	0.100	0.094	5.698	20.000	Passed
Aroclor 1242 #3	0.100	0.095	5.286	20.000	Passed
Aroclor 1242 #4	0.100	0.095	4.618	20.000	Passed
Aroclor 1242 #5	0.100	0.096	3.877	20.000	Passed
SURRDCB	100.000	90.364	9.636	20.000	Passed
Aroclor 1242	0.500	0.475	5.073	20.000	Passed

PCB Analysis Report (1242) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\014.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1242.met
User: JJY
Sample ID: 1242 ICV PP5979
Acquired: 09/10/2019 21:27:10
Printed: 09/16/2019 09:09:24

Data Summary: {Data Description}



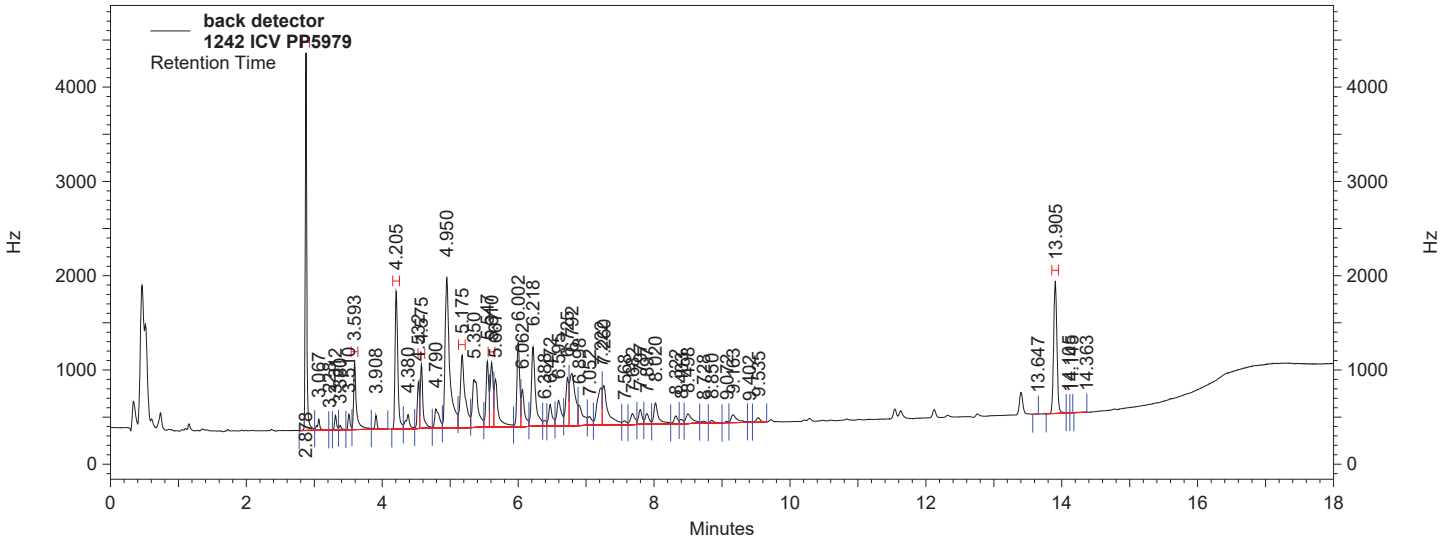
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.370	25541887	85.168
Aroclor 1242 #1	2.805	8101826	0.092
Aroclor 1242 #2	3.238	16147808	0.093
Aroclor 1242 #3	3.492	10872277	0.093
Aroclor 1242 #4	4.047	12492711	0.092
Aroclor 1242 #5	4.133	9600347	0.093
SURRDCB	11.823	17745888	88.450
Aroclor 1242		57214969	0.462

PCB Analysis Report (1242) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\014.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1242.met
User: JJY
Sample ID: 1242 ICV PP5979
Acquired: 09/10/2019 21:27:10
Printed: 09/16/2019 09:09:24

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.878	47739608	86.420
Aroclor 1242 #1	3.593	15489027	0.094
Aroclor 1242 #2	4.205	31430509	0.094
Aroclor 1242 #3	4.575	14188657	0.095
Aroclor 1242 #4	5.175	29139947	0.095
Aroclor 1242 #5	5.610	15707067	0.096
SURRDCB	13.905	36188311	90.364
Aroclor 1242		105955207	0.475

QC Check Standard Report

Sequence : C:\Instarch\Semi7\Sequence\091019pcbic.seq
User : JJY
Printed : 09/16/2019 09:09:32

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\091019pcbic\015.dat	1248 ICV PP5980	09/16/2019 09:09:32

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	88.022	11.978	20.000	Passed
Aroclor 1248 #1	0.100	0.094	6.082	20.000	Passed
Aroclor 1248 #2	0.100	0.090	10.057	20.000	Passed
Aroclor 1248 #3	0.100	0.095	5.205	20.000	Passed
Aroclor 1248 #4	0.100	0.091	8.992	20.000	Passed
Aroclor 1248 #5	0.100	0.093	6.729	20.000	Passed
SURRDCB	100.000	87.504	12.496	20.000	Passed
Aroclor 1248	0.500	0.463	7.413	20.000	Passed

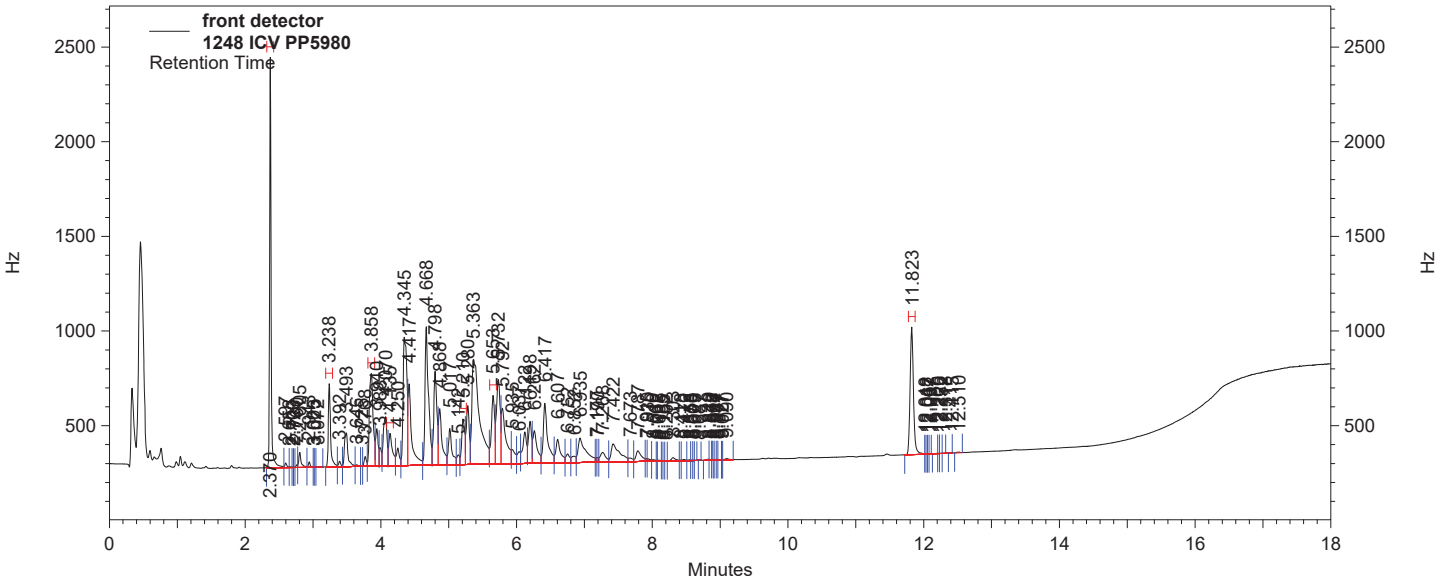
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	91.633	8.367	20.000	Passed
Aroclor 1248 #1	0.100	0.100	0.361	20.000	Passed
Aroclor 1248 #2	0.100	0.097	2.578	20.000	Passed
Aroclor 1248 #3	0.100	0.098	2.452	20.000	Passed
Aroclor 1248 #4	0.100	0.097	3.193	20.000	Passed
Aroclor 1248 #5	0.100	0.097	3.163	20.000	Passed
SURRDCB	100.000	89.871	10.129	20.000	Passed
Aroclor 1248	0.500	0.488	2.349	20.000	Passed

PCB Analysis Report (1248) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\015.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1248.met
User: JJY
Sample ID: 1248 ICV PP5980
Acquired: 09/10/2019 21:48:26
Printed: 09/16/2019 09:09:30

Data Summary: {Data Description}



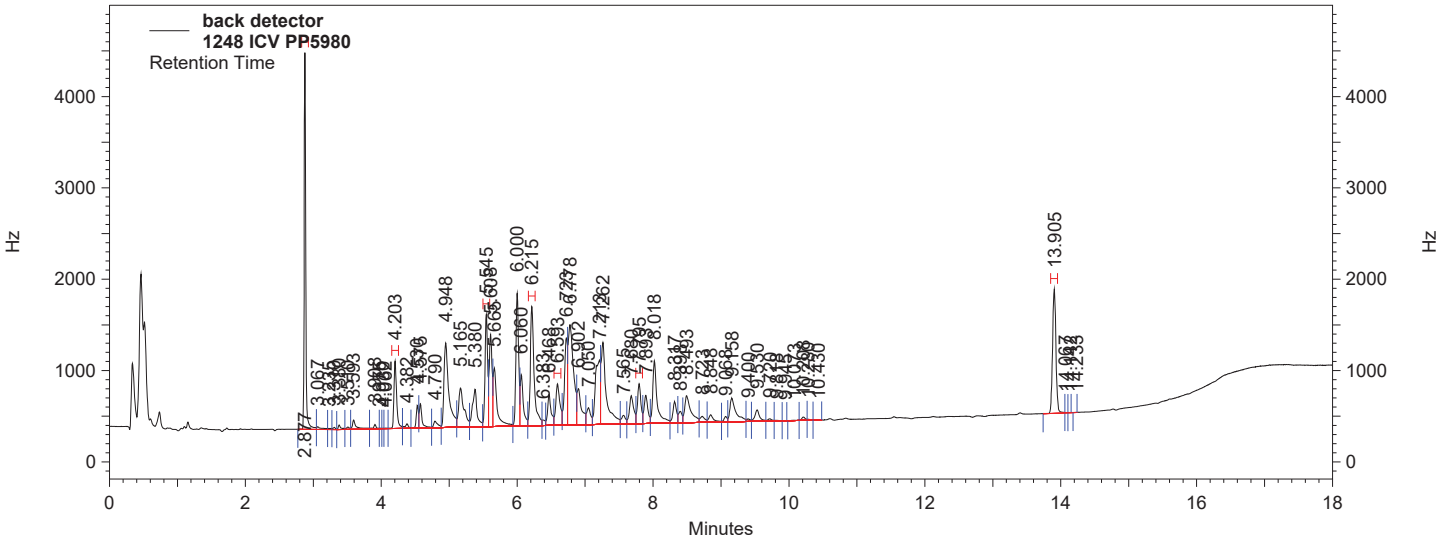
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.370	25682328	88.022
Aroclor 1248 #1	3.238	7631236	0.094
Aroclor 1248 #2	3.858	14441356	0.090
Aroclor 1248 #3	4.135	4970377	0.095
Aroclor 1248 #4	5.210	5721113	0.091
Aroclor 1248 #5	5.653	9306658	0.093
SURRDCB	11.823	17922619	87.504
Aroclor 1248		42070740	0.463

PCB Analysis Report (1248) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\015.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1248.met
User: JJY
Sample ID: 1248 ICV PP5980
Acquired: 09/10/2019 21:48:26
Printed: 09/16/2019 09:09:30

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.877	49659679	91.633
Aroclor 1248 #1	4.203	15592485	0.100
Aroclor 1248 #2	5.545	24970887	0.097
Aroclor 1248 #3	6.215	38365277	0.098
Aroclor 1248 #4	6.593	14871089	0.097
Aroclor 1248 #5	7.795	11657343	0.097
SURRDCB	13.905	35525273	89.871
Aroclor 1248		105457081	0.488

QC Check Standard Report

Sequence : C:\Instarch\Semi7\Sequence\091019pcbic.seq
User : JJY
Printed : 09/16/2019 09:09:38

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\091019pcbic\016.dat	1254 ICV PP5981	09/16/2019 09:09:38

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	84.731	15.269	20.000	Passed
Aroclor 1254 #1	0.100	0.090	10.070	20.000	Passed
Aroclor 1254 #2	0.100	0.092	7.582	20.000	Passed
Aroclor 1254 #3	0.100	0.093	6.563	20.000	Passed
Aroclor 1254 #4	0.100	0.092	8.183	20.000	Passed
Aroclor 1254 #5	0.100	0.092	8.248	20.000	Passed
SURRDCB	100.000	87.618	12.382	20.000	Passed
Aroclor 1254	0.500	0.459	8.129	20.000	Passed

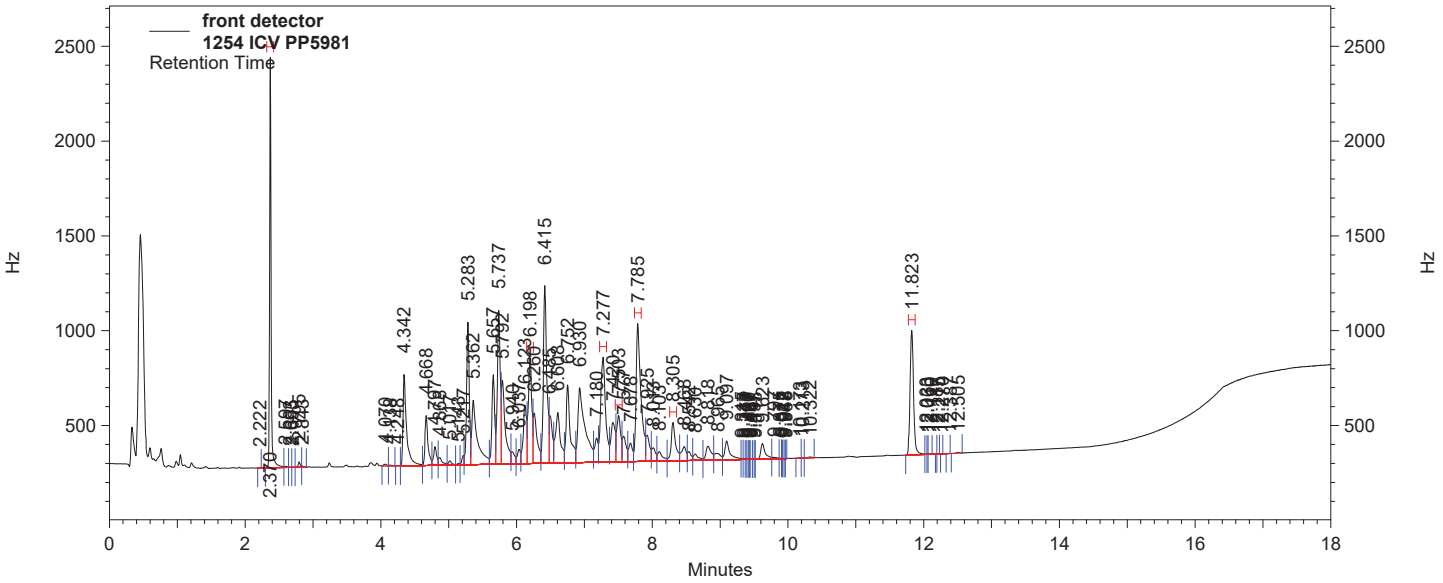
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	87.415	12.585	20.000	Passed
Aroclor 1254 #1	0.100	0.092	7.591	20.000	Passed
Aroclor 1254 #2	0.100	0.096	4.378	20.000	Passed
Aroclor 1254 #3	0.100	0.093	7.287	20.000	Passed
Aroclor 1254 #4	0.100	0.094	5.850	20.000	Passed
Aroclor 1254 #5	0.100	0.093	7.257	20.000	Passed
SURRDCB	100.000	90.232	9.768	20.000	Passed
Aroclor 1254	0.500	0.468	6.473	20.000	Passed

PCB Analysis Report (1254) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\016.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1254.met
User: JJY
Sample ID: 1254 ICV PP5981
Acquired: 09/10/2019 22:09:41
Printed: 09/16/2019 09:09:37

Data Summary: {Data Description}



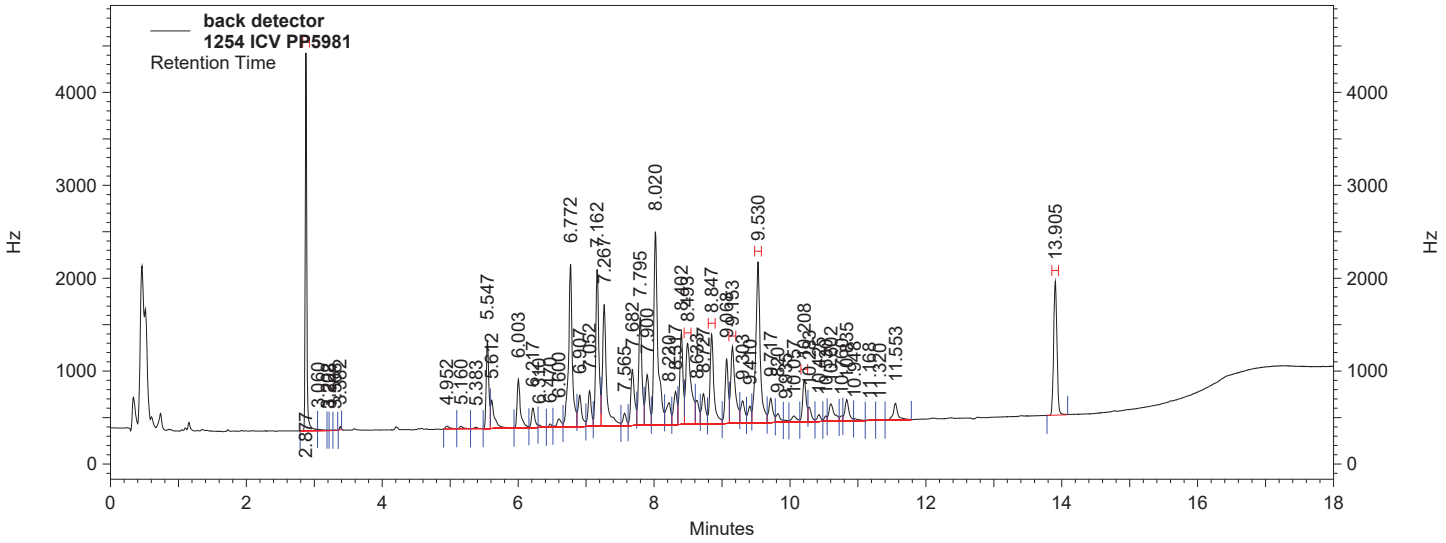
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.370	25406723	84.731
Aroclor 1254 #1	6.198	15023645	0.090
Aroclor 1254 #2	7.277	21176603	0.092
Aroclor 1254 #3	7.503	7517633	0.093
Aroclor 1254 #4	7.785	27755697	0.092
Aroclor 1254 #5	8.305	6953173	0.092
SURRDCB	11.823	18219289	87.618
Aroclor 1254		78426751	0.459

PCB Analysis Report (1254) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\016.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1254.met
User: JJY
Sample ID: 1254 ICV PP5981
Acquired: 09/10/2019 22:09:41
Printed: 09/16/2019 09:09:37

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.877	49288939	87.415
Aroclor 1254 #1	8.493	37079182	0.092
Aroclor 1254 #2	8.847	29200540	0.096
Aroclor 1254 #3	9.153	29152445	0.093
Aroclor 1254 #4	9.530	60095282	0.094
Aroclor 1254 #5	10.208	12757236	0.093
SURRDCB	13.905	37376905	90.232
Aroclor 1254		168284685	0.468

QC Check Standard Report

Sequence : C:\Instarch\Semi7\Sequence\091019pcbic.seq
User : JJY
Printed : 09/16/2019 09:09:44

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\091019pcbic\017.dat	1262 ICV PP5982	09/16/2019 09:09:44

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	79.363	20.637	20.000	FAILED
Aroclor 1262 #1	0.100	0.089	11.148	20.000	Passed
Aroclor 1262 #2	0.100	0.087	12.555	20.000	Passed
Aroclor 1262 #3	0.100	0.087	12.949	20.000	Passed
Aroclor 1262 #4	0.100	0.089	10.631	20.000	Passed
Aroclor 1262 #5	0.100	0.089	11.127	20.000	Passed
SURRDCB	100.000	81.657	18.343	20.000	Passed
Aroclor 1262	0.500	0.442	11.682	20.000	Passed

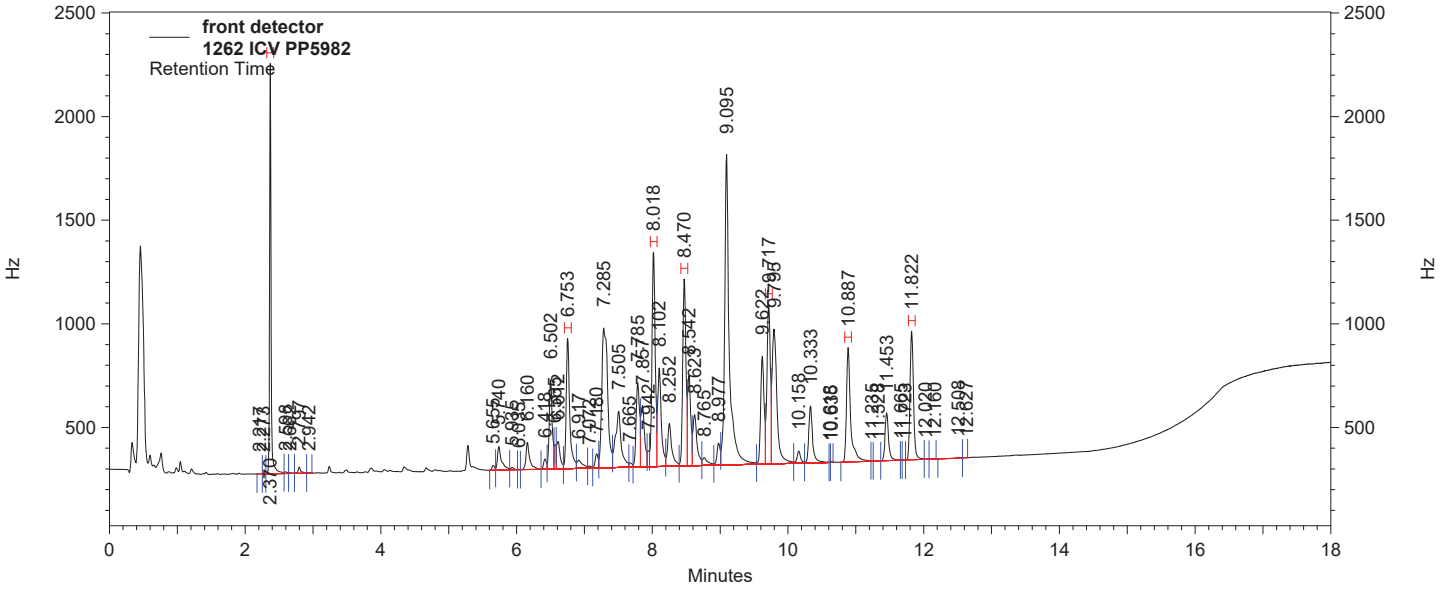
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	81.310	18.690	20.000	Passed
Aroclor 1262 #1	0.100	0.092	8.317	20.000	Passed
Aroclor 1262 #2	0.100	0.091	8.684	20.000	Passed
Aroclor 1262 #3	0.100	0.094	6.300	20.000	Passed
Aroclor 1262 #4	0.100	0.091	9.286	20.000	Passed
Aroclor 1262 #5	0.100	0.091	9.162	20.000	Passed
SURRDCB	100.000	83.802	16.198	20.000	Passed
Aroclor 1262	0.500	0.458	8.350	20.000	Passed

PCB Analysis Report (1262) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\017.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1262.met
User: JJY
Sample ID: 1262 ICV PP5982
Acquired: 09/10/2019 22:30:57
Printed: 09/16/2019 09:09:42

Data Summary: {Data Description}



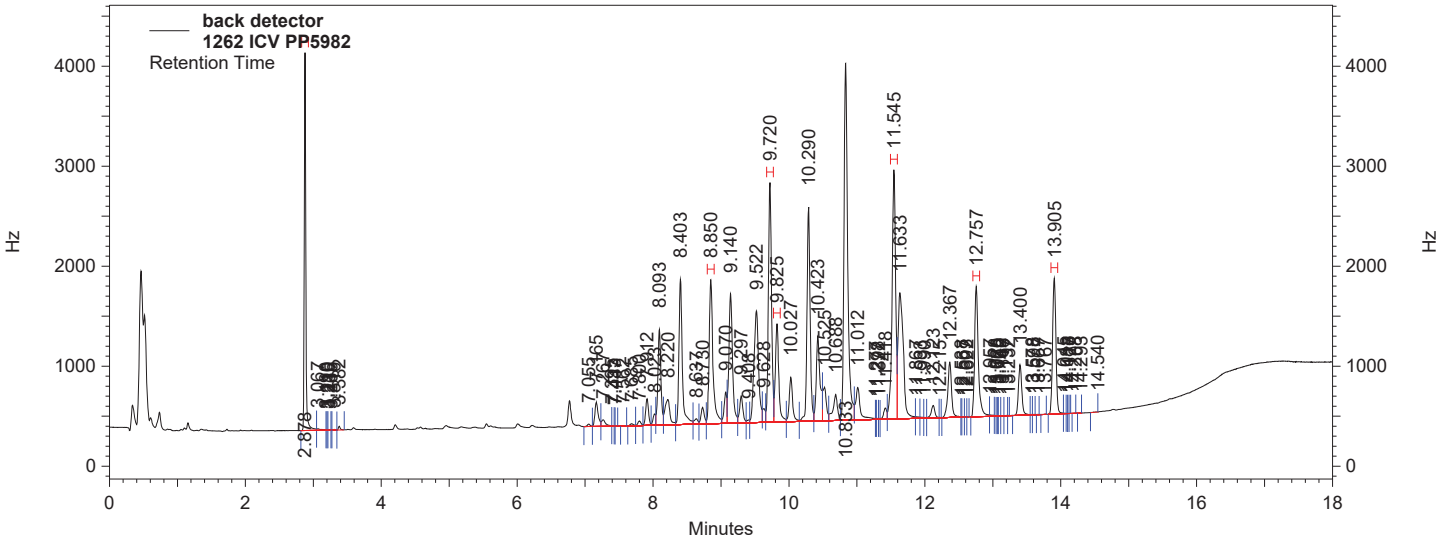
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.370	23699961	79.363
Aroclor 1262 #1	6.753	17179173	0.089
Aroclor 1262 #2	8.018	26195176	0.087
Aroclor 1262 #3	8.470	22797238	0.087
Aroclor 1262 #4	9.717	20661792	0.089
Aroclor 1262 #5	10.887	18386064	0.089
SURRDCB	11.822	17184089	81.657
Aroclor 1262		105219443	0.442

PCB Analysis Report (1262) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\017.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1262.met
User: JJY
Sample ID: 1262 ICV PP5982
Acquired: 09/10/2019 22:30:57
Printed: 09/16/2019 09:09:42

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.878	45962184	81.310
Aroclor 1262 #1	8.850	42259442	0.092
Aroclor 1262 #2	9.720	58861615	0.091
Aroclor 1262 #3	9.825	26787653	0.094
Aroclor 1262 #4	11.545	70139657	0.091
Aroclor 1262 #5	12.757	37284543	0.091
SURRDCB	13.905	35184051	83.802
Aroclor 1262		235332910	0.458

QC Check Standard Report

Sequence : C:\Instarch\Semi7\Sequence\091019pcbic.seq
User : JJY
Printed : 09/16/2019 09:09:50

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\091019pcbic\018.dat	1268 ICV PP5983	09/16/2019 09:09:50

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	80.696	19.304	20.000	Passed
Aroclor 1268 #1	0.100	0.094	6.485	20.000	Passed
Aroclor 1268 #2	0.100	0.095	5.188	20.000	Passed
Aroclor 1268 #3	0.100	0.085	15.151	20.000	Passed
Aroclor 1268 #4	0.100	0.085	14.718	20.000	Passed
Aroclor 1268 #5	0.100	0.088	11.910	20.000	Passed
SURRDCB	100.000	74.365	25.635	20.000	FAILED
Aroclor 1268	0.500	0.447	10.690	20.000	Passed

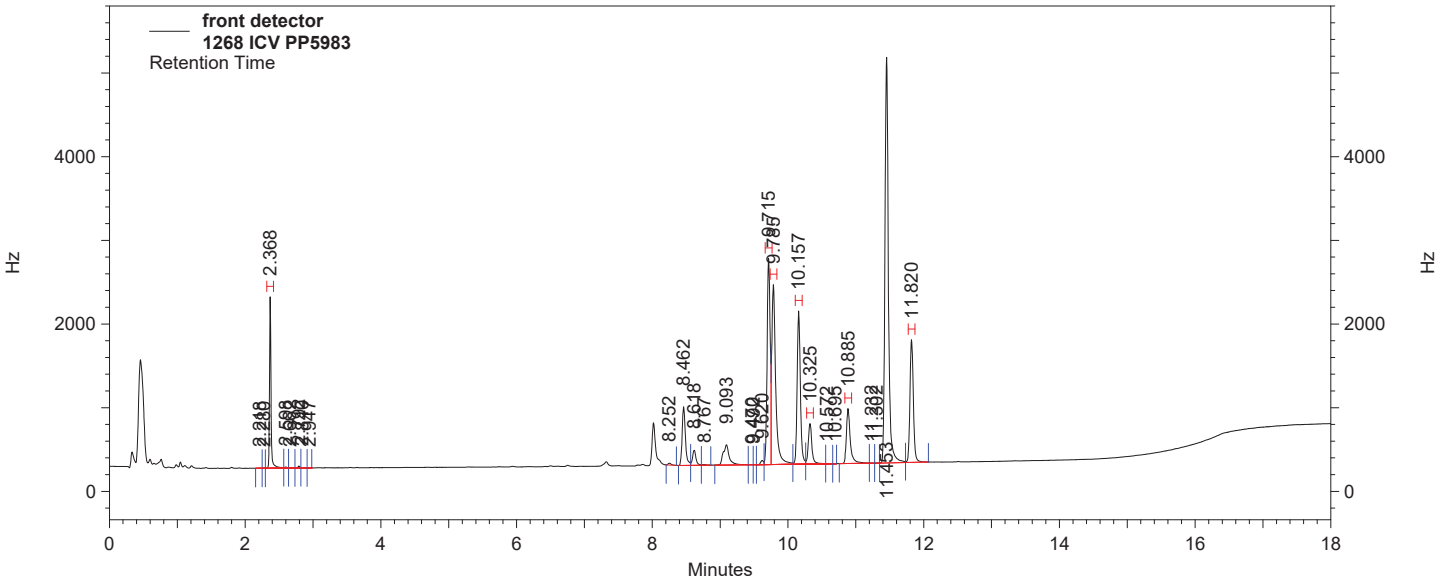
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	82.145	17.855	20.000	Passed
Aroclor 1268 #1	0.100	0.098	2.444	20.000	Passed
Aroclor 1268 #2	0.100	0.094	6.146	20.000	Passed
Aroclor 1268 #3	0.100	0.086	14.307	20.000	Passed
Aroclor 1268 #4	0.100	0.084	15.986	20.000	Passed
Aroclor 1268 #5	0.100	0.089	11.108	20.000	Passed
SURRDCB	100.000	74.776	25.224	20.000	FAILED
Aroclor 1268	0.500	0.450	9.998	20.000	Passed

PCB Analysis Report (1268) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\018.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1268.met
User: JJY
Sample ID: 1268 ICV PP5983
Acquired: 09/10/2019 22:52:05
Printed: 09/16/2019 09:09:48

Data Summary: {Data Description}



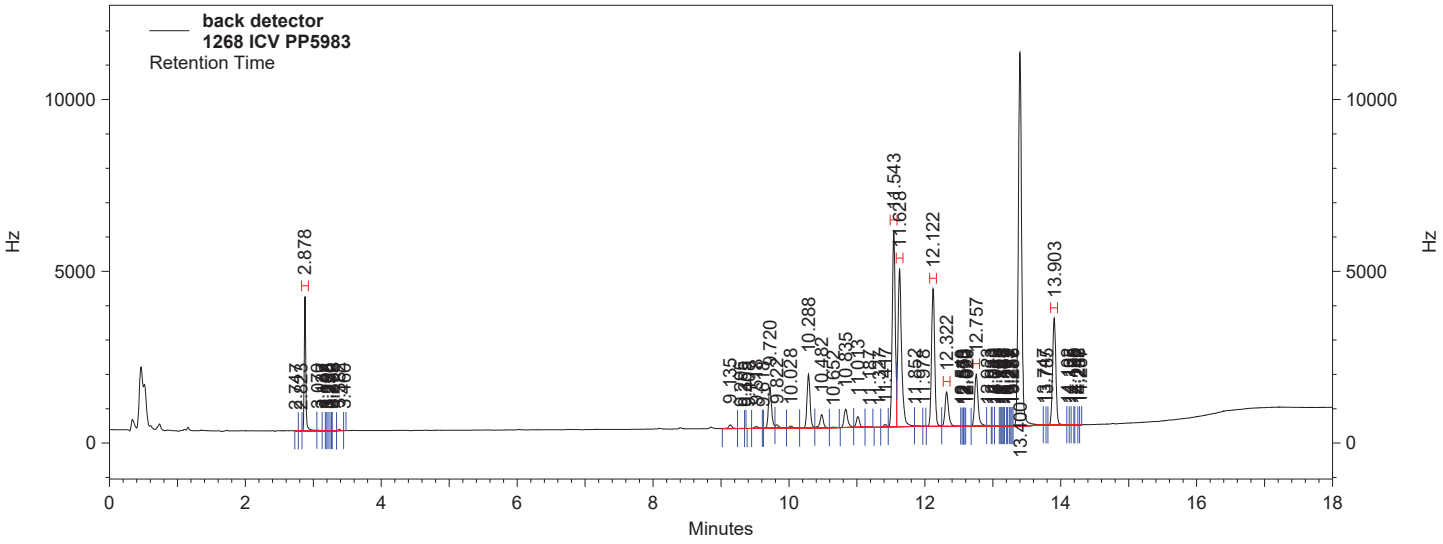
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.368	24580655	80.696
Aroclor 1268 #1	9.715	59496476	0.094
Aroclor 1268 #2	9.785	66623251	0.095
Aroclor 1268 #3	10.157	46782019	0.085
Aroclor 1268 #4	10.325	13757641	0.085
Aroclor 1268 #5	10.885	20358489	0.088
SURRDCB	11.820	39759798	74.365
Aroclor 1268		207017876	0.447

PCB Analysis Report (1268) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\018.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\1268.met
User: JJY
Sample ID: 1268 ICV PP5983
Acquired: 09/10/2019 22:52:05
Printed: 09/16/2019 09:09:48

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.878	47760797	82.145
Aroclor 1268 #1	11.543	136564140	0.098
Aroclor 1268 #2	11.628	132536348	0.094
Aroclor 1268 #3	12.122	98987342	0.086
Aroclor 1268 #4	12.322	27472210	0.084
Aroclor 1268 #5	12.757	41220308	0.089
SURRDCB	13.903	80785952	74.776
Aroclor 1268		436780348	0.450

POLYCHLORINATED BIPHENYL CONTINUING AND ENDING STANDARDS DOCUMENTS

QC Check Standard Report

AJZ
09/19/2019

Sequence : C:\Instarch\Semi7\Sequence\090519pcb.seq
User : AJZ
Printed : 09/06/2019 08:51:57

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\090519pcb\003.dat	PCB CCV PP 5968	09/06/2019 08:51:57

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	109.513	9.513	20.000	Passed
Aroclor 1016 #1	0.100	0.109	8.889	20.000	Passed
Aroclor 1016 #2	0.100	0.117	17.401	20.000	Passed
Aroclor 1016 #3	0.100	0.111	10.690	20.000	Passed
Aroclor 1016 #4	0.100	0.104	3.808	20.000	Passed
Aroclor 1016 #5	0.100	0.108	7.561	20.000	Passed
Aroclor 1260 #1	0.100	0.108	7.826	20.000	Passed
Aroclor 1260 #2	0.100	0.105	4.999	20.000	Passed
Aroclor 1260 #3	0.100	0.106	5.660	20.000	Passed
Aroclor 1260 #4	0.100	0.108	8.035	20.000	Passed
Aroclor 1260 #5	0.100	0.093	6.553	20.000	Passed
SURRDCBPCB	100.000	104.740	4.740	20.000	Passed
Aroclor 1016	0.500	0.548	9.669	20.000	Passed
Aroclor 1260	0.500	0.520	3.993	20.000	Passed

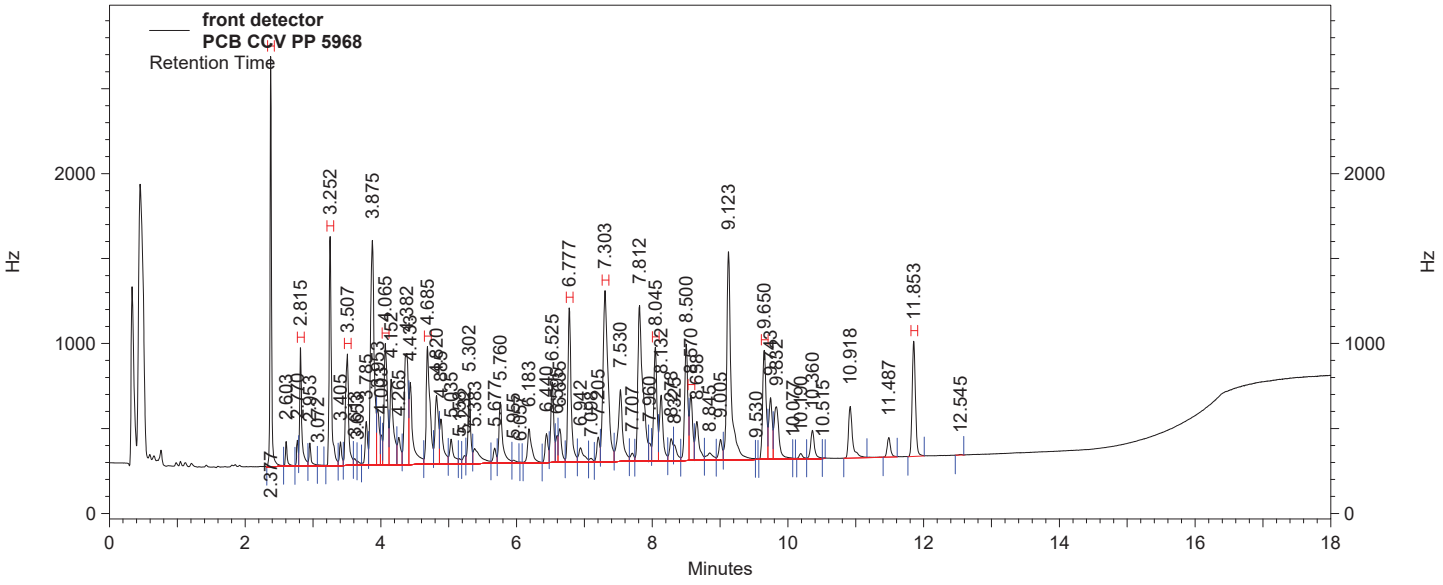
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	106.674	6.674	20.000	Passed
Aroclor 1016 #1	0.100	0.108	8.272	20.000	Passed
Aroclor 1016 #2	0.100	0.111	11.245	20.000	Passed
Aroclor 1016 #3	0.100	0.108	7.550	20.000	Passed
Aroclor 1016 #4	0.100	0.107	6.503	20.000	Passed
Aroclor 1016 #5	0.100	0.111	10.696	20.000	Passed
Aroclor 1260 #1	0.100	0.112	12.132	20.000	Passed
Aroclor 1260 #2	0.100	0.103	3.354	20.000	Passed
Aroclor 1260 #3	0.100	0.105	5.099	20.000	Passed
Aroclor 1260 #4	0.100	0.104	4.254	20.000	Passed
Aroclor 1260 #5	0.100	0.100	0.367	20.000	Passed
SURRDCBPCB	100.000	103.606	3.606	20.000	Passed
Aroclor 1016	0.500	0.544	8.853	20.000	Passed
Aroclor 1260	0.500	0.524	4.894	20.000	Passed

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\090519pcb\003.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\090519pcb.met
User: AJZ
Sample ID: PCB CCV PP 5968
Acquired: 09/05/2019 15:36:23
Printed: 09/06/2019 08:51:55

Data Summary: {Data Description}



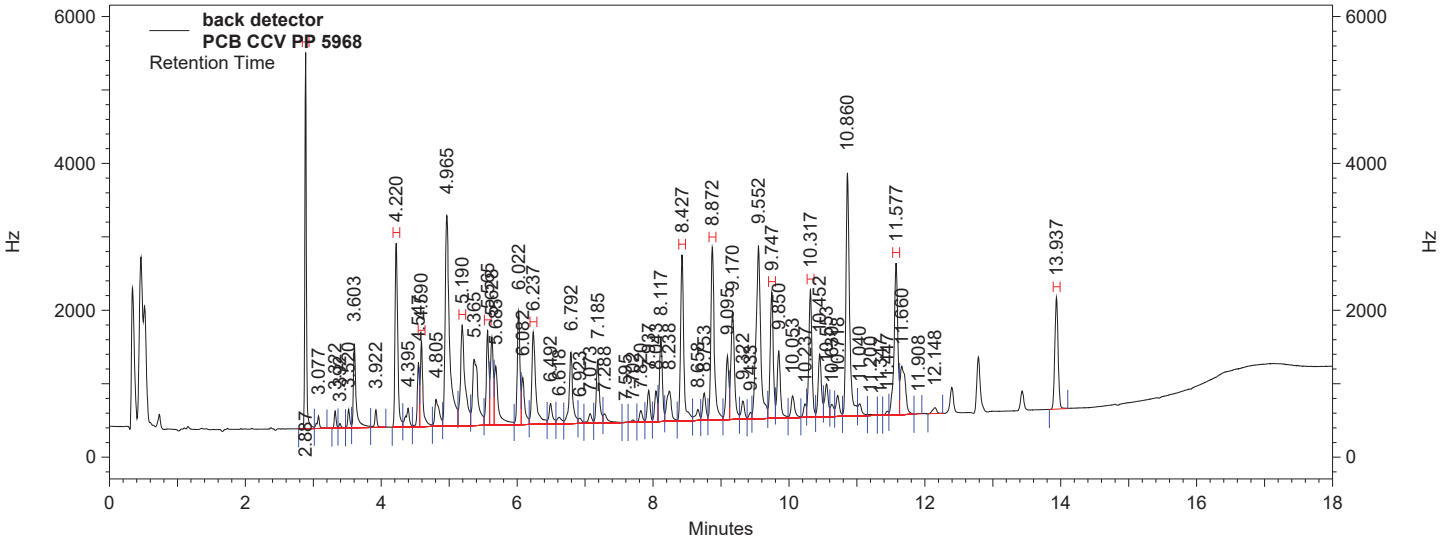
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.377	28556481	109.513
Aroclor 1016 #1	2.815	11334123	0.109
Aroclor 1016 #2	3.252	24163412	0.117
Aroclor 1016 #3	3.507	16339966	0.111
Aroclor 1016 #4	4.065	18687267	0.104
Aroclor 1016 #5	4.685	19757454	0.108
Aroclor 1260 #1	6.777	22796611	0.108
Aroclor 1260 #2	7.303	39127979	0.105
Aroclor 1260 #3	8.045	16725728	0.106
Aroclor 1260 #4	8.570	9458728	0.108
Aroclor 1260 #5	9.650	17626768	0.093
SURRDCBPCB	11.853	17801309	104.740
Aroclor 1016		90282222	0.548
Aroclor 1260		105735814	0.520

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\090519pcb\003.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\090519pcb.met
User: AJZ
Sample ID: PCB CCV PP 5968
Acquired: 09/05/2019 15:36:23
Printed: 09/06/2019 08:51:55

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.887	60240636	106.674
Aroclor 1016 #1	4.220	52924151	0.108
Aroclor 1016 #2	4.590	23863652	0.111
Aroclor 1016 #3	5.190	49059850	0.108
Aroclor 1016 #4	5.565	26069971	0.107
Aroclor 1016 #5	6.237	39117746	0.111
Aroclor 1260 #1	8.427	56217900	0.112
Aroclor 1260 #2	8.872	62739087	0.103
Aroclor 1260 #3	9.747	41425522	0.105
Aroclor 1260 #4	10.317	41976976	0.104
Aroclor 1260 #5	11.577	60588344	0.100
SURRDCBPCB	13.937	38854833	103.606
Aroclor 1016		191035370	0.544
Aroclor 1260		262947829	0.524

QC Check Standard Report

Sequence : C:\Instarch\Semi7\Sequence\090519pcb.seq
User : AJZ
Printed : 09/06/2019 08:52:22

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\090519pcb\010.dat	PCB CCV PP 5968	09/06/2019 08:52:22

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	110.307	10.307	20.000	Passed
Aroclor 1016 #1	0.100	0.109	9.205	20.000	Passed
Aroclor 1016 #2	0.100	0.118	17.991	20.000	Passed
Aroclor 1016 #3	0.100	0.111	10.640	20.000	Passed
Aroclor 1016 #4	0.100	0.105	4.668	20.000	Passed
Aroclor 1016 #5	0.100	0.108	8.142	20.000	Passed
Aroclor 1260 #1	0.100	0.110	10.345	20.000	Passed
Aroclor 1260 #2	0.100	0.109	8.827	20.000	Passed
Aroclor 1260 #3	0.100	0.109	8.994	20.000	Passed
Aroclor 1260 #4	0.100	0.114	14.260	20.000	Passed
Aroclor 1260 #5	0.100	0.096	3.588	20.000	Passed
SURRDCBPCB	100.000	108.808	8.808	20.000	Passed
Aroclor 1016	0.500	0.551	10.129	20.000	Passed
Aroclor 1260	0.500	0.539	7.767	20.000	Passed

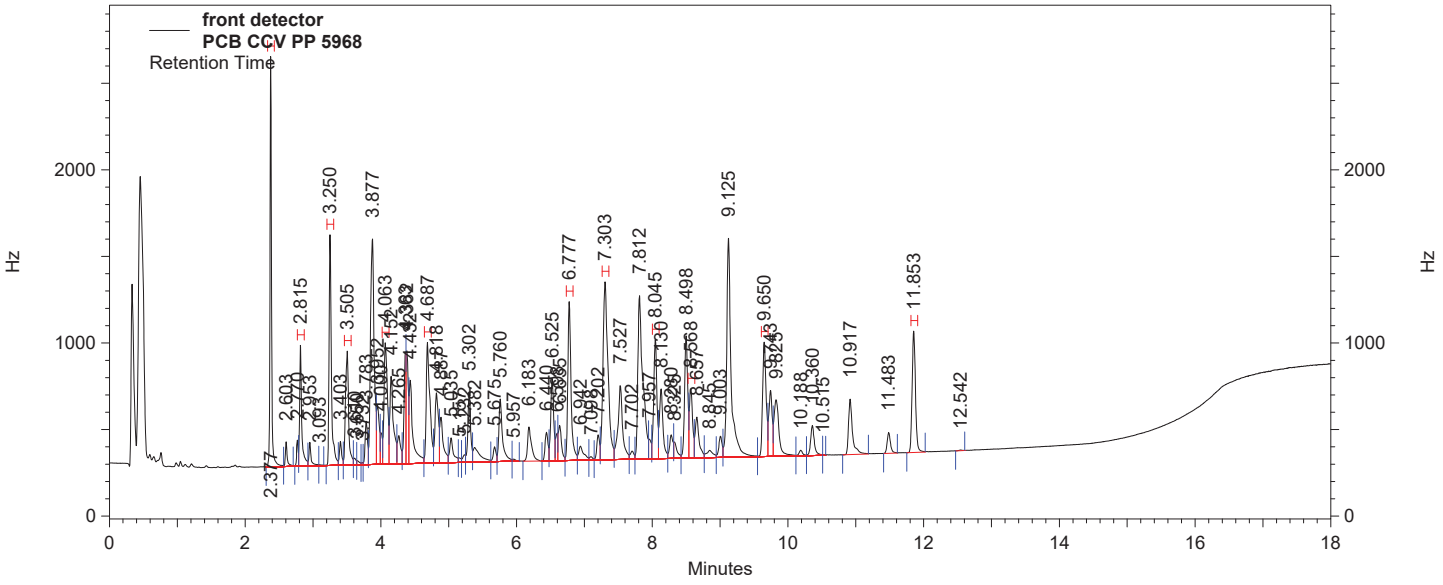
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	106.773	6.773	20.000	Passed
Aroclor 1016 #1	0.100	0.108	8.253	20.000	Passed
Aroclor 1016 #2	0.100	0.113	12.577	20.000	Passed
Aroclor 1016 #3	0.100	0.109	9.482	20.000	Passed
Aroclor 1016 #4	0.100	0.109	8.812	20.000	Passed
Aroclor 1016 #5	0.100	0.112	11.756	20.000	Passed
Aroclor 1260 #1	0.100	0.114	14.406	20.000	Passed
Aroclor 1260 #2	0.100	0.106	6.347	20.000	Passed
Aroclor 1260 #3	0.100	0.109	8.677	20.000	Passed
Aroclor 1260 #4	0.100	0.107	7.350	20.000	Passed
Aroclor 1260 #5	0.100	0.103	2.534	20.000	Passed
SURRDCBPCB	100.000	110.263	10.263	20.000	Passed
Aroclor 1016	0.500	0.551	10.176	20.000	Passed
Aroclor 1260	0.500	0.539	7.863	20.000	Passed

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\090519pcb\010.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\090519pcb.met
User: AJZ
Sample ID: PCB CCV PP 5968
Acquired: 09/05/2019 18:04:59
Printed: 09/06/2019 08:52:20

Data Summary: {Data Description}



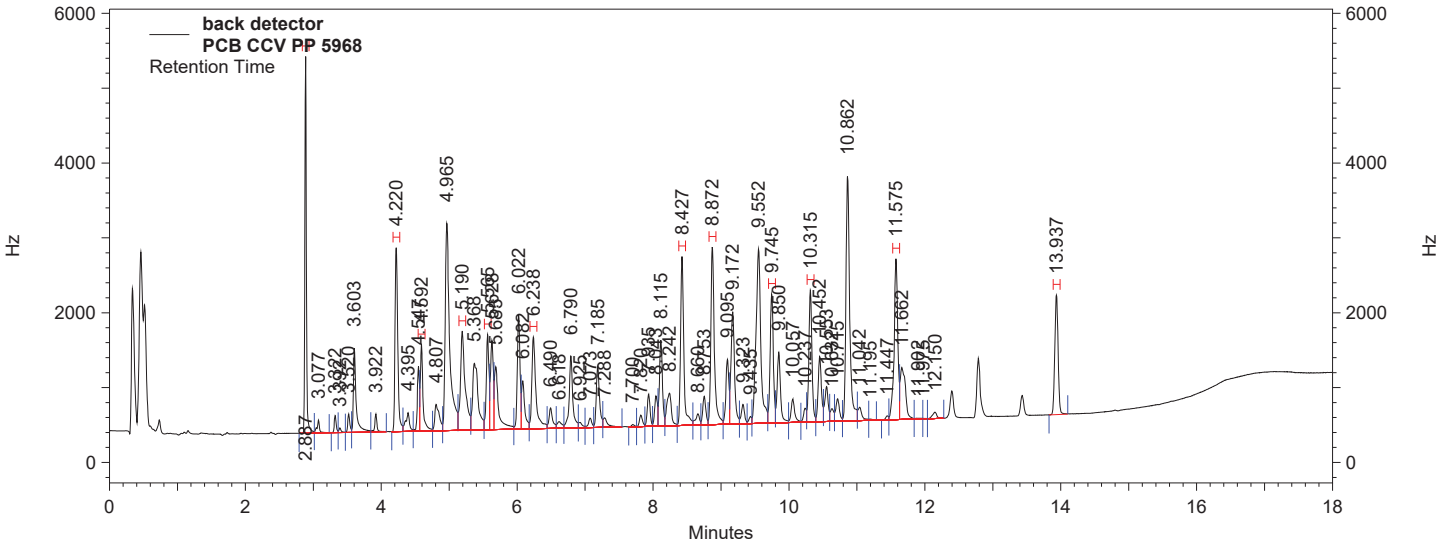
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.377	28761350	110.307
Aroclor 1016 #1	2.815	11366102	0.109
Aroclor 1016 #2	3.250	24280464	0.118
Aroclor 1016 #3	3.505	16332883	0.111
Aroclor 1016 #4	4.063	18839866	0.105
Aroclor 1016 #5	4.687	19861531	0.108
Aroclor 1260 #1	6.777	23316246	0.110
Aroclor 1260 #2	7.303	40517230	0.109
Aroclor 1260 #3	8.045	17241668	0.109
Aroclor 1260 #4	8.568	9990359	0.114
Aroclor 1260 #5	9.650	18183975	0.096
SURRDCBPCB	11.853	18472738	108.808
Aroclor 1016		90680846	0.551
Aroclor 1260		109249478	0.539

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\090519pcb\010.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\090519pcb.met
User: AJZ
Sample ID: PCB CCV PP 5968
Acquired: 09/05/2019 18:04:59
Printed: 09/06/2019 08:52:20

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.887	60296127	106.773
Aroclor 1016 #1	4.220	52915072	0.108
Aroclor 1016 #2	4.592	24144560	0.113
Aroclor 1016 #3	5.190	49928357	0.109
Aroclor 1016 #4	5.565	26626628	0.109
Aroclor 1016 #5	6.238	39487881	0.112
Aroclor 1260 #1	8.427	57331103	0.114
Aroclor 1260 #2	8.872	64537286	0.106
Aroclor 1260 #3	9.745	42820053	0.109
Aroclor 1260 #4	10.315	43214725	0.107
Aroclor 1260 #5	11.575	62343864	0.103
SURRDCBPCB	13.937	41287362	110.263
Aroclor 1016		193102498	0.551
Aroclor 1260		270247031	0.539

QC Check Standard Report

Sequence : C:\Instarch\Semi7\Sequence\091019pcbic.seq
User : JJY
Printed : 09/16/2019 09:10:53

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\091019pcbic\034.dat	PCB CCV PP 5968	09/16/2019 09:10:53

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	93.752	6.248	20.000	Passed
Aroclor 1016 #1	0.100	0.097	3.119	20.000	Passed
Aroclor 1016 #2	0.100	0.096	3.881	20.000	Passed
Aroclor 1016 #3	0.100	0.096	3.552	20.000	Passed
Aroclor 1016 #4	0.100	0.096	4.187	20.000	Passed
Aroclor 1016 #5	0.100	0.095	4.591	20.000	Passed
Aroclor 1260 #1	0.100	0.094	6.382	20.000	Passed
Aroclor 1260 #2	0.100	0.094	5.777	20.000	Passed
Aroclor 1260 #3	0.100	0.092	7.602	20.000	Passed
Aroclor 1260 #4	0.100	0.091	8.558	20.000	Passed
Aroclor 1260 #5	0.100	0.098	2.491	20.000	Passed
SURRDCBPCB	100.000	91.990	8.010	20.000	Passed
Aroclor 1016	0.500	0.481	3.866	20.000	Passed
Aroclor 1260	0.500	0.469	6.162	20.000	Passed

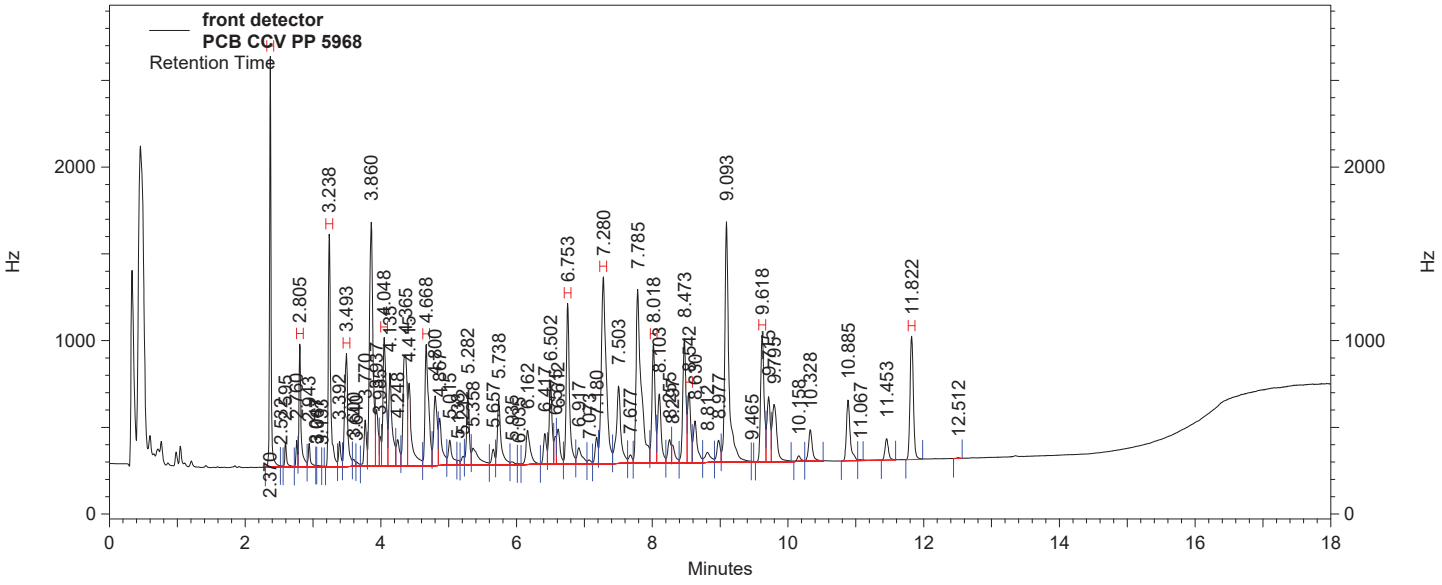
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	100.377	0.377	20.000	Passed
Aroclor 1016 #1	0.100	0.103	3.147	20.000	Passed
Aroclor 1016 #2	0.100	0.102	1.964	20.000	Passed
Aroclor 1016 #3	0.100	0.101	1.241	20.000	Passed
Aroclor 1016 #4	0.100	0.102	1.586	20.000	Passed
Aroclor 1016 #5	0.100	0.100	0.381	20.000	Passed
Aroclor 1260 #1	0.100	0.100	0.386	20.000	Passed
Aroclor 1260 #2	0.100	0.099	0.627	20.000	Passed
Aroclor 1260 #3	0.100	0.097	2.609	20.000	Passed
Aroclor 1260 #4	0.100	0.097	2.591	20.000	Passed
Aroclor 1260 #5	0.100	0.098	1.575	20.000	Passed
SURRDCBPCB	100.000	91.477	8.523	20.000	Passed
Aroclor 1016	0.500	0.508	1.511	20.000	Passed
Aroclor 1260	0.500	0.493	1.403	20.000	Passed

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\034.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: PCB CCV PP 5968
Acquired: 09/11/2019 09:51:39
Printed: 09/16/2019 09:10:51

Data Summary: {Data Description}



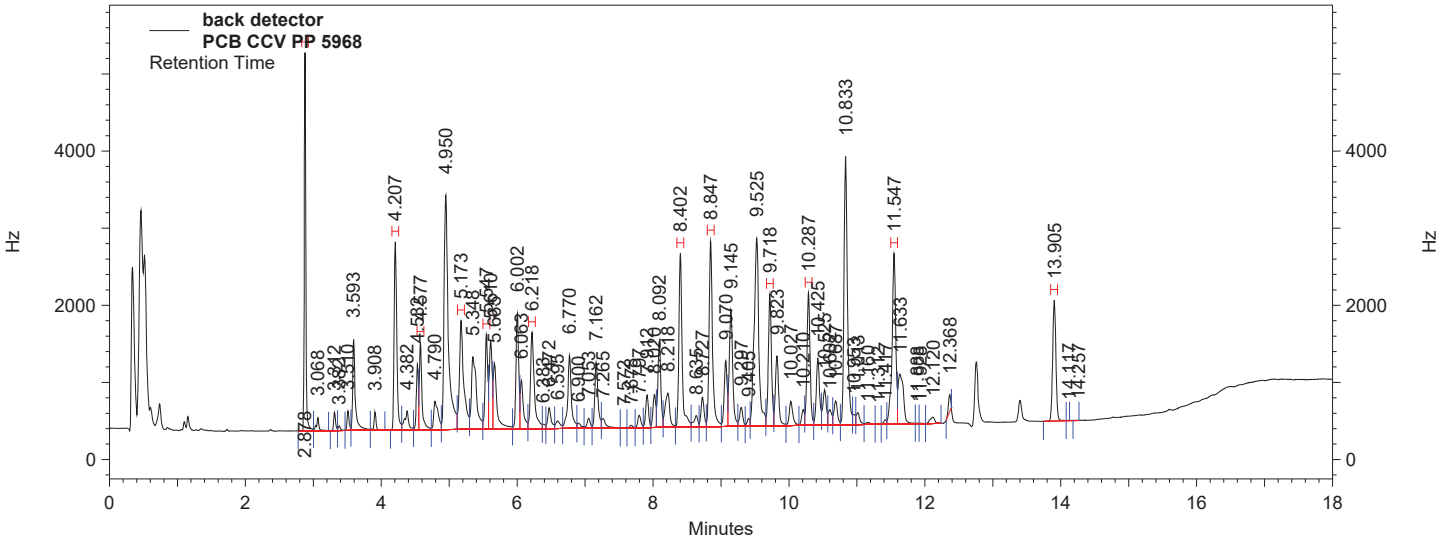
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.370	27938879	93.752
Aroclor 1016 #1	2.805	11270727	0.097
Aroclor 1016 #2	3.238	23907175	0.096
Aroclor 1016 #3	3.493	16154948	0.096
Aroclor 1016 #4	4.048	18894075	0.096
Aroclor 1016 #5	4.668	19632561	0.095
Aroclor 1260 #1	6.753	23260053	0.094
Aroclor 1260 #2	7.280	41029104	0.094
Aroclor 1260 #3	8.018	16932868	0.092
Aroclor 1260 #4	8.542	10021602	0.091
Aroclor 1260 #5	9.618	20071258	0.098
SURRDCBPCB	11.822	19040381	91.990
Aroclor 1016		89859486	0.481
Aroclor 1260		111314885	0.469

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\034.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: PCB CCV PP 5968
Acquired: 09/11/2019 09:51:39
Printed: 09/16/2019 09:10:51

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.878	58021155	100.377
Aroclor 1016 #1	4.207	51500199	0.103
Aroclor 1016 #2	4.577	23339083	0.102
Aroclor 1016 #3	5.173	48096296	0.101
Aroclor 1016 #4	5.547	25320555	0.102
Aroclor 1016 #5	6.218	37355852	0.100
Aroclor 1260 #1	8.402	56340932	0.100
Aroclor 1260 #2	8.847	63472342	0.099
Aroclor 1260 #3	9.718	41187097	0.097
Aroclor 1260 #4	10.287	42251060	0.097
Aroclor 1260 #5	11.547	64342528	0.098
SURRDCBPCB	13.905	39619940	91.477
Aroclor 1016		185611985	0.508
Aroclor 1260		267593959	0.493

QC Check Standard Report

Sequence : C:\Instarch\Semi7\Sequence\091019pcbic.seq
User : JJY
Printed : 09/16/2019 09:11:24

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\091019pcbic\045.dat	PCB CCV PP 5968	09/16/2019 09:11:24

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	97.213	2.787	20.000	Passed
Aroclor 1016 #1	0.100	0.102	1.637	20.000	Passed
Aroclor 1016 #2	0.100	0.100	0.202	20.000	Passed
Aroclor 1016 #3	0.100	0.100	0.077	20.000	Passed
Aroclor 1016 #4	0.100	0.101	0.991	20.000	Passed
Aroclor 1016 #5	0.100	0.100	0.311	20.000	Passed
Aroclor 1260 #1	0.100	0.098	1.989	20.000	Passed
Aroclor 1260 #2	0.100	0.098	2.034	20.000	Passed
Aroclor 1260 #3	0.100	0.097	2.875	20.000	Passed
Aroclor 1260 #4	0.100	0.096	3.995	20.000	Passed
Aroclor 1260 #5	0.100	0.097	2.710	20.000	Passed
SURRDCBPCB	100.000	93.858	6.142	20.000	Passed
Aroclor 1016	0.500	0.502	0.408	20.000	Passed
Aroclor 1260	0.500	0.486	2.721	20.000	Passed

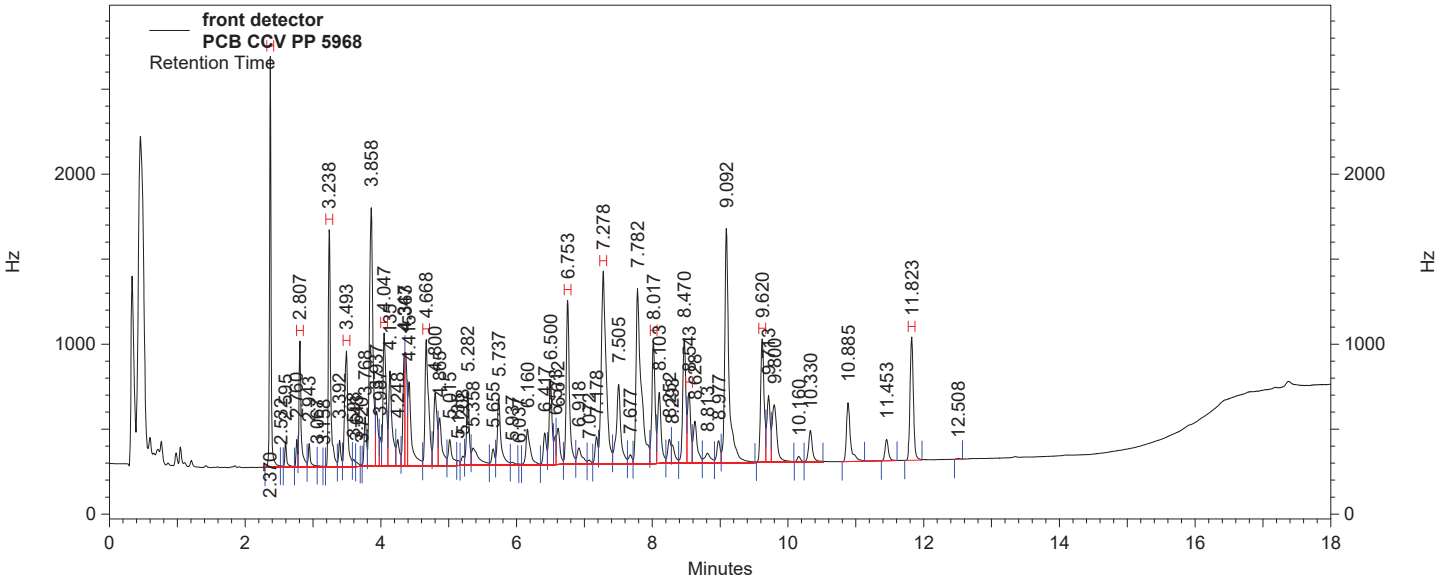
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	102.092	2.092	20.000	Passed
Aroclor 1016 #1	0.100	0.105	4.777	20.000	Passed
Aroclor 1016 #2	0.100	0.104	3.941	20.000	Passed
Aroclor 1016 #3	0.100	0.104	4.178	20.000	Passed
Aroclor 1016 #4	0.100	0.104	4.181	20.000	Passed
Aroclor 1016 #5	0.100	0.106	6.393	20.000	Passed
Aroclor 1260 #1	0.100	0.103	3.462	20.000	Passed
Aroclor 1260 #2	0.100	0.103	2.878	20.000	Passed
Aroclor 1260 #3	0.100	0.100	0.470	20.000	Passed
Aroclor 1260 #4	0.100	0.100	0.059	20.000	Passed
Aroclor 1260 #5	0.100	0.101	0.699	20.000	Passed
SURRDCBPCB	100.000	98.143	1.857	20.000	Passed
Aroclor 1016	0.500	0.523	4.694	20.000	Passed
Aroclor 1260	0.500	0.508	1.514	20.000	Passed

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\045.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: PCB CCV PP 5968
Acquired: 09/11/2019 13:45:07
Printed: 09/16/2019 09:11:22

Data Summary: {Data Description}



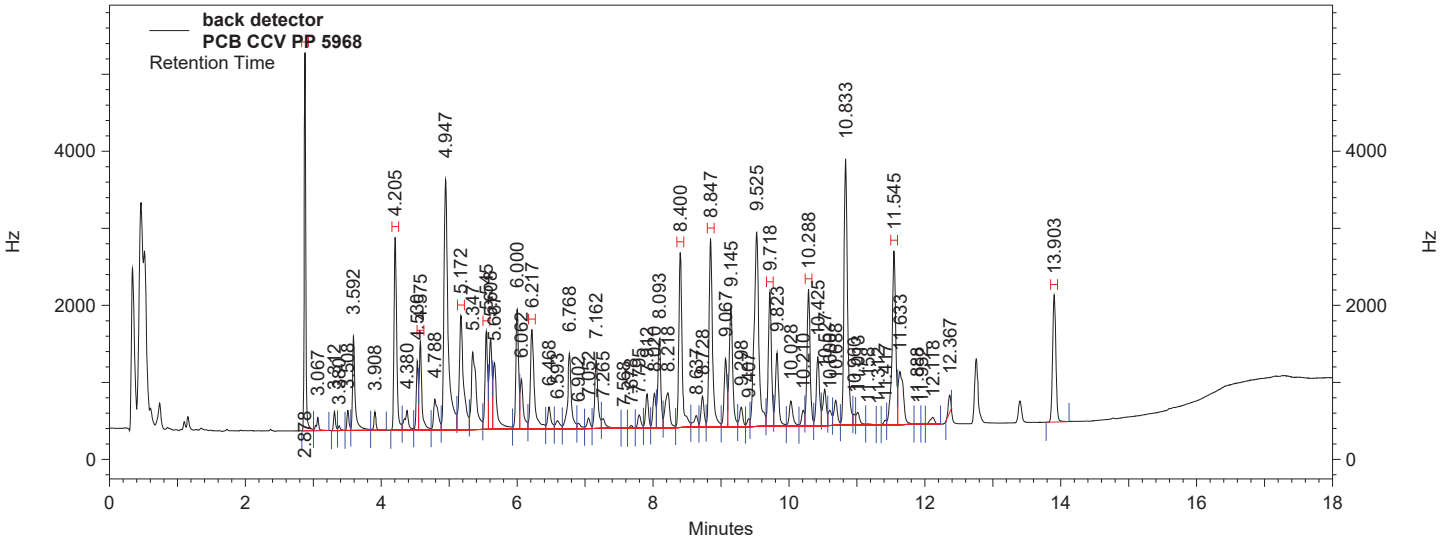
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.370	28964508	97.213
Aroclor 1016 #1	2.807	11816322	0.102
Aroclor 1016 #2	3.238	24802141	0.100
Aroclor 1016 #3	3.493	16727783	0.100
Aroclor 1016 #4	4.047	19912862	0.101
Aroclor 1016 #5	4.668	20505668	0.100
Aroclor 1260 #1	6.753	24339005	0.098
Aroclor 1260 #2	7.278	42648860	0.098
Aroclor 1260 #3	8.017	17789822	0.097
Aroclor 1260 #4	8.543	10516710	0.096
Aroclor 1260 #5	9.620	20025326	0.097
SURRDCBPCB	11.823	19418651	93.858
Aroclor 1016		93764776	0.502
Aroclor 1260		115319723	0.486

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\045.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: PCB CCV PP 5968
Acquired: 09/11/2019 13:45:07
Printed: 09/16/2019 09:11:22

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.878	59017259	102.092
Aroclor 1016 #1	4.205	52296563	0.105
Aroclor 1016 #2	4.575	23780052	0.104
Aroclor 1016 #3	5.172	49472626	0.104
Aroclor 1016 #4	5.545	25955575	0.104
Aroclor 1016 #5	6.217	39845657	0.106
Aroclor 1260 #1	8.400	58058071	0.103
Aroclor 1260 #2	8.847	65707360	0.103
Aroclor 1260 #3	9.718	42482529	0.100
Aroclor 1260 #4	10.288	43400339	0.100
Aroclor 1260 #5	11.545	65840385	0.101
SURRDCBPCB	13.903	42487519	98.143
Aroclor 1016		191350473	0.523
Aroclor 1260		275488684	0.508

QC Check Standard Report

Sequence : C:\Instarch\Semi7\Sequence\091019pcbic.seq
User : JJY
Printed : 09/16/2019 09:11:57

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\091019pcbic\056.dat	PCB CCV PP 5968	09/16/2019 09:11:57

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	97.901	2.099	20.000	Passed
Aroclor 1016 #1	0.100	0.102	2.371	20.000	Passed
Aroclor 1016 #2	0.100	0.101	0.626	20.000	Passed
Aroclor 1016 #3	0.100	0.101	0.928	20.000	Passed
Aroclor 1016 #4	0.100	0.102	2.171	20.000	Passed
Aroclor 1016 #5	0.100	0.101	1.399	20.000	Passed
Aroclor 1260 #1	0.100	0.100	0.410	20.000	Passed
Aroclor 1260 #2	0.100	0.100	0.029	20.000	Passed
Aroclor 1260 #3	0.100	0.101	0.684	20.000	Passed
Aroclor 1260 #4	0.100	0.097	3.086	20.000	Passed
Aroclor 1260 #5	0.100	0.104	3.874	20.000	Passed
SURRDCBPCB	100.000	99.983	0.017	20.000	Passed
Aroclor 1016	0.500	0.507	1.499	20.000	Passed
Aroclor 1260	0.500	0.501	0.218	20.000	Passed

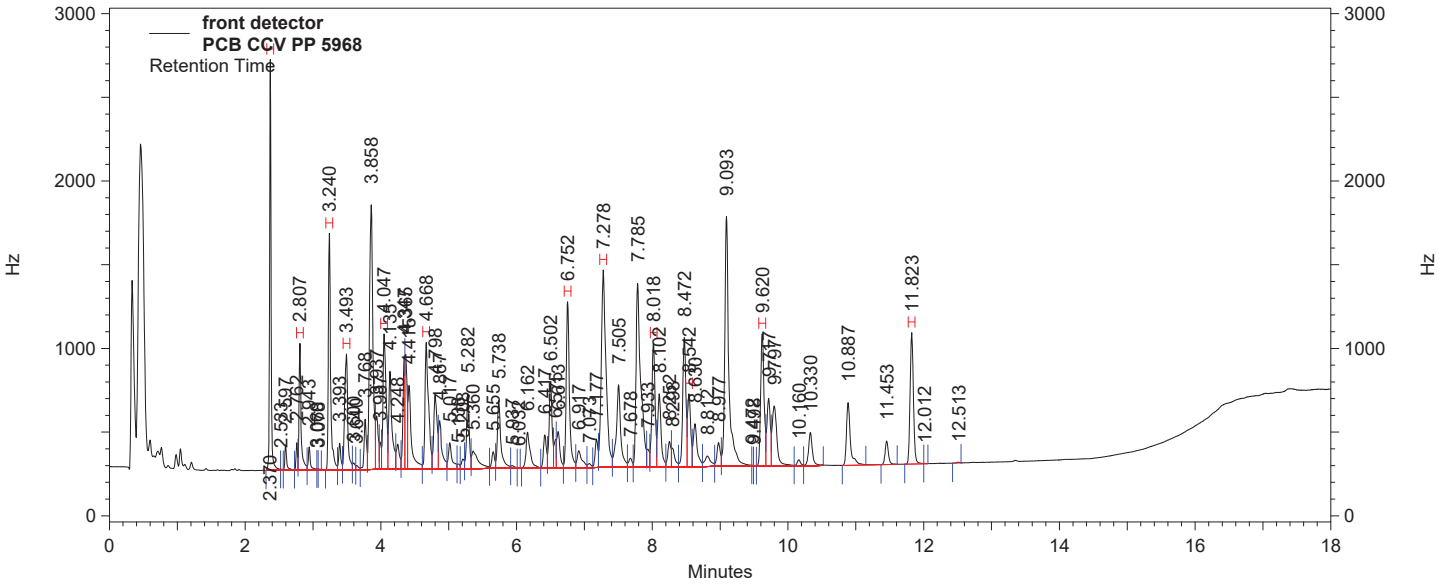
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	107.234	7.234	20.000	Passed
Aroclor 1016 #1	0.100	0.110	10.366	20.000	Passed
Aroclor 1016 #2	0.100	0.107	6.765	20.000	Passed
Aroclor 1016 #3	0.100	0.108	8.392	20.000	Passed
Aroclor 1016 #4	0.100	0.108	8.454	20.000	Passed
Aroclor 1016 #5	0.100	0.107	7.174	20.000	Passed
Aroclor 1260 #1	0.100	0.109	9.105	20.000	Passed
Aroclor 1260 #2	0.100	0.109	8.691	20.000	Passed
Aroclor 1260 #3	0.100	0.107	6.869	20.000	Passed
Aroclor 1260 #4	0.100	0.107	6.503	20.000	Passed
Aroclor 1260 #5	0.100	0.108	8.224	20.000	Passed
SURRDCBPCB	100.000	105.749	5.749	20.000	Passed
Aroclor 1016	0.500	0.541	8.230	20.000	Passed
Aroclor 1260	0.500	0.539	7.878	20.000	Passed

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\056.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: PCB CCV PP 5968
Acquired: 09/11/2019 17:38:46
Printed: 09/16/2019 09:11:56

Data Summary: {Data Description}



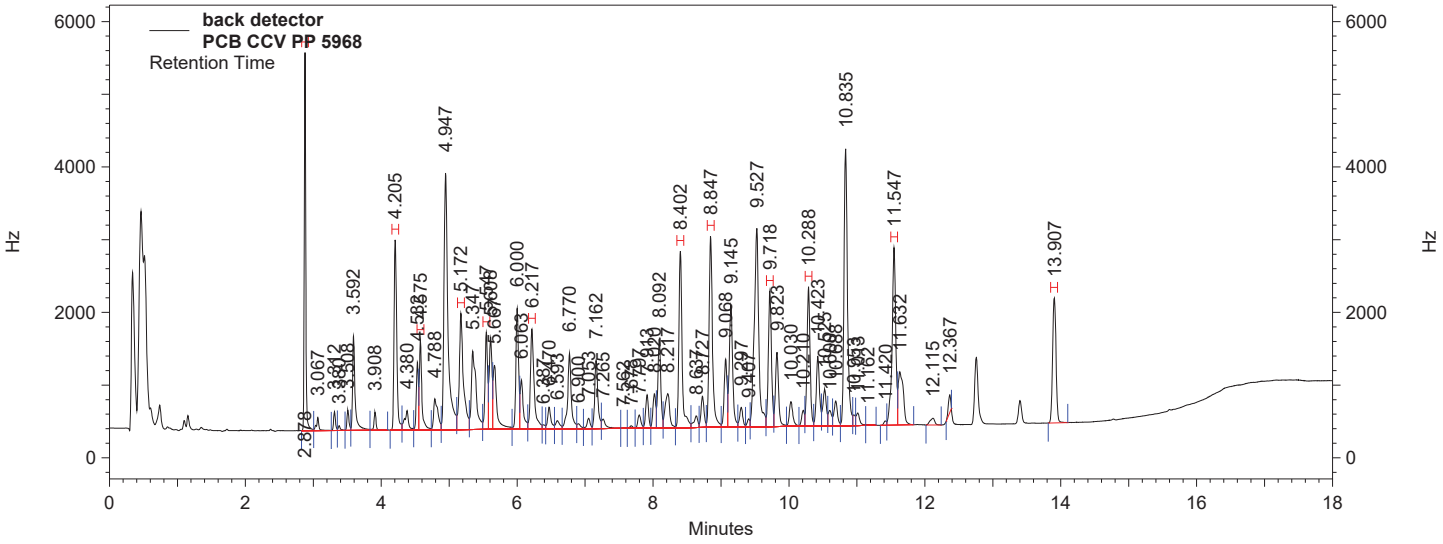
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.370	29168521	97.901
Aroclor 1016 #1	2.807	11900484	0.102
Aroclor 1016 #2	3.240	25003449	0.101
Aroclor 1016 #3	3.493	16893345	0.101
Aroclor 1016 #4	4.047	20145045	0.102
Aroclor 1016 #5	4.668	20854425	0.101
Aroclor 1260 #1	6.752	24726865	0.100
Aroclor 1260 #2	7.278	43541381	0.100
Aroclor 1260 #3	8.018	18435019	0.101
Aroclor 1260 #4	8.542	10615356	0.097
Aroclor 1260 #5	9.620	21404335	0.104
SURRDCBPCB	11.823	20658751	99.983
Aroclor 1016		94796748	0.507
Aroclor 1260		118722956	0.501

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\056.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: PCB CCV PP 5968
Acquired: 09/11/2019 17:38:46
Printed: 09/16/2019 09:11:56

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.878	62004153	107.234
Aroclor 1016 #1	4.205	55027593	0.110
Aroclor 1016 #2	4.575	24409957	0.107
Aroclor 1016 #3	5.172	51446912	0.108
Aroclor 1016 #4	5.547	27001187	0.108
Aroclor 1016 #5	6.217	40132753	0.107
Aroclor 1260 #1	8.402	61208693	0.109
Aroclor 1260 #2	8.847	69414034	0.109
Aroclor 1260 #3	9.718	45174563	0.107
Aroclor 1260 #4	10.288	46194329	0.107
Aroclor 1260 #5	11.547	70797828	0.108
SURRDCBPCB	13.907	45759811	105.749
Aroclor 1016		198018402	0.541
Aroclor 1260		292789447	0.539

QC Check Standard Report

Sequence : C:\Instarch\Semi7\Sequence\091319pcb.seq
User : AJZ
Printed : 09/16/2019 09:27:50

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\091319pcb\014.dat	PCB CCV PP 5968	09/16/2019 09:27:50

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	92.741	7.259	20.000	Passed
Aroclor 1016 #1	0.100	0.097	2.870	20.000	Passed
Aroclor 1016 #2	0.100	0.095	4.660	20.000	Passed
Aroclor 1016 #3	0.100	0.095	4.725	20.000	Passed
Aroclor 1016 #4	0.100	0.097	3.318	20.000	Passed
Aroclor 1016 #5	0.100	0.095	4.502	20.000	Passed
Aroclor 1260 #1	0.100	0.094	6.134	20.000	Passed
Aroclor 1260 #2	0.100	0.095	5.207	20.000	Passed
Aroclor 1260 #3	0.100	0.094	5.944	20.000	Passed
Aroclor 1260 #4	0.100	0.092	7.509	20.000	Passed
Aroclor 1260 #5	0.100	0.096	3.817	20.000	Passed
SURRDCBPCB	100.000	92.162	7.838	20.000	Passed
Aroclor 1016	0.500	0.480	4.015	20.000	Passed
Aroclor 1260	0.500	0.471	5.722	20.000	Passed

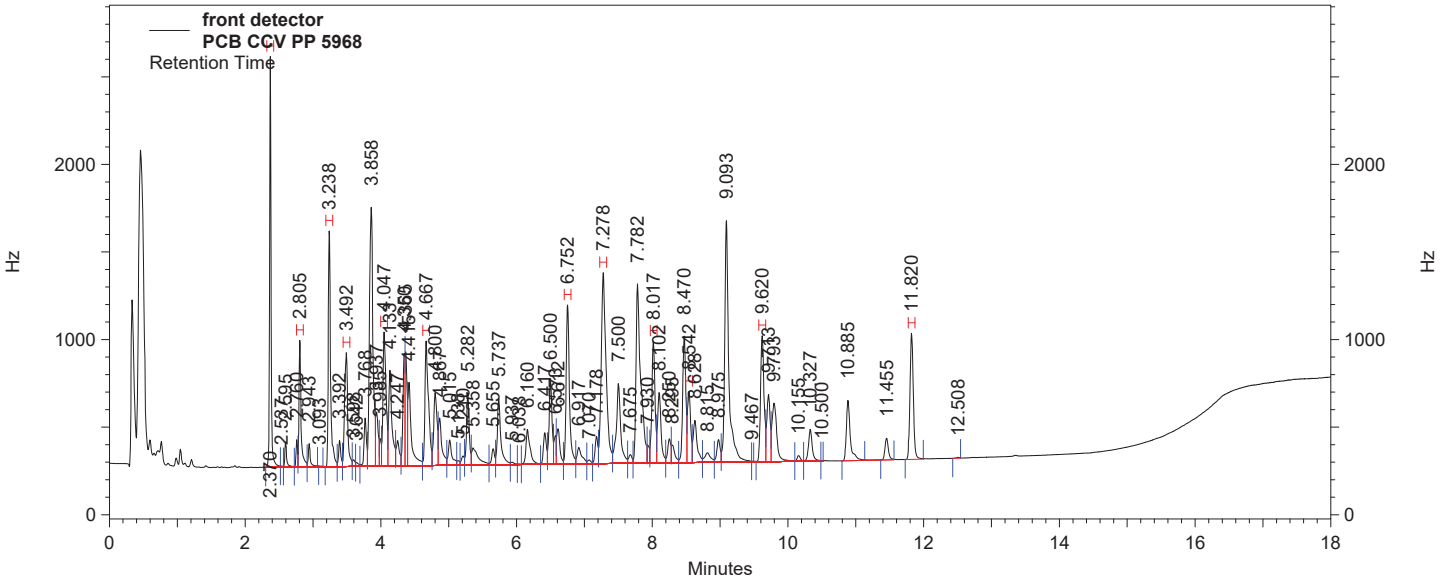
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	107.883	7.883	20.000	Passed
Aroclor 1016 #1	0.100	0.110	10.439	20.000	Passed
Aroclor 1016 #2	0.100	0.109	8.896	20.000	Passed
Aroclor 1016 #3	0.100	0.110	9.862	20.000	Passed
Aroclor 1016 #4	0.100	0.109	9.241	20.000	Passed
Aroclor 1016 #5	0.100	0.109	9.336	20.000	Passed
Aroclor 1260 #1	0.100	0.103	2.686	20.000	Passed
Aroclor 1260 #2	0.100	0.110	10.221	20.000	Passed
Aroclor 1260 #3	0.100	0.108	7.840	20.000	Passed
Aroclor 1260 #4	0.100	0.108	7.899	20.000	Passed
Aroclor 1260 #5	0.100	0.109	8.787	20.000	Passed
SURRDCBPCB	100.000	105.700	5.700	20.000	Passed
Aroclor 1016	0.500	0.548	9.555	20.000	Passed
Aroclor 1260	0.500	0.537	7.487	20.000	Passed

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091319pcb\014.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091319pcb.met
User: AJZ
Sample ID: PCB CCV PP 5968
Acquired: 09/13/2019 21:11:24
Printed: 09/16/2019 09:27:49

Data Summary: {Data Description}



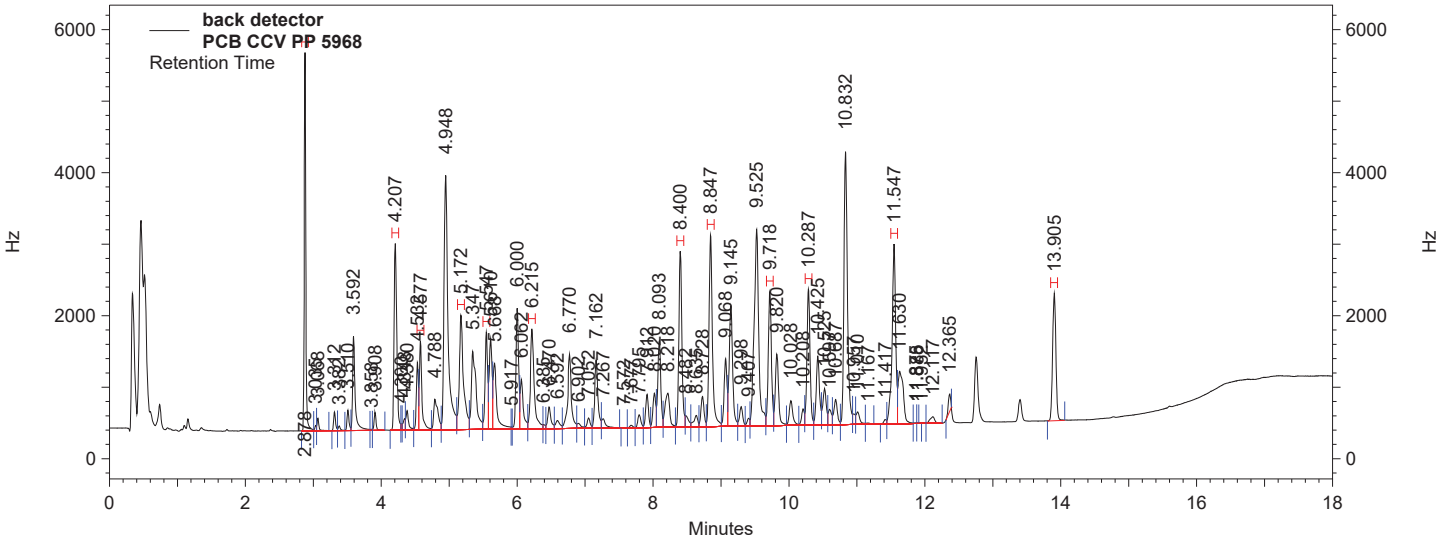
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.370	27639045	92.741
Aroclor 1016 #1	2.805	11299263	0.097
Aroclor 1016 #2	3.238	23717596	0.095
Aroclor 1016 #3	3.492	15961654	0.095
Aroclor 1016 #4	4.047	19065061	0.097
Aroclor 1016 #5	4.667	19650707	0.095
Aroclor 1260 #1	6.752	23320918	0.094
Aroclor 1260 #2	7.278	41275622	0.095
Aroclor 1260 #3	8.017	17233398	0.094
Aroclor 1260 #4	8.542	10135434	0.092
Aroclor 1260 #5	9.620	19793443	0.096
SURRDCBPCB	11.820	19075219	92.162
Aroclor 1016		89694281	0.480
Aroclor 1260		111758815	0.471

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091319pcb\014.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091319pcb.met
User: AJZ
Sample ID: PCB CCV PP 5968
Acquired: 09/13/2019 21:11:24
Printed: 09/16/2019 09:27:49

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.878	62381033	107.883
Aroclor 1016 #1	4.207	55062907	0.110
Aroclor 1016 #2	4.577	24885321	0.109
Aroclor 1016 #3	5.172	52135353	0.110
Aroclor 1016 #4	5.547	27193760	0.109
Aroclor 1016 #5	6.215	40927043	0.109
Aroclor 1260 #1	8.400	57624819	0.103
Aroclor 1260 #2	8.847	70389641	0.110
Aroclor 1260 #3	9.718	45583207	0.108
Aroclor 1260 #4	10.287	46799779	0.108
Aroclor 1260 #5	11.547	71169044	0.109
SURRDCBPCB	13.905	45738718	105.700
Aroclor 1016		200204384	0.548
Aroclor 1260		291566490	0.537

QC Check Standard Report

Sequence : C:\Instarch\Semi7\Sequence\091319pcb.seq
User : AJZ
Printed : 09/16/2019 09:28:35

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\091319pcb\023.dat	PCB CCV PP 5968	09/16/2019 09:28:35

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	101.474	1.474	20.000	Passed
Aroclor 1016 #1	0.100	0.106	5.626	20.000	Passed
Aroclor 1016 #2	0.100	0.104	4.082	20.000	Passed
Aroclor 1016 #3	0.100	0.105	4.603	20.000	Passed
Aroclor 1016 #4	0.100	0.104	4.477	20.000	Passed
Aroclor 1016 #5	0.100	0.104	4.049	20.000	Passed
Aroclor 1260 #1	0.100	0.102	2.490	20.000	Passed
Aroclor 1260 #2	0.100	0.102	2.335	20.000	Passed
Aroclor 1260 #3	0.100	0.103	3.066	20.000	Passed
Aroclor 1260 #4	0.100	0.101	0.950	20.000	Passed
Aroclor 1260 #5	0.100	0.103	3.124	20.000	Passed
SURRDCBPCB	100.000	100.916	0.916	20.000	Passed
Aroclor 1016	0.500	0.523	4.567	20.000	Passed
Aroclor 1260	0.500	0.512	2.393	20.000	Passed

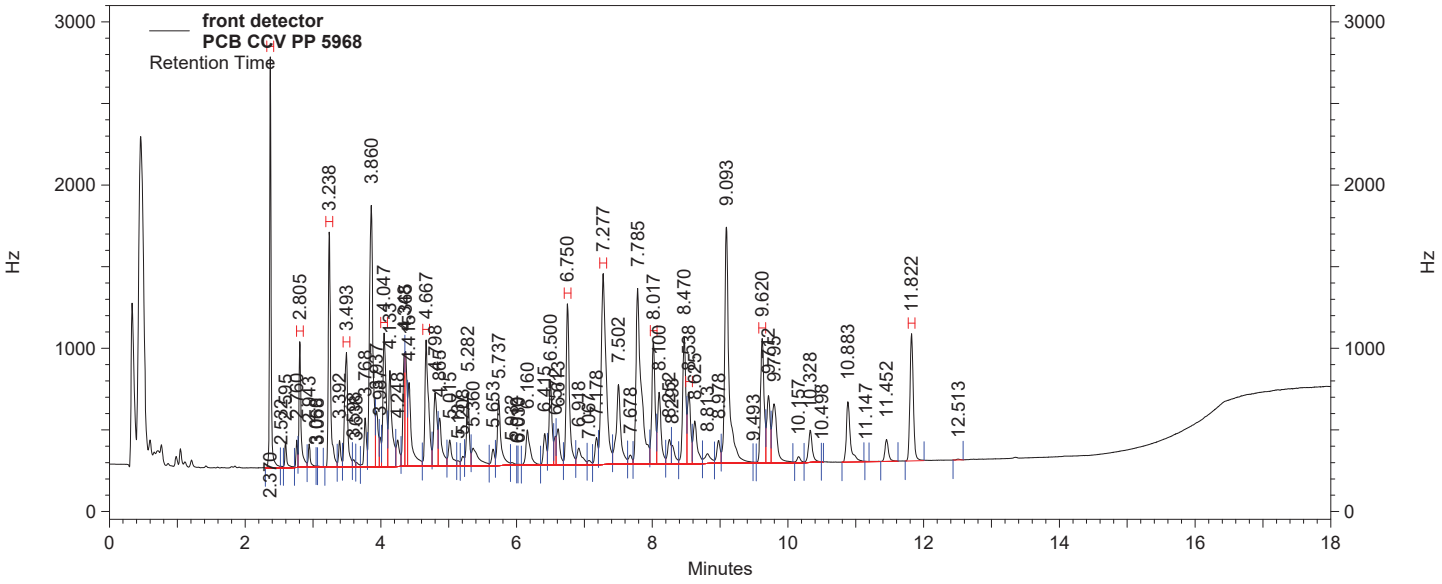
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	118.585	18.585	20.000	Passed
Aroclor 1016 #1	0.100	0.122	21.976	20.000	FAILED
Aroclor 1016 #2	0.100	0.116	15.918	20.000	Passed
Aroclor 1016 #3	0.100	0.121	20.768	20.000	FAILED
Aroclor 1016 #4	0.100	0.120	19.570	20.000	Passed
Aroclor 1016 #5	0.100	0.120	19.667	20.000	Passed
Aroclor 1260 #1	0.100	0.120	19.891	20.000	Passed
Aroclor 1260 #2	0.100	0.120	19.730	20.000	Passed
Aroclor 1260 #3	0.100	0.118	17.666	20.000	Passed
Aroclor 1260 #4	0.100	0.117	17.076	20.000	Passed
Aroclor 1260 #5	0.100	0.117	17.373	20.000	Passed
SURRDCBPCB	100.000	113.496	13.496	20.000	Passed
Aroclor 1016	0.500	0.598	19.580	20.000	Passed
Aroclor 1260	0.500	0.592	18.347	20.000	Passed

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091319pcb\023.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091319pcb.met
User: AJZ
Sample ID: PCB CCV PP 5968
Acquired: 09/14/2019 00:22:02
Printed: 09/16/2019 09:28:33

Data Summary: M.I. Index Reason 2 AJZ 09/16/2019



front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.370	30227475	101.474
Aroclor 1016 #1	2.805	12273837	0.106
Aroclor 1016 #2	3.238	25843972	0.104
Aroclor 1016 #3	3.493	17499019	0.105
Aroclor 1016 #4	4.047	20598739	0.104
Aroclor 1016 #5	4.667	21394814	0.104
Aroclor 1260 #1	6.750	25439215	0.102
Aroclor 1260 #2	7.277	44539147	0.102
Aroclor 1260 #3	8.017	18866810	0.103
Aroclor 1260 #4	8.538	11053357	0.101
Aroclor 1260 #5	9.620	21247323	0.103
SURRDCBPCB	11.822	20847601	100.916
Aroclor 1016		97610381	0.523
Aroclor 1260		121145852	0.512

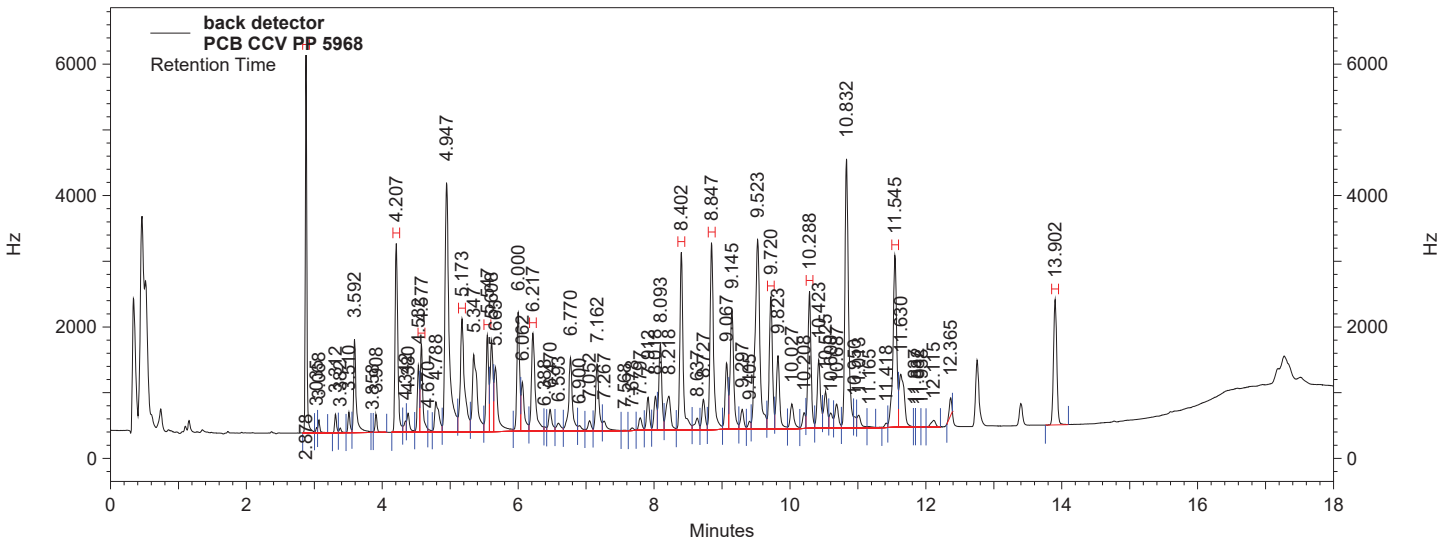
PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091319pcb\023.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091319pcb.met
User: AJZ
Sample ID: PCB CCV PP 5968
Acquired: 09/14/2019 00:22:02
Printed: 09/16/2019 09:28:33

AJZ
9/16/19

Data Summary: M.I. Index Reason 2 AJZ 09/16/2019

After Manual Integration



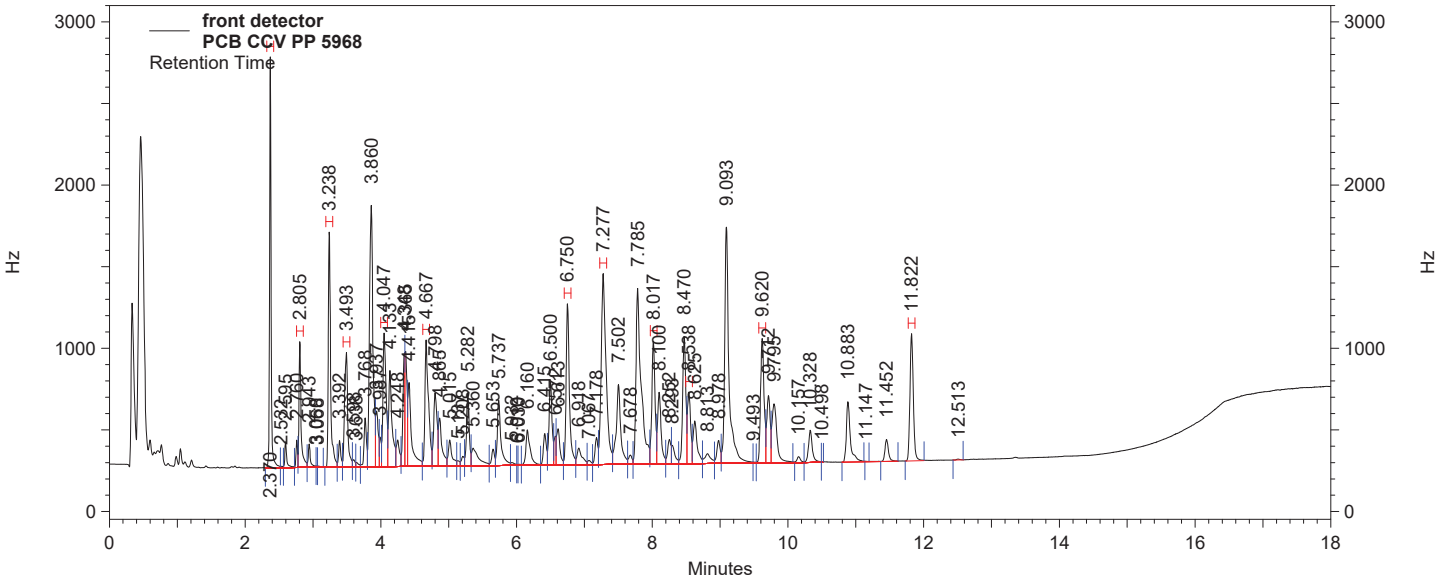
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.878	68597400	118.585
Aroclor 1016 #1	4.207	60700076	0.122
Aroclor 1016 #2	4.577	26451428	0.116
Aroclor 1016 #3	5.173	57245183	0.121
Aroclor 1016 #4	5.547	29720892	0.120
Aroclor 1016 #5	6.217	44724266	0.120
Aroclor 1260 #1	8.402	67230934	0.120
Aroclor 1260 #2	8.847	76452966	0.120
Aroclor 1260 #3	9.720	49716742	0.118
Aroclor 1260 #4	10.288	50778795	0.117
Aroclor 1260 #5	11.545	76825464	0.117
SURRDCBPCB	13.902	49092617	113.496
Aroclor 1016		218841845	0.598
Aroclor 1260		321004901	0.592

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091319pcb\023.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091319pcb.met
User: AJZ
Sample ID: PCB CCV PP 5968
Acquired: 09/14/2019 00:22:02
Printed: 09/16/2019 09:29:41

Data Summary: M.I. Index Reason 2 AJZ 09/16/2019



front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.370	30227475	101.474
Aroclor 1016 #1	2.805	12273837	0.106
Aroclor 1016 #2	3.238	25843972	0.104
Aroclor 1016 #3	3.493	17499019	0.105
Aroclor 1016 #4	4.047	20598739	0.104
Aroclor 1016 #5	4.667	21394814	0.104
Aroclor 1260 #1	6.750	25439215	0.102
Aroclor 1260 #2	7.277	44539147	0.102
Aroclor 1260 #3	8.017	18866810	0.103
Aroclor 1260 #4	8.538	11053357	0.101
Aroclor 1260 #5	9.620	21247323	0.103
SURRDCBPCB	11.822	20847601	100.916
Aroclor 1016		97610381	0.523
Aroclor 1260		121145852	0.512

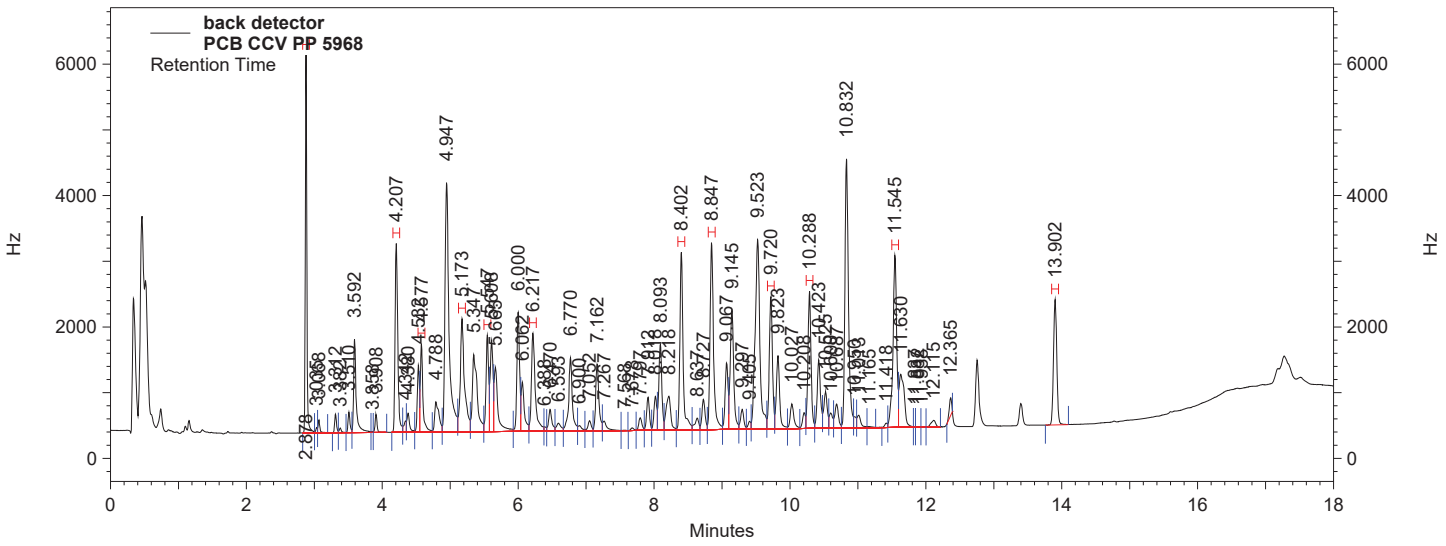
PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091319pcb\023.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091319pcb.met
User: AJZ
Sample ID: PCB CCV PP 5968
Acquired: 09/14/2019 00:22:02
Printed: 09/16/2019 09:29:41

Data Summary: M.I. Index Reason 2 AJZ 09/16/2019

Before Manual Integration

JJY
9/16/19



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.878	68597400	118.585
Aroclor 1016 #1	4.207	60700076	0.122
Aroclor 1016 #2	4.577	27385436	0.120
Aroclor 1016 #3	5.173	57245183	0.121
Aroclor 1016 #4	5.547	29720892	0.120
Aroclor 1016 #5	6.217	44724266	0.120
Aroclor 1260 #1	8.402	67230934	0.120
Aroclor 1260 #2	8.847	76452966	0.120
Aroclor 1260 #3	9.720	49716742	0.118
Aroclor 1260 #4	10.288	50778795	0.117
Aroclor 1260 #5	11.545	76825464	0.117
SURRDCBPCB	13.902	49092617	113.496
Aroclor 1016		219775853	0.602
Aroclor 1260		321004901	0.592

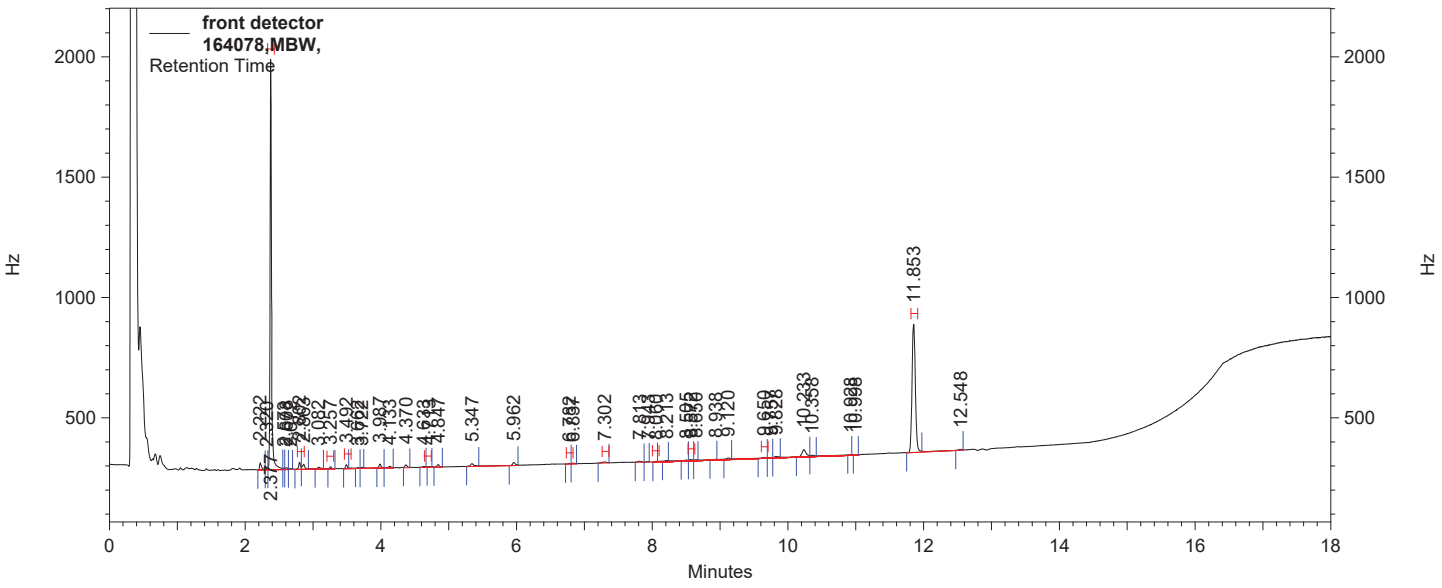
POLYCHLORINATED BIPHENYL QUALITY CONTROL DOCUMENTS

PCB Analysis Report (1016/1260) *(Channel A)*

AJZ
09/19/2019

Data File: C:\Instarch\Semi7\Data\090519pcb\005.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\090519pcb.met
User: AJZ
Sample ID: 164078,MBW,
Acquired: 09/05/2019 16:18:49
Printed: 09/06/2019 08:52:04

Data Summary: {Data Description}



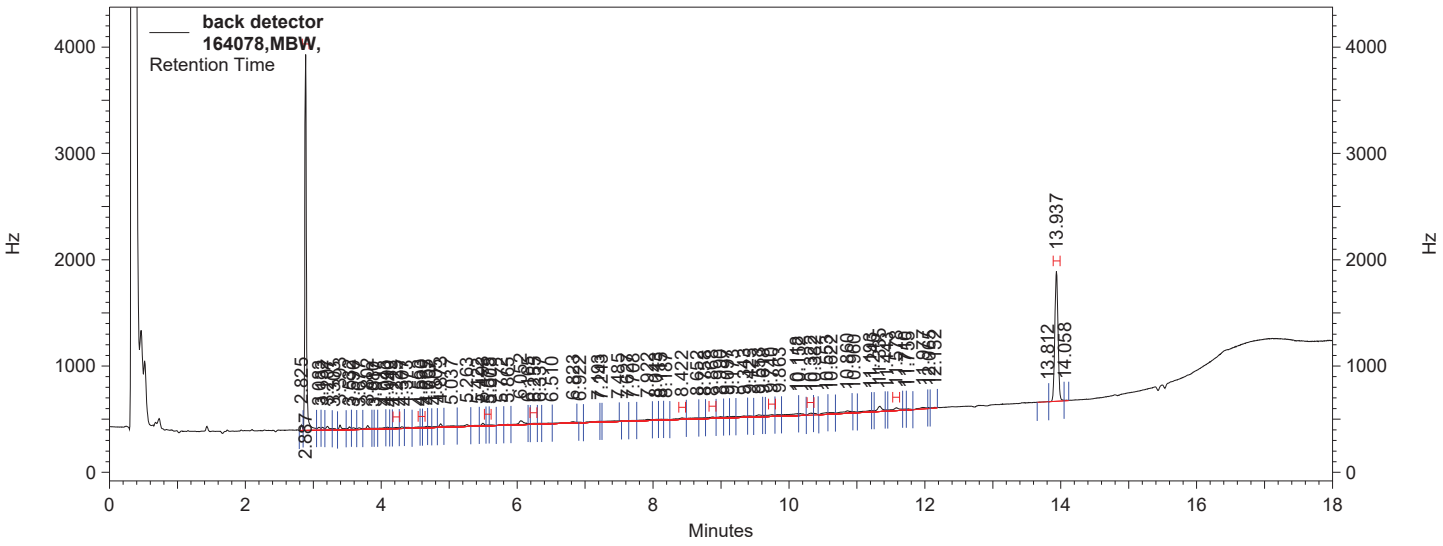
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.377	19982502	76.262
Aroclor 1016 #1	2.802	413352	0.001
Aroclor 1016 #2	3.257	146822	0.000
Aroclor 1016 #3	3.492	238659	0.000
Aroclor 1016 #4			0.000 BDL
Aroclor 1016 #5	4.713	78367	0.000
Aroclor 1260 #1	6.782	61601	0.000
Aroclor 1260 #2	7.302	204554	0.000
Aroclor 1260 #3	8.060	77109	0.000
Aroclor 1260 #4	8.572	162198	0.000
Aroclor 1260 #5	9.650	147186	0.000
SURRDCBPCB	11.853	14003625	81.734
Aroclor 1016		877200	0.001
Aroclor 1260		652648	0.000

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\090519pcb\005.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\090519pcb.met
User: AJZ
Sample ID: 164078,MBW,
Acquired: 09/05/2019 16:18:49
Printed: 09/06/2019 08:52:04

Data Summary: {Data Description}



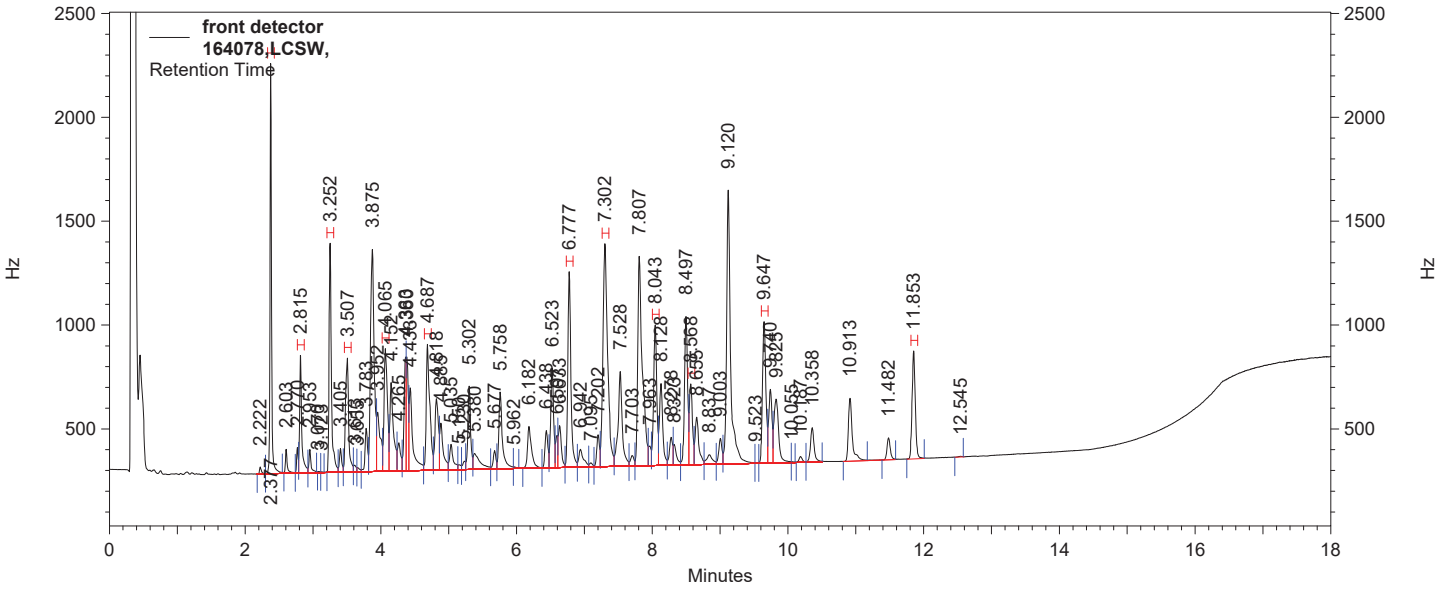
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.887	43159687	76.462
Aroclor 1016 #1	4.225	391644	0.000
Aroclor 1016 #2	4.590	127878	0.000
Aroclor 1016 #3			0.000 BDL
Aroclor 1016 #4	5.575	164958	0.000
Aroclor 1016 #5	6.255	383789	0.000
Aroclor 1260 #1	8.422	937534	0.000
Aroclor 1260 #2	8.868	765770	0.000
Aroclor 1260 #3	9.740	956775	0.001
Aroclor 1260 #4	10.322	639811	0.001
Aroclor 1260 #5	11.578	1442368	0.002
SURRDCBPCB	13.937	30701661	81.292
Aroclor 1016		1068269	0.000
Aroclor 1260		4742258	0.004

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\090519pcb\006.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\090519pcb.met
User: AJZ
Sample ID: 164078,LCSW,
Acquired: 09/05/2019 16:40:02
Printed: 09/06/2019 08:52:07

Data Summary: {Data Description}



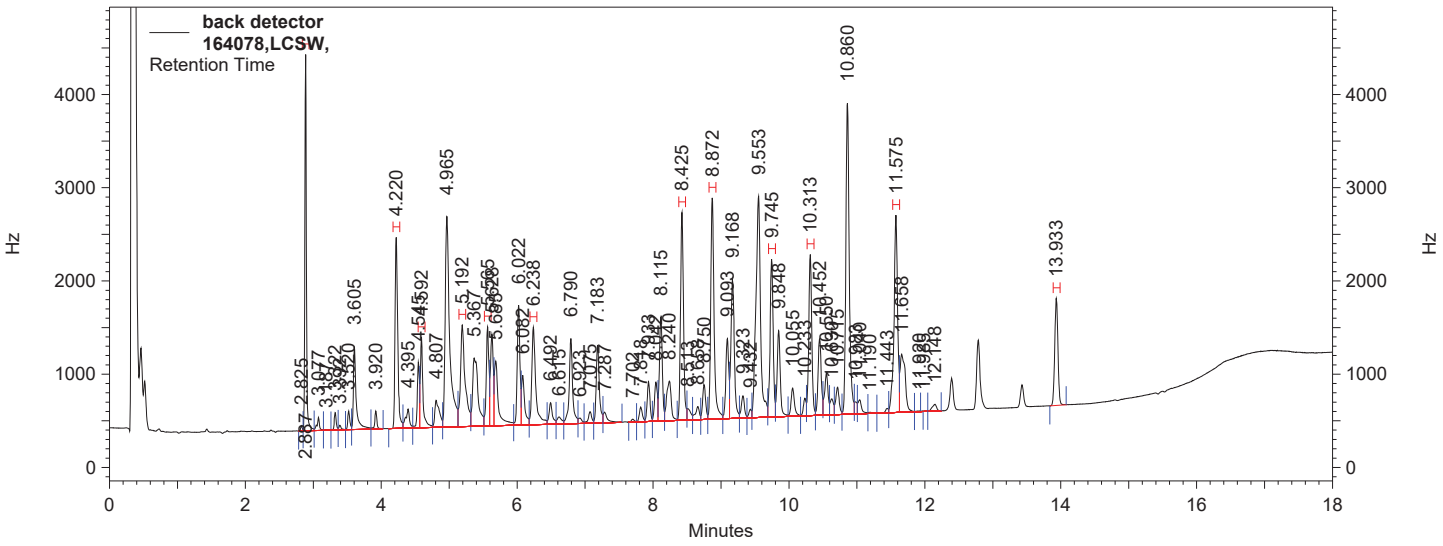
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.377	23482917	89.837
Aroclor 1016 #1	2.815	9406890	0.090
Aroclor 1016 #2	3.252	20044857	0.097
Aroclor 1016 #3	3.507	13684950	0.092
Aroclor 1016 #4	4.065	15777240	0.087
Aroclor 1016 #5	4.687	16871244	0.091
Aroclor 1260 #1	6.777	22766141	0.108
Aroclor 1260 #2	7.302	39777100	0.107
Aroclor 1260 #3	8.043	16545411	0.104
Aroclor 1260 #4	8.568	9508108	0.109
Aroclor 1260 #5	9.647	18250338	0.097
SURRDCBPCB	11.853	13250549	77.172
Aroclor 1016		75785181	0.457
Aroclor 1260		106847098	0.524

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\090519pcb\006.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\090519pcb.met
User: AJZ
Sample ID: 164078,LCSW,
Acquired: 09/05/2019 16:40:02
Printed: 09/06/2019 08:52:07

Data Summary: {Data Description}



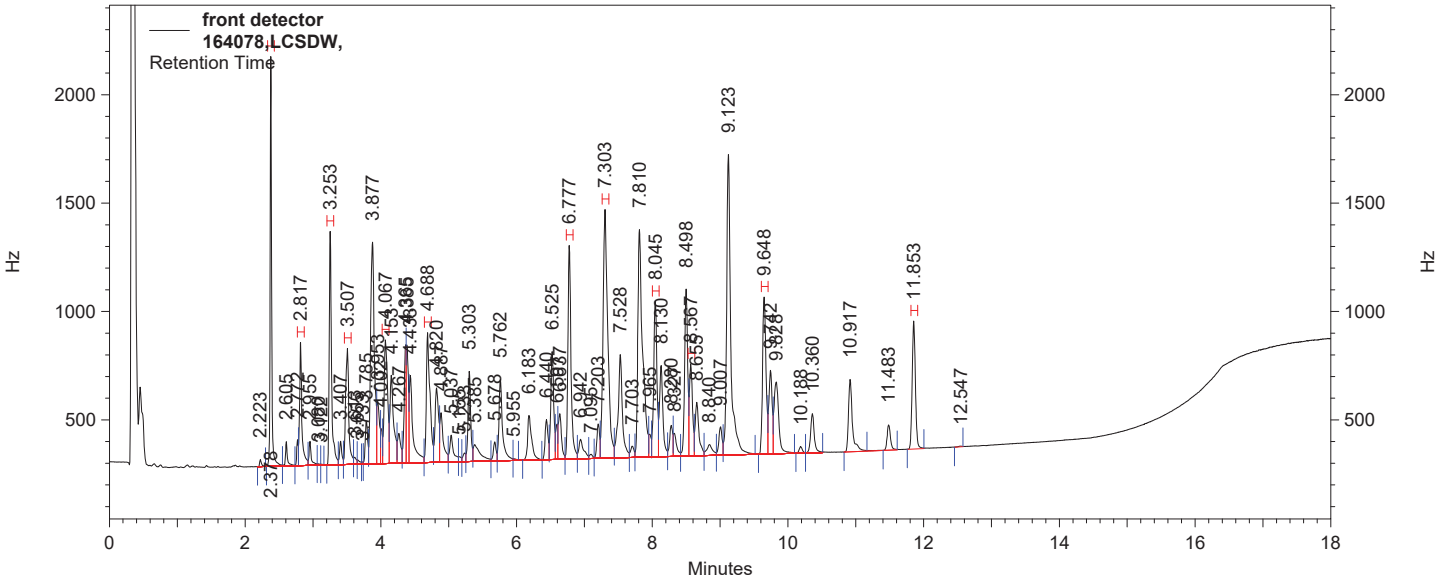
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.887	48599461	86.084
Aroclor 1016 #1	4.220	43294109	0.088
Aroclor 1016 #2	4.592	19948782	0.093
Aroclor 1016 #3	5.192	40752440	0.089
Aroclor 1016 #4	5.565	21928500	0.089
Aroclor 1016 #5	6.238	32395365	0.091
Aroclor 1260 #1	8.425	52085372	0.104
Aroclor 1260 #2	8.872	62165781	0.102
Aroclor 1260 #3	9.745	40340463	0.102
Aroclor 1260 #4	10.313	40939559	0.102
Aroclor 1260 #5	11.575	60117813	0.099
SURRDCBPCB	13.933	28862047	76.258
Aroclor 1016		158319196	0.451
Aroclor 1260		255648988	0.509

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\090519pcb\009.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\090519pcb.met
User: AJZ
Sample ID: 164078,LCSDW,
Acquired: 09/05/2019 17:43:44
Printed: 09/06/2019 08:52:17

Data Summary: {Data Description}



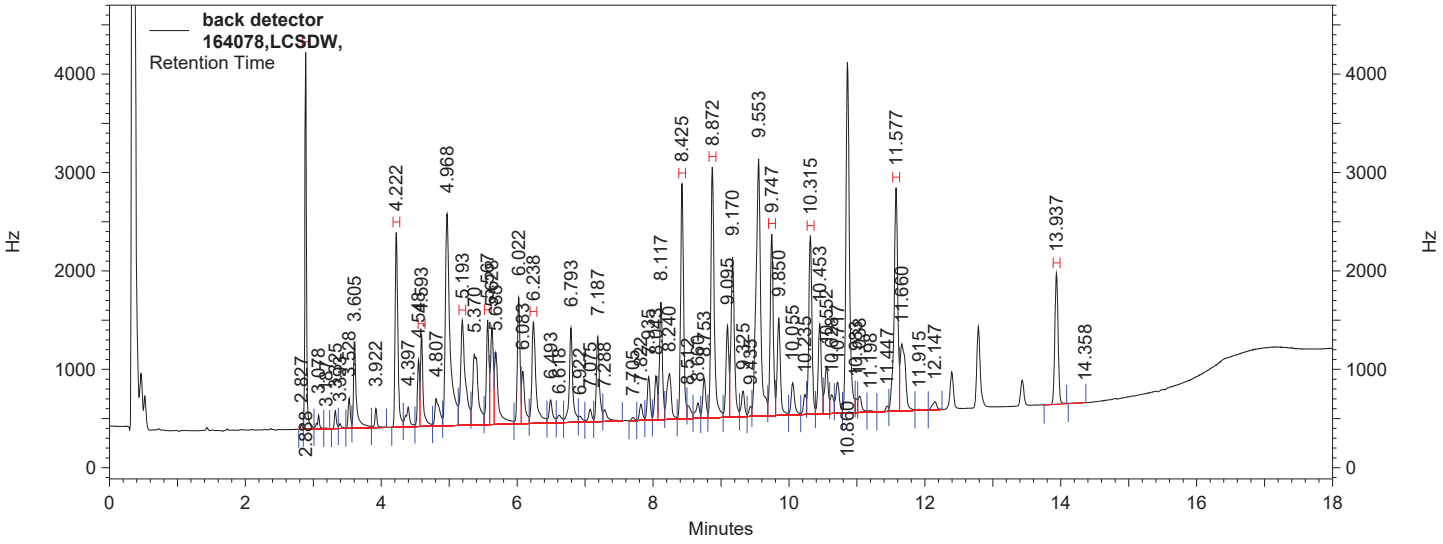
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.378	22306645	85.275
Aroclor 1016 #1	2.817	10190614	0.098
Aroclor 1016 #2	3.253	19616556	0.094
Aroclor 1016 #3	3.507	13382335	0.090
Aroclor 1016 #4	4.067	15580806	0.086
Aroclor 1016 #5	4.688	16937067	0.092
Aroclor 1260 #1	6.777	24069839	0.114
Aroclor 1260 #2	7.303	42544755	0.114
Aroclor 1260 #3	8.045	17867458	0.113
Aroclor 1260 #4	8.567	10279442	0.118
Aroclor 1260 #5	9.648	19739864	0.105
SURRDCBPCB	11.853	15111124	88.443
Aroclor 1016		75707378	0.460
Aroclor 1260		114501358	0.564

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\090519pcb\009.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\072419pcbic\090519pcb.met
User: AJZ
Sample ID: 164078,LCSDW,
Acquired: 09/05/2019 17:43:44
Printed: 09/06/2019 08:52:17

Data Summary: {Data Description}



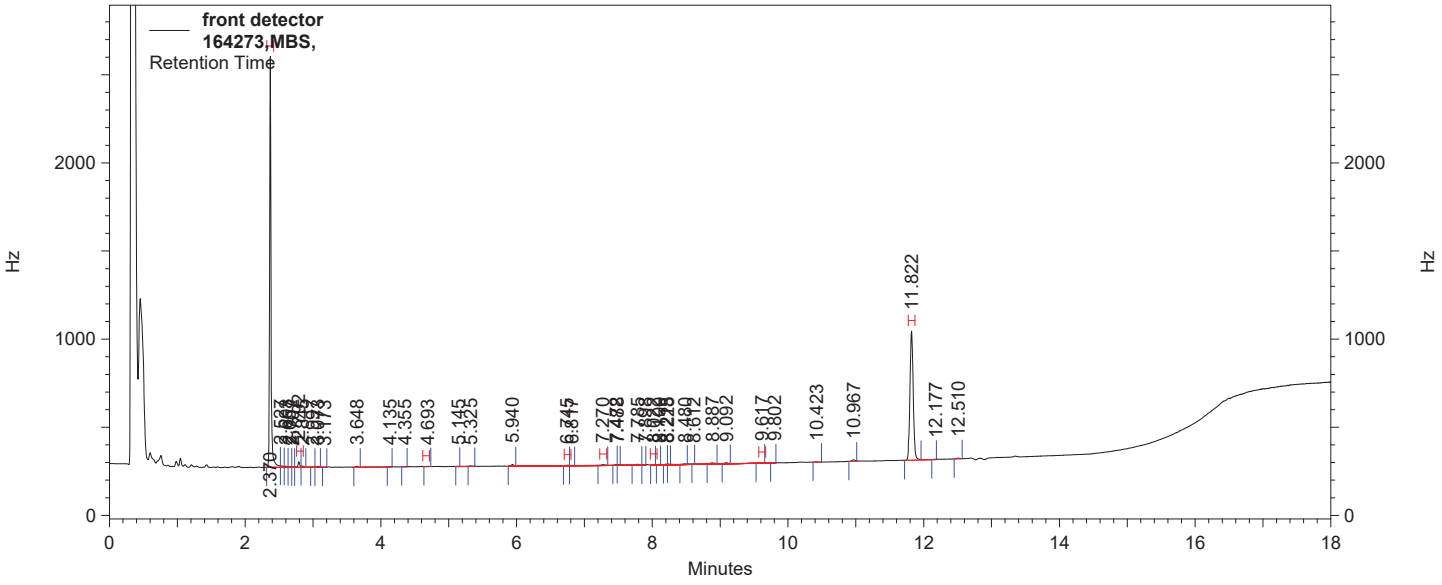
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.888	46439553	82.264
Aroclor 1016 #1	4.222	42601431	0.087
Aroclor 1016 #2	4.593	19568124	0.091
Aroclor 1016 #3	5.193	40272447	0.088
Aroclor 1016 #4	5.567	21912790	0.089
Aroclor 1016 #5	6.238	32949193	0.093
Aroclor 1260 #1	8.425	55519745	0.111
Aroclor 1260 #2	8.872	66812259	0.110
Aroclor 1260 #3	9.747	43906042	0.111
Aroclor 1260 #4	10.315	44668854	0.111
Aroclor 1260 #5	11.577	65750091	0.108
SURRDCBPCB	13.937	33851493	89.913
Aroclor 1016		157303985	0.448
Aroclor 1260		276656991	0.551

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\036.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: 164273,MBS,
Acquired: 09/11/2019 10:34:05
Printed: 09/16/2019 09:11:02

Data Summary: {Data Description}



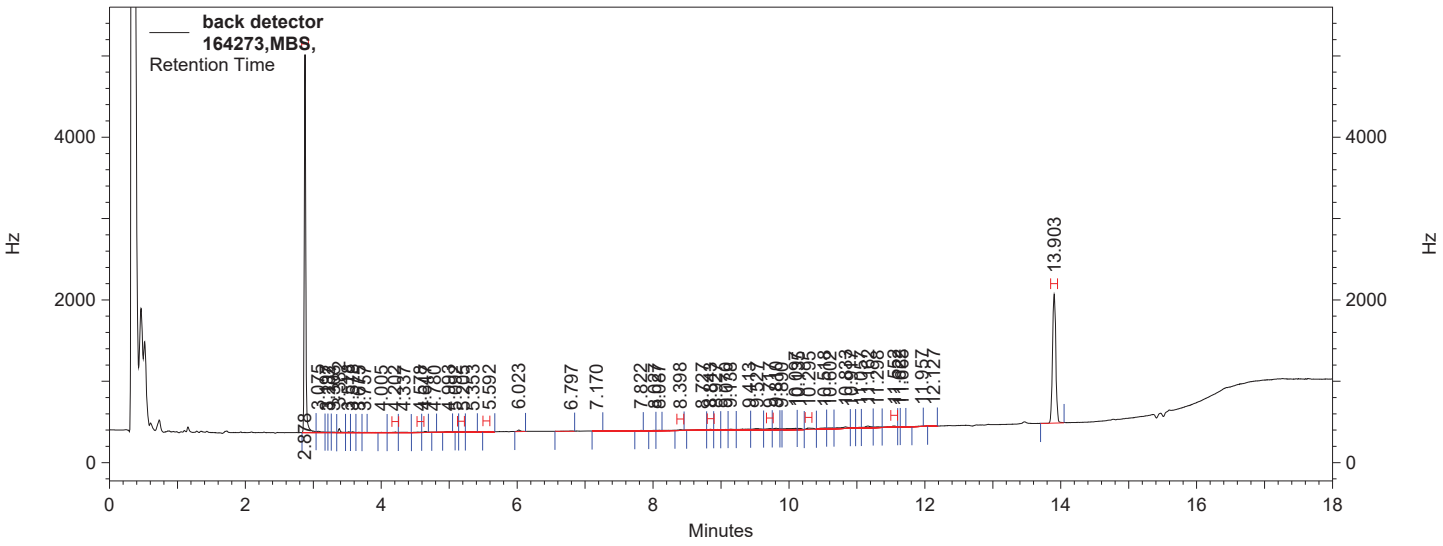
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.370	26536791	89.022
Aroclor 1016 #1	2.792	457169	0.003
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3			0.000 BDL
Aroclor 1016 #4			0.000 BDL
Aroclor 1016 #5	4.693	75890	0.000
Aroclor 1260 #1	6.745	81471	0.000
Aroclor 1260 #2	7.270	194005	0.000
Aroclor 1260 #3	8.022	66511	0.000
Aroclor 1260 #4			0.000 BDL
Aroclor 1260 #5	9.617	104328	0.002
SURRDCBPCB	11.822	18881043	91.203
Aroclor 1016		533059	0.003
Aroclor 1260		446315	0.002

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\036.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: 164273,MBS,
Acquired: 09/11/2019 10:34:05
Printed: 09/16/2019 09:11:02

Data Summary: {Data Description}



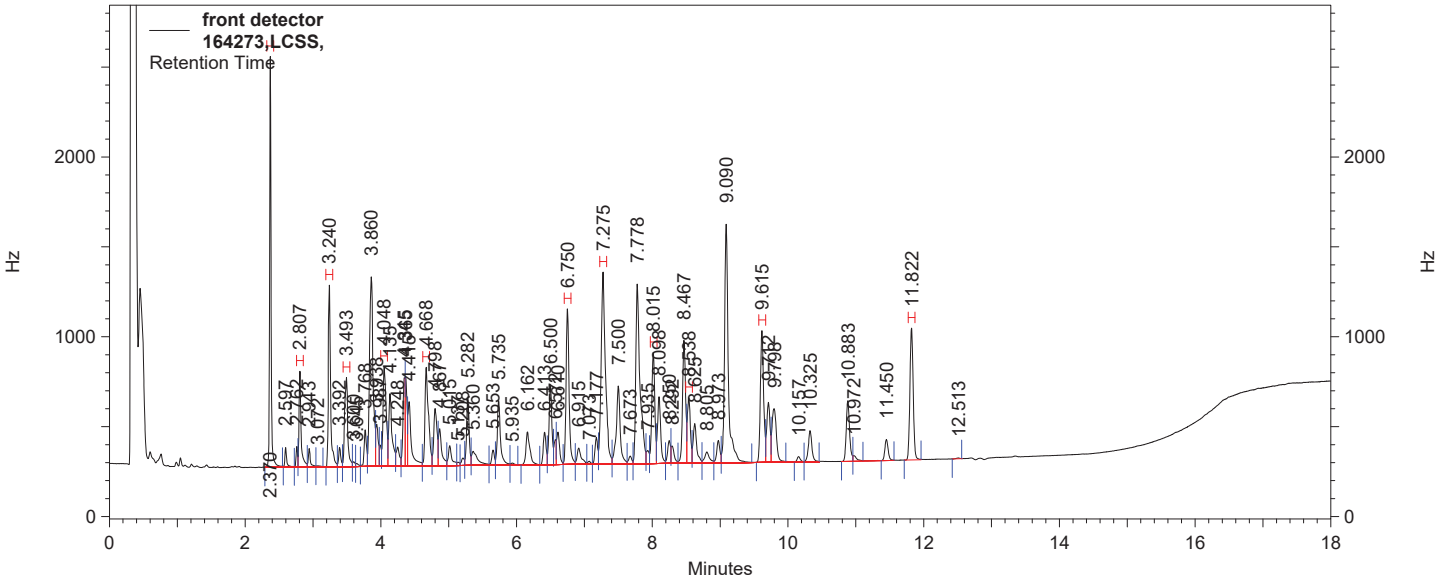
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.878	55325403	95.736
Aroclor 1016 #1	4.202	247448	0.000
Aroclor 1016 #2	4.578	273558	0.000
Aroclor 1016 #3	5.205	158070	0.000
Aroclor 1016 #4	5.592	265631	0.000
Aroclor 1016 #5			0.000 BDL
Aroclor 1260 #1	8.398	362388	0.000
Aroclor 1260 #2	8.843	380740	0.000
Aroclor 1260 #3	9.717	690635	0.001
Aroclor 1260 #4	10.295	872965	0.002
Aroclor 1260 #5	11.552	874177	0.002
SURRDCBPCB	13.903	40665713	93.908
Aroclor 1016		944707	0.000
Aroclor 1260		3180905	0.006

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\037.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: 164273,LCSS,
Acquired: 09/11/2019 10:55:18
Printed: 09/16/2019 09:11:04

Data Summary: {Data Description}



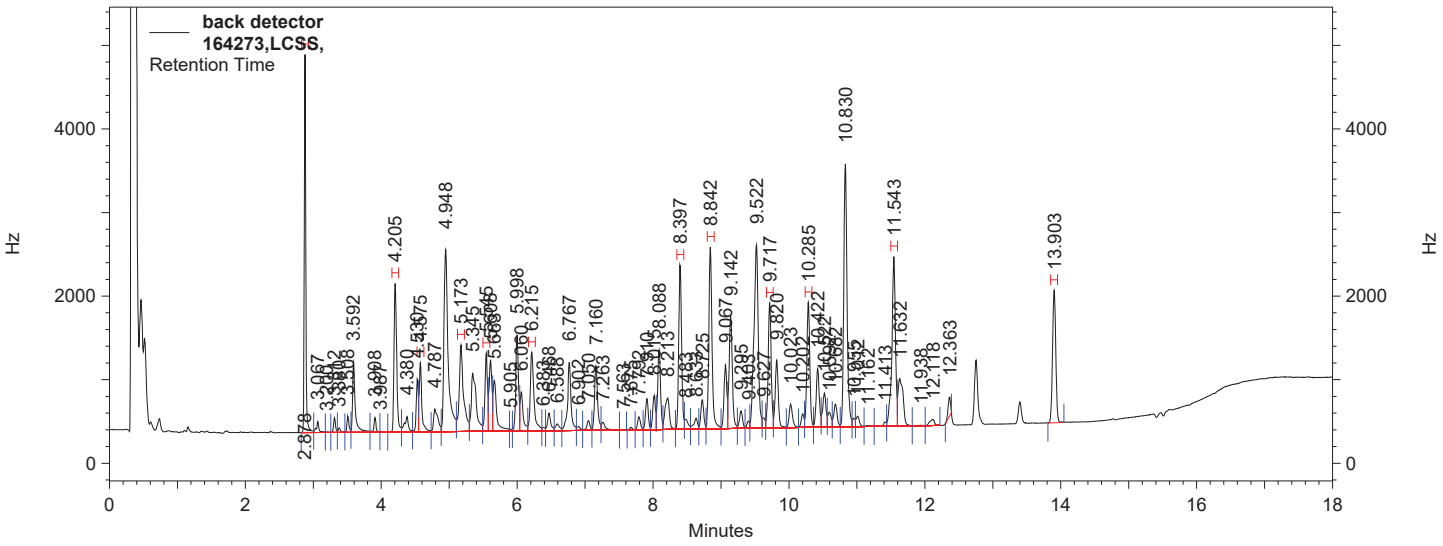
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.370	26861951	90.119
Aroclor 1016 #1	2.807	8568570	0.073
Aroclor 1016 #2	3.240	17717127	0.071
Aroclor 1016 #3	3.493	12032494	0.071
Aroclor 1016 #4	4.048	14016011	0.071
Aroclor 1016 #5	4.668	14948632	0.072
Aroclor 1260 #1	6.750	20259031	0.081
Aroclor 1260 #2	7.275	35946967	0.082
Aroclor 1260 #3	8.015	14560119	0.079
Aroclor 1260 #4	8.538	8698232	0.079
Aroclor 1260 #5	9.615	18602895	0.090
SURRDCBPCB	11.822	19036538	91.971
Aroclor 1016		67282834	0.359
Aroclor 1260		98067244	0.413

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\037.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: 164273,LCSS,
Acquired: 09/11/2019 10:55:18
Printed: 09/16/2019 09:11:04

Data Summary: {Data Description}



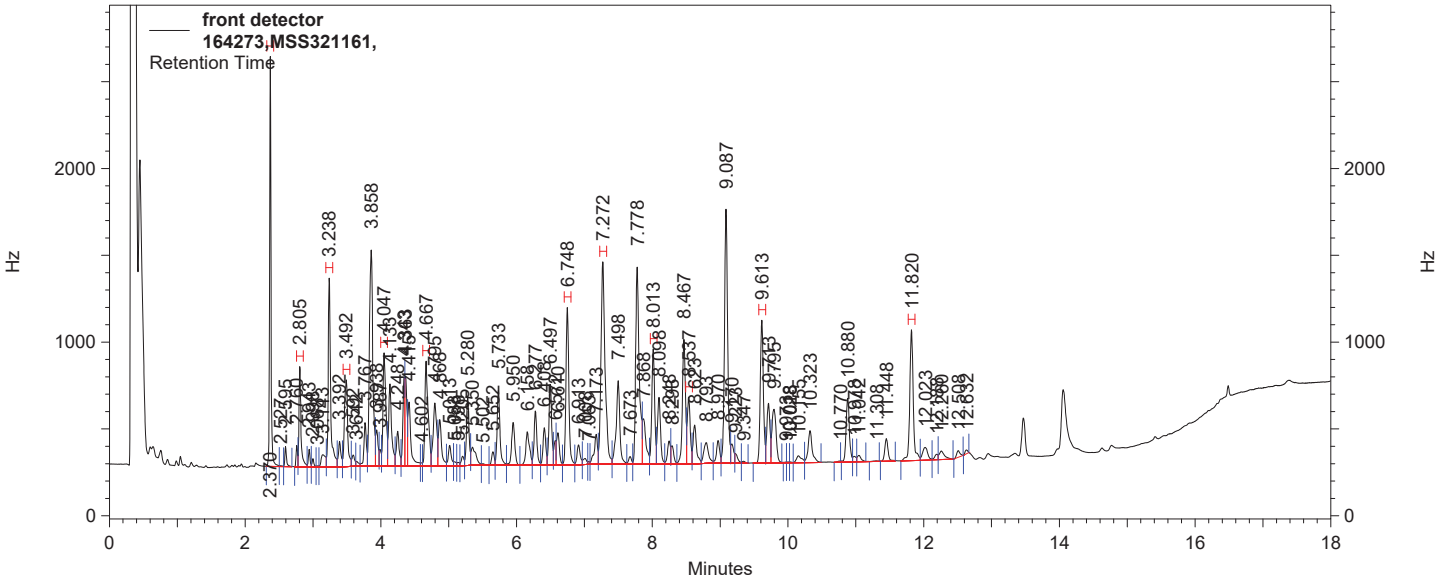
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.878	53826327	93.155
Aroclor 1016 #1	4.205	37165840	0.074
Aroclor 1016 #2	4.575	16746948	0.072
Aroclor 1016 #3	5.173	34898072	0.073
Aroclor 1016 #4	5.545	18520560	0.074
Aroclor 1016 #5	6.215	26771528	0.071
Aroclor 1260 #1	8.397	44080023	0.078
Aroclor 1260 #2	8.842	53512725	0.084
Aroclor 1260 #3	9.717	34820013	0.082
Aroclor 1260 #4	10.285	35385250	0.082
Aroclor 1260 #5	11.543	56882065	0.087
SURRDCBPCB	13.903	40120735	92.641
Aroclor 1016		134102948	0.364
Aroclor 1260		224680076	0.413

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\043.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: 164273,MSS321161,
Acquired: 09/11/2019 13:02:46
Printed: 09/16/2019 09:11:18

Data Summary: {Data Description}



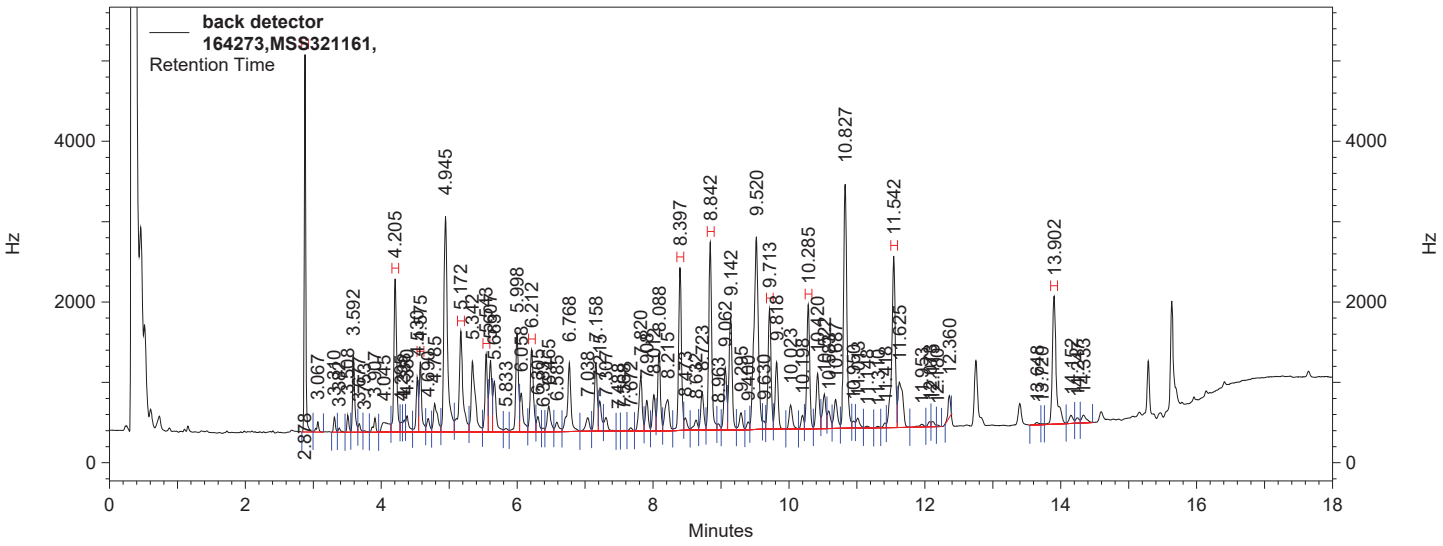
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.370	26732963	89.684
Aroclor 1016 #1	2.805	8838130	0.076
Aroclor 1016 #2	3.238	20435108	0.082
Aroclor 1016 #3	3.492	12739469	0.076
Aroclor 1016 #4	4.047	15030739	0.076
Aroclor 1016 #5	4.667	15159508	0.073
Aroclor 1260 #1	6.748	20249148	0.081
Aroclor 1260 #2	7.272	37515785	0.086
Aroclor 1260 #3	8.013	14781005	0.081
Aroclor 1260 #4	8.537	8850940	0.081
Aroclor 1260 #5	9.613	20172236	0.098
SURRDCBPCB	11.820	20575621	99.572
Aroclor 1016		72202954	0.383
Aroclor 1260		101569114	0.427

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\043.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: 164273,MSS321161,
Acquired: 09/11/2019 13:02:46
Printed: 09/16/2019 09:11:18

Data Summary: {Data Description}



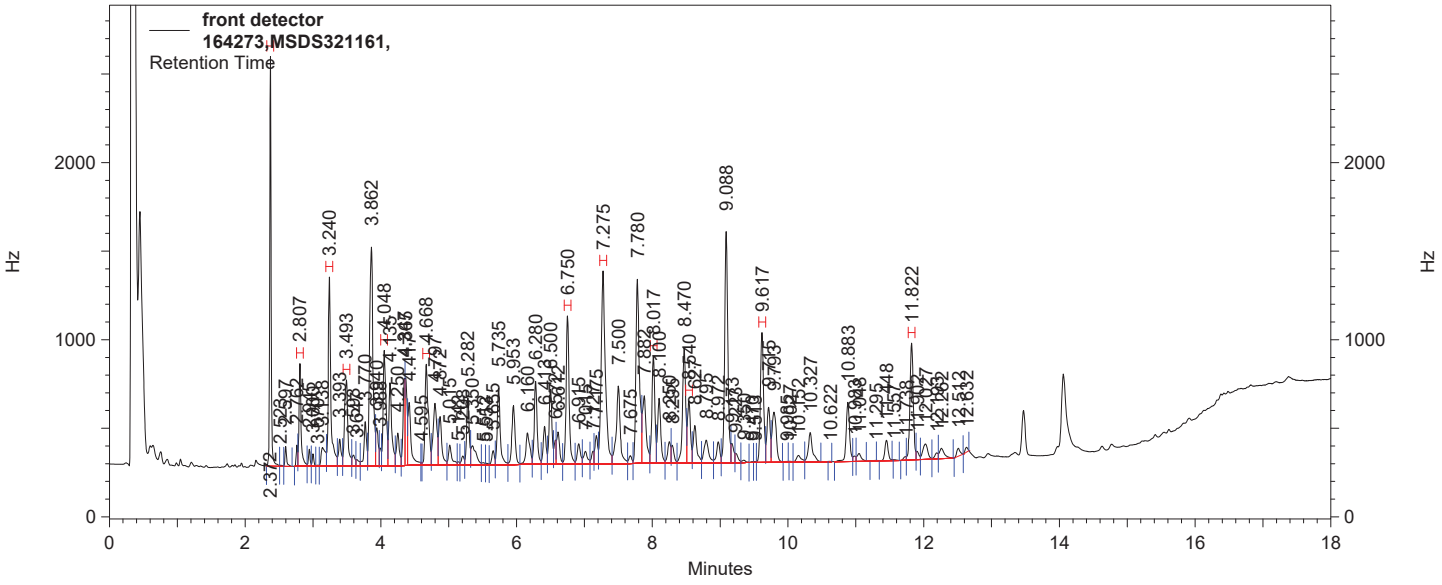
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.878	53688720	92.918
Aroclor 1016 #1	4.205	41614505	0.083
Aroclor 1016 #2	4.575	16806773	0.073
Aroclor 1016 #3	5.172	38363269	0.080
Aroclor 1016 #4	5.543	18907774	0.075
Aroclor 1016 #5	6.212	25056494	0.066
Aroclor 1260 #1	8.397	44579546	0.079
Aroclor 1260 #2	8.842	54155885	0.085
Aroclor 1260 #3	9.713	34913795	0.082
Aroclor 1260 #4	10.285	35341953	0.081
Aroclor 1260 #5	11.542	58935274	0.090
SURRDCBPCB	13.902	48222890	111.475
Aroclor 1016		140748815	0.378
Aroclor 1260		227926453	0.418

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\044.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: 164273,MSDS321161,
Acquired: 09/11/2019 13:23:58
Printed: 09/16/2019 09:11:20

Data Summary: {Data Description}



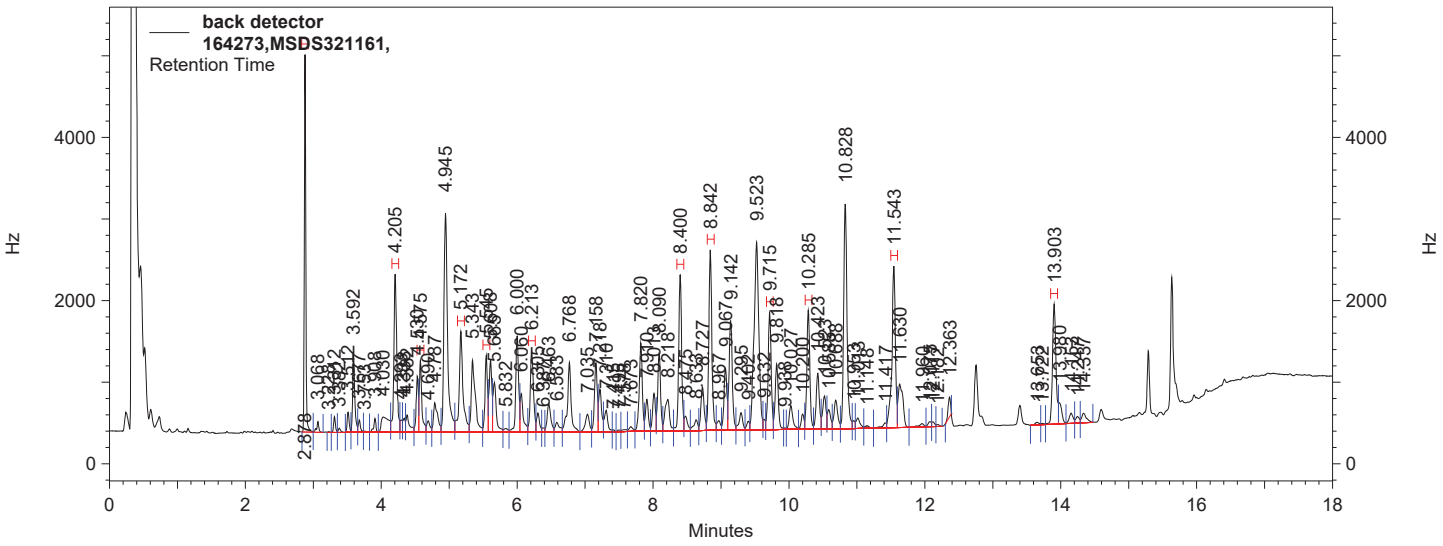
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.372	26124422	87.630
Aroclor 1016 #1	2.807	9185459	0.079
Aroclor 1016 #2	3.240	21227947	0.085
Aroclor 1016 #3	3.493	12818346	0.076
Aroclor 1016 #4	4.048	14978073	0.076
Aroclor 1016 #5	4.668	14775400	0.072
Aroclor 1260 #1	6.750	19421847	0.078
Aroclor 1260 #2	7.275	35824736	0.082
Aroclor 1260 #3	8.017	14006823	0.076
Aroclor 1260 #4	8.540	8308409	0.076
Aroclor 1260 #5	9.617	18273137	0.089
SURRDCBPCB	11.822	17377818	83.779
Aroclor 1016		72985225	0.388
Aroclor 1260		95834952	0.401

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\091019pcbic\044.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\091019pcbic\091019pcbic.met
User: JJY
Sample ID: 164273,MSDS321161,
Acquired: 09/11/2019 13:23:58
Printed: 09/16/2019 09:11:20

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.878	53196009	92.070
Aroclor 1016 #1	4.205	43696912	0.087
Aroclor 1016 #2	4.575	17509116	0.076
Aroclor 1016 #3	5.172	37715348	0.079
Aroclor 1016 #4	5.545	18331894	0.073
Aroclor 1016 #5	6.213	24720567	0.065
Aroclor 1260 #1	8.400	43574288	0.078
Aroclor 1260 #2	8.842	52262675	0.082
Aroclor 1260 #3	9.715	34125413	0.081
Aroclor 1260 #4	10.285	34126789	0.079
Aroclor 1260 #5	11.543	54577249	0.084
SURRDCBPCB	13.903	39833772	91.974
Aroclor 1016		141973837	0.380
Aroclor 1260		218666414	0.402

POLYCHLORINATED BIPHENYLS
LOGBOOK
DOCUMENTS

S PCB Analytical Run
164078 on 09/03/2019

AJZ
09/19/2019

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
147687	321513		08/27/2019 1400		HDR, INC	MEMPHIS DEPOT	PCB QSM 5		GW	4	
		GN-W-RB-01						73350			
	321844						PCB QSM 5				
				MBW				73350			
	321845						PCB QSM 5				
				LCSW				73350			
	321846						PCB QSM 5				
				LCSDW 321845				73350			

4 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

PREP WORKSHEET
on 09/03/2019

Prep Batch **73,350** Date Prepped: 09/03/2019 Prepped By MCM

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	321844	MBW		PCB QSM 5	LIQUID	10		1.00		
	321845	LCSW		PCB QSM 5	LIQUID	10		1.00		
	321846	LCSD	321845	PCB QSM 5	LIQUID	10		1.00		
147687	321513			PCB QSM 5	GROUND WATER	10		0.97	4	

Notes:_____

Pesticides/PCB Extraction Bench Sheet

(SOP Reference # SV002 & SV004)

3510=WATER
3545=PFE or 3546=Microwave >>
(PFE=Pressurized Fluid Extraction)

Prep Batch #:	73350
Prep Method:	3510/8082
Analyst:	MCM/JLH
Date:	09/03/2019
Start Time:	09:10
End Date:	09/03/2019
End Time:	13:10

Analysis Methods
8081 = Pesticides
8082 = PCBs

Matrix: WATER
Balance Used: NA
Ave MW Temp (°C): NA

Reagent Lots>>>

NA_2SO_4	MISC0635
Diatomaceous Earth	NA
Dionex Solution	NA
Methylene Chloride	DX213
Acetone	NA
Hexane	DT601
H_2SO_4	NA

Concentration By: MCM
Concentration Date: 09/03/2019

Microwave Cell #	Sample ID	Comments	(Solids) Sample Weight (g)	(Liquids) Sample Volume (L)	Final Volume (ml)	pH Adj. 5-9 (Yes/No)
	321844	MB		1.00	10	Y
	321845	LCS		1.00	10	Y
	321846	LCSD		1.00	10	Y
	321513			0.97	10	Y
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
		(MS) Parent Sample			10	
		(MSD)			10	

MB=Method Blank, LCS=Laboratory Control Sample, MS=Matrix Spike, MSD=Matrix Spike Duplicate, Tox=Toxaphene & Chlor=Technical chlordane

MS/MSD/ LCS Spike Amount (ml): 0.5
Spike Concentration (ug/mL): 10
Spike Reference #: PP5952

Surrogate Spike Amount (ml): 0.5
Surrogate Spike Conc. (ug/mL): 0.5
Surrogate Spike Reference #: PP6007

Tox/Chlor Spike Amount (ml): NA
Tox/Chlor Spike Conc. (ug/mL): NA

Tox/Chlor Spike Reference: NA

Relinquished to: AJZ
Date: 09/03/2019

Reviewed By: AJZ
Date: 09/03/2019

Semi-Volatiles Sample Cleanup Record Sheet

FSV14-02, FSV25-01, FSV26-01, FSV28-01

Prep Batch Number(s): 73350

GPC

Cleanup Performed (Y/N):	N
Date:	
Time:	
Analyst Initials:	
$MeCl_2$ Lot:	

Florisil

Cleanup Performed (Y/N):	N
Date:	
Time:	
Analyst Initials:	
Cartridge I.D. Number:	
Hexane Lot:	
Acetone Lot:	

Acid

Cleanup Performed (Y/N):	Y
Date:	09 03 2019
Time:	15:00
Analyst Initials:	AJZ
H_2SO_4 Lot:	58032
Number of treatments:	1

Sulfur

Cleanup Performed (Y/N):	Y
Date:	09 03 2019
Time:	15:30
Analyst Initials:	AJZ
Copper Lot:	910140-BI

Comments:

FSV4-01

8082 PCB Analysis Data Review Checklist

Analytical Run #: 164078	**Independent Reviewer: JJY**
Sequence Date: 09/05/2019	**Date of Review: 09/06/2019**
Analyst/Data Interpreter: AJZ	**Approval: Yes**

Instructions: Complete one checklist per *analytical run* . Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirements:	Acceptance Criteria	Analyst Review		Independent Review		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
1. INITIAL CALIBRATION (ICAL)						
a. Was the PCB initial calibration performed using a minimum of five varying standard concentration levels on two dissimilar columns?	Lowest standard at or near MRL	X		X		
b. Is the variation between calibration response factors for all concentration levels <20% RSD, is r^2 >.990, or r > 0.990 for the regression line?	RSD<20%, r^2>0.990, or r>0.990	X		X		
c. Was each ICAL uniquely identified (i.e. Standard Number)?		X		X		
d. Were there Calibration Factors (CF) established for the remaining Aroclors?		X		X		
e. Was an initial calibration blank (ICB) analyzed?		X		X		
2. INITIAL CALIBRATION VERIFICATION (ICV)						
a. Were there second source ICVs for all Aroclors analyzed after the initial calibration and prior to analysis of any samples?		X		X		
b. Were the recoveries for the ICVs within program limits?	Second source	X		X		
c. Was the ICVs uniquely identified (i.e. Standard Number)?	%Recovery	X		X		
3. CONTINUING CALIBRATION VERIFICATION (CCV)						
a. Were CCVs analyzed at the beginning of the sequence, after every 12 hours or every 20 samples (which ever comes first) and at the end of the analytical run? QSM = every ten sample injections.		X		X		
b. Were the recoveries for the CCVs within program limits?	%Recovery	X		X		
c. Were confirmed Aroclor detects processed using the appropriate Aroclor method?		X		X		
d. Was each CCV uniquely identified (i.e. Standard Number)?		X		X		

Additional Comments:

Analytical Run #: 164078

FORM #: FSV4-01
Rev. #: 2.0
Effective Date: 02/25/15

FSV4-01

8082 PCB Analysis Data Review Checklist

Requirements:	Acceptance Criteria	Analyst		Independent		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
4. BLANKS						
a. Was the method blank (MB) analyzed prior to the analysis of samples?		x		x		
b. Was the MB result less than ½ the reporting limit (RL) or 5% of the sample amount?	In-house limits or client specified limits	x		x		
c. Was a MB prepped and analyzed at a frequency of one per Prep Batch?	Batch <20 samples	x		x		
5. LABORATORY CONTROL SAMPLE (LCS)						
a. Was a LCS analyzed at a frequencey of one per Prep Batch?	In-house limits or client specified limits	x		x		
b. Were the LCS recoveries in each LCS within the acceptance criteria?	Batch <20 samples	x		x		
6. MATRIX SPIKES						
a. Was a matrix spiked (MS) sample analyzed at a frequency one per Prep Batch? If no due to insufficient sample received, qualify all samples in batch with a "W".	Batch <20 samples		x		x	LCS/LCSD
b. Were MS recoveries in each MS within the acceptance criteria?	In-house limits or client specified limits	na		na		
7. LABORATORY CONTROL SPIKE / MATRIX SPIKE DUPLICATE						
a. Was a duplicate matrix spike or laboratory control spike sample analyzed at a . frequency one per Prep Batch?	Batch <20 samples	x		x		
b. Were MSD recoveries within the acceptance criteria?	In-house limits or client specified limits	x		x		
c. Is the relative percent difference (RPD) between a matrix spike (MS) and its duplicate (MSD) within the acceptance criteria?	In-house limits or client specified limits	x		x		

Additional Comments:

Analytical Run #: 164078

FORM #: FSV4-01
Rev. #: 2.0
Effective Date: 02/25/15

FSV4-01

8082 PCB Analysis Data Review Checklist

Requirements:	Acceptance Criteria	Analyst		Independent		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
8. SAMPLES (INCLUDING BLANKS, STANDARDS, AND QC SAMPLES)						
a. Are chromatogram characteristics, including peak shapes and areas, consistent with those of the CCV?		X		X		
b. Are surrogate recoveries for all samples, blanks, standards, and QC samples within acceptance criteria?		X		X		
c. Were all samples having analytes detected in amounts exceeding the calibration range diluted and reanalyzed?		X		X		
d. Were all samples extracted within holding times and analyzed within 40 days of extracting?	Analysis within 40 days of extraction	X		X		
e. Did the samples require additional cleanup steps? (i.e. acid treatment, florisil, GPC, and sulfur treatment)	Florisil, GPC, Acid, Sulfur Treatments	X		X		Acid and Sulfur
f. Was there a hexane injection performed prior to sample analysis?		X		X		
g. Was there a priming standard injected prior to sample analysis?		X		X		
9. RECORDS AND REPORTING						
a. Is the Analytical Run, Prep Batch and Extraction sheets, Summary sheets, Sequence file, analytical data, and method transfer to PDF format?		X		X		
b. Are all manually integrated chromatograms stamped with initials and date?		X		X		
c. Are reported results whose amounts exceeded the acceptance criteria flagged with an appropriate qualifier in LIMS and, if needed, a NCR completed?		X		X		
d. Do all values, dilution factors and qualifiers listed on the raw reports match the LIMS data?		X		X		
e. Is the ICAL method referenced on the Raw Data?		X		X		

Additional Comments:

S PCB Analytical Run
164273 on 09/09/2019

AJZ
09/19/2019

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
147664	321149		08/26/2019 1023		HDR, INC	MEMPHIS DEPOT	PCB QSM 5		S	4	
		GN-SO-01-1						73337			
147664	321154		08/26/2019 1115		HDR, INC	MEMPHIS DEPOT	PCB QSM 5		S	4	
		GN-SO-01-2						73337			
147664	321155		08/26/2019 1130		HDR, INC	MEMPHIS DEPOT	PCB QSM 5		S	4	
		GN-SO-02-1						73337			
147664	321157		08/26/2019 1100		HDR, INC	MEMPHIS DEPOT	PCB QSM 5		S	4	
		GN-SO-DUP-1						73337			
147664	321158		08/26/2019 1153		HDR, INC	MEMPHIS DEPOT	PCB QSM 5		S	4	
		GN-SO-02-2						73337			
147664	321159		08/26/2019 1320		HDR, INC	MEMPHIS DEPOT	PCB QSM 5		S	4	
		GNSO-03-1						73337			
147664	321160		08/26/2019 1334		HDR, INC	MEMPHIS DEPOT	PCB QSM 5		S	4	
		GN-SO-03-2						73337			
147664	321161		08/26/2019 1348		HDR, INC	MEMPHIS DEPOT	PCB QSM 5		S	4	
		GN-SO-04-1		Designated MS/MSD				73337			
147664	321162		08/26/2019 1400		HDR, INC	MEMPHIS DEPOT	PCB QSM 5		S	4	
		GN-SO-04-2						73337			
147664	321163		08/26/2019 1410		HDR, INC	MEMPHIS DEPOT	PCB QSM 5		S	4	
		GN-SO-05-1						73337			
147664	321164		08/26/2019 1428		HDR, INC	MEMPHIS DEPOT	PCB QSM 5		S	4	
		GN-SO-05-2						73337			
147664	321165		08/26/2019 1422		HDR, INC	MEMPHIS DEPOT	PCB QSM 5		S	4	
		GN-SO-DUP-2						73337			
147664	321166		08/26/2019 1442		HDR, INC	MEMPHIS DEPOT	PCB QSM 5		S	4	
		GN-SO-06-1						73337			
147664	321167		08/26/2019 1505		HDR, INC	MEMPHIS DEPOT	PCB QSM 5		S	4	
		GN-SO-06-2						73337			
147664	321168		08/26/2019 1513		HDR, INC	MEMPHIS DEPOT	PCB QSM 5		S	4	
		GN-SO-07-1						73337			
147664	321169		08/26/2019 1528		HDR, INC	MEMPHIS DEPOT	PCB QSM 5		S	4	
		GN-SO-07-2						73337			
147664	321170		08/26/2019 1539		HDR, INC	MEMPHIS DEPOT	PCB QSM 5		S	4	
		GN-SO-08-1						73337			
147664	321171		08/26/2019 1550		HDR, INC	MEMPHIS DEPOT	PCB QSM 5		S	4	
		GN-SO-08-2						73337			
147664	321172		08/26/2019 1601		HDR, INC	MEMPHIS DEPOT	PCB QSM 5		S	4	
		GN-SO-09C-1						73337			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

S PCB Analytical Run
164273 on 09/09/2019

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	321462								PCB QSM 5				
					MBS					73337			
	321463								PCB QSM 5				
					LCSS					73337			
	321465		08/26/2019	1348					PCB QSM 5				
		GN-SO-04-1			MSS	321161				73337			
	321466		08/26/2019	1348					PCB QSM 5				
		GN-SO-04-1			MSDS	321465				73337			

23 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

PREP WORKSHEET
on 09/09/2019

Prep Batch **73,337** Date Prepped: 09/04/2019 Prepped By JLH

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	321462	MBS		PCB QSM 5	SOLID	10	10.00			
	321463	LCSS		PCB QSM 5	SOLID	10	10.00			
147664	321149			PCB QSM 5	SOIL	10	10.07		4	
	321154			PCB QSM 5	SOIL	10	10.13		4	
	321155			PCB QSM 5	SOIL	10	10.82		4	
	321157			PCB QSM 5	SOIL	10	10.07		4	
	321158			PCB QSM 5	SOIL	10	10.53		4	
	321159			PCB QSM 5	SOIL	10	10.00		4	
	321160			PCB QSM 5	SOIL	10	10.09		4	
	321161	sample designated for QC		PCB QSM 5	SOIL	10	10.35		4	
	321162			PCB QSM 5	SOIL	10	10.76		4	
	321163			PCB QSM 5	SOIL	10	10.09		4	
	321164			PCB QSM 5	SOIL	10	10.21		4	
	321165			PCB QSM 5	SOIL	10	10.23		4	
	321166			PCB QSM 5	SOIL	10	10.49		4	
	321167			PCB QSM 5	SOIL	10	10.81		4	
	321168			PCB QSM 5	SOIL	10	10.11		4	
	321169			PCB QSM 5	SOIL	10	10.29		4	
	321170			PCB QSM 5	SOIL	10	10.04		4	
	321171			PCB QSM 5	SOIL	10	10.38		4	
	321172			PCB QSM 5	SOIL	10	10.19		4	
	321465	MSS	321161	PCB QSM 5	SOIL	10	10.12			
	321466	MSDS	321465	PCB QSM 5	SOIL	10	10.55			

Notes:_____

Pesticides/PCB Extraction Bench Sheet

(SOP Reference # SV002 & SV004)

3510=WATER
3545=PFE or 3546=Microwave >>
(PFE=Pressurized Fluid Extraction)

Prep Batch #:	73337
Prep Method:	3546/8082
Analyst:	JLH/MCM
Date:	09/04/2019
Start Time:	08:40
End Date:	09/09/2019
End Time:	15:45

Analysis Methods
8081 = Pesticides
8082 = PCBs

Matrix: SOIL
Balance Used: SVB02
Ave MW Temp (°C): 110.0

Reagent Lots>>>

NA_2SO_4	MISC0635
Diatomaceous Earth	S4131
Dionex Solution	MISC0667A
Methylene Chloride	DX213
Acetone	NA
Hexane	DT601
H_2SO_4	NA

Concentration By: AJZ

Concentration Date: 09/09/2019

Microwave Cell #	Sample ID	Comments	(Solids) Sample Weight (g)	(Liquids) Sample Volume (L)	Final Volume (ml)	pH Adj. 5-9 (Yes/No)
A	321462	MB	10.00		10	
Y	321463	LCS	10.00		10	
C	321149		10.07		10	
D	321154		10.13		10	
E	321155		10.82		10	
F	321157		10.07		10	
G	321158		10.53		10	
H	321159		10.00		10	
I	321160		10.09		10	
J	321161		10.35		10	
K	321162		10.76		10	
L	321163		10.09		10	
M	321164		10.21		10	
N	321165		10.23		10	
O	321166		10.49		10	
P	321167		10.81		10	
Q	321168		10.11		10	
R	321169		10.29		10	
S	321170		10.04		10	
T	321171		10.38		10	
U	321172		10.19		10	
Z	321465	(MS) Parent Sample	10.12		10	
49	321466	(MSD) 321161	10.55		10	

MB=Method Blank, LCS=Laboratory Control Sample, MS=Matrix Spike, MSD=Matrix Spike Duplicate, Tox=Toxaphene & Chlor=Technical chlordane

MS/MSD/ LCS Spike Amount (ml): 0.5
Spike Concentration (ug/mL): 10
Spike Reference #: PP6070

Surrogate Spike Amount (ml): 0.5
Surrogate Spike Conc. (ug/mL): 0.5
Surrogate Spike Reference #: PP6007

Tox/Chlor Spike Amount (ml):
Tox/Chlor Spike Conc. (ug/mL):
Tox/Chlor Spike Reference:

Relinquished to: AJZ
Date: 09/09/2019

Reviewed By: JJY
Date: 09/09/2019

Semi-Volatiles Sample Cleanup Record Sheet

FSV14-02, FSV25-01, FSV26-01, FSV28-01

Prep Batch Number(s): 73337

GPC

Cleanup Performed (Y/N):	N
Date:	
Time:	
Analyst Initials:	
$MeCl_2$ Lot:	

Florisil

Cleanup Performed (Y/N):	N
Date:	
Time:	
Analyst Initials:	
Cartridge I.D. Number:	
Hexane Lot:	
Acetone Lot:	

Acid

Cleanup Performed (Y/N):	Y
Date:	09/10/2019
Time:	10:15
Analyst Initials:	AJZ
H_2SO_4 Lot:	58032
Number of treatments:	1

Sulfur

Cleanup Performed (Y/N):	Y
Date:	09/10/2019
Time:	10:45
Analyst Initials:	AJZ
Copper Lot:	910140-BI

Comments:

FSV4-01

8082 PCB Analysis Data Review Checklist

Analytical Run #: 164273	**Independent Reviewer: JJY**
Sequence Date: 09/10/2019 09/13/2019	**Date of Review: 09/16/2019**
Analyst/Data Interpreter: AJZ	**Approval: Yes**

Instructions: Complete one checklist per *analytical run* . Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirements:	Acceptance Criteria	Analyst Review		Independent Review		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
1. INITIAL CALIBRATION (ICAL)						
a. Was the PCB initial calibration performed using a minimum of five varying standard concentration levels on two dissimilar columns?	Lowest standard at or near MRL	X		X		
b. Is the variation between calibration response factors for all concentration levels <20% RSD, is r^2 >.990, or r > 0.990 for the regression line?	RSD<20%, r^2>0.990, or r>0.990	X		X		
c. Was each ICAL uniquely identified (i.e. Standard Number)?		X		X		
d. Were there Calibration Factors (CF) established for the remaining Aroclors?		X		X		
e. Was an initial calibration blank (ICB) analyzed?		X		X		
2. INITIAL CALIBRATION VERIFICATION (ICV)						
a. Were there second source ICVs for all Aroclors analyzed after the initial calibration and prior to analysis of any samples?		X		X		
b. Were the recoveries for the ICVs within program limits?	Second source	X		X		
c. Was the ICVs uniquely identified (i.e. Standard Number)?	%Recovery	X		X		
3. CONTINUING CALIBRATION VERIFICATION (CCV)						
a. Were CCVs analyzed at the beginning of the sequence, after every 12 hours or every 20 samples (which ever comes first) and at the end of the analytical run? QSM = every ten sample injections.		X		X		
b. Were the recoveries for the CCVs within program limits?	%Recovery	X		X		See below
c. Were confirmed Aroclor detects processed using the appropriate Aroclor method?		X		X		
d. Was each CCV uniquely identified (i.e. Standard Number)?		X		X		

Additional Comments:

There were single point failures on channel B in the ending CCV for 1016 on 09/13/2019

The totals on both channels for all CCVs were within program limits.

No qualifiers were used.

Analytical Run #: 164273

FORM #: FSV4-01
Rev. #: 2.0
Effective Date: 02/25/15

FSV4-01

8082 PCB Analysis Data Review Checklist

Requirements:	Acceptance Criteria	Analyst		Independent		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
4. BLANKS						
a. Was the method blank (MB) analyzed prior to the analysis of samples?		X		X		
b. Was the MB result less than ½ the reporting limit (RL) or 5% of the sample amount?	In-house limits or client specified limits	X		X		
c. Was a MB prepped and analyzed at a frequency of one per Prep Batch?	Batch <20 samples	X		X		
5. LABORATORY CONTROL SAMPLE (LCS)						
a. Was a LCS analyzed at a frequencey of one per Prep Batch?	In-house limits or client specified limits	X		X		
b. Were the LCS recoveries in each LCS within the acceptance criteria?	Batch <20 samples	X		X		
6. MATRIX SPIKES						
a. Was a matrix spiked (MS) sample analyzed at a frequency one per Prep Batch? If no due to insufficient sample received, qualify all samples in batch with a "W".	Batch <20 samples	X		X		
b. Were MS recoveries in each MS within the acceptance criteria?	In-house limits or client specified limits	X		X		
7. LABORATORY CONTROL SPIKE / MATRIX SPIKE DUPLICATE						
a. Was a duplicate matrix spike or laboratory control spike sample analyzed at a . frequency one per Prep Batch?	Batch <20 samples	X		X		
b. Were MSD recoveries within the acceptance criteria?	In-house limits or client specified limits	X		X		
c. Is the relative percent difference (RPD) between a matrix spike (MS) and its duplicate (MSD) within the acceptance criteria?	In-house limits or client specified limits	X		X		

Additional Comments:

Analytical Run #: 164273

FORM #: FSV4-01
Rev. #: 2.0
Effective Date: 02/25/15

FSV4-01

8082 PCB Analysis Data Review Checklist

Requirements:	Acceptance Criteria	Analyst		Independent		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
8. SAMPLES (INCLUDING BLANKS, STANDARDS, AND QC SAMPLES)						
a. Are chromatogram characteristics, including peak shapes and areas, consistent with those of the CCV?		X		X		
b. Are surrogate recoveries for all samples, blanks, standards, and QC samples within acceptance criteria?		X		X		
c. Were all samples having analytes detected in amounts exceeding the calibration range diluted and reanalyzed?		X		X		
d. Were all samples extracted within holding times and analyzed within 40 days of extracting?	Analysis within 40 days of extraction	X		X		
e. Did the samples require additional cleanup steps? (i.e. acid treatment, florisil, GPC, and sulfur treatment)	Florisil, GPC, Acid, Sulfur Treatments	X		X		Acid and Sulfur
f. Was there a hexane injection performed prior to sample analysis?		X		X		
g. Was there a priming standard injected prior to sample analysis?		X		X		
9. RECORDS AND REPORTING						
a. Is the Analytical Run, Prep Batch and Extraction sheets, Summary sheets, Sequence file, analytical data, and method transfer to PDF format?		X		X		
b. Are all manually integrated chromatograms stamped with initials and date?		X		X		
c. Are reported results whose amounts exceeded the acceptance criteria flagged with an appropriate qualifier in LIMS and, if needed, a NCR completed?		X		X		
d. Do all values, dilution factors and qualifiers listed on the raw reports match the LIMS data?		X		X		
e. Is the ICAL method referenced on the Raw Data?		X		X		

Additional Comments:

Summary Report

Instrument I... **Semi 7 (Offline)**
Data Path: **C:\Instarch\Semi7\Sequence\072419pcbic.seq**
User ID: **JJY**
Printed Date: **07/25/2019 16:29:14**

AJZ
09/19/2019

Run Number	Sample ID	Data Filename	Method Filename	Analysis Date	Data Description
1	PCB PRIME PP5843 1:10	001.dat	072419pcbic.met	07/24/2019 12:23:37	
2	Hexane	002.dat	072419pcbic.met	07/24/2019 12:44:50	
3	1221 CF PP5969	003.dat	1221.met	07/24/2019 13:06:00	
4	1232 CF PP5970	004.dat	1232.met	07/24/2019 13:27:10	
5	1242 CF PP5971	005.dat	1242.met	07/24/2019 13:48:18	
6	1248 CF PP5972	006.dat	1248.met	07/24/2019 14:09:29	
7	1254 CF PP5973	007.dat	1254.met	07/24/2019 14:30:41	
8	1262 CF PP5974	008.dat	1262.met	07/24/2019 14:51:51	
9	1268 CF PP5975	009.dat	1268.met	07/24/2019 15:13:02	
10	1016 Pattern ID PP5976	010.dat	072419pcbic.met	07/24/2019 15:34:13	
11	Hexane	011.dat	072419pcbic.met	07/24/2019 15:55:24	
12	1221 ICV PP5977	012.dat	1221.met	07/24/2019 16:16:32	
13	1232 ICV PP5978	013.dat	1232.met	07/24/2019 16:37:49	
14	1242 ICV PP5979	014.dat	1242.met	07/24/2019 16:59:02	
15	1248 ICV PP5980	015.dat	1248.met	07/24/2019 17:20:16	
16	1254 ICV PP5981	016.dat	1254.met	07/24/2019 17:41:28	
17	1262 ICV PP5982	017.dat	1262.met	07/24/2019 18:02:36	
18	1268 ICV PP5983	018.dat	1268.met	07/24/2019 18:23:50	
19	Hexane	019.dat	072419pcbic.met	07/24/2019 18:45:01	
20	PCB ICAL PT 1 PP 5962	020.dat	072419pcbic.met	07/24/2019 19:06:12	
21	PCB ICAL PT 2 PP 5963	021.dat	072419pcbic.met	07/24/2019 19:27:22	
22	PCB ICAL PT 3 PP 5964	022.dat	072419pcbic.met	07/24/2019 19:48:33	
23	PCB ICAL PT 4 PP 5965	023.dat	072419pcbic.met	07/24/2019 20:09:45	
24	PCB ICAL PT 5 PP 5966	024.dat	072419pcbic.met	07/24/2019 20:30:54	
25	PCB ICAL PT 6 PP 5967	025.dat	072419pcbic.met	07/24/2019 20:52:07	
26	PCB ICV PP 5977	026.dat	072419pcbic.met	07/24/2019 21:13:18	
27	PCB CCV PP 5968	027.dat	072419pcbic.met	07/24/2019 21:34:28	
28	Hexane	028.dat	072419pcbic.met	07/24/2019 21:55:41	
29	162867,MBW,	029.dat	072419pcbic.met	07/24/2019 22:16:50	
30	162867,LCSW,	030.dat	072419pcbic.met	07/24/2019 22:38:02	
31	Hexane	031.dat	072419pcbic.met	07/24/2019 22:59:10	
32	162867,304706,	032.dat	072419pcbic.met	07/24/2019 23:20:22	
33	162867,304708,	033.dat	072419pcbic.met	07/24/2019 23:41:34	
34	162867,304709,	034.dat	072419pcbic.met	07/25/2019 00:02:44	
35	162867,LCSDW,	035.dat	072419pcbic.met	07/25/2019 00:23:53	
36	Hexane	036.dat	072419pcbic.met	07/25/2019 00:45:06	
37	PCB CCV PP 5968	037.dat	072419pcbic.met	07/25/2019 01:06:17	
38	Hexane	038.dat	072419pcbic.met	07/25/2019 01:27:27	
39	162906,MBS	039.dat	072419pcbic.met	07/25/2019 01:48:40	
40	162906,LCSS,	040.dat	072419pcbic.met	07/25/2019 02:09:50	
41	Hexane	041.dat	072419pcbic.met	07/25/2019 02:31:02	
42	162906,303990,	042.dat	072419pcbic.met	07/25/2019 02:52:12	
43	162906,LCSDS,	043.dat	072419pcbic.met	07/25/2019 03:13:22	
44	Hexane	044.dat	072419pcbic.met	07/25/2019 03:34:35	
45	PCB CCV PP 5968	045.dat	072419pcbic.met	07/25/2019 03:55:45	
46	Hexane	046.dat	072419pcbic.met	07/25/2019 04:16:55	
47	162907,MBS,	047.dat	072419pcbic.met	07/25/2019 04:38:06	
48	162907,LCSS,	048.dat	072419pcbic.met	07/25/2019 04:59:16	
49	Hexane	049.dat	072419pcbic.met	07/25/2019 05:20:27	
50	162907,303807,	050.dat	072419pcbic.met	07/25/2019 05:41:37	
51	162907,303939,	051.dat	072419pcbic.met	07/25/2019 06:02:49	
52	162907,303940,	052.dat	072419pcbic.met	07/25/2019 06:23:59	
53	162907,303943,	053.dat	072419pcbic.met	07/25/2019 06:45:11	
54	162907,303944,	054.dat	072419pcbic.met	07/25/2019 07:06:22	
55	162907,303945,	055.dat	072419pcbic.met	07/25/2019 07:27:33	
56	162907,303938,	056.dat	072419pcbic.met	07/25/2019 07:48:41	
57	162907,MSS303938,	057.dat	072419pcbic.met	07/25/2019 08:09:53	
58	162907,MSDS303938,	058.dat	072419pcbic.met	07/25/2019 08:31:05	
59	Hexane	059.dat	072419pcbic.met	07/25/2019 08:52:15	
60	PCB CCV PP 5968	060.dat	072419pcbic.met	07/25/2019 09:13:28	
61	Hexane	061.dat	072419pcbic.met	07/25/2019 09:34:41	

Summary Report

Instrument I... **Semi 7 (Offline)**
Data Path: **C:\Instarch\Semi7\Sequence\090519pcb.seq**
User ID: **AJZ**
Printed Date: **Sep 06, 2019 09:26:39**

AJZ
09/19/2019

Run Number	Sample ID	Data Filename	Method Filename	Analysis Date	Data Description
1	PCB PRIME PP5954 1:10	001.dat	090519pcb.met	Sep 05, 2019 14:54:01	
2	Hexane	002.dat	090519pcb.met	Sep 05, 2019 15:15:12	
3	PCB CCV PP 5968	003.dat	090519pcb.met	Sep 05, 2019 15:36:23	
4	Hexane	004.dat	090519pcb.met	Sep 05, 2019 15:57:37	
5	164078,MBW,	005.dat	090519pcb.met	Sep 05, 2019 16:18:49	
6	164078,LCSW,	006.dat	090519pcb.met	Sep 05, 2019 16:40:02	
7	Hexane	007.dat	090519pcb.met	Sep 05, 2019 17:01:17	
8	164078,321513,	008.dat	090519pcb.met	Sep 05, 2019 17:22:31	
9	164078,LCSDW,	009.dat	090519pcb.met	Sep 05, 2019 17:43:44	
10	PCB CCV PP 5968	010.dat	090519pcb.met	Sep 05, 2019 18:04:59	
11	Hexane	011.dat	090519pcb.met	Sep 05, 2019 18:26:07	
12	164181,MBS,	012.dat	090519pcb.met	Sep 05, 2019 18:47:24	
13	164181,LCSS,	013.dat	090519pcb.met	Sep 05, 2019 19:08:38	
14	Hexane	014.dat	090519pcb.met	Sep 05, 2019 19:29:45	
15	164181,319953,50	015.dat	090519pcb.met	Sep 05, 2019 19:51:01	
16	Hexane	016.dat	090519pcb.met	Sep 05, 2019 20:12:18	
17	164181,319956,50	017.dat	090519pcb.met	Sep 05, 2019 20:33:32	
18	Hexane	018.dat	090519pcb.met	Sep 05, 2019 20:54:42	
19	164181,319958,50	019.dat	090519pcb.met	Sep 05, 2019 21:15:56	
20	Hexane	020.dat	090519pcb.met	Sep 05, 2019 21:37:09	
21	PCB CCV PP 5968	021.dat	090519pcb.met	Sep 05, 2019 21:58:18	
22	Hexane	022.dat	090519pcb.met	Sep 05, 2019 22:19:27	

Summary Report

Instrument I... **Semi 7**
Data Path: **C:\Instarch\Semi7\Sequence\091019pcbic.seq**
User ID: **JJY**
Printed Date: **09/11/2019 08:24:29**

AJZ
09/19/2019

Run Number	Sample ID	Data Filename	Method Filename	Analysis Date	Data Description
1	PCB PRIME PP5843 1:10	001.dat	091019pcbic.met	09/10/2019 16:51:12	
2	Hexane	002.dat	091019pcbic.met	09/10/2019 17:12:24	
3	1221 CF PP5969	003.dat	1221.met	09/10/2019 17:33:39	
4	1232 CF PP5970	004.dat	1232.met	09/10/2019 17:54:54	
5	1242 CF PP5971	005.dat	1242.met	09/10/2019 18:16:08	
6	1248 CF PP5972	006.dat	1248.met	09/10/2019 18:37:25	
7	1254 CF PP5973	007.dat	1254.met	09/10/2019 18:58:39	
8	1262 CF PP5974	008.dat	1262.met	09/10/2019 19:19:55	
9	1268 CF PP5975	009.dat	1268.met	09/10/2019 19:41:04	
10	1016 Pattern ID PP5976	010.dat	091019pcbic.met	09/10/2019 20:02:20	
11	Hexane	011.dat	091019pcbic.met	09/10/2019 20:23:35	
12	1221 ICV PP5977	012.dat	1221.met	09/10/2019 20:44:44	
13	1232 ICV PP5978	013.dat	1232.met	09/10/2019 21:06:01	
14	1242 ICV PP5979	014.dat	1242.met	09/10/2019 21:27:10	
15	1248 ICV PP5980	015.dat	1248.met	09/10/2019 21:48:26	
16	1254 ICV PP5981	016.dat	1254.met	09/10/2019 22:09:41	
17	1262 ICV PP5982	017.dat	1262.met	09/10/2019 22:30:57	
18	1268 ICV PP5983	018.dat	1268.met	09/10/2019 22:52:05	
19	Hexane	019.dat	091019pcbic.met	09/10/2019 23:13:15	
20	PCB ICAL PT 1 PP 5962	020.dat	091019pcbic.met	09/10/2019 23:34:25	
21	PCB ICAL PT 2 PP 5963	021.dat	091019pcbic.met	09/10/2019 23:55:42	
22	PCB ICAL PT 3 PP 5964	022.dat	091019pcbic.met	09/11/2019 00:16:51	
23	PCB ICAL PT 4 PP 5965	023.dat	091019pcbic.met	09/11/2019 00:38:07	
24	PCB ICAL PT 5 PP 5966	024.dat	091019pcbic.met	09/11/2019 00:59:23	
25	PCB ICAL PT 6 PP 5967	025.dat	091019pcbic.met	09/11/2019 01:20:31	
26	PCB ICV PP 5977	026.dat	091019pcbic.met	09/11/2019 01:41:41	
27	PCB CCV PP 5968	027.dat	091019pcbic.met	09/11/2019 02:02:57	
28	Hexane	028.dat	091019pcbic.met	09/11/2019 02:24:12	
29	164297,MBS,	029.dat	091019pcbic.met	09/11/2019 02:45:22	
30	164297,LCSS,	030.dat	091019pcbic.met	09/11/2019 08:27:00	
31	Hexane	031.dat	091019pcbic.met	09/11/2019 08:48:10	
32	164297,320903,	032.dat	091019pcbic.met	09/11/2019 09:09:19	
33	164297,LCSDS,	033.dat	091019pcbic.met	09/11/2019 09:30:28	
34	PCB CCV PP 5968	034.dat	091019pcbic.met	09/11/2019 09:51:39	
35	Hexane	035.dat	091019pcbic.met	09/11/2019 10:12:54	
36	164273,MBS,	036.dat	091019pcbic.met	09/11/2019 10:34:05	
37	164273,LCSS,	037.dat	091019pcbic.met	09/11/2019 10:55:18	
38	Hexane	038.dat	091019pcbic.met	09/11/2019 11:16:33	
39	164273,321149,	039.dat	091019pcbic.met	09/11/2019 11:37:48	
40	164273,321154,	040.dat	091019pcbic.met	09/11/2019 11:59:00	
41	164273,321155,	041.dat	091019pcbic.met	09/11/2019 12:20:17	
42	164273,321161,	042.dat	091019pcbic.met	09/11/2019 12:41:32	
43	164273,MSS321161,	043.dat	091019pcbic.met	09/11/2019 13:02:46	
44	164273,MSDS321161,	044.dat	091019pcbic.met	09/11/2019 13:23:58	
45	PCB CCV PP 5968	045.dat	091019pcbic.met	09/11/2019 13:45:07	
46	Hexane	046.dat	091019pcbic.met	09/11/2019 14:06:21	
47	164273,321157,	047.dat	091019pcbic.met	09/11/2019 14:27:36	
48	164273,321158,	048.dat	091019pcbic.met	09/11/2019 14:48:52	
49	164273,321159,	049.dat	091019pcbic.met	09/11/2019 15:10:08	
50	164273,321160,	050.dat	091019pcbic.met	09/11/2019 15:31:24	
51	164273,321162,	051.dat	091019pcbic.met	09/11/2019 15:52:34	
52	164273,321163,	052.dat	091019pcbic.met	09/11/2019 16:13:51	
53	164273,321164,	053.dat	091019pcbic.met	09/11/2019 16:35:05	
54	164273,321165,	054.dat	091019pcbic.met	09/11/2019 16:56:20	
55	164273,321166,	055.dat	091019pcbic.met	09/11/2019 17:17:30	
56	PCB CCV PP 5968	056.dat	091019pcbic.met	09/11/2019 17:38:46	

PEST-PCB-LOGBOOK-02

SV Prep Logbook

Logbook created: 09/21/17

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Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5842	Pest/PCB Surrogate Intermediate Std	Hexane ChemPure lot DS721	JJY	12/12/2018	06/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3882E	200	ug/ml	0.025	1.00	5.0

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5843	PCB Stock (Aroclors 1016 1260)	Hexane ChemPure lot DS721	JJY	12/12/2018	06/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4004	1000	ug/ml	0.100	10.0	10.0
S4010	1000	ug/ml	0.100	10.0	10.0
S3882E	200	ug/ml	0.025	10.0	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5844	Aroclor 1221 Stock	Hexane ChemPure lot DS721	JJY	12/12/2018	06/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4005	1000	ug/ml	0.100	10.0	10.0
S3882E	200	ug/ml	0.025	10.0	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5845	Aroclor 1232 Stock	Hexane ChemPure lot DS721	JJY	12/12/2018	06/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4006	1000	ug/ml	0.100	10.0	10.0
S3882E	200	ug/ml	0.025	10.0	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5846	Aroclor 1242 Stock	Hexane ChemPure lot DS721	JJY	12/12/2018	06/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4007	1000	ug/ml	0.100	10.0	10.0
S3882E	200	ug/ml	0.025	10.0	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5847	Aroclor 1248 Stock	Hexane ChemPure lot DS721	JJY	12/12/2018	06/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4008	1000	ug/ml	0.100	10.0	10.0
S3882E	200	ug/ml	0.025	10.0	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5848	Aroclor 1254 Stock	Hexane ChemPure lot DS721	JJY	12/12/2018	06/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4009	1000	ug/ml	0.100	10.0	10.0
S3882E	200	ug/ml	0.025	10.0	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5849	Aroclor 1262 Stock	Hexane ChemPure lot DS721	JJY	12/12/2018	06/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4011	1000	ug/ml	0.100	10.0	10.0
S3882E	200	ug/ml	0.025	10.0	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5850	Aroclor 1268 Stock	Hexane ChemPure lot DS721	JJY	12/12/2018	06/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4012	1000	ug/ml	0.100	10.0	10.0
S3882E	200	ug/ml	0.025	10.0	0.50

	PCB CURVE	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
	PCB ICAL	Hexane ChemPure lot DS721	JJY	12/12/2018	06/12/2019

Standard Number	Standard Description	Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
PP5851	PCB ICAL PT 1	PP5843	10.0	ug/ml	0.020	10.0	0.02
PP5852	PCB ICAL PT 2	PP5843	10.0	ug/ml	0.050	10.0	0.05
PP5853	PCB ICAL PT 3	PP5843	10.0	ug/ml	0.200	10.0	0.20
PP5854	PCB ICAL PT 4	PP5843	10.0	ug/ml	0.500	10.0	0.50
PP5855	PCB ICAL PT 5	PP5843	10.0	ug/ml	0.700	10.0	0.70
PP5856	PCB ICAL PT 6	PP5843	10.0	ug/ml	1.000	10.0	1.00
PP5857	PCB CCV	PP5843	10.0	ug/ml	0.500	10.0	0.50
PP5858	1221 CF	PP5844	10.0	ug/ml	0.500	10.0	0.50
PP5859	1232 CF	PP5845	10.0	ug/ml	0.500	10.0	0.50
PP5860	1242 CF	PP5846	10.0	ug/ml	0.500	10.0	0.50
PP5861	1248 CF	PP5847	10.0	ug/ml	0.500	10.0	0.50
PP5862	1254 CF	PP5848	10.0	ug/ml	0.500	10.0	0.50
PP5863	1262 CF	PP5849	10.0	ug/ml	0.500	10.0	0.50
PP5864	1268 CF	PP5850	10.0	ug/ml	0.500	10.0	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5865	PCB ICV (Aroclors 1016 1260)	Hexane ChemPure lot DS721	JJY	12/12/2018	06/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4013	100	ug/ml	0.050	10.0	0.500
S4019	100	ug/ml	0.050	10.0	0.500
PP5842	5.0	ug/ml	0.050	10.0	0.025

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5866	Aroclor 1221 ICV	Hexane ChemPure lot DS721	JJY	12/12/2018	06/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4014	100	ug/ml	0.050	10.0	0.500
PP5842	5.0	ug/ml	0.050	10.0	0.025

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5867	Aroclor 1232 ICV	Hexane ChemPure lot DS721	JJY	12/12/2018	06/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4015	100	ug/ml	0.050	10.0	0.500
PP5842	5.0	ug/ml	0.050	10.0	0.025

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5868	Aroclor 1242 ICV	Hexane ChemPure lot DS721	JJY	12/12/2018	06/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4016	100	ug/ml	0.050	10.0	0.500
PP5842	5.0	ug/ml	0.050	10.0	0.025

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5869	Aroclor 1248 ICV	Hexane ChemPure lot DS721	JJY	12/12/2018	06/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4017	100	ug/ml	0.050	10.0	0.500
PP5842	5.0	ug/ml	0.050	10.0	0.025

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5870	Aroclor 1254 ICV	Hexane ChemPure lot DS721	JJY	12/12/2018	06/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4018	100	ug/ml	0.050	10.0	0.500
PP5842	5.0	ug/ml	0.050	10.0	0.025

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5871	Aroclor 1262 ICV	Hexane ChemPure lot DS721	JJY	12/12/2018	06/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4020	100	ug/ml	0.050	10.0	0.500
PP5842	5.0	ug/ml	0.050	10.0	0.025

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5872	Aroclor 1268 ICV	Hexane ChemPure lot DS721	JJY	12/12/2018	06/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4021	100	ug/ml	0.050	10.0	0.500
PP5842	5.0	ug/ml	0.050	10.0	0.025

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5873	PCB Spike	Acetone ChemPure lot DR774	JJY	12/12/2018	06/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4004	1000	ug/ml	0.500	50.0	10.0
S4010	1000	ug/ml	0.500	50.0	10.0

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5874	Pest/PCB Surrogates	Acetone ChemPure lot DR774	JJY	12/12/2018	06/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3882E	200	ug/ml	0.250	100	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5875	Pest/PCB Surrogates	Acetone ChemPure lot DR774	JJY	12/12/2018	06/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3882E	200	ug/ml	0.250	100	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5876	Pest/PCB Surrogates	Acetone ChemPure lot DR774	JJY	12/12/2018	06/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3882E	200	ug/ml	0.250	100	0.50

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PEST-PCB-LOGBOOK-02

SV Prep Logbook

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Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5952	PCB Spike	Acetone ChemPure Lot DR774	AJZ	05/29/2019	11/29/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3883E	1000	ug/mL	0.500	50.00	10:0
S3884E	1000	ug/mL	0.500	50.00	10.0

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CT Laboratories, LLC

PEST-PCB-LOGBOOK-02

SV Prep Logbook

Logbook created: 09/21/17

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Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5953	Pest/PCB Surrogate Intermediate Std	Hexane ChemPure Lot DT601	AJZ	06/18/2019	12/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3940A	200	ug/mL	0.025	1.00	5.0

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5954	PCB Stock (Aroclors 1016 1260)	Hexane ChemPure Lot DT601	AJZ	06/18/2019	12/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4004	1000	ug/mL	0.100	10.0	10.0
S4010	1000	ug/mL	0.100	10.0	10.0
S3940A	200	ug/mL	0.025	10.0	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5955	Aroclor 1221 Stock	Hexane ChemPure Lot DT601	AJZ	06/18/2019	12/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4005	1000	ug/mL	0.100	10.0	10.0
S3940A	200	ug/mL	0.025	10.0	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5956	Aroclor 1232 Stock	Hexane ChemPure Lot DT601	AJZ	06/18/2019	12/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4006	1000	ug/mL	0.100	10.0	10.0
S3940A	200	ug/mL	0.025	10.0	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5957	Aroclor 1242 Stock	Hexane ChemPure Lot DT601	AJZ	06/18/2019	12/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4007	1000	ug/mL	0.100	10.0	10.0
S3940A	200	ug/mL	0.025	10.0	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5958	Aroclor 1248 Stock	Hexane ChemPure Lot DT601	AJZ	06/18/2019	12/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4008	1000	ug/mL	0.100	10.0	10.0
S3940A	200	ug/mL	0.025	10.0	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5959	Aroclor 1254 Stock	Hexane ChemPure Lot DT601	AJZ	06/18/2019	12/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4009	1000	ug/mL	0.100	10.0	10.0
S3940A	200	ug/mL	0.025	10.0	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5960	Aroclor 1262 Stock	Hexane ChemPure Lot DT601	AJZ	06/18/2019	12/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4011	1000	ug/mL	0.100	10.0	10.0
S3940A	200	ug/mL	0.025	10.0	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5961	Aroclor 1268 Stock	Hexane ChemPure Lot DT601	AJZ	06/18/2019	12/18/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4012	1000	ug/mL	0.100	10.0	10.0
S3940A	200	ug/mL	0.025	10.0	0.50

	PCB CURVE	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
	PCB ICAL	Hexane ChemPure Lot DT601	AJZ	06/18/2019	12/18/2019

Standard Number	Standard Description	Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
PP5962	PCB ICAL PT 1	PP5954	10.0	ug/ml	0.020	10.0	0.02
PP5963	PCB ICAL PT 2	PP5954	10.0	ug/ml	0.050	10.0	0.05
PP5964	PCB ICAL PT 3	PP5954	10.0	ug/ml	0.200	10.0	0.20
PP5965	PCB ICAL PT 4	PP5954	10.0	ug/ml	0.500	10.0	0.50
PP5966	PCB ICAL PT 5	PP5954	10.0	ug/ml	0.700	10.0	0.70
PP5967	PCB ICAL PT 6	PP5954	10.0	ug/ml	1.000	10.0	1.00
PP5968	PCB CCV	PP5954	10.0	ug/ml	0.500	10.0	0.50
PP5969	1221 CF	PP5955	10.0	ug/ml	0.500	10.0	0.50
PP5970	1232 CF	PP5956	10.0	ug/ml	0.500	10.0	0.50
PP5971	1242 CF	PP5957	10.0	ug/ml	0.500	10.0	0.50
PP5972	1248 CF	PP5958	10.0	ug/ml	0.500	10.0	0.50
PP5973	1254 CF	PP5959	10.0	ug/ml	0.500	10.0	0.50
PP5974	1262 CF	PP5960	10.0	ug/ml	0.500	10.0	0.50
PP5975	1268 CF	PP5961	10.0	ug/ml	0.500	10.0	0.50
PP5976	1016 Pattern ID	S4004	1000	ug/ml	0.005	10.0	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5977	PCB ICV (Aroclors 1016 1260)	Hexane ChemPure Lot DT601	AJZ	06/18/2019	12/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4013	100	ug/mL	0.050	10.0	0.500
S4019	100	ug/mL	0.050	10.0	0.500
PP5953	5.0	ug/mL	0.050	10.0	0.025

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5978	Aroclor 1221 ICV	Hexane ChemPure Lot DT601	AJZ	06/18/2019	12/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4014	100	ug/mL	0.050	10.0	0.500
PP5953	5.0	ug/mL	0.050	10.0	0.025

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5979	Aroclor 1232 ICV	Hexane ChemPure Lot DT601	AJZ	06/18/2019	12/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4015	100	ug/mL	0.050	10.0	0.500
PP5953	5.0	ug/mL	0.050	10.0	0.025

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5980	Aroclor 1242 ICV	Hexane ChemPure Lot DT601	AJZ	06/18/2019	12/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4016	100	ug/mL	0.050	10.0	0.500
PP5953	5.0	ug/mL	0.050	10.0	0.025

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5981	Aroclor 1248 ICV	Hexane ChemPure Lot DT601	AJZ	06/18/2019	12/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4017	100	ug/mL	0.050	10.0	0.500
PP5953	5.0	ug/mL	0.050	10.0	0.025

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5982	Aroclor 1254 ICV	Hexane ChemPure Lot DT601	AJZ	06/18/2019	12/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4018	100	ug/mL	0.050	10.0	0.500
PP5953	5.0	ug/mL	0.050	10.0	0.025

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5983	Aroclor 1262 ICV	Hexane ChemPure Lot DT601	AJZ	06/18/2019	12/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4020	100	ug/mL	0.050	10.0	0.500
PP5953	5.0	ug/mL	0.050	10.0	0.025

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5984	Aroclor 1268 ICV	Hexane ChemPure Lot DT601	AJZ	06/18/2019	12/12/2019

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4021	100	ug/mL	0.050	10.0	0.500
PP5953	5.0	ug/mL	0.050	10.0	0.025

	PCB CURVE	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
	1242 and 1254 ICAL	Hexane ChemPure Lot DT601	AJZ	06/18/2019	12/12/2019

Standard Number	Standard Description	Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
PP5985	1242 ICAL PT 1	PP5957	10.0	ug/ml	0.020	10.0	0.02
PP5986	1242 ICAL PT 2	PP5957	10.0	ug/ml	0.050	10.0	0.05
PP5987	1242 ICAL PT 3	PP5957	10.0	ug/ml	0.200	10.0	0.20
PP5988	1242 ICAL PT 4	PP5957	10.0	ug/ml	0.500	10.0	0.50
PP5989	1242 ICAL PT 5	PP5957	10.0	ug/ml	0.700	10.0	0.70
PP5990	1242 ICAL PT 6	PP5957	10.0	ug/ml	0.500	10.0	0.50
PP5991	1242 CCV	PP5957	10.0	ug/ml	0.500	10.0	0.50
PP5992	1254 ICAL PT 1	PP5959	10.0	ug/ml	0.500	10.0	0.50
PP5993	1254 ICAL PT 2	PP5959	10.0	ug/ml	0.500	10.0	0.50
PP5994	1254 ICAL PT 3	PP5959	10.0	ug/ml	0.500	10.0	0.50
PP5995	1254 ICAL PT 4	PP5959	10.0	ug/ml	0.500	10.0	0.50
PP5996	1254 ICAL PT 5	PP5959	10.0	ug/ml	0.500	10.0	0.50
PP5997	1254 ICAL PT 6	PP5959	10.0	ug/ml	0.500	10.0	0.50
PP5998	1254 CCV	PP5959	10.0	ug/ml	0.500	10.0	0.50

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CT Laboratories, LLC

PEST-PCB-LOGBOOK-02
SV Prep Logbook
Logbook created: 09/21/17
NOTEBOOK VIEW: LTN_PEST_PCB_LOGBOOK_02_Default, NOTEBOOK: PEST_PCB_LOGBOOK_02, PAGE: 54
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Author: jyoder on: 7/19/2019 2:30:33 PM
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Project: Unassigned
Page Title: 071919

Content below was appended to locked page by azurfluh on 7/30/2019 11:09:38 AM

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6003	Velsicol Pesticide Spike	Acetone ChemPure Lot DR774	AJZ	07/12/2019	01/12/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4116	1000	ug/mL	0.040	50.0	0.80
S4117	1000	ug/mL	0.040	50.0	0.80
S4118	1000	ug/mL	0.040	50.0	0.80
S4119	1000	ug/mL	0.040	50.0	0.80
S4120	1000	ug/mL	0.040	50.0	0.80
S4121	1000	ug/mL	0.040	50.0	0.80

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6004	HBB Stock	Hexane ChemPure Lot DT601	AJZ	07/12/2019	01/12/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4129	2000	ug/mL	0.125	10.0	25

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6005	HBB/PBB Spike	Acetone ChemPure Lot DR774	AJZ	07/12/2019	01/12/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4128A	100	ug/mL	0.200	10.0	2.0
PP6004	25	ug/mL	0.200	10.0	0.5

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6006	Pest/PCB Surrogates	Acetone ChemPure Lot DR774	JJY	07/19/2019	01/19/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3940D	200	ug/mL	0.500	200	0.500

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6007	Pest/PCB Surrogates	Acetone ChemPure Lot DR774	JJY	07/19/2019	01/19/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3940D	200	ug/mL	0.250	100	0.500

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6008	Pest/PCB Surrogates	Acetone ChemPure Lot DR774	JJY	07/19/2019	01/19/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3940D	200	ug/mL	0.250	100	0.500

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CT Laboratories, LLC

PEST-PCB-LOGBOOK-02

SV Prep Logbook

Logbook created: 09/21/17

NOTEBOOK VIEW: LTN_PEST_PCB_LOGBOOK_02_Default, NOTEBOOK: PEST_PCB_LOGBOOK_02, PAGE: 59
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Project: Unassigned
Page Title: 090419

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6070	PCB Spike	Acetone ChemPure Lot DR774	AJZ	09/04/2019	03/04/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3883E	1000	ug/mL	0.500	50.00	10.0
S3884E	1000	ug/mL	0.500	50.00	10.0

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CT Laboratories, LLC

METALS
CLP FORMS
DOCUMENTS

CT LABORATORIES
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INORGANIC ANALYSIS DATA SHEET

Sample Description

GN-SO-01-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	95.2	Lab Sample ID:	321149
Analytical Method:	EPA 7471B	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164151	Analysis Date/Time	09/05/2019 10:53
Analytical Prep Batch #:	73320	Prep. Date/Time:	09/03/2019 12:34
ICAL Calibration #:	09052019	Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Mercury	0.0046	U	0.0023	0.0046	0.0092	0.0092

CT LABORATORIES
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INORGANIC ANALYSIS DATA SHEET

Sample Description

GN-SO-01-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	95.2	Lab Sample ID:	321149
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164035	Analysis Date/Time	09/06/2019 12:13
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-09-7	Potassium	130		12	36	72	72
7440-23-5	Sodium	394		4.4	13	26	26

CT LABORATORIES
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INORGANIC ANALYSIS DATA SHEET

Sample Description

GN-SO-01-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	95.2	Lab Sample ID:	321149
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164036	Analysis Date/Time	09/04/2019 12:39
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7429-90-5	Aluminum	1950		0.044	0.13	0.26	0.26
7440-39-3	Barium	22.9		0.0098	0.027	0.055	0.055
7440-41-7	Beryllium	0.031	J	0.0044	0.013	0.044	0.044
7440-43-9	Cadmium	0.062		0.0066	0.022	0.044	0.044
7440-70-2	Calcium	10100		0.26	0.77	1.5	1.5
7440-47-3	Chromium	6.3		0.025	0.077	0.15	0.15
7440-48-4	Cobalt	2.5		0.044	0.13	0.26	0.26
7440-50-8	Copper	4.4		0.077	0.22	0.44	0.44
7439-89-6	Iron	4870		0.33	0.98	2.0	2.0
7439-95-4	Magnesium	635		0.15	0.44	0.88	0.88
7439-96-5	Manganese	146		0.027	0.082	0.16	0.16
7440-02-0	Nickel	3.3		0.023	0.066	0.13	0.13
7440-62-2	Vanadium	9.0		0.013	0.044	0.088	0.088
7440-66-6	Zinc	22.9		0.055	0.16	0.33	0.33

CT LABORATORIES
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Sample Description

GN-SO-01-2

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	93.2	Lab Sample ID:	321154
Analytical Method:	EPA 7471B	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164151	Analysis Date/Time	09/05/2019 10:55
Analytical Prep Batch #:	73320	Prep. Date/Time:	09/03/2019 12:34
ICAL Calibration #:	09052019	Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Mercury	0.030		0.0023	0.0046	0.0091	0.0091

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Sample Description

GN-SO-01-2

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	93.2	Lab Sample ID:	321154
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164035	Analysis Date/Time	09/06/2019 12:16
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-09-7	Potassium	266		12	35	70	70
7440-23-5	Sodium	382		4.3	13	26	26

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Sample Description

GN-SO-01-2

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	93.2	Lab Sample ID:	321154
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164036	Analysis Date/Time	09/04/2019 12:45
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7429-90-5	Aluminum	3200		0.043	0.13	0.26	0.26
7440-39-3	Barium	32.6		0.0096	0.027	0.053	0.053
7440-41-7	Beryllium	0.057		0.0043	0.013	0.043	0.043
7440-43-9	Cadmium	0.022	J	0.0064	0.021	0.043	0.043
7440-70-2	Calcium	12600		0.26	0.75	1.5	1.5
7440-47-3	Chromium	8.6		0.025	0.075	0.15	0.15
7440-48-4	Cobalt	2.5		0.043	0.13	0.26	0.26
7440-50-8	Copper	5.9		0.075	0.21	0.43	0.43
7439-89-6	Iron	6990		0.32	0.96	1.9	1.9
7439-95-4	Magnesium	990		0.15	0.43	0.85	0.85
7439-96-5	Manganese	185		0.027	0.080	0.16	0.16
7440-02-0	Nickel	4.9		0.022	0.064	0.13	0.13
7440-62-2	Vanadium	11.6		0.013	0.043	0.085	0.085
7440-66-6	Zinc	28.6		0.053	0.16	0.32	0.32

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INORGANIC ANALYSIS DATA SHEET

Sample Description

GN-SO-02-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	97.2	Lab Sample ID:	321155
Analytical Method:	EPA 7471B	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164151	Analysis Date/Time	09/05/2019 10:57
Analytical Prep Batch #:	73320	Prep. Date/Time:	09/03/2019 12:34
ICAL Calibration #:	09052019	Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Mercury	0.015		0.0022	0.0044	0.0087	0.0087

CT LABORATORIES
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INORGANIC ANALYSIS DATA SHEET

Sample Description

GN-SO-02-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	97.2	Lab Sample ID:	321155
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164035	Analysis Date/Time	09/06/2019 12:18
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-09-7	Potassium	54.9	J	12	35	70	70
7440-23-5	Sodium	301		4.3	13	26	26

CT LABORATORIES
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INORGANIC ANALYSIS DATA SHEET

Sample Description

GN-SO-02-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	97.2	Lab Sample ID:	321155
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164036	Analysis Date/Time	09/04/2019 13:09
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7429-90-5	Aluminum	754		0.043	0.13	0.26	0.26
7440-39-3	Barium	9.7		0.0096	0.027	0.053	0.053
7440-41-7	Beryllium	0.026	J	0.0043	0.013	0.043	0.043
7440-43-9	Cadmium	0.021	U	0.0064	0.021	0.043	0.043
7440-70-2	Calcium	2130		0.26	0.75	1.5	1.5
7440-47-3	Chromium	3.6		0.025	0.075	0.15	0.15
7440-48-4	Cobalt	1.6		0.043	0.13	0.26	0.26
7440-50-8	Copper	2.3		0.075	0.21	0.43	0.43
7439-89-6	Iron	1690		0.32	0.96	1.9	1.9
7439-95-4	Magnesium	178		0.15	0.43	0.85	0.85
7439-96-5	Manganese	53.3		0.027	0.080	0.16	0.16
7440-02-0	Nickel	1.9		0.022	0.064	0.13	0.13
7440-62-2	Vanadium	6.5		0.013	0.043	0.085	0.085
7440-66-6	Zinc	8.7		0.053	0.16	0.32	0.32

CT LABORATORIES
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INORGANIC ANALYSIS DATA SHEET

Sample Description

GN-SO-02-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	89.9	Lab Sample ID:	321158
Analytical Method:	EPA 7471B	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164151	Analysis Date/Time	09/05/2019 11:02
Analytical Prep Batch #:	73320	Prep. Date/Time:	09/03/2019 12:34
ICAL Calibration #:	09052019	Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Mercury	0.025		0.0025	0.0051	0.010	0.010

CT LABORATORIES
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Sample Description

GN-SO-02-2

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	89.9	Lab Sample ID:	321158
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164035	Analysis Date/Time	09/06/2019 12:24
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-09-7	Potassium	472		13	38	77	77
7440-23-5	Sodium	32.3		4.7	14	28	28

CT LABORATORIES
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Sample Description

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GN-SO-02-2

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	89.9	Lab Sample ID:	321158
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164036	Analysis Date/Time	09/04/2019 13:22
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7429-90-5	Aluminum	6380		0.047	0.14	0.28	0.28
7440-39-3	Barium	71.6		0.010	0.029	0.058	0.058
7440-41-7	Beryllium	0.13		0.0047	0.014	0.047	0.047
7440-43-9	Cadmium	0.023	U	0.0070	0.023	0.047	0.047
7440-70-2	Calcium	2070		0.28	0.82	1.6	1.6
7440-47-3	Chromium	9.4		0.027	0.082	0.16	0.16
7440-48-4	Cobalt	5.6		0.047	0.14	0.28	0.28
7440-50-8	Copper	9.4		0.082	0.23	0.47	0.47
7439-89-6	Iron	12400		0.35	1.0	2.1	2.1
7439-95-4	Magnesium	1420		0.16	0.47	0.93	0.93
7439-96-5	Manganese	521		0.029	0.087	0.17	0.17
7440-02-0	Nickel	9.5		0.024	0.070	0.14	0.14
7440-62-2	Vanadium	18.5		0.014	0.047	0.093	0.093
7440-66-6	Zinc	37.9		0.058	0.17	0.35	0.35

CT LABORATORIES
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Sample Description

GNSO-03-1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	91.3	Lab Sample ID:	321159
Analytical Method:	EPA 7471B	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164151	Analysis Date/Time	09/05/2019 11:04
Analytical Prep Batch #:	73320	Prep. Date/Time:	09/03/2019 12:34
ICAL Calibration #:	09052019	Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Mercury	0.029		0.0025	0.0050	0.0099	0.0099

CT LABORATORIES
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Sample Description

GNSO-03-1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	91.3	Lab Sample ID:	321159
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164035	Analysis Date/Time	09/06/2019 12:26
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-09-7	Potassium	236		13	38	76	76
7440-23-5	Sodium	16.9	J	4.6	14	28	28

CT LABORATORIES
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Sample Description

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GNSO-03-1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	91.3	Lab Sample ID:	321159
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164036	Analysis Date/Time	09/04/2019 13:28
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7429-90-5	Aluminum	4330		0.046	0.14	0.28	0.28
7440-39-3	Barium	52.8		0.010	0.029	0.057	0.057
7440-41-7	Beryllium	0.075		0.0046	0.014	0.046	0.046
7440-43-9	Cadmium	0.023	U	0.0069	0.023	0.046	0.046
7440-70-2	Calcium	8290		0.28	0.80	1.6	1.6
7440-47-3	Chromium	7.7		0.026	0.080	0.16	0.16
7440-48-4	Cobalt	3.4		0.046	0.14	0.28	0.28
7440-50-8	Copper	7.7		0.080	0.23	0.46	0.46
7439-89-6	Iron	8490		0.34	1.0	2.1	2.1
7439-95-4	Magnesium	849		0.16	0.46	0.92	0.92
7439-96-5	Manganese	301		0.029	0.086	0.17	0.17
7440-02-0	Nickel	5.2		0.024	0.069	0.14	0.14
7440-62-2	Vanadium	13.7		0.014	0.046	0.092	0.092
7440-66-6	Zinc	41.3		0.057	0.17	0.34	0.34

CT LABORATORIES
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Sample Description

GN-SO-03-2

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	90.6	Lab Sample ID:	321160
Analytical Method:	EPA 7471B	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164151	Analysis Date/Time	09/05/2019 11:41
Analytical Prep Batch #:	73320	Prep. Date/Time:	09/03/2019 12:34
ICAL Calibration #:	09052019	Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Mercury	0.035		0.0024	0.0049	0.0096	0.0096

CT LABORATORIES
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Sample Description

GN-SO-03-2

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	90.6	Lab Sample ID:	321160
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164035	Analysis Date/Time	09/06/2019 12:29
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-09-7	Potassium	300		13	38	76	76
7440-23-5	Sodium	22.0	J	4.6	14	28	28

CT LABORATORIES
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Sample Description

GN-SO-03-2

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	90.6	Lab Sample ID:	321160
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164036	Analysis Date/Time	09/04/2019 13:35
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7429-90-5	Aluminum	4940		0.046	0.14	0.28	0.28
7440-39-3	Barium	94.2		0.010	0.029	0.058	0.058
7440-41-7	Beryllium	0.091		0.0046	0.014	0.046	0.046
7440-43-9	Cadmium	0.023	U	0.0069	0.023	0.046	0.046
7440-70-2	Calcium	2470		0.28	0.81	1.6	1.6
7440-47-3	Chromium	9.0		0.027	0.081	0.16	0.16
7440-48-4	Cobalt	4.2		0.046	0.14	0.28	0.28
7440-50-8	Copper	9.2		0.081	0.23	0.46	0.46
7439-89-6	Iron	9680		0.35	1.0	2.1	2.1
7439-95-4	Magnesium	1100		0.16	0.46	0.92	0.92
7439-96-5	Manganese	442		0.029	0.087	0.17	0.17
7440-02-0	Nickel	7.7		0.024	0.069	0.14	0.14
7440-62-2	Vanadium	13.4		0.014	0.046	0.092	0.092
7440-66-6	Zinc	44.8		0.058	0.17	0.35	0.35

CT LABORATORIES
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Sample Description

GN-SO-04-1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	86.8	Lab Sample ID:	321161
Analytical Method:	EPA 7471B	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164151	Analysis Date/Time	09/05/2019 11:43
Analytical Prep Batch #:	73320	Prep. Date/Time:	09/03/2019 12:34
ICAL Calibration #:	09052019	Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Mercury	0.039		0.0025	0.0051	0.010	0.010

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Sample Description

GN-SO-04-1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	86.8	Lab Sample ID:	321161
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164035	Analysis Date/Time	09/06/2019 12:32
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-09-7	Potassium	642		13	39	79	79
7440-23-5	Sodium	25.4	J	4.8	14	29	29

CT LABORATORIES
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INORGANIC ANALYSIS DATA SHEET

Sample Description

GN-SO-04-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	86.8	Lab Sample ID:	321161
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164036	Analysis Date/Time	09/04/2019 13:41
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7429-90-5	Aluminum	9220	M	0.048	0.14	0.29	0.29
7440-39-3	Barium	119		0.011	0.030	0.060	0.060
7440-41-7	Beryllium	0.16		0.0048	0.014	0.048	0.048
7440-43-9	Cadmium	0.024	U	0.0072	0.024	0.048	0.048
7440-70-2	Calcium	4690		0.29	0.84	1.7	1.7
7440-47-3	Chromium	9.7		0.027	0.084	0.17	0.17
7440-48-4	Cobalt	7.7		0.048	0.14	0.29	0.29
7440-50-8	Copper	10.3		0.084	0.24	0.48	0.48
7439-89-6	Iron	12600	M	0.36	1.1	2.1	2.1
7439-95-4	Magnesium	1370		0.17	0.48	0.96	0.96
7439-96-5	Manganese	576	M	0.030	0.090	0.18	0.18
7440-02-0	Nickel	9.5		0.025	0.072	0.14	0.14
7440-62-2	Vanadium	19.3		0.014	0.048	0.096	0.096
7440-66-6	Zinc	49.5		0.060	0.18	0.36	0.36

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Sample Description

GN-SO-04-2

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	89.1	Lab Sample ID:	321162
Analytical Method:	EPA 7471B	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164151	Analysis Date/Time	09/05/2019 11:45
Analytical Prep Batch #:	73320	Prep. Date/Time:	09/03/2019 12:34
ICAL Calibration #:	09052019	Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Mercury	0.029		0.0026	0.0051	0.010	0.010

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Sample Description

GN-SO-04-2

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	89.1	Lab Sample ID:	321162
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164035	Analysis Date/Time	09/06/2019 12:53
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-09-7	Potassium	305		13	38	76	76
7440-23-5	Sodium	13.4	J	4.6	14	28	28

CT LABORATORIES
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Sample Description

GN-SO-04-2

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	89.1	Lab Sample ID:	321162
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164036	Analysis Date/Time	09/04/2019 14:39
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7429-90-5	Aluminum	5060		0.046	0.14	0.28	0.28
7440-39-3	Barium	65.6		0.010	0.029	0.058	0.058
7440-41-7	Beryllium	0.098		0.0046	0.014	0.046	0.046
7440-43-9	Cadmium	0.023	U	0.0069	0.023	0.046	0.046
7440-70-2	Calcium	1830	B	0.28	0.81	1.6	1.6
7440-47-3	Chromium	8.6		0.026	0.081	0.16	0.16
7440-48-4	Cobalt	3.9		0.046	0.14	0.28	0.28
7440-50-8	Copper	6.7		0.081	0.23	0.46	0.46
7439-89-6	Iron	9930		0.35	1.0	2.1	2.1
7439-95-4	Magnesium	581		0.16	0.46	0.92	0.92
7439-96-5	Manganese	374		0.029	0.086	0.17	0.17
7440-02-0	Nickel	5.8		0.024	0.069	0.14	0.14
7440-62-2	Vanadium	15.9		0.014	0.046	0.092	0.092
7440-66-6	Zinc	33.4		0.058	0.17	0.35	0.35

CT LABORATORIES
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INORGANIC ANALYSIS DATA SHEET

Sample Description

GN-SO-05-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	96.2	Lab Sample ID:	321163
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	10.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164036	Analysis Date/Time	09/10/2019 02:42
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-70-2	Calcium	87000		2.6	7.7	15	15

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INORGANIC ANALYSIS DATA SHEET

Sample Description

GN-SO-05-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	96.2	Lab Sample ID:	321163
Analytical Method:	EPA 7471B	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164151	Analysis Date/Time	09/05/2019 11:47
Analytical Prep Batch #:	73320	Prep. Date/Time:	09/03/2019 12:34
ICAL Calibration #:	09052019	Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Mercury	0.029		0.0024	0.0048	0.0094	0.0094

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Sample Description

GN-SO-05-1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	96.2	Lab Sample ID:	321163
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164035	Analysis Date/Time	09/06/2019 12:56
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-09-7	Potassium	547		12	36	72	72
7440-23-5	Sodium	295		4.4	13	26	26

CT LABORATORIES
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Sample Description

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GN-SO-05-1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	96.2	Lab Sample ID:	321163
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164036	Analysis Date/Time	09/04/2019 14:47
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7429-90-5	Aluminum	4380		0.044	0.13	0.26	0.26
7440-39-3	Barium	64.8		0.0098	0.027	0.055	0.055
7440-41-7	Beryllium	0.16		0.0044	0.013	0.044	0.044
7440-43-9	Cadmium	0.26		0.0066	0.022	0.044	0.044
7440-47-3	Chromium	7.0		0.025	0.077	0.15	0.15
7440-48-4	Cobalt	4.0		0.044	0.13	0.26	0.26
7440-50-8	Copper	12.6		0.077	0.22	0.44	0.44
7439-89-6	Iron	6400		0.33	0.98	2.0	2.0
7439-95-4	Magnesium	3090		0.15	0.44	0.88	0.88
7439-96-5	Manganese	282		0.027	0.082	0.16	0.16
7440-02-0	Nickel	7.5		0.023	0.066	0.13	0.13
7440-62-2	Vanadium	10.8		0.013	0.044	0.088	0.088
7440-66-6	Zinc	48.7		0.055	0.16	0.33	0.33

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INORGANIC ANALYSIS DATA SHEET

Sample Description

GN-SO-05-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	86.8	Lab Sample ID:	321164
Analytical Method:	EPA 7471B	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164151	Analysis Date/Time	09/05/2019 11:49
Analytical Prep Batch #:	73320	Prep. Date/Time:	09/03/2019 12:34
ICAL Calibration #:	09052019	Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Mercury	0.033		0.0025	0.0050	0.0099	0.0099

CT LABORATORIES
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Sample Description

GN-SO-05-2

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	86.8	Lab Sample ID:	321164
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164035	Analysis Date/Time	09/06/2019 12:59
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-09-7	Potassium	687		13	39	77	77
7440-23-5	Sodium	239		4.7	14	28	28

CT LABORATORIES
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Sample Description

GN-SO-05-2

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	86.8	Lab Sample ID:	321164
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164036	Analysis Date/Time	09/04/2019 14:53
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7429-90-5	Aluminum	10900		0.047	0.14	0.28	0.28
7440-39-3	Barium	135		0.011	0.029	0.058	0.058
7440-41-7	Beryllium	0.15		0.0047	0.014	0.047	0.047
7440-43-9	Cadmium	0.16		0.0070	0.023	0.047	0.047
7440-70-2	Calcium	7490	B	0.28	0.82	1.6	1.6
7440-47-3	Chromium	9.0		0.027	0.082	0.16	0.16
7440-48-4	Cobalt	8.2		0.047	0.14	0.28	0.28
7440-50-8	Copper	13.4		0.082	0.23	0.47	0.47
7439-89-6	Iron	17300		0.35	1.1	2.1	2.1
7439-95-4	Magnesium	2120		0.16	0.47	0.94	0.94
7439-96-5	Manganese	863		0.029	0.088	0.18	0.18
7440-02-0	Nickel	14.0		0.025	0.070	0.14	0.14
7440-62-2	Vanadium	22.3		0.014	0.047	0.094	0.094
7440-66-6	Zinc	52.9		0.058	0.18	0.35	0.35

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Sample Description

GN-SO-06-1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	96.7	Lab Sample ID:	321166
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	10.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164036	Analysis Date/Time	09/10/2019 02:48
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-70-2	Calcium	108000		2.5	7.4	15	15

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Sample Description

GN-SO-06-1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	96.7	Lab Sample ID:	321166
Analytical Method:	EPA 7471B	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164151	Analysis Date/Time	09/05/2019 11:54
Analytical Prep Batch #:	73320	Prep. Date/Time:	09/03/2019 12:34
ICAL Calibration #:	09052019	Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Mercury	0.012		0.0024	0.0047	0.0094	0.0094

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INORGANIC ANALYSIS DATA SHEET

Sample Description

GN-SO-06-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	96.7	Lab Sample ID:	321166
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164035	Analysis Date/Time	09/06/2019 13:05
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-09-7	Potassium	207		12	35	70	70
7440-23-5	Sodium	332		4.2	13	25	25

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INORGANIC ANALYSIS DATA SHEET

Sample Description

GN-SO-06-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	96.7	Lab Sample ID:	321166
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164036	Analysis Date/Time	09/04/2019 15:07
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7429-90-5	Aluminum	1500		0.042	0.13	0.25	0.25
7440-39-3	Barium	15.8		0.0095	0.026	0.053	0.053
7440-41-7	Beryllium	0.088		0.0042	0.013	0.042	0.042
7440-43-9	Cadmium	0.020	J	0.0063	0.021	0.042	0.042
7440-47-3	Chromium	5.3		0.024	0.074	0.15	0.15
7440-48-4	Cobalt	0.93		0.042	0.13	0.25	0.25
7440-50-8	Copper	3.0		0.074	0.21	0.42	0.42
7439-89-6	Iron	4270		0.32	0.95	1.9	1.9
7439-95-4	Magnesium	2080		0.15	0.42	0.84	0.84
7439-96-5	Manganese	65.2		0.026	0.079	0.16	0.16
7440-02-0	Nickel	2.4		0.022	0.063	0.13	0.13
7440-62-2	Vanadium	4.9		0.013	0.042	0.084	0.084
7440-66-6	Zinc	23.1		0.053	0.16	0.32	0.32

CT LABORATORIES
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Sample Description

GN-SO-06-2

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	90.5	Lab Sample ID:	321167
Analytical Method:	EPA 7471B	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164151	Analysis Date/Time	09/05/2019 11:56
Analytical Prep Batch #:	73320	Prep. Date/Time:	09/03/2019 12:34
ICAL Calibration #:	09052019	Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Mercury	0.036		0.0024	0.0049	0.0097	0.0097

CT LABORATORIES
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Sample Description

GN-SO-06-2

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	90.5	Lab Sample ID:	321167
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164035	Analysis Date/Time	09/06/2019 13:13
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-09-7	Potassium	633		12	35	70	70
7440-23-5	Sodium	37.4		4.3	13	26	26

CT LABORATORIES
delivering more than data from your environmental analyses

Sample Description

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GN-SO-06-2

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	90.5	Lab Sample ID:	321167
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164036	Analysis Date/Time	09/04/2019 15:14
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7429-90-5	Aluminum	8540		0.043	0.13	0.26	0.26
7440-39-3	Barium	116		0.0096	0.027	0.053	0.053
7440-41-7	Beryllium	0.18		0.0043	0.013	0.043	0.043
7440-43-9	Cadmium	0.23		0.0064	0.021	0.043	0.043
7440-70-2	Calcium	10800	B	0.26	0.75	1.5	1.5
7440-47-3	Chromium	8.5		0.025	0.075	0.15	0.15
7440-48-4	Cobalt	6.8		0.043	0.13	0.26	0.26
7440-50-8	Copper	12.4		0.075	0.21	0.43	0.43
7439-89-6	Iron	13400		0.32	0.96	1.9	1.9
7439-95-4	Magnesium	1910		0.15	0.43	0.85	0.85
7439-96-5	Manganese	635		0.027	0.080	0.16	0.16
7440-02-0	Nickel	11.9		0.022	0.064	0.13	0.13
7440-62-2	Vanadium	19.2		0.013	0.043	0.085	0.085
7440-66-6	Zinc	47.0		0.053	0.16	0.32	0.32

CT LABORATORIES
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Sample Description

GN-SO-07-1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	92.0	Lab Sample ID:	321168
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	10.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164036	Analysis Date/Time	09/10/2019 02:54
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-70-2	Calcium	110000		2.7	7.8	16	16

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INORGANIC ANALYSIS DATA SHEET

Sample Description

GN-SO-07-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	92.0	Lab Sample ID:	321168
Analytical Method:	EPA 7471B	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164151	Analysis Date/Time	09/05/2019 11:58
Analytical Prep Batch #:	73320	Prep. Date/Time:	09/03/2019 12:34
ICAL Calibration #:	09052019	Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Mercury	0.019		0.0023	0.0046	0.0092	0.0092

CT LABORATORIES
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Sample Description

GN-SO-07-1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	92.0	Lab Sample ID:	321168
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164035	Analysis Date/Time	09/06/2019 13:16
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-09-7	Potassium	349		12	37	73	73
7440-23-5	Sodium	524		4.4	13	27	27

CT LABORATORIES
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INORGANIC ANALYSIS DATA SHEET

Sample Description

GN-SO-07-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	92.0	Lab Sample ID:	321168
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164036	Analysis Date/Time	09/04/2019 15:20
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7429-90-5	Aluminum	2800		0.044	0.13	0.27	0.27
7440-39-3	Barium	49.1		0.010	0.028	0.055	0.055
7440-41-7	Beryllium	0.040	J	0.0044	0.013	0.044	0.044
7440-43-9	Cadmium	0.32		0.0067	0.022	0.044	0.044
7440-47-3	Chromium	6.7		0.026	0.078	0.16	0.16
7440-48-4	Cobalt	1.5		0.044	0.13	0.27	0.27
7440-50-8	Copper	6.0		0.078	0.22	0.44	0.44
7439-89-6	Iron	4710		0.33	1.0	2.0	2.0
7439-95-4	Magnesium	2670		0.16	0.44	0.89	0.89
7439-96-5	Manganese	99.0		0.028	0.083	0.17	0.17
7440-02-0	Nickel	4.6		0.023	0.067	0.13	0.13
7440-62-2	Vanadium	7.3		0.013	0.044	0.089	0.089
7440-66-6	Zinc	37.4		0.055	0.17	0.33	0.33

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Sample Description

GN-SO-07-2

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	90.8	Lab Sample ID:	321169
Analytical Method:	EPA 7471B	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164151	Analysis Date/Time	09/05/2019 12:08
Analytical Prep Batch #:	73320	Prep. Date/Time:	09/03/2019 12:34
ICAL Calibration #:	09052019	Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Mercury	0.029		0.0023	0.0046	0.0091	0.0091

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Sample Description

GN-SO-07-2

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	90.8	Lab Sample ID:	321169
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164035	Analysis Date/Time	09/06/2019 13:19
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-09-7	Potassium	465		13	38	75	75
7440-23-5	Sodium	39.7		4.6	14	27	27

CT LABORATORIES
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Sample Description

GN-SO-07-2

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	90.8	Lab Sample ID:	321169
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164036	Analysis Date/Time	09/04/2019 15:27
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7429-90-5	Aluminum	7050		0.046	0.14	0.27	0.27
7440-39-3	Barium	85.3		0.010	0.029	0.057	0.057
7440-41-7	Beryllium	0.15		0.0046	0.014	0.046	0.046
7440-43-9	Cadmium	0.17		0.0068	0.023	0.046	0.046
7440-70-2	Calcium	23100	B	0.27	0.80	1.6	1.6
7440-47-3	Chromium	8.4		0.026	0.080	0.16	0.16
7440-48-4	Cobalt	7.7		0.046	0.14	0.27	0.27
7440-50-8	Copper	10.2		0.080	0.23	0.46	0.46
7439-89-6	Iron	12000		0.34	1.0	2.1	2.1
7439-95-4	Magnesium	1730		0.16	0.46	0.91	0.91
7439-96-5	Manganese	516		0.029	0.086	0.17	0.17
7440-02-0	Nickel	9.6		0.024	0.068	0.14	0.14
7440-62-2	Vanadium	17.7		0.014	0.046	0.091	0.091
7440-66-6	Zinc	38.5		0.057	0.17	0.34	0.34

CT LABORATORIES
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Sample Description

GN-SO-08-1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	95.9	Lab Sample ID:	321170
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	10.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164036	Analysis Date/Time	09/10/2019 03:01
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-70-2	Calcium	163000		2.5	7.2	14	14

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Sample Description

GN-SO-08-1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	95.9	Lab Sample ID:	321170
Analytical Method:	EPA 7471B	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164151	Analysis Date/Time	09/05/2019 12:10
Analytical Prep Batch #:	73320	Prep. Date/Time:	09/03/2019 12:34
ICAL Calibration #:	09052019	Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Mercury	0.0085	J	0.0023	0.0045	0.0090	0.0090

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Sample Description

GN-SO-08-1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	95.9	Lab Sample ID:	321170
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164035	Analysis Date/Time	09/06/2019 13:22
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-09-7	Potassium	227		11	34	68	68
7440-23-5	Sodium	439		4.1	12	25	25

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INORGANIC ANALYSIS DATA SHEET

Sample Description

GN-SO-08-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	95.9	Lab Sample ID:	321170
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164036	Analysis Date/Time	09/04/2019 15:33
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7429-90-5	Aluminum	1920		0.041	0.12	0.25	0.25
7440-39-3	Barium	20.3		0.0093	0.026	0.052	0.052
7440-41-7	Beryllium	0.010	J	0.0041	0.012	0.041	0.041
7440-43-9	Cadmium	0.23		0.0062	0.021	0.041	0.041
7440-47-3	Chromium	5.3		0.024	0.072	0.14	0.14
7440-48-4	Cobalt	1.8		0.041	0.12	0.25	0.25
7440-50-8	Copper	5.5		0.072	0.21	0.41	0.41
7439-89-6	Iron	3410		0.31	0.93	1.9	1.9
7439-95-4	Magnesium	2920		0.14	0.41	0.83	0.83
7439-96-5	Manganese	117		0.026	0.077	0.15	0.15
7440-02-0	Nickel	4.0		0.022	0.062	0.12	0.12
7440-62-2	Vanadium	6.0		0.012	0.041	0.083	0.083
7440-66-6	Zinc	34.1		0.052	0.15	0.31	0.31

CT LABORATORIES
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INORGANIC ANALYSIS DATA SHEET

Sample Description

GN-SO-08-2

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	93.5	Lab Sample ID:	321171
Analytical Method:	EPA 7471B	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164151	Analysis Date/Time	09/05/2019 12:12
Analytical Prep Batch #:	73320	Prep. Date/Time:	09/03/2019 12:34
ICAL Calibration #:	09052019	Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Mercury	0.018		0.0024	0.0049	0.0097	0.0097

CT LABORATORIES
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Sample Description

GN-SO-08-2

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	93.5	Lab Sample ID:	321171
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164035	Analysis Date/Time	09/06/2019 13:25
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-09-7	Potassium	295		12	35	70	70
7440-23-5	Sodium	49.2		4.3	13	26	26

CT LABORATORIES
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Sample Description

GN-SO-08-2

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	93.5	Lab Sample ID:	321171
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164036	Analysis Date/Time	09/04/2019 15:58
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7429-90-5	Aluminum	3830		0.043	0.13	0.26	0.26
7440-39-3	Barium	46.6		0.0096	0.027	0.053	0.053
7440-41-7	Beryllium	0.071		0.0043	0.013	0.043	0.043
7440-43-9	Cadmium	0.23		0.0064	0.021	0.043	0.043
7440-70-2	Calcium	24300	B	0.26	0.74	1.5	1.5
7440-47-3	Chromium	6.6		0.024	0.074	0.15	0.15
7440-48-4	Cobalt	3.0		0.043	0.13	0.26	0.26
7440-50-8	Copper	8.7		0.074	0.21	0.43	0.43
7439-89-6	Iron	7560		0.32	0.96	1.9	1.9
7439-95-4	Magnesium	1370		0.15	0.43	0.85	0.85
7439-96-5	Manganese	241		0.027	0.080	0.16	0.16
7440-02-0	Nickel	7.9		0.022	0.064	0.13	0.13
7440-62-2	Vanadium	11.8		0.013	0.043	0.085	0.085
7440-66-6	Zinc	35.4		0.053	0.16	0.32	0.32

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INORGANIC ANALYSIS DATA SHEET

Sample Description

GN-SO-09C-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	90.0	Lab Sample ID:	321172
Analytical Method:	EPA 7471B	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164151	Analysis Date/Time	09/05/2019 12:15
Analytical Prep Batch #:	73320	Prep. Date/Time:	09/03/2019 12:34
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Mercury	0.032		0.0024	0.0047	0.0094	0.0094

CT LABORATORIES
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Sample Description

GN-SO-09C-1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	90.0	Lab Sample ID:	321172
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164035	Analysis Date/Time	09/06/2019 13:28
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-09-7	Potassium	485		13	39	77	77
7440-23-5	Sodium	43.6		4.7	14	28	28

CT LABORATORIES
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INORGANIC ANALYSIS DATA SHEET

Sample Description

GN-SO-09C-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	90.0	Lab Sample ID:	321172
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164036	Analysis Date/Time	09/04/2019 16:05
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7429-90-5	Aluminum	7460		0.047	0.14	0.28	0.28
7440-39-3	Barium	91.5		0.011	0.029	0.058	0.058
7440-41-7	Beryllium	0.17		0.0047	0.014	0.047	0.047
7440-43-9	Cadmium	0.094		0.0070	0.023	0.047	0.047
7440-70-2	Calcium	1690	B	0.28	0.82	1.6	1.6
7440-47-3	Chromium	10.0		0.027	0.082	0.16	0.16
7440-48-4	Cobalt	7.5		0.047	0.14	0.28	0.28
7440-50-8	Copper	13.2		0.082	0.23	0.47	0.47
7439-89-6	Iron	16000		0.35	1.1	2.1	2.1
7439-95-4	Magnesium	2060		0.16	0.47	0.94	0.94
7439-96-5	Manganese	623		0.029	0.088	0.18	0.18
7440-02-0	Nickel	11.2		0.025	0.070	0.14	0.14
7440-62-2	Vanadium	20.9		0.014	0.047	0.094	0.094
7440-66-6	Zinc	45.6		0.058	0.18	0.35	0.35

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

GN-SO-DUP-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	95.8	Lab Sample ID:	321157
Analytical Method:	EPA 7471B	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164151	Analysis Date/Time	09/05/2019 11:00
Analytical Prep Batch #:	73320	Prep. Date/Time:	09/03/2019 12:34
ICAL Calibration #:	09052019	Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Mercury	0.0094		0.0023	0.0045	0.0090	0.0090

CT LABORATORIES
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Sample Description

GN-SO-DUP-1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	95.8	Lab Sample ID:	321157
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164035	Analysis Date/Time	09/06/2019 12:21
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-09-7	Potassium	93.1		12	35	69	69
7440-23-5	Sodium	286		4.2	13	25	25

CT LABORATORIES
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Sample Description

GN-SO-DUP-1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	95.8	Lab Sample ID:	321157
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164036	Analysis Date/Time	09/04/2019 13:16
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7429-90-5	Aluminum	1540		0.042	0.13	0.25	0.25
7440-39-3	Barium	23.7		0.0094	0.026	0.052	0.052
7440-41-7	Beryllium	0.074		0.0042	0.013	0.042	0.042
7440-43-9	Cadmium	0.021	U	0.0063	0.021	0.042	0.042
7440-70-2	Calcium	3230		0.25	0.73	1.5	1.5
7440-47-3	Chromium	8.1		0.024	0.073	0.15	0.15
7440-48-4	Cobalt	2.6		0.042	0.13	0.25	0.25
7440-50-8	Copper	4.0		0.073	0.21	0.42	0.42
7439-89-6	Iron	3830		0.31	0.94	1.9	1.9
7439-95-4	Magnesium	312		0.15	0.42	0.84	0.84
7439-96-5	Manganese	159		0.026	0.079	0.16	0.16
7440-02-0	Nickel	3.4		0.022	0.063	0.13	0.13
7440-62-2	Vanadium	12.1		0.013	0.042	0.084	0.084
7440-66-6	Zinc	18.1		0.052	0.16	0.31	0.31

CT LABORATORIES
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Sample Description

GN-SO-DUP-2

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	84.1	Lab Sample ID:	321165
Analytical Method:	EPA 7471B	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164151	Analysis Date/Time	09/05/2019 11:52
Analytical Prep Batch #:	73320	Prep. Date/Time:	09/03/2019 12:34
ICAL Calibration #:	09052019	Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Mercury	0.033		0.0027	0.0054	0.011	0.011

CT LABORATORIES
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1

Sample Description

GN-SO-DUP-2

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	84.1	Lab Sample ID:	321165
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164035	Analysis Date/Time	09/06/2019 13:02
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-09-7	Potassium	722		14	41	82	82
7440-23-5	Sodium	355		5.0	15	30	30

CT LABORATORIES
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Sample Description

1

GN-SO-DUP-2

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	84.1	Lab Sample ID:	321165
Analytical Method:	EPA 6010C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164036	Analysis Date/Time	09/04/2019 15:00
Analytical Prep Batch #:	73351	Prep. Date/Time:	08/30/2019 10:52
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7429-90-5	Aluminum	10400		0.050	0.15	0.30	0.30
7440-39-3	Barium	128		0.011	0.031	0.062	0.062
7440-41-7	Beryllium	0.16		0.0050	0.015	0.050	0.050
7440-43-9	Cadmium	0.16		0.0075	0.025	0.050	0.050
7440-70-2	Calcium	17200	B	0.30	0.87	1.7	1.7
7440-47-3	Chromium	10.3		0.029	0.087	0.17	0.17
7440-48-4	Cobalt	6.8		0.050	0.15	0.30	0.30
7440-50-8	Copper	13.2		0.087	0.25	0.50	0.50
7439-89-6	Iron	16200		0.37	1.1	2.2	2.2
7439-95-4	Magnesium	2240		0.17	0.50	1.0	1.0
7439-96-5	Manganese	703		0.031	0.093	0.19	0.19
7440-02-0	Nickel	13.3		0.026	0.075	0.15	0.15
7440-62-2	Vanadium	21.7		0.015	0.050	0.10	0.10
7440-66-6	Zinc	52.3		0.062	0.19	0.37	0.37

CT LABORATORIES
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INORGANIC ANALYSIS DATA SHEET

Sample Description

GN-W-RB-01

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	GROUND WATER	SDG No.:	147664
% Solids:		Lab Sample ID:	321513
Analytical Method:	EPA 7470A	Date Received:	08/29/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164096	Analysis Date/Time	09/04/2019 09:44
Analytical Prep Batch #:	73342	Prep. Date/Time:	09/03/2019 12:10
ICAL Calibration #:	09042019	Concentration Units:	ug/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Total Mercury	0.060	U	0.030	0.060	0.12	0.12

CT LABORATORIES
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Sample Description

GN-W-RB-01

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	GROUND WATER	SDG No.:	147664
% Solids:		Lab Sample ID:	321513
Analytical Method:	EPA 6010C	Date Received:	08/29/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164047	Analysis Date/Time	09/06/2019 11:01
Analytical Prep Batch #:	73360	Prep. Date/Time:	08/30/2019 11:17
ICAL Calibration #:		Concentration Units:	ug/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-09-7	Total Potassium	250	U	90	250	500	500
7440-23-5	Total Sodium	371	J	100	300	600	600

CT LABORATORIES
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1

Sample Description

GN-W-RB-01

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	GROUND WATER	SDG No.:	147664
% Solids:		Lab Sample ID:	321513
Analytical Method:	EPA 6010C	Date Received:	08/29/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164046	Analysis Date/Time	09/03/2019 17:46
Analytical Prep Batch #:	73360	Prep. Date/Time:	08/30/2019 11:17
ICAL Calibration #:		Concentration Units:	ug/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7429-90-5	Total Aluminum	18	U	6.0	18	36	36
7440-39-3	Total Barium	0.90	U	0.29	0.90	1.8	1.8
7440-41-7	Total Beryllium	0.30	U	0.10	0.30	0.60	0.60
7440-43-9	Total Cadmium	1.0	U	0.30	1.0	2.0	2.0
7440-70-2	Total Calcium	55.1	J	17	50	100	100
7440-47-3	Total Chromium	2.0	U	0.60	2.0	4.0	4.0
7440-48-4	Total Cobalt	2.0	U	0.70	2.0	4.0	4.0
7440-50-8	Total Copper	3.5	U	1.2	3.5	7.0	7.0
7439-89-6	Total Iron	50	U	16	50	100	100
7439-95-4	Total Magnesium	20	U	6.0	20	40	40
7439-96-5	Total Manganese	2.0	U	0.70	2.0	4.0	4.0
7440-02-0	Total Nickel	3.0	U	1.0	3.0	6.0	6.0
7440-62-2	Total Vanadium	2.5	U	0.80	2.5	5.0	5.0
7440-66-6	Total Zinc	5.0	U	1.6	5.0	10	10

CT LABORATORIES
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Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164096 Lab Sample ID: 322957

ICAL Calibration #: 09042019 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	9/4/19 09:26	3.00	2.98	99	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
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Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164151 Lab Sample ID: 323602

ICAL Calibration #: 09052019 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	9/5/19 09:00	3.00	3.21	107	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
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Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164036 Lab Sample ID: 324043

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	9/4/19	10:52	12000	11400	95	90	110
Barium	9/4/19	10:52	2000	2020	101	90	110
Beryllium	9/4/19	10:52	50.00	48.90	98	90	110
Cadmium	9/4/19	10:52	50.00	48.20	96	90	110
Calcium	9/4/19	10:52	10000	9750	98	90	110
Chromium	9/4/19	10:52	200.0	200.0	100	90	110
Cobalt	9/4/19	10:52	500.0	486.0	97	90	110
Copper	9/4/19	10:52	250.0	251.0	100	90	110
Iron	9/4/19	10:52	5000	5090	102	90	110
Magnesium	9/4/19	10:52	10000	9680	97	90	110
Manganese	9/4/19	10:52	500.0	482.0	96	90	110
Nickel	9/4/19	10:52	500.0	481.0	96	90	110
Vanadium	9/4/19	10:52	500.0	520.0	104	90	110
Zinc	9/4/19	10:52	500.0	496.0	99	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
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Sample No.

LLQC

2A-1

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164036 Lab Sample ID: 324044

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	9/4/19	11:05	1200	1330	111	80	120
Barium	9/4/19	11:05	30.00	32.70	109	80	120
Beryllium	9/4/19	11:05	12.00	13.60	113	80	120
Cadmium	9/4/19	11:05	15.00	16.80	112	80	120
Calcium	9/4/19	11:05	1500	1690	113	80	120
Chromium	9/4/19	11:05	30.00	33.00	110	80	120
Cobalt	9/4/19	11:05	30.00	32.80	109	80	120
Copper	9/4/19	11:05	30.00	35.90	120	80	120
Iron	9/4/19	11:05	900.0	1010	112	80	120
Magnesium	9/4/19	11:05	1500	1670	111	80	120
Manganese	9/4/19	11:05	30.00	33.40	111	80	120
Nickel	9/4/19	11:05	30.00	33.00	110	80	120
Vanadium	9/4/19	11:05	30.00	35.20	117	80	120
Zinc	9/4/19	11:05	30.00	33.30	111	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
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Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164047 Lab Sample ID: 324524

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	9/6/19	09:37	100000	101000	101	90	110
Sodium	9/6/19	09:37	100000	99600	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

LLQC

2A-1

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164047 Lab Sample ID: 324525

ICAL Calibration #: Concentration Units:

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	9/6/19	09:40	3000	3090	103	80	120
Sodium	9/6/19	09:40	3000	3240	108	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
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Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164035 Lab Sample ID: 324552

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	9/6/19	09:37	100000	101000	101	90	110
Sodium	9/6/19	09:37	100000	99600	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
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Sample No.

LLQC

2A-1

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164035 Lab Sample ID: 324553

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	9/6/19	09:40	3000	3090	103	80	120
Sodium	9/6/19	09:40	3000	3240	108	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
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Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164046 Lab Sample ID: 325003

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	9/3/19	13:36	12000	11100	92	90	110
Barium	9/3/19	13:36	2000	1970	98	90	110
Beryllium	9/3/19	13:36	50.00	46.60	93	90	110
Cadmium	9/3/19	13:36	50.00	51.90	104	90	110
Calcium	9/3/19	13:36	10000	9810	98	90	110
Chromium	9/3/19	13:36	200.0	190.0	95	90	110
Cobalt	9/3/19	13:36	500.0	466.0	93	90	110
Copper	9/3/19	13:36	250.0	246.0	98	90	110
Iron	9/3/19	13:36	5000	4950	99	90	110
Magnesium	9/3/19	13:36	10000	9700	97	90	110
Manganese	9/3/19	13:36	500.0	512.0	102	90	110
Nickel	9/3/19	13:36	500.0	471.0	94	90	110
Vanadium	9/3/19	13:36	500.0	500.0	100	90	110
Zinc	9/3/19	13:36	500.0	476.0	95	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

LLQC

2A-1

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164046 Lab Sample ID: 325004

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	9/3/19	13:49	1200	1240	103	80	120
Barium	9/3/19	13:49	30.00	32.00	107	80	120
Beryllium	9/3/19	13:49	12.00	12.40	103	80	120
Cadmium	9/3/19	13:49	15.00	16.30	109	80	120
Calcium	9/3/19	13:49	1500	1530	102	80	120
Chromium	9/3/19	13:49	30.00	30.50	102	80	120
Cobalt	9/3/19	13:49	30.00	32.20	107	80	120
Copper	9/3/19	13:49	30.00	28.40	95	80	120
Iron	9/3/19	13:49	900.0	926.0	103	80	120
Magnesium	9/3/19	13:49	1500	1550	103	80	120
Manganese	9/3/19	13:49	30.00	34.00	113	80	120
Nickel	9/3/19	13:49	30.00	31.80	106	80	120
Vanadium	9/3/19	13:49	30.00	33.40	111	80	120
Zinc	9/3/19	13:49	30.00	33.10	110	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164036 Lab Sample ID: 325316

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	9/9/19	11:09	12000	11600	97	90	110
Barium	9/9/19	11:09	2000	1930	96	90	110
Beryllium	9/9/19	11:09	50.00	47.00	94	90	110
Cadmium	9/9/19	11:09	50.00	47.10	94	90	110
Calcium	9/9/19	11:09	10000	9410	94	90	110
Chromium	9/9/19	11:09	200.0	188.0	94	90	110
Cobalt	9/9/19	11:09	500.0	503.0	101	90	110
Copper	9/9/19	11:09	250.0	244.0	98	90	110
Iron	9/9/19	11:09	5000	4910	98	90	110
Magnesium	9/9/19	11:09	10000	10500	105	90	110
Manganese	9/9/19	11:09	500.0	513.0	103	90	110
Nickel	9/9/19	11:09	500.0	500.0	100	90	110
Vanadium	9/9/19	11:09	500.0	501.0	100	90	110
Zinc	9/9/19	11:09	500.0	483.0	97	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

LLQC

2A-1

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164036 Lab Sample ID: 325317

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	9/9/19	11:21	1200	1280	107	80	120
Barium	9/9/19	11:21	30.00	31.30	104	80	120
Beryllium	9/9/19	11:21	12.00	12.90	108	80	120
Cadmium	9/9/19	11:21	15.00	16.10	107	80	120
Calcium	9/9/19	11:21	1500	1580	105	80	120
Chromium	9/9/19	11:21	30.00	31.00	103	80	120
Cobalt	9/9/19	11:21	30.00	33.20	111	80	120
Copper	9/9/19	11:21	30.00	33.70	112	80	120
Iron	9/9/19	11:21	900.0	1010	112	80	120
Magnesium	9/9/19	11:21	1500	1620	108	80	120
Manganese	9/9/19	11:21	30.00	34.20	114	80	120
Nickel	9/9/19	11:21	30.00	34.00	113	80	120
Vanadium	9/9/19	11:21	30.00	33.60	112	80	120
Zinc	9/9/19	11:21	30.00	32.30	108	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164035 Lab Sample ID: 324558

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	9/6/19	12:02	100000	101000	101	90	110
Sodium	9/6/19	12:02	100000	101000	101	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164035 Lab Sample ID: 324560

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	9/6/19	12:34	100000	101000	101	90	110
Sodium	9/6/19	12:34	100000	98900	99	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164035 Lab Sample ID: 324564

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	9/6/19	13:08	100000	101000	101	90	110
Sodium	9/6/19	13:08	100000	99300	99	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164035 Lab Sample ID: 324566

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	9/6/19	13:41	100000	100000	100	90	110
Sodium	9/6/19	13:41	100000	99500	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164096 Lab Sample ID: 322959

ICAL Calibration #: 09042019 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	9/4/19	09:55	3.00	3.01	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164151 Lab Sample ID: 323607

ICAL Calibration #: 09052019 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	9/5/19	10:42	3.00	2.95	98	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164151 Lab Sample ID: 323611

ICAL Calibration #: 09052019 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	9/5/19	11:33	3.00	3.16	105	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164151 Lab Sample ID: 323613

ICAL Calibration #: 09052019 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	9/5/19	12:02	3.00	2.98	99	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164151 Lab Sample ID: 323615

ICAL Calibration #: 09052019 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	9/5/19	12:29	3.00	2.97	99	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164151 Lab Sample ID: 323639

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	9/5/19 09:40	3.00	3.10	103	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164151 Lab Sample ID: 323640

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	9/5/19 09:43	3.00	2.99	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164036 Lab Sample ID: 324049

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	9/4/19	12:51	5000	4940	99	90	110
Barium	9/4/19	12:51	5000	5010	100	90	110
Beryllium	9/4/19	12:51	500.0	489.0	98	90	110
Cadmium	9/4/19	12:51	500.0	504.0	101	90	110
Calcium	9/4/19	12:51	5000	4930	99	90	110
Chromium	9/4/19	12:51	5000	5010	100	90	110
Cobalt	9/4/19	12:51	5000	5060	101	90	110
Copper	9/4/19	12:51	5000	4840	97	90	110
Iron	9/4/19	12:51	5000	5060	101	90	110
Magnesium	9/4/19	12:51	5000	4800	96	90	110
Manganese	9/4/19	12:51	5000	4970	99	90	110
Nickel	9/4/19	12:51	5000	5080	102	90	110
Vanadium	9/4/19	12:51	5000	5050	101	90	110
Zinc	9/4/19	12:51	5000	5290	106	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164036 Lab Sample ID: 324050

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	9/4/19	12:57	500.0	529.0	106	90	110
Barium	9/4/19	12:57	500.0	516.0	103	90	110
Beryllium	9/4/19	12:57	50.00	52.00	104	90	110
Cadmium	9/4/19	12:57	50.00	51.40	103	90	110
Calcium	9/4/19	12:57	500.0	520.0	104	90	110
Chromium	9/4/19	12:57	500.0	537.0	107	90	110
Cobalt	9/4/19	12:57	500.0	517.0	103	90	110
Copper	9/4/19	12:57	500.0	533.0	107	90	110
Iron	9/4/19	12:57	500.0	538.0	108	90	110
Magnesium	9/4/19	12:57	500.0	539.0	108	90	110
Manganese	9/4/19	12:57	500.0	519.0	104	90	110
Nickel	9/4/19	12:57	500.0	516.0	103	90	110
Vanadium	9/4/19	12:57	500.0	551.0	110	90	110
Zinc	9/4/19	12:57	500.0	519.0	104	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164036 Lab Sample ID: 324053

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	9/4/19	14:14	5000	4920	98	90	110
Barium	9/4/19	14:14	5000	5000	100	90	110
Beryllium	9/4/19	14:14	500.0	484.0	97	90	110
Cadmium	9/4/19	14:14	500.0	500.0	100	90	110
Calcium	9/4/19	14:14	5000	4960	99	90	110
Chromium	9/4/19	14:14	5000	4930	99	90	110
Cobalt	9/4/19	14:14	5000	5000	100	90	110
Copper	9/4/19	14:14	5000	4800	96	90	110
Iron	9/4/19	14:14	5000	5120	102	90	110
Magnesium	9/4/19	14:14	5000	4790	96	90	110
Manganese	9/4/19	14:14	5000	4940	99	90	110
Nickel	9/4/19	14:14	5000	5010	100	90	110
Vanadium	9/4/19	14:14	5000	5040	101	90	110
Zinc	9/4/19	14:14	5000	5220	104	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164036 Lab Sample ID: 324054

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	9/4/19	14:20	500.0	521.0	104	90	110
Barium	9/4/19	14:20	500.0	510.0	102	90	110
Beryllium	9/4/19	14:20	50.00	50.80	102	90	110
Cadmium	9/4/19	14:20	50.00	50.40	101	90	110
Calcium	9/4/19	14:20	500.0	518.0	104	90	110
Chromium	9/4/19	14:20	500.0	521.0	104	90	110
Cobalt	9/4/19	14:20	500.0	510.0	102	90	110
Copper	9/4/19	14:20	500.0	526.0	105	90	110
Iron	9/4/19	14:20	500.0	523.0	105	90	110
Magnesium	9/4/19	14:20	500.0	519.0	104	90	110
Manganese	9/4/19	14:20	500.0	511.0	102	90	110
Nickel	9/4/19	14:20	500.0	506.0	101	90	110
Vanadium	9/4/19	14:20	500.0	537.0	107	90	110
Zinc	9/4/19	14:20	500.0	512.0	102	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164036 Lab Sample ID: 324057

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	9/4/19	15:40	5000	4510	90	90	110
Barium	9/4/19	15:40	5000	4600	92	90	110
Beryllium	9/4/19	15:40	500.0	449.0	90	90	110
Cadmium	9/4/19	15:40	500.0	458.0	92	90	110
Calcium	9/4/19	15:40	5000	4580	92	90	110
Chromium	9/4/19	15:40	5000	4510	90	90	110
Cobalt	9/4/19	15:40	5000	4560	91	90	110
Copper	9/4/19	15:40	5000	4570	91	90	110
Iron	9/4/19	15:40	5000	4620	92	90	110
Magnesium	9/4/19	15:40	5000	4520	90	90	110
Manganese	9/4/19	15:40	5000	4490	90	90	110
Nickel	9/4/19	15:40	5000	4570	91	90	110
Vanadium	9/4/19	15:40	5000	4570	91	90	110
Zinc	9/4/19	15:40	5000	4740	95	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164036 Lab Sample ID: 324058

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	9/4/19	15:46	500.0	480.0	96	90	110
Barium	9/4/19	15:46	500.0	469.0	94	90	110
Beryllium	9/4/19	15:46	50.00	46.40	93	90	110
Cadmium	9/4/19	15:46	50.00	46.00	92	90	110
Calcium	9/4/19	15:46	500.0	480.0	96	90	110
Chromium	9/4/19	15:46	500.0	473.0	95	90	110
Cobalt	9/4/19	15:46	500.0	468.0	94	90	110
Copper	9/4/19	15:46	500.0	486.0	97	90	110
Iron	9/4/19	15:46	500.0	480.0	96	90	110
Magnesium	9/4/19	15:46	500.0	475.0	95	90	110
Manganese	9/4/19	15:46	500.0	467.0	93	90	110
Nickel	9/4/19	15:46	500.0	465.0	93	90	110
Vanadium	9/4/19	15:46	500.0	492.0	98	90	110
Zinc	9/4/19	15:46	500.0	471.0	94	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164036 Lab Sample ID: 324060

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	9/4/19	17:01	5000	4640	93	90	110
Barium	9/4/19	17:01	5000	4750	95	90	110
Beryllium	9/4/19	17:01	500.0	455.0	91	90	110
Cadmium	9/4/19	17:01	500.0	471.0	94	90	110
Calcium	9/4/19	17:01	5000	4620	92	90	110
Chromium	9/4/19	17:01	5000	4670	93	90	110
Cobalt	9/4/19	17:01	5000	4700	94	90	110
Copper	9/4/19	17:01	5000	4540	91	90	110
Iron	9/4/19	17:01	5000	4700	94	90	110
Magnesium	9/4/19	17:01	5000	4540	91	90	110
Manganese	9/4/19	17:01	5000	4580	92	90	110
Nickel	9/4/19	17:01	5000	4710	94	90	110
Vanadium	9/4/19	17:01	5000	4680	94	90	110
Zinc	9/4/19	17:01	5000	4880	98	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164036 Lab Sample ID: 324061

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	9/4/19	17:07	500.0	498.0	100	90	110
Barium	9/4/19	17:07	500.0	483.0	97	90	110
Beryllium	9/4/19	17:07	50.00	48.00	96	90	110
Cadmium	9/4/19	17:07	50.00	47.50	95	90	110
Calcium	9/4/19	17:07	500.0	497.0	99	90	110
Chromium	9/4/19	17:07	500.0	490.0	98	90	110
Cobalt	9/4/19	17:07	500.0	479.0	96	90	110
Copper	9/4/19	17:07	500.0	497.0	99	90	110
Iron	9/4/19	17:07	500.0	498.0	100	90	110
Magnesium	9/4/19	17:07	500.0	496.0	99	90	110
Manganese	9/4/19	17:07	500.0	480.0	96	90	110
Nickel	9/4/19	17:07	500.0	477.0	95	90	110
Vanadium	9/4/19	17:07	500.0	510.0	102	90	110
Zinc	9/4/19	17:07	500.0	482.0	96	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164047 Lab Sample ID: 324530

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	9/6/19	10:22	100000	100000	100	90	110
Sodium	9/6/19	10:22	100000	99500	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164047 Lab Sample ID: 324532

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	9/6/19	10:55	100000	100000	100	90	110
Sodium	9/6/19	10:55	100000	99000	99	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164047 Lab Sample ID: 324536

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	9/6/19	11:28	100000	101000	101	90	110
Sodium	9/6/19	11:28	100000	100000	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164046 Lab Sample ID: 325009

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	9/3/19	17:02	5000	5300	106	90	110
Barium	9/3/19	17:02	5000	5440	109	90	110
Beryllium	9/3/19	17:02	500.0	499.0	100	90	110
Cadmium	9/3/19	17:02	500.0	515.0	103	90	110
Calcium	9/3/19	17:02	5000	5030	101	90	110
Chromium	9/3/19	17:02	5000	5370	107	90	110
Cobalt	9/3/19	17:02	5000	5290	106	90	110
Copper	9/3/19	17:02	5000	5070	101	90	110
Iron	9/3/19	17:02	5000	5230	105	90	110
Magnesium	9/3/19	17:02	5000	5080	102	90	110
Manganese	9/3/19	17:02	5000	5030	101	90	110
Nickel	9/3/19	17:02	5000	4980	100	90	110
Vanadium	9/3/19	17:02	5000	5410	108	90	110
Zinc	9/3/19	17:02	5000	5160	103	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164046 Lab Sample ID: 325010

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	9/3/19	17:08	500.0	550.0	110	90	110
Barium	9/3/19	17:08	500.0	537.0	107	90	110
Beryllium	9/3/19	17:08	50.00	50.90	102	90	110
Cadmium	9/3/19	17:08	50.00	53.30	107	90	110
Calcium	9/3/19	17:08	500.0	541.0	108	90	110
Chromium	9/3/19	17:08	500.0	510.0	102	90	110
Cobalt	9/3/19	17:08	500.0	528.0	106	90	110
Copper	9/3/19	17:08	500.0	544.0	109	90	110
Iron	9/3/19	17:08	500.0	529.0	106	90	110
Magnesium	9/3/19	17:08	500.0	532.0	106	90	110
Manganese	9/3/19	17:08	500.0	547.0	109	90	110
Nickel	9/3/19	17:08	500.0	538.0	108	90	110
Vanadium	9/3/19	17:08	500.0	547.0	109	90	110
Zinc	9/3/19	17:08	500.0	527.0	105	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164046 Lab Sample ID: 325014

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	9/3/19	18:24	5000	5390	108	90	110
Barium	9/3/19	18:24	5000	5410	108	90	110
Beryllium	9/3/19	18:24	500.0	496.0	99	90	110
Cadmium	9/3/19	18:24	500.0	504.0	101	90	110
Calcium	9/3/19	18:24	5000	4990	100	90	110
Chromium	9/3/19	18:24	5000	5370	107	90	110
Cobalt	9/3/19	18:24	5000	5280	106	90	110
Copper	9/3/19	18:24	5000	5130	103	90	110
Iron	9/3/19	18:24	5000	5260	105	90	110
Magnesium	9/3/19	18:24	5000	5230	105	90	110
Manganese	9/3/19	18:24	5000	5050	101	90	110
Nickel	9/3/19	18:24	5000	4960	99	90	110
Vanadium	9/3/19	18:24	5000	5500	110	90	110
Zinc	9/3/19	18:24	5000	5130	103	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164046 Lab Sample ID: 325015

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	9/3/19	18:30	500.0	550.0	110	90	110
Barium	9/3/19	18:30	500.0	533.0	107	90	110
Beryllium	9/3/19	18:30	50.00	50.10	100	90	110
Cadmium	9/3/19	18:30	50.00	52.40	105	90	110
Calcium	9/3/19	18:30	500.0	547.0	109	90	110
Chromium	9/3/19	18:30	500.0	504.0	101	90	110
Cobalt	9/3/19	18:30	500.0	521.0	104	90	110
Copper	9/3/19	18:30	500.0	549.0	110	90	110
Iron	9/3/19	18:30	500.0	518.0	104	90	110
Magnesium	9/3/19	18:30	500.0	525.0	105	90	110
Manganese	9/3/19	18:30	500.0	529.0	106	90	110
Nickel	9/3/19	18:30	500.0	534.0	107	90	110
Vanadium	9/3/19	18:30	500.0	535.0	107	90	110
Zinc	9/3/19	18:30	500.0	520.0	104	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164036 Lab Sample ID: 325322

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	9/10/19	01:44	5000	4610	92	90	110
Barium	9/10/19	01:44	5000	4650	93	90	110
Beryllium	9/10/19	01:44	500.0	457.0	91	90	110
Cadmium	9/10/19	01:44	500.0	466.0	93	90	110
Calcium	9/10/19	01:44	5000	4480	90	90	110
Chromium	9/10/19	01:44	5000	4790	96	90	110
Cobalt	9/10/19	01:44	5000	4720	94	90	110
Copper	9/10/19	01:44	5000	4590	92	90	110
Iron	9/10/19	01:44	5000	4670	93	90	110
Magnesium	9/10/19	01:44	5000	5160	103	90	110
Manganese	9/10/19	01:44	5000	4530	91	90	110
Nickel	9/10/19	01:44	5000	4710	94	90	110
Vanadium	9/10/19	01:44	5000	4620	92	90	110
Zinc	9/10/19	01:44	5000	4750	95	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164036 Lab Sample ID: 325323

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	9/10/19	01:50	500.0	475.0	95	90	110
Barium	9/10/19	01:50	500.0	471.0	94	90	110
Beryllium	9/10/19	01:50	50.00	46.70	93	90	110
Cadmium	9/10/19	01:50	50.00	47.10	94	90	110
Calcium	9/10/19	01:50	500.0	453.0	91	90	110
Chromium	9/10/19	01:50	500.0	469.0	94	90	110
Cobalt	9/10/19	01:50	500.0	494.0	99	90	110
Copper	9/10/19	01:50	500.0	487.0	97	90	110
Iron	9/10/19	01:50	500.0	496.0	99	90	110
Magnesium	9/10/19	01:50	500.0	484.0	97	90	110
Manganese	9/10/19	01:50	500.0	504.0	101	90	110
Nickel	9/10/19	01:50	500.0	501.0	100	90	110
Vanadium	9/10/19	01:50	500.0	491.0	98	90	110
Zinc	9/10/19	01:50	500.0	469.0	94	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164036 Lab Sample ID: 325325

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	9/10/19	03:07	5000	4660	93	90	110
Barium	9/10/19	03:07	5000	4690	94	90	110
Beryllium	9/10/19	03:07	500.0	461.0	92	90	110
Cadmium	9/10/19	03:07	500.0	463.0	93	90	110
Calcium	9/10/19	03:07	5000	4520	90	90	110
Chromium	9/10/19	03:07	5000	4800	96	90	110
Cobalt	9/10/19	03:07	5000	4740	95	90	110
Copper	9/10/19	03:07	5000	4570	91	90	110
Iron	9/10/19	03:07	5000	4710	94	90	110
Magnesium	9/10/19	03:07	5000	5150	103	90	110
Manganese	9/10/19	03:07	5000	4580	92	90	110
Nickel	9/10/19	03:07	5000	4710	94	90	110
Vanadium	9/10/19	03:07	5000	4660	93	90	110
Zinc	9/10/19	03:07	5000	4750	95	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164036 Lab Sample ID: 325326

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	9/10/19	03:13	500.0	475.0	95	90	110
Barium	9/10/19	03:13	500.0	471.0	94	90	110
Beryllium	9/10/19	03:13	50.00	47.10	94	90	110
Cadmium	9/10/19	03:13	50.00	46.90	94	90	110
Calcium	9/10/19	03:13	500.0	454.0	91	90	110
Chromium	9/10/19	03:13	500.0	478.0	96	90	110
Cobalt	9/10/19	03:13	500.0	491.0	98	90	110
Copper	9/10/19	03:13	500.0	485.0	97	90	110
Iron	9/10/19	03:13	500.0	506.0	101	90	110
Magnesium	9/10/19	03:13	500.0	491.0	98	90	110
Manganese	9/10/19	03:13	500.0	507.0	101	90	110
Nickel	9/10/19	03:13	500.0	499.0	100	90	110
Vanadium	9/10/19	03:13	500.0	494.0	99	90	110
Zinc	9/10/19	03:13	500.0	467.0	93	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

MRL

2B

MRL STANDARD CHECK

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164047 Lab Sample ID: 324527

ICAL Calibration #: Concentration Units:

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	9/6/19	09:45	1000	1000	100	70	130
Sodium	9/6/19	09:45	1000	1070	107	70	130

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

MRL

2B

MRL STANDARD CHECK

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164035 Lab Sample ID: 324555

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	9/6/19	09:45	1000	1000	100	70	130
Sodium	9/6/19	09:45	1000	1070	107	70	130

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164096 Lab Sample ID: 322958

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: 09042019 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	09/04/2019 09:31	-0.0310	U	0.03	0.06

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164151 Lab Sample ID: 323603

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: 09052019 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	09/05/2019 09:05	-0.00500	U	0.03	0.10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164036 Lab Sample ID: 324045

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	09/04/2019 11:11	-2.73	U	6	4.8
Barium	09/04/2019 11:11	-0.773	U	0.29	1.0
Beryllium	09/04/2019 11:11	0.0160	U	0.10	0.48
Cadmium	09/04/2019 11:11	-0.162	U	0.3	0.8
Calcium	09/04/2019 11:11	3.87	U	17	28
Chromium	09/04/2019 11:11	-0.695	U	0.6	2.8
Cobalt	09/04/2019 11:11	-0.0860	U	0.7	4.8
Copper	09/04/2019 11:11	0.420	U	1.2	8.0
Iron	09/04/2019 11:11	-15.5	U	16	36
Magnesium	09/04/2019 11:11	-0.819	U	6	16
Manganese	09/04/2019 11:11	-0.0310	U	0.7	3.0
Nickel	09/04/2019 11:11	0.268	U	1.0	2.4
Vanadium	09/04/2019 11:11	0.192	U	0.8	1.6
Zinc	09/04/2019 11:11	-1.68	U	1.6	6.0

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164047 Lab Sample ID: 324526

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Potassium	09/06/2019 09:43	6.00	U	90	250
Sodium	09/06/2019 09:43	28.00	U	100	300

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164035 Lab Sample ID: 324554

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Potassium	09/06/2019 09:43	6.00	U	90	1320
Sodium	09/06/2019 09:43	28.00	U	100	480

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164046 Lab Sample ID: 325005

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	09/03/2019 13:55	-0.872	U	6	18
Barium	09/03/2019 13:55	-0.475	U	0.29	0.90
Beryllium	09/03/2019 13:55	-0.0350	U	0.10	0.30
Cadmium	09/03/2019 13:55	-0.195	U	0.3	1.0
Calcium	09/03/2019 13:55	9.13	U	17	50
Chromium	09/03/2019 13:55	-0.585	U	0.6	2.0
Cobalt	09/03/2019 13:55	-0.114	U	0.7	2.0
Copper	09/03/2019 13:55	1.72		1.2	3.5
Iron	09/03/2019 13:55	3.51	U	16	50
Magnesium	09/03/2019 13:55	0.749	U	6	20
Manganese	09/03/2019 13:55	0.0970	U	0.7	2.0
Nickel	09/03/2019 13:55	-0.411	U	1.0	3.0
Vanadium	09/03/2019 13:55	-0.0600	U	0.8	2.5
Zinc	09/03/2019 13:55	0.0100	U	1.6	4.0

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164036 Lab Sample ID: 325318

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	09/09/2019 11:28	-10.2	U	6	4.8
Barium	09/09/2019 11:28	-0.112	U	0.29	1.0
Beryllium	09/09/2019 11:28	0.0150	U	0.10	0.48
Cadmium	09/09/2019 11:28	-0.179	U	0.3	0.8
Calcium	09/09/2019 11:28	0.208	U	17	28
Chromium	09/09/2019 11:28	-1.19	U	0.6	2.8
Cobalt	09/09/2019 11:28	-0.155	U	0.7	4.8
Copper	09/09/2019 11:28	0.594	U	1.2	8.0
Iron	09/09/2019 11:28	-14.6	U	16	36
Magnesium	09/09/2019 11:28	-1.37	U	6	16
Manganese	09/09/2019 11:28	-0.0300	U	0.7	3.0
Nickel	09/09/2019 11:28	-0.158	U	1.0	2.4
Vanadium	09/09/2019 11:28	0.0980	U	0.8	1.6
Zinc	09/09/2019 11:28	-0.405	U	1.6	6.0

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164096 Lab Sample ID: 322960

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: 09042019 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	09/04/2019 09:59	-0.0440	U	0.03	0.06

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164151 Lab Sample ID: 323606

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: 09052019 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	09/05/2019 09:47	-0.00700	U	0.03	0.10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164151 Lab Sample ID: 323608

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: 09052019 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	09/05/2019 10:47	-0.0100	U	0.03	0.10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164151 Lab Sample ID: 323612

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: 09052019 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	09/05/2019 11:37	0.00800	U	0.03	0.10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164151 Lab Sample ID: 323614

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: 09052019 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	09/05/2019 12:06	0.00500	U	0.03	0.10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164151 Lab Sample ID: 323616

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: 09052019 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	09/05/2019 12:34	0.00800	U	0.03	0.10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164036 Lab Sample ID: 324051

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	09/04/2019 13:03	-2.67	U	6	4.8
Barium	09/04/2019 13:03	-0.310	U	0.29	1.0
Beryllium	09/04/2019 13:03	0.0180	U	0.10	0.48
Cadmium	09/04/2019 13:03	-0.272	U	0.3	0.8
Calcium	09/04/2019 13:03	11.90	U	17	28
Chromium	09/04/2019 13:03	-0.688	U	0.6	2.8
Cobalt	09/04/2019 13:03	-0.0580	U	0.7	4.8
Copper	09/04/2019 13:03	0.571	U	1.2	8.0
Iron	09/04/2019 13:03	-15.0	U	16	36
Magnesium	09/04/2019 13:03	-0.556	U	6	16
Manganese	09/04/2019 13:03	0.210	U	0.7	3.0
Nickel	09/04/2019 13:03	0.130	U	1.0	2.4
Vanadium	09/04/2019 13:03	0.177	U	0.8	1.6
Zinc	09/04/2019 13:03	-1.35	U	1.6	6.0

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164036 Lab Sample ID: 324055

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	09/04/2019 14:26	-2.01	U	6	4.8
Barium	09/04/2019 14:26	-0.360	U	0.29	1.0
Beryllium	09/04/2019 14:26	0.0390	U	0.10	0.48
Cadmium	09/04/2019 14:26	-0.269	U	0.3	0.8
Calcium	09/04/2019 14:26	12.40	U	17	28
Chromium	09/04/2019 14:26	-0.286	U	0.6	2.8
Cobalt	09/04/2019 14:26	0.0720	U	0.7	4.8
Copper	09/04/2019 14:26	0.569	U	1.2	8.0
Iron	09/04/2019 14:26	-14.2	U	16	36
Magnesium	09/04/2019 14:26	-0.415	U	6	16
Manganese	09/04/2019 14:26	0.253	U	0.7	3.0
Nickel	09/04/2019 14:26	0.551	U	1.0	2.4
Vanadium	09/04/2019 14:26	0.716	U	0.8	1.6
Zinc	09/04/2019 14:26	-1.26	U	1.6	6.0

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164036 Lab Sample ID: 324059

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit	
Aluminum	09/04/2019 15:52	-2.85	U	6	4.8	
Barium	09/04/2019 15:52	-0.234	U	0.29	1.0	
Beryllium	09/04/2019 15:52	0.0240	U	0.10	0.48	
Cadmium	09/04/2019 15:52	-0.194	U	0.3	0.8	
Calcium	09/04/2019 15:52	29.70		17	28	FAIL
Chromium	09/04/2019 15:52	0.178	U	0.6	2.8	
Cobalt	09/04/2019 15:52	-0.0840	U	0.7	4.8	
Copper	09/04/2019 15:52	1.04	U	1.2	8.0	
Iron	09/04/2019 15:52	-14.1	U	16	36	
Magnesium	09/04/2019 15:52	-0.610	U	6	16	
Manganese	09/04/2019 15:52	0.320	U	0.7	3.0	
Nickel	09/04/2019 15:52	0.610	U	1.0	2.4	
Vanadium	09/04/2019 15:52	0.394	U	0.8	1.6	
Zinc	09/04/2019 15:52	-1.27	U	1.6	6.0	

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164036 Lab Sample ID: 324062

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	09/04/2019 17:12	-2.02	U	6	4.8
Barium	09/04/2019 17:12	-0.205	U	0.29	1.0
Beryllium	09/04/2019 17:12	0.0440	U	0.10	0.48
Cadmium	09/04/2019 17:12	-0.303	U	0.3	0.8
Calcium	09/04/2019 17:12	15.10	U	17	28
Chromium	09/04/2019 17:12	-0.165	U	0.6	2.8
Cobalt	09/04/2019 17:12	-0.112	U	0.7	4.8
Copper	09/04/2019 17:12	0.647	U	1.2	8.0
Iron	09/04/2019 17:12	-13.9	U	16	36
Magnesium	09/04/2019 17:12	-0.265	U	6	16
Manganese	09/04/2019 17:12	0.312	U	0.7	3.0
Nickel	09/04/2019 17:12	0.420	U	1.0	2.4
Vanadium	09/04/2019 17:12	0.503	U	0.8	1.6
Zinc	09/04/2019 17:12	-1.10	U	1.6	6.0

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164047 Lab Sample ID: 324531

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Potassium	09/06/2019 10:25	30.00	U	90	250
Sodium	09/06/2019 10:25	46.00	U	100	300

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164047 Lab Sample ID: 324533

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Potassium	09/06/2019 10:58	16.00	U	90	250
Sodium	09/06/2019 10:58	42.00	U	100	300

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164047 Lab Sample ID: 324537

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Potassium	09/06/2019 11:31	-141	U	90	250
Sodium	09/06/2019 11:31	51.00	U	100	300

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164035 Lab Sample ID: 324559

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Potassium	09/06/2019 12:05	-202	U	90	1320
Sodium	09/06/2019 12:05	59.00	U	100	480

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164035 Lab Sample ID: 324561

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Potassium	09/06/2019 12:37	-96.0	U	90	1320
Sodium	09/06/2019 12:37	39.00	U	100	480

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164035 Lab Sample ID: 324565

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Potassium	09/06/2019 13:10	-180	U	90	1320
Sodium	09/06/2019 13:10	49.00	U	100	480

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164035 Lab Sample ID: 324567

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Potassium	09/06/2019 13:44	-114	U	90	1320
Sodium	09/06/2019 13:44	41.00	U	100	480

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164046 Lab Sample ID: 325011

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	09/03/2019 17:14	-3.11	U	6	18
Barium	09/03/2019 17:14	-0.614	U	0.29	0.90
Beryllium	09/03/2019 17:14	-0.00200	U	0.10	0.30
Cadmium	09/03/2019 17:14	0.160	U	0.3	1.0
Calcium	09/03/2019 17:14	20.60		17	50
Chromium	09/03/2019 17:14	-0.0610	U	0.6	2.0
Cobalt	09/03/2019 17:14	0.152	U	0.7	2.0
Copper	09/03/2019 17:14	2.72		1.2	3.5
Iron	09/03/2019 17:14	-1.24	U	16	50
Magnesium	09/03/2019 17:14	1.24	U	6	20
Manganese	09/03/2019 17:14	0.262	U	0.7	2.0
Nickel	09/03/2019 17:14	-0.239	U	1.0	3.0
Vanadium	09/03/2019 17:14	0.178	U	0.8	2.5
Zinc	09/03/2019 17:14	0.193	U	1.6	5.0

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164046 Lab Sample ID: 325016

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	09/03/2019 18:36	-2.76	U	6	18
Barium	09/03/2019 18:36	-0.543	U	0.29	0.90
Beryllium	09/03/2019 18:36	0.0140	U	0.10	0.30
Cadmium	09/03/2019 18:36	-0.0140	U	0.3	1.0
Calcium	09/03/2019 18:36	17.30		17	50
Chromium	09/03/2019 18:36	-0.00200	U	0.6	2.0
Cobalt	09/03/2019 18:36	0.135	U	0.7	2.0
Copper	09/03/2019 18:36	-0.265	U	1.2	3.5
Iron	09/03/2019 18:36	-2.08	U	16	50
Magnesium	09/03/2019 18:36	-0.673	U	6	20
Manganese	09/03/2019 18:36	0.142	U	0.7	2.0
Nickel	09/03/2019 18:36	-0.552	U	1.0	3.0
Vanadium	09/03/2019 18:36	0.208	U	0.8	2.5
Zinc	09/03/2019 18:36	0.256	U	1.6	5.0

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164036 Lab Sample ID: 325324

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	09/10/2019 01:56	-6.77	U	6	4.8
Barium	09/10/2019 01:56	0.610		0.29	1.0
Beryllium	09/10/2019 01:56	0.0210	U	0.10	0.48
Cadmium	09/10/2019 01:56	-0.00700	U	0.3	0.8
Calcium	09/10/2019 01:56	24.60		17	28
Chromium	09/10/2019 01:56	-1.02	U	0.6	2.8
Cobalt	09/10/2019 01:56	0.130	U	0.7	4.8
Copper	09/10/2019 01:56	0.951	U	1.2	8.0
Iron	09/10/2019 01:56	-15.7	U	16	36
Magnesium	09/10/2019 01:56	1.68	U	6	16
Manganese	09/10/2019 01:56	1.04		0.7	3.0
Nickel	09/10/2019 01:56	-0.0230	U	1.0	2.4
Vanadium	09/10/2019 01:56	-0.351	U	0.8	1.6
Zinc	09/10/2019 01:56	0.558	U	1.6	6.0

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164036 Lab Sample ID: 325327

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	09/10/2019 03:19	-7.51	U	6	4.8
Barium	09/10/2019 03:19	0.0660	U	0.29	1.0
Beryllium	09/10/2019 03:19	0.0280	U	0.10	0.48
Cadmium	09/10/2019 03:19	0.0320	U	0.3	0.8
Calcium	09/10/2019 03:19	25.80		17	28
Chromium	09/10/2019 03:19	-1.49	U	0.6	2.8
Cobalt	09/10/2019 03:19	-0.00800	U	0.7	4.8
Copper	09/10/2019 03:19	1.42		1.2	8.0
Iron	09/10/2019 03:19	-15.3	U	16	36
Magnesium	09/10/2019 03:19	1.92	U	6	16
Manganese	09/10/2019 03:19	0.901		0.7	3.0
Nickel	09/10/2019 03:19	-0.118	U	1.0	2.4
Vanadium	09/10/2019 03:19	-0.142	U	0.8	1.6
Zinc	09/10/2019 03:19	0.556	U	1.6	6.0

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164151 Lab Sample ID: 321260

Analytical Prep Batch # 73320 Preparation Date/Time: 09/03/2019 12:34

ICAL Calibration #: 09052019 Concentration Units: mg/kg

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	09/05/2019 09:24	0.00013	U	0.0021	0.00415

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
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Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164096 Lab Sample ID: 321632

Analytical Prep Batch # 73342 Preparation Date/Time: 09/03/2019 12:10

ICAL Calibration #: 09042019 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Mercury	09/04/2019 09:43	-0.00800	U	0.03	0.06

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
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Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164035 Lab Sample ID: 321858

Analytical Prep Batch # 73351 Preparation Date/Time: 08/30/2019 10:52

ICAL Calibration #: Concentration Units: mg/kg

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Potassium	09/06/2019 12:10	-1.6	U	11	33
Sodium	09/06/2019 12:10	1.6	U	4	12

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
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Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164035 Lab Sample ID: 321858

Analytical Prep Batch # 73351 Preparation Date/Time: 08/30/2019 10:52

ICAL Calibration #: Concentration Units: mg/kg

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Potassium	09/06/2019 12:10	-1.6	U	11	33
Sodium	09/06/2019 12:10	1.6	U	4	12

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164036 Lab Sample ID: 321858

Analytical Prep Batch # 73351 Preparation Date/Time: 08/30/2019 10:52

ICAL Calibration #: Concentration Units: mg/kg

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit	
Aluminum	09/04/2019 12:33	0.097		0.04	0.12	FAIL
Barium	09/04/2019 12:33	-0.0056	U	0.009	0.025	
Beryllium	09/04/2019 12:33	0.00060	U	0.004	0.020	
Cadmium	09/04/2019 12:33	-0.0073	U	0.006	0.020	
Calcium	09/04/2019 12:33	-0.33	U	0.24	0.70	
Chromium	09/04/2019 12:33	-0.023	U	0.023	0.125	
Cobalt	09/04/2019 12:33	-0.0058	U	0.04	0.12	
Copper	09/04/2019 12:33	0.17		0.07	0.20	FAIL
Iron	09/04/2019 12:33	0.037	U	0.3	0.9	
Magnesium	09/04/2019 12:33	0.025	U	0.14	0.40	
Manganese	09/04/2019 12:33	-0.0039	U	0.025	0.075	
Nickel	09/04/2019 12:33	0.012	U	0.021	0.060	
Vanadium	09/04/2019 12:33	-0.0031	U	0.012	0.040	
Zinc	09/04/2019 12:33	-0.020	U	0.05	0.15	

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
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Sample No

3-3

MB

METHOD BLANKS

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164046 Lab Sample ID: 322204

Analytical Prep Batch # 73360 Preparation Date/Time: 08/30/2019 11:17

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Aluminum	09/03/2019 17:40	-1.30	U	6	18
Total Barium	09/03/2019 17:40	-0.573	U	0.29	0.90
Total Beryllium	09/03/2019 17:40	-0.0100	U	0.10	0.30
Total Cadmium	09/03/2019 17:40	0.0490	U	0.3	1.0
Total Calcium	09/03/2019 17:40	-3.73	U	17	50
Total Chromium	09/03/2019 17:40	0.0650	U	0.6	2.0
Total Cobalt	09/03/2019 17:40	-0.144	U	0.7	2.0
Total Copper	09/03/2019 17:40	0.412	U	1.2	3.5
Total Iron	09/03/2019 17:40	2.15	U	16	50
Total Magnesium	09/03/2019 17:40	-2.42	U	6	20
Total Manganese	09/03/2019 17:40	-0.264	U	0.7	2.0
Total Nickel	09/03/2019 17:40	-0.882	U	1.0	3.0
Total Vanadium	09/03/2019 17:40	0.281	U	0.8	2.5
Total Zinc	09/03/2019 17:40	0.410	U	1.6	5.0

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
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Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164047 Lab Sample ID: 322204

Analytical Prep Batch # 73360 Preparation Date/Time: 08/30/2019 11:17

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Potassium	09/06/2019 10:52	-190	U	90	250
Total Sodium	09/06/2019 10:52	35.00	U	100	300

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
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Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Analytical Run #: 164047 Lab Sample ID: 322204

Analytical Prep Batch # 73360 Preparation Date/Time: 08/30/2019 11:17

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Potassium	09/06/2019 10:52	-190	U	90	250
Total Sodium	09/06/2019 10:52	35.00	U	100	300

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No:

4-1

ICP INTERFERENCE CHECK SAMPLE (SOL. A)

ICSA

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT
ICP ID Number: TJA 6000
SDG No.: 147664
ICS Source: SPEX

Analytical Run #: 164036
Lab Sample ID: 324046
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	09/04/2019 11:29	500000	560000	112	80	120
Barium	09/04/2019 11:29	0	0.168		-1.7	1.7
Beryllium	09/04/2019 11:29	0	-0.562		-0.7	0.7
Cadmium	09/04/2019 11:29	0	1.25		-1.3	1.3
Calcium	09/04/2019 11:29	500000	532000	106	80	120
Chromium	09/04/2019 11:29	0	2.89		-13	13
Cobalt	09/04/2019 11:29	0	-1.71		-2	2
Copper	09/04/2019 11:29	0	0.152		-7	7
Iron	09/04/2019 11:29	500000	498000	100	80	120
Magnesium	09/04/2019 11:29	500000	545000	109	80	120
Manganese	09/04/2019 11:29	0	-1.14		-7.3	7.3
Nickel	09/04/2019 11:29	0	-3.29		-7	7
Vanadium	09/04/2019 11:29	10000	11200		8000	12000
Zinc	09/04/2019 11:29	0	-5.43		-20	20

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No:

4-1

ICP INTERFERENCE CHECK SAMPLE (SOL. A)

ICSA

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT
ICP ID Number: TJA 6000
SDG No.: 147664
ICS Source: SPEX

Analytical Run #: 164047
Lab Sample ID: 324528
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	09/06/2019 09:48	500000	486000	97	80	120
Calcium	09/06/2019 09:48	500000	479000	96	80	120
Iron	09/06/2019 09:48	500000	477000	95	80	120
Magnesium	09/06/2019 09:48	500000	482000	96	80	120
Potassium	09/06/2019 09:48	0	-42.0		-170	170
Sodium	09/06/2019 09:48	0	0		-140	140

CT LABORATORIES
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Sample No:

4-1

ICP INTERFERENCE CHECK SAMPLE (SOL. A)

ICSA

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT
ICP ID Number: TJA 6000
SDG No.: 147664
ICS Source: SPEX

Analytical Run #: 164035
Lab Sample ID: 324556
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	09/06/2019 09:48	500000	486000	97	80	120
Calcium	09/06/2019 09:48	500000	479000	96	80	120
Iron	09/06/2019 09:48	500000	477000	95	80	120
Magnesium	09/06/2019 09:48	500000	482000	96	80	120
Potassium	09/06/2019 09:48	0	-42.0		-1320	1320
Sodium	09/06/2019 09:48	0	0		-480	480

CT LABORATORIES
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Sample No:

4-1

ICP INTERFERENCE CHECK SAMPLE (SOL. A)

ICSA

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT
ICP ID Number: TJA 6000
SDG No.: 147664
ICS Source: SPEX

Analytical Run #: 164046
Lab Sample ID: 325006
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	09/03/2019 14:13	500000	546000	109	80	120
Barium	09/03/2019 14:13	0	0		-1.7	1.7
Beryllium	09/03/2019 14:13	0	-0.327		-.7	.7
Cadmium	09/03/2019 14:13	0	0.00300		-1.3	1.3
Calcium	09/03/2019 14:13	500000	548000	110	80	120
Chromium	09/03/2019 14:13	0	2.76		-13	13
Cobalt	09/03/2019 14:13	0	0.208		-2	2
Copper	09/03/2019 14:13	0	-1.11		-7	7
Iron	09/03/2019 14:13	500000	487000	97	80	120
Magnesium	09/03/2019 14:13	500000	539000	108	80	120
Manganese	09/03/2019 14:13	0	-2.09		-7.3	7.3
Nickel	09/03/2019 14:13	0	-1.70		-7	7
Vanadium	09/03/2019 14:13	10000	11200		8000	12000
Zinc	09/03/2019 14:13	0	-1.35		-20	20

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No:

4-1

ICP INTERFERENCE CHECK SAMPLE (SOL. A)

ICSA

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT
ICP ID Number: TJA 6000
SDG No.: 147664
ICS Source: SPEX

Analytical Run #: 164036
Lab Sample ID: 325319
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	09/09/2019 11:47	500000	553000	111	80	120
Barium	09/09/2019 11:47	0	0		-1.7	1.7
Beryllium	09/09/2019 11:47	0	-0.401		-0.7	0.7
Cadmium	09/09/2019 11:47	0	0.00300		-1.3	1.3
Calcium	09/09/2019 11:47	500000	507000	101	80	120
Chromium	09/09/2019 11:47	0	3.17		-13	13
Cobalt	09/09/2019 11:47	0	0		-2	2
Copper	09/09/2019 11:47	0	0		-7	7
Iron	09/09/2019 11:47	500000	474000	95	80	120
Magnesium	09/09/2019 11:47	500000	487000	97	80	120
Manganese	09/09/2019 11:47	0	-2.09		-7.3	7.3
Nickel	09/09/2019 11:47	0	-2.77		-7	7
Vanadium	09/09/2019 11:47	10000	10700		8000	12000
Zinc	09/09/2019 11:47	0	-1.74		-20	20

CT LABORATORIES
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Sample No:

4-2

ICP INTERFERENCE CHECK SAMPLE (SOL. AB)

ICSAB

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT
ICP ID Number: TJA 6000
SDG No.: 147664
ICS Source: SPEX, Ultra

Analytical Run #: 164036
Lab Sample ID: 324047
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	09/04/2019 11:36	500000	500000	100	80	120
Barium	09/04/2019 11:36	500.0	468.0	94	80	120
Beryllium	09/04/2019 11:36	500.0	482.0	96	80	120
Cadmium	09/04/2019 11:36	500.0	507.0	101	80	120
Calcium	09/04/2019 11:36	500000	482000	96	80	120
Chromium	09/04/2019 11:36	500.0	462.0	92	80	120
Cobalt	09/04/2019 11:36	500.0	455.0	91	80	120
Copper	09/04/2019 11:36	500.0	475.0	95	80	120
Iron	09/04/2019 11:36	500000	448000	90	80	120
Magnesium	09/04/2019 11:36	500000	489000	98	80	120
Manganese	09/04/2019 11:36	500.0	468.0	94	80	120
Nickel	09/04/2019 11:36	500.0	436.0	87	80	120
Vanadium	09/04/2019 11:36	500.0	513.0	103	80	120
Zinc	09/04/2019 11:36	500.0	486.0	97	80	120

CT LABORATORIES
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Sample No:

4-2

ICP INTERFERENCE CHECK SAMPLE (SOL. AB)

ICSAB

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT
ICP ID Number: TJA 6000
SDG No.: 147664
ICS Source: SPEX, Ultra

Analytical Run #: 164047
Lab Sample ID: 324529
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	09/06/2019 09:51	500000	457000	91	80	120
Calcium	09/06/2019 09:51	500000	451000	90	80	120
Iron	09/06/2019 09:51	500000	459000	92	80	120
Magnesium	09/06/2019 09:51	500000	451000	90	80	120
Potassium	09/06/2019 09:51	100000	106000	106	80	120
Sodium	09/06/2019 09:51	100000	104000	104	80	120

CT LABORATORIES
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Sample No:

4-2

ICP INTERFERENCE CHECK SAMPLE (SOL. AB)

ICSAB

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT
ICP ID Number: TJA 6000
SDG No.: 147664
ICS Source: SPEX, Ultra

Analytical Run #: 164035
Lab Sample ID: 324557
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	09/06/2019 09:51	500000	457000	91	80	120
Calcium	09/06/2019 09:51	500000	451000	90	80	120
Iron	09/06/2019 09:51	500000	459000	92	80	120
Magnesium	09/06/2019 09:51	500000	451000	90	80	120
Potassium	09/06/2019 09:51	100000	106000	106	80	120
Sodium	09/06/2019 09:51	100000	104000	104	80	120

CT LABORATORIES
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Sample No:

4-2

ICP INTERFERENCE CHECK SAMPLE (SOL. AB)

ICSAB

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT
ICP ID Number: TJA 6000
SDG No.: 147664
ICS Source: SPEX, Ultra

Analytical Run #: 164046
Lab Sample ID: 325007
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	09/03/2019 14:20	500000	505000	101	80	120
Barium	09/03/2019 14:20	500.0	466.0	93	80	120
Beryllium	09/03/2019 14:20	500.0	455.0	91	80	120
Cadmium	09/03/2019 14:20	500.0	505.0	101	80	120
Calcium	09/03/2019 14:20	500000	508000	102	80	120
Chromium	09/03/2019 14:20	500.0	456.0	91	80	120
Cobalt	09/03/2019 14:20	500.0	453.0	91	80	120
Copper	09/03/2019 14:20	500.0	470.0	94	80	120
Iron	09/03/2019 14:20	500000	454000	91	80	120
Magnesium	09/03/2019 14:20	500000	497000	99	80	120
Manganese	09/03/2019 14:20	500.0	517.0	103	80	120
Nickel	09/03/2019 14:20	500.0	444.0	89	80	120
Vanadium	09/03/2019 14:20	500.0	525.0	105	80	120
Zinc	09/03/2019 14:20	500.0	482.0	96	80	120

CT LABORATORIES
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Sample No:

4-2

ICP INTERFERENCE CHECK SAMPLE (SOL. AB)

ICSAB

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT
ICP ID Number: TJA 6000
SDG No.: 147664
ICS Source: SPEX, Ultra

Analytical Run #: 164036
Lab Sample ID: 325320
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	09/09/2019 11:54	500000	495000	99	80	120
Barium	09/09/2019 11:54	500.0	464.0	93	80	120
Beryllium	09/09/2019 11:54	500.0	473.0	95	80	120
Cadmium	09/09/2019 11:54	500.0	501.0	100	80	120
Calcium	09/09/2019 11:54	500000	474000	95	80	120
Chromium	09/09/2019 11:54	500.0	448.0	90	80	120
Cobalt	09/09/2019 11:54	500.0	477.0	95	80	120
Copper	09/09/2019 11:54	500.0	469.0	94	80	120
Iron	09/09/2019 11:54	500000	446000	89	80	120
Magnesium	09/09/2019 11:54	500000	451000	90	80	120
Manganese	09/09/2019 11:54	500.0	500.0	100	80	120
Nickel	09/09/2019 11:54	500.0	463.0	93	80	120
Vanadium	09/09/2019 11:54	500.0	508.0	102	80	120
Zinc	09/09/2019 11:54	500.0	480.0	96	80	120

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5A

SPIKE SAMPLE RECOVERY

Sample Description

GN-SO-04-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOLID	SDG No.:	147664
% Solids for Sample:	86.8	Concentration Units:	mg/kg
Sample No	321264	Parent Sample No.:	321161
Analytical Prep Batch #	73320	Analytical Preparation Date/Time:	09/03/2019 12:34
Analytical Run #:	164151	ICAL Calibration #:	09052019

Analysis Type	*Initial Analysis*	Analysis Date: -----	09/05/2019	Analysis Time: --------	12:17

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Mercury	82-124	0.15		0.039		0.10	111		CV

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description

GN-W-RB-01

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	LIQUID	SDG No.:	147664
% Solids for Sample:		Concentration Units:	ug/L
Sample No	321635	Parent Sample No.:	321513
Analytical Prep Batch #	73342	Analytical Preparation Date/Time:	09/03/2019 12:10
Analytical Run #:	164096	ICAL Calibration #:	09042019

Analysis Type	*Initial Analysis*	Analysis Date: -----	09/04/2019	Analysis Time: --------	09:50

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Mercury	82-119	1.8		BDL	U	2.0	90		CV

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description

GN-W-RB-01

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	LIQUID	SDG No.:	147664
% Solids for Sample:		Concentration Units:	ug/L
Sample No	321629	Parent Sample No.:	321513
Analytical Prep Batch #	73340	Analytical Preparation Date/Time:	08/30/2019
Analytical Run #:	164032	ICAL Calibration #:	

Analysis Type | Analysis Date: ----- 08/30/2019 | Analysis Time: --------

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Aluminum	80-120								P
Total Barium	80-120								P
Total Beryllium	80-120								P
Total Cadmium	80-120								P
Total Calcium	80-120								P
Total Chromium	80-120								P
Total Cobalt	80-120								P
Total Copper	80-120								P
Total Iron	80-120								P
Total Magnesium	80-120								P
Total Manganese	80-120								P
Total Nickel	80-120								P
Total Vanadium	80-120								P
Total Zinc	80-120								P

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description

GN-SO-04-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOLID	SDG No.:	147664
% Solids for Sample:	86.8	Concentration Units:	mg/kg
Sample No	321856	Parent Sample No.:	321161
Analytical Prep Batch #	73351	Analytical Preparation Date/Time:	08/30/2019 10:52
Analytical Run #:	164035	ICAL Calibration #:	

Analysis Type	*Initial Analysis*	Analysis Date: -----	09/06/2019	Analysis Time: --------	12:45

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Potassium	81-116	3860		642		2970	108		P
Sodium	83-118	3150		25.4	J	2970	105		P

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description

GN-SO-04-1

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT
Matrix: SOLID
SDG No.: 147664
% Solids for Sample: 86.8
Concentration Units: mg/kg
Sample No 321856
Parent Sample No.: 321161
Analytical Prep Batch # 73351
Analytical Preparation Date/Time: 08/30/2019 10:52
Analytical Run #: 164036
ICAL Calibration #:

Analysis Type *Initial Analysis* Analysis Date: ----- 09/04/2019 Analysis Time: -------- 14:01

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M	
Aluminum	74-119	10700		9220		119	1244		P	*FAIL*
Barium	83-113	230		119		119	93		P	
Beryllium	83-113	3.0		0.16		3.0	95		P	
Cadmium	82-113	3.3		BDL	U	3.0	110		P	
Calcium	81-116	10400		4690		5940	96		P	
Chromium	85-113	20.6		9.7		11.9	92		P	
Cobalt	85-112	32.4		7.7		29.7	83		P	*FAIL*
Copper	81-117	24.4		10.3		14.8	95		P	
Iron	81-118	13100		12600		59.4	842		P	*FAIL*
Magnesium	78-115	4160		1370		2970	94		P	
Manganese	84-114	499		576		29.7	0		P	*FAIL*
Nickel	83-113	38.0		9.5		29.7	96		P	
Vanadium	82-114	47.8		19.3		29.7	96		P	
Zinc	82-113	76.6		49.5		29.7	91		P	

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description

GN-W-RB-01

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT
Matrix: LIQUID
SDG No.: 147664
% Solids for Sample:
Concentration Units: ug/L
Sample No 322207
Parent Sample No.: 321513
Analytical Prep Batch # 73360
Analytical Preparation Date/Time: 08/30/2019 11:17
Analytical Run #: 164046
ICAL Calibration #:

Analysis Type *Initial Analysis* Analysis Date: ----- 09/03/2019 Analysis Time: -------- 18:05

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Aluminum	86-115	791		BDL	U	800	99		P
Total Barium	88-113	797		BDL	U	800	100		P
Total Beryllium	89-112	19.2		BDL	U	20.0	96		P
Total Cadmium	88-113	19.7		BDL	U	20.0	98		P
Total Calcium	87-113	197000		55.1	J	200000	98		P
Total Chromium	90-113	76.7		BDL	U	80.0	96		P
Total Cobalt	89-114	193		BDL	U	200	96		P
Total Copper	86-114	111		BDL	U	100	111		P
Total Iron	87-115	370		BDL	U	400	92		P
Total Magnesium	85-113	104000		BDL	U	100000	104		P
Total Manganese	90-114	197		BDL	U	200	98		P
Total Nickel	88-113	199		BDL	U	200	100		P
Total Vanadium	90-111	213		BDL	U	200	106		P
Total Zinc	87-115	203		BDL	U	200	102		P

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description

GN-W-RB-01

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	LIQUID	SDG No.:	147664
% Solids for Sample:		Concentration Units:	ug/L
Sample No	322207	Parent Sample No.:	321513
Analytical Prep Batch #	73360	Analytical Preparation Date/Time:	08/30/2019 11:17
Analytical Run #:	164047	ICAL Calibration #:	

Analysis Type *Initial Analysis* Analysis Date: ----- 09/06/2019 Analysis Time: -------- 11:09

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Potassium	86-114	106000		BDL	U	100000	106		P
Total Sodium	87-115	103000		371	J	100000	103		P

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5B

POST DIGESTION SPIKE SAMPLE RECOVERY

Sample Description: **GN-SO-04-1**

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT
Matrix: SOLID
SDG No.: 147664
% Solids for Sample: 86.8
Concentration Units: ug/L
Sample No: 324056
Parent Sample No.: 321161
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 164036
ICAL Calibration #:

Analysis Type: *Initial Analysis* Analysis Date: ----- 09/04/2019 Analysis Time: -------- 14:32

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M	
Aluminum	80-120	288000.		309000.		4000	0		P	*FAIL*
Cobalt	80-120	1070.		257		1000	81		P	
Iron	80-120	428000.		422000.		2000	300		P	*FAIL*
Manganese	80-120	19100.		19300.		1000	0		P	*FAIL*

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5B

POST DIGESTION SPIKE SAMPLE RECOVERY

Sample Description: **GN-W-RB-01**

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	LIQUID	SDG No.:	147664
% Solids for Sample:		Concentration Units:	ug/L
Sample No	324535	Parent Sample No.:	321513
Analytical Prep Batch #	0	Analytical Preparation Date/Time:	
Analytical Run #:	164047	ICAL Calibration #:	

Analysis Type: *Initial Analysis* Analysis Date: ----- 09/06/2019 Analysis Time: -------- 11:14

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Potassium	80-120.	107000		BDL	U	100000	107		P
Sodium	80-120.	109000		371	J	100000	109		P

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5B

POST DIGESTION SPIKE SAMPLE RECOVERY

Sample Description

GN-SO-04-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOLID	SDG No.:	147664
% Solids for Sample:	86.8	Concentration Units:	ug/L
Sample No	324563	Parent Sample No.:	321161
Analytical Prep Batch #	0	Analytical Preparation Date/Time:	
Analytical Run #:	164035	ICAL Calibration #:	

Analysis Type *Initial Analysis* Analysis Date: ----- 09/06/2019 Analysis Time: -------- 12:51

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Potassium	80-120	115.		21.5	J	100	94		P
Sodium	80-120	97.0		.850	U	100	96		P

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5B

Sample Description

GN-W-RB-01

POST DIGESTION SPIKE SAMPLE RECOVERY

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	LIQUID	SDG No.:	147664
% Solids for Sample:		Concentration Units:	ug/L
Sample No	325013	Parent Sample No.:	321513
Analytical Prep Batch #	0	Analytical Preparation Date/Time:	
Analytical Run #:	164046	ICAL Calibration #:	

Analysis Type *Initial Analysis* Analysis Date: ----- 09/03/2019 Analysis Time: -------- 18:17

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Aluminum	80-120	4330		BDL	U	4000	108		P
Barium	80-120	4370		BDL	U	4000	109		P
Beryllium	80-120	96.8		BDL	U	100	97		P
Cadmium	80-120	109		BDL	U	100	109		P
Calcium	80-120	432000		55.1	J	400000	108		P
Chromium	80-120	387		BDL	U	400	97		P
Cobalt	80-120	1040		BDL	U	1000	104		P
Copper	80-120	521		BDL	U	500	104		P
Iron	80-120	1890		BDL	U	2000	94		P
Magnesium	80-120	226000		BDL	U	200000	113		P
Manganese	80-120	997		BDL	U	1000	100		P
Nickel	80-120	970		BDL	U	1000	97		P
Vanadium	80-120	1100		BDL	U	1000	110		P

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

Sample Description

GN-SO-04-1

SPIKE DUPLICATE SAMPLE RECOVERY

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOLID	SDG No.:	147664
% Solids for Sample:	86.8	Concentration Units:	mg/kg
Sample No	321265	Parent Sample No.:	321264
Analytical Prep Batch #	73320	Analytical Preparation Date/Time:	09/03/2019 12:34
Analytical Run #:	164151	ICAL Calibration #:	09052019

Analysis Type	*Initial Analysis*	Analysis Date: -----	09/05/2019	Analysis Time: --------	12:19

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Mercury	82-124	0.14		0.039		0.10	101		CV

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description

GN-W-RB-01

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	LIQUID	SDG No.:	147664
% Solids for Sample:		Concentration Units:	ug/L
Sample No	321637	Parent Sample No.:	321635
Analytical Prep Batch #	73342	Analytical Preparation Date/Time:	09/03/2019 12:10
Analytical Run #:	164096	ICAL Calibration #:	09042019

Analysis Type	*Initial Analysis*	Analysis Date: -----	09/04/2019	Analysis Time: --------	09:53

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Mercury	82-119	1.8		BDL	U	2.0	90		CV

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

Sample Description

GN-W-RB-01

SPIKE DUPLICATE SAMPLE RECOVERY

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	LIQUID	SDG No.:	147664
% Solids for Sample:		Concentration Units:	ug/L
Sample No	321630	Parent Sample No.:	321629
Analytical Prep Batch #	73340	Analytical Preparation Date/Time:	08/30/2019
Analytical Run #:	164032	ICAL Calibration #:	

Analysis Type | Analysis Date: ----- 08/30/2019 | Analysis Time: --------

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Aluminum	80-120								P
Total Barium	80-120								P
Total Beryllium	80-120								P
Total Cadmium	80-120								P
Total Calcium	80-120								P
Total Chromium	80-120								P
Total Cobalt	80-120								P
Total Copper	80-120								P
Total Iron	80-120								P
Total Magnesium	80-120								P
Total Manganese	80-120								P
Total Nickel	80-120								P
Total Vanadium	80-120								P
Total Zinc	80-120								P

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description

GN-SO-04-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOLID	SDG No.:	147664
% Solids for Sample:	86.8	Concentration Units:	mg/kg
Sample No	321857	Parent Sample No.:	321856
Analytical Prep Batch #	73351	Analytical Preparation Date/Time:	08/30/2019 10:52
Analytical Run #:	164035	ICAL Calibration #:	

Analysis Type *Initial Analysis* Analysis Date: ----- 09/06/2019 Analysis Time: -------- 12:48

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Potassium	81-116	3820		642		2980	107		P
Sodium	83-118	3100		25.4	J	2980	103		P

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

Sample Description

GN-SO-04-1

SPIKE DUPLICATE SAMPLE RECOVERY

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	SOLID	SDG No.:	147664
% Solids for Sample:	86.8	Concentration Units:	mg/kg
Sample No	321857	Parent Sample No.:	321856
Analytical Prep Batch #	73351	Analytical Preparation Date/Time:	08/30/2019 10:52
Analytical Run #:	164036	ICAL Calibration #:	

Analysis Type *Initial Analysis* Analysis Date: ----- 09/04/2019 Analysis Time: -------- 14:08

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M	
Aluminum	74-119	10600		9220		119	1160		P	*FAIL*
Barium	83-113	235		119		119	97		P	
Beryllium	83-113	3.1		0.16		3.0	98		P	
Cadmium	82-113	2.7		BDL	U	3.0	90		P	
Calcium	81-116	10500		4690		5970	97		P	
Chromium	85-113	22.2		9.7		11.9	105		P	
Cobalt	85-112	34.0		7.7		29.8	88		P	
Copper	81-117	25.6		10.3		14.9	103		P	
Iron	81-118	13100		12600		59.7	838		P	*FAIL*
Magnesium	78-115	4420		1370		2980	102		P	
Manganese	84-114	555		576		29.8	0		P	*FAIL*
Nickel	83-113	40.0		9.5		29.8	102		P	
Vanadium	82-114	48.6		19.3		29.8	98		P	
Zinc	82-113	84.2		49.5		29.8	116		P	*FAIL*

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description

GN-W-RB-01

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	LIQUID	SDG No.:	147664
% Solids for Sample:		Concentration Units:	ug/L
Sample No	322208	Parent Sample No.:	322207
Analytical Prep Batch #	73360	Analytical Preparation Date/Time:	08/30/2019 11:17
Analytical Run #:	164046	ICAL Calibration #:	

Analysis Type *Initial Analysis* Analysis Date: ----- 09/03/2019 Analysis Time: -------- 18:11

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Aluminum	86-115	804		BDL	U	800	100		P
Total Barium	88-113	821		BDL	U	800	103		P
Total Beryllium	89-112	19.8		BDL	U	20.0	99		P
Total Cadmium	88-113	19.9		BDL	U	20.0	100		P
Total Calcium	87-113	201000		55.1	J	200000	100		P
Total Chromium	90-113	79.4		BDL	U	80.0	99		P
Total Cobalt	89-114	199		BDL	U	200	100		P
Total Copper	86-114	112		BDL	U	100	112		P
Total Iron	87-115	392		BDL	U	400	98		P
Total Magnesium	85-113	106000		BDL	U	100000	106		P
Total Manganese	90-114	204		BDL	U	200	102		P
Total Nickel	88-113	204		BDL	U	200	102		P
Total Vanadium	90-111	220		BDL	U	200	110		P
Total Zinc	87-115	206		BDL	U	200	103		P

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description

GN-W-RB-01

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix:	LIQUID	SDG No.:	147664
% Solids for Sample:		Concentration Units:	ug/L
Sample No	322208	Parent Sample No.:	322207
Analytical Prep Batch #	73360	Analytical Preparation Date/Time:	08/30/2019 11:17
Analytical Run #:	164047	ICAL Calibration #:	

Analysis Type *Initial Analysis* Analysis Date: ----- 09/06/2019 Analysis Time: -------- 11:12

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Potassium	86-114	105000		BDL	U	100000	105		P
Total Sodium	87-115	102000		371	J	100000	102		P

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

GN-SO-04-1

Lab Name: CT Laboratories

Contract: HDR, INC-MEMPHIS DEPOT

Matrix: SOLID

SDG No.: 147664

% Solid for Sample: 86.8

Concentration Units: mg/kg

Analytical Prep Batch # 1

Analytical Preparation Date/Time 73320

Analytical Run #: 164151

ICAL Calibration #: 09052019

Sample #: 321262

Parent Sample #: 321161

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M	
Mercury	09/05/2019	12:21	20	0.039		0.028		33		CV	*FAIL*

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

GN-W-RB-01

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT
Matrix: LIQUID
SDG No.: 147664
% Solid for Sample:
Concentration Units: ug/L
Analytical Prep Batch #: 1
Analytical Preparation Date/Time: 73342
Analytical Run #: 164096
ICAL Calibration #: 09042019
Sample #: 321634
Parent Sample #: 321513

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Total Mercury	09/04/2019	09:46	20	0.030	U	0.030	U	0		CV

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

GN-SO-04-1

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT
Matrix: SOLID
SDG No.: 147664
% Solid for Sample: 86.8
Concentration Units: mg/kg
Analytical Prep Batch # 1
Analytical Preparation Date/Time 73351
Analytical Run #: 164035
ICAL Calibration #:
Sample #: 321855
Parent Sample #: 321161

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Potassium	09/06/2019	12:43	20	642		630		2		P
Sodium	09/06/2019	12:43	20	25.4	J	23.3	J	9		P

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

GN-SO-04-1

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT
Matrix: SOLID
SDG No.: 147664
% Solid for Sample: 86.8
Concentration Units: mg/kg
Analytical Prep Batch #: 1
Analytical Preparation Date/Time: 73351
Analytical Run #: 164036
ICAL Calibration #:
Sample #: 321855
Parent Sample #: 321161

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M	
Aluminum	09/04/2019	13:54	20	9220		8570		7		P	
Barium	09/04/2019	13:54	20	119		111		7		P	
Beryllium	09/04/2019	13:54	20	0.16		0.18		12		P	
Cadmium	09/04/2019	13:54	20	0.0072	U	0.015	J	200		P	*FAIL*
Calcium	09/04/2019	13:54	20	4690		3910		18		P	
Chromium	09/04/2019	13:54	20	9.7		9.9		2		P	
Cobalt	09/04/2019	13:54	20	7.7		6.7		14		P	
Copper	09/04/2019	13:54	20	10.3		10.4		1		P	
Iron	09/04/2019	13:54	20	12600		13400		6		P	
Magnesium	09/04/2019	13:54	20	1370		1280		7		P	
Manganese	09/04/2019	13:54	20	576		576		0		P	
Nickel	09/04/2019	13:54	20	9.5		9.4		1		P	
Vanadium	09/04/2019	13:54	20	19.3		19.4		1		P	
Zinc	09/04/2019	13:54	20	49.5		48.1		3		P	

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

GN-W-RB-01

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT
Matrix: LIQUID
SDG No.: 147664
% Solid for Sample:
Concentration Units: ug/L
Analytical Prep Batch #: 1
Analytical Preparation Date/Time: 73360
Analytical Run #: 164046
ICAL Calibration #:
Sample #: 322206
Parent Sample #: 321513

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M	
Total Aluminum	09/03/2019	17:58	20	6.0	U	6.0	U	0		P	
Total Barium	09/03/2019	17:58	20	0.29	U	0.29	U	0		P	
Total Beryllium	09/03/2019	17:58	20	0.10	U	0.10	U	0		P	
Total Cadmium	09/03/2019	17:58	20	0.30	U	0.30	U	0		P	
Total Calcium	09/03/2019	17:58	20	55.1	J	48.6	J	13		P	
Total Chromium	09/03/2019	17:58	20	0.60	U	0.60	U	0		P	
Total Cobalt	09/03/2019	17:58	20	0.70	U	0.70	U	0		P	
Total Copper	09/03/2019	17:58	20	1.2	U	3.6	J	200		P	*FAIL*
Total Iron	09/03/2019	17:58	20	16	U	16	U	0		P	
Total Magnesium	09/03/2019	17:58	20	6.0	U	6.0	U	0		P	
Total Manganese	09/03/2019	17:58	20	0.70	U	0.70	U	0		P	
Total Nickel	09/03/2019	17:58	20	1.0	U	1.0	U	0		P	
Total Vanadium	09/03/2019	17:58	20	0.80	U	0.80	U	0		P	
Total Zinc	09/03/2019	17:58	20	1.6	U	1.6	U	0		P	

CT LABORATORIES
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6

DUPLICATES

Sample Description

GN-W-RB-01

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT
Matrix: LIQUID
SDG No.: 147664
% Solid for Sample:
Concentration Units: ug/L
Analytical Prep Batch # 1
Analytical Preparation Date/Time 73360
Analytical Run #: 164047
ICAL Calibration #:
Sample #: 322206
Parent Sample #: 321513

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Total Potassium	09/06/2019	11:06	20	90	U	90	U	0		P
Total Sodium	09/06/2019	11:06	20	371	J	324	J	14		P

CT LABORATORIES
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6A

MATRIX SPIKE DUPLICATES

Sample Description: **GN-SO-04-1**

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT
Matrix: SOLID
SDG No.: 147664
% Solid for Sample: 86.8
Concentration Units: mg/kg
Analytical Prep Batch #: 73320
Analytical Preparation Date/Time: 09/03/2019 12:34
Analytical Run #: 164151
ICAL Calibration #: 09052019
Sample #: 321265
Parent Sample #: 321264

Analysis Type: *Initial Analysis*

Analyte	Analysis Date/Tim	RPD Limit	Matrix Spik Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Mercury	09/05/2019 12:19	20	0.15		0.14		5		CV

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description

GN-W-RB-01

Lab Name: CT Laboratories | Contract: HDR, INC-MEMPHIS DEPOT

Matrix: LIQUID | SDG No.: 147664

% Solid for Sample: | Concentration Units: ug/L

Analytical Prep Batch #: 73342 | Analytical Preparation Date/Time: 09/03/2019 12:10

Analytical Run #: 164096 | ICAL Calibration #: 09042019

Sample #: 321637 | Parent Sample #: 321635

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Matrix Spik Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Total Mercury	09/04/2019	09:53	20	1.8		1.8		1		CV

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description: **GN-SO-04-1**

Lab Name: CT Laboratories | Contract: HDR, INC-MEMPHIS DEPOT

Matrix: SOLID | SDG No.: 147664

% Solid for Sample: 86.8 | Concentration Units: mg/kg

Analytical Prep Batch #: 73351 | Analytical Preparation Date/Time: 08/30/2019 10:52

Analytical Run #: 164035 | ICAL Calibration #:

Sample #: 321857 | Parent Sample #: 321856

Analysis Type: *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Matrix Spik Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Potassium	09/06/2019	12:48	20	3860		3820		2		P
Sodium	09/06/2019	12:48	20	3150		3100		2		P

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description: **GN-SO-04-1**

Lab Name: CT Laboratories | Contract: HDR, INC-MEMPHIS DEPOT

Matrix: SOLID | SDG No.: 147664

% Solid for Sample: 86.8 | Concentration Units: mg/kg

Analytical Prep Batch #: 73351 | Analytical Preparation Date/Time: 08/30/2019 10:52

Analytical Run #: 164036 | ICAL Calibration #:

Sample #: 321857 | Parent Sample #: 321856

Analysis Type: *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Matrix Spik Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Aluminum	09/04/2019	14:08	20	10700		10600		1		P
Barium	09/04/2019	14:08	20	230		235		2		P
Beryllium	09/04/2019	14:08	20	3.0		3.1		2		P
Cadmium	09/04/2019	14:08	20	3.3		2.7		20		P
Calcium	09/04/2019	14:08	20	10400		10500		0		P
Chromium	09/04/2019	14:08	20	20.6		22.2		7		P
Cobalt	09/04/2019	14:08	20	32.4		34.0		4		P
Copper	09/04/2019	14:08	20	24.4		25.6		5		P
Iron	09/04/2019	14:08	20	13100		13100		1		P
Magnesium	09/04/2019	14:08	20	4160		4420		6		P
Manganese	09/04/2019	14:08	20	499		555		10		P
Nickel	09/04/2019	14:08	20	38.0		40.0		5		P
Vanadium	09/04/2019	14:08	20	47.8		48.6		1		P
Zinc	09/04/2019	14:08	20	76.6		84.2		9		P

CT LABORATORIES
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6A

MATRIX SPIKE DUPLICATES

Sample Description: **GN-W-RB-01**

Lab Name: CT Laboratories | Contract: HDR, INC-MEMPHIS DEPOT

Matrix: LIQUID | SDG No.: 147664

% Solid for Sample: | Concentration Units: ug/L

Analytical Prep Batch #: 73360 | Analytical Preparation Date/Time: 08/30/2019 11:17

Analytical Run #: 164046 | ICAL Calibration #:

Sample #: 322208 | Parent Sample #: 322207

Analysis Type: *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Matrix Spik Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Total Aluminum	09/03/2019	18:11	20	791		804		2		P
Total Barium	09/03/2019	18:11	20	797		821		3		P
Total Beryllium	09/03/2019	18:11	20	19.2		19.8		3		P
Total Cadmium	09/03/2019	18:11	20	19.7		19.9		1		P
Total Calcium	09/03/2019	18:11	20	197000		201000		2		P
Total Chromium	09/03/2019	18:11	20	76.7		79.4		3		P
Total Cobalt	09/03/2019	18:11	20	193		199		3		P
Total Copper	09/03/2019	18:11	20	111		112		1		P
Total Iron	09/03/2019	18:11	20	370		392		6		P
Total Magnesium	09/03/2019	18:11	20	104000		106000		2		P
Total Manganese	09/03/2019	18:11	20	197		204		3		P
Total Nickel	09/03/2019	18:11	20	199		204		2		P
Total Vanadium	09/03/2019	18:11	20	213		220		3		P
Total Zinc	09/03/2019	18:11	20	203		206		1		P

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description

GN-W-RB-01

Lab Name: CT Laboratories | Contract: HDR, INC-MEMPHIS DEPOT

Matrix: LIQUID | SDG No.: 147664

% Solid for Sample: | Concentration Units: ug/L

Analytical Prep Batch #: 73360 | Analytical Preparation Date/Time: 08/30/2019 11:17

Analytical Run #: 164047 | ICAL Calibration #:

Sample #: 322208 | Parent Sample #: 322207

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Matrix Spik Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Total Potassium	09/06/2019	11:12	20	106000		105000		1		P
Total Sodium	09/06/2019	11:12	20	103000		102000		1		P

CT LABORATORIES
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7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories Contract HDR, INC-MEMPHIS DEPOT

LCS Source: SPEX and Ultra SDG No.: 147664

Concentration Units: ug/L

Analytical Run #: 164096 Sample No.:#: 321633

Analytical Prep Batch #: 73342 Preparation Date/Time: 09/03/2019 12:10

ICAL Calibration #: 09042019

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Total Mercury	09/04/2019 09:38	82-119	1.77		2.00	88		CV

CT LABORATORIES
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7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories Contract HDR, INC-MEMPHIS DEPOT

LCS Source: SPEX and Ultra SDG No.: 147664

Concentration Units: ug/L

Analytical Run #: 164046 Sample No.:#: 322205

Analytical Prep Batch #: 73360 Preparation Date/Time: 08/30/2019 11:17

ICAL Calibration #:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Total Aluminum	09/03/2019 17:33	86-115	797.0		800.0	100		P
Total Barium	09/03/2019 17:33	88-113	813.0		800.0	102		P
Total Beryllium	09/03/2019 17:33	89-112	19.50		20.00	98		P
Total Cadmium	09/03/2019 17:33	88-113	20.10		20.00	100		P
Total Calcium	09/03/2019 17:33	87-113	199000		200000	100		P
Total Chromium	09/03/2019 17:33	90-113	79.00		80.00	99		P
Total Cobalt	09/03/2019 17:33	89-114	199.0		200.0	100		P
Total Copper	09/03/2019 17:33	86-114	114.0		100.0	114		P
Total Iron	09/03/2019 17:33	87-115	386.0		400.0	96		P
Total Magnesium	09/03/2019 17:33	85-113	107000		100000	107		P
Total Manganese	09/03/2019 17:33	90-114	203.0		200.0	102		P
Total Nickel	09/03/2019 17:33	88-113	203.0		200.0	102		P
Total Vanadium	09/03/2019 17:33	90-111	220.0		200.0	110		P
Total Zinc	09/03/2019 17:33	87-115	205.0		200.0	102		P

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories Contract HDR, INC-MEMPHIS DEPOT

LCS Source: SPEX and Ultra SDG No.: 147664

Concentration Units: ug/L

Analytical Run #: 164047 Sample No.:#: 322205

Analytical Prep Batch #: 73360 Preparation Date/Time: 08/30/2019 11:17

ICAL Calibration #:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Total Potassium	09/06/2019 10:49	86-114	105000		100000	105		P
Total Sodium	09/06/2019 10:49	87-115	102000		100000	102		P

CT LABORATORIES
delivering more than data from your environmental analyses

7-2

Sample No:

LABORATORY CONTROL SAMPLE - SOLID

LCS

Lab Name: CT Laboratories Contract HDR, INC-MEMPHIS DEPOT

LCS Source: SPEX and Ultra SDG No.: 147664

Concentration Units: mg/kg

Analytical Run #: 164151 Sample No.:#: 321261

Analytical Prep Batch #: 73320 Preparation Date/Time: 09/03/2019 12:34

ICAL Calibration #: 09052019

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Mercury	09/05/2019 09:11	82-124	0.083		0.083	100		CV

CT LABORATORIES
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7-2

Sample No:

LABORATORY CONTROL SAMPLE - SOLID

LCS

Lab Name: CT Laboratories Contract HDR, INC-MEMPHIS DEPOT

LCS Source: SPEX and Ultra SDG No.: 147664

Concentration Units: mg/kg

Analytical Run #: 164035 Sample No.:#: 321859

Analytical Prep Batch #: 73351 Preparation Date/Time: 08/30/2019 10:52

ICAL Calibration #:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Potassium	09/06/2019 12:07	81-116	2650		2500	106		P
Sodium	09/06/2019 12:07	83-118	2550		2500	102		P

CT LABORATORIES
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7-2

Sample No:

LABORATORY CONTROL SAMPLE - SOLID

LCS

Lab Name: CT Laboratories Contract HDR, INC-MEMPHIS DEPOT

LCS Source: SPEX and Ultra SDG No.: 147664

Concentration Units: mg/kg

Analytical Run #: 164036 Sample No.:#: 321859

Analytical Prep Batch #: 73351 Preparation Date/Time: 08/30/2019 10:52

ICAL Calibration #:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Aluminum	09/04/2019 12:27	74-119	104		100	104		P
Barium	09/04/2019 12:27	83-113	106		100	106		P
Beryllium	09/04/2019 12:27	83-113	2.5		2.5	100		P
Cadmium	09/04/2019 12:27	82-113	2.4		2.5	96		P
Calcium	09/04/2019 12:27	81-116	5150		5000	103		P
Chromium	09/04/2019 12:27	85-113	10.3		10.0	103		P
Cobalt	09/04/2019 12:27	85-112	25.8		25.0	103		P
Copper	09/04/2019 12:27	81-117	12.9		12.5	103		P
Iron	09/04/2019 12:27	81-118	49.8		50.0	100		P
Magnesium	09/04/2019 12:27	78-115	2500		2500	100		P
Manganese	09/04/2019 12:27	84-114	24.4		25.0	98		P
Nickel	09/04/2019 12:27	83-113	24.2		25.0	97		P
Vanadium	09/04/2019 12:27	82-114	26.8		25.0	107		P
Zinc	09/04/2019 12:27	82-113	27.3		25.0	109		P

CT LABORATORIES
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9

ICP SERIAL DILUTION

Sample Description

GN-SO-04-1

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

Matrix: SOLID SDG No.: 147664

Concentration Units: ug/L

Sample No.: 324052 Parent Sample No.: 321161

LIMS Run #: 164036 ICAL Calibration #:.:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time		Initial Sample Result (I)	C (I)	Serial Dilution Result (S)	C (S)	% Diff.	Q	M	
Aluminum	09/04/2019	13:48	309000.		342500		11		P	*FAIL*
Cobalt	09/04/2019	13:48	257		299.5		17		P	*INVALID*
Iron	09/04/2019	13:48	422000.		497000		18		P	*FAIL*
Manganese	09/04/2019	13:48	19300.		22650		17		P	*FAIL*
Zinc	09/04/2019	13:48	1660		1810		9		P	

CT LABORATORIES
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10

METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Matrix: LIQUID

Analyte	Wavelength (nm)	Background	CRDL (ug/L)	MDL (ug/L)	M
Total Mercury	253.7			0.03	CV

CT LABORATORIES
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10

METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Matrix: SOLID

Analyte	Wavelength (nm)	Background	CRDL (ug/L)	MDL (mg/k)	M
Mercury	253.7			0.0021	CV

CT LABORATORIES
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10

METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

ICP ID Number: TJA SDG No.: 147664

Matrix: LIQUID

Analyte	Wavelength (nm)	Background	CRDL (ug/L)	MDL (ug/L)	M
Total Aluminum	167.0			6	P
Total Barium	455.4			0.29	P
Total Beryllium	313.041			0.10	P
Total Cadmium	226.502			0.3	P
Total Calcium	393.3			17	P
Total Chromium	267.716			0.6	P
Total Cobalt	228.616			0.7	P
Total Copper	327.3			1.2	P
Total Iron	259.9			16	P
Total Magnesium	279.5			6	P
Total Manganese	257.61			0.7	P
Total Nickel	231.604			1.0	P
Total Potassium	766.491			90	P
Total Sodium	589.5			100	P
Total Vanadium	292.402			0.8	P
Total Zinc	213.856			1.6	P

CT LABORATORIES
delivering more than data from your environmental analyses

10

METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

ICP ID Number: TJA SDG No.: 147664

Matrix: SOLID

Analyte	Wavelength (nm)	Background	CRDL (ug/L)	MDL (mg/k)	M
Aluminum	167.0			0.04	P
Barium	455.4			0.009	P
Beryllium	313.041			0.004	P
Cadmium	226.502			0.006	P
Calcium	393.3			0.24	P
Chromium	267.716			0.023	P
Cobalt	228.616			0.04	P
Copper	324.753			0.07	P
Iron	259.9			0.3	P
Magnesium	279.5			0.14	P
Manganese	257.61			0.025	P
Nickel	231.604			0.021	P
Potassium	766.491			11	P
Sodium	330.232			4	P
Vanadium	292.402			0.012	P
Zinc	213.856			0.05	P

CT LABORATORIES
delivering more than data from your environmental analyses

10

METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

SDG No.: 147664

Matrix: SOLID

Analyte	Wavelength (nm)	Background	CRDL (ug/L)	MDL (mg/k)	M
Mercury	253.7			0.0021	CV

ICP INTERELEMENT CORRECTION FACTORS (ANNUAL)
ICP ID NUMBER: TA ICAP6000 / ICAP6500

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ag 328.068 {103}	☒	2	Fe	0.000006	0.000000	No
			Ce	0.000000	0.000000	No
Ag 338.289 {100}	☒	1	Fe	0.000906	0.000000	No
Al 167.079 {501}	☒	None				
Al 308.215 {109}	☒	None				
Al 396.152 { 85}	☒	None				
As 193.759 {474}	☒	1	Al	0.001713	0.000000	No
As 197.262 {471}	☒	1	Al	-0.000113	0.000000	No
Ba 233.527 {445}	☒	3	Fe	-0.000038	0.000000	No
			V	0.000180	0.000000	No
			Al	0.000000	0.000000	No
Ba 455.403 { 74}	☒	1	Fe	0.000002	0.000000	No
Ba 493.409 { 68}	☒	1	Fe	0.000029	0.000000	No
Be 313.042 {108}	☒	1	Fe	0.000000	0.000000	No
Be 234.861 {144}	☒	1	Fe	-0.000016	0.000000	No
Ca 315.887 {107}	☒	None				
Ca 317.933 {106}	☒	None				
Ca 393.366 { 86}	☒	1	Cu	0.000000	0.000000	No
Ca 396.847 { 85}	☒	None				
Cd 226.502 {449}	☒	2	Fe	0.000090	0.000000	No
			Al	0.000000	0.000000	No
Cd 228.802 {147}	☒	None				
Co 228.616 {447}	☒	5	Fe	0.000009	0.000000	No
			Ti	0.003000	0.000000	No
			Ba	-0.001300	0.000000	No
			Ni	0.000040	0.000000	No
			Al	0.000001	0.000000	No
Co 238.892 {141}	☒	1	Fe	0.000188	0.000000	No
Cr 205.560 {464}	☒	1	Fe	-0.000004	0.000000	No
Cr 267.716 {126}	☒	1	Fe	-0.000014	0.000000	No
Cu 224.700 {450}	☒	5	Fe	0.000274	0.000000	No
			Mo	0.001320	0.000000	No
			Ni	-0.006000	0.000000	No
			Pb	0.003030	0.000000	No
			Al	0.000000	0.000000	No
Cu 324.754 {104}	☒	1	Fe	-0.000136	0.000000	No
Cu 327.396 {103}	☒	1	Fe	0.000069	0.000000	No
Fe 234.349 {144}	☒	None				
Fe 239.562 {140}	☒	None				
Fe 259.940 {129}	☒	None				
Mg 202.582 {466}	☒	None				
Mg 279.079 {121}	☒	None				
Mg 280.270 {120}	☒	None				
Mn 257.610 {131}	☒	1	Al	-0.000086	0.000000	No

ICP INTERELEMENT CORRECTION FACTORS (ANNUAL)
ICP ID NUMBER: TA ICAP6000 / ICAP6500

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Mn 259.373 {130}	☒	1	Mg	0.001339	0.000000	No
Mo 202.030 {466}	☒	1	Fe	-0.000011	0.000000	No
Mo 203.844 {465}	☒	1	Fe	-0.000020	0.000000	No
Mo 204.598 {464}	☒	1	Fe	0.000036	0.000000	No
Ni 221.647 {452}	☒	1	Ca	0.000021	0.000000	No
Ni 231.604 {445}	☒	3	Fe	0.000012	0.000000	No
			Co	0.000000	0.000000	No
			Mo	0.000000	0.000000	No
Pb 216.999 {455}	☒	2	Al	0.001241	0.000000	No
			Na	0.000000	0.000000	No
Pb 220.353 {453}	☒	3	Si	0.000000	0.000000	No
			Al	0.000001	0.000000	No
			Fe	0.000018	0.000000	No
Pb 220.353 {153}	☒	1	Al	-0.000040	0.000000	No
Sb 206.833 {463}	☒	1	Fe	0.000009	0.000000	No
Sb 217.581 {455}	☒	3	Fe	-0.000069	0.000000	No
			V	0.002070	0.000000	No
			Pb	-0.001040	0.000000	No
Se 196.090 {472}	☒	1	Fe	-0.000360	0.000000	No
Se 206.279 {463}	☒	1	Fe	0.001308	0.000000	No
Tl 190.856 {476}	☒	5	Fe	0.000024	0.000000	No
			Be	-0.000013	0.000000	No
			Ti	0.000050	0.000000	No
			Cr	0.000251	0.000000	No
			V	-0.003800	0.000000	No
Tl 190.856 {477}	☒	1	Fe	-0.000048	0.000000	No
V 290.882 {116}	☒	1	Fe	0.000073	0.000000	No
V 292.402 {115}	☒	3	Fe	0.000020	0.000000	No
			Cr	-0.000400	0.000000	No
			Al	0.000000	0.000000	No
Zn 202.548 {466}	☒	1	Fe	-0.000239	0.000000	No
Zn 206.200 {463}	☒	1	Fe	-0.000003	0.000000	No
Zn 213.856 {457}	☒	2	Fe	0.000167	0.000000	No
			Cu	0.007413	0.000000	No
Y 324.228 {104}*	☒	None				
Y 371.030 { 91}*	☒	None				
Y 224.306 {451}*	☒	None				
Na 588.995 { 57}	☒	1	Fe	0.000106	0.000000	No
Si 251.611 {134}	☒	2	Fe	-0.000105	0.000000	No
			Mo	0.005400	0.000000	No
Ti 323.452 {104}	☒	1	Fe	0.000036	0.000000	No
Ti 334.941 {101}	☒	1	Fe	0.000052	0.000000	No
Sr 407.771 { 83}	☒	1	Fe	0.000014	0.000000	No
Sr 421.552 { 80}	☒	1	Fe	0.000014	0.000000	No

ICP INTERELEMENT CORRECTION FACTORS (ANNUAL)
ICP ID NUMBER: TA ICAP6000 / ICAP6500

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Sn 189.989 {477}	☒	1	Fe	0.000013	0.000000	No
B 249.678 {135}	☒	2	Fe	0.000001	0.000000	No
			Co	0.003970	0.000000	No
B 249.773 {135}	☒	1	Fe	0.000357	0.000000	No
Li 670.784 { 50}	☒	1	Fe	0.000011	0.000000	No
K 766.490 { 44}	☒	1	Fe	0.000216	0.000000	No
P 213.618 {457}	☒	1	Fe	-0.000079	0.000000	No
S 182.034 {485}	☒	1	Mg	0.000100	0.000000	No
Hg 184.950 {482}	☒	1	Fe	0.000001	0.000000	No
Ce 404.076 { 83}	☒	1	Fe	0.000227	0.000000	No

ICP LINEAR RANGES (QUARTERLY)

Lab Name: CT Laboratories Contract: HDR, INC-MEMPHIS DEPOT

ICP ID Number: TA SDG No.: 147664

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Aluminum	15.00	1000000	P
Antimony	15.00	10000	P
Arsenic	15.00	10000	P
Barium	15.00	10000	P
Beryllium	15.00	1000	P
Boron	15.00	1000	P
Cadmium	15.00	1000	P
Calcium	15.00	1000000	P
Chromium	15.00	100000	P
Cobalt	15.00	10000	P
Copper	15.00	100000	P
Iron	15.00	1000000	P
Lead	15.00	100000	P
Lithium	15.00	10000	P
Magnesium	15.00	1000000	P
Manganese	15.00	100000	P
Molybdenum	15.00	10000	P
Nickel	15.00	10000	P
Potassium	15.00	200000	P
Selenium	15.00	10000	P
Silicon	15.00	1000	P
Silver	15.00	100	P
Sodium	15.00	200000	P
Strontium	15.00	10000	P
Thallium	15.00	10000	P
Tin	15.00	10000	P
Titanium	15.00	1000	P
Tungsten	15.00	10000	P
Vanadium	15.00	10000	P
Zinc	15.00	100000	P

CT LABORATORIES
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PREPARATION LOG

Lab Name: CT Laboratories | Project: HDR, INC-MEMPHIS DEPOT

Method: EPA 7471A | SDG No.: 147664

Preparation Batch #: 73320 | Preparation Date/Time: 09/03/2019 / 12:34

Lab Sample #	QC Type	Sample Description	Matrix	**Weight (g for solid/soil) or Volume (mL for liquid/aqueous)**
321149	Normal Sample	GN-SO-01-1	SOIL	0.57
321154	Normal Sample	GN-SO-01-2	SOIL	0.59
321155	Normal Sample	GN-SO-02-1	SOIL	0.59
321157	Normal Sample	GN-SO-DUP-1	SOIL	0.58
321158	Normal Sample	GN-SO-02-2	SOIL	0.55
321159	Normal Sample	GNSO-03-1	SOIL	0.55
321160	Normal Sample	GN-SO-03-2	SOIL	0.57
321161	Normal Sample	GN-SO-04-1	SOIL	0.57
321162	Normal Sample	GN-SO-04-2	SOIL	0.55
321163	Normal Sample	GN-SO-05-1	SOIL	0.55
321164	Normal Sample	GN-SO-05-2	SOIL	0.58
321165	Normal Sample	GN-SO-DUP-2	SOIL	0.55
321166	Normal Sample	GN-SO-06-1	SOIL	0.55
321167	Normal Sample	GN-SO-06-2	SOIL	0.57
321168	Normal Sample	GN-SO-07-1	SOIL	0.59
321169	Normal Sample	GN-SO-07-2	SOIL	0.6
321170	Normal Sample	GN-SO-08-1	SOIL	0.58
321171	Normal Sample	GN-SO-08-2	SOIL	0.55
321172	Normal Sample	GN-SO-09C-1	SOIL	0.59
321260	Method Blank		SOLID	0.6
321261	Lab Control Spike		SOLID	0.6
321262	Lab Duplicate	GN-SO-04-1	SOIL	0.56
321264	Matrix Spike	GN-SO-04-1	SOIL	0.57
321265	Matrix Spike Duplicate	GN-SO-04-1	SOIL	0.57

CT LABORATORIES
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PREPARATION LOG

Lab Name: CT Laboratories Project: HDR, INC-MEMPHIS DEPOT

Method: EPA 7470A SDG No.: 147664

Preparation Batch #: 73342 Preparation Date/Time: 09/03/2019 / 12:10

Lab Sample #	QC Type	Sample Description	Matrix	**Weight (g for solid/soil) or Volume (mL for liquid/aqueous)**
321513	Normal Sample	GN-W-RB-01	GROUND WATER	25.0
321632	Method Blank		LIQUID	25.0
321633	Lab Control Spike		LIQUID	25.0
321634	Lab Duplicate	N-W-RB-01	GROUND WATER	25.0
321635	Matrix Spike	N-W-RB-01	GROUND WATER	25.0
321637	Matrix Spike Duplicate	N-W-RB-01	GROUND WATER	25.0

CT LABORATORIES
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PREPARATION LOG

Lab Name: CT Laboratories | Project: HDR, INC-MEMPHIS DEPOT

Method: EPA 3050B | SDG No.: 147664

Preparation Batch #: 73351 | Preparation Date/Time: 08/30/2019 / 10:52

Lab Sample #	QC Type	Sample Description	Matrix	**Weight (g for solid/soil) or Volume (mL for liquid/aqueous)**
321149	Normal Sample	GN-SO-01-1	SOIL	1.92
321154	Normal Sample	GN-SO-01-2	SOIL	2.01
321155	Normal Sample	GN-SO-02-1	SOIL	1.93
321157	Normal Sample	GN-SO-DUP-1	SOIL	1.99
321158	Normal Sample	GN-SO-02-2	SOIL	1.91
321159	Normal Sample	GNSO-03-1	SOIL	1.91
321160	Normal Sample	GN-SO-03-2	SOIL	1.91
321161	Normal Sample	GN-SO-04-1	SOIL	1.93
321162	Normal Sample	GN-SO-04-2	SOIL	1.95
321163	Normal Sample	GN-SO-05-1	SOIL	1.90
321164	Normal Sample	GN-SO-05-2	SOIL	1.97
321165	Normal Sample	GN-SO-DUP-2	SOIL	1.91
321166	Normal Sample	GN-SO-06-1	SOIL	1.96
321167	Normal Sample	GN-SO-06-2	SOIL	2.07
321168	Normal Sample	GN-SO-07-1	SOIL	1.96
321169	Normal Sample	GN-SO-07-2	SOIL	1.93
321170	Normal Sample	GN-SO-08-1	SOIL	2.02
321171	Normal Sample	GN-SO-08-2	SOIL	2.01
321172	Normal Sample	GN-SO-09C-1	SOIL	1.90
321855	Lab Duplicate	GN-SO-04-1	SOIL	1.93
321856	Matrix Spike	GN-SO-04-1	SOIL	1.94
321857	Matrix Spike Duplicate	GN-SO-04-1	SOIL	1.93
321858	Method Blank		SOLID	2.00
321859	Lab Control Spike		SOLID	2.00

CT LABORATORIES
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PREPARATION LOG

Lab Name: CT Laboratories

Project: HDR, INC-MEMPHIS DEPOT

Method: EPA 3010A

SDG No.: 147664

Preparation Batch #: 73360

Preparation Date/Time: 08/30/2019 / 11:17

Lab Sample #	QC Type	Sample Description	Matrix	**Weight (g for solid/soil) or Volume (mL for liquid/aqueous)**
321513	Normal Sample	GN-W-RB-01	GROUND WATER	50.0
322204	Method Blank		LIQUID	50.0
322205	Lab Control Spike		LIQUID	50.0
322206	Lab Duplicate	GN-W-RB-01	GROUND WATER	50.0
322207	Matrix Spike	GN-W-RB-01	GROUND WATER	50.0
322208	Matrix Spike Duplicate	GN-W-RB-01	GROUND WATER	50.0

CT LABORATORIES
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ANALYSIS RUN LOG

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT

Lab Code: CTL
SDG No.: 147664

Instrument ID Number: CETAC
Method Number: CV

Start & End Date: 09/04/2019 to 09/04/2019
Analytical Run #: 164096

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
322957	ICV	1.00	9/04 09:26																X													
322958	ICB	1.00	9/04 09:31																X													
321633	LCSW	1.00	9/04 09:38																X													
321632	MBW	1.00	9/04 09:43																X													
321513	Initial	1.00	9/04 09:44																X													
321634	DUP	1.00	9/04 09:46																X													
321635	MSW	1.00	9/04 09:50																X													
321637	MSDW	1.00	9/04 09:53																X													
322959	CCV	1.00	9/04 09:55																X													
322960	CCB	1.00	9/04 09:59																X													

CT LABORATORIES
delivering more than data from your environmental analyses

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ANALYSIS RUN LOG

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT

Lab Code: CTL
SDG No.: 147664

Instrument ID Number: CETAC
Method Number: CV

Start & End Date: 09/05/2019 to 09/05/2019
Analytical Run #: 164151

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
323602	ICV	1.00	9/05 09:00																X													
323603	ICB	1.00	9/05 09:05																X													
321261	LCSS	1.00	9/05 09:11																X													
321260	MBS	1.00	9/05 09:24																X													
323604	CCV	1.00	9/05 09:28																X													
323605	CCV	1.00	9/05 09:30																X													
323639	CCV	1.00	9/05 09:40																X													
323640	CCV	1.00	9/05 09:43																X													
323606	CCB	1.00	9/05 09:47																X													
323607	CCV	1.00	9/05 10:42																X													
323608	CCB	1.00	9/05 10:47																X													
321149	Initial	1.00	9/05 10:53																X													
321154	Initial	1.00	9/05 10:55																X													
321155	Initial	1.00	9/05 10:57																X													
321157	Initial	1.00	9/05 11:00																X													
321158	Initial	1.00	9/05 11:02																X													
321159	Initial	1.00	9/05 11:04																X													
323609	CCV	1.00	9/05 11:16																X													
323610	CCV	1.00	9/05 11:24																X													
323611	CCV	1.00	9/05 11:33																X													
323612	CCB	1.00	9/05 11:37																X													
321160	Initial	1.00	9/05 11:41																X													
321161	Initial	1.00	9/05 11:43																X													
321162	Initial	1.00	9/05 11:45																X													
321163	Initial	1.00	9/05 11:47																X													
321164	Initial	1.00	9/05 11:49																X													
321165	Initial	1.00	9/05 11:52																X													
321166	Initial	1.00	9/05 11:54																X													
321167	Initial	1.00	9/05 11:56																X													

CT LABORATORIES
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ANALYSIS RUN LOG

Lab Name: CT Laboratories

Contract: HDR, INC-MEMPHIS DEPOT

Lab Code: CTL

SDG No.: 147664

Instrument ID Number: CETAC

Method Number: CV

Start & End Date: 09/05/2019 to 09/05/2019

Analytical Run #: 164151

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
321168	Initial	1.00	9/05 11:58																X													
323613	CCV	1.00	9/05 12:02																X													
323614	CCB	1.00	9/05 12:06																X													
321169	Initial	1.00	9/05 12:08																X													
321170	Initial	1.00	9/05 12:10																X													
321171	Initial	1.00	9/05 12:12																X													
321172	Initial	1.00	9/05 12:15																X													
321264	MSS	1.00	9/05 12:17																X													
321265	MSDS	1.00	9/05 12:19																X													
321262	DUP	1.00	9/05 12:21																X													
323615	CCV	1.00	9/05 12:29																X													
323616	CCB	1.00	9/05 12:34																X													

CT LABORATORIES
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ANALYSIS RUN LOG

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT

Lab Code: CTL
SDG No.: 147664

Instrument ID Number: TJA
Method Number: P

Start & End Date: 09/06/2019 to 09/06/2019
Analytical Run #: 164035

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
324552	ICV	1.00	9/06 09:37																				X				X					
324553	ICVLL	1.00	9/06 09:40																				X				X					
324554	ICB	1.00	9/06 09:43																				X				X					
324555	MRL	1.00	9/06 09:45																				X				X					
324556	ICSA	1.00	9/06 09:48	X							X				X		X						X				X					
324557	ICSAB	1.00	9/06 09:51	X							X				X		X						X				X					
324558	CCV	1.00	9/06 12:02																				X				X					
324559	CCB	1.00	9/06 12:05																				X				X					
321859	LCSS	1.00	9/06 12:07																				X				X					
321858	MBS	1.00	9/06 12:10																				X				X					
321149	Initial	1.00	9/06 12:13																				X				X					
321154	Initial	1.00	9/06 12:16																				X				X					
321155	Initial	1.00	9/06 12:18																				X				X					
321157	Initial	1.00	9/06 12:21																				X				X					
321158	Initial	1.00	9/06 12:24																				X				X					
321159	Initial	1.00	9/06 12:26																				X				X					
321160	Initial	1.00	9/06 12:29																				X				X					
321161	Initial	1.00	9/06 12:32																				X				X					
324560	CCV	1.00	9/06 12:34																				X				X					
324561	CCB	1.00	9/06 12:37																				X				X					
324562	L	5	9/06 12:40																				X				X					
321855	DUP	1.00	9/06 12:43																				X				X					
321856	MSS	1.00	9/06 12:45																				X				X					
321857	MSDS	1.00	9/06 12:48																				X				X					
324563	PDSS	1.00	9/06 12:51																				X				X					
321162	Initial	1.00	9/06 12:53																				X				X					
321163	Initial	1.00	9/06 12:56																				X				X					
321164	Initial	1.00	9/06 12:59																				X				X					
321165	Initial	1.00	9/06 13:02																				X				X					

CT LABORATORIES
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ANALYSIS RUN LOG

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT

Lab Code: CTL
SDG No.: 147664

Instrument ID Number: TJA
Method Number: P

Start & End Date: 09/06/2019 to 09/06/2019
Analytical Run #: 164035

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
321166	Initial	1.00	9/06 13:05																				X				X					
324564	CCV	1.00	9/06 13:08																				X				X					
324565	CCB	1.00	9/06 13:10																				X				X					
321167	Initial	1.00	9/06 13:13																				X				X					
321168	Initial	1.00	9/06 13:16																				X				X					
321169	Initial	1.00	9/06 13:19																				X				X					
321170	Initial	1.00	9/06 13:22																				X				X					
321171	Initial	1.00	9/06 13:25																				X				X					
321172	Initial	1.00	9/06 13:28																				X				X					
324566	CCV	1.00	9/06 13:41																				X				X					
324567	CCB	1.00	9/06 13:44																				X				X					

CT LABORATORIES
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ANALYSIS RUN LOG

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT

Lab Code: CTL
SDG No.: 147664

Instrument ID Number: TJA
Method Number: P

Start & End Date: 09/04/2019 to 09/10/2019
Analytical Run #: 164036

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
324043	ICV	1.00	9/04 10:52	X			X	X		X	X	X	X	X	X		X	X				X									X	X
324044	ICVLL	1.00	9/04 11:05	X			X	X		X	X	X	X	X	X		X	X				X									X	X
324045	ICB	1.00	9/04 11:11	X			X	X		X	X	X	X	X	X		X	X				X									X	X
324046	ICSA	1.00	9/04 11:29	X			X	X		X	X	X	X	X	X		X	X				X									X	X
324047	ICSAB	1.00	9/04 11:36	X			X	X		X	X	X	X	X	X		X	X				X									X	X
321859	LCSS	1.00	9/04 12:27	X			X	X		X	X	X	X	X	X		X	X				X									X	X
321858	MBS	1.00	9/04 12:33	X			X	X		X	X	X	X	X	X		X	X				X									X	X
321149	Initial	1.00	9/04 12:39	X			X	X		X	X	X	X	X	X		X	X				X									X	X
321154	Initial	1.00	9/04 12:45	X			X	X		X	X	X	X	X	X		X	X				X									X	X
324049	CCV1	1.00	9/04 12:51	X			X	X		X	X	X	X	X	X		X	X				X									X	X
324050	CCV2	1.00	9/04 12:57	X			X	X		X	X	X	X	X	X		X	X				X									X	X
324051	CCB	1.00	9/04 13:03	X			X	X		X	X	X	X	X	X		X	X				X									X	X
321155	Initial	1.00	9/04 13:09	X			X	X		X	X	X	X	X	X		X	X				X									X	X
321157	Initial	1.00	9/04 13:16	X			X	X		X	X	X	X	X	X		X	X				X									X	X
321158	Initial	1.00	9/04 13:22	X			X	X		X	X	X	X	X	X		X	X				X									X	X
321159	Initial	1.00	9/04 13:28	X			X	X		X	X	X	X	X	X		X	X				X									X	X
321160	Initial	1.00	9/04 13:35	X			X	X		X	X	X	X	X	X		X	X				X									X	X
321161	Initial	1.00	9/04 13:41	X			X	X		X	X	X	X	X	X		X	X				X									X	X
324052	L	5	9/04 13:48	X			X	X		X	X	X	X	X	X		X	X				X									X	X
321855	DUP	1.00	9/04 13:54	X			X	X		X	X	X	X	X	X		X	X				X									X	X
321856	MSS	1.00	9/04 14:01	X			X	X		X	X	X	X	X	X		X	X				X									X	X
321857	MSDS	1.00	9/04 14:08	X			X	X		X	X	X	X	X	X		X	X				X									X	X
324053	CCV1	1.00	9/04 14:14	X			X	X		X	X	X	X	X	X		X	X				X									X	X
324054	CCV2	1.00	9/04 14:20	X			X	X		X	X	X	X	X	X		X	X				X									X	X
324055	CCB	1.00	9/04 14:26	X			X	X		X	X	X	X	X	X		X	X				X									X	X
324056	PDSS	1.00	9/04 14:32	X			X	X		X	X	X	X	X	X		X	X				X									X	X
321162	Initial	1.00	9/04 14:39	X			X	X		X	X	X	X	X	X		X	X				X									X	X
321163	Initial	1.00	9/04 14:47	X			X	X		X		X	X	X	X		X	X				X									X	X
321164	Initial	1.00	9/04 14:53	X			X	X		X	X	X	X	X	X		X	X				X									X	X

CT LABORATORIES
delivering more than data from your environmental analyses

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ANALYSIS RUN LOG

Lab Name: CT Laboratories | Contract: HDR, INC-MEMPHIS DEPOT

Lab Code: CTL | SDG No.: 147664

Instrument ID Number: TJA | Method Number: P

Start & End Date: 09/04/2019 to 09/10/2019 | Analytical Run #: 164036

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
321165	Initial	1.00	9/04 15:00	X			X	X		X	X	X	X	X	X		X	X				X										X	X
321166	Initial	1.00	9/04 15:07	X			X	X		X		X	X	X	X		X	X				X										X	X
321167	Initial	1.00	9/04 15:14	X			X	X		X	X	X	X	X	X		X	X				X										X	X
321168	Initial	1.00	9/04 15:20	X			X	X		X		X	X	X	X		X	X				X										X	X
321169	Initial	1.00	9/04 15:27	X			X	X		X	X	X	X	X	X		X	X				X										X	X
321170	Initial	1.00	9/04 15:33	X			X	X		X		X	X	X	X		X	X				X										X	X
324057	CCV1	1.00	9/04 15:40	X			X	X		X	X	X	X	X	X		X	X				X										X	X
324058	CCV2	1.00	9/04 15:46	X			X	X		X	X	X	X	X	X		X	X				X										X	X
324059	CCB	1.00	9/04 15:52	X			X	X		X	X	X	X	X	X		X	X				X										X	X
321171	Initial	1.00	9/04 15:58	X			X	X		X	X	X	X	X	X		X	X				X										X	X
321172	Initial	1.00	9/04 16:05	X			X	X		X	X	X	X	X	X		X	X				X										X	X
324060	CCV1	1.00	9/04 17:01	X			X	X		X	X	X	X	X	X		X	X				X										X	X
324061	CCV2	1.00	9/04 17:07	X			X	X		X	X	X	X	X	X		X	X				X										X	X
324062	CCB	1.00	9/04 17:12	X			X	X		X	X	X	X	X	X		X	X				X										X	X
325316	ICV	1.00	9/09 11:09	X			X	X		X	X	X	X	X	X		X	X				X										X	X
325317	ICVLL	1.00	9/09 11:21	X			X	X		X	X	X	X	X	X		X	X				X										X	X
325318	ICB	1.00	9/09 11:28	X			X	X		X	X	X	X	X	X		X	X				X										X	X
325319	ICSA	1.00	9/09 11:47	X			X	X		X	X	X	X	X	X		X	X				X										X	X
325320	ICSAB	1.00	9/09 11:54	X			X	X		X	X	X	X	X	X		X	X				X										X	X
325322	CCV1	1.00	9/10 01:44	X			X	X		X	X	X	X	X	X		X	X				X										X	X
325323	CCV2	1.00	9/10 01:50	X			X	X		X	X	X	X	X	X		X	X				X										X	X
325324	CCB	1.00	9/10 01:56	X			X	X		X	X	X	X	X	X		X	X				X										X	X
321163	Re-Analysis	10.00	9/10 02:42								X																						
321166	Re-Analysis	10.00	9/10 02:48								X																						
321168	Re-Analysis	10.00	9/10 02:54								X																						
321170	Re-Analysis	10.00	9/10 03:01								X																						
325325	CCV1	1.00	9/10 03:07	X			X	X		X	X	X	X	X	X		X	X				X										X	X

CT LABORATORIES
delivering more than data from your environmental analyses

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ANALYSIS RUN LOG

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT

Lab Code: CTL
SDG No.: 147664

Instrument ID Number: TJA
Method Number: P

Start & End Date: 09/04/2019 to 09/10/2019
Analytical Run #: 164036

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
325326	CCV2	1.00	9/10 03:13	X			X	X		X	X	X	X	X	X		X	X				X										X	X
325327	CCB	1.00	9/10 03:19	X			X	X		X	X	X	X	X	X		X	X				X										X	X

CT LABORATORIES
delivering more than data from your environmental analyses

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ANALYSIS RUN LOG

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT

Lab Code: CTL
SDG No.: 147664

Instrument ID Number: TJA
Method Number: P

Start & End Date: 09/03/2019 to 09/03/2019
Analytical Run #: 164046

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
325003	ICV	1.00	9/03 13:36	X			X	X		X	X	X	X	X	X		X	X				X									X	X
325004	ICVLL	1.00	9/03 13:49	X			X	X		X	X	X	X	X	X		X	X				X									X	X
325005	ICB	1.00	9/03 13:55	X			X	X		X	X	X	X	X	X		X	X				X									X	X
325006	ICSA	1.00	9/03 14:13	X			X	X		X	X	X	X	X	X		X	X				X									X	X
325007	ICSAB	1.00	9/03 14:20	X			X	X		X	X	X	X	X	X		X	X				X									X	X
325009	CCV1	1.00	9/03 17:02	X			X	X		X	X	X	X	X	X		X	X				X									X	X
325010	CCV2	1.00	9/03 17:08	X			X	X		X	X	X	X	X	X		X	X				X									X	X
325011	CCB	1.00	9/03 17:14	X			X	X		X	X	X	X	X	X		X	X				X									X	X
322205	LCSW	1.00	9/03 17:33	X			X	X		X	X	X	X	X	X		X	X				X									X	X
322204	MBW	1.00	9/03 17:40	X			X	X		X	X	X	X	X	X		X	X				X									X	X
321513	Initial	1.00	9/03 17:46	X			X	X		X	X	X	X	X	X		X	X				X									X	X
325012	L	5	9/03 17:52	X			X	X		X	X	X	X	X	X		X	X				X									X	X
322206	DUP	1.00	9/03 17:58	X			X	X		X	X	X	X	X	X		X	X				X									X	X
322207	MSW	1.00	9/03 18:05	X			X	X		X	X	X	X	X	X		X	X				X									X	X
322208	MSDW	1.00	9/03 18:11	X			X	X		X	X	X	X	X	X		X	X				X									X	X
325013	PDSW	1.00	9/03 18:17	X			X	X		X	X	X	X	X	X		X	X				X									X	X
325014	CCV1	1.00	9/03 18:24	X			X	X		X	X	X	X	X	X		X	X				X									X	X
325015	CCV2	1.00	9/03 18:30	X			X	X		X	X	X	X	X	X		X	X				X									X	X
325016	CCB	1.00	9/03 18:36	X			X	X		X	X	X	X	X	X		X	X				X									X	X

CT LABORATORIES
delivering more than data from your environmental analyses

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ANALYSIS RUN LOG

Lab Name: CT Laboratories | Contract: HDR, INC-MEMPHIS DEPOT

Lab Code: CTL | SDG No.: 147664

Instrument ID Number: TJA | Method Number: P

Start & End Date: 09/06/2019 to 09/06/2019 | Analytical Run #: 164047

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
324524	ICV	1.00	9/06 09:37																				X				X					
324525	ICVLL	1.00	9/06 09:40																				X				X					
324526	ICB	1.00	9/06 09:43																				X				X					
324527	MRL	1.00	9/06 09:45																				X				X					
324528	ICSA	1.00	9/06 09:48	X							X				X		X						X				X					
324529	ICSAB	1.00	9/06 09:51	X							X				X		X						X				X					
324530	CCV	1.00	9/06 10:22																				X				X					
324531	CCB	1.00	9/06 10:25																				X				X					
322205	LCSW	1.00	9/06 10:49																				X				X					
322204	MBW	1.00	9/06 10:52																				X				X					
324532	CCV	1.00	9/06 10:55																				X				X					
324533	CCB	1.00	9/06 10:58																				X				X					
321513	Initial	1.00	9/06 11:01																				X				X					
324534	L	5	9/06 11:03																				X				X					
322206	DUP	1.00	9/06 11:06																				X				X					
322207	MSW	1.00	9/06 11:09																				X				X					
322208	MSDW	1.00	9/06 11:12																				X				X					
324535	PDSW	1.00	9/06 11:14																				X				X					
324536	CCV	1.00	9/06 11:28																				X				X					
324537	CCB	1.00	9/06 11:31																				X				X					

CT LABORATORIES
delivering more than data from your environmental analyses

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ANALYSIS RUN LOG

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT

Lab Code: CTL
SDG No.: 147664

Instrument ID Number: CETAC
Method Number: CV

Start & End Date: 09/05/2019 to 09/05/2019
Analytical Run #: 164151

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
323602	ICV	1.00	9/05 09:00																X													
323603	ICB	1.00	9/05 09:05																X													
321261	LCSS	1.00	9/05 09:11																X													
321260	MBS	1.00	9/05 09:24																X													
323604	CCV	1.00	9/05 09:28																X													
323605	CCV	1.00	9/05 09:30																X													
323639	CCV	1.00	9/05 09:40																X													
323640	CCV	1.00	9/05 09:43																X													
323606	CCB	1.00	9/05 09:47																X													
323607	CCV	1.00	9/05 10:42																X													
323608	CCB	1.00	9/05 10:47																X													
321149	Initial	1.00	9/05 10:53																X													
321154	Initial	1.00	9/05 10:55																X													
321155	Initial	1.00	9/05 10:57																X													
321157	Initial	1.00	9/05 11:00																X													
321158	Initial	1.00	9/05 11:02																X													
321159	Initial	1.00	9/05 11:04																X													
323609	CCV	1.00	9/05 11:16																X													
323610	CCV	1.00	9/05 11:24																X													
323611	CCV	1.00	9/05 11:33																X													
323612	CCB	1.00	9/05 11:37																X													
321160	Initial	1.00	9/05 11:41																X													
321161	Initial	1.00	9/05 11:43																X													
321162	Initial	1.00	9/05 11:45																X													
321163	Initial	1.00	9/05 11:47																X													
321164	Initial	1.00	9/05 11:49																X													
321165	Initial	1.00	9/05 11:52																X													
321166	Initial	1.00	9/05 11:54																X													
321167	Initial	1.00	9/05 11:56																X													

CT LABORATORIES
delivering more than data from your environmental analyses

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ANALYSIS RUN LOG

Lab Name: CT Laboratories
Contract: HDR, INC-MEMPHIS DEPOT

Lab Code: CTL
SDG No.: 147664

Instrument ID Number: CETAC
Method Number: CV

Start & End Date: 09/05/2019 to 09/05/2019
Analytical Run #: 164151

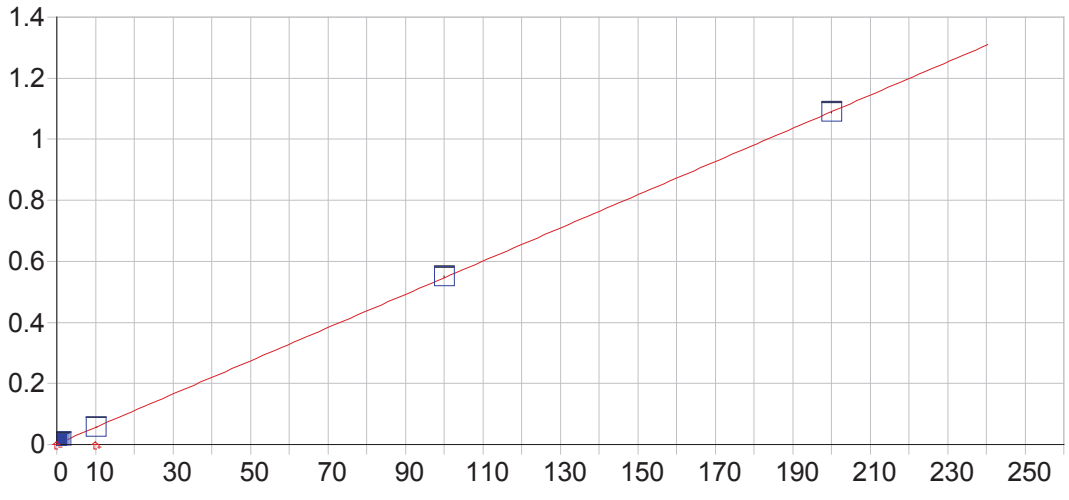
Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
321168	Initial	1.00	9/05 11:58																X													
323613	CCV	1.00	9/05 12:02																X													
323614	CCB	1.00	9/05 12:06																X													
321169	Initial	1.00	9/05 12:08																X													
321170	Initial	1.00	9/05 12:10																X													
321171	Initial	1.00	9/05 12:12																X													
321172	Initial	1.00	9/05 12:15																X													
321264	MSS	1.00	9/05 12:17																X													
321265	MSDS	1.00	9/05 12:19																X													
321262	DUP	1.00	9/05 12:21																X													
323615	CCV	1.00	9/05 12:29																X													
323616	CCB	1.00	9/05 12:34																X													

METALS
RAW DATA
DOCUMENTS

	Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL
	K 766.490 { 44}	09/09/2019 10:07:18	09/06/2019 09:34:16	Linear	1/Var	0.002040	0.005439	0.000000	1.000000	0.999995	0.000482	0.048194	0.160647
	Na 330.237 {102}	09/09/2019 10:07:18	09/06/2019 09:34:16	Linear	1/Var	0.000151	0.000069	0.000000	1.000000	0.999825	0.000133	1.733012	5.776706
	Na 589.592 { 57}	09/09/2019 10:07:18	09/06/2019 09:34:16	Linear	1/Conc	-0.001541	0.045299	0.000000	1.000000	0.999860	0.000375	0.010436	0.034785
	Y 360.073 { 94}	09/09/2019 10:07:18	09/06/2019 09:14:42	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
	Y 320.332 {105}*	09/09/2019 10:07:18	09/06/2019 09:14:42	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
	Al 308.215 {109}	09/09/2019 10:07:18	09/06/2019 09:37:31	Linear	1/Conc	0.003222	0.000012	0.000000	1.000000	1.000000	0.000000	-1.000000	-1.000000
	Al 396.152 { 85}	09/09/2019 10:07:18	09/06/2019 09:37:31	Linear	1/Conc	-0.000344	0.007631	0.000000	1.000000	1.000000	0.000000	0.019850	0.066167
	Mg 285.213 {118}	09/09/2019 10:07:18	09/06/2019 09:37:31	Linear	None	-0.000033	0.035122	0.000000	1.000000	1.000000	0.000000	0.002080	0.006932
	Ca 317.933 {106}	09/09/2019 10:07:18	09/06/2019 09:37:31	Linear	None	0.048716	0.007504	0.000000	1.000000	1.000000	0.000000	0.009479	0.031597
	Fe 234.349 {144}	09/09/2019 10:07:18	09/06/2019 09:37:31	Linear	None	0.000093	0.002219	0.000000	1.000000	1.000000	0.000000	0.010473	0.034911

	Element, Wavelength and Order	Status	Reslope		QC Norm	
			Slope	Y-int	Slope factor	Offset
	K 766.490 { 44}	OK.	1.000000	0.000000	1	0
	Na 330.237 {102}	OK.	1.000000	0.000000	1	0
	Na 589.592 { 57}	OK.	1.000000	0.000000	1	0
	Y 360.073 { 94}	Warnin	1.000000	0.000000	1	0
	Y 320.332 {105}*	Warnin	1.000000	0.000000	1	0
	Al 308.215 {109}	OK.	1.000000	0.000000	1	0
	Al 396.152 { 85}	OK.	1.000000	0.000000	1	0
	Mg 285.213 {118}	OK.	1.000000	0.000000	1	0
	Ca 317.933 {106}	OK.	1.000000	0.000000	1	0
	Fe 234.349 {144}	OK.	1.000000	0.000000	1	0

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
	K 766.490 { 44}	☒	1	Fe	0.000129	0.000000	No
	Na 330.237 {102}	☒	1	Fe	-0.004563	0.000000	No
	Na 589.592 { 57}	☒	1	Fe	0.000148	0.000000	No
	Y 360.073 { 94}	☒	None				
	Y 320.332 {105}*	☒	None				
	Al 308.215 {109}	☒	1	Fe	0.000000	0.000000	No
	Al 396.152 { 85}	☒	None				
	Mg 285.213 {118}	☒	None				
	Ca 317.933 {106}	☒	None				
	Fe 234.349 {144}	☒	None				

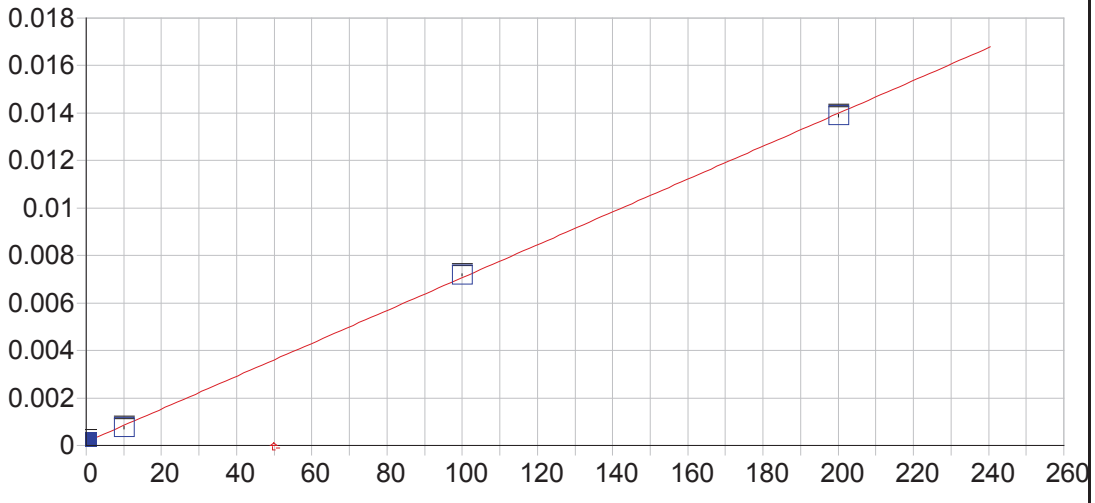


K 766.490 { 44}

Date of Fit:	09/09/2019 10:07:18	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.002040	Re-Slope:	1.000000
A1 (Gain):	0.005439	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999995	Status:	OK.
Std Error of Est:	0.000482		
Predicted MDL:	0.048194		
Predicted MQL:	0.160647		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.08311	-.083	.000	.00159	.000	1
CalibStd-1.0	1.0000	.98211	-.018	-1.79	.00738	.000	1
CalibStd-10.	10.000	10.057	.057	.565	.05674	.000	1
CalibStd-0.5	.50000	.50208	.002	.415	.00477	.000	1
CalibStd-200	200.00	199.77	-.229	-.114	1.0887	.001	1
CalibStd-100	100.00	100.71	.712	.712	.54985	.002	1

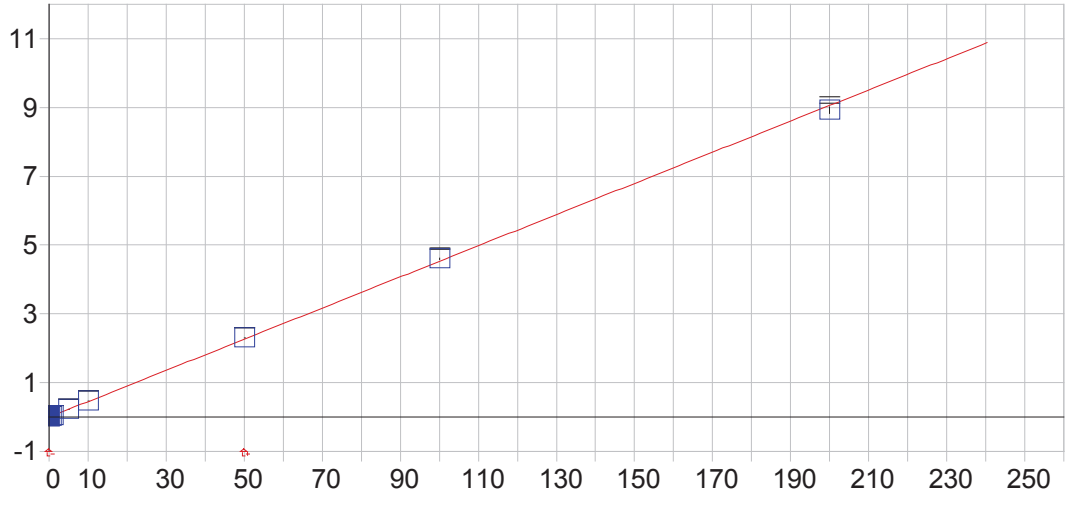


Na 330.237 {102}

Date of Fit:	09/09/2019 10:07:18	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000151	Re-Slope:	1.000000
A1 (Gain):	0.000069	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999825	Status:	OK.
Std Error of Est:	0.000133		
Predicted MDL:	1.733012		
Predicted MQL:	5.776706		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.37882	-.379	.000	.00012	.000	1
CalibStd-200	200.00	198.67	-1.33	-.665	.01389	.000	1
CalibStd-10.	10.000	8.8678	-1.13	-11.3	.00076	.000	1
CalibStd-100	100.00	101.61	1.61	1.61	.00718	.000	1

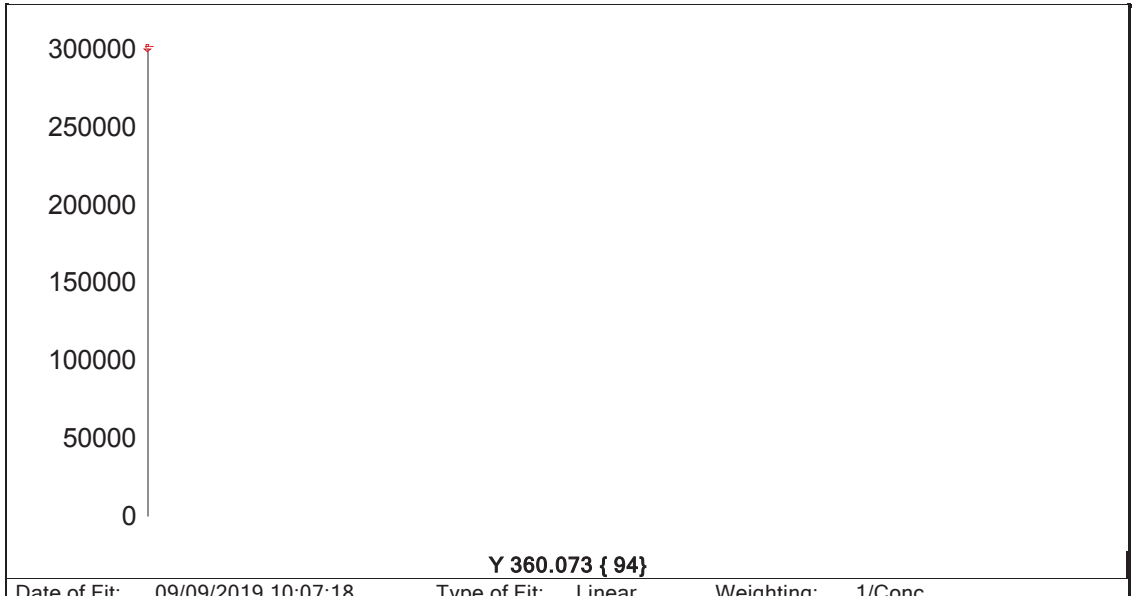


Na 589.592 { 57}

Date of Fit:	09/09/2019 10:07:18	Type of Fit:	Linear	Weighting:	1/Conc

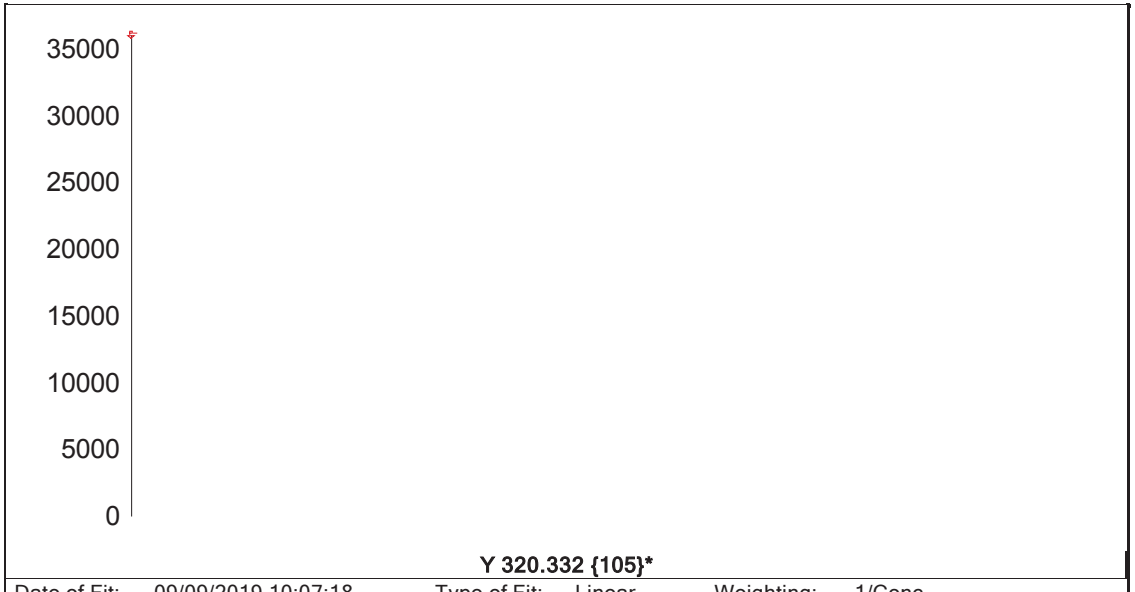
A0 (Offset):	-0.001541	Re-Slope:	1.000000
A1 (Gain):	0.045299	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999860	Status:	OK.
Std Error of Est:	0.000375		
Predicted MDL:	0.010436		
Predicted MQL:	0.034785		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00007	-.000	.000	-.00154	.001	1
CalibStd-0.5	.50000	.51462	.015	2.92	.02177	.000	1
CalibStd-1.0	1.0000	1.0254	.025	2.54	.04491	.000	1
CalibStd-5.0	5.0000	5.1640	.164	3.28	.23238	.000	1
CalibStd-10.	10.000	10.302	.302	3.02	.46512	.001	1
CalibStd-50	50.000	50.919	.919	1.84	2.3050	.005	1
CalibStd-100	100.00	101.58	1.58	1.58	4.6001	.013	1
CalibStd-200	200.00	196.99	-3.01	-1.50	8.9220	.092	1



Date of Fit:	09/09/2019 10:07:18	Type of Fit:	Linear	Weighting:	1/Conc	
A0 (Offset):	0.000000		Re-Slope:	1.000000		
A1 (Gain):	0.000000		Y-int:	0.000000		
A2 (Curvature):	0.000000					
n (Exponent):	1.000000					
Correlation:	0.000000		Status:	Warning	Zero Gain	
Std Error of Est:	0.000000					
Predicted MDL:	n/a					
Predicted MQL:	n/a					

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	281310.	343.	1

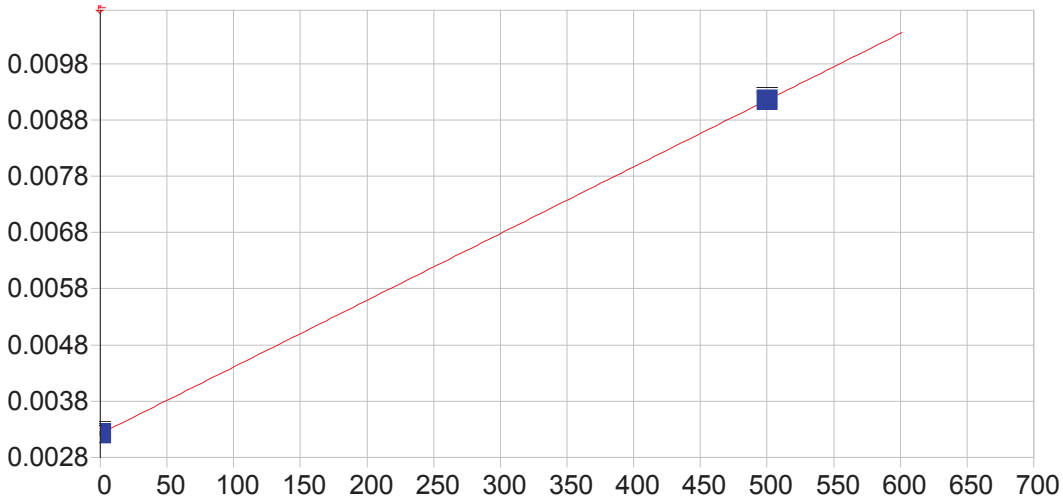


Y 320.332 {105}*

Date of Fit:	09/09/2019 10:07:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.000000	Status:	Warning Zero Gain
Std Error of Est:	0.000000		
Predicted MDL:	n/a		
Predicted MQL:	n/a		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	33856.	62.3	1

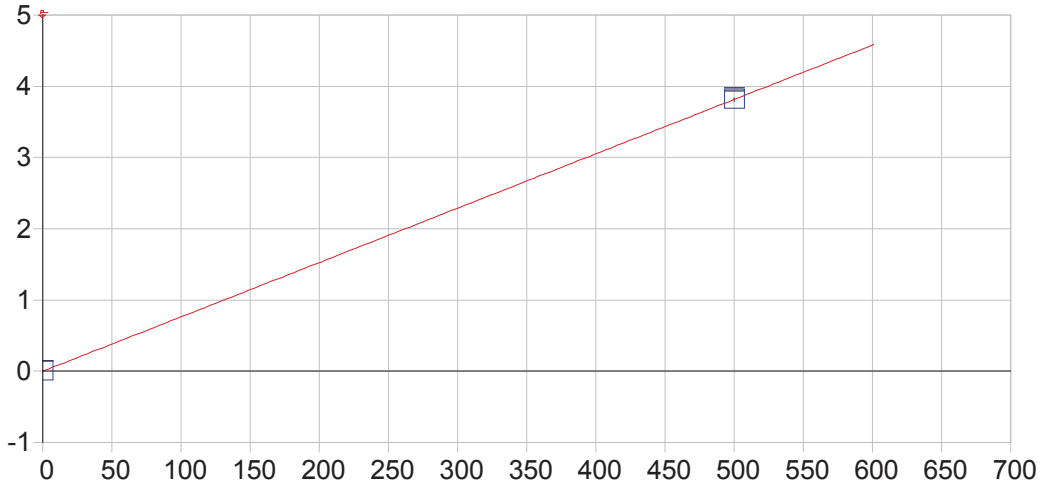


Al 308.215 {109}

Date of Fit:	09/09/2019 10:07:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.003222	Re-Slope:	1.000000
A1 (Gain):	0.000012	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	1.000000	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	n/a		
Predicted MQL:	n/a		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00322	.000	1
CalibStd-500	500.00	500.00	.000	.000	.00915	.000	1

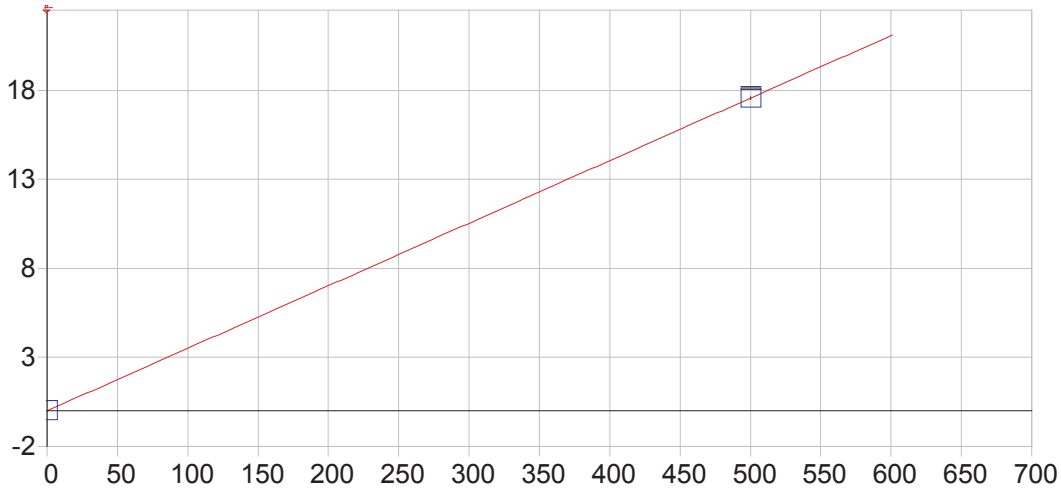


Al 396.152 { 85}

Date of Fit:	09/09/2019 10:07:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000344	Re-Slope:	1.000000
A1 (Gain):	0.007631	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	1.000000	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.019850		
Predicted MQL:	0.066167		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	-.00034	.000	1
CalibStd-500	500.00	500.00	.000	.000	3.8153	.020	1

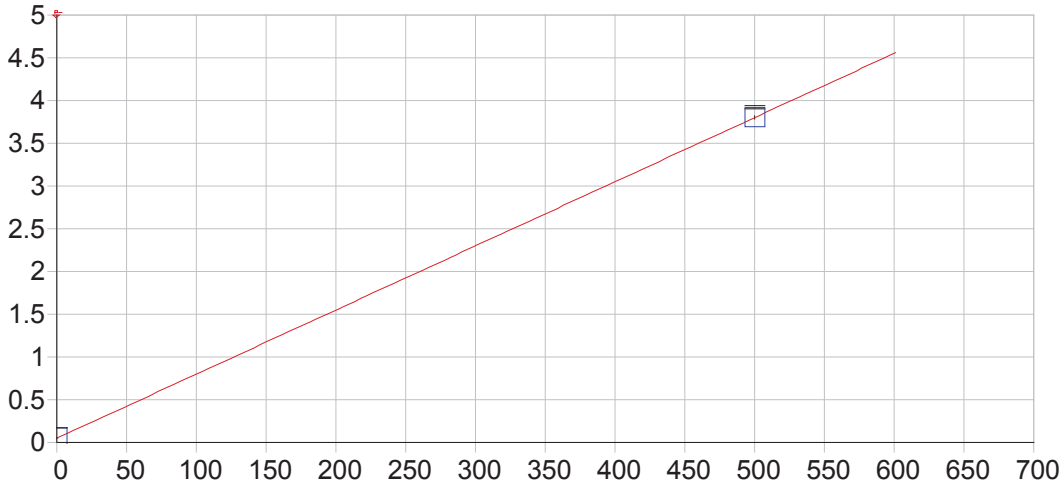


Mg 285.213 {118}

Date of Fit:	09/09/2019 10:07:18	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	-0.000033	Re-Slope:	1.000000
A1 (Gain):	0.035122	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	1.000000	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.002080		
Predicted MQL:	0.006932		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	-.00003	.000	1
CalibStd-500	500.00	500.00	.000	.000	17.561	.075	1

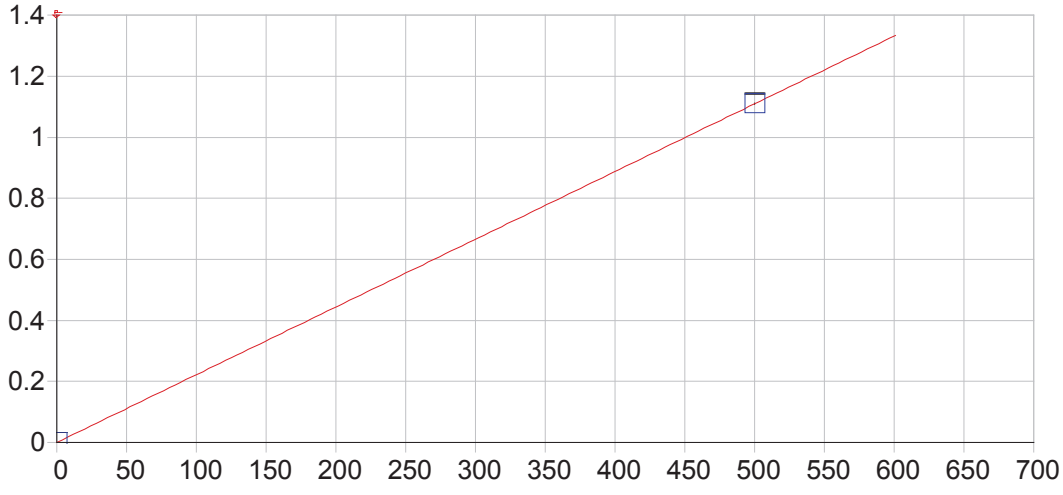


Ca 317.933 {106}

Date of Fit:	09/09/2019 10:07:18	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	0.048716	Re-Slope:	1.000000
A1 (Gain):	0.007504	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	1.000000	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.009479		
Predicted MQL:	0.031597		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.04872	.000	1
CalibStd-500	500.00	500.00	.000	.000	3.8008	.018	1



Fe 234.349 {144}

Date of Fit:	09/09/2019 10:07:18	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	0.000093	Re-Slope:	1.000000
A1 (Gain):	0.002219	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	1.000000	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.010473		
Predicted MQL:	0.034911		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00009	.000	1
CalibStd-500	500.00	500.00	.000	.000	1.1098	.002	1

Sample Name: Blank Acquired: 09/06/2019 09:11:49 Type: Cal
Method: Sodium and Potassium 1(v1182) Mode: IR Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na3302	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.001**	**.000**	**-.001**	**-.000**	**-.000**	**.043**	**.000**
Stddev	.000	.000	.001	.000	.000	.000	.000
%RSD	23.5	84.8	47.8	19.3	167.	.273	10.1

Int. Std.	Y_3203
Units	Cts/S
Avg	**38442.**
Stddev	99.
%RSD	.25809

Sample Name: CalibStd-0.5 Acquired: 09/06/2019 09:14:45 Type: Cal
Method: Sodium and Potassium 1(v1182) Mode: IR Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895
Units	Cts/S	Cts/S
Avg	**.004**	**.019**
Stddev	.000	.000
%RSD	4.69	.808

Int. Std.	Y_3203
Units	Cts/S
Avg	**38725.**
Stddev	327.
%RSD	.84543

Sample Name: CalibStd-1.0 Acquired: 09/06/2019 09:17:30 Type: Cal
Method: Sodium and Potassium 1(v1182) Mode: IR Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895
Units	Cts/S	Cts/S
Avg	**.007**	**.040**
Stddev	.000	.000
%RSD	3.65	.693

Int. Std.	Y_3203
Units	Cts/S
Avg	**38724.**
Stddev	54.
%RSD	.13909

Sample Name: CalibStd-5.0 Acquired: 09/06/2019 09:20:16 Type: Cal
Method: Sodium and Potassium 1(v1182) Mode: IR Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Na5895
Units	Cts/S
Avg	**.207**
Stddev	.000
%RSD	.171

Int. Std.	Y_3203
Units	Cts/S
Avg	**39046.**
Stddev	126.
%RSD	.32228

Sample Name: CalibStd-10.0 Acquired: 09/06/2019 09:23:02 Type: Cal
Method: Sodium and Potassium 1(v1182) Mode: IR Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na3302	Na5895
Units	Cts/S	Cts/S	Cts/S
Avg	**.050**	**.001**	**.412**
Stddev	.000	.000	.002
%RSD	.624	7.05	.459

Int. Std.	Y_3203
Units	Cts/S
Avg	**39056.**
Stddev	240.
%RSD	.61522

Sample Name: CalibStd-50 Acquired: 09/06/2019 09:25:49 Type: Cal
Method: Sodium and Potassium 1(v1182) Mode: IR Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Na5895
Units	Cts/S
Avg	**2.31**
Stddev	.01
%RSD	.208

Int. Std.	Y_3203
Units	Cts/S
Avg	**34287.**
Stddev	115.
%RSD	.33633

Sample Name: CalibStd-100 Acquired: 09/06/2019 09:28:36 Type: Cal
Method: Sodium and Potassium 1(v1182) Mode: IR Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na3302	Na5895
Units	Cts/S	Cts/S	Cts/S
Avg	**.550**	**.007**	**4.60**
Stddev	.002	.000	.01
%RSD	.323	.632	.286

Int. Std.	Y_3203
Units	Cts/S
Avg	**34390.**
Stddev	136.
%RSD	.39449

Sample Name: CalibStd-200 Acquired: 09/06/2019 09:31:22 Type: Cal
Method: Sodium and Potassium 1(v1182) Mode: IR Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na3302	Na5895
Units	Cts/S	Cts/S	Cts/S
Avg	**1.09**	**.014**	**8.92**
Stddev	.00	.000	.09
%RSD	.114	.430	1.03

Int. Std.	Y_3203
Units	Cts/S
Avg	**34441.**
Stddev	86.
%RSD	.25053

Sample Name: CalibStd-500 Acquired: 09/06/2019 09:34:19 Type: Cal
Method: Sodium and Potassium 1(v1182) Mode: IR Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Al3961	Mg2852	Ca3179	Fe2343
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.82**	**17.6**	**3.80**	**1.11**
Stddev	.02	.1	.02	.00
%RSD	.530	.427	.472	.138

Int. Std.	Y_3203
Units	Cts/S
Avg	**32741.**
Stddev	62.
%RSD	.19000

Sample Name: icv Acquired: 09/06/2019 09:37:35 Type: QC

Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000

User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1

Comment:

Elem	K_7664	Na3302	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**101.**	**99.6**	**.049**	**.032**	**-.019**	**.208**
Stddev	.	.5	.030	.010	.026	.080
%RSD	.332	.468	62.5	30.6	137.	38.6
Check ?	None	None	None	None	None	None
Value						
Range						

Int. Std.	Y_3203
Units	Cts/S
Avg	**34342.**
Stddev	237.
%RSD	.69050

Sample Name: ICVLL Acquired: 09/06/2019 09:40:20 Type: QC
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**3.09**	**3.24**	**.013**	**.003**	**-.040**	**.022**
Stddev	.02	.01	.014	.001	.010	.011
%RSD	.590	.257	105.	43.6	25.3	48.4
Check ?	Chk Pass	Chk Pass	None	None	None	None
Value						
Range						

Int. Std.	Y_3203
Units	Cts/S
Avg	**34683.**
Stddev	36.
%RSD	.10258

Sample Name: icb Acquired: 09/06/2019 09:43:06 Type: QC
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**.006**	**.028**	**-.002**	**.002**	**-.036**	**.014**
Stddev	.019	.011	.013	.001	.017	.020
%RSD	329.	39.4	737.	43.2	46.6	143.
Check ?	None	None	None	None	None	None
Value						
Range						

Int. Std.	Y_3203
Units	Cts/S
Avg	**34694.**
Stddev	133.
%RSD	.38458

Sample Name: mrl Acquired: 09/06/2019 09:45:52 Type: QC
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**1.000**	**1.07**	**.012**	**.002**	**-.076**	**-.013**
Stddev	.034	.01	.010	.001	.025	.012
%RSD	3.42	.874	82.2	57.5	32.9	86.5
Check ?	None	None	None	None	None	None
Value						
Range						

Int. Std.	Y_3203
Units	Cts/S
Avg	**35100.**
Stddev	176.
%RSD	.50206

Sample Name: icsa Acquired: 09/06/2019 09:48:38 Type: QC
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**-.042**	**.000**	**486.**	**482.**	**479.**	**477.**
Stddev	.026	.010	6.	4.	3.	1.
%RSD	61.4	1104e15	1.28	.738	.706	.229
Check ?	Chk Pass	Chk Pass	None	None	None	None
High Limit						
Low Limit						

Int. Std.	Y_3203
Units	Cts/S
Avg	**32880.**
Stddev	128.
%RSD	.38858

Sample Name: icsab Acquired: 09/06/2019 09:51:49 Type: QC
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na3302	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**106.**	**104.**	**457.**	**451.**	**451.**	**459.**
Stddev	.	3.	1.	3.	2.	1.
%RSD	.250	2.43	.223	.664	.358	.168
Check ?	None	None	None	None	None	None
Value						
Range						

Int. Std.	Y_3203
Units	Cts/S
Avg	**33105.**
Stddev	60.
%RSD	.18186

Sample Name: ccv Acquired: 09/06/2019 12:02:16 Type: QC
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na3302	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**101.**	**101.**	**.002**	**.006**	**-.039**	**.007**
Stddev	.	1.	.017	.002	.011	.016
%RSD	.191	.772	694.	33.1	28.4	223.
Check ?	None	None	None	None	None	None
Value						
Range						

Int. Std.	Y_3203
Units	Cts/S
Avg	**35981.**
Stddev	92.
%RSD	.25512

Sample Name: ccb Acquired: 09/06/2019 12:05:02 Type: QC
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**-.202**	**.059**	**-.014**	**.000**	**-.050**	**-.008**
Stddev	.054	.008	.014	.002	.012	.008
%RSD	26.8	13.4	97.6	523.	25.0	95.8
Check ?	None	None	None	None	None	None
Value						
Range						

Int. Std.	Y_3203
Units	Cts/S
Avg	**35967.**
Stddev	69.
%RSD	.19189

Sample Name: lcss73351 Acquired: 09/06/2019 12:07:48 Type: Unk
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na3302	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**106.**	**102.**	**3.93**	**105.**	**187.**	**2.00**
Stddev	.	2.	.02	.	1.	.01
%RSD	.330	1.52	.610	.404	.394	.723

Int. Std.	Y_3203
Units	Cts/S
Avg	**34792.**
Stddev	177.
%RSD	.50884

Sample Name: mbs73351 Acquired: 09/06/2019 12:10:32 Type: Unk
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**-.065**	**.062**	**.001**	**.011**	**-.019**	**.004**
Stddev	.015	.004	.015	.002	.029	.003
%RSD	23.1	6.16	2470.	22.0	155.	88.5

Int. Std.	Y_3203
Units	Cts/S
Avg	**35911.**
Stddev	128.
%RSD	.35735

Sample Name: 321149 Acquired: 09/06/2019 12:13:19 Type: Unk
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**4.76**	**14.4**	**70.6**	**25.7**	**329.**	**178.**
Stddev	.05	.0	.0	.0	1.	.
%RSD	1.03	.206	.049	.106	.267	.127

Int. Std.	Y_3203
Units	Cts/S
Avg	**35578.**
Stddev	234.
%RSD	.65634

Sample Name: 321154 Acquired: 09/06/2019 12:16:01 Type: Unk
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**9.97**	**14.3**	**118.**	**41.3**	**416.**	**263.**
Stddev	.03	.0	.	.1	2.	1.
%RSD	.266	.285	.257	.318	.473	.388

Int. Std.	Y_3203
Units	Cts/S
Avg	**35090.**
Stddev	267.
%RSD	.76144

Sample Name: 321155 Acquired: 09/06/2019 12:18:43 Type: Unk
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**2.06**	**11.3**	**27.7**	**7.40**	**72.8**	**63.9**
Stddev	.06	.0	.1	.01	.5	.2
%RSD	2.68	.376	.181	.179	.649	.318

Int. Std.	Y_3203
Units	Cts/S
Avg	**35575.**
Stddev	158.
%RSD	.44538

Sample Name: 321157 Acquired: 09/06/2019 12:21:25 Type: Unk
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**3.55**	**10.9**	**57.5**	**13.5**	**112.**	**147.**
Stddev	.03	.0	.1	.1	1.	.
%RSD	.968	.115	.109	.544	1.10	.229

Int. Std.	Y_3203
Units	Cts/S
Avg	**35436.**
Stddev	91.
%RSD	.25715

Sample Name: 321158 Acquired: 09/06/2019 12:24:08 Type: Unk
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**16.2**	**1.11**	**211.**	**53.2**	**64.4**	**438.**
Stddev	.1	.01	1.	.1	.4	1.
%RSD	.455	.895	.244	.128	.580	.258

Int. Std.	Y_3203
Units	Cts/S
Avg	**35002.**
Stddev	39.
%RSD	.11211

Sample Name: 321159 Acquired: 09/06/2019 12:26:50 Type: Unk
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**8.22**	**.589**	**145.**	**32.1**	**255.**	**298.**
Stddev	.06	.009	.	.0	1.	1.
%RSD	.702	1.58	.178	.132	.557	.363

Int. Std.	Y_3203
Units	Cts/S
Avg	**35058.**
Stddev	132.
%RSD	.37602

Sample Name: 321160 Acquired: 09/06/2019 12:29:33 Type: Unk
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**10.4**	**.760**	**164.**	**40.6**	**78.4**	**339.**
Stddev	.0	.005	.	.1	.1	1.
%RSD	.434	.681	.175	.241	.152	.270

Int. Std.	Y_3203
Units	Cts/S
Avg	**35259.**
Stddev	83.
%RSD	.23502

Sample Name: 321161 Acquired: 09/06/2019 12:32:15 Type: Unk
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**21.5**	**.850**	**300.**	**50.5**	**145.**	**433.**
Stddev	.1	.012	1.	.1	1.	1.
%RSD	.369	1.45	.188	.206	.499	.187

Int. Std.	Y_3203
Units	Cts/S
Avg	**34841.**
Stddev	68.
%RSD	.19605

Sample Name: ccv Acquired: 09/06/2019 12:34:57 Type: QC
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na3302	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**101.**	**98.9**	**.035**	**.008**	**-.057**	**.142**
Stddev	.	.8	.022	.001	.019	.051
%RSD	.118	.853	63.8	17.3	33.8	35.8
Check ?	None	None	None	None	None	None
Value						
Range						

Int. Std.	Y_3203
Units	Cts/S
Avg	**35722.**
Stddev	150.
%RSD	.41951

Sample Name: ccb Acquired: 09/06/2019 12:37:43 Type: QC
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**-.096**	**.039**	**-.000**	**.002**	**-.075**	**.021**
Stddev	.028	.005	.010	.002	.008	.009
%RSD	29.4	12.2	7840.	95.1	10.7	43.1
Check ?	None	None	None	None	None	None
Value						
Range						

Int. Std.	Y_3203
Units	Cts/S
Avg	**36086.**
Stddev	35.
%RSD	.09753

Sample Name: I321161 Acquired: 09/06/2019 12:40:29 Type: Unk
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**4.26**	**.179**	**61.3**	**10.4**	**30.2**	**92.9**
Stddev	.05	.010	.2	.1	.2	.5
%RSD	1.12	5.33	.406	.523	.646	.580

Int. Std.	Y_3203
Units	Cts/S
Avg	**36191.**
Stddev	82.
%RSD	.22789

Sample Name: dup321161 Acquired: 09/06/2019 12:43:11 Type: Unk
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**21.1**	**.780**	**283.**	**47.2**	**120.**	**489.**
Stddev	.1	.005	.	.0	.	1.
%RSD	.417	.626	.043	.100	.126	.190

Int. Std.	Y_3203
Units	Cts/S
Avg	**34879.**
Stddev	41.
%RSD	.11838

Sample Name: mss321161 Acquired: 09/06/2019 12:45:53 Type: Unk
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na3302	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**130.**	**106.**	**361.**	**156.**	**329.**	**466.**
Stddev	.	1.	.	.	.	1.
%RSD	.138	.552	.119	.286	.118	.314

Int. Std.	Y_3203
Units	Cts/S
Avg	**34101.**
Stddev	144.
%RSD	.42361

Sample Name: msds321161 Acquired: 09/06/2019 12:48:35 Type: Unk
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na3302	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**128.**	**104.**	**344.**	**158.**	**325.**	**452.**
Stddev	.	1.	1.	.	2.	1.
%RSD	.273	1.12	.154	.206	.511	.217

Int. Std.	Y_3203
Units	Cts/S
Avg	**34033.**
Stddev	148.
%RSD	.43568

Sample Name: pdss321161 Acquired: 09/06/2019 12:51:17 Type: Unk
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na3302	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**115.**	**97.0**	**295.**	**49.5**	**143.**	**426.**
Stddev	.	2.1	.	.1	1.	1.
%RSD	.186	2.20	.060	.206	.581	.157

Int. Std.	Y_3203
Units	Cts/S
Avg	**34397.**
Stddev	130.
%RSD	.37784

Sample Name: 321162 Acquired: 09/06/2019 12:53:59 Type: Unk
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**10.6**	**.464**	**175.**	**22.2**	**58.9**	**353.**
Stddev	.1	.006	.	.1	.3	1.
%RSD	.594	1.20	.133	.288	.429	.294

Int. Std.	Y_3203
Units	Cts/S
Avg	**34867.**
Stddev	158.
%RSD	.45343

Sample Name: 321163 Acquired: 09/06/2019 12:56:41 Type: Unk
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**20.0**	**10.8**	**156.**	**132.**	**2840.**	**245.**
Stddev	.0	.0	.	.	16.	.
%RSD	.168	.353	.182	.365	.554	.170

Int. Std.	Y_3203
Units	Cts/S
Avg	**32748.**
Stddev	182.
%RSD	.55504

Sample Name: 321164 Acquired: 09/06/2019 12:59:35 Type: Unk
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**23.5**	**8.16**	**367.**	**82.2**	**227.**	**635.**
Stddev	.1	.01	.	.1	1.	1.
%RSD	.429	.157	.126	.166	.626	.206

Int. Std.	Y_3203
Units	Cts/S
Avg	**34345.**
Stddev	161.
%RSD	.46907

Sample Name: 321165 Acquired: 09/06/2019 13:02:17 Type: Unk
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**23.2**	**11.4**	**333.**	**83.6**	**507.**	**569.**
Stddev	.1	.0	.	.3	4.	2.
%RSD	.293	.229	.128	.401	.768	.332

Int. Std.	Y_3203
Units	Cts/S
Avg	**33920.**
Stddev	124.
%RSD	.36464

Sample Name: 321166 Acquired: 09/06/2019 13:05:12 Type: Unk
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**7.85**	**12.6**	**60.1**	**102.**	**3450.**	**192.**
Stddev	.06	.0	.1	.	10.	.
%RSD	.712	.078	.126	.173	.299	.231

Int. Std.	Y_3203
Units	Cts/S
Avg	**31962.**
Stddev	82.
%RSD	.25549

Sample Name: ccv Acquired: 09/06/2019 13:08:06 Type: QC
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na3302	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**101.**	**99.3**	**.013**	**.013**	**.176**	**.088**
Stddev	.	1.2	.016	.002	.088	.028
%RSD	.259	1.17	129.	17.4	50.4	31.6
Check ?	None	None	None	None	None	None
Value						
Range						

Int. Std.	Y_3203
Units	Cts/S
Avg	**35950.**
Stddev	195.
%RSD	.54292

Sample Name: ccb Acquired: 09/06/2019 13:10:52 Type: QC
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**-.180**	**.049**	**-.014**	**.004**	**-.084**	**.011**
Stddev	.019	.009	.006	.001	.014	.009
%RSD	10.3	18.5	41.1	35.9	16.6	87.5
Check ?	None	None	None	None	None	None
Value						
Range						

Int. Std.	Y_3203
Units	Cts/S
Avg	**36132.**
Stddev	202.
%RSD	.55852

Sample Name: 321167 Acquired: 09/06/2019 13:13:39 Type: Unk
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**23.7**	**1.40**	**353.**	**86.5**	**419.**	**610.**
Stddev	.1	.01	1.	.1	3.	2.
%RSD	.232	.487	.173	.143	.679	.269

Int. Std.	Y_3203
Units	Cts/S
Avg	**33931.**
Stddev	34.
%RSD	.09948

Sample Name: 321168 Acquired: 09/06/2019 13:16:22 Type: Unk
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**12.6**	**18.9**	**109.**	**123.**	**3380.**	**200.**
Stddev	.0	.0	.	.	22.	.
%RSD	.319	.145	.092	.121	.645	.220

Int. Std.	Y_3203
Units	Cts/S
Avg	**32081.**
Stddev	106.
%RSD	.32915

Sample Name: 321169 Acquired: 09/06/2019 13:19:16 Type: Unk
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**16.3**	**1.39**	**269.**	**71.8**	**740.**	**496.**
Stddev	.0	.01	.	.1	9.	2.
%RSD	.287	.876	.165	.119	1.20	.464

Int. Std.	Y_3203
Units	Cts/S
Avg	**34106.**
Stddev	136.
%RSD	.39997

Sample Name: 321170 Acquired: 09/06/2019 13:22:11 Type: Unk
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**8.78**	**17.0**	**85.3**	**151.**	**4780.**	**153.**
Stddev	.03	.0	.2	.	43.	.
%RSD	.356	.230	.179	.244	.893	.069

Int. Std.	Y_3203
Units	Cts/S
Avg	**31184.**
Stddev	67.
%RSD	.21434

Sample Name: 321171 Acquired: 09/06/2019 13:25:06 Type: Unk
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**11.1**	**1.85**	**158.**	**61.3**	**846.**	**337.**
Stddev	.0	.01	.	.2	5.	1.
%RSD	.245	.336	.290	.372	.636	.249

Int. Std.	Y_3203
Units	Cts/S
Avg	**34113.**
Stddev	103.
%RSD	.30214

Sample Name: 321172 Acquired: 09/06/2019 13:28:00 Type: Unk
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**16.6**	**1.49**	**270.**	**79.8**	**59.2**	**633.**
Stddev	.1	.01	1.	.2	.4	2.
%RSD	.653	.553	.265	.298	.680	.281

Int. Std.	Y_3203
Units	Cts/S
Avg	**34785.**
Stddev	140.
%RSD	.40385

Sample Name: ccv Acquired: 09/06/2019 13:41:43 Type: QC
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na3302	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**100.**	**99.5**	**.010**	**.018**	**.047**	**.016**
Stddev	.	.7	.017	.004	.008	.006
%RSD	.167	.704	159.	20.2	16.9	39.8
Check ?	None	None	None	None	None	None
Value						
Range						

Int. Std.	Y_3203
Units	Cts/S
Avg	**35629.**
Stddev	40.
%RSD	.11169

Sample Name: ccb Acquired: 09/06/2019 13:44:29 Type: QC
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

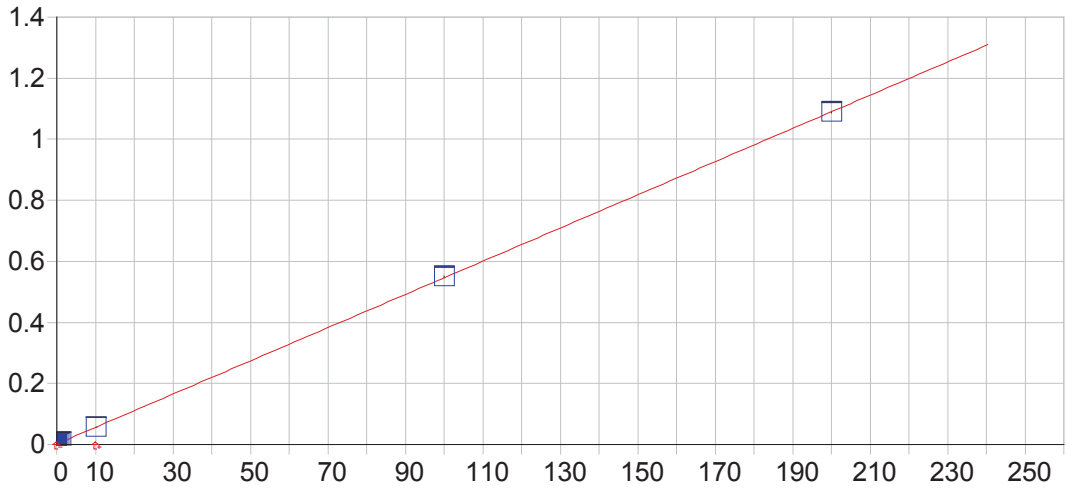
Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**-.114**	**.041**	**-.004**	**.004**	**-.027**	**-.006**
Stddev	.060	.010	.008	.001	.015	.008
%RSD	52.3	23.5	217.	12.2	55.6	136.
Check ?	None	None	None	None	None	None
Value						
Range						

Int. Std.	Y_3203
Units	Cts/S
Avg	**35964.**
Stddev	126.
%RSD	.35108

	Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL
	K 766.490 { 44}	09/09/2019 10:07:18	09/06/2019 09:34:16	Linear	1/Var	0.002040	0.005439	0.000000	1.000000	0.999995	0.000482	0.048194	0.160647
	Na 330.237 {102}	09/09/2019 10:07:18	09/06/2019 09:34:16	Linear	1/Var	0.000151	0.000069	0.000000	1.000000	0.999825	0.000133	1.733012	5.776706
	Na 589.592 { 57}	09/09/2019 10:07:18	09/06/2019 09:34:16	Linear	1/Conc	-0.001541	0.045299	0.000000	1.000000	0.999860	0.000375	0.010436	0.034785
	Y 360.073 { 94}	09/09/2019 10:07:18	09/06/2019 09:14:42	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
	Y 320.332 {105}*	09/09/2019 10:07:18	09/06/2019 09:14:42	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
	Al 308.215 {109}	09/09/2019 10:07:18	09/06/2019 09:37:31	Linear	1/Conc	0.003222	0.000012	0.000000	1.000000	1.000000	0.000000	-1.000000	-1.000000
	Al 396.152 { 85}	09/09/2019 10:07:18	09/06/2019 09:37:31	Linear	1/Conc	-0.000344	0.007631	0.000000	1.000000	1.000000	0.000000	0.019850	0.066167
	Mg 285.213 {118}	09/09/2019 10:07:18	09/06/2019 09:37:31	Linear	None	-0.000033	0.035122	0.000000	1.000000	1.000000	0.000000	0.002080	0.006932
	Ca 317.933 {106}	09/09/2019 10:07:18	09/06/2019 09:37:31	Linear	None	0.048716	0.007504	0.000000	1.000000	1.000000	0.000000	0.009479	0.031597
	Fe 234.349 {144}	09/09/2019 10:07:18	09/06/2019 09:37:31	Linear	None	0.000093	0.002219	0.000000	1.000000	1.000000	0.000000	0.010473	0.034911

	Element, Wavelength and Order	Status	Reslope		QC Norm	
			Slope	Y-int	Slope factor	Offset
	K 766.490 { 44}	OK.	1.000000	0.000000	1	0
	Na 330.237 {102}	OK.	1.000000	0.000000	1	0
	Na 589.592 { 57}	OK.	1.000000	0.000000	1	0
	Y 360.073 { 94}	Warnin	1.000000	0.000000	1	0
	Y 320.332 {105}*	Warnin	1.000000	0.000000	1	0
	Al 308.215 {109}	OK.	1.000000	0.000000	1	0
	Al 396.152 { 85}	OK.	1.000000	0.000000	1	0
	Mg 285.213 {118}	OK.	1.000000	0.000000	1	0
	Ca 317.933 {106}	OK.	1.000000	0.000000	1	0
	Fe 234.349 {144}	OK.	1.000000	0.000000	1	0

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
	K 766.490 { 44}	☒	1	Fe	0.000129	0.000000	No
	Na 330.237 {102}	☒	1	Fe	-0.004563	0.000000	No
	Na 589.592 { 57}	☒	1	Fe	0.000148	0.000000	No
	Y 360.073 { 94}	☒	None				
	Y 320.332 {105}*	☒	None				
	Al 308.215 {109}	☒	1	Fe	0.000000	0.000000	No
	Al 396.152 { 85}	☒	None				
	Mg 285.213 {118}	☒	None				
	Ca 317.933 {106}	☒	None				
	Fe 234.349 {144}	☒	None				

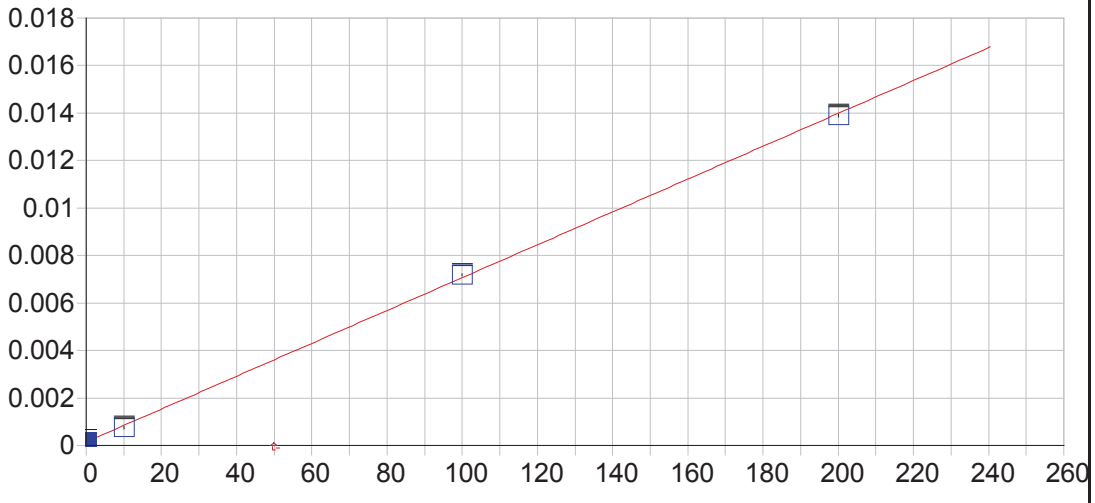


K 766.490 { 44}

Date of Fit:	09/09/2019 10:07:18	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.002040	Re-Slope:	1.000000
A1 (Gain):	0.005439	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999995	Status:	OK.
Std Error of Est:	0.000482		
Predicted MDL:	0.048194		
Predicted MQL:	0.160647		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.08311	-.083	.000	.00159	.000	1
CalibStd-1.0	1.0000	.98211	-.018	-1.79	.00738	.000	1
CalibStd-10.	10.000	10.057	.057	.565	.05674	.000	1
CalibStd-0.5	.50000	.50208	.002	.415	.00477	.000	1
CalibStd-200	200.00	199.77	-.229	-.114	1.0887	.001	1
CalibStd-100	100.00	100.71	.712	.712	.54985	.002	1

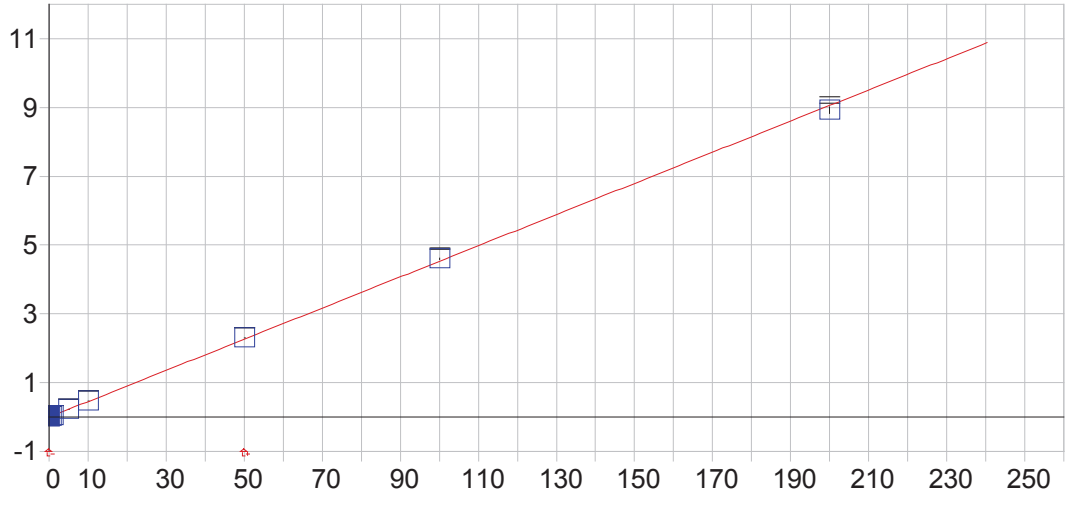


Na 330.237 {102}

Date of Fit:	09/09/2019 10:07:18	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000151	Re-Slope:	1.000000
A1 (Gain):	0.000069	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999825	Status:	OK.
Std Error of Est:	0.000133		
Predicted MDL:	1.733012		
Predicted MQL:	5.776706		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.37882	-.379	.000	.00012	.000	1
CalibStd-200	200.00	198.67	-1.33	-.665	.01389	.000	1
CalibStd-10.	10.000	8.8678	-1.13	-11.3	.00076	.000	1
CalibStd-100	100.00	101.61	1.61	1.61	.00718	.000	1

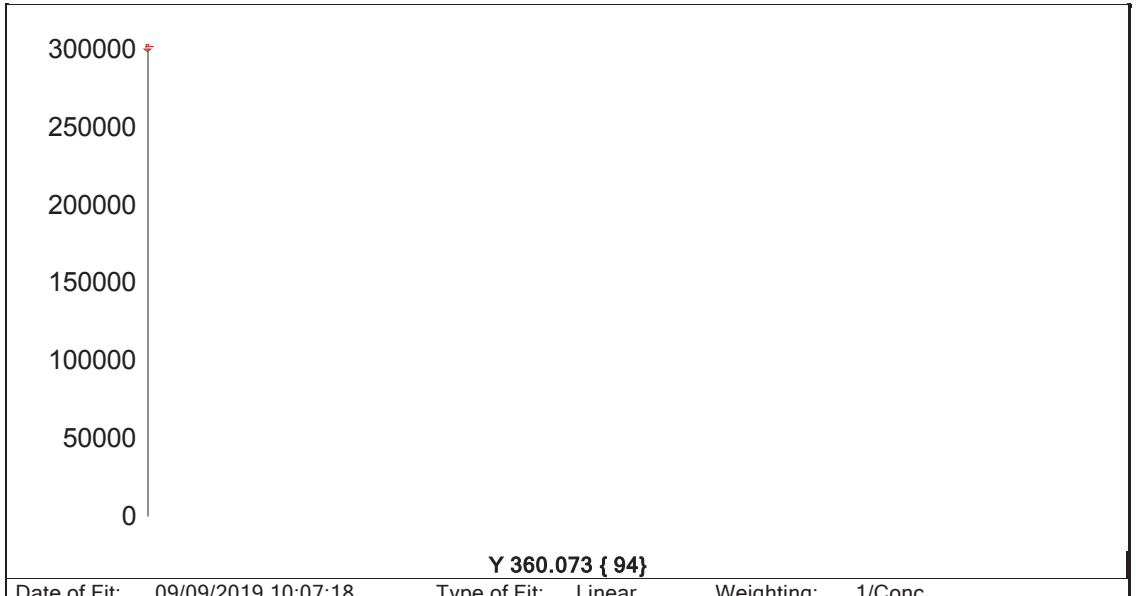


Na 589.592 { 57}

Date of Fit:	09/09/2019 10:07:18	Type of Fit:	Linear	Weighting:	1/Conc

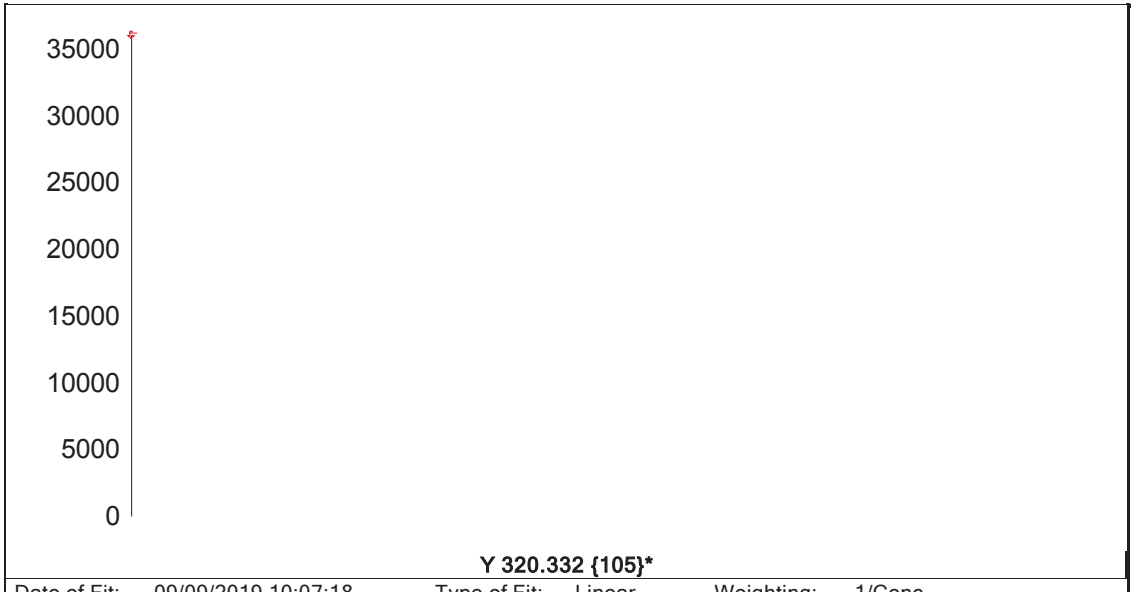
A0 (Offset):	-0.001541	Re-Slope:	1.000000
A1 (Gain):	0.045299	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999860	Status:	OK.
Std Error of Est:	0.000375		
Predicted MDL:	0.010436		
Predicted MQL:	0.034785		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00007	-.000	.000	-.00154	.001	1
CalibStd-0.5	.50000	.51462	.015	2.92	.02177	.000	1
CalibStd-1.0	1.0000	1.0254	.025	2.54	.04491	.000	1
CalibStd-5.0	5.0000	5.1640	.164	3.28	.23238	.000	1
CalibStd-10.	10.000	10.302	.302	3.02	.46512	.001	1
CalibStd-50	50.000	50.919	.919	1.84	2.3050	.005	1
CalibStd-100	100.00	101.58	1.58	1.58	4.6001	.013	1
CalibStd-200	200.00	196.99	-3.01	-1.50	8.9220	.092	1



Date of Fit:	09/09/2019 10:07:18	Type of Fit:	Linear	Weighting:	1/Conc	
A0 (Offset):	0.000000		Re-Slope:	1.000000		
A1 (Gain):	0.000000		Y-int:	0.000000		
A2 (Curvature):	0.000000					
n (Exponent):	1.000000					
Correlation:	0.000000		Status:	Warning	Zero Gain	
Std Error of Est:	0.000000					
Predicted MDL:	n/a					
Predicted MQL:	n/a					

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	281310.	343.	1

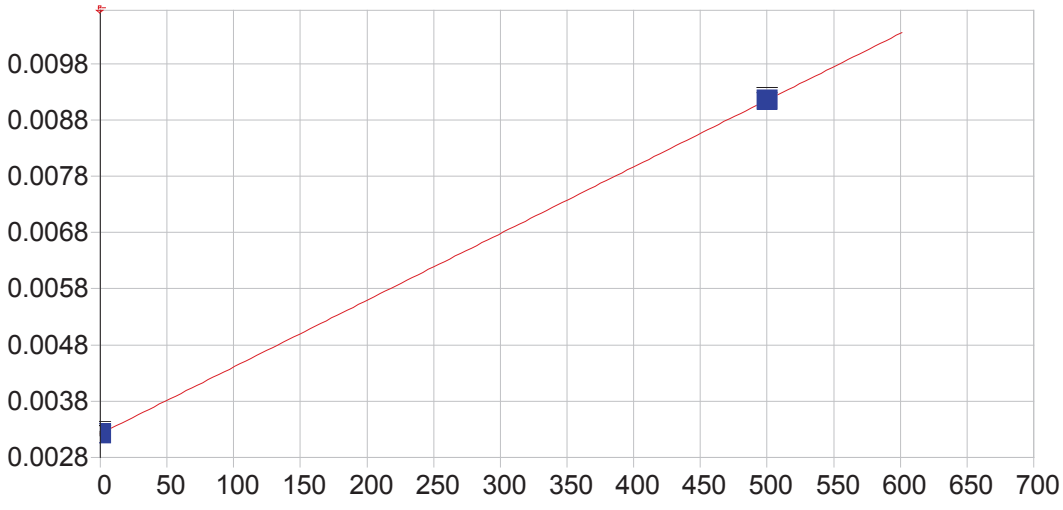


Y 320.332 {105}*

Date of Fit:	09/09/2019 10:07:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.000000	Status:	Warning Zero Gain
Std Error of Est:	0.000000		
Predicted MDL:	n/a		
Predicted MQL:	n/a		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	33856.	62.3	1

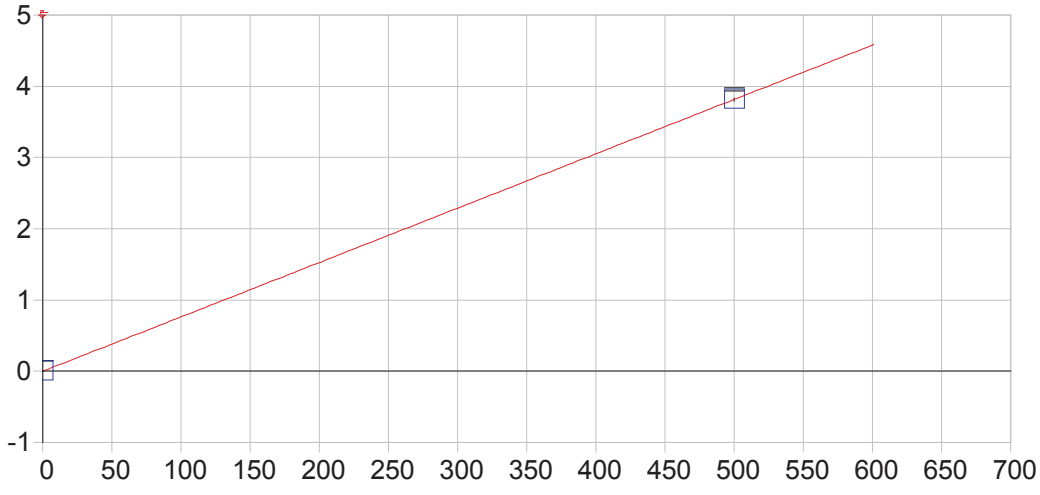


Al 308.215 {109}

Date of Fit:	09/09/2019 10:07:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.003222	Re-Slope:	1.000000
A1 (Gain):	0.000012	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	1.000000	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	n/a		
Predicted MQL:	n/a		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00322	.000	1
CalibStd-500	500.00	500.00	.000	.000	.00915	.000	1

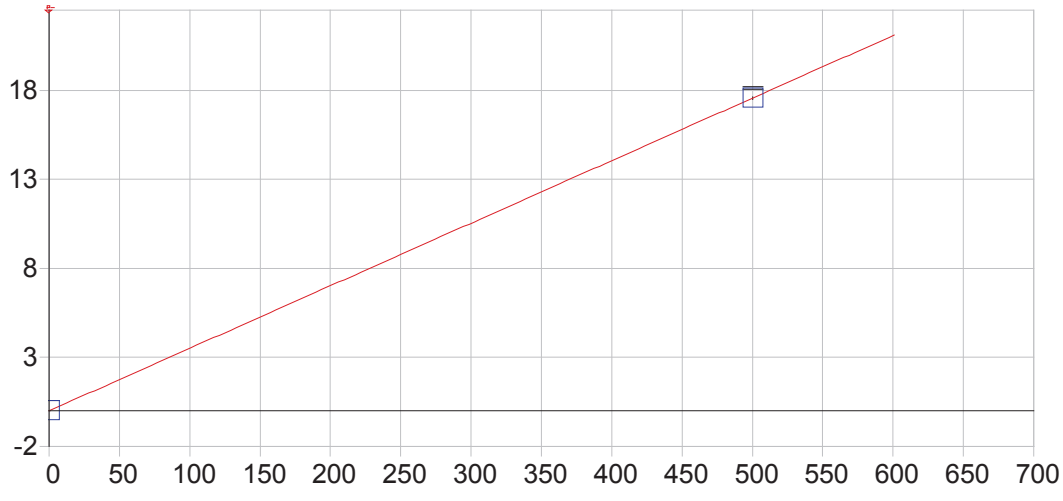


Al 396.152 { 85}

Date of Fit:	09/09/2019 10:07:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000344	Re-Slope:	1.000000
A1 (Gain):	0.007631	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	1.000000	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.019850		
Predicted MQL:	0.066167		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	-.00034	.000	1
CalibStd-500	500.00	500.00	.000	.000	3.8153	.020	1

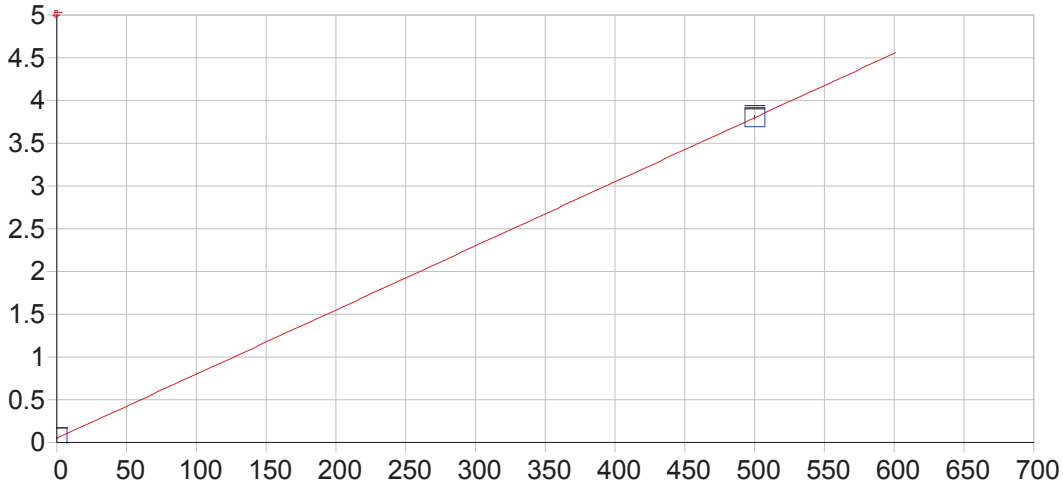


Mg 285.213 {118}

Date of Fit:	09/09/2019 10:07:18	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	-0.000033	Re-Slope:	1.000000
A1 (Gain):	0.035122	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	1.000000	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.002080		
Predicted MQL:	0.006932		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	-.00003	.000	1
CalibStd-500	500.00	500.00	.000	.000	17.561	.075	1

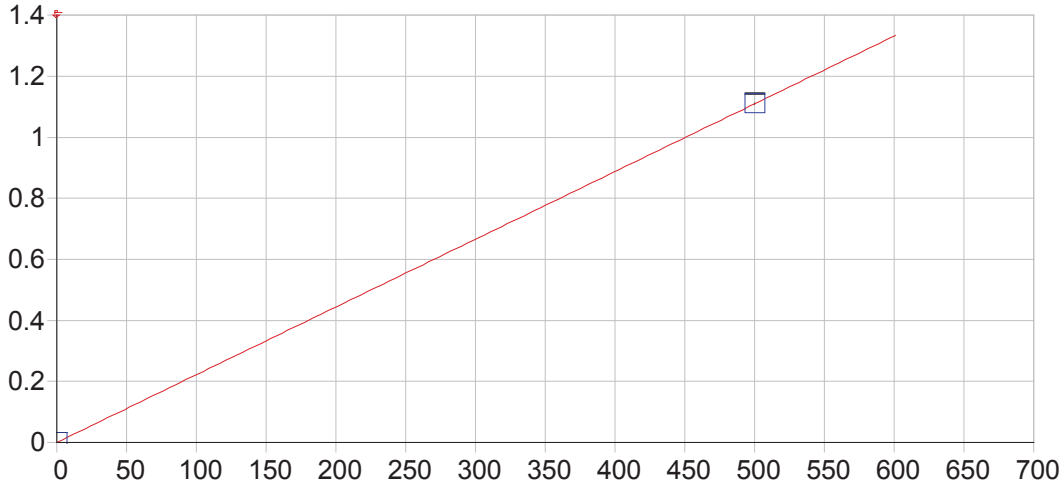


Ca 317.933 {106}

Date of Fit:	09/09/2019 10:07:18	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	0.048716	Re-Slope:	1.000000
A1 (Gain):	0.007504	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	1.000000	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.009479		
Predicted MQL:	0.031597		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.04872	.000	1
CalibStd-500	500.00	500.00	.000	.000	3.8008	.018	1



Fe 234.349 {144}

Date of Fit:	09/09/2019 10:07:18	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	0.000093	Re-Slope:	1.000000
A1 (Gain):	0.002219	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	1.000000	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.010473		
Predicted MQL:	0.034911		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00009	.000	1
CalibStd-500	500.00	500.00	.000	.000	1.1098	.002	1

Sample Name: Blank Acquired: 09/06/2019 09:11:49 Type: Cal
Method: Sodium and Potassium 1(v1182) Mode: IR Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na3302	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.001**	**.000**	**-.001**	**-.000**	**-.000**	**.043**	**.000**
Stddev	.000	.000	.001	.000	.000	.000	.000
%RSD	23.5	84.8	47.8	19.3	167.	.273	10.1

Int. Std.	Y_3203
Units	Cts/S
Avg	**38442.**
Stddev	99.
%RSD	.25809

Sample Name: CalibStd-0.5 Acquired: 09/06/2019 09:14:45 Type: Cal
Method: Sodium and Potassium 1(v1182) Mode: IR Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895
Units	Cts/S	Cts/S
Avg	**.004**	**.019**
Stddev	.000	.000
%RSD	4.69	.808

Int. Std.	Y_3203
Units	Cts/S
Avg	**38725.**
Stddev	327.
%RSD	.84543

Sample Name: CalibStd-1.0 Acquired: 09/06/2019 09:17:30 Type: Cal
Method: Sodium and Potassium 1(v1182) Mode: IR Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895
Units	Cts/S	Cts/S
Avg	**.007**	**.040**
Stddev	.000	.000
%RSD	3.65	.693

Int. Std.	Y_3203
Units	Cts/S
Avg	**38724.**
Stddev	54.
%RSD	.13909

Sample Name: CalibStd-5.0 Acquired: 09/06/2019 09:20:16 Type: Cal
Method: Sodium and Potassium 1(v1182) Mode: IR Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Na5895
Units	Cts/S
Avg	**.207**
Stddev	.000
%RSD	.171

Int. Std.	Y_3203
Units	Cts/S
Avg	**39046.**
Stddev	126.
%RSD	.32228

Sample Name: CalibStd-10.0 Acquired: 09/06/2019 09:23:02 Type: Cal
Method: Sodium and Potassium 1(v1182) Mode: IR Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na3302	Na5895
Units	Cts/S	Cts/S	Cts/S
Avg	**.050**	**.001**	**.412**
Stddev	.000	.000	.002
%RSD	.624	7.05	.459

Int. Std.	Y_3203
Units	Cts/S
Avg	**39056.**
Stddev	240.
%RSD	.61522

Sample Name: CalibStd-50 Acquired: 09/06/2019 09:25:49 Type: Cal
Method: Sodium and Potassium 1(v1182) Mode: IR Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Na5895
Units	Cts/S
Avg	**2.31**
Stddev	.01
%RSD	.208

Int. Std.	Y_3203
Units	Cts/S
Avg	**34287.**
Stddev	115.
%RSD	.33633

Sample Name: CalibStd-100 Acquired: 09/06/2019 09:28:36 Type: Cal
Method: Sodium and Potassium 1(v1182) Mode: IR Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na3302	Na5895
Units	Cts/S	Cts/S	Cts/S
Avg	**.550**	**.007**	**4.60**
Stddev	.002	.000	.01
%RSD	.323	.632	.286

Int. Std.	Y_3203
Units	Cts/S
Avg	**34390.**
Stddev	136.
%RSD	.39449

Sample Name: CalibStd-200 Acquired: 09/06/2019 09:31:22 Type: Cal
Method: Sodium and Potassium 1(v1182) Mode: IR Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na3302	Na5895
Units	Cts/S	Cts/S	Cts/S
Avg	**1.09**	**.014**	**8.92**
Stddev	.00	.000	.09
%RSD	.114	.430	1.03

Int. Std.	Y_3203
Units	Cts/S
Avg	**34441.**
Stddev	86.
%RSD	.25053

Sample Name: CalibStd-500 Acquired: 09/06/2019 09:34:19 Type: Cal
Method: Sodium and Potassium 1(v1182) Mode: IR Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Al3961	Mg2852	Ca3179	Fe2343
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.82**	**17.6**	**3.80**	**1.11**
Stddev	.02	.1	.02	.00
%RSD	.530	.427	.472	.138

Int. Std.	Y_3203
Units	Cts/S
Avg	**32741.**
Stddev	62.
%RSD	.19000

Sample Name: icv Acquired: 09/06/2019 09:37:35 Type: QC

Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000

User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1

Comment:

Elem	K_7664	Na3302	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**101.**	**99.6**	**.049**	**.032**	**-.019**	**.208**
Stddev	.	.5	.030	.010	.026	.080
%RSD	.332	.468	62.5	30.6	137.	38.6
Check ?	None	None	None	None	None	None
Value						
Range						

Int. Std.	Y_3203
Units	Cts/S
Avg	**34342.**
Stddev	237.
%RSD	.69050

Sample Name: ICVLL Acquired: 09/06/2019 09:40:20 Type: QC
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**3.09**	**3.24**	**.013**	**.003**	**-.040**	**.022**
Stddev	.02	.01	.014	.001	.010	.011
%RSD	.590	.257	105.	43.6	25.3	48.4
Check ?	Chk Pass	Chk Pass	None	None	None	None
Value						
Range						

Int. Std.	Y_3203
Units	Cts/S
Avg	**34683.**
Stddev	36.
%RSD	.10258

Sample Name: icb Acquired: 09/06/2019 09:43:06 Type: QC
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**.006**	**.028**	**-.002**	**.002**	**-.036**	**.014**
Stddev	.019	.011	.013	.001	.017	.020
%RSD	329.	39.4	737.	43.2	46.6	143.
Check ?	None	None	None	None	None	None
Value						
Range						

Int. Std.	Y_3203
Units	Cts/S
Avg	**34694.**
Stddev	133.
%RSD	.38458

Sample Name: mrl Acquired: 09/06/2019 09:45:52 Type: QC
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**1.000**	**1.07**	**.012**	**.002**	**-.076**	**-.013**
Stddev	.034	.01	.010	.001	.025	.012
%RSD	3.42	.874	82.2	57.5	32.9	86.5
Check ?	None	None	None	None	None	None
Value						
Range						

Int. Std.	Y_3203
Units	Cts/S
Avg	**35100.**
Stddev	176.
%RSD	.50206

Sample Name: icsa Acquired: 09/06/2019 09:48:38 Type: QC
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**-.042**	**.000**	**486.**	**482.**	**479.**	**477.**
Stddev	.026	.010	6.	4.	3.	1.
%RSD	61.4	1104e15	1.28	.738	.706	.229
Check ?	Chk Pass	Chk Pass	None	None	None	None
High Limit						
Low Limit						

Int. Std.	Y_3203
Units	Cts/S
Avg	**32880.**
Stddev	128.
%RSD	.38858

Sample Name: icsab Acquired: 09/06/2019 09:51:49 Type: QC
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na3302	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**106.**	**104.**	**457.**	**451.**	**451.**	**459.**
Stddev	.	3.	1.	3.	2.	1.
%RSD	.250	2.43	.223	.664	.358	.168
Check ?	None	None	None	None	None	None
Value						
Range						

Int. Std.	Y_3203
Units	Cts/S
Avg	**33105.**
Stddev	60.
%RSD	.18186

Sample Name: ccv Acquired: 09/06/2019 10:22:23 Type: QC
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na3302	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**100.**	**99.5**	**.011**	**.004**	**-.053**	**.043**
Stddev	.	1.5	.023	.001	.015	.013
%RSD	.198	1.55	220.	25.3	28.3	29.9
Check ?	None	None	None	None	None	None
Value						
Range						

Int. Std.	Y_3203
Units	Cts/S
Avg	**35627.**
Stddev	110.
%RSD	.30904

Sample Name: ccb Acquired: 09/06/2019 10:25:09 Type: QC
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**.030**	**.046**	**.001**	**.002**	**-.058**	**.038**
Stddev	.022	.005	.015	.002	.013	.020
%RSD	74.4	9.88	1300.	81.4	22.2	51.8
Check ?	None	None	None	None	None	None
Value						
Range						

Int. Std.	Y_3203
Units	Cts/S
Avg	**35864.**
Stddev	156.
%RSD	.43393

Sample Name: lcsw73360 Acquired: 09/06/2019 10:49:59 Type: Unk
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na3302	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**105.**	**102.**	**.924**	**102.**	**187.**	**.392**
Stddev	1.	1.	.021	1.	1.	.007
%RSD	.511	1.36	2.22	.490	.425	1.68

Int. Std.	Y_3203
Units	Cts/S
Avg	**34959.**
Stddev	124.
%RSD	.35497

Sample Name: mbw73360 Acquired: 09/06/2019 10:52:43 Type: Unk
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**-.190**	**.035**	**.016**	**.013**	**-.075**	**-.014**
Stddev	.027	.009	.019	.003	.024	.002
%RSD	14.0	24.6	114.	26.4	31.6	11.3

Int. Std.	Y_3203
Units	Cts/S
Avg	**36430.**
Stddev	157.
%RSD	.43230

Sample Name: ccv Acquired: 09/06/2019 10:55:30 Type: QC
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na3302	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**100.**	**99.0**	**-.000**	**.003**	**-.093**	**-.017**
Stddev	.	.7	.010	.001	.026	.007
%RSD	.271	.680	2120.	21.2	28.1	40.4
Check ?	None	None	None	None	None	None
Value						
Range						

Int. Std.	Y_3203
Units	Cts/S
Avg	**35736.**
Stddev	232.
%RSD	.64894

Sample Name: ccb Acquired: 09/06/2019 10:58:16 Type: QC
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**.016**	**.042**	**-.007**	**.001**	**-.075**	**-.016**
Stddev	.014	.007	.008	.001	.012	.012
%RSD	87.0	16.1	114.	120.	15.6	73.1
Check ?	None	None	None	None	None	None
Value						
Range						

Int. Std.	Y_3203
Units	Cts/S
Avg	**35892.**
Stddev	46.
%RSD	.12892

Sample Name: 321513 Acquired: 09/06/2019 11:01:02 Type: Unk
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**-.099**	**.371**	**-.000**	**.009**	**.006**	**-.011**
Stddev	.010	.009	.024	.001	.014	.009
%RSD	9.65	2.37	40700.	11.4	224.	81.2

Int. Std.	Y_3203
Units	Cts/S
Avg	**36273.**
Stddev	129.
%RSD	.35499

Sample Name: I321513 Acquired: 09/06/2019 11:03:49 Type: Unk
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**-.166**	**.113**	**-.000**	**.005**	**-.077**	**-.018**
Stddev	.061	.010	.020	.002	.017	.006
%RSD	36.7	9.03	121000.	42.0	21.8	35.8

Int. Std.	Y_3203
Units	Cts/S
Avg	**36613.**
Stddev	52.
%RSD	.14184

Sample Name: dup321513 Acquired: 09/06/2019 11:06:37 Type: Unk
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**-.124**	**.324**	**.004**	**.006**	**-.047**	**-.008**
Stddev	.028	.007	.011	.001	.005	.006
%RSD	22.3	2.30	263.	18.6	11.3	69.3

Int. Std.	Y_3203
Units	Cts/S
Avg	**36324.**
Stddev	126.
%RSD	.34673

Sample Name: msw321513 Acquired: 09/06/2019 11:09:25 Type: Unk
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na3302	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**106.**	**103.**	**.939**	**104.**	**190.**	**.380**
Stddev	.	2.	.003	.	1.	.011
%RSD	.274	2.06	.355	.237	.736	2.90

Int. Std.	Y_3203
Units	Cts/S
Avg	**35058.**
Stddev	111.
%RSD	.31542

Sample Name: msdw321513 Acquired: 09/06/2019 11:12:09 Type: Unk
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na3302	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**105.**	**102.**	**.903**	**102.**	**187.**	**.394**
Stddev	.	2.	.020	.	1.	.005
%RSD	.045	1.56	2.19	.427	.783	1.35

Int. Std.	Y_3203
Units	Cts/S
Avg	**34817.**
Stddev	186.
%RSD	.53331

Sample Name: pdsw321513 Acquired: 09/06/2019 11:14:53 Type: Unk
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na3302	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**107.**	**109.**	**.005**	**.018**	**.027**	**-.021**
Stddev	1.	2.	.008	.002	.025	.004
%RSD	.918	1.92	153.	13.4	93.1	18.7

Int. Std.	Y_3203
Units	Cts/S
Avg	**35905.**
Stddev	58.
%RSD	.16256

Sample Name: ccv Acquired: 09/06/2019 11:28:41 Type: QC
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na3302	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**101.**	**100.**	**-.021**	**.003**	**-.057**	**.014**
Stddev	.	1.	.013	.001	.009	.003
%RSD	.139	.859	60.3	32.1	16.1	25.6
Check ?	None	None	None	None	None	None
Value						
Range						

Int. Std.	Y_3203
Units	Cts/S
Avg	**35915.**
Stddev	136.
%RSD	.37784

Sample Name: ccb Acquired: 09/06/2019 11:31:27 Type: QC
Method: Sodium and Potassium 1(v1182) Mode: CONC Corr. Factor: 1.000000
User: MDS ICAP6000: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	K_7664	Na5895	Al3961	Mg2852	Ca3179	Fe2343
Units	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L
Avg	**-.141**	**.051**	**-.014**	**.001**	**-.070**	**-.002**
Stddev	.039	.007	.014	.001	.010	.007
%RSD	28.0	13.7	102.	94.4	14.8	333.
Check ?	None	None	None	None	None	None
Value						
Range						

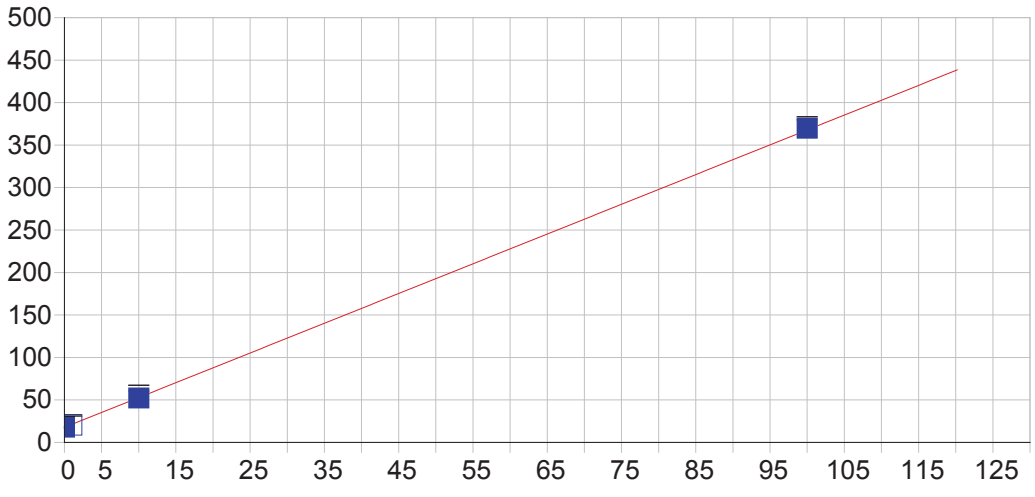
Int. Std.	Y_3203
Units	Cts/S
Avg	**36102.**
Stddev	180.
%RSD	.49770

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL
Ag 328.068 {103}	09/06/2019 14:16:02	09/04/2019 10:05:32	Linear	1/Conc	17.753702	3.500131	0.000000	1.000000	0.999394	0.057409	0.866143	2.887144
Ag 338.289 {100}	09/06/2019 14:16:02	09/04/2019 10:11:04	Linear	None	0.000024	0.000001	0.000000	1.000000	0.999382	0.000024	6.209998	20.699993
Al 167.079 {501}	09/06/2019 14:16:02	09/04/2019 10:11:04	Linear	None	0.000019	0.000003	0.000000	1.000000	0.999981	0.000010	0.933211	3.110704
Al 308.215 {109}	09/06/2019 14:16:02	09/04/2019 10:31:42	Curvili	1/Var	0.000078	0.000000	0.000000	1.000000	0.999872	0.000012	20.845050	69.483499
Al 396.152 { 85}	09/06/2019 14:16:02	09/04/2019 10:46:15	Curvili	1/Var	-0.000029	0.000002	0.000000	1.000000	0.999666	0.000045	5.762423	19.208076
As 193.759 {474}	09/06/2019 14:16:02	09/04/2019 10:11:05	Linear	1/Conc	0.144953	0.205590	0.000000	1.000000	0.999958	0.008286	4.294368	14.314561
As 197.262 {471}	09/06/2019 14:16:02	09/04/2019 10:17:50	Linear	1/Conc	-0.000001	0.000001	0.000000	1.000000	0.999815	0.000000	6.643365	22.144549
Ba 233.527 {445}	09/06/2019 14:16:02	09/04/2019 10:11:05	Linear	None	0.000006	0.000009	0.000000	1.000000	0.999999	0.000005	0.410343	1.367811
Ba 455.403 { 74}	09/06/2019 14:16:02	09/04/2019 10:17:50	Linear	1/Conc	0.000056	0.000037	0.000000	1.000000	0.999820	0.000003	0.269063	0.896877
Ba 493.409 { 68}	09/06/2019 14:16:02	09/04/2019 10:17:50	Linear	1/Conc	0.010796	0.000046	0.000000	1.000000	0.999868	0.000035	0.591505	1.971682
Be 313.042 {108}	09/06/2019 14:16:02	09/04/2019 10:11:06	Linear	1/Conc	-0.000035	0.000059	0.000000	1.000000	0.999995	0.000000	0.031301	0.104338
Be 234.861 {144}	09/06/2019 14:16:02	09/04/2019 10:11:06	Linear	1/Conc	-0.000001	0.000008	0.000000	1.000000	0.999991	0.000000	0.252096	0.840319
Ca 315.887 {107}	09/06/2019 14:16:02	09/04/2019 10:46:15	Linear	1/Var	0.000034	0.000000	0.000000	1.000000	0.999571	0.000019	6.939995	23.133317
Ca 317.933 {106}	09/06/2019 14:16:02	09/04/2019 10:46:15	Curvili	1/Conc	0.004220	0.000000	0.000000	1.000000	0.999855	0.000006	15.191150	50.637165
Ca 393.366 { 86}	09/06/2019 14:16:02	09/04/2019 10:11:06	Linear	None	0.009129	0.000251	0.000000	1.000000	0.999208	0.007791	0.029080	0.096933
Ca 396.847 { 85}	09/06/2019 14:16:02	09/04/2019 10:17:50	Linear	1/Conc	0.006603	0.000111	0.000000	1.000000	0.999232	0.000205	0.063505	0.211684
Cd 226.502 {449}	09/06/2019 14:16:02	09/04/2019 10:11:07	Linear	1/Conc	0.000010	0.000026	0.000000	1.000000	0.999955	0.000000	0.214528	0.715093
Cd 228.802 {447}	09/06/2019 14:16:02	09/04/2019 10:11:07	Linear	1/Conc	0.000015	0.000041	0.000000	1.000000	0.999953	0.000000	0.172828	0.576093
Co 228.616 {447}	09/06/2019 14:16:02	09/04/2019 10:17:51	Linear	1/Conc	0.000014	0.000021	0.000000	1.000000	0.999726	0.000002	0.292933	0.976442
Co 238.892 {141}	09/06/2019 14:16:02	09/04/2019 10:17:51	Linear	1/Conc	0.000003	0.000002	0.000000	1.000000	0.999758	0.000002	0.735562	2.451873
Cr 205.560 {464}	09/06/2019 14:16:02	09/04/2019 10:25:24	Curvili	1/Conc	-0.000009	0.000012	-0.000000	1.000000	0.999978	0.000001	0.360667	1.202223
Cr 267.716 {126}	09/06/2019 14:16:02	09/04/2019 10:17:51	Linear	1/Var	-0.000000	0.000002	0.000000	1.000000	0.999454	0.000005	0.795807	2.652691
Cu 223.008 {451}	09/06/2019 14:16:02	09/04/2019 10:25:24	Linear	1/Conc	-0.000003	0.000006	0.000000	1.000000	0.999851	0.000004	0.974669	3.248895
Cu 224.700 {450}	09/06/2019 14:16:02	09/04/2019 10:25:25	Linear	1/Conc	0.543864	1.511572	0.000000	1.000000	0.999450	2.793291	0.580289	1.934297
Cu 324.754 {104}	09/06/2019 14:16:02	09/04/2019 10:25:25	Curvili	1/Var	0.001856	0.000001	0.000000	1.000000	0.999696	0.000045	3.826082	12.753608
Cu 327.396 {103}	09/06/2019 14:16:02	09/04/2019 10:17:51	Linear	1/Conc	0.000032	0.000002	0.000000	1.000000	0.999598	0.000000	4.003425	13.344749
Fe 234.349 {144}	09/06/2019 14:16:02	09/04/2019 10:31:43	Linear	1/Var	0.000038	0.000001	0.000000	1.000000	0.999224	0.000026	1.429660	4.765532
Fe 239.562 {140}	09/06/2019 14:16:02	09/04/2019 10:46:15	Linear	1/Var	0.000025	0.000001	0.000000	1.000000	0.998415	0.000028	3.010553	10.035177
Fe 259.940 {129}	09/06/2019 14:16:02	09/04/2019 10:38:33	Full Fit	1/Conc	0.000003	0.000001	0.000000	1.010000	0.999996	0.000008	2.016330	6.721101
Mg 202.582 {466}	09/06/2019 14:16:02	09/04/2019 10:46:15	Linear	None	0.004862	0.000001	0.000000	1.000000	0.999374	0.009899	9.495306	31.651021
Mg 279.079 {121}	09/06/2019 14:16:02	09/04/2019 10:46:16	Linear	1/Conc	-0.371947	0.032842	0.000000	1.000000	0.998774	2.529174	20.786279	69.287596
Mg 280.270 {120}	09/06/2019 14:16:02	09/04/2019 10:17:52	Linear	1/Var	0.000284	0.000031	0.000000	1.000000	0.998640	0.000220	0.033991	0.113304
Mn 257.610 {131}	09/06/2019 14:16:02	09/04/2019 10:17:52	Linear	1/Conc	0.000002	0.000010	0.000000	1.000000	0.999539	0.000003	0.102918	0.343059
Mn 259.373 {130}	09/06/2019 14:16:02	09/04/2019 10:25:25	Linear	None	-0.000898	0.000007	0.000000	1.000000	0.999991	0.001787	0.371305	1.237685
Mo 202.030 {466}	09/06/2019 14:16:02	09/04/2019 10:11:09	Linear	1/Conc	-0.000000	0.000008	0.000000	1.000000	0.999957	0.000000	0.512006	1.706686
Mo 203.844 {465}	09/06/2019 14:16:02	09/04/2019 10:11:10	Linear	1/Var	0.000004	0.000005	0.000000	1.000000	0.999949	0.000004	0.966937	3.223123
Mo 204.598 {464}	09/06/2019 14:16:02	09/04/2019 10:17:53	Linear	1/Var	0.000003	0.000005	0.000000	1.000000	0.999628	0.000039	0.880096	2.933653
Ni 221.647 {452}	09/06/2019 14:16:02	09/04/2019 10:17:53	Linear	1/Var	0.000094	0.000014	0.000000	1.000000	0.999814	0.000249	0.533865	1.779550
Ni 231.604 {445}	09/06/2019 14:16:02	09/04/2019 10:17:53	Linear	1/Conc	-0.000011	0.000013	0.000000	1.000000	0.999679	0.000001	0.553688	1.845627
Pb 216.999 {455}	09/06/2019 14:16:02	09/04/2019 10:25:25	Curvili	1/Var	0.000024	0.000001	0.000000	1.000000	0.999765	0.000049	5.513917	18.379724
Pb 220.353 {453}	09/06/2019 14:16:02	09/04/2019 10:11:11	Linear	1/Conc	0.000021	0.000002	0.000000	1.000000	0.999858	0.000000	2.931026	9.770086
Pb 220.353 {153}	09/06/2019 14:16:02	09/04/2019 10:25:25	Linear	1/Conc	0.000003	0.000000	0.000000	1.000000	0.999799	0.000001	4.057004	13.523348
Sb 206.833 {463}	09/06/2019 14:16:02	09/04/2019 10:17:53	Linear	1/Conc	-0.000004	0.000002	0.000000	1.000000	0.999840	0.000000	2.644982	8.816608
Sb 217.581 {455}	09/06/2019 14:16:02	09/04/2019 10:17:53	Linear	1/Var	0.000007	0.000002	0.000000	1.000000	0.999911	0.000015	3.223717	10.745722

	Element, Wavelength and Order	Status	Reslope		QC Norm	
			Slope	Y-int	Slope factor	Offset
	Ag 328.068 {103}	OK.	1.000000	0.000000	1	0
	Ag 338.289 {100}	OK.	1.000000	0.000000	1	0
	Al 167.079 {501}	OK.	1.000000	0.000000	1	0
	Al 308.215 {109}	OK.	1.000000	0.000000	1	0
	Al 396.152 { 85}	OK.	1.000000	0.000000	1	0
	As 193.759 {474}	OK.	1.000000	0.000000	1	0
	As 197.262 {471}	OK.	1.000000	0.000000	1	0
	Ba 233.527 {445}	OK.	1.000000	0.000000	1	0
	Ba 455.403 { 74}	OK.	1.000000	0.000000	1	0
	Ba 493.409 { 68}	OK.	1.000000	0.000000	1	0
	Be 313.042 {108}	OK.	1.000000	0.000000	1	0
	Be 234.861 {144}	OK.	1.000000	0.000000	1	0
	Ca 315.887 {107}	OK.	1.000000	0.000000	1	0
	Ca 317.933 {106}	OK.	1.000000	0.000000	1	0
	Ca 393.366 { 86}	OK.	1.000000	0.000000	1	0
	Ca 396.847 { 85}	OK.	1.000000	0.000000	1	0
	Cd 226.502 {449}	OK.	1.000000	0.000000	1	0
	Cd 228.802 {447}	OK.	1.000000	0.000000	1	0
	Co 228.616 {447}	OK.	1.000000	0.000000	1	0
	Co 238.892 {141}	OK.	1.000000	0.000000	1	0
	Cr 205.560 {464}	OK.	1.000000	0.000000	1	0
	Cr 267.716 {126}	OK.	1.000000	0.000000	1	0
	Cu 223.008 {451}	OK.	1.000000	0.000000	1	0
	Cu 224.700 {450}	OK.	1.000000	0.000000	1	0
	Cu 324.754 {104}	Warnin	1.000000	0.000000	1	0
	Cu 327.396 {103}	OK.	1.000000	0.000000	1	0
	Fe 234.349 {144}	OK.	1.000000	0.000000	1	0
	Fe 239.562 {140}	OK.	1.000000	0.000000	1	0
	Fe 259.940 {129}	OK.	1.000000	0.000000	1	0
	Mg 202.582 {466}	OK.	1.000000	0.000000	1	0
	Mg 279.079 {121}	OK.	1.000000	0.000000	1	0
	Mg 280.270 {120}	OK.	1.000000	0.000000	1	0
	Mn 257.610 {131}	OK.	1.000000	0.000000	1	0
	Mn 259.373 {130}	OK.	1.000000	0.000000	1	0
	Mo 202.030 {466}	OK.	1.000000	0.000000	1	0
	Mo 203.844 {465}	OK.	1.000000	0.000000	1	0
	Mo 204.598 {464}	OK.	1.000000	0.000000	1	0
	Ni 221.647 {452}	OK.	1.000000	0.000000	1	0
	Ni 231.604 {445}	OK.	1.000000	0.000000	1	0
	Pb 216.999 {455}	OK.	1.000000	0.000000	1	0
	Pb 220.353 {453}	OK.	1.000000	0.000000	1	0
	Pb 220.353 {153}	OK.	1.000000	0.000000	1	0
	Sb 206.833 {463}	OK.	1.000000	0.000000	1	0
	Sb 217.581 {455}	OK.	1.000000	0.000000	1	0

	Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL
	Se 196.090 {472}	09/06/2019 14:16:02	09/04/2019 10:11:11	Linear	1/Var	0.000001	0.000001	0.000000	1.000000	0.999989	0.000002	4.299099	14.330331
	Se 203.985 {465}	09/06/2019 14:16:02	09/04/2019 10:11:12	Linear	1/Conc	-0.000005	0.000001	0.000000	1.000000	0.999314	0.000000	7.240044	24.133480
	Se 206.279 {463}	09/06/2019 14:16:02	09/04/2019 10:17:54	Curvili	1/Conc	-0.000001	0.000000	-0.000000	1.000000	0.999955	0.000000	22.358218	74.527393
	Tl 190.856 {476}	09/06/2019 14:16:02	09/04/2019 10:17:54	Curvili	1/Var	0.000003	0.000002	-0.000000	1.000000	1.000000	0.000002	3.006511	10.021705
	Tl 190.856 {477}	09/06/2019 14:16:02	09/04/2019 10:17:54	Linear	1/Conc	-0.000001	0.000001	0.000000	1.000000	0.999596	0.000000	6.457653	21.525509
	V 290.882 {116}	09/06/2019 14:16:02	09/04/2019 10:17:54	Linear	1/Conc	0.000014	0.000001	0.000000	1.000000	0.999910	0.000001	2.654138	8.847128
	V 292.402 {115}	09/06/2019 14:16:02	09/04/2019 10:17:54	Linear	1/Conc	0.000002	0.000006	0.000000	1.000000	0.999808	0.000002	0.551026	1.836754
	Zn 206.200 {463}	09/06/2019 14:16:02	09/04/2019 10:25:25	Linear	1/Var	0.000062	0.000018	0.000000	1.000000	0.999102	0.000106	0.271716	0.905719
	Zn 213.856 {457}	09/06/2019 14:16:02	09/04/2019 10:11:13	Linear	1/Conc	0.000092	0.000042	0.000000	1.000000	0.999991	0.000001	0.129263	0.430878
	Y 224.306 {450}*	09/06/2019 14:16:02	09/04/2019 09:21:43	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
	Y 324.228 {104}*	09/06/2019 14:16:02	09/04/2019 09:21:43	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
	Y 371.030 { 91}*	09/06/2019 14:16:02	09/04/2019 09:21:43	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
	Na 588.995 { 57}	09/06/2019 14:16:02	09/04/2019 10:17:54	Linear	None	0.004363	0.000007	0.000000	1.000000	0.999994	0.000186	3.850579	12.835263
	Na 589.592 { 57}	09/06/2019 14:16:02	09/04/2019 10:46:16	Curvili	1/Conc	0.000003	0.000002	0.000000	1.000000	1.000000	0.000002	7.254139	24.180463
	Si 251.611 {134}	09/06/2019 14:16:02	09/04/2019 10:46:16	Curvili	1/Var	-2.449579	0.203311	-0.000000	1.000000	0.999580	16.478567	5.870658	19.568859
	Ti 323.452 {104}	09/06/2019 14:16:02	09/04/2019 10:17:55	Linear	1/Conc	0.000223	0.000008	0.000000	1.000000	0.999878	0.000001	0.798929	2.663097
	Ti 334.941 {101}	09/06/2019 14:16:02	09/04/2019 10:17:55	Linear	1/Conc	0.000003	0.000005	0.000000	1.000000	0.999879	0.000001	0.804677	2.682257
	Sr 407.771 { 83}	09/06/2019 14:16:02	09/04/2019 10:17:55	Linear	1/Conc	0.000069	0.000145	0.000000	1.000000	0.999810	0.000011	0.063022	0.210074
	Sr 421.552 { 80}	09/06/2019 14:16:02	09/04/2019 10:17:55	Linear	1/Conc	0.000012	0.000085	0.000000	1.000000	0.999935	0.000004	0.106416	0.354722
	Sn 189.989 {477}	09/06/2019 14:16:02	09/04/2019 10:17:55	Linear	1/Conc	0.000005	0.000004	0.000000	1.000000	0.999655	0.000001	1.281418	4.271392
	B 249.678 {135}	09/06/2019 14:16:02	09/04/2019 10:17:55	Linear	1/Conc	0.000002	0.000001	0.000000	1.000000	0.999855	0.000000	1.214377	4.047924
	B 249.773 {135}	09/06/2019 14:16:02	09/04/2019 10:17:56	Linear	1/Var	0.000006	0.000003	0.000000	1.000000	0.999712	0.000007	0.594380	1.981267
	Li 670.784 { 50}	09/06/2019 14:16:02	09/04/2019 10:17:56	Linear	1/Var	0.000029	0.000025	0.000000	1.000000	0.999829	0.000034	0.792715	2.642383
	K 766.490 { 44}	09/06/2019 14:16:02	09/04/2019 10:46:16	Curvili	1/Conc	0.000048	0.000001	0.000000	1.000000	0.999998	0.000004	21.923357	73.077858
	P 213.618 {457}	09/06/2019 14:16:02	09/04/2019 10:17:56	Linear	1/Conc	-0.000000	0.000000	0.000000	1.000000	0.999994	0.000000	4.377231	14.590769
	S 182.034 {485}	09/06/2019 14:16:02	09/04/2019 10:46:16	Curvili	1/Conc	0.000006	0.000001	0.000000	1.000000	1.000000	0.000001	5.246441	17.488135
	Hg 184.950 {482}	09/06/2019 14:16:02	09/04/2019 10:11:15	Linear	1/Conc	0.000006	0.000004	0.000000	1.000000	0.999996	0.000000	0.997545	3.325150
	Ce 404.076 { 83}	09/06/2019 14:16:02	09/04/2019 10:11:15	Linear	1/Conc	0.000030	0.000001	0.000000	1.000000	1.000000	0.000000	14.073698	46.912327

	Element, Wavelength and Order	Status	Reslope		QC Norm	
			Slope	Y-int	Slope factor	Offset
	Se 196.090 {472}	OK.	1.000000	0.000000	1	0
	Se 203.985 {465}	OK.	1.000000	0.000000	1	0
	Se 206.279 {463}	OK.	1.000000	0.000000	1	0
	Tl 190.856 {476}	OK.	1.000000	0.000000	1	0
	Tl 190.856 {477}	OK.	1.000000	0.000000	1	0
	V 290.882 {116}	OK.	1.000000	0.000000	1	0
	V 292.402 {115}	OK.	1.000000	0.000000	1	0
	Zn 206.200 {463}	OK.	1.000000	0.000000	1	0
	Zn 213.856 {457}	OK.	1.000000	0.000000	1	0
	Y 224.306 {450}*	Warnin	1.000000	0.000000	1	0
	Y 324.228 {104}*	Warnin	1.000000	0.000000	1	0
	Y 371.030 { 91}*	Warnin	1.000000	0.000000	1	0
	Na 588.995 { 57}	OK.	1.000000	0.000000	1	0
	Na 589.592 { 57}	OK.	1.000000	0.000000	1	0
	Si 251.611 {134}	OK.	1.000000	0.000000	1	0
	Ti 323.452 {104}	OK.	1.000000	0.000000	1	0
	Ti 334.941 {101}	OK.	1.000000	0.000000	1	0
	Sr 407.771 { 83}	OK.	1.000000	0.000000	1	0
	Sr 421.552 { 80}	OK.	1.000000	0.000000	1	0
	Sn 189.989 {477}	OK.	1.000000	0.000000	1	0
	B 249.678 {135}	OK.	1.000000	0.000000	1	0
	B 249.773 {135}	OK.	1.000000	0.000000	1	0
	Li 670.784 { 50}	OK.	1.000000	0.000000	1	0
	K 766.490 { 44}	OK.	1.000000	0.000000	1	0
	P 213.618 {457}	OK.	1.000000	0.000000	1	0
	S 182.034 {485}	OK.	1.000000	0.000000	1	0
	Hg 184.950 {482}	OK.	1.000000	0.000000	1	0
	Ce 404.076 { 83}	OK.	1.000000	0.000000	1	0

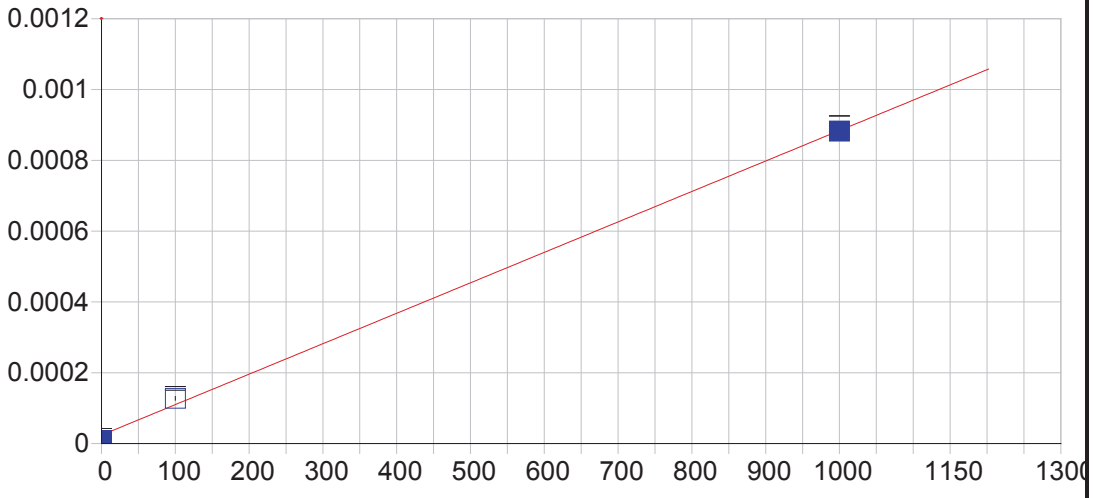


Ag 328.068 {103}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	17.753702	Re-Slope:	1.000000
A1 (Gain):	3.500131	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999394	Status:	OK.
Std Error of Est:	0.057409		
Predicted MDL:	0.866143		
Predicted MQL:	2.887144		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00037	.000	.000	17.755	1.03	1
CalStd5=10	10.000	9.8187	-.181	-1.81	52.115	3.39	1
CalStd8=100	100.00	100.54	.540	.540	369.60	1.82	1
CalStd3=1	1.0000	.64178	-.358	-35.8	20.000	.858	1

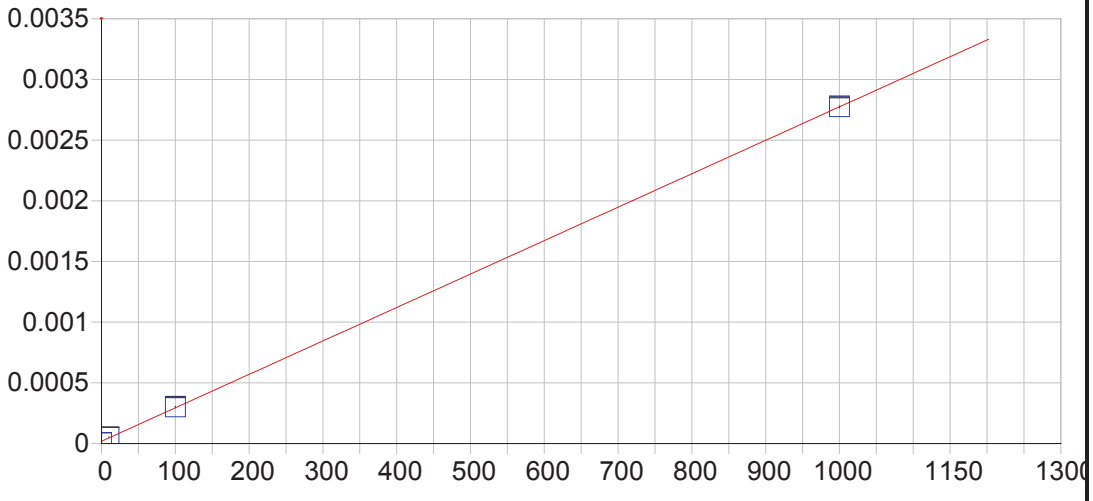


Ag 338.289 {100}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	0.000024	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999382	Status:	OK.
Std Error of Est:	0.000024		
Predicted MDL:	6.209998		
Predicted MQL:	20.699993		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-18.280	-18.3	.000	.00001	.000	1
CalStd8=100	100.00	120.31	20.3	20.3	.00013	.000	1
CalStd9=100	1000.0	997.97	-2.03	-.203	.00088	.000	1

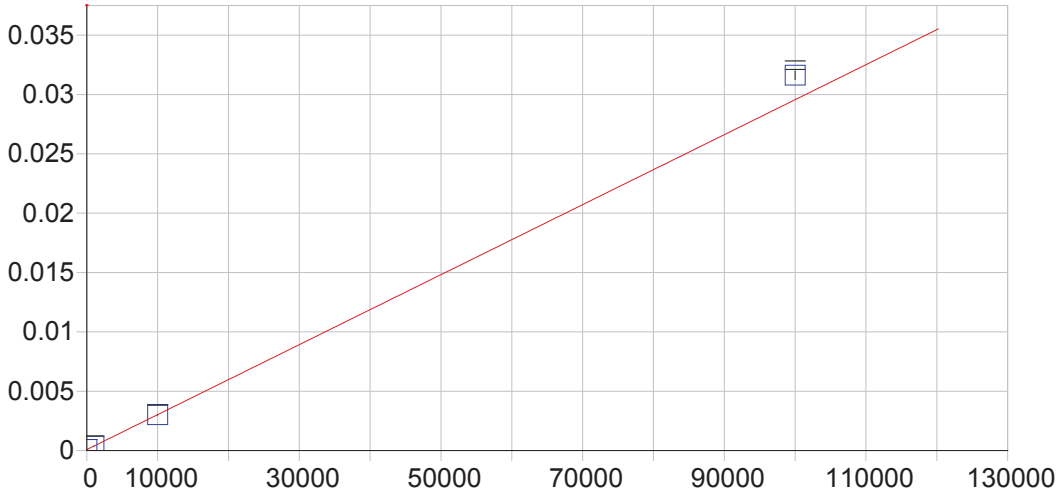


Al 167.079 {501}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	0.000019	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999981	Status:	OK.
Std Error of Est:	0.000010		
Predicted MDL:	0.933211		
Predicted MQL:	3.110704		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-4.0956	-4.10	.000	.00001	.000	1
CalStd9=100	1000.0	999.74	-.256	-.026	.00277	.000	1
CalStd5=10	10.000	11.989	1.99	19.9	.00005	.000	1
CalStd8=100	100.00	102.36	2.36	2.36	.00030	.000	1

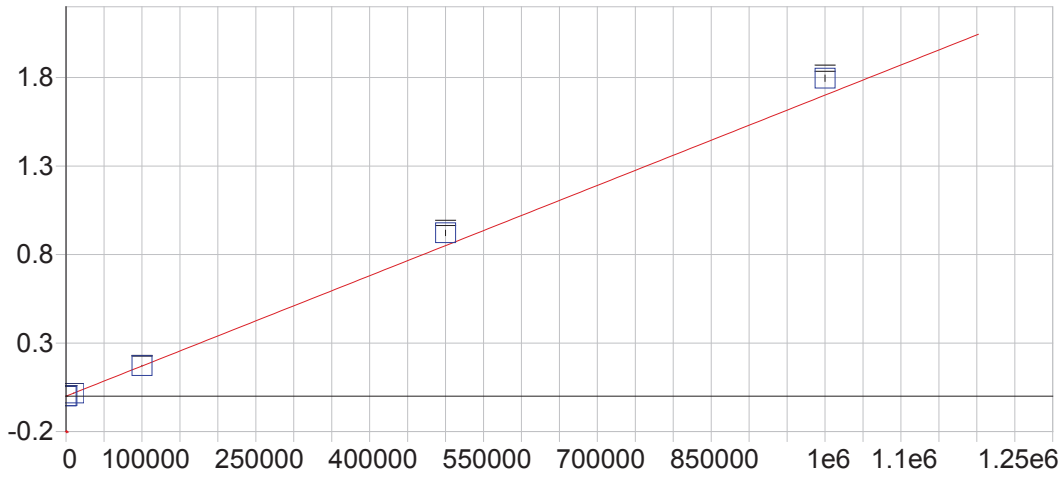


Al 308.215 {109}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Curvilinear	Weighting:	1/Var

A0 (Offset):	0.000078	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999872	Status:	OK.
Std Error of Est:	0.000012		
Predicted MDL:	20.845050		
Predicted MQL:	69.483499		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-11.463	-11.5	.000	.00007	.000	1
CalStd10=10	10000.	9940.5	-59.5	-.595	.00301	.000	1
CalStd9=100	1000.0	1023.2	23.2	2.32	.00038	.000	1
CalStd13=10	100000.	106980.	6980.	6.98	.03162	.000	1

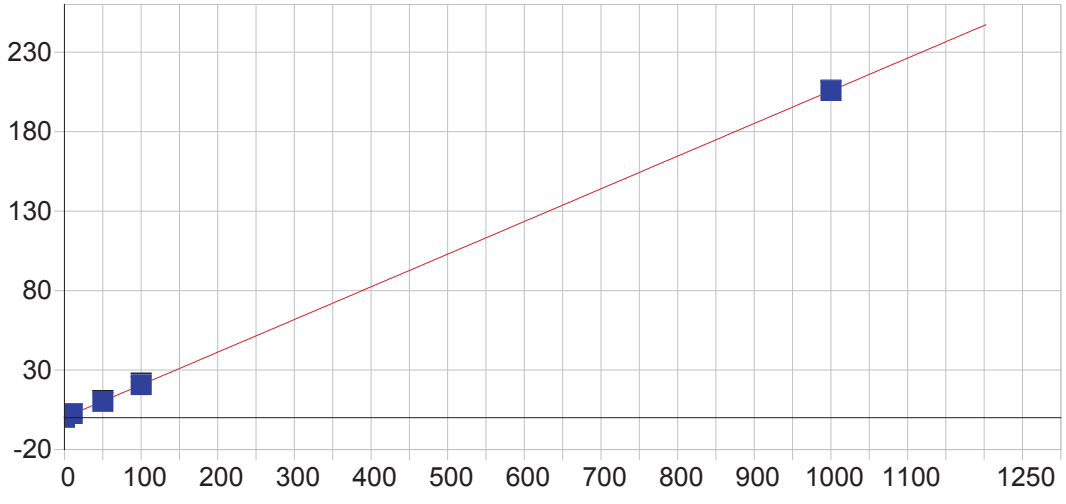


Al 396.152 { 85}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Curvilinear	Weighting:	1/Var

A0 (Offset):	-0.000029	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999666	Status:	OK.
Std Error of Est:	0.000045		
Predicted MDL:	5.762423		
Predicted MQL:	19.208076		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-2.0255	-2.03	.000	-.00003	.000	1
CalStd14=50	500000.	542240.	42200.	8.45	.92218	.015	1
CalStd13=10	100000.	101140.	1140.	1.14	.17199	.002	1
CalStd10=10	10000.	9728.4	-272.	-2.72	.01652	.000	1
CalStd9=100	1000.0	1041.1	41.1	4.11	.00174	.000	1
CalibStd15=	1000000.	1056100.	56100.	5.61	1.7962	.018	1

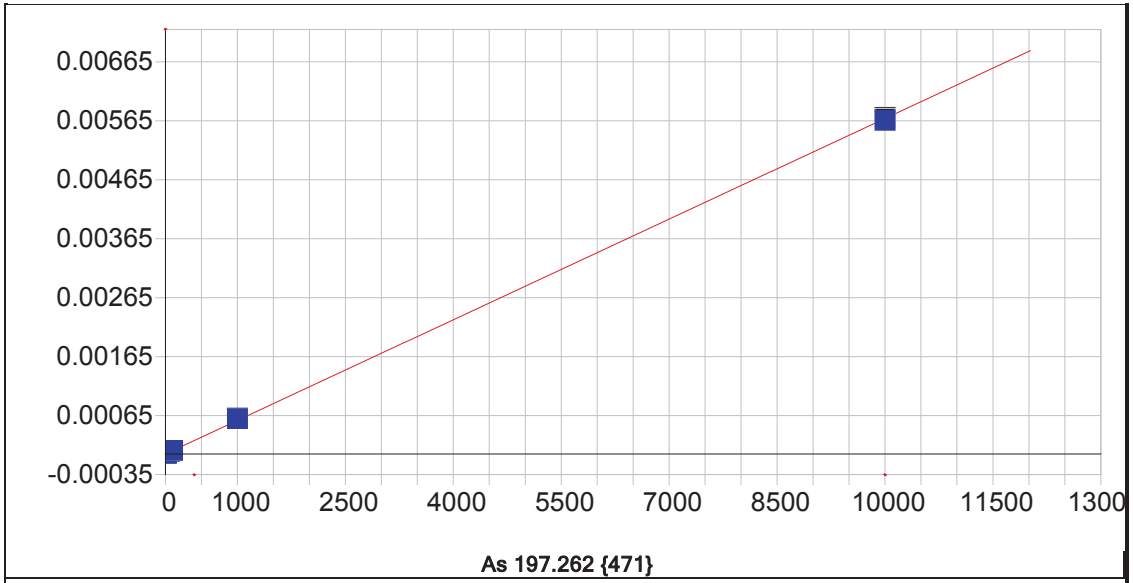


As 193.759 {474}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.144953	Re-Slope:	1.000000
A1 (Gain):	0.205590	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999958	Status:	OK.
Std Error of Est:	0.008286		
Predicted MDL:	4.294368		
Predicted MQL:	14.314561		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00063	-.001	.000	.14482	.308	1
CalStd9=100	1000.0	1000.2	.223	.022	205.91	.195	1
CalStd7=50	50.000	48.883	-1.12	-2.23	10.201	.597	1
CalStd5=10	10.000	10.852	.852	8.52	2.3786	.563	1
CalStd8=100	100.00	100.04	.042	.042	20.725	.965	1

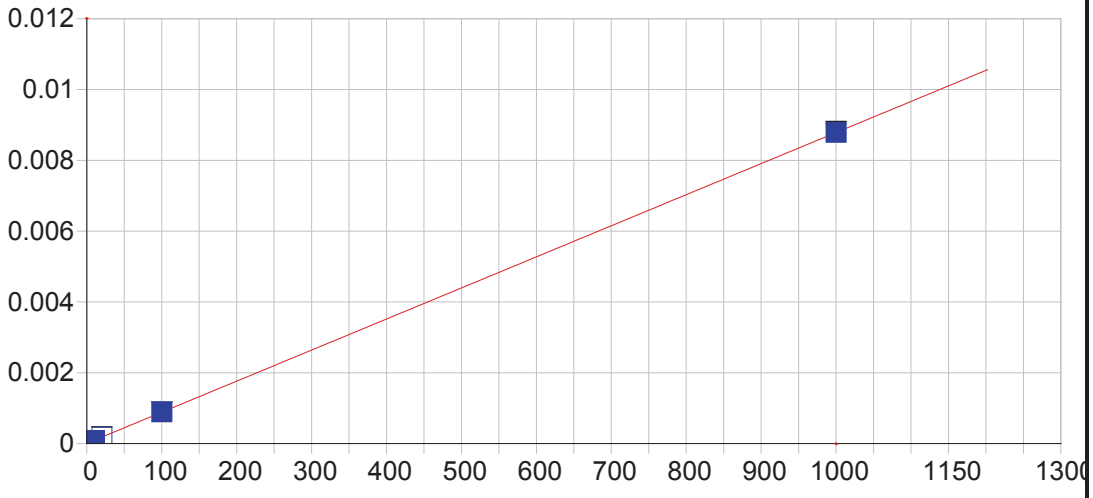


As 197.262 {471}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999815	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	6.643365		
Predicted MQL:	22.144549		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00481	-.005	.000	-.00000	.000	1
CalStd9=100	1000.0	1047.6	47.6	4.76	.00060	.000	1
CalStd7=50	50.000	55.184	5.18	10.4	.00003	.000	1
CalStd5=10	10.000	13.016	3.02	30.2	.00001	.000	1
CalStd8=100	100.00	103.40	3.40	3.40	.00006	.000	1
CalStd10=10	10000.	9940.8	-59.2	-.592	.00569	.000	1

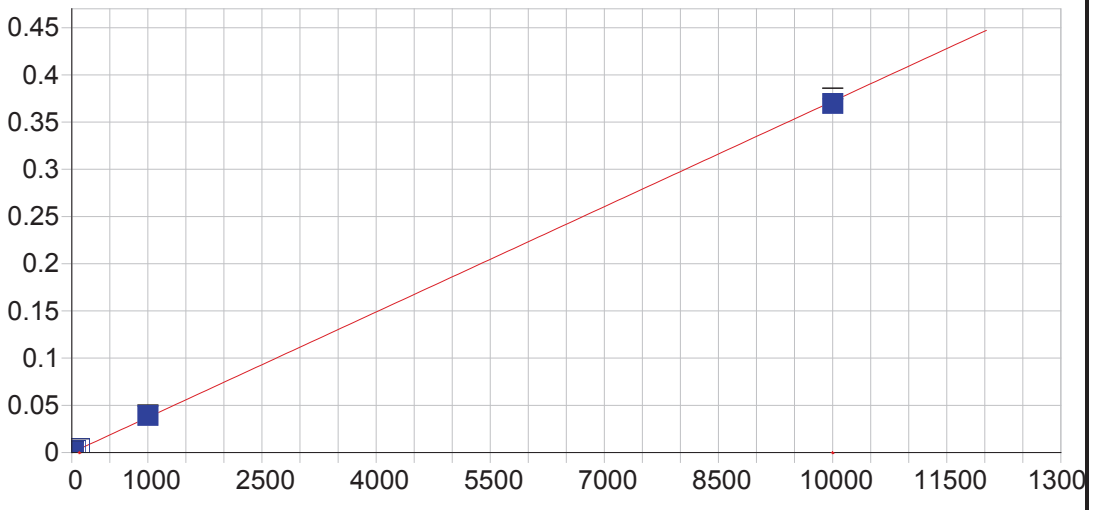


Ba 233.527 {445}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	0.000006	Re-Slope:	1.000000
A1 (Gain):	0.000009	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999999	Status:	OK.
Std Error of Est:	0.000005		
Predicted MDL:	0.410343		
Predicted MQL:	1.367811		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.23057	-.231	.000	.00000	.000	1
CalStd5=10	10.000	9.7885	-.212	-2.12	.00009	.000	1
CalStd6=20	20.000	20.529	.529	2.65	.00019	.000	1
CalStd8=100	100.00	100.80	.795	.795	.00089	.000	1
CalStd4=5	5.0000	4.6570	-.343	-6.86	.00005	.000	1
CalStd9=100	1000.0	999.91	-.086	-.009	.00879	.000	1
CalStd3=1	1.0000	.54654	-.453	-45.3	.00001	.000	1

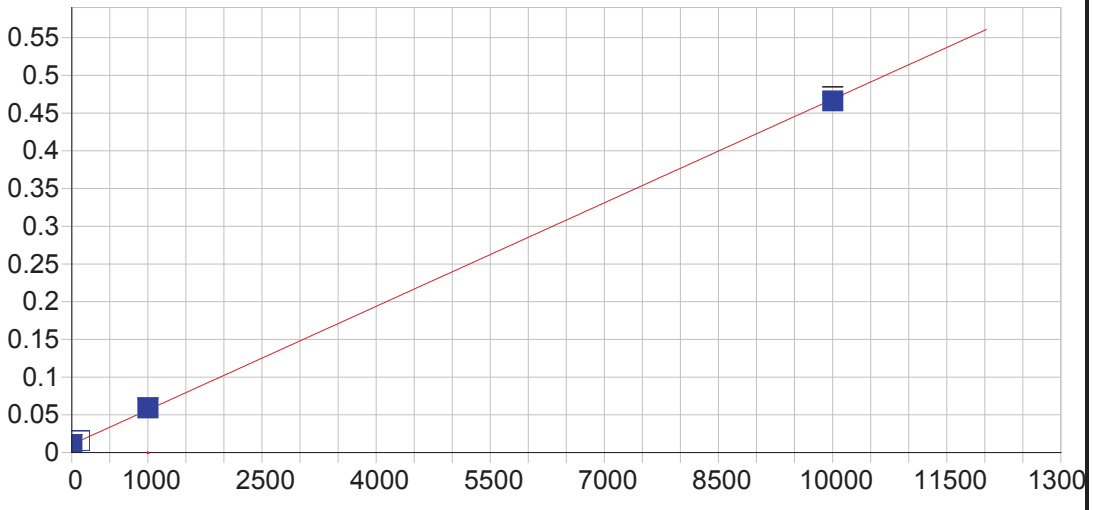


Ba 455.403 { 74}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000056	Re-Slope:	1.000000
A1 (Gain):	0.000037	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999820	Status:	OK.
Std Error of Est:	0.000003		
Predicted MDL:	0.269063		
Predicted MQL:	0.896877		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00069	-.001	.000	.00006	.000	1
CalStd7=50	50.000	53.681	3.68	7.36	.00205	.000	1
CalStd5=10	10.000	10.584	.584	5.84	.00045	.000	1
CalStd6=20	20.000	22.509	2.51	12.5	.00089	.000	1
CalStd8=100	100.00	105.15	5.15	5.15	.00397	.000	1
CalStd4=5	5.0000	5.4238	.424	8.48	.00026	.000	1
CalStd9=100	1000.0	1051.4	51.4	5.14	.03916	.000	1
CalStd3=1	1.0000	1.2558	.256	25.6	.00010	.000	1
CalStd10=10	10000.	9936.0	-64.0	-.640	.36963	.006	1

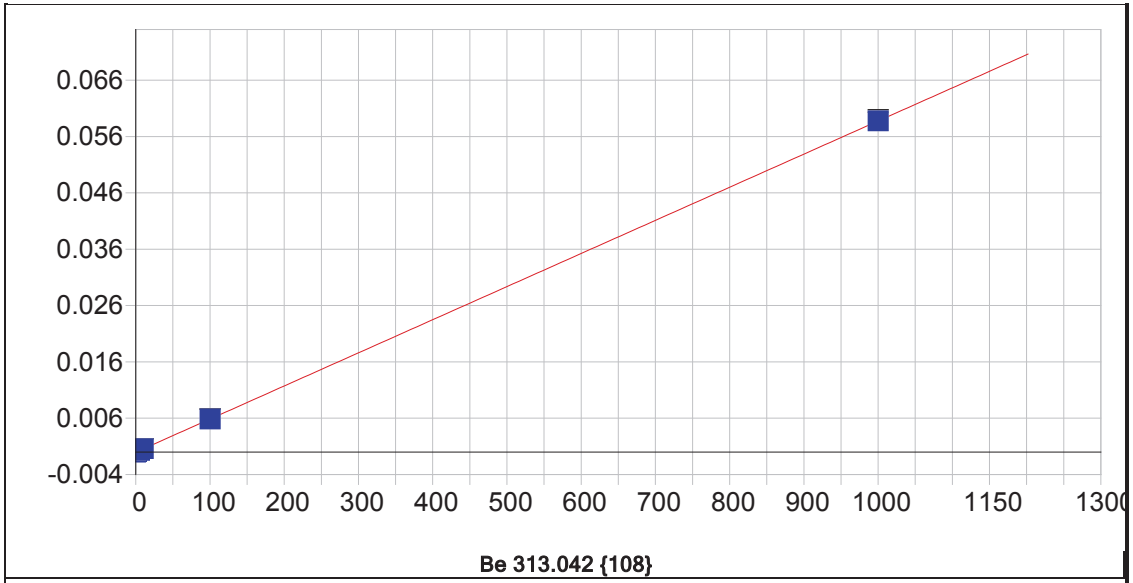


Ba 493.409 { 68}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.010796	Re-Slope:	1.000000
A1 (Gain):	0.000046	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999868	Status:	OK.
Std Error of Est:	0.000035		
Predicted MDL:	0.591505		
Predicted MQL:	1.971682		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00825	-.008	.000	.01080	.000	1
CalStd9=100	1000.0	1050.0	50.0	5.00	.05885	.001	1
CalStd8=100	100.00	103.79	3.79	3.79	.01555	.000	1
CalStd10=10	10000.	9946.2	-53.8	-.538	.46597	.006	1

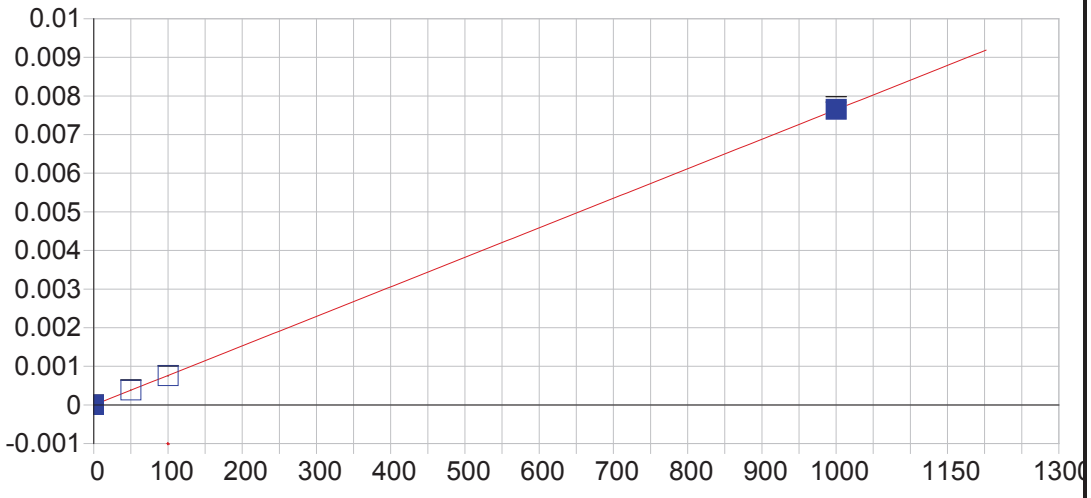


Be 313.042 {108}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000035	Re-Slope:	1.000000
A1 (Gain):	0.000059	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999995	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.031301		
Predicted MQL:	0.104338		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00009	-.000	.000	-.00004	.000	1
CalStd5=10	10.000	9.9544	-.046	-.456	.00055	.000	1
CalStd8=100	100.00	99.942	-.058	-.058	.00584	.000	1
CalStd2=0.5	.50000	.55312	.053	10.6	-.00000	.000	1
CalStd4=5	5.0000	5.0585	.059	1.17	.00026	.000	1
CalStd9=100	1000.0	999.92	-.075	-.008	.05876	.000	1
CalStd3=1	1.0000	1.0673	.067	6.73	.00003	.000	1

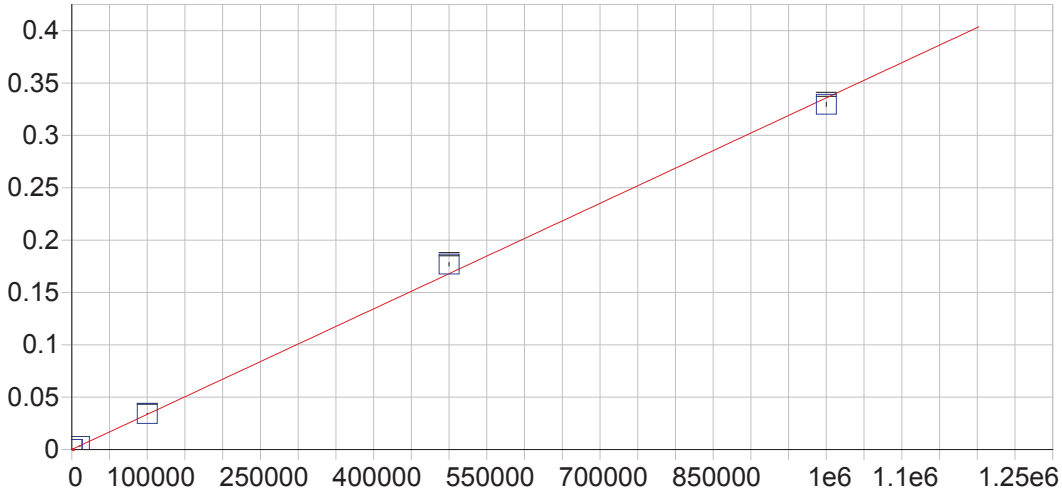


Be 234.861 {144}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000008	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999991	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.252096		
Predicted MQL:	0.840319		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00022	.000	.000	-.00000	.000	1
CalStd9=100	1000.0	1000.9	.928	.093	.00765	.000	1
CalStd8=100	100.00	98.680	-1.32	-1.32	.00075	.000	1
CalStd7=50	50.000	50.391	.391	.783	.00038	.000	1

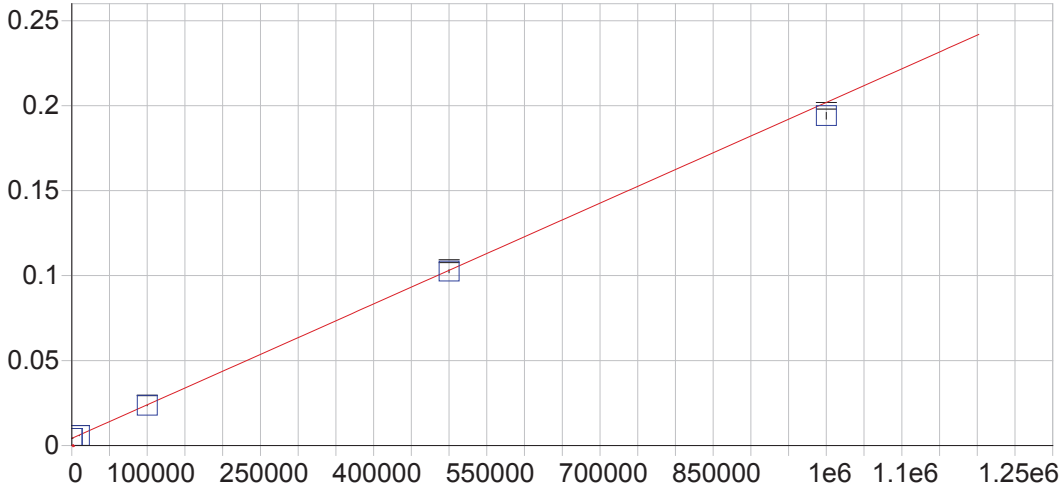


Ca 315.887 {107}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000034	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999571	Status:	OK.
Std Error of Est:	0.000019		
Predicted MDL:	6.939995		
Predicted MQL:	23.133317		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	7.6302	7.63	.000	.00004	.000	1
CalStd10=10	10000.	9806.5	-194.	-1.94	.00333	.000	1
CalStd13=10	100000.	101820.	1820.	1.82	.03422	.000	1
CalStd14=50	500000.	526880.	26900.	5.38	.17696	.002	1
CalStd9=100	1000.0	986.01	-14.0	-1.40	.00036	.000	1
CalibStd15=	1000000.	981520.	-18500.	-1.85	.32962	.002	1

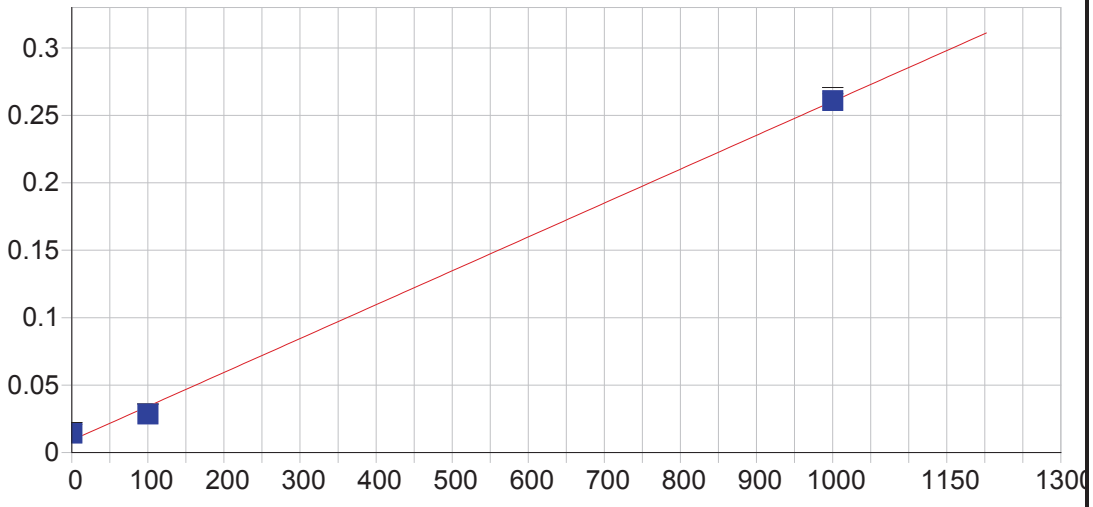


Ca 317.933 {106}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	0.004220	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999855	Status:	OK.
Std Error of Est:	0.000006		
Predicted MDL:	15.191150		
Predicted MQL:	50.637165		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.34197	.342	.000	.00422	.000	1
CalStd10=10	10000.	8290.7	-1710.	-17.1	.00586	.000	1
CalStd13=10	100000.	98047.	-1950.	-1.95	.02361	.000	1
CalStd14=50	500000.	497390.	-2610.	-.522	.10256	.001	1
CalStd9=100	1000.0	834.39	-166.	-16.6	.00439	.000	1
CalibStd15=	1000000.	960200.	-39800.	-3.98	.19407	.002	1

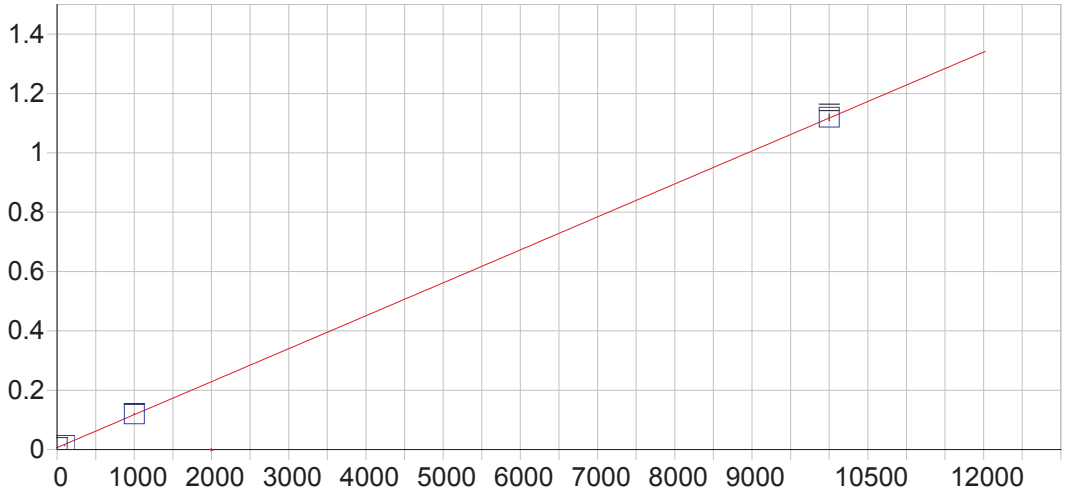


Ca 393.366 { 86}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	0.009129	Re-Slope:	1.000000
A1 (Gain):	0.000251	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999208	Status:	OK.
Std Error of Est:	0.007791		
Predicted MDL:	0.029080		
Predicted MQL:	0.096933		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	20.688	20.7	.000	.01433	.001	1
CalStd9=100	1000.0	1002.3	2.30	.230	.26094	.002	1
CalStd8=100	100.00	77.013	-23.0	-23.0	.02848	.000	1

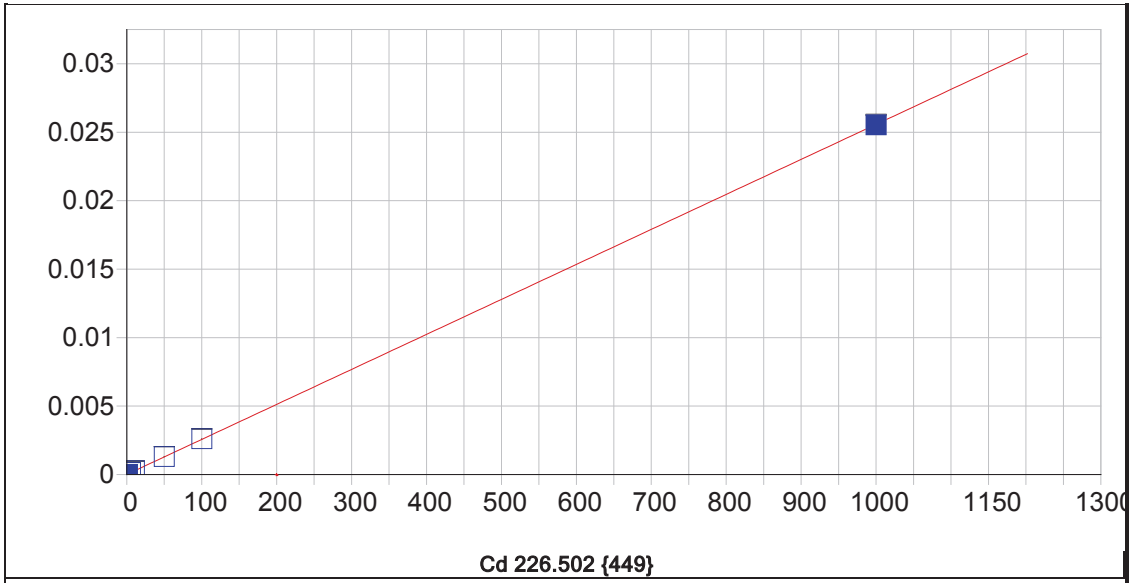


Ca 396.847 { 85}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.006603	Re-Slope:	1.000000
A1 (Gain):	0.000111	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999232	Status:	OK.
Std Error of Est:	0.000205		
Predicted MDL:	0.063505		
Predicted MQL:	0.211684		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.03849	.038	.000	.00661	.000	1
CalStd10=10	10000.	10020.	20.3	.203	1.1197	.011	1
CalStd8=100	100.00	59.261	-40.7	-40.7	.01319	.000	1
CalStd9=100	1000.0	1020.4	20.4	2.04	.11996	.001	1

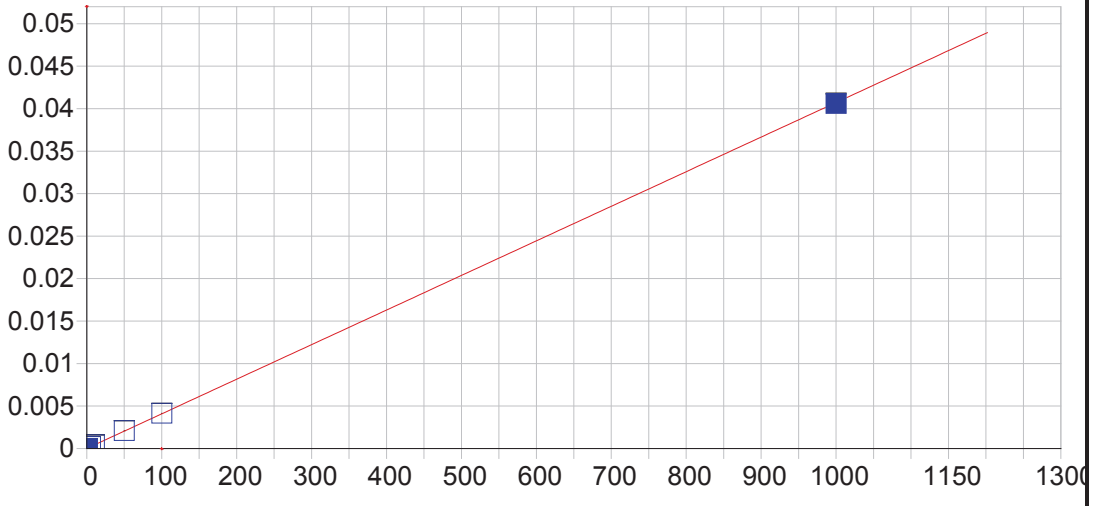


Cd 226.502 {449}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000010	Re-Slope:	1.000000
A1 (Gain):	0.000026	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999955	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.214528		
Predicted MQL:	0.715093		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00022	.000	.000	.00001	.000	1
CalStd7=50	50.000	50.801	.801	1.60	.00131	.000	1
CalStd3=1	1.0000	.84094	-.159	-15.9	.00003	.000	1
CalStd2=0.5	.50000	.36424	-.136	-27.2	.00002	.000	1
CalStd4=5	5.0000	4.8651	-.135	-2.70	.00013	.000	1
CalStd8=100	100.00	101.49	1.49	1.49	.00260	.000	1
CalStd5=10	10.000	9.9410	-.059	-.590	.00026	.000	1
CalStd9=100	1000.0	998.20	-1.80	-.180	.02553	.000	1

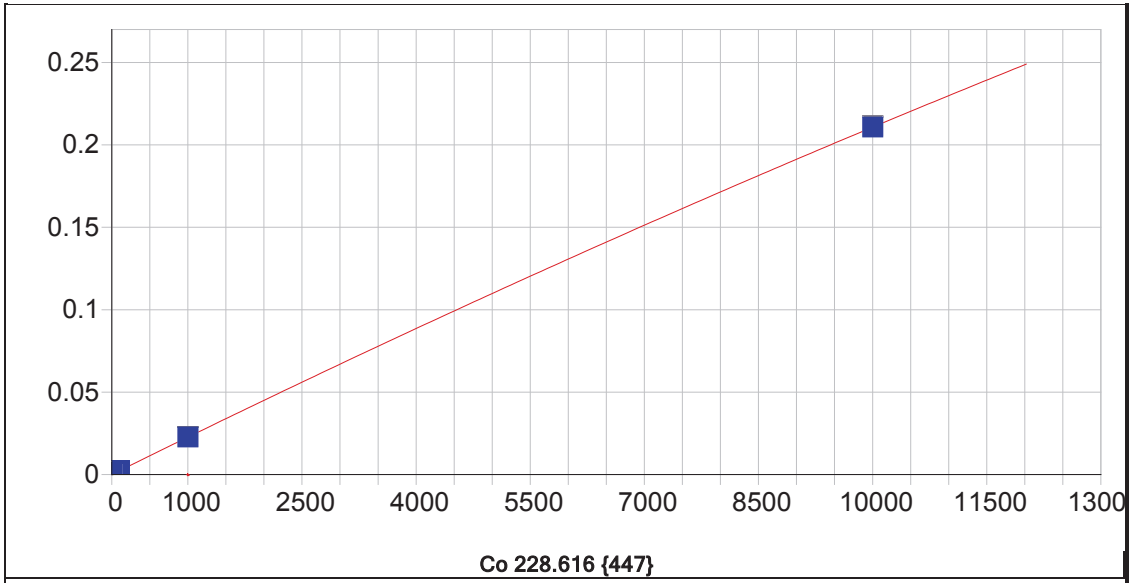


Cd 228.802 {447}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000015	Re-Slope:	1.000000
A1 (Gain):	0.000041	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999953	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.172828		
Predicted MQL:	0.576093		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00019	-.000	.000	.00002	.000	1
CalStd7=50	50.000	51.162	1.16	2.32	.00210	.000	1
CalStd3=1	1.0000	1.0376	.038	3.76	.00006	.000	1
CalStd2=0.5	.50000	.60406	.104	20.8	.00004	.000	1
CalStd4=5	5.0000	5.3859	.386	7.72	.00023	.000	1
CalStd8=100	100.00	101.35	1.35	1.35	.00414	.000	1
CalStd5=10	10.000	10.144	.144	1.44	.00043	.000	1
CalStd9=100	1000.0	996.82	-3.18	-.318	.04059	.000	1

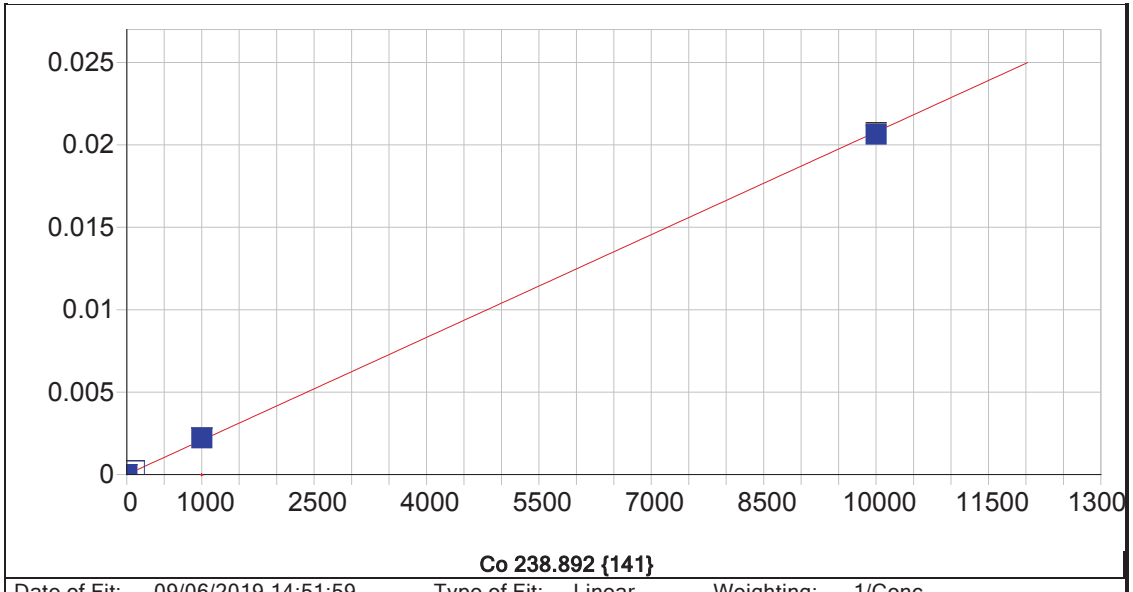


Co 228.616 {447}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	0.000014	Re-Slope:	1.000000
A1 (Gain):	0.000023	Y-int:	0.000000
A2 (Curvature):	-0.000000		
n (Exponent):	1.000000		
Correlation:	0.999997	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.272358		
Predicted MQL:	0.907859		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00021	.000	.000	.00001	.000	1
CalStd7=50	50.000	50.647	.647	1.29	.00117	.000	1
CalStd5=10	10.000	9.6919	-.308	-3.08	.00024	.000	1
CalStd4=5	5.0000	4.8542	-.146	-2.92	.00012	.000	1
CalStd8=100	100.00	99.867	-.133	-.133	.00230	.000	1
CalStd9=100	1000.0	1000.1	.116	.012	.02273	.000	1
CalStd3=1	1.0000	.83674	-.163	-16.3	.00003	.000	1
CalStd10=10	10000.	10000.0	-.015	-.000	.21143	.000	1

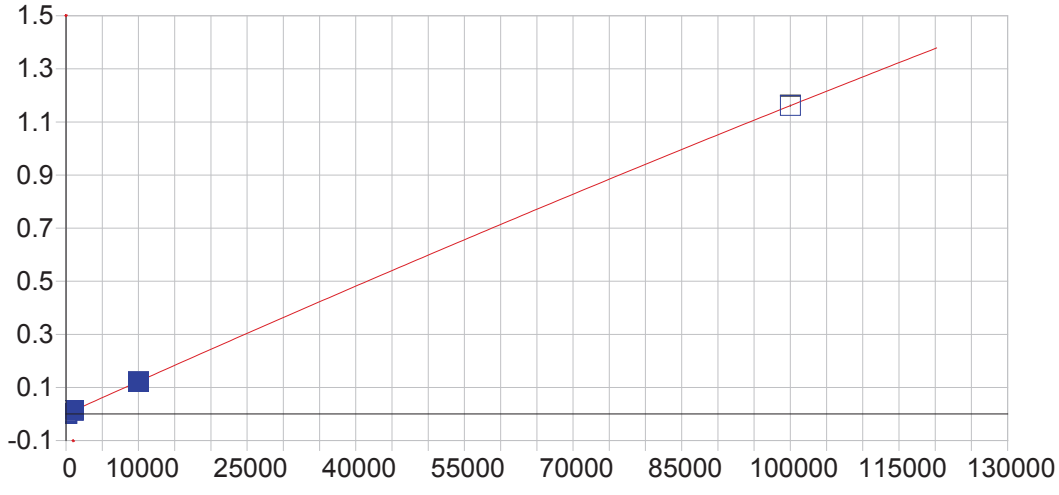


Co 238.892 {141}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999758	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	0.735562		
Predicted MQL:	2.451873		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01376	-.014	.000	.00000	.000	1
CalStd9=100	1000.0	1064.8	64.8	6.48	.00222	.000	1
CalStd10=10	10000.	9927.2	-72.8	-.728	.02064	.000	1
CalStd8=100	100.00	108.00	8.00	8.00	.00023	.000	1

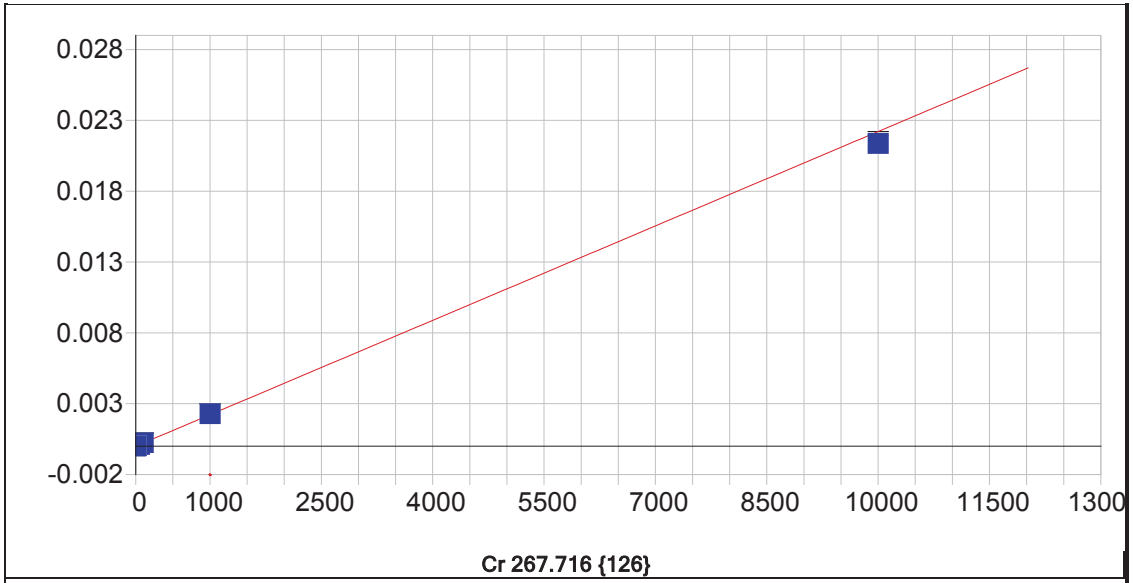


Cr 205.560 {464}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	-0.000009	Re-Slope:	1.000000
A1 (Gain):	0.000012	Y-int:	0.000000
A2 (Curvature):	-0.000000		
n (Exponent):	1.000000		
Correlation:	0.999978	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.360667		
Predicted MQL:	1.202223		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00050	-.001	.000	-.00001	.000	1
CalStd5=10	10.000	10.633	.633	6.33	.00012	.000	1
CalStd7=50	50.000	54.064	4.06	8.13	.00066	.000	1
CalStd9=100	1000.0	1053.7	53.7	5.37	.01297	.000	1
CalStd8=100	100.00	106.68	6.68	6.68	.00131	.000	1
CalStd4=5	5.0000	5.6040	.604	12.1	.00006	.000	1
CalStd3=1	1.0000	1.1260	.126	12.6	.00001	.000	1
CalStd10=10	10000.	9926.7	-73.3	-.733	.12163	.000	1
CalStd12=10	100000.	100010.	7.58	.008	1.1614	.002	1

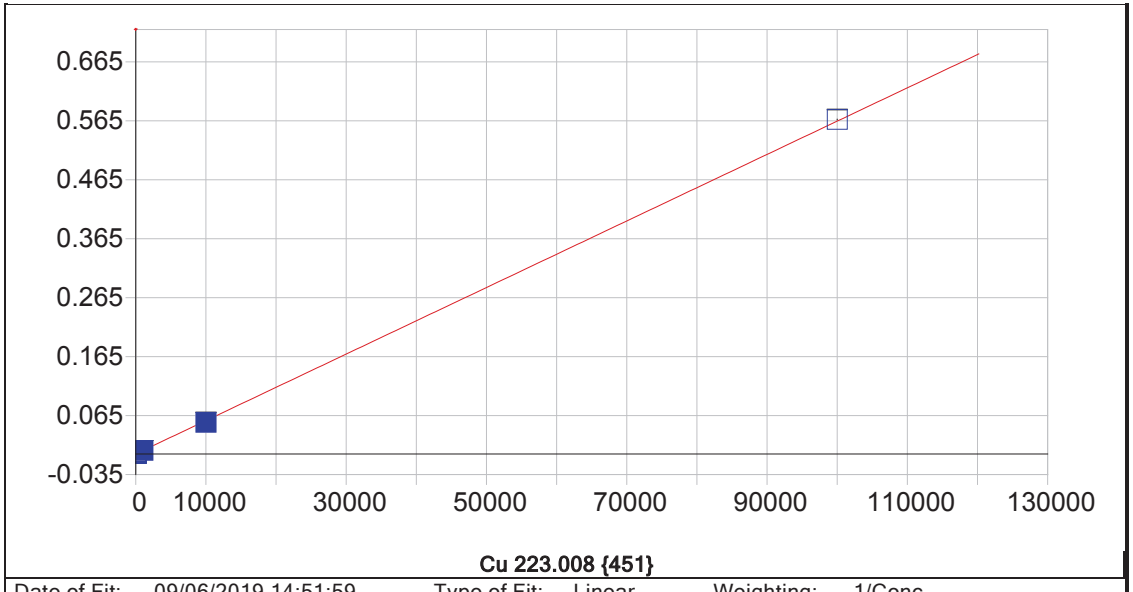


Cr 267.716 {126}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	-0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999454	Status:	OK.
Std Error of Est:	0.000005		
Predicted MDL:	0.795807		
Predicted MQL:	2.652691		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.52280	-.523	.000	-.00000	.000	1
CalStd5=10	10.000	9.2949	-.705	-7.05	.00002	.000	1
CalStd7=50	50.000	51.032	1.03	2.06	.00011	.000	1
CalStd9=100	1000.0	1028.0	28.0	2.80	.00228	.000	1
CalStd8=100	100.00	101.93	1.93	1.93	.00023	.000	1
CalStd4=5	5.0000	5.0519	.052	1.04	.00001	.000	1
CalStd10=10	10000.	9617.3	-383.	-3.83	.02137	.000	1

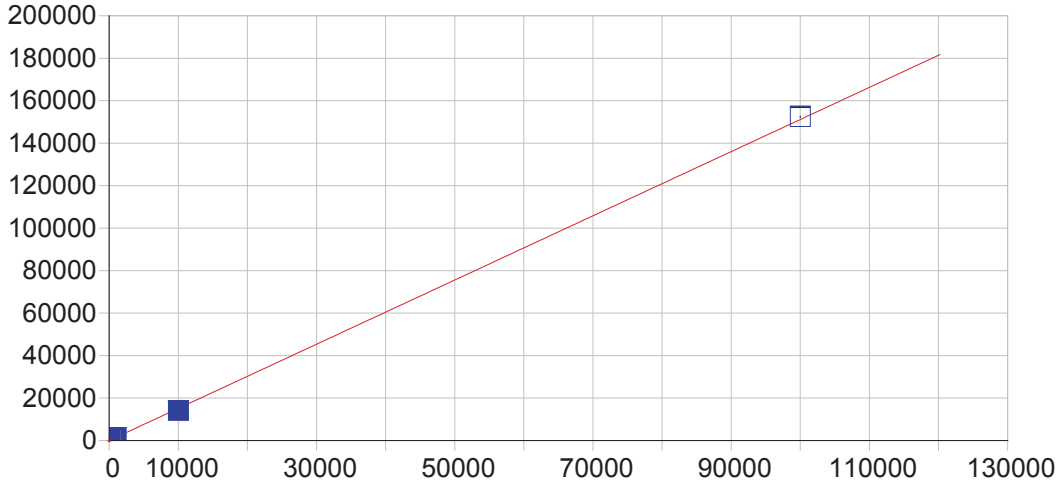


Cu 223.008 {451}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000006	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999851	Status:	OK.
Std Error of Est:	0.000004		
Predicted MDL:	0.974669		
Predicted MQL:	3.248895		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00411	-.004	.000	-.00000	.000	1
CalStd9=100	1000.0	1028.9	28.9	2.89	.00581	.000	1
CalStd7=50	50.000	55.348	5.35	10.7	.00031	.000	1
CalStd8=100	100.00	104.39	4.39	4.39	.00059	.000	1
CalStd6=20	20.000	22.859	2.86	14.3	.00013	.000	1
CalStd12=10	100000.	100490.	491.	.491	.56734	.001	1
CalStd10=10	10000.	9466.5	-534.	-5.34	.05344	.000	1
CalStd5=10	10.000	11.364	1.36	13.6	.00006	.000	1

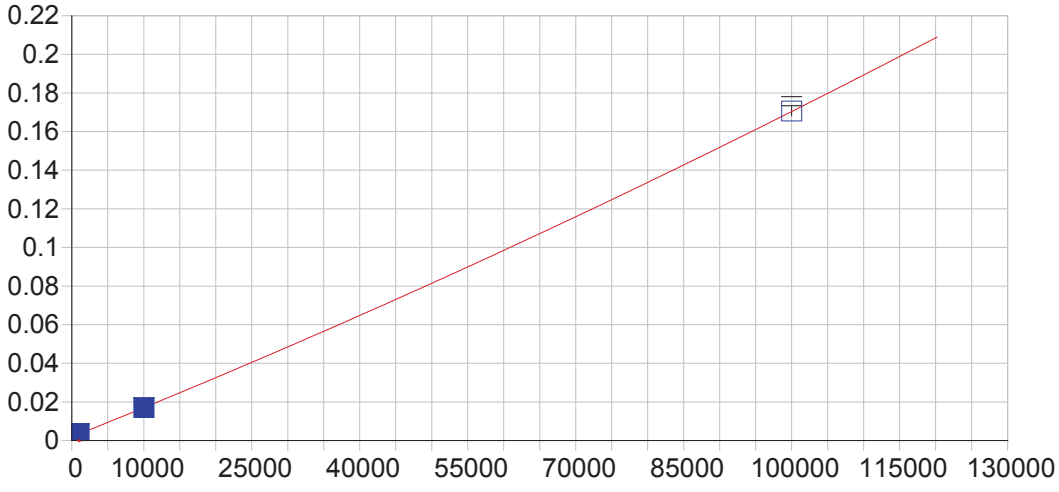


Cu 224.700 {450}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.543864	Re-Slope:	1.000000
A1 (Gain):	1.511572	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999450	Status:	OK.
Std Error of Est:	2.793291		
Predicted MDL:	0.580289		
Predicted MQL:	1.934297		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.04219	.042	.000	.60764	.142	1
CalStd9=100	1000.0	958.40	-41.6	-4.16	1438.7	4.88	1
CalStd7=50	50.000	13.044	-37.0	-73.9	20.260	.996	1
CalStd8=100	100.00	46.050	-53.9	-53.9	69.088	2.16	1
CalStd6=20	20.000	5.4085	-14.6	-73.0	8.7192	.418	1
CalStd12=10	100000.	100820.	823.	.823	152400.	329.	1
CalStd10=10	10000.	9318.2	-682.	-6.82	13980.	9.57	1

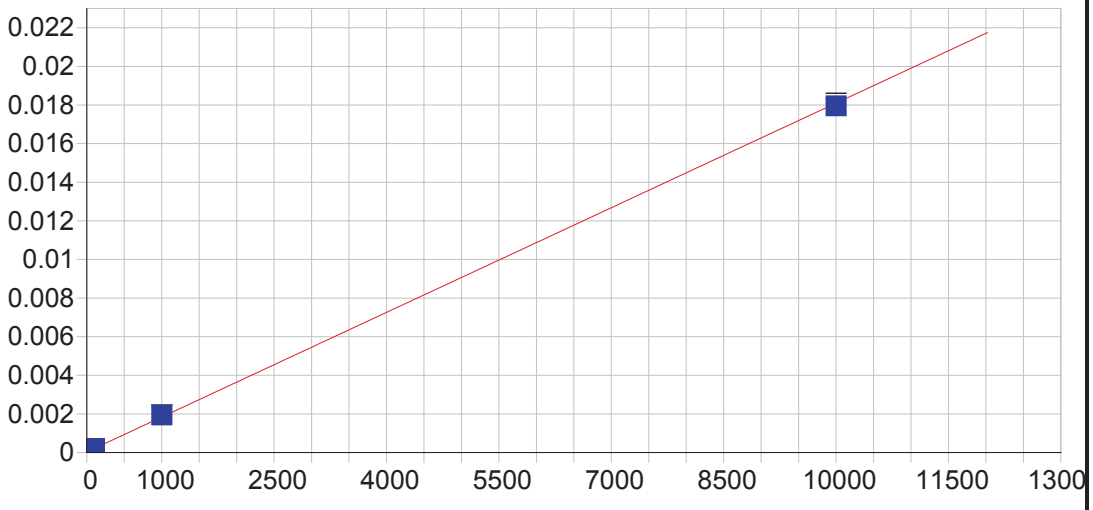


Cu 324.754 {104}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Curvilinear	Weighting:	1/Var

A0 (Offset):	0.001856	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999696	Status:	Warning Positive Curvature
Std Error of Est:	0.000045		
Predicted MDL:	3.826082		
Predicted MQL:	12.753608		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	21.785	21.8	.000	.00189	.000	1
CalStd9=100	1000.0	1046.7	46.7	4.67	.00343	.000	1
CalStd8=100	100.00	78.863	-21.1	-21.1	.00197	.000	1
CalStd10=10	10000.	9989.0	-11.0	-.110	.01700	.000	1
CalStd12=10	100000.	100070.	72.4	.072	.17053	.002	1
CalStd5=10	10.000	-40.636	-50.6	-506.	.00180	.000	1
CalStd6=20	20.000	58.007	38.0	190.	.00194	.000	1
CalStd7=50	50.000	45.195	-4.80	-9.61	.00192	.000	1

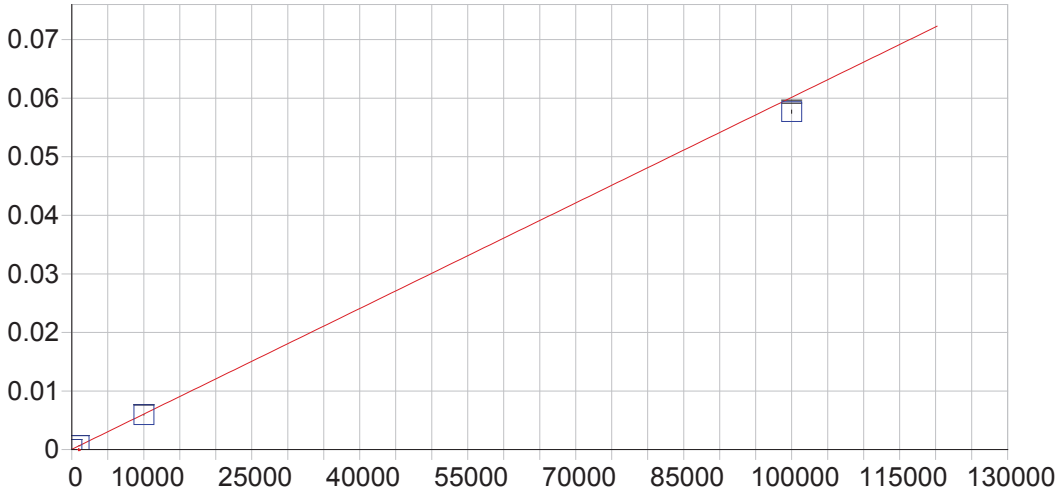


Cu 327.396 {103}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000032	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999598	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	4.003425		
Predicted MQL:	13.344749		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00608	-.006	.000	.00003	.000	1
CalStd6=20	20.000	24.232	4.23	21.2	.00008	.000	1
CalStd7=50	50.000	59.072	9.07	18.1	.00014	.000	1
CalStd8=100	100.00	108.22	8.22	8.22	.00023	.000	1
CalStd9=100	1000.0	1056.5	56.5	5.65	.00194	.000	1
CalStd10=10	10000.	9916.8	-83.2	-.832	.01795	.000	1
CalStd4=5	5.0000	6.6119	1.61	32.2	.00004	.000	1
CalStd5=10	10.000	13.697	3.70	37.0	.00006	.000	1

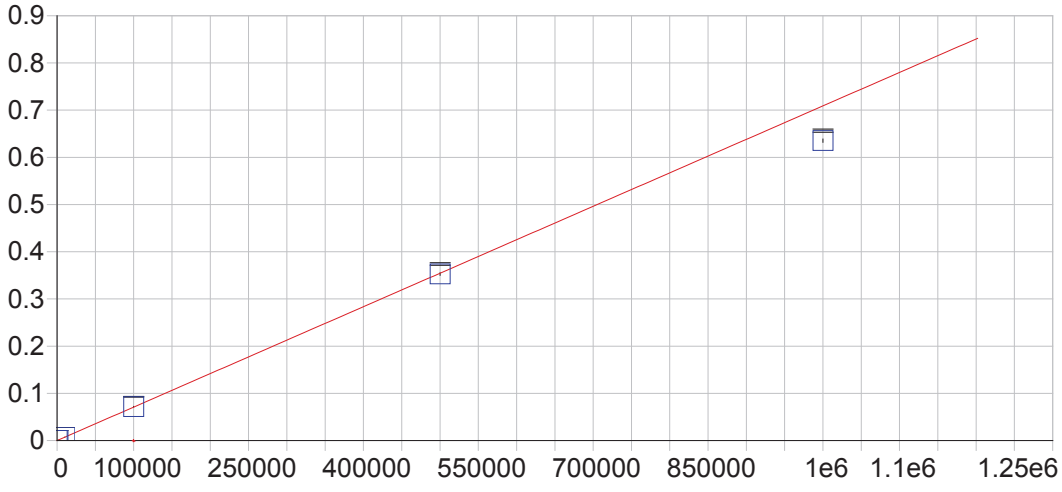


Fe 234.349 {144}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000038	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999224	Status:	OK.
Std Error of Est:	0.000026		
Predicted MDL:	1.429660		
Predicted MQL:	4.765532		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-15.612	-15.6	.000	.00003	.000	1
CalStd10=10	10000.	9794.3	-206.	-2.06	.00593	.000	1
CalStd13=10	100000.	95917.	-4080.	-4.08	.05770	.000	1
CalStd9=100	1000.0	1034.6	34.6	3.46	.00066	.000	1

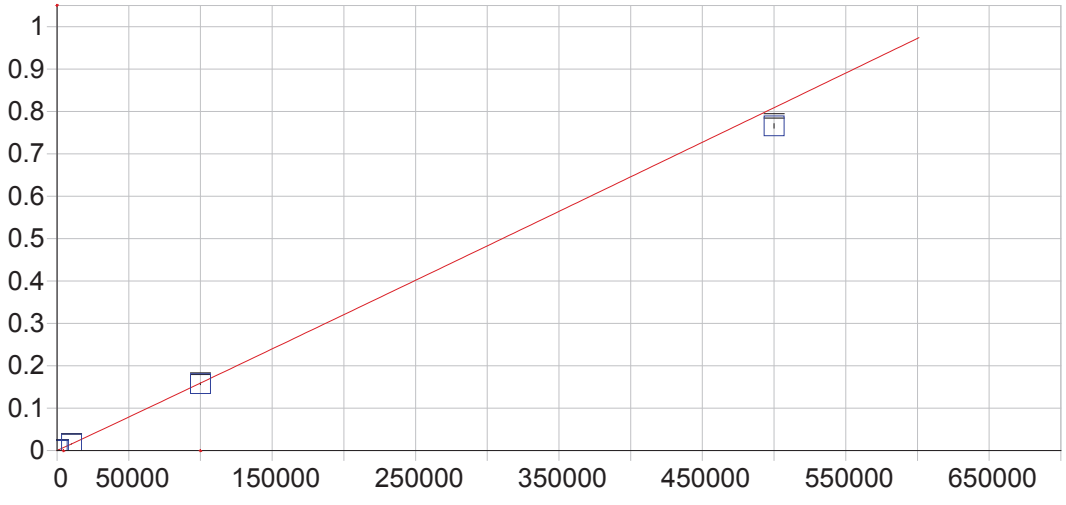


Fe 239.562 {140}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000025	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998415	Status:	OK.
Std Error of Est:	0.000028		
Predicted MDL:	3.010553		
Predicted MQL:	10.035177		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-29.694	-29.7	.000	.00000	.000	1
CalStd10=10	10000.	9720.6	-279.	-2.79	.00692	.000	1
CalStd13=10	100000.	101080.	1080.	1.08	.07169	.001	1
CalStd14=50	500000.	497570.	-2430.	-.487	.35279	.003	1
CalStd9=100	1000.0	1010.3	10.3	1.03	.00074	.000	1
CalibStd15=	1000000.	896060.	-104000.	-10.4	.63532	.003	1

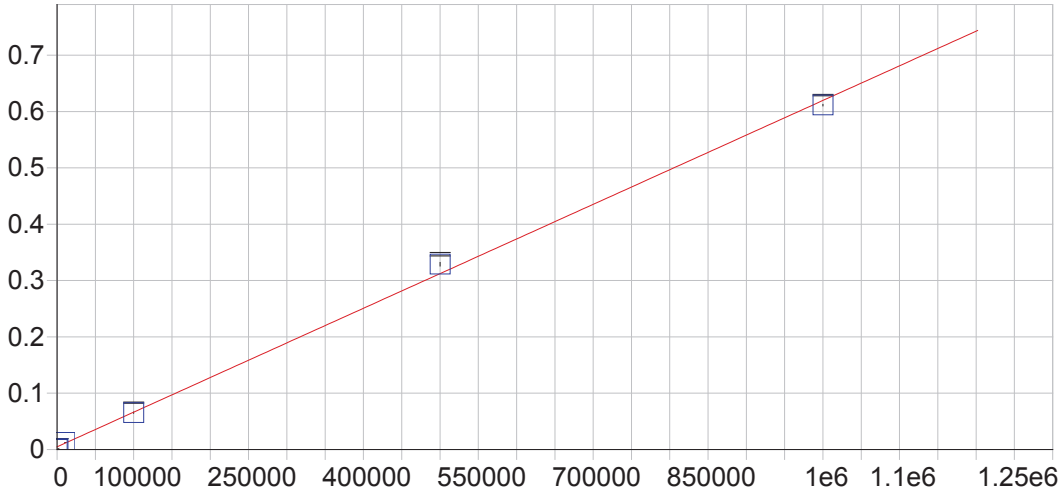


Fe 259.940 {129}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Full Fit	Weighting:	1/Conc

A0 (Offset):	0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.010000		
Correlation:	0.999996	Status:	OK.
Std Error of Est:	0.000008		
Predicted MDL:	2.016330		
Predicted MQL:	6.721101		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00000	.000	1
CalStd10=10	10000.	9934.5	-65.5	-.655	.01546	.000	1
CalStd13=10	100000.	98945.	-1050.	-1.05	.15751	.002	1
CalStd14=50	500000.	473630.	-26400.	-5.27	.76584	.005	1
CalStd9=100	1000.0	1071.7	71.7	7.17	.00163	.000	1

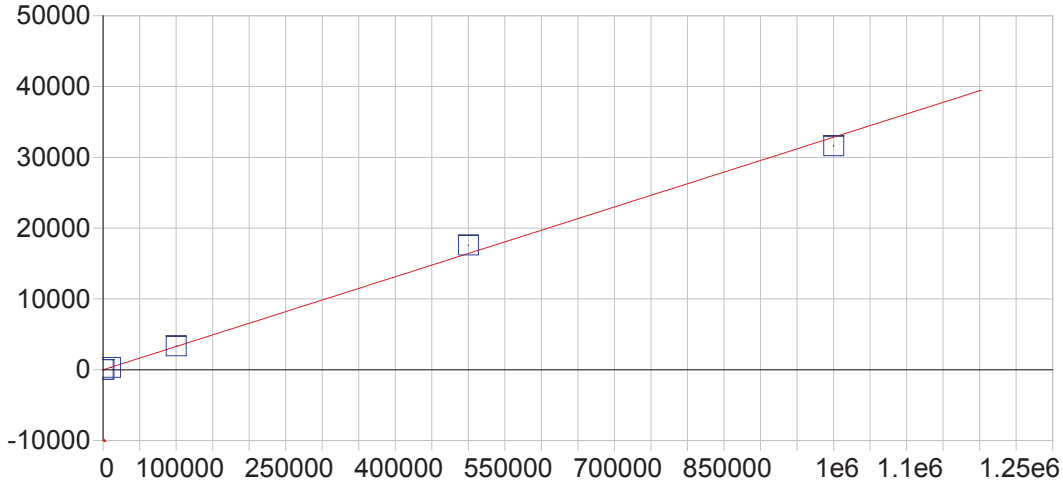


Mg 202.582 {466}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	0.004862	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999374	Status:	OK.
Std Error of Est:	0.009899		
Predicted MDL:	9.495306		
Predicted MQL:	31.651021		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-7896.7	-7900.	.000	.00001	.000	1
CalStd13=10	100000.	98422.	-1580.	-1.58	.06538	.001	1
CalStd10=10	10000.	12398.	2400.	24.0	.01249	.000	1
CalStd14=50	500000.	527210.	27200.	5.44	.32901	.003	1
CalStd9=100	1000.0	-5668.8	-6670.	-667.	.00138	.000	1
CalibStd15=	1000000.	986540.	-13500.	-1.35	.61143	.001	1

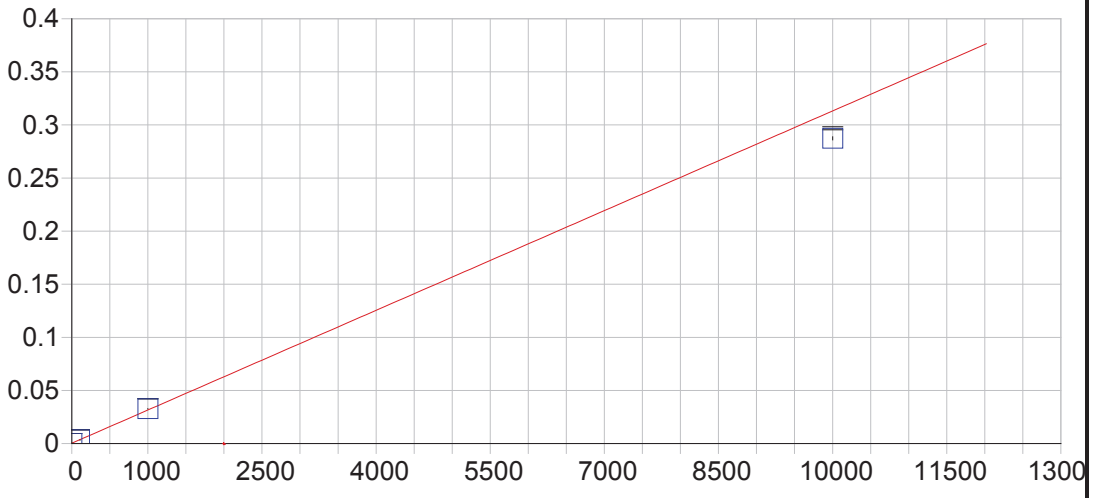


Mg 279.079 {121}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.371947	Re-Slope:	1.000000
A1 (Gain):	0.032842	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998774	Status:	OK.
Std Error of Est:	2.529174		
Predicted MDL:	20.786279		
Predicted MQL:	69.287596		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00568	-.006	.000	-.37213	.412	1
CalStd13=10	100000.	102130.	2130.	2.13	3353.7	3.05	1
CalStd10=10	10000.	9503.6	-496.	-4.96	311.75	1.19	1
CalStd14=50	500000.	535450.	35400.	7.09	17585.	15.9	1
CalStd9=100	1000.0	1000.2	.225	.022	32.477	.642	1
CalibStd15=	1000000.	962920.	-37100.	-3.71	31624.	23.0	1

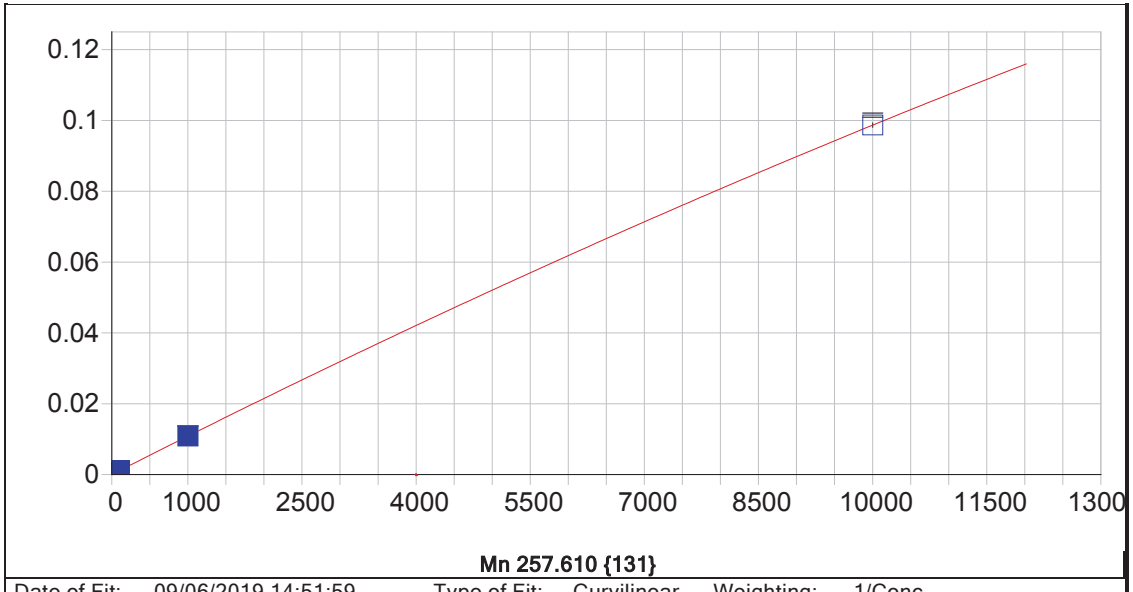


Mg 280.270 {120}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000284	Re-Slope:	1.000000
A1 (Gain):	0.000031	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998640	Status:	OK.
Std Error of Est:	0.000220		
Predicted MDL:	0.033991		
Predicted MQL:	0.113304		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.68231	-.682	.000	.00026	.000	1
CalStd9=100	1000.0	1036.2	36.2	3.62	.03271	.000	1
CalStd10=10	10000.	9174.5	-825.	-8.25	.28737	.001	1
CalStd8=100	100.00	101.38	1.38	1.38	.00346	.000	1

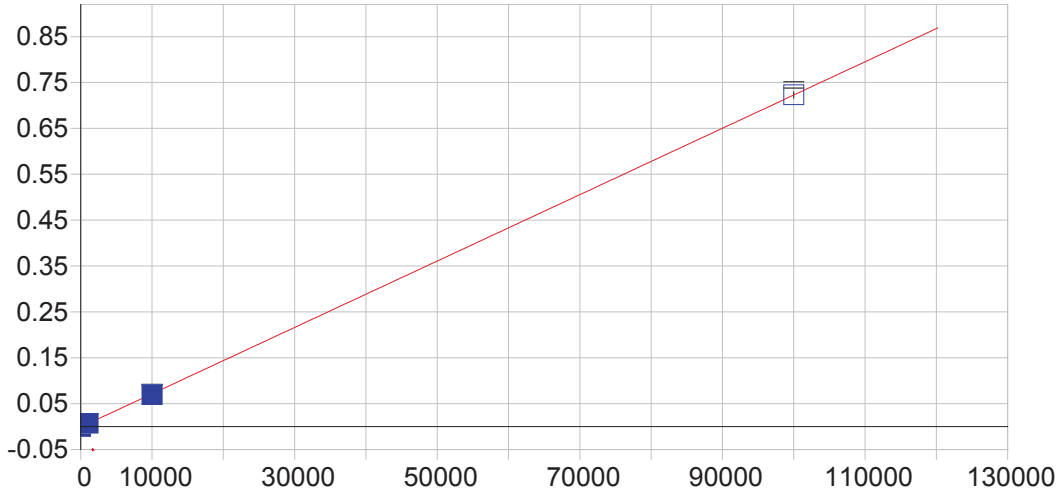


Mn 257.610 {131}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000011	Y-int:	0.000000
A2 (Curvature):	-0.000000		
n (Exponent):	1.000000		
Correlation:	0.999996	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.094594		
Predicted MQL:	0.315313		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00046	-.000	.000	.00000	.000	1
CalStd5=10	10.000	9.8642	-.136	-1.36	.00011	.000	1
CalStd7=50	50.000	51.115	1.11	2.23	.00056	.000	1
CalStd6=20	20.000	20.776	.776	3.88	.00023	.000	1
CalStd8=100	100.00	99.731	-.269	-.269	.00109	.000	1
CalStd4=5	5.0000	5.2450	.245	4.90	.00006	.000	1
CalStd9=100	1000.0	998.04	-1.96	-.196	.01083	.000	1
CalStd10=10	10000.	10000.	.234	.002	.09867	.001	1

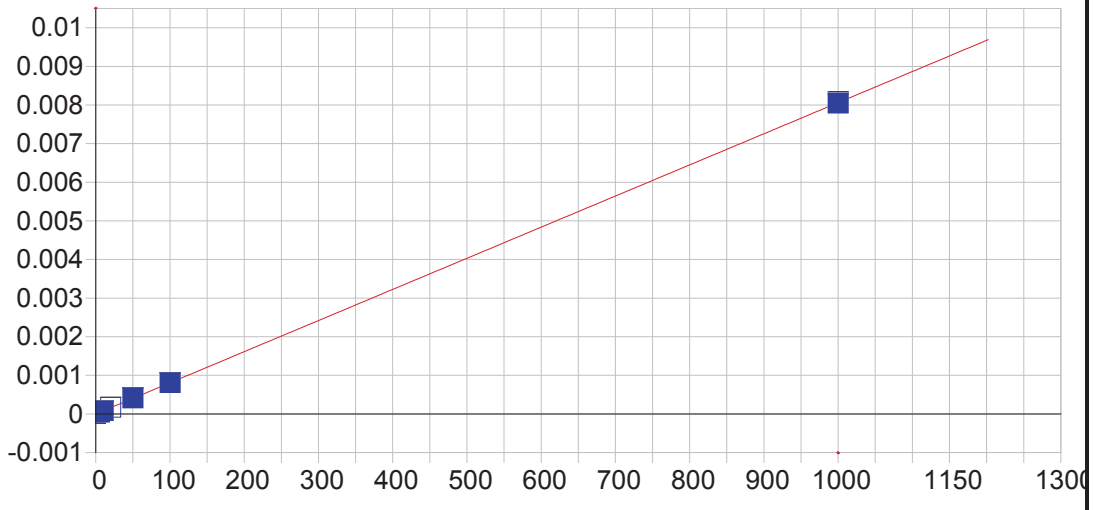


Mn 259.373 {130}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	-0.000898	Re-Slope:	1.000000
A1 (Gain):	0.000007	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999991	Status:	OK.
Std Error of Est:	0.001787		
Predicted MDL:	0.371305		
Predicted MQL:	1.237685		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	124.74	125.	.000	.00000	.000	1
CalStd10=10	10000.	9706.8	-293.	-2.93	.06944	.001	1
CalStd9=100	1000.0	1140.5	140.	14.0	.00736	.000	1
CalStd12=10	100000.	100030.	27.9	.028	.72292	.007	1

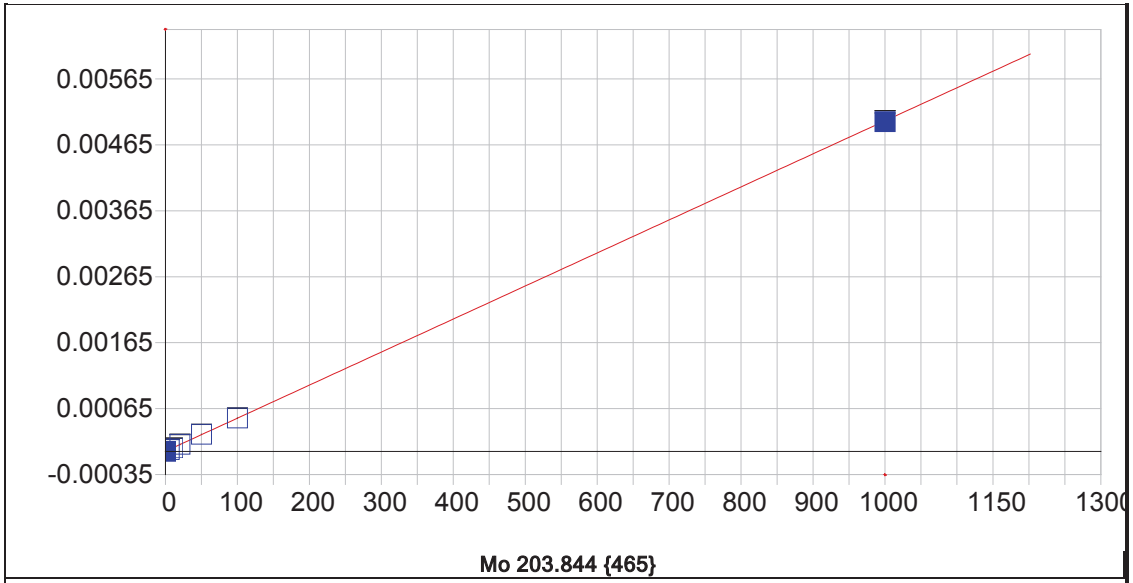


Mo 202.030 {466}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000008	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999957	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.512006		
Predicted MQL:	1.706686		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00058	-.001	.000	-.00000	.000	1
CalStd7=50	50.000	51.083	1.08	2.17	.00041	.000	1
CalStd6=20	20.000	21.002	1.00	5.01	.00017	.000	1
CalStd5=10	10.000	9.8219	-.178	-1.78	.00008	.000	1
CalStd8=100	100.00	99.924	-.076	-.076	.00081	.000	1
CalStd4=5	5.0000	5.3279	.328	6.56	.00004	.000	1
CalStd9=100	1000.0	997.84	-2.16	-.216	.00806	.000	1

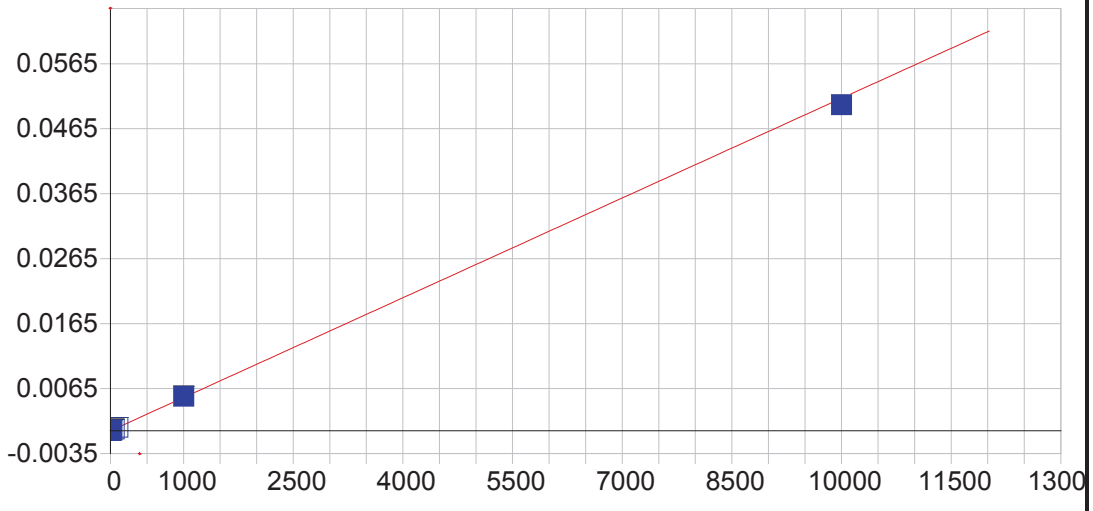


Mo 203.844 {465}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000004	Re-Slope:	1.000000
A1 (Gain):	0.000005	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999949	Status:	OK.
Std Error of Est:	0.000004		
Predicted MDL:	0.966937		
Predicted MQL:	3.223123		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.73490	-.735	.000	.00000	.000	1
CalStd7=50	50.000	50.845	.845	1.69	.00026	.000	1
CalStd6=20	20.000	20.374	.374	1.87	.00011	.000	1
CalStd5=10	10.000	9.2413	-.759	-7.59	.00005	.000	1
CalStd8=100	100.00	99.916	-.084	-.084	.00050	.000	1
CalStd4=5	5.0000	4.6261	-.374	-7.48	.00003	.000	1
CalStd9=100	1000.0	996.86	-3.14	-.314	.00500	.000	1

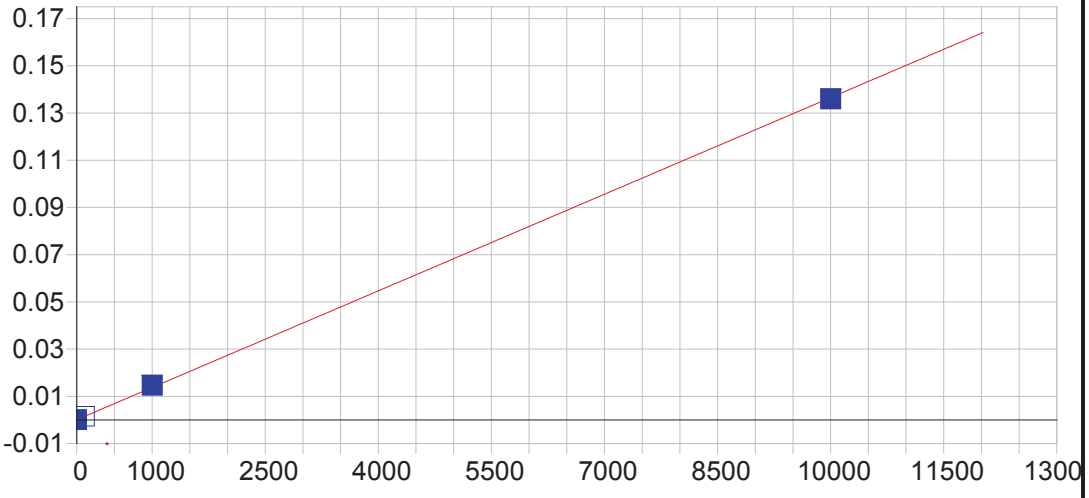


Mo 204.598 {464}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000005	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999628	Status:	OK.
Std Error of Est:	0.000039		
Predicted MDL:	0.880096		
Predicted MQL:	2.933653		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.3887	-1.39	.000	-.00000	.000	1
CalStd7=50	50.000	51.106	1.11	2.21	.00026	.000	1
CalStd6=20	20.000	19.806	-.194	-.968	.00010	.000	1
CalStd5=10	10.000	8.9691	-1.03	-10.3	.00005	.000	1
CalStd8=100	100.00	102.19	2.19	2.19	.00053	.000	1
CalStd4=5	5.0000	3.7173	-1.28	-25.7	.00002	.000	1
CalStd9=100	1000.0	1035.8	35.8	3.58	.00530	.000	1
CalStd10=10	10000.	9801.3	-199.	-1.99	.05018	.000	1

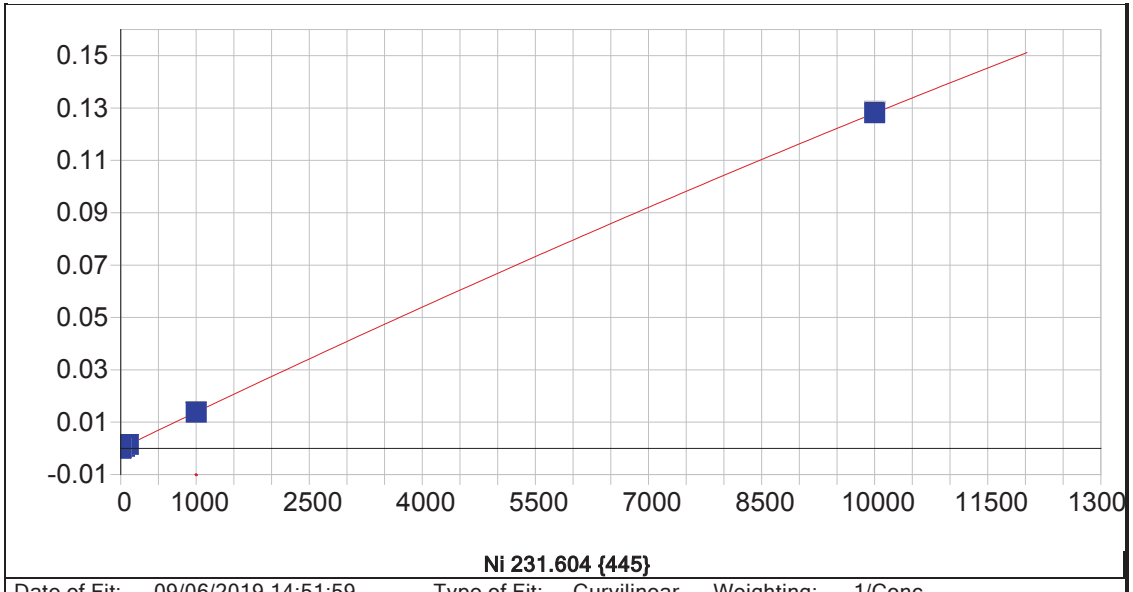


Ni 221.647 {452}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000094	Re-Slope:	1.000000
A1 (Gain):	0.000014	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999814	Status:	OK.
Std Error of Est:	0.000249		
Predicted MDL:	0.533865		
Predicted MQL:	1.779550		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-7.0644	-7.06	.000	-.00000	.000	1
CalStd10=10	10000.	9952.7	-47.3	-.473	.13590	.000	1
CalStd8=100	100.00	105.37	5.37	5.37	.00153	.000	1
CalStd9=100	1000.0	1065.1	65.1	6.51	.01463	.000	1

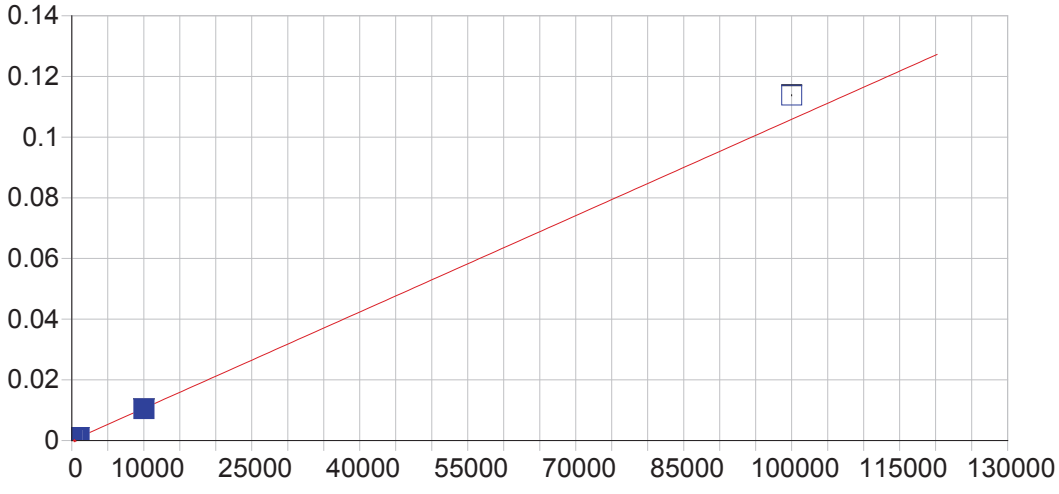


Ni 231.604 {445}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	-0.000011	Re-Slope:	1.000000
A1 (Gain):	0.000014	Y-int:	0.000000
A2 (Curvature):	-0.000000		
n (Exponent):	1.000000		
Correlation:	0.999980	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.512881		
Predicted MQL:	1.709604		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00029	-.000	.000	-.00001	.000	1
CalStd7=50	50.000	51.186	1.19	2.37	.00071	.000	1
CalStd5=10	10.000	10.048	.048	.478	.00013	.000	1
CalStd8=100	100.00	103.95	3.95	3.95	.00144	.000	1
CalStd4=5	5.0000	5.8867	.887	17.7	.00007	.000	1
CalStd9=100	1000.0	993.14	-6.86	-.686	.01376	.000	1
CalStd3=1	1.0000	1.0555	.056	5.55	.00000	.000	1
CalStd10=10	10000.	10001.	.752	.008	.12863	.000	1

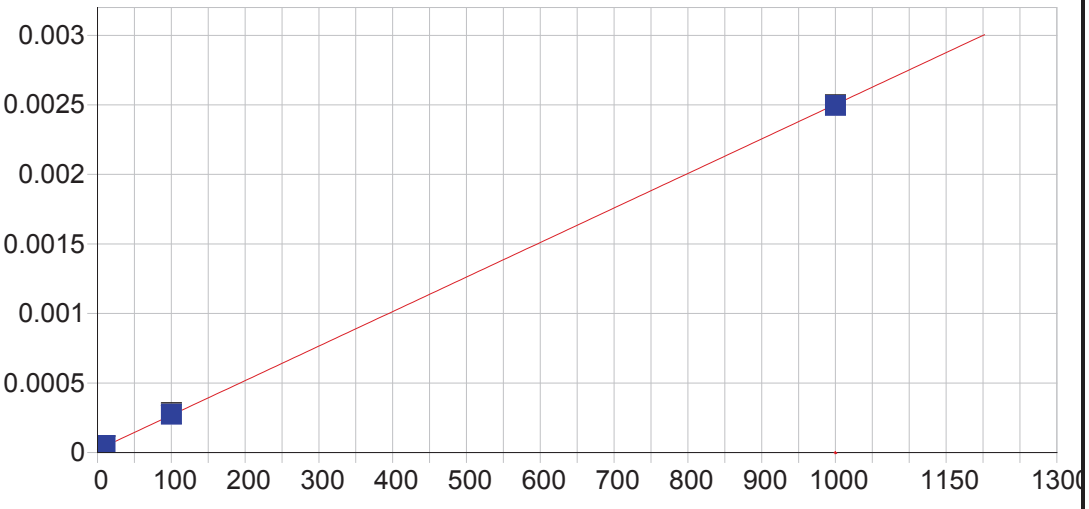


Pb 216.999 {455}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Curvilinear	Weighting:	1/Var

A0 (Offset):	0.000024	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999765	Status:	OK.
Std Error of Est:	0.000049		
Predicted MDL:	5.513917		
Predicted MQL:	18.379724		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-15.927	-15.9	.000	.00001	.000	1
CalStd9=100	1000.0	1055.2	55.2	5.52	.00114	.000	1
CalStd10=10	10000.	9841.9	-158.	-1.58	.01044	.000	1
CalStd8=100	100.00	90.519	-9.48	-9.48	.00012	.000	1
CalStd5=10	10.000	-.64432	-10.6	-106.	.00002	.000	1
CalStd12=10	100000.	107490.	7490.	7.49	.11380	.000	1

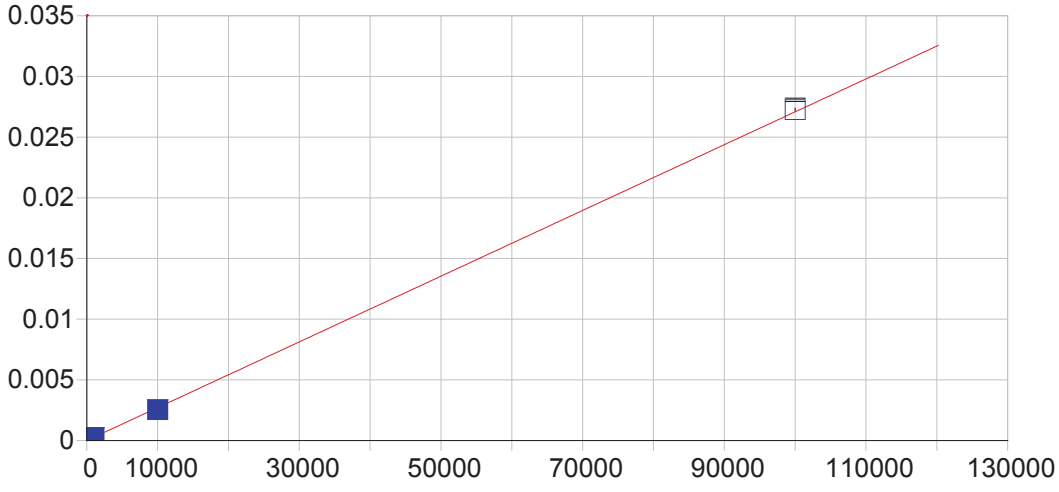


Pb 220.353 {453}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000021	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999858	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	2.931026		
Predicted MQL:	9.770086		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00026	-.000	.000	.00002	.000	1
CalStd5=10	10.000	11.365	1.36	13.6	.00005	.000	1
CalStd8=100	100.00	102.53	2.53	2.53	.00028	.000	1
CalStd4=5	5.0000	4.4701	-.530	-10.6	.00003	.000	1
CalStd9=100	1000.0	996.64	-3.36	-.336	.00249	.000	1

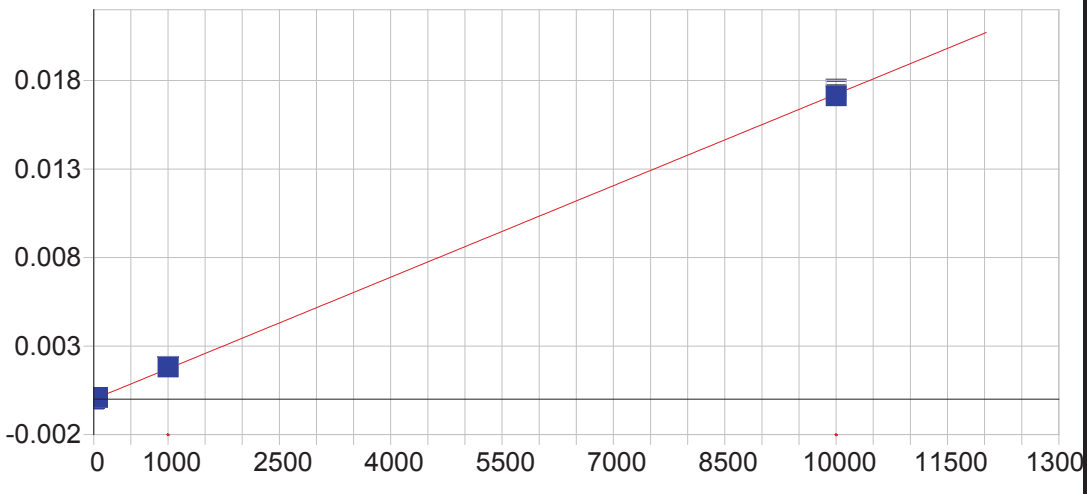


Pb 220.353 {153}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999799	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	4.057004		
Predicted MQL:	13.523348		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00327	.003	.000	.00000	.000	1
CalStd9=100	1000.0	1022.4	22.4	2.24	.00028	.000	1
CalStd10=10	10000.	9364.0	-636.	-6.36	.00254	.000	1
CalStd8=100	100.00	100.24	.237	.237	.00003	.000	1
CalStd12=10	100000.	100610.	613.	.613	.02725	.000	1

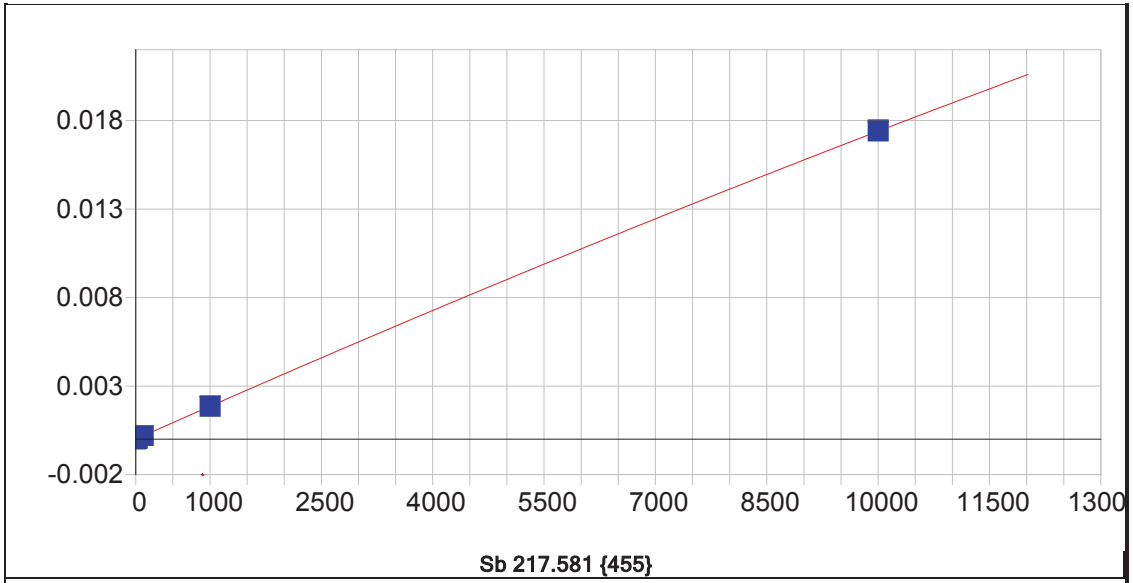


Sb 206.833 {463}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000004	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999840	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	2.644982		
Predicted MQL:	8.816608		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00346	-.003	.000	-.00000	.000	1
CalStd9=100	1000.0	1050.2	50.2	5.02	.00184	.000	1
CalStd5=10	10.000	12.127	2.13	21.3	.00002	.000	1
CalStd7=50	50.000	54.435	4.44	8.87	.00009	.000	1
CalStd10=10	10000.	9943.3	-56.7	-.567	.01745	.000	1

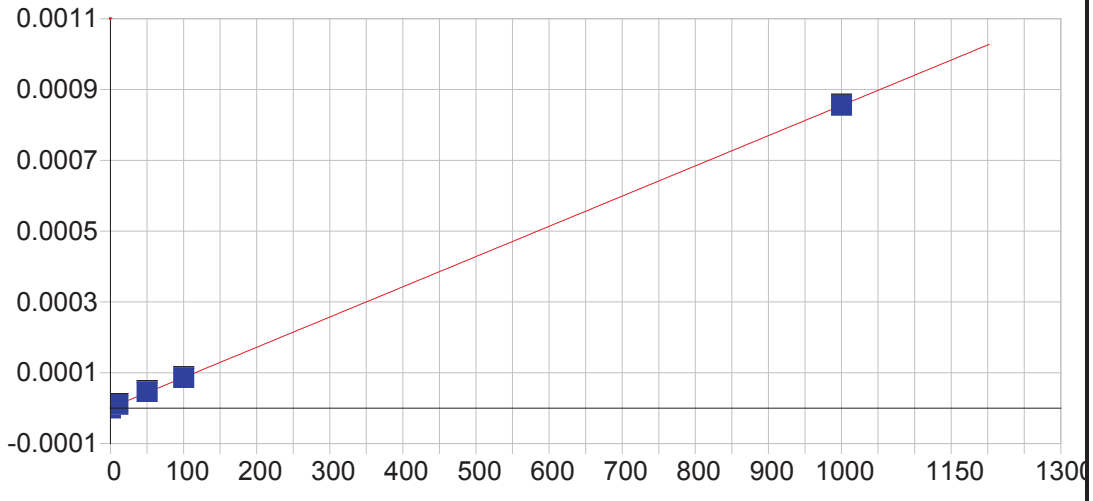


Sb 217.581 {455}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	-0.000000		
n (Exponent):	1.000000		
Correlation:	0.999903	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	2.702287		
Predicted MQL:	9.007624		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00366	-.004	.000	.00000	.000	1
CalStd9=100	1000.0	992.93	-7.07	-.707	.00184	.000	1
CalStd6=20	20.000	19.661	-.339	-1.70	.00004	.000	1
CalStd5=10	10.000	12.475	2.47	24.7	.00002	.000	1
CalStd8=100	100.00	101.70	1.70	1.70	.00019	.000	1
CalStd4=5	5.0000	7.4567	2.46	49.1	.00002	.000	1
CalStd10=10	10000.	10001.	.785	.008	.01740	.000	1

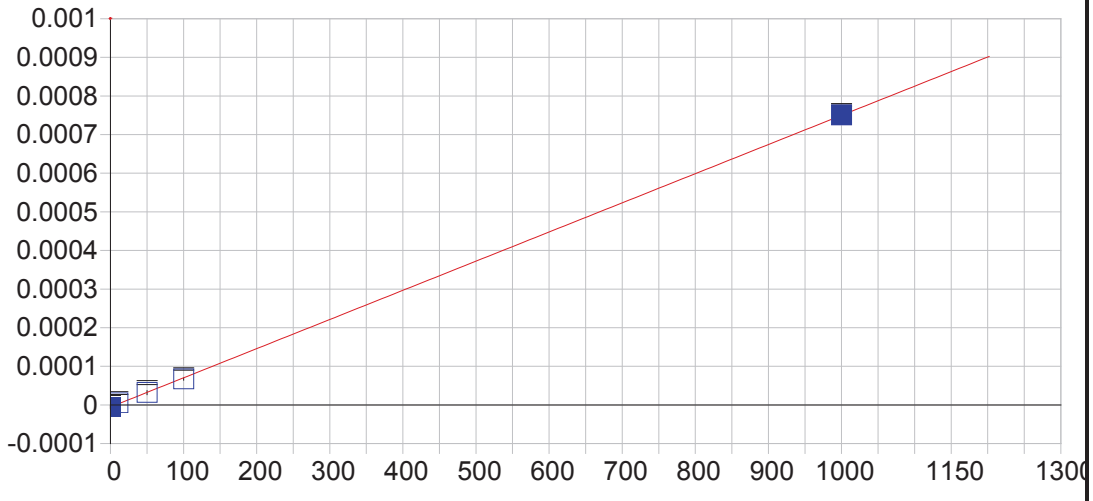


Se 196.090 {472}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999989	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	4.299099		
Predicted MQL:	14.330331		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.5012	-1.50	.000	-.00000	.000	1
CalStd7=50	50.000	52.916	2.92	5.83	.00005	.000	1
CalStd9=100	1000.0	999.93	-.069	-.007	.00086	.000	1
CalStd5=10	10.000	10.543	.543	5.43	.00001	.000	1
CalStd8=100	100.00	99.296	-.704	-.704	.00009	.000	1

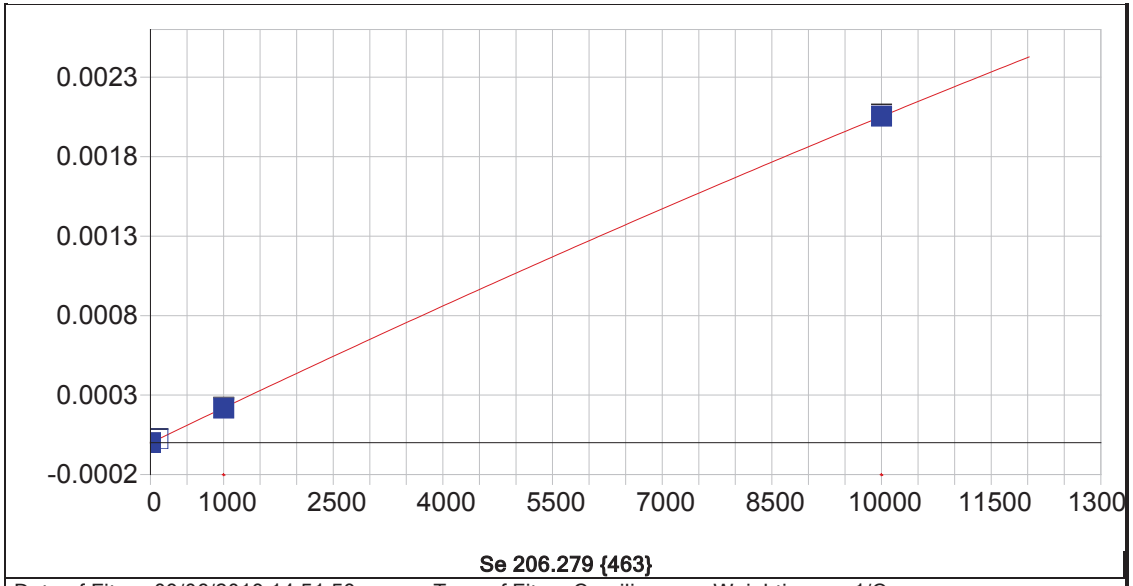


Se 203.985 {465}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000005	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999314	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	7.240044		
Predicted MQL:	24.133480		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00322	-.003	.000	-.00001	.000	1
CalStd7=50	50.000	49.249	-.751	-1.50	.00003	.000	1
CalStd9=100	1000.0	1001.0	.993	.099	.00075	.000	1
CalStd5=10	10.000	13.766	3.77	37.7	.00001	.000	1
CalStd8=100	100.00	95.992	-4.01	-4.01	.00007	.000	1

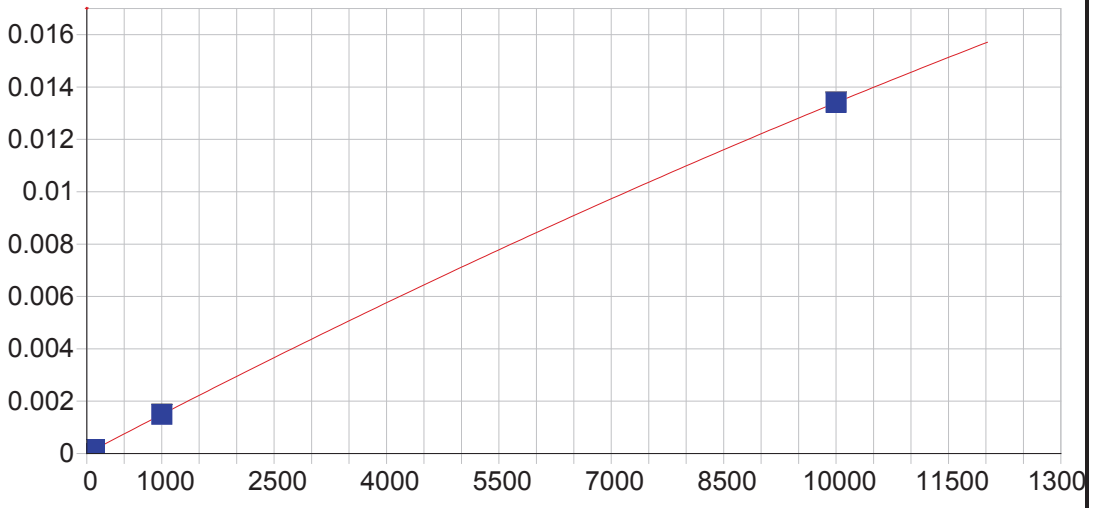


Se 206.279 {463}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	-0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	-0.000000		
n (Exponent):	1.000000		
Correlation:	0.999955	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	22.358218		
Predicted MQL:	74.527393		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00784	-.008	.000	-.00000	.000	1
CalStd9=100	1000.0	990.20	-9.80	-.980	.00022	.000	1
CalStd10=10	10000.	10001.	1.03	.010	.00206	.000	1
CalStd8=100	100.00	108.81	8.81	8.81	.00002	.000	1

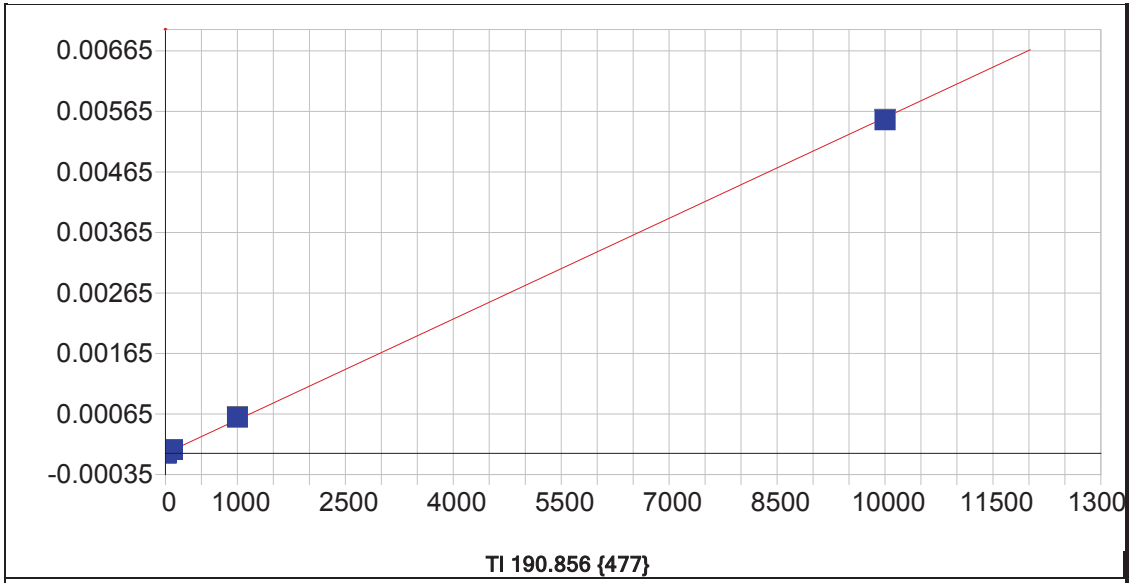


Tl 190.856 {476}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Curvilinear	Weighting:	1/Var

A0 (Offset):	0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	-0.000000		
n (Exponent):	1.000000		
Correlation:	1.000000	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	3.006511		
Predicted MQL:	10.021705		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.54097	.541	.000	.00000	.000	1
CalStd9=100	1000.0	999.78	-.220	-.022	.00149	.000	1
CalStd8=100	100.00	100.80	.799	.799	.00016	.000	1
CalStd5=10	10.000	8.6411	-1.36	-13.6	.00002	.000	1
CalStd10=10	10000.	10000.	.018	.000	.01343	.000	1

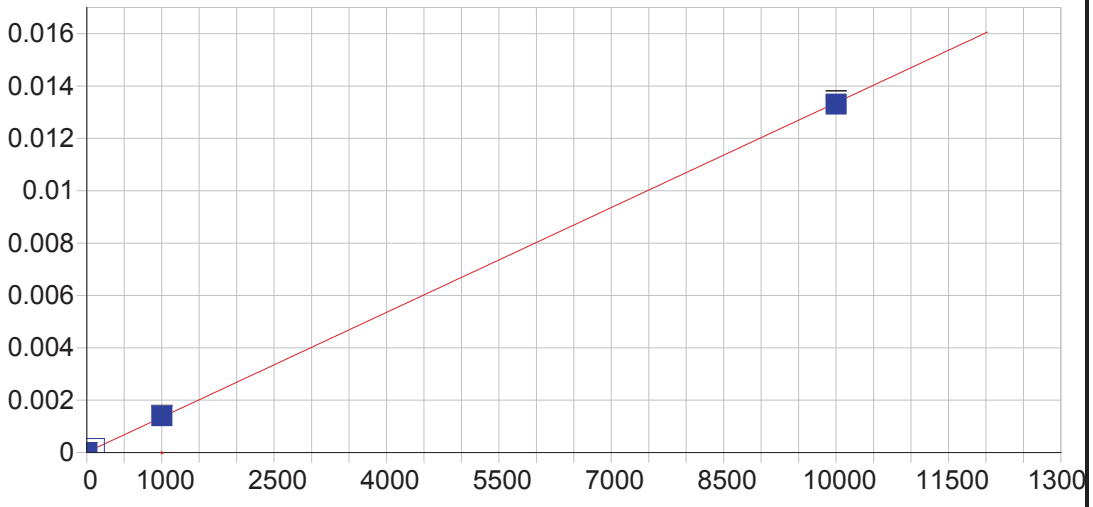


Tl 190.856 {477}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999596	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	6.457653		
Predicted MQL:	21.525509		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00360	.004	.000	-.00000	.000	1
CalStd9=100	1000.0	1074.7	74.7	7.47	.00060	.000	1
CalStd8=100	100.00	106.47	6.47	6.47	.00006	.000	1
CalStd5=10	10.000	5.0871	-4.91	-49.1	.00000	.000	1
CalStd10=10	10000.	9923.7	-76.3	-.763	.00551	.000	1

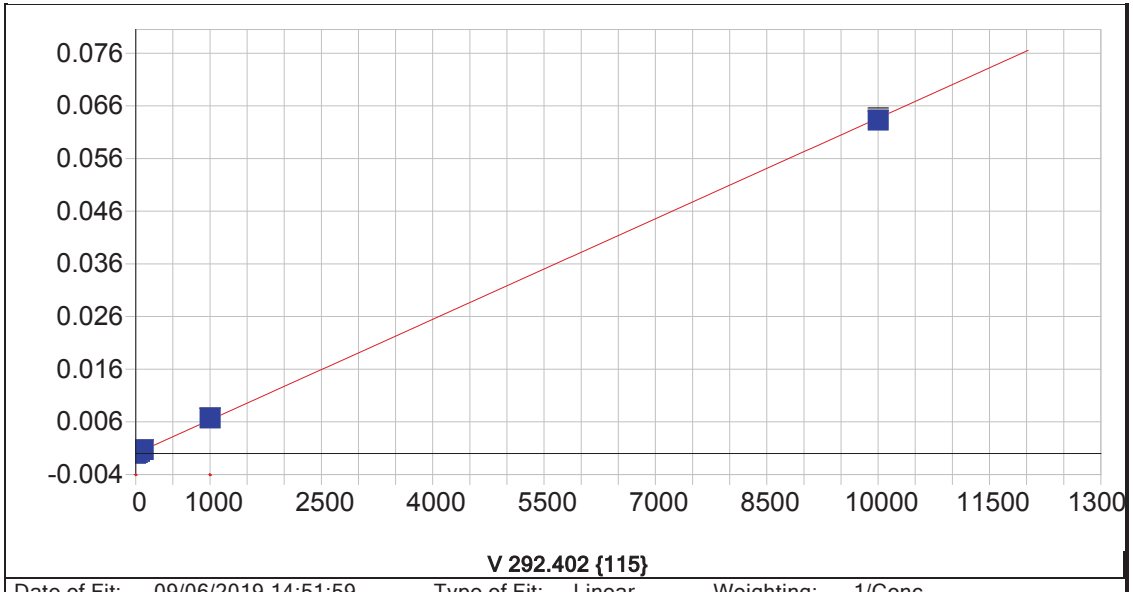


V 290.882 {116}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000014	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999910	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	2.654138		
Predicted MQL:	8.847128		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00783	-.008	.000	.00001	.000	1
CalStd9=100	1000.0	1040.3	40.3	4.03	.00140	.000	1
CalStd10=10	10000.	9955.4	-44.6	-.446	.01331	.000	1
CalStd8=100	100.00	104.24	4.24	4.24	.00015	.000	1

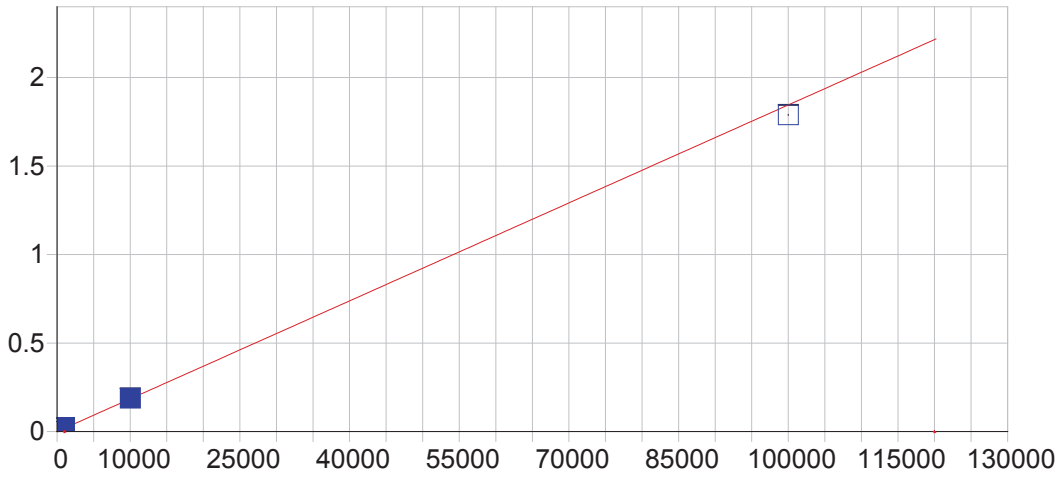


V 292.402 {115}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000006	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999808	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	0.551026		
Predicted MQL:	1.836754		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00375	-.004	.000	.00000	.000	1
CalStd7=50	50.000	54.252	4.25	8.50	.00035	.000	1
CalStd9=100	1000.0	1053.1	53.1	5.31	.00671	.000	1
CalStd6=20	20.000	22.564	2.56	12.8	.00015	.000	1
CalStd5=10	10.000	10.564	.564	5.64	.00007	.000	1
CalStd8=100	100.00	105.93	5.93	5.93	.00068	.000	1
CalStd10=10	10000.	9933.9	-66.1	-.661	.06347	.000	1

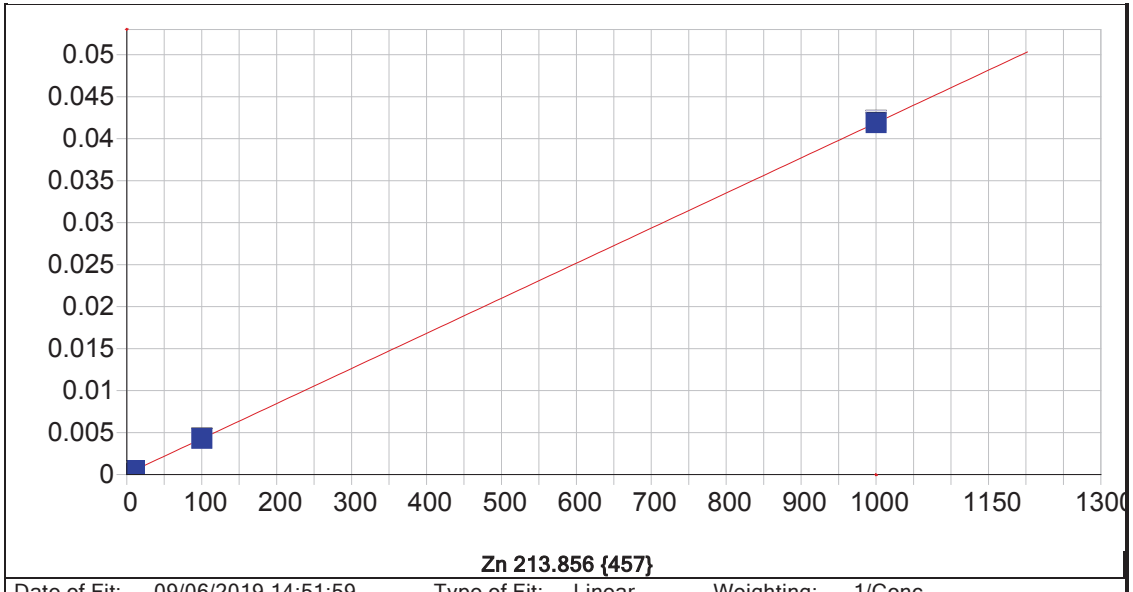


Zn 206.200 {463}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000062	Re-Slope:	1.000000
A1 (Gain):	0.000018	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999102	Status:	OK.
Std Error of Est:	0.000106		
Predicted MDL:	0.271716		
Predicted MQL:	0.905719		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
CalStd10=10	10000.	10173.	173.	1.73	.18778	.000	1
Blank	.00000	-1.0332	-1.03	.000	.00004	.000	1
CalStd9=100	1000.0	1095.5	95.5	9.55	.02028	.000	1
CalStd12=10	100000.	96958.	-3040.	-3.04	1.7891	.002	1
CalStd5=10	10.000	9.1820	-.818	-8.18	.00023	.000	1
CalStd8=100	100.00	107.92	7.92	7.92	.00205	.000	1

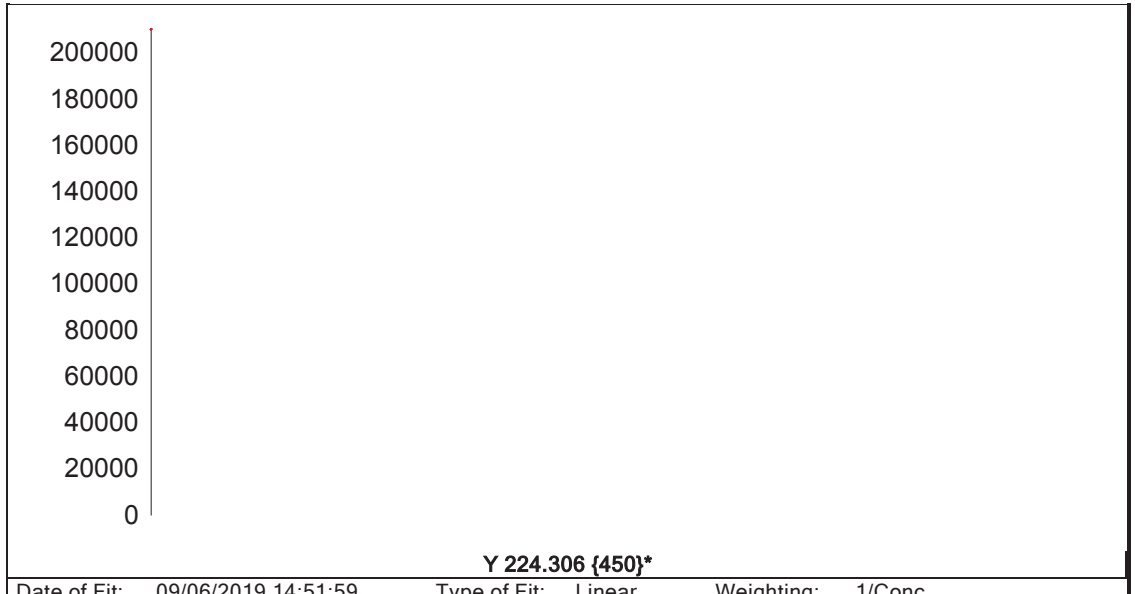


Zn 213.856 {457}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000092	Re-Slope:	1.000000
A1 (Gain):	0.000042	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999991	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.129263		
Predicted MQL:	0.430878		

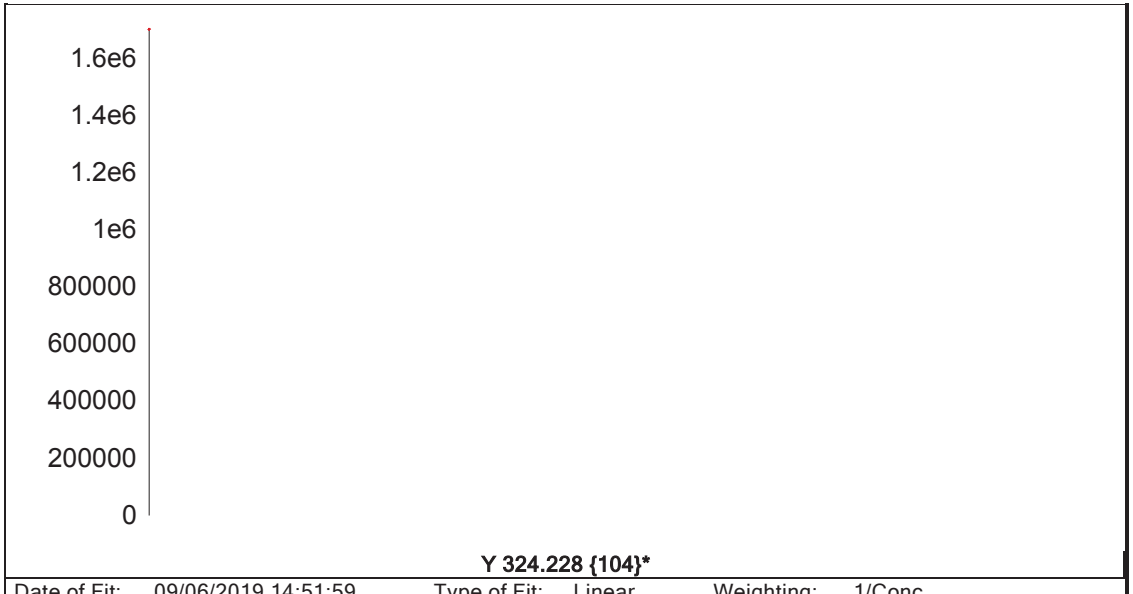
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00038	.000	.000	.00009	.000	1
CalStd9=100	1000.0	999.99	-.007	-.001	.04217	.000	1
CalStd5=10	10.000	9.5746	-.425	-4.25	.00049	.000	1
CalStd8=100	100.00	100.43	.430	.430	.00432	.000	1



Y 224.306 {450}*

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	194060.	574.	1

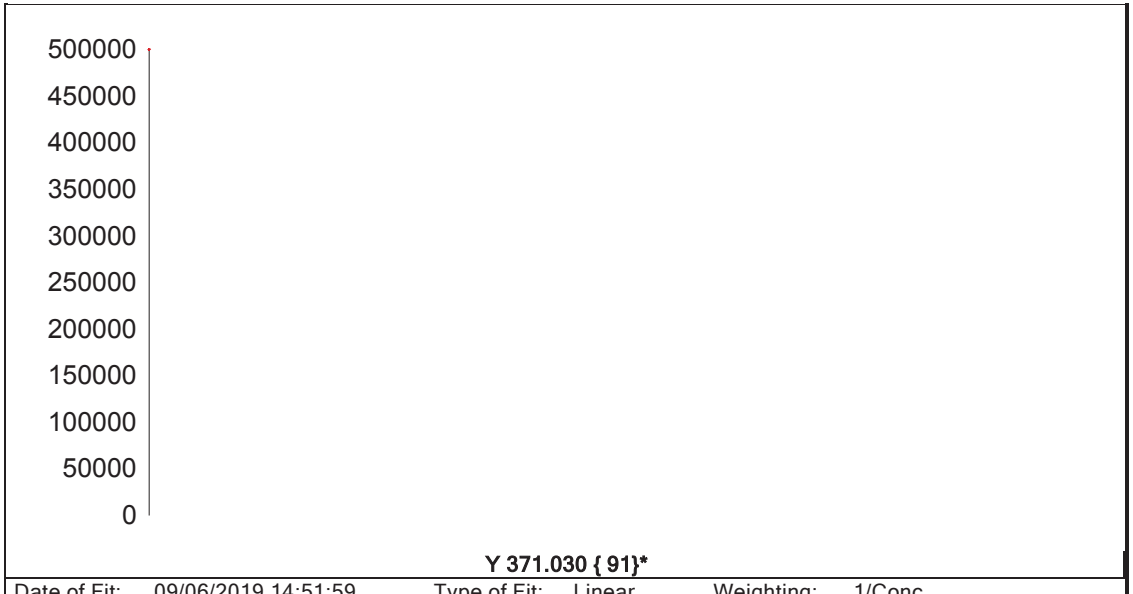


Y 324.228 {104}*

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.000000	Status:	Warning Zero Gain
Std Error of Est:	0.000000		
Predicted MDL:	n/a		
Predicted MQL:	n/a		

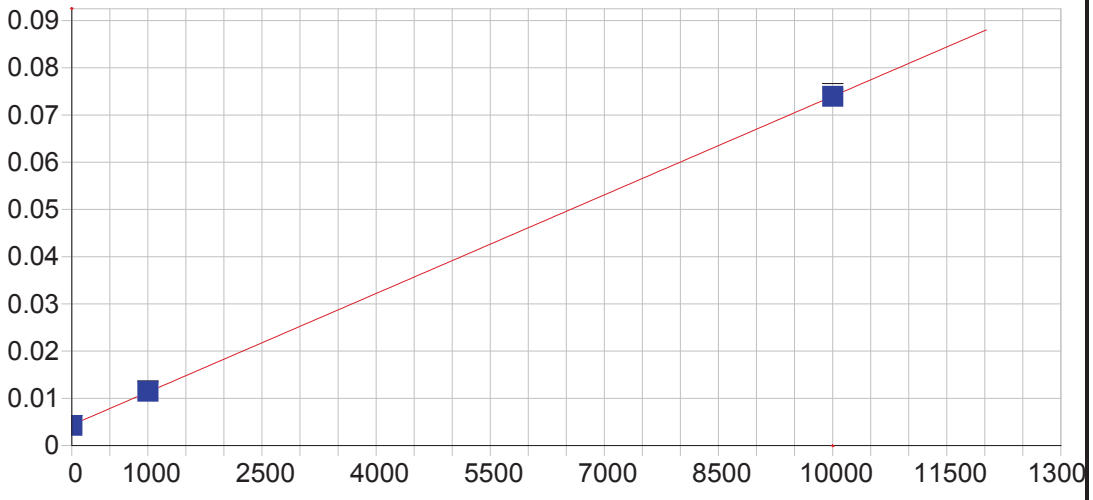
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	1532000.	13500.	1



Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.000000	Status:	Warning Zero Gain
Std Error of Est:	0.000000		
Predicted MDL:	n/a		
Predicted MQL:	n/a		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	468960.	2880.	1

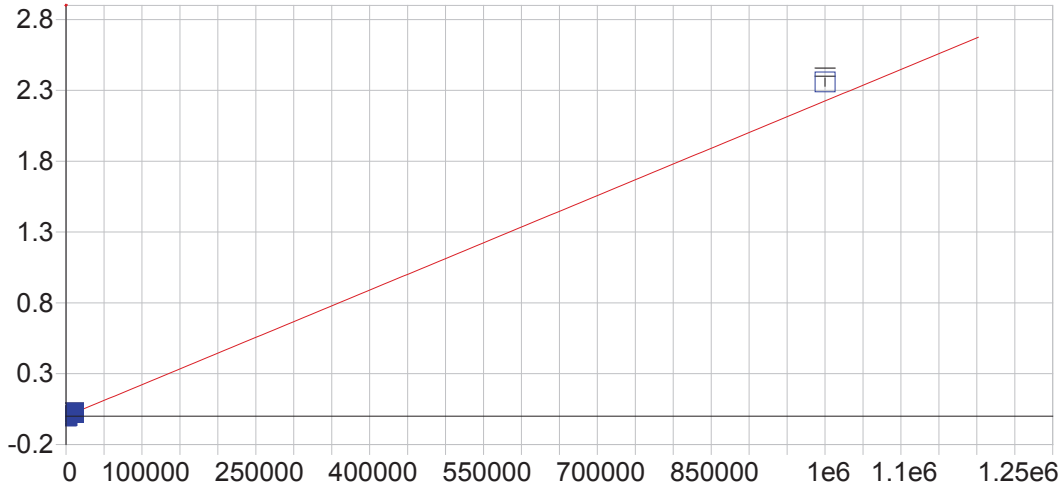


Na 588.995 { 57}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	0.004363	Re-Slope:	1.000000
A1 (Gain):	0.000007	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999994	Status:	OK.
Std Error of Est:	0.000186		
Predicted MDL:	3.850579		
Predicted MQL:	12.835263		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-17.787	-17.8	.000	.00424	.000	1
CalStd9=100	1000.0	1019.8	19.8	1.98	.01146	.000	1
CalStd10=10	10000.	9998.0	-1.98	-.020	.07396	.001	1

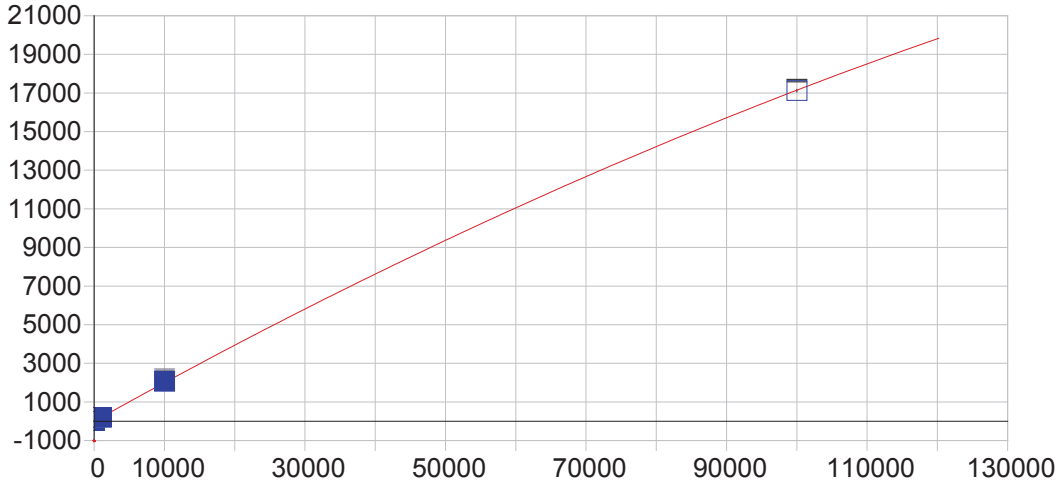


Na 589.592 { 57}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	1.000000	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	7.254139		
Predicted MQL:	24.180463		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01216	-.012	.000	.00000	.000	1
CalStd9=100	1000.0	1013.6	13.6	1.36	.00226	.000	1
CalStd10=10	10000.	9992.3	-7.65	-.077	.02224	.000	1
CalibStd15=	1000000.	1059900.	59900.	5.99	2.3585	.029	1

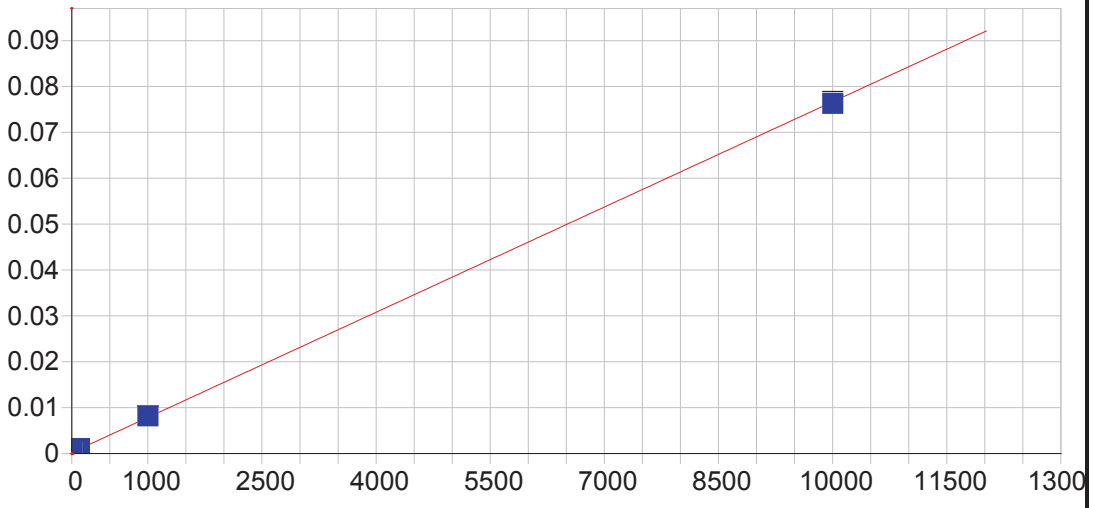


Si 251.611 {134}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Curvilinear	Weighting:	1/Var

A0 (Offset):	-2.449579	Re-Slope:	1.000000
A1 (Gain):	0.203311	Y-int:	0.000000
A2 (Curvature):	-0.000000		
n (Exponent):	1.000000		
Correlation:	0.999580	Status:	OK.
Std Error of Est:	16.478567		
Predicted MDL:	5.870658		
Predicted MQL:	19.568859		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	28.258	28.3	.000	3.2953	1.11	1
CalStd9=100	1000.0	963.61	-36.4	-3.64	209.24	1.19	1
CalStd10=10	10000.	10331.	331.	3.31	2166.1	10.5	1
CalibStd15=	100000.	99839.	-161.	-.161	17122.	64.7	1

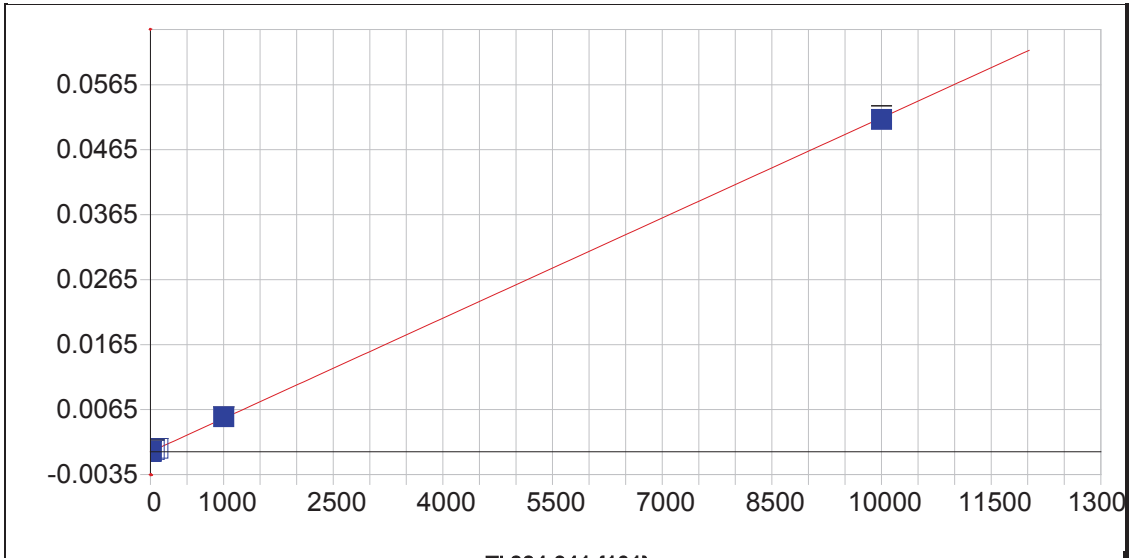


Ti 323.452 {104}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000223	Re-Slope:	1.000000
A1 (Gain):	0.000008	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999878	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.798929		
Predicted MQL:	2.663097		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00232	-.002	.000	.00022	.000	1
CalStd5=10	10.000	11.579	1.58	15.8	.00031	.000	1
CalStd8=100	100.00	103.33	3.33	3.33	.00101	.000	1
CalStd9=100	1000.0	1040.7	40.7	4.07	.00818	.000	1
CalStd10=10	10000.	9949.5	-50.5	-.505	.07636	.000	1
CalStd7=50	50.000	54.175	4.18	8.35	.00064	.000	1
CalStd4=5	5.0000	5.7688	.769	15.4	.00027	.000	1

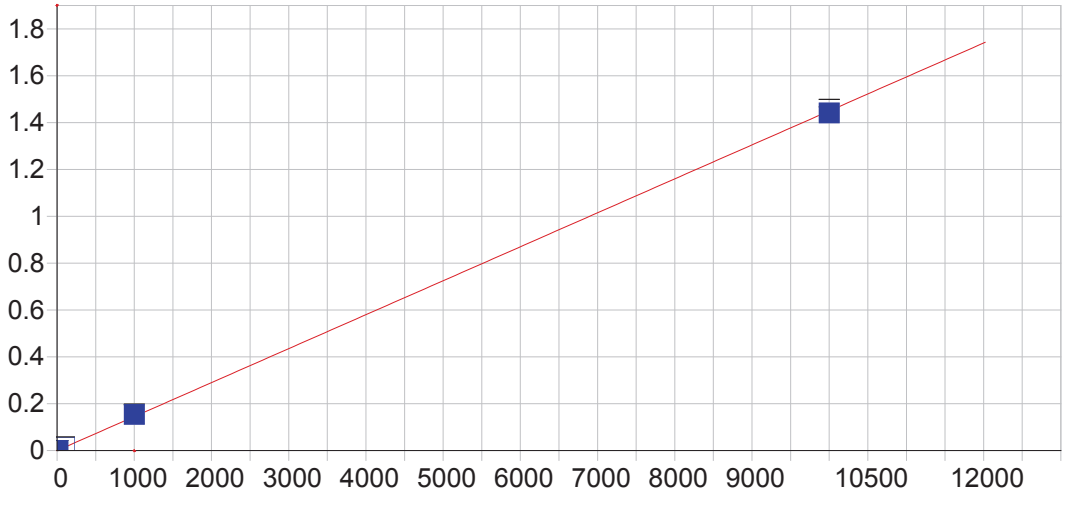


Ti 334.941 {101}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000005	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999879	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.804677		
Predicted MQL:	2.682257		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00127	-.001	.000	.00000	.000	1
CalStd5=10	10.000	9.4965	-.504	-5.04	.00005	.000	1
CalStd8=100	100.00	103.18	3.18	3.18	.00053	.000	1
CalStd9=100	1000.0	1043.7	43.7	4.37	.00537	.000	1
CalStd10=10	10000.	9949.0	-51.0	-.510	.05116	.001	1
CalStd7=50	50.000	53.808	3.81	7.62	.00028	.000	1
CalStd4=5	5.0000	5.7877	.788	15.8	.00003	.000	1

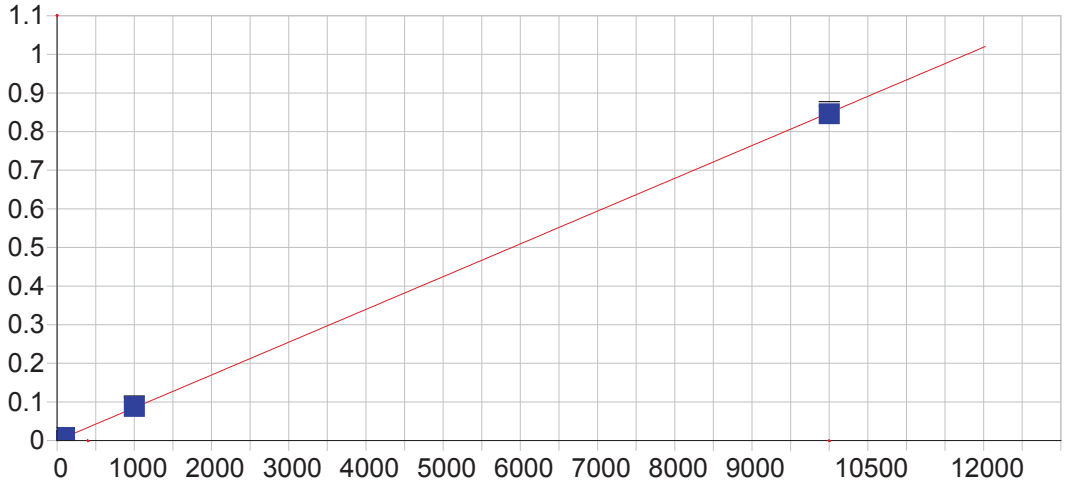


Sr 407.771 { 83}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000069	Re-Slope:	1.000000
A1 (Gain):	0.000145	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999810	Status:	OK.
Std Error of Est:	0.000011		
Predicted MDL:	0.063022		
Predicted MQL:	0.210074		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00013	-.000	.000	.00007	.000	1
CalStd3=1	1.0000	.94266	-.057	-5.73	.00021	.000	1
CalStd4=5	5.0000	5.3560	.356	7.12	.00085	.000	1
CalStd5=10	10.000	10.142	.142	1.42	.00154	.000	1
CalStd8=100	100.00	104.42	4.42	4.42	.01521	.000	1
CalStd9=100	1000.0	1059.8	59.8	5.98	.15374	.001	1
CalStd10=10	10000.	9935.3	-64.7	-.647	1.4406	.016	1

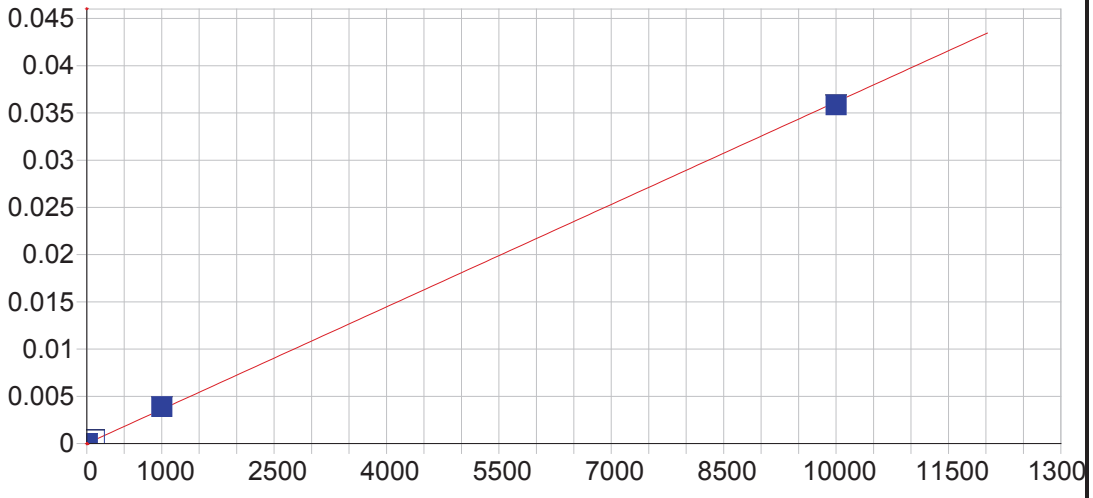


Sr 421.552 { 80}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000012	Re-Slope:	1.000000
A1 (Gain):	0.000085	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999935	Status:	OK.
Std Error of Est:	0.000004		
Predicted MDL:	0.106416		
Predicted MQL:	0.354722		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00002	-.000	.000	.00001	.000	1
CalStd3=1	1.0000	.91486	-.085	-8.51	.00009	.000	1
CalStd4=5	5.0000	5.3427	.343	6.85	.00047	.000	1
CalStd5=10	10.000	9.8713	-.129	-1.29	.00085	.000	1
CalStd8=100	100.00	102.10	2.10	2.10	.00868	.000	1
CalStd9=100	1000.0	1034.9	34.9	3.49	.08786	.001	1
CalStd10=10	10000.	9962.8	-37.2	-.372	.84566	.006	1

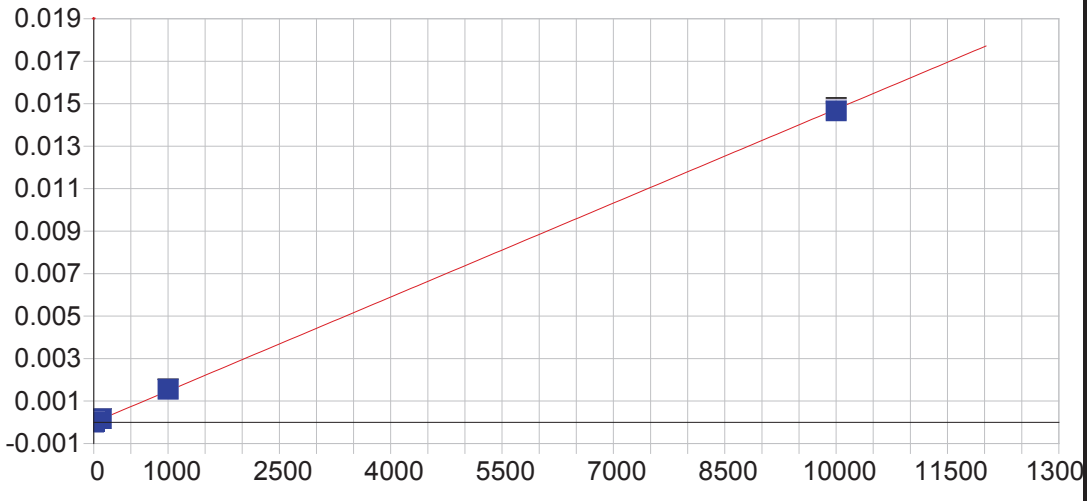


Sn 189.989 {477}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000005	Re-Slope:	1.000000
A1 (Gain):	0.000004	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999655	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	1.281418		
Predicted MQL:	4.271392		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00350	-.004	.000	.00000	.000	1
CalStd10=10	10000.	9913.4	-86.6	-.866	.03585	.000	1
CalStd9=100	1000.0	1076.7	76.7	7.67	.00390	.000	1
CalStd8=100	100.00	107.84	7.84	7.84	.00039	.000	1
CalStd5=10	10.000	12.040	2.04	20.4	.00005	.000	1

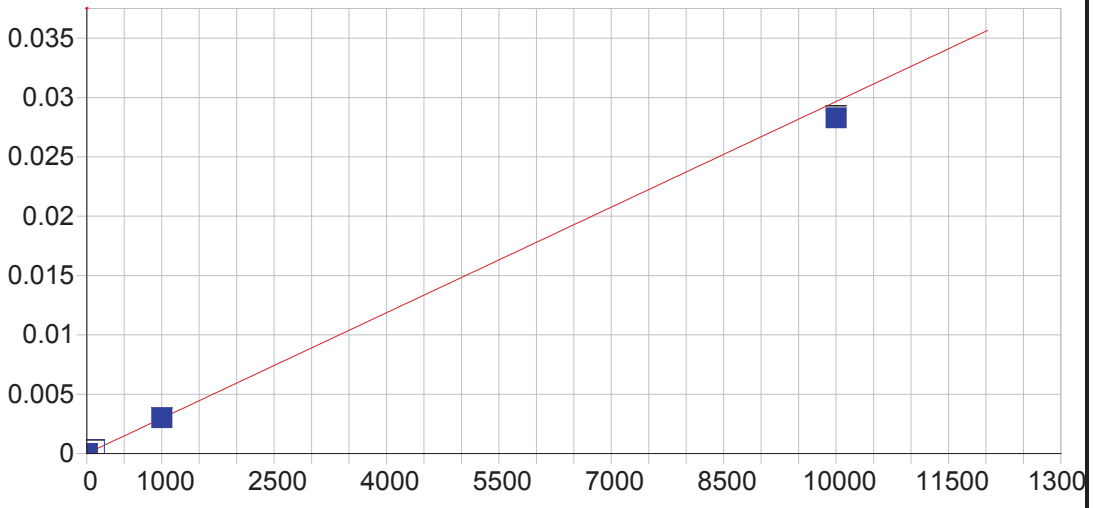


B 249.678 {135}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999855	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	1.214377		
Predicted MQL:	4.047924		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00145	-.001	.000	.00000	.000	1
CalStd8=100	100.00	106.33	6.33	6.33	.00016	.000	1
CalStd5=10	10.000	10.372	.372	3.72	.00002	.000	1
CalStd9=100	1000.0	1050.0	50.0	5.00	.00156	.000	1
CalStd10=10	10000.	9943.3	-56.7	-.567	.01472	.000	1

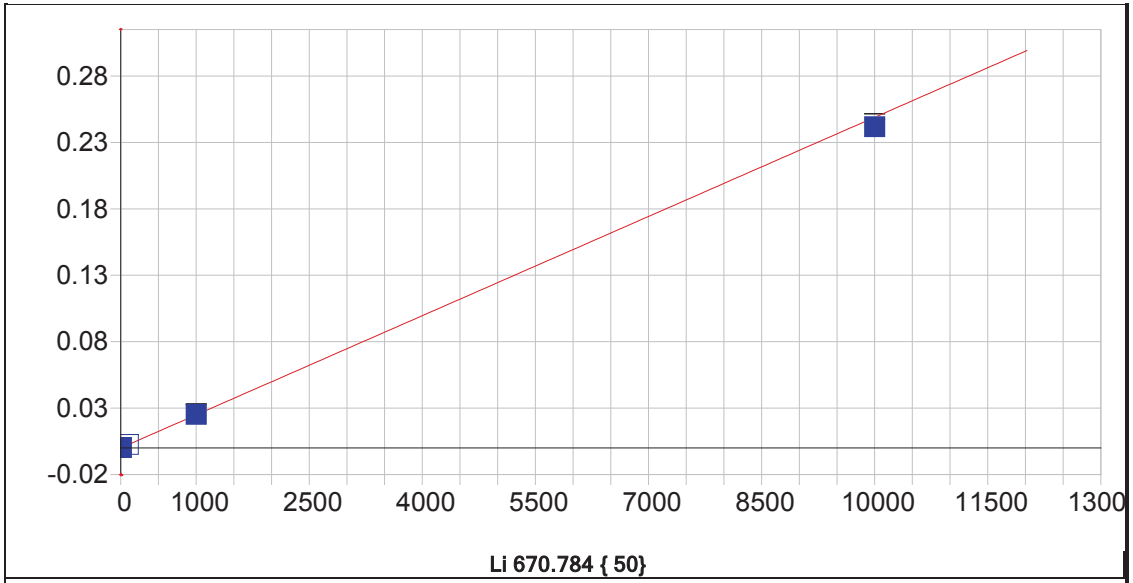


B 249.773 {135}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000006	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999712	Status:	OK.
Std Error of Est:	0.000007		
Predicted MDL:	0.594380		
Predicted MQL:	1.981267		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.52618	-.526	.000	.00000	.000	1
CalStd8=100	100.00	100.83	.835	.835	.00030	.000	1
CalStd5=10	10.000	9.4525	-.547	-5.47	.00003	.000	1
CalStd9=100	1000.0	1010.5	10.5	1.05	.00300	.000	1
CalStd10=10	10000.	9533.3	-467.	-4.67	.02829	.000	1

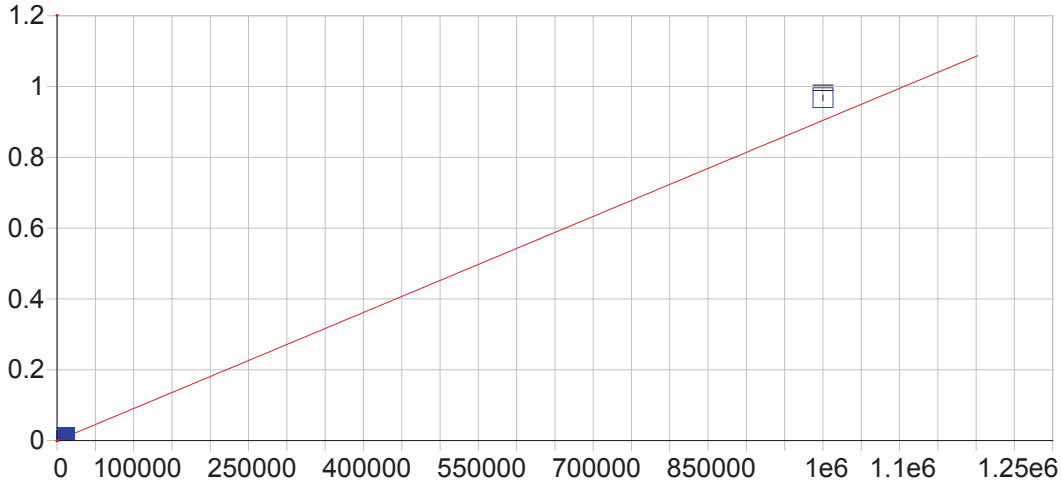


Li 670.784 { 50}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000029	Re-Slope:	1.000000
A1 (Gain):	0.000025	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999829	Status:	OK.
Std Error of Est:	0.000034		
Predicted MDL:	0.792715		
Predicted MQL:	2.642383		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.3304	-1.33	.000	-.00000	.000	1
CalStd5=10	10.000	9.7845	-.216	-2.16	.00027	.000	1
CalStd8=100	100.00	100.60	.596	.596	.00253	.000	1
CalStd9=100	1000.0	1013.3	13.3	1.33	.02525	.000	1
CalStd10=10	10000.	9712.7	-287.	-2.87	.24178	.002	1

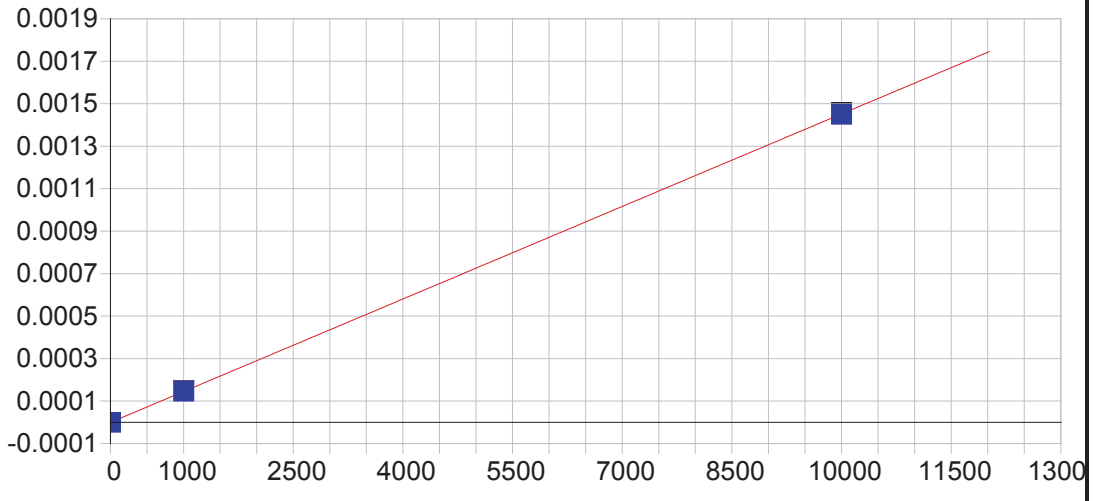


K 766.490 { 44}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	0.000048	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999998	Status:	OK.
Std Error of Est:	0.000004		
Predicted MDL:	21.923357		
Predicted MQL:	73.077858		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.05424	-.054	.000	.00005	.000	1
CalStd9=100	1000.0	1060.4	60.4	6.04	.00101	.000	1
CalStd10=10	10000.	9946.2	-53.8	-.538	.00905	.000	1
CalibStd15=	1000000.	1070400.	70400.	7.04	.96815	.008	1

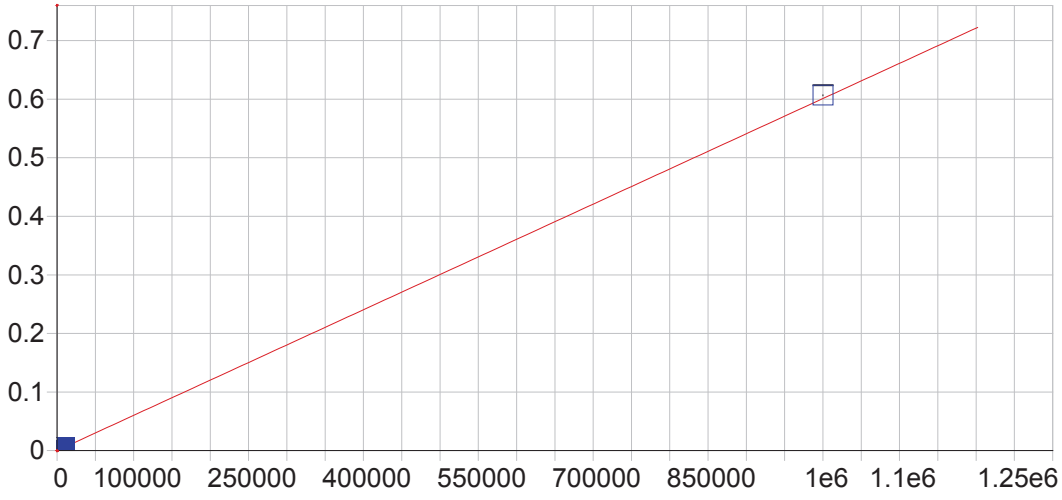


P 213.618 {457}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999994	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	4.377231		
Predicted MQL:	14.590769		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01011	-.010	.000	-.00000	.000	1
CalStd10=10	10000.	9988.8	-11.2	-.112	.00145	.000	1
CalStd9=100	1000.0	1011.2	11.2	1.12	.00015	.000	1

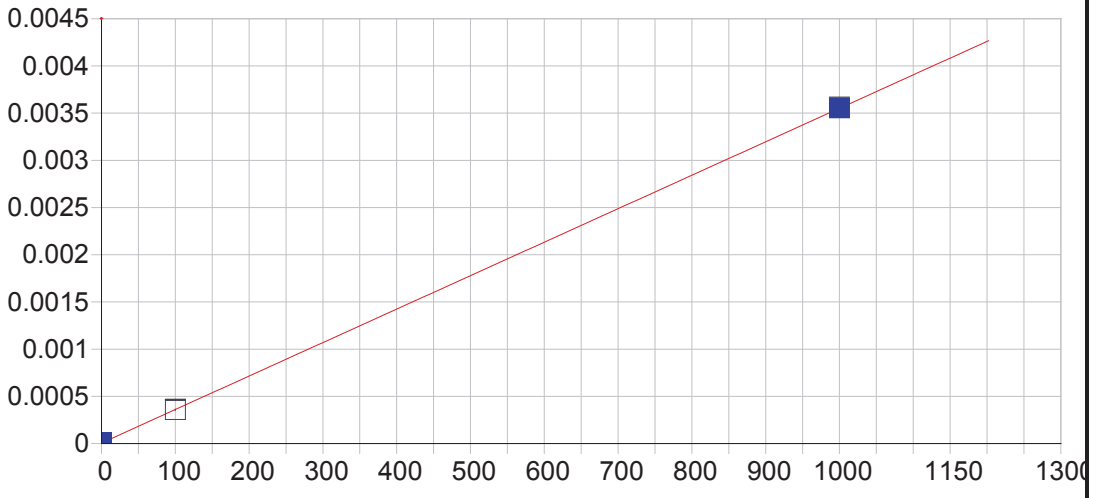


S 182.034 {485}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	0.000006	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	1.000000	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	5.246441		
Predicted MQL:	17.488135		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01416	-.014	.000	.00001	.000	1
CalStd9=100	1000.0	1015.8	15.8	1.58	.00062	.000	1
CalStd10=10	10000.	9985.0	-15.0	-.150	.00602	.000	1
CalibStd15=	1000000.	1009300.	9270.	.927	.60672	.001	1

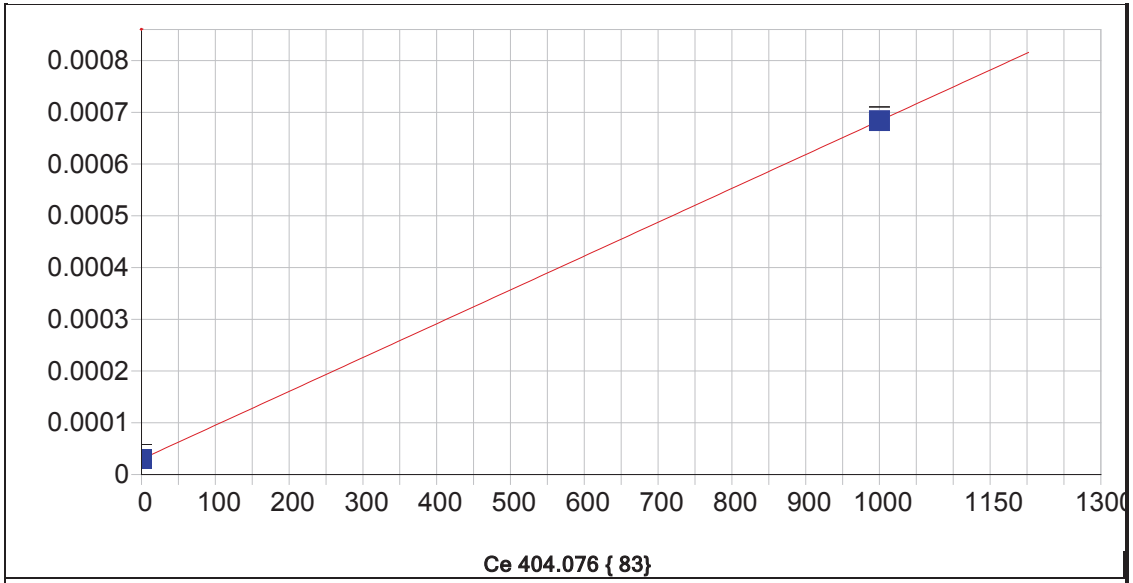


Hg 184.950 {482}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000006	Re-Slope:	1.000000
A1 (Gain):	0.000004	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999996	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.997545		
Predicted MQL:	3.325150		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00076	.001	.000	.00001	.000	1
CalStd8=100	100.00	99.158	-.842	-.842	.00036	.000	1
CalStd9=100	1000.0	1000.8	.842	.084	.00355	.000	1



Ce 404.076 { 83}

Date of Fit:	09/06/2019 14:51:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000030	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	1.000000	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	14.073698		
Predicted MQL:	46.912327		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00003	.000	1
CalStd9=100	1000.0	1000.00	.000	.000	.00068	.000	1

Sample Name: Blank Acquired: 09/04/2019 09:15:09 Type: Cal
Method: DOD Calibration Updated 060614(v3502) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	Al3961	As1937	As1972	Ba2335	Ba4934	Be3130	Ca3158	Ca3933	Cd2265	Cd2288
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**17.8**	**.000**	**-.000**	**.145**	**-.000**	**.000**	**.011**	**-.000**	**.000**	**.014**	**.000**	**.000**
Stddev	1.0	.000	.000	.308	.000	.000	.000	.000	.000	.001	.000	.000
%RSD	5.77	25.7	20.4	213.	185.	88.1	.781	4.18	7.46	4.23	44.9	22.3

Elem	Co2286	Co2388	Cr2055	Cr2677	Cu2230	Fe2343	Fe2395	Fe2599	Mg2790	Mg2802	Mn2576	Mn2593
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**-.000**	**-.000**	**-.000**	**.000**	**.000**	**.000**	**-.372**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.412	.000	.000	.000
%RSD	42.9	37.3	24.7	131.	66.2	4.50	49.6	73.3	111.	3.09	26.0	22.0

Elem	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Se2039	Se2062	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.000**	**-.000**	**-.000**	**-.000**	**.000**	**.000**	**-.000**	**.000**	**-.000**	**-.000**	**-.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	1210.	105.	307.	46.1	40.6	8.31	130.	123.	1970.	79.2	667.	80.7

Elem	V_2908	V_2924	Zn2062	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000
%RSD	16.0	178.	7.73	3.67

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**194060.**	**1532000.**	**468960.**
Stddev	574.	13451.	2879.
%RSD	.29565	.87801	.61380

Sample Name: CalStd2=0.5 Acquired: 09/04/2019 09:21:48 Type: Cal
Method: DOD Calibration Updated 060614(v3502) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Be3130	Cd2265	Cd2288
Units	Cts/S	Cts/S	Cts/S
Avg	**-.000**	**.000**	**.000**
Stddev	.000	.000	.000
%RSD	21.4	29.2	3.37

Int. Std.	Y_2243	Y_3242
Units	Cts/S	Cts/S
Avg	**189390.**	**1492700.**
Stddev	260.	4622.
%RSD	.13733	.30965

Sample Name: CalStd3=1 Acquired: 09/04/2019 09:28:17 Type: Cal
Method: DOD Calibration Updated 060614(v3502) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Ba2335	Be3130	Cd2265	Cd2288	Co2286	Cr2055	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**20.0**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.9	.000	.000	.000	.000	.000	.000	.000
%RSD	4.29	39.5	9.95	17.2	8.61	14.4	109.	176.

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**189630.**	**1488700.**	**456150.**
Stddev	236.	2946.	6293.
%RSD	.12437	.19786	1.3796

Sample Name: CalStd4=5 Acquired: 09/04/2019 09:34:32 Type: Cal
Method: DOD Calibration Updated 060614(v3502) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ba2335	Be3130	Cd2265	Cd2288	Co2286	Cr2055	Cr2677	Mn2576	Mo2020	Mo2045	Ni2316	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	3.75	.458	3.84	2.49	4.88	6.75	6.64	2.24	7.58	5.03	6.33	27.9

Elem	Sb2175
Units	Cts/S
Avg	**.000**
Stddev	.000
%RSD	24.3

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**188410.**	**1496500.**	**457720.**
Stddev	241.	7347.	2778.
%RSD	.12789	.49096	.60692

Sample Name: CalStd5=10 Acquired: 09/04/2019 09:40:46 Type: Cal
Method: DOD Calibration Updated 060614(v3502) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	As1972	Ba2335	Be3130	Cd2265	Cd2288	Co2286	Cr2055	Cr2677	Cu2230
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**52.1**	**.000**	**2.38**	**.000**	**.000**	**.001**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	3.4	.000	.56	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	6.51	3.50	23.7	51.5	.496	.337	2.19	.961	4.14	1.00	5.28	3.65

Elem	Mn2576	Mo2020	Mo2045	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Se2039	Tl1908	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.270	4.96	4.30	3.66	20.0	8.81	39.2	13.7	32.6	81.8	19.8	3.55

Elem	Zn2062	Zn2138
Units	Cts/S	Cts/S
Avg	**.000**	**.000**
Stddev	.000	.000
%RSD	1.18	1.23

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**190260.**	**1494300.**	**460290.**
Stddev	371.	2687.	6117.
%RSD	.19507	.17979	1.3290

Sample Name: CalStd6=20 Acquired: 09/04/2019 09:47:04 Type: Cal
Method: DOD Calibration Updated 060614(v3502) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ba2335	Cu2230	Mn2576	Mo2020	Mo2045	Sb2175	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000
%RSD	2.15	1.52	.467	1.95	5.66	5.48	3.90

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**190010.**	**1487300.**	**452370.**
Stddev	365.	4514.	1995.
%RSD	.19210	.30348	.44102

Sample Name: CalStd7=50 Acquired: 09/04/2019 09:53:17 Type: Cal
Method: DOD Calibration Updated 060614(v3502) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	As1937	As1972	Cd2265	Cd2288	Co2286	Cr2055	Cr2677	Cu2230	Mn2576	Mo2020	Mo2045	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**10.2**	**.000**	**.001**	**.002**	**.001**	**.001**	**.000**	**.000**	**.001**	**.000**	**.000**	**.001**
Stddev	.6	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	5.86	2.86	.278	.308	.575	.263	1.51	1.88	.950	.898	.829	1.34

Elem	Sb2068	Se1960	Se2039	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000
%RSD	7.02	6.18	16.2	.926

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**189370.**	**1502900.**	**457290.**
Stddev	365.	8452.	5694.
%RSD	.19254	.56235	1.2452

Sample Name: CalStd8=100 Acquired: 09/04/2019 09:59:31 Type: Cal
Method: DOD Calibration Updated 060614(v3502) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	As1972	Ba2335	Ba4934	Be3130	Ca3933	Cd2265	Cd2288	Co2286	Co2388
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**370.**	**.000**	**20.7**	**.000**	**.001**	**.016**	**.006**	**.028**	**.003**	**.004**	**.002**	**.000**
Stddev	2.	.000	1.0	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.492	1.83	4.66	4.91	.603	.916	.495	.672	.183	.168	.250	1.28

Elem	Cr2055	Cr2677	Cu2230	Mg2802	Mn2576	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2175
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.001**	**.000**	**.001**	**.003**	**.001**	**.001**	**.001**	**.002**	**.001**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.232	1.43	1.26	.401	.446	.482	.654	.500	.448	4.18	3.39	3.17

Elem	Se1960	Se2039	Se2062	Tl1908	V_2908	V_2924	Zn2062	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**.001**	**.002**	**.004**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	2.78	4.49	18.5	1.92	.737	.456	.322	.266

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**190130.**	**1497600.**	**459870.**
Stddev	470.	6949.	2624.
%RSD	.24696	.46405	.57066

Sample Name: CalStd9=1000 Acquired: 09/04/2019 10:05:42 Type: Cal
Method: DOD Calibration Updated 060614(v3502) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Al1670	Al3961	As1937	As1972	Ba2335	Ba4934	Be3130	Ca3158	Ca3933	Cd2265	Cd2288	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.003**	**.002**	**206.**	**.001**	**.009**	**.059**	**.059**	**.000**	**.261**	**.026**	**.041**	**.023**
Stddev	.000	.000	.	.000	.000	.001	.000	.000	.002	.000	.000	.000
%RSD	.265	1.56	.095	.876	.384	.934	.349	1.04	.889	.166	.121	.102

Elem	Co2388	Cr2055	Cr2677	Cu2230	Fe2343	Fe2395	Fe2599	Mg2790	Mg2802	Mn2576	Mn2593	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.002**	**.013**	**.002**	**.006**	**.001**	**.001**	**.002**	**32.5**	**.033**	**.011**	**.007**	**.008**
Stddev	.000	.000	.000	.000	.000	.000	.000	.6	.000	.000	.000	.000
%RSD	.441	.135	.552	.305	.279	.136	.664	1.98	.306	.414	.827	.348

Elem	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Se2039	Se2062	Tl1908	V_2908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.005**	**.015**	**.014**	**.001**	**.002**	**.002**	**.002**	**.001**	**.001**	**.000**	**.001**	**.001**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.108	.204	.130	.381	.175	.249	.813	.397	.421	2.28	.339	.987

Elem	V_2924	Zn2062	Zn2138
Units	Cts/S	Cts/S	Cts/S
Avg	**.007**	**.020**	**.042**
Stddev	.000	.000	.000
%RSD	.200	.340	.056

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**188850.**	**1486900.**	**455790.**
Stddev	380.	5120.	3818.
%RSD	.20127	.34433	.83764

Sample Name: CalStd10=10000 Acquired: 09/04/2019 10:11:19 Type: Cal
Method: DOD Calibration Updated 060614(v3502) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Al3961	As1972	Ba4934	Ca3158	Co2286	Co2388	Cr2055	Cr2677	Cu2230	Fe2343	Fe2395	Fe2599
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.017**	**.006**	**.466**	**.003**	**.211**	**.021**	**.122**	**.021**	**.053**	**.006**	**.007**	**.015**
Stddev	.000	.000	.006	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	1.02	.290	1.19	1.34	.043	.411	.113	.636	.130	.372	.702	1.02

Elem	Mg2790	Mg2802	Mn2576	Mn2593	Mo2045	Ni2216	Ni2316	Pb2169	Sb2068	Sb2175	Se2062	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**312.**	**.287**	**.099**	**.069**	**.050**	**.136**	**.129**	**.010**	**.017**	**.017**	**.002**	**.013**
Stddev	1.	.001	.001	.001	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.382	.481	.583	.998	.085	.056	.047	.261	.312	.288	.516	.100

Elem	V_2908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S
Avg	**.013**	**.063**	**.188**
Stddev	.000	.000	.000
%RSD	.973	.372	.178

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**186440.**	**1459200.**	**455050.**
Stddev	294.	4764.	3649.
%RSD	.15785	.32649	.80189

Sample Name: CalStd12=100K Acquired: 09/04/2019 10:18:00 Type: Cal
Method: DOD Calibration Updated 060614(v3502) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Cr2055	Cu2230	Mn2593	Pb2169	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.16**	**.567**	**.723**	**.114**	**1.79**
Stddev	.00	.001	.007	.000	.00
%RSD	.141	.101	.925	.150	.134

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**186700.**	**1472500.**	**456440.**
Stddev	203.	2963.	4060.
%RSD	.10894	.20119	.88945

Sample Name: CalStd13=100000 Acquired: 09/04/2019 10:25:29 Type: Cal
Method: DOD Calibration Updated 060614(v3502) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Al3961	Ca3158	Fe2343	Fe2395	Fe2599	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.172**	**.034**	**.058**	**.072**	**.158**	**3350.**
Stddev	.002	.000	.000	.001	.002	3.
%RSD	1.05	1.11	.454	.914	1.15	.091

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**181550.**	**1441400.**	**451990.**
Stddev	767.	4192.	4736.
%RSD	.42239	.29081	1.0478

Sample Name: CalStd14=500000 Acquired: 09/04/2019 10:31:48 Type: Cal
Method: DOD Calibration Updated 060614(v3502) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Al3961	Ca3158	Fe2395	Fe2599	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.922**	**.177**	**.353**	**.766**	**17600.**
Stddev	.015	.002	.003	.005	16.
%RSD	1.63	.868	.729	.667	.090

Int. Std.	Y_2243	Y_3710
Units	Cts/S	Cts/S
Avg	**166900.**	**433180.**
Stddev	600.	2963.
%RSD	.35927	.68404

Sample Name: CalibStd15=1000k Acquired: 09/04/2019 10:38:38 Type: Cal
Method: DOD Calibration Updated 060614(v3502) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Al3961	Ca3158	Fe2395	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.80**	**.330**	**.635**	**31600.**
Stddev	.02	.002	.003	23.
%RSD	.991	.582	.531	.073

Int. Std.	Y_2243	Y_3710
Units	Cts/S	Cts/S
Avg	**149050.**	**408880.**
Stddev	270.	1883.
%RSD	.18118	.46057

Sample Name: icv Acquired: 09/04/2019 10:52:41 Type: QC
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1972	Ba4934	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2599
Avg	**47.2**	**11400.**	**1960.**	**2070.**	**2020.**	**48.9**	**9750.**	**48.2**	**486.**	**200.**	**251.**	**5090.**
Stddev	.7	90.	8.	3.	17.	.3	61.	.1	1.	1.	1.	67.
%RSD	1.46	.791	.421	.167	.821	.590	.626	.281	.257	.573	.348	1.32
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Mg2790	Mn2576	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Se2039	Se2062
Avg	**9680.**	**482.**	**492.**	**510.**	**511.**	**481.**	**498.**	**482.**	**484.**	**1980.**	**1790.**	**1950.**
Stddev	14.	4.	.	2.	1.	1.	3.	4.	4.	2.	9.	33.
%RSD	.147	.731	.078	.449	.123	.224	.680	.900	.748	.120	.517	1.70
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Tl1908	V_2924	Zn2138
Avg	**1930.**	**520.**	**496.**
Stddev	10.	2.	.
%RSD	.502	.403	.046
Check ?	None	None	None
Value			
Range			

Sample Name: icv Acquired: 09/04/2019 10:52:41 Type: QC
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**188700.**	**1476800.**	**458420.**
Stddev	226.	6297.	3004.
%RSD	.11960	.42639	.65523

Sample Name: ICVLL Acquired: 09/04/2019 11:05:07 Type: QC
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	Al3961	As1937	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Fe2343
Avg	**55.9**	**1300.**	**1330.**	**64.9**	**32.7**	**13.6**	**1690.**	**16.8**	**32.8**	**33.0**	**35.9**	**1010.**
Stddev	.9	8.	20.	.7	.5	.1	23.	.1	.5	1.3	.9	11.
%RSD	1.60	.601	1.50	1.15	1.39	.562	1.37	.702	1.54	3.80	2.63	1.04
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Mg2802	Mn2576	Mo2038	Ni2316	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924	Zn2138
Avg	**1670.**	**33.4**	**37.2**	**33.0**	**33.7**	**70.6**	**67.1**	**65.0**	**62.8**	**35.2**	**33.3**
Stddev	10.	.1	.5	.2	1.2	3.0	4.2	9.4	4.1	.4	.3
%RSD	.604	.306	1.48	.683	3.62	4.27	6.24	14.5	6.61	1.04	.802
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**187630.**	**1487100.**	**454360.**
Stddev	304.	7246.	5022.
%RSD	.16208	.48728	1.1053

Sample Name: icb Acquired: 09/04/2019 11:11:14 Type: QC
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Avg	**-.142**	**-2.73**	**-.954**	**-.773**	**.016**	**3.87**	**-.162**	**-.086**	**-.695**	**.420**	**-15.5**	**-.819**
Stddev	.581	.36	3.66	.406	.020	.23	.066	.172	.363	.232	1.2	.095
%RSD	408.	13.0	383.	52.5	129.	5.84	40.9	202.	52.2	55.3	7.64	11.7
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924	Zn2138
Avg	**-.031**	**.062**	**.268**	**.085**	**2.81**	**1.09**	**-1.18**	**-1.58**	**.192**	**-1.68**
Stddev	.105	.244	.365	2.37	2.10	2.88	4.50	2.70	.355	.13
%RSD	335.	397.	136.	2780.	74.6	263.	382.	171.	185.	7.82
Check ?	None	None	None	None	None	None	None	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**194960.**	**1538100.**	**470630.**
Stddev	411.	5499.	3880.
%RSD	.21071	.35751	.82443

Sample Name: MRL/LLOQ Acquired: 09/04/2019 11:23:42 Type: QC
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Avg	**14.1**	**431.**	**21.1**	**10.1**	**4.32**	**531.**	**5.25**	**10.3**	**9.48**	**12.6**	**322.**	**550.**
Stddev	.4	3.	3.0	.3	.03	2.	.15	.2	.36	.7	3.	3.
%RSD	2.91	.740	14.5	2.99	.673	.412	2.87	1.66	3.82	5.43	.944	.586
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924	Zn2138
Avg	**10.6**	**11.0**	**10.6**	**10.6**	**21.6**	**23.1**	**24.8**	**19.4**	**11.2**	**10.2**
Stddev	.1	.4	.1	2.4	2.2	4.7	2.7	4.0	.3	.1
%RSD	.909	3.37	1.17	23.0	10.3	20.4	10.7	20.4	2.61	.608
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**189580.**	**1493100.**	**456700.**
Stddev	387.	9222.	1679.
%RSD	.20418	.61762	.36770

Sample Name: ICSA Acquired: 09/04/2019 11:29:52 Type: QC
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2395
Avg	**6.51**	**560000.**	**2.71**	**.168**	**-.562**	**532000.**	**1.25**	**-1.71**	**2.89**	**.152**	**498000.**
Stddev	.68	5500.	16.3	.675	.056	3450.	1.19	.32	.87	1.01	3640.
%RSD	10.5	.982	602.	402.	10.0	.649	95.4	18.7	30.1	666.	.730
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit											
Low Limit											

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2908	Zn2138
Avg	**545000.**	**-1.14**	**-.159**	**-3.29**	**.940**	**.235**	**8.31**	**-2.55**	**-7.17**	**11200.**	**-5.43**
Stddev	677.	.11	1.46	.50	2.48	3.19	6.25	8.98	1.65	68.	.50
%RSD	.124	9.87	914.	15.2	264.	1360.	75.1	352.	23.0	.608	9.28
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit											
Low Limit											

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**165520.**	**1322500.**	**433620.**
Stddev	295.	3044.	1764.
%RSD	.17846	.23018	.40670

Sample Name: ICSAB Acquired: 09/04/2019 11:36:41 Type: QC
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1972	Ba2335	Be3130	Ca3158	Cd2288	Co2286	Cr2677	Cu2230
Avg	**450.**	**500000.**	**453.**	**454.**	**468.**	**482.**	**482000.**	**507.**	**455.**	**462.**	**475.**
Stddev	1.	7940.	12.	14.	1.	2.	6390.	2.	1.	2.	3.
%RSD	.190	1.59	2.57	3.01	.181	.454	1.33	.387	.247	.525	.734
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Elem	Fe2395	Mg2790	Mn2576	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2175	Se1960
Avg	**448000.**	**489000.**	**468.**	**466.**	**476.**	**467.**	**436.**	**420.**	**415.**	**463.**	**474.**
Stddev	4030.	2150.	1.	1.	2.	3.	2.	19.	7.	4.	13.
%RSD	.898	.440	.274	.249	.512	.582	.384	4.44	1.67	.945	2.80
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Elem	Se2039	Tl1908	V_2924	Zn2138
Avg	**442.**	**481.**	**513.**	**486.**
Stddev	19.	2.	3.	1.
%RSD	4.27	.422	.522	.273
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Sample Name: ICSAB Acquired: 09/04/2019 11:36:41 Type: QC
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**165580.**	**1328500.**	**434840.**
Stddev	645.	3579.	3715.
%RSD	.38961	.26941	.85422

Sample Name: ICVLL ag Acquired: 09/04/2019 11:49:11 Type: Unk
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**10.5**	**8.06**	**.430**	**-.440**	**.012**	**-20.0**	**-.119**	**-.300**	**-1.00**	**.383**	**49.2**	**5.70**
Stddev	1.2	1.20	3.18	.332	.047	.4	.170	.111	.55	1.03	3.3	.36
%RSD	11.7	14.9	739.	75.4	388.	2.24	143.	37.1	55.4	269.	6.77	6.28

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-.272**	**.778**	**.232**	**-2.47**	**2.86**	**3.15**	**2.59**	**.581**	**.476**	**-1.09**
Stddev	.030	.678	.465	2.71	2.22	4.76	6.37	1.08	.298	.07
%RSD	10.9	87.2	200.	110.	77.6	151.	246.	185.	62.6	6.74

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**191210.**	**1513100.**	**463380.**
Stddev	367.	6928.	1936.
%RSD	.19194	.45790	.41784

Sample Name: lcss73351 Acquired: 09/04/2019 12:27:08 Type: Unk
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1972	Ba4934	Be3130	Ca3158	Cd2265	Cd2288	Co2286	Co2388
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**92.0**	**4160.**	**3910.**	**4360.**	**4230.**	**101.**	**206000.**	**97.5**	**118.**	**982.**	**1030.**
Stddev	.4	59.	8.	23.	61.	1.	3010.	.3	1.	3.	7.
%RSD	.485	1.41	.205	.530	1.44	.608	1.46	.277	.434	.272	.699

Elem	Cr2677	Cu2230	Fe2343	Mg2790	Mn2576	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2068
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**411.**	**516.**	**1990.**	**100000.**	**974.**	**2170.**	**1030.**	**966.**	**1030.**	**948.**	**1110.**
Stddev	3.	2.	21.	103.	4.	3.	3.	2.	5.	2.	6.
%RSD	.756	.306	1.05	.103	.422	.156	.291	.189	.490	.246	.504

Elem	Se2039	Se2062	Tl1908	V_2908	Zn2062
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**3650.**	**4160.**	**3800.**	**1070.**	**1090.**
Stddev	27.	31.	34.	15.	2.
%RSD	.751	.739	.883	1.37	.171

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**176680.**	**1401000.**	**443270.**
Stddev	435.	6489.	5465.
%RSD	.24621	.46316	1.2329

Sample Name: mbs73351 Acquired: 09/04/2019 12:33:08 Type: Unk
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**.166**	**3.86**	**-3.69**	**-.225**	**.024**	**-13.2**	**-.291**	**-.231**	**-.911**	**6.71**	**1.49**	**.991**
Stddev	.940	.41	2.00	.117	.026	1.5	.049	.367	.966	.29	.59	.283
%RSD	565.	10.6	54.1	52.0	106.	11.6	16.6	159.	106.	4.29	39.6	28.6

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-.154**	**.446**	**.496**	**.641**	**1.97**	**4.40**	**.559**	**-3.25**	**-.125**	**-.787**
Stddev	.039	.086	.331	.979	1.88	3.85	5.36	2.23	.423	.117
%RSD	25.4	19.3	66.8	153.	95.7	87.5	959.	68.7	338.	14.9

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**188800.**	**1497500.**	**452840.**
Stddev	400.	9382.	2653.
%RSD	.21197	.62653	.58591

Sample Name: 321149 Acquired: 09/04/2019 12:39:23 Type: Unk
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2395
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**1.04**	**71300.**	**76.3**	**836.**	**1.14**	**370000.**	**2.28**	**91.7**	**229.**	**160.**	**178000.**
Stddev	.73	404.	6.3	4.	.04	3120.	.23	.7	2.	2.	1080.
%RSD	70.1	.567	8.24	.521	3.15	.843	9.93	.761	.759	1.25	.608

Elem	Mg2790	Mn2593	Mo2020	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**23200.**	**5330.**	**4.63**	**119.**	**782.**	**700.**	**-15.4**	**5.30**	**-29.4**	**25.0**	**328.**
Stddev	75.	23.	.80	1.	5.	4.	2.7	4.54	5.6	2.2	3.
%RSD	.325	.428	17.3	.763	.633	.503	17.6	85.7	19.1	8.73	.948

Elem	Zn2138
Units	ug/L
Avg	**837.**
Stddev	4.
%RSD	.472

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**177090.**	**1400000.**	**444120.**
Stddev	344.	6527.	2355.
%RSD	.19441	.46620	.53036

Sample Name: 321154 Acquired: 09/04/2019 12:45:31 Type: Unk
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba4934	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2395
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**.771**	**120000.**	**133.**	**1220.**	**2.13**	**472000.**	**.830**	**94.0**	**323.**	**222.**	**262000.**
Stddev	.754	269.	3.	6.	.03	1980.	.555	.6	1.	4.	1250.
%RSD	97.8	.224	2.44	.485	1.36	.419	66.9	.610	.298	1.61	.476

Elem	Mg2790	Mn2593	Mo2020	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**37100.**	**6930.**	**2.10**	**182.**	**642.**	**582.**	**-18.5**	**5.72**	**-22.3**	**35.5**	**434.**
Stddev	189.	25.	.57	2.	14.	2.	4.7	8.76	11.1	2.0	1.
%RSD	.508	.361	27.1	1.14	2.12	.380	25.4	153.	50.0	5.50	.264

Elem	Zn2062
Units	ug/L
Avg	**1070.**
Stddev	5.
%RSD	.447

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**175570.**	**1383900.**	**437740.**
Stddev	691.	4482.	2131.
%RSD	.39340	.32387	.48675

Sample Name: ccv1 Acquired: 09/04/2019 12:51:47 Type: QC
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1972	Ba4934	Be3130	Ca3158	Cd2288	Co2388	Cr2055	Cu2230	Fe2599
Avg	**472.**	**4940.**	**4860.**	**5090.**	**5010.**	**489.**	**4930.**	**504.**	**5060.**	**5010.**	**4840.**	**5060.**
Stddev	3.	59.	16.	25.	67.	1.	49.	1.	16.	14.	15.	74.
%RSD	.611	1.19	.325	.484	1.34	.262	.984	.151	.314	.284	.309	1.47
Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value												
Range												

Elem	Mg2790	Mn2593	Mo2045	Ni2216	Pb2169	Sb2068	Se2039	Se2062	Tl1908	V_2908	Zn2062
Avg	**4800.**	**4970.**	**5000.**	**5080.**	**4950.**	**5080.**	**4970.**	**4950.**	**4860.**	**5050.**	**5290.**
Stddev	33.	50.	17.	11.	14.	12.	33.	18.	9.	50.	12.
%RSD	.689	.999	.347	.210	.287	.235	.660	.369	.190	.992	.235
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**186800.**	**1469400.**	**457370.**
Stddev	365.	7746.	4934.
%RSD	.19555	.52714	1.0787

Sample Name: ccv2 Acquired: 09/04/2019 12:57:54 Type: QC
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	As1972	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Fe2343
Avg	**51.6**	**529.**	**525.**	**550.**	**516.**	**52.0**	**520.**	**51.4**	**517.**	**537.**	**533.**	**538.**
Stddev	.7	1.	4.	4.	2.	.2	3.	.2	1.	3.	2.	4.
%RSD	1.38	.216	.828	.707	.302	.368	.541	.373	.183	.551	.284	.792
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Mg2802	Mn2576	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Se2039	Tl1908
Avg	**539.**	**519.**	**518.**	**535.**	**548.**	**516.**	**533.**	**511.**	**518.**	**521.**	**512.**	**522.**
Stddev	2.	2.	1.	1.	1.	1.	1.	1.	1.	6.	9.	3.
%RSD	.421	.303	.125	.263	.228	.187	.230	.218	.233	1.07	1.77	.603
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	V_2924	Zn2138
Avg	**551.**	**519.**
Stddev	3.	1.
%RSD	.537	.220
Check ?	Chk Pass	Chk Pass
Value		
Range		

Sample Name: ccv2 Acquired: 09/04/2019 12:57:54 Type: QC
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**190000.**	**1485700.**	**452130.**
Stddev	97.	5664.	2985.
%RSD	.05115	.38125	.66029

Sample Name: ccb Acquired: 09/04/2019 13:03:38 Type: QC
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Avg	**.223**	**-2.67**	**1.75**	**-.310**	**.018**	**11.9**	**-.272**	**-.058**	**-.688**	**.571**	**-15.0**	**-.556**
Stddev	.453	.90	5.09	.206	.029	.1	.256	.301	.285	.634	1.8	.045
%RSD	203.	33.7	291.	66.3	157.	1.04	94.2	517.	41.4	111.	11.9	8.07
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924	Zn2138
Avg	**.210**	**.587**	**.130**	**-1.59**	**2.92**	**.768**	**8.09**	**-1.13**	**.177**	**-1.35**
Stddev	.080	.118	.479	1.18	.52	2.98	7.04	1.64	.514	.06
%RSD	38.1	20.2	370.	74.7	17.8	388.	87.0	145.	290.	4.70
Check ?	None	None	None	None	None	None	None	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**196240.**	**1531500.**	**465410.**
Stddev	253.	3275.	1600.
%RSD	.12902	.21385	.34372

Sample Name: 321155 Acquired: 09/04/2019 13:09:52 Type: Unk
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2599	Mg2790
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-.138**	**28300.**	**59.2**	**365.**	**.976**	**79900.**	**-.092**	**58.7**	**134.**	**86.0**	**63400.**	**6680.**
Stddev	.717	82.	7.7	1.	.036	190.	.288	.3	1.	.8	101.	38.
%RSD	521.	.291	13.0	.381	3.73	.237	312.	.559	.404	.964	.160	.572

Elem	Mn2576	Mn2593	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**2000.**	**2230.**	**1.68**	**70.1**	**114.**	**-3.94**	**3.21**	**-32.1**	**9.28**	**245.**	**328.**
Stddev	13.	10.	.73	.7	3.	3.48	3.94	1.5	4.50	1.	1.
%RSD	.655	.442	43.9	.972	2.44	88.2	123.	4.70	48.5	.572	.341

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**183530.**	**1453300.**	**451430.**
Stddev	623.	6793.	1509.
%RSD	.33953	.46743	.33435

Sample Name: 321157 Acquired: 09/04/2019 13:16:09 Type: Unk
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2395
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**1.30**	**58600.**	**95.0**	**905.**	**2.82**	**123000.**	**-.018**	**98.8**	**307.**	**154.**	**146000.**
Stddev	.35	798.	4.1	4.	.04	1430.	.309	.0	2.	2.	1760.
%RSD	26.9	1.36	4.32	.391	1.26	1.16	1690.	.024	.564	1.30	1.21

Elem	Mg2790	Mn2593	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**11900.**	**6050.**	**.637**	**130.**	**241.**	**-8.66**	**3.07**	**-17.6**	**21.3**	**460.**	**690.**
Stddev	110.	69.	.448	1.	5.	1.79	5.45	2.7	2.0	3.	1.
%RSD	.921	1.14	70.4	.628	2.04	20.7	177.	15.5	9.62	.592	.215

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**181590.**	**1451700.**	**444920.**
Stddev	476.	7163.	4365.
%RSD	.26231	.49342	.98107

Sample Name: 321158 Acquired: 09/04/2019 13:22:18 Type: Unk
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba4934	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2395
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**8.28**	**219000.**	**114.**	**2460.**	**4.62**	**71100.**	**-2.44**	**192.**	**322.**	**322.**	**426000.**
Stddev	4.69	1960.	57.	26.	.18	445.	.54	2.	25.	4.	3260.
%RSD	56.7	.897	50.1	1.07	3.83	.626	22.1	.905	7.59	1.22	.765

Elem	Mg2790	Mn2593	Mo2020	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**48800.**	**17900.**	**-5.18**	**325.**	**474.**	**483.**	**-14.7**	**-4.39**	**11.1**	**54.8**	**637.**
Stddev	171.	124.	.90	2.	3.	67.	23.8	11.0	86.8	24.9	12.
%RSD	.351	.694	17.4	.545	.672	13.9	162.	251.	780.	45.4	1.84

Elem	Zn2062
Units	ug/L
Avg	**1300.**
Stddev	14.
%RSD	1.10

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**180240.**	**1376000.**	**448390.**
Stddev	2435.	31694.	1304.
%RSD	1.3512	2.3034	.29078

Sample Name: 321159 Acquired: 09/04/2019 13:28:51 Type: Unk
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba4934	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2395
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**1.77**	**151000.**	**107.**	**1840.**	**2.61**	**289000.**	**-.663**	**120.**	**270.**	**268.**	**296000.**
Stddev	1.01	1860.	2.	26.	.04	3300.	.660	.	1.	1.	3560.
%RSD	57.2	1.24	2.33	1.41	1.39	1.14	99.4	.325	.514	.518	1.20

Elem	Mg2790	Mn2593	Mo2020	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**29600.**	**10500.**	**-.365**	**181.**	**716.**	**650.**	**-22.9**	**2.86**	**-45.1**	**42.0**	**477.**
Stddev	86.	137.	.393	1.	5.	3.	2.6	5.14	7.8	4.1	2.
%RSD	.290	1.31	108.	.407	.715	.494	11.3	179.	17.3	9.69	.344

Elem	Zn2062
Units	ug/L
Avg	**1440.**
Stddev	3.
%RSD	.229

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**178970.**	**1409600.**	**442190.**
Stddev	490.	1802.	4553.
%RSD	.27355	.12785	1.0296

Sample Name: 321160 Acquired: 09/04/2019 13:35:19 Type: Unk
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba4934	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2395
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**2.62**	**171000.**	**152.**	**3260.**	**3.16**	**85500.**	**-.273**	**146.**	**313.**	**318.**	**335000.**
Stddev	.36	2470.	11.	49.	.05	1170.	1.38	.	1.	2.	4450.
%RSD	13.8	1.44	7.26	1.51	1.72	1.37	505.	.277	.430	.667	1.33

Elem	Mg2790	Mn2593	Mo2020	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**38000.**	**15300.**	**.930**	**268.**	**741.**	**673.**	**-23.0**	**3.78**	**-40.3**	**52.8**	**463.**
Stddev	185.	217.	.403	1.	3.	2.	3.5	4.87	11.3	2.7	3.
%RSD	.488	1.42	43.3	.463	.468	.279	15.2	129.	28.1	5.14	.655

Elem	Zn2062
Units	ug/L
Avg	**1550.**
Stddev	4.
%RSD	.231

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**182270.**	**1445100.**	**452030.**
Stddev	519.	6215.	6314.
%RSD	.28471	.43010	1.3967

Sample Name: 321161 Acquired: 09/04/2019 13:41:56 Type: Unk
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba4934	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2395
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**3.02**	**309000.**	**226.**	**3980.**	**5.44**	**157000.**	**-1.89**	**257.**	**325.**	**345.**	**422000.**
Stddev	.65	2640.	13.	36.	.06	1040.	.41	.	2.	2.	2260.
%RSD	21.5	.855	5.78	.903	1.17	.660	21.8	.118	.753	.524	.536

Elem	Mg2790	Mn2593	Mo2020	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**45800.**	**19300.**	**-5.70**	**318.**	**911.**	**853.**	**-33.5**	**9.05**	**-43.1**	**64.6**	**646.**
Stddev	72.	135.	.93	1.	12.	4.	1.7	2.37	13.0	2.6	1.
%RSD	.158	.699	16.2	.455	1.34	.434	5.04	26.2	30.3	4.06	.130

Elem	Zn2062
Units	ug/L
Avg	**1660.**
Stddev	4.
%RSD	.240

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**180370.**	**1416700.**	**447660.**
Stddev	211.	4776.	2582.
%RSD	.11700	.33715	.57679

Sample Name: I321161 Acquired: 09/04/2019 13:48:30 Type: Unk
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2599	Mg2790
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-.201**	**68500.**	**57.5**	**830.**	**1.19**	**36300.**	**-1.97**	**59.9**	**72.4**	**81.9**	**99400.**	**10600.**
Stddev	.608	477.	6.7	3.	.06	334.	.41	.3	1.1	1.2	807.	36.
%RSD	302.	.697	11.6	.386	4.62	.922	20.8	.475	1.56	1.41	.812	.339

Elem	Mn2593	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**4530.**	**-1.72**	**73.9**	**208.**	**-5.31**	**3.57**	**-39.1**	**19.3**	**143.**	**362.**
Stddev	45.	.57	.4	5.	3.46	2.32	8.0	2.9	1.	1.
%RSD	.992	33.4	.587	2.45	65.1	65.0	20.4	14.9	.574	.176

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**188330.**	**1494400.**	**454920.**
Stddev	494.	4172.	4600.
%RSD	.26214	.27916	1.0112

Sample Name: dup321161 Acquired: 09/04/2019 13:54:56 Type: Unk
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba4934	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2395
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**4.02**	**287000.**	**226.**	**3730.**	**6.01**	**131000.**	**.513**	**226.**	**331.**	**350.**	**450000.**
Stddev	1.50	2670.	6.	37.	.07	1140.	.521	1.	1.	3.	3780.
%RSD	37.4	.931	2.82	.991	1.22	.873	102.	.297	.398	.842	.841

Elem	Mg2790	Mn2593	Mo2020	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**43000.**	**19300.**	**-6.40**	**316.**	**938.**	**847.**	**-36.3**	**3.63**	**-42.9**	**71.2**	**649.**
Stddev	116.	161.	.76	2.	11.	7.	1.9	2.67	9.5	5.9	2.
%RSD	.271	.835	11.8	.514	1.14	.868	5.15	73.5	22.2	8.36	.310

Elem	Zn2062
Units	ug/L
Avg	**1610.**
Stddev	3.
%RSD	.207

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**179760.**	**1421600.**	**450560.**
Stddev	466.	1033.	4223.
%RSD	.25906	.07265	.93722

Sample Name: mss321161 Acquired: 09/04/2019 14:01:29 Type: Unk
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1972	Ba4934	Be3130	Ca3158	Cd2265	Cd2288	Co2388	Cr2677
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**88.4**	**359000.**	**3470.**	**3860.**	**7760.**	**101.**	**351000.**	**86.4**	**112.**	**1090.**	**693.**
Stddev	.6	2470.	6.	10.	79.	.	2980.	1.0	.	4.	2.
%RSD	.633	.688	.182	.271	1.01	.088	.848	1.10	.282	.408	.247

Elem	Cu2230	Fe2395	Mg2790	Mn2593	Mo2045	Ni2216	Pb2169	Sb2175	Se2039	Se2062	Tl1908
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**821.**	**442000.**	**140000.**	**16800.**	**1660.**	**1280.**	**1850.**	**134.**	**2620.**	**2530.**	**3250.**
Stddev	4.	1310.	457.	122.	5.	4.	11.	5.	14.	33.	22.
%RSD	.490	.297	.326	.727	.329	.330	.587	4.01	.536	1.32	.690

Elem	V_2908	Zn2062
Units	ug/L	ug/L
Avg	**1610.**	**2580.**
Stddev	10.	4.
%RSD	.642	.167

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**173020.**	**1373000.**	**437090.**
Stddev	484.	2590.	2053.
%RSD	.27968	.18863	.46966

Sample Name: msds321161 Acquired: 09/04/2019 14:08:13 Type: Unk
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1972	Ba4934	Be3130	Ca3158	Cd2265	Cd2288	Co2388	Cr2677
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**93.0**	**356000.**	**3630.**	**4030.**	**7890.**	**103.**	**352000.**	**91.7**	**118.**	**1140.**	**744.**
Stddev	.9	3780.	11.	14.	127.	1.	4390.	1.3	.	7.	6.
%RSD	1.00	1.06	.299	.356	1.61	.582	1.25	1.37	.363	.642	.780

Elem	Cu2230	Fe2395	Mg2790	Mn2593	Mo2045	Ni2216	Pb2169	Sb2175	Se2039	Se2062	Tl1908
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**859.**	**439000.**	**148000.**	**18600.**	**1700.**	**1340.**	**2040.**	**112.**	**2790.**	**2640.**	**3330.**
Stddev	3.	3070.	191.	208.	5.	5.	4.	1.	27.	31.	7.
%RSD	.364	.699	.129	1.12	.306	.392	.208	.732	.958	1.19	.210

Elem	V_2908	Zn2062
Units	ug/L	ug/L
Avg	**1630.**	**2820.**
Stddev	19.	11.
%RSD	1.16	.384

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**173620.**	**1374400.**	**441790.**
Stddev	487.	7197.	4667.
%RSD	.28069	.52363	1.0565

Sample Name: ccv1 Acquired: 09/04/2019 14:14:52 Type: QC
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1972	Ba4934	Be3130	Ca3158	Cd2288	Co2388	Cr2055	Cu2230	Fe2599
Avg	**469.**	**4920.**	**4890.**	**5060.**	**5000.**	**484.**	**4960.**	**500.**	**5000.**	**4930.**	**4800.**	**5120.**
Stddev	3.	27.	15.	20.	30.	2.	34.	1.	27.	8.	14.	30.
%RSD	.568	.549	.301	.398	.601	.435	.685	.152	.532	.164	.286	.590
Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value												
Range												

Elem	Mg2790	Mn2593	Mo2045	Ni2216	Pb2169	Sb2068	Se2039	Se2062	Tl1908	V_2908	Zn2062
Avg	**4790.**	**4940.**	**4940.**	**5010.**	**4890.**	**5060.**	**4930.**	**5000.**	**4900.**	**5040.**	**5220.**
Stddev	17.	24.	10.	14.	13.	22.	28.	15.	28.	24.	17.
%RSD	.363	.484	.203	.269	.266	.439	.575	.300	.570	.471	.319
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**187200.**	**1484400.**	**460300.**
Stddev	457.	4536.	1970.
%RSD	.24421	.30556	.42795

Sample Name: ccv2 Acquired: 09/04/2019 14:20:55 Type: QC
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	As1972	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Fe2343
Avg	**50.6**	**521.**	**527.**	**537.**	**510.**	**50.8**	**518.**	**50.4**	**510.**	**521.**	**526.**	**523.**
Stddev	.5	2.	4.	8.	1.	.3	6.	.2	1.	3.	2.	6.
%RSD	1.06	.424	.731	1.56	.216	.497	1.24	.361	.292	.605	.371	1.23
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Mg2802	Mn2576	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Se2039	Tl1908
Avg	**519.**	**511.**	**511.**	**529.**	**538.**	**506.**	**529.**	**500.**	**509.**	**518.**	**503.**	**527.**
Stddev	3.	3.	1.	2.	2.	1.	5.	5.	5.	4.	12.	4.
%RSD	.570	.580	.253	.370	.316	.248	1.02	.970	1.02	.738	2.44	.816
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	V_2924	Zn2138
Avg	**537.**	**512.**
Stddev	3.	2.
%RSD	.595	.335
Check ?	Chk Pass	Chk Pass
Value		
Range		

Sample Name: ccv2 Acquired: 09/04/2019 14:20:55 Type: QC
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**190830.**	**1512700.**	**458160.**
Stddev	347.	1840.	4615.
%RSD	.18205	.12165	1.0072

Sample Name: ccb Acquired: 09/04/2019 14:26:40 Type: QC
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Avg	**-.104**	**-2.01**	**3.14**	**-.360**	**.039**	**12.4**	**-.269**	**.072**	**-.286**	**.569**	**-14.2**	**-.415**
Stddev	.508	.68	6.31	.153	.022	.3	.165	.205	.780	.727	2.3	.062
%RSD	487.	34.0	201.	42.5	57.5	2.63	61.5	286.	273.	128.	15.9	14.9
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924	Zn2138
Avg	**.253**	**.715**	**.551**	**-.247**	**.233**	**2.20**	**1.33**	**1.25**	**.716**	**-1.26**
Stddev	.085	.574	.326	2.05	1.16	2.47	5.22	2.15	.363	.06
%RSD	33.5	80.3	59.2	828.	497.	112.	393.	172.	50.7	4.72
Check ?	None	None	None	None	None	None	None	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**195990.**	**1553600.**	**471170.**
Stddev	166.	5857.	867.
%RSD	.08462	.37701	.18410

Sample Name: pdss321161 Acquired: 09/04/2019 14:32:55 Type: Unk
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1972	Ba4934	Be3130	Ca3158	Cd2265	Cd2288	Co2388	Cr2677
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**84.4**	**288000.**	**3510.**	**4020.**	**7520.**	**94.4**	**493000.**	**84.2**	**110.**	**1070.**	**661.**
Stddev	.8	4030.	28.	44.	66.	.4	5810.	1.5	1.	5.	3.
%RSD	.934	1.40	.795	1.08	.875	.453	1.18	1.75	1.11	.447	.445

Elem	Cu2230	Fe2395	Mg2790	Mn2593	Mo2045	Ni2216	Pb2169	Sb2175	Se2039	Se2062	Tl1908
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**776.**	**428000.**	**217000.**	**19100.**	**1810.**	**1190.**	**1860.**	**867.**	**3130.**	**3060.**	**3140.**
Stddev	9.	3530.	761.	222.	21.	15.	24.	5.	28.	26.	28.
%RSD	1.21	.825	.351	1.16	1.14	1.26	1.27	.559	.901	.840	.910

Elem	V_2908	Zn2062
Units	ug/L	ug/L
Avg	**1540.**	**2350.**
Stddev	19.	33.
%RSD	1.26	1.41

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**169310.**	**1350300.**	**432560.**
Stddev	778.	3417.	5443.
%RSD	.45925	.25305	1.2583

Sample Name: 321162 Acquired: 09/04/2019 14:39:41 Type: Unk
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba4934	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2395
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**2.32**	**176000.**	**113.**	**2280.**	**3.41**	**63500.**	**-1.07**	**135.**	**300.**	**233.**	**345000.**
Stddev	.99	1460.	8.	22.	.07	631.	.60	.	2.	1.	2930.
%RSD	42.9	.831	7.45	.948	1.90	.994	56.0	.212	.667	.278	.848

Elem	Mg2790	Mn2593	Mo2020	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**20200.**	**13000.**	**1.57**	**201.**	**659.**	**599.**	**-25.1**	**3.27**	**-28.5**	**54.0**	**551.**
Stddev	91.	105.	.73	.	8.	5.	3.1	3.76	13.3	2.5	2.
%RSD	.451	.806	46.7	.170	1.20	.797	12.4	115.	46.7	4.64	.422

Elem	Zn2062
Units	ug/L
Avg	**1160.**
Stddev	2.
%RSD	.213

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**182140.**	**1447300.**	**452690.**
Stddev	229.	5512.	3768.
%RSD	.12565	.38088	.83236

Sample Name: 321163 Acquired: 09/04/2019 14:47:05 Type: Unk
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba4934	Be3130	Cd2265	Co2286	Cr2677	Cu2230	Fe2395	Mg2790
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**2.24**	**160000.**	**288.**	**2370.**	**5.68**	**9.65**	**146.**	**256.**	**460.**	**234000.**	**113000.**
Stddev	.91	811.	16.	17.	.09	.37	1.	1.	3.	1710.	302.
%RSD	40.4	.508	5.43	.728	1.51	3.81	.754	.351	.726	.730	.268

Elem	Mn2593	Mo2020	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924	Zn2062
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**10300.**	**11.3**	**273.**	**1100.**	**831.**	**-17.9**	**11.0**	**-18.8**	**39.9**	**393.**	**1780.**
Stddev	76.	.4	2.	16.	5.	3.8	8.0	6.8	2.3	1.	14.
%RSD	.736	3.22	.696	1.43	.644	21.1	72.6	36.1	5.73	.368	.765

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**156920.**	**1265900.**	**418100.**
Stddev	690.	2234.	3109.
%RSD	.43972	.17650	.74350

Sample Name: 321164 Acquired: 09/04/2019 14:53:44 Type: Unk
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba4934	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2395
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**5.26**	**374000.**	**279.**	**4600.**	**5.23**	**256000.**	**5.48**	**282.**	**308.**	**459.**	**590000.**
Stddev	.66	2410.	8.	32.	.06	2570.	.68	1.	2.	1.	2470.
%RSD	12.6	.643	2.95	.686	1.04	1.01	12.4	.301	.621	.161	.418

Elem	Mg2790	Mn2593	Mo2020	Ni2216	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Se2039	Tl1908
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**72600.**	**29500.**	**-4.11**	**539.**	**478.**	**461.**	**427.**	**-52.6**	**-3.68**	**-10.1**	**96.2**
Stddev	385.	220.	1.02	3.	1.	6.	5.	2.0	9.20	14.0	3.9
%RSD	.530	.745	24.9	.551	.241	1.24	1.10	3.90	250.	138.	4.10

Elem	V_2924	Zn2062
Units	ug/L	ug/L
Avg	**762.**	**1810.**
Stddev	2.	7.
%RSD	.210	.393

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**176000.**	**1417600.**	**445090.**
Stddev	274.	3347.	2624.
%RSD	.15548	.23611	.58959

Sample Name: 321165 Acquired: 09/04/2019 15:00:10 Type: Unk
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba4934	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2395
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**4.84**	**335000.**	**260.**	**4100.**	**5.13**	**552000.**	**5.23**	**217.**	**331.**	**425.**	**519000.**
Stddev	.49	1470.	3.	20.	.14	3530.	.72	1.	6.	2.	1430.
%RSD	10.2	.438	1.14	.495	2.70	.640	13.8	.592	1.79	.574	.275

Elem	Mg2790	Mn2593	Mo2020	Ni2216	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Se2039	Tl1908
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**71900.**	**22600.**	**-1.33**	**477.**	**428.**	**469.**	**413.**	**-40.6**	**-.586**	**-11.3**	**79.9**
Stddev	208.	89.	.69	2.	2.	15.	3.	4.9	2.85	10.7	6.9
%RSD	.290	.392	52.2	.469	.582	3.21	.727	12.1	486.	94.5	8.64

Elem	V_2924	Zn2062
Units	ug/L	ug/L
Avg	**696.**	**1680.**
Stddev	9.	6.
%RSD	1.24	.330

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**175660.**	**1406300.**	**444180.**
Stddev	833.	9308.	2366.
%RSD	.47397	.66184	.53266

Sample Name: 321166 Acquired: 09/04/2019 15:07:30 Type: Unk
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Cd2265	Co2286	Cr2677	Cu2230	Fe2395	Mg2790
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**1.25**	**57000.**	**70.2**	**600.**	**3.35**	**.764**	**35.3**	**201.**	**115.**	**162000.**	**78700.**
Stddev	1.12	370.	13.6	123.	.07	7.19	7.1	4.	25.	701.	280.
%RSD	89.6	.650	19.3	20.6	2.01	941.	20.1	1.77	21.3	.434	.355

Elem	Mn2576	Mn2593	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**2470.**	**2710.**	**1.51**	**92.5**	**216.**	**-6.52**	**6.52**	**-13.5**	**25.2**	**185.**	**876.**
Stddev	38.	22.	1.27	18.9	46.	4.63	4.62	9.2	4.7	3.	189.
%RSD	1.53	.802	83.6	20.5	21.2	71.0	70.9	68.6	18.7	1.58	21.6

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**178330.**	**1292100.**	**437170.**
Stddev	15456.	11968.	2133.
%RSD	8.6672	.92621	.48790

Sample Name: 321167 Acquired: 09/04/2019 15:14:12 Type: Unk
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba4934	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2395
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**4.24**	**320000.**	**261.**	**4360.**	**6.64**	**406000.**	**8.76**	**253.**	**317.**	**463.**	**502000.**
Stddev	.47	564.	16.	5.	.08	1770.	.74	1.	1.	1.	3720.
%RSD	11.2	.176	5.95	.117	1.17	.437	8.41	.254	.450	.130	.742

Elem	Mg2790	Mn2593	Mo2020	Ni2216	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Se2039	Tl1908
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**71400.**	**23800.**	**-2.43**	**497.**	**446.**	**436.**	**387.**	**-46.8**	**-2.77**	**-21.3**	**77.3**
Stddev	337.	94.	.82	3.	2.	7.	7.	3.5	4.27	13.8	1.9
%RSD	.472	.395	33.6	.517	.495	1.65	1.73	7.57	154.	64.8	2.41

Elem	V_2924	Zn2062
Units	ug/L	ug/L
Avg	**719.**	**1760.**
Stddev	3.	8.
%RSD	.437	.471

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**182520.**	**1474400.**	**472740.**
Stddev	328.	6728.	827.
%RSD	.17992	.45631	.17487

Sample Name: 321168 Acquired: 09/04/2019 15:20:37 Type: Unk
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba4934	Be3130	Cd2265	Co2286	Cr2677	Cu2230	Fe2395	Mg2790
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**1.35**	**101000.**	**199.**	**1770.**	**1.44**	**11.6**	**54.9**	**243.**	**216.**	**170000.**	**96200.**
Stddev	.48	1120.	10.	23.	.05	.8	.6	1.	5.	1570.	159.
%RSD	36.0	1.12	4.84	1.32	3.44	7.09	1.12	.585	2.51	.923	.165

Elem	Mn2576	Mn2593	Mo2020	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**3570.**	**3850.**	**14.6**	**165.**	**1060.**	**775.**	**-8.59**	**7.25**	**-11.2**	**25.2**	**262.**
Stddev	32.	45.	.2	1.	16.	14.	1.23	4.15	8.6	2.7	2.
%RSD	.891	1.17	1.37	.849	1.56	1.86	14.3	57.3	76.8	10.8	.945

Elem	Zn2062
Units	ug/L
Avg	**1350.**
Stddev	23.
%RSD	1.68

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**158410.**	**1306700.**	**436490.**
Stddev	1237.	5347.	4341.
%RSD	.78107	.40922	.99451

Sample Name: 321169 Acquired: 09/04/2019 15:27:24 Type: Unk
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba4934	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2395
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**3.85**	**247000.**	**236.**	**2990.**	**5.39**	**809000.**	**5.90**	**271.**	**294.**	**357.**	**421000.**
Stddev	1.06	2560.	14.	32.	.08	13100.	1.26	3.	3.	3.	4060.
%RSD	27.5	1.04	6.00	1.08	1.50	1.61	21.4	1.12	1.01	.925	.965

Elem	Mg2790	Mn2593	Mo2020	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**60500.**	**18100.**	**.077**	**336.**	**551.**	**460.**	**-35.8**	**-2.41**	**-49.4**	**66.1**	**621.**
Stddev	128.	197.	.420	4.	10.	8.	2.0	9.71	10.6	4.0	2.
%RSD	.212	1.09	544.	1.17	1.89	1.67	5.44	403.	21.5	6.03	.362

Elem	Zn2062
Units	ug/L
Avg	**1350.**
Stddev	17.
%RSD	1.26

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**178020.**	**1431900.**	**460130.**
Stddev	866.	3065.	4412.
%RSD	.48652	.21404	.95892

Sample Name: 321170 Acquired: 09/04/2019 15:33:58 Type: Unk
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Cd2265	Co2286	Cr2677	Cu2230	Fe2395	Mg2790
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**1.31**	**74200.**	**163.**	**788.**	**.405**	**9.03**	**71.1**	**206.**	**214.**	**132000.**	**113000.**
Stddev	.79	549.	8.	10.	.005	.35	1.0	1.	2.	1360.	444.
%RSD	60.6	.739	4.78	1.22	1.33	3.92	1.37	.322	1.16	1.02	.393

Elem	Mn2593	Mo2020	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924	Zn2062
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**4530.**	**8.47**	**156.**	**519.**	**352.**	**-5.01**	**2.76**	**-19.2**	**28.9**	**233.**	**1320.**
Stddev	26.	.46	1.	6.	3.	4.90	3.39	6.3	3.7	1.	15.
%RSD	.583	5.42	.653	1.13	.774	97.8	123.	32.9	12.8	.215	1.13

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**152840.**	**1238200.**	**421270.**
Stddev	335.	5280.	3917.
%RSD	.21913	.42645	.92981

Sample Name: ccv1 Acquired: 09/04/2019 15:40:44 Type: QC
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1972	Ba4934	Be2348	Ca3158	Cd2288	Co2388	Cr2055	Cu3273	Fe2599
Avg	**447.**	**4510.**	**4660.**	**4640.**	**4600.**	**449.**	**4580.**	**458.**	**4560.**	**4510.**	**4570.**	**4620.**
Stddev	2.	8.	8.	14.	15.	1.	39.	.	17.	17.	28.	31.
%RSD	.394	.169	.163	.297	.329	.260	.851	.081	.370	.379	.616	.670
Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Mg2790	Mn2593	Mo2045	Ni2216	Pb2169	Sb2068	Se2039	Se2062	Tl1908	V_2908	Zn2062
Avg	**4520.**	**4490.**	**4510.**	**4570.**	**4480.**	**4640.**	**4520.**	**4550.**	**4480.**	**4570.**	**4740.**
Stddev	39.	11.	10.	12.	12.	8.	19.	7.	15.	17.	14.
%RSD	.857	.254	.224	.252	.276	.179	.430	.144	.334	.372	.299
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**195280.**	**1546800.**	**484250.**
Stddev	349.	8321.	1642.
%RSD	.17858	.53797	.33899

Sample Name: ccv2 Acquired: 09/04/2019 15:46:46 Type: QC
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	As1972	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Fe2343
Avg	**47.9**	**480.**	**501.**	**501.**	**469.**	**46.4**	**480.**	**46.0**	**468.**	**473.**	**486.**	**480.**
Stddev	.7	3.	4.	5.	1.	.2	4.	.2	.	1.	3.	5.
%RSD	1.43	.594	.866	1.09	.112	.480	.767	.486	.081	.228	.569	.998
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Mg2802	Mn2576	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Se2039	Tl1908
Avg	**475.**	**467.**	**471.**	**488.**	**493.**	**465.**	**490.**	**463.**	**469.**	**479.**	**471.**	**479.**
Stddev	3.	2.	1.	.	1.	1.	5.	4.	2.	3.	10.	.
%RSD	.593	.454	.154	.062	.166	.235	.996	.965	.505	.573	2.10	.092
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	V_2924	Zn2138
Avg	**492.**	**471.**
Stddev	3.	.
%RSD	.640	.031
Check ?	Chk Pass	Chk Pass
Value		
Range		

Sample Name: ccv2 Acquired: 09/04/2019 15:46:46 Type: QC
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**198430.**	**1571800.**	**480960.**
Stddev	199.	7337.	3462.
%RSD	.10012	.46679	.71991

Sample Name: ccb Acquired: 09/04/2019 15:52:29 Type: QC
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Avg	**.022**	**-2.85**	**.097**	**-.234**	**.024**	**29.7**	**-.194**	**-.084**	**.178**	**1.04**	**-14.1**	**-.610**
Stddev	1.00	.56	3.15	.166	.018	2.4	.112	.282	.651	1.04	2.0	.161
%RSD	4530.	19.7	3250.	71.1	76.3	8.21	58.1	334.	367.	99.5	14.5	26.5
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924	Zn2138
Avg	**.320**	**.718**	**.610**	**-2.41**	**1.48**	**3.45**	**-6.05**	**.488**	**.394**	**-1.27**
Stddev	.058	.213	.233	.50	.51	1.89	6.37	1.27	.430	.08
%RSD	18.2	29.7	38.1	20.6	34.4	54.8	105.	260.	109.	6.01
Check ?	None	None	None	None	None	None	None	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**204060.**	**1616800.**	**494280.**
Stddev	210.	4203.	4787.
%RSD	.10296	.25995	.96852

Sample Name: 321171 Acquired: 09/04/2019 15:58:43 Type: Unk
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba4934	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2395
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**2.47**	**144000.**	**167.**	**1750.**	**2.65**	**912000.**	**8.57**	**111.**	**248.**	**327.**	**284000.**
Stddev	.90	1280.	7.	20.	.12	16200.	.52	1.	2.	3.	3050.
%RSD	36.6	.892	3.97	1.12	4.70	1.77	6.01	1.07	.997	.951	1.07

Elem	Mg2790	Mn2593	Mo2020	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**51500.**	**9050.**	**15.4**	**297.**	**703.**	**583.**	**-19.9**	**7.48**	**-36.6**	**46.2**	**442.**
Stddev	252.	118.	.5	2.	14.	4.	3.7	5.69	6.6	5.8	3.
%RSD	.488	1.31	3.15	.547	2.01	.674	18.5	76.1	18.1	12.4	.786

Elem	Zn2062
Units	ug/L
Avg	**1330.**
Stddev	9.
%RSD	.700

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**174850.**	**1414000.**	**464140.**
Stddev	694.	10927.	2958.
%RSD	.39675	.77279	.63720

Sample Name: 321172 Acquired: 09/04/2019 16:05:10 Type: Unk
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba4934	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2395
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**4.41**	**255000.**	**274.**	**3130.**	**5.81**	**57900.**	**3.20**	**255.**	**342.**	**452.**	**548000.**
Stddev	.58	2420.	4.	31.	.09	595.	.63	.	3.	2.	3870.
%RSD	13.2	.949	1.46	.988	1.49	1.03	19.7	.065	.809	.419	.706

Elem	Mg2790	Mn2593	Mo2020	Ni2216	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Se2039	Tl1908
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**70500.**	**21300.**	**-2.99**	**438.**	**384.**	**417.**	**370.**	**-43.0**	**-8.64**	**-7.00**	**81.1**
Stddev	273.	173.	.88	1.	1.	8.	1.	4.8	4.71	16.8	3.3
%RSD	.387	.812	29.3	.183	.215	1.85	.371	11.2	54.5	239.	4.01

Elem	V_2924	Zn2062
Units	ug/L	ug/L
Avg	**715.**	**1560.**
Stddev	4.	1.
%RSD	.616	.048

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**186470.**	**1480600.**	**473370.**
Stddev	471.	8126.	4220.
%RSD	.25241	.54886	.89156

Sample Name: ccv1 Acquired: 09/04/2019 17:01:06 Type: QC
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1972	Ba4934	Be3130	Ca3158	Cd2288	Co2388	Cr2055	Cu2230	Fe2599
Avg	**451.**	**4640.**	**4720.**	**4790.**	**4750.**	**455.**	**4620.**	**471.**	**4700.**	**4670.**	**4540.**	**4700.**
Stddev	1.	74.	9.	14.	77.	3.	54.	.	29.	11.	10.	45.
%RSD	.188	1.60	.197	.282	1.62	.670	1.17	.069	.609	.234	.211	.959
Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value												
Range												

Elem	Mg2790	Mn2593	Mo2045	Ni2216	Pb2169	Sb2068	Se2039	Se2062	Tl1908	V_2908	Zn2062
Avg	**4540.**	**4580.**	**4680.**	**4710.**	**4630.**	**4770.**	**4690.**	**4690.**	**4570.**	**4680.**	**4880.**
Stddev	10.	47.	12.	5.	16.	13.	8.	50.	7.	56.	7.
%RSD	.225	1.02	.254	.111	.339	.262	.176	1.07	.158	1.20	.149
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**191820.**	**1508400.**	**472770.**
Stddev	326.	7358.	5609.
%RSD	.17002	.48783	1.1865

Sample Name: ccv2 Acquired: 09/04/2019 17:07:07 Type: QC
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	As1972	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Fe2343
Avg	**48.8**	**498.**	**511.**	**524.**	**483.**	**48.0**	**497.**	**47.5**	**479.**	**490.**	**497.**	**498.**
Stddev	.8	2.	2.	9.	2.	.3	8.	.2	1.	3.	2.	6.
%RSD	1.58	.416	.377	1.80	.463	.659	1.60	.513	.259	.562	.440	1.16
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Mg2802	Mn2576	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Se2039	Tl1908
Avg	**496.**	**480.**	**486.**	**501.**	**508.**	**477.**	**499.**	**477.**	**482.**	**495.**	**464.**	**485.**
Stddev	3.	3.	1.	1.	1.	.	8.	2.	1.	5.	12.	3.
%RSD	.520	.698	.170	.161	.205	.043	1.60	.418	.307	.974	2.55	.674
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	V_2924	Zn2138
Avg	**510.**	**482.**
Stddev	4.	1.
%RSD	.690	.216
Check ?	Chk Pass	Chk Pass
Value		
Range		

Sample Name: ccv2 Acquired: 09/04/2019 17:07:07 Type: QC
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**196010.**	**1539900.**	**475580.**
Stddev	377.	10946.	8052.
%RSD	.19223	.71086	1.6931

Sample Name: ccb Acquired: 09/04/2019 17:12:51 Type: QC
Method: DOD Calibration Updated 060614(v3502) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Avg	**-.192**	**-2.02**	**2.95**	**-.205**	**.044**	**15.1**	**-.303**	**-.112**	**-.165**	**.647**	**-13.9**	**-.265**
Stddev	.126	.68	3.19	.286	.022	1.1	.115	.158	.372	.398	.9	.070
%RSD	66.0	33.3	108.	140.	50.9	7.18	38.0	141.	225.	61.6	6.22	26.2
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924	Zn2138
Avg	**.312**	**.650**	**.420**	**-.862**	**.657**	**2.40**	**3.33**	**-1.54**	**.503**	**-1.10**
Stddev	.076	.253	.398	1.86	1.16	2.77	2.36	1.88	.649	.07
%RSD	24.2	38.9	94.7	216.	176.	116.	70.9	123.	129.	6.41
Check ?	None	None	None	None	None	None	None	None	None	None
Value										
Range										

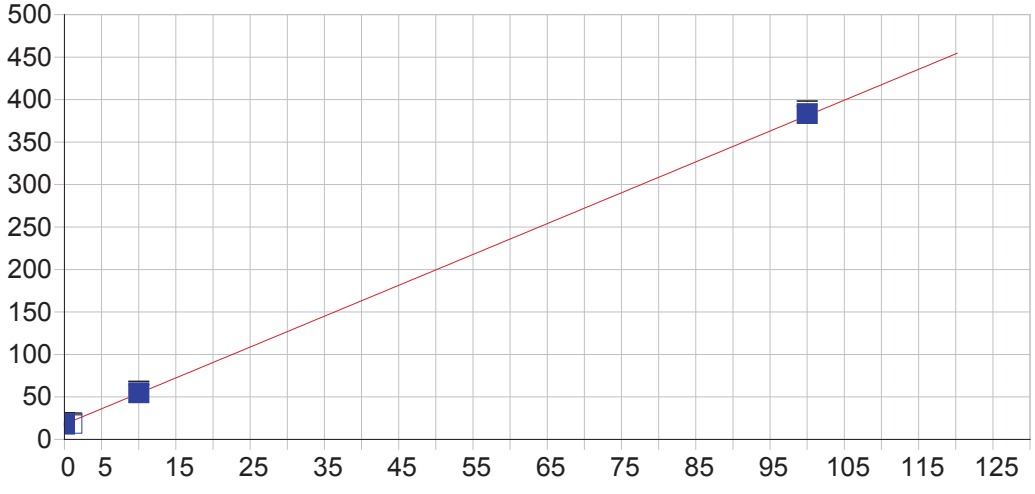
Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**203330.**	**1588100.**	**490060.**
Stddev	603.	11706.	4196.
%RSD	.29643	.73709	.85617

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL
Ag 328.068 {103}	09/10/2019 11:37:38	09/09/2019 10:22:28	Linear	1/Conc	17.872389	3.632885	0.000000	1.000000	0.997530	0.120446	0.818499	2.728331
Ag 338.289 {100}	09/10/2019 11:37:38	09/09/2019 10:28:03	Linear	None	0.000021	0.000001	0.000000	1.000000	0.998435	0.000024	6.745973	22.486575
Al 167.079 {501}	09/10/2019 11:37:38	09/09/2019 10:28:03	Linear	None	0.000023	0.000003	0.000000	1.000000	0.999989	0.000008	0.717062	2.390207
Al 308.215 {109}	09/10/2019 11:37:38	09/09/2019 10:48:12	Curvili	1/Var	0.000051	0.000000	0.000000	1.000000	0.999728	0.000009	19.553054	65.176846
Al 396.152 { 85}	09/10/2019 11:37:38	09/09/2019 11:02:52	Curvili	1/Var	-0.000009	0.000001	0.000000	1.000000	0.999629	0.000051	6.211650	20.705501
As 193.759 {474}	09/10/2019 11:37:38	09/09/2019 10:28:04	Linear	1/Conc	0.875760	0.213933	0.000000	1.000000	0.999908	0.012730	4.064926	13.549752
As 197.262 {471}	09/10/2019 11:37:38	09/09/2019 10:34:51	Linear	1/Conc	-0.000000	0.000001	0.000000	1.000000	0.999900	0.000000	6.101803	20.339344
Ba 233.527 {445}	09/10/2019 11:37:38	09/09/2019 10:28:04	Linear	None	0.000006	0.000010	0.000000	1.000000	0.999999	0.000005	0.377667	1.258890
Ba 455.403 { 74}	09/10/2019 11:37:38	09/09/2019 10:34:51	Linear	1/Conc	0.000047	0.000028	0.000000	1.000000	0.999768	0.000002	0.246997	0.823324
Ba 493.409 { 68}	09/10/2019 11:37:38	09/09/2019 10:34:51	Linear	1/Conc	0.007279	0.000035	0.000000	1.000000	0.999787	0.000034	0.533043	1.776809
Be 313.042 {108}	09/10/2019 11:37:38	09/09/2019 10:28:05	Linear	1/Conc	-0.000046	0.000079	0.000000	1.000000	0.999988	0.000000	0.028903	0.096345
Be 234.861 {144}	09/10/2019 11:37:38	09/09/2019 10:28:05	Curvili	1/Var	0.037926	2.454092	-0.000024	1.000000	0.999984	3.227153	0.295869	0.986231
Ca 315.887 {107}	09/10/2019 11:37:38	09/09/2019 11:02:52	Linear	1/Var	0.000041	0.000000	0.000000	1.000000	0.999597	0.000004	7.306923	24.356411
Ca 317.933 {106}	09/10/2019 11:37:38	09/09/2019 11:02:52	Curvili	1/Conc	0.002716	0.000000	0.000000	1.000000	0.999694	0.000006	15.273984	50.913280
Ca 393.366 { 86}	09/10/2019 11:37:38	09/09/2019 10:28:05	Linear	None	0.005900	0.000186	0.000000	1.000000	0.999555	0.004317	0.026563	0.088545
Ca 396.847 { 85}	09/10/2019 11:37:38	09/09/2019 10:34:52	Linear	1/Conc	0.004099	0.000082	0.000000	1.000000	0.999558	0.000114	0.058700	0.195667
Cd 226.502 {449}	09/10/2019 11:37:38	09/09/2019 10:28:05	Linear	1/Conc	0.000004	0.000028	0.000000	1.000000	0.999935	0.000000	0.197999	0.659996
Cd 228.802 {447}	09/10/2019 11:37:38	09/09/2019 10:28:06	Linear	1/Conc	0.000020	0.000045	0.000000	1.000000	0.999920	0.000001	0.159077	0.530258
Co 228.616 {447}	09/10/2019 11:37:38	09/09/2019 10:34:52	Linear	1/Conc	0.000011	0.000022	0.000000	1.000000	0.999734	0.000002	0.286842	0.956139
Co 238.892 {141}	09/10/2019 11:37:38	09/09/2019 10:34:52	Linear	1/Conc	0.000003	0.000002	0.000000	1.000000	0.999718	0.000003	0.688067	2.293558
Cr 205.560 {464}	09/10/2019 11:37:38	09/09/2019 10:41:52	Curvili	1/Conc	-0.000007	0.000014	-0.000000	1.000000	0.999969	0.000001	0.333718	1.112392
Cr 267.716 {126}	09/10/2019 11:37:38	09/09/2019 10:34:53	Linear	1/Var	0.000002	0.000003	0.000000	1.000000	0.999331	0.000005	0.742293	2.474311
Cu 223.008 {451}	09/10/2019 11:37:38	09/09/2019 10:41:52	Linear	1/Conc	-0.000005	0.000006	0.000000	1.000000	0.999862	0.000004	0.886774	2.955914
Cu 224.700 {450}	09/10/2019 11:37:38	09/09/2019 10:41:52	Linear	1/Conc	0.105419	1.566271	0.000000	1.000000	0.999561	2.586859	0.555476	1.851588
Cu 324.754 {104}	09/10/2019 11:37:38	09/09/2019 10:41:52	Curvili	1/Var	0.001233	0.000001	0.000000	1.000000	0.999937	0.000013	3.578806	11.929353
Cu 327.396 {103}	09/10/2019 11:37:38	09/09/2019 10:34:53	Linear	1/Conc	0.000024	0.000001	0.000000	1.000000	0.999770	0.000000	3.708158	12.360528
Fe 234.349 {144}	09/10/2019 11:37:38	09/09/2019 10:48:13	Linear	1/Var	0.000038	0.000001	0.000000	1.000000	0.999122	0.000034	1.388829	4.629431
Fe 239.562 {140}	09/10/2019 11:37:38	09/09/2019 11:02:52	Linear	1/Var	0.000003	0.000000	0.000000	1.000000	0.999257	0.000012	3.029957	10.099855
Fe 259.940 {129}	09/10/2019 11:37:38	09/09/2019 10:55:06	Full Fit	1/Conc	0.000001	0.000001	0.000000	1.020000	0.999992	0.000008	1.946144	6.487145
Mg 202.582 {466}	09/10/2019 11:37:38	09/09/2019 11:02:52	Linear	1/Conc	0.000009	0.000001	0.000000	1.000000	0.996619	0.000093	8.227874	27.426246
Mg 279.079 {121}	09/10/2019 11:37:38	09/09/2019 11:02:53	Full Fit	1/Conc	-0.142885	0.013920	-0.000000	1.080000	0.999954	0.685524	48.382200	161.27400
Mg 280.270 {120}	09/10/2019 11:37:38	09/09/2019 10:34:54	Linear	1/Var	0.000307	0.000034	0.000000	1.000000	0.998397	0.000048	0.032233	0.107442
Mn 257.610 {131}	09/10/2019 11:37:38	09/09/2019 10:34:54	Linear	1/Conc	0.000007	0.000009	0.000000	1.000000	0.999420	0.000003	0.105572	0.351906
Mn 259.373 {130}	09/10/2019 11:37:38	09/09/2019 10:41:52	Linear	1/Var	0.000005	0.000006	0.000000	1.000000	0.999758	0.000011	0.398079	1.326931
Mo 202.030 {466}	09/10/2019 11:37:38	09/09/2019 10:28:08	Linear	1/Conc	0.000001	0.000009	0.000000	1.000000	0.999873	0.000000	0.428423	1.428078
Mo 203.844 {465}	09/10/2019 11:37:38	09/09/2019 10:28:08	Linear	1/Var	0.000007	0.000006	0.000000	1.000000	0.999795	0.000007	0.884494	2.948312
Mo 204.598 {464}	09/10/2019 11:37:38	09/09/2019 10:34:55	Linear	1/Var	0.000000	0.000006	0.000000	1.000000	0.999809	0.000009	0.818363	2.727877
Ni 221.647 {452}	09/10/2019 11:37:38	09/09/2019 10:34:55	Linear	1/Var	0.000022	0.000015	0.000000	1.000000	0.999382	0.000109	0.488572	1.628575
Ni 231.604 {445}	09/10/2019 11:37:38	09/09/2019 10:34:55	Linear	1/Conc	-0.000009	0.000014	0.000000	1.000000	0.999638	0.000002	0.507998	1.693327
Pb 216.999 {455}	09/10/2019 11:37:38	09/09/2019 10:41:52	Linear	1/Var	0.000011	0.000001	0.000000	1.000000	0.999260	0.000040	4.813011	16.043371
Pb 220.353 {453}	09/10/2019 11:37:38	09/09/2019 10:28:09	Linear	1/Conc	0.000024	0.000004	0.000000	1.000000	0.999952	0.000000	2.169088	7.230293
Pb 220.353 {153}	09/10/2019 11:37:38	09/09/2019 10:41:53	Linear	1/Conc	0.000001	0.000000	0.000000	1.000000	0.999853	0.000001	3.934570	13.115234
Sb 206.833 {463}	09/10/2019 11:37:38	09/09/2019 10:34:55	Linear	1/Var	-0.000003	0.000002	0.000000	1.000000	0.999939	0.000010	2.367442	7.891473
Sb 217.581 {455}	09/10/2019 11:37:38	09/09/2019 10:34:56	Linear	1/Conc	0.000003	0.000002	0.000000	1.000000	0.999810	0.000000	2.606767	8.689224

	Element, Wavelength and Order	Status	Reslope		QC Norm	
			Slope	Y-int	Slope factor	Offset
	Ag 328.068 {103}	OK.	1.000000	0.000000	1	0
	Ag 338.289 {100}	OK.	1.000000	0.000000	1	0
	Al 167.079 {501}	OK.	1.000000	0.000000	1	0
	Al 308.215 {109}	OK.	1.000000	0.000000	1	0
	Al 396.152 { 85}	OK.	1.000000	0.000000	1	0
	As 193.759 {474}	OK.	1.000000	0.000000	1	0
	As 197.262 {471}	OK.	1.000000	0.000000	1	0
	Ba 233.527 {445}	OK.	1.000000	0.000000	1	0
	Ba 455.403 { 74}	OK.	1.000000	0.000000	1	0
	Ba 493.409 { 68}	OK.	1.000000	0.000000	1	0
	Be 313.042 {108}	OK.	1.000000	0.000000	1	0
	Be 234.861 {144}	OK.	1.000000	0.000000	1	0
	Ca 315.887 {107}	OK.	1.000000	0.000000	1	0
	Ca 317.933 {106}	OK.	1.000000	0.000000	1	0
	Ca 393.366 { 86}	OK.	1.000000	0.000000	1	0
	Ca 396.847 { 85}	OK.	1.000000	0.000000	1	0
	Cd 226.502 {449}	OK.	1.000000	0.000000	1	0
	Cd 228.802 {447}	OK.	1.000000	0.000000	1	0
	Co 228.616 {447}	OK.	1.000000	0.000000	1	0
	Co 238.892 {141}	OK.	1.000000	0.000000	1	0
	Cr 205.560 {464}	OK.	1.000000	0.000000	1	0
	Cr 267.716 {126}	OK.	1.000000	0.000000	1	0
	Cu 223.008 {451}	OK.	1.000000	0.000000	1	0
	Cu 224.700 {450}	OK.	1.000000	0.000000	1	0
	Cu 324.754 {104}	OK.	1.000000	0.000000	1	0
	Cu 327.396 {103}	OK.	1.000000	0.000000	1	0
	Fe 234.349 {144}	OK.	1.000000	0.000000	1	0
	Fe 239.562 {140}	OK.	1.000000	0.000000	1	0
	Fe 259.940 {129}	OK.	1.000000	0.000000	1	0
	Mg 202.582 {466}	OK.	1.000000	0.000000	1	0
	Mg 279.079 {121}	OK.	1.000000	0.000000	1	0
	Mg 280.270 {120}	OK.	1.000000	0.000000	1	0
	Mn 257.610 {131}	OK.	1.000000	0.000000	1	0
	Mn 259.373 {130}	OK.	1.000000	0.000000	1	0
	Mo 202.030 {466}	OK.	1.000000	0.000000	1	0
	Mo 203.844 {465}	OK.	1.000000	0.000000	1	0
	Mo 204.598 {464}	OK.	1.000000	0.000000	1	0
	Ni 221.647 {452}	OK.	1.000000	0.000000	1	0
	Ni 231.604 {445}	OK.	1.000000	0.000000	1	0
	Pb 216.999 {455}	OK.	1.000000	0.000000	1	0
	Pb 220.353 {453}	OK.	1.000000	0.000000	1	0
	Pb 220.353 {153}	OK.	1.000000	0.000000	1	0
	Sb 206.833 {463}	OK.	1.000000	0.000000	1	0
	Sb 217.581 {455}	OK.	1.000000	0.000000	1	0

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL
Se 196.090 {172}	09/10/2019 11:37:38	09/09/2019 10:28:09	Linear	1/Conc	0.000002	0.000000	0.000000	1.000000	0.972789	0.000000	96.916243	323.05414
Se 196.090 {472}	09/10/2019 11:37:38	09/09/2019 10:28:10	Linear	1/Var	0.000004	0.000001	0.000000	1.000000	0.999963	0.000002	3.944066	13.146887
Se 203.985 {465}	09/10/2019 11:37:38	09/09/2019 10:28:10	Linear	1/Conc	-0.000001	0.000001	0.000000	1.000000	0.999518	0.000000	6.699409	22.331364
Se 206.279 {463}	09/10/2019 11:37:38	09/09/2019 10:34:56	Curvili	1/Conc	0.000001	0.000000	0.000000	1.000000	0.999859	0.000000	21.376531	71.255102
Se 206.279 {464}	09/10/2019 11:37:38	09/09/2019 10:28:10	Linear	1/Conc	-0.000003	0.000000	0.000000	1.000000	0.987996	0.000000	52.893050	176.31016
Tl 190.856 {476}	09/10/2019 11:37:38	09/09/2019 10:34:56	Curvili	1/Var	0.000005	0.000002	-0.000000	1.000000	1.000000	0.000001	1.954434	6.514780
Tl 190.856 {477}	09/10/2019 11:37:38	09/09/2019 10:34:56	Linear	1/Conc	-0.000000	0.000001	0.000000	1.000000	0.999677	0.000000	6.030702	20.102341
V 290.882 {116}	09/10/2019 11:37:38	09/09/2019 10:34:56	Linear	1/Conc	0.000005	0.000001	0.000000	1.000000	0.999886	0.000001	2.946626	9.822086
V 292.402 {115}	09/10/2019 11:37:38	09/09/2019 10:34:56	Linear	1/Conc	0.000005	0.000007	0.000000	1.000000	0.999773	0.000002	0.511458	1.704859
Zn 206.200 {463}	09/10/2019 11:37:38	09/09/2019 10:41:53	Linear	1/Var	0.000026	0.000020	0.000000	1.000000	0.999929	0.000031	0.251793	0.839310
Zn 213.856 {457}	09/10/2019 11:37:38	09/09/2019 10:28:11	Linear	1/Conc	0.000052	0.000047	0.000000	1.000000	0.999989	0.000001	0.119078	0.396926
Y 224.306 {450}*	09/10/2019 11:37:38	09/09/2019 09:38:38	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
Y 324.228 {104}*	09/10/2019 11:37:38	09/09/2019 09:38:38	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
Y 371.030 { 91}*	09/10/2019 11:37:38	09/09/2019 09:38:38	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
Na 588.995 { 57}	09/10/2019 11:37:38	09/09/2019 10:34:57	Linear	None	0.003007	0.000005	0.000000	1.000000	0.999993	0.000156	3.421392	11.404640
Na 589.592 { 57}	09/10/2019 11:37:38	09/09/2019 11:02:53	Linear	1/Conc	0.000022	0.000002	0.000000	1.000000	0.999976	0.000018	6.001887	20.006290
Si 251.611 {134}	09/10/2019 11:37:38	09/09/2019 11:02:53	Linear	1/Var	6.083580	0.152920	0.000000	1.000000	0.997165	25.661451	7.150232	23.834107
Ti 323.452 {104}	09/10/2019 11:37:38	09/09/2019 10:34:57	Linear	1/Conc	0.000139	0.000005	0.000000	1.000000	0.999799	0.000001	0.764334	2.547779
Ti 334.941 {101}	09/10/2019 11:37:38	09/09/2019 10:34:57	Linear	1/Conc	0.000001	0.000004	0.000000	1.000000	0.999831	0.000001	0.756097	2.520322
Sr 407.771 { 83}	09/10/2019 11:37:38	09/09/2019 10:34:57	Linear	1/Conc	0.000078	0.000107	0.000000	1.000000	0.999686	0.000011	0.058057	0.193524
Sr 421.552 { 80}	09/10/2019 11:37:38	09/09/2019 10:34:57	Linear	1/Conc	0.000045	0.000102	0.000000	1.000000	0.999857	0.000007	0.060265	0.200884
Sn 189.989 {477}	09/10/2019 11:37:38	09/09/2019 10:34:58	Linear	1/Conc	0.000005	0.000004	0.000000	1.000000	0.999755	0.000001	0.915409	3.051364
B 249.678 {135}	09/10/2019 11:37:38	09/09/2019 10:34:58	Linear	1/Conc	0.000007	0.000002	0.000000	1.000000	0.999883	0.000000	1.114967	3.716557
B 249.773 {135}	09/10/2019 11:37:38	09/09/2019 10:34:58	Linear	1/Var	0.000013	0.000004	0.000000	1.000000	0.999588	0.000008	0.532195	1.773985
Li 670.784 { 50}	09/10/2019 11:37:38	09/09/2019 10:34:58	Linear	1/Var	0.000025	0.000019	0.000000	1.000000	0.999769	0.000041	0.696006	2.320021
K 766.490 { 44}	09/10/2019 11:37:38	09/09/2019 11:02:53	Linear	1/Conc	0.000021	0.000001	0.000000	1.000000	0.999980	0.000009	16.458646	54.862152
P 213.618 {457}	09/10/2019 11:37:38	09/09/2019 10:34:59	Linear	1/Conc	-0.000001	0.000000	0.000000	1.000000	0.999979	0.000000	4.103818	13.679392
S 182.034 {485}	09/10/2019 11:37:38	09/09/2019 11:02:53	Curvili	1/Conc	0.000008	0.000001	0.000000	1.000000	1.000000	0.000001	4.821737	16.072457
Hg 184.950 {482}	09/10/2019 11:37:38	09/09/2019 10:28:13	Linear	1/Conc	0.000005	0.000004	0.000000	1.000000	0.999993	0.000000	0.935055	3.116851
Ce 404.076 { 83}	09/10/2019 11:37:38	09/09/2019 10:28:13	Linear	1/Conc	0.000016	0.000000	0.000000	1.000000	1.000000	0.000000	12.808223	42.694077

	Element, Wavelength and Order	Status	Reslope		QC Norm	
			Slope	Y-int	Slope factor	Offset
	Se 196.090 {172}	OK.	1.000000	0.000000	1	0
	Se 196.090 {472}	OK.	1.000000	0.000000	1	0
	Se 203.985 {465}	OK.	1.000000	0.000000	1	0
	Se 206.279 {463}	OK.	1.000000	0.000000	1	0
	Se 206.279 {464}	OK.	1.000000	0.000000	1	0
	Tl 190.856 {476}	OK.	1.000000	0.000000	1	0
	Tl 190.856 {477}	OK.	1.000000	0.000000	1	0
	V 290.882 {116}	OK.	1.000000	0.000000	1	0
	V 292.402 {115}	OK.	1.000000	0.000000	1	0
	Zn 206.200 {463}	OK.	1.000000	0.000000	1	0
	Zn 213.856 {457}	OK.	1.000000	0.000000	1	0
	Y 224.306 {450}*	Warnin	1.000000	0.000000	1	0
	Y 324.228 {104}*	Warnin	1.000000	0.000000	1	0
	Y 371.030 { 91}*	Warnin	1.000000	0.000000	1	0
	Na 588.995 { 57}	OK.	1.000000	0.000000	1	0
	Na 589.592 { 57}	OK.	1.000000	0.000000	1	0
	Si 251.611 {134}	OK.	1.000000	0.000000	1	0
	Ti 323.452 {104}	OK.	1.000000	0.000000	1	0
	Ti 334.941 {101}	OK.	1.000000	0.000000	1	0
	Sr 407.771 { 83}	OK.	1.000000	0.000000	1	0
	Sr 421.552 { 80}	OK.	1.000000	0.000000	1	0
	Sn 189.989 {477}	OK.	1.000000	0.000000	1	0
	B 249.678 {135}	OK.	1.000000	0.000000	1	0
	B 249.773 {135}	OK.	1.000000	0.000000	1	0
	Li 670.784 { 50}	OK.	1.000000	0.000000	1	0
	K 766.490 { 44}	OK.	1.000000	0.000000	1	0
	P 213.618 {457}	OK.	1.000000	0.000000	1	0
	S 182.034 {485}	OK.	1.000000	0.000000	1	0
	Hg 184.950 {482}	OK.	1.000000	0.000000	1	0
	Ce 404.076 { 83}	OK.	1.000000	0.000000	1	0

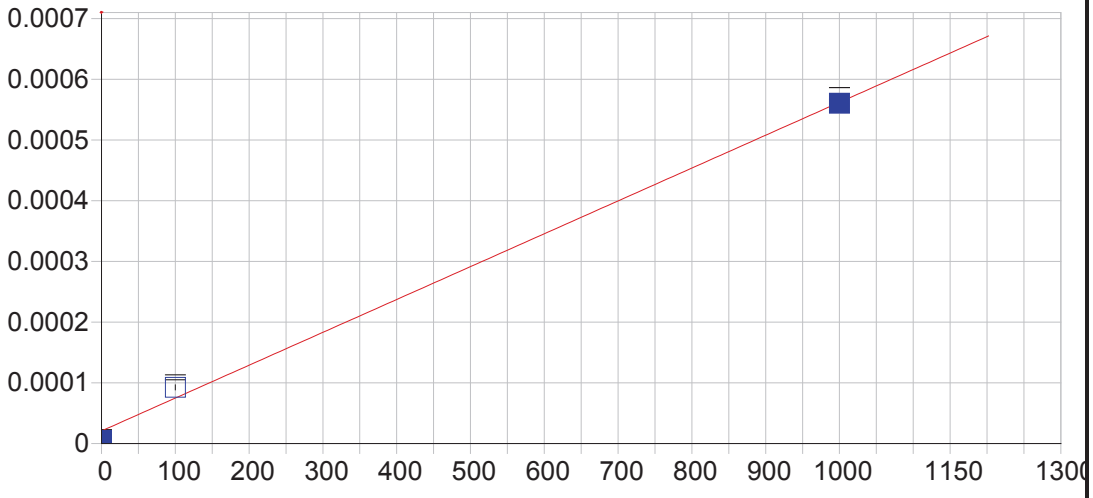


Ag 328.068 {103}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	17.872389	Re-Slope:	1.000000
A1 (Gain):	3.632885	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.997530	Status:	OK.
Std Error of Est:	0.120446		
Predicted MDL:	0.818499		
Predicted MQL:	2.728331		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00072	.001	.000	17.875	2.13	1
CalStd5=10	10.000	10.129	.129	1.29	54.665	1.96	1
CalStd8=100	100.00	100.61	.609	.609	383.32	3.19	1
CalStd3=1	1.0000	.26222	-.738	-73.8	18.825	1.71	1

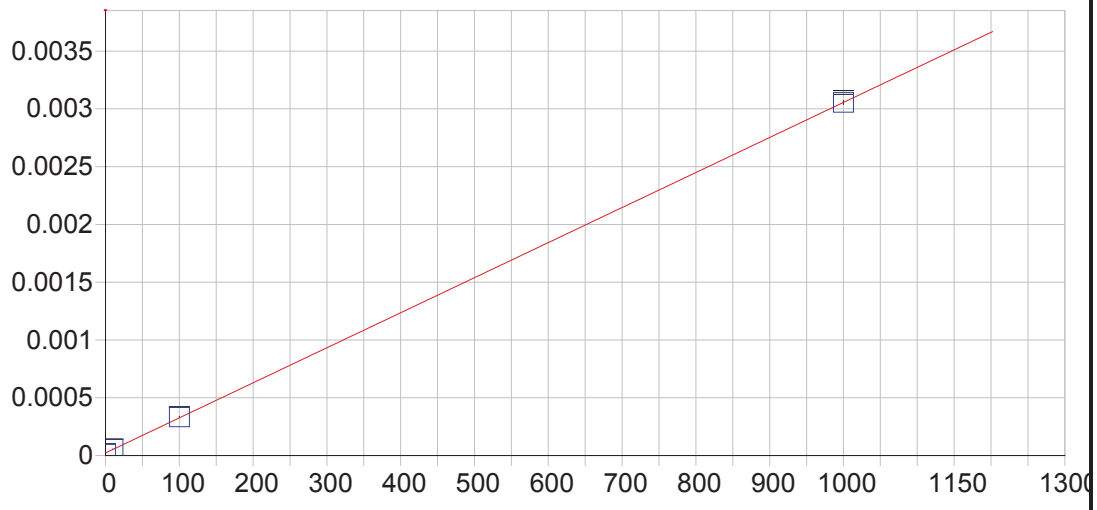


Ag 338.289 {100}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	0.000021	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998435	Status:	OK.
Std Error of Est:	0.000024		
Predicted MDL:	6.745973		
Predicted MQL:	22.486575		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-29.109	-29.1	.000	.00001	.000	1
CalStd8=100	100.00	132.34	32.3	32.3	.00009	.000	1
CalStd9=100	1000.0	996.77	-3.23	-.323	.00056	.000	1

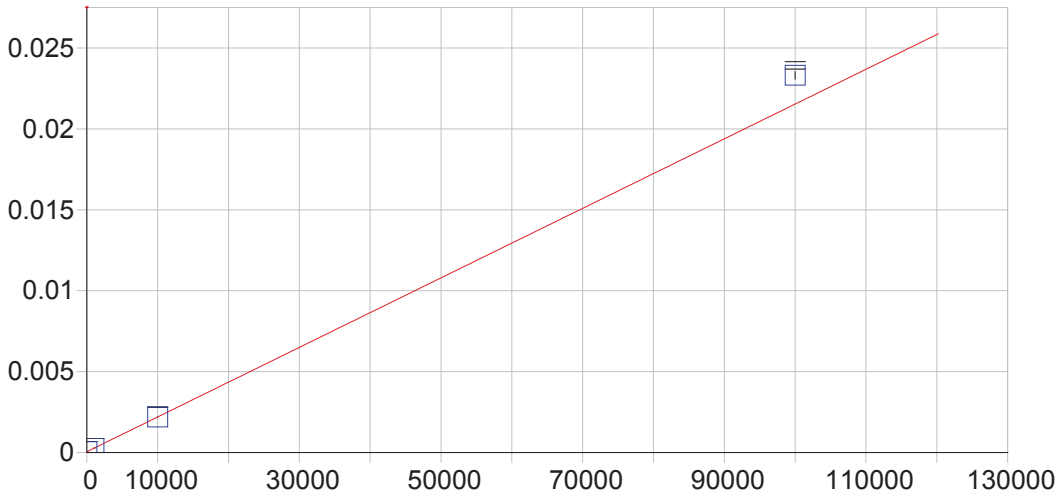


Al 167.079 {501}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	0.000023	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999989	Status:	OK.
Std Error of Est:	0.000008		
Predicted MDL:	0.717062		
Predicted MQL:	2.390207		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-2.9436	-2.94	.000	.00001	.000	1
CalStd9=100	1000.0	999.76	-.243	-.024	.00306	.000	1
CalStd5=10	10.000	10.844	.844	8.44	.00006	.000	1
CalStd8=100	100.00	102.34	2.34	2.34	.00033	.000	1

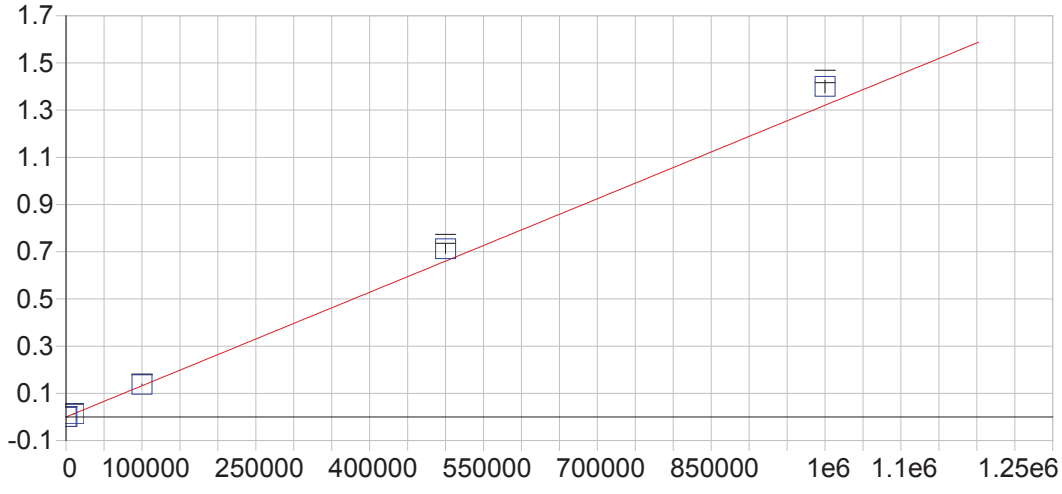


Al 308.215 {109}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Curvilinear	Weighting:	1/Var

A0 (Offset):	0.000051	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999728	Status:	OK.
Std Error of Est:	0.000009		
Predicted MDL:	19.553054		
Predicted MQL:	65.176846		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-9.0254	-9.03	.000	.00005	.000	1
CalStd10=10	10000.	9921.2	-78.8	-.788	.00218	.000	1
CalStd9=100	1000.0	1036.8	36.8	3.68	.00027	.000	1
CalStd13=10	100000.	108260.	8260.	8.26	.02331	.000	1

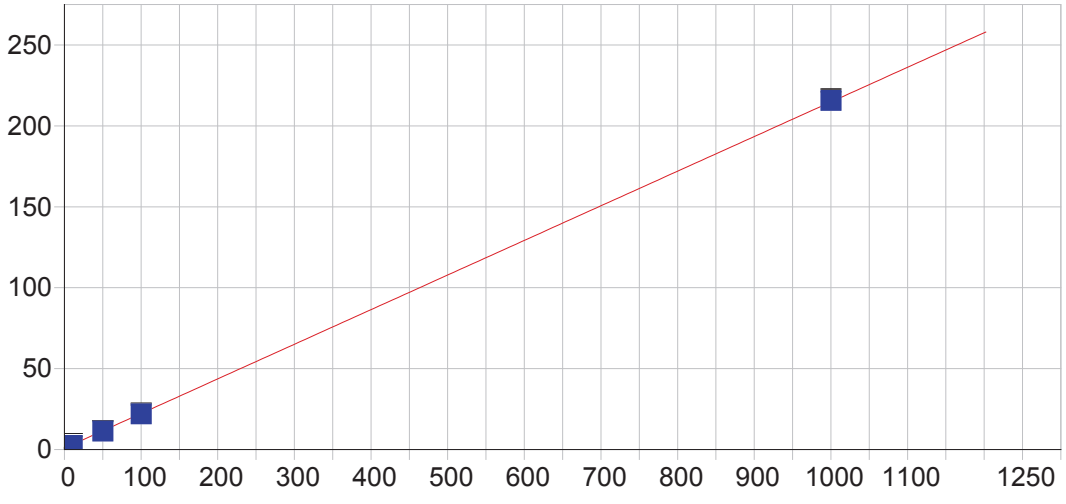


Al 396.152 { 85}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Curvilinear	Weighting:	1/Var

A0 (Offset):	-0.000009	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999629	Status:	OK.
Std Error of Est:	0.000051		
Predicted MDL:	6.211650		
Predicted MQL:	20.705501		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-3.7807	-3.78	.000	-.00001	.000	1
CalStd14=50	500000.	539310.	39300.	7.86	.71231	.019	1
CalStd13=10	100000.	104040.	4040.	4.04	.13741	.001	1
CalStd10=10	10000.	9808.7	-191.	-1.91	.01295	.000	1
CalStd9=100	1000.0	1042.5	42.5	4.25	.00137	.000	1
CalibStd15=	1000000.	1060100.	60100.	6.01	1.4002	.027	1

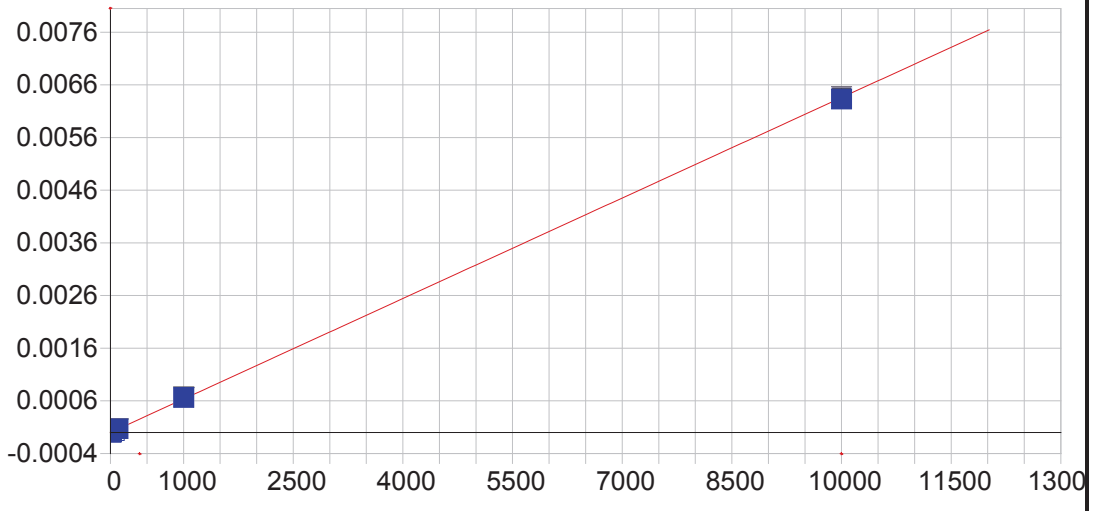


As 193.759 {474}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.875760	Re-Slope:	1.000000
A1 (Gain):	0.213933	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999908	Status:	OK.
Std Error of Est:	0.012730		
Predicted MDL:	4.064926		
Predicted MQL:	13.549752		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00156	.002	.000	.87609	.505	1
CalStd9=100	1000.0	1003.9	3.91	.391	215.77	.867	1
CalStd7=50	50.000	48.858	-1.14	-2.28	11.335	.347	1
CalStd5=10	10.000	8.7882	-1.21	-12.1	2.7587	.933	1
CalStd8=100	100.00	98.443	-1.56	-1.56	21.949	.537	1

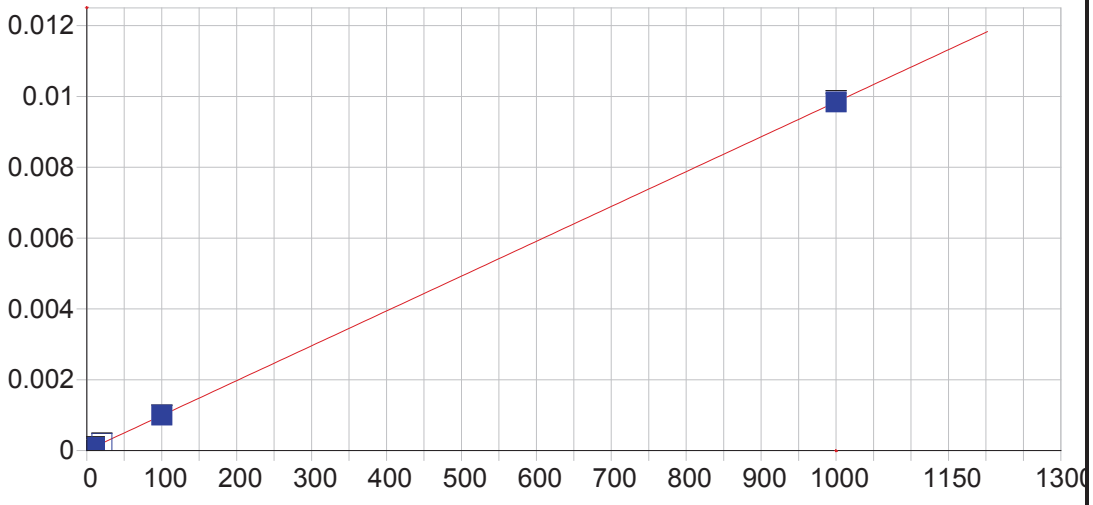


As 197.262 {471}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999900	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	6.101803		
Predicted MQL:	20.339344		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00058	-.001	.000	-.00000	.000	1
CalStd9=100	1000.0	1042.5	42.5	4.25	.00067	.000	1
CalStd7=50	50.000	50.218	.218	.436	.00003	.000	1
CalStd5=10	10.000	9.6791	-.321	-3.21	.00001	.000	1
CalStd8=100	100.00	104.76	4.76	4.76	.00007	.000	1
CalStd10=10	10000.	9952.8	-47.2	-.472	.00637	.000	1

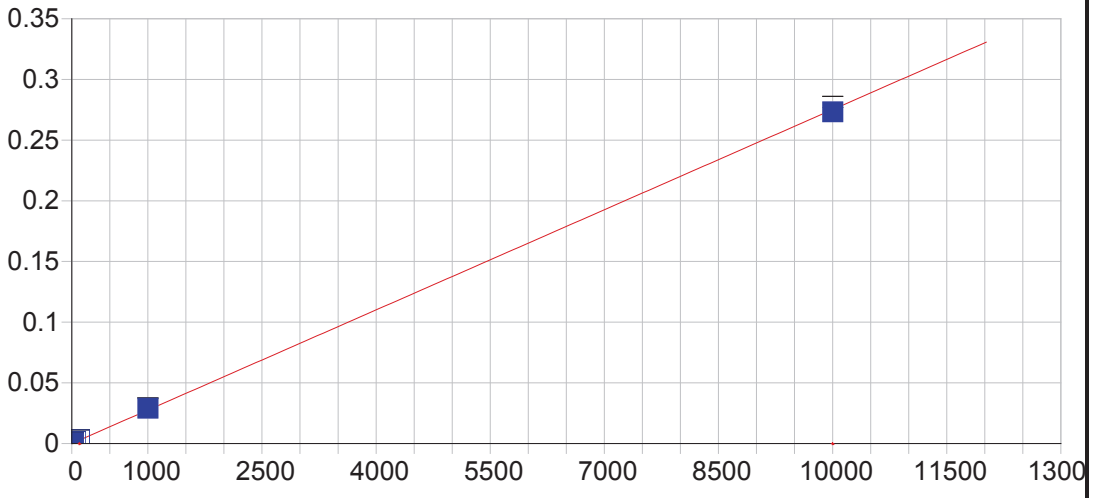


Ba 233.527 {445}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	0.000006	Re-Slope:	1.000000
A1 (Gain):	0.000010	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999999	Status:	OK.
Std Error of Est:	0.000005		
Predicted MDL:	0.377667		
Predicted MQL:	1.258890		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.19148	-.191	.000	.00000	.000	1
CalStd5=10	10.000	9.6444	-.356	-3.56	.00010	.000	1
CalStd6=20	20.000	20.584	.584	2.92	.00021	.000	1
CalStd8=100	100.00	100.78	.776	.776	.00100	.000	1
CalStd4=5	5.0000	4.8738	-.126	-2.52	.00005	.000	1
CalStd9=100	1000.0	999.92	-.084	-.008	.00984	.000	1
CalStd3=1	1.0000	.39796	-.602	-60.2	.00001	.000	1

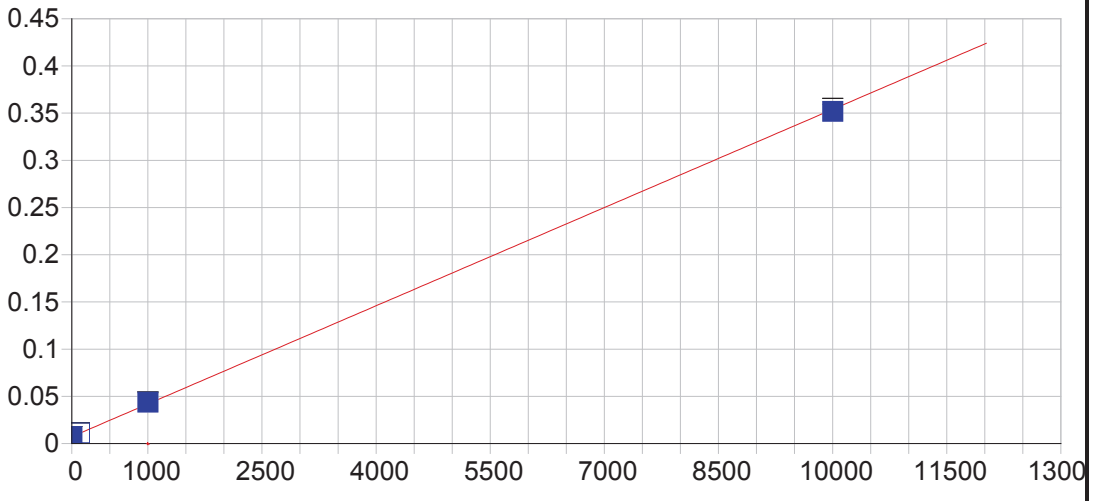


Ba 455.403 { 74}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000047	Re-Slope:	1.000000
A1 (Gain):	0.000028	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999768	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	0.246997		
Predicted MQL:	0.823324		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00026	-.000	.000	.00005	.000	1
CalStd7=50	50.000	55.351	5.35	10.7	.00157	.000	1
CalStd5=10	10.000	10.467	.467	4.67	.00033	.000	1
CalStd6=20	20.000	22.580	2.58	12.9	.00067	.000	1
CalStd8=100	100.00	106.73	6.73	6.73	.00298	.000	1
CalStd4=5	5.0000	5.9811	.981	19.6	.00021	.000	1
CalStd9=100	1000.0	1054.9	54.9	5.49	.02907	.000	1
CalStd3=1	1.0000	.66444	-.336	-33.6	.00006	.000	1
CalStd10=10	10000.	9929.3	-70.7	-.707	.27323	.005	1

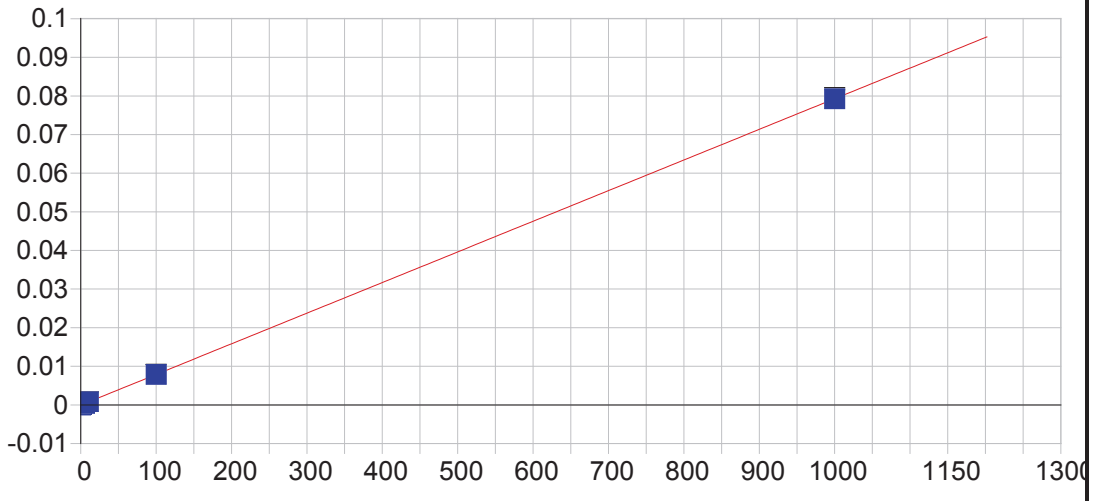


Ba 493.409 { 68}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.007279	Re-Slope:	1.000000
A1 (Gain):	0.000035	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999787	Status:	OK.
Std Error of Est:	0.000034		
Predicted MDL:	0.533043		
Predicted MQL:	1.776809		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01742	-.017	.000	.00728	.000	1
CalStd9=100	1000.0	1051.4	51.4	5.14	.04373	.000	1
CalStd8=100	100.00	112.93	12.9	12.9	.01119	.000	1
CalStd10=10	10000.	9935.7	-64.3	-.643	.35180	.003	1

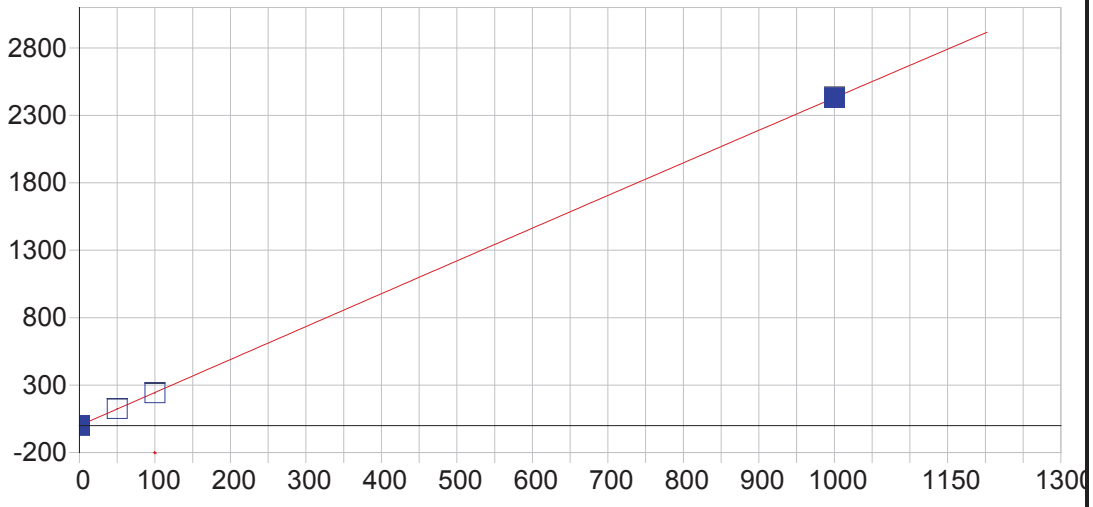


Be 313.042 {108}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000046	Re-Slope:	1.000000
A1 (Gain):	0.000079	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999988	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.028903		
Predicted MQL:	0.096345		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00011	-.000	.000	-.00005	.000	1
CalStd5=10	10.000	10.270	.270	2.70	.00077	.000	1
CalStd8=100	100.00	99.817	-.183	-.183	.00787	.000	1
CalStd2=0.5	.50000	.53171	.032	6.34	-.00000	.000	1
CalStd4=5	5.0000	5.2238	.224	4.48	.00037	.000	1
CalStd9=100	1000.0	999.58	-.422	-.042	.07925	.000	1
CalStd3=1	1.0000	1.0790	.079	7.90	.00004	.000	1

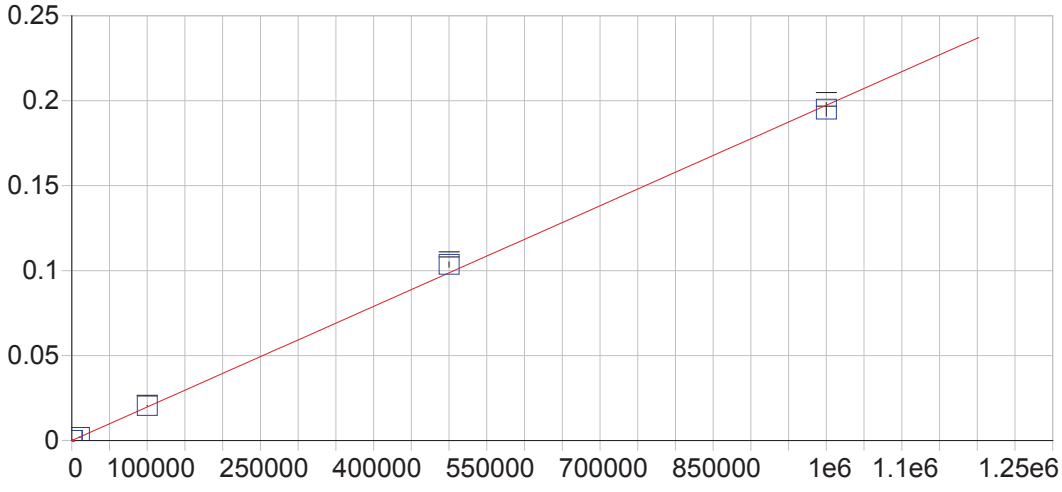


Be 234.861 {144}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Curvilinear	Weighting:	1/Var

A0 (Offset):	0.037926	Re-Slope:	1.000000
A1 (Gain):	2.454092	Y-int:	0.000000
A2 (Curvature):	-0.000024		
n (Exponent):	1.000000		
Correlation:	0.999984	Status:	OK.
Std Error of Est:	3.227153		
Predicted MDL:	0.295869		
Predicted MQL:	0.986231		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.18596	-.186	.000	-.41843	.647	1
CalStd9=100	1000.0	1000.1	.050	.005	2430.9	4.37	1
CalStd8=100	100.00	98.444	-1.56	-1.56	241.40	1.77	1
CalStd7=50	50.000	50.867	.867	1.73	124.81	.963	1

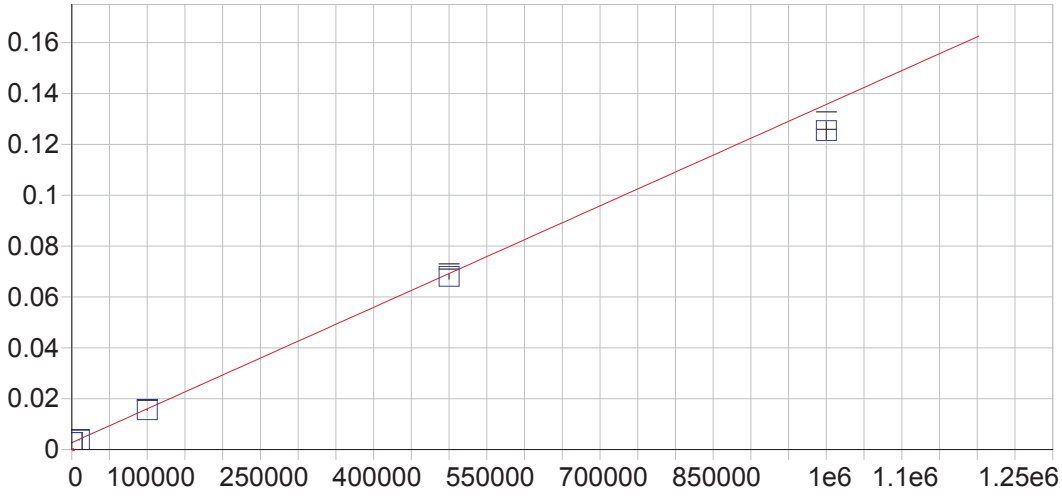


Ca 315.887 {107}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000041	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999597	Status:	OK.
Std Error of Est:	0.000004		
Predicted MDL:	7.306923		
Predicted MQL:	24.356411		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	2.5212	2.52	.000	.00004	.000	1
CalStd10=10	10000.	9798.3	-202.	-2.02	.00197	.000	1
CalStd13=10	100000.	103900.	3900.	3.90	.02054	.000	1
CalStd14=50	500000.	524840.	24800.	4.97	.10360	.002	1
CalStd9=100	1000.0	984.55	-15.4	-1.54	.00024	.000	1
CalibStd15=	1000000.	987640.	-12400.	-1.24	.19491	.004	1

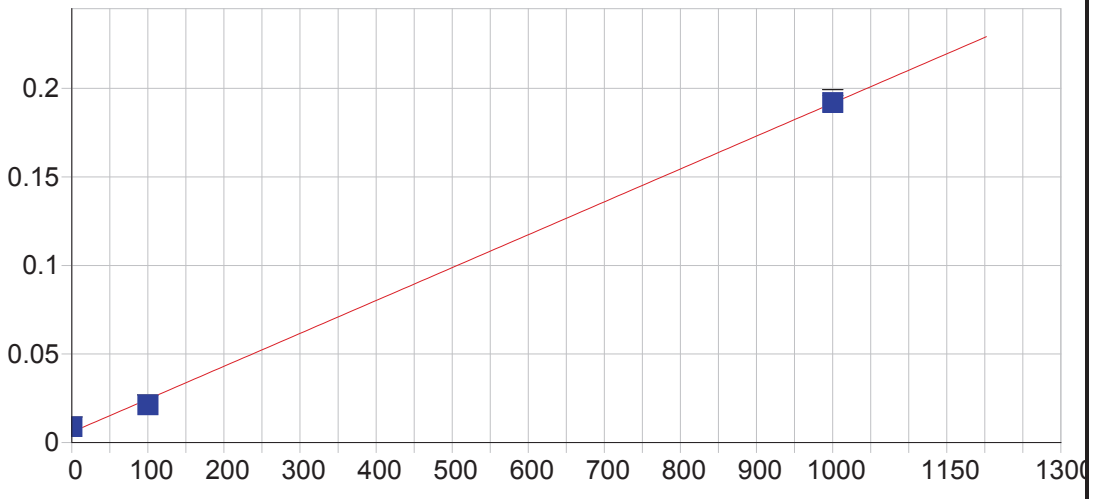


Ca 317.933 {106}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	0.002716	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999694	Status:	OK.
Std Error of Est:	0.000006		
Predicted MDL:	15.273984		
Predicted MQL:	50.913280		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.69906	.699	.000	.00272	.000	1
CalStd10=10	10000.	8082.9	-1920.	-19.2	.00379	.000	1
CalStd13=10	100000.	96680.	-3320.	-3.32	.01557	.000	1
CalStd14=50	500000.	491160.	-8840.	-1.77	.06804	.001	1
CalStd9=100	1000.0	503.32	-497.	-49.7	.00278	.000	1
CalibStd15=	1000000.	922470.	-77500.	-7.75	.12540	.003	1

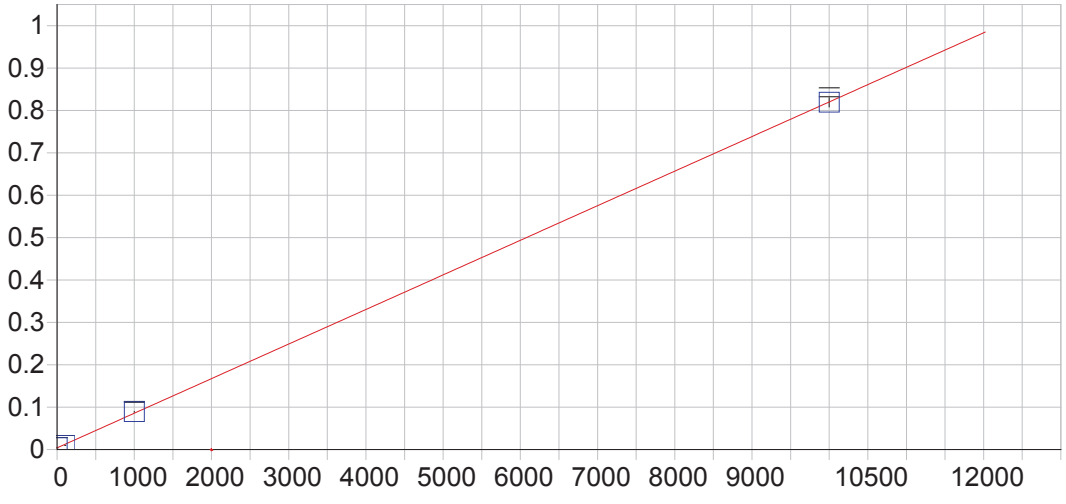


Ca 393.366 { 86}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	0.005900	Re-Slope:	1.000000
A1 (Gain):	0.000186	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999555	Status:	OK.
Std Error of Est:	0.004317		
Predicted MDL:	0.026563		
Predicted MQL:	0.088545		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	15.506	15.5	.000	.00878	.000	1
CalStd9=100	1000.0	1001.7	1.72	.172	.19195	.002	1
CalStd8=100	100.00	82.771	-17.2	-17.2	.02127	.000	1

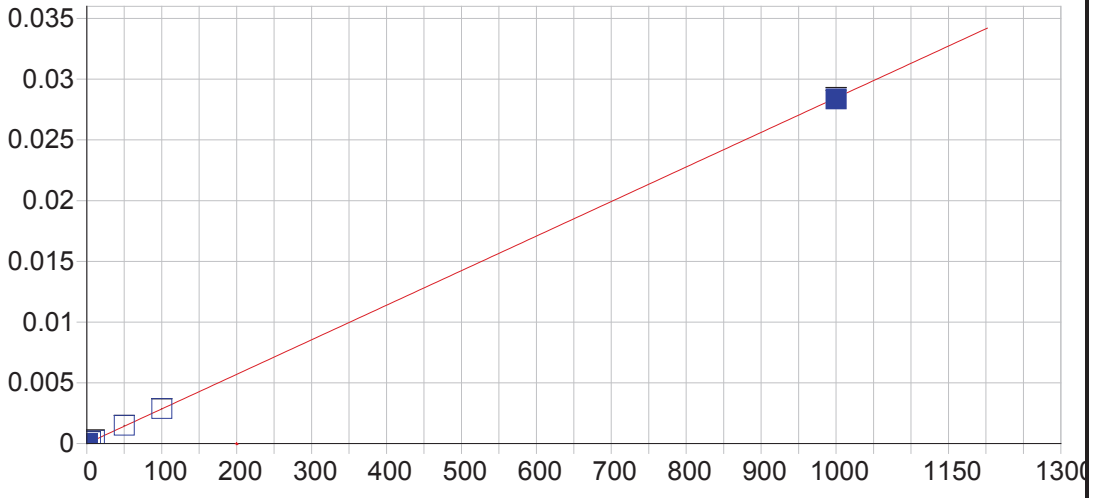


Ca 396.847 { 85}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.004099	Re-Slope:	1.000000
A1 (Gain):	0.000082	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999558	Status:	OK.
Std Error of Est:	0.000114		
Predicted MDL:	0.058700		
Predicted MQL:	0.195667		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.02468	.025	.000	.00410	.000	1
CalStd10=10	10000.	9988.2	-11.8	-.118	.81917	.010	1
CalStd8=100	100.00	71.399	-28.6	-28.6	.00993	.000	1
CalStd9=100	1000.0	1040.4	40.4	4.04	.08900	.001	1

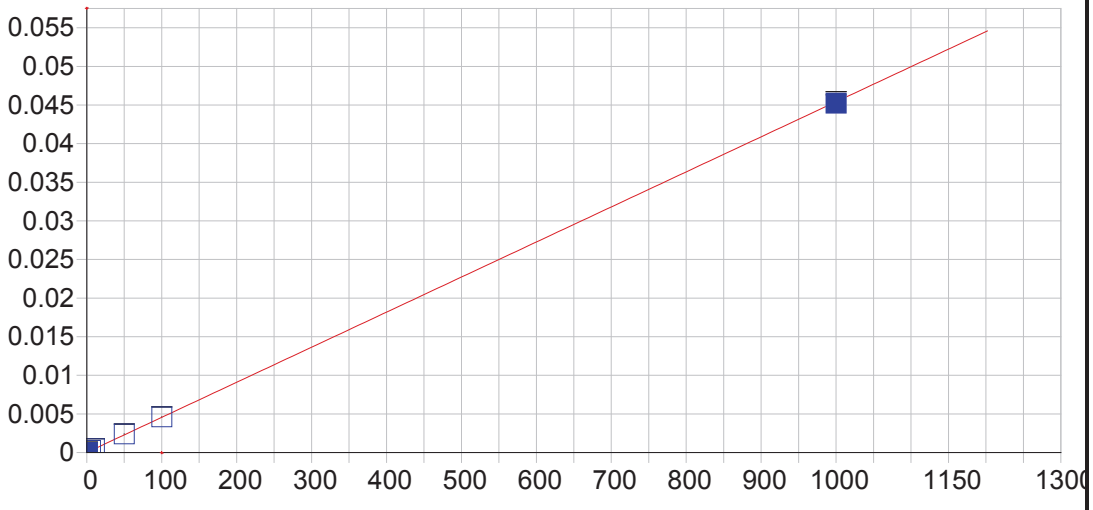


Cd 226.502 {449}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000004	Re-Slope:	1.000000
A1 (Gain):	0.000028	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999935	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.197999		
Predicted MQL:	0.659996		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00020	-.000	.000	.00000	.000	1
CalStd7=50	50.000	52.190	2.19	4.38	.00149	.000	1
CalStd3=1	1.0000	1.1148	.115	11.5	.00004	.000	1
CalStd2=0.5	.50000	.59693	.097	19.4	.00002	.000	1
CalStd4=5	5.0000	5.1558	.156	3.12	.00015	.000	1
CalStd8=100	100.00	100.62	.624	.624	.00287	.000	1
CalStd5=10	10.000	10.170	.170	1.70	.00029	.000	1
CalStd9=100	1000.0	996.65	-3.35	-.335	.02837	.000	1

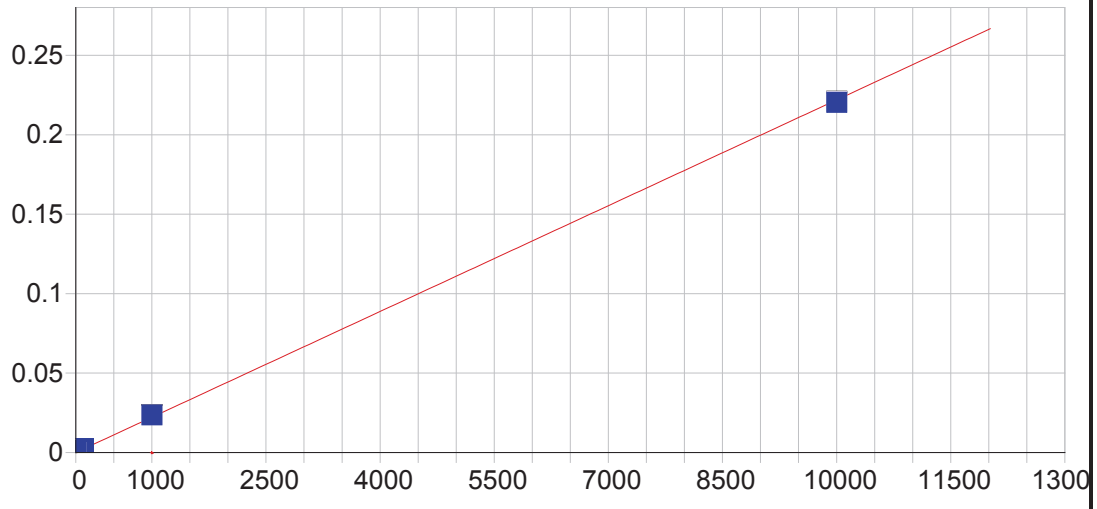


Cd 228.802 {447}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000020	Re-Slope:	1.000000
A1 (Gain):	0.000045	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999920	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.159077		
Predicted MQL:	0.530258		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00017	-.000	.000	.00002	.000	1
CalStd7=50	50.000	52.315	2.32	4.63	.00239	.000	1
CalStd3=1	1.0000	1.0929	.093	9.29	.00007	.000	1
CalStd2=0.5	.50000	.54854	.049	9.71	.00004	.000	1
CalStd4=5	5.0000	5.3890	.389	7.78	.00026	.000	1
CalStd8=100	100.00	101.12	1.12	1.12	.00461	.000	1
CalStd5=10	10.000	10.241	.241	2.41	.00048	.000	1
CalStd9=100	1000.0	995.79	-4.21	-.421	.04523	.000	1

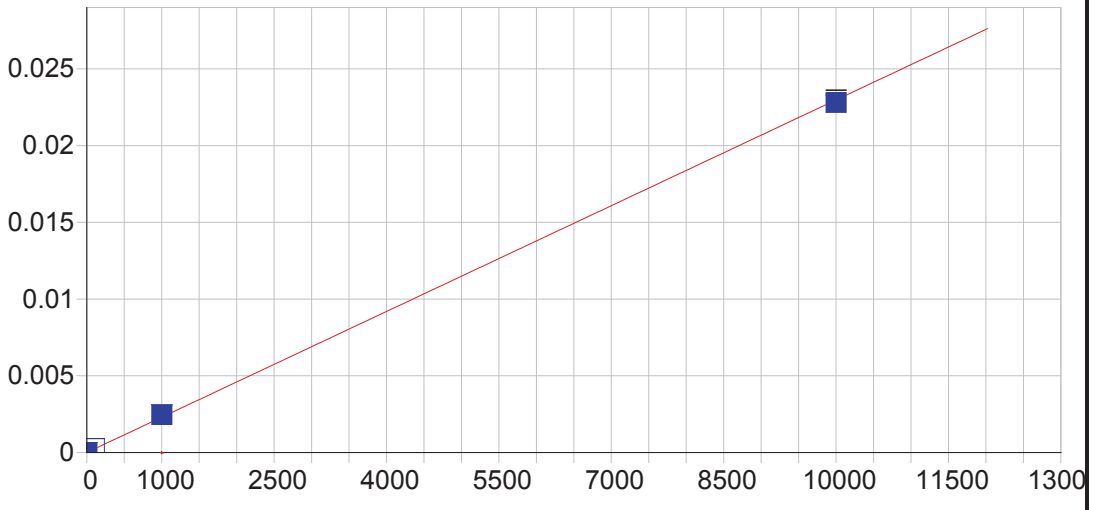


Co 228.616 {447}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000011	Re-Slope:	1.000000
A1 (Gain):	0.000022	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999734	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	0.286842		
Predicted MQL:	0.956139		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00051	-.001	.000	.00001	.000	1
CalStd7=50	50.000	55.991	5.99	12.0	.00126	.000	1
CalStd5=10	10.000	10.910	.910	9.10	.00025	.000	1
CalStd4=5	5.0000	5.8200	.820	16.4	.00014	.000	1
CalStd8=100	100.00	107.34	7.34	7.34	.00240	.000	1
CalStd9=100	1000.0	1062.5	62.5	6.25	.02364	.000	1
CalStd3=1	1.0000	1.0077	.008	.766	.00003	.000	1
CalStd10=10	10000.	9922.5	-77.5	-.775	.22092	.000	1

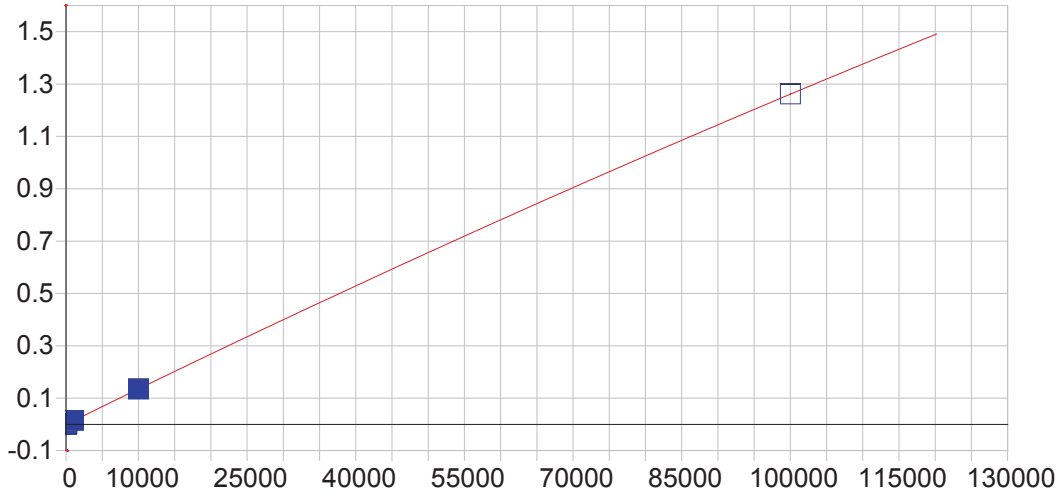


Co 238.892 {141}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999718	Status:	OK.
Std Error of Est:	0.000003		
Predicted MDL:	0.688067		
Predicted MQL:	2.293558		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01519	-.015	.000	.00000	.000	1
CalStd9=100	1000.0	1069.4	69.4	6.94	.00246	.000	1
CalStd10=10	10000.	9921.5	-78.5	-.785	.02280	.000	1
CalStd8=100	100.00	109.04	9.04	9.04	.00025	.000	1

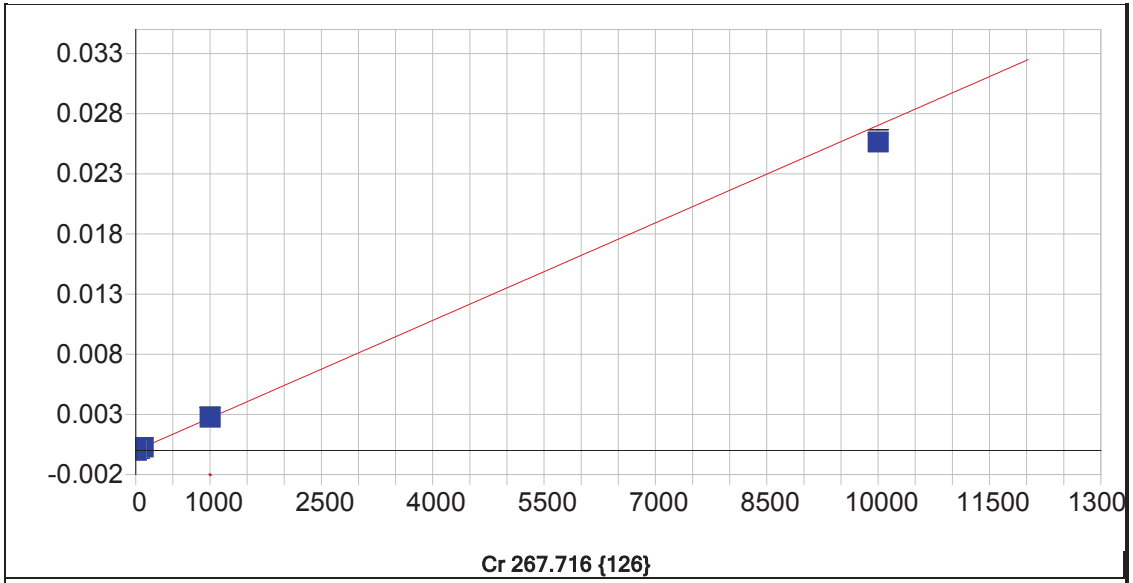


Cr 205.560 {464}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	-0.000007	Re-Slope:	1.000000
A1 (Gain):	0.000014	Y-int:	0.000000
A2 (Curvature):	-0.000000		
n (Exponent):	1.000000		
Correlation:	0.999969	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.333718		
Predicted MQL:	1.112392		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00108	-.001	.000	-.00001	.000	1
CalStd5=10	10.000	10.810	.810	8.10	.00014	.000	1
CalStd7=50	50.000	55.528	5.53	11.1	.00075	.000	1
CalStd9=100	1000.0	1058.3	58.3	5.83	.01441	.000	1
CalStd8=100	100.00	106.35	6.35	6.35	.00144	.000	1
CalStd4=5	5.0000	6.9798	1.98	39.6	.00009	.000	1
CalStd3=1	1.0000	1.3757	.376	37.6	.00001	.000	1
CalStd10=10	10000.	9918.1	-81.9	-.819	.13421	.000	1
CalStd12=10	100000.	100010.	8.80	.009	1.2614	.001	1

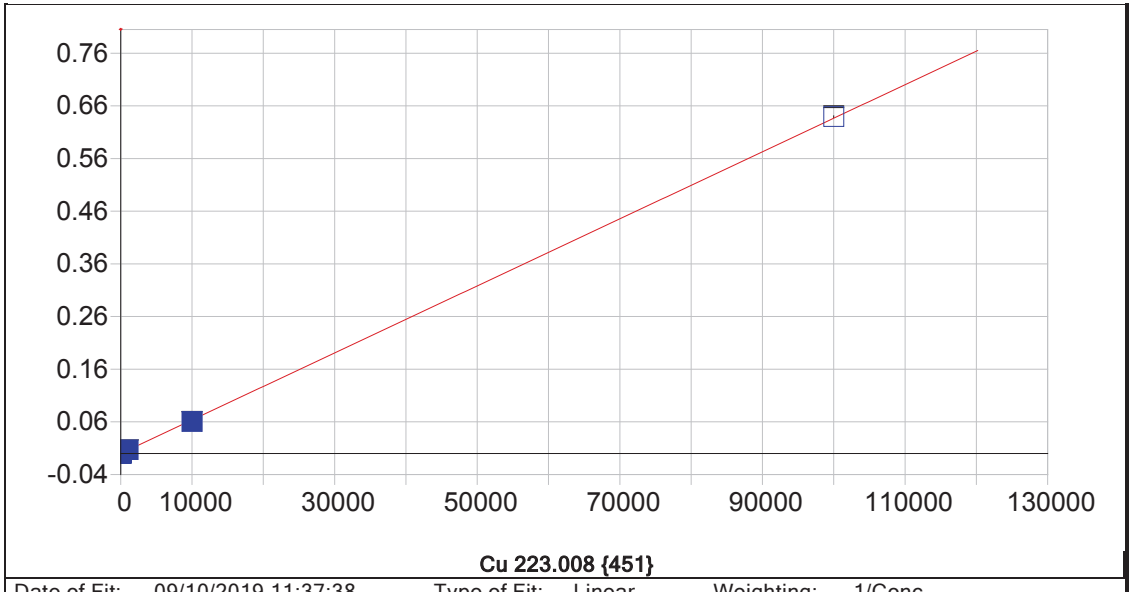


Cr 267.716 {126}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999331	Status:	OK.
Std Error of Est:	0.000005		
Predicted MDL:	0.742293		
Predicted MQL:	2.474311		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.84939	-.849	.000	-.00000	.000	1
CalStd5=10	10.000	9.2061	-.794	-7.94	.00003	.000	1
CalStd7=50	50.000	51.969	1.97	3.94	.00014	.000	1
CalStd9=100	1000.0	1018.7	18.7	1.87	.00276	.000	1
CalStd8=100	100.00	100.39	.388	.388	.00027	.000	1
CalStd4=5	5.0000	5.6207	.621	12.4	.00002	.000	1
CalStd10=10	10000.	9482.9	-517.	-5.17	.02564	.000	1

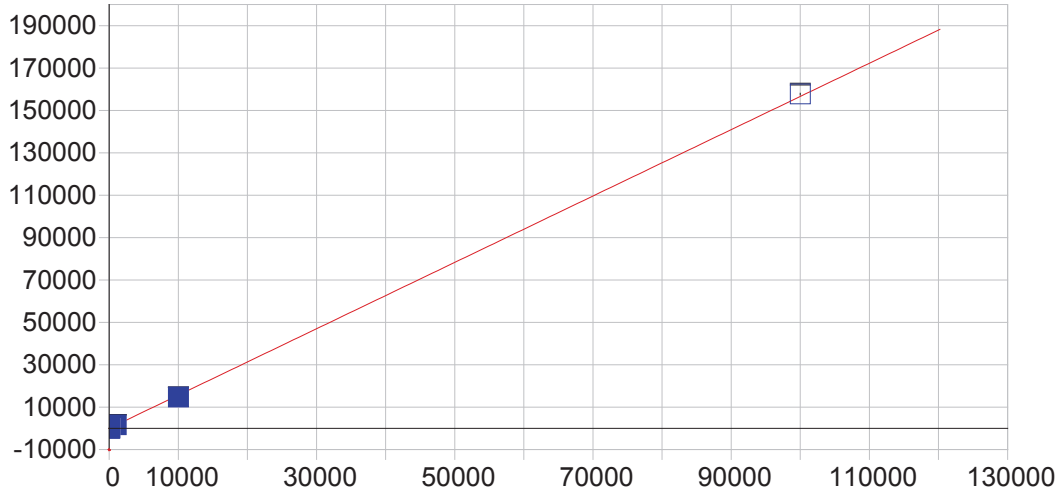


Cu 223.008 {451}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000005	Re-Slope:	1.000000
A1 (Gain):	0.000006	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999862	Status:	OK.
Std Error of Est:	0.000004		
Predicted MDL:	0.886774		
Predicted MQL:	2.955914		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00532	-.005	.000	-.00000	.000	1
CalStd9=100	1000.0	1034.3	34.3	3.43	.00658	.000	1
CalStd7=50	50.000	56.579	6.58	13.2	.00036	.000	1
CalStd8=100	100.00	105.31	5.31	5.31	.00067	.000	1
CalStd6=20	20.000	23.942	3.94	19.7	.00015	.000	1
CalStd12=10	100000.	100450.	452.	.452	.63938	.002	1
CalStd10=10	10000.	9496.6	-503.	-5.03	.06044	.000	1
CalStd5=10	10.000	11.620	1.62	16.2	.00007	.000	1

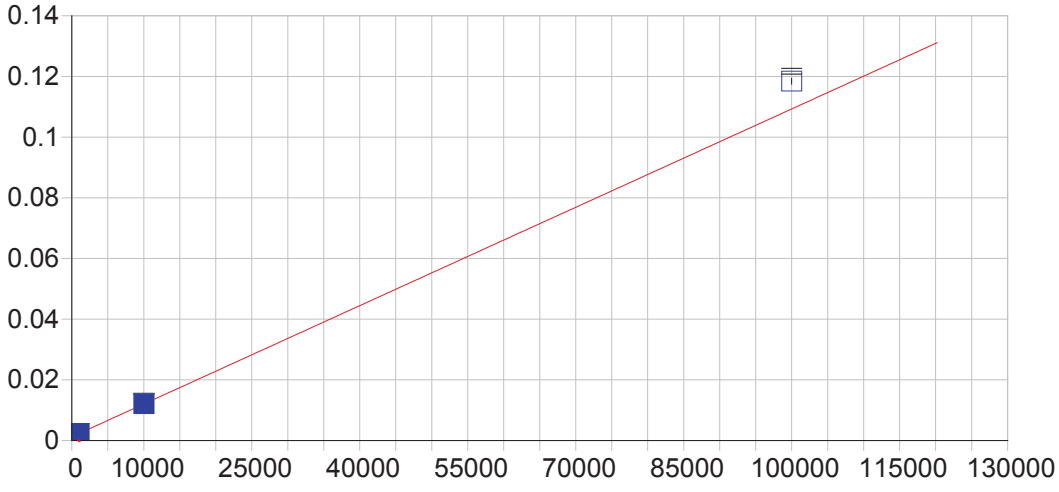


Cu 224.700 {450}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.105419	Re-Slope:	1.000000
A1 (Gain):	1.566271	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999561	Status:	OK.
Std Error of Est:	2.586859		
Predicted MDL:	0.555476		
Predicted MQL:	1.851588		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.03901	.039	.000	.16653	.484	1
CalStd9=100	1000.0	990.77	-9.23	-.923	1541.0	1.96	1
CalStd7=50	50.000	14.445	-35.6	-71.1	22.730	.379	1
CalStd8=100	100.00	52.008	-48.0	-48.0	80.461	2.40	1
CalStd6=20	20.000	6.0284	-14.0	-69.9	9.5476	.588	1
CalStd12=10	100000.	100690.	690.	.690	157710.	382.	1
CalStd10=10	10000.	9412.0	-588.	-5.88	14632.	27.6	1

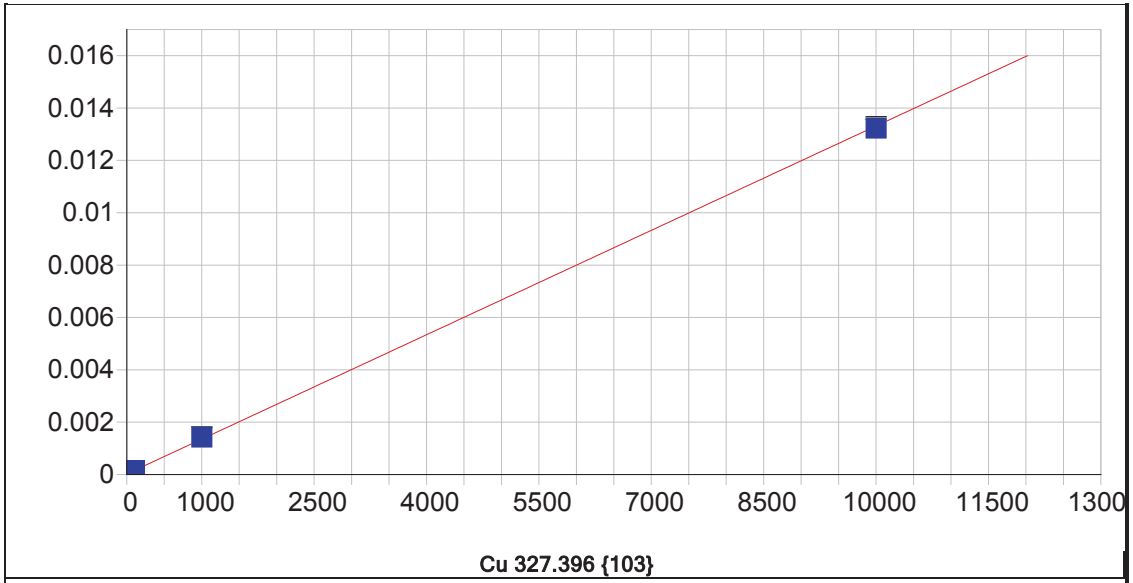


Cu 324.754 {104}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Curvilinear	Weighting:	1/Var

A0 (Offset):	0.001233	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999937	Status:	OK.
Std Error of Est:	0.000013		
Predicted MDL:	3.578806		
Predicted MQL:	11.929353		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	30.053	30.1	.000	.00127	.000	1
CalStd9=100	1000.0	1012.7	12.7	1.27	.00233	.000	1
CalStd8=100	100.00	84.425	-15.6	-15.6	.00132	.000	1
CalStd10=10	10000.	10066.	65.7	.657	.01210	.000	1
CalStd12=10	100000.	108450.	8450.	8.45	.11841	.001	1
CalStd5=10	10.000	11.730	1.73	17.3	.00125	.000	1
CalStd6=20	20.000	-6.9238	-26.9	-135.	.00123	.000	1
CalStd7=50	50.000	52.014	2.01	4.03	.00129	.000	1

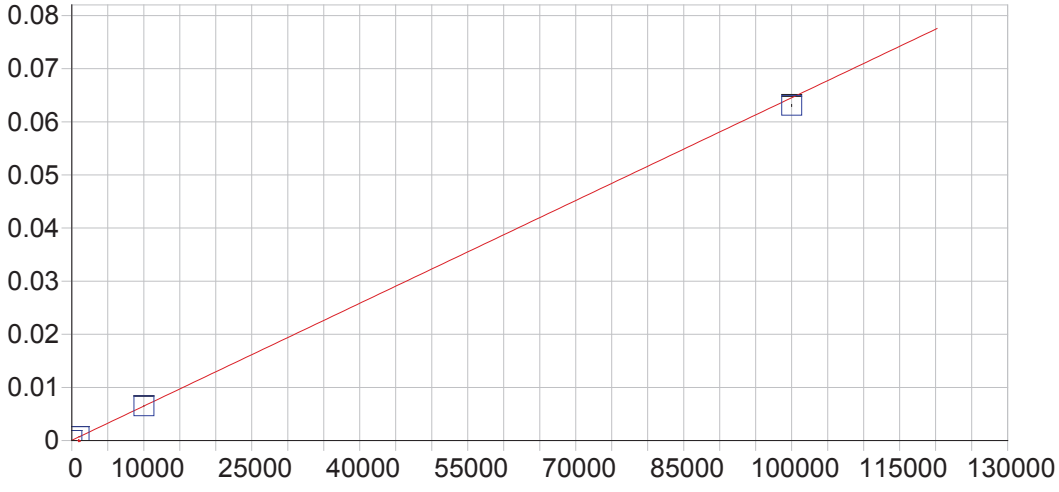


Cu 327.396 {103}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000024	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999770	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	3.708158		
Predicted MQL:	12.360528		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00024	.000	.000	.00002	.000	1
CalStd6=20	20.000	22.111	2.11	10.6	.00005	.000	1
CalStd7=50	50.000	56.658	6.66	13.3	.00010	.000	1
CalStd8=100	100.00	105.65	5.65	5.65	.00016	.000	1
CalStd9=100	1000.0	1052.3	52.3	5.23	.00142	.000	1
CalStd10=10	10000.	9935.6	-64.4	-.644	.01323	.000	1
CalStd4=5	5.0000	3.3689	-1.63	-32.6	.00003	.000	1
CalStd5=10	10.000	9.3643	-.636	-6.36	.00004	.000	1

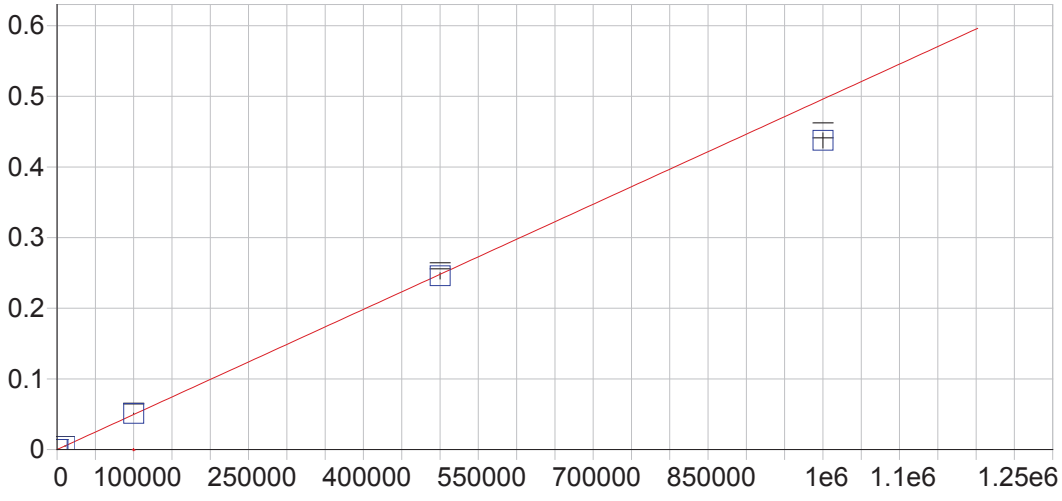


Fe 234.349 {144}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000038	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999122	Status:	OK.
Std Error of Est:	0.000034		
Predicted MDL:	1.388829		
Predicted MQL:	4.629431		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-14.954	-15.0	.000	.00003	.000	1
CalStd10=10	10000.	10033.	33.1	.331	.00651	.000	1
CalStd13=10	100000.	97758.	-2240.	-2.24	.06308	.000	1
CalStd9=100	1000.0	1071.5	71.5	7.15	.00073	.000	1

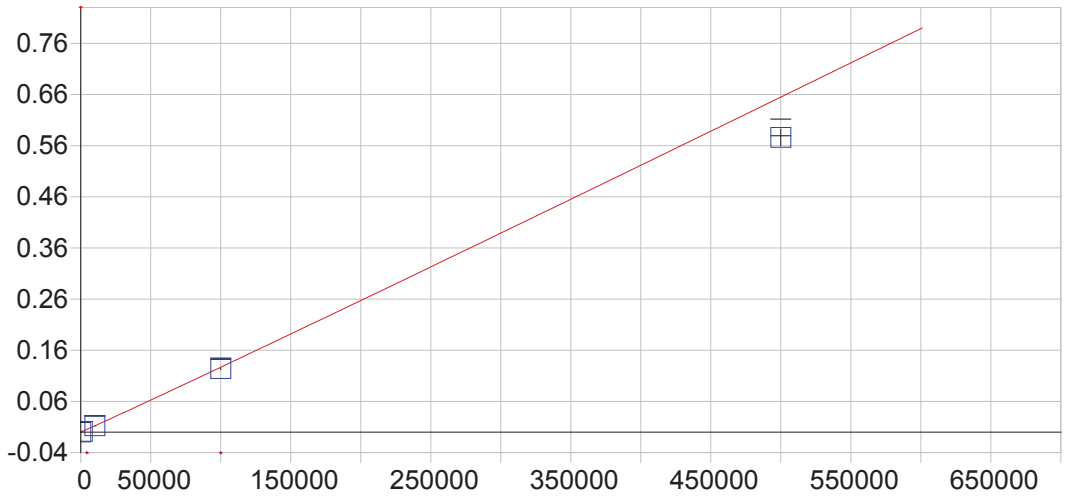


Fe 239.562 {140}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999257	Status:	OK.
Std Error of Est:	0.000012		
Predicted MDL:	3.029957		
Predicted MQL:	10.099855		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.5768	-1.58	.000	.00000	.000	1
CalStd10=10	10000.	9905.4	-94.6	-.946	.00492	.000	1
CalStd13=10	100000.	102600.	2600.	2.60	.05090	.001	1
CalStd14=50	500000.	495650.	-4350.	-.869	.24588	.004	1
CalStd9=100	1000.0	1043.5	43.5	4.35	.00052	.000	1
CalibStd15=	1000000.	882050.	-118000.	-11.8	.43755	.011	1

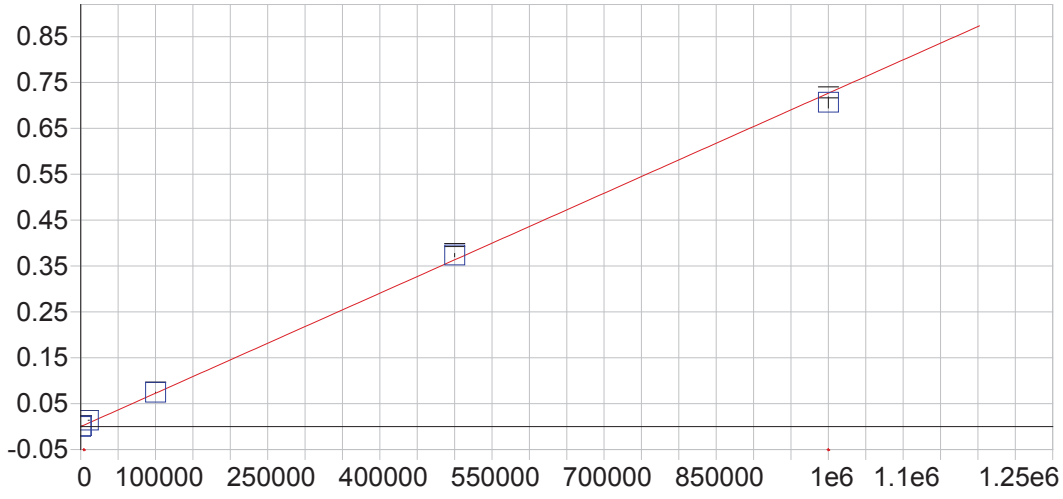


Fe 259.940 {129}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Full Fit	Weighting:	1/Conc

A0 (Offset):	0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.020000		
Correlation:	0.999992	Status:	OK.
Std Error of Est:	0.000008		
Predicted MDL:	1.946144		
Predicted MQL:	6.487145		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00000	.000	1
CalStd10=10	10000.	9879.3	-121.	-1.21	.01196	.000	1
CalStd13=10	100000.	97728.	-2270.	-2.27	.12389	.001	1
CalStd14=50	500000.	440820.	-59200.	-11.8	.57595	.016	1
CalStd9=100	1000.0	1089.4	89.4	8.94	.00126	.000	1

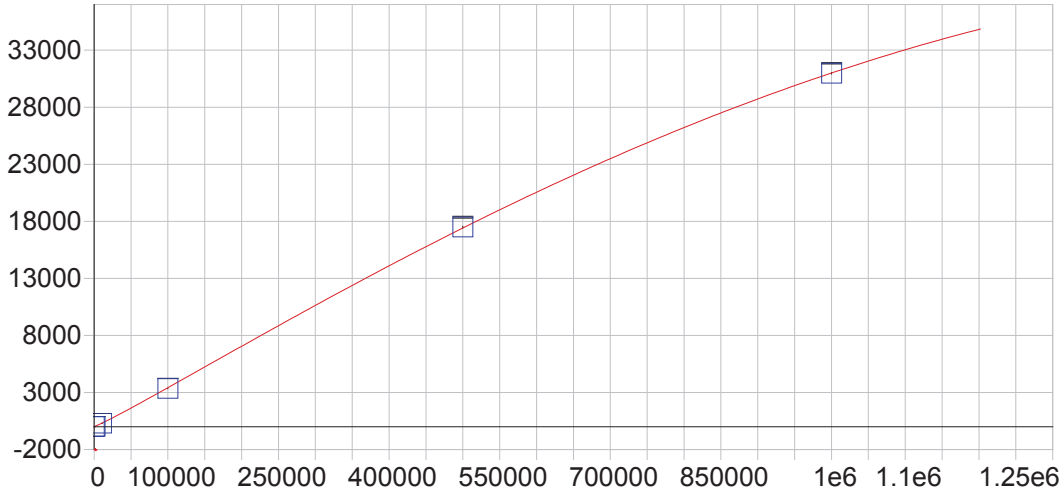


Mg 202.582 {466}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000009	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.996619	Status:	OK.
Std Error of Est:	0.000093		
Predicted MDL:	8.227874		
Predicted MQL:	27.426246		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-2.0375	-2.04	.000	.00001	.000	1
CalStd13=10	100000.	102860.	2860.	2.86	.07475	.000	1
CalStd10=10	10000.	19222.	9220.	92.2	.01398	.000	1
CalStd14=50	500000.	514450.	14400.	2.89	.37386	.003	1
CalStd9=100	1000.0	2085.5	1090.	109.	.00152	.000	1
CalibStd15=	1000000.	972390.	-27600.	-2.76	.70665	.012	1

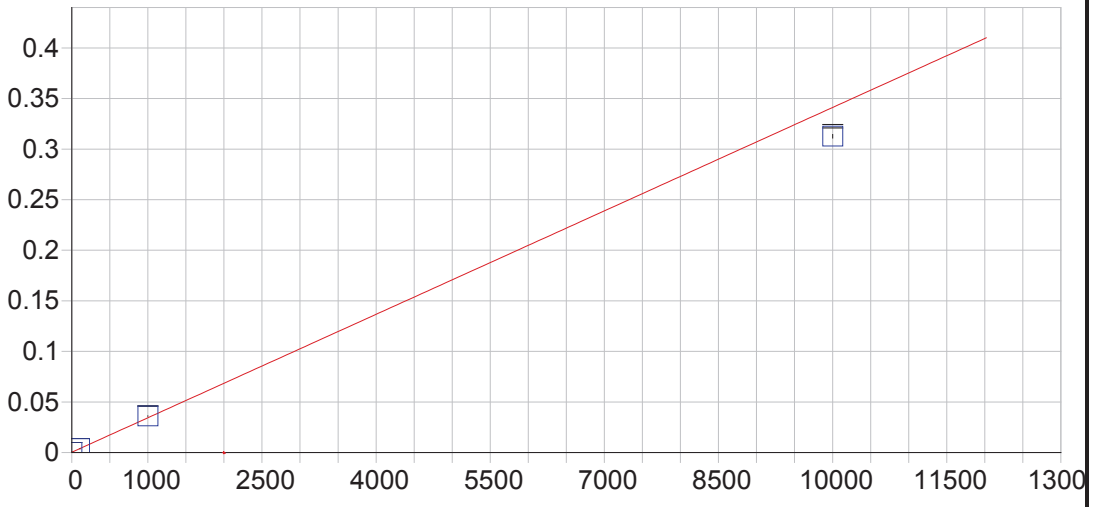


Mg 279.079 {121}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Full Fit	Weighting:	1/Conc

A0 (Offset):	-0.142885	Re-Slope:	1.000000
A1 (Gain):	0.013920	Y-int:	0.000000
A2 (Curvature):	-0.000000		
n (Exponent):	1.080000		
Correlation:	0.999954	Status:	OK.
Std Error of Est:	0.685524		
Predicted MDL:	48.382200		
Predicted MQL:	161.274001		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	-.15217	.799	1
CalStd13=10	100000.	98079.	-1920.	-1.92	3350.8	10.8	1
CalStd10=10	10000.	10575.	575.	5.75	308.21	1.50	1
CalStd14=50	500000.	502230.	2230.	.446	17487.	81.8	1
CalStd9=100	1000.0	1305.2	305.	30.5	32.104	.775	1
CalibStd15=	1000000.	998730.	-1270.	-.127	30970.	57.4	1

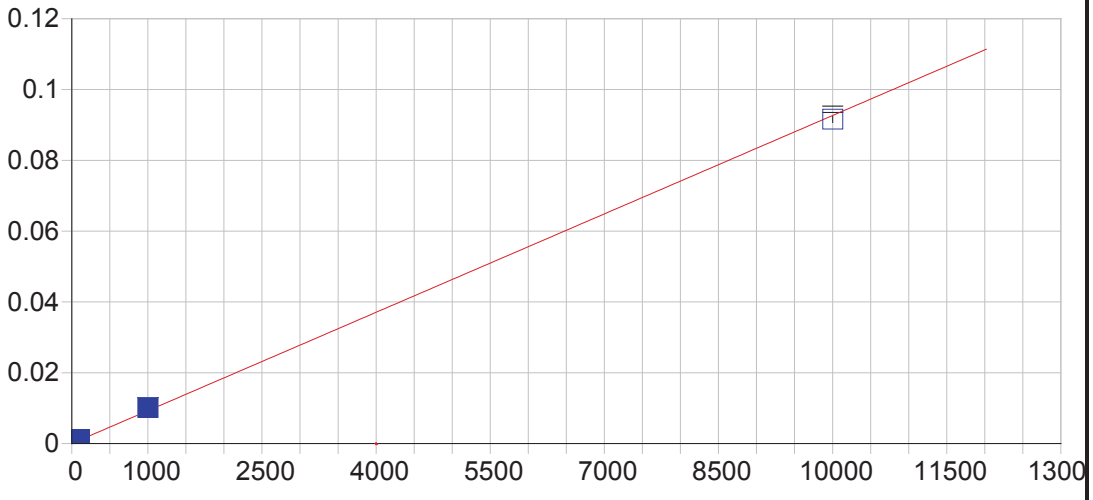


Mg 280.270 {120}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000307	Re-Slope:	1.000000
A1 (Gain):	0.000034	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998397	Status:	OK.
Std Error of Est:	0.000048		
Predicted MDL:	0.032233		
Predicted MQL:	0.107442		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01978	-.020	.000	.00031	.000	1
CalStd9=100	1000.0	1048.5	48.5	4.85	.03605	.000	1
CalStd10=10	10000.	9162.9	-837.	-8.37	.31265	.002	1
CalStd8=100	100.00	101.65	1.65	1.65	.00377	.000	1

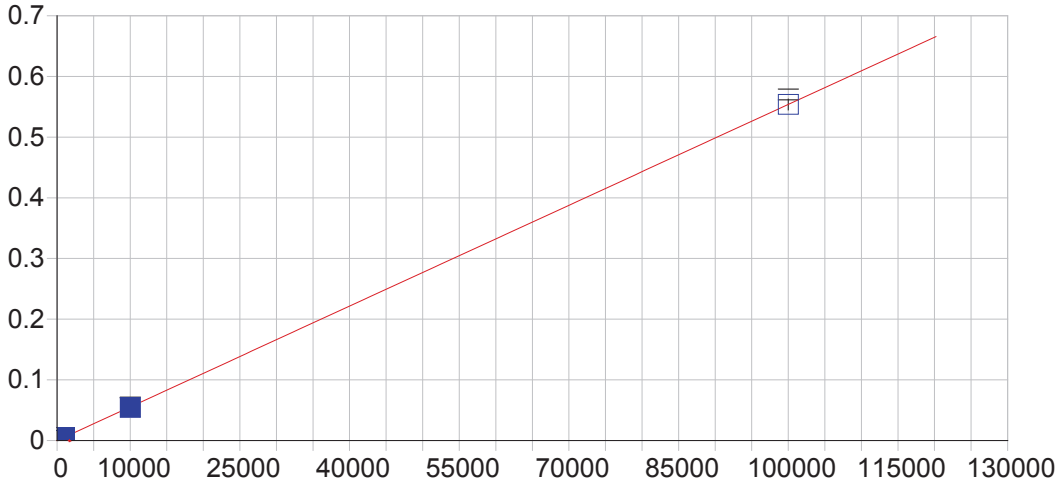


Mn 257.610 {131}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000007	Re-Slope:	1.000000
A1 (Gain):	0.000009	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999420	Status:	OK.
Std Error of Est:	0.000003		
Predicted MDL:	0.105572		
Predicted MQL:	0.351906		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00369	-.004	.000	.00001	.000	1
CalStd5=10	10.000	10.888	.888	8.88	.00011	.000	1
CalStd7=50	50.000	57.655	7.65	15.3	.00054	.000	1
CalStd6=20	20.000	22.564	2.56	12.8	.00022	.000	1
CalStd8=100	100.00	110.18	10.2	10.2	.00103	.000	1
CalStd4=5	5.0000	5.9231	.923	18.5	.00006	.000	1
CalStd9=100	1000.0	1094.1	94.1	9.41	.01015	.000	1
CalStd10=10	10000.	9883.7	-116.	-1.16	.09159	.001	1

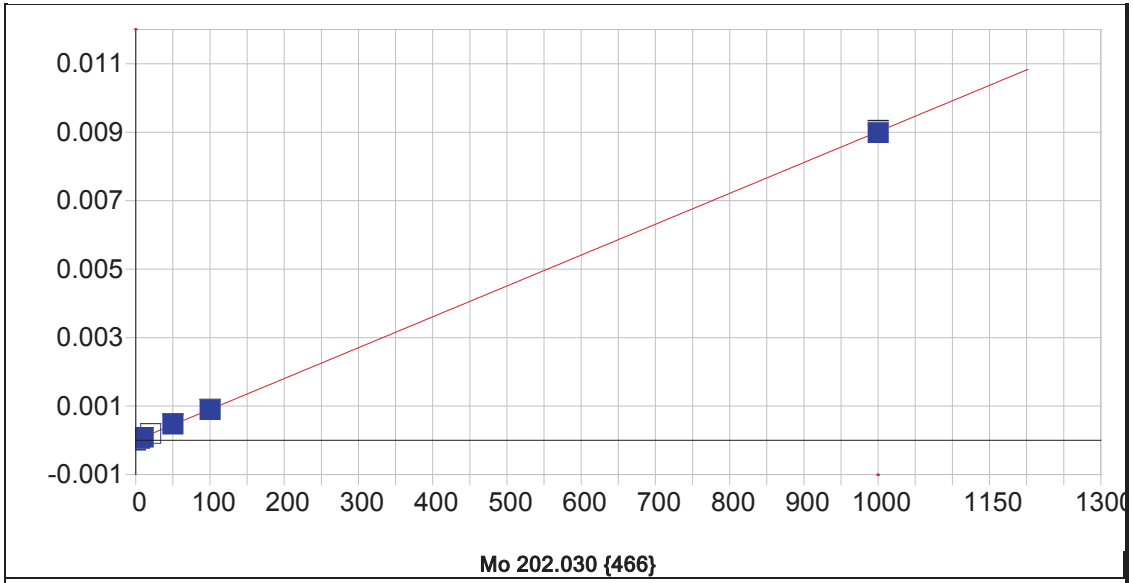


Mn 259.373 {130}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000005	Re-Slope:	1.000000
A1 (Gain):	0.000006	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999758	Status:	OK.
Std Error of Est:	0.000011		
Predicted MDL:	0.398079		
Predicted MQL:	1.326931		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.04002	-.040	.000	.00001	.000	1
CalStd10=10	10000.	9792.4	-208.	-2.08	.05431	.000	1
CalStd9=100	1000.0	1026.7	26.7	2.67	.00570	.000	1
CalStd12=10	100000.	99971.	-29.1	-.029	.55367	.009	1

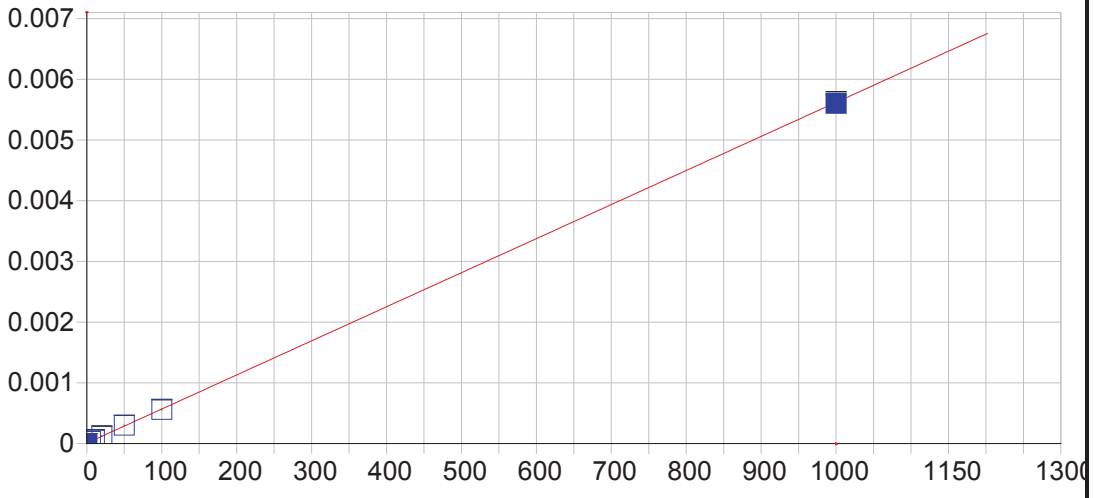


Mo 202.030 {466}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000009	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999873	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.428423		
Predicted MQL:	1.428078		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00100	-.001	.000	.00000	.000	1
CalStd7=50	50.000	52.207	2.21	4.41	.00047	.000	1
CalStd6=20	20.000	21.723	1.72	8.62	.00020	.000	1
CalStd5=10	10.000	9.9518	-.048	-.482	.00009	.000	1
CalStd8=100	100.00	99.291	-.709	-.709	.00090	.000	1
CalStd4=5	5.0000	5.4282	.428	8.56	.00005	.000	1
CalStd9=100	1000.0	996.40	-3.60	-.360	.00900	.000	1

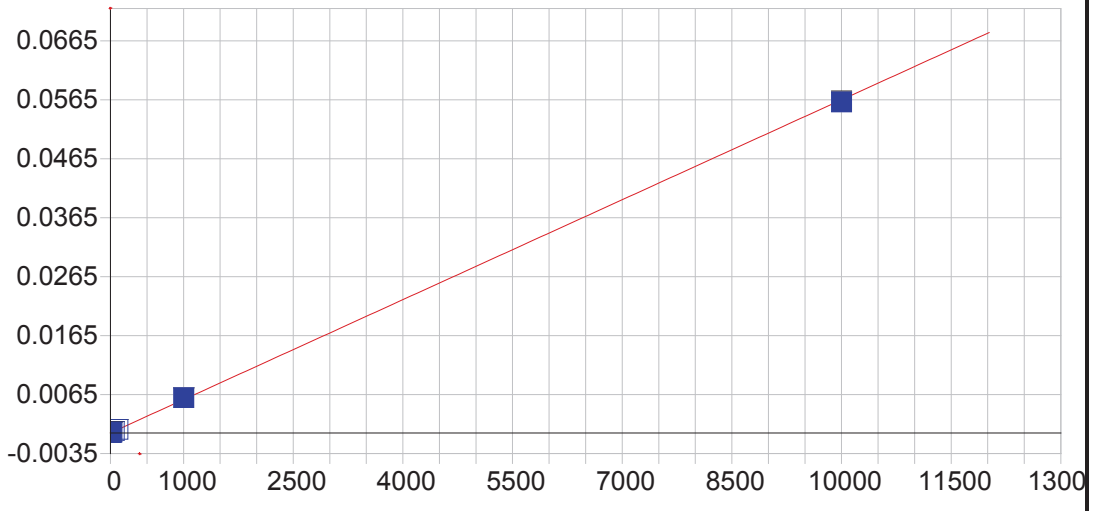


Mo 203.844 {465}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000007	Re-Slope:	1.000000
A1 (Gain):	0.000006	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999795	Status:	OK.
Std Error of Est:	0.000007		
Predicted MDL:	0.884494		
Predicted MQL:	2.948312		

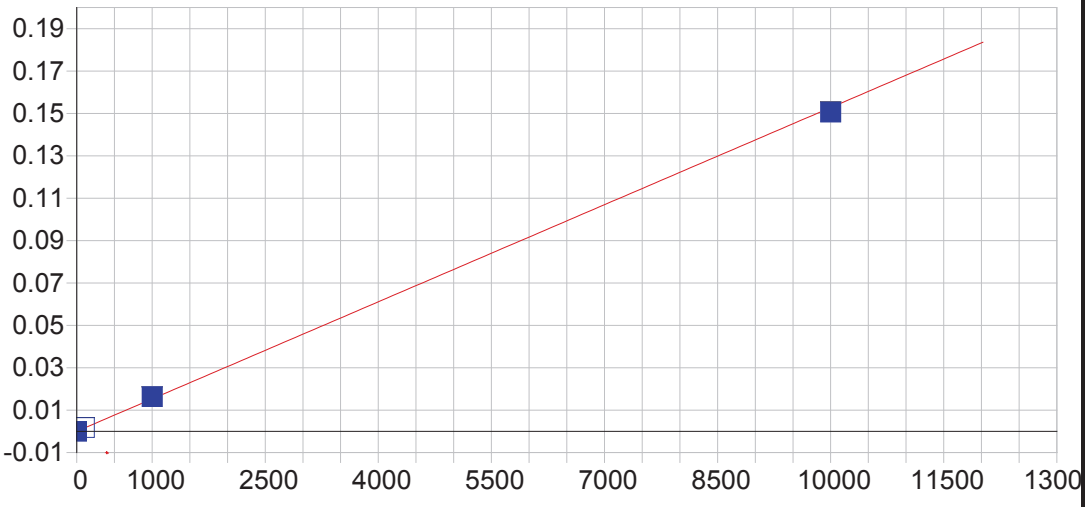
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.71030	-.710	.000	.00000	.000	1
CalStd7=50	50.000	51.894	1.89	3.79	.00030	.000	1
CalStd6=20	20.000	20.306	.306	1.53	.00012	.000	1
CalStd5=10	10.000	9.6758	-.324	-3.24	.00006	.000	1
CalStd8=100	100.00	98.227	-1.77	-1.77	.00056	.000	1
CalStd4=5	5.0000	4.6920	-.308	-6.16	.00003	.000	1
CalStd9=100	1000.0	996.71	-3.29	-.329	.00560	.000	1



Mo 204.598 {464}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000006		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999809		Status:	OK.	
Std Error of Est:	0.000009				
Predicted MDL:	0.818363				
Predicted MQL:	2.727877				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.96318	-.963	.000	-.00001	.000	1
CalStd7=50	50.000	53.613	3.61	7.23	.00030	.000	1
CalStd6=20	20.000	21.310	1.31	6.55	.00012	.000	1
CalStd5=10	10.000	10.054	.054	.536	.00006	.000	1
CalStd8=100	100.00	104.34	4.34	4.34	.00059	.000	1
CalStd4=5	5.0000	4.9025	-.098	-1.95	.00003	.000	1
CalStd9=100	1000.0	1052.4	52.4	5.24	.00595	.000	1
CalStd10=10	10000.	9933.1	-66.9	-.669	.05614	.000	1

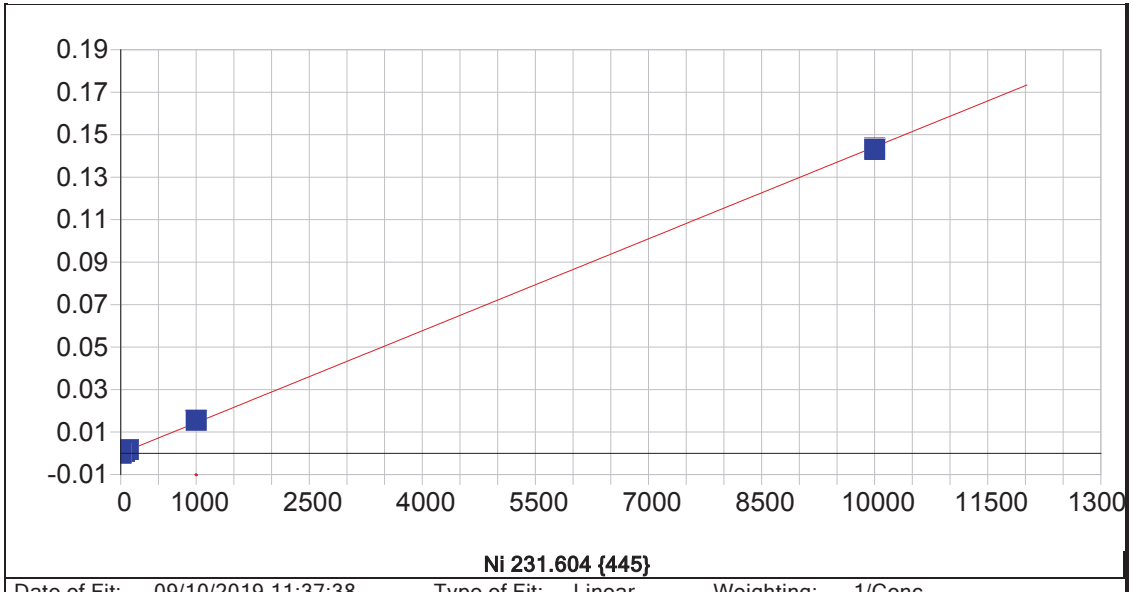


Ni 221.647 {452}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000022	Re-Slope:	1.000000
A1 (Gain):	0.000015	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999382	Status:	OK.
Std Error of Est:	0.000109		
Predicted MDL:	0.488572		
Predicted MQL:	1.628575		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.5100	-1.51	.000	-.00000	.000	1
CalStd10=10	10000.	9859.8	-140.	-1.40	.15064	.000	1
CalStd8=100	100.00	109.80	9.80	9.80	.00170	.000	1
CalStd9=100	1000.0	1064.5	64.5	6.45	.01628	.000	1

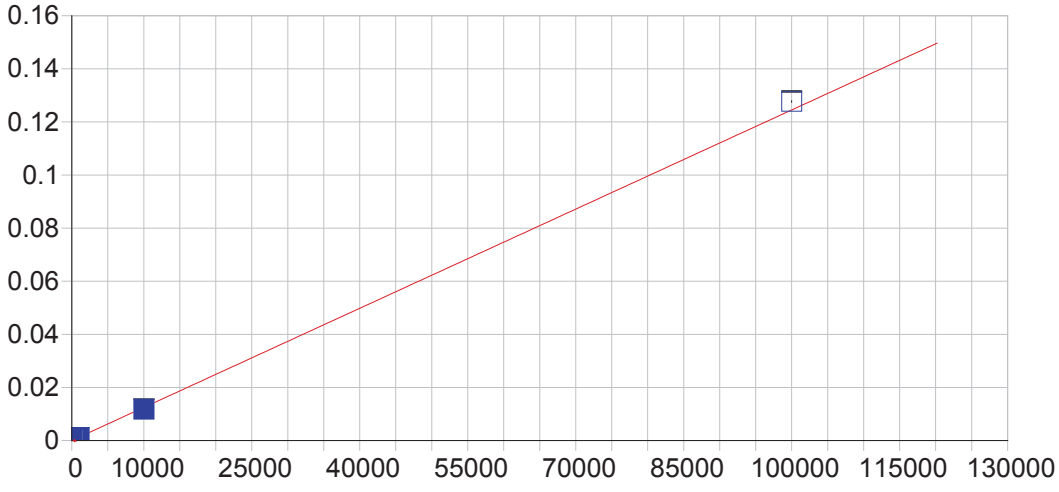


Ni 231.604 {445}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000009	Re-Slope:	1.000000
A1 (Gain):	0.000014	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999638	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	0.507998		
Predicted MQL:	1.693327		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00094	-.001	.000	-.00001	.000	1
CalStd7=50	50.000	56.282	6.28	12.6	.00081	.000	1
CalStd5=10	10.000	10.868	.868	8.68	.00015	.000	1
CalStd8=100	100.00	111.52	11.5	11.5	.00160	.000	1
CalStd4=5	5.0000	6.3785	1.38	27.6	.00008	.000	1
CalStd9=100	1000.0	1068.6	68.6	6.86	.01544	.000	1
CalStd3=1	1.0000	1.2785	.278	27.8	.00001	.000	1
CalStd10=10	10000.	9911.2	-88.8	-.888	.14356	.000	1

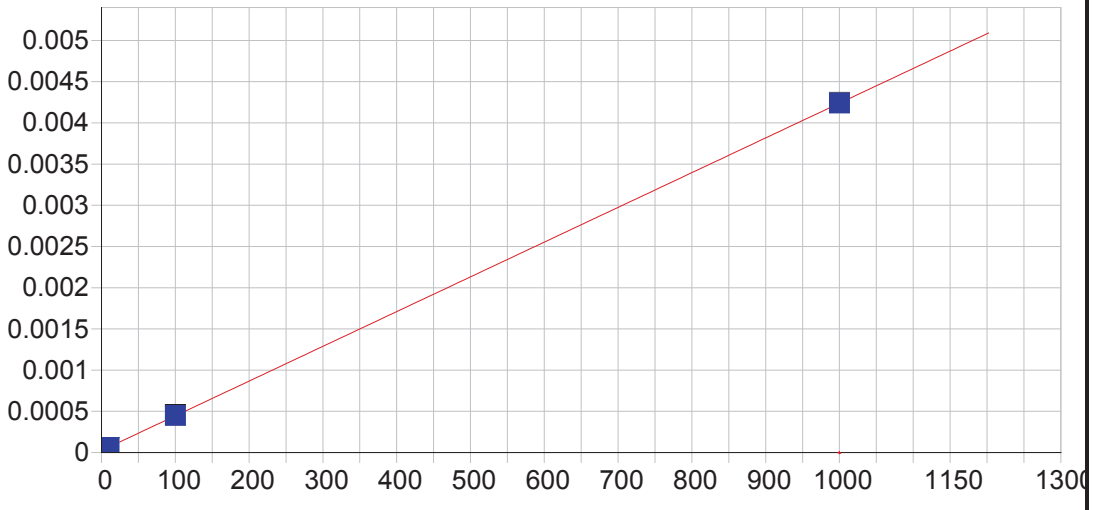


Pb 216.999 {455}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000011	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999260	Status:	OK.
Std Error of Est:	0.000040		
Predicted MDL:	4.813011		
Predicted MQL:	16.043371		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.5110	-1.51	.000	.00001	.000	1
CalStd9=100	1000.0	1022.5	22.5	2.25	.00129	.000	1
CalStd10=10	10000.	9452.5	-548.	-5.48	.01178	.000	1
CalStd8=100	100.00	104.41	4.41	4.41	.00014	.000	1
CalStd5=10	10.000	3.1686	-6.83	-68.3	.00001	.000	1
CalStd12=10	100000.	102570.	2570.	2.57	.12771	.000	1

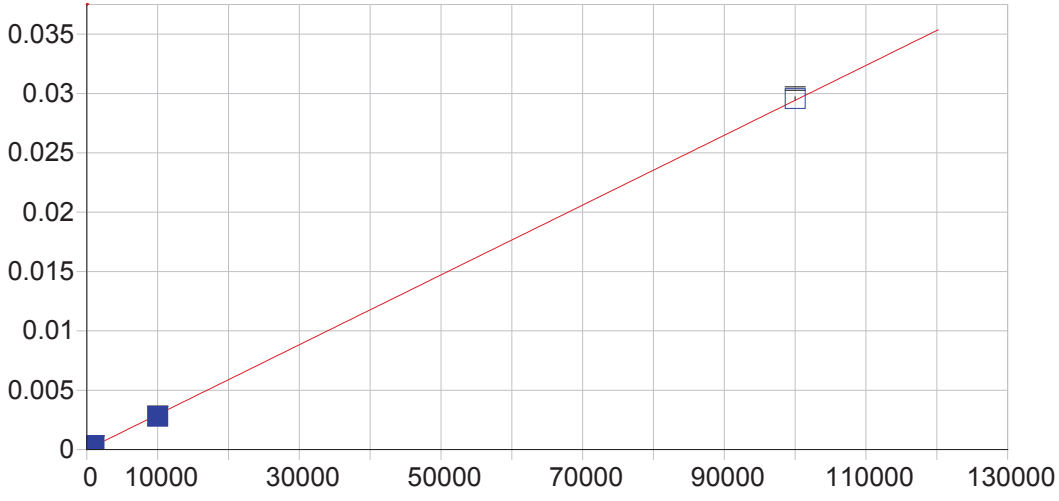


Pb 220.353 {453}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000024	Re-Slope:	1.000000
A1 (Gain):	0.000004	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999952	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	2.169088		
Predicted MQL:	7.230293		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00082	.001	.000	.00002	.000	1
CalStd5=10	10.000	9.4600	-.540	-5.40	.00006	.000	1
CalStd8=100	100.00	100.86	.858	.858	.00045	.000	1
CalStd4=5	5.0000	4.4079	-.592	-11.8	.00004	.000	1
CalStd9=100	1000.0	1000.3	.274	.027	.00424	.000	1

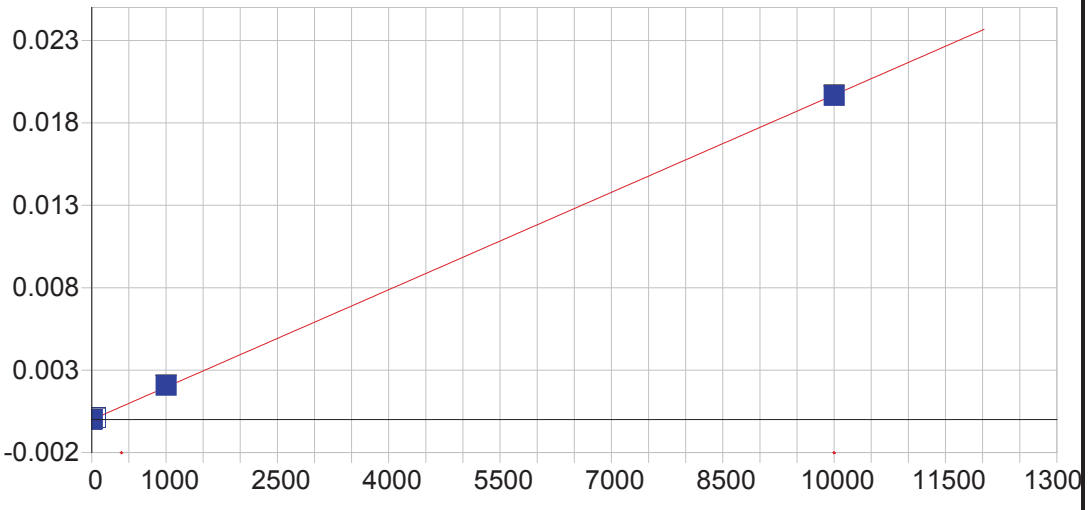


Pb 220.353 {153}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999853	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	3.934570		
Predicted MQL:	13.115234		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00581	-.006	.000	.00000	.000	1
CalStd9=100	1000.0	1037.1	37.1	3.71	.00031	.000	1
CalStd10=10	10000.	9467.8	-532.	-5.32	.00279	.000	1
CalStd8=100	100.00	106.94	6.94	6.94	.00003	.000	1
CalStd12=10	100000.	100490.	488.	.488	.02957	.000	1

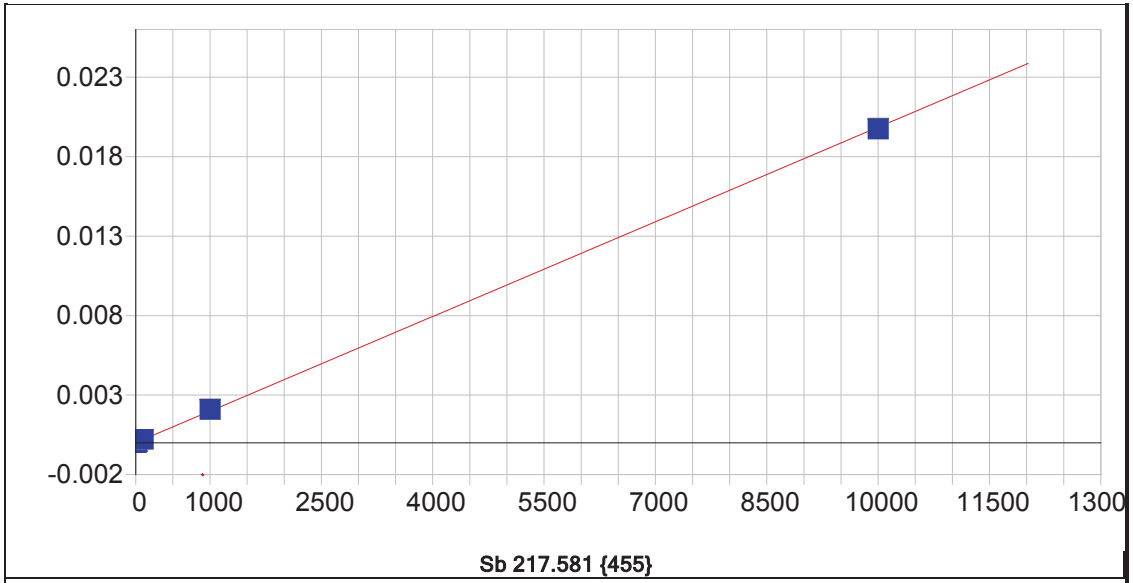


Sb 206.833 {463}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	-0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999939	Status:	OK.
Std Error of Est:	0.000010		
Predicted MDL:	2.367442		
Predicted MQL:	7.891473		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.10179	-.102	.000	-.00000	.000	1
CalStd9=100	1000.0	1054.4	54.4	5.44	.00207	.000	1
CalStd5=10	10.000	9.2786	-.721	-7.21	.00002	.000	1
CalStd7=50	50.000	53.605	3.60	7.21	.00010	.000	1
CalStd10=10	10000.	9978.4	-21.6	-.216	.01966	.000	1

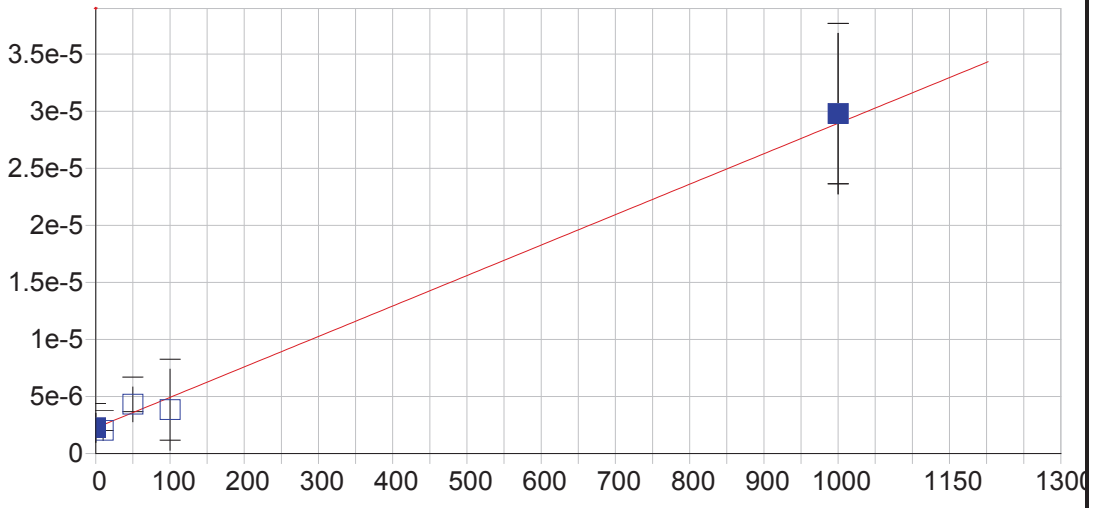


Sb 217.581 {455}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999810	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	2.606767		
Predicted MQL:	8.689224		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00249	-.002	.000	.00000	.000	1
CalStd9=100	1000.0	1049.8	49.8	4.98	.00209	.000	1
CalStd6=20	20.000	20.392	.392	1.96	.00004	.000	1
CalStd5=10	10.000	10.164	.164	1.64	.00002	.000	1
CalStd8=100	100.00	109.20	9.20	9.20	.00022	.000	1
CalStd4=5	5.0000	6.6316	1.63	32.6	.00002	.000	1
CalStd10=10	10000.	9938.9	-61.1	-.611	.01974	.000	1

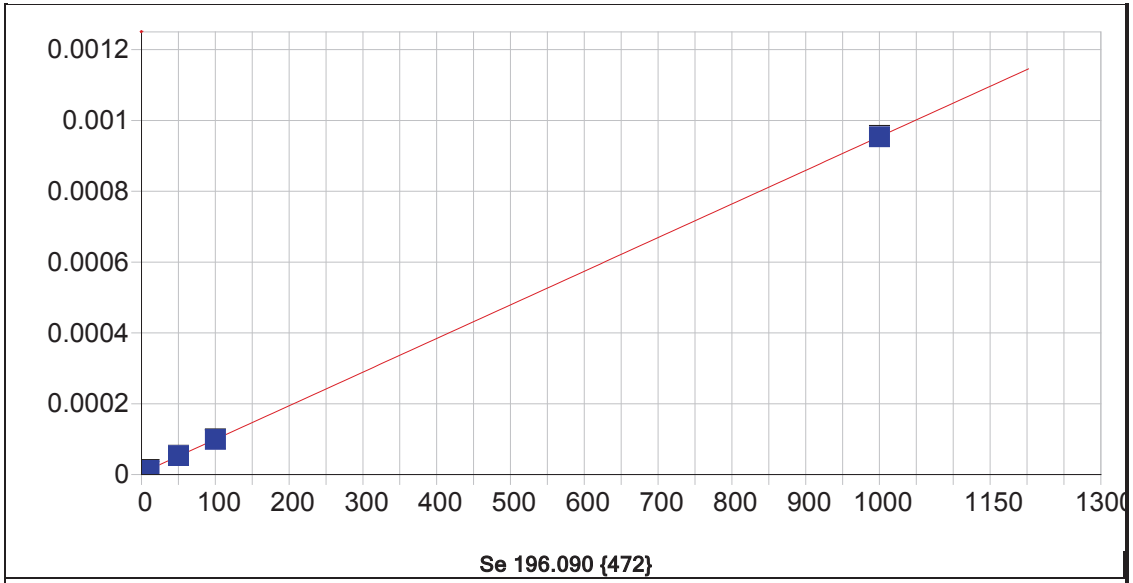


Se 196.090 {172}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.972789	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	96.916243		
Predicted MQL:	323.054142		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.01665	.017	.000	.00000	.000	1
CalStd7=50	50.000	77.157	27.2	54.3	.00000	.000	1
CalStd9=100	1000.0	1031.6	31.6	3.16	.00003	.000	1
CalStd5=10	10.000	-8.3599	-18.4	-184.	.00000	.000	1
CalStd8=100	100.00	59.587	-40.4	-40.4	.00000	.000	1

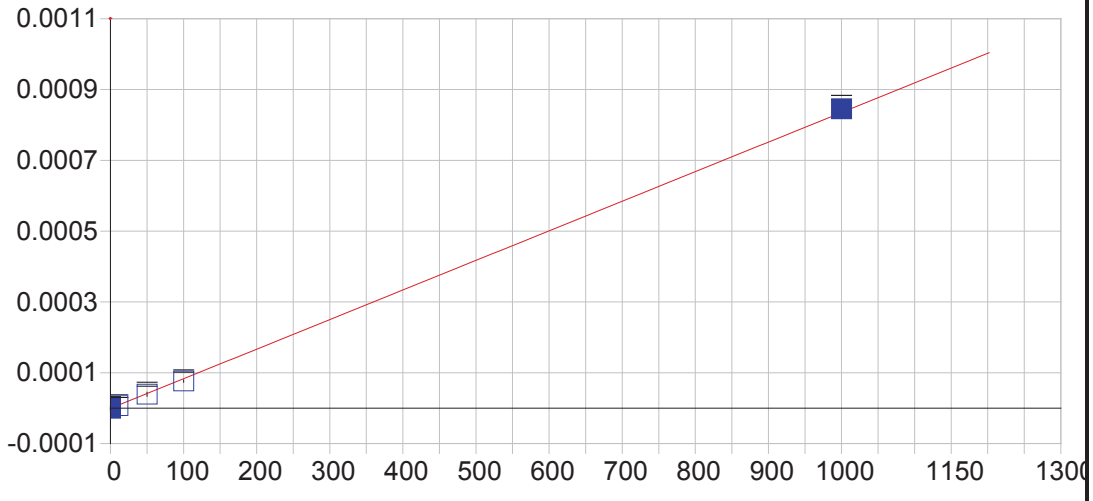


Se 196.090 {472}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000004	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999963	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	3.944066		
Predicted MQL:	13.146887		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-2.0828	-2.08	.000	.00000	.000	1
CalStd7=50	50.000	51.508	1.51	3.02	.00005	.000	1
CalStd9=100	1000.0	999.39	-.607	-.061	.00095	.000	1
CalStd5=10	10.000	8.3044	-1.70	-17.0	.00001	.000	1
CalStd8=100	100.00	99.582	-.418	-.418	.00010	.000	1

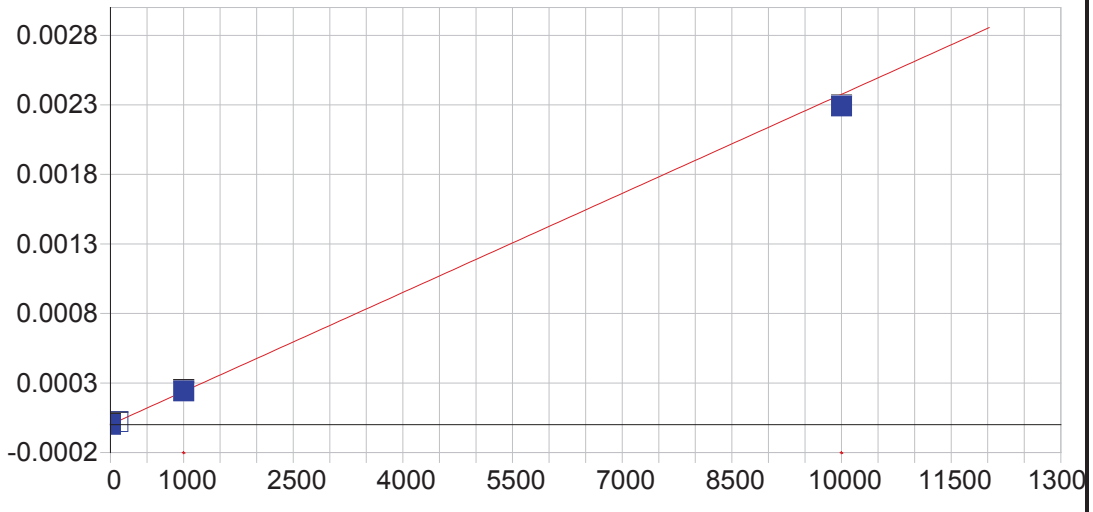


Se 203.985 {465}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999518	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	6.699409		
Predicted MQL:	22.331364		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00266	.003	.000	-.00000	.000	1
CalStd7=50	50.000	47.612	-2.39	-4.78	.00004	.000	1
CalStd9=100	1000.0	1011.9	11.9	1.19	.00085	.000	1
CalStd5=10	10.000	8.4993	-1.50	-15.0	.00001	.000	1
CalStd8=100	100.00	92.016	-7.98	-7.98	.00008	.000	1

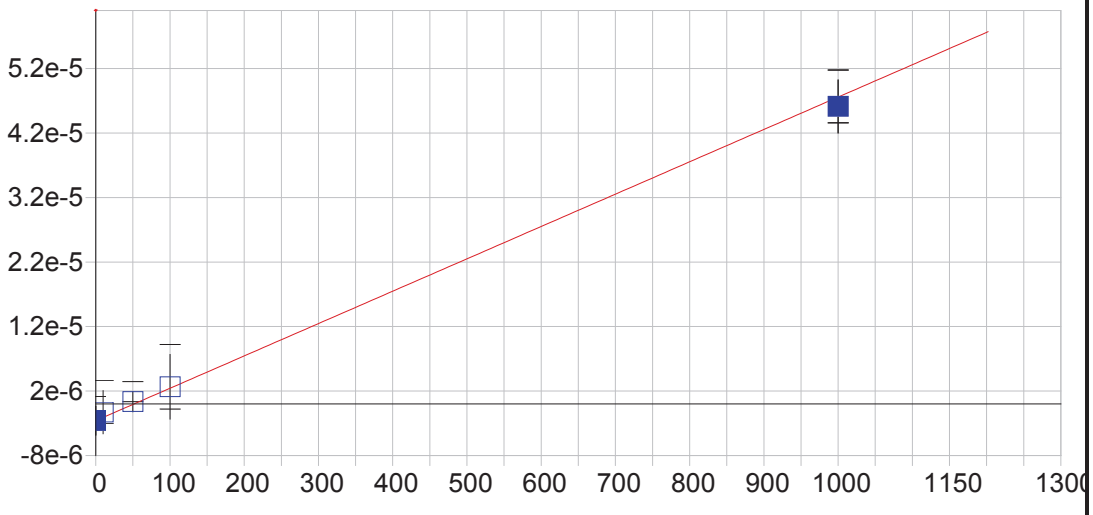


Se 206.279 {463}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999859	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	21.376531		
Predicted MQL:	71.255102		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.01442	.014	.000	.00000	.000	1
CalStd9=100	1000.0	1014.2	14.2	1.42	.00024	.000	1
CalStd10=10	10000.	9643.9	-356.	-3.56	.00230	.000	1
CalStd8=100	100.00	83.789	-16.2	-16.2	.00002	.000	1

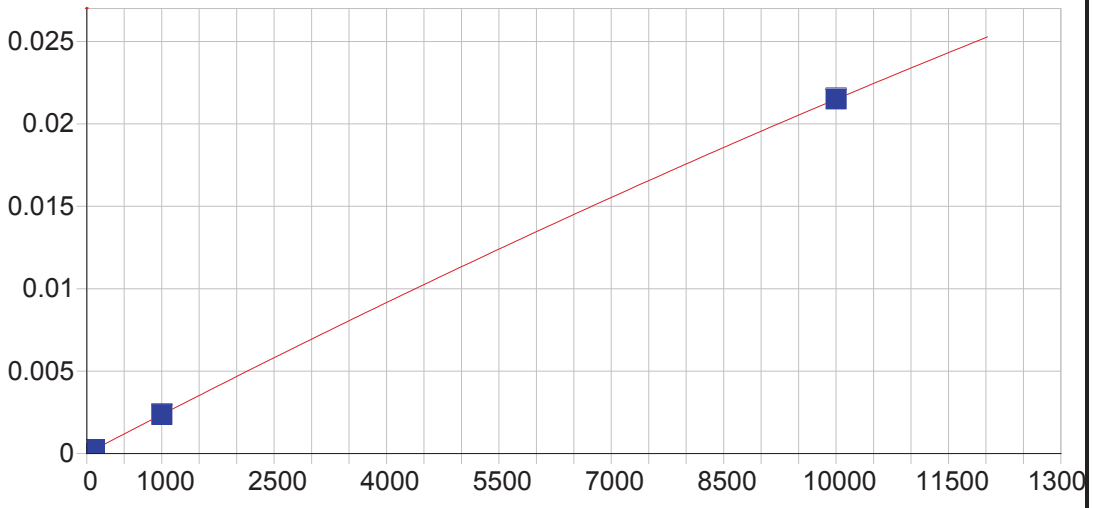


Se 206.279 {464}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.987996	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	52.893050		
Predicted MQL:	176.310168		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01793	-.018	.000	-.00000	.000	1
CalStd7=50	50.000	58.427	8.43	16.9	.00000	.000	1
CalStd9=100	1000.0	970.91	-29.1	-2.91	.00005	.000	1
CalStd5=10	10.000	26.079	16.1	161.	-.00000	.000	1
CalStd8=100	100.00	104.59	4.59	4.59	.00000	.000	1

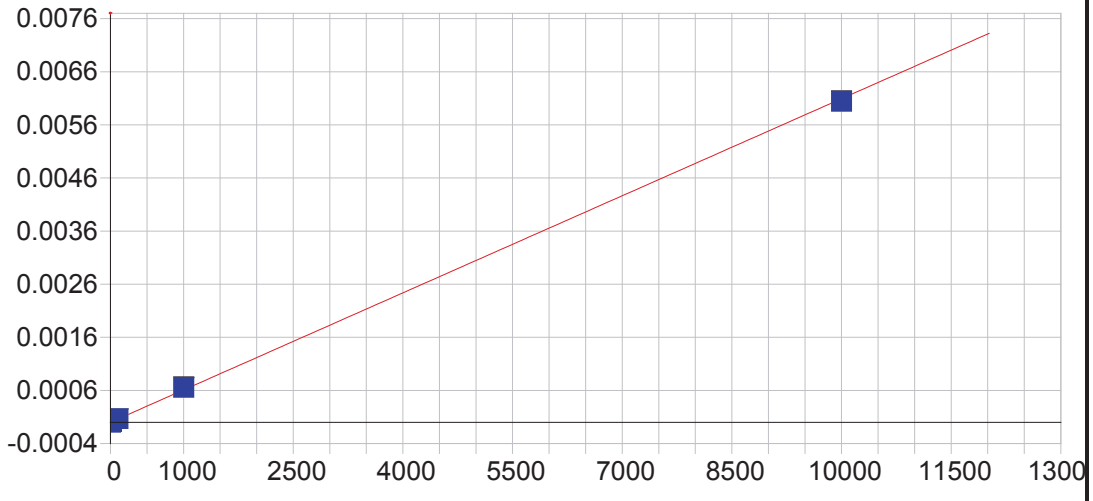


Tl 190.856 {476}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Curvilinear	Weighting:	1/Var

A0 (Offset):	0.000005	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	-0.000000		
n (Exponent):	1.000000		
Correlation:	1.000000	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	1.954434		
Predicted MQL:	6.514780		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.35278	.353	.000	.00001	.000	1
CalStd9=100	1000.0	999.95	-.046	-.005	.00237	.000	1
CalStd8=100	100.00	100.06	.063	.063	.00024	.000	1
CalStd5=10	10.000	9.3691	-.631	-6.31	.00003	.000	1
CalStd10=10	10000.	10000.	.001	.000	.02154	.000	1

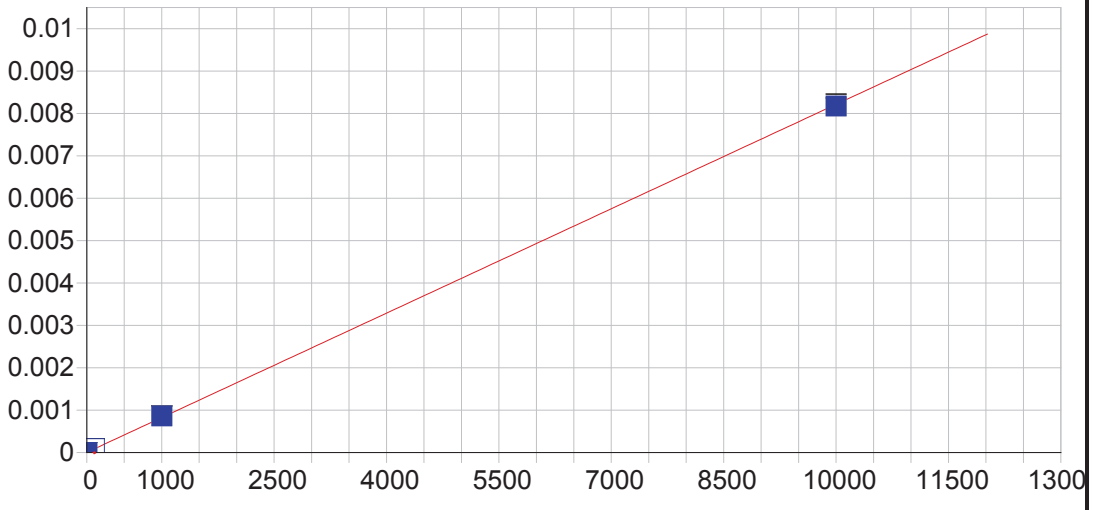


Tl 190.856 {477}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999677	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	6.030702		
Predicted MQL:	20.102341		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00138	-.001	.000	-.00000	.000	1
CalStd9=100	1000.0	1078.6	78.6	7.86	.00066	.000	1
CalStd8=100	100.00	105.53	5.53	5.53	.00006	.000	1
CalStd5=10	10.000	10.125	.125	1.25	.00001	.000	1
CalStd10=10	10000.	9915.7	-84.3	-.843	.00605	.000	1

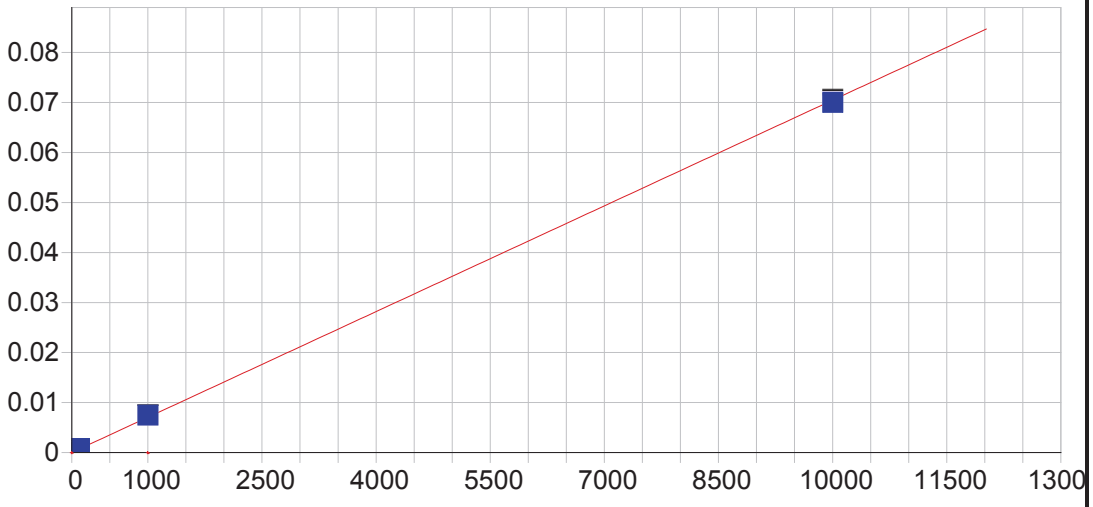


V 290.882 {116}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000005	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999886	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	2.946626		
Predicted MQL:	9.822086		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00931	-.009	.000	.00000	.000	1
CalStd9=100	1000.0	1044.7	44.7	4.47	.00086	.000	1
CalStd10=10	10000.	9949.9	-50.1	-.501	.00817	.000	1
CalStd8=100	100.00	105.34	5.34	5.34	.00009	.000	1

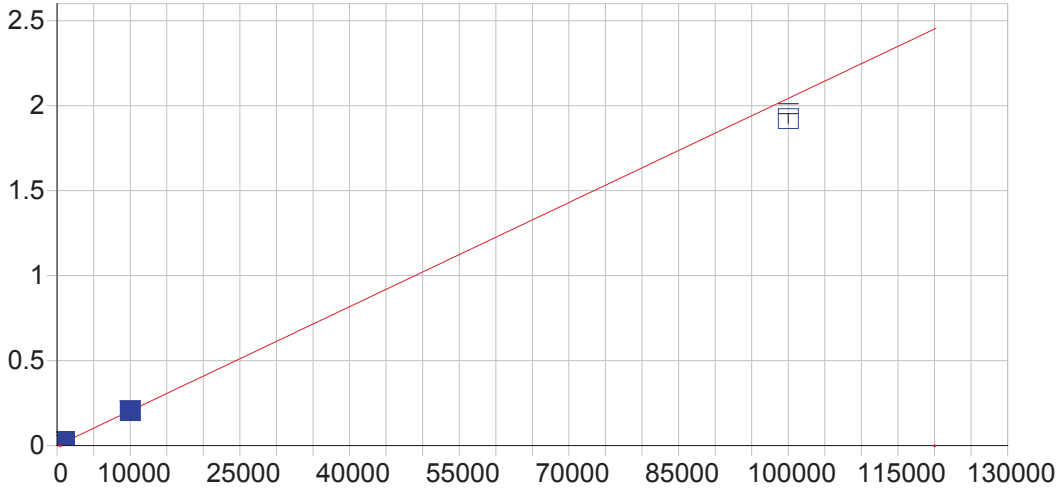


V 292.402 {115}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000005	Re-Slope:	1.000000
A1 (Gain):	0.000007	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999773	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	0.511458		
Predicted MQL:	1.704859		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00409	-.004	.000	.00000	.000	1
CalStd7=50	50.000	55.080	5.08	10.2	.00039	.000	1
CalStd9=100	1000.0	1058.2	58.2	5.82	.00746	.000	1
CalStd6=20	20.000	22.714	2.71	13.6	.00016	.000	1
CalStd5=10	10.000	10.675	.675	6.75	.00008	.000	1
CalStd8=100	100.00	105.30	5.30	5.30	.00075	.000	1
CalStd10=10	10000.	9928.3	-71.7	-.717	.07021	.000	1

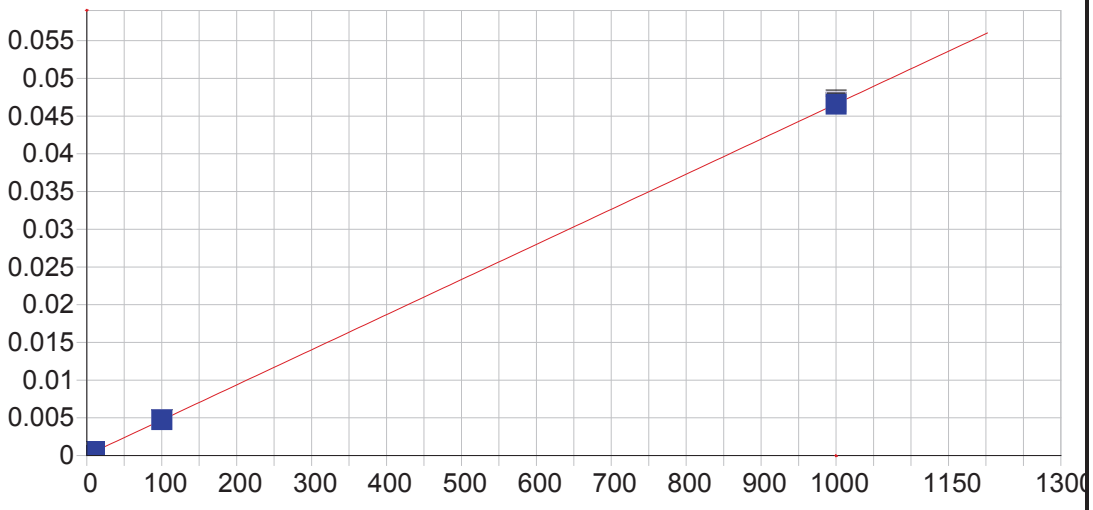


Zn 206.200 {463}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000026	Re-Slope:	1.000000
A1 (Gain):	0.000020	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999929	Status:	OK.
Std Error of Est:	0.000031		
Predicted MDL:	0.251793		
Predicted MQL:	0.839310		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
CalStd10=10	10000.	9983.8	-16.2	-.162	.20397	.000	1
Blank	.00000	-.36605	-.366	.000	.00002	.000	1
CalStd9=100	1000.0	1076.3	76.3	7.63	.02201	.000	1
CalStd12=10	100000.	94140.	-5860.	-5.86	1.9230	.029	1
CalStd5=10	10.000	10.617	.617	6.17	.00024	.000	1
CalStd8=100	100.00	107.33	7.33	7.33	.00222	.000	1

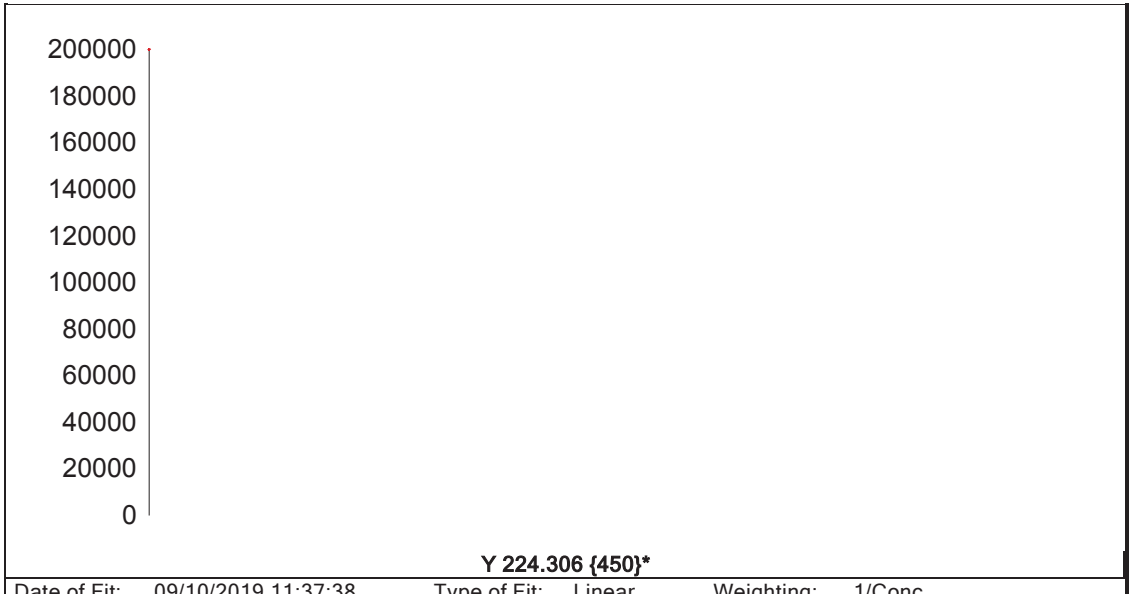


Zn 213.856 {457}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000052	Re-Slope:	1.000000
A1 (Gain):	0.000047	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999989	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.119078		
Predicted MQL:	0.396926		

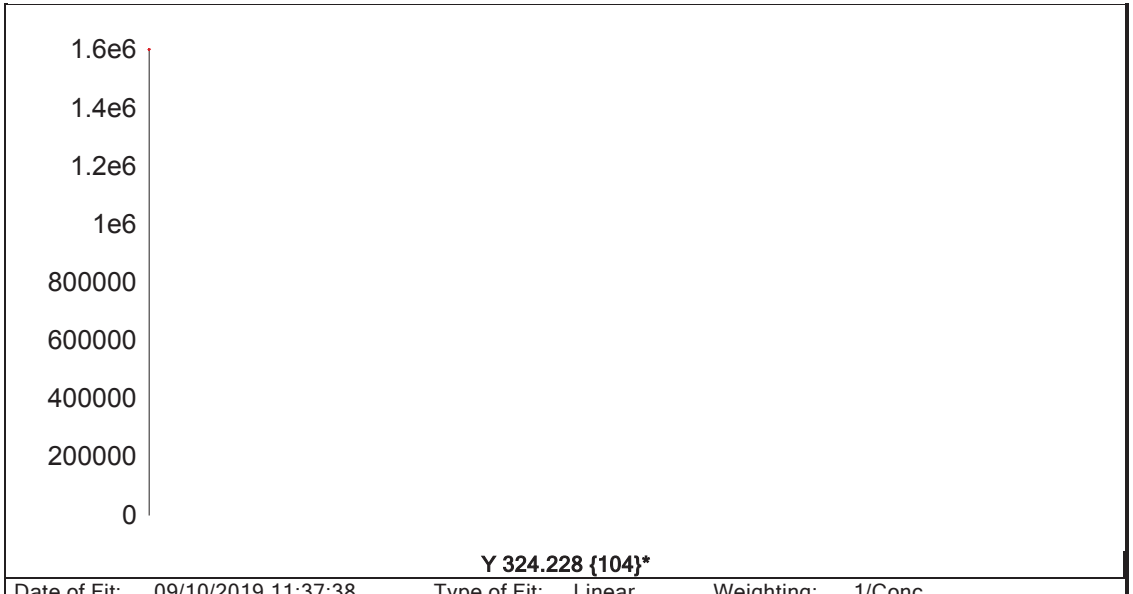
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00050	-.001	.000	.00005	.000	1
CalStd9=100	1000.0	998.98	-1.02	-.102	.04688	.000	1
CalStd5=10	10.000	10.454	.454	4.54	.00054	.000	1
CalStd8=100	100.00	100.57	.565	.565	.00476	.000	1



Y 224.306 {450}*

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	186990.	662.	1

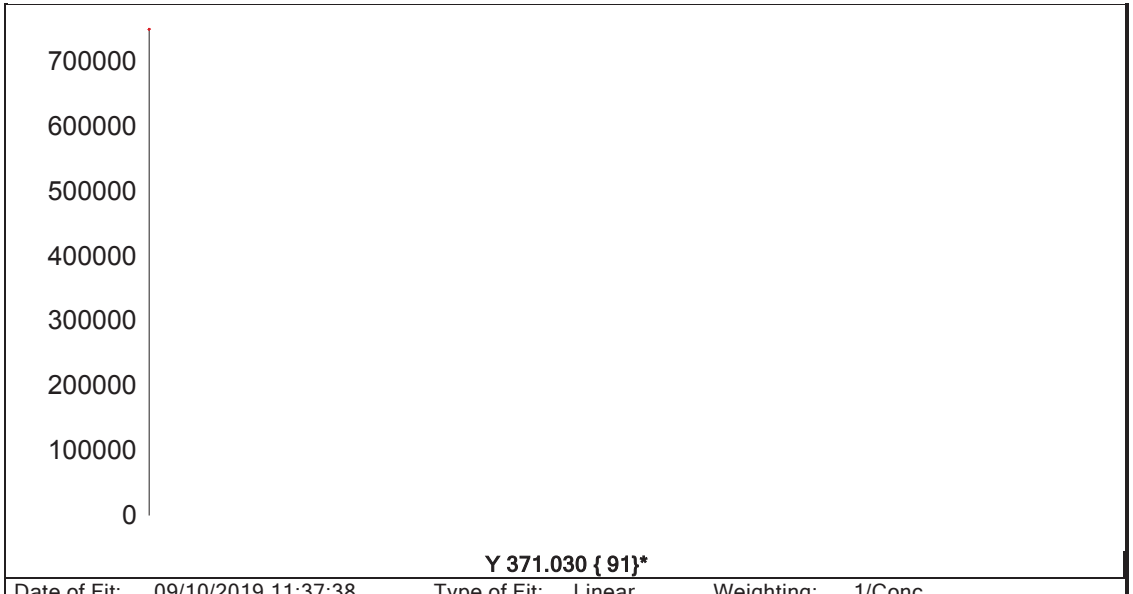


Y 324.228 {104}*

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.000000	Status:	Warning Zero Gain
Std Error of Est:	0.000000		
Predicted MDL:	n/a		
Predicted MQL:	n/a		

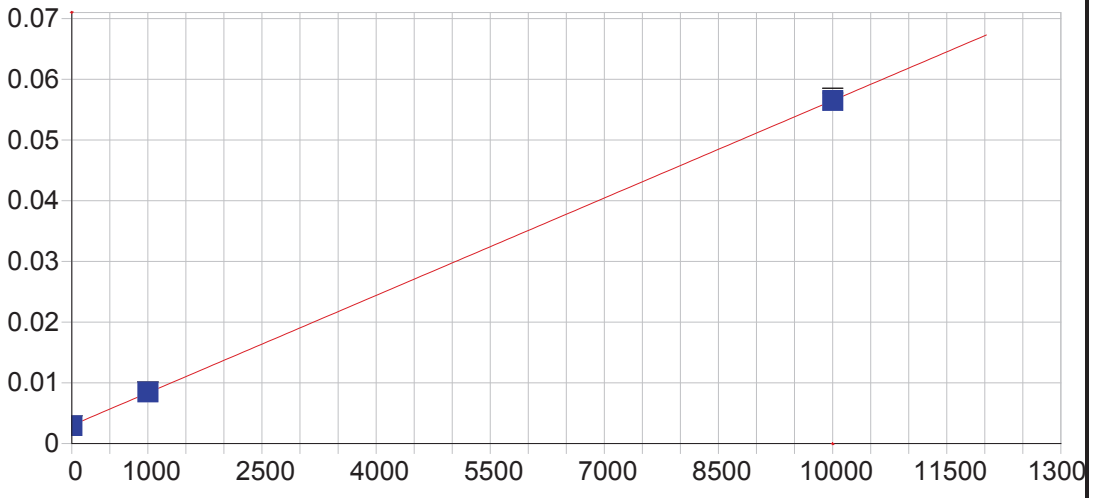
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	1455700.	5810.	1



Y 371.030 { 91}*

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	679200.	9370.	1

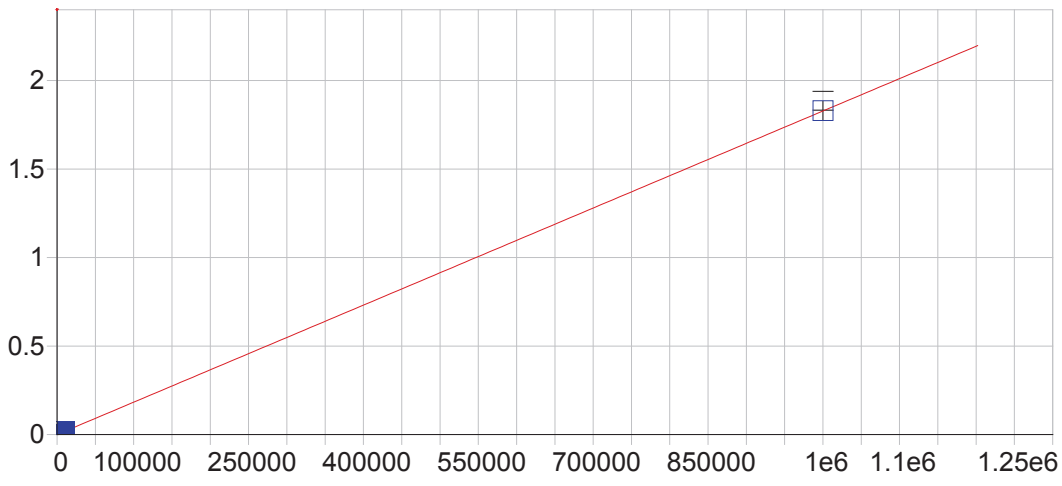


Na 588.995 { 57}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	0.003007	Re-Slope:	1.000000
A1 (Gain):	0.000005	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999993	Status:	OK.
Std Error of Est:	0.000156		
Predicted MDL:	3.421392		
Predicted MQL:	11.404640		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-19.461	-19.5	.000	.00290	.000	1
CalStd9=100	1000.0	1021.6	21.6	2.16	.00847	.000	1
CalStd10=10	10000.	9997.8	-2.16	-.022	.05649	.000	1

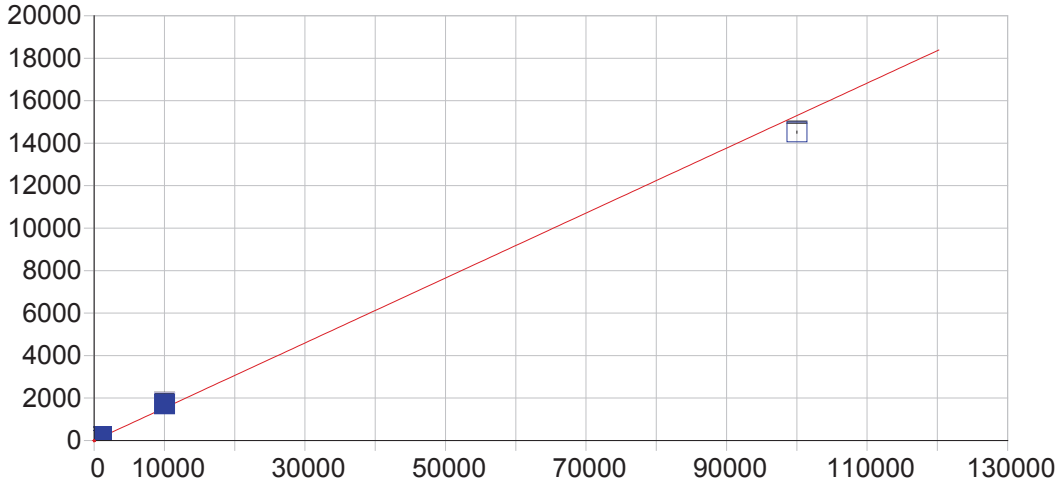


Na 589.592 { 57}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000022	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999976	Status:	OK.
Std Error of Est:	0.000018		
Predicted MDL:	6.001887		
Predicted MQL:	20.006290		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.10736	.107	.000	.00002	.000	1
CalStd9=100	1000.0	959.67	-40.3	-4.03	.00178	.000	1
CalStd10=10	10000.	9322.5	-678.	-6.78	.01706	.000	1
CalibStd15=	1000000.	1000700.	718.	.072	1.8294	.053	1

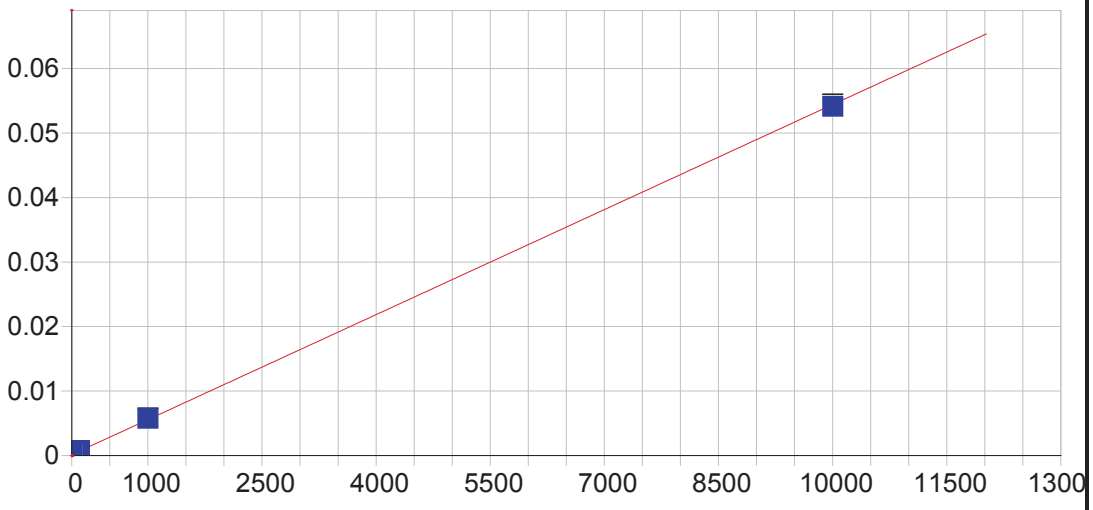


Si 251.611 {134}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	6.083580	Re-Slope:	1.000000
A1 (Gain):	0.152920	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.997165	Status:	OK.
Std Error of Est:	25.661451		
Predicted MDL:	7.150232		
Predicted MQL:	23.834107		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-25.620	-25.6	.000	2.1658	.724	1
CalStd9=100	1000.0	1079.2	79.2	7.92	183.18	1.50	1
CalStd10=10	10000.	11184.	1180.	11.8	1793.0	8.62	1
CalibStd15=	100000.	94918.	-5080.	-5.08	14521.	49.8	1

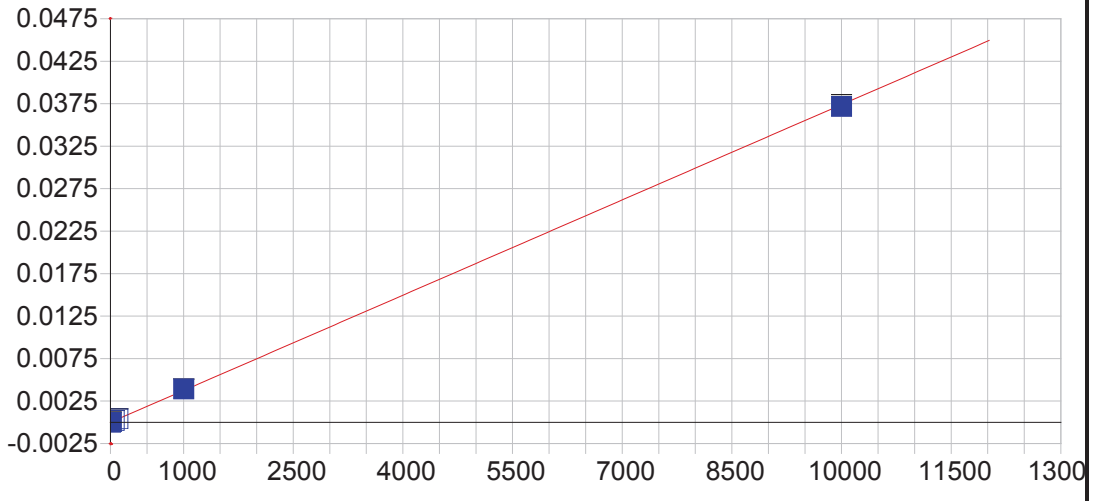


Ti 323.452 {104}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000139	Re-Slope:	1.000000
A1 (Gain):	0.000005	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999799	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.764334		
Predicted MQL:	2.547779		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00461	-.005	.000	.00014	.000	1
CalStd5=10	10.000	12.733	2.73	27.3	.00021	.000	1
CalStd8=100	100.00	106.67	6.67	6.67	.00072	.000	1
CalStd9=100	1000.0	1036.1	36.1	3.61	.00576	.000	1
CalStd10=10	10000.	9946.0	-54.0	-.540	.05417	.000	1
CalStd7=50	50.000	56.439	6.44	12.9	.00045	.000	1
CalStd4=5	5.0000	7.1079	2.11	42.2	.00018	.000	1

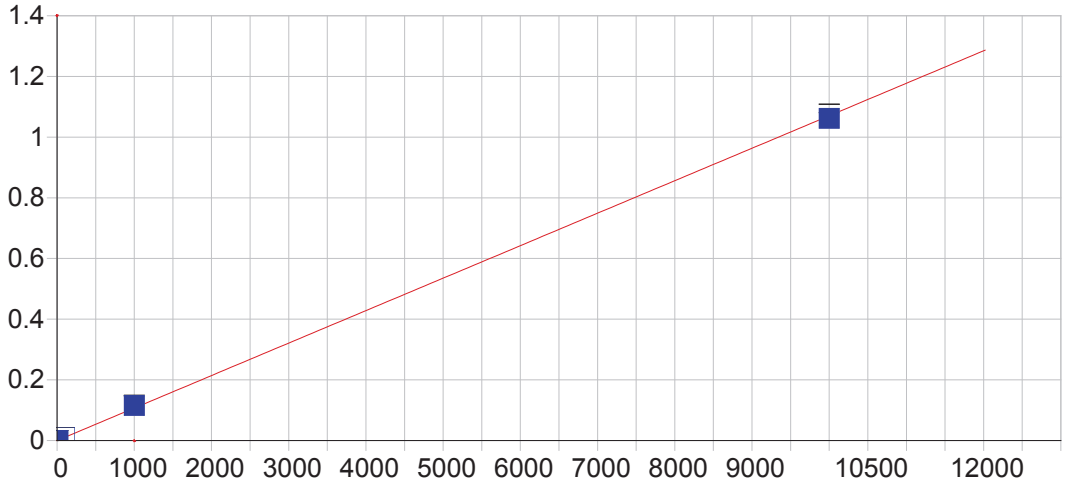


Ti 334.941 {101}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000004	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999831	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.756097		
Predicted MQL:	2.520322		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00280	-.003	.000	.00000	.000	1
CalStd5=10	10.000	10.728	.728	7.28	.00004	.000	1
CalStd8=100	100.00	105.65	5.65	5.65	.00040	.000	1
CalStd9=100	1000.0	1046.0	46.0	4.60	.00391	.000	1
CalStd10=10	10000.	9941.1	-58.9	-.589	.03717	.000	1
CalStd7=50	50.000	55.059	5.06	10.1	.00021	.000	1
CalStd4=5	5.0000	6.4469	1.45	28.9	.00002	.000	1

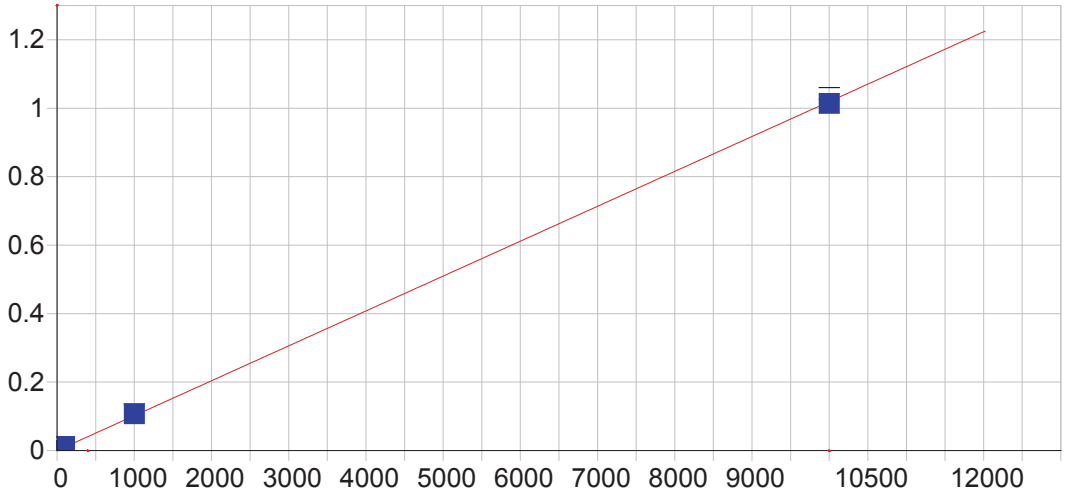


Sr 407.771 { 83}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000078	Re-Slope:	1.000000
A1 (Gain):	0.000107	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999686	Status:	OK.
Std Error of Est:	0.000011		
Predicted MDL:	0.058057		
Predicted MQL:	0.193524		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00009	-.000	.000	.00008	.000	1
CalStd3=1	1.0000	.73997	-.260	-26.0	.00016	.000	1
CalStd4=5	5.0000	5.8153	.815	16.3	.00070	.000	1
CalStd5=10	10.000	10.452	.452	4.52	.00120	.000	1
CalStd8=100	100.00	107.30	7.30	7.30	.01156	.000	1
CalStd9=100	1000.0	1074.5	74.5	7.45	.11509	.001	1
CalStd10=10	10000.	9917.2	-82.8	-.828	1.0616	.014	1

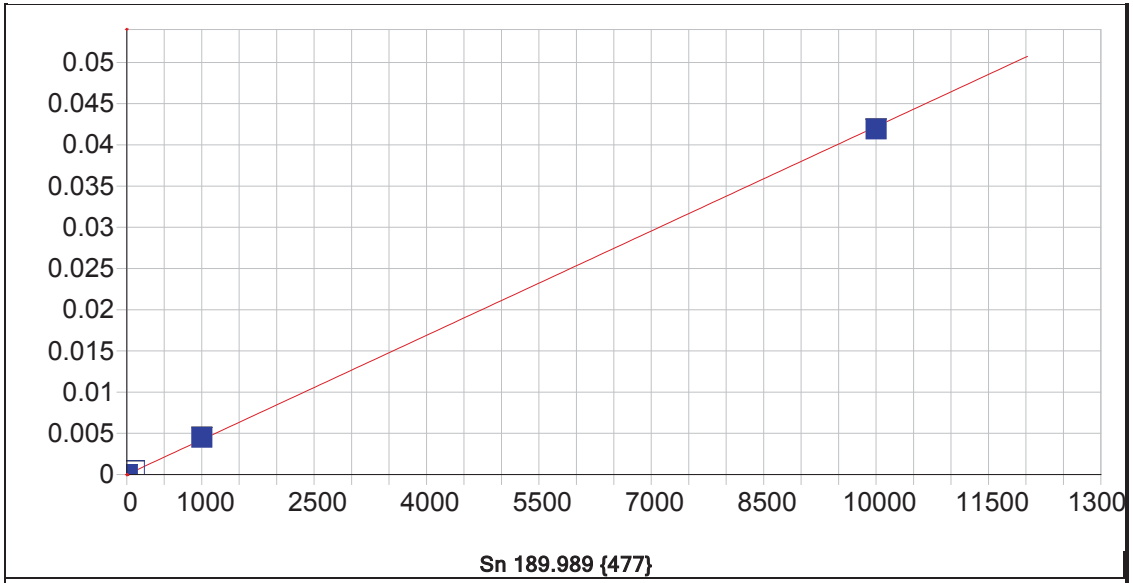


Sr 421.552 { 80}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000045	Re-Slope:	1.000000
A1 (Gain):	0.000102	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999857	Status:	OK.
Std Error of Est:	0.000007		
Predicted MDL:	0.060265		
Predicted MQL:	0.200884		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00006	.000	.000	.00005	.000	1
CalStd3=1	1.0000	.69102	-.309	-30.9	.00012	.000	1
CalStd4=5	5.0000	5.6824	.682	13.6	.00062	.000	1
CalStd5=10	10.000	10.248	.248	2.48	.00109	.000	1
CalStd8=100	100.00	104.79	4.79	4.79	.01073	.000	1
CalStd9=100	1000.0	1049.5	49.5	4.95	.10703	.001	1
CalStd10=10	10000.	9945.1	-54.9	-.549	1.0138	.017	1

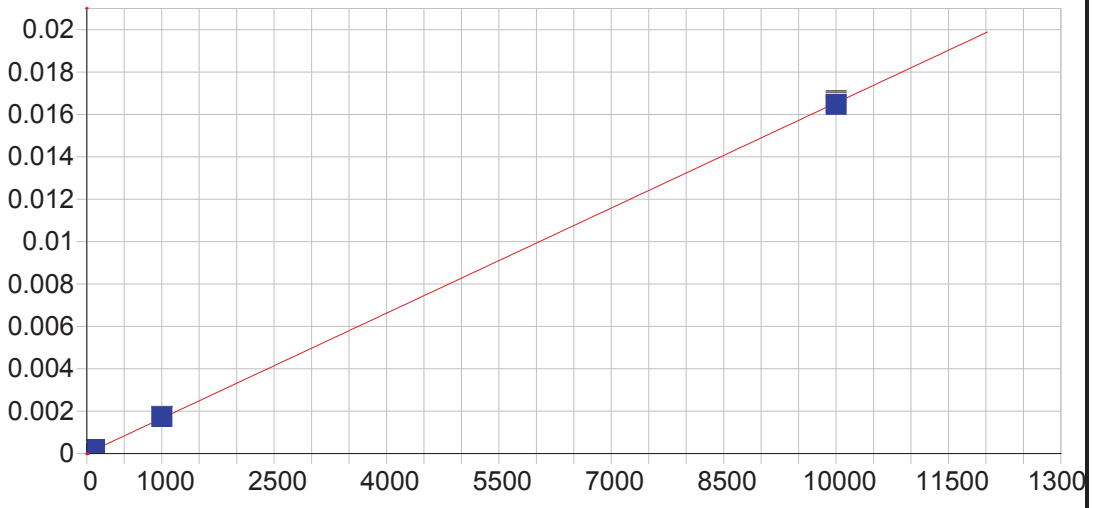


Sn 189.989 {477}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000005	Re-Slope:	1.000000
A1 (Gain):	0.000004	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999755	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.915409		
Predicted MQL:	3.051364		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00290	-.003	.000	.00001	.000	1
CalStd10=10	10000.	9926.9	-73.1	-.731	.04191	.000	1
CalStd9=100	1000.0	1064.2	64.2	6.42	.00450	.000	1
CalStd8=100	100.00	107.37	7.37	7.37	.00046	.000	1
CalStd5=10	10.000	11.598	1.60	16.0	.00005	.000	1

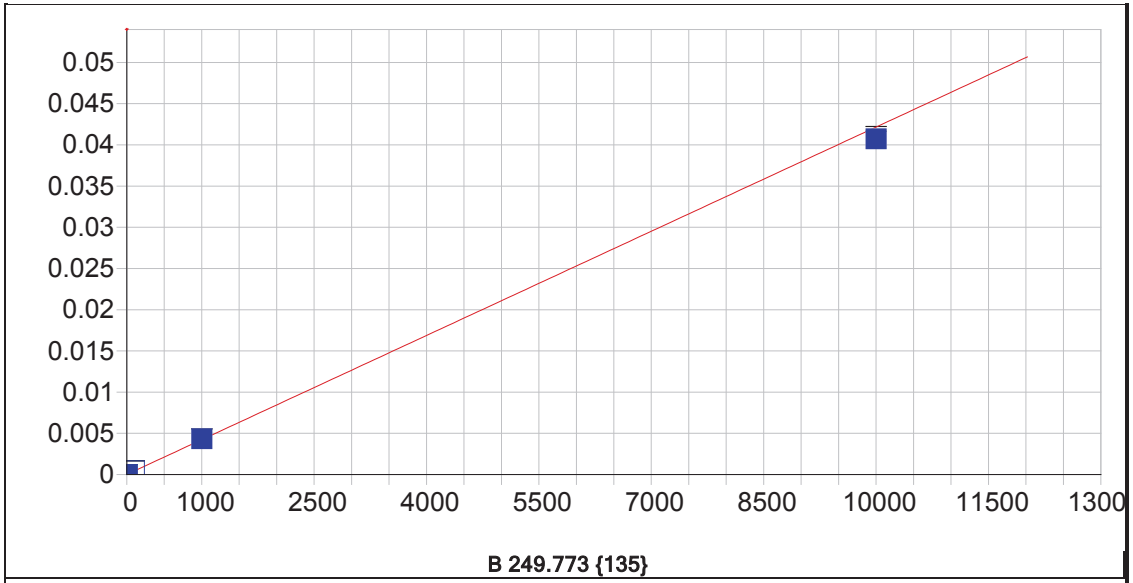


B 249.678 {135}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000007	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999883	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	1.114967		
Predicted MQL:	3.716557		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00019	.000	.000	.00001	.000	1
CalStd8=100	100.00	103.68	3.68	3.68	.00018	.000	1
CalStd5=10	10.000	9.0246	-.975	-9.75	.00002	.000	1
CalStd9=100	1000.0	1046.4	46.4	4.64	.00174	.000	1
CalStd10=10	10000.	9950.9	-49.1	-.491	.01653	.000	1

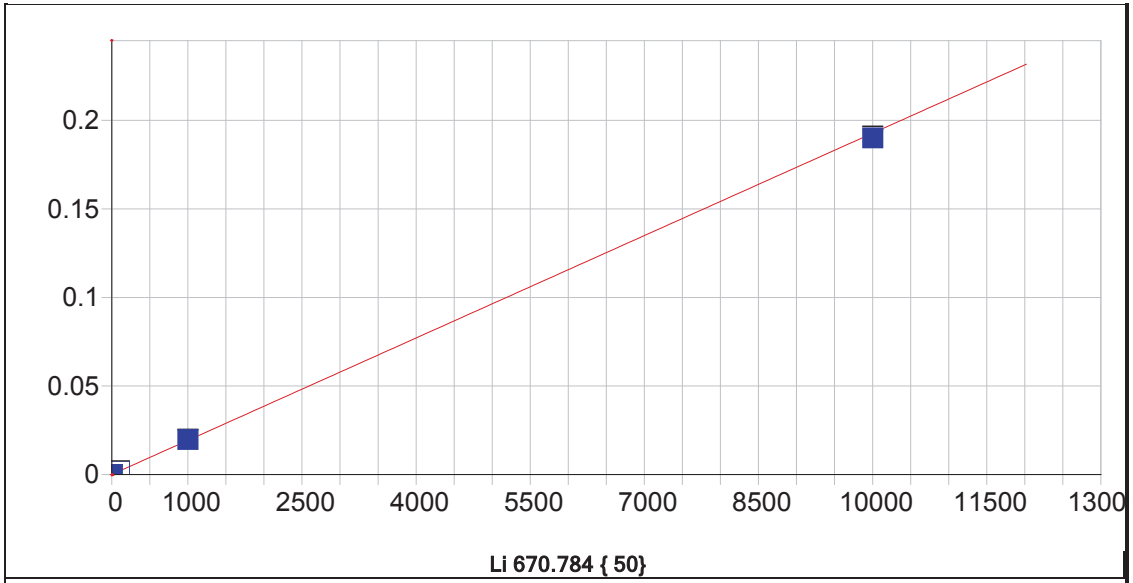


B 249.773 {135}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000013	Re-Slope:	1.000000
A1 (Gain):	0.000004	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999588	Status:	OK.
Std Error of Est:	0.000008		
Predicted MDL:	0.532195		
Predicted MQL:	1.773985		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.05465	-.055	.000	.00001	.000	1
CalStd8=100	100.00	102.34	2.34	2.34	.00044	.000	1
CalStd5=10	10.000	9.7232	-.277	-2.77	.00005	.000	1
CalStd9=100	1000.0	1023.3	23.3	2.33	.00433	.000	1
CalStd10=10	10000.	9657.8	-342.	-3.42	.04074	.000	1

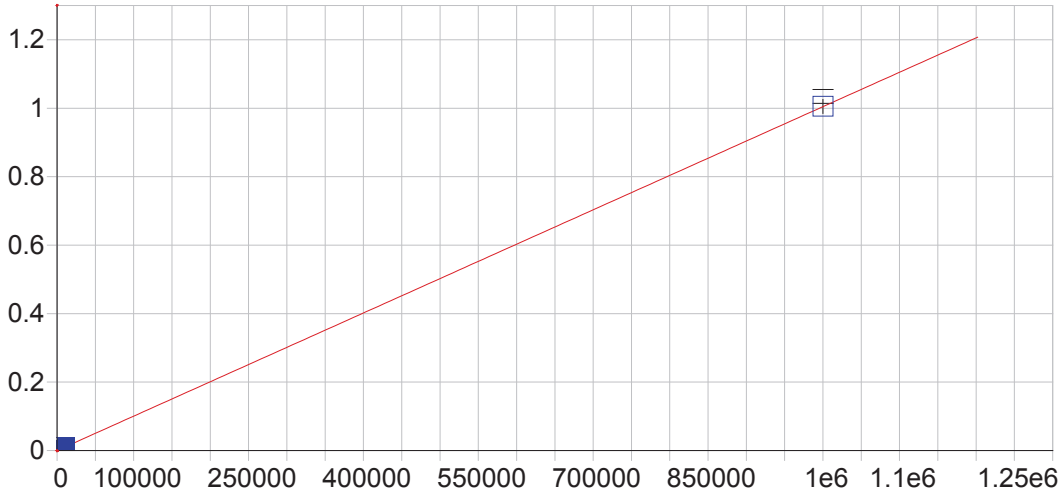


Li 670.784 { 50}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000025	Re-Slope:	1.000000
A1 (Gain):	0.000019	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999769	Status:	OK.
Std Error of Est:	0.000041		
Predicted MDL:	0.696006		
Predicted MQL:	2.320021		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.70871	-.709	.000	.00001	.000	1
CalStd5=10	10.000	9.9065	-.094	-.935	.00022	.000	1
CalStd8=100	100.00	103.23	3.23	3.23	.00201	.000	1
CalStd9=100	1000.0	1021.4	21.4	2.14	.01971	.000	1
CalStd10=10	10000.	9857.4	-143.	-1.43	.19002	.001	1

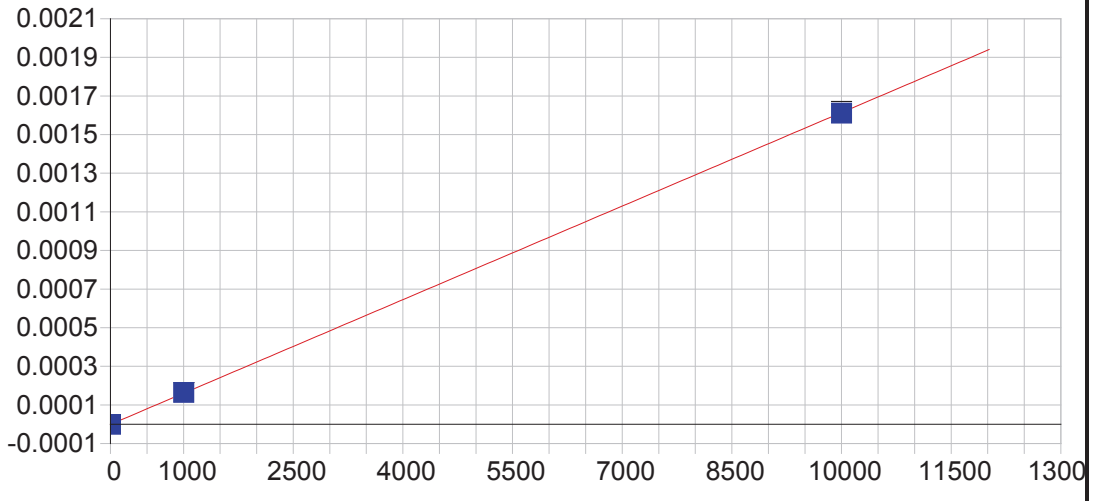


K 766.490 { 44}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000021	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999980	Status:	OK.
Std Error of Est:	0.000009		
Predicted MDL:	16.458646		
Predicted MQL:	54.862152		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.06577	.066	.000	.00002	.000	1
CalStd9=100	1000.0	997.51	-2.49	-.249	.00102	.000	1
CalStd10=10	10000.	9360.8	-639.	-6.39	.00943	.000	1
CalibStd15=	1000000.	1000600.	642.	.064	1.0052	.020	1

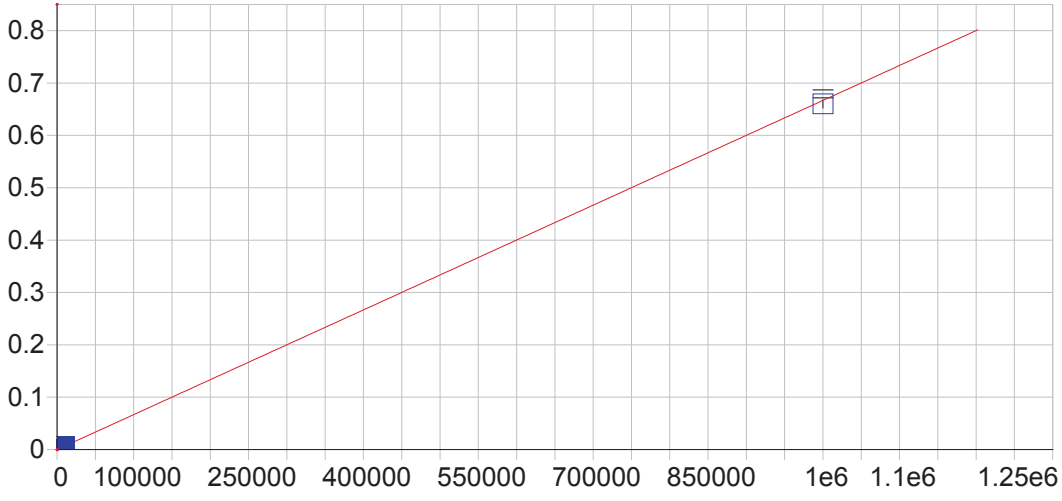


P 213.618 {457}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999979	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	4.103818		
Predicted MQL:	13.679392		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01823	-.018	.000	-.00000	.000	1
CalStd10=10	10000.	9979.7	-20.3	-.203	.00161	.000	1
CalStd9=100	1000.0	1020.3	20.3	2.03	.00016	.000	1

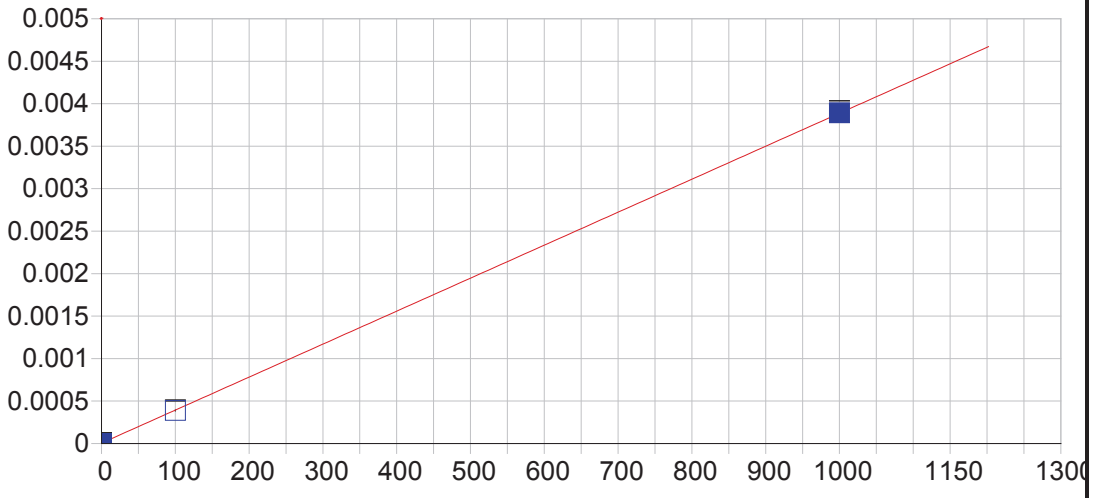


S 182.034 {485}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	0.000008	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	1.000000	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	4.821737		
Predicted MQL:	16.072457		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01278	-.013	.000	.00001	.000	1
CalStd9=100	1000.0	1014.2	14.2	1.42	.00069	.000	1
CalStd10=10	10000.	9984.6	-15.4	-.154	.00668	.000	1
CalibStd15=	1000000.	989860.	-10100.	-1.01	.66008	.008	1

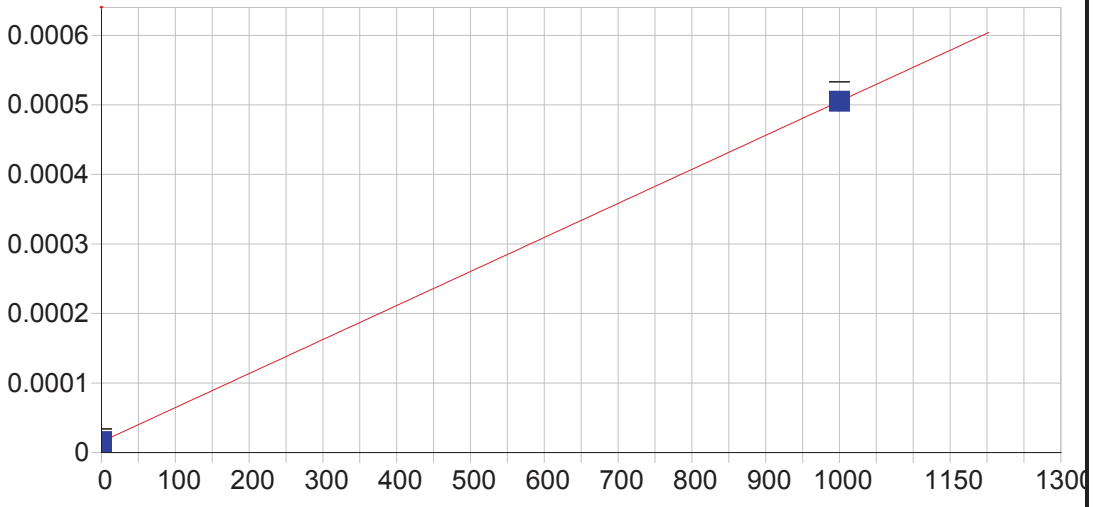


Hg 184.950 {482}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000005	Re-Slope:	1.000000
A1 (Gain):	0.000004	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999993	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.935055		
Predicted MQL:	3.116851		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00106	.001	.000	.00001	.000	1
CalStd8=100	100.00	98.818	-1.18	-1.18	.00039	.000	1
CalStd9=100	1000.0	1001.2	1.18	.118	.00389	.000	1



Ce 404.076 { 83}

Date of Fit:	09/10/2019 11:37:38	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000016	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	1.000000	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	12.808223		
Predicted MQL:	42.694077		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00002	.000	1
CalStd9=100	1000.0	1000.0	.000	.000	.00051	.000	1

Sample Name: Blank Acquired: 09/09/2019 09:32:14 Type: Cal
Method: DOD Calibration Updated 060614(v3507) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	Al3961	As1937	As1972	Ba2335	Ba4934	Be3130	Ca3158	Ca3933	Cd2265	Cd2288
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**17.9**	**.000**	**-.000**	**.876**	**-.000**	**.000**	**.007**	**-.000**	**.000**	**.009**	**.000**	**.000**
Stddev	2.1	.000	.000	.505	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	11.9	8.21	50.0	57.6	1820.	70.7	1.27	4.18	1.50	1.80	7.03	18.7

Elem	Co2286	Co2388	Cr2055	Cr2677	Cu2230	Fe2343	Fe2395	Fe2599	Mg2790	Mg2802	Mn2576	Mn2593
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**-.000**	**-.000**	**-.000**	**.000**	**.000**	**.000**	**-.152**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.799	.000	.000	.000
%RSD	44.6	38.3	51.9	121.	34.7	5.02	86.0	270.	525.	.553	8.76	40.7

Elem	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Se2062	Tl1908	V_2908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**-.000**	**-.000**	**-.000**	**.000**	**.000**	**-.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	425.	57.9	356.	25.5	67.7	7.04	61.9	192.	62.8	319.	79.4	38.5

Elem	V_2924	Zn2062	Zn2138
Units	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**
Stddev	.000	.000	.000
%RSD	55.7	8.36	12.9

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**186990.**	**1455700.**	**679200.**
Stddev	662.	5814.	9366.
%RSD	.35382	.39940	1.3790

Sample Name: CalStd2=0.5 Acquired: 09/09/2019 09:38:43 Type: Cal
Method: DOD Calibration Updated 060614(v3507) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Be3130	Cd2265	Cd2288
Units	Cts/S	Cts/S	Cts/S
Avg	**-.000**	**.000**	**.000**
Stddev	.000	.000	.000
%RSD	29.8	38.4	14.0

Int. Std.	Y_2243	Y_3242
Units	Cts/S	Cts/S
Avg	**182060.**	**1409700.**
Stddev	334.	16065.
%RSD	.18343	1.1396

Sample Name: CalStd3=1 Acquired: 09/09/2019 09:45:01 Type: Cal
Method: DOD Calibration Updated 060614(v3507) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Ba2335	Be3130	Cd2265	Cd2288	Co2286	Cr2055	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**18.8**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	1.7	.000	.000	.000	.000	.000	.000	.000
%RSD	9.06	16.8	1.99	23.8	6.07	17.0	31.3	70.1

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**180850.**	**1426800.**	**658280.**
Stddev	290.	1005.	4809.
%RSD	.16059	.07042	.73048

Sample Name: CalStd4=5 Acquired: 09/09/2019 09:51:18 Type: Cal
Method: DOD Calibration Updated 060614(v3507) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ba2335	Be3130	Cd2265	Cd2288	Co2286	Cr2055	Cr2677	Mn2576	Mo2020	Mo2045	Ni2316	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	2.40	2.41	3.44	5.72	5.69	5.77	3.68	2.03	4.87	2.97	.840	11.6

Elem	Sb2175
Units	Cts/S
Avg	**.000**
Stddev	.000
%RSD	18.3

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**177040.**	**1393300.**	**666960.**
Stddev	563.	5419.	3408.
%RSD	.31798	.38890	.51101

Sample Name: CalStd5=10 Acquired: 09/09/2019 09:57:36 Type: Cal
Method: DOD Calibration Updated 060614(v3507) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	As1972	Ba2335	Be3130	Cd2265	Cd2288	Co2286	Cr2055	Cr2677	Cu2230
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**54.7**	**.000**	**2.76**	**.000**	**.000**	**.001**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	2.0	.000	.93	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	3.58	2.19	33.8	47.5	.978	.935	1.69	.360	2.67	1.45	6.59	4.23

Elem	Mn2576	Mo2020	Mo2045	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.481	1.91	10.1	5.19	17.6	3.67	9.98	7.47	23.0	21.6	3.05	.939

Elem	Zn2138
Units	Cts/S
Avg	**.001**
Stddev	.000
%RSD	.736

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**178200.**	**1387600.**	**649670.**
Stddev	473.	4499.	3883.
%RSD	.26565	.32423	.59777

Sample Name: CalStd6=20 Acquired: 09/09/2019 10:03:56 Type: Cal
Method: DOD Calibration Updated 060614(v3507) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ba2335	Cu2230	Mn2576	Mo2020	Mo2045	Sb2175	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000
%RSD	1.55	1.08	1.59	.383	3.66	4.81	.747

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**177080.**	**1397800.**	**650370.**
Stddev	391.	4010.	2471.
%RSD	.22065	.28688	.37986

Sample Name: CalStd7=50 Acquired: 09/09/2019 10:10:11 Type: Cal
Method: DOD Calibration Updated 060614(v3507) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	As1937	As1972	Cd2265	Cd2288	Co2286	Cr2055	Cr2677	Cu2230	Mn2576	Mo2020	Mo2045	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**11.3**	**.000**	**.001**	**.002**	**.001**	**.001**	**.000**	**.000**	**.001**	**.000**	**.000**	**.001**
Stddev	.3	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	3.06	5.58	.245	.599	.414	.301	1.38	1.81	.212	.617	2.01	.612

Elem	Sb2068	Se1960	V_2924
Units	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**
Stddev	.000	.000	.000
%RSD	4.94	1.82	.710

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**177140.**	**1396700.**	**651180.**
Stddev	385.	4625.	3844.
%RSD	.21722	.33114	.59033

Sample Name: CalStd8=100 Acquired: 09/09/2019 10:16:26 Type: Cal
Method: DOD Calibration Updated 060614(v3507) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	As1972	Ba2335	Ba4934	Be3130	Ca3933	Cd2265	Cd2288	Co2286	Co2388
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**383.**	**.000**	**21.9**	**.000**	**.001**	**.011**	**.008**	**.021**	**.003**	**.005**	**.002**	**.000**
Stddev	3.	.000	.5	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.831	.827	2.45	5.00	.325	.595	.348	.415	.362	.317	.243	.565

Elem	Cr2055	Cr2677	Cu2230	Mg2802	Mn2576	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2175
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.001**	**.000**	**.001**	**.004**	**.001**	**.001**	**.001**	**.002**	**.002**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.903	1.16	.344	.488	.639	.564	1.55	.608	.480	1.29	2.44	2.95

Elem	Se1960	Se2062	Tl1908	V_2908	V_2924	Zn2062	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.001**	**.002**	**.005**
Stddev	.000	.000	.000	.000	.000	.000	.000
%RSD	1.14	18.9	1.94	.595	.448	.779	.353

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**176780.**	**1399300.**	**648900.**
Stddev	351.	5605.	3337.
%RSD	.19835	.40060	.51427

Sample Name: CalStd9=1000 Acquired: 09/09/2019 10:22:39 Type: Cal
Method: DOD Calibration Updated 060614(v3507) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Al1670	Al3961	As1937	As1972	Ba2335	Ba4934	Be3130	Ca3158	Ca3933	Cd2265	Cd2288	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.003**	**.001**	**216.**	**.001**	**.010**	**.044**	**.079**	**.000**	**.192**	**.028**	**.045**	**.024**
Stddev	.000	.000	1.	.000	.000	.000	.000	.000	.002	.000	.000	.000
%RSD	.535	1.45	.402	.666	.389	1.00	.350	.698	.883	.427	.466	.531

Elem	Co2388	Cr2055	Cr2677	Cu2230	Fe2343	Fe2395	Fe2599	Mg2790	Mg2802	Mn2576	Mn2593	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.002**	**.014**	**.003**	**.007**	**.001**	**.001**	**.001**	**32.1**	**.036**	**.010**	**.006**	**.009**
Stddev	.000	.000	.000	.000	.000	.000	.000	.8	.000	.000	.000	.000
%RSD	.354	.481	.475	.630	.431	1.46	.813	2.42	.402	.270	.899	.602

Elem	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Se2062	Tl1908	V_2908	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.006**	**.016**	**.015**	**.001**	**.004**	**.002**	**.002**	**.001**	**.000**	**.002**	**.001**	**.007**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.651	.504	.550	1.16	.174	.774	.684	.382	3.47	.837	1.03	.234

Elem	Zn2062	Zn2138
Units	Cts/S	Cts/S
Avg	**.022**	**.047**
Stddev	.000	.000
%RSD	.463	.511

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**176580.**	**1392600.**	**655330.**
Stddev	629.	3857.	5269.
%RSD	.35631	.27696	.80403

Sample Name: CalStd10=10000 Acquired: 09/09/2019 10:28:17 Type: Cal
Method: DOD Calibration Updated 060614(v3507) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Al3961	As1972	Ba4934	Ca3158	Co2286	Co2388	Cr2055	Cr2677	Cu2230	Fe2343	Fe2395	Fe2599
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.013**	**.006**	**.352**	**.002**	**.221**	**.023**	**.134**	**.026**	**.060**	**.007**	**.005**	**.012**
Stddev	.000	.000	.003	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.645	.094	.927	.731	.129	.718	.160	.739	.257	.768	.894	.746

Elem	Mg2790	Mg2802	Mn2576	Mn2593	Mo2045	Ni2216	Ni2316	Pb2169	Sb2068	Sb2175	Se2062	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**308.**	**.313**	**.092**	**.054**	**.056**	**.151**	**.144**	**.012**	**.020**	**.020**	**.002**	**.022**
Stddev	2.	.002	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.487	.554	.972	.833	.216	.181	.130	.315	.161	.197	.165	.130

Elem	V_2908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S
Avg	**.008**	**.070**	**.204**
Stddev	.000	.000	.000
%RSD	.571	.601	.062

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**173380.**	**1363700.**	**650160.**
Stddev	149.	7132.	4027.
%RSD	.08576	.52296	.61937

Sample Name: CalStd12=100K Acquired: 09/09/2019 10:35:03 Type: Cal
Method: DOD Calibration Updated 060614(v3507) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Cr2055	Cu2230	Mn2593	Pb2169	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.26**	**.639**	**.554**	**.128**	**1.92**
Stddev	.00	.002	.009	.000	.03
%RSD	.102	.261	1.60	.205	1.50

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**172730.**	**1382800.**	**659470.**
Stddev	374.	4226.	2266.
%RSD	.21657	.30558	.34362

Sample Name: CalStd13=100000 Acquired: 09/09/2019 10:41:57 Type: Cal
Method: DOD Calibration Updated 060614(v3507) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Al3961	Ca3158	Fe2343	Fe2395	Fe2599	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.137**	**.021**	**.063**	**.051**	**.124**	**3350.**
Stddev	.001	.000	.000	.001	.001	11.
%RSD	.974	.931	.277	1.06	1.07	.321

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**168350.**	**1342600.**	**641600.**
Stddev	382.	5795.	4601.
%RSD	.22688	.43164	.71706

Sample Name: CalStd14=500000 Acquired: 09/09/2019 10:48:18 Type: Cal
Method: DOD Calibration Updated 060614(v3507) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Al3961	Ca3158	Fe2395	Fe2599	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.712**	**.104**	**.246**	**.576**	**17500.**
Stddev	.019	.002	.004	.016	82.
%RSD	2.66	1.45	1.76	2.85	.468

Int. Std.	Y_2243	Y_3710
Units	Cts/S	Cts/S
Avg	**154880.**	**620130.**
Stddev	446.	8006.
%RSD	.28769	1.2910

Sample Name: CalibStd15=1000k Acquired: 09/09/2019 10:55:11 Type: Cal
Method: DOD Calibration Updated 060614(v3507) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Al3961	Ca3158	Fe2395	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.40**	**.195**	**.438**	**31000.**
Stddev	.03	.004	.011	57.
%RSD	1.90	2.04	2.43	.185

Int. Std.	Y_2243	Y_3710
Units	Cts/S	Cts/S
Avg	**137210.**	**582210.**
Stddev	1161.	12172.
%RSD	.84622	2.0906

Sample Name: icv Acquired: 09/09/2019 11:09:23 Type: QC
Method: DOD Calibration Updated 060614(v3507) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3082	As1937	As1972	Ba4934	Be3130	Ca3158	Cd2265	Co2286	Cr2055	Cr2677	Cu2230
Avg	**46.1**	**11600.**	**1910.**	**1990.**	**1930.**	**47.0**	**9410.**	**47.1**	**503.**	**201.**	**188.**	**244.**
Stddev	.9	66.	7.	12.	19.	.3	121.	.4	1.	1.	1.	.
%RSD	1.85	.564	.370	.583	.998	.662	1.28	.817	.156	.406	.525	.124
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2599	Mg2790	Mn2576	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960
Avg	**4910.**	**10500.**	**513.**	**476.**	**501.**	**496.**	**500.**	**475.**	**470.**	**496.**	**500.**	**1930.**
Stddev	60.	11.	4.	.	1.	1.	1.	3.	3.	4.	2.	4.
%RSD	1.23	.108	.811	.050	.176	.298	.140	.687	.666	.789	.321	.227
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Se2062	Tl1908	V_2908	V_2924	Zn2062	Zn2138
Avg	**1950.**	**1890.**	**485.**	**501.**	**515.**	**483.**
Stddev	24.	2.	4.	3.	1.	1.
%RSD	1.23	.097	.836	.592	.265	.147
Check ?	None	None	None	None	None	None
Value						
Range						

Sample Name: icv Acquired: 09/09/2019 11:09:23 Type: QC
Method: DOD Calibration Updated 060614(v3507) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**175540.**	**1392200.**	**661130.**
Stddev	108.	10962.	8177.
%RSD	.06180	.78741	1.2369

Sample Name: ICVLL Acquired: 09/09/2019 11:21:56 Type: QC
Method: DOD Calibration Updated 060614(v3507) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	Al3961	As1937	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Fe2343
Avg	**52.5**	**1260.**	**1280.**	**59.0**	**31.3**	**12.9**	**1580.**	**16.1**	**33.2**	**31.0**	**33.7**	**1010.**
Stddev	.5	4.	10.	1.6	.5	.1	12.	.2	.3	1.0	1.4	5.
%RSD	.921	.309	.761	2.79	1.66	.721	.744	1.47	.821	3.14	4.13	.522
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Avg	**1620.**	**34.2**	**35.6**	**34.0**	**30.0**	**68.6**	**61.6**	**60.4**	**33.6**	**32.3**
Stddev	11.	.3	.6	.7	.7	2.6	4.0	.7	.4	.2
%RSD	.698	.945	1.79	2.02	2.46	3.78	6.55	1.12	1.32	.478
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**176180.**	**1387200.**	**653750.**
Stddev	206.	7051.	4381.
%RSD	.11713	.50830	.67015

Sample Name: icb Acquired: 09/09/2019 11:28:06 Type: QC
Method: DOD Calibration Updated 060614(v3507) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	Al3961	As1937	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Fe2343
Avg	**-.328**	**-2.90**	**-10.2**	**-2.40**	**-.112**	**.015**	**.208**	**-.179**	**-.155**	**-1.19**	**.594**	**-14.6**
Stddev	1.14	.60	2.9	1.27	.066	.023	.691	.139	.201	.20	.619	.7
%RSD	347.	20.7	28.7	53.1	58.8	156.	332.	77.3	130.	16.9	104.	4.97
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Avg	**-1.37**	**-.030**	**-.039**	**-.158**	**-1.35**	**2.70**	**1.01**	**.295**	**.098**	**-.405**
Stddev	.04	.059	.557	.165	2.22	2.09	2.08	.930	.449	.093
%RSD	3.26	196.	1440.	104.	165.	77.6	206.	316.	457.	23.0
Check ?	None	None	None	None	None	None	None	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**182720.**	**1435300.**	**677580.**
Stddev	361.	5405.	1844.
%RSD	.19763	.37653	.27217

Sample Name: MRL/LLOQ Acquired: 09/09/2019 11:40:39 Type: QC
Method: DOD Calibration Updated 060614(v3507) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	Al3961	As1937	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Fe2343
Avg	F **12.2**	**404.**	**378.**	**17.1**	**9.29**	**3.98**	**471.**	**4.97**	**10.1**	**8.71**	**12.0**	**301.**
Stddev	.8	1.	4.	5.7	.48	.04	3.	.10	.1	.71	.9	4.
%RSD	6.57	.285	1.11	33.2	5.15	.889	.588	2.00	1.28	8.20	7.52	1.17
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	20.0											
Range	-30.0%											

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Avg	**502.**	**10.00**	**10.0**	**10.7**	**10.5**	**19.6**	**19.1**	**18.3**	**10.4**	**9.80**
Stddev	2.	.147	.3	.5	1.5	1.2	.9	.6	.2	.15
%RSD	.394	1.47	3.45	4.44	13.8	6.03	4.94	3.31	2.13	1.56
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**177330.**	**1397600.**	**663310.**
Stddev	362.	5354.	2161.
%RSD	.20395	.38312	.32574

Sample Name: ICSA Acquired: 09/09/2019 11:47:51 Type: QC
Method: DOD Calibration Updated 060614(v3507) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2395
Avg	**6.44**	**553000.**	**-.027**	**-.000**	**-.401**	**507000.**	**.003**	**.000**	**3.17**	**.000**	**474000.**
Stddev	1.73	25100.	11.0	.568	.017	1380.	.540	.507	.32	1.06	1140.
%RSD	26.9	4.53	40200.	1400000.	4.18	.271	19000.	1970000.	10.1	1850000.	.240
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit											
Low Limit											

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2908	Zn2138
Avg	**487000.**	**-2.09**	**-.436**	**-2.77**	**.961**	**1.13**	**-.001**	**4.88**	**10700.**	**-1.74**
Stddev	1750.	.17	.388	.90	3.83	2.92	15.9	1.50	37.	.20
%RSD	.360	7.99	88.8	32.4	399.	258.	1120000.	30.9	.342	11.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**153640.**	**1240400.**	**623520.**
Stddev	583.	7660.	3286.
%RSD	.37971	.61751	.52697

Sample Name: ICSAB Acquired: 09/09/2019 11:54:42 Type: QC
Method: DOD Calibration Updated 060614(v3507) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1972	Ba2335	Be3130	Ca3158	Cd2288	Co2286	Cr2055	Cr2677
Avg	**448.**	**495000.**	**456.**	**455.**	**464.**	**473.**	**474000.**	**501.**	**477.**	**499.**	**448.**
Stddev	3.	4180.	10.	9.	3.	3.	6890.	1.	2.	3.	4.
%RSD	.565	.845	2.12	2.09	.591	.663	1.45	.216	.337	.601	.923
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Elem	Cu2230	Fe2395	Mg2790	Mn2576	Mo2020	Mo2045	Ni2216	Ni2316	Pb2203	Sb2068	Sb2175
Avg	**469.**	**446000.**	**451000.**	**500.**	**458.**	**478.**	**460.**	**463.**	**414.**	**480.**	**487.**
Stddev	2.	6260.	3850.	4.	1.	2.	2.	1.	6.	1.	3.
%RSD	.347	1.40	.855	.879	.214	.512	.352	.322	1.50	.181	.700
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Elem	Se1960	Tl1908	V_2908	V_2924	Zn2062	Zn2138
Avg	**448.**	**467.**	**490.**	**508.**	**467.**	**480.**
Stddev	11.	5.	10.	4.	2.	1.
%RSD	2.40	.981	1.98	.693	.349	.109
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: ICSAB Acquired: 09/09/2019 11:54:42 Type: QC
Method: DOD Calibration Updated 060614(v3507) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**155650.**	**1238800.**	**625920.**
Stddev	310.	7244.	4044.
%RSD	.19927	.58481	.64615

Sample Name: ICVLL ag Acquired: 09/09/2019 12:07:19 Type: Unk
Method: DOD Calibration Updated 060614(v3507) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	Al3961	As1937	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**9.52**	**-1.85**	**.378**	**-1.12**	**-.574**	**.014**	**-26.0**	**-.043**	**-.093**	**-1.01**	**1.07**	**32.8**
Stddev	.46	.84	4.60	3.81	.315	.011	.6	.105	.070	.20	1.09	6.9
%RSD	4.83	45.6	1220.	340.	54.9	82.4	2.33	242.	74.9	19.8	102.	21.1

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-4.29**	**-.921**	**.034**	**-.214**	**-.202**	**3.55**	**-4.67**	**1.53**	**-.240**	**-.208**
Stddev	.10	.104	.385	.192	1.39	1.93	2.80	.84	.332	.019
%RSD	2.38	11.3	1120.	89.7	688.	54.4	60.0	54.7	138.	9.17

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**179860.**	**1412800.**	**664270.**
Stddev	505.	6288.	3279.
%RSD	.28052	.44508	.49356

Sample Name: ccv1 Acquired: 09/10/2019 01:44:10 Type: QC
Method: DOD Calibration Updated 060614(v3507) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1972	Ba4934	Be3130	Ca3158	Cd2288	Co2388	Cr2055	Cu2230	Fe2599	Mg2790
Avg	**440.**	**4610.**	**4850.**	**4650.**	**457.**	F **4480.**	**466.**	**4720.**	**4790.**	**4590.**	**4670.**	**5160.**
Stddev	3.	8.	25.	16.	3.	6.	2.	29.	23.	21.	13.	51.
%RSD	.645	.184	.522	.347	.620	.126	.455	.610	.484	.463	.279	.994
Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
Value						5000.						
Range						-10.4%						

Elem	Mn2593	Mo2045	Ni2216	Pb2169	Sb2068	Se2062	Tl1908	V_2908	Zn2062
Avg	**4530.**	**4800.**	**4710.**	**4550.**	**4800.**	**4710.**	**4520.**	**4620.**	**4750.**
Stddev	19.	24.	21.	22.	18.	18.	22.	7.	21.
%RSD	.423	.499	.455	.476	.382	.377	.477	.154	.438
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**172530.**	**1352300.**	**665870.**
Stddev	523.	4958.	2795.
%RSD	.30304	.36665	.41978

Sample Name: ccv2 Acquired: 09/10/2019 01:50:22 Type: QC
Method: DOD Calibration Updated 060614(v3507) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	Al3961	As1937	As1972	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2055	Cr2677
Avg	**46.3**	**525.**	**475.**	**468.**	**497.**	**471.**	**46.7**	**453.**	**47.1**	**494.**	**502.**	**469.**
Stddev	.4	2.	10.	1.	3.	1.	.4	3.	.2	1.	1.	4.
%RSD	.887	.414	2.10	.305	.670	.148	.883	.732	.344	.136	.224	.795
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Cu2230	Fe2343	Mg2802	Mn2576	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175
Avg	**487.**	**496.**	**484.**	**504.**	**475.**	**497.**	**496.**	**501.**	**485.**	**467.**	**498.**	**495.**
Stddev	1.	6.	3.	4.	1.	.	1.	2.	3.	4.	3.	2.
%RSD	.195	1.13	.719	.780	.249	.054	.192	.448	.670	.839	.661	.415
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Se1960	Tl1908	V_2908	V_2924	Zn2062	Zn2138
Avg	**473.**	**471.**	**479.**	**491.**	**496.**	**469.**
Stddev	4.	2.	1.	3.	1.	.
%RSD	.825	.385	.265	.695	.167	.082
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: ccv2 Acquired: 09/10/2019 01:50:22 Type: QC
Method: DOD Calibration Updated 060614(v3507) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**176530.**	**1392700.**	**671000.**
Stddev	525.	5796.	5103.
%RSD	.29753	.41616	.76053

Sample Name: ccb Acquired: 09/10/2019 01:56:12 Type: QC
Method: DOD Calibration Updated 060614(v3507) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	Al3961	As1937	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Fe2343
Avg	**-.906**	**-.887**	**-6.77**	**-2.77**	**.610**	**.021**	**24.6**	**-.007**	**.130**	**-1.02**	**.951**	**-15.7**
Stddev	.442	.862	6.28	1.15	.183	.015	.9	.113	.248	.52	.722	2.0
%RSD	48.7	97.1	92.8	41.4	30.0	72.3	3.68	1550.	192.	51.5	75.9	12.4
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Avg	**1.68**	**1.04**	**.607**	**-.023**	**-1.27**	**1.49**	**-4.49**	**1.14**	**-.351**	**.558**
Stddev	.12	.11	.142	.277	2.07	4.54	4.17	.75	.435	.020
%RSD	7.12	11.0	23.3	1200.	162.	304.	92.8	65.7	124.	3.56
Check ?	None	None	None	None	None	None	None	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**183000.**	**1442200.**	**695590.**
Stddev	329.	8123.	1760.
%RSD	.17988	.56324	.25297

Sample Name: 321163 Acquired: 09/10/2019 02:42:04 Type: Unk
Method: DOD Calibration Updated 060614(v3507) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 10
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2599
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-1.53**	**15100.**	**23.1**	**180.**	**.678**	**318000.**	**-.440**	**14.1**	**23.5**	**40.4**	**23200.**
Stddev	.60	646.	1.4	.	.021	12400.	.326	.2	1.3	.6	877.
%RSD	38.9	4.28	5.84	.181	3.15	3.88	74.1	1.11	5.49	1.38	3.77

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**12100.**	**907.**	**1.18**	**28.0**	**78.7**	**-.249**	**1.59**	**3.12**	**34.9**	**158.**
Stddev	447.	10.	.54	.4	1.7	1.87	2.92	1.80	.8	.
%RSD	3.71	1.10	45.2	1.41	2.17	750.	184.	57.8	2.30	.163

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**167740.**	**1330500.**	**664040.**
Stddev	137.	3566.	2124.
%RSD	.08138	.26802	.31986

Sample Name: 321166 Acquired: 09/10/2019 02:48:24 Type: Unk
Method: DOD Calibration Updated 060614(v3507) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 10
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2599
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-1.34**	**6050.**	**4.81**	**75.0**	**.531**	**411000.**	**-.055**	**4.98**	**24.5**	**15.3**	**19200.**
Stddev	.62	101.	3.67	.6	.029	6360.	.142	.20	1.1	.4	292.
%RSD	46.2	1.66	76.3	.785	5.37	1.55	259.	4.10	4.64	2.61	1.52

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**9330.**	**260.**	**-.193**	**14.8**	**31.1**	**-.294**	**-4.16**	**3.35**	**19.9**	**109.**
Stddev	150.	1.	.797	.2	2.3	3.11	2.78	2.60	.4	1.
%RSD	1.61	.395	413.	1.27	7.41	1060.	67.0	77.6	1.96	.540

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**166480.**	**1310000.**	**658940.**
Stddev	492.	3289.	5980.
%RSD	.29562	.25106	.90750

Sample Name: 321168 Acquired: 09/10/2019 02:54:48 Type: Unk
Method: DOD Calibration Updated 060614(v3507) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 10
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2599
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-1.11**	**10500.**	**16.0**	**159.**	**.341**	**397000.**	**-.080**	**6.11**	**25.7**	**21.5**	**19300.**
Stddev	.76	165.	3.3	1.	.029	6390.	.350	.41	.8	.8	264.
%RSD	68.2	1.57	20.7	.425	8.64	1.61	439.	6.78	3.05	3.77	1.37

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**11000.**	**400.**	**1.58**	**19.3**	**85.5**	**-2.93**	**-5.26**	**2.63**	**28.2**	**145.**
Stddev	131.	1.	.50	.1	3.8	1.85	4.99	2.79	.6	.
%RSD	1.20	.304	31.4	.673	4.46	63.1	94.9	106.	2.21	.252

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**166310.**	**1309700.**	**659180.**
Stddev	476.	7714.	4097.
%RSD	.28639	.58897	.62156

Sample Name: 321170 Acquired: 09/10/2019 03:01:08 Type: Unk
Method: DOD Calibration Updated 060614(v3507) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 10
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2599
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-1.32**	**8740.**	**11.2**	**84.5**	**.190**	**633000.**	**.098**	**8.46**	**24.1**	**22.8**	**15100.**
Stddev	.06	42.	4.9	.2	.026	2300.	.187	.13	.5	1.5	23.
%RSD	4.89	.475	43.8	.182	13.8	.363	192.	1.49	2.28	6.63	.154

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**13600.**	**482.**	**1.02**	**19.7**	**40.9**	**-2.03**	**.416**	**1.44**	**25.6**	**150.**
Stddev	82.	1.	.37	.4	1.4	2.51	3.94	2.16	.3	.
%RSD	.599	.297	36.5	2.07	3.53	124.	949.	150.	1.19	.253

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**162920.**	**1281900.**	**652880.**
Stddev	173.	8064.	1589.
%RSD	.10632	.62907	.24332

Sample Name: ccv1 Acquired: 09/10/2019 03:07:30 Type: QC
Method: DOD Calibration Updated 060614(v3507) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1972	Ba4934	Be3130	Ca3158	Cd2288	Co2388	Cr2055	Cu2230	Fe2599	Mg2790
Avg	**440.**	**4660.**	**4820.**	**4690.**	**461.**	**4520.**	**463.**	**4740.**	**4800.**	**4570.**	**4710.**	**5150.**
Stddev	2.	23.	10.	29.	3.	26.	1.	20.	7.	11.	27.	32.
%RSD	.432	.498	.202	.621	.662	.571	.182	.422	.141	.230	.567	.620
Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
Value												
Range												

Elem	Mn2593	Mo2045	Ni2216	Pb2169	Sb2068	Se2062	Tl1908	V_2908	Zn2062
Avg	**4580.**	**4790.**	**4710.**	**4540.**	**4780.**	**4650.**	**4500.**	**4660.**	**4750.**
Stddev	23.	7.	7.	9.	13.	16.	10.	19.	6.
%RSD	.511	.138	.158	.204	.270	.342	.223	.409	.121
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**173120.**	**1346000.**	**665820.**
Stddev	381.	11337.	2849.
%RSD	.22031	.84233	.42787

Sample Name: ccv2 Acquired: 09/10/2019 03:13:42 Type: QC
Method: DOD Calibration Updated 060614(v3507) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	Al3961	As1937	As1972	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2055	Cr2677
Avg	**44.9**	**524.**	**475.**	**462.**	**491.**	**471.**	**47.1**	**454.**	**46.9**	**491.**	**503.**	**478.**
Stddev	.5	4.	13.	4.	7.	.	.3	6.	.3	1.	1.	2.
%RSD	1.06	.686	2.64	.769	1.38	.105	.696	1.23	.593	.153	.254	.431
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Cu2230	Fe2343	Mg2802	Mn2576	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175
Avg	**485.**	**506.**	**491.**	**507.**	**473.**	**496.**	**494.**	**499.**	**483.**	**466.**	**496.**	**491.**
Stddev	2.	3.	3.	3.	1.	2.	1.	1.	4.	5.	3.	5.
%RSD	.339	.565	.602	.586	.173	.376	.223	.210	.880	1.12	.520	1.01
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Se1960	Tl1908	V_2908	V_2924	Zn2062	Zn2138
Avg	**465.**	**471.**	**478.**	**494.**	**493.**	**467.**
Stddev	5.	2.	6.	3.	1.	1.
%RSD	1.14	.366	1.21	.596	.159	.160
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: ccv2 Acquired: 09/10/2019 03:13:42 Type: QC
Method: DOD Calibration Updated 060614(v3507) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**177880.**	**1383900.**	**674380.**
Stddev	170.	7844.	7322.
%RSD	.09532	.56680	1.0858

Sample Name: ccb Acquired: 09/10/2019 03:19:30 Type: QC
Method: DOD Calibration Updated 060614(v3507) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	Al3961	As1937	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Fe2343
Avg	**-.488**	**-1.25**	**-7.51**	**-1.24**	**.066**	**.028**	**25.8**	**.032**	**-.008**	**-1.49**	**1.42**	**-15.3**
Stddev	.583	.57	3.58	1.83	.119	.025	.8	.101	.273	.63	.42	1.2
%RSD	119.	45.2	47.7	147.	180.	89.7	2.95	320.	3600.	42.5	29.9	7.74
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Avg	**1.92**	**.901**	**.959**	**-.118**	**-1.33**	**.466**	**.170**	**1.50**	**-.142**	**.556**
Stddev	.17	.084	.483	.503	1.05	1.42	1.95	1.18	.211	.216
%RSD	8.75	9.31	50.4	426.	78.8	305.	1140.	78.4	148.	38.8
Check ?	None	None	None	None	None	None	None	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**182390.**	**1429000.**	**685540.**
Stddev	525.	13045.	1424.
%RSD	.28803	.91286	.20770

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL
Ag 328.068 {103}	09/10/2019 09:46:03	09/03/2019 12:47:42	Linear	None	16.056055	3.263170	0.000000	1.000000	0.999912	2.561267	0.877561	2.925204
Ag 338.289 {100}	09/10/2019 09:46:03	09/03/2019 12:53:36	Linear	None	0.000014	0.000000	0.000000	1.000000	0.998882	0.000016	6.234177	20.780589
Al 167.079 {501}	09/10/2019 09:46:03	09/03/2019 12:53:36	Linear	None	0.000016	0.000003	0.000000	1.000000	0.999980	0.000010	0.936484	3.121614
Al 308.215 {109}	09/10/2019 09:46:03	09/03/2019 13:13:14	Curvili	1/Var	0.000043	0.000000	0.000000	1.000000	0.999894	0.000007	20.116207	67.054022
Al 396.152 { 85}	09/10/2019 09:46:03	09/03/2019 13:28:55	Curvili	1/Var	-0.000009	0.000001	0.000000	1.000000	0.999218	0.000046	5.969070	19.896901
As 193.759 {474}	09/10/2019 09:46:03	09/03/2019 12:53:37	Linear	1/Conc	0.262272	0.186486	0.000000	1.000000	0.999970	0.006309	4.543238	15.144126
As 197.262 {471}	09/10/2019 09:46:03	09/03/2019 13:00:08	Linear	1/Var	0.000001	0.000001	0.000000	1.000000	0.999917	0.000005	6.790776	22.635920
Ba 233.527 {445}	09/10/2019 09:46:03	09/03/2019 12:53:37	Linear	None	0.000006	0.000008	0.000000	1.000000	0.999999	0.000004	0.417203	1.390678
Ba 455.403 { 74}	09/10/2019 09:46:03	09/03/2019 13:00:08	Linear	1/Conc	0.000024	0.000022	0.000000	1.000000	0.999638	0.000002	0.231824	0.772746
Ba 493.409 { 68}	09/10/2019 09:46:03	09/03/2019 13:00:09	Linear	1/Conc	0.005811	0.000027	0.000000	1.000000	0.999784	0.000026	0.530822	1.769408
Be 313.042 {108}	09/10/2019 09:46:03	09/03/2019 12:53:37	Linear	1/Conc	-0.000058	0.000085	0.000000	1.000000	0.999998	0.000000	0.031389	0.104629
Be 234.861 {144}	09/10/2019 09:46:03	09/03/2019 12:53:37	Linear	1/Var	-0.000000	0.000004	0.000000	1.000000	0.999979	0.000001	0.247088	0.823626
Ca 315.887 {107}	09/10/2019 09:46:03	09/03/2019 13:28:56	Linear	1/Conc	0.000016	0.000000	0.000000	1.000000	0.998943	0.000011	7.527212	25.090708
Ca 317.933 {106}	09/10/2019 09:46:03	09/03/2019 13:28:56	Curvili	1/Conc	0.002838	0.000000	0.000000	1.000000	0.998931	0.000008	14.886528	49.621759
Ca 393.366 { 86}	09/10/2019 09:46:03	09/03/2019 12:53:38	Linear	None	0.002421	0.000087	0.000000	1.000000	0.999521	0.002103	0.042378	0.141260
Ca 396.847 { 85}	09/10/2019 09:46:03	09/03/2019 13:00:09	Linear	1/Conc	0.001635	0.000034	0.000000	1.000000	0.999475	0.000052	0.107360	0.357868
Cd 226.502 {449}	09/10/2019 09:46:03	09/03/2019 12:53:38	Linear	1/Conc	-0.000001	0.000023	0.000000	1.000000	0.999968	0.000000	0.221952	0.739840
Cd 228.802 {447}	09/10/2019 09:46:03	09/03/2019 12:53:39	Linear	1/Conc	0.000017	0.000035	0.000000	1.000000	0.999854	0.000001	0.180447	0.601491
Co 228.616 {447}	09/10/2019 09:46:03	09/03/2019 13:00:09	Linear	1/Conc	0.000011	0.000020	0.000000	1.000000	0.999978	0.000000	0.284195	0.947318
Co 238.892 {141}	09/10/2019 09:46:03	09/03/2019 13:00:09	Linear	1/Conc	0.000004	0.000001	0.000000	1.000000	0.999622	0.000002	1.195311	3.984369
Cr 205.560 {464}	09/10/2019 09:46:03	09/03/2019 13:06:55	Curvili	1/Conc	-0.000008	0.000011	-0.000000	1.000000	0.999959	0.000001	0.370500	1.234998
Cr 267.716 {126}	09/10/2019 09:46:03	09/03/2019 13:00:10	Linear	1/Var	-0.000001	0.000003	0.000000	1.000000	0.999672	0.000009	0.808506	2.695019
Cu 223.008 {451}	09/10/2019 09:46:03	09/03/2019 13:06:55	Linear	1/Conc	-0.000005	0.000006	0.000000	1.000000	0.999982	0.000001	1.177845	3.926150
Cu 224.700 {450}	09/10/2019 09:46:03	09/03/2019 13:06:55	Linear	1/Conc	0.567602	1.405781	0.000000	1.000000	0.999412	2.686200	0.595703	1.985678
Cu 324.754 {104}	09/10/2019 09:46:03	09/03/2019 13:06:56	Curvili	1/Var	0.001140	0.000001	0.000000	1.000000	0.999889	0.000019	3.285908	10.953026
Cu 327.396 {103}	09/10/2019 09:46:03	09/03/2019 13:00:10	Linear	1/Conc	0.000017	0.000001	0.000000	1.000000	0.997613	0.000000	4.349610	14.498700
Fe 234.349 {144}	09/10/2019 09:46:03	09/03/2019 13:13:15	Linear	1/Var	0.000038	0.000001	0.000000	1.000000	0.998988	0.000012	1.400060	4.666867
Fe 239.562 {140}	09/10/2019 09:46:03	09/03/2019 13:28:56	Linear	1/Var	0.000006	0.000000	0.000000	1.000000	0.998920	0.000014	3.066342	10.221141
Fe 259.940 {129}	09/10/2019 09:46:03	09/03/2019 13:21:05	Full Fit	1/Conc	0.000001	0.000001	0.000000	1.010000	0.999990	0.000007	1.703436	5.678120
Mg 202.582 {466}	09/10/2019 09:46:03	09/03/2019 13:28:56	Linear	None	0.018918	0.000001	0.000000	1.000000	0.996098	0.057187	3.733059	12.443531
Mg 279.079 {121}	09/10/2019 09:46:03	09/03/2019 13:28:56	Linear	1/Conc	-2.776910	0.018534	0.000000	1.000000	0.997729	1.944103	35.402357	118.00785
Mg 280.270 {120}	09/10/2019 09:46:03	09/03/2019 13:00:11	Linear	1/Var	0.000341	0.000037	0.000000	1.000000	0.998298	0.000210	0.033674	0.112247
Mn 257.610 {131}	09/10/2019 09:46:03	09/03/2019 13:00:11	Linear	1/Conc	0.000003	0.000011	0.000000	1.000000	0.999353	0.000003	0.109249	0.364164
Mn 259.373 {130}	09/10/2019 09:46:03	09/03/2019 13:06:56	Linear	1/Var	0.000002	0.000005	0.000000	1.000000	0.999627	0.000011	0.366298	1.220995
Mo 202.030 {466}	09/10/2019 09:46:03	09/03/2019 12:53:41	Linear	1/Var	0.000003	0.000006	0.000000	1.000000	0.999995	0.000003	0.559733	1.865778
Mo 203.844 {465}	09/10/2019 09:46:03	09/03/2019 12:53:41	Linear	1/Var	0.000007	0.000005	0.000000	1.000000	0.999975	0.000003	0.957584	3.191945
Mo 204.598 {464}	09/10/2019 09:46:03	09/03/2019 13:00:11	Linear	1/Var	0.000002	0.000005	0.000000	1.000000	0.999520	0.000031	0.869576	2.898587
Ni 221.647 {452}	09/10/2019 09:46:03	09/03/2019 13:00:12	Linear	1/Var	0.000026	0.000013	0.000000	1.000000	0.999399	0.000152	0.522991	1.743304
Ni 231.604 {445}	09/10/2019 09:46:03	09/03/2019 13:00:12	Linear	1/Var	-0.000012	0.000012	0.000000	1.000000	0.998726	0.000026	0.536830	1.789434
Pb 216.999 {455}	09/10/2019 09:46:03	09/03/2019 13:06:56	Linear	1/Var	0.000008	0.000001	0.000000	1.000000	0.999028	0.000034	5.248740	17.495801
Pb 220.353 {453}	09/10/2019 09:46:03	09/03/2019 12:53:42	Linear	1/Conc	0.000016	0.000002	0.000000	1.000000	0.999838	0.000000	2.967785	9.892617
Pb 220.353 {153}	09/10/2019 09:46:03	09/03/2019 13:06:56	Linear	1/Conc	0.000002	0.000000	0.000000	1.000000	0.999867	0.000001	4.413099	14.710330
Sb 206.833 {463}	09/10/2019 09:46:03	09/03/2019 13:00:12	Linear	1/Conc	-0.000002	0.000002	0.000000	1.000000	0.999786	0.000000	2.671932	8.906439
Sb 217.581 {455}	09/10/2019 09:46:03	09/03/2019 13:00:12	Linear	1/Conc	0.000004	0.000002	0.000000	1.000000	0.999516	0.000000	3.099077	10.330256

	Element, Wavelength and Order	Status	Reslope		QC Norm	
			Slope	Y-int	Slope factor	Offset
	Ag 328.068 {103}	OK.	1.000000	0.000000	1	0
	Ag 338.289 {100}	OK.	1.000000	0.000000	1	0
	Al 167.079 {501}	OK.	1.000000	0.000000	1	0
	Al 308.215 {109}	OK.	1.000000	0.000000	1	0
	Al 396.152 { 85}	OK.	1.000000	0.000000	1	0
	As 193.759 {474}	OK.	1.000000	0.000000	1	0
	As 197.262 {471}	OK.	1.000000	0.000000	1	0
	Ba 233.527 {445}	OK.	1.000000	0.000000	1	0
	Ba 455.403 { 74}	OK.	1.000000	0.000000	1	0
	Ba 493.409 { 68}	OK.	1.000000	0.000000	1	0
	Be 313.042 {108}	OK.	1.000000	0.000000	1	0
	Be 234.861 {144}	OK.	1.000000	0.000000	1	0
	Ca 315.887 {107}	OK.	1.000000	0.000000	1	0
	Ca 317.933 {106}	OK.	1.000000	0.000000	1	0
	Ca 393.366 { 86}	OK.	1.000000	0.000000	1	0
	Ca 396.847 { 85}	OK.	1.000000	0.000000	1	0
	Cd 226.502 {449}	OK.	1.000000	0.000000	1	0
	Cd 228.802 {447}	OK.	1.000000	0.000000	1	0
	Co 228.616 {447}	OK.	1.000000	0.000000	1	0
	Co 238.892 {141}	OK.	1.000000	0.000000	1	0
	Cr 205.560 {464}	OK.	1.000000	0.000000	1	0
	Cr 267.716 {126}	OK.	1.000000	0.000000	1	0
	Cu 223.008 {451}	OK.	1.000000	0.000000	1	0
	Cu 224.700 {450}	OK.	1.000000	0.000000	1	0
	Cu 324.754 {104}	Warnin	1.000000	0.000000	1	0
	Cu 327.396 {103}	OK.	1.000000	0.000000	1	0
	Fe 234.349 {144}	OK.	1.000000	0.000000	1	0
	Fe 239.562 {140}	OK.	1.000000	0.000000	1	0
	Fe 259.940 {129}	OK.	1.000000	0.000000	1	0
	Mg 202.582 {466}	OK.	1.000000	0.000000	1	0
	Mg 279.079 {121}	OK.	1.000000	0.000000	1	0
	Mg 280.270 {120}	OK.	1.000000	0.000000	1	0
	Mn 257.610 {131}	OK.	1.000000	0.000000	1	0
	Mn 259.373 {130}	OK.	1.000000	0.000000	1	0
	Mo 202.030 {466}	OK.	1.000000	0.000000	1	0
	Mo 203.844 {465}	OK.	1.000000	0.000000	1	0
	Mo 204.598 {464}	OK.	1.000000	0.000000	1	0
	Ni 221.647 {452}	OK.	1.000000	0.000000	1	0
	Ni 231.604 {445}	OK.	1.000000	0.000000	1	0
	Pb 216.999 {455}	OK.	1.000000	0.000000	1	0
	Pb 220.353 {453}	OK.	1.000000	0.000000	1	0
	Pb 220.353 {153}	OK.	1.000000	0.000000	1	0
	Sb 206.833 {463}	OK.	1.000000	0.000000	1	0
	Sb 217.581 {455}	OK.	1.000000	0.000000	1	0

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL
Se 196.090 {472}	09/10/2019 09:46:03	09/03/2019 12:53:43	Linear	1/Var	0.000002	0.000001	0.000000	1.000000	0.999984	0.000002	4.348707	14.495689
Se 203.985 {465}	09/10/2019 09:46:03	09/03/2019 12:53:43	Linear	1/Var	-0.000001	0.000001	0.000000	1.000000	0.999999	0.000000	6.597260	21.990866
Se 206.279 {463}	09/10/2019 09:46:03	09/03/2019 13:00:12	Curvili	1/Conc	-0.000004	0.000000	-0.000000	1.000000	0.999973	0.000000	22.179376	73.931252
Tl 190.856 {476}	09/10/2019 09:46:03	09/03/2019 13:00:13	Curvili	1/Var	0.000005	0.000002	-0.000000	1.000000	1.000000	0.000001	2.145686	7.152286
Tl 190.856 {477}	09/10/2019 09:46:03	09/03/2019 13:00:13	Linear	1/Conc	-0.000001	0.000001	0.000000	1.000000	0.999378	0.000000	6.453992	21.513307
V 290.882 {116}	09/10/2019 09:46:03	09/03/2019 13:00:13	Linear	1/Conc	0.000005	0.000001	0.000000	1.000000	0.999813	0.000001	2.906149	9.687162
V 292.402 {115}	09/10/2019 09:46:03	09/03/2019 13:00:13	Linear	1/Conc	0.000005	0.000007	0.000000	1.000000	0.999705	0.000002	0.542894	1.809648
Zn 206.200 {463}	09/10/2019 09:46:03	09/03/2019 13:06:56	Linear	1/Var	0.000031	0.000016	0.000000	1.000000	0.997641	0.000171	0.293152	0.977173
Zn 213.856 {457}	09/10/2019 09:46:03	09/03/2019 12:53:44	Linear	1/Conc	0.000023	0.000037	0.000000	1.000000	0.999986	0.000001	0.133108	0.443693
Y 224.306 {450}*	09/10/2019 09:46:03	09/03/2019 12:01:23	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
Y 324.228 {104}*	09/10/2019 09:46:03	09/03/2019 12:01:23	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
Y 371.030 { 91}*	09/10/2019 09:46:03	09/03/2019 12:01:23	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
Na 588.995 { 57}	09/10/2019 09:46:03	09/03/2019 13:00:13	Linear	None	0.001958	0.000004	0.000000	1.000000	0.999993	0.000115	3.489480	11.631600
Na 589.592 { 57}	09/10/2019 09:46:03	09/03/2019 13:28:57	Linear	1/Conc	0.000068	0.000002	0.000000	1.000000	0.999997	0.000007	3.795767	12.652558
Si 251.611 {134}	09/10/2019 09:46:03	09/03/2019 13:28:57	Linear	1/Var	8.466284	0.135460	0.000000	1.000000	0.990306	28.734641	7.537126	25.123755
Ti 323.452 {104}	09/10/2019 09:46:03	09/03/2019 13:00:14	Linear	1/Conc	0.000109	0.000004	0.000000	1.000000	0.999718	0.000001	0.733918	2.446394
Ti 334.941 {101}	09/10/2019 09:46:03	09/03/2019 13:00:14	Linear	1/Conc	-0.000000	0.000003	0.000000	1.000000	0.999790	0.000000	0.781375	2.604585
Sr 407.771 { 83}	09/10/2019 09:46:03	09/03/2019 13:00:14	Linear	1/Conc	0.000039	0.000045	0.000000	1.000000	0.999617	0.000005	0.103015	0.343382
Sr 421.552 { 80}	09/10/2019 09:46:03	09/03/2019 13:00:14	Linear	1/Conc	0.000008	0.000045	0.000000	1.000000	0.999748	0.000004	0.102257	0.340858
Sn 189.989 {477}	09/10/2019 09:46:03	09/03/2019 13:00:14	Linear	1/Conc	0.000002	0.000003	0.000000	1.000000	0.999530	0.000001	1.490124	4.967080
B 249.678 {135}	09/10/2019 09:46:03	09/03/2019 13:00:15	Linear	1/Conc	0.000006	0.000002	0.000000	1.000000	0.999797	0.000000	1.207018	4.023394
B 249.773 {135}	09/10/2019 09:46:03	09/03/2019 13:00:15	Linear	1/Var	0.000015	0.000005	0.000000	1.000000	0.999664	0.000018	0.556556	1.855187
Li 670.784 { 50}	09/10/2019 09:46:03	09/03/2019 13:00:15	Linear	1/Var	0.000006	0.000014	0.000000	1.000000	0.999543	0.000105	0.695378	2.317928
K 766.490 { 44}	09/10/2019 09:46:03	09/03/2019 13:28:57	Linear	1/Conc	0.000102	0.000001	0.000000	1.000000	0.999997	0.000002	17.756787	59.189290
P 213.618 {457}	09/10/2019 09:46:03	09/03/2019 13:00:15	Linear	1/Conc	-0.000001	0.000000	0.000000	1.000000	0.999925	0.000000	4.532693	15.108976
S 182.034 {485}	09/10/2019 09:46:03	09/03/2019 13:28:57	Curvili	1/Conc	0.000005	0.000001	0.000000	1.000000	0.999999	0.000001	5.466802	18.222675
Hg 184.950 {482}	09/10/2019 09:46:03	09/03/2019 12:53:46	Linear	1/Conc	0.000008	0.000003	0.000000	1.000000	0.999980	0.000000	1.082354	3.607846
Ce 404.076 { 83}	09/10/2019 09:46:03	09/03/2019 12:53:46	Linear	1/Conc	0.000015	0.000000	0.000000	1.000000	1.000000	0.000000	12.384528	41.281759

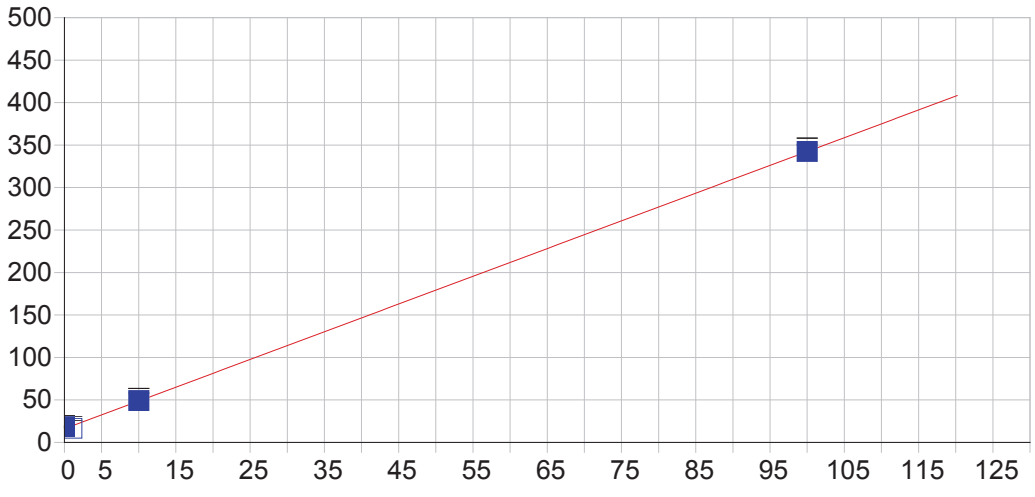
	Element, Wavelength and Order	Status	Reslope		QC Norm	
			Slope	Y-int	Slope factor	Offset
	Se 196.090 {472}	OK.	1.000000	0.000000	1	0
	Se 203.985 {465}	OK.	1.000000	0.000000	1	0
	Se 206.279 {463}	OK.	1.000000	0.000000	1	0
	Tl 190.856 {476}	OK.	1.000000	0.000000	1	0
	Tl 190.856 {477}	OK.	1.000000	0.000000	1	0
	V 290.882 {116}	OK.	1.000000	0.000000	1	0
	V 292.402 {115}	OK.	1.000000	0.000000	1	0
	Zn 206.200 {463}	OK.	1.000000	0.000000	1	0
	Zn 213.856 {457}	OK.	1.000000	0.000000	1	0
	Y 224.306 {450}*	Warnin	1.000000	0.000000	1	0
	Y 324.228 {104}*	Warnin	1.000000	0.000000	1	0
	Y 371.030 { 91}*	Warnin	1.000000	0.000000	1	0
	Na 588.995 { 57}	OK.	1.000000	0.000000	1	0
	Na 589.592 { 57}	OK.	1.000000	0.000000	1	0
	Si 251.611 {134}	OK.	1.000000	0.000000	1	0
	Ti 323.452 {104}	OK.	1.000000	0.000000	1	0
	Ti 334.941 {101}	OK.	1.000000	0.000000	1	0
	Sr 407.771 { 83}	OK.	1.000000	0.000000	1	0
	Sr 421.552 { 80}	OK.	1.000000	0.000000	1	0
	Sn 189.989 {477}	OK.	1.000000	0.000000	1	0
	B 249.678 {135}	OK.	1.000000	0.000000	1	0
	B 249.773 {135}	OK.	1.000000	0.000000	1	0
	Li 670.784 { 50}	OK.	1.000000	0.000000	1	0
	K 766.490 { 44}	OK.	1.000000	0.000000	1	0
	P 213.618 {457}	OK.	1.000000	0.000000	1	0
	S 182.034 {485}	OK.	1.000000	0.000000	1	0
	Hg 184.950 {482}	OK.	1.000000	0.000000	1	0
	Ce 404.076 { 83}	OK.	1.000000	0.000000	1	0

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ag 328.068 {103}	☒	3	Fe	0.000000	0.000000	No
			Ce	-0.003619	0.000000	No
			Ti	-0.000152	0.000000	No
Ag 338.289 {100}	☒	1	Fe	0.000132	0.000000	No
Al 167.079 {501}	☒	None				
Al 308.215 {109}	☒	None				
Al 396.152 { 85}	☒	None				
As 193.759 {474}	☒	4	Al	0.000715	0.000000	No
			Mn	-0.000114	0.000000	No
			Ni	-0.000722	0.000000	No
			Cr	0.000734	0.000000	No
As 197.262 {471}	☒	2	Al	0.000096	0.000000	No
			V	0.006278	0.000000	No
Ba 233.527 {445}	☒	3	Fe	0.000026	0.000000	No
			V	0.000000	0.000000	No
			Cr	0.000118	0.000000	No
Ba 455.403 { 74}	☒	1	Fe	0.000002	0.000000	No
Ba 493.409 { 68}	☒	1	Fe	0.000102	0.000000	No
Be 313.042 {108}	☒	4	Fe	0.000000	0.000000	No
			Ti	-0.000006	0.000000	No
			V	0.000050	0.000000	No
			Ni	0.000000	0.000000	No
Be 234.861 {144}	☒	1	Fe	0.000101	0.000000	No
Ca 315.887 {107}	☒	None				
Ca 317.933 {106}	☒	None				
Ca 393.366 { 86}	☒	1	Cu	0.000000	0.000000	No
Ca 396.847 { 85}	☒	None				
Cd 226.502 {449}	☒	1	Fe	0.000207	0.000000	No
Cd 228.802 {447}	☒	1	Fe	-0.000004	0.000000	No
Co 228.616 {447}	☒	3	Fe	-0.000005	0.000000	No
			Ti	0.002980	0.000000	No
			Ba	-0.001086	0.000000	No
Co 238.892 {141}	☒	1	Fe	0.000226	0.000000	No
Cr 205.560 {464}	☒	1	Fe	-0.000004	0.000000	No
Cr 267.716 {126}	☒	4	Fe	0.000042	0.000000	No
			Mn	0.000234	0.000000	No
			Ti	0.000100	0.000000	No
			V	-0.000074	0.000000	No
Cu 223.008 {451}	☒	1	Fe	0.000032	0.000000	No
Cu 224.700 {450}	☒	2	Fe	0.000052	0.000000	No
			Ni	-0.007040	0.000000	No
Cu 324.754 {104}	☒	1	Fe	-0.000549	0.000000	No
Cu 327.396 {103}	☒	2	Fe	0.000029	0.000000	No
			Mo	-0.000590	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Fe 234.349 {144}	☒	None				
Fe 239.562 {140}	☒	None				
Fe 259.940 {129}	☒	None				
Mg 202.582 {466}	☒	None				
Mg 279.079 {121}	☒	None				
Mg 280.270 {120}	☒	None				
Mn 257.610 {131}	☒	1	Al	0.000004	0.000000	No
Mn 259.373 {130}	☒	1	Mg	0.001300	0.000000	No
Mo 202.030 {466}	☒	2	Fe	0.000029	0.000000	No
			Ti	0.001417	0.000000	No
Mo 203.844 {465}	☒	1	Fe	-0.000029	0.000000	No
Mo 204.598 {464}	☒	1	Fe	0.000099	0.000000	No
Ni 221.647 {452}	☒	1	Ca	0.000021	0.000000	No
Ni 231.604 {445}	☒	6	Fe	-0.000077	0.000000	No
			Co	0.003817	0.000000	No
			Mo	0.000000	0.000000	No
			Al	0.000003	0.000000	No
			Mn	0.000089	0.000000	No
			Be	-0.001657	0.000000	No
Pb 216.999 {455}	☒	2	Al	0.001371	0.000000	No
			Na	0.000000	0.000000	No
Pb 220.353 {453}	☒	8	Si	0.000000	0.000000	No
			Al	-0.000021	0.000000	No
			Cu	0.000720	0.000000	No
			Mn	0.000075	0.000000	No
			Ni	0.000106	0.000000	No
			Mo	-0.000635	0.000000	No
			V	-0.000088	0.000000	No
			Co	-0.000417	0.000000	No
Pb 220.353 {153}	☒	2	Fe	-0.000008	0.000000	No
			Al	0.000050	0.000000	No
Sb 206.833 {463}	☒	2	Fe	0.000108	0.000000	No
			Cr	0.018515	0.000000	No
Sb 217.581 {455}	☒	3	Fe	-0.000004	0.000000	No
			Ni	0.000133	0.000000	No
			V	0.000000	0.000000	No
Se 196.090 {472}	☒	2	Fe	-0.000035	0.000000	No
			Mn	0.000304	0.000000	No
Se 203.985 {465}	☒	1	Fe	-0.000052	0.000000	No
Se 206.279 {463}	☒	1	Fe	0.001816	0.000000	No
Tl 190.856 {476}	☒	8	Fe	-0.000106	0.000000	No
			Be	-0.000013	0.000000	No
			Ti	-0.000379	0.000000	No
			V	0.000000	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Ce	0.000000	0.000000	No
			Mn	0.000068	0.000000	No
			Ni	-0.000070	0.000000	No
			Co	0.002209	0.000000	No
Tl 190.856 {477}	☒	2	Fe	-0.000200	0.000000	No
			Cr	0.000884	0.000000	No
V 290.882 {116}	☒	1	Fe	0.000107	0.000000	No
V 292.402 {115}	☒	5	Fe	0.000018	0.000000	No
			Cr	0.003071	0.000000	No
			Al	0.000000	0.000000	No
			Ti	0.000420	0.000000	No
			Mo	-0.003753	0.000000	No
Zn 206.200 {463}	☒	1	Fe	0.000026	0.000000	No
Zn 213.856 {457}	☒	9	Fe	0.000172	0.000000	No
			Cu	0.000000	0.000000	No
			Al	0.000000	0.000000	No
			Mn	0.000094	0.000000	No
			Ni	0.005870	0.000000	No
			Ti	-0.000307	0.000000	No
			Mg	0.000004	0.000000	No
			Mo	0.000851	0.000000	No
			Ca	0.000000	0.000000	No
Y 224.306 {450}*	☒	None				
Y 324.228 {104}*	☒	None				
Y 371.030 { 91}*	☒	None				
Na 588.995 { 57}	☒	1	Fe	0.000106	0.000000	No
Na 589.592 { 57}	☒	1	Fe	-0.000003	0.000000	No
Si 251.611 {134}	☒	4	Fe	-0.000135	0.000000	No
			Mo	0.028793	0.000000	No
			Ti	0.028118	0.000000	No
			Sn	0.022103	0.000000	No
Ti 323.452 {104}	☒	6	Fe	0.000042	0.000000	No
			Ce	-0.000795	0.000000	No
			Mn	0.000074	0.000000	No
			Ni	0.000273	0.000000	No
			Cr	0.000125	0.000000	No
			V	0.000477	0.000000	No
Ti 334.941 {101}	☒	1	Fe	0.000070	0.000000	No
Sr 407.771 { 83}	☒	1	Fe	0.000045	0.000000	No
Sr 421.552 { 80}	☒	2	Ca	0.000013	0.000000	No
			Al	0.000025	0.000000	No
Sn 189.989 {477}	☒	1	Fe	0.000082	0.000000	No
B 249.678 {135}	☒	2	Fe	-0.000032	0.000000	No
			Co	0.003970	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
	B 249.773 {135}	☒	1	Fe	0.000375	0.000000	No
	Li 670.784 { 50}	☒	1	Fe	0.000016	0.000000	No
	K 766.490 { 44}	☒	1	Fe	0.000233	0.000000	No
	P 213.618 {457}	☒	1	Fe	-0.000079	0.000000	No
	S 182.034 {485}	☒	2	Mn	0.002145	0.000000	No
				Fe	-0.000280	0.000000	No
	Hg 184.950 {482}	☒	1	Fe	0.000001	0.000000	No
	Ce 404.076 { 83}	☒	1	Fe	0.000227	0.000000	No

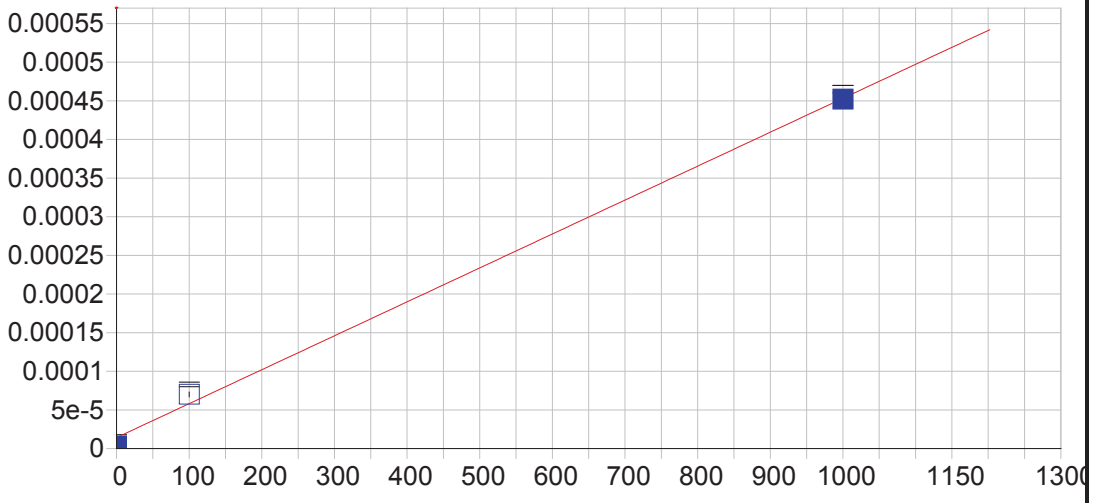


Ag 328.068 {103}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	16.056055	Re-Slope:	1.000000
A1 (Gain):	3.263170	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999912	Status:	OK.
Std Error of Est:	2.561267		
Predicted MDL:	0.877561		
Predicted MQL:	2.925204		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.71984	.720	.000	18.405	1.18	1
CalStd5=10	10.000	10.120	.120	1.20	49.075	2.69	1
CalStd8=100	100.00	99.996	-.004	-.004	342.31	4.04	1
CalStd3=1	1.0000	.16363	-.836	-83.6	16.590	2.27	1

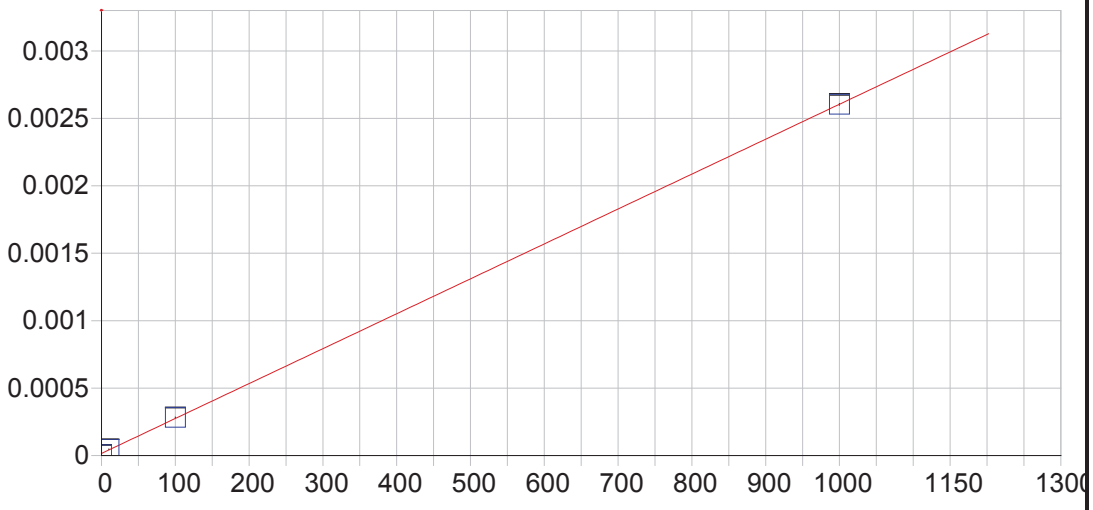


Ag 338.289 {100}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	0.000014	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998882	Status:	OK.
Std Error of Est:	0.000016		
Predicted MDL:	6.234177		
Predicted MQL:	20.780589		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-24.590	-24.6	.000	.00000	.000	1
CalStd8=100	100.00	127.32	27.3	27.3	.00007	.000	1
CalStd9=100	1000.0	997.27	-2.73	-.273	.00045	.000	1

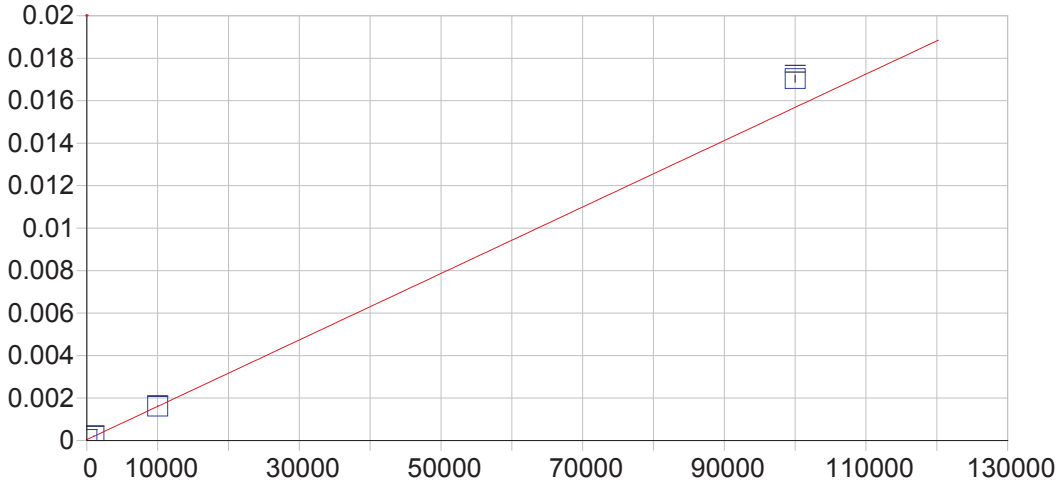


Al 167.079 {501}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	0.000016	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999980	Status:	OK.
Std Error of Est:	0.000010		
Predicted MDL:	0.936484		
Predicted MQL:	3.121614		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-4.1482	-4.15	.000	.00001	.000	1
CalStd9=100	1000.0	999.70	-.301	-.030	.00260	.000	1
CalStd5=10	10.000	11.602	1.60	16.0	.00005	.000	1
CalStd8=100	100.00	102.85	2.85	2.85	.00028	.000	1

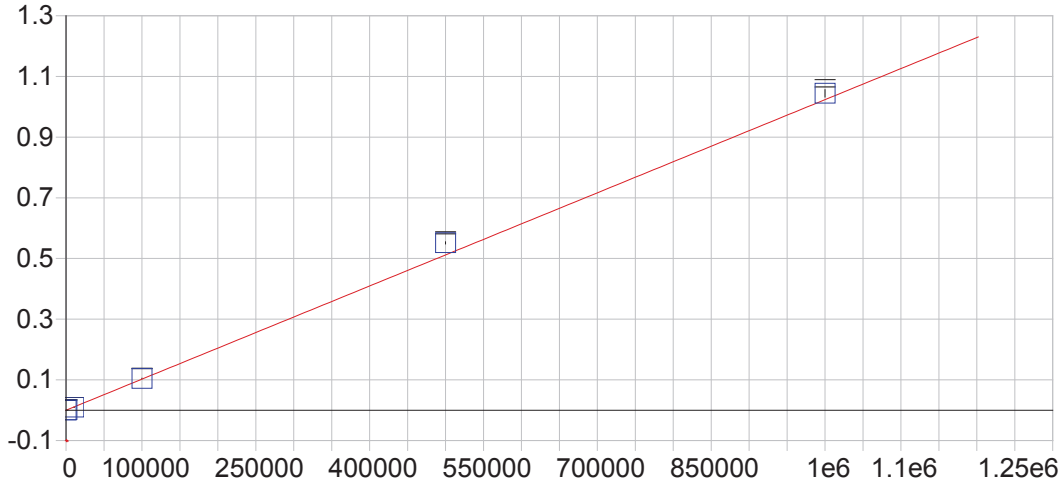


Al 308.215 {109}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Curvilinear	Weighting:	1/Var

A0 (Offset):	0.000043	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999894	Status:	OK.
Std Error of Est:	0.000007		
Predicted MDL:	20.116207		
Predicted MQL:	67.054022		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-5.6755	-5.68	.000	.00004	.000	1
CalStd10=10	10000.	10046.	46.3	.463	.00161	.000	1
CalStd9=100	1000.0	1082.5	82.5	8.25	.00021	.000	1
CalStd13=10	100000.	108620.	8620.	8.62	.01704	.000	1

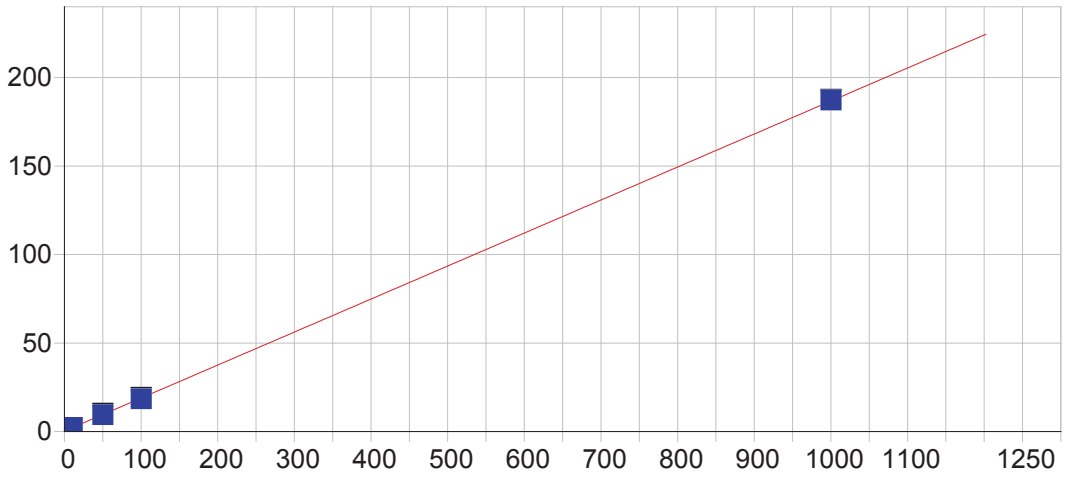


Al 396.152 { 85}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Curvilinear	Weighting:	1/Var

A0 (Offset):	-0.000009	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999218	Status:	OK.
Std Error of Est:	0.000046		
Predicted MDL:	5.969070		
Predicted MQL:	19.896901		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-4.9880	-4.99	.000	-.00001	.000	1
CalStd14=50	500000.	538890.	38900.	7.78	.55153	.003	1
CalStd13=10	100000.	102110.	2110.	2.11	.10450	.001	1
CalStd10=10	10000.	9547.6	-452.	-4.52	.00976	.000	1
CalStd9=100	1000.0	1031.6	31.6	3.16	.00105	.000	1
CalibStd15=	1000000.	1020300.	20300.	2.03	1.0442	.012	1

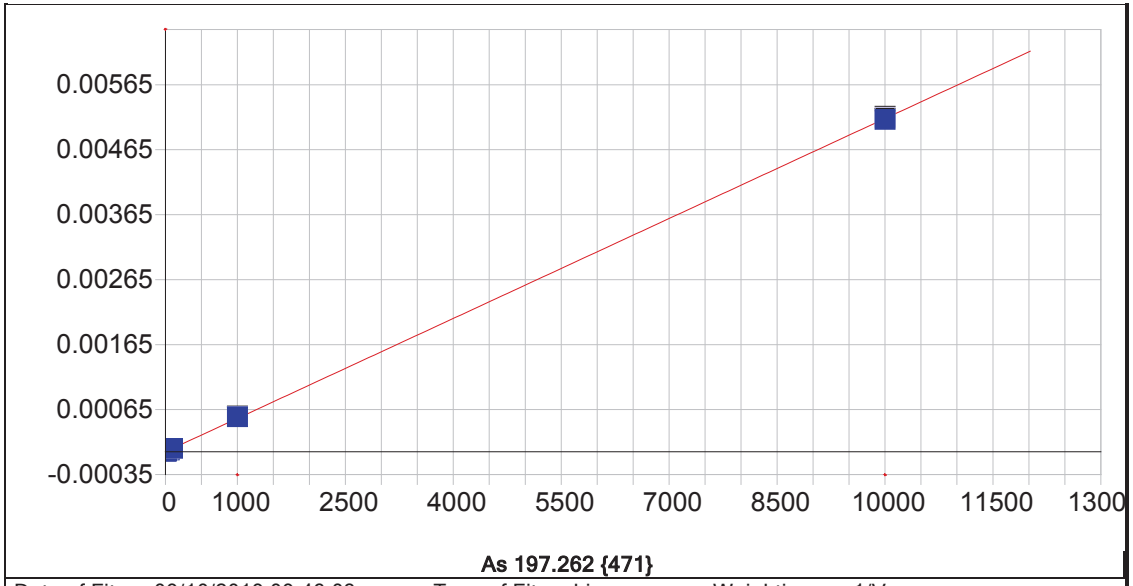


As 193.759 {474}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.262272	Re-Slope:	1.000000
A1 (Gain):	0.186486	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999970	Status:	OK.
Std Error of Est:	0.006309		
Predicted MDL:	4.543238		
Predicted MQL:	15.144126		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00015	.000	.000	.26230	.162	1
CalStd9=100	1000.0	1002.7	2.67	.267	187.36	.325	1
CalStd7=50	50.000	49.500	-.500	-1.000	9.4991	.755	1
CalStd5=10	10.000	10.160	.160	1.60	2.1595	.215	1
CalStd8=100	100.00	97.674	-2.33	-2.33	18.489	.813	1

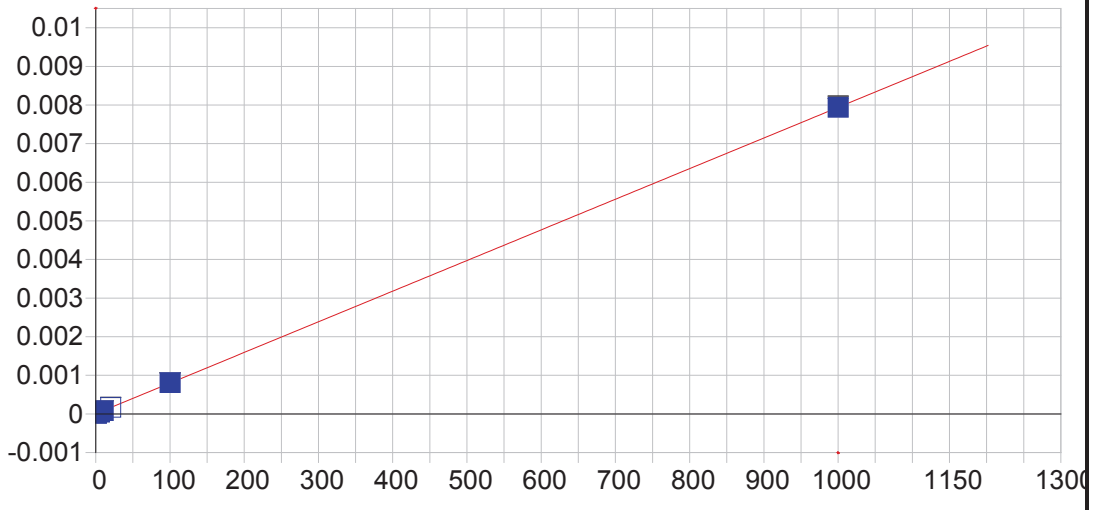


As 197.262 {471}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999917	Status:	OK.
Std Error of Est:	0.000005		
Predicted MDL:	6.790776		
Predicted MQL:	22.635920		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.0707	-1.07	.000	.00000	.000	1
CalStd9=100	1000.0	1047.6	47.6	4.76	.00054	.000	1
CalStd7=50	50.000	47.971	-2.03	-4.06	.00003	.000	1
CalStd5=10	10.000	12.285	2.28	22.8	.00001	.000	1
CalStd8=100	100.00	98.398	-1.60	-1.60	.00005	.000	1
CalStd10=10	10000.	9967.7	-32.3	-.323	.00515	.000	1

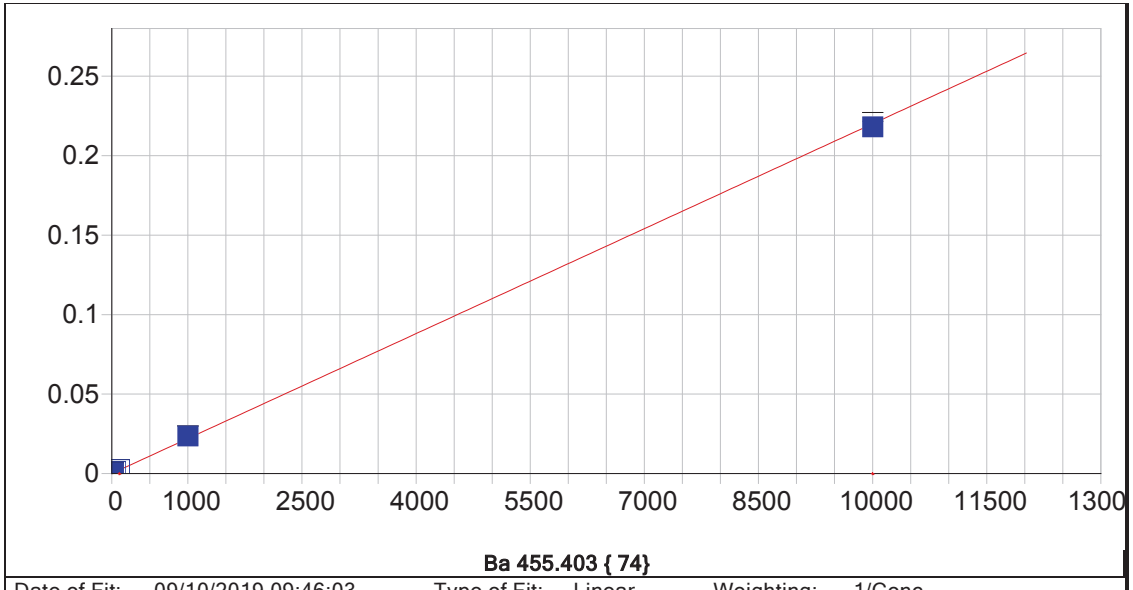


Ba 233.527 {445}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	0.000006	Re-Slope:	1.000000
A1 (Gain):	0.000008	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999999	Status:	OK.
Std Error of Est:	0.000004		
Predicted MDL:	0.417203		
Predicted MQL:	1.390678		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.41313	-.413	.000	.00000	.000	1
CalStd5=10	10.000	9.5294	-.471	-4.71	.00008	.000	1
CalStd6=20	20.000	20.591	.591	2.96	.00017	.000	1
CalStd8=100	100.00	100.77	.770	.770	.00081	.000	1
CalStd4=5	5.0000	4.9982	-.002	-.035	.00005	.000	1
CalStd9=100	1000.0	999.92	-.084	-.008	.00794	.000	1
CalStd3=1	1.0000	.60788	-.392	-39.2	.00001	.000	1

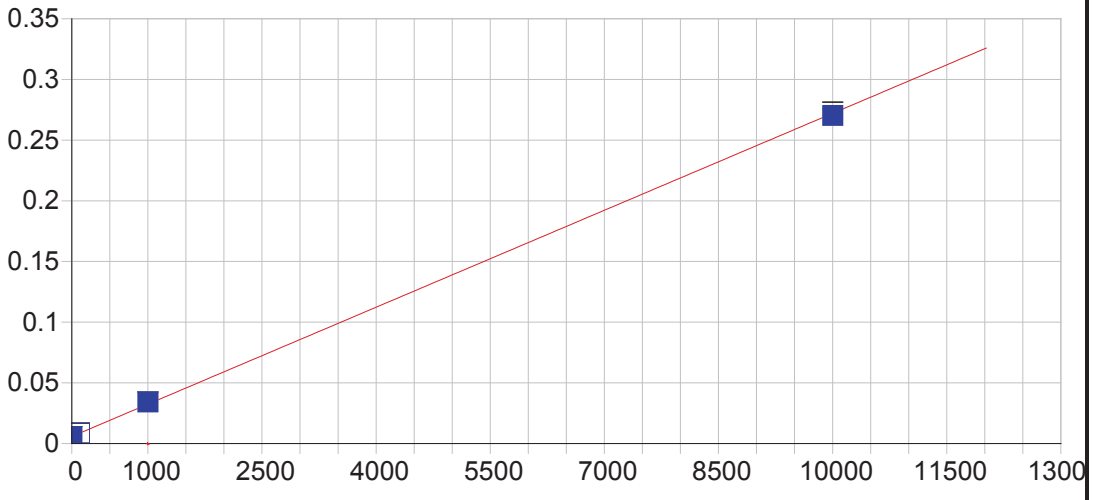


Ba 455.403 { 74}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000024	Re-Slope:	1.000000
A1 (Gain):	0.000022	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999638	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	0.231824		
Predicted MQL:	0.772746		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00112	-.001	.000	.00002	.000	1
CalStd7=50	50.000	55.707	5.71	11.4	.00125	.000	1
CalStd5=10	10.000	11.140	1.14	11.4	.00027	.000	1
CalStd6=20	20.000	22.980	2.98	14.9	.00053	.000	1
CalStd8=100	100.00	108.05	8.05	8.05	.00240	.000	1
CalStd4=5	5.0000	6.0965	1.10	21.9	.00016	.000	1
CalStd9=100	1000.0	1070.9	70.9	7.09	.02359	.000	1
CalStd3=1	1.0000	1.3768	.377	37.7	.00005	.000	1
CalStd10=10	10000.	9909.8	-90.2	-.902	.21809	.003	1

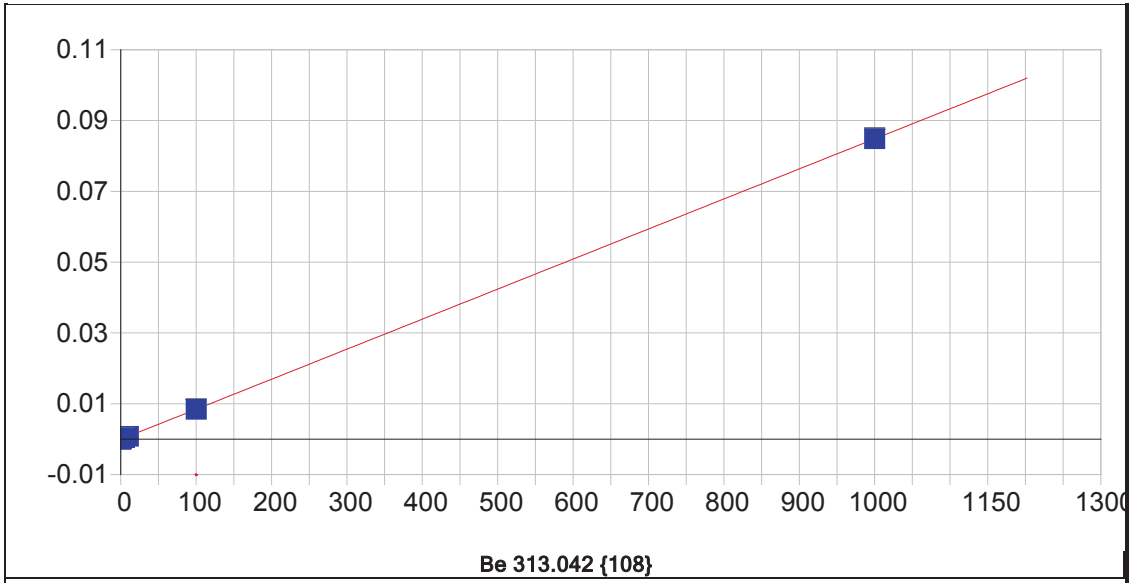


Ba 493.409 { 68}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.005811	Re-Slope:	1.000000
A1 (Gain):	0.000027	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999784	Status:	OK.
Std Error of Est:	0.000026		
Predicted MDL:	0.530822		
Predicted MQL:	1.769408		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01133	-.011	.000	.00581	.000	1
CalStd9=100	1000.0	1063.2	63.2	6.32	.03412	.000	1
CalStd8=100	100.00	105.70	5.70	5.70	.00863	.000	1
CalStd10=10	10000.	9931.1	-68.9	-.689	.27027	.003	1

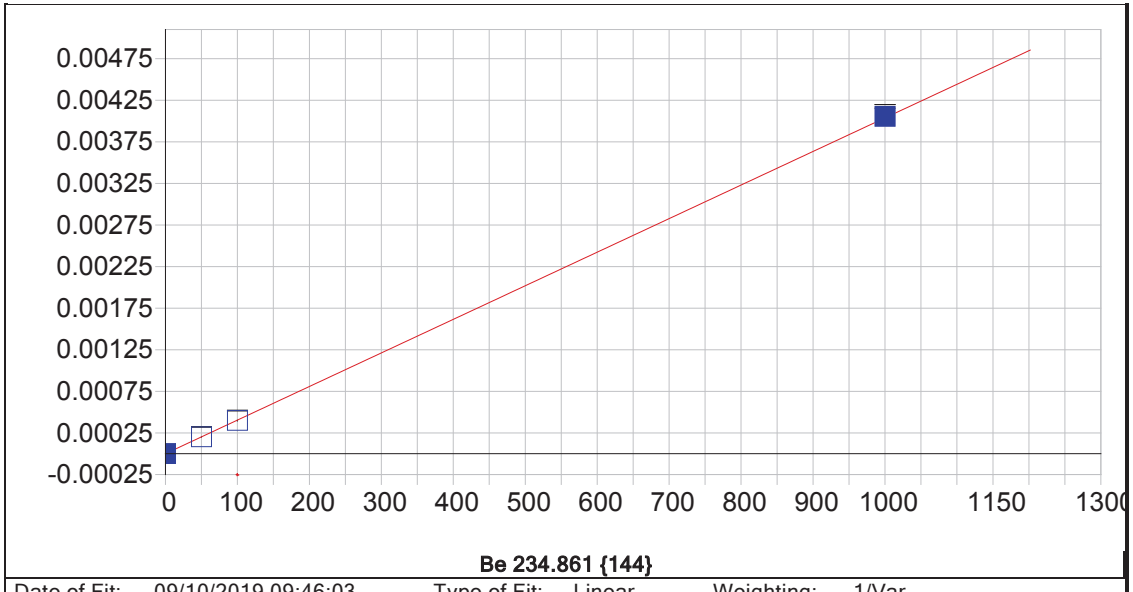


Be 313.042 {108}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000058	Re-Slope:	1.000000
A1 (Gain):	0.000085	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999998	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.031389		
Predicted MQL:	0.104629		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00004	-.000	.000	-.00006	.000	1
CalStd5=10	10.000	10.008	.008	.080	.00079	.000	1
CalStd8=100	100.00	99.600	-.400	-.400	.00840	.000	1
CalStd2=0.5	.50000	.51150	.011	2.30	-.00001	.000	1
CalStd4=5	5.0000	5.0894	.089	1.79	.00037	.000	1
CalStd9=100	1000.0	1000.3	.256	.026	.08485	.000	1
CalStd3=1	1.0000	1.0354	.035	3.54	.00003	.000	1

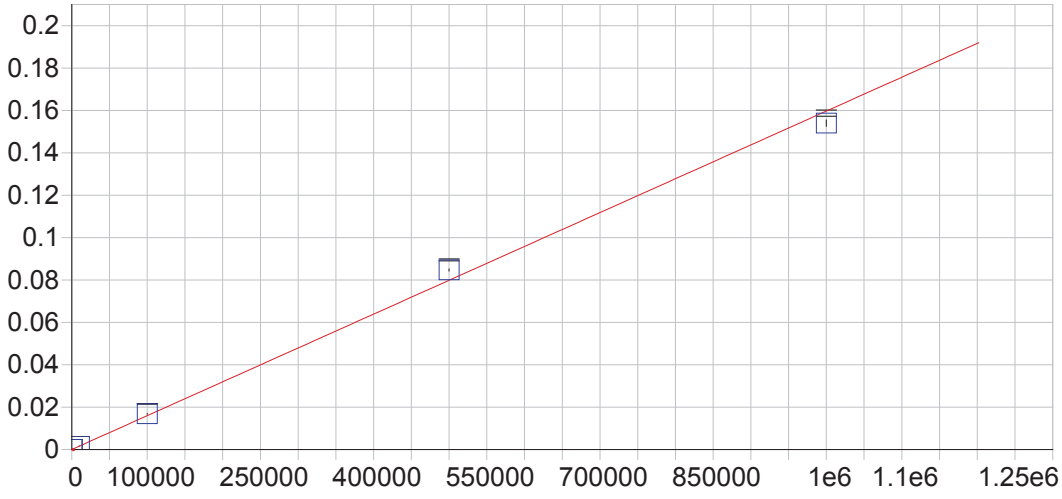


Be 234.861 {144}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	-0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000004	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999979	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.247088		
Predicted MQL:	0.823626		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.03537	.035	.000	.00000	.000	1
CalStd9=100	1000.0	1004.3	4.28	.428	.00406	.000	1
CalStd8=100	100.00	98.708	-1.29	-1.29	.00040	.000	1
CalStd7=50	50.000	49.962	-.038	-.077	.00020	.000	1

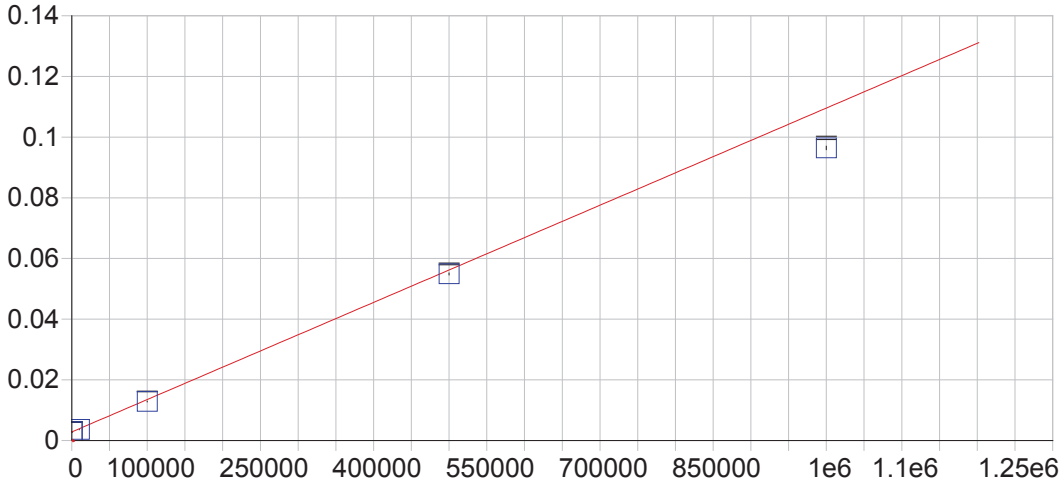


Ca 315.887 {107}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000016	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998943	Status:	OK.
Std Error of Est:	0.000011		
Predicted MDL:	7.527212		
Predicted MQL:	25.090708		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.12862	-.129	.000	.00002	.000	1
CalStd10=10	10000.	9999.4	-.571	-.006	.00161	.000	1
CalStd13=10	100000.	105300.	5300.	5.30	.01683	.000	1
CalStd14=50	500000.	530400.	30400.	6.08	.08473	.000	1
CalStd9=100	1000.0	1050.6	50.6	5.06	.00018	.000	1
CalibStd15=	1000000.	964250.	-35800.	-3.58	.15401	.001	1

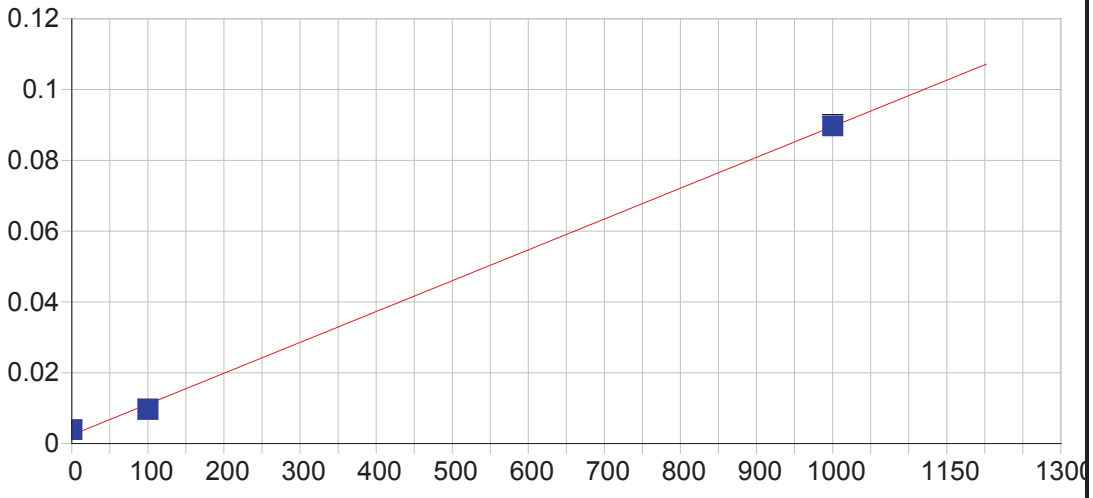


Ca 317.933 {106}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	0.002838	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998931	Status:	OK.
Std Error of Est:	0.000008		
Predicted MDL:	14.886528		
Predicted MQL:	49.621759		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	1.4138	1.41	.000	.00284	.000	1
CalStd10=10	10000.	7254.2	-2750.	-27.5	.00361	.000	1
CalStd13=10	100000.	93851.	-6150.	-6.15	.01286	.000	1
CalStd14=50	500000.	487820.	-12200.	-2.44	.05491	.000	1
CalStd9=100	1000.0	-116.03	-1120.	-112.	.00283	.000	1
CalibStd15=	1000000.	876950.	-123000.	-12.3	.09644	.001	1

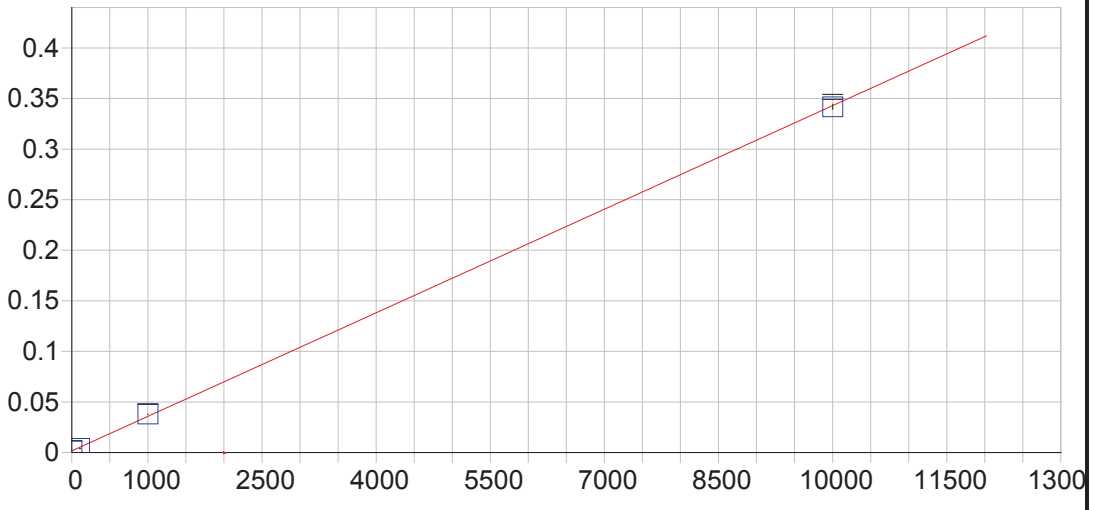


Ca 393.366 { 86}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	0.002421	Re-Slope:	1.000000
A1 (Gain):	0.000087	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999521	Status:	OK.
Std Error of Est:	0.002103		
Predicted MDL:	0.042378		
Predicted MQL:	0.141260		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	16.096	16.1	.000	.00382	.000	1
CalStd9=100	1000.0	1001.8	1.79	.179	.08972	.000	1
CalStd8=100	100.00	82.116	-17.9	-17.9	.00958	.000	1

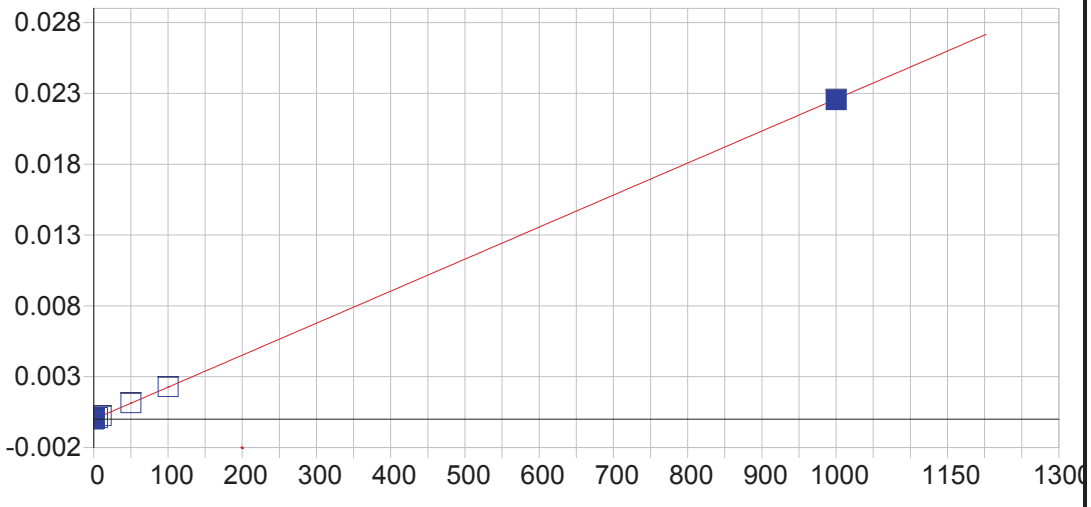


Ca 396.847 { 85}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001635	Re-Slope:	1.000000
A1 (Gain):	0.000034	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999475	Status:	OK.
Std Error of Est:	0.000052		
Predicted MDL:	0.107360		
Predicted MQL:	0.357868		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.02173	.022	.000	.00164	.000	1
CalStd10=10	10000.	9965.1	-34.9	-.349	.34178	.002	1
CalStd8=100	100.00	72.366	-27.6	-27.6	.00411	.000	1
CalStd9=100	1000.0	1062.5	62.5	6.25	.03790	.000	1

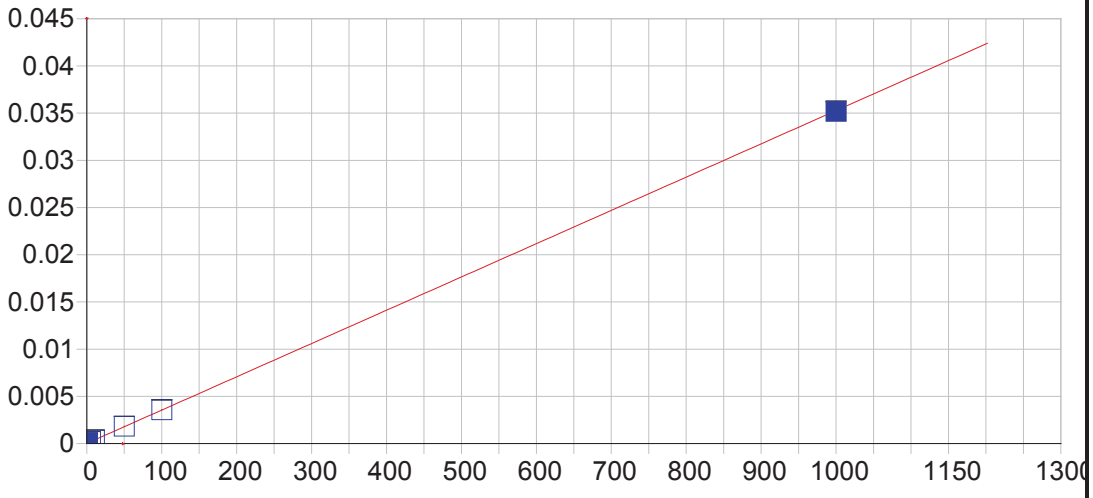


Cd 226.502 {449}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000023	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999968	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.221952		
Predicted MQL:	0.739840		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00015	-.000	.000	-.00000	.000	1
CalStd7=50	50.000	50.979	.979	1.96	.00115	.000	1
CalStd3=1	1.0000	1.1274	.127	12.7	.00002	.000	1
CalStd2=0.5	.50000	.54005	.040	8.01	.00001	.000	1
CalStd4=5	5.0000	5.2543	.254	5.09	.00012	.000	1
CalStd8=100	100.00	101.11	1.11	1.11	.00228	.000	1
CalStd5=10	10.000	10.215	.215	2.15	.00023	.000	1
CalStd9=100	1000.0	997.28	-2.72	-.272	.02255	.000	1

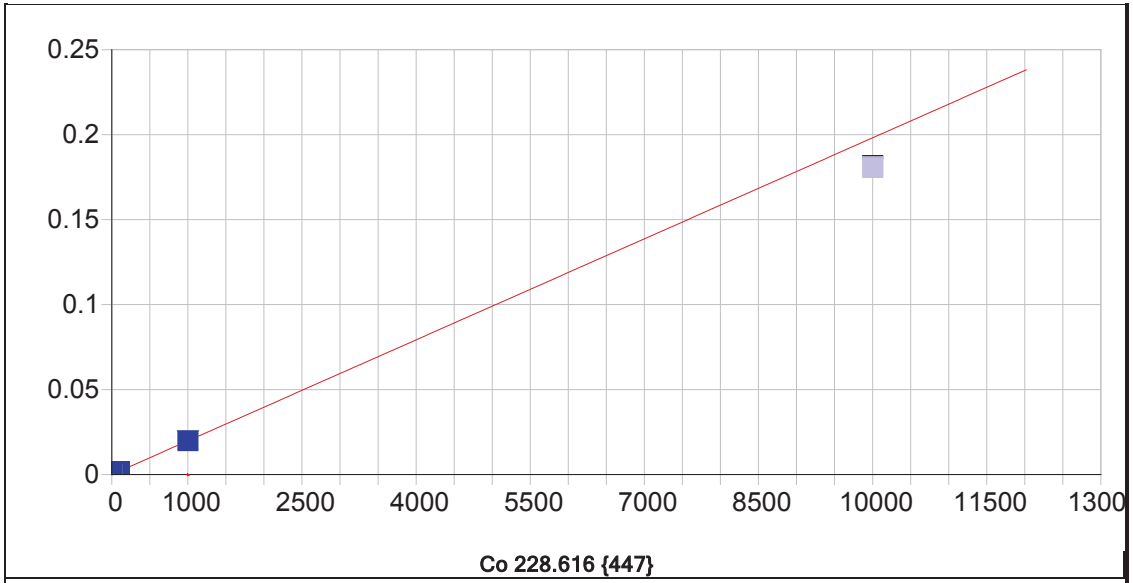


Cd 228.802 {447}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000017	Re-Slope:	1.000000
A1 (Gain):	0.000035	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999854	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.180447		
Predicted MQL:	0.601491		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00050	-.001	.000	.00002	.000	1
CalStd7=50	50.000	50.983	.983	1.97	.00181	.000	1
CalStd3=1	1.0000	1.1932	.193	19.3	.00006	.000	1
CalStd2=0.5	.50000	.83925	.339	67.8	.00005	.000	1
CalStd4=5	5.0000	5.4122	.412	8.24	.00021	.000	1
CalStd8=100	100.00	100.60	.597	.597	.00356	.000	1
CalStd5=10	10.000	10.271	.271	2.71	.00038	.000	1
CalStd9=100	1000.0	997.20	-2.80	-.280	.03518	.000	1

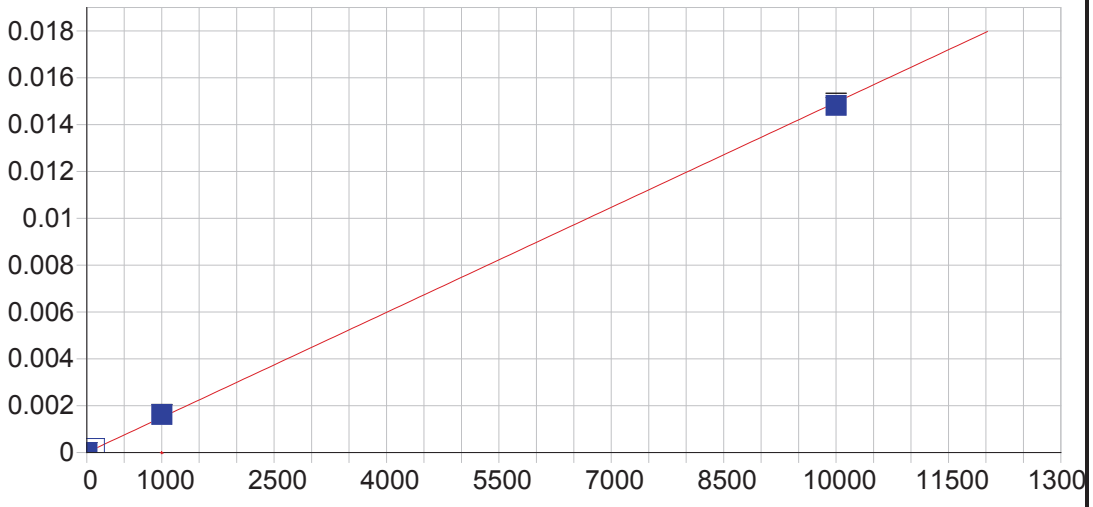


Co 228.616 {447}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000011	Re-Slope:	1.000000
A1 (Gain):	0.000020	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999978	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.284195		
Predicted MQL:	0.947318		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00014	-.000	.000	.00001	.000	1
CalStd7=50	50.000	51.170	1.17	2.34	.00103	.000	1
CalStd5=10	10.000	9.8908	-.109	-1.09	.00021	.000	1
CalStd4=5	5.0000	5.2615	.261	5.23	.00012	.000	1
CalStd8=100	100.00	100.03	.029	.029	.00200	.000	1
CalStd9=100	1000.0	998.57	-1.43	-.143	.01983	.000	1
CalStd3=1	1.0000	1.0789	.079	7.89	.00003	.000	1
CalStd10=10	10000.	9111.7	-888.	-8.88	.18113	.001	0

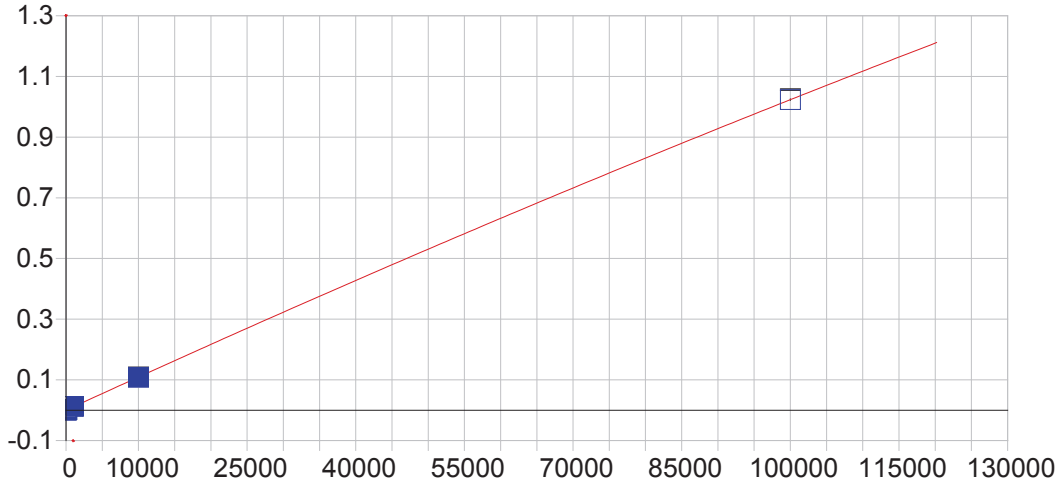


Co 238.892 {141}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000004	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999622	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	1.195311		
Predicted MQL:	3.984369		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01691	-.017	.000	.00000	.000	1
CalStd9=100	1000.0	1081.4	81.4	8.14	.00162	.000	1
CalStd10=10	10000.	9908.9	-91.1	-.911	.01482	.000	1
CalStd8=100	100.00	109.67	9.67	9.67	.00017	.000	1

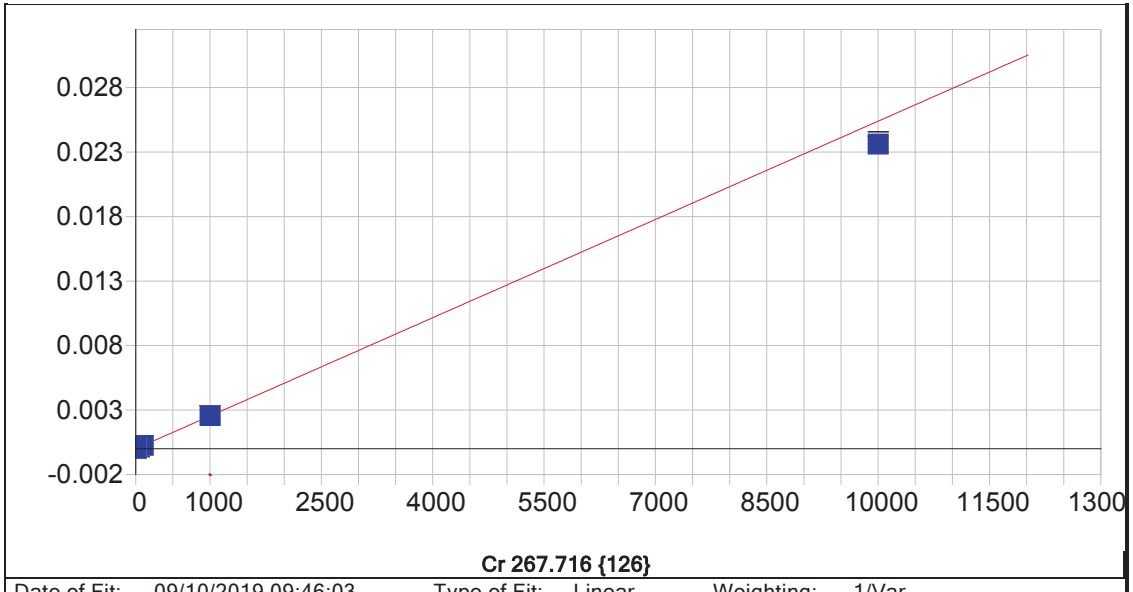


Cr 205.560 {464}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	-0.000008	Re-Slope:	1.000000
A1 (Gain):	0.000011	Y-int:	0.000000
A2 (Curvature):	-0.000000		
n (Exponent):	1.000000		
Correlation:	0.999959	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.370500		
Predicted MQL:	1.234998		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00112	-.001	.000	-.00001	.000	1
CalStd5=10	10.000	11.271	1.27	12.7	.00012	.000	1
CalStd7=50	50.000	55.218	5.22	10.4	.00060	.000	1
CalStd9=100	1000.0	1072.7	72.7	7.27	.01178	.000	1
CalStd8=100	100.00	107.48	7.48	7.48	.00117	.000	1
CalStd4=5	5.0000	5.4976	.498	9.95	.00005	.000	1
CalStd3=1	1.0000	1.6477	.648	64.8	.00001	.000	1
CalStd10=10	10000.	9902.1	-97.9	-.979	.10812	.000	1
CalStd12=10	100000.	100010.	10.4	.010	1.0235	.002	1

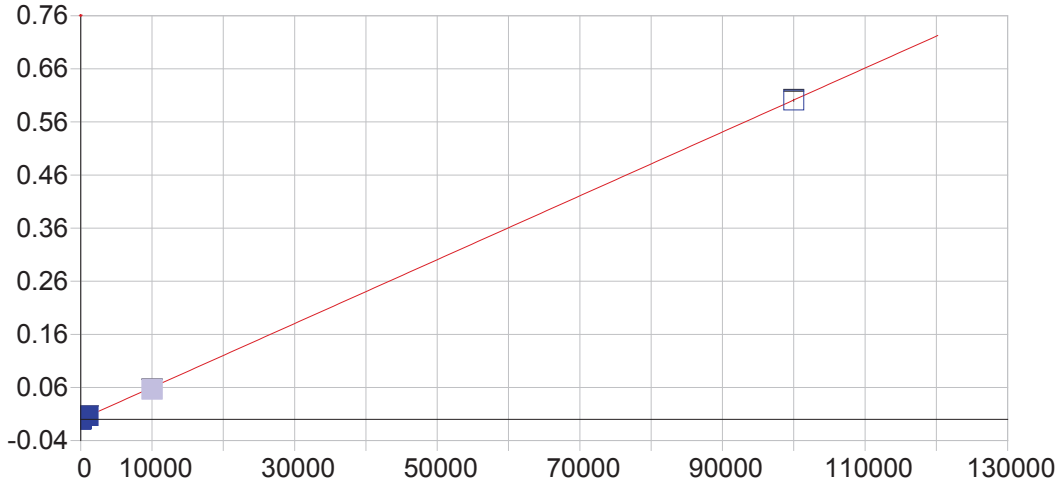


Cr 267.716 {126}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	-0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999672	Status:	OK.
Std Error of Est:	0.000009		
Predicted MDL:	0.808506		
Predicted MQL:	2.695019		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.35244	-.352	.000	-.00000	.000	1
CalStd5=10	10.000	9.8835	-.117	-1.17	.00002	.000	1
CalStd7=50	50.000	51.498	1.50	3.00	.00013	.000	1
CalStd9=100	1000.0	1009.4	9.36	.936	.00256	.000	1
CalStd8=100	100.00	99.863	-.137	-.137	.00025	.000	1
CalStd4=5	5.0000	5.4081	.408	8.16	.00001	.000	1
CalStd10=10	10000.	9298.0	-702.	-7.02	.02362	.000	1

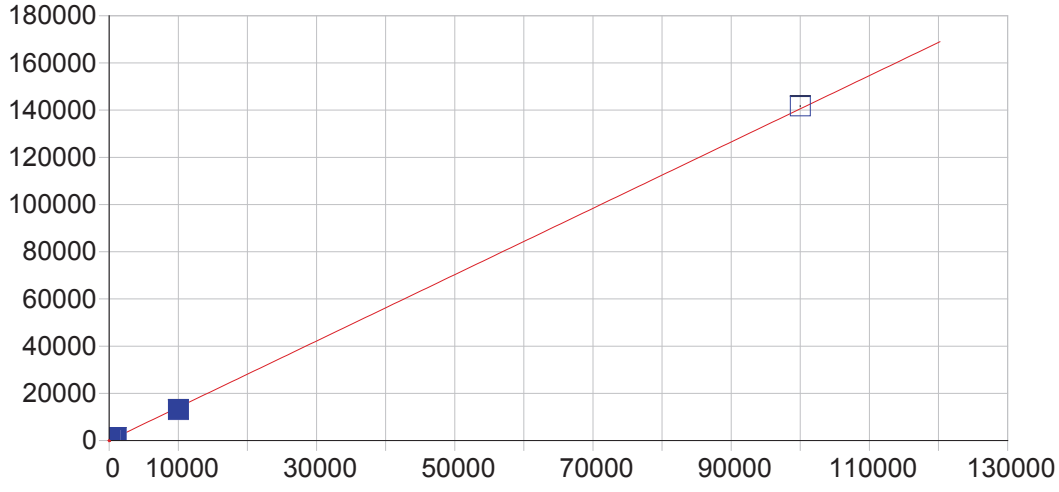


Cu 223.008 {451}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000005	Re-Slope:	1.000000
A1 (Gain):	0.000006	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999982	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	1.177845		
Predicted MQL:	3.926150		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00421	-.004	.000	-.00001	.000	1
CalStd9=100	1000.0	1050.6	50.6	5.06	.00631	.000	1
CalStd7=50	50.000	54.027	4.03	8.05	.00032	.000	1
CalStd8=100	100.00	105.24	5.24	5.24	.00063	.000	1
CalStd6=20	20.000	22.286	2.29	11.4	.00013	.000	1
CalStd12=10	100000.	99937.	-63.4	-.063	.60089	.002	1
CalStd10=10	10000.	9402.1	-598.	-5.98	.05653	.000	0
CalStd5=10	10.000	11.241	1.24	12.4	.00006	.000	1

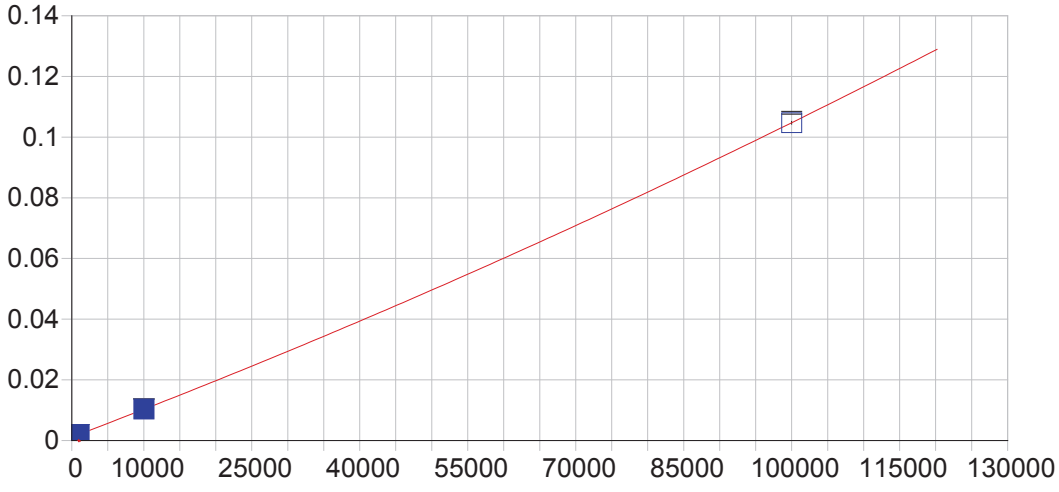


Cu 224.700 {450}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.567602	Re-Slope:	1.000000
A1 (Gain):	1.405781	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999412	Status:	OK.
Std Error of Est:	2.686200		
Predicted MDL:	0.595703		
Predicted MQL:	1.985678		

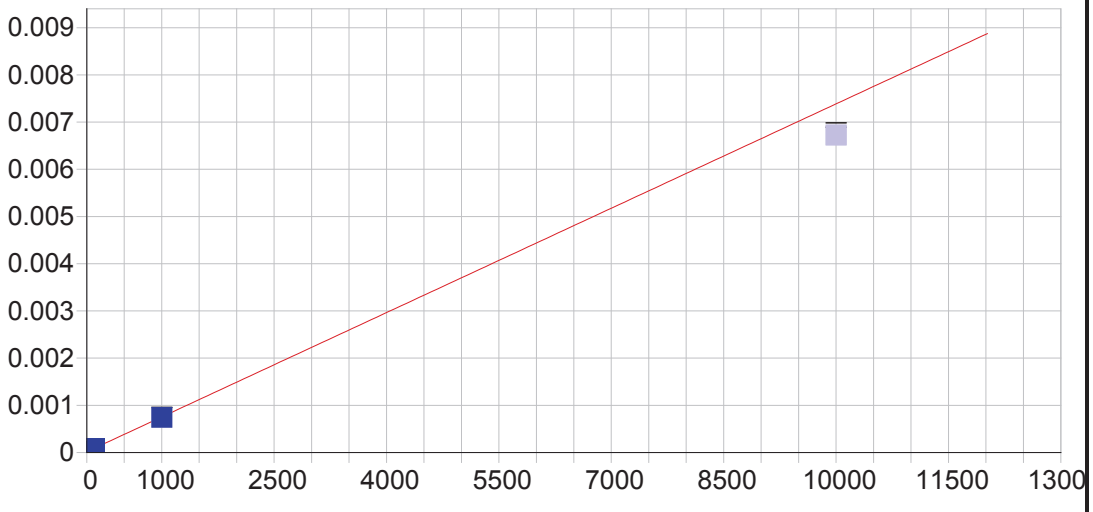
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.04344	.043	.000	.62867	.331	1
CalStd9=100	1000.0	977.29	-22.7	-2.27	1364.6	2.90	1
CalStd7=50	50.000	13.336	-36.7	-73.3	19.314	1.10	1
CalStd8=100	100.00	38.811	-61.2	-61.2	54.138	4.20	1
CalStd6=20	20.000	5.1339	-14.9	-74.3	7.7847	.813	1
CalStd12=10	100000.	100820.	822.	.822	141730.	205.	1
CalStd10=10	10000.	9308.1	-692.	-6.92	12987.	48.5	1



Cu 324.754 {104}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Curvilinear	Weighting:	1/Var
A0 (Offset):	0.001140		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999889		Status:	Warning	Positive Curvature
Std Error of Est:	0.000019				
Predicted MDL:	3.285908				
Predicted MQL:	10.953026				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	5.6223	5.62	.000	.00115	.000	1
CalStd9=100	1000.0	992.07	-7.93	-.793	.00204	.000	1
CalStd8=100	100.00	67.294	-32.7	-32.7	.00120	.000	1
CalStd10=10	10000.	10076.	75.7	.757	.01036	.000	1
CalStd12=10	100000.	99980.	-20.0	-.020	.10473	.000	1
CalStd5=10	10.000	29.327	19.3	193.	.00117	.000	1
CalStd6=20	20.000	11.975	-8.03	-40.1	.00115	.000	1
CalStd7=50	50.000	41.672	-8.33	-16.7	.00118	.000	1

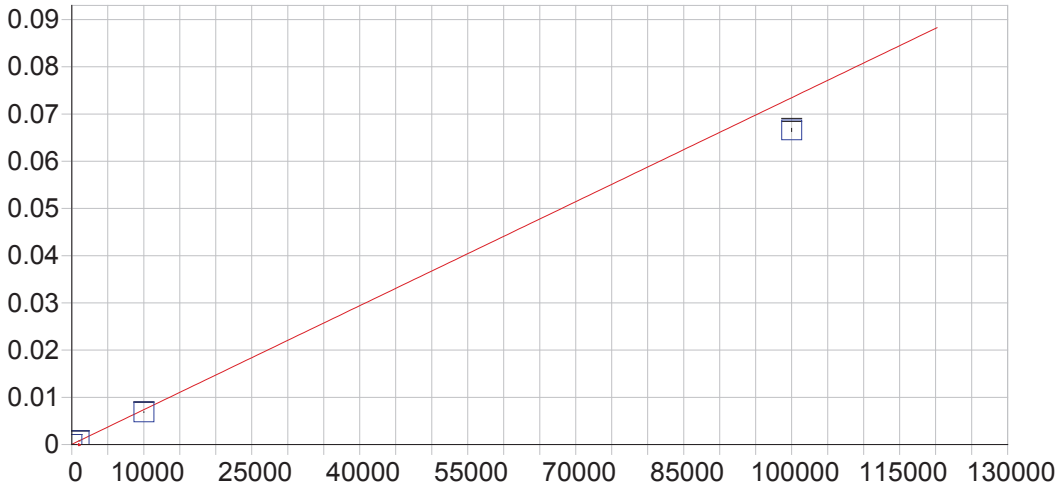


Cu 327.396 {103}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000017	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.997613	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	4.349610		
Predicted MQL:	14.498700		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00700	-.007	.000	.00002	.000	1
CalStd6=20	20.000	23.395	3.40	17.0	.00003	.000	1
CalStd7=50	50.000	52.564	2.56	5.13	.00006	.000	1
CalStd8=100	100.00	99.925	-.075	-.075	.00009	.000	1
CalStd9=100	1000.0	986.27	-13.7	-1.37	.00074	.000	1
CalStd10=10	10000.	9102.8	-897.	-8.97	.00672	.000	0
CalStd4=5	5.0000	9.1000	4.10	82.0	.00002	.000	1
CalStd5=10	10.000	13.744	3.74	37.4	.00003	.000	1

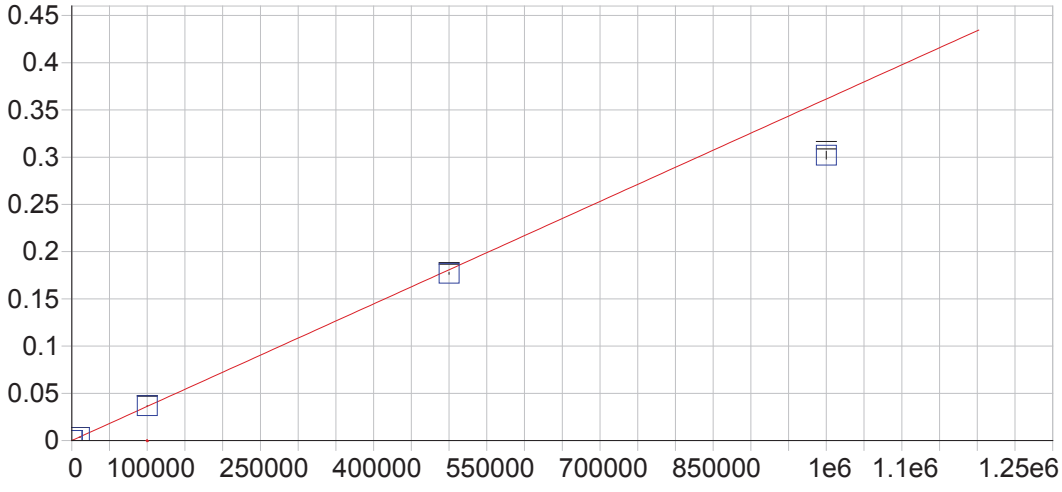


Fe 234.349 {144}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000038	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998988	Status:	OK.
Std Error of Est:	0.000012		
Predicted MDL:	1.400060		
Predicted MQL:	4.666867		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.2912	-1.29	.000	.00004	.000	1
CalStd10=10	10000.	9314.0	-686.	-6.86	.00688	.000	1
CalStd13=10	100000.	90683.	-9320.	-9.32	.06662	.000	1
CalStd9=100	1000.0	1021.6	21.6	2.16	.00079	.000	1

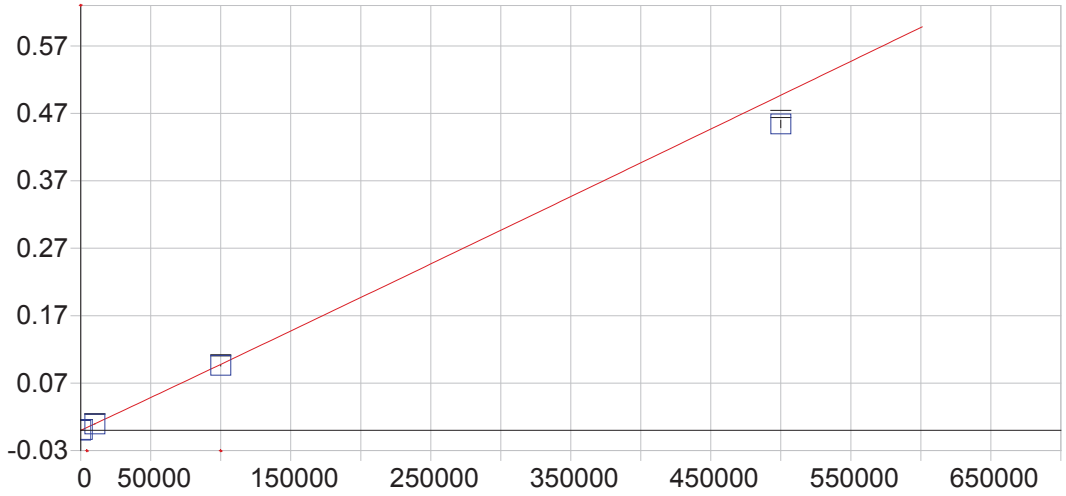


Fe 239.562 {140}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000006	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998920	Status:	OK.
Std Error of Est:	0.000014		
Predicted MDL:	3.066342		
Predicted MQL:	10.221141		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-13.746	-13.7	.000	.00000	.000	1
CalStd10=10	10000.	9661.6	-338.	-3.38	.00350	.000	1
CalStd13=10	100000.	101470.	1470.	1.47	.03670	.000	1
CalStd14=50	500000.	489490.	-10500.	-2.10	.17700	.001	1
CalStd9=100	1000.0	1019.3	19.3	1.93	.00037	.000	1
CalibStd15=	1000000.	835130.	-165000.	-16.5	.30198	.004	1

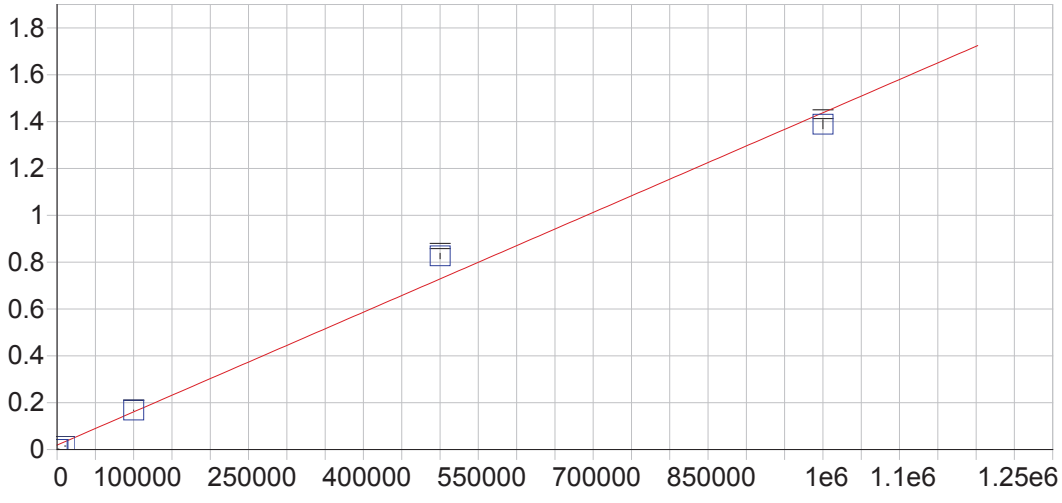


Fe 259.940 {129}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Full Fit	Weighting:	1/Conc

A0 (Offset):	0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.010000		
Correlation:	0.999990	Status:	OK.
Std Error of Est:	0.000007		
Predicted MDL:	1.703436		
Predicted MQL:	5.678120		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00000	.000	1
CalStd10=10	10000.	9775.4	-225.	-2.25	.00934	.000	1
CalStd13=10	100000.	98477.	-1520.	-1.52	.09630	.001	1
CalStd14=50	500000.	457480.	-42500.	-8.50	.45430	.005	1
CalStd9=100	1000.0	1082.6	82.6	8.26	.00101	.000	1

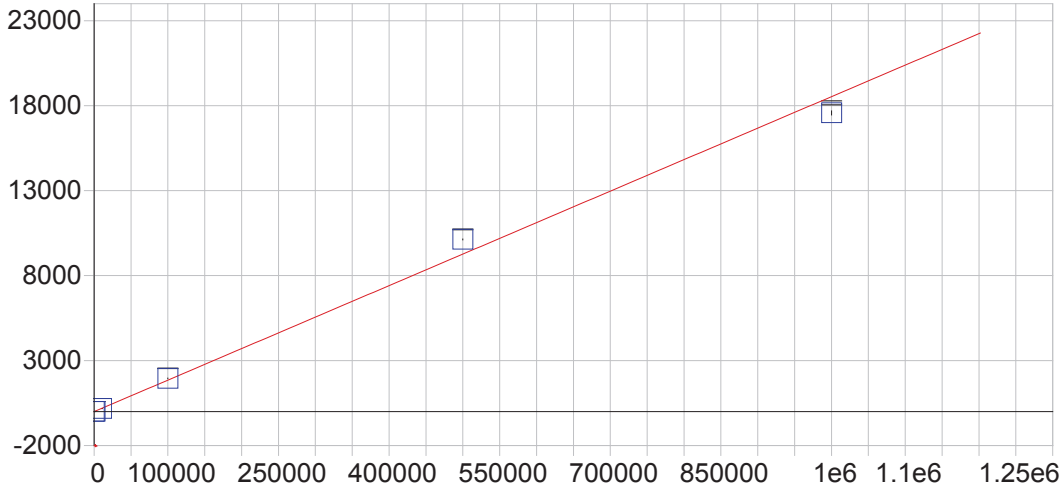


Mg 202.582 {466}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	0.018918	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.996098	Status:	OK.
Std Error of Est:	0.057187		
Predicted MDL:	3.733059		
Predicted MQL:	12.443531		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-13326.	-13300.	.000	.00001	.000	1
CalStd13=10	100000.	105020.	5020.	5.02	.16795	.000	1
CalStd10=10	10000.	-2665.3	-12700.	-127.	.01514	.000	1
CalStd14=50	500000.	568910.	68900.	13.8	.82626	.011	1
CalStd9=100	1000.0	-12118.	-13100.	-1310.	.00172	.000	1
CalibStd15=	1000000.	965180.	-34800.	-3.48	1.3886	.019	1

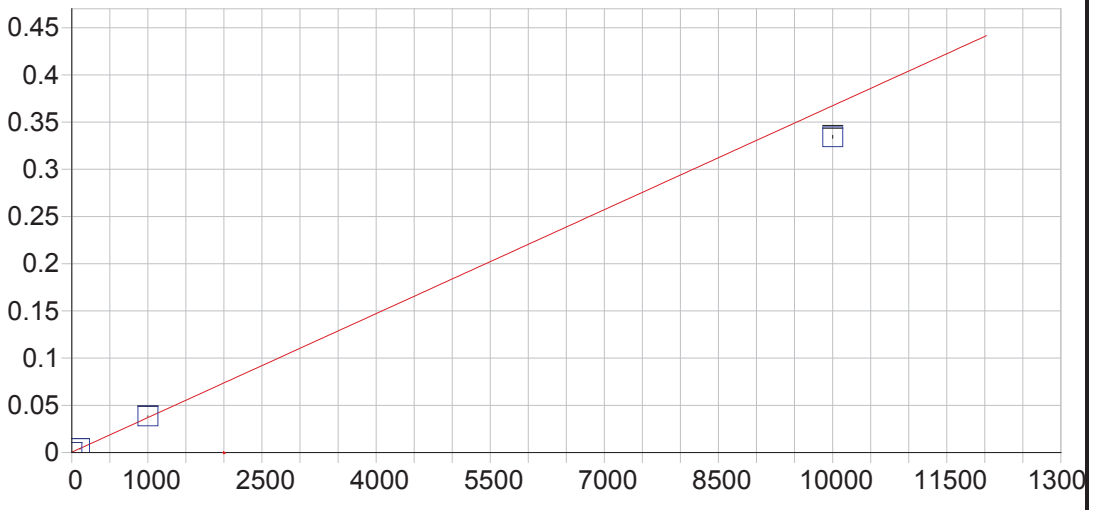


Mg 279.079 {121}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-2.776910	Re-Slope:	1.000000
A1 (Gain):	0.018534	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.997729	Status:	OK.
Std Error of Est:	1.944103		
Predicted MDL:	35.402357		
Predicted MQL:	118.007858		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.10509	-.105	.000	-2.7789	.394	1
CalStd13=10	100000.	105450.	5450.	5.45	1951.7	11.3	1
CalStd10=10	10000.	9586.6	-413.	-4.13	174.90	1.11	1
CalStd14=50	500000.	546640.	46600.	9.33	10129.	20.6	1
CalStd9=100	1000.0	1050.4	50.4	5.04	16.691	.616	1
CalibStd15=	1000000.	948270.	-51700.	-5.17	17573.	118.	1

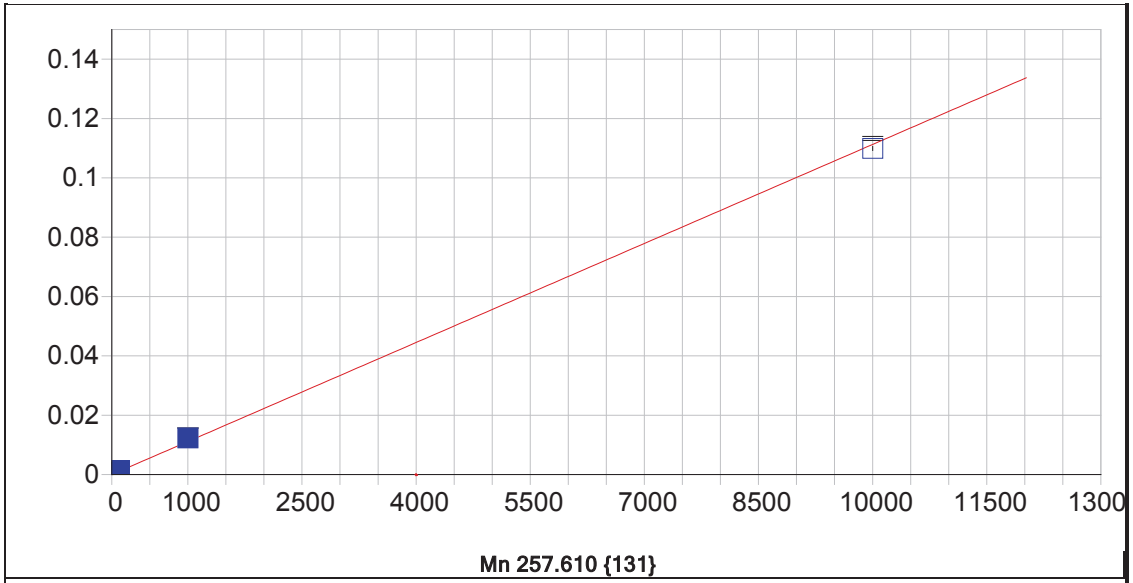


Mg 280.270 {120}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000341	Re-Slope:	1.000000
A1 (Gain):	0.000037	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998298	Status:	OK.
Std Error of Est:	0.000210		
Predicted MDL:	0.033674		
Predicted MQL:	0.112247		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.16399	-.164	.000	.00034	.000	1
CalStd9=100	1000.0	1043.2	43.2	4.32	.03862	.000	1
CalStd10=10	10000.	9101.3	-899.	-8.99	.33435	.001	1
CalStd8=100	100.00	100.59	.589	.589	.00403	.000	1

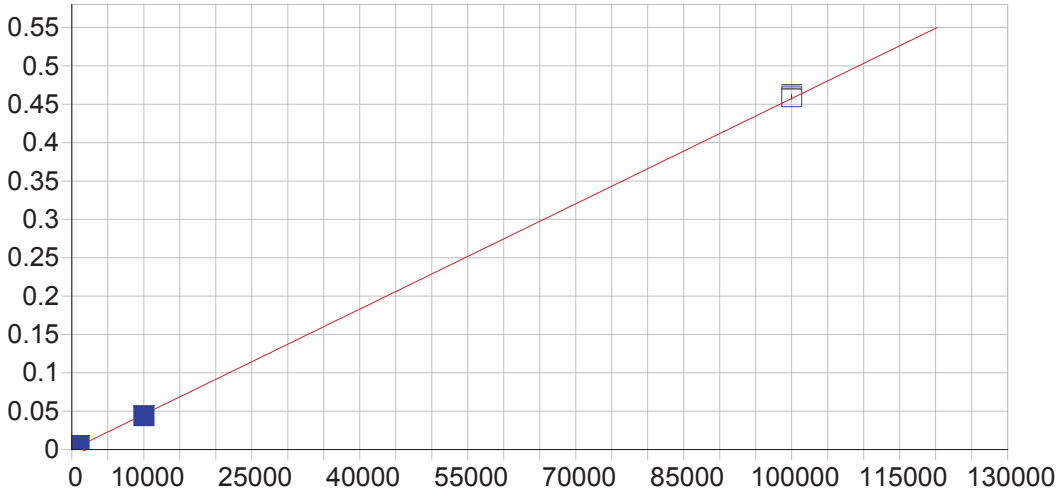


Mn 257.610 {131}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000011	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999353	Status:	OK.
Std Error of Est:	0.000003		
Predicted MDL:	0.109249		
Predicted MQL:	0.364164		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00353	-.004	.000	.00000	.000	1
CalStd5=10	10.000	11.071	1.07	10.7	.00013	.000	1
CalStd7=50	50.000	55.973	5.97	11.9	.00063	.000	1
CalStd6=20	20.000	22.744	2.74	13.7	.00026	.000	1
CalStd8=100	100.00	109.67	9.67	9.67	.00122	.000	1
CalStd4=5	5.0000	5.7738	.774	15.5	.00007	.000	1
CalStd9=100	1000.0	1103.4	103.	10.3	.01228	.000	1
CalStd10=10	10000.	9876.3	-124.	-1.24	.10989	.001	1

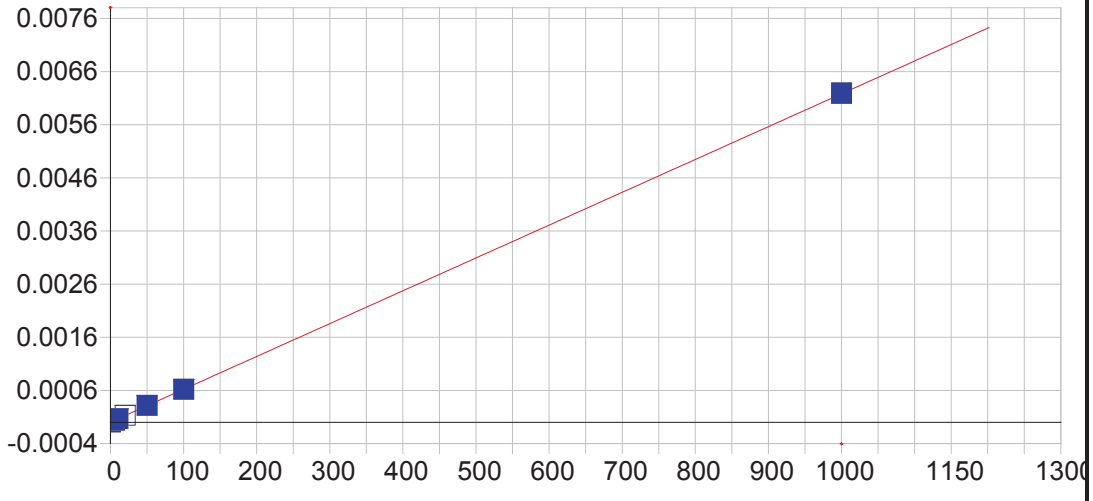


Mn 259.373 {130}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000005	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999627	Status:	OK.
Std Error of Est:	0.000011		
Predicted MDL:	0.366298		
Predicted MQL:	1.220995		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.02754	-.028	.000	.00000	.000	1
CalStd10=10	10000.	9569.2	-431.	-4.31	.04384	.000	1
CalStd9=100	1000.0	1031.2	31.2	3.12	.00473	.000	1
CalStd12=10	100000.	100440.	443.	.443	.45957	.003	1

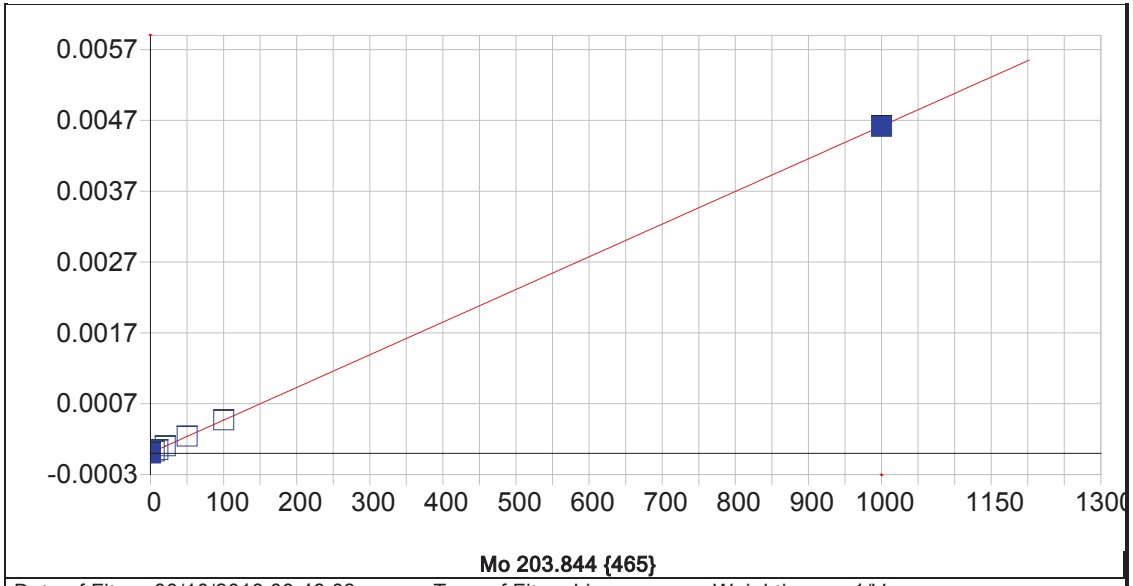


Mo 202.030 {466}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000006	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999995	Status:	OK.
Std Error of Est:	0.000003		
Predicted MDL:	0.559733		
Predicted MQL:	1.865778		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.27873	-.279	.000	.00000	.000	1
CalStd7=50	50.000	50.411	.411	.822	.00032	.000	1
CalStd6=20	20.000	20.274	.274	1.37	.00013	.000	1
CalStd5=10	10.000	9.7860	-.214	-2.14	.00006	.000	1
CalStd8=100	100.00	99.042	-.958	-.958	.00062	.000	1
CalStd4=5	5.0000	4.9776	-.022	-.448	.00003	.000	1
CalStd9=100	1000.0	1000.4	.350	.035	.00619	.000	1

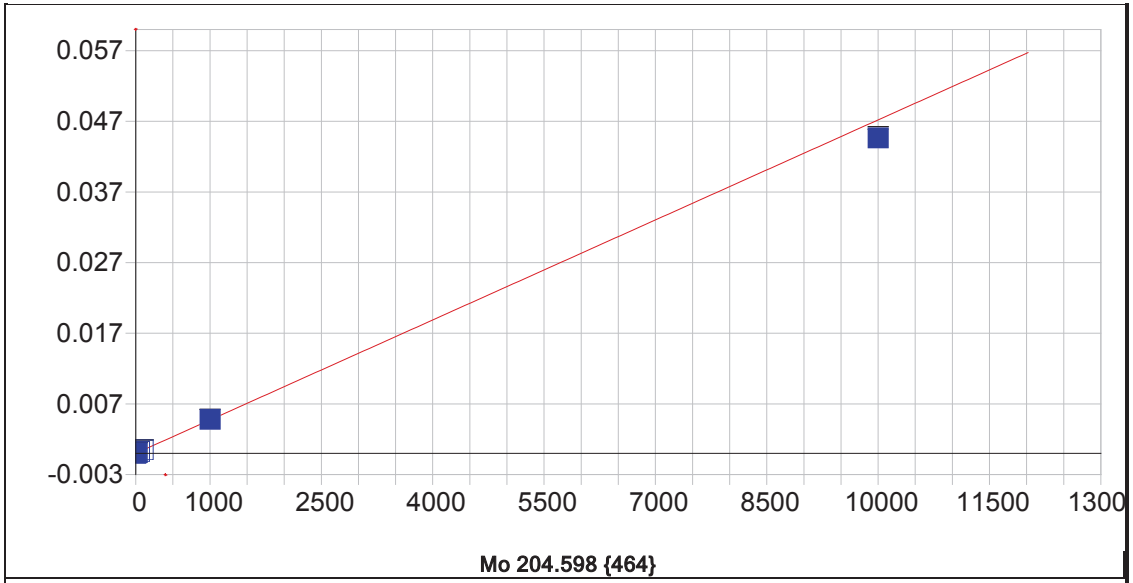


Mo 203.844 {465}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000007	Re-Slope:	1.000000
A1 (Gain):	0.000005	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999975	Status:	OK.
Std Error of Est:	0.000003		
Predicted MDL:	0.957584		
Predicted MQL:	3.191945		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.2457	-1.25	.000	.00000	.000	1
CalStd7=50	50.000	50.381	.381	.762	.00024	.000	1
CalStd6=20	20.000	20.760	.760	3.80	.00010	.000	1
CalStd5=10	10.000	9.0641	-.936	-9.36	.00005	.000	1
CalStd8=100	100.00	100.18	.182	.182	.00047	.000	1
CalStd4=5	5.0000	4.9510	-.049	-.980	.00003	.000	1
CalStd9=100	1000.0	998.67	-1.33	-.133	.00461	.000	1

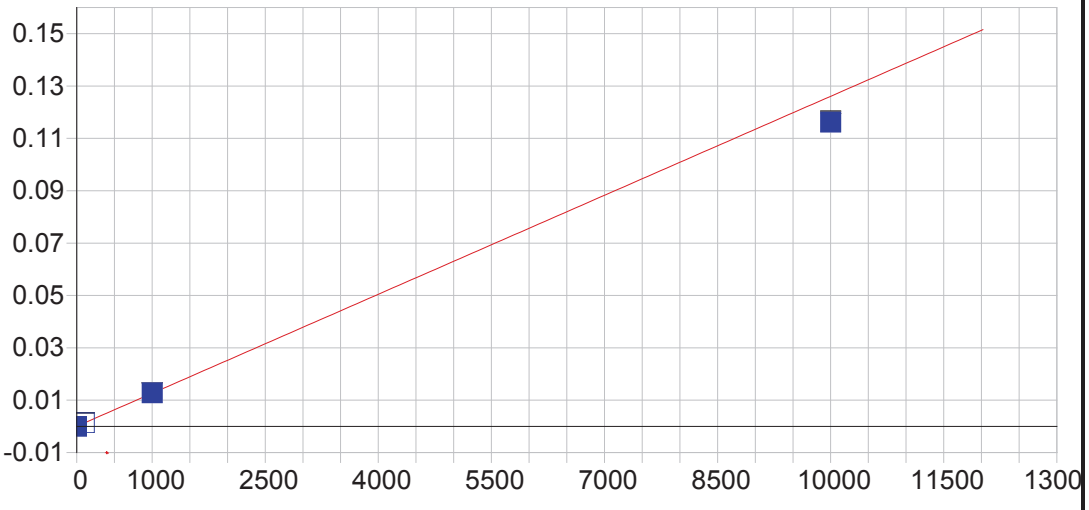


Mo 204.598 {464}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000005	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999520	Status:	OK.
Std Error of Est:	0.000031		
Predicted MDL:	0.869576		
Predicted MQL:	2.898587		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.63132	-.631	.000	-.00000	.000	1
CalStd7=50	50.000	50.354	.354	.707	.00024	.000	1
CalStd6=20	20.000	19.532	-.468	-2.34	.00009	.000	1
CalStd5=10	10.000	9.5302	-.470	-4.70	.00005	.000	1
CalStd8=100	100.00	99.772	-.228	-.228	.00047	.000	1
CalStd4=5	5.0000	4.4902	-.510	-10.2	.00002	.000	1
CalStd9=100	1000.0	1017.1	17.1	1.71	.00480	.000	1
CalStd10=10	10000.	9454.9	-545.	-5.45	.04464	.000	1

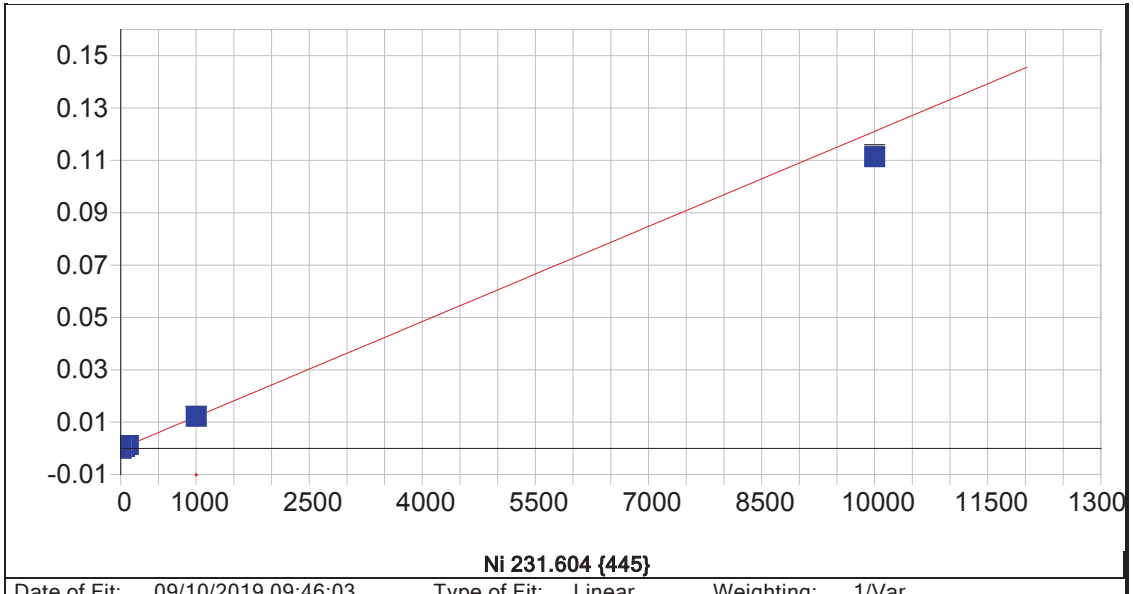


Ni 221.647 {452}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000026	Re-Slope:	1.000000
A1 (Gain):	0.000013	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999399	Status:	OK.
Std Error of Est:	0.000152		
Predicted MDL:	0.522991		
Predicted MQL:	1.743304		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.7994	-1.80	.000	.00000	.000	1
CalStd10=10	10000.	9212.8	-787.	-7.87	.11617	.000	1
CalStd8=100	100.00	104.01	4.01	4.01	.00134	.000	1
CalStd9=100	1000.0	1012.3	12.3	1.23	.01279	.000	1

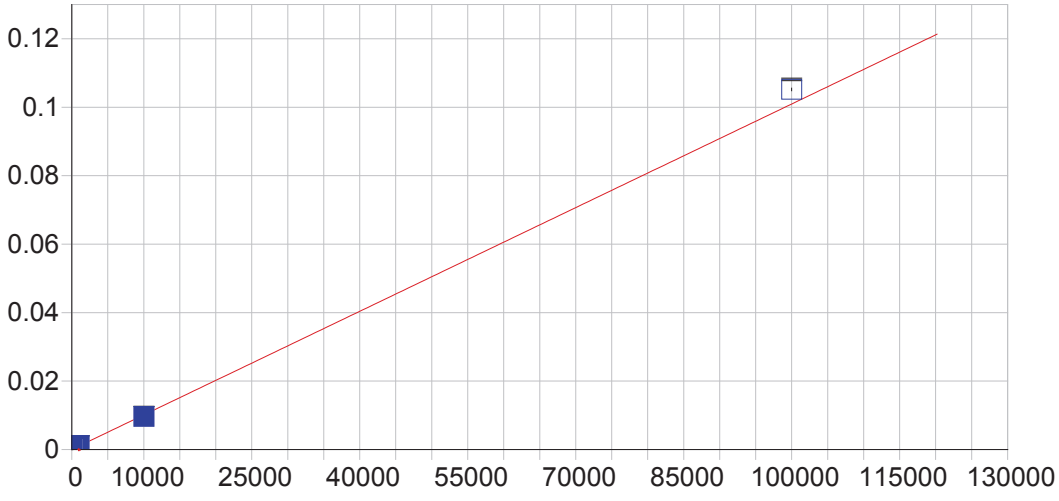


Ni 231.604 {445}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	-0.000012	Re-Slope:	1.000000
A1 (Gain):	0.000012	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998726	Status:	OK.
Std Error of Est:	0.000026		
Predicted MDL:	0.536830		
Predicted MQL:	1.789434		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.62603	-.626	.000	-.00002	.000	1
CalStd7=50	50.000	51.612	1.61	3.22	.00062	.000	1
CalStd5=10	10.000	9.8134	-.187	-1.87	.00011	.000	1
CalStd8=100	100.00	104.34	4.34	4.34	.00125	.000	1
CalStd4=5	5.0000	4.9069	-.093	-1.86	.00005	.000	1
CalStd9=100	1000.0	1006.7	6.72	.672	.01221	.000	1
CalStd3=1	1.0000	.48247	-.518	-51.8	-.00001	.000	1
CalStd10=10	10000.	9190.8	-809.	-8.09	.11177	.000	1

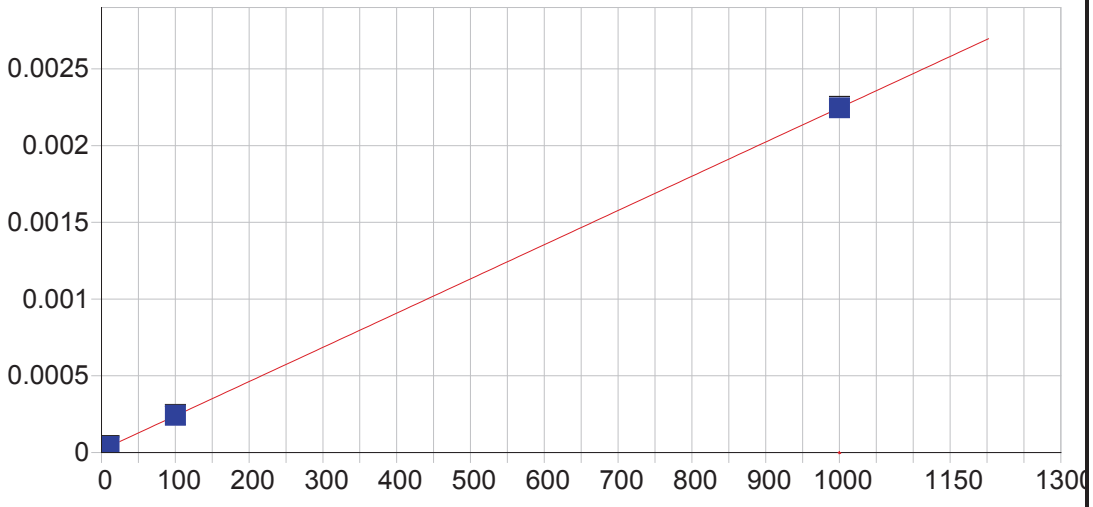


Pb 216.999 {455}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000008	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999028	Status:	OK.
Std Error of Est:	0.000034		
Predicted MDL:	5.248740		
Predicted MQL:	17.495801		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-2.8003	-2.80	.000	.00001	.000	1
CalStd9=100	1000.0	1049.5	49.5	4.95	.00107	.000	1
CalStd10=10	10000.	9550.2	-450.	-4.50	.00965	.000	1
CalStd8=100	100.00	103.36	3.36	3.36	.00011	.000	1
CalStd5=10	10.000	10.287	.287	2.87	.00002	.000	1
CalStd12=10	100000.	104200.	4200.	4.20	.10518	.000	1

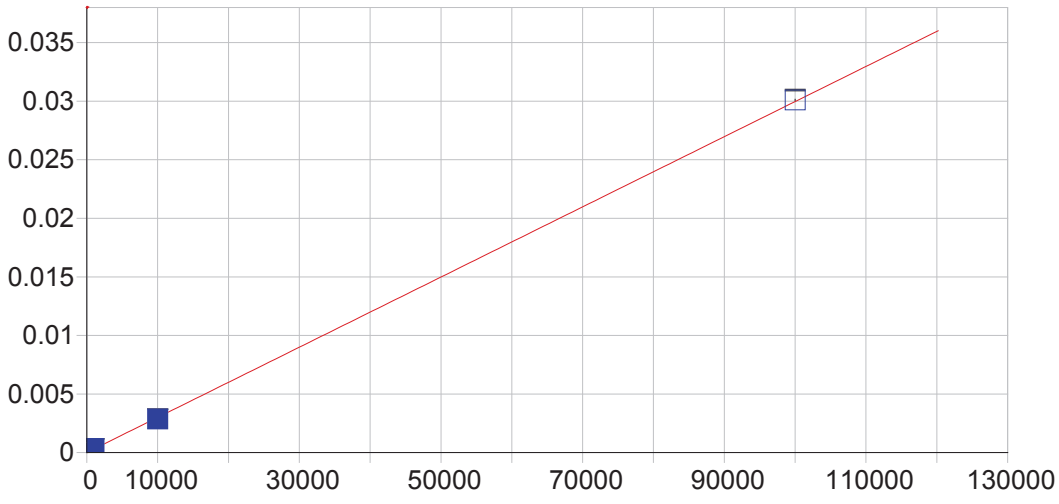


Pb 220.353 {453}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000016	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999838	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	2.967785		
Predicted MQL:	9.892617		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00091	.001	.000	.00002	.000	1
CalStd5=10	10.000	10.593	.593	5.93	.00004	.000	1
CalStd8=100	100.00	101.06	1.06	1.06	.00024	.000	1
CalStd4=5	5.0000	3.7463	-1.25	-25.1	.00002	.000	1
CalStd9=100	1000.0	999.60	-.397	-.040	.00224	.000	1

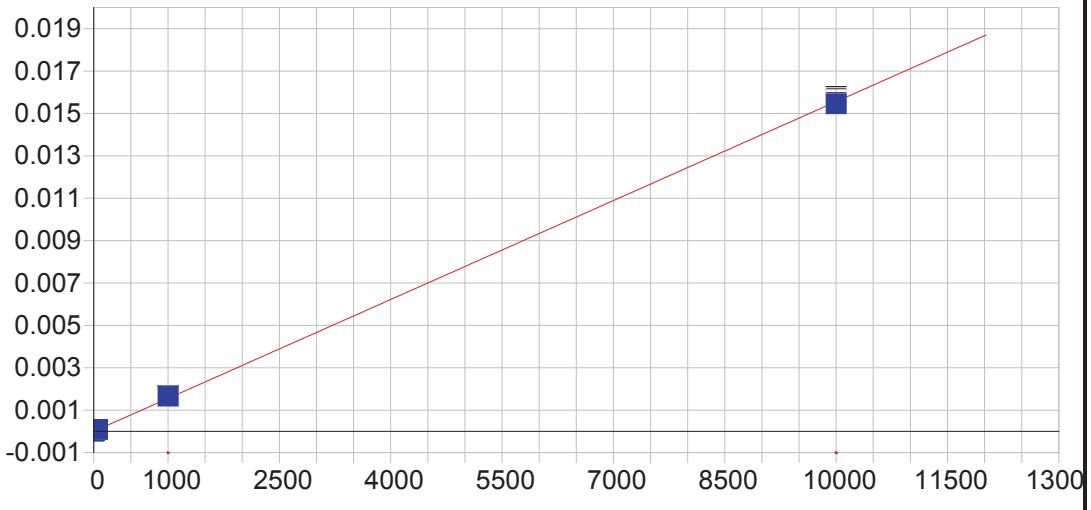


Pb 220.353 {153}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999867	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	4.413099		
Predicted MQL:	14.710330		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01068	-.011	.000	.00000	.000	1
CalStd9=100	1000.0	1053.5	53.5	5.35	.00032	.000	1
CalStd10=10	10000.	9510.0	-490.	-4.90	.00285	.000	1
CalStd8=100	100.00	109.80	9.80	9.80	.00003	.000	1
CalStd12=10	100000.	100430.	427.	.427	.03010	.000	1

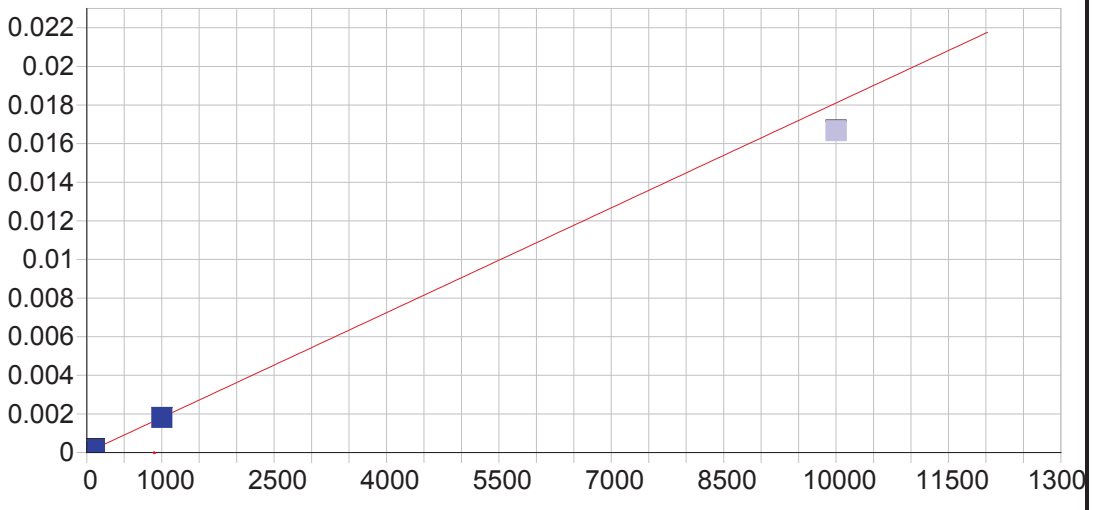


Sb 206.833 {463}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999786	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	2.671932		
Predicted MQL:	8.906439		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00246	-.002	.000	-.00000	.000	1
CalStd9=100	1000.0	1062.3	62.3	6.23	.00168	.000	1
CalStd5=10	10.000	10.912	.912	9.12	.00002	.000	1
CalStd7=50	50.000	54.979	4.98	9.96	.00008	.000	1
CalStd10=10	10000.	9931.9	-68.1	-.681	.01574	.000	1

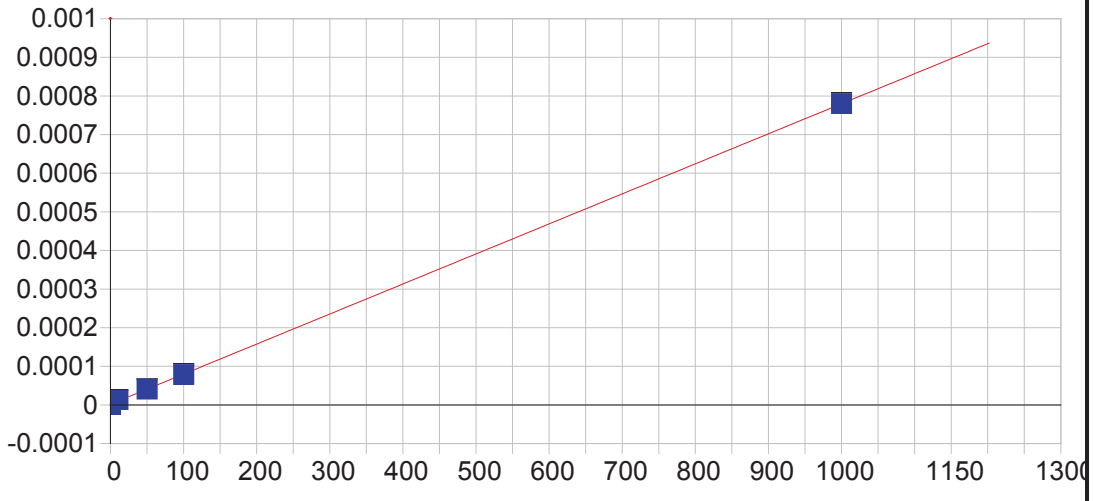


Sb 217.581 {455}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000004	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999516	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	3.099077		
Predicted MQL:	10.330256		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00175	-.002	.000	.00000	.000	1
CalStd9=100	1000.0	998.09	-1.91	-.191	.00181	.000	1
CalStd6=20	20.000	20.715	.715	3.57	.00004	.000	1
CalStd5=10	10.000	8.8266	-1.17	-11.7	.00002	.000	1
CalStd8=100	100.00	100.21	.208	.208	.00019	.000	1
CalStd4=5	5.0000	7.1573	2.16	43.1	.00002	.000	1
CalStd10=10	10000.	9203.5	-796.	-7.96	.01667	.000	0

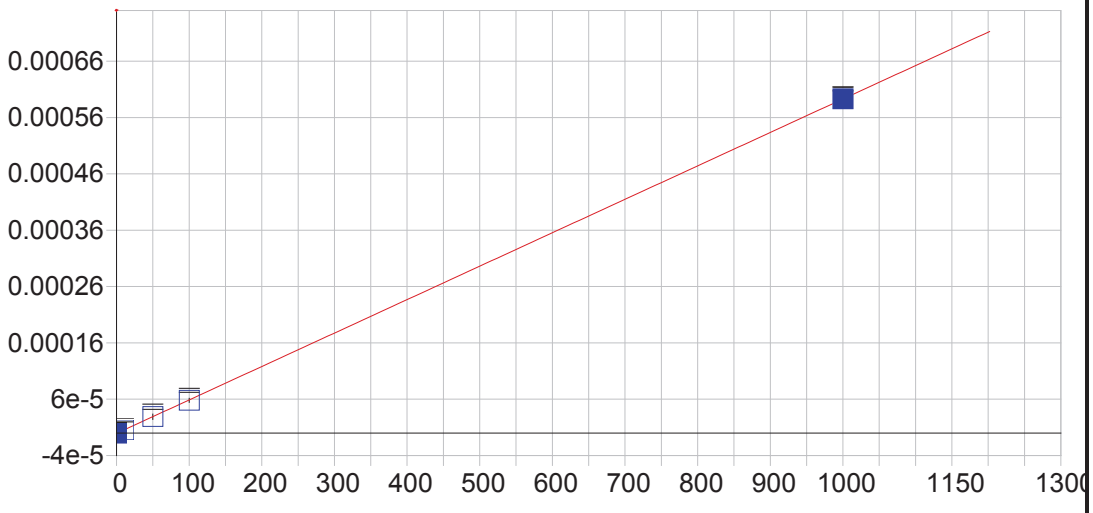


Se 196.090 {472}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999984	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	4.348707		
Predicted MQL:	14.495689		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-2.5168	-2.52	.000	.00000	.000	1
CalStd7=50	50.000	49.537	-.463	-.927	.00004	.000	1
CalStd9=100	1000.0	1000.1	.146	.015	.00078	.000	1
CalStd5=10	10.000	13.860	3.86	38.6	.00001	.000	1
CalStd8=100	100.00	97.852	-2.15	-2.15	.00008	.000	1

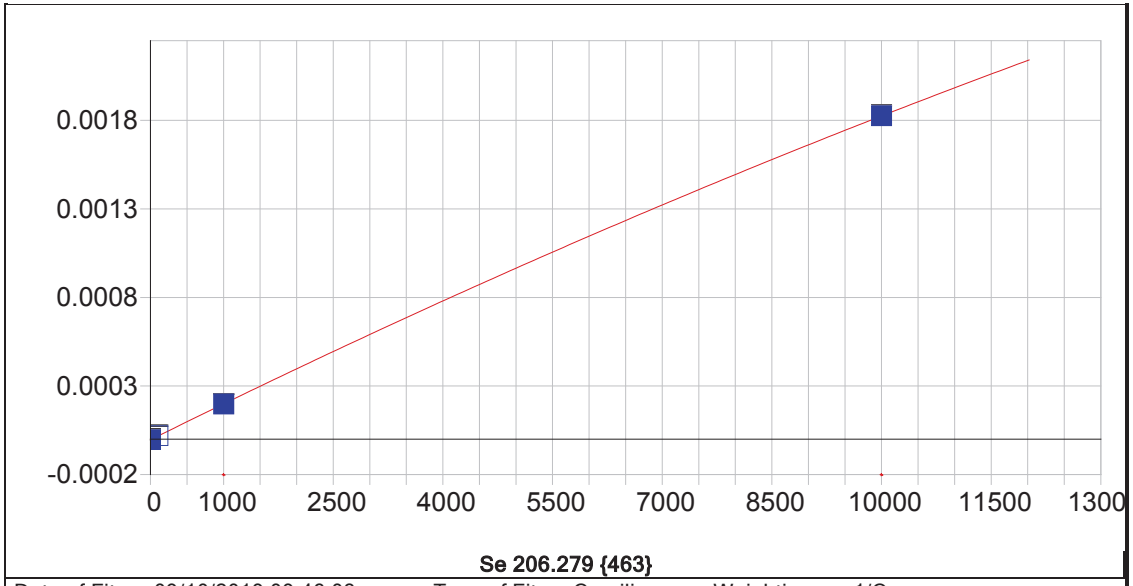


Se 203.985 {465}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	-0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999999	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	6.597260		
Predicted MQL:	21.990866		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.22109	.221	.000	-.00000	.000	1
CalStd7=50	50.000	49.796	-.204	-.408	.00003	.000	1
CalStd9=100	1000.0	1000.1	.130	.013	.00059	.000	1
CalStd5=10	10.000	9.9271	-.073	-.729	.00001	.000	1
CalStd8=100	100.00	98.629	-1.37	-1.37	.00006	.000	1

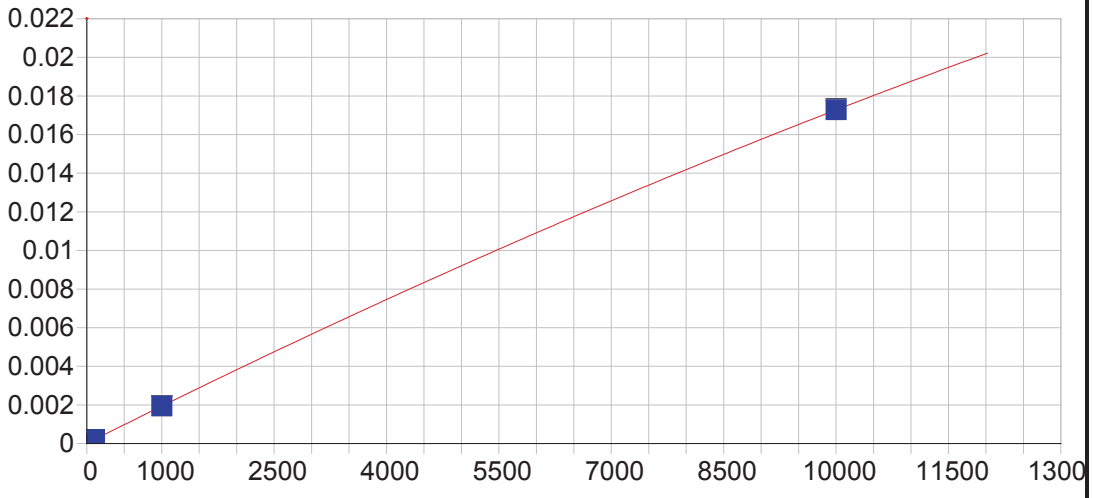


Se 206.279 {463}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	-0.000004	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	-0.000000		
n (Exponent):	1.000000		
Correlation:	0.999973	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	22.179376		
Predicted MQL:	73.931252		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00592	-.006	.000	-.00000	.000	1
CalStd9=100	1000.0	992.54	-7.46	-.746	.00020	.000	1
CalStd10=10	10000.	10001.	.843	.008	.00183	.000	1
CalStd8=100	100.00	106.66	6.66	6.66	.00002	.000	1

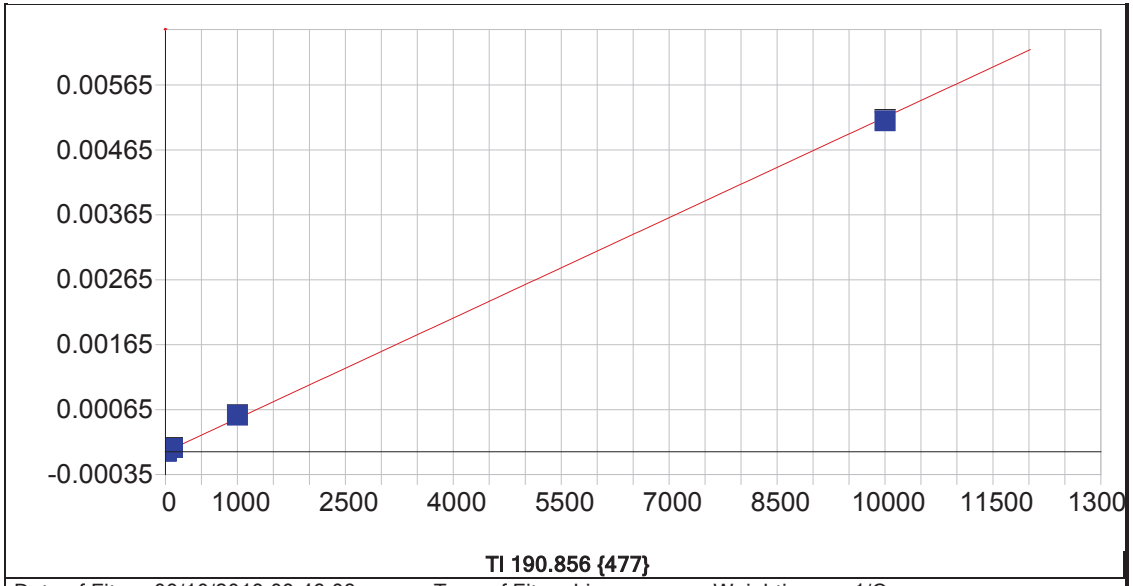


Tl 190.856 {476}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Curvilinear	Weighting:	1/Var

A0 (Offset):	0.000005	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	-0.000000		
n (Exponent):	1.000000		
Correlation:	1.000000	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	2.145686		
Predicted MQL:	7.152286		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.25143	-.251	.000	.00000	.000	1
CalStd9=100	1000.0	1000.1	.103	.010	.00194	.000	1
CalStd8=100	100.00	99.469	-.531	-.531	.00020	.000	1
CalStd5=10	10.000	10.358	.358	3.58	.00003	.000	1
CalStd10=10	10000.	10000.0	-.018	-.000	.01731	.000	1

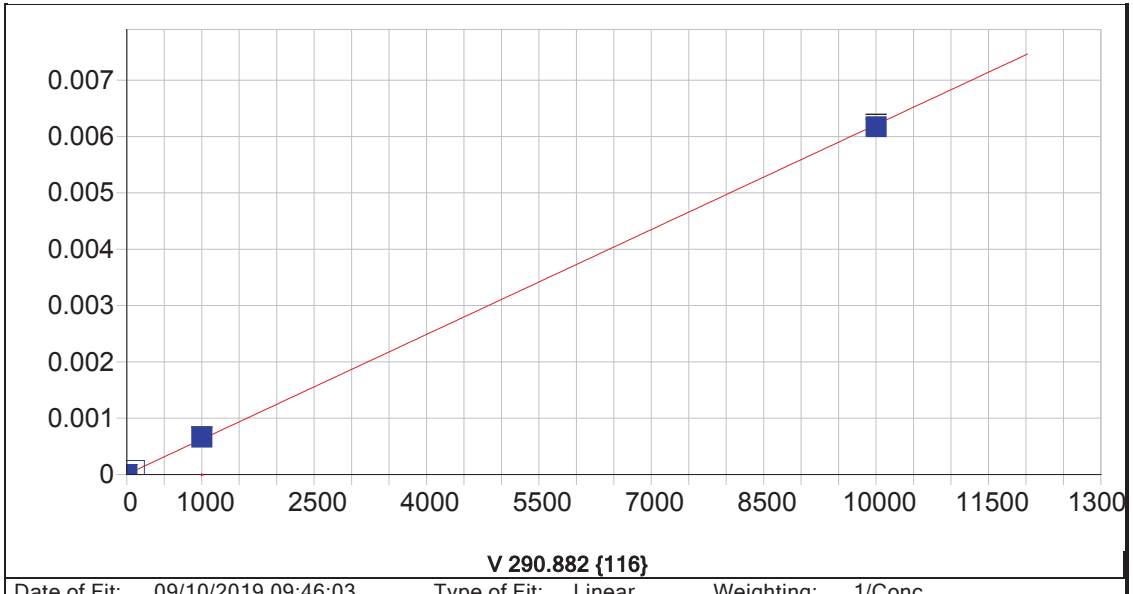


Tl 190.856 {477}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999378	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	6.453992		
Predicted MQL:	21.513307		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00629	-.006	.000	-.00000	.000	1
CalStd9=100	1000.0	1094.4	94.4	9.44	.00056	.000	1
CalStd8=100	100.00	114.36	14.4	14.4	.00006	.000	1
CalStd5=10	10.000	14.019	4.02	40.2	.00001	.000	1
CalStd10=10	10000.	9887.3	-113.	-1.13	.00510	.000	1

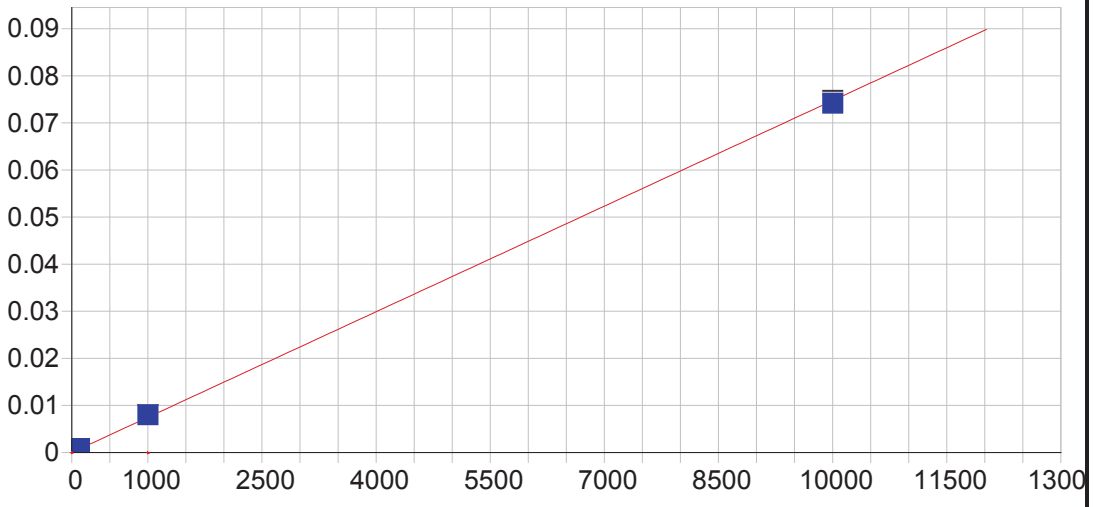


V 290.882 {116}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000005	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999813	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	2.906149		
Predicted MQL:	9.687162		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01020	-.010	.000	.00000	.000	1
CalStd9=100	1000.0	1059.1	59.1	5.91	.00066	.000	1
CalStd10=10	10000.	9936.0	-64.0	-.640	.00617	.000	1
CalStd8=100	100.00	104.93	4.93	4.93	.00007	.000	1

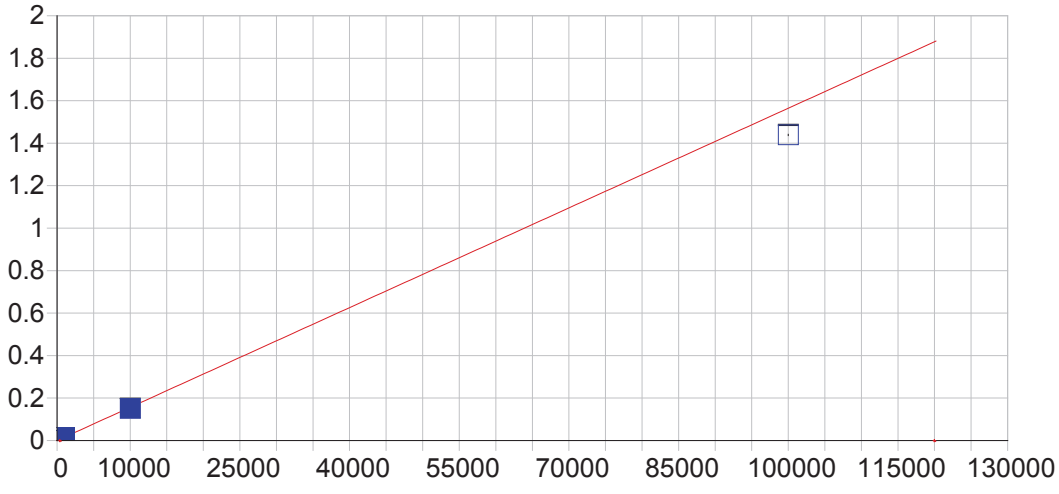


V 292.402 {115}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000005	Re-Slope:	1.000000
A1 (Gain):	0.000007	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999705	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	0.542894		
Predicted MQL:	1.809648		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00442	-.004	.000	.00000	.000	1
CalStd7=50	50.000	54.036	4.04	8.07	.00041	.000	1
CalStd9=100	1000.0	1069.7	69.7	6.97	.00800	.000	1
CalStd6=20	20.000	22.455	2.45	12.3	.00017	.000	1
CalStd5=10	10.000	11.198	1.20	12.0	.00009	.000	1
CalStd8=100	100.00	105.71	5.71	5.71	.00079	.000	1
CalStd10=10	10000.	9917.2	-82.8	-.828	.07439	.000	1

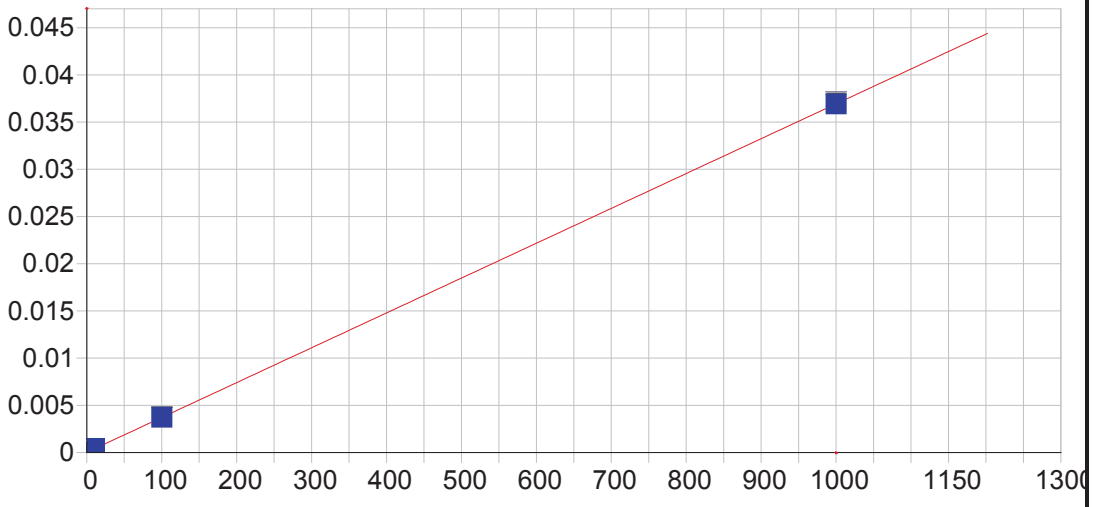


Zn 206.200 {463}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000031	Re-Slope:	1.000000
A1 (Gain):	0.000016	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.997641	Status:	OK.
Std Error of Est:	0.000171		
Predicted MDL:	0.293152		
Predicted MQL:	0.977173		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
CalStd10=10	10000.	9612.5	-388.	-3.88	.15043	.001	1
Blank	.00000	-1.6235	-1.62	.000	.00001	.000	1
CalStd9=100	1000.0	1061.9	61.9	6.19	.01665	.000	1
CalStd12=10	100000.	91963.	-8040.	-8.04	1.4389	.003	1
CalStd5=10	10.000	9.3775	-.622	-6.22	.00018	.000	1
CalStd8=100	100.00	104.12	4.12	4.12	.00166	.000	1

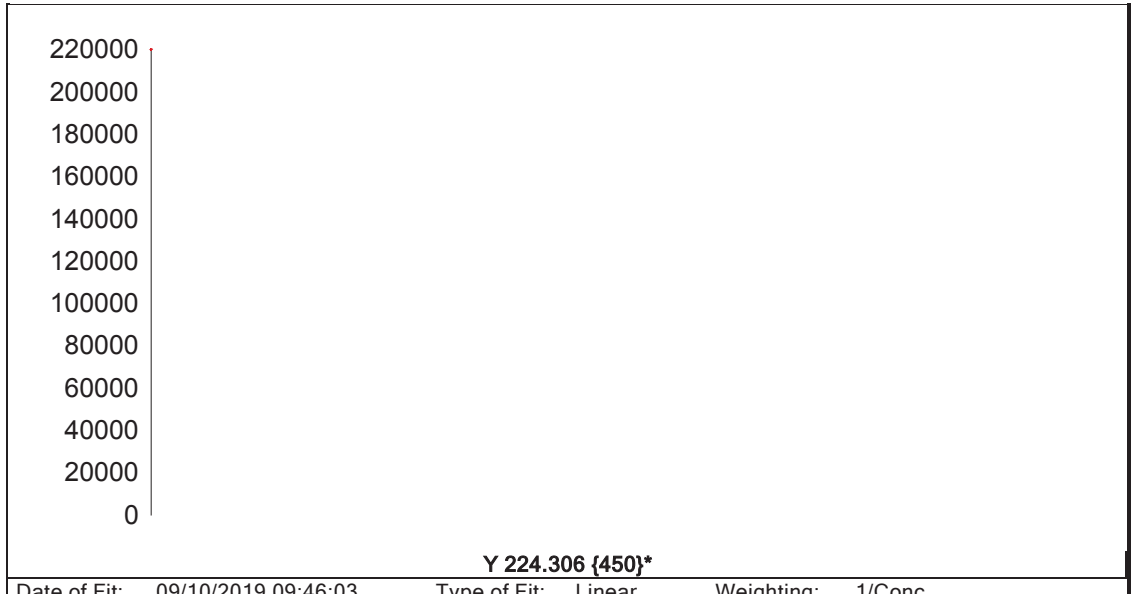


Zn 213.856 {457}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000023	Re-Slope:	1.000000
A1 (Gain):	0.000037	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999986	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.133108		
Predicted MQL:	0.443693		

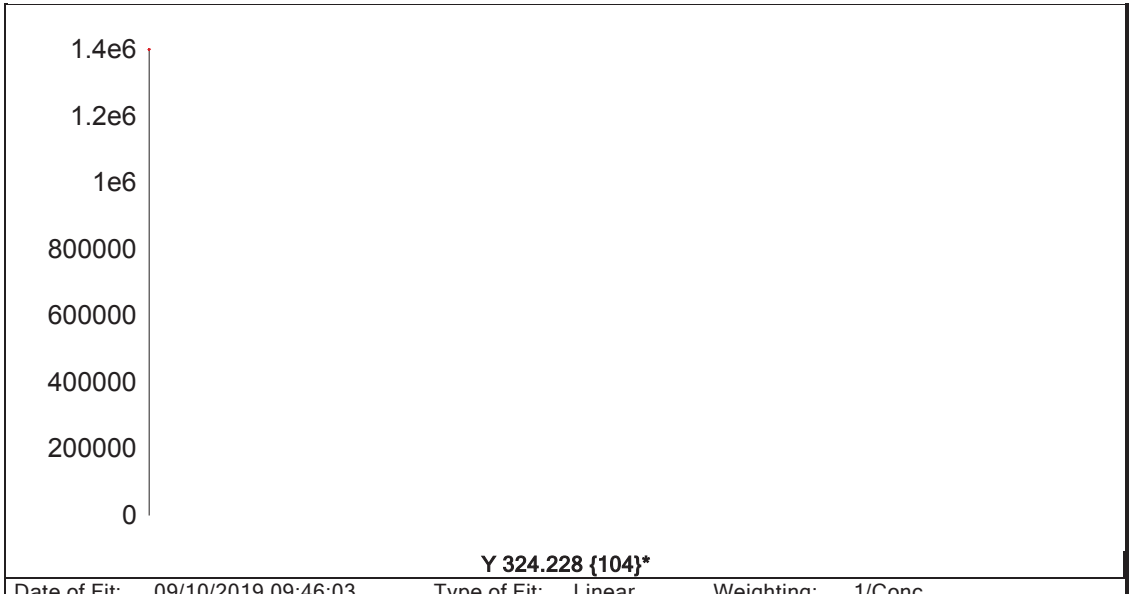
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00057	-.001	.000	.00002	.000	1
CalStd9=100	1000.0	999.23	-.769	-.077	.03715	.000	1
CalStd5=10	10.000	10.552	.552	5.52	.00041	.000	1
CalStd8=100	100.00	100.22	.220	.220	.00375	.000	1



Y 224.306 {450}*

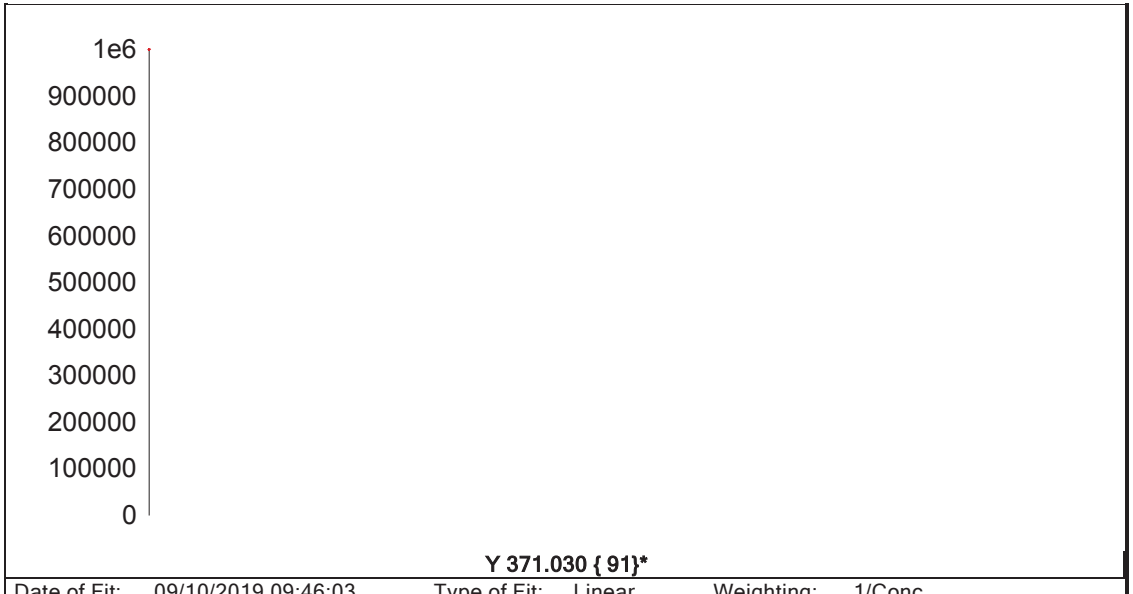
Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	202540.	993.	1



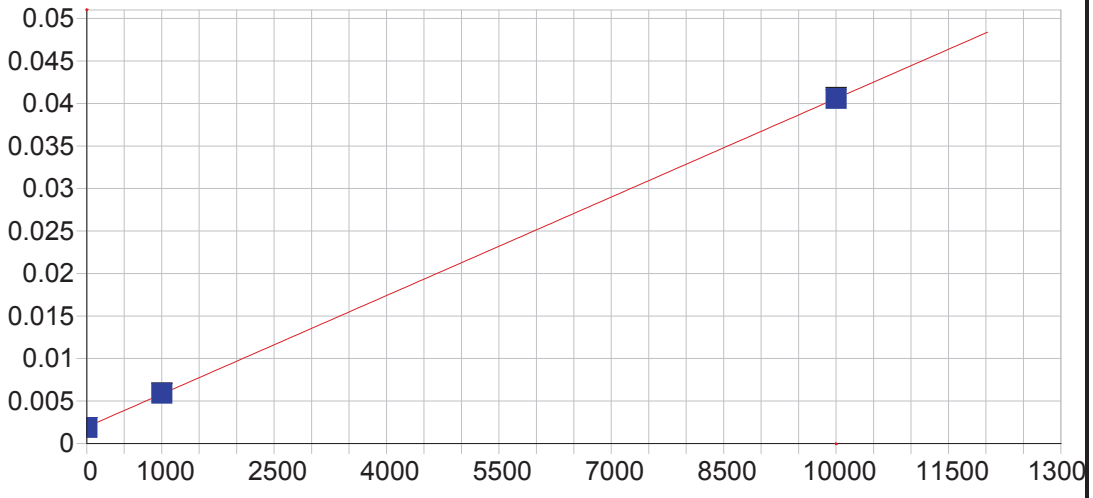
Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	1231600.	12400.	1



Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	861030.	11300.	1

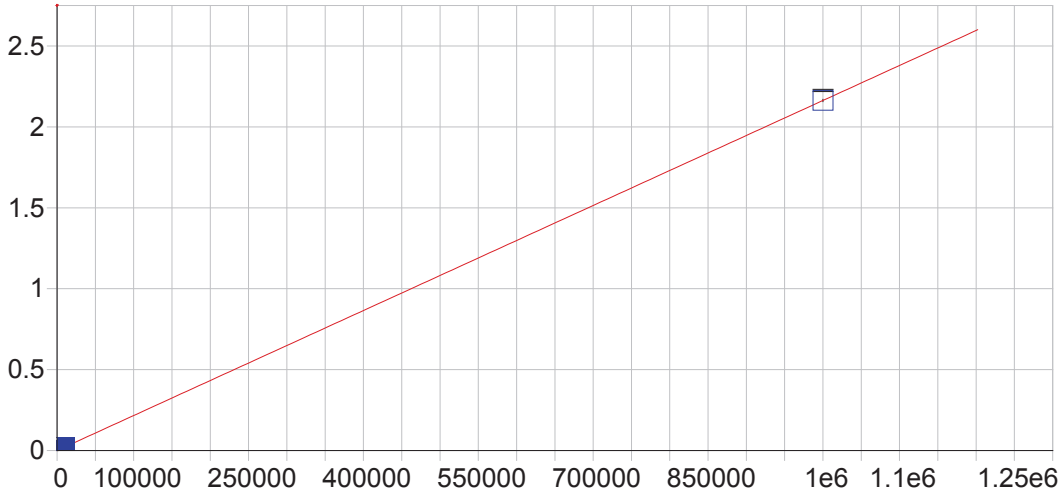


Na 588.995 { 57}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	0.001958	Re-Slope:	1.000000
A1 (Gain):	0.000004	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999993	Status:	OK.
Std Error of Est:	0.000115		
Predicted MDL:	3.489480		
Predicted MQL:	11.631600		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-19.921	-19.9	.000	.00188	.000	1
CalStd9=100	1000.0	1022.1	22.1	2.21	.00591	.000	1
CalStd10=10	10000.	9997.8	-2.21	-.022	.04058	.000	1

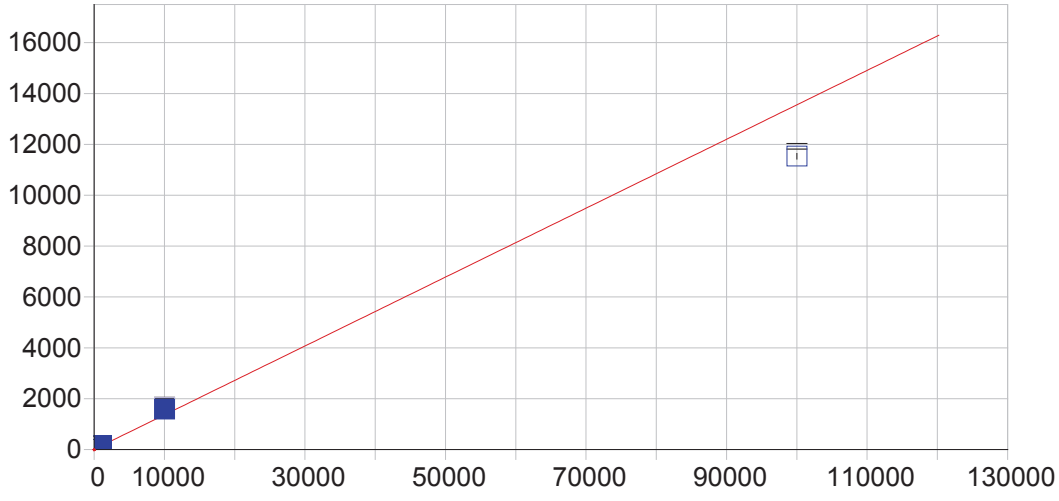


Na 589.592 { 57}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000068	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999997	Status:	OK.
Std Error of Est:	0.000007		
Predicted MDL:	3.795767		
Predicted MQL:	12.652558		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.05368	-.054	.000	.00007	.000	1
CalStd9=100	1000.0	1063.7	63.7	6.37	.00237	.000	1
CalStd10=10	10000.	9899.2	-101.	-1.01	.02148	.000	1
CalibStd15=	1000000.	1000000.	37.1	.004	2.1632	.007	1

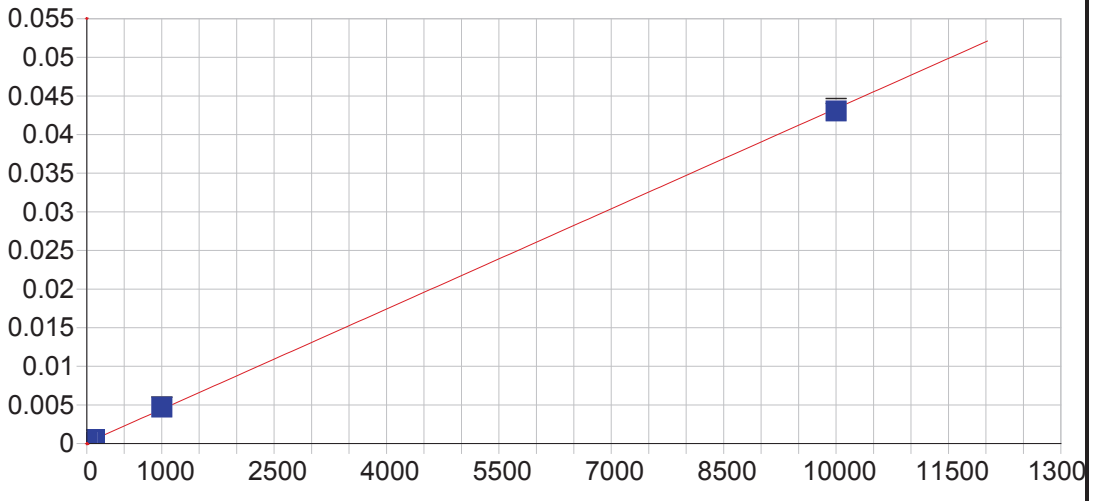


Si 251.611 {134}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	8.466284	Re-Slope:	1.000000
A1 (Gain):	0.135460	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.990306	Status:	OK.
Std Error of Est:	28.734641		
Predicted MDL:	7.537126		
Predicted MQL:	25.123755		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-10.598	-10.6	.000	7.0307	1.36	1
CalStd9=100	1000.0	995.36	-4.64	-.464	153.98	.915	1
CalStd10=10	10000.	11627.	1630.	16.3	1651.2	11.4	1
CalibStd15=	100000.	85081.	-14900.	-14.9	11533.	109.	1

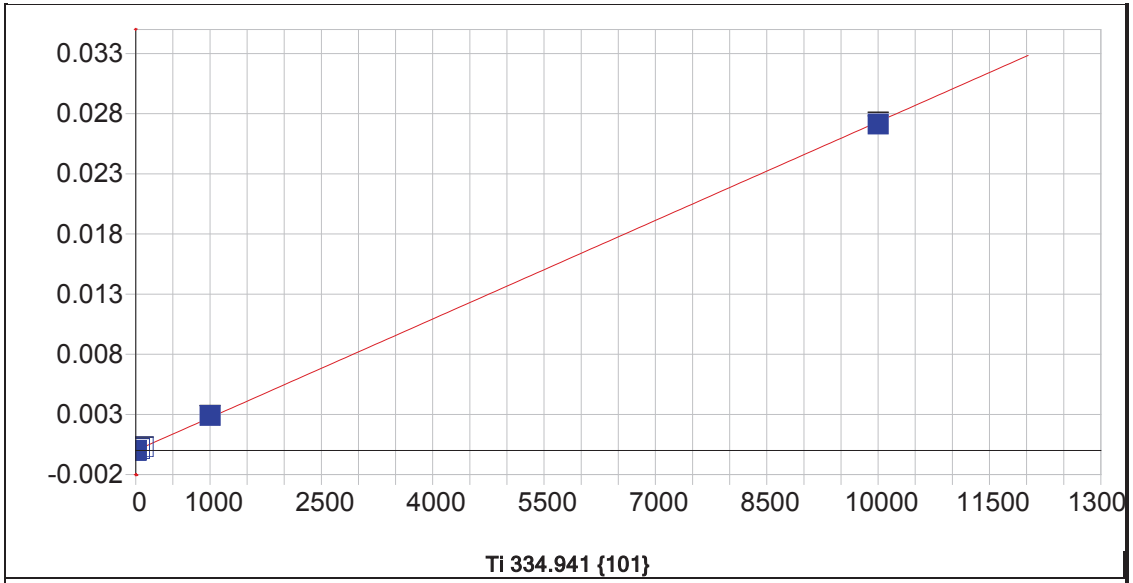


Ti 323.452 {104}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000109	Re-Slope:	1.000000
A1 (Gain):	0.000004	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999718	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.733918		
Predicted MQL:	2.446394		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00386	-.004	.000	.00011	.000	1
CalStd5=10	10.000	11.694	1.69	16.9	.00016	.000	1
CalStd8=100	100.00	106.24	6.24	6.24	.00057	.000	1
CalStd9=100	1000.0	1061.9	61.9	6.19	.00470	.000	1
CalStd10=10	10000.	9923.6	-76.4	-.764	.04309	.000	1
CalStd7=50	50.000	54.682	4.68	9.36	.00035	.000	1
CalStd4=5	5.0000	6.9656	1.97	39.3	.00014	.000	1

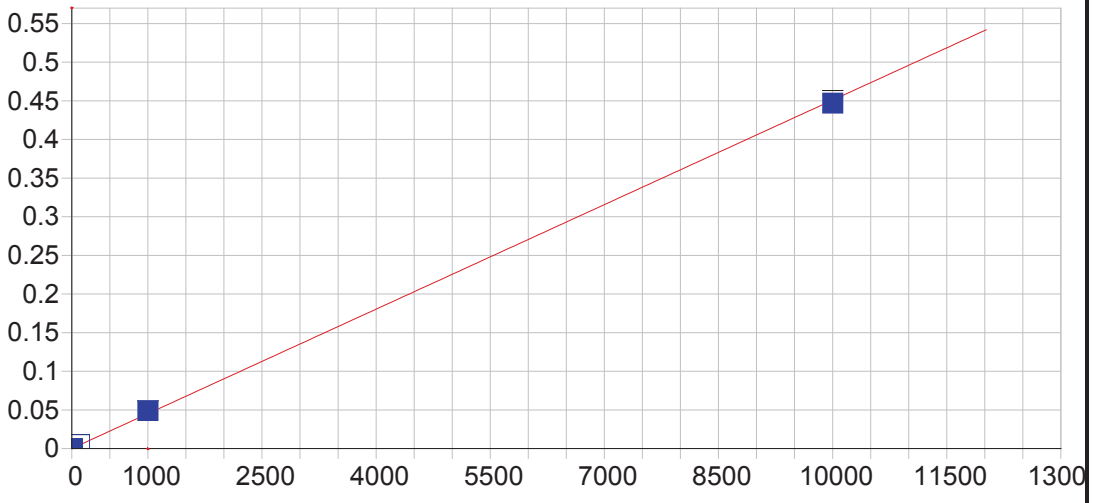


Ti 334.941 {101}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999790	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.781375		
Predicted MQL:	2.604585		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00177	-.002	.000	-.00000	.000	1
CalStd5=10	10.000	10.295	.295	2.95	.00003	.000	1
CalStd8=100	100.00	104.56	4.56	4.56	.00029	.000	1
CalStd9=100	1000.0	1060.5	60.5	6.05	.00290	.000	1
CalStd10=10	10000.	9930.7	-69.3	-.693	.02714	.000	1
CalStd7=50	50.000	53.153	3.15	6.31	.00014	.000	1
CalStd4=5	5.0000	5.8085	.808	16.2	.00002	.000	1

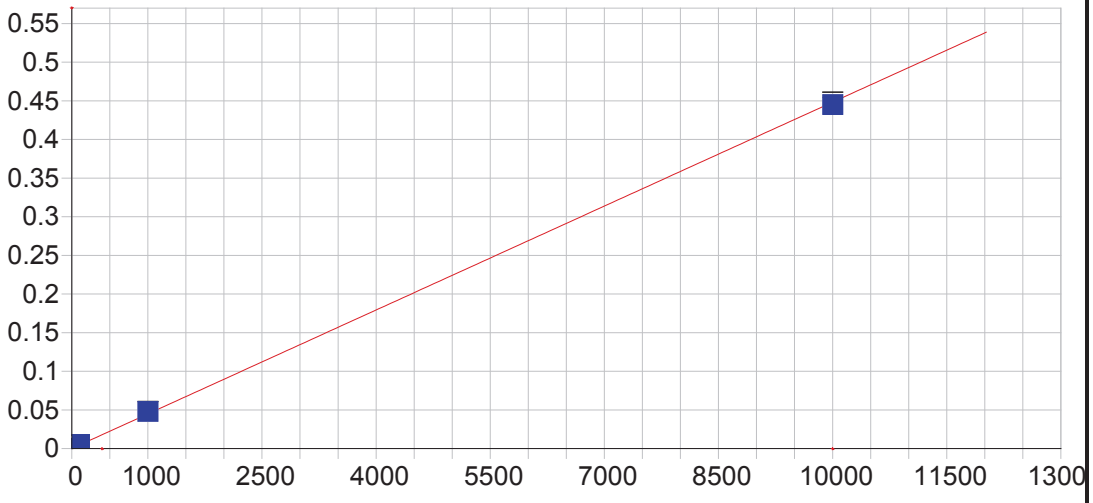


Sr 407.771 { 83}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000039	Re-Slope:	1.000000
A1 (Gain):	0.000045	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999617	Status:	OK.
Std Error of Est:	0.000005		
Predicted MDL:	0.103015		
Predicted MQL:	0.343382		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00055	-.001	.000	.00004	.000	1
CalStd3=1	1.0000	1.1250	.125	12.5	.00009	.000	1
CalStd4=5	5.0000	5.8533	.853	17.1	.00030	.000	1
CalStd5=10	10.000	10.981	.981	9.81	.00053	.000	1
CalStd8=100	100.00	108.49	8.49	8.49	.00493	.000	1
CalStd9=100	1000.0	1081.8	81.8	8.18	.04882	.000	1
CalStd10=10	10000.	9907.8	-92.2	-.922	.44682	.004	1

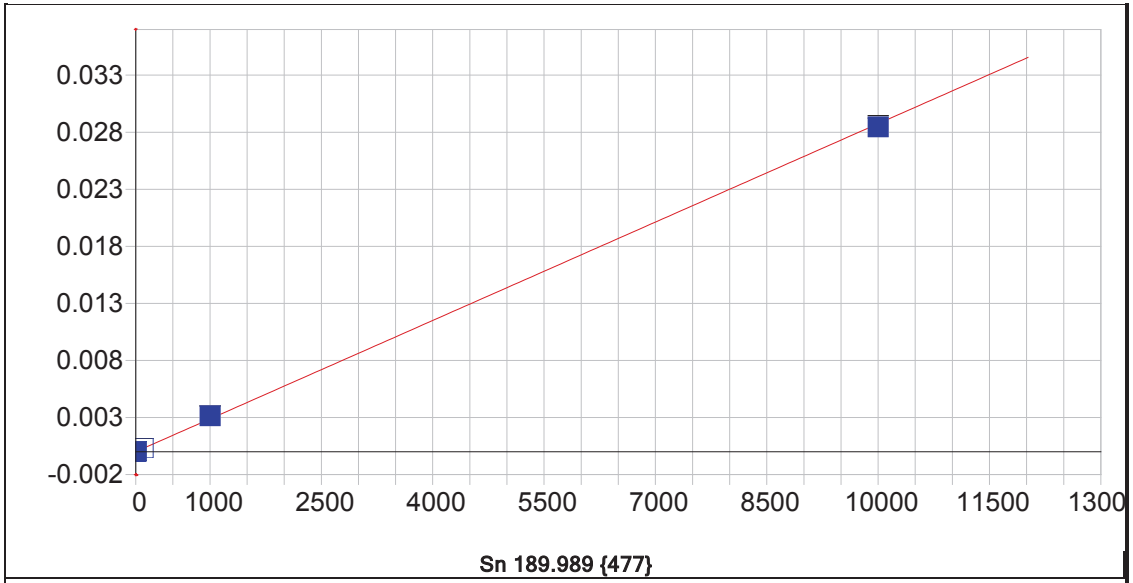


Sr 421.552 { 80}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000008	Re-Slope:	1.000000
A1 (Gain):	0.000045	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999748	Status:	OK.
Std Error of Est:	0.000004		
Predicted MDL:	0.102257		
Predicted MQL:	0.340858		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00029	-.000	.000	.00001	.000	1
CalStd3=1	1.0000	1.0211	.021	2.11	.00005	.000	1
CalStd4=5	5.0000	5.4433	.443	8.87	.00025	.000	1
CalStd5=10	10.000	10.619	.619	6.19	.00048	.000	1
CalStd8=100	100.00	105.65	5.65	5.65	.00474	.000	1
CalStd9=100	1000.0	1068.2	68.2	6.82	.04790	.000	1
CalStd10=10	10000.	9925.1	-74.9	-.749	.44495	.003	1

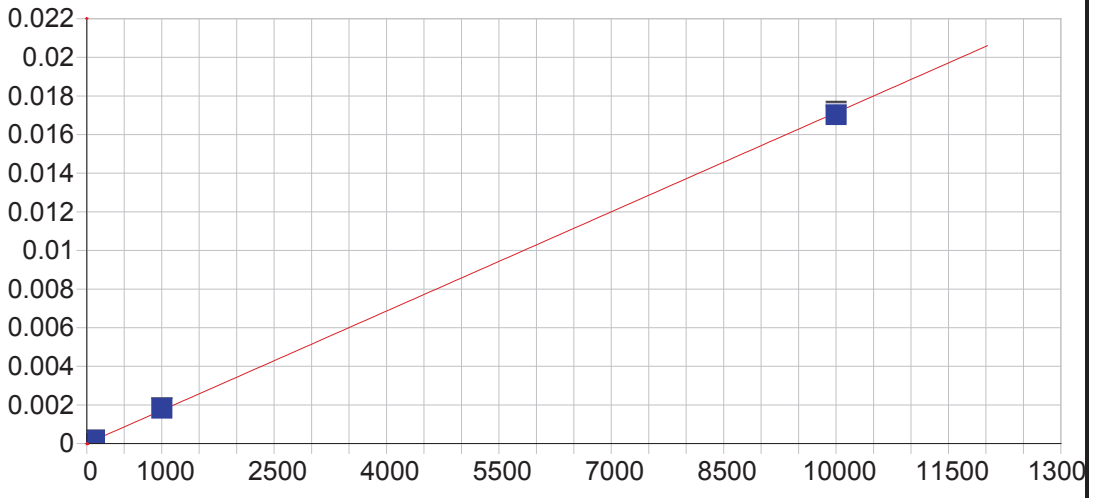


Sn 189.989 {477}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999530	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	1.490124		
Predicted MQL:	4.967080		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00432	-.004	.000	.00000	.000	1
CalStd10=10	10000.	9899.6	-100.	-1.00	.02846	.000	1
CalStd9=100	1000.0	1089.8	89.8	8.98	.00314	.000	1
CalStd8=100	100.00	107.90	7.90	7.90	.00031	.000	1
CalStd5=10	10.000	12.737	2.74	27.4	.00004	.000	1

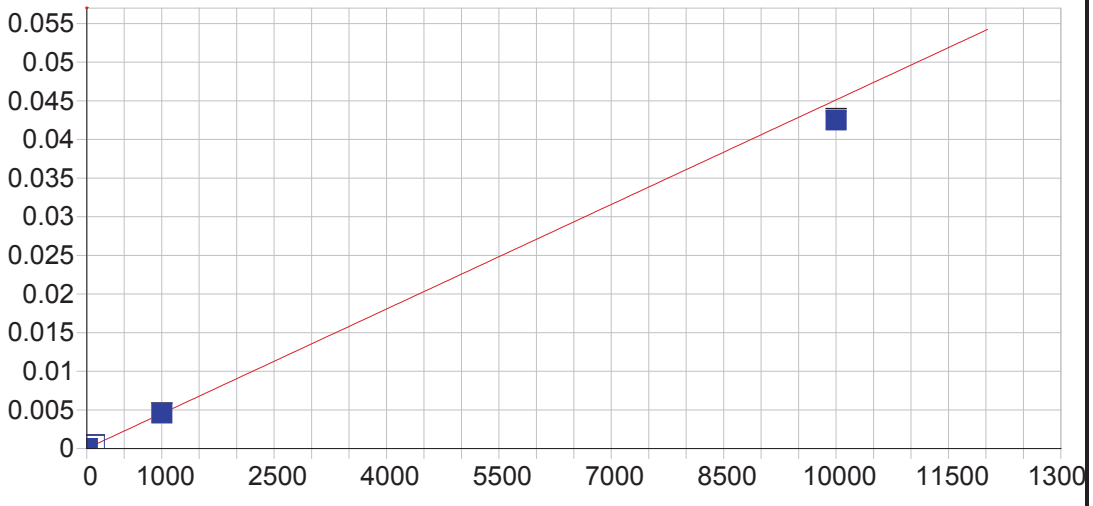


B 249.678 {135}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000006	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999797	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	1.207018		
Predicted MQL:	4.023394		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00179	-.002	.000	.00001	.000	1
CalStd8=100	100.00	104.90	4.90	4.90	.00019	.000	1
CalStd5=10	10.000	10.747	.747	7.47	.00002	.000	1
CalStd9=100	1000.0	1061.7	61.7	6.17	.00183	.000	1
CalStd10=10	10000.	9932.7	-67.3	-.673	.01709	.000	1

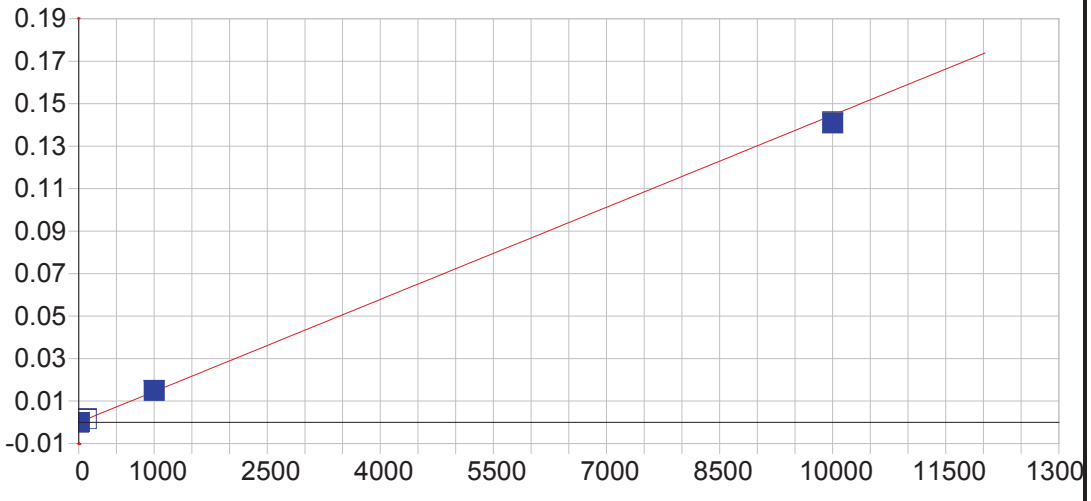


B 249.773 {135}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000015	Re-Slope:	1.000000
A1 (Gain):	0.000005	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999664	Status:	OK.
Std Error of Est:	0.000018		
Predicted MDL:	0.556556		
Predicted MQL:	1.855187		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.07372	.074	.000	.00002	.000	1
CalStd8=100	100.00	100.38	.380	.380	.00047	.000	1
CalStd5=10	10.000	9.6305	-.370	-3.70	.00006	.000	1
CalStd9=100	1000.0	1011.5	11.5	1.15	.00458	.000	1
CalStd10=10	10000.	9418.0	-582.	-5.82	.04252	.000	1

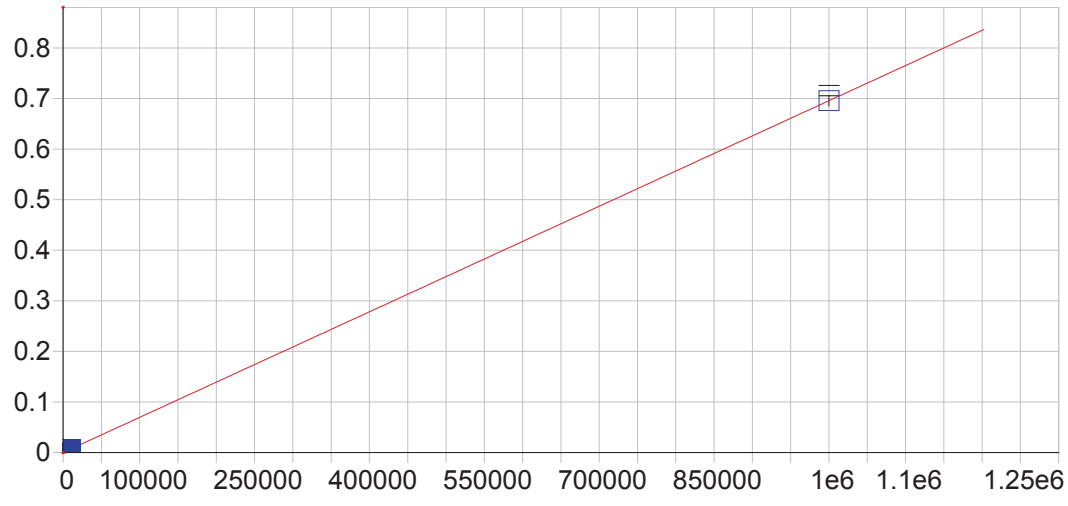


Li 670.784 { 50}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000006	Re-Slope:	1.000000
A1 (Gain):	0.000014	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999543	Status:	OK.
Std Error of Est:	0.000105		
Predicted MDL:	0.695378		
Predicted MQL:	2.317928		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.7823	-1.78	.000	-.00002	.000	1
CalStd5=10	10.000	8.9616	-1.04	-10.4	.00014	.000	1
CalStd8=100	100.00	104.65	4.65	4.65	.00152	.000	1
CalStd9=100	1000.0	1030.7	30.7	3.07	.01491	.000	1
CalStd10=10	10000.	9738.7	-261.	-2.61	.14086	.000	1

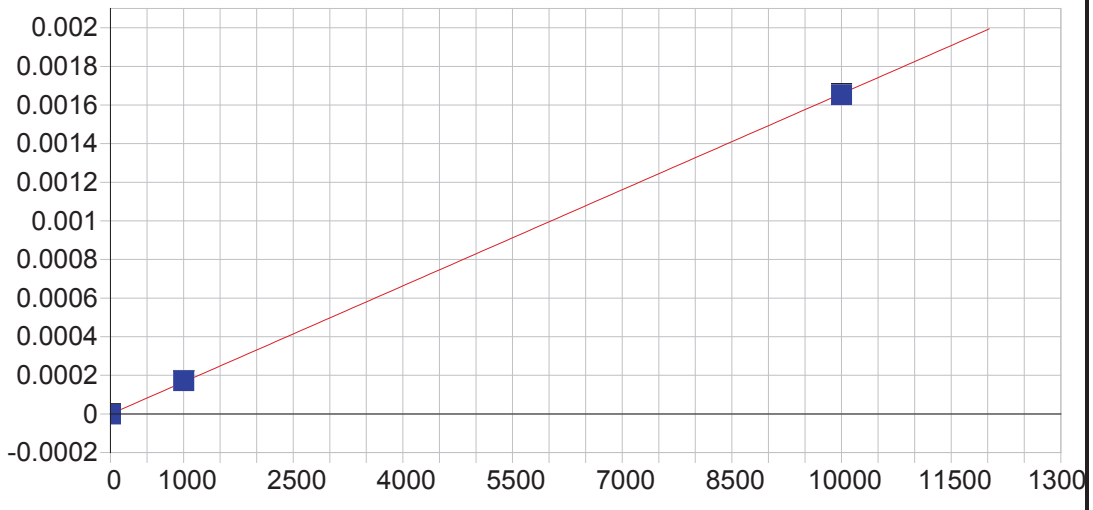


K 766.490 { 44}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000102	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999997	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	17.756787		
Predicted MQL:	59.189290		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.02208	-.022	.000	.00010	.000	1
CalStd9=100	1000.0	1040.9	40.9	4.09	.00083	.000	1
CalStd10=10	10000.	9810.4	-190.	-1.90	.00693	.000	1
CalibStd15=	1000000.	1000100.	149.	.015	.69584	.010	1

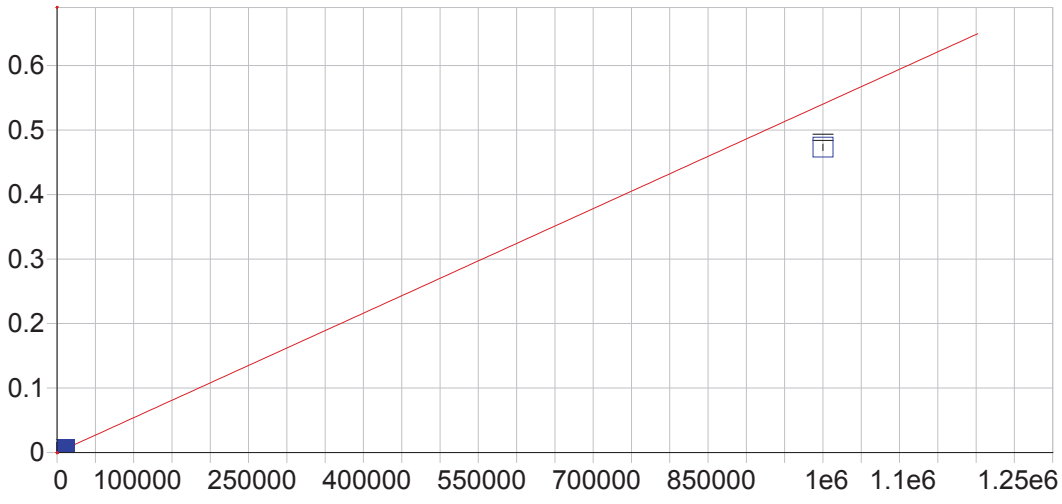


P 213.618 {457}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999925	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	4.532693		
Predicted MQL:	15.108976		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.03480	-.035	.000	-.00000	.000	1
CalStd10=10	10000.	9961.3	-38.7	-.387	.00165	.000	1
CalStd9=100	1000.0	1038.7	38.7	3.87	.00017	.000	1

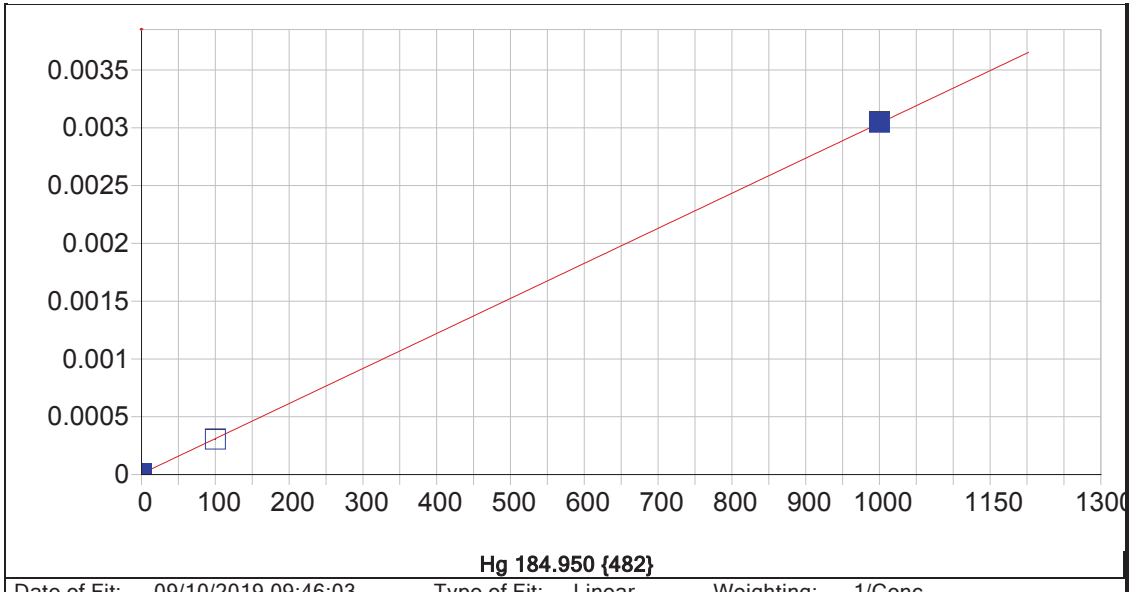


S 182.034 {485}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	0.000005	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999999	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	5.466802		
Predicted MQL:	18.222675		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.03665	-.037	.000	.00000	.000	1
CalStd9=100	1000.0	1040.6	40.6	4.06	.00057	.000	1
CalStd10=10	10000.	9946.5	-53.5	-.535	.00539	.000	1
CalibStd15=	1000000.	876100.	-124000.	-12.4	.47330	.005	1

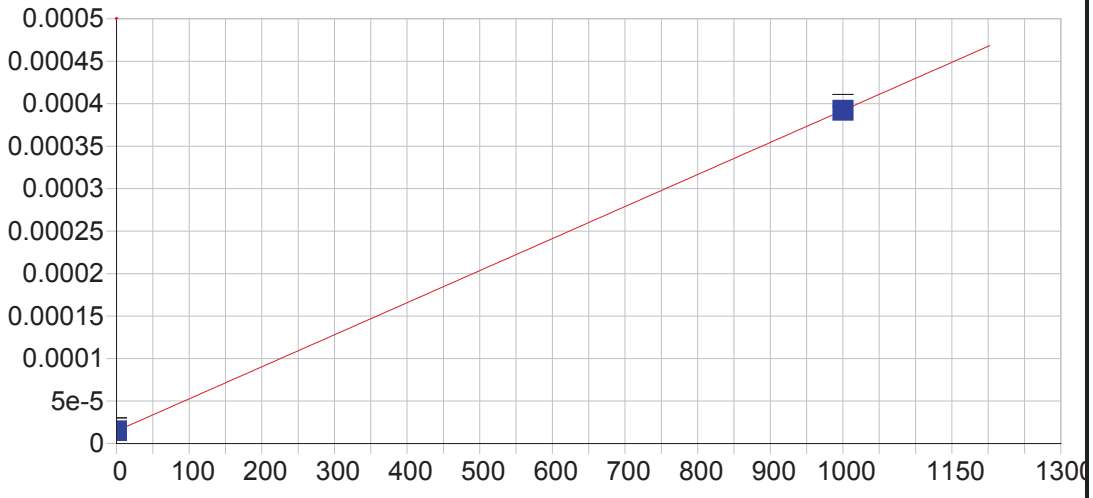


Hg 184.950 {482}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000008	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999980	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	1.082354		
Predicted MQL:	3.607846		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00182	.002	.000	.00001	.000	1
CalStd8=100	100.00	97.983	-2.02	-2.02	.00030	.000	1
CalStd9=100	1000.0	1002.0	2.02	.202	.00305	.000	1



Ce 404.076 { 83}

Date of Fit:	09/10/2019 09:46:03	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000015	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	1.000000	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	12.384528		
Predicted MQL:	41.281759		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00001	.000	1
CalStd9=100	1000.0	1000.0	.000	.000	.00039	.000	1

Sample Name: Blank Acquired: 09/03/2019 11:55:07 Type: Cal
Method: DOD Calibration Updated 060614(v3506) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	Al3961	As1937	As1972	Ba2335	Ba4934	Be3130	Be2348	Ca3158	Ca3933	Cd2265
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**18.4**	**.000**	**-.000**	**.262**	**.000**	**.000**	**.006**	**-.000**	**.000**	**.000**	**.004**	**-.000**
Stddev	1.2	.000	.000	.162	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	6.43	42.2	20.0	61.7	275.	128.	1.40	3.57	509.	6.49	6.11	309.

Elem	Cd2288	Co2286	Co2388	Cr2055	Cr2677	Cu2230	Cu3273	Fe2343	Fe2395	Fe2599	Mg2790	Mg2802
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**-.000**	**-.000**	**-.000**	**.000**	**.000**	**.000**	**.000**	**-2.78**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.39	.000
%RSD	25.9	37.4	56.9	43.7	47.3	90.9	14.7	.935	67.7	173.	14.2	1.63

Elem	Mn2576	Mn2593	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Se2039
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**-.000**	**.000**	**-.000**	**.000**	**.000**	**-.000**	**.000**	**.000**	**-.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	44.6	56.4	255.	350.	154.	18.5	56.2	40.9	64.7	66.0	3350.	272.

Elem	Se2062	Tl1908	V_2908	V_2924	Zn2062	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000
%RSD	119.	45.0	26.4	69.8	67.4	14.2

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**202540.**	**1231600.**	**861030.**
Stddev	993.	12426.	11287.
%RSD	.49024	1.0090	1.3108

Sample Name: CalStd2=0.5 Acquired: 09/03/2019 12:01:28 Type: Cal
Method: DOD Calibration Updated 060614(v3506) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Be3130	Cd2265	Cd2288
Units	Cts/S	Cts/S	Cts/S
Avg	**-.000**	**.000**	**.000**
Stddev	.000	.000	.000
%RSD	13.6	42.2	4.18

Int. Std.	Y_2243	Y_3242
Units	Cts/S	Cts/S
Avg	**194840.**	**1181100.**
Stddev	247.	5451.
%RSD	.12696	.46152

Sample Name: CalStd3=1 Acquired: 09/03/2019 12:07:45 Type: Cal
Method: DOD Calibration Updated 060614(v3506) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Ba2335	Be3130	Cd2265	Cd2288	Co2286	Cr2055	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**16.6**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**-.000**
Stddev	2.3	.000	.000	.000	.000	.000	.000	.000
%RSD	13.7	31.6	7.36	11.6	3.85	7.40	39.6	22.7

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**193980.**	**1178200.**	**837600.**
Stddev	651.	3329.	6850.
%RSD	.33570	.28257	.81776

Sample Name: CalStd4=5 Acquired: 09/03/2019 12:14:10 Type: Cal
Method: DOD Calibration Updated 060614(v3506) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ba2335	Be3130	Cd2265	Cd2288	Co2286	Cr2055	Cr2677	Cu3273	Mn2576	Mo2020	Mo2045	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	6.25	1.53	2.97	1.99	4.11	6.35	20.7	11.3	1.70	13.3	23.6	14.6

Elem	Pb2203	Sb2175
Units	Cts/S	Cts/S
Avg	**.000**	**.000**
Stddev	.000	.000
%RSD	10.00	11.9

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**194340.**	**1175500.**	**838600.**
Stddev	501.	10118.	6486.
%RSD	.25785	.86071	.77338

Sample Name: CalStd5=10 Acquired: 09/03/2019 12:20:28 Type: Cal
Method: DOD Calibration Updated 060614(v3506) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	As1972	Ba2335	Be3130	Cd2265	Cd2288	Co2286	Cr2055	Cr2677	Cu2230
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**49.1**	**.000**	**2.16**	**.000**	**.000**	**.001**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	2.7	.000	.22	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	5.48	4.64	9.96	64.7	4.49	.833	1.84	1.18	1.21	3.18	6.26	12.9

Elem	Cu3273	Mn2576	Mo2020	Mo2045	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Se2039	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	7.78	.519	5.19	6.53	.840	11.0	7.91	25.1	14.5	16.1	64.7	8.74

Elem	V_2924	Zn2062	Zn2138
Units	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**
Stddev	.000	.000	.000
%RSD	3.06	2.54	.122

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**194300.**	**1166200.**	**837270.**
Stddev	841.	4060.	1777.
%RSD	.43274	.34816	.21218

Sample Name: CalStd6=20 Acquired: 09/03/2019 12:27:30 Type: Cal
Method: DOD Calibration Updated 060614(v3506) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ba2335	Cu2230	Cu3273	Mn2576	Mo2020	Mo2045	Sb2175	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	2.21	4.98	5.42	.223	1.59	5.04	14.1	1.31

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**194420.**	**1176200.**	**842920.**
Stddev	828.	1768.	1645.
%RSD	.42603	.15034	.19515

Sample Name: CalStd7=50 Acquired: 09/03/2019 12:34:08 Type: Cal
Method: DOD Calibration Updated 060614(v3506) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	As1937	As1972	Be2348	Cd2265	Cd2288	Co2286	Cr2055	Cr2677	Cu2230	Cu3273	Mn2576	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**9.50**	**.000**	**.000**	**.001**	**.002**	**.001**	**.001**	**.000**	**.000**	**.000**	**.001**	**.000**
Stddev	.76	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	7.95	7.38	.749	.202	.299	.281	1.75	1.92	1.47	6.64	.562	.727

Elem	Mo2045	Ni2316	Sb2068	Se1960	Se2039	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.001**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000
%RSD	2.09	.899	3.06	3.66	16.3	.782

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**193960.**	**1173900.**	**848110.**
Stddev	490.	7971.	7802.
%RSD	.25253	.67902	.91991

Sample Name: CalStd8=100 Acquired: 09/03/2019 12:41:01 Type: Cal
Method: DOD Calibration Updated 060614(v3506) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	As1972	Ba2335	Ba4934	Be3130	Be2348	Ca3933	Cd2265	Cd2288	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**342.**	**.000**	**18.5**	**.000**	**.001**	**.009**	**.008**	**.000**	**.010**	**.002**	**.004**	**.002**
Stddev	4.	.000	.8	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	1.18	1.13	4.40	5.54	.610	.896	.493	1.01	1.06	.176	.299	.555

Elem	Co2388	Cr2055	Cr2677	Cu2230	Cu3273	Mg2802	Mn2576	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.001**	**.000**	**.001**	**.000**	**.004**	**.001**	**.001**	**.000**	**.001**	**.001**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.468	.710	.714	1.06	1.88	.476	.557	.471	1.03	.764	.243	4.25

Elem	Pb2203	Sb2175	Se1960	Se2039	Se2062	Tl1908	V_2908	V_2924	Zn2062	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.001**	**.002**	**.004**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	2.45	2.65	3.35	6.13	27.9	2.44	1.25	.727	.428	.031

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**193140.**	**1167100.**	**849980.**
Stddev	661.	5956.	7985.
%RSD	.34240	.51030	.93942

Sample Name: CalStd9=1000 Acquired: 09/03/2019 12:47:54 Type: Cal
Method: DOD Calibration Updated 060614(v3506) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Al1670	Al3961	As1937	As1972	Ba2335	Ba4934	Be3130	Be2348	Ca3158	Ca3933	Cd2265	Cd2288
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.003**	**.001**	**187.**	**.001**	**.008**	**.034**	**.085**	**.004**	**.000**	**.090**	**.023**	**.035**
Stddev	.000	.000	.	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.237	.627	.173	1.22	.378	.479	.207	.543	.766	.427	.157	.078

Elem	Co2286	Co2388	Cr2055	Cr2677	Cu2230	Cu3273	Fe2343	Fe2395	Fe2599	Mg2790	Mg2802	Mn2576
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.020**	**.002**	**.012**	**.003**	**.006**	**.001**	**.001**	**.000**	**.001**	**16.7**	**.039**	**.012**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.6	.000	.000
%RSD	.071	.393	.011	.258	.322	.405	.177	.256	.624	3.69	.259	.261

Elem	Mn2593	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Se2039	Se2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.005**	**.006**	**.005**	**.013**	**.012**	**.001**	**.002**	**.002**	**.002**	**.001**	**.001**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.731	.120	.209	.150	.257	1.01	.447	.734	.364	.270	.569	.956

Elem	Tl1908	V_2908	V_2924	Zn2062	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.002**	**.001**	**.008**	**.017**	**.037**
Stddev	.000	.000	.000	.000	.000
%RSD	.399	.980	.234	.171	.069

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**193030.**	**1158300.**	**849480.**
Stddev	647.	5624.	6002.
%RSD	.33543	.48556	.70649

Sample Name: CalStd10=10000 Acquired: 09/03/2019 12:53:50 Type: Cal
Method: DOD Calibration Updated 060614(v3506) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Al3961	As1972	Ba4934	Ca3158	Co2286	Co2388	Cr2055	Cr2677	Cu2230	Cu3273	Fe2343	Fe2395
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.010**	**.005**	**.270**	**.002**	**.181**	**.015**	**.108**	**.024**	**.057**	**.007**	**.007**	**.003**
Stddev	.000	.000	.003	.000	.001	.000	.000	.000	.000	.000	.000	.000
%RSD	.608	.341	1.04	.798	.367	.621	.404	.753	.308	.676	.822	.799

Elem	Fe2599	Mg2790	Mg2802	Mn2576	Mn2593	Mo2045	Ni2216	Ni2316	Pb2169	Sb2068	Sb2175	Se2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.009**	**175.**	**.334**	**.110**	**.044**	**.045**	**.116**	**.112**	**.010**	**.016**	**.017**	**.002**
Stddev	.000	1.	.001	.001	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.708	.635	.424	.609	.832	.403	.395	.348	.369	.329	.200	.189

Elem	Tl1908	V_2908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.017**	**.006**	**.074**	**.150**
Stddev	.000	.000	.000	.001
%RSD	.181	.730	.514	.493

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**189310.**	**1131100.**	**843720.**
Stddev	434.	4028.	4490.
%RSD	.22919	.35612	.53214

Sample Name: CalStd12=100K Acquired: 09/03/2019 13:00:19 Type: Cal
Method: DOD Calibration Updated 060614(v3506) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Cr2055	Cu2230	Mn2593	Pb2169	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.02**	**.601**	**.460**	**.105**	**1.44**
Stddev	.00	.002	.003	.000	.00
%RSD	.236	.272	.579	.349	.225

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**190370.**	**1157700.**	**839870.**
Stddev	530.	3142.	4133.
%RSD	.27861	.27140	.49210

Sample Name: CalStd13=100000 Acquired: 09/03/2019 13:07:00 Type: Cal
Method: DOD Calibration Updated 060614(v3506) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Al3961	Ca3158	Fe2343	Fe2395	Fe2599	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.104**	**.017**	**.067**	**.037**	**.096**	**1950.**
Stddev	.001	.000	.000	.000	.001	11.
%RSD	.823	.909	.483	.885	.876	.578

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**185790.**	**1119900.**	**835480.**
Stddev	378.	6853.	6237.
%RSD	.20338	.61193	.74652

Sample Name: CalStd14=500000 Acquired: 09/03/2019 13:13:20 Type: Cal
Method: DOD Calibration Updated 060614(v3506) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Al3961	Ca3158	Fe2395	Fe2599	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.552**	**.085**	**.177**	**.454**	**10100.**
Stddev	.003	.000	.001	.005	21.
%RSD	.625	.508	.471	1.16	.204

Int. Std.	Y_2243	Y_3710
Units	Cts/S	Cts/S
Avg	**169990.**	**806770.**
Stddev	1123.	3127.
%RSD	.66081	.38759

Sample Name: CalibStd15=1000k Acquired: 09/03/2019 13:21:10 Type: Cal
Method: DOD Calibration Updated 060614(v3506) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Al3961	Ca3158	Fe2395	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.04**	**.154**	**.302**	**17600.**
Stddev	.01	.001	.004	118.
%RSD	1.15	.956	1.32	.671

Int. Std.	Y_2243	Y_3710
Units	Cts/S	Cts/S
Avg	**159260.**	**768660.**
Stddev	1276.	4088.
%RSD	.80089	.53182

Sample Name: icv Acquired: 09/03/2019 13:36:29 Type: QC
Method: DOD Calibration Updated 060614(v3506) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1972	Ba4934	Be3130	Ca3158	Cd2265	Cd2288	Co2286	Cr2677	Cu2230
Avg	**45.5**	**11100.**	**1870.**	**2020.**	**1970.**	**46.6**	**9810.**	**46.5**	**51.9**	**466.**	**190.**	**246.**
Stddev	.7	40.	14.	12.	5.	.2	64.	.1	.1	.	.	.
%RSD	1.53	.360	.726	.597	.261	.472	.653	.216	.107	.016	.240	.006
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2599	Mg2790	Mn2576	Mo2020	Mo2045	Ni2216	Ni2316	Pb2203	Sb2175	Se1960	Se2039	Se2062
Avg	**4950.**	**9700.**	**512.**	**469.**	**478.**	**467.**	**471.**	**465.**	**459.**	**1900.**	**1760.**	**1850.**
Stddev	3.	86.	.	2.	.	.	.	2.	1.	4.	10.	16.
%RSD	.064	.883	.053	.352	.024	.101	.029	.444	.156	.187	.548	.846
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Tl1908	V_2924	Zn2062	Zn2138
Avg	**1880.**	**500.**	**499.**	**476.**
Stddev	4.	1.	3.	.
%RSD	.217	.288	.580	.039
Check ?	None	None	None	None
Value				
Range				

Sample Name: icv Acquired: 09/03/2019 13:36:29 Type: QC
Method: DOD Calibration Updated 060614(v3506) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**192250.**	**1158700.**	**855430.**
Stddev	322.	2546.	737.
%RSD	.16770	.21974	.08615

Sample Name: ICVLL Acquired: 09/03/2019 13:49:13 Type: QC
Method: DOD Calibration Updated 060614(v3506) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	Al3961	As1937	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Cu3273
Avg	**51.0**	**1260.**	**1240.**	**62.7**	**32.0**	**12.4**	**1530.**	**16.3**	**32.2**	**30.5**	**35.5**	**28.4**
Stddev	2.5	6.	12.	3.4	.2	.7	9.	.1	.3	1.8	.8	3.5
%RSD	4.96	.508	.997	5.37	.646	5.55	.596	.542	.982	5.81	2.13	12.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Fe2343	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924	Zn2138
Avg	**926.**	**1550.**	**34.0**	**36.0**	**31.8**	**32.3**	**66.1**	**67.1**	**62.9**	**62.6**	**33.4**	**33.1**
Stddev	44.	80.	1.9	.6	.8	1.7	3.1	3.2	3.5	1.8	1.8	.1
%RSD	4.75	5.14	5.44	1.56	2.38	5.22	4.67	4.76	5.56	2.82	5.36	.396
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**188460.**	**1145500.**	**852010.**
Stddev	462.	4636.	4985.
%RSD	.24520	.40474	.58510

Sample Name: icb Acquired: 09/03/2019 13:55:19 Type: QC
Method: DOD Calibration Updated 060614(v3506) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Cu3273	Fe2343
Avg	**.220**	**-.872**	**1.68**	**-.475**	**-.035**	**9.13**	**-.195**	**-.114**	**-.585**	**-.710**	**1.72**	**3.51**
Stddev	.616	.292	4.60	.286	.005	.77	.208	.152	.587	.442	2.97	2.80
%RSD	280.	33.5	273.	60.2	14.0	8.41	106.	134.	100.	62.3	173.	79.6
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924	Zn2138
Avg	**.749**	**.097**	**-.538**	**-.411**	**-.150**	**.054**	**.902**	**1.23**	**.922**	**-.060**	**.010**
Stddev	.200	.063	.171	.545	2.66	2.05	4.58	9.39	.910	.380	.102
%RSD	26.7	64.6	31.7	133.	1770.	3810.	508.	765.	98.7	633.	1060.
Check ?	None	None	None	None	None	None	None	None	None	None	None
Value											
Range											

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**194700.**	**1177100.**	**874600.**
Stddev	665.	22934.	8257.
%RSD	.34152	1.9484	.94413

Sample Name: MRL/LLOQ Acquired: 09/03/2019 14:07:48 Type: QC
Method: DOD Calibration Updated 060614(v3506) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Cu3273	Fe2343
Avg	F **12.6**	**417.**	**20.0**	**9.73**	**4.26**	**490.**	**5.20**	**10.3**	**10.6**	**12.2**	**9.63**	**330.**
Stddev	.4	2.	2.3	.35	.03	4.	.19	.2	.4	1.4	4.61	5.
%RSD	3.53	.362	11.7	3.60	.624	.808	3.73	1.52	3.30	11.4	47.9	1.46
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	20.0											
Range	-30.0%											

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924	Zn2138
Avg	**543.**	**12.0**	**9.91**	**9.93**	**9.10**	**25.4**	**22.8**	**23.0**	**20.1**	**11.9**	**11.7**
Stddev	5.	.2	.41	.08	4.01	1.5	2.1	1.1	1.3	.3	.2
%RSD	.950	1.53	4.13	.763	44.0	6.03	9.20	4.60	6.54	2.12	1.84
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**187350.**	**1107200.**	**836860.**
Stddev	615.	7638.	5859.
%RSD	.32799	.68987	.70017

Sample Name: ICSA Acquired: 09/03/2019 14:13:58 Type: QC
Method: DOD Calibration Updated 060614(v3506) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Cu3273
Avg	**3.94**	**546000.**	**-.023**	**-.000**	**-.327**	**548000.**	**.003**	**.208**	**2.76**	**3.37**	**-1.11**
Stddev	.78	9890.	13.6	.845	.035	2250.	.526	.498	.98	.64	2.16
%RSD	19.7	1.81	59200.	2570000.	10.7	.411	21000.	240.	35.4	18.8	194.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit											
Low Limit											

Elem	Fe2395	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2908
Avg	**487000.**	**539000.**	**-2.09**	**-2.78**	**-1.70**	**1.00**	**7.09**	**-.001**	**-.004**	**-.032**	**11200.**
Stddev	3980.	7210.	.25	2.05	.79	1.56	3.44	4.48	16.0	2.05	61.
%RSD	.816	1.34	12.1	73.7	46.5	156.	48.6	340000.	423000.	6360.	.542
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit											
Low Limit											

Elem	Zn2138
Avg	**-1.35**
Stddev	.56
%RSD	41.0
Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: ICSA Acquired: 09/03/2019 14:13:58 Type: QC
Method: DOD Calibration Updated 060614(v3506) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**164400.**	**1006400.**	**792350.**
Stddev	309.	4777.	2780.
%RSD	.18786	.47459	.35090

Sample Name: ICSAB Acquired: 09/03/2019 14:20:46 Type: QC
Method: DOD Calibration Updated 060614(v3506) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be2348	Ca3158	Cd2288	Co2286	Cr2677	Cu2230	Cu3273
Avg	**439.**	**505000.**	**439.**	**466.**	**455.**	**508000.**	**505.**	**453.**	**456.**	**476.**	**470.**
Stddev	1.	8750.	11.	.	7.	7530.	1.	1.	3.	2.	8.
%RSD	.254	1.73	2.41	.091	1.59	1.48	.216	.152	.624	.352	1.79
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Elem	Fe2395	Mg2790	Mn2576	Mo2020	Mo2045	Ni2216	Ni2316	Pb2203	Sb2175	Se1960	Se2039
Avg	**454000.**	**497000.**	**517.**	**463.**	**466.**	**440.**	**444.**	**422.**	**479.**	**456.**	**432.**
Stddev	7150.	1420.	2.	3.	2.	1.	1.	5.	12.	6.	11.
%RSD	1.58	.286	.445	.593	.326	.147	.306	1.12	2.45	1.37	2.57
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Elem	Tl1908	V_2924	Zn2062	Zn2138
Avg	**464.**	**525.**	**463.**	**482.**
Stddev	1.	1.	1.	1.
%RSD	.165	.206	.153	.291
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Sample Name: ICSAB Acquired: 09/03/2019 14:20:46 Type: QC
Method: DOD Calibration Updated 060614(v3506) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**166550.**	**1007700.**	**788880.**
Stddev	217.	2796.	14022.
%RSD	.13033	.27740	1.7775

Sample Name: ICVLL ag Acquired: 09/03/2019 14:33:43 Type: Unk
Method: DOD Calibration Updated 060614(v3506) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Cu3273	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**10.0**	**8.29**	**.650**	**-.641**	**-.030**	**-11.8**	**-.150**	**-.175**	**.028**	**-.965**	**-2.53**	**79.2**
Stddev	.6	.65	1.90	.291	.025	.8	.111	.321	.313	.506	2.80	8.1
%RSD	6.00	7.87	292.	45.4	84.2	6.79	74.1	184.	1110.	52.4	110.	10.2

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**8.15**	**-.266**	**-.277**	**-.222**	**.887**	**2.69**	**3.07**	**9.42**	**1.84**	**.637**	**.365**
Stddev	1.03	.124	.193	.624	2.01	1.84	2.39	8.57	.76	.463	.102
%RSD	12.7	46.9	69.6	281.	227.	68.4	77.8	91.0	41.1	72.7	27.9

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**192030.**	**1147500.**	**857240.**
Stddev	615.	11408.	19935.
%RSD	.32001	.99418	2.3255

Sample Name: ccv1 Acquired: 09/03/2019 17:02:41 Type: QC
Method: DOD Calibration Updated 060614(v3506) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1972	Ba4934	Be2348	Ca3158	Cd2288	Co2388	Cr2055	Cu2230	Cu3273
Avg	**479.**	**5300.**	**4830.**	**5490.**	**5440.**	**499.**	**5030.**	**515.**	**5290.**	**5370.**	**5070.**	**5070.**
Stddev	2.	30.	16.	21.	40.	3.	44.	1.	22.	4.	20.	31.
%RSD	.404	.568	.335	.386	.734	.624	.880	.112	.416	.080	.394	.612
Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value												
Range												

Elem	Fe2599	Mg2790	Mn2593	Mo2045	Ni2216	Pb2169	Sb2068	Se2039	Se2062	Tl1908	V_2908	Zn2062
Avg	**5230.**	**5080.**	**5030.**	**5190.**	**4980.**	**5150.**	**5420.**	**5220.**	**5170.**	**5050.**	**5410.**	**5160.**
Stddev	39.	54.	26.	7.	2.	17.	21.	9.	23.	8.	19.	14.
%RSD	.747	1.06	.509	.131	.044	.328	.378	.176	.451	.155	.357	.277
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**183060.**	**1122700.**	**835840.**
Stddev	539.	5539.	3080.
%RSD	.29442	.49335	.36853

Sample Name: ccv2 Acquired: 09/03/2019 17:08:53 Type: QC
Method: DOD Calibration Updated 060614(v3506) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3933	Cd2265	Cd2288	Co2286	Cr2677	Cu2230	Cu3273
Avg	**50.8**	**550.**	**518.**	**537.**	**50.9**	**541.**	**53.0**	**53.3**	**528.**	**510.**	**548.**	**544.**
Stddev	.6	2.	7.	2.	.3	5.	.2	.2	1.	4.	4.	6.
%RSD	1.15	.303	1.41	.304	.590	.865	.408	.375	.186	.715	.663	1.15
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Fe2343	Mg2802	Mn2576	Mo2020	Mo2045	Ni2216	Ni2316	Pb2203	Sb2175	Se1960	Se2039	Tl1908
Avg	**529.**	**532.**	**547.**	**533.**	**552.**	**536.**	**538.**	**537.**	**515.**	**528.**	**527.**	**534.**
Stddev	8.	3.	4.	2.	2.	1.	1.	2.	5.	6.	11.	4.
%RSD	1.48	.600	.657	.380	.347	.175	.170	.298	.917	1.12	2.07	.682
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	V_2924	Zn2062	Zn2138
Avg	**547.**	**548.**	**527.**
Stddev	3.	1.	1.
%RSD	.525	.191	.123
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Sample Name: ccv2 Acquired: 09/03/2019 17:08:53 Type: QC
Method: DOD Calibration Updated 060614(v3506) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**188540.**	**1176700.**	**839880.**
Stddev	210.	6609.	9906.
%RSD	.11117	.56170	1.1795

Sample Name: ccb Acquired: 09/03/2019 17:14:37 Type: QC
Method: DOD Calibration Updated 060614(v3506) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Cu3273	Fe2343
Avg	**.083**	**-3.11**	**-.300**	**-.614**	**-.002**	**20.6**	**.160**	**.152**	**-.061**	**-.415**	**2.72**	**-1.24**
Stddev	.993	.79	4.60	.266	.024	1.7	.158	.275	.350	.773	.65	.91
%RSD	1200.	25.5	1530.	43.4	1200.	8.21	98.5	181.	572.	187.	23.7	73.1
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924	Zn2138
Avg	**1.24**	**.262**	**.605**	**-.239**	**.188**	**.531**	**-.957**	**-1.04**	**1.76**	**.178**	**.193**
Stddev	.68	.131	.473	.535	1.23	1.16	.624	2.94	1.20	.217	.089
%RSD	54.7	49.9	78.2	224.	654.	218.	65.1	284.	68.3	122.	46.3
Check ?	None	None	None	None	None	None	None	None	None	None	None
Value											
Range											

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**193950.**	**1198500.**	**864010.**
Stddev	310.	10311.	3318.
%RSD	.15963	.86034	.38397

Sample Name: lcsw73360 Acquired: 09/03/2019 17:33:46 Type: Unk
Method: DOD Calibration Updated 060614(v3506) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**18.7**	**797.**	**762.**	**813.**	**19.5**	**199000.**	**20.1**	**199.**	**79.0**	**114.**	**386.**
Stddev	.7	3.	9.	2.	.1	1040.	.3	1.	.9	1.	2.
%RSD	3.48	.391	1.14	.258	.669	.524	1.63	.367	1.18	1.22	.548

Elem	Mg2790	Mn2576	Mo2045	Ni2316	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**107000.**	**203.**	**2200.**	**203.**	**200.**	**204.**	**814.**	**731.**	**745.**	**220.**	**205.**
Stddev	273.	2.	3.	1.	6.	3.	9.	5.	4.	1.	.
%RSD	.256	.947	.150	.470	2.99	1.66	1.12	.725	.479	.569	.047

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**174230.**	**1098700.**	**813950.**
Stddev	761.	4047.	6805.
%RSD	.43679	.36834	.83601

Sample Name: mbw73360 Acquired: 09/03/2019 17:40:08 Type: Unk
Method: DOD Calibration Updated 060614(v3506) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Cu3273	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-.467**	**-1.30**	**-.712**	**-.573**	**-.010**	**-3.73**	**.049**	**-.144**	**.065**	**.937**	**.412**	**2.15**
Stddev	.958	.61	1.28	.498	.042	7.09	.167	.188	.555	1.35	3.10	1.58
%RSD	205.	47.0	181.	87.0	434.	190.	341.	131.	858.	144.	752.	73.6

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-2.42**	**-.264**	**.602**	**-.882**	**-.440**	**-.002**	**1.64**	**6.19**	**.671**	**.281**	**.410**
Stddev	.35	.087	.715	.559	1.44	2.67	2.59	5.21	1.10	.338	.123
%RSD	14.3	33.1	119.	63.3	326.	150000.	158.	84.2	163.	120.	30.1

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**190640.**	**1194700.**	**845530.**
Stddev	433.	6221.	5291.
%RSD	.22733	.52075	.62581

Sample Name: 321513 Acquired: 09/03/2019 17:46:23 Type: Unk
Method: DOD Calibration Updated 060614(v3506) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Cu3273	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-.572**	**-1.02**	**-3.26**	**-.728**	**-.013**	**55.1**	**.094**	**-.229**	**-.076**	**1.17**	**-.287**	**.483**
Stddev	.765	.63	4.85	.624	.017	1.8	.245	.226	.710	1.01	2.22	.701
%RSD	134.	62.2	149.	85.7	130.	3.20	260.	98.6	936.	86.5	773.	145.

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**1.06**	**-.199**	**-.010**	**-.746**	**-.960**	**1.17**	**.864**	**-.221**	**-1.84**	**.383**	**.756**
Stddev	.14	.143	.662	.672	2.16	1.90	.672	8.97	2.34	.459	.092
%RSD	13.0	71.7	6770.	90.1	225.	163.	77.8	4060.	127.	120.	12.2

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**191250.**	**1197500.**	**842810.**
Stddev	370.	7829.	5992.
%RSD	.19359	.65382	.71097

Sample Name: I321513 Acquired: 09/03/2019 17:52:39 Type: Unk
Method: DOD Calibration Updated 060614(v3506) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Cu3273	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-.440**	**-3.01**	**-.440**	**-.394**	**-.005**	**-3.66**	**-.045**	**-.007**	**-.576**	**-.108**	**-.720**	**-1.38**
Stddev	.145	.45	1.53	.293	.029	.34	.216	.247	.229	.702	2.76	.94
%RSD	33.0	14.7	349.	74.4	579.	9.32	483.	3590.	39.8	653.	383.	68.6

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-3.52**	**-.285**	**-.739**	**-.648**	**-.193**	**-1.10**	**1.00**	**-1.56**	**-.479**	**.191**	**-.002**
Stddev	.10	.139	.439	.053	2.56	3.51	3.62	3.90	2.54	.363	.097
%RSD	2.75	48.8	59.4	8.20	1320.	319.	361.	251.	531.	189.	4970.

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**193570.**	**1206400.**	**845900.**
Stddev	617.	11622.	5111.
%RSD	.31872	.96336	.60416

Sample Name: dup321513 Acquired: 09/03/2019 17:58:54 Type: Unk
Method: DOD Calibration Updated 060614(v3506) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Cu3273	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-.599**	**-1.06**	**-1.76**	**-.295**	**-.032**	**48.6**	**.118**	**-.041**	**-.599**	**1.11**	**3.55**	**4.60**
Stddev	.518	.62	5.38	.591	.018	.6	.242	.129	.317	.57	2.31	1.26
%RSD	86.5	58.5	306.	200.	57.8	1.32	204.	318.	53.0	50.9	65.1	27.5

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-.913**	**-.057**	**-.031**	**-.993**	**-.796**	**.540**	**2.45**	**-3.69**	**-1.39**	**.351**	**.521**
Stddev	.134	.055	.438	.365	1.84	1.64	3.11	2.78	1.57	.345	.130
%RSD	14.6	96.8	1400.	36.7	232.	304.	127.	75.3	113.	98.4	24.9

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**189210.**	**1171800.**	**832910.**
Stddev	394.	4403.	2646.
%RSD	.20811	.37577	.31771

Sample Name: msw321513 Acquired: 09/03/2019 18:05:09 Type: Unk
Method: DOD Calibration Updated 060614(v3506) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Cu3273
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**17.9**	**791.**	**755.**	**797.**	**19.2**	**197000.**	**19.7**	**193.**	**76.7**	**123.**	**111.**
Stddev	1.3	3.	7.	3.	.1	1040.	.3	.	1.1	2.	5.
%RSD	6.97	.330	.960	.334	.535	.527	1.55	.200	1.44	1.55	4.39

Elem	Fe2343	Mg2790	Mn2576	Mo2045	Ni2316	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**370.**	**104000.**	**197.**	**2140.**	**199.**	**198.**	**197.**	**814.**	**737.**	**731.**	**213.**
Stddev	2.	180.	1.	5.	.	3.	4.	5.	4.	5.	1.
%RSD	.644	.173	.586	.256	.113	1.42	2.11	.602	.582	.714	.580

Elem	Zn2138
Units	ug/L
Avg	**203.**
Stddev	.
%RSD	.145

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**176550.**	**1110400.**	**809460.**
Stddev	447.	6102.	5760.
%RSD	.25305	.54958	.71160

Sample Name: msdw321513 Acquired: 09/03/2019 18:11:32 Type: Unk
Method: DOD Calibration Updated 060614(v3506) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Cu3273
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**18.2**	**804.**	**763.**	**821.**	**19.8**	**201000.**	**19.9**	**199.**	**79.4**	**125.**	**112.**
Stddev	.8	5.	8.	2.	.1	231.	.2	.	.8	1.	4.
%RSD	4.30	.580	1.09	.245	.338	.115	1.12	.091	.985	1.11	3.74

Elem	Fe2343	Mg2790	Mn2576	Mo2045	Ni2316	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**392.**	**106000.**	**204.**	**2210.**	**204.**	**203.**	**202.**	**815.**	**735.**	**746.**	**220.**
Stddev	2.	396.	1.	4.	1.	3.	5.	6.	13.	1.	2.
%RSD	.578	.374	.509	.169	.482	1.69	2.39	.784	1.79	.141	.782

Elem	Zn2138
Units	ug/L
Avg	**206.**
Stddev	.
%RSD	.089

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**174710.**	**1094400.**	**806350.**
Stddev	308.	4845.	2632.
%RSD	.17646	.44268	.32637

Sample Name: pdsw321513 Acquired: 09/03/2019 18:17:54 Type: Unk
Method: DOD Calibration Updated 060614(v3506) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1972	Ba4934	Be3130	Ca3158	Cd2265	Cd2288	Co2286	Co2388
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**88.5**	**4330.**	**3650.**	**4510.**	**4370.**	**96.8**	**432000.**	**97.0**	**109.**	**951.**	**1040.**
Stddev	.5	49.	72.	118.	53.	.4	24400.	2.0	3.	23.	7.
%RSD	.561	1.12	1.98	2.61	1.20	.433	5.65	2.04	3.11	2.40	.678

Elem	Cr2677	Cu2230	Cu3273	Fe2343	Mg2790	Mn2576	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**387.**	**523.**	**521.**	**1890.**	**226000.**	**997.**	**3500.**	**954.**	**970.**	**1050.**	**949.**
Stddev	2.	4.	11.	12.	13200.	5.	1400.	21.	19.	34.	19.
%RSD	.566	.856	2.01	.647	5.83	.489	39.9	2.20	1.91	3.28	1.95

Elem	Sb2068	Se2039	Se2062	Tl1908	V_2908	Zn2062
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**1130.**	**3640.**	**3990.**	**3570.**	**1100.**	**993.**
Stddev	27.	117.	90.	52.	13.	23.
%RSD	2.38	3.21	2.25	1.46	1.19	2.30

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**172940.**	**1066400.**	**794970.**
Stddev	1292.	8414.	6027.
%RSD	.74698	.78903	.75811

Sample Name: ccv1 Acquired: 09/03/2019 18:24:04 Type: QC
Method: DOD Calibration Updated 060614(v3506) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1972	Ba4934	Be2348	Ca3158	Cd2288	Co2388	Cr2055	Cu2230	Cu3273
Avg	**479.**	**5390.**	**4830.**	**5450.**	**5410.**	**496.**	**4990.**	**504.**	**5280.**	**5370.**	**4910.**	**5130.**
Stddev	2.	56.	11.	27.	49.	3.	23.	1.	32.	15.	13.	44.
%RSD	.455	1.05	.236	.488	.902	.653	.454	.158	.604	.277	.261	.847
Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value												
Range												

Elem	Fe2599	Mg2790	Mn2593	Mo2045	Ni2216	Pb2169	Sb2068	Se2039	Se2062	Tl1908	V_2908	Zn2062
Avg	**5260.**	**5230.**	**5050.**	**5150.**	**4960.**	**5100.**	**5350.**	**5120.**	**5070.**	**4960.**	**5500.**	**5130.**
Stddev	23.	37.	20.	5.	2.	17.	6.	15.	37.	6.	35.	15.
%RSD	.446	.699	.391	.090	.037	.326	.120	.293	.734	.130	.637	.296
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**186870.**	**1158800.**	**832410.**
Stddev	461.	9703.	3966.
%RSD	.24669	.83733	.47643

Sample Name: ccv2 Acquired: 09/03/2019 18:30:16 Type: QC
Method: DOD Calibration Updated 060614(v3506) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3933	Cd2265	Cd2288	Co2286	Cr2677	Cu2230	Cu3273
Avg	**50.1**	**550.**	**518.**	**533.**	**50.1**	**547.**	**52.9**	**52.4**	**521.**	**504.**	**538.**	**549.**
Stddev	.3	6.	4.	3.	.3	4.	.2	.3	2.	2.	3.	4.
%RSD	.563	1.11	.783	.514	.549	.730	.415	.547	.379	.426	.480	.738
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Fe2343	Mg2802	Mn2576	Mo2020	Mo2045	Ni2216	Ni2316	Pb2203	Sb2175	Se1960	Se2039	Tl1908
Avg	**518.**	**525.**	**529.**	**526.**	**544.**	**533.**	**534.**	**537.**	**509.**	**519.**	**510.**	**529.**
Stddev	5.	3.	4.	3.	2.	.	1.	2.	6.	4.	8.	7.
%RSD	.952	.507	.756	.547	.282	.089	.169	.388	1.17	.742	1.57	1.33
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	V_2924	Zn2062	Zn2138
Avg	**535.**	**545.**	**520.**
Stddev	4.	1.	1.
%RSD	.811	.157	.261
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Sample Name: ccv2 Acquired: 09/03/2019 18:30:16 Type: QC
Method: DOD Calibration Updated 060614(v3506) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**191200.**	**1197600.**	**840210.**
Stddev	544.	6109.	3938.
%RSD	.28449	.51015	.46873

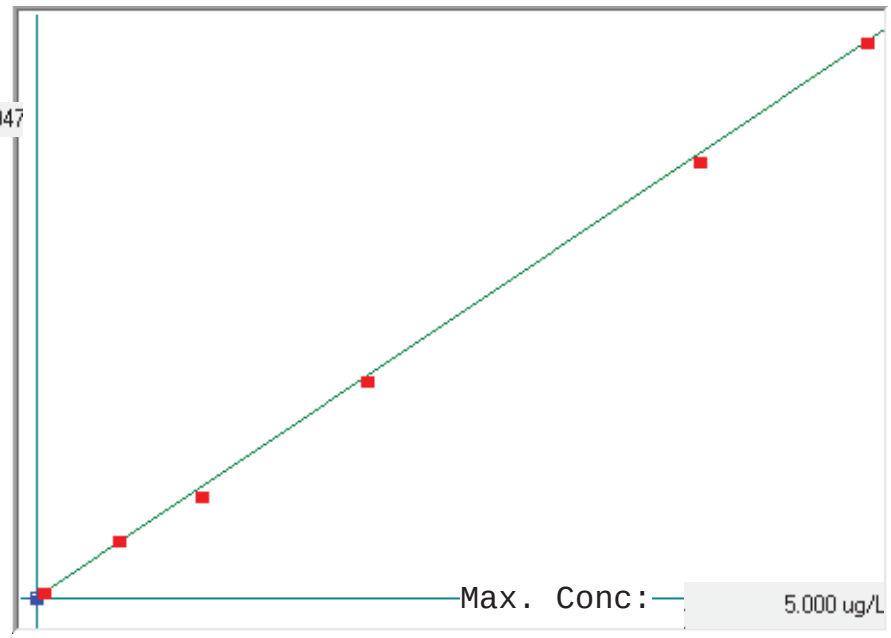
Sample Name: ccb Acquired: 09/03/2019 18:36:01 Type: QC
Method: DOD Calibration Updated 060614(v3506) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Cu3273	Fe2343
Avg	**.148**	**-2.76**	**1.03**	**-.543**	**.014**	**17.3**	**-.014**	**.135**	**-.002**	**-1.05**	**-.265**	**-2.08**
Stddev	.832	.57	3.89	.476	.018	.8	.112	.240	.716	1.47	3.18	.73
%RSD	561.	20.6	377.	87.7	133.	4.50	821.	178.	36800.	140.	1200.	35.1
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Se2039	Tl1908	V_2924	Zn2138
Avg	**-.673**	**.142**	**.477**	**-.552**	**-.032**	**1.35**	**2.16**	**1.23**	**1.62**	**.208**	**.256**
Stddev	.102	.141	.412	.403	1.44	1.99	2.82	2.44	2.79	.268	.070
%RSD	15.2	99.1	86.3	73.0	4520.	147.	131.	198.	172.	129.	27.2
Check ?	None	None	None	None	None	None	None	None	None	None	None
Value											
Range											

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**201250.**	**1249400.**	**874010.**
Stddev	585.	4657.	5448.
%RSD	.29060	.37274	.62338

CVAA Water New



A= 0.0000e+000

B= 2.0027e-004

C= -4.1037e-003

Rho= 0.9980892

Accept= Accepted

Accepted Date=

09/04/19 09:26

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Calibration Blank	0.000	-0.000	-0.000	19	1.658	18	20	22	18	0
0.05	0.050	0.057	0.007	307	3.3 %	290	313	313	314	
0.5	0.500	0.518	0.018	2606	3.1 %	2495	2574	2649	2707	
1.0	1.000	0.918	-0.082	4604	3.5 %	4375	4543	4698	4801	
2.0	2.000	1.963	-0.037	9823	3.1 %	9380	9737	9995	10180	
4.0	4.000	3.932	-0.068	19653	2.6 %	18952	19462	19857	20343	
5.0	5.000	4.992	-0.008	24946	3.7 %	23720	24499	25370	26198	

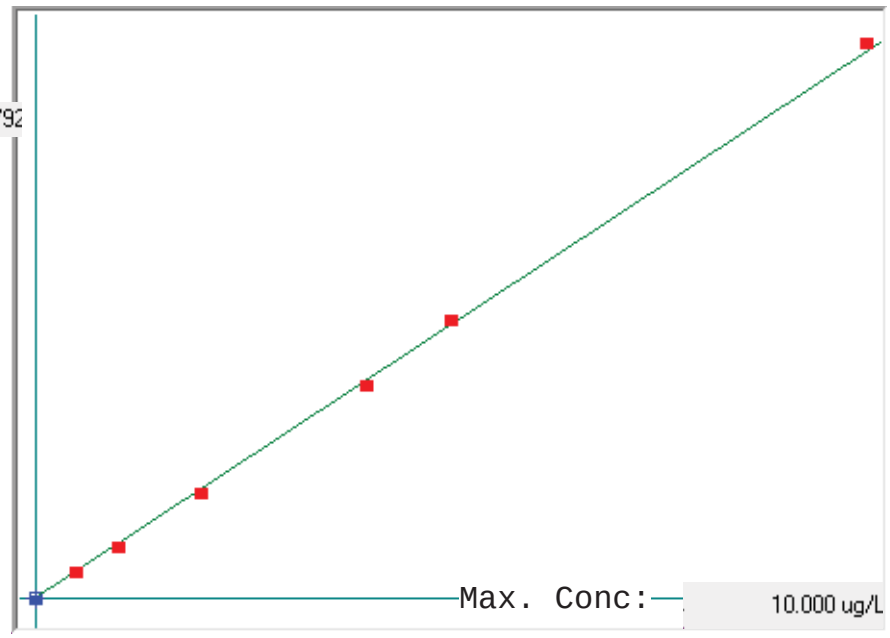
090419w

Method: CVAA Water New Operator: Admin Date of Analysis: 04 Sep 2019 07:38:14

Sample ID	Date	Element	Units	Extended ID	LT Mean Conc
Calibration Blank	04 Sep 2019 09:12:37	Hg	ug/L		19.500
0.05	04 Sep 2019 09:14:37	Hg	ug/L		307.500
0.5	04 Sep 2019 09:16:38	Hg	ug/L		2606.250
1.0	04 Sep 2019 09:18:39	Hg	ug/L		4604.250
2.0	04 Sep 2019 09:20:39	Hg	ug/L		9823.000
4.0	04 Sep 2019 09:22:42	Hg	ug/L		19653.500
5.0	04 Sep 2019 09:24:44	Hg	ug/L		24946.750
ICV	04 Sep 2019 09:26:56	Hg	ug/L		2.983
BASELINE	04 Sep 2019 09:29:12	Hg	ug/L		-0.438
ICB	04 Sep 2019 09:31:21	Hg	ug/L		-0.031
Primer	04 Sep 2019 09:34:56	Hg	ug/L		2.207
321277lcsw 73324	04 Sep 2019 09:36:55	Hg	ug/L		1.673
321633lcsw 73342	04 Sep 2019 09:38:57	Hg	ug/L		1.771
Baseline	04 Sep 2019 09:40:58	Hg	ug/L		-0.262
321632mbw 73342	04 Sep 2019 09:43:00	Hg	ug/L		-0.008
321513	04 Sep 2019 09:44:59	Hg	ug/L		0.003
321634dup 321513	04 Sep 2019 09:46:58	Hg	ug/L		0.007
Primer	04 Sep 2019 09:48:58	Hg	ug/L		2.884
321635msw 321513	04 Sep 2019 09:50:57	Hg	ug/L		1.786
321637msdw 321513	04 Sep 2019 09:53:00	Hg	ug/L		1.801
CCV	04 Sep 2019 09:55:03	Hg	ug/L		3.013
BASELINE	04 Sep 2019 09:57:04	Hg	ug/L		-0.461
CCB	04 Sep 2019 09:59:12	Hg	ug/L		-0.044
Primer	04 Sep 2019 10:01:12	Hg	ug/L		2.006
321277lcsw 73324	04 Sep 2019 10:03:13	Hg	ug/L		1.834
Baseline	04 Sep 2019 10:05:17	Hg	ug/L		-0.359
321276mbw 73324	04 Sep 2019 10:07:19	Hg	ug/L		-0.008
320675	04 Sep 2019 10:09:18	Hg	ug/L		0.002
320919	04 Sep 2019 10:11:17	Hg	ug/L		0.002
320967	04 Sep 2019 10:13:16	Hg	ug/L		-0.017
320974	04 Sep 2019 10:15:16	Hg	ug/L		-0.025
321133	04 Sep 2019 10:17:15	Hg	ug/L		0.022
Primer	04 Sep 2019 10:19:15	Hg	ug/L		2.891
CCV	04 Sep 2019 10:21:15	Hg	ug/L		3.017
BASELINE	04 Sep 2019 10:23:17	Hg	ug/L		-0.429
CCB	04 Sep 2019 10:25:24	Hg	ug/L		-0.011
322021	04 Sep 2019 10:27:24	Hg	ug/L		0.094
322022	04 Sep 2019 10:29:24	Hg	ug/L		0.037
322023	04 Sep 2019 10:31:24	Hg	ug/L		-0.005
322024	04 Sep 2019 10:33:25	Hg	ug/L		-0.018
322025	04 Sep 2019 10:35:26	Hg	ug/L		0.013
Primer	04 Sep 2019 10:37:25	Hg	ug/L		2.898
321278msw 320675	04 Sep 2019 10:39:23	Hg	ug/L		1.921
321279msdw 320675	04 Sep 2019 10:41:25	Hg	ug/L		1.896
321280msw 320919	04 Sep 2019 10:43:27	Hg	ug/L		1.907
321281msdw 320919	04 Sep 2019 10:45:29	Hg	ug/L		1.920
CCV	04 Sep 2019 10:47:31	Hg	ug/L		3.051
BASELINE	04 Sep 2019 10:49:32	Hg	ug/L		-0.452
CCB	04 Sep 2019 10:51:39	Hg	ug/L		-0.047
Primer	04 Sep 2019 10:57:47	Hg	ug/L		2.230
321282msw 321133	04 Sep 2019 10:59:46	Hg	ug/L		1.906
321283msdw 321133	04 Sep 2019 11:01:50	Hg	ug/L		1.863
CCV	04 Sep 2019 11:03:53	Hg	ug/L		3.009
BASELINE	04 Sep 2019 11:05:54	Hg	ug/L		-0.465
CCB	04 Sep 2019 11:08:00	Hg	ug/L		-0.039

CVAA SOIL NEW

Wt. Linear



A= 0.0000e+000

B= 1.2299e-004

C= -2.8859e-003

Rho= 0.9997169

Accept= Accepted

Accepted Date=

09/05/19 09:00

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
CALIBRATION BLANK	0.000	0.000	0.000	23	1.803	26	21	24	23	
0.5	0.500	0.509	0.009	4165	1.4 %	4088	4140	4195	4240	
1.0	1.000	0.962	-0.038	7843	1.3 %	7713	7792	7880	7987	
2.0	2.000	1.957	-0.043	15938	1.3 %	15642	15861	16029	16223	
4.0	4.000	3.913	-0.087	31839	1.3 %	31232	31700	32051	32376	
5.0	5.000	5.111	0.111	41579	1.1 %	40913	41488	41837	42081	
10.0	10.000	10.179	0.179	82792	0.9 %	81895	82372	82992	83910	

090519s

Method: CVAA SOIL NEW Operator: Admin Date of Analysis: 05 Sep 2019 07:49:37

Sample ID	Date	Element	Units	Extended ID	LT Mean Conc
CALIBRATION BLANK	05 Sep 2019 08:45:20	Hg	ug/L		23.500
0.5	05 Sep 2019 08:47:25	Hg	ug/L		4165.750
1.0	05 Sep 2019 08:49:31	Hg	ug/L		7843.000
2.0	05 Sep 2019 08:51:37	Hg	ug/L		15938.750
4.0	05 Sep 2019 08:53:43	Hg	ug/L		31839.750
5.0	05 Sep 2019 08:55:51	Hg	ug/L		41579.750
10.0	05 Sep 2019 08:58:10	Hg	ug/L		82792.250
ICV	05 Sep 2019 09:00:35	Hg	ug/L		3.213
BASELINE	05 Sep 2019 09:03:08	Hg	ug/L		-0.221
ICB	05 Sep 2019 09:05:25	Hg	ug/L		-0.005
Primer	05 Sep 2019 09:07:30	Hg	ug/L		2.875
321267lcss 73321	05 Sep 2019 09:09:33	Hg	ug/L		1.893
321261lcss 73320	05 Sep 2019 09:11:40	Hg	ug/L		1.985
322216lcss 73361	05 Sep 2019 09:13:46	Hg	ug/L		2.003
321273lcss 73322	05 Sep 2019 09:15:53	Hg	ug/L		1.926
Baseline	05 Sep 2019 09:17:59	Hg	ug/L		-0.236
321272mbs 73322	05 Sep 2019 09:20:05	Hg	ug/L		-0.002
322215mbs 73361	05 Sep 2019 09:22:09	Hg	ug/L		0.004
321260mbs 73320	05 Sep 2019 09:24:14	Hg	ug/L		0.003
Primer	05 Sep 2019 09:26:19	Hg	ug/L	SEE LAST PAGE	2.848
~~CCV~~	~~05 Sep 2019 09:28:24~~	~~Hg~~	~~ug/L~~		~~0.932~~
~~CCV~~	~~05 Sep 2019 09:43:08~~	~~Hg~~	~~ug/L~~		~~2.988~~
BASELINE	05 Sep 2019 09:45:13	Hg	ug/L		-0.228
CCB	05 Sep 2019 09:47:25	Hg	ug/L		-0.007
321266mbs 73321	05 Sep 2019 09:49:30	Hg	ug/L		0.010
320899	05 Sep 2019 09:51:35	Hg	ug/L		0.544
320880	05 Sep 2019 09:53:41	Hg	ug/L		1.323
320882	05 Sep 2019 09:55:45	Hg	ug/L		1.096
320886	05 Sep 2019 09:57:50	Hg	ug/L		1.135
320888	05 Sep 2019 09:59:56	Hg	ug/L		4.329
320893	05 Sep 2019 10:02:02	Hg	ug/L		29.513
Primer	05 Sep 2019 10:04:19	Hg	ug/L		2.507
321270mss 320893	05 Sep 2019 10:07:00	Hg	ug/L		13.596
321271msds 320893	05 Sep 2019 10:09:08	Hg	ug/L	5	4.736
CCV	05 Sep 2019 10:11:38	Hg	ug/L		2.947
BASELINE	05 Sep 2019 10:13:55	Hg	ug/L		-0.228
CCB	05 Sep 2019 10:16:06	Hg	ug/L		0.002
321269dup 320893	05 Sep 2019 10:18:11	Hg	ug/L	5	7.534
320890	05 Sep 2019 10:20:16	Hg	ug/L		HIGH
320895	05 Sep 2019 10:22:14	Hg	ug/L		2.570
320897	05 Sep 2019 10:25:21	Hg	ug/L		1.147
321495	05 Sep 2019 10:27:36	Hg	ug/L		115.893
320893	05 Sep 2019 10:29:42	Hg	ug/L	5	5.601
321270mss 320893	05 Sep 2019 10:32:58	Hg	ug/L	10	7.169
320890	05 Sep 2019 10:35:21	Hg	ug/L	20	14.329
321495	05 Sep 2019 10:37:45	Hg	ug/L	20	10.230
320890	05 Sep 2019 10:40:16	Hg	ug/L	50	6.046
CCV	05 Sep 2019 10:42:45	Hg	ug/L		2.947
BASELINE	05 Sep 2019 10:45:04	Hg	ug/L		-0.207
CCB	05 Sep 2019 10:47:17	Hg	ug/L		-0.010
321495	05 Sep 2019 10:49:21	Hg	ug/L	40	5.369
Primer	05 Sep 2019 10:51:26	Hg	ug/L		2.623
321149	05 Sep 2019 10:53:45	Hg	ug/L		0.042
321154	05 Sep 2019 10:55:52	Hg	ug/L		0.668
321155	05 Sep 2019 10:57:56	Hg	ug/L		0.345
321157	05 Sep 2019 11:00:00	Hg	ug/L		0.210
321158	05 Sep 2019 11:02:04	Hg	ug/L		0.487
321159	05 Sep 2019 11:04:08	Hg	ug/L		0.583
Primer	05 Sep 2019 11:12:59	Hg	ug/L	SEE LAST PAGE	0.000
~~CCV~~	~~05 Sep 2019 11:16:29~~	~~Hg~~	~~ug/L~~		~~0.903~~
~~CCV~~	~~05 Sep 2019 11:24:30~~	~~Hg~~	~~ug/L~~		~~0.903~~
~~CCV~~	~~05 Sep 2019 11:33:24~~	~~Hg~~	~~ug/L~~		~~0.903~~
BASELINE	05 Sep 2019 11:35:28	Hg	ug/L		-0.214
CCB	05 Sep 2019 11:37:40	Hg	ug/L		0.008
321160	05 Sep 2019 11:41:32	Hg	ug/L		0.719

090519s

Method: CVAA SOIL NEW Operator: Admin Date of Analysis: 05 Sep 2019 07:49:37

Sample ID	Date	Element	Units	Extended ID	LT Mean Conc
321161	05 Sep 2019 11:43:37	Hg	ug/L		0.767
321162	05 Sep 2019 11:45:44	Hg	ug/L		0.569
321163	05 Sep 2019 11:47:51	Hg	ug/L		0.612
321164	05 Sep 2019 11:49:56	Hg	ug/L		0.661
321165	05 Sep 2019 11:52:00	Hg	ug/L		0.617
321166	05 Sep 2019 11:54:04	Hg	ug/L		0.265
321167	05 Sep 2019 11:56:09	Hg	ug/L		0.742
321168	05 Sep 2019 11:58:13	Hg	ug/L		0.412
Primer	05 Sep 2019 12:00:19	Hg	ug/L		2.795
CCV	05 Sep 2019 12:02:25	Hg	ug/L		2.978
BASELINE	05 Sep 2019 12:04:31	Hg	ug/L		-0.226
CCB	05 Sep 2019 12:06:42	Hg	ug/L		0.005
321169	05 Sep 2019 12:08:47	Hg	ug/L		0.630
321170	05 Sep 2019 12:10:51	Hg	ug/L		0.189
321171	05 Sep 2019 12:12:57	Hg	ug/L		0.372
231172	05 Sep 2019 12:15:02	Hg	ug/L		0.690
321264mss 321161	05 Sep 2019 12:17:07	Hg	ug/L		2.901
321265msds 321161	05 Sep 2019 12:19:12	Hg	ug/L		2.762
321262dup 321161	05 Sep 2019 12:21:19	Hg	ug/L		0.536
322159	05 Sep 2019 12:23:28	Hg	ug/L		0.333
Primer	05 Sep 2019 12:25:33	Hg	ug/L		2.781
322217mss 322159	05 Sep 2019 12:27:39	Hg	ug/L		2.386
CCV	05 Sep 2019 12:29:47	Hg	ug/L		2.971
BASELINE	05 Sep 2019 12:31:54	Hg	ug/L		-0.219
CCB	05 Sep 2019 12:34:05	Hg	ug/L		0.008
322218msds 322159	05 Sep 2019 12:36:10	Hg	ug/L		2.624
322163	05 Sep 2019 12:38:15	Hg	ug/L		0.342
322164	05 Sep 2019 12:40:22	Hg	ug/L		0.599
322165	05 Sep 2019 12:42:27	Hg	ug/L		0.768
322166	05 Sep 2019 12:44:31	Hg	ug/L		0.572
322167	05 Sep 2019 12:46:37	Hg	ug/L		0.573
322168	05 Sep 2019 12:48:41	Hg	ug/L		0.570
322169	05 Sep 2019 12:50:45	Hg	ug/L		0.559
322170	05 Sep 2019 12:52:50	Hg	ug/L		0.650
Primer	05 Sep 2019 13:02:07	Hg	ug/L		2.288
CCV	05 Sep 2019 13:05:13	Hg	ug/L		3.211
BASELINE	05 Sep 2019 13:07:16	Hg	ug/L		-0.242
CCB	05 Sep 2019 13:09:28	Hg	ug/L		-0.009
322171	05 Sep 2019 13:11:33	Hg	ug/L		0.763
322172	05 Sep 2019 13:13:38	Hg	ug/L		0.764
322173	05 Sep 2019 13:15:45	Hg	ug/L		0.685
320900	05 Sep 2019 13:17:51	Hg	ug/L		2.253
321552	05 Sep 2019 13:19:57	Hg	ug/L		0.971
320676	05 Sep 2019 13:22:05	Hg	ug/L	25	-0.022
Primer	05 Sep 2019 13:24:11	Hg	ug/L		2.824
321274mss 320900	05 Sep 2019 13:26:16	Hg	ug/L		2.872
321275msds 320900	05 Sep 2019 13:28:24	Hg	ug/L		3.404
CCV	05 Sep 2019 13:30:34	Hg	ug/L		2.986
BASELINE	05 Sep 2019 13:32:47	Hg	ug/L		-0.226
CCB	05 Sep 2019 13:34:59	Hg	ug/L		-0.007

090519s ccvs

Method: CVAA SOIL NEW Operator: Admin Date of Analysis: 05 Sep 2019 07:49:37

Sample ID	Date	Element	Units	Extended ID	Mean
CCV	05 Sep 2019 09:28:24	Hg	ug/L	CCV NOT SPIKED	(L)-9.9% -0.297
CCV	05 Sep 2019 09:30:30	Hg	ug/L		(L)-0.1% -0.002
CCV	05 Sep 2019 09:40:47	Hg	ug/L		103.2% 3.096
CCV	05 Sep 2019 09:43:08	Hg	ug/L		99.6% 2.988
CCV	05 Sep 2019 11:16:29	Hg	ug/L	SOFTWARE GLITCH	(L)0.0% 0.001
CCV	05 Sep 2019 11:24:30	Hg	ug/L		(L)0.0% 0.001
CCV	05 Sep 2019 11:33:24	Hg	ug/L		105.3% 3.160

METALS
LOGBOOK
DOCUMENTS

MICP SOIL QSM Analytical Run
164035 on 09/16/2019

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	324552							MICP SOIL QSM				
					ICV				0			
	324553							MICP SOIL QSM				
					ICVLL				0			
	324554							MICP SOIL QSM				
					ICB				0			
	324555							MICP SOIL QSM				
					MRL				0			
	324556							MICP SOIL QSM				
					ICSA				0			
	324557							MICP SOIL QSM				
					ICSAB				0			
	324558							MICP SOIL QSM				
					CCV				0			
	324559							MICP SOIL QSM				
					CCB				0			
	321859							ICP K QSM 5.0				
					LCSS				73351			
	321859							ICP NA QSM 5.0				
					LCSS				73351			
	321858							ICP K QSM 5.0				
					MBS				73351			
	321858							ICP NA QSM 5.0				
					MBS				73351			
147664	321149		08/26/2019	1023		HDR, INC	MEMPHIS DEPOT	ICP K QSM 5.0		S	**4**	
		GN-SO-01-1							73351			
147664	321149		08/26/2019	1023		HDR, INC	MEMPHIS DEPOT	ICP NA QSM 5.0		S	**4**	
		GN-SO-01-1							73351			
147664	321154		08/26/2019	1115		HDR, INC	MEMPHIS DEPOT	ICP K QSM 5.0		S	**4**	
		GN-SO-01-2							73351			
147664	321154		08/26/2019	1115		HDR, INC	MEMPHIS DEPOT	ICP NA QSM 5.0		S	**4**	
		GN-SO-01-2							73351			
147664	321155		08/26/2019	1130		HDR, INC	MEMPHIS DEPOT	ICP K QSM 5.0		S	**4**	
		GN-SO-02-1							73351			
147664	321155		08/26/2019	1130		HDR, INC	MEMPHIS DEPOT	ICP NA QSM 5.0		S	**4**	
		GN-SO-02-1							73351			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

MICP SOIL QSM Analytical Run
164035 on 09/16/2019

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
147664	321157		08/26/2019 1100			HDR, INC	MEMPHIS DEPOT	ICP K QSM 5.0		S	**4**	
		GN-SO-DUP-1							73351			
147664	321157		08/26/2019 1100			HDR, INC	MEMPHIS DEPOT	ICP NA QSM 5.0		S	**4**	
		GN-SO-DUP-1							73351			
147664	321158		08/26/2019 1153			HDR, INC	MEMPHIS DEPOT	ICP K QSM 5.0		S	**4**	
		GN-SO-02-2							73351			
147664	321158		08/26/2019 1153			HDR, INC	MEMPHIS DEPOT	ICP NA QSM 5.0		S	**4**	
		GN-SO-02-2							73351			
147664	321159		08/26/2019 1320			HDR, INC	MEMPHIS DEPOT	ICP K QSM 5.0		S	**4**	
		GNSO-03-1							73351			
147664	321159		08/26/2019 1320			HDR, INC	MEMPHIS DEPOT	ICP NA QSM 5.0		S	**4**	
		GNSO-03-1							73351			
147664	321160		08/26/2019 1334			HDR, INC	MEMPHIS DEPOT	ICP K QSM 5.0		S	**4**	
		GN-SO-03-2							73351			
147664	321160		08/26/2019 1334			HDR, INC	MEMPHIS DEPOT	ICP NA QSM 5.0		S	**4**	
		GN-SO-03-2							73351			
147664	321161		08/26/2019 1348			HDR, INC	MEMPHIS DEPOT	ICP K QSM 5.0		S	**4**	
		GN-SO-04-1		Designated MS/MSD					73351			
147664	321161		08/26/2019 1348			HDR, INC	MEMPHIS DEPOT	ICP NA QSM 5.0		S	**4**	
		GN-SO-04-1		Designated MS/MSD					73351			
	324560							MICP SOIL QSM				
				CCV					0			
	324561							MICP SOIL QSM				
				CCB					0			
	324562							ICP K QSM 5.0				
				L	321161				0			
	324562							ICP NA QSM 5.0				
				L	321161				0			
	321855		08/26/2019 1348					ICP K QSM 5.0				
		GN-SO-04-1		DUP	321161				73351			
	321855		08/26/2019 1348					ICP NA QSM 5.0				
		GN-SO-04-1		DUP	321161				73351			
	321856		08/26/2019 1348					ICP K QSM 5.0				
		GN-SO-04-1		MSS	321161				73351			
	321856		08/26/2019 1348					ICP NA QSM 5.0				
		GN-SO-04-1		MSS	321161				73351			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

MICP SOIL QSM Analytical Run
164035 on 09/16/2019

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	321857		08/26/2019 1348				ICP K QSM 5.0				
		GN-SO-04-1		MSDS 321856				73351			
	321857		08/26/2019 1348				ICP NA QSM 5.0				
		GN-SO-04-1		MSDS 321856				73351			
	324563						ICP K QSM 5.0				
				PDSS 321161				0			
	324563						ICP NA QSM 5.0				
				PDSS 321161				0			
147664	321162		08/26/2019 1400		HDR, INC	MEMPHIS DEPOT	ICP K QSM 5.0		S	4	
		GN-SO-04-2						73351			
147664	321162		08/26/2019 1400		HDR, INC	MEMPHIS DEPOT	ICP NA QSM 5.0		S	4	
		GN-SO-04-2						73351			
147664	321163		08/26/2019 1410		HDR, INC	MEMPHIS DEPOT	ICP K QSM 5.0		S	4	
		GN-SO-05-1						73351			
147664	321163		08/26/2019 1410		HDR, INC	MEMPHIS DEPOT	ICP NA QSM 5.0		S	4	
		GN-SO-05-1						73351			
147664	321164		08/26/2019 1428		HDR, INC	MEMPHIS DEPOT	ICP K QSM 5.0		S	4	
		GN-SO-05-2						73351			
147664	321164		08/26/2019 1428		HDR, INC	MEMPHIS DEPOT	ICP NA QSM 5.0		S	4	
		GN-SO-05-2						73351			
147664	321165		08/26/2019 1422		HDR, INC	MEMPHIS DEPOT	ICP K QSM 5.0		S	4	
		GN-SO-DUP-2						73351			
147664	321165		08/26/2019 1422		HDR, INC	MEMPHIS DEPOT	ICP NA QSM 5.0		S	4	
		GN-SO-DUP-2						73351			
147664	321166		08/26/2019 1442		HDR, INC	MEMPHIS DEPOT	ICP K QSM 5.0		S	4	
		GN-SO-06-1						73351			
147664	321166		08/26/2019 1442		HDR, INC	MEMPHIS DEPOT	ICP NA QSM 5.0		S	4	
		GN-SO-06-1						73351			
	324564						MICP SOIL QSM				
				CCV				0			
	324565						MICP SOIL QSM				
				CCB				0			
147664	321167		08/26/2019 1505		HDR, INC	MEMPHIS DEPOT	ICP K QSM 5.0		S	4	
		GN-SO-06-2						73351			
147664	321167		08/26/2019 1505		HDR, INC	MEMPHIS DEPOT	ICP NA QSM 5.0		S	4	
		GN-SO-06-2						73351			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

MICP SOIL QSM Analytical Run
164035 on 09/16/2019

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
147664	321168		08/26/2019 1513		HDR, INC	MEMPHIS DEPOT	ICP K QSM 5.0		S	**4**	
		GN-SO-07-1						73351			
147664	321168		08/26/2019 1513		HDR, INC	MEMPHIS DEPOT	ICP NA QSM 5.0		S	**4**	
		GN-SO-07-1						73351			
147664	321169		08/26/2019 1528		HDR, INC	MEMPHIS DEPOT	ICP K QSM 5.0		S	**4**	
		GN-SO-07-2						73351			
147664	321169		08/26/2019 1528		HDR, INC	MEMPHIS DEPOT	ICP NA QSM 5.0		S	**4**	
		GN-SO-07-2						73351			
147664	321170		08/26/2019 1539		HDR, INC	MEMPHIS DEPOT	ICP K QSM 5.0		S	**4**	
		GN-SO-08-1						73351			
147664	321170		08/26/2019 1539		HDR, INC	MEMPHIS DEPOT	ICP NA QSM 5.0		S	**4**	
		GN-SO-08-1						73351			
147664	321171		08/26/2019 1550		HDR, INC	MEMPHIS DEPOT	ICP K QSM 5.0		S	**4**	
		GN-SO-08-2						73351			
147664	321171		08/26/2019 1550		HDR, INC	MEMPHIS DEPOT	ICP NA QSM 5.0		S	**4**	
		GN-SO-08-2						73351			
147664	321172		08/26/2019 1601		HDR, INC	MEMPHIS DEPOT	ICP K QSM 5.0		S	**4**	
		GN-SO-09C-1						73351			
147664	321172		08/26/2019 1601		HDR, INC	MEMPHIS DEPOT	ICP NA QSM 5.0		S	**4**	
		GN-SO-09C-1						73351			
	324566						MICP SOIL QSM				
				CCV				0			
	324567						MICP SOIL QSM				
				CCB				0			

66 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

MICP SOIL QSM Analytical Run
164036 on 09/16/2019

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	324043						MICP SOIL QSM				
				ICV				0			
	324044						MICP SOIL QSM				
				ICVLL				0			
	324045						MICP SOIL QSM				
				ICB				0			
	324046						MICP SOIL QSM				
				ICSA				0			
	324047						MICP SOIL QSM				
				ICSAB				0			
	321859						ICP QSM 5.0				
				LCSS				73351			
	321858						ICP QSM 5.0				
				MBS				73351			
147664	321149	GN-SO-01-1	08/26/2019 1023		HDR, INC	MEMPHIS DEPOT	ICP QSM 5.0		S	**4**	
147664	321154	GN-SO-01-2	08/26/2019 1115		HDR, INC	MEMPHIS DEPOT	ICP QSM 5.0	73351	S	**4**	
	324049						MICP SOIL QSM				
				CCV1				0			
	324050						MICP SOIL QSM				
				CCV2				0			
	324051						MICP SOIL QSM				
				CCB				0			
147664	321155	GN-SO-02-1	08/26/2019 1130		HDR, INC	MEMPHIS DEPOT	ICP QSM 5.0		S	**4**	
147664	321157	GN-SO-DUP-1	08/26/2019 1100		HDR, INC	MEMPHIS DEPOT	ICP QSM 5.0	73351	S	**4**	
147664	321158	GN-SO-02-2	08/26/2019 1153		HDR, INC	MEMPHIS DEPOT	ICP QSM 5.0	73351	S	**4**	
147664	321159	GNSO-03-1	08/26/2019 1320		HDR, INC	MEMPHIS DEPOT	ICP QSM 5.0	73351	S	**4**	
147664	321160	GN-SO-03-2	08/26/2019 1334		HDR, INC	MEMPHIS DEPOT	ICP QSM 5.0	73351	S	**4**	
147664	321161	GN-SO-04-1	08/26/2019 1348		HDR, INC	MEMPHIS DEPOT	ICP QSM 5.0	73351	S	**4**	
	324052			Designated MS/MSD			ICP QSM 5.0	73351			
				L 321161				0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

MICP SOIL QSM Analytical Run
164036 on 09/16/2019

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	321855		08/26/2019 1348					ICP QSM 5.0				
		GN-SO-04-1		DUP	321161				73351			
	321856		08/26/2019 1348					ICP QSM 5.0				
		GN-SO-04-1		MSS	321161				73351			
	321857		08/26/2019 1348					ICP QSM 5.0				
		GN-SO-04-1		MSDS	321856				73351			
	324053							MICP SOIL QSM				
				CCV1					0			
	324054							MICP SOIL QSM				
				CCV2					0			
	324055							MICP SOIL QSM				
				CCB					0			
	324056							ICP QSM 5.0				
				PDSS	321161				0			
147664	321162		08/26/2019 1400			HDR, INC	MEMPHIS DEPOT	ICP QSM 5.0		S	**4**	
		GN-SO-04-2							73351			
147664	321163		08/26/2019 1410			HDR, INC	MEMPHIS DEPOT	ICP QSM 5.0		S	**4**	
		GN-SO-05-1							73351			
147664	321164		08/26/2019 1428			HDR, INC	MEMPHIS DEPOT	ICP QSM 5.0		S	**4**	
		GN-SO-05-2							73351			
147664	321165		08/26/2019 1422			HDR, INC	MEMPHIS DEPOT	ICP QSM 5.0		S	**4**	
		GN-SO-DUP-2							73351			
147664	321166		08/26/2019 1442			HDR, INC	MEMPHIS DEPOT	ICP QSM 5.0		S	**4**	
		GN-SO-06-1							73351			
147664	321167		08/26/2019 1505			HDR, INC	MEMPHIS DEPOT	ICP QSM 5.0		S	**4**	
		GN-SO-06-2							73351			
147664	321168		08/26/2019 1513			HDR, INC	MEMPHIS DEPOT	ICP QSM 5.0		S	**4**	
		GN-SO-07-1							73351			
147664	321169		08/26/2019 1528			HDR, INC	MEMPHIS DEPOT	ICP QSM 5.0		S	**4**	
		GN-SO-07-2							73351			
147664	321170		08/26/2019 1539			HDR, INC	MEMPHIS DEPOT	ICP QSM 5.0		S	**4**	
		GN-SO-08-1							73351			
	324057							MICP SOIL QSM				
				CCV1					0			
	324058							MICP SOIL QSM				
				CCV2					0			
	324059							MICP SOIL QSM				
				CCB					0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

MICP SOIL QSM Analytical Run
164036 on 09/16/2019

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
147664	321171		08/26/2019 1550		HDR, INC	MEMPHIS DEPOT	ICP QSM 5.0		S	**4**	
		GN-SO-08-2						73351			
147664	321172		08/26/2019 1601		HDR, INC	MEMPHIS DEPOT	ICP QSM 5.0		S	**4**	
		GN-SO-09C-1						73351			
	324060						MICP SOIL QSM				
				CCV1				0			
	324061						MICP SOIL QSM				
				CCV2				0			
	324062						MICP SOIL QSM				
				CCB				0			
	325316						MICP SOIL QSM				
				ICV				0			
	325317						MICP SOIL QSM				
				ICVLL				0			
	325318						MICP SOIL QSM				
				ICB				0			
	325319						MICP SOIL QSM				
				ICSA				0			
	325320						MICP SOIL QSM				
				ICSAB				0			
	325322						MICP SOIL QSM				
				CCV1				0			
	325323						MICP SOIL QSM				
				CCV2				0			
	325324						MICP SOIL QSM				
				CCB				0			
147664	321163		08/26/2019 1410		HDR, INC	MEMPHIS DEPOT	ICP QSM 5.0		S	**4**	
RERUN		GN-SO-05-1						73351			
147664	321166		08/26/2019 1442		HDR, INC	MEMPHIS DEPOT	ICP QSM 5.0		S	**4**	
RERUN		GN-SO-06-1						73351			
147664	321168		08/26/2019 1513		HDR, INC	MEMPHIS DEPOT	ICP QSM 5.0		S	**4**	
RERUN		GN-SO-07-1						73351			
147664	321170		08/26/2019 1539		HDR, INC	MEMPHIS DEPOT	ICP QSM 5.0		S	**4**	
RERUN		GN-SO-08-1						73351			
	325325						MICP SOIL QSM				
				CCV1				0			
	325326						MICP SOIL QSM				
				CCV2				0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

MICP SOIL QSM Analytical Run
164036 on 09/16/2019

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	325327						MICP SOIL QSM				
				CCB				0			

58 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

MICP WATER QSM Analytical Run
164046 on 09/16/2019

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	325003							MICP WATER QSM				
				ICV					0			
	325004							MICP WATER QSM				
				ICVLL					0			
	325005							MICP WATER QSM				
				ICB					0			
	325006							MICP WATER QSM				
				ICSA					0			
	325007							MICP WATER QSM				
				ICSAB					0			
	325009							MICP WATER QSM				
				CCV1					0			
	325010							MICP WATER QSM				
				CCV2					0			
	325011							MICP WATER QSM				
				CCB					0			
	322205							ICP TOTAL QSM 5.0				
				LCSW					73360			
	322204							ICP TOTAL QSM 5.0				
				MBW					73360			
147687	321513		08/27/2019 1400			HDR, INC	MEMPHIS DEPOT	ICP TOTAL QSM 5.0		GW	**4**	
		GN-W-RB-01							73360			
	325012							ICP TOTAL QSM 5.0				
				L	321513				0			
	322206		08/27/2019 1400					ICP TOTAL QSM 5.0				
		GN-W-RB-01		DUP	321513				73360			
	322207		08/27/2019 1400					ICP TOTAL QSM 5.0				
		GN-W-RB-01		MSW	321513				73360			
	322208		08/27/2019 1400					ICP TOTAL QSM 5.0				
		GN-W-RB-01		MSDW	322207				73360			
	325013							ICP TOTAL QSM 5.0				
				PDSW	321513				0			
	325014							MICP WATER QSM				
				CCV1					0			
	325015							MICP WATER QSM				
				CCV2					0			
	325016							MICP WATER QSM				
				CCB					0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

MICP WATER QSM Analytical Run
164046 on 09/16/2019

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

19 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

MICP WATER QSM K&Na Analytical Run
164047 on 09/16/2019

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	324524						MICP WATER QSM K&Na				
				ICV				0			
	324525						MICP WATER QSM K&Na				
				ICVLL				0			
	324526						MICP WATER QSM K&Na				
				ICB				0			
	324527						MICP WATER QSM K&Na				
				MRL				0			
	324528						MICP WATER QSM K&Na				
				ICSA				0			
	324529						MICP WATER QSM K&Na				
				ICSAB				0			
	324530						MICP WATER QSM K&Na				
				CCV				0			
	324531						MICP WATER QSM K&Na				
				CCB				0			
	322205						ICP K TOTAL QSM 5.0				
				LCSW				73360			
	322205						ICP NA TOTAL QSM 5.0				
				LCSW				73360			
	322204						ICP K TOTAL QSM 5.0				
				MBW				73360			
	322204						ICP NA TOTAL QSM 5.0				
				MBW				73360			
	324532						MICP WATER QSM K&Na				
				CCV				0			
	324533						MICP WATER QSM K&Na				
				CCB				0			
147687	321513	GN-W-RB-01	08/27/2019 1400		HDR, INC	MEMPHIS DEPOT	ICP K TOTAL QSM 5.0		GW	**4**	
								73360			
147687	321513	GN-W-RB-01	08/27/2019 1400		HDR, INC	MEMPHIS DEPOT	ICP NA TOTAL QSM 5.0		GW	**4**	
								73360			
	324534						ICP K TOTAL QSM 5.0				
				L 321513				0			
	324534						ICP NA TOTAL QSM 5.0				
				L 321513				0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

MICP WATER QSM K&Na Analytical Run
164047 on 09/16/2019

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	322206		08/27/2019 1400					ICP K TOTAL QSM 5.0				
		GN-W-RB-01		DUP	321513				73360			
	322206		08/27/2019 1400					ICP NA TOTAL QSM 5.0				
		GN-W-RB-01		DUP	321513				73360			
	322207		08/27/2019 1400					ICP K TOTAL QSM 5.0				
		GN-W-RB-01		MSW	321513				73360			
	322207		08/27/2019 1400					ICP NA TOTAL QSM 5.0				
		GN-W-RB-01		MSW	321513				73360			
	322208		08/27/2019 1400					ICP K TOTAL QSM 5.0				
		GN-W-RB-01		MSDW	322207				73360			
	322208		08/27/2019 1400					ICP NA TOTAL QSM 5.0				
		GN-W-RB-01		MSDW	322207				73360			
	324535							ICP K TOTAL QSM 5.0				
				PDSW	321513				0			
	324535							ICP NA TOTAL QSM 5.0				
				PDSW	321513				0			
	324536							MICP WATER QSM K&Na				
				CCV					0			
	324537							MICP WATER QSM K&Na				
				CCB					0			

28 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

MERCURY QSM 5.0 Analytical Run
164096 on 09/16/2019

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	322957								MERCURY QSM 5.0				
					ICV					0			
	322958								MERCURY QSM 5.0				
					ICB					0			
	321633								MERCURY TOTAL QSM 5.0				
					LCSW					73342			
	321632								MERCURY TOTAL QSM 5.0				
					MBW					73342			
147687	321513		08/27/2019	1400			HDR, INC	MEMPHIS DEPOT	MERCURY TOTAL QSM 5.0		GW	4	
		GN-W-RB-01								73342			
	321634		08/27/2019	1400					MERCURY TOTAL QSM 5.0				
		N-W-RB-01			DUP	321513				73342			
	321635		08/27/2019	1400					MERCURY TOTAL QSM 5.0				
		N-W-RB-01			MSW	321513				73342			
	321637		08/27/2019	1400					MERCURY TOTAL QSM 5.0				
		N-W-RB-01			MSDW	321635				73342			
	322959								MERCURY QSM 5.0				
					CCV					0			
	322960								MERCURY QSM 5.0				
					CCB					0			

10 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

MERCURY QSM SOIL 5.0 Analytical Run
164151 on 09/16/2019

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	323602						MERCURY QSM SOIL 5.0				
				ICV				0			
	323603						MERCURY QSM SOIL 5.0				
				ICB				0			
	321261						MERCURY QSM 5.0				
				LCSS				73320			
	321260						MERCURY QSM 5.0				
				MBS				73320			
	323604						MERCURY QSM SOIL 5.0				
				CCV				0			
	323605						MERCURY QSM SOIL 5.0				
				CCV				0			
	323639						MERCURY QSM SOIL 5.0				
				CCV							
	323640						MERCURY QSM SOIL 5.0				
				CCV							
	323606						MERCURY QSM SOIL 5.0				
				CCB				0			
	323607						MERCURY QSM SOIL 5.0				
				CCV				0			
	323608						MERCURY QSM SOIL 5.0				
				CCB				0			
147664	321149	GN-SO-01-1	08/26/2019 1023		HDR, INC	MEMPHIS DEPOT	MERCURY QSM 5.0	73320	S	**4**	
147664	321154	GN-SO-01-2	08/26/2019 1115		HDR, INC	MEMPHIS DEPOT	MERCURY QSM 5.0	73320	S	**4**	
147664	321155	GN-SO-02-1	08/26/2019 1130		HDR, INC	MEMPHIS DEPOT	MERCURY QSM 5.0	73320	S	**4**	
147664	321157	GN-SO-DUP-1	08/26/2019 1100		HDR, INC	MEMPHIS DEPOT	MERCURY QSM 5.0	73320	S	**4**	
147664	321158	GN-SO-02-2	08/26/2019 1153		HDR, INC	MEMPHIS DEPOT	MERCURY QSM 5.0	73320	S	**4**	
147664	321159	GNSO-03-1	08/26/2019 1320		HDR, INC	MEMPHIS DEPOT	MERCURY QSM 5.0	73320	S	**4**	
	323609						MERCURY QSM SOIL 5.0				
				CCV				0			
	323610						MERCURY QSM SOIL 5.0				
				CCV				0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

MERCURY QSM SOIL 5.0 Analytical Run
164151 on 09/16/2019

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	323611							MERCURY QSM SOIL 5.0				
				CCV					0			
	323612							MERCURY QSM SOIL 5.0				
				CCB					0			
147664	321160		08/26/2019 1334			HDR, INC	MEMPHIS DEPOT	MERCURY QSM 5.0		S	**4**	
		GN-SO-03-2							73320			
147664	321161		08/26/2019 1348			HDR, INC	MEMPHIS DEPOT	MERCURY QSM 5.0		S	**4**	
		GN-SO-04-1		Designated MS/MSD					73320			
147664	321162		08/26/2019 1400			HDR, INC	MEMPHIS DEPOT	MERCURY QSM 5.0		S	**4**	
		GN-SO-04-2							73320			
147664	321163		08/26/2019 1410			HDR, INC	MEMPHIS DEPOT	MERCURY QSM 5.0		S	**4**	
		GN-SO-05-1							73320			
147664	321164		08/26/2019 1428			HDR, INC	MEMPHIS DEPOT	MERCURY QSM 5.0		S	**4**	
		GN-SO-05-2							73320			
147664	321165		08/26/2019 1422			HDR, INC	MEMPHIS DEPOT	MERCURY QSM 5.0		S	**4**	
		GN-SO-DUP-2							73320			
147664	321166		08/26/2019 1442			HDR, INC	MEMPHIS DEPOT	MERCURY QSM 5.0		S	**4**	
		GN-SO-06-1							73320			
147664	321167		08/26/2019 1505			HDR, INC	MEMPHIS DEPOT	MERCURY QSM 5.0		S	**4**	
		GN-SO-06-2							73320			
147664	321168		08/26/2019 1513			HDR, INC	MEMPHIS DEPOT	MERCURY QSM 5.0		S	**4**	
		GN-SO-07-1							73320			
	323613							MERCURY QSM SOIL 5.0				
				CCV					0			
	323614							MERCURY QSM SOIL 5.0				
				CCB					0			
147664	321169		08/26/2019 1528			HDR, INC	MEMPHIS DEPOT	MERCURY QSM 5.0		S	**4**	
		GN-SO-07-2							73320			
147664	321170		08/26/2019 1539			HDR, INC	MEMPHIS DEPOT	MERCURY QSM 5.0		S	**4**	
		GN-SO-08-1							73320			
147664	321171		08/26/2019 1550			HDR, INC	MEMPHIS DEPOT	MERCURY QSM 5.0		S	**4**	
		GN-SO-08-2							73320			
147664	321172		08/26/2019 1601			HDR, INC	MEMPHIS DEPOT	MERCURY QSM 5.0		S	**4**	
		GN-SO-09C-1							73320			
	321264		08/26/2019 1348					MERCURY QSM 5.0				
		GN-SO-04-1		MSS	321161				73320			
	321265		08/26/2019 1348					MERCURY QSM 5.0				
		GN-SO-04-1		MSDS	321264				73320			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: C:\LIMSREPS\ANALYTICALRUN.RPT

MERCURY QSM SOIL 5.0 Analytical Run
164151 on 09/16/2019

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	321262		08/26/2019 1348				MERCURY QSM 5.0				
		GN-SO-04-1		DUP 321161				73320			
	323615						MERCURY QSM SOIL 5.0				
				CCV				0			
	323616						MERCURY QSM SOIL 5.0				
				CCB				0			

41 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

PREP WORKSHEET
on 09/16/2019

Prep Batch **73,351** Date Prepped: 08/30/2019 Prepped By NAH

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	321858	MBS		ICP K QSM 5.0	SOLID	50	2.00			
	321858	MBS		ICP NA QSM 5.0	SOLID	50	2.00			
	321858	MBS		ICP QSM 5.0	SOLID	50	2.00			
	321859	LCSS		ICP K QSM 5.0	SOLID	50	2.00			
	321859	LCSS		ICP NA QSM 5.0	SOLID	50	2.00			
	321859	LCSS		ICP QSM 5.0	SOLID	50	2.00			
147664	321149			ICP NA QSM 5.0	SOIL	50	1.92		4	
	321149			ICP K QSM 5.0	SOIL	50	1.92		4	
	321149			ICP QSM 5.0	SOIL	50	1.92		4	
	321154			ICP K QSM 5.0	SOIL	50	2.01		4	
	321154			ICP NA QSM 5.0	SOIL	50	2.01		4	
	321154			ICP QSM 5.0	SOIL	50	2.01		4	
	321155			ICP QSM 5.0	SOIL	50	1.93		4	
	321155			ICP NA QSM 5.0	SOIL	50	1.93		4	
	321155			ICP K QSM 5.0	SOIL	50	1.93		4	
	321157			ICP K QSM 5.0	SOIL	50	1.99		4	
	321157			ICP NA QSM 5.0	SOIL	50	1.99		4	

PREP WORKSHEET
on 09/16/2019

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
147664	321157			ICP QSM 5.0	SOIL	50	1.99		4	
	321158			ICP QSM 5.0	SOIL	50	1.91		4	
	321158			ICP NA QSM 5.0	SOIL	50	1.91		4	
	321158			ICP K QSM 5.0	SOIL	50	1.91		4	
	321159			ICP K QSM 5.0	SOIL	50	1.91		4	
	321159			ICP NA QSM 5.0	SOIL	50	1.91		4	
	321159			ICP QSM 5.0	SOIL	50	1.91		4	
	321160			ICP QSM 5.0	SOIL	50	1.91		4	
	321160			ICP NA QSM 5.0	SOIL	50	1.91		4	
	321160			ICP K QSM 5.0	SOIL	50	1.91		4	
	321161	sample designated for QC		ICP K QSM 5.0	SOIL	50	1.93		4	
	321161	sample designated for QC		ICP NA QSM 5.0	SOIL	50	1.93		4	
	321161	sample designated for QC		ICP QSM 5.0	SOIL	50	1.93		4	
	321162			ICP QSM 5.0	SOIL	50	1.95		4	
	321162			ICP NA QSM 5.0	SOIL	50	1.95		4	
	321162			ICP K QSM 5.0	SOIL	50	1.95		4	
	321163			ICP K QSM 5.0	SOIL	50	1.90		4	
	321163			ICP QSM 5.0	SOIL	50	1.90		4	

PREP WORKSHEET
on 09/16/2019

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
147664	321163			ICP NA QSM 5.0	SOIL	50	1.90		4	
	321163			ICP QSM 5.0	SOIL	50	1.90		4	
	321164			ICP QSM 5.0	SOIL	50	1.97		4	
	321164			ICP NA QSM 5.0	SOIL	50	1.97		4	
	321164			ICP K QSM 5.0	SOIL	50	1.97		4	
	321165			ICP K QSM 5.0	SOIL	50	1.91		4	
	321165			ICP NA QSM 5.0	SOIL	50	1.91		4	
	321165			ICP QSM 5.0	SOIL	50	1.91		4	
	321166			ICP QSM 5.0	SOIL	50	1.96		4	
	321166			ICP K QSM 5.0	SOIL	50	1.96		4	
	321166			ICP QSM 5.0	SOIL	50	1.96		4	
	321166			ICP NA QSM 5.0	SOIL	50	1.96		4	
	321167			ICP K QSM 5.0	SOIL	50	2.07		4	
	321167			ICP QSM 5.0	SOIL	50	2.07		4	
	321167			ICP NA QSM 5.0	SOIL	50	2.07		4	
	321168			ICP NA QSM 5.0	SOIL	50	1.96		4	
	321168			ICP QSM 5.0	SOIL	50	1.96		4	
	321168			ICP K QSM 5.0	SOIL	50	1.96		4	

PREP WORKSHEET
on 09/16/2019

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
147664	321168			ICP QSM 5.0	SOIL	50	1.96		4	
	321169			ICP K QSM 5.0	SOIL	50	1.93		4	
	321169			ICP QSM 5.0	SOIL	50	1.93		4	
	321169			ICP NA QSM 5.0	SOIL	50	1.93		4	
	321170			ICP NA QSM 5.0	SOIL	50	2.02		4	
	321170			ICP QSM 5.0	SOIL	50	2.02		4	
	321170			ICP K QSM 5.0	SOIL	50	2.02		4	
	321170			ICP QSM 5.0	SOIL	50	2.02		4	
	321171			ICP K QSM 5.0	SOIL	50	2.01		4	
	321171			ICP QSM 5.0	SOIL	50	2.01		4	
	321171			ICP NA QSM 5.0	SOIL	50	2.01		4	
	321172			ICP NA QSM 5.0	SOIL	50	1.90		4	
	321172			ICP QSM 5.0	SOIL	50	1.90		4	
	321172			ICP K QSM 5.0	SOIL	50	1.90		4	
	321855	DUP	321161	ICP K QSM 5.0	SOIL	50	1.93			
	321855	DUP	321161	ICP NA QSM 5.0	SOIL	50	1.93			
	321855	DUP	321161	ICP QSM 5.0	SOIL	50	1.93			
	321856	MSS	321161	ICP K QSM 5.0	SOIL	50	1.94			

PREP WORKSHEET
on 09/16/2019

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	321856	MSS	321161	ICP NA QSM 5.0	SOIL	50	1.94			
	321856	MSS	321161	ICP QSM 5.0	SOIL	50	1.94			
	321857	MSDS	321856	ICP K QSM 5.0	SOIL	50	1.93			
	321857	MSDS	321856	ICP NA QSM 5.0	SOIL	50	1.93			
	321857	MSDS	321856	ICP QSM 5.0	SOIL	50	1.93			

Notes:_____

PREP WORKSHEET
on 09/16/2019

Prep Batch **73,360** Date Prepped: 08/30/2019 Prepped By NAH

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	322204	MBW		ICP K TOTAL QSM 5.0	LIQUID	50		50.0		
	322204	MBW		ICP NA TOTAL QSM 5.0	LIQUID	50		50.0		
	322204	MBW		ICP TOTAL QSM 5.0	LIQUID	50		50.0		
	322205	LCSW		ICP K TOTAL QSM 5.0	LIQUID	50		50.0		
	322205	LCSW		ICP NA TOTAL QSM 5.0	LIQUID	50		50.0		
	322205	LCSW		ICP TOTAL QSM 5.0	LIQUID	50		50.0		
147687	321513			ICP NA TOTAL QSM 5.0	GROUND WATER	50		50.0	4	
	321513			ICP K TOTAL QSM 5.0	GROUND WATER	50		50.0	4	
	321513			ICP TOTAL QSM 5.0	GROUND WATER	50		50.0	4	
	322206	DUP	321513	ICP K TOTAL QSM 5.0	GROUND WATER	50		50.0		
	322206	DUP	321513	ICP NA TOTAL QSM 5.0	GROUND WATER	50		50.0		
	322206	DUP	321513	ICP TOTAL QSM 5.0	GROUND WATER	50		50.0		
	322207	MSW	321513	ICP K TOTAL QSM 5.0	GROUND WATER	50		50.0		
	322207	MSW	321513	ICP NA TOTAL QSM 5.0	GROUND WATER	50		50.0		
	322207	MSW	321513	ICP TOTAL QSM 5.0	GROUND WATER	50		50.0		
	322208	MSDW	322207	ICP K TOTAL QSM 5.0	GROUND WATER	50		50.0		
	322208	MSDW	322207	ICP NA TOTAL QSM 5.0	GROUND WATER	50		50.0		

PREP WORKSHEET
on 09/16/2019

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	322208	MSDW	322207	ICP TOTAL QSM 5.0	GROUND WATER	50		50.0		

Notes:_____

PREP WORKSHEET
on 09/16/2019

Prep Batch **73,342** Date Prepped: 09/03/2019 Prepped By BMM

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	321632	MBW		MERCURY TOTAL QSM	LIQUID	25		25.0		
	321633	LCSW		MERCURY TOTAL QSM	LIQUID	25		25.0		
147687	321513			MERCURY TOTAL QSM	GROUND WATER	25		25.0	4	
	321634	DUP	321513	MERCURY TOTAL QSM	GROUND WATER	25		25.0		
	321635	MSW	321513	MERCURY TOTAL QSM	GROUND WATER	25		25.0		
	321637	MSDW	321635	MERCURY TOTAL QSM	GROUND WATER	25		25.0		

Notes:_____

PREP WORKSHEET
on 09/16/2019

Prep Batch **73,320** Date Prepped: 09/03/2019 Prepped By BMM

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	321260	MBS		MERCURY QSM 5.0	SOLID	25	0.6			
	321261	LCSS		MERCURY QSM 5.0	SOLID	25	0.6			
147664	321149			MERCURY QSM 5.0	SOIL	25	0.57		4	
	321154			MERCURY QSM 5.0	SOIL	25	0.59		4	
	321155			MERCURY QSM 5.0	SOIL	25	0.59		4	
	321157			MERCURY QSM 5.0	SOIL	25	0.58		4	
	321158			MERCURY QSM 5.0	SOIL	25	0.55		4	
	321159			MERCURY QSM 5.0	SOIL	25	0.55		4	
	321160			MERCURY QSM 5.0	SOIL	25	0.57		4	
	321161	sample designated for QC		MERCURY QSM 5.0	SOIL	25	0.57		4	
	321162			MERCURY QSM 5.0	SOIL	25	0.55		4	
	321163			MERCURY QSM 5.0	SOIL	25	0.55		4	
	321164			MERCURY QSM 5.0	SOIL	25	0.58		4	
	321165			MERCURY QSM 5.0	SOIL	25	0.55		4	
	321166			MERCURY QSM 5.0	SOIL	25	0.55		4	
	321167			MERCURY QSM 5.0	SOIL	25	0.57		4	
	321168			MERCURY QSM 5.0	SOIL	25	0.59		4	

PREP WORKSHEET
on 09/16/2019

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
147664	321169			MERCURY QSM 5.0	SOIL	25	0.6		4	
	321170			MERCURY QSM 5.0	SOIL	25	0.58		4	
	321171			MERCURY QSM 5.0	SOIL	25	0.55		4	
	321172			MERCURY QSM 5.0	SOIL	25	0.59		4	
	321262	DUP	321161	MERCURY QSM 5.0	SOIL	25	0.56			
	321264	MSS	321161	MERCURY QSM 5.0	SOIL	25	0.57			
	321265	MSDS	321264	MERCURY QSM 5.0	SOIL	25	0.57			

Notes:_____

Metals Digestion Bench Sheet

Program: QSM
*Matrix: SOLID

Prep Methods:
200.2= ICP/GFAA Liquids
3010= ICP Liquids
3020= GFAA Liquids
3005= Sb Liquids
3050= ICP/GFAA Solids
7060/7740= GFAA, As & Se Liquids

Prep Batch #:	73351
Prep Method:	3050
Analyst:	NAH
Date:	08/30/2019
Start Time:	10:52

Prep Analyst: BMM
Balance ID: VOBO1

End Date: 08/30/2019
End Time: 13:36

Reagent:	Ref. #
Nitric Acid:	AB.677
Hydrochloric Acid:	AB.680
Hydrogen Peroxide:	AB.678

Digestion Tube Lot #: 3213
Block Used: D1
Cell Position for Temp. Check: 60
Initial-DigestionTemp (ºC): 90
Final-Digestion Temp (ºC): 90

	Sample ID			(Solids) Sample Weight (g)	(Liquids) Sample Volume (ml)	Final Volume (ml)
	321858	(MB)		2.00		50
	321859	(LCS)		2.00		50
	321149			1.92		50
	321154	**Comments:**		2.01		50
	321155			1.93		50
	321157			1.99		50
	321158			1.91		50
	321159			1.91		50
	321160			1.91		50
	321161			1.93		50
	321162			1.95		50
	321163			1.90		50
	321164			1.97		50
	321165			1.91		50
	321166			1.96		50
	321167			2.07		50
	321168			1.96		50
	321169			1.93		50
	321170			2.02		50
	321171			2.01		50
	321172			1.90		50
						50
	321855	(DUP)		1.93		50
	321856	(MS)	Parent Sample	1.94		50
	321857	(MSD)	321161	1.93		50
		(DUP)				50
		(MS)	Parent Sample			50
		(MSD)				50
Leave >>		(DUP) if applicable				50
blank		(MS)	Parent Sample			50
if N/A		(MSD)				50

MB=Method Blank, LCS=Laboratory Control Sample, DUP=Duplicate, MS=Matrix Spike & MSD=Matrix Spike Duplicate
*Matrix: Soil, Sludge, Waste, GW=Groundwater, WW=Wastewater, Tissue, TLCP, SPLP, ASTM or other.

MS/MSD Spike Amount (ml)	Spike Ref. #
1	M13851
0.5	M13840
0.5	M13811
0.1	M13697

LCS Spike Amount (ml)	Spike Ref. #
1	M13851
0.5	M13840
0.5	M13811
0.1	M13697

Reviewed By/Date: _____

09/16/201914:05

Metals Digestion Bench Sheet

Program: QSM
*Matrix: liquid

Prep Methods:
200.2= ICP/GFAA Liquids
3010= ICP Liquids
3020= GFAA Liquids
3005= Sb Liquids
3050= ICP/GFAA Solids
7060/7740= GFAA, As & Se Liquids

Prep Batch #:	73360
Prep Method:	200.2
Analyst:	NAH
Date:	08/30/2019
Start Time:	11:17

Prep Analyst: BMM
Balance ID:

End Date: 08/30/2019
End Time: 22:02
Digestion Tube Lot #: 3213
Block Used: D2
Cell Position for Temp. Check: 60
Initial-DigestionTemp (ºC): 92
Final-Digestion Temp (ºC): 92

Reagent:	Ref. #
Nitric Acid:	AB.679
Hydrochloric Acid:	AB.680
Hydrogen Peroxide:	

Sample ID			(Solids) Sample Weight (g)	(Liquids) Sample Volume (ml)	Final Volume (ml)
322204	(MB)			50.0	50
322205	(LCS)			50.0	50
321513				50.0	50
	Comments:				50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
322206	(DUP)			50.0	50
322207	(MS)	Parent Sample		50.0	50
322208	(MSD)	321513		50.0	50
	(DUP)				50
	(MS)	Parent Sample			50
	(MSD)				50
Leave >>	(DUP) if applicable				50
blank	(MS)	Parent Sample			50
if N/A	(MSD)				50

MB=Method Blank, LCS=Laboratory Control Sample, DUP=Duplicate, MS=Matrix Spike & MSD=Matrix Spike Duplicate
*Matrix: Soil, Sludge, Waste, GW=Groundwater, WW=Wastewater, Tissue, TLCP, SPLP, ASTM or other.

MS/MSD Spike Amount (ml)	Spike Ref. #
0.2	M13791
0.5	M13840
0.5	M13755

LCS Spike Amount (ml)	Spike Ref. #
0.2	M13791
0.5	M13840
0.5	M13755

Reviewed By/Date:

09/16/201914:06

FMT12-03

Mercury Digestion Bench Sheet

(Prep Methods 7470A & 7471A)

CCV ID: M13927
ICV/LCSW ID: M13928/M13929

*Matrix: GW
Balance ID:

Prep Batch #:	73342
Prep Method:	7470A
Analyst:	BMM
Date:	09/03/2019
Start Time:	12:10

7470A= Hg Liquids
7471A= Hg Solids

End Date: 09/03/2019
End Time: 14:12

Digestion Tube Lot #: 4919103
Block Used: D2
Cell Position for Temp. Check: 60
Initial-DigestionTemp (ºC): 91
Final-Digestion Temp (ºC): 92
Additional KMnO4 added (ml):
Aqua Regia added (ml)
Calibration Stds: M13926

Reagent:	Ref. #
HNO3:	AB.677
H2SO4:	AB.674
NaCl/Hydrox.SO4:	M13875
KMnO4:	M13873
K2S2O8:	M13867
Aqua-Regia:	

	Sample			(Solids) Sample Weight (g)	(Liquids) Sample Volume (ml)	Final Volume (ml)
	321632	(MB)			25.0	25
	321633	(LCS)			25.0	25
	321513				25.0	25
		Comments:				25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
	321634	(DUP)			25.0	25
	321635	(MS)	Parent Sample		25.0	25
	321637	(MSD)	321513		25.0	25
Leave >>		(DUP)				25
blank		(MS)	Parent Sample			25
		(MSD)				25
		(DUP)				25
		(MS)	Parent Sample			25
if N/A		(MSD)				25

MB=Method Blank, LCS=Laboratory Control Sample, DUP=Duplicate, MS=Matrix Spike & MSD=Matrix Spike Duplicate
*Matrix: Soil, Sludge, Waste, GW=Groundwater, WW=Wastewater, Tissue, TLCP, SPLP, ASTM or other.

A: Spike Amount (ml)	Spike Conc. (ug/L)	Spike Ref. #
0.5	100ug/L	M13928

B: Spike Amount (ml)	Spike Conc. (ug/L)	Spike Ref. #

Reviewed By/Date:

FMT12-03

Mercury Digestion Bench Sheet

(Prep Methods 7470A & 7471A)

CCV ID: M13927
ICV/LCSW ID: M13928/M13929

*Matrix: SOIL
Balance ID: VOB01

7470A= Hg Liquids
7471A= Hg Solids

Prep Batch #:	73320
Prep Method:	7471A
Analyst:	BMM
Date:	09/03/2019
Start Time:	12:34

End Date: 09/03/2019
End Time: 13:04

Digestion Tube Lot #: 4919103
Block Used: A
Cell Position for Temp. Check: D5
Initial-DigestionTemp (ºC): 90.7
Final-Digestion Temp (ºC): 91.2
Additional KMnO4 added (ml):
Aqua Regia added (ml) 1.25
Calibration Stds: M13926

Reagent:	Ref. #
HNO3:	AB.677
H2SO4:	
NaCl/Hydrox.SO4:	M13875
KMnO4:	M13873
K2S2O8:	M13867
Aqua-Regia:	M13912

	Sample			(Solids) Sample Weight (g)	(Liquids) Sample Volume (ml)	Final Volume (ml)
	321260	(MB)		0.60		25
	321261	(LCS)		0.60		25
	321149			0.57		25
	321154	Comments:		0.59		25
	321155			0.59		25
	321157			0.58		25
	321158			0.55		25
	321159			0.55		25
	321160			0.57		25
	321161			0.57		25
	321162			0.55		25
	321163			0.55		25
	321164			0.58		25
	321165			0.55		25
	321166			0.55		25
	321167			0.57		25
	321168			0.59		25
	321169			0.60		25
	321170			0.58		25
	321171			0.55		25
	321172			0.59		25
						25
	321262	(DUP)		0.56		25
	321264	(MS)	Parent Sample	0.57		25
	321265	(MSD)	321161	0.57		25
Leave >>		(DUP)				25
blank		(MS)	Parent Sample			25
		(MSD)				25
		(DUP)				25
		(MS)	Parent Sample			25
if N/A		(MSD)				25

MB=Method Blank, LCS=Laboratory Control Sample, DUP=Duplicate, MS=Matrix Spike & MSD=Matrix Spike Duplicate
*Matrix: Soil, Sludge, Waste, GW=Groundwater, WW=Wastewater, Tissue, TLCP, SPLP, ASTM or other.

A: Spike Amount (ml)	Spike Conc. (ug/L)	Spike Ref. #
0.5	100ug/L	M13928

B: Spike Amount (ml)	Spike Conc. (ug/L)	Spike Ref. #

Reviewed By/Date:

iCAP 6000 / 6500 Data Review Checklist		Analysis Date: 9/6/19		Data File: Nak090619r1152	Date of review: 9/19/19
Cal Std ID: M13933	LIMS #: 164035	Analyst: MDS	Reviewer: [signature]	Approved? (Yes circled) / No	

Is Audit Trail turned on or Manual Manipulations addressed? Yes (circled) / No (If no, any manual manipulations must be initialed, dated, and reason(s) stated for change)

QC Parameters: 6010 / 200.7 / QSM (circled) / Other	YES	NO	YES	NO	Comments:
1) Calibration linearity: r > 0.995 (circled) / r > 0.998	✓		✓		
2) ICV: 90-110% (circled) / 95-105%	✓		✓		
2) ICVLL: 70-130% / 80-120% (circled)	✓		✓		
3) ICB: < 3X IDL / <LOD (circled) / <LOQ	✓		✓		
4) ICSA: < ABS LOD	✓		✓		
5) ICSAB: 80-120%	✓		✓		
6) MRL: 70-130% (circled) / 80-120%	✓		✓		
7) MDL Check: >LOD					
8) CCV1/CCB1 (CCV: 90-110%)	✓		✓		
9) CCV2/CCB2 (CCB: < 3X IDL / <LOD / <LOQ)					
10) CCV3/CCB3					
11) CCV4/CCB4					
12) CCV5/CCB5					
Preparation Batch Parameters	**YES**	**NO**	**YES**	**NO**	
Prep Batch ID#: 73351 Dig. Meth. 3050	✓		✓		
LCS - generated limits or project specific limits	✓		✓		
MB - <LOD or ≤ ½ RL	✓		✓		
Spiked samples in batch:					
a) 321161 matrix = S	✓	✓	✓	✓	Dup invalid Na
b) ___ matrix = ___					
c) ___ matrix = ___					
PDS: ±15% / 20% / 25% Sample#: ___					
Prep Batch ID#: ___ Dig. Meth. ___					
LCS - generated limits or project specific limits					
MB - <LOD or ≤ ½ RL					
Spiked samples in batch:					
a) ___ matrix = ___					
b) ___ matrix = ___					
c) ___ matrix = ___					
PDS: ±15% / 20% / 25% Sample#: ___					
Prep Batch ID#: ___ Dig. Meth. ___					
LCS - generated limits or project specific limits					
MB - <LOD or ≤ ½ RL					
Spiked samples in batch:					
a) ___ matrix = ___					
b) ___ matrix = ___					
c) ___ matrix = ___					
PDS: ±15% / 20% / 25% Sample#: ___					
Prep Batch ID#: ___ Dig. Meth. ___					
LCS - generated limits or project specific limits					
MB - <LOD or ≤ ½ RL					
Spiked samples in batch:					
a) ___ matrix = ___					
b) ___ matrix = ___					
c) ___ matrix = ___					
PDS: ±15% / 20% / 25% Sample#: ___					

iCAP 6000 / 6500 Data Review Checklist	Analysis Date: 9-4-19	Data File: [illegible]	Date of review: 9/12/19
Cal Std ID: M13831 | LIMS #: 1164036	Analyst: [illegible]	Reviewer: MDS	Approved? (Yes) No

Is Audit Trail turned on or Manual Manipulations addressed? (Yes) / No (If no, any manual manipulations must be initialed, dated, and reason(s) stated for change)

QC Parameters : 6010 / 200.7 / OSM / Other	YES	NO	YES	NO	Comments:
1) Calibration linearity: (r > 0.995) / r > 0.998	✓		✓		
2) ICV: (90-110%) / 95-105%	✓		✓		
2) ICVLL: ~~70-130%~~ / (80-120%)	✓		✓		
3) ICB: < 3X IDL / (<LOD) / <LOQ	✓		✓		
4) ICSA: < ABS LOD	✓		✓		
5) ICSAB: 80-120%	✓		✓		
6) MRL/LLOQ: (70-130%) / 80-120%	✓		✓		
7) MDL Check: >LOD					
8) CCV1/CCB1 (CCV: 90-110%)	✓	✓	✓	✓	CCB Ca "B" OK samples >10x CB.
9) CCV2/CCB2 (CCB: < 3X IDL / <LOD / <LOQ)					
10) CCV3/CCB3					
11) CCV4/CCB4					
12) CCV5/CCB5					
Preparation Batch Parameters	**YES**	**NO**	**YES**	**NO**	
Prep Batch ID#: 73351 Dig. Meth. 200.2	✓		✓		
LCS - generated limits or project specific limits	✓		✓		
MB - <LOD or ≤ ½ RL	✓		✓		
Spiked samples in batch:					✓ ✓ ✓
a) 321161 matrix = S	✓	✓	✓	✓	Al, Co, Fe, Mn, Zn MS, MSD
b)___ matrix = ___					M (Al) M (Fe) M (Mn)
c)___ matrix = ___					
PDS: ±15% / 20% / 25% Sample#:___					
Prep Batch ID#:___ Dig. Meth.___					
LCS - generated limits or project specific limits					
MB - <LOD or ≤ ½ RL					
Spiked samples in batch:					
a)___ matrix = ___					
b)___ matrix = ___					
c)___ matrix = ___					
PDS: ±15% / 20% / 25% Sample#:___					
Prep Batch ID#:___ Dig. Meth.___					
LCS - generated limits or project specific limits					
MB - <LOD or ≤ ½ RL					
Spiked samples in batch:					
a)___ matrix = ___					
b)___ matrix = ___					
c)___ matrix = ___					
PDS: ±15% / 20% / 25% Sample#:___					
Prep Batch ID#:___ Dig. Meth.___					
LCS - generated limits or project specific limits					
MB - <LOD or ≤ ½ RL					
Spiked samples in batch:					
a)___ matrix = ___					
b)___ matrix = ___					
c)___ matrix = ___					
PDS: ±15% / 20% / 25% Sample#:___					

iCAP 6000 / 6500 Data Review Checklist	Analysis Date: 9-3-19	Data File: DOD Res...	Date of review: 9/11/19
Cal Std ID: M13881 | LIMS #: 164046	Analyst: [illegible]	Reviewer: MOS	Approved? (Yes) No

Is Audit Trail turned on or Manual Manipulations addressed? (Yes) / No (If no, any manual manipulations must be initialed, dated, and reason(s) stated for change)

QC Parameters : 6010 / 200.7 / (QSM) / Other	YES	NO	YES	NO	Comments:
1) Calibration linearity: r (> 0.995) / r > 0.998	✓		✓		
2) ICV: (90-110%) / 95-105%	✓		✓		
2) ICVLL: 70-130% / (80-120%)	✓		✓		
3) ICB: < 3X IDL / (<LOD) / <LOQ	✓		✓		
4) ICSA: < ABS LOD	✓		✓		
5) ICSAB: 80-120%	✓		✓		
6) MRL/LLOQ: 70-130% / 80-120%			✓		
7) MDL Check: >LOD					
8) CCV1/CCB1 (CCV: 90-110%)	✓		✓		
9) CCV2/CCB2 (CCB: < 3X IDL / <LOD / <LOQ)					
10) CCV3/CCB3					
11) CCV4/CCB4					
12) CCV5/CCB5					
Preparation Batch Parameters	**YES**	**NO**	**YES**	**NO**	
Prep Batch ID#: 73360 Dig. Meth. 200.2	✓		✓		
LCS - generated limits or project specific limits	✓		✓		
MB - <LOD or ≤ ½ RL	✓		✓		
Spiked samples in batch:					
a) 321513 matrix = GW	✓		✓		
b)_____ matrix = _____					
c)_____ matrix = _____					
PDS: ±15% / 20% / 25% Sample#:_____					
Prep Batch ID#:_____ Dig. Meth._____					
LCS - generated limits or project specific limits					
MB - <LOD or ≤ ½ RL					
Spiked samples in batch:					
a)_____ matrix = _____					
b)_____ matrix = _____					
c)_____ matrix = _____					
PDS: ±15% / 20% / 25% Sample#:_____					
Prep Batch ID#:_____ Dig. Meth._____					
LCS - generated limits or project specific limits					
MB - <LOD or ≤ ½ RL					
Spiked samples in batch:					
a)_____ matrix = _____					
b)_____ matrix = _____					
c)_____ matrix = _____					
PDS: ±15% / 20% / 25% Sample#:_____					
Prep Batch ID#:_____ Dig. Meth._____					
LCS - generated limits or project specific limits					
MB - <LOD or ≤ ½ RL					
Spiked samples in batch:					
a)_____ matrix = _____					
b)_____ matrix = _____					
c)_____ matrix = _____					
PDS: ±15% / 20% / 25% Sample#:_____					

iCAP 6000 / 6500 Data Review Checklist | Analysis Date: 9/6/19 | Data File: NaK090619 v1182 | Date of review: 9/9/19

Cal Std ID: M13933 | LIMS # : 164047 | Analyst: MDS | Reviewer: [signature] | Approved? Yes / No

Is Audit Trail turned on or Manual Manipulations addressed? Yes / No (If no, any manual manipulations must be initialed, dated, and reason(s) stated for change)

QC Parameters : 6010 / 200.7 / QSM / Other	YES	NO	YES	NO	Comments:
1) Calibration linearity: r > 0.995 / r > 0.998	✓		✓		
2) ICV: 90-110% / 95-105%	✓		✓		
2) ICVLL: 70-130% / 80-120%	✓		✓		
3) ICB: < 3X IDL / <LOD / <LOQ	✓		✓		
4) ICSA: < ABS LOD	✓		✓		
5) ICSAB: 80-120%	✓		✓		
6) MRL: 70-130% / 80-120%	✓		✓		
7) MDL Check: >LOD					
8) CCV1/CCB1 (CCV: 90-110%)	✓		✓		
9) CCV2/CCB2 (CCB: < 3X IDL / <LOD / <LOQ)					
10) CCV3/CCB3					
11) CCV4/CCB4					
12) CCV5/CCB5					
Preparation Batch Parameters	**YES**	**NO**	**YES**	**NO**	
Prep Batch ID#: 73360 Dig. Meth. 2002	✓		✓		
LCS - generated limits or project specific limits	✓		✓		
MB - <LOD or ≤ ½ RL	✓		✓		
Spiked samples in batch:					
a) 321513 matrix = GW	✓	✓	✓	✓	Dup invalid
b)____ matrix = ____					
c)____ matrix = ____					
PDS: ±15% / 20% / 25% Sample#:____					
Prep Batch ID#:____ Dig. Meth.____					
LCS - generated limits or project specific limits					
MB - <LOD or ≤ ½ RL					
Spiked samples in batch:					
a)____ matrix = ____					
b)____ matrix = ____					
c)____ matrix = ____					
PDS: ±15% / 20% / 25% Sample#:____					
Prep Batch ID#:____ Dig. Meth.____					
LCS - generated limits or project specific limits					
MB - <LOD or ≤ ½ RL					
Spiked samples in batch:					
a)____ matrix = ____					
b)____ matrix = ____					
c)____ matrix = ____					
PDS: ±15% / 20% / 25% Sample#:____					
Prep Batch ID#:____ Dig. Meth.____					
LCS - generated limits or project specific limits					
MB - <LOD or ≤ ½ RL					
Spiked samples in batch:					
a)____ matrix = ____					
b)____ matrix = ____					
c)____ matrix = ____					
PDS: ±15% / 20% / 25% Sample#:____					

GFAA / FLAA / CVAA Data Review checklist		Method: 200.9	7000 series AA	245.1 & 245.2	245.7	7470a / 7471a
Instrumentation:	THERMO M SERIES AA		HYDRAII Hg ANALYZER			
Analysis Date: 9/3/19	Data File: 090319w	Date Review: 9/4/19	Analyte: Hg			
Cal Std ID: M13926	LIMS #: 164096	Analyst: MMS	Reviewer:	Approved?	Yes	No
Is Audit Trail turned on or Manual Manipulations addressed? Yes / No (If no, any manual manipulations must be initialed, dated, and reason(s) stated for change)						

Calibration Parameters -	YES	NO	YES	NO	Comments:
1) Calibration linearity - r > 0.995	✓		✓		
2) ICV: 90-110% 95-105%	✓		✓		
2) ICVLL: 70-130% 80-120%					
3) ICB: <IDL / <LOD / <LOQ / <½ RL	✓		✓		
6) MRL: 70-130%					
7) CCV1/CCB1- (CCV: 90-110% / 80-120%)	✓		✓		
8) CCV2/CCB2 (CCB: <IDL / <LOD / <LOQ / <½ RL)					
9) CCV3/CCB3					
10) CCV4/CCB4					
11) CCV5/CCB5					

Preparation Batch Parameters	YES	NO	YES	NO	
Prep Batch ID#: 73342 Dig. Meth. 7470a	✓		✓		
LCS - generated limits or project specific limits	✓		✓		
MB - <LOD / <2.2X LOD / ≤ ½RL	✓		✓		
Spiked samples in batch:					
a) 321513 matrix = GW	✓	✓	✓	✓	Dup invalid
b)_____ matrix =_____					
c)_____ matrix =_____					
d)_____ matrix =_____					
e)_____ matrix =_____					
PDS: ±15% / 20% / 25% Sample#_____					
MSA Performed? Yes No					
Prep Batch ID#:_____ Dig. Meth._____					
LCS - generated limits or project specific limits					
MB - <LOD / <2.2X LOD / ≤ ½RL					
Spiked samples in batch:					
a)_____ matrix =_____					
b)_____ matrix =_____					
c)_____ matrix =_____					
d)_____ matrix =_____					
e)_____ matrix =_____					
PDS: ±15% / 20% / 25% Sample#_____					
MSA Performed? Yes No					
Prep Batch ID#:_____ Dig. Meth._____					
LCS - generated limits or project specific limits					
MB - <LOD / <2.2X LOD / ≤ ½RL					
Spiked samples in batch:					
a)_____ matrix =_____					
b)_____ matrix =_____					
c)_____ matrix =_____					
d)_____ matrix =_____					
e)_____ matrix =_____					
PDS: ±15% / 20% / 25% Sample#_____					
MSA Performed? Yes No					

GFAA / FLAA / CVAA Data Review checklist		Method: 200.9	7000 series AA	245.1 & 245.2	245.7	7470a / 7471a
Instrumentation:	THERMO M SERIES AA		HYDRAII Hg ANALYZER			
Analysis Date: 9/5/19	Data File: 090519 S	Date Review: 9/6/19	Analyte: Hg			
Cal Std ID: M13926	LIMS # : 164151	Analyst: MDS	Reviewer:	Approved?	Yes	No
Is Audit Trail turned on or Manual Manipulations addressed? Yes / No (If no, any manual manipulations must be initialed, dated, and reason(s) stated for change)						

Calibration Parameters -	YES	NO	YES	NO	Comments:
1) Calibration linearity - r > 0.995	✓		✓		
2) ICV: 90-110% 95-105%	✓		/		
2) ICVLL: 70-130% 80-120%					
3) ICB: <IDL / <LOD / <LOQ / <½ RL	✓		/		
6) MRL: 70-130%					
7) CCV1/CCB1- (CCV: 90-110% / 80-120%)	✓	✓	/	/	CCV was not spiked, was reanalyzed twice + was acceptable. Software had glitch while running CCVs which gave no ~~result~~ signal CCV was reanalyzed after restarting software + was acceptable
8) CCV2/CCB2 (CCB: <IDL / <LOD / <LOQ / <½ RL)					
9) CCV3/CCB3					
10) CCV4/CCB4					
11) CCV5/CCB5					

Preparation Batch Parameters	YES	NO	YES	NO	
Prep Batch ID#: 73320 Dig. Meth. 7471a	✓		/		
LCS - generated limits or project specific limits	✓		/		
MB - <LOD / <2.2X LOD / ≤ ½RL	✓		/		
Spiked samples in batch:					
a) 321161 matrix = S	✓	✓	/	/	Dup invalid
b)_____ matrix = _____					
c)_____ matrix = _____					
d)_____ matrix = _____					
e)_____ matrix = _____					
PDS: ±15% / 20% / 25% Sample#_____					
MSA Performed? Yes No					
Prep Batch ID#:_____ Dig. Meth._____					
LCS - generated limits or project specific limits					
MB - <LOD / <2.2X LOD / ≤ ½RL					
Spiked samples in batch:					
a)_____ matrix = _____					
b)_____ matrix = _____					
c)_____ matrix = _____					
d)_____ matrix = _____					
e)_____ matrix = _____					
PDS: ±15% / 20% / 25% Sample#_____					
MSA Performed? Yes No					
Prep Batch ID#:_____ Dig. Meth._____					
LCS - generated limits or project specific limits					
MB - <LOD / <2.2X LOD / ≤ ½RL					
Spiked samples in batch:					
a)_____ matrix = _____					
b)_____ matrix = _____					
c)_____ matrix = _____					
d)_____ matrix = _____					
e)_____ matrix = _____					
PDS: ±15% / 20% / 25% Sample#_____					
MSA Performed? Yes No					

CT Laboratories Instrument Run Log

Instrument ID: ICP 6000 (See Journal for Wavelength Check)

Date	Time Start/End	Analyst	Method	LIMS# or Sample #	Sequence I.D.	Cal. Std	A/I. Source	Pressure (kPa) Comments	Analysis Tube Lot#	ICSA/ ICSAB
7/17/19	0857 / 1239	MDS	NaK	162628 162592, 162631, 162635, 162643	NaK071719 v1164	M13705	M13707 M13708	360	2834666	M13760 M13779
7/17/19	1253 / 1455	MDS	NaK	162643, 162628	NaK071719 v1165	M13705	M13707 M13708	360	2834666	M13760 M13779
7/23/19	1441 / 1732	MDS	NaK	162842, 162841 162592, 162628, 162836, 162838	NaK072319 v1166	M13705	M13707 M13708	350	2834666	M13760 M13779
7/26/19	1001 / 1305	MDS	NaK	162937, 162842, 162933	NaK072619 v1168	M13705	M13707 M13708	350	2834666	M13760 M13779
7/31/19	1119 / 1407	MDS	NaK	163006, 163013, 163008	NaK073119 v1169	M13705	M13707 M13708	350	2834666	M13760 M13779
8/7/19	0849 / 1207	MDS	NaK	163263 163186, 163266, 163268, 163259,	NaK080719 v1171	M13705	M13707 M13708	350	2834666	M13760 M13779
8/7/19	1211 / 1424	MDS	NaK	163263, 163164, 163271	NaK080719B v1172	M13705	M13707 M13708	350	2834666	M13760 M13779
8/13/19	1404 / 1751	MDS	NaK	163357, 163312 163371, 163443, 163445, 163447,	NaK081319 v1174 v1173	M13705	M13707 M13708	350	2895548	M13760 M13779
8/20/19	1048 / 1436	MDS	NaK	163265 163365, 163391, 163561, 163568, 163666	NaK082019 v1176 v1175	M13705	M13707 M13708	350	2895548	M13760 M13779
8/27/19	1101 / 1406	MDS	NaK	163897, 163871 163879, 163875, 163735, 163823, 163796	NaK082719 v1180 v1179	M13705	M13707 M13708	350	2895548	M13760 M13779
8/30/19	0832 / 1054	MDS	NaK	163991, 163994	NaK083019 v1181	M13705	M13707 M13708	350	2895548	M13760 M13779
9/6/19	0911 / 1522	MDS	NaK	164134, 164033, 164031, 164201 164141, 164047, 164137, 164035, 164040	NaK090619 v1182	M13933	M13935 M13936	350	2895548	M M13937
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Checked by: _____ Verified by: _____

CT Laboratories, LLC

ICP-6500 Instrument Run Logbook

Date	Time: Start / End	Analyst	Analytes / Sequence I.D.	Method	LIMS # or Sample Description	Nebulizer Pressure (kpa)	Calib. Std ID	Version	Comments
8/23/19	1424 / 01:04	[signature]	082319	DODCal u	163826 163854 163797 163799 163829 163795 163853	260	m13831 m13834	V3484 V3478 V3478	m13704 m13837 m13760 m13822 m13830
8-26-19	1408 / 2006	[signature]	082619	DODCal u	163822, 163830	260	m13831 m13834	V3486 V3485	m13704 m13837 m13760 m13822 m13830
8/27/19	1155 / 1748	[signature]	082719	DODCal u	163924 163870 163888 163885 LODLOQ	260	m13831 m13884	V3488	m13704 m13837 m13760 m13822 m13830
8/29/19	1056 / 1930	[signature]	082919	DODCal u	163977 163958 163959 163977 163960	260	m13831 m13834	V3492 V3491	m13704 m13837 m13760 m13822 m13830
8/30/19	1147 / 1942	[signature]	083019	DODCal u	163992 163990, 163993 163995	260	m13831 m13834	V3494	m13704 m13837 m13760 m13822 m13830
9/3/19	0754 / 1836	[signature]	090319	DODCal u	163990 164046 164030	260	m13831 m13834	V3493 V3495	m13704 m13837 m13760 m13822 m13830
9/4/19	0915 / 2300	[signature]	090419	DODCal u	164098 164039 164030 164083 164036	260	m13831 m13834	V3498 V3496	m13704 m13837 m13760 m13822 m13830
9/5/19	0920 / 0635	[signature]	090519	DODCal u	164123	260	m13831 m13834	V3499 V3500	m13704 m13837 m13760 m13822 m13830
9/6/19	0711 / 1144 09/07	[signature]	090619	DODCal u	164123 164124 164135 164136 164125 164149 164148 164142 164122 164103 164104 164182	260	m13831 m13834	V3505 V3504 V3503	m13704 m13837 m13760 m13822 m13830
9/9/19	0932 / 0356	[signature]	090919	DODCal u	164232 164206 164211 164125 164210 164281 164254 164253 164255 164257 164277 164256 164250 164311	260	m13831 m13834	V3507	m13704 m13837 m13760 m13822 m13830
9/10/19	1247 / 1114	[signature]	091019	DODCal u	164254 164252 164276 164255 164257 164277 164256 164250 164311	260	m13831 m13834	V3509 V3508	m13704 m13837 m13760 m13822 m13830
9/12/19	0851 /	[signature]	091219	DODCal u	164352 164353 164355	260	m13831 m13834		m13704 m13837 m13760 m13822 m13830

Comments: _____

Checked By / Date: _____

CT Laboratories

Mercury Analyzer Instrument Run Log

Instrument ID: ~~Cetac M-6000A~~ Teledyne Hydra II
11129/18SL

Analysis Date	Start Time	End Time	Analyst	LIMS Run # (s)	Method File ID #	Cal. Std. ID #	Lamp Current (mA)	Analysis Tube Lot #	Comments
7/19/19	1215	1325	MDS	1626688, 162691	071919W	M13880	9.448	2834666	$SnCl_2$: M13883
7/19/19	1333	1455	MDS	162691, 162754, 162689	071919W	M13880	9.467	283466	$SnCl_2$: M13883
7/22/19	0937	1310	MDS	162695, 162690, 162753 162693, 162694, 162752, 162692	072219W	M13880	9.702	283466	$SnCl_2$: M13883
7/25/19	0849	10416	MDS	162872, 162871, 162873, 162931	072519W	M13880	9.651	283466	$SnCl_2$: M13883, Archived
7/26/19	0939	1313	MDS	162870, 162874, 162969, BMMIDCs	072619S	M13880	9.684	283466	$SnCl_2$: M13883
7/29/19	1224	1441	MDS	BMMIDCs 163014, 163015, 163016, 162970	072919W	M13880	9.687	283466	$SnCl_2$: M13890
7/30/19	1249	1340	MDS	163015	073019W	M13880	9.805	283466	$SnCl_2$: M13890
8/6/19	0826	0939	MDS	163238, 163239, 163240	080619W	M13891	9.757	283466	$SnCl_2$: M13895
8/6/19	1008	1154	MDS	163245, 163244, 163241	0806196W	M13891	9.772	283466	$SnCl_2$: M13895
8/7/19	0850	0953	MDS	163250, 163253	080719S	M13891	9.617	283466	$SnCl_2$: M13895
8/8/19	0830	0905	MDS	163320	080819S	M13891	9.673	283466	311695 $SnCl_2$: M13895 (Blank is sample XTD)
8/8/19	1032	1151	MDS	163326, 163323, 163324, 163325,	080819W	M13891	9.816	2834666	$SnCl_2$: M13895
8/8/19	1249	1341	MDS	163323, 163325, 163324	0808196W	M13891	9.772	2834666	$SnCl_2$: M13895
8/14/19	1206	1353	MDS	163500, 163502, 163503, 163504, 163501	081419W	M13899	9.739	289548	$SnCl_2$: M13895
8/15/19	1002	154	MDS	163506, 163547	081519S	M13899	9.717	289548	$SnCl_2$: M13902
8/16/19	0748	1038	MDS	163509, 163575, 163576, 163574	081619W	M13899	9.775	289548	$SnCl_2$: M13902
8/21/19	0946	1206	MDS	163735, 163737, 163736	082119W	M13906	9.702	289548	$SnCl_2$: M13911
8/22/19	0856	1132	MDS	163732, 163733, 163731, 163771	082219S	M13906	9.746	289548	$SnCl_2$: M13911
8/23/19	0836	1120	MDS	163791, 163784, 163787, 163792	082319W	M13906	9.742	289548	$SnCl_2$: M13911
8/28/19	1257	1454	MDS	163950, 163951	082819W	M13917	9.790	289548	$SnCl_2$: M13921
9/4/19	0912	1108	MDS	164096, 164097	090419W	M13926	9.687	289548	$SnCl_2$: M13930
9/5/19	0845	1334	MDS	164152, 164151, 164150, 164153	090519S	M13926	9.702	289548	$SnCl_2$: M13930
9/10/19	1024	1253	MDS	164290, 164291, 164292, 164293, 164294	091019W	M13941	9.617	289548	$SnCl_2$: M13946
9/10/19	1311	1356	MDS	164310	091019S	M13941	9.606	289548	$SnCl_2$: M13946

Reviewed By/Date: _____

Type	Date/Time	Message	User name	Application	Sequence Name
	09/06/2019 08:29:22	D33534 - Debug:Wavelength check : x = -0.634, y =-0.363	MDS	Analyst	
	09/06/2019 09:11:28	Autosampler Run Started	MDS	Analyst	
	09/06/2019 09:11:28	Sequence Started	MDS	Analyst	S_Sodium and Pota
	09/06/2019 09:11:49	Running Blank (1)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 09:14:45	Running CalibStd-0.5 (2)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 09:17:30	Running CalibStd-1.0 (3)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 09:20:16	Running CalibStd-5.0 (4)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 09:23:02	Running CalibStd-10.0 (5)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 09:25:49	Running CalibStd-50 (6)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 09:28:36	Running CalibStd-100 (7)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 09:31:22	Running CalibStd-200 (8)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 09:34:19	Running CalibStd-500 (9)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 09:37:35	Running icv (10)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 09:40:20	Running ICVLL (17)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 09:43:06	Running icb (11)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 09:45:52	Running mrl (16)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 09:48:38	Running icsa (12)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 09:51:49	Running icsab (13)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 09:54:48	Running lcsw (1)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 09:57:34	Running mbw (2)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 10:00:20	Running 323021 (3)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 10:03:05	Running msw323021 (4)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 10:05:50	Running msdw323021 (5)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 10:08:35	Running 323022 (6)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 10:11:20	Running 323023 (7)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 10:14:05	Running 323024 (8)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 10:16:50	Running 323025 (9)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 10:19:36	Running 323026 (10)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 10:22:23	Running ccv (14)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 10:25:09	Running ccb (15)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 10:27:55	Running 323027 (11)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 10:30:42	Running 323028 (12)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 10:33:28	Running 323029 (13)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 10:36:14	Running 323030 (14)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 10:38:59	Running 323295 (15)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 10:41:44	Running 323296 (16)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 10:44:29	Running 323297 (17)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 10:47:14	Running 323298 (18)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 10:49:59	Running lcsw73360 (19)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 10:52:43	Running mbw73360 (20)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 10:55:30	Running ccv (14)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 10:58:16	Running ccb (15)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 11:01:02	Running 321513 (21)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 11:03:49	Running l321513 (22)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 11:06:37	Running dup321513 (23)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 11:09:25	Running msw321513 (24)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 11:12:09	Running msdw321513 (25)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 11:14:53	Running pdsw321513 (26)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 11:17:40	Running lcsw73391 (27)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 11:20:25	Running mbw73391 (28)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 11:23:11	Running 322865 (29)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 11:25:55	Running l322865 (30)	MDS	Analyst	S_Sodium and Pota

Type	Date/Time	Message	User name	Application	Sequence Name
	09/06/2019 11:28:41	Running ccv (14)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 11:31:27	Running ccb (15)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 11:34:13	Running dup322865 (31)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 11:36:57	Running msw322865 (32)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 11:39:51	Running msdw322865 (33)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 11:42:46	Running pdsw322865 (34)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 11:45:41	Running 322866 (35)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 11:48:26	Running 322867 (36)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 11:51:13	Running 322868 (37)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 11:54:00	Running 322869 (38)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 11:56:45	Running 322872 (39)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 11:59:32	Running 322881 (40)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 12:02:16	Running ccv (14)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 12:05:02	Running ccb (15)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 12:07:48	Running lcss73351 (41)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 12:10:32	Running mbs73351 (42)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 12:13:19	Running 321149 (43)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 12:16:01	Running 321154 (44)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 12:18:43	Running 321155 (45)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 12:21:25	Running 321157 (46)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 12:24:08	Running 321158 (47)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 12:26:50	Running 321159 (48)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 12:29:33	Running 321160 (49)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 12:32:15	Running 321161 (50)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 12:34:57	Running ccv (14)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 12:37:43	Running ccb (15)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 12:40:29	Running l321161 (51)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 12:43:11	Running dup321161 (52)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 12:45:53	Running mss321161 (53)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 12:48:35	Running msds321161 (54)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 12:51:17	Running pdss321161 (55)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 12:53:59	Running 321162 (56)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 12:56:41	Running 321163 (57)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 12:59:35	Running 321164 (58)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 13:02:17	Running 321165 (59)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 13:05:12	Running 321166 (60)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 13:08:06	Running ccv (14)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 13:10:52	Running ccb (15)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 13:13:39	Running 321167 (61)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 13:16:22	Running 321168 (62)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 13:19:16	Running 321169 (63)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 13:22:11	Running 321170 (64)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 13:25:06	Running 321171 (65)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 13:28:00	Running 321172 (66)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 13:30:42	Running lcss73352 (67)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 13:33:26	Running mbs73352 (68)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 13:36:14	Running 321552 (69)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 13:38:59	Running mss321552 (70)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 13:41:43	Running ccv (14)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 13:44:29	Running ccb (15)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 13:47:16	Running msds321552 (71)	MDS	Analyst	S_Sodium and Pota
	09/06/2019 13:49:59	Running pdss321552 (72)	MDS	Analyst	S_Sodium and Pota

Type	Date/Time	Message	User name	Application	Sequence Name
	09/03/2019 07:53:29	Autosampler Run Completed	NAH	Analyst	S_DOD Calibration
	09/03/2019 07:54:05	Autosampler Run Started	NAH	Analyst	
	09/03/2019 07:54:05	Sequence Started	NAH	Analyst	S_DOD Calibration
	09/03/2019 07:54:27	Running Blank (1)	NAH	Analyst	S_DOD Calibration
	09/03/2019 08:00:49	Running CalStd2=0.5 (2)	NAH	Analyst	S_DOD Calibration
	09/03/2019 08:03:38	Closing will close the method and all associated samples.	NAH	Analyst	
	09/03/2019 08:07:32	Running CalStd3=1 (3)	NAH	Analyst	S_DOD Calibration
	09/03/2019 08:13:48	Running CalStd4=5 (4)	NAH	Analyst	S_DOD Calibration
	09/03/2019 08:20:04	Running CalStd5=10 (5)	NAH	Analyst	S_DOD Calibration
	09/03/2019 08:26:19	Running CalStd6=20 (6)	NAH	Analyst	S_DOD Calibration
	09/03/2019 08:32:32	Running CalStd7=50 (7)	NAH	Analyst	S_DOD Calibration
	09/03/2019 08:38:44	Running CalStd8=100 (8)	NAH	Analyst	S_DOD Calibration
	09/03/2019 08:44:55	Running CalStd9=1000 (9)	NAH	Analyst	S_DOD Calibration
	09/03/2019 08:50:28	Running CalStd10=10000 (10)	NAH	Analyst	S_DOD Calibration
	09/03/2019 08:56:55	Running CalStd12=100K (11)	NAH	Analyst	S_DOD Calibration
	09/03/2019 09:03:35	Running CalStd13=100000 (12)	NAH	Analyst	S_DOD Calibration
	09/03/2019 09:09:53	Running CalStd14=500000 (13)	NAH	Analyst	S_DOD Calibration
	09/03/2019 09:16:43	Running CalibStd15=1000k (14)	NAH	Analyst	S_DOD Calibration
	09/03/2019 09:24:34	Running blkrinse (21)	NAH	Analyst	S_DOD Calibration
	09/03/2019 09:30:46	Running icv (15)	NAH	Analyst	S_DOD Calibration
	09/03/2019 09:37:03	Running icv (15)	NAH	Analyst	S_DOD Calibration
	09/03/2019 09:43:18	Running ICVLL (23)	NAH	Analyst	S_DOD Calibration
	09/03/2019 09:49:25	Running icb (16)	NAH	Analyst	S_DOD Calibration
	09/03/2019 09:55:39	Running icb (16)	NAH	Analyst	S_DOD Calibration
	09/03/2019 10:01:53	Running MRL/LLOQ (24)	NAH	Analyst	S_DOD Calibration
	09/03/2019 10:08:03	Running ICSA (19)	NAH	Analyst	S_DOD Calibration
	09/03/2019 10:14:51	Running ICSAB (20)	NAH	Analyst	S_DOD Calibration
	09/03/2019 10:21:06	Running blkrinse (21)	NAH	Analyst	S_DOD Calibration
	09/03/2019 10:27:19	Running ICVLL ag (1)	NAH	Analyst	S_DOD Calibration
	09/03/2019 10:33:32	Running mss320893 (41)	NAH	Analyst	S_DOD Calibration
	09/03/2019 10:40:31	Running msds320893 (42)	NAH	Analyst	S_DOD Calibration
	09/03/2019 10:47:37	Running pdss320893 (43)	NAH	Analyst	S_DOD Calibration
	09/03/2019 10:53:44	Running 320895 (44)	NAH	Analyst	S_DOD Calibration
	09/03/2019 11:01:03	Running 320897 (45)	NAH	Analyst	S_DOD Calibration
	09/03/2019 11:07:40	Running 320899 (46)	NAH	Analyst	S_DOD Calibration
	09/03/2019 11:14:27	Running 321495 (47)	NAH	Analyst	S_DOD Calibration
	09/03/2019 11:20:36	Running lcsw73343 (2)	NAH	Analyst	S_DOD Calibration
	09/03/2019 11:27:05	Running mbw73343 (3)	NAH	Analyst	S_DOD Calibration
	09/03/2019 11:33:19	Running ccv1 (22)	NAH	Analyst	S_DOD Calibration
	09/03/2019 11:39:25	Running ccv2 (17)	NAH	Analyst	S_DOD Calibration
	09/03/2019 11:45:09	Running ccb (18)	NAH	Analyst	S_DOD Calibration
	09/03/2019 11:50:35	Autosampler Run Completed	NAH	Analyst	S_DOD Calibration
	09/03/2019 11:54:44	Autosampler Run Started	NAH	Analyst	
	09/03/2019 11:54:44	Sequence Started	NAH	Analyst	S_DOD Calibration
	09/03/2019 11:55:07	Running Blank (1)	NAH	Analyst	S_DOD Calibration
	09/03/2019 12:01:28	Running CalStd2=0.5 (2)	NAH	Analyst	S_DOD Calibration
	09/03/2019 12:07:45	Running CalStd3=1 (3)	NAH	Analyst	S_DOD Calibration
	09/03/2019 12:14:10	Running CalStd4=5 (4)	NAH	Analyst	S_DOD Calibration
	09/03/2019 12:20:28	Running CalStd5=10 (5)	NAH	Analyst	S_DOD Calibration
	09/03/2019 12:27:30	Running CalStd6=20 (6)	NAH	Analyst	S_DOD Calibration
	09/03/2019 12:34:08	Running CalStd7=50 (7)	NAH	Analyst	S_DOD Calibration
	09/03/2019 12:41:01	Running CalStd8=100 (8)	NAH	Analyst	S_DOD Calibration

Type	Date/Time	Message	User name	Application	Sequence Name
	09/03/2019 12:47:53	Running CalStd9=1000 (9)	NAH	Analyst	S_DOD Calibration
	09/03/2019 12:53:50	Running CalStd10=10000 (10)	NAH	Analyst	S_DOD Calibration
	09/03/2019 13:00:19	Running CalStd12=100K (11)	NAH	Analyst	S_DOD Calibration
	09/03/2019 13:07:00	Running CalStd13=100000 (12)	NAH	Analyst	S_DOD Calibration
	09/03/2019 13:13:20	Running CalStd14=500000 (13)	NAH	Analyst	S_DOD Calibration
	09/03/2019 13:21:10	Running CalibStd15=1000k (14)	NAH	Analyst	S_DOD Calibration
	09/03/2019 13:29:17	Running blkrinse (21)	NAH	Analyst	S_DOD Calibration
	09/03/2019 13:36:29	Running icv (15)	NAH	Analyst	S_DOD Calibration
	09/03/2019 13:42:53	Running icv (15)	NAH	Analyst	S_DOD Calibration
	09/03/2019 13:49:13	Running ICVLL (23)	NAH	Analyst	S_DOD Calibration
	09/03/2019 13:55:19	Running icb (16)	NAH	Analyst	S_DOD Calibration
	09/03/2019 13:57:05	Closing will close the method and all associated samples.	NAH	Analyst	
	09/03/2019 14:01:34	Running icb (16)	NAH	Analyst	S_DOD Calibration
	09/03/2019 14:07:48	Running MRL/LLOQ (24)	NAH	Analyst	S_DOD Calibration
	09/03/2019 14:13:06	Closing will close the method and all associated samples.	NAH	Analyst	
	09/03/2019 14:13:58	Running ICSA (19)	NAH	Analyst	S_DOD Calibration
	09/03/2019 14:20:46	Running ICSAB (20)	NAH	Analyst	S_DOD Calibration
	09/03/2019 14:27:29	Running blkrinse (21)	NAH	Analyst	S_DOD Calibration
	09/03/2019 14:33:43	Running ICVLL ag (1)	NAH	Analyst	S_DOD Calibration
	09/03/2019 14:37:22	Closing will close the method and all associated samples.	NAH	Analyst	
	09/03/2019 14:39:56	Running 320899 (68)	NAH	Analyst	S_DOD Calibration
	09/03/2019 14:46:09	Running 321495 (69)	NAH	Analyst	S_DOD Calibration
	09/03/2019 14:52:36	Running lcsw73343 (2)	NAH	Analyst	S_DOD Calibration
	09/03/2019 14:58:59	Running mbw73343 (3)	NAH	Analyst	S_DOD Calibration
	09/03/2019 15:01:14	Closing will close the method and all associated samples.	NAH	Analyst	
	09/03/2019 15:04:13	Closing will close the method and all associated samples.	NAH	Analyst	
	09/03/2019 15:05:12	Running 321502 (4)	NAH	Analyst	S_DOD Calibration
	09/03/2019 15:11:57	Running 321503 (5)	NAH	Analyst	S_DOD Calibration
	09/03/2019 15:18:53	Running 321504 (6)	NAH	Analyst	S_DOD Calibration
	09/03/2019 15:25:53	Running 321505 (7)	NAH	Analyst	S_DOD Calibration
	09/03/2019 15:32:50	Running 321540 (8)	NAH	Analyst	S_DOD Calibration
	09/03/2019 15:39:27	Running ccv1 (22)	NAH	Analyst	S_DOD Calibration
	09/03/2019 15:45:41	Running ccv2 (17)	NAH	Analyst	S_DOD Calibration
	09/03/2019 15:51:26	Running ccb (18)	NAH	Analyst	S_DOD Calibration
	09/03/2019 15:57:41	Running 321541 (9)	NAH	Analyst	S_DOD Calibration
	09/03/2019 16:04:25	Running 321542 (10)	NAH	Analyst	S_DOD Calibration
	09/03/2019 16:11:14	Running 321625 (11)	NAH	Analyst	S_DOD Calibration
	09/03/2019 16:17:39	Running 321631 (12)	NAH	Analyst	S_DOD Calibration
	09/03/2019 16:24:13	Running 321638 (13)	NAH	Analyst	S_DOD Calibration
	09/03/2019 16:30:35	Running msw321638 (14)	NAH	Analyst	S_DOD Calibration
	09/03/2019 16:36:58	Running msdw321638 (15)	NAH	Analyst	S_DOD Calibration
	09/03/2019 16:43:43	Running pdsw321638 (16)	NAH	Analyst	S_DOD Calibration
	09/03/2019 16:49:58	Running 321886 (17)	NAH	Analyst	S_DOD Calibration
	09/03/2019 16:56:14	Running msw321886 (18)	NAH	Analyst	S_DOD Calibration
	09/03/2019 17:02:41	Running ccv1 (22)	NAH	Analyst	S_DOD Calibration
	09/03/2019 17:08:53	Running ccv2 (17)	NAH	Analyst	S_DOD Calibration
	09/03/2019 17:14:37	Running ccb (18)	NAH	Analyst	S_DOD Calibration
	09/03/2019 17:20:52	Running msdw321886 (19)	NAH	Analyst	S_DOD Calibration
	09/03/2019 17:27:23	Running pdsw321886 (20)	NAH	Analyst	S_DOD Calibration
	09/03/2019 17:33:46	Running lcsw73360 (21)	NAH	Analyst	S_DOD Calibration
	09/03/2019 17:40:08	Running mbw73360 (22)	NAH	Analyst	S_DOD Calibration
	09/03/2019 17:46:23	Running 321513 (23)	NAH	Analyst	S_DOD Calibration

Type	Date/Time	Message	User name	Application	Sequence Name
	09/03/2019 17:52:39	Running l321513 (24)	NAH	Analyst	S_DOD Calibration
	09/03/2019 17:58:54	Running dup321513 (25)	NAH	Analyst	S_DOD Calibration
	09/03/2019 18:05:09	Running msw321513 (26)	NAH	Analyst	S_DOD Calibration
	09/03/2019 18:11:32	Running msdw321513 (27)	NAH	Analyst	S_DOD Calibration
	09/03/2019 18:17:54	Running pdsw321513 (28)	NAH	Analyst	S_DOD Calibration
	09/03/2019 18:24:04	Running ccv1 (22)	NAH	Analyst	S_DOD Calibration
	09/03/2019 18:30:16	Running ccv2 (17)	NAH	Analyst	S_DOD Calibration
	09/03/2019 18:36:01	Running ccb (18)	NAH	Analyst	S_DOD Calibration
	09/03/2019 18:42:15	Running lcss73351 (29)	NAH	Analyst	S_DOD Calibration
	09/03/2019 18:48:14	Running mbs73351 (30)	NAH	Analyst	S_DOD Calibration
	09/03/2019 18:54:29	Running 321149 (31)	NAH	Analyst	S_DOD Calibration
	09/03/2019 19:00:37	Running 321154 (32)	NAH	Analyst	S_DOD Calibration
	09/03/2019 19:06:42	Running 321155 (33)	NAH	Analyst	S_DOD Calibration
	09/03/2019 19:12:56	Running 321157 (34)	NAH	Analyst	S_DOD Calibration
	09/03/2019 19:19:07	Running 321158 (35)	NAH	Analyst	S_DOD Calibration
	09/03/2019 19:25:45	Running 321159 (36)	NAH	Analyst	S_DOD Calibration
	09/03/2019 19:31:57	Running 321160 (37)	NAH	Analyst	S_DOD Calibration
	09/03/2019 19:38:17	Running 321161 (38)	NAH	Analyst	S_DOD Calibration
	09/03/2019 19:44:46	Running ccv1 (22)	NAH	Analyst	S_DOD Calibration
	09/03/2019 19:51:04	Running ccv2 (17)	NAH	Analyst	S_DOD Calibration
	09/03/2019 19:57:16	Running ccb (18)	NAH	Analyst	S_DOD Calibration
	09/03/2019 20:03:37	Running l321161 (39)	NAH	Analyst	S_DOD Calibration
	09/03/2019 20:10:03	Running dup321161 (40)	NAH	Analyst	S_DOD Calibration
	09/03/2019 20:16:29	Running mss321161 (48)	NAH	Analyst	S_DOD Calibration
	09/03/2019 20:23:10	Running msds321161 (49)	NAH	Analyst	S_DOD Calibration
	09/03/2019 20:29:45	Running pdss321161 (50)	NAH	Analyst	S_DOD Calibration
	09/03/2019 20:36:15	Running 321162 (51)	NAH	Analyst	S_DOD Calibration
	09/03/2019 20:42:56	Running 321163 (52)	NAH	Analyst	S_DOD Calibration
	09/03/2019 20:49:39	Running 321164 (53)	NAH	Analyst	S_DOD Calibration
	09/03/2019 20:55:54	Running 321165 (54)	NAH	Analyst	S_DOD Calibration
	09/03/2019 21:02:32	Running 321166 (55)	NAH	Analyst	S_DOD Calibration
	09/03/2019 21:09:00	Running ccv1 (22)	NAH	Analyst	S_DOD Calibration
	09/03/2019 21:15:31	Running ccv2 (17)	NAH	Analyst	S_DOD Calibration
	09/03/2019 21:22:07	Running ccb (18)	NAH	Analyst	S_DOD Calibration
	09/03/2019 21:28:44	Running 321167 (56)	NAH	Analyst	S_DOD Calibration
	09/03/2019 21:35:02	Running 321168 (57)	NAH	Analyst	S_DOD Calibration
	09/03/2019 21:41:24	Running 321169 (58)	NAH	Analyst	S_DOD Calibration
	09/03/2019 21:47:50	Running 321170 (59)	NAH	Analyst	S_DOD Calibration
	09/03/2019 21:54:24	Running 321171 (60)	NAH	Analyst	S_DOD Calibration
	09/03/2019 22:01:00	Running 321172 (61)	NAH	Analyst	S_DOD Calibration
	09/03/2019 22:07:35	Running lcss73352 (62)	NAH	Analyst	S_DOD Calibration
	09/03/2019 22:14:11	Running mbs73352 (63)	NAH	Analyst	S_DOD Calibration
	09/03/2019 22:20:41	Running 321552 (64)	NAH	Analyst	S_DOD Calibration
	09/03/2019 22:27:17	Running mss321552 (65)	NAH	Analyst	S_DOD Calibration
	09/03/2019 22:33:30	Running ccv1 (22)	NAH	Analyst	S_DOD Calibration
	09/03/2019 22:40:14	Running ccv2 (17)	NAH	Analyst	S_DOD Calibration
	09/03/2019 22:46:36	Running ccb (18)	NAH	Analyst	S_DOD Calibration
	09/03/2019 22:53:00	Running msds321552 (66)	NAH	Analyst	S_DOD Calibration
	09/03/2019 22:59:40	Running pdsw321552 (67)	NAH	Analyst	S_DOD Calibration
	09/03/2019 23:06:01	Running MRL/LLOQ (24)	NAH	Analyst	S_DOD Calibration
	09/03/2019 23:12:26	Running ccv1 (27)	NAH	Analyst	S_DOD Calibration
	09/03/2019 23:18:50	Running ccv2 (25)	NAH	Analyst	S_DOD Calibration

Type	Date/Time	Message	User name	Application	Sequence Name
	09/03/2019 23:25:40	Running ccb (26)	NAH	Analyst	S_DOD Calibration
	09/03/2019 23:32:28	Plasma extinguished successfully	NAH	Analyst	
	09/03/2019 23:32:28	Plasma off	NAH	iTEVA Control Center	
	09/03/2019 23:32:30	Autosampler Run Completed	NAH	Analyst	S_DOD Calibration
	09/04/2019 06:39:59	Plasma On	NAH	iTEVA Control Center	
	09/04/2019 06:40:06	Plasma ignition successful	NAH	Analyst	
	09/04/2019 06:40:45	D33534 - Debug:Wavelength check : x = 0.711, y =-0.317	NAH	Analyst	
	09/04/2019 06:50:45	E9006 - : Plasma went out unexpectedly; RF reported over current failu	NAH	iTEVA Control Center	
	09/04/2019 07:02:39	Plasma On	NAH	iTEVA Control Center	
	09/04/2019 07:02:46	Plasma ignition successful	NAH	Analyst	
	09/04/2019 07:03:32	D33534 - Debug:Wavelength check : x = 0.710, y =-0.445	NAH	Analyst	
	09/04/2019 09:07:46	Sequence Started	NAH	Analyst	S_DOD Calibration
	09/04/2019 09:07:46	Autosampler Run Started	NAH	Analyst	
	09/04/2019 09:08:11	Running Blank (1)	NAH	Analyst	S_DOD Calibration
	09/04/2019 09:10:59	Autosampler Run Completed	NAH	Analyst	S_DOD Calibration
	09/04/2019 09:14:47	Autosampler Run Started	NAH	Analyst	
	09/04/2019 09:14:47	Sequence Started	NAH	Analyst	S_DOD Calibration
	09/04/2019 09:15:09	Running Blank (1)	NAH	Analyst	S_DOD Calibration
	09/04/2019 09:21:48	Running CalStd2=0.5 (2)	NAH	Analyst	S_DOD Calibration
	09/04/2019 09:28:17	Running CalStd3=1 (3)	NAH	Analyst	S_DOD Calibration
	09/04/2019 09:34:32	Running CalStd4=5 (4)	NAH	Analyst	S_DOD Calibration
	09/04/2019 09:40:46	Running CalStd5=10 (5)	NAH	Analyst	S_DOD Calibration
	09/04/2019 09:47:04	Running CalStd6=20 (6)	NAH	Analyst	S_DOD Calibration
	09/04/2019 09:49:52	Closing will close the method and all associated samples.	NAH	Analyst	
	09/04/2019 09:53:17	Running CalStd7=50 (7)	NAH	Analyst	S_DOD Calibration
	09/04/2019 09:59:31	Running CalStd8=100 (8)	NAH	Analyst	S_DOD Calibration
	09/04/2019 10:05:42	Running CalStd9=1000 (9)	NAH	Analyst	S_DOD Calibration
	09/04/2019 10:11:19	Running CalStd10=10000 (10)	NAH	Analyst	S_DOD Calibration
	09/04/2019 10:18:00	Running CalStd12=100K (11)	NAH	Analyst	S_DOD Calibration
	09/04/2019 10:25:29	Running CalStd13=100000 (12)	NAH	Analyst	S_DOD Calibration
	09/04/2019 10:31:48	Running CalStd14=500000 (13)	NAH	Analyst	S_DOD Calibration
	09/04/2019 10:38:38	Running CalibStd15=1000k (14)	NAH	Analyst	S_DOD Calibration
	09/04/2019 10:46:29	Running blkrinse (21)	NAH	Analyst	S_DOD Calibration
	09/04/2019 10:52:41	Running icv (15)	NAH	Analyst	S_DOD Calibration
	09/04/2019 10:58:55	Running icv (15)	NAH	Analyst	S_DOD Calibration
	09/04/2019 11:05:07	Running ICVLL (23)	NAH	Analyst	S_DOD Calibration
	09/04/2019 11:11:14	Running icb (16)	NAH	Analyst	S_DOD Calibration
	09/04/2019 11:17:28	Running icb (16)	NAH	Analyst	S_DOD Calibration
	09/04/2019 11:23:42	Running MRL/LLOQ (24)	NAH	Analyst	S_DOD Calibration
	09/04/2019 11:29:52	Running ICSA (19)	NAH	Analyst	S_DOD Calibration
	09/04/2019 11:36:41	Running ICSAB (20)	NAH	Analyst	S_DOD Calibration
	09/04/2019 11:42:58	Running blkrinse (21)	NAH	Analyst	S_DOD Calibration
	09/04/2019 11:49:11	Running ICVLL ag (1)	NAH	Analyst	S_DOD Calibration
	09/04/2019 11:55:26	Running 321625 (11)	NAH	Analyst	S_DOD Calibration
	09/04/2019 12:02:08	Running 321631 (12)	NAH	Analyst	S_DOD Calibration
	09/04/2019 12:09:00	Running 321638 (13)	NAH	Analyst	S_DOD Calibration
	09/04/2019 12:15:08	Running msw321638 (14)	NAH	Analyst	S_DOD Calibration
	09/04/2019 12:21:08	Running msdw321638 (15)	NAH	Analyst	S_DOD Calibration
	09/04/2019 12:27:08	Running lcss73351 (29)	NAH	Analyst	S_DOD Calibration
	09/04/2019 12:33:08	Running mbs73351 (30)	NAH	Analyst	S_DOD Calibration
	09/04/2019 12:39:23	Running 321149 (31)	NAH	Analyst	S_DOD Calibration
	09/04/2019 12:45:31	Running 321154 (32)	NAH	Analyst	S_DOD Calibration

Type	Date/Time	Message	User name	Application	Sequence Name
	09/04/2019 12:51:47	Running ccv1 (22)	NAH	Analyst	S_DOD Calibration
	09/04/2019 12:57:54	Running ccv2 (17)	NAH	Analyst	S_DOD Calibration
	09/04/2019 13:03:38	Running ccb (18)	NAH	Analyst	S_DOD Calibration
	09/04/2019 13:09:52	Running 321155 (33)	NAH	Analyst	S_DOD Calibration
	09/04/2019 13:16:09	Running 321157 (34)	NAH	Analyst	S_DOD Calibration
	09/04/2019 13:22:18	Running 321158 (35)	NAH	Analyst	S_DOD Calibration
	09/04/2019 13:28:51	Running 321159 (36)	NAH	Analyst	S_DOD Calibration
	09/04/2019 13:35:19	Running 321160 (37)	NAH	Analyst	S_DOD Calibration
	09/04/2019 13:41:56	Running 321161 (38)	NAH	Analyst	S_DOD Calibration
	09/04/2019 13:48:30	Running l321161 (39)	NAH	Analyst	S_DOD Calibration
	09/04/2019 13:50:36	Closing will close the method and all associated samples.	NAH	Analyst	
	09/04/2019 13:54:56	Running dup321161 (40)	NAH	Analyst	S_DOD Calibration
	09/04/2019 14:01:29	Running mss321161 (48)	NAH	Analyst	S_DOD Calibration
	09/04/2019 14:08:13	Running msds321161 (49)	NAH	Analyst	S_DOD Calibration
	09/04/2019 14:14:52	Running ccv1 (22)	NAH	Analyst	S_DOD Calibration
	09/04/2019 14:20:55	Running ccv2 (17)	NAH	Analyst	S_DOD Calibration
	09/04/2019 14:26:40	Running ccb (18)	NAH	Analyst	S_DOD Calibration
	09/04/2019 14:32:55	Running pdss321161 (50)	NAH	Analyst	S_DOD Calibration
	09/04/2019 14:39:41	Running 321162 (51)	NAH	Analyst	S_DOD Calibration
	09/04/2019 14:47:05	Running 321163 (52)	NAH	Analyst	S_DOD Calibration
	09/04/2019 14:53:44	Running 321164 (53)	NAH	Analyst	S_DOD Calibration
	09/04/2019 15:00:10	Running 321165 (54)	NAH	Analyst	S_DOD Calibration
	09/04/2019 15:07:30	Running 321166 (55)	NAH	Analyst	S_DOD Calibration
	09/04/2019 15:14:12	Running 321167 (56)	NAH	Analyst	S_DOD Calibration
	09/04/2019 15:20:37	Running 321168 (57)	NAH	Analyst	S_DOD Calibration
	09/04/2019 15:27:24	Running 321169 (58)	NAH	Analyst	S_DOD Calibration
	09/04/2019 15:33:58	Running 321170 (59)	NAH	Analyst	S_DOD Calibration
	09/04/2019 15:40:44	Running ccv1 (22)	NAH	Analyst	S_DOD Calibration
	09/04/2019 15:46:46	Running ccv2 (17)	NAH	Analyst	S_DOD Calibration
	09/04/2019 15:52:29	Running ccb (18)	NAH	Analyst	S_DOD Calibration
	09/04/2019 15:58:43	Running 321171 (60)	NAH	Analyst	S_DOD Calibration
	09/04/2019 16:05:10	Running 321172 (61)	NAH	Analyst	S_DOD Calibration
	09/04/2019 16:11:46	Running lcss73352 (62)	NAH	Analyst	S_DOD Calibration
	09/04/2019 16:17:47	Running mbs73352 (63)	NAH	Analyst	S_DOD Calibration
	09/04/2019 16:24:01	Running 321552 (64)	NAH	Analyst	S_DOD Calibration
	09/04/2019 16:30:32	Running mss321552 (65)	NAH	Analyst	S_DOD Calibration
	09/04/2019 16:36:23	Running msds321552 (66)	NAH	Analyst	S_DOD Calibration
	09/04/2019 16:42:14	Running pdsw321552 (67)	NAH	Analyst	S_DOD Calibration
	09/04/2019 16:48:17	Running 322342 (2)	NAH	Analyst	S_DOD Calibration
	09/04/2019 16:54:28	Running 322350 (3)	NAH	Analyst	S_DOD Calibration
	09/04/2019 17:01:06	Running ccv1 (22)	NAH	Analyst	S_DOD Calibration
	09/04/2019 17:07:07	Running ccv2 (17)	NAH	Analyst	S_DOD Calibration
	09/04/2019 17:12:51	Running ccb (18)	NAH	Analyst	S_DOD Calibration
	09/04/2019 17:19:05	Running 322351 (4)	NAH	Analyst	S_DOD Calibration
	09/04/2019 17:25:44	Running 322352 (6)	NAH	Analyst	S_DOD Calibration
	09/04/2019 17:32:10	Running 322353 (5)	NAH	Analyst	S_DOD Calibration
	09/04/2019 17:38:34	Running 322354 (7)	NAH	Analyst	S_DOD Calibration
	09/04/2019 17:45:01	Running 322355 (8)	NAH	Analyst	S_DOD Calibration
	09/04/2019 17:51:17	Running mss322355 (9)	NAH	Analyst	S_DOD Calibration
	09/04/2019 17:57:29	Running msds322356 (10)	NAH	Analyst	S_DOD Calibration
	09/04/2019 18:03:37	Running lcss73362 (16)	NAH	Analyst	S_DOD Calibration
	09/04/2019 18:09:19	Running mbs73362 (17)	NAH	Analyst	S_DOD Calibration

Type	Date/Time	Message	User name	Application	Sequence Name
	09/07/2019 09:34:24	Running 320881 (173)	NAH	Analyst	S_DOD Calibration
	09/07/2019 09:41:13	Running 320883 (174)	NAH	Analyst	S_DOD Calibration
	09/07/2019 09:47:59	Running 320887 (175)	NAH	Analyst	S_DOD Calibration
	09/07/2019 09:54:46	Running 320889 (176)	NAH	Analyst	S_DOD Calibration
	09/07/2019 10:01:33	Running 320892 (177)	NAH	Analyst	S_DOD Calibration
	09/07/2019 10:08:23	Running 320894 (178)	NAH	Analyst	S_DOD Calibration
	09/07/2019 10:15:09	Running l320894 (179)	NAH	Analyst	S_DOD Calibration
	09/07/2019 10:22:09	Running dup320894 (30)	NAH	Analyst	S_DOD Calibration
	09/07/2019 10:28:53	Running ccv1 (30)	NAH	Analyst	S_DOD Calibration
	09/07/2019 10:34:45	Running ccv2 (28)	NAH	Analyst	S_DOD Calibration
	09/07/2019 10:40:35	Running ccb (29)	NAH	Analyst	S_DOD Calibration
	09/07/2019 10:46:54	Running msw320894 (31)	NAH	Analyst	S_DOD Calibration
	09/07/2019 10:53:31	Running msdw320894 (32)	NAH	Analyst	S_DOD Calibration
	09/07/2019 11:00:10	Running pdsw320894 (33)	NAH	Analyst	S_DOD Calibration
	09/07/2019 11:06:30	Running 320896 (34)	NAH	Analyst	S_DOD Calibration
	09/07/2019 11:13:16	Running 320898 (35)	NAH	Analyst	S_DOD Calibration
	09/07/2019 11:19:59	Running 321496 (36)	NAH	Analyst	S_DOD Calibration
	09/07/2019 11:26:43	Running CCV1 (37)	NAH	Analyst	S_DOD Calibration
	09/07/2019 11:32:43	Running CCV2 (38)	NAH	Analyst	S_DOD Calibration
	09/07/2019 11:38:31	Running CCB1 (39)	NAH	Analyst	S_DOD Calibration
	09/07/2019 11:44:50	Running MRL/LLOQ (24)	NAH	Analyst	S_DOD Calibration
	09/07/2019 11:50:59	QC or Standard : 'ccv1' (not located) -- Ending Sequence	NAH	Analyst	S_DOD Calibration
	09/07/2019 11:51:03	Plasma extinguished successfully	NAH	Analyst	
	09/07/2019 11:51:04	Plasma off	NAH	iTEVA Control Center	
	09/07/2019 11:51:05	Autosampler Run Completed	NAH	Analyst	S_DOD Calibration
	09/09/2019 07:01:40	Plasma On	NAH	iTEVA Control Center	
	09/09/2019 07:01:46	Plasma ignition successful	NAH	Analyst	
	09/09/2019 07:02:26	D33534 - Debug:Wavelength check : x = 0.710, y =-0.323	NAH	Analyst	
	09/09/2019 09:31:53	Autosampler Run Started	NAH	Analyst	
	09/09/2019 09:31:53	Sequence Started	NAH	Analyst	S_DOD Calibration
	09/09/2019 09:32:14	Running Blank (1)	NAH	Analyst	S_DOD Calibration
	09/09/2019 09:38:43	Running CalStd2=0.5 (2)	NAH	Analyst	S_DOD Calibration
	09/09/2019 09:45:01	Running CalStd3=1 (3)	NAH	Analyst	S_DOD Calibration
	09/09/2019 09:51:18	Running CalStd4=5 (4)	NAH	Analyst	S_DOD Calibration
	09/09/2019 09:57:36	Running CalStd5=10 (5)	NAH	Analyst	S_DOD Calibration
	09/09/2019 10:03:56	Running CalStd6=20 (6)	NAH	Analyst	S_DOD Calibration
	09/09/2019 10:10:11	Running CalStd7=50 (7)	NAH	Analyst	S_DOD Calibration
	09/09/2019 10:16:26	Running CalStd8=100 (8)	NAH	Analyst	S_DOD Calibration
	09/09/2019 10:22:39	Running CalStd9=1000 (9)	NAH	Analyst	S_DOD Calibration
	09/09/2019 10:28:17	Running CalStd10=10000 (10)	NAH	Analyst	S_DOD Calibration
	09/09/2019 10:35:03	Running CalStd12=100K (11)	NAH	Analyst	S_DOD Calibration
	09/09/2019 10:41:57	Running CalStd13=100000 (12)	NAH	Analyst	S_DOD Calibration
	09/09/2019 10:48:18	Running CalStd14=500000 (13)	NAH	Analyst	S_DOD Calibration
	09/09/2019 10:55:11	Running CalibStd15=1000k (14)	NAH	Analyst	S_DOD Calibration
	09/09/2019 11:03:06	Running blkrinse (21)	NAH	Analyst	S_DOD Calibration
	09/09/2019 11:06:20	A Failure occurred exporting the data to I:\ICP6000Imported\vv.txt	NAH	Analyst	
	09/09/2019 11:06:20	A Failure occurred exporting the data to I:\ICP6000Imported\vv.txt	NAH	Analyst	
	09/09/2019 11:06:20	A Failure occurred exporting the data to I:\ICP6000Imported\vv.txt	NAH	Analyst	
	09/09/2019 11:06:20	A Failure occurred exporting the data to I:\ICP6000Imported\vv.txt	NAH	Analyst	
	09/09/2019 11:06:20	A Failure occurred exporting the data to I:\ICP6000Imported\vv.txt	NAH	Analyst	
	09/09/2019 11:06:20	A Failure occurred exporting the data to I:\ICP6000Imported\vv.txt	NAH	Analyst	
	09/09/2019 11:06:20	A Failure occurred exporting the data to I:\ICP6000Imported\vv.txt	NAH	Analyst	

Type	Date/Time	Message	User name	Application	Sequence Name
	09/09/2019 11:06:20	A Failure occurred exporting the data to I:\ICP6000Imported\vv.txt	NAH	Analyst	
	09/09/2019 11:06:20	A Failure occurred exporting the data to I:\ICP6000Imported\vv.txt	NAH	Analyst	
	09/09/2019 11:06:20	A Failure occurred exporting the data to I:\ICP6000Imported\vv.txt	NAH	Analyst	
	09/09/2019 11:06:20	A Failure occurred exporting the data to I:\ICP6000Imported\vv.txt	NAH	Analyst	
	09/09/2019 11:06:20	A Failure occurred exporting the data to I:\ICP6000Imported\vv.txt	NAH	Analyst	
	09/09/2019 11:06:20	A Failure occurred exporting the data to I:\ICP6000Imported\vv.txt	NAH	Analyst	
	09/09/2019 11:06:20	A Failure occurred exporting the data to I:\ICP6000Imported\vv.txt	NAH	Analyst	
	09/09/2019 11:06:20	A Failure occurred exporting the data to I:\ICP6000Imported\vv.txt	NAH	Analyst	
	09/09/2019 11:06:20	A Failure occurred exporting the data to I:\ICP6000Imported\vv.txt	NAH	Analyst	
	09/09/2019 11:06:20	A Failure occurred exporting the data to I:\ICP6000Imported\vv.txt	NAH	Analyst	
	09/09/2019 11:06:20	A Failure occurred exporting the data to I:\ICP6000Imported\vv.txt	NAH	Analyst	
	09/09/2019 11:06:20	A Failure occurred exporting the data to I:\ICP6000Imported\vv.txt	NAH	Analyst	
	09/09/2019 11:06:20	A Failure occurred exporting the data to I:\ICP6000Imported\vv.txt	NAH	Analyst	
	09/09/2019 11:06:20	A Failure occurred exporting the data to I:\ICP6000Imported\vv.txt	NAH	Analyst	
	09/09/2019 11:06:20	A Failure occurred exporting the data to I:\ICP6000Imported\vv.txt	NAH	Analyst	
	09/09/2019 11:06:20	A Failure occurred exporting the data to I:\ICP6000Imported\vv.txt	NAH	Analyst	
	09/09/2019 11:06:20	A Failure occurred exporting the data to I:\ICP6000Imported\vv.txt	NAH	Analyst	
	09/09/2019 11:09:23	Running icv (15)	NAH	Analyst	S_DOD Calibration
	09/09/2019 11:15:39	Running icv (15)	NAH	Analyst	S_DOD Calibration
	09/09/2019 11:21:56	Running ICVLL (23)	NAH	Analyst	S_DOD Calibration
	09/09/2019 11:28:06	Running icb (16)	NAH	Analyst	S_DOD Calibration
	09/09/2019 11:34:22	Running icb (16)	NAH	Analyst	S_DOD Calibration
	09/09/2019 11:38:58	Unable to Set Check Table,	NAH	Analyst	
	09/09/2019 11:40:39	Running MRL/LLOQ (24)	NAH	Analyst	S_DOD Calibration
	09/09/2019 11:42:53	Unable to Set Check Table,	NAH	Analyst	
	09/09/2019 11:44:58	Unable to Set Check Table,	NAH	Analyst	
	09/09/2019 11:47:47	Unable to Set Check Table,	NAH	Analyst	
	09/09/2019 11:47:51	Running ICSA (19)	NAH	Analyst	S_DOD Calibration
	09/09/2019 11:54:42	Running ICSAB (20)	NAH	Analyst	S_DOD Calibration
	09/09/2019 12:01:03	Running blkrinse (21)	NAH	Analyst	S_DOD Calibration
	09/09/2019 12:07:19	Running ICVLL ag (1)	NAH	Analyst	S_DOD Calibration
	09/09/2019 12:13:37	Running icsa-1 (2)	NAH	Analyst	S_DOD Calibration
	09/09/2019 12:20:23	Running icsa-2 (3)	NAH	Analyst	S_DOD Calibration
	09/09/2019 12:27:09	Running icsa-3 (4)	NAH	Analyst	S_DOD Calibration
	09/09/2019 12:33:06	Running icsa-4 (5)	NAH	Analyst	S_DOD Calibration
	09/09/2019 12:39:20	Running 320000 (103)	NAH	Analyst	S_DOD Calibration
	09/09/2019 12:45:41	Running 320002 (104)	NAH	Analyst	S_DOD Calibration
	09/09/2019 12:52:02	Running 320000 (105)	NAH	Analyst	S_DOD Calibration
	09/09/2019 12:58:34	Running 320002 (106)	NAH	Analyst	S_DOD Calibration
	09/09/2019 13:05:05	Running 323714 (6)	NAH	Analyst	S_DOD Calibration
	09/09/2019 13:06:51	Unable to Set Check Table,	NAH	Analyst	
	09/09/2019 13:11:44	Running ccv1 (22)	NAH	Analyst	S_DOD Calibration
	09/09/2019 13:17:47	Running ccv2 (17)	NAH	Analyst	S_DOD Calibration
	09/09/2019 13:23:35	Running ccb (18)	NAH	Analyst	S_DOD Calibration
	09/09/2019 13:29:51	Running msw323714 (7)	NAH	Analyst	S_DOD Calibration
	09/09/2019 13:36:04	Running msdw323714 (8)	NAH	Analyst	S_DOD Calibration
	09/09/2019 13:37:04	Unable to Set Check Table,	NAH	Analyst	
	09/09/2019 13:40:56	Unable to Set Check Table,	NAH	Analyst	
	09/09/2019 13:42:24	Running 323715 (9)	NAH	Analyst	S_DOD Calibration
	09/09/2019 13:49:09	Running 323716 (10)	NAH	Analyst	S_DOD Calibration
	09/09/2019 13:55:54	Running 323717 (11)	NAH	Analyst	S_DOD Calibration
	09/09/2019 13:57:34	Unable to Set Check Table,	NAH	Analyst	

Type	Date/Time	Message	User name	Application	Sequence Name
	09/09/2019 14:00:26	Unable to Set Check Table,	NAH	Analyst	
	09/09/2019 14:01:28	Unable to Set Check Table,	NAH	Analyst	
	09/09/2019 14:03:23	Unable to Set Check Table,	NAH	Analyst	
	09/09/2019 14:03:27	Running 323718 (12)	NAH	Analyst	S_DOD Calibration
	09/09/2019 14:09:18	Unable to Set Check Table,	NAH	Analyst	
	09/09/2019 14:11:23	Unable to Set Check Table,	NAH	Analyst	
	09/09/2019 14:11:27	Running 323719 (13)	NAH	Analyst	S_DOD Calibration
	09/09/2019 14:12:56	Unable to Set Check Table,	NAH	Analyst	
	09/09/2019 14:14:00	Unable to Set Check Table,	NAH	Analyst	
	09/09/2019 14:15:00	Unable to Set Check Table,	NAH	Analyst	
	09/09/2019 14:16:17	Unable to Set Check Table,	NAH	Analyst	
	09/09/2019 14:17:56	Unable to Set Check Table,	NAH	Analyst	
	09/09/2019 14:18:03	Running 323720 (14)	NAH	Analyst	S_DOD Calibration
	09/09/2019 14:20:24	Unable to Set Check Table,	NAH	Analyst	
	09/09/2019 14:21:21	Unable to Set Check Table,	NAH	Analyst	
	09/09/2019 14:23:25	Unable to Set Check Table,	NAH	Analyst	
	09/09/2019 14:25:08	Unable to Set Check Table,	NAH	Analyst	
	09/09/2019 14:25:12	Running 323721 (15)	NAH	Analyst	S_DOD Calibration
	09/09/2019 14:26:38	Unable to Set Check Table,	NAH	Analyst	
	09/09/2019 14:28:37	Unable to Set Check Table,	NAH	Analyst	
	09/09/2019 14:31:03	Unable to Set Check Table,	NAH	Analyst	
	09/09/2019 14:32:33	Unable to Set Check Table,	NAH	Analyst	
	09/09/2019 14:32:37	Running 323722 (16)	NAH	Analyst	S_DOD Calibration
	09/09/2019 14:34:09	Unable to Set Check Table,	NAH	Analyst	
	09/09/2019 14:35:57	Unable to Set Check Table,	NAH	Analyst	
	09/09/2019 14:37:31	Unable to Set Check Table,	NAH	Analyst	
	09/09/2019 14:39:23	Unable to Set Check Table,	NAH	Analyst	
	09/09/2019 14:39:27	Running ccv1 (22)	NAH	Analyst	S_DOD Calibration
	09/09/2019 14:41:20	Unable to Set Check Table,	NAH	Analyst	
	09/09/2019 14:42:59	Unable to Set Check Table,	NAH	Analyst	
	09/09/2019 14:45:37	Running ccv2 (17)	NAH	Analyst	S_DOD Calibration
	09/09/2019 14:48:59	Unable to Set Check Table,	NAH	Analyst	
	09/09/2019 14:50:52	Unable to Set Check Table,	NAH	Analyst	
	09/09/2019 14:52:03	Running ccb (18)	NAH	Analyst	S_DOD Calibration
	09/09/2019 14:58:20	Running 323723 (17)	NAH	Analyst	S_DOD Calibration
	09/09/2019 15:00:45	Unable to Set Check Table,	NAH	Analyst	
	09/09/2019 15:04:46	Running 323724 (18)	NAH	Analyst	S_DOD Calibration
	09/09/2019 15:06:35	Unable to Set Check Table,	NAH	Analyst	
	09/09/2019 15:08:15	Unable to Set Check Table,	NAH	Analyst	
	09/09/2019 15:11:12	Running msw323724 (19)	NAH	Analyst	S_DOD Calibration
	09/09/2019 15:17:29	Running msdw323724 (20)	NAH	Analyst	S_DOD Calibration
	09/09/2019 15:23:41	Running 323662 (21)	NAH	Analyst	S_DOD Calibration
	09/09/2019 15:30:25	Running msw323662 (22)	NAH	Analyst	S_DOD Calibration
	09/09/2019 15:36:44	Running msdw323662 (23)	NAH	Analyst	S_DOD Calibration
	09/09/2019 15:43:03	Running 323663 (24)	NAH	Analyst	S_DOD Calibration
	09/09/2019 15:49:47	Running 323664 (25)	NAH	Analyst	S_DOD Calibration
	09/09/2019 15:56:04	Running 323665 (26)	NAH	Analyst	S_DOD Calibration
	09/09/2019 16:02:32	Running ccv1 (22)	NAH	Analyst	S_DOD Calibration
	09/09/2019 16:08:40	Running ccv2 (17)	NAH	Analyst	S_DOD Calibration
	09/09/2019 16:14:28	Running ccb (18)	NAH	Analyst	S_DOD Calibration
	09/09/2019 16:20:44	Running 323666 (27)	NAH	Analyst	S_DOD Calibration
	09/09/2019 16:27:26	Running 323667 (28)	NAH	Analyst	S_DOD Calibration

Type	Date/Time	Message	User name	Application	Sequence Name
	09/09/2019 16:34:09	Running 323668 (29)	NAH	Analyst	S_DOD Calibration
	09/09/2019 16:40:52	Running 323669 (30)	NAH	Analyst	S_DOD Calibration
	09/09/2019 16:47:21	Running 323670 (31)	NAH	Analyst	S_DOD Calibration
	09/09/2019 16:54:04	Running 323671 (32)	NAH	Analyst	S_DOD Calibration
	09/09/2019 17:00:29	Running 323672 (33)	NAH	Analyst	S_DOD Calibration
	09/09/2019 17:06:56	Running 323673 (34)	NAH	Analyst	S_DOD Calibration
	09/09/2019 17:13:25	Running 323674 (35)	NAH	Analyst	S_DOD Calibration
	09/09/2019 17:19:57	Running 323675 (36)	NAH	Analyst	S_DOD Calibration
	09/09/2019 17:26:27	Running ccv1 (22)	NAH	Analyst	S_DOD Calibration
	09/09/2019 17:32:39	Running ccv2 (17)	NAH	Analyst	S_DOD Calibration
	09/09/2019 17:38:27	Running ccb (18)	NAH	Analyst	S_DOD Calibration
	09/09/2019 17:44:44	Running 323706 (37)	NAH	Analyst	S_DOD Calibration
	09/09/2019 17:51:14	Running 323707 (38)	NAH	Analyst	S_DOD Calibration
	09/09/2019 17:57:45	Running 323708 (39)	NAH	Analyst	S_DOD Calibration
	09/09/2019 18:04:17	Running 323709 (40)	NAH	Analyst	S_DOD Calibration
	09/09/2019 18:10:45	Running 323710 (41)	NAH	Analyst	S_DOD Calibration
	09/09/2019 18:17:16	Running 323711 (42)	NAH	Analyst	S_DOD Calibration
	09/09/2019 18:23:43	Running 323712 (43)	NAH	Analyst	S_DOD Calibration
	09/09/2019 18:30:14	Running lcsw73407 (44)	NAH	Analyst	S_DOD Calibration
	09/09/2019 18:36:44	Running mbw73407 (45)	NAH	Analyst	S_DOD Calibration
	09/09/2019 18:43:01	Running 323166 (46)	NAH	Analyst	S_DOD Calibration
	09/09/2019 18:49:21	Running ccv1 (22)	NAH	Analyst	S_DOD Calibration
	09/09/2019 18:55:33	Running ccv2 (17)	NAH	Analyst	S_DOD Calibration
	09/09/2019 19:01:20	Running ccb (18)	NAH	Analyst	S_DOD Calibration
	09/09/2019 19:07:37	Running l323166 (47)	NAH	Analyst	S_DOD Calibration
	09/09/2019 19:14:19	Running dup323166 (48)	NAH	Analyst	S_DOD Calibration
	09/09/2019 19:20:41	Running msw323166 (49)	NAH	Analyst	S_DOD Calibration
	09/09/2019 19:27:02	Running msdw323166 (50)	NAH	Analyst	S_DOD Calibration
	09/09/2019 19:33:24	Running pdsw323166 (51)	NAH	Analyst	S_DOD Calibration
	09/09/2019 19:39:40	Running 323168 (52)	NAH	Analyst	S_DOD Calibration
	09/09/2019 19:46:02	Running 323170 (53)	NAH	Analyst	S_DOD Calibration
	09/09/2019 19:52:24	Running 323172 (54)	NAH	Analyst	S_DOD Calibration
	09/09/2019 19:58:45	Running 323174 (55)	NAH	Analyst	S_DOD Calibration
	09/09/2019 20:05:14	Running lcsw73405 (56)	NAH	Analyst	S_DOD Calibration
	09/09/2019 20:11:42	Running ccv1 (22)	NAH	Analyst	S_DOD Calibration
	09/09/2019 20:17:49	Running ccv2 (17)	NAH	Analyst	S_DOD Calibration
	09/09/2019 20:23:36	Running ccb (18)	NAH	Analyst	S_DOD Calibration
	09/09/2019 20:29:54	Running mbw73405 (57)	NAH	Analyst	S_DOD Calibration
	09/09/2019 20:36:12	Running 323165 (58)	NAH	Analyst	S_DOD Calibration
	09/09/2019 20:42:35	Running l323165 (59)	NAH	Analyst	S_DOD Calibration
	09/09/2019 20:49:17	Running dup323165 (60)	NAH	Analyst	S_DOD Calibration
	09/09/2019 20:55:40	Running msw323165 (61)	NAH	Analyst	S_DOD Calibration
	09/09/2019 21:02:01	Running msdw323165 (62)	NAH	Analyst	S_DOD Calibration
	09/09/2019 21:08:23	Running pdsw323165 (63)	NAH	Analyst	S_DOD Calibration
	09/09/2019 21:14:39	Running 323167 (64)	NAH	Analyst	S_DOD Calibration
	09/09/2019 21:21:01	Running 323169 (65)	NAH	Analyst	S_DOD Calibration
	09/09/2019 21:27:21	Running 323171 (66)	NAH	Analyst	S_DOD Calibration
	09/09/2019 21:33:41	Running ccv1 (27)	NAH	Analyst	S_DOD Calibration
	09/09/2019 21:39:46	Running ccv2 (25)	NAH	Analyst	S_DOD Calibration
	09/09/2019 21:45:35	Running ccb (26)	NAH	Analyst	S_DOD Calibration
	09/09/2019 21:51:54	Running 323173 (67)	NAH	Analyst	S_DOD Calibration
	09/09/2019 21:58:23	Running lcss73416 (68)	NAH	Analyst	S_DOD Calibration

Type	Date/Time	Message	User name	Application	Sequence Name
	09/09/2019 22:04:27	Running mbs73416 (69)	NAH	Analyst	S_DOD Calibration
	09/09/2019 22:10:46	Running 723115 (70)	NAH	Analyst	S_DOD Calibration
	09/09/2019 22:17:01	Running mss723115 (71)	NAH	Analyst	S_DOD Calibration
	09/09/2019 22:23:02	Running msds723115 (72)	NAH	Analyst	S_DOD Calibration
	09/09/2019 22:29:03	Running pdss723115 (73)	NAH	Analyst	S_DOD Calibration
	09/09/2019 22:35:21	Running 323922 (74)	NAH	Analyst	S_DOD Calibration
	09/09/2019 22:41:38	Running 323923 (75)	NAH	Analyst	S_DOD Calibration
	09/09/2019 22:48:22	Running 323924 (76)	NAH	Analyst	S_DOD Calibration
	09/09/2019 22:55:06	Running ccv1 (27)	NAH	Analyst	S_DOD Calibration
	09/09/2019 23:01:22	Running ccv2 (25)	NAH	Analyst	S_DOD Calibration
	09/09/2019 23:07:10	Running ccb (26)	NAH	Analyst	S_DOD Calibration
	09/09/2019 23:13:28	Running 323925 (77)	NAH	Analyst	S_DOD Calibration
	09/09/2019 23:20:14	Running 323926 (78)	NAH	Analyst	S_DOD Calibration
	09/09/2019 23:26:58	Running 323927 (79)	NAH	Analyst	S_DOD Calibration
	09/09/2019 23:33:42	Running 323928 (80)	NAH	Analyst	S_DOD Calibration
	09/09/2019 23:40:29	Running 323929 (81)	NAH	Analyst	S_DOD Calibration
	09/09/2019 23:47:14	Running 323930 (82)	NAH	Analyst	S_DOD Calibration
	09/09/2019 23:53:58	Running 323931 (83)	NAH	Analyst	S_DOD Calibration
	09/10/2019 00:00:42	Running 323932 (84)	NAH	Analyst	S_DOD Calibration
	09/10/2019 00:07:26	Running 323933 (85)	NAH	Analyst	S_DOD Calibration
	09/10/2019 00:13:57	Running 323934 (86)	NAH	Analyst	S_DOD Calibration
	09/10/2019 00:20:43	Running ccv1 (27)	NAH	Analyst	S_DOD Calibration
	09/10/2019 00:26:57	Running ccv2 (25)	NAH	Analyst	S_DOD Calibration
	09/10/2019 00:32:45	Running ccb (26)	NAH	Analyst	S_DOD Calibration
	09/10/2019 00:39:03	Running 323935 (87)	NAH	Analyst	S_DOD Calibration
	09/10/2019 00:45:34	Running 323936 (88)	NAH	Analyst	S_DOD Calibration
	09/10/2019 00:52:05	Running 323937 (89)	NAH	Analyst	S_DOD Calibration
	09/10/2019 00:58:35	Running 323938 (90)	NAH	Analyst	S_DOD Calibration
	09/10/2019 01:04:58	Running 323945 (91)	NAH	Analyst	S_DOD Calibration
	09/10/2019 01:11:15	Running 323948 (92)	NAH	Analyst	S_DOD Calibration
	09/10/2019 01:17:59	Running 323951 (93)	NAH	Analyst	S_DOD Calibration
	09/10/2019 01:24:44	Running msw323951 (94)	NAH	Analyst	S_DOD Calibration
	09/10/2019 01:31:03	Running msdw323951 (95)	NAH	Analyst	S_DOD Calibration
	09/10/2019 01:37:23	Running 323952 (96)	NAH	Analyst	S_DOD Calibration
	09/10/2019 01:44:10	Running ccv1 (27)	NAH	Analyst	S_DOD Calibration
	09/10/2019 01:50:22	Running ccv2 (25)	NAH	Analyst	S_DOD Calibration
	09/10/2019 01:56:12	Running ccb (26)	NAH	Analyst	S_DOD Calibration
	09/10/2019 02:02:30	Running 323953 (97)	NAH	Analyst	S_DOD Calibration
	09/10/2019 02:09:17	Running 323954 (98)	NAH	Analyst	S_DOD Calibration
	09/10/2019 02:16:03	Running 323955 (99)	NAH	Analyst	S_DOD Calibration
	09/10/2019 02:22:48	Running 323956 (100)	NAH	Analyst	S_DOD Calibration
	09/10/2019 02:29:33	Running msw323956 (101)	NAH	Analyst	S_DOD Calibration
	09/10/2019 02:35:44	Running msdw323956 (102)	NAH	Analyst	S_DOD Calibration
	09/10/2019 02:42:04	Running 321163 (107)	NAH	Analyst	S_DOD Calibration
	09/10/2019 02:48:24	Running 321166 (108)	NAH	Analyst	S_DOD Calibration
	09/10/2019 02:54:48	Running 321168 (109)	NAH	Analyst	S_DOD Calibration
	09/10/2019 03:01:08	Running 321170 (110)	NAH	Analyst	S_DOD Calibration
	09/10/2019 03:07:30	Running ccv1 (27)	NAH	Analyst	S_DOD Calibration
	09/10/2019 03:13:42	Running ccv2 (25)	NAH	Analyst	S_DOD Calibration
	09/10/2019 03:19:30	Running ccb (26)	NAH	Analyst	S_DOD Calibration
	09/10/2019 03:25:50	Running lcss73352 (111)	NAH	Analyst	S_DOD Calibration
	09/10/2019 03:31:55	Running 321552 (112)	NAH	Analyst	S_DOD Calibration

		Instrument:	GFAA
Standard Log #:	M13938	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	09/09/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13785 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13939	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	09/09/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13785 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13940	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	09/09/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M13786 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	ICP 6000
Standard Log #:	M13937	Standard:	NaK ICSAB
Analyst:	MDS	Concentrations:	500 mg/L (Al, Ca, Fe, Mg) 100 mg/L (Na, K)
Prep Date:	09/06/2019	Expiration Date:	02/28/2020
Prep:	Into a 250 mL volumetric flask, pipetted **25 mL** of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M13738, **2.5 mL** of K (10,000 mg/L) M13755, **2.5 mL** of Na (10,000 mg/L) M13691 and **7.5 mL** of Fe (10,000 mg/L) M13695 and brought up to volume using Milli-Q H_2O. (2% HNO_3)		

		Instrument:	ICP 6000
Standard Log #:	M13933	Standard:	Na & K ICAL
Analyst:	MDS	Concentrations:	0.5, 1, 5, 10, 50, 100, and 200 mg/L (Na,K)
Prep Date:	09/06/2019	Expiration Date:	03/2020
Prep:	Into seven, 200 mL volumetric flasks, pipetted the following from Na (1000 µg/mL) M13607 and K (1000 µg/mL) M13606 and brought up to volume using milli-Q H_2O. (2% HNO_3) *0.5 mg/L std.* - **0.1 mL** of each *1.0 mg/L std.* - **0.2 mL** of each *5.0 mg/L std.* - **1.0 mL** of each *10 mg/L std.* - **2.0 mL** of each *50 mg/L std.* - **10 mL** of each *100 mg/L std.* -**20 mL** of each, also used for Continuing Calibration Verification *200 mg/L std.* - **40 mL** of each		

		Instrument:	ICP 6000
Standard Log #:	M13934	Standard:	Na,K MRL
Analyst:	MDS	Concentrations:	1 mg/L (Na,K)
Prep Date:	09/06/2019	Expiration Date:	03/2020
Prep:	Into a 500 mL volumetric flask, pipetted **0.5 mL** of Na (1000 µg/mL) M13607 and **0.5 mL** K (1000 µg/mL) M13606 and brought to volume with Milli-Q H_2O. (2% HNO_3)		

		Instrument:	ICP 6000
Standard Log #:	M13935	Standard:	NaK ICV
Analyst:	MDS	Concentrations:	100 mg/L (Na, K)
Prep Date:	09/06/2019	Expiration Date:	06/2020
Prep:	Into a 250 mL volumetric flask, pipetted **2.5 mL** of K (10,000 mg/L) M13755 and Na (10,000 mg/L) M13691 and brought up to volume using Milli-Q H_2O. (2% HNO_3)		

		Instrument:	ICP 6000
Standard Log #:	M13936	Standard:	Na,K ICVLL
Analyst:	MDS	Concentrations:	3 mg/L (Na,K)
Prep Date:	09/06/2019	Expiration Date:	06/2020
Prep:	Into a 500 mL volumetric flask, pipetted **0.15 mL** of Na (10,000 µg/mL) M13691 and **0.15 mL** K (10,000 µg/mL) M13755 and brought to volume with Milli-Q H_2O. (2% HNO_3)		

		Instrument:	HydraII
Standard Log #:	M13929	Standard:	Hg ICV/LCS
Analyst:	MDS	Concentration:	3 ug/L
Prep Date:	09/03/2019	Expiration Date:	03/03/2020
Prep:	Into a 100 mL volumetric flask, pipetted **3 mL** of Hg *(100 ug/L working Std.)* M13928 and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M13930	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	09/03/2019	Expiration Date:	10/03/2019
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.680 and dissolved **100 g** Stannous chloride M13889 and brought up to volume.		

Standard Log #:	M13931	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	09/03/2019	Expiration Date:	09/03/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.673 and **128.6 mL** 10N NaOH M13877. Dilute to 20 L and mix.		

Standard Log #:	M13932	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	09/03/2019	Expiration Date:	09/03/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.673 and **128.6 mL** 10N NaOH M13877. Dilute to 20 L and mix.		

		Instrument:	HydraII
Standard Log #:	M13926	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	09/03/2019	Expiration Date:	03/03/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M13927	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	09/03/2019	Expiration Date:	03/03/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M13928	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	09/03/2019	Expiration Date:	03/03/2020
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M13734 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M13924	Vendor:	Environmental Express
Analyst:	NAH	Chemical:	Yttrium 10,000 mg/L
Date Received:	08/29/2019	Lot #:	1833905
Expiration Date (if any):	02/28/2021	Catalog #:	HP10M67-1

		Instrument:	HydraII
Standard Log #:	M13920	Standard:	Hg ICV/LCS
Analyst:	MDS	Concentration:	3 ug/L
Prep Date:	08/27/2019	Expiration Date:	02/28/2020
Prep:	Into a 100 mL volumetric flask, pipetted **3 mL** of Hg (*100 ug/L working Std.*) M13919 and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M13921	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/28/2019	Expiration Date:	09/28/2019
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.680 and dissolved **100 g** Stannous chloride M13889 and brought up to volume.		

Standard ID#:	M13922	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride Dihydrate
Date Received:	08/28/2019	Lot #:	J142-19
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M13923	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride Dihydrate
Date Received:	08/28/2019	Lot #:	J142-19
Expiration Date (if any):		Catalog #:	LC251701

		Instrument:	HydraII
Standard Log #:	M13917	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/27/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M13918	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	08/27/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M13919	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	08/27/2019	Expiration Date:	02/28/2020
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M13734 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	GFAA
Standard Log #:	M13916	Standard:	LODW/LOQW Ag Spiking Sol'n
Analyst:	MDS	Concentrations:	10 ug/L (Ag)
Prep Date:	08/26/2019	Expiration Date:	10/2019
Prep:	Into a 100 mL volumetric flask, pipetted **0.1 mL** of Ag (1000mg/L) M13458 and brought to volume with Milli-Q H_2O to make a 1000 ug/L Ag std. Into a 1 L volumetric flask, pipetted **10 mL** of Ag (*1000 ug/L*) std. and brought to volume with Milli-Q H_2O. (1% HNO_3) *Pipette **1 mL** spiking solution into 50 mL H_2O for LOD (*0.2 ug/L*) and **2 mL** spiking solution for LOQ (*0.4 ug/L*)		

		Instrument:	GFAA
Standard Log #:	M13914	Standard:	LODS/LOQS Spiking Sol'n
Analyst:	MDS	Concentrations:	60 ug/L (Sb) 160 ug/L (As,Se) 40 ug/L (Pb) 50 ug/L (Tl)
Prep Date:	08/26/2019	Expiration Date:	10/2019
Prep:	Into a 200 mL volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. **1.2 mL** of Sb (1000 mg/L) M13459 **3.2 mL** of As (1000 mg/L) M13863 **3.2 mL** of Se (1000 mg/L) M13460 **0.08 mL** of Pb (10,000 mg/L) M13615 **1.0 mL** of Tl (1000 mg/L) M13583 From this diluted standard solution, pipetted **10 mL** into a 1 L volumetric flask and brought up to volume with Milli-Q H_2O to make the spiking solution. (1% HNO_3) *Pipette **1 mL** spiking solution into 50 mL H_2O for LOD (1.2 *ug/L* Sb, *3.2 ug/L* As, *3.2 ug/L* Se, *0.8 ug/L* Pb, *1 ug/L* Tl) and **2 mL** spiking solution for LOQ (2.4 *ug/L* Sb, *6.4 ug/L* As, *6.4 ug/L* Se, *1.6 ug/L* Pb, *2 ug/L* Tl)		

		Instrument:	GFAA
Standard Log #:	M13915	Standard:	LODW/LOQW Spiking Sol'n
Analyst:	MDS	Concentrations:	150 ug/L (Sb) 100 ug/L (As) 200 ug/L (Se) 45 ug/L (Pb) 40 ug/L (Tl)
Prep Date:	08/26/2019	Expiration Date:	10/2019
Prep:	Into a 100 mL volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. **1.5 mL** of Sb (1000 mg/L) M13459 **1.0 mL** of As (1000 mg/L) M13863 **2.0 mL** of Se (1000 mg/L) M13460 **0.045 mL** of Pb (10,000 mg/L) M13615 **0.4 mL** of Tl (1000 mg/L) M13583 From this diluted standard solution, pipetted **10 mL** into a 1 L volumetric flask and brought up to volume with Milli-Q H_2O to make the spiking solution. (1% HNO_3) *Pipette **1 mL** spiking solution into 50 mL H_2O for LOD (*3 ug/L* Sb, *2 ug/L* As, *4 ug/L* Se, *0.9 ug/L* Pb, *0.8 ug/L* Tl) and **2 mL** spiking solution for LOQ (*6 ug/L* Sb, *4 ug/L* As, *8 ug/L* Se, *1.8 ug/L* Pb, *1.6 ug/L* Tl)		

Standard Log #:	M13913 (A)	Instrument:	ICP
Analyst:	NAH	Standard:	LOQ 3010 B&Si Spiking Solution
Prep Date:	08/26/2019	Expiration Date:	12/19/2019

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
B	16	M13531	1000	0.8
Si	200	M13861	1000	10

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M13913 combined with A	Instrument:	ICP
Analyst:	NAH	Standard:	LOQ 3010 S Spiking Solution
Prep Date:	08/26/2019	Expiration Date:	06/20/2019

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
S	200	M13696	10000	1.0

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

		Instrument:	CETAC
Standard Log #:	M13911	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/21/2019	Expiration Date:	02/21/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.680 and dissolved **100 g** Stannous chloride M13888 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M13912	Reagent:	Hg Aqua Regia
Analyst:	BMM		
Prep Date:	08/21/2019	Expiration Date:	08/21/2020
Prep:	Carefully mixed **3** parts HCl AB.680 with **1** part HNO_3 AB.677 in a hood.		

		Instrument:	HydraII
Standard Log #:	M13909	Standard:	Hg ICV/LCS
Analyst:	MDS	Concentration:	3 ug/L
Prep Date:	08/20/2019	Expiration Date:	02/28/2020
Prep:	Into a 100 mL volumetric flask, pipetted **3 mL** of Hg (*100 ug/L working Std.*) M13908 and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M13910	Reagent:	Hg Aqua Regia
Analyst:	BMM		
Prep Date:	08/20/2019	Expiration Date:	08/20/2020
Prep:	Carefully mixed **3** parts HCl AB.656 with **1** part HNO_3 AB.655 in a hood.		

		Instrument:	HydraII
Standard Log #:	M13906	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/20/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M13907	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	08/20/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M13908	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	08/20/2019	Expiration Date:	02/28/2020
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M13734 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M13904	Reagent:	Potassium Persulfate Solution
Analyst:	BMM		
Prep Date:	08/19/2019	Expiration Date:	08/19/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M13059 and brought up to volume.		

Standard Log #:	M13905	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	BMM		
Prep Date:	08/19/2019	Expiration Date:	08/19/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M13728 and **60 g** hydroxylamine sulfate M13727 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M13902	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/15/2019	Expiration Date:	02/15/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.680 and dissolved **100 g** Stannous chloride M13888 and brought up to volume.		

Standard ID#:	M13903	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	08/15/2019	Lot #:	52-161Cr
Expiration Date (if any):	8/30/2020	Catalog #:	XSPIKE-1-250

		Instrument:	CETAC
Standard Log #:	M13898	Reagent:	Hg Aqua Regia
Analyst:	BMM		
Prep Date:	08/13/2019	Expiration Date:	08/13/2020
Prep:	Carefully mixed **3** parts HCl AB.656 with **1** part HNO_3 AB.677 in a hood.		

		Instrument:	HydraII
Standard Log #:	M13899	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/13/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M13900	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	08/13/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M13901	Standard:	Hg ICV/LCS
Analyst:	MDS	Concentration:	3 ug/L
Prep Date:	08/13/2019	Expiration Date:	02/28/2020
Prep:	Into a 100 mL volumetric flask, pipetted **3 mL** of Hg (*100 ug/L working Std.*) M13734 and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl)		

Standard Log #:	M13897	Standard:	GFAA Instrument Check
Analyst:	MDS	Final Concentration:	12 µg/L As 6 µg/L Pb 10 µg/L Sb 20 µg/L Se 10 µg/L Tl 0.6 µg/L Ag
Prep Date:	08/12/2019	Expiration Date:	10/2019

Into six, 100 mL volumetric flasks, add the following and bring up to volume with milli-Q H_2O.

Element	Volume Pipetted (mL)	Standard Conc. (µg/mL)	Standard ID	New Conc. (µg/L)
As	1	1000	M13863	10,000
Pb	0.1	10,000	M13615	10,000
Tl	1	1000	M13583	10,000
Se	1	1000	M13460	10,000
Sb	1	1000	M13459	10,000
Ag	0.1	1000	M13458	1000

Into a 1 L volumetric flask, add the following and bring up to volume with Milli-Q H_20. (1% HNO_3)

Element	Volume Pipetted (mL)	Standard Conc. (µg/L)	New Conc. (µg/L)
As	1.2	10,000	12
Pb	0.6	10,000	6
Tl	1.0	10,000	10
Se	2.0	10,000	20
Sb	1.0	10,000	10
Ag	0.6	1000	0.6

Standard Log #:	M13896	Reagent:	1:3 HNO3
Analyst:	MDS		
Prep Date:	08/09/2019	Expiration Date:	08/09/2020
Prep:	Carefully mixed **3** parts DI with **1** part HNO_3 AB.677 in a hood.		

		Instrument:	CETAC
Standard Log #:	M13895	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/06/2019	Expiration Date:	02/06/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.680 and dissolved **100 g** Stannous chloride M13888 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M13894	Standard:	Hg ICV/LCS
Analyst:	MDS	Concentration:	3 ug/L
Prep Date:	08/05/2019	Expiration Date:	02/28/2020
Prep:	Into a 100 mL volumetric flask, pipetted **3 mL** of Hg (*100 ug/L working Std.*) M13893 and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M13891	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/05/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	CETAC
Standard Log #:	M13892	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	08/05/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	CETAC
Standard Log #:	M13893	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	08/05/2019	Expiration Date:	02/28/2020
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M13734 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	CETAC
Standard Log #:	M13890	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/29/2019	Expiration Date:	01/29/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.680 and dissolved **100 g** Stannous chloride M13888 and brought up to volume.		

Standard ID#:	M13888	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride Dihydrate
Date Received:	07/25/2019	Lot #:	J142-19
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M13889	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride Dihydrate
Date Received:	07/25/2019	Lot #:	J142-19
Expiration Date (if any):		Catalog #:	LC251701

		Instrument:	CETAC
Standard Log #:	M13884	Reagent:	Hg Aqua Regia
Analyst:	BMM		
Prep Date:	07/22/2019	Expiration Date:	
Prep:	Carefully mixed **3** parts HCl AB.680 with **1** part HNO_3 AB.677 in a hood.		

		Instrument:	GFAA
Standard Log #:	M13885	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	07/22/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13785 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13886	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	07/22/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13785 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13887	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	07/22/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M13786 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	CETAC
Standard Log #:	M13883	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/18/2019	Expiration Date:	01/03/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.680 and dissolved **100 g** Stannous chloride M13648 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M13879	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/18/2019	Expiration Date:	07/18/2020
Prep:	Carefully mixed **3** parts HCl AB.680 with **1** part HNO_3 AB.677 in a hood.		

		Instrument:	CETAC
Standard Log #:	M13880	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	07/18/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	CETAC
Standard Log #:	M13881	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	07/18/2019	Expiration Date:	02/28/2020
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M13734 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	CETAC
Standard Log #:	M13882	Standard:	Hg ICV/LCS
Analyst:	MDS	Concentration:	3 ug/L
Prep Date:	07/18/2019	Expiration Date:	02/28/2020
Prep:	Into a 100 mL volumetric flask, pipetted **3 mL** of Hg (*100 ug/L working Std.*) M13881 and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl)		

Standard Log #:	M13876	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	07/18/2019	Expiration Date:	07/18/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.673 and **128.6 mL** 10N NaOH M13750. Dilute to 20 L and mix.		

Standard Log #:	M13877	Reagent:	10N NaOH
Analyst:	BMM		
Prep Date:	07/18/2019	Expiration Date:	07/18/2020
Prep:	Into a 1 L volumetric flask, added **400 g** NaOH W45383 and brought up to volume.		

Standard Log #:	M13878	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	07/18/2019	Expiration Date:	07/18/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.673 and **128.6 mL** 10N NaOH M45383. Dilute to 20 L and mix.		

Standard Log #:	M13873	Reagent:	Potassium Permanganate Solution
Analyst:	NAH		
Prep Date:	07/17/2019	Expiration Date:	07/17/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard ID#:	M13874	Vendor:	Fisher
Analyst:	NAH	Chemical:	Hydroxylamine Sulfate
Date Received:	07/17/2019	Lot #:	175511
Expiration Date (if any):		Catalog #:	H331-500

Standard Log #:	M13875	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	NAH		
Prep Date:	07/18/2019	Expiration Date:	07/18/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M13728 and **60 g** hydroxylamine sulfate M13727 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M13872	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	07/12/2019	Expiration Date:	07/12/2019
Prep:	Carefully mixed **3** parts HCl AB.680 with **1** part HNO_3 AB.679 in a hood.		

		Instrument:	CETAC
Standard Log #:	M13871	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	07/11/2019	Expiration Date:	07/11/2019
Prep:	Carefully mixed **3** parts HCl AB.680 with **1** part HNO_3 AB.679 in a hood.		

		Instrument:	CETAC
Standard Log #:	M13870	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	07/10/2019	Expiration Date:	07/10/2019
Prep:	Carefully mixed **3** parts HCl AB.680 with **1** part HNO_3 AB.679 in a hood.		

		Instrument:	CETAC
Standard Log #:	M13869	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	07/08/2019	Expiration Date:	07/08/2019
Prep:	Carefully mixed **3** parts HCl AB.680 with **1** part HNO_3 AB.679 in a hood.		

		Instrument:	CETAC
Standard Log #:	M13868	Reagent:	Stannous Chloride Solution
Analyst:	LJF		
Prep Date:	07/03/2019	Expiration Date:	01/03/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.680 and dissolved **100 g** Stannous chloride M13648 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M13864	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	07/02/2019	Expiration Date:	07/02/2019
Prep:	Carefully mixed **3** parts HCl AB.676 with **1** part HNO_3 AB.677 in a hood.		

Standard Log #:	M13865	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	LJF		
Prep Date:	07/02/2019	Expiration Date:	01/02/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M13728 and **60 g** hydroxylamine sulfate M13727 and brought up to volume.		

Standard Log #:	M13866	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	07/02/2019	Expiration Date:	01/02/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M13867	Reagent:	Potassium Persulfate Solution
Analyst:	LJF		
Prep Date:	07/02/2019	Expiration Date:	01/02/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M13059 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M13858	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	06/26/2019	Expiration Date:	06/26/2019
Prep:	Carefully mixed **3** parts HCl AB.676 with **1** part HNO_3 AB.677 in a hood.		

Standard ID#:	M13859	Vendor:	CPI
Analyst:	NAH	Chemical:	Ce 1000 mg/L
Date Received:	06-26-2019	Lot #:	171633-12
Expiration Date (if any):	12/2020	Catalog #:	S4400-1000101

Standard ID#:	M13860	Vendor:	CPI
Analyst:	NAH	Chemical:	Mo 1000 mg/L
Date Received:	06-26-2019	Lot #:	987189-17
Expiration Date (if any):	12/2020	Catalog #:	S4400-1000343

Standard ID#:	M13861	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 mg/L
Date Received:	06-26-2019	Lot #:	175213-60
Expiration Date (if any):	12/2020	Catalog #:	S4400-1000504F

Standard ID#:	M13862	Vendor:	CPI
Analyst:	NAH	Chemical:	Na 10000 mg/L
Date Received:	06-26-2019	Lot #:	752887-32
Expiration Date (if any):	12/2020	Catalog #:	4400-10M521

Standard ID#:	M13863	Vendor:	CPI
Analyst:	NAH	Chemical:	As 1000 mg/L
Date Received:	06-26-2019	Lot #:	175385-105
Expiration Date (if any):	12/2020	Catalog #:	S4400-100031

Standard Log #:	M13856	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	06/21/2019	Expiration Date:	06/21/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.673 and **128.6 mL** 10N NaOH M13750. Dilute to 20 L and mix.		

Standard Log #:	M13857	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	06/21/2019	Expiration Date:	06/21/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.673 and **128.6 mL** 10N NaOH M13750. Dilute to 20 L and mix.		

		Instrument:	CETAC
Standard Log #:	M13855	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	06/19/2019	Expiration Date:	06/19/2019
Prep:	Carefully mixed **3** parts HCl AB.676 with **1** part HNO_3 AB.677 in a hood.		

Standard ID#:	M13851	Vendor:	CPI
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	06-19-2019	Lot #:	52-082CR
Expiration Date (if any):	06/30/2020	Catalog #:	XSPIKE-1-250

		Instrument:	GFAA
Standard Log #:	M13852	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	06/19/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13785 and brought to volume with Milli-Q H_2O. ($1\% HNO_3$)		

		Instrument:	GFAA
Standard Log #:	M13853	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	06/19/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13785 and brought to volume with Milli-Q DI H_2O. ($1\% HNO_3$)		

		Instrument:	GFAA
Standard Log #:	M13854	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	06/19/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M13786 and brought to volume with Milli-Q DI H_2O. ($1\% HNO_3$)		

		Instrument:	CETAC
Standard Log #:	M13850	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	06/14/2019	Expiration Date:	06/14/2019
Prep:	Carefully mixed **3** parts HCl AB.676 with **1** part HNO_3 AB.677 in a hood.		

Standard Log #:	M13849	Instrument:	GFAA
Analyst:	MDS	Standard:	MDL Spiking Solution
Prep Date:	06/13/2019	Expiration Date:	07/2019

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (2% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
Ag	0.2	M13458	1000	0.01
As	2	M13392	1000	0.1
Pb	2	M13615	10000	0.01
Sb	2	M13459	1000	0.1
Se	2	M13460	1000	0.1
Tl	2	M13583	1000	0.1

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M13848	Instrument:	ICP 6500
Analyst:	NAH	Standard:	LOQ 3010 DOD Metals Spiking S
Prep Date:	06/11/2019	Expiration Date:	10/19

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	4	M13458	1000	0.2
Al	36	M13611	**10000**	0.18
As	24	M13753	1000	1.2
Ba	1.8	M13457	1000	0.09
Be	0.6	M13579	1000	0.03
Ca	100	M13692	**10000**	0.5
Cd	2.0	M13570	1000	0.1
Co	4	M13575	1000	0.2
Cr	4	M13697	**10000**	0.02
Cu	7	M13618	**10000**	0.035
Fe	100	M13609	**10000**	0.5
Mg	40	M13694	**10000**	0.2
Mn	4	M13616	**10000**	0.02
Mo	7	M13697	1000	0.35
Ni	6	M13569	1000	0.2
Pb	4	M13615	**10000**	0.02
Sb	12	M13459	1000	0.6
Se	13	M13460	1000	0.65
Tl	20	M13583	1000	0.75
V	5	M13578	1000	0.25
Zn	10	M13610	**10000**	0.05

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M13847	Instrument:	ICP 6500
Analyst:	NAH	Standard:	LOQ 3050 DOD Metals Spiking S
Prep Date:	06/11/2019	Expiration Date:	10/19

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	4	M13458	1000	0.2
Al	9.6	M13611	**10000**	0.048
As	32	M13753	1000	1.6
Ba	2	M13457	1000	0.1
Be	1.6	M13579	1000	0.08
Ca	56	M13692	**10000**	0.28
Cd	1.6	M13570	1000	0.08
Co	9.6	M13575	1000	0.48
Cr	5.6	M13697	**10000**	0.028
Cu	16	M13618	**10000**	0.08
Fe	72	M13609	**10000**	0.36
Mg	32	M13694	**10000**	0.16
Mn	6	M13616	**10000**	0.03
Mo	9.6	M13697	1000	0.48
Ni	4.8	M13569	1000	0.24
Pb	10	M13615	**10000**	0.05
Sb	32	M13459	1000	1.6
Se	16	M13460	1000	0.8
Tl	19	M13583	1000	0.95
V	3.2	M13578	1000	0.16
Zn	12	M13610	**10000**	0.06

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M13845	Instrument:	ICP
Analyst:	NAH	Standard:	LOQ 3010 k&na Spiking Solution
Prep Date:	06/11/2019	Expiration Date:	06/2020

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
K	500	M13811	10000	2.5
Na	600	M13691	10000	3

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M13846	Instrument:	ICP
Analyst:	NAH	Standard:	LOQ 3050 k&na Spiking Solution
Prep Date:	06/11/2019	Expiration Date:	06/2020

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
K	2640	M13811	10000	13.2
Na	960	M13691	10000	4.8

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard ID#:	M13839	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	06/11/2019	Lot #:	52-038CR
Expiration Date (if any):	05/30/2020	Catalog #:	XCTWI-5-500

Standard ID#:	M13840	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	06/11/2019	Lot #:	5-244AB
Expiration Date (if any):	06/30/2020	Catalog #:	XCTWWI-1-500

Standard ID#:	M13841	Vendor:	CPI
Analyst:	NAH	Chemical:	Ca 10,000 mg/L
Date Received:	06/11/2019	Lot #:	855297-41
Expiration Date (if any):	11/2020	Catalog #:	4400-10M91

Standard ID#:	M13842	Vendor:	CPI
Analyst:	NAH	Chemical:	Al 10,000 mg/L
Date Received:	06/11/2019	Lot #:	169484-36
Expiration Date (if any):	11/2020	Catalog #:	4400-10M11

Standard ID#:	M13843	Vendor:	CPI
Analyst:	NAH	Chemical:	Y 10,000 mg/L
Date Received:	06/11/2019	Lot #:	168189-30
Expiration Date (if any):	11/20	Catalog #:	4400-10M671

Standard ID#:	M13844	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 mg/L
Date Received:	06/11/2019	Lot #:	175213-60
Expiration Date (if any):	11/2020	Catalog #:	S4400-1000504F

		Instrument:	GFAA
Standard Log #:	M13838	Standard:	LODW/LOQW Ag Spiking Sol'n
Analyst:	MDS	Concentrations:	10 ug/L (Ag)
Prep Date:	06/07/2019	Expiration Date:	10/2019
Prep:	Into a 100 mL volumetric flask, pipetted **0.1 mL** of Ag (1000mg/L) M13458 and brought to volume with Milli-Q H_2O to make a 1000 ug/L Ag std. Into a 1 L volumetric flask, pipetted **10 mL** of Ag (*1000 ug/L*) std. and brought to volume with Milli-Q H_2O. (1% HNO_3) *Pipette **1 mL** spiking solution into 50 mL H_2O for LOD (*0.2 ug/L*) and **2 mL** spiking solution for LOQ (*0.4 ug/L*)		

		Instrument:	GFAA
Standard Log #:	M13836	Standard:	LODS/LOQS Spiking Sol'n
Analyst:	MDS	Concentrations:	60 ug/L (Sb) 160 ug/L (As,Se) 40 ug/L (Pb) 50 ug/L (Tl)
Prep Date:	06/07/2019	Expiration Date:	07/2019
Prep:	Into a 200 mL volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. **1.2 mL** of Sb (1000 mg/L) M13459 **3.2 mL** of As (1000 mg/L) M13392 **3.2 mL** of Se (1000 mg/L) M13460 **0.08 mL** of Pb (10,000 mg/L) M13615 **1.0 mL** of Tl (1000 mg/L) M13583 From this diluted standard solution, pipetted **10 mL** into a 1 L volumetric flask and brought up to volume with Milli-Q H_2O to make the spiking solution. (1% HNO_3) *Pipette **1 mL** spiking solution into 50 mL H_2O for LOD (1.2 *ug/L* Sb, *3.2 ug/L* As, *3.2 ug/L* Se, *0.8 ug/L* Pb, *1 ug/L* Tl) and **2 mL** spiking solution for LOQ (2.4 *ug/L* Sb, *6.4 ug/L* As, *6.4 ug/L* Se, *1.6 ug/L* Pb, *2 ug/L* Tl)		

		Instrument:	GFAA
Standard Log #:	M13837	Standard:	LODW/LOQW Spiking Sol'n
Analyst:	MDS	Concentrations:	150 ug/L (Sb) 100 ug/L (As) 200 ug/L (Se) 45 ug/L (Pb) 40 ug/L (Tl)
Prep Date:	06/07/2019	Expiration Date:	07/2019
Prep:	Into a 100 mL volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. **1.5 mL** of Sb (1000 mg/L) M13459 **1.0 mL** of As (1000 mg/L) M13392 **2.0 mL** of Se (1000 mg/L) M13460 **0.045 mL** of Pb (10,000 mg/L) M13615 **0.4 mL** of Tl (1000 mg/L) M13583 From this diluted standard solution, pipetted **10 mL** into a 1 L volumetric flask and brought up to volume with Milli-Q H_2O to make the spiking solution. (1% HNO_3) *Pipette **1 mL** spiking solution into 50 mL H_2O for LOD (*3 ug/L* Sb, *2 ug/L* As, *4 ug/L* Se, *0.9 ug/L* Pb, *0.8 ug/L* Tl) and **2 mL** spiking solution for LOQ (*6 ug/L* Sb, *4 ug/L* As, *8 ug/L* Se, *1.8 ug/L* Pb, *1.6 ug/L* Tl)		

		Instrument:	CETAC
Standard Log #:	M13835	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	06/06/2019	Expiration Date:	06/06/2019
Prep:	Carefully mixed **3** parts HCl AB.676 with **1** part HNO_3 AB.677 in a hood.		

		Instrument:	ICP 6500
Standard Log #:	M13832	Standard:	CCV1
Analyst:	NAH	Concentrations:	**5000 µg/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn **500 µg/L** Ag, Be, Cd
Prep Date:	06/03/2019	Expiration Date:	02/20
Prep:	Into a 1 L volumetric flask, pipetted **50 mL** Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M13741 and **5.0 mL** of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M13827 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M13833	Standard:	CCV2
Analyst:	NAH	Concentrations:	**500 µg/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn **50 µg/L** Ag, Be, Cd
Prep Date:	06/03/2019	Expiration Date:	02/20
Prep:	Into a 1 L volumetric flask, pipetted **5 mL** Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M13741 and **0.5 mL** of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M13827 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M13834	Standard:	ICSAB
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **500 ug/L** Ag, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn
Prep Date:	06/03/2019	Expiration Date:	02/20
Prep:	Into a 500 mL volumetric flask, pipetted **50 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M13738, **15 mL** Fe (10,000 mg/L) M13751, **2.5 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M13827 and **2.5 mL** Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M13741 and brought up to volume with milli-Q H_2O.		

		Instrument:	CETAC
Standard Log #:	M13830	Reagent:	Stannous Chloride Solution
Analyst:	LJF		
Prep Date:	06/03/2019	Expiration Date:	12/03/2019
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.676 and dissolved **100 g** Stannous chloride M13648 and brought up to volume.		

		Instrument:	ICP 6500
Standard Log #:	M13831	Standard:	ICAL
Analyst:	NAH	Concentrations:	0.25, 0.5, 1, 5, 10, 20, 50, 100, 1000, 10,000, 100k, 100,000, 500,000 and 1000k (ug/L)
Prep Date:	06/03/2019	Expiration Date:	02/20
Prep:	Using 1 L volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (5% HNO_3, 5% HCl) *1000 ug/L Std.* - **10 mL** of Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M13741, **10 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M13827 and **1 mL** of Si (1000 mg/L) M13810 and 1 mL M13703 Ce *0.25 ug/L Std.* - **0.25 mL** of the 1000 ug/L Std. *0.5 ug/L Std.* - **0.5 mL** of the 1000 ug/L Std. *1 ug/L Std.* - **1 mL** of the 1000 ug/L Std. *5 ug/L Std.* - **5 mL** of the 1000 ug/L Std. *10 ug/L Std.* - **10 mL** of the 1000 ug/L Std. *20 ug/L Std.* - **20 mL** of the 1000 ug/L Std. *50 ug/L Std.* - **50 mL** of the 1000 ug/L Std. *100 ug/L Std.* - **1 mL** of Custom Assurance Std. (CAS) #23 and **1 mL** of CAS #3 *10,000 ug/L Std.* - **100 mL** CAS #23, **100 mL** CAS #3 and **1 mL** of K (10,000 mg/L) M13811. *100k ug/L Std.* - **10 mL** of Cu (10,000 mg/L) M13618, **10 mL** of Mn (10,000 mg/L) M13616, **10 mL** of Cr (10,000 mg/L) M13617, **10 mL** Pb (10,000 mg/L) M13610, **10 mL** of Zn (10,000 mg/L) M13615 and **10 mL** of Na (10,000 mg/L) M13691. *100,000 ug/L Std.* - **10 mL** of Mg (10,000 mg/L) M13752, **10 mL** of Fe (10,000 mg/L) M13751, **10 mL** of Ca (10,000 mg/L) M13690 and **10 mL** Al (10,000 mg/L) M13693. *500,000 ug/L Std.* - **50 mL** of Mg (10,000 mg/L), **50 mL** of Fe (10,000 mg/L), **50 mL** of Ca (10,000 mg/L) and **50 mL** of Al (10,000 mg/L) *1000k ug/L Std.* - **100 mL** of Mg (10,000 mg/L), **100 mL** of Fe (10,000 mg/L), **100 mL** of Ca (10,000 mg/L) and **100 mL** of Al (10,000 mg/L)		

		Instrument:	CETAC
Standard Log #:	M13829	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	05/31/2019	Expiration Date:	05/31/2019
Prep:	Carefully mixed **3** parts HCl AB.676 with **1** part HNO_3 AB.677 in a hood.		

		Instrument:	CETAC
Standard Log #:	M13828	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	05/30/2019	Expiration Date:	05/30/2019
Prep:	Carefully mixed **3** parts HCl AB.676 with **1** part HNO_3 AB.677 in a hood.		

Standard ID#:	M13827	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	05-29-2019	Lot #:	XCTWI-4-500
Expiration Date (if any):	5/30/2020	Catalog #:	5-116AB

		Instrument:	CETAC
Standard Log #:	M13823	Standard:	Hg CCV
Analyst:	LJF	Concentration:	3.0 ug/L Hg
Prep Date:	05/24/2019	Expiration Date:	01/01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	CETAC
Standard Log #:	M13824	Reagent:	Stannous Chloride Solution
Analyst:	LJF		
Prep Date:	05/24/2019	Expiration Date:	11/24/2019
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.676 and dissolved **100 g** Stannous chloride M13648 and brought up to volume.		

Standard Log #:	M13825	Reagent:	Potassium Persulfate Solution
Analyst:	LJF		
Prep Date:	05/24/2019	Expiration Date:	11/24/2019
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M13059 and brought up to volume.		

Standard Log #:	M13826	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	05/24/2019	Expiration Date:	11/24/2019
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M13820	Standard:	Hg ICAL
Analyst:	LJF	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	05/24/2019	Expiration Date:	01/01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	CETAC
Standard Log #:	M13821	Standard:	Alt. Source Working Std.
Analyst:	LJF	Concentrations:	10,000 and 100 ug/L
Prep Date:	05/24/2019	Expiration Date:	02/28/2020
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M13734 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	CETAC
Standard Log #:	M13822	Standard:	Hg ICV/LCS
Analyst:	LJF	Concentration:	3 ug/L
Prep Date:	05/24/2019	Expiration Date:	02/28/2020
Prep:	Into a 100 mL volumetric flask, pipetted **3 mL** of Hg (*100 ug/L working Std.*) M13734 and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl)		

Standard Log #:	M13818	Reagent:	TCLP 1 N HCL
Analyst:	BMM		
Prep Date:	05/22/2019	Expiration Date:	05/23/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, added 83 mL HCL AB.676 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M13819	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	05/22/2019	Expiration Date:	05/22/2019
Prep:	Carefully mixed **3** parts HCl AB.676 with **1** part HNO_3 AB.677 in a hood.		

		Instrument:	CETAC
Standard Log #:	M13817	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	05/16/2019	Expiration Date:	05/16/2019
Prep:	Carefully mixed **3** parts HCl AB.676 with **1** part HNO_3 AB.677 in a hood.		

Standard Log #:	M13813	Instrument:	GFAA
Analyst:	MDS	Reagent:	Pd/Mg Matrix Modifier
Prep Date:	05/14/2019	Expiration Date:	09/30/2019
Prep:	Into a 50 mL volumetric flask, partially filled with milli-Q H_2O, pipetted **15 mL** Pd Modifier M13600 and **10 mL** Mg (10,000 mg/L) M13694 and brought up to volume.		

		Instrument:	GFAA
Standard Log #:	M13814	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	05/14/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13785 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13815	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	05/14/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13785 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13816	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	05/14/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M13786 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M13812	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	05/13/2019	Expiration Date:	11/13/2019
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard ID#:	M13808	Vendor:	CPI
Analyst:	NAH	Chemical:	Na 10,000 ug/mL
Date Received:	05-09-2019	Lot #:	158237-121
Expiration Date (if any):	10/20	Catalog #:	4400-1000521-500

Standard ID#:	M13809	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10,000 ug/mL
Date Received:	05-09-2019	Lot #:	832313-110
Expiration Date (if any):	10/20	Catalog #:	4400-1000411-500

Standard ID#:	M13810	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 ug/mL
Date Received:	05-09-2019	Lot #:	175213-60
Expiration Date (if any):	10/20	Catalog #:	S400-1000504F

Standard ID#:	M13811	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10,000 ug/mL
Date Received:	05-09-2019	Lot #:	980507-14
Expiration Date (if any):	10/20	Catalog #:	4400-10M411-500

		Instrument:	CETAC
Standard Log #:	M13805	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	05/07/2019	Expiration Date:	05/07/2019
Prep:	Carefully mixed **3** parts HCl AB.677 with **1** part HNO_3 AB.676 in a hood.		

Standard Log #:	M13806	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	05/07/2019	Expiration Date:	05/07/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.673 and **128.6 mL** 10N NaOH M13750. Dilute to 20 L and mix.		

Standard Log #:	M13807	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	05/07/2019	Expiration Date:	05/07/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.673 and **128.6 mL** 10N NaOH M13750. Dilute to 20 L and mix.		

MRL BASE STD M13804

Analyst NAH

Prep Date 05/07/2019

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L	Expiration Date
Ag	20	M13458	1000	1	10/19
Al	400	M13611	10000	2	3/20
Ba	10	M13457	1000	0.5	10/19
Be	4	M13579	1000	0.2	2/20
Cd	5	M13570	1000	0.25	1/20
Co	10	M13575	1000	0.5	1/20
Cr	10	M13617	10000	0.05	3/20
Cu	10	M13618	10000	0.05	3/20
Mg	500	M13694	10000	2.5	6/20
Mn	10	M13616	10000	0.05	3/20
Mo	10	M13697	1000	0.5	6/20
Ni	10	M13569	1000	0.5	1/20
Pb	10	M13615	10000	0.05	3/20
Sb	20	M13579	1000	1	10/19
V	10	M13578	1000	0.5	2/20
Zn	10	M13610	10000	0.05	3/20
K	1000	M13755	10000	5	9/20
Na	1000	M13691	10000	5	6/20
As	20	M13753	1000	1	10000 std 0.1, 9/20
Ca	500	M13692	10000	2.5	6/20
Fe	300	M13695	10000	1.5	6/20
Se	20	M13460	1000	1	10/19
Tl	20	M13583	1000	1	2/20
Si	100	M13754	1000	5	9/20
B	20	M13531	1000	1	12/19
Li	20	M13577	1000	1	2/20
W	50	xxxx	1000	2.5	xxxx
Ti	10	M13573	1000	0.5	1/20
Sr	10	M13580	1000	0.5	2/20
Sn	50	M13572	1000	2.5	1/20
S	300	M13604	10000	1.5	3/20

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expiration Date: 10/19

		Instrument:	CETAC
Standard Log #:	M13800	Reagent:	Stannous Chloride Solution
Analyst:	LJF		
Prep Date:	05/06/2019	Expiration Date:	11/06/2019
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.676 and dissolved **100 g** Stannous chloride M13648 and brought up to volume.		

		Instrument:	ICP 6000
Standard Log #:	M13801	Standard:	B&Si ICAL
Analyst:	MDS	Concentrations:	50, 200, 1000, 2000 and 10,000 ug/L (B, Si)
Prep Date:	05/06/2019	Expiration Date:	12/2019
Prep:	Into five, 1 L volumetric flasks, pipetted the following from stock standards B (1000 mg/L) M13531 and Si (1000 mg/L) M13731 and brought up to volume using milli-Q H_2O. *50 ug/L std.* - **0.05 mL** of each *200 ug/L std.* - **0.2 mL** of each *1000 ug/L std.* -**1.0 mL** of each, also used for Continuing Calibration Verification *2000 ug/L std.* - **2.0 mL** of each *10,000 ug/L std.* -**10 mL** of each		

		Instrument:	ICP 6000
Standard Log #:	M13802	Standard:	B&Si ICV
Analyst:	MDS	Concentrations:	1000 ug/L (B, Si)
Prep Date:	05/06/2019	Expiration Date:	02/28/2020
Prep:	Into a 1 L volumetric flask, pipetted **10 mL** of Custom Assurance Std. #23 (100 mg/L Al, As, **B**, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M13741 and **1.0 mL** Si (1000 mg/L) M13754 and brought up to volume using milli-Q H_2O.		

		Instrument:	ICP 6000
Standard Log #:	M13803	Standard:	B & Si ICSAB
Analyst:	MDS	Concentrations:	500,000 µg/L (Al, Ca, Fe, Mg) 500 µg/L (B,Si)
Prep Date:	05/06/2019	Expiration Date:	09/30/2019
Prep:	Into a 100 mL volumetric flask, pipetted **10 mL** of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M13635, **0.05 mL** of B (1000 µg/mL) M13531, **0.05 mL** of Si (1000 µg/mL) M13731 and **3 mL** of Fe (10,000 mg/L) M13609 and brought up to volume using Milli-Q H_2O.		

		Instrument:	ICP 6000
Standard Log #:	M13798	Standard:	L2 ICV
Analyst:	MDS	Concentrations:	1000 µg/L (Li, Sn, Sr, Ti, W)
Prep Date:	05/03/2019	Expiration Date:	01/2020
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of the following and brought up to volume using milli-Q H_2O. (0.5% HNO_3, 0.5% HCl) Li (1000 µg/mL) M13577 Sn (1000 µg/mL) M13572 Sr (1000 µg/mL) M13580 Ti (1000 µg/mL) M13573 W (1000 µg/mL) MXXXXX		

		Instrument:	ICP 6000
Standard Log #:	M13799	Standard:	List 2 MRL/ICVLL Prep Solution
Analyst:	MDS	Concentrations:	5000 µg/L (W) 1000 µg/L (Li, Sn) 500 µg/L (Ti, Sr)
Prep Date:	05/03/2019	Expiration Date:	01/2020

Prep:

Analyte	MRL/ICVLL Conc. (µg/L)	Standard ID	Std. Conc. (µg/mL)	Volume (mL) Pipetted into 1 L	Expiration Date
Li	20/60	M13577	1000	1	02/2020
W	100/300	MXXXXX	1000	5	XX/XXXX
Ti	10/30	M13573	1000	0.5	01/2020
Sr	10/30	M13580	1000	0.5	02/2020
Sn	20/60	M13572	1000	1	01/2020

Pipette **10 mL** into a 500 mL volumetric flask to create a working MRL std. or **1 mL** into a 50 mL digestion tube for a digested MRL standard. Pipette **30 mL** into 500 mL for a working ICVLL std. or **3 mL** into a 50 mL digestion tube for a digested ICVLL standard.

(0.5% HNO_3, 0.5% HCl)

		Instrument:	CETAC
Standard Log #:	M13795	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	05/03/2019	Expiration Date:	05/03/2019
Prep:	Carefully mixed **3** parts HCl AB.676 with **1** part HNO_3 AB.677 in a hood.		

		Instrument:	ICP
Standard Log #:	M13796	Standard:	L2 ICAL
Analyst:	MDS	Concentrations:	1 (µg/L) 10 (µg/L) 100 (µg/L) 1000 (µg/L) 10,000 (µg/L)
Prep Date:	05/03/2019	Expiration Date:	02/28/2020
Prep:	Standard Conc. (ug/L) — Pipette the following: 1 — **0.01 mL** of Custom Assurance Standard XCTWI-5-500 M13741 and **0.001 mL** W (1000 µg/mL) MXXXXX into 1L = *1 µg/L* 10 — **0.10 mL** of Custom Assurance Standard XCTWI-5-500 M13741 and **0.01 mL** W (1000 µg/mL) MXXXXX into 1L = *10 µg/L* 100 — **1 mL** of Custom Assurance Standard XCTWI-5-500 M13741 and **0.1 mL** W (1000 µg/mL) MXXXXX into 1L = *100 µg/L* 1000 (CCV) — **2 mL** of Custom Assurance Standard XCTWI-5-500 M13741 and **0.2 mL** W (1000 µg/mL) MXXXXX into 200mL = *1000 µg/L* 10000 — **20 mL** of Custom Assurance Standard XCTWI-5-500 M13741 and **2 mL** W (1000 µg/mL) MXXXXX into 200mL = *10000 µg/L*		

		Instrument:	ICP 6000
Standard Log #:	M13797	Standard:	List 2 ICSAB
Analyst:	MDS	Concentrations:	500,000 µg/L (Al, Ca, Fe, Mg) 500 µg/L (Li, Sn, Sr, Ti, W)
Prep Date:	05/03/2019	Expiration Date:	09/30/2019
Prep:	Into a 200 mL volumetric flask, pipetted **20 mL** of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M13635, **6 mL** of Fe (10,000 mg/L) M13609, **0.1 mL** of Li (1000 µg/mL) M13577, **0.1 mL** of Sn (1000 µg/mL) M13572, **0.1 mL** of Sr (1000 µg/mL) M13580, **0.1 mL** of Ti (1000 µg/mL) M13573, and **0.1 mL** of W (1000 µg/mL) MXXXXX and brought up to volume using Milli-Q H_2O. (0.5% HNO_3, 0.5% HCl)		

Standard Log #:	M13793	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	05/02/2019	Expiration Date:	11/02/2019
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13793 and brought up to volume.		

Standard Log #:	M13794	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	LJF		
Prep Date:	05/02/2019	Expiration Date:	11/02/2019
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M13511 and **60 g** hydroxylamine sulfate M13727 and brought up to volume.		

Standard ID#:	M13790	Vendor:	Environmental Express
Analyst:	NAH	Chemical:	Y 10000 mg/L
Date Received:	04/29/2019	Lot #:	1833905
Expiration Date (if any):	10/31/2020	Catalog #:	HP10M67-1

Standard ID#:	M13791	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	04/29/2019	Lot #:	51-239CR
Expiration Date (if any):	02/28/2020	Catalog #:	XSPIKE-1-250

		Instrument:	CETAC
Standard Log #:	M13792	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	04/29/2019	Expiration Date:	04/29/2019
Prep:	Carefully mixed **3** parts HCl AB.676 with **1** part HNO_3 AB.677 in a hood.		

Standard ID#:	M13785	Vendor:	Inorganic Ventures
Analyst:	MDS	Chemical:	GFAA ICAL/CCV BASE STD
Date Received:	04/19/2019	Lot #:	P2-MEB678822
Expiration Date (if any):	04/19/2020	Catalog #:	CTI-SPK-1

Standard ID#:	M13786	Vendor:	Inorganic Ventures
Analyst:	MDS	Chemical:	GFAA ICV/SPIKE BASE STD
Date Received:	04/19/2019	Lot #:	P2-MEB678821
Expiration Date (if any):	04/19/2020	Catalog #:	CTI-GFCAL-1

		Instrument:	GFAA
Standard Log #:	M13787	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	04/19/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13785 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13788	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	04/19/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13785 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13789	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	04/19/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M13786 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M13782	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	04/18/2019	Expiration Date:	04/18/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.673 and **128.6 mL** 10N NaOH M13750. Dilute to 20 L and mix.		

Standard ID#:	M13783	Vendor:	Alfa Aesar
Analyst:	MDS	Chemical:	GFAA 1% Nickel Nitrate Matrix Mod.
Date Received:	04/18/2019	Lot #:	9166009
Expiration Date (if any):	09/30/2020	Catalog #:	39043

Standard Log #:	M13784	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	04/18/2019	Expiration Date:	10/18/2019
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M13780	Reagent:	Potassium Persulfate Solution
Analyst:	LJF		
Prep Date:	04/17/2019	Expiration Date:	10/17/2019
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M13059 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M13781	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	04/17/2019	Expiration Date:	04/17/2019
Prep:	Carefully mixed **3** parts HCl AB.676 with **1** part HNO_3 AB.675 in a hood.		

		Instrument:	ICP 6000
Standard Log #:	M13779	Standard:	NaK ICSAB
Analyst:	MDS	Concentrations:	500 mg/L (Al, Ca, Fe, Mg) 100 mg/L (Na, K)
Prep Date:	04/12/2019	Expiration Date:	09/30/2019
Prep:	Into a 250 mL volumetric flask, pipetted **25 mL** of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M13635, **2.5 mL** of K (10,000 mg/L) M13693, **2.5 mL** of Na (10,000 mg/L) M13605 and **7.5 mL** of Fe (10,000 mg/L) M13609 and brought up to volume using Milli-Q H_2O. (2% HNO_3)		

Standard Log #:	M13778	Reagent:	1:3 HNO3
Analyst:	MDS		
Prep Date:	04/11/2019	Expiration Date:	04/11/2020
Prep:	Carefully mixed **3** parts DI with **1** part HNO_3 AB.672 in a hood.		

		Instrument:	CETAC
Standard Log #:	M13777	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	04/09/2019	Expiration Date:	04/09/2019
Prep:	Carefully mixed **3** parts HCl AB.676 with **1** part HNO_3 AB.675 in a hood.		

Standard Log #:	M13775	Instrument:	GFAA
Analyst:	MDS	Reagent:	Pd/Mg Matrix Modifier
Prep Date:	04/02/2019	Expiration Date:	09/30/2019
Prep:	Into a 50 mL volumetric flask, partially filled with milli-Q H_2O, pipetted **15 mL** Pd Modifier M13600 and **10 mL** Mg (10,000 mg/L) M13614 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M13776	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	04/03/2019	Expiration Date:	04/03/2019
Prep:	Carefully mixed **3** parts HCl AB.676 with **1** part HNO_3 AB.675 in a hood.		

		Instrument:	GFAA
Standard Log #:	M13771	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	03/26/2019	Expiration Date:	05/17/2019
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13497 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13772	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	03/26/2019	Expiration Date:	05/17/2019
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13497 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13773	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	03/26/2019	Expiration Date:	05/17/2019
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M13498 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13774	Standard:	Sb ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 µg/L (Sb)
Prep Date:	03/26/2019	Expiration Date:	10/2019
Prep:	Into a 1 L volumetric flask, pipetted **0.01 mL** of Antimony Stock Std. (1000 µg/mL Sb) M13459 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	CETAC
Standard Log #:	M13770	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	03/25/2019	Expiration Date:	03/25/2019
Prep:	Carefully mixed **3** parts HCl AB.676 with **1** part HNO_3 AB.675 in a hood.		

		Instrument:	CETAC
Standard Log #:	M13768	Standard:	Hg CCV
Analyst:	LJF	Concentration:	3.0 ug/L Hg
Prep Date:	03/21/2019	Expiration Date:	01/01/2019
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	CETAC
Standard Log #:	M13769	Reagent:	Stannous Chloride Solution
Analyst:	LJF		
Prep Date:	03/21/2019	Expiration Date:	09/21/2019
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.676 and dissolved **100 g** Stannous chloride M13648 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M13765	Standard:	Hg ICAL
Analyst:	LJF	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/21/2019	Expiration Date:	01/01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	CETAC
Standard Log #:	M13766	Standard:	Alt. Source Working Std.
Analyst:	LJF	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/21/2019	Expiration Date:	04/30/2019
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M13444 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	CETAC
Standard Log #:	M13767	Standard:	Hg ICV/LCS
Analyst:	LJF	Concentration:	3 ug/L
Prep Date:	03/21/2019	Expiration Date:	04/30/2019
Prep:	Into a 100 mL volumetric flask, pipetted **3 mL** of Hg (*100 ug/L working Std.*) M13444 and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl)		

Standard Log #:	M13763	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	03/20/2019	Expiration Date:	03/20/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.673 and **128.6 mL** 10N NaOH M13750. Dilute to 20 L and mix.		

Standard Log #:	M13764	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	03/20/2019	Expiration Date:	03/20/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.673 and **128.6 mL** 10N NaOH M13750. Dilute to 20 L and mix.		

		Instrument:	CETAC
Standard Log #:	M13761	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	03/19/2019	Expiration Date:	03/19/2019
Prep:	Carefully mixed **3** parts HCl AB.671 with **1** part HNO_3 AB.672 in a hood.		

Standard Log #:	M13762	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	LJF		
Prep Date:	03/19/2019	Expiration Date:	09/19/2019
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M13511 and **60 g** hydroxylamine sulfate M13468 and brought up to volume.		

		Instrument:	ICP 6500
Standard Log #:	M13758	Standard:	ICSA4_Ni_Ti
Analyst:	NAH	Concentrations:	**10,000 ug/L** Ni and Ti
Prep Date:	03/13/2019	Expiration Date:	01/2020
Prep:	Into a 500 mL volumetric flask, pipetted 5.0 **mL** 1000 mg/L Ni M13569 5.0 **mL** 10000 mg/L Ti M13573 brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M13759	Standard:	ICSA2_Ba_Be_Sn
Analyst:	NAH	Concentrations:	**10,000 ug/L** Ba, Be, and Sn
Prep Date:	03/13/2019	Expiration Date:	10/2019
Prep:	Into a 500 mL volumetric flask, pipetted 5.0 **mL** 1000 mg/L Ba M13457 5.0 **mL** 10000 mg/L Be M13579 5.0 **mL** 10000 mg/L Sn M13572 brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M13760	Standard:	ICSA
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **10,000** V, Ce
Prep Date:	03/13/2019	Expiration Date:	09/2019
Prep:	Into a 500 mL volumetric flask, pipetted 50 **mL** Interference A std M13635 and 15 **mL** 10000 mg/L Fe M13609 5.0 **mL** 1000 mg/L V M13578 5.0 **mL** 1000 mg/L Ce M13203 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M13756	Standard:	ICSA1_Mn
Analyst:	NAH	Concentrations:	**10,000 ug/L** Mn
Prep Date:	03/13/2019	Expiration Date:	03/2020
Prep:	Into a 500 mL volumetric flask, pipetted 0.5 **mL** 10000 mg/L mn M13616 brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M13757	Standard:	ICSA3_Cr_Cu_Co_Mo
Analyst:	NAH	Concentrations:	**10,000 ug/L** Cr, Cu, Co and Mo
Prep Date:	03/13/2019	Expiration Date:	01/20
Prep:	Into a 500 mL volumetric flask, pipetted 0.5 **mL** 10000 mg/L Cr M13617 0.5 **mL** 10000 mg/L Cu M13618 5.0 **mL** 1000 mg/L Co M13575 5.0 **mL** 1000 mg/L Mo M13697 brought up to volume with milli-Q H_2O.		

Standard ID#:	M13751	Vendor:	CPI
Analyst:	NAH	Chemical:	Fe 10000 mg/L
Date Received:	03/12/2019	Lot #:	998527-19
Expiration Date (if any):	09/2020	Catalog #:	4400-10M261

Standard ID#:	M13752	Vendor:	CPI
Analyst:	NAH	Chemical:	Mg 10000 mg/L
Date Received:	03/12/2019	Lot #:	982185-12
Expiration Date (if any):	09/2020	Catalog #:	4400-10M311

Standard ID#:	M13753	Vendor:	CPI
Analyst:	NAH	Chemical:	As 10000 mg/L
Date Received:	03/12/2019	Lot #:	166531-32
Expiration Date (if any):	09/2020	Catalog #:	S4400--10M31

Standard ID#:	M13754	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 mg/L
Date Received:	03/12/2019	Lot #:	175213-60
Expiration Date (if any):	09/2020	Catalog #:	S4400-1000504F

Standard ID#:	M13755	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10000 mg/L
Date Received:	03/12/2019	Lot #:	172053-77
Expiration Date (if any):	09/2020	Catalog #:	4400-10M411

		Instrument:	CETAC
Standard Log #:	M13749	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	03/08/2019	Expiration Date:	03/08/2019
Prep:	Carefully mixed **3** parts HCl AB.671 with **1** part HNO_3 AB.672 in a hood.		

Standard Log #:	M13750	Reagent:	10N NaOH
Analyst:	BMM		
Prep Date:	03/08/2019	Expiration Date:	03/08/2020
Prep:	Into a 1 L volumetric flask, added **400 g** NaOH W45383 and brought up to volume.		

Standard ID#:	M13748	Vendor:	Potters Ind. LLC (Gainger)
Analyst:	NAH	Chemical:	Glass beads Extra Fine
Date Received:	03/07/2019	Lot #:	
Expiration Date (if any):	XXXXXX	Catalog #:	6ZC13

		Instrument:	ICP
Standard Log #:	M13746	Standard:	L2 ICAL
Analyst:	MDS	Concentrations:	1 (µg/L) 10 (µg/L) 100 (µg/L) 1000 (µg/L) 10,000 (µg/L)
Prep Date:	03/04/2019	Expiration Date:	09/30/2019
Prep:	Standard Conc. (ug/L) — Pipette the following: 1 — **0.01 mL** of Custom Assurance Standard XCTWI-5-500 M13602 and **0.001 mL** W (1000 µg/mL) XXXXXX into 1L = *1 µg/L* 10 — **0.10 mL** of Custom Assurance Standard XCTWI-5-500 M13602 and **0.01 mL** W (1000 µg/mL) XXXXXX into 1L = *10 µg/L* 100 — **1 mL** of Custom Assurance Standard XCTWI-5-500 M13602 and **0.1 mL** W (1000 µg/mL) XXXXXX into 1L = *100 µg/L* 1000 (CCV) — **2 mL** of Custom Assurance Standard XCTWI-5-500 M13602 and **0.2 mL** W (1000 µg/mL) XXXXXX into 200mL = *1000 µg/L* 10000 — **20 mL** of Custom Assurance Standard XCTWI-5-500 M13602 and **2 mL** W (1000 µg/mL) XXXXXX into 200mL = *10000 µg/L*		

		Instrument:	ICP 6000
Standard Log #:	M13747	Standard:	List 2 ICSAB
Analyst:	MDS	Concentrations:	500,000 µg/L (Al, Ca, Fe, Mg) 500 µg/L (Li, Sn, Sr, Ti, W)
Prep Date:	03/04/2019	Expiration Date:	09/30/2019
Prep:	Into a 200 mL volumetric flask, pipetted **20 mL** of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M13635, **6 mL** of Fe (10,000 mg/L) M13609, **0.1 mL** of Li (1000 µg/mL) M13577, **0.1 mL** of Sn (1000 µg/mL) M13572, **0.1 mL** of Sr (1000 µg/mL) M13580, **0.1 mL** of Ti (1000 µg/mL) M13573, and **0.1 mL** of W (1000 µg/mL) XXXXXX and brought up to volume using Milli-Q H_2O. (0.5% HNO_3, 0.5% HCl)		

Standard Log #:	M13743	Instrument:	ICP 6500
Analyst:	NAH	Standard:	MDL DOD Metals Spiking soln
Prep Date:	02/26/2019	Expiration Date:	10/19

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	5	M13458	1000	0.25
Al	10	M13611	**10000**	0.05
As	20	M13392	1000	1
Ba	2	M13457	1000	0.1
Be	0.5	M13579	1000	0.025
Ca	50	M13692	**10000**	0.25
Cd	0.5	M13570	1000	0.025
Co	2.5	M13575	1000	0.125
Cr	5.0	M13617	**10000**	0.025
Cu	10	M13618	**10000**	0.05
Fe	40	M13609	**10000**	0.2
Mg	25	M13694	**10000**	0.125
Mn	5	M13616	**10000**	0.025
Mo	2.5	M13697	1000	0.125
Ni	5	M13569	1000	0.25
Pb	10	M13615	**10000**	0.05
Sb	20	M13459	1000	1
Se	20	M13460	1000	1
Tl	20	M13583	1000	1
V	5	M13578	1000	0.25
Zn	5	M13610	**10000**	0.025
Na	500	M13605	**10000**	2.5
K	500	M13733	**10000**	2.5
B	20	M13531	1000	1
Si	100	M13731	1000	5
S	200	M13604	**10000**	1
Li	20	M13537	1000	1
Sr	20	M13572	1000	1
Sn	20	M13580	1000	1
Ti	20	M13573	1000	1

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

		Instrument:	ICP 6000
Standard Log #:	M13740	Standard:	Sulfur ICV
Analyst:	MDS	Concentrations:	100,000 µg/L (S)
Prep Date:	02/26/2019	Expiration Date:	03/2020
Prep:	Into a 100 mL volumetric flask, pipetted **1.0 mL** of S (10,000 µg/mL) M13604 and brought up to volume using Milli-Q H_2O.		

Standard ID#:	M13741	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	02-26-2019	Lot #:	3-153AB
Expiration Date (if any):	02/28/2020	Catalog #:	XCTWI-5-500

Standard ID#:	M13742	Vendor:	IKOHE Blasting Media
Analyst:	NAH	Chemical:	Glass Neads X-fine-20u
Date Received:	02/26/2019	Lot #:	52-144
Expiration Date (if any):	*********	Catalog #:	UL-49/52-1544

		Instrument:	CETAC
Standard Log #:	M13739	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	02/22/2019	Expiration Date:	02/22/2019
Prep:	Carefully mixed **3** parts HCl AB.671 with **1** part HNO_3 AB.672 in a hood.		

Standard ID#:	M13734	Vendor:	SPEX CERTIPREP
Analyst:	LJF	Chemical:	HG 1000 ug/mL
Date Received:	02/21/2019	Lot #:	CL10-136HGY
Expiration Date (if any):	02/28/2020	Catalog #:	CLHG4-2Y

Standard Log #:	M13735	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	02/21/2019	Expiration Date:	02/21/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.673 and **128.6 mL** 10N NaOH M13514. Dilute to 20 L and mix.		

Standard Log #:	M13736	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	02/21/2019	Expiration Date:	02/21/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.673 and **128.6 mL** 10N NaOH M13514. Dilute to 20 L and mix.		

Standard ID#:	M13737	Vendor:	SPEX CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Std
Date Received:	02/21/2019	Lot #:	51-117CR
Expiration Date (if any):	02/28/2020	Catalog #:	XSPIKE-1-250

Standard ID#:	M13738	Vendor:	SPEX CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Std
Date Received:	02/21/2019	Lot #:	2-230SGX
Expiration Date (if any):	02/28/2020	Catalog #:	INT-A1

		Instrument:	CETAC
Standard Log #:	M13730	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	02/14/2019	Expiration Date:	02/14/2019
Prep:	Carefully mixed **3** parts HCl AB.671 with **1** part HNO_3 AB.672 in a hood.		

Standard ID#:	M13731	Vendor:	CPI
Analyst:	NAH	Chemical:	Silicon 1000 ug/mL
Date Received:	02/14/2019	Lot #:	175213-60
Expiration Date (if any):	08/20	Catalog #:	S4400-1000504F

Standard ID#:	M13732	Vendor:	CPI
Analyst:	NAH	Chemical:	Yttrium 10000 ug/mL
Date Received:	02/14/2019	Lot #:	139448-54
Expiration Date (if any):	08/20	Catalog #:	4400-10M671

Standard ID#:	M13733	Vendor:	CPI
Analyst:	NAH	Chemical:	Potassium 10000 ug/mL
Date Received:	02/14/2019	Lot #:	172053-36
Expiration Date (if any):	08/20	Catalog #:	4400-10M411

Standard ID#:	M13727	Vendor:	FISHER
Analyst:	LJF	Chemical:	HYDROXYLAMINE SULFATE
Date Received:	02/08/2019	Lot #:	175511
Expiration Date (if any):		Catalog #:	H331-500

Standard ID#:	M13728	Vendor:	FISHER
Analyst:	LJF	Chemical:	SODIUM CHLORIDE
Date Received:	02/08/2019	Lot #:	186819
Expiration Date (if any):		Catalog #:	S271-500

Standard Log #:	M13729	Reagent:	Potassium Persulfate Solution
Analyst:	LJF		
Prep Date:	02/11/2019	Expiration Date:	08/11/2019
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M13059 and brought up to volume.		

Standard Log #:	M13724	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	02/07/2019	Expiration Date:	02/07/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.673 and **128.6 mL** 10N NaOH M13514. Dilute to 20 L and mix.		

Standard Log #:	M13725	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	02/07/2019	Expiration Date:	02/07/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.673 and **128.6 mL** 10N NaOH M13514. Dilute to 20 L and mix.		

Standard Log #:	M13726	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	02/07/2019	Expiration Date:	08/07/2019
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M13721	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	02/05/2019	Expiration Date:	02/05/2019
Prep:	Carefully mixed **3** parts HCl AB.671 with **1** part HNO_3 AB.672 in a hood.		

Standard Log #:	M13722	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	LJF		
Prep Date:	02/05/2019	Expiration Date:	08/05/2019
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M13620 and **60 g** hydroxylamine sulfate M13468 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M13723	Reagent:	Stannous Chloride Solution
Analyst:	LJF		
Prep Date:	02/05/2019	Expiration Date:	08/05/2019
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.671 and dissolved **100 g** Stannous chloride M13648 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M13720	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	01/31/2019	Expiration Date:	01/31/2019
Prep:	Carefully mixed **3** parts HCl AB.671 with **1** part HNO_3 AB.672 in a hood.		

		Instrument:	GFAA
Standard Log #:	M13716	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	01/30/2019	Expiration Date:	05/17/2019
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13497 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13717	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	01/30/2019	Expiration Date:	05/17/2019
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13497 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13718	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	01/30/2019	Expiration Date:	05/17/2019
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M13498 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13719	Standard:	Sb ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 µg/L (Sb)
Prep Date:	01/30/2019	Expiration Date:	10/2019
Prep:	Into a 1 L volumetric flask, pipetted **0.01 mL** of Antimony Stock Std. (1000 µg/mL Sb) M13459 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13713	Standard:	LODW/LOQW Ag Spiking Sol'n
Analyst:	MDS	Concentrations:	10 ug/L (Ag)
Prep Date:	01/29/2019	Expiration Date:	10/2019
Prep:	Into a 100 mL volumetric flask, pipetted **0.1 mL** of Ag (1000mg/L) M13458 and brought to volume with Milli-Q H_2O to make a 1000 ug/L Ag std. Into a 1 L volumetric flask, pipetted **10 mL** of Ag (*1000 ug/L*) std. and brought to volume with Milli-Q H_2O. (1% HNO_3) *Pipette **1 mL** spiking solution into 50 mL H_2O for LOD (*0.2 ug/L*) and **2 mL** spiking solution for LOQ (*0.4 ug/L*)		

Standard ID#:	M13714	Vendor:	ACROS ORGANICS
Analyst:	LJF	Chemical:	POTASSIUM PERSULFATE
Date Received:	01/29/2019	Lot #:	A0391673
Expiration Date (if any):		Catalog #:	424185000

Standard ID#:	M13715	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	1/29/2019	Lot #:	51-013CR
Expiration Date (if any):	01/30/2020	Catalog #:	XCTWI-1-500

		Instrument:	GFAA
Standard Log #:	M13711	Standard:	LODS/LOQS Spiking Sol'n
Analyst:	MDS	Concentrations:	60 ug/L (Sb) 160 ug/L (As,Se) 40 ug/L (Pb) 50 ug/L (Tl)
Prep Date:	01/29/2019	Expiration Date:	07/2019
Prep:	Into a 200 mL volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. **1.2 mL** of Sb (1000 mg/L) M13459 **3.2 mL** of As (1000 mg/L) M13392 **3.2 mL** of Se (1000 mg/L) M13460 **0.08 mL** of Pb (10,000 mg/L) M13615 **1.0 mL** of Tl (1000 mg/L) M13583 From this diluted standard solution, pipetted **10 mL** into a 1 L volumetric flask and brought up to volume with Milli-Q H_2O to make the spiking solution. (1% HNO_3) *Pipette **1 mL** spiking solution into 50 mL H_2O for LOD (1.2 *ug/L* Sb, *3.2 ug/L* As, *3.2 ug/L* Se, *0.8 ug/L* Pb, *1 ug/L* Tl) and **2 mL** spiking solution for LOQ (2.4 *ug/L* Sb, *6.4 ug/L* As, *6.4 ug/L* Se, *1.6 ug/L* Pb, *2 ug/L* Tl)		

		Instrument:	GFAA
Standard Log #:	M13712	Standard:	LODW/LOQW Spiking Sol'n
Analyst:	MDS	Concentrations:	150 ug/L (Sb) 100 ug/L (As) 200 ug/L (Se) 45 ug/L (Pb) 40 ug/L (Tl)
Prep Date:	01/29/2019	Expiration Date:	07/2019
Prep:	Into a 100 mL volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. **1.5 mL** of Sb (1000 mg/L) M13459 **1.0 mL** of As (1000 mg/L) M13392 **2.0 mL** of Se (1000 mg/L) M13460 **0.045 mL** of Pb (10,000 mg/L) M13615 **0.4 mL** of Tl (1000 mg/L) M13583 From this diluted standard solution, pipetted **10 mL** into a 1 L volumetric flask and brought up to volume with Milli-Q H_2O to make the spiking solution. (1% HNO_3) *Pipette **1 mL** spiking solution into 50 mL H_2O for LOD (*3 ug/L* Sb, *2 ug/L* As, *4 ug/L* Se, *0.9 ug/L* Pb, *0.8 ug/L* Tl) and **2 mL** spiking solution for LOQ (*6 ug/L* Sb, *4 ug/L* As, *8 ug/L* Se, *1.8 ug/L* Pb, *1.6 ug/L* Tl)		

		Instrument:	CETAC
Standard Log #:	M13710	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	01/22/2019	Expiration Date:	01/22/2019
Prep:	Carefully mixed **3** parts HCl AB.671 with **1** part HNO_3 AB.672 in a hood.		

		Instrument:	ICP 6000
Standard Log #:	M13709	Standard:	NaK ICSAB
Analyst:	MDS	Concentrations:	500 mg/L (Al, Ca, Fe, Mg) 100 mg/L (Na, K)
Prep Date:	01/10/2019	Expiration Date:	09/30/2019
Prep:	Into a 250 mL volumetric flask, pipetted **25 mL** of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M13635, **2.5 mL** of K (10,000 mg/L) M13689, **2.5 mL** of Na (10,000 mg/L) M13605 and **7.5 mL** of Fe (10,000 mg/L) M13609 and brought up to volume using Milli-Q H_2O. (2% HNO_3)		

		Instrument:	ICP 6000
Standard Log #:	M13705	Standard:	Na & K ICAL
Analyst:	MDS	Concentrations:	0.5, 1, 5, 10, 50, 100, and 200 mg/L (Na,K)
Prep Date:	01/10/2019	Expiration Date:	03/2020
Prep:	Into seven, 200 mL volumetric flasks, pipetted the following from Na (1000 µg/mL) M13607 and K (1000 µg/mL) M13606 and brought up to volume using milli-Q H_2O. (2% HNO_3) *0.5 mg/L std.* - **0.1 mL** of each *1.0 mg/L std.* - **0.2 mL** of each *5.0 mg/L std.* - **1.0 mL** of each *10 mg/L std.* - **2.0 mL** of each *50 mg/L std.* - **10 mL** of each *100 mg/L std.* -**20 mL** of each, also used for Continuing Calibration Verification *200 mg/L std.* - **40 mL** of each		

		Instrument:	ICP 6000
Standard Log #:	M13706	Standard:	Na,K MRL
Analyst:	MDS	Concentrations:	1 mg/L (Na,K)
Prep Date:	01/10/2019	Expiration Date:	03/2020
Prep:	Into a 500 mL volumetric flask, pipetted **0.5 mL** of Na (1000 µg/mL) M13607 and **0.5 mL** K (1000 µg/mL) M13606 and brought to volume with Milli-Q H_2O. (2% HNO_3)		

		Instrument:	ICP 6000
Standard Log #:	M13707	Standard:	NaK ICV
Analyst:	MDS	Concentrations:	100 mg/L (Na, K)
Prep Date:	01/10/2019	Expiration Date:	03/2020
Prep:	Into a 250 mL volumetric flask, pipetted **2.5 mL** of K (10,000 mg/L) M13689 and Na (10,000 mg/L) M13605 and brought up to volume using Milli-Q H_2O. (2% HNO_3)		

		Instrument:	ICP 6000
Standard Log #:	M13708	Standard:	Na,K ICVLL
Analyst:	MDS	Concentrations:	3 mg/L (Na,K)
Prep Date:	01/10/2019	Expiration Date:	03/2020
Prep:	Into a 500 mL volumetric flask, pipetted **0.15 mL** of Na (10,000 µg/mL) M13605 and **0.15 mL** K (10,000 µg/mL) M13689 and brought to volume with Milli-Q H_2O. (2% HNO_3)		

Standard Log #:	M13703	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	12/20/2018	Expiration Date:	12/20/2019
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.659 and **128.6 mL** 10N NaOH M13514. Dilute to 20 L and mix.		

Standard Log #:	M13704	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	12/20/2018	Expiration Date:	12/20/2019
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.659 and **128.6 mL** 10N NaOH M13514. Dilute to 20 L and mix.		

Standard Log #:	M13701	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	LJF		
Prep Date:	12/13/2018	Expiration Date:	06/13/2019
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M13620 and **60 g** hydroxylamine sulfate M13468 and brought up to volume.		

Standard ID#:	M13696	Vendor:	CPI
Analyst:	NAH	Chemical:	Sulfur 10,000 mg/L
Date Received:	12/11/2018	Lot #:	167967-42
Expiration Date (if any):	06/20	Catalog #:	4400-10M544

Standard ID#:	M13697	Vendor:	CPI
Analyst:	NAH	Chemical:	Moybdenum 1000 mg/L
Date Received:	12/11/2018	Lot #:	169424-59
Expiration Date (if any):	06/20	Catalog #:	4400-1000343

Standard ID#:	M13698	Vendor:	CPI
Analyst:	NAH	Chemical:	Silicon 1000 mg/L
Date Received:	12/11/2018	Lot #:	175213-60
Expiration Date (if any):	06/20	Catalog #:	S4400-10005044F

Standard ID#:	M13699	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	12/11/2018	Lot #:	50-120CR
Expiration Date (if any):	12/30/2019	Catalog #:	XSPIKE-1-250

		Instrument:	CETAC
Standard Log #:	M13700	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	12/12/2018	Expiration Date:	12/12/2018
Prep:	Carefully mixed **3** parts HCl AB.668 with **1** part HNO_3 AB.669 in a hood.		

Standard ID#:	M13689	Vendor:	CPI
Analyst:	NAH	Chemical:	Potassium 10,000 mg/L
Date Received:	12/11/2018	Lot #:	169484-36
Expiration Date (if any):	06/20	Catalog #:	4400-10M11

Standard ID#:	M13690	Vendor:	CPI
Analyst:	NAH	Chemical:	Aluminum 10,000 mg/L
Date Received:	12/11/2018	Lot #:	169484-36
Expiration Date (if any):	06/20	Catalog #:	4400-10M11

Standard ID#:	M13691	Vendor:	CPI
Analyst:	NAH	Chemical:	Sodium 10,000 mg/L
Date Received:	12/11/2018	Lot #:	752887-32
Expiration Date (if any):	06/20	Catalog #:	4400-10M521

Standard ID#:	M13692	Vendor:	CPI
Analyst:	NAH	Chemical:	Calcium 10,000 mg/L
Date Received:	12/11/2018	Lot #:	855297-1
Expiration Date (if any):	06/20	Catalog #:	4400-10M91

Standard ID#:	M13693	Vendor:	CPI
Analyst:	NAH	Chemical:	Potassium 10,000 mg/L
Date Received:	12/11/2018	Lot #:	156651-78
Expiration Date (if any):	06/20	Catalog #:	4400-10M261

Standard ID#:	M13694	Vendor:	CPI
Analyst:	NAH	Chemical:	Magnesium 10,000 mg/L
Date Received:	12/11/2018	Lot #:	148250-72
Expiration Date (if any):	06/20	Catalog #:	4400-10M311

Standard ID#:	M13695	Vendor:	CPI
Analyst:	NAH	Chemical:	Iron 10,000 mg/L
Date Received:	12/11/2018	Lot #:	156651-78
Expiration Date (if any):	06/20	Catalog #:	4400-10M261

		Instrument:	GFAA
Standard Log #:	M13686	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	12/07/2018	Expiration Date:	05/17/2019
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13497 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13687	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	12/07/2018	Expiration Date:	05/17/2018
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13497 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13688	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	12/07/2018	Expiration Date:	05/17/2019
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M13498 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M13684	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	12/04/2018	Expiration Date:	06/04/2019
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard ID#:	M13683	Vendor:	Environmental Express
Analyst:	NAH	Chemical:	10000 mg/L
Date Received:	11/30/2018	Lot #:	1805105
Expiration Date (if any):	5/31/2020	Catalog #:	HP10M67-1

Standard Log #:	M13681	Instrument:	ICP
Analyst:	NAH	Standard:	LOQ 3050 B&Si Spiking Solution
Prep Date:	11/29/2018	Expiration Date:	02/2020

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
B	52	M13531	1000	2.6
Si	192	M13394	1000	9.6

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

		Instrument:	CETAC
Standard Log #:	M13682	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	11/29/2018	Expiration Date:	11/29/2018

Prep: Carefully mixed **3** parts HCl AB.668 with **1** part HNO_3 AB.669 in a hood.

Standard Log #:	M13679	Instrument:	ICP
Analyst:	NAH	Standard:	LOQ 3050 L2 Spiking Solution
Prep Date:	11/29/2018	Expiration Date:	02/2020

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
Li	14.4	M13517	1000	0.72
Sn	20	M13572	1000	1
Sr	3.2	M13586	1000	0.16
Ti	9.6	M13573	1000	0.48
W	24	xxxxxxxx	1000	1.2

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M13680	Instrument:	ICP
Analyst:	NAH	Standard:	LOQ 3010 B&Si Spiking Solution
Prep Date:	11/29/2018	Expiration Date:	07/2019

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
B	16	M13531	1000	0.8
Si	200	M13394	1000	10

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M13677	Instrument:	ICP 6500
Analyst:	NAH	Standard:	LOQ 3050 DOD Metals Spiking S
Prep Date:	11/29/2018	Expiration Date:	04/2019

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	4	M13458	1000	0.2
Al	9.6	M13562	**10000**	0.048
As	32	M13392	1000	1.6
Ba	2	M13457	1000	0.1
Be	1.6	M13579	1000	0.08
Ca	56	M13324	**10000**	0.28
Cd	1.6	M13570	1000	0.08
Co	9.6	M13575	1000	0.48
Cr	5.6	M13617	**10000**	0.028
Cu	16	M13618	**10000**	0.08
Fe	72	M13463	**10000**	0.36
Mg	32	M13319	**10000**	0.16
Mn	6	M13616	**10000**	0.03
Mo	9.6	M13608	1000	0.48
Ni	4.8	M13569	1000	0.24
Pb	10	M13610	**10000**	0.05
Sb	32	M13459	1000	1.6
Se	16	M13460	1000	0.8
Tl	19	M13583	1000	0.95
V	3.2	M13578	1000	0.16
Zn	12	M13610	**10000**	0.06

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M13676	Instrument:	ICP 6500
Analyst:	NAH	Standard:	LOQ 3010 DOD Metals Spiking S
Prep Date:	11/29/2018	Expiration Date:	04/2019

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	4	M13458	1000	0.2
Al	36	M13462	**10000**	0.18
As	24	M13392	1000	1.2
Ba	1.8	M13457	1000	0.09
Be	0.6	M13579	1000	0.03
Ca	100	M13324	**10000**	0.5
Cd	2.0	M13570	1000	0.1
Co	4	M13575	1000	0.2
Cr	4	M13617	**10000**	0.02
Cu	7	M13618	**10000**	0.035
Fe	100	M13463	**10000**	0.5
Mg	40	M13319	**10000**	0.2
Mn	4	M13616	**10000**	0.02
Mo	7	M13608	1000	0.35
Ni	6	M13569	1000	0.2
Pb	4	M13610	**10000**	0.02
Sb	12	M13459	1000	0.6
Se	13	M13460	1000	0.65
Tl	20	M13583	1000	0.75
V	5	M13578	1000	0.25
Zn	10	M13610	**10000**	0.05

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

		Instrument:	CETAC
Standard Log #:	M13675	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	11/26/2018	Expiration Date:	11/26/2018
Prep:	Carefully mixed **3** parts HCl AB.668 with **1** part HNO_3 AB.669 in a hood.		

		Instrument:	CETAC
Standard Log #:	M13671	Standard:	Hg CCV
Analyst:	LJF	Concentration:	3.0 ug/L Hg
Prep Date:	11/21/2018	Expiration Date:	01/01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	CETAC
Standard Log #:	M13672	Reagent:	Stannous Chloride Solution
Analyst:	LJF		
Prep Date:	11/21/2018	Expiration Date:	05/21/2019
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.668 and dissolved **100 g** Stannous chloride M13648 and brought up to volume.		

Standard Log #:	M13673	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	11/21/2018	Expiration Date:	05/21/2018
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M13674	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	LJF		
Prep Date:	11/21/2018	Expiration Date:	05/21/2018
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M13620 and **60 g** hydroxylamine sulfate M13468 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M13668	Standard:	Hg ICAL
Analyst:	LJF	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	11/21/2018	Expiration Date:	01/01/2019
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	CETAC
Standard Log #:	M13669	Standard:	Alt. Source Working Std.
Analyst:	LJF	Concentrations:	10,000 and 100 ug/L
Prep Date:	11/21/2018	Expiration Date:	04/30/2019
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M13444 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	CETAC
Standard Log #:	M13670	Standard:	Hg ICV/LCS
Analyst:	LJF	Concentration:	3 ug/L
Prep Date:	11/21/2018	Expiration Date:	04/30/2019
Prep:	Into a 100 mL volumetric flask, pipetted **3 mL** of Hg (*100 ug/L working Std.*) M13444 and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl)		

		Instrument:	ICP
Standard Log #:	M13666	Standard:	As Pb ICV1
Analyst:	MDS	Concentrations:	5000 ug/L (As,Pb)
Prep Date:	11/19/2018	Expiration Date:	07/2019
Prep:	Into a 1 L volumetric flask, pipetted **5 mL** of As (1000 mg/L) M13392 and **0.5 mL** Pb (10,000 mg/L) M13615 and brought to volume with Milli-Q H_2O. (2% HNO_3, 2% HCl)		

		Instrument:	CETAC
Standard Log #:	M13667	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	11/19/2018	Expiration Date:	11/19/2018
Prep:	Carefully mixed **3** parts HCl AB.668 with **1** part HNO_3 AB.669 in a hood.		

Standard Log #:	M13664	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	11/16/2018	Expiration Date:	11/16/2019
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.659 and **128.6 mL** 10N NaOH M13514. Dilute to 20 L and mix.		

Standard Log #:	M13665	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	11/16/2018	Expiration Date:	11/16/2019
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.659 and **128.6 mL** 10N NaOH M13514. Dilute to 20 L and mix.		

		Instrument:	CETAC
Standard Log #:	M13659	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	11/01/2018	Expiration Date:	11/01/2018
Prep:	Carefully mixed **3** parts HCl AB.668 with **1** part HNO_3 AB.669 in a hood.		

		Instrument:	ICP 6500
Standard Log #:	M13660	Standard:	ICSA
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg
Prep Date:	11/01/2018	Expiration Date:	09/19
Prep:	Into a 500 mL volumetric flask, pipetted **50 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M13635 and **15 mL** Fe (10000 mg/L) M13609 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M13661	Standard:	ICV Std.
Analyst:	NAH	Concentrations:	**12,000 mg/L** Al **10,000 mg/L** Ca, Mg **5000 mg/L** Fe **2000 mg/L** As, Ba, Se, Tl **500 mg/L** B, Co, Li, Mn, Mo, Ni, Pb, Sb, Sn, Sr, Ti, V, Zn **250 mg/L** Cu **200 mg/L** Cr **50 mg/L** Ag, Be, Cd
Prep Date:	11/06/2018	Expiration Date:	10/19
Prep:	Into a 1 L volumetric flask, pipetted the following and brought up to volume with milli-Q H_2O. **10 mL** Custom Assurance Standard #18 ((200 mg/L Al, As, Ba, Se, Tl) (100 mg/L Fe) (50 mg/L Co, Mn, Ni, Pb, Sb, V, Zn) (25 mg/L Cu) (20 mg/L Cr) (5 mg/L Ag, Be, Cd)) M13637, **2 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M13635, **0.5 mL** Mo (1000 mg/L) M13608, **0.5 mL** B (1000 mg/L) M13531, **0.5 mL** Sr (1000 mg/L) M13580, **0.5 mL** Li (1000 mg/L) M13577, **0.5 mL** Sn (1000 mg/L) M13572, **0.5 mL** Ti (1000 mg/L) M13573, **0.5 mL** W (1000 mg/L) Mxxxxx, **0.5 mL** Si (1000 mg/L) M13571, **0.5 mL** S (10000 mg/L) M13530, **0.5 mL** K (10000 mg/L) M13612, and **0.5 mL** K (10000 mg/L)		

		Instrument:	ICP 6000
Standard Log #:	M13657	Standard:	L2 ICV
Analyst:	MDS	Concentrations:	1000 µg/L (Li, Sn, Sr, Ti, W)
Prep Date:	11/2/2018	Expiration Date:	01/2020
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of the following and brought up to volume using milli-Q H_2O. (0.5% HNO_3, 0.5% HCl) Li (1000 µg/mL) M13577 Sn (1000 µg/mL) M13572 Sr (1000 µg/mL) M13580 Ti (1000 µg/mL) M13573 W (1000 µg/mL) XXX		

		Instrument:	ICP 6000
Standard Log #:	M13658	Standard:	List 2 MRL/ICVLL Prep Solution
Analyst:	MDS	Concentrations:	5000 µg/L (W) 1000 µg/L (Li, Sn) 500 µg/L (Ti, Sr)
Prep Date:	11/2/2018	Expiration Date:	01/2020

Prep:

Analyte	MRL/ICVLL Conc. (µg/L)	Standard ID	Std. Conc. (µg/mL)	Volume (mL) Pipetted into 1 L	Expiration Date
Li	20/60	M13577	1000	1	02/2020
W	100/300	XXX	1000	5	XXX
Ti	10/30	M13573	1000	0.5	01/2020
Sr	10/30	M13580	1000	0.5	02/2020
Sn	20/60	M13572	1000	1	01/2020

Pipette **10 mL** into a 500 mL volumetric flask to create a working MRL std. or **1 mL** into a 50 mL digestion tube for a digested MRL standard. Pipette **30 mL** into 500 mL for a working ICVLL std. or **3 mL** into a 50 mL digestion tube for a digested ICVLL standard.

(0.5% HNO_3, 0.5% HCl)

		Instrument:	ICP
Standard Log #:	M13655	Standard:	L2 ICAL
Analyst:	MDS	Concentrations:	1 (µg/L) 10 (µg/L) 100 (µg/L) 1000 (µg/L) 10,000 (µg/L)
Prep Date:	11/2/2018	Expiration Date:	02/28/2019
Prep:	Standard Conc. (ug/L) — Pipette the following: 1 — **0.01 mL** of Custom Assurance Standard XCTWI-5-500 M13576 and **0.001 mL** W (1000 µg/mL) xxx into 1L = *1 µg/L* 10 — **0.10 mL** of Custom Assurance Standard XCTWI-5-500 M13576 and **0.01 mL** W (1000 µg/mL) xxx into 1L = *10 µg/L* 100 — **1 mL** of Custom Assurance Standard XCTWI-5-500 M13576 and **0.1 mL** W (1000 µg/mL) xxx into 1L = *100 µg/L* 1000 (CCV) — **2 mL** of Custom Assurance Standard XCTWI-5-500 M13576 and **0.2 mL** W (1000 µg/mL) xxx into 200mL = *1000 µg/L* 10000 — **20 mL** of Custom Assurance Standard XCTWI-5-500 M13576 and **2 mL** W (1000 µg/mL) xxx into 200mL = *10000 µg/L*		

		Instrument:	ICP 6000
Standard Log #:	M13656	Standard:	List 2 ICSAB
Analyst:	MDS	Concentrations:	500,000 µg/L (Al, Ca, Fe, Mg) 500 µg/L (Li, Sn, Sr, Ti, W)
Prep Date:	11/2/2018	Expiration Date:	02/28/2019
Prep:	Into a 200 mL volumetric flask, pipetted **20 mL** of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M13410, **6 mL** of Fe (10,000 mg/L) M13529, **0.1 mL** of Li (1000 µg/mL) M13577, **0.1 mL** of Sn (1000 µg/mL) M13572, **0.1 mL** of Sr (1000 µg/mL) M13580, **0.1 mL** of Ti (1000 µg/mL) M13573, and **0.1 mL** of W (1000 µg/mL) XXX and brought up to volume using Milli-Q H_2O. (0.5% HNO_3, 0.5% HCl)		

		Instrument:	GFAA
Standard Log #:	M13651	Standard:	Sb ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 µg/L (Sb)
Prep Date:	10/29/2018	Expiration Date:	10/2019
Prep:	Into a 1 L volumetric flask, pipetted **0.01 mL** of Antimony Stock Std. (1000 µg/mL Sb) M13459 and brought to volume with Milli-Q DI H_2O. ($1\% HNO_3$)		

		Instrument:	ICP 6000
Standard Log #:	M13652	Standard:	NaK ICV
Analyst:	MDS	Concentrations:	100 mg/L (Na, K)
Prep Date:	10/29/2018	Expiration Date:	10/2019
Prep:	Into a 250 mL volumetric flask, pipetted **2.5 mL** of K (10,000 mg/L) M13612 and Na (10,000 mg/L) M13461 and brought up to volume using Milli-Q H_2O. ($2\% HNO_3$)		

Standard ID#:	M13653	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance std
Date Received:	10/29/2018	Lot #:	2-036AB
Expiration Date (if any):	10/30/2019	Catalog #:	XCTWI-1-500

		Instrument:	ICP 6000
Standard Log #:	M13648	Standard:	B&Si ICAL
Analyst:	MDS	Concentrations:	50, 200, 1000, 2000 and 10,000 ug/L (B, Si)
Prep Date:	10/26/2018	Expiration Date:	07/2019
Prep:	Into five, 1 L volumetric flasks, pipetted the following from stock standards B (1000 mg/L) M13390 and Si (1000 mg/L) M13528 and brought up to volume using milli-Q H_2O. *50 ug/L std.* - **0.05 mL** of each *200 ug/L std.* - **0.2 mL** of each *1000 ug/L std.* -**1.0 mL** of each, also used for Continuing Calibration Verification *2000 ug/L std.* - **2.0 mL** of each *10,000 ug/L std.* -**10 mL** of each		

		Instrument:	ICP 6000
Standard Log #:	M13649	Standard:	B&Si ICV
Analyst:	MDS	Concentrations:	1000 ug/L (B, Si)
Prep Date:	10/26/2018	Expiration Date:	07/30/2019
Prep:	Into a 1 L volumetric flask, pipetted **10 mL** of Custom Assurance Std. #23 (100 mg/L Al, As, **B**, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M13576 and **1.0 mL** Si (1000 mg/L) M13571 and brought up to volume using milli-Q H_2O.		

		Instrument:	ICP 6000
Standard Log #:	M13650	Standard:	B & Si ICSAB
Analyst:	MDS	Concentrations:	500,000 µg/L (Al, Ca, Fe, Mg) 500 µg/L (B,Si)
Prep Date:	10/27/2018	Expiration Date:	02/28/2019
Prep:	Into a 100 mL volumetric flask, pipetted **10 mL** of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M13410, **0.05 mL** of B (1000 µg/mL) M13390, **0.05 mL** of Si (1000 µg/mL) M13528 and **3 mL** of Fe (10,000 mg/L) M13529 and brought up to volume using Milli-Q H_2O.		

		Instrument:	CETAC
Standard Log #:	M13645	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	10/24/2018	Expiration Date:	10/24/2018
Prep:	Carefully mixed **3** parts HCl AB.668 with **1** part HNO_3 AB.669 in a hood.		

Standard ID#:	M13646	Vendor:	Alfa Aesar
Analyst:	MDS	Chemical:	1% Nickel Nitrate Matrix Modifier
Date Received:	10/25/2018	Lot #:	8137324
Expiration Date (if any):	12/31/2019	Catalog #:	39043

Standard ID#:	M13647	Vendor:	LabChem
Analyst:	LJF	Chemical:	STANNOUS CHLORIDE
Date Received:	10/24/2018	Lot #:	H226-02
Expiration Date (if any):		Catalog #:	LC251701

Standard Log #:	M13643	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	10/24/2018	Expiration Date:	10/24/2019
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.659 and **128.6 mL** 10N NaOH M13514. Dilute to 20 L and mix.		

Standard Log #:	M13644	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	10/24/2018	Expiration Date:	10/24/2019
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.659 and **128.6 mL** 10N NaOH M13514. Dilute to 20 L and mix.		

		Instrument:	GFAA
Standard Log #:	M13639	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	10/24/2018	Expiration Date:	05/17/2019
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13497 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13640	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	10/24/2018	Expiration Date:	05/17/2019
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13497 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13641	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	10/24/2018	Expiration Date:	05/17/2019
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M13498 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M13642	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	10/24/2018	Expiration Date:	10/24/2019
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.659 and **128.6 mL** 10N NaOH M13514. Dilute to 20 L and mix.		

Standard Log #:	M13638	Standard:	GFAA Instrument Check
Analyst:	MDS	Final Concentration:	10 µg/L As 6 µg/L Pb 12 µg/L Sb 20 µg/L Se 14 µg/L Tl 0.6 µg/L Ag
Prep Date:	10/23/2018	Expiration Date:	07/2019

Into six, 100 mL volumetric flasks, add the following and bring up to volume with milli-Q H_2O.

Element	Volume Pipetted (mL)	Standard Conc. (µg/mL)	Standard ID	New Conc. (µg/L)
As	1	1000	M13392	10,000
Pb	0.1	10,000	M13615	10,000
Tl	1	1000	M13583	10,000
Se	1	1000	M13460	10,000
Sb	1	1000	M13459	10,000
Ag	0.1	1000	M13458	1000

Into a 1 L volumetric flask, add the following and bring up to volume with Milli-Q H_20. (1% HNO_3)

Element	Volume Pipetted (mL)	Standard Conc. (µg/L)	New Conc. (µg/L)
As	1.0	10,000	10
Pb	0.6	10,000	6
Tl	1.4	10,000	14
Se	2.0	10,000	20
Sb	1.2	10,000	12
Ag	0.6	1000	0.6

Standard ID#:	M13634	Vendor:	CPI
Analyst:	NAH	Chemical:	Yttrium 10,0000 mg/L
Date Received:	10/18/2018	Lot #:	139448-54
Expiration Date (if any):	04/20	Catalog #:	4400-10m671

Standard ID#:	M13635	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Interference A
Date Received:	10/18/2018	Lot #:	2-230sgx
Expiration Date (if any):	09/30/2019	Catalog #:	INT-A1

		Instrument:	CETAC
Standard Log #:	M13636	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	10/18/2018	Expiration Date:	10/18/2018
Prep:	Carefully mixed **3** parts HCl AB.668 with **1** part HNO_3 AB.665 in a hood.		

Standard ID#:	M13637	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance standard
Date Received:	10/18/2018	Lot #:	50-0007CR
Expiration Date (if any):	10/30/2019	Catalog #:	XSPIKE-1-250

		Instrument:	CETAC
Standard Log #:	M13633	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	10/16/2018	Expiration Date:	10/16/2018
Prep:	Carefully mixed **3** parts HCl AB.668 with **1** part HNO_3 AB.665 in a hood.		

		Instrument:	GFAA
Standard Log #:	M13632	Standard:	LODW/LOQW Ag Spiking Sol'n
Analyst:	MDS	Concentrations:	10 ug/L (Ag)
Prep Date:	10/16/2018	Expiration Date:	10/2019
Prep:	Into a 100 mL volumetric flask, pipetted **0.1 mL** of Ag (1000mg/L) M13458 and brought to volume with Milli-Q H_2O to make a 1000 ug/L Ag std. Into a 1 L volumetric flask, pipetted **10 mL** of Ag (*1000 ug/L*) std. and brought to volume with Milli-Q H_2O. (1% HNO_3) *Pipette **1 mL** spiking solution into 50 mL H_2O for LOD (*0.2 ug/L*) and **2 mL** spiking solution for LOQ (*0.4 ug/L*)		

Standard Log #:	M13627	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	10/03/2018	Expiration Date:	10/03/2019
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.659 and **128.6 mL** 10N NaOH M13514. Dilute to 20 L and mix.		

Standard Log #:	M13628	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	10/03/2018	Expiration Date:	10/03/2019
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.659 and **128.6 mL** 10N NaOH M13514. Dilute to 20 L and mix.		

MRL BASE STD M13626 Analyst NAH

Prep Date 10/01/2018

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L	Expiration Date
Ag	20	M13458	1000	1	10/2019
Al	400	M13462	10000	2	10/2019
Ba	10	M13457	1000	0.5	10/2019
Be	4	M13579	1000	0.2	02/20
Cd	5	M13570	1000	0.25	01/20
Co	10	M13575	1000	0.5	01/20
Cr	10	M13617	10000	0.05	03/20
Cu	10	M13618	10000	0.05	03/20
Mg	500	M13319	10000	2.5	04/19
Mn	10	M13616	10000	0.05	03/20
Mo	10	M13608	1000	0.5	03/20
Ni	10	M13569	1000	0.5	03/20
Pb	10	M13610	10000	0.05	03/20
Sb	20	M13459	1000	1	03/20
V	10	M13578	1000	0.5	02/20
Zn	10	M13610	10000	0.05	02/20
K	1000	M13341	10000	5	05/19
Na	1000	M13402	10000	5	08/19
As	20	M13392	1000	1	07/19
Ca	500	M13324	10000	2.5	04/19
Fe	300	M13463	10000	1.5	10/19
Se	20	M13460	1000	1	10/19
Tl	20	M13583	1000	1	02/20
Si	100	M13394	1000	5	07/19
B	20	M13531	1000	1	07/19
Li	20	M13517	1000	1	02/20
W	50	xxxxxxx	1000	2.5	xxxxxxx
Ti	10	M13573	1000	0.5	02/20
Sr	10	M13586	1000	0.5	02/20
Sn	50	M13572	1000	2.5	02/20
S	300	M13391	10000	1.5	07/19

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Standard Log #:	M13625	Instrument:	GFAA
Analyst:	MDS	Reagent:	Pd/Mg Matrix Modifier
Prep Date:	10/03/2018	Expiration Date:	09/30/2019
Prep:	Into a 50 mL volumetric flask, partially filled with milli-Q H_2O, pipetted **15 mL** Pd Modifier M13600 and **10 mL** Mg (10,000 mg/L) M13464 and brought up to volume.		

Standard ID#:	M13618	Vendor:	CPI
Analyst:	NAH	Chemical:	Cu 10000 mg/L
Date Received:	09/20/2018	Lot #:	148796-39
Expiration Date (if any):	03/2020	Catalog #:	S4400-10M141

		Instrument:	CETAC
Standard Log #:	M13619	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	09/19/2018	Expiration Date:	09/19/2018
Prep:	Carefully mixed **3** parts HCl AB.664 with **1** part HNO_3 AB.665 in a hood.		

Standard ID#:	M13620	Vendor:	FISHER
Analyst:	LJF	Chemical:	SODIUM CHLORIDE
Date Received:	09/04/2018	Lot #:	177409
Expiration Date (if any):		Catalog #:	S271-500

Standard ID#:	M13611	Vendor:	CPI
Analyst:	NAH	Chemical:	Al 10000 mg/L
Date Received:	09/20/2018	Lot #:	169484-18
Expiration Date (if any):	03/2020	Catalog #:	4400-10M11

Standard ID#:	M13612	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10000 mg/L
Date Received:	09/20/2018	Lot #:	172053-36
Expiration Date (if any):	03/2020	Catalog #:	440010M411

Standard ID#:	M13613	Vendor:	CPI
Analyst:	NAH	Chemical:	Ca 10000 mg/L
Date Received:	09/20/2018	Lot #:	855297-1
Expiration Date (if any):	03/2020	Catalog #:	4400-10M91

Standard ID#:	M13614	Vendor:	CPI
Analyst:	NAH	Chemical:	Mg 10000 mg/L
Date Received:	09/20/2018	Lot #:	148250-72
Expiration Date (if any):	03/2020	Catalog #:	4400-10M311

Standard ID#:	M13615	Vendor:	CPI
Analyst:	NAH	Chemical:	Pb 10000 mg/L
Date Received:	09/20/2018	Lot #:	168223-17
Expiration Date (if any):	03/2020	Catalog #:	4400-10M281

Standard ID#:	M13616	Vendor:	CPI
Analyst:	NAH	Chemical:	Mn 10000 mg/L
Date Received:	09/20/2018	Lot #:	167540-6
Expiration Date (if any):	03/2020	Catalog #:	S4400-10M321

Standard ID#:	M13617	Vendor:	CPI
Analyst:	NAH	Chemical:	Cr 10000 mg/L
Date Received:	09/20/2018	Lot #:	158236-7
Expiration Date (if any):	03/2020	Catalog #:	s4400-10M121

Standard ID#:	M13604	Vendor:	CPI
Analyst:	NAH	Chemical:	Sulfur 10000 mg/L
Date Received:	09/20/2018	Lot #:	167967-37
Expiration Date (if any):	03/2020	Catalog #:	4400-10M544

Standard ID#:	M13605	Vendor:	CPI
Analyst:	NAH	Chemical:	Sodium 10000 mg/L
Date Received:	09/20/2018	Lot #:	752887-3
Expiration Date (if any):	03/2020	Catalog #:	4400-10M521

Standard ID#:	M13606	Vendor:	CPI
Analyst:	NAH	Chemical:	K 1000 mg/L
Date Received:	09/20/2018	Lot #:	144467-179
Expiration Date (if any):	03/2020	Catalog #:	4400-1000411-500

Standard ID#:	M13607	Vendor:	CPI
Analyst:	NAH	Chemical:	Na 1000 mg/L
Date Received:	09/20/2018	Lot #:	158237-113
Expiration Date (if any):	03/2020	Catalog #:	4400-1000521-500

Standard ID#:	M13608	Vendor:	CPI
Analyst:	NAH	Chemical:	Mo 1000 mg/L
Date Received:	09/20/2018	Lot #:	169424-37
Expiration Date (if any):	03/2020	Catalog #:	S4400-1000343

Standard ID#:	M13609	Vendor:	CPI
Analyst:	NAH	Chemical:	Fe 10000 mg/L
Date Received:	09/20/2018	Lot #:	156651-53
Expiration Date (if any):	03/2020	Catalog #:	4400-10M261

Standard ID#:	M13610	Vendor:	CPI
Analyst:	NAH	Chemical:	Zn 10000 mg/L
Date Received:	09/20/2018	Lot #:	979871-2
Expiration Date (if any):	03/2020	Catalog #:	4400-10M681

Standard Log #:	M13601	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	09/12/2018	Expiration Date:	09/12/2019
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.659 and **128.6 mL** 10N NaOH M13514. Dilute to 20 L and mix.		

Standard ID#:	M13602	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	09-12-2018	Lot #:	1-124AB
Expiration Date (if any):	09-30-2019	Catalog #:	XCTWI-5-500

Standard ID#:	M13600	Vendor:	Environmental Express
Analyst:	MDS	Chemical:	1% Pd Matrix Modifier
Date Received:	09/11/2018	Lot #:	1808015
Expiration Date (if any):	09/30/2019	Catalog #:	HP1900-100

Standard Log #:	M13599	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	09/08/2018	Expiration Date:	09/08/2019
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.659 and **128.6 mL** 10N NaOH M13514. Dilute to 20 L and mix.		

Standard ID#:	M13595	Vendor:	SPEX CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Std
Date Received:	08/29/2018	Lot #:	49-151CR
Expiration Date (if any):	08/30/2019	Catalog #:	XSPIKE-1-250

		Instrument:	CETAC
Standard Log #:	M13596	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	08/30/2018	Expiration Date:	08/30/2018
Prep:	Carefully mixed **3** parts HCl AB.664 with **1** part HNO_3 AB.665 in a hood.		

		Instrument:	ICP 6000
Standard Log #:	M13597	Standard:	Na & K ICAL
Analyst:	MDS	Concentrations:	0.5, 1, 5, 10, 50, 100, and 200 mg/L (Na,K)
Prep Date:	08/30/2018	Expiration Date:	05/2019
Prep:	Into seven, 200 mL volumetric flasks, pipetted the following from Na (1000 µg/mL) M13339 and K (1000 µg/mL) M13340 and brought up to volume using milli-Q H_2O. (2% HNO_3) *0.5 mg/L std.* - **0.1 mL** of each *1.0 mg/L std.* - **0.2 mL** of each *5.0 mg/L std.* - **1.0 mL** of each *10 mg/L std.* - **2.0 mL** of each *50 mg/L std.* - **10 mL** of each *100 mg/L std.* -**20 mL** of each, also used for Continuing Calibration Verification *200 mg/L std.* - **40 mL** of each		

		Instrument:	ICP 6000
Standard Log #:	M13598	Standard:	Na,K MRL
Analyst:	MDS	Concentrations:	1 mg/L (Na,K)
Prep Date:	08/30/2018	Expiration Date:	05/2019
Prep:	Into a 500 mL volumetric flask, pipetted **0.5 mL** of Na (1000 µg/mL) M13339 and **0.5 mL** K (1000 µg/mL) M13340 and brought to volume with Milli-Q H_2O. (2% HNO_3)		

Standard Log #:	M13588	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	08/21/2018	Expiration Date:	08/21/2019
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.659 and **128.6 mL** 10N NaOH M13514. Dilute to 20 L and mix.		

Standard Log #:	M13589	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	08/21/2018	Expiration Date:	08/21/2019
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.659 and **128.6 mL** 10N NaOH M13514. Dilute to 20 L and mix.		

Standard ID#:	M13590	Vendor:	AMCO Clear
Analyst:	NAH	Chemical:	turbidity std 2.0 ntu
Date Received:	08/21/2018	Lot #:	18272791
Expiration Date (if any):	08/2019	Catalog #:	8008

		Instrument:	ICP 6000
Standard Log #:	M13586	Standard:	L2 ICV
Analyst:	MDS	Concentrations:	1000 µg/L (Li, Sn, Sr, Ti, W)
Prep Date:	08/20/2018	Expiration Date:	01/2020
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of the following and brought up to volume using milli-Q H_2O. (0.5% HNO_3, 0.5% HCl) Li (1000 µg/mL) M13577 Sn (1000 µg/mL) M13572 Sr (1000 µg/mL) M13580 Ti (1000 µg/mL) M13573 W (1000 µg/mL) MXXX		

		Instrument:	ICP 6000
Standard Log #:	M13587	Standard:	List 2 MRL/ICVLL Prep Solution
Analyst:	MDS	Concentrations:	5000 µg/L (W) 1000 µg/L (Li, Sn) 500 µg/L (Ti, Sr)
Prep Date:	08/20/2018	Expiration Date:	01/2020

Prep:

Analyte	MRL/ICVLL Conc. (µg/L)	Standard ID	Std. Conc. (µg/mL)	Volume (mL) Pipetted into 1 L	Expiration Date
Li	20/60	M13577	1000	1	02/2020
W	100/300	XXX	1000	5	XXX
Ti	10/30	M13573	1000	0.5	01/2020
Sr	10/30	M13580	1000	0.5	02/2020
Sn	20/60	M13572	1000	1	01/2020

Pipette **10 mL** into a 500 mL volumetric flask to create a working MRL std. or **1 mL** into a 50 mL digestion tube for a digested MRL standard. Pipette **30 mL** into 500 mL for a working ICVLL std. or **3 mL** into a 50 mL digestion tube for a digested ICVLL standard.

(0.5% HNO_3, 0.5% HCl)

		Instrument:	ICP
Standard Log #:	M13584	Standard:	L2 ICAL
Analyst:	MDS	Concentrations:	1 (µg/L) 10 (µg/L) 100 (µg/L) 1000 (µg/L) 10,000 (µg/L)
Prep Date:	08/20/2018	Expiration Date:	07/30/2019
Prep:	Standard Conc. (ug/L)	Pipette the following:	
	1	**0.01 mL** of Custom Assurance Standard XCTWI-5-500 M13576 and **0.001 mL** W (1000 µg/mL) MXXX into 1L = *1 µg/L*	
	10	**0.10 mL** of Custom Assurance Standard XCTWI-5-500 M13576 and **0.01 mL** W (1000 µg/mL) MXXX into 1L = *10 µg/L*	
	100	**1 mL** of Custom Assurance Standard XCTWI-5-500 M13576 and **0.1 mL** W (1000 µg/mL) MXXX into 1L = *100 µg/L*	
	1000 (CCV)	**2 mL** of Custom Assurance Standard XCTWI-5-500 M13576 and **0.2 mL** W (1000 µg/mL) MXXX into 200mL = *1000 µg/L*	
	10000	**20 mL** of Custom Assurance Standard XCTWI-5-500 M13576 and **2 mL** W (1000 µg/mL) MXXX into 200mL = *10000 µg/L*	

		Instrument:	ICP 6000
Standard Log #:	M13585	Standard:	List 2 ICSAB
Analyst:	MDS	Concentrations:	500,000 µg/L (Al, Ca, Fe, Mg) 500 µg/L (Li, Sn, Sr, Ti, W)
Prep Date:	08/20/2018	Expiration Date:	
Prep:	Into a 200 mL volumetric flask, pipetted **20 mL** of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M13410, **6 mL** of Fe (10,000 mg/L) M13463, **0.1 mL** of Li (1000 µg/mL) M13577, **0.1 mL** of Sn (1000 µg/mL) M13572, **0.1 mL** of Sr (1000 µg/mL) M13580, **0.1 mL** of Ti (1000 µg/mL) M13573, and **0.1 mL** of W (1000 µg/mL) MXXX and brought up to volume using Milli-Q H_2O. (0.5% HNO_3, 0.5% HCl)		

Standard ID#:	M13577	Vendor:	CPI
Analyst:	NAH	Chemical:	Li 1000 mg/L
Date Received:	08/17/2018	Lot #:	751942-25
Expiration Date (if any):	02/2020	Catalog #:	S4400-1000291

Standard ID#:	M13578	Vendor:	CPI
Analyst:	NAH	Chemical:	V 1000 mg/L
Date Received:	08/17/2018	Lot #:	152207-68
Expiration Date (if any):	02/2020	Catalog #:	S4400-1000651

Standard ID#:	M13579	Vendor:	CPI
Analyst:	NAH	Chemical:	Be 1000 mg/L
Date Received:	08/17/2018	Lot #:	660981-5
Expiration Date (if any):	02/2020	Catalog #:	S4400-100051

Standard ID#:	M13580	Vendor:	CPI
Analyst:	NAH	Chemical:	Sr 1000 mg/L
Date Received:	08/17/2018	Lot #:	168227-29
Expiration Date (if any):	02/2020	Catalog #:	S4400-1000531

Standard ID#:	M13581	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10000 mg/L
Date Received:	08/17/2018	Lot #:	172053-36
Expiration Date (if any):	02/2020	Catalog #:	4400-10411

Standard ID#:	M13582	Vendor:	Environmental Express
Analyst:	NAH	Chemical:	Y 10000 mg/L
Date Received:	08/17/2018	Lot #:	1805105
Expiration Date (if any):	02/2020	Catalog #:	HP10M67-1

Standard ID#:	M13583	Vendor:	CPI
Analyst:	NAH	Chemical:	Tl 1000 mg/L
Date Received:	08/17/2018	Lot #:	148983-70
Expiration Date (if any):	02/2020	Catalog #:	S4400-1000581

Standard ID#:	M13576	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	08/04/2018	Lot #:	49-045CR
Expiration Date (if any):	07/30/2019	Catalog #:	XCTWI-5-500

Standard ID#:	M13569	Vendor:	CPI
Analyst:	NAH	Chemical:	Ni 1000 mg/L
Date Received:	07/27/2018	Lot #:	166665-86
Expiration Date (if any):	01/2020	Catalog #:	s4400-1000361

Standard ID#:	M13570	Vendor:	CPI
Analyst:	NAH	Chemical:	Cd 1000 mg/L
Date Received:	07/27/2018	Lot #:	160499-32
Expiration Date (if any):	01/2020	Catalog #:	s4400-100081

Standard ID#:	M13571	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 mg/L
Date Received:	07/27/2018	Lot #:	175213-28
Expiration Date (if any):	01/2020	Catalog #:	s4400-1000504F

Standard ID#:	M13572	Vendor:	CPI
Analyst:	NAH	Chemical:	Sn 1000 mg/L
Date Received:	07/27/2018	Lot #:	144466-74
Expiration Date (if any):	01/2020	Catalog #:	s4400-1000613

Standard ID#:	M13573	Vendor:	CPI
Analyst:	NAH	Chemical:	Ti 1000 mg/L
Date Received:	07/27/2018	Lot #:	152616-55
Expiration Date (if any):	01/2020	Catalog #:	s4400-1000623

Standard ID#:	M13574	Vendor:	CPI
Analyst:	NAH	Chemical:	Hg 1000 mg/L
Date Received:	07/27/2018	Lot #:	175191-22
Expiration Date (if any):	01/2020	Catalog #:	s4400-1000331

Standard ID#:	M13575	Vendor:	CPI
Analyst:	NAH	Chemical:	Co 1000 mg/L
Date Received:	07/27/2018	Lot #:	161693-10
Expiration Date (if any):	01/2020	Catalog #:	s4400-1000131

Standard Log #:	M13563	Instrument:	ICP
Analyst:	LJF	Standard:	LOQ 3050 S Spiking Solution
Prep Date:	07/19/2018	Expiration Date:	10/2019

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
S	240	M13466	10000	1.2

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard ID#:	M13557	Vendor:	Alfa Aesar Specpure
Analyst:	MDS	Chemical:	1% Nickel Nitrate Matrix Modifier
Date Received:	07/17/2018	Lot #:	8137324
Expiration Date (if any):	12/31/2019	Catalog #:	39043

		Instrument:	ICP 6000
Standard Log #:	M13558	Standard:	B&Si ICV
Analyst:	MDS	Concentrations:	1000 ug/L (B, Si)
Prep Date:	07/17/2018	Expiration Date:	05/2019
Prep:	Into a 1 L volumetric flask, pipetted **10 mL** of Custom Assurance Std. #23 (100 mg/L Al, As, **B**, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M13518 and **1.0 mL** Si (1000 mg/L) M13338 and brought up to volume using milli-Q H_2O.		

Standard Log #:	M13559	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	07/17/2018	Expiration Date:	01/17/2019
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13559 and brought up to volume.		

Standard Log #:	M13554	Instrument:	ICP
Analyst:	LJF	Standard:	LOQ 3010 B&Si Spiking Solution
Prep Date:	07/13/2018	Expiration Date:	05/2019

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
B	16	M13390	1000	0.8
Si	200	M13338	1000	10

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M13555	Instrument:	ICP
Analyst:	LJF	Standard:	LOQ 3010 S Spiking Solution
Prep Date:	07/13/2018	Expiration Date:	10/2019

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
S	200	M13466	10000	1.0

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

		Instrument:	GFAA
Standard Log #:	M13553	Standard:	Sb ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 µg/L (Sb)
Prep Date:	07/12/2018	Expiration Date:	10/2019
Prep:	Into a 1 L volumetric flask, pipetted **0.01 mL** of Antimony Stock Std. (1000 µg/mL Sb) M13459 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13547	Standard:	LODW/LOQW Ag Spiking Sol'n
Analyst:	MDS	Concentrations:	10 ug/L (Ag)
Prep Date:	07/09/2018	Expiration Date:	10/2019
Prep:	Into a 100 mL volumetric flask, pipetted **0.1 mL** of Ag (1000mg/L) M13458 and brought to volume with Milli-Q H_2O to make a 1000 ug/L Ag std. Into a 1 L volumetric flask, pipetted **10 mL** of Ag (*1000 ug/L*) std. and brought to volume with Milli-Q H_2O. (1% HNO_3) *Pipette **1 mL** spiking solution into 50 mL H_2O for LOD (*0.2 ug/L*) and **2 mL** spiking solution for LOQ (*0.4 ug/L*)		

Standard Log #:	M13548	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	LJF		
Prep Date:	07/10/2018	Expiration Date:	01/10/2019
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M13226 and **60 g** hydroxylamine sulfate M13468 and brought up to volume.		

		Instrument:	GFAA
Standard Log #:	M13549	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	07/10/2018	Expiration Date:	05/17/2019
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13497 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

Standard Log #:	M13534	Standard:	GFAA Instrument Check
Analyst:	MDS	Final Concentration:	10 µg/L As 6 µg/L Pb 12 µg/L Sb 20 µg/L Se 14 µg/L Tl 0.6 µg/L Ag
Prep Date:	07/02/2018	Expiration Date:	09/16/2018

Into six, 100 mL volumetric flasks, add the following and bring up to volume with milli-Q H_2O.

Element	Volume Pipetted (mL)	Standard Conc. (µg/mL)	Standard ID	New Conc. (µg/L)
As	1	1000	M13392	10,000
Pb	0.1	10,000	M13169	10,000
Tl	1	1000	M13124	10,000
Se	1	1000	M13460	10,000
Sb	1	1000	M13459	10,000
Ag	0.1	1000	M13458	1000

Into a 1 L volumetric flask, add the following and bring up to volume with Milli-Q H_20. (1% HNO_3)

Element	Volume Pipetted (mL)	Standard Conc. (µg/L)	New Conc. (µg/L)
As	1.0	10,000	10
Pb	0.6	10,000	6
Tl	1.4	10,000	14
Se	2.0	10,000	20
Sb	1.2	10,000	12
Ag	0.6	1000	0.6

Standard ID#:	M13535	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	07/02/2018	Lot #:	48-179CR
Expiration Date (if any):	06/30/2019	Catalog #:	XSPIKE-1-250

Standard ID#:	M13526	Vendor:	CPI
Analyst:	NAH	Chemical:	YTTRIUM 10,000 ug/mL
Date Received:	06/22/2018	Lot #:	138448-54
Expiration Date (if any):	12/2019	Catalog #:	4400-10M671

Standard ID#:	M13527	Vendor:	CPI
Analyst:	NAH	Chemical:	POTASSIUM 10,000
Date Received:	06/22/2018	Lot #:	172053-32
Expiration Date (if any):	12/2019	Catalog #:	4400-104411

Standard ID#:	M13528	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 ug/mL
Date Received:	06/22/2018	Lot #:	142610-115
Expiration Date (if any):	12/2019	Catalog #:	S4400-1000504F

Standard ID#:	M13529	Vendor:	CPI
Analyst:	NAH	Chemical:	Fe 10,000 ug/mL
Date Received:	06/22/2018	Lot #:	156651-42
Expiration Date (if any):	12/2019	Catalog #:	4400-10M261

Standard ID#:	M13530	Vendor:	CPI
Analyst:	NAH	Chemical:	SULFUR 10,000ug/mL
Date Received:	06/22/2018	Lot #:	129880-46
Expiration Date (if any):	12/2019	Catalog #:	4400-10M544

Standard ID#:	M13531	Vendor:	CPI
Analyst:	NAH	Chemical:	BORON 1000 ug/mL
Date Received:	06/22/2018	Lot #:	158372-91
Expiration Date (if any):	12/2019	Catalog #:	S4400-100074

Standard ID#:	M13532	Vendor:	CPI
Analyst:	NAH	Chemical:	CUSTOM ASSURANCE STANDARD
Date Received:	06/22/2018	Lot #:	48-146CR
Expiration Date (if any):	06/30/2019	Catalog #:	XCTWI-1-500

Standard ID#:	M13520	Vendor:	FRISCOLYT
Analyst:	NAH	Chemical:	Electrolyte Solution
Date Received:	06/13/2018	Lot #:	1DO71H
Expiration Date (if any):	12/03/2021	Catalog #:	51 340 053

		Instrument:	ICP
Standard Log #:	M13521	Standard:	As Pb ICV1
Analyst:	MDS	Concentrations:	5000 ug/L (As,Pb)
Prep Date:	06/13/2018	Expiration Date:	10/20/2018
Prep:	Into a 1 L volumetric flask, pipetted **0.5 mL** of As (10,000 mg/L) M13392 and **0.5 mL** Pb (10,000 mg/L) M13169 and brought to volume with Milli-Q H_2O. (2% HNO_3, 2% HCl)		

Standard ID#:	M13518	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	06/11/2018	Lot #:	48-060CR
Expiration Date (if any):	06/30/2019	Catalog #:	XCTWI-5-500

		Instrument:	ICP 6500
Standard Log #:	M13519	Standard:	ICAL
Analyst:	NAH	Concentrations:	0.25, 0.5, 1, 5, 10, 20, 50, 100, 1000, 10,000, 100k, 100,000, 500,000 and 1000k (ug/L)
Prep Date:	06/11/2018	Expiration Date:	06/30/2019

Prep:

Using 1 L volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O.
(5% HNO_3, 5% HCl)
1000 ug/L Std. - **10 mL** of Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M13518, **10 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M13506 and **1 mL** of Si (1000 mg/L) M13394 and 1 mL M13203 Ce
0.25 ug/L Std. - **0.25 mL** of the 1000 ug/L Std.
0.5 ug/L Std. - **0.5 mL** of the 1000 ug/L Std.
1 ug/L Std. - **1 mL** of the 1000 ug/L Std.
5 ug/L Std. - **5 mL** of the 1000 ug/L Std.
10 ug/L Std. - **10 mL** of the 1000 ug/L Std.
20 ug/L Std. - **20 mL** of the 1000 ug/L Std.
50 ug/L Std. - **50 mL** of the 1000 ug/L Std.
100 ug/L Std. - **1 mL** of Custom Assurance Std. (CAS) #23 and **1 mL** of CAS #3
10,000 ug/L Std. - **100 mL** CAS #23, **100 mL** CAS #3 and **1 mL** of K (10,000 mg/L) M13465.
100k ug/L Std. - **10 mL** of Cu (10,000 mg/L) M13166, **10 mL** of Mn (10,000 mg/L) M13167, **10 mL** of Cr (10,000 mg/L) M13165, **10 mL** Pb (10,000 mg/L) M13169, **10 mL** of Zn (10,000 mg/L) M13168 and **10 mL** of Na (10,000 mg/L) M13461.
100,000 ug/L Std. - **10 mL** of Mg (10,000 mg/L) M13319, **10 mL** of Fe (10,000 mg/L) M13463, **10 mL** of Ca (10,000 mg/L) M13467 and **10 mL** Al (10,000 mg/L) M13462.
500,000 ug/L Std. - **50 mL** of Mg (10,000 mg/L), **50 mL** of Fe (10,000 mg/L), **50 mL** of Ca (10,000 mg/L) and **50 mL** of Al (10,000 mg/L)
1000k ug/L Std. - **100 mL** of Mg (10,000 mg/L), **100 mL** of Fe (10,000 mg/L), **100 mL** of Ca (10,000 mg/L) and **100 mL** of Al (10,000 mg/L)

		Instrument:	CETAC
Standard Log #:	M13510	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	06/01/2018	Expiration Date:	06/01/2018
Prep:	Carefully mixed **3** parts HCl AB.656 with **1** part HNO_3 AB.655 in a hood.		

Standard ID#:	M13511	Vendor:	FISHER
Analyst:	LJF	Chemical:	SODIUM CHLORIDE
Date Received:	06/04/2018	Lot #:	176877
Expiration Date (if any):		Catalog #:	S271-500

Standard ID#:	M13506	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	05/22/2018	Lot #:	48-042CR
Expiration Date (if any):	05/30/2019	Catalog #:	XCTWI-4-500

Standard ID#:	M13507	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	05/22/2018	Lot #:	48-041CR
Expiration Date (if any):	05/30/2019	Catalog #:	XSPIKE-1-250

Standard ID#:	M13508	Vendor:	RESTEK
Analyst:	NAH	Chemical:	Diatomaceous earth (Celite 566)
Date Received:	05/22/2018	Lot #:	811030-BG
Expiration Date (if any):	N/A	Catalog #:	26033

Standard ID#:	M13495	Vendor:	LabChem
Analyst:	LJF	Chemical:	STANNOUS CHLORIDE
Date Received:	05/15/2018	Lot #:	H052-17
Expiration Date (if any):		Catalog #:	LC251701

		Instrument:	ICP 6000
Standard Log #:	M13485	Standard:	Na & K ICAL
Analyst:	MDS	Concentrations:	0.5, 1, 5, 10, 50, 100, and 200 mg/L (Na,K)
Prep Date:	05/07/2018	Expiration Date:	05/2019
Prep:	Into seven, 200 mL volumetric flasks, pipetted the following from Na (1000 µg/mL) M13339 and K (1000 µg/mL) M13340 and brought up to volume using milli-Q H_2O. (2% HNO_3) *0.5 mg/L std.* - **0.1 mL** of each *1.0 mg/L std.* - **0.2 mL** of each *5.0 mg/L std.* - **1.0 mL** of each *10 mg/L std.* - **2.0 mL** of each *50 mg/L std.* - **10 mL** of each *100 mg/L std.* **-20 mL** of each, also used for Continuing Calibration Verification *200 mg/L std.* - **40 mL** of each		

		Instrument:	ICP 6000
Standard Log #:	M13486	Standard:	NaK ICV
Analyst:	MDS	Concentrations:	100 mg/L (Na, K)
Prep Date:	05/07/2018	Expiration Date:	08/2019
Prep:	Into a 250 mL volumetric flask, pipetted **2.5 mL** of K (10,000 mg/L) M13400 and Na (10,000 mg/L) M13402 and brought up to volume using Milli-Q H_2O. (2% HNO_3)		

		Instrument:	ICP 6000
Standard Log #:	M13487	Standard:	Na,K ICVLL
Analyst:	MDS	Concentrations:	3 mg/L (Na,K)
Prep Date:	05/07/2018	Expiration Date:	08/2019
Prep:	Into a 500 mL volumetric flask, pipetted **0.15 mL** of Na (10,000 µg/mL) M13402 and **0.15 mL** K (10,000 µg/mL) M13400 and brought to volume with Milli-Q H_2O. (2% HNO_3)		

		Instrument:	ICP 6000
Standard Log #:	M13488	Standard:	Na,K MRL
Analyst:	MDS	Concentrations:	1 mg/L (Na,K)
Prep Date:	05/07/2018	Expiration Date:	05/2019
Prep:	Into a 500 mL volumetric flask, pipetted **0.5 mL** of Na (1000 µg/mL) M13339 and **0.5 mL** K (1000 µg/mL) M13340 and brought to volume with Milli-Q H_2O. (2% HNO_3)		

Standard ID#:	M13484	Vendor:	Environmental Express
Analyst:	NAH	Chemical:	Y 10,000 mg/L
Date Received:	05/03/2018	Lot #:	1805105
Expiration Date (if any):	10/31/2019	Catalog #:	HP10M67-1

		Instrument:	ICP 6000
Standard Log #:	M13471	Standard:	B&Si ICAL
Analyst:	MDS	Concentrations:	50, 200, 1000, 2000 and 10,000 ug/L (B, Si)
Prep Date:	04/26/2018	Expiration Date:	07/2019
Prep:	Into five, 1 L volumetric flasks, pipetted the following from stock standards B (1000 mg/L) M13390 and Si (1000 mg/L) M13394 and brought up to volume using milli-Q H_2O. *50 ug/L std.* - **0.05 mL** of each *200 ug/L std.* - **0.2 mL** of each *1000 ug/L std.* -**1.0 mL** of each, also used for Continuing Calibration Verification *2000 ug/L std.* - **2.0 mL** of each *10,000 ug/L std.* -**10 mL** of each		

		Instrument:	ICP 6000
Standard Log #:	M13472	Standard:	B&Si ICV
Analyst:	MDS	Concentrations:	1000 ug/L (B, Si)
Prep Date:	04/26/2018	Expiration Date:	07/02/2018
Prep:	Into a 1 L volumetric flask, pipetted **10 mL** of Custom Assurance Std. #23 (100 mg/L Al, As, **B**, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M13364 and **1.0 mL** Si (1000 mg/L) M13085 and brought up to volume using milli-Q H_2O.		

		Instrument:	ICP 6000
Standard Log #:	M13473	Standard:	B & Si ICSAB
Analyst:	MDS	Concentrations:	500,000 µg/L (Al, Ca, Fe, Mg) 500 µg/L (B,Si)
Prep Date:	04/26/2018	Expiration Date:	10/30/2018
Prep:	Into a 100 mL volumetric flask, pipetted **10 mL** of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M13305, **0.05 mL** of B (1000 µg/mL) M13390, **0.05 mL** of Si (1000 µg/mL) M13394 and **3 mL** of Fe (10,000 mg/L) M13321 and brought up to volume using Milli-Q H_2O.		

Standard ID#:	M13467	Vendor:	CPI
Analyst:	NAH	Chemical:	Ca 10000 mg/L
Date Received:	04/20/2018	Lot #:	147497-47
Expiration Date (if any):	10/2019	Catalog #:	4400-10M91

Standard ID#:	M13468	Vendor:	FISHER
Analyst:	LJF	Chemical:	HYDROXYLAMINE SULFATE
Date Received:	04/24/2018	Lot #:	174236
Expiration Date (if any):		Catalog #:	H331-500

		Instrument:	CETAC
Standard Log #:	M13469	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	04/24/2018	Expiration Date:	04/24/2018
Prep:	Carefully mixed **3** parts HCl AB.656 with **1** part HNO_3 AB.655 in a hood.		

Standard ID#:	M13462	Vendor:	CPI
Analyst:	NAH	Chemical:	Al 10000 mg/L
Date Received:	04/20/2018	Lot #:	158058-23
Expiration Date (if any):	10/2019	Catalog #:	4400-10M11

Standard ID#:	M13463	Vendor:	CPI
Analyst:	NAH	Chemical:	Fe 10000 mg/L
Date Received:	04/20/2018	Lot #:	156651-18
Expiration Date (if any):	10/2019	Catalog #:	4400-10M261

Standard ID#:	M13464	Vendor:	CPI
Analyst:	NAH	Chemical:	Mg 10000 mg/L
Date Received:	04/20/2018	Lot #:	148250-67
Expiration Date (if any):	10/2019	Catalog #:	4400-10M311

Standard ID#:	M13465	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10000 mg/L
Date Received:	04/20/2018	Lot #:	172053-2
Expiration Date (if any):	10/2019	Catalog #:	4400-10M411

Standard ID#:	M13466	Vendor:	CPI
Analyst:	NAH	Chemical:	S 10000 mg/L
Date Received:	04/20/2018	Lot #:	129880-37
Expiration Date (if any):	10/2019	Catalog #:	4400-10M544

Standard ID#:	M13457	Vendor:	CPI
Analyst:	NAH	Chemical:	Barium 1000 mg/L
Date Received:	04/20/2018	Lot #:	158364-3
Expiration Date (if any):	10/2019	Catalog #:	S4400-100041

Standard ID#:	M13458	Vendor:	CPI
Analyst:	NAH	Chemical:	Ag 1000 mg/L
Date Received:	04/20/2018	Lot #:	162712-9
Expiration Date (if any):	10/2019	Catalog #:	S4400-1000511

Standard ID#:	M13459	Vendor:	CPI
Analyst:	NAH	Chemical:	Sb 1000 mg/L
Date Received:	04/20/2018	Lot #:	153992-1
Expiration Date (if any):	10/2019	Catalog #:	S4400-100023

Standard ID#:	M13460	Vendor:	CPI
Analyst:	NAH	Chemical:	Se 1000 mg/L
Date Received:	04/20/2018	Lot #:	154366-16
Expiration Date (if any):	10/2019	Catalog #:	S4400-1000491

Standard ID#:	M13461	Vendor:	CPI
Analyst:	NAH	Chemical:	Na 10000 mg/L
Date Received:	04/20/2018	Lot #:	107139-108
Expiration Date (if any):	10/2019	Catalog #:	4400-10M521

Standard Log #:	M13445	Reagent:	Potassium Persulfate Solution
Analyst:	LJF		
Prep Date:	04/19/2018	Expiration Date:	10/19/2018
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M12652 and brought up to volume.		

		Instrument:	Hach 2100 turbidity meter
Standard Log #:	M13446	Standard:	Turbity ICAL
Analyst:	NAH	Concentrations:	20, 100, 200 ntu
Prep Date:	04/19/2018	Expiration Date:	12/2019
Prep:	Using the hach vials , pipet the following: *20 ntu Std.* = **1 ml** M13436 and 9 mls DI H20. *100 ntu Std.* = **5 mls** M13436 and 5 mls DI H20. *200 ntu Std.* = ***10 mls*** M13436 *and* 0 mls DI H20.		

LPMT1-04
Metals Reagents and Standards
Prep Logbook
Created: 12/19/17

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Author: nhenn on: 4/19/2018 11:15:48 AM
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Project: Unassigned
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		Instrument:	ICP 6000
Standard Log #:	M13438	Standard:	Sulfur ICAL
Analyst:	MDS	Concentrations:	1000 10,000 100,000 1000K µg/L (S)
Prep Date:	04/11/2018	Expiration Date:	07/2019
Prep:	Into four, 100 mL volumetric flasks, pipetted the following from stock standard S (10,000 µg/mL) M13391 and brought up to volume using milli-Q H_2O. *1000 ug/L std.* - **0.01 mL** *10,000 ug/L std.* - **0.1 mL** *100,000 ug/L std.* **-1.0 mL**, also used as the CCV *1000K ug/L std.* - **10 mL**		

		Instrument:	ICP 6000
Standard Log #:	M13439	Standard:	Sulfur ICV
Analyst:	MDS	Concentrations:	100,000 µg/L (S)
Prep Date:	04/11/2018	Expiration Date:	01/19/2019
Prep:	Into a 100 mL volumetric flask, pipetted **1.0 mL** of S (10,000 µg/mL) M13280 and brought up to volume using Milli-Q H_2O.		

Standard Log #:	M13437	Instrument:	ICP
Analyst:	NAH	Standard:	LOQ 3050 B&Si Spiking Solution
Prep Date:	04/10/2018	Expiration Date:	07/19

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
B	52	M13390	1000	2.6
Si	192	M13394	1000	9.6

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

Content below was appended to locked page by mszymanski on 4/19/2018 12:20:57 PM

Standard ID#:	M13436a	Vendor:	HACH
Analyst:	NAH	Chemical:	StablCal 200 NTU
Date Received:	04/10/2018	Lot #:	A7354
Expiration Date (if any):	12/2019	Catalog #:	2660449

Standard ID#:	M13400	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10,000 ug/mL
Date Received:	02/15/2018	Lot #:	106958-116
Expiration Date (if any):	08/2019	Catalog #:	4400-10M411

Standard ID#:	M13401	Vendor:	CPI
Analyst:	NAH	Chemical:	Y 10,000 ug/mL
Date Received:	02/15/2018	Lot #:	139448-54
Expiration Date (if any):	08/2019	Catalog #:	4400-10M671

Standard ID#:	M13402	Vendor:	CPI
Analyst:	NAH	Chemical:	Na 10,000 ug/mL
Date Received:	02/15/2018	Lot #:	107139-126
Expiration Date (if any):	08/2019	Catalog #:	4400-10M521

Standard Log #:	M13388	Reagent:	SPLP EXTRACTION FLUID EAST #
Analyst:	BMM	pH:	4.20 ± 0.05
Prep Date:	01/23/2018	Expiration Date:	01/23/2019
Prep:	Into a 20 L carboy filled with DI H_2O, adjust pH to 4.20 ± 0.05 using 60/40 SPLP extraction fluid acid mixture M12457 .		

Standard Log #:	M13389	Reagent:	SPLP EXTRACTION FLUID WEST #
Analyst:	BMM	pH:	5.00 ± 0.05
Prep Date:	01/23/2018	Expiration Date:	01/23/2019
Prep:	Into a 20 L carboy filled with DI H_2O, adjust pH to 5.00 ± 0.05 using 60/40 SPLP extraction fluid acid mixture M12457 .		

Standard ID#:	M13390	Vendor:	CPI
Analyst:	NAH	Chemical:	Boron 1000 ug/mL
Date Received:	01/23/2018	Lot #:	158372-29
Expiration Date (if any):	07/2019	Catalog #:	S4400-100074

Standard ID#:	M13391	Vendor:	CPI
Analyst:	NAH	Chemical:	Sulfur 10000 ug/mL
Date Received:	01/23/2018	Lot #:	129880-28
Expiration Date (if any):	07/2019	Catalog #:	4400-10M544

Standard ID#:	M13392	Vendor:	CPI
Analyst:	NAH	Chemical:	Arsenic 1000 ug/mL
Date Received:	01/23/2018	Lot #:	143356-61
Expiration Date (if any):	07/2019	Catalog #:	S4400-100031

Standard ID#:	M13393	Vendor:	CPI
Analyst:	NAH	Chemical:	Molybdenum 1000 ug/mL
Date Received:	01/23/2018	Lot #:	134169R-102
Expiration Date (if any):	07/2019	Catalog #:	S4400-1000343

Standard ID#:	M13394	Vendor:	CPI
Analyst:	NAH	Chemical:	Silicon 1000 ug/mL
Date Received:	01/23/2018	Lot #:	142610-58
Expiration Date (if any):	07/2019	Catalog #:	S4400-1000504F

Standard ID#:	M13350	Vendor:	Environmental Express
Analyst:	NAH	Chemical:	Yttrium 10000 mg/L
Date Received:	12/12/2017	Lot #:	1729606
Expiration Date (if any):	06//2019	Catalog #:	10M67-1

Standard ID#:	M13226	Vendor:	FISHER
Analyst:	LJF	Chemical:	SODIUM CHLORIDE
Date Received:	07/21/2017	Lot #:	170229
Expiration Date (if any):		Catalog #:	S271-500

Standard ID#:	M13199	Vendor:	National Institute of Standards and Te
Analyst:	NAH	Chemical:	SRM Montana I soil
Date Received:	05/15/2017	Lot #:	2710a
Expiration Date (if any):		Catalog #:	

Standard ID#:	M13200	Vendor:	National Institute of Standards and Te
Analyst:	NAH	Chemical:	SRM Montana II soil
Date Received:	05/15/2017	Lot #:	2711a
Expiration Date (if any):		Catalog #:	

Standard ID#:	M13186	Vendor:	FISHER
Analyst:	LJF	Chemical:	HYDROXYLAMINE SULFATE
Date Received:	05/22/2017	Lot #:	166161
Expiration Date (if any):		Catalog #:	H331-500

Standard ID#:	M13187	Vendor:	Environmental Express
Analyst:	NAH	Chemical:	Yttrium 10,000 ug/mL
Date Received:	05/22/2017	Lot #:	1705408
Expiration Date (if any):	11/16/2018	Catalog #:	HP10M67-1

Standard ID#:	M13080	Vendor:	FISHER
Analyst:	LJF	Chemical:	POTASSIUM PERMANGANATE
Date Received:	01/30/2017	Lot #:	164080
Expiration Date (if any):		Catalog #:	P279-212

Standard ID#:	M13059	Vendor:	ACROS ORGANICS
Analyst:	LJF	Chemical:	POTASSIUM PERSULFATE
Date Received:	12/19/2016	Lot #:	A0375670
Expiration Date (if any):		Catalog #:	424185000

Standard ID#:	M13024	Vendor:	METTLER TOLEDO
Analyst:	LJF	Chemical:	FRISCOLYT
Date Received:	11/01/2016	Lot #:	1B167D
Expiration Date (if any):		Catalog #:	51340053

INORGANIC
CLP FORMS
DOCUMENTS

CT LABORATORIES
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Sample Description

GN-SO-01-1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	95.2	Lab Sample ID:	321149
Analytical Method:	EPA 8000C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164110	Analysis Date/Time	09/05/2019 15:21
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	%

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	95.2		0.1	0.1	0.1	0.1

CT LABORATORIES
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Sample Description

GN-SO-01-2

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	93.2	Lab Sample ID:	321154
Analytical Method:	EPA 8000C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164110	Analysis Date/Time	09/05/2019 15:21
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	%

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	93.2		0.1	0.1	0.1	0.1

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INORGANIC ANALYSIS DATA SHEET

Sample Description

GN-SO-02-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	97.2	Lab Sample ID:	321155
Analytical Method:	EPA 8000C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164110	Analysis Date/Time	09/05/2019 15:21
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	%

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	97.2		0.1	0.1	0.1	0.1

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Sample Description

GN-SO-02-2

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	89.9	Lab Sample ID:	321158
Analytical Method:	EPA 8000C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164110	Analysis Date/Time	09/05/2019 15:21
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	%

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	89.9		0.1	0.1	0.1	0.1

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Sample Description

GNSO-03-1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	91.3	Lab Sample ID:	321159
Analytical Method:	EPA 8000C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164110	Analysis Date/Time	09/05/2019 15:21
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	%

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	91.3		0.1	0.1	0.1	0.1

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Sample Description

GN-SO-03-2

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	90.6	Lab Sample ID:	321160
Analytical Method:	EPA 8000C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164110	Analysis Date/Time	09/05/2019 15:21
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	%

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	90.6		0.1	0.1	0.1	0.1

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Sample Description

GN-SO-04-1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	86.8	Lab Sample ID:	321161
Analytical Method:	EPA 8000C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164110	Analysis Date/Time	09/05/2019 15:21
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	%

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	86.8		0.1	0.1	0.1	0.1

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Sample Description

GN-SO-04-2

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	89.1	Lab Sample ID:	321162
Analytical Method:	EPA 8000C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164110	Analysis Date/Time	09/05/2019 15:21
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	%

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	89.1		0.1	0.1	0.1	0.1

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Sample Description

GN-SO-05-1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	96.2	Lab Sample ID:	321163
Analytical Method:	EPA 8000C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164110	Analysis Date/Time	09/05/2019 15:21
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	%

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	96.2		0.1	0.1	0.1	0.1

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Sample Description

GN-SO-05-2

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	86.8	Lab Sample ID:	321164
Analytical Method:	EPA 8000C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164110	Analysis Date/Time	09/05/2019 15:21
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	%

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	86.8		0.1	0.1	0.1	0.1

CT LABORATORIES
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Sample Description

GN-SO-06-1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	96.7	Lab Sample ID:	321166
Analytical Method:	EPA 8000C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164110	Analysis Date/Time	09/05/2019 15:21
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	%

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	96.7		0.1	0.1	0.1	0.1

CT LABORATORIES
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Sample Description

GN-SO-06-2

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	90.5	Lab Sample ID:	321167
Analytical Method:	EPA 8000C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164110	Analysis Date/Time	09/05/2019 15:21
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	%

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	90.5		0.1	0.1	0.1	0.1

CT LABORATORIES
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Sample Description

GN-SO-07-1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	92.0	Lab Sample ID:	321168
Analytical Method:	EPA 8000C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164110	Analysis Date/Time	09/05/2019 15:21
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	%

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	92.0		0.1	0.1	0.1	0.1

CT LABORATORIES
delivering more than data from your environmental analyses

1

Sample Description

GN-SO-07-2

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	90.8	Lab Sample ID:	321169
Analytical Method:	EPA 8000C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164110	Analysis Date/Time	09/05/2019 15:21
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	%

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	90.8		0.1	0.1	0.1	0.1

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

GN-SO-08-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	95.9	Lab Sample ID:	321170
Analytical Method:	EPA 8000C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164110	Analysis Date/Time	09/05/2019 15:21
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	%

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	95.9		0.1	0.1	0.1	0.1

CT LABORATORIES
delivering more than data from your environmental analyses

1

Sample Description

GN-SO-08-2

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	93.5	Lab Sample ID:	321171
Analytical Method:	EPA 8000C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164110	Analysis Date/Time	09/05/2019 15:21
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	%

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	93.5		0.1	0.1	0.1	0.1

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

GN-SO-09C-1

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	90.0	Lab Sample ID:	321172
Analytical Method:	EPA 8000C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164110	Analysis Date/Time	09/05/2019 15:21
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	%

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	90.0		0.1	0.1	0.1	0.1

CT LABORATORIES
delivering more than data from your environmental analyses

1

Sample Description

GN-SO-DUP-1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	95.8	Lab Sample ID:	321157
Analytical Method:	EPA 8000C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164110	Analysis Date/Time	09/05/2019 15:21
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	%

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	95.8		0.1	0.1	0.1	0.1

CT LABORATORIES
delivering more than data from your environmental analyses

1

Sample Description

GN-SO-DUP-2

INORGANIC ANALYSIS DATA SHEET

Lab Name:	CT Laboratories	Contract:	HDR, INC-MEMPHIS DEPOT
Matrix (soil/water):	SOIL	SDG No.:	147664
% Solids:	84.1	Lab Sample ID:	321165
Analytical Method:	EPA 8000C	Date Received:	08/28/2019
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	164110	Analysis Date/Time	09/05/2019 15:21
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	%

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	84.1		0.1	0.1	0.1	0.1

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

GN-SO-04-1

Lab Name: CT Laboratories

Contract: HDR, INC-MEMPHIS DEPOT

Matrix: SOLID

SDG No.: 147664

% Solid for Sample: 86.8

Concentration Units: %

Analytical Prep Batch # 1

Analytical Preparation Date/Time 0

Analytical Run #: 164110

ICAL Calibration #:

Sample #: 323681

Parent Sample #: 321161

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Solids, Percent	09/05/2019	15:21	8	86.8		85.7		1		GRA

INORGANICS
RAW DATA
DOCUMENTS

TOTAL SOLIDS (PERCENT)

LIMS #: 164110

Start Date:	09/05/2019	**Start Time:**	15:21		**Analyst:**	BMM
	Sample ID#	**Dish#**	**Tared Weight g *(D)***	**Wet Weight g *(E)***	**Dry Weight g *(F)***	**RESULTS % TOTAL SOLIDS**
1)	321149	T314	2.43	14.20	13.63	95.2%
2)	321154	T315	2.48	16.94	15.95	93.2%
3)	321155	T325	2.45	12.88	12.59	97.2%
4)	321157	T324	2.45	17.28	16.65	95.8%
5)	321158	T317	2.42	12.93	11.87	89.9%
6)	321159	T316	2.50	12.48	11.61	91.3%
7)	321160	T326	2.42	12.09	11.18	90.6%
8)	321162	T110	2.40	12.14	11.08	89.1%
9)	321163	T112	2.50	12.94	12.54	96.2%
10)	321164	T115	2.48	11.50	10.31	86.8%
11)	321165	T113	2.49	12.79	11.15	84.1%
12)	321166	T322	2.50	13.20	12.85	96.7%
13)	321167	T321	2.49	11.62	10.75	90.5%
14)	321168	T327	2.43	11.86	11.11	92.0%
15)	321169	T106	2.48	13.18	12.20	90.8%
16)	321170	T105	2.47	12.40	11.99	95.9%
17)	321171	T972	2.46	12.39	11.74	93.5%
18)	321172	T977	2.48	12.05	11.09	90.0%
19)	321188	T973	2.46	12.56	12.13	95.7%
*20)	321161	T982	2.45	12.45	11.13	86.8%
Dup 20)	321161	T978	2.44	11.33	10.06	85.7%

Dry Weight = Sample + Dish (gms)		* 2nd Reading,	11.14	
Wet Weight = Sample + Dish (gms)			Set RPD:	1.3%
	Balance: VOB-01			
			*mg Differen	10

Stop Date:	09/06/2019
Stop Time:	09:40

Calculations

*2nd reading must be within 50mg of the 1st

% Total Solids = ((*F-D*)/(*E-D*))*100

RPD, % = Absolute value of…((Sample-Dup % TS)/(Average%TS))*100

INORGANICS
LOGBOOK
DOCUMENTS

WSOLIDS Analytical Run
164110 on 09/06/2019

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
147664	321149		08/26/2019 1023		HDR, INC	MEMPHIS DEPOT	SOLIDS,PERCENT		S	4	
147664	321154	GN-SO-01-1	08/26/2019 1115		HDR, INC	MEMPHIS DEPOT	SOLIDS,PERCENT		S	4	
147664	321155	GN-SO-01-2	08/26/2019 1130		HDR, INC	MEMPHIS DEPOT	SOLIDS,PERCENT		S	4	
147664	321157	GN-SO-02-1	08/26/2019 1100		HDR, INC	MEMPHIS DEPOT	SOLIDS,PERCENT		S	4	
147664	321158	GN-SO-DUP-1	08/26/2019 1153		HDR, INC	MEMPHIS DEPOT	SOLIDS,PERCENT		S	4	
147664	321159	GN-SO-02-2	08/26/2019 1320		HDR, INC	MEMPHIS DEPOT	SOLIDS,PERCENT		S	4	
147664	321160	GNSO-03-1	08/26/2019 1334		HDR, INC	MEMPHIS DEPOT	SOLIDS,PERCENT		S	4	
147664	321161	GN-SO-03-2	08/26/2019 1348		HDR, INC	MEMPHIS DEPOT	SOLIDS,PERCENT		S	4	
147664	321162	GN-SO-04-1	08/26/2019 1400	Designated MS/MSD	HDR, INC	MEMPHIS DEPOT	SOLIDS,PERCENT		S	4	
147664	321163	GN-SO-04-2	08/26/2019 1410		HDR, INC	MEMPHIS DEPOT	SOLIDS,PERCENT		S	4	
147664	321164	GN-SO-05-1	08/26/2019 1428		HDR, INC	MEMPHIS DEPOT	SOLIDS,PERCENT		S	4	
147664	321165	GN-SO-05-2	08/26/2019 1422		HDR, INC	MEMPHIS DEPOT	SOLIDS,PERCENT		S	4	
147664	321166	GN-SO-DUP-2	08/26/2019 1442		HDR, INC	MEMPHIS DEPOT	SOLIDS,PERCENT		S	4	
147664	321167	GN-SO-06-1	08/26/2019 1505		HDR, INC	MEMPHIS DEPOT	SOLIDS,PERCENT		S	4	
147664	321168	GN-SO-06-2	08/26/2019 1513		HDR, INC	MEMPHIS DEPOT	SOLIDS,PERCENT		S	4	
147664	321169	GN-SO-07-1	08/26/2019 1528		HDR, INC	MEMPHIS DEPOT	SOLIDS,PERCENT		S	4	
147664	321170	GN-SO-07-2	08/26/2019 1539		HDR, INC	MEMPHIS DEPOT	SOLIDS,PERCENT		S	4	
147664	321171	GN-SO-08-1	08/26/2019 1550		HDR, INC	MEMPHIS DEPOT	SOLIDS,PERCENT		S	4	
147664	321172	GN-SO-08-2	08/26/2019 1601		HDR, INC	MEMPHIS DEPOT	SOLIDS,PERCENT		S	4	
		GN-SO-09C-1									

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WSOLIDS Analytical Run
164110 on 09/06/2019

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
147670	321188	PT-S-IDW-2	08/27/2019 1045		HDR, INC	MEMPHIS DEPOT	SOLIDS,PERCENT		S	**2**	
	323681	GN-SO-04-1	08/26/2019 1348	DUP 321161			SOLIDS,PERCENT	0			

21 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

FWC26-10 Data Review Checklist

		Method: Percent Solids SW846-8000C	Independent Data Review Checklist		Balance: VOB-01
LIMS Run #(s)	**Analysis Date**	**Analyst / Data Interpreter**	**Independent Reviewer**	**Date of Review**	**Approved? (Yes or No)**
164110, 164111, 164112, 164113, 164115	09/05/2019	BMM	RLD	09/06/2019	Yes

Instructions: Complete one checklist per *analytical run* . Enter the appropriate response for each question.
Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement:	**Acceptance Criteria**	**Analyst Review**		**Independent Review**		**Comments:**
		Yes	No	Yes	No	(indicate reference to an attachment if necessary)
1. Were samples analyzed within hold time?	14 days or program/project specific	Yes		Yes		Qualify data prepared after hold time
2. Were samples dried overnight?	> 8hours	Yes		Yes		If No: place samples back into oven for mimium of 8 hours of total dry time.
3. Were drying start and stop times recorded?	---	Yes		Yes		If No: record times and temperatures
4. Were duplicates analyzed at the appropriate frequency?	1 per 20 of similar matrix or at program/project specific frequency	Yes		Yes		If No: reprep samples with appropreate frequency for a duplicate.
5. Were the duplicates within acceptable limits?	Within in-house or program/project specific QC limits	Yes		Yes		If No: reprep and reanalyze samples or qualify parent sample result (Y).
6. Are all samples on the job lists accounted for?	---	Yes		Yes		If No: analyze samples that were were missed.
7. Were nonconformities (if applicable) documented in the NCR spreadsheet?		Yes		Yes		If No: Enter nonformities into the NCR spreadsheet before data review/validation.

SUBCONTRACTED ANALYSIS DOCUMENTS

Microbac



Laboratory Report Number: L19080171

Eric Korthals
CT Laboratories
1230 Lange Court
Baraboo, WI 53913

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories. Review and compilation of your report was completed by Microbac's Ohio Valley Division (OVD). If you have any questions, comments, or require further assistance regarding this report, please contact your service representative listed below.

Laboratory Contact:
Stephanie Mossburg – Team Chemist/Data Specialist
(740) 373-4071
Stephanie.Mossburg@microbac.com

I certify that all test results meet all of the requirements of the DoD QSM and other applicable contract terms and conditions. Any exceptions are attached to this cover page or addressed in the method narratives presented in the report. All results for soil samples are reported on a 'dry-weight' basis unless specified otherwise. Analytical results for water and wastes are reported on a 'as received' basis unless specified otherwise. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories, DoD ELAP certification number 2936.01. The reported results are related only to the samples analyzed as received.

This report was certified on September 12 2019

Jeffrey Ogle – Laboratory Manager

State of Origin: MI
Accrediting Authority: N/A ID:N/A
QAPP: DOD Ver 5.0

Microbac

Lab Report #: L19080171
Lab Project #: 2694.005
Project Name: CT Labs DOD
Lab Contact: Stephanie Mossburg

Record of Sample Receipt and Inspection

Comments/Discrepancies

This is the record of the shipment conditions and the inspection records for the samples received and reported as a sample delivery group (SDG). All of the samples were inspected and observed to conform to our receipt policies, except as noted below.

The following discrepancies were noted:

Discrepancy	Resolution
Received a Metals (water) not listed on COC. Label unreadable except for "215". BRG	The client sent a COC for the water. SLM

Coolers

Cooler #	Temperature Gun	Temperature	COC #	Airbill #	Temp Required?
00116465	I	0.0		1Z1A4A850140101092	X

Inspection Checklist

#	Question	Result
1	Were shipping coolers sealed?	Yes
2	Were custody seals intact?	Yes
3	Were cooler temperatures in range of 0-6?	Yes
4	Was ice present?	Yes
5	Were COC's received/information complete/signed and dated?	Yes
6	Were sample containers intact and match COC?	Yes
7	Were sample labels intact and match COC?	No
8	Were the correct containers and volumes received?	Yes
9	Were samples received within EPA hold times?	Yes
10	Were correct preservatives used? (water only)	Yes
11	Were pH ranges acceptable? (voa's excluded)	Yes
12	Were VOA samples free of headspace (less than 6mm)?	NA

Microbac

Lab Report #: L19080171
Lab Project #: 2694.005
Project Name: CT Labs DOD
Lab Contact: Stephanie Mossburg

Samples Received

Client ID	Laboratory ID	Date Collected	Date Received
GN-W-RB-01	L19080171-01	08/27/2019 14:00	08/30/2019 10:17

Microbac Laboratories ● Ohio Valley Division
158 Starlite Drive, Marietta, OH 45750 ● T: (740)373-4071 F: (740)373-4835
www.microbac.com

Microbac REPORT L19080171
PREPARED FOR CT Laboratories
WORK ID:

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1.0 Summary Data

1.1 Narratives

Login Number: L19080171
Department: Metals
Analyst: Ji Hu

METHOD

Preparation: SW-846 3015

Analysis: SW-846 6020

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration: All acceptance criteria were met.

Continuing Calibration Blank: All acceptance criteria were met.

Low Level Check: WG710706 - Due to the low level initial calibration verification failure for arsenic and selenium on 06-Sep-2019 at 10:08, all client samples and QA/QC were reanalyzed on a later calibration which was compliant for arsenic and selenium.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

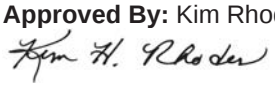
Serial Dilution/Post Digestion Spikes: WG710706 - All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

Narrative ID: 150503
Approved By: Kim Rhodes



1.2 Certificate of Analysis

Microbac

Lab Report #: L19080171
Lab Project #: 2694.005
Project Name: CT Labs DOD
Lab Contact: Stephanie Mossburg

Certificate of Analysis

Sample #:	L19080171-01	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-W-RB-01	**Prep Method:**	3015A	**Prep Date:**	09/03/2019 06:18
Matrix:	Water	**Analytical Method:**	6020	**Cal Date:**	09/06/2019 09:53
Workgroup #:	WG710706	**Analyst:**	JYH	**Run Date:**	09/06/2019 11:57
Collect Date:	08/27/2019 14:00	**Dilution:**	1	**File ID:**	NI.090619.115745
Sample Tag:	02	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.00100	U	0.00200	0.00100	0.000500
Lead, Total	7439-92-1	0.00100	U	0.00200	0.00100	0.000500
Silver, Total	7440-22-4	0.00100	U	0.00200	0.00100	0.000500
Thallium, Total	7440-28-0	0.000200	U	0.000400	0.000200	0.000100

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L19080171-01	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-W-RB-01	**Prep Method:**	3015A	**Prep Date:**	09/03/2019 06:18
Matrix:	Water	**Analytical Method:**	6020	**Cal Date:**	09/09/2019 08:19
Workgroup #:	WG710706	**Analyst:**	JYH	**Run Date:**	09/09/2019 10:12
Collect Date:	08/27/2019 14:00	**Dilution:**	1	**File ID:**	NI.090919.101210
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Arsenic, Total	7440-38-2	0.00129	J	0.00200	0.00100	0.000500
Selenium, Total	7782-49-2	0.00100	U	0.00200	0.00100	0.000500

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

2.0 Full Sample Data Package

2.1 Metals Data

2.1.1 Metals ICP-MS Data

2.1.1.1 Summary Data

Login Number: L19080171
Department: Metals
Analyst: Ji Hu

METHOD

Preparation: SW-846 3015

Analysis: SW-846 6020

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration: All acceptance criteria were met.

Continuing Calibration Blank: All acceptance criteria were met.

Low Level Check: WG710706 - Due to the low level initial calibration verification failure for arsenic and selenium on 06-Sep-2019 at 10:08, all client samples and QA/QC were reanalyzed on a later calibration which was compliant for arsenic and selenium.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

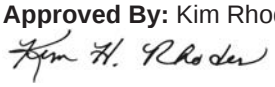
Serial Dilution/Post Digestion Spikes: WG710706 - All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

Narrative ID: 150503
Approved By: Kim Rhodes



Certificate of Analysis

Sample #:	L19080171-01	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-W-RB-01	**Prep Method:**	3015A	**Prep Date:**	09/03/2019 06:18
Matrix:	Water	**Analytical Method:**	6020	**Cal Date:**	09/06/2019 09:53
Workgroup #:	WG710706	**Analyst:**	JYH	**Run Date:**	09/06/2019 11:57
Collect Date:	08/27/2019 14:00	**Dilution:**	1	**File ID:**	NI.090619.115745
Sample Tag:	02	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.00100	U	0.00200	0.00100	0.000500
Lead, Total	7439-92-1	0.00100	U	0.00200	0.00100	0.000500
Silver, Total	7440-22-4	0.00100	U	0.00200	0.00100	0.000500
Thallium, Total	7440-28-0	0.000200	U	0.000400	0.000200	0.000100

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #:	L19080171-01	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-W-RB-01	**Prep Method:**	3015A	**Prep Date:**	09/03/2019 06:18
Matrix:	Water	**Analytical Method:**	6020	**Cal Date:**	09/09/2019 08:19
Workgroup #:	WG710706	**Analyst:**	JYH	**Run Date:**	09/09/2019 10:12
Collect Date:	08/27/2019 14:00	**Dilution:**	1	**File ID:**	NI.090919.101210
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Arsenic, Total	7440-38-2	0.00129	J	0.00200	0.00100	0.000500
Selenium, Total	7782-49-2	0.00100	U	0.00200	0.00100	0.000500

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

2.1.1.2 QC Summary Data

Example 6020 Calculations
Perkin Elmer NexION 300X

1.0 Initial Calibration (ICAL) Parameters
The system performs linear regression from data consisting of a blank and three standards.

2.0 Calculating the concentration (C) of an element in water using data from prep log, run log, and quantitation report (note:the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:	**Example:**
Cs = Concentration computed by the data system (ug/L)	0.1
Vf = Final volume	100
Vi = Initial volume	40
D = Dilution factor as a multiplier (10X = 10)	1
Cx = Concentration of element in (ug/L)	0.25

3.0 Calculating the concentration (C) of an element in soil using data from prep log, run log, and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:	**Example:**
Cs = Concentration computed by the data system (ug/L)	0.1
Vf = Final volume	200
Vi = Initial volume	0.5
D = Dilution factor as a multiplier (10X = 10)	1
Cx = Concentration of element in (ug/kg)	40

4.0 Adjusting the concentration to dry weight:

$$Cdry = \frac{Cx \times 100}{Px}$$

Where:	**Example:**
Cx = Concentration calculated as received (wet basis)	40
Px = Percent solids of sample (%wt)	80
$Cdry$ = Concentration calculated as dry weight (ug/kg)	50

50 ug/kg = 0.050 mg/kg

Perkin Elmer NexION ICP/MS

STANDARDS KEY

QC Std 1 - ICV	QC Std 5 - ICSAB
QC Std 2 - ICB	QC Std 6 - CCV
QC Std 3 - LLICV	QC Std 7 - CCB
QC Std 4 - ICSA	QC Std 8 - LLCCV

Calibration Solutions

Analyte	Stock (mg/L)	S1 (mg/L)	S2 (mg/L)	S3 (mg/L)	S4 (mg/L)	S5 (mg/L)
Sb	8	0	0.0004	0.002	0.04	0.08
As	8	0	0.0004	0.002	0.04	0.08
Ba	24	0	0.0012	0.006	0.12	0.24
Be	1.6	0	0.00008	0.0004	0.008	0.016
Ca	1000	0	0.05	0.25	5	10
Cd	4.8	0	0.00024	0.0012	0.024	0.048
Cr	16	0	0.0008	0.004	0.08	0.16
Co	8	0	0.0004	0.002	0.04	0.08
Cu	16	0	0.0008	0.004	0.08	0.16
Fe	1000	0	0.05	0.25	5	10
Pb	8	0	0.0004	0.002	0.04	0.08
Mg	1000	0	0.05	0.25	5	10
Mn	16	0	0.0008	0.004	0.08	0.16
Mo	8	0	0.0004	0.002	0.04	0.08
Ni	32	0	0.0016	0.008	0.16	0.32
K	1000	0	0.05	0.25	5	10
Se	8	0	0.0004	0.002	0.04	0.08
Ag	8	0	0.0004	0.002	0.04	0.08
Na	1000	0	0.05	0.25	5	10
Ti	8	0	0.0004	0.002	0.04	0.08
Sn	8	0	0.0004	0.002	0.04	0.08
Tl	1.6	0	0.00008	0.0004	0.008	0.016
Th	8	0	0.0004	0.002	0.04	0.08
V	8	0	0.0004	0.002	0.04	0.08
U	8	0	0.0004	0.002	0.04	0.08
Zn	160	0	0.008	0.04	0.8	1.6

Microbac Laboratories Inc.
Microwave Digestion Log

Workgroup:	WG710614	SOP:	ME407 Revison 19
Analyst:	VC	Spike Solution:	STD93481
Spike Analyst:	VC	Spike Witness:	ERP
Run Date:	09/03/2019 06:18	40 & 50 ML. DIGESTION TU	COA21568
Method:	3015A	HNO3 Lot #:	COA21548
Balance:	BAL016	1:1 HCL Lot #:	RGT48151
Instrument:	MW-3	ICP FILTERS LOT#R9AA7261	RGT47179
Instrument Start:	09/03/2019 06:12		

	SAMPLE #	Type	Matrix	Initial Amount	Final Volume	Initial Vessel Wt	Final Vessel Wt	Spike Amount	Due Date
1	WG710614-02	BLANK	1	20 mL	50 mL	185.619 g	185.61 g		
2	WG710614-03	LCS	1	20 mL	50 mL	184.85 g	184.829 g	.2 mL	
3	L19080141-01	SAMP	1	20 mL	50 mL	186.906 g	186.906 g		09/05/19
4	L19080141-02	SAMP	1	20 mL	50 mL	186.265 g	186.255 g		09/05/19
5	L19080141-03	SAMP	1	20 mL	50 mL	184.359 g	184.348 g		09/05/19
6	L19080141-04	SAMP	1	20 mL	50 mL	184.814 g	184.806 g		09/05/19
7	L19080141-05	SAMP	1	20 mL	50 mL	185.695 g	185.669 g		09/05/19
8	L19080141-06	SAMP	1	20 mL	50 mL	186.9 g	186.264 g		09/05/19
9	L19080151-36	SAMP	1	20 mL	50 mL	186.285 g	186.264 g		09/11/19
10	WG710614-01	REF	1	20 mL	50 mL	185.03 g	185.02 g		
11	L19080151-39	SAMP	1	20 mL	50 mL	185.03 g	185.02 g		09/11/19
12	L19080157-02	SAMP	1	20 mL	50 mL	183.715 g	183.7 g		09/06/19
13	L19080157-03	SAMP	1	20 mL	50 mL	187.37 g	187.35 g		09/06/19
14	L19080157-04	SAMP	1	20 mL	50 mL	185.95 g	185.935 g		09/06/19
15	L19080171-01	SAMP	1	20 mL	50 mL	186.377 g	186.37 g		09/06/19
16	WG710614-04	MS	1	20 mL	50 mL	187.25 g	187.229 g	.2 mL	
17	WG710614-05	MSD	1	20 mL	50 mL	186.514 g	186.504 g	.2 mL	

Analyst: Vicki Collins

Reviewer: Erin Potter

MW_DIG - Modified 09/30/2009
PDF ID: 6460416
Report generated: 09/03/2019 06:18

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-MS2 Dataset: 090619B.REP
Analyst1: JYH Analyst2: N/A
Method: 6020/6020A/200.8 SOP: ME700A Rev: 4
Maintenance Log ID:

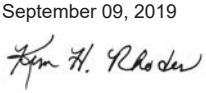
Calibration Std: STD94703 ICV Std: STD94704 Post Spike: STD89195
ICSA: STD94706 ICSAB: STD94707 Int. Std: RGT45018
CCV: STD94704 LLCCV: COA20499 Tuning Sol : STD94599
Stannous : Hydroxylamine :

Workgroups: 710705,710706

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	NI.090619.093844	Blank	Blank		1		09/06/19 09:38
2	NI.090619.094138	WG710835-01	Calibration Point		1		09/06/19 09:41
3	NI.090619.094431	WG710835-02	Calibration Point		1		09/06/19 09:44
4	NI.090619.094725	WG710835-03	Calibration Point		1		09/06/19 09:47
5	NI.090619.095019	WG710835-04	Calibration Point		1		09/06/19 09:50
6	NI.090619.095313	WG710835-05	Calibration Point		1		09/06/19 09:53
7	NI.090619.095606	WG710835-06	Initial Calibration Verification		1		09/06/19 09:56
8	NI.090619.095901	WG710835-07	Initial Calib Blank		1		09/06/19 09:59
9	NI.090619.100430	WG710835-08	Initial Calib Blank		1		09/06/19 10:04
10	NI.090619.100815	WG710835-09	Low Level Initial Calibration V		1		09/06/19 10:08
11	NI.090619.101358	WG710835-10	Interference Check		1		09/06/19 10:13
12	NI.090619.101730	WG710835-11	Interference Check		1		09/06/19 10:17
13	NI.090619.102119	WG710835-12	CCV		1		09/06/19 10:21
14	NI.090619.102447	WG710835-13	CCB		1		09/06/19 10:24
15	NI.090619.102809	WG710446-03	Method/Prep Blank	20/50	1		09/06/19 10:28
16	NI.090619.103101	WG710446-04	Laboratory Control S	20/50	1		09/06/19 10:31
17	NI.090619.103353	L19080133-01	RAW-CN1-00	20/50	1		09/06/19 10:33
18	NI.090619.103645	L19080133-02	RAW-CN1-00	20/50	1		09/06/19 10:36
19	NI.090619.103937	L19080133-09	RAW-CN1-02	20/50	1		09/06/19 10:39
20	NI.090619.104229	WG710446-02	Reference Sample		1	L19080136-01	09/06/19 10:42
21	NI.090619.104515	WG710446-07	Matrix Spike	20/50	1	L19080136-01	09/06/19 10:45
22	NI.090619.104806	WG710446-08	Matrix Spike Duplica	20/50	1	L19080136-01	09/06/19 10:48
23	NI.090619.105059	WG710705-01	Post Digestion Spike		1	L19080136-01	09/06/19 10:50
24	NI.090619.105352	WG710705-02	Serial Dilution		5	L19080136-01	09/06/19 10:53
25	NI.090619.105646	WG710835-14	CCV		1		09/06/19 10:56
26	NI.090619.105940	WG710835-15	CCB		1		09/06/19 10:59
27	NI.090619.110232	WG710614-02	Method/Prep Blank	20/50	1		09/06/19 11:02
28	NI.090619.110525	WG710614-03	Laboratory Control S	20/50	1		09/06/19 11:05
29	NI.090619.110853	L19080151-39	ORG-S02-360-20		1	WG710614-01	09/06/19 11:08
30	NI.090619.111145	WG710614-04	Matrix Spike	20/50	1	L19080151-39	09/06/19 11:11
31	NI.090619.111437	WG710614-05	Matrix Spike Duplica	20/50	1	L19080151-39	09/06/19 11:14
32	NI.090619.111729	L19080141-01	NAAD02-AWI02-00	20/50	1		09/06/19 11:17
33	NI.090619.112021	L19080141-02	NAAD02-AWI03-00	20/50	1		09/06/19 11:20
34	NI.090619.112313	WG710706-01	Post Digestion Spike		1	L19080141-02	09/06/19 11:23

Page: 1 Approved: September 09, 2019



Microbac

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-MS2 Dataset: 090619B.REP
Analyst1: JYH Analyst2: N/A
Method: 6020/6020A/200.8 SOP: ME700A Rev: 4
Maintenance Log ID:

Calibration Std: STD94703 ICV Std: STD94704 Post Spike: STD89195
ICSA: STD94706 ICSAB: STD94707 Int. Std: RGT45018
CCV: STD94704 LLCCV: COA20499 Tuning Sol : STD94599
Stannous : Hydroxylamine :

Workgroups: 710705,710706

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
35	NI.090619.112605	WG710706-02	Serial Dilution		5	L19080141-02	09/06/19 11:26
36	NI.090619.112856	L19080141-03	NAAD02-AWI03-01	20/50	1		09/06/19 11:28
37	NI.090619.113150	WG710835-16	CCV		1		09/06/19 11:31
38	NI.090619.113443	WG710835-17	CCB		1		09/06/19 11:34
39	NI.090619.113736	L19080141-04	NAAD02-VZMW1-00	20/50	1		09/06/19 11:37
40	NI.090619.114029	L19080141-05	NAAD02-VZMW4-00	20/50	1		09/06/19 11:40
41	NI.090619.114322	L19080141-06	NAAD02-VZMW5-00	20/50	1		09/06/19 11:43
42	NI.090619.114615	L19080151-36	ORG-S01-360-20		1		09/06/19 11:46
43	NI.090619.114908	L19080157-02	NAAD02-VZMW9-00	20/50	1		09/06/19 11:49
44	NI.090619.115200	L19080157-03	NAAD02-VZMW29-00	20/50	1		09/06/19 11:52
45	NI.090619.115453	L19080157-04	NAAD02-VZMW16-00	20/50	1		09/06/19 11:54
46	NI.090619.115745	L19080171-01	GN-W-RB-01	20/50	1		09/06/19 11:57
47	NI.090619.120038	WG710835-18	CCV		1		09/06/19 12:00
48	NI.090619.120332	WG710835-19	CCB		1		09/06/19 12:03
49	NI.090619.120621	WG710835-20	Low Level Continuing Calibra		1		09/06/19 12:06

Comments

Seq.	Rerun	Dil.	Reason	Analytes
8			Rerun to verify. JYH	

Page: 2 Approved: September 09, 2019

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-MS2 Dataset: 090919B.REP
Analyst1: JYH Analyst2: N/A
Method: 6020/6020A/200.8 SOP: ME700A Rev: 4
Maintenance Log ID:

Calibration Std: STD94703 ICV Std: STD94704 Post Spike: STD89195
ICSA: STD94706 ICSAB: STD94707 Int. Std: RGT45018
CCV: STD94704 LLCCV: COA20499 Tuning Sol : STD94599
Stannous : Hydroxylamine :

Workgroups: 710705,710706

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	NI.090919.080507	Blank	Blank		1		09/09/19 08:05
2	NI.090919.080802	WG710832-01	Calibration Point		1		09/09/19 08:08
3	NI.090919.081056	WG710832-02	Calibration Point		1		09/09/19 08:10
4	NI.090919.081349	WG710832-03	Calibration Point		1		09/09/19 08:13
5	NI.090919.081643	WG710832-04	Calibration Point		1		09/09/19 08:16
6	NI.090919.081937	WG710832-05	Calibration Point		1		09/09/19 08:19
7	NI.090919.082230	WG710832-06	Initial Calibration Verification		1		09/09/19 08:22
8	NI.090919.082523	WG710832-07	Initial Calib Blank		1		09/09/19 08:25
9	NI.090919.082826	WG710832-08	Low Level Initial Calibration V		1		09/09/19 08:28
10	NI.090919.083134	WG710832-09	Interference Check		1		09/09/19 08:31
11	NI.090919.083427	WG710832-10	Interference Check		1		09/09/19 08:34
12	NI.090919.083721	WG710832-11	CCV		1		09/09/19 08:37
13	NI.090919.084015	WG710832-12	CCB		1		09/09/19 08:40
14	NI.090919.084308	WG710446-03	Method/Prep Blank	20/50	1		09/09/19 08:43
15	NI.090919.084600	WG710446-04	Laboratory Control S	20/50	1		09/09/19 08:46
16	NI.090919.084852	L19080133-01	RAW-CN1-00	20/50	1		09/09/19 08:48
17	NI.090919.085144	L19080133-02	RAW-CN1-00	20/50	1		09/09/19 08:51
18	NI.090919.085436	L19080133-09	RAW-CN1-02	20/50	1		09/09/19 08:54
19	NI.090919.085728	WG710446-02	Reference Sample		1	L19080136-01	09/09/19 08:57
20	NI.090919.090019	WG710446-07	Matrix Spike	20/50	1	L19080136-01	09/09/19 09:00
21	NI.090919.090310	WG710446-08	Matrix Spike Duplica	20/50	1	L19080136-01	09/09/19 09:03
22	NI.090919.090603	WG710705-01	Post Digestion Spike		1	L19080136-01	09/09/19 09:06
23	NI.090919.090855	WG710705-02	Serial Dilution		5	L19080136-01	09/09/19 09:08
24	NI.090919.091149	WG710832-13	CCV		1		09/09/19 09:11
25	NI.090919.091443	WG710832-14	CCB		1		09/09/19 09:14
26	NI.090919.091736	WG710614-02	Method/Prep Blank	20/50	1		09/09/19 09:17
27	NI.090919.092028	WG710614-03	Laboratory Control S	20/50	1		09/09/19 09:20
28	NI.090919.092320	L19080151-39	ORG-S02-360-20		1	WG710614-01	09/09/19 09:23
29	NI.090919.092613	WG710614-04	Matrix Spike	20/50	1	L19080151-39	09/09/19 09:26
30	NI.090919.092906	WG710614-05	Matrix Spike Duplica	20/50	1	L19080151-39	09/09/19 09:29
31	NI.090919.093158	L19080141-01	NAAD02-AWI02-00	20/50	1		09/09/19 09:31
32	NI.090919.093450	L19080141-02	NAAD02-AWI03-00	20/50	1		09/09/19 09:34
33	NI.090919.093742	WG710706-01	Post Digestion Spike		1	L19080141-02	09/09/19 09:37
34	NI.090919.094033	WG710706-02	Serial Dilution		5	L19080141-02	09/09/19 09:40

Page: 1 Approved: September 10, 2019

Kym H. Rhoden

Microbac

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-MS2 Dataset: 090919B.REP

Analyst1: JYH Analyst2: N/A

Method: 6020/6020A/200.8 SOP: ME700A Rev: 4

Maintenance Log ID:

Calibration Std: STD94703 ICV Std: STD94704 Post Spike: STD89195

ICSA: STD94706 ICSAB: STD94707 Int. Std: RGT45018

CCV: STD94704 LLCCV: COA20499 Tuning Sol : STD94599

Stannous : Hydroxylamine :

Workgroups: 710705,710706

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
35	NI.090919.094327	WG710832-15	CCV		1		09/09/19 09:43
36	NI.090919.094621	WG710832-16	CCB		1		09/09/19 09:46
37	NI.090919.094912	L19080141-03	NAAD02-AWI03-01	20/50	1		09/09/19 09:49
38	NI.090919.095206	L19080141-04	NAAD02-VZMW1-00	20/50	1		09/09/19 09:52
39	NI.090919.095459	L19080141-05	NAAD02-VZMW4-00	20/50	1		09/09/19 09:54
40	NI.090919.095752	L19080141-06	NAAD02-VZMW5-00	20/50	1		09/09/19 09:57
41	NI.090919.100044	L19080151-36	ORG-S01-360-20	20/50	1		09/09/19 10:00
42	NI.090919.100332	L19080157-02	NAAD02-VZMW9-00	20/50	1		09/09/19 10:03
43	NI.090919.100625	L19080157-03	NAAD02-VZMW29-00	20/50	1		09/09/19 10:06
44	NI.090919.100918	L19080157-04	NAAD02-VZMW16-00	20/50	1		09/09/19 10:09
45	NI.090919.101210	L19080171-01	GN-W-RB-01	20/50	1		09/09/19 10:12
46	NI.090919.101504	WG710832-17	CCV		1		09/09/19 10:15
47	NI.090919.101757	WG710832-18	CCB		1		09/09/19 10:17
48	NI.090919.102050	WG710832-19	Low Level Continuing Calibra		1		09/09/19 10:20

 Approved: September 10, 2019

Kym H. Rhoden

Microbac

Microbac Laboratories Inc.

Data Checklist

Date: 06-SEP-2019
Analyst: JYH
Analyst: NA
Method: 6020/6020A/200.8
Instrument: ICP-MS2
Curve Workgroup: 710835
Runlog ID: 98116
Analytical Workgroups: 710705,710706

STD ID#s on Runlog	X
Calibration/Linearity	X
ICV/CCV	X
ICV RSD < 3% (EPA 200.7 only)	
ICB/CCB	X
ICSA/ICSAB	X
CRI	
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	X
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	133,136,141,151,171
Client Forms	X
Level X	
Level 3	133,136,141,151,171
Level 4	
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	JYH
Secondary Reviewer	KHR
Comments	

Primary Reviewer:

Secondary Reviewer:
09-SEP-2019

CHECKLIST1 - Modified 03/05/2008
Generated: SEP-09-2019 13:23:51

Microbac Laboratories Inc.

Data Checklist

Date: 09-SEP-2019
Analyst: JYH
Analyst: NA
Method: 6020/6020A/200.8
Instrument: ICP-MS2
Curve Workgroup: 710832
Runlog ID: 98114
Analytical Workgroups: 710705,710706

STD ID#s on Runlog	X
Calibration/Linearity	X
ICV/CCV	X
ICV RSD < 3% (EPA 200.7 only)	
ICB/CCB	X
ICSA/ICSAB	X
CRI	
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	X
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	133,136,141,151,171
Client Forms	X
Level X	
Level 3	133,136,141,151,171
Level 4	
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	JYH
Secondary Reviewer	KHR
Comments	

Primary Reviewer:

Secondary Reviewer:
10-SEP-2019

CHECKLIST1 - Modified 03/05/2008
Generated: SEP-10-2019 06:59:16

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 6020 AAB#: WG710706

Login Number: L19080171

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
GN-W-RB-01	01	08/27/19					09/03/2019	6.7	180		09/06/19	9.9	180	
GN-W-RB-01	01	08/27/19					09/03/2019	6.7	180		09/09/19	12.8	180	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 6462291
Report generated 09/10/2019 07:42

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number:	L19080171	Work Group:	WG710706
Blank File ID:	NI.090619.110525	Blank Sample ID:	WG710614-02
Prep Date:	09/03/19 06:18	Instrument ID:	ICP-MS2
Analyzed Date:	09/06/19 11:05	Method:	6020
Analyst:	JYH		

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG710614-03	NI.090619.110232	09/06/19 11:02	02
GN-W-RB-01	L19080171-01	NI.090619.115745	09/06/19 11:57	02
LCS	WG710614-03	NI.090919.092028	09/09/19 09:20	01
GN-W-RB-01	L19080171-01	NI.090919.101210	09/09/19 10:12	01

Report Name: BLANK_SUMMARY
PDF File ID: 6462169
Report generated 09/10/2019 07:42

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L19080171
Blank File ID: NI.090919.091736
Prep Date: 09/03/19 06:18
Analyzed Date: 09/09/19 09:17
Analyst: JYH

Work Group: WG710706
Blank Sample ID: WG710614-02
Instrument ID: ICP-MS2
Method: 6020

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG710614-03	NI.090619.110232	09/06/19 11:02	02
GN-W-RB-01	L19080171-01	NI.090619.115745	09/06/19 11:57	02
LCS	WG710614-03	NI.090919.092028	09/09/19 09:20	01
GN-W-RB-01	L19080171-01	NI.090919.101210	09/09/19 10:12	01

Report Name: BLANK_SUMMARY
PDF File ID: 6462169
Report generated 09/10/2019 07:42

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L19080171 Prep Date:09/03/19 06:18 Sample ID:WG710614-02
Instrument ID:ICP-MS2 Run Date:09/06/19 11:05 Prep Method:3015A
File ID:NI.090619.110525 Analyst:JYH Method:6020
Workgroup (AAB#):WG710706 Matrix:Water Units:mg/L
Contract #: Cal ID:ICP-MS-06-SEP-19

Analytes	DL	LOQ	Concentration	Dilution	Qualifier
Antimony, Total	0.000500	0.00200	0.000500	1	U
Lead, Total	0.000500	0.00200	0.000500	1	U
Silver, Total	0.000500	0.00200	0.000500	1	U
Thallium, Total	0.000100	0.000400	0.000100	1	U

DL Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name:BLANK
PDF ID: 6462170
10-SEP-2019 07:42

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L19080171 Prep Date: 09/03/19 06:18 Sample ID: WG710614-02
Instrument ID: ICP-MS2 Run Date: 09/09/19 09:17 Prep Method: 3015A
File ID: NI.090919.091736 Analyst: JYH Method: 6020
Workgroup (AAB#): WG710706 Matrix: Water Units: mg/L
Contract #: Cal ID: ICP-MS-09-SEP-19

Analytes	DL	LOQ	Concentration	Dilution	Qualifier
Arsenic, Total	0.000500	0.00200	0.000500	1	U
Selenium, Total	0.000500	0.00200	0.000500	1	U

DL Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name:BLANK
PDF ID: 6462170
10-SEP-2019 07:42

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L19080171 Run Date: 09/06/2019 Sample ID: WG710614-03
Instrument ID: ICP-MS2 Run Time: 11:02 Prep Method: 3015A
File ID: NI.090619.110232 Analyst: JYH Method: 6020
Workgroup (AAB#): WG710706 Matrix: Water Units: mg/L
QC Key: DOD5 Lot#: STD93481 Cal ID: ICP-MS-06-SEP-19

Analytes	Expected	Found	% Rec	LCS Limits	Q
Antimony, Total	0.0800	0.0880	110	85 - 117	
Lead, Total	0.0800	0.0830	104	88 - 115	
Silver, Total	0.0800	0.0842	105	85 - 116	
Thallium, Total	0.0160	0.0164	103	82 - 116	

LCS - Modified 03/06/2008
PDF File ID: 6462171
Report generated: 09/10/2019 07:42

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L19080171 Run Date: 09/09/2019 Sample ID: WG710614-03
Instrument ID: ICP-MS2 Run Time: 09:20 Prep Method: 3015A
File ID: NI.090919.092028 Analyst: JYH Method: 6020
Workgroup (AAB#): WG710706 Matrix: Water Units: mg/L
QC Key: DOD5 Lot#: STD93481 Cal ID: ICP-MS-09-SEP-19

Analytes	Expected	Found	% Rec	LCS Limits	Q
Arsenic, Total	0.0800	0.0804	100	84 - 116	
Selenium, Total	0.0800	0.0818	102	80 - 120	

LCS - Modified 03/06/2008
PDF File ID: 6462171
Report generated: 09/10/2019 07:42

Microbac Laboratories Inc.

MATRIX SPIKE AND MATRIX SPIKE DUP (MS/MSD)

Loginnum: L19080171 Cal ID: ICP-MS2 - Worknum: WG710706

Instrument ID: ICP-MS2 Contract #: Method: 6020

Parent ID: WG710614-01 File ID: NI.090619.110853 Dil: 1 Matrix: WATER

Sample ID: WG710614-04 MS File ID: NI.090619.111145 Dil: 1 Units: mg/L

Sample ID: WG710614-05 MSD File ID: NI.090619.111437 Dil: 1

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Antimony	ND	0.0800	0.0873	109	0.0800	0.0879	110	0.644	85 - 117	20	
Lead	ND	0.0800	0.0828	104	0.0800	0.0844	105	1.87	88 - 115	20	
Silver	ND	0.0800	0.0829	104	0.0800	0.0838	105	1.12	85 - 116	20	
Thallium	ND	0.0160	0.0163	102	0.0160	0.0166	104	1.38	82 - 116	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

NOTE: This is an internal quality control sample.

WG_MS_MSD_DRYWT - Modified 05/26/2011

PDF File ID: 6462292

Report generated 09/10/2019 07:42

Microbac Laboratories Inc.

MATRIX SPIKE AND MATRIX SPIKE DUP (MS/MSD)

Loginnum:L19080171 Cal ID:ICP-MS2- Worknum:WG710706

Instrument ID:ICP-MS2 Contract #: Method:6020

Parent ID:WG710614-01 File ID:NI.090919.092320 Dil:1 Matrix:WATER

Sample ID:WG710614-04 MS File ID:NI.090919.092613 Dil:1 Units:mg/L

Sample ID:WG710614-05 MSD File ID:NI.090919.092906 Dil:1

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Arsenic	ND	0.0800	0.0815	102	0.0800	0.0815	102	0.0715	84 - 116	20	
Selenium	ND	0.0800	0.0772	96.5	0.0800	0.0770	96.2	0.339	80 - 120	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

NOTE: This is an internal quality control sample.

WG_MS_MSD_DRYWT - Modified 05/26/2011

PDF File ID:6462292

Report generated 09/10/2019 07:42

Microbac Laboratories Inc.
Serial Dilution Report

Login: L19080171 **Worknum:** WG710706
Instrument: ICP-MS2 **Method:** 6020
Serial Dil: WG710706-02 **File ID:** NI.090619.112605 **Dil:** 5 **Units:** ug/L
Sample: L19080141-02 **File ID:** NI.090619.112021 **Dil:** 1

Analyte	Sample	Qual	Serial Dil	Qual	% Diff	Q
Antimony	ND	U	ND	U		
Arsenic	0.744	F	ND	U		
Lead	ND	U	ND	U		
Selenium	ND	U	ND	U		
Silver	ND	U	ND	U		
Thallium	ND	U	ND	U		

U = Result is below MDL.
F = Result is greater than or equal to MDL and less than the RL.
X = Result is greater than or equal to RL and less than 100 times the MDL.
E = %D exceeds control limit of 10% and initial sample result is greater than or equal to 100 times the MDL.

SERIAL_DIL - Modified 09/22/2008
PDF File ID: 6462167
09/10/2019 07:42

Microbac Laboratories Inc.
Serial Dilution Report

Login: L19080171 **Worknum:** WG710706
Instrument: ICP-MS2 **Method:** 6020
Serial Dil: WG710706-02 **File ID:** NI.090919.094033 **Dil:** 5 **Units:** ug/L
Sample: L19080141-02 **File ID:** NI.090919.093450 **Dil:** 1

Analyte	Sample	Qual	Serial Dil	Qual	% Diff	Q
Antimony	ND	U	2.17	F	2050.00	
Arsenic	0.576	F	ND	U		
Lead	ND	U	ND	U		
Selenium	ND	U	ND	U		
Silver	ND	U	ND	U		
Thallium	ND	U	ND	U		

U = Result is below MDL.
F = Result is greater than or equal to MDL and less than the RL.
X = Result is greater than or equal to RL and less than 100 times the MDL.
E = %D exceeds control limit of 10% and initial sample result is greater than or equal to 100 times the MDL.

SERIAL_DIL - Modified 09/22/2008
PDF File ID: 6462167
09/10/2019 07:42

Microbac Laboratories Inc.
POST SPIKE REPORT

Sample Login ID: L19080171 **Worknum:** WG710706
Instrument ID: ICP-MS2 **Method:** 6020
Post Spike ID: WG710706-01 **File ID:** NI.090619.112313 **Dil:** 1 **Units:** ug/L
Sample ID: L19080141-02 **File ID:** NI.090619.112021 **Dil:** 1 **Matrix:** Water

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
ANTIMONY	53.1		0	U	50	106.3	80 - 120	
ARSENIC	51.2		0.744	F	50	101.0	80 - 120	
LEAD	50.7		0	U	50	101.4	80 - 120	
SELENIUM	49.1		0	U	50	98.2	80 - 120	
SILVER	47.8		0	U	50	95.7	80 - 120	
THALLIUM	50.9		0	U	50	101.9	80 - 120	

N = % Recovery exceeds control limits
F = Result is between MDL and RL
U = Sample result is below MDL. A value of zero is used in the calculation

POST_SPIKE - Modified 03/06/2008
PDF File ID: 6462168
Report generated: 09/12/2019 08:37

Microbac Laboratories Inc.
POST SPIKE REPORT

Sample Login ID: L19080171 **Worknum:** WG710706
Instrument ID: ICP-MS2 **Method:** 6020
Post Spike ID: WG710706-01 **File ID:** NI.090919.093742 **Dil:** 1 **Units:** ug/L
Sample ID: L19080141-02 **File ID:** NI.090919.093450 **Dil:** 1 **Matrix:** Water

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
ANTIMONY	40.6		0	U	40	101.4	80 - 120	
ARSENIC	37.6		0.576	F	40	92.5	80 - 120	
LEAD	38.7		0	U	40	96.9	80 - 120	
SELENIUM	35.3		0	U	40	88.2	80 - 120	
SILVER	40.8		0	U	40	102.1	80 - 120	
THALLIUM	7.77		0	U	8	97.1	80 - 120	

N = % Recovery exceeds control limits
F = Result is between MDL and RL
U = Sample result is below MDL. A value of zero is used in the calculation

POST_SPIKE - Modified 03/06/2008
PDF File ID: 6462168
Report generated: 09/10/2019 07:42

Microbac Laboratories Inc.
Initial Calibration Summary

Login:	L19080171	Workgroup (AAB#):	WG710706
Analytical Method:	6020	Instrument ID:	ICP-MS2
ICAL Worknum:	WG710835	Initial Calibration Date:	06-SEP-2019 09:53

	WG710835-01		WG710835-02		WG710835-03		WG710835-04		WG710835-05			
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	Conc	INT	R	Q
ANTIMONY	0	152	.4	924	2	3890	40	80300	80	163000	.99998	
ARSENIC	0	1140	.4	1290	2	1990	40	18500	80	36200	.999999	
LEAD	0	835	.4	5260	2	21600	40	424000	80	870000	.999999	
SELENIUM	0	18.2	.4	28.3	2	54.0	40	721	80	1460	.999994	
SILVER	0	130	.4	3160	2	15300	40	312000	80	652000	1	
THALLIUM	0	8.70	.08	495	.4	2260	8	45200	16	93600	1	

INT = Instrument intensity
R = Coefficient of correlation
Q = Data Qualifier
* = Out of Compliance; R < 0.995

INT_CAL_ICP - Modified 03/06/2008
PDF File ID: 6462294
Report generated: 10-SEP-2019 07:40

Microbac Laboratories Inc.
Initial Calibration Summary

Login:	L19080171	Workgroup (AAB#):	WG710706
Analytical Method:	6020	Instrument ID:	ICP-MS2
ICAL Worknum:	WG710832	Initial Calibration Date:	09-SEP-2019 08:19

	WG710832-01		WG710832-02		WG710832-03		WG710832-04		WG710832-05			
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	Conc	INT	R	Q
ANTIMONY	0	151	.4	825	2	4090	40	92800	80	193000	.999971	
ARSENIC	0	395	.4	638	2	1610	40	24400	80	48200	.999999	
LEAD	0	1890	.4	8380	2	36500	40	694000	80	1410000	1	
SELENIUM	0	19.0	.4	26.0	2	79.5	40	1230	80	2450	.999996	
SILVER	0	224	.4	4770	2	23900	40	465000	80	928000	.999998	
THALLIUM	0	30.3	.08	834	.4	3900	8	78900	16	162000	.999999	

INT = Instrument intensity
R = Coefficient of correlation
Q = Data Qualifier
*** = Out of Compliance; R < 0.995**

INT_CAL_ICP - Modified 03/06/2008
PDF File ID: 6462294
Report generated: 10-SEP-2019 07:40

Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L19080171 Run Date: 09/06/2019 Sample ID: WG710835-08
Instrument ID: ICP-MS2 Run Time: 10:04 Method: 6020
File ID: NI.090619.100430 Analyst: JYH Units: ug/L
Workgroup (AAB#): WG710706 Cal ID: ICP-MS2 - 06-SEP-19
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
SILVER	.2	.8	.2	U
ARSENIC	.2	.8	-.392	F
LEAD	.2	.8	.2	U
ANTIMONY	.2	.8	.2	U
SELENIUM	.2	.8	.2	U
THALLIUM	.04	.16	.04	U

U = Result is less than 2 x MDL
F = Result is between MDL and 2 x MDL
* = Result is above 2 x MDL

ICB - Modified 07/14/2009
PDF File ID: 6462296
Report generated 09/10/2019 07:40

Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L19080171 Run Date: 09/09/2019 Sample ID: WG710832-07
Instrument ID: ICP-MS2 Run Time: 08:25 Method: 6020
File ID: NI.090919.082523 Analyst: JYH Units: ug/L
Workgroup (AAB#): WG710706 Cal ID: ICP-MS2 - 09-SEP-19
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
SILVER	.2	.8	.2	U
ARSENIC	.2	.8	.2	U
LEAD	.2	.8	.2	U
ANTIMONY	.2	.8	.71	*
SELENIUM	.2	.8	.2	U
THALLIUM	.04	.16	.04	U

U = Result is less than 2 x MDL
F = Result is between MDL and 2 x MDL
* = Result is above 2 x MDL

ICB - Modified 07/14/2009
PDF File ID: 6462296
Report generated 09/10/2019 07:40

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L19080171 Run Date: 09/06/2019 Sample ID: WG710835-13

Instrument ID: ICP-MS2 Run Time: 10:24 Method: 6020

File ID: NI.090619.102447 Analyst: JYH Units: ug/L

Workgroup (AAB#): WG710706 Cal ID: ICP-MS - 06-SEP-19

Matrix: WATER QAPP: DOD5

Analytes	MDL	RDL	Concentration	Qualifier
Antimony	0.200	0.800	0.200	U
Arsenic	0.200	0.800	-0.486	F
Lead	0.200	0.800	0.200	U
Selenium	0.200	0.800	0.200	U
Silver	0.200	0.800	0.200	U
Thallium	0.0400	0.160	0.0400	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 6462174
Report generated 09/10/2019 07:41

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L19080171 Run Date: 09/06/2019 Sample ID: WG710835-15

Instrument ID: ICP-MS2 Run Time: 10:59 Method: 6020

File ID: NI.090619.105940 Analyst: JYH Units: ug/L

Workgroup (AAB#): WG710706 Cal ID: ICP-MS - 06-SEP-19

Matrix: WATER QAPP: DOD5

Analytes	MDL	RDL	Concentration	Qualifier
Antimony	0.200	0.800	0.200	U
Arsenic	0.200	0.800	-0.673	F
Lead	0.200	0.800	0.200	U
Selenium	0.200	0.800	-0.331	F
Silver	0.200	0.800	0.200	U
Thallium	0.0400	0.160	0.0400	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 6462174
Report generated 09/10/2019 07:41

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L19080171 Run Date: 09/06/2019 Sample ID: WG710835-17

Instrument ID: ICP-MS2 Run Time: 11:34 Method: 6020

File ID: NI.090619.113443 Analyst: JYH Units: ug/L

Workgroup (AAB#): WG710706 Cal ID: ICP-MS - 06-SEP-19

Matrix: WATER QAPP: DOD5

Analytes	MDL	RDL	Concentration	Qualifier
Antimony	0.200	0.800	0.313	F
Arsenic	0.200	0.800	0.200	U
Lead	0.200	0.800	0.200	U
Selenium	0.200	0.800	-0.285	F
Silver	0.200	0.800	0.200	U
Thallium	0.0400	0.160	0.0400	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 6462174
Report generated 09/10/2019 07:41

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L19080171 Run Date: 09/06/2019 Sample ID: WG710835-19

Instrument ID: ICP-MS2 Run Time: 12:03 Method: 6020

File ID: NI.090619.120332 Analyst: JYH Units: ug/L

Workgroup (AAB#): WG710706 Cal ID: ICP-MS - 06-SEP-19

Matrix: WATER QAPP: DOD5

Analytes	MDL	RDL	Concentration	Qualifier
Antimony	0.200	0.800	0.200	U
Arsenic	0.200	0.800	-0.249	F
Lead	0.200	0.800	0.200	U
Selenium	0.200	0.800	-0.242	F
Silver	0.200	0.800	0.200	U
Thallium	0.0400	0.160	0.0400	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 6462174
Report generated 09/10/2019 07:41

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L19080171 Run Date: 09/09/2019 Sample ID: WG710832-12

Instrument ID: ICP-MS2 Run Time: 08:40 Method: 6020

File ID: NI.090919.084015 Analyst: JYH Units: ug/L

Workgroup (AAB#): WG710706 Cal ID: ICP-MS - 09-SEP-19

Matrix: WATER QAPP: DOD5

Analytes	MDL	RDL	Concentration	Qualifier
Antimony	0.200	0.800	0.686	F
Arsenic	0.200	0.800	0.200	U
Lead	0.200	0.800	0.200	U
Selenium	0.200	0.800	0.200	U
Silver	0.200	0.800	0.200	U
Thallium	0.0400	0.160	0.0400	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 6462174
Report generated 09/10/2019 07:41

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L19080171 Run Date: 09/09/2019 Sample ID: WG710832-14

Instrument ID: ICP-MS2 Run Time: 09:14 Method: 6020

File ID: NI.090919.091443 Analyst: JYH Units: ug/L

Workgroup (AAB#): WG710706 Cal ID: ICP-MS - 09-SEP-19

Matrix: WATER QAPP: DOD5

Analytes	MDL	RDL	Concentration	Qualifier
Antimony	0.200	0.800	0.543	F
Arsenic	0.200	0.800	0.200	U
Lead	0.200	0.800	0.200	U
Selenium	0.200	0.800	0.200	U
Silver	0.200	0.800	0.200	U
Thallium	0.0400	0.160	0.0400	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 6462174
Report generated 09/10/2019 07:41

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number:	L19080171	Run Date:	09/09/2019	Sample ID:	WG710832-16
Instrument ID:	ICP-MS2	Run Time:	09:46	Method:	6020
File ID:	NI.090919.094621	Analyst:	JYH	Units:	ug/L
Workgroup (AAB#):	WG710706	Cal ID:	ICP-MS - 09-SEP-19		
Matrix:	WATER	QAPP:	DOD5		

Analytes	MDL	RDL	Concentration	Qualifier
Antimony	0.200	0.800	0.565	F
Arsenic	0.200	0.800	0.200	U
Lead	0.200	0.800	0.200	U
Selenium	0.200	0.800	0.200	U
Silver	0.200	0.800	0.200	U
Thallium	0.0400	0.160	0.0400	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 6462174
Report generated 09/10/2019 07:41

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L19080171 Run Date: 09/09/2019 Sample ID: WG710832-18

Instrument ID: ICP-MS2 Run Time: 10:17 Method: 6020

File ID: NI.090919.101757 Analyst: JYH Units: ug/L

Workgroup (AAB#): WG710706 Cal ID: ICP-MS - 09-SEP-19

Matrix: WATER QAPP: DOD5

Analytes	MDL	RDL	Concentration	Qualifier
Antimony	0.200	0.800	0.546	F
Arsenic	0.200	0.800	0.200	U
Lead	0.200	0.800	0.200	U
Selenium	0.200	0.800	0.200	U
Silver	0.200	0.800	0.200	U
Thallium	0.0400	0.160	0.0400	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 6462174
Report generated 09/10/2019 07:41

Microbac Laboratories Inc.

INITIAL CALIBRATION VERIFICATION (ICV)
(Alternate Source)

Login Number: L19080171 Run Date: 09/06/2019 Sample ID: WG710835-06
Instrument ID: ICP-MS2 Run Time: 09:56 Method: 6020
File ID: NI.090619.095606 Analyst: JYH Units: ug/L
Workgroup (AAB#): WG710706 Cal ID: ICP-MS - 06-SEP-19
QC Key: DOD5

Analyte		Expected	Found	%REC	LIMITS	Q
Antimony		32	32.1	100	90 - 110	
Arsenic		32	31.1	97.3	90 - 110	
Lead		32	31.8	99.3	90 - 110	
Selenium		32	32.2	101	90 - 110	
Silver		32	32.2	101	90 - 110	
Thallium		6.4	6.36	99.3	90 - 110	

* Exceeds LIMITS Limit

ICV - Modified 03/06/2008
PDF File ID: 6462295
Report generated 09/10/2019 07:40

Microbac Laboratories Inc.

INITIAL CALIBRATION VERIFICATION (ICV)
(Alternate Source)

Login Number: L19080171 Run Date: 09/09/2019 Sample ID: WG710832-06
Instrument ID: ICP-MS2 Run Time: 08:22 Method: 6020
File ID: NI.090919.082230 Analyst: JYH Units: ug/L
Workgroup (AAB#): WG710706 Cal ID: ICP-MS - 09-SEP-19
QC Key: DOD5

Analyte		Expected	Found	%REC	LIMITS	Q
Antimony		32	33.4	104	90 - 110	
Arsenic		32	32.7	102	90 - 110	
Lead		32	32.5	102	90 - 110	
Selenium		32	32.5	101	90 - 110	
Silver		32	33.7	105	90 - 110	
Thallium		6.4	6.56	102	90 - 110	

* Exceeds LIMITS Limit

ICV - Modified 03/06/2008
PDF File ID: 6462295
Report generated 09/10/2019 07:40

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L19080171 Run Date: 09/06/2019 Sample ID: WG710835-12

Instrument ID: ICP-MS2 Run Time: 10:21 Method: 6020

File ID: NI.090619.102119 Analyst: JYH QC Key: DOD5

Workgroup (AAB#): WG710706 Cal ID: ICP-MS - 06-SEP-19

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Antimony		0.0320	0.0308	mg/L	96.3	90 - 110		
Arsenic		0.0320	0.0305	mg/L	95.4	90 - 110		
Lead		0.0320	0.0316	mg/L	98.7	90 - 110		
Selenium		0.0320	0.0321	mg/L	100	90 - 110		
Silver		0.0320	0.0314	mg/L	98.2	90 - 110		
Thallium		0.00640	0.00632	mg/L	98.8	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 6462173

Report generated 09/10/2019 07:41

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L19080171 Run Date: 09/06/2019 Sample ID: WG710835-14
Instrument ID: ICP-MS2 Run Time: 10:56 Method: 6020
File ID: NI.090619.105646 Analyst: JYH QC Key: DOD5
Workgroup (AAB#): WG710706 Cal ID: ICP-MS - 06-SEP-19
Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Antimony		0.0320	0.0311	mg/L	97.1	90 - 110		
Arsenic		0.0320	0.0308	mg/L	96.4	90 - 110		
Lead		0.0320	0.0317	mg/L	99.1	90 - 110		
Selenium		0.0320	0.0301	mg/L	94.1	90 - 110		
Silver		0.0320	0.0321	mg/L	100	90 - 110		
Thallium		0.00640	0.00635	mg/L	99.1	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
PDF File ID: 6462173
Report generated 09/10/2019 07:41

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L19080171 Run Date: 09/06/2019 Sample ID: WG710835-16
Instrument ID: ICP-MS2 Run Time: 11:31 Method: 6020
File ID: NI.090619.113150 Analyst: JYH QC Key: DOD5
Workgroup (AAB#): WG710706 Cal ID: ICP-MS - 06-SEP-19
Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Antimony		0.0320	0.0309	mg/L	96.7	90 - 110		
Arsenic		0.0320	0.0313	mg/L	97.8	90 - 110		
Lead		0.0320	0.0322	mg/L	101	90 - 110		
Selenium		0.0320	0.0316	mg/L	98.9	90 - 110		
Silver		0.0320	0.0319	mg/L	99.7	90 - 110		
Thallium		0.00640	0.00646	mg/L	101	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
PDF File ID: 6462173
Report generated 09/10/2019 07:41

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L19080171 Run Date: 09/06/2019 Sample ID: WG710835-18

Instrument ID: ICP-MS2 Run Time: 12:00 Method: 6020

File ID: NI.090619.120038 Analyst: JYH QC Key: DOD5

Workgroup (AAB#): WG710706 Cal ID: ICP-MS - 06-SEP-19

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Antimony		0.0320	0.0307	mg/L	96.0	90 - 110		
Arsenic		0.0320	0.0310	mg/L	96.9	90 - 110		
Lead		0.0320	0.0316	mg/L	98.9	90 - 110		
Selenium		0.0320	0.0301	mg/L	94.2	90 - 110		
Silver		0.0320	0.0323	mg/L	101	90 - 110		
Thallium		0.00640	0.00636	mg/L	99.3	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 6462173

Report generated 09/10/2019 07:41

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L19080171 Run Date: 09/09/2019 Sample ID: WG710832-11

Instrument ID: ICP-MS2 Run Time: 08:37 Method: 6020

File ID: NI.090919.083721 Analyst: JYH QC Key: DOD5

Workgroup (AAB#): WG710706 Cal ID: ICP-MS - 09-SEP-19

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Antimony		0.0320	0.0316	mg/L	98.8	90 - 110		
Arsenic		0.0320	0.0320	mg/L	100	90 - 110		
Lead		0.0320	0.0319	mg/L	99.8	90 - 110		
Selenium		0.0320	0.0328	mg/L	102	90 - 110		
Silver		0.0320	0.0338	mg/L	106	90 - 110		
Thallium		0.00640	0.00641	mg/L	100	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 6462173

Report generated 09/10/2019 07:41

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L19080171 Run Date: 09/09/2019 Sample ID: WG710832-13

Instrument ID: ICP-MS2 Run Time: 09:11 Method: 6020

File ID: NI.090919.091149 Analyst: JYH QC Key: DOD5

Workgroup (AAB#): WG710706 Cal ID: ICP-MS - 09-SEP-19

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Antimony		0.0320	0.0305	mg/L	95.3	90 - 110		
Arsenic		0.0320	0.0327	mg/L	102	90 - 110		
Lead		0.0320	0.0321	mg/L	100	90 - 110		
Selenium		0.0320	0.0324	mg/L	101	90 - 110		
Silver		0.0320	0.0325	mg/L	102	90 - 110		
Thallium		0.00640	0.00654	mg/L	102	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 6462173

Report generated 09/10/2019 07:41

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L19080171 Run Date: 09/09/2019 Sample ID: WG710832-15

Instrument ID: ICP-MS2 Run Time: 09:43 Method: 6020

File ID: NI.090919.094327 Analyst: JYH QC Key: DOD5

Workgroup (AAB#): WG710706 Cal ID: ICP-MS - 09-SEP-19

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Antimony		0.0320	0.0311	mg/L	97.3	90 - 110		
Arsenic		0.0320	0.0325	mg/L	102	90 - 110		
Lead		0.0320	0.0322	mg/L	101	90 - 110		
Selenium		0.0320	0.0330	mg/L	103	90 - 110		
Silver		0.0320	0.0335	mg/L	105	90 - 110		
Thallium		0.00640	0.00642	mg/L	100	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 6462173

Report generated 09/10/2019 07:41

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L19080171 Run Date: 09/09/2019 Sample ID: WG710832-17

Instrument ID: ICP-MS2 Run Time: 10:15 Method: 6020

File ID: NI.090919.101504 Analyst: JYH QC Key: DOD5

Workgroup (AAB#): WG710706 Cal ID: ICP-MS - 09-SEP-19

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Antimony		0.0320	0.0311	mg/L	97.2	90 - 110		
Arsenic		0.0320	0.0327	mg/L	102	90 - 110		
Lead		0.0320	0.0321	mg/L	100	90 - 110		
Selenium		0.0320	0.0331	mg/L	103	90 - 110		
Silver		0.0320	0.0335	mg/L	105	90 - 110		
Thallium		0.00640	0.00645	mg/L	101	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 6462173

Report generated 09/10/2019 07:41

Microbac Laboratories Inc.

LOW LEVEL CALIBRATION VERIFICATION

Login Number: L19080171 Run Date: 09/06/2019 Sample ID: WG710835-09

Instrument ID: ICP-MS2 Run Time: 10:08 Method: 6020

File ID: NI.090619.100815 Analyst: JYH QC Key: DOD5

Workgroup (AAB#): WG710706 Cal ID: ICP-MS - 06-SEP-19

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Antimony		0.800	0.676	ug/L	84.6	80 - 120		
Lead		0.800	0.795	ug/L	99.3	80 - 120		
Silver		0.800	0.819	ug/L	102	80 - 120		
Thallium		0.160	0.159	ug/L	99.2	80 - 120		

* Exceeds LIMITS Criteria

LLCCV - Modified 1/7/2010

PDF File ID: 6462175

Report generated 09/10/2019 07:41

Microbac Laboratories Inc.

LOW LEVEL CALIBRATION VERIFICATION

Login Number: L19080171 Run Date: 09/09/2019 Sample ID: WG710832-08

Instrument ID: ICP-MS2 Run Time: 08:28 Method: 6020

File ID: NI.090919.082826 Analyst: JYH QC Key: DOD5

Workgroup (AAB#): WG710706 Cal ID: ICP-MS - 09-SEP-19

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Arsenic		0.800	0.739	ug/L	92.3	80 - 120		
Selenium		0.800	0.921	ug/L	115	80 - 120		

* Exceeds LIMITS Criteria

LLCCV - Modified 1/7/2010

PDF File ID: 6462175

Report generated 09/10/2019 07:41

Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L19080171 **Workgroup (AAB#):** WG710706
Instrument ID: ICP-MS2 **Method:** 6020
Sol. A : WG710835-10 **File ID:** NI.090619.101358 **Units:** ug/L
Sol. AB : WG710835-11 **File ID:** NI.090619.101730 **Matrix:** Water

	Sol. A			Sol. AB			
ANALYTE	True	Found	%Recovery	True	Found	%Recovery	Q
Antimony	NS	-0.142	NS	100	107	107	
Arsenic	NS	-0.500	NS	100	106	106	
Lead	NS	0.0186	NS	100	102	102	
Selenium	NS	-0.134	NS	100	107	107	
Silver	NS	0.00990	NS	100	95.9	95.9	
Thallium	NS	0.000900	NS	100	104	104	

NS = Not spiked
*** = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.**
= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).
+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.

ICS - Modified 03/06/2008
PDF File ID: 6462297
Report generated 09/10/2019 07:40

Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L19080171 **Workgroup (AAB#):** WG710706
Instrument ID: ICP-MS2 **Method:** 6020
Sol. A : WG710832-09 **File ID:** NI.090919.083134 **Units:** ug/L
Sol. AB : WG710832-10 **File ID:** NI.090919.083427 **Matrix:** Water

	Sol. A			Sol. AB			
ANALYTE	True	Found	%Recovery	True	Found	%Recovery	Q
Antimony	NS	0.224	NS	100	114	114	
Arsenic	NS	-0.244	NS	100	99.3	99.3	
Lead	NS	0.0429	NS	100	102	102	
Selenium	NS	-0.119	NS	100	96.8	96.8	
Silver	NS	-0.00280	NS	100	82.7	82.7	
Thallium	NS	0.00270	NS	100	103	103	

NS = Not spiked
*** = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.**
= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).
+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.

ICS - Modified 03/06/2008
PDF File ID: 6462297
Report generated 09/10/2019 07:40

Microbac Laboratories Inc.

INTERNAL STANDARD REPORT

Login: L19080171 **Analytical Method:** 6020
Analytical Workgroup: WG710706 **Matrix:** 1
Instrument: ICP-MS2 **Analyst:** JYH
ICAL Date: 09-SEP-2019 08:08

			BISMUTH	GERMANIUM	INDIUM	SCANDIUM
Sample	Type	Run Date	% Rec	% Rec	% Rec	% Rec
L19080141-02	SAMP	09-SEP-2019 09:34	100.359	105.253	108.8	
L19080171-01	SAMP	09-SEP-2019 10:12	102.09	104.418	107.12	
WG710614-02	BLANK	09-SEP-2019 09:17	100.802	100.982	102.482	
WG710614-03	LCS	09-SEP-2019 09:20	102.235	102.036	104.421	
WG710706-01	PSPK	09-SEP-2019 09:37	100.952	105.29	107.665	
WG710706-02	SERIAL	09-SEP-2019 09:40	93.954	94.614	94.062	
WG710832-06	ICV	09-SEP-2019 08:22	100.267	98.872	99.764	
WG710832-07	ICB	09-SEP-2019 08:25	102.226	101.087	101.967	
WG710832-08	LLICV	09-SEP-2019 08:28	100.506	100.453	99.608	
WG710832-09	ICS	09-SEP-2019 08:31	103.236	101.742	106.346	
WG710832-10	ICS	09-SEP-2019 08:34	103.378	101.848	106.496	
WG710832-11	CCV	09-SEP-2019 08:37	100.577	98.612	100.773	
WG710832-12	CCB	09-SEP-2019 08:40	99.024	98.942	100.477	
WG710832-13	CCV	09-SEP-2019 09:11	100.401	99.678	102.413	
WG710832-14	CCB	09-SEP-2019 09:14	99.12	98.675	100.374	
WG710832-15	CCV	09-SEP-2019 09:43	100.494	100.028	101.458	
WG710832-16	CCB	09-SEP-2019 09:46	99.697	100.612	100.896	
WG710832-17	CCV	09-SEP-2019 10:15	99.826	99.179	101.391	
WG710832-18	CCB	09-SEP-2019 10:17	99.877	99.365	99.998	
WG710832-19	LLCCV	09-SEP-2019 10:20	100.083	99.922	102.299	

Acceptance criteria: 30% - 120% Underlined recoveries are out of range
Acceptance criteria for CCVs and CCBs for method SW846-6020: 80% - 120%

INT_STD_ICPMS - Modified 07/28/2010
PDF File ID: 6462172
Report generated: 09/10/2019 07:40

Microbac Laboratories Inc.

INTERNAL STANDARD REPORT

Login: L19080171 **Analytical Method:** 6020
Analytical Workgroup: WG710706 **Matrix:** 1
Instrument: ICP-MS2 **Analyst:** JYH
ICAL Date: 06-SEP-2019 09:41

			BISMUTH	GERMANIUM	INDIUM	SCANDIUM
Sample	Type	Run Date	% Rec	% Rec	% Rec	% Rec
L19080141-02	SAMP	06-SEP-2019 11:20	96.816	100.245	98.741	
L19080171-01	SAMP	06-SEP-2019 11:57	94.952	96.828	95.364	
WG710614-02	BLANK	06-SEP-2019 11:05	96.905	99.138	99.142	
WG710614-03	LCS	06-SEP-2019 11:02	97.178	99.558	98.9	
WG710706-01	PSPK	06-SEP-2019 11:23	95.375	100.009	97.502	
WG710706-02	SERIAL	06-SEP-2019 11:26	98.122	95.779	99.679	
WG710835-06	ICV	06-SEP-2019 09:56	102.729	95.898	105.272	
WG710835-08	ICB	06-SEP-2019 10:04	97.465	97.821	99.388	
WG710835-09	LLICV	06-SEP-2019 10:08	98.018	99.512	99.539	
WG710835-10	ICS	06-SEP-2019 10:13	90.049	88.072	91.923	
WG710835-11	ICS	06-SEP-2019 10:17	96.469	94.216	99.623	
WG710835-12	CCV	06-SEP-2019 10:21	104.62	97.755	109.525	
WG710835-13	CCB	06-SEP-2019 10:24	102.142	95.786	99.753	
WG710835-14	CCV	06-SEP-2019 10:56	102.69	101.906	107.055	
WG710835-15	CCB	06-SEP-2019 10:59	98.599	95.891	99.641	
WG710835-16	CCV	06-SEP-2019 11:31	101.55	98.958	106.123	
WG710835-17	CCB	06-SEP-2019 11:34	95.234	98.118	96.619	
WG710835-18	CCV	06-SEP-2019 12:00	100.942	100.729	103.779	
WG710835-19	CCB	06-SEP-2019 12:03	96.769	94.254	98.597	
WG710835-20	LLCCV	06-SEP-2019 12:06	94.908	99.726	97.469	

Acceptance criteria: 30% - 120% Underlined recoveries are out of range
Acceptance criteria for CCVs and CCBs for method SW846-6020: 80% - 120%

INT_STD_ICPMS - Modified 07/28/2010
PDF File ID: 6462172
Report generated: 09/10/2019 07:40

Microbac Laboratories Inc.
LINEAR RANGE (QUARTERLY)

Login Number: L19080171 **Date:** 07/30/2019
Insturment ID: ICP-MS2 **Method:** 6020

Analyte	Integration Time (Sec.)	Concentration (ug/L)
Antimony	1.00	90.0
Arsenic	1.00	90.0
Barium	1.00	216.0
Beryllium	1.00	90.0
Cadmium	1.00	90.0
Chromium	1.00	144.0
Cobalt	1.00	90.0
Copper	1.00	144.0
Lead	1.00	90.0
Manganese	1.00	144.0
Nickel	1.00	288.0
Selenium	1.00	90.0
Silver	1.00	90.0
Thallium	1.00	90.0
Uranium	1.00	90.0
Vanadium	1.00	90.0
Zinc	1.00	1440.0

Comments:
All analytes passed acceptance criteria at the specified concentration.

LINEAR_RANGE - Modified 03/06/2008
PDF File ID: 6462293
Report generated: 09/10/2019 07:40

2.1.1.3 Raw Data

MassCal File Name

Mass Calibration File Name Default.tun
MassCal File Path C:\NexION Data\MassCal\Default.tun
Peak Search Window: 1.00

Sample Information

Sample Date/Time: Friday, September 06, 2019 08:35:55

Mass Calibration and Resolution

Analyte	E Mass	Meas Mass	Mass C DAC Val	Res DAC Value	Meas Peak W	Custom Res
Li	7.016	7.025	1324	2029	0.699	
Mg	23.985	23.975	4499	2024	0.698	
Co	58.933	58.925	11684	2025	0.705	
In	114.904	114.875	22855	2032	0.690	
U	238.050	238.075	47459	2049	0.707	

Relative Std. Dev.

Mass	Meas. Intens. RSD
5.525	5.387
5.575	1.288
5.625	2.757
5.675	2.369
5.725	2.033
5.775	2.040
5.825	2.463
5.875	2.470
5.925	2.062
5.975	2.768
6.025	1.861
6.075	2.328
6.125	2.933
6.175	1.371
6.225	1.553
6.275	6.398
6.325	122.475
6.375	100.000
6.425	91.287
6.475	34.468
6.525	20.396
6.575	3.274
6.625	2.385
6.675	3.225
6.725	2.718
6.775	1.616
6.825	1.003

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6.875	3.550
6.925	1.044
6.975	1.899
7.025	1.762
7.075	1.760
7.125	2.868
7.175	2.146
7.225	2.717
7.275	2.681
7.325	4.623
7.375	33.333
7.425	162.980
7.475	104.583
7.525	136.931
7.575	223.607
7.625	149.071
7.675	136.931
7.725	223.607
7.775	223.607
7.825	141.421
7.875	223.607
7.925	136.931
7.975	
8.025	136.931
8.075	91.287
8.125	223.607
8.175	
8.225	223.607
8.275	149.071
8.325	100.000
8.375	91.287
8.425	91.287
8.475	223.607
22.525	36.991
22.575	25.408
22.625	26.307
22.675	13.190
22.725	23.570
22.775	8.728
22.825	24.801
22.875	22.856
22.925	12.273
22.975	13.720
23.025	7.363
23.075	17.058
23.125	16.883
23.175	21.863

Approved: September 09, 2019

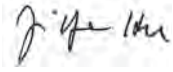
23.225	16.314
23.275	10.499
23.325	25.907
23.375	24.505
23.425	12.788
23.475	10.350
23.525	8.594
23.575	4.918
23.625	4.991
23.675	4.649
23.725	4.937
23.775	5.825
23.825	4.991
23.875	4.997
23.925	4.631
23.975	4.768
24.025	4.726
24.075	4.883
24.125	5.178
24.175	5.341
24.225	5.324
24.275	4.522
24.325	3.909
24.375	74.536
24.425	46.187
24.475	7.424
24.525	4.308
24.575	4.527
24.625	4.984
24.675	5.124
24.725	4.701
24.775	4.988
24.825	4.609
24.875	4.046
24.925	4.853
24.975	4.861
25.025	4.631
25.075	4.352
25.125	4.300
25.175	4.635
25.225	4.379
25.275	6.113
25.325	91.287
25.375	81.441
25.425	22.822
25.475	19.265
57.525	3.905

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57.575	4.446
57.625	3.737
57.675	3.405
57.725	3.196
57.775	3.194
57.825	1.474
57.875	2.323
57.925	2.435
57.975	2.975
58.025	1.795
58.075	2.450
58.125	2.331
58.175	2.053
58.225	4.135
58.275	6.062
58.325	17.462
58.375	25.353
58.425	14.222
58.475	9.243
58.525	3.288
58.575	5.755
58.625	4.395
58.675	2.267
58.725	3.361
58.775	2.437
58.825	1.414
58.875	2.203
58.925	1.434
58.975	1.320
59.025	1.868
59.075	2.334
59.125	1.531
59.175	1.762
59.225	4.356
59.275	8.930
59.325	33.164
59.375	86.402
59.425	16.090
59.475	25.538
59.525	14.761
59.575	6.931
59.625	7.023
59.675	1.631
59.725	2.488
59.775	3.987
59.825	3.992
59.875	1.461

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59.925	2.771
59.975	1.320
60.025	2.894
60.075	4.129
60.125	1.454
60.175	3.655
60.225	2.164
60.275	7.742
60.325	77.427
60.375	136.931
60.425	99.381
60.475	29.881
113.525	5.176
113.575	6.569
113.625	3.777
113.675	4.501
113.725	2.225
113.775	3.799
113.825	4.271
113.875	2.884
113.925	3.146
113.975	3.964
114.025	1.961
114.075	2.825
114.125	1.187
114.175	2.688
114.225	2.877
114.275	12.248
114.325	37.908
114.375	17.689
114.425	9.232
114.475	5.184
114.525	3.550
114.575	2.697
114.625	1.993
114.675	3.544
114.725	2.254
114.775	1.966
114.825	2.371
114.875	2.431
114.925	2.276
114.975	1.891
115.025	2.789
115.075	2.154
115.125	2.560
115.175	1.842
115.225	1.889

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115.275	1.275
115.325	9.799
115.375	223.607
115.425	60.858
115.475	18.840
115.525	9.802
115.575	4.952
115.625	3.946
115.675	2.772
115.725	2.179
115.775	2.147
115.825	4.346
115.875	1.803
115.925	2.583
115.975	4.487
116.025	3.957
116.075	4.497
116.125	3.501
116.175	4.947
116.225	10.370
116.275	16.138
116.325	81.441
116.375	55.902
116.425	136.931
116.475	55.902
236.525	
236.575	136.931
236.625	
236.675	
236.725	
236.775	
236.825	223.607
236.875	
236.925	
236.975	
237.025	223.607
237.075	
237.125	
237.175	
237.225	223.607
237.275	223.607
237.325	223.607
237.375	104.583
237.425	123.437
237.475	86.411
237.525	21.311
237.575	12.435

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237.625	5.734
237.675	3.783
237.725	2.506
237.775	2.468
237.825	1.160
237.875	0.887
237.925	1.595
237.975	1.171
238.025	1.029
238.075	0.486
238.125	1.038
238.175	1.029
238.225	1.887
238.275	1.667
238.325	1.344
238.375	1.722
238.425	2.777
238.475	5.524
238.525	11.005
238.575	136.931
238.625	
238.675	
238.725	
238.775	
238.825	
238.875	223.607
238.925	223.607
238.975	
239.025	223.607
239.075	
239.125	
239.175	223.607
239.225	223.607
239.275	223.607
239.325	
239.375	223.607
239.425	
239.475	

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SmartTune Wizard - Summary

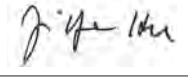
Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\ESI SmartTune Fullmicrobac.swz

Start Time: 9/6/2019 8:40:26 AM
End Time: 9/6/2019 8:42:31 AM

Daily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 10000.37
Obtained Intensity (Mg 23.985): 1388820.10
Obtained Intensity (In 114.904): 385997.27
Obtained Intensity (U 238.05): 240062.77
Obtained Intensity (CeO 155.9): 9797.43
Obtained Intensity (Ce 139.905): 512472.86
Obtained Intensity (Ce++ 69.9527): 4602.97
Obtained Intensity (Bkgd 220): 0.07
Obtained Formula (CeO 155.9 / Ce 139.905): 0.019 (=9797.43 / 512472.86)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.009 (=4602.97 / 512472.86)

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SmartTune Wizard - Details

```
Optimization Details

SmartTune file: C:\NexIONData\Wizard\SmartTune\ESI SmartTune Fullmicrobac.swz

Optimization Status

Start Time: 9/6/2019 8:40:26 AM

Daily Performance Check
        Optimization Settings:
                Method: C:\NexIONData\Method\ESI Daily Performance.mth.
                Intensity Criterion: Be 9.0122 > 2000
                Intensity Criterion: Mg 23.985 > 15000
                Intensity Criterion: In 114.904 > 40000
                Intensity Criterion: U 238.05 > 30000
                Intensity Criterion: CeO 155.9 > 0
                Intensity Criterion: Ce 139.905 > 0
                Intensity Criterion: Ce++ 69.9527 > 0
                Intensity Criterion: Bkgd 220 <= 5
                Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.025
                Formula Criterion: Ce++ 69.9527 / Ce 139.905 <= 0.03

        Optimization Results:
        Initial Try
                Obtained Intensity (Be 9.0122): 10000.37
                Obtained Intensity (Mg 23.985): 1388820.10
                Obtained Intensity (In 114.904): 385997.27
                Obtained Intensity (U 238.05): 240062.77
                Obtained Intensity (CeO 155.9): 9797.43
                Obtained Intensity (Ce 139.905): 512472.86
                Obtained Intensity (Ce++ 69.9527): 4602.97
                Obtained Intensity (Bkgd 220): 0.07
                Obtained Formula (CeO 155.9 / Ce 139.905): 0.019 (=9797.43 / 512472.86)
                Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.009 (=4602.97 / 512472.86)
[Passed]  Optimum value(s): N/A

End Time: 9/6/2019 8:42:31 AM
```


Approved: September 09, 2019



Method 6020 - Summary Report

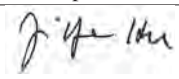
Sample ID: Blank
Sample Date/Time: Friday, September 06, 2019 09:38:44
Number of Replicates: 3
Autosampler Position: 1
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10870.6	6.9				ug/L		KED
|	**Be**	9	0.3	173.2				ug/L		KED
|	**Al**	27	138.3	7.5				ug/L		KED
⌊>	**Sc-2**	45	80224.7	3.9				ug/L		KED
⌈	**Ti**	47	12.0	41.7				ug/L		KED
|	**V**	51	12949.5	3.4				ug/L		KED
|	**Cr**	52	963.7	4.6				ug/L		KED
|	**Cr**	53	8055.5	7.3				ug/L		KED
|	**Mn**	55	193.0	2.9				ug/L		KED
|	**Co**	59	73.7	11.0				ug/L		KED
|	**Ni**	60	604.0	8.8				ug/L		KED
|	**Cu**	65	202.0	10.2				ug/L		KED
|	**Zn**	66	160.0	5.6				ug/L		KED
|>	**Ge**	72	268999.8	5.4				ug/L		KED
|	**As**	75	1155.7	1.6				ug/L		KED
|	**Se**	82	21.8	10.6				ug/L		KED
|	**Se-1**	78	38.2	5.5				ug/L		KED
⌊	**Se-1**	80	27714.2	0.6				ug/L		KED
	Ga	71	75.0	24.0				ug/L		KED
	Rb	85	23.3	24.7				ug/L		KED
	Y	89	233303.6	4.8				ug/L		KED
	Rh	103	6.7	114.6				ug/L		KED
⌈	**Mo**	98	41.7	40.3				ug/L		KED
|	**Ag**	107	130.0	21.2				ug/L		KED
|	**Cd**	111	9.3	34.4				ug/L		KED
|	**Cd**	114	34.3	12.1				ug/L		KED
|>	**In**	115	293219.1	3.4				ug/L		KED
|	**Sn**	118	700.7	6.4				ug/L		KED
|	**Sb**	123	422.0	25.6				ug/L		KED
⌊	**Ba**	135	26.0	7.7				ug/L		KED
	Ce	140	42.7	14.9				ug/L		KED
	Tb	159	830473.0	3.3				ug/L		KED
⌈	**Ho**	165	12.7	4.6				ug/L		KED
|	**Tl**	203	13.3	11.5				ug/L		KED
|	**Tl**	205	21.3	7.2				ug/L		KED
|	**Pb**	206	401.7	4.9				ug/L		KED
|	**Pb**	207	329.7	2.1				ug/L		KED
|	**Pb**	208	883.4	0.6				ug/L		KED
|	**U**	238	8.3	48.5				ug/L		KED

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	Th	232	11535.3	31.1	ug/L	KED
>	**Bi**	209	637206.5	2.8	ug/L	KED
	Na	23	0.0		mg/L	KED
	Mg	24	573.3	12.0	mg/L	KED
	K	39	0.0		mg/L	KED
	Ca	43	0.0		mg/L	KED
	Fe	54	11.7	65.5	mg/L	KED
	Fe	57	23.3	53.9	mg/L	KED
>	**Sc-1**	45	80224.7	3.9	mg/L	KED
	Cl	35	3538.7	8.8	ug/L	KED
	Kr	83	1.7	173.2	ug/L	KED
	Br	81	31.7	24.1	ug/L	KED
	P	31	120.0	14.4	ug/L	KED
	S	34	33.3	45.8	ug/L	KED
	Sr	88	35.0	28.6	ug/L	KED
	C	12	0.0		ug/L	KED
	N	14	0.0		ug/L	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72			
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103
⌈	Mo	98
|	Ag	107
|	Cd	111
|	Cd	114
|>	In	115
|	Sn	118
|	Sb	123
⌊	Ba	135
	Ce	140
	Tb	159
⌈	Ho	165
|	Tl	203
|	Tl	205
|	Pb	206
|	Pb	207
|	Pb	208
|	U	238
|	Th	232
⌊>	Bi	209
⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88
	C	12
	N	14

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: Blank
Report Date/Time: Friday, September 06, 2019 09:41:04
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Method 6020 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Friday, September 06, 2019 09:41:38
Number of Replicates: 3
Autosampler Position: 1
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10870.6	3.8				ug/L	10871	KED
|	**Be**	9	0.0					ug/L	0	KED
|	**Al**	27	118.3	12.2				ug/L	138	KED
|>	**Sc-2**	45	80553.3	2.0				ug/L	80225	KED
⌈	**Ti**	47	10.3	36.6				ug/L	12	KED
|	**V**	51	13227.1	2.6				ug/L	12950	KED
|	**Cr**	52	962.4	3.9				ug/L	964	KED
|	**Cr**	53	8268.9	3.9				ug/L	8055	KED
|	**Mn**	55	175.0	5.5				ug/L	193	KED
|	**Co**	59	67.7	19.3				ug/L	74	KED
|	**Ni**	60	506.3	3.6				ug/L	604	KED
|	**Cu**	65	213.7	12.0				ug/L	202	KED
|	**Zn**	66	171.0	9.7				ug/L	160	KED
|>	**Ge**	72	269072.4	1.9				ug/L	269000	KED
|	**As**	75	1136.7	3.9				ug/L	1156	KED
|	**Se**	82	18.2	27.8				ug/L	22	KED
|	**Se-1**	78	38.5	1.3				ug/L	38	KED
⌊	**Se-1**	80	27681.8	0.7				ug/L	27714	KED
	Ga	71	85.0	5.9				ug/L	75	KED
	Rb	85	1.7	173.2				ug/L	23	KED
	Y	89	228099.5	1.8				ug/L	233304	KED
	Rh	103	5.0	173.2				ug/L	7	KED
⌈	**Mo**	98	48.3	24.9				ug/L	42	KED
|	**Ag**	107	130.3	9.5				ug/L	130	KED
|	**Cd**	111	6.3	24.1				ug/L	9	KED
|	**Cd**	114	28.3	7.3				ug/L	34	KED
|>	**In**	115	293173.6	2.8				ug/L	293219	KED
|	**Sn**	118	686.0	7.3				ug/L	701	KED
|	**Sb**	123	152.3	9.0				ug/L	422	KED
⌊	**Ba**	135	28.7	40.4				ug/L	26	KED
	Ce	140	35.7	25.4				ug/L	43	KED
	Tb	159	816544.0	1.2				ug/L	830473	KED
⌈	**Ho**	165	10.7	21.7				ug/L	13	KED
|	**Tl**	203	8.7	40.5				ug/L	13	KED
|	**Tl**	205	19.7	2.9				ug/L	21	KED
|	**Pb**	206	364.0	3.7				ug/L	402	KED
|	**Pb**	207	326.0	13.2				ug/L	330	KED
|	**Pb**	208	834.7	4.4				ug/L	883	KED
|	**U**	238	10.0	43.6				ug/L	8	KED

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	Th	232	10958.2	30.7	ug/L	11535	KED
>	**Bi**	209	631611.1	0.8	ug/L	637206	KED
	Na	23	0.0		mg/L	0	KED
	Mg	24	570.0	12.2	mg/L	573	KED
	K	39	0.0		mg/L	0	KED
	Ca	43	0.0		mg/L	0	KED
	Fe	54	16.7	45.8	mg/L	12	KED
	Fe	57	13.3	21.7	mg/L	23	KED
>	**Sc-1**	45	80553.3	2.0	mg/L	80225	KED
	Cl	35	3452.1	4.2	ug/L	3539	KED
	Kr	83	1.7	173.2	ug/L	2	KED
	Br	81	30.0	44.1	ug/L	32	KED
	P	31	130.0	17.6	ug/L	120	KED
	S	34	31.7	50.8	ug/L	33	KED
	Sr	88	26.7	28.6	ug/L	35	KED
	C	12	0.0		ug/L	0	KED
	N	14	0.0		ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72			
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: Standard 1
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	Rh	103
⌈	Mo	98
|	Ag	107
|	Cd	111
|	Cd	114
|>	In	115
|	Sn	118
|	Sb	123
⌊	Ba	135
	Ce	140
	Tb	159
⌈	Ho	165
|	Tl	203
|	Tl	205
|	Pb	206
|	Pb	207
|	Pb	208
|	U	238
|	Th	232
⌊>	Bi	209
⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88
	C	12
	N	14

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: Standard 1
Report Date/Time: Friday, September 06, 2019 09:43:57
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Method 6020 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Friday, September 06, 2019 09:44:31
Number of Replicates: 3
Autosampler Position: 2
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10795.5	3.0				ug/L	10871	KED
|	**Be**	9	11.7	24.7	**0.0800**	0.021	26.0	ug/L	0	KED
|	**Al**	27	2815.3	0.8				ug/L	138	KED
|>	**Sc-2**	45	78512.6	1.8				ug/L	80225	KED
⌈	**Ti**	47	13.0	13.3	**0.4000**	0.566	141.5	ug/L	12	KED
|	**V**	51	13919.4	2.7	**0.4000**	0.104	26.1	ug/L	12950	KED
|	**Cr**	52	2533.9	3.6	**0.8000**	0.056	7.0	ug/L	964	KED
|	**Cr**	53	8705.8	4.2	**0.8000**	0.490	61.2	ug/L	8055	KED
|	**Mn**	55	1360.7	2.8	**0.8000**	0.043	5.3	ug/L	193	KED
|	**Co**	59	2329.8	3.3	**0.4000**	0.020	4.9	ug/L	74	KED
|	**Ni**	60	2926.9	4.2	**1.6000**	0.106	6.6	ug/L	604	KED
|	**Cu**	65	1786.1	4.8	**0.8000**	0.036	4.5	ug/L	202	KED
|	**Zn**	66	4365.0	1.9	**8.0000**	0.197	2.5	ug/L	160	KED
|>	**Ge**	72	264424.0	2.1				ug/L	269000	KED
|	**As**	75	1285.4	5.0	**0.4000**	0.224	56.0	ug/L	1156	KED
|	**Se**	82	28.3	15.4	**0.4000**	0.243	60.7	ug/L	22	KED
|	**Se-1**	78	53.3	6.2	**0.4000**	0.066	16.4	ug/L	38	KED
⌊	**Se-1**	80	27204.6	0.7	**0.4000**	4.911	1227.9	ug/L	27714	KED
	Ga	71	65.0	27.7				ug/L	75	KED
	Rb	85	18.3	56.8				ug/L	23	KED
	Y	89	222354.2	3.3				ug/L	233304	KED
	Rh	103	3.3	86.6				ug/L	7	KED
⌈	**Mo**	98	1565.4	3.3	**0.4000**	0.017	4.2	ug/L	42	KED
|	**Ag**	107	3161.0	1.5	**0.4000**	0.009	2.2	ug/L	130	KED
|	**Cd**	111	280.0	9.4	**0.2400**	0.025	10.4	ug/L	9	KED
|	**Cd**	114	623.3	3.6	**0.2400**	0.012	5.0	ug/L	34	KED
|>	**In**	115	286100.3	1.5				ug/L	293219	KED
|	**Sn**	118	1471.4	1.3	**0.4000**	0.009	2.3	ug/L	701	KED
|	**Sb**	123	924.4	2.7	**0.4000**	0.015	3.7	ug/L	422	KED
⌊	**Ba**	135	802.7	5.8	**1.2000**	0.078	6.5	ug/L	26	KED
	Ce	140	35.3	18.2				ug/L	43	KED
	Tb	159	795628.6	2.3				ug/L	830473	KED
⌈	**Ho**	165	9.0	33.3				ug/L	13	KED
|	**Tl**	203	495.0	2.2	**0.0800**	0.001	1.0	ug/L	13	KED
|	**Tl**	205	1130.4	3.0	**0.0800**	0.004	4.7	ug/L	21	KED
|	**Pb**	206	2251.5	3.0	**0.4000**	0.011	2.8	ug/L	402	KED
|	**Pb**	207	2006.8	4.4	**0.4000**	0.010	2.4	ug/L	330	KED
|	**Pb**	208	5262.3	11.5	**0.4000**	0.043	10.9	ug/L	883	KED
|	**U**	238	9410.3	4.8	**0.4000**	0.019	4.8	ug/L	8	KED

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	Th	232	13925.8	8.6	**0.4000**	0.232	58.0	ug/L	11535	KED
>	**Bi**	209	627866.0	2.6				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	1538.4	2.6	**0.0500**	0.003	6.5	mg/L	573	KED
	K	39	3.3	86.6	**0.0500**	0.043	86.6	mg/L	0	KED
	Ca	43	3.3	86.6	**0.0500**	0.043	86.6	mg/L	0	KED
	Fe	54	61.7	44.7	**0.0500**	0.028	56.0	mg/L	12	KED
	Fe	57	133.3	18.5	**0.0500**	0.012	24.1	mg/L	23	KED
>	**Sc-1**	45	78512.6	1.8				mg/L	80225	KED
	Cl	35	3345.4	4.3				ug/L	3539	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	30.0	16.7				ug/L	32	KED
	P	31	120.0	21.7				ug/L	120	KED
	S	34	18.3	15.7				ug/L	33	KED
	Sr	88	20.0	66.1				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72			
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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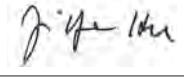
	Rh	103
⌈	Mo	98
|	Ag	107
|	Cd	111
|	Cd	114
|>	In	115
|	Sn	118
|	Sb	123
⌊	Ba	135
	Ce	140
	Tb	159
⌈	Ho	165
|	Tl	203
|	Tl	205
|	Pb	206
|	Pb	207
|	Pb	208
|	U	238
|	Th	232
⌊>	Bi	209
⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88
	C	12
	N	14

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: Standard 2
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Method 6020 - Summary Report

Sample ID: Standard 3
Sample Date/Time: Friday, September 06, 2019 09:47:25
Number of Replicates: 3
Autosampler Position: 3
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10573.7	4.6				ug/L	10871	KED
|	**Be**	9	36.3	16.6	**0.3917**	0.069	17.5	ug/L	0	KED
|	**Al**	27	13037.3	4.0				ug/L	138	KED
|>	**Sc-2**	45	77346.3	1.2				ug/L	80225	KED
⌈	**Ti**	47	37.0	4.7	**2.0611**	0.163	7.9	ug/L	12	KED
|	**V**	51	16023.1	3.4	**1.9559**	0.363	18.6	ug/L	12950	KED
|	**Cr**	52	8910.3	2.7	**4.0052**	0.097	2.4	ug/L	964	KED
|	**Cr**	53	9604.7	3.6	**3.8489**	0.866	22.5	ug/L	8055	KED
|	**Mn**	55	6077.2	2.7	**4.0051**	0.106	2.6	ug/L	193	KED
|	**Co**	59	10950.3	1.2	**1.9993**	0.013	0.7	ug/L	74	KED
|	**Ni**	60	12802.7	3.8	**8.0221**	0.293	3.7	ug/L	604	KED
|	**Cu**	65	8001.4	2.5	**4.0018**	0.071	1.8	ug/L	202	KED
|	**Zn**	66	21403.5	4.5	**40.0569**	1.500	3.7	ug/L	160	KED
|>	**Ge**	72	257122.4	0.9				ug/L	269000	KED
|	**As**	75	1985.1	5.0	**2.0132**	0.232	11.5	ug/L	1156	KED
|	**Se**	82	54.0	9.7	**1.9996**	0.290	14.5	ug/L	22	KED
|	**Se-1**	78	109.0	5.6	**1.9954**	0.144	7.2	ug/L	38	KED
⌊	**Se-1**	80	27281.0	0.4	**2.0968**	0.841	40.1	ug/L	27714	KED
	Ga	71	66.7	17.3				ug/L	75	KED
	Rb	85	25.0	34.6				ug/L	23	KED
	Y	89	216622.8	1.5				ug/L	233304	KED
	Rh	103	11.7	65.5				ug/L	7	KED
⌈	**Mo**	98	7347.8	3.5	**1.9983**	0.040	2.0	ug/L	42	KED
|	**Ag**	107	15275.0	1.2	**2.0015**	0.013	0.6	ug/L	130	KED
|	**Cd**	111	1259.4	4.6	**1.1972**	0.046	3.8	ug/L	9	KED
|	**Cd**	114	3180.0	4.7	**1.2038**	0.041	3.4	ug/L	34	KED
|>	**In**	115	280194.8	1.6				ug/L	293219	KED
|	**Sn**	118	4783.8	1.9	**2.0048**	0.019	1.0	ug/L	701	KED
|	**Sb**	123	3885.8	2.9	**2.0217**	0.040	2.0	ug/L	422	KED
⌊	**Ba**	135	3855.5	2.3	**6.0014**	0.043	0.7	ug/L	26	KED
	Ce	140	32.7	15.4				ug/L	43	KED
	Tb	159	778348.1	0.3				ug/L	830473	KED
⌈	**Ho**	165	5.7	40.8				ug/L	13	KED
|	**Tl**	203	2260.8	2.0	**0.3992**	0.009	2.1	ug/L	13	KED
|	**Tl**	205	5552.4	1.9	**0.4003**	0.008	2.0	ug/L	21	KED
|	**Pb**	206	9678.4	4.1	**2.0017**	0.086	4.3	ug/L	402	KED
|	**Pb**	207	8516.1	5.1	**1.9997**	0.109	5.5	ug/L	330	KED
|	**Pb**	208	21593.1	4.2	**1.9973**	0.089	4.5	ug/L	883	KED
|	**U**	238	46610.7	4.0	**2.0009**	0.081	4.0	ug/L	8	KED

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	Th	232	29111.4	7.3	**2.0231**	0.242	12.0	ug/L	11535	KED
>	**Bi**	209	615032.8	0.2				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	5524.3	4.8	**0.2503**	0.010	4.1	mg/L	573	KED
	K	39	3.3	173.2	**0.2179**	0.377	173.2	mg/L	0	KED
	Ca	43	0.0		**0.0000**	0.000		mg/L	0	KED
	Fe	54	246.7	17.0	**0.2495**	0.044	17.6	mg/L	12	KED
	Fe	57	510.0	2.9	**0.2489**	0.009	3.7	mg/L	23	KED
>	**Sc-1**	45	77346.3	1.2				mg/L	80225	KED
	Cl	35	3360.4	0.8				ug/L	3539	KED
	Kr	83	10.0	50.0				ug/L	2	KED
	Br	81	46.7	72.9				ug/L	32	KED
	P	31	135.0	6.4				ug/L	120	KED
	S	34	20.0	25.0				ug/L	33	KED
	Sr	88	28.3	20.4				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72			
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103
⌈	Mo	98
|	Ag	107
|	Cd	111
|	Cd	114
|>	In	115
|	Sn	118
|	Sb	123
⌊	Ba	135
	Ce	140
	Tb	159
⌈	Ho	165
|	Tl	203
|	Tl	205
|	Pb	206
|	Pb	207
|	Pb	208
|	U	238
|	Th	232
⌊>	Bi	209
⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88
	C	12
	N	14

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: Standard 3
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Method 6020 - Summary Report

Sample ID: Standard 4
Sample Date/Time: Friday, September 06, 2019 09:50:19
Number of Replicates: 3
Autosampler Position: 4
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	9773.2	1.2				ug/L	10871	KED
|	**Be**	9	718.7	3.0	**8.0005**	0.457	5.7	ug/L	0	KED
|	**Al**	27	246355.0	0.4				ug/L	138	KED
⌊>	**Sc-2**	45	73583.0	2.9				ug/L	80225	KED
⌈	**Ti**	47	517.3	3.3	**40.0036**	2.597	6.5	ug/L	12	KED
|	**V**	51	58388.6	1.8	**39.9386**	2.443	6.1	ug/L	12950	KED
|	**Cr**	52	158071.7	3.8	**79.9999**	4.850	6.1	ug/L	964	KED
|	**Cr**	53	25486.4	3.1	**79.7554**	6.670	8.4	ug/L	8055	KED
|	**Mn**	55	115970.0	2.9	**79.9996**	4.151	5.2	ug/L	193	KED
|	**Co**	59	218441.0	3.0	**40.0018**	2.146	5.4	ug/L	74	KED
|	**Ni**	60	243447.7	2.6	**160.0044**	7.706	4.8	ug/L	604	KED
|	**Cu**	65	157606.5	1.0	**80.0047**	3.236	4.0	ug/L	202	KED
|	**Zn**	66	427315.8	2.4	**800.0430**	31.138	3.9	ug/L	160	KED
⌊>	**Ge**	72	253644.1	3.0				ug/L	269000	KED
|	**As**	75	18495.0	1.8	**40.0009**	1.322	3.3	ug/L	1156	KED
|	**Se**	82	720.9	2.8	**40.0070**	1.004	2.5	ug/L	22	KED
|	**Se-1**	78	1538.6	2.7	**40.0048**	0.381	1.0	ug/L	38	KED
⌊	**Se-1**	80	31072.3	1.4	**39.7925**	4.867	12.2	ug/L	27714	KED
	Ga	71	60.0	30.0				ug/L	75	KED
	Rb	85	175.0	24.4				ug/L	23	KED
	Y	89	222387.3	6.0				ug/L	233304	KED
	Rh	103	33.3	8.7				ug/L	7	KED
⌈	**Mo**	98	156418.6	4.5	**40.0040**	2.032	5.1	ug/L	42	KED
|	**Ag**	107	312460.0	1.3	**40.0004**	1.137	2.8	ug/L	130	KED
|	**Cd**	111	26837.8	1.8	**24.0025**	0.779	3.2	ug/L	9	KED
|	**Cd**	114	66188.3	1.6	**24.0016**	1.161	4.8	ug/L	34	KED
⌊>	**In**	115	288191.6	3.6				ug/L	293219	KED
|	**Sn**	118	87535.2	2.6	**40.0030**	2.220	5.5	ug/L	701	KED
|	**Sb**	123	80266.5	2.2	**40.0118**	1.801	4.5	ug/L	422	KED
⌊	**Ba**	135	80141.5	2.9	**120.0056**	6.808	5.7	ug/L	26	KED
	Ce	140	67.0	6.8				ug/L	43	KED
	Tb	159	784695.7	3.5				ug/L	830473	KED
⌈	**Ho**	165	8.7	24.0				ug/L	13	KED
|	**Tl**	203	45223.4	1.4	**8.0001**	0.271	3.4	ug/L	13	KED
|	**Tl**	205	111449.1	1.7	**8.0002**	0.322	4.0	ug/L	21	KED
|	**Pb**	206	192130.3	2.5	**40.0034**	1.940	4.8	ug/L	402	KED
|	**Pb**	207	169868.4	1.6	**40.0035**	1.508	3.8	ug/L	330	KED
|	**Pb**	208	423930.7	2.2	**40.0020**	1.649	4.1	ug/L	883	KED
|	**U**	238	967816.5	3.1	**40.0040**	1.732	4.3	ug/L	8	KED

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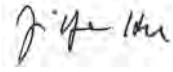
	Th	232	748280.1	5.4	**40.0539**	2.935	7.3	ug/L	11535	KED
>	**Bi**	209	614683.5	2.9				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	97036.4	0.8	**5.0003**	0.124	2.5	mg/L	573	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**0.0000**	0.000		mg/L	0	KED
	Fe	54	5262.6	5.6	**5.0019**	0.418	8.4	mg/L	12	KED
	Fe	57	11129.1	2.2	**5.0021**	0.249	5.0	mg/L	23	KED
>	**Sc-1**	45	73583.0	2.9				mg/L	80225	KED
	Cl	35	2695.2	3.2				ug/L	3539	KED
	Kr	83	3.3	173.2				ug/L	2	KED
	Br	81	25.0	87.2				ug/L	32	KED
	P	31	110.0	12.0				ug/L	120	KED
	S	34	18.3	15.7				ug/L	33	KED
	Sr	88	26.7	21.7				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72			
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: Standard 4
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	Rh	103
⌈	Mo	98
|	Ag	107
|	Cd	111
|	Cd	114
|>	In	115
|	Sn	118
|	Sb	123
⌊	Ba	135
	Ce	140
	Tb	159
⌈	Ho	165
|	Tl	203
|	Tl	205
|	Pb	206
|	Pb	207
|	Pb	208
|	U	238
|	Th	232
⌊>	Bi	209
⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88
	C	12
	N	14

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: Standard 4
Report Date/Time: Friday, September 06, 2019 09:52:39
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Method 6020 - Summary Report

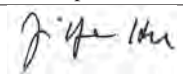
Sample ID: Standard 5
Sample Date/Time: Friday, September 06, 2019 09:53:13
Number of Replicates: 3
Autosampler Position: 5
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	8837.6	2.5				ug/L	10871	KED
|	**Be**	9	1335.1	3.1	**15.8834**	0.520	3.3	ug/L	0	KED
|	**Al**	27	467129.3	4.1				ug/L	138	KED
|>	**Sc-2**	45	70794.0	0.5				ug/L	80225	KED
⌈	**Ti**	47	966.7	0.9	**78.9713**	1.616	2.0	ug/L	12	KED
|	**V**	51	103107.5	3.1	**79.6268**	3.843	4.8	ug/L	12950	KED
|	**Cr**	52	296343.8	2.1	**157.8077**	5.226	3.3	ug/L	964	KED
|	**Cr**	53	43636.2	4.3	**159.9336**	10.626	6.6	ug/L	8055	KED
|	**Mn**	55	218863.0	1.7	**157.9668**	4.398	2.8	ug/L	193	KED
|	**Co**	59	419054.7	1.0	**79.2431**	1.382	1.7	ug/L	74	KED
|	**Ni**	60	469697.4	1.6	**317.4224**	8.217	2.6	ug/L	604	KED
|	**Cu**	65	302679.2	0.9	**158.5430**	3.265	2.1	ug/L	202	KED
|	**Zn**	66	829294.9	1.6	**1588.8106**	43.018	2.7	ug/L	160	KED
|>	**Ge**	72	254721.1	1.2				ug/L	269000	KED
|	**As**	75	36181.5	2.8	**80.0550**	3.230	4.0	ug/L	1156	KED
|	**Se**	82	1456.9	1.9	**80.3358**	2.436	3.0	ug/L	22	KED
|	**Se-1**	78	3008.3	0.7	**79.7555**	1.026	1.3	ug/L	38	KED
⌊	**Se-1**	80	34833.2	0.9	**77.4656**	5.918	7.6	ug/L	27714	KED
	Ga	71	53.3	23.6				ug/L	75	KED
	Rb	85	410.0	18.0				ug/L	23	KED
	Y	89	229237.8	0.4				ug/L	233304	KED
	Rh	103	43.3	13.3				ug/L	7	KED
⌈	**Mo**	98	325844.3	1.9	**79.9040**	2.277	2.8	ug/L	42	KED
|	**Ag**	107	651584.6	0.5	**79.9192**	1.093	1.4	ug/L	130	KED
|	**Cd**	111	55910.0	2.3	**47.9427**	1.383	2.9	ug/L	9	KED
|	**Cd**	114	136063.9	1.3	**47.8093**	0.917	1.9	ug/L	34	KED
|>	**In**	115	301905.2	1.3				ug/L	293219	KED
|	**Sn**	118	178879.0	3.0	**79.6406**	2.202	2.8	ug/L	701	KED
|	**Sb**	123	163461.2	1.8	**79.5724**	1.615	2.0	ug/L	422	KED
⌊	**Ba**	135	167369.9	1.9	**239.8029**	6.278	2.6	ug/L	26	KED
	Ce	140	106.3	14.8				ug/L	43	KED
	Tb	159	831579.7	0.4				ug/L	830473	KED
⌈	**Ho**	165	10.7	39.0				ug/L	13	KED
|	**Tl**	203	93635.5	1.7	**15.9788**	0.240	1.5	ug/L	13	KED
|	**Tl**	205	231616.4	1.2	**15.9903**	0.163	1.0	ug/L	21	KED
|	**Pb**	206	391788.3	2.4	**79.6585**	1.785	2.2	ug/L	402	KED
|	**Pb**	207	345360.6	1.9	**79.6118**	1.343	1.7	ug/L	330	KED
|	**Pb**	208	870137.2	1.8	**79.7666**	1.323	1.7	ug/L	883	KED
|	**U**	238	2100694.3	7.4	**80.6415**	5.812	7.2	ug/L	8	KED

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	Th	232	1753231.5	4.3	**81.9459**	3.444	4.2	ug/L	11535	KED
>	**Bi**	209	640257.1	0.2				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	174512.9	2.1	**9.8662**	0.195	2.0	mg/L	573	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**0.0000**	0.000		mg/L	0	KED
	Fe	54	10345.2	5.4	**10.0425**	0.584	5.8	mg/L	12	KED
	Fe	57	22186.2	3.7	**10.0713**	0.413	4.1	mg/L	23	KED
>	**Sc-1**	45	70794.0	0.5				mg/L	80225	KED
	Cl	35	1640.1	3.7				ug/L	3539	KED
	Kr	83	3.3	86.6				ug/L	2	KED
	Br	81	21.7	35.3				ug/L	32	KED
	P	31	130.0	21.4				ug/L	120	KED
	S	34	30.0	44.1				ug/L	33	KED
	Sr	88	53.3	44.3				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72			
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103
⌈	Mo	98
|	Ag	107
|	Cd	111
|	Cd	114
|>	In	115
|	Sn	118
|	Sb	123
⌊	Ba	135
	Ce	140
	Tb	159
⌈	Ho	165
|	Tl	203
|	Tl	205
|	Pb	206
|	Pb	207
|	Pb	208
|	U	238
|	Th	232
⌊>	Bi	209
⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88
	C	12
	N	14

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Corr. Coef.	Na	23	Correlation coefficient < 0.998
Corr. Coef.	K	39	Correlation coefficient < 0.998
Corr. Coef.	Ca	43	Correlation coefficient < 0.998

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Method 6020 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Friday, September 06, 2019 09:56:06
Number of Replicates: 3
Autosampler Position: 201
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	9618.1	4.2				ug/L	10871	KED
|	**Be**	9	546.3	6.0	**6.4027**	0.388	6.1	ug/L	0	KED
|	**Al**	27	191285.0	1.1				ug/L	138	KED
|>	**Sc-2**	45	71857.0	2.0				ug/L	80225	KED
⌈	**Ti**	47	407.7	5.9	**32.3268**	1.780	5.5	ug/L	12	KED
|	**V**	51	43761.8	1.5	**27.1254**	0.986	3.6	ug/L	12950	KED
|	**Cr**	52	121796.7	1.9	**63.7551**	2.045	3.2	ug/L	964	KED
|	**Cr**	53	19193.9	7.2	**50.3445**	7.321	14.5	ug/L	8055	KED
|	**Mn**	55	89837.6	2.2	**63.9537**	2.232	3.5	ug/L	193	KED
|	**Co**	59	169942.9	1.6	**31.7244**	0.641	2.0	ug/L	74	KED
|	**Ni**	60	191351.5	1.4	**127.4596**	3.015	2.4	ug/L	604	KED
|	**Cu**	65	124650.2	2.7	**64.4164**	2.262	3.5	ug/L	202	KED
|	**Zn**	66	338321.4	1.9	**639.8410**	17.214	2.7	ug/L	160	KED
|>	**Ge**	72	257966.1	1.5				ug/L	269000	KED
|	**As**	75	14933.7	1.3	**31.1434**	0.693	2.2	ug/L	1156	KED
|	**Se**	82	603.3	0.8	**32.1671**	0.756	2.4	ug/L	22	KED
|	**Se-1**	78	1266.9	3.1	**32.6102**	1.529	4.7	ug/L	38	KED
⌊	**Se-1**	80	30927.4	0.5	**38.7643**	5.238	13.5	ug/L	27714	KED
	Ga	71	40.0	21.7				ug/L	75	KED
	Rb	85	138.3	14.6				ug/L	23	KED
	Y	89	235647.0	1.6				ug/L	233304	KED
	Rh	103	25.0	100.0				ug/L	7	KED
⌈	**Mo**	98	132500.0	2.1	**31.7717**	0.874	2.8	ug/L	42	KED
|	**Ag**	107	268198.6	1.6	**32.1657**	0.768	2.4	ug/L	130	KED
|	**Cd**	111	23014.5	2.4	**19.2991**	0.670	3.5	ug/L	9	KED
|	**Cd**	114	56145.2	2.1	**19.2894**	0.579	3.0	ug/L	34	KED
|>	**In**	115	308678.0	1.4				ug/L	293219	KED
|	**Sn**	118	73474.5	2.9	**31.8087**	1.164	3.7	ug/L	701	KED
|	**Sb**	123	67677.2	1.9	**32.0953**	0.623	1.9	ug/L	422	KED
⌊	**Ba**	135	67655.8	2.3	**94.7885**	2.867	3.0	ug/L	26	KED
	Ce	140	63.3	19.0				ug/L	43	KED
	Tb	159	841551.1	0.7				ug/L	830473	KED
⌈	**Ho**	165	7.0	24.7				ug/L	13	KED
|	**Tl**	203	38085.5	2.0	**6.3554**	0.043	0.7	ug/L	13	KED
|	**Tl**	205	93654.9	1.5	**6.3233**	0.016	0.3	ug/L	21	KED
|	**Pb**	206	160390.1	2.2	**31.8480**	0.533	1.7	ug/L	402	KED
|	**Pb**	207	142031.6	2.7	**31.9776**	0.625	2.0	ug/L	330	KED
|	**Pb**	208	354893.3	3.6	**31.7718**	1.000	3.1	ug/L	883	KED
|	**U**	238	816735.4	3.0	**30.6679**	0.762	2.5	ug/L	8	KED

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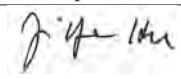
	Th	232	719283.5	4.3	**32.5549**	1.210	3.7	ug/L	11535	KED
>	**Bi**	209	654592.9	1.5				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	71501.7	1.8	**3.9663**	0.091	2.3	mg/L	573	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**0.0000**	0.000		mg/L	0	KED
	Fe	54	4490.7	1.2	**4.2894**	0.092	2.1	mg/L	12	KED
	Fe	57	9371.2	6.7	**4.1886**	0.338	8.1	mg/L	23	KED
>	**Sc-1**	45	71857.0	2.0				mg/L	80225	KED
	Cl	35	1666.8	8.5				ug/L	3539	KED
	Kr	83	5.0	0.0				ug/L	2	KED
	Br	81	13.3	78.1				ug/L	32	KED
	P	31	130.0	20.0				ug/L	120	KED
	S	34	31.7	39.7				ug/L	33	KED
	Sr	88	38.3	52.7				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9	100.042		
	Al	27			
>	Sc-2	45		89.570	
	Ti	47	101.021		
	V	51	84.767		
	Cr	52	99.617		
	Cr	53			
	Mn	55	99.928		
	Co	59	99.139		
	Ni	60	99.578		
	Cu	65	100.651		
	Zn	66	99.975		
>	Ge	72		95.898	
	As	75	97.323		
	Se	82	100.522		
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98	99.286	
|	Ag	107	100.518	
|	Cd	111	100.516	
|	Cd	114		
|>	In	115		105.272
|	Sn	118	99.402	
|	Sb	123	100.298	
⌊	Ba	135	98.738	
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203	99.303	
|	Tl	205		
|	Pb	206	99.525	
|	Pb	207	99.930	
|	Pb	208	99.287	
|	U	238	95.837	
|	Th	232	101.734	
⌊>	Bi	209		102.729
⌈	Na	23		
|	Mg	24	88.141	
|	K	39	0.000	
|	Ca	43	0.000	
|	Fe	54	95.320	
|	Fe	57	93.079	
⌊>	Sc-1	45		89.570
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	V	51	
QC Std 1	Mg	24	
QC Std 1	K	39	
QC Std 1	Ca	43	

Sample ID: QC Std 1
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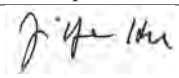
Method 6020 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Friday, September 06, 2019 09:59:01
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	11217.5	1.4				ug/L	10871	KED
|	**Be**	9	0.0		**-0.0035**			ug/L	0	KED
|	**Al**	27	195.0	17.9				ug/L	138	KED
⌊>	**Sc-2**	45	79637.6	3.8				ug/L	80225	KED
⌈	**Ti**	47	9.0	22.2	**-0.2302**	0.158	68.7	ug/L	12	KED
|	**V**	51	7137.0	10.3	**-4.7685**	0.780	16.4	ug/L	12950	KED
|	**Cr**	52	917.7	4.2	**-0.0202**	0.015	73.4	ug/L	964	KED
|	**Cr**	53	4625.7	7.8	**-14.2514**	2.040	14.3	ug/L	8055	KED
|	**Mn**	55	191.0	21.3	**-0.0009**	0.024	2534.5	ug/L	193	KED
|	**Co**	59	106.7	31.6	**0.0060**	0.006	94.9	ug/L	74	KED
|	**Ni**	60	398.3	7.4	**-0.1302**	0.015	11.4	ug/L	604	KED
|	**Cu**	65	275.3	13.6	**0.0374**	0.019	51.5	ug/L	202	KED
|	**Zn**	66	286.3	20.1	**0.2312**	0.092	39.8	ug/L	160	KED
| >	**Ge**	72	267231.8	3.0				ug/L	269000	KED
|	**As**	75	915.4	6.2	**-0.5044**	0.149	29.6	ug/L	1156	KED
|	**Se**	82	18.8	5.5	**-0.1527**	0.030	19.5	ug/L	22	KED
|	**Se-1**	78	42.3	17.1	**0.1142**	0.196	171.8	ug/L	38	KED
⌊	**Se-1**	80	27270.4	0.9	**-2.1217**	6.527	307.6	ug/L	27714	KED
	Ga	71	45.0	48.4				ug/L	75	KED
	Rb	85	8.3	34.6				ug/L	23	KED
	Y	89	230868.1	2.7				ug/L	233304	KED
	Rh	103	13.3	57.3				ug/L	7	KED
⌈	**Mo**	98	244.0	11.0	**0.0512**	0.006	11.4	ug/L	42	KED
|	**Ag**	107	285.3	25.3	**0.0195**	0.008	39.7	ug/L	130	KED
|	**Cd**	111	21.7	11.6	**0.0109**	0.002	16.4	ug/L	9	KED
|	**Cd**	114	49.0	38.1	**0.0052**	0.006	116.0	ug/L	34	KED
| >	**In**	115	292613.3	4.3				ug/L	293219	KED
|	**Sn**	118	817.7	6.4	**0.0548**	0.023	42.4	ug/L	701	KED
|	**Sb**	123	1280.4	6.1	**0.4330**	0.038	8.7	ug/L	422	KED
⌊	**Ba**	135	46.3	31.0	**0.0299**	0.020	67.2	ug/L	26	KED
	Ce	140	44.7	31.4				ug/L	43	KED
	Tb	159	801417.9	3.7				ug/L	830473	KED
⌈	**Ho**	165	4.7	24.7				ug/L	13	KED
|	**Tl**	203	20.3	67.1	**0.0012**	0.002	182.3	ug/L	13	KED
|	**Tl**	205	43.0	26.4	**0.0016**	0.001	45.9	ug/L	21	KED
|	**Pb**	206	471.3	11.5	**0.0165**	0.009	55.6	ug/L	402	KED
|	**Pb**	207	404.3	14.0	**0.0194**	0.011	55.5	ug/L	330	KED
|	**Pb**	208	1004.0	5.1	**0.0134**	0.002	17.3	ug/L	883	KED
|	**U**	238	274.3	45.2	**0.0105**	0.005	46.3	ug/L	8	KED

Approved: September 09, 2019



	Th	232	51106.6	6.8	**1.9344**	0.231	11.9	ug/L	11535	KED
>	**Bi**	209	621904.4	2.6				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	550.0	5.7	**-0.0010**	0.001	93.2	mg/L	573	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**0.0000**	0.000		mg/L	0	KED
	Fe	54	16.7	69.3	**0.0045**	0.010	227.8	mg/L	12	KED
	Fe	57	18.3	15.7	**-0.0020**	0.001	51.6	mg/L	23	KED
>	**Sc-1**	45	79637.6	3.8				mg/L	80225	KED
	Cl	35	3228.7	3.1				ug/L	3539	KED
	Kr	83	3.3	86.6				ug/L	2	KED
	Br	81	21.7	48.0				ug/L	32	KED
	P	31	88.3	31.2				ug/L	120	KED
	S	34	31.7	55.5				ug/L	33	KED
	Sr	88	23.3	32.7				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	1.7	173.2				ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		99.268	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		99.343	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		99.793
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		97.599
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		99.268
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 2	V	51	
QC Std 2	As	75	
QC Std 2	Sb	123	
QC Std 2	Th	232	

Sample ID: QC Std 2
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Method 6020 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Friday, September 06, 2019 10:04:30
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10990.7	2.1				ug/L	10871	KED
|	**Be**	9	0.0		**-0.0035**			ug/L	0	KED
|	**Al**	27	133.3	15.6				ug/L	138	KED
⌊>	**Sc-2**	45	79289.3	0.4				ug/L	80225	KED
⌈	**Ti**	47	9.0	22.2	**-0.2191**	0.160	73.2	ug/L	12	KED
|	**V**	51	8226.9	5.1	**-3.7648**	0.388	10.3	ug/L	12950	KED
|	**Cr**	52	873.0	2.8	**-0.0360**	0.013	36.9	ug/L	964	KED
|	**Cr**	53	5097.5	8.7	**-11.9494**	2.024	16.9	ug/L	8055	KED
|	**Mn**	55	231.3	4.8	**0.0297**	0.007	22.1	ug/L	193	KED
|	**Co**	59	63.0	7.3	**-0.0017**	0.001	45.4	ug/L	74	KED
|	**Ni**	60	405.7	7.8	**-0.1213**	0.020	16.8	ug/L	604	KED
|	**Cu**	65	202.3	6.2	**0.0024**	0.006	246.4	ug/L	202	KED
|	**Zn**	66	194.3	2.1	**0.0701**	0.007	10.7	ug/L	160	KED
⌊>	**Ge**	72	263138.7	0.8				ug/L	269000	KED
|	**As**	75	953.4	5.4	**-0.3916**	0.102	25.9	ug/L	1156	KED
|	**Se**	82	18.3	11.4	**-0.1639**	0.111	67.6	ug/L	22	KED
|	**Se-1**	78	44.0	10.2	**0.1737**	0.124	71.4	ug/L	38	KED
⌊	**Se-1**	80	27767.1	0.8	**5.7318**	1.146	20.0	ug/L	27714	KED
	Ga	71	85.0	31.1				ug/L	75	KED
	Rb	85	16.7	17.3				ug/L	23	KED
	Y	89	225741.0	1.0				ug/L	233304	KED
	Rh	103	15.0	33.3				ug/L	7	KED
⌈	**Mo**	98	67.7	12.6	**0.0067**	0.002	35.9	ug/L	42	KED
|	**Ag**	107	148.7	3.4	**0.0025**	0.000	17.1	ug/L	130	KED
|	**Cd**	111	6.0	76.4	**-0.0030**	0.004	132.7	ug/L	9	KED
|	**Cd**	114	32.0	3.1	**-0.0008**	0.001	78.3	ug/L	34	KED
⌊>	**In**	115	291426.1	2.1				ug/L	293219	KED
|	**Sn**	118	716.0	9.1	**0.0091**	0.031	336.3	ug/L	701	KED
|	**Sb**	123	242.0	13.1	**-0.0895**	0.018	19.8	ug/L	422	KED
⌊	**Ba**	135	24.0	4.2	**-0.0027**	0.001	28.7	ug/L	26	KED
	Ce	140	40.0	23.8				ug/L	43	KED
	Tb	159	802635.6	1.9				ug/L	830473	KED
⌈	**Ho**	165	6.7	17.3				ug/L	13	KED
|	**Tl**	203	4.0	43.3	**-0.0016**	0.000	19.9	ug/L	13	KED
|	**Tl**	205	17.7	8.6	**-0.0002**	0.000	57.0	ug/L	21	KED
|	**Pb**	206	416.3	5.4	**0.0052**	0.004	69.7	ug/L	402	KED
|	**Pb**	207	332.0	3.7	**0.0025**	0.002	74.2	ug/L	330	KED
|	**Pb**	208	886.7	3.4	**0.0024**	0.002	66.3	ug/L	883	KED
|	**U**	238	35.7	53.0	**0.0011**	0.001	66.8	ug/L	8	KED

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	Th	232	16778.5	29.3	**0.2701**	0.245	90.7	ug/L	11535	KED
>	**Bi**	209	621054.4	1.4				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	521.7	15.5	**-0.0023**	0.004	185.8	mg/L	573	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	3.3	173.2	**2492.4354**	4317.025	173.2	mg/L	0	KED
	Fe	54	16.7	62.4	**0.0045**	0.009	202.7	mg/L	12	KED
	Fe	57	28.3	27.0	**0.0021**	0.003	143.4	mg/L	23	KED
>	**Sc-1**	45	79289.3	0.4				mg/L	80225	KED
	Cl	35	3412.1	6.4				ug/L	3539	KED
	Kr	83	3.3	86.6				ug/L	2	KED
	Br	81	23.3	24.7				ug/L	32	KED
	P	31	93.3	16.4				ug/L	120	KED
	S	34	21.7	26.6				ug/L	33	KED
	Sr	88	21.7	48.0				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		98.834	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		97.821	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		99.388
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		97.465
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		98.834
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 2	V	51	
QC Std 2	Ca	43	

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Method 6020 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Friday, September 06, 2019 10:08:15
Number of Replicates: 3
Autosampler Position: 202
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10600.4	0.5				ug/L	10871	KED
|	**Be**	9	15.0	17.6	**0.1568**	0.025	15.7	ug/L	0	KED
|	**Al**	27	5459.3	0.6				ug/L	138	KED
⌊>	**Sc-2**	45	78679.5	2.5				ug/L	80225	KED
⌈	**Ti**	47	18.0	20.0	**0.4723**	0.245	51.9	ug/L	12	KED
|	**V**	51	10136.1	4.6	**-2.2853**	0.555	24.3	ug/L	12950	KED
|	**Cr**	52	4153.6	2.6	**1.6235**	0.038	2.3	ug/L	964	KED
|	**Cr**	53	6169.6	6.9	**-7.7646**	2.383	30.7	ug/L	8055	KED
|	**Mn**	55	2586.9	1.7	**1.6461**	0.015	0.9	ug/L	193	KED
|	**Co**	59	4594.4	3.9	**0.8136**	0.026	3.2	ug/L	74	KED
|	**Ni**	60	5562.7	2.0	**3.1944**	0.035	1.1	ug/L	604	KED
|	**Cu**	65	3467.7	2.0	**1.6292**	0.018	1.1	ug/L	202	KED
|	**Zn**	66	9027.0	2.8	**16.1662**	0.209	1.3	ug/L	160	KED
| >	**Ge**	72	267687.3	2.6				ug/L	269000	KED
|	**As**	75	1398.7	3.3	**0.5400**	0.078	14.5	ug/L	1156	KED
|	**Se**	82	32.0	10.2	**0.5453**	0.144	26.5	ug/L	22	KED
|	**Se-1**	78	59.8	3.4	**0.5577**	0.012	2.2	ug/L	38	KED
⌊	**Se-1**	80	27708.1	0.8	**1.1801**	4.230	358.5	ug/L	27714	KED
	Ga	71	60.0	22.0				ug/L	75	KED
	Rb	85	15.0	88.2				ug/L	23	KED
	Y	89	230219.3	0.9				ug/L	233304	KED
	Rh	103	5.0	0.0				ug/L	7	KED
⌈	**Mo**	98	3213.0	1.0	**0.8046**	0.010	1.3	ug/L	42	KED
|	**Ag**	107	6583.1	2.7	**0.8191**	0.026	3.2	ug/L	130	KED
|	**Cd**	111	510.0	5.0	**0.4442**	0.023	5.2	ug/L	9	KED
|	**Cd**	114	1359.4	4.3	**0.4817**	0.019	4.0	ug/L	34	KED
| >	**In**	115	291868.5	2.1				ug/L	293219	KED
|	**Sn**	118	2397.9	3.4	**0.7864**	0.036	4.5	ug/L	701	KED
|	**Sb**	123	1758.8	3.9	**0.6764**	0.048	7.0	ug/L	422	KED
⌊	**Ba**	135	1621.8	4.2	**2.3650**	0.080	3.4	ug/L	26	KED
	Ce	140	35.0	19.8				ug/L	43	KED
	Tb	159	801890.6	2.4				ug/L	830473	KED
⌈	**Ho**	165	6.7	31.2				ug/L	13	KED
|	**Tl**	203	920.7	5.0	**0.1587**	0.005	2.9	ug/L	13	KED
|	**Tl**	205	2288.8	3.0	**0.1605**	0.004	2.8	ug/L	21	KED
|	**Pb**	206	4218.9	4.2	**0.7980**	0.024	3.0	ug/L	402	KED
|	**Pb**	207	3738.5	2.4	**0.8081**	0.027	3.3	ug/L	330	KED
|	**Pb**	208	9313.9	3.8	**0.7946**	0.022	2.8	ug/L	883	KED
|	**U**	238	19517.9	4.0	**0.7677**	0.022	2.9	ug/L	8	KED

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	Th	232	22038.8	8.5	**0.5193**	0.113	21.8	ug/L	11535	KED
>	**Bi**	209	624579.8	2.3				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	2533.5	6.9	**0.1006**	0.009	9.4	mg/L	573	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**0.0000**	0.000		mg/L	0	KED
	Fe	54	131.7	40.2	**0.1055**	0.047	44.6	mg/L	12	KED
	Fe	57	248.3	6.5	**0.0921**	0.004	4.5	mg/L	23	KED
>	**Sc-1**	45	78679.5	2.5				mg/L	80225	KED
	Cl	35	3412.1	3.8				ug/L	3539	KED
	Kr	83	8.3	124.9				ug/L	2	KED
	Br	81	15.0	33.3				ug/L	32	KED
	P	31	113.3	26.6				ug/L	120	KED
	S	34	21.7	26.6				ug/L	33	KED
	Sr	88	20.0	43.3				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9	195.939		
	Al	27			
>	Sc-2	45		98.074	
	Ti	47			
	V	51	-571.317		
	Cr	52	202.943		
	Cr	53			
	Mn	55	205.757		
	Co	59	203.397		
	Ni	60	199.648		
	Cu	65	203.650		
	Zn	66	202.077		
>	Ge	72		99.512	
	As	75	134.988		
	Se	82	136.319		
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103			
⌈	Mo	98			
|	Ag	107	204.767		
|	Cd	111	185.088		
|	Cd	114			
|>	In	115		99.539	
|	Sn	118			
|	Sb	123	169.091		
⌊	Ba	135	197.079		
	Ce	140			
	Tb	159			
⌈	Ho	165			
|	Tl	203	198.418		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	198.652		
|	U	238	191.931		
|	Th	232	129.834		
⌊>	Bi	209		98.018	
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45		98.074	
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Be	9	
QC Std 3	V	51	
QC Std 3	Cr	52	
QC Std 3	Mn	55	
QC Std 3	Co	59	
QC Std 3	Ni	60	
QC Std 3	Cu	65	
QC Std 3	Zn	66	
QC Std 3	As	75	

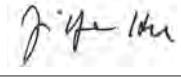
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QC Std 3	Se	82
QC Std 3	Ag	107
QC Std 3	Cd	111
QC Std 3	Sb	123
QC Std 3	Ba	135
QC Std 3	Tl	203
QC Std 3	Pb	208
QC Std 3	U	238

Sample ID: QC Std 3
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Method 6020 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, September 06, 2019 10:13:58
Number of Replicates: 3
Autosampler Position: 203
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	8790.9	10.1				ug/L	10871	KED
|	**Be**	9	0.0		**-0.0035**			ug/L	0	KED
|	**Al**	27	211197.0	1.5				ug/L	138	KED
⌊>	**Sc-2**	45	66732.5	7.7				ug/L	80225	KED
⌈	**Ti**	47	1082.4	2.5	**95.5980**	8.070	8.4	ug/L	12	KED
|	**V**	51	5272.3	10.2	**-5.7725**	0.446	7.7	ug/L	12950	KED
|	**Cr**	52	681.7	10.9	**-0.0961**	0.029	30.3	ug/L	964	KED
|	**Cr**	53	3447.1	10.2	**-17.4038**	1.333	7.7	ug/L	8055	KED
|	**Mn**	55	2266.8	2.2	**1.6328**	0.106	6.5	ug/L	193	KED
|	**Co**	59	66.0	10.6	**0.0003**	0.002	719.5	ug/L	74	KED
|	**Ni**	60	556.7	7.3	**0.0185**	0.026	138.6	ug/L	604	KED
|	**Cu**	65	299.0	3.4	**0.0689**	0.016	23.9	ug/L	202	KED
|	**Zn**	66	1779.4	2.0	**3.3884**	0.300	8.8	ug/L	160	KED
|>	**Ge**	72	236913.8	6.8				ug/L	269000	KED
|	**As**	75	813.4	7.7	**-0.4997**	0.123	24.5	ug/L	1156	KED
|	**Se**	82	16.8	19.8	**-0.1344**	0.252	187.8	ug/L	22	KED
|	**Se-1**	78	34.5	2.5	**0.0283**	0.064	227.7	ug/L	38	KED
⌊	**Se-1**	80	27228.6	0.9	**28.2797**	21.004	74.3	ug/L	27714	KED
	Ga	71	61.7	9.4				ug/L	75	KED
	Rb	85	176.7	9.1				ug/L	23	KED
	Y	89	208937.2	5.7				ug/L	233304	KED
	Rh	103	15.0	66.7				ug/L	7	KED
⌈	**Mo**	98	342653.0	0.6	**94.3290**	5.519	5.9	ug/L	42	KED
|	**Ag**	107	187.3	46.6	**0.0099**	0.014	142.7	ug/L	130	KED
|	**Cd**	111	76.0	13.9	**0.0647**	0.008	12.7	ug/L	9	KED
|	**Cd**	114	194.3	7.3	**0.0645**	0.010	15.8	ug/L	34	KED
|>	**In**	115	269537.1	6.3				ug/L	293219	KED
|	**Sn**	118	2254.5	4.1	**0.8087**	0.072	8.9	ug/L	701	KED
|	**Sb**	123	127.3	8.8	**-0.1421**	0.010	7.0	ug/L	422	KED
⌊	**Ba**	135	28.0	31.7	**0.0073**	0.018	241.5	ug/L	26	KED
	Ce	140	42.0	17.2				ug/L	43	KED
	Tb	159	737568.3	6.4				ug/L	830473	KED
⌈	**Ho**	165	7.3	41.7				ug/L	13	KED
|	**Tl**	203	16.3	27.6	**0.0009**	0.001	125.7	ug/L	13	KED
|	**Tl**	205	34.7	8.8	**0.0012**	0.000	35.5	ug/L	21	KED
|	**Pb**	206	457.7	7.5	**0.0224**	0.015	64.7	ug/L	402	KED
|	**Pb**	207	369.0	4.7	**0.0187**	0.004	22.6	ug/L	330	KED
|	**Pb**	208	975.0	3.5	**0.0186**	0.005	24.9	ug/L	883	KED
|	**U**	238	26.7	92.0	**0.0009**	0.001	135.0	ug/L	8	KED

Sample ID: QC Std 4
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	Th	232	9505.3	41.7	**-0.0348**	0.251	723.2	ug/L	11535	KED
>	**Bi**	209	573796.8	7.0				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	198298.2	2.7	**11.9472**	0.991	8.3	mg/L	573	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**1423.3353**	2465.289	173.2	mg/L	0	KED
	Fe	54	11062.4	2.6	**11.4231**	0.614	5.4	mg/L	12	KED
	Fe	57	23314.6	3.5	**11.2535**	0.524	4.7	mg/L	23	KED
>	**Sc-1**	45	66732.5	7.7				mg/L	80225	KED
	Cl	35	2413.5	6.0				ug/L	3539	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	23.3	68.9				ug/L	32	KED
	P	31	101.7	17.3				ug/L	120	KED
	S	34	38.3	27.2				ug/L	33	KED
	Sr	88	61.7	16.9				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		83.182	
	Ti	47	95.598		
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		88.072	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103			
⌈	Mo	98	94.329		
|	Ag	107			
|	Cd	111			
|	Cd	114			
|>	In	115		91.923	
|	Sn	118			
|	Sb	123			
⌊	Ba	135			
	Ce	140			
	Tb	159			
⌈	Ho	165			
|	Tl	203			
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208			
|	U	238			
|	Th	232			
⌊>	Bi	209		90.049	
⌈	Na	23			
|	Mg	24	238.944		
|	K	39	0.000		
|	Ca	43	9488.902		
|	Fe	54	91.385		
|	Fe	57	90.028		
⌊>	Sc-1	45		83.182	
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 4	V	51	
QC Std 4	Mn	55	
QC Std 4	As	75	
QC Std 4	Mg	24	
QC Std 4	K	39	
QC Std 4	Ca	43	

Sample ID: QC Std 4
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Method 6020 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Friday, September 06, 2019 10:17:30
Number of Replicates: 3
Autosampler Position: 204
Sample Description:
Method File: C:\NexION\Data\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	9476.3	3.3				ug/L	10871	KED
|	**Be**	9	9323.5	5.1	**110.8998**	6.765	6.1	ug/L	0	KED
|	**Al**	27	209138.3	4.0				ug/L	138	KED
|>	**Sc-2**	45	70850.3	1.1				ug/L	80225	KED
⌈	**Ti**	47	1066.7	1.4	**87.6897**	2.303	2.6	ug/L	12	KED
|	**V**	51	136183.1	1.7	**109.1945**	2.573	2.4	ug/L	12950	KED
|	**Cr**	52	193962.2	2.7	**103.6364**	3.464	3.3	ug/L	964	KED
|	**Cr**	53	30295.3	3.2	**101.3556**	5.927	5.8	ug/L	8055	KED
|	**Mn**	55	144856.1	2.6	**105.0466**	3.975	3.8	ug/L	193	KED
|	**Co**	59	544974.8	2.2	**103.5932**	3.334	3.2	ug/L	74	KED
|	**Ni**	60	155232.7	1.9	**105.1873**	3.309	3.1	ug/L	604	KED
|	**Cu**	65	198637.1	1.6	**104.5367**	2.364	2.3	ug/L	202	KED
|	**Zn**	66	56944.2	2.4	**109.3810**	3.637	3.3	ug/L	160	KED
|>	**Ge**	72	253440.7	1.4				ug/L	269000	KED
|	**As**	75	47525.1	1.4	**106.4770**	2.845	2.7	ug/L	1156	KED
|	**Se**	82	1929.6	2.4	**107.3163**	3.284	3.1	ug/L	22	KED
|	**Se-1**	78	4093.2	3.2	**109.4340**	4.039	3.7	ug/L	38	KED
⌊	**Se-1**	80	36912.2	0.7	**97.9024**	6.726	6.9	ug/L	27714	KED
	Ga	71	68.3	23.5				ug/L	75	KED
	Rb	85	163.3	19.7				ug/L	23	KED
	Y	89	227343.6	2.5				ug/L	233304	KED
	Rh	103	78.3	19.5				ug/L	7	KED
⌈	**Mo**	98	347549.3	2.6	**88.0780**	2.183	2.5	ug/L	42	KED
|	**Ag**	107	756176.3	1.6	**95.8704**	2.004	2.1	ug/L	130	KED
|	**Cd**	111	119781.2	2.7	**106.1661**	2.960	2.8	ug/L	9	KED
|	**Cd**	114	282091.4	2.4	**102.4614**	2.611	2.5	ug/L	34	KED
|>	**In**	115	292113.5	2.2				ug/L	293219	KED
|	**Sn**	118	1672.4	3.6	**0.4500**	0.012	2.7	ug/L	701	KED
|	**Sb**	123	211924.5	2.0	**106.7192**	3.209	3.0	ug/L	422	KED
⌊	**Ba**	135	68577.2	1.9	**101.5489**	3.300	3.2	ug/L	26	KED
	Ce	140	47.7	9.9				ug/L	43	KED
	Tb	159	790735.2	1.2				ug/L	830473	KED
⌈	**Ho**	165	9.7	33.3				ug/L	13	KED
|	**Tl**	203	583803.9	1.3	**103.7882**	1.647	1.6	ug/L	13	KED
|	**Tl**	205	1438332.4	0.8	**103.4403**	0.822	0.8	ug/L	21	KED
|	**Pb**	206	486719.6	2.0	**103.1064**	2.218	2.2	ug/L	402	KED
|	**Pb**	207	432029.3	1.9	**103.7621**	2.234	2.2	ug/L	330	KED
|	**Pb**	208	1072561.6	2.7	**102.4370**	2.651	2.6	ug/L	883	KED
|	**U**	238	2657734.1	3.9	**106.2873**	4.475	4.2	ug/L	8	KED

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	Th	232	39601.2	25.4	**1.3925**	0.478	34.3	ug/L	11535	KED
>	**Bi**	209	614709.4	1.1				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	194006.1	1.9	**10.9650**	0.323	2.9	mg/L	573	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	5.0	100.0	**4163.8808**	4135.403	99.3	mg/L	0	KED
	Fe	54	11409.3	2.4	**11.0688**	0.384	3.5	mg/L	12	KED
	Fe	57	23421.4	2.3	**10.6243**	0.301	2.8	mg/L	23	KED
>	**Sc-1**	45	70850.3	1.1				mg/L	80225	KED
	Cl	35	2415.2	5.8				ug/L	3539	KED
	Kr	83	0.0					ug/L	2	KED
	Br	81	28.3	66.8				ug/L	32	KED
	P	31	76.7	32.8				ug/L	120	KED
	S	34	36.7	34.3				ug/L	33	KED
	Sr	88	61.7	16.9				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9	110.900		
	Al	27			
>	Sc-2	45		88.315	
	Ti	47	87.690		
	V	51	109.195		
	Cr	52	103.636		
	Cr	53			
	Mn	55	105.047		
	Co	59	103.593		
	Ni	60	105.187		
	Cu	65	104.537		
	Zn	66	109.381		
>	Ge	72		94.216	
	As	75	106.477		
	Se	82	107.316		
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98	88.078	
|	Ag	107	95.870	
|	Cd	111	106.166	
|	Cd	114		
|>	In	115		99.623
|	Sn	118		
|	Sb	123	106.719	
⌊	Ba	135	101.549	
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203	103.788	
|	Tl	205		
|	Pb	206	103.106	
|	Pb	207	103.762	
|	Pb	208	102.437	
|	U	238	106.287	
|	Th	232		
⌊>	Bi	209		96.469
⌈	Na	23		
|	Mg	24	219.301	
|	K	39	0.000	
|	Ca	43	27759.205	
|	Fe	54	88.550	
|	Fe	57	84.994	
⌊>	Sc-1	45		88.315
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Mg	24	
QC Std 5	K	39	
QC Std 5	Ca	43	

Sample ID: QC Std 5
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Approved: September 09, 2019

Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, September 06, 2019 10:21:19
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexION\Data\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	9975.0	5.1				ug/L	10871	KED
|	**Be**	9	542.0	5.5	**6.2114**	0.261	4.2	ug/L	0	KED
|	**Al**	27	193433.8	4.8				ug/L	138	KED
⌊>	**Sc-2**	45	73466.2	3.6				ug/L	80225	KED
⌈	**Ti**	47	424.0	2.8	**33.0112**	1.061	3.2	ug/L	12	KED
|	**V**	51	44471.9	4.2	**26.9950**	1.261	4.7	ug/L	12950	KED
|	**Cr**	52	122965.2	4.3	**63.1174**	2.430	3.9	ug/L	964	KED
|	**Cr**	53	19062.0	5.8	**48.0951**	4.326	9.0	ug/L	8055	KED
|	**Mn**	55	90944.1	4.2	**63.4837**	2.281	3.6	ug/L	193	KED
|	**Co**	59	173842.8	3.5	**31.8289**	0.877	2.8	ug/L	74	KED
|	**Ni**	60	194797.6	3.6	**127.2582**	3.999	3.1	ug/L	604	KED
|	**Cu**	65	125538.3	3.2	**63.6266**	1.894	3.0	ug/L	202	KED
|	**Zn**	66	340608.9	2.3	**631.8213**	13.162	2.1	ug/L	160	KED
|>	**Ge**	72	262959.8	1.3				ug/L	269000	KED
|	**As**	75	14950.4	2.4	**30.5364**	0.674	2.2	ug/L	1156	KED
|	**Se**	82	614.2	4.1	**32.1064**	0.968	3.0	ug/L	22	KED
|	**Se-1**	78	1283.1	2.7	**32.3885**	1.276	3.9	ug/L	38	KED
⌊	**Se-1**	80	31360.9	0.9	**37.2871**	2.521	6.8	ug/L	27714	KED
	Ga	71	46.7	40.6				ug/L	75	KED
	Rb	85	156.7	8.0				ug/L	23	KED
	Y	89	239120.5	0.1				ug/L	233304	KED
	Rh	103	16.7	45.8				ug/L	7	KED
⌈	**Mo**	98	132723.2	4.4	**30.5866**	1.436	4.7	ug/L	42	KED
|	**Ag**	107	272661.8	2.9	**31.4280**	1.021	3.2	ug/L	130	KED
|	**Cd**	111	23068.2	4.5	**18.5883**	0.859	4.6	ug/L	9	KED
|	**Cd**	114	56910.7	2.6	**18.7895**	0.510	2.7	ug/L	34	KED
|>	**In**	115	321147.5	0.4				ug/L	293219	KED
|	**Sn**	118	75849.8	2.1	**31.5536**	0.735	2.3	ug/L	701	KED
|	**Sb**	123	67593.2	3.6	**30.8006**	1.128	3.7	ug/L	422	KED
⌊	**Ba**	135	69162.3	3.4	**93.1234**	3.404	3.7	ug/L	26	KED
	Ce	140	59.0	16.2				ug/L	43	KED
	Tb	159	866164.8	2.8				ug/L	830473	KED
⌈	**Ho**	165	10.0	52.9				ug/L	13	KED
|	**Tl**	203	38571.4	2.5	**6.3204**	0.119	1.9	ug/L	13	KED
|	**Tl**	205	95571.9	2.5	**6.3368**	0.167	2.6	ug/L	21	KED
|	**Pb**	206	162529.5	2.7	**31.6910**	0.820	2.6	ug/L	402	KED
|	**Pb**	207	143910.2	2.6	**31.8201**	0.912	2.9	ug/L	330	KED
|	**Pb**	208	359280.1	2.4	**31.5860**	0.752	2.4	ug/L	883	KED
|	**U**	238	834448.6	4.4	**30.7646**	1.166	3.8	ug/L	8	KED

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	Th	232	624529.7	7.6	**27.6669**	1.889	6.8	ug/L	11535	KED
>	**Bi**	209	666643.5	1.7				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	71897.0	3.5	**3.8997**	0.005	0.1	mg/L	573	KED
	K	39	5.0	100.0	**664.7207**	660.187	99.3	mg/L	0	KED
	Ca	43	1.7	173.2	**1359.7129**	2355.092	173.2	mg/L	0	KED
	Fe	54	4429.0	3.2	**4.1400**	0.200	4.8	mg/L	12	KED
	Fe	57	9232.8	2.2	**4.0343**	0.084	2.1	mg/L	23	KED
>	**Sc-1**	45	73466.2	3.6				mg/L	80225	KED
	Cl	35	1651.8	5.9				ug/L	3539	KED
	Kr	83	0.0					ug/L	2	KED
	Br	81	16.7	34.6				ug/L	32	KED
	P	31	76.7	24.7				ug/L	120	KED
	S	34	21.7	35.3				ug/L	33	KED
	Sr	88	30.0	28.9				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9	97.052		
	Al	27			
>	Sc-2	45		91.575	
	Ti	47	103.160		
	V	51	84.359		
	Cr	52	98.621		
	Cr	53			
	Mn	55	99.193		
	Co	59	99.465		
	Ni	60	99.420		
	Cu	65	99.417		
	Zn	66	98.722		
>	Ge	72		97.755	
	As	75	95.426		
	Se	82	100.332		
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: QC Std 6
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	Rh	103		
⌈	Mo	98	95.583	
|	Ag	107	98.213	
|	Cd	111	96.814	
|	Cd	114		
| >	In	115		109.525
|	Sn	118	98.605	
|	Sb	123	96.252	
⌊	Ba	135	97.004	
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203	98.757	
|	Tl	205		
|	Pb	206	99.034	
|	Pb	207	99.438	
|	Pb	208	98.706	
|	U	238	96.139	
|	Th	232		
⌊ >	Bi	209		104.620
⌈	Na	23		
|	Mg	24	97.493	
|	K	39	16618.017	
|	Ca	43	33992.822	
|	Fe	54	103.501	
|	Fe	57	100.858	
⌊ >	Sc-1	45		91.575
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	V	51	
QC Std 6	K	39	
QC Std 6	Ca	43	

Sample ID: QC Std 6
Report Date/Time: Friday, September 06, 2019 10:23:39
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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, September 06, 2019 10:24:47
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10173.4	3.6				ug/L	10871	KED
|	**Be**	9	0.7	173.2	**0.0040**	0.013	324.2	ug/L	0	KED
|	**Al**	27	163.3	12.4				ug/L	138	KED
\>	**Sc-2**	45	75095.7	1.2				ug/L	80225	KED
⌈	**Ti**	47	10.0	50.0	**-0.0982**	0.482	491.1	ug/L	12	KED
|	**V**	51	6821.6	64.8	**-4.5970**	4.517	98.3	ug/L	12950	KED
|	**Cr**	52	653.7	17.7	**-0.1374**	0.092	67.3	ug/L	964	KED
|	**Cr**	53	4505.9	69.2	**-13.2426**	16.035	121.1	ug/L	8055	KED
|	**Mn**	55	173.3	38.4	**-0.0051**	0.060	1192.2	ug/L	193	KED
|	**Co**	59	71.0	45.1	**0.0005**	0.007	1569.5	ug/L	74	KED
|	**Ni**	60	289.7	14.2	**-0.1909**	0.045	23.3	ug/L	604	KED
|	**Cu**	65	196.7	20.3	**0.0032**	0.030	931.5	ug/L	202	KED
|	**Zn**	66	185.3	50.6	**0.0720**	0.216	299.5	ug/L	160	KED
\>	**Ge**	72	257663.7	7.9				ug/L	269000	KED
|	**As**	75	862.7	53.1	**-0.4855**	1.249	257.2	ug/L	1156	KED
|	**Se**	82	17.7	7.1	**-0.1781**	0.050	28.1	ug/L	22	KED
|	**Se-1**	78	41.3	12.8	**0.1250**	0.080	64.4	ug/L	38	KED
⌊	**Se-1**	80	26728.5	7.3	**1.7042**	2.346	137.7	ug/L	27714	KED
	Ga	71	43.3	17.6				ug/L	75	KED
	Rb	85	16.7	34.6				ug/L	23	KED
	Y	89	220523.6	11.4				ug/L	233304	KED
	Rh	103	15.0	33.3				ug/L	7	KED
⌈	**Mo**	98	154.3	14.0	**0.0293**	0.010	33.8	ug/L	42	KED
|	**Ag**	107	272.3	19.2	**0.0190**	0.012	60.7	ug/L	130	KED
|	**Cd**	111	20.0	104.4	**0.0113**	0.022	198.8	ug/L	9	KED
|	**Cd**	114	75.0	102.8	**0.0175**	0.034	193.8	ug/L	34	KED
\>	**In**	115	292495.3	12.2				ug/L	293219	KED
|	**Sn**	118	673.3	28.9	**-0.0006**	0.139	24212.5	ug/L	701	KED
|	**Sb**	123	391.3	63.3	**-0.0018**	0.162	8877.4	ug/L	422	KED
⌊	**Ba**	135	31.0	97.9	**0.0119**	0.055	459.4	ug/L	26	KED
	Ce	140	23.0	7.5				ug/L	43	KED
	Tb	159	820630.7	10.8				ug/L	830473	KED
⌈	**Ho**	165	6.7	31.2				ug/L	13	KED
|	**Tl**	203	86.0	141.1	**0.0135**	0.023	169.7	ug/L	13	KED
|	**Tl**	205	187.0	130.6	**0.0123**	0.019	152.2	ug/L	21	KED
|	**Pb**	206	458.3	19.5	**0.0113**	0.028	244.6	ug/L	402	KED
|	**Pb**	207	419.0	22.6	**0.0206**	0.032	154.1	ug/L	330	KED
|	**Pb**	208	1008.4	14.5	**0.0110**	0.023	207.0	ug/L	883	KED
|	**U**	238	191.7	136.7	**0.0076**	0.011	147.2	ug/L	8	KED

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	Th	232	10083.0	8.7	**-0.0739**	0.081	109.0	ug/L	11535	KED
>	**Bi**	209	650857.7	9.2				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	475.0	50.6	**-0.0033**	0.013	396.4	mg/L	573	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**0.0000**	0.000		mg/L	0	KED
	Fe	54	10.0	132.3	**-0.0008**	0.012	1475.2	mg/L	12	KED
	Fe	57	16.7	17.3	**-0.0022**	0.001	57.5	mg/L	23	KED
>	**Sc-1**	45	75095.7	1.2				mg/L	80225	KED
	Cl	35	3600.7	90.2				ug/L	3539	KED
	Kr	83	5.0	173.2				ug/L	2	KED
	Br	81	23.3	107.9				ug/L	32	KED
	P	31	76.7	30.1				ug/L	120	KED
	S	34	28.3	62.0				ug/L	33	KED
	Sr	88	30.0	33.3				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		93.607	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		95.786	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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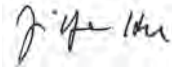
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	99.753
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	102.142
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	93.607
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 7	V	51	
QC Std 7	As	75	

Approved: September 09, 2019



Method 6020 - Summary Report

Sample ID: PBW WO WG710446-03
Sample Date/Time: Friday, September 06, 2019 10:28:09
Number of Replicates: 3
Autosampler Position: 205
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	11089.1	1.1				ug/L	10871	KED
|	**Be**	9	1.7	173.2	**0.0139**	0.030	216.8	ug/L	0	KED
|	**Al**	27	410.0	42.5				ug/L	138	KED
|>	**Sc-2**	45	79997.6	0.8				ug/L	80225	KED
⌈	**Ti**	47	9.3	61.9	**-0.1902**	0.464	244.2	ug/L	12	KED
|	**V**	51	10250.8	6.1	**-2.0278**	0.552	27.2	ug/L	12950	KED
|	**Cr**	52	900.7	8.7	**-0.0208**	0.037	180.3	ug/L	964	KED
|	**Cr**	53	6449.7	7.6	**-6.0738**	2.206	36.3	ug/L	8055	KED
|	**Mn**	55	288.0	6.4	**0.0698**	0.012	16.8	ug/L	193	KED
|	**Co**	59	104.0	60.8	**0.0058**	0.011	195.8	ug/L	74	KED
|	**Ni**	60	323.0	6.4	**-0.1749**	0.012	7.1	ug/L	604	KED
|	**Cu**	65	276.0	18.6	**0.0400**	0.025	63.7	ug/L	202	KED
|	**Zn**	66	700.3	7.7	**1.0114**	0.095	9.4	ug/L	160	KED
|>	**Ge**	72	262509.3	0.6				ug/L	269000	KED
|	**As**	75	986.7	5.9	**-0.3123**	0.131	41.8	ug/L	1156	KED
|	**Se**	82	15.7	23.5	**-0.3065**	0.198	64.5	ug/L	22	KED
|	**Se-1**	78	41.0	8.5	**0.0981**	0.098	99.4	ug/L	38	KED
⌊	**Se-1**	80	27731.7	1.0	**6.0065**	2.725	45.4	ug/L	27714	KED
	Ga	71	53.3	28.6				ug/L	75	KED
	Rb	85	15.0	57.7				ug/L	23	KED
	Y	89	224503.0	1.6				ug/L	233304	KED
	Rh	103	3.3	86.6				ug/L	7	KED
⌈	**Mo**	98	136.7	12.3	**0.0242**	0.004	17.9	ug/L	42	KED
|	**Ag**	107	204.7	16.6	**0.0096**	0.004	41.9	ug/L	130	KED
|	**Cd**	111	11.7	21.6	**0.0021**	0.002	99.2	ug/L	9	KED
|	**Cd**	114	31.7	22.4	**-0.0009**	0.003	280.7	ug/L	34	KED
|>	**In**	115	291241.2	1.5				ug/L	293219	KED
|	**Sn**	118	820.0	4.5	**0.0576**	0.019	33.1	ug/L	701	KED
|	**Sb**	123	342.7	15.6	**-0.0384**	0.029	76.4	ug/L	422	KED
⌊	**Ba**	135	39.0	11.2	**0.0196**	0.007	33.8	ug/L	26	KED
	Ce	140	38.0	18.4				ug/L	43	KED
	Tb	159	797667.1	0.7				ug/L	830473	KED
⌈	**Ho**	165	8.3	27.7				ug/L	13	KED
|	**Tl**	203	16.0	43.8	**0.0005**	0.001	223.5	ug/L	13	KED
|	**Tl**	205	41.7	16.3	**0.0015**	0.001	33.9	ug/L	21	KED
|	**Pb**	206	421.3	3.6	**0.0071**	0.002	27.1	ug/L	402	KED
|	**Pb**	207	350.0	5.3	**0.0076**	0.004	49.0	ug/L	330	KED
|	**Pb**	208	863.0	3.9	**0.0010**	0.003	293.4	ug/L	883	KED
|	**U**	238	58.0	65.9	**0.0020**	0.002	76.2	ug/L	8	KED

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	Th	232	17813.5	23.7	**0.3271**	0.206	63.0	ug/L	11535	KED
>	**Bi**	209	615169.7	1.5				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	691.7	15.5	**0.0060**	0.005	85.4	mg/L	573	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**0.0000**	0.000		mg/L	0	KED
	Fe	54	20.0	66.1	**0.0071**	0.011	157.1	mg/L	12	KED
	Fe	57	33.3	45.8	**0.0040**	0.006	150.1	mg/L	23	KED
>	**Sc-1**	45	79997.6	0.8				mg/L	80225	KED
	Cl	35	3513.7	2.3				ug/L	3539	KED
	Kr	83	3.3	86.6				ug/L	2	KED
	Br	81	26.7	39.0				ug/L	32	KED
	P	31	88.3	32.2				ug/L	120	KED
	S	34	31.7	32.9				ug/L	33	KED
	Sr	88	40.0	25.0				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		99.717	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		97.587	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: PBW WO WG710446-03
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	99.325
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	96.542
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	99.717
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
V 51 Lower	V	51	
Th 232 Lower	Th	232	

Sample ID: PBW WO WG710446-03
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Method 6020 - Summary Report

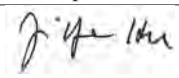
Sample ID: LCSW WO WG710446-04
Sample Date/Time: Friday, September 06, 2019 10:31:01
Number of Replicates: 3
Autosampler Position: 206
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10912.3	6.8				ug/L	10871	KED
|	**Be**	9	635.7	3.5	**6.8356**	0.327	4.8	ug/L	0	KED
|	**Al**	27	71734.8	6.2				ug/L	138	KED
|>	**Sc-2**	45	78331.7	1.3				ug/L	80225	KED
⌈	**Ti**	47	463.3	11.0	**35.9272**	2.930	8.2	ug/L	12	KED
|	**V**	51	52291.5	3.9	**33.4313**	0.338	1.0	ug/L	12950	KED
|	**Cr**	52	136623.0	4.5	**69.8530**	1.394	2.0	ug/L	964	KED
|	**Cr**	53	23680.2	3.2	**67.5082**	0.416	0.6	ug/L	8055	KED
|	**Mn**	55	101879.4	3.8	**70.8179**	1.204	1.7	ug/L	193	KED
|	**Co**	59	188332.6	4.3	**34.3303**	0.900	2.6	ug/L	74	KED
|	**Ni**	60	211346.7	4.4	**137.4624**	2.667	1.9	ug/L	604	KED
|	**Cu**	65	135126.6	3.2	**68.1916**	1.172	1.7	ug/L	202	KED
|	**Zn**	66	369648.3	3.7	**682.5560**	5.712	0.8	ug/L	160	KED
|>	**Ge**	72	264153.7	3.3				ug/L	269000	KED
|	**As**	75	15906.3	2.1	**32.4993**	0.481	1.5	ug/L	1156	KED
|	**Se**	82	606.3	7.1	**31.5655**	2.537	8.0	ug/L	22	KED
|	**Se-1**	78	1312.2	2.0	**32.9929**	0.505	1.5	ug/L	38	KED
⌊	**Se-1**	80	31136.6	1.1	**34.2240**	6.549	19.1	ug/L	27714	KED
	Ga	71	66.7	4.3				ug/L	75	KED
	Rb	85	78.3	22.4				ug/L	23	KED
	Y	89	227044.7	3.3				ug/L	233304	KED
	Rh	103	30.0	28.9				ug/L	7	KED
⌈	**Mo**	98	134437.8	3.1	**33.5122**	0.674	2.0	ug/L	42	KED
|	**Ag**	107	270328.9	2.1	**33.7069**	0.163	0.5	ug/L	130	KED
|	**Cd**	111	23092.9	2.9	**20.1296**	0.329	1.6	ug/L	9	KED
|	**Cd**	114	56856.8	2.2	**20.3076**	0.099	0.5	ug/L	34	KED
|>	**In**	115	296858.3	2.0				ug/L	293219	KED
|	**Sn**	118	76027.3	2.3	**34.2426**	0.550	1.6	ug/L	701	KED
|	**Sb**	123	70736.8	1.8	**34.9031**	0.657	1.9	ug/L	422	KED
⌊	**Ba**	135	68145.6	2.1	**99.2748**	2.280	2.3	ug/L	26	KED
	Ce	140	75.3	5.0				ug/L	43	KED
	Tb	159	807802.5	2.4				ug/L	830473	KED
⌈	**Ho**	165	7.3	20.8				ug/L	13	KED
|	**Tl**	203	38864.1	1.6	**6.6802**	0.099	1.5	ug/L	13	KED
|	**Tl**	205	95896.5	0.9	**6.6689**	0.049	0.7	ug/L	21	KED
|	**Pb**	206	163493.0	2.3	**33.4409**	0.702	2.1	ug/L	402	KED
|	**Pb**	207	144760.9	2.5	**33.5737**	0.775	2.3	ug/L	330	KED
|	**Pb**	208	360587.5	3.2	**33.2538**	1.040	3.1	ug/L	883	KED
|	**U**	238	827181.5	3.2	**31.9918**	0.980	3.1	ug/L	8	KED

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	Th	232	665196.9	6.2	**30.9842**	1.896	6.1	ug/L	11535	KED
>	**Bi**	209	635533.5	0.5				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	27972.5	1.7	**1.4050**	0.039	2.8	mg/L	573	KED
	K	39	1.7	173.2	**205.8575**	356.556	173.2	mg/L	0	KED
	Ca	43	0.0		**0.0000**	0.000		mg/L	0	KED
	Fe	54	1601.8	2.6	**1.3963**	0.018	1.3	mg/L	12	KED
	Fe	57	3137.0	5.1	**1.2788**	0.067	5.3	mg/L	23	KED
>	**Sc-1**	45	78331.7	1.3				mg/L	80225	KED
	Cl	35	2947.0	3.4				ug/L	3539	KED
	Kr	83	3.3	173.2				ug/L	2	KED
	Br	81	35.0	14.3				ug/L	32	KED
	P	31	85.0	15.6				ug/L	120	KED
	S	34	25.0	34.6				ug/L	33	KED
	Sr	88	70.0	18.9				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		97.640	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		98.198	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: LCSW WO WG710446-04
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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		101.241
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		99.737
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		97.640
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: LCSW WO WG710446-04
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Method 6020 - Summary Report

Sample ID: L1908013301
Sample Date/Time: Friday, September 06, 2019 10:33:53
Number of Replicates: 3
Autosampler Position: 207
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	10768.8	7.3				ug/L	10871	KED
|	Be	9	5.7	113.5	0.0545	0.063	115.9	ug/L	0	KED
|	Al	27	118878.0	1.8				ug/L	138	KED
⌊>	Sc-2	45	79005.3	5.9				ug/L	80225	KED
⌈	Ti	47	26.7	29.1	1.1391	0.557	48.9	ug/L	12	KED
|	V	51	7407.8	4.3	-4.5988	0.043	0.9	ug/L	12950	KED
|	Cr	52	10774.5	4.9	4.9604	0.147	3.0	ug/L	964	KED
|	Cr	53	5591.0	6.1	-10.3695	0.761	7.3	ug/L	8055	KED
|	Mn	55	24799.0	2.1	16.8436	0.754	4.5	ug/L	193	KED
|	Co	59	2645.6	11.8	0.4596	0.037	8.1	ug/L	74	KED
|	Ni	60	6226.3	5.7	3.6002	0.119	3.3	ug/L	604	KED
|	Cu	65	4542.0	4.1	2.1534	0.001	0.0	ug/L	202	KED
|	Zn	66	29699.8	2.3	53.6120	1.222	2.3	ug/L	160	KED
|>	Ge	72	269030.0	4.1				ug/L	269000	KED
|	As	75	2319.5	0.8	2.5196	0.238	9.5	ug/L	1156	KED
|	Se	82	20.2	11.2	-0.0901	0.081	89.6	ug/L	22	KED
|	Se-1	78	40.7	11.1	0.0621	0.085	136.7	ug/L	38	KED
⌊	Se-1	80	27988.2	1.1	2.5161	7.587	301.5	ug/L	27714	KED
	Ga	71	90.0	36.4				ug/L	75	KED
	Rb	85	781.7	18.1				ug/L	23	KED
	Y	89	234780.1	6.5				ug/L	233304	KED
	Rh	103	6.7	43.3				ug/L	7	KED
⌈	Mo	98	1311.7	7.7	0.3091	0.027	8.6	ug/L	42	KED
|	Ag	107	344.7	38.2	0.0251	0.014	56.3	ug/L	130	KED
|	Cd	111	110.7	3.4	0.0863	0.009	10.1	ug/L	9	KED
|	Cd	114	259.3	7.7	0.0782	0.009	11.3	ug/L	34	KED
|>	In	115	304280.6	6.7				ug/L	293219	KED
|	Sn	118	1344.7	3.4	0.2748	0.019	7.1	ug/L	701	KED
|	Sb	123	735.0	0.5	0.1450	0.025	17.2	ug/L	422	KED
⌊	Ba	135	21911.8	3.0	31.1977	2.147	6.9	ug/L	26	KED
	Ce	140	1043.0	7.1				ug/L	43	KED
	Tb	159	818188.2	7.3				ug/L	830473	KED
⌈	Ho	165	23.3	28.5				ug/L	13	KED
|	Tl	203	56.0	42.9	0.0071	0.004	49.8	ug/L	13	KED
|	Tl	205	127.3	38.5	0.0072	0.003	42.8	ug/L	21	KED
|	Pb	206	9601.0	1.1	1.8763	0.089	4.8	ug/L	402	KED
|	Pb	207	8501.7	1.4	1.8896	0.093	4.9	ug/L	330	KED
|	Pb	208	21095.3	2.3	1.8580	0.078	4.2	ug/L	883	KED
|	U	238	2865.3	16.3	0.1093	0.011	10.4	ug/L	8	KED

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	Th	232	49939.1	17.1	**1.8257**	0.527	28.9	ug/L	11535	KED
>	**Bi**	209	639989.2	5.8				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	21495.2	1.7	**1.0652**	0.046	4.3	mg/L	573	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**1296.4660**	2245.545	173.2	mg/L	0	KED
	Fe	54	2761.9	0.2	**2.3998**	0.136	5.7	mg/L	12	KED
	Fe	57	5527.7	3.1	**2.2445**	0.108	4.8	mg/L	23	KED
>	**Sc-1**	45	79005.3	5.9				mg/L	80225	KED
	Cl	35	3335.4	6.6				ug/L	3539	KED
	Kr	83	6.7	114.6				ug/L	2	KED
	Br	81	131.7	34.5				ug/L	32	KED
	P	31	93.3	37.6				ug/L	120	KED
	S	34	25.0	40.0				ug/L	33	KED
	Sr	88	7680.3	3.6				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		98.480	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		100.011	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	103.772
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	100.437
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	98.480
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
V 51 Lower	V	51	

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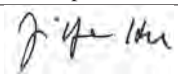
Method 6020 - Summary Report

Sample ID: L1908013302
Sample Date/Time: Friday, September 06, 2019 10:36:45
Number of Replicates: 3
Autosampler Position: 208
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10505.3	1.6				ug/L	10871	KED
|	**Be**	9	0.3	173.2	**0.0002**	0.006	3975.9	ug/L	0	KED
|	**Al**	27	124373.7	2.9				ug/L	138	KED
|>	**Sc-2**	45	76831.7	1.8				ug/L	80225	KED
⌈	**Ti**	47	13.3	26.3	**0.1209**	0.272	225.2	ug/L	12	KED
|	**V**	51	8409.0	15.0	**-3.6309**	1.210	33.3	ug/L	12950	KED
|	**Cr**	52	1309.4	2.4	**0.1864**	0.010	5.6	ug/L	964	KED
|	**Cr**	53	5277.6	13.7	**-11.2360**	3.645	32.4	ug/L	8055	KED
|	**Mn**	55	6958.3	0.4	**4.7111**	0.112	2.4	ug/L	193	KED
|	**Co**	59	334.3	5.0	**0.0477**	0.002	4.0	ug/L	74	KED
|	**Ni**	60	1349.7	3.1	**0.4936**	0.051	10.2	ug/L	604	KED
|	**Cu**	65	935.4	3.1	**0.3724**	0.025	6.7	ug/L	202	KED
|	**Zn**	66	2791.9	2.4	**4.8631**	0.071	1.5	ug/L	160	KED
|>	**Ge**	72	264411.2	2.6				ug/L	269000	KED
|	**As**	75	1973.8	3.7	**1.8427**	0.191	10.3	ug/L	1156	KED
|	**Se**	82	20.8	14.7	**-0.0361**	0.137	379.5	ug/L	22	KED
|	**Se-1**	78	39.7	15.1	**0.0588**	0.182	309.5	ug/L	38	KED
⌊	**Se-1**	80	27964.5	0.8	**6.3591**	4.800	75.5	ug/L	27714	KED
	Ga	71	65.0	40.7				ug/L	75	KED
	Rb	85	791.7	2.8				ug/L	23	KED
	Y	89	229181.1	6.1				ug/L	233304	KED
	Rh	103	6.7	43.3				ug/L	7	KED
⌈	**Mo**	98	764.7	5.9	**0.1798**	0.005	3.0	ug/L	42	KED
|	**Ag**	107	246.3	5.0	**0.0144**	0.003	22.3	ug/L	130	KED
|	**Cd**	111	16.3	34.8	**0.0062**	0.006	93.5	ug/L	9	KED
|	**Cd**	114	88.7	9.6	**0.0191**	0.001	6.6	ug/L	34	KED
|>	**In**	115	297656.4	6.8				ug/L	293219	KED
|	**Sn**	118	1938.5	0.8	**0.5589**	0.055	9.9	ug/L	701	KED
|	**Sb**	123	322.3	16.2	**-0.0510**	0.036	71.3	ug/L	422	KED
⌊	**Ba**	135	19228.5	1.2	**27.9858**	1.807	6.5	ug/L	26	KED
	Ce	140	81.3	10.7				ug/L	43	KED
	Tb	159	795137.9	4.7				ug/L	830473	KED
⌈	**Ho**	165	9.7	6.0				ug/L	13	KED
|	**Tl**	203	34.3	13.8	**0.0037**	0.001	18.1	ug/L	13	KED
|	**Tl**	205	73.7	9.8	**0.0038**	0.000	10.2	ug/L	21	KED
|	**Pb**	206	826.4	7.0	**0.0913**	0.007	8.0	ug/L	402	KED
|	**Pb**	207	713.7	4.6	**0.0935**	0.005	5.4	ug/L	330	KED
|	**Pb**	208	1866.1	4.4	**0.0952**	0.003	2.9	ug/L	883	KED
|	**U**	238	2115.8	14.8	**0.0833**	0.010	12.1	ug/L	8	KED

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	Th	232	18850.3	18.6	**0.3732**	0.191	51.1	ug/L	11535	KED
>	**Bi**	209	620455.0	2.8				ug/L	637206	KED
	Na	23	3.3	173.2				mg/L	0	KED
	Mg	24	24615.0	1.5	**1.2578**	0.040	3.2	mg/L	573	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	5.0	0.0	**3863.6713**	70.166	1.8	mg/L	0	KED
	Fe	54	78.3	3.7	**0.0601**	0.003	4.7	mg/L	12	KED
	Fe	57	160.0	11.3	**0.0577**	0.009	15.1	mg/L	23	KED
>	**Sc-1**	45	76831.7	1.8				mg/L	80225	KED
	Cl	35	3378.7	3.9				ug/L	3539	KED
	Kr	83	3.3	86.6				ug/L	2	KED
	Br	81	161.7	8.9				ug/L	32	KED
	P	31	90.0	14.7				ug/L	120	KED
	S	34	23.3	44.6				ug/L	33	KED
	Sr	88	7683.6	4.1				ug/L	35	KED
	C	12	1.7	173.2				ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		95.771	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		98.294	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	101.513
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	97.371
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	95.771
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
V 51 Lower	V	51	
Th 232 Lower	Th	232	

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Method 6020 - Summary Report

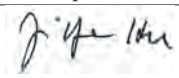
Sample ID: L1908013309
Sample Date/Time: Friday, September 06, 2019 10:39:37
Number of Replicates: 3
Autosampler Position: 209
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	11089.1	5.7				ug/L	10871	KED
|	**Be**	9	1.0	0.0	**0.0070**	0.000	2.0	ug/L	0	KED
|	**Al**	27	826.7	7.0				ug/L	138	KED
⌊>	**Sc-2**	45	80602.5	1.3				ug/L	80225	KED
⌈	**Ti**	47	14.0	12.4	**0.1718**	0.137	80.0	ug/L	12	KED
|	**V**	51	13111.4	6.4	**0.2852**	0.686	240.4	ug/L	12950	KED
|	**Cr**	52	1127.4	2.4	**0.0907**	0.012	12.9	ug/L	964	KED
|	**Cr**	53	8215.6	8.4	**1.1506**	2.884	250.7	ug/L	8055	KED
|	**Mn**	55	987.0	2.7	**0.5524**	0.016	3.0	ug/L	193	KED
|	**Co**	59	136.0	17.8	**0.0115**	0.004	37.4	ug/L	74	KED
|	**Ni**	60	768.4	4.0	**0.1121**	0.018	16.5	ug/L	604	KED
|	**Cu**	65	982.4	4.7	**0.3940**	0.021	5.4	ug/L	202	KED
|	**Zn**	66	2173.2	4.4	**3.7069**	0.171	4.6	ug/L	160	KED
|>	**Ge**	72	265300.2	0.5				ug/L	269000	KED
|	**As**	75	1161.7	2.0	**0.0479**	0.042	88.5	ug/L	1156	KED
|	**Se**	82	15.7	9.8	**-0.3152**	0.078	24.8	ug/L	22	KED
|	**Se-1**	78	42.8	8.3	**0.1336**	0.088	66.2	ug/L	38	KED
⌊	**Se-1**	80	27485.9	0.0	**1.3263**	1.012	76.3	ug/L	27714	KED
	Ga	71	45.0	29.4				ug/L	75	KED
	Rb	85	16.7	45.8				ug/L	23	KED
	Y	89	223653.9	1.6				ug/L	233304	KED
	Rh	103	3.3	86.6				ug/L	7	KED
⌈	**Mo**	98	113.0	22.8	**0.0183**	0.006	34.7	ug/L	42	KED
|	**Ag**	107	183.0	12.6	**0.0069**	0.002	35.1	ug/L	130	KED
|	**Cd**	111	15.7	22.4	**0.0057**	0.003	51.6	ug/L	9	KED
|	**Cd**	114	49.7	21.0	**0.0057**	0.003	60.9	ug/L	34	KED
|>	**In**	115	289716.8	2.1				ug/L	293219	KED
|	**Sn**	118	868.0	3.0	**0.0821**	0.018	22.1	ug/L	701	KED
|	**Sb**	123	201.0	11.7	**-0.1097**	0.013	12.0	ug/L	422	KED
⌊	**Ba**	135	111.3	10.7	**0.1281**	0.021	16.1	ug/L	26	KED
	Ce	140	84.0	7.4				ug/L	43	KED
	Tb	159	803907.9	1.4				ug/L	830473	KED
⌈	**Ho**	165	10.3	48.7				ug/L	13	KED
|	**Tl**	203	10.7	32.9	**-0.0004**	0.001	146.7	ug/L	13	KED
|	**Tl**	205	30.7	34.9	**0.0007**	0.001	108.6	ug/L	21	KED
|	**Pb**	206	451.7	10.4	**0.0122**	0.010	79.9	ug/L	402	KED
|	**Pb**	207	395.3	6.9	**0.0172**	0.006	36.4	ug/L	330	KED
|	**Pb**	208	987.7	1.5	**0.0116**	0.001	10.5	ug/L	883	KED
|	**U**	238	116.7	59.3	**0.0043**	0.003	63.5	ug/L	8	KED

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	Th	232	13358.7	21.5	**0.0999**	0.138	138.5	ug/L	11535	KED
>	**Bi**	209	623556.1	0.2				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	1210.0	6.1	**0.0316**	0.004	12.6	mg/L	573	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**0.0000**	0.000		mg/L	0	KED
	Fe	54	41.7	25.0	**0.0256**	0.009	36.0	mg/L	12	KED
	Fe	57	65.0	13.3	**0.0166**	0.004	22.6	mg/L	23	KED
>	**Sc-1**	45	80602.5	1.3				mg/L	80225	KED
	Cl	35	3670.4	3.9				ug/L	3539	KED
	Kr	83	6.7	114.6				ug/L	2	KED
	Br	81	41.7	6.9				ug/L	32	KED
	P	31	75.0	30.6				ug/L	120	KED
	S	34	28.3	27.0				ug/L	33	KED
	Sr	88	190.0	25.4				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		100.471	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		98.625	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908013309
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
| >	In	115	98.806
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊ >	Bi	209	97.858
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊ >	Sc-1	45	100.471
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Th 232 Lower	Th	232	

Sample ID: L1908013309
Report Date/Time: Friday, September 06, 2019 10:41:57
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Method 6020 - Summary Report

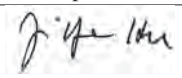
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Sample Date/Time: Friday, September 06, 2019 10:42:29
Number of Replicates: 3
Autosampler Position: 210
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10697.1	1.1				ug/L	10871	KED
|	**Be**	9	0.0		**-0.0035**			ug/L	0	KED
|	**Al**	27	486648.4	1.8				ug/L	138	KED
⌊>	**Sc-2**	45	78372.9	1.3				ug/L	80225	KED
⌈	**Ti**	47	13.0	27.7	**0.1139**	0.285	249.9	ug/L	12	KED
|	**V**	51	11956.4	6.5	**-0.4616**	0.714	154.7	ug/L	12950	KED
|	**Cr**	52	2309.8	2.6	**0.7232**	0.038	5.2	ug/L	964	KED
|	**Cr**	53	7058.3	9.4	**-3.1060**	3.019	97.2	ug/L	8055	KED
|	**Mn**	55	794.0	1.8	**0.4307**	0.006	1.5	ug/L	193	KED
|	**Co**	59	128.0	7.7	**0.0106**	0.002	15.8	ug/L	74	KED
|	**Ni**	60	462.0	1.9	**-0.0802**	0.008	9.9	ug/L	604	KED
|	**Cu**	65	648.7	4.8	**0.2333**	0.016	6.9	ug/L	202	KED
|	**Zn**	66	1242.7	5.5	**2.0457**	0.118	5.8	ug/L	160	KED
|>	**Ge**	72	259581.5	0.7				ug/L	269000	KED
|	**As**	75	1603.8	8.6	**1.0943**	0.323	29.5	ug/L	1156	KED
|	**Se**	82	18.0	8.3	**-0.1687**	0.076	44.9	ug/L	22	KED
|	**Se-1**	78	43.2	10.1	**0.1668**	0.115	68.9	ug/L	38	KED
⌊	**Se-1**	80	27592.1	0.7	**7.5022**	0.445	5.9	ug/L	27714	KED
	Ga	71	81.7	55.2				ug/L	75	KED
	Rb	85	601.7	3.5				ug/L	23	KED
	Y	89	219584.9	1.4				ug/L	233304	KED
	Rh	103	8.3	91.7				ug/L	7	KED
⌈	**Mo**	98	385.7	5.7	**0.0897**	0.007	8.1	ug/L	42	KED
|	**Ag**	107	156.0	6.7	**0.0038**	0.001	26.3	ug/L	130	KED
|	**Cd**	111	14.3	10.7	**0.0048**	0.002	34.2	ug/L	9	KED
|	**Cd**	114	53.7	9.4	**0.0076**	0.002	23.6	ug/L	34	KED
|>	**In**	115	284969.5	1.9				ug/L	293219	KED
|	**Sn**	118	1010.4	0.4	**0.1561**	0.007	4.8	ug/L	701	KED
|	**Sb**	123	473.0	5.1	**0.0327**	0.016	49.1	ug/L	422	KED
⌊	**Ba**	135	6817.9	2.1	**10.3104**	0.035	0.3	ug/L	26	KED
	Ce	140	142.3	10.7				ug/L	43	KED
	Tb	159	785765.6	2.1				ug/L	830473	KED
⌈	**Ho**	165	14.0	25.8				ug/L	13	KED
|	**Tl**	203	122.7	10.1	**0.0199**	0.002	10.3	ug/L	13	KED
|	**Tl**	205	324.3	4.6	**0.0222**	0.001	4.1	ug/L	21	KED
|	**Pb**	206	459.3	4.5	**0.0169**	0.004	23.9	ug/L	402	KED
|	**Pb**	207	387.0	1.9	**0.0182**	0.002	13.1	ug/L	330	KED
|	**Pb**	208	999.0	3.1	**0.0157**	0.002	14.0	ug/L	883	KED
|	**U**	238	5180.2	4.5	**0.2104**	0.009	4.4	ug/L	8	KED

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	Th	232	11273.7	23.9	**0.0174**	0.138	791.2	ug/L	11535	KED
>	**Bi**	209	604252.8	0.9				ug/L	637206	KED
	Na	23	1.7	173.2				mg/L	0	KED
	Mg	24	15224.3	4.6	**0.7513**	0.042	5.6	mg/L	573	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**1244.0278**	2154.719	173.2	mg/L	0	KED
	Fe	54	15.0	33.3	**0.0032**	0.005	141.2	mg/L	12	KED
	Fe	57	23.3	24.7	**0.0002**	0.002	1104.0	mg/L	23	KED
>	**Sc-1**	45	78372.9	1.3				mg/L	80225	KED
	Cl	35	3562.1	4.9				ug/L	3539	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	70.0	18.9				ug/L	32	KED
	P	31	66.7	31.2				ug/L	120	KED
	S	34	25.0	34.6				ug/L	33	KED
	Sr	88	7395.1	1.8				ug/L	35	KED
	C	12	1.7	173.2				ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		97.692	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		96.499	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		97.187
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊>	Bi	209		94.828
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		97.692
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
V 51 Lower	V	51	
Th 232 Lower	Th	232	

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Method 6020 - Summary Report

Sample ID: L1908013602S WG710446-07
Sample Date/Time: Friday, September 06, 2019 10:45:15
Number of Replicates: 3
Autosampler Position: 211
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10502.0	4.1				ug/L	10871	KED
|	**Be**	9	672.3	6.9	**7.2441**	0.472	6.5	ug/L	0	KED
|	**Al**	27	463733.2	2.1				ug/L	138	KED
|>	**Sc-2**	45	78134.6	0.4				ug/L	80225	KED
⌈	**Ti**	47	447.7	4.4	**35.5455**	1.821	5.1	ug/L	12	KED
|	**V**	51	60236.5	1.4	**41.2909**	0.958	2.3	ug/L	12950	KED
|	**Cr**	52	137779.9	2.9	**72.0594**	2.487	3.5	ug/L	964	KED
|	**Cr**	53	28007.5	1.5	**88.7076**	1.125	1.3	ug/L	8055	KED
|	**Mn**	55	101608.6	1.3	**72.2185**	1.366	1.9	ug/L	193	KED
|	**Co**	59	182050.9	2.4	**33.9312**	0.982	2.9	ug/L	74	KED
|	**Ni**	60	204636.9	2.6	**136.1080**	4.267	3.1	ug/L	604	KED
|	**Cu**	65	129644.1	2.3	**66.8860**	1.906	2.8	ug/L	202	KED
|	**Zn**	66	353924.5	1.8	**668.2337**	15.571	2.3	ug/L	160	KED
|>	**Ge**	72	258375.4	0.6				ug/L	269000	KED
|	**As**	75	16072.2	1.7	**33.6479**	0.819	2.4	ug/L	1156	KED
|	**Se**	82	598.2	2.2	**31.8246**	0.841	2.6	ug/L	22	KED
|	**Se-1**	78	1276.2	2.4	**32.7924**	0.945	2.9	ug/L	38	KED
⌊	**Se-1**	80	30419.8	0.4	**33.7785**	2.631	7.8	ug/L	27714	KED
	Ga	71	61.7	24.8				ug/L	75	KED
	Rb	85	655.0	6.5				ug/L	23	KED
	Y	89	213600.7	4.8				ug/L	233304	KED
	Rh	103	40.0	54.5				ug/L	7	KED
⌈	**Mo**	98	125829.7	1.5	**33.7465**	0.679	2.0	ug/L	42	KED
|	**Ag**	107	248858.6	1.2	**33.3803**	0.393	1.2	ug/L	130	KED
|	**Cd**	111	21534.0	1.7	**20.1969**	0.568	2.8	ug/L	9	KED
|	**Cd**	114	52367.7	2.7	**20.1271**	0.816	4.1	ug/L	34	KED
|>	**In**	115	276001.6	2.2				ug/L	293219	KED
|	**Sn**	118	70059.8	3.9	**33.9490**	1.617	4.8	ug/L	701	KED
|	**Sb**	123	67660.8	2.6	**35.9196**	1.161	3.2	ug/L	422	KED
⌊	**Ba**	135	69833.7	2.9	**109.4491**	4.281	3.9	ug/L	26	KED
	Ce	140	128.3	6.5				ug/L	43	KED
	Tb	159	762190.6	3.5				ug/L	830473	KED
⌈	**Ho**	165	13.3	4.3				ug/L	13	KED
|	**Tl**	203	36660.3	2.1	**6.7417**	0.307	4.6	ug/L	13	KED
|	**Tl**	205	90493.5	1.9	**6.7319**	0.262	3.9	ug/L	21	KED
|	**Pb**	206	154880.6	2.5	**33.8894**	1.432	4.2	ug/L	402	KED
|	**Pb**	207	136983.0	2.4	**33.9893**	1.537	4.5	ug/L	330	KED
|	**Pb**	208	342142.1	2.8	**33.7574**	1.601	4.7	ug/L	883	KED
|	**U**	238	785923.3	4.0	**32.5204**	1.844	5.7	ug/L	8	KED

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	Th	232	615809.4	6.2	**30.6823**	2.229	7.3	ug/L	11535	KED
>	**Bi**	209	594482.9	2.6				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	14843.9	1.9	**0.7339**	0.014	2.0	mg/L	573	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	8.3	34.6	**6325.5436**	2175.061	34.4	mg/L	0	KED
	Fe	54	55.0	15.7	**0.0384**	0.008	19.9	mg/L	12	KED
	Fe	57	48.3	26.0	**0.0105**	0.005	49.5	mg/L	23	KED
>	**Sc-1**	45	78134.6	0.4				mg/L	80225	KED
	Cl	35	3553.8	3.1				ug/L	3539	KED
	Kr	83	3.3	173.2				ug/L	2	KED
	Br	81	126.7	4.6				ug/L	32	KED
	P	31	100.0	30.4				ug/L	120	KED
	S	34	40.0	37.5				ug/L	33	KED
	Sr	88	6966.6	7.0				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		97.395	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		96.050	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		94.128
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊>	Bi	209		93.295
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		97.395
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1908013603SD WG710446-08
Sample Date/Time: Friday, September 06, 2019 10:48:06
Number of Replicates: 3
Autosampler Position: 212
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	11045.7	3.0				ug/L	10871	KED
|	Be	9	672.0	5.7	**7.1259**	0.363	5.1	ug/L	0	KED
|	Al	27	492464.2	1.1				ug/L	138	KED
|>	Sc-2	45	79388.8	0.9				ug/L	80225	KED
⌈	Ti	47	448.7	4.0	**35.6692**	1.411	4.0	ug/L	12	KED
|	V	51	60504.9	0.4	**41.5923**	0.159	0.4	ug/L	12950	KED
|	Cr	52	137538.6	2.1	**72.0225**	1.445	2.0	ug/L	964	KED
|	Cr	53	28192.9	1.0	**89.6945**	1.030	1.1	ug/L	8055	KED
|	Mn	55	100401.9	0.8	**71.4531**	0.460	0.6	ug/L	193	KED
|	Co	59	180097.1	0.9	**33.6099**	0.257	0.8	ug/L	74	KED
|	Ni	60	201369.6	1.7	**134.0984**	2.090	1.6	ug/L	604	KED
|	Cu	65	130823.2	2.1	**67.5805**	1.349	2.0	ug/L	202	KED
|	Zn	66	355253.5	2.2	**671.6079**	13.762	2.0	ug/L	160	KED
|>	Ge	72	258015.3	0.2				ug/L	269000	KED
|	As	75	16151.3	1.5	**33.8729**	0.504	1.5	ug/L	1156	KED
|	Se	82	583.5	4.2	**31.0575**	1.306	4.2	ug/L	22	KED
|	Se-1	78	1276.2	1.9	**32.8360**	0.611	1.9	ug/L	38	KED
⌊	Se-1	80	30470.8	0.6	**34.5984**	1.698	4.9	ug/L	27714	KED
	Ga	71	53.3	5.4				ug/L	75	KED
	Rb	85	571.7	10.4				ug/L	23	KED
	Y	89	219943.3	0.7				ug/L	233304	KED
	Rh	103	20.0	66.1				ug/L	7	KED
⌈	Mo	98	125499.2	2.7	**33.1619**	0.995	3.0	ug/L	42	KED
|	Ag	107	248933.3	1.6	**32.8979**	0.513	1.6	ug/L	130	KED
|	Cd	111	21029.6	3.5	**19.4296**	0.679	3.5	ug/L	9	KED
|	Cd	114	52028.2	3.5	**19.6956**	0.669	3.4	ug/L	34	KED
|>	In	115	280087.5	0.6				ug/L	293219	KED
|	Sn	118	70325.9	3.2	**33.5652**	1.128	3.4	ug/L	701	KED
|	Sb	123	67113.0	2.6	**35.0952**	0.955	2.7	ug/L	422	KED
⌊	Ba	135	70175.2	1.8	**108.3462**	2.454	2.3	ug/L	26	KED
	Ce	140	115.7	9.0				ug/L	43	KED
	Tb	159	780561.6	0.5				ug/L	830473	KED
⌈	Ho	165	13.7	42.9				ug/L	13	KED
|	Tl	203	36692.0	1.3	**6.6433**	0.104	1.6	ug/L	13	KED
|	Tl	205	89886.3	2.4	**6.5844**	0.168	2.6	ug/L	21	KED
|	Pb	206	155002.0	2.1	**33.3970**	0.803	2.4	ug/L	402	KED
|	Pb	207	135198.5	2.9	**33.0294**	1.054	3.2	ug/L	330	KED
|	Pb	208	338250.7	1.8	**32.8583**	0.700	2.1	ug/L	883	KED
|	U	238	783875.5	3.0	**31.9368**	1.075	3.4	ug/L	8	KED

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	Th	232	668050.5	4.8	**32.8145**	1.721	5.2	ug/L	11535	KED
>	**Bi**	209	603371.4	0.7				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	15406.2	1.2	**0.7504**	0.016	2.2	mg/L	573	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	18.3	56.8	**13751.7448**	7936.258	57.7	mg/L	0	KED
	Fe	54	80.0	12.5	**0.0593**	0.008	13.7	mg/L	12	KED
	Fe	57	43.3	86.6	**0.0083**	0.015	185.5	mg/L	23	KED
>	**Sc-1**	45	79388.8	0.9				mg/L	80225	KED
	Cl	35	3583.8	3.2				ug/L	3539	KED
	Kr	83	3.3	86.6				ug/L	2	KED
	Br	81	95.0	27.3				ug/L	32	KED
	P	31	83.3	22.7				ug/L	120	KED
	S	34	20.0	43.3				ug/L	33	KED
	Sr	88	7453.5	2.8				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		98.958	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		95.917	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908013603SD WG710446-08
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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		95.522
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		94.690
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		98.958
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1908013603SD WG710446-08
Report Date/Time: Friday, September 06, 2019 10:50:26
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Method 6020 - Summary Report

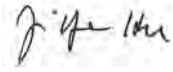
Sample ID: L1908013601PS WG710705-01
Sample Date/Time: Friday, September 06, 2019 10:50:59
Number of Replicates: 3
Autosampler Position: 213
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	10962.3	1.1				ug/L	10871	KED
|	Be	9	744.7	4.3	7.8079	0.355	4.5	ug/L	0	KED
|	Al	27	503327.1	1.9				ug/L	138	KED
|>	Sc-2	45	80315.0	0.6				ug/L	80225	KED
⌈	Ti	47	506.3	1.9	39.7228	0.550	1.4	ug/L	12	KED
|	V	51	70200.6	2.3	49.0155	0.744	1.5	ug/L	12950	KED
|	Cr	52	164217.9	2.7	84.7131	1.422	1.7	ug/L	964	KED
|	Cr	53	32720.3	3.9	107.2474	4.168	3.9	ug/L	8055	KED
|	Mn	55	120179.5	2.0	84.1986	1.047	1.2	ug/L	193	KED
|	Co	59	214128.1	2.5	39.3291	0.652	1.7	ug/L	74	KED
|	Ni	60	239370.8	3.5	156.9316	3.897	2.5	ug/L	604	KED
|	Cu	65	153624.4	2.0	78.1207	0.993	1.3	ug/L	202	KED
|	Zn	66	419984.7	1.5	781.4942	4.409	0.6	ug/L	160	KED
|>	Ge	72	262152.9	1.0				ug/L	269000	KED
|	As	75	18927.5	3.5	39.4469	1.162	2.9	ug/L	1156	KED
|	Se	82	682.3	1.8	35.9235	0.790	2.2	ug/L	22	KED
|	Se-1	78	1522.6	3.7	38.7203	1.129	2.9	ug/L	38	KED
⌊	Se-1	80	30921.7	0.8	34.2784	2.354	6.9	ug/L	27714	KED
	Ga	71	46.7	22.3				ug/L	75	KED
	Rb	85	616.7	10.9				ug/L	23	KED
	Y	89	215990.6	1.8				ug/L	233304	KED
	Rh	103	40.0	33.1				ug/L	7	KED
⌈	Mo	98	144910.3	3.6	37.6761	1.337	3.5	ug/L	42	KED
|	Ag	107	298731.4	2.5	38.8490	0.938	2.4	ug/L	130	KED
|	Cd	111	24981.9	3.3	22.7127	0.733	3.2	ug/L	9	KED
|	Cd	114	61362.5	4.7	22.8586	1.051	4.6	ug/L	34	KED
|>	In	115	284643.5	0.2				ug/L	293219	KED
|	Sn	118	81231.4	4.1	38.1908	1.536	4.0	ug/L	701	KED
|	Sb	123	71624.7	4.0	36.8643	1.466	4.0	ug/L	422	KED
⌊	Ba	135	80700.2	3.3	122.5977	4.080	3.3	ug/L	26	KED
	Ce	140	159.0	3.3				ug/L	43	KED
	Tb	159	784803.6	0.8				ug/L	830473	KED
⌈	Ho	165	13.7	33.0				ug/L	13	KED
|	Tl	203	43026.4	2.7	7.7145	0.267	3.5	ug/L	13	KED
|	Tl	205	106208.3	1.6	7.7041	0.194	2.5	ug/L	21	KED
|	Pb	206	179698.0	3.0	38.3521	1.459	3.8	ug/L	402	KED
|	Pb	207	157846.7	2.8	38.1959	1.345	3.5	ug/L	330	KED
|	Pb	208	393019.0	2.5	37.8163	1.204	3.2	ug/L	883	KED
|	U	238	915988.0	3.2	36.9523	1.407	3.8	ug/L	8	KED

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	Th	232	780647.5	4.9	**38.0545**	2.101	5.5	ug/L	11535	KED
>	**Bi**	209	609410.3	0.9				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	15434.5	1.5	**0.7427**	0.012	1.7	mg/L	573	KED
	K	39	3.3	86.6	**399.6999**	346.162	86.6	mg/L	0	KED
	Ca	43	6.7	114.6	**4912.7577**	5633.438	114.7	mg/L	0	KED
	Fe	54	93.3	21.7	**0.0700**	0.018	25.5	mg/L	12	KED
	Fe	57	33.3	37.7	**0.0040**	0.005	127.5	mg/L	23	KED
>	**Sc-1**	45	80315.0	0.6				mg/L	80225	KED
	Cl	35	3793.8	1.5				ug/L	3539	KED
	Kr	83	0.0					ug/L	2	KED
	Br	81	71.7	4.0				ug/L	32	KED
	P	31	70.0	25.8				ug/L	120	KED
	S	34	26.7	10.8				ug/L	33	KED
	Sr	88	7206.7	3.4				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		100.113	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		97.455	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908013601PS WG710705-01
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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		97.075
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊>	Bi	209		95.638
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		100.113
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1908013601PS WG710705-01
Report Date/Time: Friday, September 06, 2019 10:53:19
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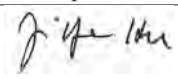
Method 6020 - Summary Report

Sample ID: L1908013601SDL WG710705-02
Sample Date/Time: Friday, September 06, 2019 10:53:52
Number of Replicates: 3
Autosampler Position: 214
Sample Description: 5
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	9326.2	5.6				ug/L	10871	KED
|	**Be**	9	0.0		**-0.0035**			ug/L	0	KED
|	**Al**	27	91996.8	0.8				ug/L	138	KED
|>	**Sc-2**	45	70615.3	8.3				ug/L	80225	KED
⌈	**Ti**	47	10.0	60.0	**-0.0853**	0.461	540.6	ug/L	12	KED
|	**V**	51	11993.1	6.9	**0.5078**	0.485	95.5	ug/L	12950	KED
|	**Cr**	52	797.0	14.3	**-0.0317**	0.055	173.8	ug/L	964	KED
|	**Cr**	53	7661.9	3.3	**2.6563**	2.889	108.8	ug/L	8055	KED
|	**Mn**	55	323.7	15.7	**0.1180**	0.031	26.6	ug/L	193	KED
|	**Co**	59	138.0	65.4	**0.0143**	0.017	115.2	ug/L	74	KED
|	**Ni**	60	385.7	28.3	**-0.1104**	0.060	54.3	ug/L	604	KED
|	**Cu**	65	350.3	21.4	**0.0963**	0.038	39.9	ug/L	202	KED
|	**Zn**	66	964.7	19.6	**1.6875**	0.342	20.3	ug/L	160	KED
|>	**Ge**	72	238574.7	10.6				ug/L	269000	KED
|	**As**	75	951.0	7.3	**-0.1721**	0.144	83.9	ug/L	1156	KED
|	**Se**	82	20.0	12.5	**0.0481**	0.200	415.1	ug/L	22	KED
|	**Se-1**	78	41.3	10.9	**0.2328**	0.265	114.0	ug/L	38	KED
⌊	**Se-1**	80	27513.5	0.8	**30.3985**	30.748	101.2	ug/L	27714	KED
	Ga	71	45.0	58.8				ug/L	75	KED
	Rb	85	156.7	31.0				ug/L	23	KED
	Y	89	207695.2	10.2				ug/L	233304	KED
	Rh	103	15.0	33.3				ug/L	7	KED
⌈	**Mo**	98	303.7	12.2	**0.0707**	0.008	11.0	ug/L	42	KED
|	**Ag**	107	280.7	42.5	**0.0207**	0.014	68.5	ug/L	130	KED
|	**Cd**	111	22.7	34.3	**0.0132**	0.008	58.6	ug/L	9	KED
|	**Cd**	114	50.7	52.8	**0.0066**	0.009	140.8	ug/L	34	KED
|>	**In**	115	276809.9	7.5				ug/L	293219	KED
|	**Sn**	118	634.3	13.1	**-0.0140**	0.020	145.0	ug/L	701	KED
|	**Sb**	123	768.4	7.7	**0.1984**	0.042	21.4	ug/L	422	KED
⌊	**Ba**	135	1533.1	2.6	**2.3698**	0.251	10.6	ug/L	26	KED
	Ce	140	47.3	22.6				ug/L	43	KED
	Tb	159	751541.7	7.7				ug/L	830473	KED
⌈	**Ho**	165	11.7	17.8				ug/L	13	KED
|	**Tl**	203	53.3	25.5	**0.0075**	0.002	27.7	ug/L	13	KED
|	**Tl**	205	132.3	28.0	**0.0083**	0.002	26.9	ug/L	21	KED
|	**Pb**	206	476.3	15.5	**0.0221**	0.010	47.1	ug/L	402	KED
|	**Pb**	207	411.0	15.7	**0.0256**	0.011	42.3	ug/L	330	KED
|	**Pb**	208	1026.7	17.2	**0.0199**	0.012	62.6	ug/L	883	KED
|	**U**	238	1492.7	15.0	**0.0614**	0.007	11.7	ug/L	8	KED

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	Th	232	16487.7	41.4	**0.3070**	0.395	128.8	ug/L	11535	KED
>	**Bi**	209	593672.2	7.2				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	3148.7	2.9	**0.1509**	0.012	8.0	mg/L	573	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**0.0000**	0.000		mg/L	0	KED
	Fe	54	16.7	34.6	**0.0060**	0.005	75.4	mg/L	12	KED
	Fe	57	18.3	128.9	**-0.0012**	0.010	871.9	mg/L	23	KED
>	**Sc-1**	45	70615.3	8.3				mg/L	80225	KED
	Cl	35	2126.8	8.1				ug/L	3539	KED
	Kr	83	0.0					ug/L	2	KED
	Br	81	25.0	72.1				ug/L	32	KED
	P	31	56.7	20.4				ug/L	120	KED
	S	34	35.0	14.3				ug/L	33	KED
	Sr	88	1321.7	8.8				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		88.022	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		88.690	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908013601SDL WG710705-02
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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		94.404
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		93.168
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		88.022
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Th 232 Lower	Th	232	

Sample ID: L1908013601SDL WG710705-02
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Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, September 06, 2019 10:56:46
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	10465.3	6.0				ug/L	10871	KED
|	Be	9	585.3	6.6	6.3412	0.546	8.6	ug/L	0	KED
|	Al	27	206439.5	3.2				ug/L	138	KED
|>	Sc-2	45	77818.1	3.3				ug/L	80225	KED
⌈	Ti	47	418.3	4.4	31.1839	1.216	3.9	ug/L	12	KED
|	V	51	48797.0	6.6	28.9790	2.463	8.5	ug/L	12950	KED
|	Cr	52	130925.0	4.4	64.4788	2.776	4.3	ug/L	964	KED
|	Cr	53	21759.0	8.3	55.8712	6.935	12.4	ug/L	8055	KED
|	Mn	55	96451.7	3.8	64.5928	2.340	3.6	ug/L	193	KED
|	Co	59	182099.6	2.6	31.9864	0.830	2.6	ug/L	74	KED
|	Ni	60	202853.0	2.1	127.1312	2.730	2.1	ug/L	604	KED
|	Cu	65	129491.0	3.3	62.9515	1.808	2.9	ug/L	202	KED
|	Zn	66	352557.5	2.4	627.3306	14.298	2.3	ug/L	160	KED
|>	Ge	72	274126.0	0.7				ug/L	269000	KED
|	As	75	15726.5	1.9	30.8375	0.750	2.4	ug/L	1156	KED
|	Se	82	601.8	0.5	30.1180	0.049	0.2	ug/L	22	KED
|	Se-1	78	1316.6	2.8	31.8594	1.084	3.4	ug/L	38	KED
⌊	Se-1	80	31732.9	0.5	29.2450	2.823	9.7	ug/L	27714	KED
	Ga	71	71.7	21.3				ug/L	75	KED
	Rb	85	146.7	8.6				ug/L	23	KED
	Y	89	239548.9	1.0				ug/L	233304	KED
	Rh	103	33.3	34.6				ug/L	7	KED
⌈	Mo	98	132722.7	2.6	31.2870	0.612	2.0	ug/L	42	KED
|	Ag	107	272535.7	0.9	32.1360	0.174	0.5	ug/L	130	KED
|	Cd	111	23326.6	2.3	19.2287	0.350	1.8	ug/L	9	KED
|	Cd	114	56850.8	2.3	19.2011	0.314	1.6	ug/L	34	KED
|>	In	115	313905.8	0.6				ug/L	293219	KED
|	Sn	118	73958.2	3.3	31.4712	0.873	2.8	ug/L	701	KED
|	Sb	123	66636.3	3.0	31.0638	0.750	2.4	ug/L	422	KED
⌊	Ba	135	67992.9	1.6	93.6515	0.906	1.0	ug/L	26	KED
	Ce	140	53.7	7.5				ug/L	43	KED
	Tb	159	838764.8	1.8				ug/L	830473	KED
⌈	Ho	165	9.7	23.9				ug/L	13	KED
|	Tl	203	38011.0	1.6	6.3454	0.038	0.6	ug/L	13	KED
|	Tl	205	93456.0	0.7	6.3125	0.027	0.4	ug/L	21	KED
|	Pb	206	159698.1	3.1	31.7176	0.638	2.0	ug/L	402	KED
|	Pb	207	141059.8	2.4	31.7688	0.435	1.4	ug/L	330	KED
|	Pb	208	354287.0	2.3	31.7275	0.370	1.2	ug/L	883	KED
|	U	238	825146.4	2.8	30.9923	0.522	1.7	ug/L	8	KED

Sample ID: QC Std 6
Report Date/Time: Friday, September 06, 2019 10:59:06
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	Th	232	698085.5	4.6	**31.5864**	1.131	3.6	ug/L	11535	KED
>	**Bi**	209	654345.3	1.1				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	77358.8	3.0	**3.9630**	0.117	3.0	mg/L	573	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**0.0000**	0.000		mg/L	0	KED
	Fe	54	4604.0	4.1	**4.0600**	0.141	3.5	mg/L	12	KED
	Fe	57	9524.7	3.2	**3.9315**	0.224	5.7	mg/L	23	KED
>	**Sc-1**	45	77818.1	3.3				mg/L	80225	KED
	Cl	35	1881.8	3.4				ug/L	3539	KED
	Kr	83	8.3	173.2				ug/L	2	KED
	Br	81	20.0	25.0				ug/L	32	KED
	P	31	56.7	13.5				ug/L	120	KED
	S	34	20.0	66.1				ug/L	33	KED
	Sr	88	28.3	10.2				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9	99.082		
	Al	27			
>	Sc-2	45		97.000	
	Ti	47	97.450		
	V	51	90.560		
	Cr	52	100.748		
	Cr	53			
	Mn	55	100.926		
	Co	59	99.957		
	Ni	60	99.321		
	Cu	65	98.362		
	Zn	66	98.020		
>	Ge	72		101.906	
	As	75	96.367		
	Se	82	94.119		
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98	97.772	
|	Ag	107	100.425	
|	Cd	111	100.150	
|	Cd	114		
|>	In	115		107.055
|	Sn	118	98.348	
|	Sb	123	97.074	
⌊	Ba	135	97.554	
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203	99.147	
|	Tl	205		
|	Pb	206	99.118	
|	Pb	207	99.277	
|	Pb	208	99.148	
|	U	238	96.851	
|	Th	232		
⌊>	Bi	209		102.690
⌈	Na	23		
|	Mg	24	99.075	
|	K	39	0.000	
|	Ca	43	0.000	
|	Fe	54	101.500	
|	Fe	57	98.287	
⌊>	Sc-1	45		97.000
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	K	39	
QC Std 6	Ca	43	

Sample ID: QC Std 6
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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, September 06, 2019 10:59:40
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	9983.3	3.8				ug/L	10871	KED
|	**Be**	9	0.7	86.6	**0.0041**	0.007	160.0	ug/L	0	KED
|	**Al**	27	190.0	2.6				ug/L	138	KED
|>	**Sc-2**	45	73875.0	1.9				ug/L	80225	KED
⌈	**Ti**	47	10.7	14.3	**-0.0713**	0.082	114.8	ug/L	12	KED
|	**V**	51	6701.2	28.1	**-4.8775**	1.986	40.7	ug/L	12950	KED
|	**Cr**	52	665.3	10.0	**-0.1356**	0.042	31.1	ug/L	964	KED
|	**Cr**	53	4400.7	27.0	**-14.3512**	6.372	44.4	ug/L	8055	KED
|	**Mn**	55	200.7	21.6	**0.0116**	0.033	285.2	ug/L	193	KED
|	**Co**	59	146.3	68.4	**0.0140**	0.018	127.1	ug/L	74	KED
|	**Ni**	60	382.0	27.3	**-0.1318**	0.066	50.0	ug/L	604	KED
|	**Cu**	65	260.7	26.9	**0.0347**	0.035	101.0	ug/L	202	KED
|	**Zn**	66	300.3	51.6	**0.2789**	0.288	103.1	ug/L	160	KED
|>	**Ge**	72	257947.7	5.2				ug/L	269000	KED
|	**As**	75	797.0	38.9	**-0.6732**	0.815	121.1	ug/L	1156	KED
|	**Se**	82	14.8	19.2	**-0.3305**	0.202	61.2	ug/L	22	KED
|	**Se-1**	78	39.8	16.4	**0.0910**	0.211	232.1	ug/L	38	KED
⌊	**Se-1**	80	27670.8	3.4	**9.9145**	5.471	55.2	ug/L	27714	KED
	Ga	71	48.3	23.9				ug/L	75	KED
	Rb	85	8.3	91.7				ug/L	23	KED
	Y	89	221577.2	7.2				ug/L	233304	KED
	Rh	103	10.0	50.0				ug/L	7	KED
⌈	**Mo**	98	142.0	7.5	**0.0255**	0.003	10.7	ug/L	42	KED
|	**Ag**	107	234.3	12.2	**0.0135**	0.006	41.0	ug/L	130	KED
|	**Cd**	111	7.0	24.7	**-0.0019**	0.002	108.5	ug/L	9	KED
|	**Cd**	114	35.0	30.1	**0.0005**	0.005	978.6	ug/L	34	KED
|>	**In**	115	292166.6	7.6				ug/L	293219	KED
|	**Sn**	118	607.0	9.9	**-0.0395**	0.051	129.4	ug/L	701	KED
|	**Sb**	123	468.7	23.5	**0.0282**	0.077	273.2	ug/L	422	KED
⌊	**Ba**	135	20.0	54.1	**-0.0079**	0.019	240.7	ug/L	26	KED
	Ce	140	25.7	41.3				ug/L	43	KED
	Tb	159	806670.1	7.2				ug/L	830473	KED
⌈	**Ho**	165	6.7	52.7				ug/L	13	KED
|	**Tl**	203	13.3	28.4	**0.0000**	0.001	1488.3	ug/L	13	KED
|	**Tl**	205	40.3	18.8	**0.0014**	0.001	50.6	ug/L	21	KED
|	**Pb**	206	426.3	5.8	**0.0066**	0.010	149.6	ug/L	402	KED
|	**Pb**	207	380.3	9.9	**0.0134**	0.013	100.3	ug/L	330	KED
|	**Pb**	208	916.0	8.3	**0.0046**	0.011	242.0	ug/L	883	KED
|	**U**	238	138.7	66.3	**0.0052**	0.004	76.0	ug/L	8	KED

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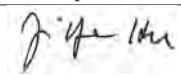
	Th	232	14266.7	4.0	**0.1410**	0.065	46.1	ug/L	11535	KED
>	**Bi**	209	628281.4	5.2				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	445.0	19.5	**-0.0045**	0.005	103.5	mg/L	573	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**0.0000**	0.000		mg/L	0	KED
	Fe	54	13.3	43.3	**0.0024**	0.005	219.0	mg/L	12	KED
	Fe	57	11.7	49.5	**-0.0043**	0.003	59.7	mg/L	23	KED
>	**Sc-1**	45	73875.0	1.9				mg/L	80225	KED
	Cl	35	2550.2	48.6				ug/L	3539	KED
	Kr	83	3.3	173.2				ug/L	2	KED
	Br	81	18.3	95.8				ug/L	32	KED
	P	31	75.0	24.0				ug/L	120	KED
	S	34	33.3	8.7				ug/L	33	KED
	Sr	88	23.3	75.3				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		92.085	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		95.891	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: QC Std 7
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
| >	In	115	99.641
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊ >	Bi	209	98.599
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊ >	Sc-1	45	92.085
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 7	V	51	
QC Std 7	As	75	

Sample ID: QC Std 7
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Method 6020 - Summary Report

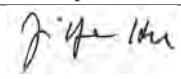
Sample ID: PBW SC WG710614-02
Sample Date/Time: Friday, September 06, 2019 11:02:32
Number of Replicates: 3
Autosampler Position: 215
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	12063.1	0.5				ug/L	10871	KED
|	**Be**	9	716.0	3.8	**7.2840**	0.406	5.6	ug/L	0	KED
|	**Al**	27	2962.0	3.0				ug/L	138	KED
|>	**Sc-2**	45	82822.1	1.8				ug/L	80225	KED
⌈	**Ti**	47	468.3	7.3	**35.8645**	2.345	6.5	ug/L	12	KED
|	**V**	51	60520.3	0.5	**39.7027**	0.977	2.5	ug/L	12950	KED
|	**Cr**	52	144557.2	2.1	**72.9465**	1.649	2.3	ug/L	964	KED
|	**Cr**	53	28274.7	3.7	**85.6024**	6.564	7.7	ug/L	8055	KED
|	**Mn**	55	105749.8	1.2	**72.5171**	0.893	1.2	ug/L	193	KED
|	**Co**	59	194511.2	2.0	**34.9730**	0.248	0.7	ug/L	74	KED
|	**Ni**	60	218573.3	2.0	**140.2628**	2.451	1.7	ug/L	604	KED
|	**Cu**	65	139249.2	2.6	**69.3105**	1.604	2.3	ug/L	202	KED
|	**Zn**	66	373063.5	2.3	**679.5655**	14.995	2.2	ug/L	160	KED
|>	**Ge**	72	267811.3	1.9				ug/L	269000	KED
|	**As**	75	16254.4	2.5	**32.7728**	0.987	3.0	ug/L	1156	KED
|	**Se**	82	615.3	3.7	**31.5797**	1.322	4.2	ug/L	22	KED
|	**Se-1**	78	1279.2	0.5	**31.6822**	0.459	1.4	ug/L	38	KED
⌊	**Se-1**	80	30550.6	0.8	**25.4001**	2.933	11.5	ug/L	27714	KED
	Ga	71	46.7	34.4				ug/L	75	KED
	Rb	85	11.7	24.7				ug/L	23	KED
	Y	89	227351.5	1.0				ug/L	233304	KED
	Rh	103	41.7	18.3				ug/L	7	KED
⌈	**Mo**	98	131341.4	2.6	**33.5148**	0.542	1.6	ug/L	42	KED
|	**Ag**	107	263986.1	1.2	**33.6964**	0.135	0.4	ug/L	130	KED
|	**Cd**	111	22514.7	3.3	**20.0879**	0.392	1.9	ug/L	9	KED
|	**Cd**	114	55366.4	2.7	**20.2420**	0.355	1.8	ug/L	34	KED
|>	**In**	115	289993.9	1.4				ug/L	293219	KED
|	**Sn**	118	72742.0	3.1	**33.5265**	0.695	2.1	ug/L	701	KED
|	**Sb**	123	69720.4	2.2	**35.2108**	0.358	1.0	ug/L	422	KED
⌊	**Ba**	135	65768.5	2.1	**98.0562**	0.754	0.8	ug/L	26	KED
	Ce	140	99.3	10.8				ug/L	43	KED
	Tb	159	792127.0	1.3				ug/L	830473	KED
⌈	**Ho**	165	8.0	12.5				ug/L	13	KED
|	**Tl**	203	37247.4	3.1	**6.5704**	0.178	2.7	ug/L	13	KED
|	**Tl**	205	92191.4	2.2	**6.5798**	0.120	1.8	ug/L	21	KED
|	**Pb**	206	159834.1	1.6	**33.5539**	0.434	1.3	ug/L	402	KED
|	**Pb**	207	140857.6	2.3	**33.5278**	0.645	1.9	ug/L	330	KED
|	**Pb**	208	350658.7	2.3	**33.1887**	0.642	1.9	ug/L	883	KED
|	**U**	238	810817.4	2.8	**32.1832**	0.764	2.4	ug/L	8	KED

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	Th	232	667170.1	4.1	**31.9102**	1.185	3.7	ug/L	11535	KED
>	**Bi**	209	619224.2	0.4				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	1891.8	1.3	**0.0630**	0.003	4.3	mg/L	573	KED
	K	39	1.7	173.2	**193.4261**	335.024	173.2	mg/L	0	KED
	Ca	43	0.0		**0.0000**	0.000		mg/L	0	KED
	Fe	54	70.0	37.8	**0.0479**	0.021	43.5	mg/L	12	KED
	Fe	57	13.3	57.3	**-0.0041**	0.003	73.6	mg/L	23	KED
>	**Sc-1**	45	82822.1	1.8				mg/L	80225	KED
	Cl	35	3875.5	3.8				ug/L	3539	KED
	Kr	83	3.3	86.6				ug/L	2	KED
	Br	81	35.0	75.6				ug/L	32	KED
	P	31	58.3	40.5				ug/L	120	KED
	S	34	40.0	43.3				ug/L	33	KED
	Sr	88	201.7	10.0				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		103.238	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		99.558	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: PBW SC WG710614-02
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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		98.900
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		97.178
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		103.238
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: PBW SC WG710614-02
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Method 6020 - Summary Report

Sample ID: LCSW SC WG710614-03
Sample Date/Time: Friday, September 06, 2019 11:05:25
Number of Replicates: 3
Autosampler Position: 216
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	11454.3	2.7				ug/L	10871	KED
|	Be	9	1.0	100.0	**0.0068**	0.010	153.8	ug/L	0	KED
|	Al	27	278.3	47.6				ug/L	138	KED
⌊>	Sc-2	45	81994.7	2.4				ug/L	80225	KED
⌈	Ti	47	11.0	39.6	**-0.0753**	0.321	426.6	ug/L	12	KED
|	V	51	12076.5	4.5	**-0.6261**	0.692	110.6	ug/L	12950	KED
|	Cr	52	1045.4	13.2	**0.0452**	0.060	133.4	ug/L	964	KED
|	Cr	53	7798.7	8.4	**-0.7384**	3.571	483.6	ug/L	8055	KED
|	Mn	55	270.3	31.4	**0.0539**	0.055	101.4	ug/L	193	KED
|	Co	59	200.0	66.6	**0.0227**	0.023	102.1	ug/L	74	KED
|	Ni	60	444.0	37.5	**-0.1011**	0.101	100.3	ug/L	604	KED
|	Cu	65	313.0	30.3	**0.0559**	0.044	78.5	ug/L	202	KED
|	Zn	66	617.0	37.4	**0.8343**	0.398	47.7	ug/L	160	KED
|>	Ge	72	266681.0	2.4				ug/L	269000	KED
|	As	75	1145.7	2.1	**0.0014**	0.100	7344.5	ug/L	1156	KED
|	Se	82	16.0	6.3	**-0.3007**	0.067	22.4	ug/L	22	KED
|	Se-1	78	39.5	11.6	**0.0416**	0.099	238.1	ug/L	38	KED
⌊	Se-1	80	27681.8	1.0	**1.8382**	3.859	209.9	ug/L	27714	KED
	Ga	71	58.3	38.7				ug/L	75	KED
	Rb	85	13.3	43.3				ug/L	23	KED
	Y	89	223066.2	3.4				ug/L	233304	KED
	Rh	103	3.3	86.6				ug/L	7	KED
⌈	Mo	98	258.7	23.1	**0.0554**	0.016	28.1	ug/L	42	KED
|	Ag	107	278.3	36.3	**0.0190**	0.013	66.5	ug/L	130	KED
|	Cd	111	23.0	50.1	**0.0124**	0.011	87.0	ug/L	9	KED
|	Cd	114	71.3	40.8	**0.0136**	0.011	77.7	ug/L	34	KED
|>	In	115	290702.5	2.2				ug/L	293219	KED
|	Sn	118	772.0	5.2	**0.0360**	0.019	52.5	ug/L	701	KED
|	Sb	123	296.3	6.1	**-0.0618**	0.010	16.8	ug/L	422	KED
⌊	Ba	135	61.7	48.9	**0.0536**	0.045	83.5	ug/L	26	KED
	Ce	140	42.3	16.1				ug/L	43	KED
	Tb	159	798420.9	0.8				ug/L	830473	KED
⌈	Ho	165	5.7	10.2				ug/L	13	KED
|	Tl	203	32.3	51.4	**0.0034**	0.003	84.3	ug/L	13	KED
|	Tl	205	78.0	55.5	**0.0041**	0.003	74.4	ug/L	21	KED
|	Pb	206	485.3	11.3	**0.0202**	0.011	53.9	ug/L	402	KED
|	Pb	207	393.3	11.0	**0.0176**	0.010	56.0	ug/L	330	KED
|	Pb	208	1018.4	9.5	**0.0154**	0.009	55.5	ug/L	883	KED
|	U	238	530.0	58.6	**0.0207**	0.012	59.0	ug/L	8	KED

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	Th	232	41048.7	12.1	**1.4590**	0.261	17.9	ug/L	11535	KED
>	**Bi**	209	617485.0	1.0				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	605.0	4.6	**0.0009**	0.001	95.3	mg/L	573	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**1173.9990**	2033.426	173.2	mg/L	0	KED
	Fe	54	11.7	49.5	**-0.0002**	0.005	1953.5	mg/L	12	KED
	Fe	57	16.7	124.9	**-0.0029**	0.008	269.2	mg/L	23	KED
>	**Sc-1**	45	81994.7	2.4				mg/L	80225	KED
	Cl	35	3645.4	1.5				ug/L	3539	KED
	Kr	83	6.7	86.6				ug/L	2	KED
	Br	81	16.7	96.4				ug/L	32	KED
	P	31	68.3	22.4				ug/L	120	KED
	S	34	28.3	27.0				ug/L	33	KED
	Sr	88	50.0	10.0				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		102.206	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		99.138	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
| >	In	115	99.142
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊ >	Bi	209	96.905
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊ >	Sc-1	45	102.206
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
V 51 Lower	V	51	

Sample ID: LCSW SC WG710614-03
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Method 6020 - Summary Report

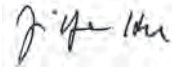
Sample ID: L1908015139 WG710614-01
Sample Date/Time: Friday, September 06, 2019 11:08:53
Number of Replicates: 3
Autosampler Position: 217
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	11721.2	3.0				ug/L	10871	KED
|	**Be**	9	0.0		**-0.0035**			ug/L	0	KED
|	**Al**	27	1440.1	3.7				ug/L	138	KED
|>	**Sc-2**	45	82998.4	1.2				ug/L	80225	KED
⌈	**Ti**	47	12.0	14.4	**-0.0164**	0.136	828.1	ug/L	12	KED
|	**V**	51	14576.4	14.0	**1.1417**	1.741	152.5	ug/L	12950	KED
|	**Cr**	52	952.0	7.6	**-0.0143**	0.039	274.2	ug/L	964	KED
|	**Cr**	53	9271.2	14.6	**4.4364**	5.788	130.5	ug/L	8055	KED
|	**Mn**	55	691.7	4.3	**0.3326**	0.017	5.1	ug/L	193	KED
|	**Co**	59	124.3	31.2	**0.0087**	0.007	80.3	ug/L	74	KED
|	**Ni**	60	552.0	13.3	**-0.0394**	0.049	123.4	ug/L	604	KED
|	**Cu**	65	591.3	10.1	**0.1881**	0.031	16.5	ug/L	202	KED
|	**Zn**	66	1491.4	2.3	**2.3675**	0.078	3.3	ug/L	160	KED
|>	**Ge**	72	273871.1	0.7				ug/L	269000	KED
|	**As**	75	1231.1	0.9	**0.1156**	0.037	32.3	ug/L	1156	KED
|	**Se**	82	18.2	15.2	**-0.2118**	0.138	65.3	ug/L	22	KED
|	**Se-1**	78	39.5	3.3	**0.0162**	0.040	244.8	ug/L	38	KED
⌊	**Se-1**	80	27808.0	0.5	**-3.4155**	1.557	45.6	ug/L	27714	KED
	Ga	71	78.3	13.3				ug/L	75	KED
	Rb	85	63.3	51.4				ug/L	23	KED
	Y	89	228574.6	0.6				ug/L	233304	KED
	Rh	103	13.3	21.7				ug/L	7	KED
⌈	**Mo**	98	124.7	28.9	**0.0208**	0.009	45.5	ug/L	42	KED
|	**Ag**	107	218.7	22.5	**0.0110**	0.007	59.2	ug/L	130	KED
|	**Cd**	111	23.7	10.6	**0.0125**	0.002	16.8	ug/L	9	KED
|	**Cd**	114	71.0	4.9	**0.0131**	0.002	12.0	ug/L	34	KED
|>	**In**	115	295477.7	1.4				ug/L	293219	KED
|	**Sn**	118	1044.0	2.6	**0.1545**	0.019	12.2	ug/L	701	KED
|	**Sb**	123	238.7	14.3	**-0.0929**	0.019	20.1	ug/L	422	KED
⌊	**Ba**	135	516.0	4.4	**0.7169**	0.026	3.6	ug/L	26	KED
	Ce	140	61.7	17.8				ug/L	43	KED
	Tb	159	799868.1	1.3				ug/L	830473	KED
⌈	**Ho**	165	7.7	32.8				ug/L	13	KED
|	**Tl**	203	17.7	22.9	**0.0008**	0.001	88.8	ug/L	13	KED
|	**Tl**	205	38.3	28.7	**0.0012**	0.001	63.4	ug/L	21	KED
|	**Pb**	206	474.3	8.2	**0.0170**	0.008	48.6	ug/L	402	KED
|	**Pb**	207	419.7	7.8	**0.0230**	0.008	35.8	ug/L	330	KED
|	**Pb**	208	1015.0	4.1	**0.0142**	0.003	23.9	ug/L	883	KED
|	**U**	238	169.3	46.0	**0.0064**	0.003	48.6	ug/L	8	KED

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	Th	232	21698.3	20.6	**0.5039**	0.223	44.2	ug/L	11535	KED
>	**Bi**	209	623595.9	0.8				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	19931.4	2.0	**0.9353**	0.018	1.9	mg/L	573	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**0.0000**	0.000		mg/L	0	KED
	Fe	54	23.3	24.7	**0.0094**	0.005	53.5	mg/L	12	KED
	Fe	57	33.3	31.2	**0.0035**	0.004	109.7	mg/L	23	KED
>	**Sc-1**	45	82998.4	1.2				mg/L	80225	KED
	Cl	35	3885.5	2.1				ug/L	3539	KED
	Kr	83	5.0	173.2				ug/L	2	KED
	Br	81	23.3	53.9				ug/L	32	KED
	P	31	71.7	44.9				ug/L	120	KED
	S	34	21.7	48.0				ug/L	33	KED
	Sr	88	323.3	7.8				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		103.457	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		101.811	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	100.770
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	97.864
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	103.457
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1908015139 WG710614-01
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Method 6020 - Summary Report

Sample ID: L1908015139S WG710614-04
Sample Date/Time: Friday, September 06, 2019 11:11:45
Number of Replicates: 3
Autosampler Position: 218
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	11966.4	3.7				ug/L	10871	KED
|	**Be**	9	730.4	8.1	**7.3887**	0.673	9.1	ug/L	0	KED
|	**Al**	27	1613.4	3.5				ug/L	138	KED
⌊>	**Sc-2**	45	83276.9	1.2				ug/L	80225	KED
⌈	**Ti**	47	499.3	1.0	**38.2059**	0.563	1.5	ug/L	12	KED
|	**V**	51	64260.3	1.8	**42.6694**	1.674	3.9	ug/L	12950	KED
|	**Cr**	52	144351.9	3.2	**72.6312**	2.582	3.6	ug/L	964	KED
|	**Cr**	53	30806.3	0.3	**95.8585**	2.180	2.3	ug/L	8055	KED
|	**Mn**	55	105664.2	1.5	**72.2465**	1.057	1.5	ug/L	193	KED
|	**Co**	59	192433.6	1.8	**34.5042**	0.772	2.2	ug/L	74	KED
|	**Ni**	60	218469.1	2.5	**139.7969**	3.941	2.8	ug/L	604	KED
|	**Cu**	65	140853.8	1.2	**69.9139**	1.322	1.9	ug/L	202	KED
|	**Zn**	66	372740.0	1.4	**677.0131**	9.908	1.5	ug/L	160	KED
|>	**Ge**	72	268582.3	1.5				ug/L	269000	KED
|	**As**	75	16358.2	0.6	**32.8962**	0.658	2.0	ug/L	1156	KED
|	**Se**	82	608.3	3.6	**31.1015**	0.712	2.3	ug/L	22	KED
|	**Se-1**	78	1292.7	1.8	**31.9278**	0.480	1.5	ug/L	38	KED
⌊	**Se-1**	80	30484.3	0.9	**24.0733**	3.462	14.4	ug/L	27714	KED
	Ga	71	65.0	38.5				ug/L	75	KED
	Rb	85	65.0	26.6				ug/L	23	KED
	Y	89	226650.2	2.9				ug/L	233304	KED
	Rh	103	36.7	51.6				ug/L	7	KED
⌈	**Mo**	98	128381.4	3.5	**32.6466**	1.162	3.6	ug/L	42	KED
|	**Ag**	107	260637.8	2.3	**33.1498**	0.728	2.2	ug/L	130	KED
|	**Cd**	111	21994.3	1.9	**19.5572**	0.355	1.8	ug/L	9	KED
|	**Cd**	114	54108.8	3.0	**19.7135**	0.571	2.9	ug/L	34	KED
|>	**In**	115	291022.3	0.4				ug/L	293219	KED
|	**Sn**	118	72525.9	2.4	**33.3114**	0.868	2.6	ug/L	701	KED
|	**Sb**	123	69404.3	1.7	**34.9274**	0.568	1.6	ug/L	422	KED
⌊	**Ba**	135	65696.2	1.8	**97.6073**	1.598	1.6	ug/L	26	KED
	Ce	140	151.3	9.0				ug/L	43	KED
	Tb	159	790051.0	1.7				ug/L	830473	KED
⌈	**Ho**	165	10.7	48.1				ug/L	13	KED
|	**Tl**	203	37148.8	0.7	**6.5369**	0.042	0.6	ug/L	13	KED
|	**Tl**	205	91871.0	0.4	**6.5406**	0.029	0.4	ug/L	21	KED
|	**Pb**	206	159841.0	2.3	**33.4706**	0.746	2.2	ug/L	402	KED
|	**Pb**	207	140814.5	2.2	**33.4338**	0.721	2.2	ug/L	330	KED
|	**Pb**	208	350819.9	1.9	**33.1209**	0.592	1.8	ug/L	883	KED
|	**U**	238	807206.8	3.6	**31.9604**	1.128	3.5	ug/L	8	KED

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	Th	232	653431.0	6.5	**31.1635**	2.042	6.6	ug/L	11535	KED
>	**Bi**	209	620796.5	0.1				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	20043.3	3.0	**0.9375**	0.029	3.1	mg/L	573	KED
	K	39	1.7	173.2	**189.8535**	328.836	173.2	mg/L	0	KED
	Ca	43	0.0		**0.0000**	0.000		mg/L	0	KED
	Fe	54	75.0	13.3	**0.0519**	0.008	15.6	mg/L	12	KED
	Fe	57	73.3	21.9	**0.0190**	0.006	34.0	mg/L	23	KED
>	**Sc-1**	45	83276.9	1.2				mg/L	80225	KED
	Cl	35	4123.9	4.1				ug/L	3539	KED
	Kr	83	5.0	100.0				ug/L	2	KED
	Br	81	38.3	58.8				ug/L	32	KED
	P	31	71.7	8.1				ug/L	120	KED
	S	34	33.3	8.7				ug/L	33	KED
	Sr	88	400.0	2.5				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		103.805	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		99.845	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908015139S WG710614-04
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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		99.251
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊>	Bi	209		97.425
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		103.805
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1908015139S WG710614-04
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Method 6020 - Summary Report

Sample ID: L1908015139SD WG710614-05
Sample Date/Time: Friday, September 06, 2019 11:14:37
Number of Replicates: 3
Autosampler Position: 219
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	11399.3	7.7				ug/L	10871	KED
|	**Be**	9	722.0	2.9	**7.5487**	0.302	4.0	ug/L	0	KED
|	**Al**	27	1725.1	4.1				ug/L	138	KED
⌊>	**Sc-2**	45	80648.2	5.7				ug/L	80225	KED
⌈	**Ti**	47	451.3	8.2	**35.1644**	1.674	4.8	ug/L	12	KED
|	**V**	51	64313.6	1.1	**43.9040**	2.160	4.9	ug/L	12950	KED
|	**Cr**	52	142958.1	2.2	**73.5486**	3.220	4.4	ug/L	964	KED
|	**Cr**	53	30610.9	1.9	**97.8777**	3.634	3.7	ug/L	8055	KED
|	**Mn**	55	106317.5	2.2	**74.3201**	2.800	3.8	ug/L	193	KED
|	**Co**	59	194673.1	2.3	**35.6896**	1.596	4.5	ug/L	74	KED
|	**Ni**	60	217299.6	2.2	**142.1742**	6.154	4.3	ug/L	604	KED
|	**Cu**	65	138662.7	1.2	**70.3904**	3.497	5.0	ug/L	202	KED
|	**Zn**	66	372833.6	1.3	**692.5730**	33.417	4.8	ug/L	160	KED
|>	**Ge**	72	262964.7	4.5				ug/L	269000	KED
|	**As**	75	16221.7	2.4	**33.4006**	2.025	6.1	ug/L	1156	KED
|	**Se**	82	595.7	4.4	**31.1216**	0.887	2.8	ug/L	22	KED
|	**Se-1**	78	1297.6	3.3	**32.8091**	2.085	6.4	ug/L	38	KED
⌊	**Se-1**	80	30314.1	0.8	**28.4818**	11.872	41.7	ug/L	27714	KED
	Ga	71	76.7	27.2				ug/L	75	KED
	Rb	85	43.3	24.0				ug/L	23	KED
	Y	89	220415.4	6.0				ug/L	233304	KED
	Rh	103	23.3	24.7				ug/L	7	KED
⌈	**Mo**	98	127023.4	2.2	**32.9885**	1.866	5.7	ug/L	42	KED
|	**Ag**	107	258210.2	2.0	**33.5215**	1.221	3.6	ug/L	130	KED
|	**Cd**	111	22036.4	2.7	**20.0033**	0.915	4.6	ug/L	9	KED
|	**Cd**	114	53476.9	2.8	**19.8975**	1.156	5.8	ug/L	34	KED
|>	**In**	115	285490.3	5.4				ug/L	293219	KED
|	**Sn**	118	72229.2	3.4	**33.8744**	1.822	5.4	ug/L	701	KED
|	**Sb**	123	68425.0	3.7	**35.1529**	1.833	5.2	ug/L	422	KED
⌊	**Ba**	135	64410.3	2.7	**97.6915**	4.425	4.5	ug/L	26	KED
	Ce	140	71.7	11.4				ug/L	43	KED
	Tb	159	775703.3	4.0				ug/L	830473	KED
⌈	**Ho**	165	6.7	45.8				ug/L	13	KED
|	**Tl**	203	37026.9	1.9	**6.6279**	0.181	2.7	ug/L	13	KED
|	**Tl**	205	91934.2	2.6	**6.6581**	0.220	3.3	ug/L	21	KED
|	**Pb**	206	158806.3	2.8	**33.8250**	0.966	2.9	ug/L	402	KED
|	**Pb**	207	140452.3	2.6	**33.9305**	1.360	4.0	ug/L	330	KED
|	**Pb**	208	351298.9	2.5	**33.7463**	1.344	4.0	ug/L	883	KED
|	**U**	238	801624.6	4.9	**32.2992**	2.036	6.3	ug/L	8	KED

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	Th	232	696569.1	4.8	**33.8483**	1.988	5.9	ug/L	11535	KED
>	**Bi**	209	610489.3	2.7				ug/L	637206	KED
	Na	23	1.7	173.2				mg/L	0	KED
	Mg	24	20530.6	3.5	**0.9953**	0.066	6.6	mg/L	573	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**1313.8569**	2275.667	173.2	mg/L	0	KED
	Fe	54	81.7	14.1	**0.0602**	0.014	23.9	mg/L	12	KED
	Fe	57	30.0	28.9	**0.0027**	0.004	141.3	mg/L	23	KED
>	**Sc-1**	45	80648.2	5.7				mg/L	80225	KED
	Cl	35	3873.8	2.8				ug/L	3539	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	36.7	34.3				ug/L	32	KED
	P	31	73.3	44.4				ug/L	120	KED
	S	34	25.0	34.6				ug/L	33	KED
	Sr	88	340.0	2.9				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		100.528	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		97.756	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908015139SD WG710614-05
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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		97.364
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		95.807
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		100.528
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1908015139SD WG710614-05
Report Date/Time: Friday, September 06, 2019 11:16:57
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Method 6020 - Summary Report

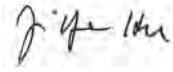
Sample ID: L1908014101
Sample Date/Time: Friday, September 06, 2019 11:17:29
Number of Replicates: 3
Autosampler Position: 220
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	11752.9	1.2				ug/L	10871	KED
|	**Be**	9	3.0	66.7	**0.0272**	0.020	73.9	ug/L	0	KED
|	**Al**	27	569367.5	2.8				ug/L	138	KED
|>	**Sc-2**	45	81903.5	1.6				ug/L	80225	KED
⌈	**Ti**	47	220.3	9.6	**16.2203**	2.049	12.6	ug/L	12	KED
|	**V**	51	14968.5	12.3	**1.6297**	1.890	116.0	ug/L	12950	KED
|	**Cr**	52	4058.9	1.7	**1.5529**	0.096	6.2	ug/L	964	KED
|	**Cr**	53	8594.1	12.9	**2.1387**	5.718	267.4	ug/L	8055	KED
|	**Mn**	55	15585.3	2.7	**10.4600**	0.466	4.5	ug/L	193	KED
|	**Co**	59	1561.1	4.8	**0.2648**	0.021	7.8	ug/L	74	KED
|	**Ni**	60	2240.2	5.0	**1.0399**	0.104	10.0	ug/L	604	KED
|	**Cu**	65	3019.6	2.6	**1.3894**	0.082	5.9	ug/L	202	KED
|	**Zn**	66	3341.4	6.2	**5.7382**	0.515	9.0	ug/L	160	KED
|>	**Ge**	72	270894.0	3.4				ug/L	269000	KED
|	**As**	75	1786.4	2.3	**1.3397**	0.204	15.2	ug/L	1156	KED
|	**Se**	82	26.3	16.4	**0.2331**	0.260	111.3	ug/L	22	KED
|	**Se-1**	78	56.5	14.7	**0.4556**	0.206	45.1	ug/L	38	KED
⌊	**Se-1**	80	27821.2	1.4	**-0.6428**	4.695	730.5	ug/L	27714	KED
	Ga	71	195.0	7.7				ug/L	75	KED
	Rb	85	2048.5	2.5				ug/L	23	KED
	Y	89	228846.0	2.6				ug/L	233304	KED
	Rh	103	8.3	124.9				ug/L	7	KED
⌈	**Mo**	98	1065.4	13.6	**0.2632**	0.046	17.3	ug/L	42	KED
|	**Ag**	107	375.0	34.7	**0.0319**	0.018	56.7	ug/L	130	KED
|	**Cd**	111	60.3	29.2	**0.0462**	0.018	38.4	ug/L	9	KED
|	**Cd**	114	175.7	24.6	**0.0524**	0.018	34.7	ug/L	34	KED
|>	**In**	115	289109.9	3.6				ug/L	293219	KED
|	**Sn**	118	1516.1	4.0	**0.3864**	0.052	13.4	ug/L	701	KED
|	**Sb**	123	858.4	5.9	**0.2263**	0.041	18.1	ug/L	422	KED
⌊	**Ba**	135	9926.9	1.5	**14.8240**	0.460	3.1	ug/L	26	KED
	Ce	140	13994.1	2.3				ug/L	43	KED
	Tb	159	786275.8	2.4				ug/L	830473	KED
⌈	**Ho**	165	236.3	10.5				ug/L	13	KED
|	**Tl**	203	105.7	25.6	**0.0168**	0.005	30.0	ug/L	13	KED
|	**Tl**	205	285.0	14.6	**0.0193**	0.003	16.7	ug/L	21	KED
|	**Pb**	206	3341.7	2.0	**0.6358**	0.017	2.7	ug/L	402	KED
|	**Pb**	207	2741.9	3.6	**0.5913**	0.020	3.4	ug/L	330	KED
|	**Pb**	208	6664.8	1.2	**0.5641**	0.011	1.9	ug/L	883	KED
|	**U**	238	5588.0	9.9	**0.2263**	0.025	11.2	ug/L	8	KED

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	Th	232	51769.9	15.0	**2.0293**	0.418	20.6	ug/L	11535	KED
>	**Bi**	209	606643.3	1.4				ug/L	637206	KED
	Na	23	1.7	173.2				mg/L	0	KED
	Mg	24	18376.1	2.4	**0.8723**	0.036	4.1	mg/L	573	KED
	K	39	1.7	173.2	**197.9981**	342.943	173.2	mg/L	0	KED
	Ca	43	6.7	43.3	**4810.7376**	1999.067	41.6	mg/L	0	KED
	Fe	54	691.7	7.7	**0.5712**	0.050	8.7	mg/L	12	KED
	Fe	57	1360.1	6.7	**0.5248**	0.038	7.2	mg/L	23	KED
>	**Sc-1**	45	81903.5	1.6				mg/L	80225	KED
	Cl	35	3952.2	3.6				ug/L	3539	KED
	Kr	83	5.0	100.0				ug/L	2	KED
	Br	81	88.3	37.7				ug/L	32	KED
	P	31	55.0	48.1				ug/L	120	KED
	S	34	35.0	51.5				ug/L	33	KED
	Sr	88	12425.1	3.5				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		102.093	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		100.704	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908014101
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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		98.599
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		95.204
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		102.093
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1908014101
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Method 6020 - Summary Report

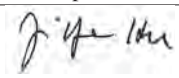
Sample ID: L1908014102
Sample Date/Time: Friday, September 06, 2019 11:20:21
Number of Replicates: 3
Autosampler Position: 221
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	11224.2	3.6				ug/L	10871	KED
|	**Be**	9	0.0		**-0.0035**			ug/L	0	KED
|	**Al**	27	585265.0	1.7				ug/L	138	KED
⌊>	**Sc-2**	45	81601.5	1.0				ug/L	80225	KED
⌈	**Ti**	47	16.7	9.2	**0.3626**	0.128	35.3	ug/L	12	KED
|	**V**	51	12874.8	3.8	**-0.0862**	0.461	535.0	ug/L	12950	KED
|	**Cr**	52	1517.4	2.3	**0.2782**	0.020	7.2	ug/L	964	KED
|	**Cr**	53	7977.1	5.3	**-0.4045**	1.930	477.1	ug/L	8055	KED
|	**Mn**	55	374.0	1.5	**0.1231**	0.002	1.7	ug/L	193	KED
|	**Co**	59	108.7	14.6	**0.0062**	0.003	43.1	ug/L	74	KED
|	**Ni**	60	417.0	6.2	**-0.1205**	0.015	12.5	ug/L	604	KED
|	**Cu**	65	783.7	3.7	**0.2878**	0.016	5.7	ug/L	202	KED
|	**Zn**	66	1308.1	2.0	**2.0768**	0.032	1.5	ug/L	160	KED
⌊>	**Ge**	72	269659.2	0.7				ug/L	269000	KED
|	**As**	75	1503.7	1.7	**0.7441**	0.078	10.4	ug/L	1156	KED
|	**Se**	82	23.3	4.9	**0.0763**	0.058	75.4	ug/L	22	KED
|	**Se-1**	78	46.2	8.2	**0.2006**	0.100	50.0	ug/L	38	KED
⌊	**Se-1**	80	27864.3	0.3	**0.7060**	1.407	199.2	ug/L	27714	KED
	Ga	71	56.7	18.4				ug/L	75	KED
	Rb	85	293.3	9.8				ug/L	23	KED
	Y	89	226001.4	0.3				ug/L	233304	KED
	Rh	103	5.0	100.0				ug/L	7	KED
⌈	**Mo**	98	500.0	6.3	**0.1174**	0.009	7.6	ug/L	42	KED
|	**Ag**	107	174.3	5.7	**0.0059**	0.001	23.1	ug/L	130	KED
|	**Cd**	111	21.0	14.3	**0.0105**	0.003	24.7	ug/L	9	KED
|	**Cd**	114	58.7	16.6	**0.0091**	0.004	40.7	ug/L	34	KED
⌊>	**In**	115	289527.0	1.1				ug/L	293219	KED
|	**Sn**	118	1001.4	0.7	**0.1443**	0.002	1.5	ug/L	701	KED
|	**Sb**	123	233.3	7.5	**-0.0933**	0.008	8.8	ug/L	422	KED
⌊	**Ba**	135	11306.2	2.8	**16.8584**	0.666	3.9	ug/L	26	KED
	Ce	140	68.3	5.1				ug/L	43	KED
	Tb	159	789797.9	1.2				ug/L	830473	KED
⌈	**Ho**	165	9.3	32.7				ug/L	13	KED
|	**Tl**	203	34.3	11.8	**0.0038**	0.001	19.6	ug/L	13	KED
|	**Tl**	205	73.3	14.6	**0.0038**	0.001	21.4	ug/L	21	KED
|	**Pb**	206	464.3	2.4	**0.0160**	0.003	19.4	ug/L	402	KED
|	**Pb**	207	392.3	0.9	**0.0175**	0.000	2.2	ug/L	330	KED
|	**Pb**	208	953.0	5.8	**0.0093**	0.006	63.3	ug/L	883	KED
|	**U**	238	4347.6	2.5	**0.1729**	0.006	3.4	ug/L	8	KED

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	Th	232	21262.3	19.0	**0.4920**	0.190	38.5	ug/L	11535	KED
>	**Bi**	209	616917.4	0.9				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	17954.0	0.7	**0.8545**	0.008	0.9	mg/L	573	KED
	K	39	1.7	173.2	**194.0697**	336.139	173.2	mg/L	0	KED
	Ca	43	3.3	173.2	**2398.3961**	4154.144	173.2	mg/L	0	KED
	Fe	54	11.7	65.5	**-0.0001**	0.007	4912.2	mg/L	12	KED
	Fe	57	33.3	31.2	**0.0038**	0.004	105.3	mg/L	23	KED
>	**Sc-1**	45	81601.5	1.0				mg/L	80225	KED
	Cl	35	3983.9	4.4				ug/L	3539	KED
	Kr	83	3.3	86.6				ug/L	2	KED
	Br	81	145.0	9.1				ug/L	32	KED
	P	31	73.3	7.9				ug/L	120	KED
	S	34	25.0	34.6				ug/L	33	KED
	Sr	88	9826.5	1.3				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		101.716	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		100.245	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908014102
Report Date/Time: Friday, September 06, 2019 11:22:41
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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		98.741
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		96.816
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		101.716
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1908014102
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Method 6020 - Summary Report

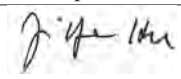
Sample ID: L1908014102PS WG710706-01
Sample Date/Time: Friday, September 06, 2019 11:23:13
Number of Replicates: 3
Autosampler Position: 222
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	11461.0	1.2				ug/L	10871	KED
|	**Be**	9	5378.6	1.9	**56.0349**	1.168	2.1	ug/L	0	KED
|	**Al**	27	579357.5	1.7				ug/L	138	KED
⌊>	**Sc-2**	45	80856.2	0.4				ug/L	80225	KED
⌈	**Ti**	47	14.0	37.8	**0.1562**	0.414	265.2	ug/L	12	KED
|	**V**	51	87254.9	2.0	**61.6409**	1.167	1.9	ug/L	12950	KED
|	**Cr**	52	109929.2	2.7	**55.0941**	1.301	2.4	ug/L	964	KED
|	**Cr**	53	24441.4	1.6	**68.8729**	1.628	2.4	ug/L	8055	KED
|	**Mn**	55	81409.2	1.5	**55.5384**	0.883	1.6	ug/L	193	KED
|	**Co**	59	292857.4	1.8	**52.4260**	0.929	1.8	ug/L	74	KED
|	**Ni**	60	82400.9	3.0	**52.3902**	1.356	2.6	ug/L	604	KED
|	**Cu**	65	104534.1	1.8	**51.7679**	0.828	1.6	ug/L	202	KED
|	**Zn**	66	30080.8	2.5	**54.2758**	1.303	2.4	ug/L	160	KED
|>	**Ge**	72	269022.7	0.8				ug/L	269000	KED
|	**As**	75	24876.4	2.8	**51.2261**	1.275	2.5	ug/L	1156	KED
|	**Se**	82	949.4	1.5	**49.1164**	1.055	2.1	ug/L	22	KED
|	**Se-1**	78	2057.6	1.1	**51.3052**	0.210	0.4	ug/L	38	KED
⌊	**Se-1**	80	32670.4	1.5	**42.2656**	2.279	5.4	ug/L	27714	KED
	Ga	71	60.0	50.0				ug/L	75	KED
	Rb	85	323.3	5.0				ug/L	23	KED
	Y	89	222754.0	1.4				ug/L	233304	KED
	Rh	103	38.3	7.5				ug/L	7	KED
⌈	**Mo**	98	558.0	3.4	**0.1339**	0.003	2.4	ug/L	42	KED
|	**Ag**	107	369508.1	2.1	**47.8476**	0.692	1.4	ug/L	130	KED
|	**Cd**	111	56153.2	2.7	**50.8359**	0.800	1.6	ug/L	9	KED
|	**Cd**	114	133942.5	3.3	**49.6852**	0.920	1.9	ug/L	34	KED
|>	**In**	115	285894.8	1.6				ug/L	293219	KED
|	**Sn**	118	1116.0	1.8	**0.2044**	0.009	4.5	ug/L	701	KED
|	**Sb**	123	103501.1	2.0	**53.1289**	0.356	0.7	ug/L	422	KED
⌊	**Ba**	135	44493.9	2.4	**67.2773**	0.841	1.3	ug/L	26	KED
	Ce	140	70.7	15.0				ug/L	43	KED
	Tb	159	783287.5	0.8				ug/L	830473	KED
⌈	**Ho**	165	8.0	43.3				ug/L	13	KED
|	**Tl**	203	283269.9	0.6	**50.9340**	0.251	0.5	ug/L	13	KED
|	**Tl**	205	700876.3	1.3	**50.9870**	1.095	2.1	ug/L	21	KED
|	**Pb**	206	240482.1	1.7	**51.4879**	1.069	2.1	ug/L	402	KED
|	**Pb**	207	213474.5	1.5	**51.8226**	1.043	2.0	ug/L	330	KED
|	**Pb**	208	525258.7	1.7	**50.7032**	1.037	2.0	ug/L	883	KED
|	**U**	238	1232594.3	2.8	**49.8584**	1.569	3.1	ug/L	8	KED

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	Th	232	30254.4	24.7	**0.9522**	0.359	37.7	ug/L	11535	KED
>	**Bi**	209	607736.2	1.0				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	18082.5	2.4	**0.8691**	0.025	2.8	mg/L	573	KED
	K	39	5.0	173.2	**596.7099**	1033.532	173.2	mg/L	0	KED
	Ca	43	6.7	43.3	**4892.3196**	2111.447	43.2	mg/L	0	KED
	Fe	54	50.0	43.6	**0.0325**	0.018	56.8	mg/L	12	KED
	Fe	57	38.3	32.8	**0.0059**	0.005	85.7	mg/L	23	KED
>	**Sc-1**	45	80856.2	0.4				mg/L	80225	KED
	Cl	35	3957.2	2.7				ug/L	3539	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	175.0	4.9				ug/L	32	KED
	P	31	68.3	22.4				ug/L	120	KED
	S	34	26.7	28.6				ug/L	33	KED
	Sr	88	9871.6	3.9				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		100.787	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		100.009	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		97.502
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		95.375
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		100.787
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1908014102PS WG710706-01
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Method 6020 - Summary Report

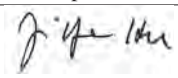
Sample ID: L1908014102SDL WG710706-02
Sample Date/Time: Friday, September 06, 2019 11:26:05
Number of Replicates: 3
Autosampler Position: 223
Sample Description: 5
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10088.4	3.5				ug/L	10871	KED
|	**Be**	9	2.7	142.0	**0.0265**	0.042	160.5	ug/L	0	KED
|	**Al**	27	118730.1	0.7				ug/L	138	KED
|>	**Sc-2**	45	74316.2	1.0				ug/L	80225	KED
⌈	**Ti**	47	8.0	0.0	**-0.2854**	0.005	1.8	ug/L	12	KED
|	**V**	51	11790.3	3.1	**-0.5300**	0.343	64.8	ug/L	12950	KED
|	**Cr**	52	696.3	11.6	**-0.1195**	0.045	37.3	ug/L	964	KED
|	**Cr**	53	7298.4	3.6	**-1.8324**	1.026	56.0	ug/L	8055	KED
|	**Mn**	55	232.7	34.0	**0.0343**	0.057	167.1	ug/L	193	KED
|	**Co**	59	228.3	93.9	**0.0296**	0.040	136.5	ug/L	74	KED
|	**Ni**	60	307.3	25.1	**-0.1812**	0.053	29.1	ug/L	604	KED
|	**Cu**	65	397.7	9.5	**0.1058**	0.020	19.1	ug/L	202	KED
|	**Zn**	66	666.0	5.3	**0.9710**	0.061	6.3	ug/L	160	KED
|>	**Ge**	72	257645.5	0.8				ug/L	269000	KED
|	**As**	75	1001.4	7.1	**-0.2372**	0.176	74.1	ug/L	1156	KED
|	**Se**	82	21.0	12.6	**0.0041**	0.136	3290.5	ug/L	22	KED
|	**Se-1**	78	42.8	4.1	**0.1668**	0.054	32.4	ug/L	38	KED
⌊	**Se-1**	80	27647.0	1.0	**9.8236**	0.625	6.4	ug/L	27714	KED
	Ga	71	66.7	37.7				ug/L	75	KED
	Rb	85	46.7	22.3				ug/L	23	KED
	Y	89	219833.9	2.5				ug/L	233304	KED
	Rh	103	6.7	114.6				ug/L	7	KED
⌈	**Mo**	98	157.0	27.3	**0.0292**	0.010	35.6	ug/L	42	KED
|	**Ag**	107	369.3	47.1	**0.0305**	0.023	74.1	ug/L	130	KED
|	**Cd**	111	40.7	81.8	**0.0280**	0.030	107.2	ug/L	9	KED
|	**Cd**	114	117.3	68.6	**0.0303**	0.030	98.0	ug/L	34	KED
|>	**In**	115	292277.4	1.3				ug/L	293219	KED
|	**Sn**	118	572.7	6.9	**-0.0582**	0.016	26.8	ug/L	701	KED
|	**Sb**	123	403.3	10.2	**-0.0086**	0.023	267.8	ug/L	422	KED
⌊	**Ba**	135	2550.2	1.0	**3.7362**	0.049	1.3	ug/L	26	KED
	Ce	140	27.3	10.6				ug/L	43	KED
	Tb	159	789792.8	1.1				ug/L	830473	KED
⌈	**Ho**	165	8.0	54.5				ug/L	13	KED
|	**Tl**	203	167.0	94.4	**0.0268**	0.027	101.8	ug/L	13	KED
|	**Tl**	205	376.0	82.0	**0.0250**	0.022	86.2	ug/L	21	KED
|	**Pb**	206	668.7	15.2	**0.0572**	0.020	35.7	ug/L	402	KED
|	**Pb**	207	583.0	21.8	**0.0612**	0.029	47.8	ug/L	330	KED
|	**Pb**	208	1452.7	22.5	**0.0550**	0.030	54.3	ug/L	883	KED
|	**U**	238	1908.8	39.0	**0.0746**	0.029	38.7	ug/L	8	KED

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	Th	232	2578.2	5.2	**-0.4212**	0.006	1.4	ug/L	11535	KED
>	**Bi**	209	625241.6	0.7				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	3908.8	3.2	**0.1824**	0.005	3.0	mg/L	573	KED
	K	39	1.7	173.2	**217.6565**	376.992	173.2	mg/L	0	KED
	Ca	43	5.0	100.0	**4020.1722**	4034.918	100.4	mg/L	0	KED
	Fe	54	11.7	65.5	**0.0008**	0.007	866.9	mg/L	12	KED
	Fe	57	13.3	21.7	**-0.0036**	0.001	35.0	mg/L	23	KED
>	**Sc-1**	45	74316.2	1.0				mg/L	80225	KED
	Cl	35	2310.2	5.5				ug/L	3539	KED
	Kr	83	5.0	100.0				ug/L	2	KED
	Br	81	41.7	36.7				ug/L	32	KED
	P	31	41.7	18.3				ug/L	120	KED
	S	34	36.7	15.7				ug/L	33	KED
	Sr	88	1868.4	4.6				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		92.635	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		95.779	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		99.679
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		98.122
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		92.635
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
V 51 Lower	V	51	
Th 232 Lower	Th	232	

Sample ID: L1908014102SDL WG710706-02
Report Date/Time: Friday, September 06, 2019 11:28:25
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Method 6020 - Summary Report

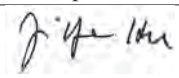
Sample ID: L1908014103
Sample Date/Time: Friday, September 06, 2019 11:28:56
Number of Replicates: 3
Autosampler Position: 224
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	11664.5	0.4				ug/L	10871	KED
|	**Be**	9	0.7	86.6	**0.0034**	0.006	176.4	ug/L	0	KED
|	**Al**	27	552885.7	2.5				ug/L	138	KED
|>	**Sc-2**	45	81832.8	1.4				ug/L	80225	KED
⌈	**Ti**	47	11.0	54.5	**-0.0781**	0.477	611.3	ug/L	12	KED
|	**V**	51	13021.9	3.2	**0.0131**	0.240	1839.0	ug/L	12950	KED
|	**Cr**	52	1603.1	3.4	**0.3201**	0.035	10.8	ug/L	964	KED
|	**Cr**	53	8355.6	6.5	**1.1028**	1.969	178.5	ug/L	8055	KED
|	**Mn**	55	678.7	5.3	**0.3301**	0.022	6.7	ug/L	193	KED
|	**Co**	59	147.7	6.1	**0.0132**	0.002	14.0	ug/L	74	KED
|	**Ni**	60	383.3	6.8	**-0.1422**	0.020	13.8	ug/L	604	KED
|	**Cu**	65	535.0	9.3	**0.1642**	0.025	15.1	ug/L	202	KED
|	**Zn**	66	1342.1	6.3	**2.1353**	0.174	8.2	ug/L	160	KED
|>	**Ge**	72	270141.5	1.2				ug/L	269000	KED
|	**As**	75	1463.1	7.8	**0.6489**	0.206	31.8	ug/L	1156	KED
|	**Se**	82	21.2	24.2	**-0.0377**	0.283	751.2	ug/L	22	KED
|	**Se-1**	78	47.8	4.4	**0.2404**	0.048	19.9	ug/L	38	KED
⌊	**Se-1**	80	28084.8	0.3	**2.1805**	3.617	165.9	ug/L	27714	KED
	Ga	71	71.7	24.5				ug/L	75	KED
	Rb	85	270.0	8.5				ug/L	23	KED
	Y	89	231028.4	1.9				ug/L	233304	KED
	Rh	103	3.3	86.6				ug/L	7	KED
⌈	**Mo**	98	517.7	7.0	**0.1203**	0.008	6.6	ug/L	42	KED
|	**Ag**	107	360.0	69.6	**0.0289**	0.031	107.5	ug/L	130	KED
|	**Cd**	111	34.3	87.6	**0.0220**	0.026	119.3	ug/L	9	KED
|	**Cd**	114	100.0	78.2	**0.0236**	0.028	117.8	ug/L	34	KED
|>	**In**	115	292729.2	1.0				ug/L	293219	KED
|	**Sn**	118	1071.0	2.3	**0.1712**	0.007	4.2	ug/L	701	KED
|	**Sb**	123	373.7	6.0	**-0.0240**	0.010	42.7	ug/L	422	KED
⌊	**Ba**	135	10565.7	4.3	**15.5751**	0.674	4.3	ug/L	26	KED
	Ce	140	60.0	9.3				ug/L	43	KED
	Tb	159	795906.4	0.9				ug/L	830473	KED
⌈	**Ho**	165	4.7	53.9				ug/L	13	KED
|	**Tl**	203	57.7	60.6	**0.0080**	0.006	78.0	ug/L	13	KED
|	**Tl**	205	137.0	58.2	**0.0084**	0.006	68.4	ug/L	21	KED
|	**Pb**	206	443.3	4.1	**0.0117**	0.004	33.1	ug/L	402	KED
|	**Pb**	207	384.0	10.9	**0.0157**	0.010	63.6	ug/L	330	KED
|	**Pb**	208	991.0	6.5	**0.0131**	0.006	45.8	ug/L	883	KED
|	**U**	238	4197.9	4.9	**0.1673**	0.008	4.9	ug/L	8	KED

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	Th	232	11931.9	23.8	**0.0386**	0.139	359.1	ug/L	11535	KED
>	**Bi**	209	615494.4	0.3				ug/L	637206	KED
	Na	23	1.7	173.2				mg/L	0	KED
	Mg	24	16904.4	1.2	**0.8007**	0.020	2.5	mg/L	573	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	10.0		**7254.4055**	99.389	1.4	mg/L	0	KED
	Fe	54	20.0	25.0	**0.0068**	0.004	62.2	mg/L	12	KED
	Fe	57	58.3	32.5	**0.0136**	0.008	57.1	mg/L	23	KED
>	**Sc-1**	45	81832.8	1.4				mg/L	80225	KED
	Cl	35	3987.2	1.4				ug/L	3539	KED
	Kr	83	0.0					ug/L	2	KED
	Br	81	93.3	18.8				ug/L	32	KED
	P	31	86.7	8.8				ug/L	120	KED
	S	34	28.3	36.7				ug/L	33	KED
	Sr	88	9337.9	6.1				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		102.004	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		100.424	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908014103
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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		99.833
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊>	Bi	209		96.593
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		102.004
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Th 232 Lower	Th	232	

Sample ID: L1908014103
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Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, September 06, 2019 11:31:50
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10615.4	2.8				ug/L	10871	KED
|	**Be**	9	602.7	5.6	**6.5884**	0.354	5.4	ug/L	0	KED
|	**Al**	27	208839.7	1.7				ug/L	138	KED
⌊>	**Sc-2**	45	77012.6	0.3				ug/L	80225	KED
⌈	**Ti**	47	424.7	7.4	**32.6433**	2.359	7.2	ug/L	12	KED
|	**V**	51	49683.5	5.3	**30.9017**	1.871	6.1	ug/L	12950	KED
|	**Cr**	52	128935.6	2.8	**65.3910**	1.032	1.6	ug/L	964	KED
|	**Cr**	53	22521.7	4.5	**61.7836**	3.181	5.1	ug/L	8055	KED
|	**Mn**	55	96057.1	3.3	**66.2401**	1.452	2.2	ug/L	193	KED
|	**Co**	59	182374.7	2.3	**32.9863**	0.389	1.2	ug/L	74	KED
|	**Ni**	60	202881.4	3.5	**130.9216**	3.034	2.3	ug/L	604	KED
|	**Cu**	65	129681.7	3.3	**64.9189**	1.354	2.1	ug/L	202	KED
|	**Zn**	66	350776.7	2.0	**642.7258**	4.880	0.8	ug/L	160	KED
|>	**Ge**	72	266195.6	1.2				ug/L	269000	KED
|	**As**	75	15484.6	1.3	**31.3003**	0.036	0.1	ug/L	1156	KED
|	**Se**	82	613.0	0.9	**31.6481**	0.149	0.5	ug/L	22	KED
|	**Se-1**	78	1292.9	3.5	**32.2364**	1.505	4.7	ug/L	38	KED
⌊	**Se-1**	80	31367.1	0.4	**34.0218**	3.270	9.6	ug/L	27714	KED
	Ga	71	61.7	18.7				ug/L	75	KED
	Rb	85	201.7	2.9				ug/L	23	KED
	Y	89	235245.8	1.6				ug/L	233304	KED
	Rh	103	30.0	28.9				ug/L	7	KED
⌈	**Mo**	98	131610.3	2.3	**31.3108**	1.160	3.7	ug/L	42	KED
|	**Ag**	107	268253.9	0.5	**31.9119**	0.314	1.0	ug/L	130	KED
|	**Cd**	111	22848.2	1.3	**19.0053**	0.496	2.6	ug/L	9	KED
|	**Cd**	114	56954.2	1.7	**19.4122**	0.603	3.1	ug/L	34	KED
|>	**In**	115	311174.3	1.5				ug/L	293219	KED
|	**Sn**	118	73380.0	1.7	**31.5125**	0.990	3.1	ug/L	701	KED
|	**Sb**	123	65748.1	2.3	**30.9309**	1.129	3.6	ug/L	422	KED
⌊	**Ba**	135	67331.7	2.2	**93.5832**	3.043	3.3	ug/L	26	KED
	Ce	140	58.0	13.7				ug/L	43	KED
	Tb	159	827567.1	0.4				ug/L	830473	KED
⌈	**Ho**	165	11.0	15.7				ug/L	13	KED
|	**Tl**	203	38271.3	1.0	**6.4611**	0.095	1.5	ug/L	13	KED
|	**Tl**	205	94688.0	1.5	**6.4676**	0.120	1.9	ug/L	21	KED
|	**Pb**	206	161433.0	2.0	**32.4295**	0.709	2.2	ug/L	402	KED
|	**Pb**	207	142383.4	1.8	**32.4317**	0.625	1.9	ug/L	330	KED
|	**Pb**	208	355195.1	2.4	**32.1696**	0.758	2.4	ug/L	883	KED
|	**U**	238	816409.5	2.2	**31.0117**	0.643	2.1	ug/L	8	KED

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	Th	232	644296.9	4.4	**29.4493**	1.247	4.2	ug/L	11535	KED
>	**Bi**	209	647082.9	0.5				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	78588.4	3.1	**4.0676**	0.133	3.3	mg/L	573	KED
	K	39	3.3	86.6	**415.2698**	359.637	86.6	mg/L	0	KED
	Ca	43	3.3	86.6	**2566.0405**	2222.272	86.6	mg/L	0	KED
	Fe	54	4602.4	6.6	**4.1004**	0.270	6.6	mg/L	12	KED
	Fe	57	9211.1	1.5	**3.8376**	0.065	1.7	mg/L	23	KED
>	**Sc-1**	45	77012.6	0.3				mg/L	80225	KED
	Cl	35	1963.5	7.8				ug/L	3539	KED
	Kr	83	5.0	0.0				ug/L	2	KED
	Br	81	25.0	40.0				ug/L	32	KED
	P	31	76.7	13.6				ug/L	120	KED
	S	34	36.7	75.1				ug/L	33	KED
	Sr	88	35.0	62.3				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9	102.944		
	Al	27			
>	Sc-2	45		95.996	
	Ti	47	102.010		
	V	51	96.568		
	Cr	52	102.173		
	Cr	53			
	Mn	55	103.500		
	Co	59	103.082		
	Ni	60	102.282		
	Cu	65	101.436		
	Zn	66	100.426		
>	Ge	72		98.958	
	As	75	97.814		
	Se	82	98.900		
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98	97.846	
|	Ag	107	99.725	
|	Cd	111	98.986	
|	Cd	114		
|>	In	115		106.123
|	Sn	118	98.477	
|	Sb	123	96.659	
⌊	Ba	135	97.482	
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203	100.955	
|	Tl	205		
|	Pb	206	101.342	
|	Pb	207	101.349	
|	Pb	208	100.530	
|	U	238	96.912	
|	Th	232		
⌊>	Bi	209		101.550
⌈	Na	23		
|	Mg	24	101.690	
|	K	39	10381.745	
|	Ca	43	64151.012	
|	Fe	54	102.509	
|	Fe	57	95.939	
⌊>	Sc-1	45		95.996
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	K	39	
QC Std 6	Ca	43	

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Method 6020 - Summary Report

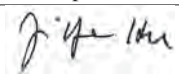
Sample ID: QC Std 7
Sample Date/Time: Friday, September 06, 2019 11:34:43
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	11442.7	2.3				ug/L	10871	KED
|	**Be**	9	1.3	114.6	**0.0104**	0.016	151.9	ug/L	0	KED
|	**Al**	27	168.3	53.9				ug/L	138	KED
|>	**Sc-2**	45	80240.6	1.3				ug/L	80225	KED
⌈	**Ti**	47	14.3	21.3	**0.2054**	0.252	122.9	ug/L	12	KED
|	**V**	51	12654.0	11.3	**-0.0361**	1.305	3619.5	ug/L	12950	KED
|	**Cr**	52	1020.0	10.8	**0.0384**	0.057	147.4	ug/L	964	KED
|	**Cr**	53	8240.6	14.1	**1.4690**	5.247	357.2	ug/L	8055	KED
|	**Mn**	55	330.7	11.4	**0.0984**	0.025	25.6	ug/L	193	KED
|	**Co**	59	101.0	64.6	**0.0052**	0.012	226.8	ug/L	74	KED
|	**Ni**	60	309.3	24.3	**-0.1851**	0.048	25.8	ug/L	604	KED
|	**Cu**	65	237.3	20.7	**0.0197**	0.024	123.5	ug/L	202	KED
|	**Zn**	66	281.0	45.1	**0.2285**	0.231	101.1	ug/L	160	KED
|>	**Ge**	72	263936.8	1.0				ug/L	269000	KED
|	**As**	75	1160.4	1.0	**0.0582**	0.001	1.8	ug/L	1156	KED
|	**Se**	82	16.2	24.8	**-0.2849**	0.209	73.5	ug/L	22	KED
|	**Se-1**	78	40.7	9.1	**0.0828**	0.086	103.8	ug/L	38	KED
⌊	**Se-1**	80	27542.2	0.9	**3.0559**	3.080	100.8	ug/L	27714	KED
	Ga	71	36.7	20.8				ug/L	75	KED
	Rb	85	8.3	34.6				ug/L	23	KED
	Y	89	220044.7	0.8				ug/L	233304	KED
	Rh	103	5.0	100.0				ug/L	7	KED
⌈	**Mo**	98	178.3	10.6	**0.0360**	0.004	11.0	ug/L	42	KED
|	**Ag**	107	205.7	28.4	**0.0104**	0.007	67.9	ug/L	130	KED
|	**Cd**	111	12.7	65.7	**0.0033**	0.007	224.7	ug/L	9	KED
|	**Cd**	114	35.7	33.8	**0.0009**	0.004	476.6	ug/L	34	KED
|>	**In**	115	283304.9	2.6				ug/L	293219	KED
|	**Sn**	118	775.0	5.6	**0.0471**	0.028	59.0	ug/L	701	KED
|	**Sb**	123	1009.0	5.5	**0.3125**	0.018	5.8	ug/L	422	KED
⌊	**Ba**	135	38.7	17.6	**0.0206**	0.009	45.2	ug/L	26	KED
	Ce	140	33.0	8.0				ug/L	43	KED
	Tb	159	779969.1	2.5				ug/L	830473	KED
⌈	**Ho**	165	6.3	50.8				ug/L	13	KED
|	**Tl**	203	15.0	41.6	**0.0004**	0.001	268.0	ug/L	13	KED
|	**Tl**	205	35.0	43.1	**0.0011**	0.001	101.5	ug/L	21	KED
|	**Pb**	206	427.7	13.2	**0.0096**	0.011	114.1	ug/L	402	KED
|	**Pb**	207	361.0	10.5	**0.0114**	0.008	71.5	ug/L	330	KED
|	**Pb**	208	925.4	12.7	**0.0081**	0.010	127.8	ug/L	883	KED
|	**U**	238	229.7	78.8	**0.0089**	0.007	80.4	ug/L	8	KED

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	Th	232	34969.5	14.2	**1.1929**	0.269	22.5	ug/L	11535	KED
>	**Bi**	209	606839.4	1.3				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	531.7	9.4	**-0.0021**	0.002	110.5	mg/L	573	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**1216.4246**	2106.909	173.2	mg/L	0	KED
	Fe	54	20.0	66.1	**0.0072**	0.012	160.1	mg/L	12	KED
	Fe	57	21.7	26.6	**-0.0007**	0.002	327.8	mg/L	23	KED
>	**Sc-1**	45	80240.6	1.3				mg/L	80225	KED
	Cl	35	3580.4	7.0				ug/L	3539	KED
	Kr	83	5.0	100.0				ug/L	2	KED
	Br	81	35.0	14.3				ug/L	32	KED
	P	31	41.7	27.7				ug/L	120	KED
	S	34	25.0	40.0				ug/L	33	KED
	Sr	88	28.3	27.0				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		100.020	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		98.118	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		96.619
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		95.234
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		100.020
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 7	Ca	43	

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Method 6020 - Summary Report

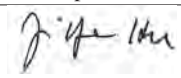
Sample ID: L1908014104
Sample Date/Time: Friday, September 06, 2019 11:37:36
Number of Replicates: 3
Autosampler Position: 225
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	11484.4	1.8				ug/L	10871	KED
|	**Be**	9	0.3	173.2	**0.0001**	0.006	6349.9	ug/L	0	KED
|	**Al**	27	602608.3	2.6				ug/L	138	KED
⌊>	**Sc-2**	45	79766.8	1.9				ug/L	80225	KED
⌈	**Ti**	47	28.7	17.2	**1.3466**	0.390	29.0	ug/L	12	KED
|	**V**	51	14997.8	8.0	**1.9323**	0.949	49.1	ug/L	12950	KED
|	**Cr**	52	29483.0	3.8	**14.7072**	0.663	4.5	ug/L	964	KED
|	**Cr**	53	12333.4	3.9	**18.9632**	1.855	9.8	ug/L	8055	KED
|	**Mn**	55	8998.7	4.0	**6.1400**	0.288	4.7	ug/L	193	KED
|	**Co**	59	2028.8	3.2	**0.3571**	0.014	4.0	ug/L	74	KED
|	**Ni**	60	2303.2	1.9	**1.1164**	0.023	2.0	ug/L	604	KED
|	**Cu**	65	9512.7	2.6	**4.7105**	0.154	3.3	ug/L	202	KED
|	**Zn**	66	2379.2	3.2	**4.1085**	0.168	4.1	ug/L	160	KED
|>	**Ge**	72	263986.6	0.6				ug/L	269000	KED
|	**As**	75	1647.4	3.3	**1.1292**	0.099	8.7	ug/L	1156	KED
|	**Se**	82	22.2	3.4	**0.0401**	0.045	112.8	ug/L	22	KED
|	**Se-1**	78	48.2	13.8	**0.2773**	0.172	62.1	ug/L	38	KED
⌊	**Se-1**	80	27972.6	2.2	**6.7658**	6.827	100.9	ug/L	27714	KED
	Ga	71	86.7	37.1				ug/L	75	KED
	Rb	85	370.0	13.3				ug/L	23	KED
	Y	89	222072.4	1.3				ug/L	233304	KED
	Rh	103	13.3	43.3				ug/L	7	KED
⌈	**Mo**	98	6168.3	2.7	**1.6303**	0.064	3.9	ug/L	42	KED
|	**Ag**	107	229.7	6.8	**0.0141**	0.002	16.3	ug/L	130	KED
|	**Cd**	111	62.7	9.4	**0.0501**	0.006	12.8	ug/L	9	KED
|	**Cd**	114	167.7	10.3	**0.0515**	0.006	11.8	ug/L	34	KED
|>	**In**	115	278402.6	2.1				ug/L	293219	KED
|	**Sn**	118	1074.4	2.5	**0.1983**	0.004	2.1	ug/L	701	KED
|	**Sb**	123	1051.7	5.5	**0.3443**	0.021	6.0	ug/L	422	KED
⌊	**Ba**	135	8471.7	2.9	**13.1239**	0.223	1.7	ug/L	26	KED
	Ce	140	2191.2	1.6				ug/L	43	KED
	Tb	159	762598.3	2.9				ug/L	830473	KED
⌈	**Ho**	165	47.0	5.6				ug/L	13	KED
|	**Tl**	203	45.7	14.9	**0.0062**	0.001	22.6	ug/L	13	KED
|	**Tl**	205	118.0	9.4	**0.0074**	0.001	14.0	ug/L	21	KED
|	**Pb**	206	1757.1	2.7	**0.3080**	0.005	1.7	ug/L	402	KED
|	**Pb**	207	1407.4	3.6	**0.2777**	0.004	1.4	ug/L	330	KED
|	**Pb**	208	3646.1	3.6	**0.2836**	0.014	4.9	ug/L	883	KED
|	**U**	238	31927.9	2.3	**1.3376**	0.059	4.4	ug/L	8	KED

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	Th	232	19424.4	17.1	**0.4491**	0.149	33.1	ug/L	11535	KED
>	**Bi**	209	587117.7	3.7				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	171918.4	1.8	**8.6253**	0.259	3.0	mg/L	573	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	5.0	100.0	**3759.7056**	3803.931	101.2	mg/L	0	KED
	Fe	54	61.7	9.4	**0.0432**	0.006	13.0	mg/L	12	KED
	Fe	57	101.7	28.4	**0.0316**	0.011	35.8	mg/L	23	KED
>	**Sc-1**	45	79766.8	1.9				mg/L	80225	KED
	Cl	35	3898.8	7.0				ug/L	3539	KED
	Kr	83	8.3	69.3				ug/L	2	KED
	Br	81	90.0	20.0				ug/L	32	KED
	P	31	56.7	13.5				ug/L	120	KED
	S	34	38.3	41.9				ug/L	33	KED
	Sr	88	10768.8	4.3				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		99.429	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		98.136	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		94.947
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		92.139
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		99.429
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

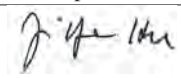
Sample ID: L1908014105
Sample Date/Time: Friday, September 06, 2019 11:40:29
Number of Replicates: 3
Autosampler Position: 226
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	11596.1	1.5				ug/L	10871	KED
|	**Be**	9	1.3	43.3	**0.0105**	0.006	58.7	ug/L	0	KED
|	**Al**	27	1931534.3	2.7				ug/L	138	KED
⌊>	**Sc-2**	45	80431.9	0.8				ug/L	80225	KED
⌈	**Ti**	47	16.7	33.0	**0.4314**	0.459	106.4	ug/L	12	KED
|	**V**	51	18152.2	3.4	**5.0687**	0.581	11.5	ug/L	12950	KED
|	**Cr**	52	1225.4	1.6	**0.1632**	0.008	5.0	ug/L	964	KED
|	**Cr**	53	9499.7	6.1	**8.0676**	2.691	33.4	ug/L	8055	KED
|	**Mn**	55	1607.8	4.5	**1.0222**	0.047	4.6	ug/L	193	KED
|	**Co**	59	571.0	6.2	**0.0942**	0.006	6.8	ug/L	74	KED
|	**Ni**	60	969.0	1.1	**0.2648**	0.007	2.6	ug/L	604	KED
|	**Cu**	65	2083.8	5.5	**0.9853**	0.056	5.7	ug/L	202	KED
|	**Zn**	66	1961.5	2.1	**3.4454**	0.070	2.0	ug/L	160	KED
|>	**Ge**	72	256224.3	0.4				ug/L	269000	KED
|	**As**	75	2127.1	3.9	**2.3277**	0.206	8.8	ug/L	1156	KED
|	**Se**	82	19.0	19.9	**-0.0999**	0.209	209.2	ug/L	22	KED
|	**Se-1**	78	39.8	8.2	**0.0930**	0.090	96.8	ug/L	38	KED
⌊	**Se-1**	80	27047.3	0.9	**5.8162**	1.658	28.5	ug/L	27714	KED
	Ga	71	80.0	27.2				ug/L	75	KED
	Rb	85	476.7	7.7				ug/L	23	KED
	Y	89	214622.8	1.1				ug/L	233304	KED
	Rh	103	15.0	33.3				ug/L	7	KED
⌈	**Mo**	98	2489.5	2.1	**0.6724**	0.010	1.5	ug/L	42	KED
|	**Ag**	107	187.0	8.6	**0.0092**	0.002	18.9	ug/L	130	KED
|	**Cd**	111	18.7	35.7	**0.0096**	0.006	63.7	ug/L	9	KED
|	**Cd**	114	68.0	13.2	**0.0143**	0.003	24.3	ug/L	34	KED
|>	**In**	115	269871.1	2.0				ug/L	293219	KED
|	**Sn**	118	1020.4	6.1	**0.1876**	0.024	13.0	ug/L	701	KED
|	**Sb**	123	552.3	3.7	**0.0897**	0.015	17.3	ug/L	422	KED
⌊	**Ba**	135	127678.9	2.4	**204.5990**	0.861	0.4	ug/L	26	KED
	Ce	140	94.0	6.4				ug/L	43	KED
	Tb	159	752587.1	0.7				ug/L	830473	KED
⌈	**Ho**	165	10.0	36.1				ug/L	13	KED
|	**Tl**	203	636.0	0.5	**0.1187**	0.000	0.2	ug/L	13	KED
|	**Tl**	205	1553.1	3.4	**0.1180**	0.004	3.3	ug/L	21	KED
|	**Pb**	206	567.3	4.0	**0.0466**	0.006	11.9	ug/L	402	KED
|	**Pb**	207	584.0	13.2	**0.0737**	0.019	26.2	ug/L	330	KED
|	**Pb**	208	1351.7	15.3	**0.0568**	0.021	36.9	ug/L	883	KED
|	**U**	238	44137.9	2.8	**1.8883**	0.046	2.4	ug/L	8	KED

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	Th	232	13907.2	18.8	**0.1842**	0.139	75.3	ug/L	11535	KED
>	**Bi**	209	574405.6	0.4				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	243751.9	3.8	**12.1343**	0.380	3.1	mg/L	573	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	10.0	50.0	**7392.1546**	3712.258	50.2	mg/L	0	KED
	Fe	54	11.7	89.2	**-0.0000**	0.009	46703.4	mg/L	12	KED
	Fe	57	46.7	32.7	**0.0093**	0.006	66.9	mg/L	23	KED
>	**Sc-1**	45	80431.9	0.8				mg/L	80225	KED
	Cl	35	4168.9	3.0				ug/L	3539	KED
	Kr	83	3.3	86.6				ug/L	2	KED
	Br	81	283.3	22.2				ug/L	32	KED
	P	31	71.7	20.1				ug/L	120	KED
	S	34	20.0	0.0				ug/L	33	KED
	Sr	88	36821.4	1.5				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		100.258	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		95.251	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		92.037
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		90.144
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		100.258
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Th 232 Lower	Th	232	

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Method 6020 - Summary Report

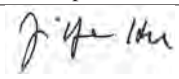
Sample ID: L1908014106
Sample Date/Time: Friday, September 06, 2019 11:43:22
Number of Replicates: 3
Autosampler Position: 227
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	11614.5	5.1				ug/L	10871	KED
|	**Be**	9	0.7	173.2	**0.0035**	0.012	347.7	ug/L	0	KED
|	**Al**	27	1316432.6	0.6				ug/L	138	KED
⌊>	**Sc-2**	45	81570.7	1.1				ug/L	80225	KED
⌈	**Ti**	47	15.0	6.7	**0.2762**	0.083	29.9	ug/L	12	KED
|	**V**	51	17363.0	3.7	**4.1684**	0.518	12.4	ug/L	12950	KED
|	**Cr**	52	1509.4	2.7	**0.3028**	0.020	6.6	ug/L	964	KED
|	**Cr**	53	9317.9	1.9	**6.6857**	0.695	10.4	ug/L	8055	KED
|	**Mn**	55	652.7	1.5	**0.3301**	0.007	2.0	ug/L	193	KED
|	**Co**	59	125.0	3.2	**0.0100**	0.001	7.2	ug/L	74	KED
|	**Ni**	60	394.0	9.3	**-0.1256**	0.025	19.9	ug/L	604	KED
|	**Cu**	65	2002.8	1.1	**0.9286**	0.011	1.2	ug/L	202	KED
|	**Zn**	66	1596.1	2.2	**2.7072**	0.062	2.3	ug/L	160	KED
|>	**Ge**	72	259844.5	0.3				ug/L	269000	KED
|	**As**	75	1913.8	0.8	**1.7830**	0.037	2.1	ug/L	1156	KED
|	**Se**	82	17.2	14.4	**-0.2151**	0.135	62.9	ug/L	22	KED
|	**Se-1**	78	38.8	7.5	**0.0517**	0.077	149.7	ug/L	38	KED
⌊	**Se-1**	80	27373.9	0.7	**5.3266**	1.397	26.2	ug/L	27714	KED
	Ga	71	71.7	28.2				ug/L	75	KED
	Rb	85	380.0	14.7				ug/L	23	KED
	Y	89	215752.0	0.8				ug/L	233304	KED
	Rh	103	18.3	83.3				ug/L	7	KED
⌈	**Mo**	98	693.3	2.9	**0.1763**	0.006	3.7	ug/L	42	KED
|	**Ag**	107	179.7	7.4	**0.0078**	0.002	20.7	ug/L	130	KED
|	**Cd**	111	32.0	24.8	**0.0219**	0.007	34.0	ug/L	9	KED
|	**Cd**	114	94.3	16.5	**0.0240**	0.006	24.1	ug/L	34	KED
|>	**In**	115	274803.3	1.4				ug/L	293219	KED
|	**Sn**	118	1092.7	3.5	**0.2141**	0.017	8.2	ug/L	701	KED
|	**Sb**	123	639.0	1.2	**0.1306**	0.002	1.5	ug/L	422	KED
⌊	**Ba**	135	28936.3	1.4	**45.5093**	0.143	0.3	ug/L	26	KED
	Ce	140	97.7	2.4				ug/L	43	KED
	Tb	159	758240.1	0.7				ug/L	830473	KED
⌈	**Ho**	165	9.3	16.4				ug/L	13	KED
|	**Tl**	203	7.7	27.2	**-0.0008**	0.000	46.1	ug/L	13	KED
|	**Tl**	205	27.0	17.0	**0.0006**	0.000	61.8	ug/L	21	KED
|	**Pb**	206	453.7	7.1	**0.0195**	0.007	36.7	ug/L	402	KED
|	**Pb**	207	390.3	4.1	**0.0227**	0.004	19.1	ug/L	330	KED
|	**Pb**	208	982.7	1.2	**0.0178**	0.001	7.1	ug/L	883	KED
|	**U**	238	22602.2	2.6	**0.9549**	0.026	2.7	ug/L	8	KED

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	Th	232	11387.1	24.2	**0.0441**	0.141	319.8	ug/L	11535	KED
>	**Bi**	209	581653.7	0.3				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	21186.5	4.3	**1.0143**	0.056	5.6	mg/L	573	KED
	K	39	6.7	114.6	**780.4695**	894.668	114.6	mg/L	0	KED
	Ca	43	8.3	173.2	**6142.3394**	10638.844	173.2	mg/L	0	KED
	Fe	54	16.7	45.8	**0.0041**	0.007	161.6	mg/L	12	KED
	Fe	57	53.3	47.2	**0.0117**	0.010	84.4	mg/L	23	KED
>	**Sc-1**	45	81570.7	1.1				mg/L	80225	KED
	Cl	35	4290.6	2.9				ug/L	3539	KED
	Kr	83	5.0	100.0				ug/L	2	KED
	Br	81	193.3	31.6				ug/L	32	KED
	P	31	68.3	30.5				ug/L	120	KED
	S	34	38.3	7.5				ug/L	33	KED
	Sr	88	16675.8	2.5				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	1.7	173.2				ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		101.678	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		96.597	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908014106
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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		93.719
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		91.282
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		101.678
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Th 232 Lower	Th	232	

Sample ID: L1908014106
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Method 6020 - Summary Report

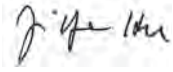
Sample ID: L1908015136
Sample Date/Time: Friday, September 06, 2019 11:46:15
Number of Replicates: 3
Autosampler Position: 228
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	11741.2	4.3				ug/L	10871	KED
|	**Be**	9	0.7	173.2	**0.0033**	0.012	359.5	ug/L	0	KED
|	**Al**	27	1218.4	63.5				ug/L	138	KED
|>	**Sc-2**	45	81183.3	2.1				ug/L	80225	KED
⌈	**Ti**	47	11.0	24.1	**-0.0546**	0.223	407.3	ug/L	12	KED
|	**V**	51	18626.2	7.6	**5.1175**	1.435	28.0	ug/L	12950	KED
|	**Cr**	52	1046.7	1.7	**0.0555**	0.010	18.4	ug/L	964	KED
|	**Cr**	53	11873.0	6.7	**17.3626**	4.185	24.1	ug/L	8055	KED
|	**Mn**	55	683.3	3.0	**0.3475**	0.022	6.3	ug/L	193	KED
|	**Co**	59	58.3	14.4	**-0.0025**	0.002	66.9	ug/L	74	KED
|	**Ni**	60	283.7	0.9	**-0.2006**	0.002	1.0	ug/L	604	KED
|	**Cu**	65	776.7	2.5	**0.2950**	0.010	3.4	ug/L	202	KED
|	**Zn**	66	1252.7	3.1	**2.0404**	0.075	3.7	ug/L	160	KED
|>	**Ge**	72	262321.4	1.6				ug/L	269000	KED
|	**As**	75	1690.4	5.1	**1.2465**	0.132	10.6	ug/L	1156	KED
|	**Se**	82	17.5	17.8	**-0.2069**	0.160	77.3	ug/L	22	KED
|	**Se-1**	78	44.3	6.9	**0.1854**	0.078	42.3	ug/L	38	KED
⌊	**Se-1**	80	27382.6	0.6	**3.1553**	3.508	111.2	ug/L	27714	KED
	Ga	71	58.3	38.7				ug/L	75	KED
	Rb	85	35.0	14.3				ug/L	23	KED
	Y	89	218688.5	3.9				ug/L	233304	KED
	Rh	103	10.0	86.6				ug/L	7	KED
⌈	**Mo**	98	81.3	29.5	**0.0109**	0.006	57.5	ug/L	42	KED
|	**Ag**	107	153.7	4.2	**0.0038**	0.001	21.7	ug/L	130	KED
|	**Cd**	111	19.3	18.2	**0.0096**	0.003	33.9	ug/L	9	KED
|	**Cd**	114	47.0	14.0	**0.0053**	0.002	46.1	ug/L	34	KED
|>	**In**	115	281141.0	0.2				ug/L	293219	KED
|	**Sn**	118	942.0	2.6	**0.1297**	0.012	9.2	ug/L	701	KED
|	**Sb**	123	181.7	10.4	**-0.1169**	0.010	8.3	ug/L	422	KED
⌊	**Ba**	135	193.7	14.2	**0.2596**	0.043	16.4	ug/L	26	KED
	Ce	140	68.7	8.0				ug/L	43	KED
	Tb	159	763172.8	1.5				ug/L	830473	KED
⌈	**Ho**	165	8.7	17.6				ug/L	13	KED
|	**Tl**	203	6.7	75.5	**-0.0011**	0.001	81.6	ug/L	13	KED
|	**Tl**	205	20.7	26.6	**0.0000**	0.000	1730.0	ug/L	21	KED
|	**Pb**	206	419.7	5.8	**0.0078**	0.006	76.3	ug/L	402	KED
|	**Pb**	207	363.7	7.2	**0.0119**	0.007	57.9	ug/L	330	KED
|	**Pb**	208	940.4	1.9	**0.0094**	0.002	21.0	ug/L	883	KED
|	**U**	238	177.3	5.9	**0.0068**	0.000	6.8	ug/L	8	KED

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	Th	232	10504.4	22.6	**-0.0254**	0.116	457.9	ug/L	11535	KED
>	**Bi**	209	608399.1	0.9				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	23882.2	4.3	**1.1518**	0.027	2.4	mg/L	573	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**0.0000**	0.000		mg/L	0	KED
	Fe	54	11.7	65.5	**-0.0002**	0.006	3135.0	mg/L	12	KED
	Fe	57	16.7	45.8	**-0.0027**	0.003	115.1	mg/L	23	KED
>	**Sc-1**	45	81183.3	2.1				mg/L	80225	KED
	Cl	35	4113.9	5.9				ug/L	3539	KED
	Kr	83	0.0					ug/L	2	KED
	Br	81	51.7	20.1				ug/L	32	KED
	P	31	80.0	21.7				ug/L	120	KED
	S	34	30.0	50.0				ug/L	33	KED
	Sr	88	128.3	9.8				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		101.195	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		97.517	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		95.881
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		95.479
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		101.195
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Th 232 Lower	Th	232	

Sample ID: L1908015136
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Method 6020 - Summary Report

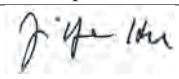
Sample ID: L1908015702
Sample Date/Time: Friday, September 06, 2019 11:49:08
Number of Replicates: 3
Autosampler Position: 229
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	11267.5	3.6				ug/L	10871	KED
|	**Be**	9	0.3	173.2	**0.0000**	0.006	28923.9	ug/L	0	KED
|	**Al**	27	495628.4	1.3				ug/L	138	KED
|>	**Sc-2**	45	79639.1	0.4				ug/L	80225	KED
⌈	**Ti**	47	13.7	37.5	**0.1515**	0.405	267.7	ug/L	12	KED
|	**V**	51	15438.5	4.4	**2.3305**	0.658	28.2	ug/L	12950	KED
|	**Cr**	52	3624.8	2.3	**1.3835**	0.058	4.2	ug/L	964	KED
|	**Cr**	53	9046.0	6.3	**4.9531**	2.653	53.6	ug/L	8055	KED
|	**Mn**	55	1045.0	6.9	**0.5974**	0.051	8.5	ug/L	193	KED
|	**Co**	59	146.3	10.5	**0.0136**	0.003	20.9	ug/L	74	KED
|	**Ni**	60	608.0	4.4	**0.0107**	0.021	194.7	ug/L	604	KED
|	**Cu**	65	909.0	4.0	**0.3601**	0.018	5.1	ug/L	202	KED
|	**Zn**	66	5121.5	1.4	**9.1918**	0.175	1.9	ug/L	160	KED
|>	**Ge**	72	263600.7	0.8				ug/L	269000	KED
|	**As**	75	1769.1	1.5	**1.4035**	0.081	5.8	ug/L	1156	KED
|	**Se**	82	18.7	10.1	**-0.1469**	0.109	74.2	ug/L	22	KED
|	**Se-1**	78	38.7	7.9	**0.0325**	0.073	224.1	ug/L	38	KED
⌊	**Se-1**	80	27706.3	1.4	**4.7742**	2.452	51.4	ug/L	27714	KED
	Ga	71	65.0	7.7				ug/L	75	KED
	Rb	85	215.0	12.3				ug/L	23	KED
	Y	89	223231.1	1.7				ug/L	233304	KED
	Rh	103	8.3	124.9				ug/L	7	KED
⌈	**Mo**	98	327.7	13.5	**0.0742**	0.012	16.3	ug/L	42	KED
|	**Ag**	107	206.3	39.7	**0.0103**	0.011	104.9	ug/L	130	KED
|	**Cd**	111	21.3	27.5	**0.0111**	0.005	49.3	ug/L	9	KED
|	**Cd**	114	81.7	6.2	**0.0178**	0.002	9.6	ug/L	34	KED
|>	**In**	115	286452.6	0.7				ug/L	293219	KED
|	**Sn**	118	1343.4	0.9	**0.3104**	0.001	0.4	ug/L	701	KED
|	**Sb**	123	242.3	8.9	**-0.0874**	0.012	13.8	ug/L	422	KED
⌊	**Ba**	135	3989.9	4.6	**5.9881**	0.318	5.3	ug/L	26	KED
	Ce	140	419.3	3.6				ug/L	43	KED
	Tb	159	770714.1	0.4				ug/L	830473	KED
⌈	**Ho**	165	16.0	22.5				ug/L	13	KED
|	**Tl**	203	16.7	38.1	**0.0008**	0.001	153.2	ug/L	13	KED
|	**Tl**	205	36.7	72.0	**0.0012**	0.002	158.6	ug/L	21	KED
|	**Pb**	206	808.7	2.2	**0.0942**	0.004	4.6	ug/L	402	KED
|	**Pb**	207	627.0	5.4	**0.0785**	0.008	10.2	ug/L	330	KED
|	**Pb**	208	1584.4	5.4	**0.0743**	0.009	11.6	ug/L	883	KED
|	**U**	238	3444.1	3.2	**0.1413**	0.005	3.3	ug/L	8	KED

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	Th	232	8890.4	28.3	**-0.0970**	0.128	131.7	ug/L	11535	KED
>	**Bi**	209	597655.8	0.3				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	55116.8	2.4	**2.7492**	0.056	2.0	mg/L	573	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	5.0	173.2	**3721.7342**	6446.233	173.2	mg/L	0	KED
	Fe	54	18.3	41.7	**0.0058**	0.007	113.2	mg/L	12	KED
	Fe	57	55.0	15.7	**0.0129**	0.003	26.6	mg/L	23	KED
>	**Sc-1**	45	79639.1	0.4				mg/L	80225	KED
	Cl	35	3913.8	2.6				ug/L	3539	KED
	Kr	83	0.0					ug/L	2	KED
	Br	81	65.0	26.6				ug/L	32	KED
	P	31	65.0	40.7				ug/L	120	KED
	S	34	33.3	37.7				ug/L	33	KED
	Sr	88	7220.1	3.8				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		99.270	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		97.993	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		97.692
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		93.793
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		99.270
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Th 232 Lower	Th	232	

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Method 6020 - Summary Report

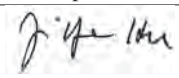
Sample ID: L1808015703
Sample Date/Time: Friday, September 06, 2019 11:52:00
Number of Replicates: 3
Autosampler Position: 230
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	11572.8	2.5				ug/L	10871	KED
|	**Be**	9	1.3	43.3	**0.0104**	0.006	58.5	ug/L	0	KED
|	**Al**	27	464955.2	1.1				ug/L	138	KED
⌊>	**Sc-2**	45	80757.7	1.1				ug/L	80225	KED
⌈	**Ti**	47	17.3	8.8	**0.4354**	0.117	27.0	ug/L	12	KED
|	**V**	51	16423.6	2.9	**3.0670**	0.496	16.2	ug/L	12950	KED
|	**Cr**	52	2809.3	0.2	**0.9523**	0.013	1.4	ug/L	964	KED
|	**Cr**	53	9177.8	3.5	**5.2414**	1.627	31.0	ug/L	8055	KED
|	**Mn**	55	1405.7	2.8	**0.8422**	0.026	3.1	ug/L	193	KED
|	**Co**	59	180.0	1.0	**0.0195**	0.000	1.7	ug/L	74	KED
|	**Ni**	60	836.7	4.7	**0.1562**	0.023	14.9	ug/L	604	KED
|	**Cu**	65	1170.0	3.3	**0.4881**	0.019	3.8	ug/L	202	KED
|	**Zn**	66	5968.2	1.9	**10.6811**	0.129	1.2	ug/L	160	KED
|>	**Ge**	72	265446.1	0.7				ug/L	269000	KED
|	**As**	75	1830.1	5.1	**1.5107**	0.235	15.5	ug/L	1156	KED
|	**Se**	82	21.8	15.2	**0.0164**	0.188	1145.7	ug/L	22	KED
|	**Se-1**	78	40.0	17.2	**0.0597**	0.173	289.2	ug/L	38	KED
⌊	**Se-1**	80	27765.6	0.6	**3.6203**	2.342	64.7	ug/L	27714	KED
	Ga	71	75.0	13.3				ug/L	75	KED
	Rb	85	486.7	7.8				ug/L	23	KED
	Y	89	221881.9	2.6				ug/L	233304	KED
	Rh	103	3.3	86.6				ug/L	7	KED
⌈	**Mo**	98	686.7	5.6	**0.1673**	0.010	6.3	ug/L	42	KED
|	**Ag**	107	167.3	1.4	**0.0053**	0.001	10.2	ug/L	130	KED
|	**Cd**	111	25.0	26.2	**0.0144**	0.006	42.8	ug/L	9	KED
|	**Cd**	114	81.0	23.1	**0.0176**	0.007	37.5	ug/L	34	KED
|>	**In**	115	285949.7	1.1				ug/L	293219	KED
|	**Sn**	118	1709.8	0.2	**0.4845**	0.010	2.0	ug/L	701	KED
|	**Sb**	123	776.7	0.7	**0.1882**	0.002	1.2	ug/L	422	KED
⌊	**Ba**	135	3006.0	2.4	**4.5084**	0.064	1.4	ug/L	26	KED
	Ce	140	697.0	9.5				ug/L	43	KED
	Tb	159	782330.4	0.9				ug/L	830473	KED
⌈	**Ho**	165	20.3	10.2				ug/L	13	KED
|	**Tl**	203	20.0	0.0	**0.0013**	0.000	0.3	ug/L	13	KED
|	**Tl**	205	39.7	22.7	**0.0014**	0.001	46.5	ug/L	21	KED
|	**Pb**	206	482.3	6.1	**0.0218**	0.006	28.5	ug/L	402	KED
|	**Pb**	207	433.3	1.5	**0.0295**	0.002	5.6	ug/L	330	KED
|	**Pb**	208	1100.0	6.4	**0.0255**	0.007	26.9	ug/L	883	KED
|	**U**	238	5503.3	1.3	**0.2234**	0.003	1.2	ug/L	8	KED

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	Th	232	8599.9	27.6	**-0.1167**	0.119	101.8	ug/L	11535	KED
>	**Bi**	209	604559.3	0.1				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	19921.4	1.7	**0.9617**	0.026	2.7	mg/L	573	KED
	K	39	1.7	173.2	**199.7214**	345.928	173.2	mg/L	0	KED
	Ca	43	1.7	173.2	**1231.4032**	2132.853	173.2	mg/L	0	KED
	Fe	54	33.3	31.2	**0.0184**	0.009	48.7	mg/L	12	KED
	Fe	57	58.3	48.7	**0.0139**	0.011	82.5	mg/L	23	KED
>	**Sc-1**	45	80757.7	1.1				mg/L	80225	KED
	Cl	35	4023.9	1.8				ug/L	3539	KED
	Kr	83	5.0	100.0				ug/L	2	KED
	Br	81	100.0	13.2				ug/L	32	KED
	P	31	63.3	31.9				ug/L	120	KED
	S	34	20.0	25.0				ug/L	33	KED
	Sr	88	4557.4	4.0				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		100.664	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		98.679	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1808015703
Report Date/Time: Friday, September 06, 2019 11:54:20
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	97.521
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	94.877
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	100.664
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Th 232 Lower	Th	232	

Sample ID: L1808015703
Report Date/Time: Friday, September 06, 2019 11:54:20
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Method 6020 - Summary Report

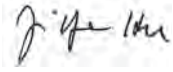
Sample ID: L1908015704
Sample Date/Time: Friday, September 06, 2019 11:54:53
Number of Replicates: 3
Autosampler Position: 231
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	11547.7	5.0				ug/L	10871	KED
|	**Be**	9	0.7	173.2	**0.0035**	0.012	348.2	ug/L	0	KED
|	**Al**	27	431026.6	2.1				ug/L	138	KED
|>	**Sc-2**	45	80314.3	0.9				ug/L	80225	KED
⌈	**Ti**	47	11.7	54.4	**-0.0125**	0.514	4119.9	ug/L	12	KED
|	**V**	51	14637.7	1.5	**1.5382**	0.158	10.3	ug/L	12950	KED
|	**Cr**	52	2686.2	0.7	**0.8866**	0.023	2.6	ug/L	964	KED
|	**Cr**	53	8570.8	1.1	**2.5735**	0.149	5.8	ug/L	8055	KED
|	**Mn**	55	808.7	2.3	**0.4273**	0.008	2.0	ug/L	193	KED
|	**Co**	59	117.3	9.0	**0.0081**	0.002	25.6	ug/L	74	KED
|	**Ni**	60	752.4	5.4	**0.1006**	0.030	29.8	ug/L	604	KED
|	**Cu**	65	1383.4	1.4	**0.5940**	0.010	1.7	ug/L	202	KED
|	**Zn**	66	5916.5	1.9	**10.5647**	0.209	2.0	ug/L	160	KED
|>	**Ge**	72	265991.3	1.0				ug/L	269000	KED
|	**As**	75	1885.1	0.7	**1.6216**	0.025	1.6	ug/L	1156	KED
|	**Se**	82	21.7	7.4	**0.0040**	0.082	2052.8	ug/L	22	KED
|	**Se-1**	78	50.5	8.1	**0.3276**	0.099	30.1	ug/L	38	KED
⌊	**Se-1**	80	27858.1	0.6	**3.9335**	2.868	72.9	ug/L	27714	KED
	Ga	71	88.3	19.9				ug/L	75	KED
	Rb	85	151.7	24.3				ug/L	23	KED
	Y	89	219456.6	1.8				ug/L	233304	KED
	Rh	103	8.3	34.6				ug/L	7	KED
⌈	**Mo**	98	403.0	2.4	**0.0947**	0.003	3.4	ug/L	42	KED
|	**Ag**	107	151.3	12.2	**0.0034**	0.002	73.3	ug/L	130	KED
|	**Cd**	111	19.3	7.9	**0.0094**	0.001	13.7	ug/L	9	KED
|	**Cd**	114	103.0	31.1	**0.0261**	0.012	45.4	ug/L	34	KED
|>	**In**	115	283536.8	0.7				ug/L	293219	KED
|	**Sn**	118	2159.2	2.9	**0.7051**	0.024	3.3	ug/L	701	KED
|	**Sb**	123	352.7	5.1	**-0.0288**	0.010	34.0	ug/L	422	KED
⌊	**Ba**	135	1580.1	4.1	**2.3720**	0.092	3.9	ug/L	26	KED
	Ce	140	79.3	3.9				ug/L	43	KED
	Tb	159	774432.9	1.0				ug/L	830473	KED
⌈	**Ho**	165	10.0	26.5				ug/L	13	KED
|	**Tl**	203	18.0	47.5	**0.0010**	0.002	158.3	ug/L	13	KED
|	**Tl**	205	41.3	66.9	**0.0015**	0.002	130.4	ug/L	21	KED
|	**Pb**	206	751.4	7.8	**0.0801**	0.012	15.0	ug/L	402	KED
|	**Pb**	207	631.0	3.8	**0.0781**	0.005	7.0	ug/L	330	KED
|	**Pb**	208	1617.4	6.3	**0.0760**	0.009	12.3	ug/L	883	KED
|	**U**	238	3175.7	2.7	**0.1290**	0.003	2.6	ug/L	8	KED

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	Th	232	8759.3	24.7	**-0.1079**	0.109	100.7	ug/L	11535	KED
>	**Bi**	209	603381.8	0.4				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	36353.6	0.6	**1.7883**	0.017	0.9	mg/L	573	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	10.0	86.6	**7351.4558**	6366.567	86.6	mg/L	0	KED
	Fe	54	33.3	82.6	**0.0184**	0.023	126.5	mg/L	12	KED
	Fe	57	48.3	39.2	**0.0100**	0.008	77.6	mg/L	23	KED
>	**Sc-1**	45	80314.3	0.9				mg/L	80225	KED
	Cl	35	3852.2	6.6				ug/L	3539	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	75.0	20.0				ug/L	32	KED
	P	31	55.0	9.1				ug/L	120	KED
	S	34	38.3	30.1				ug/L	33	KED
	Sr	88	5187.6	3.6				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		100.112	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		98.882	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
| >	In	115	96.698
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊ >	Bi	209	94.692
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊ >	Sc-1	45	100.112
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Th 232 Lower	Th	232	

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Method 6020 - Summary Report

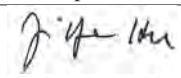
Sample ID: L1908017101
Sample Date/Time: Friday, September 06, 2019 11:57:45
Number of Replicates: 3
Autosampler Position: 232
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	11130.8	2.1				ug/L	10871	KED
|	**Be**	9	1.7	91.7	**0.0142**	0.016	113.9	ug/L	0	KED
|	**Al**	27	1216.7	21.2				ug/L	138	KED
⌊>	**Sc-2**	45	79866.6	1.4				ug/L	80225	KED
⌈	**Ti**	47	14.7	32.2	**0.2455**	0.379	154.3	ug/L	12	KED
|	**V**	51	17161.4	5.5	**3.9572**	0.692	17.5	ug/L	12950	KED
|	**Cr**	52	1333.7	3.2	**0.2092**	0.020	9.4	ug/L	964	KED
|	**Cr**	53	10763.8	5.4	**12.8585**	2.203	17.1	ug/L	8055	KED
|	**Mn**	55	1081.4	2.8	**0.6320**	0.030	4.7	ug/L	193	KED
|	**Co**	59	91.3	8.2	**0.0037**	0.001	35.1	ug/L	74	KED
|	**Ni**	60	432.3	6.4	**-0.1010**	0.015	15.3	ug/L	604	KED
|	**Cu**	65	498.0	5.4	**0.1550**	0.015	9.6	ug/L	202	KED
|	**Zn**	66	1296.4	1.5	**2.1390**	0.056	2.6	ug/L	160	KED
|>	**Ge**	72	260468.3	1.2				ug/L	269000	KED
|	**As**	75	1497.4	0.4	**0.8443**	0.043	5.1	ug/L	1156	KED
|	**Se**	82	19.3	23.2	**-0.1005**	0.233	231.8	ug/L	22	KED
|	**Se-1**	78	42.8	11.1	**0.1549**	0.133	86.1	ug/L	38	KED
⌊	**Se-1**	80	27451.8	0.1	**5.4576**	2.744	50.3	ug/L	27714	KED
	Ga	71	93.3	16.4				ug/L	75	KED
	Rb	85	255.0	22.6				ug/L	23	KED
	Y	89	221783.3	1.5				ug/L	233304	KED
	Rh	103	11.7	24.7				ug/L	7	KED
⌈	**Mo**	98	102.7	16.6	**0.0166**	0.004	25.4	ug/L	42	KED
|	**Ag**	107	158.7	4.1	**0.0046**	0.001	14.3	ug/L	130	KED
|	**Cd**	111	12.0	38.2	**0.0028**	0.004	144.9	ug/L	9	KED
|	**Cd**	114	46.7	31.2	**0.0052**	0.005	101.8	ug/L	34	KED
|>	**In**	115	279624.2	1.0				ug/L	293219	KED
|	**Sn**	118	888.7	2.6	**0.1064**	0.007	6.6	ug/L	701	KED
|	**Sb**	123	157.7	3.7	**-0.1290**	0.003	2.0	ug/L	422	KED
⌊	**Ba**	135	167.7	14.7	**0.2208**	0.035	16.0	ug/L	26	KED
	Ce	140	203.0	8.2				ug/L	43	KED
	Tb	159	772774.5	0.4				ug/L	830473	KED
⌈	**Ho**	165	11.3	18.4				ug/L	13	KED
|	**Tl**	203	8.3	18.3	**-0.0008**	0.000	36.7	ug/L	13	KED
|	**Tl**	205	25.7	16.2	**0.0004**	0.000	75.5	ug/L	21	KED
|	**Pb**	206	584.7	3.3	**0.0438**	0.005	11.3	ug/L	402	KED
|	**Pb**	207	506.3	6.4	**0.0472**	0.008	16.4	ug/L	330	KED
|	**Pb**	208	1257.1	3.8	**0.0406**	0.005	13.4	ug/L	883	KED
|	**U**	238	97.0	7.2	**0.0036**	0.000	8.1	ug/L	8	KED

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	Th	232	7792.3	1.6	**-0.1574**	0.004	2.4	ug/L	11535	KED
>	**Bi**	209	605042.8	0.7				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	1775.1	3.5	**0.0605**	0.003	5.4	mg/L	573	KED
	K	39	1.7	173.2	**200.9208**	348.005	173.2	mg/L	0	KED
	Ca	43	0.0		**0.0000**	0.000		mg/L	0	KED
	Fe	54	45.0	48.4	**0.0288**	0.019	65.5	mg/L	12	KED
	Fe	57	48.3	47.8	**0.0102**	0.010	94.1	mg/L	23	KED
>	**Sc-1**	45	79866.6	1.4				mg/L	80225	KED
	Cl	35	4043.9	5.9				ug/L	3539	KED
	Kr	83	3.3	173.2				ug/L	2	KED
	Br	81	26.7	57.3				ug/L	32	KED
	P	31	58.3	35.7				ug/L	120	KED
	S	34	46.7	65.5				ug/L	33	KED
	Sr	88	166.7	22.5				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		99.554	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		96.828	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		95.364
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		94.952
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		99.554
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Th 232 Lower	Th	232	

Sample ID: L1908017101
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Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, September 06, 2019 12:00:38
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexION\Data\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10837.2	2.3				ug/L	10871	KED
|	**Be**	9	589.0	5.7	**6.3360**	0.259	4.1	ug/L	0	KED
|	**Al**	27	208232.9	1.1				ug/L	138	KED
⌊>	**Sc-2**	45	78238.2	2.0				ug/L	80225	KED
⌈	**Ti**	47	420.0	0.7	**31.7073**	0.928	2.9	ug/L	12	KED
|	**V**	51	50362.6	3.6	**30.7305**	0.726	2.4	ug/L	12950	KED
|	**Cr**	52	128992.6	2.2	**64.2733**	0.941	1.5	ug/L	964	KED
|	**Cr**	53	22588.5	4.0	**60.3809**	1.805	3.0	ug/L	8055	KED
|	**Mn**	55	95480.6	0.5	**64.7075**	1.080	1.7	ug/L	193	KED
|	**Co**	59	180331.6	1.2	**32.0517**	0.530	1.7	ug/L	74	KED
|	**Ni**	60	199340.0	1.8	**126.4129**	2.959	2.3	ug/L	604	KED
|	**Cu**	65	126930.9	2.0	**62.4455**	1.603	2.6	ug/L	202	KED
|	**Zn**	66	348284.1	1.6	**627.1079**	13.593	2.2	ug/L	160	KED
|>	**Ge**	72	270961.8	2.2				ug/L	269000	KED
|	**As**	75	15630.4	3.4	**31.0140**	0.525	1.7	ug/L	1156	KED
|	**Se**	82	595.3	4.0	**30.1452**	1.224	4.1	ug/L	22	KED
|	**Se-1**	78	1310.1	2.9	**32.0722**	0.409	1.3	ug/L	38	KED
⌊	**Se-1**	80	31747.4	0.5	**32.5555**	6.683	20.5	ug/L	27714	KED
	Ga	71	65.0	35.3				ug/L	75	KED
	Rb	85	160.0	11.3				ug/L	23	KED
	Y	89	234739.5	1.0				ug/L	233304	KED
	Rh	103	33.3	31.2				ug/L	7	KED
⌈	**Mo**	98	129392.0	2.5	**31.4656**	0.684	2.2	ug/L	42	KED
|	**Ag**	107	265178.4	1.5	**32.2562**	0.516	1.6	ug/L	130	KED
|	**Cd**	111	22756.4	3.6	**19.3511**	0.649	3.4	ug/L	9	KED
|	**Cd**	114	54622.7	2.5	**19.0312**	0.408	2.1	ug/L	34	KED
|>	**In**	115	304300.8	0.5				ug/L	293219	KED
|	**Sn**	118	72917.8	3.1	**32.0153**	0.912	2.9	ug/L	701	KED
|	**Sb**	123	63907.6	2.6	**30.7308**	0.665	2.2	ug/L	422	KED
⌊	**Ba**	135	66241.2	2.3	**94.1187**	1.869	2.0	ug/L	26	KED
	Ce	140	50.7	14.3				ug/L	43	KED
	Tb	159	826656.6	1.6				ug/L	830473	KED
⌈	**Ho**	165	7.3	20.8				ug/L	13	KED
|	**Tl**	203	37440.6	2.8	**6.3582**	0.152	2.4	ug/L	13	KED
|	**Tl**	205	92697.4	2.0	**6.3695**	0.129	2.0	ug/L	21	KED
|	**Pb**	206	157809.8	2.0	**31.8884**	0.406	1.3	ug/L	402	KED
|	**Pb**	207	138905.6	1.9	**31.8264**	0.397	1.2	ug/L	330	KED
|	**Pb**	208	347370.7	1.3	**31.6484**	0.210	0.7	ug/L	883	KED
|	**U**	238	807198.0	1.8	**30.8453**	0.355	1.2	ug/L	8	KED

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	Th	232	616108.8	4.8	**28.3070**	1.211	4.3	ug/L	11535	KED
>	**Bi**	209	643208.3	0.7				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	78305.2	1.5	**3.9891**	0.037	0.9	mg/L	573	KED
	K	39	1.7	173.2	**203.6700**	352.767	173.2	mg/L	0	KED
	Ca	43	1.7	173.2	**1258.5204**	2179.821	173.2	mg/L	0	KED
	Fe	54	4450.7	1.9	**3.9036**	0.102	2.6	mg/L	12	KED
	Fe	57	9246.2	3.2	**3.7925**	0.138	3.6	mg/L	23	KED
>	**Sc-1**	45	78238.2	2.0				mg/L	80225	KED
	Cl	35	1985.1	3.1				ug/L	3539	KED
	Kr	83	8.3	124.9				ug/L	2	KED
	Br	81	25.0	40.0				ug/L	32	KED
	P	31	50.0	26.5				ug/L	120	KED
	S	34	33.3	31.2				ug/L	33	KED
	Sr	88	30.0	16.7				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9	98.999		
	Al	27			
>	Sc-2	45		97.524	
	Ti	47	99.085		
	V	51	96.033		
	Cr	52	100.427		
	Cr	53			
	Mn	55	101.106		
	Co	59	100.162		
	Ni	60	98.760		
	Cu	65	97.571		
	Zn	66	97.986		
>	Ge	72		100.729	
	As	75	96.919		
	Se	82	94.204		
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: QC Std 6
Report Date/Time: Friday, September 06, 2019 12:02:58
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	Rh	103		
⌈	Mo	98	98.330	
|	Ag	107	100.801	
|	Cd	111	100.787	
|	Cd	114		
|>	In	115		103.779
|	Sn	118	100.048	
|	Sb	123	96.034	
⌊	Ba	135	98.040	
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203	99.347	
|	Tl	205		
|	Pb	206	99.651	
|	Pb	207	99.457	
|	Pb	208	98.901	
|	U	238	96.392	
|	Th	232		
⌊>	Bi	209		100.942
⌈	Na	23		
|	Mg	24	99.728	
|	K	39	5091.750	
|	Ca	43	31463.011	
|	Fe	54	97.590	
|	Fe	57	94.813	
⌊>	Sc-1	45		97.524
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	K	39	
QC Std 6	Ca	43	

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Method 6020 - Summary Report

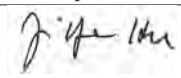
Sample ID: QC Std 7
Sample Date/Time: Friday, September 06, 2019 12:03:32
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10530.3	2.9				ug/L	10871	KED
|	**Be**	9	0.7	86.6	**0.0040**	0.006	163.1	ug/L	0	KED
|	**Al**	27	226.7	53.0				ug/L	138	KED
⌊>	**Sc-2**	45	74243.6	4.0				ug/L	80225	KED
⌈	**Ti**	47	7.0	37.8	**-0.3608**	0.201	55.6	ug/L	12	KED
|	**V**	51	9624.1	15.3	**-2.2363**	1.537	68.7	ug/L	12950	KED
|	**Cr**	52	723.0	14.8	**-0.0970**	0.077	79.5	ug/L	964	KED
|	**Cr**	53	6012.9	12.8	**-6.9965**	3.683	52.6	ug/L	8055	KED
|	**Mn**	55	199.3	47.0	**0.0150**	0.077	510.2	ug/L	193	KED
|	**Co**	59	115.3	61.3	**0.0092**	0.015	161.8	ug/L	74	KED
|	**Ni**	60	291.3	41.5	**-0.1861**	0.094	50.3	ug/L	604	KED
|	**Cu**	65	208.0	40.9	**0.0108**	0.051	472.0	ug/L	202	KED
|	**Zn**	66	263.7	76.1	**0.2301**	0.420	182.7	ug/L	160	KED
| >	**Ge**	72	253542.4	4.6				ug/L	269000	KED
|	**As**	75	974.0	19.9	**-0.2491**	0.535	214.9	ug/L	1156	KED
|	**Se**	82	16.2	15.3	**-0.2424**	0.184	75.8	ug/L	22	KED
|	**Se-1**	78	38.5	11.1	**0.0732**	0.166	226.2	ug/L	38	KED
⌊	**Se-1**	80	27714.2	2.2	**14.6743**	9.230	62.9	ug/L	27714	KED
	Ga	71	45.0	48.4				ug/L	75	KED
	Rb	85	13.3	57.3				ug/L	23	KED
	Y	89	215981.2	5.2				ug/L	233304	KED
	Rh	103	13.3	57.3				ug/L	7	KED
⌈	**Mo**	98	115.0	43.6	**0.0194**	0.014	74.2	ug/L	42	KED
|	**Ag**	107	212.7	35.9	**0.0112**	0.011	100.3	ug/L	130	KED
|	**Cd**	111	12.0	54.6	**0.0027**	0.006	236.9	ug/L	9	KED
|	**Cd**	114	42.0	73.3	**0.0034**	0.012	360.0	ug/L	34	KED
| >	**In**	115	289103.9	5.2				ug/L	293219	KED
|	**Sn**	118	617.3	11.7	**-0.0327**	0.048	147.7	ug/L	701	KED
|	**Sb**	123	392.0	52.3	**-0.0088**	0.116	1318.6	ug/L	422	KED
⌊	**Ba**	135	31.7	107.8	**0.0106**	0.054	513.8	ug/L	26	KED
	Ce	140	27.7	19.9				ug/L	43	KED
	Tb	159	776723.8	3.0				ug/L	830473	KED
⌈	**Ho**	165	8.3	13.9				ug/L	13	KED
|	**Tl**	203	13.0	48.0	**0.0001**	0.001	2357.8	ug/L	13	KED
|	**Tl**	205	32.0	63.2	**0.0009**	0.002	184.7	ug/L	21	KED
|	**Pb**	206	423.3	18.9	**0.0079**	0.021	263.5	ug/L	402	KED
|	**Pb**	207	348.3	18.8	**0.0076**	0.020	259.9	ug/L	330	KED
|	**Pb**	208	940.0	11.5	**0.0085**	0.014	169.1	ug/L	883	KED
|	**U**	238	238.7	140.9	**0.0096**	0.014	147.7	ug/L	8	KED

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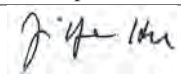
	Th	232	9327.5	36.0	**-0.0843**	0.188	222.5	ug/L	11535	KED
>	**Bi**	209	616617.9	4.3				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	420.0	7.1	**-0.0060**	0.001	16.9	mg/L	573	KED
	K	39	1.7	173.2	**206.1559**	357.072	173.2	mg/L	0	KED
	Ca	43	3.3	86.6	**2641.2040**	2291.640	86.8	mg/L	0	KED
	Fe	54	13.3	21.7	**0.0023**	0.003	108.8	mg/L	12	KED
	Fe	57	25.0	40.0	**0.0015**	0.004	299.2	mg/L	23	KED
>	**Sc-1**	45	74243.6	4.0				mg/L	80225	KED
	Cl	35	2703.6	29.4				ug/L	3539	KED
	Kr	83	6.7	86.6				ug/L	2	KED
	Br	81	16.7	69.3				ug/L	32	KED
	P	31	46.7	30.9				ug/L	120	KED
	S	34	28.3	27.0				ug/L	33	KED
	Sr	88	25.0	34.6				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		92.545	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		94.254	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	98.597
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	96.769
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	92.545
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 7	V	51	
QC Std 7	K	39	
QC Std 7	Ca	43	

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Method 6020 - Summary Report

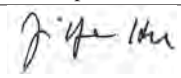
Sample ID: QC Std 8
Sample Date/Time: Friday, September 06, 2019 12:06:21
Number of Replicates: 3
Autosampler Position: 202
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	11744.6	2.6				ug/L	10871	KED
|	**Be**	9	18.0	9.6	**0.1809**	0.015	8.5	ug/L	0	KED
|	**Al**	27	5724.4	6.7				ug/L	138	KED
⌊>	**Sc-2**	45	82163.9	1.4				ug/L	80225	KED
⌈	**Ti**	47	18.7	16.4	**0.5253**	0.233	44.4	ug/L	12	KED
|	**V**	51	17034.2	3.4	**3.4259**	0.353	10.3	ug/L	12950	KED
|	**Cr**	52	4352.0	1.3	**1.7197**	0.050	2.9	ug/L	964	KED
|	**Cr**	53	10428.6	7.7	**10.0783**	2.978	29.5	ug/L	8055	KED
|	**Mn**	55	2738.9	1.3	**1.7463**	0.029	1.6	ug/L	193	KED
|	**Co**	59	4740.7	4.9	**0.8381**	0.041	4.9	ug/L	74	KED
|	**Ni**	60	5447.3	3.6	**3.1123**	0.126	4.1	ug/L	604	KED
|	**Cu**	65	3495.7	1.6	**1.6393**	0.031	1.9	ug/L	202	KED
|	**Zn**	66	9287.2	1.9	**16.6045**	0.308	1.9	ug/L	160	KED
| >	**Ge**	72	268262.8	1.0				ug/L	269000	KED
|	**As**	75	1704.8	2.0	**1.1964**	0.089	7.5	ug/L	1156	KED
|	**Se**	82	30.3	13.2	**0.4536**	0.202	44.6	ug/L	22	KED
|	**Se-1**	78	65.7	2.4	**0.7033**	0.035	5.0	ug/L	38	KED
⌊	**Se-1**	80	27857.4	1.1	**1.9035**	4.500	236.4	ug/L	27714	KED
	Ga	71	48.3	41.8				ug/L	75	KED
	Rb	85	15.0	0.0				ug/L	23	KED
	Y	89	225032.6	2.2				ug/L	233304	KED
	Rh	103	3.3	86.6				ug/L	7	KED
⌈	**Mo**	98	3192.3	2.1	**0.8166**	0.029	3.6	ug/L	42	KED
|	**Ag**	107	6404.7	1.8	**0.8137**	0.026	3.2	ug/L	130	KED
|	**Cd**	111	541.7	9.3	**0.4826**	0.048	9.9	ug/L	9	KED
|	**Cd**	114	1348.1	3.8	**0.4880**	0.019	3.8	ug/L	34	KED
| >	**In**	115	285799.0	1.4				ug/L	293219	KED
|	**Sn**	118	2359.9	1.8	**0.7922**	0.035	4.5	ug/L	701	KED
|	**Sb**	123	1941.1	0.8	**0.7889**	0.022	2.8	ug/L	422	KED
⌊	**Ba**	135	1576.4	2.5	**2.3476**	0.055	2.4	ug/L	26	KED
	Ce	140	35.7	10.6				ug/L	43	KED
	Tb	159	779575.2	0.6				ug/L	830473	KED
⌈	**Ho**	165	7.3	15.7				ug/L	13	KED
|	**Tl**	203	911.7	0.7	**0.1625**	0.001	0.4	ug/L	13	KED
|	**Tl**	205	2248.2	1.8	**0.1629**	0.004	2.2	ug/L	21	KED
|	**Pb**	206	4171.9	1.4	**0.8168**	0.005	0.6	ug/L	402	KED
|	**Pb**	207	3614.1	0.4	**0.8065**	0.012	1.5	ug/L	330	KED
|	**Pb**	208	9179.1	2.2	**0.8104**	0.024	2.9	ug/L	883	KED
|	**U**	238	19204.8	1.3	**0.7804**	0.017	2.2	ug/L	8	KED

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	Th	232	27656.4	11.1	**0.8333**	0.164	19.7	ug/L	11535	KED
>	**Bi**	209	604763.0	1.0				ug/L	637206	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	2745.2	1.4	**0.1054**	0.003	2.4	mg/L	573	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**0.0000**	0.000		mg/L	0	KED
	Fe	54	121.7	4.7	**0.0919**	0.005	5.9	mg/L	12	KED
	Fe	57	243.3	19.5	**0.0860**	0.020	22.9	mg/L	23	KED
>	**Sc-1**	45	82163.9	1.4				mg/L	80225	KED
	Cl	35	3562.1	5.3				ug/L	3539	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	25.0	52.9				ug/L	32	KED
	P	31	63.3	25.4				ug/L	120	KED
	S	34	36.7	15.7				ug/L	33	KED
	Sr	88	13.3	57.3				ug/L	35	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9	90.453		
	Al	27			
>	Sc-2	45		102.417	
	Ti	47			
	V	51	856.470		
	Cr	52	214.967		
	Cr	53			
	Mn	55	349.267		
	Co	59	209.525		
	Ni	60	194.519		
	Cu	65	204.915		
	Zn	66	265.673		
>	Ge	72		99.726	
	As	75	299.091		
	Se	82	113.402		
	Se-1	78	175.817		
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107	203.431	
|	Cd	111	201.082	
|	Cd	114		
| >	In	115		97.469
|	Sn	118		
|	Sb	123	197.225	
⌊	Ba	135	313.019	
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203	203.068	
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208	202.603	
|	U	238	195.089	
|	Th	232		
⌊ >	Bi	209		94.908
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		102.417
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	V	51	
QC Std 8	Cr	52	
QC Std 8	Mn	55	
QC Std 8	Co	59	
QC Std 8	Ni	60	
QC Std 8	Cu	65	
QC Std 8	Zn	66	
QC Std 8	As	75	
QC Std 8	Se-1	78	

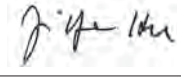
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QC Std 8	Ag	107
QC Std 8	Cd	111
QC Std 8	Ba	135
QC Std 8	Tl	203
QC Std 8	Pb	208
QC Std 8	U	238

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MassCal File Name

Mass Calibration File Name Default.tun
MassCal File Path C:\NexION Data\MassCal\Default.tun
Peak Search Window: 1.00

Sample Information

Sample Date/Time: Monday, September 09, 2019 07:19:55

Mass Calibration and Resolution

Analyte	E Mass	Meas Mass	Mass C DAC Val	Res DAC Value	Meas Peak W	Custom Res
Li	7.016	7.025	1326	2029	0.713	
Mg	23.985	23.975	4457	2025	0.693	
Co	58.933	58.925	11690	2025	0.695	
In	114.904	114.925	22863	2032	0.694	
U	238.050	238.075	47458	2049	0.704	

Relative Std. Dev.

Mass	Meas. Intens. RSD
5.525	3.208
5.575	2.375
5.625	0.858
5.675	1.954
5.725	0.781
5.775	0.442
5.825	2.068
5.875	2.345
5.925	1.342
5.975	1.505
6.025	1.509
6.075	0.950
6.125	1.187
6.175	0.903
6.225	2.523
6.275	8.562
6.325	108.653
6.375	223.607
6.425	33.333
6.475	37.989
6.525	11.326
6.575	3.097
6.625	3.185
6.675	1.905
6.725	2.095
6.775	1.349
6.825	1.202

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6.875	1.434
6.925	1.704
6.975	2.409
7.025	1.865
7.075	1.168
7.125	1.835
7.175	1.523
7.225	1.415
7.275	2.163
7.325	5.539
7.375	36.377
7.425	70.711
7.475	
7.525	
7.575	136.931
7.625	223.607
7.675	223.607
7.725	
7.775	223.607
7.825	104.583
7.875	
7.925	149.071
7.975	223.607
8.025	
8.075	
8.125	223.607
8.175	223.607
8.225	
8.275	
8.325	
8.375	91.287
8.425	
8.475	
22.525	25.951
22.575	40.232
22.625	34.401
22.675	30.429
22.725	24.836
22.775	26.634
22.825	14.965
22.875	21.397
22.925	15.031
22.975	8.543
23.025	9.203
23.075	6.646
23.125	11.751
23.175	6.808

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23.225	12.958
23.275	15.976
23.325	6.940
23.375	10.799
23.425	11.146
23.475	20.510
23.525	5.864
23.575	12.971
23.625	13.880
23.675	9.753
23.725	2.081
23.775	2.684
23.825	1.355
23.875	1.583
23.925	2.313
23.975	1.215
24.025	1.923
24.075	1.857
24.125	1.591
24.175	1.609
24.225	1.289
24.275	1.959
24.325	1.414
24.375	1.149
24.425	1.978
24.475	1.056
24.525	5.692
24.575	47.986
24.625	27.080
24.675	10.219
24.725	5.067
24.775	5.816
24.825	4.980
24.875	4.445
24.925	4.707
24.975	4.832
25.025	4.516
25.075	5.311
25.125	4.789
25.175	3.933
25.225	4.192
25.275	4.461
25.325	4.729
25.375	4.744
25.425	3.910
25.475	6.400
57.525	5.185

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57.575	4.904
57.625	1.503
57.675	2.177
57.725	1.280
57.775	0.932
57.825	1.756
57.875	1.149
57.925	1.351
57.975	0.291
58.025	1.009
58.075	1.024
58.125	1.484
58.175	1.178
58.225	1.371
58.275	6.634
58.325	50.461
58.375	48.990
58.425	14.258
58.475	2.485
58.525	1.801
58.575	1.455
58.625	3.289
58.675	0.660
58.725	2.167
58.775	0.798
58.825	1.319
58.875	1.311
58.925	1.168
58.975	2.626
59.025	0.828
59.075	0.868
59.125	1.589
59.175	1.744
59.225	2.448
59.275	14.271
59.325	100.000
59.375	74.975
59.425	33.994
59.475	15.112
59.525	5.702
59.575	6.141
59.625	2.427
59.675	2.066
59.725	1.983
59.775	4.055
59.825	1.561
59.875	3.984

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59.925	2.264
59.975	1.462
60.025	0.701
60.075	1.879
60.125	2.654
60.175	5.907
60.225	6.849
60.275	43.220
60.325	223.607
60.375	91.287
60.425	99.381
60.475	33.165
113.525	7.062
113.575	6.478
113.625	1.223
113.675	1.462
113.725	3.375
113.775	1.459
113.825	2.118
113.875	1.623
113.925	1.251
113.975	1.303
114.025	1.102
114.075	1.659
114.125	1.795
114.175	1.634
114.225	2.649
114.275	7.436
114.325	30.703
114.375	59.992
114.425	15.943
114.475	3.307
114.525	1.935
114.575	1.200
114.625	3.470
114.675	2.935
114.725	2.530
114.775	2.207
114.825	2.884
114.875	2.931
114.925	2.474
114.975	3.182
115.025	2.860
115.075	1.741
115.125	1.825
115.175	2.219
115.225	1.051

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115.275	4.933
115.325	8.498
115.375	108.653
115.425	21.066
115.475	11.291
115.525	16.617
115.575	5.173
115.625	2.604
115.675	4.447
115.725	2.579
115.775	1.632
115.825	1.216
115.875	2.602
115.925	3.280
115.975	2.175
116.025	2.987
116.075	1.020
116.125	1.412
116.175	6.436
116.225	3.927
116.275	11.422
116.325	63.717
116.375	
116.425	104.583
116.475	223.607
236.525	
236.575	
236.625	
236.675	
236.725	
236.775	
236.825	
236.875	
236.925	
236.975	
237.025	
237.075	
237.125	
237.175	
237.225	
237.275	
237.325	
237.375	149.071
237.425	39.123
237.475	70.711
237.525	25.074
237.575	21.476

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237.625	9.756
237.675	1.945
237.725	2.111
237.775	3.291
237.825	4.094
237.875	2.968
237.925	2.529
237.975	2.642
238.025	3.736
238.075	2.510
238.125	3.001
238.175	2.888
238.225	4.176
238.275	3.409
238.325	2.963
238.375	3.403
238.425	6.219
238.475	4.030
238.525	15.598
238.575	93.541
238.625	
238.675	
238.725	
238.775	
238.825	
238.875	
238.925	223.607
238.975	
239.025	104.583
239.075	223.607
239.125	223.607
239.175	149.071
239.225	
239.275	136.931
239.325	
239.375	
239.425	
239.475	

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SmartTune Wizard - Summary

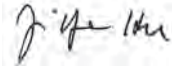
Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\ESI SmartTune Fullmicrobac.swz

Start Time: 9/9/2019 7:27:24 AM
End Time: 9/9/2019 7:29:29 AM

Daily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 14215.20
Obtained Intensity (Mg 23.985): 1556649.24
Obtained Intensity (In 114.904): 177486.32
Obtained Intensity (U 238.05): 139779.94
Obtained Intensity (CeO 155.9): 15132.69
Obtained Intensity (Ce 139.905): 648074.02
Obtained Intensity (Ce++ 69.9527): 10532.66
Obtained Intensity (Bkgd 220): 0.27
Obtained Formula (CeO 155.9 / Ce 139.905): 0.023 (=15132.69 / 648074.02)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.016 (=10532.66 / 648074.02)

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SmartTune Wizard - Details

```
Optimization Details

SmartTune file: C:\NexIONData\Wizard\SmartTune\ESI SmartTune Fullmicrobac.swz

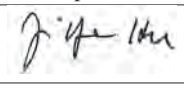
Optimization Status

Start Time: 9/9/2019 7:27:24 AM

Daily Performance Check
        Optimization Settings:
                Method: C:\NexIONData\Method\ESI Daily Performance.mth.
                Intensity Criterion: Be 9.0122 > 2000
                Intensity Criterion: Mg 23.985 > 15000
                Intensity Criterion: In 114.904 > 40000
                Intensity Criterion: U 238.05 > 30000
                Intensity Criterion: CeO 155.9 > 0
                Intensity Criterion: Ce 139.905 > 0
                Intensity Criterion: Ce++ 69.9527 > 0
                Intensity Criterion: Bkgd 220 <= 5
                Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.025
                Formula Criterion: Ce++ 69.9527 / Ce 139.905 <= 0.03

        Optimization Results:
        Initial Try
                Obtained Intensity (Be 9.0122): 14215.20
                Obtained Intensity (Mg 23.985): 1556649.24
                Obtained Intensity (In 114.904): 177486.32
                Obtained Intensity (U 238.05): 139779.94
                Obtained Intensity (CeO 155.9): 15132.69
                Obtained Intensity (Ce 139.905): 648074.02
                Obtained Intensity (Ce++ 69.9527): 10532.66
                Obtained Intensity (Bkgd 220): 0.27
                Obtained Formula (CeO 155.9 / Ce 139.905): 0.023 (=15132.69 / 648074.02)
                Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.016 (=10532.66 / 648074.02)
[Passed]  Optimum value(s): N/A

End Time: 9/9/2019 7:29:29 AM
```


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Method 6020 - Summary Report

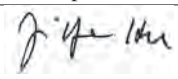
Sample ID: Blank
Sample Date/Time: Monday, September 09, 2019 08:05:07
Number of Replicates: 3
Autosampler Position: 1
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	18247.7	2.2				ug/L		KED
|	**Be**	9	0.7	173.2				ug/L		KED
|	**Al**	27	131.7	15.8				ug/L		KED
⌊>	**Sc-2**	45	22690.6	1.6				ug/L		KED
⌈	**Ti**	47	2.7	21.7				ug/L		KED
|	**V**	51	2352.5	5.7				ug/L		KED
|	**Cr**	52	414.3	6.8				ug/L		KED
|	**Cr**	53	1770.1	10.8				ug/L		KED
|	**Mn**	55	187.0	6.2				ug/L		KED
|	**Co**	59	69.3	32.9				ug/L		KED
|	**Ni**	60	236.7	12.9				ug/L		KED
|	**Cu**	65	283.3	9.8				ug/L		KED
|	**Zn**	66	616.7	11.0				ug/L		KED
|>	**Ge**	72	393258.2	1.8				ug/L		KED
|	**As**	75	386.3	3.7				ug/L		KED
|	**Se**	82	17.3	26.8				ug/L		KED
|	**Se-1**	78	40.5	21.8				ug/L		KED
⌊	**Se-1**	80	30857.4	0.8				ug/L		KED
	Ga	71	96.7	41.5				ug/L		KED
	Rb	85	5.0	100.0				ug/L		KED
	Y	89	380327.8	0.9				ug/L		KED
	Rh	103	8.3	34.6				ug/L		KED
⌈	**Mo**	98	280.7	20.3				ug/L		KED
|	**Ag**	107	286.7	34.2				ug/L		KED
|	**Cd**	111	25.7	49.5				ug/L		KED
|	**Cd**	114	80.3	22.8				ug/L		KED
|>	**In**	115	416461.4	0.7				ug/L		KED
|	**Sn**	118	798.4	1.8				ug/L		KED
|	**Sb**	123	185.3	18.7				ug/L		KED
⌊	**Ba**	135	35.0	59.0				ug/L		KED
	Ce	140	48.3	19.2				ug/L		KED
	Tb	159	1349972.7	0.9				ug/L		KED
⌈	**Ho**	165	14.7	27.6				ug/L		KED
|	**Tl**	203	39.3	41.2				ug/L		KED
|	**Tl**	205	110.3	27.2				ug/L		KED
|	**Pb**	206	877.7	5.1				ug/L		KED
|	**Pb**	207	802.4	10.7				ug/L		KED
|	**Pb**	208	1923.1	7.2				ug/L		KED
|	**U**	238	321.7	67.8				ug/L		KED

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	Th	232	1972.1	26.2	ug/L	KED
>	**Bi**	209	1022502.5	0.8	ug/L	KED
	Na	23	0.0		mg/L	KED
	Mg	24	260.0	6.9	mg/L	KED
	K	39	0.0		mg/L	KED
	Ca	43	3.3	173.2	mg/L	KED
	Fe	54	6.7	114.6	mg/L	KED
	Fe	57	15.0	66.7	mg/L	KED
>	**Sc-1**	45	22690.6	1.6	mg/L	KED
	Cl	35	2163.5	3.4	ug/L	KED
	Kr	83	1.7	173.2	ug/L	KED
	Br	81	56.7	33.4	ug/L	KED
	P	31	106.7	14.3	ug/L	KED
	S	34	23.3	32.7	ug/L	KED
	Sr	88	61.7	26.1	ug/L	KED
	C	12	0.0		ug/L	KED
	N	14	0.0		ug/L	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72			
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103
⌈	Mo	98
|	Ag	107
|	Cd	111
|	Cd	114
|>	In	115
|	Sn	118
|	Sb	123
⌊	Ba	135
	Ce	140
	Tb	159
⌈	Ho	165
|	Tl	203
|	Tl	205
|	Pb	206
|	Pb	207
|	Pb	208
|	U	238
|	Th	232
⌊>	Bi	209
⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88
	C	12
	N	14

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Monday, September 09, 2019 08:08:02
Number of Replicates: 3
Autosampler Position: 1
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	19245.6	4.8				ug/L	18248	KED
|	**Be**	9	0.0					ug/L	1	KED
|	**Al**	27	135.0	38.5				ug/L	132	KED
⌊>	**Sc-2**	45	23517.9	4.6				ug/L	22691	KED
⌈	**Ti**	47	3.7	41.7				ug/L	3	KED
|	**V**	51	2775.9	3.5				ug/L	2353	KED
|	**Cr**	52	418.0	5.4				ug/L	414	KED
|	**Cr**	53	2040.1	6.0				ug/L	1770	KED
|	**Mn**	55	181.3	8.9				ug/L	187	KED
|	**Co**	59	39.3	5.9				ug/L	69	KED
|	**Ni**	60	185.0	2.4				ug/L	237	KED
|	**Cu**	65	263.7	6.5				ug/L	283	KED
|	**Zn**	66	625.0	2.9				ug/L	617	KED
|>	**Ge**	72	404224.2	3.4				ug/L	393258	KED
|	**As**	75	395.0	8.7				ug/L	386	KED
|	**Se**	82	19.0	12.1				ug/L	17	KED
|	**Se-1**	78	31.3	14.4				ug/L	41	KED
⌊	**Se-1**	80	31013.9	0.5				ug/L	30857	KED
	Ga	71	78.3	13.3				ug/L	97	KED
	Rb	85	16.7	34.6				ug/L	5	KED
	Y	89	385942.2	2.5				ug/L	380328	KED
	Rh	103	11.7	24.7				ug/L	8	KED
⌈	**Mo**	98	131.0	20.3				ug/L	281	KED
|	**Ag**	107	223.7	6.7				ug/L	287	KED
|	**Cd**	111	24.0	19.1				ug/L	26	KED
|	**Cd**	114	77.3	4.5				ug/L	80	KED
|>	**In**	115	428822.3	3.7				ug/L	416461	KED
|	**Sn**	118	750.7	10.4				ug/L	798	KED
|	**Sb**	123	150.7	7.7				ug/L	185	KED
⌊	**Ba**	135	24.7	22.3				ug/L	35	KED
	Ce	140	46.3	25.3				ug/L	48	KED
	Tb	159	1415058.2	5.0				ug/L	1349973	KED
⌈	**Ho**	165	15.7	7.4				ug/L	15	KED
|	**Tl**	203	30.3	8.3				ug/L	39	KED
|	**Tl**	205	76.0	15.5				ug/L	110	KED
|	**Pb**	206	868.4	5.1				ug/L	878	KED
|	**Pb**	207	769.0	2.2				ug/L	802	KED
|	**Pb**	208	1888.5	4.8				ug/L	1923	KED
|	**U**	238	68.3	123.8				ug/L	322	KED

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	Th	232	2288.8	2.5	ug/L	1972	KED
>	**Bi**	209	1052522.4	3.6	ug/L	1022503	KED
	Na	23	0.0		mg/L	0	KED
	Mg	24	303.3	27.7	mg/L	260	KED
	K	39	0.0		mg/L	0	KED
	Ca	43	0.0		mg/L	3	KED
	Fe	54	13.3	78.1	mg/L	7	KED
	Fe	57	25.0	40.0	mg/L	15	KED
>	**Sc-1**	45	23517.9	4.6	mg/L	22691	KED
	Cl	35	2190.2	3.1	ug/L	2163	KED
	Kr	83	6.7	114.6	ug/L	2	KED
	Br	81	66.7	8.7	ug/L	57	KED
	P	31	113.3	15.5	ug/L	107	KED
	S	34	20.0	66.1	ug/L	23	KED
	Sr	88	55.0	45.5	ug/L	62	KED
	C	12	0.0		ug/L	0	KED
	N	14	0.0		ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72			
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103
⌈	Mo	98
|	Ag	107
|	Cd	111
|	Cd	114
|>	In	115
|	Sn	118
|	Sb	123
⌊	Ba	135
	Ce	140
	Tb	159
⌈	Ho	165
|	Tl	203
|	Tl	205
|	Pb	206
|	Pb	207
|	Pb	208
|	U	238
|	Th	232
⌊>	Bi	209
⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88
	C	12
	N	14

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: Standard 1
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Method 6020 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Monday, September 09, 2019 08:10:56
Number of Replicates: 3
Autosampler Position: 2
Sample Description:
Method File: C:\NexION\Data\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	18107.5	2.9				ug/L	18248	KED
|	**Be**	9	15.0	6.7	**0.0800**	0.005	6.3	ug/L	1	KED
|	**Al**	27	3225.3	2.6				ug/L	132	KED
⌊>	**Sc-2**	45	22323.4	0.7				ug/L	22691	KED
⌈	**Ti**	47	5.3	21.7	**0.4000**	0.181	45.3	ug/L	3	KED
|	**V**	51	3366.0	5.3	**0.4000**	0.080	20.0	ug/L	2353	KED
|	**Cr**	52	2039.1	2.6	**0.8000**	0.032	3.9	ug/L	414	KED
|	**Cr**	53	2428.5	11.0	**0.8000**	0.337	42.2	ug/L	1770	KED
|	**Mn**	55	1775.8	6.0	**0.8000**	0.063	7.8	ug/L	187	KED
|	**Co**	59	2869.9	3.9	**0.4000**	0.021	5.2	ug/L	69	KED
|	**Ni**	60	3317.4	0.8	**1.6000**	0.032	2.0	ug/L	237	KED
|	**Cu**	65	2403.9	3.3	**0.8000**	0.038	4.8	ug/L	283	KED
|	**Zn**	66	6937.9	3.2	**8.0000**	0.276	3.5	ug/L	617	KED
|>	**Ge**	72	388176.5	1.7				ug/L	393258	KED
|	**As**	75	638.0	7.6	**0.4000**	0.086	21.5	ug/L	386	KED
|	**Se**	82	26.0	10.2	**0.4000**	0.112	27.9	ug/L	17	KED
|	**Se-1**	78	61.0	9.9	**0.4000**	0.130	32.5	ug/L	41	KED
⌊	**Se-1**	80	31177.0	1.0	**0.4000**	0.323	80.9	ug/L	30857	KED
	Ga	71	70.0	43.4				ug/L	97	KED
	Rb	85	16.7	62.4				ug/L	5	KED
	Y	89	372981.9	1.0				ug/L	380328	KED
	Rh	103	6.7	86.6				ug/L	8	KED
⌈	**Mo**	98	2235.8	1.5	**0.4000**	0.006	1.5	ug/L	281	KED
|	**Ag**	107	4770.8	3.8	**0.4000**	0.014	3.5	ug/L	287	KED
|	**Cd**	111	394.0	2.5	**0.2400**	0.007	3.1	ug/L	26	KED
|	**Cd**	114	994.7	6.4	**0.2400**	0.016	6.5	ug/L	80	KED
|>	**In**	115	409958.2	0.5				ug/L	416461	KED
|	**Sn**	118	1854.8	2.8	**0.4000**	0.022	5.6	ug/L	798	KED
|	**Sb**	123	824.7	9.5	**0.4000**	0.050	12.6	ug/L	185	KED
⌊	**Ba**	135	1208.0	2.0	**1.2000**	0.030	2.5	ug/L	35	KED
	Ce	140	50.3	29.0				ug/L	48	KED
	Tb	159	1340580.0	0.9				ug/L	1349973	KED
⌈	**Ho**	165	8.7	17.6				ug/L	15	KED
|	**Tl**	203	834.0	2.9	**0.0800**	0.003	3.8	ug/L	39	KED
|	**Tl**	205	1994.5	1.2	**0.0800**	0.000	0.2	ug/L	110	KED
|	**Pb**	206	3952.5	2.1	**0.4000**	0.006	1.4	ug/L	878	KED
|	**Pb**	207	3362.7	2.2	**0.4000**	0.007	1.8	ug/L	802	KED
|	**Pb**	208	8384.7	1.0	**0.4000**	0.005	1.2	ug/L	1923	KED
|	**U**	238	12975.6	1.3	**0.4000**	0.008	2.0	ug/L	322	KED

Sample ID: Standard 2
Report Date/Time: Monday, September 09, 2019 08:13:15
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	Th	232	4845.9	44.5	**0.4000**	0.305	76.4	ug/L	1972	KED
>	**Bi**	209	1016499.9	1.1				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	1018.4	6.7	**0.0500**	0.005	9.8	mg/L	260	KED
	K	39	0.0					mg/L	0	KED
	Ca	43	1.7	173.2	**0.0500**	0.090	180.8	mg/L	3	KED
	Fe	54	78.3	29.5	**0.0500**	0.016	32.7	mg/L	7	KED
	Fe	57	328.3	15.4	**0.0500**	0.008	16.8	mg/L	15	KED
>	**Sc-1**	45	22323.4	0.7				mg/L	22691	KED
	Cl	35	2060.1	3.4				ug/L	2163	KED
	Kr	83	5.0	100.0				ug/L	2	KED
	Br	81	55.0	24.1				ug/L	57	KED
	P	31	103.3	7.4				ug/L	107	KED
	S	34	35.0	49.5				ug/L	23	KED
	Sr	88	53.3	14.3				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72			
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103
⌈	Mo	98
|	Ag	107
|	Cd	111
|	Cd	114
|>	In	115
|	Sn	118
|	Sb	123
⌊	Ba	135
	Ce	140
	Tb	159
⌈	Ho	165
|	Tl	203
|	Tl	205
|	Pb	206
|	Pb	207
|	Pb	208
|	U	238
|	Th	232
⌊>	Bi	209
⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88
	C	12
	N	14

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: Standard 3
Sample Date/Time: Monday, September 09, 2019 08:13:49
Number of Replicates: 3
Autosampler Position: 3
Sample Description:
Method File: C:\NexION\Data\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	18538.0	2.8				ug/L	18248	KED
|	**Be**	9	62.7	8.2	**0.3975**	0.038	9.7	ug/L	1	KED
|	**Al**	27	16690.9	2.9				ug/L	132	KED
⌊>	**Sc-2**	45	22510.0	1.5				ug/L	22691	KED
⌈	**Ti**	47	14.7	56.8	**1.9893**	1.416	71.2	ug/L	3	KED
|	**V**	51	5417.6	2.7	**1.9451**	0.041	2.1	ug/L	2353	KED
|	**Cr**	52	8692.2	1.6	**4.0001**	0.080	2.0	ug/L	414	KED
|	**Cr**	53	3488.7	7.1	**3.8486**	0.448	11.6	ug/L	1770	KED
|	**Mn**	55	8420.7	0.4	**4.0029**	0.068	1.7	ug/L	187	KED
|	**Co**	59	14606.0	1.5	**2.0017**	0.035	1.7	ug/L	69	KED
|	**Ni**	60	15910.4	1.8	**8.0004**	0.020	0.3	ug/L	237	KED
|	**Cu**	65	10906.3	2.2	**3.9976**	0.040	1.0	ug/L	283	KED
|	**Zn**	66	33531.4	0.8	**40.0371**	0.400	1.0	ug/L	617	KED
| >	**Ge**	72	394014.0	1.7				ug/L	393258	KED
|	**As**	75	1609.4	4.2	**1.9949**	0.155	7.7	ug/L	386	KED
|	**Se**	82	79.5	14.2	**2.0213**	0.336	16.6	ug/L	17	KED
|	**Se-1**	78	170.2	1.7	**2.0135**	0.070	3.5	ug/L	41	KED
⌊	**Se-1**	80	31651.5	0.3	**1.7353**	1.074	61.9	ug/L	30857	KED
	Ga	71	83.3	34.1				ug/L	97	KED
	Rb	85	16.7	91.7				ug/L	5	KED
	Y	89	381794.7	1.7				ug/L	380328	KED
	Rh	103	6.7	43.3				ug/L	8	KED
⌈	**Mo**	98	10872.2	2.6	**2.0051**	0.095	4.8	ug/L	281	KED
|	**Ag**	107	23908.2	1.5	**2.0031**	0.063	3.1	ug/L	287	KED
|	**Cd**	111	1949.5	2.7	**1.2015**	0.007	0.6	ug/L	26	KED
|	**Cd**	114	4707.4	0.7	**1.2000**	0.017	1.4	ug/L	80	KED
| >	**In**	115	414189.4	2.0				ug/L	416461	KED
|	**Sn**	118	6499.7	0.8	**2.0041**	0.028	1.4	ug/L	798	KED
|	**Sb**	123	4088.6	3.9	**2.0131**	0.124	6.2	ug/L	185	KED
⌊	**Ba**	135	6021.5	2.6	**6.0022**	0.138	2.3	ug/L	35	KED
	Ce	140	41.3	7.4				ug/L	48	KED
	Tb	159	1334372.6	1.4				ug/L	1349973	KED
⌈	**Ho**	165	14.7	10.4				ug/L	15	KED
|	**Tl**	203	3902.5	1.1	**0.3994**	0.005	1.3	ug/L	39	KED
|	**Tl**	205	9578.0	2.2	**0.3999**	0.008	1.9	ug/L	110	KED
|	**Pb**	206	16767.3	2.5	**2.0016**	0.047	2.4	ug/L	878	KED
|	**Pb**	207	14503.9	0.2	**2.0042**	0.014	0.7	ug/L	802	KED
|	**Pb**	208	36527.6	0.8	**2.0043**	0.006	0.3	ug/L	1923	KED
|	**U**	238	66850.5	0.2	**2.0031**	0.016	0.8	ug/L	322	KED

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	Th	232	21386.0	47.4	**2.0192**	1.068	52.9	ug/L	1972	KED
>	**Bi**	209	1026221.7	0.6				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	3857.2	5.9	**0.2493**	0.019	7.8	mg/L	260	KED
	K	39	0.0					mg/L	0	KED
	Ca	43	0.0		**0.2368**			mg/L	3	KED
	Fe	54	473.3	13.7	**0.2522**	0.038	15.2	mg/L	7	KED
	Fe	57	1730.1	4.8	**0.2507**	0.011	4.2	mg/L	15	KED
>	**Sc-1**	45	22510.0	1.5				mg/L	22691	KED
	Cl	35	2155.2	7.1				ug/L	2163	KED
	Kr	83	3.3	86.6				ug/L	2	KED
	Br	81	60.0	22.0				ug/L	57	KED
	P	31	125.0	18.3				ug/L	107	KED
	S	34	35.0	14.3				ug/L	23	KED
	Sr	88	31.7	24.1				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72			
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103
⌈	Mo	98
|	Ag	107
|	Cd	111
|	Cd	114
|>	In	115
|	Sn	118
|	Sb	123
⌊	Ba	135
	Ce	140
	Tb	159
⌈	Ho	165
|	Tl	203
|	Tl	205
|	Pb	206
|	Pb	207
|	Pb	208
|	U	238
|	Th	232
⌊>	Bi	209
⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88
	C	12
	N	14

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: Standard 3
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Method 6020 - Summary Report

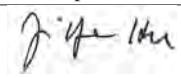
Sample ID: Standard 4
Sample Date/Time: Monday, September 09, 2019 08:16:43
Number of Replicates: 3
Autosampler Position: 4
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	17970.7	2.1				ug/L	18248	KED
|	**Be**	9	1235.4	6.3	**7.9996**	0.577	7.2	ug/L	1	KED
|	**Al**	27	321617.9	3.0				ug/L	132	KED
|>	**Sc-2**	45	22659.3	0.9				ug/L	22691	KED
⌈	**Ti**	47	178.7	9.3	**39.9596**	3.292	8.2	ug/L	3	KED
|	**V**	51	50116.8	2.5	**39.9663**	1.471	3.7	ug/L	2353	KED
|	**Cr**	52	166591.3	2.9	**79.9996**	3.149	3.9	ug/L	414	KED
|	**Cr**	53	25615.0	3.3	**79.8958**	3.432	4.3	ug/L	1770	KED
|	**Mn**	55	165202.3	1.8	**79.9994**	2.302	2.9	ug/L	187	KED
|	**Co**	59	286614.5	0.6	**39.9980**	0.767	1.9	ug/L	69	KED
|	**Ni**	60	318125.1	0.6	**160.0035**	2.296	1.4	ug/L	237	KED
|	**Cu**	65	211066.3	0.7	**79.9971**	0.927	1.2	ug/L	283	KED
|	**Zn**	66	656521.3	0.5	**799.9826**	11.602	1.5	ug/L	617	KED
|>	**Ge**	72	396258.7	1.3				ug/L	393258	KED
|	**As**	75	24388.9	0.4	**39.9971**	0.588	1.5	ug/L	386	KED
|	**Se**	82	1230.7	3.5	**39.9982**	1.292	3.2	ug/L	17	KED
|	**Se-1**	78	2566.1	2.2	**39.9973**	0.546	1.4	ug/L	41	KED
⌊	**Se-1**	80	37519.7	0.7	**39.8278**	2.655	6.7	ug/L	30857	KED
	Ga	71	98.3	19.3				ug/L	97	KED
	Rb	85	351.7	11.5				ug/L	5	KED
	Y	89	370397.0	1.8				ug/L	380328	KED
	Rh	103	26.7	47.2				ug/L	8	KED
⌈	**Mo**	98	225689.6	2.1	**40.0048**	0.491	1.2	ug/L	281	KED
|	**Ag**	107	464571.0	2.0	**39.9965**	0.157	0.4	ug/L	287	KED
|	**Cd**	111	38654.3	2.3	**23.9993**	0.231	1.0	ug/L	26	KED
|	**Cd**	114	93651.6	1.3	**23.9996**	0.109	0.5	ug/L	80	KED
|>	**In**	115	421209.7	1.7				ug/L	416461	KED
|	**Sn**	118	118326.5	2.7	**40.0015**	0.791	2.0	ug/L	798	KED
|	**Sb**	123	92831.6	2.0	**40.0153**	0.874	2.2	ug/L	185	KED
⌊	**Ba**	135	121081.5	0.3	**119.9983**	2.065	1.7	ug/L	35	KED
	Ce	140	115.0	11.7				ug/L	48	KED
	Tb	159	1368590.0	0.4				ug/L	1349973	KED
⌈	**Ho**	165	15.7	9.8				ug/L	15	KED
|	**Tl**	203	78894.2	1.0	**8.0004**	0.081	1.0	ug/L	39	KED
|	**Tl**	205	191688.0	1.2	**8.0003**	0.079	1.0	ug/L	110	KED
|	**Pb**	206	321814.4	1.7	**40.0014**	0.619	1.5	ug/L	878	KED
|	**Pb**	207	280393.5	1.0	**40.0026**	0.328	0.8	ug/L	802	KED
|	**Pb**	208	693672.2	1.3	**40.0005**	0.438	1.1	ug/L	1923	KED
|	**U**	238	1348818.7	1.6	**40.0018**	0.572	1.4	ug/L	322	KED

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	Th	232	1051238.5	3.0	**40.0659**	1.100	2.7	ug/L	1972	KED
>	**Bi**	209	1023171.1	0.2				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	68998.5	2.7	**4.9993**	0.181	3.6	mg/L	260	KED
	K	39	0.0					mg/L	0	KED
	Ca	43	0.0		**4.7521**	0.000	0.0	mg/L	3	KED
	Fe	54	8165.5	4.4	**4.9981**	0.252	5.0	mg/L	7	KED
	Fe	57	34581.1	2.0	**5.0001**	0.132	2.6	mg/L	15	KED
>	**Sc-1**	45	22659.3	0.9				mg/L	22691	KED
	Cl	35	2196.8	8.9				ug/L	2163	KED
	Kr	83	0.0					ug/L	2	KED
	Br	81	40.0	25.0				ug/L	57	KED
	P	31	101.7	7.5				ug/L	107	KED
	S	34	28.3	36.7				ug/L	23	KED
	Sr	88	131.7	7.9				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72			
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: Standard 4
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	Rh	103
⌈	Mo	98
|	Ag	107
|	Cd	111
|	Cd	114
|>	In	115
|	Sn	118
|	Sb	123
⌊	Ba	135
	Ce	140
	Tb	159
⌈	Ho	165
|	Tl	203
|	Tl	205
|	Pb	206
|	Pb	207
|	Pb	208
|	U	238
|	Th	232
⌊>	Bi	209
⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88
	C	12
	N	14

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: Standard 4
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Method 6020 - Summary Report

Sample ID: Standard 5
Sample Date/Time: Monday, September 09, 2019 08:19:37
Number of Replicates: 3
Autosampler Position: 5
Sample Description:
Method File: C:\NexION\Data\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	17485.1	1.2				ug/L	18248	KED
|	**Be**	9	2293.2	1.3	**15.7080**	0.296	1.9	ug/L	1	KED
|	**Al**	27	636328.4	1.1				ug/L	132	KED
|>	**Sc-2**	45	22985.1	3.2				ug/L	22691	KED
⌈	**Ti**	47	354.3	9.6	**79.9322**	7.631	9.5	ug/L	3	KED
|	**V**	51	98764.1	3.3	**80.0845**	2.585	3.2	ug/L	2353	KED
|	**Cr**	52	335214.8	2.2	**160.1324**	3.337	2.1	ug/L	414	KED
|	**Cr**	53	50425.5	2.2	**160.5042**	3.933	2.5	ug/L	1770	KED
|	**Mn**	55	333198.6	1.8	**160.1883**	3.062	1.9	ug/L	187	KED
|	**Co**	59	569855.8	1.9	**79.8575**	1.669	2.1	ug/L	69	KED
|	**Ni**	60	629517.1	1.1	**319.1482**	4.469	1.4	ug/L	237	KED
|	**Cu**	65	418593.8	1.8	**159.6539**	3.062	1.9	ug/L	283	KED
|	**Zn**	66	1301275.9	1.9	**1596.2833**	32.207	2.0	ug/L	617	KED
|>	**Ge**	72	397410.1	0.4				ug/L	393258	KED
|	**As**	75	48184.5	1.6	**79.8814**	1.261	1.6	ug/L	386	KED
|	**Se**	82	2449.0	0.9	**79.9858**	0.436	0.5	ug/L	17	KED
|	**Se-1**	78	5114.0	1.9	**80.0247**	1.507	1.9	ug/L	41	KED
⌊	**Se-1**	80	43629.2	1.4	**79.3507**	2.947	3.7	ug/L	30857	KED
	Ga	71	75.0	17.6				ug/L	97	KED
	Rb	85	608.3	15.5				ug/L	5	KED
	Y	89	390219.3	2.2				ug/L	380328	KED
	Rh	103	76.7	10.0				ug/L	8	KED
⌈	**Mo**	98	467857.5	1.4	**80.2349**	3.422	4.3	ug/L	281	KED
|	**Ag**	107	928430.1	0.7	**79.6370**	2.964	3.7	ug/L	287	KED
|	**Cd**	111	76878.6	1.2	**47.7335**	1.276	2.7	ug/L	26	KED
|	**Cd**	114	186961.4	0.3	**47.7719**	1.525	3.2	ug/L	80	KED
|>	**In**	115	430904.1	3.2				ug/L	416461	KED
|	**Sn**	118	239759.2	1.9	**79.9118**	3.307	4.1	ug/L	798	KED
|	**Sb**	123	193153.0	1.9	**80.2976**	2.691	3.4	ug/L	185	KED
⌊	**Ba**	135	246549.5	0.5	**239.7955**	7.143	3.0	ug/L	35	KED
	Ce	140	190.3	7.3				ug/L	48	KED
	Tb	159	1414431.5	1.7				ug/L	1349973	KED
⌈	**Ho**	165	17.0	10.2				ug/L	15	KED
|	**Tl**	203	161704.7	1.2	**16.0534**	0.536	3.3	ug/L	39	KED
|	**Tl**	205	390756.7	1.1	**16.0364**	0.569	3.5	ug/L	110	KED
|	**Pb**	206	656529.1	0.3	**80.2081**	1.738	2.2	ug/L	878	KED
|	**Pb**	207	569296.5	0.8	**80.1321**	1.495	1.9	ug/L	802	KED
|	**Pb**	208	1412014.8	1.2	**80.1721**	1.806	2.3	ug/L	1923	KED
|	**U**	238	2792224.0	2.5	**80.4164**	1.675	2.1	ug/L	322	KED

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	Th	232	2460471.3	1.5	**82.3214**	1.662	2.0	ug/L	1972	KED
>	**Bi**	209	1032016.5	2.5				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	130370.4	2.4	**9.8591**	0.461	4.7	mg/L	260	KED
	K	39	1.7	173.2	**12.5065**	21.662	173.2	mg/L	0	KED
	Ca	43	3.3	173.2	**0.1443**	40.346	27964.2	mg/L	3	KED
	Fe	54	15971.7	1.7	**9.9273**	0.417	4.2	mg/L	7	KED
	Fe	57	67063.2	3.0	**9.9107**	0.544	5.5	mg/L	15	KED
>	**Sc-1**	45	22985.1	3.2				mg/L	22691	KED
	Cl	35	1965.1	1.3				ug/L	2163	KED
	Kr	83	0.0					ug/L	2	KED
	Br	81	55.0					ug/L	57	KED
	P	31	121.7	6.3				ug/L	107	KED
	S	34	43.3	35.3				ug/L	23	KED
	Sr	88	183.3	15.0				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72			
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103
⌈	Mo	98
|	Ag	107
|	Cd	111
|	Cd	114
|>	In	115
|	Sn	118
|	Sb	123
⌊	Ba	135
	Ce	140
	Tb	159
⌈	Ho	165
|	Tl	203
|	Tl	205
|	Pb	206
|	Pb	207
|	Pb	208
|	U	238
|	Th	232
⌊>	Bi	209
⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88
	C	12
	N	14

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Corr. Coef.	Na	23	Correlation coefficient < 0.998
Corr. Coef.	K	39	Correlation coefficient < 0.998
Corr. Coef.	Ca	43	Correlation coefficient < 0.998

Sample ID: Standard 5
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Method 6020 - Summary Report

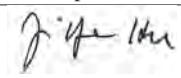
Sample ID: QC Std 1
Sample Date/Time: Monday, September 09, 2019 08:22:30
Number of Replicates: 3
Autosampler Position: 201
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	17216.5	5.2				ug/L	18248	KED
|	Be	9	881.4	3.5	6.0779	0.465	7.7	ug/L	1	KED
|	Al	27	257907.0	1.9				ug/L	132	KED
|>	Sc-2	45	22865.3	5.1				ug/L	22691	KED
⌈	Ti	47	128.7	7.0	29.2855	1.463	5.0	ug/L	3	KED
|	V	51	40316.9	2.0	32.3276	2.060	6.4	ug/L	2353	KED
|	Cr	52	135733.4	2.0	66.2911	4.269	6.4	ug/L	414	KED
|	Cr	53	20345.3	4.2	62.8084	3.867	6.2	ug/L	1770	KED
|	Mn	55	134366.5	0.2	66.0771	3.247	4.9	ug/L	187	KED
|	Co	59	230837.9	2.0	33.1257	2.169	6.5	ug/L	69	KED
|	Ni	60	253849.6	2.3	131.7307	8.622	6.5	ug/L	237	KED
|	Cu	65	169733.1	0.5	66.2156	3.458	5.2	ug/L	283	KED
|	Zn	66	527103.7	0.5	661.5559	34.644	5.2	ug/L	617	KED
|>	Ge	72	388820.9	4.9				ug/L	393258	KED
|	As	75	19484.9	2.5	32.7103	2.408	7.4	ug/L	386	KED
|	Se	82	980.4	3.3	32.4747	2.705	8.3	ug/L	17	KED
|	Se-1	78	2097.8	1.8	33.2451	2.129	6.4	ug/L	41	KED
⌊	Se-1	80	36390.5	0.2	38.7333	12.326	31.8	ug/L	30857	KED
	Ga	71	96.7	21.5				ug/L	97	KED
	Rb	85	246.7	14.2				ug/L	5	KED
	Y	89	371007.6	3.5				ug/L	380328	KED
	Rh	103	31.7	48.2				ug/L	8	KED
⌈	Mo	98	183818.6	2.8	32.7149	2.495	7.6	ug/L	281	KED
|	Ag	107	378099.7	3.4	33.6827	2.793	8.3	ug/L	287	KED
|	Cd	111	31109.3	3.3	20.0640	1.633	8.1	ug/L	26	KED
|	Cd	114	75450.8	2.3	20.0146	1.445	7.2	ug/L	80	KED
|>	In	115	415477.7	4.7				ug/L	416461	KED
|	Sn	118	100586.1	3.9	34.6847	3.098	8.9	ug/L	798	KED
|	Sb	123	77452.3	3.3	33.4092	2.621	7.8	ug/L	185	KED
⌊	Ba	135	100785.9	2.8	101.8080	7.452	7.3	ug/L	35	KED
	Ce	140	92.3	6.3				ug/L	48	KED
	Tb	159	1362111.4	4.4				ug/L	1349973	KED
⌈	Ho	165	18.7	22.3				ug/L	15	KED
|	Tl	203	65537.5	2.2	6.5553	0.417	6.4	ug/L	39	KED
|	Tl	205	158703.5	2.4	6.5617	0.432	6.6	ug/L	110	KED
|	Pb	206	264527.5	2.1	32.5098	1.978	6.1	ug/L	878	KED
|	Pb	207	229425.4	2.6	32.4881	2.144	6.6	ug/L	802	KED
|	Pb	208	569823.2	2.4	32.5459	2.009	6.2	ug/L	1923	KED
|	U	238	1124188.6	3.0	32.6389	2.183	6.7	ug/L	322	KED

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	Th	232	881569.0	3.6	**29.6630**	1.262	4.3	ug/L	1972	KED
>	**Bi**	209	1025235.0	4.3				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	53154.8	2.1	**4.0341**	0.264	6.5	mg/L	260	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**23.4379**	0.000	0.0	mg/L	3	KED
	Fe	54	6626.4	2.6	**4.1404**	0.205	5.0	mg/L	7	KED
	Fe	57	27665.2	2.0	**4.1094**	0.158	3.9	mg/L	15	KED
>	**Sc-1**	45	22865.3	5.1				mg/L	22691	KED
	Cl	35	1963.5	9.7				ug/L	2163	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	48.3	26.0				ug/L	57	KED
	P	31	105.0	9.5				ug/L	107	KED
	S	34	51.7	24.4				ug/L	23	KED
	Sr	88	83.3	3.5				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9	94.967		
	Al	27			
>	Sc-2	45		100.770	
	Ti	47	91.517		
	V	51	101.024		
	Cr	52	103.580		
	Cr	53			
	Mn	55	103.245		
	Co	59	103.518		
	Ni	60	102.915		
	Cu	65	103.462		
	Zn	66	103.368		
>	Ge	72		98.872	
	As	75	102.220		
	Se	82	101.483		
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103			
⌈	Mo	98	102.234		
|	Ag	107	105.258		
|	Cd	111	104.500		
|	Cd	114			
| >	In	115		99.764	
|	Sn	118	108.390		
|	Sb	123	104.404		
⌊	Ba	135	106.050		
	Ce	140			
	Tb	159			
⌈	Ho	165			
|	Tl	203	102.426		
|	Tl	205			
|	Pb	206	101.593		
|	Pb	207	101.525		
|	Pb	208	101.706		
|	U	238	101.997		
|	Th	232	92.697		
⌊ >	Bi	209		100.267	
⌈	Na	23			
|	Mg	24	89.647		
|	K	39	0.000		
|	Ca	43	520.842		
|	Fe	54	92.009		
|	Fe	57	91.319		
⌊ >	Sc-1	45		100.770	
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	Mg	24	
QC Std 1	K	39	
QC Std 1	Ca	43	

Sample ID: QC Std 1
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Method 6020 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Monday, September 09, 2019 08:25:23
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	18482.9	3.8				ug/L	18248	KED
|	**Be**	9	1.7	34.6	**0.0069**	0.004	63.2	ug/L	1	KED
|	**Al**	27	308.3	21.4				ug/L	132	KED
|>	**Sc-2**	45	23121.3	4.6				ug/L	22691	KED
⌈	**Ti**	47	4.0	50.0	**0.2847**	0.411	144.3	ug/L	3	KED
|	**V**	51	1632.8	7.9	**-0.6143**	0.162	26.4	ug/L	2353	KED
|	**Cr**	52	438.0	7.4	**0.0100**	0.025	251.5	ug/L	414	KED
|	**Cr**	53	1228.4	15.7	**-1.8249**	0.811	44.4	ug/L	1770	KED
|	**Mn**	55	206.7	13.4	**0.0090**	0.017	192.2	ug/L	187	KED
|	**Co**	59	146.7	16.7	**0.0108**	0.004	37.9	ug/L	69	KED
|	**Ni**	60	263.7	21.7	**0.0129**	0.032	250.8	ug/L	237	KED
|	**Cu**	65	380.0	7.2	**0.0357**	0.008	21.1	ug/L	283	KED
|	**Zn**	66	828.7	9.0	**0.2548**	0.122	48.0	ug/L	617	KED
|>	**Ge**	72	397534.8	5.1				ug/L	393258	KED
|	**As**	75	309.3	9.0	**-0.1342**	0.062	46.0	ug/L	386	KED
|	**Se**	82	15.7	16.4	**-0.0582**	0.103	177.5	ug/L	17	KED
|	**Se-1**	78	43.3	10.9	**0.0380**	0.073	191.1	ug/L	41	KED
⌊	**Se-1**	80	31380.6	0.4	**1.5201**	9.643	634.4	ug/L	30857	KED
	Ga	71	73.3	31.5				ug/L	97	KED
	Rb	85	10.0					ug/L	5	KED
	Y	89	381300.0	4.7				ug/L	380328	KED
	Rh	103	6.7	114.6				ug/L	8	KED
⌈	**Mo**	98	1068.4	15.4	**0.1371**	0.036	26.5	ug/L	281	KED
|	**Ag**	107	516.0	30.9	**0.0192**	0.012	61.7	ug/L	287	KED
|	**Cd**	111	54.7	34.0	**0.0178**	0.011	61.6	ug/L	26	KED
|	**Cd**	114	135.3	15.9	**0.0138**	0.005	32.8	ug/L	80	KED
|>	**In**	115	424654.6	4.5				ug/L	416461	KED
|	**Sn**	118	1205.0	7.9	**0.1335**	0.044	32.6	ug/L	798	KED
|	**Sb**	123	1867.4	4.4	**0.7101**	0.063	8.9	ug/L	185	KED
⌊	**Ba**	135	76.7	39.0	**0.0401**	0.028	70.0	ug/L	35	KED
	Ce	140	36.0	24.1				ug/L	48	KED
	Tb	159	1406159.5	5.8				ug/L	1349973	KED
⌈	**Ho**	165	14.3	40.3				ug/L	15	KED
|	**Tl**	203	62.3	22.7	**0.0022**	0.001	59.9	ug/L	39	KED
|	**Tl**	205	179.3	34.2	**0.0027**	0.003	93.1	ug/L	110	KED
|	**Pb**	206	1055.0	6.8	**0.0193**	0.011	57.6	ug/L	878	KED
|	**Pb**	207	890.7	8.3	**0.0098**	0.009	95.6	ug/L	802	KED
|	**Pb**	208	2286.8	15.4	**0.0183**	0.022	120.9	ug/L	1923	KED
|	**U**	238	1317.7	56.0	**0.0286**	0.022	77.0	ug/L	322	KED

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	Th	232	8266.0	18.7	**0.2055**	0.038	18.5	ug/L	1972	KED
>	**Bi**	209	1045262.7	4.4				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	341.7	14.2	**0.0059**	0.004	73.2	mg/L	260	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**11.4617**	20.743	181.0	mg/L	3	KED
	Fe	54	8.3	69.3	**0.0010**	0.004	367.2	mg/L	7	KED
	Fe	57	48.3	29.9	**0.0049**	0.002	49.2	mg/L	15	KED
>	**Sc-1**	45	23121.3	4.6				mg/L	22691	KED
	Cl	35	2085.1	6.4				ug/L	2163	KED
	Kr	83	3.3	86.6				ug/L	2	KED
	Br	81	68.3	22.4				ug/L	57	KED
	P	31	105.0	29.0				ug/L	107	KED
	S	34	23.3	32.7				ug/L	23	KED
	Sr	88	43.3	6.7				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		101.898	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		101.087	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	101.967
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	102.226
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	101.898
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 2	V	51	
QC Std 2	Sb	123	
QC Std 2	Ca	43	

Sample ID: QC Std 2
Report Date/Time: Monday, September 09, 2019 08:27:43
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Method 6020 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Monday, September 09, 2019 08:28:26
Number of Replicates: 3
Autosampler Position: 202
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	17887.3	7.1				ug/L	18248	KED
|	Be	9	27.7	9.1	**0.1860**	0.017	9.0	ug/L	1	KED
|	Al	27	6751.5	3.1				ug/L	132	KED
|>	Sc-2	45	22854.9	3.1				ug/L	22691	KED
⌈	Ti	47	6.7	8.7	**0.9152**	0.171	18.7	ug/L	3	KED
|	V	51	2844.3	4.1	**0.4032**	0.115	28.4	ug/L	2353	KED
|	Cr	52	3911.2	1.2	**1.6827**	0.061	3.6	ug/L	414	KED
|	Cr	53	1820.1	8.8	**0.1449**	0.603	416.4	ug/L	1770	KED
|	Mn	55	3600.4	0.7	**1.6525**	0.059	3.6	ug/L	187	KED
|	Co	59	6045.5	1.4	**0.8432**	0.034	4.1	ug/L	69	KED
|	Ni	60	6812.2	1.1	**3.3559**	0.097	2.9	ug/L	237	KED
|	Cu	65	4805.1	2.8	**1.7367**	0.078	4.5	ug/L	283	KED
|	Zn	66	15889.3	2.4	**18.8633**	0.746	4.0	ug/L	617	KED
|>	Ge	72	395038.0	2.7				ug/L	393258	KED
|	As	75	827.4	2.3	**0.7387**	0.012	1.7	ug/L	386	KED
|	Se	82	45.3	15.0	**0.9212**	0.188	20.4	ug/L	17	KED
|	Se-1	78	94.3	2.4	**0.8524**	0.065	7.7	ug/L	41	KED
⌊	Se-1	80	31461.8	0.1	**3.0785**	5.326	173.0	ug/L	30857	KED
	Ga	71	71.7	31.5				ug/L	97	KED
	Rb	85	23.3	65.5				ug/L	5	KED
	Y	89	369729.9	3.3				ug/L	380328	KED
	Rh	103	8.3	69.3				ug/L	8	KED
⌈	Mo	98	4840.4	1.1	**0.8128**	0.031	3.8	ug/L	281	KED
|	Ag	107	10038.7	2.6	**0.8689**	0.029	3.4	ug/L	287	KED
|	Cd	111	819.7	3.4	**0.5120**	0.006	1.3	ug/L	26	KED
|	Cd	114	1962.5	1.1	**0.4997**	0.014	2.8	ug/L	80	KED
|>	In	115	414829.4	2.5				ug/L	416461	KED
|	Sn	118	3347.4	2.0	**0.8863**	0.030	3.4	ug/L	798	KED
|	Sb	123	2229.2	1.8	**0.8837**	0.029	3.3	ug/L	185	KED
⌊	Ba	135	2564.9	0.8	**2.5556**	0.046	1.8	ug/L	35	KED
	Ce	140	50.3	21.1				ug/L	48	KED
	Tb	159	1341324.5	2.1				ug/L	1349973	KED
⌈	Ho	165	12.0	14.4				ug/L	15	KED
|	Tl	203	1663.8	2.9	**0.1619**	0.004	2.6	ug/L	39	KED
|	Tl	205	3964.5	0.8	**0.1588**	0.002	1.6	ug/L	110	KED
|	Pb	206	7441.8	2.2	**0.8060**	0.033	4.1	ug/L	878	KED
|	Pb	207	6598.1	2.1	**0.8198**	0.023	2.9	ug/L	802	KED
|	Pb	208	16158.3	1.0	**0.8122**	0.018	2.2	ug/L	1923	KED
|	U	238	27585.4	2.4	**0.7889**	0.034	4.3	ug/L	322	KED

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	Th	232	11407.8	43.2	**0.3183**	0.173	54.2	ug/L	1972	KED
>	**Bi**	209	1027675.3	2.4				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	1695.1	2.6	**0.1093**	0.007	6.5	mg/L	260	KED
	K	39	1.7	173.2	**12.6356**	21.886	173.2	mg/L	0	KED
	Ca	43	0.0		**23.4379**	0.000	0.0	mg/L	3	KED
	Fe	54	198.3	13.9	**0.1199**	0.019	15.5	mg/L	7	KED
	Fe	57	725.0	11.8	**0.1054**	0.012	11.2	mg/L	15	KED
>	**Sc-1**	45	22854.9	3.1				mg/L	22691	KED
	Cl	35	2103.5	2.9				ug/L	2163	KED
	Kr	83	0.0					ug/L	2	KED
	Br	81	56.7	10.2				ug/L	57	KED
	P	31	83.3	30.2				ug/L	107	KED
	S	34	31.7	9.1				ug/L	23	KED
	Sr	88	40.0	33.1				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9	232.442		
	Al	27			
>	Sc-2	45		100.724	
	Ti	47			
	V	51	100.794		
	Cr	52	210.342		
	Cr	53			
	Mn	55	206.558		
	Co	59	210.793		
	Ni	60	209.743		
	Cu	65	217.089		
	Zn	66	235.792		
>	Ge	72		100.453	
	As	75	184.680		
	Se	82	230.296		
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107	217.227	
|	Cd	111	213.341	
|	Cd	114		
| >	In	115		99.608
|	Sn	118		
|	Sb	123	220.914	
⌊	Ba	135	212.968	
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203	202.375	
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208	203.056	
|	U	238	197.233	
|	Th	232	79.586	
⌊ >	Bi	209		100.506
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		100.724
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Be	9	
QC Std 3	Cr	52	
QC Std 3	Mn	55	
QC Std 3	Co	59	
QC Std 3	Ni	60	
QC Std 3	Cu	65	
QC Std 3	Zn	66	
QC Std 3	As	75	
QC Std 3	Se	82	

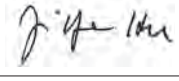
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QC Std 3	Ag	107
QC Std 3	Cd	111
QC Std 3	Sb	123
QC Std 3	Ba	135
QC Std 3	Tl	203
QC Std 3	Pb	208
QC Std 3	U	238

Sample ID: QC Std 3
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Method 6020 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Monday, September 09, 2019 08:31:34
Number of Replicates: 3
Autosampler Position: 203
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	16886.1	2.0				ug/L	18248	KED
|	**Be**	9	0.0		**-0.0046**	0.000	0.0	ug/L	1	KED
|	**Al**	27	285796.0	4.9				ug/L	132	KED
|>	**Sc-2**	45	23380.7	0.9				ug/L	22691	KED
⌈	**Ti**	47	381.3	8.0	**85.5122**	7.226	8.5	ug/L	3	KED
|	**V**	51	1138.4	10.9	**-1.0356**	0.106	10.3	ug/L	2353	KED
|	**Cr**	52	725.4	6.6	**0.1443**	0.021	14.8	ug/L	414	KED
|	**Cr**	53	1028.4	11.2	**-2.5317**	0.384	15.2	ug/L	1770	KED
|	**Mn**	55	4762.1	5.3	**2.1847**	0.129	5.9	ug/L	187	KED
|	**Co**	59	146.3	21.9	**0.0105**	0.004	41.5	ug/L	69	KED
|	**Ni**	60	609.7	3.1	**0.1858**	0.011	5.8	ug/L	237	KED
|	**Cu**	65	753.4	5.0	**0.1763**	0.015	8.7	ug/L	283	KED
|	**Zn**	66	4778.4	3.4	**5.0606**	0.223	4.4	ug/L	617	KED
|>	**Ge**	72	400110.1	0.4				ug/L	393258	KED
|	**As**	75	246.0	2.8	**-0.2441**	0.013	5.4	ug/L	386	KED
|	**Se**	82	14.0	6.2	**-0.1188**	0.027	22.4	ug/L	17	KED
|	**Se-1**	78	42.5	4.7	**0.0202**	0.029	141.3	ug/L	41	KED
⌊	**Se-1**	80	32035.7	0.9	**4.0648**	2.759	67.9	ug/L	30857	KED
	Ga	71	73.3	20.8				ug/L	97	KED
	Rb	85	345.0	16.3				ug/L	5	KED
	Y	89	401127.1	0.2				ug/L	380328	KED
	Rh	103	15.0	0.0				ug/L	8	KED
⌈	**Mo**	98	550148.1	3.2	**91.7163**	2.418	2.6	ug/L	281	KED
|	**Ag**	107	271.0	2.2	**-0.0028**	0.001	21.1	ug/L	287	KED
|	**Cd**	111	171.3	11.1	**0.0869**	0.010	11.9	ug/L	26	KED
|	**Cd**	114	353.0	3.4	**0.0665**	0.004	5.6	ug/L	80	KED
|>	**In**	115	442889.2	1.1				ug/L	416461	KED
|	**Sn**	118	1486.1	6.7	**0.2071**	0.030	14.7	ug/L	798	KED
|	**Sb**	123	751.0	10.4	**0.2241**	0.031	13.9	ug/L	185	KED
⌊	**Ba**	135	58.7	14.5	**0.0203**	0.008	39.0	ug/L	35	KED
	Ce	140	84.0	7.1				ug/L	48	KED
	Tb	159	1474536.6	0.8				ug/L	1349973	KED
⌈	**Ho**	165	13.0	20.4				ug/L	15	KED
|	**Tl**	203	68.0	3.9	**0.0027**	0.000	9.0	ug/L	39	KED
|	**Tl**	205	157.7	7.9	**0.0018**	0.001	28.9	ug/L	110	KED
|	**Pb**	206	1239.1	3.4	**0.0398**	0.005	11.3	ug/L	878	KED
|	**Pb**	207	1070.7	5.5	**0.0334**	0.009	25.5	ug/L	802	KED
|	**Pb**	208	2757.6	10.7	**0.0429**	0.017	39.0	ug/L	1923	KED
|	**U**	238	482.7	143.1	**0.0043**	0.020	456.6	ug/L	322	KED

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	Th	232	29535.3	10.8	**0.9003**	0.107	11.9	ug/L	1972	KED
>	**Bi**	209	1055590.5	0.4				ug/L	1022503	KED
	Na	23	1.7	173.2				mg/L	0	KED
	Mg	24	139392.0	3.1	**10.3567**	0.378	3.7	mg/L	260	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**12.0322**	19.755	164.2	mg/L	3	KED
	Fe	54	17498.4	3.6	**10.6862**	0.467	4.4	mg/L	7	KED
	Fe	57	74784.3	4.2	**10.8572**	0.549	5.1	mg/L	15	KED
>	**Sc-1**	45	23380.7	0.9				mg/L	22691	KED
	Cl	35	3117.0	5.0				ug/L	2163	KED
	Kr	83	5.0	100.0				ug/L	2	KED
	Br	81	43.3	35.3				ug/L	57	KED
	P	31	86.7	8.8				ug/L	107	KED
	S	34	21.7	53.3				ug/L	23	KED
	Sr	88	251.7	25.9				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		103.041	
	Ti	47	85.512		
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		101.742	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103			
⌈	Mo	98	91.716		
|	Ag	107			
|	Cd	111			
|	Cd	114			
| >	In	115		106.346	
|	Sn	118			
|	Sb	123			
⌊	Ba	135			
	Ce	140			
	Tb	159			
⌈	Ho	165			
|	Tl	203			
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208			
|	U	238			
|	Th	232			
⌊ >	Bi	209		103.236	
⌈	Na	23			
|	Mg	24	207.134		
|	K	39	0.000		
|	Ca	43	80.215		
|	Fe	54	85.490		
|	Fe	57	86.858		
⌊ >	Sc-1	45		103.041	
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 4	V	51	
QC Std 4	Mn	55	
QC Std 4	Th	232	
QC Std 4	Mg	24	
QC Std 4	K	39	

Sample ID: QC Std 4
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Method 6020 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Monday, September 09, 2019 08:34:27
Number of Replicates: 3
Autosampler Position: 204
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	16886.1	2.6				ug/L	18248	KED
|	Be	9	13687.5	4.7	92.0581	1.923	2.1	ug/L	1	KED
|	Al	27	269855.5	3.5				ug/L	132	KED
\>	Sc-2	45	23398.1	2.8				ug/L	22691	KED
⌈	Ti	47	371.0	6.6	83.0978	5.946	7.2	ug/L	3	KED
|	V	51	125638.2	3.5	101.5893	2.259	2.2	ug/L	2353	KED
|	Cr	52	214427.6	4.4	101.5397	3.124	3.1	ug/L	414	KED
|	Cr	53	32154.1	5.0	99.3573	4.142	4.2	ug/L	1770	KED
|	Mn	55	214738.1	4.2	102.3867	3.395	3.3	ug/L	187	KED
|	Co	59	735397.9	3.9	102.2327	2.478	2.4	ug/L	69	KED
|	Ni	60	202739.6	2.4	101.8914	0.962	0.9	ug/L	237	KED
|	Cu	65	264730.6	2.8	100.1352	1.726	1.7	ug/L	283	KED
|	Zn	66	81607.3	2.8	98.6084	2.047	2.1	ug/L	617	KED
\>	Ge	72	400523.8	1.7				ug/L	393258	KED
|	As	75	60268.4	2.8	99.2943	2.144	2.2	ug/L	386	KED
|	Se	82	2984.3	3.4	96.8132	1.703	1.8	ug/L	17	KED
|	Se-1	78	6161.3	3.1	95.7887	2.489	2.6	ug/L	41	KED
⌊	Se-1	80	46523.7	1.6	95.5218	3.571	3.7	ug/L	30857	KED
	Ga	71	110.0	19.8				ug/L	97	KED
	Rb	85	266.7	15.7				ug/L	5	KED
	Y	89	387363.4	1.6				ug/L	380328	KED
	Rh	103	115.0	23.0				ug/L	8	KED
⌈	Mo	98	535741.8	3.2	89.1834	2.295	2.6	ug/L	281	KED
|	Ag	107	993654.3	15.9	82.6844	12.521	15.1	ug/L	287	KED
|	Cd	111	166302.3	4.0	100.2735	3.422	3.4	ug/L	26	KED
|	Cd	114	394459.2	4.1	97.8678	3.384	3.5	ug/L	80	KED
\>	In	115	443515.6	0.7				ug/L	416461	KED
|	Sn	118	3003.3	2.3	0.6990	0.015	2.2	ug/L	798	KED
|	Sb	123	283464.2	3.5	114.4458	3.339	2.9	ug/L	185	KED
⌊	Ba	135	110970.8	3.2	104.7652	2.626	2.5	ug/L	35	KED
	Ce	140	99.0	13.1				ug/L	48	KED
	Tb	159	1472200.1	0.2				ug/L	1349973	KED
⌈	Ho	165	17.3	8.8				ug/L	15	KED
|	Tl	203	1064578.9	0.8	103.1561	1.156	1.1	ug/L	39	KED
|	Tl	205	2678109.8	1.1	107.2685	0.689	0.6	ug/L	110	KED
|	Pb	206	853103.1	4.2	101.7369	3.698	3.6	ug/L	878	KED
|	Pb	207	747436.6	4.0	102.7057	3.545	3.5	ug/L	802	KED
|	Pb	208	1835447.4	4.4	101.7296	3.872	3.8	ug/L	1923	KED
|	U	238	3701715.7	3.8	104.0690	3.694	3.5	ug/L	322	KED

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	Th	232	30180.0	22.5	**0.9209**	0.228	24.8	ug/L	1972	KED
>	**Bi**	209	1057041.6	0.8				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	135296.8	3.1	**10.0424**	0.100	1.0	mg/L	260	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**23.4379**	0.000	0.0	mg/L	3	KED
	Fe	54	17498.4	4.5	**10.6726**	0.207	1.9	mg/L	7	KED
	Fe	57	75618.5	4.6	**10.9650**	0.329	3.0	mg/L	15	KED
>	**Sc-1**	45	23398.1	2.8				mg/L	22691	KED
	Cl	35	2901.9	1.2				ug/L	2163	KED
	Kr	83	0.0					ug/L	2	KED
	Br	81	55.0	24.1				ug/L	57	KED
	P	31	105.0	4.8				ug/L	107	KED
	S	34	20.0	50.0				ug/L	23	KED
	Sr	88	238.3	6.7				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9	92.058		
	Al	27			
>	Sc-2	45		103.118	
	Ti	47	83.098		
	V	51	101.589		
	Cr	52	101.540		
	Cr	53			
	Mn	55	102.387		
	Co	59	102.233		
	Ni	60	101.891		
	Cu	65	100.135		
	Zn	66	98.608		
>	Ge	72		101.848	
	As	75	99.294		
	Se	82	96.813		
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98	89.183	
|	Ag	107	82.684	
|	Cd	111	100.274	
|	Cd	114		
|>	In	115		106.496
|	Sn	118		
|	Sb	123	114.446	
⌊	Ba	135	104.765	
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203	103.156	
|	Tl	205		
|	Pb	206	101.737	
|	Pb	207	102.706	
|	Pb	208	101.730	
|	U	238	104.069	
|	Th	232		
⌊>	Bi	209		103.378
⌈	Na	23		
|	Mg	24	200.848	
|	K	39	0.000	
|	Ca	43	156.252	
|	Fe	54	85.381	
|	Fe	57	87.720	
⌊>	Sc-1	45		103.118
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Mg	24	
QC Std 5	K	39	
QC Std 5	Ca	43	

Sample ID: QC Std 5
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Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, September 09, 2019 08:37:21
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	16752.6	1.3				ug/L	18248	KED
|	**Be**	9	906.0	1.4	**6.3473**	0.225	3.6	ug/L	1	KED
|	**Al**	27	248132.2	1.5				ug/L	132	KED
⌊>	**Sc-2**	45	22467.7	2.4				ug/L	22691	KED
⌈	**Ti**	47	138.7	7.2	**31.6930**	2.349	7.4	ug/L	3	KED
|	**V**	51	39087.4	1.0	**31.3076**	0.398	1.3	ug/L	2353	KED
|	**Cr**	52	131165.7	1.2	**64.0934**	0.908	1.4	ug/L	414	KED
|	**Cr**	53	19801.3	3.9	**61.0599**	2.571	4.2	ug/L	1770	KED
|	**Mn**	55	130386.8	2.0	**64.1832**	1.343	2.1	ug/L	187	KED
|	**Co**	59	224313.6	0.7	**32.2070**	0.296	0.9	ug/L	69	KED
|	**Ni**	60	247439.5	0.7	**128.4773**	0.724	0.6	ug/L	237	KED
|	**Cu**	65	166706.4	0.3	**65.0934**	0.289	0.4	ug/L	283	KED
|	**Zn**	66	514739.8	1.0	**646.6262**	7.905	1.2	ug/L	617	KED
| >	**Ge**	72	387798.8	0.2				ug/L	393258	KED
|	**As**	75	19055.6	2.4	**31.9871**	0.863	2.7	ug/L	386	KED
|	**Se**	82	989.7	1.2	**32.7883**	0.458	1.4	ug/L	17	KED
|	**Se-1**	78	2071.3	1.0	**32.8382**	0.366	1.1	ug/L	41	KED
⌊	**Se-1**	80	36009.9	0.5	**36.4658**	1.077	3.0	ug/L	30857	KED
	Ga	71	78.3	32.8				ug/L	97	KED
	Rb	85	256.7	15.1				ug/L	5	KED
	Y	89	370714.0	1.1				ug/L	380328	KED
	Rh	103	48.3	36.3				ug/L	8	KED
⌈	**Mo**	98	178835.2	2.2	**31.4433**	1.125	3.6	ug/L	281	KED
|	**Ag**	107	384234.5	2.2	**33.8108**	1.221	3.6	ug/L	287	KED
|	**Cd**	111	30674.0	2.1	**19.5408**	0.642	3.3	ug/L	26	KED
|	**Cd**	114	74080.4	1.5	**19.4115**	0.323	1.7	ug/L	80	KED
| >	**In**	115	419682.4	1.7				ug/L	416461	KED
|	**Sn**	118	96506.4	1.6	**32.8482**	0.987	3.0	ug/L	798	KED
|	**Sb**	123	74223.5	2.9	**31.6308**	1.449	4.6	ug/L	185	KED
⌊	**Ba**	135	99458.4	0.4	**99.2540**	1.492	1.5	ug/L	35	KED
	Ce	140	111.7	49.2				ug/L	48	KED
	Tb	159	1372515.8	0.9				ug/L	1349973	KED
⌈	**Ho**	165	17.3	17.6				ug/L	15	KED
|	**Tl**	203	64383.5	0.6	**6.4088**	0.053	0.8	ug/L	39	KED
|	**Tl**	205	156294.4	1.0	**6.4304**	0.019	0.3	ug/L	110	KED
|	**Pb**	206	261004.1	1.3	**31.9270**	0.698	2.2	ug/L	878	KED
|	**Pb**	207	226651.5	1.2	**31.9398**	0.545	1.7	ug/L	802	KED
|	**Pb**	208	561548.9	1.3	**31.9219**	0.533	1.7	ug/L	1923	KED
|	**U**	238	1095003.4	1.3	**31.6404**	0.591	1.9	ug/L	322	KED

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	Th	232	779681.2	4.9	**26.1365**	1.546	5.9	ug/L	1972	KED
>	**Bi**	209	1028397.6	1.0				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	51045.9	1.5	**3.9353**	0.106	2.7	mg/L	260	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**23.4379**	0.000	0.0	mg/L	3	KED
	Fe	54	6624.8	2.3	**4.2086**	0.156	3.7	mg/L	7	KED
	Fe	57	27523.3	3.5	**4.1594**	0.241	5.8	mg/L	15	KED
>	**Sc-1**	45	22467.7	2.4				mg/L	22691	KED
	Cl	35	1931.8	3.1				ug/L	2163	KED
	Kr	83	5.0	100.0				ug/L	2	KED
	Br	81	33.3	8.7				ug/L	57	KED
	P	31	80.0	6.3				ug/L	107	KED
	S	34	36.7	20.8				ug/L	23	KED
	Sr	88	115.0	11.5				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9	99.177		
	Al	27			
>	Sc-2	45		99.017	
	Ti	47	99.041		
	V	51	97.836		
	Cr	52	100.146		
	Cr	53			
	Mn	55	100.286		
	Co	59	100.647		
	Ni	60	100.373		
	Cu	65	101.708		
	Zn	66	101.035		
>	Ge	72		98.612	
	As	75	99.960		
	Se	82	102.463		
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103			
⌈	Mo	98	98.260		
|	Ag	107	105.659		
|	Cd	111	101.775		
|	Cd	114			
|>	In	115		100.773	
|	Sn	118	102.651		
|	Sb	123	98.846		
⌊	Ba	135	103.390		
	Ce	140			
	Tb	159			
⌈	Ho	165			
|	Tl	203	100.137		
|	Tl	205			
|	Pb	206	99.772		
|	Pb	207	99.812		
|	Pb	208	99.756		
|	U	238	98.876		
|	Th	232			
⌊>	Bi	209		100.577	
⌈	Na	23			
|	Mg	24	98.381		
|	K	39	0.000		
|	Ca	43	585.947		
|	Fe	54	105.214		
|	Fe	57	103.985		
⌊>	Sc-1	45		99.017	
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	K	39	
QC Std 6	Ca	43	

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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, September 09, 2019 08:40:15
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	17827.2	2.1				ug/L	18248	KED
|	Be	9	3.0	57.7	**0.0153**	0.012	75.8	ug/L	1	KED
|	Al	27	365.0	80.0				ug/L	132	KED
|>	Sc-2	45	23820.0	2.2				ug/L	22691	KED
⌈	Ti	47	1.7	124.9	**-0.2216**	0.491	221.4	ug/L	3	KED
|	V	51	1809.8	18.2	**-0.4387**	0.283	64.6	ug/L	2353	KED
|	Cr	52	528.3	37.8	**0.0576**	0.097	168.0	ug/L	414	KED
|	Cr	53	1420.1	14.3	**-1.1142**	0.701	62.9	ug/L	1770	KED
|	Mn	55	264.7	62.7	**0.0389**	0.081	208.3	ug/L	187	KED
|	Co	59	300.0	103.7	**0.0330**	0.044	134.6	ug/L	69	KED
|	Ni	60	468.3	84.5	**0.1208**	0.204	169.1	ug/L	237	KED
|	Cu	65	555.7	72.8	**0.1070**	0.157	146.7	ug/L	283	KED
|	Zn	66	1320.4	87.3	**0.8872**	1.440	162.3	ug/L	617	KED
|>	Ge	72	389099.3	1.3				ug/L	393258	KED
|	As	75	347.0	15.7	**-0.0605**	0.090	148.1	ug/L	386	KED
|	Se	82	16.5	5.2	**-0.0217**	0.031	142.4	ug/L	17	KED
|	Se-1	78	44.5	8.5	**0.0717**	0.065	90.9	ug/L	41	KED
⌊	Se-1	80	31266.2	0.9	**4.8232**	4.330	89.8	ug/L	30857	KED
	Ga	71	91.7	11.4				ug/L	97	KED
	Rb	85	10.0	50.0				ug/L	5	KED
	Y	89	372889.2	2.2				ug/L	380328	KED
	Rh	103	6.7	43.3				ug/L	8	KED
⌈	Mo	98	1106.4	32.1	**0.1453**	0.061	42.1	ug/L	281	KED
|	Ag	107	957.0	30.0	**0.0590**	0.025	42.5	ug/L	287	KED
|	Cd	111	77.0	74.6	**0.0326**	0.036	111.4	ug/L	26	KED
|	Cd	114	182.0	56.7	**0.0266**	0.027	100.8	ug/L	80	KED
|>	In	115	418446.1	0.9				ug/L	416461	KED
|	Sn	118	1273.1	14.0	**0.1623**	0.064	39.2	ug/L	798	KED
|	Sb	123	1788.4	5.2	**0.6861**	0.035	5.1	ug/L	185	KED
⌊	Ba	135	128.3	113.4	**0.0928**	0.144	155.7	ug/L	35	KED
	Ce	140	55.0	44.4				ug/L	48	KED
	Tb	159	1380704.1	1.4				ug/L	1349973	KED
⌈	Ho	165	13.0	40.7				ug/L	15	KED
|	Tl	203	80.3	72.2	**0.0042**	0.006	140.1	ug/L	39	KED
|	Tl	205	201.7	59.4	**0.0039**	0.005	129.7	ug/L	110	KED
|	Pb	206	1049.0	29.5	**0.0225**	0.039	172.2	ug/L	878	KED
|	Pb	207	866.7	29.8	**0.0104**	0.037	358.3	ug/L	802	KED
|	Pb	208	2202.2	26.9	**0.0173**	0.034	199.2	ug/L	1923	KED
|	U	238	1516.5	106.6	**0.0352**	0.047	135.0	ug/L	322	KED

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	Th	232	5114.6	23.8	**0.1081**	0.043	39.4	ug/L	1972	KED
>	**Bi**	209	1012527.3	0.8				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	325.0	27.7	**0.0038**	0.007	173.2	mg/L	260	KED
	K	39	1.7	173.2	**11.8219**	20.476	173.2	mg/L	0	KED
	Ca	43	0.0		**23.4379**	0.000	0.0	mg/L	3	KED
	Fe	54	15.0	57.7	**0.0048**	0.005	106.1	mg/L	7	KED
	Fe	57	51.7	84.6	**0.0051**	0.006	119.9	mg/L	15	KED
>	**Sc-1**	45	23820.0	2.2				mg/L	22691	KED
	Cl	35	2003.5	5.5				ug/L	2163	KED
	Kr	83	0.0					ug/L	2	KED
	Br	81	68.3	16.9				ug/L	57	KED
	P	31	53.3	10.8				ug/L	107	KED
	S	34	31.7	87.0				ug/L	23	KED
	Sr	88	51.7	31.1				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		104.977	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		98.942	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	100.477
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	99.024
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	104.977
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 7	V	51	
QC Std 7	Sb	123	
QC Std 7	K	39	
QC Std 7	Ca	43	

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Method 6020 - Summary Report

Sample ID: PBW WO WG710446-03
Sample Date/Time: Monday, September 09, 2019 08:43:08
Number of Replicates: 3
Autosampler Position: 205
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	18800.0	3.9				ug/L	18248	KED
|	Be	9	1.3	86.6	0.0039	0.007	188.6	ug/L	1	KED
|	Al	27	115.0	11.5				ug/L	132	KED
⌊>	Sc-2	45	24598.0	0.6				ug/L	22691	KED
⌈	Ti	47	3.0	88.2	0.0716	0.610	852.2	ug/L	3	KED
|	V	51	2302.8	13.1	-0.0612	0.275	449.2	ug/L	2353	KED
|	Cr	52	370.0	2.9	-0.0234	0.008	33.2	ug/L	414	KED
|	Cr	53	1753.4	9.4	-0.1160	0.623	536.9	ug/L	1770	KED
|	Mn	55	131.3	12.4	-0.0278	0.008	28.0	ug/L	187	KED
|	Co	59	36.0	20.0	-0.0048	0.001	22.5	ug/L	69	KED
|	Ni	60	163.0	7.1	-0.0387	0.005	12.3	ug/L	237	KED
|	Cu	65	252.0	4.5	-0.0132	0.005	37.2	ug/L	283	KED
|	Zn	66	865.0	2.4	0.2960	0.027	9.2	ug/L	617	KED
|>	Ge	72	397766.0	1.5				ug/L	393258	KED
|	As	75	326.7	7.9	-0.1068	0.047	43.8	ug/L	386	KED
|	Se	82	18.3	11.0	0.0269	0.073	270.3	ug/L	17	KED
|	Se-1	78	40.8	7.5	-0.0015	0.057	3829.3	ug/L	41	KED
⌊	Se-1	80	31474.8	0.2	1.7139	3.378	197.1	ug/L	30857	KED
	Ga	71	96.7	15.8				ug/L	97	KED
	Rb	85	8.3	34.6				ug/L	5	KED
	Y	89	386559.1	0.5				ug/L	380328	KED
	Rh	103	11.7	65.5				ug/L	8	KED
⌈	Mo	98	527.7	88.8	0.0425	0.082	193.1	ug/L	281	KED
|	Ag	107	590.4	85.4	0.0262	0.044	168.3	ug/L	287	KED
|	Cd	111	63.3	87.3	0.0236	0.035	148.4	ug/L	26	KED
|	Cd	114	143.0	72.7	0.0160	0.027	169.0	ug/L	80	KED
|>	In	115	422473.1	0.5				ug/L	416461	KED
|	Sn	118	862.4	5.3	0.0178	0.014	79.5	ug/L	798	KED
|	Sb	123	491.0	9.3	0.1285	0.019	14.9	ug/L	185	KED
⌊	Ba	135	33.7	75.5	-0.0018	0.025	1382.5	ug/L	35	KED
	Ce	140	42.0	12.6				ug/L	48	KED
	Tb	159	1372166.1	1.1				ug/L	1349973	KED
⌈	Ho	165	13.7	15.2				ug/L	15	KED
|	Tl	203	61.7	104.8	0.0022	0.006	290.5	ug/L	39	KED
|	Tl	205	123.0	111.2	0.0005	0.006	1102.0	ug/L	110	KED
|	Pb	206	776.7	7.2	-0.0127	0.007	54.9	ug/L	878	KED
|	Pb	207	656.3	7.3	-0.0210	0.007	32.2	ug/L	802	KED
|	Pb	208	1594.8	5.9	-0.0190	0.005	28.2	ug/L	1923	KED
|	U	238	122.7	106.9	-0.0058	0.004	65.7	ug/L	322	KED

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	Th	232	2163.5	9.3	**0.0063**	0.007	108.1	ug/L	1972	KED
>	**Bi**	209	1024790.5	0.1				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	246.7	12.2	**-0.0025**	0.002	89.9	mg/L	260	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**12.6771**	18.638	147.0	mg/L	3	KED
	Fe	54	8.3	69.3	**0.0006**	0.003	524.9	mg/L	7	KED
	Fe	57	25.0	105.8	**0.0012**	0.004	301.7	mg/L	15	KED
>	**Sc-1**	45	24598.0	0.6				mg/L	22691	KED
	Cl	35	2025.1	8.1				ug/L	2163	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	55.0	9.1				ug/L	57	KED
	P	31	66.7	38.5				ug/L	107	KED
	S	34	26.7	28.6				ug/L	23	KED
	Sr	88	45.0	48.4				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		108.406	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		101.146	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	101.444
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	100.224
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	108.406
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Th 232 Lower	Th	232	

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Method 6020 - Summary Report

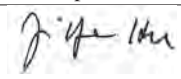
Sample ID: LCSW WO WG710446-04
Sample Date/Time: Monday, September 09, 2019 08:46:00
Number of Replicates: 3
Autosampler Position: 206
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	19604.4	3.6				ug/L	18248	KED
|	Be	9	978.0	5.9	6.2346	0.328	5.3	ug/L	1	KED
|	Al	27	166001.8	3.5				ug/L	132	KED
|>	Sc-2	45	24691.8	5.1				ug/L	22691	KED
⌈	Ti	47	146.3	8.2	31.3698	1.610	5.1	ug/L	3	KED
|	V	51	41794.6	3.5	31.4707	1.642	5.2	ug/L	2353	KED
|	Cr	52	140730.0	4.2	64.6259	3.457	5.3	ug/L	414	KED
|	Cr	53	21633.8	3.8	62.8161	2.115	3.4	ug/L	1770	KED
|	Mn	55	139724.1	3.4	64.6542	3.509	5.4	ug/L	187	KED
|	Co	59	242613.9	3.1	32.7431	1.655	5.1	ug/L	69	KED
|	Ni	60	263989.1	3.5	128.8231	6.353	4.9	ug/L	237	KED
|	Cu	65	177216.0	2.2	65.0361	2.733	4.2	ug/L	283	KED
|	Zn	66	528810.6	3.2	624.5284	35.912	5.8	ug/L	617	KED
|>	Ge	72	413017.4	4.1				ug/L	393258	KED
|	As	75	19949.8	1.7	31.4743	1.639	5.2	ug/L	386	KED
|	Se	82	991.7	1.0	30.8518	1.416	4.6	ug/L	17	KED
|	Se-1	78	2096.1	1.4	31.1964	0.985	3.2	ug/L	41	KED
⌊	Se-1	80	37188.8	1.2	29.5445	8.088	27.4	ug/L	30857	KED
	Ga	71	73.3	25.8				ug/L	97	KED
	Rb	85	183.3	15.0				ug/L	5	KED
	Y	89	401987.0	2.8				ug/L	380328	KED
	Rh	103	41.7	13.9				ug/L	8	KED
⌈	Mo	98	197830.9	3.1	32.6644	0.833	2.5	ug/L	281	KED
|	Ag	107	408617.6	3.5	33.7612	0.892	2.6	ug/L	287	KED
|	Cd	111	32873.0	4.0	19.6620	0.523	2.7	ug/L	26	KED
|	Cd	114	78947.6	3.5	19.4313	0.621	3.2	ug/L	80	KED
|>	In	115	446785.0	2.0				ug/L	416461	KED
|	Sn	118	106299.7	1.8	33.9901	0.584	1.7	ug/L	798	KED
|	Sb	123	86437.3	2.6	34.5943	0.796	2.3	ug/L	185	KED
⌊	Ba	135	105144.3	2.1	98.5597	1.981	2.0	ug/L	35	KED
	Ce	140	98.7	6.4				ug/L	48	KED
	Tb	159	1456207.1	3.2				ug/L	1349973	KED
⌈	Ho	165	13.7	33.0				ug/L	15	KED
|	Tl	203	66955.3	1.6	6.4060	0.157	2.4	ug/L	39	KED
|	Tl	205	163301.7	1.3	6.4582	0.155	2.4	ug/L	110	KED
|	Pb	206	274171.2	1.7	32.2307	0.626	1.9	ug/L	878	KED
|	Pb	207	239535.2	1.6	32.4459	0.828	2.6	ug/L	802	KED
|	Pb	208	593207.4	1.9	32.4106	0.700	2.2	ug/L	1923	KED
|	U	238	1151692.6	2.7	31.9803	0.819	2.6	ug/L	322	KED

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	Th	232	965798.2	4.0	**31.1124**	1.093	3.5	ug/L	1972	KED
>	**Bi**	209	1070111.7	1.7				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	35740.4	2.0	**2.5029**	0.123	4.9	mg/L	260	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**23.4379**	0.000	0.0	mg/L	3	KED
	Fe	54	4409.0	3.6	**2.5475**	0.070	2.8	mg/L	7	KED
	Fe	57	18352.8	4.6	**2.5219**	0.091	3.6	mg/L	15	KED
>	**Sc-1**	45	24691.8	5.1				mg/L	22691	KED
	Cl	35	2053.5	4.3				ug/L	2163	KED
	Kr	83	0.0					ug/L	2	KED
	Br	81	90.0	5.6				ug/L	57	KED
	P	31	73.3	14.2				ug/L	107	KED
	S	34	25.0	69.3				ug/L	23	KED
	Sr	88	168.3	15.0				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		108.819	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		105.024	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		107.281
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		104.656
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		108.819
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1908013301
Sample Date/Time: Monday, September 09, 2019 08:48:52
Number of Replicates: 3
Autosampler Position: 207
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	20580.6	2.2				ug/L	18248	KED
|	Be	9	2.3	107.9	0.0101	0.016	156.1	ug/L	1	KED
|	Al	27	160061.4	2.8				ug/L	132	KED
|>	Sc-2	45	24655.7	2.0				ug/L	22691	KED
⌈	Ti	47	5.0	52.9	0.4773	0.585	122.5	ug/L	3	KED
|	V	51	2597.2	2.5	0.0874	0.079	90.6	ug/L	2353	KED
|	Cr	52	11477.0	3.4	5.0455	0.186	3.7	ug/L	414	KED
|	Cr	53	3133.7	1.4	3.9802	0.259	6.5	ug/L	1770	KED
|	Mn	55	37101.1	3.7	16.9600	0.506	3.0	ug/L	187	KED
|	Co	59	3548.4	4.3	0.4652	0.014	3.0	ug/L	69	KED
|	Ni	60	8066.1	3.0	3.7872	0.085	2.2	ug/L	237	KED
|	Cu	65	6654.5	3.0	2.3175	0.067	2.9	ug/L	283	KED
|	Zn	66	44816.2	3.2	51.7963	1.802	3.5	ug/L	617	KED
|>	Ge	72	415941.1	2.0				ug/L	393258	KED
|	As	75	2295.8	3.6	3.0141	0.131	4.4	ug/L	386	KED
|	Se	82	21.2	24.8	0.0871	0.152	174.0	ug/L	17	KED
|	Se-1	78	44.8	6.8	0.0299	0.040	132.3	ug/L	41	KED
⌊	Se-1	80	32605.9	0.1	-0.1369	3.987	2913.1	ug/L	30857	KED
	Ga	71	150.0	14.5				ug/L	97	KED
	Rb	85	1466.7	2.2				ug/L	5	KED
	Y	89	403987.2	1.3				ug/L	380328	KED
	Rh	103	13.3	21.7				ug/L	8	KED
⌈	Mo	98	2290.2	1.5	0.3241	0.005	1.6	ug/L	281	KED
|	Ag	107	430.3	24.7	0.0096	0.008	79.9	ug/L	287	KED
|	Cd	111	153.3	10.2	0.0741	0.009	12.1	ug/L	26	KED
|	Cd	114	419.3	5.0	0.0808	0.006	7.1	ug/L	80	KED
|>	In	115	452585.1	2.7				ug/L	416461	KED
|	Sn	118	2370.9	2.4	0.4789	0.034	7.2	ug/L	798	KED
|	Sb	123	2132.8	0.0	0.7652	0.022	2.9	ug/L	185	KED
⌊	Ba	135	38179.4	3.1	35.3086	0.976	2.8	ug/L	35	KED
	Ce	140	1982.5	2.3				ug/L	48	KED
	Tb	159	1505283.6	2.5				ug/L	1349973	KED
⌈	Ho	165	45.7	24.2				ug/L	15	KED
|	Tl	203	73.7	23.9	0.0031	0.002	52.0	ug/L	39	KED
|	Tl	205	179.7	14.6	0.0025	0.001	38.7	ug/L	110	KED
|	Pb	206	17921.6	2.7	1.9949	0.044	2.2	ug/L	878	KED
|	Pb	207	15673.8	2.3	2.0055	0.043	2.1	ug/L	802	KED
|	Pb	208	38220.8	2.7	1.9745	0.053	2.7	ug/L	1923	KED
|	U	238	4055.9	5.1	0.1027	0.005	4.4	ug/L	322	KED

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	Th	232	47956.1	11.4	**1.4754**	0.191	13.0	ug/L	1972	KED
>	**Bi**	209	1075369.3	1.1				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	17189.7	0.8	**1.1937**	0.030	2.5	mg/L	260	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**23.4379**	0.000	0.0	mg/L	3	KED
	Fe	54	4454.0	7.4	**2.5757**	0.187	7.3	mg/L	7	KED
	Fe	57	19205.5	3.7	**2.6414**	0.075	2.8	mg/L	15	KED
>	**Sc-1**	45	24655.7	2.0				mg/L	22691	KED
	Cl	35	2630.2	4.6				ug/L	2163	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	625.0	12.5				ug/L	57	KED
	P	31	83.3	19.3				ug/L	107	KED
	S	34	30.0	16.7				ug/L	23	KED
	Sr	88	41249.5	5.0				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		108.660	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		105.768	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
| >	In	115	108.674
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊ >	Bi	209	105.170
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊ >	Sc-1	45	108.660
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1908013302
Sample Date/Time: Monday, September 09, 2019 08:51:44
Number of Replicates: 3
Autosampler Position: 208
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	20253.5	3.0				ug/L	18248	KED
|	**Be**	9	1.3	114.6	**0.0039**	0.009	245.6	ug/L	1	KED
|	**Al**	27	164882.4	1.4				ug/L	132	KED
|>	**Sc-2**	45	24615.3	4.5				ug/L	22691	KED
⌈	**Ti**	47	2.7	43.3	**-0.0238**	0.245	1028.6	ug/L	3	KED
|	**V**	51	2820.3	19.8	**0.3042**	0.404	132.7	ug/L	2353	KED
|	**Cr**	52	1392.4	1.2	**0.4494**	0.015	3.3	ug/L	414	KED
|	**Cr**	53	1996.8	19.2	**0.5054**	1.089	215.5	ug/L	1770	KED
|	**Mn**	55	10282.2	2.1	**4.7355**	0.202	4.3	ug/L	187	KED
|	**Co**	59	468.3	0.4	**0.0542**	0.001	2.5	ug/L	69	KED
|	**Ni**	60	1622.4	1.4	**0.6816**	0.032	4.7	ug/L	237	KED
|	**Cu**	65	1467.1	1.5	**0.4369**	0.013	2.9	ug/L	283	KED
|	**Zn**	66	4505.7	2.7	**4.6324**	0.284	6.1	ug/L	617	KED
|>	**Ge**	72	407517.8	2.5				ug/L	393258	KED
|	**As**	75	1726.8	1.9	**2.1622**	0.018	0.8	ug/L	386	KED
|	**Se**	82	17.5	12.5	**-0.0140**	0.078	554.9	ug/L	17	KED
|	**Se-1**	78	46.0	8.7	**0.0615**	0.049	79.3	ug/L	41	KED
⌊	**Se-1**	80	32722.5	0.6	**4.7078**	4.071	86.5	ug/L	30857	KED
	Ga	71	86.7	54.8				ug/L	97	KED
	Rb	85	1326.7	7.9				ug/L	5	KED
	Y	89	404791.2	0.8				ug/L	380328	KED
	Rh	103	8.3	34.6				ug/L	8	KED
⌈	**Mo**	98	1352.7	6.4	**0.1731**	0.014	8.3	ug/L	281	KED
|	**Ag**	107	369.3	1.5	**0.0050**	0.001	10.9	ug/L	287	KED
|	**Cd**	111	60.7	3.8	**0.0197**	0.002	8.8	ug/L	26	KED
|	**Cd**	114	198.0	8.8	**0.0274**	0.005	17.3	ug/L	80	KED
|>	**In**	115	448470.8	1.0				ug/L	416461	KED
|	**Sn**	118	3119.7	1.4	**0.7257**	0.009	1.2	ug/L	798	KED
|	**Sb**	123	673.7	8.3	**0.1895**	0.023	12.2	ug/L	185	KED
⌊	**Ba**	135	32413.6	1.9	**30.2402**	0.395	1.3	ug/L	35	KED
	Ce	140	140.7	5.3				ug/L	48	KED
	Tb	159	1466149.6	0.8				ug/L	1349973	KED
⌈	**Ho**	165	17.3	26.0				ug/L	15	KED
|	**Tl**	203	65.3	10.0	**0.0025**	0.001	32.4	ug/L	39	KED
|	**Tl**	205	180.7	12.8	**0.0028**	0.001	30.2	ug/L	110	KED
|	**Pb**	206	1670.8	1.7	**0.0946**	0.004	3.8	ug/L	878	KED
|	**Pb**	207	1396.7	1.6	**0.0814**	0.008	10.0	ug/L	802	KED
|	**Pb**	208	3494.4	2.3	**0.0870**	0.009	10.1	ug/L	1923	KED
|	**U**	238	3205.7	3.8	**0.0824**	0.004	5.2	ug/L	322	KED

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	Th	232	13295.1	24.5	**0.3738**	0.100	26.7	ug/L	1972	KED
>	**Bi**	209	1039420.0	2.6				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	19155.4	4.2	**1.3345**	0.019	1.4	mg/L	260	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**23.4379**	0.000	0.0	mg/L	3	KED
	Fe	54	101.7	22.2	**0.0552**	0.016	28.7	mg/L	7	KED
	Fe	57	570.0	6.9	**0.0763**	0.002	2.5	mg/L	15	KED
>	**Sc-1**	45	24615.3	4.5				mg/L	22691	KED
	Cl	35	2620.2	4.1				ug/L	2163	KED
	Kr	83	3.3	86.6				ug/L	2	KED
	Br	81	711.7	21.5				ug/L	57	KED
	P	31	93.3	48.6				ug/L	107	KED
	S	34	20.0	66.1				ug/L	23	KED
	Sr	88	40621.1	1.7				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		108.482	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		103.626	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908013302
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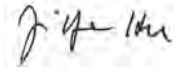
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	107.686
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	101.655
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	108.482
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Th 232 Lower	Th	232	

Approved: September 09, 2019



Method 6020 - Summary Report

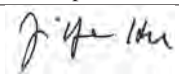
Sample ID: L1908013309
Sample Date/Time: Monday, September 09, 2019 08:54:36
Number of Replicates: 3
Autosampler Position: 209
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	22359.8	1.0				ug/L	18248	KED
|	**Be**	9	0.3	173.2	**-0.0026**	0.003	133.9	ug/L	1	KED
|	**Al**	27	905.0	13.0				ug/L	132	KED
⌊>	**Sc-2**	45	26465.4	2.9				ug/L	22691	KED
⌈	**Ti**	47	4.0	50.0	**0.2359**	0.400	169.6	ug/L	3	KED
|	**V**	51	4136.6	7.1	**1.2620**	0.257	20.4	ug/L	2353	KED
|	**Cr**	52	1102.4	0.8	**0.2963**	0.016	5.3	ug/L	414	KED
|	**Cr**	53	3333.7	6.5	**4.4556**	0.697	15.6	ug/L	1770	KED
|	**Mn**	55	1435.4	4.2	**0.5588**	0.005	0.9	ug/L	187	KED
|	**Co**	59	177.3	17.8	**0.0135**	0.003	24.4	ug/L	69	KED
|	**Ni**	60	850.0	11.4	**0.2837**	0.032	11.4	ug/L	237	KED
|	**Cu**	65	1564.7	14.4	**0.4515**	0.062	13.7	ug/L	283	KED
|	**Zn**	66	3721.5	10.4	**3.5270**	0.291	8.3	ug/L	617	KED
|>	**Ge**	72	422252.2	3.5				ug/L	393258	KED
|	**As**	75	526.3	5.3	**0.1754**	0.032	18.2	ug/L	386	KED
|	**Se**	82	18.0	18.2	**-0.0207**	0.082	397.4	ug/L	17	KED
|	**Se-1**	78	43.8	14.2	**0.0036**	0.068	1906.7	ug/L	41	KED
⌊	**Se-1**	80	33139.2	0.7	**0.1723**	5.687	3301.4	ug/L	30857	KED
	Ga	71	115.0	8.7				ug/L	97	KED
	Rb	85	26.7	60.3				ug/L	5	KED
	Y	89	420069.3	5.0				ug/L	380328	KED
	Rh	103	8.3	34.6				ug/L	8	KED
⌈	**Mo**	98	293.7	46.3	**-0.0040**	0.019	484.9	ug/L	281	KED
|	**Ag**	107	379.0	54.5	**0.0040**	0.014	359.1	ug/L	287	KED
|	**Cd**	111	56.7	26.5	**0.0157**	0.007	46.7	ug/L	26	KED
|	**Cd**	114	154.7	15.5	**0.0150**	0.004	25.3	ug/L	80	KED
|>	**In**	115	467799.1	5.0				ug/L	416461	KED
|	**Sn**	118	1480.1	3.5	**0.1805**	0.032	17.9	ug/L	798	KED
|	**Sb**	123	425.7	11.3	**0.0833**	0.016	19.6	ug/L	185	KED
⌊	**Ba**	135	213.3	9.6	**0.1557**	0.012	7.9	ug/L	35	KED
	Ce	140	182.3	9.3				ug/L	48	KED
	Tb	159	1512246.6	4.7				ug/L	1349973	KED
⌈	**Ho**	165	18.3	13.7				ug/L	15	KED
|	**Tl**	203	36.7	78.2	**-0.0005**	0.003	586.1	ug/L	39	KED
|	**Tl**	205	78.0	72.2	**-0.0015**	0.002	143.1	ug/L	110	KED
|	**Pb**	206	874.0	5.9	**-0.0052**	0.005	87.1	ug/L	878	KED
|	**Pb**	207	751.7	6.6	**-0.0119**	0.005	41.5	ug/L	802	KED
|	**Pb**	208	1823.8	6.9	**-0.0103**	0.005	49.9	ug/L	1923	KED
|	**U**	238	184.3	48.0	**-0.0043**	0.002	55.2	ug/L	322	KED

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	Th	232	9198.6	24.4	**0.2304**	0.071	30.9	ug/L	1972	KED
>	**Bi**	209	1069128.0	1.8				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	843.4	0.9	**0.0356**	0.002	5.8	mg/L	260	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**13.7192**	16.833	122.7	mg/L	3	KED
	Fe	54	56.7	25.5	**0.0265**	0.009	32.2	mg/L	7	KED
	Fe	57	140.0	12.4	**0.0157**	0.002	13.0	mg/L	15	KED
>	**Sc-1**	45	26465.4	2.9				mg/L	22691	KED
	Cl	35	2538.5	5.3				ug/L	2163	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	163.3	6.4				ug/L	57	KED
	P	31	103.3	26.6				ug/L	107	KED
	S	34	33.3	60.6				ug/L	23	KED
	Sr	88	801.7	2.0				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		116.636	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		107.373	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		112.327
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		104.560
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		116.636
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Th 232 Lower	Th	232	

Sample ID: L1908013309
Report Date/Time: Monday, September 09, 2019 08:56:56
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Method 6020 - Summary Report

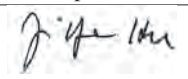
Sample ID: L1908013601 WG710446-02
Sample Date/Time: Monday, September 09, 2019 08:57:28
Number of Replicates: 3
Autosampler Position: 210
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	21373.4	1.1				ug/L	18248	KED
|	Be	9	0.7	86.6	-0.0006	0.004	602.2	ug/L	1	KED
|	Al	27	649581.9	1.2				ug/L	132	KED
⌊>	Sc-2	45	25977.6	0.7				ug/L	22691	KED
⌈	Ti	47	5.7	44.4	0.6390	0.566	88.6	ug/L	3	KED
|	V	51	4478.3	3.7	1.6361	0.192	11.8	ug/L	2353	KED
|	Cr	52	2415.5	4.2	0.9201	0.029	3.2	ug/L	414	KED
|	Cr	53	2898.6	4.9	3.3804	0.562	16.6	ug/L	1770	KED
|	Mn	55	1437.4	1.2	0.5799	0.015	2.5	ug/L	187	KED
|	Co	59	177.0	8.0	0.0142	0.002	14.2	ug/L	69	KED
|	Ni	60	545.0	12.7	0.1471	0.038	25.6	ug/L	237	KED
|	Cu	65	1051.7	4.9	0.2803	0.025	9.0	ug/L	283	KED
|	Zn	66	2305.8	8.0	1.9827	0.260	13.1	ug/L	617	KED
| >	Ge	72	409706.8	1.7				ug/L	393258	KED
|	As	75	1119.4	1.0	1.1627	0.044	3.8	ug/L	386	KED
|	Se	82	19.3	16.8	0.0397	0.094	236.2	ug/L	17	KED
|	Se-1	78	50.2	6.3	0.1221	0.049	40.2	ug/L	41	KED
⌊	Se-1	80	33128.8	0.9	6.0928	2.933	48.1	ug/L	30857	KED
	Ga	71	103.3	15.6				ug/L	97	KED
	Rb	85	1160.0	4.1				ug/L	5	KED
	Y	89	395290.7	1.5				ug/L	380328	KED
	Rh	103	20.0	75.0				ug/L	8	KED
⌈	Mo	98	755.0	10.8	0.0782	0.013	17.1	ug/L	281	KED
|	Ag	107	299.3	25.4	-0.0001	0.006	10768.1	ug/L	287	KED
|	Cd	111	53.7	27.2	0.0165	0.009	54.8	ug/L	26	KED
|	Cd	114	146.0	8.6	0.0157	0.003	19.4	ug/L	80	KED
| >	In	115	435616.4	0.4				ug/L	416461	KED
|	Sn	118	1654.1	3.4	0.2707	0.017	6.2	ug/L	798	KED
|	Sb	123	738.0	4.3	0.2239	0.013	5.8	ug/L	185	KED
⌊	Ba	135	11466.7	1.3	10.9916	0.159	1.4	ug/L	35	KED
	Ce	140	297.0	2.5				ug/L	48	KED
	Tb	159	1426124.0	2.4				ug/L	1349973	KED
⌈	Ho	165	27.0	26.7				ug/L	15	KED
|	Tl	203	258.0	10.7	0.0217	0.003	12.1	ug/L	39	KED
|	Tl	205	608.0	3.9	0.0204	0.001	4.6	ug/L	110	KED
|	Pb	206	954.0	2.9	0.0087	0.004	51.5	ug/L	878	KED
|	Pb	207	813.7	1.2	0.0009	0.000	44.0	ug/L	802	KED
|	Pb	208	2030.8	3.1	0.0054	0.003	46.9	ug/L	1923	KED
|	U	238	7996.4	3.4	0.2216	0.006	2.7	ug/L	322	KED

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	Th	232	6841.9	17.7	**0.1633**	0.043	26.1	ug/L	1972	KED
>	**Bi**	209	1029059.2	0.9				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	11622.8	1.4	**0.7587**	0.014	1.8	mg/L	260	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**13.1208**	17.870	136.2	mg/L	3	KED
	Fe	54	8.3	34.6	**0.0004**	0.002	411.5	mg/L	7	KED
	Fe	57	58.3	62.0	**0.0054**	0.005	87.1	mg/L	15	KED
>	**Sc-1**	45	25977.6	0.7				mg/L	22691	KED
	Cl	35	2560.2	3.3				ug/L	2163	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	283.3	6.2				ug/L	57	KED
	P	31	88.3	19.9				ug/L	107	KED
	S	34	31.7	71.2				ug/L	23	KED
	Sr	88	38407.0	3.4				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		114.486	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		104.183	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908013601 WG710446-02
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	104.599
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	100.641
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	114.486
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Th 232 Lower	Th	232	

Sample ID: L1908013601 WG710446-02
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Method 6020 - Summary Report

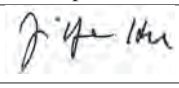
Sample ID: L1908013602S WG710446-07
Sample Date/Time: Monday, September 09, 2019 09:00:19
Number of Replicates: 3
Autosampler Position: 211
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	21186.5	7.0				ug/L	18248	KED
|	Be	9	1201.7	1.5	7.2991	0.379	5.2	ug/L	1	KED
|	Al	27	655057.0	2.7				ug/L	132	KED
|>	Sc-2	45	25938.9	4.2				ug/L	22691	KED
⌈	Ti	47	148.7	12.6	33.0749	4.838	14.6	ug/L	3	KED
|	V	51	48661.1	4.0	38.3114	2.984	7.8	ug/L	2353	KED
|	Cr	52	153218.8	4.3	72.8345	5.792	8.0	ug/L	414	KED
|	Cr	53	26092.5	3.7	79.9046	6.468	8.1	ug/L	1770	KED
|	Mn	55	150551.2	5.0	72.0903	6.206	8.6	ug/L	187	KED
|	Co	59	254927.4	3.5	35.5924	2.599	7.3	ug/L	69	KED
|	Ni	60	279727.3	2.9	141.1975	8.879	6.3	ug/L	237	KED
|	Cu	65	185789.7	2.8	70.5358	4.604	6.5	ug/L	283	KED
|	Zn	66	536725.5	2.0	655.3017	35.810	5.5	ug/L	617	KED
|>	Ge	72	399544.5	3.9				ug/L	393258	KED
|	As	75	21244.6	1.7	34.7153	1.968	5.7	ug/L	386	KED
|	Se	82	985.7	1.0	31.7167	1.590	5.0	ug/L	17	KED
|	Se-1	78	2107.8	0.2	32.4595	1.294	4.0	ug/L	41	KED
⌊	Se-1	80	37785.9	0.2	41.0449	9.040	22.0	ug/L	30857	KED
	Ga	71	105.0	12.6				ug/L	97	KED
	Rb	85	1093.4	1.6				ug/L	5	KED
	Y	89	385213.9	5.2				ug/L	380328	KED
	Rh	103	48.3	51.0				ug/L	8	KED
⌈	Mo	98	209395.2	2.5	36.0852	2.423	6.7	ug/L	281	KED
|	Ag	107	416479.2	2.0	35.9033	2.067	5.8	ug/L	287	KED
|	Cd	111	32622.4	3.0	20.3602	1.250	6.1	ug/L	26	KED
|	Cd	114	79706.7	4.0	20.4677	1.401	6.8	ug/L	80	KED
|>	In	115	428986.4	4.8				ug/L	416461	KED
|	Sn	118	111129.9	2.8	37.0978	2.390	6.4	ug/L	798	KED
|	Sb	123	94163.8	2.8	39.3342	2.622	6.7	ug/L	185	KED
⌊	Ba	135	116616.8	1.8	114.0248	6.178	5.4	ug/L	35	KED
	Ce	140	230.3	7.1				ug/L	48	KED
	Tb	159	1365190.4	5.3				ug/L	1349973	KED
⌈	Ho	165	16.7	9.2				ug/L	15	KED
|	Tl	203	68275.5	1.1	7.0770	0.355	5.0	ug/L	39	KED
|	Tl	205	168062.9	2.1	7.2026	0.436	6.1	ug/L	110	KED
|	Pb	206	279230.9	2.9	35.5776	2.103	5.9	ug/L	878	KED
|	Pb	207	243037.3	1.5	35.6794	2.000	5.6	ug/L	802	KED
|	Pb	208	598320.0	3.0	35.4484	2.578	7.3	ug/L	1923	KED
|	U	238	1194671.8	4.1	35.9656	2.786	7.7	ug/L	322	KED

Sample ID: L1908013602S WG710446-07
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	Th	232	1023164.7	4.9	**35.7444**	2.880	8.1	ug/L	1972	KED
>	**Bi**	209	989219.6	5.0				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	11709.5	1.8	**0.7670**	0.047	6.1	mg/L	260	KED
	K	39	1.7	173.2	**10.9454**	18.958	173.2	mg/L	0	KED
	Ca	43	3.3	173.2	**3.0518**	35.310	1157.0	mg/L	3	KED
	Fe	54	150.0	20.0	**0.0788**	0.019	24.4	mg/L	7	KED
	Fe	57	91.7	54.9	**0.0097**	0.006	64.2	mg/L	15	KED
>	**Sc-1**	45	25938.9	4.2				mg/L	22691	KED
	Cl	35	2676.9	2.5				ug/L	2163	KED
	Kr	83	5.0	100.0				ug/L	2	KED
	Br	81	386.7	18.9				ug/L	57	KED
	P	31	136.7	35.5				ug/L	107	KED
	S	34	43.3	17.6				ug/L	23	KED
	Sr	88	36874.8	1.5				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		114.315	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		101.599	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908013602S WG710446-07
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	103.007
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	96.745
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	114.315
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1908013602S WG710446-07
Report Date/Time: Monday, September 09, 2019 09:02:39
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Method 6020 - Summary Report

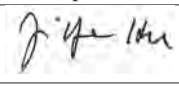
Sample ID: L1908013603SD WG710446-08
Sample Date/Time: Monday, September 09, 2019 09:03:10
Number of Replicates: 3
Autosampler Position: 212
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	22102.8	2.9				ug/L	18248	KED
|	Be	9	1155.7	3.2	**6.7881**	0.173	2.6	ug/L	1	KED
|	Al	27	666314.7	2.4				ug/L	132	KED
|>	Sc-2	45	26783.0	1.2				ug/L	22691	KED
⌈	Ti	47	155.0	7.3	**33.7717**	2.560	7.6	ug/L	3	KED
|	V	51	48937.6	2.4	**37.7010**	1.031	2.7	ug/L	2353	KED
|	Cr	52	152037.6	2.3	**70.7566**	1.692	2.4	ug/L	414	KED
|	Cr	53	25559.9	3.0	**76.3986**	2.512	3.3	ug/L	1770	KED
|	Mn	55	149896.2	0.8	**70.2626**	0.572	0.8	ug/L	187	KED
|	Co	59	253833.8	1.3	**34.7019**	0.534	1.5	ug/L	69	KED
|	Ni	60	277322.0	2.1	**137.1130**	3.110	2.3	ug/L	237	KED
|	Cu	65	183679.0	0.7	**68.2931**	0.638	0.9	ug/L	283	KED
|	Zn	66	535140.3	1.2	**640.0655**	9.076	1.4	ug/L	617	KED
|>	Ge	72	407296.8	0.2				ug/L	393258	KED
|	As	75	21147.8	2.2	**33.8363**	0.835	2.5	ug/L	386	KED
|	Se	82	1007.9	1.8	**31.7745**	0.668	2.1	ug/L	17	KED
|	Se-1	78	2089.5	1.4	**31.5152**	0.523	1.7	ug/L	41	KED
⌊	Se-1	80	37933.8	0.4	**37.1721**	1.252	3.4	ug/L	30857	KED
	Ga	71	96.7	18.2				ug/L	97	KED
	Rb	85	1115.0	7.8				ug/L	5	KED
	Y	89	394925.0	1.8				ug/L	380328	KED
	Rh	103	41.7	45.4				ug/L	8	KED
⌈	Mo	98	207993.4	1.4	**34.6933**	0.221	0.6	ug/L	281	KED
|	Ag	107	411438.2	0.4	**34.3445**	0.322	0.9	ug/L	287	KED
|	Cd	111	32667.2	1.1	**19.7412**	0.034	0.2	ug/L	26	KED
|	Cd	114	79805.0	1.8	**19.8406**	0.205	1.0	ug/L	80	KED
|>	In	115	442281.5	1.1				ug/L	416461	KED
|	Sn	118	111690.6	4.2	**36.0833**	1.226	3.4	ug/L	798	KED
|	Sb	123	94154.1	2.7	**38.0686**	0.815	2.1	ug/L	185	KED
⌊	Ba	135	118866.5	1.5	**112.5488**	1.354	1.2	ug/L	35	KED
	Ce	140	225.3	5.4				ug/L	48	KED
	Tb	159	1401350.8	0.4				ug/L	1349973	KED
⌈	Ho	165	22.0	23.6				ug/L	15	KED
|	Tl	203	68483.1	1.8	**6.8506**	0.150	2.2	ug/L	39	KED
|	Tl	205	165229.5	1.4	**6.8320**	0.137	2.0	ug/L	110	KED
|	Pb	206	277134.8	1.3	**34.0680**	0.322	0.9	ug/L	878	KED
|	Pb	207	243347.6	2.3	**34.4647**	0.638	1.9	ug/L	802	KED
|	Pb	208	599424.5	2.2	**34.2464**	0.683	2.0	ug/L	1923	KED
|	U	238	1173070.1	3.3	**34.0578**	1.029	3.0	ug/L	322	KED

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	Th	232	1042117.5	3.8	**35.1101**	1.196	3.4	ug/L	1972	KED
>	**Bi**	209	1023406.7	0.9				ug/L	1022503	KED
	Na	23	1.7	173.2				mg/L	0	KED
	Mg	24	12048.1	2.7	**0.7631**	0.030	3.9	mg/L	260	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	6.7	43.3	**-16.3887**	17.672	107.8	mg/L	3	KED
	Fe	54	126.7	6.0	**0.0633**	0.003	5.1	mg/L	7	KED
	Fe	57	88.3	3.3	**0.0089**	0.000	3.1	mg/L	15	KED
>	**Sc-1**	45	26783.0	1.2				mg/L	22691	KED
	Cl	35	2670.2	7.6				ug/L	2163	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	303.3	16.3				ug/L	57	KED
	P	31	116.7	31.6				ug/L	107	KED
	S	34	35.0	42.9				ug/L	23	KED
	Sr	88	38231.5	3.0				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		118.035	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		103.570	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908013603SD WG710446-08
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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		106.200
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		100.088
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		118.035
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1908013603SD WG710446-08
Report Date/Time: Monday, September 09, 2019 09:05:30
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Method 6020 - Summary Report

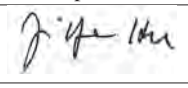
Sample ID: L1908013601PS WG710705-01
Sample Date/Time: Monday, September 09, 2019 09:06:03
Number of Replicates: 3
Autosampler Position: 213
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	22653.6	1.8				ug/L	18248	KED
|	Be	9	1305.1	0.2	7.7847	0.180	2.3	ug/L	1	KED
|	Al	27	652640.0	2.5				ug/L	132	KED
|>	Sc-2	45	26386.3	2.5				ug/L	22691	KED
⌈	Ti	47	187.3	6.0	40.9653	2.785	6.8	ug/L	3	KED
|	V	51	54828.0	1.7	42.4918	1.029	2.4	ug/L	2353	KED
|	Cr	52	169685.1	3.1	79.0254	2.945	3.7	ug/L	414	KED
|	Cr	53	28244.6	2.7	85.0819	3.106	3.7	ug/L	1770	KED
|	Mn	55	166397.0	2.3	78.0356	2.152	2.8	ug/L	187	KED
|	Co	59	281606.2	1.9	38.5099	0.704	1.8	ug/L	69	KED
|	Ni	60	306171.3	2.7	151.4332	4.231	2.8	ug/L	237	KED
|	Cu	65	202859.0	2.8	75.4532	1.860	2.5	ug/L	283	KED
|	Zn	66	591467.8	1.9	707.7279	14.667	2.1	ug/L	617	KED
|>	Ge	72	407187.5	0.9				ug/L	393258	KED
|	As	75	23724.2	2.9	38.0507	1.230	3.2	ug/L	386	KED
|	Se	82	1125.7	1.9	35.5637	0.388	1.1	ug/L	17	KED
|	Se-1	78	2349.5	2.3	35.5331	1.152	3.2	ug/L	41	KED
⌊	Se-1	80	38327.1	0.6	39.7023	3.533	8.9	ug/L	30857	KED
	Ga	71	108.3	18.7				ug/L	97	KED
	Rb	85	1160.0	9.9				ug/L	5	KED
	Y	89	401366.5	2.1				ug/L	380328	KED
	Rh	103	40.0	76.0				ug/L	8	KED
⌈	Mo	98	233085.5	2.5	38.9030	0.480	1.2	ug/L	281	KED
|	Ag	107	473927.4	3.1	39.5747	0.363	0.9	ug/L	287	KED
|	Cd	111	36767.3	3.5	22.2283	0.429	1.9	ug/L	26	KED
|	Cd	114	90219.9	1.8	22.4447	0.131	0.6	ug/L	80	KED
|>	In	115	442091.1	2.3				ug/L	416461	KED
|	Sn	118	122164.7	4.1	39.5128	1.146	2.9	ug/L	798	KED
|	Sb	123	96569.3	3.0	39.0673	0.810	2.1	ug/L	185	KED
⌊	Ba	135	132703.5	2.4	125.7173	2.096	1.7	ug/L	35	KED
	Ce	140	348.7	4.1				ug/L	48	KED
	Tb	159	1419614.3	1.5				ug/L	1349973	KED
⌈	Ho	165	22.3	29.1				ug/L	15	KED
|	Tl	203	77234.4	1.9	7.8124	0.090	1.1	ug/L	39	KED
|	Tl	205	187645.6	1.1	7.8464	0.109	1.4	ug/L	110	KED
|	Pb	206	310871.2	2.3	38.6545	0.399	1.0	ug/L	878	KED
|	Pb	207	269266.9	2.9	38.5744	0.782	2.0	ug/L	802	KED
|	Pb	208	669356.2	3.0	38.6794	0.676	1.7	ug/L	1923	KED
|	U	238	1319052.0	4.4	38.7210	1.368	3.5	ug/L	322	KED

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	Th	232	1156140.0	4.9	**39.3904**	1.573	4.0	ug/L	1972	KED
>	**Bi**	209	1012068.4	1.3				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	11936.4	3.1	**0.7673**	0.012	1.6	mg/L	260	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	3.3	86.6	**2.9941**	17.706	591.3	mg/L	3	KED
	Fe	54	120.0	4.2	**0.0607**	0.002	3.2	mg/L	7	KED
	Fe	57	61.7	26.1	**0.0057**	0.002	32.8	mg/L	15	KED
>	**Sc-1**	45	26386.3	2.5				mg/L	22691	KED
	Cl	35	2531.9	7.2				ug/L	2163	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	295.0	13.9				ug/L	57	KED
	P	31	83.3	15.1				ug/L	107	KED
	S	34	26.7	21.7				ug/L	23	KED
	Sr	88	37486.3	1.9				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		116.287	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		103.542	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908013601PS WG710705-01
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	106.154
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	98.980
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	116.287
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1908013601PS WG710705-01
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Method 6020 - Summary Report

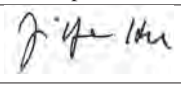
Sample ID: L1908013601SDL WG710705-02
Sample Date/Time: Monday, September 09, 2019 09:08:55
Number of Replicates: 3
Autosampler Position: 214
Sample Description: 5
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	18626.5	10.6				ug/L	18248	KED
|	**Be**	9	1.3	86.6	**0.0034**	0.007	203.5	ug/L	1	KED
|	**Al**	27	125700.9	0.4				ug/L	132	KED
|>	**Sc-2**	45	25024.4	7.6				ug/L	22691	KED
⌈	**Ti**	47	5.0	69.3	**0.5546**	0.744	134.1	ug/L	3	KED
|	**V**	51	4012.2	4.0	**1.5246**	0.060	3.9	ug/L	2353	KED
|	**Cr**	52	866.0	16.9	**0.2360**	0.083	35.1	ug/L	414	KED
|	**Cr**	53	2863.6	4.8	**4.0186**	0.335	8.3	ug/L	1770	KED
|	**Mn**	55	492.0	17.8	**0.1584**	0.049	31.0	ug/L	187	KED
|	**Co**	59	206.3	112.8	**0.0207**	0.035	167.1	ug/L	69	KED
|	**Ni**	60	336.3	64.4	**0.0579**	0.117	202.1	ug/L	237	KED
|	**Cu**	65	636.0	28.4	**0.1466**	0.077	52.3	ug/L	283	KED
|	**Zn**	66	5609.7	6.3	**6.4765**	0.646	10.0	ug/L	617	KED
|>	**Ge**	72	378755.2	5.5				ug/L	393258	KED
|	**As**	75	560.0	3.8	**0.3311**	0.055	16.7	ug/L	386	KED
|	**Se**	82	16.8	24.7	**0.0054**	0.146	2684.4	ug/L	17	KED
|	**Se-1**	78	40.8	1.9	**0.0317**	0.042	131.1	ug/L	41	KED
⌊	**Se-1**	80	31884.5	1.4	**14.8751**	11.074	74.4	ug/L	30857	KED
	Ga	71	95.0	36.8				ug/L	97	KED
	Rb	85	256.7	13.8				ug/L	5	KED
	Y	89	361350.4	7.1				ug/L	380328	KED
	Rh	103	5.0	100.0				ug/L	8	KED
⌈	**Mo**	98	533.0	18.7	**0.0482**	0.021	42.6	ug/L	281	KED
|	**Ag**	107	467.0	61.0	**0.0177**	0.027	153.5	ug/L	287	KED
|	**Cd**	111	54.7	68.7	**0.0201**	0.026	128.4	ug/L	26	KED
|	**Cd**	114	148.0	61.4	**0.0195**	0.026	132.5	ug/L	80	KED
|>	**In**	115	403354.4	4.7				ug/L	416461	KED
|	**Sn**	118	960.0	16.1	**0.0668**	0.055	82.7	ug/L	798	KED
|	**Sb**	123	1136.4	7.0	**0.4255**	0.036	8.4	ug/L	185	KED
⌊	**Ba**	135	2276.5	3.3	**2.3333**	0.155	6.6	ug/L	35	KED
	Ce	140	84.7	12.3				ug/L	48	KED
	Tb	159	1293130.8	3.6				ug/L	1349973	KED
⌈	**Ho**	165	15.3	7.5				ug/L	15	KED
|	**Tl**	203	109.7	62.5	**0.0075**	0.007	96.8	ug/L	39	KED
|	**Tl**	205	251.0	61.8	**0.0062**	0.007	108.6	ug/L	110	KED
|	**Pb**	206	1003.4	25.6	**0.0200**	0.034	168.1	ug/L	878	KED
|	**Pb**	207	851.4	28.1	**0.0113**	0.036	317.7	ug/L	802	KED
|	**Pb**	208	2106.8	26.5	**0.0150**	0.034	229.0	ug/L	1923	KED
|	**U**	238	2248.2	39.6	**0.0584**	0.027	46.9	ug/L	322	KED

Sample ID: L1908013601SDL WG710705-02
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	Th	232	11420.5	41.3	**0.3344**	0.173	51.7	ug/L	1972	KED
>	**Bi**	209	987908.7	2.7				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	2341.8	2.8	**0.1433**	0.009	6.1	mg/L	260	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**23.4379**	0.000	0.0	mg/L	3	KED
	Fe	54	21.7	13.3	**0.0082**	0.001	13.5	mg/L	7	KED
	Fe	57	48.3	15.8	**0.0043**	0.001	16.7	mg/L	15	KED
>	**Sc-1**	45	25024.4	7.6				mg/L	22691	KED
	Cl	35	2195.2	4.8				ug/L	2163	KED
	Kr	83	0.0					ug/L	2	KED
	Br	81	96.7	19.6				ug/L	57	KED
	P	31	70.0	7.1				ug/L	107	KED
	S	34	55.0	72.7				ug/L	23	KED
	Sr	88	6978.3	3.6				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		110.285	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		96.312	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908013601SDL WG710705-02
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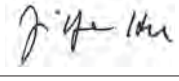
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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		96.853
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		96.617
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		110.285
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Th 232 Lower	Th	232	

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Method 6020 - Summary Report

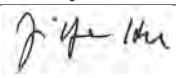
Sample ID: QC Std 6
Sample Date/Time: Monday, September 09, 2019 09:11:49
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexION\Data\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	18402.9	5.6				ug/L	18248	KED
|	**Be**	9	980.7	4.8	**6.1170**	0.316	5.2	ug/L	1	KED
|	**Al**	27	266969.7	3.2				ug/L	132	KED
⌊>	**Sc-2**	45	25224.0	0.8				ug/L	22691	KED
⌈	**Ti**	47	152.0	8.1	**34.4224**	2.878	8.4	ug/L	3	KED
|	**V**	51	41341.0	1.7	**32.8499**	0.624	1.9	ug/L	2353	KED
|	**Cr**	52	136043.7	1.0	**65.7700**	0.668	1.0	ug/L	414	KED
|	**Cr**	53	21737.2	1.3	**66.8222**	1.039	1.6	ug/L	1770	KED
|	**Mn**	55	135125.0	2.0	**65.8071**	1.402	2.1	ug/L	187	KED
|	**Co**	59	232910.9	3.0	**33.0845**	1.034	3.1	ug/L	69	KED
|	**Ni**	60	253306.3	1.9	**130.1212**	2.591	2.0	ug/L	237	KED
|	**Cu**	65	168227.8	2.4	**64.9855**	1.635	2.5	ug/L	283	KED
|	**Zn**	66	526242.5	1.4	**654.0107**	9.922	1.5	ug/L	617	KED
| >	**Ge**	72	391992.0	0.1				ug/L	393258	KED
|	**As**	75	19673.1	1.7	**32.6833**	0.606	1.9	ug/L	386	KED
|	**Se**	82	987.5	1.1	**32.3588**	0.394	1.2	ug/L	17	KED
|	**Se-1**	78	2030.5	2.2	**31.8271**	0.742	2.3	ug/L	41	KED
⌊	**Se-1**	80	36827.0	0.5	**39.2318**	1.357	3.5	ug/L	30857	KED
	Ga	71	90.0	43.4				ug/L	97	KED
	Rb	85	245.0	8.9				ug/L	5	KED
	Y	89	369583.4	2.5				ug/L	380328	KED
	Rh	103	21.7	13.3				ug/L	8	KED
⌈	**Mo**	98	179924.0	2.2	**31.1287**	1.142	3.7	ug/L	281	KED
|	**Ag**	107	375579.6	1.4	**32.5157**	0.820	2.5	ug/L	287	KED
|	**Cd**	111	31259.5	1.2	**19.5933**	0.418	2.1	ug/L	26	KED
|	**Cd**	114	75110.1	1.6	**19.3709**	0.606	3.1	ug/L	80	KED
| >	**In**	115	426510.4	1.9				ug/L	416461	KED
|	**Sn**	118	97503.2	2.8	**32.6544**	1.192	3.7	ug/L	798	KED
|	**Sb**	123	72698.1	3.4	**30.4817**	1.475	4.8	ug/L	185	KED
⌊	**Ba**	135	99394.0	1.4	**97.5941**	0.989	1.0	ug/L	35	KED
	Ce	140	93.0	7.4				ug/L	48	KED
	Tb	159	1393636.5	1.1				ug/L	1349973	KED
⌈	**Ho**	165	15.3	32.2				ug/L	15	KED
|	**Tl**	203	65633.9	1.6	**6.5444**	0.097	1.5	ug/L	39	KED
|	**Tl**	205	157073.5	1.9	**6.4736**	0.114	1.8	ug/L	110	KED
|	**Pb**	206	261672.0	2.3	**32.0606**	0.732	2.3	ug/L	878	KED
|	**Pb**	207	225965.8	1.5	**31.8961**	0.474	1.5	ug/L	802	KED
|	**Pb**	208	563187.4	1.3	**32.0694**	0.430	1.3	ug/L	1923	KED
|	**U**	238	1094260.6	0.9	**31.6713**	0.283	0.9	ug/L	322	KED

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	Th	232	806675.2	5.0	**27.0812**	1.375	5.1	ug/L	1972	KED
>	**Bi**	209	1026599.0	0.1				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	57636.2	3.3	**3.9567**	0.139	3.5	mg/L	260	KED
	K	39	1.7	173.2	**11.3273**	19.619	173.2	mg/L	0	KED
	Ca	43	0.0		**23.4379**	0.000	0.0	mg/L	3	KED
	Fe	54	6916.6	1.6	**3.9121**	0.092	2.4	mg/L	7	KED
	Fe	57	28490.1	0.6	**3.8315**	0.043	1.1	mg/L	15	KED
>	**Sc-1**	45	25224.0	0.8				mg/L	22691	KED
	Cl	35	2028.5	3.3				ug/L	2163	KED
	Kr	83	6.7	114.6				ug/L	2	KED
	Br	81	31.7	32.9				ug/L	57	KED
	P	31	83.3	28.4				ug/L	107	KED
	S	34	51.7	24.4				ug/L	23	KED
	Sr	88	145.0	29.5				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9	95.579		
	Al	27			
>	Sc-2	45		111.165	
	Ti	47	107.570		
	V	51	102.656		
	Cr	52	102.766		
	Cr	53			
	Mn	55	102.824		
	Co	59	103.389		
	Ni	60	101.657		
	Cu	65	101.540		
	Zn	66	102.189		
>	Ge	72		99.678	
	As	75	102.135		
	Se	82	101.121		
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98	97.277	
|	Ag	107	101.611	
|	Cd	111	102.048	
|	Cd	114		
|>	In	115		102.413
|	Sn	118	102.045	
|	Sb	123	95.255	
⌊	Ba	135	101.661	
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203	102.256	
|	Tl	205		
|	Pb	206	100.189	
|	Pb	207	99.675	
|	Pb	208	100.217	
|	U	238	98.973	
|	Th	232		
⌊>	Bi	209		100.401
⌈	Na	23		
|	Mg	24	98.917	
|	K	39	283.183	
|	Ca	43	585.947	
|	Fe	54	97.803	
|	Fe	57	95.787	
⌊>	Sc-1	45		111.165
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	K	39	
QC Std 6	Ca	43	

Sample ID: QC Std 6
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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, September 09, 2019 09:14:43
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	19288.9	1.4				ug/L	18248	KED
|	**Be**	9	0.3	173.2	**-0.0025**	0.004	145.6	ug/L	1	KED
|	**Al**	27	223.3	21.3				ug/L	132	KED
⌊>	**Sc-2**	45	25346.9	2.0				ug/L	22691	KED
⌈	**Ti**	47	3.0	0.0	**0.0860**	0.011	13.4	ug/L	3	KED
|	**V**	51	2685.2	15.1	**0.3063**	0.309	100.9	ug/L	2353	KED
|	**Cr**	52	444.0	11.6	**0.0175**	0.028	162.6	ug/L	414	KED
|	**Cr**	53	1946.8	11.4	**0.6697**	0.652	97.3	ug/L	1770	KED
|	**Mn**	55	202.0	20.7	**0.0088**	0.022	252.0	ug/L	187	KED
|	**Co**	59	127.7	48.3	**0.0086**	0.009	107.1	ug/L	69	KED
|	**Ni**	60	223.3	34.2	**-0.0049**	0.042	848.5	ug/L	237	KED
|	**Cu**	65	352.7	14.1	**0.0287**	0.021	71.5	ug/L	283	KED
|	**Zn**	66	691.7	24.2	**0.1066**	0.225	210.7	ug/L	617	KED
|>	**Ge**	72	388047.2	1.6				ug/L	393258	KED
|	**As**	75	383.7	9.1	**0.0038**	0.051	1352.3	ug/L	386	KED
|	**Se**	82	13.8	17.1	**-0.1092**	0.088	80.4	ug/L	17	KED
|	**Se-1**	78	47.0	13.1	**0.1134**	0.095	83.6	ug/L	41	KED
⌊	**Se-1**	80	31540.3	1.3	**7.1370**	0.853	12.0	ug/L	30857	KED
	Ga	71	83.3	21.1				ug/L	97	KED
	Rb	85	15.0	33.3				ug/L	5	KED
	Y	89	371258.2	2.2				ug/L	380328	KED
	Rh	103	6.7	43.3				ug/L	8	KED
⌈	**Mo**	98	813.4	8.1	**0.0938**	0.008	8.6	ug/L	281	KED
|	**Ag**	107	384.3	29.6	**0.0087**	0.011	125.7	ug/L	287	KED
|	**Cd**	111	36.3	22.9	**0.0068**	0.005	76.9	ug/L	26	KED
|	**Cd**	114	100.3	15.9	**0.0052**	0.004	83.9	ug/L	80	KED
|>	**In**	115	418017.5	2.8				ug/L	416461	KED
|	**Sn**	118	1062.7	6.2	**0.0899**	0.015	16.6	ug/L	798	KED
|	**Sb**	123	1454.7	8.8	**0.5432**	0.039	7.1	ug/L	185	KED
⌊	**Ba**	135	58.0	37.1	**0.0231**	0.023	98.1	ug/L	35	KED
	Ce	140	38.3	9.2				ug/L	48	KED
	Tb	159	1353107.3	1.2				ug/L	1349973	KED
⌈	**Ho**	165	14.0	25.8				ug/L	15	KED
|	**Tl**	203	40.0	52.5	**0.0001**	0.002	1990.1	ug/L	39	KED
|	**Tl**	205	100.0	57.2	**-0.0004**	0.002	624.7	ug/L	110	KED
|	**Pb**	206	823.7	6.6	**-0.0058**	0.007	122.9	ug/L	878	KED
|	**Pb**	207	713.0	5.8	**-0.0118**	0.006	52.9	ug/L	802	KED
|	**Pb**	208	1773.1	11.0	**-0.0077**	0.012	151.1	ug/L	1923	KED
|	**U**	238	623.7	38.1	**0.0089**	0.007	78.2	ug/L	322	KED

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	Th	232	5619.1	19.3	**0.1249**	0.037	29.6	ug/L	1972	KED
>	**Bi**	209	1013501.7	0.4				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	278.3	11.7	**-0.0008**	0.002	245.0	mg/L	260	KED
	K	39	1.7	173.2	**11.0498**	19.139	173.2	mg/L	0	KED
	Ca	43	0.0		**23.4379**	0.000	0.0	mg/L	3	KED
	Fe	54	6.7	86.6	**-0.0005**	0.003	675.9	mg/L	7	KED
	Fe	57	20.0	66.1	**0.0004**	0.002	407.2	mg/L	15	KED
>	**Sc-1**	45	25346.9	2.0				mg/L	22691	KED
	Cl	35	2263.5	4.1				ug/L	2163	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	60.0	36.3				ug/L	57	KED
	P	31	85.0	38.6				ug/L	107	KED
	S	34	53.3	51.6				ug/L	23	KED
	Sr	88	48.3	36.3				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		111.706	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		98.675	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: QC Std 7
Report Date/Time: Monday, September 09, 2019 09:17:03
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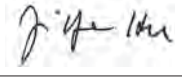
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	100.374
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	99.120
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	111.706
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 7	Sb	123	
QC Std 7	K	39	
QC Std 7	Ca	43	

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Method 6020 - Summary Report

Sample ID: PBW SC WG710614-02
Sample Date/Time: Monday, September 09, 2019 09:17:36
Number of Replicates: 3
Autosampler Position: 215
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	19028.6	1.2				ug/L	18248	KED
|	**Be**	9	1.3	114.6	**0.0033**	0.009	270.1	ug/L	1	KED
|	**Al**	27	290.0	70.3				ug/L	132	KED
|>	**Sc-2**	45	25949.9	2.3				ug/L	22691	KED
⌈	**Ti**	47	3.3	17.3	**0.1458**	0.131	90.2	ug/L	3	KED
|	**V**	51	3065.3	9.7	**0.5715**	0.211	36.8	ug/L	2353	KED
|	**Cr**	52	409.0	9.8	**-0.0047**	0.016	353.4	ug/L	414	KED
|	**Cr**	53	2311.8	9.2	**1.7264**	0.606	35.1	ug/L	1770	KED
|	**Mn**	55	152.0	16.3	**-0.0178**	0.011	61.2	ug/L	187	KED
|	**Co**	59	71.0	56.8	**0.0001**	0.006	6289.1	ug/L	69	KED
|	**Ni**	60	161.0	26.4	**-0.0398**	0.020	51.4	ug/L	237	KED
|	**Cu**	65	278.0	15.1	**-0.0032**	0.015	449.1	ug/L	283	KED
|	**Zn**	66	1013.0	13.9	**0.4779**	0.156	32.6	ug/L	617	KED
|>	**Ge**	72	397119.6	1.4				ug/L	393258	KED
|	**As**	75	414.0	5.5	**0.0398**	0.031	78.8	ug/L	386	KED
|	**Se**	82	15.0	8.8	**-0.0827**	0.037	45.1	ug/L	17	KED
|	**Se-1**	78	38.3	10.5	**-0.0410**	0.056	135.6	ug/L	41	KED
⌊	**Se-1**	80	31629.0	0.2	**3.0205**	3.284	108.7	ug/L	30857	KED
	Ga	71	98.3	10.6				ug/L	97	KED
	Rb	85	11.7	24.7				ug/L	5	KED
	Y	89	378849.7	0.7				ug/L	380328	KED
	Rh	103	8.3	34.6				ug/L	8	KED
⌈	**Mo**	98	234.7	29.2	**-0.0093**	0.011	121.2	ug/L	281	KED
|	**Ag**	107	264.7	5.7	**-0.0025**	0.002	67.0	ug/L	287	KED
|	**Cd**	111	24.3	30.3	**-0.0012**	0.005	375.6	ug/L	26	KED
|	**Cd**	114	74.0	6.8	**-0.0022**	0.001	45.5	ug/L	80	KED
|>	**In**	115	426796.0	1.7				ug/L	416461	KED
|	**Sn**	118	834.0	11.6	**0.0050**	0.028	554.7	ug/L	798	KED
|	**Sb**	123	441.0	7.5	**0.1053**	0.011	10.4	ug/L	185	KED
⌊	**Ba**	135	26.3	41.7	**-0.0094**	0.011	113.3	ug/L	35	KED
	Ce	140	37.3	7.7				ug/L	48	KED
	Tb	159	1371274.3	0.7				ug/L	1349973	KED
⌈	**Ho**	165	14.7	14.2				ug/L	15	KED
|	**Tl**	203	20.3	72.5	**-0.0019**	0.001	76.9	ug/L	39	KED
|	**Tl**	205	61.3	88.5	**-0.0020**	0.002	109.6	ug/L	110	KED
|	**Pb**	206	763.7	20.0	**-0.0148**	0.019	128.4	ug/L	878	KED
|	**Pb**	207	703.7	27.3	**-0.0148**	0.027	185.6	ug/L	802	KED
|	**Pb**	208	1682.8	23.6	**-0.0145**	0.023	158.3	ug/L	1923	KED
|	**U**	238	409.3	147.6	**0.0025**	0.017	702.7	ug/L	322	KED

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	Th	232	3039.0	10.2	**0.0352**	0.011	30.0	ug/L	1972	KED
>	**Bi**	209	1030698.6	0.4				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	250.0	4.0	**-0.0032**	0.001	24.7	mg/L	260	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**23.4379**	0.000	0.0	mg/L	3	KED
	Fe	54	5.0	173.2	**-0.0014**	0.005	343.6	mg/L	7	KED
	Fe	57	15.0	0.0	**-0.0003**	0.000	15.8	mg/L	15	KED
>	**Sc-1**	45	25949.9	2.3				mg/L	22691	KED
	Cl	35	2266.8	2.7				ug/L	2163	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	48.3	31.6				ug/L	57	KED
	P	31	68.3	23.5				ug/L	107	KED
	S	34	38.3	37.7				ug/L	23	KED
	Sr	88	45.0	29.4				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	1.7	173.2				ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		114.364	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		100.982	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	102.482
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	100.802
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	114.364
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Th 232 Lower	Th	232	

Sample ID: PBW SC WG710614-02
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Method 6020 - Summary Report

Sample ID: LCSW SC WG710614-03
Sample Date/Time: Monday, September 09, 2019 09:20:28
Number of Replicates: 3
Autosampler Position: 216
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	18277.7	1.3				ug/L	18248	KED
|	Be	9	968.0	1.3	5.9567	0.116	1.9	ug/L	1	KED
|	Al	27	261287.2	1.1				ug/L	132	KED
|>	Sc-2	45	25566.9	1.1				ug/L	22691	KED
⌈	Ti	47	147.3	6.1	32.5689	2.198	6.7	ug/L	3	KED
|	V	51	41161.2	1.1	31.9032	0.790	2.5	ug/L	2353	KED
|	Cr	52	137270.8	1.9	64.8313	1.291	2.0	ug/L	414	KED
|	Cr	53	21421.8	0.2	64.1184	1.027	1.6	ug/L	1770	KED
|	Mn	55	137360.6	1.5	65.3472	0.239	0.4	ug/L	187	KED
|	Co	59	235567.6	1.0	32.6888	0.206	0.6	ug/L	69	KED
|	Ni	60	253797.5	1.2	127.3694	2.218	1.7	ug/L	237	KED
|	Cu	65	171944.8	0.5	64.8940	1.077	1.7	ug/L	283	KED
|	Zn	66	536949.2	0.5	651.9826	11.512	1.8	ug/L	617	KED
|>	Ge	72	401264.6	1.3				ug/L	393258	KED
|	As	75	19816.0	1.1	32.1540	0.662	2.1	ug/L	386	KED
|	Se	82	1021.4	4.0	32.7146	1.753	5.4	ug/L	17	KED
|	Se-1	78	2154.8	1.8	33.0231	0.781	2.4	ug/L	41	KED
⌊	Se-1	80	36946.5	0.2	34.5133	3.411	9.9	ug/L	30857	KED
	Ga	71	91.7	17.5				ug/L	97	KED
	Rb	85	228.3	4.6				ug/L	5	KED
	Y	89	381392.6	1.1				ug/L	380328	KED
	Rh	103	28.3	44.4				ug/L	8	KED
⌈	Mo	98	183225.7	1.6	31.0897	1.003	3.2	ug/L	281	KED
|	Ag	107	387774.5	0.1	32.9248	0.587	1.8	ug/L	287	KED
|	Cd	111	31654.7	1.4	19.4574	0.287	1.5	ug/L	26	KED
|	Cd	114	77497.1	1.6	19.5983	0.362	1.8	ug/L	80	KED
|>	In	115	434872.5	1.9				ug/L	416461	KED
|	Sn	118	99901.7	1.6	32.8127	0.775	2.4	ug/L	798	KED
|	Sb	123	74478.4	3.4	30.6280	1.474	4.8	ug/L	185	KED
⌊	Ba	135	101530.2	2.3	97.7646	1.177	1.2	ug/L	35	KED
	Ce	140	89.0	20.3				ug/L	48	KED
	Tb	159	1419040.7	2.3				ug/L	1349973	KED
⌈	Ho	165	19.0	24.1				ug/L	15	KED
|	Tl	203	66483.6	1.0	6.5103	0.071	1.1	ug/L	39	KED
|	Tl	205	160202.3	1.7	6.4841	0.099	1.5	ug/L	110	KED
|	Pb	206	268196.7	1.1	32.2722	0.415	1.3	ug/L	878	KED
|	Pb	207	232670.6	0.9	32.2557	0.424	1.3	ug/L	802	KED
|	Pb	208	572639.5	0.1	32.0229	0.193	0.6	ug/L	1923	KED
|	U	238	1128412.4	1.8	32.0759	0.720	2.2	ug/L	322	KED

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	Th	232	834525.1	5.6	**27.5181**	1.647	6.0	ug/L	1972	KED
>	**Bi**	209	1045356.8	0.5				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	55166.9	1.0	**3.7354**	0.056	1.5	mg/L	260	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**12.9683**	18.134	139.8	mg/L	3	KED
	Fe	54	6826.5	2.8	**3.8100**	0.149	3.9	mg/L	7	KED
	Fe	57	28072.7	1.0	**3.7247**	0.042	1.1	mg/L	15	KED
>	**Sc-1**	45	25566.9	1.1				mg/L	22691	KED
	Cl	35	1993.5	7.0				ug/L	2163	KED
	Kr	83	0.0					ug/L	2	KED
	Br	81	51.7	14.8				ug/L	57	KED
	P	31	58.3	4.9				ug/L	107	KED
	S	34	41.7	27.7				ug/L	23	KED
	Sr	88	113.3	11.1				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		112.676	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		102.036	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: LCSW SC WG710614-03
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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		104.421
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊>	Bi	209		102.235
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		112.676
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: LCSW SC WG710614-03
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Method 6020 - Summary Report

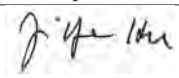
Sample ID: L1908015139 WG710614-01
Sample Date/Time: Monday, September 09, 2019 09:23:20
Number of Replicates: 3
Autosampler Position: 217
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	24536.5	2.3				ug/L	18248	KED
|	Be	9	1.7	173.2	**0.0046**	0.016	347.9	ug/L	1	KED
|	Al	27	2170.2	2.0				ug/L	132	KED
|>	Sc-2	45	28006.5	1.6				ug/L	22691	KED
⌈	Ti	47	5.3	10.8	**0.5056**	0.130	25.7	ug/L	3	KED
|	V	51	4359.3	16.6	**1.3733**	0.637	46.4	ug/L	2353	KED
|	Cr	52	1002.4	6.7	**0.2413**	0.022	8.9	ug/L	414	KED
|	Cr	53	3332.0	16.7	**4.2623**	1.941	45.5	ug/L	1770	KED
|	Mn	55	954.4	8.2	**0.3317**	0.024	7.3	ug/L	187	KED
|	Co	59	181.3	45.3	**0.0134**	0.010	73.7	ug/L	69	KED
|	Ni	60	478.3	16.2	**0.1017**	0.031	30.1	ug/L	237	KED
|	Cu	65	979.7	10.5	**0.2348**	0.027	11.7	ug/L	283	KED
|	Zn	66	2758.9	8.6	**2.3521**	0.186	7.9	ug/L	617	KED
|>	Ge	72	431261.8	2.6				ug/L	393258	KED
|	As	75	525.0	4.9	**0.1570**	0.058	36.7	ug/L	386	KED
|	Se	82	16.8	36.9	**-0.0632**	0.201	317.3	ug/L	17	KED
|	Se-1	78	42.3	9.5	**-0.0310**	0.042	136.9	ug/L	41	KED
⌊	Se-1	80	33379.1	0.2	**-2.6248**	4.594	175.0	ug/L	30857	KED
	Ga	71	83.3	30.2				ug/L	97	KED
	Rb	85	108.3	14.8				ug/L	5	KED
	Y	89	424497.8	2.1				ug/L	380328	KED
	Rh	103	13.3	78.1				ug/L	8	KED
⌈	Mo	98	1196.7	9.0	**0.1342**	0.015	11.0	ug/L	281	KED
|	Ag	107	399.0	28.0	**0.0052**	0.008	158.2	ug/L	287	KED
|	Cd	111	45.3	12.9	**0.0087**	0.003	34.1	ug/L	26	KED
|	Cd	114	182.7	4.7	**0.0206**	0.002	10.5	ug/L	80	KED
|>	In	115	480362.4	1.1				ug/L	416461	KED
|	Sn	118	2506.2	3.1	**0.4752**	0.016	3.3	ug/L	798	KED
|	Sb	123	2905.6	6.8	**1.0039**	0.063	6.2	ug/L	185	KED
⌊	Ba	135	943.7	6.5	**0.7874**	0.044	5.6	ug/L	35	KED
	Ce	140	141.7	13.7				ug/L	48	KED
	Tb	159	1533515.7	1.4				ug/L	1349973	KED
⌈	Ho	165	21.3	25.8				ug/L	15	KED
|	Tl	203	46.3	35.9	**0.0004**	0.002	366.2	ug/L	39	KED
|	Tl	205	111.7	26.6	**-0.0002**	0.001	492.9	ug/L	110	KED
|	Pb	206	1000.7	8.7	**0.0078**	0.010	123.7	ug/L	878	KED
|	Pb	207	891.4	9.4	**0.0051**	0.011	208.2	ug/L	802	KED
|	Pb	208	2148.5	12.5	**0.0055**	0.013	245.5	ug/L	1923	KED
|	U	238	650.3	53.8	**0.0084**	0.009	111.9	ug/L	322	KED

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	Th	232	54322.4	4.9	**1.6598**	0.101	6.1	ug/L	1972	KED
>	**Bi**	209	1087467.5	1.2				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	15711.5	2.5	**0.9564**	0.026	2.7	mg/L	260	KED
	K	39	1.7	173.2	**10.2312**	17.721	173.2	mg/L	0	KED
	Ca	43	1.7	173.2	**13.8133**	16.670	120.7	mg/L	3	KED
	Fe	54	31.7	36.5	**0.0120**	0.006	51.0	mg/L	7	KED
	Fe	57	38.3	49.4	**0.0024**	0.002	92.8	mg/L	15	KED
>	**Sc-1**	45	28006.5	1.6				mg/L	22691	KED
	Cl	35	2798.6	2.7				ug/L	2163	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	176.7	24.1				ug/L	57	KED
	P	31	96.7	3.0				ug/L	107	KED
	S	34	45.0	57.7				ug/L	23	KED
	Sr	88	1715.1	2.3				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		123.428	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		109.664	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908015139 WG710614-01
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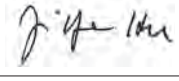
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
| >	In	115	115.344
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊ >	Bi	209	106.354
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊ >	Sc-1	45	123.428
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc-2 45 Int Std for sample	Sc-2	45	Rerun sample
Sc-1 45 Int Std for sample	Sc-1	45	Rerun sample

Approved: September 09, 2019



Method 6020 - Summary Report

Sample ID: L1908015139S WG710614-04
Sample Date/Time: Monday, September 09, 2019 09:26:13
Number of Replicates: 3
Autosampler Position: 218
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	24110.9	3.8				ug/L	18248	KED
|	Be	9	1226.4	1.2	**6.9856**	0.036	0.5	ug/L	1	KED
|	Al	27	2483.5	7.1				ug/L	132	KED
⌊>	Sc-2	45	27619.5	0.9				ug/L	22691	KED
⌈	Ti	47	155.3	11.3	**32.2146**	3.698	11.5	ug/L	3	KED
|	V	51	50508.4	2.8	**37.0418**	1.213	3.3	ug/L	2353	KED
|	Cr	52	158233.0	1.3	**70.1575**	0.757	1.1	ug/L	414	KED
|	Cr	53	26197.6	1.9	**74.4720**	1.893	2.5	ug/L	1770	KED
|	Mn	55	155109.3	1.3	**69.2698**	0.765	1.1	ug/L	187	KED
|	Co	59	266773.9	1.1	**34.7478**	0.364	1.0	ug/L	69	KED
|	Ni	60	293269.9	2.2	**138.1475**	3.107	2.2	ug/L	237	KED
|	Cu	65	194889.3	1.6	**69.0398**	1.186	1.7	ug/L	283	KED
|	Zn	66	558955.9	2.5	**636.9342**	14.379	2.3	ug/L	617	KED
|>	Ge	72	427490.2	0.5				ug/L	393258	KED
|	As	75	21390.1	1.5	**32.5833**	0.527	1.6	ug/L	386	KED
|	Se	82	1029.0	1.2	**30.8934**	0.416	1.3	ug/L	17	KED
|	Se-1	78	2146.7	3.1	**30.8350**	1.012	3.3	ug/L	41	KED
⌊	Se-1	80	38125.1	0.8	**27.1576**	1.329	4.9	ug/L	30857	KED
	Ga	71	88.3	17.3				ug/L	97	KED
	Rb	85	83.3	33.0				ug/L	5	KED
	Y	89	424016.8	1.3				ug/L	380328	KED
	Rh	103	28.3	10.2				ug/L	8	KED
⌈	Mo	98	221738.5	3.2	**34.4806**	0.743	2.2	ug/L	281	KED
|	Ag	107	450033.3	2.9	**35.0174**	0.381	1.1	ug/L	287	KED
|	Cd	111	35488.9	2.5	**19.9939**	0.213	1.1	ug/L	26	KED
|	Cd	114	86472.5	3.1	**20.0425**	0.393	2.0	ug/L	80	KED
|>	In	115	474450.4	2.7				ug/L	416461	KED
|	Sn	118	120072.1	2.6	**36.1729**	0.635	1.8	ug/L	798	KED
|	Sb	123	101466.1	2.4	**38.2506**	0.500	1.3	ug/L	185	KED
⌊	Ba	135	114581.8	2.5	**101.1440**	1.702	1.7	ug/L	35	KED
	Ce	140	292.3	7.8				ug/L	48	KED
	Tb	159	1499005.8	2.0				ug/L	1349973	KED
⌈	Ho	165	23.3	4.9				ug/L	15	KED
|	Tl	203	72230.8	1.9	**6.8509**	0.082	1.2	ug/L	39	KED
|	Tl	205	174797.1	2.1	**6.8525**	0.068	1.0	ug/L	110	KED
|	Pb	206	291352.4	2.5	**33.9571**	0.183	0.5	ug/L	878	KED
|	Pb	207	254932.3	2.4	**34.2325**	0.100	0.3	ug/L	802	KED
|	Pb	208	635731.5	2.1	**34.4389**	0.175	0.5	ug/L	1923	KED
|	U	238	1235129.2	3.9	**33.9943**	0.732	2.2	ug/L	322	KED

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	Th	232	1074908.5	4.8	**34.3240**	0.874	2.5	ug/L	1972	KED
>	**Bi**	209	1079401.3	2.4				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	15471.2	1.4	**0.9549**	0.015	1.6	mg/L	260	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**23.4379**	0.000	0.0	mg/L	3	KED
	Fe	54	123.3	27.6	**0.0596**	0.018	30.1	mg/L	7	KED
	Fe	57	116.7	25.1	**0.0121**	0.004	30.9	mg/L	15	KED
>	**Sc-1**	45	27619.5	0.9				mg/L	22691	KED
	Cl	35	2683.6	4.9				ug/L	2163	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	136.7	15.2				ug/L	57	KED
	P	31	103.3	19.6				ug/L	107	KED
	S	34	30.0	16.7				ug/L	23	KED
	Sr	88	1776.8	6.5				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		121.722	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		108.705	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		113.924
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		105.565
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		121.722
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc-2 45 Int Std for sample	Sc-2	45	Rerun sample
Sc-1 45 Int Std for sample	Sc-1	45	Rerun sample

Sample ID: L1908015139S WG710614-04
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Method 6020 - Summary Report

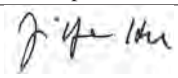
Sample ID: L1908015139SD WG710614-05
Sample Date/Time: Monday, September 09, 2019 09:29:06
Number of Replicates: 3
Autosampler Position: 219
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	24474.8	1.3				ug/L	18248	KED
|	Be	9	1284.4	2.6	**7.1868**	0.193	2.7	ug/L	1	KED
|	Al	27	2313.5	3.6				ug/L	132	KED
|>	Sc-2	45	28117.7	0.8				ug/L	22691	KED
⌈	Ti	47	169.3	4.5	**35.4524**	1.368	3.9	ug/L	3	KED
|	V	51	51389.4	2.5	**38.0446**	1.420	3.7	ug/L	2353	KED
|	Cr	52	158169.4	1.4	**70.7115**	2.286	3.2	ug/L	414	KED
|	Cr	53	26731.9	1.8	**76.7870**	2.967	3.9	ug/L	1770	KED
|	Mn	55	154423.7	1.4	**69.5164**	1.070	1.5	ug/L	187	KED
|	Co	59	268632.8	1.6	**35.2716**	0.751	2.1	ug/L	69	KED
|	Ni	60	294655.4	1.0	**139.9118**	1.915	1.4	ug/L	237	KED
|	Cu	65	194587.9	0.6	**69.4901**	1.286	1.9	ug/L	283	KED
|	Zn	66	556138.4	1.3	**638.8766**	14.356	2.2	ug/L	617	KED
|>	Ge	72	424183.6	2.4				ug/L	393258	KED
|	As	75	21236.5	2.9	**32.6066**	0.917	2.8	ug/L	386	KED
|	Se	82	1017.0	2.4	**30.7888**	1.375	4.5	ug/L	17	KED
|	Se-1	78	2125.5	0.9	**30.7741**	0.492	1.6	ug/L	41	KED
⌊	Se-1	80	38416.3	0.6	**30.7227**	4.043	13.2	ug/L	30857	KED
	Ga	71	91.7	12.6				ug/L	97	KED
	Rb	85	108.3	16.2				ug/L	5	KED
	Y	89	426709.9	1.9				ug/L	380328	KED
	Rh	103	35.0	86.9				ug/L	8	KED
⌈	Mo	98	222942.5	3.0	**34.8602**	1.694	4.9	ug/L	281	KED
|	Ag	107	451076.4	1.0	**35.2960**	1.400	4.0	ug/L	287	KED
|	Cd	111	34894.8	0.9	**19.7664**	0.713	3.6	ug/L	26	KED
|	Cd	114	85074.9	0.8	**19.8212**	0.444	2.2	ug/L	80	KED
|>	In	115	472176.8	3.0				ug/L	416461	KED
|	Sn	118	117330.9	1.3	**35.5280**	1.108	3.1	ug/L	798	KED
|	Sb	123	98880.6	1.3	**37.4703**	1.150	3.1	ug/L	185	KED
⌊	Ba	135	114337.8	0.7	**101.4586**	2.896	2.9	ug/L	35	KED
	Ce	140	155.3	5.2				ug/L	48	KED
	Tb	159	1491907.3	3.3				ug/L	1349973	KED
⌈	Ho	165	14.3	17.6				ug/L	15	KED
|	Tl	203	70792.4	2.4	**6.7726**	0.160	2.4	ug/L	39	KED
|	Tl	205	171037.5	3.0	**6.7637**	0.211	3.1	ug/L	110	KED
|	Pb	206	289481.3	2.8	**34.0345**	0.852	2.5	ug/L	878	KED
|	Pb	207	253578.6	2.6	**34.3528**	1.015	3.0	ug/L	802	KED
|	Pb	208	622111.8	2.4	**33.9999**	1.108	3.3	ug/L	1923	KED
|	U	238	1223040.1	1.9	**33.9674**	0.888	2.6	ug/L	322	KED

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	Th	232	1091377.9	2.3	**35.1719**	0.826	2.3	ug/L	1972	KED
>	**Bi**	209	1070160.1	2.2				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	16642.5	2.1	**1.0102**	0.026	2.5	mg/L	260	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**13.9373**	16.455	118.1	mg/L	3	KED
	Fe	54	116.7	17.3	**0.0551**	0.010	19.1	mg/L	7	KED
	Fe	57	45.0	19.2	**0.0032**	0.001	33.4	mg/L	15	KED
>	**Sc-1**	45	28117.7	0.8				mg/L	22691	KED
	Cl	35	2745.2	5.9				ug/L	2163	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	143.3	7.3				ug/L	57	KED
	P	31	80.0	22.5				ug/L	107	KED
	S	34	28.3	27.0				ug/L	23	KED
	Sr	88	1765.1	5.2				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		123.918	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		107.864	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908015139SD WG710614-05
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	113.378
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	104.661
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	123.918
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc-2 45 Int Std for sample	Sc-2	45	Rerun sample
Sc-1 45 Int Std for sample	Sc-1	45	Rerun sample

Sample ID: L1908015139SD WG710614-05
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Method 6020 - Summary Report

Sample ID: L1908014101
Sample Date/Time: Monday, September 09, 2019 09:31:58
Number of Replicates: 3
Autosampler Position: 220
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	22682.0	1.8				ug/L	18248	KED
|	**Be**	9	9.7	48.9	**0.0518**	0.028	53.6	ug/L	1	KED
|	**Al**	27	746269.5	2.9				ug/L	132	KED
|>	**Sc-2**	45	26989.7	0.3				ug/L	22691	KED
⌈	**Ti**	47	90.0	2.9	**18.9542**	0.835	4.4	ug/L	3	KED
|	**V**	51	5942.5	7.5	**2.7463**	0.372	13.6	ug/L	2353	KED
|	**Cr**	52	4278.6	4.8	**1.7557**	0.075	4.3	ug/L	414	KED
|	**Cr**	53	3580.4	10.6	**5.3987**	1.274	23.6	ug/L	1770	KED
|	**Mn**	55	22354.1	2.1	**10.1917**	0.347	3.4	ug/L	187	KED
|	**Co**	59	2230.5	13.3	**0.2887**	0.036	12.5	ug/L	69	KED
|	**Ni**	60	2854.6	9.2	**1.2615**	0.105	8.3	ug/L	237	KED
|	**Cu**	65	4294.3	4.3	**1.4571**	0.043	3.0	ug/L	283	KED
|	**Zn**	66	5357.0	11.6	**5.5131**	0.628	11.4	ug/L	617	KED
|>	**Ge**	72	415722.4	1.7				ug/L	393258	KED
|	**As**	75	1350.4	6.3	**1.5051**	0.130	8.6	ug/L	386	KED
|	**Se**	82	25.0	5.3	**0.2098**	0.034	16.2	ug/L	17	KED
|	**Se-1**	78	63.8	13.4	**0.3160**	0.117	37.0	ug/L	41	KED
⌊	**Se-1**	80	33211.5	0.2	**3.6409**	3.220	88.4	ug/L	30857	KED
	Ga	71	311.7	2.5				ug/L	97	KED
	Rb	85	3740.5	2.4				ug/L	5	KED
	Y	89	406801.4	1.7				ug/L	380328	KED
	Rh	103	8.3	34.6				ug/L	8	KED
⌈	**Mo**	98	1826.8	11.5	**0.2502**	0.039	15.4	ug/L	281	KED
|	**Ag**	107	676.7	41.2	**0.0302**	0.024	78.1	ug/L	287	KED
|	**Cd**	111	103.3	36.7	**0.0450**	0.023	51.5	ug/L	26	KED
|	**Cd**	114	316.7	20.8	**0.0563**	0.017	30.2	ug/L	80	KED
|>	**In**	115	450433.6	2.5				ug/L	416461	KED
|	**Sn**	118	2328.2	4.2	**0.4689**	0.044	9.4	ug/L	798	KED
|	**Sb**	123	1323.7	6.3	**0.4475**	0.043	9.6	ug/L	185	KED
⌊	**Ba**	135	17175.4	2.5	**15.9393**	0.271	1.7	ug/L	35	KED
	Ce	140	27082.9	3.7				ug/L	48	KED
	Tb	159	1440131.2	1.4				ug/L	1349973	KED
⌈	**Ho**	165	463.0	8.9				ug/L	15	KED
|	**Tl**	203	218.3	16.5	**0.0179**	0.004	20.7	ug/L	39	KED
|	**Tl**	205	540.0	17.5	**0.0178**	0.004	22.4	ug/L	110	KED
|	**Pb**	206	5976.5	0.9	**0.6296**	0.011	1.7	ug/L	878	KED
|	**Pb**	207	4825.8	2.3	**0.5725**	0.019	3.4	ug/L	802	KED
|	**Pb**	208	12365.4	0.7	**0.5993**	0.010	1.6	ug/L	1923	KED
|	**U**	238	7924.1	11.5	**0.2211**	0.028	12.5	ug/L	322	KED

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	Th	232	41361.3	13.0	**1.3322**	0.191	14.4	ug/L	1972	KED
>	**Bi**	209	1022194.2	0.7				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	14213.3	1.8	**0.8965**	0.014	1.5	mg/L	260	KED
	K	39	3.3	173.2	**21.1235**	36.587	173.2	mg/L	0	KED
	Ca	43	1.7	173.2	**13.6021**	17.036	125.2	mg/L	3	KED
	Fe	54	1306.7	4.8	**0.6872**	0.032	4.6	mg/L	7	KED
	Fe	57	5232.6	3.1	**0.6558**	0.020	3.1	mg/L	15	KED
>	**Sc-1**	45	26989.7	0.3				mg/L	22691	KED
	Cl	35	3007.0	1.9				ug/L	2163	KED
	Kr	83	0.0					ug/L	2	KED
	Br	81	365.0	8.3				ug/L	57	KED
	P	31	113.3	18.4				ug/L	107	KED
	S	34	53.3	54.1				ug/L	23	KED
	Sr	88	63464.5	5.1				ug/L	62	KED
	C	12	1.7	173.2				ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		118.946	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		105.712	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908014101
Report Date/Time: Monday, September 09, 2019 09:34:18
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	108.157
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	99.970
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	118.946
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1908014102
Sample Date/Time: Monday, September 09, 2019 09:34:50
Number of Replicates: 3
Autosampler Position: 221
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	21757.3	2.3				ug/L	18248	KED
|	Be	9	1.0	100.0	**0.0013**	0.006	443.9	ug/L	1	KED
|	Al	27	773607.1	1.5				ug/L	132	KED
⌊>	Sc-2	45	26638.4	1.7				ug/L	22691	KED
⌈	Ti	47	5.3	47.2	**0.5522**	0.556	100.6	ug/L	3	KED
|	V	51	3919.8	4.0	**1.1511**	0.083	7.2	ug/L	2353	KED
|	Cr	52	1512.1	3.5	**0.4940**	0.017	3.5	ug/L	414	KED
|	Cr	53	2860.3	3.8	**3.1610**	0.387	12.3	ug/L	1770	KED
|	Mn	55	539.3	5.8	**0.1581**	0.011	7.2	ug/L	187	KED
|	Co	59	120.7	19.7	**0.0064**	0.003	46.5	ug/L	69	KED
|	Ni	60	344.3	7.4	**0.0463**	0.011	22.7	ug/L	237	KED
|	Cu	65	1159.4	0.8	**0.3156**	0.003	0.8	ug/L	283	KED
|	Zn	66	2363.5	3.8	**2.0200**	0.092	4.6	ug/L	617	KED
|>	Ge	72	413915.5	1.3				ug/L	393258	KED
|	As	75	766.0	5.5	**0.5763**	0.052	9.1	ug/L	386	KED
|	Se	82	20.0	17.5	**0.0561**	0.116	206.7	ug/L	17	KED
|	Se-1	78	45.8	13.9	**0.0495**	0.105	211.7	ug/L	41	KED
⌊	Se-1	80	33365.9	0.7	**5.4486**	2.096	38.5	ug/L	30857	KED
	Ga	71	115.0	17.4				ug/L	97	KED
	Rb	85	555.0	9.7				ug/L	5	KED
	Y	89	398487.2	0.5				ug/L	380328	KED
	Rh	103	5.0	100.0				ug/L	8	KED
⌈	Mo	98	886.0	5.7	**0.0948**	0.010	10.8	ug/L	281	KED
|	Ag	107	297.7	25.1	**-0.0012**	0.005	443.2	ug/L	287	KED
|	Cd	111	55.3	38.6	**0.0160**	0.012	72.9	ug/L	26	KED
|	Cd	114	174.7	41.5	**0.0209**	0.016	78.2	ug/L	80	KED
|>	In	115	453109.0	2.5				ug/L	416461	KED
|	Sn	118	1760.4	10.7	**0.2827**	0.046	16.2	ug/L	798	KED
|	Sb	123	458.0	21.4	**0.1009**	0.034	33.8	ug/L	185	KED
⌊	Ba	135	19247.2	2.2	**17.7612**	0.300	1.7	ug/L	35	KED
	Ce	140	152.7	21.8				ug/L	48	KED
	Tb	159	1455394.1	1.9				ug/L	1349973	KED
⌈	Ho	165	13.7	25.7				ug/L	15	KED
|	Tl	203	82.7	50.2	**0.0043**	0.004	94.3	ug/L	39	KED
|	Tl	205	185.0	58.5	**0.0030**	0.004	143.8	ug/L	110	KED
|	Pb	206	1013.4	12.0	**0.0162**	0.014	83.9	ug/L	878	KED
|	Pb	207	865.7	12.4	**0.0085**	0.014	164.3	ug/L	802	KED
|	Pb	208	2092.5	12.2	**0.0092**	0.013	144.0	ug/L	1923	KED
|	U	238	6692.8	7.3	**0.1844**	0.013	6.8	ug/L	322	KED

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	Th	232	14040.6	17.5	**0.4065**	0.086	21.2	ug/L	1972	KED
>	**Bi**	209	1026177.4	1.1				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	13632.8	4.2	**0.8712**	0.051	5.9	mg/L	260	KED
	K	39	1.7	173.2	**10.8587**	18.808	173.2	mg/L	0	KED
	Ca	43	1.7	173.2	**13.3910**	17.402	129.9	mg/L	3	KED
	Fe	54	21.7	104.1	**0.0073**	0.012	162.0	mg/L	7	KED
	Fe	57	61.7	57.5	**0.0056**	0.005	81.9	mg/L	15	KED
>	**Sc-1**	45	26638.4	1.7				mg/L	22691	KED
	Cl	35	2975.3	3.6				ug/L	2163	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	575.0	2.3				ug/L	57	KED
	P	31	90.0	9.6				ug/L	107	KED
	S	34	43.3	24.0				ug/L	23	KED
	Sr	88	49214.8	2.4				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		117.398	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		105.253	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		108.800
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		100.359
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		117.398
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

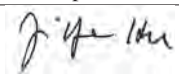
Sample ID: L1908014102PS WG710706-01
Sample Date/Time: Monday, September 09, 2019 09:37:42
Number of Replicates: 3
Autosampler Position: 222
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	22388.2	1.9				ug/L	18248	KED
|	Be	9	1335.4	4.2	**7.9000**	0.301	3.8	ug/L	1	KED
|	Al	27	747154.0	3.2				ug/L	132	KED
⌊>	Sc-2	45	26596.0	1.8				ug/L	22691	KED
⌈	Ti	47	179.7	10.4	**38.5866**	4.049	10.5	ug/L	3	KED
|	V	51	54278.4	0.7	**41.3115**	0.451	1.1	ug/L	2353	KED
|	Cr	52	171569.1	1.5	**78.5641**	1.361	1.7	ug/L	414	KED
|	Cr	53	28261.3	2.0	**83.6125**	2.063	2.5	ug/L	1770	KED
|	Mn	55	168570.7	1.7	**77.7381**	1.610	2.1	ug/L	187	KED
|	Co	59	288955.9	1.0	**38.8594**	0.515	1.3	ug/L	69	KED
|	Ni	60	311061.2	1.1	**151.2894**	1.643	1.1	ug/L	237	KED
|	Cu	65	205777.2	1.7	**75.2674**	1.094	1.5	ug/L	283	KED
|	Zn	66	602939.0	2.1	**709.4374**	14.405	2.0	ug/L	617	KED
|>	Ge	72	414062.9	0.4				ug/L	393258	KED
|	As	75	23830.1	1.9	**37.5757**	0.809	2.2	ug/L	386	KED
|	Se	82	1136.2	2.2	**35.2968**	0.759	2.2	ug/L	17	KED
|	Se-1	78	2366.9	1.6	**35.1883**	0.530	1.5	ug/L	41	KED
⌊	Se-1	80	38827.7	0.3	**38.7884**	1.416	3.7	ug/L	30857	KED
	Ga	71	90.0	16.7				ug/L	97	KED
	Rb	85	535.0	2.8				ug/L	5	KED
	Y	89	402634.8	2.3				ug/L	380328	KED
	Rh	103	41.7	30.2				ug/L	8	KED
⌈	Mo	98	239291.0	1.5	**39.3925**	1.154	2.9	ug/L	281	KED
|	Ag	107	495585.1	0.7	**40.8182**	0.763	1.9	ug/L	287	KED
|	Cd	111	38058.4	1.4	**22.6912**	0.200	0.9	ug/L	26	KED
|	Cd	114	91451.7	3.2	**22.4273**	0.316	1.4	ug/L	80	KED
|>	In	115	448385.2	2.2				ug/L	416461	KED
|	Sn	118	127507.7	3.6	**40.6662**	0.595	1.5	ug/L	798	KED
|	Sb	123	101715.5	2.9	**40.5696**	0.282	0.7	ug/L	185	KED
⌊	Ba	135	143246.4	3.3	**133.7731**	1.757	1.3	ug/L	35	KED
	Ce	140	177.3	8.6				ug/L	48	KED
	Tb	159	1450473.3	1.2				ug/L	1349973	KED
⌈	Ho	165	19.7	42.6				ug/L	15	KED
|	Tl	203	78348.1	1.1	**7.7702**	0.024	0.3	ug/L	39	KED
|	Tl	205	190483.7	1.3	**7.8091**	0.116	1.5	ug/L	110	KED
|	Pb	206	318347.0	2.2	**38.8133**	0.683	1.8	ug/L	878	KED
|	Pb	207	275597.2	0.3	**38.7159**	0.403	1.0	ug/L	802	KED
|	Pb	208	683644.3	1.2	**38.7398**	0.477	1.2	ug/L	1923	KED
|	U	238	1359416.4	1.4	**39.1341**	0.526	1.3	ug/L	322	KED

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	Th	232	1176605.1	2.9	**39.3139**	1.119	2.8	ug/L	1972	KED
>	**Bi**	209	1032233.2	0.8				ug/L	1022503	KED
	Na	23	1.7	173.2				mg/L	0	KED
	Mg	24	13527.7	2.7	**0.8652**	0.015	1.8	mg/L	260	KED
	K	39	1.7	173.2	**10.7094**	18.549	173.2	mg/L	0	KED
	Ca	43	3.3	173.2	**3.4914**	34.548	989.5	mg/L	3	KED
	Fe	54	130.0	23.4	**0.0656**	0.016	24.6	mg/L	7	KED
	Fe	57	83.3	15.1	**0.0084**	0.002	21.3	mg/L	15	KED
>	**Sc-1**	45	26596.0	1.8				mg/L	22691	KED
	Cl	35	2985.3	2.2				ug/L	2163	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	733.4	6.0				ug/L	57	KED
	P	31	86.7	27.3				ug/L	107	KED
	S	34	31.7	55.5				ug/L	23	KED
	Sr	88	49626.2	3.8				ug/L	62	KED
	C	12	1.7	173.2				ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		117.211	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		105.290	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		107.665
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		100.952
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		117.211
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1908014102SDL WG710706-02
Sample Date/Time: Monday, September 09, 2019 09:40:33
Number of Replicates: 3
Autosampler Position: 223
Sample Description: 5
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	17311.7	16.2				ug/L	18248	KED
|	Be	9	1.3	86.6	0.0036	0.007	196.8	ug/L	1	KED
|	Al	27	145863.8	0.8				ug/L	132	KED
|>	Sc-2	45	23464.1	14.6				ug/L	22691	KED
⌈	Ti	47	4.3	26.6	0.4635	0.371	80.1	ug/L	3	KED
|	V	51	3456.4	3.5	1.1212	0.332	29.6	ug/L	2353	KED
|	Cr	52	741.7	21.0	0.1857	0.105	56.6	ug/L	414	KED
|	Cr	53	2723.6	4.8	3.7992	1.237	32.6	ug/L	1770	KED
|	Mn	55	341.0	38.6	0.0889	0.077	86.7	ug/L	187	KED
|	Co	59	307.3	70.6	0.0382	0.035	90.4	ug/L	69	KED
|	Ni	60	431.3	51.5	0.1221	0.140	114.5	ug/L	237	KED
|	Cu	65	659.3	17.0	0.1647	0.069	42.1	ug/L	283	KED
|	Zn	66	1982.8	21.5	1.8982	0.827	43.6	ug/L	617	KED
|>	Ge	72	372076.9	13.2				ug/L	393258	KED
|	As	75	462.7	15.4	0.1767	0.104	58.9	ug/L	386	KED
|	Se	82	18.8	24.1	0.1091	0.268	246.1	ug/L	17	KED
|	Se-1	78	44.2	20.1	0.1180	0.239	202.7	ug/L	41	KED
⌊	Se-1	80	31980.1	1.3	21.9300	33.845	154.3	ug/L	30857	KED
	Ga	71	88.3	31.2				ug/L	97	KED
	Rb	85	125.0	14.4				ug/L	5	KED
	Y	89	348263.5	13.7				ug/L	380328	KED
	Rh	103	3.3	173.2				ug/L	8	KED
⌈	Mo	98	599.0	32.2	0.0684	0.055	81.1	ug/L	281	KED
|	Ag	107	544.7	51.7	0.0269	0.026	97.3	ug/L	287	KED
|	Cd	111	60.0	42.1	0.0265	0.023	87.6	ug/L	26	KED
|	Cd	114	153.0	31.1	0.0230	0.017	73.0	ug/L	80	KED
|>	In	115	391732.1	14.5				ug/L	416461	KED
|	Sn	118	921.0	8.9	0.0675	0.058	86.4	ug/L	798	KED
|	Sb	123	1093.0	14.4	0.4347	0.154	35.3	ug/L	185	KED
⌊	Ba	135	3758.5	4.7	4.0546	0.744	18.3	ug/L	35	KED
	Ce	140	44.7	12.3				ug/L	48	KED
	Tb	159	1288786.0	13.0				ug/L	1349973	KED
⌈	Ho	165	11.7	39.6				ug/L	15	KED
|	Tl	203	71.7	56.9	0.0038	0.004	108.3	ug/L	39	KED
|	Tl	205	164.7	55.5	0.0028	0.004	142.1	ug/L	110	KED
|	Pb	206	983.0	21.3	0.0226	0.033	144.9	ug/L	878	KED
|	Pb	207	831.4	17.1	0.0132	0.026	194.4	ug/L	802	KED
|	Pb	208	2148.5	19.1	0.0225	0.029	131.0	ug/L	1923	KED
|	U	238	2650.3	38.5	0.0760	0.042	55.7	ug/L	322	KED

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	Th	232	10142.3	31.0	**0.3131**	0.173	55.4	ug/L	1972	KED
>	**Bi**	209	960679.6	13.2				ug/L	1022503	KED
	Na	23	1.7	173.2				mg/L	0	KED
	Mg	24	2628.6	5.4	**0.1773**	0.024	13.7	mg/L	260	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**23.4379**	0.000	0.0	mg/L	3	KED
	Fe	54	21.7	58.1	**0.0085**	0.006	71.3	mg/L	7	KED
	Fe	57	20.0	25.0	**0.0006**	0.000	74.1	mg/L	15	KED
>	**Sc-1**	45	23464.1	14.6				mg/L	22691	KED
	Cl	35	2316.8	0.1				ug/L	2163	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	176.7	16.6				ug/L	57	KED
	P	31	56.7	10.2				ug/L	107	KED
	S	34	45.0	50.9				ug/L	23	KED
	Sr	88	8991.0	5.3				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		103.409	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		94.614	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908014102SDL WG710706-02
Report Date/Time: Monday, September 09, 2019 09:42:53
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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		94.062
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		93.954
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		103.409
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Th 232 Lower	Th	232	

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Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, September 09, 2019 09:43:27
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexION\Data\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	18638.1	2.3				ug/L	18248	KED
|	**Be**	9	973.0	3.6	**6.0734**	0.137	2.3	ug/L	1	KED
|	**Al**	27	263741.0	1.5				ug/L	132	KED
⌊>	**Sc-2**	45	25197.6	1.4				ug/L	22691	KED
⌈	**Ti**	47	142.0	8.3	**32.0120**	2.899	9.1	ug/L	3	KED
|	**V**	51	41095.3	2.4	**32.5193**	0.604	1.9	ug/L	2353	KED
|	**Cr**	52	135414.4	2.8	**65.2282**	1.350	2.1	ug/L	414	KED
|	**Cr**	53	21466.9	3.1	**65.6585**	1.732	2.6	ug/L	1770	KED
|	**Mn**	55	134336.6	1.0	**65.1921**	0.278	0.4	ug/L	187	KED
|	**Co**	59	229023.3	1.9	**32.4154**	0.352	1.1	ug/L	69	KED
|	**Ni**	60	253585.6	1.1	**129.8123**	1.736	1.3	ug/L	237	KED
|	**Cu**	65	168075.8	0.8	**64.6995**	0.513	0.8	ug/L	283	KED
|	**Zn**	66	529127.5	2.7	**655.2260**	12.479	1.9	ug/L	617	KED
| >	**Ge**	72	393367.5	0.9				ug/L	393258	KED
|	**As**	75	19627.0	2.6	**32.4853**	0.597	1.8	ug/L	386	KED
|	**Se**	82	1011.2	1.4	**33.0341**	0.761	2.3	ug/L	17	KED
|	**Se-1**	78	2102.0	2.9	**32.8497**	0.748	2.3	ug/L	41	KED
⌊	**Se-1**	80	36641.1	1.3	**37.2142**	3.785	10.2	ug/L	30857	KED
	Ga	71	105.0	45.4				ug/L	97	KED
	Rb	85	268.3	6.0				ug/L	5	KED
	Y	89	373206.0	1.5				ug/L	380328	KED
	Rh	103	26.7	57.3				ug/L	8	KED
⌈	**Mo**	98	180643.4	1.9	**31.5391**	0.795	2.5	ug/L	281	KED
|	**Ag**	107	383277.6	0.5	**33.4883**	0.360	1.1	ug/L	287	KED
|	**Cd**	111	31255.2	1.5	**19.7705**	0.215	1.1	ug/L	26	KED
|	**Cd**	114	75614.9	1.1	**19.6788**	0.250	1.3	ug/L	80	KED
| >	**In**	115	422534.0	0.9				ug/L	416461	KED
|	**Sn**	118	97968.2	2.6	**33.1148**	0.939	2.8	ug/L	798	KED
|	**Sb**	123	73602.5	4.0	**31.1416**	1.364	4.4	ug/L	185	KED
⌊	**Ba**	135	99478.6	1.6	**98.5880**	1.261	1.3	ug/L	35	KED
	Ce	140	89.3	9.0				ug/L	48	KED
	Tb	159	1354961.3	2.1				ug/L	1349973	KED
⌈	**Ho**	165	15.0	11.5				ug/L	15	KED
|	**Tl**	203	64414.3	1.4	**6.4169**	0.082	1.3	ug/L	39	KED
|	**Tl**	205	156905.4	1.8	**6.4606**	0.073	1.1	ug/L	110	KED
|	**Pb**	206	260621.2	1.1	**31.9042**	0.507	1.6	ug/L	878	KED
|	**Pb**	207	228761.9	1.5	**32.2645**	0.610	1.9	ug/L	802	KED
|	**Pb**	208	566685.6	2.4	**32.2429**	0.927	2.9	ug/L	1923	KED
|	**U**	238	1099167.9	2.1	**31.7852**	0.689	2.2	ug/L	322	KED

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	Th	232	809378.6	5.7	**27.1578**	1.818	6.7	ug/L	1972	KED
>	**Bi**	209	1027557.7	1.0				ug/L	1022503	KED
	Na	23	1.7	173.2				mg/L	0	KED
	Mg	24	56804.7	2.3	**3.9029**	0.036	0.9	mg/L	260	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**12.7184**	18.567	146.0	mg/L	3	KED
	Fe	54	7078.3	4.3	**4.0066**	0.129	3.2	mg/L	7	KED
	Fe	57	28597.0	1.5	**3.8496**	0.006	0.2	mg/L	15	KED
>	**Sc-1**	45	25197.6	1.4				mg/L	22691	KED
	Cl	35	2160.2	6.2				ug/L	2163	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	63.3	36.5				ug/L	57	KED
	P	31	66.7	37.0				ug/L	107	KED
	S	34	40.0	12.5				ug/L	23	KED
	Sr	88	108.3	11.6				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9	94.897		
	Al	27			
>	Sc-2	45		111.048	
	Ti	47	100.038		
	V	51	101.623		
	Cr	52	101.919		
	Cr	53			
	Mn	55	101.863		
	Co	59	101.298		
	Ni	60	101.416		
	Cu	65	101.093		
	Zn	66	102.379		
>	Ge	72		100.028	
	As	75	101.517		
	Se	82	103.232		
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103			
⌈	Mo	98	98.560		
|	Ag	107	104.651		
|	Cd	111	102.971		
|	Cd	114			
|>	In	115		101.458	
|	Sn	118	103.484		
|	Sb	123	97.317		
⌊	Ba	135	102.696		
	Ce	140			
	Tb	159			
⌈	Ho	165			
|	Tl	203	100.264		
|	Tl	205			
|	Pb	206	99.701		
|	Pb	207	100.826		
|	Pb	208	100.759		
|	U	238	99.329		
|	Th	232			
⌊>	Bi	209		100.494	
⌈	Na	23			
|	Mg	24	97.571		
|	K	39	0.000		
|	Ca	43	317.960		
|	Fe	54	100.165		
|	Fe	57	96.241		
⌊>	Sc-1	45		111.048	
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	K	39	
QC Std 6	Ca	43	

Sample ID: QC Std 6
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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, September 09, 2019 09:46:21
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	19175.5	1.5				ug/L	18248	KED
|	**Be**	9	0.7	173.2	**-0.0004**	0.007	1876.3	ug/L	1	KED
|	**Al**	27	243.3	50.8				ug/L	132	KED
|>	**Sc-2**	45	25274.4	2.1				ug/L	22691	KED
⌈	**Ti**	47	4.0	86.6	**0.3043**	0.800	262.9	ug/L	3	KED
|	**V**	51	2786.9	17.1	**0.3513**	0.407	115.8	ug/L	2353	KED
|	**Cr**	52	451.3	6.0	**0.0167**	0.016	96.5	ug/L	414	KED
|	**Cr**	53	2123.5	13.9	**1.1353**	0.980	86.3	ug/L	1770	KED
|	**Mn**	55	200.0	20.9	**0.0059**	0.021	359.1	ug/L	187	KED
|	**Co**	59	126.0	47.5	**0.0080**	0.009	107.9	ug/L	69	KED
|	**Ni**	60	204.0	33.4	**-0.0171**	0.036	209.4	ug/L	237	KED
|	**Cu**	65	336.3	18.9	**0.0199**	0.026	130.7	ug/L	283	KED
|	**Zn**	66	640.0	20.6	**0.0258**	0.173	670.0	ug/L	617	KED
|>	**Ge**	72	395665.0	1.8				ug/L	393258	KED
|	**As**	75	394.7	9.5	**0.0109**	0.074	678.8	ug/L	386	KED
|	**Se**	82	13.2	2.2	**-0.1410**	0.014	10.2	ug/L	17	KED
|	**Se-1**	78	43.5	7.0	**0.0439**	0.053	121.0	ug/L	41	KED
⌊	**Se-1**	80	31663.0	0.2	**3.9997**	4.084	102.1	ug/L	30857	KED
	Ga	71	105.0	24.7				ug/L	97	KED
	Rb	85	13.3	43.3				ug/L	5	KED
	Y	89	374030.9	1.3				ug/L	380328	KED
	Rh	103	5.0	173.2				ug/L	8	KED
⌈	**Mo**	98	807.7	8.5	**0.0921**	0.010	10.6	ug/L	281	KED
|	**Ag**	107	381.0	23.4	**0.0082**	0.009	104.4	ug/L	287	KED
|	**Cd**	111	34.0	14.7	**0.0051**	0.003	57.3	ug/L	26	KED
|	**Cd**	114	96.7	17.8	**0.0041**	0.005	114.6	ug/L	80	KED
|>	**In**	115	420194.1	1.8				ug/L	416461	KED
|	**Sn**	118	1061.0	8.9	**0.0873**	0.027	30.7	ug/L	798	KED
|	**Sb**	123	1513.1	6.9	**0.5652**	0.034	6.0	ug/L	185	KED
⌊	**Ba**	135	52.0	48.5	**0.0169**	0.026	155.2	ug/L	35	KED
	Ce	140	38.7	21.1				ug/L	48	KED
	Tb	159	1369001.7	1.0				ug/L	1349973	KED
⌈	**Ho**	165	12.7	24.1				ug/L	15	KED
|	**Tl**	203	50.0	103.9	**0.0011**	0.005	477.5	ug/L	39	KED
|	**Tl**	205	142.7	105.4	**0.0014**	0.006	456.8	ug/L	110	KED
|	**Pb**	206	888.7	16.1	**0.0018**	0.018	1042.6	ug/L	878	KED
|	**Pb**	207	758.0	23.8	**-0.0059**	0.026	445.9	ug/L	802	KED
|	**Pb**	208	1832.1	16.8	**-0.0048**	0.018	378.7	ug/L	1923	KED
|	**U**	238	767.4	64.8	**0.0131**	0.015	112.1	ug/L	322	KED

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	Th	232	5695.1	19.6	**0.1264**	0.038	29.9	ug/L	1972	KED
>	**Bi**	209	1019400.0	0.7				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	263.3	21.2	**-0.0018**	0.004	234.6	mg/L	260	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**23.4379**	0.000	0.0	mg/L	3	KED
	Fe	54	5.0	100.0	**-0.0013**	0.003	216.6	mg/L	7	KED
	Fe	57	28.3	44.4	**0.0016**	0.002	109.5	mg/L	15	KED
>	**Sc-1**	45	25274.4	2.1				mg/L	22691	KED
	Cl	35	2283.5	4.8				ug/L	2163	KED
	Kr	83	3.3	173.2				ug/L	2	KED
	Br	81	70.0	7.1				ug/L	57	KED
	P	31	58.3	13.1				ug/L	107	KED
	S	34	43.3	29.0				ug/L	23	KED
	Sr	88	60.0	58.3				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		111.387	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		100.612	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	100.896
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	99.697
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	111.387
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 7	Sb	123	
QC Std 7	Ca	43	

Sample ID: QC Std 7
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Method 6020 - Summary Report

Sample ID: L1908014103
Sample Date/Time: Monday, September 09, 2019 09:49:12
Number of Replicates: 3
Autosampler Position: 224
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	22673.6	4.4				ug/L	18248	KED
|	**Be**	9	0.0		**-0.0046**	0.000	0.0	ug/L	1	KED
|	**Al**	27	731851.3	3.0				ug/L	132	KED
|>	**Sc-2**	45	27058.8	2.3				ug/L	22691	KED
⌈	**Ti**	47	5.7	27.0	**0.6220**	0.337	54.1	ug/L	3	KED
|	**V**	51	3822.5	4.8	**1.0666**	0.136	12.7	ug/L	2353	KED
|	**Cr**	52	1667.8	4.2	**0.5637**	0.031	5.4	ug/L	414	KED
|	**Cr**	53	2700.2	9.2	**2.6296**	0.746	28.4	ug/L	1770	KED
|	**Mn**	55	1058.7	11.2	**0.3969**	0.054	13.6	ug/L	187	KED
|	**Co**	59	302.3	73.8	**0.0307**	0.030	97.2	ug/L	69	KED
|	**Ni**	60	428.0	49.3	**0.0865**	0.102	118.1	ug/L	237	KED
|	**Cu**	65	814.0	11.8	**0.1883**	0.035	18.7	ug/L	283	KED
|	**Zn**	66	2477.2	8.9	**2.1468**	0.251	11.7	ug/L	617	KED
|>	**Ge**	72	414904.9	0.5				ug/L	393258	KED
|	**As**	75	733.7	4.6	**0.5220**	0.052	9.9	ug/L	386	KED
|	**Se**	82	23.8	2.4	**0.1747**	0.016	8.9	ug/L	17	KED
|	**Se-1**	78	53.8	6.3	**0.1676**	0.047	28.2	ug/L	41	KED
⌊	**Se-1**	80	33230.1	0.8	**4.1243**	2.451	59.4	ug/L	30857	KED
	Ga	71	115.0	26.4				ug/L	97	KED
	Rb	85	511.7	20.7				ug/L	5	KED
	Y	89	410802.8	3.7				ug/L	380328	KED
	Rh	103	11.7	65.5				ug/L	8	KED
⌈	**Mo**	98	1162.4	8.6	**0.1376**	0.017	12.5	ug/L	281	KED
|	**Ag**	107	404.7	13.7	**0.0072**	0.005	63.7	ug/L	287	KED
|	**Cd**	111	47.0	12.8	**0.0109**	0.003	30.9	ug/L	26	KED
|	**Cd**	114	139.0	12.6	**0.0122**	0.004	36.1	ug/L	80	KED
|>	**In**	115	458296.1	0.6				ug/L	416461	KED
|	**Sn**	118	2106.8	2.5	**0.3860**	0.019	5.0	ug/L	798	KED
|	**Sb**	123	1336.1	2.3	**0.4428**	0.015	3.5	ug/L	185	KED
⌊	**Ba**	135	18334.8	0.7	**16.7243**	0.213	1.3	ug/L	35	KED
	Ce	140	115.3	20.8				ug/L	48	KED
	Tb	159	1484132.5	2.5				ug/L	1349973	KED
⌈	**Ho**	165	17.3	16.7				ug/L	15	KED
|	**Tl**	203	51.7	7.8	**0.0011**	0.000	35.8	ug/L	39	KED
|	**Tl**	205	143.3	11.4	**0.0012**	0.001	57.3	ug/L	110	KED
|	**Pb**	206	790.7	4.0	**-0.0129**	0.004	28.1	ug/L	878	KED
|	**Pb**	207	693.3	4.1	**-0.0177**	0.005	26.8	ug/L	802	KED
|	**Pb**	208	1774.8	2.1	**-0.0108**	0.003	25.1	ug/L	1923	KED
|	**U**	238	6292.6	2.2	**0.1694**	0.003	1.5	ug/L	322	KED

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	Th	232	40819.2	12.5	**1.2820**	0.176	13.7	ug/L	1972	KED
>	**Bi**	209	1046133.6	0.8				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	12770.4	1.4	**0.8015**	0.013	1.6	mg/L	260	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**13.6170**	17.010	124.9	mg/L	3	KED
	Fe	54	31.7	9.1	**0.0125**	0.002	15.1	mg/L	7	KED
	Fe	57	90.0	5.6	**0.0091**	0.001	8.9	mg/L	15	KED
>	**Sc-1**	45	27058.8	2.3				mg/L	22691	KED
	Cl	35	3042.0	6.3				ug/L	2163	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	370.0	15.3				ug/L	57	KED
	P	31	116.7	28.5				ug/L	107	KED
	S	34	41.7	50.0				ug/L	23	KED
	Sr	88	46270.6	4.2				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		119.251	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		105.504	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	110.045
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	102.311
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	119.251
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1908014104
Sample Date/Time: Monday, September 09, 2019 09:52:06
Number of Replicates: 3
Autosampler Position: 225
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	22523.4	3.3				ug/L	18248	KED
|	**Be**	9	1.7	69.3	**0.0053**	0.007	129.3	ug/L	1	KED
|	**Al**	27	784460.8	2.9				ug/L	132	KED
|>	**Sc-2**	45	26340.9	0.1				ug/L	22691	KED
⌈	**Ti**	47	5.7	36.7	**0.6368**	0.443	69.5	ug/L	3	KED
|	**V**	51	5826.5	0.6	**2.7336**	0.042	1.5	ug/L	2353	KED
|	**Cr**	52	31061.8	2.2	**14.2496**	0.226	1.6	ug/L	414	KED
|	**Cr**	53	7256.7	2.3	**17.3942**	0.780	4.5	ug/L	1770	KED
|	**Mn**	55	12502.2	1.3	**5.7588**	0.102	1.8	ug/L	187	KED
|	**Co**	59	2709.6	3.0	**0.3596**	0.015	4.2	ug/L	69	KED
|	**Ni**	60	2817.6	1.2	**1.2686**	0.019	1.5	ug/L	237	KED
|	**Cu**	65	12694.0	2.1	**4.6033**	0.114	2.5	ug/L	283	KED
|	**Zn**	66	3676.1	2.0	**3.6231**	0.059	1.6	ug/L	617	KED
|>	**Ge**	72	408598.7	1.2				ug/L	393258	KED
|	**As**	75	1087.4	3.4	**1.1157**	0.078	7.0	ug/L	386	KED
|	**Se**	82	23.8	14.9	**0.1862**	0.113	60.5	ug/L	17	KED
|	**Se-1**	78	56.8	6.8	**0.2269**	0.069	30.5	ug/L	41	KED
⌊	**Se-1**	80	32914.7	0.8	**5.2998**	0.766	14.5	ug/L	30857	KED
	Ga	71	128.3	12.5				ug/L	97	KED
	Rb	85	595.0	8.4				ug/L	5	KED
	Y	89	403027.0	1.1				ug/L	380328	KED
	Rh	103	8.3	124.9				ug/L	8	KED
⌈	**Mo**	98	10472.0	1.2	**1.6834**	0.028	1.6	ug/L	281	KED
|	**Ag**	107	349.0	10.5	**0.0034**	0.003	84.5	ug/L	287	KED
|	**Cd**	111	97.3	10.9	**0.0418**	0.006	14.6	ug/L	26	KED
|	**Cd**	114	303.3	1.8	**0.0536**	0.002	3.6	ug/L	80	KED
|>	**In**	115	446399.5	0.8				ug/L	416461	KED
|	**Sn**	118	1981.1	5.8	**0.3632**	0.040	10.9	ug/L	798	KED
|	**Sb**	123	1612.1	6.4	**0.5677**	0.046	8.1	ug/L	185	KED
⌊	**Ba**	135	15017.4	1.6	**14.0590**	0.345	2.5	ug/L	35	KED
	Ce	140	4417.6	2.8				ug/L	48	KED
	Tb	159	1433097.1	1.4				ug/L	1349973	KED
⌈	**Ho**	165	102.0	13.5				ug/L	15	KED
|	**Tl**	203	96.3	13.4	**0.0057**	0.001	21.0	ug/L	39	KED
|	**Tl**	205	215.7	6.5	**0.0044**	0.001	15.1	ug/L	110	KED
|	**Pb**	206	3208.7	1.2	**0.2890**	0.002	0.8	ug/L	878	KED
|	**Pb**	207	2662.6	4.0	**0.2658**	0.012	4.6	ug/L	802	KED
|	**Pb**	208	6688.1	2.0	**0.2746**	0.006	2.3	ug/L	1923	KED
|	**U**	238	48339.7	2.1	**1.4006**	0.040	2.8	ug/L	322	KED

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	Th	232	13719.0	19.3	**0.3988**	0.092	23.1	ug/L	1972	KED
>	**Bi**	209	1019120.2	1.0				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	130408.9	1.7	**8.5956**	0.141	1.6	mg/L	260	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	5.0	100.0	**-6.8209**	30.254	443.5	mg/L	3	KED
	Fe	54	113.3	17.8	**0.0573**	0.011	19.2	mg/L	7	KED
	Fe	57	281.7	21.0	**0.0341**	0.008	22.6	mg/L	15	KED
>	**Sc-1**	45	26340.9	0.1				mg/L	22691	KED
	Cl	35	3868.8	3.1				ug/L	2163	KED
	Kr	83	0.0					ug/L	2	KED
	Br	81	580.0	8.7				ug/L	57	KED
	P	31	80.0	27.2				ug/L	107	KED
	S	34	43.3	6.7				ug/L	23	KED
	Sr	88	54673.5	1.9				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		116.087	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		103.901	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	107.189
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	99.669
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	116.087
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Th 232 Lower	Th	232	

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Method 6020 - Summary Report

Sample ID: L1908014105
Sample Date/Time: Monday, September 09, 2019 09:54:59
Number of Replicates: 3
Autosampler Position: 226
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	24047.4	2.1				ug/L	18248	KED
|	Be	9	0.0		-0.0046	0.000	0.0	ug/L	1	KED
|	Al	27	2559604.6	0.9				ug/L	132	KED
⌊>	Sc-2	45	27050.1	0.9				ug/L	22691	KED
⌈	Ti	47	6.0	28.9	0.7321	0.406	55.4	ug/L	3	KED
|	V	51	7794.3	2.9	4.3944	0.170	3.9	ug/L	2353	KED
|	Cr	52	1124.7	1.2	0.3289	0.013	3.8	ug/L	414	KED
|	Cr	53	3627.1	8.2	5.8704	0.970	16.5	ug/L	1770	KED
|	Mn	55	2173.2	2.1	0.9374	0.031	3.3	ug/L	187	KED
|	Co	59	716.0	1.9	0.0889	0.001	1.5	ug/L	69	KED
|	Ni	60	1133.7	1.9	0.4443	0.017	3.9	ug/L	237	KED
|	Cu	65	3040.6	1.7	1.0321	0.014	1.3	ug/L	283	KED
|	Zn	66	3128.0	2.6	3.0120	0.145	4.8	ug/L	617	KED
| >	Ge	72	404063.8	1.2				ug/L	393258	KED
|	As	75	1429.7	3.9	1.6983	0.107	6.3	ug/L	386	KED
|	Se	82	21.5	29.1	0.1200	0.204	170.2	ug/L	17	KED
|	Se-1	78	41.8	5.9	0.0035	0.040	1136.7	ug/L	41	KED
⌊	Se-1	80	32999.4	0.0	8.1360	2.526	31.0	ug/L	30857	KED
	Ga	71	101.7	29.6				ug/L	97	KED
	Rb	85	866.7	9.4				ug/L	5	KED
	Y	89	394156.9	1.6				ug/L	380328	KED
	Rh	103	18.3	68.6				ug/L	8	KED
⌈	Mo	98	4263.6	3.1	0.6811	0.019	2.7	ug/L	281	KED
|	Ag	107	252.3	7.0	-0.0038	0.001	36.3	ug/L	287	KED
|	Cd	111	39.0	10.3	0.0077	0.003	33.9	ug/L	26	KED
|	Cd	114	141.0	10.4	0.0148	0.004	26.7	ug/L	80	KED
| >	In	115	430909.4	0.6				ug/L	416461	KED
|	Sn	118	1800.4	4.1	0.3255	0.021	6.5	ug/L	798	KED
|	Sb	123	847.0	3.9	0.2725	0.015	5.4	ug/L	185	KED
⌊	Ba	135	222690.5	2.4	216.4670	6.027	2.8	ug/L	35	KED
	Ce	140	187.7	7.3				ug/L	48	KED
	Tb	159	1399788.1	1.3				ug/L	1349973	KED
⌈	Ho	165	18.7	18.8				ug/L	15	KED
|	Tl	203	1192.0	4.1	0.1214	0.007	5.6	ug/L	39	KED
|	Tl	205	2784.3	3.8	0.1165	0.006	5.2	ug/L	110	KED
|	Pb	206	1042.4	4.1	0.0267	0.005	16.9	ug/L	878	KED
|	Pb	207	887.7	4.3	0.0184	0.006	34.9	ug/L	802	KED
|	Pb	208	2211.2	0.6	0.0228	0.002	10.5	ug/L	1923	KED
|	U	238	67766.6	1.3	2.0582	0.055	2.7	ug/L	322	KED

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	Th	232	8540.8	22.4	**0.2356**	0.064	27.1	ug/L	1972	KED
>	**Bi**	209	974419.6	1.4				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	191486.1	2.2	**12.3009**	0.358	2.9	mg/L	260	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**13.7042**	16.859	123.0	mg/L	3	KED
	Fe	54	31.7	32.9	**0.0125**	0.005	43.0	mg/L	7	KED
	Fe	57	93.3	13.5	**0.0095**	0.002	17.1	mg/L	15	KED
>	**Sc-1**	45	27050.1	0.9				mg/L	22691	KED
	Cl	35	3758.8	1.4				ug/L	2163	KED
	Kr	83	0.0					ug/L	2	KED
	Br	81	1375.1	13.8				ug/L	57	KED
	P	31	78.3	9.8				ug/L	107	KED
	S	34	36.7	20.8				ug/L	23	KED
	Sr	88	180529.6	2.6				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	1.7	173.2				ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		119.213	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		102.748	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	103.469
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	95.298
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	119.213
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ba 135 Upper, S, EEE	Ba	135	
Th 232 Lower	Th	232	

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Method 6020 - Summary Report

Sample ID: L1908014106
Sample Date/Time: Monday, September 09, 2019 09:57:52
Number of Replicates: 3
Autosampler Position: 227
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	24962.2	2.4				ug/L	18248	KED
|	**Be**	9	0.7	173.2	**-0.0008**	0.007	774.4	ug/L	1	KED
|	**Al**	27	1794543.7	0.4				ug/L	132	KED
|>	**Sc-2**	45	27844.6	0.5				ug/L	22691	KED
⌈	**Ti**	47	4.3	93.3	**0.3415**	0.893	261.5	ug/L	3	KED
|	**V**	51	7101.0	3.4	**3.7274**	0.193	5.2	ug/L	2353	KED
|	**Cr**	52	1493.4	3.1	**0.4901**	0.020	4.1	ug/L	414	KED
|	**Cr**	53	3570.4	5.1	**5.4852**	0.584	10.7	ug/L	1770	KED
|	**Mn**	55	1341.4	5.5	**0.5327**	0.034	6.4	ug/L	187	KED
|	**Co**	59	148.3	3.4	**0.0103**	0.001	6.8	ug/L	69	KED
|	**Ni**	60	399.7	4.9	**0.0746**	0.010	13.6	ug/L	237	KED
|	**Cu**	65	2891.3	3.9	**0.9574**	0.045	4.7	ug/L	283	KED
|	**Zn**	66	2668.2	2.4	**2.4004**	0.083	3.5	ug/L	617	KED
|>	**Ge**	72	411168.3	0.3				ug/L	393258	KED
|	**As**	75	1071.7	3.2	**1.0786**	0.050	4.6	ug/L	386	KED
|	**Se**	82	20.8	7.7	**0.0863**	0.052	60.7	ug/L	17	KED
|	**Se-1**	78	46.0	5.8	**0.0557**	0.039	70.1	ug/L	41	KED
⌊	**Se-1**	80	33660.9	0.7	**8.6201**	2.052	23.8	ug/L	30857	KED
	Ga	71	88.3	3.3				ug/L	97	KED
	Rb	85	746.7	3.9				ug/L	5	KED
	Y	89	404981.2	0.9				ug/L	380328	KED
	Rh	103	11.7	99.0				ug/L	8	KED
⌈	**Mo**	98	1283.1	2.2	**0.1656**	0.003	1.7	ug/L	281	KED
|	**Ag**	107	287.3	0.5	**-0.0013**	0.000	11.1	ug/L	287	KED
|	**Cd**	111	64.0	6.8	**0.0224**	0.003	11.4	ug/L	26	KED
|	**Cd**	114	185.0	3.3	**0.0251**	0.002	7.9	ug/L	80	KED
|>	**In**	115	439958.7	1.1				ug/L	416461	KED
|	**Sn**	118	1848.4	2.9	**0.3289**	0.013	4.1	ug/L	798	KED
|	**Sb**	123	924.0	1.3	**0.2967**	0.008	2.8	ug/L	185	KED
⌊	**Ba**	135	51154.2	1.1	**48.6736**	0.651	1.3	ug/L	35	KED
	Ce	140	169.7	9.5				ug/L	48	KED
	Tb	159	1418036.6	0.7				ug/L	1349973	KED
⌈	**Ho**	165	17.7	19.9				ug/L	15	KED
|	**Tl**	203	20.0	17.3	**-0.0019**	0.000	19.2	ug/L	39	KED
|	**Tl**	205	56.3	3.7	**-0.0022**	0.000	4.8	ug/L	110	KED
|	**Pb**	206	859.7	4.7	**-0.0007**	0.006	892.2	ug/L	878	KED
|	**Pb**	207	740.7	2.9	**-0.0072**	0.004	51.5	ug/L	802	KED
|	**Pb**	208	1834.8	0.9	**-0.0035**	0.001	31.6	ug/L	1923	KED
|	**U**	238	35209.2	2.6	**1.0288**	0.020	2.0	ug/L	322	KED

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	Th	232	6733.5	19.6	**0.1643**	0.046	28.0	ug/L	1972	KED
>	**Bi**	209	1007906.2	0.8				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	17299.9	1.5	**1.0613**	0.022	2.1	mg/L	260	KED
	K	39	3.3	173.2	**20.5798**	35.645	173.2	mg/L	0	KED
	Ca	43	5.0	100.0	**-5.2987**	28.731	542.2	mg/L	3	KED
	Fe	54	11.7	65.5	**0.0018**	0.004	218.5	mg/L	7	KED
	Fe	57	75.0	13.3	**0.0069**	0.001	18.2	mg/L	15	KED
>	**Sc-1**	45	27844.6	0.5				mg/L	22691	KED
	Cl	35	3180.3	2.6				ug/L	2163	KED
	Kr	83	3.3	173.2				ug/L	2	KED
	Br	81	840.0	3.9				ug/L	57	KED
	P	31	100.0	13.2				ug/L	107	KED
	S	34	41.7	18.3				ug/L	23	KED
	Sr	88	85086.7	2.7				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	1.7	173.2				ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		122.714	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		104.554	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908014106
Report Date/Time: Monday, September 09, 2019 10:00:11
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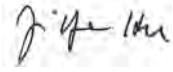
Approved: September 09, 2019

	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
| >	In	115	105.642
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊ >	Bi	209	98.572
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊ >	Sc-1	45	122.714
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc-2 45 Int Std for sample	Sc-2	45	Rerun sample
Th 232 Lower	Th	232	
Sc-1 45 Int Std for sample	Sc-1	45	Rerun sample

Approved: September 09, 2019



Method 6020 - Summary Report

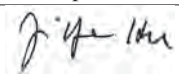
Sample ID: L1908015136
Sample Date/Time: Monday, September 09, 2019 10:00:44
Number of Replicates: 3
Autosampler Position: 228
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	24341.2	1.8				ug/L	18248	KED
|	Be	9	1.0	100.0	**0.0010**	0.006	549.5	ug/L	1	KED
|	Al	27	2471.9	52.5				ug/L	132	KED
|>	Sc-2	45	27729.7	2.0				ug/L	22691	KED
⌈	Ti	47	6.0	44.1	**0.6644**	0.563	84.7	ug/L	3	KED
|	V	51	5444.3	8.9	**2.2635**	0.414	18.3	ug/L	2353	KED
|	Cr	52	1041.7	5.5	**0.2662**	0.022	8.2	ug/L	414	KED
|	Cr	53	4140.6	8.4	**6.8999**	1.191	17.3	ug/L	1770	KED
|	Mn	55	1006.7	3.3	**0.3625**	0.012	3.3	ug/L	187	KED
|	Co	59	88.3	32.9	**0.0018**	0.004	212.2	ug/L	69	KED
|	Ni	60	260.7	8.9	**0.0025**	0.010	406.9	ug/L	237	KED
|	Cu	65	1154.7	0.7	**0.3034**	0.003	0.9	ug/L	283	KED
|	Zn	66	2246.8	4.8	**1.8170**	0.103	5.7	ug/L	617	KED
|>	Ge	72	424362.0	0.9				ug/L	393258	KED
|	As	75	779.4	7.3	**0.5679**	0.099	17.4	ug/L	386	KED
|	Se	82	17.0	39.8	**-0.0520**	0.211	406.2	ug/L	17	KED
|	Se-1	78	41.7	14.3	**-0.0297**	0.093	312.8	ug/L	41	KED
⌊	Se-1	80	33533.6	0.9	**1.4061**	0.107	7.6	ug/L	30857	KED
	Ga	71	68.3	22.4				ug/L	97	KED
	Rb	85	56.7	5.1				ug/L	5	KED
	Y	89	416961.1	0.2				ug/L	380328	KED
	Rh	103	13.3	86.6				ug/L	8	KED
⌈	Mo	98	169.3	19.2	**-0.0226**	0.005	23.1	ug/L	281	KED
|	Ag	107	276.0	5.1	**-0.0033**	0.001	28.3	ug/L	287	KED
|	Cd	111	36.3	29.7	**0.0046**	0.006	134.6	ug/L	26	KED
|	Cd	114	122.0	6.5	**0.0079**	0.002	26.4	ug/L	80	KED
|>	In	115	460610.1	1.2				ug/L	416461	KED
|	Sn	118	1659.8	1.3	**0.2429**	0.007	3.0	ug/L	798	KED
|	Sb	123	307.0	10.1	**0.0398**	0.013	32.4	ug/L	185	KED
⌊	Ba	135	369.7	6.7	**0.3010**	0.023	7.5	ug/L	35	KED
	Ce	140	126.7	8.4				ug/L	48	KED
	Tb	159	1464874.6	0.5				ug/L	1349973	KED
⌈	Ho	165	17.0	20.4				ug/L	15	KED
|	Tl	203	19.7	28.9	**-0.0020**	0.001	27.0	ug/L	39	KED
|	Tl	205	46.3	45.3	**-0.0027**	0.001	30.9	ug/L	110	KED
|	Pb	206	833.4	11.2	**-0.0090**	0.011	124.2	ug/L	878	KED
|	Pb	207	760.7	7.8	**-0.0096**	0.008	84.5	ug/L	802	KED
|	Pb	208	1921.1	10.7	**-0.0039**	0.011	293.6	ug/L	1923	KED
|	U	238	534.7	88.6	**0.0057**	0.013	235.0	ug/L	322	KED

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	Th	232	6336.7	22.2	**0.1401**	0.046	32.7	ug/L	1972	KED
>	**Bi**	209	1058787.1	0.0				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	19322.3	3.9	**1.1936**	0.070	5.9	mg/L	260	KED
	K	39	3.3	173.2	**21.0029**	36.378	173.2	mg/L	0	KED
	Ca	43	1.7	173.2	**13.8355**	16.632	120.2	mg/L	3	KED
	Fe	54	20.0	50.0	**0.0061**	0.005	82.3	mg/L	7	KED
	Fe	57	45.0	38.5	**0.0032**	0.002	63.2	mg/L	15	KED
>	**Sc-1**	45	27729.7	2.0				mg/L	22691	KED
	Cl	35	3132.0	2.4				ug/L	2163	KED
	Kr	83	0.0					ug/L	2	KED
	Br	81	168.3	14.7				ug/L	57	KED
	P	31	90.0	24.2				ug/L	107	KED
	S	34	46.7	34.4				ug/L	23	KED
	Sr	88	711.7	21.5				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		122.208	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		107.909	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908015136
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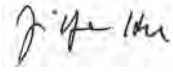
Approved: September 09, 2019

	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	110.601
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	103.549
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	122.208
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc-2 45 Int Std for sample	Sc-2	45	Rerun sample
Th 232 Lower	Th	232	
Sc-1 45 Int Std for sample	Sc-1	45	Rerun sample

Approved: September 09, 2019



Method 6020 - Summary Report

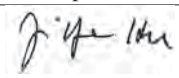
Sample ID: L1908015702
Sample Date/Time: Monday, September 09, 2019 10:03:32
Number of Replicates: 3
Autosampler Position: 229
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	22460.0	2.6				ug/L	18248	KED
|	**Be**	9	0.3	173.2	**-0.0027**	0.003	120.2	ug/L	1	KED
|	**Al**	27	677695.3	2.5				ug/L	132	KED
⌊>	**Sc-2**	45	27331.3	1.4				ug/L	22691	KED
⌈	**Ti**	47	5.7	27.0	**0.6382**	0.321	50.3	ug/L	3	KED
|	**V**	51	5721.4	1.9	**2.6523**	0.065	2.5	ug/L	2353	KED
|	**Cr**	52	3784.1	2.3	**1.5622**	0.067	4.3	ug/L	414	KED
|	**Cr**	53	3623.8	4.7	**5.7346**	0.410	7.1	ug/L	1770	KED
|	**Mn**	55	1361.4	3.8	**0.5468**	0.031	5.7	ug/L	187	KED
|	**Co**	59	170.3	10.4	**0.0134**	0.003	19.6	ug/L	69	KED
|	**Ni**	60	610.7	3.4	**0.1803**	0.014	8.0	ug/L	237	KED
|	**Cu**	65	1264.7	4.3	**0.3607**	0.024	6.7	ug/L	283	KED
|	**Zn**	66	7627.9	2.0	**8.3484**	0.180	2.2	ug/L	617	KED
|>	**Ge**	72	408266.1	1.5				ug/L	393258	KED
|	**As**	75	1096.4	2.0	**1.1312**	0.021	1.9	ug/L	386	KED
|	**Se**	82	18.5	5.4	**0.0166**	0.041	245.6	ug/L	17	KED
|	**Se-1**	78	45.8	0.6	**0.0582**	0.006	10.8	ug/L	41	KED
⌊	**Se-1**	80	33026.0	0.7	**6.1904**	4.208	68.0	ug/L	30857	KED
	Ga	71	83.3	3.5				ug/L	97	KED
	Rb	85	350.0	8.6				ug/L	5	KED
	Y	89	401367.4	1.5				ug/L	380328	KED
	Rh	103	13.3	21.7				ug/L	8	KED
⌈	**Mo**	98	540.3	7.8	**0.0389**	0.006	15.8	ug/L	281	KED
|	**Ag**	107	261.3	0.4	**-0.0040**	0.000	4.3	ug/L	287	KED
|	**Cd**	111	42.0	23.4	**0.0085**	0.006	70.1	ug/L	26	KED
|	**Cd**	114	156.3	6.6	**0.0170**	0.002	14.2	ug/L	80	KED
|>	**In**	115	450158.9	1.2				ug/L	416461	KED
|	**Sn**	118	2237.2	0.3	**0.4397**	0.007	1.6	ug/L	798	KED
|	**Sb**	123	369.7	8.1	**0.0673**	0.010	15.3	ug/L	185	KED
⌊	**Ba**	135	6889.2	3.4	**6.3759**	0.218	3.4	ug/L	35	KED
	Ce	140	772.0	3.1				ug/L	48	KED
	Tb	159	1447978.8	1.9				ug/L	1349973	KED
⌈	**Ho**	165	31.7	22.2				ug/L	15	KED
|	**Tl**	203	24.7	14.2	**-0.0015**	0.000	22.6	ug/L	39	KED
|	**Tl**	205	57.7	14.0	**-0.0022**	0.000	15.8	ug/L	110	KED
|	**Pb**	206	1445.7	1.2	**0.0692**	0.001	1.2	ug/L	878	KED
|	**Pb**	207	1186.4	2.5	**0.0537**	0.003	5.5	ug/L	802	KED
|	**Pb**	208	3004.6	1.0	**0.0612**	0.003	4.8	ug/L	1923	KED
|	**U**	238	5220.9	5.0	**0.1416**	0.007	4.7	ug/L	322	KED

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	Th	232	5188.6	19.8	**0.1079**	0.036	33.0	ug/L	1972	KED
>	**Bi**	209	1027783.3	0.7				ug/L	1022503	KED
	Na	23	1.7	173.2				mg/L	0	KED
	Mg	24	43888.5	1.9	**2.7753**	0.089	3.2	mg/L	260	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	3.3	173.2	**4.0133**	33.644	838.3	mg/L	3	KED
	Fe	54	33.3	17.3	**0.0132**	0.003	24.7	mg/L	7	KED
	Fe	57	116.7	10.8	**0.0122**	0.001	12.1	mg/L	15	KED
>	**Sc-1**	45	27331.3	1.4				mg/L	22691	KED
	Cl	35	3337.0	5.9				ug/L	2163	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	326.7	9.2				ug/L	57	KED
	P	31	86.7	20.3				ug/L	107	KED
	S	34	48.3	63.2				ug/L	23	KED
	Sr	88	37462.9	1.9				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		120.452	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		103.816	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908015702
Report Date/Time: Monday, September 09, 2019 10:05:52
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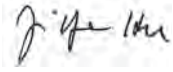
Approved: September 09, 2019

	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	108.091
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	100.516
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	120.452
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc-2 45 Int Std for sample	Sc-2	45	Rerun sample
Th 232 Lower	Th	232	
Sc-1 45 Int Std for sample	Sc-1	45	Rerun sample

Approved: September 09, 2019



Method 6020 - Summary Report

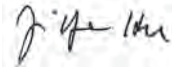
Sample ID: L1808015703
Sample Date/Time: Monday, September 09, 2019 10:06:25
Number of Replicates: 3
Autosampler Position: 230
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	23201.1	3.3				ug/L	18248	KED
|	**Be**	9	0.7	86.6	**-0.0007**	0.003	505.6	ug/L	1	KED
|	**Al**	27	633638.3	2.9				ug/L	132	KED
|>	**Sc-2**	45	26696.2	2.9				ug/L	22691	KED
⌈	**Ti**	47	5.3	47.2	**0.5520**	0.543	98.4	ug/L	3	KED
|	**V**	51	6407.4	2.3	**3.1483**	0.143	4.5	ug/L	2353	KED
|	**Cr**	52	2877.9	2.3	**1.1243**	0.028	2.5	ug/L	414	KED
|	**Cr**	53	3435.4	3.7	**5.0079**	0.451	9.0	ug/L	1770	KED
|	**Mn**	55	2088.8	4.0	**0.8761**	0.042	4.8	ug/L	187	KED
|	**Co**	59	224.0	7.4	**0.0204**	0.002	10.4	ug/L	69	KED
|	**Ni**	60	973.0	2.2	**0.3536**	0.009	2.4	ug/L	237	KED
|	**Cu**	65	1622.1	2.2	**0.4865**	0.014	2.8	ug/L	283	KED
|	**Zn**	66	9036.0	1.5	**9.9068**	0.157	1.6	ug/L	617	KED
|>	**Ge**	72	412977.3	0.6				ug/L	393258	KED
|	**As**	75	1232.4	2.8	**1.3294**	0.044	3.3	ug/L	386	KED
|	**Se**	82	20.8	3.7	**0.0833**	0.023	27.4	ug/L	17	KED
|	**Se-1**	78	47.0	7.4	**0.0679**	0.055	81.2	ug/L	41	KED
⌊	**Se-1**	80	33135.2	1.0	**4.4816**	1.528	34.1	ug/L	30857	KED
	Ga	71	108.3	5.3				ug/L	97	KED
	Rb	85	783.4	8.6				ug/L	5	KED
	Y	89	411518.0	1.8				ug/L	380328	KED
	Rh	103	6.7	43.3				ug/L	8	KED
⌈	**Mo**	98	1167.7	4.6	**0.1424**	0.009	6.1	ug/L	281	KED
|	**Ag**	107	262.3	0.6	**-0.0038**	0.000	8.2	ug/L	287	KED
|	**Cd**	111	46.0	10.9	**0.0109**	0.003	28.5	ug/L	26	KED
|	**Cd**	114	188.0	7.2	**0.0249**	0.003	11.9	ug/L	80	KED
|>	**In**	115	448785.9	1.0				ug/L	416461	KED
|	**Sn**	118	2786.9	2.6	**0.6181**	0.017	2.7	ug/L	798	KED
|	**Sb**	123	1092.4	3.6	**0.3564**	0.012	3.5	ug/L	185	KED
⌊	**Ba**	135	5165.9	5.8	**4.7888**	0.326	6.8	ug/L	35	KED
	Ce	140	1349.7	5.2				ug/L	48	KED
	Tb	159	1437085.8	2.2				ug/L	1349973	KED
⌈	**Ho**	165	35.7	17.1				ug/L	15	KED
|	**Tl**	203	37.7	27.1	**-0.0002**	0.001	516.2	ug/L	39	KED
|	**Tl**	205	89.7	12.3	**-0.0009**	0.000	49.8	ug/L	110	KED
|	**Pb**	206	955.4	0.5	**0.0092**	0.001	15.5	ug/L	878	KED
|	**Pb**	207	829.7	2.7	**0.0035**	0.003	92.1	ug/L	802	KED
|	**Pb**	208	2146.2	1.8	**0.0124**	0.003	20.5	ug/L	1923	KED
|	**U**	238	8366.6	1.7	**0.2331**	0.003	1.1	ug/L	322	KED

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	Th	232	4931.8	15.0	**0.0998**	0.028	27.6	ug/L	1972	KED
>	**Bi**	209	1025661.8	1.6				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	15669.8	1.9	**1.0017**	0.012	1.2	mg/L	260	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**13.1516**	17.816	135.5	mg/L	3	KED
	Fe	54	36.7	7.9	**0.0154**	0.002	9.8	mg/L	7	KED
	Fe	57	163.3	13.8	**0.0185**	0.002	13.5	mg/L	15	KED
>	**Sc-1**	45	26696.2	2.9				mg/L	22691	KED
	Cl	35	2910.3	3.3				ug/L	2163	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	438.3	9.7				ug/L	57	KED
	P	31	96.7	38.1				ug/L	107	KED
	S	34	23.3	65.5				ug/L	23	KED
	Sr	88	22897.3	3.5				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		117.653	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		105.014	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		107.762
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		100.309
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		117.653
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Th 232 Lower	Th	232	

Sample ID: L1808015703
Report Date/Time: Monday, September 09, 2019 10:08:45
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Method 6020 - Summary Report

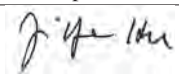
Sample ID: L1908015704
Sample Date/Time: Monday, September 09, 2019 10:09:18
Number of Replicates: 3
Autosampler Position: 231
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	22586.8	1.8				ug/L	18248	KED
|	**Be**	9	1.3	86.6	**0.0032**	0.007	211.6	ug/L	1	KED
|	**Al**	27	581857.9	2.9				ug/L	132	KED
|>	**Sc-2**	45	26681.8	0.8				ug/L	22691	KED
⌈	**Ti**	47	3.7	56.8	**0.1941**	0.455	234.2	ug/L	3	KED
|	**V**	51	5099.2	1.4	**2.1298**	0.078	3.7	ug/L	2353	KED
|	**Cr**	52	2748.2	0.1	**1.0733**	0.010	1.0	ug/L	414	KED
|	**Cr**	53	3252.0	0.5	**4.4942**	0.037	0.8	ug/L	1770	KED
|	**Mn**	55	1036.0	1.3	**0.3919**	0.005	1.3	ug/L	187	KED
|	**Co**	59	166.7	36.4	**0.0128**	0.008	63.5	ug/L	69	KED
|	**Ni**	60	799.7	12.4	**0.2715**	0.047	17.3	ug/L	237	KED
|	**Cu**	65	2034.1	3.2	**0.6428**	0.022	3.3	ug/L	283	KED
|	**Zn**	66	9426.6	5.1	**10.4414**	0.502	4.8	ug/L	617	KED
|>	**Ge**	72	410198.4	0.7				ug/L	393258	KED
|	**As**	75	1303.4	2.7	**1.4579**	0.048	3.3	ug/L	386	KED
|	**Se**	82	24.8	13.4	**0.2155**	0.109	50.4	ug/L	17	KED
|	**Se-1**	78	60.5	5.0	**0.2792**	0.053	19.1	ug/L	41	KED
⌊	**Se-1**	80	33268.8	0.8	**6.6881**	1.471	22.0	ug/L	30857	KED
	Ga	71	100.0	13.2				ug/L	97	KED
	Rb	85	281.7	14.5				ug/L	5	KED
	Y	89	398010.2	3.3				ug/L	380328	KED
	Rh	103	8.3	124.9				ug/L	8	KED
⌈	**Mo**	98	705.7	10.4	**0.0662**	0.012	17.6	ug/L	281	KED
|	**Ag**	107	307.7	21.9	**-0.0001**	0.005	3952.3	ug/L	287	KED
|	**Cd**	111	41.7	20.0	**0.0083**	0.005	58.5	ug/L	26	KED
|	**Cd**	114	171.3	8.6	**0.0207**	0.003	16.8	ug/L	80	KED
|>	**In**	115	449227.7	0.4				ug/L	416461	KED
|	**Sn**	118	3513.7	1.9	**0.8503**	0.019	2.2	ug/L	798	KED
|	**Sb**	123	484.0	5.3	**0.1133**	0.010	8.5	ug/L	185	KED
⌊	**Ba**	135	2601.6	4.2	**2.3906**	0.098	4.1	ug/L	35	KED
	Ce	140	152.3	5.9				ug/L	48	KED
	Tb	159	1432742.4	0.6				ug/L	1349973	KED
⌈	**Ho**	165	14.3	54.2				ug/L	15	KED
|	**Tl**	203	29.3	33.5	**-0.0010**	0.001	100.4	ug/L	39	KED
|	**Tl**	205	51.0	18.0	**-0.0025**	0.000	16.5	ug/L	110	KED
|	**Pb**	206	1257.7	4.5	**0.0466**	0.009	18.8	ug/L	878	KED
|	**Pb**	207	1085.7	4.3	**0.0399**	0.005	11.8	ug/L	802	KED
|	**Pb**	208	2647.9	2.7	**0.0412**	0.005	12.9	ug/L	1923	KED
|	**U**	238	4729.7	3.0	**0.1278**	0.003	2.7	ug/L	322	KED

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	Th	232	4729.4	12.0	**0.0929**	0.021	22.8	ug/L	1972	KED
>	**Bi**	209	1025151.1	1.5				ug/L	1022503	KED
	Na	23	1.7	173.2				mg/L	0	KED
	Mg	24	28343.2	1.0	**1.8287**	0.014	0.8	mg/L	260	KED
	K	39	1.7	173.2	**10.6426**	18.434	173.2	mg/L	0	KED
	Ca	43	1.7	173.2	**13.5120**	17.192	127.2	mg/L	3	KED
	Fe	54	16.7	17.3	**0.0047**	0.001	31.8	mg/L	7	KED
	Fe	57	51.7	29.6	**0.0043**	0.002	44.8	mg/L	15	KED
>	**Sc-1**	45	26681.8	0.8				mg/L	22691	KED
	Cl	35	3112.0	4.3				ug/L	2163	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	381.7	6.7				ug/L	57	KED
	P	31	63.3	22.8				ug/L	107	KED
	S	34	40.0	54.5				ug/L	23	KED
	Sr	88	28224.6	4.3				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		117.589	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		104.308	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	107.868
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	100.259
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	117.589
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Th 232 Lower	Th	232	

Sample ID: L1908015704
Report Date/Time: Monday, September 09, 2019 10:11:37
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Method 6020 - Summary Report

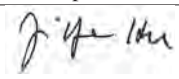
Sample ID: L1908017101
Sample Date/Time: Monday, September 09, 2019 10:12:10
Number of Replicates: 3
Autosampler Position: 232
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	22853.9	1.4				ug/L	18248	KED
|	**Be**	9	0.7	86.6	**-0.0007**	0.003	499.6	ug/L	1	KED
|	**Al**	27	1388.4	15.5				ug/L	132	KED
|>	**Sc-2**	45	26879.8	1.9				ug/L	22691	KED
⌈	**Ti**	47	4.0	50.0	**0.2655**	0.432	162.8	ug/L	3	KED
|	**V**	51	5064.9	11.2	**2.0957**	0.428	20.4	ug/L	2353	KED
|	**Cr**	52	1345.7	1.4	**0.4227**	0.013	3.0	ug/L	414	KED
|	**Cr**	53	3930.5	11.2	**6.6437**	1.305	19.6	ug/L	1770	KED
|	**Mn**	55	1197.0	2.9	**0.4663**	0.011	2.3	ug/L	187	KED
|	**Co**	59	102.0	9.4	**0.0040**	0.001	31.2	ug/L	69	KED
|	**Ni**	60	366.3	1.1	**0.0585**	0.003	5.6	ug/L	237	KED
|	**Cu**	65	693.7	2.0	**0.1470**	0.005	3.4	ug/L	283	KED
|	**Zn**	66	2232.8	5.6	**1.8874**	0.153	8.1	ug/L	617	KED
|>	**Ge**	72	410632.8	1.0				ug/L	393258	KED
|	**As**	75	721.4	3.8	**0.5143**	0.045	8.7	ug/L	386	KED
|	**Se**	82	15.2	34.6	**-0.0929**	0.170	182.9	ug/L	17	KED
|	**Se-1**	78	41.7	6.0	**-0.0096**	0.035	363.4	ug/L	41	KED
⌊	**Se-1**	80	32942.8	0.9	**4.4586**	0.915	20.5	ug/L	30857	KED
	Ga	71	110.0	20.8				ug/L	97	KED
	Rb	85	420.0	9.4				ug/L	5	KED
	Y	89	401732.8	3.1				ug/L	380328	KED
	Rh	103	8.3	91.7				ug/L	8	KED
⌈	**Mo**	98	164.3	14.9	**-0.0226**	0.004	17.3	ug/L	281	KED
|	**Ag**	107	245.7	12.5	**-0.0051**	0.002	43.9	ug/L	287	KED
|	**Cd**	111	28.0	3.6	**0.0003**	0.001	275.8	ug/L	26	KED
|	**Cd**	114	83.3	5.7	**-0.0007**	0.001	127.1	ug/L	80	KED
|>	**In**	115	446111.9	1.6				ug/L	416461	KED
|	**Sn**	118	1335.1	2.4	**0.1549**	0.006	3.7	ug/L	798	KED
|	**Sb**	123	251.0	12.7	**0.0210**	0.012	58.0	ug/L	185	KED
⌊	**Ba**	135	313.7	14.8	**0.2594**	0.044	17.1	ug/L	35	KED
	Ce	140	385.3	0.4				ug/L	48	KED
	Tb	159	1440770.2	1.0				ug/L	1349973	KED
⌈	**Ho**	165	15.7	7.4				ug/L	15	KED
|	**Tl**	203	24.7	44.8	**-0.0015**	0.001	71.0	ug/L	39	KED
|	**Tl**	205	49.3	17.2	**-0.0026**	0.000	13.7	ug/L	110	KED
|	**Pb**	206	1071.0	1.8	**0.0212**	0.003	12.0	ug/L	878	KED
|	**Pb**	207	897.0	4.3	**0.0109**	0.006	53.0	ug/L	802	KED
|	**Pb**	208	2243.5	5.5	**0.0157**	0.007	41.8	ug/L	1923	KED
|	**U**	238	129.0	29.5	**-0.0057**	0.001	19.4	ug/L	322	KED

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	Th	232	3750.1	1.7	**0.0575**	0.002	4.0	ug/L	1972	KED
>	**Bi**	209	1043877.3	0.4				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	1255.1	1.1	**0.0613**	0.001	1.3	mg/L	260	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**13.7281**	16.818	122.5	mg/L	3	KED
	Fe	54	36.7	34.3	**0.0152**	0.006	42.1	mg/L	7	KED
	Fe	57	76.7	29.4	**0.0074**	0.003	36.0	mg/L	15	KED
>	**Sc-1**	45	26879.8	1.9				mg/L	22691	KED
	Cl	35	2758.6	4.5				ug/L	2163	KED
	Kr	83	0.0					ug/L	2	KED
	Br	81	151.7	5.0				ug/L	57	KED
	P	31	70.0	24.7				ug/L	107	KED
	S	34	51.7	43.6				ug/L	23	KED
	Sr	88	995.0	12.9				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		118.462	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		104.418	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908017101
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	107.120
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	102.090
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	118.462
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Th 232 Lower	Th	232	

Sample ID: L1908017101
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Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, September 09, 2019 10:15:04
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	18850.1	2.2				ug/L	18248	KED
|	**Be**	9	983.0	6.5	**6.1547**	0.495	8.1	ug/L	1	KED
|	**Al**	27	267684.1	1.2				ug/L	132	KED
|>	**Sc-2**	45	25146.5	1.7				ug/L	22691	KED
⌈	**Ti**	47	147.7	5.5	**33.6160**	2.380	7.1	ug/L	3	KED
|	**V**	51	41826.7	2.4	**33.4408**	0.980	2.9	ug/L	2353	KED
|	**Cr**	52	134091.0	2.4	**65.1560**	1.656	2.5	ug/L	414	KED
|	**Cr**	53	21154.8	4.5	**65.2513**	3.728	5.7	ug/L	1770	KED
|	**Mn**	55	133164.2	2.7	**65.1801**	1.689	2.6	ug/L	187	KED
|	**Co**	59	230846.0	1.9	**32.9592**	0.719	2.2	ug/L	69	KED
|	**Ni**	60	251276.7	1.2	**129.7359**	1.623	1.3	ug/L	237	KED
|	**Cu**	65	168439.2	1.1	**65.3971**	0.368	0.6	ug/L	283	KED
|	**Zn**	66	524045.5	1.3	**654.5757**	5.041	0.8	ug/L	617	KED
|>	**Ge**	72	390029.0	1.5				ug/L	393258	KED
|	**As**	75	19600.7	1.3	**32.7307**	0.535	1.6	ug/L	386	KED
|	**Se**	82	1004.7	0.9	**33.1079**	0.814	2.5	ug/L	17	KED
|	**Se-1**	78	2161.3	0.6	**34.0992**	0.627	1.8	ug/L	41	KED
⌊	**Se-1**	80	36832.7	0.1	**40.5019**	3.564	8.8	ug/L	30857	KED
	Ga	71	93.3	40.2				ug/L	97	KED
	Rb	85	283.3	20.1				ug/L	5	KED
	Y	89	379566.5	1.8				ug/L	380328	KED
	Rh	103	31.7	9.1				ug/L	8	KED
⌈	**Mo**	98	181278.7	0.6	**31.6700**	0.426	1.3	ug/L	281	KED
|	**Ag**	107	383259.4	1.5	**33.5109**	0.737	2.2	ug/L	287	KED
|	**Cd**	111	31071.2	0.3	**19.6684**	0.209	1.1	ug/L	26	KED
|	**Cd**	114	75362.0	1.1	**19.6264**	0.307	1.6	ug/L	80	KED
|>	**In**	115	422252.6	0.9				ug/L	416461	KED
|	**Sn**	118	97283.8	2.9	**32.9029**	0.979	3.0	ug/L	798	KED
|	**Sb**	123	73467.8	3.6	**31.1025**	1.167	3.8	ug/L	185	KED
⌊	**Ba**	135	98588.4	0.9	**97.7801**	1.694	1.7	ug/L	35	KED
	Ce	140	84.7	8.9				ug/L	48	KED
	Tb	159	1369012.5	1.7				ug/L	1349973	KED
⌈	**Ho**	165	11.7	32.5				ug/L	15	KED
|	**Tl**	203	64350.0	0.9	**6.4533**	0.022	0.3	ug/L	39	KED
|	**Tl**	205	156608.7	1.6	**6.4915**	0.055	0.8	ug/L	110	KED
|	**Pb**	206	260908.6	0.5	**32.1524**	0.166	0.5	ug/L	878	KED
|	**Pb**	207	228041.1	1.1	**32.3762**	0.287	0.9	ug/L	802	KED
|	**Pb**	208	560762.1	1.6	**32.1154**	0.457	1.4	ug/L	1923	KED
|	**U**	238	1098439.5	1.3	**31.9756**	0.343	1.1	ug/L	322	KED

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	Th	232	798194.0	4.5	**26.9553**	1.383	5.1	ug/L	1972	KED
>	**Bi**	209	1020725.6	0.9				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	59016.5	3.2	**4.0661**	0.190	4.7	mg/L	260	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	3.3	86.6	**2.1087**	18.473	876.1	mg/L	3	KED
	Fe	54	6948.3	3.7	**3.9440**	0.211	5.3	mg/L	7	KED
	Fe	57	29102.9	1.9	**3.9269**	0.118	3.0	mg/L	15	KED
>	**Sc-1**	45	25146.5	1.7				mg/L	22691	KED
	Cl	35	2238.5	7.2				ug/L	2163	KED
	Kr	83	0.0					ug/L	2	KED
	Br	81	55.0	24.1				ug/L	57	KED
	P	31	78.3	13.3				ug/L	107	KED
	S	34	43.3	35.3				ug/L	23	KED
	Sr	88	110.0	20.8				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9	96.167		
	Al	27			
>	Sc-2	45		110.823	
	Ti	47	105.050		
	V	51	104.502		
	Cr	52	101.806		
	Cr	53			
	Mn	55	101.844		
	Co	59	102.997		
	Ni	60	101.356		
	Cu	65	102.183		
	Zn	66	102.277		
>	Ge	72		99.179	
	As	75	102.284		
	Se	82	103.462		
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98	98.969	
|	Ag	107	104.721	
|	Cd	111	102.440	
|	Cd	114		
|>	In	115		101.391
|	Sn	118	102.822	
|	Sb	123	97.195	
⌊	Ba	135	101.854	
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203	100.833	
|	Tl	205		
|	Pb	206	100.476	
|	Pb	207	101.176	
|	Pb	208	100.361	
|	U	238	99.924	
|	Th	232		
⌊>	Bi	209		99.826
⌈	Na	23		
|	Mg	24	101.653	
|	K	39	0.000	
|	Ca	43	52.717	
|	Fe	54	98.600	
|	Fe	57	98.173	
⌊>	Sc-1	45		110.823
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	K	39	
QC Std 6	Ca	43	

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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, September 09, 2019 10:17:57
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	19769.6	3.1				ug/L	18248	KED
|	**Be**	9	0.0		**-0.0046**	0.000	0.0	ug/L	1	KED
|	**Al**	27	291.7	61.9				ug/L	132	KED
⌊>	**Sc-2**	45	25363.5	1.3				ug/L	22691	KED
⌈	**Ti**	47	3.0	33.3	**0.0826**	0.239	288.8	ug/L	3	KED
|	**V**	51	3260.0	16.0	**0.7773**	0.422	54.3	ug/L	2353	KED
|	**Cr**	52	441.3	7.4	**0.0145**	0.018	124.7	ug/L	414	KED
|	**Cr**	53	2458.5	14.9	**2.3444**	1.190	50.8	ug/L	1770	KED
|	**Mn**	55	168.0	15.4	**-0.0086**	0.014	157.3	ug/L	187	KED
|	**Co**	59	91.3	83.6	**0.0033**	0.011	339.0	ug/L	69	KED
|	**Ni**	60	163.3	50.3	**-0.0368**	0.043	118.0	ug/L	237	KED
|	**Cu**	65	252.7	18.0	**-0.0111**	0.019	168.4	ug/L	283	KED
|	**Zn**	66	563.0	28.6	**-0.0608**	0.209	344.5	ug/L	617	KED
|>	**Ge**	72	390760.4	1.1				ug/L	393258	KED
|	**As**	75	455.0	2.8	**0.1210**	0.027	21.9	ug/L	386	KED
|	**Se**	82	16.0	28.1	**-0.0413**	0.148	358.1	ug/L	17	KED
|	**Se-1**	78	41.2	7.9	**0.0150**	0.055	363.8	ug/L	41	KED
⌊	**Se-1**	80	31659.5	0.5	**6.4819**	1.494	23.0	ug/L	30857	KED
	Ga	71	85.0	29.4				ug/L	97	KED
	Rb	85	6.7	43.3				ug/L	5	KED
	Y	89	370670.9	3.4				ug/L	380328	KED
	Rh	103	8.3	34.6				ug/L	8	KED
⌈	**Mo**	98	700.0	2.2	**0.0744**	0.004	4.7	ug/L	281	KED
|	**Ag**	107	333.0	31.0	**0.0042**	0.009	226.8	ug/L	287	KED
|	**Cd**	111	25.7	15.7	**0.0000**	0.003	30718.4	ug/L	26	KED
|	**Cd**	114	90.0	15.8	**0.0026**	0.004	151.1	ug/L	80	KED
|>	**In**	115	416451.6	0.8				ug/L	416461	KED
|	**Sn**	118	1031.4	5.0	**0.0805**	0.015	18.8	ug/L	798	KED
|	**Sb**	123	1453.7	4.4	**0.5457**	0.023	4.2	ug/L	185	KED
⌊	**Ba**	135	50.7	60.3	**0.0159**	0.031	196.2	ug/L	35	KED
	Ce	140	34.0	12.8				ug/L	48	KED
	Tb	159	1355894.3	1.2				ug/L	1349973	KED
⌈	**Ho**	165	13.7	11.2				ug/L	15	KED
|	**Tl**	203	33.0	62.6	**-0.0006**	0.002	347.1	ug/L	39	KED
|	**Tl**	205	89.7	63.1	**-0.0008**	0.002	288.5	ug/L	110	KED
|	**Pb**	206	777.0	8.0	**-0.0122**	0.009	72.5	ug/L	878	KED
|	**Pb**	207	666.3	9.3	**-0.0191**	0.010	52.0	ug/L	802	KED
|	**Pb**	208	1699.8	6.7	**-0.0126**	0.007	58.6	ug/L	1923	KED
|	**U**	238	501.7	31.0	**0.0053**	0.005	88.8	ug/L	322	KED

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	Th	232	4920.8	17.9	**0.1000**	0.031	31.0	ug/L	1972	KED
>	**Bi**	209	1021244.3	1.3				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	268.3	17.3	**-0.0015**	0.003	199.6	mg/L	260	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**23.4379**	0.000	0.0	mg/L	3	KED
	Fe	54	5.0	100.0	**-0.0014**	0.003	200.0	mg/L	7	KED
	Fe	57	15.0	57.7	**-0.0002**	0.001	528.9	mg/L	15	KED
>	**Sc-1**	45	25363.5	1.3				mg/L	22691	KED
	Cl	35	2428.5	2.5				ug/L	2163	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	56.7	10.2				ug/L	57	KED
	P	31	48.3	11.9				ug/L	107	KED
	S	34	36.7	28.4				ug/L	23	KED
	Sr	88	73.3	48.4				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	1.7	173.2				ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		111.780	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		99.365	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		99.998
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		99.877
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		111.780
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 7	V	51	
QC Std 7	Sb	123	
QC Std 7	Ca	43	

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Method 6020 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Monday, September 09, 2019 10:20:50
Number of Replicates: 3
Autosampler Position: 202
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	19540.9	2.6				ug/L	18248	KED
|	**Be**	9	32.0	26.7	**0.1961**	0.057	29.3	ug/L	1	KED
|	**Al**	27	7540.2	11.6				ug/L	132	KED
|>	**Sc-2**	45	25180.2	2.0				ug/L	22691	KED
⌈	**Ti**	47	5.7	44.4	**0.6911**	0.584	84.6	ug/L	3	KED
|	**V**	51	4837.1	5.7	**2.0882**	0.191	9.1	ug/L	2353	KED
|	**Cr**	52	3936.8	1.0	**1.7041**	0.005	0.3	ug/L	414	KED
|	**Cr**	53	3388.7	7.8	**5.4032**	0.805	14.9	ug/L	1770	KED
|	**Mn**	55	3666.8	2.1	**1.6928**	0.018	1.1	ug/L	187	KED
|	**Co**	59	6048.2	3.2	**0.8473**	0.018	2.2	ug/L	69	KED
|	**Ni**	60	6736.5	2.1	**3.3343**	0.091	2.7	ug/L	237	KED
|	**Cu**	65	4664.4	2.9	**1.6909**	0.033	2.0	ug/L	283	KED
|	**Zn**	66	15459.6	1.7	**18.4228**	0.181	1.0	ug/L	617	KED
|>	**Ge**	72	392950.7	1.1				ug/L	393258	KED
|	**As**	75	954.7	4.0	**0.9614**	0.069	7.2	ug/L	386	KED
|	**Se**	82	40.2	13.3	**0.7608**	0.186	24.5	ug/L	17	KED
|	**Se-1**	78	88.8	4.5	**0.7721**	0.078	10.2	ug/L	41	KED
⌊	**Se-1**	80	31930.6	0.4	**7.0853**	1.301	18.4	ug/L	30857	KED
	Ga	71	95.0	31.6				ug/L	97	KED
	Rb	85	26.7	39.0				ug/L	5	KED
	Y	89	372791.2	2.9				ug/L	380328	KED
	Rh	103	10.0	50.0				ug/L	8	KED
⌈	**Mo**	98	4668.4	0.7	**0.7599**	0.016	2.1	ug/L	281	KED
|	**Ag**	107	10155.4	0.5	**0.8554**	0.020	2.3	ug/L	287	KED
|	**Cd**	111	820.4	2.5	**0.4989**	0.022	4.4	ug/L	26	KED
|	**Cd**	114	2033.1	4.3	**0.5041**	0.019	3.8	ug/L	80	KED
|>	**In**	115	426034.2	1.8				ug/L	416461	KED
|	**Sn**	118	3265.4	3.1	**0.8275**	0.018	2.2	ug/L	798	KED
|	**Sb**	123	2262.2	2.2	**0.8718**	0.008	0.9	ug/L	185	KED
⌊	**Ba**	135	2534.2	2.8	**2.4564**	0.041	1.7	ug/L	35	KED
	Ce	140	39.3	8.9				ug/L	48	KED
	Tb	159	1349447.8	1.5				ug/L	1349973	KED
⌈	**Ho**	165	17.0	30.6				ug/L	15	KED
|	**Tl**	203	1675.1	1.6	**0.1637**	0.002	1.1	ug/L	39	KED
|	**Tl**	205	4035.2	2.3	**0.1624**	0.003	1.9	ug/L	110	KED
|	**Pb**	206	7419.8	2.3	**0.8067**	0.017	2.1	ug/L	878	KED
|	**Pb**	207	6514.4	2.6	**0.8116**	0.021	2.6	ug/L	802	KED
|	**Pb**	208	16173.3	2.5	**0.8167**	0.019	2.3	ug/L	1923	KED
|	**U**	238	27779.8	2.7	**0.7974**	0.019	2.4	ug/L	322	KED

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	Th	232	10282.4	34.0	**0.2808**	0.120	42.7	ug/L	1972	KED
>	**Bi**	209	1023355.0	0.5				ug/L	1022503	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	1806.8	9.8	**0.1049**	0.011	10.2	mg/L	260	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**23.4379**	0.000	0.0	mg/L	3	KED
	Fe	54	223.3	13.5	**0.1223**	0.015	12.5	mg/L	7	KED
	Fe	57	793.4	8.7	**0.1048**	0.012	11.0	mg/L	15	KED
>	**Sc-1**	45	25180.2	2.0				mg/L	22691	KED
	Cl	35	2430.2	4.7				ug/L	2163	KED
	Kr	83	0.0					ug/L	2	KED
	Br	81	63.3	64.3				ug/L	57	KED
	P	31	45.0	50.9				ug/L	107	KED
	S	34	38.3	7.5				ug/L	23	KED
	Sr	88	93.3	95.3				ug/L	62	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9	98.059		
	Al	27			
>	Sc-2	45		110.972	
	Ti	47			
	V	51	522.040		
	Cr	52	213.016		
	Cr	53			
	Mn	55	338.558		
	Co	59	211.831		
	Ni	60	208.394		
	Cu	65	211.364		
	Zn	66	294.765		
>	Ge	72		99.922	
	As	75	240.345		
	Se	82	190.197		
	Se-1	78	193.032		
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107	213.862	
|	Cd	111	207.858	
|	Cd	114		
| >	In	115		102.299
|	Sn	118		
|	Sb	123	217.948	
⌊	Ba	135	327.519	
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203	204.638	
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208	204.167	
|	U	238	199.357	
|	Th	232		
⌊ >	Bi	209		100.083
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		110.972
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	V	51	
QC Std 8	Cr	52	
QC Std 8	Mn	55	
QC Std 8	Co	59	
QC Std 8	Ni	60	
QC Std 8	Cu	65	
QC Std 8	Zn	66	
QC Std 8	As	75	
QC Std 8	Se	82	

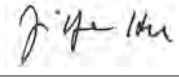
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QC Std 8	Se-1	78
QC Std 8	Ag	107
QC Std 8	Cd	111
QC Std 8	Ba	135
QC Std 8	Tl	203
QC Std 8	Pb	208
QC Std 8	U	238

Sample ID: QC Std 8
Report Date/Time: Monday, September 09, 2019 10:23:09
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Approved: September 09, 2019



3.0 Attachments

Microbac Laboratories Inc.
Ohio Valley Division Analyst List
September 12, 2019

---

001 - BIO-CHEM TESTING WVDEP 220	002 - REIC Consultants, Inc. WVDEP 060
003 - Sturm Environmental	004 - MICROBAC PITTSBURGH
005 - ES LABORATORIES	006 - ALCOSAN LABORATORIES
007 - ALS LABORATORIES	008 - BENCHMARK LABORATORIES
010 - MICROBAC CHICAGOLAND	AC - AMBER R. CARMICHAEL
ACG - ALEX C. GEDON	ADC - ANTHONY D. CANTER
ADG - APRIL D. GREENE	ADW - ALICIA D. WALKER
ALS - ADRIANE L. STEED	APH - ANDREW P. HOUT
ARJ - Autumn R. Jones	AT - Asa R. Timmons
ATK - ALEX T. KLINTWORTH	AWE - ANDREW W. ESSIG
AZH - AFTER HOURS	BLG - BRENDA L. GREENWALT
BRG - BRENDA R. GREGORY	CAS - Craig A. Smith
CB - Claire A. Berlin	CEB - CHAD E. BARNES
CLC - CHRYS L. CRAWFORD	COR - Corporate IT
CPD - CHAD P. DAVIS	CSH - CHRIS S. HILL
DEA - Danielle E. Arick	DIH - DEANNA I. HESSON
DLB - DAVID L. BUMGARNER	DLP - DOROTHY L. PAYNE
DSM - DAVID S. MOSSOR	ECL - ERIC C. LAWSON
EEA - EMILY E. ALLEN	EGS - EMILY G. SHILLING
EPT - ETHAN P. TIDD	ERP - ERIN R. PORTER
JAO - Jeff A. Ogle	JDH - JUSTIN D. HESSON
JDS - JARED D. SMITH	JKP - JACQUELINE K. PARSONS
JLR - JIMMY L. RUSH	JRH - Justin R. Hill
JST - JOSHUA S. TAYLOR	JTP - JOSHUA T. PEMBERTON
JWR - JOHN W. RICHARDS	JYH - JI Y. HU
KAK - KATHY A. KIRBY	KEB - KATIE E. BARNES
KEH - Katelyn E. Hoover	KFR - KARISSA F. REYNOLDS
KHR - KIM H. RHODES	KKB - KERRI K. BUCK
KMC - KAYLA M. CHEVALIER	KMG - KALEN M. GANDOR
KRA - KATHY R. ALBERTSON	KRP - KATHY R. PARSONS
KWD - Kurtis W. Decker	LLS - LARRY L. STEPHENS
LMG - Larry M. Gwinn	LSJ - LAURA S. JONES
MAP - MARLA A. PORTER	MES - MARY E. SCHILLING
MGH - Matthew G. Hackathorn	MMB - MAREN M. BEERY
MRT - MICHELLE R. TAYLOR	PDM - PIERCE D. MORRIS
PIT - MICROBAC WARRENDALE	RLB - BOB BUCHANAN
RLD - Rachal L. Depuy	RNM - Rene N. Miller
RNP - RICK N. PETTY	SAV - SARAH A. VANDENBERG
SCB - SARAH C. BOGOLIN	SDM - Stephanie D. Murphy
SLM - STEPHANIE L. MOSSBURG	SWB - Samuel W. Bidwell
TB - TODD BOYLE	TMM - TAMMY M. MORRIS
VC - VICKI COLLIER	XXX - UNAVAILABLE OR SUBCONTRACT
ZTB - ZACH T. BARNES	ZTL - ZACH T. LUCAS

Microbac Laboratories Inc.
List of Valid Qualifiers
September 12, 2019

Qualkey: DOD

Qualifier	Description
*	Surrogate or spike compound out of range
+	Correlation coefficient for the MSA is less than 0.995
<	Result is less than the associated numerical value.
>	Greater than
>,H1	Result is greater than the associated numerical value. Sample analysis performed past holding time.
A	See the report narrative
B	The reported result is associated with a contaminated method blank.
B,H1	Analyte present in method blank. Sample analysis performed past holding time.
B1	Target analyte detected in method blank at or above the method reporting limit
B3	Target analyte detected in calibration blank at or above the method reporting limit
B4	The BOD unseeded dilution water blank exceeded 0.2 mg/L
B4,A	The BOD unseeded dilution water blank exceeded 0.2 mg/L. See the report narrative.
B4,F	The BOD unseeded dilution water blank exceeded 0.2 mg/L. Analyte present below the reporting limit (RL).
B4,F,A	The BOD unseeded dilution water blank exceeded 0.2 mg/L. Analyte present below the reporting limit (RL). See the report
B4,ND	The BOD unseeded dilution water blank exceeded 0.2 mg/L. Not detected at or above the reporting limit..
B4,ND,A	The BOD unseeded dilution water blank exceeded 0.2 mg/L. Not detected at or above the reporting limit. See the report na
C	Confirmed by GC/MS
CG	Confluent growth
CT1	Cooler temperature at sample reciept exceeded regulatory limit.
DL	Surrogate or spike compound was diluted out.
E	Estimated concentration due to sample matrix interference
E,CT1	Estimated results. The cooler temperature at receipt exceeded regulatory guidelines for requested testing.
EDL	Elevated sample reporting limits, presence of non-target analytes
EMPC	Estimated Maximum Possible Concentration
F, S	Estimated result below quantitation limit; method of standard additions(MSA)
F,CT1	Estimated value; the analyte concentration was less than the RL/LOQ. The cooler temperature at receipt exceeded regula
FL	Free Liquid
FP1	Did not ignite.
H1	Sample analysis performed past holding time.
H1,A	Sample analysis performed past holding time.See the report narrative
H1,CT1	Sample analysis performed past holding time. The cooler temperature at receipt exceeded regulatory guidelines for reque
I	Estimated value ; the analyte concentration was greater than the highest standard
J	Concentrations >40% difference between the two GC columns
J	Estimated concentration; sample matrix interference.
J	Estimated value ; the analyte concentration was less than the LOQ.
J	The reported result is an estimated value.
J,A	Present below nominal reporting limit. See case narrative.
J,B	Analyte detected in both the method blank and sample above the MDL.
J,CT1	Estimated value ; the analyte concentration was less than the LOQ. Cooler temperature at sample reciept exceeded regu
J,H1	Estimated value ; the analyte concentration was less than the LOQ. Sample analysis performed past holding time.
J,H1	The reported result is an estimated value. Sample was analyzed past holding time.
J,P	Estimate; columns don't agree to within 40%
J,S	Estimated concentration; analyzed by method of standard addition (MSA)
JB	The reported result is an estimated value. The reported result is also associated with a contaminated method blank.
JQ	Found between MDL and RL, but has quality control issue.
JQ	The reported result is an estimated value and one or more quality control criteria failed. See narrative.
L	Sample reporting limits elevated due to matrix interference
L1	The associated blank spike (LCS) recovery was above the laboratory acceptance limits.
L2	The associated blank spike (LCS) recovery was below the laboratory acceptance limits.
M	Matrix effect; the concentration is an estimate due to matrix effect.
N	Nontarget analyte; the analyte is a tentativlely identified compound (TIC) by GC/MS
NA	Not applicable
ND	Not detected at or above the reporting limit (RL)
ND, B	Not detected at or above the reporting limit (RL). Analyte present in method blank.
ND, CT1	Analyte was not detected. The concentration is below the reported LOD. The cooler temperature at receipt exceeded reg
ND, L	Not detected; sample reporting limit (RL) elevated due to interference
ND, S	Not detected; analyzed by method of standard addition (MSA)
ND,A	Not detected. See report narrative.
ND,H1	Not detected; Sample analysis performed past holding time.
ND,H1,CT1	Not detected; Sample analysis performed past holding time. The cooler temperature at receipt exceeded regulatory guide
NF	Not found by library search
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentrations >40% difference between the two GC columns
Q	One or more quality control criteria failed. See narrative.

Qualkey: DOD

Q,H1	One or more quality control criteria failed. Sample analyzed past holding time. See narrative.
QNS	Quantity of sample not sufficient to perform analysis
RA	Reanalysis confirms reported results
RE	Reanalysis confirms sample matrix interference
S	Analyzed by method of standard addition (MSA)
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
T5	Laboratory not licensed for this parameter
TIC	Library Search Compound
TNTC	Too numerous to count
TNTC, B	Too numerous to count. Analyte present in method blank.
TNTC,CT1	Too numerous to count. The cooler temperature at receipt exceeded regulatory guidelines for requested testing.
TNTC,H1	Too numerous to count. Sample analysis performed past holding time.
U	Analyte was not detected. The concentration is below the reported LOD.
U,CT1	Analyte was not detected. The concentration is below the reported LOD. Cooler temperature at sample reciept exceeded
U,H1	Not detected; Sample analysis performed past holding time.
UJ	Undetected; the MDL and RL are estimated due to quality control discrepancies.
UQ	Analyte was not detected. The concentration is below the reported LOD. One or more quality control criteria fail. See nar
W	Post-digestion spike for furnace AA out of control limits
X	Exceeds regulatory limit
X, S	Exceeds regulatory limit; method of standard additions (MSA)
Z	Cannot be resolved from isomer - see below

L19080171 / Revision: 0 / 391 total pages

CT LABORATORIES
delivering more than data from your environmental analyses

1230 Lange Court • Baraboo, WI 53913 • 608-356-2760
www.ctlaboratories.com

Sub-Contract Laboratory Chain-of-Custody and Purchase Order

PURCHASE ORDER # 147687 MICROBAC

The PO# must appear on all invoice and reports!

Upon Receipt of Samples, please verify that samples were received in acceptable condition then sign this form and fax to (608)356-2766 or email to the project manager. Sample temperature, upon receipt, must be recorded on this document unless thermal preservation is not a method requirement.

Ship to: **Microbac**
158 Starlight Drive
Marietta, OH 45750

Return Invoice and Results to: **ekorthals@ctlaboratories.com**

CTLaboratories
Eric Korthals
1230 Lange Court
Baraboo WI 53913

Government UPS Shipping Acct ? (Y) N

Ship by: Speedee ☐ UPS Grnd ☐ UPS 2nd ☐ UPS NDA ☒

Date Due: ~ 2 weeks *RUSH TURNAROUND NEEDED? Y or N (Circle One)*

Project Name: MEMPHIS DEPOT **Project State:** TN

Analytical/QC Criteria: NONE INDICATED STATE (DOD QSM) NELAP (Circle one) OTHER_____

Report results as EDD? N (Y) (Circle one and indicate type: HDR Memphis Depot Excel) Data Deliverable Package LEVEL: 4

CTLabs ID#	Sample Date/Time	Matrix	Sample Description	Analyses / Method		Cost
321513	08/27/2019 1400	GROUND WATER	GN-W-RB-01	ICP-MS METALS	EPA 6020A	

Relinquished by: _____ Date/Time: 8-29-19 1500h

Received by: _____ Date/Time: _____ Receipt Temperature (C) _____

COMMENTS: ANALYTES = As, Sb, Pb, Se, Ag, Tl

REPORT ALL SOLIDS ON A DRY WEIGHT BASIS UNLESS OTHERWISE INDICATED

Form #: FPM1-01
Effective Date: 02/15/14

Microbac OVD
Received: 08/30/2019 10:17
By: BRENDA GREGORY

221000138669

Brenda Gregory

Generated: 09/12/2019 09:28

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L19080171
Account: 2694
Project: 2694.005
Samples: 1
Due Date: 06-SEP-2019

Samplenum	Container ID	Products
L19080171-01	340557	AS-MS PB-MS SB-MS SE-MS TL-MS AG-MS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-AUG-2019 14:57	BRG		
2	PREP	W1	DIG	03-SEP-2019 05:31	ERP	AZH	
3	STORE	DIG	A2	03-SEP-2019 12:09	BRG	ERP	
4	ANALYZ*	DIG	METALS	04-SEP-2019 11:58	JYH	ERP	

Sample extract/digestate/leachate

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac

Laboratory Report Number: L19080178

Eric Korthals
CT Laboratories
1230 Lange Court
Baraboo, WI 53913

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories. Review and compilation of your report was completed by Microbac's Ohio Valley Division (OVD). If you have any questions, comments, or require further assistance regarding this report, please contact your service representative listed below.

Laboratory Contact:
Stephanie Mossburg – Team Chemist/Data Specialist
(740) 373-4071
Stephanie.Mossburg@microbac.com

I certify that all test results meet all of the requirements of the DoD QSM and other applicable contract terms and conditions. Any exceptions are attached to this cover page or addressed in the method narratives presented in the report. All results for soil samples are reported on a 'dry-weight' basis unless specified otherwise. Analytical results for water and wastes are reported on a 'as received' basis unless specified otherwise. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories, DoD ELAP certification number 2936.01. The reported results are related only to the samples analyzed as received.

This report was certified on September 13 2019

Jeffrey Ogle – Laboratory Manager

State of Origin: MI
Accrediting Authority: N/A ID:N/A
QAPP: DOD Ver 5.0

Microbac

Lab Report #: L19080178
Lab Project #: 2694.005
Project Name: CT Labs DOD
Lab Contact: Stephanie Mossburg

Record of Sample Receipt and Inspection

Comments/Discrepancies

This is the record of the shipment conditions and the inspection records for the samples received and reported as a sample delivery group (SDG). All of the samples were inspected and observed to conform to our receipt policies, except as noted below.

The following discrepancies were noted:

Discrepancy	Resolution
Received a Metals (water) not listed on COC. Label unreadable except for "215". BRG	The client sent a COC for the water sample. SLM

Coolers

Cooler #	Temperature Gun	Temperature	COC #	Airbill #	Temp Required?
00116465	I	0.0		1Z1A4A850140101092	X

Inspection Checklist

#	Question	Result
1	Were shipping coolers sealed?	Yes
2	Were custody seals intact?	Yes
3	Were cooler temperatures in range of 0-6?	Yes
4	Was ice present?	Yes
5	Were COC's received/information complete/signed and dated?	Yes
6	Were sample containers intact and match COC?	Yes
7	Were sample labels intact and match COC?	No
8	Were the correct containers and volumes received?	Yes
9	Were samples received within EPA hold times?	Yes
10	Were correct preservatives used? (water only)	NA
11	Were pH ranges acceptable? (voa's excluded)	NA
12	Were VOA samples free of headspace (less than 6mm)?	NA

Microbac

Lab Report #: L19080178
Lab Project #: 2694.005
Project Name: CT Labs DOD
Lab Contact: Stephanie Mossburg

Samples Received

Client ID	Laboratory ID	Date Collected	Date Received
GN-SO-01-1	L19080178-01	08/26/2019 10:23	08/30/2019 10:17
GN-SO-01-2	L19080178-02	08/26/2019 11:15	08/30/2019 10:17
GN-SO-02-1	L19080178-03	08/26/2019 11:30	08/30/2019 10:17
GN-SO-DUP-1	L19080178-04	08/26/2019 11:00	08/30/2019 10:17
GN-SO-02-2	L19080178-05	08/26/2019 11:53	08/30/2019 10:17
GN-SO-03-1	L19080178-06	08/26/2019 13:20	08/30/2019 10:17
GN-SO-03-2	L19080178-07	08/26/2019 13:34	08/30/2019 10:17
GN-SO-04-1	L19080178-08	08/26/2019 13:48	08/30/2019 10:17
GN-SO-04-1	L19080178-09	08/26/2019 13:48	08/30/2019 10:17
GN-SO-04-1	L19080178-10	08/26/2019 13:48	08/30/2019 10:17
GN-SO-04-2	L19080178-11	08/26/2019 14:00	08/30/2019 10:17
GN-SO-05-1	L19080178-12	08/26/2019 14:10	08/30/2019 10:17
GN-SO-05-2	L19080178-13	08/26/2019 14:28	08/30/2019 10:17
GN-SO-DUP-2	L19080178-14	08/26/2019 14:22	08/30/2019 10:17
GN-SO-06-1	L19080178-15	08/26/2019 14:22	08/30/2019 10:17
GN-SO-06-2	L19080178-16	08/26/2019 15:05	08/30/2019 10:17
GN-SO-07-1	L19080178-17	08/26/2019 15:13	08/30/2019 10:17
GN-SO-07-2	L19080178-18	08/26/2019 15:28	08/30/2019 10:17
GN-SO-08-1	L19080178-19	08/26/2019 15:39	08/30/2019 10:17
GN-SO-08-2	L19080178-20	08/26/2019 15:50	08/30/2019 10:17
GN-SO-09C-1	L19080178-21	08/26/2019 16:01	08/30/2019 10:17

Microbac REPORT L19080178
PREPARED FOR CT Laboratories
WORK ID:

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1.0 Summary Data

1.1 Narratives

Login Number: L19080178
Department: Metals
Analyst: Ji Hu

METHOD

Preparation: SW-846 3051

Analysis: SW-846 6020

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration: All acceptance criteria were met.

Continuing Calibration Blank: All acceptance criteria were met.

Low Level Check: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Serial Dilution/Post Digestion Spikes: WG710698 - All acceptance criteria were met.

WG710720 - Lead for client sample 08 was reported from the 10 fold dilution where the 10 fold reference sample was reported for lead.

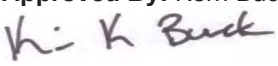
Matrix Spikes: WG710720 - Sample 08 was chosen by the client for MS/MSD analysis. Samples 09 (MS) and 10 (MSD) yielded noncompliant recoveries for two analytes. For consistency with the reference, samples 09 (MS) and 10 (MSD) were also reanalyzed at a dilution for lead.

SAMPLES

Samples: WG710698 - Client sample 11 required dilution analysis in order to obtain a result for lead within the calibration range.

WG710720 - Client samples 08, 09, 10, and 17 required dilution analyses in order to obtain results for lead within the calibration range.

Narrative ID: 150424
Approved By: Kerri Buck



1.2 Certificate of Analysis

Certificate of Analysis

Sample #:	L19080178-01	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-01-1	**Prep Method:**	3051A	**Prep Date:**	09/03/2019 07:50
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710698	**Analyst:**	JYH	**Run Date:**	09/04/2019 12:18
Collect Date:	08/26/2019 10:23	**Dilution:**	1	**File ID:**	NI.090419.121830
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	89.6

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.452		0.341	0.170	0.0852
Arsenic, Total	7440-38-2	6.87		0.639	0.320	0.160
Lead, Total	7439-92-1	12.3		0.426	0.214	0.107
Selenium, Total	7782-49-2	1.13		0.426	0.214	0.107
Silver, Total	7440-22-4	0.214	U	0.426	0.214	0.107
Thallium, Total	7440-28-0	0.0421	J	0.0852	0.0426	0.0213

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L19080178-02	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-01-2	**Prep Method:**	3051A	**Prep Date:**	09/03/2019 07:50
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710698	**Analyst:**	JYH	**Run Date:**	09/04/2019 12:21
Collect Date:	08/26/2019 11:15	**Dilution:**	1	**File ID:**	NI.090419.122123
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	80.7

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.693		0.395	0.198	0.0988
Arsenic, Total	7440-38-2	11.0		0.741	0.370	0.185
Lead, Total	7439-92-1	15.9		0.494	0.248	0.124
Selenium, Total	7782-49-2	2.25		0.494	0.248	0.124
Silver, Total	7440-22-4	0.248	U	0.494	0.248	0.124
Thallium, Total	7440-28-0	0.211		0.0988	0.0494	0.0247

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L19080178-03	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-02-1	**Prep Method:**	3051A	**Prep Date:**	09/03/2019 07:50
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710698	**Analyst:**	JYH	**Run Date:**	09/04/2019 12:24
Collect Date:	08/26/2019 11:30	**Dilution:**	1	**File ID:**	NI.090419.122416
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	77.7

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.223	J	0.396	0.198	0.0991
Arsenic, Total	7440-38-2	5.22		0.743	0.372	0.186
Lead, Total	7439-92-1	7.06		0.495	0.248	0.124
Selenium, Total	7782-49-2	0.742		0.495	0.248	0.124
Silver, Total	7440-22-4	0.248	U	0.495	0.248	0.124
Thallium, Total	7440-28-0	0.0291	J	0.0991	0.0496	0.0248

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L19080178-04	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-DUP-1	**Prep Method:**	3051A	**Prep Date:**	09/03/2019 07:50
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710698	**Analyst:**	JYH	**Run Date:**	09/04/2019 12:27
Collect Date:	08/26/2019 11:00	**Dilution:**	1	**File ID:**	NI.090419.122709
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	93.1

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.182	J	0.337	0.169	0.0843
Arsenic, Total	7440-38-2	4.88		0.632	0.316	0.158
Lead, Total	7439-92-1	5.64		0.421	0.210	0.105
Selenium, Total	7782-49-2	0.436		0.421	0.210	0.105
Silver, Total	7440-22-4	0.210	U	0.421	0.210	0.105
Thallium, Total	7440-28-0	0.0249	J	0.0843	0.0422	0.0211

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L19080178-05	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-02-2	**Prep Method:**	3051A	**Prep Date:**	09/03/2019 07:50
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710698	**Analyst:**	JYH	**Run Date:**	09/04/2019 12:30
Collect Date:	08/26/2019 11:53	**Dilution:**	1	**File ID:**	NI.090419.123002
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	86.9

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.471		0.354	0.177	0.0885
Arsenic, Total	7440-38-2	7.56		0.664	0.332	0.166
Lead, Total	7439-92-1	13.8		0.442	0.222	0.111
Selenium, Total	7782-49-2	1.79		0.442	0.222	0.111
Silver, Total	7440-22-4	0.222	U	0.442	0.222	0.111
Thallium, Total	7440-28-0	0.137		0.0885	0.0442	0.0221

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L19080178-06	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-03-1	**Prep Method:**	3051A	**Prep Date:**	09/03/2019 07:50
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710698	**Analyst:**	JYH	**Run Date:**	09/04/2019 12:32
Collect Date:	08/26/2019 13:20	**Dilution:**	1	**File ID:**	NI.090419.123255
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	86.0

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.415		0.360	0.180	0.0901
Arsenic, Total	7440-38-2	7.76		0.676	0.338	0.169
Lead, Total	7439-92-1	18.5		0.450	0.226	0.113
Selenium, Total	7782-49-2	1.21		0.450	0.226	0.113
Silver, Total	7440-22-4	0.226	U	0.450	0.226	0.113
Thallium, Total	7440-28-0	0.0395	J	0.0901	0.0450	0.0225

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L19080178-07	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-03-2	**Prep Method:**	3051A	**Prep Date:**	09/03/2019 07:50
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710698	**Analyst:**	JYH	**Run Date:**	09/04/2019 12:35
Collect Date:	08/26/2019 13:34	**Dilution:**	1	**File ID:**	NI.090419.123549
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	87.4

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.543		0.365	0.183	0.0913
Arsenic, Total	7440-38-2	9.47		0.685	0.342	0.171
Lead, Total	7439-92-1	12.9		0.456	0.228	0.114
Selenium, Total	7782-49-2	1.98		0.456	0.228	0.114
Silver, Total	7440-22-4	0.228	U	0.456	0.228	0.114
Thallium, Total	7440-28-0	0.137		0.0913	0.0456	0.0228

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L19080178-08	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-04-1	**Prep Method:**	3051A	**Prep Date:**	09/04/2019 07:21
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710720	**Analyst:**	JYH	**Run Date:**	09/04/2019 15:21
Collect Date:	08/26/2019 13:48	**Dilution:**	1	**File ID:**	NI.090419.152145
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	78.6

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.871		0.405	0.202	0.101
Arsenic, Total	7440-38-2	16.9		0.760	0.380	0.190
Selenium, Total	7782-49-2	1.89		0.506	0.254	0.127
Silver, Total	7440-22-4	0.254	U	0.506	0.254	0.127
Thallium, Total	7440-28-0	0.197		0.101	0.0506	0.0253

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L19080178-08	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-04-1	**Prep Method:**	3051A	**Prep Date:**	09/04/2019 07:21
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710720	**Analyst:**	JYH	**Run Date:**	09/04/2019 15:45
Collect Date:	08/26/2019 13:48	**Dilution:**	10	**File ID:**	NI.090419.154535
Sample Tag:	DL01	**Units:**	mg/kg	**Percent Solid:**	78.6

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Lead, Total	7439-92-1	28.0		5.06	2.54	1.27

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L19080178-09	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-04-1	**Prep Method:**	3051A	**Prep Date:**	09/04/2019 07:20
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710720	**Analyst:**	JYH	**Run Date:**	09/04/2019 15:24
Collect Date:	08/26/2019 13:48	**Dilution:**	1	**File ID:**	NI.090419.152437
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	84.6

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	9.91		0.374	0.187	0.0936
Arsenic, Total	7440-38-2	23.4		0.702	0.350	0.175
Selenium, Total	7782-49-2	9.76		0.468	0.234	0.117
Silver, Total	7440-22-4	8.94		0.468	0.234	0.117
Thallium, Total	7440-28-0	1.93		0.0936	0.0468	0.0234

I	Estimated value ; the analyte concentration was greater than the highest standard

Certificate of Analysis

Sample #:	L19080178-09	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-04-1	**Prep Method:**	3051A	**Prep Date:**	09/04/2019 07:20
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710720	**Analyst:**	JYH	**Run Date:**	09/04/2019 15:48
Collect Date:	08/26/2019 13:48	**Dilution:**	10	**File ID:**	NI.090419.154827
Sample Tag:	DL01	**Units:**	mg/kg	**Percent Solid:**	84.6

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Lead, Total	7439-92-1	44.0		4.68	2.34	1.17

Certificate of Analysis

Sample #:	L19080178-10	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-04-1	**Prep Method:**	3051A	**Prep Date:**	09/04/2019 07:20
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710720	**Analyst:**	JYH	**Run Date:**	09/04/2019 15:27
Collect Date:	08/26/2019 13:48	**Dilution:**	1	**File ID:**	NI.090419.152729
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	82.5

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	9.92		0.382	0.191	0.0955
Arsenic, Total	7440-38-2	23.4		0.716	0.358	0.179
Selenium, Total	7782-49-2	9.77		0.477	0.238	0.119
Silver, Total	7440-22-4	9.02		0.477	0.238	0.119
Thallium, Total	7440-28-0	1.91		0.0955	0.0478	0.0239

I	Estimated value ; the analyte concentration was greater than the highest standard

Certificate of Analysis

Sample #:	L19080178-10	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-04-1	**Prep Method:**	3051A	**Prep Date:**	09/04/2019 07:20
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710720	**Analyst:**	JYH	**Run Date:**	09/04/2019 15:51
Collect Date:	08/26/2019 13:48	**Dilution:**	10	**File ID:**	NI.090419.155119
Sample Tag:	DL01	**Units:**	mg/kg	**Percent Solid:**	82.5

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Lead, Total	7439-92-1	39.6		4.77	2.38	1.19

Certificate of Analysis

Sample #:	L19080178-11	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-04-2	**Prep Method:**	3051A	**Prep Date:**	09/03/2019 07:50
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710698	**Analyst:**	JYH	**Run Date:**	09/04/2019 12:38
Collect Date:	08/26/2019 14:00	**Dilution:**	1	**File ID:**	NI.090419.123842
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	80.9

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.688		0.393	0.196	0.0982
Arsenic, Total	7440-38-2	11.1		0.736	0.368	0.184
Selenium, Total	7782-49-2	1.79		0.491	0.246	0.123
Silver, Total	7440-22-4	0.246	U	0.491	0.246	0.123
Thallium, Total	7440-28-0	0.106		0.0982	0.0490	0.0245

I	Estimated value ; the analyte concentration was greater than the highest standard
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L19080178-11	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-04-2	**Prep Method:**	3051A	**Prep Date:**	09/03/2019 07:50
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710698	**Analyst:**	JYH	**Run Date:**	09/04/2019 13:18
Collect Date:	08/26/2019 14:00	**Dilution:**	10	**File ID:**	NI.090419.131859
Sample Tag:	DL01	**Units:**	mg/kg	**Percent Solid:**	80.9

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Lead, Total	7439-92-1	35.7		4.91	2.46	1.23

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L19080178-12	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-05-1	**Prep Method:**	3051A	**Prep Date:**	09/03/2019 07:50
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710698	**Analyst:**	JYH	**Run Date:**	09/04/2019 12:41
Collect Date:	08/26/2019 14:10	**Dilution:**	1	**File ID:**	NI.090419.124136
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	90.5

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.331	J	0.354	0.177	0.0884
Arsenic, Total	7440-38-2	9.11		0.663	0.332	0.166
Lead, Total	7439-92-1	20.9		0.442	0.220	0.110
Selenium, Total	7782-49-2	1.28		0.442	0.220	0.110
Silver, Total	7440-22-4	0.220	U	0.442	0.220	0.110
Thallium, Total	7440-28-0	0.0718	J	0.0884	0.0442	0.0221

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L19080178-13	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-05-2	**Prep Method:**	3051A	**Prep Date:**	09/03/2019 07:50
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710698	**Analyst:**	JYH	**Run Date:**	09/04/2019 12:44
Collect Date:	08/26/2019 14:28	**Dilution:**	1	**File ID:**	NI.090419.124429
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	85.2

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.640		0.364	0.182	0.0910
Arsenic, Total	7440-38-2	11.1		0.682	0.342	0.171
Lead, Total	7439-92-1	12.9		0.455	0.228	0.114
Selenium, Total	7782-49-2	1.82		0.455	0.228	0.114
Silver, Total	7440-22-4	0.228	U	0.455	0.228	0.114
Thallium, Total	7440-28-0	0.232		0.0910	0.0454	0.0227

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L19080178-14	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-DUP-2	**Prep Method:**	3051A	**Prep Date:**	09/04/2019 07:21
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710720	**Analyst:**	JYH	**Run Date:**	09/04/2019 16:05
Collect Date:	08/26/2019 14:22	**Dilution:**	1	**File ID:**	NI.090419.160541
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	79.4

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.791		0.399	0.199	0.0997
Arsenic, Total	7440-38-2	11.3		0.748	0.374	0.187
Lead, Total	7439-92-1	13.3		0.499	0.250	0.125
Selenium, Total	7782-49-2	1.83		0.499	0.250	0.125
Silver, Total	7440-22-4	0.250	U	0.499	0.250	0.125
Thallium, Total	7440-28-0	0.233		0.0997	0.0498	0.0249

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L19080178-15	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-06-1	**Prep Method:**	3051A	**Prep Date:**	09/04/2019 07:21
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710720	**Analyst:**	JYH	**Run Date:**	09/04/2019 16:08
Collect Date:	08/26/2019 14:22	**Dilution:**	1	**File ID:**	NI.090419.160835
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	92.0

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.182	J	0.324	0.162	0.0811
Arsenic, Total	7440-38-2	3.34		0.608	0.304	0.152
Lead, Total	7439-92-1	8.31		0.405	0.202	0.101
Selenium, Total	7782-49-2	0.638		0.405	0.202	0.101
Silver, Total	7440-22-4	0.202	U	0.405	0.202	0.101
Thallium, Total	7440-28-0	0.0389	J	0.0811	0.0406	0.0203

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L19080178-16	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-06-2	**Prep Method:**	3051A	**Prep Date:**	09/04/2019 07:21
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710720	**Analyst:**	JYH	**Run Date:**	09/04/2019 16:11
Collect Date:	08/26/2019 15:05	**Dilution:**	1	**File ID:**	NI.090419.161127
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	86.1

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.626		0.371	0.185	0.0927
Arsenic, Total	7440-38-2	10.2		0.695	0.348	0.174
Lead, Total	7439-92-1	12.7		0.464	0.232	0.116
Selenium, Total	7782-49-2	1.77		0.464	0.232	0.116
Silver, Total	7440-22-4	0.232	U	0.464	0.232	0.116
Thallium, Total	7440-28-0	0.201		0.0927	0.0464	0.0232

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L19080178-17	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-07-1	**Prep Method:**	3051A	**Prep Date:**	09/04/2019 07:21
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710720	**Analyst:**	JYH	**Run Date:**	09/04/2019 16:14
Collect Date:	08/26/2019 15:13	**Dilution:**	1	**File ID:**	NI.090419.161420
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	87.1

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.424		0.362	0.181	0.0905
Arsenic, Total	7440-38-2	9.14		0.678	0.340	0.170
Selenium, Total	7782-49-2	0.992		0.452	0.226	0.113
Silver, Total	7440-22-4	0.226	U	0.452	0.226	0.113
Thallium, Total	7440-28-0	0.0568	J	0.0905	0.0452	0.0226

I	Estimated value ; the analyte concentration was greater than the highest standard
J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L19080178-17	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-07-1	**Prep Method:**	3051A	**Prep Date:**	09/04/2019 07:21
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710720	**Analyst:**	JYH	**Run Date:**	09/04/2019 16:29
Collect Date:	08/26/2019 15:13	**Dilution:**	10	**File ID:**	NI.090419.162924
Sample Tag:	DL01	**Units:**	mg/kg	**Percent Solid:**	87.1

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Lead, Total	7439-92-1	27.3		4.52	2.26	1.13

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L19080178-18	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-07-2	**Prep Method:**	3051A	**Prep Date:**	09/04/2019 07:21
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710720	**Analyst:**	JYH	**Run Date:**	09/04/2019 16:17
Collect Date:	08/26/2019 15:28	**Dilution:**	1	**File ID:**	NI.090419.161713
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	86.6

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.519		0.351	0.176	0.0878
Arsenic, Total	7440-38-2	9.41		0.659	0.330	0.165
Lead, Total	7439-92-1	16.6		0.439	0.220	0.110
Selenium, Total	7782-49-2	1.69		0.439	0.220	0.110
Silver, Total	7440-22-4	0.220	U	0.439	0.220	0.110
Thallium, Total	7440-28-0	0.120		0.0878	0.0440	0.0220

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L19080178-19	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-08-1	**Prep Method:**	3051A	**Prep Date:**	09/04/2019 07:21
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710720	**Analyst:**	JYH	**Run Date:**	09/04/2019 16:20
Collect Date:	08/26/2019 15:39	**Dilution:**	1	**File ID:**	NI.090419.162006
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	89.5

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.277	J	0.351	0.175	0.0877
Arsenic, Total	7440-38-2	6.88		0.657	0.328	0.164
Lead, Total	7439-92-1	10.3		0.438	0.220	0.110
Selenium, Total	7782-49-2	0.788		0.438	0.220	0.110
Silver, Total	7440-22-4	0.220	U	0.438	0.220	0.110
Thallium, Total	7440-28-0	0.0553	J	0.0877	0.0438	0.0219

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L19080178-20	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-08-2	**Prep Method:**	3051A	**Prep Date:**	09/04/2019 07:21
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710720	**Analyst:**	JYH	**Run Date:**	09/04/2019 16:22
Collect Date:	08/26/2019 15:50	**Dilution:**	1	**File ID:**	NI.090419.162258
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	88.2

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.476		0.363	0.181	0.0907
Arsenic, Total	7440-38-2	7.83		0.680	0.340	0.170
Lead, Total	7439-92-1	21.1		0.453	0.226	0.113
Selenium, Total	7782-49-2	1.93		0.453	0.226	0.113
Silver, Total	7440-22-4	0.226	U	0.453	0.226	0.113
Thallium, Total	7440-28-0	0.102		0.0907	0.0454	0.0227

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L19080178-21	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-09C-1	**Prep Method:**	3051A	**Prep Date:**	09/04/2019 07:21
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710720	**Analyst:**	JYH	**Run Date:**	09/04/2019 16:25
Collect Date:	08/26/2019 16:01	**Dilution:**	1	**File ID:**	NI.090419.162550
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	81.6

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.971		0.392	0.196	0.0980
Arsenic, Total	7440-38-2	11.8		0.735	0.368	0.184
Lead, Total	7439-92-1	13.4		0.490	0.246	0.123
Selenium, Total	7782-49-2	2.55		0.490	0.246	0.123
Silver, Total	7440-22-4	0.246	U	0.490	0.246	0.123
Thallium, Total	7440-28-0	0.193		0.0980	0.0490	0.0245

U	Analyte was not detected. The concentration is below the reported LOD.

Microbac

Lab Report #: L19080178
Lab Project #: 2694.005
Project Name: CT Labs DOD
Lab Contact: Stephanie Mossburg

Sample #: L19080178-01 **Client ID:** GN-SO-01-1 **Matrix:** Soil **Collect Date:** 08/26/2019 10:23

Analyte	Result	Units	Qualifier
Percent Solids	89.6	weight %	

Sample #: L19080178-02 **Client ID:** GN-SO-01-2 **Matrix:** Soil **Collect Date:** 08/26/2019 11:15

Analyte	Result	Units	Qualifier
Percent Solids	80.7	weight %	

Sample #: L19080178-03 **Client ID:** GN-SO-02-1 **Matrix:** Soil **Collect Date:** 08/26/2019 11:30

Analyte	Result	Units	Qualifier
Percent Solids	77.7	weight %	

Sample #: L19080178-04 **Client ID:** GN-SO-DUP-1 **Matrix:** Soil **Collect Date:** 08/26/2019 11:00

Analyte	Result	Units	Qualifier
Percent Solids	93.1	weight %	

Sample #: L19080178-05 **Client ID:** GN-SO-02-2 **Matrix:** Soil **Collect Date:** 08/26/2019 11:53

Analyte	Result	Units	Qualifier
Percent Solids	86.9	weight %	

Sample #: L19080178-06 **Client ID:** GN-SO-03-1 **Matrix:** Soil **Collect Date:** 08/26/2019 13:20

Analyte	Result	Units	Qualifier
Percent Solids	86.0	weight %	

Sample #: L19080178-07 **Client ID:** GN-SO-03-2 **Matrix:** Soil **Collect Date:** 08/26/2019 13:34

Analyte	Result	Units	Qualifier
Percent Solids	87.4	weight %	

Sample #: L19080178-08 **Client ID:** GN-SO-04-1 **Matrix:** Soil **Collect Date:** 08/26/2019 13:48

Analyte	Result	Units	Qualifier
Percent Solids	78.6	weight %	

Sample #: L19080178-09 **Client ID:** GN-SO-04-1 **Matrix:** Soil **Collect Date:** 08/26/2019 13:48

Analyte	Result	Units	Qualifier
Percent Solids	84.6	weight %	

Sample #: L19080178-10 **Client ID:** GN-SO-04-1 **Matrix:** Soil **Collect Date:** 08/26/2019 13:48

Analyte	Result	Units	Qualifier
Percent Solids	82.5	weight %	

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Sample #: L19080178-11 **Client ID:** GN-SO-04-2 **Matrix:** Soil **Collect Date:** 08/26/2019 14:00

Analyte	Result	Units	Qualifier
Percent Solids	80.9	weight %	

Sample #: L19080178-12 **Client ID:** GN-SO-05-1 **Matrix:** Soil **Collect Date:** 08/26/2019 14:10

Analyte	Result	Units	Qualifier
Percent Solids	90.5	weight %	

Sample #: L19080178-13 **Client ID:** GN-SO-05-2 **Matrix:** Soil **Collect Date:** 08/26/2019 14:28

Analyte	Result	Units	Qualifier
Percent Solids	85.2	weight %	

Sample #: L19080178-14 **Client ID:** GN-SO-DUP-2 **Matrix:** Soil **Collect Date:** 08/26/2019 14:22

Analyte	Result	Units	Qualifier
Percent Solids	79.4	weight %	

Sample #: L19080178-15 **Client ID:** GN-SO-06-1 **Matrix:** Soil **Collect Date:** 08/26/2019 14:22

Analyte	Result	Units	Qualifier
Percent Solids	92.0	weight %	

Sample #: L19080178-16 **Client ID:** GN-SO-06-2 **Matrix:** Soil **Collect Date:** 08/26/2019 15:05

Analyte	Result	Units	Qualifier
Percent Solids	86.1	weight %	

Sample #: L19080178-17 **Client ID:** GN-SO-07-1 **Matrix:** Soil **Collect Date:** 08/26/2019 15:13

Analyte	Result	Units	Qualifier
Percent Solids	87.1	weight %	

Sample #: L19080178-18 **Client ID:** GN-SO-07-2 **Matrix:** Soil **Collect Date:** 08/26/2019 15:28

Analyte	Result	Units	Qualifier
Percent Solids	86.6	weight %	

Sample #: L19080178-19 **Client ID:** GN-SO-08-1 **Matrix:** Soil **Collect Date:** 08/26/2019 15:39

Analyte	Result	Units	Qualifier
Percent Solids	89.5	weight %	

Sample #: L19080178-20 **Client ID:** GN-SO-08-2 **Matrix:** Soil **Collect Date:** 08/26/2019 15:50

Analyte	Result	Units	Qualifier
Percent Solids	88.2	weight %	

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Sample #: L19080178-21 **Client ID:** GN-SO-09C-1 **Matrix:** Soil **Collect Date:** 08/26/2019 16:01

Analyte	Result	Units	Qualifier
Percent Solids	81.6	weight %	

2.0 Full Sample Data Package

2.1 Metals Data

2.1.1 Metals ICP-MS Data

2.1.1.1 Summary Data

Login Number: L19080178
Department: Metals
Analyst: Ji Hu

METHOD

Preparation: SW-846 3051

Analysis: SW-846 6020

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration: All acceptance criteria were met.

Continuing Calibration Blank: All acceptance criteria were met.

Low Level Check: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Serial Dilution/Post Digestion Spikes: WG710698 - All acceptance criteria were met.

WG710720 - Lead for client sample 08 was reported from the 10 fold dilution where the 10 fold reference sample was reported for lead.

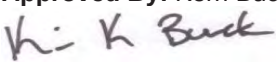
Matrix Spikes: WG710720 - Sample 08 was chosen by the client for MS/MSD analysis. Samples 09 (MS) and 10 (MSD) yielded noncompliant recoveries for two analytes. For consistency with the reference, samples 09 (MS) and 10 (MSD) were also reanalyzed at a dilution for lead.

SAMPLES

Samples: WG710698 - Client sample 11 required dilution analysis in order to obtain a result for lead within the calibration range.

WG710720 - Client samples 08, 09, 10, and 17 required dilution analyses in order to obtain results for lead within the calibration range.

Narrative ID: 150424
Approved By: Kerri Buck



Certificate of Analysis

Sample #:	L19080178-01	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-01-1	**Prep Method:**	3051A	**Prep Date:**	09/03/2019 07:50
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710698	**Analyst:**	JYH	**Run Date:**	09/04/2019 12:18
Collect Date:	08/26/2019 10:23	**Dilution:**	1	**File ID:**	NI.090419.121830
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	89.6

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.452		0.341	0.170	0.0852
Arsenic, Total	7440-38-2	6.87		0.639	0.320	0.160
Lead, Total	7439-92-1	12.3		0.426	0.214	0.107
Selenium, Total	7782-49-2	1.13		0.426	0.214	0.107
Silver, Total	7440-22-4	0.214	U	0.426	0.214	0.107
Thallium, Total	7440-28-0	0.0421	J	0.0852	0.0426	0.0213

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Sample #:	L19080178-02	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-01-2	**Prep Method:**	3051A	**Prep Date:**	09/03/2019 07:50
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710698	**Analyst:**	JYH	**Run Date:**	09/04/2019 12:21
Collect Date:	08/26/2019 11:15	**Dilution:**	1	**File ID:**	NI.090419.122123
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	80.7

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.693		0.395	0.198	0.0988
Arsenic, Total	7440-38-2	11.0		0.741	0.370	0.185
Lead, Total	7439-92-1	15.9		0.494	0.248	0.124
Selenium, Total	7782-49-2	2.25		0.494	0.248	0.124
Silver, Total	7440-22-4	0.248	U	0.494	0.248	0.124
Thallium, Total	7440-28-0	0.211		0.0988	0.0494	0.0247

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L19080178-03	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-02-1	**Prep Method:**	3051A	**Prep Date:**	09/03/2019 07:50
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710698	**Analyst:**	JYH	**Run Date:**	09/04/2019 12:24
Collect Date:	08/26/2019 11:30	**Dilution:**	1	**File ID:**	NI.090419.122416
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	77.7

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.223	J	0.396	0.198	0.0991
Arsenic, Total	7440-38-2	5.22		0.743	0.372	0.186
Lead, Total	7439-92-1	7.06		0.495	0.248	0.124
Selenium, Total	7782-49-2	0.742		0.495	0.248	0.124
Silver, Total	7440-22-4	0.248	U	0.495	0.248	0.124
Thallium, Total	7440-28-0	0.0291	J	0.0991	0.0496	0.0248

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Sample #:	L19080178-04	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-DUP-1	**Prep Method:**	3051A	**Prep Date:**	09/03/2019 07:50
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710698	**Analyst:**	JYH	**Run Date:**	09/04/2019 12:27
Collect Date:	08/26/2019 11:00	**Dilution:**	1	**File ID:**	NI.090419.122709
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	93.1

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.182	J	0.337	0.169	0.0843
Arsenic, Total	7440-38-2	4.88		0.632	0.316	0.158
Lead, Total	7439-92-1	5.64		0.421	0.210	0.105
Selenium, Total	7782-49-2	0.436		0.421	0.210	0.105
Silver, Total	7440-22-4	0.210	U	0.421	0.210	0.105
Thallium, Total	7440-28-0	0.0249	J	0.0843	0.0422	0.0211

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L19080178-05	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-02-2	**Prep Method:**	3051A	**Prep Date:**	09/03/2019 07:50
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710698	**Analyst:**	JYH	**Run Date:**	09/04/2019 12:30
Collect Date:	08/26/2019 11:53	**Dilution:**	1	**File ID:**	NI.090419.123002
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	86.9

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.471		0.354	0.177	0.0885
Arsenic, Total	7440-38-2	7.56		0.664	0.332	0.166
Lead, Total	7439-92-1	13.8		0.442	0.222	0.111
Selenium, Total	7782-49-2	1.79		0.442	0.222	0.111
Silver, Total	7440-22-4	0.222	U	0.442	0.222	0.111
Thallium, Total	7440-28-0	0.137		0.0885	0.0442	0.0221

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #:	L19080178-06	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-03-1	**Prep Method:**	3051A	**Prep Date:**	09/03/2019 07:50
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710698	**Analyst:**	JYH	**Run Date:**	09/04/2019 12:32
Collect Date:	08/26/2019 13:20	**Dilution:**	1	**File ID:**	NI.090419.123255
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	86.0

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.415		0.360	0.180	0.0901
Arsenic, Total	7440-38-2	7.76		0.676	0.338	0.169
Lead, Total	7439-92-1	18.5		0.450	0.226	0.113
Selenium, Total	7782-49-2	1.21		0.450	0.226	0.113
Silver, Total	7440-22-4	0.226	U	0.450	0.226	0.113
Thallium, Total	7440-28-0	0.0395	J	0.0901	0.0450	0.0225

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L19080178-07	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-03-2	**Prep Method:**	3051A	**Prep Date:**	09/03/2019 07:50
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710698	**Analyst:**	JYH	**Run Date:**	09/04/2019 12:35
Collect Date:	08/26/2019 13:34	**Dilution:**	1	**File ID:**	NI.090419.123549
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	87.4

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.543		0.365	0.183	0.0913
Arsenic, Total	7440-38-2	9.47		0.685	0.342	0.171
Lead, Total	7439-92-1	12.9		0.456	0.228	0.114
Selenium, Total	7782-49-2	1.98		0.456	0.228	0.114
Silver, Total	7440-22-4	0.228	U	0.456	0.228	0.114
Thallium, Total	7440-28-0	0.137		0.0913	0.0456	0.0228

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #:	L19080178-08	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-04-1	**Prep Method:**	3051A	**Prep Date:**	09/04/2019 07:21
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710720	**Analyst:**	JYH	**Run Date:**	09/04/2019 15:21
Collect Date:	08/26/2019 13:48	**Dilution:**	1	**File ID:**	NI.090419.152145
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	78.6

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.871		0.405	0.202	0.101
Arsenic, Total	7440-38-2	16.9		0.760	0.380	0.190
Selenium, Total	7782-49-2	1.89		0.506	0.254	0.127
Silver, Total	7440-22-4	0.254	U	0.506	0.254	0.127
Thallium, Total	7440-28-0	0.197		0.101	0.0506	0.0253

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #:	L19080178-08	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-04-1	**Prep Method:**	3051A	**Prep Date:**	09/04/2019 07:21
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710720	**Analyst:**	JYH	**Run Date:**	09/04/2019 15:45
Collect Date:	08/26/2019 13:48	**Dilution:**	10	**File ID:**	NI.090419.154535
Sample Tag:	DL01	**Units:**	mg/kg	**Percent Solid:**	78.6

Certificate of Analysis

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Lead, Total	7439-92-1	28.0		5.06	2.54	1.27

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Sample #:	L19080178-09	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-04-1	**Prep Method:**	3051A	**Prep Date:**	09/04/2019 07:20
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710720	**Analyst:**	JYH	**Run Date:**	09/04/2019 15:24
Collect Date:	08/26/2019 13:48	**Dilution:**	1	**File ID:**	NI.090419.152437
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	84.6

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	9.91		0.374	0.187	0.0936
Arsenic, Total	7440-38-2	23.4		0.702	0.350	0.175
Selenium, Total	7782-49-2	9.76		0.468	0.234	0.117
Silver, Total	7440-22-4	8.94		0.468	0.234	0.117
Thallium, Total	7440-28-0	1.93		0.0936	0.0468	0.0234

I	Estimated value ; the analyte concentration was greater than the highest standard

Sample #:	L19080178-09	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-04-1	**Prep Method:**	3051A	**Prep Date:**	09/04/2019 07:20
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710720	**Analyst:**	JYH	**Run Date:**	09/04/2019 15:48
Collect Date:	08/26/2019 13:48	**Dilution:**	10	**File ID:**	NI.090419.154827
Sample Tag:	DL01	**Units:**	mg/kg	**Percent Solid:**	84.6

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Lead, Total	7439-92-1	44.0		4.68	2.34	1.17

Sample #:	L19080178-10	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-04-1	**Prep Method:**	3051A	**Prep Date:**	09/04/2019 07:20
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710720	**Analyst:**	JYH	**Run Date:**	09/04/2019 15:27
Collect Date:	08/26/2019 13:48	**Dilution:**	1	**File ID:**	NI.090419.152729
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	82.5

Certificate of Analysis

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	9.92		0.382	0.191	0.0955
Arsenic, Total	7440-38-2	23.4		0.716	0.358	0.179
Selenium, Total	7782-49-2	9.77		0.477	0.238	0.119
Silver, Total	7440-22-4	9.02		0.477	0.238	0.119
Thallium, Total	7440-28-0	1.91		0.0955	0.0478	0.0239

I	Estimated value ; the analyte concentration was greater than the highest standard

Sample #: L19080178-10
Client ID: GN-SO-04-1
Matrix: Soil
Workgroup #: WG710720
Collect Date: 08/26/2019 13:48
Sample Tag: DL01

PrePrep Method: N/A
Prep Method: 3051A
Analytical Method: 6020
Analyst: JYH
Dilution: 10
Units: mg/kg

Instrument: ICP-MS2
Prep Date: 09/04/2019 07:20
Cal Date: 09/04/2019 11:22
Run Date: 09/04/2019 15:51
File ID: NI.090419.155119
Percent Solid: 82.5

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Lead, Total	7439-92-1	39.6		4.77	2.38	1.19

Sample #: L19080178-11
Client ID: GN-SO-04-2
Matrix: Soil
Workgroup #: WG710698
Collect Date: 08/26/2019 14:00
Sample Tag: 01

PrePrep Method: N/A
Prep Method: 3051A
Analytical Method: 6020
Analyst: JYH
Dilution: 1
Units: mg/kg

Instrument: ICP-MS2
Prep Date: 09/03/2019 07:50
Cal Date: 09/04/2019 11:22
Run Date: 09/04/2019 12:38
File ID: NI.090419.123842
Percent Solid: 80.9

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.688		0.393	0.196	0.0982
Arsenic, Total	7440-38-2	11.1		0.736	0.368	0.184
Selenium, Total	7782-49-2	1.79		0.491	0.246	0.123
Silver, Total	7440-22-4	0.246	U	0.491	0.246	0.123
Thallium, Total	7440-28-0	0.106		0.0982	0.0490	0.0245

I	Estimated value ; the analyte concentration was greater than the highest standard
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L19080178-11	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-04-2	**Prep Method:**	3051A	**Prep Date:**	09/03/2019 07:50
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710698	**Analyst:**	JYH	**Run Date:**	09/04/2019 13:18
Collect Date:	08/26/2019 14:00	**Dilution:**	10	**File ID:**	NI.090419.131859
Sample Tag:	DL01	**Units:**	mg/kg	**Percent Solid:**	80.9

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Lead, Total	7439-92-1	35.7		4.91	2.46	1.23

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Sample #:	L19080178-12	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-05-1	**Prep Method:**	3051A	**Prep Date:**	09/03/2019 07:50
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710698	**Analyst:**	JYH	**Run Date:**	09/04/2019 12:41
Collect Date:	08/26/2019 14:10	**Dilution:**	1	**File ID:**	NI.090419.124136
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	90.5

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.331	J	0.354	0.177	0.0884
Arsenic, Total	7440-38-2	9.11		0.663	0.332	0.166
Lead, Total	7439-92-1	20.9		0.442	0.220	0.110
Selenium, Total	7782-49-2	1.28		0.442	0.220	0.110
Silver, Total	7440-22-4	0.220	U	0.442	0.220	0.110
Thallium, Total	7440-28-0	0.0718	J	0.0884	0.0442	0.0221

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Sample #:	L19080178-13	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-05-2	**Prep Method:**	3051A	**Prep Date:**	09/03/2019 07:50
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710698	**Analyst:**	JYH	**Run Date:**	09/04/2019 12:44
Collect Date:	08/26/2019 14:28	**Dilution:**	1	**File ID:**	NI.090419.124429
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	85.2

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.640		0.364	0.182	0.0910

Certificate of Analysis

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Arsenic, Total	7440-38-2	11.1		0.682	0.342	0.171
Lead, Total	7439-92-1	12.9		0.455	0.228	0.114
Selenium, Total	7782-49-2	1.82		0.455	0.228	0.114
Silver, Total	7440-22-4	0.228	U	0.455	0.228	0.114
Thallium, Total	7440-28-0	0.232		0.0910	0.0454	0.0227

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #: L19080178-14 **PrePrep Method:** N/A **Instrument:** ICP-MS2
Client ID: GN-SO-DUP-2 **Prep Method:** 3051A **Prep Date:** 09/04/2019 07:21
Matrix: Soil **Analytical Method:** 6020 **Cal Date:** 09/04/2019 11:22
Workgroup #: WG710720 **Analyst:** JYH **Run Date:** 09/04/2019 16:05
Collect Date: 08/26/2019 14:22 **Dilution:** 1 **File ID:** NI.090419.160541
Sample Tag: 01 **Units:** mg/kg **Percent Solid:** 79.4

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.791		0.399	0.199	0.0997
Arsenic, Total	7440-38-2	11.3		0.748	0.374	0.187
Lead, Total	7439-92-1	13.3		0.499	0.250	0.125
Selenium, Total	7782-49-2	1.83		0.499	0.250	0.125
Silver, Total	7440-22-4	0.250	U	0.499	0.250	0.125
Thallium, Total	7440-28-0	0.233		0.0997	0.0498	0.0249

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #: L19080178-15 **PrePrep Method:** N/A **Instrument:** ICP-MS2
Client ID: GN-SO-06-1 **Prep Method:** 3051A **Prep Date:** 09/04/2019 07:21
Matrix: Soil **Analytical Method:** 6020 **Cal Date:** 09/04/2019 11:22
Workgroup #: WG710720 **Analyst:** JYH **Run Date:** 09/04/2019 16:08
Collect Date: 08/26/2019 14:22 **Dilution:** 1 **File ID:** NI.090419.160835
Sample Tag: 01 **Units:** mg/kg **Percent Solid:** 92.0

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.182	J	0.324	0.162	0.0811
Arsenic, Total	7440-38-2	3.34		0.608	0.304	0.152
Lead, Total	7439-92-1	8.31		0.405	0.202	0.101
Selenium, Total	7782-49-2	0.638		0.405	0.202	0.101
Silver, Total	7440-22-4	0.202	U	0.405	0.202	0.101
Thallium, Total	7440-28-0	0.0389	J	0.0811	0.0406	0.0203

J	Estimated value ; the analyte concentration was less than the LOQ.

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #: L19080178-16 **PrePrep Method:** N/A **Instrument:** ICP-MS2
Client ID: GN-SO-06-2 **Prep Method:** 3051A **Prep Date:** 09/04/2019 07:21
Matrix: Soil **Analytical Method:** 6020 **Cal Date:** 09/04/2019 11:22
Workgroup #: WG710720 **Analyst:** JYH **Run Date:** 09/04/2019 16:11
Collect Date: 08/26/2019 15:05 **Dilution:** 1 **File ID:** NI.090419.161127
Sample Tag: 01 **Units:** mg/kg **Percent Solid:** 86.1

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.626		0.371	0.185	0.0927
Arsenic, Total	7440-38-2	10.2		0.695	0.348	0.174
Lead, Total	7439-92-1	12.7		0.464	0.232	0.116
Selenium, Total	7782-49-2	1.77		0.464	0.232	0.116
Silver, Total	7440-22-4	0.232	U	0.464	0.232	0.116
Thallium, Total	7440-28-0	0.201		0.0927	0.0464	0.0232

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #: L19080178-17 **PrePrep Method:** N/A **Instrument:** ICP-MS2
Client ID: GN-SO-07-1 **Prep Method:** 3051A **Prep Date:** 09/04/2019 07:21
Matrix: Soil **Analytical Method:** 6020 **Cal Date:** 09/04/2019 11:22
Workgroup #: WG710720 **Analyst:** JYH **Run Date:** 09/04/2019 16:14
Collect Date: 08/26/2019 15:13 **Dilution:** 1 **File ID:** NI.090419.161420
Sample Tag: 01 **Units:** mg/kg **Percent Solid:** 87.1

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.424		0.362	0.181	0.0905
Arsenic, Total	7440-38-2	9.14		0.678	0.340	0.170
Selenium, Total	7782-49-2	0.992		0.452	0.226	0.113
Silver, Total	7440-22-4	0.226	U	0.452	0.226	0.113
Thallium, Total	7440-28-0	0.0568	J	0.0905	0.0452	0.0226

I	Estimated value ; the analyte concentration was greater than the highest standard
J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L19080178-17	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-07-1	**Prep Method:**	3051A	**Prep Date:**	09/04/2019 07:21
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710720	**Analyst:**	JYH	**Run Date:**	09/04/2019 16:29
Collect Date:	08/26/2019 15:13	**Dilution:**	10	**File ID:**	NI.090419.162924
Sample Tag:	DL01	**Units:**	mg/kg	**Percent Solid:**	87.1

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Lead, Total	7439-92-1	27.3		4.52	2.26	1.13

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Sample #:	L19080178-18	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-07-2	**Prep Method:**	3051A	**Prep Date:**	09/04/2019 07:21
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710720	**Analyst:**	JYH	**Run Date:**	09/04/2019 16:17
Collect Date:	08/26/2019 15:28	**Dilution:**	1	**File ID:**	NI.090419.161713
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	86.6

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.519		0.351	0.176	0.0878
Arsenic, Total	7440-38-2	9.41		0.659	0.330	0.165
Lead, Total	7439-92-1	16.6		0.439	0.220	0.110
Selenium, Total	7782-49-2	1.69		0.439	0.220	0.110
Silver, Total	7440-22-4	0.220	U	0.439	0.220	0.110
Thallium, Total	7440-28-0	0.120		0.0878	0.0440	0.0220

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #:	L19080178-19	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	GN-SO-08-1	**Prep Method:**	3051A	**Prep Date:**	09/04/2019 07:21
Matrix:	Soil	**Analytical Method:**	6020	**Cal Date:**	09/04/2019 11:22
Workgroup #:	WG710720	**Analyst:**	JYH	**Run Date:**	09/04/2019 16:20
Collect Date:	08/26/2019 15:39	**Dilution:**	1	**File ID:**	NI.090419.162006
Sample Tag:	01	**Units:**	mg/kg	**Percent Solid:**	89.5

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.277	J	0.351	0.175	0.0877
Arsenic, Total	7440-38-2	6.88		0.657	0.328	0.164

Certificate of Analysis

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Lead, Total	7439-92-1	10.3		0.438	0.220	0.110
Selenium, Total	7782-49-2	0.788		0.438	0.220	0.110
Silver, Total	7440-22-4	0.220	U	0.438	0.220	0.110
Thallium, Total	7440-28-0	0.0553	J	0.0877	0.0438	0.0219

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Sample #: L19080178-20 **PrePrep Method:** N/A **Instrument:** ICP-MS2
Client ID: GN-SO-08-2 **Prep Method:** 3051A **Prep Date:** 09/04/2019 07:21
Matrix: Soil **Analytical Method:** 6020 **Cal Date:** 09/04/2019 11:22
Workgroup #: WG710720 **Analyst:** JYH **Run Date:** 09/04/2019 16:22
Collect Date: 08/26/2019 15:50 **Dilution:** 1 **File ID:** NI.090419.162258
Sample Tag: 01 **Units:** mg/kg **Percent Solid:** 88.2

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.476		0.363	0.181	0.0907
Arsenic, Total	7440-38-2	7.83		0.680	0.340	0.170
Lead, Total	7439-92-1	21.1		0.453	0.226	0.113
Selenium, Total	7782-49-2	1.93		0.453	0.226	0.113
Silver, Total	7440-22-4	0.226	U	0.453	0.226	0.113
Thallium, Total	7440-28-0	0.102		0.0907	0.0454	0.0227

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #: L19080178-21 **PrePrep Method:** N/A **Instrument:** ICP-MS2
Client ID: GN-SO-09C-1 **Prep Method:** 3051A **Prep Date:** 09/04/2019 07:21
Matrix: Soil **Analytical Method:** 6020 **Cal Date:** 09/04/2019 11:22
Workgroup #: WG710720 **Analyst:** JYH **Run Date:** 09/04/2019 16:25
Collect Date: 08/26/2019 16:01 **Dilution:** 1 **File ID:** NI.090419.162550
Sample Tag: 01 **Units:** mg/kg **Percent Solid:** 81.6

Analyte	CAS #	Result	Qual	LOQ	LOD	DL
Antimony, Total	7440-36-0	0.971		0.392	0.196	0.0980
Arsenic, Total	7440-38-2	11.8		0.735	0.368	0.184
Lead, Total	7439-92-1	13.4		0.490	0.246	0.123
Selenium, Total	7782-49-2	2.55		0.490	0.246	0.123
Silver, Total	7440-22-4	0.246	U	0.490	0.246	0.123
Thallium, Total	7440-28-0	0.193		0.0980	0.0490	0.0245

U	Analyte was not detected. The concentration is below the reported LOD.

2.1.1.2 QC Summary Data

Example 6020 Calculations
Perkin Elmer NexION 300X

1.0 Initial Calibration (ICAL) Parameters
The system performs linear regression from data consisting of a blank and three standards.

2.0 Calculating the concentration (C) of an element in water using data from prep log, run log, and quantitation report (note:the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:	**Example:**
Cs = Concentration computed by the data system (ug/L)	0.1
Vf = Final volume	100
Vi = Initial volume	40
D = Dilution factor as a multiplier (10X = 10)	1
Cx = Concentration of element in (ug/L)	0.25

3.0 Calculating the concentration (C) of an element in soil using data from prep log, run log, and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:	**Example:**
Cs = Concentration computed by the data system (ug/L)	0.1
Vf = Final volume	200
Vi = Initial volume	0.5
D = Dilution factor as a multiplier (10X = 10)	1
Cx = Concentration of element in (ug/kg)	40

4.0 Adjusting the concentration to dry weight:

$$Cdry = \frac{Cx \times 100}{Px}$$

Where:	**Example:**
Cx = Concentration calculated as received (wet basis)	40
Px = Percent solids of sample (%wt)	80
$Cdry$ = Concentration calculated as dry weight (ug/kg)	50

50 ug/kg = 0.050 mg/kg

Perkin Elmer NexION ICP/MS

STANDARDS KEY

QC Std 1 - ICV	QC Std 5 - ICSAB
QC Std 2 - ICB	QC Std 6 - CCV
QC Std 3 - LLICV	QC Std 7 - CCB
QC Std 4 - ICSA	QC Std 8 - LLCCV

Calibration Solutions

Analyte	Stock (mg/L)	S1 (mg/L)	S2 (mg/L)	S3 (mg/L)	S4 (mg/L)	S5 (mg/L)
Sb	8	0	0.0004	0.002	0.04	0.08
As	8	0	0.0004	0.002	0.04	0.08
Ba	24	0	0.0012	0.006	0.12	0.24
Be	1.6	0	0.00008	0.0004	0.008	0.016
Ca	1000	0	0.05	0.25	5	10
Cd	4.8	0	0.00024	0.0012	0.024	0.048
Cr	16	0	0.0008	0.004	0.08	0.16
Co	8	0	0.0004	0.002	0.04	0.08
Cu	16	0	0.0008	0.004	0.08	0.16
Fe	1000	0	0.05	0.25	5	10
Pb	8	0	0.0004	0.002	0.04	0.08
Mg	1000	0	0.05	0.25	5	10
Mn	16	0	0.0008	0.004	0.08	0.16
Mo	8	0	0.0004	0.002	0.04	0.08
Ni	32	0	0.0016	0.008	0.16	0.32
K	1000	0	0.05	0.25	5	10
Se	8	0	0.0004	0.002	0.04	0.08
Ag	8	0	0.0004	0.002	0.04	0.08
Na	1000	0	0.05	0.25	5	10
Ti	8	0	0.0004	0.002	0.04	0.08
Sn	8	0	0.0004	0.002	0.04	0.08
Tl	1.6	0	0.00008	0.0004	0.008	0.016
Th	8	0	0.0004	0.002	0.04	0.08
V	8	0	0.0004	0.002	0.04	0.08
U	8	0	0.0004	0.002	0.04	0.08
Zn	160	0	0.008	0.04	0.8	1.6

Microbac Laboratories Inc.
Microwave Digestion Log

Workgroup:	WG710688	SOP:	ME406 Revison 18
Analyst:	VC	Spike Solution:	STD93481
Spike Analyst:	VC	Spike Witness:	ERP
Run Date:	09/04/2019 07:20	HNO3 Lot #:	COA21548
Method:	3051A	HCL Lot #:	COA21479
Balance:	BAL016	ICP FILTERS LOT#R9AA7261	RGT47179
Instrument:	MW-3	TEFLON CHIPS-D1069103 Lo	RGT44680
Instrument Start:	09/04/2019 08:01	cent tubes- lot# 0751903	RGT48135
		100 ml DIGESTION TUBES L	COA21588

	SAMPLE #	Type	Matrix	Initial Amount	Final Volume	Initial Vessel Wt	Final Vessel Wt	Spike Amount	Due Date
1	WG710688-02	BLANK	7	.4 g	100 mL	176.29 g	176.121 g		
2	WG710688-03	LCS	7	.4 g	100 mL	175.153 g	175.115 g	.4 mL	
3	WG710688-01	REF	7	.402 g	100 mL	174.877 g	174.799 g		
4	L19080178-08	RS01	7	.402 g	100 mL	174.877 g	174.799 g		09/07/19
5	WG710688-04	MS	7	.404 g	100 mL	175.966 g	175.906 g	.4 mL	
6	L19080178-09	MS01	7	.404 g	100 mL	175.966 g	175.906 g	.4 mL	09/07/19
7	WG710688-05	MSD	7	.406 g	100 mL	177.263 g	176.703 g	.4 mL	
8	L19080178-10	SD01	7	.406 g	100 mL	177.263 g	176.703 g	.4 mL	09/07/19
9	L19080178-14	SAMP	7	.404 g	100 mL	177.681 g	177.675 g		09/07/19
10	L19080178-15	SAMP	7	.429 g	100 mL	176.6 g	176.543 g		09/07/19
11	L19080178-16	SAMP	7	.401 g	100 mL	178.006 g	177.884 g		09/07/19
12	L19080178-17	SAMP	7	.406 g	100 mL	178.057 g	178.057 g		09/07/19
13	L19080178-18	SAMP	7	.421 g	100 mL	176.921 g	176.922 g		09/07/19
14	L19080178-19	SAMP	7	.408 g	100 mL	176.186 g	176.164 g		09/07/19
15	L19080178-20	SAMP	7	.4 g	100 mL	174.404 g	174.402 g		09/07/19
16	L19080178-21	SAMP	7	.4 g	100 mL	175.402 g	174.969 g		09/07/19

Analyst: Vicki Collins

Reviewer: Erin Potter

MW_DIG - Modified 09/30/2009
PDF ID: 6460878
Report generated: 09/04/2019 08:30

Microbac Laboratories Inc.
Microwave Digestion Log

Workgroup: WG710621
Analyst: VC
Spike Analyst: VC
Run Date: 09/03/2019 07:50
Method: 3051A
Balance: BAL016
Instrument: MW-3
Instrument Start: 09/03/2019 08:15

SOP: ME406 Revison 18
Spike Solution: STD93481
Spike Witness: ERP
HNO3 Lot #: COA21548
HCL Lot #: COA21479
100 ml DIGESTION TUBES L COA21588
TEFLON CHIPS-D1069103 Lo RGT44680
cent tubes- lot# 0751903 RGT48135
ICP FILTERS LOT#R9AA7261 RGT47179

	SAMPLE #	Type	Matrix	Initial Amount	Final Volume	Initial Vessel Wt	Final Vessel Wt	Spike Amount	Due Date
1	WG710621-02	BLANK	7	.4 g	100 mL	177.977 g	177.965 g		
2	WG710621-03	LCS	7	.4 g	100 mL	177.425 g	177.395 g	.4 mL	
3	L19080159-02	SAMP	7	.41 g	100 mL	176.323 g	176.244 g		09/05/19
4	WG710621-01	REF	7	.406 g	100 mL	175.412 g	175.336 g		
5	L19080160-02	SAMP	7	.406 g	100 mL	175.412 g	175.336 g		09/05/19
6	L19080178-01	SAMP	7	.419 g	100 mL	174.858 g	174.85 g		09/07/19
7	L19080178-02	SAMP	7	.401 g	100 mL	176.62 g	176.401 g		09/07/19
8	L19080178-03	SAMP	7	.416 g	100 mL	176.165 g	176.148 g		09/07/19
9	L19080178-04	SAMP	7	.408 g	100 mL	175.529 g	175.526 g		09/07/19
10	L19080178-05	SAMP	7	.416 g	100 mL	178.418 g	178.418 g		09/07/19
11	L19080178-06	SAMP	7	.413 g	100 mL	177.587 g	177.579 g		09/07/19
12	L19080178-07	SAMP	7	.401 g	100 mL	176.68 g	176.657 g		09/07/19
13	L19080178-11	SAMP	7	.403 g	100 mL	176.146 g	176.145 g		09/07/19
14	L19080178-12	SAMP	7	.4 g	100 mL	177.159 g	177.172 g		09/07/19
15	L19080178-13	SAMP	7	.413 g	100 mL	174.216 g	173.915 g		09/07/19
16	WG710621-04	MS	7	.4 g	100 mL	176.318 g	176.278 g	.4 mL	
17	WG710621-05	MSD	7	.404 g	100 mL	176.646 g	176.617 g	.4 mL	

Analyst: Vicki Collins

Reviewer: Erin Potter

MW_DIG - Modified 09/30/2009
PDF ID: 6460435
Report generated: 09/03/2019 08:38

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-MS2 Dataset: 090419A.REP
Analyst1: JYH Analyst2: N/A
Method: 6020/6020A/200.8 SOP: ME700A Rev: 4
Maintenance Log ID:

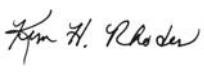
Calibration Std: STD94600 ICV Std: STD94602 Post Spike: STD93385
ICSA: STD94603 ICSAB: STD94604 Int. Std: RGT47892
CCV: STD94601 LLCCV: COA21307 Tuning Sol : STD94599
Stannous : Hydroxylamine :

Workgroups: 710698,710528,b9h1564,710720,b9i0068

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	NI.090419.110828	Blank	Blank		1		09/04/19 11:08
2	NI.090419.111123	WG710712-01	Calibration Point		1		09/04/19 11:11
3	NI.090419.111417	WG710712-02	Calibration Point		1		09/04/19 11:14
4	NI.090419.111711	WG710712-03	Calibration Point		1		09/04/19 11:17
5	NI.090419.112004	WG710712-04	Calibration Point		1		09/04/19 11:20
6	NI.090419.112258	WG710712-05	Calibration Point		1		09/04/19 11:22
7	NI.090419.112551	WG710712-06	Initial Calibration Verification		1		09/04/19 11:25
8	NI.090419.112846	WG710712-07	Initial Calib Blank		1		09/04/19 11:28
9	NI.090419.113139	WG710712-08	Low Level Initial Calibration V		1		09/04/19 11:31
10	NI.090419.113516	WG710712-09	Interference Check		1		09/04/19 11:35
11	NI.090419.113808	WG710712-10	Interference Check		1		09/04/19 11:38
12	NI.090419.114102	WG710712-11	CCV		1		09/04/19 11:41
13	NI.090419.114356	WG710712-12	CCB		1		09/04/19 11:43
14	NI.090419.114650	WG710621-02	Method/Prep Blank	.4/100	1		09/04/19 11:46
15	NI.090419.114942	WG710621-03	Laboratory Control S	.4/100	1		09/04/19 11:49
16	NI.090419.115235	WG710621-01	Reference Sample		1	L19080160-02	09/04/19 11:52
17	NI.090419.115529	WG710621-04	Matrix Spike	.4/100	1	L19080160-02	09/04/19 11:55
18	NI.090419.115822	WG710621-05	Matrix Spike Duplica	.404/100	1	L19080160-02	09/04/19 11:58
19	NI.090419.120115	L19080159-02	501168-TS-0020 (PKG B)	.41/100	1		09/04/19 12:01
20	NI.090419.120408	WG710698-01	Post Digestion Spike		1	L19080159-02	09/04/19 12:04
21	NI.090419.120701	WG710698-02	Serial Dilution		5	L19080159-02	09/04/19 12:07
22	NI.090419.120950	WG710698-02	Serial Dilution		25	L19080159-02	09/04/19 12:09
23	NI.090419.121243	WG710712-13	CCV		1		09/04/19 12:12
24	NI.090419.121537	WG710712-14	CCB		1		09/04/19 12:15
25	NI.090419.121830	L19080178-01	GN-SO-01-1	.419/100	1		09/04/19 12:18
26	NI.090419.122123	L19080178-02	GN-SO-01-2	.401/100	1		09/04/19 12:21
27	NI.090419.122416	L19080178-03	GN-SO-02-1	.416/100	1		09/04/19 12:24
28	NI.090419.122709	L19080178-04	GN-SO-DUP-1	.408/100	1		09/04/19 12:27
29	NI.090419.123002	L19080178-05	GN-SO-02-2	.416/100	1		09/04/19 12:30
30	NI.090419.123255	L19080178-06	GN-SO-03-1	.413/100	1		09/04/19 12:32
31	NI.090419.123549	L19080178-07	GN-SO-03-2	.401/100	1		09/04/19 12:35
32	NI.090419.123842	L19080178-11	GN-SO-04-2	.403/100	1		09/04/19 12:38
33	NI.090419.124136	L19080178-12	GN-SO-05-1	.4/100	1		09/04/19 12:41
34	NI.090419.124429	L19080178-13	GN-SO-05-2	.413/100	1		09/04/19 12:44

Page: 1 Approved: September 05, 2019



Microbac

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-MS2 Dataset: 090419A.REP
Analyst1: JYH Analyst2: N/A
Method: 6020/6020A/200.8 SOP: ME700A Rev: 4
Maintenance Log ID:

Calibration Std: STD94600 ICV Std: STD94602 Post Spike: STD93385
ICSA: STD94603 ICSAB: STD94604 Int. Std: RGT47892
CCV: STD94601 LLCCV: COA21307 Tuning Sol : STD94599
Stannous : Hydroxylamine :

Workgroups: 710698,710528,b9h1564,710720,b9i0068

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
35	NI.090419.124725	WG710712-15	CCV		1		09/04/19 12:47
36	NI.090419.125019	WG710712-16	CCB		1		09/04/19 12:50
37	NI.090419.125848	L19070121-08	D107-540	.4/100	10		09/04/19 12:58
38	NI.090419.130141	WG710621-01	Reference Sample		10	L19080160-02	09/04/19 13:01
39	NI.090419.130434	WG710621-04	Matrix Spike	.4/100	10	L19080160-02	09/04/19 13:04
40	NI.090419.130727	WG710621-05	Matrix Spike Duplica	.404/100	10	L19080160-02	09/04/19 13:07
41	NI.090419.131020	L19080178-02	GN-SO-01-2		10		09/04/19 13:10
42	NI.090419.131312	L19080178-05	GN-SO-02-2		10		09/04/19 13:13
43	NI.090419.131605	L19080178-07	GN-SO-03-2		10		09/04/19 13:16
44	NI.090419.131859	L19080178-11	GN-SO-04-2	.403/100	10		09/04/19 13:18
45	NI.090419.132153	L19080178-13	GN-SO-05-2		10		09/04/19 13:21
46	NI.090419.132447	WG710712-17	CCV		1		09/04/19 13:24
47	NI.090419.132740	WG710712-18	CCB		1		09/04/19 13:27
48	NI.090419.134410	WG710495-02	Method/Prep Blank	.4/100	1		09/04/19 13:44
49	NI.090419.134703	WG710495-03	Laboratory Control S	.4/100	1		09/04/19 13:47
50	NI.090419.134957	L19080148-03	501168-BF-0018 (PKG B)	.419/100	1		09/04/19 13:49
51	NI.090419.135250	L19080148-04	501168-BF-0019 (PKG B)	.405/100	1		09/04/19 13:52
52	NI.090419.135543	L19080149-05	501168-BF-0020 (PKG D)	.403/100	2		09/04/19 13:55
53	NI.090419.135836	WG710495-01	Reference Sample		1	L19080149-06	09/04/19 13:58
54	NI.090419.140124	WG710495-04	Matrix Spike	.419/100	1	L19080149-06	09/04/19 14:01
55	NI.090419.140417	WG710495-05	Matrix Spike Duplica	.413/100	1	L19080149-06	09/04/19 14:04
56	NI.090419.140710	WG710528-01	Post Digestion Spike		1	L19080149-06	09/04/19 14:07
57	NI.090419.141002	WG710528-02	Serial Dilution		5	L19080149-06	09/04/19 14:10
58	NI.090419.141256	WG710712-19	CCV		1		09/04/19 14:12
59	NI.090419.141550	WG710712-20	CCB		1		09/04/19 14:15
60	NI.090419.142422	B9H1564-BLK2@50	B9H1564-BLK2@50BS2@50		1		09/04/19 14:24
61	NI.090419.142714	B9H1564-BS2@50	B9H1564-BS2@50		1		09/04/19 14:27
62	NI.090419.143007	B9H1564-LBK4@50	B9H1564-LBK4@50		1		09/04/19 14:30
63	NI.090419.143301	B9H1564-LBK5@50	B9H1564-LBK5@50		1		09/04/19 14:33
64	NI.090419.143554	B9H1564-LBK6@50	B9H1564-LBK6@50		1		09/04/19 14:35
65	NI.090419.143847	M9H1777-01@50	M9H1777-01@50		1		09/04/19 14:38
66	NI.090419.144140	M9H1778-01@50	M9H1778-01@50		1		09/04/19 14:41
67	NI.090419.144433	B9H1564-PS2	B9H1564-PS2		1		09/04/19 14:44
68	NI.090419.144726	B9H1564-SRL2	B9H1564-SRL2		1		09/04/19 14:47

 Approved: September 05, 2019

Microbac

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-MS2 Dataset: 090419A.REP
Analyst1: JYH Analyst2: N/A
Method: 6020/6020A/200.8 SOP: ME700A Rev: 4
Maintenance Log ID:

Calibration Std: STD94600 ICV Std: STD94602 Post Spike: STD93385
ICSA: STD94603 ICSAB: STD94604 Int. Std: RGT47892
CCV: STD94601 LLCCV: COA21307 Tuning Sol : STD94599
Stannous : Hydroxylamine :

Workgroups: 710698,710528,b9h1564,710720,b9i0068

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
69	NI.090419.145020	WG710712-21	CCV		1		09/04/19 14:50
70	NI.090419.145313	WG710712-22	CCB		1		09/04/19 14:53
71	NI.090419.145606	M9H1808-01@50	M9H1808-01@50		1		09/04/19 14:56
72	NI.090419.145859	B9H1564-MS2@50	B9H1564-MS2@50		1		09/04/19 14:58
73	NI.090419.150151	B9H1564-MSD2@50	B9H1564-MSD2@50		1		09/04/19 15:01
74	NI.090419.150445	WG710712-23	CCV		1		09/04/19 15:04
75	NI.090419.150734	WG710712-24	CCB		1		09/04/19 15:07
76	NI.090419.151600	WG710688-02	Method/Prep Blank	.4/100	1		09/04/19 15:16
77	NI.090419.151852	WG710688-03	Laboratory Control S	.4/100	1		09/04/19 15:18
78	NI.090419.152145	L19080178-08	GN-SO-04-1		1	WG710688-01	09/04/19 15:21
79	NI.090419.152437	L19080178-09	GN-SO-04-1	.404/100	1	WG710688-04	09/04/19 15:24
80	NI.090419.152729	L19080178-10	GN-SO-04-1	.406/100	1	WG710688-05	09/04/19 15:27
81	NI.090419.153021	WG710720-01	Post Digestion Spike		1	L19080178-08	09/04/19 15:30
82	NI.090419.153312	WG710720-02	Serial Dilution		5	L19080178-08	09/04/19 15:33
83	NI.090419.153606	WG710712-25	CCV		1		09/04/19 15:36
84	NI.090419.153859	WG710712-26	CCB		1		09/04/19 15:38
85	NI.090419.154535	L19080178-08	GN-SO-04-1		10	WG710688-01	09/04/19 15:45
86	NI.090419.154827	L19080178-09	GN-SO-04-1	.404/100	10	WG710688-04	09/04/19 15:48
87	NI.090419.155119	L19080178-10	GN-SO-04-1	.406/100	10	WG710688-05	09/04/19 15:51
88	NI.090419.155411	WG710720-01	Post Digestion Spike		10	L19080178-08	09/04/19 15:54
89	NI.090419.155702	WG710720-02	Serial Dilution		50	L19080178-08	09/04/19 15:57
90	NI.090419.155956	WG710712-27	CCV		1		09/04/19 15:59
91	NI.090419.160250	WG710712-28	CCB		1		09/04/19 16:02
92	NI.090419.160541	L19080178-14	GN-SO-DUP-2	.404/100	1		09/04/19 16:05
93	NI.090419.160835	L19080178-15	GN-SO-06-1	.429/100	1		09/04/19 16:08
94	NI.090419.161127	L19080178-16	GN-SO-06-2	.401/100	1		09/04/19 16:11
95	NI.090419.161420	L19080178-17	GN-SO-07-1	.406/100	1		09/04/19 16:14
96	NI.090419.161713	L19080178-18	GN-SO-07-2	.421/100	1		09/04/19 16:17
97	NI.090419.162006	L19080178-19	GN-SO-08-1	.408/100	1		09/04/19 16:20
98	NI.090419.162258	L19080178-20	GN-SO-08-2	.4/100	1		09/04/19 16:22
99	NI.090419.162550	L19080178-21	GN-SO-09C-1	.4/100	1		09/04/19 16:25
100	NI.090419.162924	L19080178-17	GN-SO-07-1	.406/100	10		09/04/19 16:29
101	NI.090419.163217	WG710712-29	CCV		1		09/04/19 16:32
102	NI.090419.163511	WG710712-30	CCB		1		09/04/19 16:35

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Kym H. Rhoden

Microbac

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-MS2 Dataset: 090419A.REP
Analyst1: JYH Analyst2: N/A
Method: 6020/6020A/200.8 SOP: ME700A Rev: 4
Maintenance Log ID:

Calibration Std: STD94600 ICV Std: STD94602 Post Spike: STD93385
ICSA: STD94603 ICSAB: STD94604 Int. Std: RGT47892
CCV: STD94601 LLCCV: COA21307 Tuning Sol : STD94599
Stannous : Hydroxylamine :

Workgroups: 710698,710528,b9h1564,710720,b9i0068

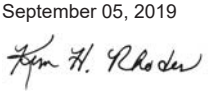
Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
103	NI.090419.163852	B9I0068-BLK1	B9I0068-BLK1		1		09/04/19 16:38
104	NI.090419.164144	B9I0068-BS1	B9I0068-BS1		1		09/04/19 16:41
105	NI.090419.164437	M9H2013-01	M9H2013-01		1		09/04/19 16:44
106	NI.090419.164729	B9I0068-MS1	B9I0068-MS1		1		09/04/19 16:47
107	NI.090419.165022	B9I0068-MSD1	B9I0068-MSD1		1		09/04/19 16:50
108	NI.090419.165314	M9H2013-01RE1@1	M9H2013-01RE1@10		1		09/04/19 16:53
109	NI.090419.165607	B9I0068-MS2@10	B9I0068-MS2@10		1		09/04/19 16:56
110	NI.090419.165858	B9I0068-MSD2@10	B9I0068-MSD2@10		1		09/04/19 16:58
111	NI.090419.170152	WG710712-31	CCV		1		09/04/19 17:01
112	NI.090419.170446	WG710712-32	CCB		1		09/04/19 17:04
113	NI.090419.170738	M9I0075-01	M9I0075-01		1		09/04/19 17:07
114	NI.090419.171031	B9I0068-PS1	B9I0068-PS1		1		09/04/19 17:10
115	NI.090419.171324	B9I0068-SRL1@5	B9I0068-SRL1@5		1		09/04/19 17:13
116	NI.090419.171618	M9I0075-01RE1@10	M9I0075-01RE1@10		1		09/04/19 17:16
117	NI.090419.171910	B9I0068-PS2	B9I0068-PS2		1		09/04/19 17:19
118	NI.090419.172203	B9I0068-SRL2@50	B9I0068-SRL2@50		1		09/04/19 17:22
119	NI.090419.172457	WG710712-33	CCV		1		09/04/19 17:24
120	NI.090419.172751	WG710712-34	CCB		1		09/04/19 17:27

Comments

Seq.	Rerun	Dil.	Reason	Analytes
37			Wrong sample label. JYH	

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Microbac Laboratories Inc.

Data Checklist

Date: 04-SEP-2019
Analyst: JYH
Analyst: NA
Method: 6020/6020A/200.8
Instrument: ICP-MS2
Curve Workgroup: 710712
Runlog ID: 98072
Analytical Workgroups: 710698,710528,B9H1564,710720,B9I0068

STD ID#s on Runlog	X
Calibration/Linearity	X
ICV/CCV	X
ICV RSD < 3% (EPA 200.7 only)	
ICB/CCB	X
ICSA/ICSAB	X
CRI	
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	X
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	159,160,178
Client Forms	X
Level X	
Level 3	
Level 4	159,160,178,148,149
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	JYH
Secondary Reviewer	KHR
Comments	

Primary Reviewer:

Secondary Reviewer:
05-SEP-2019

CHECKLIST1 - Modified 03/05/2008
Generated: SEP-05-2019 10:07:05

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 6020 AAB#: WG710698

Login Number: L19080178

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
GN-SO-01-1	01	08/26/19					09/03/2019	7.9	180		09/04/19	9.1	180	
GN-SO-01-2	02	08/26/19					09/03/2019	7.9	180		09/04/19	9	180	
GN-SO-02-1	03	08/26/19					09/03/2019	7.8	180		09/04/19	9	180	
GN-SO-DUP-1	04	08/26/19					09/03/2019	7.9	180		09/04/19	9.1	180	
GN-SO-02-2	05	08/26/19					09/03/2019	7.8	180		09/04/19	9	180	
GN-SO-03-1	06	08/26/19					09/03/2019	7.8	180		09/04/19	9	180	
GN-SO-03-2	07	08/26/19					09/03/2019	7.8	180		09/04/19	9	180	
GN-SO-04-2	11	08/26/19					09/03/2019	7.7	180		09/04/19	8.9	180	
GN-SO-04-2	11	08/26/19					09/03/2019	7.7	180		09/04/19	9	180	
GN-SO-05-1	12	08/26/19					09/03/2019	7.7	180		09/04/19	8.9	180	
GN-SO-05-2	13	08/26/19					09/03/2019	7.7	180		09/04/19	8.9	180	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 6461284
Report generated 09/05/2019 06:38

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 6020 AAB#: WG710720

Login Number: L19080178

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
GN-SO-04-1	08	08/26/19					09/04/2019	8.7	180		09/04/19	9.1	180	
GN-SO-04-1	08	08/26/19					09/04/2019	8.7	180		09/04/19	9.1	180	
GN-SO-04-1	09	08/26/19					09/04/2019	8.7	180		09/04/19	9.1	180	
GN-SO-04-1	09	08/26/19					09/04/2019	8.7	180		09/04/19	9.1	180	
GN-SO-04-1	10	08/26/19					09/04/2019	8.7	180		09/04/19	9.1	180	
GN-SO-04-1	10	08/26/19					09/04/2019	8.7	180		09/04/19	9.1	180	
GN-SO-DUP-2	14	08/26/19					09/04/2019	8.7	180		09/04/19	9.1	180	
GN-SO-06-1	15	08/26/19					09/04/2019	8.7	180		09/04/19	9.1	180	
GN-SO-06-2	16	08/26/19					09/04/2019	8.7	180		09/04/19	9	180	
GN-SO-07-1	17	08/26/19					09/04/2019	8.7	180		09/04/19	9	180	
GN-SO-07-1	17	08/26/19					09/04/2019	8.7	180		09/04/19	9.1	180	
GN-SO-07-2	18	08/26/19					09/04/2019	8.7	180		09/04/19	9	180	
GN-SO-08-1	19	08/26/19					09/04/2019	8.7	180		09/04/19	9	180	
GN-SO-08-2	20	08/26/19					09/04/2019	8.6	180		09/04/19	9	180	
GN-SO-09C-1	21	08/26/19					09/04/2019	8.6	180		09/04/19	9	180	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 6461284
Report generated 09/05/2019 06:38

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L19080178
Blank File ID: NI.090419.114650
Prep Date: 09/03/19 07:50
Analyzed Date: 09/04/19 11:46
Analyst: JYH

Work Group: WG710698
Blank Sample ID: WG710621-02
Instrument ID: ICP-MS2
Method: 6020

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG710621-03	NI.090419.114942	09/04/19 11:49	01
GN-SO-01-1	L19080178-01	NI.090419.121830	09/04/19 12:18	01
GN-SO-01-2	L19080178-02	NI.090419.122123	09/04/19 12:21	01
GN-SO-02-1	L19080178-03	NI.090419.122416	09/04/19 12:24	01
GN-SO-DUP-1	L19080178-04	NI.090419.122709	09/04/19 12:27	01
GN-SO-02-2	L19080178-05	NI.090419.123002	09/04/19 12:30	01
GN-SO-03-1	L19080178-06	NI.090419.123255	09/04/19 12:32	01
GN-SO-03-2	L19080178-07	NI.090419.123549	09/04/19 12:35	01
GN-SO-04-2	L19080178-11	NI.090419.123842	09/04/19 12:38	01
GN-SO-05-1	L19080178-12	NI.090419.124136	09/04/19 12:41	01
GN-SO-05-2	L19080178-13	NI.090419.124429	09/04/19 12:44	01
GN-SO-04-2	L19080178-11	NI.090419.131859	09/04/19 13:18	DL01

Report Name: BLANK_SUMMARY
PDF File ID: 6461078
Report generated 09/05/2019 06:38

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L19080178
Blank File ID: NI.090419.151600
Prep Date: 09/04/19 07:20
Analyzed Date: 09/04/19 15:16
Analyst: JYH

Work Group: WG710720
Blank Sample ID: WG710688-02
Instrument ID: ICP-MS2
Method: 6020

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG710688-03	NI.090419.151852	09/04/19 15:18	01
GN-SO-04-1	L19080178-08	NI.090419.152145	09/04/19 15:21	01
GN-SO-04-1	L19080178-09	NI.090419.152437	09/04/19 15:24	01
GN-SO-04-1	L19080178-10	NI.090419.152729	09/04/19 15:27	01
GN-SO-04-1	L19080178-08	NI.090419.154535	09/04/19 15:45	DL01
GN-SO-04-1	L19080178-09	NI.090419.154827	09/04/19 15:48	DL01
GN-SO-04-1	L19080178-10	NI.090419.155119	09/04/19 15:51	DL01
GN-SO-DUP-2	L19080178-14	NI.090419.160541	09/04/19 16:05	01
GN-SO-06-1	L19080178-15	NI.090419.160835	09/04/19 16:08	01
GN-SO-06-2	L19080178-16	NI.090419.161127	09/04/19 16:11	01
GN-SO-07-1	L19080178-17	NI.090419.161420	09/04/19 16:14	01
GN-SO-07-2	L19080178-18	NI.090419.161713	09/04/19 16:17	01
GN-SO-08-1	L19080178-19	NI.090419.162006	09/04/19 16:20	01
GN-SO-08-2	L19080178-20	NI.090419.162258	09/04/19 16:22	01
GN-SO-09C-1	L19080178-21	NI.090419.162550	09/04/19 16:25	01
GN-SO-07-1	L19080178-17	NI.090419.162924	09/04/19 16:29	DL01

Report Name: BLANK_SUMMARY
PDF File ID: 6461078
Report generated 09/05/2019 06:38

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L19080178 Prep Date: 09/03/19 07:50 Sample ID: WG710621-02
Instrument ID: ICP-MS2 Run Date: 09/04/19 11:46 Prep Method: 3051A
File ID: NI.090419.114650 Analyst: JYH Method: 6020
Workgroup (AAB#): WG710698 Matrix: Soil Units: mg/kg
Contract #: Cal ID: ICP-MS-04-SEP-19

Analytes	DL	LOQ	Concentration	Dilution	Qualifier
Antimony, Total	0.0800	0.320	0.0800	1	U
Arsenic, Total	0.150	0.600	0.150	1	U
Lead, Total	0.100	0.400	0.100	1	U
Selenium, Total	0.100	0.400	0.100	1	U
Silver, Total	0.100	0.400	0.100	1	U
Thallium, Total	0.0200	0.0800	0.0200	1	U

DL Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name:BLANK
PDF ID: 6461079
05-SEP-2019 06:38

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L19080178 Prep Date: 09/04/19 07:20 Sample ID: WG710688-02
Instrument ID: ICP-MS2 Run Date: 09/04/19 15:16 Prep Method: 3051A
File ID: NI.090419.151600 Analyst: JYH Method: 6020
Workgroup (AAB#): WG710720 Matrix: Soil Units: mg/kg
Contract #: Cal ID: ICP-MS-04-SEP-19

Analytes	DL	LOQ	Concentration	Dilution	Qualifier
Antimony, Total	0.0800	0.320	0.0800	1	U
Arsenic, Total	0.150	0.600	0.150	1	U
Lead, Total	0.100	0.400	0.100	1	U
Selenium, Total	0.100	0.400	0.100	1	U
Silver, Total	0.100	0.400	0.100	1	U
Thallium, Total	0.0200	0.0800	0.0200	1	U

DL Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name:BLANK
PDF ID: 6461079
05-SEP-2019 06:38

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L19080178 Run Date: 09/04/2019 Sample ID: WG710621-03
Instrument ID: ICP-MS2 Run Time: 11:49 Prep Method: 3051A
File ID: NI.090419.114942 Analyst: JYH Method: 6020
Workgroup (AAB#): WG710698 Matrix: Soil Units: mg/kg
QC Key: DOD5 Lot#: STD93481 Cal ID: ICP-MS-04-SEP-19

Analytes	Expected	Found	% Rec	LCS Limits	Q
Antimony, Total	8.00	7.75	96.9	72 - 124	
Arsenic, Total	8.00	7.66	95.7	82 - 118	
Lead, Total	8.00	7.62	95.2	84 - 118	
Selenium, Total	8.00	7.60	95.0	80 - 119	
Silver, Total	8.00	7.86	98.3	83 - 118	
Thallium, Total	1.60	1.52	95.1	83 - 118	

LCS - Modified 03/06/2008
PDF File ID: 6461080
Report generated: 09/05/2019 06:38

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L19080178 Run Date: 09/04/2019 Sample ID: WG710688-03
Instrument ID: ICP-MS2 Run Time: 15:18 Prep Method: 3051A
File ID: NI.090419.151852 Analyst: JYH Method: 6020
Workgroup (AAB#): WG710720 Matrix: Soil Units: mg/kg
QC Key: DOD5 Lot#: STD93481 Cal ID: ICP-MS-04-SEP-19

Analytes	Expected	Found	% Rec	LCS Limits	Q
Antimony, Total	8.00	7.83	97.8	72 - 124	
Arsenic, Total	8.00	8.09	101	82 - 118	
Lead, Total	8.00	7.83	97.9	84 - 118	
Selenium, Total	8.00	7.65	95.7	80 - 119	
Silver, Total	8.00	7.96	99.6	83 - 118	
Thallium, Total	1.60	1.57	98.2	83 - 118	

LCS - Modified 03/06/2008
PDF File ID: 6461080
Report generated: 09/05/2019 06:38

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum: L19080178 Cal ID: ICP-MS2- 04-SEP-19 Worknum: WG710720

Instrument ID: ICP-MS2 Contract #: Prep Method: 3051A

Parent ID: L19080178-08 File ID: NI.090419.152145 Dil: 1 Method: 6020

Sample ID: L19080178-09 MS File ID: NI.090419.152437 Dil: 1 Matrix: Soil

Sample ID: L19080178-10 MSD File ID: NI.090419.152729 Dil: 1 Units: mg/kg

Percent Solid: 78.6

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Antimony, Total	0.871	10.1	10.7	97.2	10.0	10.4	95.1	2.43	72 - 124	20	
Arsenic, Total	16.9	10.1	25.2	82.8	10.0	24.6	76.9	2.53	82 - 118	20	*
Selenium, Total	1.89	10.1	10.5	85.5	10.0	10.3	83.4	2.42	80 - 119	20	
Silver, Total	U	10.1	9.62	95.5	10.0	9.47	94.4	1.63	83 - 118	20	
Thallium, Total	0.197	2.02	2.08	93.3	2.01	2.01	90.2	3.48	83 - 118	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

MS_MSD - Modified 03/06/2008

PDF File ID: 6461285

Report generated 09/05/2019 06:38

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum: L19080178 Cal ID: ICP-MS2- 04-SEP-19 Worknum: WG710720

Instrument ID: ICP-MS2 Contract #: Prep Method: 3051A

Parent ID: L19080178-08 File ID: NI.090419.154535 Dil: 10 Method: 6020

Sample ID: L19080178-09 MS File ID: NI.090419.154827 Dil: 10 Matrix: Soil

Sample ID: L19080178-10 MSD File ID: NI.090419.155119 Dil: 10 Units: mg/kg

Percent Solid: 78.6

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Lead, Total	28.0	10.1	47.3	192	10.0	41.6	136	12.9	84 - 118	20	*

* FAILS %REC LIMIT

FAILS RPD LIMIT

MS_MSD - Modified 03/06/2008

PDF File ID: 6461285

Report generated 09/05/2019 06:38

Microbac Laboratories Inc.

MATRIX SPIKE AND MATRIX SPIKE DUP (MS/MSD)

Loginnum:L19080178 Cal ID:ICP-MS2- Worknum:WG710698

Instrument ID:ICP-MS2 Contract #: Method:6020

Parent ID:WG710621-01 File ID:NI.090419.115235 Dil:1 Matrix:SOLID

Sample ID:WG710621-04 MS File ID:NI.090419.115529 Dil:1 Units:mg/kg

Sample ID:WG710621-05 MSD File ID:NI.090419.115822 Dil:1 Percent Solid:87.8

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Antimony, Total	0.616	9.11	9.33	95.7	9.02	9.07	93.8	2.81	72 - 124	20	
Arsenic, Total	6.74	9.11	16.4	106	9.02	15.6	98.0	5.34	82 - 118	20	
Lead, Total	16.0	9.11	22.9	76.0	9.02	22.0	66.8	3.99	84 - 118	20	*
Selenium, Total	1.70	9.11	9.80	88.9	9.02	9.66	88.3	1.37	80 - 119	20	
Silver, Total	ND	9.11	8.76	96.1	9.02	8.36	92.7	4.63	83 - 118	20	
Thallium, Total	0.120	1.82	1.81	92.6	1.80	1.77	91.4	2.20	83 - 118	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

NOTE: This is an internal quality control sample.

WG_MS_MSD_DRYWT - Modified 05/26/2011

PDF File ID:6461450

Report generated 09/05/2019 11:25

Microbac Laboratories Inc.
Serial Dilution Report

Login: L19080178 **Worknum:** WG710698
Instrument: ICP-MS2 **Method:** 6020
Serial Dil: WG710698-02 **File ID:** NI.090419.120701 **Dil:** 5 **Units:** ug/L
Sample: L19080159-02 **File ID:** NI.090419.120115 **Dil:** 1

Analyte	Sample	Qual	Serial Dil	Qual	% Diff	Q
Antimony	1.60	X	3.10	F	93.50	
Arsenic	42.0	X	45.4	X	8.25	
Lead	42.5		42.5		0.08	
Selenium	8.16	X	8.10	X	0.71	
Silver	ND	U	ND	U		
Thallium	0.541	X	0.575	F	6.17	

U = Result is below MDL.
F = Result is greater than or equal to MDL and less than the RL.
X = Result is greater than or equal to RL and less than 100 times the MDL.
E = %D exceeds control limit of 10% and initial sample result is greater than or equal to 100 times the MDL.

SERIAL_DIL - Modified 09/22/2008
PDF File ID: 6461076
09/05/2019 06:38

Microbac Laboratories Inc.
Serial Dilution Report

Login: L19080178 **Worknum:** WG710720
Instrument: ICP-MS2 **Method:** 6020
Serial Dil: WG710720-02 **File ID:** NI.090419.153312 **Dil:** 5 **Units:** ug/L
Sample: L19080178-08 **File ID:** NI.090419.152145 **Dil:** 1

Analyte	Sample	Qual	Serial Dil	Qual	% Diff	Q
Antimony	2.75	X	2.85	F	3.59	
Arsenic	53.3	X	56.5	X	6.00	
Lead	89.7		89.5		0.23	
Selenium	5.98	X	5.77	F	3.42	
Silver	ND	U	ND	U		
Thallium	0.622	X	0.685	F	10.10	

U = Result is below MDL.
F = Result is greater than or equal to MDL and less than the RL.
X = Result is greater than or equal to RL and less than 100 times the MDL.
E = %D exceeds control limit of 10% and initial sample result is greater than or equal to 100 times the MDL.

SERIAL_DIL - Modified 09/22/2008
PDF File ID: 6461076
09/05/2019 06:38

Microbac Laboratories Inc.
Serial Dilution Report

Login: L19080178 **Worknum:** WG710720
Instrument: ICP-MS2 **Method:** 6020
Serial Dil: WG710720-02 **File ID:** NI.090419.155702 **Dil:** 50 **Units:** ug/L
Sample: L19080178-08 **File ID:** NI.090419.154535 **Dil:** 10

Analyte	Sample	Qual	Serial Dil	Qual	% Diff	Q
Antimony	ND	U	38.1	F	1520.00	
Arsenic	54.4	X	68.5	F	25.90	
Lead	88.3	X	87.8	X	0.59	
Selenium	4.90	F	21.7	F	343.00	
Silver	ND	U	ND	U		
Thallium	ND	U	ND	U		

U = Result is below MDL.
F = Result is greater than or equal to MDL and less than the RL.
X = Result is greater than or equal to RL and less than 100 times the MDL.
E = %D exceeds control limit of 10% and initial sample result is greater than or equal to 100 times the MDL.

SERIAL_DIL - Modified 09/22/2008
PDF File ID: 6461076
09/05/2019 06:38

Microbac Laboratories Inc.
POST SPIKE REPORT

Sample Login ID: L19080178 **Worknum:** WG710698
Instrument ID: ICP-MS2 **Method:** 6020
Post Spike ID: WG710698-01 **File ID:** NI.090419.120408 **Dil:** 1 **Units:** ug/L
Sample ID: L19080159-02 **File ID:** NI.090419.120115 **Dil:** 1 **Matrix:** Soil

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
ANTIMONY	37.5		1.60		40	89.7	80 - 120	
ARSENIC	78.2		42.0		40	90.5	80 - 120	
LEAD	77.1		42.5		40	86.6	80 - 120	
SELENIUM	41.7		8.16		40	83.7	80 - 120	
SILVER	36.8		0	U	40	92.0	80 - 120	
THALLIUM	7.56		0.541		8	87.7	80 - 120	

N = % Recovery exceeds control limits
F = Result is between MDL and RL
U = Sample result is below MDL. A value of zero is used in the calculation

POST_SPIKE - Modified 03/06/2008
PDF File ID: 6461077
Report generated: 09/05/2019 06:38

Microbac Laboratories Inc.
POST SPIKE REPORT

Sample Login ID: L19080178 **Worknum:** WG710720
Instrument ID: ICP-MS2 **Method:** 6020
Post Spike ID: WG710720-01 **File ID:** NI.090419.153021 **Dil:** 1 **Units:** ug/L
Sample ID: L19080178-08 **File ID:** NI.090419.152145 **Dil:** 1 **Matrix:** Soil

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
ANTIMONY	40.4		2.75		40	94.1	80 - 120	
ARSENIC	87.2		53.3		40	84.8	80 - 120	
LEAD	123		89.7		40	83.1	80 - 120	
SELENIUM	40.6		5.98		40	86.5	80 - 120	
SILVER	37.3		0	U	40	93.2	80 - 120	
THALLIUM	7.73		0.622		8	88.9	80 - 120	

N = % Recovery exceeds control limits
F = Result is between MDL and RL
U = Sample result is below MDL. A value of zero is used in the calculation

POST_SPIKE - Modified 03/06/2008
PDF File ID: 6461077
Report generated: 09/05/2019 06:38

Microbac Laboratories Inc.
POST SPIKE REPORT

Sample Login ID: L19080178 **Worknum:** WG710720
Instrument ID: ICP-MS2 **Method:** 6020
Post Spike ID: WG710720-01 **File ID:** NI.090419.155411 **Dil:** 10 **Units:** ug/L
Sample ID: L19080178-08 **File ID:** NI.090419.154535 **Dil:** 10 **Matrix:** Soil

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
ANTIMONY	40.5		0	U	40	101.4	80 - 120	
ARSENIC	51.4		5.44		40	114.9	80 - 120	
LEAD	52.4		8.83		40	109.0	80 - 120	
SELENIUM	45.1		0.490	F	40	111.5	80 - 120	
SILVER	45.7		0	U	40	114.3	80 - 120	
THALLIUM	8.44		0	U	8	105.5	80 - 120	

N = % Recovery exceeds control limits
F = Result is between MDL and RL
U = Sample result is below MDL. A value of zero is used in the calculation

POST_SPIKE - Modified 03/06/2008
PDF File ID: 6461077
Report generated: 09/05/2019 06:38

Microbac Laboratories Inc.
Initial Calibration Summary

Login:	L19080178	Workgroup (AAB#):	WG710698
Analytical Method:	6020	Instrument ID:	ICP-MS2
ICAL Worknum:	WG710712	Initial Calibration Date:	04-SEP-2019 11:22

	WG710712-01		WG710712-02		WG710712-03		WG710712-04		WG710712-05			
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	Conc	INT	R	Q
ANTIMONY	0	67.3	.4	575	2	2980	40	69600	80	149000	.999966	
ARSENIC	0	720	.4	882	2	1540	40	17600	80	35300	.999997	
LEAD	0	704	.4	4090	2	18000	40	358000	80	740000	.999997	
SELENIUM	0	12.8	.4	20.8	2	46.8	40	696	80	1400	.999992	
SILVER	0	149	.4	2730	2	13400	40	282000	80	588000	.999997	
THALLIUM	0	2.70	.08	355	.4	1820	8	37900	16	78700	.999995	

INT = Instrument intensity
R = Coefficient of correlation
Q = Data Qualifier
*** = Out of Compliance; R < 0.995**

INT_CAL_ICP - Modified 03/06/2008
PDF File ID: 6461287
Report generated: 05-SEP-2019 06:38

Microbac Laboratories Inc.
Initial Calibration Summary

Login:	L19080178	Workgroup (AAB#):	WG710720
Analytical Method:	6020	Instrument ID:	ICP-MS2
ICAL Worknum:	WG710712	Initial Calibration Date:	04-SEP-2019 11:22

	WG710712-01		WG710712-02		WG710712-03		WG710712-04		WG710712-05			
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	Conc	INT	R	Q
ANTIMONY	0	67.3	.4	575	2	2980	40	69600	80	149000	.999966	
ARSENIC	0	720	.4	882	2	1540	40	17600	80	35300	.999997	
LEAD	0	704	.4	4090	2	18000	40	358000	80	740000	.999997	
SELENIUM	0	12.8	.4	20.8	2	46.8	40	696	80	1400	.999992	
SILVER	0	149	.4	2730	2	13400	40	282000	80	588000	.999997	
THALLIUM	0	2.70	.08	355	.4	1820	8	37900	16	78700	.999995	

INT = Instrument intensity
R = Coefficient of correlation
Q = Data Qualifier
*** = Out of Compliance; R < 0.995**

INT_CAL_ICP - Modified 03/06/2008
PDF File ID: 6461287
Report generated: 05-SEP-2019 06:38

Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L19080178 Run Date: 09/04/2019 Sample ID: WG710712-07
Instrument ID: ICP-MS2 Run Time: 11:28 Method: 6020
File ID: NI.090419.112846 Analyst: JYH Units: ug/L
Workgroup (AAB#): WG710698 Cal ID: ICP-MS2 - 04-SEP-19
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
SILVER	.4	1.6	.4	U
ARSENIC	.6	2.4	.6	U
LEAD	.4	1.6	.4	U
ANTIMONY	.32	1.28	.639	F
SELENIUM	.4	1.6	.4	U
THALLIUM	.08	.32	.08	U

U = Result is less than 2 x MDL
F = Result is between MDL and 2 x MDL
* = Result is above 2 x MDL

ICB - Modified 07/14/2009
PDF File ID: 6461289
Report generated 09/05/2019 06:37

Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L19080178 Run Date: 09/04/2019 Sample ID: WG710712-07
Instrument ID: ICP-MS2 Run Time: 11:28 Method: 6020
File ID: NI.090419.112846 Analyst: JYH Units: ug/L
Workgroup (AAB#): WG710720 Cal ID: ICP-MS2 - 04-SEP-19
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
SILVER	.4	1.6	.4	U
ARSENIC	.6	2.4	.6	U
LEAD	.4	1.6	.4	U
ANTIMONY	.32	1.28	.639	F
SELENIUM	.4	1.6	.4	U
THALLIUM	.08	.32	.08	U

U = Result is less than 2 x MDL
F = Result is between MDL and 2 x MDL
* = Result is above 2 x MDL

ICB - Modified 07/14/2009
PDF File ID: 6461289
Report generated 09/05/2019 06:37

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L19080178 Run Date: 09/04/2019 Sample ID: WG710712-12

Instrument ID: ICP-MS2 Run Time: 11:43 Method: 6020

File ID: NI.090419.114356 Analyst: JYH Units: ug/L

Workgroup (AAB#): WG710698 Cal ID: ICP-MS - 04-SEP-19

Matrix: WATER QAPP: DOD5

Analytes	MDL	RDL	Concentration	Qualifier
Antimony	0.320	1.28	0.600	F
Arsenic	0.600	2.40	0.600	U
Lead	0.400	1.60	0.400	U
Selenium	0.400	1.60	0.400	U
Silver	0.400	1.60	0.400	U
Thallium	0.0800	0.320	0.0800	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 6461292
Report generated 09/05/2019 06:37

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L19080178 Run Date: 09/04/2019 Sample ID: WG710712-14

Instrument ID: ICP-MS2 Run Time: 12:15 Method: 6020

File ID: NI.090419.121537 Analyst: JYH Units: ug/L

Workgroup (AAB#): WG710698 Cal ID: ICP-MS - 04-SEP-19

Matrix: WATER QAPP: DOD5

Analytes	MDL	RDL	Concentration	Qualifier
Antimony	0.320	1.28	0.528	F
Arsenic	0.600	2.40	0.600	U
Lead	0.400	1.60	0.400	U
Selenium	0.400	1.60	0.400	U
Silver	0.400	1.60	0.400	U
Thallium	0.0800	0.320	0.0800	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 6461292
Report generated 09/05/2019 06:37

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number:	L19080178	Run Date:	09/04/2019	Sample ID:	WG710712-16
Instrument ID:	ICP-MS2	Run Time:	12:50	Method:	6020
File ID:	NI.090419.125019	Analyst:	JYH	Units:	ug/L
Workgroup (AAB#):	WG710698	Cal ID:	ICP-MS - 04-SEP-19		
Matrix:	WATER	QAPP:	DOD5		

Analytes	MDL	RDL	Concentration	Qualifier
Antimony	0.320	1.28	0.447	F
Arsenic	0.600	2.40	0.600	U
Lead	0.400	1.60	0.400	U
Selenium	0.400	1.60	0.400	U
Silver	0.400	1.60	0.400	U
Thallium	0.0800	0.320	0.0800	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 6461292
Report generated 09/05/2019 06:37

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CONTINUING CALIBRATION BLANK (CCB)

Login Number: L19080178 Run Date: 09/04/2019 Sample ID: WG710712-18

Instrument ID: ICP-MS2 Run Time: 13:27 Method: 6020

File ID: NI.090419.132740 Analyst: JYH Units: ug/L

Workgroup (AAB#): WG710698 Cal ID: ICP-MS - 04-SEP-19

Matrix: WATER QAPP: DOD5

Analytes	MDL	RDL	Concentration	Qualifier
Antimony	0.320	1.28	0.444	F
Arsenic	0.600	2.40	0.600	U
Lead	0.400	1.60	0.400	U
Selenium	0.400	1.60	0.400	U
Silver	0.400	1.60	0.400	U
Thallium	0.0800	0.320	0.0800	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 6461292
Report generated 09/05/2019 06:37

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L19080178 Run Date: 09/04/2019 Sample ID: WG710712-12

Instrument ID: ICP-MS2 Run Time: 11:43 Method: 6020

File ID: NI.090419.114356 Analyst: JYH Units: ug/L

Workgroup (AAB#): WG710720 Cal ID: ICP-MS - 04-SEP-19

Matrix: WATER QAPP: DOD5

Analytes	MDL	RDL	Concentration	Qualifier
Antimony	0.320	1.28	0.600	F
Arsenic	0.600	2.40	0.600	U
Lead	0.400	1.60	0.400	U
Selenium	0.400	1.60	0.400	U
Silver	0.400	1.60	0.400	U
Thallium	0.0800	0.320	0.0800	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 6461292
Report generated 09/05/2019 06:37

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L19080178 Run Date: 09/04/2019 Sample ID: WG710712-24

Instrument ID: ICP-MS2 Run Time: 15:07 Method: 6020

File ID: NI.090419.150734 Analyst: JYH Units: ug/L

Workgroup (AAB#): WG710720 Cal ID: ICP-MS - 04-SEP-19

Matrix: WATER QAPP: DOD5

Analytes	MDL	RDL	Concentration	Qualifier
Antimony	0.320	1.28	0.484	F
Arsenic	0.600	2.40	0.600	U
Lead	0.400	1.60	0.400	U
Selenium	0.400	1.60	0.400	U
Silver	0.400	1.60	0.400	U
Thallium	0.0800	0.320	0.0800	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 6461292
Report generated 09/05/2019 06:37

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L19080178 Run Date: 09/04/2019 Sample ID: WG710712-26

Instrument ID: ICP-MS2 Run Time: 15:38 Method: 6020

File ID: NI.090419.153859 Analyst: JYH Units: ug/L

Workgroup (AAB#): WG710720 Cal ID: ICP-MS - 04-SEP-19

Matrix: WATER QAPP: DOD5

Analytes	MDL	RDL	Concentration	Qualifier
Antimony	0.320	1.28	0.469	F
Arsenic	0.600	2.40	0.600	U
Lead	0.400	1.60	0.400	U
Selenium	0.400	1.60	0.400	U
Silver	0.400	1.60	0.400	U
Thallium	0.0800	0.320	0.0800	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 6461292
Report generated 09/05/2019 06:37

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L19080178 Run Date: 09/04/2019 Sample ID: WG710712-28

Instrument ID: ICP-MS2 Run Time: 16:02 Method: 6020

File ID: NI.090419.160250 Analyst: JYH Units: ug/L

Workgroup (AAB#): WG710720 Cal ID: ICP-MS - 04-SEP-19

Matrix: WATER QAPP: DOD5

Analytes	MDL	RDL	Concentration	Qualifier
Antimony	0.320	1.28	0.501	F
Arsenic	0.600	2.40	0.600	U
Lead	0.400	1.60	0.400	U
Selenium	0.400	1.60	0.400	U
Silver	0.400	1.60	0.400	U
Thallium	0.0800	0.320	0.0800	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
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Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L19080178 Run Date: 09/04/2019 Sample ID: WG710712-30

Instrument ID: ICP-MS2 Run Time: 16:35 Method: 6020

File ID: NI.090419.163511 Analyst: JYH Units: ug/L

Workgroup (AAB#): WG710720 Cal ID: ICP-MS - 04-SEP-19

Matrix: WATER QAPP: DOD5

Analytes	MDL	RDL	Concentration	Qualifier
Antimony	0.320	1.28	0.449	F
Arsenic	0.600	2.40	0.600	U
Lead	0.400	1.60	0.400	U
Selenium	0.400	1.60	0.400	U
Silver	0.400	1.60	0.400	U
Thallium	0.0800	0.320	0.0800	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 6461292
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Microbac Laboratories Inc.

INITIAL CALIBRATION VERIFICATION (ICV)
(Alternate Source)

Login Number: L19080178 Run Date: 09/04/2019 Sample ID: WG710712-06
Instrument ID: ICP-MS2 Run Time: 11:25 Method: 6020
File ID: NI.090419.112551 Analyst: JYH Units: ug/L
Workgroup (AAB#): WG710698 Cal ID: ICP-MS - 04-SEP-19
QC Key: DOD5

Analyte		Expected	Found	%REC	LIMITS	Q
Antimony		32	31.9	99.6	90 - 110	
Arsenic		32	30.5	95.3	90 - 110	
Lead		32	30.2	94.3	90 - 110	
Selenium		32	30.7	95.8	90 - 110	
Silver		32	31.0	97.0	90 - 110	
Thallium		6.4	6.07	94.9	90 - 110	

* Exceeds LIMITS Limit

ICV - Modified 03/06/2008
PDF File ID: 6461288
Report generated 09/05/2019 06:38

Microbac Laboratories Inc.

INITIAL CALIBRATION VERIFICATION (ICV)
(Alternate Source)

Login Number: L19080178 Run Date: 09/04/2019 Sample ID: WG710712-06
Instrument ID: ICP-MS2 Run Time: 11:25 Method: 6020
File ID: NI.090419.112551 Analyst: JYH Units: ug/L
Workgroup (AAB#): WG710720 Cal ID: ICP-MS - 04-SEP-19
QC Key: DOD5

Analyte		Expected	Found	%REC	LIMITS	Q
Antimony		32	31.9	99.6	90 - 110	
Arsenic		32	30.5	95.3	90 - 110	
Lead		32	30.2	94.3	90 - 110	
Selenium		32	30.7	95.8	90 - 110	
Silver		32	31.0	97.0	90 - 110	
Thallium		6.4	6.07	94.9	90 - 110	

* Exceeds LIMITS Limit

ICV - Modified 03/06/2008
PDF File ID: 6461288
Report generated 09/05/2019 06:38

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L19080178 Run Date: 09/04/2019 Sample ID: WG710712-11

Instrument ID: ICP-MS2 Run Time: 11:41 Method: 6020

File ID: NI.090419.114102 Analyst: JYH QC Key: DOD5

Workgroup (AAB#): WG710698 Cal ID: ICP-MS - 04-SEP-19

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Antimony		0.0320	0.0309	mg/kg	96.5	90 - 110		
Arsenic		0.0320	0.0296	mg/kg	92.6	90 - 110		
Lead		0.0320	0.0297	mg/kg	92.9	90 - 110		
Selenium		0.0320	0.0297	mg/kg	92.9	90 - 110		
Silver		0.0320	0.0308	mg/kg	96.1	90 - 110		
Thallium		0.00640	0.00601	mg/kg	93.9	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 6461291

Report generated 09/05/2019 06:38

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L19080178 Run Date: 09/04/2019 Sample ID: WG710712-13
Instrument ID: ICP-MS2 Run Time: 12:12 Method: 6020
File ID: NI.090419.121243 Analyst: JYH QC Key: DOD5
Workgroup (AAB#): WG710698 Cal ID: ICP-MS - 04-SEP-19
Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Antimony		0.0320	0.0301	mg/kg	94.0	90 - 110		
Arsenic		0.0320	0.0302	mg/kg	94.3	90 - 110		
Lead		0.0320	0.0300	mg/kg	93.8	90 - 110		
Selenium		0.0320	0.0298	mg/kg	93.0	90 - 110		
Silver		0.0320	0.0310	mg/kg	96.9	90 - 110		
Thallium		0.00640	0.00596	mg/kg	93.1	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
PDF File ID: 6461291
Report generated 09/05/2019 06:38

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L19080178 Run Date: 09/04/2019 Sample ID: WG710712-15

Instrument ID: ICP-MS2 Run Time: 12:47 Method: 6020

File ID: NI.090419.124725 Analyst: JYH QC Key: DOD5

Workgroup (AAB#): WG710698 Cal ID: ICP-MS - 04-SEP-19

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Antimony		0.0320	0.0307	mg/kg	95.9	90 - 110		
Arsenic		0.0320	0.0310	mg/kg	97.0	90 - 110		
Lead		0.0320	0.0315	mg/kg	98.4	90 - 110		
Selenium		0.0320	0.0305	mg/kg	95.2	90 - 110		
Silver		0.0320	0.0324	mg/kg	101	90 - 110		
Thallium		0.00640	0.00625	mg/kg	97.6	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 6461291

Report generated 09/05/2019 06:38

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L19080178 Run Date: 09/04/2019 Sample ID: WG710712-17

Instrument ID: ICP-MS2 Run Time: 13:24 Method: 6020

File ID: NI.090419.132447 Analyst: JYH QC Key: DOD5

Workgroup (AAB#): WG710698 Cal ID: ICP-MS - 04-SEP-19

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Antimony		0.0320	0.0300	mg/kg	93.6	90 - 110		
Arsenic		0.0320	0.0303	mg/kg	94.8	90 - 110		
Lead		0.0320	0.0303	mg/kg	94.5	90 - 110		
Selenium		0.0320	0.0301	mg/kg	94.1	90 - 110		
Silver		0.0320	0.0308	mg/kg	96.3	90 - 110		
Thallium		0.00640	0.00598	mg/kg	93.4	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 6461291

Report generated 09/05/2019 06:38

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L19080178 Run Date: 09/04/2019 Sample ID: WG710712-11

Instrument ID: ICP-MS2 Run Time: 11:41 Method: 6020

File ID: NI.090419.114102 Analyst: JYH QC Key: DOD5

Workgroup (AAB#): WG710720 Cal ID: ICP-MS - 04-SEP-19

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Antimony		0.0320	0.0309	mg/kg	96.5	90 - 110		
Arsenic		0.0320	0.0296	mg/kg	92.6	90 - 110		
Lead		0.0320	0.0297	mg/kg	92.9	90 - 110		
Selenium		0.0320	0.0297	mg/kg	92.9	90 - 110		
Silver		0.0320	0.0308	mg/kg	96.1	90 - 110		
Thallium		0.00640	0.00601	mg/kg	93.9	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 6461291

Report generated 09/05/2019 06:38

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L19080178 Run Date: 09/04/2019 Sample ID: WG710712-23

Instrument ID: ICP-MS2 Run Time: 15:04 Method: 6020

File ID: NI.090419.150445 Analyst: JYH QC Key: DOD5

Workgroup (AAB#): WG710720 Cal ID: ICP-MS - 04-SEP-19

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Antimony		0.0320	0.0316	mg/kg	98.7	90 - 110		
Arsenic		0.0320	0.0317	mg/kg	99.2	90 - 110		
Lead		0.0320	0.0311	mg/kg	97.3	90 - 110		
Selenium		0.0320	0.0318	mg/kg	99.4	90 - 110		
Silver		0.0320	0.0323	mg/kg	101	90 - 110		
Thallium		0.00640	0.00610	mg/kg	95.3	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 6461291

Report generated 09/05/2019 06:38

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L19080178 Run Date: 09/04/2019 Sample ID: WG710712-25

Instrument ID: ICP-MS2 Run Time: 15:36 Method: 6020

File ID: NI.090419.153606 Analyst: JYH QC Key: DOD5

Workgroup (AAB#): WG710720 Cal ID: ICP-MS - 04-SEP-19

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Antimony		0.0320	0.0303	mg/kg	94.6	90 - 110		
Arsenic		0.0320	0.0309	mg/kg	96.6	90 - 110		
Lead		0.0320	0.0305	mg/kg	95.3	90 - 110		
Selenium		0.0320	0.0310	mg/kg	96.8	90 - 110		
Silver		0.0320	0.0312	mg/kg	97.6	90 - 110		
Thallium		0.00640	0.00607	mg/kg	94.8	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 6461291

Report generated 09/05/2019 06:38

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L19080178 Run Date: 09/04/2019 Sample ID: WG710712-27

Instrument ID: ICP-MS2 Run Time: 15:59 Method: 6020

File ID: NI.090419.155956 Analyst: JYH QC Key: DOD5

Workgroup (AAB#): WG710720 Cal ID: ICP-MS - 04-SEP-19

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Antimony		0.0320	0.0312	mg/kg	97.5	90 - 110		
Arsenic		0.0320	0.0316	mg/kg	98.6	90 - 110		
Lead		0.0320	0.0310	mg/kg	96.9	90 - 110		
Selenium		0.0320	0.0308	mg/kg	96.2	90 - 110		
Silver		0.0320	0.0316	mg/kg	98.8	90 - 110		
Thallium		0.00640	0.00621	mg/kg	97.0	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 6461291

Report generated 09/05/2019 06:38

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L19080178 Run Date: 09/04/2019 Sample ID: WG710712-29

Instrument ID: ICP-MS2 Run Time: 16:32 Method: 6020

File ID: NI.090419.163217 Analyst: JYH QC Key: DOD5

Workgroup (AAB#): WG710720 Cal ID: ICP-MS - 04-SEP-19

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Antimony		0.0320	0.0311	mg/kg	97.3	90 - 110		
Arsenic		0.0320	0.0318	mg/kg	99.3	90 - 110		
Lead		0.0320	0.0307	mg/kg	95.9	90 - 110		
Selenium		0.0320	0.0312	mg/kg	97.6	90 - 110		
Silver		0.0320	0.0315	mg/kg	98.4	90 - 110		
Thallium		0.00640	0.00607	mg/kg	94.9	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 6461291

Report generated 09/05/2019 06:38

Microbac Laboratories Inc.
LOW LEVEL CALIBRATION VERIFICATION

Login Number: L19080178 Run Date: 09/04/2019 Sample ID: WG710712-08
Instrument ID: ICP-MS2 Run Time: 11:31 Method: 6020
File ID: NI.090419.113139 Analyst: JYH QC Key: DOD5
Workgroup (AAB#): WG710698 Cal ID: ICP-MS - 04-SEP-19
Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Antimony		0.800	0.835	ug/L	104	80 - 120		
Arsenic		0.800	0.740	ug/L	92.5	80 - 120		
Lead		0.800	0.789	ug/L	98.6	80 - 120		
Selenium		0.800	0.739	ug/L	92.3	80 - 120		
Silver		0.800	0.773	ug/L	96.7	80 - 120		
Thallium		0.160	0.161	ug/L	101	80 - 120		

* Exceeds LIMITS Criteria

LLCCV - Modified 1/7/2010
PDF File ID: 6461088
Report generated 09/05/2019 06:38

Microbac Laboratories Inc.
LOW LEVEL CALIBRATION VERIFICATION

Login Number: L19080178 Run Date: 09/04/2019 Sample ID: WG710712-08
Instrument ID: ICP-MS2 Run Time: 11:31 Method: 6020
File ID: NI.090419.113139 Analyst: JYH QC Key: DOD5
Workgroup (AAB#): WG710720 Cal ID: ICP-MS - 04-SEP-19
Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Antimony		0.800	0.835	ug/L	104	80 - 120		
Arsenic		0.800	0.740	ug/L	92.5	80 - 120		
Lead		0.800	0.789	ug/L	98.6	80 - 120		
Selenium		0.800	0.739	ug/L	92.3	80 - 120		
Silver		0.800	0.773	ug/L	96.7	80 - 120		
Thallium		0.160	0.161	ug/L	101	80 - 120		

* Exceeds LIMITS Criteria

LLCCV - Modified 1/7/2010
PDF File ID: 6461088
Report generated 09/05/2019 06:38

Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L19080178 **Workgroup (AAB#):** WG710698
Instrument ID: ICP-MS2 **Method:** 6020
Sol. A : WG710712-09 **File ID:** NI.090419.113516 **Units:** ug/L
Sol. AB : WG710712-10 **File ID:** NI.090419.113808 **Matrix:** Soil

	Sol. A			Sol. AB			
ANALYTE	True	Found	%Recovery	True	Found	%Recovery	Q
Antimony	NS	0.138	NS	100	105	105	
Arsenic	NS	-0.196	NS	100	103	103	
Lead	NS	0.0233	NS	100	97.5	97.5	
Selenium	NS	0.148	NS	100	104	104	
Silver	NS	0.00100	NS	100	91.7	91.7	
Thallium	NS	0.000100	NS	100	97.8	97.8	

NS = Not spiked
*** = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.**
= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).
+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.

ICS - Modified 03/06/2008
PDF File ID: 6461290
Report generated 09/05/2019 06:37

Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L19080178 **Workgroup (AAB#):** WG710720
Instrument ID: ICP-MS2 **Method:** 6020
Sol. A : WG710712-09 **File ID:** NI.090419.113516 **Units:** ug/L
Sol. AB : WG710712-10 **File ID:** NI.090419.113808 **Matrix:** Soil

	Sol. A			Sol. AB			
ANALYTE	True	Found	%Recovery	True	Found	%Recovery	Q
Antimony	NS	0.138	NS	100	105	105	
Arsenic	NS	-0.196	NS	100	103	103	
Lead	NS	0.0233	NS	100	97.5	97.5	
Selenium	NS	0.148	NS	100	104	104	
Silver	NS	0.00100	NS	100	91.7	91.7	
Thallium	NS	0.000100	NS	100	97.8	97.8	

NS = Not spiked
*** = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.**
= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).
+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.

ICS - Modified 03/06/2008
PDF File ID: 6461290
Report generated 09/05/2019 06:37

Microbac Laboratories Inc.

INTERNAL STANDARD REPORT

Login: L19080178 **Analytical Method:** 6020
Analytical Workgroup: WG710698 **Matrix:** 1
Instrument: ICP-MS2 **Analyst:** JYH
ICAL Date: 04-SEP-2019 11:11

			BISMUTH	GERMANIUM	INDIUM	SCANDIUM
Sample	Type	Run Date	% Rec	% Rec	% Rec	% Rec
WG710712-06	ICV	04-SEP-2019 11:25	105.76	106.437	110.634	
WG710712-07	ICB	04-SEP-2019 11:28	97.343	97.123	96.579	
WG710712-08	LLICV	04-SEP-2019 11:31	99.252	101.467	99.661	
WG710712-09	ICS	04-SEP-2019 11:35	98.243	100.108	100.808	
WG710712-10	ICS	04-SEP-2019 11:38	96.206	99.291	101.172	
WG710712-11	CCV	04-SEP-2019 11:41	108.871	108.916	113.783	
WG710712-12	CCB	04-SEP-2019 11:43	99.91	99.419	100.91	
WG710712-13	CCV	04-SEP-2019 12:12	107.051	110.597	113.76	
WG710712-14	CCB	04-SEP-2019 12:15	98.848	101.437	100.386	
WG710712-15	CCV	04-SEP-2019 12:47	102.849	109.401	109.956	
WG710712-16	CCB	04-SEP-2019 12:50	100.27	102.885	101.648	
WG710712-17	CCV	04-SEP-2019 13:24	108.376	111.551	116.262	
WG710712-18	CCB	04-SEP-2019 13:27	101.385	103.933	102.929	

Acceptance criteria: 30% - 120% Underlined recoveries are out of range
Acceptance criteria for CCVs and CCBs for method SW846-6020: 80% - 120%

INT_STD_ICPMS - Modified 07/28/2010
PDF File ID: 6461081
Report generated: 09/05/2019 06:38

Microbac Laboratories Inc.

INTERNAL STANDARD REPORT

Login: L19080178 **Analytical Method:** 6020
Analytical Workgroup: WG710698 **Matrix:** 7
Instrument: ICP-MS2 **Analyst:** JYH
ICAL Date: 04-SEP-2019 11:11

			BISMUTH	GERMANIUM	INDIUM	LITHIUM
Sample	Type	Run Date	% Rec	% Rec	% Rec	% Rec
L19080159-02	SAMP	04-SEP-2019 12:01	100.502	96.597	95.797	
L19080178-01	SAMP	04-SEP-2019 12:18	98.364	108.903	104.417	
L19080178-02	SAMP	04-SEP-2019 12:21	101.098	100.326	97.624	
L19080178-03	SAMP	04-SEP-2019 12:24	100.449	104.727	101.753	
L19080178-04	SAMP	04-SEP-2019 12:27	101.689	107.82	105.272	
L19080178-05	SAMP	04-SEP-2019 12:30	101.531	100.517	99.067	
L19080178-06	SAMP	04-SEP-2019 12:32	101.371	102.123	100.102	
L19080178-07	SAMP	04-SEP-2019 12:35	102.052	98.996	99.177	
L19080178-11	SAMP	04-SEP-2019 12:38	100.693	96.394	97.254	
L19080178-11	SAMP	04-SEP-2019 13:18	103.556	104.59	102.8	
L19080178-12	SAMP	04-SEP-2019 12:41	92.291	100.891	98.838	
L19080178-13	SAMP	04-SEP-2019 12:44	99.041	99.649	96.718	
WG710621-02	BLANK	04-SEP-2019 11:46	99.212	101.117	100.479	
WG710621-03	LCS	04-SEP-2019 11:49	103.367	106.565	107.105	
WG710698-01	PSPK	04-SEP-2019 12:04	100.081	94.569	95.053	
WG710698-02	SERIAL	04-SEP-2019 12:07	100.888	97.342	95.564	

Acceptance criteria: 30% - 120% Underlined recoveries are out of range
Acceptance criteria for CCVs and CCBs for method SW846-6020: 80% - 120%

INT_STD_ICPMS - Modified 07/28/2010
PDF File ID: 6461081
Report generated: 09/05/2019 06:38

Microbac Laboratories Inc.

INTERNAL STANDARD REPORT

Login: L19080178 **Analytical Method:** 6020
Analytical Workgroup: WG710698 **Matrix:** 7
Instrument: ICP-MS2 **Analyst:** JYH
ICAL Date: 04-SEP-2019 11:11

			SCANDIUM
Sample	Type	Run Date	% Rec
L19080159-02	SAMP	04-SEP-2019 12:01	
L19080178-01	SAMP	04-SEP-2019 12:18	
L19080178-02	SAMP	04-SEP-2019 12:21	
L19080178-03	SAMP	04-SEP-2019 12:24	
L19080178-04	SAMP	04-SEP-2019 12:27	
L19080178-05	SAMP	04-SEP-2019 12:30	
L19080178-06	SAMP	04-SEP-2019 12:32	
L19080178-07	SAMP	04-SEP-2019 12:35	
L19080178-11	SAMP	04-SEP-2019 12:38	
L19080178-11	SAMP	04-SEP-2019 13:18	
L19080178-12	SAMP	04-SEP-2019 12:41	
L19080178-13	SAMP	04-SEP-2019 12:44	
WG710621-02	BLANK	04-SEP-2019 11:46	
WG710621-03	LCS	04-SEP-2019 11:49	
WG710698-01	PSPK	04-SEP-2019 12:04	
WG710698-02	SERIAL	04-SEP-2019 12:07	

Acceptance criteria: 30% - 120% Underlined recoveries are out of range
Acceptance criteria for CCVs and CCBs for method SW846-6020: 80% - 120%

INT_STD_ICPMS - Modified 07/28/2010
PDF File ID: 6461081
Report generated: 09/05/2019 06:38

Microbac Laboratories Inc.

INTERNAL STANDARD REPORT

Login: L19080178 **Analytical Method:** 6020
Analytical Workgroup: WG710720 **Matrix:** 1
Instrument: ICP-MS2 **Analyst:** JYH
ICAL Date: 04-SEP-2019 11:11

			BISMUTH	GERMANIUM	INDIUM	SCANDIUM
Sample	Type	Run Date	% Rec	% Rec	% Rec	% Rec
WG710712-06	ICV	04-SEP-2019 11:25	105.76	106.437	110.634	
WG710712-07	ICB	04-SEP-2019 11:28	97.343	97.123	96.579	
WG710712-08	LLICV	04-SEP-2019 11:31	99.252	101.467	99.661	
WG710712-09	ICS	04-SEP-2019 11:35	98.243	100.108	100.808	
WG710712-10	ICS	04-SEP-2019 11:38	96.206	99.291	101.172	
WG710712-11	CCV	04-SEP-2019 11:41	108.871	108.916	113.783	
WG710712-12	CCB	04-SEP-2019 11:43	99.91	99.419	100.91	
WG710712-23	CCV	04-SEP-2019 15:04	107.336	108.72	114.077	
WG710712-24	CCB	04-SEP-2019 15:07	100.556	104.477	104.263	
WG710712-25	CCV	04-SEP-2019 15:36	107.643	111.62	116.427	
WG710712-26	CCB	04-SEP-2019 15:38	100.237	103.916	101.861	
WG710712-27	CCV	04-SEP-2019 15:59	107.264	110.932	116.175	
WG710712-28	CCB	04-SEP-2019 16:02	102.674	106.896	106.326	
WG710712-29	CCV	04-SEP-2019 16:32	110.102	108.502	115.698	
WG710712-30	CCB	04-SEP-2019 16:35	103.698	102.325	105.451	

Acceptance criteria: 30% - 120% Underlined recoveries are out of range
Acceptance criteria for CCVs and CCBs for method SW846-6020: 80% - 120%

INT_STD_ICPMS - Modified 07/28/2010
PDF File ID: 6461081
Report generated: 09/05/2019 06:38

Microbac Laboratories Inc.

INTERNAL STANDARD REPORT

Login: L19080178 **Analytical Method:** 6020
Analytical Workgroup: WG710720 **Matrix:** 7
Instrument: ICP-MS2 **Analyst:** JYH
ICAL Date: 04-SEP-2019 11:11

			BISMUTH	GERMANIUM	INDIUM	LITHIUM
Sample	Type	Run Date	% Rec	% Rec	% Rec	% Rec
L19080178-08	SAMP	04-SEP-2019 15:21	98.553	101.829	97.744	
L19080178-08	SAMP	04-SEP-2019 15:45	104.784	107.816	108.05	
L19080178-09	SAMP	04-SEP-2019 15:24	98.316	102.631	98.808	
L19080178-09	SAMP	04-SEP-2019 15:48	105.362	106.182	106.156	
L19080178-10	SAMP	04-SEP-2019 15:27	99.358	100.665	97.532	
L19080178-10	SAMP	04-SEP-2019 15:51	105.431	106.396	105.696	
L19080178-14	SAMP	04-SEP-2019 16:05	101.184	102.765	98.985	
L19080178-15	SAMP	04-SEP-2019 16:08	98.498	108.254	105.365	
L19080178-16	SAMP	04-SEP-2019 16:11	98.911	110.017	104.68	
L19080178-17	SAMP	04-SEP-2019 16:14	94.071	103.975	101.915	
L19080178-17	SAMP	04-SEP-2019 16:29	100.588	95.922	101.619	
L19080178-18	SAMP	04-SEP-2019 16:17	97.429	103.878	100.186	
L19080178-19	SAMP	04-SEP-2019 16:20	91.71	97.991	97.624	
L19080178-20	SAMP	04-SEP-2019 16:22	98.493	104.204	102.229	
L19080178-21	SAMP	04-SEP-2019 16:25	102.181	104.553	100.057	
WG710688-02	BLANK	04-SEP-2019 15:16	101.542	106.992	105.426	
WG710688-03	LCS	04-SEP-2019 15:18	101.881	108.664	109.423	
WG710720-01	PSPK	04-SEP-2019 15:30	99.398	102.563	99.295	
WG710720-01	PSPK	04-SEP-2019 15:54	103.469	104.146	103.708	
WG710720-02	SERIAL	04-SEP-2019 15:33	101.111	103.517	101.287	
WG710720-02	SERIAL	04-SEP-2019 15:57	103.736	103.294	104.025	

Acceptance criteria: 30% - 120% Underlined recoveries are out of range
Acceptance criteria for CCVs and CCBs for method SW846-6020: 80% - 120%

INT_STD_ICPMS - Modified 07/28/2010
PDF File ID: 6461081
Report generated: 09/05/2019 06:38

Microbac Laboratories Inc.

INTERNAL STANDARD REPORT

Login: L19080178 **Analytical Method:** 6020
Analytical Workgroup: WG710720 **Matrix:** 7
Instrument: ICP-MS2 **Analyst:** JYH
ICAL Date: 04-SEP-2019 11:11

			SCANDIUM
Sample	Type	Run Date	% Rec
L19080178-08	SAMP	04-SEP-2019 15:21	
L19080178-08	SAMP	04-SEP-2019 15:45	
L19080178-09	SAMP	04-SEP-2019 15:24	
L19080178-09	SAMP	04-SEP-2019 15:48	
L19080178-10	SAMP	04-SEP-2019 15:27	
L19080178-10	SAMP	04-SEP-2019 15:51	
L19080178-14	SAMP	04-SEP-2019 16:05	
L19080178-15	SAMP	04-SEP-2019 16:08	
L19080178-16	SAMP	04-SEP-2019 16:11	
L19080178-17	SAMP	04-SEP-2019 16:14	
L19080178-17	SAMP	04-SEP-2019 16:29	
L19080178-18	SAMP	04-SEP-2019 16:17	
L19080178-19	SAMP	04-SEP-2019 16:20	
L19080178-20	SAMP	04-SEP-2019 16:22	
L19080178-21	SAMP	04-SEP-2019 16:25	
WG710688-02	BLANK	04-SEP-2019 15:16	
WG710688-03	LCS	04-SEP-2019 15:18	
WG710720-01	PSPK	04-SEP-2019 15:30	
WG710720-01	PSPK	04-SEP-2019 15:54	
WG710720-02	SERIAL	04-SEP-2019 15:33	
WG710720-02	SERIAL	04-SEP-2019 15:57	

Acceptance criteria: 30% - 120% Underlined recoveries are out of range
Acceptance criteria for CCVs and CCBs for method SW846-6020: 80% - 120%

INT_STD_ICPMS - Modified 07/28/2010
PDF File ID: 6461081
Report generated: 09/05/2019 06:38

Microbac Laboratories Inc.
LINEAR RANGE (QUARTERLY)

Login Number: L19080178 **Date:** 07/30/2019
Insturment ID: ICP-MS2 **Method:** 6020

Analyte	Integration Time (Sec.)	Concentration (ug/L)
Antimony	1.00	90.0
Arsenic	1.00	90.0
Barium	1.00	216.0
Beryllium	1.00	90.0
Cadmium	1.00	90.0
Chromium	1.00	144.0
Cobalt	1.00	90.0
Copper	1.00	144.0
Lead	1.00	90.0
Manganese	1.00	144.0
Nickel	1.00	288.0
Selenium	1.00	90.0
Silver	1.00	90.0
Thallium	1.00	90.0
Uranium	1.00	90.0
Vanadium	1.00	90.0
Zinc	1.00	1440.0

Comments:
All analytes passed acceptance criteria at the specified concentration.

LINEAR_RANGE - Modified 03/06/2008
PDF File ID: 6461286
Report generated: 09/05/2019 06:38

2.1.1.3 Raw Data

MassCal File Name

Mass Calibration File Name Default.tun
MassCal File Path C:\NexION Data\MassCal\Default.tun
Peak Search Window: 1.00

Sample Information

Sample Date/Time: Wednesday, September 04, 2019 10:48:56

Mass Calibration and Resolution

Analyte	E Mass	Meas Mass	Mass C DAC Val	Res DAC Value	Meas Peak W	Custom Res
Li	7.016	6.925	1316	2029	0.700	
Mg	23.985	24.025	4496	2023	0.705	
Co	58.933	58.925	11688	2025	0.700	
In	114.904	114.875	22857	2032	0.691	
U	238.050	238.025	47449	2048	0.720	

Relative Std. Dev.

Mass	Meas. Intens. RSD
5.525	2.082
5.575	1.715
5.625	1.910
5.675	1.653
5.725	1.089
5.775	0.445
5.825	1.785
5.875	0.674
5.925	1.700
5.975	1.609
6.025	0.892
6.075	2.100
6.125	2.076
6.175	1.842
6.225	11.807
6.275	223.607
6.325	119.523
6.375	94.786
6.425	57.334
6.475	13.917
6.525	3.757
6.575	3.753
6.625	1.341
6.675	3.642
6.725	1.352
6.775	0.847
6.825	1.412

Report Date/Time: Wednesday, September 04, 2019 10:52:07
Page 1

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6.875	1.351
6.925	1.613
6.975	2.240
7.025	1.437
7.075	1.554
7.125	1.295
7.175	1.749
7.225	2.222
7.275	2.159
7.325	88.192
7.375	81.441
7.425	149.071
7.475	104.583
7.525	136.931
7.575	
7.625	104.583
7.675	108.653
7.725	223.607
7.775	149.071
7.825	223.607
7.875	
7.925	223.607
7.975	136.931
8.025	223.607
8.075	149.071
8.125	136.931
8.175	136.931
8.225	149.071
8.275	91.287
8.325	91.287
8.375	223.607
8.425	141.421
8.475	
22.525	108.653
22.575	162.980
22.625	64.885
22.675	25.074
22.725	25.408
22.775	22.356
22.825	40.313
22.875	11.886
22.925	25.394
22.975	16.568
23.025	43.298
23.075	28.436
23.125	16.855
23.175	23.909

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23.225	9.627
23.275	39.734
23.325	21.155
23.375	15.559
23.425	7.751
23.475	6.028
23.525	3.275
23.575	2.860
23.625	1.633
23.675	3.061
23.725	2.808
23.775	2.673
23.825	2.645
23.875	2.813
23.925	2.577
23.975	2.358
24.025	2.888
24.075	3.041
24.125	2.368
24.175	2.339
24.225	2.758
24.275	2.231
24.325	2.318
24.375	5.133
24.425	50.000
24.475	58.685
24.525	16.736
24.575	15.790
24.625	17.013
24.675	14.428
24.725	14.241
24.775	14.572
24.825	12.233
24.875	13.853
24.925	14.721
24.975	14.855
25.025	15.042
25.075	13.849
25.125	15.149
25.175	15.499
25.225	15.261
25.275	16.150
25.325	20.187
25.375	
25.425	223.607
25.475	31.044
57.525	12.301

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57.575	2.724
57.625	5.209
57.675	4.718
57.725	3.846
57.775	3.923
57.825	4.085
57.875	3.929
57.925	3.405
57.975	2.930
58.025	2.759
58.075	1.670
58.125	2.980
58.175	3.534
58.225	1.053
58.275	12.373
58.325	45.689
58.375	15.309
58.425	9.363
58.475	9.028
58.525	2.596
58.575	3.219
58.625	2.759
58.675	3.010
58.725	0.650
58.775	1.393
58.825	1.548
58.875	1.394
58.925	1.576
58.975	1.318
59.025	2.845
59.075	2.810
59.125	2.248
59.175	2.653
59.225	3.565
59.275	12.013
59.325	81.441
59.375	59.265
59.425	15.215
59.475	7.697
59.525	20.310
59.575	6.549
59.625	3.659
59.675	5.145
59.725	3.087
59.775	2.432
59.825	3.046
59.875	2.858

Approved: September 05, 2019



59.925	5.609
59.975	2.225
60.025	2.856
60.075	2.438
60.125	2.824
60.175	3.939
60.225	7.904
60.275	20.195
60.325	86.603
60.375	55.902
60.425	108.327
60.475	22.822
113.525	2.450
113.575	5.587
113.625	1.828
113.675	2.206
113.725	2.518
113.775	1.909
113.825	1.448
113.875	1.536
113.925	2.560
113.975	3.030
114.025	1.972
114.075	3.053
114.125	2.645
114.175	3.598
114.225	3.040
114.275	15.346
114.325	34.401
114.375	13.537
114.425	4.893
114.475	5.518
114.525	5.654
114.575	3.054
114.625	3.412
114.675	2.800
114.725	3.187
114.775	2.823
114.825	2.201
114.875	2.288
114.925	2.924
114.975	2.604
115.025	2.583
115.075	2.378
115.125	2.153
115.175	2.645
115.225	4.047

Approved: September 05, 2019



115.275	5.703
115.325	28.287
115.375	141.421
115.425	50.619
115.475	23.790
115.525	8.527
115.575	6.002
115.625	6.681
115.675	6.911
115.725	2.342
115.775	4.656
115.825	3.188
115.875	1.586
115.925	4.412
115.975	2.264
116.025	1.828
116.075	2.844
116.125	4.926
116.175	5.346
116.225	6.904
116.275	28.838
116.325	223.607
116.375	223.607
116.425	223.607
116.475	136.931
236.525	
236.575	
236.625	223.607
236.675	
236.725	
236.775	
236.825	
236.875	
236.925	
236.975	223.607
237.025	
237.075	223.607
237.125	223.607
237.175	
237.225	
237.275	223.607
237.325	149.071
237.375	91.287
237.425	81.441
237.475	62.361
237.525	10.758
237.575	3.895

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237.625	3.714
237.675	5.919
237.725	6.527
237.775	5.818
237.825	4.084
237.875	4.317
237.925	4.382
237.975	3.566
238.025	4.952
238.075	4.434
238.125	3.406
238.175	4.860
238.225	4.240
238.275	3.931
238.325	4.452
238.375	3.326
238.425	3.661
238.475	5.985
238.525	5.844
238.575	106.863
238.625	
238.675	
238.725	
238.775	
238.825	223.607
238.875	223.607
238.925	
238.975	
239.025	136.931
239.075	223.607
239.125	223.607
239.175	
239.225	223.607
239.275	
239.325	
239.375	
239.425	
239.475	

Approved: September 05, 2019

SmartTune Wizard - Summary

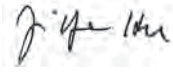
Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\ESI SmartTune Fullmicrobac.swz

Start Time: 9/4/2019 10:53:17 AM
End Time: 9/4/2019 10:55:21 AM

Daily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 7257.74
Obtained Intensity (Mg 23.985): 1180876.75
Obtained Intensity (In 114.904): 234473.03
Obtained Intensity (U 238.05): 193328.99
Obtained Intensity (CeO 155.9): 6176.53
Obtained Intensity (Ce 139.905): 383423.96
Obtained Intensity (Ce++ 69.9527): 4080.02
Obtained Intensity (Bkgd 220): 0.07
Obtained Formula (CeO 155.9 / Ce 139.905): 0.016 (=6176.53 / 383423.96)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.011 (=4080.02 / 383423.96)

Approved: September 05, 2019



SmartTune Wizard - Details

```
Optimization Details

SmartTune file: C:\NexIONData\Wizard\SmartTune\ESI SmartTune Fullmicrobac.swz

Optimization Status

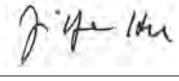
Start Time: 9/4/2019 10:53:17 AM

Daily Performance Check
        Optimization Settings:
                Method: C:\NexIONData\Method\ESI Daily Performance.mth.
                Intensity Criterion: Be 9.0122 > 2000
                Intensity Criterion: Mg 23.985 > 15000
                Intensity Criterion: In 114.904 > 40000
                Intensity Criterion: U 238.05 > 30000
                Intensity Criterion: CeO 155.9 > 0
                Intensity Criterion: Ce 139.905 > 0
                Intensity Criterion: Ce++ 69.9527 > 0
                Intensity Criterion: Bkgd 220 <= 5
                Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.025
                Formula Criterion: Ce++ 69.9527 / Ce 139.905 <= 0.03

        Optimization Results:
        Initial Try
                Obtained Intensity (Be 9.0122): 7257.74
                Obtained Intensity (Mg 23.985): 1180876.75
                Obtained Intensity (In 114.904): 234473.03
                Obtained Intensity (U 238.05): 193328.99
                Obtained Intensity (CeO 155.9): 6176.53
                Obtained Intensity (Ce 139.905): 383423.96
                Obtained Intensity (Ce++ 69.9527): 4080.02
                Obtained Intensity (Bkgd 220): 0.07
                Obtained Formula (CeO 155.9 / Ce 139.905): 0.016 (=6176.53 / 383423.96)
                Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.011 (=4080.02 / 383423.96)
[Passed]  Optimum value(s): N/A

End Time: 9/4/2019 10:55:21 AM
```


Approved: September 05, 2019



Method 6020 - Summary Report

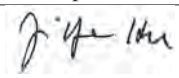
Sample ID: Blank
Sample Date/Time: Wednesday, September 04, 2019 11:08:28
Number of Replicates: 3
Autosampler Position: 1
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	9382.9	2.6				ug/L		KED
|	**Be**	9	0.0					ug/L		KED
|	**Al**	27	73.3	41.1				ug/L		KED
|>	**Sc-2**	45	87228.8	1.9				ug/L		KED
⌈	**Ti**	47	10.7	23.6				ug/L		KED
|	**V**	51	10753.1	2.4				ug/L		KED
|	**Cr**	52	488.7	8.1				ug/L		KED
|	**Cr**	53	6416.4	4.1				ug/L		KED
|	**Mn**	55	206.3	11.0				ug/L		KED
|	**Co**	59	86.0	11.1				ug/L		KED
|	**Ni**	60	1252.1	4.0				ug/L		KED
|	**Cu**	65	417.7	4.7				ug/L		KED
|	**Zn**	66	204.3	5.1				ug/L		KED
|>	**Ge**	72	234818.2	1.4				ug/L		KED
|	**As**	75	718.7	3.5				ug/L		KED
|	**Se**	82	14.8	7.8				ug/L		KED
|	**Se-1**	78	34.8	13.0				ug/L		KED
⌊	**Se-1**	80	23187.2	0.6				ug/L		KED
	Ga	71	33.3	31.2				ug/L		KED
	Rb	85	13.3	21.7				ug/L		KED
	Y	89	191698.7	2.1				ug/L		KED
	Rh	103	5.0	173.2				ug/L		KED
⌈	**Mo**	98	47.0	27.9				ug/L		KED
|	**Ag**	107	172.7	8.2				ug/L		KED
|	**Cd**	111	4.7	53.9				ug/L		KED
|	**Cd**	114	29.0	15.0				ug/L		KED
|>	**In**	115	248459.6	1.5				ug/L		KED
|	**Sn**	118	556.0	1.1				ug/L		KED
|	**Sb**	123	79.0	17.4				ug/L		KED
⌊	**Ba**	135	14.7	25.8				ug/L		KED
	Ce	140	44.7	27.6				ug/L		KED
	Tb	159	661679.6	1.0				ug/L		KED
⌈	**Ho**	165	4.7	49.5				ug/L		KED
|	**Tl**	203	7.7	66.9				ug/L		KED
|	**Tl**	205	16.0	18.8				ug/L		KED
|	**Pb**	206	315.7	3.3				ug/L		KED
|	**Pb**	207	290.7	1.4				ug/L		KED
|	**Pb**	208	694.7	2.2				ug/L		KED
|	**U**	238	16.3	15.4				ug/L		KED

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	Th	232	1926.1	32.8	ug/L	KED
>	**Bi**	209	514781.3	0.4	ug/L	KED
	Na	23	0.0		mg/L	KED
	Mg	24	1398.4	3.7	mg/L	KED
	K	39	0.0		mg/L	KED
	Ca	43	1.7	173.2	mg/L	KED
	Fe	54	10.0	50.0	mg/L	KED
	Fe	57	21.7	26.6	mg/L	KED
>	**Sc-1**	45	87228.8	1.9	mg/L	KED
	Cl	35	2226.8	2.9	ug/L	KED
	Kr	83	1.7	173.2	ug/L	KED
	Br	81	23.3	32.7	ug/L	KED
	P	31	211.7	8.3	ug/L	KED
	S	34	36.7	47.9	ug/L	KED
	Sr	88	18.3	87.7	ug/L	KED
	C	12	0.0		ug/L	KED
	N	14	0.0		ug/L	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72			
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103
⌈	Mo	98
|	Ag	107
|	Cd	111
|	Cd	114
|>	In	115
|	Sn	118
|	Sb	123
⌊	Ba	135
	Ce	140
	Tb	159
⌈	Ho	165
|	Tl	203
|	Tl	205
|	Pb	206
|	Pb	207
|	Pb	208
|	U	238
|	Th	232
⌊>	Bi	209
⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88
	C	12
	N	14

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Wednesday, September 04, 2019 11:11:23
Number of Replicates: 3
Autosampler Position: 1
Sample Description:
Method File: C:\NexION\Data\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	9928.3	7.3				ug/L	9383	KED
|	**Be**	9	0.0					ug/L	0	KED
|	**Al**	27	75.0	35.3				ug/L	73	KED
\>	**Sc-2**	45	88060.0	3.5				ug/L	87229	KED
⌈	**Ti**	47	13.0	20.4				ug/L	11	KED
|	**V**	51	10934.6	2.3				ug/L	10753	KED
|	**Cr**	52	481.0	5.2				ug/L	489	KED
|	**Cr**	53	6694.8	1.2				ug/L	6416	KED
|	**Mn**	55	263.3	31.2				ug/L	206	KED
|	**Co**	59	95.0	21.0				ug/L	86	KED
|	**Ni**	60	1652.1	41.7				ug/L	1252	KED
|	**Cu**	65	376.0	6.8				ug/L	418	KED
|	**Zn**	66	195.3	2.1				ug/L	204	KED
\>	**Ge**	72	242117.5	0.5				ug/L	234818	KED
|	**As**	75	720.4	5.0				ug/L	719	KED
|	**Se**	82	12.8	25.9				ug/L	15	KED
|	**Se-1**	78	33.2	9.1				ug/L	35	KED
⌊	**Se-1**	80	23527.9	0.3				ug/L	23187	KED
	Ga	71	60.0	30.0				ug/L	33	KED
	Rb	85	16.7	17.3				ug/L	13	KED
	Y	89	197261.2	2.3				ug/L	191699	KED
	Rh	103	3.3	86.6				ug/L	5	KED
⌈	**Mo**	98	48.0	18.8				ug/L	47	KED
|	**Ag**	107	149.3	5.0				ug/L	173	KED
|	**Cd**	111	7.3	20.8				ug/L	5	KED
|	**Cd**	114	26.0	13.9				ug/L	29	KED
\>	**In**	115	249385.2	1.3				ug/L	248460	KED
|	**Sn**	118	526.7	4.9				ug/L	556	KED
|	**Sb**	123	67.3	1.7				ug/L	79	KED
⌊	**Ba**	135	13.7	18.4				ug/L	15	KED
	Ce	140	40.3	17.4				ug/L	45	KED
	Tb	159	661808.2	2.3				ug/L	661680	KED
⌈	**Ho**	165	8.7	37.1				ug/L	5	KED
|	**Tl**	203	2.7	43.3				ug/L	8	KED
|	**Tl**	205	13.0	35.3				ug/L	16	KED
|	**Pb**	206	321.3	2.8				ug/L	316	KED
|	**Pb**	207	275.0	2.7				ug/L	291	KED
|	**Pb**	208	704.0	4.8				ug/L	695	KED
|	**U**	238	11.7	43.1				ug/L	16	KED

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	Th	232	1671.8	23.3	ug/L	1926	KED
>	**Bi**	209	519421.4	1.9	ug/L	514781	KED
	Na	23	1.7	173.2	mg/L	0	KED
	Mg	24	1310.1	5.6	mg/L	1398	KED
	K	39	0.0		mg/L	0	KED
	Ca	43	0.0		mg/L	2	KED
	Fe	54	13.3	57.3	mg/L	10	KED
	Fe	57	25.0	72.1	mg/L	22	KED
>	**Sc-1**	45	88060.0	3.5	mg/L	87229	KED
	Cl	35	2158.5	4.6	ug/L	2227	KED
	Kr	83	1.7	173.2	ug/L	2	KED
	Br	81	18.3	56.8	ug/L	23	KED
	P	31	190.0	11.5	ug/L	212	KED
	S	34	16.7	62.4	ug/L	37	KED
	Sr	88	31.7	55.5	ug/L	18	KED
	C	12	1.7	173.2	ug/L	0	KED
	N	14	0.0		ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72			
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103
⌈	Mo	98
|	Ag	107
|	Cd	111
|	Cd	114
|>	In	115
|	Sn	118
|	Sb	123
⌊	Ba	135
	Ce	140
	Tb	159
⌈	Ho	165
|	Tl	203
|	Tl	205
|	Pb	206
|	Pb	207
|	Pb	208
|	U	238
|	Th	232
⌊>	Bi	209
⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88
	C	12
	N	14

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Wednesday, September 04, 2019 11:14:17
Number of Replicates: 3
Autosampler Position: 2
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	9716.4	0.9				ug/L	9383	KED
|	**Be**	9	9.0	29.4	**0.0800**	0.023	29.3	ug/L	0	KED
|	**Al**	27	2410.2	4.9				ug/L	73	KED
⌊>	**Sc-2**	45	88441.7	0.1				ug/L	87229	KED
⌈	**Ti**	47	16.0	6.3	**0.4000**	0.070	17.5	ug/L	11	KED
|	**V**	51	11814.3	2.4	**0.4000**	0.101	25.3	ug/L	10753	KED
|	**Cr**	52	2031.1	2.6	**0.8000**	0.012	1.4	ug/L	489	KED
|	**Cr**	53	7030.0	5.2	**0.8000**	0.434	54.3	ug/L	6416	KED
|	**Mn**	55	1373.4	6.0	**0.8000**	0.069	8.7	ug/L	206	KED
|	**Co**	59	2025.5	0.5	**0.4000**	0.006	1.6	ug/L	86	KED
|	**Ni**	60	3503.1	10.9	**1.6000**	0.314	19.6	ug/L	1252	KED
|	**Cu**	65	1735.1	3.2	**0.8000**	0.022	2.7	ug/L	418	KED
|	**Zn**	66	4271.9	3.3	**8.0000**	0.353	4.4	ug/L	204	KED
|>	**Ge**	72	235574.2	1.7				ug/L	234818	KED
|	**As**	75	882.4	5.1	**0.4000**	0.146	36.6	ug/L	719	KED
|	**Se**	82	20.8	3.7	**0.4000**	0.067	16.6	ug/L	15	KED
|	**Se-1**	78	42.2	4.8	**0.4000**	0.149	37.3	ug/L	35	KED
⌊	**Se-1**	80	23545.9	0.5	**0.4000**	0.701	175.3	ug/L	23187	KED
	Ga	71	55.0	41.7				ug/L	33	KED
	Rb	85	3.3	173.2				ug/L	13	KED
	Y	89	192995.2	2.4				ug/L	191699	KED
	Rh	103	10.0					ug/L	5	KED
⌈	**Mo**	98	1291.1	5.2	**0.4000**	0.022	5.5	ug/L	47	KED
|	**Ag**	107	2734.2	1.2	**0.4000**	0.010	2.4	ug/L	173	KED
|	**Cd**	111	228.3	4.0	**0.2400**	0.011	4.8	ug/L	5	KED
|	**Cd**	114	594.0	3.2	**0.2400**	0.011	4.7	ug/L	29	KED
|>	**In**	115	247192.0	1.2				ug/L	248460	KED
|	**Sn**	118	1243.1	1.1	**0.4000**	0.016	4.0	ug/L	556	KED
|	**Sb**	123	574.7	5.1	**0.4000**	0.021	5.2	ug/L	79	KED
⌊	**Ba**	135	635.0	3.9	**1.2000**	0.042	3.5	ug/L	15	KED
	Ce	140	50.3	12.9				ug/L	45	KED
	Tb	159	661457.4	1.0				ug/L	661680	KED
⌈	**Ho**	165	8.0	65.0				ug/L	5	KED
|	**Tl**	203	355.3	7.0	**0.0800**	0.006	7.2	ug/L	8	KED
|	**Tl**	205	899.4	2.3	**0.0800**	0.001	1.1	ug/L	16	KED
|	**Pb**	206	1844.8	3.8	**0.4000**	0.021	5.3	ug/L	316	KED
|	**Pb**	207	1649.8	4.8	**0.4000**	0.022	5.4	ug/L	291	KED
|	**Pb**	208	4086.6	1.8	**0.4000**	0.008	2.1	ug/L	695	KED
|	**U**	238	8203.9	1.4	**0.4000**	0.006	1.5	ug/L	16	KED

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	Th	232	3282.4	35.8	**0.4000**	0.346	86.5	ug/L	1926	KED
>	**Bi**	209	512873.0	1.3				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	2303.5	0.5	**0.0500**	0.000	1.0	mg/L	1398	KED
	K	39	0.0					mg/L	0	KED
	Ca	43	1.7	173.2	**0.0500**	6.015	12030.4	mg/L	2	KED
	Fe	54	66.7	41.3	**0.0500**	0.024	48.6	mg/L	10	KED
	Fe	57	131.7	9.6	**0.0500**	0.006	11.3	mg/L	22	KED
>	**Sc-1**	45	88441.7	0.1				mg/L	87229	KED
	Cl	35	2330.2	5.9				ug/L	2227	KED
	Kr	83	3.3	86.6				ug/L	2	KED
	Br	81	13.3	57.3				ug/L	23	KED
	P	31	195.0	13.3				ug/L	212	KED
	S	34	21.7	35.3				ug/L	37	KED
	Sr	88	16.7	69.3				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72			
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103
⌈	Mo	98
|	Ag	107
|	Cd	111
|	Cd	114
|>	In	115
|	Sn	118
|	Sb	123
⌊	Ba	135
	Ce	140
	Tb	159
⌈	Ho	165
|	Tl	203
|	Tl	205
|	Pb	206
|	Pb	207
|	Pb	208
|	U	238
|	Th	232
⌊>	Bi	209
⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88
	C	12
	N	14

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: Standard 3
Sample Date/Time: Wednesday, September 04, 2019 11:17:11
Number of Replicates: 3
Autosampler Position: 3
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	9686.4	3.1				ug/L	9383	KED
|	**Be**	9	32.0	14.3	**0.3939**	0.059	15.0	ug/L	0	KED
|	**Al**	27	12248.3	3.4				ug/L	73	KED
|>	**Sc-2**	45	88432.4	1.7				ug/L	87229	KED
⌈	**Ti**	47	35.3	14.2	**1.9932**	0.400	20.0	ug/L	11	KED
|	**V**	51	13755.6	4.2	**1.9403**	0.400	20.6	ug/L	10753	KED
|	**Cr**	52	8494.0	1.5	**4.0045**	0.054	1.4	ug/L	489	KED
|	**Cr**	53	7917.1	6.1	**3.8387**	1.337	34.8	ug/L	6416	KED
|	**Mn**	55	5895.5	2.8	**3.9946**	0.103	2.6	ug/L	206	KED
|	**Co**	59	10048.7	2.8	**2.0014**	0.051	2.5	ug/L	86	KED
|	**Ni**	60	12228.3	0.2	**7.9890**	0.047	0.6	ug/L	1252	KED
|	**Cu**	65	7420.5	0.5	**4.0080**	0.016	0.4	ug/L	418	KED
|	**Zn**	66	20594.0	1.6	**39.9906**	0.648	1.6	ug/L	204	KED
|>	**Ge**	72	237549.4	0.4				ug/L	234818	KED
|	**As**	75	1540.7	4.4	**1.9997**	0.174	8.7	ug/L	719	KED
|	**Se**	82	46.8	7.6	**2.0043**	0.234	11.7	ug/L	15	KED
|	**Se-1**	78	105.5	6.7	**2.0376**	0.215	10.5	ug/L	35	KED
⌊	**Se-1**	80	23655.3	1.0	**1.6075**	2.186	136.0	ug/L	23187	KED
	Ga	71	53.3	87.1				ug/L	33	KED
	Rb	85	23.3	49.5				ug/L	13	KED
	Y	89	191150.2	2.0				ug/L	191699	KED
	Rh	103	10.0	86.6				ug/L	5	KED
⌈	**Mo**	98	6446.7	1.8	**2.0011**	0.060	3.0	ug/L	47	KED
|	**Ag**	107	13447.0	1.1	**2.0017**	0.045	2.2	ug/L	173	KED
|	**Cd**	111	1156.4	3.1	**1.2007**	0.046	3.8	ug/L	5	KED
|	**Cd**	114	2828.3	1.6	**1.1989**	0.030	2.5	ug/L	29	KED
|>	**In**	115	250531.2	1.2				ug/L	248460	KED
|	**Sn**	118	4172.6	1.9	**2.0025**	0.042	2.1	ug/L	556	KED
|	**Sb**	123	2978.0	2.9	**2.0103**	0.061	3.0	ug/L	79	KED
⌊	**Ba**	135	3269.7	0.3	**6.0079**	0.082	1.4	ug/L	15	KED
	Ce	140	36.0	32.0				ug/L	45	KED
	Tb	159	660617.4	1.5				ug/L	661680	KED
⌈	**Ho**	165	6.0	44.1				ug/L	5	KED
|	**Tl**	203	1815.4	0.8	**0.4005**	0.007	1.8	ug/L	8	KED
|	**Tl**	205	4578.0	1.1	**0.4004**	0.012	3.0	ug/L	16	KED
|	**Pb**	206	8199.6	0.5	**2.0020**	0.052	2.6	ug/L	316	KED
|	**Pb**	207	7204.7	1.0	**2.0010**	0.039	1.9	ug/L	291	KED
|	**Pb**	208	18008.0	1.3	**2.0013**	0.068	3.4	ug/L	695	KED
|	**U**	238	41650.9	2.2	**2.0010**	0.084	4.2	ug/L	16	KED

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	Th	232	15539.4	37.3	**2.0387**	0.822	40.3	ug/L	1926	KED
>	**Bi**	209	514834.9	2.0				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	6146.2	2.9	**0.2506**	0.015	5.9	mg/L	1398	KED
	K	39	0.0					mg/L	0	KED
	Ca	43	0.0		**0.2593**	0.000	0.0	mg/L	2	KED
	Fe	54	268.3	11.2	**0.2491**	0.031	12.2	mg/L	10	KED
	Fe	57	593.3	8.5	**0.2504**	0.019	7.6	mg/L	22	KED
>	**Sc-1**	45	88432.4	1.7				mg/L	87229	KED
	Cl	35	2218.5	4.3				ug/L	2227	KED
	Kr	83	5.0	100.0				ug/L	2	KED
	Br	81	16.7	75.5				ug/L	23	KED
	P	31	206.7	2.8				ug/L	212	KED
	S	34	46.7	43.3				ug/L	37	KED
	Sr	88	21.7	35.3				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72			
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103
⌈	Mo	98
|	Ag	107
|	Cd	111
|	Cd	114
|>	In	115
|	Sn	118
|	Sb	123
⌊	Ba	135
	Ce	140
	Tb	159
⌈	Ho	165
|	Tl	203
|	Tl	205
|	Pb	206
|	Pb	207
|	Pb	208
|	U	238
|	Th	232
⌊>	Bi	209
⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88
	C	12
	N	14

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: Standard 3
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Method 6020 - Summary Report

Sample ID: Standard 4
Sample Date/Time: Wednesday, September 04, 2019 11:20:04
Number of Replicates: 3
Autosampler Position: 4
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	9269.5	1.6				ug/L	9383	KED
|	**Be**	9	635.7	1.6	**8.0003**	0.265	3.3	ug/L	0	KED
|	**Al**	27	238857.7	3.4				ug/L	73	KED
|>	**Sc-2**	45	85116.5	3.0				ug/L	87229	KED
⌈	**Ti**	47	560.7	4.2	**40.0119**	0.531	1.3	ug/L	11	KED
|	**V**	51	59088.4	2.3	**39.9782**	3.308	8.3	ug/L	10753	KED
|	**Cr**	52	161723.2	0.7	**80.0045**	4.290	5.4	ug/L	489	KED
|	**Cr**	53	25387.9	1.5	**79.8867**	5.523	6.9	ug/L	6416	KED
|	**Mn**	55	115798.8	0.6	**80.0057**	4.196	5.2	ug/L	206	KED
|	**Co**	59	205731.0	0.4	**40.0046**	1.917	4.8	ug/L	86	KED
|	**Ni**	60	230224.3	0.2	**160.0222**	8.543	5.3	ug/L	1252	KED
|	**Cu**	65	144919.1	0.1	**80.0095**	4.133	5.2	ug/L	418	KED
|	**Zn**	66	412973.0	0.9	**800.0507**	36.423	4.6	ug/L	204	KED
|>	**Ge**	72	234918.4	5.3				ug/L	234818	KED
|	**As**	75	17628.9	0.5	**40.0052**	2.253	5.6	ug/L	719	KED
|	**Se**	82	695.8	0.4	**40.0082**	2.043	5.1	ug/L	15	KED
|	**Se-1**	78	1510.9	0.5	**40.0080**	2.227	5.6	ug/L	35	KED
⌊	**Se-1**	80	28061.1	1.1	**40.0003**	9.485	23.7	ug/L	23187	KED
	Ga	71	46.7	16.4				ug/L	33	KED
	Rb	85	190.0	19.9				ug/L	13	KED
	Y	89	197232.5	8.0				ug/L	191699	KED
	Rh	103	25.0	34.6				ug/L	5	KED
⌈	**Mo**	98	142554.5	0.4	**40.0094**	2.987	7.5	ug/L	47	KED
|	**Ag**	107	282154.7	1.5	**40.0050**	3.670	9.2	ug/L	173	KED
|	**Cd**	111	24346.9	0.6	**24.0026**	1.930	8.0	ug/L	5	KED
|	**Cd**	114	60062.5	0.1	**24.0034**	1.863	7.8	ug/L	29	KED
|>	**In**	115	254721.6	7.4				ug/L	248460	KED
|	**Sn**	118	80088.8	1.0	**40.0084**	3.145	7.9	ug/L	556	KED
|	**Sb**	123	69572.4	2.4	**40.0166**	3.903	9.8	ug/L	79	KED
⌊	**Ba**	135	69413.7	1.2	**120.0160**	10.465	8.7	ug/L	15	KED
	Ce	140	71.0	18.6				ug/L	45	KED
	Tb	159	654435.7	6.4				ug/L	661680	KED
⌈	**Ho**	165	8.3	69.3				ug/L	5	KED
|	**Tl**	203	37856.6	2.8	**8.0013**	0.609	7.6	ug/L	8	KED
|	**Tl**	205	94143.9	1.0	**8.0010**	0.453	5.7	ug/L	16	KED
|	**Pb**	206	162262.8	1.9	**40.0045**	2.600	6.5	ug/L	316	KED
|	**Pb**	207	143821.5	1.8	**40.0055**	2.655	6.6	ug/L	291	KED
|	**Pb**	208	358252.4	2.1	**40.0050**	2.668	6.7	ug/L	695	KED
|	**U**	238	884787.6	2.6	**40.0077**	3.060	7.6	ug/L	16	KED

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	Th	232	690817.6	5.9	**40.0645**	4.059	10.1	ug/L	1926	KED
>	**Bi**	209	507448.7	5.0				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	93231.0	2.1	**5.0002**	0.258	5.2	mg/L	1398	KED
	K	39	1.7	173.2	**5.0130**	8.683	173.2	mg/L	0	KED
	Ca	43	0.0		**4.7736**	0.000	0.0	mg/L	2	KED
	Fe	54	5210.9	0.5	**5.0005**	0.175	3.5	mg/L	10	KED
	Fe	57	11085.7	1.3	**5.0001**	0.215	4.3	mg/L	22	KED
>	**Sc-1**	45	85116.5	3.0				mg/L	87229	KED
	Cl	35	1891.8	4.8				ug/L	2227	KED
	Kr	83	3.3	86.6				ug/L	2	KED
	Br	81	25.0	40.0				ug/L	23	KED
	P	31	216.7	13.1				ug/L	212	KED
	S	34	25.0	34.6				ug/L	37	KED
	Sr	88	33.3	37.7				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72			
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103
⌈	Mo	98
|	Ag	107
|	Cd	111
|	Cd	114
|>	In	115
|	Sn	118
|	Sb	123
⌊	Ba	135
	Ce	140
	Tb	159
⌈	Ho	165
|	Tl	203
|	Tl	205
|	Pb	206
|	Pb	207
|	Pb	208
|	U	238
|	Th	232
⌊>	Bi	209
⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88
	C	12
	N	14

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: Standard 5
Sample Date/Time: Wednesday, September 04, 2019 11:22:58
Number of Replicates: 3
Autosampler Position: 5
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	9666.4	4.3				ug/L	9383	KED
|	Be	9	1235.7	2.6	**15.9037**	0.937	5.9	ug/L	0	KED
|	Al	27	476550.3	0.9				ug/L	73	KED
⌊>	Sc-2	45	85313.5	4.2				ug/L	87229	KED
⌈	Ti	47	1169.4	2.2	**80.2060**	3.647	4.5	ug/L	11	KED
|	V	51	109979.4	0.9	**79.6705**	2.441	3.1	ug/L	10753	KED
|	Cr	52	323511.7	0.5	**158.7355**	5.103	3.2	ug/L	489	KED
|	Cr	53	46038.2	0.4	**159.8209**	6.322	4.0	ug/L	6416	KED
|	Mn	55	233504.4	1.2	**158.9867**	6.775	4.3	ug/L	206	KED
|	Co	59	415185.5	0.7	**79.4974**	3.023	3.8	ug/L	86	KED
|	Ni	60	464210.9	0.8	**318.0810**	12.095	3.8	ug/L	1252	KED
|	Cu	65	298820.9	1.9	**159.7345**	7.686	4.8	ug/L	418	KED
|	Zn	66	835035.7	0.9	**1590.6142**	62.022	3.9	ug/L	204	KED
|>	Ge	72	244377.9	3.1				ug/L	234818	KED
|	As	75	35271.7	0.8	**79.6787**	3.143	3.9	ug/L	719	KED
|	Se	82	1401.6	2.8	**79.6276**	2.749	3.5	ug/L	15	KED
|	Se-1	78	3030.8	1.8	**79.5722**	2.263	2.8	ug/L	35	KED
⌊	Se-1	80	32148.1	1.2	**75.8803**	5.616	7.4	ug/L	23187	KED
	Ga	71	68.3	36.8				ug/L	33	KED
	Rb	85	390.0	6.8				ug/L	13	KED
	Y	89	205887.4	8.3				ug/L	191699	KED
	Rh	103	50.0	30.0				ug/L	5	KED
⌈	Mo	98	299275.5	0.7	**79.9178**	3.777	4.7	ug/L	47	KED
|	Ag	107	587946.7	0.7	**79.7889**	4.408	5.5	ug/L	173	KED
|	Cd	111	51275.3	1.2	**47.9811**	2.954	6.2	ug/L	5	KED
|	Cd	114	126012.2	1.0	**47.9435**	2.403	5.0	ug/L	29	KED
|>	In	115	268313.9	5.3				ug/L	248460	KED
|	Sn	118	168141.9	0.7	**79.9707**	3.906	4.9	ug/L	556	KED
|	Sb	123	149333.3	0.4	**80.2666**	4.041	5.0	ug/L	79	KED
⌊	Ba	135	144273.3	1.0	**239.2479**	13.945	5.8	ug/L	15	KED
	Ce	140	107.3	11.2				ug/L	45	KED
	Tb	159	678743.9	5.7				ug/L	661680	KED
⌈	Ho	165	7.3	56.8				ug/L	5	KED
|	Tl	203	78686.8	1.3	**16.0553**	0.972	6.1	ug/L	8	KED
|	Tl	205	195261.5	0.9	**16.0499**	0.907	5.7	ug/L	16	KED
|	Pb	206	336297.3	0.7	**80.2470**	4.403	5.5	ug/L	316	KED
|	Pb	207	297078.2	1.5	**80.1970**	5.017	6.3	ug/L	291	KED
|	Pb	208	739740.7	1.0	**80.1888**	4.650	5.8	ug/L	695	KED
|	U	238	1846870.0	1.5	**80.3426**	5.022	6.3	ug/L	16	KED

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	Th	232	1630112.5	0.9	**82.2449**	4.406	5.4	ug/L	1926	KED
>	**Bi**	209	518130.0	4.6				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	177714.6	1.6	**9.9116**	0.275	2.8	mg/L	1398	KED
	K	39	1.7	173.2	**8.4779**	14.684	173.2	mg/L	0	KED
	Ca	43	1.7	173.2	**0.0054**	41.22	766088.2	mg/L	2	KED
	Fe	54	10627.1	3.3	**10.0385**	0.677	6.7	mg/L	10	KED
	Fe	57	22566.8	1.4	**10.0342**	0.581	5.8	mg/L	22	KED
>	**Sc-1**	45	85313.5	4.2				mg/L	87229	KED
	Cl	35	1676.8	3.1				ug/L	2227	KED
	Kr	83	5.0	100.0				ug/L	2	KED
	Br	81	18.3	56.8				ug/L	23	KED
	P	31	236.7	22.0				ug/L	212	KED
	S	34	20.0	25.0				ug/L	37	KED
	Sr	88	43.3	67.6				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72			
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: Standard 5
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	Rh	103
⌈	Mo	98
|	Ag	107
|	Cd	111
|	Cd	114
|>	In	115
|	Sn	118
|	Sb	123
⌊	Ba	135
	Ce	140
	Tb	159
⌈	Ho	165
|	Tl	203
|	Tl	205
|	Pb	206
|	Pb	207
|	Pb	208
|	U	238
|	Th	232
⌊>	Bi	209
⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88
	C	12
	N	14

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Corr. Coef.	Na	23	Correlation coefficient < 0.998
Corr. Coef.	K	39	Correlation coefficient < 0.998
Corr. Coef.	Ca	43	Correlation coefficient < 0.998

Sample ID: Standard 5
Report Date/Time: Wednesday, September 04, 2019 11:25:18
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Method 6020 - Summary Report

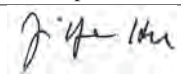
Sample ID: QC Std 1
Sample Date/Time: Wednesday, September 04, 2019 11:25:51
Number of Replicates: 3
Autosampler Position: 201
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	9773.2	2.8				ug/L	9383	KED
|	**Be**	9	504.7	5.5	**6.1995**	0.396	6.4	ug/L	0	KED
|	**Al**	27	195683.9	0.6				ug/L	73	KED
|>	**Sc-2**	45	89285.0	1.3				ug/L	87229	KED
⌈	**Ti**	47	457.7	5.8	**30.1839**	1.436	4.8	ug/L	11	KED
|	**V**	51	46214.4	1.2	**27.4114**	0.991	3.6	ug/L	10753	KED
|	**Cr**	52	129747.2	0.3	**62.0689**	1.244	2.0	ug/L	489	KED
|	**Cr**	53	19889.7	2.3	**51.8071**	0.994	1.9	ug/L	6416	KED
|	**Mn**	55	94078.9	1.3	**62.5018**	1.387	2.2	ug/L	206	KED
|	**Co**	59	166737.4	0.3	**31.1882**	0.590	1.9	ug/L	86	KED
|	**Ni**	60	187409.3	0.6	**124.9397**	1.726	1.4	ug/L	1252	KED
|	**Cu**	65	118809.7	1.3	**61.9174**	1.878	3.0	ug/L	418	KED
|	**Zn**	66	331519.5	1.0	**616.8654**	14.234	2.3	ug/L	204	KED
|>	**Ge**	72	249934.3	1.7				ug/L	234818	KED
|	**As**	75	14295.4	1.1	**30.5112**	0.222	0.7	ug/L	719	KED
|	**Se**	82	562.0	3.6	**30.6633**	0.804	2.6	ug/L	15	KED
|	**Se-1**	78	1172.9	1.3	**29.5038**	0.782	2.7	ug/L	35	KED
⌊	**Se-1**	80	27969.8	0.7	**30.4474**	4.406	14.5	ug/L	23187	KED
	Ga	71	45.0	29.4				ug/L	33	KED
	Rb	85	161.7	3.6				ug/L	13	KED
	Y	89	214812.2	1.4				ug/L	191699	KED
	Rh	103	23.3	32.7				ug/L	5	KED
⌈	**Mo**	98	116237.2	1.6	**30.2385**	0.150	0.5	ug/L	47	KED
|	**Ag**	107	234792.9	0.5	**31.0298**	0.449	1.4	ug/L	173	KED
|	**Cd**	111	20062.6	1.1	**18.2833**	0.096	0.5	ug/L	5	KED
|	**Cd**	114	49746.9	2.5	**18.4350**	0.373	2.0	ug/L	29	KED
|>	**In**	115	274879.5	1.1				ug/L	248460	KED
|	**Sn**	118	66542.5	1.2	**30.6645**	0.251	0.8	ug/L	556	KED
|	**Sb**	123	60894.8	1.6	**31.8644**	0.307	1.0	ug/L	79	KED
⌊	**Ba**	135	56877.2	0.9	**91.8690**	1.070	1.2	ug/L	15	KED
	Ce	140	71.7	10.8				ug/L	45	KED
	Tb	159	703582.2	1.5				ug/L	661680	KED
⌈	**Ho**	165	8.3	25.0				ug/L	5	KED
|	**Tl**	203	31326.0	1.6	**6.0707**	0.104	1.7	ug/L	8	KED
|	**Tl**	205	77019.3	0.9	**6.0136**	0.069	1.1	ug/L	16	KED
|	**Pb**	206	133434.7	0.5	**30.2034**	0.187	0.6	ug/L	316	KED
|	**Pb**	207	117457.9	0.5	**30.0685**	0.080	0.3	ug/L	291	KED
|	**Pb**	208	293488.5	0.2	**30.1760**	0.052	0.2	ug/L	695	KED
|	**U**	238	740218.0	2.1	**30.5847**	0.562	1.8	ug/L	16	KED

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	Th	232	664443.9	0.4	**31.7914**	0.114	0.4	ug/L	1926	KED
>	**Bi**	209	544434.9	0.3				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	75125.8	1.5	**3.9546**	0.019	0.5	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**0.2600**	40.787	15686.3	mg/L	2	KED
	Fe	54	4385.6	4.1	**3.9464**	0.169	4.3	mg/L	10	KED
	Fe	57	9276.2	2.4	**3.9286**	0.048	1.2	mg/L	22	KED
>	**Sc-1**	45	89285.0	1.3				mg/L	87229	KED
	Cl	35	1763.4	6.3				ug/L	2227	KED
	Kr	83	6.7	86.6				ug/L	2	KED
	Br	81	16.7	75.5				ug/L	23	KED
	P	31	256.7	13.3				ug/L	212	KED
	S	34	30.0	28.9				ug/L	37	KED
	Sr	88	43.3	33.3				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9	96.868		
	Al	27			
>	Sc-2	45		102.357	
	Ti	47	94.325		
	V	51	85.661		
	Cr	52	96.983		
	Cr	53			
	Mn	55	97.659		
	Co	59	97.463		
	Ni	60	97.609		
	Cu	65	96.746		
	Zn	66	96.385		
>	Ge	72		106.437	
	As	75	95.347		
	Se	82	95.823		
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98	94.495	
|	Ag	107	96.968	
|	Cd	111	95.226	
|	Cd	114		
|>	In	115		110.634
|	Sn	118	95.827	
|	Sb	123	99.576	
⌊	Ba	135	95.697	
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203	94.855	
|	Tl	205		
|	Pb	206	94.385	
|	Pb	207	93.964	
|	Pb	208	94.300	
|	U	238	95.577	
|	Th	232	99.348	
⌊>	Bi	209		105.760
⌈	Na	23		
|	Mg	24	87.880	
|	K	39	0.000	
|	Ca	43	5.778	
|	Fe	54	87.698	
|	Fe	57	87.303	
⌊>	Sc-1	45		102.357
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	V	51	
QC Std 1	Mg	24	
QC Std 1	K	39	
QC Std 1	Ca	43	
QC Std 1	Fe	54	
QC Std 1	Fe	57	

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Method 6020 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Wednesday, September 04, 2019 11:28:46
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	9246.2	1.8				ug/L	9383	KED
|	Be	9	0.3	173.2	**0.0044**	0.008	173.2	ug/L	0	KED
|	Al	27	178.3	93.1				ug/L	73	KED
⌊>	Sc-2	45	83575.9	1.6				ug/L	87229	KED
⌈	Ti	47	11.0	39.6	**0.0447**	0.315	705.5	ug/L	11	KED
|	V	51	6968.3	10.3	**-2.9960**	0.696	23.2	ug/L	10753	KED
|	Cr	52	504.7	17.8	**0.0161**	0.049	303.8	ug/L	489	KED
|	Cr	53	4235.6	14.3	**-8.6724**	2.689	31.0	ug/L	6416	KED
|	Mn	55	341.3	16.2	**0.1029**	0.041	39.5	ug/L	206	KED
|	Co	59	230.0	50.6	**0.0300**	0.024	79.4	ug/L	86	KED
|	Ni	60	1518.4	11.1	**0.2226**	0.124	55.6	ug/L	1252	KED
|	Cu	65	448.0	13.3	**0.0242**	0.034	138.3	ug/L	418	KED
|	Zn	66	554.0	39.9	**0.7257**	0.451	62.2	ug/L	204	KED
|>	Ge	72	228061.9	1.7				ug/L	234818	KED
|	As	75	673.7	3.2	**-0.0592**	0.080	135.2	ug/L	719	KED
|	Se	82	11.7	8.9	**-0.1683**	0.068	40.7	ug/L	15	KED
|	Se-1	78	32.2	11.7	**-0.0478**	0.101	212.0	ug/L	35	KED
⌊	Se-1	80	23083.1	1.1	**5.7234**	2.466	43.1	ug/L	23187	KED
	Ga	71	78.3	26.6				ug/L	33	KED
	Rb	85	15.0	0.0				ug/L	13	KED
	Y	89	185625.3	1.6				ug/L	191699	KED
	Rh	103	3.3	86.6				ug/L	5	KED
⌈	Mo	98	254.7	14.6	**0.0623**	0.009	15.0	ug/L	47	KED
|	Ag	107	287.0	29.3	**0.0181**	0.012	64.7	ug/L	173	KED
|	Cd	111	21.0	45.4	**0.0171**	0.009	54.9	ug/L	5	KED
|	Cd	114	49.3	29.0	**0.0090**	0.006	62.3	ug/L	29	KED
|>	In	115	239959.5	2.1				ug/L	248460	KED
|	Sn	118	617.3	1.9	**0.0429**	0.006	14.7	ug/L	556	KED
|	Sb	123	1142.0	7.9	**0.6394**	0.045	7.1	ug/L	79	KED
⌊	Ba	135	43.7	62.8	**0.0539**	0.049	90.0	ug/L	15	KED
	Ce	140	31.0	30.8				ug/L	45	KED
	Tb	159	638199.9	0.6				ug/L	661680	KED
⌈	Ho	165	6.3	9.1				ug/L	5	KED
|	Tl	203	20.7	22.9	**0.0028**	0.001	34.3	ug/L	8	KED
|	Tl	205	50.0	53.7	**0.0029**	0.002	76.6	ug/L	16	KED
|	Pb	206	438.3	17.0	**0.0322**	0.017	53.7	ug/L	316	KED
|	Pb	207	401.7	20.6	**0.0330**	0.022	66.4	ug/L	291	KED
|	Pb	208	958.0	15.7	**0.0315**	0.016	50.2	ug/L	695	KED
|	U	238	487.0	58.1	**0.0211**	0.012	59.0	ug/L	16	KED

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	Th	232	16313.7	19.9	**0.7519**	0.161	21.4	ug/L	1926	KED
>	**Bi**	209	501102.4	0.9				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	1293.4	3.7	**-0.0026**	0.004	133.3	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**-0.6739**	42.405	6292.7	mg/L	2	KED
	Fe	54	13.3	21.7	**0.0036**	0.003	77.5	mg/L	10	KED
	Fe	57	28.3	50.9	**0.0034**	0.006	187.3	mg/L	22	KED
>	**Sc-1**	45	83575.9	1.6				mg/L	87229	KED
	Cl	35	2195.2	6.0				ug/L	2227	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	15.0	0.0				ug/L	23	KED
	P	31	256.7	9.2				ug/L	212	KED
	S	34	28.3	36.7				ug/L	37	KED
	Sr	88	16.7	34.6				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		95.812	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		97.123	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		96.579
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		97.343
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		95.812
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 2	V	51	
QC Std 2	Sb	123	
QC Std 2	Th	232	
QC Std 2	Ca	43	

Sample ID: QC Std 2
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Method 6020 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Wednesday, September 04, 2019 11:31:39
Number of Replicates: 3
Autosampler Position: 202
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	9839.9	7.4				ug/L	9383	KED
|	**Be**	9	15.0	29.1	**0.1888**	0.062	33.0	ug/L	0	KED
|	**Al**	27	5049.2	5.2				ug/L	73	KED
|>	**Sc-2**	45	87818.9	5.5				ug/L	87229	KED
⌈	**Ti**	47	24.3	16.6	**0.9639**	0.324	33.6	ug/L	11	KED
|	**V**	51	9787.8	3.8	**-0.9232**	0.322	34.9	ug/L	10753	KED
|	**Cr**	52	3651.8	0.8	**1.5917**	0.072	4.5	ug/L	489	KED
|	**Cr**	53	5819.5	3.5	**-2.8438**	1.399	49.2	ug/L	6416	KED
|	**Mn**	55	2438.2	1.1	**1.5588**	0.080	5.2	ug/L	206	KED
|	**Co**	59	4078.9	2.8	**0.7850**	0.055	6.9	ug/L	86	KED
|	**Ni**	60	5691.1	1.5	**3.1195**	0.224	7.2	ug/L	1252	KED
|	**Cu**	65	3082.6	2.1	**1.4613**	0.099	6.8	ug/L	418	KED
|	**Zn**	66	8944.0	1.2	**17.0863**	0.923	5.4	ug/L	204	KED
|>	**Ge**	72	238262.7	4.3				ug/L	234818	KED
|	**As**	75	1040.7	2.4	**0.7398**	0.122	16.5	ug/L	719	KED
|	**Se**	82	27.7	14.6	**0.7385**	0.169	22.9	ug/L	15	KED
|	**Se-1**	78	64.5	4.1	**0.7943**	0.006	0.8	ug/L	35	KED
⌊	**Se-1**	80	23196.4	0.7	**-2.9000**	10.743	370.5	ug/L	23187	KED
	Ga	71	43.3	33.3				ug/L	33	KED
	Rb	85	11.7	107.9				ug/L	13	KED
	Y	89	187265.0	6.5				ug/L	191699	KED
	Rh	103	6.7	173.2				ug/L	5	KED
⌈	**Mo**	98	2588.6	2.7	**0.7360**	0.053	7.2	ug/L	47	KED
|	**Ag**	107	5425.3	3.7	**0.7732**	0.065	8.4	ug/L	173	KED
|	**Cd**	111	452.3	3.9	**0.4534**	0.019	4.3	ug/L	5	KED
|	**Cd**	114	1123.0	2.6	**0.4511**	0.026	5.8	ug/L	29	KED
|>	**In**	115	247617.0	4.5				ug/L	248460	KED
|	**Sn**	118	1994.8	1.5	**0.7449**	0.034	4.6	ug/L	556	KED
|	**Sb**	123	1511.4	2.8	**0.8346**	0.046	5.5	ug/L	79	KED
⌊	**Ba**	135	1311.1	3.0	**2.3281**	0.120	5.1	ug/L	15	KED
	Ce	140	29.7	14.0				ug/L	45	KED
	Tb	159	663241.9	4.3				ug/L	661680	KED
⌈	**Ho**	165	3.3	45.8				ug/L	5	KED
|	**Tl**	203	786.4	9.3	**0.1611**	0.018	11.3	ug/L	8	KED
|	**Tl**	205	1843.1	6.3	**0.1523**	0.014	9.0	ug/L	16	KED
|	**Pb**	206	3539.4	4.5	**0.7816**	0.066	8.4	ug/L	316	KED
|	**Pb**	207	3177.0	3.8	**0.7913**	0.059	7.4	ug/L	291	KED
|	**Pb**	208	7861.7	2.9	**0.7887**	0.046	5.9	ug/L	695	KED
|	**U**	238	16815.7	4.0	**0.7409**	0.053	7.1	ug/L	16	KED

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	Th	232	12913.4	24.8	**0.5635**	0.171	30.3	ug/L	1926	KED
>	**Bi**	209	510932.4	3.6				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	3320.4	1.7	**0.1046**	0.008	7.6	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**23.8084**	0.000	0.0	mg/L	2	KED
	Fe	54	105.0	14.3	**0.0869**	0.010	12.0	mg/L	10	KED
	Fe	57	238.3	15.5	**0.0937**	0.018	18.7	mg/L	22	KED
>	**Sc-1**	45	87818.9	5.5				mg/L	87229	KED
	Cl	35	2256.8	5.3				ug/L	2227	KED
	Kr	83	6.7	86.6				ug/L	2	KED
	Br	81	26.7	47.2				ug/L	23	KED
	P	31	315.0	11.4				ug/L	212	KED
	S	34	33.3	48.2				ug/L	37	KED
	Sr	88	23.3	53.9				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	1.7	173.2				ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9	235.982		
	Al	27			
>	Sc-2	45		100.677	
	Ti	47			
	V	51	-230.794		
	Cr	52	198.967		
	Cr	53			
	Mn	55	194.855		
	Co	59	196.255		
	Ni	60	194.972		
	Cu	65	182.656		
	Zn	66	213.579		
>	Ge	72		101.467	
	As	75	184.942		
	Se	82	184.620		
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107	193.300	
|	Cd	111	188.900	
|	Cd	114		
| >	In	115		99.661
|	Sn	118		
|	Sb	123	208.641	
⌊	Ba	135	194.004	
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203	201.405	
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208	197.174	
|	U	238	185.216	
|	Th	232	140.871	
⌊ >	Bi	209		99.252
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		100.677
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Be	9	
QC Std 3	V	51	
QC Std 3	Cr	52	
QC Std 3	Mn	55	
QC Std 3	Co	59	
QC Std 3	Ni	60	
QC Std 3	Cu	65	
QC Std 3	Zn	66	
QC Std 3	As	75	

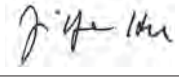
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QC Std 3	Se	82
QC Std 3	Ag	107
QC Std 3	Cd	111
QC Std 3	Sb	123
QC Std 3	Ba	135
QC Std 3	Tl	203
QC Std 3	Pb	208
QC Std 3	U	238
QC Std 3	Th	232

Sample ID: QC Std 3
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Method 6020 - Summary Report

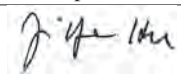
Sample ID: QC Std 4
Sample Date/Time: Wednesday, September 04, 2019 11:35:16
Number of Replicates: 3
Autosampler Position: 203
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	9451.3	2.8				ug/L	9383	KED
|	**Be**	9	0.7	86.6	**0.0086**	0.007	86.6	ug/L	0	KED
|	**Al**	27	206655.1	2.0				ug/L	73	KED
|>	**Sc-2**	45	84839.2	0.6				ug/L	87229	KED
⌈	**Ti**	47	1247.7	4.7	**89.0019**	4.956	5.6	ug/L	11	KED
|	**V**	51	6344.3	10.6	**-3.7065**	0.523	14.1	ug/L	10753	KED
|	**Cr**	52	741.0	9.4	**0.1287**	0.037	28.7	ug/L	489	KED
|	**Cr**	53	3993.9	13.3	**-10.2558**	2.128	20.8	ug/L	6416	KED
|	**Mn**	55	2173.2	3.7	**1.3923**	0.066	4.7	ug/L	206	KED
|	**Co**	59	153.0	42.1	**0.0134**	0.013	97.5	ug/L	86	KED
|	**Ni**	60	1473.7	15.2	**0.1575**	0.162	103.0	ug/L	1252	KED
|	**Cu**	65	428.0	8.8	**0.0056**	0.022	397.9	ug/L	418	KED
|	**Zn**	66	1641.4	4.6	**2.8441**	0.155	5.4	ug/L	204	KED
|>	**Ge**	72	235071.6	0.8				ug/L	234818	KED
|	**As**	75	637.7	6.5	**-0.1964**	0.089	45.5	ug/L	719	KED
|	**Se**	82	17.3	26.0	**0.1480**	0.269	181.5	ug/L	15	KED
|	**Se-1**	78	38.3	28.1	**0.0967**	0.302	312.6	ug/L	35	KED
⌊	**Se-1**	80	23976.8	0.2	**7.5221**	1.999	26.6	ug/L	23187	KED
	Ga	71	53.3	30.1				ug/L	33	KED
	Rb	85	176.7	8.6				ug/L	13	KED
	Y	89	193104.8	2.2				ug/L	191699	KED
	Rh	103	8.3	124.9				ug/L	5	KED
⌈	**Mo**	98	295224.9	1.5	**84.3202**	1.518	1.8	ug/L	47	KED
|	**Ag**	107	181.0	10.0	**0.0010**	0.003	277.5	ug/L	173	KED
|	**Cd**	111	75.0	12.7	**0.0703**	0.009	12.4	ug/L	5	KED
|	**Cd**	114	129.7	7.9	**0.0409**	0.004	10.4	ug/L	29	KED
|>	**In**	115	250467.8	1.2				ug/L	248460	KED
|	**Sn**	118	1403.1	3.8	**0.4300**	0.023	5.4	ug/L	556	KED
|	**Sb**	123	319.3	7.1	**0.1379**	0.014	10.3	ug/L	79	KED
⌊	**Ba**	135	30.0	17.6	**0.0271**	0.010	37.2	ug/L	15	KED
	Ce	140	36.0	21.7				ug/L	45	KED
	Tb	159	650098.2	0.9				ug/L	661680	KED
⌈	**Ho**	165	7.0	24.7				ug/L	5	KED
|	**Tl**	203	8.0	12.5	**0.0001**	0.000	194.1	ug/L	8	KED
|	**Tl**	205	22.7	31.9	**0.0006**	0.001	101.3	ug/L	16	KED
|	**Pb**	206	385.7	6.6	**0.0185**	0.008	40.9	ug/L	316	KED
|	**Pb**	207	322.7	4.4	**0.0102**	0.003	31.9	ug/L	291	KED
|	**Pb**	208	892.0	5.0	**0.0233**	0.005	22.5	ug/L	695	KED
|	**U**	238	81.3	17.2	**0.0029**	0.001	23.3	ug/L	16	KED

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	Th	232	13945.4	26.9	**0.6232**	0.194	31.2	ug/L	1926	KED
>	**Bi**	209	505735.7	1.5				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	198488.3	0.5	**11.1334**	0.129	1.2	mg/L	1398	KED
	K	39	1.7	173.2	**8.1669**	14.145	173.2	mg/L	0	KED
	Ca	43	5.0	100.0	**-49.3186**	73.026	148.1	mg/L	2	KED
	Fe	54	10892.2	3.1	**10.3298**	0.359	3.5	mg/L	10	KED
	Fe	57	22792.1	2.7	**10.1738**	0.216	2.1	mg/L	22	KED
>	**Sc-1**	45	84839.2	0.6				mg/L	87229	KED
	Cl	35	2458.5	7.1				ug/L	2227	KED
	Kr	83	3.3	173.2				ug/L	2	KED
	Br	81	30.0	33.3				ug/L	23	KED
	P	31	291.7	15.4				ug/L	212	KED
	S	34	28.3	66.8				ug/L	37	KED
	Sr	88	61.7	32.8				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		97.261	
	Ti	47	89.002		
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		100.108	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98	84.320	
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		100.808
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊>	Bi	209		98.243
⌈	Na	23		
|	Mg	24	222.668	
|	K	39	163.337	
|	Ca	43	-328.791	
|	Fe	54	82.638	
|	Fe	57	81.390	
⌊>	Sc-1	45		97.261
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 4	V	51	
QC Std 4	Mn	55	
QC Std 4	Th	232	
QC Std 4	Mg	24	
QC Std 4	K	39	
QC Std 4	Ca	43	

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Method 6020 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Wednesday, September 04, 2019 11:38:08
Number of Replicates: 3
Autosampler Position: 204
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	8992.7	2.8				ug/L	9383	KED
|	**Be**	9	8050.8	1.6	**107.7047**	2.109	2.0	ug/L	0	KED
|	**Al**	27	201462.3	1.1				ug/L	73	KED
|>	**Sc-2**	45	81977.6	3.1				ug/L	87229	KED
⌈	**Ti**	47	1239.7	2.7	**89.1947**	2.553	2.9	ug/L	11	KED
|	**V**	51	134284.8	1.0	**104.5401**	3.994	3.8	ug/L	10753	KED
|	**Cr**	52	197310.2	1.0	**101.4216**	3.535	3.5	ug/L	489	KED
|	**Cr**	53	30570.8	2.6	**103.0298**	4.972	4.8	ug/L	6416	KED
|	**Mn**	55	142181.0	1.0	**101.4369**	3.794	3.7	ug/L	206	KED
|	**Co**	59	495343.5	0.8	**99.4558**	4.036	4.1	ug/L	86	KED
|	**Ni**	60	139880.9	1.9	**99.8479**	2.586	2.6	ug/L	1252	KED
|	**Cu**	65	177157.8	1.3	**99.1744**	3.440	3.5	ug/L	418	KED
|	**Zn**	66	54716.0	1.8	**108.8658**	2.924	2.7	ug/L	204	KED
|>	**Ge**	72	233152.8	4.4				ug/L	234818	KED
|	**As**	75	43402.1	1.3	**103.2812**	3.374	3.3	ug/L	719	KED
|	**Se**	82	1744.6	1.0	**104.2211**	3.717	3.6	ug/L	15	KED
|	**Se-1**	78	3773.1	1.6	**104.1806**	3.827	3.7	ug/L	35	KED
⌊	**Se-1**	80	32698.2	0.5	**96.2312**	13.248	13.8	ug/L	23187	KED
	Ga	71	56.7	13.5				ug/L	33	KED
	Rb	85	156.7	4.9				ug/L	13	KED
	Y	89	193206.9	3.8				ug/L	191699	KED
	Rh	103	65.0	13.3				ug/L	5	KED
⌈	**Mo**	98	301557.7	1.4	**85.8673**	2.166	2.5	ug/L	47	KED
|	**Ag**	107	633869.2	1.7	**91.7226**	3.370	3.7	ug/L	173	KED
|	**Cd**	111	101401.0	3.0	**101.1149**	2.722	2.7	ug/L	5	KED
|	**Cd**	114	241503.7	1.4	**97.9799**	2.407	2.5	ug/L	29	KED
|>	**In**	115	251371.7	3.8				ug/L	248460	KED
|	**Sn**	118	1910.1	2.5	**0.6866**	0.050	7.3	ug/L	556	KED
|	**Sb**	123	182692.6	1.0	**104.7398**	3.910	3.7	ug/L	79	KED
⌊	**Ba**	135	55409.1	1.4	**97.9298**	2.711	2.8	ug/L	15	KED
	Ce	140	49.3	18.4				ug/L	45	KED
	Tb	159	642764.4	3.0				ug/L	661680	KED
⌈	**Ho**	165	6.7	48.2				ug/L	5	KED
|	**Tl**	203	458830.0	0.9	**97.8264**	2.504	2.6	ug/L	8	KED
|	**Tl**	205	1132397.8	1.6	**97.2576**	1.823	1.9	ug/L	16	KED
|	**Pb**	206	390887.2	1.7	**97.4785**	2.241	2.3	ug/L	316	KED
|	**Pb**	207	345873.8	1.9	**97.5563**	2.349	2.4	ug/L	291	KED
|	**Pb**	208	860309.7	1.1	**97.4621**	2.435	2.5	ug/L	695	KED
|	**U**	238	2269207.7	2.3	**103.1031**	1.195	1.2	ug/L	16	KED

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	Th	232	34233.9	31.5	**1.6994**	0.528	31.1	ug/L	1926	KED
>	**Bi**	209	495249.4	3.4				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	194407.7	1.2	**11.2913**	0.298	2.6	mg/L	1398	KED
	K	39	1.7	173.2	**8.2623**	14.311	173.2	mg/L	0	KED
	Ca	43	6.7	114.6	**-77.2840**	113.888	147.4	mg/L	2	KED
	Fe	54	10638.7	6.0	**10.4342**	0.311	3.0	mg/L	10	KED
	Fe	57	22651.9	1.8	**10.4702**	0.294	2.8	mg/L	22	KED
>	**Sc-1**	45	81977.6	3.1				mg/L	87229	KED
	Cl	35	2441.9	4.2				ug/L	2227	KED
	Kr	83	0.0					ug/L	2	KED
	Br	81	33.3	37.7				ug/L	23	KED
	P	31	260.0	3.3				ug/L	212	KED
	S	34	41.7	25.0				ug/L	37	KED
	Sr	88	85.0	15.6				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9	107.705		
	Al	27			
>	Sc-2	45		93.980	
	Ti	47	89.195		
	V	51	104.540		
	Cr	52	101.422		
	Cr	53			
	Mn	55	101.437		
	Co	59	99.456		
	Ni	60	99.848		
	Cu	65	99.174		
	Zn	66	108.866		
>	Ge	72		99.291	
	As	75	103.281		
	Se	82	104.221		
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98	85.867	
|	Ag	107	91.723	
|	Cd	111	101.115	
|	Cd	114		
|>	In	115		101.172
|	Sn	118		
|	Sb	123	104.740	
⌊	Ba	135	97.930	
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203	97.826	
|	Tl	205		
|	Pb	206	97.479	
|	Pb	207	97.556	
|	Pb	208	97.462	
|	U	238	103.103	
|	Th	232		
⌊>	Bi	209		96.206
⌈	Na	23		
|	Mg	24	225.826	
|	K	39	165.247	
|	Ca	43	-515.226	
|	Fe	54	83.474	
|	Fe	57	83.761	
⌊>	Sc-1	45		93.980
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Mg	24	
QC Std 5	K	39	
QC Std 5	Ca	43	

Sample ID: QC Std 5
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Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, September 04, 2019 11:41:02
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	9909.9	1.5				ug/L	9383	KED
|	**Be**	9	513.0	6.1	**6.2234**	0.393	6.3	ug/L	0	KED
|	**Al**	27	192691.0	1.3				ug/L	73	KED
|>	**Sc-2**	45	90384.5	1.4				ug/L	87229	KED
⌈	**Ti**	47	471.7	6.1	**30.4416**	2.380	7.8	ug/L	11	KED
|	**V**	51	46332.4	1.5	**26.6706**	0.707	2.7	ug/L	10753	KED
|	**Cr**	52	130865.2	2.2	**61.1670**	0.964	1.6	ug/L	489	KED
|	**Cr**	53	19824.6	2.3	**49.8103**	3.327	6.7	ug/L	6416	KED
|	**Mn**	55	93283.7	1.9	**60.5658**	1.756	2.9	ug/L	206	KED
|	**Co**	59	167690.7	1.8	**30.6575**	0.944	3.1	ug/L	86	KED
|	**Ni**	60	186219.9	1.7	**121.3313**	4.054	3.3	ug/L	1252	KED
|	**Cu**	65	119355.7	1.3	**60.7932**	2.144	3.5	ug/L	418	KED
|	**Zn**	66	327428.5	0.5	**595.4629**	15.551	2.6	ug/L	204	KED
|>	**Ge**	72	255755.2	2.3				ug/L	234818	KED
|	**As**	75	14223.7	0.7	**29.6250**	0.535	1.8	ug/L	719	KED
|	**Se**	82	557.2	5.8	**29.7185**	2.398	8.1	ug/L	15	KED
|	**Se-1**	78	1212.2	0.9	**29.8128**	0.840	2.8	ug/L	35	KED
⌊	**Se-1**	80	28088.0	1.0	**25.6917**	7.333	28.5	ug/L	23187	KED
	Ga	71	48.3	23.9				ug/L	33	KED
	Rb	85	156.7	9.2				ug/L	13	KED
	Y	89	217593.2	1.6				ug/L	191699	KED
	Rh	103	23.3	61.9				ug/L	5	KED
⌈	**Mo**	98	120722.4	0.3	**30.5596**	0.989	3.2	ug/L	47	KED
|	**Ag**	107	239193.0	0.6	**30.7547**	0.971	3.2	ug/L	173	KED
|	**Cd**	111	20662.1	1.6	**18.3157**	0.331	1.8	ug/L	5	KED
|	**Cd**	114	50503.7	1.1	**18.2123**	0.669	3.7	ug/L	29	KED
|>	**In**	115	282705.4	3.4				ug/L	248460	KED
|	**Sn**	118	67596.1	0.7	**30.3027**	0.826	2.7	ug/L	556	KED
|	**Sb**	123	60654.5	1.3	**30.8747**	0.698	2.3	ug/L	79	KED
⌊	**Ba**	135	57209.8	0.6	**89.9003**	2.534	2.8	ug/L	15	KED
	Ce	140	64.7	8.5				ug/L	45	KED
	Tb	159	730533.8	3.5				ug/L	661680	KED
⌈	**Ho**	165	5.0	52.9				ug/L	5	KED
|	**Tl**	203	31896.5	2.0	**6.0084**	0.224	3.7	ug/L	8	KED
|	**Tl**	205	78646.6	1.2	**5.9687**	0.189	3.2	ug/L	16	KED
|	**Pb**	206	133763.6	1.6	**29.4212**	0.606	2.1	ug/L	316	KED
|	**Pb**	207	118661.5	1.0	**29.5198**	0.627	2.1	ug/L	291	KED
|	**Pb**	208	297533.5	1.1	**29.7279**	0.558	1.9	ug/L	695	KED
|	**U**	238	746536.5	2.2	**29.9745**	0.670	2.2	ug/L	16	KED

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	Th	232	587951.7	5.1	**27.3174**	1.260	4.6	ug/L	1926	KED
>	**Bi**	209	560445.6	3.0				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	72812.9	1.4	**3.7831**	0.029	0.8	mg/L	1398	KED
	K	39	1.7	173.2	**7.5017**	12.993	173.2	mg/L	0	KED
	Ca	43	3.3	173.2	**-22.2534**	79.781	358.5	mg/L	2	KED
	Fe	54	4464.0	1.3	**3.9679**	0.047	1.2	mg/L	10	KED
	Fe	57	9217.8	1.8	**3.8566**	0.046	1.2	mg/L	22	KED
>	**Sc-1**	45	90384.5	1.4				mg/L	87229	KED
	Cl	35	1866.8	3.8				ug/L	2227	KED
	Kr	83	3.3	86.6				ug/L	2	KED
	Br	81	15.0	0.0				ug/L	23	KED
	P	31	331.7	15.7				ug/L	212	KED
	S	34	36.7	51.6				ug/L	37	KED
	Sr	88	33.3	43.3				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9	97.241		
	Al	27			
>	Sc-2	45		103.618	
	Ti	47	95.130		
	V	51	83.346		
	Cr	52	95.574		
	Cr	53			
	Mn	55	94.634		
	Co	59	95.805		
	Ni	60	94.790		
	Cu	65	94.989		
	Zn	66	93.041		
>	Ge	72		108.916	
	As	75	92.578		
	Se	82	92.870		
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98	95.499	
|	Ag	107	96.108	
|	Cd	111	95.395	
|	Cd	114		
|>	In	115		113.783
|	Sn	118	94.696	
|	Sb	123	96.483	
⌊	Ba	135	93.646	
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203	93.881	
|	Tl	205		
|	Pb	206	91.941	
|	Pb	207	92.249	
|	Pb	208	92.900	
|	U	238	93.670	
|	Th	232		
⌊>	Bi	209		108.871
⌈	Na	23		
|	Mg	24	94.577	
|	K	39	187.543	
|	Ca	43	-556.336	
|	Fe	54	99.197	
|	Fe	57	96.415	
⌊>	Sc-1	45		103.618
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	V	51	
QC Std 6	K	39	
QC Std 6	Ca	43	

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Method 6020 - Summary Report

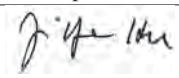
Sample ID: QC Std 7
Sample Date/Time: Wednesday, September 04, 2019 11:43:56
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	9222.8	1.1				ug/L	9383	KED
|	**Be**	9	1.3	43.3	**0.0172**	0.008	44.3	ug/L	0	KED
|	**Al**	27	151.7	45.7				ug/L	73	KED
⌊>	**Sc-2**	45	85336.0	1.0				ug/L	87229	KED
⌈	**Ti**	47	12.3	30.7	**0.1237**	0.268	216.7	ug/L	11	KED
|	**V**	51	6679.8	12.8	**-3.3803**	0.762	22.5	ug/L	10753	KED
|	**Cr**	52	498.0	15.0	**0.0065**	0.041	628.2	ug/L	489	KED
|	**Cr**	53	4165.6	18.7	**-9.3856**	3.428	36.5	ug/L	6416	KED
|	**Mn**	55	260.7	13.1	**0.0396**	0.024	61.8	ug/L	206	KED
|	**Co**	59	185.3	26.2	**0.0200**	0.010	48.8	ug/L	86	KED
|	**Ni**	60	1126.4	8.3	**-0.0852**	0.064	75.0	ug/L	1252	KED
|	**Cu**	65	364.3	5.5	**-0.0285**	0.011	37.5	ug/L	418	KED
|	**Zn**	66	496.0	22.9	**0.5843**	0.230	39.4	ug/L	204	KED
|>	**Ge**	72	233453.5	0.8				ug/L	234818	KED
|	**As**	75	632.3	1.3	**-0.1982**	0.030	15.1	ug/L	719	KED
|	**Se**	82	15.7	29.7	**0.0546**	0.275	503.2	ug/L	15	KED
|	**Se-1**	78	41.2	4.3	**0.1820**	0.058	31.6	ug/L	35	KED
⌊	**Se-1**	80	23745.4	0.4	**6.8692**	2.605	37.9	ug/L	23187	KED
	Ga	71	55.0	24.1				ug/L	33	KED
	Rb	85	10.0	50.0				ug/L	13	KED
	Y	89	192242.0	1.2				ug/L	191699	KED
	Rh	103	1.7	173.2				ug/L	5	KED
⌈	**Mo**	98	385.7	23.4	**0.0965**	0.025	26.4	ug/L	47	KED
|	**Ag**	107	269.7	13.5	**0.0138**	0.005	36.5	ug/L	173	KED
|	**Cd**	111	19.0	24.1	**0.0143**	0.005	32.1	ug/L	5	KED
|	**Cd**	114	58.0	25.7	**0.0117**	0.006	51.0	ug/L	29	KED
|>	**In**	115	250720.8	0.7				ug/L	248460	KED
|	**Sn**	118	606.0	5.4	**0.0229**	0.015	64.1	ug/L	556	KED
|	**Sb**	123	1123.7	5.7	**0.5998**	0.037	6.2	ug/L	79	KED
⌊	**Ba**	135	38.0	31.9	**0.0410**	0.021	51.5	ug/L	15	KED
	Ce	140	26.7	9.4				ug/L	45	KED
	Tb	159	658416.2	0.5				ug/L	661680	KED
⌈	**Ho**	165	9.3	27.0				ug/L	5	KED
|	**Tl**	203	30.0	30.6	**0.0046**	0.002	40.7	ug/L	8	KED
|	**Tl**	205	81.3	24.4	**0.0054**	0.002	30.1	ug/L	16	KED
|	**Pb**	206	459.7	10.0	**0.0346**	0.011	30.7	ug/L	316	KED
|	**Pb**	207	378.0	2.5	**0.0238**	0.002	9.4	ug/L	291	KED
|	**Pb**	208	959.7	6.1	**0.0290**	0.006	20.7	ug/L	695	KED
|	**U**	238	599.0	45.4	**0.0255**	0.012	46.5	ug/L	16	KED

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	Th	232	9590.4	18.7	**0.3893**	0.090	23.1	ug/L	1926	KED
>	**Bi**	209	514316.9	0.4				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	1185.0	13.5	**-0.0103**	0.009	86.9	mg/L	1398	KED
	K	39	1.7	173.2	**8.0408**	13.927	173.2	mg/L	0	KED
	Ca	43	0.0		**23.8084**	0.000	0.0	mg/L	2	KED
	Fe	54	15.0	33.3	**0.0049**	0.005	94.7	mg/L	10	KED
	Fe	57	21.7	113.8	**0.0002**	0.011	5879.8	mg/L	22	KED
>	**Sc-1**	45	85336.0	1.0				mg/L	87229	KED
	Cl	35	2238.5	5.5				ug/L	2227	KED
	Kr	83	3.3	86.6				ug/L	2	KED
	Br	81	25.0	20.0				ug/L	23	KED
	P	31	356.7	14.6				ug/L	212	KED
	S	34	45.0	50.9				ug/L	37	KED
	Sr	88	25.0	0.0				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		97.830	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		99.419	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	100.910
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	99.910
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	97.830
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 7	V	51	
QC Std 7	Sb	123	
QC Std 7	K	39	
QC Std 7	Ca	43	

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Method 6020 - Summary Report

Sample ID: PBS 13 WG710621-02
Sample Date/Time: Wednesday, September 04, 2019 11:46:50
Number of Replicates: 3
Autosampler Position: 323
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	10175.1	0.8				ug/L	9383	KED
|	Be	9	0.0		**0.0000**	0.000		ug/L	0	KED
|	Al	27	168.3	24.9				ug/L	73	KED
⌊>	Sc-2	45	89222.3	1.1				ug/L	87229	KED
⌈	Ti	47	11.3	35.7	**0.0376**	0.282	748.8	ug/L	11	KED
|	V	51	10424.9	3.4	**-0.3704**	0.346	93.3	ug/L	10753	KED
|	Cr	52	628.0	1.4	**0.0677**	0.006	8.2	ug/L	489	KED
|	Cr	53	6309.6	5.9	**-0.7418**	1.613	217.5	ug/L	6416	KED
|	Mn	55	273.3	2.4	**0.0453**	0.005	10.5	ug/L	206	KED
|	Co	59	104.7	5.8	**0.0035**	0.001	39.4	ug/L	86	KED
|	Ni	60	947.0	5.5	**-0.2256**	0.032	14.4	ug/L	1252	KED
|	Cu	65	323.3	5.5	**-0.0545**	0.009	17.4	ug/L	418	KED
|	Zn	66	756.0	0.2	**1.0766**	0.015	1.4	ug/L	204	KED
| >	Ge	72	237441.8	0.9				ug/L	234818	KED
|	As	75	820.7	2.2	**0.2232**	0.047	21.3	ug/L	719	KED
|	Se	82	20.2	27.3	**0.3036**	0.313	103.2	ug/L	15	KED
|	Se-1	78	38.2	12.5	**0.0806**	0.132	163.6	ug/L	35	KED
⌊	Se-1	80	23348.8	1.2	**-0.9485**	1.653	174.2	ug/L	23187	KED
	Ga	71	61.7	33.8				ug/L	33	KED
	Rb	85	16.7	34.6				ug/L	13	KED
	Y	89	192393.9	0.8				ug/L	191699	KED
	Rh	103	11.7	99.0				ug/L	5	KED
⌈	Mo	98	180.7	28.1	**0.0384**	0.015	40.1	ug/L	47	KED
|	Ag	107	202.7	8.3	**0.0042**	0.002	48.6	ug/L	173	KED
|	Cd	111	13.7	40.3	**0.0090**	0.005	59.1	ug/L	5	KED
|	Cd	114	34.3	7.3	**0.0021**	0.001	42.7	ug/L	29	KED
| >	In	115	249648.5	1.5				ug/L	248460	KED
|	Sn	118	647.0	3.9	**0.0454**	0.016	36.3	ug/L	556	KED
|	Sb	123	482.3	10.9	**0.2327**	0.033	14.1	ug/L	79	KED
⌊	Ba	135	31.3	1.8	**0.0295**	0.002	6.1	ug/L	15	KED
	Ce	140	83.7	5.6				ug/L	45	KED
	Tb	159	650245.0	0.7				ug/L	661680	KED
⌈	Ho	165	8.3	18.3				ug/L	5	KED
|	Tl	203	15.0	17.6	**0.0015**	0.001	35.7	ug/L	8	KED
|	Tl	205	52.0	10.7	**0.0030**	0.000	15.6	ug/L	16	KED
|	Pb	206	384.0	4.8	**0.0171**	0.004	25.3	ug/L	316	KED
|	Pb	207	320.0	6.0	**0.0086**	0.005	58.9	ug/L	291	KED
|	Pb	208	821.0	7.1	**0.0145**	0.006	44.0	ug/L	695	KED
|	U	238	120.3	30.2	**0.0046**	0.002	35.1	ug/L	16	KED

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	Th	232	13708.9	12.1	**0.6036**	0.085	14.1	ug/L	1926	KED
>	**Bi**	209	510722.3	0.2				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	1241.7	7.9	**-0.0101**	0.006	56.6	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**23.8084**	0.000	0.0	mg/L	2	KED
	Fe	54	11.7	49.5	**0.0013**	0.005	401.9	mg/L	10	KED
	Fe	57	35.0	14.3	**0.0054**	0.002	36.0	mg/L	22	KED
>	**Sc-1**	45	89222.3	1.1				mg/L	87229	KED
	Cl	35	2870.3	4.0				ug/L	2227	KED
	Kr	83	3.3	86.6				ug/L	2	KED
	Br	81	310.0	63.7				ug/L	23	KED
	P	31	320.0	5.6				ug/L	212	KED
	S	34	43.3	17.6				ug/L	37	KED
	Sr	88	36.7	39.4				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		102.285	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		101.117	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		100.479
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		99.212
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		102.285
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: LCSS 13 WG710621-03
Sample Date/Time: Wednesday, September 04, 2019 11:49:42
Number of Replicates: 3
Autosampler Position: 324
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	10670.4	2.4				ug/L	9383	KED
|	Be	9	547.0	2.2	**6.5361**	0.350	5.4	ug/L	0	KED
|	Al	27	154514.0	1.8				ug/L	73	KED
|>	Sc-2	45	91854.1	3.2				ug/L	87229	KED
⌈	Ti	47	506.3	2.4	**33.4761**	1.744	5.2	ug/L	11	KED
|	V	51	51055.3	3.1	**31.1867**	1.621	5.2	ug/L	10753	KED
|	Cr	52	137229.5	1.9	**65.5791**	0.554	0.8	ug/L	489	KED
|	Cr	53	22865.6	5.1	**63.5517**	5.220	8.2	ug/L	6416	KED
|	Mn	55	98065.8	2.3	**65.0732**	0.840	1.3	ug/L	206	KED
|	Co	59	172690.4	1.7	**32.2628**	0.327	1.0	ug/L	86	KED
|	Ni	60	191907.1	1.2	**127.8286**	2.436	1.9	ug/L	1252	KED
|	Cu	65	120915.9	1.1	**62.9419**	1.085	1.7	ug/L	418	KED
|	Zn	66	331846.1	2.2	**616.6979**	9.951	1.6	ug/L	204	KED
|>	Ge	72	250233.1	2.8				ug/L	234818	KED
|	As	75	14358.8	0.5	**30.6291**	0.888	2.9	ug/L	719	KED
|	Se	82	557.3	2.8	**30.3900**	1.472	4.8	ug/L	15	KED
|	Se-1	78	1179.2	2.2	**29.6282**	0.382	1.3	ug/L	35	KED
⌊	Se-1	80	27647.9	0.5	**27.2736**	8.300	30.4	ug/L	23187	KED
	Ga	71	45.0	50.9				ug/L	33	KED
	Rb	85	135.0	12.8				ug/L	13	KED
	Y	89	207947.7	2.1				ug/L	191699	KED
	Rh	103	26.7	47.2				ug/L	5	KED
⌈	Mo	98	116121.3	0.3	**31.2105**	0.514	1.6	ug/L	47	KED
|	Ag	107	230325.2	1.1	**31.4416**	0.245	0.8	ug/L	173	KED
|	Cd	111	19804.3	0.6	**18.6466**	0.399	2.1	ug/L	5	KED
|	Cd	114	48340.3	1.4	**18.5049**	0.062	0.3	ug/L	29	KED
|>	In	115	266112.3	1.6				ug/L	248460	KED
|	Sn	118	64810.7	2.3	**30.8531**	0.609	2.0	ug/L	556	KED
|	Sb	123	57353.3	0.5	**31.0064**	0.662	2.1	ug/L	79	KED
⌊	Ba	135	55364.0	1.0	**92.3719**	0.560	0.6	ug/L	15	KED
	Ce	140	67.0	1.5				ug/L	45	KED
	Tb	159	692248.8	0.9				ug/L	661680	KED
⌈	Ho	165	7.3	41.7				ug/L	5	KED
|	Tl	203	30691.4	1.0	**6.0853**	0.008	0.1	ug/L	8	KED
|	Tl	205	75173.4	0.5	**6.0054**	0.024	0.4	ug/L	16	KED
|	Pb	206	131294.4	0.9	**30.4074**	0.136	0.4	ug/L	316	KED
|	Pb	207	115038.1	1.2	**30.1307**	0.147	0.5	ug/L	291	KED
|	Pb	208	289664.0	0.5	**30.4738**	0.146	0.5	ug/L	695	KED
|	U	238	728040.4	0.8	**30.7796**	0.251	0.8	ug/L	16	KED

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	Th	232	605290.0	1.9	**29.6276**	0.683	2.3	ug/L	1926	KED
>	**Bi**	209	532115.1	0.9				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	62123.9	3.4	**3.1675**	0.198	6.2	mg/L	1398	KED
	K	39	1.7	173.2	**7.7751**	13.467	173.2	mg/L	0	KED
	Ca	43	0.0		**23.8084**	0.000	0.0	mg/L	2	KED
	Fe	54	3335.4	3.2	**2.9183**	0.180	6.2	mg/L	10	KED
	Fe	57	7063.3	5.4	**2.9108**	0.253	8.7	mg/L	22	KED
>	**Sc-1**	45	91854.1	3.2				mg/L	87229	KED
	Cl	35	2505.2	3.4				ug/L	2227	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	103.3	22.3				ug/L	23	KED
	P	31	300.0	3.3				ug/L	212	KED
	S	34	25.0	20.0				ug/L	37	KED
	Sr	88	38.3	71.8				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		105.303	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		106.565	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		107.105
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		103.367
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		105.303
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: LCSS 13 WG710621-03
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Method 6020 - Summary Report

Sample ID: L1908016002 WG710621-01
Sample Date/Time: Wednesday, September 04, 2019 11:52:35
Number of Replicates: 3
Autosampler Position: 325
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	11874.7	1.7				ug/L	9383	KED
|	**Be**	9	153.0	4.1	**1.7273**	0.112	6.5	ug/L	0	KED
|	**Al**	27	322707.5	1.4				ug/L	73	KED
\>	**Sc-2**	45	97222.1	3.0				ug/L	87229	KED
⌈	**Ti**	47	1395.7	3.6	**98.0343**	5.494	5.6	ug/L	11	KED
|	**V**	51	72137.0	0.8	**50.4669**	2.506	5.0	ug/L	10753	KED
|	**Cr**	52	59704.1	1.0	**29.7485**	1.212	4.1	ug/L	489	KED
|	**Cr**	53	14213.3	3.3	**31.8818**	2.321	7.3	ug/L	6416	KED
|	**Mn**	55	1388009.8	1.0	**966.7885**	39.899	4.1	ug/L	206	KED
|	**Co**	59	194548.1	0.3	**38.0811**	1.804	4.7	ug/L	86	KED
|	**Ni**	60	96154.2	0.8	**66.6825**	3.741	5.6	ug/L	1252	KED
|	**Cu**	65	89898.9	1.1	**48.9904**	2.989	6.1	ug/L	418	KED
|	**Zn**	66	88943.3	0.8	**172.8939**	8.856	5.1	ug/L	204	KED
\>	**Ge**	72	239197.2	5.1				ug/L	234818	KED
|	**As**	75	10913.3	0.8	**24.0376**	1.473	6.1	ug/L	719	KED
|	**Se**	82	118.0	6.6	**6.0601**	0.755	12.5	ug/L	15	KED
|	**Se-1**	78	136.7	5.0	**2.7458**	0.027	1.0	ug/L	35	KED
⌊	**Se-1**	80	22512.2	1.4	**-10.4220**	7.911	75.9	ug/L	23187	KED
	Ga	71	7108.3	1.9				ug/L	33	KED
	Rb	85	32314.4	2.7				ug/L	13	KED
	Y	89	318412.3	2.5				ug/L	191699	KED
	Rh	103	30.0	16.7				ug/L	5	KED
⌈	**Mo**	98	18529.0	0.9	**5.3234**	0.206	3.9	ug/L	47	KED
|	**Ag**	107	634.3	29.4	**0.0670**	0.024	35.7	ug/L	173	KED
|	**Cd**	111	516.0	8.4	**0.5149**	0.029	5.7	ug/L	5	KED
|	**Cd**	114	1291.1	2.8	**0.5175**	0.004	0.8	ug/L	29	KED
\>	**In**	115	248593.6	3.4				ug/L	248460	KED
|	**Sn**	118	3635.1	3.1	**1.5835**	0.005	0.3	ug/L	556	KED
|	**Sb**	123	3864.5	0.4	**2.1951**	0.073	3.3	ug/L	79	KED
⌊	**Ba**	135	94880.2	1.0	**169.6256**	7.039	4.1	ug/L	15	KED
	Ce	140	854741.9	0.8				ug/L	45	KED
	Tb	159	693110.9	3.1				ug/L	661680	KED
⌈	**Ho**	165	16903.4	0.5				ug/L	5	KED
|	**Tl**	203	2166.2	0.7	**0.4295**	0.014	3.4	ug/L	8	KED
|	**Tl**	205	5311.9	2.0	**0.4247**	0.020	4.8	ug/L	16	KED
|	**Pb**	206	254283.6	1.4	**59.1697**	2.514	4.2	ug/L	316	KED
|	**Pb**	207	211342.9	1.0	**55.6140**	2.182	3.9	ug/L	291	KED
|	**Pb**	208	539467.1	1.4	**57.0170**	2.377	4.2	ug/L	695	KED
|	**U**	238	46280.3	1.8	**1.9623**	0.069	3.5	ug/L	16	KED

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	Th	232	235874.2	4.7	**11.5336**	0.895	7.8	ug/L	1926	KED
>	**Bi**	209	530692.3	3.0				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	4053.9	5.6	**0.1229**	0.005	4.2	mg/L	1398	KED
	K	39	1.7	173.2	**6.8727**	11.904	173.2	mg/L	0	KED
	Ca	43	6.7	86.6	**-61.7239**	74.171	120.2	mg/L	2	KED
	Fe	54	64646.0	1.4	**53.5551**	1.292	2.4	mg/L	10	KED
	Fe	57	140076.3	1.8	**54.6364**	1.724	3.2	mg/L	22	KED
>	**Sc-1**	45	97222.1	3.0				mg/L	87229	KED
	Cl	35	4864.1	6.8				ug/L	2227	KED
	Kr	83	8.3	173.2				ug/L	2	KED
	Br	81	203.3	7.5				ug/L	23	KED
	P	31	353.3	8.6				ug/L	212	KED
	S	34	53.3	27.1				ug/L	37	KED
	Sr	88	13482.7	2.7				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		111.456	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		101.865	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	100.054
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	103.091
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	111.456
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
Mn 55 Upper, S, EEE	Mn	55	

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Method 6020 - Summary Report

Sample ID: L1908016002S WG710621-04
Sample Date/Time: Wednesday, September 04, 2019 11:55:29
Number of Replicates: 3
Autosampler Position: 326
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	12366.7	2.7				ug/L	9383	KED
|	Be	9	795.7	3.1	8.7776	0.477	5.4	ug/L	0	KED
|	Al	27	312909.3	2.4				ug/L	73	KED
|>	Sc-2	45	99471.0	2.8				ug/L	87229	KED
⌈	Ti	47	1972.1	0.4	139.5978	4.231	3.0	ug/L	11	KED
|	V	51	112789.3	0.7	84.4972	2.799	3.3	ug/L	10753	KED
|	Cr	52	195425.2	0.4	98.4966	3.533	3.6	ug/L	489	KED
|	Cr	53	33744.2	0.3	113.7463	4.206	3.7	ug/L	6416	KED
|	Mn	55	1305241.8	0.7	914.2612	33.666	3.7	ug/L	206	KED
|	Co	59	323167.5	0.8	63.6140	2.427	3.8	ug/L	86	KED
|	Ni	60	265788.0	1.5	186.8878	8.105	4.3	ug/L	1252	KED
|	Cu	65	204726.2	0.2	112.4051	3.440	3.1	ug/L	418	KED
|	Zn	66	402793.4	0.1	788.5243	25.982	3.3	ug/L	204	KED
|>	Ge	72	237708.5	3.3				ug/L	234818	KED
|	As	75	25074.1	2.6	57.7334	0.960	1.7	ug/L	719	KED
|	Se	82	597.3	2.9	34.4206	2.095	6.1	ug/L	15	KED
|	Se-1	78	1129.5	4.9	29.8761	1.036	3.5	ug/L	35	KED
⌊	Se-1	80	24652.7	0.4	11.6211	7.172	61.7	ug/L	23187	KED
	Ga	71	7198.4	3.7				ug/L	33	KED
	Rb	85	31925.3	1.1				ug/L	13	KED
	Y	89	306849.7	1.4				ug/L	191699	KED
	Rh	103	56.7	18.4				ug/L	5	KED
⌈	Mo	98	120238.4	2.2	35.1085	0.804	2.3	ug/L	47	KED
|	Ag	107	207409.3	0.7	30.7612	0.416	1.4	ug/L	173	KED
|	Cd	111	17924.3	0.9	18.3332	0.285	1.6	ug/L	5	KED
|	Cd	114	44178.0	1.0	18.3756	0.346	1.9	ug/L	29	KED
|>	In	115	244933.7	1.0				ug/L	248460	KED
|	Sn	118	61784.4	0.4	31.9669	0.379	1.2	ug/L	556	KED
|	Sb	123	55821.0	1.0	32.7858	0.558	1.7	ug/L	79	KED
⌊	Ba	135	143800.5	0.2	260.7171	2.627	1.0	ug/L	15	KED
	Ce	140	833233.3	0.7				ug/L	45	KED
	Tb	159	700033.2	1.2				ug/L	661680	KED
⌈	Ho	165	16642.5	1.4				ug/L	5	KED
|	Tl	203	31763.9	0.9	6.3516	0.159	2.5	ug/L	8	KED
|	Tl	205	78025.4	1.1	6.2865	0.180	2.9	ug/L	16	KED
|	Pb	206	352046.7	0.6	82.3529	1.877	2.3	ug/L	316	KED
|	Pb	207	298596.0	0.7	79.0007	1.876	2.4	ug/L	291	KED
|	Pb	208	757577.3	0.2	80.4925	1.401	1.7	ug/L	695	KED
|	U	238	720268.0	0.5	30.7077	0.646	2.1	ug/L	16	KED

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	Th	232	811179.8	0.3	**40.0710**	0.763	1.9	ug/L	1926	KED
>	**Bi**	209	527779.9	1.7				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	3587.1	3.7	**0.0961**	0.009	8.9	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	3.3	86.6	**-17.4701**	35.767	204.7	mg/L	2	KED
	Fe	54	60467.1	2.2	**48.9440**	0.279	0.6	mg/L	10	KED
	Fe	57	130139.9	1.3	**49.6237**	2.023	4.1	mg/L	22	KED
>	**Sc-1**	45	99471.0	2.8				mg/L	87229	KED
	Cl	35	5277.6	2.7				ug/L	2227	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	173.3	27.7				ug/L	23	KED
	P	31	376.7	3.1				ug/L	212	KED
	S	34	35.0	24.7				ug/L	37	KED
	Sr	88	13557.7	2.8				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		114.035	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		101.231	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908016002S WG710621-04
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	98.581
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	102.525
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	114.035
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
Mn 55 Upper, S, EEE	Mn	55	
Ba 135 Upper, S, EEE	Ba	135	

Sample ID: L1908016002S WG710621-04
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Method 6020 - Summary Report

Sample ID: L1908016002SD WG710621-05
Sample Date/Time: Wednesday, September 04, 2019 11:58:22
Number of Replicates: 3
Autosampler Position: 327
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	12023.1	0.9				ug/L	9383	KED
|	**Be**	9	770.7	3.2	**8.5452**	0.228	2.7	ug/L	0	KED
|	**Al**	27	361167.6	1.1				ug/L	73	KED
\>	**Sc-2**	45	98873.3	1.5				ug/L	87229	KED
⌈	**Ti**	47	2208.2	0.5	**160.4971**	1.793	1.1	ug/L	11	KED
|	**V**	51	121086.0	1.4	**93.9871**	0.259	0.3	ug/L	10753	KED
|	**Cr**	52	204850.7	1.6	**105.9336**	0.029	0.0	ug/L	489	KED
|	**Cr**	53	34365.6	2.4	**120.0810**	3.801	3.2	ug/L	6416	KED
|	**Mn**	55	1446389.5	2.4	**1039.2543**	12.371	1.2	ug/L	206	KED
|	**Co**	59	335376.1	1.6	**67.7232**	0.751	1.1	ug/L	86	KED
|	**Ni**	60	267137.9	1.1	**192.7048**	1.320	0.7	ug/L	1252	KED
|	**Cu**	65	201155.4	1.8	**113.3108**	0.256	0.2	ug/L	418	KED
|	**Zn**	66	387574.6	0.6	**778.4885**	11.465	1.5	ug/L	204	KED
\>	**Ge**	72	231540.4	1.6				ug/L	234818	KED
|	**As**	75	23420.8	2.0	**55.2778**	0.291	0.5	ug/L	719	KED
|	**Se**	82	580.3	6.6	**34.2920**	2.440	7.1	ug/L	15	KED
|	**Se-1**	78	1104.5	1.6	**30.0053**	0.738	2.5	ug/L	35	KED
⌊	**Se-1**	80	24280.3	0.1	**14.1705**	3.772	26.6	ug/L	23187	KED
	Ga	71	8120.5	3.3				ug/L	33	KED
	Rb	85	40565.9	0.5				ug/L	13	KED
	Y	89	310115.7	2.0				ug/L	191699	KED
	Rh	103	50.0	26.5				ug/L	5	KED
⌈	**Mo**	98	120483.3	1.9	**35.3656**	0.625	1.8	ug/L	47	KED
|	**Ag**	107	198981.9	1.3	**29.6640**	0.114	0.4	ug/L	173	KED
|	**Cd**	111	17268.2	1.1	**17.7547**	0.208	1.2	ug/L	5	KED
|	**Cd**	114	43285.7	0.4	**18.0985**	0.161	0.9	ug/L	29	KED
\>	**In**	115	243643.1	1.1				ug/L	248460	KED
|	**Sn**	118	60268.6	0.8	**31.3416**	0.308	1.0	ug/L	556	KED
|	**Sb**	123	54532.6	0.8	**32.1955**	0.131	0.4	ug/L	79	KED
⌊	**Ba**	135	139257.4	1.4	**253.8055**	3.104	1.2	ug/L	15	KED
	Ce	140	1050086.9	1.5				ug/L	45	KED
	Tb	159	692843.4	1.2				ug/L	661680	KED
⌈	**Ho**	165	17307.5	1.4				ug/L	5	KED
|	**Tl**	203	31422.9	0.6	**6.2753**	0.062	1.0	ug/L	8	KED
|	**Tl**	205	77980.8	0.2	**6.2745**	0.048	0.8	ug/L	16	KED
|	**Pb**	206	344630.2	0.9	**80.5126**	0.664	0.8	ug/L	316	KED
|	**Pb**	207	291892.7	1.2	**77.1248**	0.794	1.0	ug/L	291	KED
|	**Pb**	208	736102.1	0.4	**78.1151**	0.722	0.9	ug/L	695	KED
|	**U**	238	713385.0	1.6	**30.3756**	0.448	1.5	ug/L	16	KED

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	Th	232	824233.3	0.2	**40.6674**	0.222	0.5	ug/L	1926	KED
>	**Bi**	209	528326.0	0.7				ug/L	514781	KED
	Na	23	1.7	173.2				mg/L	0	KED
	Mg	24	4048.9	4.8	**0.1194**	0.010	8.0	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	6.7	114.6	**-60.5885**	96.278	158.9	mg/L	2	KED
	Fe	54	67613.9	2.3	**55.0527**	0.771	1.4	mg/L	10	KED
	Fe	57	143541.7	0.5	**55.0298**	0.583	1.1	mg/L	22	KED
>	**Sc-1**	45	98873.3	1.5				mg/L	87229	KED
	Cl	35	5179.2	3.4				ug/L	2227	KED
	Kr	83	6.7	86.6				ug/L	2	KED
	Br	81	125.0	13.9				ug/L	23	KED
	P	31	373.3	5.1				ug/L	212	KED
	S	34	43.3	35.3				ug/L	37	KED
	Sr	88	13919.7	2.8				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		113.349	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		98.604	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908016002SD WG710621-05
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	98.061
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	102.631
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	113.349
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
V 51 Upper, S, EEE	V	51	
Mn 55 Upper, S, EEE	Mn	55	
Ba 135 Upper, S, EEE	Ba	135	

Sample ID: L1908016002SD WG710621-05
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Method 6020 - Summary Report

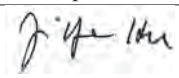
Sample ID: L1908015902
Sample Date/Time: Wednesday, September 04, 2019 12:01:15
Number of Replicates: 3
Autosampler Position: 328
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	11864.6	2.8				ug/L	9383	KED
|	Be	9	174.0	10.9	**1.9971**	0.227	11.4	ug/L	0	KED
|	Al	27	330775.3	1.2				ug/L	73	KED
|>	Sc-2	45	95562.5	2.2				ug/L	87229	KED
⌈	Ti	47	4555.4	1.5	**338.8295**	7.078	2.1	ug/L	11	KED
|	V	51	108927.2	1.3	**85.5737**	1.447	1.7	ug/L	10753	KED
|	Cr	52	86806.3	1.3	**45.6827**	0.591	1.3	ug/L	489	KED
|	Cr	53	19178.8	2.1	**56.7343**	0.772	1.4	ug/L	6416	KED
|	Mn	55	1940814.3	2.5	**1423.5448**	26.799	1.9	ug/L	206	KED
|	Co	59	135528.9	1.9	**27.9240**	0.235	0.8	ug/L	86	KED
|	Ni	60	74321.2	1.2	**54.0839**	0.454	0.8	ug/L	1252	KED
|	Cu	65	108949.0	1.4	**62.5425**	0.315	0.5	ug/L	418	KED
|	Zn	66	100142.5	1.1	**205.0043**	1.530	0.7	ug/L	204	KED
|>	Ge	72	226828.4	1.2				ug/L	234818	KED
|	As	75	17585.2	1.2	**41.9657**	0.067	0.2	ug/L	719	KED
|	Se	82	146.2	5.3	**8.1596**	0.570	7.0	ug/L	15	KED
|	Se-1	78	149.2	3.8	**3.3047**	0.116	3.5	ug/L	35	KED
⌊	Se-1	80	21554.7	0.6	**-8.5772**	1.680	19.6	ug/L	23187	KED
	Ga	71	11604.4	1.2				ug/L	33	KED
	Rb	85	44232.8	3.0				ug/L	13	KED
	Y	89	312197.1	3.0				ug/L	191699	KED
	Rh	103	18.3	31.5				ug/L	5	KED
⌈	Mo	98	17034.2	0.9	**5.1078**	0.106	2.1	ug/L	47	KED
|	Ag	107	677.7	20.5	**0.0780**	0.019	24.8	ug/L	173	KED
|	Cd	111	663.3	2.4	**0.6936**	0.012	1.8	ug/L	5	KED
|	Cd	114	1684.8	2.1	**0.7097**	0.014	1.9	ug/L	29	KED
|>	In	115	238016.3	1.8				ug/L	248460	KED
|	Sn	118	3387.7	1.6	**1.5338**	0.023	1.5	ug/L	556	KED
|	Sb	123	2719.2	1.4	**1.6001**	0.032	2.0	ug/L	79	KED
⌊	Ba	135	109031.6	0.5	**203.4389**	2.767	1.4	ug/L	15	KED
	Ce	140	1408076.8	0.3				ug/L	45	KED
	Tb	159	679062.3	0.6				ug/L	661680	KED
⌈	Ho	165	18859.1	2.0				ug/L	5	KED
|	Tl	203	2660.2	3.0	**0.5411**	0.016	3.0	ug/L	8	KED
|	Tl	205	6486.4	0.7	**0.5317**	0.004	0.8	ug/L	16	KED
|	Pb	206	185252.5	1.6	**44.1589**	0.399	0.9	ug/L	316	KED
|	Pb	207	153089.9	0.9	**41.2695**	0.119	0.3	ug/L	291	KED
|	Pb	208	392555.3	0.4	**42.5053**	0.255	0.6	ug/L	695	KED
|	U	238	57311.9	0.7	**2.4914**	0.013	0.5	ug/L	16	KED

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	Th	232	323079.7	1.5	**16.2209**	0.355	2.2	ug/L	1926	KED
>	**Bi**	209	517367.8	0.7				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	6949.9	0.3	**0.2718**	0.009	3.3	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**2.1187**	37.568	1773.1	mg/L	2	KED
	Fe	54	91473.7	2.3	**77.0797**	1.759	2.3	mg/L	10	KED
	Fe	57	193919.8	1.1	**76.9341**	1.486	1.9	mg/L	22	KED
>	**Sc-1**	45	95562.5	2.2				mg/L	87229	KED
	Cl	35	4952.5	4.8				ug/L	2227	KED
	Kr	83	6.7	43.3				ug/L	2	KED
	Br	81	168.3	14.0				ug/L	23	KED
	P	31	338.3	33.3				ug/L	212	KED
	S	34	28.3	44.4				ug/L	37	KED
	Sr	88	10967.3	0.8				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		109.554	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		96.597	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908015902
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	95.797
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	100.502
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	109.554
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
Mn 55 Upper, S, EEE	Mn	55	

Sample ID: L1908015902
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Method 6020 - Summary Report

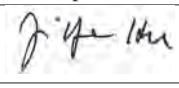
Sample ID: L1908015902PS WG710698-01
Sample Date/Time: Wednesday, September 04, 2019 12:04:08
Number of Replicates: 3
Autosampler Position: 329
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	11509.4	2.0				ug/L	9383	KED
|	Be	9	909.7	4.3	**10.5759**	0.487	4.6	ug/L	0	KED
|	Al	27	324028.4	2.9				ug/L	73	KED
|>	Sc-2	45	94308.9	0.3				ug/L	87229	KED
⌈	Ti	47	5098.9	1.4	**387.4604**	6.000	1.5	ug/L	11	KED
|	V	51	157559.7	0.2	**130.7332**	0.727	0.6	ug/L	10753	KED
|	Cr	52	241983.0	0.3	**130.5358**	0.952	0.7	ug/L	489	KED
|	Cr	53	40363.7	1.7	**153.1179**	2.317	1.5	ug/L	6416	KED
|	Mn	55	2159108.4	1.0	**1617.7757**	22.569	1.4	ug/L	206	KED
|	Co	59	319307.1	1.1	**67.2293**	0.938	1.4	ug/L	86	KED
|	Ni	60	276700.8	2.1	**208.1854**	4.730	2.3	ug/L	1252	KED
|	Cu	65	232099.6	0.7	**136.3698**	0.616	0.5	ug/L	418	KED
|	Zn	66	439567.8	0.2	**920.5548**	5.705	0.6	ug/L	204	KED
|>	Ge	72	222065.5	0.4				ug/L	234818	KED
|	As	75	31478.7	1.3	**78.1597**	0.741	0.9	ug/L	719	KED
|	Se	82	673.2	1.8	**41.6524**	0.816	2.0	ug/L	15	KED
|	Se-1	78	1315.9	3.6	**37.5024**	1.528	4.1	ug/L	35	KED
⌊	Se-1	80	24168.4	0.7	**23.3034**	1.904	8.2	ug/L	23187	KED
	Ga	71	11239.2	2.0				ug/L	33	KED
	Rb	85	43368.7	2.4				ug/L	13	KED
	Y	89	304380.5	0.9				ug/L	191699	KED
	Rh	103	30.0	28.9				ug/L	5	KED
⌈	Mo	98	132407.0	0.6	**40.1001**	0.564	1.4	ug/L	47	KED
|	Ag	107	239202.1	0.4	**36.7967**	0.251	0.7	ug/L	173	KED
|	Cd	111	20283.9	1.9	**21.5158**	0.391	1.8	ug/L	5	KED
|	Cd	114	50738.8	1.0	**21.8884**	0.270	1.2	ug/L	29	KED
|>	In	115	236167.4	0.8				ug/L	248460	KED
|	Sn	118	69395.9	0.5	**37.2831**	0.187	0.5	ug/L	556	KED
|	Sb	123	61528.7	1.1	**37.4836**	0.453	1.2	ug/L	79	KED
⌊	Ba	135	168318.5	1.2	**316.4759**	1.183	0.4	ug/L	15	KED
	Ce	140	1429599.2	1.1				ug/L	45	KED
	Tb	159	686452.4	0.8				ug/L	661680	KED
⌈	Ho	165	18850.4	0.5				ug/L	5	KED
|	Tl	203	36898.2	0.6	**7.5567**	0.069	0.9	ug/L	8	KED
|	Tl	205	90763.1	0.9	**7.4893**	0.091	1.2	ug/L	16	KED
|	Pb	206	329005.4	0.4	**78.8202**	0.631	0.8	ug/L	316	KED
|	Pb	207	279528.9	0.0	**75.7394**	0.388	0.5	ug/L	291	KED
|	Pb	208	708879.3	0.4	**77.1398**	0.293	0.4	ug/L	695	KED
|	U	238	830575.7	0.8	**36.2667**	0.230	0.6	ug/L	16	KED

Sample ID: L1908015902PS WG710698-01
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	Th	232	978605.8	0.5	**49.5346**	0.141	0.3	ug/L	1926	KED
>	**Bi**	209	515199.2	0.5				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	6743.2	2.1	**0.2658**	0.007	2.6	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	3.3	86.6	**-20.2979**	38.197	188.2	mg/L	2	KED
	Fe	54	90065.2	1.1	**76.8916**	1.068	1.4	mg/L	10	KED
	Fe	57	192529.0	1.3	**77.3807**	1.215	1.6	mg/L	22	KED
>	**Sc-1**	45	94308.9	0.3				mg/L	87229	KED
	Cl	35	4975.8	4.6				ug/L	2227	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	168.3	16.9				ug/L	23	KED
	P	31	318.3	4.0				ug/L	212	KED
	S	34	25.0	40.0				ug/L	37	KED
	Sr	88	10728.8	3.1				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		108.117	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		94.569	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908015902PS WG710698-01
Report Date/Time: Wednesday, September 04, 2019 12:06:28
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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		95.053
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		100.081
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		108.117
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
V 51 Upper, S, EEE	V	51	
Cr 53 Upper, S, EEE	Cr	53	
Mn 55 Upper, S, EEE	Mn	55	
Ba 135 Upper, S, EEE	Ba	135	

Approved: September 05, 2019



Method 6020 - Summary Report

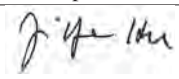
Sample ID: L1908015902SDL WG710698-02
Sample Date/Time: Wednesday, September 04, 2019 12:07:01
Number of Replicates: 3
Autosampler Position: 330
Sample Description: 5
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10570.4	1.2				ug/L	9383	KED
|	**Be**	9	36.7	9.6	**0.4442**	0.046	10.4	ug/L	0	KED
|	**Al**	27	61123.1	2.6				ug/L	73	KED
\>	**Sc-2**	45	90552.2	1.6				ug/L	87229	KED
⌈	**Ti**	47	890.7	2.3	**65.1272**	1.936	3.0	ug/L	11	KED
|	**V**	51	26629.7	1.0	**13.9310**	0.501	3.6	ug/L	10753	KED
|	**Cr**	52	17218.8	2.0	**8.7934**	0.282	3.2	ug/L	489	KED
|	**Cr**	53	7013.3	1.0	**3.3323**	0.518	15.6	ug/L	6416	KED
|	**Mn**	55	373978.1	1.0	**272.1195**	3.540	1.3	ug/L	206	KED
|	**Co**	59	26665.8	1.7	**5.4396**	0.144	2.7	ug/L	86	KED
|	**Ni**	60	15391.5	4.0	**10.4078**	0.570	5.5	ug/L	1252	KED
|	**Cu**	65	22449.0	0.5	**12.6053**	0.225	1.8	ug/L	418	KED
|	**Zn**	66	21923.5	3.9	**44.2364**	2.283	5.2	ug/L	204	KED
\>	**Ge**	72	228577.4	1.2				ug/L	234818	KED
|	**As**	75	4383.0	4.0	**9.0854**	0.552	6.1	ug/L	719	KED
|	**Se**	82	40.8	9.9	**1.6204**	0.245	15.1	ug/L	15	KED
|	**Se-1**	78	53.2	5.2	**0.5474**	0.090	16.5	ug/L	35	KED
⌊	**Se-1**	80	22507.5	1.6	**-0.6432**	2.107	327.5	ug/L	23187	KED
	Ga	71	2236.8	7.0				ug/L	33	KED
	Rb	85	8870.9	1.8				ug/L	13	KED
	Y	89	207543.6	1.4				ug/L	191699	KED
	Rh	103	15.0	33.3				ug/L	5	KED
⌈	**Mo**	98	3615.8	11.0	**1.0772**	0.136	12.6	ug/L	47	KED
|	**Ag**	107	673.7	87.8	**0.0788**	0.093	117.8	ug/L	173	KED
|	**Cd**	111	202.3	28.3	**0.2094**	0.064	30.5	ug/L	5	KED
|	**Cd**	114	471.7	30.4	**0.1912**	0.065	33.9	ug/L	29	KED
\>	**In**	115	237437.9	1.4				ug/L	248460	KED
|	**Sn**	118	1103.4	14.4	**0.3089**	0.094	30.5	ug/L	556	KED
|	**Sb**	123	1095.4	7.1	**0.6192**	0.056	9.0	ug/L	79	KED
⌊	**Ba**	135	22049.0	0.6	**41.2209**	0.818	2.0	ug/L	15	KED
	Ce	140	281300.6	1.3				ug/L	45	KED
	Tb	159	652654.3	1.4				ug/L	661680	KED
⌈	**Ho**	165	3764.1	1.5				ug/L	5	KED
|	**Tl**	203	573.0	15.4	**0.1149**	0.018	15.5	ug/L	8	KED
|	**Tl**	205	1436.1	14.1	**0.1162**	0.017	14.3	ug/L	16	KED
|	**Pb**	206	37511.4	2.0	**8.8474**	0.180	2.0	ug/L	316	KED
|	**Pb**	207	31158.7	1.5	**8.3048**	0.136	1.6	ug/L	291	KED
|	**Pb**	208	79435.7	1.6	**8.5077**	0.136	1.6	ug/L	695	KED
|	**U**	238	12733.1	13.9	**0.5508**	0.077	13.9	ug/L	16	KED

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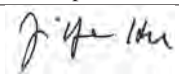
	Th	232	67780.7	2.2	**3.3123**	0.069	2.1	ug/L	1926	KED
>	**Bi**	209	519351.0	0.2				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	2195.2	4.6	**0.0393**	0.003	8.7	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**1.2240**	39.117	3195.9	mg/L	2	KED
	Fe	54	16323.8	2.7	**14.5083**	0.424	2.9	mg/L	10	KED
	Fe	57	34330.5	1.7	**14.3622**	0.070	0.5	mg/L	22	KED
>	**Sc-1**	45	90552.2	1.6				mg/L	87229	KED
	Cl	35	2585.2	3.9				ug/L	2227	KED
	Kr	83	3.3	173.2				ug/L	2	KED
	Br	81	26.7	43.3				ug/L	23	KED
	P	31	310.0	4.3				ug/L	212	KED
	S	34	28.3	27.0				ug/L	37	KED
	Sr	88	2038.5	5.2				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		103.810	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		97.342	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	95.564
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	100.888
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	103.810
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	

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Report Date/Time: Wednesday, September 04, 2019 12:09:21
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Method 6020 - Summary Report

Sample ID: L1908015902SDL WG710698-02
Sample Date/Time: Wednesday, September 04, 2019 12:09:50
Number of Replicates: 3
Autosampler Position: 331
Sample Description: 25
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10101.7	2.1				ug/L	9383	KED
|	**Be**	9	7.3	41.7	**0.0890**	0.036	40.4	ug/L	0	KED
|	**Al**	27	13240.8	5.1				ug/L	73	KED
|>	**Sc-2**	45	89904.7	1.8				ug/L	87229	KED
⌈	**Ti**	47	203.3	11.6	**13.8184**	1.816	13.1	ug/L	11	KED
|	**V**	51	12182.9	3.5	**1.1524**	0.257	22.3	ug/L	10753	KED
|	**Cr**	52	4383.6	0.8	**1.9809**	0.022	1.1	ug/L	489	KED
|	**Cr**	53	5219.2	7.6	**-5.1562**	1.563	30.3	ug/L	6416	KED
|	**Mn**	55	86817.4	2.2	**61.1042**	1.306	2.1	ug/L	206	KED
|	**Co**	59	6487.1	5.7	**1.2691**	0.070	5.5	ug/L	86	KED
|	**Ni**	60	4260.9	11.6	**2.1362**	0.344	16.1	ug/L	1252	KED
|	**Cu**	65	5822.1	8.8	**2.9929**	0.269	9.0	ug/L	418	KED
|	**Zn**	66	6005.9	17.4	**11.4363**	1.996	17.5	ug/L	204	KED
|>	**Ge**	72	235863.1	1.0				ug/L	234818	KED
|	**As**	75	1685.1	2.8	**2.3010**	0.075	3.2	ug/L	719	KED
|	**Se**	82	20.5	4.2	**0.3335**	0.058	17.5	ug/L	15	KED
|	**Se-1**	78	44.3	17.6	**0.2585**	0.226	87.5	ug/L	35	KED
⌊	**Se-1**	80	23424.6	0.9	**1.3390**	3.994	298.3	ug/L	23187	KED
	Ga	71	596.7	10.9				ug/L	33	KED
	Rb	85	2146.8	0.9				ug/L	13	KED
	Y	89	193666.8	1.8				ug/L	191699	KED
	Rh	103	3.3	86.6				ug/L	5	KED
⌈	**Mo**	98	859.4	12.1	**0.2367**	0.030	12.7	ug/L	47	KED
|	**Ag**	107	292.7	51.6	**0.0180**	0.022	123.8	ug/L	173	KED
|	**Cd**	111	47.7	21.0	**0.0439**	0.010	23.2	ug/L	5	KED
|	**Cd**	114	120.3	21.6	**0.0380**	0.011	28.3	ug/L	29	KED
|>	**In**	115	245679.5	0.1				ug/L	248460	KED
|	**Sn**	118	532.7	2.9	**-0.0089**	0.008	92.3	ug/L	556	KED
|	**Sb**	123	261.7	7.9	**0.1076**	0.012	11.2	ug/L	79	KED
⌊	**Ba**	135	5143.2	1.6	**9.2708**	0.159	1.7	ug/L	15	KED
	Ce	140	66945.6	1.4				ug/L	45	KED
	Tb	159	662099.3	1.2				ug/L	661680	KED
⌈	**Ho**	165	891.0	2.7				ug/L	5	KED
|	**Tl**	203	143.0	14.0	**0.0269**	0.004	15.0	ug/L	8	KED
|	**Tl**	205	334.7	13.7	**0.0255**	0.004	15.3	ug/L	16	KED
|	**Pb**	206	9098.7	2.5	**2.0441**	0.073	3.6	ug/L	316	KED
|	**Pb**	207	7558.6	2.8	**1.9130**	0.074	3.8	ug/L	291	KED
|	**Pb**	208	19306.0	1.1	**1.9673**	0.045	2.3	ug/L	695	KED
|	**U**	238	2790.3	4.0	**0.1177**	0.006	5.0	ug/L	16	KED

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	Th	232	12880.1	4.4	**0.5366**	0.022	4.1	ug/L	1926	KED
>	**Bi**	209	530388.4	1.2				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	1270.1	12.7	**-0.0092**	0.007	80.7	mg/L	1398	KED
	K	39	1.7	173.2	**7.8128**	13.532	173.2	mg/L	0	KED
	Ca	43	1.7	173.2	**0.8938**	39.689	4440.4	mg/L	2	KED
	Fe	54	3747.1	3.1	**3.3471**	0.096	2.9	mg/L	10	KED
	Fe	57	7897.1	1.7	**3.3209**	0.073	2.2	mg/L	22	KED
>	**Sc-1**	45	89904.7	1.8				mg/L	87229	KED
	Cl	35	2053.5	1.7				ug/L	2227	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	30.0	50.0				ug/L	23	KED
	P	31	241.7	8.6				ug/L	212	KED
	S	34	36.7	55.1				ug/L	37	KED
	Sr	88	455.0	14.3				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		103.068	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		100.445	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908015902SDL WG710698-02
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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		98.881
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊>	Bi	209		103.032
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		103.068
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

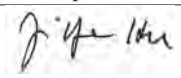
Sample ID: QC Std 6
Sample Date/Time: Wednesday, September 04, 2019 12:12:43
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10547.0	3.6				ug/L	9383	KED
|	**Be**	9	511.0	2.0	**6.0541**	0.189	3.1	ug/L	0	KED
|	**Al**	27	206852.7	1.7				ug/L	73	KED
|>	**Sc-2**	45	92564.3	1.8				ug/L	87229	KED
⌈	**Ti**	47	481.7	1.2	**30.6115**	1.144	3.7	ug/L	11	KED
|	**V**	51	50405.2	4.8	**29.2410**	2.452	8.4	ug/L	10753	KED
|	**Cr**	52	137177.3	2.0	**63.1700**	1.828	2.9	ug/L	489	KED
|	**Cr**	53	21890.8	6.1	**56.5557**	6.352	11.2	ug/L	6416	KED
|	**Mn**	55	97555.5	2.2	**62.3948**	2.347	3.8	ug/L	206	KED
|	**Co**	59	173136.1	1.5	**31.1770**	1.027	3.3	ug/L	86	KED
|	**Ni**	60	193716.9	0.9	**124.3216**	3.354	2.7	ug/L	1252	KED
|	**Cu**	65	122763.7	0.9	**61.5715**	1.259	2.0	ug/L	418	KED
|	**Zn**	66	338309.0	1.7	**605.9658**	19.439	3.2	ug/L	204	KED
|>	**Ge**	72	259700.8	2.7				ug/L	234818	KED
|	**As**	75	14689.8	1.2	**30.1631**	0.655	2.2	ug/L	719	KED
|	**Se**	82	566.8	2.6	**29.7684**	1.554	5.2	ug/L	15	KED
|	**Se-1**	78	1222.0	0.9	**29.5905**	0.654	2.2	ug/L	35	KED
⌊	**Se-1**	80	28942.6	0.8	**29.4232**	5.073	17.2	ug/L	23187	KED
	Ga	71	41.7	18.3				ug/L	33	KED
	Rb	85	196.7	21.3				ug/L	13	KED
	Y	89	216774.1	3.2				ug/L	191699	KED
	Rh	103	25.0	20.0				ug/L	5	KED
⌈	**Mo**	98	119108.1	1.5	**30.1466**	0.692	2.3	ug/L	47	KED
|	**Ag**	107	241072.7	1.7	**30.9985**	1.027	3.3	ug/L	173	KED
|	**Cd**	111	20690.1	1.2	**18.3434**	0.343	1.9	ug/L	5	KED
|	**Cd**	114	51005.4	1.0	**18.3908**	0.451	2.5	ug/L	29	KED
|>	**In**	115	282648.5	3.0				ug/L	248460	KED
|	**Sn**	118	67198.7	1.8	**30.1353**	1.322	4.4	ug/L	556	KED
|	**Sb**	123	59099.0	0.6	**30.0905**	0.917	3.0	ug/L	79	KED
⌊	**Ba**	135	57772.6	1.4	**90.7852**	2.293	2.5	ug/L	15	KED
	Ce	140	796.7	146.8				ug/L	45	KED
	Tb	159	713893.3	2.1				ug/L	661680	KED
⌈	**Ho**	165	12.3	110.7				ug/L	5	KED
|	**Tl**	203	31124.9	1.0	**5.9610**	0.118	2.0	ug/L	8	KED
|	**Tl**	205	76996.5	0.5	**5.9419**	0.138	2.3	ug/L	16	KED
|	**Pb**	206	133686.9	1.0	**29.9082**	0.766	2.6	ug/L	316	KED
|	**Pb**	207	117493.2	2.0	**29.7216**	0.552	1.9	ug/L	291	KED
|	**Pb**	208	295251.3	1.3	**30.0043**	0.801	2.7	ug/L	695	KED
|	**U**	238	733580.6	2.3	**29.9492**	0.243	0.8	ug/L	16	KED

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	Th	232	626047.3	2.0	**29.5936**	0.544	1.8	ug/L	1926	KED
>	**Bi**	209	551077.3	2.8				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	79082.6	3.1	**4.0182**	0.172	4.3	mg/L	1398	KED
	K	39	3.3	86.6	**15.0191**	13.007	86.6	mg/L	0	KED
	Ca	43	1.7	173.2	**1.0667**	39.390	3692.5	mg/L	2	KED
	Fe	54	4417.3	3.6	**3.8339**	0.144	3.8	mg/L	10	KED
	Fe	57	8997.7	2.6	**3.6751**	0.039	1.1	mg/L	22	KED
>	**Sc-1**	45	92564.3	1.8				mg/L	87229	KED
	Cl	35	2015.1	5.2				ug/L	2227	KED
	Kr	83	5.0	173.2				ug/L	2	KED
	Br	81	20.0	50.0				ug/L	23	KED
	P	31	231.7	31.6				ug/L	212	KED
	S	34	40.0	57.3				ug/L	37	KED
	Sr	88	41.7	50.0				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9	94.595		
	Al	27			
>	Sc-2	45		106.117	
	Ti	47	95.661		
	V	51	91.378		
	Cr	52	98.703		
	Cr	53			
	Mn	55	97.492		
	Co	59	97.428		
	Ni	60	97.126		
	Cu	65	96.206		
	Zn	66	94.682		
>	Ge	72		110.597	
	As	75	94.260		
	Se	82	93.026		
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: QC Std 6
Report Date/Time: Wednesday, September 04, 2019 12:15:03
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	Rh	103		
⌈	Mo	98	94.208	
|	Ag	107	96.870	
|	Cd	111	95.538	
|	Cd	114		
|>	In	115		113.760
|	Sn	118	94.173	
|	Sb	123	94.033	
⌊	Ba	135	94.568	
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203	93.141	
|	Tl	205		
|	Pb	206	93.463	
|	Pb	207	92.880	
|	Pb	208	93.764	
|	U	238	93.591	
|	Th	232		
⌊>	Bi	209		107.051
⌈	Na	23		
|	Mg	24	100.455	
|	K	39	375.476	
|	Ca	43	26.668	
|	Fe	54	95.848	
|	Fe	57	91.878	
⌊>	Sc-1	45		106.117
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	K	39	
QC Std 6	Ca	43	

Sample ID: QC Std 6
Report Date/Time: Wednesday, September 04, 2019 12:15:03
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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, September 04, 2019 12:15:37
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10088.4	1.5				ug/L	9383	KED
|	**Be**	9	1.3	86.6	**0.0166**	0.014	86.6	ug/L	0	KED
|	**Al**	27	323.3	91.5				ug/L	73	KED
\>	**Sc-2**	45	88233.2	2.0				ug/L	87229	KED
⌈	**Ti**	47	7.3	28.4	**-0.2471**	0.149	60.3	ug/L	11	KED
|	**V**	51	8114.5	8.1	**-2.3128**	0.482	20.8	ug/L	10753	KED
|	**Cr**	52	603.0	27.6	**0.0548**	0.088	160.7	ug/L	489	KED
|	**Cr**	53	4910.8	7.2	**-6.6596**	1.260	18.9	ug/L	6416	KED
|	**Mn**	55	507.7	74.8	**0.2106**	0.271	128.9	ug/L	206	KED
|	**Co**	59	269.3	88.0	**0.0361**	0.047	131.5	ug/L	86	KED
|	**Ni**	60	732.7	23.1	**-0.3777**	0.125	33.1	ug/L	1252	KED
|	**Cu**	65	376.3	38.4	**-0.0253**	0.082	324.8	ug/L	418	KED
|	**Zn**	66	649.4	62.2	**0.8699**	0.810	93.1	ug/L	204	KED
\>	**Ge**	72	238192.2	1.2				ug/L	234818	KED
|	**As**	75	728.7	1.8	**-0.0007**	0.032	4722.4	ug/L	719	KED
|	**Se**	82	17.3	13.0	**0.1349**	0.134	99.0	ug/L	15	KED
|	**Se-1**	78	36.8	10.0	**0.0404**	0.093	228.9	ug/L	35	KED
⌊	**Se-1**	80	23849.8	0.7	**3.2069**	2.071	64.6	ug/L	23187	KED
	Ga	71	65.0	15.4				ug/L	33	KED
	Rb	85	21.7	35.3				ug/L	13	KED
	Y	89	192021.3	2.6				ug/L	191699	KED
	Rh	103	6.7	114.6				ug/L	5	KED
⌈	**Mo**	98	278.0	20.3	**0.0664**	0.017	26.1	ug/L	47	KED
|	**Ag**	107	308.7	58.9	**0.0200**	0.027	136.6	ug/L	173	KED
|	**Cd**	111	26.3	78.0	**0.0219**	0.021	96.4	ug/L	5	KED
|	**Cd**	114	61.3	69.0	**0.0133**	0.018	133.3	ug/L	29	KED
\>	**In**	115	249418.7	1.3				ug/L	248460	KED
|	**Sn**	118	603.7	3.6	**0.0235**	0.015	63.7	ug/L	556	KED
|	**Sb**	123	992.7	5.4	**0.5278**	0.038	7.1	ug/L	79	KED
⌊	**Ba**	135	58.3	97.7	**0.0785**	0.104	131.8	ug/L	15	KED
	Ce	140	51.7	31.9				ug/L	45	KED
	Tb	159	656630.0	1.4				ug/L	661680	KED
⌈	**Ho**	165	9.3	22.3				ug/L	5	KED
|	**Tl**	203	22.7	108.5	**0.0032**	0.005	163.7	ug/L	8	KED
|	**Tl**	205	68.3	96.0	**0.0044**	0.006	126.0	ug/L	16	KED
|	**Pb**	206	441.7	27.5	**0.0317**	0.031	97.6	ug/L	316	KED
|	**Pb**	207	394.3	25.9	**0.0296**	0.029	99.4	ug/L	291	KED
|	**Pb**	208	986.4	25.4	**0.0333**	0.029	87.2	ug/L	695	KED
|	**U**	238	640.7	90.6	**0.0278**	0.026	94.0	ug/L	16	KED

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	Th	232	12307.2	23.3	**0.5354**	0.155	29.0	ug/L	1926	KED
>	**Bi**	209	508851.6	1.1				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	1158.4	9.6	**-0.0138**	0.007	53.3	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**23.8084**	0.000	0.0	mg/L	2	KED
	Fe	54	23.3	44.6	**0.0122**	0.010	82.1	mg/L	10	KED
	Fe	57	36.7	31.5	**0.0064**	0.005	83.2	mg/L	22	KED
>	**Sc-1**	45	88233.2	2.0				mg/L	87229	KED
	Cl	35	2373.5	2.0				ug/L	2227	KED
	Kr	83	8.3	69.3				ug/L	2	KED
	Br	81	15.0	33.3				ug/L	23	KED
	P	31	241.7	12.6				ug/L	212	KED
	S	34	35.0	37.8				ug/L	37	KED
	Sr	88	16.7	34.6				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		101.152	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		101.437	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	100.386
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	98.848
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	101.152
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 7	V	51	
QC Std 7	Sb	123	
QC Std 7	Ca	43	

Sample ID: QC Std 7
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Method 6020 - Summary Report

Sample ID: L1908017801
Sample Date/Time: Wednesday, September 04, 2019 12:18:30
Number of Replicates: 3
Autosampler Position: 332
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	11345.9	7.0				ug/L	9383	KED
|	**Be**	9	74.7	9.4	**0.8484**	0.095	11.2	ug/L	0	KED
|	**Al**	27	274284.5	2.2				ug/L	73	KED
\>	**Sc-2**	45	96654.6	3.6				ug/L	87229	KED
⌈	**Ti**	47	2871.9	4.6	**189.2045**	9.815	5.2	ug/L	11	KED
|	**V**	51	88363.7	2.6	**59.0463**	0.583	1.0	ug/L	10753	KED
|	**Cr**	52	102159.8	2.7	**47.6994**	0.344	0.7	ug/L	489	KED
|	**Cr**	53	16994.5	2.6	**38.8036**	0.351	0.9	ug/L	6416	KED
|	**Mn**	55	818837.9	3.0	**532.6769**	4.354	0.8	ug/L	206	KED
|	**Co**	59	58044.7	2.6	**10.6002**	0.235	2.2	ug/L	86	KED
|	**Ni**	60	36844.1	2.8	**23.2814**	0.191	0.8	ug/L	1252	KED
|	**Cu**	65	43271.1	2.3	**21.8857**	0.174	0.8	ug/L	418	KED
|	**Zn**	66	59563.9	1.9	**107.9867**	1.457	1.3	ug/L	204	KED
\>	**Ge**	72	255724.5	2.9				ug/L	234818	KED
|	**As**	75	12479.1	0.5	**25.7896**	0.686	2.7	ug/L	719	KED
|	**Se**	82	93.2	7.9	**4.2268**	0.395	9.3	ug/L	15	KED
|	**Se-1**	78	92.3	3.7	**1.3810**	0.069	5.0	ug/L	35	KED
⌊	**Se-1**	80	25249.5	1.7	**0.0348**	2.775	7968.0	ug/L	23187	KED
	Ga	71	7763.7	2.5				ug/L	33	KED
	Rb	85	16712.6	5.8				ug/L	13	KED
	Y	89	293797.3	3.9				ug/L	191699	KED
	Rh	103	23.3	12.4				ug/L	5	KED
⌈	**Mo**	98	8940.0	3.8	**2.4531**	0.082	3.3	ug/L	47	KED
|	**Ag**	107	659.0	6.4	**0.0671**	0.005	7.3	ug/L	173	KED
|	**Cd**	111	973.4	5.8	**0.9353**	0.034	3.7	ug/L	5	KED
|	**Cd**	114	2358.9	3.6	**0.9152**	0.017	1.8	ug/L	29	KED
\>	**In**	115	259433.4	4.4				ug/L	248460	KED
|	**Sn**	118	3547.4	3.7	**1.4629**	0.046	3.2	ug/L	556	KED
|	**Sb**	123	3133.7	3.8	**1.6961**	0.095	5.6	ug/L	79	KED
⌊	**Ba**	135	44185.7	2.3	**75.6718**	2.459	3.3	ug/L	15	KED
	Ce	140	695962.5	1.8				ug/L	45	KED
	Tb	159	675165.6	3.4				ug/L	661680	KED
⌈	**Ho**	165	11009.0	2.8				ug/L	5	KED
|	**Tl**	203	764.4	4.1	**0.1579**	0.010	6.2	ug/L	8	KED
|	**Tl**	205	1862.8	0.8	**0.1551**	0.004	2.5	ug/L	16	KED
|	**Pb**	206	195023.3	1.6	**47.5139**	0.753	1.6	ug/L	316	KED
|	**Pb**	207	165193.5	1.8	**45.5120**	0.314	0.7	ug/L	291	KED
|	**Pb**	208	416973.4	1.3	**46.1469**	0.936	2.0	ug/L	695	KED
|	**U**	238	39234.4	1.2	**1.7427**	0.025	1.4	ug/L	16	KED

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	Th	232	149259.2	6.3	**7.6120**	0.614	8.1	ug/L	1926	KED
>	**Bi**	209	506358.3	2.2				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	3308.7	2.4	**0.0873**	0.006	6.5	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	56.7	20.4	**-704.2996**	124.232	17.6	mg/L	2	KED
	Fe	54	45214.0	2.0	**37.6728**	0.610	1.6	mg/L	10	KED
	Fe	57	97452.4	1.0	**38.2405**	1.242	3.2	mg/L	22	KED
>	**Sc-1**	45	96654.6	3.6				mg/L	87229	KED
	Cl	35	4057.2	4.2				ug/L	2227	KED
	Kr	83	3.3	86.6				ug/L	2	KED
	Br	81	120.0	11.0				ug/L	23	KED
	P	31	230.0	7.5				ug/L	212	KED
	S	34	30.0	50.0				ug/L	37	KED
	Sr	88	56460.0	1.9				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		110.806	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		108.903	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908017801
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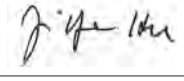
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	104.417
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	98.364
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	110.806
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
Mn 55 Upper, S, EEE	Mn	55	

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Method 6020 - Summary Report

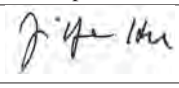
Sample ID: L1908017802
Sample Date/Time: Wednesday, September 04, 2019 12:21:23
Number of Replicates: 3
Autosampler Position: 333
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	11652.8	2.3				ug/L	9383	KED
|	Be	9	140.3	14.2	**1.6073**	0.242	15.1	ug/L	0	KED
|	Al	27	326704.0	2.1				ug/L	73	KED
|>	Sc-2	45	95807.0	1.0				ug/L	87229	KED
⌈	Ti	47	5746.8	0.9	**411.9311**	14.460	3.5	ug/L	11	KED
|	V	51	114428.8	0.6	**86.7015**	2.877	3.3	ug/L	10753	KED
|	Cr	52	362159.8	1.0	**184.3162**	3.831	2.1	ug/L	489	KED
|	Cr	53	57199.5	1.7	**213.8160**	10.215	4.8	ug/L	6416	KED
|	Mn	55	4022498.6	0.8	**2842.3047**	75.414	2.7	ug/L	206	KED
|	Co	59	144293.2	1.0	**28.6355**	0.520	1.8	ug/L	86	KED
|	Ni	60	153637.7	3.6	**108.5305**	2.567	2.4	ug/L	1252	KED
|	Cu	65	94554.8	1.5	**52.2360**	0.676	1.3	ug/L	418	KED
|	Zn	66	83257.1	0.8	**164.0816**	3.688	2.2	ug/L	204	KED
|>	Ge	72	235584.2	2.7				ug/L	234818	KED
|	As	75	15644.4	2.9	**35.7000**	0.509	1.4	ug/L	719	KED
|	Se	82	136.8	3.7	**7.2712**	0.465	6.4	ug/L	15	KED
|	Se-1	78	136.5	9.2	**2.7936**	0.245	8.8	ug/L	35	KED
⌊	Se-1	80	22437.6	1.4	**-8.0371**	3.218	40.0	ug/L	23187	KED
	Ga	71	11811.3	3.1				ug/L	33	KED
	Rb	85	49117.8	2.2				ug/L	13	KED
	Y	89	332068.3	1.5				ug/L	191699	KED
	Rh	103	36.7	28.4				ug/L	5	KED
⌈	Mo	98	19164.4	1.4	**5.6403**	0.127	2.3	ug/L	47	KED
|	Ag	107	476.3	12.9	**0.0462**	0.010	21.7	ug/L	173	KED
|	Cd	111	515.0	6.4	**0.5273**	0.032	6.1	ug/L	5	KED
|	Cd	114	1324.4	3.3	**0.5447**	0.017	3.2	ug/L	29	KED
|>	In	115	242557.2	1.9				ug/L	248460	KED
|	Sn	118	4047.9	0.9	**1.8480**	0.043	2.3	ug/L	556	KED
|	Sb	123	3855.5	1.2	**2.2444**	0.056	2.5	ug/L	79	KED
⌊	Ba	135	213525.9	1.3	**390.9618**	5.405	1.4	ug/L	15	KED
	Ce	140	1479089.5	1.5				ug/L	45	KED
	Tb	159	688478.6	2.1				ug/L	661680	KED
⌈	Ho	165	20577.3	1.0				ug/L	5	KED
|	Tl	203	3373.0	1.4	**0.6824**	0.008	1.1	ug/L	8	KED
|	Tl	205	8181.5	1.6	**0.6671**	0.011	1.7	ug/L	16	KED
|	Pb	206	222818.8	0.3	**52.8202**	0.494	0.9	ug/L	316	KED
|	Pb	207	186845.5	1.2	**50.0903**	0.564	1.1	ug/L	291	KED
|	Pb	208	479185.1	0.8	**51.5952**	0.326	0.6	ug/L	695	KED
|	U	238	55829.8	3.7	**2.4123**	0.077	3.2	ug/L	16	KED

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	Th	232	318098.9	0.7	**15.8734**	0.134	0.8	ug/L	1926	KED
>	**Bi**	209	520433.1	0.7				ug/L	514781	KED
	Na	23	1.7	173.2				mg/L	0	KED
	Mg	24	4729.1	6.6	**0.1597**	0.016	10.1	mg/L	1398	KED
	K	39	3.3	86.6	**14.4419**	12.507	86.6	mg/L	0	KED
	Ca	43	3.3	86.6	**-19.3476**	37.377	193.2	mg/L	2	KED
	Fe	54	75037.1	1.7	**63.0533**	0.452	0.7	mg/L	10	KED
	Fe	57	160844.3	1.1	**63.6361**	0.973	1.5	mg/L	22	KED
>	**Sc-1**	45	95807.0	1.0				mg/L	87229	KED
	Cl	35	4734.1	3.3				ug/L	2227	KED
	Kr	83	5.0	100.0				ug/L	2	KED
	Br	81	138.3	30.7				ug/L	23	KED
	P	31	276.7	26.5				ug/L	212	KED
	S	34	25.0	34.6				ug/L	37	KED
	Sr	88	25357.9	3.5				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		109.834	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		100.326	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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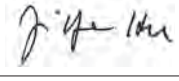
	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	97.624
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	101.098
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	109.834
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
Cr 52 Upper, S, EEE	Cr	52	
Cr 53 Upper, S, EEE	Cr	53	
Mn 55 Upper, S, EEE	Mn	55	
Ba 135 Upper, S, EEE	Ba	135	

Sample ID: L1908017802
Report Date/Time: Wednesday, September 04, 2019 12:23:42
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Method 6020 - Summary Report

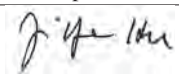
Sample ID: L1908017803
Sample Date/Time: Wednesday, September 04, 2019 12:24:16
Number of Replicates: 3
Autosampler Position: 334
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	11210.8	3.3				ug/L	9383	KED
|	**Be**	9	50.3	15.2	**0.5625**	0.072	12.8	ug/L	0	KED
|	**Al**	27	69808.9	3.4				ug/L	73	KED
⌊>	**Sc-2**	45	97896.7	2.6				ug/L	87229	KED
⌈	**Ti**	47	2381.2	3.3	**163.2545**	11.953	7.3	ug/L	11	KED
|	**V**	51	61542.9	4.0	**40.3719**	3.893	9.6	ug/L	10753	KED
|	**Cr**	52	61237.9	1.6	**29.6800**	1.674	5.6	ug/L	489	KED
|	**Cr**	53	13072.4	11.5	**25.8255**	8.282	32.1	ug/L	6416	KED
|	**Mn**	55	444327.4	1.4	**300.9144**	15.943	5.3	ug/L	206	KED
|	**Co**	59	47577.9	0.7	**9.0401**	0.368	4.1	ug/L	86	KED
|	**Ni**	60	22172.9	1.6	**14.2442**	0.417	2.9	ug/L	1252	KED
|	**Cu**	65	29104.6	1.8	**15.2451**	0.388	2.5	ug/L	418	KED
|	**Zn**	66	41714.0	1.5	**78.5702**	2.300	2.9	ug/L	204	KED
|>	**Ge**	72	245917.2	3.9				ug/L	234818	KED
|	**As**	75	8102.8	1.0	**16.8582**	0.551	3.3	ug/L	719	KED
|	**Se**	82	57.3	10.5	**2.3961**	0.462	19.3	ug/L	15	KED
|	**Se-1**	78	67.2	7.1	**0.8114**	0.136	16.7	ug/L	35	KED
⌊	**Se-1**	80	24514.7	2.0	**2.2895**	4.519	197.4	ug/L	23187	KED
	Ga	71	3453.7	4.7				ug/L	33	KED
	Rb	85	8464.0	0.9				ug/L	13	KED
	Y	89	239351.0	4.0				ug/L	191699	KED
	Rh	103	21.7	48.0				ug/L	5	KED
⌈	**Mo**	98	3398.7	1.8	**0.9486**	0.017	1.8	ug/L	47	KED
|	**Ag**	107	462.3	5.1	**0.0412**	0.001	3.1	ug/L	173	KED
|	**Cd**	111	409.3	7.7	**0.4006**	0.018	4.6	ug/L	5	KED
|	**Cd**	114	1028.0	2.4	**0.4027**	0.004	1.0	ug/L	29	KED
|>	**In**	115	252815.7	3.4				ug/L	248460	KED
|	**Sn**	118	2734.6	1.8	**1.0973**	0.024	2.2	ug/L	556	KED
|	**Sb**	123	1346.4	5.5	**0.7213**	0.031	4.3	ug/L	79	KED
⌊	**Ba**	135	28497.1	1.6	**50.0606**	1.432	2.9	ug/L	15	KED
	Ce	140	300636.3	1.8				ug/L	45	KED
	Tb	159	672975.6	1.8				ug/L	661680	KED
⌈	**Ho**	165	5749.4	1.0				ug/L	5	KED
|	**Tl**	203	468.3	5.5	**0.0941**	0.006	6.7	ug/L	8	KED
|	**Tl**	205	1196.0	4.2	**0.0971**	0.005	5.6	ug/L	16	KED
|	**Pb**	206	98921.9	0.4	**23.5616**	0.332	1.4	ug/L	316	KED
|	**Pb**	207	83624.1	0.7	**22.5241**	0.476	2.1	ug/L	291	KED
|	**Pb**	208	210885.8	0.3	**22.8145**	0.372	1.6	ug/L	695	KED
|	**U**	238	19737.2	1.2	**0.8580**	0.008	1.0	ug/L	16	KED

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	Th	232	112677.3	4.4	**5.5960**	0.239	4.3	ug/L	1926	KED
>	**Bi**	209	517094.0	1.5				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	2500.2	13.6	**0.0454**	0.014	30.1	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	6.7	43.3	**-61.6079**	39.030	63.4	mg/L	2	KED
	Fe	54	21738.9	1.4	**17.8800**	0.546	3.1	mg/L	10	KED
	Fe	57	45504.9	1.5	**17.6225**	0.677	3.8	mg/L	22	KED
>	**Sc-1**	45	97896.7	2.6				mg/L	87229	KED
	Cl	35	4602.4	2.8				ug/L	2227	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	83.3	28.4				ug/L	23	KED
	P	31	223.3	11.0				ug/L	212	KED
	S	34	40.0	33.1				ug/L	37	KED
	Sr	88	12246.6	4.3				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		112.230	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		104.727	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908017803
Report Date/Time: Wednesday, September 04, 2019 12:26:36
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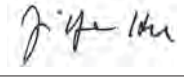
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	101.753
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	100.449
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	112.230
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
Mn 55 Upper, S, EEE	Mn	55	

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Method 6020 - Summary Report

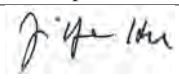
Sample ID: L1908017804
Sample Date/Time: Wednesday, September 04, 2019 12:27:09
Number of Replicates: 3
Autosampler Position: 335
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	11574.4	0.8				ug/L	9383	KED
|	**Be**	9	41.0	30.6	**0.4654**	0.142	30.4	ug/L	0	KED
|	**Al**	27	60252.9	1.2				ug/L	73	KED
⌊>	**Sc-2**	45	96600.7	1.2				ug/L	87229	KED
⌈	**Ti**	47	2815.6	2.5	**187.2968**	6.254	3.3	ug/L	11	KED
|	**V**	51	60309.5	1.1	**37.8989**	0.316	0.8	ug/L	10753	KED
|	**Cr**	52	70205.0	1.2	**33.0322**	0.507	1.5	ug/L	489	KED
|	**Cr**	53	13774.6	3.9	**26.8428**	1.710	6.4	ug/L	6416	KED
|	**Mn**	55	1408278.3	1.1	**925.4612**	11.884	1.3	ug/L	206	KED
|	**Co**	59	109743.4	1.1	**20.2540**	0.137	0.7	ug/L	86	KED
|	**Ni**	60	22139.5	0.8	**13.7786**	0.162	1.2	ug/L	1252	KED
|	**Cu**	65	27255.5	1.7	**13.8384**	0.291	2.1	ug/L	418	KED
|	**Zn**	66	37305.5	1.5	**68.1485**	0.722	1.1	ug/L	204	KED
| >	**Ge**	72	253180.9	0.9				ug/L	234818	KED
|	**As**	75	9103.7	1.5	**18.5384**	0.128	0.7	ug/L	719	KED
|	**Se**	82	45.8	8.7	**1.6543**	0.227	13.7	ug/L	15	KED
|	**Se-1**	78	63.7	3.5	**0.6697**	0.070	10.4	ug/L	35	KED
⌊	**Se-1**	80	24432.0	0.5	**-5.1673**	3.084	59.7	ug/L	23187	KED
	Ga	71	3112.0	2.3				ug/L	33	KED
	Rb	85	8319.0	1.7				ug/L	13	KED
	Y	89	245250.7	0.8				ug/L	191699	KED
	Rh	103	20.0	66.1				ug/L	5	KED
⌈	**Mo**	98	3000.3	3.6	**0.8076**	0.042	5.1	ug/L	47	KED
|	**Ag**	107	868.7	2.8	**0.0955**	0.004	3.9	ug/L	173	KED
|	**Cd**	111	437.3	1.7	**0.4144**	0.014	3.4	ug/L	5	KED
|	**Cd**	114	1117.4	3.2	**0.4235**	0.007	1.8	ug/L	29	KED
| >	**In**	115	261559.5	1.8				ug/L	248460	KED
|	**Sn**	118	2670.2	1.1	**1.0193**	0.021	2.0	ug/L	556	KED
|	**Sb**	123	1335.4	4.2	**0.6901**	0.043	6.2	ug/L	79	KED
⌊	**Ba**	135	54025.2	1.0	**91.7096**	0.718	0.8	ug/L	15	KED
	Ce	140	267422.4	0.6				ug/L	45	KED
	Tb	159	678497.3	0.8				ug/L	661680	KED
⌈	**Ho**	165	4930.1	2.0				ug/L	5	KED
|	**Tl**	203	477.3	2.8	**0.0947**	0.004	3.8	ug/L	8	KED
|	**Tl**	205	1176.4	2.9	**0.0942**	0.003	2.9	ug/L	16	KED
|	**Pb**	206	94128.9	1.5	**22.1413**	0.461	2.1	ug/L	316	KED
|	**Pb**	207	78879.1	0.9	**20.9790**	0.310	1.5	ug/L	291	KED
|	**Pb**	208	200434.4	0.3	**21.4131**	0.259	1.2	ug/L	695	KED
|	**U**	238	14380.5	0.9	**0.6173**	0.007	1.1	ug/L	16	KED

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	Th	232	86751.1	2.5	**4.2329**	0.123	2.9	ug/L	1926	KED
>	**Bi**	209	523476.3	1.0				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	2121.8	4.0	**0.0284**	0.005	16.1	mg/L	1398	KED
	K	39	1.7	173.2	**7.2202**	12.506	173.2	mg/L	0	KED
	Ca	43	10.0	50.0	**-104.7500**	63.386	60.5	mg/L	2	KED
	Fe	54	17979.0	1.8	**14.9803**	0.426	2.8	mg/L	10	KED
	Fe	57	37344.3	1.1	**14.6477**	0.328	2.2	mg/L	22	KED
>	**Sc-1**	45	96600.7	1.2				mg/L	87229	KED
	Cl	35	4597.4	1.7				ug/L	2227	KED
	Kr	83	5.0	0.0				ug/L	2	KED
	Br	81	90.0	30.9				ug/L	23	KED
	P	31	211.7	23.7				ug/L	212	KED
	S	34	28.3	56.7				ug/L	37	KED
	Sr	88	12850.4	1.9				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		110.744	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		107.820	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908017804
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	105.272
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	101.689
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	110.744
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
Mn 55 Upper, S, EEE	Mn	55	

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Method 6020 - Summary Report

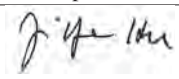
Sample ID: L1908017805
Sample Date/Time: Wednesday, September 04, 2019 12:30:02
Number of Replicates: 3
Autosampler Position: 336
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	11796.3	0.8				ug/L	9383	KED
|	**Be**	9	125.0	2.1	**1.3820**	0.038	2.7	ug/L	0	KED
|	**Al**	27	244631.3	4.2				ug/L	73	KED
⌊>	**Sc-2**	45	99172.2	0.7				ug/L	87229	KED
⌈	**Ti**	47	4519.3	1.3	**322.9727**	2.183	0.7	ug/L	11	KED
|	**V**	51	98579.0	0.9	**73.2459**	0.296	0.4	ug/L	10753	KED
|	**Cr**	52	304172.5	0.4	**154.4282**	1.367	0.9	ug/L	489	KED
|	**Cr**	53	48445.7	3.4	**176.4815**	9.168	5.2	ug/L	6416	KED
|	**Mn**	55	3867066.6	0.3	**2726.2729**	24.178	0.9	ug/L	206	KED
|	**Co**	59	141008.1	0.3	**27.9244**	0.380	1.4	ug/L	86	KED
|	**Ni**	60	128224.3	1.0	**90.2612**	0.609	0.7	ug/L	1252	KED
|	**Cu**	65	73433.2	1.4	**40.4290**	0.190	0.5	ug/L	418	KED
|	**Zn**	66	67739.5	2.2	**133.1225**	2.675	2.0	ug/L	204	KED
|>	**Ge**	72	236031.1	1.2				ug/L	234818	KED
|	**As**	75	12175.6	0.8	**27.3505**	0.567	2.1	ug/L	719	KED
|	**Se**	82	123.5	3.9	**6.4579**	0.344	5.3	ug/L	15	KED
|	**Se-1**	78	126.2	10.9	**2.5039**	0.334	13.3	ug/L	35	KED
⌊	**Se-1**	80	22440.4	1.5	**-8.4848**	0.729	8.6	ug/L	23187	KED
	Ga	71	9047.7	4.2				ug/L	33	KED
	Rb	85	38086.2	1.9				ug/L	13	KED
	Y	89	311705.5	1.0				ug/L	191699	KED
	Rh	103	20.0	25.0				ug/L	5	KED
⌈	**Mo**	98	15644.1	2.1	**4.5336**	0.012	0.3	ug/L	47	KED
|	**Ag**	107	450.0	3.9	**0.0412**	0.004	8.9	ug/L	173	KED
|	**Cd**	111	624.3	3.1	**0.6311**	0.026	4.1	ug/L	5	KED
|	**Cd**	114	1611.8	2.0	**0.6557**	0.014	2.2	ug/L	29	KED
|>	**In**	115	246141.8	2.2				ug/L	248460	KED
|	**Sn**	118	3564.8	0.6	**1.5662**	0.046	2.9	ug/L	556	KED
|	**Sb**	123	2987.6	1.4	**1.7029**	0.021	1.2	ug/L	79	KED
⌊	**Ba**	135	134882.1	0.4	**243.4054**	5.274	2.2	ug/L	15	KED
	Ce	140	1536178.2	1.4				ug/L	45	KED
	Tb	159	693607.5	0.2				ug/L	661680	KED
⌈	**Ho**	165	17541.5	1.6				ug/L	5	KED
|	**Tl**	203	2461.2	2.5	**0.4954**	0.014	2.8	ug/L	8	KED
|	**Tl**	205	6100.9	1.8	**0.4950**	0.009	1.7	ug/L	16	KED
|	**Pb**	206	215997.8	0.8	**50.9799**	0.373	0.7	ug/L	316	KED
|	**Pb**	207	182962.4	0.8	**48.8371**	0.262	0.5	ug/L	291	KED
|	**Pb**	208	466732.0	0.9	**50.0366**	0.344	0.7	ug/L	695	KED
|	**U**	238	44205.1	0.8	**1.9019**	0.011	0.6	ug/L	16	KED

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	Th	232	230453.5	2.0	**11.4231**	0.212	1.9	ug/L	1926	KED
>	**Bi**	209	522663.7	0.3				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	3977.2	1.1	**0.1153**	0.001	1.1	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	5.0	100.0	**-38.8643**	62.833	161.7	mg/L	2	KED
	Fe	54	56869.9	1.6	**46.1657**	0.664	1.4	mg/L	10	KED
	Fe	57	120178.4	3.4	**45.9245**	1.358	3.0	mg/L	22	KED
>	**Sc-1**	45	99172.2	0.7				mg/L	87229	KED
	Cl	35	5204.2	0.6				ug/L	2227	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	121.7	4.7				ug/L	23	KED
	P	31	245.0	12.7				ug/L	212	KED
	S	34	30.0	44.1				ug/L	37	KED
	Sr	88	23346.3	3.4				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		113.692	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		100.517	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	99.067
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	101.531
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	113.692
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
Cr 52 Upper, S, EEE	Cr	52	
Cr 53 Upper, S, EEE	Cr	53	
Mn 55 Upper, S, EEE	Mn	55	
Ba 135 Upper, S, EEE	Ba	135	

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Method 6020 - Summary Report

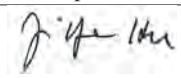
Sample ID: L1908017806
Sample Date/Time: Wednesday, September 04, 2019 12:32:55
Number of Replicates: 3
Autosampler Position: 337
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	12108.2	3.7				ug/L	9383	KED
|	Be	9	81.7	8.6	**0.8989**	0.070	7.8	ug/L	0	KED
|	Al	27	83818.0	2.4				ug/L	73	KED
⌊>	Sc-2	45	99568.1	1.3				ug/L	87229	KED
⌈	Ti	47	2725.2	3.0	**191.4124**	6.844	3.6	ug/L	11	KED
|	V	51	91695.7	1.4	**66.2996**	1.206	1.8	ug/L	10753	KED
|	Cr	52	172332.7	1.6	**86.0046**	1.540	1.8	ug/L	489	KED
|	Cr	53	28819.1	6.0	**92.0358**	6.347	6.9	ug/L	6416	KED
|	Mn	55	759945.6	3.0	**527.1859**	15.486	2.9	ug/L	206	KED
|	Co	59	51050.9	1.1	**9.9394**	0.155	1.6	ug/L	86	KED
|	Ni	60	49138.9	0.8	**33.4895**	0.335	1.0	ug/L	1252	KED
|	Cu	65	51615.5	2.2	**27.9030**	0.802	2.9	ug/L	418	KED
|	Zn	66	61118.7	1.3	**118.1828**	2.056	1.7	ug/L	204	KED
| >	Ge	72	239804.3	1.0				ug/L	234818	KED
|	As	75	12458.1	0.7	**27.5561**	0.506	1.8	ug/L	719	KED
|	Se	82	88.3	6.1	**4.2823**	0.305	7.1	ug/L	15	KED
|	Se-1	78	90.0	3.8	**1.4739**	0.119	8.1	ug/L	35	KED
⌊	Se-1	80	23176.5	0.8	**-4.8180**	4.027	83.6	ug/L	23187	KED
	Ga	71	8635.8	2.2				ug/L	33	KED
	Rb	85	11726.2	1.8				ug/L	13	KED
	Y	89	270247.3	3.5				ug/L	191699	KED
	Rh	103	51.7	22.3				ug/L	5	KED
⌈	Mo	98	10911.3	0.9	**3.1252**	0.038	1.2	ug/L	47	KED
|	Ag	107	463.0	7.7	**0.0424**	0.005	12.6	ug/L	173	KED
|	Cd	111	393.3	4.1	**0.3916**	0.017	4.4	ug/L	5	KED
|	Cd	114	1010.0	3.1	**0.4021**	0.013	3.3	ug/L	29	KED
| >	In	115	248714.1	0.3				ug/L	248460	KED
|	Sn	118	3446.7	3.2	**1.4858**	0.061	4.1	ug/L	556	KED
|	Sb	123	2625.6	0.3	**1.4748**	0.007	0.5	ug/L	79	KED
⌊	Ba	135	42980.5	0.2	**76.7185**	0.387	0.5	ug/L	15	KED
	Ce	140	953779.3	0.2				ug/L	45	KED
	Tb	159	683077.8	0.5				ug/L	661680	KED
⌈	Ho	165	11621.1	0.1				ug/L	5	KED
|	Tl	203	701.7	5.5	**0.1403**	0.007	5.1	ug/L	8	KED
|	Tl	205	1681.4	5.2	**0.1357**	0.007	4.9	ug/L	16	KED
|	Pb	206	282891.9	1.6	**66.8954**	0.741	1.1	ug/L	316	KED
|	Pb	207	242134.3	2.0	**64.7584**	1.144	1.8	ug/L	291	KED
|	Pb	208	612453.4	0.9	**65.7864**	0.247	0.4	ug/L	695	KED
|	U	238	32652.5	0.1	**1.4070**	0.009	0.6	ug/L	16	KED

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	Th	232	139495.7	1.9	**6.8877**	0.171	2.5	ug/L	1926	KED
>	**Bi**	209	521839.6	0.7				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	2556.9	6.1	**0.0463**	0.008	17.7	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	3.3	86.6	**-17.6534**	35.910	203.4	mg/L	2	KED
	Fe	54	48012.7	2.7	**38.8159**	0.709	1.8	mg/L	10	KED
	Fe	57	101718.7	1.8	**38.7176**	0.543	1.4	mg/L	22	KED
>	**Sc-1**	45	99568.1	1.3				mg/L	87229	KED
	Cl	35	4882.5	4.0				ug/L	2227	KED
	Kr	83	5.0	173.2				ug/L	2	KED
	Br	81	116.7	26.2				ug/L	23	KED
	P	31	240.0	9.5				ug/L	212	KED
	S	34	25.0	20.0				ug/L	37	KED
	Sr	88	8365.6	4.4				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	3.3	173.2				ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		114.146	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		102.123	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908017806
Report Date/Time: Wednesday, September 04, 2019 12:35:15
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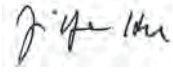
Approved: September 05, 2019

	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	100.102
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	101.371
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	114.146
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
Mn 55 Upper, S, EEE	Mn	55	

Approved: September 05, 2019



Method 6020 - Summary Report

Sample ID: L1908017807
Sample Date/Time: Wednesday, September 04, 2019 12:35:49
Number of Replicates: 3
Autosampler Position: 338
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	11868.0	3.1				ug/L	9383	KED
|	Be	9	115.3	13.3	**1.2721**	0.164	12.9	ug/L	0	KED
|	Al	27	260407.3	1.2				ug/L	73	KED
|>	Sc-2	45	99360.1	0.5				ug/L	87229	KED
⌈	Ti	47	4414.3	1.5	**320.3588**	4.641	1.4	ug/L	11	KED
|	V	51	92632.7	1.4	**69.5082**	2.659	3.8	ug/L	10753	KED
|	Cr	52	118138.9	1.7	**60.7744**	2.095	3.4	ug/L	489	KED
|	Cr	53	22957.4	2.3	**70.8334**	1.500	2.1	ug/L	6416	KED
|	Mn	55	3329233.8	1.0	**2383.6045**	44.312	1.9	ug/L	206	KED
|	Co	59	104126.3	1.0	**20.9354**	0.301	1.4	ug/L	86	KED
|	Ni	60	69171.9	1.5	**49.0414**	0.517	1.1	ug/L	1252	KED
|	Cu	65	76324.8	0.7	**42.6922**	0.815	1.9	ug/L	418	KED
|	Zn	66	76812.6	0.8	**153.3711**	2.738	1.8	ug/L	204	KED
|>	Ge	72	232460.3	2.4				ug/L	234818	KED
|	As	75	14395.2	0.9	**33.1821**	0.575	1.7	ug/L	719	KED
|	Se	82	129.5	5.3	**6.9400**	0.592	8.5	ug/L	15	KED
|	Se-1	78	119.8	2.9	**2.3828**	0.028	1.2	ug/L	35	KED
⌊	Se-1	80	22234.5	1.0	**-7.0931**	4.221	59.5	ug/L	23187	KED
	Ga	71	8158.9	0.5				ug/L	33	KED
	Rb	85	30552.4	2.1				ug/L	13	KED
	Y	89	313349.0	1.1				ug/L	191699	KED
	Rh	103	35.0	79.5				ug/L	5	KED
⌈	Mo	98	13116.7	1.1	**3.7949**	0.064	1.7	ug/L	47	KED
|	Ag	107	369.0	5.2	**0.0292**	0.003	10.2	ug/L	173	KED
|	Cd	111	343.7	4.7	**0.3447**	0.015	4.2	ug/L	5	KED
|	Cd	114	889.4	2.1	**0.3560**	0.008	2.2	ug/L	29	KED
|>	In	115	246415.3	0.6				ug/L	248460	KED
|	Sn	118	3367.7	1.3	**1.4613**	0.029	2.0	ug/L	556	KED
|	Sb	123	3335.0	3.3	**1.9038**	0.065	3.4	ug/L	79	KED
⌊	Ba	135	181617.4	1.0	**327.2841**	2.307	0.7	ug/L	15	KED
	Ce	140	1039438.7	1.3				ug/L	45	KED
	Tb	159	694710.9	0.5				ug/L	661680	KED
⌈	Ho	165	18158.5	0.2				ug/L	5	KED
|	Tl	203	2397.2	1.8	**0.4801**	0.013	2.8	ug/L	8	KED
|	Tl	205	5920.5	1.1	**0.4779**	0.009	1.9	ug/L	16	KED
|	Pb	206	199144.2	0.4	**46.7601**	0.638	1.4	ug/L	316	KED
|	Pb	207	167259.9	1.1	**44.4109**	0.054	0.1	ug/L	291	KED
|	Pb	208	423777.2	0.7	**45.1940**	0.241	0.5	ug/L	695	KED
|	U	238	41328.0	0.8	**1.7691**	0.012	0.7	ug/L	16	KED

Sample ID: L1908017807
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	Th	232	220113.7	1.8	**10.8515**	0.266	2.4	ug/L	1926	KED
>	**Bi**	209	525344.3	1.0				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	3723.8	3.1	**0.1027**	0.005	4.9	mg/L	1398	KED
	K	39	1.7	173.2	**6.8925**	11.938	173.2	mg/L	0	KED
	Ca	43	5.0	100.0	**-39.0935**	63.010	161.2	mg/L	2	KED
	Fe	54	57385.1	1.4	**46.4985**	0.852	1.8	mg/L	10	KED
	Fe	57	121275.2	1.4	**46.2621**	0.877	1.9	mg/L	22	KED
>	**Sc-1**	45	99360.1	0.5				mg/L	87229	KED
	Cl	35	5169.2	2.3				ug/L	2227	KED
	Kr	83	3.3	86.6				ug/L	2	KED
	Br	81	78.3	46.2				ug/L	23	KED
	P	31	228.3	10.8				ug/L	212	KED
	S	34	36.7	47.9				ug/L	37	KED
	Sr	88	20452.1	3.2				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		113.907	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		98.996	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908017807
Report Date/Time: Wednesday, September 04, 2019 12:38:08
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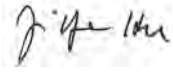
Approved: September 05, 2019

	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	99.177
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	102.052
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	113.907
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
Mn 55 Upper, S, EEE	Mn	55	
Ba 135 Upper, S, EEE	Ba	135	

Approved: September 05, 2019



Method 6020 - Summary Report

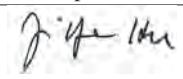
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Sample Date/Time: Wednesday, September 04, 2019 12:38:42
Number of Replicates: 3
Autosampler Position: 339
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	12303.3	6.3				ug/L	9383	KED
|	**Be**	9	93.3	19.1	**1.0491**	0.189	18.1	ug/L	0	KED
|	**Al**	27	142680.3	0.5				ug/L	73	KED
⌊>	**Sc-2**	45	97430.7	1.9				ug/L	87229	KED
⌈	**Ti**	47	3934.8	2.3	**293.1434**	5.612	1.9	ug/L	11	KED
|	**V**	51	87276.7	0.7	**66.9265**	0.210	0.3	ug/L	10753	KED
|	**Cr**	52	120013.8	0.7	**63.3869**	0.576	0.9	ug/L	489	KED
|	**Cr**	53	24117.5	1.3	**78.5535**	1.613	2.1	ug/L	6416	KED
|	**Mn**	55	2349363.0	1.0	**1727.0375**	24.363	1.4	ug/L	206	KED
|	**Co**	59	83216.6	0.4	**17.1768**	0.179	1.0	ug/L	86	KED
|	**Ni**	60	51552.9	0.7	**37.3227**	0.462	1.2	ug/L	1252	KED
|	**Cu**	65	61045.7	0.1	**35.0168**	0.220	0.6	ug/L	418	KED
|	**Zn**	66	77409.2	0.7	**158.7141**	2.024	1.3	ug/L	204	KED
⌊>	**Ge**	72	226350.6	0.6				ug/L	234818	KED
|	**As**	75	15291.4	1.2	**36.3468**	0.361	1.0	ug/L	719	KED
|	**Se**	82	108.3	8.8	**5.8308**	0.612	10.5	ug/L	15	KED
|	**Se-1**	78	112.0	4.3	**2.2487**	0.133	5.9	ug/L	35	KED
⌊	**Se-1**	80	22221.1	0.4	**-1.3244**	0.464	35.1	ug/L	23187	KED
	Ga	71	7265.1	1.9				ug/L	33	KED
	Rb	85	32070.6	3.5				ug/L	13	KED
	Y	89	279113.4	2.5				ug/L	191699	KED
	Rh	103	61.7	20.4				ug/L	5	KED
⌈	**Mo**	98	10735.1	0.2	**3.1656**	0.060	1.9	ug/L	47	KED
|	**Ag**	107	597.0	1.6	**0.0646**	0.003	4.6	ug/L	173	KED
|	**Cd**	111	443.3	2.5	**0.4550**	0.008	1.8	ug/L	5	KED
|	**Cd**	114	1204.0	2.2	**0.4962**	0.017	3.5	ug/L	29	KED
⌊>	**In**	115	241635.9	1.7				ug/L	248460	KED
|	**Sn**	118	4957.8	3.7	**2.3367**	0.066	2.8	ug/L	556	KED
|	**Sb**	123	3838.5	1.0	**2.2427**	0.032	1.4	ug/L	79	KED
⌊	**Ba**	135	139339.4	0.2	**256.1105**	4.529	1.8	ug/L	15	KED
	Ce	140	840300.3	0.9				ug/L	45	KED
	Tb	159	672284.3	1.9				ug/L	661680	KED
⌈	**Ho**	165	13700.9	0.2				ug/L	5	KED
|	**Tl**	203	1700.1	2.4	**0.3446**	0.008	2.5	ug/L	8	KED
|	**Tl**	205	4278.9	2.8	**0.3497**	0.010	2.8	ug/L	16	KED
|	**Pb**	206	410173.6	0.4	**97.6848**	0.383	0.4	ug/L	316	KED
|	**Pb**	207	346691.6	0.4	**93.3838**	0.385	0.4	ug/L	291	KED
|	**Pb**	208	880923.2	0.5	**95.2962**	0.467	0.5	ug/L	695	KED
|	**U**	238	35713.4	0.9	**1.5493**	0.015	1.0	ug/L	16	KED

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	Th	232	167277.8	1.6	**8.3346**	0.136	1.6	ug/L	1926	KED
>	**Bi**	209	518346.8	0.1				ug/L	514781	KED
	Na	23	1.7	173.2				mg/L	0	KED
	Mg	24	3387.0	4.6	**0.0898**	0.009	9.8	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**2.1435**	37.525	1750.6	mg/L	2	KED
	Fe	54	49112.8	0.9	**40.5945**	1.119	2.8	mg/L	10	KED
	Fe	57	102561.0	0.4	**39.9055**	0.875	2.2	mg/L	22	KED
>	**Sc-1**	45	97430.7	1.9				mg/L	87229	KED
	Cl	35	5352.6	2.5				ug/L	2227	KED
	Kr	83	0.0					ug/L	2	KED
	Br	81	148.3	35.4				ug/L	23	KED
	P	31	231.7	8.7				ug/L	212	KED
	S	34	30.0	33.3				ug/L	37	KED
	Sr	88	10555.3	5.4				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	1.7	173.2				ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		111.696	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		96.394	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	97.254
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	100.693
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	111.696
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
Mn 55 Upper, S, EEE	Mn	55	
Ba 135 Upper, S, EEE	Ba	135	
Pb 208 Upper, S, EEE	Pb	208	

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Method 6020 - Summary Report

Sample ID: L1908017812
Sample Date/Time: Wednesday, September 04, 2019 12:41:36
Number of Replicates: 3
Autosampler Position: 340
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10872.2	3.7				ug/L	9383	KED
|	**Be**	9	104.7	6.4	**1.2374**	0.080	6.5	ug/L	0	KED
|	**Al**	27	554450.0	1.2				ug/L	73	KED
|>	**Sc-2**	45	92740.3	0.8				ug/L	87229	KED
⌈	**Ti**	47	4262.3	0.8	**303.4496**	4.906	1.6	ug/L	11	KED
|	**V**	51	60454.4	1.1	**41.2412**	0.077	0.2	ug/L	10753	KED
|	**Cr**	52	74434.4	2.1	**37.4559**	0.449	1.2	ug/L	489	KED
|	**Cr**	53	13652.8	1.2	**30.0504**	1.021	3.4	ug/L	6416	KED
|	**Mn**	55	1343398.6	2.8	**943.3196**	18.406	2.0	ug/L	206	KED
|	**Co**	59	74105.8	2.4	**14.6106**	0.262	1.8	ug/L	86	KED
|	**Ni**	60	47741.8	2.8	**32.9155**	0.689	2.1	ug/L	1252	KED
|	**Cu**	65	77590.9	2.3	**42.5695**	0.651	1.5	ug/L	418	KED
|	**Zn**	66	80242.6	1.6	**157.1716**	1.169	0.7	ug/L	204	KED
|>	**Ge**	72	236910.6	0.9				ug/L	234818	KED
|	**As**	75	14580.7	0.6	**32.9602**	0.218	0.7	ug/L	719	KED
|	**Se**	82	93.2	15.6	**4.6271**	0.814	17.6	ug/L	15	KED
|	**Se-1**	78	108.7	5.4	**2.0147**	0.170	8.4	ug/L	35	KED
⌊	**Se-1**	80	25102.6	2.1	**16.6433**	3.047	18.3	ug/L	23187	KED
	Ga	71	4143.9	1.9				ug/L	33	KED
	Rb	85	20203.5	2.7				ug/L	13	KED
	Y	89	295003.3	2.0				ug/L	191699	KED
	Rh	103	68.3	11.2				ug/L	5	KED
⌈	**Mo**	98	7990.1	2.3	**2.3140**	0.022	1.0	ug/L	47	KED
|	**Ag**	107	1212.0	1.4	**0.1542**	0.005	3.0	ug/L	173	KED
|	**Cd**	111	728.4	2.2	**0.7384**	0.011	1.5	ug/L	5	KED
|	**Cd**	114	1791.1	4.7	**0.7313**	0.025	3.4	ug/L	29	KED
|>	**In**	115	245573.7	1.4				ug/L	248460	KED
|	**Sn**	118	3579.8	3.3	**1.5773**	0.036	2.3	ug/L	556	KED
|	**Sb**	123	2122.5	1.0	**1.1994**	0.024	2.0	ug/L	79	KED
⌊	**Ba**	135	86973.3	2.4	**157.2457**	2.199	1.4	ug/L	15	KED
	Ce	140	466850.6	1.5				ug/L	45	KED
	Tb	159	645782.9	1.5				ug/L	661680	KED
⌈	**Ho**	165	10767.2	3.3				ug/L	5	KED
|	**Tl**	203	1176.7	2.4	**0.2598**	0.006	2.3	ug/L	8	KED
|	**Tl**	205	2942.6	2.5	**0.2620**	0.007	2.7	ug/L	16	KED
|	**Pb**	206	304775.3	1.5	**79.1761**	1.071	1.4	ug/L	316	KED
|	**Pb**	207	252445.3	1.4	**74.1706**	0.805	1.1	ug/L	291	KED
|	**Pb**	208	642139.7	1.7	**75.7719**	1.074	1.4	ug/L	695	KED
|	**U**	238	43379.0	0.9	**2.0533**	0.016	0.8	ug/L	16	KED

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	Th	232	97835.0	2.8	**5.2832**	0.159	3.0	ug/L	1926	KED
>	**Bi**	209	475094.6	0.3				ug/L	514781	KED
	Na	23	5.0	100.0				mg/L	0	KED
	Mg	24	36278.4	1.9	**1.7975**	0.034	1.9	mg/L	1398	KED
	K	39	1.7	173.2	**7.3641**	12.755	173.2	mg/L	0	KED
	Ca	43	180.0	10.0	**-2393.5872**	223.596	9.3	mg/L	2	KED
	Fe	54	23913.9	0.9	**20.7540**	0.084	0.4	mg/L	10	KED
	Fe	57	48407.2	0.7	**19.7780**	0.221	1.1	mg/L	22	KED
>	**Sc-1**	45	92740.3	0.8				mg/L	87229	KED
	Cl	35	4680.7	2.4				ug/L	2227	KED
	Kr	83	3.3	86.6				ug/L	2	KED
	Br	81	126.7	21.7				ug/L	23	KED
	P	31	168.3	6.9				ug/L	212	KED
	S	34	30.0	44.1				ug/L	37	KED
	Sr	88	237741.8	3.1				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		106.318	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		100.891	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908017812
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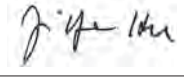
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	98.838
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	92.291
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	106.318
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
Mn 55 Upper, S, EEE	Mn	55	

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Method 6020 - Summary Report

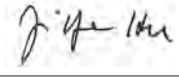
Sample ID: L1908017813
Sample Date/Time: Wednesday, September 04, 2019 12:44:29
Number of Replicates: 3
Autosampler Position: 341
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	11542.7	5.8				ug/L	9383	KED
|	**Be**	9	167.0	5.9	**1.9087**	0.111	5.8	ug/L	0	KED
|	**Al**	27	428796.1	3.5				ug/L	73	KED
\>	**Sc-2**	45	95923.7	1.5				ug/L	87229	KED
⌈	**Ti**	47	6695.5	1.6	**483.0427**	4.069	0.8	ug/L	11	KED
|	**V**	51	133403.2	1.9	**103.2705**	0.595	0.6	ug/L	10753	KED
|	**Cr**	52	116353.8	1.2	**59.4322**	0.283	0.5	ug/L	489	KED
|	**Cr**	53	23473.2	2.0	**72.3646**	0.463	0.6	ug/L	6416	KED
|	**Mn**	55	3468785.6	0.8	**2466.8422**	27.687	1.1	ug/L	206	KED
|	**Co**	59	127190.6	0.4	**25.4067**	0.345	1.4	ug/L	86	KED
|	**Ni**	60	88850.4	1.2	**62.8227**	0.727	1.2	ug/L	1252	KED
|	**Cu**	65	102878.8	0.7	**57.2367**	0.679	1.2	ug/L	418	KED
|	**Zn**	66	100841.8	1.3	**200.1063**	0.537	0.3	ug/L	204	KED
\>	**Ge**	72	233992.9	1.5				ug/L	234818	KED
|	**As**	75	16992.9	1.8	**39.2008**	0.329	0.8	ug/L	719	KED
|	**Se**	82	121.7	2.3	**6.4092**	0.059	0.9	ug/L	15	KED
|	**Se-1**	78	137.0	9.2	**2.8345**	0.297	10.5	ug/L	35	KED
⌊	**Se-1**	80	22759.2	0.1	**-3.3869**	3.218	95.0	ug/L	23187	KED
	Ga	71	13988.1	0.5				ug/L	33	KED
	Rb	85	69537.6	3.1				ug/L	13	KED
	Y	89	300094.7	1.3				ug/L	191699	KED
	Rh	103	28.3	53.9				ug/L	5	KED
⌈	**Mo**	98	11789.3	0.8	**3.4969**	0.068	1.9	ug/L	47	KED
|	**Ag**	107	670.0	5.4	**0.0761**	0.006	8.0	ug/L	173	KED
|	**Cd**	111	300.0	11.2	**0.3081**	0.035	11.3	ug/L	5	KED
|	**Cd**	114	823.7	4.6	**0.3375**	0.016	4.8	ug/L	29	KED
\>	**In**	115	240304.5	1.1				ug/L	248460	KED
|	**Sn**	118	4057.9	1.0	**1.8730**	0.026	1.4	ug/L	556	KED
|	**Sb**	123	3832.2	0.6	**2.2515**	0.024	1.1	ug/L	79	KED
⌊	**Ba**	135	210100.0	1.8	**388.2486**	5.562	1.4	ug/L	15	KED
	Ce	140	1527448.2	1.5				ug/L	45	KED
	Tb	159	668111.0	1.1				ug/L	661680	KED
⌈	**Ho**	165	17180.4	1.2				ug/L	5	KED
|	**Tl**	203	3943.8	2.6	**0.8147**	0.010	1.2	ug/L	8	KED
|	**Tl**	205	9774.5	1.0	**0.8139**	0.005	0.7	ug/L	16	KED
|	**Pb**	206	193193.4	1.7	**46.7395**	0.494	1.1	ug/L	316	KED
|	**Pb**	207	159497.8	1.0	**43.6396**	0.307	0.7	ug/L	291	KED
|	**Pb**	208	412355.8	1.8	**45.3117**	0.276	0.6	ug/L	695	KED
|	**U**	238	67634.3	2.1	**2.9838**	0.057	1.9	ug/L	16	KED

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	Th	232	390947.3	1.9	**19.9396**	0.334	1.7	ug/L	1926	KED
>	**Bi**	209	509845.7	1.7				ug/L	514781	KED
	Na	23	1.7	173.2				mg/L	0	KED
	Mg	24	4410.6	0.7	**0.1435**	0.002	1.2	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	11.7	89.2	**-129.0757**	136.764	106.0	mg/L	2	KED
	Fe	54	84696.1	1.9	**71.0859**	0.554	0.8	mg/L	10	KED
	Fe	57	175925.7	2.1	**69.5122**	0.776	1.1	mg/L	22	KED
>	**Sc-1**	45	95923.7	1.5				mg/L	87229	KED
	Cl	35	4792.4	4.7				ug/L	2227	KED
	Kr	83	5.0	100.0				ug/L	2	KED
	Br	81	78.3	19.5				ug/L	23	KED
	P	31	205.0	22.0				ug/L	212	KED
	S	34	48.3	6.0				ug/L	37	KED
	Sr	88	37860.6	1.7				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		109.968	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		99.649	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908017813
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	96.718
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	99.041
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	109.968
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
V 51 Upper, S, EEE	V	51	
Mn 55 Upper, S, EEE	Mn	55	
Ba 135 Upper, S, EEE	Ba	135	

Approved: September 05, 2019

Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, September 04, 2019 12:47:25
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexION\Data\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10413.6	4.0				ug/L	9383	KED
|	**Be**	9	539.7	4.8	**6.6191**	0.433	6.5	ug/L	0	KED
|	**Al**	27	206083.1	3.3				ug/L	73	KED
\>	**Sc-2**	45	89475.3	3.3				ug/L	87229	KED
⌈	**Ti**	47	508.0	5.7	**32.6699**	1.922	5.9	ug/L	11	KED
|	**V**	51	48526.7	5.4	**28.1802**	1.764	6.3	ug/L	10753	KED
|	**Cr**	52	135941.3	2.3	**63.2597**	1.141	1.8	ug/L	489	KED
|	**Cr**	53	20782.6	5.6	**53.0979**	3.734	7.0	ug/L	6416	KED
|	**Mn**	55	99979.3	5.0	**64.6112**	3.028	4.7	ug/L	206	KED
|	**Co**	59	170254.8	2.1	**30.9782**	0.641	2.1	ug/L	86	KED
|	**Ni**	60	189478.8	0.7	**122.8770**	1.761	1.4	ug/L	1252	KED
|	**Cu**	65	121382.3	0.5	**61.5267**	0.637	1.0	ug/L	418	KED
|	**Zn**	66	337459.7	0.5	**610.8119**	7.132	1.2	ug/L	204	KED
\>	**Ge**	72	256892.3	1.2				ug/L	234818	KED
|	**As**	75	14934.0	1.0	**31.0373**	0.102	0.3	ug/L	719	KED
|	**Se**	82	573.8	2.0	**30.4585**	0.465	1.5	ug/L	15	KED
|	**Se-1**	78	1231.4	4.1	**30.1548**	1.436	4.8	ug/L	35	KED
⌊	**Se-1**	80	29236.2	0.4	**34.8088**	3.116	9.0	ug/L	23187	KED
	Ga	71	78.3	35.2				ug/L	33	KED
	Rb	85	218.3	7.4				ug/L	13	KED
	Y	89	217164.9	3.6				ug/L	191699	KED
	Rh	103	13.3	57.3				ug/L	5	KED
⌈	**Mo**	98	120217.6	2.8	**31.4926**	1.609	5.1	ug/L	47	KED
|	**Ag**	107	243342.4	1.3	**32.3730**	1.146	3.5	ug/L	173	KED
|	**Cd**	111	20635.4	2.3	**18.9345**	0.877	4.6	ug/L	5	KED
|	**Cd**	114	50498.4	2.1	**18.8424**	0.838	4.4	ug/L	29	KED
\>	**In**	115	273196.5	2.3				ug/L	248460	KED
|	**Sn**	118	67254.6	1.5	**31.2047**	1.129	3.6	ug/L	556	KED
|	**Sb**	123	58244.8	1.5	**30.6822**	1.167	3.8	ug/L	79	KED
⌊	**Ba**	135	57336.6	0.9	**93.2239**	3.054	3.3	ug/L	15	KED
	Ce	140	1555.8	79.4				ug/L	45	KED
	Tb	159	694299.3	3.5				ug/L	661680	KED
⌈	**Ho**	165	25.0	70.3				ug/L	5	KED
|	**Tl**	203	31317.7	1.0	**6.2472**	0.216	3.5	ug/L	8	KED
|	**Tl**	205	77669.6	0.4	**6.2435**	0.254	4.1	ug/L	16	KED
|	**Pb**	206	134975.6	1.1	**31.4558**	1.257	4.0	ug/L	316	KED
|	**Pb**	207	118450.9	0.1	**31.2247**	1.383	4.4	ug/L	291	KED
|	**Pb**	208	297526.3	0.9	**31.5002**	1.390	4.4	ug/L	695	KED
|	**U**	238	737946.7	0.8	**31.4017**	1.607	5.1	ug/L	16	KED

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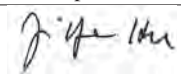
	Th	232	629333.0	0.6	**30.9989**	1.291	4.2	ug/L	1926	KED
>	**Bi**	209	529446.9	4.4				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	79945.4	1.8	**4.2056**	0.065	1.5	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**1.4483**	38.729	2674.0	mg/L	2	KED
	Fe	54	4330.6	4.4	**3.8875**	0.084	2.2	mg/L	10	KED
	Fe	57	9619.7	0.8	**4.0689**	0.128	3.2	mg/L	22	KED
>	**Sc-1**	45	89475.3	3.3				mg/L	87229	KED
	Cl	35	1875.1	9.0				ug/L	2227	KED
	Kr	83	0.0					ug/L	2	KED
	Br	81	26.7	39.0				ug/L	23	KED
	P	31	143.3	15.7				ug/L	212	KED
	S	34	38.3	61.6				ug/L	37	KED
	Sr	88	65.0	35.3				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9	103.424		
	Al	27			
>	Sc-2	45		102.575	
	Ti	47	102.094		
	V	51	88.063		
	Cr	52	98.843		
	Cr	53			
	Mn	55	100.955		
	Co	59	96.807		
	Ni	60	95.998		
	Cu	65	96.135		
	Zn	66	95.439		
>	Ge	72		109.401	
	As	75	96.991		
	Se	82	95.183		
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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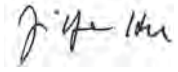
	Rh	103			
⌈	Mo	98	98.414		
|	Ag	107	101.165		
|	Cd	111	98.617		
|	Cd	114			
|>	In	115		109.956	
|	Sn	118	97.515		
|	Sb	123	95.882		
⌊	Ba	135	97.108		
	Ce	140			
	Tb	159			
⌈	Ho	165			
|	Tl	203	97.612		
|	Tl	205			
|	Pb	206	98.299		
|	Pb	207	97.577		
|	Pb	208	98.438		
|	U	238	98.130		
|	Th	232			
⌊>	Bi	209		102.849	
⌈	Na	23			
|	Mg	24	105.140		
|	K	39	0.000		
|	Ca	43	36.208		
|	Fe	54	97.187		
|	Fe	57	101.722		
⌊>	Sc-1	45		102.575	
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	V	51	
QC Std 6	K	39	
QC Std 6	Ca	43	

Sample ID: QC Std 6
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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, September 04, 2019 12:50:19
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	9711.4	1.2				ug/L	9383	KED
|	Be	9	1.0	173.2	**0.0126**	0.022	173.2	ug/L	0	KED
|	Al	27	223.3	51.1				ug/L	73	KED
⌊>	Sc-2	45	87017.8	0.5				ug/L	87229	KED
⌈	Ti	47	12.3	32.8	**0.0955**	0.283	296.4	ug/L	11	KED
|	V	51	5726.4	14.3	**-4.3472**	0.708	16.3	ug/L	10753	KED
|	Cr	52	494.3	16.2	**-0.0041**	0.040	964.6	ug/L	489	KED
|	Cr	53	3488.7	16.2	**-12.7608**	2.441	19.1	ug/L	6416	KED
|	Mn	55	476.7	26.2	**0.1826**	0.090	49.1	ug/L	206	KED
|	Co	59	165.7	37.0	**0.0149**	0.012	78.8	ug/L	86	KED
|	Ni	60	347.3	23.3	**-0.6535**	0.055	8.4	ug/L	1252	KED
|	Cu	65	347.0	11.8	**-0.0448**	0.021	47.2	ug/L	418	KED
|	Zn	66	592.0	21.6	**0.7339**	0.237	32.3	ug/L	204	KED
| >	Ge	72	241592.3	0.9				ug/L	234818	KED
|	As	75	703.0	3.1	**-0.0851**	0.039	45.3	ug/L	719	KED
|	Se	82	14.0	21.7	**-0.0738**	0.172	233.5	ug/L	15	KED
|	Se-1	78	43.7	16.0	**0.2094**	0.179	85.6	ug/L	35	KED
⌊	Se-1	80	24641.5	0.3	**7.5256**	2.809	37.3	ug/L	23187	KED
	Ga	71	58.3	42.3				ug/L	33	KED
	Rb	85	21.7	70.5				ug/L	13	KED
	Y	89	195108.3	1.3				ug/L	191699	KED
	Rh	103	3.3	173.2				ug/L	5	KED
⌈	Mo	98	264.3	15.2	**0.0614**	0.011	18.7	ug/L	47	KED
|	Ag	107	239.7	39.1	**0.0093**	0.014	147.1	ug/L	173	KED
|	Cd	111	19.0	68.4	**0.0142**	0.013	91.6	ug/L	5	KED
|	Cd	114	47.0	45.0	**0.0071**	0.009	121.6	ug/L	29	KED
| >	In	115	252554.1	0.4				ug/L	248460	KED
|	Sn	118	605.3	5.5	**0.0203**	0.016	76.7	ug/L	556	KED
|	Sb	123	863.7	3.8	**0.4468**	0.020	4.5	ug/L	79	KED
⌊	Ba	135	57.0	39.7	**0.0741**	0.040	54.2	ug/L	15	KED
	Ce	140	99.3	66.8				ug/L	45	KED
	Tb	159	657235.6	0.5				ug/L	661680	KED
⌈	Ho	165	6.3	87.0				ug/L	5	KED
|	Tl	203	19.7	65.6	**0.0024**	0.003	106.7	ug/L	8	KED
|	Tl	205	52.7	84.5	**0.0030**	0.004	120.7	ug/L	16	KED
|	Pb	206	427.3	15.2	**0.0265**	0.015	55.9	ug/L	316	KED
|	Pb	207	379.7	10.4	**0.0239**	0.010	42.8	ug/L	291	KED
|	Pb	208	1004.4	14.1	**0.0334**	0.015	43.9	ug/L	695	KED
|	U	238	454.3	64.8	**0.0190**	0.013	66.5	ug/L	16	KED

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	Th	232	11382.0	14.9	**0.4780**	0.081	17.0	ug/L	1926	KED
>	**Bi**	209	516168.9	0.7				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	953.4	7.3	**-0.0243**	0.004	16.5	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**23.8084**	0.000	0.0	mg/L	2	KED
	Fe	54	21.7	66.6	**0.0109**	0.013	123.5	mg/L	10	KED
	Fe	57	43.3	37.1	**0.0095**	0.007	74.5	mg/L	22	KED
>	**Sc-1**	45	87017.8	0.5				mg/L	87229	KED
	Cl	35	2395.2	1.8				ug/L	2227	KED
	Kr	83	0.0					ug/L	2	KED
	Br	81	18.3	15.7				ug/L	23	KED
	P	31	76.7	26.4				ug/L	212	KED
	S	34	38.3	58.8				ug/L	37	KED
	Sr	88	21.7	35.3				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		99.758	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		102.885	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	101.648
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	100.270
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	99.758
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 7	V	51	
QC Std 7	Sb	123	
QC Std 7	Ca	43	

Sample ID: QC Std 7
Report Date/Time: Wednesday, September 04, 2019 12:52:39
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Method 6020 - Summary Report

Sample ID: L1908012108
Sample Date/Time: Wednesday, September 04, 2019 12:58:48
Number of Replicates: 3
Autosampler Position: 342
Sample Description: 10
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	10333.5	8.4				ug/L	9383	KED
|	Be	9	3587.1	3.9	**44.3977**	0.137	0.3	ug/L	0	KED
|	Al	27	49183.1	3.9				ug/L	73	KED
⌊>	Sc-2	45	88569.3	3.6				ug/L	87229	KED
⌈	Ti	47	2073.5	0.3	**144.7849**	3.808	2.6	ug/L	11	KED
|	V	51	62860.1	1.3	**42.3724**	0.541	1.3	ug/L	10753	KED
|	Cr	52	123583.1	2.1	**61.3090**	0.444	0.7	ug/L	489	KED
|	Cr	53	21999.3	0.2	**63.4620**	2.090	3.3	ug/L	6416	KED
|	Mn	55	392722.2	2.5	**271.0585**	2.620	1.0	ug/L	206	KED
|	Co	59	88048.2	2.2	**17.0722**	0.132	0.8	ug/L	86	KED
|	Ni	60	34827.0	2.5	**23.3566**	0.121	0.5	ug/L	1252	KED
|	Cu	65	112037.8	2.1	**60.5400**	0.244	0.4	ug/L	418	KED
|	Zn	66	79513.5	2.4	**153.1232**	0.273	0.2	ug/L	204	KED
|>	Ge	72	240957.6	2.3				ug/L	234818	KED
|	As	75	17495.1	0.9	**39.2085**	1.064	2.7	ug/L	719	KED
|	Se	82	323.8	4.4	**17.9661**	0.403	2.2	ug/L	15	KED
|	Se-1	78	680.3	1.6	**17.3736**	0.686	3.9	ug/L	35	KED
⌊	Se-1	80	25904.6	1.1	**20.2836**	3.200	15.8	ug/L	23187	KED
	Ga	71	2100.1	2.6				ug/L	33	KED
	Rb	85	15291.1	6.0				ug/L	13	KED
	Y	89	212557.8	2.3				ug/L	191699	KED
	Rh	103	28.3	56.7				ug/L	5	KED
⌈	Mo	98	59060.2	1.2	**16.4996**	0.340	2.1	ug/L	47	KED
|	Ag	107	112080.8	1.8	**15.8962**	0.212	1.3	ug/L	173	KED
|	Cd	111	53232.1	2.6	**52.1064**	0.393	0.8	ug/L	5	KED
|	Cd	114	129885.5	3.7	**51.7016**	0.400	0.8	ug/L	29	KED
|>	In	115	255985.0	3.1				ug/L	248460	KED
|	Sn	118	73306.9	1.8	**36.3376**	0.514	1.4	ug/L	556	KED
|	Sb	123	147256.6	1.9	**82.8377**	0.999	1.2	ug/L	79	KED
⌊	Ba	135	66940.2	1.5	**116.1440**	1.927	1.7	ug/L	15	KED
	Ce	140	365958.7	1.8				ug/L	45	KED
	Tb	159	664133.1	1.4				ug/L	661680	KED
⌈	Ho	165	2506.5	2.6				ug/L	5	KED
|	Tl	203	154559.5	1.7	**31.1131**	0.315	1.0	ug/L	8	KED
|	Tl	205	385010.9	0.9	**31.2271**	0.155	0.5	ug/L	16	KED
|	Pb	206	150843.5	0.4	**35.4767**	0.333	0.9	ug/L	316	KED
|	Pb	207	127629.7	1.6	**33.9422**	0.168	0.5	ug/L	291	KED
|	Pb	208	326806.9	1.2	**34.9098**	0.081	0.2	ug/L	695	KED
|	U	238	597498.9	1.7	**25.6402**	0.237	0.9	ug/L	16	KED

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	Th	232	106318.7	3.4	**5.2035**	0.238	4.6	ug/L	1926	KED
>	**Bi**	209	524213.1	1.3				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	2110.1	4.7	**0.0373**	0.001	3.5	mg/L	1398	KED
	K	39	1.7	173.2	**7.6605**	13.268	173.2	mg/L	0	KED
	Ca	43	0.0		**23.8084**	0.000	0.0	mg/L	2	KED
	Fe	54	7518.5	2.4	**6.8281**	0.085	1.2	mg/L	10	KED
	Fe	57	15189.3	4.6	**6.4901**	0.073	1.1	mg/L	22	KED
>	**Sc-1**	45	88569.3	3.6				mg/L	87229	KED
	Cl	35	2690.2	7.1				ug/L	2227	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	18.3	63.0				ug/L	23	KED
	P	31	123.3	23.1				ug/L	212	KED
	S	34	28.3	20.4				ug/L	37	KED
	Sr	88	17994.0	2.7				ug/L	18	KED
	C	12	1.7	173.2				ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		101.537	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		102.615	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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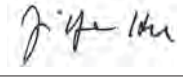
Approved: September 05, 2019

	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	103.029
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	101.832
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	101.537
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
Mn 55 Upper, S, EEE	Mn	55	

Approved: September 05, 2019



Method 6020 - Summary Report

Sample ID: L1908016002 WG710621-01
Sample Date/Time: Wednesday, September 04, 2019 13:01:41
Number of Replicates: 3
Autosampler Position: 343
Sample Description: 10
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	11047.4	9.2				ug/L	9383	KED
|	Be	9	21.7	34.6	0.2543	0.072	28.1	ug/L	0	KED
|	Al	27	28623.7	3.1				ug/L	73	KED
\>	Sc-2	45	92243.7	7.6				ug/L	87229	KED
⌈	Ti	47	143.7	7.6	8.8917	1.080	12.1	ug/L	11	KED
|	V	51	12651.3	2.7	0.8705	0.362	41.5	ug/L	10753	KED
|	Cr	52	6149.6	6.6	2.6870	0.327	12.2	ug/L	489	KED
|	Cr	53	5047.5	1.5	-7.2238	0.795	11.0	ug/L	6416	KED
|	Mn	55	133932.6	3.7	88.4682	7.558	8.5	ug/L	206	KED
|	Co	59	19049.0	2.5	3.5237	0.260	7.4	ug/L	86	KED
|	Ni	60	10002.0	2.4	5.7757	0.483	8.4	ug/L	1252	KED
|	Cu	65	9652.7	2.3	4.7817	0.358	7.5	ug/L	418	KED
|	Zn	66	10207.8	4.4	18.4816	1.713	9.3	ug/L	204	KED
\>	Ge	72	252210.6	5.0				ug/L	234818	KED
|	As	75	1886.8	2.2	2.4952	0.124	5.0	ug/L	719	KED
|	Se	82	24.7	9.1	0.4875	0.134	27.4	ug/L	15	KED
|	Se-1	78	47.8	11.7	0.2662	0.096	36.1	ug/L	35	KED
⌊	Se-1	80	24777.9	1.0	-0.7289	12.900	1769.8	ug/L	23187	KED
	Ga	71	816.7	4.1				ug/L	33	KED
	Rb	85	3362.0	4.3				ug/L	13	KED
	Y	89	218653.1	5.7				ug/L	191699	KED
	Rh	103	11.7	65.5				ug/L	5	KED
⌈	Mo	98	2128.5	1.1	0.5625	0.029	5.2	ug/L	47	KED
|	Ag	107	222.3	13.7	0.0052	0.003	57.5	ug/L	173	KED
|	Cd	111	78.3	27.7	0.0690	0.018	26.1	ug/L	5	KED
|	Cd	114	209.3	19.6	0.0684	0.013	18.4	ug/L	29	KED
\>	In	115	264721.8	4.4				ug/L	248460	KED
|	Sn	118	954.7	6.5	0.1759	0.042	23.8	ug/L	556	KED
|	Sb	123	480.0	9.3	0.2151	0.015	6.8	ug/L	79	KED
⌊	Ba	135	9982.3	3.2	16.7477	1.066	6.4	ug/L	15	KED
	Ce	140	87439.1	3.6				ug/L	45	KED
	Tb	159	696370.4	4.2				ug/L	661680	KED
⌈	Ho	165	1705.8	2.9				ug/L	5	KED
|	Tl	203	523.7	27.0	0.0985	0.030	30.0	ug/L	8	KED
|	Tl	205	1287.1	19.6	0.0977	0.022	22.4	ug/L	16	KED
|	Pb	206	26387.3	3.1	5.8139	0.471	8.1	ug/L	316	KED
|	Pb	207	22093.4	2.6	5.4979	0.419	7.6	ug/L	291	KED
|	Pb	208	55814.7	2.9	5.5827	0.441	7.9	ug/L	695	KED
|	U	238	4986.8	2.8	0.2016	0.005	2.7	ug/L	16	KED

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	Th	232	19839.0	3.8	**0.8370**	0.035	4.2	ug/L	1926	KED
>	**Bi**	209	555023.6	5.2				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	1105.0	16.6	**-0.0193**	0.010	49.4	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**23.8084**	0.000	0.0	mg/L	2	KED
	Fe	54	5967.8	4.9	**5.2295**	0.595	11.4	mg/L	10	KED
	Fe	57	12173.2	4.2	**5.0209**	0.562	11.2	mg/L	22	KED
>	**Sc-1**	45	92243.7	7.6				mg/L	87229	KED
	Cl	35	2351.8	4.0				ug/L	2227	KED
	Kr	83	3.3	173.2				ug/L	2	KED
	Br	81	25.0	34.6				ug/L	23	KED
	P	31	113.3	22.6				ug/L	212	KED
	S	34	45.0	19.2				ug/L	37	KED
	Sr	88	1138.4	6.8				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		105.749	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		107.407	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		106.545
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		107.817
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		105.749
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1908016002S WG710621-04
Sample Date/Time: Wednesday, September 04, 2019 13:04:34
Number of Replicates: 3
Autosampler Position: 344
Sample Description: 10
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	9696.5	12.9				ug/L	9383	KED
|	Be	9	84.0	3.1	1.1184	0.197	17.6	ug/L	0	KED
|	Al	27	32960.8	3.4				ug/L	73	KED
|>	Sc-2	45	83793.5	14.9				ug/L	87229	KED
⌈	Ti	47	206.3	6.6	14.5445	2.983	20.5	ug/L	11	KED
|	V	51	18552.4	1.9	6.9067	1.679	24.3	ug/L	10753	KED
|	Cr	52	22394.9	1.5	11.4945	1.621	14.1	ug/L	489	KED
|	Cr	53	7291.8	3.6	4.4040	3.244	73.7	ug/L	6416	KED
|	Mn	55	145391.4	4.2	105.8142	17.814	16.8	ug/L	206	KED
|	Co	59	37340.0	2.7	7.6219	1.167	15.3	ug/L	86	KED
|	Ni	60	32188.8	2.5	22.7230	3.496	15.4	ug/L	1252	KED
|	Cu	65	25669.7	2.6	14.4401	2.196	15.2	ug/L	418	KED
|	Zn	66	50904.4	3.3	103.1772	15.688	15.2	ug/L	204	KED
|>	Ge	72	231340.1	11.7				ug/L	234818	KED
|	As	75	3887.2	3.6	7.8660	1.560	19.8	ug/L	719	KED
|	Se	82	100.3	2.9	5.2446	0.580	11.1	ug/L	15	KED
|	Se-1	78	185.5	7.4	4.2687	0.423	9.9	ug/L	35	KED
⌊	Se-1	80	25212.5	1.4	26.3627	34.931	132.5	ug/L	23187	KED
	Ga	71	858.4	12.3				ug/L	33	KED
	Rb	85	4023.9	6.6				ug/L	13	KED
	Y	89	201607.2	9.6				ug/L	191699	KED
	Rh	103	8.3	91.7				ug/L	5	KED
⌈	Mo	98	14536.6	3.0	4.1986	0.578	13.8	ug/L	47	KED
|	Ag	107	26612.7	4.1	3.8932	0.548	14.1	ug/L	173	KED
|	Cd	111	2387.9	7.1	2.4234	0.417	17.2	ug/L	5	KED
|	Cd	114	5895.1	3.7	2.4211	0.329	13.6	ug/L	29	KED
|>	In	115	249172.0	9.9				ug/L	248460	KED
|	Sn	118	7926.7	3.7	3.8203	0.591	15.5	ug/L	556	KED
|	Sb	123	7337.4	5.4	4.2368	0.638	15.1	ug/L	79	KED
⌊	Ba	135	18219.6	4.5	32.7573	4.776	14.6	ug/L	15	KED
	Ce	140	102279.9	3.0				ug/L	45	KED
	Tb	159	641612.7	11.2				ug/L	661680	KED
⌈	Ho	165	1955.5	5.2				ug/L	5	KED
|	Tl	203	3836.5	4.0	0.8096	0.133	16.4	ug/L	8	KED
|	Tl	205	9407.3	3.2	0.7994	0.124	15.5	ug/L	16	KED
|	Pb	206	43192.5	3.1	10.6122	1.702	16.0	ug/L	316	KED
|	Pb	207	36605.8	2.3	10.1546	1.485	14.6	ug/L	291	KED
|	Pb	208	91724.9	1.9	10.2164	1.423	13.9	ug/L	695	KED
|	U	238	84076.7	2.4	3.7848	0.567	15.0	ug/L	16	KED

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	Th	232	81364.9	2.1	**4.1501**	0.551	13.3	ug/L	1926	KED
>	**Bi**	209	505642.1	11.9				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	1146.7	4.4	**-0.0101**	0.011	112.4	mg/L	1398	KED
	K	39	3.3	86.6	**17.5043**	15.554	88.9	mg/L	0	KED
	Ca	43	1.7	173.2	**-6.1174**	51.833	847.3	mg/L	2	KED
	Fe	54	6398.0	3.6	**6.2621**	1.243	19.9	mg/L	10	KED
	Fe	57	13259.1	3.9	**6.1102**	1.227	20.1	mg/L	22	KED
>	**Sc-1**	45	83793.5	14.9				mg/L	87229	KED
	Cl	35	2301.8	6.3				ug/L	2227	KED
	Kr	83	3.3	173.2				ug/L	2	KED
	Br	81	26.7	47.2				ug/L	23	KED
	P	31	125.0	10.6				ug/L	212	KED
	S	34	36.7	28.4				ug/L	37	KED
	Sr	88	1385.1	6.9				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		96.062	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		98.519	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		100.287
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		98.225
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		96.062
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1908016002S WG710621-04
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Method 6020 - Summary Report

Sample ID: L1908016002SD WG710621-05
Sample Date/Time: Wednesday, September 04, 2019 13:07:27
Number of Replicates: 3
Autosampler Position: 345
Sample Description: 10
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	10490.3	6.3				ug/L	9383	KED
|	Be	9	81.3	12.6	0.9999	0.126	12.6	ug/L	0	KED
|	Al	27	39242.5	3.5				ug/L	73	KED
|>	Sc-2	45	89194.9	2.4				ug/L	87229	KED
⌈	Ti	47	276.0	4.7	18.4313	0.901	4.9	ug/L	11	KED
|	V	51	20018.6	1.4	7.2027	0.229	3.2	ug/L	10753	KED
|	Cr	52	24198.0	2.2	11.6978	0.181	1.5	ug/L	489	KED
|	Cr	53	7918.7	6.1	5.2032	1.798	34.6	ug/L	6416	KED
|	Mn	55	168672.7	2.4	115.3177	2.039	1.8	ug/L	206	KED
|	Co	59	41004.4	2.8	7.8715	0.167	2.1	ug/L	86	KED
|	Ni	60	34172.5	1.8	22.6943	0.253	1.1	ug/L	1252	KED
|	Cu	65	26257.4	0.9	13.8865	0.090	0.7	ug/L	418	KED
|	Zn	66	52523.9	2.1	100.1264	1.425	1.4	ug/L	204	KED
|>	Ge	72	243061.8	0.7				ug/L	234818	KED
|	As	75	3770.5	1.4	7.0175	0.133	1.9	ug/L	719	KED
|	Se	82	91.5	12.7	4.3933	0.638	14.5	ug/L	15	KED
|	Se-1	78	193.5	5.8	4.2034	0.274	6.5	ug/L	35	KED
⌊	Se-1	80	25148.7	0.5	10.9164	2.859	26.2	ug/L	23187	KED
	Ga	71	1116.7	3.9				ug/L	33	KED
	Rb	85	5212.6	4.0				ug/L	13	KED
	Y	89	211587.9	2.9				ug/L	191699	KED
	Rh	103	10.0	86.6				ug/L	5	KED
⌈	Mo	98	15096.5	0.4	4.1454	0.036	0.9	ug/L	47	KED
|	Ag	107	26419.3	1.3	3.6729	0.023	0.6	ug/L	173	KED
|	Cd	111	2301.2	0.2	2.2156	0.020	0.9	ug/L	5	KED
|	Cd	114	5891.8	2.9	2.3004	0.052	2.3	ug/L	29	KED
|>	In	115	259703.9	0.7				ug/L	248460	KED
|	Sn	118	8101.8	0.6	3.7027	0.052	1.4	ug/L	556	KED
|	Sb	123	7226.4	1.7	3.9622	0.047	1.2	ug/L	79	KED
⌊	Ba	135	17631.6	2.4	30.1217	0.544	1.8	ug/L	15	KED
	Ce	140	130819.0	0.8				ug/L	45	KED
	Tb	159	680624.5	0.9				ug/L	661680	KED
⌈	Ho	165	2134.2	1.5				ug/L	5	KED
|	Tl	203	3875.5	2.0	0.7592	0.014	1.9	ug/L	8	KED
|	Tl	205	9589.7	1.6	0.7571	0.011	1.4	ug/L	16	KED
|	Pb	206	42464.4	1.5	9.6829	0.125	1.3	ug/L	316	KED
|	Pb	207	36441.4	1.4	9.3936	0.120	1.3	ug/L	291	KED
|	Pb	208	92270.5	1.8	9.5556	0.073	0.8	ug/L	695	KED
|	U	238	87263.3	1.6	3.6509	0.047	1.3	ug/L	16	KED

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	Th	232	92934.9	4.6	**4.4204**	0.239	5.4	ug/L	1926	KED
>	**Bi**	209	537599.2	1.0				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	1151.7	5.0	**-0.0149**	0.004	28.1	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**23.8084**	0.000	0.0	mg/L	2	KED
	Fe	54	7535.2	6.8	**6.7899**	0.345	5.1	mg/L	10	KED
	Fe	57	15084.2	3.8	**6.4000**	0.110	1.7	mg/L	22	KED
>	**Sc-1**	45	89194.9	2.4				mg/L	87229	KED
	Cl	35	2290.2	7.9				ug/L	2227	KED
	Kr	83	6.7	114.6				ug/L	2	KED
	Br	81	28.3	10.2				ug/L	23	KED
	P	31	125.0	34.6				ug/L	212	KED
	S	34	46.7	62.8				ug/L	37	KED
	Sr	88	1390.1	11.4				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		102.254	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		103.511	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		104.526
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		104.433
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		102.254
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1908016002SD WG710621-05
Report Date/Time: Wednesday, September 04, 2019 13:09:46
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Approved: September 05, 2019

Method 6020 - Summary Report

Sample ID: L1908017802
Sample Date/Time: Wednesday, September 04, 2019 13:10:20
Number of Replicates: 3
Autosampler Position: 346
Sample Description: 10
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10763.8	0.9				ug/L	9383	KED
|	**Be**	9	13.7	18.4	**0.1649**	0.030	18.3	ug/L	0	KED
|	**Al**	27	35735.4	1.2				ug/L	73	KED
⌊>	**Sc-2**	45	90878.7	0.9				ug/L	87229	KED
⌈	**Ti**	47	648.7	4.1	**44.4301**	2.293	5.2	ug/L	11	KED
|	**V**	51	20034.9	1.0	**7.2383**	0.253	3.5	ug/L	10753	KED
|	**Cr**	52	41332.6	0.6	**20.1881**	0.300	1.5	ug/L	489	KED
|	**Cr**	53	10705.4	0.7	**16.6414**	0.913	5.5	ug/L	6416	KED
|	**Mn**	55	432701.5	1.7	**296.4647**	3.649	1.2	ug/L	206	KED
|	**Co**	59	16834.3	0.7	**3.2264**	0.048	1.5	ug/L	86	KED
|	**Ni**	60	19120.1	0.7	**12.3222**	0.104	0.8	ug/L	1252	KED
|	**Cu**	65	11887.3	0.4	**6.1684**	0.082	1.3	ug/L	418	KED
|	**Zn**	66	11246.8	1.5	**21.1521**	0.301	1.4	ug/L	204	KED
|>	**Ge**	72	242752.5	1.5				ug/L	234818	KED
|	**As**	75	2637.6	0.7	**4.3997**	0.138	3.1	ug/L	719	KED
|	**Se**	82	30.3	4.8	**0.8670**	0.077	8.9	ug/L	15	KED
|	**Se-1**	78	45.3	3.4	**0.2491**	0.027	10.8	ug/L	35	KED
⌊	**Se-1**	80	24643.7	0.9	**6.4611**	5.776	89.4	ug/L	23187	KED
	Ga	71	1441.7	4.9				ug/L	33	KED
	Rb	85	6443.0	2.9				ug/L	13	KED
	Y	89	216879.6	0.9				ug/L	191699	KED
	Rh	103	15.0	33.3				ug/L	5	KED
⌈	**Mo**	98	2388.2	1.0	**0.6558**	0.009	1.4	ug/L	47	KED
|	**Ag**	107	180.3	8.5	**0.0004**	0.002	504.7	ug/L	173	KED
|	**Cd**	111	76.0	9.1	**0.0699**	0.007	9.5	ug/L	5	KED
|	**Cd**	114	203.7	5.4	**0.0694**	0.005	6.7	ug/L	29	KED
|>	**In**	115	255262.6	0.4				ug/L	248460	KED
|	**Sn**	118	937.7	7.4	**0.1836**	0.036	19.4	ug/L	556	KED
|	**Sb**	123	548.3	4.4	**0.2636**	0.013	4.8	ug/L	79	KED
⌊	**Ba**	135	26467.8	2.1	**46.0232**	1.086	2.4	ug/L	15	KED
	Ce	140	177115.9	1.0				ug/L	45	KED
	Tb	159	673348.6	0.2				ug/L	661680	KED
⌈	**Ho**	165	2369.9	4.3				ug/L	5	KED
|	**Tl**	203	419.3	1.4	**0.0813**	0.002	2.2	ug/L	8	KED
|	**Tl**	205	991.7	3.2	**0.0776**	0.002	3.1	ug/L	16	KED
|	**Pb**	206	26927.9	1.0	**6.1514**	0.047	0.8	ug/L	316	KED
|	**Pb**	207	22890.6	1.0	**5.9084**	0.032	0.5	ug/L	291	KED
|	**Pb**	208	58040.6	0.6	**6.0212**	0.043	0.7	ug/L	695	KED
|	**U**	238	6561.8	3.3	**0.2756**	0.007	2.5	ug/L	16	KED

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	Th	232	40029.5	1.0	**1.8601**	0.017	0.9	ug/L	1926	KED
>	**Bi**	209	534240.5	0.8				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	1140.0	2.3	**-0.0167**	0.002	9.9	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	3.3	86.6	**-21.6570**	39.374	181.8	mg/L	2	KED
	Fe	54	7972.1	6.8	**7.0529**	0.444	6.3	mg/L	10	KED
	Fe	57	16485.6	2.6	**6.8666**	0.129	1.9	mg/L	22	KED
>	**Sc-1**	45	90878.7	0.9				mg/L	87229	KED
	Cl	35	2278.5	2.7				ug/L	2227	KED
	Kr	83	5.0	100.0				ug/L	2	KED
	Br	81	16.7	45.8				ug/L	23	KED
	P	31	91.7	15.7				ug/L	212	KED
	S	34	38.3	27.2				ug/L	37	KED
	Sr	88	2446.9	5.7				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		104.184	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		103.379	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	102.738
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	103.780
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	104.184
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	

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Method 6020 - Summary Report

Sample ID: L1908017805
Sample Date/Time: Wednesday, September 04, 2019 13:13:12
Number of Replicates: 3
Autosampler Position: 347
Sample Description: 10
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10512.0	0.2				ug/L	9383	KED
|	**Be**	9	12.3	40.0	**0.1508**	0.063	41.9	ug/L	0	KED
|	**Al**	27	28775.6	0.8				ug/L	73	KED
⌊>	**Sc-2**	45	90077.0	1.9				ug/L	87229	KED
⌈	**Ti**	47	592.3	8.5	**41.5202**	2.471	6.0	ug/L	11	KED
|	**V**	51	19672.1	1.0	**7.3752**	0.851	11.5	ug/L	10753	KED
|	**Cr**	52	38314.8	4.0	**19.1826**	0.366	1.9	ug/L	489	KED
|	**Cr**	53	10263.5	2.7	**16.0003**	3.298	20.6	ug/L	6416	KED
|	**Mn**	55	457345.5	3.6	**321.4753**	5.577	1.7	ug/L	206	KED
|	**Co**	59	18116.8	4.4	**3.5627**	0.060	1.7	ug/L	86	KED
|	**Ni**	60	17263.5	3.9	**11.3467**	0.252	2.2	ug/L	1252	KED
|	**Cu**	65	10136.7	2.4	**5.3691**	0.169	3.1	ug/L	418	KED
|	**Zn**	66	10121.1	4.3	**19.4905**	0.188	1.0	ug/L	204	KED
|>	**Ge**	72	236758.1	5.2				ug/L	234818	KED
|	**As**	75	2443.2	2.3	**4.0975**	0.206	5.0	ug/L	719	KED
|	**Se**	82	32.5	9.6	**1.0482**	0.271	25.8	ug/L	15	KED
|	**Se-1**	78	49.7	12.1	**0.3966**	0.116	29.3	ug/L	35	KED
⌊	**Se-1**	80	24513.3	0.8	**11.4451**	10.866	94.9	ug/L	23187	KED
	Ga	71	1271.7	16.5				ug/L	33	KED
	Rb	85	5349.3	4.0				ug/L	13	KED
	Y	89	203548.0	4.1				ug/L	191699	KED
	Rh	103	6.7	43.3				ug/L	5	KED
⌈	**Mo**	98	2129.8	6.2	**0.6004**	0.015	2.5	ug/L	47	KED
|	**Ag**	107	182.3	8.9	**0.0015**	0.002	152.7	ug/L	173	KED
|	**Cd**	111	112.0	7.6	**0.1085**	0.008	7.6	ug/L	5	KED
|	**Cd**	114	247.7	13.1	**0.0898**	0.011	12.0	ug/L	29	KED
|>	**In**	115	248044.2	3.9				ug/L	248460	KED
|	**Sn**	118	871.4	7.4	**0.1627**	0.019	12.0	ug/L	556	KED
|	**Sb**	123	451.0	6.9	**0.2160**	0.013	5.8	ug/L	79	KED
⌊	**Ba**	135	17895.6	2.2	**32.0401**	1.216	3.8	ug/L	15	KED
	Ce	140	203190.8	1.0				ug/L	45	KED
	Tb	159	665476.4	2.3				ug/L	661680	KED
⌈	**Ho**	165	2251.2	0.6				ug/L	5	KED
|	**Tl**	203	337.3	7.6	**0.0664**	0.004	6.3	ug/L	8	KED
|	**Tl**	205	865.4	3.0	**0.0690**	0.003	4.9	ug/L	16	KED
|	**Pb**	206	28777.6	1.9	**6.7192**	0.031	0.5	ug/L	316	KED
|	**Pb**	207	24343.9	1.5	**6.4232**	0.059	0.9	ug/L	291	KED
|	**Pb**	208	61786.7	0.8	**6.5521**	0.070	1.1	ug/L	695	KED
|	**U**	238	5800.1	1.4	**0.2487**	0.001	0.5	ug/L	16	KED

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	Th	232	31036.8	0.5	**1.4525**	0.029	2.0	ug/L	1926	KED
>	**Bi**	209	523215.4	1.8				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	1248.4	4.9	**-0.0104**	0.003	31.1	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**0.2901**	40.735	14043.8	mg/L	2	KED
	Fe	54	6633.1	4.3	**5.9185**	0.150	2.5	mg/L	10	KED
	Fe	57	13380.9	3.9	**5.6204**	0.116	2.1	mg/L	22	KED
>	**Sc-1**	45	90077.0	1.9				mg/L	87229	KED
	Cl	35	2341.8	2.2				ug/L	2227	KED
	Kr	83	3.3	86.6				ug/L	2	KED
	Br	81	18.3	15.7				ug/L	23	KED
	P	31	86.7	31.8				ug/L	212	KED
	S	34	26.7	75.8				ug/L	37	KED
	Sr	88	2555.2	6.1				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		103.265	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		100.826	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908017805
Report Date/Time: Wednesday, September 04, 2019 13:15:32
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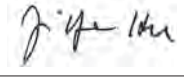
	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	99.833
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	101.638
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	103.265
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	

Sample ID: L1908017805
Report Date/Time: Wednesday, September 04, 2019 13:15:32
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Method 6020 - Summary Report

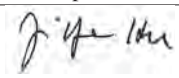
Sample ID: L1908017807
Sample Date/Time: Wednesday, September 04, 2019 13:16:05
Number of Replicates: 3
Autosampler Position: 348
Sample Description: 10
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10625.4	2.0				ug/L	9383	KED
|	**Be**	9	11.0	39.6	**0.1335**	0.053	39.7	ug/L	0	KED
|	**Al**	27	27833.9	1.3				ug/L	73	KED
|>	**Sc-2**	45	90364.3	0.6				ug/L	87229	KED
⌈	**Ti**	47	499.7	3.7	**33.6649**	0.895	2.7	ug/L	11	KED
|	**V**	51	18021.4	2.5	**5.4498**	0.307	5.6	ug/L	10753	KED
|	**Cr**	52	13823.3	1.1	**6.5134**	0.041	0.6	ug/L	489	KED
|	**Cr**	53	7333.4	1.5	**2.5473**	0.203	8.0	ug/L	6416	KED
|	**Mn**	55	364992.3	1.2	**247.4529**	3.727	1.5	ug/L	206	KED
|	**Co**	59	12573.5	1.3	**2.3800**	0.033	1.4	ug/L	86	KED
|	**Ni**	60	8816.2	0.9	**5.1359**	0.056	1.1	ug/L	1252	KED
|	**Cu**	65	9870.9	1.3	**5.0273**	0.115	2.3	ug/L	418	KED
|	**Zn**	66	10630.1	2.3	**19.7612**	0.694	3.5	ug/L	204	KED
|>	**Ge**	72	245310.1	1.1				ug/L	234818	KED
|	**As**	75	2606.2	1.2	**4.2625**	0.019	0.4	ug/L	719	KED
|	**Se**	82	29.3	6.9	**0.7908**	0.098	12.4	ug/L	15	KED
|	**Se-1**	78	48.0	24.3	**0.3061**	0.302	98.5	ug/L	35	KED
⌊	**Se-1**	80	24515.7	0.3	**2.7787**	3.413	122.8	ug/L	23187	KED
	Ga	71	1041.7	9.4				ug/L	33	KED
	Rb	85	3807.1	2.7				ug/L	13	KED
	Y	89	210117.0	1.0				ug/L	191699	KED
	Rh	103	8.3	34.6				ug/L	5	KED
⌈	**Mo**	98	1691.8	2.2	**0.4646**	0.018	3.8	ug/L	47	KED
|	**Ag**	107	159.3	4.5	**-0.0024**	0.001	34.1	ug/L	173	KED
|	**Cd**	111	56.0	13.9	**0.0507**	0.008	14.9	ug/L	5	KED
|	**Cd**	114	129.3	8.5	**0.0401**	0.004	9.1	ug/L	29	KED
|>	**In**	115	253251.3	1.5				ug/L	248460	KED
|	**Sn**	118	767.7	5.9	**0.1017**	0.028	27.7	ug/L	556	KED
|	**Sb**	123	458.3	2.5	**0.2150**	0.010	4.8	ug/L	79	KED
⌊	**Ba**	135	22173.9	0.5	**38.8631**	0.640	1.6	ug/L	15	KED
	Ce	140	125898.3	1.0				ug/L	45	KED
	Tb	159	674086.0	0.6				ug/L	661680	KED
⌈	**Ho**	165	2161.5	1.4				ug/L	5	KED
|	**Tl**	203	286.0	7.5	**0.0554**	0.005	8.1	ug/L	8	KED
|	**Tl**	205	706.3	1.5	**0.0554**	0.001	1.0	ug/L	16	KED
|	**Pb**	206	23947.2	1.2	**5.5098**	0.008	0.1	ug/L	316	KED
|	**Pb**	207	20193.1	0.9	**5.2494**	0.112	2.1	ug/L	291	KED
|	**Pb**	208	51110.1	1.1	**5.3398**	0.072	1.3	ug/L	695	KED
|	**U**	238	4868.1	0.7	**0.2061**	0.001	0.5	ug/L	16	KED

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	Th	232	23777.0	2.4	**1.0755**	0.040	3.7	ug/L	1926	KED
>	**Bi**	209	529667.9	1.2				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	1060.0	0.5	**-0.0206**	0.001	3.0	mg/L	1398	KED
	K	39	1.7	173.2	**7.5637**	13.101	173.2	mg/L	0	KED
	Ca	43	0.0		**23.8084**	0.000	0.0	mg/L	2	KED
	Fe	54	5906.2	4.0	**5.2536**	0.206	3.9	mg/L	10	KED
	Fe	57	12418.4	2.8	**5.2008**	0.178	3.4	mg/L	22	KED
>	**Sc-1**	45	90364.3	0.6				mg/L	87229	KED
	Cl	35	2360.2	3.8				ug/L	2227	KED
	Kr	83	5.0	0.0				ug/L	2	KED
	Br	81	30.0	44.1				ug/L	23	KED
	P	31	95.0	9.1				ug/L	212	KED
	S	34	33.3	17.3				ug/L	37	KED
	Sr	88	2193.5	5.9				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	3.3	173.2				ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		103.595	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		104.468	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	101.929
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	102.892
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	103.595
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	

Sample ID: L1908017807
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Method 6020 - Summary Report

Sample ID: L1908017811
Sample Date/Time: Wednesday, September 04, 2019 13:18:59
Number of Replicates: 3
Autosampler Position: 349
Sample Description: 10
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10838.9	2.9				ug/L	9383	KED
|	**Be**	9	10.0	52.9	**0.1188**	0.062	52.1	ug/L	0	KED
|	**Al**	27	16347.2	5.5				ug/L	73	KED
|>	**Sc-2**	45	91918.0	1.7				ug/L	87229	KED
⌈	**Ti**	47	498.3	8.0	**33.5080**	1.590	4.7	ug/L	11	KED
|	**V**	51	18557.7	0.6	**5.8740**	0.449	7.6	ug/L	10753	KED
|	**Cr**	52	15488.6	1.5	**7.3235**	0.191	2.6	ug/L	489	KED
|	**Cr**	53	7676.9	1.9	**3.9325**	1.469	37.3	ug/L	6416	KED
|	**Mn**	55	271798.3	2.6	**184.0848**	5.025	2.7	ug/L	206	KED
|	**Co**	59	10625.1	2.5	**2.0069**	0.051	2.6	ug/L	86	KED
|	**Ni**	60	7110.3	3.4	**3.9644**	0.128	3.2	ug/L	1252	KED
|	**Cu**	65	8321.6	3.2	**4.1975**	0.124	3.0	ug/L	418	KED
|	**Zn**	66	11326.6	3.1	**21.0588**	0.545	2.6	ug/L	204	KED
|>	**Ge**	72	245597.2	3.6				ug/L	234818	KED
|	**As**	75	2803.6	1.3	**4.7124**	0.174	3.7	ug/L	719	KED
|	**Se**	82	26.3	15.8	**0.6223**	0.274	44.0	ug/L	15	KED
|	**Se-1**	78	43.3	2.7	**0.1832**	0.045	24.3	ug/L	35	KED
⌊	**Se-1**	80	24537.0	1.0	**2.8746**	8.257	287.2	ug/L	23187	KED
	Ga	71	975.0	9.3				ug/L	33	KED
	Rb	85	4475.7	4.7				ug/L	13	KED
	Y	89	208490.8	3.5				ug/L	191699	KED
	Rh	103	15.0	115.5				ug/L	5	KED
⌈	**Mo**	98	1398.7	2.1	**0.3783**	0.003	0.8	ug/L	47	KED
|	**Ag**	107	201.3	16.5	**0.0034**	0.004	128.7	ug/L	173	KED
|	**Cd**	111	65.0	8.1	**0.0590**	0.004	7.5	ug/L	5	KED
|	**Cd**	114	174.3	6.1	**0.0577**	0.004	7.4	ug/L	29	KED
|>	**In**	115	255415.6	2.3				ug/L	248460	KED
|	**Sn**	118	1011.7	2.1	**0.2204**	0.011	4.9	ug/L	556	KED
|	**Sb**	123	572.3	3.8	**0.2773**	0.020	7.2	ug/L	79	KED
⌊	**Ba**	135	18095.5	0.9	**31.4467**	0.729	2.3	ug/L	15	KED
	Ce	140	105883.8	1.7				ug/L	45	KED
	Tb	159	674411.8	0.4				ug/L	661680	KED
⌈	**Ho**	165	1715.8	3.8				ug/L	5	KED
|	**Tl**	203	218.7	1.8	**0.0417**	0.001	3.2	ug/L	8	KED
|	**Tl**	205	560.3	2.0	**0.0434**	0.001	3.1	ug/L	16	KED
|	**Pb**	206	52224.5	1.1	**12.0285**	0.201	1.7	ug/L	316	KED
|	**Pb**	207	44287.3	1.4	**11.5315**	0.232	2.0	ug/L	291	KED
|	**Pb**	208	111388.6	1.1	**11.6513**	0.185	1.6	ug/L	695	KED
|	**U**	238	4458.0	6.0	**0.1874**	0.009	5.0	ug/L	16	KED

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	Th	232	20186.1	2.3	**0.8916**	0.012	1.3	ug/L	1926	KED
>	**Bi**	209	533087.9	1.3				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	1126.7	4.9	**-0.0181**	0.003	16.8	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**0.9971**	39.510	3962.4	mg/L	2	KED
	Fe	54	5220.9	4.6	**4.5661**	0.251	5.5	mg/L	10	KED
	Fe	57	11069.0	2.3	**4.5564**	0.132	2.9	mg/L	22	KED
>	**Sc-1**	45	91918.0	1.7				mg/L	87229	KED
	Cl	35	2438.5	6.4				ug/L	2227	KED
	Kr	83	0.0					ug/L	2	KED
	Br	81	21.7	35.3				ug/L	23	KED
	P	31	75.0	46.7				ug/L	212	KED
	S	34	26.7	28.6				ug/L	37	KED
	Sr	88	1098.4	6.4				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		105.376	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		104.590	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	102.800
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	103.556
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	105.376
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	

Approved: September 05, 2019



Method 6020 - Summary Report

Sample ID: L1908017813
Sample Date/Time: Wednesday, September 04, 2019 13:21:53
Number of Replicates: 3
Autosampler Position: 350
Sample Description: 10
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10246.8	3.4				ug/L	9383	KED
|	**Be**	9	16.0	18.8	**0.2066**	0.053	25.9	ug/L	0	KED
|	**Al**	27	44214.5	2.7				ug/L	73	KED
|>	**Sc-2**	45	85888.8	8.0				ug/L	87229	KED
⌈	**Ti**	47	724.7	1.3	**52.8848**	5.219	9.9	ug/L	11	KED
|	**V**	51	22026.7	1.7	**9.9549**	1.448	14.5	ug/L	10753	KED
|	**Cr**	52	12952.2	1.8	**6.5461**	0.461	7.0	ug/L	489	KED
|	**Cr**	53	7618.6	6.5	**5.8449**	0.847	14.5	ug/L	6416	KED
|	**Mn**	55	354049.7	2.1	**257.3450**	16.198	6.3	ug/L	206	KED
|	**Co**	59	14276.7	2.3	**2.9007**	0.178	6.1	ug/L	86	KED
|	**Ni**	60	10475.0	1.2	**6.7927**	0.585	8.6	ug/L	1252	KED
|	**Cu**	65	12341.7	0.9	**6.8226**	0.536	7.9	ug/L	418	KED
|	**Zn**	66	12564.5	1.5	**25.1536**	1.769	7.0	ug/L	204	KED
|>	**Ge**	72	229576.0	8.1				ug/L	234818	KED
|	**As**	75	2706.9	1.0	**4.9473**	0.507	10.2	ug/L	719	KED
|	**Se**	82	31.2	25.1	**1.0039**	0.348	34.7	ug/L	15	KED
|	**Se-1**	78	51.8	6.4	**0.5129**	0.200	39.0	ug/L	35	KED
⌊	**Se-1**	80	24420.8	0.4	**18.7298**	20.600	110.0	ug/L	23187	KED
	Ga	71	1581.7	8.1				ug/L	33	KED
	Rb	85	8334.0	3.9				ug/L	13	KED
	Y	89	193366.5	6.9				ug/L	191699	KED
	Rh	103	11.7	107.9				ug/L	5	KED
⌈	**Mo**	98	1399.4	3.8	**0.4070**	0.038	9.4	ug/L	47	KED
|	**Ag**	107	183.0	11.0	**0.0025**	0.002	67.4	ug/L	173	KED
|	**Cd**	111	42.7	7.5	**0.0400**	0.001	1.6	ug/L	5	KED
|	**Cd**	114	112.0	12.6	**0.0362**	0.009	25.3	ug/L	29	KED
|>	**In**	115	239018.2	7.0				ug/L	248460	KED
|	**Sn**	118	786.4	4.2	**0.1361**	0.037	27.1	ug/L	556	KED
|	**Sb**	123	504.0	0.7	**0.2589**	0.020	7.8	ug/L	79	KED
⌊	**Ba**	135	24878.4	2.0	**46.3893**	4.161	9.0	ug/L	15	KED
	Ce	140	176379.1	1.3				ug/L	45	KED
	Tb	159	641653.9	4.5				ug/L	661680	KED
⌈	**Ho**	165	1972.8	2.8				ug/L	5	KED
|	**Tl**	203	457.0	5.7	**0.0916**	0.005	5.8	ug/L	8	KED
|	**Tl**	205	1144.4	1.5	**0.0927**	0.003	3.3	ug/L	16	KED
|	**Pb**	206	22603.5	1.7	**5.3222**	0.132	2.5	ug/L	316	KED
|	**Pb**	207	18657.5	1.4	**4.9611**	0.132	2.7	ug/L	291	KED
|	**Pb**	208	47879.9	0.9	**5.1187**	0.137	2.7	ug/L	695	KED
|	**U**	238	7639.6	1.1	**0.3315**	0.003	1.0	ug/L	16	KED

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	Th	232	41568.5	7.1	**2.0031**	0.177	8.8	ug/L	1926	KED
>	**Bi**	209	517429.5	1.7				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	1160.0	6.9	**-0.0118**	0.006	54.4	mg/L	1398	KED
	K	39	1.7	173.2	**7.5069**	13.002	173.2	mg/L	0	KED
	Ca	43	0.0		**23.8084**	0.000	0.0	mg/L	2	KED
	Fe	54	8702.5	1.9	**8.1856**	0.691	8.4	mg/L	10	KED
	Fe	57	17590.2	0.8	**7.7905**	0.683	8.8	mg/L	22	KED
>	**Sc-1**	45	85888.8	8.0				mg/L	87229	KED
	Cl	35	2305.2	9.8				ug/L	2227	KED
	Kr	83	13.3	108.3				ug/L	2	KED
	Br	81	20.0	25.0				ug/L	23	KED
	P	31	68.3	27.7				ug/L	212	KED
	S	34	35.0	14.3				ug/L	37	KED
	Sr	88	3735.5	5.8				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		98.464	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		97.768	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908017813
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	96.200
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	100.514
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	98.464
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	

Approved: September 05, 2019



Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, September 04, 2019 13:24:47
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10597.0	2.6				ug/L	9383	KED
|	**Be**	9	561.3	4.1	**6.6468**	0.265	4.0	ug/L	0	KED
|	**Al**	27	206836.0	2.2				ug/L	73	KED
\>	**Sc-2**	45	92607.6	2.8				ug/L	87229	KED
⌈	**Ti**	47	470.0	3.8	**29.5740**	1.282	4.3	ug/L	11	KED
|	**V**	51	49552.7	5.1	**28.2361**	1.748	6.2	ug/L	10753	KED
|	**Cr**	52	136929.7	1.7	**62.4872**	0.796	1.3	ug/L	489	KED
|	**Cr**	53	21039.7	9.2	**52.5242**	6.943	13.2	ug/L	6416	KED
|	**Mn**	55	97402.8	2.0	**61.7267**	0.978	1.6	ug/L	206	KED
|	**Co**	59	172596.2	0.9	**30.7970**	0.149	0.5	ug/L	86	KED
|	**Ni**	60	192581.9	1.0	**122.4655**	0.661	0.5	ug/L	1252	KED
|	**Cu**	65	123657.1	2.6	**61.4631**	1.306	2.1	ug/L	418	KED
|	**Zn**	66	341149.7	1.4	**605.5169**	5.808	1.0	ug/L	204	KED
\>	**Ge**	72	261941.2	0.5				ug/L	234818	KED
|	**As**	75	14907.0	1.6	**30.3458**	0.372	1.2	ug/L	719	KED
|	**Se**	82	578.5	1.4	**30.1061**	0.560	1.9	ug/L	15	KED
|	**Se-1**	78	1273.2	2.5	**30.5886**	0.927	3.0	ug/L	35	KED
⌊	**Se-1**	80	29561.6	0.1	**32.5943**	1.547	4.7	ug/L	23187	KED
	Ga	71	53.3	14.3				ug/L	33	KED
	Rb	85	185.0	31.9				ug/L	13	KED
	Y	89	222146.7	0.5				ug/L	191699	KED
	Rh	103	26.7	10.8				ug/L	5	KED
⌈	**Mo**	98	121237.1	0.1	**30.0133**	0.036	0.1	ug/L	47	KED
|	**Ag**	107	245046.4	0.5	**30.8141**	0.226	0.7	ug/L	173	KED
|	**Cd**	111	21253.6	2.0	**18.4309**	0.379	2.1	ug/L	5	KED
|	**Cd**	114	52018.1	0.5	**18.3439**	0.067	0.4	ug/L	29	KED
\>	**In**	115	288863.9	0.2				ug/L	248460	KED
|	**Sn**	118	69413.0	0.8	**30.4361**	0.183	0.6	ug/L	556	KED
|	**Sb**	123	60176.3	0.6	**29.9617**	0.118	0.4	ug/L	79	KED
⌊	**Ba**	135	58577.4	0.6	**90.0291**	0.495	0.5	ug/L	15	KED
	Ce	140	167.7	43.8				ug/L	45	KED
	Tb	159	730928.3	0.8				ug/L	661680	KED
⌈	**Ho**	165	8.0	0.0				ug/L	5	KED
|	**Tl**	203	31605.6	0.1	**5.9772**	0.051	0.9	ug/L	8	KED
|	**Tl**	205	78774.9	0.9	**6.0023**	0.055	0.9	ug/L	16	KED
|	**Pb**	206	136528.4	0.6	**30.1581**	0.177	0.6	ug/L	316	KED
|	**Pb**	207	119536.4	0.2	**29.8627**	0.208	0.7	ug/L	291	KED
|	**Pb**	208	301533.1	1.7	**30.2535**	0.237	0.8	ug/L	695	KED
|	**U**	238	751338.8	1.0	**30.2973**	0.405	1.3	ug/L	16	KED

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	Th	232	645479.1	2.2	**30.1327**	0.567	1.9	ug/L	1926	KED
>	**Bi**	209	557901.9	0.9				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	79417.8	4.2	**4.0311**	0.066	1.6	mg/L	1398	KED
	K	39	1.7	173.2	**7.5709**	13.113	173.2	mg/L	0	KED
	Ca	43	1.7	173.2	**1.0850**	39.358	3627.4	mg/L	2	KED
	Fe	54	4537.3	4.6	**3.9358**	0.141	3.6	mg/L	10	KED
	Fe	57	9466.3	2.0	**3.8680**	0.156	4.0	mg/L	22	KED
>	**Sc-1**	45	92607.6	2.8				mg/L	87229	KED
	Cl	35	1926.8	6.8				ug/L	2227	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	13.3	78.1				ug/L	23	KED
	P	31	78.3	19.5				ug/L	212	KED
	S	34	41.7	18.3				ug/L	37	KED
	Sr	88	35.0	24.7				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9	103.856		
	Al	27			
>	Sc-2	45		106.166	
	Ti	47	92.419		
	V	51	88.238		
	Cr	52	97.636		
	Cr	53			
	Mn	55	96.448		
	Co	59	96.241		
	Ni	60	95.676		
	Cu	65	96.036		
	Zn	66	94.612		
>	Ge	72		111.551	
	As	75	94.831		
	Se	82	94.081		
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98	93.792	
|	Ag	107	96.294	
|	Cd	111	95.994	
|	Cd	114		
| >	In	115		116.262
|	Sn	118	95.113	
|	Sb	123	93.630	
⌊	Ba	135	93.780	
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203	93.394	
|	Tl	205		
|	Pb	206	94.244	
|	Pb	207	93.321	
|	Pb	208	94.542	
|	U	238	94.679	
|	Th	232		
⌊ >	Bi	209		108.376
⌈	Na	23		
|	Mg	24	100.779	
|	K	39	189.272	
|	Ca	43	27.125	
|	Fe	54	98.395	
|	Fe	57	96.701	
⌊ >	Sc-1	45		106.166
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	V	51	
QC Std 6	K	39	
QC Std 6	Ca	43	

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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, September 04, 2019 13:27:40
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10085.0	4.4				ug/L	9383	KED
|	**Be**	9	0.3	173.2	**0.0042**	0.007	173.2	ug/L	0	KED
|	**Al**	27	156.7	82.4				ug/L	73	KED
⌊>	**Sc-2**	45	87639.2	3.0				ug/L	87229	KED
⌈	**Ti**	47	13.7	18.4	**0.1799**	0.180	100.0	ug/L	11	KED
|	**V**	51	6063.6	17.8	**-4.1364**	0.775	18.7	ug/L	10753	KED
|	**Cr**	52	486.7	13.2	**-0.0100**	0.036	365.5	ug/L	489	KED
|	**Cr**	53	3683.8	10.3	**-12.1403**	1.282	10.6	ug/L	6416	KED
|	**Mn**	55	310.3	16.4	**0.0659**	0.040	60.2	ug/L	206	KED
|	**Co**	59	144.3	63.0	**0.0108**	0.018	168.7	ug/L	86	KED
|	**Ni**	60	512.7	12.5	**-0.5415**	0.052	9.5	ug/L	1252	KED
|	**Cu**	65	290.7	24.3	**-0.0762**	0.041	54.4	ug/L	418	KED
|	**Zn**	66	442.0	33.7	**0.4422**	0.306	69.2	ug/L	204	KED
|>	**Ge**	72	244053.1	2.2				ug/L	234818	KED
|	**As**	75	669.3	3.4	**-0.1782**	0.077	43.4	ug/L	719	KED
|	**Se**	82	15.0		**-0.0237**	0.019	79.9	ug/L	15	KED
|	**Se-1**	78	35.7	18.7	**-0.0140**	0.176	1257.7	ug/L	35	KED
⌊	**Se-1**	80	24671.4	1.2	**5.4499**	2.435	44.7	ug/L	23187	KED
	Ga	71	38.3	7.5				ug/L	33	KED
	Rb	85	11.7	24.7				ug/L	13	KED
	Y	89	197809.8	1.8				ug/L	191699	KED
	Rh	103	8.3	91.7				ug/L	5	KED
⌈	**Mo**	98	234.0	20.0	**0.0521**	0.014	27.1	ug/L	47	KED
|	**Ag**	107	220.3	43.6	**0.0062**	0.014	229.6	ug/L	173	KED
|	**Cd**	111	13.0	68.4	**0.0081**	0.009	110.3	ug/L	5	KED
|	**Cd**	114	38.3	42.3	**0.0034**	0.007	195.2	ug/L	29	KED
|>	**In**	115	255738.2	1.5				ug/L	248460	KED
|	**Sn**	118	583.3	2.2	**0.0056**	0.011	187.7	ug/L	556	KED
|	**Sb**	123	869.7	4.7	**0.4443**	0.028	6.4	ug/L	79	KED
⌊	**Ba**	135	39.0	80.1	**0.0420**	0.056	132.4	ug/L	15	KED
	Ce	140	38.0	4.6				ug/L	45	KED
	Tb	159	667449.2	2.1				ug/L	661680	KED
⌈	**Ho**	165	8.0	33.1				ug/L	5	KED
|	**Tl**	203	22.7	47.6	**0.0030**	0.002	73.4	ug/L	8	KED
|	**Tl**	205	47.7	76.5	**0.0026**	0.003	116.7	ug/L	16	KED
|	**Pb**	206	399.3	11.4	**0.0188**	0.011	61.0	ug/L	316	KED
|	**Pb**	207	346.0	16.8	**0.0138**	0.016	117.2	ug/L	291	KED
|	**Pb**	208	917.7	13.3	**0.0230**	0.014	59.9	ug/L	695	KED
|	**U**	238	309.0	68.1	**0.0126**	0.009	72.6	ug/L	16	KED

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	Th	232	10916.7	19.1	**0.4493**	0.108	24.1	ug/L	1926	KED
>	**Bi**	209	521910.6	0.7				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	943.4	7.1	**-0.0253**	0.003	11.0	mg/L	1398	KED
	K	39	3.3	173.2	**15.9659**	27.654	173.2	mg/L	0	KED
	Ca	43	0.0		**23.8084**	0.000	0.0	mg/L	2	KED
	Fe	54	8.3	69.3	**-0.0015**	0.005	359.3	mg/L	10	KED
	Fe	57	41.7	66.1	**0.0085**	0.012	137.9	mg/L	22	KED
>	**Sc-1**	45	87639.2	3.0				mg/L	87229	KED
	Cl	35	2313.5	3.7				ug/L	2227	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	20.0	0.0				ug/L	23	KED
	P	31	75.0	29.1				ug/L	212	KED
	S	34	25.0	20.0				ug/L	37	KED
	Sr	88	18.3	31.5				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		100.471	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		103.933	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	102.929
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	101.385
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	100.471
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 7	V	51	
QC Std 7	Sb	123	
QC Std 7	K	39	
QC Std 7	Ca	43	

Sample ID: QC Std 7
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Method 6020 - Summary Report

Sample ID: PBS 04 WG710495-02
Sample Date/Time: Wednesday, September 04, 2019 13:44:10
Number of Replicates: 3
Autosampler Position: 301
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	12478.5	4.7				ug/L	9383	KED
|	**Be**	9	0.0		**0.0000**	0.000		ug/L	0	KED
|	**Al**	27	418.3	14.9				ug/L	73	KED
⌊>	**Sc-2**	45	101314.4	1.9				ug/L	87229	KED
⌈	**Ti**	47	13.0	20.4	**0.0756**	0.175	231.2	ug/L	11	KED
|	**V**	51	10130.4	3.7	**-1.3657**	0.217	15.9	ug/L	10753	KED
|	**Cr**	52	1091.0	1.1	**0.2526**	0.005	1.9	ug/L	489	KED
|	**Cr**	53	6196.3	0.7	**-3.5189**	0.465	13.2	ug/L	6416	KED
|	**Mn**	55	335.7	11.7	**0.0679**	0.023	33.8	ug/L	206	KED
|	**Co**	59	88.7	2.6	**-0.0012**	0.001	49.6	ug/L	86	KED
|	**Ni**	60	613.0	5.8	**-0.5000**	0.023	4.7	ug/L	1252	KED
|	**Cu**	65	544.0	2.8	**0.0403**	0.006	15.2	ug/L	418	KED
|	**Zn**	66	1810.8	3.5	**2.8278**	0.129	4.6	ug/L	204	KED
|>	**Ge**	72	260659.6	1.3				ug/L	234818	KED
|	**As**	75	1160.0	2.0	**0.7831**	0.027	3.4	ug/L	719	KED
|	**Se**	82	14.8	12.8	**-0.0871**	0.111	127.9	ug/L	15	KED
|	**Se-1**	78	36.0	17.7	**-0.0667**	0.155	232.6	ug/L	35	KED
⌊	**Se-1**	80	25170.6	1.1	**-5.0315**	0.608	12.1	ug/L	23187	KED
	Ga	71	53.3	47.2				ug/L	33	KED
	Rb	85	18.3	56.8				ug/L	13	KED
	Y	89	215429.7	2.5				ug/L	191699	KED
	Rh	103	13.3	21.7				ug/L	5	KED
⌈	**Mo**	98	175.7	10.3	**0.0332**	0.004	13.2	ug/L	47	KED
|	**Ag**	107	150.7	12.9	**-0.0049**	0.003	54.9	ug/L	173	KED
|	**Cd**	111	13.7	36.1	**0.0080**	0.004	56.3	ug/L	5	KED
|	**Cd**	114	61.0	20.5	**0.0112**	0.005	42.1	ug/L	29	KED
|>	**In**	115	269024.6	1.4				ug/L	248460	KED
|	**Sn**	118	1325.1	1.8	**0.3438**	0.020	5.7	ug/L	556	KED
|	**Sb**	123	248.7	10.5	**0.0873**	0.013	15.0	ug/L	79	KED
⌊	**Ba**	135	46.3	14.0	**0.0502**	0.010	20.8	ug/L	15	KED
	Ce	140	102.0	4.5				ug/L	45	KED
	Tb	159	700555.8	0.7				ug/L	661680	KED
⌈	**Ho**	165	7.0	37.8				ug/L	5	KED
|	**Tl**	203	10.3	31.1	**0.0005**	0.001	132.7	ug/L	8	KED
|	**Tl**	205	22.0	23.6	**0.0004**	0.000	93.5	ug/L	16	KED
|	**Pb**	206	371.3	1.0	**0.0108**	0.001	6.7	ug/L	316	KED
|	**Pb**	207	331.7	6.5	**0.0085**	0.006	65.0	ug/L	291	KED
|	**Pb**	208	864.0	3.1	**0.0157**	0.003	19.4	ug/L	695	KED
|	**U**	238	46.3	5.4	**0.0013**	0.000	8.3	ug/L	16	KED

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	Th	232	16247.9	29.7	**0.7027**	0.237	33.7	ug/L	1926	KED
>	**Bi**	209	530246.5	0.2				ug/L	514781	KED
	Na	23	1.7	173.2				mg/L	0	KED
	Mg	24	1376.7	3.4	**-0.0117**	0.001	8.1	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**23.8084**	0.000	0.0	mg/L	2	KED
	Fe	54	18.3	41.7	**0.0053**	0.006	110.8	mg/L	10	KED
	Fe	57	31.7	9.1	**0.0024**	0.001	49.6	mg/L	22	KED
>	**Sc-1**	45	101314.4	1.9				mg/L	87229	KED
	Cl	35	4677.4	6.3				ug/L	2227	KED
	Kr	83	6.7	114.6				ug/L	2	KED
	Br	81	53.3	85.1				ug/L	23	KED
	P	31	113.3	44.2				ug/L	212	KED
	S	34	35.0	28.6				ug/L	37	KED
	Sr	88	63.3	63.3				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		116.148	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		111.005	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: PBS 04 WG710495-02
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
| >	In	115	108.277
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊ >	Bi	209	103.004
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊ >	Sc-1	45	116.148
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
V 51 Lower	V	51	

Sample ID: PBS 04 WG710495-02
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Method 6020 - Summary Report

Sample ID: LCSS 04 WG710495-03
Sample Date/Time: Wednesday, September 04, 2019 13:47:03
Number of Replicates: 3
Autosampler Position: 302
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	11701.2	2.2				ug/L	9383	KED
|	**Be**	9	640.0	3.4	**7.1999**	0.395	5.5	ug/L	0	KED
|	**Al**	27	86050.3	0.9				ug/L	73	KED
|>	**Sc-2**	45	97531.0	2.2				ug/L	87229	KED
⌈	**Ti**	47	515.3	2.4	**33.7602**	1.673	5.0	ug/L	11	KED
|	**V**	51	55363.3	0.6	**34.1941**	1.930	5.6	ug/L	10753	KED
|	**Cr**	52	147137.7	0.8	**69.7363**	3.317	4.8	ug/L	489	KED
|	**Cr**	53	24466.4	1.2	**69.0141**	3.502	5.1	ug/L	6416	KED
|	**Mn**	55	103543.0	1.1	**68.1248**	2.878	4.2	ug/L	206	KED
|	**Co**	59	178872.8	1.4	**33.1163**	0.845	2.6	ug/L	86	KED
|	**Ni**	60	200961.9	1.9	**132.6516**	3.006	2.3	ug/L	1252	KED
|	**Cu**	65	125775.0	1.8	**64.8718**	1.404	2.2	ug/L	418	KED
|	**Zn**	66	339603.9	2.1	**625.3100**	11.949	1.9	ug/L	204	KED
|>	**Ge**	72	252636.6	3.9				ug/L	234818	KED
|	**As**	75	14952.0	1.1	**31.6537**	0.956	3.0	ug/L	719	KED
|	**Se**	82	557.8	4.4	**30.1070**	1.095	3.6	ug/L	15	KED
|	**Se-1**	78	1200.0	4.8	**29.8738**	1.112	3.7	ug/L	35	KED
⌊	**Se-1**	80	27609.6	0.9	**24.5549**	8.110	33.0	ug/L	23187	KED
	Ga	71	46.7	30.9				ug/L	33	KED
	Rb	85	68.3	40.3				ug/L	13	KED
	Y	89	204249.2	4.4				ug/L	191699	KED
	Rh	103	28.3	27.0				ug/L	5	KED
⌈	**Mo**	98	117636.6	1.2	**32.0434**	0.948	3.0	ug/L	47	KED
|	**Ag**	107	234517.8	1.1	**32.4472**	0.857	2.6	ug/L	173	KED
|	**Cd**	111	20142.0	1.2	**19.2192**	0.579	3.0	ug/L	5	KED
|	**Cd**	114	48533.3	0.7	**18.8375**	0.779	4.1	ug/L	29	KED
|>	**In**	115	262696.4	3.3				ug/L	248460	KED
|	**Sn**	118	66491.3	0.9	**32.1000**	1.174	3.7	ug/L	556	KED
|	**Sb**	123	59858.7	1.2	**32.7974**	0.984	3.0	ug/L	79	KED
⌊	**Ba**	135	56040.4	0.6	**94.7719**	2.755	2.9	ug/L	15	KED
	Ce	140	83.0	1.2				ug/L	45	KED
	Tb	159	686576.4	3.3				ug/L	661680	KED
⌈	**Ho**	165	6.7	34.6				ug/L	5	KED
|	**Tl**	203	31049.1	0.6	**6.2501**	0.122	1.9	ug/L	8	KED
|	**Tl**	205	76487.3	1.1	**6.2044**	0.195	3.1	ug/L	16	KED
|	**Pb**	206	132927.3	1.8	**31.2626**	1.108	3.5	ug/L	316	KED
|	**Pb**	207	117627.6	1.4	**31.2891**	1.113	3.6	ug/L	291	KED
|	**Pb**	208	294475.6	1.1	**31.4590**	0.987	3.1	ug/L	695	KED
|	**U**	238	737905.6	1.2	**31.6775**	1.054	3.3	ug/L	16	KED

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	Th	232	612915.7	1.7	**30.4630**	1.031	3.4	ug/L	1926	KED
>	**Bi**	209	524267.9	2.1				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	33782.6	0.4	**1.5834**	0.041	2.6	mg/L	1398	KED
	K	39	1.7	173.2	**7.1139**	12.322	173.2	mg/L	0	KED
	Ca	43	0.0		**23.8084**	0.000	0.0	mg/L	2	KED
	Fe	54	1853.4	2.3	**1.5212**	0.034	2.3	mg/L	10	KED
	Fe	57	3555.4	4.1	**1.3733**	0.077	5.6	mg/L	22	KED
>	**Sc-1**	45	97531.0	2.2				mg/L	87229	KED
	Cl	35	3763.8	6.3				ug/L	2227	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	45.0	29.4				ug/L	23	KED
	P	31	83.3	6.9				ug/L	212	KED
	S	34	33.3	52.7				ug/L	37	KED
	Sr	88	68.3	11.2				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	1.7	173.2				ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		111.811	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		107.588	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	105.730
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	101.843
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	111.811
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

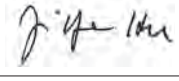
Sample ID: L1908014803
Sample Date/Time: Wednesday, September 04, 2019 13:49:57
Number of Replicates: 3
Autosampler Position: 303
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	13072.3	1.1				ug/L	9383	KED
|	Be	9	195.0	12.5	**2.1198**	0.215	10.1	ug/L	0	KED
|	Al	27	376634.1	1.1				ug/L	73	KED
⌊>	Sc-2	45	100715.5	3.0				ug/L	87229	KED
⌈	Ti	47	7019.0	1.1	**485.9528**	11.134	2.3	ug/L	11	KED
|	V	51	143403.8	0.5	**106.8173**	1.897	1.8	ug/L	10753	KED
|	Cr	52	99152.8	1.7	**48.5529**	1.104	2.3	ug/L	489	KED
|	Cr	53	20709.2	4.2	**57.0830**	2.469	4.3	ug/L	6416	KED
|	Mn	55	2156224.2	1.0	**1471.1387**	9.442	0.6	ug/L	206	KED
|	Co	59	142826.9	2.0	**27.3711**	0.342	1.3	ug/L	86	KED
|	Ni	60	79616.7	1.7	**53.8829**	0.389	0.7	ug/L	1252	KED
|	Cu	65	124838.6	1.0	**66.6756**	0.764	1.1	ug/L	418	KED
|	Zn	66	96188.4	1.0	**183.1175**	2.735	1.5	ug/L	204	KED
|>	Ge	72	243873.9	1.3				ug/L	234818	KED
|	As	75	19715.2	1.5	**43.8411**	1.015	2.3	ug/L	719	KED
|	Se	82	127.7	5.3	**6.4597**	0.390	6.0	ug/L	15	KED
|	Se-1	78	140.5	5.3	**2.7770**	0.207	7.4	ug/L	35	KED
⌊	Se-1	80	23267.2	1.1	**-7.6951**	2.754	35.8	ug/L	23187	KED
	Ga	71	14258.4	4.3				ug/L	33	KED
	Rb	85	42028.2	1.7				ug/L	13	KED
	Y	89	321136.1	1.1				ug/L	191699	KED
	Rh	103	25.0	40.0				ug/L	5	KED
⌈	Mo	98	20464.1	0.7	**5.8045**	0.025	0.4	ug/L	47	KED
|	Ag	107	504.0	22.4	**0.0475**	0.016	33.7	ug/L	173	KED
|	Cd	111	231.7	9.0	**0.2259**	0.020	8.8	ug/L	5	KED
|	Cd	114	612.7	6.9	**0.2363**	0.017	7.2	ug/L	29	KED
|>	In	115	251644.5	0.5				ug/L	248460	KED
|	Sn	118	3889.2	1.9	**1.6900**	0.047	2.8	ug/L	556	KED
|	Sb	123	3767.8	1.6	**2.1111**	0.046	2.2	ug/L	79	KED
⌊	Ba	135	110583.8	0.5	**195.1302**	1.249	0.6	ug/L	15	KED
	Ce	140	1488829.0	0.7				ug/L	45	KED
	Tb	159	693154.6	0.4				ug/L	661680	KED
⌈	Ho	165	18622.8	1.1				ug/L	5	KED
|	Tl	203	2868.6	1.6	**0.5788**	0.006	1.0	ug/L	8	KED
|	Tl	205	7105.3	0.3	**0.5779**	0.004	0.7	ug/L	16	KED
|	Pb	206	189450.7	0.2	**44.7962**	0.278	0.6	ug/L	316	KED
|	Pb	207	156808.3	1.2	**41.9284**	0.265	0.6	ug/L	291	KED
|	Pb	208	400587.6	1.2	**43.0209**	0.288	0.7	ug/L	695	KED
|	U	238	57756.2	0.9	**2.4902**	0.010	0.4	ug/L	16	KED

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	Th	232	358283.6	2.2	**17.8491**	0.319	1.8	ug/L	1926	KED
>	**Bi**	209	521613.3	0.6				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	3372.0	3.4	**0.0837**	0.008	9.7	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**2.5364**	36.844	1452.6	mg/L	2	KED
	Fe	54	101076.1	2.0	**80.8791**	4.003	4.9	mg/L	10	KED
	Fe	57	211781.6	1.0	**79.7647**	3.180	4.0	mg/L	22	KED
>	**Sc-1**	45	100715.5	3.0				mg/L	87229	KED
	Cl	35	5185.9	2.5				ug/L	2227	KED
	Kr	83	3.3	173.2				ug/L	2	KED
	Br	81	98.3	19.3				ug/L	23	KED
	P	31	116.7	27.2				ug/L	212	KED
	S	34	25.0	40.0				ug/L	37	KED
	Sr	88	8270.6	1.4				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		115.461	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		103.856	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908014803
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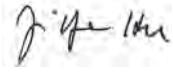
Approved: September 05, 2019

	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	101.282
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	101.327
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	115.461
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
V 51 Upper, S, EEE	V	51	
Mn 55 Upper, S, EEE	Mn	55	

Approved: September 05, 2019



Method 6020 - Summary Report

Sample ID: L1908014804
Sample Date/Time: Wednesday, September 04, 2019 13:52:50
Number of Replicates: 3
Autosampler Position: 304
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	12630.3	4.7				ug/L	9383	KED
|	**Be**	9	152.7	3.0	**1.6733**	0.041	2.4	ug/L	0	KED
|	**Al**	27	364293.4	1.9				ug/L	73	KED
⌊>	**Sc-2**	45	100048.1	3.3				ug/L	87229	KED
⌈	**Ti**	47	6224.6	1.2	**441.4102**	16.571	3.8	ug/L	11	KED
|	**V**	51	131116.7	2.0	**99.4397**	2.154	2.2	ug/L	10753	KED
|	**Cr**	52	90376.1	1.7	**45.3034**	0.788	1.7	ug/L	489	KED
|	**Cr**	53	20230.2	3.3	**57.1356**	2.365	4.1	ug/L	6416	KED
|	**Mn**	55	2312498.0	1.4	**1615.9878**	31.968	2.0	ug/L	206	KED
|	**Co**	59	138542.0	1.7	**27.1935**	0.522	1.9	ug/L	86	KED
|	**Ni**	60	73750.1	2.4	**51.0804**	1.534	3.0	ug/L	1252	KED
|	**Cu**	65	117994.7	1.2	**64.5401**	1.389	2.2	ug/L	418	KED
|	**Zn**	66	95468.5	1.1	**186.1472**	3.550	1.9	ug/L	204	KED
|>	**Ge**	72	238165.0	2.6				ug/L	234818	KED
|	**As**	75	18666.5	1.9	**42.4552**	0.889	2.1	ug/L	719	KED
|	**Se**	82	125.0	7.7	**6.4839**	0.639	9.9	ug/L	15	KED
|	**Se-1**	78	129.7	1.8	**2.5724**	0.107	4.2	ug/L	35	KED
⌊	**Se-1**	80	23118.5	0.7	**-3.8002**	4.200	110.5	ug/L	23187	KED
	Ga	71	12560.2	1.7				ug/L	33	KED
	Rb	85	32840.6	1.4				ug/L	13	KED
	Y	89	298738.2	1.0				ug/L	191699	KED
	Rh	103	16.7	17.3				ug/L	5	KED
⌈	**Mo**	98	18254.0	1.0	**5.2963**	0.103	1.9	ug/L	47	KED
|	**Ag**	107	400.0	8.2	**0.0338**	0.004	11.3	ug/L	173	KED
|	**Cd**	111	231.7	8.9	**0.2310**	0.016	6.9	ug/L	5	KED
|	**Cd**	114	623.0	4.9	**0.2462**	0.009	3.6	ug/L	29	KED
|>	**In**	115	246008.0	2.1				ug/L	248460	KED
|	**Sn**	118	3402.4	1.8	**1.4824**	0.030	2.0	ug/L	556	KED
|	**Sb**	123	3606.4	1.4	**2.0666**	0.061	2.9	ug/L	79	KED
⌊	**Ba**	135	108731.1	1.5	**196.2722**	1.309	0.7	ug/L	15	KED
	Ce	140	1269435.8	0.8				ug/L	45	KED
	Tb	159	687908.2	1.0				ug/L	661680	KED
⌈	**Ho**	165	15900.0	0.3				ug/L	5	KED
|	**Tl**	203	2709.2	1.5	**0.5391**	0.011	2.1	ug/L	8	KED
|	**Tl**	205	6711.5	0.9	**0.5383**	0.006	1.1	ug/L	16	KED
|	**Pb**	206	191991.1	0.5	**44.7789**	0.317	0.7	ug/L	316	KED
|	**Pb**	207	159129.4	1.6	**41.9711**	0.610	1.5	ug/L	291	KED
|	**Pb**	208	406685.0	1.0	**43.0823**	0.300	0.7	ug/L	695	KED
|	**U**	238	55792.9	1.0	**2.3729**	0.029	1.2	ug/L	16	KED

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	Th	232	309716.3	1.0	**15.2061**	0.164	1.1	ug/L	1926	KED
>	**Bi**	209	528809.0	0.6				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	3797.1	2.4	**0.1051**	0.006	5.8	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	3.3	173.2	**-19.2263**	74.538	387.7	mg/L	2	KED
	Fe	54	93563.1	2.1	**75.3578**	3.341	4.4	mg/L	10	KED
	Fe	57	195020.5	1.0	**73.9215**	1.803	2.4	mg/L	22	KED
>	**Sc-1**	45	100048.1	3.3				mg/L	87229	KED
	Cl	35	5094.2	3.6				ug/L	2227	KED
	Kr	83	3.3	173.2				ug/L	2	KED
	Br	81	95.0	10.5				ug/L	23	KED
	P	31	118.3	17.6				ug/L	212	KED
	S	34	33.3	22.9				ug/L	37	KED
	Sr	88	9327.9	1.8				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		114.696	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		101.425	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908014804
Report Date/Time: Wednesday, September 04, 2019 13:55:10
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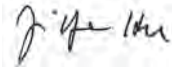
Approved: September 05, 2019

	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	99.013
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	102.725
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	114.696
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
V 51 Upper, S, EEE	V	51	
Mn 55 Upper, S, EEE	Mn	55	

Approved: September 05, 2019



Method 6020 - Summary Report

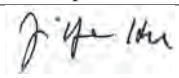
Sample ID: L1908014905
Sample Date/Time: Wednesday, September 04, 2019 13:55:43
Number of Replicates: 3
Autosampler Position: 305
Sample Description: 2
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	11509.4	3.2				ug/L	9383	KED
|	**Be**	9	81.0	5.4	**0.9268**	0.054	5.8	ug/L	0	KED
|	**Al**	27	177795.7	2.0				ug/L	73	KED
⌊>	**Sc-2**	45	95836.8	1.4				ug/L	87229	KED
⌈	**Ti**	47	2738.6	0.2	**194.3203**	3.756	1.9	ug/L	11	KED
|	**V**	51	74090.7	0.6	**52.4602**	0.697	1.3	ug/L	10753	KED
|	**Cr**	52	50486.0	1.6	**25.2741**	0.058	0.2	ug/L	489	KED
|	**Cr**	53	13139.0	0.4	**27.7910**	0.750	2.7	ug/L	6416	KED
|	**Mn**	55	1126915.9	1.2	**789.8509**	13.293	1.7	ug/L	206	KED
|	**Co**	59	92935.8	1.2	**18.2918**	0.122	0.7	ug/L	86	KED
|	**Ni**	60	38650.2	0.6	**26.4280**	0.462	1.7	ug/L	1252	KED
|	**Cu**	65	61521.3	0.4	**33.6442**	0.600	1.8	ug/L	418	KED
|	**Zn**	66	53701.7	1.0	**104.8486**	0.837	0.8	ug/L	204	KED
|>	**Ge**	72	237398.7	1.7				ug/L	234818	KED
|	**As**	75	11223.2	2.6	**24.9157**	0.315	1.3	ug/L	719	KED
|	**Se**	82	77.7	6.4	**3.7026**	0.242	6.5	ug/L	15	KED
|	**Se-1**	78	95.3	8.9	**1.6415**	0.187	11.4	ug/L	35	KED
⌊	**Se-1**	80	23204.3	0.8	**-2.2876**	2.269	99.2	ug/L	23187	KED
	Ga	71	6893.2	1.7				ug/L	33	KED
	Rb	85	22391.5	1.0				ug/L	13	KED
	Y	89	251539.7	2.0				ug/L	191699	KED
	Rh	103	26.7	21.7				ug/L	5	KED
⌈	**Mo**	98	9751.5	0.9	**2.8280**	0.060	2.1	ug/L	47	KED
|	**Ag**	107	293.7	3.1	**0.0182**	0.001	7.2	ug/L	173	KED
|	**Cd**	111	107.3	7.1	**0.1049**	0.009	8.7	ug/L	5	KED
|	**Cd**	114	318.7	5.0	**0.1203**	0.005	4.3	ug/L	29	KED
|>	**In**	115	245565.9	1.3				ug/L	248460	KED
|	**Sn**	118	2072.1	2.3	**0.7927**	0.013	1.6	ug/L	556	KED
|	**Sb**	123	2092.8	0.5	**1.1820**	0.022	1.9	ug/L	79	KED
⌊	**Ba**	135	67811.1	0.4	**122.6194**	1.520	1.2	ug/L	15	KED
	Ce	140	731010.3	0.9				ug/L	45	KED
	Tb	159	671456.3	0.2				ug/L	661680	KED
⌈	**Ho**	165	9126.1	0.5				ug/L	5	KED
|	**Tl**	203	1595.1	1.6	**0.3205**	0.006	2.0	ug/L	8	KED
|	**Tl**	205	3972.2	1.9	**0.3218**	0.005	1.5	ug/L	16	KED
|	**Pb**	206	111606.9	0.6	**26.3080**	0.214	0.8	ug/L	316	KED
|	**Pb**	207	92892.6	0.7	**24.7600**	0.275	1.1	ug/L	291	KED
|	**Pb**	208	236661.7	0.7	**25.3372**	0.154	0.6	ug/L	695	KED
|	**U**	238	34884.8	0.8	**1.5010**	0.018	1.2	ug/L	16	KED

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	Th	232	174701.1	0.3	**8.6370**	0.037	0.4	ug/L	1926	KED
>	**Bi**	209	522608.9	0.4				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	2173.5	3.1	**0.0318**	0.003	9.1	mg/L	1398	KED
	K	39	6.7	43.3	**28.6420**	12.111	42.3	mg/L	0	KED
	Ca	43	3.3	86.6	**-19.7642**	37.741	191.0	mg/L	2	KED
	Fe	54	48485.8	0.8	**40.7355**	0.820	2.0	mg/L	10	KED
	Fe	57	101408.3	1.8	**40.1042**	0.667	1.7	mg/L	22	KED
>	**Sc-1**	45	95836.8	1.4				mg/L	87229	KED
	Cl	35	3500.4	7.4				ug/L	2227	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	48.3	6.0				ug/L	23	KED
	P	31	66.7	38.5				ug/L	212	KED
	S	34	35.0	57.1				ug/L	37	KED
	Sr	88	6001.2	2.7				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		109.868	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		101.099	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	98.835
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	101.521
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	109.868
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
Mn 55 Upper, S, EEE	Mn	55	

Approved: September 05, 2019

Method 6020 - Summary Report

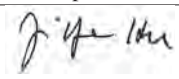
Sample ID: L1908014906 WG710495-01
Sample Date/Time: Wednesday, September 04, 2019 13:58:36
Number of Replicates: 3
Autosampler Position: 306
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	12608.6	1.5				ug/L	9383	KED
|	Be	9	202.3	6.3	2.1862	0.115	5.3	ug/L	0	KED
|	Al	27	411294.4	2.2				ug/L	73	KED
|>	Sc-2	45	101429.1	1.0				ug/L	87229	KED
⌈	Ti	47	7268.1	0.9	507.6622	4.891	1.0	ug/L	11	KED
|	V	51	138090.1	1.1	103.5114	1.150	1.1	ug/L	10753	KED
|	Cr	52	93581.5	1.4	46.2206	0.806	1.7	ug/L	489	KED
|	Cr	53	20158.4	4.1	55.5702	2.018	3.6	ug/L	6416	KED
|	Mn	55	2335049.0	1.7	1607.6613	43.857	2.7	ug/L	206	KED
|	Co	59	139678.6	0.8	27.0139	0.683	2.5	ug/L	86	KED
|	Ni	60	80253.7	0.7	54.8287	1.379	2.5	ug/L	1252	KED
|	Cu	65	125699.9	0.5	67.7466	1.344	2.0	ug/L	418	KED
|	Zn	66	102901.3	0.8	197.6761	2.417	1.2	ug/L	204	KED
|>	Ge	72	241726.0	1.8				ug/L	234818	KED
|	As	75	19460.5	1.4	43.6554	1.077	2.5	ug/L	719	KED
|	Se	82	145.8	3.8	7.5772	0.176	2.3	ug/L	15	KED
|	Se-1	78	153.3	4.6	3.1530	0.116	3.7	ug/L	35	KED
⌊	Se-1	80	23226.1	0.4	-6.1026	3.757	61.6	ug/L	23187	KED
	Ga	71	13552.7	3.5				ug/L	33	KED
	Rb	85	35529.9	1.4				ug/L	13	KED
	Y	89	338160.8	3.0				ug/L	191699	KED
	Rh	103	41.7	30.2				ug/L	5	KED
⌈	Mo	98	18665.8	1.4	5.3269	0.079	1.5	ug/L	47	KED
|	Ag	107	365.3	7.0	0.0279	0.004	14.6	ug/L	173	KED
|	Cd	111	203.7	8.1	0.1994	0.017	8.5	ug/L	5	KED
|	Cd	114	628.3	3.5	0.2443	0.011	4.5	ug/L	29	KED
|>	In	115	250060.7	0.8				ug/L	248460	KED
|	Sn	118	4367.0	1.5	1.9469	0.052	2.7	ug/L	556	KED
|	Sb	123	3278.7	1.5	1.8429	0.025	1.4	ug/L	79	KED
⌊	Ba	135	123184.4	0.5	218.7559	2.685	1.2	ug/L	15	KED
	Ce	140	1510446.5	1.0				ug/L	45	KED
	Tb	159	702838.0	1.2				ug/L	661680	KED
⌈	Ho	165	21782.3	0.7				ug/L	5	KED
|	Tl	203	3035.6	1.3	0.6065	0.003	0.5	ug/L	8	KED
|	Tl	205	7344.1	1.6	0.5914	0.011	1.9	ug/L	16	KED
|	Pb	206	189879.8	0.9	44.4503	0.472	1.1	ug/L	316	KED
|	Pb	207	157097.6	0.6	41.5895	0.382	0.9	ug/L	291	KED
|	Pb	208	400573.4	0.3	42.5937	0.467	1.1	ug/L	695	KED
|	U	238	52944.7	0.9	2.2601	0.026	1.1	ug/L	16	KED

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	Th	232	327759.8	1.2	**16.1584**	0.261	1.6	ug/L	1926	KED
>	**Bi**	209	526860.8	0.9				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	4439.0	6.8	**0.1329**	0.014	10.5	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**3.2322**	35.639	1102.6	mg/L	2	KED
	Fe	54	97526.3	1.7	**77.4277**	2.068	2.7	mg/L	10	KED
	Fe	57	203462.1	0.9	**76.0348**	0.787	1.0	mg/L	22	KED
>	**Sc-1**	45	101429.1	1.0				mg/L	87229	KED
	Cl	35	4994.2	1.3				ug/L	2227	KED
	Kr	83	11.7	49.5				ug/L	2	KED
	Br	81	81.7	15.4				ug/L	23	KED
	P	31	135.0	23.1				ug/L	212	KED
	S	34	41.7	27.7				ug/L	37	KED
	Sr	88	10100.0	2.1				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		116.279	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		102.942	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908014906 WG710495-01
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	100.644
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	102.347
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	116.279
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
V 51 Upper, S, EEE	V	51	
Mn 55 Upper, S, EEE	Mn	55	
Ba 135 Upper, S, EEE	Ba	135	

Approved: September 05, 2019

Method 6020 - Summary Report

Sample ID: L1908014907S WG710495-04
Sample Date/Time: Wednesday, September 04, 2019 14:01:24
Number of Replicates: 3
Autosampler Position: 307
Sample Description: 1
Method File: C:\NexION\Data\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	12398.4	4.8				ug/L	9383	KED
|	**Be**	9	911.7	3.7	**10.1216**	0.612	6.0	ug/L	0	KED
|	**Al**	27	412349.7	1.3				ug/L	73	KED
\>	**Sc-2**	45	98841.8	2.3				ug/L	87229	KED
⌈	**Ti**	47	8210.6	1.7	**579.9356**	15.000	2.6	ug/L	11	KED
|	**V**	51	184906.6	1.4	**143.3518**	4.894	3.4	ug/L	10753	KED
|	**Cr**	52	234296.7	1.0	**117.3877**	3.207	2.7	ug/L	489	KED
|	**Cr**	53	39302.6	2.1	**135.9416**	6.016	4.4	ug/L	6416	KED
|	**Mn**	55	2350909.1	0.4	**1636.2724**	36.955	2.3	ug/L	206	KED
|	**Co**	59	304897.0	0.9	**59.6314**	1.505	2.5	ug/L	86	KED
|	**Ni**	60	261674.1	1.2	**182.7596**	3.501	1.9	ug/L	1252	KED
|	**Cu**	65	242834.6	0.7	**132.5197**	2.048	1.5	ug/L	418	KED
|	**Zn**	66	417151.7	1.5	**811.5059**	23.439	2.9	ug/L	204	KED
\>	**Ge**	72	239117.5	1.8				ug/L	234818	KED
|	**As**	75	32611.4	1.6	**75.1540**	2.027	2.7	ug/L	719	KED
|	**Se**	82	603.3	5.5	**34.5394**	2.356	6.8	ug/L	15	KED
|	**Se-1**	78	1158.2	0.7	**30.4827**	0.633	2.1	ug/L	35	KED
⌊	**Se-1**	80	25065.9	0.2	**14.0974**	4.295	30.5	ug/L	23187	KED
	Ga	71	13357.6	2.9				ug/L	33	KED
	Rb	85	36657.6	1.6				ug/L	13	KED
	Y	89	330206.8	1.7				ug/L	191699	KED
	Rh	103	45.0	11.1				ug/L	5	KED
⌈	**Mo**	98	123558.5	1.3	**36.5231**	1.015	2.8	ug/L	47	KED
|	**Ag**	107	206013.0	1.5	**30.9303**	0.913	3.0	ug/L	173	KED
|	**Cd**	111	17955.0	0.4	**18.5883**	0.334	1.8	ug/L	5	KED
|	**Cd**	114	44408.3	1.6	**18.6980**	0.556	3.0	ug/L	29	KED
\>	**In**	115	242009.1	1.5				ug/L	248460	KED
|	**Sn**	118	61452.7	1.1	**32.1856**	0.714	2.2	ug/L	556	KED
|	**Sb**	123	55809.9	0.5	**33.1785**	0.590	1.8	ug/L	79	KED
⌊	**Ba**	135	180519.7	0.7	**331.3037**	7.213	2.2	ug/L	15	KED
	Ce	140	1518887.3	0.7				ug/L	45	KED
	Tb	159	686750.5	1.3				ug/L	661680	KED
⌈	**Ho**	165	21900.1	0.7				ug/L	5	KED
|	**Tl**	203	32907.7	1.1	**6.7176**	0.121	1.8	ug/L	8	KED
|	**Tl**	205	80436.3	0.8	**6.6159**	0.134	2.0	ug/L	16	KED
|	**Pb**	206	324451.1	0.4	**77.4784**	1.294	1.7	ug/L	316	KED
|	**Pb**	207	275347.3	1.1	**74.3707**	1.790	2.4	ug/L	291	KED
|	**Pb**	208	697980.7	0.9	**75.7116**	1.553	2.1	ug/L	695	KED
|	**U**	238	721440.5	1.9	**31.4051**	1.009	3.2	ug/L	16	KED

Sample ID: L1908014907S WG710495-04
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	Th	232	912218.1	1.3	**46.0221**	1.104	2.4	ug/L	1926	KED
>	**Bi**	209	516919.9	1.3				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	4212.3	1.3	**0.1275**	0.007	5.6	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**2.7382**	36.495	1332.8	mg/L	2	KED
	Fe	54	99158.4	1.2	**80.8004**	2.167	2.7	mg/L	10	KED
	Fe	57	207063.8	1.6	**79.4515**	3.079	3.9	mg/L	22	KED
>	**Sc-1**	45	98841.8	2.3				mg/L	87229	KED
	Cl	35	5239.2	4.3				ug/L	2227	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	103.3	31.1				ug/L	23	KED
	P	31	135.0	3.7				ug/L	212	KED
	S	34	43.3	40.5				ug/L	37	KED
	Sr	88	9803.2	1.6				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		113.313	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		101.831	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908014907S WG710495-04
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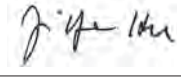
Approved: September 05, 2019

	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	97.404
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	100.415
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	113.313
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
V 51 Upper, S, EEE	V	51	
Mn 55 Upper, S, EEE	Mn	55	
Ba 135 Upper, S, EEE	Ba	135	

Approved: September 05, 2019



Method 6020 - Summary Report

Sample ID: L1908014908SD WG710495-05
Sample Date/Time: Wednesday, September 04, 2019 14:04:17
Number of Replicates: 3
Autosampler Position: 308
Sample Description: 1
Method File: C:\NexION\Data\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	12493.5	3.1				ug/L	9383	KED
|	Be	9	831.7	5.3	9.1797	0.317	3.5	ug/L	0	KED
|	Al	27	429487.5	3.1				ug/L	73	KED
|>	Sc-2	45	99286.0	2.1				ug/L	87229	KED
⌈	Ti	47	7727.3	1.2	559.4552	13.191	2.4	ug/L	11	KED
|	V	51	181734.3	1.7	144.4333	0.912	0.6	ug/L	10753	KED
|	Cr	52	239579.0	0.8	123.0345	1.942	1.6	ug/L	489	KED
|	Cr	53	40395.5	1.4	144.6374	3.805	2.6	ug/L	6416	KED
|	Mn	55	2442652.4	1.0	1742.4057	7.728	0.4	ug/L	206	KED
|	Co	59	316034.3	0.3	63.3535	1.057	1.7	ug/L	86	KED
|	Ni	60	263495.5	0.3	188.6705	2.828	1.5	ug/L	1252	KED
|	Cu	65	237265.6	0.1	132.7258	1.903	1.4	ug/L	418	KED
|	Zn	66	412178.5	0.3	821.7926	9.147	1.1	ug/L	204	KED
|>	Ge	72	233261.1	1.4				ug/L	234818	KED
|	As	75	31076.5	1.1	73.3595	0.702	1.0	ug/L	719	KED
|	Se	82	624.5	1.9	36.6906	1.086	3.0	ug/L	15	KED
|	Se-1	78	1152.7	1.2	31.1152	0.543	1.7	ug/L	35	KED
⌊	Se-1	80	25229.7	1.1	21.7554	1.918	8.8	ug/L	23187	KED
	Ga	71	14178.3	1.7				ug/L	33	KED
	Rb	85	41317.9	0.9				ug/L	13	KED
	Y	89	341556.4	2.1				ug/L	191699	KED
	Rh	103	61.7	20.4				ug/L	5	KED
⌈	Mo	98	122107.4	1.0	35.9373	0.093	0.3	ug/L	47	KED
|	Ag	107	204150.4	1.7	30.5156	0.286	0.9	ug/L	173	KED
|	Cd	111	18024.7	2.0	18.5805	0.232	1.2	ug/L	5	KED
|	Cd	114	44223.4	0.9	18.5406	0.286	1.5	ug/L	29	KED
|>	In	115	243000.7	1.2				ug/L	248460	KED
|	Sn	118	61476.8	0.9	32.0612	0.345	1.1	ug/L	556	KED
|	Sb	123	55067.9	0.9	32.6024	0.650	2.0	ug/L	79	KED
⌊	Ba	135	183305.2	0.9	335.0277	7.064	2.1	ug/L	15	KED
	Ce	140	1676864.5	0.5				ug/L	45	KED
	Tb	159	689179.4	1.5				ug/L	661680	KED
⌈	Ho	165	22459.6	0.6				ug/L	5	KED
|	Tl	203	32364.2	1.1	6.6601	0.090	1.4	ug/L	8	KED
|	Tl	205	79902.8	1.2	6.6250	0.109	1.6	ug/L	16	KED
|	Pb	206	313154.9	0.7	75.3868	1.266	1.7	ug/L	316	KED
|	Pb	207	263271.4	1.0	71.6787	1.192	1.7	ug/L	291	KED
|	Pb	208	668992.0	0.7	73.1562	1.493	2.0	ug/L	695	KED
|	U	238	718715.3	0.8	31.5347	0.337	1.1	ug/L	16	KED

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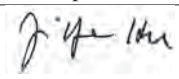
	Th	232	909782.1	1.6	**46.2683**	0.839	1.8	ug/L	1926	KED
>	**Bi**	209	512755.5	1.5				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	4088.9	1.6	**0.1206**	0.005	3.8	mg/L	1398	KED
	K	39	3.3	173.2	**14.1979**	24.591	173.2	mg/L	0	KED
	Ca	43	5.0	100.0	**-38.1378**	61.819	162.1	mg/L	2	KED
	Fe	54	97452.5	2.0	**79.0322**	1.085	1.4	mg/L	10	KED
	Fe	57	210073.2	1.5	**80.2263**	2.362	2.9	mg/L	22	KED
>	**Sc-1**	45	99286.0	2.1				mg/L	87229	KED
	Cl	35	5134.2	3.4				ug/L	2227	KED
	Kr	83	3.3	173.2				ug/L	2	KED
	Br	81	135.0	17.0				ug/L	23	KED
	P	31	121.7	6.3				ug/L	212	KED
	S	34	40.0	21.7				ug/L	37	KED
	Sr	88	10231.8	3.5				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		113.823	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		99.337	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908014908SD WG710495-05
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
| >	In	115	97.803
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊ >	Bi	209	99.606
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊ >	Sc-1	45	113.823
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
V 51 Upper, S, EEE	V	51	
Cr 53 Upper, S, EEE	Cr	53	
Mn 55 Upper, S, EEE	Mn	55	
Ba 135 Upper, S, EEE	Ba	135	

Sample ID: L1908014908SD WG710495-05
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Method 6020 - Summary Report

Sample ID: L1908014906PS WG710528-01
Sample Date/Time: Wednesday, September 04, 2019 14:07:10
Number of Replicates: 3
Autosampler Position: 309
Sample Description: 1
Method File: C:\NexION\Data\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	12672.0	0.8				ug/L	9383	KED
|	Be	9	1000.0	3.0	**10.9222**	0.603	5.5	ug/L	0	KED
|	Al	27	401791.6	1.3				ug/L	73	KED
⌊>	Sc-2	45	100472.5	2.6				ug/L	87229	KED
⌈	Ti	47	7627.9	3.1	**535.9521**	15.656	2.9	ug/L	11	KED
|	V	51	186970.1	1.6	**144.2487**	3.069	2.1	ug/L	10753	KED
|	Cr	52	253484.1	2.2	**126.3803**	3.940	3.1	ug/L	489	KED
|	Cr	53	41799.2	0.5	**145.3863**	1.843	1.3	ug/L	6416	KED
|	Mn	55	2394387.8	0.4	**1658.0856**	25.615	1.5	ug/L	206	KED
|	Co	59	329238.9	0.9	**64.0608**	0.547	0.9	ug/L	86	KED
|	Ni	60	292224.0	1.0	**203.1725**	3.059	1.5	ug/L	1252	KED
|	Cu	65	254284.8	0.8	**138.0755**	0.526	0.4	ug/L	418	KED
|	Zn	66	469777.9	0.8	**909.2150**	10.401	1.1	ug/L	204	KED
| >	Ge	72	240298.4	1.2				ug/L	234818	KED
|	As	75	33702.4	1.2	**77.3239**	1.427	1.8	ug/L	719	KED
|	Se	82	719.2	5.2	**41.1092**	2.104	5.1	ug/L	15	KED
|	Se-1	78	1374.6	2.3	**36.1712**	1.124	3.1	ug/L	35	KED
⌊	Se-1	80	25633.0	0.4	**18.3239**	2.455	13.4	ug/L	23187	KED
	Ga	71	13552.7	2.7				ug/L	33	KED
	Rb	85	34846.7	2.6				ug/L	13	KED
	Y	89	332407.2	1.4				ug/L	191699	KED
	Rh	103	56.7	41.7				ug/L	5	KED
⌈	Mo	98	137899.8	1.3	**40.0437**	1.040	2.6	ug/L	47	KED
|	Ag	107	247290.1	0.5	**36.4724**	0.604	1.7	ug/L	173	KED
|	Cd	111	20873.0	0.3	**21.2289**	0.378	1.8	ug/L	5	KED
|	Cd	114	52060.3	0.3	**21.5319**	0.301	1.4	ug/L	29	KED
| >	In	115	246354.3	1.6				ug/L	248460	KED
|	Sn	118	71915.6	0.3	**37.0431**	0.646	1.7	ug/L	556	KED
|	Sb	123	64137.8	0.5	**37.4629**	0.669	1.8	ug/L	79	KED
⌊	Ba	135	179270.7	0.4	**323.2017**	6.233	1.9	ug/L	15	KED
	Ce	140	1456931.7	0.7				ug/L	45	KED
	Tb	159	688849.1	1.8				ug/L	661680	KED
⌈	Ho	165	20985.5	1.7				ug/L	5	KED
|	Tl	203	37503.7	1.4	**7.5789**	0.114	1.5	ug/L	8	KED
|	Tl	205	92424.7	0.2	**7.5252**	0.032	0.4	ug/L	16	KED
|	Pb	206	330584.6	0.3	**78.1483**	0.585	0.7	ug/L	316	KED
|	Pb	207	280450.6	1.0	**74.9831**	1.049	1.4	ug/L	291	KED
|	Pb	208	707652.7	1.0	**75.9866**	1.002	1.3	ug/L	695	KED
|	U	238	826816.8	1.8	**35.6261**	0.765	2.1	ug/L	16	KED

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	Th	232	1009702.3	1.3	**50.4353**	0.850	1.7	ug/L	1926	KED
>	**Bi**	209	522116.7	0.4				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	4364.0	3.4	**0.1315**	0.012	9.4	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	3.3	86.6	**-17.0214**	35.369	207.8	mg/L	2	KED
	Fe	54	94603.0	3.2	**75.8724**	4.057	5.3	mg/L	10	KED
	Fe	57	197749.2	2.4	**74.6576**	3.482	4.7	mg/L	22	KED
>	**Sc-1**	45	100472.5	2.6				mg/L	87229	KED
	Cl	35	4834.1	2.8				ug/L	2227	KED
	Kr	83	3.3	173.2				ug/L	2	KED
	Br	81	78.3	7.4				ug/L	23	KED
	P	31	148.3	10.3				ug/L	212	KED
	S	34	31.7	45.6				ug/L	37	KED
	Sr	88	9449.6	4.3				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		115.183	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		102.334	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908014906PS WG710528-01
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	99.153
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	101.425
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	115.183
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
V 51 Upper, S, EEE	V	51	
Cr 53 Upper, S, EEE	Cr	53	
Mn 55 Upper, S, EEE	Mn	55	
Ba 135 Upper, S, EEE	Ba	135	

Sample ID: L1908014906PS WG710528-01
Report Date/Time: Wednesday, September 04, 2019 14:09:29
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Method 6020 - Summary Report

Sample ID: L1908014906SDL WG710528-02
Sample Date/Time: Wednesday, September 04, 2019 14:10:02
Number of Replicates: 3
Autosampler Position: 310
Sample Description: 5
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10832.2	4.2				ug/L	9383	KED
|	**Be**	9	33.3	18.1	**0.3952**	0.067	17.0	ug/L	0	KED
|	**Al**	27	71856.7	1.2				ug/L	73	KED
⌊>	**Sc-2**	45	92346.6	1.3				ug/L	87229	KED
⌈	**Ti**	47	1365.7	2.5	**95.4630**	4.537	4.8	ug/L	11	KED
|	**V**	51	31071.5	1.0	**16.4808**	0.893	5.4	ug/L	10753	KED
|	**Cr**	52	18044.8	4.0	**8.7771**	0.552	6.3	ug/L	489	KED
|	**Cr**	53	7256.7	3.6	**2.8913**	1.600	55.3	ug/L	6416	KED
|	**Mn**	55	410031.7	0.8	**284.0845**	6.658	2.3	ug/L	206	KED
|	**Co**	59	26833.7	1.1	**5.2118**	0.187	3.6	ug/L	86	KED
|	**Ni**	60	15938.1	3.5	**10.2527**	0.669	6.5	ug/L	1252	KED
|	**Cu**	65	25320.5	1.0	**13.5549**	0.404	3.0	ug/L	418	KED
|	**Zn**	66	22222.3	3.0	**42.6882**	2.342	5.5	ug/L	204	KED
|>	**Ge**	72	240133.0	2.4				ug/L	234818	KED
|	**As**	75	4791.1	2.0	**9.5271**	0.492	5.2	ug/L	719	KED
|	**Se**	82	41.5	9.1	**1.5431**	0.280	18.2	ug/L	15	KED
|	**Se-1**	78	64.0	16.0	**0.7721**	0.321	41.6	ug/L	35	KED
⌊	**Se-1**	80	23880.0	0.2	**1.7157**	6.175	359.9	ug/L	23187	KED
	Ga	71	2546.9	2.0				ug/L	33	KED
	Rb	85	6973.3	6.3				ug/L	13	KED
	Y	89	219304.3	1.7				ug/L	191699	KED
	Rh	103	13.3	57.3				ug/L	5	KED
⌈	**Mo**	98	3957.5	5.4	**1.1368**	0.073	6.5	ug/L	47	KED
|	**Ag**	107	539.3	86.9	**0.0548**	0.070	128.5	ug/L	173	KED
|	**Cd**	111	89.0	40.6	**0.0861**	0.038	44.0	ug/L	5	KED
|	**Cd**	114	220.7	38.6	**0.0797**	0.036	45.7	ug/L	29	KED
|>	**In**	115	246231.1	1.0				ug/L	248460	KED
|	**Sn**	118	1295.4	13.3	**0.3872**	0.097	25.0	ug/L	556	KED
|	**Sb**	123	1278.4	9.1	**0.7026**	0.076	10.9	ug/L	79	KED
⌊	**Ba**	135	24777.2	0.7	**44.6658**	0.736	1.6	ug/L	15	KED
	Ce	140	296652.4	0.8				ug/L	45	KED
	Tb	159	665680.7	1.4				ug/L	661680	KED
⌈	**Ho**	165	4205.6	0.3				ug/L	5	KED
|	**Tl**	203	687.7	14.4	**0.1361**	0.020	14.9	ug/L	8	KED
|	**Tl**	205	1717.1	11.3	**0.1371**	0.016	11.7	ug/L	16	KED
|	**Pb**	206	38495.9	2.6	**8.9404**	0.247	2.8	ug/L	316	KED
|	**Pb**	207	31713.5	2.5	**8.3228**	0.245	2.9	ug/L	291	KED
|	**Pb**	208	81009.3	1.1	**8.5427**	0.125	1.5	ug/L	695	KED
|	**U**	238	11975.4	9.2	**0.5101**	0.049	9.7	ug/L	16	KED

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	Th	232	72610.6	2.0	**3.4992**	0.087	2.5	ug/L	1926	KED
>	**Bi**	209	527503.6	0.4				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	2205.2	68.5	**0.0373**	0.077	207.5	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**23.8084**	0.000	0.0	mg/L	2	KED
	Fe	54	17606.9	1.7	**15.3462**	0.409	2.7	mg/L	10	KED
	Fe	57	35743.8	2.1	**14.6622**	0.115	0.8	mg/L	22	KED
>	**Sc-1**	45	92346.6	1.3				mg/L	87229	KED
	Cl	35	2600.2	5.8				ug/L	2227	KED
	Kr	83	0.0					ug/L	2	KED
	Br	81	25.0	52.9				ug/L	23	KED
	P	31	70.0	12.4				ug/L	212	KED
	S	34	41.7	30.2				ug/L	37	KED
	Sr	88	1726.8	8.9				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		105.867	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		102.263	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	99.103
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	102.471
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	105.867
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
Mn 55 Upper, S, EEE	Mn	55	

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Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, September 04, 2019 14:12:56
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10942.3	3.9				ug/L	9383	KED
|	**Be**	9	572.0	2.2	**6.7035**	0.215	3.2	ug/L	0	KED
|	**Al**	27	211562.4	2.4				ug/L	73	KED
|>	**Sc-2**	45	93624.4	4.4				ug/L	87229	KED
⌈	**Ti**	47	501.0	6.0	**31.6364**	1.350	4.3	ug/L	11	KED
|	**V**	51	50649.0	5.7	**29.1431**	1.433	4.9	ug/L	10753	KED
|	**Cr**	52	136466.4	2.3	**62.4314**	0.230	0.4	ug/L	489	KED
|	**Cr**	53	22348.2	7.4	**57.6529**	4.634	8.0	ug/L	6416	KED
|	**Mn**	55	97211.6	1.5	**61.7666**	0.451	0.7	ug/L	206	KED
|	**Co**	59	171567.3	1.3	**30.6933**	0.209	0.7	ug/L	86	KED
|	**Ni**	60	189076.1	0.8	**120.5665**	3.203	2.7	ug/L	1252	KED
|	**Cu**	65	121398.8	1.5	**60.5142**	1.866	3.1	ug/L	418	KED
|	**Zn**	66	338177.8	0.6	**601.8942**	10.533	1.7	ug/L	204	KED
|>	**Ge**	72	261285.5	1.9				ug/L	234818	KED
|	**As**	75	14935.4	0.6	**30.4977**	0.726	2.4	ug/L	719	KED
|	**Se**	82	570.0	3.5	**29.7390**	1.420	4.8	ug/L	15	KED
|	**Se-1**	78	1230.5	2.4	**29.6106**	0.833	2.8	ug/L	35	KED
⌊	**Se-1**	80	29041.8	0.3	**28.7198**	5.544	19.3	ug/L	23187	KED
	Ga	71	83.3	24.2				ug/L	33	KED
	Rb	85	161.7	7.8				ug/L	13	KED
	Y	89	212400.1	0.4				ug/L	191699	KED
	Rh	103	28.3	27.0				ug/L	5	KED
⌈	**Mo**	98	116236.0	2.5	**29.6150**	0.551	1.9	ug/L	47	KED
|	**Ag**	107	236004.3	2.7	**30.5433**	0.671	2.2	ug/L	173	KED
|	**Cd**	111	20750.2	2.0	**18.5199**	0.235	1.3	ug/L	5	KED
|	**Cd**	114	50336.8	2.2	**18.2688**	0.242	1.3	ug/L	29	KED
|>	**In**	115	280656.3	1.1				ug/L	248460	KED
|	**Sn**	118	66461.2	2.1	**29.9887**	0.412	1.4	ug/L	556	KED
|	**Sb**	123	57851.6	1.4	**29.6457**	0.125	0.4	ug/L	79	KED
⌊	**Ba**	135	56469.4	2.3	**89.3259**	1.729	1.9	ug/L	15	KED
	Ce	140	253.0	46.5				ug/L	45	KED
	Tb	159	714779.9	0.2				ug/L	661680	KED
⌈	**Ho**	165	8.0	12.5				ug/L	5	KED
|	**Tl**	203	31045.8	1.6	**6.0013**	0.136	2.3	ug/L	8	KED
|	**Tl**	205	77270.2	1.6	**6.0180**	0.134	2.2	ug/L	16	KED
|	**Pb**	206	132813.6	1.2	**29.9862**	0.534	1.8	ug/L	316	KED
|	**Pb**	207	116962.7	0.9	**29.8656**	0.448	1.5	ug/L	291	KED
|	**Pb**	208	295792.1	0.8	**30.3362**	0.437	1.4	ug/L	695	KED
|	**U**	238	723817.2	1.8	**29.8335**	0.732	2.5	ug/L	16	KED

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	Th	232	623939.8	2.4	**29.7736**	0.907	3.0	ug/L	1926	KED
>	**Bi**	209	545850.1	0.7				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	81668.0	2.9	**4.1051**	0.114	2.8	mg/L	1398	KED
	K	39	1.7	173.2	**7.6339**	13.222	173.2	mg/L	0	KED
	Ca	43	5.0	100.0	**-40.9445**	63.543	155.2	mg/L	2	KED
	Fe	54	4272.3	1.9	**3.6683**	0.121	3.3	mg/L	10	KED
	Fe	57	8732.5	3.7	**3.5342**	0.278	7.9	mg/L	22	KED
>	**Sc-1**	45	93624.4	4.4				mg/L	87229	KED
	Cl	35	2025.1	3.6				ug/L	2227	KED
	Kr	83	6.7	114.6				ug/L	2	KED
	Br	81	15.0	57.7				ug/L	23	KED
	P	31	56.7	18.4				ug/L	212	KED
	S	34	43.3	13.3				ug/L	37	KED
	Sr	88	40.0	21.7				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9	104.742		
	Al	27			
>	Sc-2	45		107.332	
	Ti	47	98.864		
	V	51	91.072		
	Cr	52	97.549		
	Cr	53			
	Mn	55	96.510		
	Co	59	95.917		
	Ni	60	94.193		
	Cu	65	94.553		
	Zn	66	94.046		
>	Ge	72		111.271	
	As	75	95.305		
	Se	82	92.934		
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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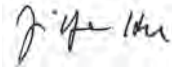
	Rh	103		
⌈	Mo	98	92.547	
|	Ag	107	95.448	
|	Cd	111	96.458	
|	Cd	114		
|>	In	115		112.959
|	Sn	118	93.715	
|	Sb	123	92.643	
⌊	Ba	135	93.048	
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203	93.770	
|	Tl	205		
|	Pb	206	93.707	
|	Pb	207	93.330	
|	Pb	208	94.801	
|	U	238	93.230	
|	Th	232		
⌊>	Bi	209		106.035
⌈	Na	23		
|	Mg	24	102.628	
|	K	39	190.848	
|	Ca	43	-1023.613	
|	Fe	54	91.709	
|	Fe	57	88.356	
⌊>	Sc-1	45		107.332
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	K	39	
QC Std 6	Ca	43	
QC Std 6	Fe	57	

Sample ID: QC Std 6
Report Date/Time: Wednesday, September 04, 2019 14:15:16
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Method 6020 - Summary Report

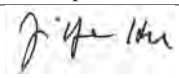
Sample ID: QC Std 7
Sample Date/Time: Wednesday, September 04, 2019 14:15:50
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10073.4	4.7				ug/L	9383	KED
|	**Be**	9	2.0	0.0	**0.0248**	0.001	4.0	ug/L	0	KED
|	**Al**	27	361.7	74.0				ug/L	73	KED
|>	**Sc-2**	45	88577.4	3.9				ug/L	87229	KED
⌈	**Ti**	47	14.7	34.3	**0.2586**	0.339	131.1	ug/L	11	KED
|	**V**	51	8341.0	9.0	**-2.2186**	0.430	19.4	ug/L	10753	KED
|	**Cr**	52	655.7	24.5	**0.0786**	0.094	119.4	ug/L	489	KED
|	**Cr**	53	5067.5	8.8	**-6.2947**	1.205	19.2	ug/L	6416	KED
|	**Mn**	55	602.0	39.5	**0.2700**	0.165	61.1	ug/L	206	KED
|	**Co**	59	289.0	71.7	**0.0399**	0.043	107.6	ug/L	86	KED
|	**Ni**	60	522.7	47.8	**-0.5268**	0.190	36.1	ug/L	1252	KED
|	**Cu**	65	390.0	32.5	**-0.0193**	0.078	405.0	ug/L	418	KED
|	**Zn**	66	727.7	62.4	**1.0205**	0.945	92.6	ug/L	204	KED
|>	**Ge**	72	241329.5	3.8				ug/L	234818	KED
|	**As**	75	858.0	1.2	**0.2803**	0.059	21.0	ug/L	719	KED
|	**Se**	82	18.5	30.1	**0.1898**	0.317	167.1	ug/L	15	KED
|	**Se-1**	78	37.3	13.4	**0.0452**	0.171	378.9	ug/L	35	KED
⌊	**Se-1**	80	24123.0	0.5	**3.0139**	8.517	282.6	ug/L	23187	KED
	Ga	71	56.7	27.0				ug/L	33	KED
	Rb	85	18.3	15.7				ug/L	13	KED
	Y	89	190293.3	3.1				ug/L	191699	KED
	Rh	103	1.7	173.2				ug/L	5	KED
⌈	**Mo**	98	298.0	40.5	**0.0722**	0.037	51.1	ug/L	47	KED
|	**Ag**	107	355.7	65.0	**0.0269**	0.035	130.8	ug/L	173	KED
|	**Cd**	111	32.7	78.0	**0.0284**	0.027	93.8	ug/L	5	KED
|	**Cd**	114	75.3	73.0	**0.0191**	0.023	122.4	ug/L	29	KED
|>	**In**	115	250171.2	2.4				ug/L	248460	KED
|	**Sn**	118	640.3	10.1	**0.0418**	0.042	99.3	ug/L	556	KED
|	**Sb**	123	911.7	11.5	**0.4801**	0.071	14.9	ug/L	79	KED
⌊	**Ba**	135	74.3	87.5	**0.1074**	0.120	111.6	ug/L	15	KED
	Ce	140	81.3	40.3				ug/L	45	KED
	Tb	159	653825.8	3.2				ug/L	661680	KED
⌈	**Ho**	165	8.0	54.5				ug/L	5	KED
|	**Tl**	203	48.7	66.4	**0.0086**	0.007	80.8	ug/L	8	KED
|	**Tl**	205	110.0	64.0	**0.0078**	0.006	75.0	ug/L	16	KED
|	**Pb**	206	655.3	38.5	**0.0823**	0.060	72.3	ug/L	316	KED
|	**Pb**	207	544.3	44.4	**0.0694**	0.064	92.2	ug/L	291	KED
|	**Pb**	208	1358.4	38.2	**0.0732**	0.056	76.5	ug/L	695	KED
|	**U**	238	966.4	66.1	**0.0421**	0.029	69.1	ug/L	16	KED

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	Th	232	11397.7	36.7	**0.4874**	0.230	47.1	ug/L	1926	KED
>	**Bi**	209	512105.1	2.8				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	893.4	14.6	**-0.0283**	0.009	32.1	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**-0.7379**	42.515	5761.8	mg/L	2	KED
	Fe	54	33.3	96.4	**0.0209**	0.029	136.5	mg/L	10	KED
	Fe	57	80.0	84.1	**0.0248**	0.028	113.7	mg/L	22	KED
>	**Sc-1**	45	88577.4	3.9				mg/L	87229	KED
	Cl	35	2540.2	4.6				ug/L	2227	KED
	Kr	83	3.3	173.2				ug/L	2	KED
	Br	81	28.3	83.4				ug/L	23	KED
	P	31	45.0	38.5				ug/L	212	KED
	S	34	46.7	48.3				ug/L	37	KED
	Sr	88	26.7	28.6				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		101.546	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		102.773	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: QC Std 7
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	100.689
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	99.480
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	101.546
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 7	V	51	
QC Std 7	Sb	123	
QC Std 7	Ca	43	

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Method 6020 - Summary Report

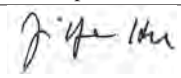
Sample ID: B9H1564-BLK2@50BS2@50
Sample Date/Time: Wednesday, September 04, 2019 14:24:22
Number of Replicates: 3
Autosampler Position: 311
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10121.7	2.3				ug/L	9383	KED
|	**Be**	9	0.0		**0.0000**	0.000		ug/L	0	KED
|	**Al**	27	168.3	21.9				ug/L	73	KED
⌊>	**Sc-2**	45	87920.1	1.8				ug/L	87229	KED
⌈	**Ti**	47	13.3	4.3	**0.1563**	0.041	26.5	ug/L	11	KED
|	**V**	51	7511.2	3.9	**-2.9523**	0.287	9.7	ug/L	10753	KED
|	**Cr**	52	465.7	6.7	**-0.0206**	0.015	73.9	ug/L	489	KED
|	**Cr**	53	4522.3	4.8	**-8.7057**	0.948	10.9	ug/L	6416	KED
|	**Mn**	55	414.0	53.3	**0.1364**	0.151	110.6	ug/L	206	KED
|	**Co**	59	95.7	45.6	**0.0012**	0.008	686.1	ug/L	86	KED
|	**Ni**	60	390.3	18.8	**-0.6261**	0.051	8.1	ug/L	1252	KED
|	**Cu**	65	271.3	10.8	**-0.0871**	0.015	17.7	ug/L	418	KED
|	**Zn**	66	641.0	9.9	**0.8181**	0.124	15.1	ug/L	204	KED
| >	**Ge**	72	243900.5	0.9				ug/L	234818	KED
|	**As**	75	805.4	8.1	**0.1369**	0.165	120.4	ug/L	719	KED
|	**Se**	82	13.0	25.2	**-0.1379**	0.191	138.6	ug/L	15	KED
|	**Se-1**	78	33.3	6.2	**-0.0754**	0.063	84.1	ug/L	35	KED
⌊	**Se-1**	80	24750.7	0.4	**6.3217**	1.556	24.6	ug/L	23187	KED
	Ga	71	48.3	29.9				ug/L	33	KED
	Rb	85	23.3	24.7				ug/L	13	KED
	Y	89	198199.6	0.6				ug/L	191699	KED
	Rh	103	6.7	114.6				ug/L	5	KED
⌈	**Mo**	98	107.3	101.5	**0.0170**	0.031	182.4	ug/L	47	KED
|	**Ag**	107	247.7	73.9	**0.0105**	0.026	251.3	ug/L	173	KED
|	**Cd**	111	18.7	91.1	**0.0139**	0.017	121.9	ug/L	5	KED
|	**Cd**	114	42.7	65.7	**0.0054**	0.011	211.0	ug/L	29	KED
| >	**In**	115	251590.4	0.8				ug/L	248460	KED
|	**Sn**	118	526.7	7.1	**-0.0185**	0.019	101.1	ug/L	556	KED
|	**Sb**	123	137.0	27.0	**0.0326**	0.021	65.0	ug/L	79	KED
⌊	**Ba**	135	53.0	124.2	**0.0674**	0.116	172.6	ug/L	15	KED
	Ce	140	299.7	157.9				ug/L	45	KED
	Tb	159	663430.4	0.8				ug/L	661680	KED
⌈	**Ho**	165	9.0	72.9				ug/L	5	KED
|	**Tl**	203	13.7	52.9	**0.0012**	0.002	122.9	ug/L	8	KED
|	**Tl**	205	26.3	91.0	**0.0009**	0.002	232.5	ug/L	16	KED
|	**Pb**	206	393.0	16.8	**0.0186**	0.017	91.2	ug/L	316	KED
|	**Pb**	207	320.0	14.1	**0.0080**	0.013	166.2	ug/L	291	KED
|	**Pb**	208	843.7	13.5	**0.0163**	0.013	82.4	ug/L	695	KED
|	**U**	238	103.0	139.6	**0.0038**	0.006	166.2	ug/L	16	KED

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	Th	232	3162.3	28.0	**0.0625**	0.045	71.3	ug/L	1926	KED
>	**Bi**	209	515242.1	1.3				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	806.7	8.1	**-0.0328**	0.004	11.4	mg/L	1398	KED
	K	39	1.7	173.2	**7.7683**	13.455	173.2	mg/L	0	KED
	Ca	43	1.7	173.2	**0.4982**	40.374	8103.6	mg/L	2	KED
	Fe	54	20.0	109.0	**0.0089**	0.020	220.2	mg/L	10	KED
	Fe	57	45.0	77.0	**0.0099**	0.015	148.0	mg/L	22	KED
>	**Sc-1**	45	87920.1	1.8				mg/L	87229	KED
	Cl	35	2673.6	5.4				ug/L	2227	KED
	Kr	83	5.0	100.0				ug/L	2	KED
	Br	81	20.0	25.0				ug/L	23	KED
	P	31	58.3	30.1				ug/L	212	KED
	S	34	38.3	19.9				ug/L	37	KED
	Sr	88	20.0	50.0				ug/L	18	KED
	C	12	1.7	173.2				ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		100.793	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		103.868	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	101.260
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	100.090
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	100.793
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
V 51 Lower	V	51	
Th 232 Lower	Th	232	

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Method 6020 - Summary Report

Sample ID: B9H1564-BS2@50
Sample Date/Time: Wednesday, September 04, 2019 14:27:14
Number of Replicates: 3
Autosampler Position: 312
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	10477.0	4.4				ug/L	9383	KED
|	Be	9	46.7	11.8	**0.5742**	0.078	13.6	ug/L	0	KED
|	Al	27	5429.3	4.4				ug/L	73	KED
|>	Sc-2	45	89241.8	1.8				ug/L	87229	KED
⌈	Ti	47	158.3	23.2	**10.4792**	2.296	21.9	ug/L	11	KED
|	V	51	22790.5	2.3	**9.9385**	0.690	6.9	ug/L	10753	KED
|	Cr	52	10808.2	2.7	**5.2263**	0.094	1.8	ug/L	489	KED
|	Cr	53	6951.6	3.9	**1.9974**	0.537	26.9	ug/L	6416	KED
|	Mn	55	7884.7	6.3	**5.3950**	0.382	7.1	ug/L	206	KED
|	Co	59	10317.8	2.0	**2.0202**	0.045	2.2	ug/L	86	KED
|	Ni	60	7626.3	1.1	**4.5097**	0.171	3.8	ug/L	1252	KED
|	Cu	65	9484.0	2.6	**5.0012**	0.145	2.9	ug/L	418	KED
|	Zn	66	5914.2	2.0	**11.2130**	0.250	2.2	ug/L	204	KED
|>	Ge	72	236982.0	4.2				ug/L	234818	KED
|	As	75	2558.5	3.2	**4.3618**	0.125	2.9	ug/L	719	KED
|	Se	82	86.3	13.2	**4.2429**	0.806	19.0	ug/L	15	KED
|	Se-1	78	195.0	1.9	**4.3813**	0.120	2.7	ug/L	35	KED
⌊	Se-1	80	24936.0	0.4	**15.2355**	9.954	65.3	ug/L	23187	KED
	Ga	71	40.0	37.5				ug/L	33	KED
	Rb	85	51.7	22.3				ug/L	13	KED
	Y	89	189869.2	1.8				ug/L	191699	KED
	Rh	103	6.7	86.6				ug/L	5	KED
⌈	Mo	98	34586.4	0.3	**9.8882**	0.302	3.0	ug/L	47	KED
|	Ag	107	28484.8	1.1	**4.1193**	0.165	4.0	ug/L	173	KED
|	Cd	111	538.7	5.9	**0.5353**	0.034	6.3	ug/L	5	KED
|	Cd	114	1752.1	0.8	**0.7028**	0.024	3.4	ug/L	29	KED
|>	In	115	250044.2	2.9				ug/L	248460	KED
|	Sn	118	19638.1	2.6	**9.7641**	0.498	5.1	ug/L	556	KED
|	Sb	123	22706.0	0.9	**13.0440**	0.481	3.7	ug/L	79	KED
⌊	Ba	135	5645.1	0.2	**10.0057**	0.306	3.1	ug/L	15	KED
	Ce	140	58.0	58.4				ug/L	45	KED
	Tb	159	646233.6	1.5				ug/L	661680	KED
⌈	Ho	165	7.3	34.3				ug/L	5	KED
|	Tl	203	23576.7	1.3	**4.8643**	0.151	3.1	ug/L	8	KED
|	Tl	205	58808.6	0.6	**4.8885**	0.132	2.7	ug/L	16	KED
|	Pb	206	20308.9	0.8	**4.8310**	0.143	3.0	ug/L	316	KED
|	Pb	207	18179.2	0.6	**4.8883**	0.091	1.9	ug/L	291	KED
|	Pb	208	45411.6	0.6	**4.9080**	0.135	2.7	ug/L	695	KED
|	U	238	239.0	158.0	**0.0096**	0.016	169.3	ug/L	16	KED

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	Th	232	2845.9	21.2	**0.0473**	0.028	59.7	ug/L	1926	KED
>	**Bi**	209	511553.7	2.2				ug/L	514781	KED
	Na	23	1.7	173.2				mg/L	0	KED
	Mg	24	11319.2	1.3	**0.5310**	0.013	2.5	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**23.8084**	0.000	0.0	mg/L	2	KED
	Fe	54	88.3	50.7	**0.0704**	0.040	56.9	mg/L	10	KED
	Fe	57	171.7	66.7	**0.0633**	0.048	76.2	mg/L	22	KED
>	**Sc-1**	45	89241.8	1.8				mg/L	87229	KED
	Cl	35	2760.3	1.9				ug/L	2227	KED
	Kr	83	0.0					ug/L	2	KED
	Br	81	13.3	21.7				ug/L	23	KED
	P	31	51.7	40.3				ug/L	212	KED
	S	34	23.3	24.7				ug/L	37	KED
	Sr	88	3008.6	1.8				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		102.308	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		100.921	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	100.638
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	99.373
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	102.308
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Th 232 Lower	Th	232	

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Method 6020 - Summary Report

Sample ID: B9H1564-LBK4@50
Sample Date/Time: Wednesday, September 04, 2019 14:30:07
Number of Replicates: 3
Autosampler Position: 313
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10490.3	3.3				ug/L	9383	KED
|	**Be**	9	0.3	173.2	**0.0041**	0.007	173.2	ug/L	0	KED
|	**Al**	27	73.3	57.2				ug/L	73	KED
⌊>	**Sc-2**	45	88089.0	0.6				ug/L	87229	KED
⌈	**Ti**	47	11.0	41.7	**0.0098**	0.331	3376.2	ug/L	11	KED
|	**V**	51	8069.5	11.5	**-2.3880**	0.805	33.7	ug/L	10753	KED
|	**Cr**	52	474.0	2.9	**-0.0125**	0.007	58.2	ug/L	489	KED
|	**Cr**	53	4897.5	11.8	**-6.8285**	2.560	37.5	ug/L	6416	KED
|	**Mn**	55	236.7	5.3	**0.0181**	0.011	58.1	ug/L	206	KED
|	**Co**	59	72.3	10.5	**-0.0030**	0.002	51.8	ug/L	86	KED
|	**Ni**	60	392.0	10.6	**-0.6201**	0.032	5.2	ug/L	1252	KED
|	**Cu**	65	254.3	5.4	**-0.0939**	0.007	7.6	ug/L	418	KED
|	**Zn**	66	574.3	4.0	**0.7094**	0.040	5.7	ug/L	204	KED
|>	**Ge**	72	239802.7	1.3				ug/L	234818	KED
|	**As**	75	824.7	9.4	**0.2146**	0.200	93.2	ug/L	719	KED
|	**Se**	82	15.7	30.7	**0.0328**	0.291	888.3	ug/L	15	KED
|	**Se-1**	78	38.2	7.2	**0.0700**	0.068	97.3	ug/L	35	KED
⌊	**Se-1**	80	24537.7	0.5	**8.2882**	2.714	32.7	ug/L	23187	KED
	Ga	71	65.0	40.0				ug/L	33	KED
	Rb	85	13.3	57.3				ug/L	13	KED
	Y	89	193043.7	0.3				ug/L	191699	KED
	Rh	103	6.7	43.3				ug/L	5	KED
⌈	**Mo**	98	279.3	10.7	**0.0655**	0.007	11.3	ug/L	47	KED
|	**Ag**	107	143.3	6.0	**-0.0047**	0.001	22.4	ug/L	173	KED
|	**Cd**	111	8.7	35.3	**0.0039**	0.003	78.1	ug/L	5	KED
|	**Cd**	114	31.0	17.1	**0.0006**	0.002	353.2	ug/L	29	KED
|>	**In**	115	252752.1	1.6				ug/L	248460	KED
|	**Sn**	118	626.0	3.8	**0.0305**	0.007	24.4	ug/L	556	KED
|	**Sb**	123	99.7	6.8	**0.0110**	0.004	35.2	ug/L	79	KED
⌊	**Ba**	135	14.0	37.1	**-0.0015**	0.010	626.4	ug/L	15	KED
	Ce	140	30.7	9.4				ug/L	45	KED
	Tb	159	662608.8	1.7				ug/L	661680	KED
⌈	**Ho**	165	9.0	40.1				ug/L	5	KED
|	**Tl**	203	28.3	26.0	**0.0041**	0.001	35.6	ug/L	8	KED
|	**Tl**	205	73.3	33.7	**0.0046**	0.002	43.4	ug/L	16	KED
|	**Pb**	206	332.0	5.4	**0.0023**	0.004	168.7	ug/L	316	KED
|	**Pb**	207	299.3	9.7	**0.0007**	0.007	1002.9	ug/L	291	KED
|	**Pb**	208	747.4	1.6	**0.0042**	0.002	38.2	ug/L	695	KED
|	**U**	238	11.3	5.1	**-0.0002**	0.000	10.0	ug/L	16	KED

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	Th	232	2144.5	17.1	**0.0090**	0.019	206.4	ug/L	1926	KED
>	**Bi**	209	525064.3	0.4				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	73512.9	0.3	**3.9217**	0.013	0.3	mg/L	1398	KED
	K	39	1.7	173.2	**7.8033**	13.516	173.2	mg/L	0	KED
	Ca	43	1.7	173.2	**0.2522**	40.801	16176.2	mg/L	2	KED
	Fe	54	23.3	32.7	**0.0121**	0.007	57.4	mg/L	10	KED
	Fe	57	28.3	36.7	**0.0028**	0.005	163.2	mg/L	22	KED
>	**Sc-1**	45	88089.0	0.6				mg/L	87229	KED
	Cl	35	2566.9	5.3				ug/L	2227	KED
	Kr	83	0.0					ug/L	2	KED
	Br	81	30.0	57.7				ug/L	23	KED
	P	31	61.7	33.8				ug/L	212	KED
	S	34	45.0	40.1				ug/L	37	KED
	Sr	88	23.3	44.6				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		100.986	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		102.123	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: B9H1564-LBK4@50
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	101.728
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	101.998
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	100.986
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
V 51 Lower	V	51	
Th 232 Lower	Th	232	

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Method 6020 - Summary Report

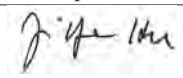
Sample ID: B9H1564-LBK5@50
Sample Date/Time: Wednesday, September 04, 2019 14:33:01
Number of Replicates: 3
Autosampler Position: 314
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10083.4	4.8				ug/L	9383	KED
|	**Be**	9	0.7	173.2	**0.0083**	0.014	173.2	ug/L	0	KED
|	**Al**	27	78.3	57.6				ug/L	73	KED
⌊>	**Sc-2**	45	87049.7	1.1				ug/L	87229	KED
⌈	**Ti**	47	13.3	41.3	**0.1717**	0.377	219.9	ug/L	11	KED
|	**V**	51	7673.3	4.8	**-2.6909**	0.337	12.5	ug/L	10753	KED
|	**Cr**	52	447.3	7.0	**-0.0247**	0.020	80.9	ug/L	489	KED
|	**Cr**	53	4844.1	2.0	**-6.9767**	0.757	10.8	ug/L	6416	KED
|	**Mn**	55	241.7	12.5	**0.0219**	0.017	78.0	ug/L	206	KED
|	**Co**	59	71.7	11.4	**-0.0031**	0.001	41.1	ug/L	86	KED
|	**Ni**	60	381.0	2.1	**-0.6270**	0.002	0.3	ug/L	1252	KED
|	**Cu**	65	208.3	11.5	**-0.1186**	0.010	8.7	ug/L	418	KED
|	**Zn**	66	722.4	8.4	**1.0007**	0.086	8.6	ug/L	204	KED
|>	**Ge**	72	238888.5	2.3				ug/L	234818	KED
|	**As**	75	797.4	7.7	**0.1550**	0.114	73.6	ug/L	719	KED
|	**Se**	82	17.7	21.2	**0.1527**	0.229	150.1	ug/L	15	KED
|	**Se-1**	78	39.8	20.9	**0.1196**	0.228	191.0	ug/L	35	KED
⌊	**Se-1**	80	24643.9	0.3	**10.2802**	5.553	54.0	ug/L	23187	KED
	Ga	71	66.7	15.6				ug/L	33	KED
	Rb	85	25.0	105.8				ug/L	13	KED
	Y	89	192329.0	3.5				ug/L	191699	KED
	Rh	103	6.7	43.3				ug/L	5	KED
⌈	**Mo**	98	108.3	46.7	**0.0171**	0.014	82.4	ug/L	47	KED
|	**Ag**	107	135.7	13.2	**-0.0058**	0.002	41.4	ug/L	173	KED
|	**Cd**	111	7.7	30.1	**0.0029**	0.002	80.6	ug/L	5	KED
|	**Cd**	114	27.3	16.5	**-0.0009**	0.002	191.4	ug/L	29	KED
|>	**In**	115	252827.5	1.1				ug/L	248460	KED
|	**Sn**	118	556.7	8.3	**-0.0047**	0.021	437.9	ug/L	556	KED
|	**Sb**	123	80.7	17.8	**0.0001**	0.008	6970.1	ug/L	79	KED
⌊	**Ba**	135	16.0	51.2	**0.0018**	0.014	790.9	ug/L	15	KED
	Ce	140	51.3	77.2				ug/L	45	KED
	Tb	159	651143.0	2.1				ug/L	661680	KED
⌈	**Ho**	165	8.7	24.0				ug/L	5	KED
|	**Tl**	203	6.7	45.8	**-0.0002**	0.001	320.1	ug/L	8	KED
|	**Tl**	205	18.0	20.0	**0.0002**	0.000	197.4	ug/L	16	KED
|	**Pb**	206	312.7	5.7	**-0.0010**	0.003	345.8	ug/L	316	KED
|	**Pb**	207	294.3	3.6	**0.0007**	0.002	244.5	ug/L	291	KED
|	**Pb**	208	682.7	5.3	**-0.0016**	0.003	190.4	ug/L	695	KED
|	**U**	238	15.3	44.4	**-0.0000**	0.000	603.2	ug/L	16	KED

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	Th	232	1466.4	9.0	**-0.0236**	0.006	25.1	ug/L	1926	KED
>	**Bi**	209	516572.5	1.6				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	64647.6	0.5	**3.4816**	0.020	0.6	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**23.8084**	0.000	0.0	mg/L	2	KED
	Fe	54	15.0	33.3	**0.0046**	0.004	97.0	mg/L	10	KED
	Fe	57	30.0	60.1	**0.0036**	0.008	214.4	mg/L	22	KED
>	**Sc-1**	45	87049.7	1.1				mg/L	87229	KED
	Cl	35	2395.2	3.5				ug/L	2227	KED
	Kr	83	5.0	100.0				ug/L	2	KED
	Br	81	23.3	61.9				ug/L	23	KED
	P	31	70.0	32.7				ug/L	212	KED
	S	34	28.3	27.0				ug/L	37	KED
	Sr	88	20.0	25.0				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		99.795	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		101.733	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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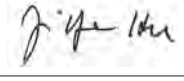
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	101.758
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	100.348
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	99.795
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
V 51 Lower	V	51	
Th 232 Lower	Th	232	

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Method 6020 - Summary Report

Sample ID: B9H1564-LBK6@50
Sample Date/Time: Wednesday, September 04, 2019 14:35:54
Number of Replicates: 3
Autosampler Position: 315
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	9874.9	14.7				ug/L	9383	KED
|	**Be**	9	0.3	173.2	**0.0051**	0.009	173.2	ug/L	0	KED
|	**Al**	27	96.7	38.8				ug/L	73	KED
⌊>	**Sc-2**	45	84187.2	13.0				ug/L	87229	KED
⌈	**Ti**	47	12.3	12.4	**0.1279**	0.134	104.5	ug/L	11	KED
|	**V**	51	9585.7	2.8	**-0.9025**	0.868	96.2	ug/L	10753	KED
|	**Cr**	52	471.7	10.1	**-0.0079**	0.010	126.0	ug/L	489	KED
|	**Cr**	53	5807.8	4.6	**-2.3376**	2.748	117.6	ug/L	6416	KED
|	**Mn**	55	223.7	22.4	**0.0171**	0.059	344.4	ug/L	206	KED
|	**Co**	59	69.0	23.9	**-0.0031**	0.004	144.3	ug/L	86	KED
|	**Ni**	60	375.3	1.5	**-0.6234**	0.035	5.6	ug/L	1252	KED
|	**Cu**	65	210.3	5.4	**-0.1142**	0.014	12.6	ug/L	418	KED
|	**Zn**	66	607.7	5.6	**0.8128**	0.169	20.8	ug/L	204	KED
|>	**Ge**	72	234581.7	12.0				ug/L	234818	KED
|	**As**	75	827.0	8.2	**0.2685**	0.082	30.6	ug/L	719	KED
|	**Se**	82	16.2	31.1	**0.1141**	0.439	384.7	ug/L	15	KED
|	**Se-1**	78	35.2	17.1	**0.0216**	0.210	969.4	ug/L	35	KED
⌊	**Se-1**	80	24459.1	0.8	**15.2842**	31.733	207.6	ug/L	23187	KED
	Ga	71	60.0	16.7				ug/L	33	KED
	Rb	85	15.0	0.0				ug/L	13	KED
	Y	89	187284.8	11.1				ug/L	191699	KED
	Rh	103	8.3	34.6				ug/L	5	KED
⌈	**Mo**	98	63.7	26.4	**0.0054**	0.007	127.6	ug/L	47	KED
|	**Ag**	107	131.3	5.2	**-0.0057**	0.002	32.5	ug/L	173	KED
|	**Cd**	111	10.0	20.0	**0.0054**	0.001	24.9	ug/L	5	KED
|	**Cd**	114	28.3	40.1	**0.0002**	0.006	2918.8	ug/L	29	KED
|>	**In**	115	245914.2	9.2				ug/L	248460	KED
|	**Sn**	118	525.0	1.4	**-0.0113**	0.030	264.7	ug/L	556	KED
|	**Sb**	123	105.7	44.9	**0.0182**	0.035	193.9	ug/L	79	KED
⌊	**Ba**	135	57.7	129.7	**0.0873**	0.154	175.9	ug/L	15	KED
	Ce	140	385.0	160.8				ug/L	45	KED
	Tb	159	632220.1	11.4				ug/L	661680	KED
⌈	**Ho**	165	12.0	16.7				ug/L	5	KED
|	**Tl**	203	14.7	126.2	**0.0020**	0.005	241.5	ug/L	8	KED
|	**Tl**	205	27.7	101.4	**0.0013**	0.003	224.6	ug/L	16	KED
|	**Pb**	206	333.0	10.7	**0.0096**	0.019	202.7	ug/L	316	KED
|	**Pb**	207	298.3	8.2	**0.0075**	0.018	238.8	ug/L	291	KED
|	**Pb**	208	712.4	7.6	**0.0071**	0.017	239.1	ug/L	695	KED
|	**U**	238	62.0	155.0	**0.0025**	0.005	202.9	ug/L	16	KED

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	Th	232	2213.2	51.5	**0.0265**	0.081	305.6	ug/L	1926	KED
>	**Bi**	209	490633.3	12.0				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	936.7	11.3	**-0.0233**	0.004	18.1	mg/L	1398	KED
	K	39	1.7	173.2	**7.6039**	13.170	173.2	mg/L	0	KED
	Ca	43	0.0		**23.8084**	0.000	0.0	mg/L	2	KED
	Fe	54	13.3	57.3	**0.0042**	0.009	214.8	mg/L	10	KED
	Fe	57	33.3	37.7	**0.0062**	0.008	125.3	mg/L	22	KED
>	**Sc-1**	45	84187.2	13.0				mg/L	87229	KED
	Cl	35	2440.2	11.5				ug/L	2227	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	31.7	32.9				ug/L	23	KED
	P	31	45.0	29.4				ug/L	212	KED
	S	34	35.0	37.8				ug/L	37	KED
	Sr	88	10.0	86.6				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		96.513	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		99.899	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		98.976
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		95.309
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		96.513
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
V 51 Lower	V	51	
Th 232 Lower	Th	232	

Sample ID: B9H1564-LBK6@50
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Method 6020 - Summary Report

Sample ID: M9H1777-01@50
Sample Date/Time: Wednesday, September 04, 2019 14:38:47
Number of Replicates: 3
Autosampler Position: 316
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	9843.2	7.1				ug/L	9383	KED
|	**Be**	9	0.3	173.2	**0.0046**	0.008	173.2	ug/L	0	KED
|	**Al**	27	100.0	17.3				ug/L	73	KED
|>	**Sc-2**	45	87307.0	8.4				ug/L	87229	KED
⌈	**Ti**	47	11.0	24.1	**-0.0098**	0.169	1720.5	ug/L	11	KED
|	**V**	51	4970.9	25.3	**-4.9854**	1.159	23.2	ug/L	10753	KED
|	**Cr**	52	442.3	10.9	**-0.0331**	0.010	29.7	ug/L	489	KED
|	**Cr**	53	2900.3	22.6	**-15.2846**	2.933	19.2	ug/L	6416	KED
|	**Mn**	55	235.3	12.8	**0.0147**	0.026	178.5	ug/L	206	KED
|	**Co**	59	69.3	16.0	**-0.0039**	0.001	35.5	ug/L	86	KED
|	**Ni**	60	410.3	4.1	**-0.6125**	0.018	2.9	ug/L	1252	KED
|	**Cu**	65	406.7	2.0	**-0.0146**	0.013	89.6	ug/L	418	KED
|	**Zn**	66	770.0	5.2	**1.0684**	0.183	17.1	ug/L	204	KED
|>	**Ge**	72	244731.1	8.0				ug/L	234818	KED
|	**As**	75	666.0	7.7	**-0.1810**	0.211	116.5	ug/L	719	KED
|	**Se**	82	28.3	11.8	**0.7489**	0.276	36.8	ug/L	15	KED
|	**Se-1**	78	55.3	9.7	**0.5169**	0.240	46.4	ug/L	35	KED
⌊	**Se-1**	80	25335.5	1.3	**12.0690**	19.793	164.0	ug/L	23187	KED
	Ga	71	153.3	6.8				ug/L	33	KED
	Rb	85	2090.1	1.5				ug/L	13	KED
	Y	89	204398.0	8.7				ug/L	191699	KED
	Rh	103	13.3	114.6				ug/L	5	KED
⌈	**Mo**	98	258.0	15.6	**0.0566**	0.015	27.0	ug/L	47	KED
|	**Ag**	107	126.3	9.2	**-0.0080**	0.001	18.1	ug/L	173	KED
|	**Cd**	111	8.3	25.0	**0.0031**	0.002	53.9	ug/L	5	KED
|	**Cd**	114	29.3	7.9	**-0.0006**	0.001	246.5	ug/L	29	KED
|>	**In**	115	266019.7	7.3				ug/L	248460	KED
|	**Sn**	118	538.0	4.5	**-0.0272**	0.007	25.5	ug/L	556	KED
|	**Sb**	123	82.7	15.3	**-0.0012**	0.004	298.0	ug/L	79	KED
⌊	**Ba**	135	1671.8	2.8	**2.7767**	0.256	9.2	ug/L	15	KED
	Ce	140	21.3	19.5				ug/L	45	KED
	Tb	159	686621.5	6.3				ug/L	661680	KED
⌈	**Ho**	165	7.0	37.8				ug/L	5	KED
|	**Tl**	203	16.7	18.3	**0.0018**	0.001	46.1	ug/L	8	KED
|	**Tl**	205	54.7	4.2	**0.0031**	0.000	10.6	ug/L	16	KED
|	**Pb**	206	440.0	3.6	**0.0272**	0.005	18.0	ug/L	316	KED
|	**Pb**	207	371.0	12.5	**0.0189**	0.007	37.4	ug/L	291	KED
|	**Pb**	208	973.4	3.3	**0.0277**	0.005	17.9	ug/L	695	KED
|	**U**	238	8.7	43.7	**-0.0003**	0.000	47.9	ug/L	16	KED

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	Th	232	2595.6	18.5	**0.0314**	0.029	91.9	ug/L	1926	KED
>	**Bi**	209	529121.6	6.6				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	89840.8	3.6	**4.8765**	0.441	9.0	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**23.8084**	0.000	0.0	mg/L	2	KED
	Fe	54	15.0	88.2	**0.0053**	0.014	258.5	mg/L	10	KED
	Fe	57	30.0	66.7	**0.0034**	0.008	230.1	mg/L	22	KED
>	**Sc-1**	45	87307.0	8.4				mg/L	87229	KED
	Cl	35	2448.5	3.4				ug/L	2227	KED
	Kr	83	5.0	100.0				ug/L	2	KED
	Br	81	68.3	18.4				ug/L	23	KED
	P	31	58.3	47.2				ug/L	212	KED
	S	34	35.0	24.7				ug/L	37	KED
	Sr	88	1746.8	3.1				ug/L	18	KED
	C	12	1.7	173.2				ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		100.090	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		104.222	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: M9H1777-01@50
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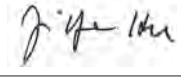
	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	107.068
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	102.786
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	100.090
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
V 51 Lower	V	51	
Th 232 Lower	Th	232	

Sample ID: M9H1777-01@50
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Method 6020 - Summary Report

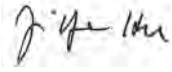
Sample ID: M9H1778-01@50
Sample Date/Time: Wednesday, September 04, 2019 14:41:40
Number of Replicates: 3
Autosampler Position: 317
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	9976.6	1.5				ug/L	9383	KED
|	**Be**	9	0.3	173.2	**0.0042**	0.007	173.2	ug/L	0	KED
|	**Al**	27	255.0	25.5				ug/L	73	KED
⌊>	**Sc-2**	45	86356.1	1.1				ug/L	87229	KED
⌈	**Ti**	47	11.7	57.1	**0.0327**	0.459	1406.8	ug/L	11	KED
|	**V**	51	4283.9	5.5	**-5.6054**	0.172	3.1	ug/L	10753	KED
|	**Cr**	52	422.3	5.8	**-0.0445**	0.014	31.6	ug/L	489	KED
|	**Cr**	53	2661.9	7.2	**-16.4149**	0.684	4.2	ug/L	6416	KED
|	**Mn**	55	399.7	3.2	**0.1230**	0.010	7.8	ug/L	206	KED
|	**Co**	59	62.0	3.2	**-0.0054**	0.000	6.5	ug/L	86	KED
|	**Ni**	60	434.7	1.6	**-0.5995**	0.007	1.2	ug/L	1252	KED
|	**Cu**	65	365.3	6.2	**-0.0392**	0.013	33.2	ug/L	418	KED
|	**Zn**	66	674.7	6.4	**0.8652**	0.076	8.8	ug/L	204	KED
| >	**Ge**	72	247104.5	1.1				ug/L	234818	KED
|	**As**	75	634.7	5.9	**-0.2773**	0.087	31.2	ug/L	719	KED
|	**Se**	82	26.3	7.2	**0.6098**	0.123	20.2	ug/L	15	KED
|	**Se-1**	78	61.0	15.0	**0.6380**	0.224	35.2	ug/L	35	KED
⌊	**Se-1**	80	25362.0	1.0	**9.0163**	4.512	50.0	ug/L	23187	KED
	Ga	71	151.7	11.6				ug/L	33	KED
	Rb	85	1680.1	4.6				ug/L	13	KED
	Y	89	201210.6	1.0				ug/L	191699	KED
	Rh	103	11.7	107.9				ug/L	5	KED
⌈	**Mo**	98	260.7	11.1	**0.0572**	0.007	12.8	ug/L	47	KED
|	**Ag**	107	160.0	28.1	**-0.0032**	0.006	188.1	ug/L	173	KED
|	**Cd**	111	11.3	50.2	**0.0060**	0.005	87.9	ug/L	5	KED
|	**Cd**	114	32.7	6.4	**0.0007**	0.001	96.9	ug/L	29	KED
| >	**In**	115	263364.4	1.3				ug/L	248460	KED
|	**Sn**	118	562.0	8.5	**-0.0134**	0.021	156.2	ug/L	556	KED
|	**Sb**	123	87.0	14.4	**0.0018**	0.007	386.3	ug/L	79	KED
⌊	**Ba**	135	1962.8	2.9	**3.2833**	0.072	2.2	ug/L	15	KED
	Ce	140	92.0	113.0				ug/L	45	KED
	Tb	159	666069.9	1.1				ug/L	661680	KED
⌈	**Ho**	165	8.3	48.5				ug/L	5	KED
|	**Tl**	203	17.3	38.4	**0.0019**	0.001	70.6	ug/L	8	KED
|	**Tl**	205	55.3	15.6	**0.0032**	0.001	22.6	ug/L	16	KED
|	**Pb**	206	444.3	3.5	**0.0288**	0.004	13.3	ug/L	316	KED
|	**Pb**	207	395.0	2.7	**0.0262**	0.003	11.4	ug/L	291	KED
|	**Pb**	208	958.0	2.6	**0.0267**	0.003	10.1	ug/L	695	KED
|	**U**	238	17.7	55.8	**0.0000**	0.000	965.9	ug/L	16	KED

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	Th	232	1189.7	2.1	**-0.0386**	0.001	3.6	ug/L	1926	KED
>	**Bi**	209	525057.1	0.4				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	67543.6	3.0	**3.6718**	0.154	4.2	mg/L	1398	KED
	K	39	5.0	100.0	**24.0285**	24.197	100.7	mg/L	0	KED
	Ca	43	3.3	173.2	**-24.1176**	83.010	344.2	mg/L	2	KED
	Fe	54	16.7	45.8	**0.0063**	0.007	111.2	mg/L	10	KED
	Fe	57	23.3	61.9	**0.0009**	0.006	743.2	mg/L	22	KED
>	**Sc-1**	45	86356.1	1.1				mg/L	87229	KED
	Cl	35	2363.5	4.4				ug/L	2227	KED
	Kr	83	6.7	43.3				ug/L	2	KED
	Br	81	46.7	16.4				ug/L	23	KED
	P	31	46.7	59.0				ug/L	212	KED
	S	34	26.7	28.6				ug/L	37	KED
	Sr	88	2423.5	2.7				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		99.000	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		105.232	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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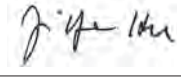
	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	105.999
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	101.996
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	99.000
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
V 51 Lower	V	51	
Th 232 Lower	Th	232	

Sample ID: M9H1778-01@50
Report Date/Time: Wednesday, September 04, 2019 14:44:00
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Method 6020 - Summary Report

Sample ID: B9H1564-PS2
Sample Date/Time: Wednesday, September 04, 2019 14:44:33
Number of Replicates: 3
Autosampler Position: 318
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10073.3	3.2				ug/L	9383	KED
|	**Be**	9	636.3	6.7	**7.9810**	0.551	6.9	ug/L	0	KED
|	**Al**	27	146.7	10.4				ug/L	73	KED
\>	**Sc-2**	45	87420.1	0.2				ug/L	87229	KED
⌈	**Ti**	47	538.0	2.5	**36.3494**	0.988	2.7	ug/L	11	KED
|	**V**	51	51906.4	0.9	**32.6962**	0.409	1.3	ug/L	10753	KED
|	**Cr**	52	146422.6	1.9	**71.4508**	1.080	1.5	ug/L	489	KED
|	**Cr**	53	22448.3	2.0	**63.7274**	2.153	3.4	ug/L	6416	KED
|	**Mn**	55	103822.2	1.5	**70.3396**	0.475	0.7	ug/L	206	KED
|	**Co**	59	185276.0	1.2	**35.3351**	0.154	0.4	ug/L	86	KED
|	**Ni**	60	209949.1	1.5	**142.8353**	1.010	0.7	ug/L	1252	KED
|	**Cu**	65	136227.4	0.9	**72.4166**	0.928	1.3	ug/L	418	KED
|	**Zn**	66	392277.7	1.9	**744.2105**	7.448	1.0	ug/L	204	KED
\>	**Ge**	72	245089.1	0.9				ug/L	234818	KED
|	**As**	75	16602.4	2.6	**36.4469**	0.658	1.8	ug/L	719	KED
|	**Se**	82	660.7	4.5	**36.9402**	1.669	4.5	ug/L	15	KED
|	**Se-1**	78	1441.1	2.3	**37.1996**	0.755	2.0	ug/L	35	KED
⌊	**Se-1**	80	28448.5	0.5	**40.0449**	3.776	9.4	ug/L	23187	KED
	Ga	71	151.7	8.3				ug/L	33	KED
	Rb	85	1573.4	1.9				ug/L	13	KED
	Y	89	205266.2	0.9				ug/L	191699	KED
	Rh	103	15.0	88.2				ug/L	5	KED
⌈	**Mo**	98	125965.6	2.2	**33.9049**	0.423	1.2	ug/L	47	KED
|	**Ag**	107	258807.2	1.9	**35.3865**	0.342	1.0	ug/L	173	KED
|	**Cd**	111	23105.3	1.5	**21.7857**	0.118	0.5	ug/L	5	KED
|	**Cd**	114	56744.4	1.9	**21.7583**	0.231	1.1	ug/L	29	KED
\>	**In**	115	265674.5	0.9				ug/L	248460	KED
|	**Sn**	118	71064.6	1.2	**33.9123**	0.149	0.4	ug/L	556	KED
|	**Sb**	123	61175.9	1.4	**33.1242**	0.486	1.5	ug/L	79	KED
⌊	**Ba**	135	64310.5	0.5	**107.4766**	0.645	0.6	ug/L	15	KED
	Ce	140	48.0	5.5				ug/L	45	KED
	Tb	159	669835.6	1.7				ug/L	661680	KED
⌈	**Ho**	165	7.7	37.7				ug/L	5	KED
|	**Tl**	203	33920.9	0.9	**6.7721**	0.029	0.4	ug/L	8	KED
|	**Tl**	205	85109.7	1.1	**6.8460**	0.055	0.8	ug/L	16	KED
|	**Pb**	206	146979.8	0.9	**34.2856**	0.488	1.4	ug/L	316	KED
|	**Pb**	207	128874.1	0.0	**33.9995**	0.392	1.2	ug/L	291	KED
|	**Pb**	208	323435.3	1.1	**34.2684**	0.017	0.0	ug/L	695	KED
|	**U**	238	805813.2	2.2	**34.2980**	0.406	1.2	ug/L	16	KED

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	Th	232	599946.5	2.6	**29.5639**	0.671	2.3	ug/L	1926	KED
>	**Bi**	209	528493.2	1.1				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	68231.6	0.0	**3.6628**	0.008	0.2	mg/L	1398	KED
	K	39	1.7	173.2	**7.8886**	13.663	173.2	mg/L	0	KED
	Ca	43	3.3	86.6	**-23.7187**	41.160	173.5	mg/L	2	KED
	Fe	54	86.7	50.4	**0.0705**	0.040	56.8	mg/L	10	KED
	Fe	57	31.7	50.8	**0.0043**	0.007	162.0	mg/L	22	KED
>	**Sc-1**	45	87420.1	0.2				mg/L	87229	KED
	Cl	35	2396.9	7.4				ug/L	2227	KED
	Kr	83	3.3	86.6				ug/L	2	KED
	Br	81	48.3	36.3				ug/L	23	KED
	P	31	55.0	31.5				ug/L	212	KED
	S	34	33.3	37.7				ug/L	37	KED
	Sr	88	2516.9	6.7				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		100.219	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		104.374	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		106.929
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊>	Bi	209		102.664
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		100.219
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: B9H1564-PS2
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Method 6020 - Summary Report

Sample ID: B9H1564-SRL2
Sample Date/Time: Wednesday, September 04, 2019 14:47:26
Number of Replicates: 3
Autosampler Position: 319
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	9501.3	0.4				ug/L	9383	KED
|	**Be**	9	0.7	86.6	**0.0086**	0.007	86.6	ug/L	0	KED
|	**Al**	27	91.7	11.4				ug/L	73	KED
|>	**Sc-2**	45	85435.5	0.4				ug/L	87229	KED
⌈	**Ti**	47	10.0	20.0	**-0.0826**	0.140	169.3	ug/L	11	KED
|	**V**	51	4551.7	4.5	**-5.3865**	0.192	3.6	ug/L	10753	KED
|	**Cr**	52	443.0	20.4	**-0.0343**	0.044	128.9	ug/L	489	KED
|	**Cr**	53	2816.9	2.3	**-15.7756**	0.295	1.9	ug/L	6416	KED
|	**Mn**	55	259.7	22.0	**0.0289**	0.039	133.9	ug/L	206	KED
|	**Co**	59	133.0	66.8	**0.0081**	0.017	208.7	ug/L	86	KED
|	**Ni**	60	476.3	22.7	**-0.5708**	0.074	12.9	ug/L	1252	KED
|	**Cu**	65	298.0	12.2	**-0.0747**	0.019	25.2	ug/L	418	KED
|	**Zn**	66	854.4	18.6	**1.2057**	0.300	24.9	ug/L	204	KED
|>	**Ge**	72	246821.6	0.7				ug/L	234818	KED
|	**As**	75	598.0	4.9	**-0.3592**	0.071	19.8	ug/L	719	KED
|	**Se**	82	17.5	11.4	**0.1089**	0.118	108.5	ug/L	15	KED
|	**Se-1**	78	44.3	6.5	**0.2027**	0.070	34.3	ug/L	35	KED
⌊	**Se-1**	80	25170.9	1.3	**7.4834**	3.889	52.0	ug/L	23187	KED
	Ga	71	56.7	10.2				ug/L	33	KED
	Rb	85	306.7	4.1				ug/L	13	KED
	Y	89	201430.2	1.1				ug/L	191699	KED
	Rh	103	10.0					ug/L	5	KED
⌈	**Mo**	98	742.7	2.6	**0.1851**	0.002	1.3	ug/L	47	KED
|	**Ag**	107	227.3	40.8	**0.0056**	0.013	224.3	ug/L	173	KED
|	**Cd**	111	11.7	71.4	**0.0063**	0.008	125.2	ug/L	5	KED
|	**Cd**	114	46.0	47.1	**0.0057**	0.008	146.9	ug/L	29	KED
|>	**In**	115	267437.9	2.1				ug/L	248460	KED
|	**Sn**	118	641.7	9.0	**0.0208**	0.029	138.7	ug/L	556	KED
|	**Sb**	123	1504.1	6.0	**0.7648**	0.057	7.4	ug/L	79	KED
⌊	**Ba**	135	440.3	5.7	**0.7052**	0.043	6.1	ug/L	15	KED
	Ce	140	22.3	20.2				ug/L	45	KED
	Tb	159	676547.9	0.9				ug/L	661680	KED
⌈	**Ho**	165	7.3	64.4				ug/L	5	KED
|	**Tl**	203	19.0	63.8	**0.0022**	0.002	109.0	ug/L	8	KED
|	**Tl**	205	58.3	63.6	**0.0033**	0.003	88.3	ug/L	16	KED
|	**Pb**	206	441.3	10.5	**0.0269**	0.011	40.3	ug/L	316	KED
|	**Pb**	207	396.7	11.2	**0.0254**	0.011	45.1	ug/L	291	KED
|	**Pb**	208	972.7	13.8	**0.0270**	0.014	52.1	ug/L	695	KED
|	**U**	238	881.0	16.6	**0.0366**	0.006	17.5	ug/L	16	KED

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	Th	232	4211.3	38.5	**0.1093**	0.079	72.5	ug/L	1926	KED
>	**Bi**	209	531360.7	1.2				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	14054.9	2.3	**0.7114**	0.020	2.8	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**23.8084**	0.000	0.0	mg/L	2	KED
	Fe	54	13.3	78.1	**0.0033**	0.010	293.9	mg/L	10	KED
	Fe	57	15.0	33.3	**-0.0028**	0.002	79.8	mg/L	22	KED
>	**Sc-1**	45	85435.5	0.4				mg/L	87229	KED
	Cl	35	2030.1	9.3				ug/L	2227	KED
	Kr	83	11.7	49.5				ug/L	2	KED
	Br	81	15.0	66.7				ug/L	23	KED
	P	31	53.3	46.2				ug/L	212	KED
	S	34	33.3	45.8				ug/L	37	KED
	Sr	88	446.7	10.2				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		97.944	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		105.112	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	107.638
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	103.221
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	97.944
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
V 51 Lower	V	51	
Th 232 Lower	Th	232	

Sample ID: B9H1564-SRL2
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Method 6020 - Summary Report

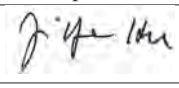
Sample ID: QC Std 6
Sample Date/Time: Wednesday, September 04, 2019 14:50:20
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10360.2	5.0				ug/L	9383	KED
|	**Be**	9	547.3	7.7	**6.8714**	0.309	4.5	ug/L	0	KED
|	**Al**	27	207207.6	2.1				ug/L	73	KED
⌊>	**Sc-2**	45	87314.1	5.7				ug/L	87229	KED
⌈	**Ti**	47	458.7	3.0	**30.1275**	0.419	1.4	ug/L	11	KED
|	**V**	51	46870.1	2.7	**27.7610**	0.586	2.1	ug/L	10753	KED
|	**Cr**	52	135779.2	2.4	**64.6831**	1.305	2.0	ug/L	489	KED
|	**Cr**	53	20111.7	2.4	**52.3934**	3.182	6.1	ug/L	6416	KED
|	**Mn**	55	97220.1	2.6	**64.3087**	1.125	1.7	ug/L	206	KED
|	**Co**	59	171653.4	2.8	**31.9653**	0.499	1.6	ug/L	86	KED
|	**Ni**	60	192080.8	1.7	**127.5556**	3.650	2.9	ug/L	1252	KED
|	**Cu**	65	123170.5	2.3	**63.9173**	1.593	2.5	ug/L	418	KED
|	**Zn**	66	340287.4	3.0	**630.3401**	10.994	1.7	ug/L	204	KED
|>	**Ge**	72	251109.9	4.3				ug/L	234818	KED
|	**As**	75	15106.9	2.6	**32.1959**	0.594	1.8	ug/L	719	KED
|	**Se**	82	586.3	3.5	**31.8958**	0.977	3.1	ug/L	15	KED
|	**Se-1**	78	1304.1	3.0	**32.7567**	0.484	1.5	ug/L	35	KED
⌊	**Se-1**	80	29108.9	0.6	**39.9700**	10.572	26.4	ug/L	23187	KED
	Ga	71	60.0	14.4				ug/L	33	KED
	Rb	85	156.7	8.0				ug/L	13	KED
	Y	89	215526.8	3.7				ug/L	191699	KED
	Rh	103	20.0	50.0				ug/L	5	KED
⌈	**Mo**	98	123492.0	1.9	**30.9586**	0.291	0.9	ug/L	47	KED
|	**Ag**	107	248878.4	1.7	**31.6931**	0.326	1.0	ug/L	173	KED
|	**Cd**	111	21707.5	2.6	**19.0615**	0.282	1.5	ug/L	5	KED
|	**Cd**	114	52899.9	1.7	**18.8924**	0.274	1.5	ug/L	29	KED
|>	**In**	115	285252.9	1.5				ug/L	248460	KED
|	**Sn**	118	70532.8	0.6	**31.3301**	0.295	0.9	ug/L	556	KED
|	**Sb**	123	63034.5	0.3	**31.7908**	0.568	1.8	ug/L	79	KED
⌊	**Ba**	135	59002.0	0.9	**91.8470**	1.827	2.0	ug/L	15	KED
	Ce	140	66.0	15.8				ug/L	45	KED
	Tb	159	718505.9	1.7				ug/L	661680	KED
⌈	**Ho**	165	6.7	31.2				ug/L	5	KED
|	**Tl**	203	32124.0	1.5	**6.1551**	0.166	2.7	ug/L	8	KED
|	**Tl**	205	79689.0	0.2	**6.1514**	0.101	1.6	ug/L	16	KED
|	**Pb**	206	137742.6	0.2	**30.8249**	0.398	1.3	ug/L	316	KED
|	**Pb**	207	121530.8	1.0	**30.7602**	0.605	2.0	ug/L	291	KED
|	**Pb**	208	304702.0	0.5	**30.9761**	0.588	1.9	ug/L	695	KED
|	**U**	238	765507.8	0.7	**31.2732**	0.677	2.2	ug/L	16	KED

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	Th	232	689822.6	1.1	**32.6296**	0.131	0.4	ug/L	1926	KED
>	**Bi**	209	550772.6	1.5				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	78747.5	1.4	**4.2547**	0.278	6.5	mg/L	1398	KED
	K	39	3.3	86.6	**15.3231**	13.284	86.7	mg/L	0	KED
	Ca	43	1.7	173.2	**-1.4478**	43.745	3021.6	mg/L	2	KED
	Fe	54	4609.0	1.6	**4.2533**	0.315	7.4	mg/L	10	KED
	Fe	57	9461.3	3.1	**4.1025**	0.111	2.7	mg/L	22	KED
>	**Sc-1**	45	87314.1	5.7				mg/L	87229	KED
	Cl	35	1985.1	6.8				ug/L	2227	KED
	Kr	83	3.3	173.2				ug/L	2	KED
	Br	81	26.7	71.0				ug/L	23	KED
	P	31	63.3	16.4				ug/L	212	KED
	S	34	43.3	46.6				ug/L	37	KED
	Sr	88	36.7	7.9				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9	107.365		
	Al	27			
>	Sc-2	45		100.098	
	Ti	47	94.148		
	V	51	86.753		
	Cr	52	101.067		
	Cr	53			
	Mn	55	100.482		
	Co	59	99.892		
	Ni	60	99.653		
	Cu	65	99.871		
	Zn	66	98.491		
>	Ge	72		106.938	
	As	75	100.612		
	Se	82	99.674		
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98	96.746	
|	Ag	107	99.041	
|	Cd	111	99.279	
|	Cd	114		
|>	In	115		114.809
|	Sn	118	97.907	
|	Sb	123	99.346	
⌊	Ba	135	95.674	
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203	96.174	
|	Tl	205		
|	Pb	206	96.328	
|	Pb	207	96.126	
|	Pb	208	96.800	
|	U	238	97.729	
|	Th	232		
⌊>	Bi	209		106.992
⌈	Na	23		
|	Mg	24	106.368	
|	K	39	383.077	
|	Ca	43	-36.194	
|	Fe	54	106.333	
|	Fe	57	102.562	
⌊>	Sc-1	45		100.098
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	V	51	
QC Std 6	K	39	
QC Std 6	Ca	43	

Sample ID: QC Std 6
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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, September 04, 2019 14:53:13
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	10773.8	0.4				ug/L	9383	KED
|	Be	9	0.7	86.6	**0.0081**	0.007	86.6	ug/L	0	KED
|	Al	27	203.3	58.2				ug/L	73	KED
|>	Sc-2	45	91709.8	2.6				ug/L	87229	KED
⌈	Ti	47	11.0	15.7	**-0.0289**	0.119	412.9	ug/L	11	KED
|	V	51	5215.6	14.6	**-4.9322**	0.663	13.4	ug/L	10753	KED
|	Cr	52	484.0	14.2	**-0.0189**	0.033	176.8	ug/L	489	KED
|	Cr	53	3038.6	18.1	**-15.0953**	2.412	16.0	ug/L	6416	KED
|	Mn	55	241.7	29.2	**0.0136**	0.047	343.2	ug/L	206	KED
|	Co	59	159.3	72.7	**0.0124**	0.021	172.6	ug/L	86	KED
|	Ni	60	478.3	26.1	**-0.5757**	0.084	14.5	ug/L	1252	KED
|	Cu	65	273.0	29.5	**-0.0908**	0.041	45.5	ug/L	418	KED
|	Zn	66	416.7	58.1	**0.3641**	0.445	122.3	ug/L	204	KED
|>	Ge	72	251761.3	2.5				ug/L	234818	KED
|	As	75	664.3	2.1	**-0.2372**	0.044	18.6	ug/L	719	KED
|	Se	82	15.0	24.0	**-0.0466**	0.224	479.3	ug/L	15	KED
|	Se-1	78	39.2	9.6	**0.0465**	0.087	187.4	ug/L	35	KED
⌊	Se-1	80	24938.0	0.6	**0.8135**	6.106	750.6	ug/L	23187	KED
	Ga	71	56.7	18.4				ug/L	33	KED
	Rb	85	13.3	57.3				ug/L	13	KED
	Y	89	205717.8	2.6				ug/L	191699	KED
	Rh	103	15.0	33.3				ug/L	5	KED
⌈	Mo	98	293.3	19.0	**0.0655**	0.015	23.3	ug/L	47	KED
|	Ag	107	261.0	45.2	**0.0105**	0.016	156.0	ug/L	173	KED
|	Cd	111	20.0	52.9	**0.0142**	0.010	71.2	ug/L	5	KED
|	Cd	114	43.3	38.1	**0.0047**	0.006	134.5	ug/L	29	KED
|>	In	115	265793.8	2.2				ug/L	248460	KED
|	Sn	118	660.7	5.8	**0.0315**	0.012	37.0	ug/L	556	KED
|	Sb	123	973.7	10.9	**0.4822**	0.060	12.5	ug/L	79	KED
⌊	Ba	135	32.3	76.8	**0.0280**	0.042	150.1	ug/L	15	KED
	Ce	140	22.0	16.4				ug/L	45	KED
	Tb	159	685655.8	2.5				ug/L	661680	KED
⌈	Ho	165	10.7	32.9				ug/L	5	KED
|	Tl	203	24.7	78.8	**0.0033**	0.004	116.2	ug/L	8	KED
|	Tl	205	54.0	96.5	**0.0029**	0.004	139.3	ug/L	16	KED
|	Pb	206	411.3	22.0	**0.0189**	0.020	106.2	ug/L	316	KED
|	Pb	207	371.3	15.9	**0.0178**	0.015	82.0	ug/L	291	KED
|	Pb	208	901.0	21.4	**0.0184**	0.019	104.7	ug/L	695	KED
|	U	238	495.3	77.8	**0.0200**	0.016	80.0	ug/L	16	KED

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	Th	232	11102.4	51.1	**0.4419**	0.272	61.7	ug/L	1926	KED
>	**Bi**	209	536337.1	1.7				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	833.4	17.0	**-0.0333**	0.007	22.2	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**1.0110**	39.486	3905.7	mg/L	2	KED
	Fe	54	11.7	65.5	**0.0010**	0.007	673.4	mg/L	10	KED
	Fe	57	31.7	55.5	**0.0036**	0.007	193.8	mg/L	22	KED
>	**Sc-1**	45	91709.8	2.6				mg/L	87229	KED
	Cl	35	2466.9	2.6				ug/L	2227	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	13.3	78.1				ug/L	23	KED
	P	31	46.7	22.3				ug/L	212	KED
	S	34	21.7	81.0				ug/L	37	KED
	Sr	88	15.0	33.3				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		105.137	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		107.215	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: QC Std 7
Report Date/Time: Wednesday, September 04, 2019 14:55:33
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	106.977
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	104.187
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	105.137
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 7	V	51	
QC Std 7	Sb	123	
QC Std 7	Ca	43	

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Method 6020 - Summary Report

Sample ID: M9H1808-01@50
Sample Date/Time: Wednesday, September 04, 2019 14:56:06
Number of Replicates: 3
Autosampler Position: 320
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10081.7	3.6				ug/L	9383	KED
|	**Be**	9	0.0		**0.0000**	0.000		ug/L	0	KED
|	**Al**	27	1356.7	5.8				ug/L	73	KED
⌊>	**Sc-2**	45	88100.8	1.9				ug/L	87229	KED
⌈	**Ti**	47	11.3	10.2	**0.0128**	0.082	637.3	ug/L	11	KED
|	**V**	51	6139.2	2.6	**-4.0912**	0.207	5.1	ug/L	10753	KED
|	**Cr**	52	465.7	1.2	**-0.0220**	0.004	19.8	ug/L	489	KED
|	**Cr**	53	3650.4	6.1	**-12.3419**	0.981	7.9	ug/L	6416	KED
|	**Mn**	55	873.0	4.7	**0.4462**	0.042	9.3	ug/L	206	KED
|	**Co**	59	154.0	5.1	**0.0122**	0.001	7.4	ug/L	86	KED
|	**Ni**	60	425.7	2.0	**-0.6036**	0.010	1.7	ug/L	1252	KED
|	**Cu**	65	345.3	6.1	**-0.0486**	0.011	21.8	ug/L	418	KED
|	**Zn**	66	711.4	5.0	**0.9427**	0.034	3.6	ug/L	204	KED
|>	**Ge**	72	245505.1	2.8				ug/L	234818	KED
|	**As**	75	757.0	3.6	**0.0135**	0.069	510.8	ug/L	719	KED
|	**Se**	82	19.5	29.1	**0.2345**	0.351	149.6	ug/L	15	KED
|	**Se-1**	78	35.0	10.3	**-0.0388**	0.069	177.7	ug/L	35	KED
⌊	**Se-1**	80	24841.0	0.5	**5.7480**	6.361	110.7	ug/L	23187	KED
	Ga	71	48.3	15.8				ug/L	33	KED
	Rb	85	46.7	24.7				ug/L	13	KED
	Y	89	199351.3	0.9				ug/L	191699	KED
	Rh	103	15.0	66.7				ug/L	5	KED
⌈	**Mo**	98	110.0	29.6	**0.0165**	0.009	51.7	ug/L	47	KED
|	**Ag**	107	139.7	3.9	**-0.0058**	0.001	19.0	ug/L	173	KED
|	**Cd**	111	11.0	15.7	**0.0058**	0.002	27.6	ug/L	5	KED
|	**Cd**	114	34.7	18.5	**0.0016**	0.002	140.8	ug/L	29	KED
|>	**In**	115	261195.5	2.2				ug/L	248460	KED
|	**Sn**	118	584.7	6.7	**-0.0001**	0.013	12878.4	ug/L	556	KED
|	**Sb**	123	331.0	11.1	**0.1366**	0.018	12.9	ug/L	79	KED
⌊	**Ba**	135	531.7	2.4	**0.8778**	0.017	1.9	ug/L	15	KED
	Ce	140	55.0	6.6				ug/L	45	KED
	Tb	159	664345.1	2.0				ug/L	661680	KED
⌈	**Ho**	165	10.0	20.0				ug/L	5	KED
|	**Tl**	203	26.3	19.5	**0.0037**	0.001	26.3	ug/L	8	KED
|	**Tl**	205	62.3	7.2	**0.0037**	0.000	11.1	ug/L	16	KED
|	**Pb**	206	750.0	2.8	**0.0991**	0.004	4.5	ug/L	316	KED
|	**Pb**	207	636.0	3.9	**0.0889**	0.008	9.2	ug/L	291	KED
|	**Pb**	208	1671.1	1.4	**0.1013**	0.003	2.8	ug/L	695	KED
|	**U**	238	86.3	9.6	**0.0030**	0.000	13.0	ug/L	16	KED

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	Th	232	5432.6	8.1	**0.1702**	0.022	12.7	ug/L	1926	KED
>	**Bi**	209	529788.4	1.0				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	57326.6	1.3	**3.0417**	0.077	2.5	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**23.8084**	0.000	0.0	mg/L	2	KED
	Fe	54	13.3	21.7	**0.0030**	0.003	94.5	mg/L	10	KED
	Fe	57	33.3	56.8	**0.0048**	0.008	161.8	mg/L	22	KED
>	**Sc-1**	45	88100.8	1.9				mg/L	87229	KED
	Cl	35	2625.2	0.9				ug/L	2227	KED
	Kr	83	3.3	173.2				ug/L	2	KED
	Br	81	13.3	57.3				ug/L	23	KED
	P	31	46.7	6.2				ug/L	212	KED
	S	34	20.0	43.3				ug/L	37	KED
	Sr	88	111.7	25.5				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		101.000	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		104.551	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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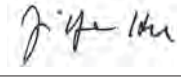
Approved: September 05, 2019

	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	105.126
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	102.915
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	101.000
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
V 51 Lower	V	51	
Th 232 Lower	Th	232	

Approved: September 05, 2019



Method 6020 - Summary Report

Sample ID: B9H1564-MS2@50
Sample Date/Time: Wednesday, September 04, 2019 14:58:59
Number of Replicates: 3
Autosampler Position: 321
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10528.7	5.1				ug/L	9383	KED
|	**Be**	9	42.3	28.6	**0.5218**	0.155	29.8	ug/L	0	KED
|	**Al**	27	6334.7	5.0				ug/L	73	KED
⌊>	**Sc-2**	45	89177.1	2.1				ug/L	87229	KED
⌈	**Ti**	47	155.0	1.7	**9.9157**	0.029	0.3	ug/L	11	KED
|	**V**	51	20206.5	3.3	**7.2023**	0.256	3.5	ug/L	10753	KED
|	**Cr**	52	10487.0	0.7	**4.8820**	0.079	1.6	ug/L	489	KED
|	**Cr**	53	5594.4	3.6	**-4.4849**	0.409	9.1	ug/L	6416	KED
|	**Mn**	55	7943.7	0.8	**5.2436**	0.117	2.2	ug/L	206	KED
|	**Co**	59	10293.5	1.0	**1.9456**	0.032	1.7	ug/L	86	KED
|	**Ni**	60	7535.2	2.2	**4.2595**	0.059	1.4	ug/L	1252	KED
|	**Cu**	65	9591.0	1.3	**4.8781**	0.053	1.1	ug/L	418	KED
|	**Zn**	66	5956.2	0.8	**10.8948**	0.257	2.4	ug/L	204	KED
|>	**Ge**	72	245302.5	1.8				ug/L	234818	KED
|	**As**	75	2457.2	1.5	**3.9222**	0.170	4.3	ug/L	719	KED
|	**Se**	82	79.5	5.0	**3.6649**	0.308	8.4	ug/L	15	KED
|	**Se-1**	78	182.5	2.0	**3.8660**	0.040	1.0	ug/L	35	KED
⌊	**Se-1**	80	25297.4	0.6	**10.1682**	4.259	41.9	ug/L	23187	KED
	Ga	71	45.0	29.4				ug/L	33	KED
	Rb	85	36.7	75.1				ug/L	13	KED
	Y	89	197704.9	1.0				ug/L	191699	KED
	Rh	103	5.0	100.0				ug/L	5	KED
⌈	**Mo**	98	33497.0	0.9	**9.2538**	0.094	1.0	ug/L	47	KED
|	**Ag**	107	27553.4	1.1	**3.8481**	0.017	0.4	ug/L	173	KED
|	**Cd**	111	516.7	1.3	**0.4959**	0.006	1.1	ug/L	5	KED
|	**Cd**	114	1679.1	1.6	**0.6500**	0.012	1.8	ug/L	29	KED
|>	**In**	115	258606.5	1.1				ug/L	248460	KED
|	**Sn**	118	19000.6	0.8	**9.1089**	0.177	1.9	ug/L	556	KED
|	**Sb**	123	22227.0	0.4	**12.3362**	0.187	1.5	ug/L	79	KED
⌊	**Ba**	135	6012.9	1.0	**10.3009**	0.212	2.1	ug/L	15	KED
	Ce	140	53.0	19.9				ug/L	45	KED
	Tb	159	660370.5	1.4				ug/L	661680	KED
⌈	**Ho**	165	5.3	21.7				ug/L	5	KED
|	**Tl**	203	22849.6	1.2	**4.5955**	0.073	1.6	ug/L	8	KED
|	**Tl**	205	56799.3	1.6	**4.6025**	0.067	1.4	ug/L	16	KED
|	**Pb**	206	19814.3	1.5	**4.5907**	0.053	1.2	ug/L	316	KED
|	**Pb**	207	17518.1	0.8	**4.5879**	0.060	1.3	ug/L	291	KED
|	**Pb**	208	44106.4	0.3	**4.6429**	0.036	0.8	ug/L	695	KED
|	**U**	238	85.0	46.9	**0.0029**	0.002	58.9	ug/L	16	KED

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	Th	232	5729.4	21.2	**0.1874**	0.059	31.5	ug/L	1926	KED
>	**Bi**	209	524565.9	0.6				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	67808.1	1.5	**3.5676**	0.102	2.8	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**23.8084**	0.000	0.0	mg/L	2	KED
	Fe	54	53.3	19.5	**0.0390**	0.010	24.9	mg/L	10	KED
	Fe	57	138.3	4.2	**0.0494**	0.003	6.4	mg/L	22	KED
>	**Sc-1**	45	89177.1	2.1				mg/L	87229	KED
	Cl	35	2621.9	3.5				ug/L	2227	KED
	Kr	83	3.3	86.6				ug/L	2	KED
	Br	81	25.0	72.1				ug/L	23	KED
	P	31	48.3	26.0				ug/L	212	KED
	S	34	43.3	35.3				ug/L	37	KED
	Sr	88	3063.6	1.7				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		102.234	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		104.465	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: B9H1564-MS2@50
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	104.084
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	101.901
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	102.234
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Th 232 Lower	Th	232	

Sample ID: B9H1564-MS2@50
Report Date/Time: Wednesday, September 04, 2019 15:01:19
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Method 6020 - Summary Report

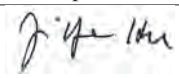
Sample ID: B9H1564-MSD2@50
Sample Date/Time: Wednesday, September 04, 2019 15:01:51
Number of Replicates: 3
Autosampler Position: 322
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	10285.2	4.3				ug/L	9383	KED
|	Be	9	46.0	13.0	0.5804	0.076	13.1	ug/L	0	KED
|	Al	27	6444.7	1.2				ug/L	73	KED
|>	Sc-2	45	86952.0	3.6				ug/L	87229	KED
⌈	Ti	47	169.0	10.7	11.1671	1.213	10.9	ug/L	11	KED
|	V	51	21433.1	0.6	8.6206	0.413	4.8	ug/L	10753	KED
|	Cr	52	10925.6	1.9	5.2317	0.252	4.8	ug/L	489	KED
|	Cr	53	6266.3	2.3	-1.1394	0.099	8.7	ug/L	6416	KED
|	Mn	55	8369.6	1.5	5.6732	0.150	2.6	ug/L	206	KED
|	Co	59	10521.0	0.5	2.0388	0.043	2.1	ug/L	86	KED
|	Ni	60	7782.0	0.9	4.5626	0.187	4.1	ug/L	1252	KED
|	Cu	65	9767.5	0.5	5.1017	0.115	2.3	ug/L	418	KED
|	Zn	66	6285.6	2.4	11.8119	0.208	1.8	ug/L	204	KED
|>	Ge	72	239409.1	2.6				ug/L	234818	KED
|	As	75	2546.2	0.7	4.2723	0.198	4.6	ug/L	719	KED
|	Se	82	84.5	4.1	4.0690	0.256	6.3	ug/L	15	KED
|	Se-1	78	181.2	3.0	3.9511	0.201	5.1	ug/L	35	KED
⌊	Se-1	80	25116.5	0.7	14.3772	8.023	55.8	ug/L	23187	KED
	Ga	71	48.3	15.8				ug/L	33	KED
	Rb	85	61.7	26.1				ug/L	13	KED
	Y	89	194068.7	2.2				ug/L	191699	KED
	Rh	103	13.3	57.3				ug/L	5	KED
⌈	Mo	98	34445.4	1.1	9.6491	0.339	3.5	ug/L	47	KED
|	Ag	107	28435.3	1.3	4.0267	0.076	1.9	ug/L	173	KED
|	Cd	111	545.3	8.9	0.5307	0.044	8.2	ug/L	5	KED
|	Cd	114	1747.1	1.4	0.6862	0.013	1.9	ug/L	29	KED
|>	In	115	255197.6	2.8				ug/L	248460	KED
|	Sn	118	19724.5	2.0	9.5995	0.266	2.8	ug/L	556	KED
|	Sb	123	22758.4	2.5	12.8012	0.131	1.0	ug/L	79	KED
⌊	Ba	135	6207.3	1.8	10.7803	0.310	2.9	ug/L	15	KED
	Ce	140	67.0	6.5				ug/L	45	KED
	Tb	159	650727.8	3.4				ug/L	661680	KED
⌈	Ho	165	8.7	43.7				ug/L	5	KED
|	Tl	203	23312.3	2.6	4.8415	0.045	0.9	ug/L	8	KED
|	Tl	205	58015.9	2.3	4.8549	0.056	1.2	ug/L	16	KED
|	Pb	206	20344.7	0.9	4.8732	0.065	1.3	ug/L	316	KED
|	Pb	207	18155.5	0.7	4.9170	0.102	2.1	ug/L	291	KED
|	Pb	208	45381.2	0.5	4.9397	0.128	2.6	ug/L	695	KED
|	U	238	326.0	143.6	0.0136	0.020	150.7	ug/L	16	KED

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	Th	232	3619.8	21.3	**0.0880**	0.036	41.3	ug/L	1926	KED
>	**Bi**	209	507953.7	2.0				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	71340.9	2.1	**3.8590**	0.208	5.4	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**23.8084**	0.000	0.0	mg/L	2	KED
	Fe	54	56.7	58.8	**0.0428**	0.029	68.7	mg/L	10	KED
	Fe	57	156.7	31.0	**0.0588**	0.020	34.4	mg/L	22	KED
>	**Sc-1**	45	86952.0	3.6				mg/L	87229	KED
	Cl	35	2648.6	4.7				ug/L	2227	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	13.3	43.3				ug/L	23	KED
	P	31	43.3	13.3				ug/L	212	KED
	S	34	46.7	37.6				ug/L	37	KED
	Sr	88	3155.3	2.0				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		99.683	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		101.955	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: B9H1564-MSD2@50
Report Date/Time: Wednesday, September 04, 2019 15:04:11
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	102.712
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	98.674
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	99.683
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Th 232 Lower	Th	232	

Sample ID: B9H1564-MSD2@50
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Method 6020 - Summary Report

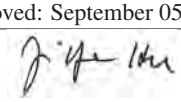
Sample ID: QC Std 6
Sample Date/Time: Wednesday, September 04, 2019 15:04:45
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	11245.8	3.8				ug/L	9383	KED
|	**Be**	9	562.3	6.4	**6.5800**	0.437	6.6	ug/L	0	KED
|	**Al**	27	210127.1	1.0				ug/L	73	KED
⌊>	**Sc-2**	45	93708.2	1.1				ug/L	87229	KED
⌈	**Ti**	47	516.0	2.9	**33.4404**	1.741	5.2	ug/L	11	KED
|	**V**	51	47839.1	2.4	**27.8977**	0.379	1.4	ug/L	10753	KED
|	**Cr**	52	136188.1	1.4	**63.8049**	1.354	2.1	ug/L	489	KED
|	**Cr**	53	20437.1	3.1	**52.2931**	1.411	2.7	ug/L	6416	KED
|	**Mn**	55	98146.2	0.7	**63.8682**	1.949	3.1	ug/L	206	KED
|	**Co**	59	174781.0	0.7	**32.0201**	0.885	2.8	ug/L	86	KED
|	**Ni**	60	194420.8	0.7	**126.9679**	3.524	2.8	ug/L	1252	KED
|	**Cu**	65	124183.2	1.3	**63.3760**	1.523	2.4	ug/L	418	KED
|	**Zn**	66	345026.7	1.4	**628.7010**	14.973	2.4	ug/L	204	KED
|>	**Ge**	72	255293.4	3.4				ug/L	234818	KED
|	**As**	75	15149.6	1.2	**31.7420**	1.146	3.6	ug/L	719	KED
|	**Se**	82	594.7	3.0	**31.8062**	0.558	1.8	ug/L	15	KED
|	**Se-1**	78	1294.7	2.0	**31.9822**	1.399	4.4	ug/L	35	KED
⌊	**Se-1**	80	29399.8	0.8	**38.0788**	7.438	19.5	ug/L	23187	KED
	Ga	71	65.0	20.4				ug/L	33	KED
	Rb	85	145.0	42.0				ug/L	13	KED
	Y	89	215395.4	4.2				ug/L	191699	KED
	Rh	103	18.3	103.3				ug/L	5	KED
⌈	**Mo**	98	123759.1	1.5	**31.2644**	1.515	4.8	ug/L	47	KED
|	**Ag**	107	251944.5	0.6	**32.3295**	1.481	4.6	ug/L	173	KED
|	**Cd**	111	21876.1	1.8	**19.3475**	0.492	2.5	ug/L	5	KED
|	**Cd**	114	53490.9	0.7	**19.2457**	0.756	3.9	ug/L	29	KED
|>	**In**	115	283436.5	4.1				ug/L	248460	KED
|	**Sn**	118	70335.9	1.0	**31.4764**	1.325	4.2	ug/L	556	KED
|	**Sb**	123	62136.8	0.5	**31.5734**	1.478	4.7	ug/L	79	KED
⌊	**Ba**	135	59820.9	0.7	**93.7974**	3.508	3.7	ug/L	15	KED
	Ce	140	58.3	9.9				ug/L	45	KED
	Tb	159	711897.4	2.9				ug/L	661680	KED
⌈	**Ho**	165	7.7	27.2				ug/L	5	KED
|	**Tl**	203	31946.3	1.0	**6.1016**	0.158	2.6	ug/L	8	KED
|	**Tl**	205	80232.6	1.7	**6.1747**	0.202	3.3	ug/L	16	KED
|	**Pb**	206	138162.1	1.3	**30.8255**	0.914	3.0	ug/L	316	KED
|	**Pb**	207	121764.3	0.6	**30.7224**	0.674	2.2	ug/L	291	KED
|	**Pb**	208	307325.2	1.3	**31.1465**	0.894	2.9	ug/L	695	KED
|	**U**	238	771152.6	0.5	**31.4018**	0.556	1.8	ug/L	16	KED

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	Th	232	649336.1	1.5	**30.6147**	0.705	2.3	ug/L	1926	KED
>	**Bi**	209	552546.4	1.6				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	78517.9	1.4	**3.9379**	0.046	1.2	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**1.6770**	38.333	2285.7	mg/L	2	KED
	Fe	54	4477.3	2.7	**3.8391**	0.143	3.7	mg/L	10	KED
	Fe	57	9458.0	1.8	**3.8164**	0.027	0.7	mg/L	22	KED
>	**Sc-1**	45	93708.2	1.1				mg/L	87229	KED
	Cl	35	2126.8	9.6				ug/L	2227	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	11.7	89.2				ug/L	23	KED
	P	31	68.3	27.7				ug/L	212	KED
	S	34	45.0	57.7				ug/L	37	KED
	Sr	88	46.7	16.4				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9	102.813		
	Al	27			
>	Sc-2	45		107.428	
	Ti	47	104.501		
	V	51	87.180		
	Cr	52	99.695		
	Cr	53			
	Mn	55	99.794		
	Co	59	100.063		
	Ni	60	99.194		
	Cu	65	99.025		
	Zn	66	98.235		
>	Ge	72		108.720	
	As	75	99.194		
	Se	82	99.394		
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103			
⌈	Mo	98	97.701		
|	Ag	107	101.030		
|	Cd	111	100.768		
|	Cd	114			
|>	In	115		114.077	
|	Sn	118	98.364		
|	Sb	123	98.667		
⌊	Ba	135	97.706		
	Ce	140			
	Tb	159			
⌈	Ho	165			
|	Tl	203	95.338		
|	Tl	205			
|	Pb	206	96.330		
|	Pb	207	96.008		
|	Pb	208	97.333		
|	U	238	98.130		
|	Th	232			
⌊>	Bi	209		107.336	
⌈	Na	23			
|	Mg	24	98.447		
|	K	39	0.000		
|	Ca	43	41.926		
|	Fe	54	95.977		
|	Fe	57	95.410		
⌊>	Sc-1	45		107.428	
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	V	51	
QC Std 6	K	39	
QC Std 6	Ca	43	

Sample ID: QC Std 6
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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, September 04, 2019 15:07:34
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	9964.9	2.0				ug/L	9383	KED
|	**Be**	9	1.0	100.0	**0.0125**	0.013	100.6	ug/L	0	KED
|	**Al**	27	213.3	112.5				ug/L	73	KED
⌊>	**Sc-2**	45	87207.3	1.3				ug/L	87229	KED
⌈	**Ti**	47	10.3	24.4	**-0.0572**	0.165	288.4	ug/L	11	KED
|	**V**	51	5397.6	13.3	**-4.6909**	0.518	11.0	ug/L	10753	KED
|	**Cr**	52	498.7	19.4	**-0.0052**	0.052	994.7	ug/L	489	KED
|	**Cr**	53	3362.0	14.5	**-13.5248**	1.758	13.0	ug/L	6416	KED
|	**Mn**	55	253.7	33.9	**0.0265**	0.062	233.3	ug/L	206	KED
|	**Co**	59	160.7	78.4	**0.0138**	0.025	179.8	ug/L	86	KED
|	**Ni**	60	482.7	25.9	**-0.5635**	0.092	16.4	ug/L	1252	KED
|	**Cu**	65	257.7	31.7	**-0.0947**	0.046	48.9	ug/L	418	KED
|	**Zn**	66	433.3	65.5	**0.4233**	0.558	131.8	ug/L	204	KED
| >	**Ge**	72	245331.6	1.7				ug/L	234818	KED
|	**As**	75	698.3	5.0	**-0.1201**	0.090	74.9	ug/L	719	KED
|	**Se**	82	15.3	18.0	**-0.0109**	0.144	1323.6	ug/L	15	KED
|	**Se-1**	78	35.8	12.0	**-0.0147**	0.113	767.3	ug/L	35	KED
⌊	**Se-1**	80	24845.2	0.3	**5.8755**	3.603	61.3	ug/L	23187	KED
	Ga	71	41.7	70.3				ug/L	33	KED
	Rb	85	15.0	115.5				ug/L	13	KED
	Y	89	196688.5	0.9				ug/L	191699	KED
	Rh	103	6.7	43.3				ug/L	5	KED
⌈	**Mo**	98	299.0	18.6	**0.0691**	0.016	23.0	ug/L	47	KED
|	**Ag**	107	263.7	61.0	**0.0118**	0.023	193.4	ug/L	173	KED
|	**Cd**	111	18.7	37.6	**0.0134**	0.007	51.4	ug/L	5	KED
|	**Cd**	114	48.0	71.3	**0.0070**	0.014	193.4	ug/L	29	KED
| >	**In**	115	259050.2	0.7				ug/L	248460	KED
|	**Sn**	118	643.7	3.6	**0.0316**	0.013	42.4	ug/L	556	KED
|	**Sb**	123	953.0	3.6	**0.4842**	0.022	4.6	ug/L	79	KED
⌊	**Ba**	135	40.3	94.2	**0.0431**	0.066	152.2	ug/L	15	KED
	Ce	140	26.0	3.8				ug/L	45	KED
	Tb	159	661428.8	0.7				ug/L	661680	KED
⌈	**Ho**	165	8.0	21.7				ug/L	5	KED
|	**Tl**	203	18.3	78.0	**0.0022**	0.003	134.1	ug/L	8	KED
|	**Tl**	205	64.7	90.2	**0.0040**	0.005	119.6	ug/L	16	KED
|	**Pb**	206	424.7	21.9	**0.0255**	0.022	84.8	ug/L	316	KED
|	**Pb**	207	353.3	23.0	**0.0164**	0.021	130.5	ug/L	291	KED
|	**Pb**	208	917.0	20.1	**0.0236**	0.019	82.4	ug/L	695	KED
|	**U**	238	545.3	85.9	**0.0229**	0.020	88.1	ug/L	16	KED

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	Th	232	7071.0	4.9	**0.2591**	0.016	6.1	ug/L	1926	KED
>	**Bi**	209	517641.1	0.5				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	755.0	6.7	**-0.0353**	0.003	9.3	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**-0.2442**	41.660	17063.2	mg/L	2	KED
	Fe	54	23.3	32.7	**0.0123**	0.007	56.9	mg/L	10	KED
	Fe	57	31.7	32.9	**0.0043**	0.004	103.3	mg/L	22	KED
>	**Sc-1**	45	87207.3	1.3				mg/L	87229	KED
	Cl	35	2331.8	5.1				ug/L	2227	KED
	Kr	83	0.0					ug/L	2	KED
	Br	81	16.7	45.8				ug/L	23	KED
	P	31	56.7	13.5				ug/L	212	KED
	S	34	23.3	12.4				ug/L	37	KED
	Sr	88	20.0	43.3				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		99.975	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		104.477	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
| >	In	115	104.263
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊ >	Bi	209	100.556
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊ >	Sc-1	45	99.975
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 7	V	51	
QC Std 7	Sb	123	

Sample ID: QC Std 7
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Method 6020 - Summary Report

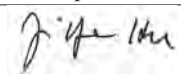
Sample ID: PBS 07 WG710688-02
Sample Date/Time: Wednesday, September 04, 2019 15:16:00
Number of Replicates: 3
Autosampler Position: 205
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	11060.7	2.9				ug/L	9383	KED
|	Be	9	0.0		0.0000	0.000		ug/L	0	KED
|	Al	27	133.3	13.2				ug/L	73	KED
⌊>	Sc-2	45	91914.7	1.7				ug/L	87229	KED
⌈	Ti	47	13.0	13.3	0.1065	0.110	103.3	ug/L	11	KED
|	V	51	7450.2	1.6	-3.1773	0.136	4.3	ug/L	10753	KED
|	Cr	52	580.7	5.9	0.0276	0.013	47.4	ug/L	489	KED
|	Cr	53	4630.7	5.2	-8.8082	1.110	12.6	ug/L	6416	KED
|	Mn	55	387.0	5.1	0.1104	0.019	17.5	ug/L	206	KED
|	Co	59	72.3	23.4	-0.0036	0.003	96.7	ug/L	86	KED
|	Ni	60	468.7	4.4	-0.5814	0.020	3.4	ug/L	1252	KED
|	Cu	65	232.0	7.8	-0.1119	0.007	6.1	ug/L	418	KED
|	Zn	66	871.4	4.0	1.2084	0.031	2.5	ug/L	204	KED
| >	Ge	72	251235.5	2.3				ug/L	234818	KED
|	As	75	870.0	3.6	0.2276	0.088	38.5	ug/L	719	KED
|	Se	82	17.3	8.8	0.0834	0.108	130.0	ug/L	15	KED
|	Se-1	78	35.3	2.9	-0.0499	0.022	45.0	ug/L	35	KED
⌊	Se-1	80	25045.4	0.8	2.2395	4.216	188.3	ug/L	23187	KED
	Ga	71	45.0	33.3				ug/L	33	KED
	Rb	85	18.3	31.5				ug/L	13	KED
	Y	89	202173.3	0.9				ug/L	191699	KED
	Rh	103	8.3	69.3				ug/L	5	KED
⌈	Mo	98	123.0	9.1	0.0200	0.003	13.4	ug/L	47	KED
|	Ag	107	148.0	7.3	-0.0047	0.001	26.8	ug/L	173	KED
|	Cd	111	10.7	23.6	0.0055	0.002	41.6	ug/L	5	KED
|	Cd	114	32.0	5.4	0.0006	0.001	93.4	ug/L	29	KED
| >	In	115	261941.4	1.4				ug/L	248460	KED
|	Sn	118	699.0	2.7	0.0550	0.005	8.9	ug/L	556	KED
|	Sb	123	148.3	16.5	0.0357	0.012	34.8	ug/L	79	KED
⌊	Ba	135	38.7	5.4	0.0393	0.003	7.2	ug/L	15	KED
	Ce	140	63.0	14.1				ug/L	45	KED
	Tb	159	674309.8	1.1				ug/L	661680	KED
⌈	Ho	165	5.0	20.0				ug/L	5	KED
|	Tl	203	7.3	7.9	-0.0001	0.000	141.3	ug/L	8	KED
|	Tl	205	16.0	28.6	-0.0000	0.000	1729.2	ug/L	16	KED
|	Pb	206	367.7	3.9	0.0111	0.003	30.4	ug/L	316	KED
|	Pb	207	303.7	8.4	0.0023	0.006	282.8	ug/L	291	KED
|	Pb	208	783.7	5.9	0.0084	0.004	52.4	ug/L	695	KED
|	U	238	106.7	8.0	0.0039	0.000	8.6	ug/L	16	KED

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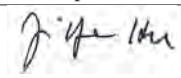
	Th	232	5372.6	14.0	**0.1706**	0.036	21.0	ug/L	1926	KED
>	**Bi**	209	522721.2	0.7				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	810.0	8.6	**-0.0345**	0.004	12.7	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**1.4020**	38.809	2768.2	mg/L	2	KED
	Fe	54	18.3	41.7	**0.0068**	0.006	95.7	mg/L	10	KED
	Fe	57	26.7	54.1	**0.0016**	0.006	371.5	mg/L	22	KED
>	**Sc-1**	45	91914.7	1.7				mg/L	87229	KED
	Cl	35	3137.0	2.7				ug/L	2227	KED
	Kr	83	3.3	173.2				ug/L	2	KED
	Br	81	45.0	11.1				ug/L	23	KED
	P	31	65.0	46.8				ug/L	212	KED
	S	34	41.7	48.5				ug/L	37	KED
	Sr	88	31.7	32.9				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		105.372	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		106.992	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: PBS 07 WG710688-02
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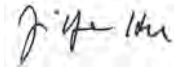
	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	105.426
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	101.542
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	105.372
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
V 51 Lower	V	51	
Th 232 Lower	Th	232	

Sample ID: PBS 07 WG710688-02
Report Date/Time: Wednesday, September 04, 2019 15:18:20
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Method 6020 - Summary Report

Sample ID: LCSS 07 WG710688-03
Sample Date/Time: Wednesday, September 04, 2019 15:18:52
Number of Replicates: 3
Autosampler Position: 206
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	11079.1	5.5				ug/L	9383	KED
|	Be	9	565.3	5.0	6.6806	0.424	6.4	ug/L	0	KED
|	Al	27	159522.1	1.0				ug/L	73	KED
|>	Sc-2	45	92846.7	2.7				ug/L	87229	KED
⌈	Ti	47	525.0	1.4	34.0680	1.743	5.1	ug/L	11	KED
|	V	51	51327.5	0.6	30.6523	1.841	6.0	ug/L	10753	KED
|	Cr	52	143015.9	1.7	67.1288	3.963	5.9	ug/L	489	KED
|	Cr	53	22328.1	0.3	59.7751	3.842	6.4	ug/L	6416	KED
|	Mn	55	101433.8	1.6	66.0916	3.356	5.1	ug/L	206	KED
|	Co	59	178722.6	0.6	32.7818	1.540	4.7	ug/L	86	KED
|	Ni	60	200826.5	0.3	131.3279	5.793	4.4	ug/L	1252	KED
|	Cu	65	125625.0	0.6	64.1858	2.590	4.0	ug/L	418	KED
|	Zn	66	345377.1	0.5	630.1421	28.807	4.6	ug/L	204	KED
|>	Ge	72	255161.7	4.2				ug/L	234818	KED
|	As	75	15403.5	0.6	32.3417	1.655	5.1	ug/L	719	KED
|	Se	82	572.5	2.2	30.6193	0.856	2.8	ug/L	15	KED
|	Se-1	78	1287.1	1.1	31.8253	1.768	5.6	ug/L	35	KED
⌊	Se-1	80	29294.8	0.1	37.4224	11.590	31.0	ug/L	23187	KED
	Ga	71	63.3	12.1				ug/L	33	KED
	Rb	85	96.7	33.3				ug/L	13	KED
	Y	89	211903.6	4.6				ug/L	191699	KED
	Rh	103	26.7	57.3				ug/L	5	KED
⌈	Mo	98	119072.8	1.2	31.3494	1.065	3.4	ug/L	47	KED
|	Ag	107	238248.6	1.7	31.8595	1.038	3.3	ug/L	173	KED
|	Cd	111	20656.1	1.5	19.0498	0.658	3.5	ug/L	5	KED
|	Cd	114	50371.9	1.7	18.8887	0.554	2.9	ug/L	29	KED
|>	In	115	271871.6	4.2				ug/L	248460	KED
|	Sn	118	67185.3	1.2	31.3398	1.142	3.6	ug/L	556	KED
|	Sb	123	59142.9	1.9	31.3100	0.725	2.3	ug/L	79	KED
⌊	Ba	135	56868.5	1.2	92.9453	2.830	3.0	ug/L	15	KED
	Ce	140	80.3	20.6				ug/L	45	KED
	Tb	159	687266.0	5.1				ug/L	661680	KED
⌈	Ho	165	4.0	25.0				ug/L	5	KED
|	Tl	203	31203.1	0.7	6.2828	0.213	3.4	ug/L	8	KED
|	Tl	205	76910.4	0.5	6.2404	0.249	4.0	ug/L	16	KED
|	Pb	206	133304.2	0.9	31.3528	1.032	3.3	ug/L	316	KED
|	Pb	207	116966.1	0.9	31.1128	1.020	3.3	ug/L	291	KED
|	Pb	208	293110.5	1.0	31.3173	1.142	3.6	ug/L	695	KED
|	U	238	736951.4	1.0	31.6454	1.355	4.3	ug/L	16	KED

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	Th	232	621923.8	2.0	**30.9059**	0.731	2.4	ug/L	1926	KED
>	**Bi**	209	524464.3	4.0				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	61273.7	2.1	**3.0873**	0.131	4.2	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	5.0	0.0	**-43.3289**	1.854	4.3	mg/L	2	KED
	Fe	54	3265.4	2.3	**2.8232**	0.050	1.8	mg/L	10	KED
	Fe	57	6918.2	4.5	**2.8179**	0.180	6.4	mg/L	22	KED
>	**Sc-1**	45	92846.7	2.7				mg/L	87229	KED
	Cl	35	2811.9	1.8				ug/L	2227	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	35.0	51.5				ug/L	23	KED
	P	31	65.0	30.8				ug/L	212	KED
	S	34	33.3	22.9				ug/L	37	KED
	Sr	88	70.0	18.9				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		106.441	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		108.664	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		109.423
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊>	Bi	209		101.881
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		106.441
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: LCSS 07 WG710688-03
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Method 6020 - Summary Report

Sample ID: L1908017808 WG710688-01
Sample Date/Time: Wednesday, September 04, 2019 15:21:45
Number of Replicates: 3
Autosampler Position: 207
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	12727.0	5.2				ug/L	9383	KED
|	Be	9	153.7	4.7	**1.6732**	0.090	5.4	ug/L	0	KED
|	Al	27	341807.3	4.4				ug/L	73	KED
|>	Sc-2	45	100754.8	3.6				ug/L	87229	KED
⌈	Ti	47	6151.9	2.6	**434.2437**	11.235	2.6	ug/L	11	KED
|	V	51	124963.1	2.4	**93.9166**	2.266	2.4	ug/L	10753	KED
|	Cr	52	108041.7	2.4	**53.9787**	1.143	2.1	ug/L	489	KED
|	Cr	53	22443.3	1.6	**65.9786**	2.038	3.1	ug/L	6416	KED
|	Mn	55	2769289.4	1.7	**1926.9707**	26.188	1.4	ug/L	206	KED
|	Co	59	124020.3	1.7	**24.2393**	0.413	1.7	ug/L	86	KED
|	Ni	60	64582.4	0.7	**44.4269**	0.536	1.2	ug/L	1252	KED
|	Cu	65	93610.3	1.7	**50.9360**	0.928	1.8	ug/L	418	KED
|	Zn	66	116196.9	1.6	**225.6916**	3.726	1.7	ug/L	204	KED
|>	Ge	72	239112.1	0.8				ug/L	234818	KED
|	As	75	23353.3	1.5	**53.3155**	0.629	1.2	ug/L	719	KED
|	Se	82	117.0	7.7	**5.9792**	0.512	8.6	ug/L	15	KED
|	Se-1	78	131.3	2.1	**2.6019**	0.047	1.8	ug/L	35	KED
⌊	Se-1	80	23561.1	1.2	**-0.4789**	2.818	588.5	ug/L	23187	KED
	Ga	71	12091.5	1.6				ug/L	33	KED
	Rb	85	72678.9	2.1				ug/L	13	KED
	Y	89	295199.0	2.4				ug/L	191699	KED
	Rh	103	35.0	42.9				ug/L	5	KED
⌈	Mo	98	9955.9	1.5	**2.9195**	0.048	1.6	ug/L	47	KED
|	Ag	107	884.0	10.1	**0.1071**	0.014	13.1	ug/L	173	KED
|	Cd	111	474.0	4.4	**0.4843**	0.020	4.1	ug/L	5	KED
|	Cd	114	1155.4	4.3	**0.4731**	0.024	5.0	ug/L	29	KED
|>	In	115	242854.9	0.7				ug/L	248460	KED
|	Sn	118	4720.4	2.2	**2.1991**	0.060	2.7	ug/L	556	KED
|	Sb	123	4717.1	2.8	**2.7523**	0.089	3.2	ug/L	79	KED
⌊	Ba	135	195752.0	1.7	**357.9550**	7.569	2.1	ug/L	15	KED
	Ce	140	1278845.5	0.3				ug/L	45	KED
	Tb	159	656847.8	1.2				ug/L	661680	KED
⌈	Ho	165	14022.8	1.8				ug/L	5	KED
|	Tl	203	2997.0	0.5	**0.6219**	0.009	1.5	ug/L	8	KED
|	Tl	205	7505.5	1.3	**0.6279**	0.016	2.6	ug/L	16	KED
|	Pb	206	379535.2	0.6	**92.3713**	2.155	2.3	ug/L	316	KED
|	Pb	207	319975.5	0.8	**88.0805**	2.272	2.6	ug/L	291	KED
|	Pb	208	811343.1	0.2	**89.6909**	1.764	2.0	ug/L	695	KED
|	U	238	60895.2	1.7	**2.7006**	0.095	3.5	ug/L	16	KED

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	Th	232	326506.9	1.3	**16.7218**	0.361	2.2	ug/L	1926	KED
>	**Bi**	209	507332.9	1.8				ug/L	514781	KED
	Na	23	1.7	173.2				mg/L	0	KED
	Mg	24	3690.4	1.9	**0.0988**	0.007	7.1	mg/L	1398	KED
	K	39	1.7	173.2	**7.0901**	12.280	173.2	mg/L	0	KED
	Ca	43	10.0		**-99.9698**	4.425	4.4	mg/L	2	KED
	Fe	54	64006.6	2.5	**51.1583**	0.744	1.5	mg/L	10	KED
	Fe	57	134396.8	1.1	**50.5853**	1.245	2.5	mg/L	22	KED
>	**Sc-1**	45	100754.8	3.6				mg/L	87229	KED
	Cl	35	4837.4	3.9				ug/L	2227	KED
	Kr	83	6.7	43.3				ug/L	2	KED
	Br	81	161.7	28.1				ug/L	23	KED
	P	31	85.0	25.6				ug/L	212	KED
	S	34	63.3	35.6				ug/L	37	KED
	Sr	88	19726.2	2.1				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		115.506	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		101.829	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908017808 WG710688-01
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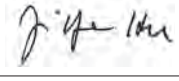
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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		97.744
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		98.553
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		115.506
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
V 51 Upper, S, EEE	V	51	
Mn 55 Upper, S, EEE	Mn	55	
Ba 135 Upper, S, EEE	Ba	135	

Approved: September 05, 2019



Method 6020 - Summary Report

Sample ID: L1908017809S WG710688-04
Sample Date/Time: Wednesday, September 04, 2019 15:24:37
Number of Replicates: 3
Autosampler Position: 208
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	12178.2	5.8				ug/L	9383	KED
|	Be	9	808.0	5.2	8.9438	0.166	1.9	ug/L	0	KED
|	Al	27	281567.7	1.7				ug/L	73	KED
|>	Sc-2	45	99043.1	4.8				ug/L	87229	KED
⌈	Ti	47	5332.6	0.6	373.8259	17.447	4.7	ug/L	11	KED
|	V	51	157841.9	0.5	120.1438	5.918	4.9	ug/L	10753	KED
|	Cr	52	244178.7	1.2	121.4853	5.114	4.2	ug/L	489	KED
|	Cr	53	40871.7	2.4	141.1841	5.723	4.1	ug/L	6416	KED
|	Mn	55	3120885.5	1.5	2156.3015	60.767	2.8	ug/L	206	KED
|	Co	59	283976.9	0.7	55.1597	2.621	4.8	ug/L	86	KED
|	Ni	60	247172.5	0.4	171.3805	6.831	4.0	ug/L	1252	KED
|	Cu	65	203695.6	1.3	110.3305	3.635	3.3	ug/L	418	KED
|	Zn	66	422227.3	0.5	815.5677	31.537	3.9	ug/L	204	KED
|>	Ge	72	240995.2	4.0				ug/L	234818	KED
|	As	75	34934.6	0.9	80.0663	3.707	4.6	ug/L	719	KED
|	Se	82	587.5	3.1	33.3682	1.993	6.0	ug/L	15	KED
|	Se-1	78	1154.4	0.8	30.1664	1.468	4.9	ug/L	35	KED
⌊	Se-1	80	26302.6	0.8	24.2370	8.407	34.7	ug/L	23187	KED
	Ga	71	10436.9	2.9				ug/L	33	KED
	Rb	85	61936.4	2.8				ug/L	13	KED
	Y	89	292880.1	2.9				ug/L	191699	KED
	Rh	103	71.7	20.1				ug/L	5	KED
⌈	Mo	98	114711.6	0.6	33.4305	0.884	2.6	ug/L	47	KED
|	Ag	107	206487.9	0.8	30.5609	0.537	1.8	ug/L	173	KED
|	Cd	111	18400.2	0.5	18.7822	0.416	2.2	ug/L	5	KED
|	Cd	114	45154.2	0.8	18.7428	0.384	2.0	ug/L	29	KED
|>	In	115	245496.7	2.5				ug/L	248460	KED
|	Sn	118	63281.5	0.9	32.6834	0.827	2.5	ug/L	556	KED
|	Sb	123	57772.3	1.7	33.8749	1.382	4.1	ug/L	79	KED
⌊	Ba	135	240877.3	0.5	435.9201	12.530	2.9	ug/L	15	KED
	Ce	140	1111761.0	0.2				ug/L	45	KED
	Tb	159	659750.0	2.8				ug/L	661680	KED
⌈	Ho	165	14118.9	0.8				ug/L	5	KED
|	Tl	203	31610.6	0.7	6.5946	0.242	3.7	ug/L	8	KED
|	Tl	205	77508.4	0.5	6.5136	0.176	2.7	ug/L	16	KED
|	Pb	206	514721.1	0.5	125.6543	4.277	3.4	ug/L	316	KED
|	Pb	207	438027.9	0.6	120.9434	4.113	3.4	ug/L	291	KED
|	Pb	208	1104826.9	0.7	122.5151	4.346	3.5	ug/L	695	KED
|	U	238	732172.7	0.4	32.5664	1.112	3.4	ug/L	16	KED

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	Th	232	811468.2	0.9	**41.8298**	1.642	3.9	ug/L	1926	KED
>	**Bi**	209	506114.9	3.1				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	3247.0	7.0	**0.0802**	0.007	8.5	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	11.7	65.5	**-125.5362**	104.310	83.1	mg/L	2	KED
	Fe	54	59382.8	1.5	**48.3464**	2.551	5.3	mg/L	10	KED
	Fe	57	122572.2	1.9	**46.9795**	2.505	5.3	mg/L	22	KED
>	**Sc-1**	45	99043.1	4.8				mg/L	87229	KED
	Cl	35	5244.2	5.1				ug/L	2227	KED
	Kr	83	3.3	86.6				ug/L	2	KED
	Br	81	176.7	21.2				ug/L	23	KED
	P	31	125.0	10.6				ug/L	212	KED
	S	34	50.0	40.0				ug/L	37	KED
	Sr	88	18554.7	2.1				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		113.544	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		102.631	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908017809S WG710688-04
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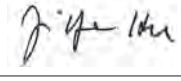
Approved: September 05, 2019

	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	98.808
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	98.316
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	113.544
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
V 51 Upper, S, EEE	V	51	
Mn 55 Upper, S, EEE	Mn	55	
Ba 135 Upper, S, EEE	Ba	135	
Pb 208 Upper, S, EEE	Pb	208	

Approved: September 05, 2019



Method 6020 - Summary Report

Sample ID: L1908017810SD WG710688-05
Sample Date/Time: Wednesday, September 04, 2019 15:27:29
Number of Replicates: 3
Autosampler Position: 209
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	11951.4	2.4				ug/L	9383	KED
|	Be	9	767.7	1.0	8.5943	0.027	0.3	ug/L	0	KED
|	Al	27	230952.0	1.1				ug/L	73	KED
|>	Sc-2	45	97930.2	1.3				ug/L	87229	KED
⌈	Ti	47	5507.0	0.3	393.1505	3.288	0.8	ug/L	11	KED
|	V	51	145605.3	0.5	112.3129	1.354	1.2	ug/L	10753	KED
|	Cr	52	235485.9	0.4	119.3157	0.273	0.2	ug/L	489	KED
|	Cr	53	38995.1	2.3	136.4592	2.833	2.1	ug/L	6416	KED
|	Mn	55	2812976.1	0.7	1980.0477	10.115	0.5	ug/L	206	KED
|	Co	59	268244.2	1.9	53.0541	1.018	1.9	ug/L	86	KED
|	Ni	60	232722.4	0.7	164.3070	1.809	1.1	ug/L	1252	KED
|	Cu	65	195460.2	1.7	107.8402	1.730	1.6	ug/L	418	KED
|	Zn	66	407449.1	0.9	801.5867	10.504	1.3	ug/L	204	KED
|>	Ge	72	236379.7	0.6				ug/L	234818	KED
|	As	75	33629.6	0.4	78.4555	0.834	1.1	ug/L	719	KED
|	Se	82	566.3	7.2	32.7321	2.364	7.2	ug/L	15	KED
|	Se-1	78	1117.2	1.6	29.7144	0.522	1.8	ug/L	35	KED
⌊	Se-1	80	25795.8	0.3	23.9886	2.067	8.6	ug/L	23187	KED
	Ga	71	8895.9	2.1				ug/L	33	KED
	Rb	85	50452.2	1.6				ug/L	13	KED
	Y	89	285997.6	3.3				ug/L	191699	KED
	Rh	103	76.7	16.4				ug/L	5	KED
⌈	Mo	98	110745.3	1.3	32.6822	0.179	0.5	ug/L	47	KED
|	Ag	107	201604.8	2.1	30.2171	0.291	1.0	ug/L	173	KED
|	Cd	111	17870.2	1.8	18.4727	0.243	1.3	ug/L	5	KED
|	Cd	114	44157.3	0.9	18.5632	0.174	0.9	ug/L	29	KED
|>	In	115	242327.0	1.2				ug/L	248460	KED
|	Sn	118	61222.5	1.2	32.0209	0.770	2.4	ug/L	556	KED
|	Sb	123	55964.8	1.1	33.2267	0.729	2.2	ug/L	79	KED
⌊	Ba	135	214297.3	1.2	392.7586	8.439	2.1	ug/L	15	KED
	Ce	140	1014313.1	0.5				ug/L	45	KED
	Tb	159	662050.3	2.3				ug/L	661680	KED
⌈	Ho	165	13999.1	1.6				ug/L	5	KED
|	Tl	203	31019.7	0.6	6.4008	0.155	2.4	ug/L	8	KED
|	Tl	205	76468.5	0.6	6.3570	0.129	2.0	ug/L	16	KED
|	Pb	206	584301.6	0.6	141.1094	3.758	2.7	ug/L	316	KED
|	Pb	207	497982.6	0.8	135.9978	1.878	1.4	ug/L	291	KED
|	Pb	208	1259776.3	0.2	138.1811	2.637	1.9	ug/L	695	KED
|	U	238	706278.7	0.7	31.0714	0.603	1.9	ug/L	16	KED

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	Th	232	714617.6	0.7	**36.4233**	0.996	2.7	ug/L	1926	KED
>	**Bi**	209	511478.6	2.1				ug/L	514781	KED
	Na	23	1.7	173.2				mg/L	0	KED
	Mg	24	3833.8	4.7	**0.1109**	0.011	10.2	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	16.7	86.6	**-187.0116**	182.592	97.6	mg/L	2	KED
	Fe	54	51408.8	2.5	**42.2743**	1.585	3.7	mg/L	10	KED
	Fe	57	105710.9	2.0	**40.9184**	1.163	2.8	mg/L	22	KED
>	**Sc-1**	45	97930.2	1.3				mg/L	87229	KED
	Cl	35	5412.6	4.7				ug/L	2227	KED
	Kr	83	0.0					ug/L	2	KED
	Br	81	128.3	8.1				ug/L	23	KED
	P	31	123.3	16.4				ug/L	212	KED
	S	34	46.7	16.4				ug/L	37	KED
	Sr	88	13282.5	2.7				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		112.268	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		100.665	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908017810SD WG710688-05
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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		97.532
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		99.358
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		112.268
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
V 51 Upper, S, EEE	V	51	
Mn 55 Upper, S, EEE	Mn	55	
Ba 135 Upper, S, EEE	Ba	135	
Pb 208 Upper, S, EEE	Pb	208	

Sample ID: L1908017810SD WG710688-05
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Method 6020 - Summary Report

Sample ID: L1908017808PS WG710720-01
Sample Date/Time: Wednesday, September 04, 2019 15:30:21
Number of Replicates: 3
Autosampler Position: 210
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	12301.7	2.3				ug/L	9383	KED
|	Be	9	901.4	7.6	**10.0279**	0.886	8.8	ug/L	0	KED
|	Al	27	323371.2	4.0				ug/L	73	KED
⌊>	Sc-2	45	98622.7	2.0				ug/L	87229	KED
⌈	Ti	47	6539.4	0.9	**458.3751**	7.453	1.6	ug/L	11	KED
|	V	51	176511.9	0.4	**135.3535**	2.003	1.5	ug/L	10753	KED
|	Cr	52	267324.0	0.0	**132.9792**	1.482	1.1	ug/L	489	KED
|	Cr	53	44933.2	0.5	**157.9121**	3.003	1.9	ug/L	6416	KED
|	Mn	55	2838206.8	0.9	**1961.0531**	33.959	1.7	ug/L	206	KED
|	Co	59	318247.1	1.6	**61.7886**	1.432	2.3	ug/L	86	KED
|	Ni	60	279718.2	0.9	**194.0122**	3.747	1.9	ug/L	1252	KED
|	Cu	65	225043.8	1.1	**121.9020**	1.727	1.4	ug/L	418	KED
|	Zn	66	486096.0	1.8	**938.7523**	21.552	2.3	ug/L	204	KED
|>	Ge	72	240836.8	1.1				ug/L	234818	KED
|	As	75	38014.3	0.4	**87.2336**	0.724	0.8	ug/L	719	KED
|	Se	82	712.0	3.2	**40.5951**	1.065	2.6	ug/L	15	KED
|	Se-1	78	1428.9	0.8	**37.5473**	0.202	0.5	ug/L	35	KED
⌊	Se-1	80	26596.5	0.6	**27.0113**	2.548	9.4	ug/L	23187	KED
	Ga	71	11951.4	2.7				ug/L	33	KED
	Rb	85	71669.1	1.4				ug/L	13	KED
	Y	89	294939.7	3.1				ug/L	191699	KED
	Rh	103	86.7	40.9				ug/L	5	KED
⌈	Mo	98	133562.8	0.6	**38.7334**	0.841	2.2	ug/L	47	KED
|	Ag	107	253001.4	1.4	**37.2826**	1.491	4.0	ug/L	173	KED
|	Cd	111	21537.0	1.6	**21.8853**	0.916	4.2	ug/L	5	KED
|	Cd	114	52949.4	1.0	**21.8756**	0.610	2.8	ug/L	29	KED
|>	In	115	246707.6	2.7				ug/L	248460	KED
|	Sn	118	73268.8	1.5	**37.7054**	1.292	3.4	ug/L	556	KED
|	Sb	123	69242.5	0.5	**40.4064**	1.301	3.2	ug/L	79	KED
⌊	Ba	135	253610.2	0.3	**456.7341**	13.481	3.0	ug/L	15	KED
	Ce	140	1267366.8	0.2				ug/L	45	KED
	Tb	159	675728.4	2.4				ug/L	661680	KED
⌈	Ho	165	14257.0	1.4				ug/L	5	KED
|	Tl	203	37484.3	1.4	**7.7309**	0.189	2.4	ug/L	8	KED
|	Tl	205	92813.8	1.0	**7.7123**	0.163	2.1	ug/L	16	KED
|	Pb	206	525740.8	0.3	**126.8753**	1.696	1.3	ug/L	316	KED
|	Pb	207	445183.0	0.6	**121.5080**	1.262	1.0	ug/L	291	KED
|	Pb	208	1121566.4	0.9	**122.9370**	0.975	0.8	ug/L	695	KED
|	U	238	854907.6	0.8	**37.5902**	0.623	1.7	ug/L	16	KED

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	Th	232	998449.4	0.1	**50.8942**	0.638	1.3	ug/L	1926	KED
>	**Bi**	209	511682.1	1.3				ug/L	514781	KED
	Na	23	5.0	0.0				mg/L	0	KED
	Mg	24	3618.8	3.2	**0.0991**	0.009	9.1	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	11.7	49.5	**-123.0907**	71.852	58.4	mg/L	2	KED
	Fe	54	62898.6	0.7	**51.3534**	0.632	1.2	mg/L	10	KED
	Fe	57	130856.0	1.4	**50.3096**	1.668	3.3	mg/L	22	KED
>	**Sc-1**	45	98622.7	2.0				mg/L	87229	KED
	Cl	35	5039.2	1.7				ug/L	2227	KED
	Kr	83	3.3	86.6				ug/L	2	KED
	Br	81	151.7	16.9				ug/L	23	KED
	P	31	111.7	2.6				ug/L	212	KED
	S	34	53.3	54.9				ug/L	37	KED
	Sr	88	18287.7	3.1				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		113.062	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		102.563	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908017808PS WG710720-01
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	99.295
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	99.398
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	113.062
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
V 51 Upper, S, EEE	V	51	
Cr 53 Upper, S, EEE	Cr	53	
Mn 55 Upper, S, EEE	Mn	55	
Ba 135 Upper, S, EEE	Ba	135	
Pb 208 Upper, S, EEE	Pb	208	

Sample ID: L1908017808PS WG710720-01
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Method 6020 - Summary Report

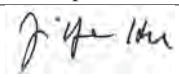
Sample ID: L1908017808SDL WG710720-02
Sample Date/Time: Wednesday, September 04, 2019 15:33:12
Number of Replicates: 3
Autosampler Position: 211
Sample Description: 5
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	11144.1	4.2				ug/L	9383	KED
|	**Be**	9	33.0	16.9	**0.3896**	0.072	18.4	ug/L	0	KED
|	**Al**	27	61405.9	2.2				ug/L	73	KED
⌊>	**Sc-2**	45	93055.0	2.0				ug/L	87229	KED
⌈	**Ti**	47	1174.7	1.9	**80.9484**	0.423	0.5	ug/L	11	KED
|	**V**	51	32213.2	1.6	**17.0896**	0.558	3.3	ug/L	10753	KED
|	**Cr**	52	20387.0	1.5	**9.8209**	0.325	3.3	ug/L	489	KED
|	**Cr**	53	9578.0	4.1	**11.9667**	0.760	6.3	ug/L	6416	KED
|	**Mn**	55	492962.4	0.9	**337.4376**	8.421	2.5	ug/L	206	KED
|	**Co**	59	24375.6	1.5	**4.6754**	0.181	3.9	ug/L	86	KED
|	**Ni**	60	13120.0	2.2	**8.1681**	0.408	5.0	ug/L	1252	KED
|	**Cu**	65	19825.3	1.2	**10.4315**	0.303	2.9	ug/L	418	KED
|	**Zn**	66	25491.4	2.8	**48.4201**	2.352	4.9	ug/L	204	KED
|>	**Ge**	72	243077.8	2.4				ug/L	234818	KED
|	**As**	75	5614.7	2.6	**11.3028**	0.651	5.8	ug/L	719	KED
|	**Se**	82	35.3	25.5	**1.1549**	0.530	45.9	ug/L	15	KED
|	**Se-1**	78	53.5	4.9	**0.4663**	0.078	16.6	ug/L	35	KED
⌊	**Se-1**	80	24479.9	1.5	**4.5702**	2.341	51.2	ug/L	23187	KED
	Ga	71	2540.2	3.1				ug/L	33	KED
	Rb	85	14435.2	1.5				ug/L	13	KED
	Y	89	211288.3	1.6				ug/L	191699	KED
	Rh	103	25.0	20.0				ug/L	5	KED
⌈	**Mo**	98	2309.5	10.7	**0.6445**	0.088	13.6	ug/L	47	KED
|	**Ag**	107	692.4	77.8	**0.0761**	0.082	107.2	ug/L	173	KED
|	**Cd**	111	138.3	26.1	**0.1337**	0.040	29.9	ug/L	5	KED
|	**Cd**	114	356.3	35.9	**0.1334**	0.056	42.2	ug/L	29	KED
|>	**In**	115	251657.3	2.5				ug/L	248460	KED
|	**Sn**	118	1447.1	10.9	**0.4507**	0.100	22.1	ug/L	556	KED
|	**Sb**	123	1073.4	13.2	**0.5702**	0.098	17.2	ug/L	79	KED
⌊	**Ba**	135	40377.7	0.2	**71.2563**	1.719	2.4	ug/L	15	KED
	Ce	140	260397.1	1.1				ug/L	45	KED
	Tb	159	658049.8	0.8				ug/L	661680	KED
⌈	**Ho**	165	2813.9	0.5				ug/L	5	KED
|	**Tl**	203	682.7	13.4	**0.1369**	0.019	13.7	ug/L	8	KED
|	**Tl**	205	1662.4	11.5	**0.1345**	0.016	11.8	ug/L	16	KED
|	**Pb**	206	77877.6	0.5	**18.4089**	0.116	0.6	ug/L	316	KED
|	**Pb**	207	65918.1	0.9	**17.6181**	0.151	0.9	ug/L	291	KED
|	**Pb**	208	166694.8	1.8	**17.8970**	0.354	2.0	ug/L	695	KED
|	**U**	238	13178.5	13.0	**0.5689**	0.075	13.1	ug/L	16	KED

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	Th	232	64825.2	3.5	**3.1566**	0.118	3.7	ug/L	1926	KED
>	**Bi**	209	520499.4	0.3				ug/L	514781	KED
	Na	23	1.7	173.2				mg/L	0	KED
	Mg	24	1220.0	2.5	**-0.0140**	0.002	11.5	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**23.8084**	0.000	0.0	mg/L	2	KED
	Fe	54	12014.8	1.0	**10.3904**	0.253	2.4	mg/L	10	KED
	Fe	57	24558.2	1.5	**9.9960**	0.129	1.3	mg/L	22	KED
>	**Sc-1**	45	93055.0	2.0				mg/L	87229	KED
	Cl	35	2583.6	2.5				ug/L	2227	KED
	Kr	83	5.0	100.0				ug/L	2	KED
	Br	81	41.7	56.7				ug/L	23	KED
	P	31	61.7	20.4				ug/L	212	KED
	S	34	40.0	12.5				ug/L	37	KED
	Sr	88	3385.4	4.7				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		106.679	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		103.517	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	101.287
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	101.111
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	106.679
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	

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Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, September 04, 2019 15:36:06
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	11396.0	2.9				ug/L	9383	KED
|	**Be**	9	591.0	3.0	**6.9209**	0.292	4.2	ug/L	0	KED
|	**Al**	27	215355.0	1.8				ug/L	73	KED
⌊>	**Sc-2**	45	93658.0	1.9				ug/L	87229	KED
⌈	**Ti**	47	514.3	3.2	**32.4119**	1.091	3.4	ug/L	11	KED
|	**V**	51	50214.5	3.9	**28.7191**	1.587	5.5	ug/L	10753	KED
|	**Cr**	52	137777.0	1.0	**62.8408**	0.833	1.3	ug/L	489	KED
|	**Cr**	53	21745.6	4.1	**55.1752**	3.691	6.7	ug/L	6416	KED
|	**Mn**	55	98535.4	1.0	**62.4114**	0.795	1.3	ug/L	206	KED
|	**Co**	59	174769.5	0.1	**31.1663**	0.082	0.3	ug/L	86	KED
|	**Ni**	60	195387.8	0.3	**124.1873**	0.245	0.2	ug/L	1252	KED
|	**Cu**	65	125192.4	0.8	**62.1951**	0.604	1.0	ug/L	418	KED
|	**Zn**	66	345916.2	0.5	**613.6257**	3.488	0.6	ug/L	204	KED
|>	**Ge**	72	262103.6	0.4				ug/L	234818	KED
|	**As**	75	15176.9	1.1	**30.9070**	0.254	0.8	ug/L	719	KED
|	**Se**	82	595.0	3.9	**30.9714**	1.337	4.3	ug/L	15	KED
|	**Se-1**	78	1261.2	1.5	**30.2683**	0.366	1.2	ug/L	35	KED
⌊	**Se-1**	80	29773.1	0.2	**34.2920**	0.769	2.2	ug/L	23187	KED
	Ga	71	61.7	16.9				ug/L	33	KED
	Rb	85	220.0	16.4				ug/L	13	KED
	Y	89	222195.8	0.8				ug/L	191699	KED
	Rh	103	33.3	17.3				ug/L	5	KED
⌈	**Mo**	98	122517.0	0.9	**30.2887**	0.155	0.5	ug/L	47	KED
|	**Ag**	107	248660.0	1.2	**31.2249**	0.087	0.3	ug/L	173	KED
|	**Cd**	111	21650.5	1.7	**18.7483**	0.126	0.7	ug/L	5	KED
|	**Cd**	114	53050.4	1.6	**18.6818**	0.141	0.8	ug/L	29	KED
|>	**In**	115	289274.4	1.5				ug/L	248460	KED
|	**Sn**	118	69567.0	1.7	**30.4602**	0.068	0.2	ug/L	556	KED
|	**Sb**	123	60880.7	1.4	**30.2704**	0.087	0.3	ug/L	79	KED
⌊	**Ba**	135	59283.8	1.5	**90.9856**	0.131	0.1	ug/L	15	KED
	Ce	140	241.7	50.7				ug/L	45	KED
	Tb	159	725397.1	1.3				ug/L	661680	KED
⌈	**Ho**	165	7.7	49.4				ug/L	5	KED
|	**Tl**	203	31876.5	0.7	**6.0692**	0.011	0.2	ug/L	8	KED
|	**Tl**	205	79566.0	1.0	**6.1038**	0.067	1.1	ug/L	16	KED
|	**Pb**	206	136856.3	0.4	**30.4370**	0.222	0.7	ug/L	316	KED
|	**Pb**	207	120702.2	0.6	**30.3603**	0.290	1.0	ug/L	291	KED
|	**Pb**	208	301895.2	1.2	**30.4983**	0.327	1.1	ug/L	695	KED
|	**U**	238	758322.7	0.9	**30.7857**	0.240	0.8	ug/L	16	KED

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	Th	232	650139.6	2.2	**30.5577**	0.522	1.7	ug/L	1926	KED
>	**Bi**	209	554126.1	0.5				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	81057.9	1.4	**4.0706**	0.079	1.9	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**1.3315**	38.931	2924.0	mg/L	2	KED
	Fe	54	4459.0	0.7	**3.8255**	0.092	2.4	mg/L	10	KED
	Fe	57	9516.3	4.4	**3.8413**	0.108	2.8	mg/L	22	KED
>	**Sc-1**	45	93658.0	1.9				mg/L	87229	KED
	Cl	35	1908.5	5.9				ug/L	2227	KED
	Kr	83	3.3	86.6				ug/L	2	KED
	Br	81	36.7	20.8				ug/L	23	KED
	P	31	55.0	36.4				ug/L	212	KED
	S	34	31.7	24.1				ug/L	37	KED
	Sr	88	25.0	52.9				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9	108.139		
	Al	27			
>	Sc-2	45		107.371	
	Ti	47	101.287		
	V	51	89.747		
	Cr	52	98.189		
	Cr	53			
	Mn	55	97.518		
	Co	59	97.395		
	Ni	60	97.021		
	Cu	65	97.180		
	Zn	66	95.879		
>	Ge	72		111.620	
	As	75	96.584		
	Se	82	96.786		
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103			
⌈	Mo	98	94.652		
|	Ag	107	97.578		
|	Cd	111	97.647		
|	Cd	114			
|>	In	115		116.427	
|	Sn	118	95.188		
|	Sb	123	94.595		
⌊	Ba	135	94.777		
	Ce	140			
	Tb	159			
⌈	Ho	165			
|	Tl	203	94.831		
|	Tl	205			
|	Pb	206	95.116		
|	Pb	207	94.876		
|	Pb	208	95.307		
|	U	238	96.205		
|	Th	232			
⌊>	Bi	209		107.643	
⌈	Na	23			
|	Mg	24	101.765		
|	K	39	0.000		
|	Ca	43	33.286		
|	Fe	54	95.637		
|	Fe	57	96.034		
⌊>	Sc-1	45		107.371	
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	V	51	
QC Std 6	K	39	
QC Std 6	Ca	43	

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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, September 04, 2019 15:38:59
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	10151.7	4.2				ug/L	9383	KED
|	Be	9	1.0	100.0	**0.0125**	0.013	101.8	ug/L	0	KED
|	Al	27	398.3	73.1				ug/L	73	KED
|>	Sc-2	45	88278.9	2.7				ug/L	87229	KED
⌈	Ti	47	11.0	27.3	**-0.0054**	0.207	3838.1	ug/L	11	KED
|	V	51	6764.2	10.4	**-3.5655**	0.465	13.1	ug/L	10753	KED
|	Cr	52	639.3	26.0	**0.0657**	0.087	132.8	ug/L	489	KED
|	Cr	53	4018.9	16.5	**-10.7920**	2.394	22.2	ug/L	6416	KED
|	Mn	55	987.4	104.2	**0.5229**	0.690	132.0	ug/L	206	KED
|	Co	59	329.7	58.0	**0.0465**	0.038	81.4	ug/L	86	KED
|	Ni	60	531.7	31.6	**-0.5273**	0.124	23.5	ug/L	1252	KED
|	Cu	65	362.7	37.1	**-0.0373**	0.075	201.5	ug/L	418	KED
|	Zn	66	590.3	59.1	**0.7305**	0.693	94.8	ug/L	204	KED
|>	Ge	72	244012.9	2.4				ug/L	234818	KED
|	As	75	795.0	2.9	**0.1128**	0.097	86.3	ug/L	719	KED
|	Se	82	18.5	10.8	**0.1795**	0.139	77.6	ug/L	15	KED
|	Se-1	78	41.3	4.2	**0.1371**	0.054	39.4	ug/L	35	KED
⌊	Se-1	80	24965.2	0.5	**8.3073**	4.557	54.9	ug/L	23187	KED
	Ga	71	70.0	74.2				ug/L	33	KED
	Rb	85	38.3	71.8				ug/L	13	KED
	Y	89	195682.8	2.7				ug/L	191699	KED
	Rh	103	3.3	173.2				ug/L	5	KED
⌈	Mo	98	291.7	27.3	**0.0695**	0.026	37.1	ug/L	47	KED
|	Ag	107	325.3	52.6	**0.0221**	0.027	120.8	ug/L	173	KED
|	Cd	111	28.0	68.9	**0.0235**	0.020	87.1	ug/L	5	KED
|	Cd	114	64.0	60.0	**0.0143**	0.017	116.9	ug/L	29	KED
|>	In	115	253084.3	3.6				ug/L	248460	KED
|	Sn	118	622.3	9.1	**0.0292**	0.040	136.4	ug/L	556	KED
|	Sb	123	903.4	4.7	**0.4691**	0.037	7.9	ug/L	79	KED
⌊	Ba	135	104.0	63.3	**0.1577**	0.117	73.9	ug/L	15	KED
	Ce	140	814.7	164.4				ug/L	45	KED
	Tb	159	662375.3	2.1				ug/L	661680	KED
⌈	Ho	165	23.3	114.5				ug/L	5	KED
|	Tl	203	88.7	118.3	**0.0164**	0.021	128.3	ug/L	8	KED
|	Tl	205	221.0	113.5	**0.0167**	0.020	121.1	ug/L	16	KED
|	Pb	206	1026.7	94.9	**0.1680**	0.228	135.6	ug/L	316	KED
|	Pb	207	802.4	89.1	**0.1367**	0.189	138.2	ug/L	291	KED
|	Pb	208	1949.5	83.3	**0.1348**	0.172	127.7	ug/L	695	KED
|	U	238	1319.4	88.0	**0.0565**	0.050	87.9	ug/L	16	KED

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	Th	232	8782.3	18.4	**0.3476**	0.088	25.3	ug/L	1926	KED
>	**Bi**	209	516002.8	1.7				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	813.4	10.5	**-0.0327**	0.005	14.5	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**23.8084**	0.000	0.0	mg/L	2	KED
	Fe	54	65.0	126.6	**0.0489**	0.073	148.8	mg/L	10	KED
	Fe	57	113.3	115.9	**0.0384**	0.055	142.0	mg/L	22	KED
>	**Sc-1**	45	88278.9	2.7				mg/L	87229	KED
	Cl	35	2450.2	8.2				ug/L	2227	KED
	Kr	83	3.3	86.6				ug/L	2	KED
	Br	81	15.0	33.3				ug/L	23	KED
	P	31	40.0	12.5				ug/L	212	KED
	S	34	25.0	52.9				ug/L	37	KED
	Sr	88	23.3	53.9				ug/L	18	KED
	C	12	1.7	173.2				ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		101.204	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		103.916	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		101.861
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊>	Bi	209		100.237
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		101.204
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 7	V	51	
QC Std 7	Mn	55	
QC Std 7	Sb	123	
QC Std 7	Ca	43	

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Method 6020 - Summary Report

Sample ID: L1908017808 WG710688-01
Sample Date/Time: Wednesday, September 04, 2019 15:45:35
Number of Replicates: 3
Autosampler Position: 207
Sample Description: 10
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	10732.1	1.7				ug/L	9383	KED
|	Be	9	10.0	26.5	**0.1204**	0.032	26.4	ug/L	0	KED
|	Al	27	29276.6	2.6				ug/L	73	KED
⌊>	Sc-2	45	91046.1	0.8				ug/L	87229	KED
⌈	Ti	47	570.0	4.3	**37.2889**	1.017	2.7	ug/L	11	KED
|	V	51	18220.3	1.2	**5.1566**	0.158	3.1	ug/L	10753	KED
|	Cr	52	10098.7	2.9	**4.5385**	0.162	3.6	ug/L	489	KED
|	Cr	53	6416.4	7.6	**-1.9504**	2.148	110.1	ug/L	6416	KED
|	Mn	55	245621.6	0.4	**161.3170**	2.635	1.6	ug/L	206	KED
|	Co	59	12387.7	2.8	**2.2708**	0.028	1.2	ug/L	86	KED
|	Ni	60	6824.9	6.3	**3.6263**	0.210	5.8	ug/L	1252	KED
|	Cu	65	10057.0	5.4	**4.9573**	0.197	4.0	ug/L	418	KED
|	Zn	66	13382.6	7.3	**24.1731**	1.385	5.7	ug/L	204	KED
⌊>	Ge	72	253172.7	1.6				ug/L	234818	KED
|	As	75	3219.7	4.1	**5.4402**	0.173	3.2	ug/L	719	KED
|	Se	82	24.8	1.2	**0.4902**	0.022	4.5	ug/L	15	KED
|	Se-1	78	41.5	2.4	**0.1013**	0.029	28.7	ug/L	35	KED
⌊	Se-1	80	25265.0	0.9	**2.4464**	2.783	113.8	ug/L	23187	KED
	Ga	71	1228.4	4.1				ug/L	33	KED
	Rb	85	7581.9	1.6				ug/L	13	KED
	Y	89	214151.6	2.3				ug/L	191699	KED
	Rh	103	5.0	0.0				ug/L	5	KED
⌈	Mo	98	1077.0	11.1	**0.2734**	0.030	10.9	ug/L	47	KED
|	Ag	107	297.0	39.6	**0.0149**	0.016	105.1	ug/L	173	KED
|	Cd	111	60.0	22.9	**0.0513**	0.013	24.8	ug/L	5	KED
|	Cd	114	155.3	9.3	**0.0471**	0.005	10.7	ug/L	29	KED
|>	In	115	268459.6	0.8				ug/L	248460	KED
|	Sn	118	857.0	10.1	**0.1220**	0.041	33.5	ug/L	556	KED
|	Sb	123	522.7	5.8	**0.2346**	0.016	6.7	ug/L	79	KED
⌊	Ba	135	20988.9	2.2	**34.6915**	0.509	1.5	ug/L	15	KED
	Ce	140	133615.7	2.1				ug/L	45	KED
	Tb	159	687314.5	0.6				ug/L	661680	KED
⌈	Ho	165	1442.7	1.4				ug/L	5	KED
|	Tl	203	338.7	5.2	**0.0647**	0.004	5.5	ug/L	8	KED
|	Tl	205	786.0	4.4	**0.0606**	0.003	4.8	ug/L	16	KED
|	Pb	206	40227.3	1.1	**9.1376**	0.084	0.9	ug/L	316	KED
|	Pb	207	33499.7	0.4	**8.5995**	0.039	0.5	ug/L	291	KED
|	Pb	208	85615.9	0.9	**8.8315**	0.085	1.0	ug/L	695	KED
|	U	238	6295.3	0.6	**0.2618**	0.002	0.8	ug/L	16	KED

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	Th	232	23642.6	10.4	**1.0477**	0.121	11.6	ug/L	1926	KED
>	**Bi**	209	539406.4	0.3				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	845.0	10.8	**-0.0323**	0.005	15.6	mg/L	1398	KED
	K	39	1.7	173.2	**7.5790**	13.127	173.2	mg/L	0	KED
	Ca	43	0.0		**23.8084**	0.000	0.0	mg/L	2	KED
	Fe	54	5874.5	5.3	**5.1877**	0.313	6.0	mg/L	10	KED
	Fe	57	11923.0	4.3	**4.9539**	0.172	3.5	mg/L	22	KED
>	**Sc-1**	45	91046.1	0.8				mg/L	87229	KED
	Cl	35	2295.2	10.1				ug/L	2227	KED
	Kr	83	8.3	34.6				ug/L	2	KED
	Br	81	23.3	53.9				ug/L	23	KED
	P	31	41.7	18.3				ug/L	212	KED
	S	34	33.3	22.9				ug/L	37	KED
	Sr	88	1610.1	11.7				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		104.376	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		107.816	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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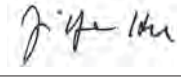
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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115	108.050	
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊>	Bi	209	104.784	
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45	104.376	
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	

Approved: September 05, 2019



Method 6020 - Summary Report

Sample ID: L1908017809S WG710688-04
Sample Date/Time: Wednesday, September 04, 2019 15:48:27
Number of Replicates: 3
Autosampler Position: 208
Sample Description: 10
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	10692.1	3.8				ug/L	9383	KED
|	Be	9	92.0	13.2	**1.1015**	0.138	12.5	ug/L	0	KED
|	Al	27	31106.9	0.8				ug/L	73	KED
|>	Sc-2	45	91507.2	1.4				ug/L	87229	KED
⌈	Ti	47	586.7	2.1	**39.0406**	1.680	4.3	ug/L	11	KED
|	V	51	25623.0	1.5	**11.2245**	0.187	1.7	ug/L	10753	KED
|	Cr	52	28732.9	2.0	**13.5896**	0.569	4.2	ug/L	489	KED
|	Cr	53	9267.8	5.3	**9.7446**	1.084	11.1	ug/L	6416	KED
|	Mn	55	345038.6	1.4	**230.2522**	8.292	3.6	ug/L	206	KED
|	Co	59	34207.6	1.7	**6.4026**	0.240	3.8	ug/L	86	KED
|	Ni	60	30280.6	2.6	**19.4975**	0.962	4.9	ug/L	1252	KED
|	Cu	65	26005.6	2.1	**13.4080**	0.574	4.3	ug/L	418	KED
|	Zn	66	56449.0	2.0	**104.9974**	4.466	4.3	ug/L	204	KED
|>	Ge	72	249334.2	2.4				ug/L	234818	KED
|	As	75	5301.9	2.1	**10.2672**	0.532	5.2	ug/L	719	KED
|	Se	82	84.3	2.8	**3.8599**	0.078	2.0	ug/L	15	KED
|	Se-1	78	188.3	1.3	**3.9422**	0.159	4.0	ug/L	35	KED
⌊	Se-1	80	25261.7	0.8	**6.0580**	7.524	124.2	ug/L	23187	KED
	Ga	71	1366.7	7.3				ug/L	33	KED
	Rb	85	8213.9	3.0				ug/L	13	KED
	Y	89	215289.2	2.2				ug/L	191699	KED
	Rh	103	11.7	99.0				ug/L	5	KED
⌈	Mo	98	14051.2	2.7	**3.7981**	0.115	3.0	ug/L	47	KED
|	Ag	107	27603.1	2.4	**3.7796**	0.108	2.9	ug/L	173	KED
|	Cd	111	2515.2	2.9	**2.3849**	0.079	3.3	ug/L	5	KED
|	Cd	114	6216.6	2.2	**2.3908**	0.062	2.6	ug/L	29	KED
|>	In	115	263754.2	0.4				ug/L	248460	KED
|	Sn	118	8307.3	1.7	**3.7410**	0.085	2.3	ug/L	556	KED
|	Sb	123	7769.0	3.8	**4.1975**	0.172	4.1	ug/L	79	KED
⌊	Ba	135	31861.5	3.8	**53.6261**	2.227	4.2	ug/L	15	KED
	Ce	140	143837.8	2.6				ug/L	45	KED
	Tb	159	680555.7	1.2				ug/L	661680	KED
⌈	Ho	165	1812.8	1.9				ug/L	5	KED
|	Tl	203	4103.9	4.2	**0.7973**	0.044	5.5	ug/L	8	KED
|	Tl	205	10123.7	1.7	**0.7925**	0.025	3.1	ug/L	16	KED
|	Pb	206	67582.8	1.8	**15.3229**	0.495	3.2	ug/L	316	KED
|	Pb	207	57889.7	2.1	**14.8407**	0.524	3.5	ug/L	291	KED
|	Pb	208	145984.0	1.7	**15.0326**	0.440	2.9	ug/L	695	KED
|	U	238	90950.9	2.1	**3.7730**	0.136	3.6	ug/L	16	KED

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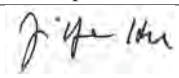
	Th	232	83677.0	4.2	**3.9338**	0.175	4.4	ug/L	1926	KED
>	**Bi**	209	542382.5	1.5				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	961.7	5.7	**-0.0265**	0.003	9.8	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	3.3	86.6	**-21.9214**	39.606	180.7	mg/L	2	KED
	Fe	54	6613.1	4.2	**5.8127**	0.314	5.4	mg/L	10	KED
	Fe	57	13854.7	1.0	**5.7313**	0.134	2.3	mg/L	22	KED
>	**Sc-1**	45	91507.2	1.4				mg/L	87229	KED
	Cl	35	2506.9	4.9				ug/L	2227	KED
	Kr	83	5.0	100.0				ug/L	2	KED
	Br	81	20.0	43.3				ug/L	23	KED
	P	31	45.0	29.4				ug/L	212	KED
	S	34	33.3	48.2				ug/L	37	KED
	Sr	88	1915.1	12.1				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		104.905	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		106.182	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		106.156
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		105.362
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		104.905
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	

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Method 6020 - Summary Report

Sample ID: L1908017810SD WG710688-05
Sample Date/Time: Wednesday, September 04, 2019 15:51:19
Number of Replicates: 3
Autosampler Position: 209
Sample Description: 10
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	10960.6	2.1				ug/L	9383	KED
|	Be	9	62.7	6.0	**0.7425**	0.014	1.9	ug/L	0	KED
|	Al	27	20512.2	3.1				ug/L	73	KED
|>	Sc-2	45	92483.1	4.3				ug/L	87229	KED
⌈	Ti	47	504.0	3.8	**33.3647**	1.169	3.5	ug/L	11	KED
|	V	51	21248.9	1.5	**7.7660**	1.047	13.5	ug/L	10753	KED
|	Cr	52	22123.5	1.4	**10.3984**	0.638	6.1	ug/L	489	KED
|	Cr	53	8685.8	1.3	**7.4189**	1.285	17.3	ug/L	6416	KED
|	Mn	55	249082.5	0.9	**166.0391**	9.079	5.5	ug/L	206	KED
|	Co	59	25776.6	1.6	**4.8166**	0.280	5.8	ug/L	86	KED
|	Ni	60	23005.5	0.5	**14.5819**	0.809	5.6	ug/L	1252	KED
|	Cu	65	19971.2	0.9	**10.2340**	0.590	5.8	ug/L	418	KED
|	Zn	66	43343.2	0.1	**80.4341**	3.845	4.8	ug/L	204	KED
|>	Ge	72	249836.1	4.8				ug/L	234818	KED
|	As	75	4222.3	3.3	**7.8146**	0.564	7.2	ug/L	719	KED
|	Se	82	69.8	9.8	**3.0499**	0.516	16.9	ug/L	15	KED
|	Se-1	78	166.5	7.1	**3.3756**	0.458	13.6	ug/L	35	KED
⌊	Se-1	80	25138.2	0.9	**4.6430**	9.905	213.3	ug/L	23187	KED
	Ga	71	850.0	5.7				ug/L	33	KED
	Rb	85	5357.6	4.0				ug/L	13	KED
	Y	89	211658.2	4.2				ug/L	191699	KED
	Rh	103	16.7	34.6				ug/L	5	KED
⌈	Mo	98	11008.7	1.9	**2.9929**	0.210	7.0	ug/L	47	KED
|	Ag	107	21669.2	0.8	**2.9793**	0.141	4.7	ug/L	173	KED
|	Cd	111	1891.8	2.8	**1.8018**	0.045	2.5	ug/L	5	KED
|	Cd	114	4804.1	1.5	**1.8571**	0.124	6.7	ug/L	29	KED
|>	In	115	262610.7	5.3				ug/L	248460	KED
|	Sn	118	6583.8	1.1	**2.9261**	0.199	6.8	ug/L	556	KED
|	Sb	123	5984.8	1.6	**3.2445**	0.217	6.7	ug/L	79	KED
⌊	Ba	135	22271.4	1.3	**37.7145**	2.279	6.0	ug/L	15	KED
	Ce	140	104483.7	1.6				ug/L	45	KED
	Tb	159	678986.8	2.9				ug/L	661680	KED
⌈	Ho	165	1470.1	5.1				ug/L	5	KED
|	Tl	203	3225.7	3.9	**0.6265**	0.042	6.7	ug/L	8	KED
|	Tl	205	7831.0	1.4	**0.6129**	0.031	5.0	ug/L	16	KED
|	Pb	206	60053.8	1.1	**13.6091**	0.638	4.7	ug/L	316	KED
|	Pb	207	51013.4	1.3	**13.0705**	0.642	4.9	ug/L	291	KED
|	Pb	208	128948.1	0.9	**13.2712**	0.594	4.5	ug/L	695	KED
|	U	238	70511.7	0.5	**2.9241**	0.090	3.1	ug/L	16	KED

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	Th	232	58919.0	6.7	**2.7378**	0.135	4.9	ug/L	1926	KED
>	**Bi**	209	542739.3	3.5				ug/L	514781	KED
	Na	23	1.7	173.2				mg/L	0	KED
	Mg	24	911.7	6.2	**-0.0294**	0.005	16.3	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	3.3	86.6	**-22.2518**	39.890	179.3	mg/L	2	KED
	Fe	54	4684.1	2.0	**4.0726**	0.140	3.4	mg/L	10	KED
	Fe	57	9291.2	2.5	**3.8021**	0.137	3.6	mg/L	22	KED
>	**Sc-1**	45	92483.1	4.3				mg/L	87229	KED
	Cl	35	2388.5	6.2				ug/L	2227	KED
	Kr	83	10.0					ug/L	2	KED
	Br	81	23.3	53.9				ug/L	23	KED
	P	31	60.0	22.0				ug/L	212	KED
	S	34	26.7	28.6				ug/L	37	KED
	Sr	88	1171.7	2.8				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		106.024	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		106.396	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908017810SD WG710688-05
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	105.696
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	105.431
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	106.024
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	

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Method 6020 - Summary Report

Sample ID: L1908017808PS WG710720-01
Sample Date/Time: Wednesday, September 04, 2019 15:54:11
Number of Replicates: 3
Autosampler Position: 210
Sample Description: 10
Method File: C:\NexION\Data\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10922.3	3.9				ug/L	9383	KED
|	**Be**	9	857.0	3.3	**10.3531**	0.322	3.1	ug/L	0	KED
|	**Al**	27	34901.9	3.7				ug/L	73	KED
⌊>	**Sc-2**	45	90760.1	2.0				ug/L	87229	KED
⌈	**Ti**	47	1327.4	2.6	**90.9942**	1.166	1.3	ug/L	11	KED
|	**V**	51	82281.9	1.9	**57.2521**	1.005	1.8	ug/L	10753	KED
|	**Cr**	52	198585.6	3.4	**97.2258**	3.794	3.9	ug/L	489	KED
|	**Cr**	53	33171.3	1.3	**107.4127**	2.814	2.6	ug/L	6416	KED
|	**Mn**	55	420719.9	3.1	**286.1747**	10.698	3.7	ug/L	206	KED
|	**Co**	59	247129.9	2.4	**47.2484**	1.369	2.9	ug/L	86	KED
|	**Ni**	60	268128.2	1.0	**183.1021**	3.794	2.1	ug/L	1252	KED
|	**Cu**	65	178822.4	2.3	**95.3587**	3.142	3.3	ug/L	418	KED
|	**Zn**	66	493285.1	2.5	**938.2412**	30.595	3.3	ug/L	204	KED
|>	**Ge**	72	244554.1	1.4				ug/L	234818	KED
|	**As**	75	23048.5	2.3	**51.4017**	1.745	3.4	ug/L	719	KED
|	**Se**	82	801.5	4.0	**45.0946**	1.302	2.9	ug/L	15	KED
|	**Se-1**	78	1752.6	3.7	**45.5626**	2.008	4.4	ug/L	35	KED
⌊	**Se-1**	80	28696.5	0.4	**42.9813**	3.516	8.2	ug/L	23187	KED
	Ga	71	1431.7	7.7				ug/L	33	KED
	Rb	85	8355.6	4.7				ug/L	13	KED
	Y	89	209725.8	3.1				ug/L	191699	KED
	Rh	103	18.3	31.5				ug/L	5	KED
⌈	**Mo**	98	147059.3	1.2	**40.8398**	1.346	3.3	ug/L	47	KED
|	**Ag**	107	324039.2	1.9	**45.7278**	2.068	4.5	ug/L	173	KED
|	**Cd**	111	27358.7	1.8	**26.6199**	1.174	4.4	ug/L	5	KED
|	**Cd**	114	67280.4	1.5	**26.6229**	1.108	4.2	ug/L	29	KED
|>	**In**	115	257671.9	2.6				ug/L	248460	KED
|	**Sn**	118	84383.3	0.6	**41.6040**	1.196	2.9	ug/L	556	KED
|	**Sb**	123	72580.4	0.8	**40.5495**	1.222	3.0	ug/L	79	KED
⌊	**Ba**	135	98880.0	1.3	**170.5073**	6.617	3.9	ug/L	15	KED
	Ce	140	152827.3	1.3				ug/L	45	KED
	Tb	159	667123.1	2.5				ug/L	661680	KED
⌈	**Ho**	165	1696.8	2.2				ug/L	5	KED
|	**Tl**	203	42602.5	1.5	**8.4423**	0.252	3.0	ug/L	8	KED
|	**Tl**	205	105521.6	1.4	**8.4255**	0.274	3.2	ug/L	16	KED
|	**Pb**	206	224512.1	2.4	**52.0227**	2.062	4.0	ug/L	316	KED
|	**Pb**	207	196423.1	2.2	**51.4764**	1.972	3.8	ug/L	291	KED
|	**Pb**	208	498134.5	2.1	**52.4347**	2.125	4.1	ug/L	695	KED
|	**U**	238	959694.1	2.5	**40.5512**	1.626	4.0	ug/L	16	KED

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	Th	232	819521.9	1.4	**40.1194**	1.163	2.9	ug/L	1926	KED
>	**Bi**	209	532639.3	2.0				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	983.4	9.2	**-0.0249**	0.005	18.4	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**23.8084**	0.000	0.0	mg/L	2	KED
	Fe	54	7121.7	2.8	**6.3129**	0.300	4.7	mg/L	10	KED
	Fe	57	14014.8	3.4	**5.8475**	0.295	5.0	mg/L	22	KED
>	**Sc-1**	45	90760.1	2.0				mg/L	87229	KED
	Cl	35	2540.2	2.3				ug/L	2227	KED
	Kr	83	5.0	100.0				ug/L	2	KED
	Br	81	35.0	24.7				ug/L	23	KED
	P	31	55.0	32.8				ug/L	212	KED
	S	34	31.7	48.2				ug/L	37	KED
	Sr	88	1975.1	1.8				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		104.048	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		104.146	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	103.708
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	103.469
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	104.048
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
Mn 55 Upper, S, EEE	Mn	55	

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Method 6020 - Summary Report

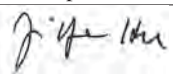
Sample ID: L1908017808SDL WG710720-02
Sample Date/Time: Wednesday, September 04, 2019 15:57:02
Number of Replicates: 3
Autosampler Position: 211
Sample Description: 50
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	10216.8	5.0				ug/L	9383	KED
|	Be	9	3.3	17.3	**0.0408**	0.006	15.1	ug/L	0	KED
|	Al	27	5619.4	3.1				ug/L	73	KED
\>	Sc-2	45	89366.2	2.1				ug/L	87229	KED
⌈	Ti	47	113.0	17.6	**7.1163**	1.455	20.4	ug/L	11	KED
|	V	51	11570.4	8.3	**0.3733**	0.722	193.3	ug/L	10753	KED
|	Cr	52	2519.2	11.9	**0.9962**	0.139	14.0	ug/L	489	KED
|	Cr	53	6288.0	4.4	**-1.3930**	0.941	67.6	ug/L	6416	KED
|	Mn	55	46682.5	0.9	**31.8794**	0.069	0.2	ug/L	206	KED
|	Co	59	2527.9	17.6	**0.4698**	0.081	17.3	ug/L	86	KED
|	Ni	60	1766.1	20.0	**0.3258**	0.234	71.7	ug/L	1252	KED
|	Cu	65	2162.2	8.2	**0.9321**	0.085	9.1	ug/L	418	KED
|	Zn	66	3409.1	19.0	**6.1281**	1.187	19.4	ug/L	204	KED
\>	Ge	72	242552.5	0.9				ug/L	234818	KED
|	As	75	1332.1	4.5	**1.3698**	0.127	9.3	ug/L	719	KED
|	Se	82	22.8	7.7	**0.4344**	0.096	22.2	ug/L	15	KED
|	Se-1	78	42.0	3.6	**0.1613**	0.046	28.5	ug/L	35	KED
⌊	Se-1	80	24798.3	1.1	**8.0931**	4.509	55.7	ug/L	23187	KED
	Ga	71	278.3	14.6				ug/L	33	KED
	Rb	85	1475.1	4.2				ug/L	13	KED
	Y	89	195226.7	1.9				ug/L	191699	KED
	Rh	103	8.3	34.6				ug/L	5	KED
⌈	Mo	98	1049.0	15.4	**0.2768**	0.044	15.8	ug/L	47	KED
|	Ag	107	420.0	94.3	**0.0337**	0.055	164.4	ug/L	173	KED
|	Cd	111	43.3	106.2	**0.0372**	0.044	119.2	ug/L	5	KED
|	Cd	114	113.0	78.2	**0.0326**	0.035	106.3	ug/L	29	KED
\>	In	115	258461.2	0.7				ug/L	248460	KED
|	Sn	118	818.0	10.8	**0.1185**	0.042	35.8	ug/L	556	KED
|	Sb	123	1449.4	2.4	**0.7619**	0.014	1.9	ug/L	79	KED
⌊	Ba	135	4071.5	2.2	**6.9691**	0.105	1.5	ug/L	15	KED
	Ce	140	25609.6	2.7				ug/L	45	KED
	Tb	159	663583.8	1.0				ug/L	661680	KED
⌈	Ho	165	295.0	7.9				ug/L	5	KED
|	Tl	203	108.0	26.6	**0.0197**	0.005	26.8	ug/L	8	KED
|	Tl	205	248.0	36.0	**0.0184**	0.007	36.7	ug/L	16	KED
|	Pb	206	8231.2	0.9	**1.8287**	0.015	0.8	ug/L	316	KED
|	Pb	207	6758.2	2.8	**1.6894**	0.031	1.9	ug/L	291	KED
|	Pb	208	17427.7	1.5	**1.7558**	0.024	1.4	ug/L	695	KED
|	U	238	2026.2	46.8	**0.0842**	0.038	45.5	ug/L	16	KED

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	Th	232	9539.5	24.9	**0.3679**	0.108	29.4	ug/L	1926	KED
>	**Bi**	209	534011.0	1.6				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	700.0	10.1	**-0.0393**	0.004	10.6	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	3.3	173.2	**-23.2048**	81.429	350.9	mg/L	2	KED
	Fe	54	1185.0	5.1	**1.0582**	0.039	3.7	mg/L	10	KED
	Fe	57	2331.8	4.0	**0.9800**	0.044	4.5	mg/L	22	KED
>	**Sc-1**	45	89366.2	2.1				mg/L	87229	KED
	Cl	35	2076.8	5.2				ug/L	2227	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	18.3	41.7				ug/L	23	KED
	P	31	73.3	30.7				ug/L	212	KED
	S	34	51.7	34.0				ug/L	37	KED
	Sr	88	325.0	15.6				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		102.450	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		103.294	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		104.025
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊ >	Bi	209		103.736
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊ >	Sc-1	45		102.450
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Th 232 Lower	Th	232	

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Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, September 04, 2019 15:59:56
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	11030.7	4.2				ug/L	9383	KED
|	**Be**	9	543.3	6.5	**6.5015**	0.459	7.1	ug/L	0	KED
|	**Al**	27	212790.6	1.2				ug/L	73	KED
\>	**Sc-2**	45	91651.4	2.0				ug/L	87229	KED
⌈	**Ti**	47	512.0	4.1	**32.4787**	1.725	5.3	ug/L	11	KED
|	**V**	51	49307.6	4.9	**28.2543**	1.414	5.0	ug/L	10753	KED
|	**Cr**	52	137880.9	0.5	**63.2871**	1.010	1.6	ug/L	489	KED
|	**Cr**	53	21348.4	6.7	**54.1340**	4.495	8.3	ug/L	6416	KED
|	**Mn**	55	98895.1	1.0	**63.0303**	0.330	0.5	ug/L	206	KED
|	**Co**	59	174056.1	0.8	**31.2338**	0.293	0.9	ug/L	86	KED
|	**Ni**	60	196253.9	0.6	**125.5332**	1.386	1.1	ug/L	1252	KED
|	**Cu**	65	125363.8	0.6	**62.6751**	0.872	1.4	ug/L	418	KED
|	**Zn**	66	351664.7	0.7	**627.7574**	7.327	1.2	ug/L	204	KED
\>	**Ge**	72	260487.7	1.4				ug/L	234818	KED
|	**As**	75	15387.1	2.1	**31.5627**	0.211	0.7	ug/L	719	KED
|	**Se**	82	587.7	1.9	**30.7779**	0.884	2.9	ug/L	15	KED
|	**Se-1**	78	1306.7	1.7	**31.5970**	0.337	1.1	ug/L	35	KED
⌊	**Se-1**	80	29667.4	0.6	**35.0056**	2.783	8.0	ug/L	23187	KED
	Ga	71	63.3	27.7				ug/L	33	KED
	Rb	85	185.0	9.7				ug/L	13	KED
	Y	89	220606.1	0.7				ug/L	191699	KED
	Rh	103	25.0	40.0				ug/L	5	KED
⌈	**Mo**	98	123452.2	0.1	**30.5911**	0.543	1.8	ug/L	47	KED
|	**Ag**	107	251069.4	0.3	**31.6027**	0.627	2.0	ug/L	173	KED
|	**Cd**	111	21792.3	0.2	**18.9160**	0.315	1.7	ug/L	5	KED
|	**Cd**	114	54321.6	1.9	**19.1709**	0.052	0.3	ug/L	29	KED
\>	**In**	115	288647.0	1.7				ug/L	248460	KED
|	**Sn**	118	71466.5	1.1	**31.3773**	0.781	2.5	ug/L	556	KED
|	**Sb**	123	62615.5	1.9	**31.2069**	0.737	2.4	ug/L	79	KED
⌊	**Ba**	135	60213.8	0.9	**92.6366**	2.075	2.2	ug/L	15	KED
	Ce	140	139.3	77.6				ug/L	45	KED
	Tb	159	721398.3	1.3				ug/L	661680	KED
⌈	**Ho**	165	6.3	55.5				ug/L	5	KED
|	**Tl**	203	32482.8	1.6	**6.2074**	0.140	2.3	ug/L	8	KED
|	**Tl**	205	80250.7	1.6	**6.1795**	0.177	2.9	ug/L	16	KED
|	**Pb**	206	138300.7	1.2	**30.8738**	0.752	2.4	ug/L	316	KED
|	**Pb**	207	122491.5	0.4	**30.9241**	0.502	1.6	ug/L	291	KED
|	**Pb**	208	305738.9	1.3	**31.0033**	0.766	2.5	ug/L	695	KED
|	**U**	238	767751.6	1.5	**31.2856**	0.845	2.7	ug/L	16	KED

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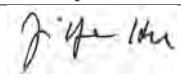
	Th	232	685073.2	1.3	**32.3263**	0.742	2.3	ug/L	1926	KED
>	**Bi**	209	552173.2	1.3				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	78291.8	2.3	**4.0159**	0.024	0.6	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	5.0	0.0	**-44.1882**	1.349	3.1	mg/L	2	KED
	Fe	54	4644.0	4.6	**4.0706**	0.162	4.0	mg/L	10	KED
	Fe	57	9401.2	0.7	**3.8802**	0.090	2.3	mg/L	22	KED
>	**Sc-1**	45	91651.4	2.0				mg/L	87229	KED
	Cl	35	1913.5	7.2				ug/L	2227	KED
	Kr	83	0.0					ug/L	2	KED
	Br	81	15.0	66.7				ug/L	23	KED
	P	31	70.0	31.1				ug/L	212	KED
	S	34	40.0	21.7				ug/L	37	KED
	Sr	88	35.0	37.8				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9	101.586		
	Al	27			
>	Sc-2	45		105.070	
	Ti	47	101.496		
	V	51	88.295		
	Cr	52	98.886		
	Cr	53			
	Mn	55	98.485		
	Co	59	97.606		
	Ni	60	98.073		
	Cu	65	97.930		
	Zn	66	98.087		
>	Ge	72		110.932	
	As	75	98.634		
	Se	82	96.181		
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103			
⌈	Mo	98	95.597		
|	Ag	107	98.759		
|	Cd	111	98.521		
|	Cd	114			
| >	In	115		116.175	
|	Sn	118	98.054		
|	Sb	123	97.522		
⌊	Ba	135	96.496		
	Ce	140			
	Tb	159			
⌈	Ho	165			
|	Tl	203	96.991		
|	Tl	205			
|	Pb	206	96.481		
|	Pb	207	96.638		
|	Pb	208	96.885		
|	U	238	97.768		
|	Th	232			
⌊ >	Bi	209		107.264	
⌈	Na	23			
|	Mg	24	100.399		
|	K	39	0.000		
|	Ca	43	-1104.704		
|	Fe	54	101.766		
|	Fe	57	97.004		
⌊ >	Sc-1	45		105.070	
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	V	51	
QC Std 6	K	39	
QC Std 6	Ca	43	

Sample ID: QC Std 6
Report Date/Time: Wednesday, September 04, 2019 16:02:15
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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, September 04, 2019 16:02:50
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10442.0	10.0				ug/L	9383	KED
|	**Be**	9	1.0	0.0	**0.0122**	0.001	11.6	ug/L	0	KED
|	**Al**	27	251.7	82.3				ug/L	73	KED
⌊>	**Sc-2**	45	90657.7	12.1				ug/L	87229	KED
⌈	**Ti**	47	13.0	23.1	**0.1004**	0.117	116.3	ug/L	11	KED
|	**V**	51	6123.3	18.2	**-4.2400**	0.373	8.8	ug/L	10753	KED
|	**Cr**	52	566.0	22.9	**0.0253**	0.085	336.0	ug/L	489	KED
|	**Cr**	53	3675.5	20.4	**-12.6694**	1.378	10.9	ug/L	6416	KED
|	**Mn**	55	291.0	36.1	**0.0514**	0.088	171.8	ug/L	206	KED
|	**Co**	59	198.3	86.5	**0.0219**	0.036	166.3	ug/L	86	KED
|	**Ni**	60	477.7	35.7	**-0.5676**	0.145	25.5	ug/L	1252	KED
|	**Cu**	65	286.0	40.0	**-0.0793**	0.075	94.2	ug/L	418	KED
|	**Zn**	66	425.7	75.1	**0.4221**	0.685	162.3	ug/L	204	KED
|>	**Ge**	72	251011.5	10.5				ug/L	234818	KED
|	**As**	75	757.0	6.0	**-0.0197**	0.084	428.0	ug/L	719	KED
|	**Se**	82	16.8	17.4	**0.0518**	0.105	202.3	ug/L	15	KED
|	**Se-1**	78	37.2	7.9	**0.0052**	0.124	2373.0	ug/L	35	KED
⌊	**Se-1**	80	24725.0	0.6	**1.1101**	23.948	2157.2	ug/L	23187	KED
	Ga	71	48.3	57.0				ug/L	33	KED
	Rb	85	23.3	32.7				ug/L	13	KED
	Y	89	202857.4	9.7				ug/L	191699	KED
	Rh	103	8.3	34.6				ug/L	5	KED
⌈	**Mo**	98	288.0	26.9	**0.0655**	0.026	40.1	ug/L	47	KED
|	**Ag**	107	279.3	54.0	**0.0142**	0.024	167.8	ug/L	173	KED
|	**Cd**	111	20.3	71.7	**0.0151**	0.015	102.0	ug/L	5	KED
|	**Cd**	114	64.3	71.7	**0.0136**	0.020	145.9	ug/L	29	KED
|>	**In**	115	264178.0	8.2				ug/L	248460	KED
|	**Sn**	118	642.3	8.0	**0.0269**	0.045	168.6	ug/L	556	KED
|	**Sb**	123	993.0	10.2	**0.5008**	0.097	19.4	ug/L	79	KED
⌊	**Ba**	135	47.3	94.7	**0.0567**	0.083	145.7	ug/L	15	KED
	Ce	140	25.3	18.2				ug/L	45	KED
	Tb	159	678574.1	7.2				ug/L	661680	KED
⌈	**Ho**	165	6.7	37.7				ug/L	5	KED
|	**Tl**	203	30.0	60.8	**0.0045**	0.004	87.8	ug/L	8	KED
|	**Tl**	205	57.0	81.9	**0.0034**	0.004	118.5	ug/L	16	KED
|	**Pb**	206	409.3	24.7	**0.0208**	0.028	136.3	ug/L	316	KED
|	**Pb**	207	383.0	31.2	**0.0236**	0.037	156.4	ug/L	291	KED
|	**Pb**	208	927.4	18.4	**0.0234**	0.022	95.7	ug/L	695	KED
|	**U**	238	496.7	113.4	**0.0211**	0.025	120.3	ug/L	16	KED

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	Th	232	9515.4	20.4	**0.3770**	0.121	32.0	ug/L	1926	KED
>	**Bi**	209	528544.4	6.7				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	728.4	12.7	**-0.0376**	0.009	24.8	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**23.8084**	0.000	0.0	mg/L	2	KED
	Fe	54	15.0	120.2	**0.0054**	0.018	334.5	mg/L	10	KED
	Fe	57	28.3	36.7	**0.0027**	0.006	204.0	mg/L	22	KED
>	**Sc-1**	45	90657.7	12.1				mg/L	87229	KED
	Cl	35	2485.2	1.8				ug/L	2227	KED
	Kr	83	6.7	43.3				ug/L	2	KED
	Br	81	25.0	20.0				ug/L	23	KED
	P	31	48.3	33.3				ug/L	212	KED
	S	34	45.0	19.2				ug/L	37	KED
	Sr	88	28.3	36.7				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		103.931	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		106.896	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	106.326
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	102.674
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	103.931
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 7	V	51	
QC Std 7	Sb	123	
QC Std 7	Ca	43	

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Method 6020 - Summary Report

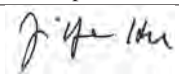
Sample ID: L1908017814
Sample Date/Time: Wednesday, September 04, 2019 16:05:41
Number of Replicates: 3
Autosampler Position: 212
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	12563.5	5.3				ug/L	9383	KED
|	**Be**	9	159.3	8.7	**1.7390**	0.145	8.3	ug/L	0	KED
|	**Al**	27	377976.6	3.4				ug/L	73	KED
\>	**Sc-2**	45	100426.8	1.2				ug/L	87229	KED
⌈	**Ti**	47	5658.7	2.6	**395.8082**	11.143	2.8	ug/L	11	KED
|	**V**	51	124374.7	3.1	**92.4897**	0.859	0.9	ug/L	10753	KED
|	**Cr**	52	100217.3	3.8	**49.5869**	0.970	2.0	ug/L	489	KED
|	**Cr**	53	22251.3	0.6	**64.3608**	1.789	2.8	ug/L	6416	KED
|	**Mn**	55	3819030.0	3.0	**2633.0686**	21.598	0.8	ug/L	206	KED
|	**Co**	59	123920.0	3.0	**23.9970**	0.265	1.1	ug/L	86	KED
|	**Ni**	60	79070.5	2.2	**54.0909**	0.711	1.3	ug/L	1252	KED
|	**Cu**	65	91555.5	1.6	**49.3638**	0.704	1.4	ug/L	418	KED
|	**Zn**	66	89259.2	1.9	**171.7118**	2.285	1.3	ug/L	204	KED
\>	**Ge**	72	241310.8	2.4				ug/L	234818	KED
|	**As**	75	16300.8	1.1	**36.3580**	0.980	2.7	ug/L	719	KED
|	**Se**	82	116.0	4.1	**5.8659**	0.433	7.4	ug/L	15	KED
|	**Se-1**	78	141.2	0.4	**2.8356**	0.089	3.1	ug/L	35	KED
⌊	**Se-1**	80	23312.1	2.3	**-4.9371**	0.342	6.9	ug/L	23187	KED
	Ga	71	11524.4	0.9				ug/L	33	KED
	Rb	85	61842.7	2.7				ug/L	13	KED
	Y	89	294975.8	1.7				ug/L	191699	KED
	Rh	103	33.3	60.6				ug/L	5	KED
⌈	**Mo**	98	11575.8	1.5	**3.3544**	0.042	1.2	ug/L	47	KED
|	**Ag**	107	582.7	5.1	**0.0610**	0.006	10.5	ug/L	173	KED
|	**Cd**	111	301.3	7.5	**0.3021**	0.016	5.2	ug/L	5	KED
|	**Cd**	114	779.4	2.4	**0.3111**	0.001	0.4	ug/L	29	KED
\>	**In**	115	245937.4	2.4				ug/L	248460	KED
|	**Sn**	118	3601.1	1.3	**1.5866**	0.049	3.1	ug/L	556	KED
|	**Sb**	123	4411.3	3.2	**2.5385**	0.088	3.5	ug/L	79	KED
⌊	**Ba**	135	223689.8	1.7	**403.9414**	3.458	0.9	ug/L	15	KED
	Ce	140	1348580.8	1.6				ug/L	45	KED
	Tb	159	681774.9	2.0				ug/L	661680	KED
⌈	**Ho**	165	15731.2	0.9				ug/L	5	KED
|	**Tl**	203	3701.8	2.0	**0.7485**	0.015	2.0	ug/L	8	KED
|	**Tl**	205	9060.0	1.4	**0.7383**	0.010	1.3	ug/L	16	KED
|	**Pb**	206	188609.8	1.2	**44.6656**	0.647	1.4	ug/L	316	KED
|	**Pb**	207	155076.2	0.4	**41.5325**	0.661	1.6	ug/L	291	KED
|	**Pb**	208	395352.2	0.9	**42.5245**	0.480	1.1	ug/L	695	KED
|	**U**	238	59132.5	0.5	**2.5536**	0.037	1.5	ug/L	16	KED

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	Th	232	343481.3	1.0	**17.1386**	0.470	2.7	ug/L	1926	KED
>	**Bi**	209	520875.0	1.9				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	3665.4	4.6	**0.0980**	0.007	7.4	mg/L	1398	KED
	K	39	1.7	173.2	**6.7567**	11.703	173.2	mg/L	0	KED
	Ca	43	6.7	173.2	**-57.7796**	141.315	244.6	mg/L	2	KED
	Fe	54	71424.6	1.6	**57.2642**	1.150	2.0	mg/L	10	KED
	Fe	57	149495.6	0.3	**56.4259**	0.715	1.3	mg/L	22	KED
>	**Sc-1**	45	100426.8	1.2				mg/L	87229	KED
	Cl	35	5054.2	3.6				ug/L	2227	KED
	Kr	83	3.3	173.2				ug/L	2	KED
	Br	81	120.0	18.2				ug/L	23	KED
	P	31	110.0	19.8				ug/L	212	KED
	S	34	36.7	56.8				ug/L	37	KED
	Sr	88	37847.2	2.7				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		115.130	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		102.765	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		98.985
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊>	Bi	209		101.184
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		115.130
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
V 51 Upper, S, EEE	V	51	
Mn 55 Upper, S, EEE	Mn	55	
Ba 135 Upper, S, EEE	Ba	135	

Approved: September 05, 2019

Method 6020 - Summary Report

Sample ID: L1908017815
Sample Date/Time: Wednesday, September 04, 2019 16:08:35
Number of Replicates: 3
Autosampler Position: 213
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	11412.6	2.9				ug/L	9383	KED
|	**Be**	9	34.3	19.8	**0.3915**	0.073	18.7	ug/L	0	KED
|	**Al**	27	397384.5	1.5				ug/L	73	KED
⌊>	**Sc-2**	45	96021.0	1.0				ug/L	87229	KED
⌈	**Ti**	47	1077.4	3.0	**70.8968**	2.085	2.9	ug/L	11	KED
|	**V**	51	26166.2	2.1	**11.2543**	0.166	1.5	ug/L	10753	KED
|	**Cr**	52	49120.5	1.4	**22.9431**	0.194	0.8	ug/L	489	KED
|	**Cr**	53	10173.4	1.4	**12.5915**	0.538	4.3	ug/L	6416	KED
|	**Mn**	55	1299143.5	1.0	**850.3435**	8.776	1.0	ug/L	206	KED
|	**Co**	59	335121.9	1.1	**61.6437**	0.900	1.5	ug/L	86	KED
|	**Ni**	60	32423.3	0.5	**20.5111**	0.375	1.8	ug/L	1252	KED
|	**Cu**	65	35630.5	0.8	**18.0886**	0.151	0.8	ug/L	418	KED
|	**Zn**	66	73951.0	0.6	**134.9605**	1.459	1.1	ug/L	204	KED
|>	**Ge**	72	254199.0	1.6				ug/L	234818	KED
|	**As**	75	6716.8	0.9	**13.1698**	0.337	2.6	ug/L	719	KED
|	**Se**	82	61.7	4.1	**2.5195**	0.184	7.3	ug/L	15	KED
|	**Se-1**	78	93.7	15.5	**1.4259**	0.340	23.8	ug/L	35	KED
⌊	**Se-1**	80	26652.1	1.4	**14.0987**	0.679	4.8	ug/L	23187	KED
	Ga	71	1988.5	1.8				ug/L	33	KED
	Rb	85	9056.0	5.8				ug/L	13	KED
	Y	89	264013.9	1.3				ug/L	191699	KED
	Rh	103	30.0	16.7				ug/L	5	KED
⌈	**Mo**	98	6324.3	1.3	**1.7148**	0.006	0.3	ug/L	47	KED
|	**Ag**	107	1827.4	1.6	**0.2285**	0.006	2.6	ug/L	173	KED
|	**Cd**	111	930.4	3.1	**0.8859**	0.030	3.4	ug/L	5	KED
|	**Cd**	114	2285.2	1.5	**0.8779**	0.000	0.1	ug/L	29	KED
|>	**In**	115	261788.5	1.5				ug/L	248460	KED
|	**Sn**	118	2315.5	1.7	**0.8451**	0.035	4.2	ug/L	556	KED
|	**Sb**	123	1389.4	3.2	**0.7190**	0.035	4.9	ug/L	79	KED
⌊	**Ba**	135	77768.1	1.5	**131.9010**	1.288	1.0	ug/L	15	KED
	Ce	140	298261.3	1.8				ug/L	45	KED
	Tb	159	682981.8	2.5				ug/L	661680	KED
⌈	**Ho**	165	5266.6	2.3				ug/L	5	KED
|	**Tl**	203	745.7	2.3	**0.1537**	0.006	4.0	ug/L	8	KED
|	**Tl**	205	1858.8	1.5	**0.1546**	0.001	0.7	ug/L	16	KED
|	**Pb**	206	140331.3	1.1	**34.1205**	0.515	1.5	ug/L	316	KED
|	**Pb**	207	116916.4	1.6	**32.1463**	0.586	1.8	ug/L	291	KED
|	**Pb**	208	296914.7	0.6	**32.7906**	0.438	1.3	ug/L	695	KED
|	**U**	238	40387.4	1.1	**1.7918**	0.051	2.8	ug/L	16	KED

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	Th	232	60997.6	6.6	**3.0480**	0.250	8.2	ug/L	1926	KED
>	**Bi**	209	507049.3	1.8				ug/L	514781	KED
	Na	23	5.0	100.0				mg/L	0	KED
	Mg	24	5586.0	0.9	**0.2019**	0.004	1.8	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	108.3	7.1	**-1382.7510**	111.697	8.1	mg/L	2	KED
	Fe	54	16806.0	2.1	**14.0871**	0.446	3.2	mg/L	10	KED
	Fe	57	34641.2	2.7	**13.6666**	0.354	2.6	mg/L	22	KED
>	**Sc-1**	45	96021.0	1.0				mg/L	87229	KED
	Cl	35	4230.6	1.9				ug/L	2227	KED
	Kr	83	0.0					ug/L	2	KED
	Br	81	115.0	38.6				ug/L	23	KED
	P	31	78.3	13.3				ug/L	212	KED
	S	34	23.3	49.5				ug/L	37	KED
	Sr	88	102641.6	2.4				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		110.080	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		108.254	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908017815
Report Date/Time: Wednesday, September 04, 2019 16:10:54
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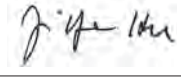
Approved: September 05, 2019

	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	105.365
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	98.498
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	110.080
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	

Approved: September 05, 2019



Method 6020 - Summary Report

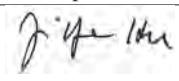
Sample ID: L1908017816
Sample Date/Time: Wednesday, September 04, 2019 16:11:27
Number of Replicates: 3
Autosampler Position: 214
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	12026.4	3.8				ug/L	9383	KED
|	Be	9	127.3	9.9	1.4305	0.153	10.7	ug/L	0	KED
|	Al	27	422485.7	1.9				ug/L	73	KED
⌊>	Sc-2	45	97664.2	2.2				ug/L	87229	KED
⌈	Ti	47	5714.4	2.0	373.2048	4.121	1.1	ug/L	11	KED
|	V	51	122446.5	0.8	84.3466	1.575	1.9	ug/L	10753	KED
|	Cr	52	91880.4	1.1	42.4370	0.482	1.1	ug/L	489	KED
|	Cr	53	17041.2	1.7	38.3201	1.657	4.3	ug/L	6416	KED
|	Mn	55	3877651.2	0.5	2497.6331	29.138	1.2	ug/L	206	KED
|	Co	59	152807.0	0.8	27.6449	0.056	0.2	ug/L	86	KED
|	Ni	60	77106.7	1.3	49.1863	0.514	1.0	ug/L	1252	KED
|	Cu	65	92050.5	1.0	46.3366	0.109	0.2	ug/L	418	KED
|	Zn	66	95947.6	1.7	172.3822	1.348	0.8	ug/L	204	KED
| >	Ge	72	258340.2	0.9				ug/L	234818	KED
|	As	75	16879.1	0.9	35.0965	0.212	0.6	ug/L	719	KED
|	Se	82	129.0	8.0	6.1214	0.572	9.3	ug/L	15	KED
|	Se-1	78	142.0	4.7	2.6060	0.200	7.7	ug/L	35	KED
⌊	Se-1	80	25539.7	0.6	0.2804	2.722	970.7	ug/L	23187	KED
	Ga	71	13235.8	3.1				ug/L	33	KED
	Rb	85	67893.5	1.8				ug/L	13	KED
	Y	89	355195.6	1.3				ug/L	191699	KED
	Rh	103	38.3	49.4				ug/L	5	KED
⌈	Mo	98	11493.4	2.8	3.1486	0.058	1.8	ug/L	47	KED
|	Ag	107	745.7	5.2	0.0789	0.002	2.7	ug/L	173	KED
|	Cd	111	433.0	3.8	0.4126	0.017	4.1	ug/L	5	KED
|	Cd	114	1084.7	3.9	0.4133	0.011	2.7	ug/L	29	KED
| >	In	115	260088.2	3.2				ug/L	248460	KED
|	Sn	118	3720.8	0.5	1.5444	0.068	4.4	ug/L	556	KED
|	Sb	123	3979.5	1.2	2.1592	0.049	2.3	ug/L	79	KED
⌊	Ba	135	204068.5	1.3	348.5989	9.143	2.6	ug/L	15	KED
	Ce	140	1343408.3	1.2				ug/L	45	KED
	Tb	159	673810.5	3.4				ug/L	661680	KED
⌈	Ho	165	17858.2	2.3				ug/L	5	KED
|	Tl	203	3359.7	4.1	0.6948	0.025	3.6	ug/L	8	KED
|	Tl	205	8239.9	2.4	0.6868	0.007	1.0	ug/L	16	KED
|	Pb	206	187332.0	1.0	45.3881	0.799	1.8	ug/L	316	KED
|	Pb	207	155259.5	0.8	42.5429	0.866	2.0	ug/L	291	KED
|	Pb	208	397847.6	0.9	43.7866	0.995	2.3	ug/L	695	KED
|	U	238	64070.9	1.2	2.8315	0.096	3.4	ug/L	16	KED

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	Th	232	347347.2	1.4	**17.7364**	0.632	3.6	ug/L	1926	KED
>	**Bi**	209	509174.2	2.3				ug/L	514781	KED
	Na	23	3.3	173.2				mg/L	0	KED
	Mg	24	4127.2	3.4	**0.1258**	0.010	7.8	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	41.7	18.3	**-507.1206**	91.287	18.0	mg/L	2	KED
	Fe	54	67038.1	3.2	**55.2947**	2.679	4.8	mg/L	10	KED
	Fe	57	138656.7	1.6	**53.8382**	2.012	3.7	mg/L	22	KED
>	**Sc-1**	45	97664.2	2.2				mg/L	87229	KED
	Cl	35	4505.7	0.9				ug/L	2227	KED
	Kr	83	3.3	173.2				ug/L	2	KED
	Br	81	81.7	18.7				ug/L	23	KED
	P	31	61.7	28.5				ug/L	212	KED
	S	34	36.7	67.3				ug/L	37	KED
	Sr	88	69047.1	2.8				ug/L	18	KED
	C	12	1.7	173.2				ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		111.963	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		110.017	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	104.680
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	98.911
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	111.963
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
Mn 55 Upper, S, EEE	Mn	55	
Ba 135 Upper, S, EEE	Ba	135	

Approved: September 05, 2019

Method 6020 - Summary Report

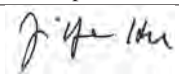
Sample ID: L1908017817
Sample Date/Time: Wednesday, September 04, 2019 16:14:20
Number of Replicates: 3
Autosampler Position: 215
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	11187.5	5.1				ug/L	9383	KED
|	**Be**	9	51.3	12.7	**0.6003**	0.071	11.8	ug/L	0	KED
|	**Al**	27	619264.3	1.8				ug/L	73	KED
\>	**Sc-2**	45	93677.0	1.0				ug/L	87229	KED
⌈	**Ti**	47	3466.1	0.4	**239.3115**	4.092	1.7	ug/L	11	KED
|	**V**	51	51902.4	0.2	**32.8624**	0.849	2.6	ug/L	10753	KED
|	**Cr**	52	129691.0	0.9	**63.5124**	0.854	1.3	ug/L	489	KED
|	**Cr**	53	21597.1	2.4	**60.6101**	1.061	1.8	ug/L	6416	KED
|	**Mn**	55	766494.7	0.9	**522.3875**	12.032	2.3	ug/L	206	KED
|	**Co**	59	36752.2	0.8	**7.0249**	0.185	2.6	ug/L	86	KED
|	**Ni**	60	39128.1	1.1	**25.9990**	0.303	1.2	ug/L	1252	KED
|	**Cu**	65	58520.5	0.9	**31.0985**	0.379	1.2	ug/L	418	KED
|	**Zn**	66	80670.5	0.5	**153.3471**	2.173	1.4	ug/L	204	KED
\>	**Ge**	72	244151.9	1.9				ug/L	234818	KED
|	**As**	75	14760.9	1.7	**32.3473**	0.162	0.5	ug/L	719	KED
|	**Se**	82	76.5	1.7	**3.5108**	0.074	2.1	ug/L	15	KED
|	**Se-1**	78	97.3	13.7	**1.6209**	0.305	18.8	ug/L	35	KED
⌊	**Se-1**	80	25731.8	0.1	**15.4062**	4.280	27.8	ug/L	23187	KED
	Ga	71	3632.1	4.9				ug/L	33	KED
	Rb	85	19135.4	0.8				ug/L	13	KED
	Y	89	281523.2	1.2				ug/L	191699	KED
	Rh	103	56.7	53.9				ug/L	5	KED
⌈	**Mo**	98	12006.8	1.6	**3.3807**	0.127	3.7	ug/L	47	KED
|	**Ag**	107	1442.1	12.5	**0.1821**	0.029	15.9	ug/L	173	KED
|	**Cd**	111	1141.0	1.9	**1.1250**	0.043	3.8	ug/L	5	KED
|	**Cd**	114	2750.9	3.3	**1.0956**	0.034	3.1	ug/L	29	KED
\>	**In**	115	253217.1	2.3				ug/L	248460	KED
|	**Sn**	118	4205.3	2.4	**1.8386**	0.095	5.2	ug/L	556	KED
|	**Sb**	123	2717.6	1.2	**1.5007**	0.041	2.7	ug/L	79	KED
⌊	**Ba**	135	82297.9	0.9	**144.3694**	4.113	2.8	ug/L	15	KED
	Ce	140	387702.4	0.5				ug/L	45	KED
	Tb	159	660700.7	0.7				ug/L	661680	KED
⌈	**Ho**	165	8560.4	0.7				ug/L	5	KED
|	**Tl**	203	928.4	3.9	**0.2008**	0.008	4.2	ug/L	8	KED
|	**Tl**	205	2381.5	1.8	**0.2078**	0.002	0.9	ug/L	16	KED
|	**Pb**	206	378687.6	0.3	**96.5375**	0.699	0.7	ug/L	316	KED
|	**Pb**	207	318190.0	0.3	**91.7423**	0.747	0.8	ug/L	291	KED
|	**Pb**	208	804881.8	0.6	**93.2054**	1.326	1.4	ug/L	695	KED
|	**U**	238	42126.8	1.0	**1.9563**	0.011	0.6	ug/L	16	KED

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	Th	232	79341.9	5.0	**4.1843**	0.239	5.7	ug/L	1926	KED
>	**Bi**	209	484259.0	0.9				ug/L	514781	KED
	Na	23	10.0	50.0				mg/L	0	KED
	Mg	24	7380.1	2.6	**0.3007**	0.014	4.5	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	148.3	19.2	**-1947.4276**	362.490	18.6	mg/L	2	KED
	Fe	54	22641.9	2.2	**19.4516**	0.249	1.3	mg/L	10	KED
	Fe	57	46277.2	1.2	**18.7197**	0.390	2.1	mg/L	22	KED
>	**Sc-1**	45	93677.0	1.0				mg/L	87229	KED
	Cl	35	4379.0	4.5				ug/L	2227	KED
	Kr	83	3.3	173.2				ug/L	2	KED
	Br	81	98.3	40.8				ug/L	23	KED
	P	31	71.7	28.2				ug/L	212	KED
	S	34	21.7	74.2				ug/L	37	KED
	Sr	88	144144.1	0.9				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		107.392	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		103.975	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908017817
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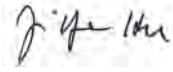
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	101.915
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	94.071
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	107.392
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
Mn 55 Upper, S, EEE	Mn	55	
Pb 208 Upper, S, EEE	Pb	208	

Approved: September 05, 2019



Method 6020 - Summary Report

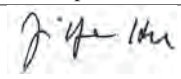
Sample ID: L1908017818
Sample Date/Time: Wednesday, September 04, 2019 16:17:13
Number of Replicates: 3
Autosampler Position: 216
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	11199.1	1.8				ug/L	9383	KED
|	**Be**	9	116.0	5.7	**1.3605**	0.084	6.2	ug/L	0	KED
|	**Al**	27	328938.1	1.9				ug/L	73	KED
⌊>	**Sc-2**	45	93494.6	1.1				ug/L	87229	KED
⌈	**Ti**	47	5640.0	1.8	**390.1779**	6.728	1.7	ug/L	11	KED
|	**V**	51	91692.6	1.3	**65.0237**	1.111	1.7	ug/L	10753	KED
|	**Cr**	52	152421.5	1.0	**74.7457**	0.443	0.6	ug/L	489	KED
|	**Cr**	53	25122.5	0.6	**75.0246**	0.503	0.7	ug/L	6416	KED
|	**Mn**	55	3198076.6	0.1	**2181.5427**	10.380	0.5	ug/L	206	KED
|	**Co**	59	116034.3	1.3	**22.2305**	0.375	1.7	ug/L	86	KED
|	**Ni**	60	83231.3	0.8	**56.3587**	0.265	0.5	ug/L	1252	KED
|	**Cu**	65	79410.6	0.2	**42.3174**	0.203	0.5	ug/L	418	KED
|	**Zn**	66	70529.1	0.7	**134.1199**	0.351	0.3	ug/L	204	KED
| >	**Ge**	72	243923.5	0.6				ug/L	234818	KED
|	**As**	75	15587.3	0.7	**34.2883**	0.237	0.7	ug/L	719	KED
|	**Se**	82	122.5	5.5	**6.1619**	0.416	6.7	ug/L	15	KED
|	**Se-1**	78	128.8	7.9	**2.4662**	0.287	11.6	ug/L	35	KED
⌊	**Se-1**	80	25618.1	0.5	**14.5081**	1.520	10.5	ug/L	23187	KED
	Ga	71	8410.7	2.6				ug/L	33	KED
	Rb	85	35003.7	2.4				ug/L	13	KED
	Y	89	336337.6	1.5				ug/L	191699	KED
	Rh	103	41.7	38.6				ug/L	5	KED
⌈	**Mo**	98	16795.0	0.7	**4.8138**	0.048	1.0	ug/L	47	KED
|	**Ag**	107	720.7	6.1	**0.0800**	0.007	8.3	ug/L	173	KED
|	**Cd**	111	674.0	6.5	**0.6735**	0.038	5.6	ug/L	5	KED
|	**Cd**	114	1673.4	3.4	**0.6734**	0.024	3.6	ug/L	29	KED
| >	**In**	115	248920.6	1.1				ug/L	248460	KED
|	**Sn**	118	4321.9	2.6	**1.9336**	0.042	2.2	ug/L	556	KED
|	**Sb**	123	3349.0	1.3	**1.8922**	0.011	0.6	ug/L	79	KED
⌊	**Ba**	135	169148.0	0.9	**301.7502**	1.341	0.4	ug/L	15	KED
	Ce	140	1164609.3	1.0				ug/L	45	KED
	Tb	159	663862.2	0.7				ug/L	661680	KED
⌈	**Ho**	165	17692.7	1.8				ug/L	5	KED
|	**Tl**	203	2080.8	2.1	**0.4363**	0.012	2.8	ug/L	8	KED
|	**Tl**	205	5209.6	2.0	**0.4404**	0.012	2.8	ug/L	16	KED
|	**Pb**	206	252442.1	0.9	**62.1075**	0.456	0.7	ug/L	316	KED
|	**Pb**	207	212695.5	0.5	**59.1827**	0.339	0.6	ug/L	291	KED
|	**Pb**	208	541913.1	0.7	**60.5602**	0.299	0.5	ug/L	695	KED
|	**U**	238	45377.9	0.4	**2.0348**	0.023	1.1	ug/L	16	KED

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	Th	232	203319.9	1.4	**10.4946**	0.093	0.9	ug/L	1926	KED
>	**Bi**	209	501544.6	0.8				ug/L	514781	KED
	Na	23	1.7	173.2				mg/L	0	KED
	Mg	24	3730.5	2.2	**0.1144**	0.006	5.5	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	53.3	60.3	**-688.3925**	431.678	62.7	mg/L	2	KED
	Fe	54	45339.4	1.8	**39.0451**	0.993	2.5	mg/L	10	KED
	Fe	57	94265.7	1.4	**38.2159**	0.812	2.1	mg/L	22	KED
>	**Sc-1**	45	93494.6	1.1				mg/L	87229	KED
	Cl	35	4454.0	4.0				ug/L	2227	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	100.0	10.0				ug/L	23	KED
	P	31	61.7	12.4				ug/L	212	KED
	S	34	18.3	63.0				ug/L	37	KED
	Sr	88	75440.7	1.0				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		107.183	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		103.878	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	100.186
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	97.429
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	107.183
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
Mn 55 Upper, S, EEE	Mn	55	
Ba 135 Upper, S, EEE	Ba	135	

Approved: September 05, 2019

Method 6020 - Summary Report

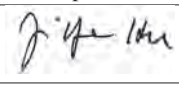
Sample ID: L1908017819
Sample Date/Time: Wednesday, September 04, 2019 16:20:06
Number of Replicates: 3
Autosampler Position: 217
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10111.7	2.9				ug/L	9383	KED
|	**Be**	9	44.0	6.0	**0.5423**	0.030	5.6	ug/L	0	KED
|	**Al**	27	858494.8	1.1				ug/L	73	KED
⌊>	**Sc-2**	45	88931.9	0.8				ug/L	87229	KED
⌈	**Ti**	47	2395.2	1.4	**175.2520**	3.829	2.2	ug/L	11	KED
|	**V**	51	42162.9	1.7	**27.0743**	0.728	2.7	ug/L	10753	KED
|	**Cr**	52	53256.4	1.0	**27.5313**	0.511	1.9	ug/L	489	KED
|	**Cr**	53	10718.8	3.2	**19.1044**	1.853	9.7	ug/L	6416	KED
|	**Mn**	55	648698.4	0.9	**468.9844**	5.409	1.2	ug/L	206	KED
|	**Co**	59	34630.5	0.6	**7.0214**	0.034	0.5	ug/L	86	KED
|	**Ni**	60	32834.9	0.8	**23.0495**	0.175	0.8	ug/L	1252	KED
|	**Cu**	65	39954.6	1.9	**22.4605**	0.255	1.1	ug/L	418	KED
|	**Zn**	66	79696.4	0.1	**160.7459**	1.377	0.9	ug/L	204	KED
|>	**Ge**	72	230099.8	0.9				ug/L	234818	KED
|	**As**	75	10963.3	0.7	**25.1273**	0.236	0.9	ug/L	719	KED
|	**Se**	82	61.7	10.6	**2.8766**	0.428	14.9	ug/L	15	KED
|	**Se-1**	78	90.5	5.3	**1.5907**	0.154	9.7	ug/L	35	KED
⌊	**Se-1**	80	25831.8	0.7	**31.2433**	3.961	12.7	ug/L	23187	KED
	Ga	71	3053.6	6.5				ug/L	33	KED
	Rb	85	17798.8	2.5				ug/L	13	KED
	Y	89	269418.0	1.7				ug/L	191699	KED
	Rh	103	55.0	15.7				ug/L	5	KED
⌈	**Mo**	98	6015.9	2.1	**1.7609**	0.032	1.8	ug/L	47	KED
|	**Ag**	107	1357.4	3.8	**0.1781**	0.006	3.3	ug/L	173	KED
|	**Cd**	111	998.4	1.9	**1.0266**	0.016	1.6	ug/L	5	KED
|	**Cd**	114	2516.2	0.9	**1.0456**	0.019	1.8	ug/L	29	KED
|>	**In**	115	242555.9	1.1				ug/L	248460	KED
|	**Sn**	118	3308.4	3.1	**1.4576**	0.045	3.1	ug/L	556	KED
|	**Sb**	123	1780.4	1.8	**1.0117**	0.029	2.9	ug/L	79	KED
⌊	**Ba**	135	44963.3	0.4	**82.3004**	0.569	0.7	ug/L	15	KED
	Ce	140	364053.6	0.8				ug/L	45	KED
	Tb	159	641345.6	0.8				ug/L	661680	KED
⌈	**Ho**	165	7239.7	2.9				ug/L	5	KED
|	**Tl**	203	909.7	3.1	**0.2018**	0.005	2.5	ug/L	8	KED
|	**Tl**	205	2220.8	1.9	**0.1987**	0.006	2.9	ug/L	16	KED
|	**Pb**	206	148317.2	1.4	**38.7415**	0.819	2.1	ug/L	316	KED
|	**Pb**	207	124757.9	1.3	**36.8545**	0.863	2.3	ug/L	291	KED
|	**Pb**	208	316222.2	0.6	**37.5146**	0.208	0.6	ug/L	695	KED
|	**U**	238	52246.9	0.8	**2.4890**	0.026	1.0	ug/L	16	KED

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	Th	232	76047.4	2.0	**4.1120**	0.124	3.0	ug/L	1926	KED
>	**Bi**	209	472104.5	1.1				ug/L	514781	KED
	Na	23	5.0	100.0				mg/L	0	KED
	Mg	24	7626.9	2.5	**0.3342**	0.013	3.8	mg/L	1398	KED
	K	39	1.7	173.2	**7.7932**	13.498	173.2	mg/L	0	KED
	Ca	43	251.7	18.9	**-3506.2032**	694.155	19.8	mg/L	2	KED
	Fe	54	16934.5	2.6	**15.3229**	0.327	2.1	mg/L	10	KED
	Fe	57	35038.8	0.7	**14.9271**	0.206	1.4	mg/L	22	KED
>	**Sc-1**	45	88931.9	0.8				mg/L	87229	KED
	Cl	35	4092.2	4.0				ug/L	2227	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	90.0	19.2				ug/L	23	KED
	P	31	88.3	8.6				ug/L	212	KED
	S	34	31.7	24.1				ug/L	37	KED
	Sr	88	210426.3	1.2				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		101.953	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		97.991	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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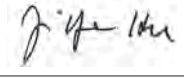
	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	97.624
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	91.710
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	101.953
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
Mn 55 Upper, S, EEE	Mn	55	

Sample ID: L1908017819
Report Date/Time: Wednesday, September 04, 2019 16:22:25
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Method 6020 - Summary Report

Sample ID: L1908017820
Sample Date/Time: Wednesday, September 04, 2019 16:22:58
Number of Replicates: 3
Autosampler Position: 218
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	10902.3	0.6				ug/L	9383	KED
|	Be	9	85.7	14.4	1.0095	0.146	14.5	ug/L	0	KED
|	Al	27	295318.9	1.4				ug/L	73	KED
|>	Sc-2	45	93055.6	1.7				ug/L	87229	KED
⌈	Ti	47	3810.1	1.5	262.5037	2.970	1.1	ug/L	11	KED
|	V	51	90205.4	0.4	63.5954	0.754	1.2	ug/L	10753	KED
|	Cr	52	70613.8	1.0	34.3882	0.574	1.7	ug/L	489	KED
|	Cr	53	14443.6	3.7	31.4435	2.509	8.0	ug/L	6416	KED
|	Mn	55	2311267.2	0.3	1571.6551	12.784	0.8	ug/L	206	KED
|	Co	59	87872.1	0.7	16.7774	0.102	0.6	ug/L	86	KED
|	Ni	60	65312.1	1.4	43.8910	0.440	1.0	ug/L	1252	KED
|	Cu	65	81103.2	0.9	43.0876	0.303	0.7	ug/L	418	KED
|	Zn	66	100274.5	1.7	190.2486	2.200	1.2	ug/L	204	KED
|>	Ge	72	244690.4	0.7				ug/L	234818	KED
|	As	75	12754.4	1.4	27.6493	0.211	0.8	ug/L	719	KED
|	Se	82	134.3	6.7	6.8155	0.474	7.0	ug/L	15	KED
|	Se-1	78	123.2	5.5	2.3036	0.161	7.0	ug/L	35	KED
⌊	Se-1	80	25652.4	1.3	14.0619	1.769	12.6	ug/L	23187	KED
	Ga	71	7258.4	5.2				ug/L	33	KED
	Rb	85	25164.2	4.1				ug/L	13	KED
	Y	89	355612.9	3.4				ug/L	191699	KED
	Rh	103	50.0	43.6				ug/L	5	KED
⌈	Mo	98	15843.0	3.6	4.4480	0.075	1.7	ug/L	47	KED
|	Ag	107	694.0	2.5	0.0741	0.001	1.9	ug/L	173	KED
|	Cd	111	1248.4	5.4	1.2265	0.054	4.4	ug/L	5	KED
|	Cd	114	3044.3	3.6	1.2096	0.020	1.6	ug/L	29	KED
|>	In	115	253998.2	2.0				ug/L	248460	KED
|	Sn	118	3601.1	2.3	1.5266	0.025	1.6	ug/L	556	KED
|	Sb	123	3043.3	1.1	1.6803	0.015	0.9	ug/L	79	KED
⌊	Ba	135	128920.4	2.5	225.3650	1.234	0.5	ug/L	15	KED
	Ce	140	887783.0	1.3				ug/L	45	KED
	Tb	159	676482.0	0.6				ug/L	661680	KED
⌈	Ho	165	18576.7	1.9				ug/L	5	KED
|	Tl	203	1743.1	0.4	0.3613	0.003	0.8	ug/L	8	KED
|	Tl	205	4350.6	2.4	0.3635	0.006	1.8	ug/L	16	KED
|	Pb	206	316301.9	1.5	76.9999	1.232	1.6	ug/L	316	KED
|	Pb	207	264257.5	1.5	72.7576	1.297	1.8	ug/L	291	KED
|	Pb	208	674914.1	2.1	74.6249	1.287	1.7	ug/L	695	KED
|	U	238	40427.2	2.0	1.7930	0.027	1.5	ug/L	16	KED

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	Th	232	171306.4	2.7	**8.7300**	0.186	2.1	ug/L	1926	KED
>	**Bi**	209	507021.4	1.2				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	3620.4	4.4	**0.1096**	0.007	6.4	mg/L	1398	KED
	K	39	1.7	173.2	**7.2989**	12.642	173.2	mg/L	0	KED
	Ca	43	23.3	75.3	**-288.4248**	232.515	80.6	mg/L	2	KED
	Fe	54	46255.5	1.7	**40.0254**	1.051	2.6	mg/L	10	KED
	Fe	57	95857.4	2.8	**39.0437**	1.106	2.8	mg/L	22	KED
>	**Sc-1**	45	93055.6	1.7				mg/L	87229	KED
	Cl	35	4635.7	4.0				ug/L	2227	KED
	Kr	83	5.0	100.0				ug/L	2	KED
	Br	81	75.0	20.0				ug/L	23	KED
	P	31	73.3	21.9				ug/L	212	KED
	S	34	40.0	12.5				ug/L	37	KED
	Sr	88	64917.2	2.7				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		106.680	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		104.204	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908017820
Report Date/Time: Wednesday, September 04, 2019 16:25:18
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	102.229
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	98.493
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	106.680
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
Mn 55 Upper, S, EEE	Mn	55	
Ba 135 Upper, S, EEE	Ba	135	

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Method 6020 - Summary Report

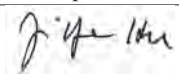
Sample ID: L1908017821
Sample Date/Time: Wednesday, September 04, 2019 16:25:50
Number of Replicates: 3
Autosampler Position: 219
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	12216.6	0.8				ug/L	9383	KED
|	Be	9	161.0	9.6	1.7823	0.187	10.5	ug/L	0	KED
|	Al	27	421012.8	1.0				ug/L	73	KED
⌊>	Sc-2	45	99091.7	0.9				ug/L	87229	KED
⌈	Ti	47	8271.3	1.0	568.9268	9.211	1.6	ug/L	11	KED
|	V	51	127293.0	2.2	93.1083	2.091	2.2	ug/L	10753	KED
|	Cr	52	123022.1	1.3	59.8994	1.269	2.1	ug/L	489	KED
|	Cr	53	24221.0	1.8	70.7282	1.604	2.3	ug/L	6416	KED
|	Mn	55	3546989.6	1.6	2404.1525	47.707	2.0	ug/L	206	KED
|	Co	59	148676.6	0.8	28.3049	0.158	0.6	ug/L	86	KED
|	Ni	60	79825.7	1.0	53.6700	1.052	2.0	ug/L	1252	KED
|	Cu	65	105425.9	1.1	55.8983	1.004	1.8	ug/L	418	KED
|	Zn	66	99012.5	1.0	187.2361	1.172	0.6	ug/L	204	KED
| >	Ge	72	245509.7	1.4				ug/L	234818	KED
|	As	75	17471.4	1.1	38.3834	0.537	1.4	ug/L	719	KED
|	Se	82	161.2	2.4	8.3244	0.094	1.1	ug/L	15	KED
|	Se-1	78	161.8	4.6	3.3143	0.141	4.3	ug/L	35	KED
⌊	Se-1	80	24744.7	0.3	4.7421	2.434	51.3	ug/L	23187	KED
	Ga	71	13407.6	3.2				ug/L	33	KED
	Rb	85	52878.8	0.4				ug/L	13	KED
	Y	89	359997.2	1.6				ug/L	191699	KED
	Rh	103	33.3	22.9				ug/L	5	KED
⌈	Mo	98	11778.2	0.9	3.3768	0.065	1.9	ug/L	47	KED
|	Ag	107	491.7	1.7	0.0466	0.001	2.6	ug/L	173	KED
|	Cd	111	282.0	9.9	0.2792	0.022	8.0	ug/L	5	KED
|	Cd	114	724.7	4.8	0.2853	0.016	5.5	ug/L	29	KED
| >	In	115	248602.1	2.1				ug/L	248460	KED
|	Sn	118	3543.1	2.3	1.5370	0.075	4.9	ug/L	556	KED
|	Sb	123	5546.3	0.8	3.1690	0.085	2.7	ug/L	79	KED
⌊	Ba	135	176769.5	0.3	315.8514	7.552	2.4	ug/L	15	KED
	Ce	140	1842660.7	0.6				ug/L	45	KED
	Tb	159	698033.7	1.4				ug/L	661680	KED
⌈	Ho	165	22616.2	0.8				ug/L	5	KED
|	Tl	203	3142.3	1.1	0.6289	0.011	1.7	ug/L	8	KED
|	Tl	205	7627.9	0.5	0.6153	0.004	0.6	ug/L	16	KED
|	Pb	206	195068.0	0.3	45.7410	0.279	0.6	ug/L	316	KED
|	Pb	207	160342.3	0.1	42.5191	0.326	0.8	ug/L	291	KED
|	Pb	208	410486.5	0.9	43.7217	0.727	1.7	ug/L	695	KED
|	U	238	67694.9	0.9	2.8946	0.033	1.1	ug/L	16	KED

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	Th	232	369806.6	0.3	**18.2736**	0.218	1.2	ug/L	1926	KED
>	**Bi**	209	526008.6	0.9				ug/L	514781	KED
	Na	23	1.7	173.2				mg/L	0	KED
	Mg	24	4977.5	3.4	**0.1639**	0.009	5.7	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	5.0	100.0	**-38.8600**	62.311	160.3	mg/L	2	KED
	Fe	54	79426.0	0.9	**64.5386**	1.127	1.7	mg/L	10	KED
	Fe	57	166149.4	1.1	**63.5514**	0.461	0.7	mg/L	22	KED
>	**Sc-1**	45	99091.7	0.9				mg/L	87229	KED
	Cl	35	4617.4	2.9				ug/L	2227	KED
	Kr	83	3.3	86.6				ug/L	2	KED
	Br	81	126.7	11.4				ug/L	23	KED
	P	31	110.0	18.2				ug/L	212	KED
	S	34	50.0	40.0				ug/L	37	KED
	Sr	88	19652.7	1.1				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		113.600	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		104.553	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	100.057
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	102.181
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	113.600
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
V 51 Upper, S, EEE	V	51	
Mn 55 Upper, S, EEE	Mn	55	
Ba 135 Upper, S, EEE	Ba	135	

Approved: September 05, 2019

Method 6020 - Summary Report

Sample ID: L1908017817
Sample Date/Time: Wednesday, September 04, 2019 16:29:24
Number of Replicates: 3
Autosampler Position: 223
Sample Description: 10
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	8926.0	1.7				ug/L	9383	KED
|	**Be**	9	4.0	90.1	**0.0558**	0.053	94.5	ug/L	0	KED
|	**Al**	27	53701.7	2.8				ug/L	73	KED
⌊>	**Sc-2**	45	81089.4	4.9				ug/L	87229	KED
⌈	**Ti**	47	337.3	6.1	**24.6778**	2.541	10.3	ug/L	11	KED
|	**V**	51	8286.0	15.1	**-1.7608**	0.985	55.9	ug/L	10753	KED
|	**Cr**	52	11784.6	0.5	**6.0631**	0.561	9.3	ug/L	489	KED
|	**Cr**	53	4113.9	18.2	**-8.9491**	3.033	33.9	ug/L	6416	KED
|	**Mn**	55	69630.0	2.0	**51.5670**	4.665	9.0	ug/L	206	KED
|	**Co**	59	3457.7	2.4	**0.7056**	0.082	11.6	ug/L	86	KED
|	**Ni**	60	3823.1	0.4	**1.9690**	0.262	13.3	ug/L	1252	KED
|	**Cu**	65	5878.1	1.8	**3.2010**	0.381	11.9	ug/L	418	KED
|	**Zn**	66	8705.2	0.7	**17.6785**	1.717	9.7	ug/L	204	KED
| >	**Ge**	72	225241.6	9.0				ug/L	234818	KED
|	**As**	75	1997.5	5.3	**3.2899**	0.341	10.4	ug/L	719	KED
|	**Se**	82	21.8	11.3	**0.4880**	0.259	53.0	ug/L	15	KED
|	**Se-1**	78	45.5	10.5	**0.3612**	0.236	65.4	ug/L	35	KED
⌊	**Se-1**	80	26306.2	0.5	**43.1704**	25.048	58.0	ug/L	23187	KED
	Ga	71	410.0	4.9				ug/L	33	KED
	Rb	85	2000.1	7.5				ug/L	13	KED
	Y	89	194329.0	10.6				ug/L	191699	KED
	Rh	103	15.0	88.2				ug/L	5	KED
⌈	**Mo**	98	1173.7	1.1	**0.3216**	0.039	12.1	ug/L	47	KED
|	**Ag**	107	238.3	0.2	**0.0093**	0.004	38.5	ug/L	173	KED
|	**Cd**	111	124.3	19.4	**0.1211**	0.038	31.3	ug/L	5	KED
|	**Cd**	114	313.7	11.8	**0.1166**	0.029	24.9	ug/L	29	KED
| >	**In**	115	252481.2	9.9				ug/L	248460	KED
|	**Sn**	118	747.4	4.8	**0.0937**	0.022	23.0	ug/L	556	KED
|	**Sb**	123	307.0	4.2	**0.1308**	0.023	17.4	ug/L	79	KED
⌊	**Ba**	135	8973.7	3.0	**15.8992**	2.154	13.5	ug/L	15	KED
	Ce	140	42353.2	3.3				ug/L	45	KED
	Tb	159	650856.1	9.1				ug/L	661680	KED
⌈	**Ho**	165	907.7	3.7				ug/L	5	KED
|	**Tl**	203	111.0	8.0	**0.0211**	0.002	8.6	ug/L	8	KED
|	**Tl**	205	264.0	5.7	**0.0204**	0.002	8.0	ug/L	16	KED
|	**Pb**	206	41734.8	2.8	**9.9186**	0.901	9.1	ug/L	316	KED
|	**Pb**	207	34965.7	2.8	**9.3914**	0.842	9.0	ug/L	291	KED
|	**Pb**	208	89612.4	3.2	**9.6747**	0.936	9.7	ug/L	695	KED
|	**U**	238	4322.0	3.3	**0.1878**	0.018	9.4	ug/L	16	KED

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	Th	232	11657.3	18.8	**0.4944**	0.133	26.9	ug/L	1926	KED
>	**Bi**	209	517809.8	6.2				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	1091.7	6.4	**-0.0122**	0.005	36.9	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	26.7	28.6	**-385.7661**	111.376	28.9	mg/L	2	KED
	Fe	54	2291.8	0.5	**2.2703**	0.115	5.0	mg/L	10	KED
	Fe	57	4924.1	4.0	**2.2967**	0.154	6.7	mg/L	22	KED
>	**Sc-1**	45	81089.4	4.9				mg/L	87229	KED
	Cl	35	2191.8	7.1				ug/L	2227	KED
	Kr	83	3.3	173.2				ug/L	2	KED
	Br	81	13.3	21.7				ug/L	23	KED
	P	31	58.3	38.7				ug/L	212	KED
	S	34	36.7	31.5				ug/L	37	KED
	Sr	88	13382.6	4.9				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		92.962	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		95.922	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: L1908017817
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	101.619
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	100.588
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	92.962
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
V 51 Lower	V	51	

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Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, September 04, 2019 16:32:17
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	9944.9	0.8				ug/L	9383	KED
|	**Be**	9	504.3	2.3	**6.1835**	0.072	1.2	ug/L	0	KED
|	**Al**	27	203212.1	1.1				ug/L	73	KED
\>	**Sc-2**	45	89413.8	1.7				ug/L	87229	KED
⌈	**Ti**	47	491.7	1.3	**31.8645**	0.554	1.7	ug/L	11	KED
|	**V**	51	46367.9	1.7	**26.8277**	0.434	1.6	ug/L	10753	KED
|	**Cr**	52	131826.0	1.1	**61.8563**	0.962	1.6	ug/L	489	KED
|	**Cr**	53	19747.9	2.5	**49.7495**	0.661	1.3	ug/L	6416	KED
|	**Mn**	55	96428.2	4.0	**62.8180**	1.662	2.6	ug/L	206	KED
|	**Co**	59	170555.6	0.4	**31.2931**	0.409	1.3	ug/L	86	KED
|	**Ni**	60	188361.7	0.9	**123.1699**	1.747	1.4	ug/L	1252	KED
|	**Cu**	65	119768.2	0.8	**61.2207**	1.421	2.3	ug/L	418	KED
|	**Zn**	66	336231.9	1.3	**613.6530**	10.096	1.6	ug/L	204	KED
\>	**Ge**	72	254783.4	1.7				ug/L	234818	KED
|	**As**	75	15139.2	1.2	**31.7635**	0.215	0.7	ug/L	719	KED
|	**Se**	82	583.3	2.4	**31.2445**	0.781	2.5	ug/L	15	KED
|	**Se-1**	78	1265.1	1.2	**31.2697**	0.638	2.0	ug/L	35	KED
⌊	**Se-1**	80	30195.1	0.1	**45.7055**	4.714	10.3	ug/L	23187	KED
	Ga	71	86.7	21.8				ug/L	33	KED
	Rb	85	175.0	4.9				ug/L	13	KED
	Y	89	216127.4	1.2				ug/L	191699	KED
	Rh	103	10.0	132.3				ug/L	5	KED
⌈	**Mo**	98	122582.9	0.7	**30.4950**	0.274	0.9	ug/L	47	KED
|	**Ag**	107	249113.7	1.0	**31.4789**	0.336	1.1	ug/L	173	KED
|	**Cd**	111	21583.0	1.1	**18.8085**	0.256	1.4	ug/L	5	KED
|	**Cd**	114	53097.2	1.2	**18.8165**	0.277	1.5	ug/L	29	KED
\>	**In**	115	287462.3	0.3				ug/L	248460	KED
|	**Sn**	118	70657.1	1.9	**31.1402**	0.660	2.1	ug/L	556	KED
|	**Sb**	123	62226.2	0.8	**31.1358**	0.301	1.0	ug/L	79	KED
⌊	**Ba**	135	60871.4	0.8	**94.0145**	1.058	1.1	ug/L	15	KED
	Ce	140	426.0	86.7				ug/L	45	KED
	Tb	159	740619.7	0.8				ug/L	661680	KED
⌈	**Ho**	165	17.0	56.7				ug/L	5	KED
|	**Tl**	203	32622.8	1.0	**6.0738**	0.136	2.2	ug/L	8	KED
|	**Tl**	205	81053.9	0.5	**6.0796**	0.079	1.3	ug/L	16	KED
|	**Pb**	206	140428.4	0.2	**30.5369**	0.394	1.3	ug/L	316	KED
|	**Pb**	207	123936.2	0.3	**30.4804**	0.408	1.3	ug/L	291	KED
|	**Pb**	208	310796.9	0.1	**30.7003**	0.411	1.3	ug/L	695	KED
|	**U**	238	759468.8	0.2	**30.1471**	0.414	1.4	ug/L	16	KED

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	Th	232	650947.2	0.4	**29.9144**	0.316	1.1	ug/L	1926	KED
>	**Bi**	209	566784.2	1.3				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	79942.0	0.3	**4.2077**	0.070	1.7	mg/L	1398	KED
	K	39	1.7	173.2	**7.7493**	13.422	173.2	mg/L	0	KED
	Ca	43	1.7	173.2	**1.0228**	39.466	3858.6	mg/L	2	KED
	Fe	54	4589.0	2.8	**4.1233**	0.087	2.1	mg/L	10	KED
	Fe	57	9558.0	1.0	**4.0440**	0.106	2.6	mg/L	22	KED
>	**Sc-1**	45	89413.8	1.7				mg/L	87229	KED
	Cl	35	1948.5	8.0				ug/L	2227	KED
	Kr	83	3.3	173.2				ug/L	2	KED
	Br	81	15.0	120.2				ug/L	23	KED
	P	31	71.7	53.3				ug/L	212	KED
	S	34	33.3	45.8				ug/L	37	KED
	Sr	88	90.0	14.7				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9	96.618		
	Al	27			
>	Sc-2	45		102.505	
	Ti	47	99.577		
	V	51	83.836		
	Cr	52	96.650		
	Cr	53			
	Mn	55	98.153		
	Co	59	97.791		
	Ni	60	96.227		
	Cu	65	95.657		
	Zn	66	95.883		
>	Ge	72		108.502	
	As	75	99.261		
	Se	82	97.639		
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: QC Std 6
Report Date/Time: Wednesday, September 04, 2019 16:34:37
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	Rh	103			
⌈	Mo	98	95.297		
|	Ag	107	98.371		
|	Cd	111	97.961		
|	Cd	114			
|>	In	115		115.698	
|	Sn	118	97.313		
|	Sb	123	97.299		
⌊	Ba	135	97.932		
	Ce	140			
	Tb	159			
⌈	Ho	165			
|	Tl	203	94.902		
|	Tl	205			
|	Pb	206	95.428		
|	Pb	207	95.251		
|	Pb	208	95.939		
|	U	238	94.210		
|	Th	232			
⌊>	Bi	209		110.102	
⌈	Na	23			
|	Mg	24	105.193		
|	K	39	193.733		
|	Ca	43	25.570		
|	Fe	54	103.084		
|	Fe	57	101.099		
⌊>	Sc-1	45		102.505	
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	V	51	
QC Std 6	K	39	
QC Std 6	Ca	43	

Sample ID: QC Std 6
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Method 6020 - Summary Report

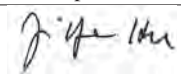
Sample ID: QC Std 7
Sample Date/Time: Wednesday, September 04, 2019 16:35:11
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	9713.1	1.8				ug/L	9383	KED
|	**Be**	9	0.7	86.6	**0.0086**	0.007	86.6	ug/L	0	KED
|	**Al**	27	335.0	103.8				ug/L	73	KED
⌊>	**Sc-2**	45	85164.0	1.2				ug/L	87229	KED
⌈	**Ti**	47	12.7	4.6	**0.1233**	0.038	31.1	ug/L	11	KED
|	**V**	51	5092.5	13.6	**-4.8483**	0.527	10.9	ug/L	10753	KED
|	**Cr**	52	520.0	29.5	**0.0102**	0.078	763.8	ug/L	489	KED
|	**Cr**	53	3110.3	13.3	**-14.2664**	1.598	11.2	ug/L	6416	KED
|	**Mn**	55	1099.7	85.7	**0.6174**	0.657	106.4	ug/L	206	KED
|	**Co**	59	220.7	86.9	**0.0260**	0.038	144.7	ug/L	86	KED
|	**Ni**	60	303.7	57.2	**-0.6822**	0.122	17.9	ug/L	1252	KED
|	**Cu**	65	336.3	48.4	**-0.0492**	0.090	181.8	ug/L	418	KED
|	**Zn**	66	407.7	82.7	**0.3864**	0.658	170.2	ug/L	204	KED
|>	**Ge**	72	240276.7	1.1				ug/L	234818	KED
|	**As**	75	749.4	2.9	**0.0327**	0.044	135.7	ug/L	719	KED
|	**Se**	82	15.5	8.5	**0.0194**	0.087	446.1	ug/L	15	KED
|	**Se-1**	78	43.0	14.5	**0.1983**	0.165	83.1	ug/L	35	KED
⌊	**Se-1**	80	25897.6	1.0	**20.8787**	2.144	10.3	ug/L	23187	KED
	Ga	71	61.7	37.4				ug/L	33	KED
	Rb	85	43.3	93.3				ug/L	13	KED
	Y	89	196173.7	1.5				ug/L	191699	KED
	Rh	103	6.7	43.3				ug/L	5	KED
⌈	**Mo**	98	251.3	45.7	**0.0551**	0.032	57.2	ug/L	47	KED
|	**Ag**	107	277.3	71.2	**0.0133**	0.028	207.5	ug/L	173	KED
|	**Cd**	111	23.7	91.0	**0.0179**	0.021	115.3	ug/L	5	KED
|	**Cd**	114	52.3	79.6	**0.0085**	0.016	191.5	ug/L	29	KED
|>	**In**	115	262004.0	0.7				ug/L	248460	KED
|	**Sn**	118	634.3	9.6	**0.0235**	0.031	131.6	ug/L	556	KED
|	**Sb**	123	899.4	7.0	**0.4487**	0.036	8.1	ug/L	79	KED
⌊	**Ba**	135	108.3	112.3	**0.1578**	0.207	131.1	ug/L	15	KED
	Ce	140	490.3	104.2				ug/L	45	KED
	Tb	159	684433.0	1.8				ug/L	661680	KED
⌈	**Ho**	165	17.7	31.2				ug/L	5	KED
|	**Tl**	203	26.0	82.2	**0.0036**	0.004	118.7	ug/L	8	KED
|	**Tl**	205	63.7	94.3	**0.0038**	0.005	127.9	ug/L	16	KED
|	**Pb**	206	526.0	50.5	**0.0462**	0.062	134.6	ug/L	316	KED
|	**Pb**	207	449.0	43.3	**0.0388**	0.051	132.7	ug/L	291	KED
|	**Pb**	208	1231.1	44.1	**0.0538**	0.058	107.2	ug/L	695	KED
|	**U**	238	481.7	122.9	**0.0197**	0.025	127.6	ug/L	16	KED

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	Th	232	8444.6	43.0	**0.3162**	0.180	57.0	ug/L	1926	KED
>	**Bi**	209	533816.7	0.9				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	685.0	17.3	**-0.0382**	0.007	18.5	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**23.8084**	0.000	0.0	mg/L	2	KED
	Fe	54	21.7	74.2	**0.0114**	0.015	136.5	mg/L	10	KED
	Fe	57	80.0	59.6	**0.0264**	0.022	82.5	mg/L	22	KED
>	**Sc-1**	45	85164.0	1.2				mg/L	87229	KED
	Cl	35	2320.2	4.5				ug/L	2227	KED
	Kr	83	3.3	173.2				ug/L	2	KED
	Br	81	25.0	20.0				ug/L	23	KED
	P	31	43.3	43.7				ug/L	212	KED
	S	34	40.0	33.1				ug/L	37	KED
	Sr	88	73.3	96.5				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		97.633	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		102.325	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	105.451
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	103.698
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	97.633
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 7	V	51	
QC Std 7	Mn	55	
QC Std 7	Sb	123	
QC Std 7	Ca	43	

Sample ID: QC Std 7
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Method 6020 - Summary Report

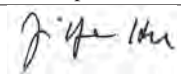
Sample ID: B9I0068-BLK1
Sample Date/Time: Wednesday, September 04, 2019 16:38:52
Number of Replicates: 3
Autosampler Position: 228
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	10745.5	2.3				ug/L	9383	KED
|	Be	9	0.7	173.2	0.0080	0.014	173.2	ug/L	0	KED
|	Al	27	223.3	20.3				ug/L	73	KED
\>	Sc-2	45	90991.8	1.0				ug/L	87229	KED
⌈	Ti	47	12.7	39.7	0.0910	0.321	353.1	ug/L	11	KED
|	V	51	7489.2	2.4	-3.0555	0.345	11.3	ug/L	10753	KED
|	Cr	52	690.3	3.7	0.0853	0.023	26.8	ug/L	489	KED
|	Cr	53	4680.7	3.0	-8.3272	1.156	13.9	ug/L	6416	KED
|	Mn	55	348.3	23.4	0.0872	0.049	56.6	ug/L	206	KED
|	Co	59	74.3	9.4	-0.0031	0.001	29.6	ug/L	86	KED
|	Ni	60	264.7	14.2	-0.7155	0.022	3.1	ug/L	1252	KED
|	Cu	65	323.3	5.7	-0.0617	0.011	17.4	ug/L	418	KED
|	Zn	66	1281.4	3.2	2.0060	0.157	7.8	ug/L	204	KED
\>	Ge	72	247635.7	3.3				ug/L	234818	KED
|	As	75	934.0	3.5	0.4026	0.110	27.4	ug/L	719	KED
|	Se	82	16.2	14.6	0.0314	0.146	464.7	ug/L	15	KED
|	Se-1	78	41.2	12.8	0.1195	0.171	143.1	ug/L	35	KED
⌊	Se-1	80	26163.4	0.2	16.1386	8.558	53.0	ug/L	23187	KED
	Ga	71	56.7	25.5				ug/L	33	KED
	Rb	85	28.3	53.9				ug/L	13	KED
	Y	89	200317.4	1.6				ug/L	191699	KED
	Rh	103	8.3	91.7				ug/L	5	KED
⌈	Mo	98	146.0	12.0	0.0256	0.005	19.1	ug/L	47	KED
|	Ag	107	149.0	15.7	-0.0050	0.003	60.9	ug/L	173	KED
|	Cd	111	13.0	7.7	0.0075	0.001	13.9	ug/L	5	KED
|	Cd	114	41.0	4.9	0.0037	0.001	23.9	ug/L	29	KED
\>	In	115	267262.7	1.0				ug/L	248460	KED
|	Sn	118	815.7	1.8	0.1041	0.004	3.5	ug/L	556	KED
|	Sb	123	329.7	6.2	0.1320	0.013	9.5	ug/L	79	KED
⌊	Ba	135	30.7	31.0	0.0247	0.015	62.6	ug/L	15	KED
	Ce	140	68.0	33.3				ug/L	45	KED
	Tb	159	696841.8	1.0				ug/L	661680	KED
⌈	Ho	165	8.3	36.7				ug/L	5	KED
|	Tl	203	5.3	60.3	-0.0005	0.001	127.8	ug/L	8	KED
|	Tl	205	13.7	11.2	-0.0002	0.000	55.6	ug/L	16	KED
|	Pb	206	430.0	3.8	0.0253	0.004	16.0	ug/L	316	KED
|	Pb	207	384.7	3.3	0.0233	0.004	15.8	ug/L	291	KED
|	Pb	208	948.0	3.8	0.0254	0.004	15.9	ug/L	695	KED
|	U	238	33.7	31.5	0.0007	0.000	62.5	ug/L	16	KED

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	Th	232	10086.1	19.7	**0.4034**	0.098	24.4	ug/L	1926	KED
>	**Bi**	209	525883.6	0.3				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	776.7	14.2	**-0.0359**	0.006	16.0	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**23.8084**	0.000	0.0	mg/L	2	KED
	Fe	54	16.7	17.3	**0.0055**	0.003	46.0	mg/L	10	KED
	Fe	57	28.3	44.4	**0.0024**	0.005	219.4	mg/L	22	KED
>	**Sc-1**	45	90991.8	1.0				mg/L	87229	KED
	Cl	35	3658.8	5.6				ug/L	2227	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	25.0	40.0				ug/L	23	KED
	P	31	76.7	37.7				ug/L	212	KED
	S	34	30.0	44.1				ug/L	37	KED
	Sr	88	35.0	37.8				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		104.314	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		105.458	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: B9I0068-BLK1
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	107.568
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	102.157
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	104.314
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
V 51 Lower	V	51	

Sample ID: B9I0068-BLK1
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Method 6020 - Summary Report

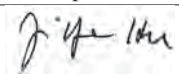
Sample ID: B9I0068-BS1
Sample Date/Time: Wednesday, September 04, 2019 16:41:44
Number of Replicates: 3
Autosampler Position: 229
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10456.9	3.4				ug/L	9383	KED
|	**Be**	9	534.0	0.0	**6.4239**	0.054	0.8	ug/L	0	KED
|	**Al**	27	167084.8	1.9				ug/L	73	KED
\>	**Sc-2**	45	91139.0	0.8				ug/L	87229	KED
⌈	**Ti**	47	478.0	3.4	**30.9455**	1.239	4.0	ug/L	11	KED
|	**V**	51	48229.3	1.8	**28.2511**	0.617	2.2	ug/L	10753	KED
|	**Cr**	52	133368.8	0.9	**62.5544**	0.824	1.3	ug/L	489	KED
|	**Cr**	53	21011.2	2.7	**54.6380**	1.847	3.4	ug/L	6416	KED
|	**Mn**	55	95320.2	0.6	**62.0846**	0.165	0.3	ug/L	206	KED
|	**Co**	59	167597.5	0.2	**30.7348**	0.098	0.3	ug/L	86	KED
|	**Ni**	60	187013.8	0.8	**122.2265**	1.582	1.3	ug/L	1252	KED
|	**Cu**	65	117945.0	1.3	**60.2517**	1.101	1.8	ug/L	418	KED
|	**Zn**	66	330414.1	1.6	**602.7758**	12.434	2.1	ug/L	204	KED
\>	**Ge**	72	254875.5	0.5				ug/L	234818	KED
|	**As**	75	14939.4	0.8	**31.3080**	0.272	0.9	ug/L	719	KED
|	**Se**	82	565.2	3.3	**30.2333**	1.171	3.9	ug/L	15	KED
|	**Se-1**	78	1226.2	4.3	**30.2641**	1.365	4.5	ug/L	35	KED
⌊	**Se-1**	80	30061.0	0.4	**44.3428**	1.570	3.5	ug/L	23187	KED
	Ga	71	73.3	19.7				ug/L	33	KED
	Rb	85	170.0	23.5				ug/L	13	KED
	Y	89	212391.9	1.6				ug/L	191699	KED
	Rh	103	16.7	34.6				ug/L	5	KED
⌈	**Mo**	98	115831.8	1.1	**29.8741**	0.455	1.5	ug/L	47	KED
|	**Ag**	107	235495.3	1.5	**30.8521**	0.654	2.1	ug/L	173	KED
|	**Cd**	111	20241.2	1.8	**18.2875**	0.422	2.3	ug/L	5	KED
|	**Cd**	114	50050.2	1.0	**18.3874**	0.200	1.1	ug/L	29	KED
\>	**In**	115	277284.0	0.6				ug/L	248460	KED
|	**Sn**	118	66679.7	0.4	**30.4602**	0.303	1.0	ug/L	556	KED
|	**Sb**	123	59086.0	0.4	**30.6497**	0.292	1.0	ug/L	79	KED
⌊	**Ba**	135	56875.6	1.0	**91.0673**	1.129	1.2	ug/L	15	KED
	Ce	140	118.7	67.4				ug/L	45	KED
	Tb	159	714534.5	1.1				ug/L	661680	KED
⌈	**Ho**	165	8.7	65.6				ug/L	5	KED
|	**Tl**	203	31284.6	0.5	**6.0400**	0.045	0.7	ug/L	8	KED
|	**Tl**	205	78188.9	0.7	**6.0822**	0.053	0.9	ug/L	16	KED
|	**Pb**	206	134628.5	0.6	**30.3605**	0.224	0.7	ug/L	316	KED
|	**Pb**	207	118062.9	0.3	**30.1118**	0.290	1.0	ug/L	291	KED
|	**Pb**	208	296293.6	1.2	**30.3527**	0.508	1.7	ug/L	695	KED
|	**U**	238	728335.7	1.1	**29.9828**	0.373	1.2	ug/L	16	KED

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	Th	232	621594.3	1.5	**29.6246**	0.514	1.7	ug/L	1926	KED
>	**Bi**	209	546485.3	0.9				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	66438.7	1.0	**3.4159**	0.018	0.5	mg/L	1398	KED
	K	39	1.7	173.2	**7.6141**	13.188	173.2	mg/L	0	KED
	Ca	43	1.7	173.2	**1.2035**	39.153	3253.4	mg/L	2	KED
	Fe	54	3735.5	2.3	**3.2913**	0.083	2.5	mg/L	10	KED
	Fe	57	7570.2	4.1	**3.1399**	0.146	4.6	mg/L	22	KED
>	**Sc-1**	45	91139.0	0.8				mg/L	87229	KED
	Cl	35	2560.2	8.5				ug/L	2227	KED
	Kr	83	3.3	173.2				ug/L	2	KED
	Br	81	18.3	41.7				ug/L	23	KED
	P	31	88.3	6.5				ug/L	212	KED
	S	34	31.7	24.1				ug/L	37	KED
	Sr	88	46.7	59.0				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		104.483	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		108.542	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: B9I0068-BS1
Report Date/Time: Wednesday, September 04, 2019 16:44:04
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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		111.601
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊>	Bi	209		106.159
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		104.483
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: B9I0068-BS1
Report Date/Time: Wednesday, September 04, 2019 16:44:04
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Method 6020 - Summary Report

Sample ID: M9H2013-01
Sample Date/Time: Wednesday, September 04, 2019 16:44:37
Number of Replicates: 3
Autosampler Position: 230
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	12058.1	2.5				ug/L	9383	KED
|	**Be**	9	174.3	8.5	**2.0012**	0.132	6.6	ug/L	0	KED
|	**Al**	27	1587599.2	1.6				ug/L	73	KED
|>	**Sc-2**	45	95453.3	3.2				ug/L	87229	KED
⌈	**Ti**	47	14613.7	1.7	**972.7197**	50.151	5.2	ug/L	11	KED
|	**V**	51	218491.2	0.9	**160.4986**	7.221	4.5	ug/L	10753	KED
|	**Cr**	52	2549169.9	1.1	**1204.8631**	51.187	4.2	ug/L	489	KED
|	**Cr**	53	332306.7	1.4	**1270.4960**	48.680	3.8	ug/L	6416	KED
|	**Mn**	55	13051615.9	1.9	**8556.7753**	457.225	5.3	ug/L	206	KED
|	**Co**	59	475378.0	1.2	**87.5578**	3.939	4.5	ug/L	86	KED
|	**Ni**	60	787531.0	0.7	**519.6068**	21.656	4.2	ug/L	1252	KED
|	**Cu**	65	4934536.5	1.1	**2540.3455**	114.739	4.5	ug/L	418	KED
|	**Zn**	66	1386903.8	1.0	**2541.1813**	104.885	4.1	ug/L	204	KED
|>	**Ge**	72	254118.0	3.5				ug/L	234818	KED
|	**As**	75	26495.8	1.0	**57.0803**	2.056	3.6	ug/L	719	KED
|	**Se**	82	324.0	2.2	**17.0212**	0.813	4.8	ug/L	15	KED
|	**Se-1**	78	553.0	5.7	**13.1883**	1.250	9.5	ug/L	35	KED
⌊	**Se-1**	80	26833.9	0.0	**16.0213**	8.565	53.5	ug/L	23187	KED
	Ga	71	14366.8	1.7				ug/L	33	KED
	Rb	85	106647.4	0.7				ug/L	13	KED
	Y	89	374913.6	0.7				ug/L	191699	KED
	Rh	103	365.0	13.9				ug/L	5	KED
⌈	**Mo**	98	320942.7	1.9	**80.7327**	3.786	4.7	ug/L	47	KED
|	**Ag**	107	525911.6	0.9	**67.1867**	2.024	3.0	ug/L	173	KED
|	**Cd**	111	49014.2	1.4	**43.1621**	0.967	2.2	ug/L	5	KED
|	**Cd**	114	176660.3	0.5	**63.2883**	1.602	2.5	ug/L	29	KED
|>	**In**	115	284605.4	2.7				ug/L	248460	KED
|	**Sn**	118	2470346.3	0.6	**1110.0986**	35.275	3.2	ug/L	556	KED
|	**Sb**	123	39489.1	1.3	**19.9484**	0.483	2.4	ug/L	79	KED
⌊	**Ba**	135	1422093.9	1.5	**2220.3480**	79.975	3.6	ug/L	15	KED
	Ce	140	988640.2	0.7				ug/L	45	KED
	Tb	159	672310.4	2.8				ug/L	661680	KED
⌈	**Ho**	165	18318.1	0.4				ug/L	5	KED
|	**Tl**	203	3041.0	1.7	**0.1996**	0.002	1.1	ug/L	8	KED
|	**Tl**	205	7567.9	1.2	**0.2004**	0.001	0.3	ug/L	16	KED
|	**Pb**	206	861132.8	0.8	**66.6244**	0.907	1.4	ug/L	316	KED
|	**Pb**	207	722408.9	1.1	**63.2129**	1.136	1.8	ug/L	291	KED
|	**Pb**	208	1839025.4	0.7	**64.6277**	0.786	1.2	ug/L	695	KED
|	**U**	238	432891.0	0.6	**6.1054**	0.122	2.0	ug/L	16	KED

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	Th	232	208308.1	3.7	**3.3159**	0.173	5.2	ug/L	1926	KED
>	**Bi**	209	1595175.3	1.4				ug/L	514781	KED
	Na	23	8.3	91.7				mg/L	0	KED
	Mg	24	103121.4	0.9	**5.1030**	0.174	3.4	mg/L	1398	KED
	K	39	1.7	173.2	**7.0779**	12.259	173.2	mg/L	0	KED
	Ca	43	43.3	17.6	**-540.1937**	83.635	15.5	mg/L	2	KED
	Fe	54	196020.1	1.8	**165.5206**	8.145	4.9	mg/L	10	KED
	Fe	57	411957.0	0.3	**163.7015**	5.035	3.1	mg/L	22	KED
>	**Sc-1**	45	95453.3	3.2				mg/L	87229	KED
	Cl	35	4907.5	3.6				ug/L	2227	KED
	Kr	83	8.3	34.6				ug/L	2	KED
	Br	81	153.3	15.4				ug/L	23	KED
	P	31	68.3	37.5				ug/L	212	KED
	S	34	25.0	60.0				ug/L	37	KED
	Sr	88	193371.3	1.5				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		109.429	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		108.219	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	114.548
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	309.874
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	109.429
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
V 51 Upper, S, EEE	V	51	
Cr 52 Upper, S, EEE	Cr	52	
Cr 53 Upper, S, EEE	Cr	53	
Mn 55 Upper, S, EEE	Mn	55	
Ni 60 Upper, S, EEE	Ni	60	
Cu 65 Upper, S, EEE	Cu	65	
Zn 66 Upper, S, EEE	Zn	66	
Sn 118 Upper, S, EEE	Sn	118	

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Ba 135 Upper, S, EEE	Ba	135	
Bi 209 Int Std for sample	Bi	209	Rerun sample

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Method 6020 - Summary Report

Sample ID: B9I0068-MS1
Sample Date/Time: Wednesday, September 04, 2019 16:47:29
Number of Replicates: 3
Autosampler Position: 231
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	11739.5	2.7				ug/L	9383	KED
|	Be	9	776.4	2.4	8.9732	0.187	2.1	ug/L	0	KED
|	Al	27	1684680.0	2.4				ug/L	73	KED
|>	Sc-2	45	94850.3	1.0				ug/L	87229	KED
⌈	Ti	47	26281.1	0.9	1780.5793	14.776	0.8	ug/L	11	KED
|	V	51	293728.8	1.3	222.9277	4.666	2.1	ug/L	10753	KED
|	Cr	52	3736944.7	1.2	1797.8337	32.996	1.8	ug/L	489	KED
|	Cr	53	489442.3	1.4	1918.2620	24.131	1.3	ug/L	6416	KED
|	Mn	55	13925144.2	0.6	9289.3425	132.067	1.4	ug/L	206	KED
|	Co	59	712783.0	0.5	133.6203	1.847	1.4	ug/L	86	KED
|	Ni	60	1168875.2	0.6	785.3433	2.899	0.4	ug/L	1252	KED
|	Cu	65	5612359.3	0.5	2940.4407	35.810	1.2	ug/L	418	KED
|	Zn	66	2199810.8	0.3	4102.5949	35.310	0.9	ug/L	204	KED
|>	Ge	72	249454.8	0.9				ug/L	234818	KED
|	As	75	39338.7	1.3	87.1474	0.871	1.0	ug/L	719	KED
|	Se	82	773.7	2.7	42.6426	1.494	3.5	ug/L	15	KED
|	Se-1	78	1573.4	1.9	39.9752	0.660	1.7	ug/L	35	KED
⌊	Se-1	80	28322.4	0.6	34.1769	2.859	8.4	ug/L	23187	KED
	Ga	71	18751.6	1.4				ug/L	33	KED
	Rb	85	134983.6	0.7				ug/L	13	KED
	Y	89	373378.0	0.5				ug/L	191699	KED
	Rh	103	413.3	7.1				ug/L	5	KED
⌈	Mo	98	428355.8	1.3	109.6010	3.275	3.0	ug/L	47	KED
|	Ag	107	742254.5	0.6	96.4899	2.643	2.7	ug/L	173	KED
|	Cd	111	65995.1	1.2	59.1449	1.891	3.2	ug/L	5	KED
|	Cd	114	222618.2	0.6	81.1500	2.034	2.5	ug/L	29	KED
|>	In	115	279689.3	2.2				ug/L	248460	KED
|	Sn	118	2788950.9	0.4	1275.0152	28.846	2.3	ug/L	556	KED
|	Sb	123	94089.6	1.3	48.4354	1.626	3.4	ug/L	79	KED
⌊	Ba	135	1567465.3	1.1	2489.9175	78.698	3.2	ug/L	15	KED
	Ce	140	1156579.7	1.1				ug/L	45	KED
	Tb	159	659175.7	0.9				ug/L	661680	KED
⌈	Ho	165	18787.0	0.4				ug/L	5	KED
|	Tl	203	30513.4	1.8	2.0406	0.013	0.7	ug/L	8	KED
|	Tl	205	75415.9	1.6	2.0323	0.007	0.3	ug/L	16	KED
|	Pb	206	1027005.2	1.5	80.3943	0.800	1.0	ug/L	316	KED
|	Pb	207	865949.4	1.7	76.6640	0.584	0.8	ug/L	291	KED
|	Pb	208	2304013.2	2.1	81.9216	0.822	1.0	ug/L	695	KED
|	U	238	1067503.9	2.2	15.2291	0.173	1.1	ug/L	16	KED

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	Th	232	767833.9	2.4	**12.6260**	0.204	1.6	ug/L	1926	KED
>	**Bi**	209	1576792.7	1.6				ug/L	514781	KED
	Na	23	5.0	100.0				mg/L	0	KED
	Mg	24	123651.1	2.5	**6.1693**	0.146	2.4	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	60.0	50.7	**-766.8298**	408.761	53.3	mg/L	2	KED
	Fe	54	248178.5	2.5	**210.6657**	3.994	1.9	mg/L	10	KED
	Fe	57	530516.5	0.6	**212.0311**	2.644	1.2	mg/L	22	KED
>	**Sc-1**	45	94850.3	1.0				mg/L	87229	KED
	Cl	35	5249.2	3.1				ug/L	2227	KED
	Kr	83	5.0	100.0				ug/L	2	KED
	Br	81	186.7	9.4				ug/L	23	KED
	P	31	93.3	25.3				ug/L	212	KED
	S	34	36.7	55.1				ug/L	37	KED
	Sr	88	197494.1	1.9				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		108.737	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		106.233	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: B9I0068-MS1
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	112.569
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	306.303
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	108.737
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
V 51 Upper, S, EEE	V	51	
Cr 52 Upper, S, EEE	Cr	52	
Cr 53 Upper, S, EEE	Cr	53	
Mn 55 Upper, S, EEE	Mn	55	
Co 59 Upper, S, EEE	Co	59	
Ni 60 Upper, S, EEE	Ni	60	
Cu 65 Upper, S, EEE	Cu	65	
Zn 66 Upper, S, EEE	Zn	66	

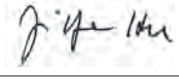
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Mo 98 Upper, S, EEE	Mo	98	
Ag 107 Upper, S, EEE	Ag	107	
Sn 118 Upper, S, EEE	Sn	118	
Ba 135 Upper, S, EEE	Ba	135	
Bi 209 Int Std for sample	Bi	209	Rerun sample

Sample ID: B9I0068-MS1
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Method 6020 - Summary Report

Sample ID: B9I0068-MSD1
Sample Date/Time: Wednesday, September 04, 2019 16:50:22
Number of Replicates: 3
Autosampler Position: 232
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	11786.3	2.7				ug/L	9383	KED
|	Be	9	740.7	2.8	8.6576	0.296	3.4	ug/L	0	KED
|	Al	27	1545350.5	0.6				ug/L	73	KED
\>	Sc-2	45	93825.1	2.6				ug/L	87229	KED
⌈	Ti	47	17019.2	0.8	1143.9658	29.734	2.6	ug/L	11	KED
|	V	51	262404.1	0.6	196.5830	4.890	2.5	ug/L	10753	KED
|	Cr	52	2593135.3	0.6	1237.8135	30.218	2.4	ug/L	489	KED
|	Cr	53	344791.2	1.5	1332.9454	44.610	3.3	ug/L	6416	KED
|	Mn	55	13366390.5	1.7	8848.7449	308.976	3.5	ug/L	206	KED
|	Co	59	620508.1	1.9	115.4374	4.244	3.7	ug/L	86	KED
|	Ni	60	932097.5	1.0	621.2854	17.156	2.8	ug/L	1252	KED
|	Cu	65	5011936.3	0.8	2605.6041	66.862	2.6	ug/L	418	KED
|	Zn	66	1662014.7	0.2	3075.4813	61.473	2.0	ug/L	204	KED
\>	Ge	72	251453.8	1.8				ug/L	234818	KED
|	As	75	39647.5	0.7	87.1595	2.208	2.5	ug/L	719	KED
|	Se	82	748.7	1.6	40.9097	1.374	3.4	ug/L	15	KED
|	Se-1	78	1445.7	0.6	36.3645	0.833	2.3	ug/L	35	KED
⌊	Se-1	80	28402.6	0.8	32.8888	6.330	19.2	ug/L	23187	KED
	Ga	71	13919.7	0.7				ug/L	33	KED
	Rb	85	100446.9	1.0				ug/L	13	KED
	Y	89	367631.9	1.1				ug/L	191699	KED
	Rh	103	351.7	7.3				ug/L	5	KED
⌈	Mo	98	429591.0	1.6	110.5026	2.286	2.1	ug/L	47	KED
|	Ag	107	709962.7	1.5	92.7844	1.930	2.1	ug/L	173	KED
|	Cd	111	64376.5	1.7	57.9921	0.691	1.2	ug/L	5	KED
|	Cd	114	213318.6	1.0	78.1702	0.324	0.4	ug/L	29	KED
\>	In	115	278117.7	0.8				ug/L	248460	KED
|	Sn	118	2467609.1	1.2	1134.0595	5.322	0.5	ug/L	556	KED
|	Sb	123	93737.4	0.4	48.5048	0.261	0.5	ug/L	79	KED
⌊	Ba	135	1425954.1	0.8	2276.9298	13.311	0.6	ug/L	15	KED
	Ce	140	967422.5	0.2				ug/L	45	KED
	Tb	159	654838.3	0.4				ug/L	661680	KED
⌈	Ho	165	18240.0	0.6				ug/L	5	KED
|	Tl	203	30092.5	0.8	2.0611	0.035	1.7	ug/L	8	KED
|	Tl	205	74136.3	0.1	2.0459	0.019	0.9	ug/L	16	KED
|	Pb	206	955995.7	0.5	76.6307	0.614	0.8	ug/L	316	KED
|	Pb	207	812886.8	0.8	73.6952	0.729	1.0	ug/L	291	KED
|	Pb	208	2176806.0	0.3	79.2630	0.626	0.8	ug/L	695	KED
|	U	238	1089025.6	0.8	15.9117	0.269	1.7	ug/L	16	KED

Sample ID: B9I0068-MSD1
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	Th	232	767496.0	1.1	**12.9274**	0.215	1.7	ug/L	1926	KED
>	**Bi**	209	1539780.5	0.9				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	100847.9	1.5	**5.0767**	0.210	4.1	mg/L	1398	KED
	K	39	1.7	173.2	**7.1941**	12.461	173.2	mg/L	0	KED
	Ca	43	53.3	10.8	**-686.1261**	96.051	14.0	mg/L	2	KED
	Fe	54	195069.4	0.9	**167.4552**	3.233	1.9	mg/L	10	KED
	Fe	57	407816.3	1.5	**164.7974**	2.660	1.6	mg/L	22	KED
>	**Sc-1**	45	93825.1	2.6				mg/L	87229	KED
	Cl	35	5179.2	2.9				ug/L	2227	KED
	Kr	83	0.0					ug/L	2	KED
	Br	81	156.7	27.5				ug/L	23	KED
	P	31	61.7	26.1				ug/L	212	KED
	S	34	38.3	19.9				ug/L	37	KED
	Sr	88	194279.6	1.9				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		107.562	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		107.084	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	111.937
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	299.114
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	107.562
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
V 51 Upper, S, EEE	V	51	
Cr 52 Upper, S, EEE	Cr	52	
Cr 53 Upper, S, EEE	Cr	53	
Mn 55 Upper, S, EEE	Mn	55	
Co 59 Upper, S, EEE	Co	59	
Ni 60 Upper, S, EEE	Ni	60	
Cu 65 Upper, S, EEE	Cu	65	
Zn 66 Upper, S, EEE	Zn	66	

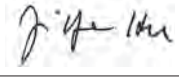
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Mo 98 Upper, S, EEE	Mo	98	
Ag 107 Upper, S, EEE	Ag	107	
Sn 118 Upper, S, EEE	Sn	118	
Ba 135 Upper, S, EEE	Ba	135	
Bi 209 Int Std for sample	Bi	209	Rerun sample

Sample ID: B9I0068-MSD1
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Method 6020 - Summary Report

Sample ID: M9H2013-01RE1@10
Sample Date/Time: Wednesday, September 04, 2019 16:53:14
Number of Replicates: 3
Autosampler Position: 233
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	9197.8	2.6				ug/L	9383	KED
|	Be	9	15.3	24.7	0.2020	0.052	25.6	ug/L	0	KED
|	Al	27	136231.5	1.6				ug/L	73	KED
|>	Sc-2	45	83376.5	1.1				ug/L	87229	KED
⌈	Ti	47	1315.7	3.7	93.7168	4.606	4.9	ug/L	11	KED
|	V	51	23502.9	3.0	10.6433	0.905	8.5	ug/L	10753	KED
|	Cr	52	212796.2	1.8	108.2167	3.688	3.4	ug/L	489	KED
|	Cr	53	31751.6	1.9	106.6100	4.677	4.4	ug/L	6416	KED
|	Mn	55	1106923.0	1.8	782.1159	26.823	3.4	ug/L	206	KED
|	Co	59	43912.2	2.0	8.7047	0.312	3.6	ug/L	86	KED
|	Ni	60	73644.5	0.4	51.5775	1.026	2.0	ug/L	1252	KED
|	Cu	65	472254.3	0.5	261.8671	5.469	2.1	ug/L	418	KED
|	Zn	66	140957.1	1.9	278.1162	9.507	3.4	ug/L	204	KED
|>	Ge	72	235543.0	1.6				ug/L	234818	KED
|	As	75	3072.0	5.4	5.6306	0.518	9.2	ug/L	719	KED
|	Se	82	47.7	13.1	1.9537	0.371	19.0	ug/L	15	KED
|	Se-1	78	99.5	2.3	1.7789	0.042	2.3	ug/L	35	KED
⌊	Se-1	80	26015.3	1.5	27.0312	0.810	3.0	ug/L	23187	KED
	Ga	71	1395.1	1.3				ug/L	33	KED
	Rb	85	10083.4	2.3				ug/L	13	KED
	Y	89	212106.5	2.3				ug/L	191699	KED
	Rh	103	48.3	31.6				ug/L	5	KED
⌈	Mo	98	30982.3	1.5	8.3339	0.333	4.0	ug/L	47	KED
|	Ag	107	56701.6	1.7	7.7336	0.097	1.2	ug/L	173	KED
|	Cd	111	5236.2	0.9	4.9348	0.119	2.4	ug/L	5	KED
|	Cd	114	18513.0	0.7	7.0929	0.178	2.5	ug/L	29	KED
|>	In	115	265715.7	2.5				ug/L	248460	KED
|	Sn	118	241757.9	0.7	116.1018	3.745	3.2	ug/L	556	KED
|	Sb	123	4282.3	2.2	2.2775	0.109	4.8	ug/L	79	KED
⌊	Ba	135	149486.6	1.8	249.9413	8.838	3.5	ug/L	15	KED
	Ce	140	103691.0	1.2				ug/L	45	KED
	Tb	159	676592.3	1.4				ug/L	661680	KED
⌈	Ho	165	1887.5	4.3				ug/L	5	KED
|	Tl	203	356.3	9.0	0.0564	0.006	9.8	ug/L	8	KED
|	Tl	205	898.4	15.8	0.0576	0.010	16.7	ug/L	16	KED
|	Pb	206	92123.9	1.7	17.4743	0.396	2.3	ug/L	316	KED
|	Pb	207	77631.8	2.0	16.6491	0.420	2.5	ug/L	291	KED
|	Pb	208	196478.5	1.4	16.9264	0.323	1.9	ug/L	695	KED
|	U	238	44372.2	2.3	1.5385	0.041	2.7	ug/L	16	KED

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	Th	232	21741.9	2.8	**0.7783**	0.028	3.5	ug/L	1926	KED
>	**Bi**	209	648552.6	0.6				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	9426.3	1.2	**0.4649**	0.011	2.3	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	6.7	173.2	**-76.7529**	174.177	226.9	mg/L	2	KED
	Fe	54	19666.1	2.6	**18.9871**	0.636	3.4	mg/L	10	KED
	Fe	57	40116.4	1.9	**18.2288**	0.173	0.9	mg/L	22	KED
>	**Sc-1**	45	83376.5	1.1				mg/L	87229	KED
	Cl	35	2023.5	1.1				ug/L	2227	KED
	Kr	83	5.0	100.0				ug/L	2	KED
	Br	81	28.3	36.7				ug/L	23	KED
	P	31	41.7	18.3				ug/L	212	KED
	S	34	43.3	6.7				ug/L	37	KED
	Sr	88	17450.1	4.4				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		95.584	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		100.309	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	106.945
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	125.986
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	95.584
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
Mn 55 Upper, S, EEE	Mn	55	
Cu 65 Upper, S, EEE	Cu	65	
Sn 118 Upper, S, EEE	Sn	118	
Ba 135 Upper, S, EEE	Ba	135	
Bi 209 Int Std for sample	Bi	209	Rerun sample

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Method 6020 - Summary Report

Sample ID: B9I0068-MS2@10
Sample Date/Time: Wednesday, September 04, 2019 16:56:07
Number of Replicates: 3
Autosampler Position: 234
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	9387.9	1.3				ug/L	9383	KED
|	**Be**	9	60.7	15.3	**0.7906**	0.110	13.9	ug/L	0	KED
|	**Al**	27	145574.5	1.8				ug/L	73	KED
|>	**Sc-2**	45	84011.3	1.7				ug/L	87229	KED
⌈	**Ti**	47	2371.2	2.6	**166.9506**	4.639	2.8	ug/L	11	KED
|	**V**	51	30464.3	0.9	**16.0814**	0.162	1.0	ug/L	10753	KED
|	**Cr**	52	316938.6	0.4	**158.8758**	0.768	0.5	ug/L	489	KED
|	**Cr**	53	46619.9	0.9	**166.2747**	2.295	1.4	ug/L	6416	KED
|	**Mn**	55	1191282.0	1.0	**829.0832**	5.981	0.7	ug/L	206	KED
|	**Co**	59	68687.0	0.6	**13.4203**	0.058	0.4	ug/L	86	KED
|	**Ni**	60	113350.8	0.5	**78.6684**	0.390	0.5	ug/L	1252	KED
|	**Cu**	65	550405.3	0.8	**300.7000**	2.798	0.9	ug/L	418	KED
|	**Zn**	66	214132.5	0.4	**416.3563**	0.891	0.2	ug/L	204	KED
|>	**Ge**	72	239047.3	0.3				ug/L	234818	KED
|	**As**	75	4546.7	1.1	**8.9939**	0.085	0.9	ug/L	719	KED
|	**Se**	82	92.2	6.8	**4.5234**	0.356	7.9	ug/L	15	KED
|	**Se-1**	78	202.8	3.4	**4.5442**	0.172	3.8	ug/L	35	KED
⌊	**Se-1**	80	26467.1	0.2	**27.6563**	1.325	4.8	ug/L	23187	KED
	Ga	71	1950.1	1.4				ug/L	33	KED
	Rb	85	14148.3	1.4				ug/L	13	KED
	Y	89	218227.0	0.4				ug/L	191699	KED
	Rh	103	46.7	48.3				ug/L	5	KED
⌈	**Mo**	98	43607.0	1.4	**11.6781**	0.152	1.3	ug/L	47	KED
|	**Ag**	107	83430.1	1.6	**11.3417**	0.217	1.9	ug/L	173	KED
|	**Cd**	111	7348.1	0.8	**6.8954**	0.072	1.0	ug/L	5	KED
|	**Cd**	114	24472.1	0.9	**9.3368**	0.113	1.2	ug/L	29	KED
|>	**In**	115	266835.8	0.3				ug/L	248460	KED
|	**Sn**	118	284864.5	1.8	**136.2103**	2.835	2.1	ug/L	556	KED
|	**Sb**	123	10500.0	2.4	**5.6226**	0.150	2.7	ug/L	79	KED
⌊	**Ba**	135	171413.6	0.8	**285.2592**	2.823	1.0	ug/L	15	KED
	Ce	140	124101.5	0.5				ug/L	45	KED
	Tb	159	678478.9	0.5				ug/L	661680	KED
⌈	**Ho**	165	2023.8	1.6				ug/L	5	KED
|	**Tl**	203	3258.4	1.2	**0.5283**	0.009	1.7	ug/L	8	KED
|	**Tl**	205	8118.5	1.7	**0.5306**	0.008	1.5	ug/L	16	KED
|	**Pb**	206	112461.8	0.5	**21.3340**	0.025	0.1	ug/L	316	KED
|	**Pb**	207	95176.7	0.4	**20.4159**	0.126	0.6	ug/L	291	KED
|	**Pb**	208	239927.1	0.6	**20.6729**	0.223	1.1	ug/L	695	KED
|	**U**	238	112578.0	0.9	**3.9019**	0.023	0.6	ug/L	16	KED

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	Th	232	75942.2	1.1	**2.9600**	0.027	0.9	ug/L	1926	KED
>	**Bi**	209	648946.5	0.5				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	11252.5	1.2	**0.5651**	0.016	2.9	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	6.7	43.3	**-75.5623**	44.861	59.4	mg/L	2	KED
	Fe	54	25349.5	1.6	**24.2921**	0.555	2.3	mg/L	10	KED
	Fe	57	53390.6	2.3	**24.0822**	0.402	1.7	mg/L	22	KED
>	**Sc-1**	45	84011.3	1.7				mg/L	87229	KED
	Cl	35	2295.2	2.8				ug/L	2227	KED
	Kr	83	3.3	173.2				ug/L	2	KED
	Br	81	25.0	40.0				ug/L	23	KED
	P	31	45.0	66.7				ug/L	212	KED
	S	34	36.7	7.9				ug/L	37	KED
	Sr	88	17870.5	0.7				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		96.311	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		101.801	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: B9I0068-MS2@10
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	107.396
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	126.063
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	96.311
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
Cr 52 Upper, S, EEE	Cr	52	
Cr 53 Upper, S, EEE	Cr	53	
Mn 55 Upper, S, EEE	Mn	55	
Cu 65 Upper, S, EEE	Cu	65	
Sn 118 Upper, S, EEE	Sn	118	
Ba 135 Upper, S, EEE	Ba	135	
Bi 209 Int Std for sample	Bi	209	Rerun sample

Sample ID: B9I0068-MS2@10
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Method 6020 - Summary Report

Sample ID: B9I0068-MSD2@10
Sample Date/Time: Wednesday, September 04, 2019 16:58:58
Number of Replicates: 3
Autosampler Position: 235
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	9686.4	0.7				ug/L	9383	KED
|	Be	9	65.3	13.9	0.8523	0.131	15.4	ug/L	0	KED
|	Al	27	134516.3	1.8				ug/L	73	KED
⌊>	Sc-2	45	84177.2	1.7				ug/L	87229	KED
⌈	Ti	47	1461.1	4.5	101.6954	3.750	3.7	ug/L	11	KED
|	V	51	27538.3	2.8	13.4787	0.302	2.2	ug/L	10753	KED
|	Cr	52	216600.9	1.9	107.5973	1.781	1.7	ug/L	489	KED
|	Cr	53	33309.9	0.9	109.9463	3.235	2.9	ug/L	6416	KED
|	Mn	55	1124755.8	0.4	776.3756	11.869	1.5	ug/L	206	KED
|	Co	59	59020.1	0.8	11.4341	0.130	1.1	ug/L	86	KED
|	Ni	60	90923.0	0.7	62.4028	0.981	1.6	ug/L	1252	KED
|	Cu	65	481393.8	0.8	260.8028	3.569	1.4	ug/L	418	KED
|	Zn	66	168787.0	1.2	325.3723	0.926	0.3	ug/L	204	KED
| >	Ge	72	241056.0	1.5				ug/L	234818	KED
|	As	75	4476.3	1.2	8.7420	0.219	2.5	ug/L	719	KED
|	Se	82	87.7	8.6	4.2142	0.386	9.2	ug/L	15	KED
|	Se-1	78	186.5	7.7	4.0633	0.462	11.4	ug/L	35	KED
⌊	Se-1	80	26514.2	0.1	26.0099	3.592	13.8	ug/L	23187	KED
	Ga	71	1365.1	5.5				ug/L	33	KED
	Rb	85	9931.6	2.8				ug/L	13	KED
	Y	89	217834.8	0.4				ug/L	191699	KED
	Rh	103	40.0	43.3				ug/L	5	KED
⌈	Mo	98	42634.9	0.8	11.2996	0.109	1.0	ug/L	47	KED
|	Ag	107	78409.1	1.5	10.5467	0.152	1.4	ug/L	173	KED
|	Cd	111	7147.0	2.4	6.6365	0.115	1.7	ug/L	5	KED
|	Cd	114	23276.2	1.1	8.7878	0.091	1.0	ug/L	29	KED
| >	In	115	269627.0	0.8				ug/L	248460	KED
|	Sn	118	247773.5	0.6	117.2098	1.334	1.1	ug/L	556	KED
|	Sb	123	10257.8	1.6	5.4342	0.061	1.1	ug/L	79	KED
⌊	Ba	135	154323.6	0.8	254.1580	1.578	0.6	ug/L	15	KED
	Ce	140	104968.4	0.5				ug/L	45	KED
	Tb	159	684178.4	1.1				ug/L	661680	KED
⌈	Ho	165	1886.5	1.8				ug/L	5	KED
|	Tl	203	3240.0	1.8	0.5245	0.016	3.0	ug/L	8	KED
|	Tl	205	8083.2	0.3	0.5274	0.005	1.0	ug/L	16	KED
|	Pb	206	105348.0	0.6	19.9471	0.180	0.9	ug/L	316	KED
|	Pb	207	88513.5	0.4	18.9501	0.201	1.1	ug/L	291	KED
|	Pb	208	225079.3	1.2	19.3556	0.133	0.7	ug/L	695	KED
|	U	238	112256.7	0.2	3.8846	0.056	1.4	ug/L	16	KED

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	Th	232	73650.3	1.4	**2.8627**	0.005	0.2	ug/L	1926	KED
>	**Bi**	209	650050.2	1.3				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	9079.4	2.1	**0.4400**	0.012	2.7	mg/L	1398	KED
	K	39	1.7	173.2	**8.0147**	13.882	173.2	mg/L	0	KED
	Ca	43	8.3	69.3	**-99.8951**	86.464	86.6	mg/L	2	KED
	Fe	54	19280.6	1.3	**18.4393**	0.489	2.7	mg/L	10	KED
	Fe	57	39412.9	1.1	**17.7442**	0.443	2.5	mg/L	22	KED
>	**Sc-1**	45	84177.2	1.7				mg/L	87229	KED
	Cl	35	2111.8	6.2				ug/L	2227	KED
	Kr	83	3.3	86.6				ug/L	2	KED
	Br	81	18.3	31.5				ug/L	23	KED
	P	31	45.0	11.1				ug/L	212	KED
	S	34	41.7	27.7				ug/L	37	KED
	Sr	88	17241.5	3.4				ug/L	18	KED
	C	12	1.7	173.2				ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		96.502	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		102.656	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	108.519
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	126.277
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	96.502
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
Mn 55 Upper, S, EEE	Mn	55	
Cu 65 Upper, S, EEE	Cu	65	
Sn 118 Upper, S, EEE	Sn	118	
Ba 135 Upper, S, EEE	Ba	135	
Bi 209 Int Std for sample	Bi	209	Rerun sample

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Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, September 04, 2019 17:01:52
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	9844.9	4.6				ug/L	9383	KED
|	**Be**	9	502.0	5.8	**6.3707**	0.296	4.6	ug/L	0	KED
|	**Al**	27	197590.5	2.3				ug/L	73	KED
\>	**Sc-2**	45	86358.8	1.2				ug/L	87229	KED
⌈	**Ti**	47	469.7	2.6	**30.9093**	0.732	2.4	ug/L	11	KED
|	**V**	51	45003.7	0.8	**26.3409**	0.213	0.8	ug/L	10753	KED
|	**Cr**	52	128537.3	0.7	**61.2926**	0.729	1.2	ug/L	489	KED
|	**Cr**	53	19077.0	3.7	**48.3542**	2.461	5.1	ug/L	6416	KED
|	**Mn**	55	92742.4	2.1	**61.4152**	1.241	2.0	ug/L	206	KED
|	**Co**	59	165174.0	1.9	**30.7990**	0.687	2.2	ug/L	86	KED
|	**Ni**	60	185862.4	2.1	**123.5214**	3.217	2.6	ug/L	1252	KED
|	**Cu**	65	119901.7	2.1	**62.2811**	1.278	2.1	ug/L	418	KED
|	**Zn**	66	333365.8	1.2	**618.3221**	8.161	1.3	ug/L	204	KED
\>	**Ge**	72	250679.1	0.5				ug/L	234818	KED
|	**As**	75	14835.3	0.5	**31.6276**	0.315	1.0	ug/L	719	KED
|	**Se**	82	594.8	3.9	**32.4141**	1.388	4.3	ug/L	15	KED
|	**Se-1**	78	1257.7	1.1	**31.6035**	0.521	1.6	ug/L	35	KED
⌊	**Se-1**	80	29962.1	0.3	**47.9909**	0.746	1.6	ug/L	23187	KED
	Ga	71	63.3	4.6				ug/L	33	KED
	Rb	85	173.3	3.3				ug/L	13	KED
	Y	89	215664.2	1.4				ug/L	191699	KED
	Rh	103	11.7	49.5				ug/L	5	KED
⌈	**Mo**	98	124980.8	1.5	**30.8114**	0.349	1.1	ug/L	47	KED
|	**Ag**	107	252239.1	0.9	**31.5877**	0.309	1.0	ug/L	173	KED
|	**Cd**	111	22063.1	1.4	**19.0532**	0.196	1.0	ug/L	5	KED
|	**Cd**	114	53984.4	1.8	**18.9581**	0.276	1.5	ug/L	29	KED
\>	**In**	115	290066.6	0.4				ug/L	248460	KED
|	**Sn**	118	73877.4	1.8	**32.2758**	0.489	1.5	ug/L	556	KED
|	**Sb**	123	62858.5	1.3	**31.1689**	0.333	1.1	ug/L	79	KED
⌊	**Ba**	135	61863.7	0.3	**94.6885**	0.603	0.6	ug/L	15	KED
	Ce	140	129.0	46.2				ug/L	45	KED
	Tb	159	737985.7	1.2				ug/L	661680	KED
⌈	**Ho**	165	9.0	55.6				ug/L	5	KED
|	**Tl**	203	32592.7	0.6	**6.1387**	0.023	0.4	ug/L	8	KED
|	**Tl**	205	81131.3	1.7	**6.1571**	0.136	2.2	ug/L	16	KED
|	**Pb**	206	140544.5	0.9	**30.9216**	0.398	1.3	ug/L	316	KED
|	**Pb**	207	123375.9	0.2	**30.6987**	0.212	0.7	ug/L	291	KED
|	**Pb**	208	310524.4	1.1	**31.0325**	0.286	0.9	ug/L	695	KED
|	**U**	238	770664.9	0.8	**30.9501**	0.382	1.2	ug/L	16	KED

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	Th	232	667319.3	1.5	**31.0300**	0.497	1.6	ug/L	1926	KED
>	**Bi**	209	560171.7	0.5				ug/L	514781	KED
	Na	23	1.7	173.2				mg/L	0	KED
	Mg	24	73911.5	1.6	**4.0246**	0.100	2.5	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	0.0		**23.8084**	0.000	0.0	mg/L	2	KED
	Fe	54	4674.1	4.7	**4.3478**	0.152	3.5	mg/L	10	KED
	Fe	57	9546.3	3.3	**4.1813**	0.142	3.4	mg/L	22	KED
>	**Sc-1**	45	86358.8	1.2				mg/L	87229	KED
	Cl	35	1956.8	7.8				ug/L	2227	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	16.7	34.6				ug/L	23	KED
	P	31	63.3	35.6				ug/L	212	KED
	S	34	36.7	78.7				ug/L	37	KED
	Sr	88	45.0	22.2				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9	99.542		
	Al	27			
>	Sc-2	45		99.003	
	Ti	47	96.591		
	V	51	82.315		
	Cr	52	95.770		
	Cr	53			
	Mn	55	95.961		
	Co	59	96.247		
	Ni	60	96.501		
	Cu	65	97.314		
	Zn	66	96.613		
>	Ge	72		106.755	
	As	75	98.836		
	Se	82	101.294		
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98	96.286	
|	Ag	107	98.711	
|	Cd	111	99.235	
|	Cd	114		
|>	In	115		116.746
|	Sn	118	100.862	
|	Sb	123	97.403	
⌊	Ba	135	98.634	
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203	95.917	
|	Tl	205		
|	Pb	206	96.630	
|	Pb	207	95.933	
|	Pb	208	96.977	
|	U	238	96.719	
|	Th	232		
⌊>	Bi	209		108.817
⌈	Na	23		
|	Mg	24	100.615	
|	K	39	0.000	
|	Ca	43	595.211	
|	Fe	54	108.695	
|	Fe	57	104.533	
⌊>	Sc-1	45		99.003
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	V	51	
QC Std 6	K	39	
QC Std 6	Ca	43	

Sample ID: QC Std 6
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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, September 04, 2019 17:04:46
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	9639.7	1.6				ug/L	9383	KED
|	**Be**	9	0.3	173.2	**0.0043**	0.007	173.2	ug/L	0	KED
|	**Al**	27	185.0	30.5				ug/L	73	KED
⌊>	**Sc-2**	45	85461.0	0.2				ug/L	87229	KED
⌈	**Ti**	47	11.3	20.4	**0.0275**	0.164	597.7	ug/L	11	KED
|	**V**	51	6075.2	15.9	**-4.0543**	0.783	19.3	ug/L	10753	KED
|	**Cr**	52	576.0	13.8	**0.0371**	0.039	104.3	ug/L	489	KED
|	**Cr**	53	3717.1	18.0	**-11.7987**	2.749	23.3	ug/L	6416	KED
|	**Mn**	55	783.7	46.6	**0.3945**	0.250	63.3	ug/L	206	KED
|	**Co**	59	152.7	39.0	**0.0125**	0.012	92.9	ug/L	86	KED
|	**Ni**	60	235.3	29.2	**-0.7307**	0.048	6.6	ug/L	1252	KED
|	**Cu**	65	1278.1	8.2	**0.4607**	0.055	12.0	ug/L	418	KED
|	**Zn**	66	358.0	36.6	**0.2867**	0.255	88.8	ug/L	204	KED
|>	**Ge**	72	240956.2	0.3				ug/L	234818	KED
|	**As**	75	679.7	6.4	**-0.1350**	0.105	77.6	ug/L	719	KED
|	**Se**	82	16.2	10.9	**0.0552**	0.104	188.4	ug/L	15	KED
|	**Se-1**	78	40.5	10.8	**0.1279**	0.115	89.9	ug/L	35	KED
⌊	**Se-1**	80	25755.4	1.5	**18.8016**	3.061	16.3	ug/L	23187	KED
	Ga	71	46.7	16.4				ug/L	33	KED
	Rb	85	15.0	57.7				ug/L	13	KED
	Y	89	200114.7	1.6				ug/L	191699	KED
	Rh	103	5.0	0.0				ug/L	5	KED
⌈	**Mo**	98	273.7	5.1	**0.0619**	0.004	7.0	ug/L	47	KED
|	**Ag**	107	246.0	26.9	**0.0092**	0.010	102.9	ug/L	173	KED
|	**Cd**	111	15.7	61.3	**0.0105**	0.009	89.7	ug/L	5	KED
|	**Cd**	114	49.0	44.8	**0.0074**	0.009	118.6	ug/L	29	KED
|>	**In**	115	259497.7	0.6				ug/L	248460	KED
|	**Sn**	118	958.7	4.7	**0.1862**	0.019	10.4	ug/L	556	KED
|	**Sb**	123	801.4	2.5	**0.3990**	0.010	2.4	ug/L	79	KED
⌊	**Ba**	135	75.3	40.7	**0.1029**	0.053	51.5	ug/L	15	KED
	Ce	140	54.3	41.0				ug/L	45	KED
	Tb	159	675555.5	1.3				ug/L	661680	KED
⌈	**Ho**	165	9.0	29.4				ug/L	5	KED
|	**Tl**	203	18.3	64.6	**0.0021**	0.002	113.5	ug/L	8	KED
|	**Tl**	205	47.0	74.2	**0.0025**	0.003	114.3	ug/L	16	KED
|	**Pb**	206	470.0	7.5	**0.0345**	0.009	25.9	ug/L	316	KED
|	**Pb**	207	388.3	12.5	**0.0242**	0.013	55.7	ug/L	291	KED
|	**Pb**	208	1010.0	16.8	**0.0320**	0.019	58.4	ug/L	695	KED
|	**U**	238	277.0	75.5	**0.0112**	0.009	80.6	ug/L	16	KED

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	Th	232	6648.5	7.5	**0.2322**	0.026	11.3	ug/L	1926	KED
>	**Bi**	209	526659.1	0.6				ug/L	514781	KED
	Na	23	1.7	173.2				mg/L	0	KED
	Mg	24	685.0	7.9	**-0.0384**	0.003	7.8	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**-0.5465**	42.184	7718.3	mg/L	2	KED
	Fe	54	20.0	25.0	**0.0096**	0.005	48.9	mg/L	10	KED
	Fe	57	35.0	42.9	**0.0061**	0.007	109.2	mg/L	22	KED
>	**Sc-1**	45	85461.0	0.2				mg/L	87229	KED
	Cl	35	2418.5	6.3				ug/L	2227	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	30.0	16.7				ug/L	23	KED
	P	31	51.7	48.7				ug/L	212	KED
	S	34	46.7	43.3				ug/L	37	KED
	Sr	88	21.7	93.3				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		97.973	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		102.614	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: QC Std 7
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	104.443
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	102.307
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	97.973
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 7	V	51	
QC Std 7	Ca	43	

Sample ID: QC Std 7
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Method 6020 - Summary Report

Sample ID: M9I0075-01
Sample Date/Time: Wednesday, September 04, 2019 17:07:38
Number of Replicates: 3
Autosampler Position: 236
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	13160.7	6.8				ug/L	9383	KED
|	**Be**	9	6.3	32.9	**0.0645**	0.023	35.3	ug/L	0	KED
|	**Al**	27	81238.9	2.2				ug/L	73	KED
|>	**Sc-2**	45	108465.2	3.7				ug/L	87229	KED
⌈	**Ti**	47	372.3	5.3	**22.7773**	2.136	9.4	ug/L	11	KED
|	**V**	51	19387.7	1.2	**5.2397**	0.449	8.6	ug/L	10753	KED
|	**Cr**	52	31402.8	1.9	**13.8279**	0.645	4.7	ug/L	489	KED
|	**Cr**	53	13420.9	2.4	**22.5778**	0.888	3.9	ug/L	6416	KED
|	**Mn**	55	245073.2	0.7	**152.1419**	5.152	3.4	ug/L	206	KED
|	**Co**	59	7692.0	1.6	**1.3266**	0.064	4.8	ug/L	86	KED
|	**Ni**	60	16342.5	0.8	**9.3463**	0.379	4.1	ug/L	1252	KED
|	**Cu**	65	1164053.8	1.7	**567.8494**	18.545	3.3	ug/L	418	KED
|	**Zn**	66	426711.1	1.2	**741.0001**	26.898	3.6	ug/L	204	KED
|>	**Ge**	72	268030.9	4.2				ug/L	234818	KED
|	**As**	75	1897.1	2.8	**2.2662**	0.104	4.6	ug/L	719	KED
|	**Se**	82	90.5	9.1	**3.8639**	0.571	14.8	ug/L	15	KED
|	**Se-1**	78	183.8	7.5	**3.4902**	0.315	9.0	ug/L	35	KED
⌊	**Se-1**	80	27005.7	1.6	**4.9111**	10.370	211.2	ug/L	23187	KED
	Ga	71	463.3	12.1				ug/L	33	KED
	Rb	85	1985.1	5.7				ug/L	13	KED
	Y	89	227942.2	4.3				ug/L	191699	KED
	Rh	103	38.3	32.8				ug/L	5	KED
⌈	**Mo**	98	52149.9	1.3	**13.3540**	0.352	2.6	ug/L	47	KED
|	**Ag**	107	14481.6	2.7	**1.8602**	0.018	1.0	ug/L	173	KED
|	**Cd**	111	718.0	5.8	**0.6400**	0.042	6.6	ug/L	5	KED
|	**Cd**	114	2756.3	3.6	**0.9943**	0.027	2.7	ug/L	29	KED
|>	**In**	115	279277.2	3.6				ug/L	248460	KED
|	**Sn**	118	45535.7	3.1	**20.5725**	0.788	3.8	ug/L	556	KED
|	**Sb**	123	5027.5	1.6	**2.5501**	0.120	4.7	ug/L	79	KED
⌊	**Ba**	135	159085.3	1.5	**253.1307**	8.445	3.3	ug/L	15	KED
	Ce	140	33348.0	0.8				ug/L	45	KED
	Tb	159	710731.3	3.1				ug/L	661680	KED
⌈	**Ho**	165	785.4	1.5				ug/L	5	KED
|	**Tl**	203	160.3	8.2	**0.0172**	0.001	8.1	ug/L	8	KED
|	**Tl**	205	380.7	1.9	**0.0167**	0.000	0.6	ug/L	16	KED
|	**Pb**	206	106528.2	0.9	**14.5633**	0.150	1.0	ug/L	316	KED
|	**Pb**	207	89820.2	2.0	**13.8812**	0.200	1.4	ug/L	291	KED
|	**Pb**	208	227678.3	1.0	**14.1364**	0.171	1.2	ug/L	695	KED
|	**U**	238	19513.9	2.6	**0.4876**	0.015	3.1	ug/L	16	KED

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	Th	232	24851.9	29.8	**0.6274**	0.229	36.4	ug/L	1926	KED
>	**Bi**	209	899138.7	2.0				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	15843.3	4.0	**0.6234**	0.029	4.6	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	3.3	86.6	**-13.9816**	32.764	234.3	mg/L	2	KED
	Fe	54	7977.1	3.3	**5.9215**	0.382	6.4	mg/L	10	KED
	Fe	57	16423.9	3.4	**5.7314**	0.084	1.5	mg/L	22	KED
>	**Sc-1**	45	108465.2	3.7				mg/L	87229	KED
	Cl	35	5622.7	4.2				ug/L	2227	KED
	Kr	83	5.0	100.0				ug/L	2	KED
	Br	81	173.3	9.3				ug/L	23	KED
	P	31	98.3	7.8				ug/L	212	KED
	S	34	38.3	66.9				ug/L	37	KED
	Sr	88	8682.5	1.5				ug/L	18	KED
	C	12	1.7	173.2				ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		124.346	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		114.144	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		112.403
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
|	Th	232		
⌊>	Bi	209		174.664
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		124.346
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc-2 45 Int Std for sample	Sc-2	45	Rerun sample
Mn 55 Upper, S, EEE	Mn	55	
Cu 65 Upper, S, EEE	Cu	65	
Ba 135 Upper, S, EEE	Ba	135	
Bi 209 Int Std for sample	Bi	209	Rerun sample
Sc-1 45 Int Std for sample	Sc-1	45	Rerun sample

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Method 6020 - Summary Report

Sample ID: B9I0068-PS1
Sample Date/Time: Wednesday, September 04, 2019 17:10:31
Number of Replicates: 3
Autosampler Position: 237
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	Li	6	12895.5	2.6				ug/L	9383	KED
|	Be	9	811.7	3.7	8.4612	0.273	3.2	ug/L	0	KED
|	Al	27	78834.6	1.1				ug/L	73	KED
|>	Sc-2	45	105160.7	1.0				ug/L	87229	KED
⌈	Ti	47	986.7	3.9	62.1411	1.885	3.0	ug/L	11	KED
|	V	51	79463.5	0.7	50.0168	0.993	2.0	ug/L	10753	KED
|	Cr	52	215267.9	1.2	97.2079	2.307	2.4	ug/L	489	KED
|	Cr	53	38056.1	2.8	115.2623	5.874	5.1	ug/L	6416	KED
|	Mn	55	364618.8	2.2	228.7082	6.433	2.8	ug/L	206	KED
|	Co	59	229561.3	1.8	40.4748	0.815	2.0	ug/L	86	KED
|	Ni	60	263427.1	1.1	165.8095	1.035	0.6	ug/L	1252	KED
|	Cu	65	1277954.3	0.6	629.7654	9.626	1.5	ug/L	418	KED
|	Zn	66	840934.2	0.1	1475.3610	24.030	1.6	ug/L	204	KED
|>	Ge	72	265160.8	1.6				ug/L	234818	KED
|	As	75	19481.9	2.5	39.6842	1.011	2.5	ug/L	719	KED
|	Se	82	801.0	0.3	41.5114	0.750	1.8	ug/L	15	KED
|	Se-1	78	1690.4	0.7	40.4230	0.784	1.9	ug/L	35	KED
⌊	Se-1	80	30195.2	0.9	34.9723	3.180	9.1	ug/L	23187	KED
	Ga	71	433.3	4.7				ug/L	33	KED
	Rb	85	1976.8	8.3				ug/L	13	KED
	Y	89	220893.6	0.7				ug/L	191699	KED
	Rh	103	66.7	22.9				ug/L	5	KED
⌈	Mo	98	191295.1	1.0	48.7317	0.682	1.4	ug/L	47	KED
|	Ag	107	302001.3	1.1	39.0784	0.557	1.4	ug/L	173	KED
|	Cd	111	24953.9	1.0	22.2652	0.315	1.4	ug/L	5	KED
|	Cd	114	62382.5	2.2	22.6370	0.575	2.5	ug/L	29	KED
|>	In	115	280771.6	0.4				ug/L	248460	KED
|	Sn	118	123023.5	1.0	55.7348	0.648	1.2	ug/L	556	KED
|	Sb	123	74991.1	1.3	38.4270	0.440	1.1	ug/L	79	KED
⌊	Ba	135	221246.6	1.8	349.9055	5.117	1.5	ug/L	15	KED
	Ce	140	32518.9	1.6				ug/L	45	KED
	Tb	159	703583.6	0.5				ug/L	661680	KED
⌈	Ho	165	744.7	1.0				ug/L	5	KED
|	Tl	203	36794.3	0.1	4.4197	0.034	0.8	ug/L	8	KED
|	Tl	205	91033.3	1.0	4.4060	0.073	1.7	ug/L	16	KED
|	Pb	206	257238.7	0.7	36.1107	0.431	1.2	ug/L	316	KED
|	Pb	207	224043.4	1.0	35.5671	0.063	0.2	ug/L	291	KED
|	Pb	208	561908.8	0.7	35.8291	0.327	0.9	ug/L	695	KED
|	U	238	889872.8	0.9	22.7943	0.351	1.5	ug/L	16	KED

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	Th	232	765978.2	1.5	**22.6898**	0.150	0.7	ug/L	1926	KED
>	**Bi**	209	878278.1	0.9				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	15491.3	3.1	**0.6290**	0.020	3.2	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	5.0	100.0	**-35.8257**	59.732	166.7	mg/L	2	KED
	Fe	54	7645.3	3.4	**5.8445**	0.174	3.0	mg/L	10	KED
	Fe	57	15970.1	2.6	**5.7488**	0.208	3.6	mg/L	22	KED
>	**Sc-1**	45	105160.7	1.0				mg/L	87229	KED
	Cl	35	5854.5	3.6				ug/L	2227	KED
	Kr	83	3.3	86.6				ug/L	2	KED
	Br	81	173.3	11.7				ug/L	23	KED
	P	31	85.0	30.6				ug/L	212	KED
	S	34	31.7	24.1				ug/L	37	KED
	Sr	88	8545.7	4.2				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		120.557	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		112.922	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	113.005
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	170.612
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	120.557
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc-2 45 Int Std for sample	Sc-2	45	Rerun sample
Mn 55 Upper, S, EEE	Mn	55	
Cu 65 Upper, S, EEE	Cu	65	
Zn 66 Upper, S, EEE	Zn	66	
Ba 135 Upper, S, EEE	Ba	135	
Bi 209 Int Std for sample	Bi	209	Rerun sample
Sc-1 45 Int Std for sample	Sc-1	45	Rerun sample

Sample ID: B9I0068-PS1
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Method 6020 - Summary Report

Sample ID: B9I0068-SRL1@5
Sample Date/Time: Wednesday, September 04, 2019 17:13:24
Number of Replicates: 3
Autosampler Position: 238
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10288.5	3.2				ug/L	9383	KED
|	**Be**	9	2.7	114.6	**0.0330**	0.038	115.4	ug/L	0	KED
|	**Al**	27	13390.9	2.0				ug/L	73	KED
⌊>	**Sc-2**	45	89791.7	1.6				ug/L	87229	KED
⌈	**Ti**	47	73.3	13.8	**4.2273**	0.814	19.3	ug/L	11	KED
|	**V**	51	12161.9	2.2	**0.6083**	0.199	32.7	ug/L	10753	KED
|	**Cr**	52	5973.2	8.7	**2.6360**	0.320	12.1	ug/L	489	KED
|	**Cr**	53	7633.6	2.8	**3.3213**	0.179	5.4	ug/L	6416	KED
|	**Mn**	55	41599.7	2.6	**27.6922**	1.363	4.9	ug/L	206	KED
|	**Co**	59	1776.1	29.3	**0.3183**	0.107	33.6	ug/L	86	KED
|	**Ni**	60	3331.4	17.5	**1.3586**	0.452	33.2	ug/L	1252	KED
|	**Cu**	65	206778.7	1.6	**108.4392**	4.318	4.0	ug/L	418	KED
|	**Zn**	66	81852.2	2.2	**152.7375**	6.867	4.5	ug/L	204	KED
| >	**Ge**	72	248840.5	2.3				ug/L	234818	KED
|	**As**	75	1009.0	4.2	**0.5627**	0.152	26.9	ug/L	719	KED
|	**Se**	82	29.5	18.9	**0.7816**	0.347	44.4	ug/L	15	KED
|	**Se-1**	78	63.8	7.9	**0.7007**	0.095	13.5	ug/L	35	KED
⌊	**Se-1**	80	26024.0	1.4	**13.5130**	2.310	17.1	ug/L	23187	KED
	Ga	71	136.7	7.6				ug/L	33	KED
	Rb	85	361.7	6.5				ug/L	13	KED
	Y	89	201884.8	2.2				ug/L	191699	KED
	Rh	103	5.0	100.0				ug/L	5	KED
⌈	**Mo**	98	9971.3	3.5	**2.6548**	0.153	5.8	ug/L	47	KED
|	**Ag**	107	3215.7	16.3	**0.4129**	0.082	20.0	ug/L	173	KED
|	**Cd**	111	176.0	37.4	**0.1611**	0.066	41.1	ug/L	5	KED
|	**Cd**	114	660.7	19.6	**0.2407**	0.056	23.3	ug/L	29	KED
| >	**In**	115	267598.2	2.7				ug/L	248460	KED
|	**Sn**	118	9087.1	2.6	**4.0595**	0.229	5.6	ug/L	556	KED
|	**Sb**	123	1487.1	11.3	**0.7565**	0.111	14.6	ug/L	79	KED
⌊	**Ba**	135	31247.2	0.8	**51.8504**	1.201	2.3	ug/L	15	KED
	Ce	140	6425.4	0.9				ug/L	45	KED
	Tb	159	690265.1	1.7				ug/L	661680	KED
⌈	**Ho**	165	136.3	3.4				ug/L	5	KED
|	**Tl**	203	86.0	79.8	**0.0132**	0.012	89.4	ug/L	8	KED
|	**Tl**	205	225.3	78.4	**0.0142**	0.012	85.8	ug/L	16	KED
|	**Pb**	206	21579.0	2.6	**4.2531**	0.119	2.8	ug/L	316	KED
|	**Pb**	207	18070.1	2.4	**4.0214**	0.119	3.0	ug/L	291	KED
|	**Pb**	208	45904.5	2.4	**4.1075**	0.124	3.0	ug/L	695	KED
|	**U**	238	5068.2	32.9	**0.1845**	0.061	33.2	ug/L	16	KED

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	Th	232	10284.2	19.3	**0.3385**	0.084	24.9	ug/L	1926	KED
>	**Bi**	209	615889.4	0.8				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	2911.9	4.2	**0.0787**	0.009	11.5	mg/L	1398	KED
	K	39	1.7	173.2	**7.5615**	13.097	173.2	mg/L	0	KED
	Ca	43	1.7	173.2	**0.9820**	39.537	4026.2	mg/L	2	KED
	Fe	54	1453.4	3.5	**1.2939**	0.029	2.2	mg/L	10	KED
	Fe	57	2910.3	4.7	**1.2201**	0.079	6.5	mg/L	22	KED
>	**Sc-1**	45	89791.7	1.6				mg/L	87229	KED
	Cl	35	2646.9	4.8				ug/L	2227	KED
	Kr	83	5.0	100.0				ug/L	2	KED
	Br	81	60.0	28.9				ug/L	23	KED
	P	31	66.7	22.9				ug/L	212	KED
	S	34	25.0	60.0				ug/L	37	KED
	Sr	88	1355.1	5.6				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		102.938	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		105.972	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: B9I0068-SRL1@5
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	107.703
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	119.641
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	102.938
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Th 232 Lower	Th	232	

Sample ID: B9I0068-SRL1@5
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Method 6020 - Summary Report

Sample ID: M9I0075-01RE1@10
Sample Date/Time: Wednesday, September 04, 2019 17:16:18
Number of Replicates: 3
Autosampler Position: 239
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	9843.2	1.7				ug/L	9383	KED
|	**Be**	9	1.0	100.0	**0.0124**	0.012	100.3	ug/L	0	KED
|	**Al**	27	6324.7	2.4				ug/L	73	KED
⌊>	**Sc-2**	45	88337.5	1.2				ug/L	87229	KED
⌈	**Ti**	47	41.0	8.8	**2.0450**	0.289	14.2	ug/L	11	KED
|	**V**	51	11786.3	2.0	**0.3928**	0.244	62.1	ug/L	10753	KED
|	**Cr**	52	2946.0	1.4	**1.1839**	0.038	3.2	ug/L	489	KED
|	**Cr**	53	7233.4	7.9	**2.0067**	2.728	136.0	ug/L	6416	KED
|	**Mn**	55	20277.2	1.2	**13.5352**	0.346	2.6	ug/L	206	KED
|	**Co**	59	713.0	6.1	**0.1181**	0.010	8.7	ug/L	86	KED
|	**Ni**	60	1510.7	1.5	**0.1331**	0.022	16.5	ug/L	1252	KED
|	**Cu**	65	100902.9	0.4	**53.2389**	1.018	1.9	ug/L	418	KED
|	**Zn**	66	40601.3	1.1	**76.1755**	0.315	0.4	ug/L	204	KED
| >	**Ge**	72	246677.1	1.5				ug/L	234818	KED
|	**As**	75	831.4	1.0	**0.1747**	0.029	16.6	ug/L	719	KED
|	**Se**	82	22.7	12.5	**0.4019**	0.149	37.0	ug/L	15	KED
|	**Se-1**	78	52.3	10.9	**0.4142**	0.147	35.6	ug/L	35	KED
⌊	**Se-1**	80	26501.5	0.7	**20.0984**	3.705	18.4	ug/L	23187	KED
	Ga	71	98.3	11.7				ug/L	33	KED
	Rb	85	201.7	11.5				ug/L	13	KED
	Y	89	205737.8	2.1				ug/L	191699	KED
	Rh	103	5.0	100.0				ug/L	5	KED
⌈	**Mo**	98	4680.4	3.0	**1.2314**	0.049	4.0	ug/L	47	KED
|	**Ag**	107	1479.4	3.5	**0.1746**	0.003	1.6	ug/L	173	KED
|	**Cd**	111	78.3	9.9	**0.0684**	0.009	13.5	ug/L	5	KED
|	**Cd**	114	299.7	5.1	**0.1018**	0.009	8.6	ug/L	29	KED
| >	**In**	115	269086.8	2.6				ug/L	248460	KED
|	**Sn**	118	4605.4	1.9	**1.9024**	0.029	1.5	ug/L	556	KED
|	**Sb**	123	655.7	2.3	**0.3052**	0.001	0.4	ug/L	79	KED
⌊	**Ba**	135	15572.3	1.7	**25.6785**	0.276	1.1	ug/L	15	KED
	Ce	140	3214.7	2.5				ug/L	45	KED
	Tb	159	690384.5	1.6				ug/L	661680	KED
⌈	**Ho**	165	77.0	5.7				ug/L	5	KED
|	**Tl**	203	23.0	23.0	**0.0026**	0.001	36.8	ug/L	8	KED
|	**Tl**	205	46.3	23.1	**0.0020**	0.001	37.8	ug/L	16	KED
|	**Pb**	206	10965.6	1.1	**2.2304**	0.034	1.5	ug/L	316	KED
|	**Pb**	207	9127.1	0.5	**2.0922**	0.007	0.3	ug/L	291	KED
|	**Pb**	208	23424.4	0.4	**2.1620**	0.009	0.4	ug/L	695	KED
|	**U**	238	1865.4	0.5	**0.0707**	0.000	0.6	ug/L	16	KED

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	Th	232	2917.6	14.5	**0.0321**	0.019	60.1	ug/L	1926	KED
>	**Bi**	209	587444.5	0.4				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	1810.1	4.6	**0.0214**	0.005	25.5	mg/L	1398	KED
	K	39	1.7	173.2	**7.7793**	13.474	173.2	mg/L	0	KED
	Ca	43	0.0		**23.8084**	0.000	0.0	mg/L	2	KED
	Fe	54	750.0	9.7	**0.6750**	0.075	11.1	mg/L	10	KED
	Fe	57	1408.4	8.0	**0.5949**	0.047	7.9	mg/L	22	KED
>	**Sc-1**	45	88337.5	1.2				mg/L	87229	KED
	Cl	35	2251.8	4.1				ug/L	2227	KED
	Kr	83	1.7	173.2				ug/L	2	KED
	Br	81	40.0	12.5				ug/L	23	KED
	P	31	55.0	54.5				ug/L	212	KED
	S	34	33.3	22.9				ug/L	37	KED
	Sr	88	653.3	10.3				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		101.271	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		105.050	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	108.302
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	114.115
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	101.271
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Th 232 Lower	Th	232	

Sample ID: M9I0075-01RE1@10
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Method 6020 - Summary Report

Sample ID: B9I0068-PS2
Sample Date/Time: Wednesday, September 04, 2019 17:19:10
Number of Replicates: 3
Autosampler Position: 240
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10492.0	6.8				ug/L	9383	KED
|	**Be**	9	766.0	1.5	**9.1102**	0.224	2.5	ug/L	0	KED
|	**Al**	27	7700.3	1.7				ug/L	73	KED
|>	**Sc-2**	45	92196.7	1.0				ug/L	87229	KED
⌈	**Ti**	47	717.7	3.1	**47.4425**	1.881	4.0	ug/L	11	KED
|	**V**	51	72753.6	0.2	**47.9054**	0.622	1.3	ug/L	10753	KED
|	**Cr**	52	189633.2	1.7	**90.1533**	1.163	1.3	ug/L	489	KED
|	**Cr**	53	33002.6	1.0	**102.8982**	2.423	2.4	ug/L	6416	KED
|	**Mn**	55	157123.2	2.6	**103.7085**	2.660	2.6	ug/L	206	KED
|	**Co**	59	234780.1	1.9	**43.5956**	0.652	1.5	ug/L	86	KED
|	**Ni**	60	264866.2	2.4	**175.6319**	3.462	2.0	ug/L	1252	KED
|	**Cu**	65	293368.8	2.9	**152.0588**	3.400	2.2	ug/L	418	KED
|	**Zn**	66	539042.7	2.2	**995.7366**	15.925	1.6	ug/L	204	KED
|>	**Ge**	72	251751.1	1.0				ug/L	234818	KED
|	**As**	75	20933.1	0.7	**45.1397**	0.759	1.7	ug/L	719	KED
|	**Se**	82	843.0	3.2	**46.1002**	1.320	2.9	ug/L	15	KED
|	**Se-1**	78	1834.8	1.1	**46.3404**	0.198	0.4	ug/L	35	KED
⌊	**Se-1**	80	30676.0	0.6	**53.3685**	0.892	1.7	ug/L	23187	KED
	Ga	71	95.0	5.3				ug/L	33	KED
	Rb	85	210.0	14.5				ug/L	13	KED
	Y	89	206615.9	0.7				ug/L	191699	KED
	Rh	103	30.0	16.7				ug/L	5	KED
⌈	**Mo**	98	158516.3	0.8	**42.1388**	0.626	1.5	ug/L	47	KED
|	**Ag**	107	343645.8	0.7	**46.4073**	0.424	0.9	ug/L	173	KED
|	**Cd**	111	29013.8	1.2	**27.0189**	0.644	2.4	ug/L	5	KED
|	**Cd**	114	71117.2	0.4	**26.9331**	0.411	1.5	ug/L	29	KED
|>	**In**	115	269067.6	1.2				ug/L	248460	KED
|	**Sn**	118	91496.1	0.9	**43.1934**	0.575	1.3	ug/L	556	KED
|	**Sb**	123	78040.8	0.6	**41.7353**	0.243	0.6	ug/L	79	KED
⌊	**Ba**	135	96300.1	1.1	**158.9365**	3.013	1.9	ug/L	15	KED
	Ce	140	3730.1	4.6				ug/L	45	KED
	Tb	159	695148.9	0.9				ug/L	661680	KED
⌈	**Ho**	165	91.3	0.6				ug/L	5	KED
|	**Tl**	203	43731.4	0.2	**7.8237**	0.125	1.6	ug/L	8	KED
|	**Tl**	205	107585.0	1.2	**7.7549**	0.164	2.1	ug/L	16	KED
|	**Pb**	206	197197.7	1.0	**41.2307**	0.581	1.4	ug/L	316	KED
|	**Pb**	207	173890.6	1.0	**41.1204**	0.602	1.5	ug/L	291	KED
|	**Pb**	208	437018.1	1.5	**41.5039**	0.542	1.3	ug/L	695	KED
|	**U**	238	978816.2	1.1	**37.3343**	0.585	1.6	ug/L	16	KED

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	Th	232	832497.3	2.8	**36.7747**	0.393	1.1	ug/L	1926	KED
>	**Bi**	209	589874.0	1.7				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	1905.1	2.1	**0.0222**	0.001	5.2	mg/L	1398	KED
	K	39	1.7	173.2	**7.5302**	13.043	173.2	mg/L	0	KED
	Ca	43	5.0	100.0	**-44.2320**	68.196	154.2	mg/L	2	KED
	Fe	54	918.4	4.0	**0.7927**	0.025	3.2	mg/L	10	KED
	Fe	57	1718.4	7.0	**0.6971**	0.048	6.9	mg/L	22	KED
>	**Sc-1**	45	92196.7	1.0				mg/L	87229	KED
	Cl	35	2441.9	1.7				ug/L	2227	KED
	Kr	83	8.3	124.9				ug/L	2	KED
	Br	81	36.7	55.1				ug/L	23	KED
	P	31	73.3	41.7				ug/L	212	KED
	S	34	30.0	0.0				ug/L	37	KED
	Sr	88	783.4	12.4				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	1.7	173.2				ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		105.695	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		107.211	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: B9I0068-PS2
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	108.294
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	114.587
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	105.695
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Cu 65 Upper, S, EEE	Cu	65	

Sample ID: B9I0068-PS2
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Method 6020 - Summary Report

Sample ID: B9I0068-SRL2@50
Sample Date/Time: Wednesday, September 04, 2019 17:22:03
Number of Replicates: 3
Autosampler Position: 241
Sample Description: 1
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	9394.6	2.0				ug/L	9383	KED
|	**Be**	9	0.7	173.2	**0.0087**	0.015	173.2	ug/L	0	KED
|	**Al**	27	1181.7	5.5				ug/L	73	KED
⌊>	**Sc-2**	45	83829.9	0.3				ug/L	87229	KED
⌈	**Ti**	47	15.0	24.0	**0.3174**	0.245	77.1	ug/L	11	KED
|	**V**	51	10268.5	4.0	**-0.3338**	0.515	154.2	ug/L	10753	KED
|	**Cr**	52	1019.0	20.8	**0.2767**	0.121	43.7	ug/L	489	KED
|	**Cr**	53	6284.6	1.4	**-0.3403**	0.931	273.5	ug/L	6416	KED
|	**Mn**	55	4127.9	1.1	**2.8026**	0.092	3.3	ug/L	206	KED
|	**Co**	59	324.3	63.2	**0.0485**	0.043	88.5	ug/L	86	KED
|	**Ni**	60	553.7	44.8	**-0.4935**	0.189	38.2	ug/L	1252	KED
|	**Cu**	65	19832.0	0.9	**10.8923**	0.146	1.3	ug/L	418	KED
|	**Zn**	66	8512.1	3.0	**16.6011**	0.857	5.2	ug/L	204	KED
| >	**Ge**	72	233031.8	2.0				ug/L	234818	KED
|	**As**	75	807.4	9.5	**0.2302**	0.220	95.7	ug/L	719	KED
|	**Se**	82	14.0	12.4	**-0.0446**	0.089	198.9	ug/L	15	KED
|	**Se-1**	78	47.3	10.6	**0.3576**	0.165	46.1	ug/L	35	KED
⌊	**Se-1**	80	26107.8	0.5	**30.7474**	3.999	13.0	ug/L	23187	KED
	Ga	71	90.0	9.6				ug/L	33	KED
	Rb	85	38.3	45.8				ug/L	13	KED
	Y	89	191068.9	0.5				ug/L	191699	KED
	Rh	103	8.3	91.7				ug/L	5	KED
⌈	**Mo**	98	1578.1	6.5	**0.4254**	0.036	8.5	ug/L	47	KED
|	**Ag**	107	547.0	35.5	**0.0523**	0.029	55.3	ug/L	173	KED
|	**Cd**	111	38.0	57.4	**0.0325**	0.022	67.7	ug/L	5	KED
|	**Cd**	114	102.0	61.6	**0.0287**	0.026	89.6	ug/L	29	KED
| >	**In**	115	257478.0	1.7				ug/L	248460	KED
|	**Sn**	118	1220.0	10.2	**0.3205**	0.072	22.4	ug/L	556	KED
|	**Sb**	123	1676.8	2.1	**0.8922**	0.008	0.9	ug/L	79	KED
⌊	**Ba**	135	3015.0	1.2	**5.1753**	0.131	2.5	ug/L	15	KED
	Ce	140	609.0	2.1				ug/L	45	KED
	Tb	159	669982.4	0.5				ug/L	661680	KED
⌈	**Ho**	165	18.3	36.3				ug/L	5	KED
|	**Tl**	203	46.3	66.7	**0.0076**	0.006	80.2	ug/L	8	KED
|	**Tl**	205	93.7	73.4	**0.0061**	0.005	88.9	ug/L	16	KED
|	**Pb**	206	2467.9	6.7	**0.4958**	0.037	7.6	ug/L	316	KED
|	**Pb**	207	2009.5	5.2	**0.4475**	0.027	6.0	ug/L	291	KED
|	**Pb**	208	5126.2	5.2	**0.4636**	0.027	5.9	ug/L	695	KED
|	**U**	238	1212.7	49.1	**0.0504**	0.025	49.5	ug/L	16	KED

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	Th	232	1598.4	47.7	**-0.0195**	0.037	190.6	ug/L	1926	KED
>	**Bi**	209	533373.0	0.2				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	796.7	13.6	**-0.0313**	0.006	20.0	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**-0.8861**	42.772	4827.0	mg/L	2	KED
	Fe	54	143.3	11.2	**0.1284**	0.015	12.1	mg/L	10	KED
	Fe	57	293.3	10.4	**0.1232**	0.013	10.9	mg/L	22	KED
>	**Sc-1**	45	83829.9	0.3				mg/L	87229	KED
	Cl	35	1935.1	8.9				ug/L	2227	KED
	Kr	83	3.3	86.6				ug/L	2	KED
	Br	81	16.7	45.8				ug/L	23	KED
	P	31	48.3	31.6				ug/L	212	KED
	S	34	28.3	40.8				ug/L	37	KED
	Sr	88	130.0	27.7				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		96.104	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		99.239	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

Sample ID: B9I0068-SRL2@50
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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	103.630
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	103.612
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	96.104
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Th 232 Lower	Th	232	

Sample ID: B9I0068-SRL2@50
Report Date/Time: Wednesday, September 04, 2019 17:24:23
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Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, September 04, 2019 17:24:57
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	10000.0	1.7				ug/L	9383	KED
|	**Be**	9	504.0	1.0	**6.3491**	0.073	1.1	ug/L	0	KED
|	**Al**	27	195184.2	0.8				ug/L	73	KED
|>	**Sc-2**	45	87029.9	0.6				ug/L	87229	KED
⌈	**Ti**	47	467.0	1.4	**30.4102**	0.464	1.5	ug/L	11	KED
|	**V**	51	45582.8	3.2	**26.4381**	1.428	5.4	ug/L	10753	KED
|	**Cr**	52	128157.2	1.9	**60.4796**	0.813	1.3	ug/L	489	KED
|	**Cr**	53	19908.1	6.4	**50.8788**	5.695	11.2	ug/L	6416	KED
|	**Mn**	55	92726.6	0.7	**60.7795**	0.661	1.1	ug/L	206	KED
|	**Co**	59	166339.1	2.2	**30.6948**	0.360	1.2	ug/L	86	KED
|	**Ni**	60	185745.1	1.5	**122.1581**	0.343	0.3	ug/L	1252	KED
|	**Cu**	65	118478.5	1.7	**60.9048**	0.385	0.6	ug/L	418	KED
|	**Zn**	66	330726.9	2.1	**607.0887**	5.176	0.9	ug/L	204	KED
|>	**Ge**	72	253271.9	1.3				ug/L	234818	KED
|	**As**	75	14811.6	1.0	**31.2334**	0.168	0.5	ug/L	719	KED
|	**Se**	82	591.8	4.4	**31.8985**	1.173	3.7	ug/L	15	KED
|	**Se-1**	78	1263.7	2.8	**31.4212**	0.757	2.4	ug/L	35	KED
⌊	**Se-1**	80	30470.8	1.0	**49.8251**	3.928	7.9	ug/L	23187	KED
	Ga	71	71.7	26.4				ug/L	33	KED
	Rb	85	155.0	14.1				ug/L	13	KED
	Y	89	219793.1	1.8				ug/L	191699	KED
	Rh	103	40.0	45.1				ug/L	5	KED
⌈	**Mo**	98	123214.3	0.6	**30.1204**	0.255	0.8	ug/L	47	KED
|	**Ag**	107	251201.7	1.7	**31.1889**	0.185	0.6	ug/L	173	KED
|	**Cd**	111	22056.4	1.1	**18.8863**	0.040	0.2	ug/L	5	KED
|	**Cd**	114	54675.5	1.8	**19.0379**	0.157	0.8	ug/L	29	KED
|>	**In**	115	292552.3	1.3				ug/L	248460	KED
|	**Sn**	118	72212.4	1.4	**31.2721**	0.051	0.2	ug/L	556	KED
|	**Sb**	123	64608.5	1.1	**31.7680**	0.403	1.3	ug/L	79	KED
⌊	**Ba**	135	60826.2	1.4	**92.3118**	1.131	1.2	ug/L	15	KED
	Ce	140	63.7	8.7				ug/L	45	KED
	Tb	159	742901.3	2.2				ug/L	661680	KED
⌈	**Ho**	165	7.7	66.9				ug/L	5	KED
|	**Tl**	203	32532.2	0.8	**6.1332**	0.005	0.1	ug/L	8	KED
|	**Tl**	205	81247.3	1.3	**6.1714**	0.063	1.0	ug/L	16	KED
|	**Pb**	206	139580.1	1.3	**30.7379**	0.351	1.1	ug/L	316	KED
|	**Pb**	207	123449.3	1.5	**30.7458**	0.353	1.1	ug/L	291	KED
|	**Pb**	208	310123.4	1.4	**31.0227**	0.365	1.2	ug/L	695	KED
|	**U**	238	759730.3	1.6	**30.5382**	0.281	0.9	ug/L	16	KED

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	Th	232	634467.7	2.0	**29.5251**	0.461	1.6	ug/L	1926	KED
>	**Bi**	209	559629.5	0.9				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	73501.2	0.7	**3.9697**	0.030	0.8	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	3.3	86.6	**-23.7640**	41.199	173.4	mg/L	2	KED
	Fe	54	4389.0	5.9	**4.0510**	0.222	5.5	mg/L	10	KED
	Fe	57	9453.0	3.4	**4.1083**	0.152	3.7	mg/L	22	KED
>	**Sc-1**	45	87029.9	0.6				mg/L	87229	KED
	Cl	35	1888.5	4.7				ug/L	2227	KED
	Kr	83	3.3	86.6				ug/L	2	KED
	Br	81	21.7	35.3				ug/L	23	KED
	P	31	70.0	31.1				ug/L	212	KED
	S	34	35.0	14.3				ug/L	37	KED
	Sr	88	43.3	35.3				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9	99.204		
	Al	27			
>	Sc-2	45		99.772	
	Ti	47	95.032		
	V	51	82.619		
	Cr	52	94.499		
	Cr	53			
	Mn	55	94.968		
	Co	59	95.921		
	Ni	60	95.436		
	Cu	65	95.164		
	Zn	66	94.858		
>	Ge	72		107.859	
	As	75	97.604		
	Se	82	99.683		
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103		
⌈	Mo	98	94.126	
|	Ag	107	97.465	
|	Cd	111	98.366	
|	Cd	114		
|>	In	115		117.746
|	Sn	118	97.725	
|	Sb	123	99.275	
⌊	Ba	135	96.158	
	Ce	140		
	Tb	159		
⌈	Ho	165		
|	Tl	203	95.831	
|	Tl	205		
|	Pb	206	96.056	
|	Pb	207	96.081	
|	Pb	208	96.946	
|	U	238	95.432	
|	Th	232		
⌊>	Bi	209		108.712
⌈	Na	23		
|	Mg	24	99.243	
|	K	39	0.000	
|	Ca	43	-594.101	
|	Fe	54	101.275	
|	Fe	57	102.708	
⌊>	Sc-1	45		99.772
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	V	51	
QC Std 6	K	39	
QC Std 6	Ca	43	

Sample ID: QC Std 6
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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, September 04, 2019 17:27:51
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\microbac ked 6020.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH Nexion300X
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
⌈	**Li**	6	9069.4	5.4				ug/L	9383	KED
|	**Be**	9	0.3	173.2	**0.0043**	0.007	173.2	ug/L	0	KED
|	**Al**	27	190.0	116.6				ug/L	73	KED
⌊>	**Sc-2**	45	83502.0	6.0				ug/L	87229	KED
⌈	**Ti**	47	16.7	12.5	**0.4150**	0.152	36.6	ug/L	11	KED
|	**V**	51	6454.4	15.1	**-3.6807**	0.847	23.0	ug/L	10753	KED
|	**Cr**	52	515.0	23.1	**0.0097**	0.060	621.7	ug/L	489	KED
|	**Cr**	53	3872.2	17.3	**-10.9691**	2.906	26.5	ug/L	6416	KED
|	**Mn**	55	349.3	29.2	**0.0976**	0.071	72.4	ug/L	206	KED
|	**Co**	59	192.0	79.9	**0.0205**	0.030	146.6	ug/L	86	KED
|	**Ni**	60	265.7	62.0	**-0.7076**	0.116	16.4	ug/L	1252	KED
|	**Cu**	65	737.7	16.8	**0.1719**	0.066	38.5	ug/L	418	KED
|	**Zn**	66	430.0	78.2	**0.4340**	0.656	151.2	ug/L	204	KED
|>	**Ge**	72	238304.4	1.5				ug/L	234818	KED
|	**As**	75	671.0	5.5	**-0.1372**	0.105	76.4	ug/L	719	KED
|	**Se**	82	16.2	11.7	**0.0646**	0.099	152.7	ug/L	15	KED
|	**Se-1**	78	37.3	7.4	**0.0542**	0.077	142.3	ug/L	35	KED
⌊	**Se-1**	80	26326.2	0.1	**27.1267**	4.052	14.9	ug/L	23187	KED
	Ga	71	68.3	22.4				ug/L	33	KED
	Rb	85	18.3	31.5				ug/L	13	KED
	Y	89	198070.7	3.7				ug/L	191699	KED
	Rh	103	1.7	173.2				ug/L	5	KED
⌈	**Mo**	98	311.3	13.6	**0.0758**	0.013	16.7	ug/L	47	KED
|	**Ag**	107	267.3	51.1	**0.0131**	0.018	136.4	ug/L	173	KED
|	**Cd**	111	21.0	86.6	**0.0159**	0.017	107.2	ug/L	5	KED
|	**Cd**	114	57.7	70.0	**0.0112**	0.015	136.0	ug/L	29	KED
|>	**In**	115	250160.6	8.2				ug/L	248460	KED
|	**Sn**	118	673.3	7.3	**0.0596**	0.038	63.3	ug/L	556	KED
|	**Sb**	123	1032.0	4.2	**0.5521**	0.070	12.6	ug/L	79	KED
⌊	**Ba**	135	48.0	77.6	**0.0578**	0.062	106.8	ug/L	15	KED
	Ce	140	17.0	20.4				ug/L	45	KED
	Tb	159	643179.0	7.8				ug/L	661680	KED
⌈	**Ho**	165	5.7	10.2				ug/L	5	KED
|	**Tl**	203	21.7	89.5	**0.0029**	0.004	132.2	ug/L	8	KED
|	**Tl**	205	49.3	64.9	**0.0029**	0.003	90.4	ug/L	16	KED
|	**Pb**	206	397.7	28.7	**0.0219**	0.024	111.0	ug/L	316	KED
|	**Pb**	207	348.0	24.6	**0.0179**	0.020	113.5	ug/L	291	KED
|	**Pb**	208	874.4	26.2	**0.0217**	0.021	97.2	ug/L	695	KED
|	**U**	238	486.3	107.5	**0.0207**	0.022	108.2	ug/L	16	KED

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	Th	232	7168.1	29.4	**0.2825**	0.140	49.4	ug/L	1926	KED
>	**Bi**	209	500661.2	6.7				ug/L	514781	KED
	Na	23	0.0					mg/L	0	KED
	Mg	24	595.0	12.9	**-0.0428**	0.002	5.7	mg/L	1398	KED
	K	39	0.0		**0.0000**	0.000		mg/L	0	KED
	Ca	43	1.7	173.2	**0.2156**	40.864	18951.9	mg/L	2	KED
	Fe	54	15.0	33.3	**0.0051**	0.004	78.6	mg/L	10	KED
	Fe	57	26.7	71.0	**0.0024**	0.008	342.9	mg/L	22	KED
>	**Sc-1**	45	83502.0	6.0				mg/L	87229	KED
	Cl	35	2338.5	6.3				ug/L	2227	KED
	Kr	83	0.0					ug/L	2	KED
	Br	81	10.0	50.0				ug/L	23	KED
	P	31	36.7	43.8				ug/L	212	KED
	S	34	41.7	25.0				ug/L	37	KED
	Sr	88	18.3	103.3				ug/L	18	KED
	C	12	0.0					ug/L	0	KED
	N	14	0.0					ug/L	0	KED

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
	Li	6			
	Be	9			
	Al	27			
>	Sc-2	45		95.728	
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		101.485	
	As	75			
	Se	82			
	Se-1	78			
	Se-1	80			
	Ga	71			
	Rb	85			
	Y	89			

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	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	100.685
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
	Ce	140	
	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
|	Th	232	
⌊>	Bi	209	97.257
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	95.728
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 7	Ti	47	
QC Std 7	V	51	
QC Std 7	Sb	123	

Sample ID: QC Std 7
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2.2 General Chemistry Data

2.2.1 Percent Solids Data

2.2.1.1 Raw Data

Example Percent Solids Calculations

1.0 Calculating the percent solids of a sample.

$$\%Solids = \frac{WT3 - WT1}{WT2 - WT1} \times F$$

Where:	
WT1 = Weight, in grams, of the empty container	1.30 g
WT2 = Weight, in grams, of the container and wet sample	21.274 g
WT3 = Weight, in grams, of the container and dried sample	5.21 g
F = Factor to get units as percent weight	100
%Solids = Percent solids present in sample.	19.58%

2.0 Calculating the percent moisture of a sample.

% Moisture = 100 - % Solids from 1.0 calculation

Microbac Laboratories Inc.

PERCENT SOLIDS

Workgroup (AAB#):WG710659 Analyst:KMG ADT(on):09/03/2019 14:00
Method:ASTM D2216-10 Instrument:BAL021 ADT(off):09/04/2019 11:11
SOP:K0003 Rev:15

SAMPLE NUMBER	EMPTY PAN WT 1	WET WT 2	DRY WT 3A	DRY WT 3B	DRY WT 3C	PERCENT SOLID	PERCENT MOISTURE
L19080144-01	1.249	20.383	20.027			98.14	
L19080144-02	1.284	21.024	20.694			98.33	
L19080144-03	1.286	22.036	21.669			98.23	
L19080144-04	1.278	22.34	21.98			98.29	
L19080144-05	1.277	19.422	19.192			98.73	
L19080144-06	1.268	16.673	16.473			98.70	
L19080144-07	1.274	21.097	20.807			98.54	
L19080144-08	1.266	17.693	17.456			98.56	
L19080144-09	1.282	21.507	21.204			98.50	
L19080159-01	1.274	14.129	11.671			80.88	
L19080159-02	1.272	18.08	14.6			79.30	
L19080160-01	1.279	13.273	11.921			88.73	
L19080160-02	1.282	17.898	15.875			87.82	
L19080161-01	1.278	24.585	20.818			83.84	
L19080161-02	1.276	28.706	25.242			87.37	
L19080161-03	1.273	22.267	18.998			84.43	
L19080161-04	1.283	24.757	20.954			83.80	
L19080161-05	1.287	24.894	22.848			91.33	
L19080161-06	1.283	24.442	22.759			92.73	
L19080161-07	1.278	26.592	23.743			88.75	
L19080161-08	1.274	18.361	16.458			88.86	
L19080161-09	1.277	20.55	18.442			89.06	
L19080161-10	1.273	25.8	22.676			87.26	
L19080161-11	1.274	28.751	26.358			91.29	
L19080165-01	1.276	12.54	11.413			89.99	
L19080165-02	1.273	28.802	27.944			96.88	
L19080165-03	1.283	14.307	13.159			91.19	
L19080165-04	1.27	17.684	16.93			95.41	
L19080178-01	1.264	16.065	14.526			89.60	
L19080178-02	1.274	17.065	14.025			80.75	
L19080178-03	1.277	26.724	21.037			77.65	
L19080178-04	1.276	21.232	19.847			93.06	
L19080178-05	1.28	19.986	17.544			86.95	
L19080178-06	1.285	15.351	13.382			86.00	
L19080178-07	1.274	15.841	14.009			87.42	
L19080178-08	1.278	17.182	13.778			78.60	
L19080178-09	1.29	17.97	15.408			84.64	
L19080178-10	1.286	15.814	13.277			82.54	
L19080178-11	1.278	13.439	11.115			80.89	
L19080178-12	1.281	17.678	16.12			90.50	
L19080178-13	1.274	17.141	14.791			85.19	
L19080178-14	1.274	14.224	11.558			79.41	

PERCENT_SOLIDS - Modified 04/24/2008
PDF ID: 6460949
Report generated: 09/04/2019 11:21

Microbac Laboratories Inc.

PERCENT SOLIDS

Workgroup (AAB#):WG710659 Analyst:KMG ADT(on):09/03/2019 14:00
Method:ASTM D2216-10 Instrument:BAL021 ADT(off):09/04/2019 11:11
SOP:K0003 Rev:15

SAMPLE NUMBER	EMPTY PAN WT 1	WET WT 2	DRY WT 3A	DRY WT 3B	DRY WT 3C	PERCENT SOLID	PERCENT MOISTURE
L19080178-15	1.266	15.864	14.694			91.99	
L19080178-16	1.28	13.903	12.143			86.06	
L19080178-17	1.259	13.007	11.496			87.14	
L19080178-18	1.277	14.472	12.7			86.57	
L19080178-19	1.266	18.239	16.451			89.47	
L19080178-20	1.285	14.662	13.09			88.25	
L19080178-21	1.28	14.991	12.472			81.63	
WG710659-01	1.274	21.097	20.807			98.54	1.463
WG710659-02	1.266	17.693	17.456			98.56	1.443
WG710659-03	1.282	21.507	21.204			98.50	1.498
WG710659-04	1.278	17.846	17.576			98.37	1.630
WG710659-05	1.269	21.704	21.37			98.37	1.634
WG710659-06	1.276	19.602	19.334			98.54	1.462

Analyst: Kaleen Gordon

PERCENT_SOLIDS - Modified 04/24/2008
PDF ID: 6460949
Report generated: 09/04/2019 11:21

3.0 Attachments

Microbac Laboratories Inc.
Ohio Valley Division Analyst List
September 13, 2019

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001 - BIO-CHEM TESTING WVDEP 220	002 - REIC Consultants, Inc. WVDEP 060
003 - Sturm Environmental	004 - MICROBAC PITTSBURGH
005 - ES LABORATORIES	006 - ALCOSAN LABORATORIES
007 - ALS LABORATORIES	008 - BENCHMARK LABORATORIES
010 - MICROBAC CHICAGOLAND	AC - AMBER R. CARMICHAEL
ACG - ALEX C. GEDON	ADC - ANTHONY D. CANTER
ADG - APRIL D. GREENE	ADW - ALICIA D. WALKER
ALS - ADRIANE L. STEED	APH - ANDREW P. HOUT
ARJ - Autumn R. Jones	AT - Asa R. Timmons
ATK - ALEX T. KLINTWORTH	AWE - ANDREW W. ESSIG
AZH - AFTER HOURS	BLG - BRENDA L. GREENWALT
BRG - BRENDA R. GREGORY	CAS - Craig A. Smith
CB - Claire A. Berlin	CEB - CHAD E. BARNES
CLC - CHRYS L. CRAWFORD	COR - Corporate IT
CPD - CHAD P. DAVIS	CSH - CHRIS S. HILL
DEA - Danielle E. Arick	DIH - DEANNA I. HESSON
DLB - DAVID L. BUMGARNER	DLP - DOROTHY L. PAYNE
DSM - DAVID S. MOSSOR	ECL - ERIC C. LAWSON
EEA - EMILY E. ALLEN	EGS - EMILY G. SHILLING
EPT - ETHAN P. TIDD	ERP - ERIN R. PORTER
JAO - Jeff A. Ogle	JDH - JUSTIN D. HESSON
JDS - JARED D. SMITH	JKP - JACQUELINE K. PARSONS
JLR - JIMMY L. RUSH	JRH - Justin R. Hill
JST - JOSHUA S. TAYLOR	JTP - JOSHUA T. PEMBERTON
JWR - JOHN W. RICHARDS	JYH - JI Y. HU
KAK - KATHY A. KIRBY	KEB - KATIE E. BARNES
KEH - Katelyn E. Hoover	KFR - KARISSA F. REYNOLDS
KHR - KIM H. RHODES	KKB - KERRI K. BUCK
KMC - KAYLA M. CHEVALIER	KMG - KALEN M. GANDOR
KRA - KATHY R. ALBERTSON	KRP - KATHY R. PARSONS
KWD - Kurtis W. Decker	LLS - LARRY L. STEPHENS
LMG - Larry M. Gwinn	LSJ - LAURA S. JONES
MAP - MARLA A. PORTER	MES - MARY E. SCHILLING
MGH - Matthew G. Hackathorn	MMB - MAREN M. BEERY
MRT - MICHELLE R. TAYLOR	PDM - PIERCE D. MORRIS
PIT - MICROBAC WARRENDALE	RLB - BOB BUCHANAN
RLD - Rachal L. Depuy	RNM - Rene N. Miller
RNP - RICK N. PETTY	SAV - SARAH A. VANDENBERG
SCB - SARAH C. BOGOLIN	SDM - Stephanie D. Murphy
SLM - STEPHANIE L. MOSSBURG	SWB - Samuel W. Bidwell
TB - TODD BOYLE	TMM - TAMMY M. MORRIS
VC - VICKI COLLIER	XXX - UNAVAILABLE OR SUBCONTRACT
ZTB - ZACH T. BARNES	ZTL - ZACH T. LUCAS

Microbac Laboratories Inc.
List of Valid Qualifiers
September 13, 2019

Qualkey: DOD

Qualifier	Description
*	Surrogate or spike compound out of range
+	Correlation coefficient for the MSA is less than 0.995
<	Result is less than the associated numerical value.
>	Greater than
>,H1	Result is greater than the associated numerical value. Sample analysis performed past holding time.
A	See the report narrative
B	The reported result is associated with a contaminated method blank.
B,H1	Analyte present in method blank. Sample analysis performed past holding time.
B1	Target analyte detected in method blank at or above the method reporting limit
B3	Target analyte detected in calibration blank at or above the method reporting limit
B4	The BOD unseeded dilution water blank exceeded 0.2 mg/L
B4,A	The BOD unseeded dilution water blank exceeded 0.2 mg/L. See the report narrative.
B4,F	The BOD unseeded dilution water blank exceeded 0.2 mg/L. Analyte present below the reporting limit (RL).
B4,F,A	The BOD unseeded dilution water blank exceeded 0.2 mg/L. Analyte present below the reporting limit (RL). See the report
B4,ND	The BOD unseeded dilution water blank exceeded 0.2 mg/L. Not detected at or above the reporting limit..
B4,ND,A	The BOD unseeded dilution water blank exceeded 0.2 mg/L. Not detected at or above the reporting limit. See the report na
C	Confirmed by GC/MS
CG	Confluent growth
CT1	Cooler temperature at sample reciept exceeded regulatory limit.
DL	Surrogate or spike compound was diluted out.
E	Estimated concentration due to sample matrix interference
E,CT1	Estimated results. The cooler temperature at receipt exceeded regulatory guidelines for requested testing.
EDL	Elevated sample reporting limits, presence of non-target analytes
EMPC	Estimated Maximum Possible Concentration
F, S	Estimated result below quantitation limit; method of standard additions(MSA)
F,CT1	Estimated value; the analyte concentration was less than the RL/LOQ. The cooler temperature at receipt exceeded regula
FL	Free Liquid
FP1	Did not ignite.
H1	Sample analysis performed past holding time.
H1,A	Sample analysis performed past holding time.See the report narrative
H1,CT1	Sample analysis performed past holding time. The cooler temperature at receipt exceeded regulatory guidelines for reque
I	Estimated value ; the analyte concentration was greater than the highest standard
J	Concentrations >40% difference between the two GC columns
J	Estimated concentration; sample matrix interference.
J	Estimated value ; the analyte concentration was less than the LOQ.
J	The reported result is an estimated value.
J,A	Present below nominal reporting limit. See case narrative.
J,B	Analyte detected in both the method blank and sample above the MDL.
J,CT1	Estimated value ; the analyte concentration was less than the LOQ. Cooler temperature at sample reciept exceeded regu
J,H1	Estimated value ; the analyte concentration was less than the LOQ. Sample analysis performed past holding time.
J,H1	The reported result is an estimated value. Sample was analyzed past holding time.
J,P	Estimate; columns don't agree to within 40%
J,S	Estimated concentration; analyzed by method of standard addition (MSA)
JB	The reported result is an estimated value. The reported result is also associated with a contaminated method blank.
JQ	Found between MDL and RL, but has quality control issue.
JQ	The reported result is an estimated value and one or more quality control criteria failed. See narrative.
L	Sample reporting limits elevated due to matrix interference
L1	The associated blank spike (LCS) recovery was above the laboratory acceptance limits.
L2	The associated blank spike (LCS) recovery was below the laboratory acceptance limits.
M	Matrix effect; the concentration is an estimate due to matrix effect.
N	Nontarget analyte; the analyte is a tentativlely identified compound (TIC) by GC/MS
NA	Not applicable
ND	Not detected at or above the reporting limit (RL)
ND, B	Not detected at or above the reporting limit (RL). Analyte present in method blank.
ND, CT1	Analyte was not detected. The concentration is below the reported LOD. The cooler temperature at receipt exceeded reg
ND, L	Not detected; sample reporting limit (RL) elevated due to interference
ND, S	Not detected; analyzed by method of standard addition (MSA)
ND,A	Not detected. See report narrative.
ND,H1	Not detected; Sample analysis performed past holding time.
ND,H1,CT1	Not detected; Sample analysis performed past holding time. The cooler temperature at receipt exceeded regulatory guide
NF	Not found by library search
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentrations >40% difference between the two GC columns
Q	One or more quality control criteria failed. See narrative.

Qualkey: DOD

Q,H1	One or more quality control criteria failed. Sample analyzed past holding time. See narrative.
QNS	Quantity of sample not sufficient to perform analysis
RA	Reanalysis confirms reported results
RE	Reanalysis confirms sample matrix interference
S	Analyzed by method of standard addition (MSA)
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
T5	Laboratory not licensed for this parameter
TIC	Library Search Compound
TNTC	Too numerous to count
TNTC, B	Too numerous to count. Analyte present in method blank.
TNTC,CT1	Too numerous to count. The cooler temperature at receipt exceeded regulatory guidelines for requested testing.
TNTC,H1	Too numerous to count. Sample analysis performed past holding time.
U	Analyte was not detected. The concentration is below the reported LOD.
U,CT1	Analyte was not detected. The concentration is below the reported LOD. Cooler temperature at sample reciept exceeded
U,H1	Not detected; Sample analysis performed past holding time.
UJ	Undetected; the MDL and RL are estimated due to quality control discrepancies.
UQ	Analyte was not detected. The concentration is below the reported LOD. One or more quality control criteria fail. See nar
W	Post-digestion spike for furnace AA out of control limits
X	Exceeds regulatory limit
X, S	Exceeds regulatory limit; method of standard additions (MSA)
Z	Cannot be resolved from isomer - see below

CT LABORATORIES
delivering more than data from your environmental analyses

1230

Microbac OVD
Received: 08/30/2019 10:17
By: BRENDA GREGORY
221000138659

Brenda Gregory

Sub-Contract Laboratory Chain-of-Custody and Purchase

PURCHASE ORDER # 147664 MICROBAC

The PO# must appear on all invoice and reports!

Upon Receipt of Samples, please verify that samples were received in acceptable condition then sign this form and fax to (608)356-2766 or email to the project manager. Sample temperature, upon receipt, must be recorded on this document unless thermal preservation is not a method requirement.

Ship to: Microbac
158 Starlight Drive
Marietta, OH 45750

Return Invoice and Results to: **ekorthals@ctlaboratories.com**

CTLaboratories
Eric Korthals
1230 Lange Court
Baraboo WI 53913

Government UPS Shipping Acct (Y) N

Ship by: Speedee ☐ UPS Grnd ☐ UPS 2nd ☐ UPS NDA ☒

Date Due: ~2 weeks *RUSH TURNAROUND NEEDED? Y or N (Circle One)*

Project Name: MEMPHIS DEPOT **Project State:** TN

Analytical/QC Criteria: NONE INDICATED STATE (DOD QSM) NELAP (Circle one) OTHER_____

Report results as EDD? N (Y) (Circle one and indicate type: HDR Memphis Depot) Data Deliverable Package LEVEL: 4

CTLabs ID#	Sample Date/Time	Matrix	Sample Description	Analyses / Method		Cost
321149	08/26/2019 1023	SOIL	GN-SO-01-1	ICP-MS METALS	EPA 6020A	
321154	08/26/2019 1115	SOIL	GN-SO-01-2	ICP-MS METALS	EPA 6020A	
321155	08/26/2019 1130	SOIL	GN-SO-02-1	ICP-MS METALS	EPA 6020A	
321157	08/26/2019 1100	SOIL	GN-SO-DUP-1	ICP-MS METALS	EPA 6020A	
321158	08/26/2019 1153	SOIL	GN-SO-02-2	ICP-MS METALS	EPA 6020A	
321159	08/26/2019 1320	SOIL	GNSO-03-1	ICP-MS METALS	EPA 6020A	
321160	08/26/2019 1334	SOIL	GN-SO-03-2	ICP-MS METALS	EPA 6020A	
321161	08/26/2019 1348	SOIL	GN-SO-04-1 **	ICP-MS METALS	EPA 6020A	
321162	08/26/2019 1400	SOIL	GN-SO-04-2	ICP-MS METALS	EPA 6020A	
321163	08/26/2019 1410	SOIL	GN-SO-05-1	ICP-MS METALS	EPA 6020A	
321164	08/26/2019 1428	SOIL	GN-SO-05-2	ICP-MS METALS	EPA 6020A	
321165	08/26/2019 1422	SOIL	GN-SO-DUP-2	ICP-MS METALS	EPA 6020A	
321166	08/26/2019 1442	SOIL	GN-SO-06-1	ICP-MS METALS	EPA 6020A	
321167	08/26/2019 1505	SOIL	GN-SO-06-2	ICP-MS METALS	EPA 6020A	
321168	08/26/2019 1513	SOIL	GN-SO-07-1	ICP-MS METALS	EPA 6020A	
321169	08/26/2019 1528	SOIL	GN-SO-07-2	ICP-MS METALS	EPA 6020A	
321170	08/26/2019 1539	SOIL	GN-SO-08-1	ICP-MS METALS	EPA 6020A	

321171	08/26/2019 1550	SOIL	GN-SO-08-2	ICP-MS METALS	EPA 6020A
321172	08/26/2019 1601	SOIL	GN-SO-09C-1	ICP-MS METALS	EPA 6020A

Relinquished by: _____ _____ Date/Time: 08-29-19 0900h

Received by: _____ Date/Time: _____ Receipt Temperature (C) _____

COMMENTS: ANALYTES = As, Sb, Pb, Se, Ag, Tl
** sample designated to also perform for MS/MSD

REPORT ALL SOLIDS ON A DRY WEIGHT BASIS UNLESS OTHERWISE INDICATED

Form #: FPM1-01
Effective Date: 02/15/14

MICROBAC®

COOLER TEMP >6° C LOG

Cooler ID 8159

SAMPLE ID	Bottle 1 °C	Bottle 2 °C	Bottle 3 °C	Bottle 4 °C	Bottle 5 °C	Bottle 6 °C

8/30/19

pH Exceptions

pH Lot # N/A

SAMPLE ID	Bottle 1	Bottle 2	Bottle 3	Bottle 4	Bottle 5	Bottle 6

8/30/19

PRESERVATIVE EXCEPTIONS

__NONE

__AS NOTED

Document Control # 1957
Last 10-07-2016

Issued to: Document Master File

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L19080178
Account: 2694
Project: 2694.005
Samples: 21
Due Date: 07-SEP-2019

Samplenum	Container ID	Products
L19080178-01	340584	AG-MS AS-MS PB-MS SB-MS SE-MS TL-MS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-AUG-2019 18:14	BRG		
2	PREP	W1	DIG	03-SEP-2019 05:31	ERP	AZH	
3	ANALYZ*	DIG	METALS	04-SEP-2019 10:46	JYH	ERP	
4	STORE	DIG	A2	05-SEP-2019 12:25	BRG	ERP	

***Sample extract/digestate/leachate**

Samplenum	Container ID	Products
L19080178-02	340585	AG-MS AS-MS PB-MS SB-MS SE-MS TL-MS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-AUG-2019 18:14	BRG		
2	PREP	W1	DIG	03-SEP-2019 05:31	ERP	AZH	
3	ANALYZ*	DIG	METALS	04-SEP-2019 10:46	JYH	ERP	
4	STORE	DIG	A2	05-SEP-2019 12:25	BRG	ERP	

***Sample extract/digestate/leachate**

Samplenum	Container ID	Products
L19080178-03	340586	AG-MS AS-MS PB-MS SB-MS SE-MS TL-MS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-AUG-2019 18:14	BRG		
2	PREP	W1	DIG	03-SEP-2019 05:31	ERP	AZH	
3	ANALYZ*	DIG	METALS	04-SEP-2019 10:46	JYH	ERP	
4	STORE	DIG	A2	05-SEP-2019 12:25	BRG	ERP	

***Sample extract/digestate/leachate**

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L19080178
Account: 2694
Project: 2694.005
Samples: 21
Due Date: 07-SEP-2019

Samplenum	Container ID	Products
L19080178-04	340587	AG-MS AS-MS PB-MS SB-MS SE-MS TL-MS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-AUG-2019 18:14	BRG		
2	PREP	W1	DIG	03-SEP-2019 05:31	ERP	AZH	
3	ANALYZ*	DIG	METALS	04-SEP-2019 10:46	JYH	ERP	
4	STORE	DIG	A2	05-SEP-2019 12:25	BRG	ERP	

***Sample extract/digestate/leachate**

Samplenum	Container ID	Products
L19080178-05	340588	AG-MS AS-MS PB-MS SB-MS SE-MS TL-MS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-AUG-2019 18:14	BRG		
2	PREP	W1	DIG	03-SEP-2019 05:31	ERP	AZH	
3	ANALYZ*	DIG	METALS	04-SEP-2019 10:46	JYH	ERP	
4	STORE	DIG	A2	05-SEP-2019 12:25	BRG	ERP	

***Sample extract/digestate/leachate**

Samplenum	Container ID	Products
L19080178-06	340589	AG-MS AS-MS PB-MS SB-MS SE-MS TL-MS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-AUG-2019 18:14	BRG		
2	PREP	W1	DIG	03-SEP-2019 05:31	ERP	AZH	
3	ANALYZ*	DIG	METALS	04-SEP-2019 10:46	JYH	ERP	
4	STORE	DIG	A2	05-SEP-2019 12:25	BRG	ERP	

***Sample extract/digestate/leachate**

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L19080178
Account: 2694
Project: 2694.005
Samples: 21
Due Date: 07-SEP-2019

Samplenum	Container ID	Products
L19080178-07	340590	AG-MS AS-MS PB-MS SB-MS SE-MS TL-MS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-AUG-2019 18:14	BRG		
2	PREP	W1	DIG	03-SEP-2019 05:31	ERP	AZH	
3	ANALYZ*	DIG	METALS	04-SEP-2019 10:46	JYH	ERP	
4	STORE	DIG	A2	05-SEP-2019 12:25	BRG	ERP	

***Sample extract/digestate/leachate**

Samplenum	Container ID	Products
L19080178-08	340591	AG-MS AS-MS PB-MS SB-MS SE-MS TL-MS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-AUG-2019 18:14	BRG		
2	PREP	W1	DIG	03-SEP-2019 05:31	ERP	AZH	
3	ANALYZ*	DIG	METALS	04-SEP-2019 14:46	JYH	ERP	
4	STORE	DIG	A2	05-SEP-2019 12:25	BRG	ERP	

***Sample extract/digestate/leachate**

Samplenum	Container ID	Products
L19080178-09	340592	AG-MS AS-MS PB-MS SB-MS SE-MS TL-MS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-AUG-2019 18:14	BRG		
2	PREP	W1	DIG	03-SEP-2019 05:31	ERP	AZH	
3	ANALYZ*	DIG	METALS	04-SEP-2019 14:46	JYH	ERP	
4	STORE	DIG	A2	05-SEP-2019 12:25	BRG	ERP	

***Sample extract/digestate/leachate**

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L19080178
Account: 2694
Project: 2694.005
Samples: 21
Due Date: 07-SEP-2019

Samplenum	Container ID	Products
L19080178-10	340593	AG-MS AS-MS PB-MS SB-MS SE-MS TL-MS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-AUG-2019 18:14	BRG		
2	PREP	W1	DIG	03-SEP-2019 05:31	ERP	AZH	
3	ANALYZ*	DIG	METALS	04-SEP-2019 14:46	JYH	ERP	
4	STORE	DIG	A2	05-SEP-2019 12:25	BRG	ERP	

***Sample extract/digestate/leachate**

Samplenum	Container ID	Products
L19080178-11	340594	AG-MS AS-MS PB-MS SB-MS SE-MS TL-MS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-AUG-2019 18:14	BRG		
2	PREP	W1	DIG	03-SEP-2019 05:31	ERP	AZH	
3	ANALYZ*	DIG	METALS	04-SEP-2019 10:46	JYH	ERP	
4	STORE	DIG	A2	05-SEP-2019 12:25	BRG	ERP	

***Sample extract/digestate/leachate**

Samplenum	Container ID	Products
L19080178-12	340595	AG-MS AS-MS PB-MS SB-MS SE-MS TL-MS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-AUG-2019 18:14	BRG		
2	PREP	W1	DIG	03-SEP-2019 05:31	ERP	AZH	
3	ANALYZ*	DIG	METALS	04-SEP-2019 10:46	JYH	ERP	
4	STORE	DIG	A2	05-SEP-2019 12:25	BRG	ERP	

***Sample extract/digestate/leachate**

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L19080178
Account: 2694
Project: 2694.005
Samples: 21
Due Date: 07-SEP-2019

Samplenum	Container ID	Products
L19080178-13	340596	AG-MS AS-MS PB-MS SB-MS SE-MS TL-MS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-AUG-2019 18:14	BRG		
2	PREP	W1	DIG	03-SEP-2019 05:31	ERP	AZH	
3	ANALYZ*	DIG	METALS	04-SEP-2019 10:46	JYH	ERP	
4	STORE	DIG	A2	05-SEP-2019 12:25	BRG	ERP	

***Sample extract/digestate/leachate**

Samplenum	Container ID	Products
L19080178-14	340597	AG-MS AS-MS PB-MS SB-MS SE-MS TL-MS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-AUG-2019 18:14	BRG		
2	PREP	W1	DIG	03-SEP-2019 05:31	ERP	AZH	
3	ANALYZ*	DIG	METALS	04-SEP-2019 14:46	JYH	ERP	
4	STORE	DIG	A2	05-SEP-2019 12:25	BRG	ERP	

***Sample extract/digestate/leachate**

Samplenum	Container ID	Products
L19080178-15	340598	AG-MS AS-MS PB-MS SB-MS SE-MS TL-MS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-AUG-2019 18:14	BRG		
2	PREP	W1	DIG	03-SEP-2019 05:31	ERP	AZH	
3	ANALYZ*	DIG	METALS	04-SEP-2019 14:46	JYH	ERP	
4	STORE	DIG	A2	05-SEP-2019 12:25	BRG	ERP	

***Sample extract/digestate/leachate**

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L19080178
Account: 2694
Project: 2694.005
Samples: 21
Due Date: 07-SEP-2019

Samplenum	Container ID	Products
L19080178-16	340599	AG-MS AS-MS PB-MS SB-MS SE-MS TL-MS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-AUG-2019 18:14	BRG		
2	PREP	W1	DIG	03-SEP-2019 05:31	ERP	AZH	
3	ANALYZ*	DIG	METALS	04-SEP-2019 14:46	JYH	ERP	
4	STORE	DIG	A2	05-SEP-2019 12:25	BRG	ERP	

***Sample extract/digestate/leachate**

Samplenum	Container ID	Products
L19080178-17	340600	AG-MS AS-MS PB-MS SB-MS SE-MS TL-MS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-AUG-2019 18:14	BRG		
2	PREP	W1	DIG	03-SEP-2019 05:31	ERP	AZH	
3	ANALYZ*	DIG	METALS	04-SEP-2019 14:46	JYH	ERP	
4	STORE	DIG	A2	05-SEP-2019 12:25	BRG	ERP	

***Sample extract/digestate/leachate**

Samplenum	Container ID	Products
L19080178-18	340601	AG-MS AS-MS PB-MS SB-MS SE-MS TL-MS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-AUG-2019 18:14	BRG		
2	PREP	W1	DIG	03-SEP-2019 05:31	ERP	AZH	
3	ANALYZ*	DIG	METALS	04-SEP-2019 14:46	JYH	ERP	
4	STORE	DIG	A2	05-SEP-2019 12:25	BRG	ERP	

***Sample extract/digestate/leachate**

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L19080178
Account: 2694
Project: 2694.005
Samples: 21
Due Date: 07-SEP-2019

Samplenum	Container ID	Products
L19080178-19	340602	AG-MS AS-MS PB-MS SB-MS SE-MS TL-MS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-AUG-2019 18:14	BRG		
2	PREP	W1	DIG	03-SEP-2019 05:31	ERP	AZH	
3	ANALYZ*	DIG	METALS	04-SEP-2019 14:46	JYH	ERP	
4	STORE	DIG	A2	05-SEP-2019 12:25	BRG	ERP	

***Sample extract/digestate/leachate**

Samplenum	Container ID	Products
L19080178-20	340603	AG-MS AS-MS PB-MS SB-MS SE-MS TL-MS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-AUG-2019 18:14	BRG		
2	PREP	W1	DIG	03-SEP-2019 05:31	ERP	AZH	
3	ANALYZ*	DIG	METALS	04-SEP-2019 14:46	JYH	ERP	
4	STORE	DIG	A2	05-SEP-2019 12:25	BRG	ERP	

***Sample extract/digestate/leachate**

Samplenum	Container ID	Products
L19080178-21	340604	AG-MS AS-MS PB-MS SB-MS SE-MS TL-MS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	30-AUG-2019 18:14	BRG		
2	PREP	W1	DIG	03-SEP-2019 05:31	ERP	AZH	
3	ANALYZ*	DIG	METALS	04-SEP-2019 14:46	JYH	ERP	
4	STORE	DIG	A2	05-SEP-2019 12:25	BRG	ERP	

***Sample extract/digestate/leachate**

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

CHAIN OF CUSTODY,
PM CONFIRMATION
AND
SAMPLE CONDITION FORMS
DOCUMENTS

CT LABORATORIES
delivering more than data from your environmental analyses

Sample Condition Report

Folder #: 147664
Client: HDR, INC

Print Date / Time: 08/28/2019 15:15
Received Date / Time / By: 08/28/2019 10:30 CHB

Project Name: MEMPHIS DEPOT
Project Phase: FU4 GARDEN

Log-In Date / Time / By: 08/28/2019 14:33 JLS
Project #: PM: ETK

Coolers: 6254,XXXX,6304,6307
Custody Seals Present : **Y**

Temperature: 4.2, 4.4, 4.7, 2.6 C On Ice: **Y**
COC Present:? **Y** Complete? **Y**

Seal Intact? **Y**
Ship Method: FED EX
Adequate Packaging: **Y**

Numbers: SIGNED AND DATED
Tracking Number: 789419209716
Temp Blank Enclosed? **Y**

Notes: SAMPLES RECEIVED IN GOOD CONDITION ON ICE.
TWO CUSTODY SEALS PER COOLER PRESENT AND INTACT, SIGNED AND DATED 8-27-19

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
321149 GN-SO-01-1				
	SOLIDS	1	/	%SOL,HG
	Total # of Containers of Type	(***SOLIDS***) = **1**		
321149 GN-SO-01-1				
	UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS
	UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS
	Total # of Containers of Type	(***UNPRES GL***) = **2**		
321149 GN-SO-01-1				
	SOLIDS	1	/	SUB METALS
	Total # of Containers of Type	(***SOLIDS***) = **1**		
321149 GN-SO-01-1				
	TERRA CORE KIT	1	/	VOC
	TERRA CORE KIT	1	/	VOC
	TERRA CORE KIT	1	/	VOC
	Total # of Containers of Type	(***TERRA CORE KIT***) = **3**		

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
321154 GN-SO-01-2				
	SOLIDS	1	/	%SOL,HG
	Total # of Containers of Type	(***SOLIDS***) = **1**		
321154 GN-SO-01-2				
	UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS
	UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS
	Total # of Containers of Type	(***UNPRES GL***) = **2**		
321154 GN-SO-01-2				
	SOLIDS	1	/	SUB METALS
	Total # of Containers of Type	(***SOLIDS***) = **1**		
321154 GN-SO-01-2				
	TERRA CORE KIT	1	/	VOC
	TERRA CORE KIT	1	/	VOC
	TERRA CORE KIT	1	/	VOC
	Total # of Containers of Type	(***TERRA CORE KIT***) = **3**		

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
321155 GN-SO-02-1				
	SOLIDS	1	/	%SOL,HG
	Total # of Containers of Type	**(*SOLIDS*) = 1**		
321155 GN-SO-02-1				
	UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS
	UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS
	Total # of Containers of Type	**(*UNPRES GL*) = 2**		
321155 GN-SO-02-1				
	SOLIDS	1	/	SUB METALS
	Total # of Containers of Type	**(*SOLIDS*) = 1**		
321155 GN-SO-02-1				
	TERRA CORE KIT	1	/	VOC
	TERRA CORE KIT	1	/	VOC
	TERRA CORE KIT	1	/	VOC
	Total # of Containers of Type	**(*TERRA CORE KIT*) = 3**		

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
321156 GN-W-TB-01				
	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	Total # of Containers of Type	**(*VOA HCL*) = 2**		
321156 GN-W-TB-01				
	TRIP BLANK	1	/	VOC TICS
	Total # of Containers of Type	**(*TRIP BLANK*) = 1**		

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
321157 GN-SO-DUP-1				
	SOLIDS	1	/	%SOL,HG
	Total # of Containers of Type	**(*SOLIDS*) = 1**		
321157 GN-SO-DUP-1				
	UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS
	UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS
	Total # of Containers of Type	**(*UNPRES GL*) = 2**		
321157 GN-SO-DUP-1				
	SOLIDS	1	/	SUB METALS
	Total # of Containers of Type	**(*SOLIDS*) = 1**		
321157 GN-SO-DUP-1				
	TERRA CORE KIT	1	/	VOC
	TERRA CORE KIT	1	/	VOC
	TERRA CORE KIT	1	/	VOC
	Total # of Containers of Type	**(*TERRA CORE KIT*) = 3**		

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
321158 GN-SO-02-2				
	SOLIDS	1	/	%SOL,HG
	Total # of Containers of Type	**(*SOLIDS*) = 1**		
321158 GN-SO-02-2				
	UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS
	Total # of Containers of Type	**(*UNPRES GL*) = 1**		

321158 GN-SO-02-2

UNPRES PL	1	/	8270,PCB,PEST,SVOC TICS

Total # of Containers of Type (*UNPRES PL*) = 1

321158 GN-SO-02-2

SOLIDS	1	/	SUB METALS

Total # of Containers of Type (*SOLIDS*) = 1

321158 GN-SO-02-2

TERRA CORE KIT	1	/	VOC
TERRA CORE KIT	1	/	VOC
TERRA CORE KIT	1	/	VOC

Total # of Containers of Type (*TERRA CORE KIT*) = 3

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests

321159 GNSO-03-1

SOLIDS	1	/	%SOL,HG

Total # of Containers of Type (*SOLIDS*) = 1

321159 GNSO-03-1

UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS
UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS

Total # of Containers of Type (*UNPRES GL*) = 2

321159 GNSO-03-1

SOLIDS	1	/	SUB METALS

Total # of Containers of Type (*SOLIDS*) = 1

321159 GNSO-03-1

TERRA CORE KIT	1	/	VOC
TERRA CORE KIT	1	/	VOC
TERRA CORE KIT	1	/	VOC

Total # of Containers of Type (*TERRA CORE KIT*) = 3

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests

321160 GN-SO-03-2

SOLIDS	1	/	%SOL,HG

Total # of Containers of Type (*SOLIDS*) = 1

321160 GN-SO-03-2

UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS
UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS

Total # of Containers of Type (*UNPRES GL*) = 2

321160 GN-SO-03-2

SOLIDS	1	/	SUB METALS

Total # of Containers of Type (*SOLIDS*) = 1

321160 GN-SO-03-2

TERRA CORE KIT	1	/	VOC
TERRA CORE KIT	1	/	VOC
TERRA CORE KIT	1	/	VOC

Total # of Containers of Type (*TERRA CORE KIT*) = 3

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests

321161 GN-SO-04-1

SOLIDS	1	/	%SOL,HG
SOLIDS	1	/	%SOL,HG
SOLIDS	1	/	%SOL,HG

Total # of Containers of Type (*SOLIDS*) = 3

147664

321161	GN-SO-04-1				
		UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS
		UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS
		UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS
		UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS
		UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS
		UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS
		Total # of Containers of Type		(***UNPRES GL***) = **6**	
321161	GN-SO-04-1				
		SOLIDS	1	/	SUB METALS
		SOLIDS	1	/	SUB METALS
		SOLIDS	1	/	SUB METALS
		Total # of Containers of Type		(***SOLIDS***) = **3**	
321161	GN-SO-04-1				
		TERRA CORE	1	/	VOC
		TERRA CORE	1	/	VOC
		TERRA CORE	1	/	VOC
		TERRA CORE	1	/	VOC
		TERRA CORE	1	/	VOC
		TERRA CORE	1	/	VOC
		Total # of Containers of Type		(***TERRA CORE***) = **6**	
321161	GN-SO-04-1				
		TERRA CORE KIT	1	/	VOC
		TERRA CORE KIT	1	/	VOC
		TERRA CORE KIT	1	/	VOC
		Total # of Containers of Type		(***TERRA CORE KIT***) = **3**	

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
321162 GN-SO-04-2				
	SOLIDS	1	/	%SOL,HG
	Total # of Containers of Type		(***SOLIDS***) = **1**	
321162 GN-SO-04-2				
	UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS
	UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS
	Total # of Containers of Type		(***UNPRES GL***) = **2**	
321162 GN-SO-04-2				
	SOLIDS	1	/	SUB METALS
	Total # of Containers of Type		(***SOLIDS***) = **1**	
321162 GN-SO-04-2				
	TERRA CORE KIT	1	/	VOC
	TERRA CORE KIT	1	/	VOC
	TERRA CORE KIT	1	/	VOC
	Total # of Containers of Type		(***TERRA CORE KIT***) = **3**	

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
321163 GN-SO-05-1				
	SOLIDS	1	/	%SOL,HG
	Total # of Containers of Type		(***SOLIDS***) = **1**	
321163 GN-SO-05-1				
	UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS
	UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS
	Total # of Containers of Type		(***UNPRES GL***) = **2**	
321163 GN-SO-05-1				
	SOLIDS	1	/	SUB METALS
	Total # of Containers of Type		(***SOLIDS***) = **1**	

321163 GN-SO-05-1

TERRA CORE KIT	1	/	VOC
TERRA CORE KIT	1	/	VOC
TERRA CORE KIT	1	/	VOC

Total # of Containers of Type (*TERRA CORE KIT*) = 3

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests

321164 GN-SO-05-2

SOLIDS	1	/	%SOL,HG

Total # of Containers of Type (*SOLIDS*) = 1

321164 GN-SO-05-2

UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS
UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS

Total # of Containers of Type (*UNPRES GL*) = 2

321164 GN-SO-05-2

SOLIDS	1	/	SUB METALS

Total # of Containers of Type (*SOLIDS*) = 1

321164 GN-SO-05-2

TERRA CORE KIT	1	/	VOC
TERRA CORE KIT	1	/	VOC
TERRA CORE KIT	1	/	VOC

Total # of Containers of Type (*TERRA CORE KIT*) = 3

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests

321165 GN-SO-DUP-2

SOLIDS	1	/	%SOL,HG

Total # of Containers of Type (*SOLIDS*) = 1

321165 GN-SO-DUP-2

UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS
UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS

Total # of Containers of Type (*UNPRES GL*) = 2

321165 GN-SO-DUP-2

SOLIDS	1	/	SUB METALS

Total # of Containers of Type (*SOLIDS*) = 1

321165 GN-SO-DUP-2

TERRA CORE KIT	1	/	VOC
TERRA CORE KIT	1	/	VOC
TERRA CORE KIT	1	/	VOC

Total # of Containers of Type (*TERRA CORE KIT*) = 3

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests

321166 GN-SO-06-1

SOLIDS	1	/	%SOL,HG

Total # of Containers of Type (*SOLIDS*) = 1

321166 GN-SO-06-1

UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS
UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS

Total # of Containers of Type (*UNPRES GL*) = 2

321166 GN-SO-06-1

SOLIDS	1	/	SUB METALS

Total # of Containers of Type (*SOLIDS*) = 1

321166 GN-SO-06-1

TERRA CORE KIT	1	/		VOC
TERRA CORE KIT	1	/		VOC
TERRA CORE KIT	1	/		VOC

Total # of Containers of Type (*TERRA CORE KIT*) = 3

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
321167 GN-SO-06-2				
	SOLIDS	1	/	%SOL,HG

Total # of Containers of Type (*SOLIDS*) = 1

321167 GN-SO-06-2				
	UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS
	UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS

Total # of Containers of Type (*UNPRES GL*) = 2

321167 GN-SO-06-2				
	SOLIDS	1	/	SUB METALS

Total # of Containers of Type (*SOLIDS*) = 1

321167 GN-SO-06-2				
	TERRA CORE KIT	1	/	VOC
	TERRA CORE KIT	1	/	VOC
	TERRA CORE KIT	1	/	VOC

Total # of Containers of Type (*TERRA CORE KIT*) = 3

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
321168 GN-SO-07-1				
	SOLIDS	1	/	%SOL,HG

Total # of Containers of Type (*SOLIDS*) = 1

321168 GN-SO-07-1				
	UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS
	UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS

Total # of Containers of Type (*UNPRES GL*) = 2

321168 GN-SO-07-1				
	SOLIDS	1	/	SUB METALS

Total # of Containers of Type (*SOLIDS*) = 1

321168 GN-SO-07-1				
	TERRA CORE KIT	1	/	VOC
	TERRA CORE KIT	1	/	VOC
	TERRA CORE KIT	1	/	VOC

Total # of Containers of Type (*TERRA CORE KIT*) = 3

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
321169 GN-SO-07-2				
	SOLIDS	1	/	%SOL,HG

Total # of Containers of Type (*SOLIDS*) = 1

321169 GN-SO-07-2				
	UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS
	UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS

Total # of Containers of Type (*UNPRES GL*) = 2

321169 GN-SO-07-2				
	SOLIDS	1	/	SUB METALS

Total # of Containers of Type (*SOLIDS*) = 1

321169 GN-SO-07-2				
	TERRA CORE KIT	1	/	VOC

	TERRA CORE KIT	1	/	VOC
	TERRA CORE KIT	1	/	VOC
	Total # of Containers of Type	**(*TERRA CORE KIT*) = 3**		

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
321170 GN-SO-08-1				
	SOLIDS	1	/	%SOL,HG
	Total # of Containers of Type	**(*SOLIDS*) = 1**		
321170 GN-SO-08-1				
	UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS
	UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS
	Total # of Containers of Type	**(*UNPRES GL*) = 2**		
321170 GN-SO-08-1				
	SOLIDS	1	/	SUB METALS
	Total # of Containers of Type	**(*SOLIDS*) = 1**		
321170 GN-SO-08-1				
	TERRA CORE KIT	1	/	VOC
	TERRA CORE KIT	1	/	VOC
	TERRA CORE KIT	1	/	VOC
	Total # of Containers of Type	**(*TERRA CORE KIT*) = 3**		

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
321171 GN-SO-08-2				
	SOLIDS	1	/	%SOL,HG
	Total # of Containers of Type	**(*SOLIDS*) = 1**		
321171 GN-SO-08-2				
	UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS
	UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS
	Total # of Containers of Type	**(*UNPRES GL*) = 2**		
321171 GN-SO-08-2				
	SOLIDS	1	/	SUB METALS
	Total # of Containers of Type	**(*SOLIDS*) = 1**		
321171 GN-SO-08-2				
	TERRA CORE KIT	1	/	VOC
	TERRA CORE KIT	1	/	VOC
	TERRA CORE KIT	1	/	VOC
	Total # of Containers of Type	**(*TERRA CORE KIT*) = 3**		

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
321172 GN-SO-09C-1				
	SOLIDS	1	/	%SOL,HG
	Total # of Containers of Type	**(*SOLIDS*) = 1**		
321172 GN-SO-09C-1				
	UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS
	UNPRES GL	1	/	8270,PCB,PEST,SVOC TICS
	Total # of Containers of Type	**(*UNPRES GL*) = 2**		
321172 GN-SO-09C-1				
	SOLIDS	1	/	SUB METALS
	Total # of Containers of Type	**(*SOLIDS*) = 1**		
321172 GN-SO-09C-1				
	TERRA CORE KIT	1	/	VOC
	TERRA CORE KIT	1	/	VOC

	TERRA CORE KIT	1	/	VOC
	Total # of Containers of Type	**(*TERRA CORE KIT*) = 3**		

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
321173 GN-W-RB-01				
	VOA HCL	1	/	VOC,VOC TICS
	VOA HCL	1	/	VOC,VOC TICS
	VOA HCL	1	/	VOC,VOC TICS
	Total # of Containers of Type	**(*VOA HCL*) = 3**		

Condition Code	*Condition Description*
1	Sample Received OK

Chain of Custody Record

147664

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☑Other:

Client Contact	Project Manager: Tom Holmes	Site Contact: Clayton Mokri	Date: 08/27/19	COC No:
HDR EOC	Tel/Fax: 404-295-3279	Lab Contact: Eric	Carrier: FedEx	1 of 2 COCs
9781 S Merdian Blvd	Analysis Turnaround Time			Sampler: CM
Englewood CO 80112	☐CALENDAR DAYS ☑WORKING DAYS			For Lab Use Only:
(303) 754-4266 Phone	TAT if different from Below			Walk-in Client:
(720) 633-2380 FAX	☑ 2 weeks			Lab Sampling:
Project Name: Env. Restoration Support	☐ 1 week			
Site: FU4 Garden	☐ 2 days			Job / SDG No.:
P O #	☐ 1 day			

Folder #: 147664
Company: HDR, INC
Project: MEMPHIS DEPOT
Logged By: JLS PM: ET

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	VOCs (8260B)	Sample Specific Notes:
GN-SO-01-1	8/26/2019	1023	G	S	4	N	N	X	321149
GN-SO-01-2	8/26/2019	1115	G	S	4	N	N	X	321154
GN-SO-02-1	8/26/2019	1130	G	S		N	N	X	321155
GN-W-TB-01	8/26/2019	1000	G	W	3	N	N	X	321156
GN-SO-DUP-1	8/26/2019	1100	G	S		N	N	X	321157
GN-SO-02-2	8/26/2019	1153	G	S		N	N	X	321158
GN-SO-03-1	8/26/2019	1320	G	S		N	N	X	321159
GN-SO-03-2	8/26/2019	1334	G	S		N	N	X	321160
GN-SO-04-1	8/26/2019	1348	G	S	12	N	Y	X	321161
GN-SO-04-2	8/26/2019	1400	G	S		N	N	X	321162
GN-SO-05-1	8/26/2019	1410	G	S		N	N	X	321163
GN-SO-05-2	8/26/2019	1428	G	S		N	N	X	321164
GN-SO-DUP-2	8/26/2019	1422	G	S		N	N	X	321165

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison B ☐Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐Return to Client ☑Disposal by Lab ☐Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☑Yes ☐No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 4.7 Corr'd: _____ | Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	HPI2	8/27/500			
Relinquished by:	Company:	Date/Time:	Received by: JLS	Company: CT	Date/Time: 8/28/19 1433
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: CT Labs	Date/Time: 8/28/19 10:30

Form No. CA-C-WI-002, Rev. 4.3, dated 12/05/2013

147664

Chain of Custody Record

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other:

Client Contact	Project Manager: Tom Holmes	Site Contact: Clayton Mokri	Date: 08/27/19	COC No:
HDR EOC	Tel/Fax: 404-295-3279	Lab Contact: Eric	Carrier: FedEx	1 of 2 COCs
9781 S Merdian Blvd	**Analysis Turnaround Time**			Sampler: CM
Englewood CO 80112	☐ CALENDAR DAYS ☑ WORKING DAYS			**For Lab Use Only:**
(303) 754-4266 Phone	TAT if different from Below _____			Walk-in Client:
(720) 633-2380 FAX	☑ 2 weeks			Lab Sampling:
Project Name: Env. Restoration Support	☐ 1 week			
Site: FU4 Garden	☐ 2 days			Job / SDG No.:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	SVOCs	PAHs including PCP W/TICs		OC Pesticides	PCBs	Total Metals	Total Mercury	Sample Specific Notes:
GN-SO-01-1	8/26/2019	1023	G	S	2	N	N	X	X		X	X	X	X	321149
GN-SO-01-2	8/26/2019	1115	G	S	2	N	N	X	X		X	X	X	X	321154
GN-SO-02-1	8/26/2019	1130	G	S	2	N	N	X	X		X	X	X	X	321155
GN-SO-DUP-2	8/26/2019	1422	G	S	2	N	N	X	X		X	X	X	X	321156
GN-SO-DUP-1	8/26/2019	1100	G	S	2	N	N	X	X		X	X	X	X	321157
GN-SO-02-2	8/26/2019	1153	G	S	2	N	N	X	X		X	X	X	X	321158
GN-SO-03-1	8/26/2019	1320	G	S	2	N	N	X	X		X	X	X	X	321159
GN-SO-03-2	8/26/2019	1334	G	S	2	N	N	X	X		X	X	X	X	321160
GN-SO-04-1	8/26/2019	1348	G	S	6	N	Y	X	X		X	X	X	X	321161
GN-SO-04-2	8/26/2019	1400	G	S	2	N	N	X	X		X	X	X	X	321162
GN-SO-05-1	8/26/2019	1410	G	S	2	N	N	X	X		X	X	X	X	321163
GN-SO-05-2	8/26/2019	1428	G	S	2	N	N	X	X		X	X	X	X	321164
															321165

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☑ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 4.1.7 Corr'd: _____ Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	HDR	8.27 1509			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				CT	8/28/19 1433
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				CT Labs	8/28/19 10:30

147664

Chain of Custody Record

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other:

Client Contact	Project Manager: Tom Holmes	Site Contact: Clayton Mokri	Date: 08/27/19	COC No:
HDR EOC	Tel/Fax: 404-295-3279	Lab Contact: Eric	Carrier: FedEx	2 of 2 COCs
9781 S Merdian Blvd	Analysis Turnaround Time			Sampler: CM
Englewood CO 80112	☐ CALENDAR DAYS ☑ WORKING DAYS			For Lab Use Only:
(303) 754-4266 Phone	TAT if different from Below _____			Walk-in Client:
(720) 633-2380 FAX	☑ 2 weeks			Lab Sampling:
Project Name: Env. Restoration Support	☐ 1 week			
Site: FU4 Garden	☐ 2 days			Job / SDG No.:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	VOCS (8260B)	Sample Specific Notes:
GN-SO-06-1	8/26/2019	✓ 1442	G	S	4	N	N	X	321166
GN-SO-06-2	8/26/2019	✓ 1505	G	S	4	N	N	X	321167
GN-SO-07-1	8/26/2019	✓ 1513	G	S	4	N	N	X	321168
GN-SO-07-2	8/26/2019	✓ 1528	G	S	4	N	N	X	321169
GN-SO-08-1	8/26/2019	✓ 1539	G	S	4	N	N	X	321170
GN-SO-08-2	8/26/2019	✓ 1550	G	S	4	N	N	X	321171
GN-SO-09C-1	8/26/2019	✓ 1601	G	S	4	N	N	X	321172
GN-W-RB-01	8/27/2019	✓ 1400	G	W	3	N	N	X	321173

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☒ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: 2.4, 2.7 Corr'd: _____	Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	HDR	8/27/1500			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
			[signature] DLS	CT	8/28/19 1433
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
			[signature]	CT Lab	8/28/19 10:10

Form No. CA-C-WI-002, Rev. 4.3, dated 12/05/2013

Chain of Custody Record

147664

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☑Other:

Client Contact	Project Manager: Tom Holmes	Site Contact: Clayton Mokri	Date: 08/27/19	COC No:
HDR EOC	Tel/Fax: 404-295-3279	Lab Contact: Eric	Carrier: FedEx	2 of 2 COCs
9781 S Merdian Blvd	Analysis Turnaround Time			Sampler: CM
Englewood CO 80112	☐ CALENDAR DAYS ☑ WORKING DAYS			For Lab Use Only:
(303) 754-4266 Phone	TAT if different from Below _____			Walk-in Client:
(720) 633-2380 FAX	☑ 2 weeks			Lab Sampling:
Project Name: Env. Restoration Support	☐ 1 week			
Site: FU4 Garden	☐ 2 days			Job / SDG No.:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	SVOCs	PAHs including PCP W/TICs		OC Pesticides	PCBs	Total Metals	Total Mercury									Sample Specific Notes:
GN-SO-06-1	8/26/2019	1442	G	S	2	N	N	X	X		X	X	X	X									321166
GN-SO-06-2	8/26/2019	1505	G	S	2	N	N	X	X		X	X	X	X									321167
GN-SO-07-1	8/26/2019	1513	G	S	2	N	N	X	X		X	X	X	X									321168
GN-SO-07-2	8/26/2019	1528	G	S	2	N	N	X	X		X	X	X	X									321169
GN-SO-08-1	8/26/2019	1539	G	S	2	N	N	X	X		X	X	X	X									321170
GN-SO-08-2	8/26/2019	1550	G	S	2	N	N	X	X		X	X	X	X									321171
GN-SO-09C-1	8/26/2019	1601	G	S	2	N	N	X	X		X	X	X	X									321172
																							321173

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison B ☐Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐Return to Client ☑Disposal by Lab ☐Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☑Yes ☐No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 24.7 Corr'd: _____ Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	HDR	8/27 1509			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				CT	8/28/19 1433
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				CT Lab	8/28/19 10:30

Form No. CA-C-WI-002, Rev. 4.3, dated 12/05/2013

Cooler Receipt Form

Ice Present (YES) NO

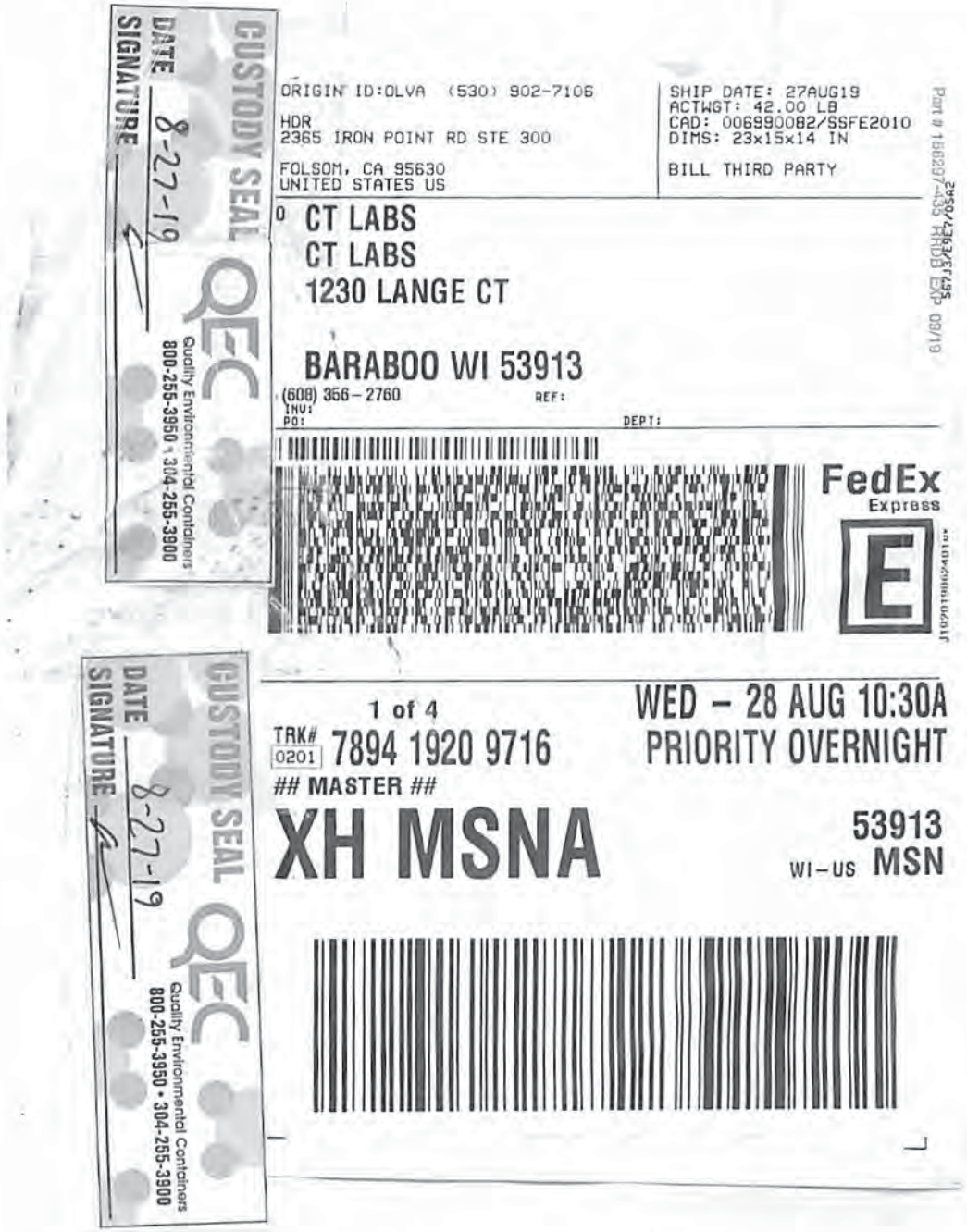
Temperature 4.4

IR Gun # 23

Initials CMB

Date 8/28/19 Time 10:30

Cooler #: N/A



Cooler Receipt Form

Ice Present (YES) NO

Temperature 4.2

IR Gun # 23

Initials CAB

Date 8/28/19 Time 10:30

Cooler #: 6254

custody
Seal
Compromized
CAB



FORM #: FPM3-02
Rev. #: 1.0
Effective Date: 05/27/2014
Page 1 of 1

Cooler Receipt Form

Ice Present YES NO

Temperature 4.7

IR Gun # 73

Initials DC

Date 8/28/19 Time 10:30

Cooler #: 6304

5673J/E9E7/05A2

ORIGIN ID:QLVA (530) 902-7106
HDR
2365 IRON POINT RD STE 300
FOLSOM, CA 95630
UNITED STATES US

SHIP DATE: 27AUG19
ACTWGT: 44.20 LB
CAD: 0069900B2/SSFE2010
DIMS: 26x16x16 IN
BILL THIRD PARTY

TO CT LABS
CT LABS
1230 LANGE CT
BARABOO WI 53913
(608) 356-2760
INV:
PO:
REF:
DEPT:

FedEx Express

J19201900240UA

WED - 28 AUG 10:30A
PRIORITY OVERNIGHT

3 of 4
MPS# 7894 1920 9738
0263
Mstr# 7894 1920 9716
0201

CUSTODY SEAL QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900
DATE 8.27
SIGNATURE

CUSTODY SEAL QEC
Quality Environmental Containers
800-255-3950 • 304-255-
DATE 8.27
SIGNATURE

FORM #: FPM3-02
Rev. #: 1.0
Effective Date: 05/27/2014
Page 1 of 1

Cooler Receipt Form

Ice Present (YES) NO

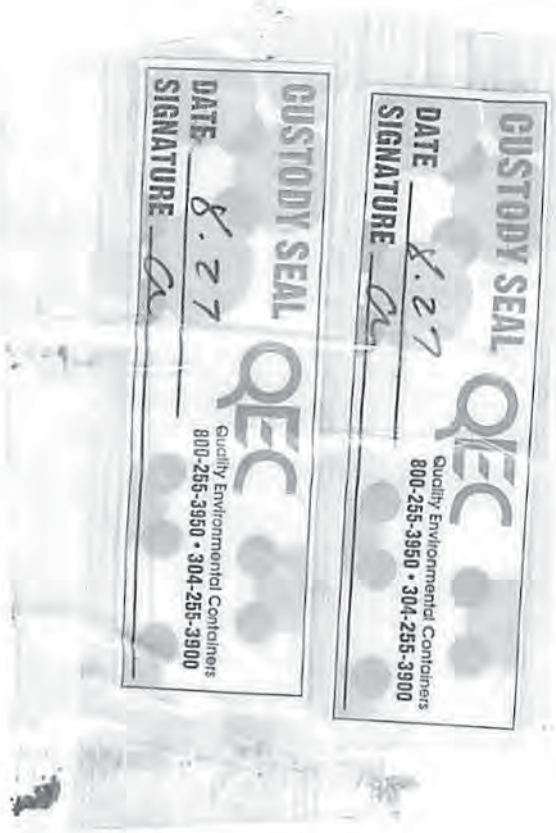
Temperature 2.6

IR Gun # 23

Initials CAB

Date 8/28/19 Time 10:30

Cooler #: 6307



ORIGIN ID:OLVA (530) 902-7106
HDR
2365 IRON POINT RD STE 300
FOLSOM, CA 95630
UNITED STATES US

SHIP DATE: 27AUG19
ACTWGT: 48.30 LB
CAD: 006990082/SSFE2010
DIMS: 26x16x16 IN
BILL THIRD PARTY

TO CT LABS
CT LABS
1230 LANGE CT

BARABOO WI 53913
(608) 356-2760 REF:
INV:
PO: DEPT:

FedEx Express

2 of 4
MPS# 0263 7894 1920 9727
Mstr# 7894 1920 9716 0201

WED - 28 AUG 10:30A
PRIORITY OVERNIGHT

XH MSNA

53913
WI-US MSN

Folder #: 147664

PM LOGIN CONFIRMATION

Contract #: 3284

Company: HDR, INC **Project:** MEMPHIS DEPOT **Proj #:**

Project Phase: FU4 GARDEN **PO Number:** 1000300001284 **Invoice #:** 148298

Project Manager: *ETK* **Date Received:** 08/28/19 **Log Date:** 08/28/2019

Report To: LYNN LUTZ CC:
9781 S. MERIDIAN BLVD.
SUITE 400
ENGLEWOOD, CO 80112
Phone: : Fax:
Rep. E-Mail LYNN.LUTZ@HDRINC.COM

Invoice To :ACCOUNTS PAYABLE CC: LYNN LUTZ
8404 INDIAN HILLS DR
OMAHA, NE 68114
Phone: Fax:
EMail: invoices@hdrinc.com

Collected By:
Collector's Phone:

Arrival Temperature: 4.7 oC

SAMPLE #: 321149 **DESCR:** GN-SO-01-1 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1023

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
8	SOLIDS,PERCENT	(EPA 8000C)				09/09/2019	09/09/2019		Logged
1052	SUB ICP-MS METALS	(EPA 6020A)				02/22/2020	09/09/2019		Logged
			Antimony						
			Arsenic						
			Lead						
			Selenium						
			Silver						
1090	VOC TICS	(EPA 8260C)				09/09/2019	09/09/2019		Logged
1108	SVOC TICS	(EPA 8270D)				08/26/2019	09/09/2019		Logged
1179	ICP K QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
1187	ICP NA QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
1191	ICP QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
			Aluminum						

Folder #: 147664 **Company:** *HDR, INC* **Project:** MEMPHIS DEPOT

SAMPLE #: 321149 **DESCR:** GN-SO-01-1 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1023

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Barium						
			Beryllium						
			Cadmium						
			Calcium						
			Chromium						
			Cobalt						
			Copper						
			Iron						
			Magnesium						
			Manganese						
			Nickel						
			Vanadium						
			Zinc						
1206	MERCURY QSM 5.0	(EPA 7471B)				09/23/2019	09/09/2019		NeedPrep
1222	VOC 8260 QSM LL 5.0	(EPA 8260C)			*Y*	09/09/2019	09/09/2019		Logged
1236	PCB QSM 5	(EPA 8082A)				10/12/2019	09/09/2019		NeedPrep
1237	PESTICIDES QSM 5	(EPA 8081B)				10/12/2019	09/09/2019		NeedPrep
1238	SVOC 8270 QSM 5	(EPA 8270D)				10/12/2019	09/09/2019		NeedPrep
1355	PAH SIM QSM 5.1	(EPA 8270D-SIM)				10/12/2019	09/09/2019		NeedPrep

SAMPLE #: 321154 **DESCR:** GN-SO-01-2 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1115

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
8	SOLIDS,PERCENT	(EPA 8000C)				09/09/2019	09/09/2019		Logged
1052	SUB ICP-MS METALS	(EPA 6020A)				02/22/2020	09/09/2019		Logged
			Antimony						
			Arsenic						

Folder #: 147664 **Company:** *HDR, INC* **Project:** MEMPHIS DEPOT

SAMPLE #: 321154 **DESCR:** GN-SO-01-2 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1115

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Lead						
			Selenium						
			Silver						
1090	VOC TICS	(EPA 8260C)				09/09/2019	09/09/2019		Logged
1108	SVOC TICS	(EPA 8270D)				08/26/2019	09/09/2019		Logged
1179	ICP K QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
1187	ICP NA QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
1191	ICP QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
			Aluminum						
			Barium						
			Beryllium						
			Cadmium						
			Calcium						
			Chromium						
			Cobalt						
			Copper						
			Iron						
			Magnesium						
			Manganese						
			Nickel						
			Vanadium						
			Zinc						
1206	MERCURY QSM 5.0	(EPA 7471B)				09/23/2019	09/09/2019		NeedPrep
1222	VOC 8260 QSM LL 5.0	(EPA 8260C)			*Y*	09/09/2019	09/09/2019		Logged
1236	PCB QSM 5	(EPA 8082A)				10/12/2019	09/09/2019		NeedPrep
1237	PESTICIDES QSM 5	(EPA 8081B)				10/12/2019	09/09/2019		NeedPrep
1238	SVOC 8270 QSM 5	(EPA 8270D)				10/12/2019	09/09/2019		NeedPrep
1355	PAH SIM QSM 5.1	(EPA 8270D-SIM)				10/12/2019	09/09/2019		NeedPrep

Folder #: 147664 **Company:** *HDR, INC* **Project:** MEMPHIS DEPOT

SAMPLE #: 321155 **DESCR:** GN-SO-02-1 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1130

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
8	SOLIDS,PERCENT	(EPA 8000C)				09/09/2019	09/09/2019		Logged
1052	SUB ICP-MS METALS	(EPA 6020A)				02/22/2020	09/09/2019		Logged
			Antimony						
			Arsenic						
			Lead						
			Selenium						
			Silver						
1090	VOC TICS	(EPA 8260C)				09/09/2019	09/09/2019		Logged
1108	SVOC TICS	(EPA 8270D)				08/26/2019	09/09/2019		Logged
1179	ICP K QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
1187	ICP NA QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
1191	ICP QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
			Aluminum						
			Barium						
			Beryllium						
			Cadmium						
			Calcium						
			Chromium						
			Cobalt						
			Copper						
			Iron						
			Magnesium						
			Manganese						
			Nickel						
			Vanadium						
			Zinc						
1206	MERCURY QSM 5.0	(EPA 7471B)				09/23/2019	09/09/2019		NeedPrep
1222	VOC 8260 QSM LL 5.0	(EPA 8260C)			*Y*	09/09/2019	09/09/2019		Logged

Folder #: 147664 **Company:** *HDR, INC* **Project:** MEMPHIS DEPOT

SAMPLE #: 321155 **DESCR:** GN-SO-02-1 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1130

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1236	PCB QSM 5	(EPA 8082A)				10/12/2019	09/09/2019		NeedPrep
1237	PESTICIDES QSM 5	(EPA 8081B)				10/12/2019	09/09/2019		NeedPrep
1238	SVOC 8270 QSM 5	(EPA 8270D)				10/12/2019	09/09/2019		NeedPrep
1355	PAH SIM QSM 5.1	(EPA 8270D-SIM)				10/12/2019	09/09/2019		NeedPrep

SAMPLE #: 321156 **DESCR:** GN-W-TB-01 **PRIMARY / DETAILED MATRIX:** AQUEOUS / TRIP BLANK **SAMPLED:** 08/26/2019 **Time:** 1000

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1090	VOC TICS	(EPA 8260C)				09/09/2019	09/09/2019		Logged
1222	VOC 8260 QSM LL 5.0	(EPA 8260C)				09/09/2019	09/09/2019		Logged

SAMPLE #: 321157 **DESCR:** GN-SO-DUP-1 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1100

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
8	SOLIDS,PERCENT	(EPA 8000C)				09/09/2019	09/09/2019		Logged
1052	SUB ICP-MS METALS	(EPA 6020A)				02/22/2020	09/09/2019		Logged
			Antimony						
			Arsenic						
			Lead						
			Selenium						
			Silver						
1090	VOC TICS	(EPA 8260C)				09/09/2019	09/09/2019		Logged
1108	SVOC TICS	(EPA 8270D)				08/26/2019	09/09/2019		Logged
1179	ICP K QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
1187	ICP NA QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
1191	ICP QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
			Aluminum						

Folder #: 147664 **Company:** *HDR, INC* **Project:** MEMPHIS DEPOT

SAMPLE #: 321157 **DESCR:** GN-SO-DUP-1 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1100

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Barium						
			Beryllium						
			Cadmium						
			Calcium						
			Chromium						
			Cobalt						
			Copper						
			Iron						
			Magnesium						
			Manganese						
			Nickel						
			Vanadium						
			Zinc						
1206	MERCURY QSM 5.0	(EPA 7471B)				09/23/2019	09/09/2019		NeedPrep
1222	VOC 8260 QSM LL 5.0	(EPA 8260C)			*Y*	09/09/2019	09/09/2019		Logged
1236	PCB QSM 5	(EPA 8082A)				10/12/2019	09/09/2019		NeedPrep
1237	PESTICIDES QSM 5	(EPA 8081B)				10/12/2019	09/09/2019		NeedPrep
1238	SVOC 8270 QSM 5	(EPA 8270D)				10/12/2019	09/09/2019		NeedPrep
1355	PAH SIM QSM 5.1	(EPA 8270D-SIM)				10/12/2019	09/09/2019		NeedPrep

SAMPLE #: 321158 **DESCR:** GN-SO-02-2 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1153

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
8	SOLIDS,PERCENT	(EPA 8000C)				09/09/2019	09/09/2019		Logged
1052	SUB ICP-MS METALS	(EPA 6020A)				02/22/2020	09/09/2019		Logged
			Antimony						
			Arsenic						

Folder #: 147664 **Company:** *HDR, INC* **Project:** MEMPHIS DEPOT

SAMPLE #: 321158 **DESCR:** GN-SO-02-2 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1153

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Lead						
			Selenium						
			Silver						
1090	VOC TICS	(EPA 8260C)				09/09/2019	09/09/2019		Logged
1108	SVOC TICS	(EPA 8270D)				08/26/2019	09/09/2019		Logged
1179	ICP K QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
1187	ICP NA QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
1191	ICP QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
			Aluminum						
			Barium						
			Beryllium						
			Cadmium						
			Calcium						
			Chromium						
			Cobalt						
			Copper						
			Iron						
			Magnesium						
			Manganese						
			Nickel						
			Vanadium						
			Zinc						
1206	MERCURY QSM 5.0	(EPA 7471B)				09/23/2019	09/09/2019		NeedPrep
1222	VOC 8260 QSM LL 5.0	(EPA 8260C)			*Y*	09/09/2019	09/09/2019		Logged
1236	PCB QSM 5	(EPA 8082A)				10/12/2019	09/09/2019		NeedPrep
1237	PESTICIDES QSM 5	(EPA 8081B)				10/12/2019	09/09/2019		NeedPrep
1238	SVOC 8270 QSM 5	(EPA 8270D)				10/12/2019	09/09/2019		NeedPrep
1355	PAH SIM QSM 5.1	(EPA 8270D-SIM)				10/12/2019	09/09/2019		NeedPrep

Folder #: 147664 **Company:** *HDR, INC* **Project:** MEMPHIS DEPOT

SAMPLE #: 321159 **DESCR:** GNSO-03-1 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1320

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
8	SOLIDS,PERCENT	(EPA 8000C)				09/09/2019	09/09/2019		Logged
1052	SUB ICP-MS METALS	(EPA 6020A)				02/22/2020	09/09/2019		Logged
			Antimony						
			Arsenic						
			Lead						
			Selenium						
			Silver						
1090	VOC TICS	(EPA 8260C)				09/09/2019	09/09/2019		Logged
1108	SVOC TICS	(EPA 8270D)				08/26/2019	09/09/2019		Logged
1179	ICP K QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
1187	ICP NA QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
1191	ICP QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
			Aluminum						
			Barium						
			Beryllium						
			Cadmium						
			Calcium						
			Chromium						
			Cobalt						
			Copper						
			Iron						
			Magnesium						
			Manganese						
			Nickel						
			Vanadium						
			Zinc						
1206	MERCURY QSM 5.0	(EPA 7471B)				09/23/2019	09/09/2019		NeedPrep
1222	VOC 8260 QSM LL 5.0	(EPA 8260C)			*Y*	09/09/2019	09/09/2019		Logged

Folder #: 147664 **Company:** *HDR, INC* **Project:** MEMPHIS DEPOT

SAMPLE #: 321159 **DESCR:** GNSO-03-1 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1320

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1236	PCB QSM 5	(EPA 8082A)				10/12/2019	09/09/2019		NeedPrep
1237	PESTICIDES QSM 5	(EPA 8081B)				10/12/2019	09/09/2019		NeedPrep
1238	SVOC 8270 QSM 5	(EPA 8270D)				10/12/2019	09/09/2019		NeedPrep
1355	PAH SIM QSM 5.1	(EPA 8270D-SIM)				10/12/2019	09/09/2019		NeedPrep

SAMPLE #: 321160 **DESCR:** GN-SO-03-2 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1334

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
8	SOLIDS,PERCENT	(EPA 8000C)				09/09/2019	09/09/2019		Logged
1052	SUB ICP-MS METALS	(EPA 6020A)				02/22/2020	09/09/2019		Logged
			Antimony						
			Arsenic						
			Lead						
			Selenium						
			Silver						
1090	VOC TICS	(EPA 8260C)				09/09/2019	09/09/2019		Logged
1108	SVOC TICS	(EPA 8270D)				08/26/2019	09/09/2019		Logged
1179	ICP K QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
1187	ICP NA QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
1191	ICP QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
			Aluminum						
			Barium						
			Beryllium						
			Cadmium						
			Calcium						
			Chromium						
			Cobalt						

Folder #: 147664 **Company:** *HDR, INC* **Project:** MEMPHIS DEPOT

SAMPLE #: 321160 **DESCR:** GN-SO-03-2 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1334

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Copper						
			Iron						
			Magnesium						
			Manganese						
			Nickel						
			Vanadium						
			Zinc						
1206	MERCURY QSM 5.0	(EPA 7471B)				09/23/2019	09/09/2019		NeedPrep
1222	VOC 8260 QSM LL 5.0	(EPA 8260C)			***Y***	09/09/2019	09/09/2019		Logged
1236	PCB QSM 5	(EPA 8082A)				10/12/2019	09/09/2019		NeedPrep
1237	PESTICIDES QSM 5	(EPA 8081B)				10/12/2019	09/09/2019		NeedPrep
1238	SVOC 8270 QSM 5	(EPA 8270D)				10/12/2019	09/09/2019		NeedPrep
1355	PAH SIM QSM 5.1	(EPA 8270D-SIM)				10/12/2019	09/09/2019		NeedPrep

SAMPLE #: 321161 **DESCR:** GN-SO-04-1 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1348

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
8	SOLIDS,PERCENT	(EPA 8000C)			***DESIGNATED MATRIX SPIKE***	09/09/2019	09/09/2019		Logged
1052	SUB ICP-MS METALS	(EPA 6020A)			***DESIGNATED MATRIX SPIKE***	02/22/2020	09/09/2019		Logged
			Antimony						
			Arsenic						
			Lead						
			Selenium						
			Silver						
1090	VOC TICS	(EPA 8260C)			***DESIGNATED MATRIX SPIKE***	09/09/2019	09/09/2019		Logged
1108	SVOC TICS	(EPA 8270D)			***DESIGNATED MATRIX SPIKE***	08/26/2019	09/09/2019		Logged
1179	ICP K QSM 5.0	(EPA 6010C)			***DESIGNATED MATRIX SPIKE***	02/22/2020	09/09/2019		NeedPrep

Folder #: 147664 **Company:** *HDR, INC* **Project:** MEMPHIS DEPOT

SAMPLE #: 321161 **DESCR:** GN-SO-04-1 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1348

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1187	ICP NA QSM 5.0	(EPA 6010C)			***DESIGNATED MATRIX SPIKE***	02/22/2020	09/09/2019		NeedPrep
1191	ICP QSM 5.0	(EPA 6010C)			***DESIGNATED MATRIX SPIKE***	02/22/2020	09/09/2019		NeedPrep
			Aluminum						
			Barium						
			Beryllium						
			Cadmium						
			Calcium						
			Chromium						
			Cobalt						
			Copper						
			Iron						
			Magnesium						
			Manganese						
			Nickel						
			Vanadium						
			Zinc						
1206	MERCURY QSM 5.0	(EPA 7471B)			***DESIGNATED MATRIX SPIKE***	09/23/2019	09/09/2019		NeedPrep
1222	VOC 8260 QSM LL 5.0	(EPA 8260C)			***Y*** ***DESIGNATED MATRIX SPIKE***	09/09/2019	09/09/2019		Logged
1236	PCB QSM 5	(EPA 8082A)			***DESIGNATED MATRIX SPIKE***	10/12/2019	09/09/2019		NeedPrep
1237	PESTICIDES QSM 5	(EPA 8081B)			***DESIGNATED MATRIX SPIKE***	10/12/2019	09/09/2019		NeedPrep
1238	SVOC 8270 QSM 5	(EPA 8270D)			***DESIGNATED MATRIX SPIKE***	10/12/2019	09/09/2019		NeedPrep
1355	PAH SIM QSM 5.1	(EPA 8270D-SIM)			***DESIGNATED MATRIX SPIKE***	10/12/2019	09/09/2019		NeedPrep

SAMPLE #: 321162 **DESCR:** GN-SO-04-2 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1400

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
8	SOLIDS,PERCENT	(EPA 8000C)				09/09/2019	09/09/2019		Logged

Folder #: 147664 **Company:** *HDR, INC* **Project:** MEMPHIS DEPOT

SAMPLE #: 321162 **DESCR:** GN-SO-04-2 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1400

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1052	SUB ICP-MS METALS	(EPA 6020A)				02/22/2020	09/09/2019		Logged
			Antimony						
			Arsenic						
			Lead						
			Selenium						
			Silver						
1090	VOC TICS	(EPA 8260C)				09/09/2019	09/09/2019		Logged
1108	SVOC TICS	(EPA 8270D)				08/26/2019	09/09/2019		Logged
1179	ICP K QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
1187	ICP NA QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
1191	ICP QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
			Aluminum						
			Barium						
			Beryllium						
			Cadmium						
			Calcium						
			Chromium						
			Cobalt						
			Copper						
			Iron						
			Magnesium						
			Manganese						
			Nickel						
			Vanadium						
			Zinc						
1206	MERCURY QSM 5.0	(EPA 7471B)				09/23/2019	09/09/2019		NeedPrep
1222	VOC 8260 QSM LL 5.0	(EPA 8260C)			*Y*	09/09/2019	09/09/2019		Logged
1236	PCB QSM 5	(EPA 8082A)				10/12/2019	09/09/2019		NeedPrep

Folder #: 147664 **Company:** *HDR, INC* **Project:** MEMPHIS DEPOT

SAMPLE #: 321162 **DESCR:** GN-SO-04-2 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1400

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1237	PESTICIDES QSM 5	(EPA 8081B)				10/12/2019	09/09/2019		NeedPrep
1238	SVOC 8270 QSM 5	(EPA 8270D)				10/12/2019	09/09/2019		NeedPrep
1355	PAH SIM QSM 5.1	(EPA 8270D-SIM)				10/12/2019	09/09/2019		NeedPrep

SAMPLE #: 321163 **DESCR:** GN-SO-05-1 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1410

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
8	SOLIDS,PERCENT	(EPA 8000C)				09/09/2019	09/09/2019		Logged
1052	SUB ICP-MS METALS	(EPA 6020A)				02/22/2020	09/09/2019		Logged
			Antimony						
			Arsenic						
			Lead						
			Selenium						
			Silver						
1090	VOC TICS	(EPA 8260C)				09/09/2019	09/09/2019		Logged
1108	SVOC TICS	(EPA 8270D)				08/26/2019	09/09/2019		Logged
1179	ICP K QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
1187	ICP NA QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
1191	ICP QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
			Aluminum						
			Barium						
			Beryllium						
			Cadmium						
			Calcium						
			Chromium						
			Cobalt						
			Copper						

Folder #: 147664 **Company:** *HDR, INC* **Project:** MEMPHIS DEPOT

SAMPLE #: 321163 **DESCR:** GN-SO-05-1 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1410

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Iron						
			Magnesium						
			Manganese						
			Nickel						
			Vanadium						
			Zinc						
1206	MERCURY QSM 5.0	(EPA 7471B)				09/23/2019	09/09/2019		NeedPrep
1222	VOC 8260 QSM LL 5.0	(EPA 8260C)			*Y*	09/09/2019	09/09/2019		Logged
1236	PCB QSM 5	(EPA 8082A)				10/12/2019	09/09/2019		NeedPrep
1237	PESTICIDES QSM 5	(EPA 8081B)				10/12/2019	09/09/2019		NeedPrep
1238	SVOC 8270 QSM 5	(EPA 8270D)				10/12/2019	09/09/2019		NeedPrep
1355	PAH SIM QSM 5.1	(EPA 8270D-SIM)				10/12/2019	09/09/2019		NeedPrep

SAMPLE #: 321164 **DESCR:** GN-SO-05-2 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1428

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
8	SOLIDS,PERCENT	(EPA 8000C)				09/09/2019	09/09/2019		Logged
1052	SUB ICP-MS METALS	(EPA 6020A)				02/22/2020	09/09/2019		Logged
			Antimony						
			Arsenic						
			Lead						
			Selenium						
			Silver						
1090	VOC TICS	(EPA 8260C)				09/09/2019	09/09/2019		Logged
1108	SVOC TICS	(EPA 8270D)				08/26/2019	09/09/2019		Logged
1179	ICP K QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
1187	ICP NA QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep

Folder #: 147664 **Company:** *HDR, INC* **Project:** MEMPHIS DEPOT

SAMPLE #: 321164 **DESCR:** GN-SO-05-2 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1428

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1191	ICP QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
			Aluminum						
			Barium						
			Beryllium						
			Cadmium						
			Calcium						
			Chromium						
			Cobalt						
			Copper						
			Iron						
			Magnesium						
			Manganese						
			Nickel						
			Vanadium						
			Zinc						
1206	MERCURY QSM 5.0	(EPA 7471B)				09/23/2019	09/09/2019		NeedPrep
1222	VOC 8260 QSM LL 5.0	(EPA 8260C)			*Y*	09/09/2019	09/09/2019		Logged
1236	PCB QSM 5	(EPA 8082A)				10/12/2019	09/09/2019		NeedPrep
1237	PESTICIDES QSM 5	(EPA 8081B)				10/12/2019	09/09/2019		NeedPrep
1238	SVOC 8270 QSM 5	(EPA 8270D)				10/12/2019	09/09/2019		NeedPrep
1355	PAH SIM QSM 5.1	(EPA 8270D-SIM)				10/12/2019	09/09/2019		NeedPrep

SAMPLE #: 321165 **DESCR:** GN-SO-DUP-2 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1422

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
8	SOLIDS,PERCENT	(EPA 8000C)				09/09/2019	09/09/2019		Logged
1052	SUB ICP-MS METALS	(EPA 6020A)				02/22/2020	09/09/2019		Logged

Folder #: 147664 **Company:** *HDR, INC* **Project:** MEMPHIS DEPOT

SAMPLE #: 321165 **DESCR:** GN-SO-DUP-2 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1422

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Antimony						
			Arsenic						
			Lead						
			Selenium						
			Silver						
1090	VOC TICS	(EPA 8260C)				09/09/2019	09/09/2019		Logged
1108	SVOC TICS	(EPA 8270D)				08/26/2019	09/09/2019		Logged
1179	ICP K QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
1187	ICP NA QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
1191	ICP QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
			Aluminum						
			Barium						
			Beryllium						
			Cadmium						
			Calcium						
			Chromium						
			Cobalt						
			Copper						
			Iron						
			Magnesium						
			Manganese						
			Nickel						
			Vanadium						
			Zinc						
1206	MERCURY QSM 5.0	(EPA 7471B)				09/23/2019	09/09/2019		NeedPrep
1222	VOC 8260 QSM LL 5.0	(EPA 8260C)			*Y*	09/09/2019	09/09/2019		Logged
1236	PCB QSM 5	(EPA 8082A)				10/12/2019	09/09/2019		NeedPrep
1237	PESTICIDES QSM 5	(EPA 8081B)				10/12/2019	09/09/2019		NeedPrep

Folder #: 147664 **Company:** *HDR, INC* **Project:** MEMPHIS DEPOT

SAMPLE #: 321165 **DESCR:** GN-SO-DUP-2 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1422

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1238	SVOC 8270 QSM 5	(EPA 8270D)				10/12/2019	09/09/2019		NeedPrep
1355	PAH SIM QSM 5.1	(EPA 8270D-SIM)				10/12/2019	09/09/2019		NeedPrep

SAMPLE #: 321166 **DESCR:** GN-SO-06-1 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1442

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
8	SOLIDS,PERCENT	(EPA 8000C)				09/09/2019	09/09/2019		Logged
1052	SUB ICP-MS METALS	(EPA 6020A)				02/22/2020	09/09/2019		Logged
			Antimony						
			Arsenic						
			Lead						
			Selenium						
			Silver						
1090	VOC TICS	(EPA 8260C)				09/09/2019	09/09/2019		Logged
1108	SVOC TICS	(EPA 8270D)				08/26/2019	09/09/2019		Logged
1179	ICP K QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
1187	ICP NA QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
1191	ICP QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
			Aluminum						
			Barium						
			Beryllium						
			Cadmium						
			Calcium						
			Chromium						
			Cobalt						
			Copper						
			Iron						

Folder #: 147664 **Company:** *HDR, INC* **Project:** MEMPHIS DEPOT

SAMPLE #: 321166 **DESCR:** GN-SO-06-1 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1442

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Magnesium						
			Manganese						
			Nickel						
			Vanadium						
			Zinc						
1206	MERCURY QSM 5.0	(EPA 7471B)				09/23/2019	09/09/2019		NeedPrep
1222	VOC 8260 QSM LL 5.0	(EPA 8260C)			*Y*	09/09/2019	09/09/2019		Logged
1236	PCB QSM 5	(EPA 8082A)				10/12/2019	09/09/2019		NeedPrep
1237	PESTICIDES QSM 5	(EPA 8081B)				10/12/2019	09/09/2019		NeedPrep
1238	SVOC 8270 QSM 5	(EPA 8270D)				10/12/2019	09/09/2019		NeedPrep
1355	PAH SIM QSM 5.1	(EPA 8270D-SIM)				10/12/2019	09/09/2019		NeedPrep

SAMPLE #: 321167 **DESCR:** GN-SO-06-2 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1505

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
8	SOLIDS,PERCENT	(EPA 8000C)				09/09/2019	09/09/2019		Logged
1052	SUB ICP-MS METALS	(EPA 6020A)				02/22/2020	09/09/2019		Logged
			Antimony						
			Arsenic						
			Lead						
			Selenium						
			Silver						
1090	VOC TICS	(EPA 8260C)				09/09/2019	09/09/2019		Logged
1108	SVOC TICS	(EPA 8270D)				08/26/2019	09/09/2019		Logged
1179	ICP K QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
1187	ICP NA QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
1191	ICP QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep

Folder #: 147664 **Company:** *HDR, INC* **Project:** MEMPHIS DEPOT

SAMPLE #: 321167 **DESCR:** GN-SO-06-2 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1505

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Aluminum						
			Barium						
			Beryllium						
			Cadmium						
			Calcium						
			Chromium						
			Cobalt						
			Copper						
			Iron						
			Magnesium						
			Manganese						
			Nickel						
			Vanadium						
			Zinc						
1206	MERCURY QSM 5.0	(EPA 7471B)				09/23/2019	09/09/2019		NeedPrep
1222	VOC 8260 QSM LL 5.0	(EPA 8260C)			*Y*	09/09/2019	09/09/2019		Logged
1236	PCB QSM 5	(EPA 8082A)				10/12/2019	09/09/2019		NeedPrep
1237	PESTICIDES QSM 5	(EPA 8081B)				10/12/2019	09/09/2019		NeedPrep
1238	SVOC 8270 QSM 5	(EPA 8270D)				10/12/2019	09/09/2019		NeedPrep
1355	PAH SIM QSM 5.1	(EPA 8270D-SIM)				10/12/2019	09/09/2019		NeedPrep

SAMPLE #: 321168 **DESCR:** GN-SO-07-1 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1513

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
8	SOLIDS,PERCENT	(EPA 8000C)				09/09/2019	09/09/2019		Logged
1052	SUB ICP-MS METALS	(EPA 6020A)				02/22/2020	09/09/2019		Logged
			Antimony						

Folder #: 147664 **Company:** *HDR, INC* **Project:** MEMPHIS DEPOT

SAMPLE #: 321168 **DESCR:** GN-SO-07-1 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1513

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Arsenic						
			Lead						
			Selenium						
			Silver						
1090	VOC TICS	(EPA 8260C)				09/09/2019	09/09/2019		Logged
1108	SVOC TICS	(EPA 8270D)				08/26/2019	09/09/2019		Logged
1179	ICP K QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
1187	ICP NA QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
1191	ICP QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
			Aluminum						
			Barium						
			Beryllium						
			Cadmium						
			Calcium						
			Chromium						
			Cobalt						
			Copper						
			Iron						
			Magnesium						
			Manganese						
			Nickel						
			Vanadium						
			Zinc						
1206	MERCURY QSM 5.0	(EPA 7471B)				09/23/2019	09/09/2019		NeedPrep
1222	VOC 8260 QSM LL 5.0	(EPA 8260C)			*Y*	09/09/2019	09/09/2019		Logged
1236	PCB QSM 5	(EPA 8082A)				10/12/2019	09/09/2019		NeedPrep
1237	PESTICIDES QSM 5	(EPA 8081B)				10/12/2019	09/09/2019		NeedPrep
1238	SVOC 8270 QSM 5	(EPA 8270D)				10/12/2019	09/09/2019		NeedPrep

Folder #: 147664 **Company:** *HDR, INC* **Project:** MEMPHIS DEPOT

SAMPLE #: 321168 **DESCR:** GN-SO-07-1 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1513

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1355	PAH SIM QSM 5.1	(EPA 8270D-SIM)				10/12/2019	09/09/2019		NeedPrep

SAMPLE #: 321169 **DESCR:** GN-SO-07-2 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1528

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
8	SOLIDS,PERCENT	(EPA 8000C)				09/09/2019	09/09/2019		Logged
1052	SUB ICP-MS METALS	(EPA 6020A)				02/22/2020	09/09/2019		Logged
			Antimony						
			Arsenic						
			Lead						
			Selenium						
			Silver						
1090	VOC TICS	(EPA 8260C)				09/09/2019	09/09/2019		Logged
1108	SVOC TICS	(EPA 8270D)				08/26/2019	09/09/2019		Logged
1179	ICP K QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
1187	ICP NA QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
1191	ICP QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
			Aluminum						
			Barium						
			Beryllium						
			Cadmium						
			Calcium						
			Chromium						
			Cobalt						
			Copper						
			Iron						
			Magnesium						

Folder #: 147664 **Company:** *HDR, INC* **Project:** MEMPHIS DEPOT

SAMPLE #: 321169 **DESCR:** GN-SO-07-2 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1528

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Manganese						
			Nickel						
			Vanadium						
			Zinc						
1206	MERCURY QSM 5.0	(EPA 7471B)				09/23/2019	09/09/2019		NeedPrep
1222	VOC 8260 QSM LL 5.0	(EPA 8260C)			*Y*	09/09/2019	09/09/2019		Logged
1236	PCB QSM 5	(EPA 8082A)				10/12/2019	09/09/2019		NeedPrep
1237	PESTICIDES QSM 5	(EPA 8081B)				10/12/2019	09/09/2019		NeedPrep
1238	SVOC 8270 QSM 5	(EPA 8270D)				10/12/2019	09/09/2019		NeedPrep
1355	PAH SIM QSM 5.1	(EPA 8270D-SIM)				10/12/2019	09/09/2019		NeedPrep

SAMPLE #: 321170 **DESCR:** GN-SO-08-1 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1539

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
8	SOLIDS,PERCENT	(EPA 8000C)				09/09/2019	09/09/2019		Logged
1052	SUB ICP-MS METALS	(EPA 6020A)				02/22/2020	09/09/2019		Logged
			Antimony						
			Arsenic						
			Lead						
			Selenium						
			Silver						
1090	VOC TICS	(EPA 8260C)				09/09/2019	09/09/2019		Logged
1108	SVOC TICS	(EPA 8270D)				08/26/2019	09/09/2019		Logged
1179	ICP K QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
1187	ICP NA QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
1191	ICP QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
			Aluminum						

Folder #: 147664 **Company:** *HDR, INC* **Project:** MEMPHIS DEPOT

SAMPLE #: 321170 **DESCR:** GN-SO-08-1 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1539

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Barium						
			Beryllium						
			Cadmium						
			Calcium						
			Chromium						
			Cobalt						
			Copper						
			Iron						
			Magnesium						
			Manganese						
			Nickel						
			Vanadium						
			Zinc						
1206	MERCURY QSM 5.0	(EPA 7471B)				09/23/2019	09/09/2019		NeedPrep
1222	VOC 8260 QSM LL 5.0	(EPA 8260C)			*Y*	09/09/2019	09/09/2019		Logged
1236	PCB QSM 5	(EPA 8082A)				10/12/2019	09/09/2019		NeedPrep
1237	PESTICIDES QSM 5	(EPA 8081B)				10/12/2019	09/09/2019		NeedPrep
1238	SVOC 8270 QSM 5	(EPA 8270D)				10/12/2019	09/09/2019		NeedPrep
1355	PAH SIM QSM 5.1	(EPA 8270D-SIM)				10/12/2019	09/09/2019		NeedPrep

SAMPLE #: 321171 **DESCR:** GN-SO-08-2 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1550

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
8	SOLIDS,PERCENT	(EPA 8000C)				09/09/2019	09/09/2019		Logged
1052	SUB ICP-MS METALS	(EPA 6020A)				02/22/2020	09/09/2019		Logged
			Antimony						
			Arsenic						

Folder #: 147664 **Company:** *HDR, INC* **Project:** MEMPHIS DEPOT

SAMPLE #: 321171 **DESCR:** GN-SO-08-2 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1550

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Lead						
			Selenium						
			Silver						
1090	VOC TICS	(EPA 8260C)				09/09/2019	09/09/2019		Logged
1108	SVOC TICS	(EPA 8270D)				08/26/2019	09/09/2019		Logged
1179	ICP K QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
1187	ICP NA QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
1191	ICP QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
			Aluminum						
			Barium						
			Beryllium						
			Cadmium						
			Calcium						
			Chromium						
			Cobalt						
			Copper						
			Iron						
			Magnesium						
			Manganese						
			Nickel						
			Vanadium						
			Zinc						
1206	MERCURY QSM 5.0	(EPA 7471B)				09/23/2019	09/09/2019		NeedPrep
1222	VOC 8260 QSM LL 5.0	(EPA 8260C)			*Y*	09/09/2019	09/09/2019		Logged
1236	PCB QSM 5	(EPA 8082A)				10/12/2019	09/09/2019		NeedPrep
1237	PESTICIDES QSM 5	(EPA 8081B)				10/12/2019	09/09/2019		NeedPrep
1238	SVOC 8270 QSM 5	(EPA 8270D)				10/12/2019	09/09/2019		NeedPrep
1355	PAH SIM QSM 5.1	(EPA 8270D-SIM)				10/12/2019	09/09/2019		NeedPrep

Folder #: 147664 **Company:** *HDR, INC* **Project:** MEMPHIS DEPOT

SAMPLE #: 321172 **DESCR:** GN-SO-09C-1 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1601

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
8	SOLIDS,PERCENT	(EPA 8000C)				09/09/2019	09/09/2019		Logged
1052	SUB ICP-MS METALS	(EPA 6020A)				02/22/2020	09/09/2019		Logged
			Antimony						
			Arsenic						
			Lead						
			Selenium						
			Silver						
1090	VOC TICS	(EPA 8260C)				09/09/2019	09/09/2019		Logged
1108	SVOC TICS	(EPA 8270D)				08/26/2019	09/09/2019		Logged
1179	ICP K QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
1187	ICP NA QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
1191	ICP QSM 5.0	(EPA 6010C)				02/22/2020	09/09/2019		NeedPrep
			Aluminum						
			Barium						
			Beryllium						
			Cadmium						
			Calcium						
			Chromium						
			Cobalt						
			Copper						
			Iron						
			Magnesium						
			Manganese						
			Nickel						
			Vanadium						
			Zinc						
1206	MERCURY QSM 5.0	(EPA 7471B)				09/23/2019	09/09/2019		NeedPrep
1222	VOC 8260 QSM LL 5.0	(EPA 8260C)			*Y*	09/09/2019	09/09/2019		Logged

Folder #: 147664 **Company:** *HDR, INC* **Project:** MEMPHIS DEPOT

SAMPLE #: 321172 **DESCR:** GN-SO-09C-1 **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 08/26/2019 **Time:** 1601

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1236	PCB QSM 5	(EPA 8082A)				10/12/2019	09/09/2019		NeedPrep
1237	PESTICIDES QSM 5	(EPA 8081B)				10/12/2019	09/09/2019		NeedPrep
1238	SVOC 8270 QSM 5	(EPA 8270D)				10/12/2019	09/09/2019		NeedPrep
1355	PAH SIM QSM 5.1	(EPA 8270D-SIM)				10/12/2019	09/09/2019		NeedPrep

SAMPLE #: 321173 **DESCR:** GN-W-RB-01 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 08/27/2019 **Time:** 1400

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1090	VOC TICS	(EPA 8260C)				09/10/2019	09/09/2019		Logged
1222	VOC 8260 QSM LL 5.0	(EPA 8260C)				09/10/2019	09/09/2019		Logged

Folder #: 147664 **Company:** *HDR, INC* **Project:** MEMPHIS DEPOT

Invoice Number: 148298 **Preliminary Invoice Estimate:** $ 10,254.00

Item	Matrix	Quantity	Price	Expedited TAT Surcharge	Total
Add Charges		2	$ 65.00	0.00	$ 130.00
Add Charges		4	$ 8.00	0.00	$ 32.00
ICP K QSM 5.0	SOIL	19	$ 10.00	0.00	$ 190.00
ICP NA QSM 5.0	SOIL	19	$ 10.00	0.00	$ 190.00
ICP QSM 5.0 Aluminum	SOIL	19	$ 3.00	0.00	$ 57.00
ICP QSM 5.0 Barium	SOIL	19	$ 3.00	0.00	$ 57.00
ICP QSM 5.0 Beryllium	SOIL	19	$ 3.00	0.00	$ 57.00
ICP QSM 5.0 Cadmium	SOIL	19	$ 3.00	0.00	$ 57.00
ICP QSM 5.0 Calcium	SOIL	19	$ 3.00	0.00	$ 57.00
ICP QSM 5.0 Chromium	SOIL	19	$ 3.00	0.00	$ 57.00
ICP QSM 5.0 Cobalt	SOIL	19	$ 3.00	0.00	$ 57.00
ICP QSM 5.0 Copper	SOIL	19	$ 3.00	0.00	$ 57.00
ICP QSM 5.0 Iron	SOIL	19	$ 3.00	0.00	$ 57.00
ICP QSM 5.0 Magnesium	SOIL	19	$ 3.00	0.00	$ 57.00
ICP QSM 5.0 Manganese	SOIL	19	$ 3.00	0.00	$ 57.00
ICP QSM 5.0 Nickel	SOIL	19	$ 3.00	0.00	$ 57.00
ICP QSM 5.0 Vanadium	SOIL	19	$ 3.00	0.00	$ 57.00
ICP QSM 5.0 Zinc	SOIL	19	$ 3.00	0.00	$ 57.00
MERCURY QSM 5.0	SOIL	19	$ 16.00	0.00	$ 304.00
PAH SIM QSM 5.1	SOIL	19	$ 95.00	0.00	$ 1805.00
PCB QSM 5	SOIL	19	$ 50.00	0.00	$ 950.00
PESTICIDES QSM 5	SOIL	19	$ 75.00	0.00	$ 1425.00
SOLIDS,PERCENT	SOIL	19	$ 0.00	0.00	$ 0.00
SUB ICP-MS METALS Antimony	SOIL	19	$ 8.00	0.00	$ 152.00
SUB ICP-MS METALS Arsenic	SOIL	19	$ 8.00	0.00	$ 152.00
SUB ICP-MS METALS Lead	SOIL	19	$ 8.00	0.00	$ 152.00
SUB ICP-MS METALS Selenium	SOIL	19	$ 8.00	0.00	$ 152.00
SUB ICP-MS METALS Silver	SOIL	19	$ 8.00	0.00	$ 152.00
SUB ICP-MS METALS Thallium	SOIL	19	$ 8.00	0.00	$ 152.00

SVOC 8270 QSM 5	SOIL	19	$ 100.00	0.00	$ 1900.00
SVOC TICS	SOIL	19	$ 0.00	0.00	$ 0.00
VOC 8260 QSM LL 5.0	GROUND WATER	1	$ 68.00	0.00	$ 68.00
VOC 8260 QSM LL 5.0	SOIL	19	$ 78.00	0.00	$ 1482.00
VOC 8260 QSM LL 5.0	TRIP BLANK	1	$ 68.00	0.00	$ 68.00
VOC TICS	GROUND WATER	1	$ 0.00	0.00	$ 0.00
VOC TICS	SOIL	19	$ 0.00	0.00	$ 0.00
VOC TICS	TRIP BLANK	1	$ 0.00	0.00	$ 0.00
Temporary Fuel Surcharge on lab supplies and services (if applicable):					$ 0.00

Bottle Information

Container	# Containers	Tests
SOLIDS	**42**	SUB METALS
TERRA CORE	**6**	VOC
TERRA CORE KIT	**57**	VOC
TRIP BLANK	**1**	VOC TICS
UNPRES GL	**41**	8270,PCB,PEST,SVOC TICS
UNPRES PL	**1**	8270,PCB,PEST,SVOC TICS
VOA HCL	**5**	VOC

CT LABORATORIES
delivering more than data from your environmental analyses

Sample Condition Report

Folder #: 147687
Client: HDR, INC

Print Date / Time: 08/29/2019 10:56
Received Date / Time / By: 08/29/2019 10:20 DL

Project Name: MEMPHIS DEPOT
Project Phase: FU4 GARDEN

Log-In Date / Time / By: 08/29/2019 10:51 JRB
Project #: PM: ETK

Coolers: 6180
Custody Seals Present : **Y**

Temperature: 4.7 C On Ice: **Y**
COC Present:? **Y** Complete? **Y**

Seal Intact? **Y**
Ship Method: FED EX
Adequate Packaging: **Y**

Numbers: SIGNED AND DATED
Tracking Number: 789447191824
Temp Blank Enclosed? **Y**

Notes: SAMPLES RECEIVED IN GOOD CONDITION ON ICE.
SAMPLE BOTTLES FOR VOC ANALYSIS ARRIVED IN COOLER ON 8/28/19 AND HAVE BEEN LOGGED UNDER ANOTHER FOLDER NUMBER
TWO CUSTODY SEALS PRESENT AND INTACT, SIGNED AND DATED 8/28/19

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
321513 GN-W-RB-01				
	AMBER GL	1	/	8270,PCB,PEST
	AMBER GL	1	/	8270,PCB,PEST
	AMBER GL	1	/	8270,PCB,PEST
	AMBER GL	1	/	8270,PCB,PEST
	AMBER GL	1	/	8270,PCB,PEST
	AMBER GL	1	/	8270,PCB,PEST
	AMBER GL	1	/	8270,PCB,PEST
	Total # of Containers of Type		**(*AMBER GL*) = 7**	
321513 GN-W-RB-01				
	HNO3	1	Y /	HG,ICP,ICPMET,K,NA
	Total # of Containers of Type		**(*HNO3*) = 1**	
321513 GN-W-RB-01				
	HNO3	1	Y /	SUB ICP
	Total # of Containers of Type		**(*HNO3*) = 1**	

Condition Code	*Condition Description*
1	Sample Received OK

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 1

Company: HDR EOC
Project Contact: Clayton Morsi
Telephone: 916-679-8726
Project Name: Env. Restoration Support
Project #:
Location: Fu 41 Garden
Sampled By: AM/CM

CT LABORATORIES

1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Folder #: 147687
Company: HDR, INC
Project: MEMPHIS DEPOT
Logged By: JRB PM: ET

Program:
QSM RCRA SDWA NPDES
Solid Waste Other _____

PO #

Report To:
EMAIL: Clayton.morsi@hdrinc.com
Company: HDR EOC
Address: 9781 S Meridian Blvd. Englewood, CO, 80112

Invoice To:*
EMAIL:
Company:
Address:

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Collection Date	Collection Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	SW 8260 B	SW 8270 C/D	SW 8270C/D-SIM	SW 8081 A/B	SW 8082 A	SW 6010C/6020A	SW 7471A	Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
							Fill in Spaces with Bottles per Test										
8-27-19	1400	W	G		GW-W-RB-01	N	1	1	1	1	1	1	1	7	N	321573
			~~GAM~~													
			~~GAM~~													

Turnaround Time
Normal RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

Relinquished By:	Date/Time	Received By:	Date/Time
	8-28-19 / 1545		8/29/19 1057
Received by:	Date/Time	Received for Laboratory by:	Date/Time
			8/29/19 10:20

Lab Use Only
Ice Present (Yes) No
Temp 4.7 IR Gun 24
Cooler # 660

FORM #: FPM3-02
Rev. #: 1.0
Effective Date: 05/27/2014
Page 1 of 1

Cooler Receipt Form

Ice Present YES NO

Temperature 4.7

IR Gun # 24

Initials DC

Date 8/29/19 Time 10:20

Cooler #: 6180



Folder #: 147687

PM LOGIN CONFIRMATION

Contract #: 3284

Company: HDR, INC **Project:** MEMPHIS DEPOT **Proj #:**

Project Phase: FU4 GARDEN **PO Number:** 1000300001284 **Invoice #:** 148317

Project Manager: *ETK* **Date Received:** 08/29/19 **Log Date:** 08/29/2019

Report To: LYNN LUTZ CC:
9781 S. MERIDIAN BLVD.
SUITE 400
ENGLEWOOD, CO 80112
Phone: : Fax:
Rep. E-Mail LYNN.LUTZ@HDRINC.COM

Invoice To :ACCOUNTS PAYABLE CC: LYNN LUTZ
8404 INDIAN HILLS DR
OMAHA, NE 68114
Phone: Fax:
EMail: invoices@hdrinc.com

Collected By:
Collector's Phone:

Arrival Temperature: 4.7 oC

SAMPLE #: 321513 **DESCR:** GN-W-RB-01 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 08/27/2019 **Time:** 1400

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
848	ICP TOTAL QSM	(EPA 6010C)				02/23/2020	09/10/2019		NeedPrep
			Total Aluminum						
			Total Barium						
			Total Beryllium						
			Total Cadmium						
			Total Calcium						
			Total Chromium						
			Total Cobalt						
			Total Copper						
			Total Iron						
			Total Magnesium						
			Total Manganese						
			Total Nickel						

Folder #: 147687 **Company:** *HDR, INC* **Project:** MEMPHIS DEPOT

SAMPLE #: 321513 **DESCR:** GN-W-RB-01 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 08/27/2019 **Time:** 1400

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Total Vanadium						
			Total Zinc						
1052	SUB ICP-MS METALS	(EPA 6020A)				02/23/2020	09/10/2019		Logged
			Antimony						
			Arsenic						
			Lead						
			Selenium						
			Silver						
			Thallium						
1183	ICP K TOTAL QSM 5.0	(EPA 6010C)				02/23/2020	09/10/2019		NeedPrep
1190	ICP NA TOTAL QSM 5.0	(EPA 6010C)				02/23/2020	09/10/2019		NeedPrep
1208	MERCURY TOTAL QSM 5.0	(EPA 7470A)				09/24/2019	09/10/2019		NeedPrep
1236	PCB QSM 5	(EPA 8082A)					09/10/2019		NeedPrep
1237	PESTICIDES QSM 5	(EPA 8081B)					09/10/2019		NeedPrep
1238	SVOC 8270 QSM 5	(EPA 8270D)					09/10/2019		NeedPrep
1355	PAH SIM QSM 5.1	(EPA 8270D-SIM)					09/10/2019		NeedPrep

Folder #: 147687 **Company:** *HDR, INC* **Project:** MEMPHIS DEPOT

Invoice Number: 148317 **Preliminary Invoice Estimate:** $ 446.00

Item	Matrix	Quantity	Price	Expedited TAT Surcharge	Total
ICP K TOTAL QSM 5.0	GROUND WATER	1	$ 10.00	0.00	$ 10.00
ICP NA TOTAL QSM 5.0	GROUND WATER	1	$ 10.00	0.00	$ 10.00
ICP TOTAL QSM Total Aluminum	GROUND WATER	1	$ 3.00	0.00	$ 3.00
ICP TOTAL QSM Total Barium	GROUND WATER	1	$ 3.00	0.00	$ 3.00
ICP TOTAL QSM Total Beryllium	GROUND WATER	1	$ 3.00	0.00	$ 3.00
ICP TOTAL QSM Total Cadmium	GROUND WATER	1	$ 3.00	0.00	$ 3.00
ICP TOTAL QSM Total Calcium	GROUND WATER	1	$ 3.00	0.00	$ 3.00
ICP TOTAL QSM Total Chromium	GROUND WATER	1	$ 3.00	0.00	$ 3.00
ICP TOTAL QSM Total Cobalt	GROUND WATER	1	$ 3.00	0.00	$ 3.00
ICP TOTAL QSM Total Copper	GROUND WATER	1	$ 3.00	0.00	$ 3.00
ICP TOTAL QSM Total Iron	GROUND WATER	1	$ 3.00	0.00	$ 3.00
ICP TOTAL QSM Total Magnesium	GROUND WATER	1	$ 3.00	0.00	$ 3.00
ICP TOTAL QSM Total Manganese	GROUND WATER	1	$ 3.00	0.00	$ 3.00
ICP TOTAL QSM Total Nickel	GROUND WATER	1	$ 3.00	0.00	$ 3.00
ICP TOTAL QSM Total Vanadium	GROUND WATER	1	$ 3.00	0.00	$ 3.00
ICP TOTAL QSM Total Zinc	GROUND WATER	1	$ 3.00	0.00	$ 3.00
MERCURY TOTAL QSM 5.0	GROUND WATER	1	$ 16.00	0.00	$ 16.00
PAH SIM QSM 5.1	GROUND WATER	1	$ 95.00	0.00	$ 95.00
PCB QSM 5	GROUND WATER	1	$ 50.00	0.00	$ 50.00
PESTICIDES QSM 5	GROUND WATER	1	$ 75.00	0.00	$ 75.00
SUB ICP-MS METALS Antimony	GROUND WATER	1	$ 8.00	0.00	$ 8.00
SUB ICP-MS METALS Arsenic	GROUND WATER	1	$ 8.00	0.00	$ 8.00
SUB ICP-MS METALS Lead	GROUND WATER	1	$ 8.00	0.00	$ 8.00
SUB ICP-MS METALS Selenium	GROUND WATER	1	$ 8.00	0.00	$ 8.00
SUB ICP-MS METALS Silver	GROUND WATER	1	$ 8.00	0.00	$ 8.00
SUB ICP-MS METALS Thallium	GROUND WATER	1	$ 8.00	0.00	$ 8.00
SVOC 8270 QSM 5	GROUND WATER	1	$ 100.00	0.00	$ 100.00
Temporary Fuel Surcharge on lab supplies and services (if applicable):					$ 0.00

Bottle Information

Container	# Containers	Tests
AMBER GL	**7**	8270,PCB,PEST
HNO3	**2**	SUB ICP

908 North Temperance Ave. ∇ Clovis, CA 93611 ∇ Phone 559-275-2175 ∇ Fax 559-275-4422

Certification Number: CA1312
NELAP Certification number: CA00046
DoD-ELAP Certificate number: 4064.01

Data Validation Report

September 20, 2019

HDR, Inc.
9781 South Meridian Boulevard, Suite 400
Englewood, Colorado 80112

Attn: Tom Holmes

Title: Report of Data: Case 89977

Project: Env. Restoration Support FU4 Garden

Purchase Order #: NA

Dear Mr. Holmes:

One water and nineteen soil samples were received August 28, 2019 in good condition. Written results for the requested analyses are provided on this September 20, 2019.

Results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

If you have any questions or require further information, please contact your APPL Project Manager, Libby Cheeseborough, libby@applinc.com, at your convenience. Thank you for choosing APPL, Inc.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. These test results meet all requirements of NELAC and DoD QSM. Release of the hard copy has been authorized by the Laboratory Manager or her designee, as verified by the following signature.

Paula McCartney, Laboratory Director
APPL, Inc.

PM/rp
Enclosure
cc: File

Data Validation Package

for

Env. Restoration Support FU4 Garden

SDG 89977

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CASE NARRATIVE

Case Narrative

ARF: 89977

Project: Env. Restoration Support FU4 Garden

Sample Receipt Information:

One water and nineteen soil samples were received August 28, 2019, at 1.9°C. The samples were assigned Analytical Request Form (ARF) number 89977. The sample numbers and requested analyses were compared to the chain of custody. No exception was noted.

Sample Preparation and Analysis:

For the EPA 7199 analysis, the water samples were prepared according to the method, and the soil samples were prepared according to EPA 3060A method.

Only the portion of the injection log relative to these samples is included. A full sequence log is available upon request. Measurement uncertainty can be reported upon request.

Exceptions, Abnormalities and Deviations:

Inorganics: The LCS for the water sample recovered at 89.2%, which meets the significant figure requirement of the lower control limit of 90%.

The laboratory selected sample GN-SO-01-1 for the MS/MSD analysis. The LCS is prepared from a separate source from the calibration.

The middle CCV 09/06/19 18:54 recovered at 88% with a lower control limit of 90%. The previous and subsequent CCVs were acceptable.

SAMPLE MANAGEMENT RECORDS

CHAIN OF CUSTODY,

ARF, CRF, AND

CLIENT COMMUNICATION

APPL - Analysis Request Form

89977

Client: HDR EOC
Address: 9781 S Merdian Blvd
Englewood CO 80112
Attn: Tom Holmes
Phone: 303-754-4266 Fax: 720-633-2380
Job: Env. Restoration Support FU4 Garden
PO #: NA
Chain of Custody (Y/N): Y # 082719
RAD Screen (Y/N): Y pH (Y/N): N
Turn Around Type: 2 WEEKS

Received by: AAR
Date Received: 08/28/19 Time: 10:00
Delivered by: FEDEX
Shuttle Custody Seals (Y/N): N Time Zone: -5
Chest Temp(s): 1.9°C
Color: B-Red
Samples Chilled until Placed in Refrig/Freezer: Y
Project Manager: Libby Cheesebor
QC Report Type: DVP4/EDD/TN
Due Date: 09/11/19

Comments:
AN: Guidance: DoD v.5.3 PKG STYLE 1
Forms: Special Form: DOD Forms: LOD (from database)
Prelims in 10 days

FR: pdf of Level 4 package on CD to Tom Holmes

EDD: Excel EDD to Thomas.Holmes@hdrinc.com & Lynn.Lutz@hdrinc.com

Sample Distribution: Charges: Invoice To:
Wetlab: 19-$719SA, 1-$7199
Other: 19- W3060A

	Client ID	APPL ID	Sampled		Analyses Requested
1.	GN-SO-01-1	AZ98255S	08/26/19	10:23	$719SA
2.	GN-SO-01-2	AZ98256S	08/26/19	11:15	$719SA
3.	GN-SO-02-1	AZ98257S	08/26/19	11:30	$719SA
4.	GN-SO-DUP-2	AZ98258S	08/26/19	14:22	$719SA
5.	GN-SO-DUP-1	AZ98259S	08/26/19	11:00	$719SA
6.	GN-SO-02-2	AZ98260S	08/26/19	11:53	$719SA

Note: All times, excluding sample collection times, are Pacific Time Zone unless noted otherwise. Collection times are in: -5 UTC
Page 1 Client Code: GENERIC *Printed 09/06/19 8:10:35 AM* Computer: APPL-LC **# 89977**

7.	GN-SO-03-1	AZ98261S	08/26/19	13:20	$719SA
8.	GN-SO-03-2	AZ98262S	08/26/19	13:34	$719SA
9.	GN-SO-04-1 MS/MSD	AZ98263S	08/26/19	13:48	$719SA
10.	GN-SO-04-2	AZ98264S	08/26/19	14:00	$719SA
11.	GN-SO-05-1	AZ98265S	08/26/19	14:10	$719SA
12.	GN-SO-05-2	AZ98266S	08/26/19	14:28	$719SA
13.	GN-SO-06-1	AZ98267S	08/26/19	14:42	$719SA
14.	GN-SO-06-2	AZ98268S	08/26/19	15:05	$719SA
15.	GN-SO-07-1	AZ98269S	08/26/19	15:13	$719SA
16.	GN-SO-07-2	AZ98270S	08/26/19	15:28	$719SA
17.	GN-SO-08-1	AZ98271S	08/26/19	15:39	$719SA
18.	GN-SO-08-2	AZ98272S	08/26/19	15:50	$719SA
19.	GN-SO-09C-1	AZ98273S	08/26/19	16:01	$719SA
20.	GN-W-RB-01	AZ98274W	08/27/19	14:00	$7199

APPL Sample Receipt Form

ARF# **89977**

Sample	Container Type	Count	p
AZ98255	20 4oz Jar	1	NA
AZ98256	20 4oz Jar	1	NA
AZ98257	20 4oz Jar	1	NA
AZ98258	20 4oz Jar	1	NA
AZ98259	20 4oz Jar	1	NA
AZ98260	20 4oz Jar	1	NA
AZ98261	20 4oz Jar	1	NA
AZ98262	20 4oz Jar	1	NA
AZ98263	20 4oz Jar	3	NA
AZ98264	20 4oz Jar	1	NA
AZ98265	20 4oz Jar	1	NA
AZ98266	20 4oz Jar	1	NA
AZ98267	20 4oz Jar	1	NA
AZ98268	20 4oz Jar	1	NA
AZ98269	20 4oz Jar	1	NA
AZ98270	20 4oz Jar	1	NA
AZ98271	20 4oz Jar	1	NA
AZ98272	20 4oz Jar	1	NA
AZ98273	20 4oz Jar	1	NA
AZ98274	4 PL 125mL	2	NA

Sample	Container Type	Count	p

Chain of Custody Record

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other:

Client Contact	Project Manager: Tom Holmes	Site Contact: Clayton Mokri	Date: 08/27/19	COC No:
HDR EOC	Tel/Fax: 404-295-3279	Lab Contact:	Carrier: FedEx	1 of 2 COCs
9781 S Merdian Blvd	**Analysis Turnaround Time**			Sampler: CM
Englewood CO 80112	☐ CALENDAR DAYS ☑ WORKING DAYS			**For Lab Use Only:**
(303) 754-4266 Phone	TAT if different from Below _____			Walk-in Client:
(720) 633-2380 FAX	☑ 2 weeks			Lab Sampling:
Project Name: Env. Restoration Support	☐ 1 week			
Site: FU4 Garden	☐ 2 days			Job / SDG No.:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Hexavalent Chromium	Sample Specific Notes:
GN-SO-01-1	8/26/2019	1023	G	S	1	N	N	X	
GN-SO-01-2	8/26/2019	1115	G	S	1	N	N	X	
GN-SO-02-1	8/26/2019	1130	G	S	1	N	N	X	
GN-SO-DUP-2	8/26/2019	1422	G	S	1	N	N	X	
GN-SO-DUP-1	8/26/2019	1100	G	S	1	N	N	X	
GN-SO-02-2	8/26/2019	1153	G	S	1	N	N	X	
GN-SO-03-1	8/26/2019	1320	G	S	1	N	N	X	
GN-SO-03-2	8/26/2019	1334	G	S	1	N	N	X	
GN-SO-04-1	8/26/2019	1348	G	S	3	N	Y	X	
GN-SO-04-2	8/26/2019	1400	G	S	1	N	N	X	
GN-SO-05-1	8/26/2019	1410	G	S	1	N	N	X	
GN-SO-05-2	8/26/2019	1428	G	S	1	N	N	X	

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	HDR	8/27 1441			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
			[signature]	APPL	4-28-19 1000

Form No. CA-C-WI-002, Rev. 4.3, dated 12/05/2013

89977 IR@-1.2 31/1.9

Chain of Custody Record

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☑Other:

Client Contact	Project Manager: Tom Holmes	Site Contact: Clayton Mokri	Date: 08/27/19	COC No:
HDR EOC	Tel/Fax: 404-295-3279	Lab Contact:	Carrier: FedEx	2 of 2 COCs
9781 S Merdian Blvd	**Analysis Turnaround Time**			Sampler: CM
Englewood CO 80112	☐ CALENDAR DAYS ☑ WORKING DAYS			**For Lab Use Only:**
(303) 754-4266 Phone	TAT if different from Below _____			Walk-in Client:
(720) 633-2380 FAX	☑ 2 weeks			Lab Sampling:
Project Name: Env. Restoration Support	☐ 1 week			
Site: FU4 Garden	☐ 2 days			Job / SDG No.:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Hexavalent Chromium	Sample Specific Notes:
GN-SO-06-1	8/26/2019	1442	G	S	1	N	N	X	
GN-SO-06-2	8/26/2019	1505	G	S	1	N	N	X	
GN-SO-07-1	8/26/2019	1513	G	S	1	N	N	X	
GN-SO-07-2	8/26/2019	1528	G	S	1	N	N	X	
GN-SO-08-1	8/26/2019	1539	G	S	1	N	N	X	
GN-SO-08-2	8/26/2019	1550	G	S	1	N	N	X	
GN-SO-09C-1	8/26/2019	1601	G	S	1	N	N	X	
GN-W-RB-01	8/27/2019	1400	G	W	2	N	N	X	

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison B ☐Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐Return to Client ☑Disposal by Lab ☐Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	HDR	8/27/1941			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
			[signature]	APPL	8.28.19 1000

Form No. CA-C-WI-002, Rev. 4.3, dated 12/05/2013

COOLER RECEIPT FORM **ARF: 89977**

1) Project: Env. Restoration Support Date Received: 08/28/19

2) Coolers: Number of Coolers: 1

3) YES Were custody seals present and intact?
How many? 2 Name/Date on seal? see below

4) YES Was there a shipping slip? Carrier name: FEDEX

5) Type of packing in cooler: X bubble wrap __ popcorn __ foam __ plastic bags __ other
X wet ice __ dry ice __ no ice __ gel ice

6) YES Were cooler temperatures acceptable?

7) Serial number of certified NIST thermometer use IR Gun@-1.2°C

8) Cooler temp(s): In °C. Thermometer Temp / Corrected Temp
1: 3.1/1.9° 2: _____ 3: _____ 4: _____ 5: _____ 6: _____
7: _____ 8: _____ 9: _____ 10: _____ 11: _____ 12: _____

Chain of custody:

9) YES Was a chain of custody received?

10) YES Were the custody papers complete/signed in the appropriate places?

Sample Labels:

11) YES Were all sample labels complete (sample ID, date/time of sampling, etc.)?

12) YES Did all container labels agree with custody papers?

Sample Containers:

13) YES Were all containers sealed in separate bags?

14) YES Did all containers arrive in good condition:(unbroken, no leakage, no cracked/broken lids)?

15) YES Were correct containers and preservatives used for the tests indicated?

16) YES Was a sufficient amount of sample sent for tests indicated?

17) NA Were bubbles present in volatile samples?
If yes, the following were received with air bubbles:
Larger than a pea: _____
Smaller than a pea: _____

Preservation Hold time:

18) YES Was a sufficient amount of holding time remaining to analyze the samples?

19) NA Was the pH taken of all non-VOA preserved samples and written on the sample container?

20) NA Was the pH of acid preserved non-VOA samples < 2?

21) NA Was the pH of sodium hydroxide preserved samples for Cyanide > 12 and Sulfide >9?

22) NO Were unpreserved VOA Vials received?

23) NA Are unpreserved VOA vials noted in the ADD TEST FIELD on the ARF?
pH strip lot number: _____
Lab notified if pH was not adequate: _____

Notes/Deficiencies:



Personnel receiving samples: ZG Second reviewer: MA
Personnel labeling samples: MD
Project manager notified: _____ Date/Time of notification _____
Name of client notified: _____ Date/Time of notification _____

Revision: 22, November 5, 2013

SAMPLE RESULTS

Wet Lab Analysis

HDR EOC
9781 S Merdian Blvd
Englewood CO 80112

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Tom Holmes

Project: Env. Restoration Support FU4 Garden

Sample ID: GN-SO-01-1

APPL ID: AZ98255

Sample Collection Date: 08/26/19

ARF: 89977

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
3060A/7199	HEXAVALENT CHROMIUM	0.40 U	0.6	0.40	0.20	mg/Kg	1	09/06/19	09/06/19

Amended Results.

Printed: 10/17/19 12:04:26 PM

APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

HDR EOC
9781 S Merdian Blvd
Englewood CO 80112

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Tom Holmes

Project: Env. Restoration Support FU4 Garden

Sample ID: GN-SO-01-2

Sample Collection Date: 08/26/19

APPL ID: AZ98256

ARF: 89977

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
3060A/7199	HEXAVALENT CHROMIUM	0.33 B J	0.6	0.40	0.20	mg/Kg	1	09/06/19	09/06/19

J = Estimated value.
B = The analyte was found in a method blank, as well as in the sample.

Amended Results.

Printed: 10/17/19 12:04:26 PM

APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

HDR EOC
9781 S Merdian Blvd
Englewood CO 80112

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Tom Holmes

Project: Env. Restoration Support FU4 Garden

Sample ID: GN-SO-02-1

APPL ID: AZ98257

Sample Collection Date: 08/26/19

ARF: 89977

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
3060A/7199	HEXAVALENT CHROMIUM	0.40 U	0.6	0.40	0.20	mg/Kg	1	09/06/19	09/06/19

Amended Results.

Printed: 10/17/19 12:04:26 PM

APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

HDR EOC
9781 S Merdian Blvd
Englewood CO 80112

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Tom Holmes

Project: Env. Restoration Support FU4 Garden

Sample ID: GN-SO-DUP-2

APPL ID: AZ98258

Sample Collection Date: 08/26/19

ARF: 89977

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
3060A/7199	HEXAVALENT CHROMIUM	0.32 B J	0.6	0.40	0.20	mg/Kg	1	09/06/19	09/06/19

J = Estimated value.
B = The analyte was found in a method blank, as well as in the sample.

Amended Results.

Printed: 10/17/19 12:04:26 PM

APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

HDR EOC
9781 S Merdian Blvd
Englewood CO 80112

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Tom Holmes

Project: Env. Restoration Support FU4 Garden

Sample ID: GN-SO-DUP-1

APPL ID: AZ98259

Sample Collection Date: 08/26/19

ARF: 89977

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
3060A/7199	HEXAVALENT CHROMIUM	0.43 B J	0.6	0.40	0.20	mg/Kg	1	09/06/19	09/06/19

J = Estimated value.
B = The analyte was found in a method blank, as well as in the sample.

Amended Results.

Printed: 10/17/19 12:04:26 PM

APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

HDR EOC
9781 S Merdian Blvd
Englewood CO 80112

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Tom Holmes

Project: Env. Restoration Support FU4 Garden

Sample ID: GN-SO-02-2

Sample Collection Date: 08/26/19

APPL ID: AZ98260

ARF: 89977

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
3060A/7199	HEXAVALENT CHROMIUM	0.28 B J	0.6	0.40	0.20	mg/Kg	1	09/06/19	09/06/19

J = Estimated value.
B = The analyte was found in a method blank, as well as in the sample.

Amended Results.

Printed: 10/17/19 12:04:26 PM

APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

HDR EOC
9781 S Merdian Blvd
Englewood CO 80112

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Tom Holmes

Project: Env. Restoration Support FU4 Garden

Sample ID: GN-SO-03-1

Sample Collection Date: 08/26/19

APPL ID: AZ98261

ARF: 89977

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
3060A/7199	HEXAVALENT CHROMIUM	0.24 B J	0.6	0.40	0.20	mg/Kg	1	09/06/19	09/06/19

J = Estimated value.
B = The analyte was found in a method blank, as well as in the sample.

Amended Results.

Printed: 10/17/19 12:04:26 PM

APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

HDR EOC
9781 S Merdian Blvd
Englewood CO 80112

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Tom Holmes

Project: Env. Restoration Support FU4 Garden

Sample ID: GN-SO-03-2
Sample Collection Date: 08/26/19

APPL ID: AZ98262
ARF: 89977

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
3060A/7199	HEXAVALENT CHROMIUM	0.27 B J	0.6	0.40	0.20	mg/Kg	1	09/06/19	09/06/19

J = Estimated value.
B = The analyte was found in a method blank, as well as in the sample.

Amended Results.

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APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

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APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Tom Holmes

Project: Env. Restoration Support FU4 Garden

Sample ID: GN-SO-04-1
Sample Collection Date: 08/26/19

APPL ID: AZ98263
ARF: 89977

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
3060A/7199	HEXAVALENT CHROMIUM	0.45 B J	0.6	0.40	0.20	mg/Kg	1	09/06/19	09/06/19

J = Estimated value.
B = The analyte was found in a method blank, as well as in the sample.

Amended Results.

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APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

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908 North Temperance Avenue
Clovis, CA 93611

Attn: Tom Holmes

Project: Env. Restoration Support FU4 Garden

Sample ID: GN-SO-04-2

APPL ID: AZ98264

Sample Collection Date: 08/26/19

ARF: 89977

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
3060A/7199	HEXAVALENT CHROMIUM	0.62	0.6	0.40	0.20	mg/Kg	1	09/06/19	09/06/19

Amended Results.

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APPL-F1-SC-NoMC-REG MDLs

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908 North Temperance Avenue
Clovis, CA 93611

Attn: Tom Holmes

Project: Env. Restoration Support FU4 Garden

Sample ID: GN-SO-05-1

Sample Collection Date: 08/26/19

APPL ID: AZ98265

ARF: 89977

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
3060A/7199	HEXAVALENT CHROMIUM	0.40 U	0.6	0.40	0.20	mg/Kg	1	09/06/19	09/06/19

Amended Results.

Printed: 10/17/19 12:04:26 PM

APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

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APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Tom Holmes

Project: Env. Restoration Support FU4 Garden

Sample ID: GN-SO-05-2
Sample Collection Date: 08/26/19

APPL ID: AZ98266
ARF: 89977

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
3060A/7199	HEXAVALENT CHROMIUM	0.24 B J	0.6	0.40	0.20	mg/Kg	1	09/06/19	09/06/19

J = Estimated value.
B = The analyte was found in a method blank, as well as in the sample.

Amended Results.

Printed: 10/17/19 12:04:26 PM

APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

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Englewood CO 80112

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Tom Holmes

Project: Env. Restoration Support FU4 Garden

Sample ID: GN-SO-06-1

APPL ID: AZ98267

Sample Collection Date: 08/26/19

ARF: 89977

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
3060A/7199	HEXAVALENT CHROMIUM	0.40 U	0.6	0.40	0.20	mg/Kg	1	09/06/19	09/06/19

Amended Results.

Printed: 10/17/19 12:04:26 PM

APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

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Englewood CO 80112

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Tom Holmes

Project: Env. Restoration Support FU4 Garden

Sample ID: GN-SO-06-2
Sample Collection Date: 08/26/19

APPL ID: AZ98268
ARF: 89977

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
3060A/7199	HEXAVALENT CHROMIUM	0.47 B J	0.6	0.40	0.20	mg/Kg	1	09/06/19	09/06/19

J = Estimated value.
B = The analyte was found in a method blank, as well as in the sample.

Amended Results.

Printed: 10/17/19 12:04:26 PM

APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

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APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Tom Holmes

Project: Env. Restoration Support FU4 Garden

Sample ID: GN-SO-07-1

Sample Collection Date: 08/26/19

APPL ID: AZ98269

ARF: 89977

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
3060A/7199	HEXAVALENT CHROMIUM	0.32 B J	0.6	0.40	0.20	mg/Kg	1	09/06/19	09/06/19

J = Estimated value.
B = The analyte was found in a method blank, as well as in the sample.

Amended Results.

Printed: 10/17/19 12:04:26 PM

APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

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Englewood CO 80112

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Tom Holmes

Project: Env. Restoration Support FU4 Garden

Sample ID: GN-SO-07-2

Sample Collection Date: 08/26/19

APPL ID: AZ98270

ARF: 89977

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
3060A/7199	HEXAVALENT CHROMIUM	0.40 U	0.6	0.40	0.20	mg/Kg	1	09/06/19	09/06/19

Amended Results.

Printed: 10/17/19 12:04:26 PM

APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

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Englewood CO 80112

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Tom Holmes

Project: Env. Restoration Support FU4 Garden

Sample ID: GN-SO-08-1

Sample Collection Date: 08/26/19

APPL ID: AZ98271

ARF: 89977

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
3060A/7199	HEXAVALENT CHROMIUM	0.40 U	0.6	0.40	0.20	mg/Kg	1	09/06/19	09/06/19

Amended Results.

Printed: 10/17/19 12:04:26 PM

APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

HDR EOC
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Englewood CO 80112

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Tom Holmes

Project: Env. Restoration Support FU4 Garden

Sample ID: GN-SO-08-2
Sample Collection Date: 08/26/19

APPL ID: AZ98272
ARF: 89977

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
3060A/7199	HEXAVALENT CHROMIUM	0.22 B J	0.6	0.40	0.20	mg/Kg	1	09/06/19	09/06/19

J = Estimated value.
B = The analyte was found in a method blank, as well as in the sample.

Amended Results.

Printed: 10/17/19 12:04:26 PM

APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

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Englewood CO 80112

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Tom Holmes

Project: Env. Restoration Support FU4 Garden

Sample ID: GN-SO-09C-1
Sample Collection Date: 08/26/19

APPL ID: AZ98273
ARF: 89977

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
3060A/7199	HEXAVALENT CHROMIUM	0.26 B J	0.6	0.40	0.20	mg/Kg	1	09/06/19	09/06/19

J = Estimated value.
B = The analyte was found in a method blank, as well as in the sample.

Amended Results.

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APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

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Englewood CO 80112

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Tom Holmes

Project: Env. Restoration Support FU4 Garden

Sample ID: GN-W-RB-01
Sample Collection Date: 08/27/19

APPL ID: AZ98274
ARF: 89977

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 7199	HEXAVALENT CHROMIUM	0.40 U	0.5	0.40	0.09	ug/L	1	09/05/19	09/05/19

Printed: 09/20/19 3:20:27 PM

APPL-F1-SC-NoMC-REG MDLs

QC FORMS

3060A/7199

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 89977

Case No: 89977 Date Analyzed: 09/06/19

Matrix: SOIL Instrument: Charlie

Blank ID: 190904A-BLK Time Analyzed: 1630

APPL ID.	Client Sample No.	File ID.	Date Analyzed
190904A-BLK	Blank	13	09/06/19 1630
190904A-LCS	Lab Control Spike	14	09/06/19 1638
190904A-LCSD	Lab Control SpikeD	15	09/06/19 1646
AZ98255	GN-SO-01-1	16	09/06/19 1655
AZ98256	GN-SO-01-2	19	09/06/19 1721
AZ98257	GN-SO-02-1	20	09/06/19 1729
AZ98258	GN-SO-DUP-2	21	09/06/19 1738
AZ98259	GN-SO-DUP-1	22	09/06/19 1746
AZ98260	GN-SO-02-2	23	09/06/19 1755
AZ98261	GN-SO-03-1	24	09/06/19 1803
AZ98262	GN-SO-03-2	25	09/06/19 1812
AZ98263	GN-SO-04-1	26	09/06/19 1820
AZ98264	GN-SO-04-2	27	09/06/19 1829
190904A-MS	Matrix Spike	28	09/06/19 1837
190904A-MSD	Matrix SpikeD	29	09/06/19 1846
AZ98265	GN-SO-05-1	32	09/06/19 1911
AZ98266	GN-SO-05-2	33	09/06/19 1920
AZ98267	GN-SO-06-1	34	09/06/19 1928
AZ98268	GN-SO-06-2	35	09/06/19 1937
AZ98269	GN-SO-07-1	36	09/06/19 1946
AZ98270	GN-SO-07-2	37	09/06/19 1954
AZ98271	GN-SO-08-1	38	09/06/19 2003
AZ98272	GN-SO-08-2	39	09/06/19 2011
AZ98273	GN-SO-09C-1	40	09/06/19 2020

Comments: Batch: #719SA-190904A

EPA 7199

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 89977

Case No: 89977 Date Analyzed: 09/05/19

Matrix: WATER Instrument: Charlie

Blank ID: 190905B-BLK Time Analyzed: 1658

APPL ID.	Client Sample No.	File ID.	Date Analyzed
AZ98274	GN-W-RB-01	10	09/05/19 1806
190905B-BLK	Blank	2	09/05/19 1658
190905B-LCS	Lab Control Spike	3	09/05/19 1706
190905B-LCSD	Lab Control SpikeD	4	09/05/19 1715

Comments: Batch: #7199-190905B

WETLAB BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
3060A	HEXAVALENT CHR	0.21 J	0.6	0.40	0.20	mg/Kg	09/06/19	09/06/19	#719SA-190904A-AZ98255
EPA 7199	HEXAVALENT CHR	0.40 U	0.5	0.40	0.09	ug/L	09/05/19	09/05/19	#7199-190905B-AZ98141

Wetlab SC-Blank-REG MDLs
Printed: 10/17/19 12:07:17 PM

3060A/7199

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 89977

Case No: 89977 Date Analyzed: 09/06/19

Matrix: SOIL Instrument: Charlie

LCS ID: 190904A-LCS Time Analyzed: 1638

APPL ID.	Client Sample No.	File ID.	Date Analyzed
190904A-BLK	Blank	13	09/06/19 1630
190904A-LCS	Lab Control Spike	14	09/06/19 1638
190904A-LCSD	Lab Control SpikeD	15	09/06/19 1646
AZ98255	GN-SO-01-1	16	09/06/19 1655
AZ98256	GN-SO-01-2	19	09/06/19 1721
AZ98257	GN-SO-02-1	20	09/06/19 1729
AZ98258	GN-SO-DUP-2	21	09/06/19 1738
AZ98259	GN-SO-DUP-1	22	09/06/19 1746
AZ98260	GN-SO-02-2	23	09/06/19 1755
AZ98261	GN-SO-03-1	24	09/06/19 1803
AZ98262	GN-SO-03-2	25	09/06/19 1812
AZ98263	GN-SO-04-1	26	09/06/19 1820
AZ98264	GN-SO-04-2	27	09/06/19 1829
190904A-MS	Matrix Spike	28	09/06/19 1837
190904A-MSD	Matrix SpikeD	29	09/06/19 1846
AZ98265	GN-SO-05-1	32	09/06/19 1911
AZ98266	GN-SO-05-2	33	09/06/19 1920
AZ98267	GN-SO-06-1	34	09/06/19 1928
AZ98268	GN-SO-06-2	35	09/06/19 1937
AZ98269	GN-SO-07-1	36	09/06/19 1946
AZ98270	GN-SO-07-2	37	09/06/19 1954
AZ98271	GN-SO-08-1	38	09/06/19 2003
AZ98272	GN-SO-08-2	39	09/06/19 2011
AZ98273	GN-SO-09C-1	40	09/06/19 2020

Comments: Batch: #719SA-190904A

EPA 7199

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 89977

Case No: 89977 Date Analyzed: 09/05/19

Matrix: WATER Instrument: Charlie

LCS ID: 190905B-LCS Time Analyzed: 1706

APPL ID.	Client Sample No.	File ID.	Date Analyzed
AZ98274	GN-W-RB-01	10	09/05/19 1806
190905B-BLK	Blank	2	09/05/19 1658
190905B-LCS	Lab Control Spike	3	09/05/19 1706
190905B-LCSD	Lab Control SpikeD	4	09/05/19 1715

Comments: Batch: #7199-190905B

Laboratory Control Spike Recoveries

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/Kg	SPK Res mg/Kg	DUP Res mg/Kg	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
EPA 3060A	HEXAVALENT CHROMIUM	3.20	3.24	3.38	101	106	4.2	20	80-120	09/06/19	09/06/19	09/06/19	09/06/19	#719SA-190904A-AZ98255

Comments:

Laboratory Control Spike Recoveries

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl ug/L	SPK Res ug/L	DUP Res ug/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
EPA 7199	HEXAVALENT CHROMIUM	10.00	8.98	9.52	89.8 #	95.2	5.8	20	90-110	09/05/19	09/05/19	09/05/19	09/05/19	#7199-190905B-AZ98141

= Recovery is outside QC limits.

Comments:

Matrix Spike Recoveries

WETLAB

APPL ID: **190906S-98255 MS - 244347**

Sample ID: AZ98255

Client ID: GN-SO-01-1

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/Kg	Matrix Res mg/Kg	SPK Res mg/Kg	DUP Res mg/Kg	SPK % Recovery	DUP % Recovery	RPD	RPD Max	Recovery Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group	QC Sample
EPA 3060A	HEXAVALENT CHROM	0.40	0.15	0.557	0.556	102	102	0.18	20	80-120	09/06/19	09/06/19	09/06/19	09/06/19	244347	AZ98255

Comments: _____

INORGANIC ANALYSIS
Calibration Data

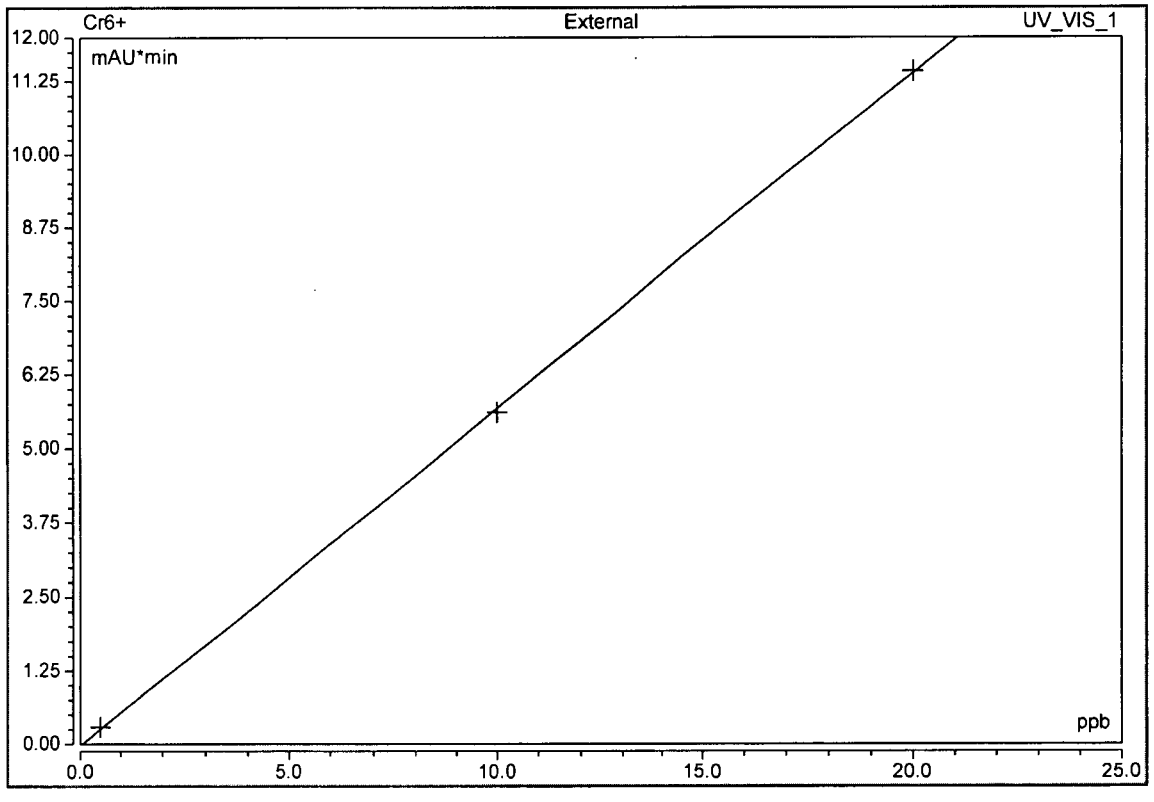
Calibration Batch Report

Sequence:	**190828**	*Injection Volume:*	**1.00**
Instrument Method:	**HexChrom Method with AS_DV**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**28-Aug-2019 / 15:50**	*Run Time:*	**6.00325**

Calibration Summary

Peak Name	Eval.Type	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
Cr6+	Area	Lin, WithOffset	3.000	-0.029	0.571	0.000	99.9876

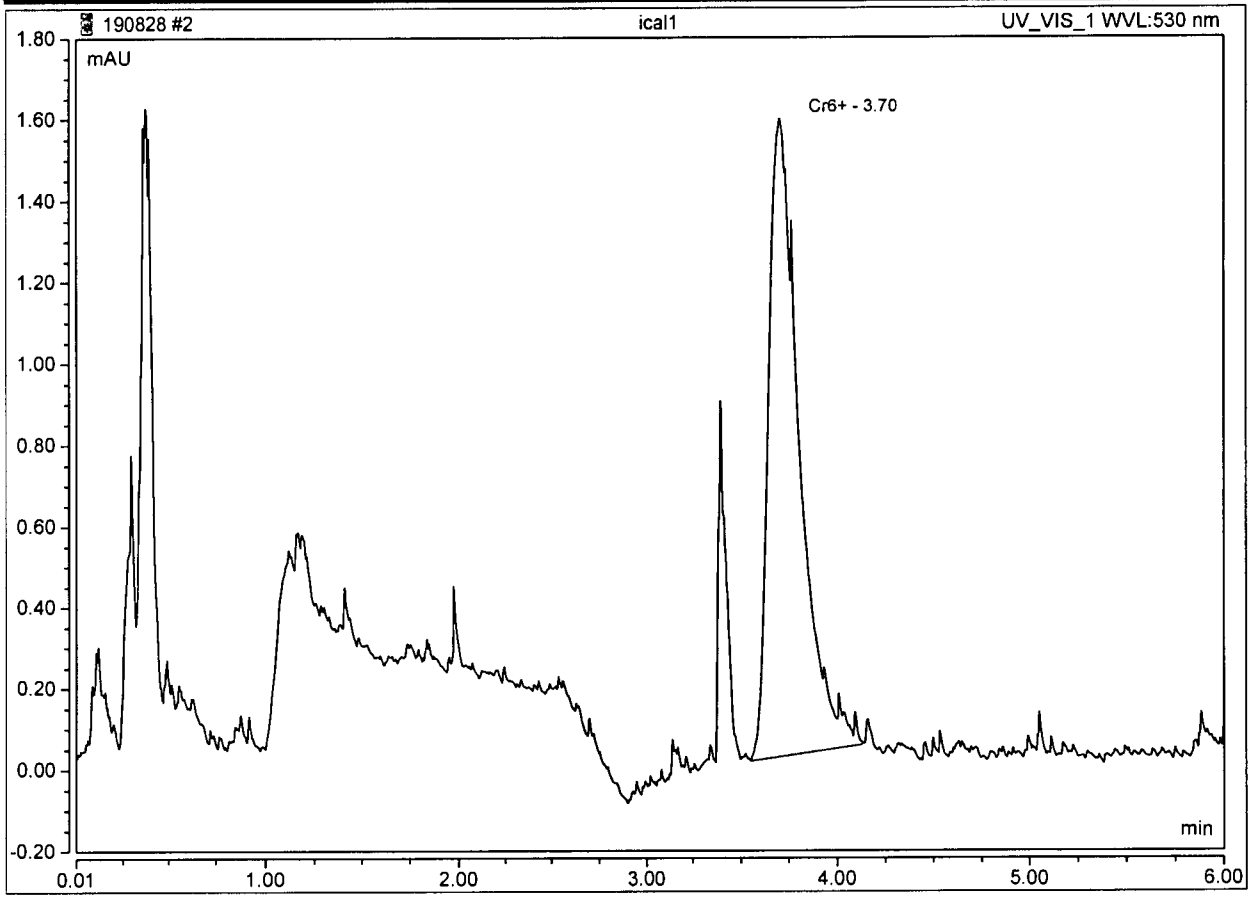
Injection Name	Spike amount	Amount	Recovery
	ppb	ppb	
ical1	0.50	0.5642	112.85%
ical2	10.00	9.8747	98.75%
ical3	20.00	20.0610	100.31%



Peak Integration Report

Sample Name:	**ical1**	*Inj. Vol.:*	**5mL**
Injection Type:	**Calibration Standard**	*Dilution Factor.*	**1.00**
Program:	**190829A Hexachrome**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**28-Aug-2019 / 15:33**	*Run Time:*	**6.00**

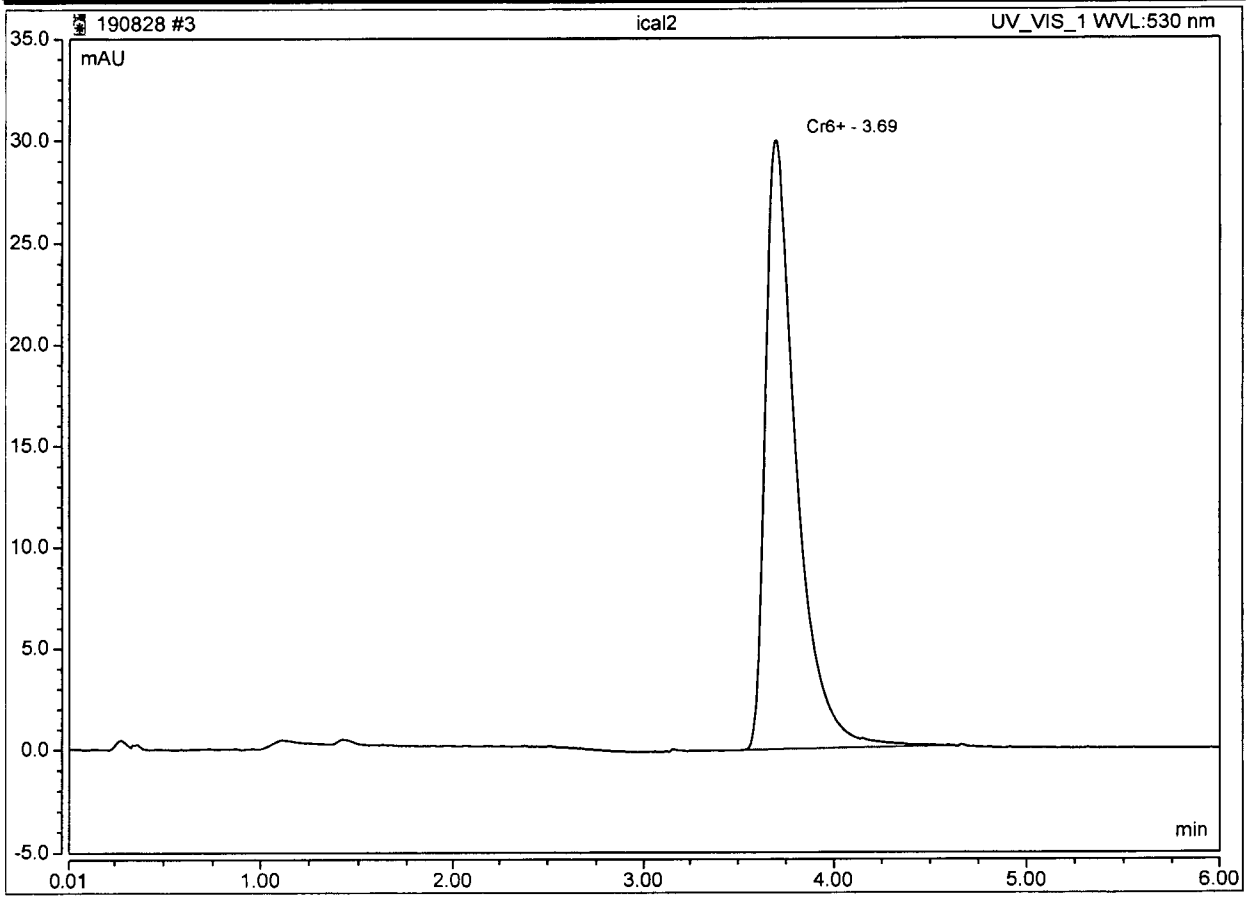
No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) mAU*min	Height (µS) mAU	Amount ppb	Spike Level ppb	Recovery %
1	3.70	Cr6+	BMB	0.293	1.569	0.56	0.50	112.85



Peak Integration Report

Sample Name:	**ical2**	*Inj. Vol.:*	**5mL**
Injection Type:	**Calibration Standard**	*Dilution Factor.*	**1.00**
Program:	**190829A Hexachrome**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**28-Aug-2019 / 15:42**	*Run Time:*	**6.00**

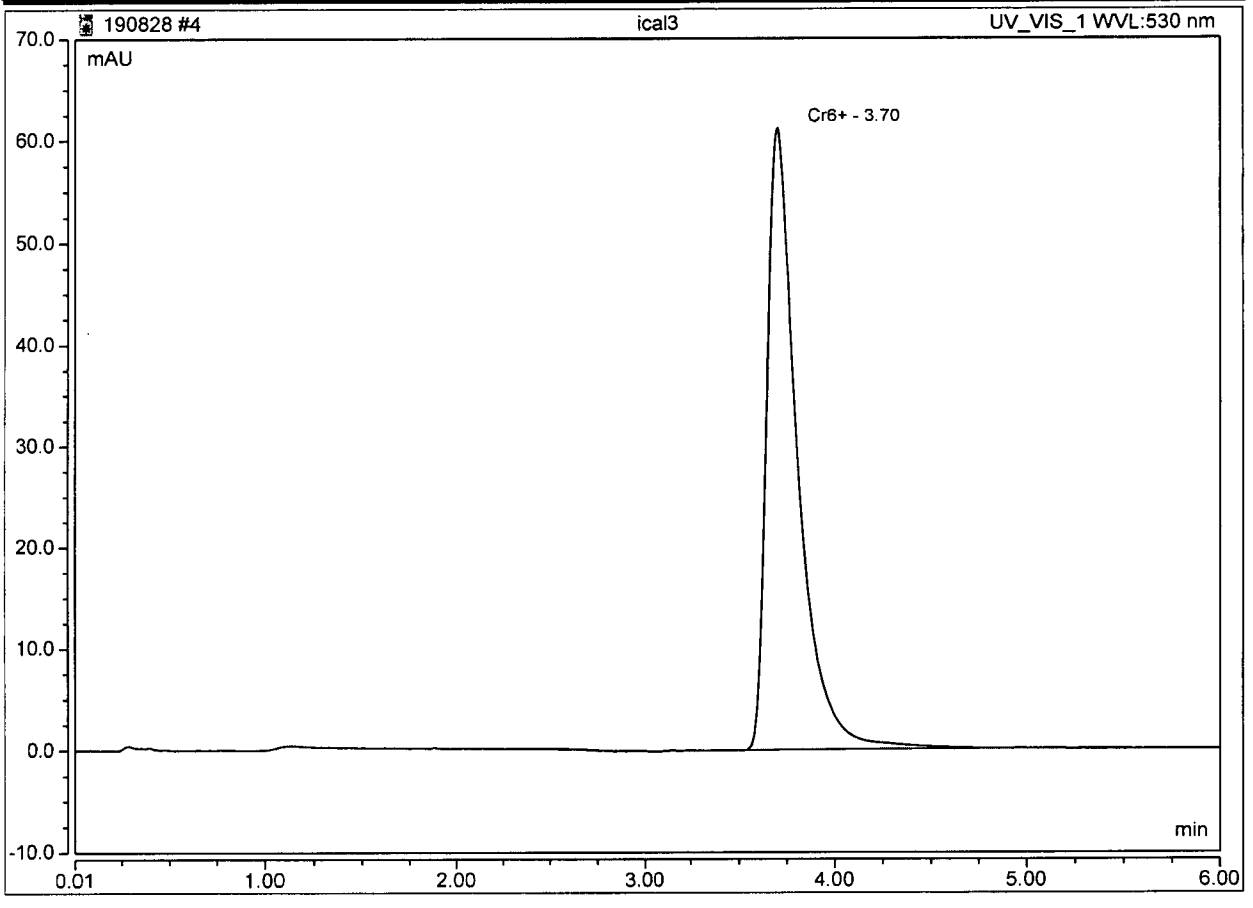
No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) mAU*min	Height (µS) mAU	Amount ppb	Spike Level ppb	Recovery %
1	3.69	Cr6+	BMB	5.610	30.008	9.87	10.00	98.75



Peak Integration Report

Sample Name:	**ical3**	*Inj. Vol.:*	**5mL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**190829A Hexachrome**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**28-Aug-2019 / 15:50**	*Run Time:*	**6.00**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) mAU*min	Height (µS) mAU	Amount ppb	Spike Level ppb	Recovery %
1	3.70	Cr6+	BMB	11.426	61.159	20.06	20.00	100.31



A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract:

ARF No: SDG:

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 08/28/19

Analyte	Calibration Verification									M
	True CCV1	Found 16:08	%R(1)	True CCV1	Found 16:16	%R(1)	True	Found	%R(1)	
Hex Chrome	10	9.1828	91.8	10	9.3812	93.8				

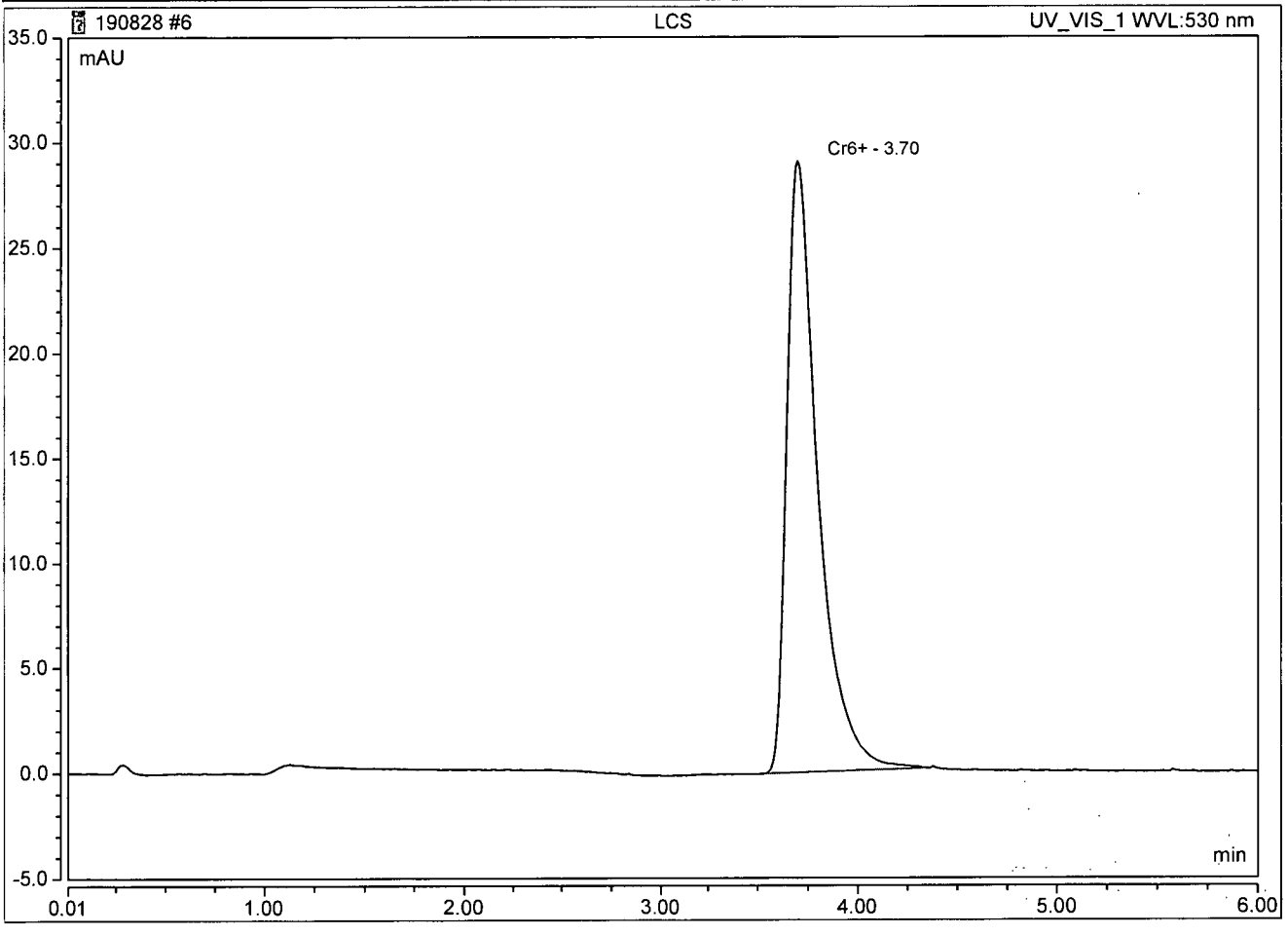
(1) Control Limits: 90-110

ILM02.0

Peak Integration Report

Sample Name:	**LCS**	*Inj. Vol.:*	**5mL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**190829A Hexachrome**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**28-Aug-2019 / 16:08**	*Run Time:*	**6.00**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) mAU*min	Height (µS) mAU	Amount ppb	Spike Level ppb	Recovery %
1	3.70	Cr6+	BMB	5.214	29.078	9.18	10.00	91.83



A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: HDR EOC

ARF No: 89977 SDG: 89977

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 09/06/19

Analyte	Calibration Verification									M
	True CCV1	Found 12:08	%R(1)	True CCV1	Found 12:51	%R(1)	True CCV1	Found 18:54	%R(1)	
Hex Chrome	10	9.6951	97.0	10	10.0106	100	10	8.749	87.5	*

(1) Control Limits: 90-110

ILM02.0

A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: HDR EOC

ARF No: 89977 SDG: 89977

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 09/06/19

Analyte	Calibration Verification									M
	True CCV1	Found 20:45	%R(1)	True	Found	%R(1)	True	Found	%R(1)	
Hex Chrome	10	9.2684	92.7							

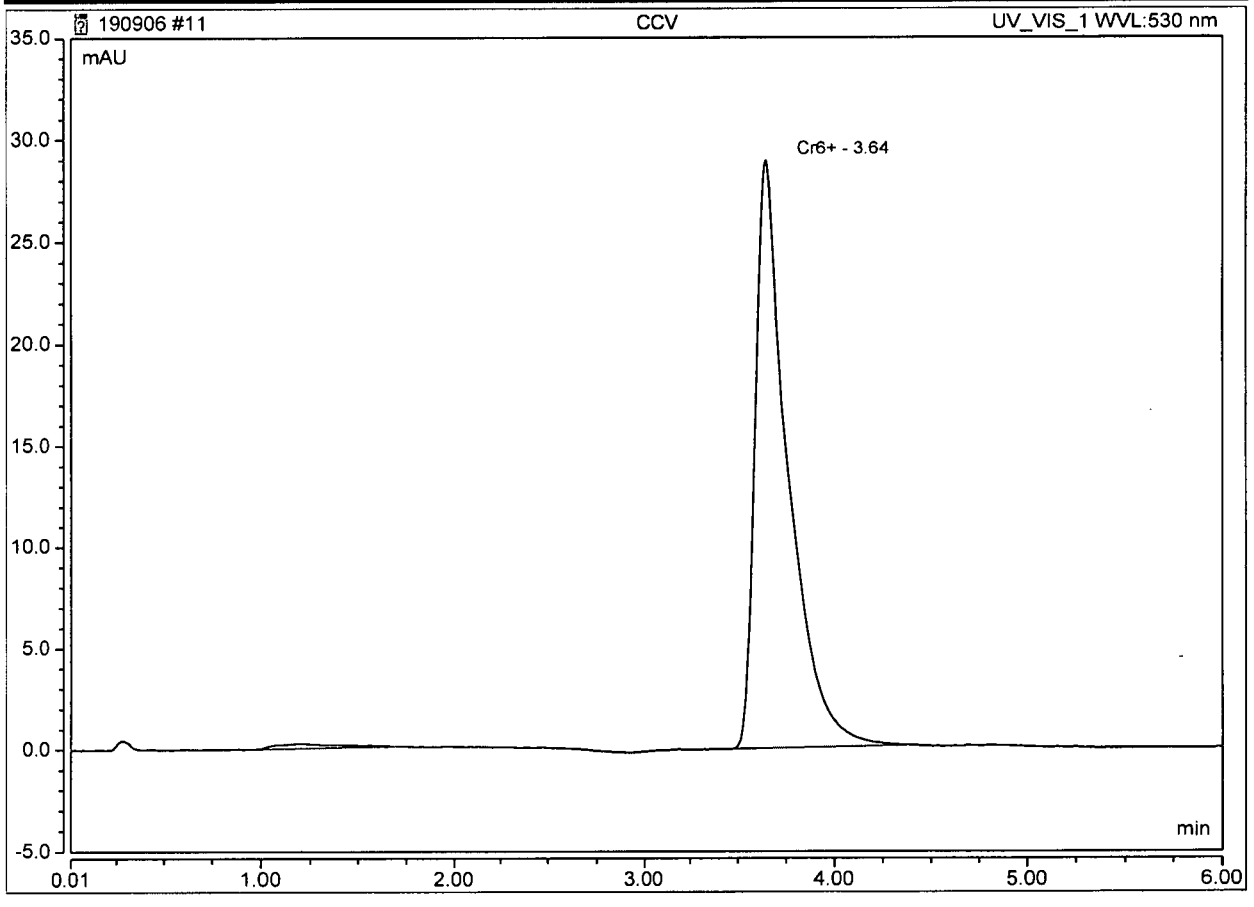
(1) Control Limits: 90-110

ILM02.0

Peak Integration Report

Sample Name:	**CCV**	*Inj. Vol.:*	**5mL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**190829A Hexachrome**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Sep-2019 / 12:51**	*Run Time:*	**6.00**

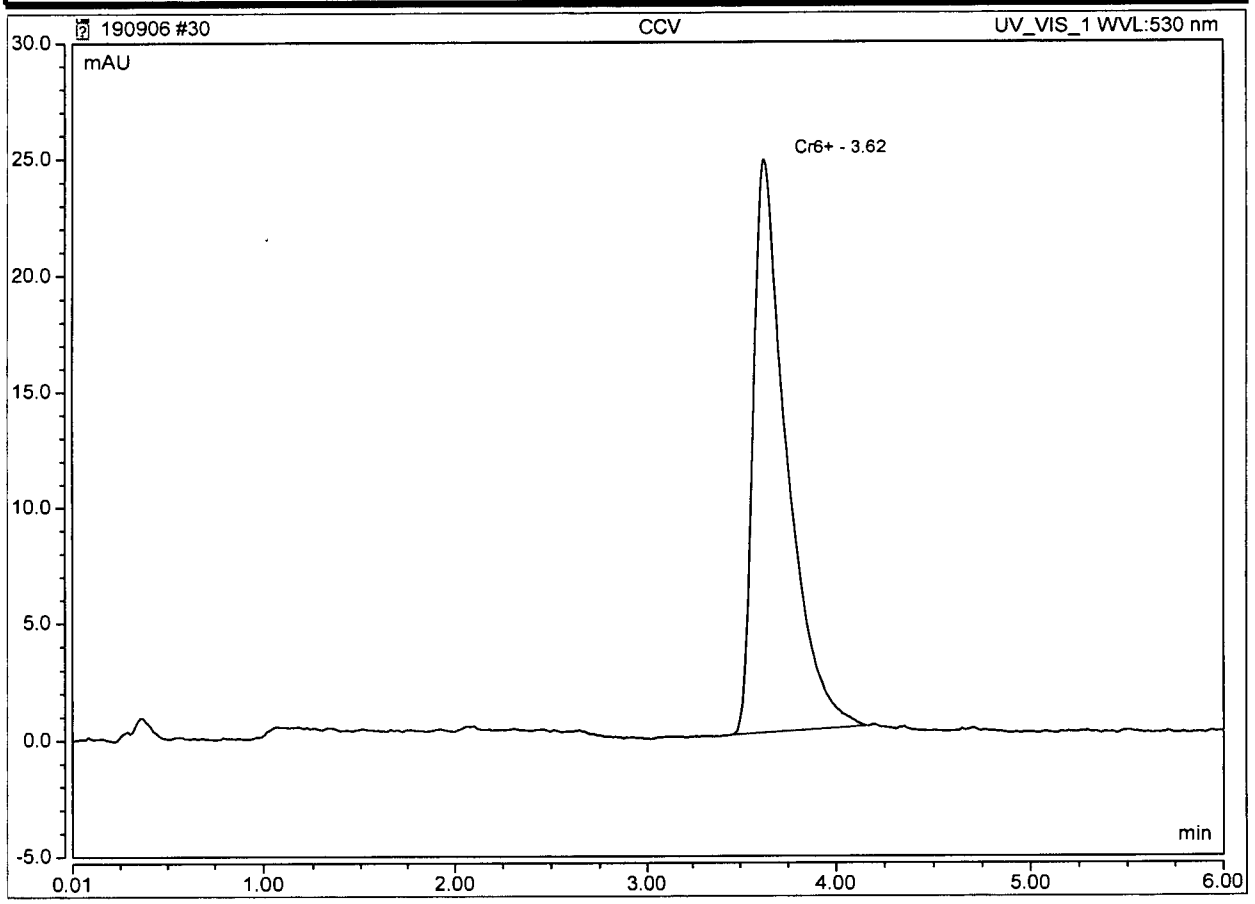
No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) mAU*min	Height (µS) mAU	Amount ppb	Spike Level ppb	Recovery %
2	3.64	Cr6+	BMB	5.687	28.893	10.01	10.00	100.11



Peak Integration Report

Sample Name:	**CCV**	*Inj. Vol.:*	**5mL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**190829A Hexachrome**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Sep-2019 / 18:54**	*Run Time:*	**6.00**

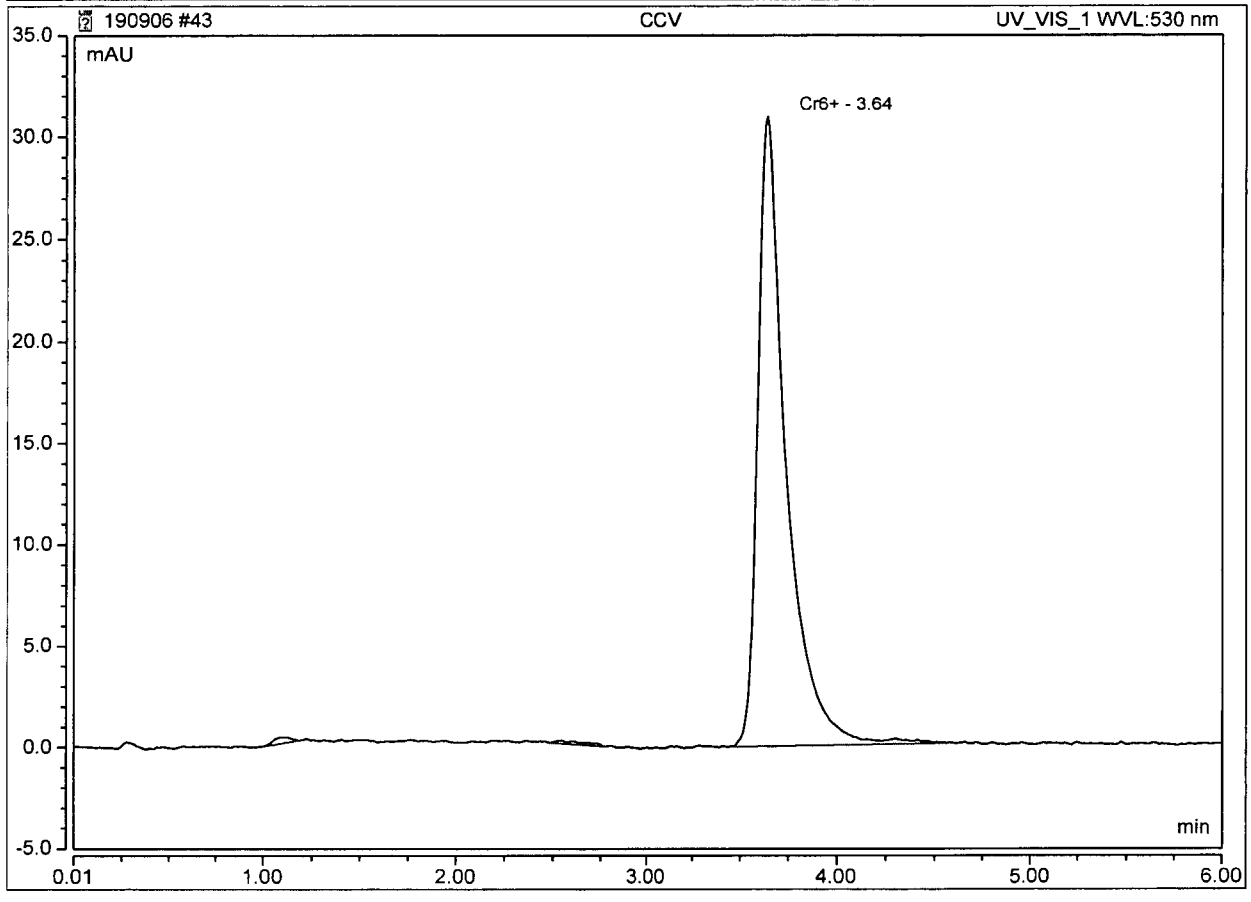
No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) mAU*min	Height (µS) mAU	Amount ppb	Spike Level ppb	Recovery %
1	3.62	Cr6+	BMB	4.967	24.643	8.75	10.00	87.49



Peak Integration Report

Sample Name:	**CCV**	*Inj. Vol.:*	**5mL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**190829A Hexachrome**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Sep-2019 / 20:45**	*Run Time:*	**6.00**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) mAU*min	Height (µS) mAU	Amount ppb	Spike Level ppb	Recovery %
3	3.64	Cr6+	BM	5.263	30.965	9.27	10.00	92.68



A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract:

ARF No.: SDG:

Preparation Blank Matrix (soil/water): water

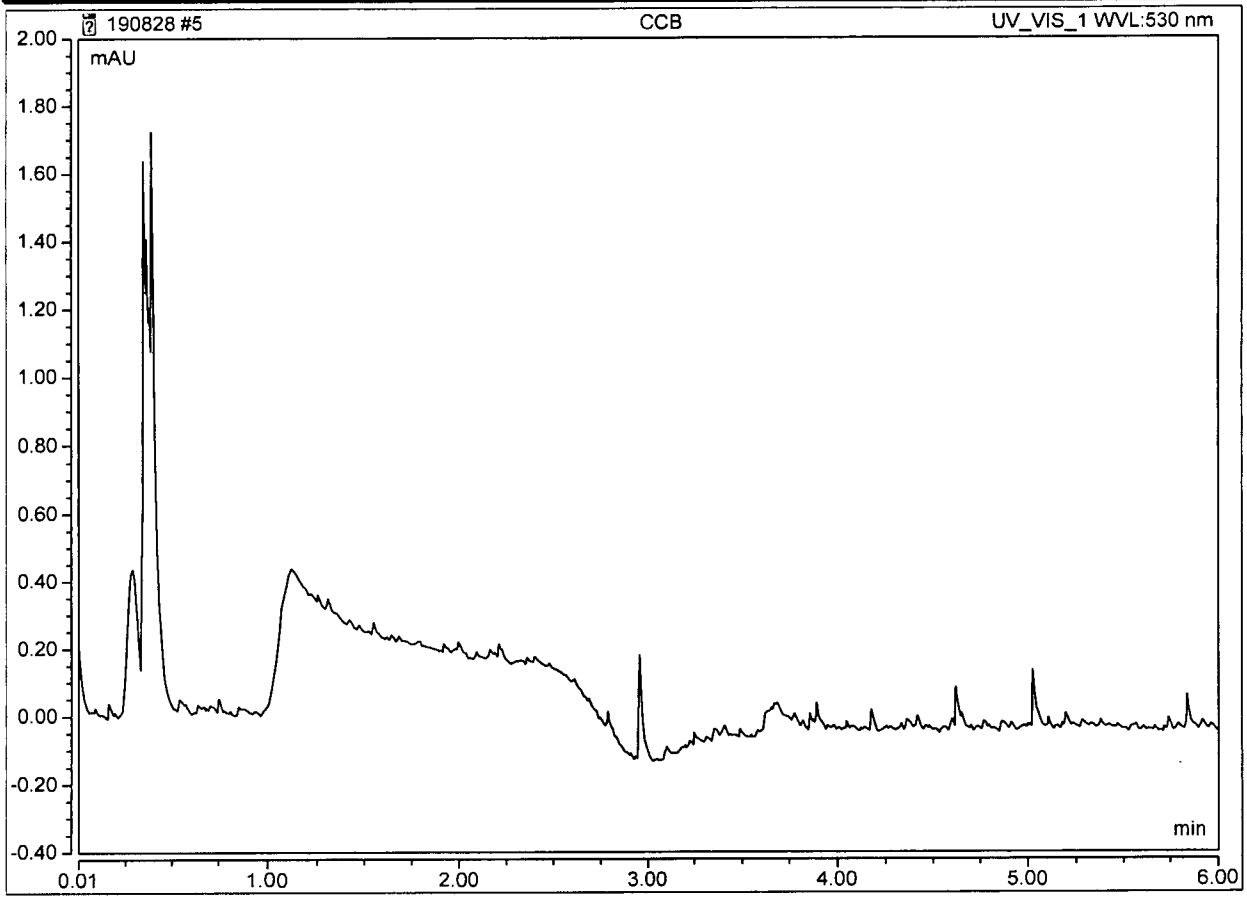
Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analyte	Calibration Blanks										M
	CCB 08/28/19 15:59	C		C		C		C		C	
Hex Chrome	.500	U									

Peak Integration Report

Sample Name:	**CCB**	*Inj. Vol.:*	**5mL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**190829A Hexachrome**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**28-Aug-2019 / 15:59**	*Run Time:*	**6.00**

No.	Time (min)	Peak Name	Peak Type	Area (µS*min)	Height (µS)	Amount
	min			mAU*min	mAU	n.a.



A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: HDR EOC

ARF No.: 89977 SDG: 89977

Preparation Blank Matrix (soil/water): soil

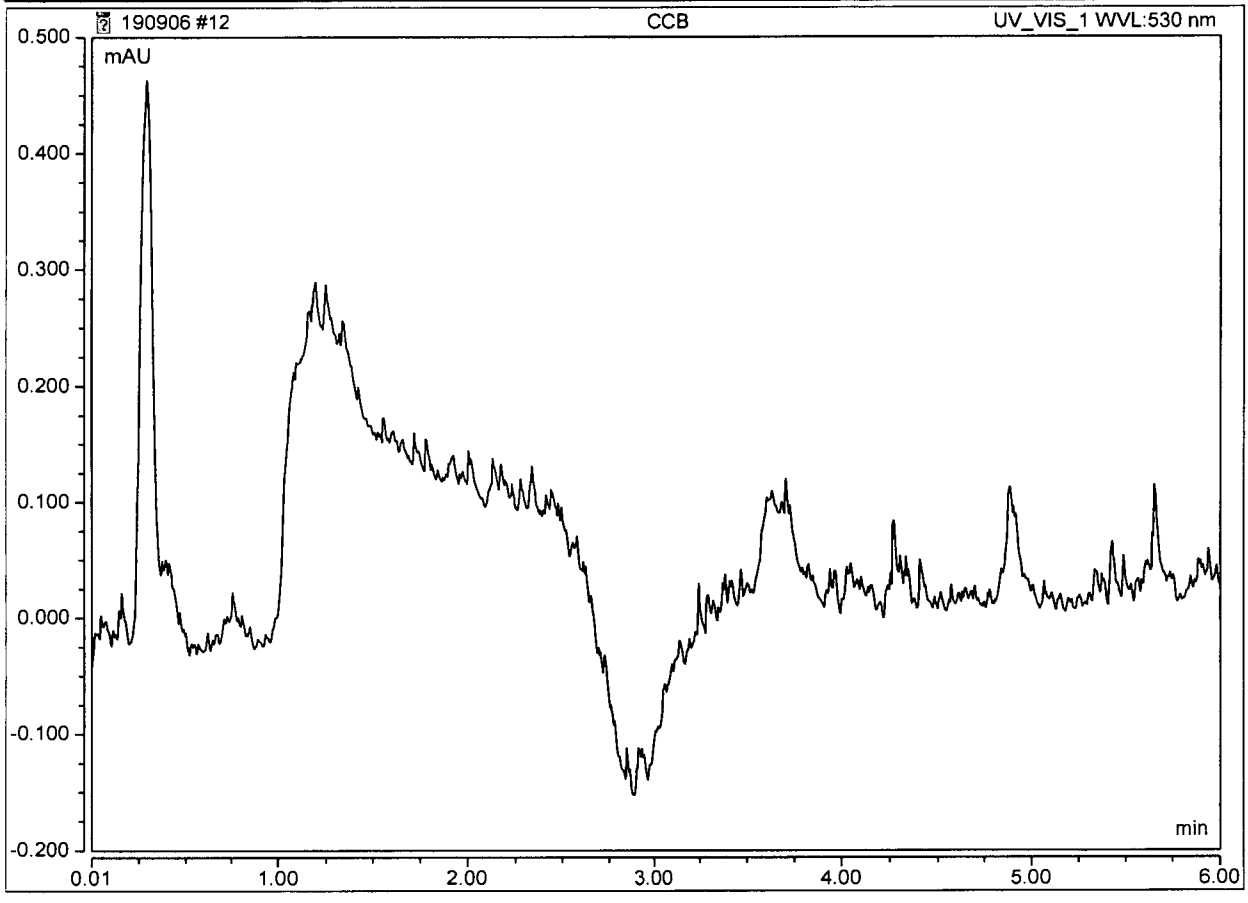
Preparation Blank Concentration Units (ug/L or mg/kg): mg/Kg

Analyte	Calibration Blanks										M
	CCB 09/06/19 12:59	C	CCB 09/06/19 19:03	C	CCB 09/06/19 20:54	C		C		C	
Hex Chrome	.600	U	.600	U	.600	U					

Peak Integration Report

Sample Name:	**CCB**	*Inj. Vol.:*	**5mL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**190829A Hexachrome**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Sep-2019 / 12:59**	*Run Time:*	**6.00**

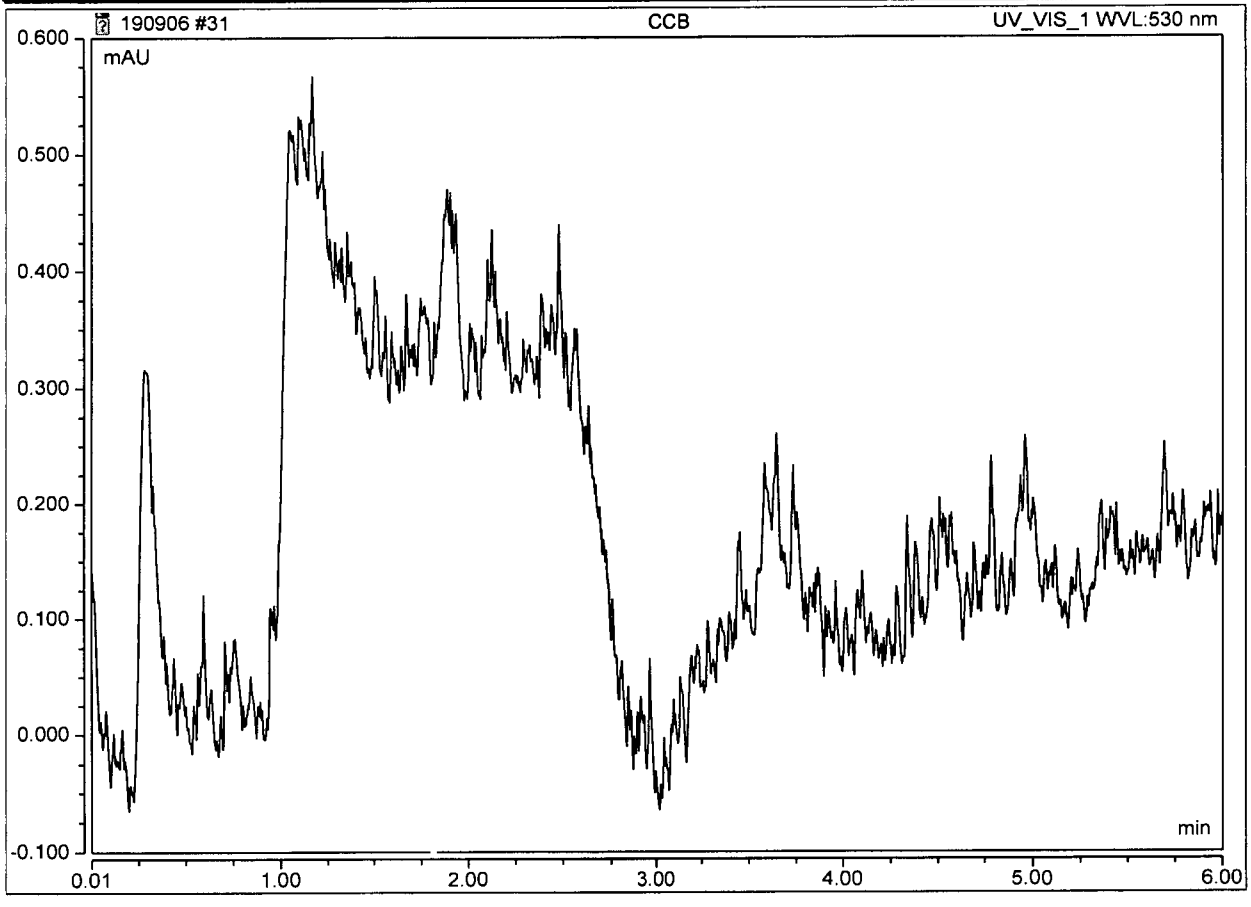
No.	Time (min)	Peak Name	Peak Type	Area (µS*min)	Height (µS)	Amount
	min			mAU*min	mAU	n.a.



Peak Integration Report

Sample Name:	**CCB**	*Inj. Vol.:*	**5mL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**190829A Hexachrome**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Sep-2019 / 19:03**	*Run Time:*	**6.00**

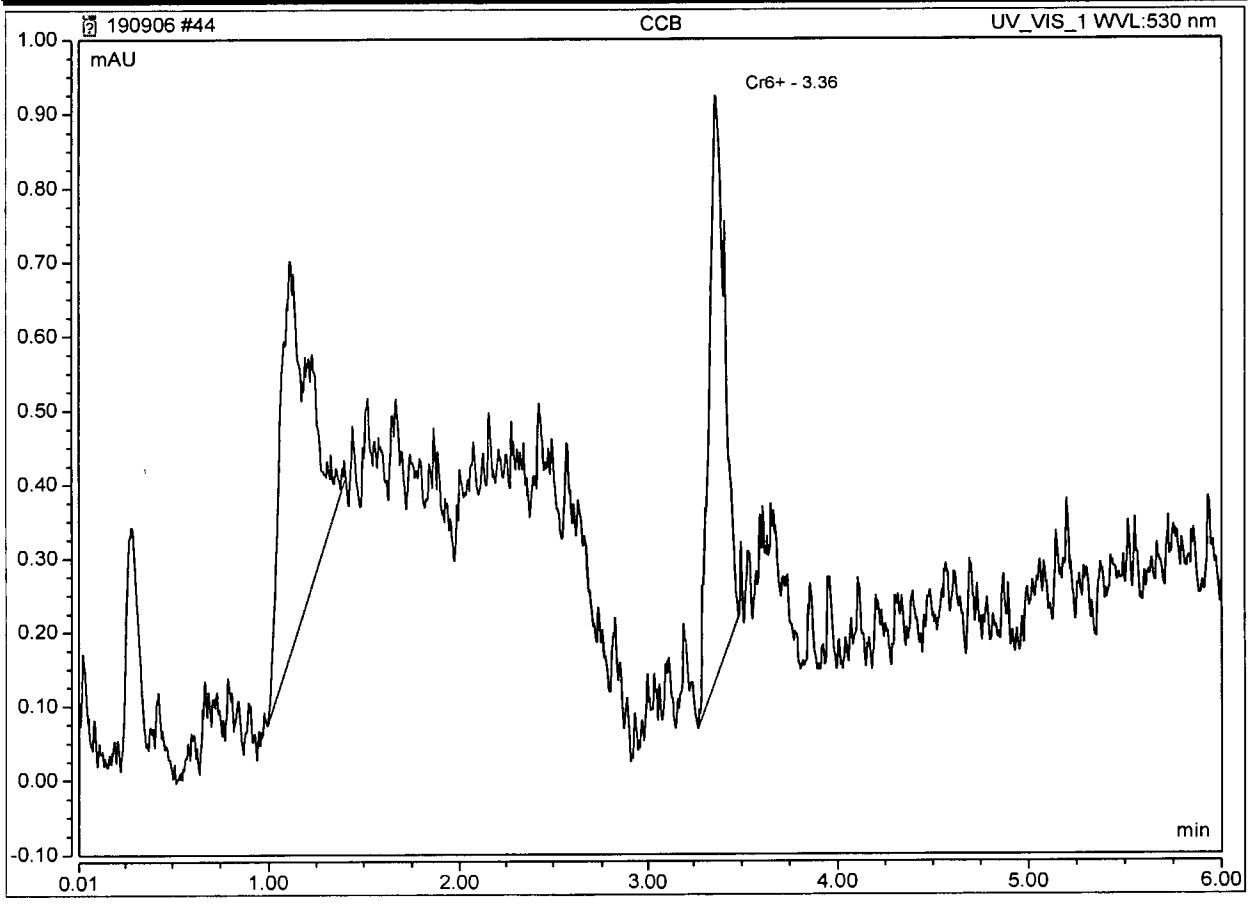
No.	Time (min)	Peak Name	Peak Type	Area (µS*min)	Height (µS)	Amount
	min			mAU*min	mAU	n.a.



Peak Integration Report

Sample Name:	**CCB**	*Inj. Vol.:*	**5mL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**190829A Hexachrome**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Sep-2019 / 20:54**	*Run Time:*	**6.00**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) mAU*min	Height (µS) mAU	Amount ppb
2	3.36	Cr6+	BMB	0.076	0.793	0.18

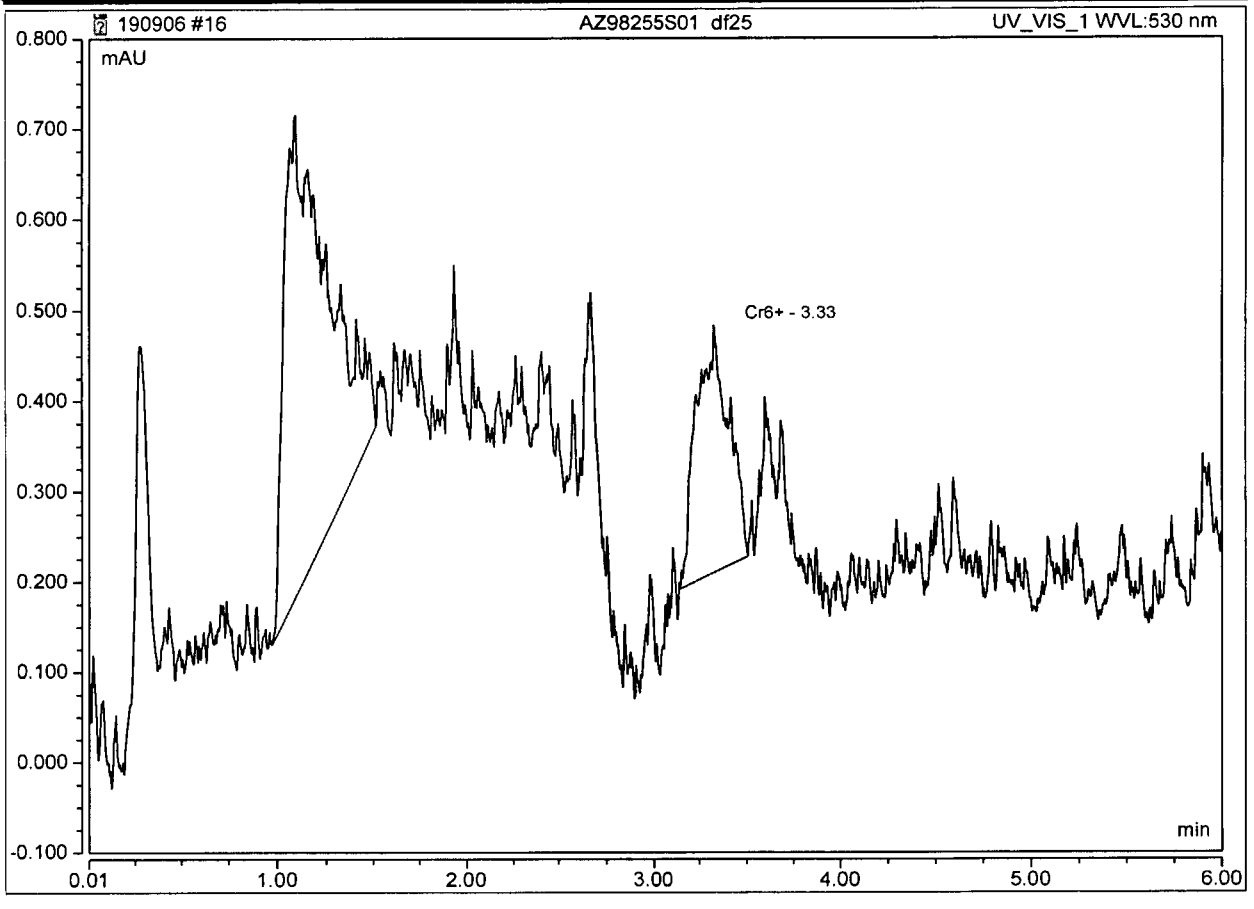


INORGANIC ANALYSIS
Raw Data

Peak Integration Report

Sample Name:	**AZ98255S01 df25**			*Inj. Vol.:*	**5mL**
Injection Type:	**Unknown**	Sample amount:	1.2531g	*Dilution Factor:*	**25.00**
Program:	**190829A Hexachrome**	Extraction Volum	50mL	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Sep-2019 / 16:55**			*Run Time:*	**6.00**

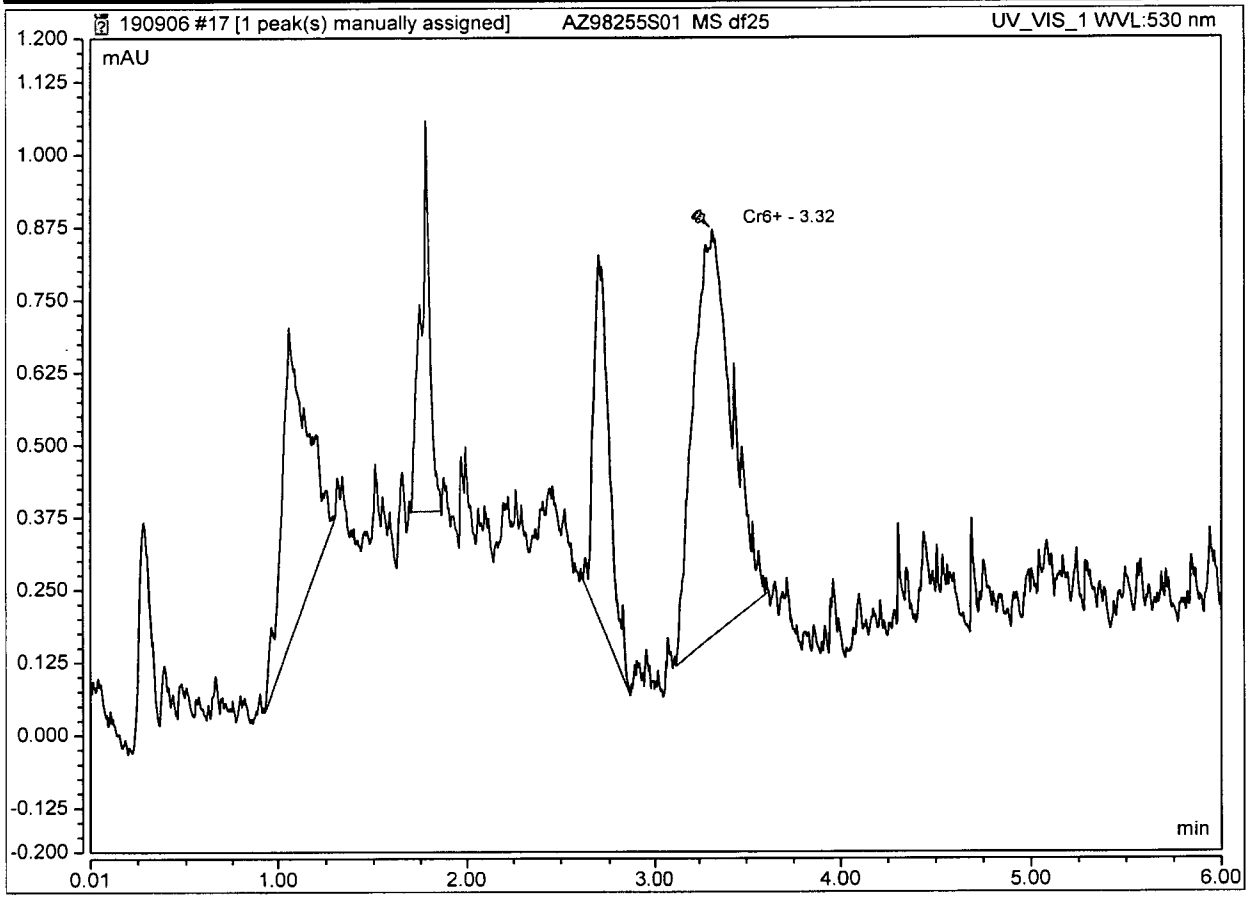
No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) mAU*min	Height (µS) mAU	Amount mg/kg
2	3.33	Cr6+	BMB	0.054	0.274	0.15



Peak Integration Report

Sample Name:	**AZ98255S01 MS df25**			*Inj. Vol.:*	**5mL**
Injection Type:	**Unknown**	Sample amount:	1.2510g	*Dilution Factor:*	**25.00**
Program:	**190829A Hexachrome**	Extraction Volum	50mL	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Sep-2019 / 17:03**			*Run Time:*	**6.00**

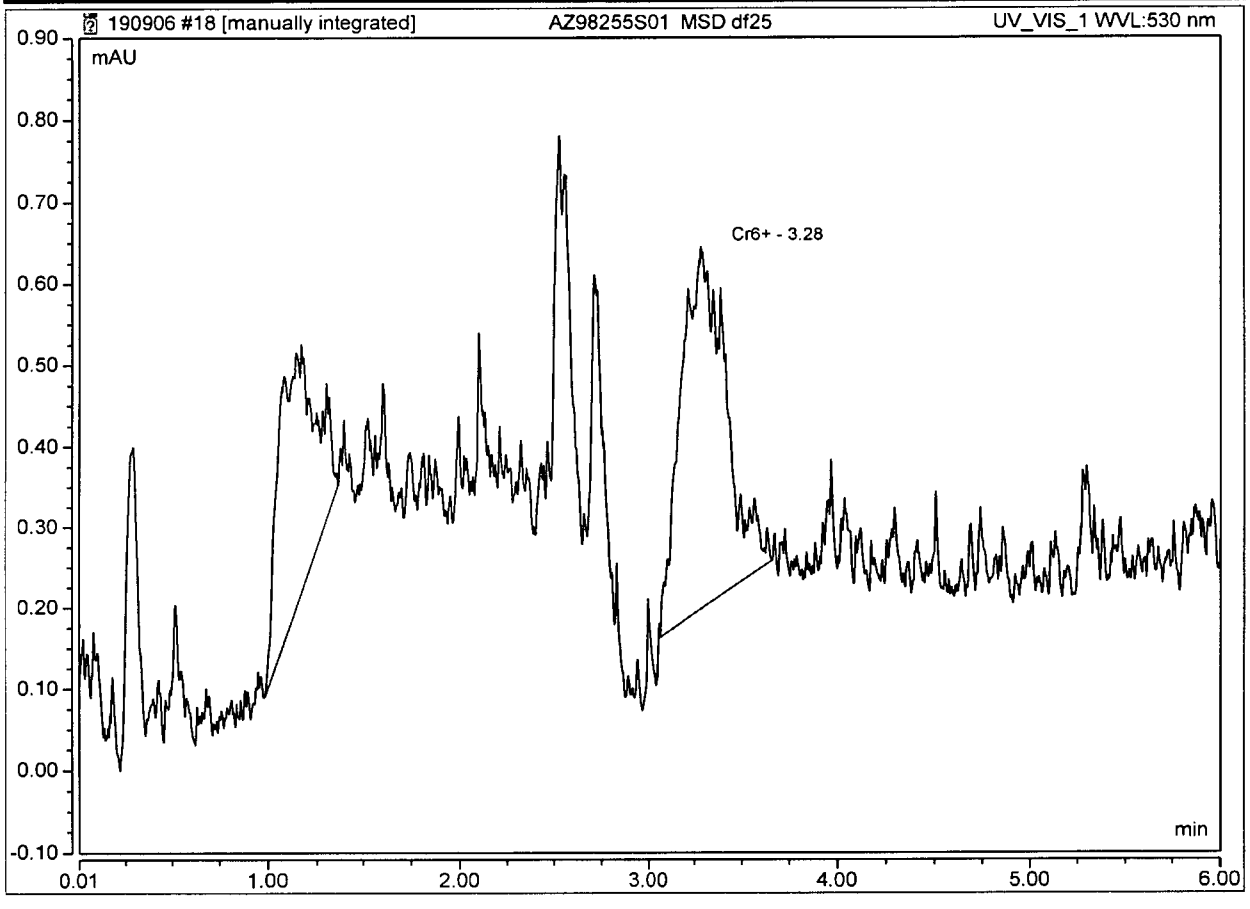
No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) mAU*min	Height (µS) mAU	Amount mg/kg
4	3.32	Cr6+	BMB^	0.168	0.702	0.34



Peak Integration Report

Sample Name:	**AZ98255S01 MSD df25**	*Inj. Vol.:*	**5mL**
Injection Type:	**Unknown** Sample amount: 1.4380g	*Dilution Factor:*	**25.00**
Program:	**190829A Hexachrome** Extraction Volum 50mL	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Sep-2019 / 17:12**	*Run Time:*	**6.00**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) mAU*min	Height (µS) mAU	Amount mg/kg
2	3.28	Cr6+	BMB*	0.124	0.447	0.23

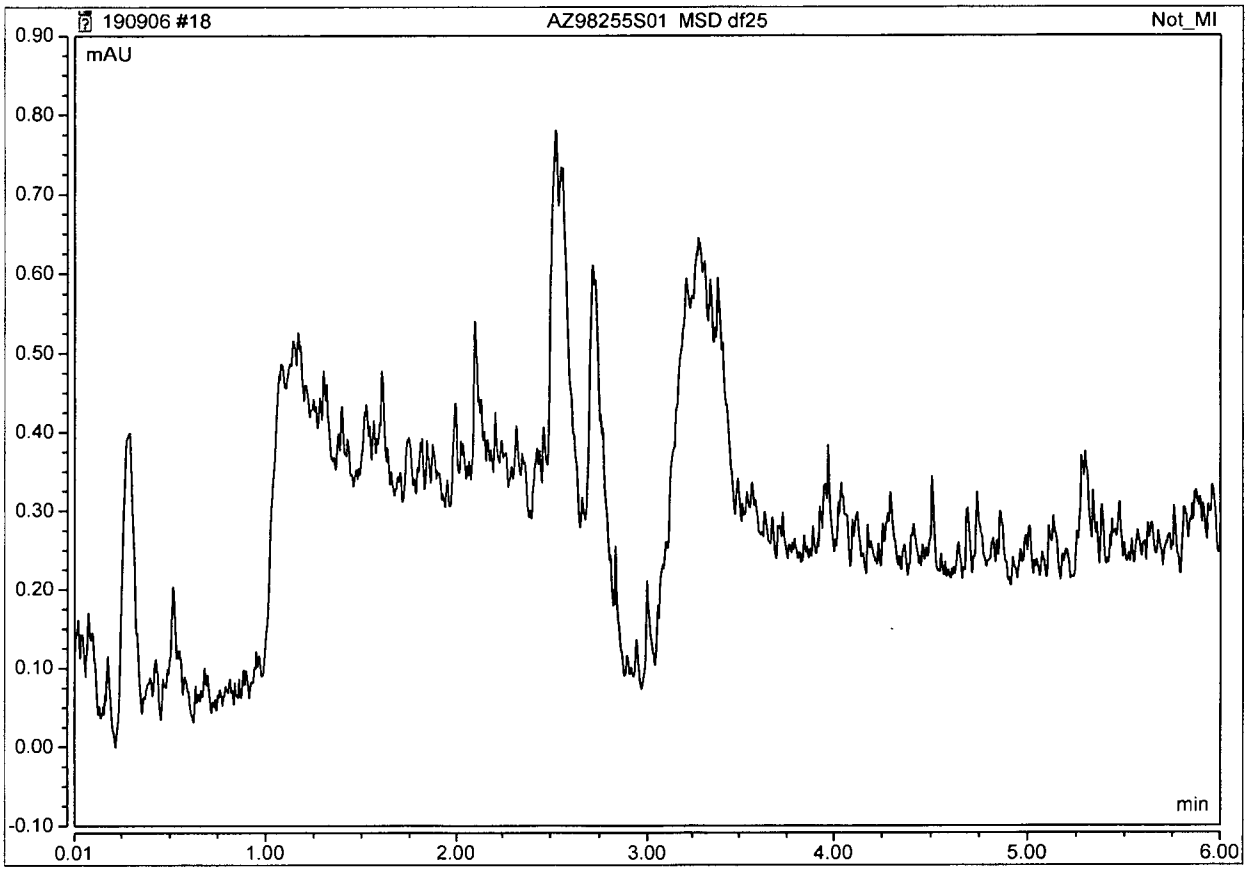


MI5 BW 190906

Not Manipulated Peak Integration Report

Sample Name:	AZ98255S01 MSD df25	*Inj. Vol.:*	5mL
Injection Type:	Unknown	*Dilution Factor:*	1.2500
Program:	190829A Hexachrome	*Operator:*	chemist_wetlab
Inj. Date / Time:	06-Sep-2019 / 17:12	*Run Time:*	6.00

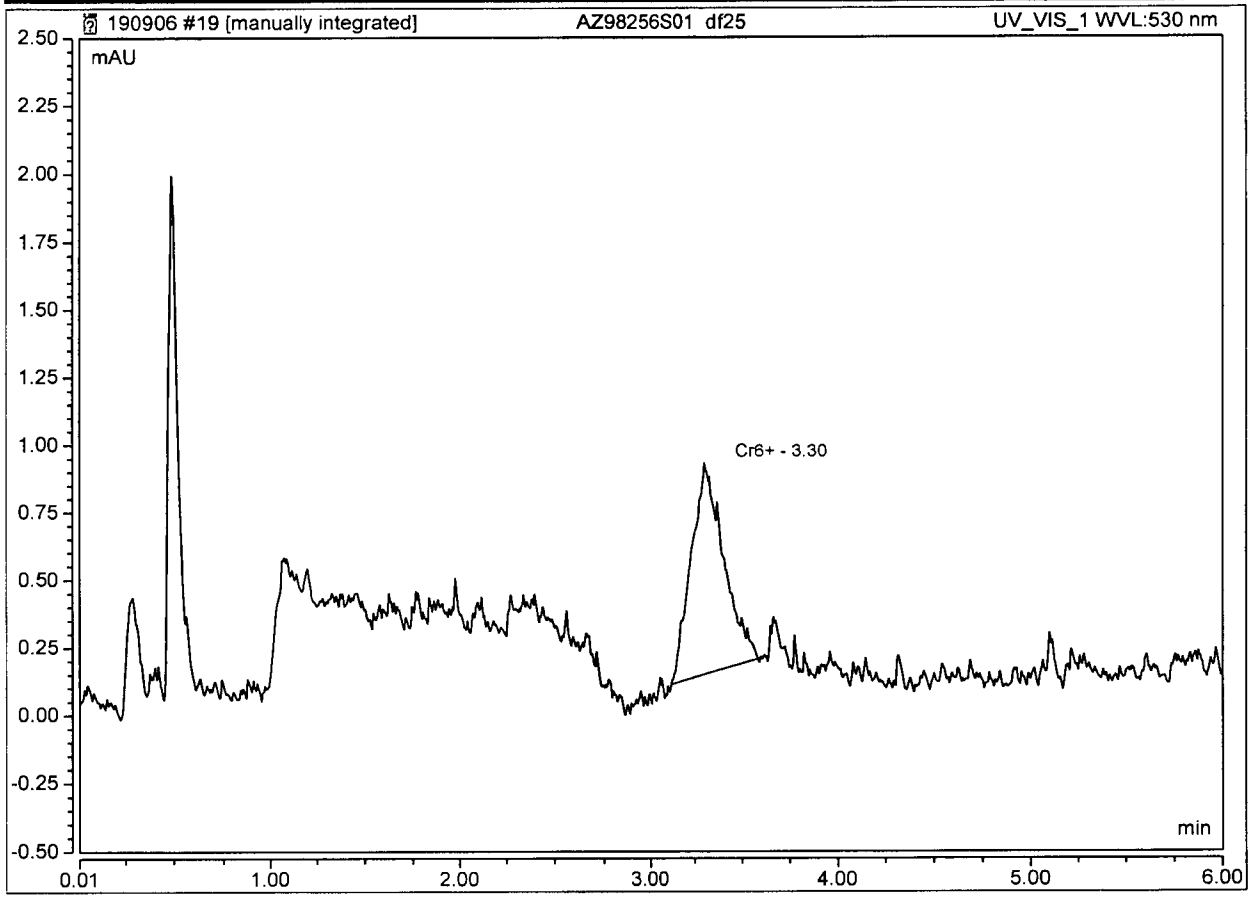
No.	Time min	Peak Name	Peak Type	Area n.a.	Height n.a.	Ammount mg/L
2	n.a.	Cr6+	BMB*	n.a.	n.a.	n.a.



Peak Integration Report

Sample Name:	**AZ98256S01 df25**			*Inj. Vol.:*	**5mL**
Injection Type:	**Unknown**	Sample amount:	1.2534g	*Dilution Factor:*	**25.00**
Program:	**190829A Hexachrome**	Extraction Volum	50mL	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Sep-2019 / 17:21**			*Run Time:*	**6.00**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) mAU*min	Height (µS) mAU	Amount mg/kg
1	3.30	Cr6+	BMB*	0.158	0.783	0.33

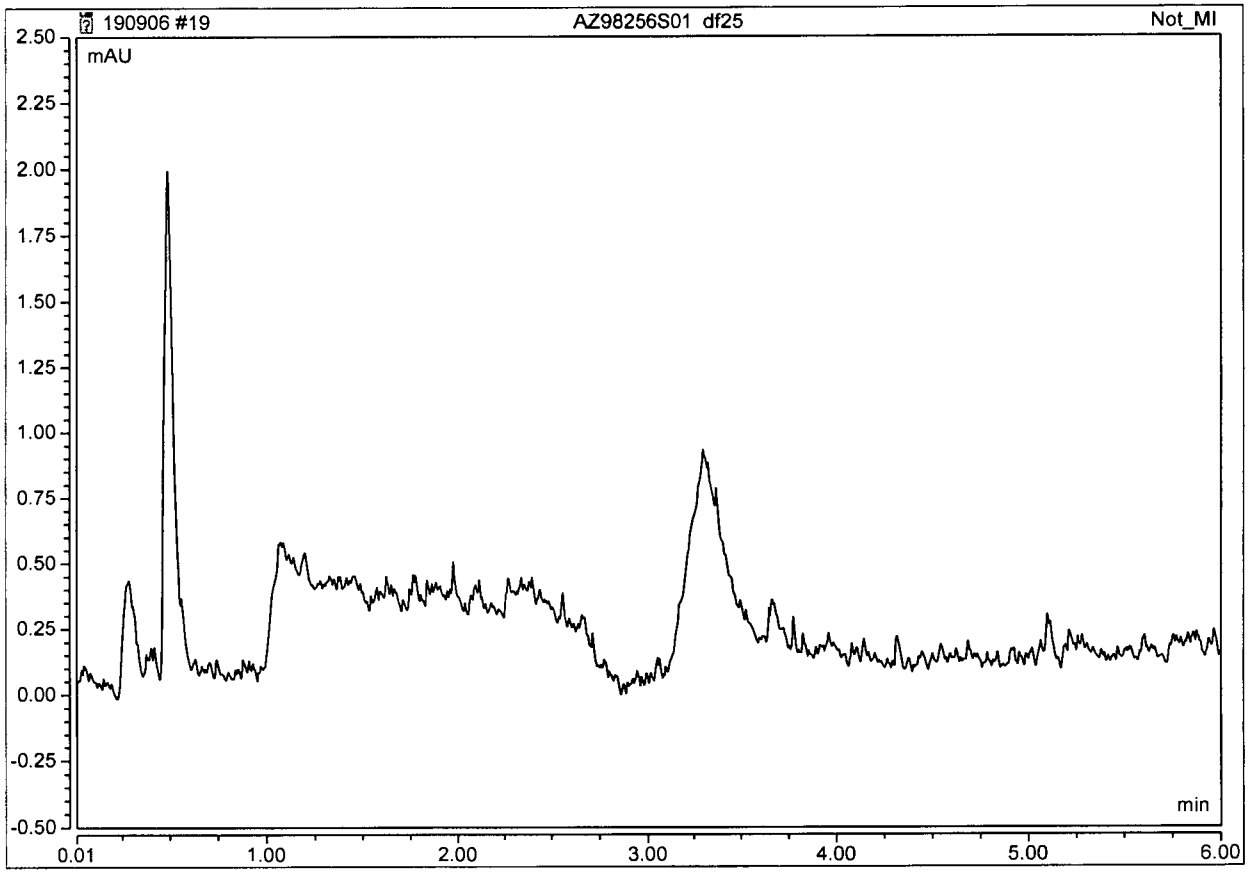


MI5 BW 190906

Not Manipulated Peak Integration Report

Sample Name:	**AZ98256S01 df25**	*Inj. Vol.:*	**5mL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.2500**
Program:	**190829A Hexachrome**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Sep-2019 / 17:21**	*Run Time:*	**6.00**

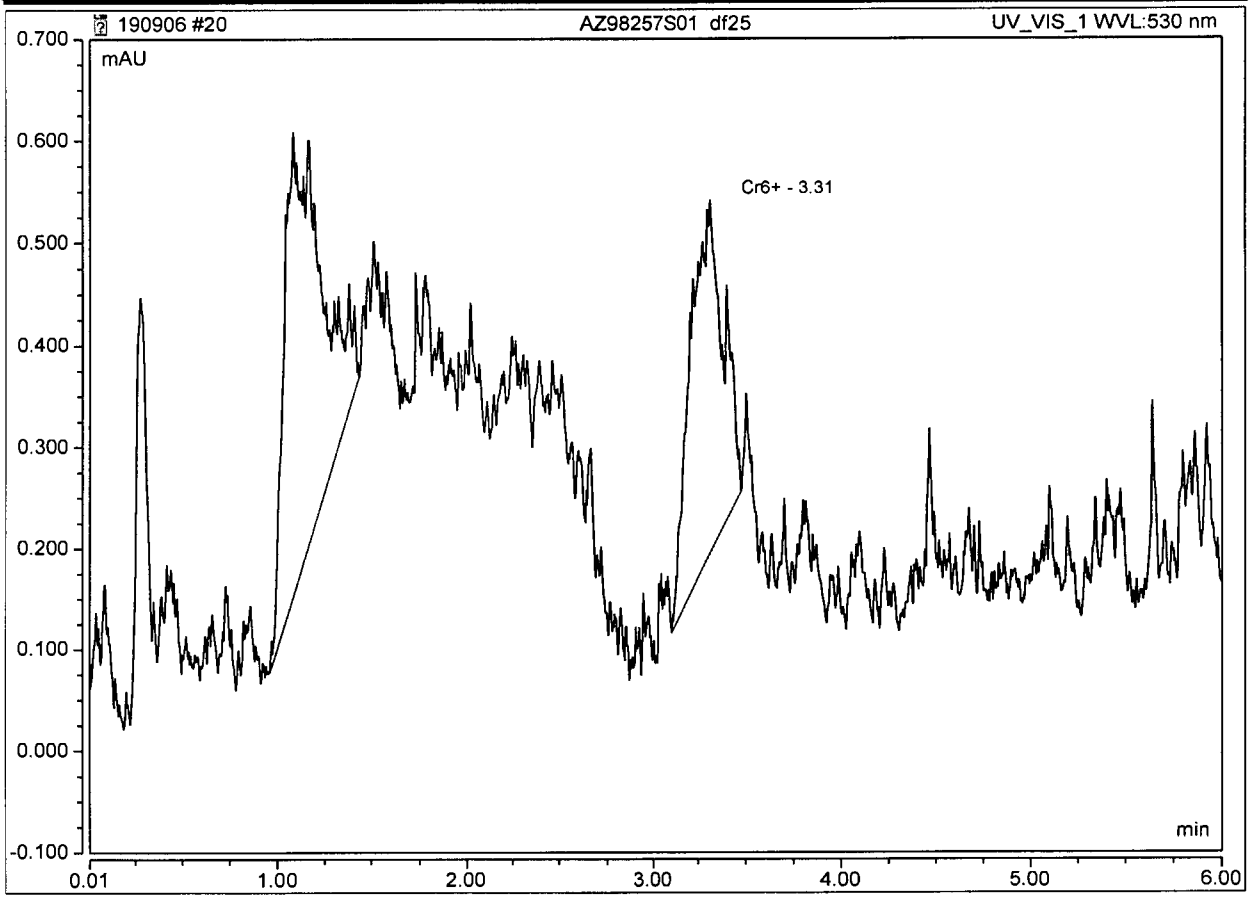
No.	Time min	Peak Name	Peak Type	Area n.a.	Height n.a.	Ammount mg/L
1	n.a.	Cr6+	BMB*	n.a.	n.a.	n.a.



Peak Integration Report

Sample Name:	**AZ98257S01 df25**			*Inj. Vol.:*	**5mL**
Injection Type:	**Unknown**	Sample amount:	1.2541g	*Dilution Factor:*	**25.00**
Program:	**190829A Hexachrome**	Extraction Volum	50mL	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Sep-2019 / 17:29**			*Run Time:*	**6.00**

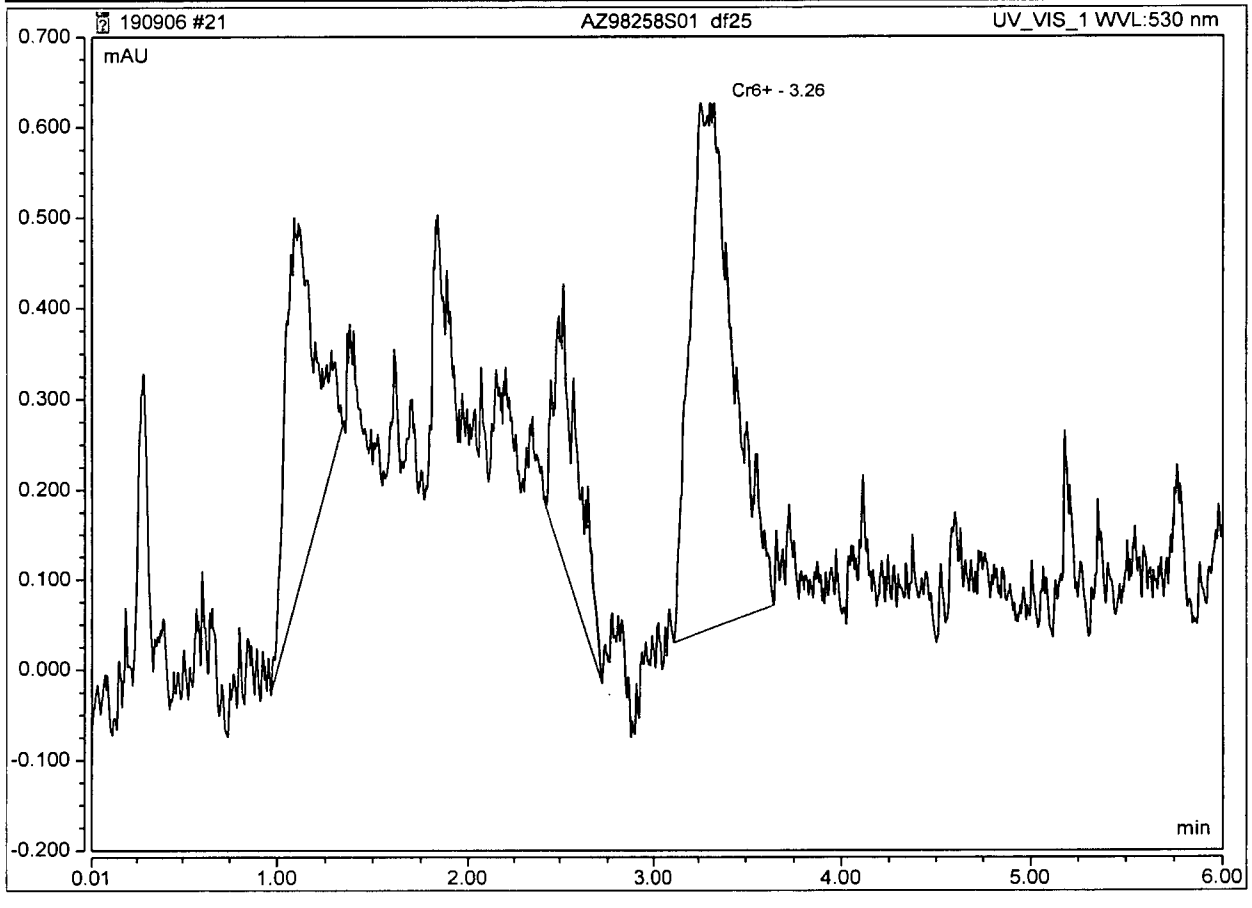
No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) mAU*min	Height (µS) mAU	Amount mg/kg
2	3.31	Cr6+	BMB	0.073	0.347	0.18



Peak Integration Report

Sample Name:	**AZ98258S01 df25**			*Inj. Vol.:*	**5mL**
Injection Type:	**Unknown**	Sample amount:	1.2522g	*Dilution Factor:*	**25.00**
Program:	**190829A Hexachrome**	Extraction Volum	50mL	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Sep-2019 / 17:38**			*Run Time:*	**6.00**

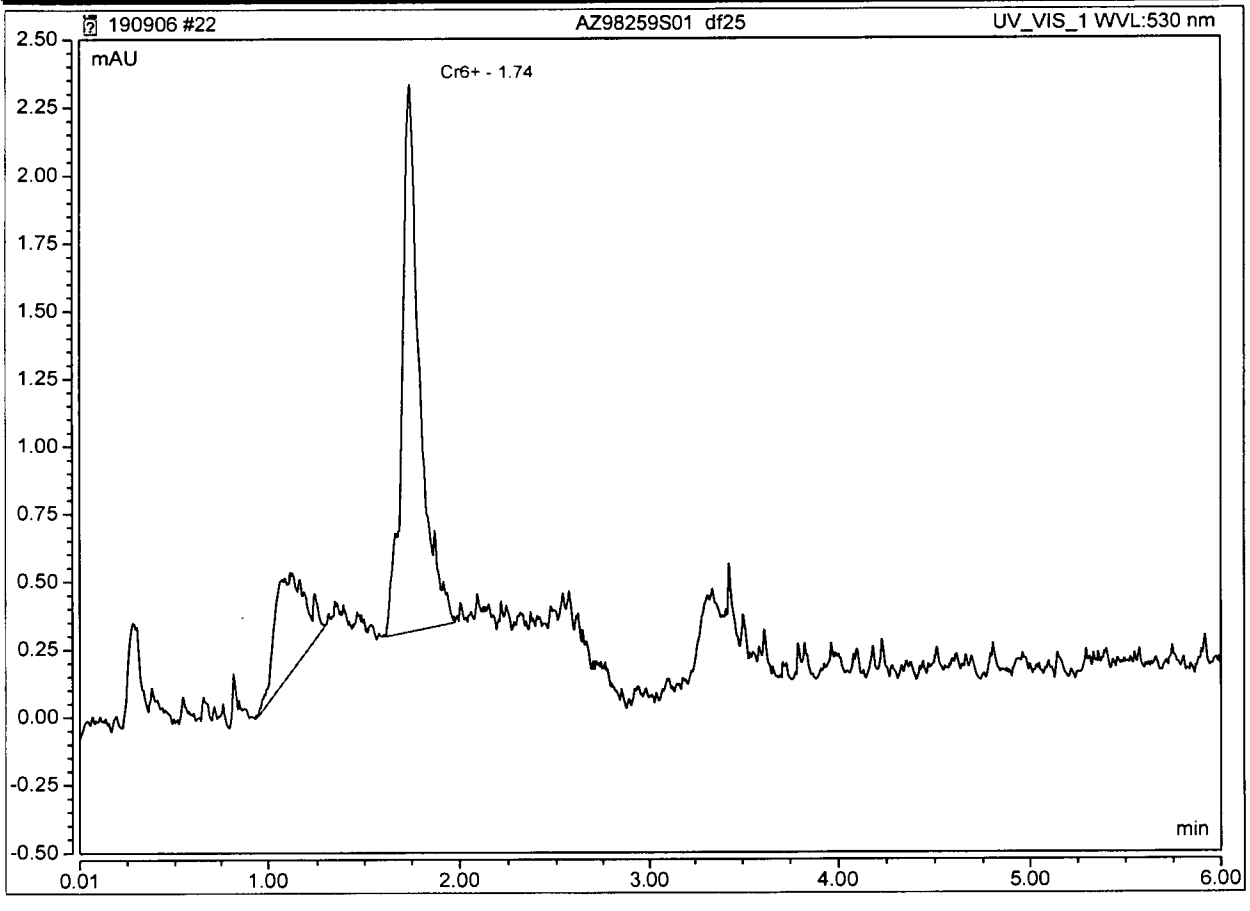
No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) mAU*min	Height (µS) mAU	Amount mg/kg
3	3.26	Cr6+	BMB	0.156	0.585	0.32



Peak Integration Report

Sample Name:	**AZ98259S01 df25**			*Inj. Vol.:*	**5mL**
Injection Type:	**Unknown**	Sample amount:	1.2522g	*Dilution Factor:*	**25.00**
Program:	**190829A Hexachrome**	Extraction Volum	50mL	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Sep-2019 / 17:46**			*Run Time:*	**6.00**

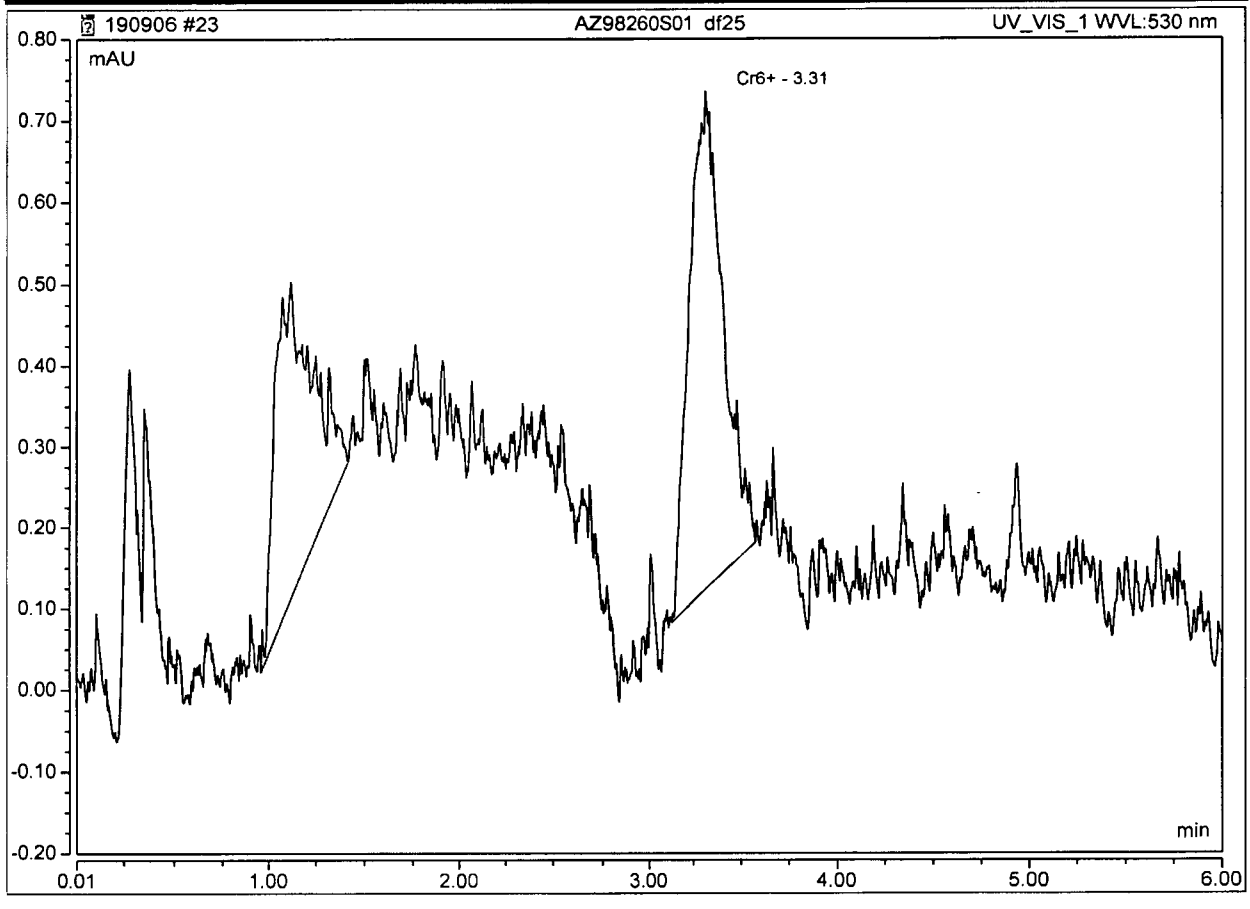
No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) mAU*min	Height (µS) mAU	Amount mg/kg
2	1.74	Cr6+	BMB	0.218	2.017	0.43



Peak Integration Report

Sample Name:	**AZ98260S01 df25**			*Inj. Vol.:*	**5mL**
Injection Type:	**Unknown**	Sample amount:	1.2539g	*Dilution Factor:*	**25.00**
Program:	**190829A Hexachrome**	Extraction Volum	50mL	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Sep-2019 / 17:55**			*Run Time:*	**6.00**

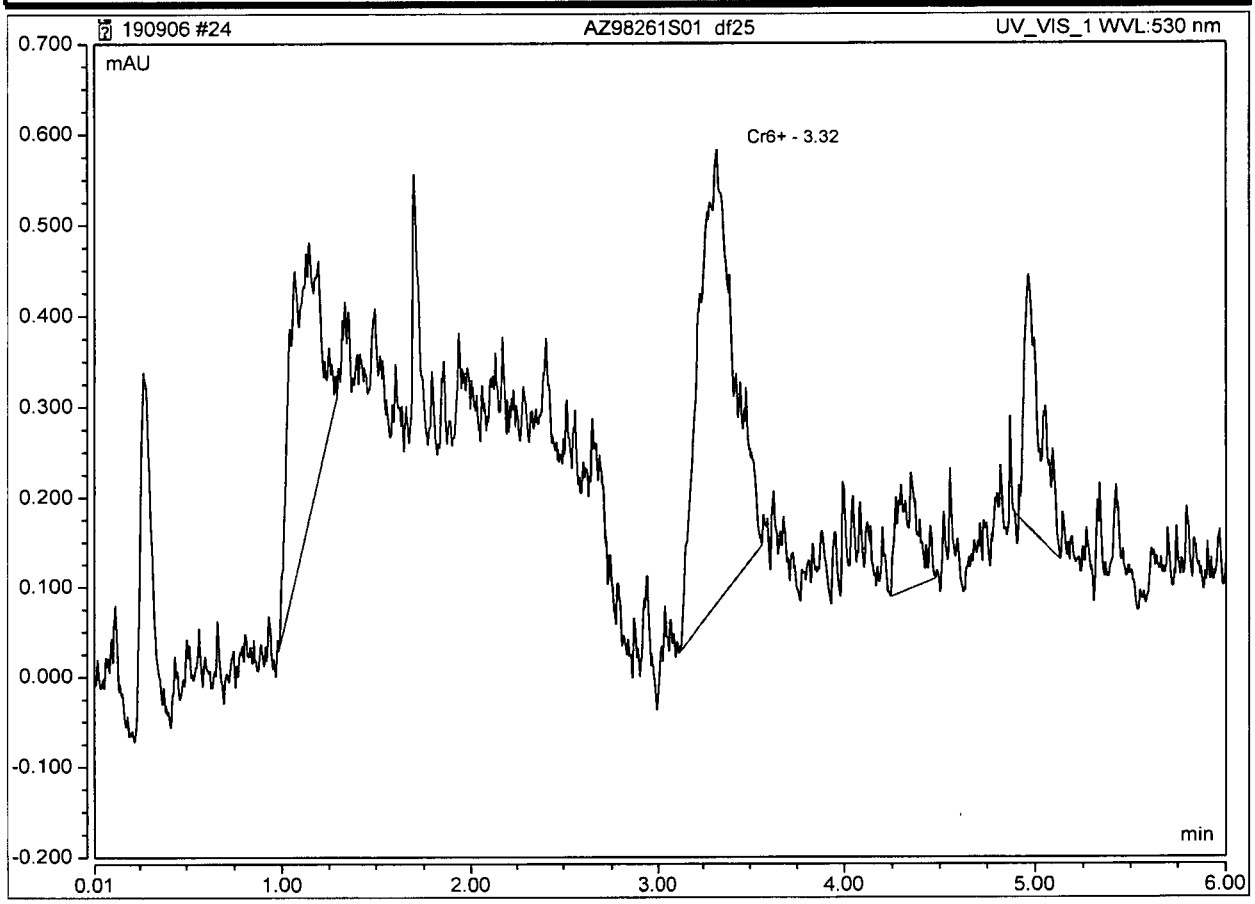
No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) mAU*min	Height (µS) mAU	Amount mg/kg
2	3.31	Cr6+	BMB	0.130	0.613	0.28



Peak Integration Report

Sample Name:	**AZ98261S01 df25**			*Inj. Vol.:*	**5mL**
Injection Type:	**Unknown**	Sample amount:	1.2583g	*Dilution Factor.*	**25.00**
Program:	**190829A Hexachrome**	Extraction Volum	50mL	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Sep-2019 / 18:03**			*Run Time:*	**6.00**

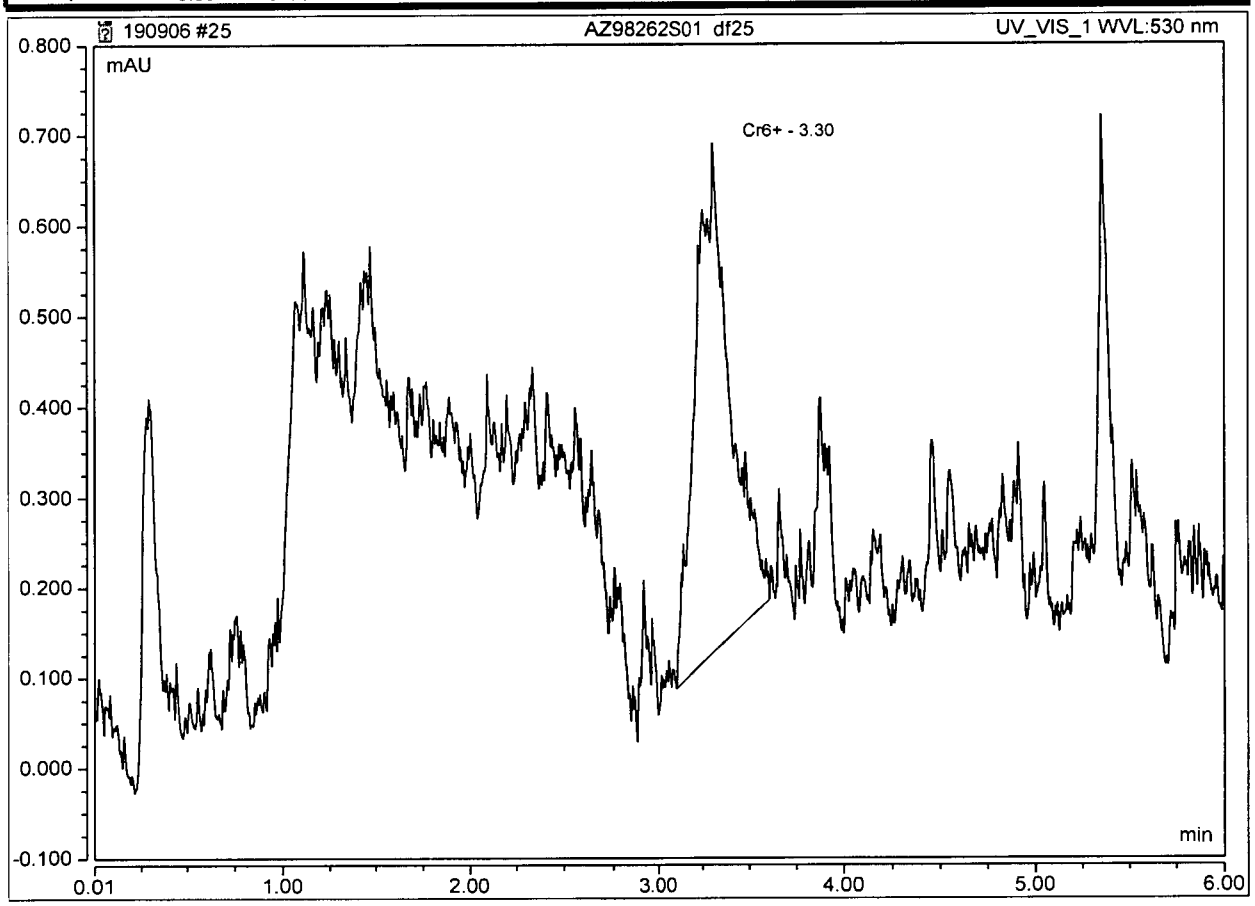
No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) mAU*min	Height (µS) mAU	Amount mg/kg
2	3.32	Cr6+	BMB	0.111	0.502	0.24



Peak Integration Report

Sample Name:	**AZ98262S01 df25**			*Inj. Vol.:*	**5mL**
Injection Type:	**Unknown**	Sample amount:	1.2573g	*Dilution Factor:*	**25.00**
Program:	**190829A Hexachrome**	Extraction Volum	50mL	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Sep-2019 / 18:12**			*Run Time:*	**6.00**

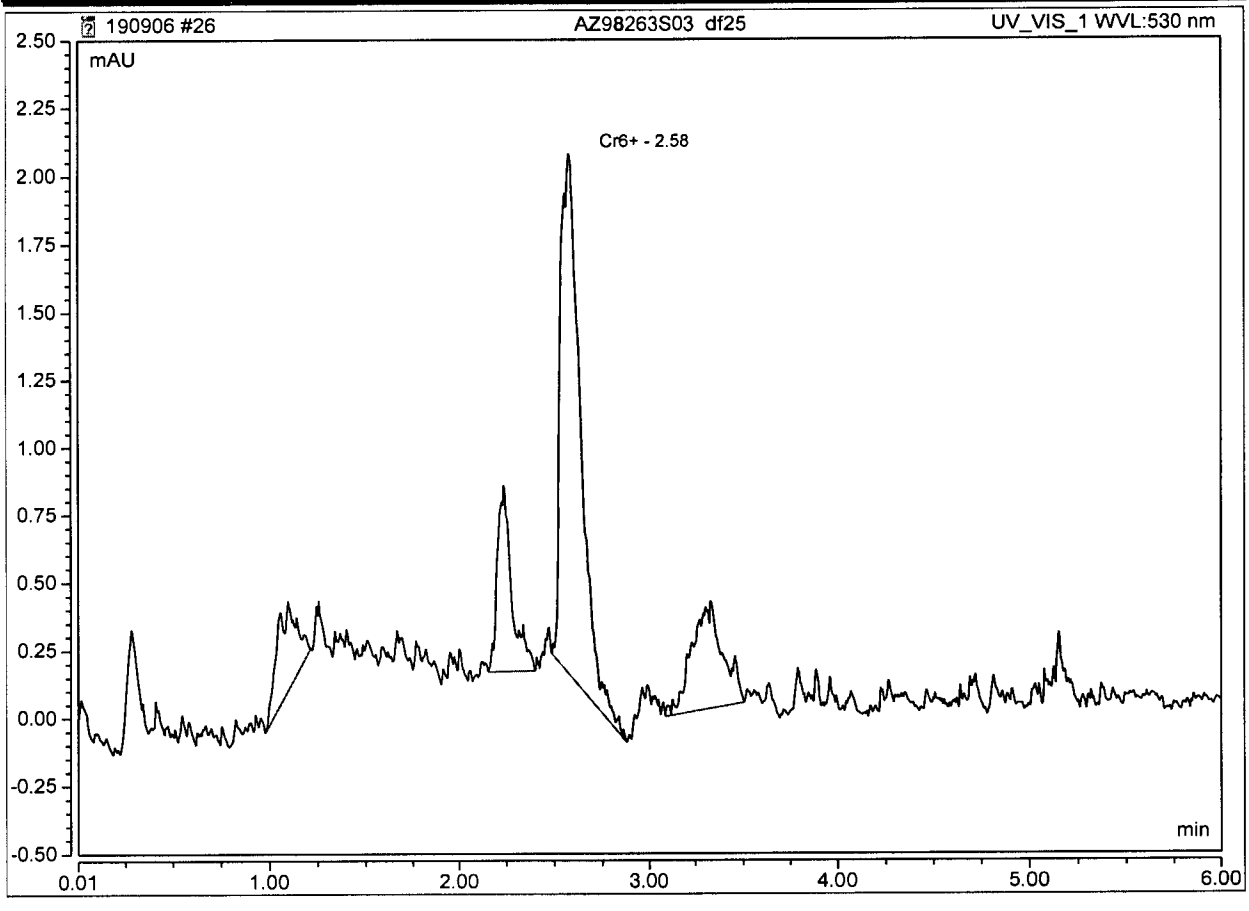
No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) mAU*min	Height (µS) mAU	Amount mg/kg
1	3.30	Cr6+	BMB	0.124	0.564	0.27



Peak Integration Report

Sample Name:	**AZ98263S03 df25**			*Inj. Vol.:*	**5mL**
Injection Type:	**Unknown**	Sample amount:	1.2539g	*Dilution Factor:*	**25.00**
Program:	**190829A Hexachrome**	Extraction Volum	50mL	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Sep-2019 / 18:20**			*Run Time:*	**6.00**

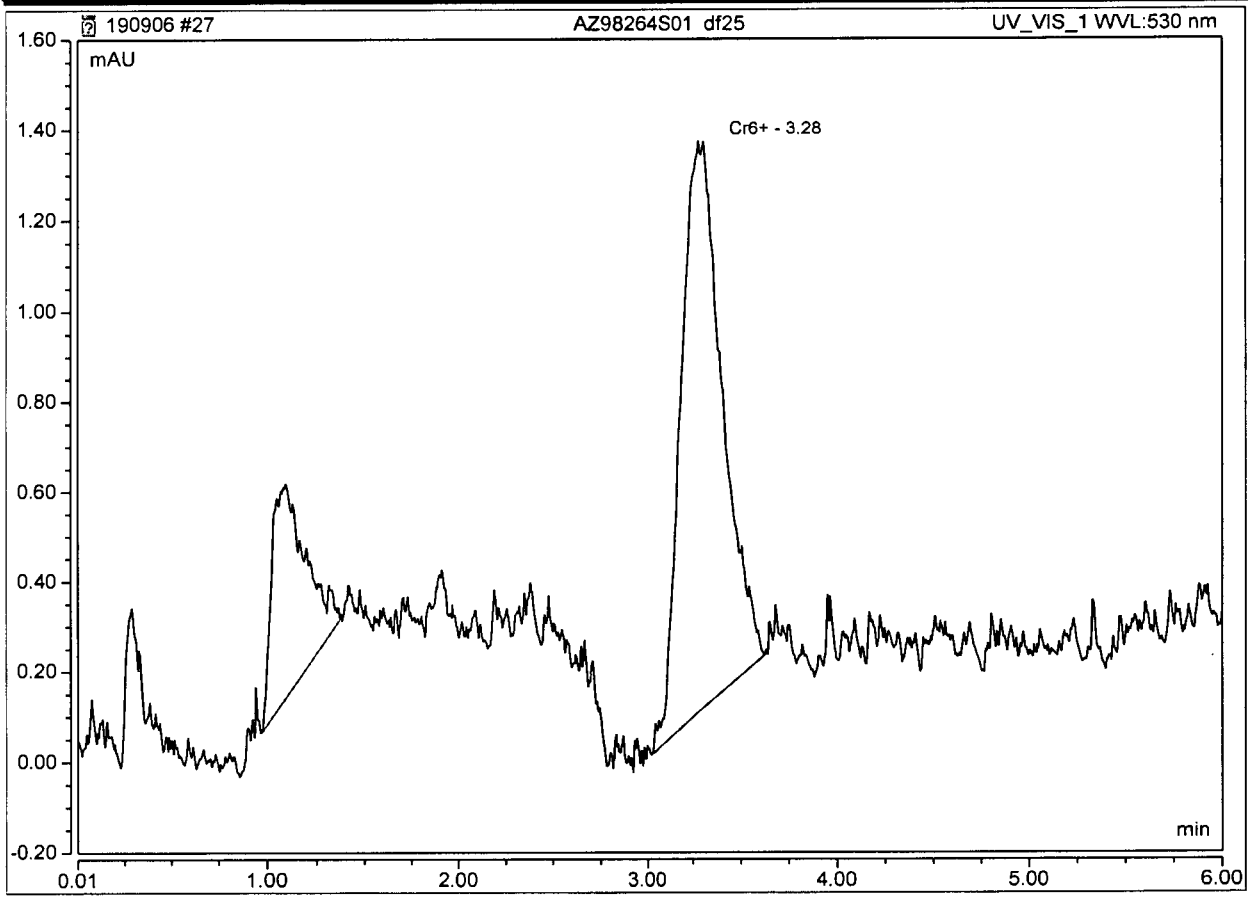
No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) mAU*min	Height (µS) mAU	Amount mg/kg
3	2.58	Cr6+	BMB	0.229	1.916	0.45



Peak Integration Report

Sample Name:	**AZ98264S01 df25**			*Inj. Vol.:*	**5mL**
Injection Type:	**Unknown**	Sample amount:	1.2522g	*Dilution Factor:*	**25.00**
Program:	**190829A Hexachrome**	Extraction Volum	50mL	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Sep-2019 / 18:29**			*Run Time:*	**6.00**

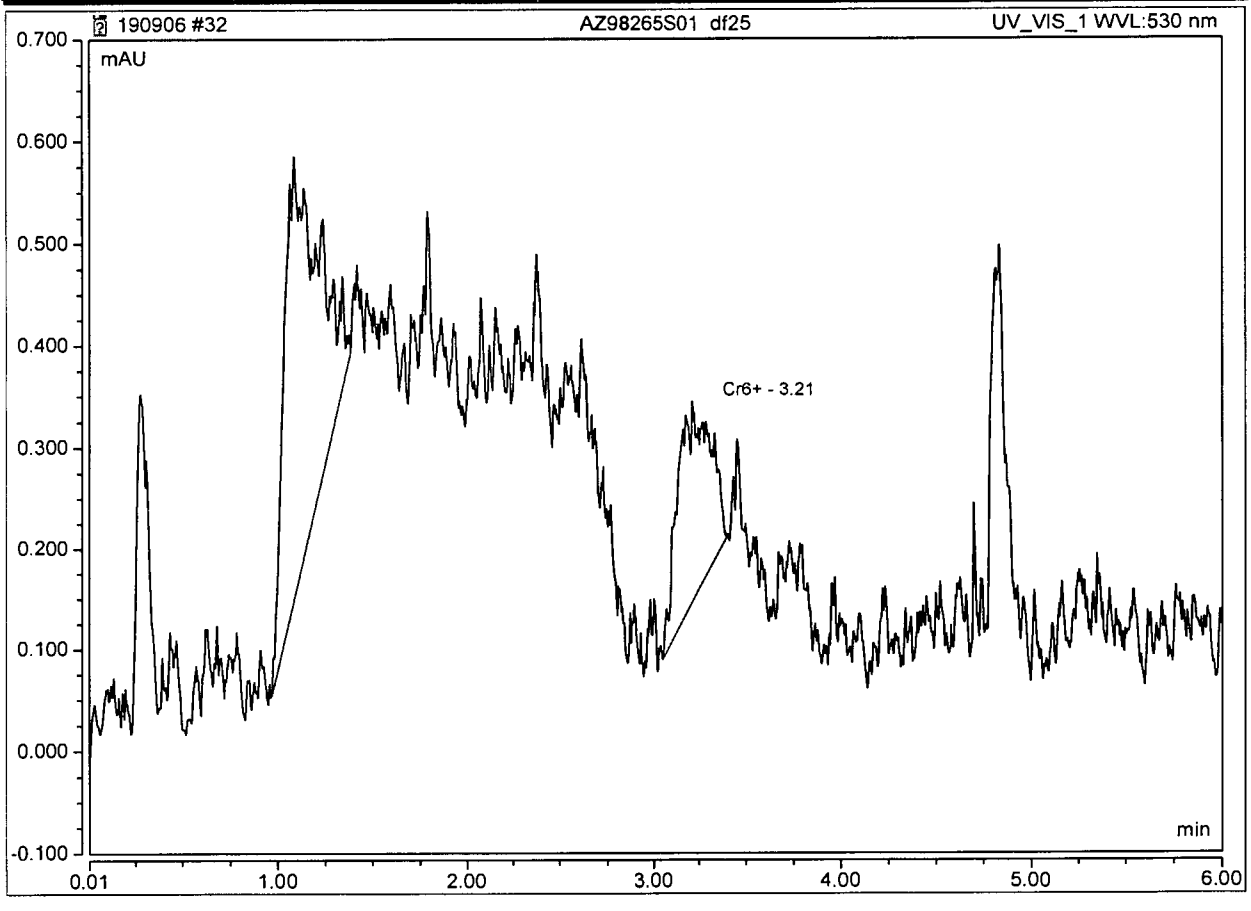
No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) mAU*min	Height (µS) mAU	Amount mg/kg
2	3.28	Cr6+	BMB	0.325	1.266	0.62



Peak Integration Report

Sample Name:	**AZ98265S01 df25**			*Inj. Vol.:*	**5mL**
Injection Type:	**Unknown**	Sample amount:	1.2582g	*Dilution Factor:*	**25.00**
Program:	**190829A Hexachrome**	Extraction Volum	50mL	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Sep-2019 / 19:11**			*Run Time:*	**6.00**

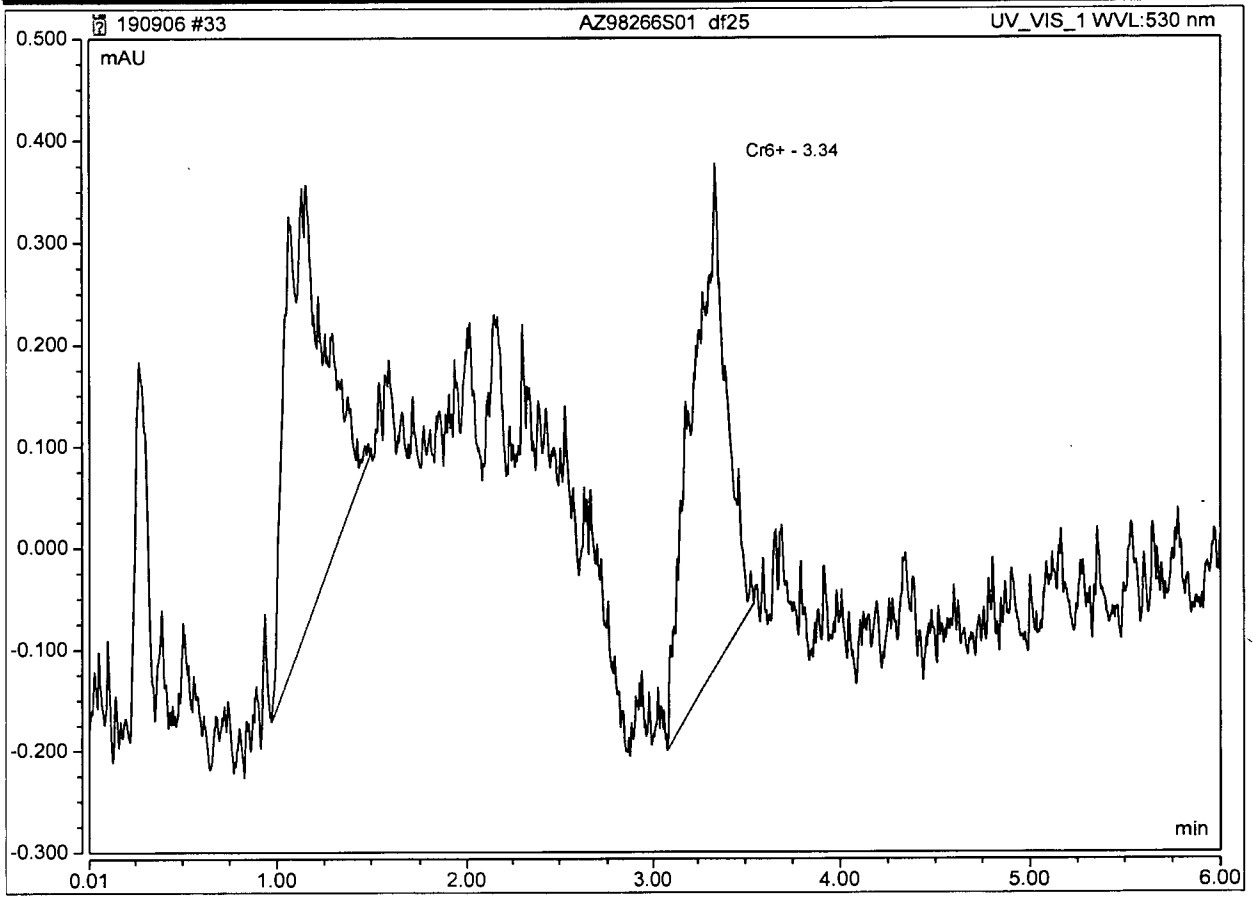
No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) mAU*min	Height (µS) mAU	Amount mg/kg
2	3.21	Cr6+	BMB	0.041	0.198	0.12



Peak Integration Report

Sample Name:	**AZ98266S01 df25**			*Inj. Vol.:*	**5mL**
Injection Type:	**Unknown**	Sample amount:	1.2591g	*Dilution Factor:*	**25.00**
Program:	**190829A Hexachrome**	Extraction Volum:	50mL	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Sep-2019 / 19:20**			*Run Time:*	**6.00**

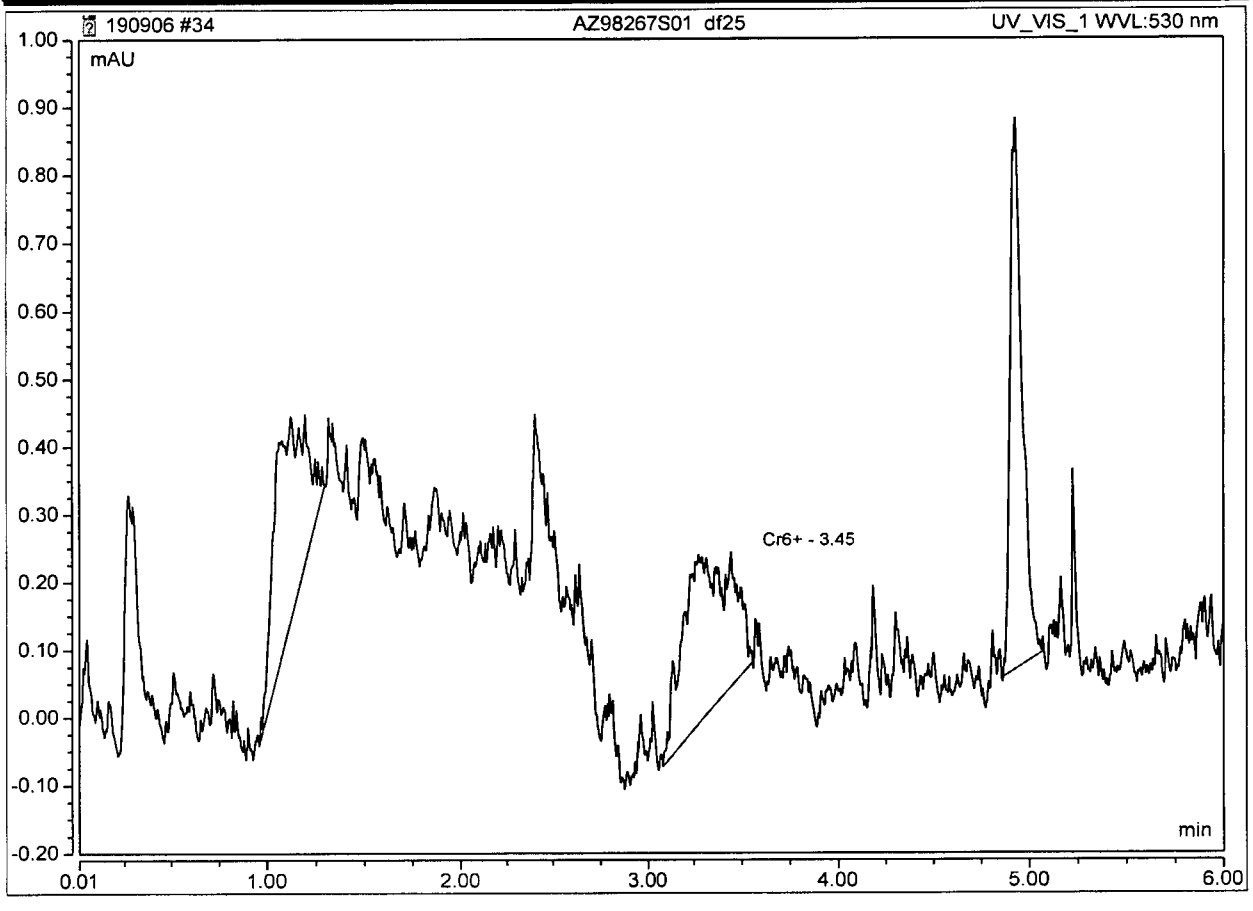
No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) mAU*min	Height (µS) mAU	Amount mg/kg
2	3.34	Cr6+	BMB	0.107	0.496	0.24



Peak Integration Report

Sample Name:	**AZ98267S01 df25**			*Inj. Vol.:*	**5mL**
Injection Type:	**Unknown**	Sample amount:	1.2535g	*Dilution Factor:*	**25.00**
Program:	**190829A Hexachrome**	Extraction Volum	50mL	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Sep-2019 / 19:28**			*Run Time:*	**6.00**

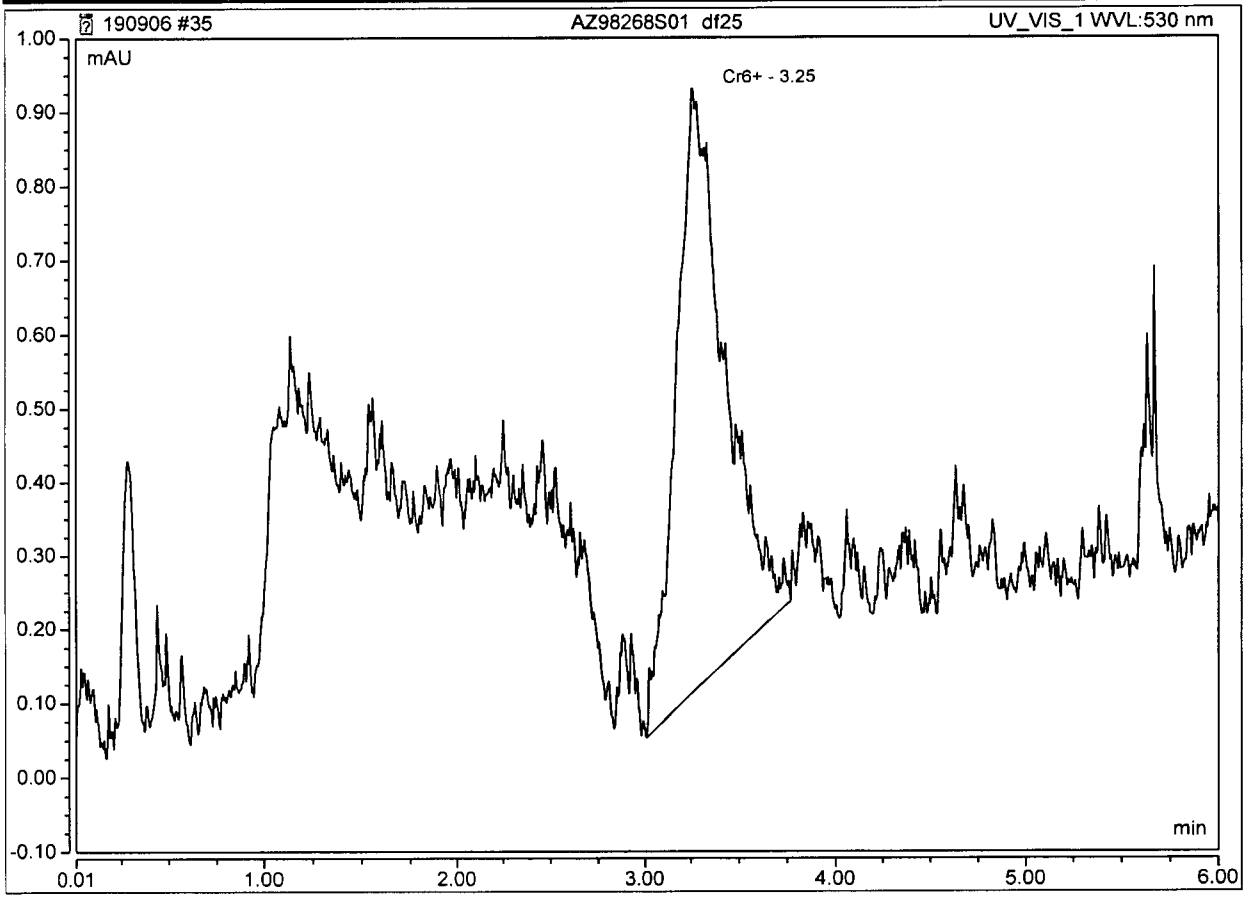
No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) mAU*min	Height (µS) mAU	Amount mg/kg
2	3.45	Cr6+	BMB	0.071	0.199	0.17



Peak Integration Report

Sample Name:	**AZ98268S01 df25**		*Inj. Vol.:* **5mL**
Injection Type:	**Unknown**	Sample amount: 1.2592g	*Dilution Factor:* **25.00**
Program:	**190829A Hexachrome**	Extraction Volum 50mL	*Operator:* **chemist_wetlab**
Inj. Date / Time:	**06-Sep-2019 / 19:37**		*Run Time:* **6.00**

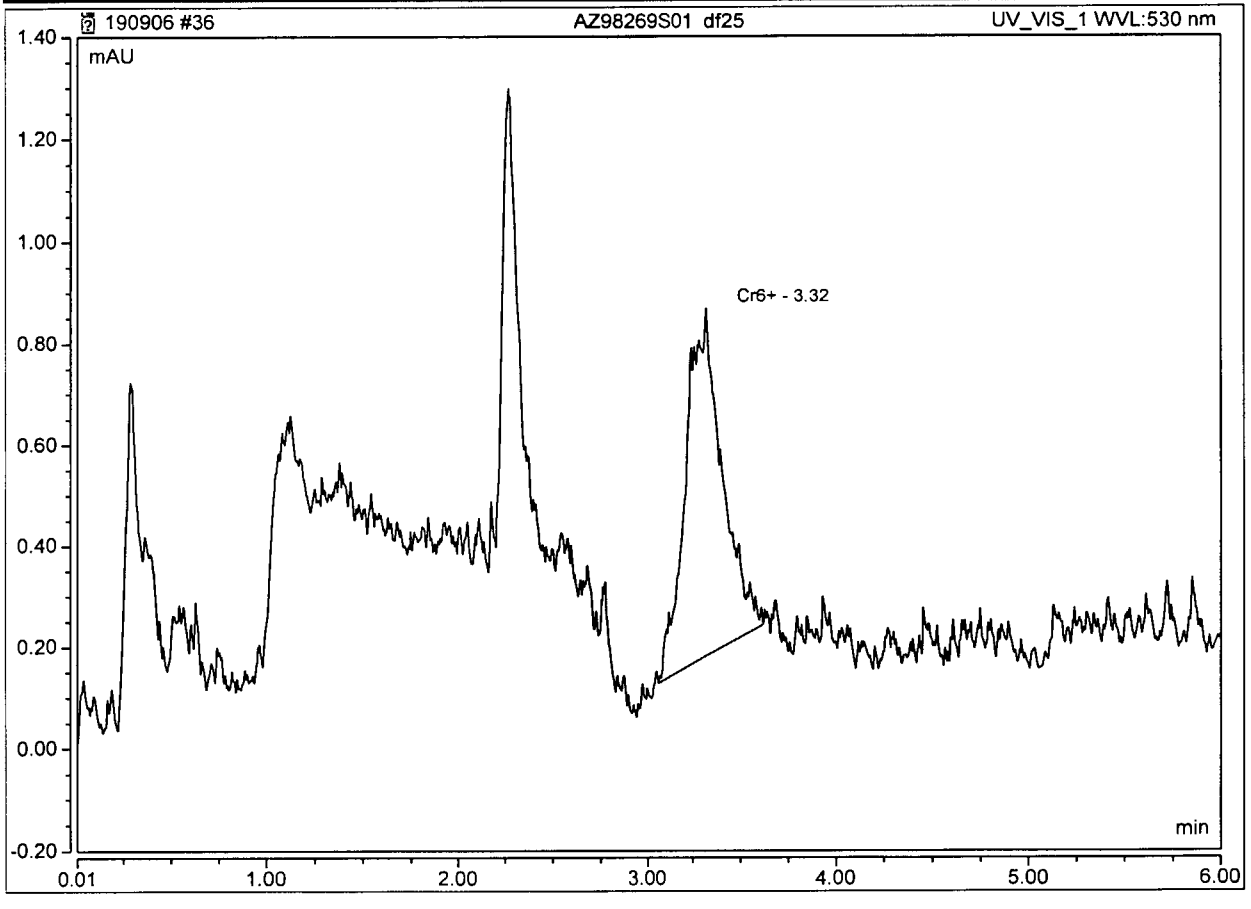
No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) mAU*min	Height (µS) mAU	Amount mg/kg
1	3.25	Cr6+	BMB	0.243	0.819	0.47



Peak Integration Report

Sample Name:	**AZ98269S01 df25**			*Inj. Vol.:*	**5mL**
Injection Type:	**Unknown**	Sample amount:	1.2545g	*Dilution Factor:*	**25.00**
Program:	**190829A Hexachrome**	Extraction Volum	50mL	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Sep-2019 / 19:46**			*Run Time:*	**6.00**

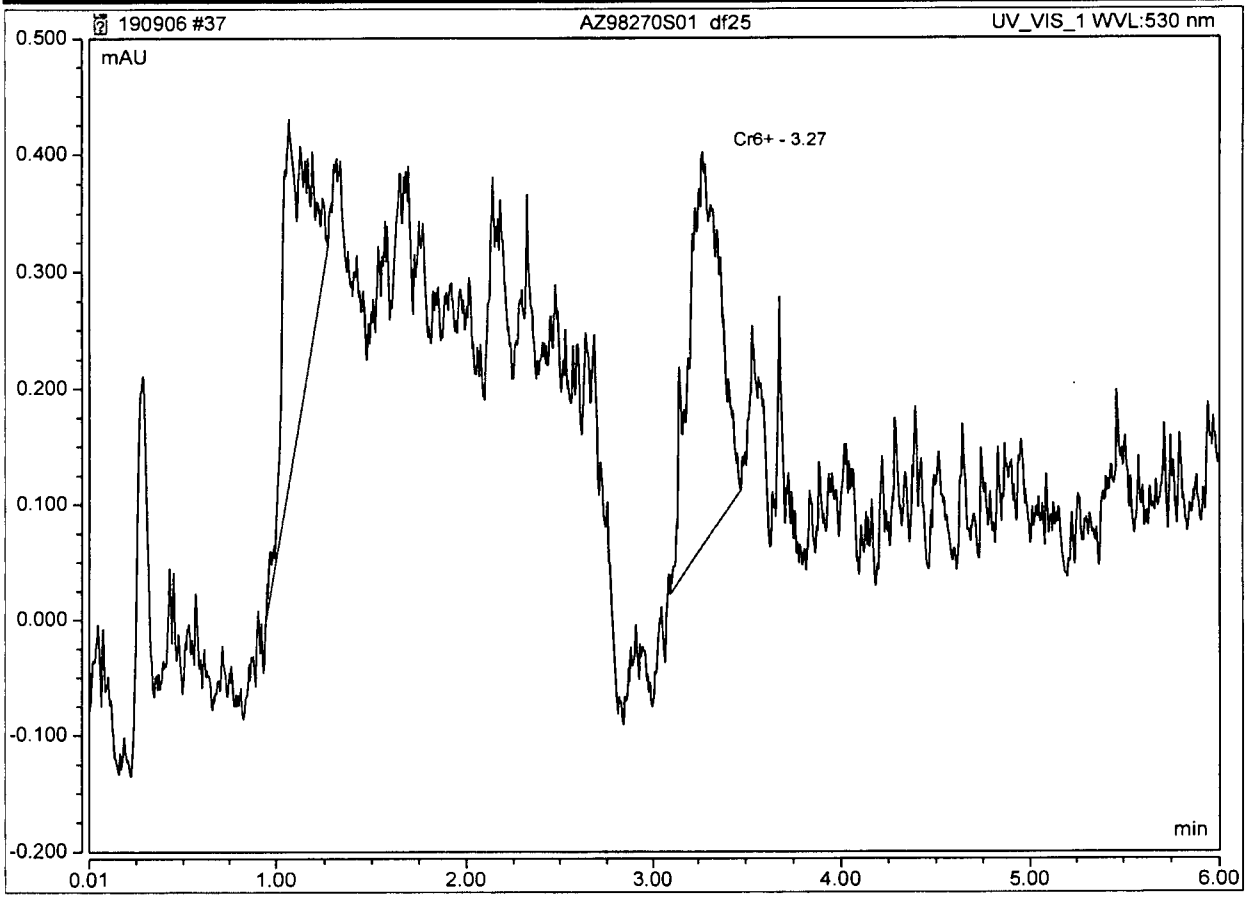
No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) mAU*min	Height (µS) mAU	Amount mg/kg
1	3.32	Cr6+	BMB	0.157	0.687	0.32



Peak Integration Report

Sample Name:	**AZ98270S01 df25**	*Inj. Vol.:*	**5mL**
Injection Type:	**Unknown** Sample amount: 1.2561g	*Dilution Factor:*	**25.00**
Program:	**190829A Hexachrome** Extraction Volum 50mL	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Sep-2019 / 19:54**	*Run Time:*	**6.00**

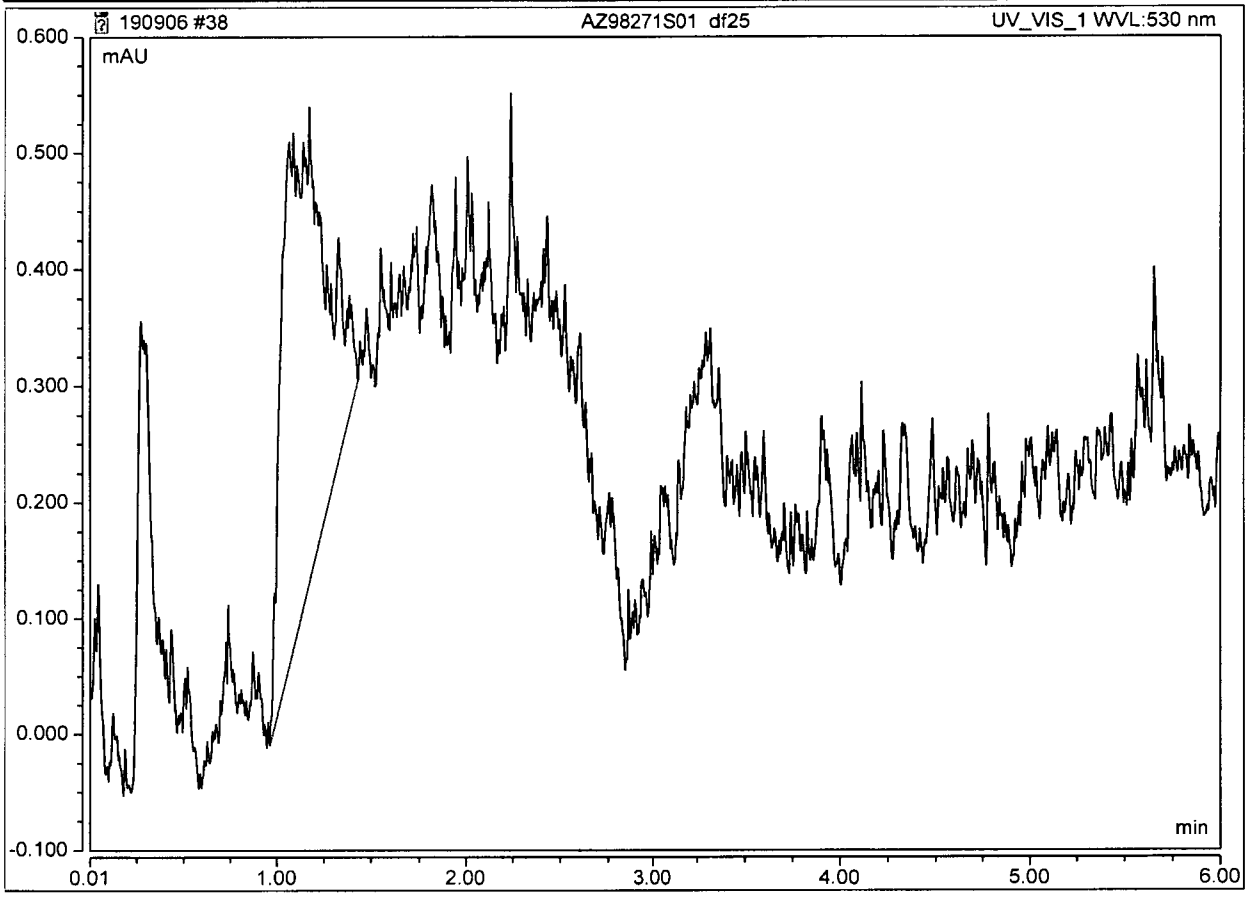
No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) mAU*min	Height (µS) mAU	Amount mg/kg
2	3.27	Cr6+	BMB	0.065	0.338	0.16



Peak Integration Report

Sample Name:	**AZ98271S01 df25**			*Inj. Vol.:*	**5mL**
Injection Type:	**Unknown**	Sample amount:	1.2590g	*Dilution Factor:*	**25.00**
Program:	**190829A Hexachrome**	Extraction Volum	50mL	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Sep-2019 / 20:03**			*Run Time:*	**6.00**

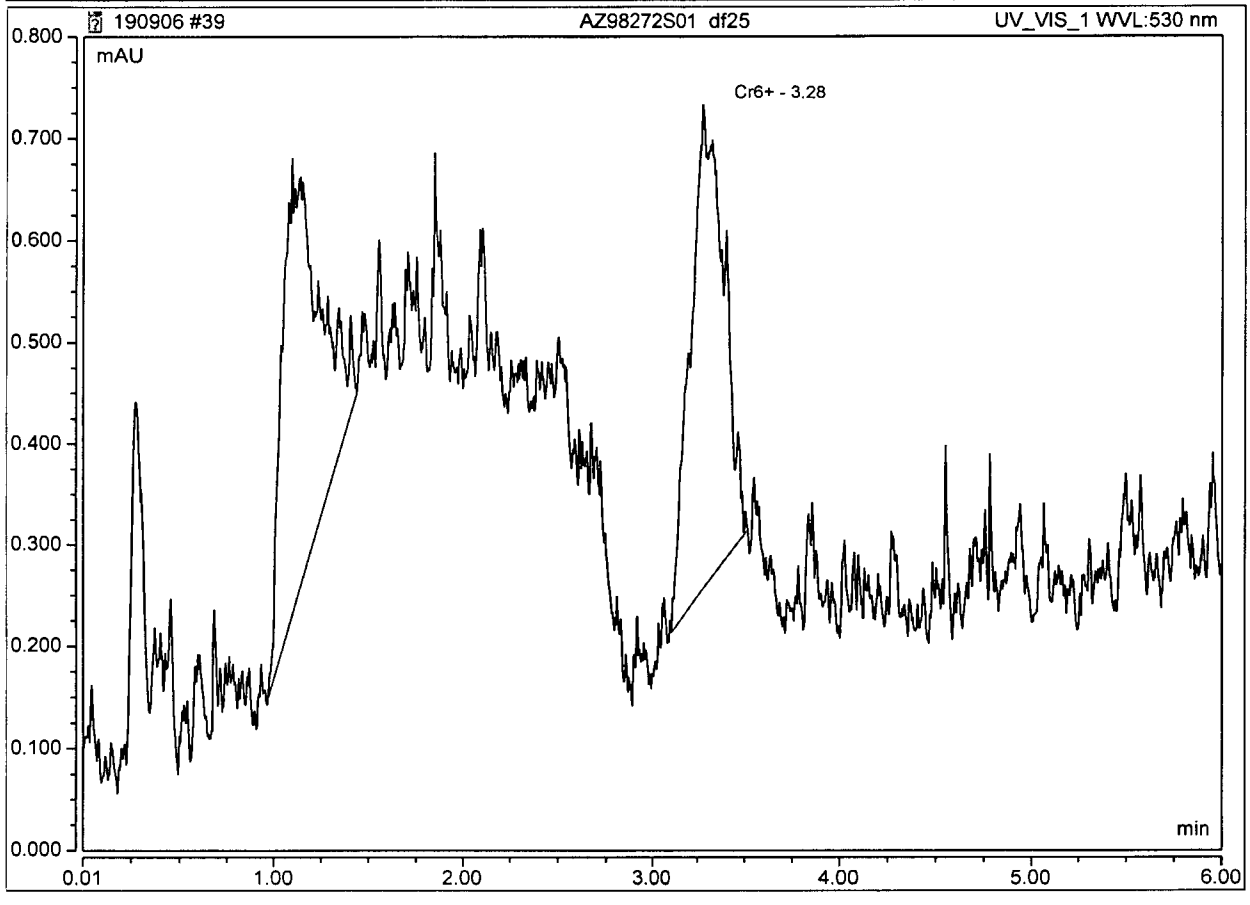
No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) mAU*min	Height (µS) mAU	Amount mg/kg



Peak Integration Report

Sample Name:	**AZ98272S01 df25**			*Inj. Vol.:*	**5mL**
Injection Type:	**Unknown**	Sample amount:	1.2542g	*Dilution Factor:*	**25.00**
Program:	**190829A Hexachrome**	Extraction Volum	50mL	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Sep-2019 / 20:11**			*Run Time:*	**6.00**

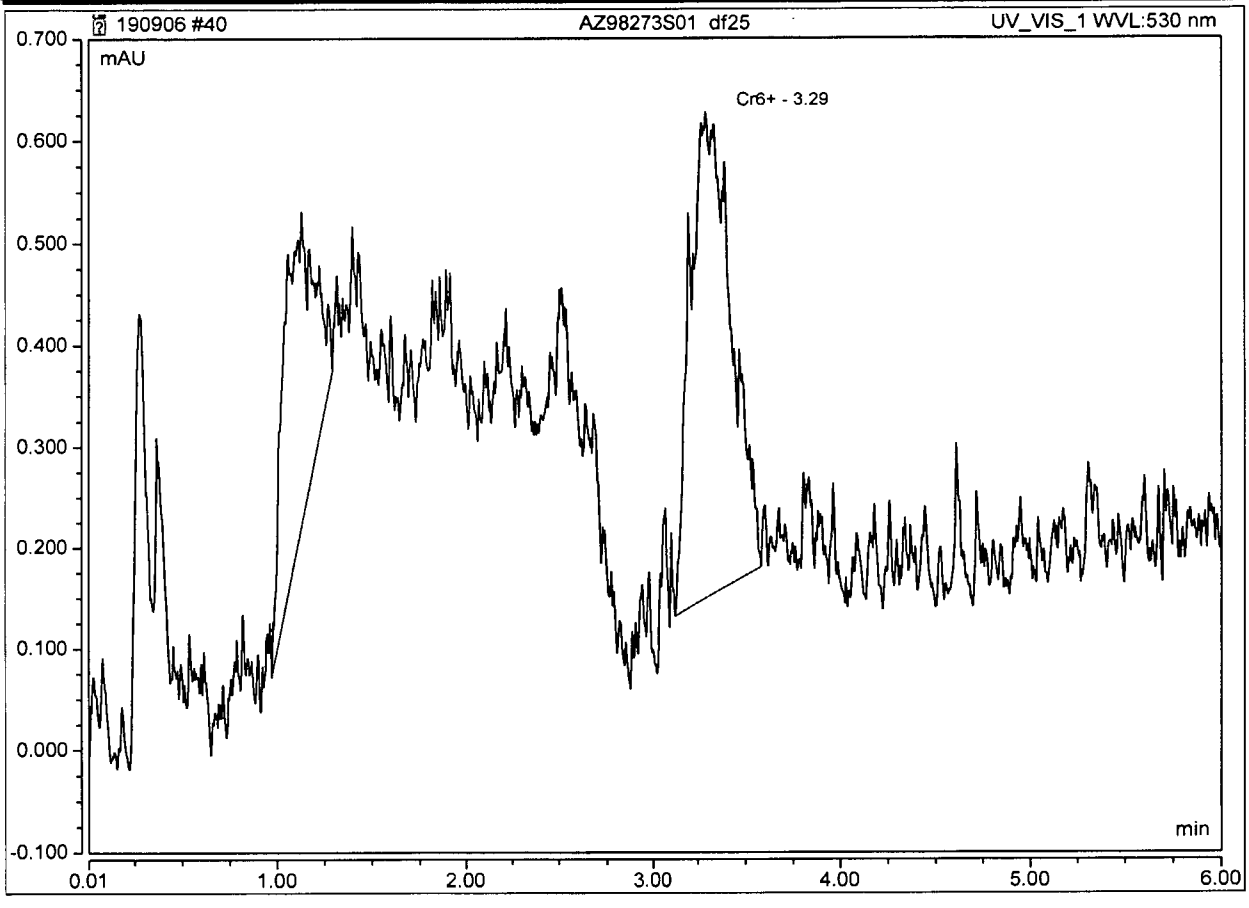
No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) mAU*min	Height (µS) mAU	Amount mg/kg
2	3.28	Cr6+	BMB	0.098	0.477	0.22



Peak Integration Report

Sample Name:	**AZ98273S01 df25**			*Inj. Vol.:*	**5mL**
Injection Type:	**Unknown**	Sample amount:	1.2518g	*Dilution Factor:*	**25.00**
Program:	**190829A Hexachrome**	Extraction Volum	50mL	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Sep-2019 / 20:20**			*Run Time:*	**6.00**

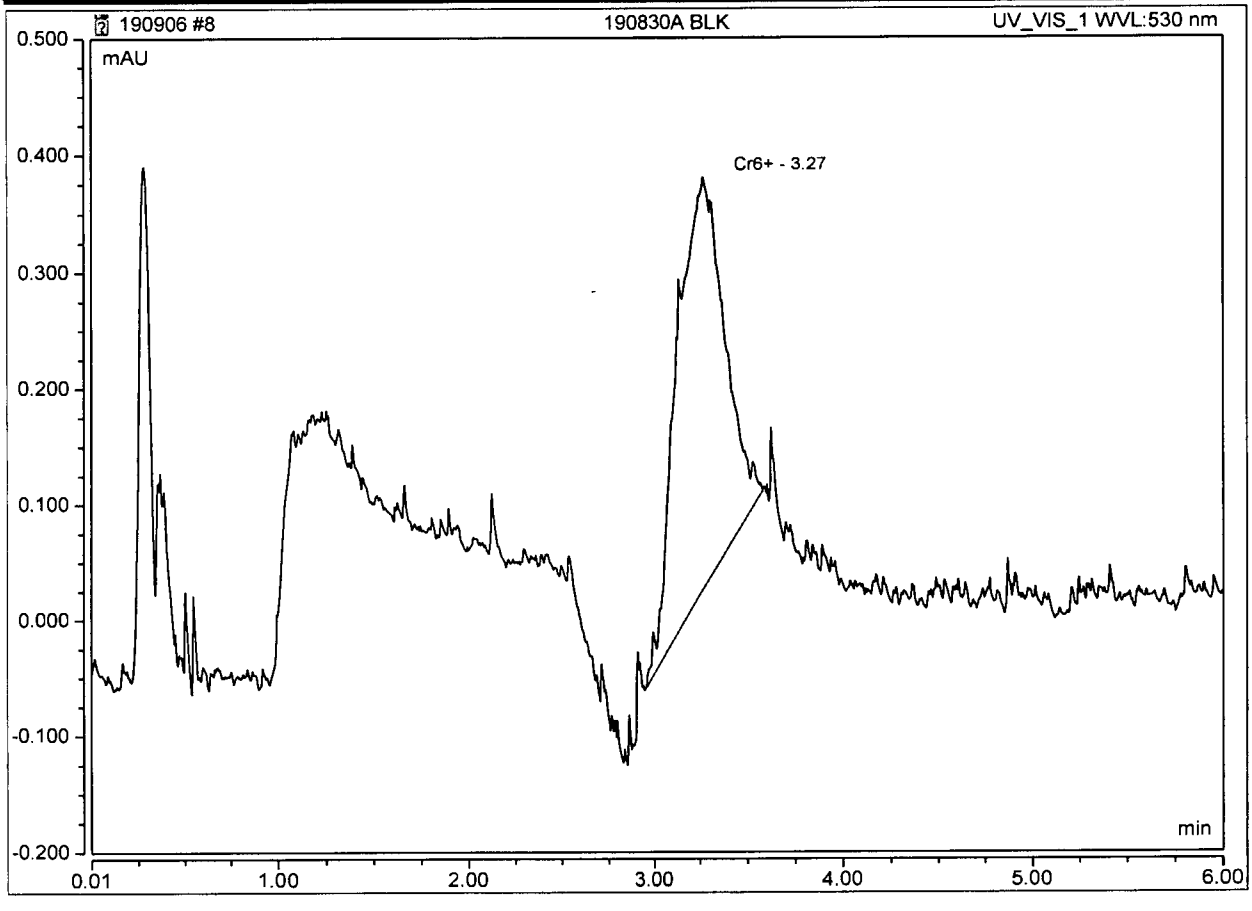
No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) mAU*min	Height (µS) mAU	Amount mg/kg
2	3.29	Cr6+	BMB	0.122	0.478	0.26



Peak Integration Report

Sample Name:	**190830A BLK**			*Inj. Vol.:*	**5mL**
Injection Type:	**Unknown**	Sample amount:	1.2500g	*Dilution Factor:*	**25.00**
Program:	**190829A Hexachrome**	Extraction Volum	50mL	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Sep-2019 / 12:25**			*Run Time:*	**6.00**

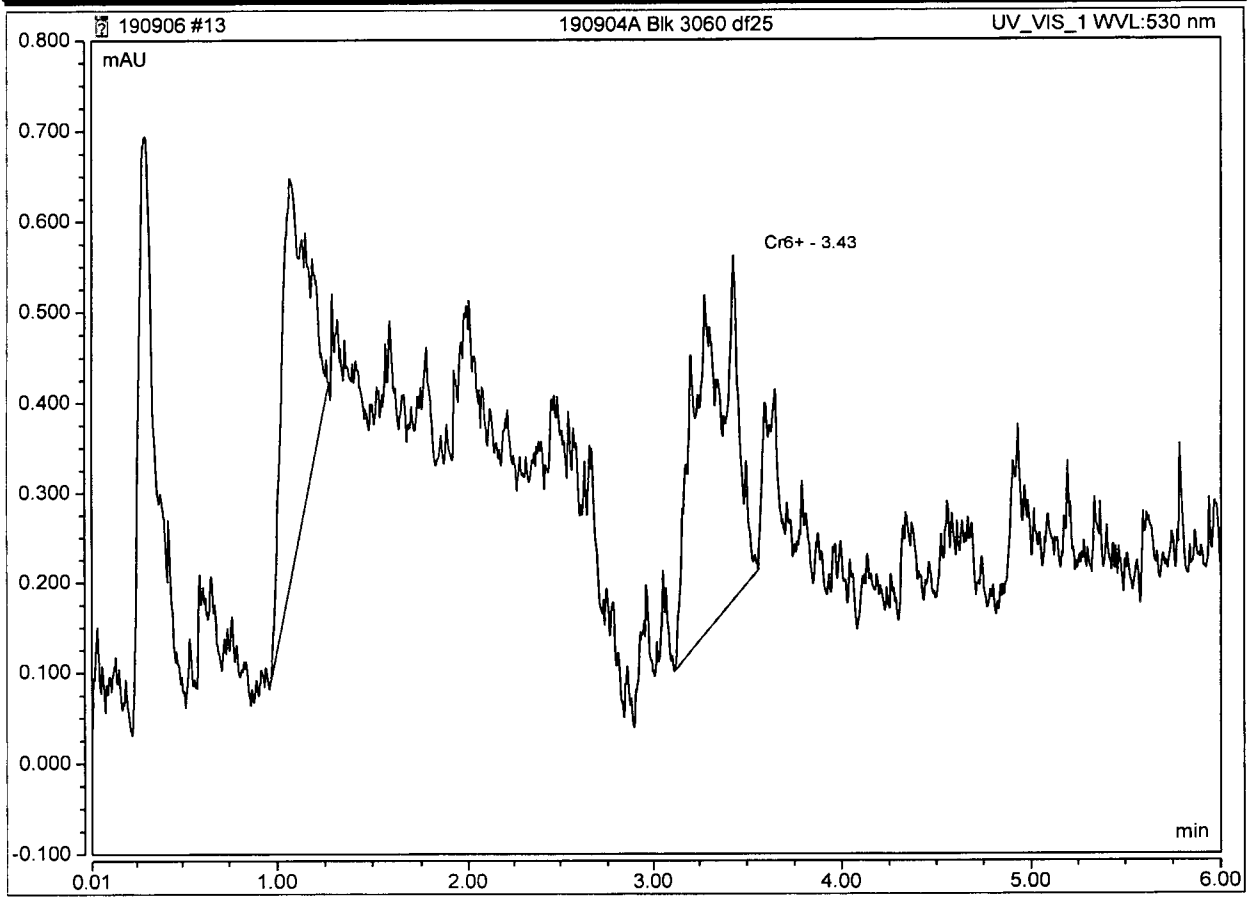
No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) mAU*min	Height (µS) mAU	Amount mg/kg
1	3.27	Cr6+	BMB	0.106	0.355	0.24



Peak Integration Report

Sample Name:	**190904A Blk 3060 df25**	*Inj. Vol.:*	**5mL**
Injection Type:	**Unknown**	Sample amount: 1.2500g	*Dilution Factor:* **25.00**
Program:	**190829A Hexachrome**	Extraction Volum 50mL	*Operator:* **chemist_wetlab**
Inj. Date / Time:	**06-Sep-2019 / 16:30**		*Run Time:* **6.00**

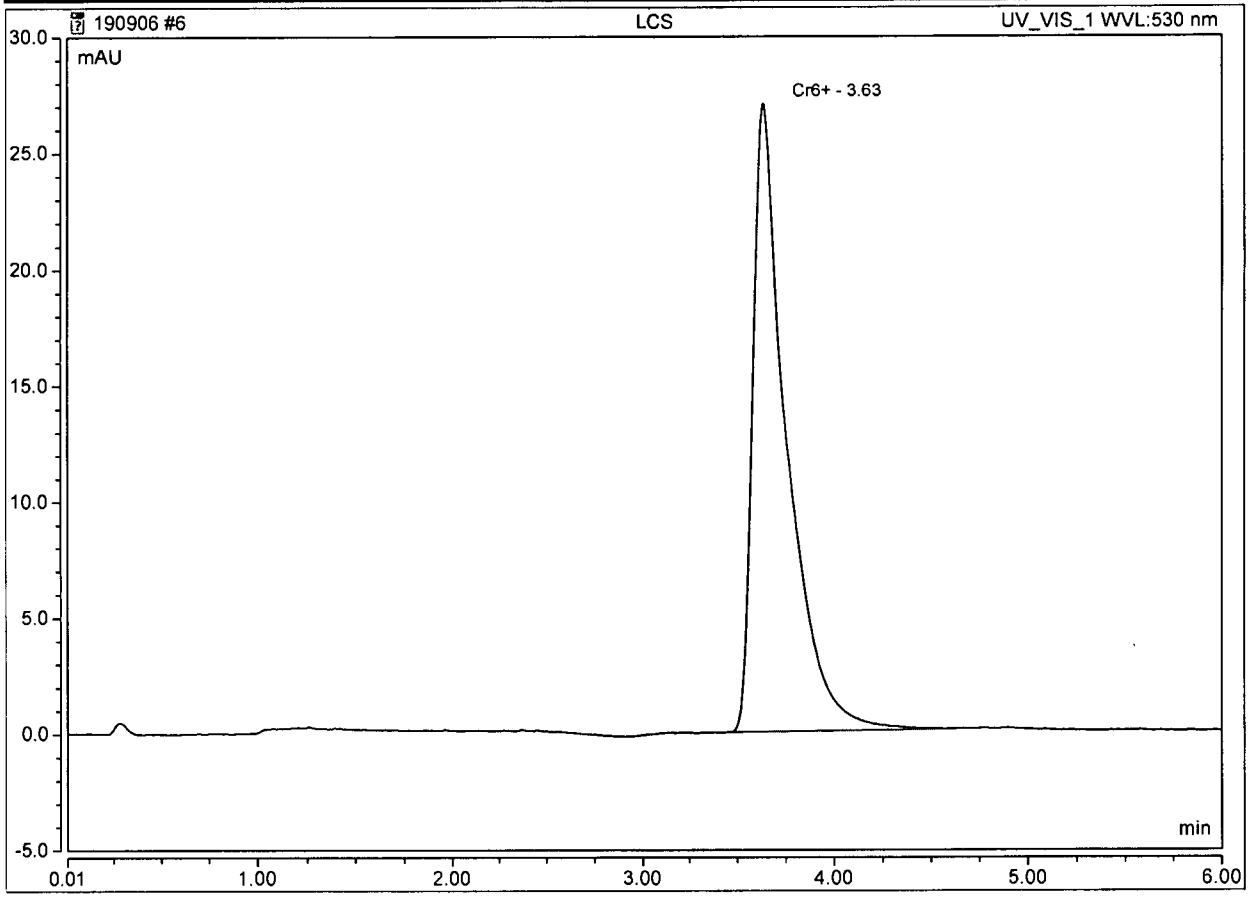
No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) mAU*min	Height (µS) mAU	Amount mg/kg
2	3.43	Cr6+	BMB	0.091	0.383	0.21



Peak Integration Report

Sample Name:	**LCS**	*Inj. Vol.:*	**5mL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**190829A Hexachrome**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Sep-2019 / 12:08**	*Run Time:*	**6.00**

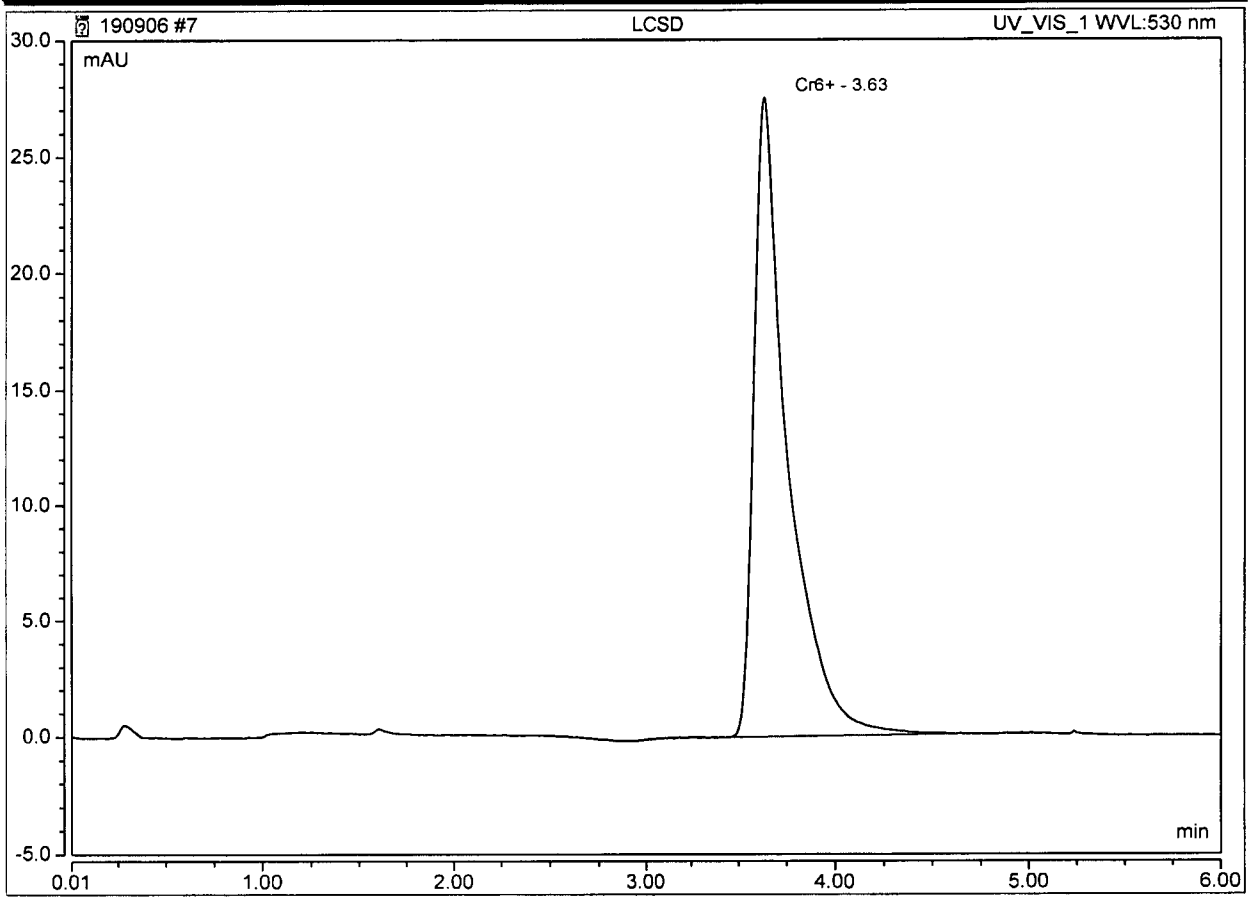
No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) mAU*min	Height (µS) mAU	Amount ppb	Spike Level ppb	Recovery %
1	3.63	Cr6+	BMB	5.507	27.043	9.70	10.00	96.95



Peak Integration Report

Sample Name:	**LCSD**	*Inj. Vol.:*	**5mL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**190829A Hexachrome**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Sep-2019 / 12:17**	*Run Time:*	**6.00**

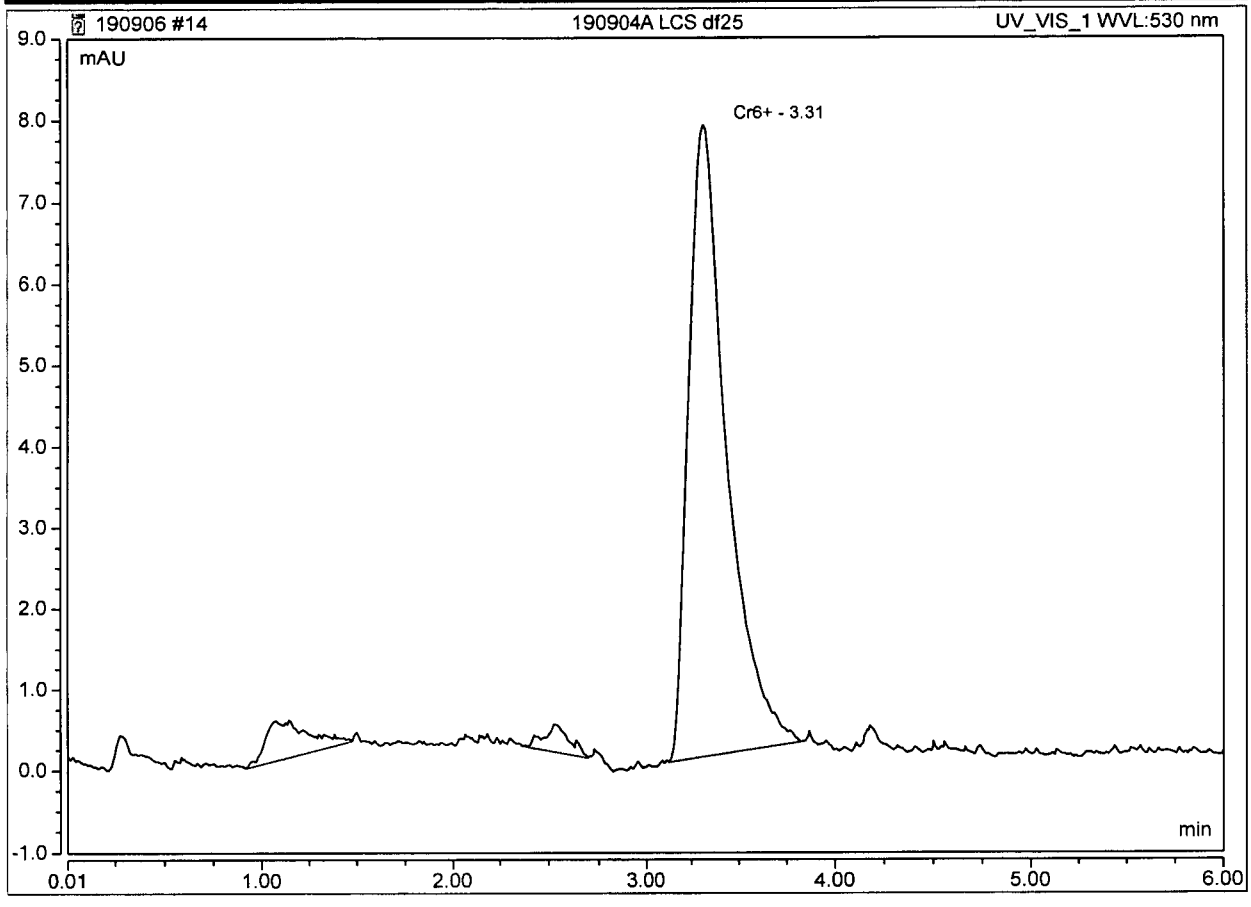
No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) mAU*min	Height (µS) mAU	Amount ppb	Spike Level ppb	Recovery %
1	3.63	Cr6+	BMB	5.621	27.513	9.90	10.00	98.96



Peak Integration Report

Sample Name:	**190904A LCS df25**			*Inj. Vol.:*	**5mL**
Injection Type:	**Unknown**	Sample amount:	1.2500g	*Dilution Factor:*	**25.00**
Program:	**190829A Hexachrome**	Extraction Volum	50mL	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Sep-2019 / 16:38**			*Run Time:*	**6.00**

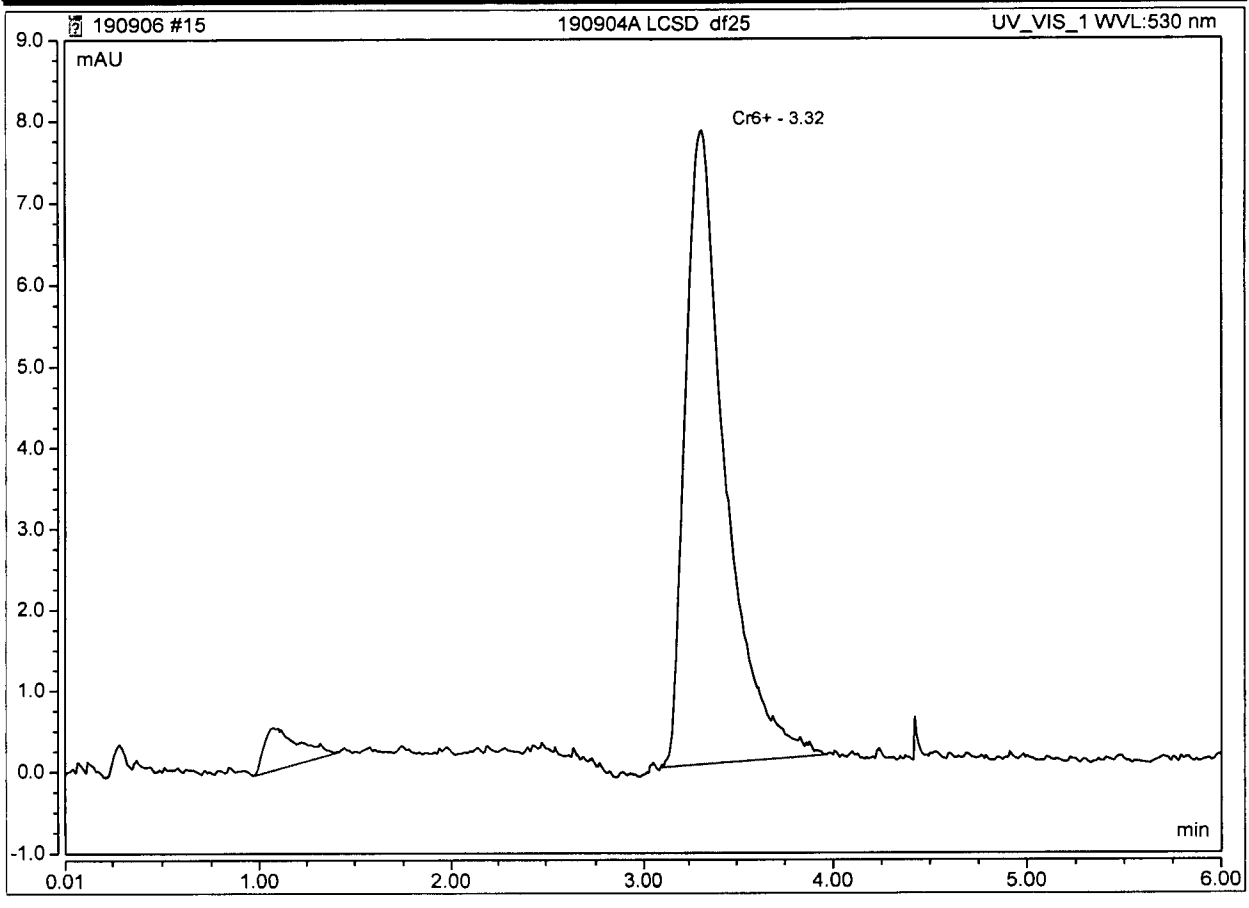
No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) mAU*min	Height (µS) mAU	Amount mg/kg
3	3.31	Cr6+	BMB	1.820	7.769	3.24



Peak Integration Report

Sample Name:	**190904A LCSD df25**			*Inj. Vol.:*	**5mL**
Injection Type:	**Unknown**	Sample amount:	1.2500g	*Dilution Factor.*	**25.00**
Program:	**190829A Hexachrome**	Extraction Volum	50mL	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Sep-2019 / 16:46**			*Run Time:*	**6.00**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) mAU*min	Height (µS) mAU	Amount mg/kg
2	3.32	Cr6+	BMB	1.901	7.786	3.38



Hexavalent Chromium Standard Yearly Intermediate CCV

Prep Date: 05/21/19
Exp Date: 05/20/20

Prep'd By (Initials): HH

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Chromium+6 1000ug/mL in H2O	CPI	S4400-1000127	1000	158508-9-38749	07/04/19	10mL	100mL	Millipore Water	100

Hexavalent Chromium Standard Yearly Intermediate LCS

Prep Date: 05/21/19
Exp Date: 05/20/20

Prep'd By (Initials): HH

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Hexavalent Chromium (Cr^{6+}) 1000ug/mL in water	Absolute Standards Inc	54161	1000	122017-38838	12/20/20	10mL	100mL	Millipore Water	100

Hexavalent Chromium Standard Daily Intermediate CCV

Prep Date: See Injection Log
Exp Date: 24 Hours after Prep

Prep'd By (Initials): BW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Hexavalent Chromium Standard Yearly Intermediate CCV	APPL	NA	100	NA	1 Day	50uL	50 mL	Millipore Water	0.1

Hexavalent Chromium Standard Daily Intermediate LCS

Prep Date: See Injection Log
Exp Date: 24 Hours after Prep

Prep'd By (Initials): BW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Hexavalent Chromium Standard Yearly Intermediate LCS	APPL	NA	100	NA	1 Day	50uL	50 mL	Millipore Water	0.1

Hexavalent Chromium Chromatography Calibration Curve

Prep Date: 08/28/19
Exp Date: 08/29/19

Prep'd By (Initials): BW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc. Range (µg/L)
Hexavalent Chromium Standard Daily Intermediate CCV	APPL	ical 1	0.1	See Injection Log	1 Day	10 µL	5000 µL	pH 9.0-9.5 MilliporeWater	0.2
Hexavalent Chromium Standard Daily Intermediate CCV	APPL	ical 2	0.1	See Injection Log	1 Day	25 µL	5000 µL	pH 9.0-9.5 MilliporeWater	0.5
Hexavalent Chromium Standard Daily Intermediate CCV	APPL	ical 3	0.1	See Injection Log	1 Day	50 µL	5000 µL	pH 9.0-9.5 MilliporeWater	1
Hexavalent Chromium Standard Daily Intermediate CCV	APPL	ical 4	0.1	See Injection Log	1 Day	100 µL	5000 µL	pH 9.0-9.5 MilliporeWater	2
Hexavalent Chromium Standard Daily Intermediate CCV	APPL	ical 5	0.1	See Injection Log	1 Day	200 µL	5000 µL	pH 9.0-9.5 MilliporeWater	4
Hexavalent Chromium Standard Daily Intermediate CCV	APPL	ical 6	0.1	See Injection Log	1 Day	500 µL	5000 µL	pH 9.0-9.5 MilliporeWater	10
Hexavalent Chromium Standard Daily Intermediate CCV	APPL	ical 7	0.1	See Injection Log	1 Day	1000 µL	5000 µL	pH 9.0-9.5 MilliporeWater	20

Hexavalent Chromium CCV's

Prep Date: See Injection Log
Exp Date: 24 Hours after Prep

Prep'd By (Initials): BW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (ug/L)
Hexavalent Chromium Standard Daily Intermediate CCV	APPL	NA	0.1	NA	1 Day	25 µL	5000 µL	pH 9.0-9.5 MilliporeWater	0.5
Hexavalent Chromium Standard Daily Intermediate CCV	APPL	NA	0.1	NA	1 Day	500 µL	5000 µL	pH 9.0-9.5 MilliporeWater	10
Hexavalent Chromium Standard Daily Intermediate CCV	APPL	NA	0.1	NA	1 Day	1250 µL	5000 µL	pH 9.0-9.5 MilliporeWater	50

Hexavalent Chromium LCS

Prep Date: See Injection Log
Exp Date: 24 Hours after Prep

Prep'd By (Initials): BW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/L)
Hexavalent Chromium Standard Daily Intermediate LCS	APPL	NA	0.1	NA	1 Day	500 µL	5000 µL	Millipore Water	10

Inorganic Extraction Worksheet

Method	3060A Digestion	Extraction Set	190904A	Extraction Method	W3060A	Units	mL

Spiked ID 1	100ppm ICV Prep: 5/21/19 Exp: 5/21/20
Spiked ID 2	PbCrO4 IT Baker #M48581 Rec 12/2/04
Spiked ID 3	
Spiked ID 4	
Spiked ID 5	
Spiked ID 6	
Spiked ID 7	
Spiked ID 8	

Hot Plate Temp	°C

DRAFT COPY

Spiked By: BW **Date** 09/05/19 1:20:13 PM **Witnessed By:** AR **Date** 09/05/19 1:20:16 PM

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	190904A Blk						1.2526g	50	7.64		
							equip:				
2	190904A LCS		0.050	1			1.2588g	50	7.33		
							equip:				
3	190904A LCSD		0.050	1			1.2522g	50	7.62		
							equip:				
4	AZ98255						1.2531g	50	7.61		89977
							equip:				
5	AZ98255 MS						1.2510g	50	7.55		
							equip:				
6	AZ98255 MS IN		0.0055g	2			1.3510g	50	7.37		
							equip:				
7	AZ98255 MSD						1.4380g	50	7.31		
							equip:				
8	AZ98256						1.2534g	50	7.81		89977
							equip:				
9	AZ98257						1.2541g	50	7.49		89977
							equip:				
10	AZ98258						1.2522g	50	7.38		89977
							equip:				
11	AZ98259						1.2522g	50	7.47		89977
							equip:				
12	AZ98260						1.2539g	50	7.44		89977
							equip:				
13	AZ98261						1.2583g	50	7.80		89977
							equip:				
14	AZ98262						1.2573g	50	7.09		89977
							equip:				
15	AZ98263						1.2539g	50	7.77		89977
							equip:				
16	AZ98264						1.2522g	50	7.53		89977
							equip:				
17	AZ98265						1.2582g	50	6.88		89977
							equip:				
18	AZ98266						1.2591g	50	7.65		89977
							equip:				

Solvent and Lot#
Digestion Soln
Phosphate Buffer

Extraction COC Transfer	
Extraction lab employee Initials	BW
GC analyst's initials	BW
Date	
Time	
Refrigerator	NONE

	Technician's Initials
Scanned By	BW
Sample Preparation	BW
Extraction	BW
Concentration	NONE

Modified	09/06/19 3:30:18 PM

Reviewed By: **Date**

Inorganic Extraction Worksheet

Method	3060A Digestion	Extraction Set	190904A	Extraction Method	W3060A	Units	mL

Spiked ID 1	100ppm ICV Prep: 5/21/19 Exp: 5/21/20	
Spiked ID 2	PbCrO4 IT Baker #M48581 Rec 12/2/04	
Spiked ID 3		
Spiked ID 4		
Spiked ID 5		
Spiked ID 6		
Spiked ID 7		
Spiked ID 8		

Hot Plate Temp	°C

DRAFT COPY

Spiked By: BW **Date** 09/05/19 1:20:13 PM **Witnessed By:** AR **Date** 09/05/19 1:20:16 PM

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
19	AZ98267						1.2535g	50	7.84		89977
							equip:				
20	AZ98268						1.2592g	50	7.52		89977
							equip:				
21	AZ98269						1.2545g	50	7.75		89977
							equip:				
22	AZ98270						1.2561g	50	7.49		89977
							equip:				
23	AZ98271						1.2590g	50	7.79		89977
							equip:				
24	AZ98272						1.2542g	50	7.80		89977
							equip:				
25	AZ98273						1.2518g	50	7.81		89977
							equip:				
26	LCS IN		0.0044g	2			1.2503g	50	7.03		
							equip:				

Solvent and Lot#
Digestion Soln
Phosphate Buffer

Extraction COC Transfer	
Extraction lab employee Initials	BW
GC analyst's initials	BW
Date	
Time	
Refrigerator	NONE

	Technician's Initials
Scanned By	BW
Sample Preparation	BW
Extraction	BW
Concentration	NONE
Modified	09/06/19 3:30:18 PM

Reviewed By: **Date**

EPA 7199 Injection Log

Directory: I:\Dionex\Charlie\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
6	28 Aug 2019	15:33	ical1		HexaChrome	1.
7	28 Aug 2019	15:42	ical2		HexaChrome	1.
8	28 Aug 2019	15:50	ical3		HexaChrome	1.
9	28 Aug 2019	15:59	CCB		HexaChrome	1.
10	28 Aug 2019	16:08	LCS - ICV		HexaChrome	1.
11	28 Aug 2019	16:16	LCSD		HexaChrome	1.

3060A/7199 Injection Log

Directory: I:\Dionex\Charlie\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
6	06 Sep 2019	12:08	LCS		HexaChrome	1.
7	06 Sep 2019	12:17	LCSD		HexaChrome	1.
8	06 Sep 2019	12:25	190830A BLK df25		HexaChrome	25.
11	06 Sep 2019	12:51	CCV		HexaChrome	1.
12	06 Sep 2019	12:59	CCB		HexaChrome	1.
13	06 Sep 2019	16:30	190904A Blk 3060 df25		HexaChrome	25.
14	06 Sep 2019	16:38	190904A LCS df25		HexaChrome	25.
15	06 Sep 2019	16:46	190904A LCSD df25		HexaChrome	25.
16	06 Sep 2019	16:55	AZ98255S01 df25		HexaChrome	25.
17	06 Sep 2019	17:03	AZ98255S01 MS df25		HexaChrome	25.
18	06 Sep 2019	17:12	AZ98255S01 MSD df25		HexaChrome	25.
19	06 Sep 2019	17:21	AZ98256S01 df25		HexaChrome	25.
20	06 Sep 2019	17:29	AZ98257S01 df25		HexaChrome	25.
21	06 Sep 2019	17:38	AZ98258S01 df25		HexaChrome	25.
22	06 Sep 2019	17:46	AZ98259S01 df25		HexaChrome	25.
23	06 Sep 2019	17:55	AZ98260S01 df25		HexaChrome	25.
24	06 Sep 2019	18:03	AZ98261S01 df25		HexaChrome	25.
25	06 Sep 2019	18:12	AZ98262S01 df25		HexaChrome	25.
26	06 Sep 2019	18:20	AZ98263S03 df25		HexaChrome	25.
27	06 Sep 2019	18:29	AZ98264S01 df25		HexaChrome	25.
28	06 Sep 2019	18:37	AZ98255S01 MS df25 post spike		HexaChrome	25.
29	06 Sep 2019	18:46	AZ98255S01 MSD df25 post spike		HexaChrome	25.
30	06 Sep 2019	18:54	CCV		HexaChrome	1.
31	06 Sep 2019	19:03	CCB		HexaChrome	1.
32	06 Sep 2019	19:11	AZ98265S01 df25		HexaChrome	25.
33	06 Sep 2019	19:20	AZ98266S01 df25		HexaChrome	25.
34	06 Sep 2019	19:28	AZ98267S01 df25		HexaChrome	25.
35	06 Sep 2019	19:37	AZ98268S01 df25		HexaChrome	25.
36	06 Sep 2019	19:46	AZ98269S01 df25		HexaChrome	25.
37	06 Sep 2019	19:54	AZ98270S01 df25		HexaChrome	25.
38	06 Sep 2019	20:03	AZ98271S01 df25		HexaChrome	25.
39	06 Sep 2019	20:11	AZ98272S01 df25		HexaChrome	25.
40	06 Sep 2019	20:20	AZ98273S01 df25		HexaChrome	25.
43	06 Sep 2019	20:45	CCV		HexaChrome	1.
44	06 Sep 2019	20:54	CCB		HexaChrome	1.

D

Appendix D.
Data Quality Evaluation

DATA QUALITY EVALUATION

Garden soil sampling was conducted by HDR at the former Defense Depot Memphis, Tennessee (DDMT) in August 2019. The sampling locations and analyses were selected in accordance with the *Final Garden Soil Sampling Work Plan* (HDR, June 2019).

Soil samples were submitted for analysis to CT Laboratories in Baraboo, Wisconsin for all analyses except hexavalent chromium, which were submitted to APPL Inc. in Clovis, California. Field activities and laboratory analyses were performed in accordance with the *Final Garden Soil Sampling Work Plan* (HDR, June 2019).

The data quality evaluation (DQE) process involves assessment of all field and laboratory procedures for compliance with the QAPP. Data validation was completed by the HDR EOC Senior Chemist. This assessment is designed to evaluate problems with quality assurance (QA)/quality control (QC) associated with the laboratory data and potential impact to the data quality objectives (DQOs). The DQE findings are summarized in the following sections.

FIELD ACTIVITIES AND FIELD QUALITY CONTROL

Garden Soil Sampling, August 2019: The field effort included the collection of 17 soil samples from nine boring locations during the garden soil sampling event in August 2019. An equipment blank was collected and analyzed for all analytes, and a trip blank was analyzed for VOCs. The boring and soil sampling locations are shown on Figure 1 of the report.

Soil samples were collected using Terracore samplers and extruded into one vial containing methanol and into two vials containing volatile-free water and sodium bisulfate preservative.

Field QC samples were collected at selected locations to evaluate sampling technique and decontamination procedures. These samples included field duplicates, trip blanks and field equipment (rinsate) blanks. Additional samples were collected at selected locations for matrix spike/matrix spike duplicate (MS/MSD) analyses in the laboratory. Sample bottles met U.S. Environmental Protection Agency (USEPA) requirements for environmentally clean containers. Sample labels were pre-printed to facilitate sample tracking from the field through the laboratory. Documentation of the sampling was performed in the field to ensure that the samples collected, sample labels, chain-of-custody (COC) records, and request for analysis were consistent. Where necessary, additional COC forms were filled out manually. Custody seals were placed on each sample cooler prior to shipment by common carrier.

ANALYTICAL METHODS

The soil samples were analyzed for:

- volatile organic compounds (VOCs) by Method SW 8260C;
- semivolatile organic compounds (SVOCs) by Method SW8270D;
- low-level polynuclear aromatic hydrocarbons (PAHs) by Method SW8270D-SIM;
- organochlorine pesticides by Method SW8081B;

- polychlorinated biphenyls (PCBs) by Method SW8082A:
- total metals by Methods SW6010C/6020A;
- total mercury by Method SW7471A; and
- hexavalent chromium by Method SW7199.

LABORATORY QUALITY CONTROL

The laboratory QC program, including sample handling, laboratory control, and reporting, is documented in the project QAPP and Work Plan. Sample handling includes documentation of sample receipt, placement in storage, lab personnel using the sample, and disposal. The laboratory control consists of instrument calibration and maintenance, laboratory control samples (LCS), method blanks and matrix spikes. Reporting of the laboratory control data was planned prior to the collection of the data, allowing the laboratory to place the appropriate information into the data package so that the DQE could be performed in a timely manner.

DQE SUMMARY

The objective of the DQE was to provide a review of the chemical data reports submitted by the laboratory and to assess the data in relation to the DQOs stated in the project QAPPs. The DQE consisted of review of laboratory QC data and field QC parameters, and flagging of the data as usable, usable with qualification, or unusable in accordance with the DQE standard operating procedures (SOPs) using the criteria for each analytical method performed. The following information was reviewed:

- Sample Integrity (Deliverables)
- Sample Completeness
- Sample Holding Times
- Laboratory Methods for Extraction and Analysis (Calibration, Internal Standards)
- Method Accuracy (bias) and Precision (Surrogates, MS/MSD, LCS Recoveries)
- Laboratory Performance Criteria (Blanks, Instrument Performance Checks)

Field QC parameters were evaluated through field duplicates, rinsate blanks, field documentation, and shipping criteria.

The DQE was summarized by use of flags that indicate to the reviewer that the data being considered has been qualified using the established criteria. Sample delivery group (SDG) narratives detailing the evaluation of the laboratory data are included as attachments in this Appendix. The SDGs and associated soil samples are listed on Table D-1.

The following sections provide summary discussions of the required data qualifications for each sampling event. A Level III DQE was performed and the data quality indicators (DQIs), expressed in terms of precision, accuracy, representativeness, comparability, completeness,

and sensitivity, were assessed. This included the evaluation of sample integrity, holding times, trip blanks, rinsate blanks, method blanks, internal standards, surrogate recoveries, MS/MSD recoveries, LCSs, and field duplicate precision. The results of the DQI assessment are provided below.

Precision

Field duplicates were collected to assess sampling precision. They consisted of replicate grab samples collected concurrently with the associated field samples. Precision is best expressed in terms of relative percent difference (RPD).

Garden soil sampling event, August 2019: Field precision goals were generally met for the duplicate sample pairs collected during the sampling event for all analyses except PAHs and metals. All PAHs had RPDs outside control limits in one sample pair and most PAHs had RPDs outside control limits in the other sample pair. Most metals had RPDs outside control limits in one sample pair. Two RPDs were high in the LCS/LCSD associated with the QC water samples, but all soil LCS/LCSD RPDs were within control limits. Precision is discussed in more detail in the attached narratives.

Accuracy

Accuracy or bias was measured through the analyses of LCSs and MS/MSDs. Sample specific accuracy is measured through surrogate recovery. Accuracy is expressed as percent recovery (%R). Field and laboratory blanks are analyzed to assess potential bias in the reported sample results. Bias is expressed through qualification of analytical results.

Sample results are evaluated against blank results as described in the *General Data Validation Guidelines* (United States Department of Defense [DoD] Environmental Data Quality Workgroup [EDQW], February 09, 2018). Sample results with concentration of an analyte less than the RL and less than the concentration in an associated blank (or less than two times the concentration in the blank for common laboratory contaminants acetone, 2-butanone [MEK] and methylene chloride) are reported as non-detect at the standard Limit of Quantitation (LOQ). Sample results greater than the blank result (or greater than two times for common laboratory contaminants) are not considered to have been greatly affected and are not qualified.

Garden soil sampling event, August 2019: Although there were two high LCS recoveries and two low LCS recoveries observed in the event, for the soil samples, only two SVOC analytes required qualification. Three MS/MSD recoveries were high and 31 MS/MSD recoveries were low. Four of the MS/MSD SVOC recoveries were below 10%, resulting in rejection of those analytes in the parent sample. Further discussion of the LCS and MS/MSD recoveries is provided in the attached DQE narratives.

Although there were trace level detections of pyrene, aluminum, copper, and hexavalent chromium in the method blanks, sample results did not require qualification. Although there were trace level detections of chloromethane and methylene chloride in the trip blank, samples did not require qualification, as these analytes were not detected in the samples. Although there were trace level detections of naphthalene, sodium, calcium, aldrin, ethylbenzene, o-xylene,

m/p-xylene, acetone, chloromethane, styrene, toluene, and 2-butanone in the rinse blank, samples were not qualified, these analytes were either not detected in the samples or were detected at trace levels and already qualified as estimated (J). Further discussion of the blank results is provided in the attached DQE narratives.

Representativeness

Representativeness refers to the degree sample data accurately and precisely describes the population of samples at a sampling point or under certain environmental conditions. Samples that are not properly preserved or are analyzed beyond holding times may not be considered representative. Review of sampling procedures, laboratory preparation, analysis holding times, trip blank and rinsate blank analysis help in providing this assessment.

Garden soil sampling event, August 2019: Sampling procedures followed the project QAPPs and were considered representative of the matrices collected. Laboratory preparation and analysis followed method guidelines.

Comparability

The selection of standardized methods and consistent laboratory practices facilitates the comparison of data between sampling events. Consistent methodology and standard analytical methods were used throughout the sampling events.

Garden soil sampling event, August 2019: This was the first event of its kind at the site, and data are not compared to any historic results.

Completeness

Completeness is determined for both field and analytical objectives. Field completeness is calculated from the number of samples proposed versus the actual number of samples collected. Analytical completeness is expressed in terms of usable data. The project completeness goal for DDMT is 90% as stated in the DDMT QAPP.

Garden soil sampling event, August 2019: Data from this event was 100% complete except for four SVOC analytes, which were rejected in one sample due to very low MS/MSD recoveries. For these four analytes, the completeness was 95%. Data from this event met the completeness DQO.

Sensitivity

Analytical sensitivity is the concentration at which the measurement system can quantitate target analytes in the environmental matrices of concern. Analytical sensitivity is expressed in terms of the RL or LOQ, which is provided by the respective laboratories as their reasonable and defensible quantitation limit for environmental samples above the MDL or DL, which is established by each laboratory using pure water or clean matrix.

Garden soil sampling event, August 2019: The analytical method LOQs were compared to USEPA residential soil screening levels (SSLs) and were below the standards for the contaminants of concern, except for N-nitrosodimethylamine and N-nitroso-di-n-propylamine. The DL for N-nitroso-di-n-propylamine was below the SSL, and the lab reported down to the DL.

The DL for N-nitroso-dimethylamine was above the SSL, so it cannot be determined with certainty that this analyte was not present at or above the SSL.

The following sections discuss only those deficiencies encountered during the evaluation that resulted in qualified and/or unusable data.

Garden Soil Sampling Event - August 2019

A total of 23 samples including 17 soil field samples and six QA/QC samples (duplicates, MS/MSD, trip blanks, rinsate blanks) were collected from 12 borings in August 2019. Samples were collected from two depths in each boring except boring 09C, which had only one sample collected. Samples were analyzed for VOCs, SVOC, PAHs, organochlorine pesticides, PCBs, metals, mercury, and hexavalent chromium. The data are usable with qualifications as described below:

VOCs

- Thirteen VOCs had matrix spike (MS) recoveries below the control limits but had MS duplicate (MSD) recoveries within the control limits. These analytes were qualified as non-detect estimated (UJ) in the parent sample (GN-SO-04-1). The MS recoveries of 17 analytes were above control limits. Of these analytes, acetone was the only detection and was qualified as estimated (J) in the parent sample. The other analytes were not detected in the parent sample and were not qualified.

- Acetone in one parent sample / field duplicate pair had an RPD above the control limit and was qualified as estimated (J).

- The areas of one internal standard in two samples were below the required limit, and the associated analytes were qualified as non-detect estimated (UJ) or estimated (J).

SVOCs

- Benzyl alcohol in six samples was qualified as non-detect estimated (UJ) due to low recovery of the continuing calibration standard.
- Two analytes (3,3'-dichlorobenzidine and aniline) were qualified as non-detect estimated (UJ) in all soils due to low laboratory control sample (LCS) recoveries.
- All phenols and benzoic acid in five samples were qualified as non-detect estimated (UJ) due to low recoveries of two of the three acid fraction surrogates.
- Four analytes (2,4-dimethylphenol, 3,3'-dichlorobenzidine, aniline, and benzyl alcohol) had MS and MSD recoveries below 10%, and these non-detect results in the parent sample (GN-SO-04-1) have been rejected (R).
- Four analytes had MS and/or MSD recoveries below the control limits. These analytes were qualified as non-detect estimated (UJ) in the parent sample (GN-SO-04-1).

- The MSD recovery of carbazole was above the control limits, and the RPD was above the control limit of 20%. Carbazole was detected in the parent sample and was qualified as estimated (J).
- Carbazole in one parent sample / field duplicate pair had an RPD above the control limit and was qualified as estimated (J).

PAHs

- Pyrene in the rinse blank was qualified as non-detect at the limit of quantitation (LOQ) due to pyrene detected in the associated method blank.

Pesticides

- Three pesticides had MS and/or MSD recoveries below the control limits. These analytes were qualified as non-detect estimated (UJ) in the parent sample (GN-SO-04-1).
- The MSD recovery of 4,4'-DDE was below the control limits. 4,4'-DDE was detected in the parent sample and was qualified as estimated (J).
- Three pesticides in one parent sample / field duplicate pair had RPDs above the control limit and were qualified as estimated (J). Two pesticides in these samples were not detected in the field duplicate but were detected in the parent sample, and these results were qualified as non-detect estimated (UJ) and estimated (J) respectively.
- Some detected results had RPDs between the primary (reported) results and the secondary (confirmation) results that were greater than the required limit and were qualified as estimated (J).

Metals

- The MSD recovery of arsenic was below the control limits. Arsenic was qualified as estimated (J) in the parent sample (GN-SO-04-1).
- The MS and MSD recoveries of lead were above the control limits. Lead was detected in the parent sample and was qualified as estimated (J).
- Fifteen metals in one parent sample / field duplicate pair and two metals in the other parent sample / field duplicate pair had RPDs above the control limit and were qualified as estimated (J).

All Analyses

- Any result reported below the LOQ but above the detection limit was flagged "J" and considered an estimated result (unless overridden by other quality control [QC] flags).

SUMMARY

Garden Soil Sampling Event, August 2019: Except for the four rejections noted above, the sample data from the Garden Soil sampling event generally met the data quality objectives and are of sufficient quality to support the project goals.

TABLE D-1
SAMPLE DATA GROUP SUMMARY TABLE
GARDEN SOIL SAMPLING REPORT
Main Installation - Defense Depot Memphis, Tennessee

SDG	Soil Samples			Quality Control Samples
Garden Soil Sampling Event August 2019				
147664	GN-SO-01-1	GN-SO-04-1	GN-SO-07-1	GN-SO-04-1 MS
	GN-SO-01-2	GN-SO-04-2	GN-SO-07-2	GN-SO-04-1 MSD
	GN-SO-02-1	GN-SO-05-1	GN-SO-08-1	GN-SO-DUP-1
	GN-SO-02-2	GN-SO-05-2	GN-SO-08-2	GN-SO-DUP-2
	GN-SO-03-1	GN-SO-06-1	GN-SO-09C-1	GN-W-TB-1
	GN-SO-03-2	GN-SO-06-2		GN-W-RB-1
89977	GN-SO-01-1	GN-SO-04-1	GN-SO-07-1	GN-SO-04-1 MS
	GN-SO-01-2	GN-SO-04-2	GN-SO-07-2	GN-SO-04-1 MSD
	GN-SO-02-1	GN-SO-05-1	GN-SO-08-1	GN-SO-DUP-1
	GN-SO-02-2	GN-SO-05-2	GN-SO-08-2	GN-SO-DUP-2
	GN-SO-03-1	GN-SO-06-1	GN-SO-09C-1	GN-W-RB-1
	GN-SO-03-2	GN-SO-06-2		
147687				GN-W-RB-01

DATA VALIDATION AND USABILITY REPORT

VOLATILES by USEPA SW-846 Method 8260C
SEMIVOLATILES by USEPA SW-846 Method 8270D
LOW-LEVEL POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs) by USEPA SW-846 Method 8270D-SIM
ORGANOCHLORINE PESTICIDES by USEPA SW-846 Method 8081B
POLYCHLORINATED BIPHENYLS (PCBs) by USEPA SW-846 Method 8082A
TOTAL METALS by USEPA SW-846 Method 6010C/6020A
TOTAL MERCURY by USEPA SW-846 Method 7470A/7471A
HEXAVALENT CHROMIUM USEPA Method 3060A/7199

Project: Memphis FU4 Garden Soils
Project/Task Number: 10101451-9
Sample Data Package: 147664, 147687, 89977
Laboratory: CT Laboratories, Baraboo, Wisconsin; APPL, Inc., Clovis, California (Hexavalent Chromium)
Sample Matrix: Soil and QC Water
Sampling Dates: 26-27 August 2019
Validation Guidelines: Project Quality Assurance Project Plan (QAPP) (*Final Garden Soil Sampling Work Plan, Defense Depot Memphis, Tennessee* [HDR, Inc., June 2019]), United States Environmental Protection Agency (USEPA) *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, 3rd edition (SW-846), *General Data Validation Guidelines* (United States Department of Defense [DoD] Environmental Data Quality Workgroup [EDQW], February 09, 2018); and professional judgment
Validation Level: Stage 2BVM (100% of data) and Stage 3VM (10% of data) (IDW sample results not validated)
Data Reviewer: Lynn K. Lutz and Jennifer Chandler, HDR

Sample ID	Matrix	Lab ID	Hexachrome	All Other Analyses	VOCs only
GN-SO-01-1	Soil	321149		X	
		AZ98255S	X		
GN-SO-01-2	Soil	321154		X	
		AZ98256S	X		
GN-SO-02-1	Soil	321155		X	
		AZ98257S	X		
GN-SO-02-2	Soil	321158		X	
		AZ98260S	X		
GN-SO-03-1	Soil	321159		X	
		AZ98261S	X		
GN-SO-03-2	Soil	321160		X	
		AZ98262S	X		
GN-SO-04-1	Soil	321161		X	
		AZ98263S	X		
GN-SO-04-1 MS	Soil	321161 MS		X	
		AZ98263S MS	X		
GN-SO-04-1 MSD	Soil	321161 MSD		X	
		AZ98263S MSD	X		

Sample ID	Matrix	Lab ID	Hexachrome	All Other Analyses	VOCs only
GN-SO-04-2	Soil	321162		X	
		AZ98264S	X		
GN-SO-05-1	Soil	321163		X	
		AZ98265S	X		
GN-SO-05-2	Soil	321164		X	
		AZ98266S	X		
GN-SO-06-1	Soil	321166		X	
		AZ98267S	X		
GN-SO-06-2	Soil	321167		X	
		AZ98268S	X		
GN-SO-07-1	Soil	321168		X	
		AZ98269S	X		
GN-SO-07-2	Soil	321169		X	
		AZ98270S	X		
GN-SO-08-1	Soil	321170		X	
		AZ98271S	X		
GN-SO-08-2	Soil	321171		X	
		AZ98272S	X		
GN-SO-09C-1	Soil	321172		X	
		AZ98273S	X		
GN-SO-DUP-1	Soil	321157		X	
		AZ98259S	X		
GN-SO-DUP-2	Soil	321165		X	
		AZ982658S	X		
GN-W-RB-1	Water	321173			X
		AZ98274W	X		
GN-W-TB-1	Water	321156			X
GN-W-RB-01	Water	321573		X except VOCs	

SUMMARY

With the exception of four SVOC analytes in one soil sample that were rejected due to very low MS/SD recoveries (see section VIII. MATRIX SPIKE / MATRIX SPIKE DUPLICATE [MS/MSD]), all laboratory data were acceptable with qualification.

I. SAMPLE RECEIPT AND CHAIN OF CUSTODY

Samples were received within the correct temperature range of 0-6°C. No qualification was required.

II. HOLDING TIMES AND PRESERVATION

Holding time and preservation criteria were generally met except as discussed below.

VOCs: Soil samples were collected using Terracore samplers and preserved in water with sodium bisulfate (two vials) and methanol (one vial). Samples were analyzed within 14 days of collection. No qualification was required.

SVOCs: Samples were extracted within 14 days (seven days for water) of collection and analyzed within 40 days of extraction. No qualification was required.

PAHs: Samples were extracted within 14 days (seven days for water) of collection and analyzed within 40 days of extraction. No qualification was required.

Pesticides: Samples were extracted within 14 days (seven days for water) of collection and analyzed within 40 days of extraction. No qualification was required.

PCBs: Samples were extracted within 14 days (seven days for water) of collection and analyzed within 40 days of extraction. No qualification was required.

Total Metals: Samples were analyzed within 180 days of collection. No qualification was required.

Total Mercury: Samples were analyzed within 28 days of collection. No qualification was required.

Hexavalent Chromium: Samples were analyzed within 24 hours of collection or extraction. No qualification was required.

III. INSTRUMENT PERFORMANCE

VOCs: GC/MS BFB tuning criteria were met. Sample analysis began within 12 hours of BFB analysis. No qualification was required.

SVOCs: GC/MS DFTPP tuning criteria were met. Breakdown percentages and tailing criteria were met. No qualification was required.

PAHs: GC/MS DFTPP tuning criteria were met. No qualification was required.

Pesticides: DDT and endrin breakdown percentages were within required limits. No qualification was required.

PCBs: Not applicable.

Total Metals: Not applicable.

Total Mercury: Not applicable.

Hexavalent Chromium: Not applicable.

IV. INSTRUMENT CALIBRATION
INITIAL CALIBRATIONS

VOCs: The calibration curve included a standard at or below the LOQ. Calibration requirements were met. No qualification was required.

SVOCs: The calibration curve included a standard at or below the LOQ. Calibration requirements were met. No qualification was required.

PAHs: The calibration curve included a standard at or below the LOQ. Calibration requirements were met. No qualification was required.

Pesticides: The calibration curve included a standard at or below the LOQ. Calibration requirements were met. No qualification was required.

PCBs: The calibration curve included a standard at or below the LOQ. Calibration requirements were met. No qualification was required.

Total Metals: The calibration curve included a standard at or below the LOQ. Calibration requirements were met. No qualification was required.

Total Mercury: The calibration curve included a standard at or below the LOQ. Calibration requirements were met. No qualification was required.

Hexavalent Chromium: The calibration curve included a standard at or below the LOQ. Calibration requirements were met. No qualification was required.

SECOND SOURCE STANDARDS

VOCs: All reported analytes had percent difference (%D) values less than 20%. No qualification was required.

SVOCs: All reported analytes had %D values less than 20%. No qualification was required.

PAHs: All reported analytes had %D values less than 20%. No qualification was required.

Pesticides: All analytes had %D values less than 20%. No qualification was required.

PCBs: All analytes had %D values less than 20%. No qualification was required.

Total Metals: All analytes had %D values less than 10%. No qualification was required.

Total Mercury: All analytes had %D values less than 10%. No qualification was required.

Hexavalent Chromium: All analytes had %D values less than 10%. No qualification was required.

CONTINUING CALIBRATIONS

VOCs: All analytes had %D values less than 20%. No qualification was required.

SVOCs: Benzyl alcohol had a low recovery in one CCV and sample results were qualified as noted below.

CCV	Analyte	%D	Associated Samples	Qualifier
09/11/2019	Benzyl alcohol	-44%	GN-SO-04-1 GN-SO-07-1 GN-SO-07-2 GN-SO-08-1	UJ UJ UJ UJ

			GN-SO-08-2 GN-SO-09C-1	UJ UJ

PAHs: All analytes had %D values less than 20%. No qualification was required.

Pesticides: All analytes had %D values less than 20%. No qualification was required.

PCBs: Two out of five peaks in one CCV for Aroclor 1016 were outside the required 20%; this was on the rear (confirmation) column, and no results were reported from this column, as the sample was non-detect for 1016. No qualification was required.

Total Metals: All results had %D values less than 10%. No qualification was required.

Total Mercury: All results had %D values less than 10%. No qualification was required.

Hexavalent Chromium: All results had %D values less than 10%. No qualification was required.

V. BLANKS

METHOD BLANKS (MB)

Target analytes were not detected in the method blanks except as noted below.

VOCs: VOCs were not detected in the method blanks. No qualification was required.

SVOCs: SVOCs were not detected in the method blanks. No qualification was required.

PAHs: Pyrene was detected at a trace level in the method blank associated with the rinse blank. Pyrene in the rinse blank was also detected at a trace level and was qualified as non-detect at the LOQ. PAHs were not detected in the method blanks associated with the soil samples.

Pesticides: Pesticides were not detected in the method blanks. No qualification was required.

PCBs: PCBs were not detected in the method blanks. No qualification was required.

Total Metals: Target analytes were detected, in the soil method blanks, for Aluminum and Copper. Samples results were either non-detect, or greater than the required percentage of the MB. No qualification was required.

Total Mercury: Target analytes were not detected in the method blanks. No qualification was required.

Hexavalent Chromium: The target analyte was detected in the method blank at a trace level and in most samples, also at trace levels. Normally for this project, the sample results would be qualified as non-detect at the LOQ of 0.6 mg/kg, but the residential SSL for hexavalent chromium is 0.3 mg/kg, so the non-detect at the LOQ would not provide the needed information. The sample results have been qualified as estimated (J).

TRIP BLANKS

VOCs: Chloromethane and methylene chloride were detected at trace levels in the trip blank. These analytes were not detected in the associated soil samples and no qualification was required.

SVOCs: Not applicable.

PAHs: Not applicable.

Pesticides: Not applicable.

PCBs: Not applicable.

Total Metals: Not applicable.

Total Mercury: Not applicable.

Hexavalent Chromium: Not applicable.

RINSE BLANKS

VOCs: Ethylbenzene, o-xylene, m/p-xylene, acetone, chloromethane, styrene, toluene, and 2-butanone were detected at trace levels in the rinse blank. Most or all of these analytes were detected in the soil samples at trace levels or higher. Sample results were not qualified due to detections in the rinse blank.

SVOCs: SVOCs were not detected in the rinse blank. No qualification was required.

PAHs: Pyrene was detected at a trace level in the method blank associated with the rinse blank, therefore pyrene in the rinse blank was qualified as non-detect at the LOQ and samples were not qualified for pyrene. Naphthalene was detected in the rinse blank at a trace level. Most of the soil samples had detections of naphthalene, some trace levels and some higher levels. Sample results were not qualified due to naphthalene in the rinse blank.

Pesticides: Aldrin was detected at a trace level in the rinse blank. Aldrin was non-detect in the samples and no qualification was required.

PCBs: PCBs were not detected in the rinse blank. No qualification was required.

Total Metals: Sodium and calcium were detected at trace levels in the rinse blank and in some samples. Sample results were not qualified for rinse blank detections.

Total Mercury: Mercury was not detected in the rinse blank. No qualification was required.

Hexavalent Chromium: The target analyte was not detected in the rinse blank. No qualification was required.

INITIAL AND CONTINUING CALIBRATION BLANKS (ICB and CCB)

VOCs: Not applicable.

SVOCs: Not applicable.

PAHs: Not applicable.

Pesticides: Not applicable.

PCBs: Not applicable.

Total Metals: Copper, Calcium, Barium, and Manganese were detected in either the ICB or CCB, but samples results were either non-detect, or greater than the required percentage of the MB. No qualification was required.

Total Mercury: Not applicable.

Hexavalent Chromium: Not applicable.

VI. LABORATORY CONTROL SAMPLES (LCS)

VOCs: Some results in the LCS/LCSD associated with the water samples were outside control limits, and samples were qualified as shown below.

LCS/D	Analyte	Results	Control Limits	Associated Samples	Qualifier
For Waters	n-Butylbenzene	LCSD 130%	75-128%	All waters	None – Samples ND
	Bromomethane	RPD 34%	20%	All waters	None – Samples ND
	sec-Butylbenzene	LCSD 131%	77-126%	All waters	None – Samples ND
	Vinyl acetate	LCSD 147% RPD 24%	54-146% RPD 20%	All waters	None – Samples ND

SVOCs: Some LCS recoveries were outside control limits, and samples were qualified as shown below.

LCS/D	Analyte	Recovery	Control Limits	Associated Samples	Qualifier
For Soils	2,4-Dinitrophenol	118%	16-102%	All Soils	None – Samples ND
	Pyridine	70%	1-63%		None – Samples ND
	3,3'-Dichlorobenzidine	8%	22-121%		All soils - UJ
	Aniline	9%	18-87%		All soils - UJ

PAHs: LCS and LCSD recoveries and RPDs were within control limits. No qualification was required.

Pesticides: LCS and LCSD recoveries and RPDs were within control limits. No qualification was required.

PCBs: LCS and LCSD recoveries and RPDs were within control limits. No qualification was required.

Total Metals: LCS recoveries were within control limits. No qualification was required.

Total Mercury: LCS recoveries were within control limits. No qualification was required.

Hexavalent Chromium: LCS recoveries were within control limits. No qualification was required.

VII. SURROGATES

All surrogate recoveries were within control limits except as noted below.

VOCs: The recoveries of the surrogate 4-bromofluorobenzene (BFB) in six soil samples were between 120% and 130%, slightly above the control limits of 79-119%. In these samples, recoveries of the other three surrogates were within control limits. No qualification was required.

SVOCs: Two of the three acid fraction surrogate recoveries were below control limits in some soil samples, and results were qualified as shown below.

Sample	Surrogate	Recovery	Control Limits	Qualifier
GN-SO-04-2	2,4,6-Tribromophenol 2-Fluorophenol	33% 33%	39-132% 35-115%	All phenols and benzoic acid - UJ
GN-SO-05-2	2,4,6-Tribromophenol 2-Fluorophenol	32% 24%	39-132% 35-115%	All phenols and benzoic acid – UJ
GN-SO-06-1	2,4,6-Tribromophenol 2-Fluorophenol	27% 23%	39-132% 35-115%	All phenols and benzoic acid – UJ
GN-SO-06-2	2,4,6-Tribromophenol 2-Fluorophenol	34% 33%	39-132% 35-115%	All phenols and benzoic acid – UJ
GN-SO-07-1	2,4,6-Tribromophenol	33%	39-132%	None – other two recoveries OK
GN-SO-07-2	2,4,6-Tribromophenol 2-Fluorophenol	34% 32%	39-132% 35-115%	All phenols and benzoic acid - UJ

PAHs: The recovery of the surrogate fluoranthene-d10 in sample GN-SO-DUP-2 at 154% was above the control limits of 50-150%. The recovery of the other surrogate, 2-methylnaphthalene-d10, at 147% was similarly high, although just within the control limits. All 18 PAHs were detected in this sample and have been qualified as estimated with a possible high bias (J+).

Pesticides: Surrogate recoveries were within control limits. No qualification was required.

PCBs: Surrogate recoveries were within control limits. No qualification was required.

Total Metals: Not applicable.

Total Mercury: Not applicable.

Hexavalent Chromium: Not applicable.

VIII. MATRIX SPIKE / MATRIX SPIKE DUPLICATE (MS/MSD)

Sample GN-SO-04-1 was designated on the COC for MS/MSD analysis.

VOCs: MS/MSD analysis was performed on sample GN-SO-04-1. All recoveries and RPDs were within control limits, with the exceptions discussed below.

The recoveries of 1,2,3-trichlorobenzene at 29% and 41% were below the control limits of 66-130%. 1,2,3-Trichlorobenzene in the parent sample was qualified as non-detect estimated (UJ).

The recoveries of 1,2,4-trichlorobenzene at 30% and 48% were below the control limits of 67-129%. 1,2,4-Trichlorobenzene in the parent sample was qualified as non-detect estimated (UJ).

The recoveries of 1,2-dichlorobenzene at 63% and 77% were below the control limits of 78-121%. 1,2-Dichlorobenzene in the parent sample was qualified as non-detect estimated (UJ).

The MS recovery of 1,3-dichlorobenzene at 65% was below the control limits of 77-121%. 1,3-Dichlorobenzene in the parent sample was qualified as non-detect estimated (UJ).

The MS recovery of 1,4-dichlorobenzene at 71% was below the control limits of 75-120%. 1,4-Dichlorobenzene in the parent sample was qualified as non-detect estimated (UJ).

The MS recovery of acetone at 180% was above the control limits of 36-164%. Acetone in the parent sample was qualified as estimated (J).

The MS recovery of chlorobenzene at 76% was below the control limits of 79-120%. Chlorobenzene in the parent sample was qualified as non-detect estimated (UJ).

The MS recovery of hexachlorobutadiene at 29% was below the control limits of 61-135%. Hexachlorobutadiene in the parent sample was qualified as non-detect estimated (UJ).

The MS recovery of naphthalene at 34% was below the control limits of 62-129%. Naphthalene in the parent sample was qualified as non-detect estimated (UJ).

The MS recovery of n-butylbenzene at 60% was below the control limits of 70-128%. N-Butylbenzene in the parent sample was qualified as non-detect estimated (UJ).

The MS recovery of p-isopropyltoluene at 67% was below the control limits of 73-127%. P-Isopropyltoluene in the parent sample was qualified as non-detect estimated (UJ).

The MS recovery of sec-butylbenzene at 68% was below the control limits of 73-126%. Sec-Butylbenzene in the parent sample was qualified as non-detect estimated (UJ).

The MS recovery of styrene at 43% was below the control limits of 76-124%. Styrene in the parent sample was qualified as non-detect estimated (UJ).

The MSD recovery of 2-butanone (MEK) at 49% was below the control limits of 51-148%. 2-Butanone (MEK) in the parent sample was qualified as non-detect estimated (UJ).

Sixteen other analytes had recoveries within control limits but RPDs above the control limit. These analytes were non-detect in the parent sample and no qualification was required.

SVOCs: MS/MSD analysis was performed on sample GN-SO-04-1. All recoveries and RPDs were within control limits, with the exceptions discussed below.

The recoveries of 2,4-dimethylphenol at 7% and 7% were below the control limits of 30-127%, and below 10%. 2,4-Dimethylphenol in the parent sample was rejected (R).

The recoveries of 3,3'-dichlorobenzidine at 0% and 1% were below the control limits of 22-121%, and below 10%. 3,3'-Dichlorobenzidine in the parent sample was rejected (R).

The recoveries of aniline at 3% and 3% were below the control limits of 18-87%, and below 10%. Aniline in the parent sample was rejected (R).

The recoveries of benzyl alcohol at 4% and 4% were below the control limits of 29-122%, and below 10%. Benzyl alcohol in the parent sample was rejected (R).

The recoveries of 3-nitroaniline at 30% and 28% were below the control limits of 33-119%. 3-Nitroaniline in the parent sample was qualified as non-detect estimated (UJ).

The recoveries of hexachlorocyclopentadiene at 18% and 13% were below the control limits of 35-106%. Hexachlorocyclopentadiene in the parent sample was qualified as non-detect estimated (UJ).

The MSD recovery of 2-methylphenol at 26% was below the control limits of 32-122%. 2-Methylphenol in the parent sample was qualified as non-detect estimated (UJ).

The MSD recovery of 4-chloroaniline at 5% was below the control limits of 1-100%. The MS recovery was acceptable. 4-Chloroaniline in the parent sample was qualified as non-detect estimated (UJ).

The MSD recovery of carbazole at 136% was above the control limits of 50-123%, and the RPD of 47% was above the control limit of 20%. Carbazole was detected in the parent sample and was qualified as estimated (J).

3&4-Methylphenol, dibenzofuran, and pyridine had recoveries within control limits but RPDs above the control limit. These analytes were non-detect in the parent sample and no qualification was required.

PAHs: MS/MSD analysis was performed on sample GN-SO-04-1. All recoveries and RPDs were within control limits, with the exceptions discussed below.

The MS recovery of benzo(ghi)perylene at 27% was below the control limits of 49-127%, and the RPD at 54% was above the control limit of 40%. Benzo(ghi)perylene was detected in the parent sample and has been qualified as estimated (J).

The MS recovery of dibenz(a,h)anthracene at 40% was below the control limits of 50-129%, and the RPD at 60% was above the control limit of 40%. Dibenz(a,h) anthracene was detected in the parent sample and has been qualified as estimated (J).

The MS recovery of indeno(1,2,3-cd)pyrene at 37% was below the control limits of 49-130%, and the RPD at 49% was above the control limit of 40%. Indeno(1,2,3-cd)pyrene was detected in the parent sample and has been qualified as estimated (J).

The MSD recovery of pyrene at 47% was below the control limits of 55-117%. Pyrene was detected in the parent sample and has been qualified as estimated (J).

The recoveries of benzo(a)anthracene at 154% and 142% were above the control limits of 54-122%. Benzo(a)anthracene was detected in the parent sample and has been qualified as estimated (J).

The concentration of fluoranthene in the parent sample was greater than four times the spike, and recoveries were not evaluated. The RPD was within control limits. No qualification was required.

Pesticides: MS/MSD analysis was performed on sample GN-SO-04-1. All recoveries and RPDs were within control limits, with the exceptions discussed below.

Recoveries of 4,4'-DDE at 53% and 54% were below the control limits of 56-134%. 4,4'-DDE was detected in the parent sample and has been qualified as estimated (J).

Recoveries of endrin ketone at 54% and 47% were below the control limits of 55-136%. Endrin ketone was non-detect in the parent sample and has been qualified as non-detect estimated (UJ).

The MSD recovery of endosulfan sulfate at 50% was below the control limits of 55-136%. Endosulfan sulfate was non-detect in the parent sample and has been qualified as non-detect estimated (UJ).

The MSD recovery of gamma-chlordane at 51% was below the control limits of 53-135%. gamma-Chlordane was detected in the parent sample and has been qualified as estimated (J).

PCBs: MS/MSD analysis was performed on sample GN-SO-04-1. All recoveries and RPDs were within control limits. No qualification was required.

Total Metals: MS/MSD analysis was performed on sample GN-SO-04-1. All recoveries and RPDs were within control limits, with the exception of aluminum, iron, manganese, arsenic, and lead.

Aluminum, iron, and manganese in the parent sample were 4x the MS/MSD spike concentration and recoveries were not evaluated. RPDs for these analytes were within control limits, and no qualification was required.

Arsenic in the MSD was recovered at 77%, below the control limits of 82-118%. Arsenic in the parent sample has been qualified as estimated (J).

Lead in the MS and MSD was recovered at 192% and 136%, above the control limits of 84-118%. Lead in the parent sample has been qualified as estimated (J).

Total Mercury: MS/MSD analysis was performed on sample GN-SO-04-1. All results were within control limits. No qualification was required.

Hexavalent Chromium: MS/MSD analysis was performed on sample GN-SO-01-1. All results were within control limits. No qualification was required.

IX. DUPLICATES

FIELD DUPLICATES

Field duplicate samples were collected as identified in the following table.

Field Duplicate Sample	Parent Sample	Matrix
GN-SO-DUP-1	GN-SO-02-1	Soil
GN-SO-DUP-2	GN-SO-05-2	Soil

RPDs were within 20% except as noted below.

VOCs: Some analytes had relative percent difference (RPD) values above the 20% control limit and required qualification as shown in the table below.

Sample / FD IDs	Analyte	Sample / FD concentrations	RPD	Qualifier
GN-SO-02-1 GN-SO-DUP-1	All OK			None
GN-SO-05-2 GN-SO-DUP-2	Acetone	156 / 86.3 µg/kg	58%	J / J

SVOCs: Some analytes had relative percent difference (RPD) values above the 20% control limit and required qualification as shown in the table below.

Sample / FD IDs	Analyte	Sample / FD concentrations	RPD	Qualifier
GN-SO-02-1 GN-SO-DUP-1	Carbazole	83 J / 250 µg/kg	100%	J / J
GN-SO-05-2 GN-SO-DUP-2	All non-PAH analytes ND / ND			None

PAHs: Some analytes had relative percent difference (RPD) values above the 20% control limit and required qualification as shown in the table below.

Sample / FD IDs	Analyte	Sample / FD concentrations	RPD	Qualifier
GN-SO-02-1 GN-SO-DUP-1	Benzo(k)fluoranthene	174 / 445 µg/kg	88%	J / J
	Acenaphthylene	4.36 / 6.82 µg/kg	44%	J / J
	1-Methylnaphthalene	6.12 / 14.4 µg/kg	81%	J / J
	Acenaphthene	64.1 / 170 µg/kg	91%	J / J
	Dibenz(a,h)anthracene	69.8 / 133 µg/kg	62%	J / J
	2-Methylnaphthalene	7.34 / 16.2 µg/kg	77%	J / J
	Fluorene	70.6 / 173 µg/kg	62%	J / J
	Naphthalene	8.31 / 16.2 µg/kg	64%	J / J
	Fluoranthene	1150 / 2540 µg/kg	75%	J / J
	Benzo(ghi)perylene	230 / 483 µg/kg	71%	J / J
	Anthracene	237 / 521 µg/kg	75%	J / J
	Indeno(1,2,3-cd)pyrene	243 / 511 µg/kg	71%	J / J
	Benzo(a)pyrene	456 / 943 µg/kg	70%	J / J
	Chrysene	492 / 1050 µg/kg	72%	J / J
	Phenanthrene	649 / 1190 µg/kg	59%	J / J
	Benzo(b)fluoranthene	670 / 1390 µg/kg	70%	J / J
	Benzo(a)anthracene	688 / 1480 µg/kg	73%	J / J
	Pyrene	801 / 1700 µg/kg	72%	J / J
GN-SO-05-2 GN-SO-DUP-2	Benzo(k)fluoranthene	18.2 / 19.05 µg/kg	67%	J / J
	1-Methylnaphthalene	4.94 / 9.79 µg/kg	66%	J / J
	2-Methylnaphthalene	4.81 / 14.6 µg/kg	101%	J / J
	Fluoranthene	101 / 40.7 µg/kg	85%	J / J
	Benzo(ghi)perylene	23.5 / 12.8 µg/kg	59%	J / J
	Anthracene	6.63 / 2.70 µg/kg	84%	J / J
	Indeno(1,2,3-cd)pyrene	24.1 / 13.2 µg/kg	58%	J / J
	Benzo(a)pyrene	42.8 / 20.4 µg/kg	71%	J / J
	Chrysene	43.8 / 18.6 µg/kg	81%	J / J
	Phenanthrene	51.1 / 19.3µg/kg	90%	J / J
	Benzo(b)fluoranthene	70.9 / 31.8 µg/kg	76%	J / J
	Benzo(a)anthracene	56.9 / 25.1 µg/kg	78%	J / J
	Pyrene	79.8 / 29.3 µg/kg	94%	J / J

Pesticides: Some analytes had relative percent difference (RPD) values above the 20% control limit and required qualification as shown in the table below.

Sample / FD IDs	Analyte	Sample / FD concentrations	RPD	Qualifier
GN-SO-02-1 GN-SO-DUP-1	Endosulfan II	0.571 J / 3.42 µg/kg	143%	J / J
	4,4'-DDD	11.7 / 472 µg/kg	190%	J / J
	Gamma-Chlordane	4.66 / ND µg/kg	--	J / UJ
	Heptachlor epoxide	9.41 / ND µg/kg	--	J / UJ
	4,4'-DDE	82.2 / 2440 µg/kg	187%	J / J
GN-SO-05-2 GN-SO-DUP-2	All OK			

PCBs: PCBs were non-detect in both pairs of parent / FD samples. No qualification was required.

Total Metals: Some analytes had relative percent difference (RPD) values above the 20% control limit and required qualification as shown in the table below.

Sample / FD IDs	Analyte	Sample / FD concentrations	RPD	Qualifier
GN-SO-02-1 GN-SO-DUP-1	Beryllium	0.026 J / 0.074 mg/kg	Difference > LOQ	J / J
	Cobalt	1.6 / 2.6 mg/kg	48%	J / J
	Nickel	1.9 / 3.4 mg/kg	57%	J / J
	Iron	1690 / 3830 mg/kg	78%	J / J
	Magnesium	178 / 312 mg/kg	55%	J / J
	Copper	2.3 / 4.0 mg/kg	54%	J / J
	Calcium	2130 / 3230 mg/kg	41%	J / J
	Chromium	3.6 / 8.1 mg/kg	77%	J / J
	Lead	7.06 / 5.64 mg/kg	22%	J / J
	Manganese	53.3 / 159 mg/kg	100%	J / J
	Vanadium	6.5 / 12.1 mg/kg	60%	J / J
	Aluminum	754 / 1540 mg/kg	69%	J / J
	Zinc	8.7 / 18.1 mg/kg	70%	J / J
	Barium	9.7 / 23.7 mg/kg	70%	J / J
	Potassium	54.9 / 93.1 mg/kg	52%	J / J
GN-SO-05-2 GN-SO-DUP-2	Calcium	7490 / 17,200 mg/kg	79%	J / J
	Sodium	239 / 355 mg/kg	40%	J / J

Total Mercury: Results were within control limits. No qualification was required.

Hexavalent Chromium: All target analytes were non-detect or detected at trace levels in both pairs of parent / FD samples. No qualification was required.

LABORATORY DUPLICATES

VOCs: Not applicable.

SVOCs: Not applicable.

PAHs: Not applicable.

Pesticides: Not applicable.

PCBs: Not applicable.

Total Metals: Sample GN-SO-04-1 was analyzed as a duplicate. All results were within control limits.

Total Mercury: Sample GN-SO-04-1 was analyzed as a duplicate. All results were within control limits.

Hexavalent Chromium: Not applicable.

X. INTERNAL STANDARDS (ISTD)

All ISTD criteria were met except as noted below.

VOCs: Recoveries of the ISTD 1,4-dichlorobenzene-d4 in samples GN-SO-05-1 and GN-SO-06-1 at 43% and 44% respectively were below the required limit of 50-200%. All analytes associated with this ISTD (cyclohexanone to the end by elution time) have been qualified as estimated (J) or non-detect estimated (UJ).

SVOCs: All ISTD criteria were met. No qualification was required.

PAHs: All ISTD criteria were met. No qualification was required.

Pesticides: Not applicable.

PCBs: Not applicable.

Total Metals: All ISTD criteria were met. No qualification was required.

Total Mercury: Not applicable.

Hexavalent Chromium: Not applicable.

XI. POST DIGESTION SPIKE AND DILUTION TEST

Post-digestion spike (PDS) analyses and serial dilution tests were performed for lead. PDS results were within the control limits of 75-125% except as noted below. The dilution tests were not applicable unless sample results were greater than 50 times the MDL.

VOCs: Not applicable.

SVOCs: Not applicable.

PAHs: Not applicable.

Pesticides: Not applicable.

PCBs: Not applicable.

Total Metals: The serial dilution test and PDS test were run on samples GN-SO-01-2 and GN-SO-04-1. Results were within required limits. No qualification was required.

Total Mercury: The serial dilution results reported were from a different data set. No evaluation was performed.

Hexavalent Chromium: The serial dilution results reported were from a different data set. No evaluation was performed.

XII. INTERFERENCE CHECK SAMPLES (ICS)
Results were within control limits of 80-120% except as noted below.

VOCs: Not applicable.

SVOCs: Not applicable.

PAHs: Not applicable.

Pesticides: Not applicable.

PCBs: Not applicable.

Total Metals: Recoveries were within the required limits. No qualification was required.

Total Mercury: Recoveries were within the required limits. No qualification was required.

Hexavalent Chromium: Not applicable.

XIII. LIMITS OF QUANTITATION (LOQs), LIMITS OF DETECTION (LODs), AND DETECTION LIMITS (DLs)
The LOQs should be at or below the project action limits (PALs). The PALs used for comparison are the USEPA Resident Soil Screening Levels.

VOCs: All LOQs were below the PALs.

SVOCs: All LOQs were below the PALs except for the analytes shown in the table below. The lab reported detections down to the DL. LOQs, LODs, and DL above the screening level are italicized and bolded.

Analyte	Residential Soil screening level (mg/kg)	LOQ (mg/kg)	LOD (mg/kg)	DL (mgkg)
N-Nitrosodimethylamine	0.002	***0.4***	***0.12***	***0.027***
N-Nitrosodi-n-propylamine	0.078	***0.4***	***0.12***	0.069

PAHs: The LOQs were below the PALs.

Pesticides: The LOQs were below the PALs.

PCBs: The LOQs were below the PALs.

Total Metals: The LOQs were below the PALs except for arsenic, which had LOQs very near the PAL. Arsenic was detected in all the soil samples at levels an order of magnitude greater than the PAL.

Total Mercury: The LOQs were below the PAL.

Hexavalent Chromium: The LOQs of 0.6 mg/kg and the LODs of 0.4 mg/kg were above the PAL of 0.30 mg/kg, but the DLs of 0.2 mg/kg were below the PAL, and the lab reported results down to the DL.

As noted in Section V. BLANKS, METHOD BLANKS, the target analyte was detected in the method blank at a trace level and in most samples, also at trace levels. Normally for this project, the sample results would be qualified as non-detect at the LOQ of 0.6 mg/kg, but the PAL for hexavalent chromium is 0.3 mg/kg, so the non-detect at the LOQ would not provide the needed information. The sample results have been qualified as estimated (J).

XIV. SAMPLE RESULTS / TRANSCRIPTION VERIFICATION

Transcription between the data package and the EDDs was verified. Non-detect sample results were reported to the LOD, but detections below the LOD were reported. Sample results detected between the DL and LOQ were qualified as estimated (J).

VOCs: A trace amount of 2,2-dichloropropane was reported in samples GN-SO-08-2 and GN-SO-03-1. This analyte was identified in most of the other samples but the lab noted a poor mass spectrum match and did not report detections. The results in these two samples had similar detections and mass spectra, and the results have been changed to non-detect as in the other samples.

SVOCs: Results for the 18 PAHs were reported from the 8270D-SIM analysis.

PAHs: No issues.

Pesticides: Some detected results had RPDs greater than the required limit of less than 40% between the primary (reported) results and the secondary (confirmation) results and were qualified as shown in the table below.

Sample	Analyte	Primary / Confirmation Results	RPD	Qualification
GN-SO-01-1	gamma-Chlordane	2.61 / 0.835 µg/kg	103%	J
GN-SO-01-2	gamma-Chlordane	2.12 / 0.424 µg/kg	133%	J
GN-SO-02-1	Heptachlor epoxide	9.41 / 0.951 µg/kg	163%	J
GN-SO-04-1	gamma-Chlordane	2.78 / 0.778 µg/kg	113%	J
GN-SO-04-2	gamma-Chlordane	2.19 / 0.521 µg/kg	123%	J
GN-SO-05-1	Endrin	4.64 / 1.55 µg/kg	100%	J
GN-SO-06-1	gamma-Chlordane	2.37 / 0.889 µg/kg	91%	J
GN-SO-07-2	gamma-Chlordane	5.14 / 3.11 µg/kg	49%	J
GN-SO-08-1	gamma-Chlordane	4.57 / 3.01 µg/kg	41%	J
GN-SO-09C-1	gamma-Chlordane	2.29 / 17.7 µg/kg	154%	J
GN-SO-DUP-1	Endrin ketone Endrin Endosulfan sulfate	14.3 / 32.2 µg/kg 28.1 / 11.7 µg/kg 3.42 / 11.7 µg/kg	77% 82% 110%	J J J

PCBs: No issues.

Total Metals: No issues.

Total Mercury: No issues.

Hexavalent Chromium: No issues.

XV. DATA USABILITY

Data were usable as discussed below.

VOCs: No data were rejected. Data required minimal qualification. All data are usable as qualified.

SVOCs: With the exception of four analytes rejected in one sample for very low MS/MSD recoveries, data required minimal qualification and are usable as qualified.

PAHs: No data were rejected. Data required minimal qualification. All data are usable as qualified.

Pesticides: No data were rejected. Data required minimal qualification. All data are usable as qualified.

PCBs: No data were rejected. Data required minimal qualification. All data are usable as qualified.

Total Metals: No data were rejected. Data required minimal qualification. All data are usable as qualified.

Total Mercury: No data were rejected. Data required minimal qualification. All data are usable as qualified.

Hexavalent Chromium: No data were rejected. Data required minimal qualification. All data are usable as qualified.