



THE MEMPHIS DEPOT TENNESSEE

ADMINISTRATIVE RECORD COVER SHEET

AR File Number 671

Part II of II

**SEVERN
TRENT
SERVICES**

STL Pittsburgh
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Pittsburgh, PA 15238-1330

Tel: 412 820 8380
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ANALYTICAL REPORT

PROJECT NO. UXB 7512-060

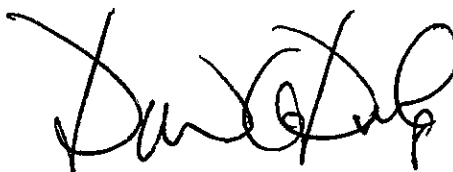
Dunn Field, Def Depot Memphis

Lot #: C0H260118

Frank Johnson

UXB International

SEVERN TRENT LABORATORIES, INC.



Dave Dunlap
Project Manager

September 11, 2000

CASE NARRATIVE
UXB International Inc.
Dunn Field

LOT # C0H260118

Sample Receiving:

STL Pittsburgh received a sample on August 26, 2000 in good condition and within the proper temperature range.

Volatiles:

There were no problems associated with the analysis.

Semivolatiles:

There were no problems associated with the analysis.

Pesticides:

The form 8's do not reflect that the retention times of the surrogates were updated with the times from the continuing calibration standards.

For the continuing calibration standards analyzed on August 30, 2000 at 21:35 and 22:03 delta-BHC and endosulfan sulfate were outside of the +/-15%D criteria. The average of all of the compounds in the continuing calibration standards was 8.7. Since these compounds were not detected in the sample, all data was reported.

Herbicides:

There were no problems associated with the analysis.

Total Metals:

There were no problems associated with the analysis.

TCLP Metals:

There were no problems associated with the analysis.

General Chemistry:

The reactive cyanide and reactive sulfide analyses were completed at the STL North Canton, OH laboratory.

There were no problems associated with the analyses.

METHODS SUMMARY

COH260118

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Chlorinated Herbicides by GC	SW846 8151A	SW846 1311/8150
Ignitability	SW846 SECTION 7	SW846 SECTION 7
Inductively Coupled Plasma (ICP) Metals	SW846 6010B	SW846 1311/3010
Mercury in Liquid Waste (Manual Cold-Vapor)	SW846 7470A	SW846 1311/7470
Organochlorine Pesticides	SW846 8081A	SW846 1311/3510
Reactive Cyanide	SW846 7.3.3	SW846 7.3.3
Reactive Sulfide	SW846 7.3.4	SW846 7.3.4
Semivolatile Organic Compounds by GC/MS	SW846 8270C	SW846 1311/3520
Soil and Waste pH	SW846 9045C	SW846 9045C
Total Residue as Percent Solids	MCAWW 160.3 MOD	MCAWW 160.3 MOD
Trace Inductively Coupled Plasma (ICP) Metals	SW846 6010B	SW846 3050B
Volatile Organics by GC/MS	SW846 8260B	SW846 1311/5030

References:

- MCAWW "Methods for Chemical Analysis of Water and Wastes",
EPA-600/4-79-020, March 1983 and subsequent revisions.
- SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical
Methods", Third Edition, November 1986 and its updates.

671 745

SAMPLE SUMMARY

COH260118

WO #	SAMPLE#	CLIENT SAMPLE ID	DATE	TIME
DJG82	001	DF/S1/0238/SDC/036	08/25/00	13:00

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

DISTRIBUTION: WHITE - Slays with Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Cooler Receipt Form

STL Pittsburgh

Client: UKB Project: 8/26/00 Quote: _____
 Cooler Rec'd & Opened for Temp. Check on: 8/26/00 By: [Signature]
 Coolers Opened and Unpacked on: _____ (Signature)

STL Pittsburgh Lot Number: C014260118

	Yes	No
1. Were custody seals on the outside of the cooler? _____	☒	☐
If YES, how many and where? Quantity <u>1</u> Location <u>1st</u>		
Were signatures and date correct? _____	☒	☐
2. Were custody papers included inside the cooler? _____	☒	☐
3. Were custody papers properly filled out (ink, signed, match labels)? _____	☒	☐
4. Did you sign the custody papers in the appropriate place? _____	☒	☐
5. Was shippers packing slip attached to this form? _____	☒	☐
6. Were packing materials used? <u>Bubble Pack Duct Tape</u>		
If YES, what type? _____		
7. Were the samples chilled? (Record temperatures on reverse side.) _____	☒	☐
8. Were the samples appropriately preserved? _____	☒	☐
9. Were all bottles sealed in separate plastic bags? _____	☒	☐
10. Did all bottles arrive in good condition (unbroken)? _____	☒	☐
11. Were all bottle labels complete (sample ID, preservatives, etc.)? _____	☒	☐
12. Did all bottle labels and/or tags agree with custody papers? _____	☒	☐
13. Were correct bottles used for tests indicated? _____	☒	☐
14. Were all VOA vials checked for the presence of air bubbles? _____	☒	☐
15. Was a sufficient amount of sample sent in each bottle? _____	☒	☐
16. Samples received by: <u>FEDEX</u> <u>UPS</u> CLIENT DROP-OFF OTHER AIRBORNE		

Explain any discrepancies: _____

Level 2 Review _____

Was contacted on _____ by _____ to resolve discrepancies.

STL Pittsburgh

671 748

P: Preserved

UP: Unpreserved

[illegible]

(1) "NUT" could include sample bottles for ammonia, chemical oxygen demand, nitrate/nitrite, TKN, or total phosphorus

Comments:

Cooler Number

Temperature

[illegible]

Bottle Type

Lot Number*

[illegible]

* Please use an asterisk if bottle lot number was covered by the label.

Tracking Number: 822525868540

1 From: Date: 1/2/00

Sender's Name: Chris Rose Phone: 901 745-4999

Company: WXB Int

Address: 6141 Old Capitol Rd # 116

City: Memphis State: TN ZIP: 38118

2 Your Internal Billing Reference

3 To: Recipient's Name: Rusty Vincine Phone: 412 720-2091

Company: Sevens Trent

Address: 450 William Pitt Way

City: Pittsburgh State: PA ZIP: 15238



4a Express Priority Overnight ☒ Packages up to 150 lbs. Next business day

4b Express Freight Service ☐ Packages over 150 lbs. Next business day

5 Packaging ☐ FedEx Envelope ☐ FedEx Pak ☒ Other Pkg

6 Special Handling ☒ SATURDAY Delivery ☐ SUNDAY Delivery ☐ HOLD Weekday ☐ HOLD Saturday

7 Payment ☒ Bill for ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check

8 Release Signature ☐ Signature required

Total Packages: 1 Total Weight: 1.00 lbs Total Declared Value: \$0.00

Signature: [Signature]

360

SBCCOM
Monitoring Branch Laboratory

CLEARANCE REPORT

August-25, 2000

Dunn Field, Memphis Defense Depot

Results for CWM Soil Sample Analysis

Analyst: John L Schwarz

Sample#		1,4- Thioxane	1,4- Dithiane	TDG	Mustard	Lewisite
DF/S1/02 38/SDC/ 036		ND	ND	N/A	ND	ND

ND= Not detected at or above the method detection limit (MDL)

MDL= 200 ppb

BDL= Below detection limit, results > 100ppb, but < 200 ppb

MS= matrix spike

MSD= matrix spike duplicate

DUP= duplicate

671 751

DATA SUMMARY PACKAGE

GC/MS VOLATILE SUMMARY

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0H260118 001

Method: SW846 8260B

Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL

Date Received: 08/26/00

Work Order: DJG82202

Date Extracted: 09/01/00

Dilution factor: 1

Date Analyzed: 09/01/00

Moisture %: 10

QC Batch: 0245186

Client Sample Id: DF/S1/0238/SDC/036 -RE 1

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	0.050	U
78-93-3	2-Butanone	0.013	J
56-23-5	Carbon tetrachloride	0.050	U
108-90-7	Chlorobenzene	0.050	U
67-66-3	Chloroform	0.050	U
107-06-2	1,2-Dichloroethane	0.050	U
75-35-4	1,1-Dichloroethene	0.050	U
127-18-4	Tetrachloroethene	0.050	U
79-01-6	Trichloroethene	0.050	U
75-01-4	Vinyl chloride	0.050	U

UXB INTERNATIONAL
MATRIX SPIKE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SOLID Lab Sample ID: COH260118 001

Method: SW846 8260B

Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL

Date Received: 08/26/00

Work Order: DJG8210X

Date Extracted: 09/01/00

Dilution factor: 1

Date Analyzed: 09/01/00

Moisture %: 10

QC Batch: 0245186

Client Sample Id: DF/S1/0238/SDC/036

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	0.459	
78-93-3	2-Butanone	0.296	
56-23-5	Carbon tetrachloride	0.465	
108-90-7	Chlorobenzene	0.476	
67-66-3	Chloroform	0.439	
107-06-2	1,2-Dichloroethane	0.405	
75-35-4	1,1-Dichloroethene	0.428	
127-18-4	Tetrachloroethene	0.554	
79-01-6	Trichloroethene	0.493	
75-01-4	Vinyl chloride	0.545	

671 755

UXB INTERNATIONAL
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COH260118 001

Method: SW846 8260B

Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL

Date Received: 08/26/00

Work Order: DJG82110

Date Extracted: 09/01/00

Dilution factor: 1

Date Analyzed: 09/01/00

Moisture %: 10

QC Batch: 0245186

Client Sample Id: DF/S1/0238/SDC/036

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	0.426	
78-93-3	2-Butanone	0.265	
56-23-5	Carbon tetrachloride	0.430	
108-90-7	Chlorobenzene	0.434	
67-66-3	Chloroform	0.406	
107-06-2	1,2-Dichloroethane	0.370	
75-35-4	1,1-Dichloroethene	0.394	
127-18-4	Tetrachloroethene	0.507	
79-01-6	Trichloroethene	0.458	
75-01-4	Vinyl chloride	0.494	

FORM I

UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SOLID Lab Sample ID: C0I010000 186
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 08/26/00
Work Order: DJQJ2102 Date Extracted: 09/01/00
Dilution factor: 1 Date Analyzed: 09/01/00
Moisture %: NA

QC Batch: 0245186

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	0.478	
78-93-3	2-Butanone	0.275	
56-23-5	Carbon tetrachloride	0.492	
108-90-7	Chlorobenzene	0.487	
67-66-3	Chloroform	0.459	
107-06-2	1,2-Dichloroethane	0.417	
75-35-4	1,1-Dichloroethene	0.442	
127-18-4	Tetrachloroethene	0.564	
79-01-6	Trichloroethene	0.509	
75-01-4	Vinyl chloride	0.542	

671 757

SW846 8260B SURROGATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

QESSDG:

Lot #: COH260118

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	TOT OUT
	=====	=====	=====	=====	=====	=====
01	DF/S1/0238/SDC/036 RE-1	83	92	89	90	00
02	METHOD BLK. DJQJ2101	87	98	92	95	00
03	LCS DJQJ2102	84	103	94	93	00
04	DF/S1/0238/SDC/036 D	79	97	91	88	00
05	DF/S1/0238/SDC/036 S	79	97	90	87	00

SURROGATES

SRG01 = 1,2-Dichloroethane-d4
SRG02 = Toluene-d8
SRG03 = 4-Bromofluorobenzene
SRG04 = Dibromofluoromethane

QC LIMITS

(77-120)
(78-111)
(80-114)
(78-110)

Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

SW846 8260B CHECK SAMPLE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: C0I010000

WO #: DJQJ2102

BATCH: 0245186

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====
Benzene	0.500	0.478	96	79- 116	
2-Butanone	0.500	0.275	55	35- 156	
Carbon tetrachloride	0.500	0.492	98	72- 133	
Chlorobenzene	0.500	0.487	97	81- 115	
Chloroform	0.500	0.459	92	81- 122	
1,2-Dichloroethane	0.500	0.417	83	73- 127	
1,1-Dichloroethene	0.500	0.442	88	65- 119	
Tetrachloroethene	0.500	0.564	113	78- 131	
Trichloroethene	0.500	0.509	102	80- 122	
Vinyl chloride	0.500	0.542	108	53- 134	

NOTES (S) :

* Values outside of QC limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS:

FORM III

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: DF/S1/0238/SDC/036

Level: (low/med) LOW

Lot #: C0H260118

WO #: DJG8210X

BATCH: 0245186

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS % REC	LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====	=====
Benzene	0.500	ND	0.459	92	73 - 123	
2-Butanone	0.500	0.013	0.296	57	10 - 151	
Carbon tetrachloride	0.500	ND	0.465	93	61 - 143	
Chlorobenzene	0.500	ND	0.476	95	70 - 122	
Chloroform	0.500	ND	0.439	88	65 - 131	
1,2-Dichloroethane	0.500	ND	0.405	81	67 - 132	
1,1-Dichloroethene	0.500	ND	0.428	86	57 - 138	
Tetrachloroethene	0.500	ND	0.554	111	70 - 130	
Trichloroethene	0.500	ND	0.493	99	58 - 141	
Vinyl chloride	0.500	ND	0.545	109	51 - 133	

NOTES(S) :

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limitsSpike Recovery: 0 out of 10 outside limits

COMMENTS:

SW846 8260B MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: DF/S1/0238/SDC/036

Level: (low/med) LOW

Lot #: C0H260118

WO #: DJG82110

BATCH: 0245186

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENT. (mg/L)	MSD		QC LIMITS			QUAL
			% REC	% RPD	RPD	REC		
=====	=====	=====	=====	=====	=====	=====	=====	=====
Benzene	0.500	0.426	85	7.5	20	73 - 123		
2-Butanone	0.500	0.265	50	11	34	10 - 151		
Carbon tetrachloride	0.500	0.430	86	7.7	20	61 - 143		
Chlorobenzene	0.500	0.434	87	9.2	20	70 - 122		
Chloroform	0.500	0.406	81	7.7	20	65 - 131		
1,2-Dichloroethane	0.500	0.370	74	9.1	20	67 - 132		
1,1-Dichloroethene	0.500	0.394	79	8.2	20	57 - 138		
Tetrachloroethene	0.500	0.507	101	8.9	20	70 - 130		
Trichloroethene	0.500	0.458	92	7.4	20	58 - 141		
Vinyl chloride	0.500	0.494	99	9.9	20	51 - 133		

NOTES (S) :

Column to be used to flag recovery and RPD values with an asterisk
 * Values outside of QC limits

RPD: 0 out of 10 outside limits
 Spike Recovery: 0 out of 10 outside limits

COMMENTS:

671 761

SW846 8260B METHOD BLANK SUMMARY

BLANK WORKORDER NO.

DJQJ2101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: 5090102.D

Lot Number: C0H260118

Date Analyzed: 09/01/00

Time Analyzed: 09:59

Matrix: SOLID

Date Extracted: 09/01/00

GC Column: HP624 ID: .20

Extraction Method: 1311/5030B

Instrument ID: HP5

Level: (low/med) LOW

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS, LCSD, MS , MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	=====	=====	=====	=====	=====
01	DF/S1/0238/SDC/036	DJG8210X S	5090105.D	09/01/00	11:14
02	DF/S1/0238/SDC/036	DJG82110 D	5090106.D	09/01/00	11:45
03	DF/S1/0238/SDC/036	DJG82202	5090103.D	09/01/00	10:25
04	CHECK SAMPLE	DJQJ2102 C	5090104.D	09/01/00	10:49
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IV

UXB INTERNATIONAL
METHOD BLANK COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SOLID Lab Sample ID: C0I010000 186

Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 08/26/00

Work Order: DJQJ2101 Date Extracted: 09/01/00

Dilution factor: 1 Date Analyzed: 09/01/00

Moisture %: NA

QC Batch: 0245186

Client Sample Id: INTRA-LAB BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	0.050	U
78-93-3	2-Butanone	0.050	U
56-23-5	Carbon tetrachloride	0.050	U
108-90-7	Chlorobenzene	0.050	U
67-66-3	Chloroform	0.050	U
107-06-2	1,2-Dichloroethane	0.050	U
75-35-4	1,1-Dichloroethene	0.050	U
127-18-4	Tetrachloroethene	0.050	U
79-01-6	Trichloroethene	0.050	U
75-01-4	Vinyl chloride	0.050	U

671 763

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL PITTSBURGH

Contract:

Lab Code: STL

Case No.:

SAS No.:

SDG No.: C0H260118

Lab File ID (Standard): CC50901

Date Analyzed: 09/01/00

Instrument ID: HP5

Time Analyzed: 0754

GC Column: DB 624 ID: 0.20 (mm)

Heated Purge: (Y/N) N

	IS1 (CBZ) AREA #	RT #	IS2 (DCB) AREA #	RT #	IS3 AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	169459	9.97	235584	12.28	734364	6.87
UPPER LIMIT	338918	10.17	471168	12.48	1468728	7.07
LOWER LIMIT	84730	9.77	117792	12.08	367182	6.67
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 INTRA-LAB BL	164251	9.97	222971	12.27	707668	6.89
02 DF/S1/0238/S	159555	9.97	221467	12.28	689904	6.89
03 INTRA-LAB CH	168097	9.98	238877	12.28	812584	6.88
04 DF/S1/0238/S	168124	9.98	239242	12.28	775175	6.88
05 DF/S1/0238/S	166879	9.97	238948	12.28	803243	6.87
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS1 (CBZ) = Chlorobenzene-d5
 IS2 (DCB) = 1,4-Dichlorobenzene-d4
 IS3 = Fluorobenzene

AREA UPPER LIMIT = +100% of internal standard area
 AREA LOWER LIMIT = - 50% of internal standard area
 RT UPPER LIMIT = + 0.20 minutes of internal standard RT
 RT LOWER LIMIT = - 0.20 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
 * Values outside of QC limits.

GC/MS SEMIVOLATILE SUMMARY

671 765

UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COH260118 001

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 08/26/00

Work Order: DJG82103

Date Extracted: 08/29/00

Dilution factor: 1

Date Analyzed: 09/01/00

Moisture %: 10

QC Batch: 0242296

Client Sample Id: DF/S1/0238/SDC/036

✓ CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/kg) mg/L	Q
106-46-7	1,4-Dichlorobenzene	0.050	U
121-14-2	2,4-Dinitrotoluene	0.050	U
118-74-1	Hexachlorobenzene	0.050	U
87-68-3	Hexachlorobutadiene	0.050	U
67-72-1	Hexachloroethane	0.050	U
98-95-3	Nitrobenzene	0.050	U
87-86-5	Pentachlorophenol	0.25	U
110-86-1	Pyridine	0.10	U
95-95-4	2,4,5-Trichlorophenol	0.050	U
88-06-2	2,4,6-Trichlorophenol	0.050	U
1319-77-3	Cresols (total)	0.050	U

FORM I

UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SOLID Lab Sample ID: COH290000 296

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 08/26/00

Work Order: DJK1G102

Date Extracted: 08/29/00

Dilution factor: 1

Date Analyzed: 09/01/00

Moisture %: NA

QC Batch: 0242296

Client Sample Id: CHECK SAMPLE

CONCENTRATION UNITS:			
CAS NO.	COMPOUND	(ug/L or ug/kg) mg/L	Q
106-46-7	1,4-Dichlorobenzene	0.184	
121-14-2	2,4-Dinitrotoluene	0.161	
118-74-1	Hexachlorobenzene	0.193	
87-68-3	Hexachlorobutadiene	0.175	
67-72-1	Hexachloroethane	0.197	
98-95-3	Nitrobenzene	0.177	
87-86-5	Pentachlorophenol	0.200	
110-86-1	Pyridine	0.191	
95-95-4	2,4,5-Trichlorophenol	0.176	
88-06-2	2,4,6-Trichlorophenol	0.179	
1319-77-3	Cresols (total)	0.656	

FORM I

671 767

UXB INTERNATIONAL
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COH260118 001

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 08/26/00

Work Order: DJG8210R

Date Extracted: 08/29/00

Dilution factor: 1

Date Analyzed: 09/01/00

Moisture %: 10

QC Batch: 0242296

Client Sample Id: DF/S1/0238/SDC/036

CONCENTRATION UNITS:			
CAS NO.	COMPOUND	(ug/L or ug/kg) mg/L	Q
106-46-7	1,4-Dichlorobenzene	0.150	
121-14-2	2,4-Dinitrotoluene	0.166	
118-74-1	Hexachlorobenzene	0.206	
87-68-3	Hexachlorobutadiene	0.145	
67-72-1	Hexachloroethane	0.160	
98-95-3	Nitrobenzene	0.164	
87-86-5	Pentachlorophenol	0.214	
110-86-1	Pyridine	0.161	
95-95-4	2,4,5-Trichlorophenol	0.185	
88-06-2	2,4,6-Trichlorophenol	0.180	
1319-77-3	Cresols (total)	0.583	

FORM I

UXB INTERNATIONAL
MATRIX SPIKE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SOLID Lab Sample ID: C0H260118 001

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL Date Received: 08/26/00

Work Order: DJG8210Q Date Extracted: 08/29/00

Dilution factor: 1 Date Analyzed: 09/01/00

Moisture %: 10

QC Batch: 0242296

Client Sample Id: DF/S1/0238/SDC/036

✓ CONCENTRATION UNITS:			
CAS NO.	COMPOUND	(ug/L or ug/kg) mg/L	Q
106-46-7	1,4-Dichlorobenzene	0.143	
121-14-2	2,4-Dinitrotoluene	0.158	
118-74-1	Hexachlorobenzene	0.198	
87-68-3	Hexachlorobutadiene	0.138	
67-72-1	Hexachloroethane	0.149	
98-95-3	Nitrobenzene	0.154	
87-86-5	Pentachlorophenol	0.204	
110-86-1	Pyridine	0.151	
95-95-4	2,4,5-Trichlorophenol	0.176	
88-06-2	2,4,6-Trichlorophenol	0.170	
1319-77-3	Cresols (total)	0.547	

671 769

SW846 8270C SURROGATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

QESSDG:

Lot #: C0H260118

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	SRG05	SRG06	TOT OUT
01	DF/S1/0238/SDC/036	67	64	90	58	71	75	00
02	METHOD BLK. DJK1G101	77	79	106	69	84	88	00
03	LCS DJK1G102	70	71	86	66	79	79	00
04	DF/S1/0238/SDC/036 D	64	64	98	53	68	81	00
05	DF/S1/0238/SDC/036 S	61	61	95	50	63	78	00

SURROGATES

SRG01 = Nitrobenzene-d5
 SRG02 = 2-Fluorobiphenyl
 SRG03 = Terphenyl-d14
 SRG04 = 2-Fluorophenol
 SRG05 = Phenol-d5
 SRG06 = 2,4,6-Tribromophenol

QC LIMITS

(32-112)
 (30-110)
 (10-144)
 (13-110)
 (10-113)
 (21-122)

- # Column to be used to flag recovery values
 * Values outside of required QC Limits
 D System monitoring Compound diluted out

FORM II

SW846 8270C MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIIT

SDG No:

Matrix Spike ID: DF/S1/0238/SDC/036

Level: (low/med) LOW

Lot #: C0H260118

WO #: DJG8210Q

BATCH: 0242296

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS % REC	LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====	=====
1,4-Dichlorobenzene	0.250	ND	0.143	57	18 - 110	
2,4-Dinitrotoluene	0.250	ND	0.158	63	31 - 131	
Hexachlorobenzene	0.250	ND	0.198	79	36 - 132	
Hexachlorobutadiene	0.250	ND	0.138	55	18 - 116	
Hexachloroethane	0.250	ND	0.149	60	18 - 110	
Nitrobenzene	0.250	ND	0.154	62	10 - 211	
Pentachlorophenol	0.250	ND	0.204	82	10 - 140	
Pyridine	0.250	ND	0.151	60	10 - 148	
2,4,5-Trichlorophenol	0.250	ND	0.176	70	24 - 143	
2,4,6-Trichlorophenol	0.250	ND	0.170	68	36 - 135	
Cresols (total)	0.750	ND	0.547	73	25 - 144	

NOTES (S):

Column to be used to flag recovery and RPD values with an asterisk
 * Values outside of QC limits

RPD: 0 out of 0 outside limitsSpike Recovery: 0 out of 11 outside limits

COMMENTS:

FORM III

671-771

SW846 8270C MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: DF/S1/0238/SDC/036

Level: (low/med) LOW

Lot #: COH260118

WO #: DJG8210R

BATCH: 0242296

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENT. (mg/L)	MSD % REC	% RPD	QC LIMITS		QUAL
					RPD	REC	
1,4-Dichlorobenzene	0.250	0.150	60	4.8	36	18 - 110	
2,4-Dinitrotoluene	0.250	0.166	66	4.9	32	31 - 131	
Hexachlorobenzene	0.250	0.206	82	4.0	22	36 - 132	
Hexachlorobutadiene	0.250	0.145	58	4.9	32	18 - 116	
Hexachloroethane	0.250	0.160	64	7.1	33	18 - 110	
Nitrobenzene	0.250	0.164	66	6.3	50	10 - 211	
Pentachlorophenol	0.250	0.214	86	4.8	56	10 - 140	
Pyridine	0.250	0.161	64	6.4	65	10 - 148	
2,4,5-Trichlorophenol	0.250	0.185	74	5.0	22	24 - 143	
2,4,6-Trichlorophenol	0.250	0.180	72	5.7	27	36 - 135	
Cresols (total)	0.750	0.583	78	6.4	33	25 - 144	

NOTES (S) :

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 11 outside limitsSpike Recovery: 0 out of 11 outside limits

COMMENTS:

FORM III

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: C0H290000

WO #: DJK1G102

BATCH: 0242296

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
1,4-Dichlorobenzene	0.250	0.184	74	28 - 110	
2,4-Dinitrotoluene	0.250	0.161	64	47 - 131	
Hexachlorobenzene	0.250	0.193	77	57 - 128	
Hexachlorobutadiene	0.250	0.175	70	36 - 116	
Hexachloroethane	0.250	0.197	79	30 - 110	
Nitrobenzene	0.250	0.177	71	45 - 130	
Pentachlorophenol	0.250	0.200	80	10 - 140	
Pyridine	0.250	0.191	76	10 - 148	
2,4,5-Trichlorophenol	0.250	0.176	70	41 - 125	
2,4,6-Trichlorophenol	0.250	0.179	72	46 - 135	
Cresols (total)	0.750	0.656	87	29 - 144	

NOTES (S) :

* Values outside of QC limits

Spike Recovery: 0 out of 11 outside limits

COMMENTS:

FORM III

671 773

SW846 8270C METHOD BLANK SUMMARY

BLANK WORKORDER NO.

DJK1G101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: F0901001.

Lot Number: C0H260118

Date Analyzed: 09/01/00

Time Analyzed: 08:19

Matrix: SOLID

Date Extracted: 08/29/00

GC Column: HP5MS ID: .25

Extraction Method: 1311/3520C

Instrument ID: 722

Level: (low/med) LOW

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS, LCSD, MS, MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	DF/S1/0238/SDC/036	DJG8210Q S	F0901003.	09/01/00	09:27
02	DF/S1/0238/SDC/036	DJG8210R D	F0901004.	09/01/00	10:01
03	DF/S1/0238/SDC/036	DJG82103	F0901005.	09/01/00	10:35
04	CHECK SAMPLE	DJK1G102 C	F0901002.	09/01/00	08:53
05					
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26					
27					
28					
29					
30					

COMMENTS:

FORM IV

UXB INTERNATIONAL
METHOD BLANK COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COH290000 296

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 08/26/00

Work Order: DJK1G101

Date Extracted: 08/29/00

Dilution factor: 1

Date Analyzed: 09/01/00

Moisture %: NA

QC Batch: 0242296

Client Sample Id: INTRA-LAB BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
106-46-7	1,4-Dichlorobenzene	0.050	U
121-14-2	2,4-Dinitrotoluene	0.050	U
118-74-1	Hexachlorobenzene	0.050	U
87-68-3	Hexachlorobutadiene	0.050	U
67-72-1	Hexachloroethane	0.050	U
98-95-3	Nitrobenzene	0.050	U
87-86-5	Pentachlorophenol	0.25	U
110-86-1	Pyridine	0.10	U
95-95-4	2,4,5-Trichlorophenol	0.050	U
88-06-2	2,4,6-Trichlorophenol	0.050	U
1319-77-3	Cresols (total)	0.050	U

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

671 775

Lab Name: STL PITTSBURGH

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.: _

Lab File ID (Standard): F09010C1

Date Analyzed: 09/01/00

Instrument ID: 722

Time Analyzed: 0744

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	99430	5.08	376269	6.63	223263	9.67
UPPER LIMIT	198860	5.58	752538	7.13	446526	10.17
LOWER LIMIT	49715	4.58	188135	6.13	111632	9.17
=====	=====	=====	=====	=====	=====	=====
CLIENT SAMPLE NO.		✓				
=====	=====	=====	=====	=====	=====	=====
01 INTRA-LAB BL	96493	5.08	399373	6.62	256077	9.66
02 INTRA-LAB CH	96247	5.09	398247	6.63	265528	9.67
03 DF/S1/0238/S	104462	5.08	419276	6.61	272033	9.65
04 DF/S1/0238/S	101304	5.09	405691	6.63	261766	9.67
05 DF/S1/0238/S	98882	5.08	409649	6.61	265632	9.65
06						
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21						
22						

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = + 0.50 minutes of internal standard RT

RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.

* Values outside of QC limits.

Lab Name: STL PITTSBURGH

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.: _

Lab File ID (Standard): F09010C1

Date Analyzed: 09/01/00

Instrument ID: 722

Time Analyzed: 0744

	IS4 (PHN)		IS5 (CRY)		IS6 (PRY)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	389517	12.98	304295	19.62	183114	22.99
UPPER LIMIT	779034	13.48	608590	20.12	366228	23.49
LOWER LIMIT	194759	12.48	152148	19.12	91557	22.49
=====	=====	=====	=====	=====	=====	=====
CLIENT						
SAMPLE NO.		✓				
=====	=====	=====	=====	=====	=====	=====
01 INTRA-LAB BL	463192	12.97	317484	19.61	177547	22.98
02 INTRA-LAB CH	478322	12.98	412636	19.62	244917	22.99
03 DF/S1/0238/S	475274	12.97	363145	19.60	235880	22.97
04 DF/S1/0238/S	447239	12.98	348039	19.62	240402	22.99
05 DF/S1/0238/S	450725	12.97	356386	19.60	245718	22.97
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22						

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = + 0.50 minutes of internal standard RT

RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.

* Values outside of QC limits.

671 777

PESTICIDE SUMMARY

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0H260118 001

Method: SW846 8081A

Pesticides (8081A)

Sample WT/Vol: 100 / mL

Date Received: 08/26/00

Work Order: DJG82104

Date Extracted: 08/29/00

Dilution factor: 1

Date Analyzed: 08/30/00

Moisture %: 10

QC Batch: 0242401

Client Sample Id: DF/S1/0238/SDC/036

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
57-74-9	Chlordane (technical)	0.0050	U
72-20-8	Endrin	0.00050	U
76-44-8	Heptachlor	0.00050	U
1024-57-3	Heptachlor epoxide	0.00050	U
58-89-9	Lindane	0.00050	U
72-43-5	Methoxychlor	0.0010	U
8001-35-2	Toxaphene	0.020	U

671 779

UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SOLID
Method: SW846 8081A
Pesticides (8081A)

Lab Sample ID: C0H290000 401

Sample WT/Vol: 100 / mL
Work Order: DJKFP102
Dilution factor: 1
Moisture %: NADate Received: 08/26/00
Date Extracted: 08/29/00
Date Analyzed: 08/30/00

QC Batch: 0242401

Client Sample Id: CHECK SAMPLE

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(ug/L or ug/kg) mg/L	Q
72-20-8	Endrin	0.00223	
76-44-8	Heptachlor	0.00220	
1024-57-3	Heptachlor epoxide	0.00221	
58-89-9	Lindane	0.00145	
72-43-5	Methoxychlor	0.00172	

UXB INTERNATIONAL
CHECK SAMPLE DUPLICATE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SOLID Lab Sample ID: C0H290000 401

Method: SW846 8081A

Pesticides (8081A)

Sample WT/Vol: 100 / mL

Date Received: 08/26/00

Work Order: DJKFP103

Date Extracted: 08/29/00

Dilution factor: 1

Date Analyzed: 08/30/00

Moisture %: NA

QC Batch: 0242401

Client Sample Id: DUPLICATE CHECK

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
72-20-8	Endrin	0.00236	
76-44-8	Heptachlor	0.00216	
1024-57-3	Heptachlor epoxide	0.00226	
58-89-9	Lindane	0.00147	
72-43-5	Methoxychlor	0.00172	

671 781

SW846 8081A SURROGATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

QESSDG:

Lot #: C0H260118

	CLIENT ID.	SRG01	SRG02	TOT OUT
	=====	=====	=====	=====
01	DF/S1/0238/SDC/036	95	80	00
02	METHOD BLK. DJKFP101	98	91	00
03	LCS DJKFP102	93	83	00
04	LCSD DJKFP103	95	82	00

SURROGATES

SRG01 = Decachlorobiphenyl
SRG02 = Tetrachloro-m-xylene

QC LIMITS

(10-147)
(39-130)

- # Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: C0H290000

WO #: DJKFP102

BATCH: 0242401

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====
Lindane	0.00250	0.00145	58	49 - 137	
Heptachlor	0.00250	0.00220	88	57 - 124	
Heptachlor epoxide	0.00250	0.00221	89	53 - 135	
Endrin	0.00250	0.00223	89	46 - 137	
Methoxychlor	0.00250	0.00172	69	12 - 154	

NOTES (S) :

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS:

671 783

SW846 8081A CHECK SAMPLE DUPLICATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: C0H290000

WO #: DJKFP103

BATCH: 0242401

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====
Lindane	0.00250	0.00147	59	49 - 137	
Heptachlor	0.00250	0.00216	87	57 - 124	
Heptachlor epoxide	0.00250	0.00226	90	53 - 135	
Endrin	0.00250	0.00236	95	46 - 137	
Methoxychlor	0.00250	0.00172	69	12 - 154	

NOTES(S) :

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS:

FORM III

SW846 8081A METHOD BLANK SUMMARY

BLANK WORKORDER NO.

DJKFP101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: D-B5764.d

Lot Number: C0H260118

Matrix: SOLID

Extraction Method: 1311/3510

Date Extracted: 08/29/00

Date Analyzed(1): 08/30/00

Date Analyzed(2): N/A

Time Analyzed(1): 11:53

Time Analyzed(2): N/A

Instrument ID(1): G/H

Instrument ID(2): N/A

GC Column(1): DB608/1701 ID:

053

GC Column(2): N/A

ID:

N/A

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	DATE ANALYZED (1)	DATE ANALYZED (2)
01	DF/S1/0238/SDC/036	DJG82104	08/30/00	N/A
02	CHECK SAMPLE	DJKFP102 C	08/30/00	N/A
03	DUPLICATE CHECK	DJKFP103 L	08/30/00	N/A
04				
05				
06				
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19				
20				

COMMENTS:

FORM IV

671 785

UXB INTERNATIONAL
METHOD BLANK COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0H290000 401

Method: SW846 8081A

Pesticides (8081A)

Sample WT/Vol: 100 / mL

Date Received: 08/26/00

Work Order: DJKFP101

Date Extracted: 08/29/00

Dilution factor: 1

Date Analyzed: 08/30/00

Moisture %: NA

QC Batch: 0242401

Client Sample Id: INTRA-LAB BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
57-74-9	Chlordane (technical)	0.0050	U
72-20-8	Endrin	0.00050	U
76-44-8	Heptachlor	0.00050	U
1024-57-3	Heptachlor epoxide	0.00050	U
58-89-9	Lindane	0.00050	U
72-43-5	Methoxychlor	0.0010	U
8001-35-2	Toxaphene	0.020	U

HERBICIDE SUMMARY

671 787

UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0H260118 001

Method: SW846 8151A

Herbicides (8151A)

Sample WT/Vol: 100 / mL

Date Received: 08/26/00

Work Order: DJG82105

Date Extracted: 08/29/00

Dilution factor: 1

Date Analyzed: 08/30/00

Moisture %: 10

QC Batch: 0242404

Client Sample Id: DF/S1/0238/SDC/036

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
94-75-7	2,4-D	0.040	U
93-72-1	2,4,5-TP (Silvex)	0.010	U

FORM I

UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COH290000 404

Method: SW846 8151A

Herbicides (8151A)

Sample WT/Vol: 100 / mL

Date Received: 08/26/00

Work Order: DJKFX102

Date Extracted: 08/29/00

Dilution factor: 1

Date Analyzed: 08/30/00

Moisture %: NA

QC Batch: 0242404

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
94-75-7	2,4-D	0.134	
93-72-1	2,4,5-TP (Silvex)	0.0343	

671 789

UXB INTERNATIONAL
CHECK SAMPLE DUPLICATE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0H290000 404

Method: SW846 8151A

Herbicides (8151A)

Sample WT/Vol: 100 / mL

Date Received: 08/26/00

Work Order: DJKFX103

Date Extracted: 08/29/00

Dilution factor: 1

Date Analyzed: 08/30/00

Moisture %: NA

QC Batch: 0242404

Client Sample Id: DUPLICATE CHECK

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
94-75-7	2,4-D	0.128	
93-72-1	2,4,5-TP (Silvex)	0.0330	

FORM I

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

QESSDG:

Lot #: C0H260118

	CLIENT ID.	SRG01	TOT OUT
	=====	=====	=====
01	DF/S1/0238/SDC/036	60	00
02	METHOD BLK. DJKFX101	76	00
03	LCS DJKFX102	94	00
04	LCSD DJKFX103	90	00

SURROGATES

SRG01 = DCAA

QC LIMITS

(42-125)

- # Column to be used to flag recovery values
- * Values outside of required QC Limits
- D System monitoring Compound diluted out

FORM II

671 791

SW846 8151A CHECK SAMPLE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: C0H290000

WO #: DJKFX102

BATCH: 0242404

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====
2,4-D	0.160	0.134	84	28 - 136	
2,4,5-TP (Silvex)	0.0400	0.0343	86	50 - 128	

NOTES(S) :

* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS:

FORM III

SW846 8151A CHECK SAMPLE DUPLICATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: C0H290000

WO #: DJKFX103

BATCH: 0242404

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====
2,4-D	0.160	0.128	80	28 - 136	
2,4,5-TP (Silvex)	0.0400	0.0330	83	50 - 128	

NOTES(S) :

* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS:

FORM III

671 793

SW846 8151A METHOD BLANK SUMMARY

BLANK WORKORDER NO.

DJKFX101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: A-A50379.

Lot Number: C0H260118

Matrix: SOLID

Extraction Method:

Date Extracted: 08/29/00

Date Analyzed(1): 08/30/00

Date Analyzed(2): N/A

Time Analyzed(1): 15:34

Time Analyzed(2): N/A

Instrument ID(1): A/B

Instrument ID(2): N/A

GC Column(1): DB5/DB1701 ID: 053

GC Column(2): N/A

ID: N/A

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	DATE ANALYZED (1)	DATE ANALYZED (2)
	=====	=====	=====	=====
01	DF/S1/0238/SDC/036	DJG82105	08/30/00	N/A
02	CHECK SAMPLE	DJKFX102 C	08/30/00	N/A
03	DUPLICATE CHECK	DJKFX103 L	08/30/00	N/A
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

COMMENTS:

FORM IV

UXB INTERNATIONAL
METHOD BLANK COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0H290000 404

Method: SW846 8151A

Herbicides (8151A)

Sample WT/Vol: 100 / mL

Date Received: 08/26/00

Work Order: DJKFX101

Date Extracted: 08/29/00

Dilution factor: 1

Date Analyzed: 08/30/00

Moisture %: NA

QC Batch: 0242404

Client Sample Id: INTRA-LAB BLANK

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(ug/L or ug/kg) mg/L	Q
94-75-7	2,4-D	0.040	U
93-72-1	2,4,5-TP (Silvex)	0.010	U

671 795

METALS SUMMARY

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: DJG82 Client ID: DF/S1/0238/SDC/036
Matrix: Soil Units: mg/kg Prep Date: 8/31/00 Prep Batch: 0244397
Weight: 1.00 Volume: 100 Percent Moisture: 10.23

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	189.04	0.29	1.1	11.7		1	ICPST	9/1/00	8:02

Comments: C0H260118001

Version 4.10.2

U Result is less than the MDL
B Result is between MDL and RL

Form 1 Equivalent

671 797

STL-Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICPSTUnits: ug/LChart Number: T00901A.ARC

Standard Source: _____

Standard ID: _____

			ICB1 9/1/00 7:39 AM				
Element	WL/ Mass	Report Limit	Found Q	Found Q	Found Q	Found Q	Found Q
Arsenic	189.042	10	2.6 U				

STL-Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: ICPSTUnits: ug/LChart Number: T00901A.ARC

Standard Source: _____

Standard ID: _____

			CCBI 9/1/00 8:22 AM				
Element	WL/ Mass	Report Limit	Found Q	Found Q	Found Q	Found Q	Found Q
Arsenic	189.042	10	2.6 U				

671 799

STL-Pittsburgh

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DJPN0BMatrix: Soil Units: mg/kg Prep Date: 8/31/00 Prep Batch: 0244397Weight: 1.00 Volume: 100 Percent Moisture: NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	189.042	0.26	1.0	0.26	U	1	ICPST	9/1/00	7:53

Comments: _____

Version 4.10.2

U Result is less than the MDL

Form 3 Equivalent

B Result is between MDL and RL

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Sample Results

Spike Sample ID: DJG82S
 Original Sample ID: DJG82 Client ID: DF/S1/0238/SDC/036S
 Matrix: Soil Units: mg/kg Prep Date: 8/31/00 Prep Batch: 0244397
 Weight: 1.00 Volume: 100 Percent Moisture: 10.23

Element	WL/ Mass	OS Conc	Q	MS Conc	Q	Spike Level	% Rec	OS DF	MS DF	Instr	OS Anal Date	OS Anal Time	MS Anal Date	MS Anal Time
Arsenic	189.0	11.7		224		222.79	95.1	1	1	ICPST	9/1/00	8:02	9/1/00	8:10

Comments: _____

Version 4.10.2

- U Result is less than the MDL
- B Result is between MDL and RL
- N Spike recovery failed
- NC Percent recovery was not calculated
- * Duplicate analysis RPD was not within limits

Form 5A Equivalent

671 801

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Duplicate Sample Results

Spike Sample ID: DJG82D
 Original Sample ID: DJG82 Client ID: DF/S1/0238/SDC/036D
 Matrix: Soil Units: mg/kg Prep Date: 8/31/00 Prep Batch: 0244397
 Weight: 1.00 Volume: 100 Percent Moisture: 10.23

Element	WL/ Mass	OS Conc	Q	MSD Conc	Q	Spike Level	% Rec	OS DF	MSD DF	Instr	OS Anal Date	OS Anal Time	MSD Anal Date	MSD Anal Time
Arsenic	189.0	11.7		230		222.79	98.1	1	1	ICPST	9/1/00	8:02	9/1/00	8:14

Comments: _____

Version 4.10 2

- U Result is less than the MDL
- B Result is between MDL and RL
- N Spike recovery failed
- NC Percent recovery was not calculated
- * Duplicate analysis RPD was not within limits

Form 5A Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Duplicate RPD Report

Matrix Spike Duplicate Sample ID: DJG82DMatrix Spike Sample ID: DJG82S Client ID: DF/S1/0238/SDC/036DMatrix: Soil Units: mg/kg Prep Date: 8/31/00 Prep Batch: 0244397Weight: 1.00 Volume: 100 Percent Moisture: 10.23

Element	WL/ Mass	MS Conc	Q	MSD Conc	Q	RPD	MS DF	MSD DF	Instr	MS Anal Date	MS Anal Time	MSD Anal Date	MSD Anal Time
Arsenic	189.042	224		230		3.2 %	1	1	ICPST	9/1/00	8:10	9/1/00	8:14

Comments: _____

Version 4.10.2

U Result is less than the MDL

B Result is between MDL and RL

N Spike recovery failed

NC Percent recovery was not calculated

* Duplicate analysis RPD was not within limits

Form 6 Equivalent

671 803

STL-Pittsburgh

Metals Data Reporting Form

Laboratory Control Sample Results

Lab Sample ID: DJPN0CMatrix: Soil Units: mg/kg Prep Date: 8/31/00 Prep Batch: 0244397Weight: 1.00 Volume: 100 Percent Moisture: NA

Element	WL/ Mass	Spike Level	Conc	Percent Recovery	Q	Range	DF	Instr	Anal Date	Anal Time
Arsenic	189.042	200	207	103.3		80-120	1	ICPST	9/1/00	7:57

Comments: _____

Version 4.10.2

U Result is less than the MDL
B Result is between MDL and RL

Form 7 Equivalent

TCLP METALS SUMMARY

671 805

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: DJG82T Client ID: DF/S1/0238/SDC/036
 Matrix: TCLP Units: mg/L Prep Date: 8/30/00 Prep Batch: 0243115
 Weight: NA Volume: 50 Percent Moisture: NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	193.7	0.030	0.50	0.19	B	1	ICP	8/30/00	10:53
Barium	493.41	0.00041	10.0	1.6	B	1	ICP	8/30/00	10:53
Cadmium	228.80	0.0028	0.10	0.031	B	1	ICP	8/30/00	10:53
Chromium	267.72	0.0038	0.50	0.0062	B	1	ICP	8/30/00	10:53
Lead	220.35	0.025	0.50	1.6		1	ICP	8/30/00	10:53
Selenium	196.03	0.067	0.25	0.067	U	1	ICP	8/30/00	13:02
Silver	328.07	0.0031	0.50	0.0031	U	1	ICP	8/30/00	10:53

Comments: C0H260118001

Version 4.10.2

U Result is less than the MDL

B Result is between MDL and RL

Form 1 Equivalent

STL-Pittsburgh
Metals Data Reporting Form

Sample Results

Lab Sample ID: DJG82T **Client ID:** DF/S1/0238/SDC/036
Matrix: TCLP **Units:** mg/L **Prep Date:** 8/31/00 **Prep Batch:** 0243252
Weight: NA **Volume:** 100 **Percent Moisture:** NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.000045	0.00020	0.00013	B	1	CVAA	8/31/00	9:14

Comments: _____

Version 4.10.2

U Result is less than the MDL
B Result is between MDL and RL

Form 1 Equivalent

671 807

STL-Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: CVAAUnits: ug/LChart Number: 0831HGA.PRN

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	ICB1 8/31/00 8:57 AM					
			Found	Q	Found	Q	Found	Q
Mercury	253.7	0.2	0.1	B				

STL-Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICPUnits: ug/LChart Number: J00830A.ARC

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	ICB1 8/30/00 7:53 AM							
			Found	Q	Found	Q	Found	Q	Found	Q
Arsenic	193.696	500	30.3	U						
Barium	493.409	10000	0.4	U						
Cadmium	228.802	100	2.8	U						
Chromium	267.716	500	3.8	U						
Lead	220.353	500	-25.0	B						
Silver	328.068	500	3.1	U						

671 809

STL-Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICPUnits: ug/LChart Number: J00830B.ARC

Standard Source: _____

Standard ID: _____

			ICB1 8/30/00 11:36 AM					
Element	WL/ Mass	Report Limit	Found	Q	Found	Q	Found	Q
Selenium	196.026	250	67.4	U				

STL-Pittsburgh

Metals Data Reporting Form

.2

Continuing Calibration Blank Results

Instrument: CVAAUnits: ug/LChart Number: 0831HGA.PRN

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	CCB1 8/31/00 9:01 AM	CCB2 8/31/00 9:20 AM			
			Found Q	Found Q	Found Q	Found Q	Found Q
Mercury	253.7	0.2	0.1 B	0.0 U			

671 811

STL-Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: ICPUnits: ug/LChart Number: J00830A.ARC

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	CCB1 8/30/00 8:33 AM		CCB2 8/30/00 9:11 AM		CCB3 8/30/00 9:20 AM		CCB4 8/30/00 9:31 AM		CCB5 8/30/00 10:59 AM	
			Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Arsenic	193.696	500	30.3	U	30.3	U	30.3	U	30.3	U	63.3	B
Barium	493.409	10000	0.4	U	0.4	U	0.5	B	0.4	U	0.4	U
Cadmium	228.802	100	2.8	U	2.8	U	2.8	U	2.8	U	2.8	U
Chromium	267.716	500	3.8	U	3.8	U	3.8	U	3.8	U	3.8	U
Lead	220.353	500	24.6	U	24.6	U	24.6	U	24.6	U	24.6	U
Silver	328.068	500	3.1	U	3.1	U	3.1	U	3.1	U	3.1	U

STL-Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: ICPUnits: ug/LChart Number: J00830B.ARC

Standard Source: _____

Standard ID: _____

			CCB1 8/30/00 12:16 PM	CCB2 8/30/00 12:31 PM	CCB3 8/30/00 1:09 PM		
Element	WL/ Mass	Report Limit	Found Q	Found Q	Found Q	Found Q	Found Q
Selenium	196.026	250	67.4 U	67.4 U	67.4 U		

671 813

STL-Pittsburgh

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DJJH6BTMatrix: TCLP Units: mg/L Prep Date: 8/30/00 Prep Batch: 0243115Weight: NA Volume: 50 Percent Moisture: NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	193.696	0.030	0.50	0.19	B	1	ICP	8/30/00	10:30
Barium	493.409	0.00041	10.0	0.00078	B	1	ICP	8/30/00	10:30
Cadmium	228.802	0.0028	0.10	-0.0050	B	1	ICP	8/30/00	10:30
Chromium	267.716	0.0038	0.50	0.0038	U	1	ICP	8/30/00	10:30
Lead	220.353	0.025	0.50	-0.027	B	1	ICP	8/30/00	10:30
Selenium	196.026	0.067	0.25	0.067	U	1	ICP	8/30/00	12:40
Silver	328.068	0.0031	0.50	0.0031	U	1	ICP	8/30/00	10:30

Comments: _____

Version 4.10.2

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DJL29BTMatrix: TCLP Units: mg/L Prep Date: 8/30/00 Prep Batch: 0243115Weight: NA Volume: 50 Percent Moisture: NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	193.696	0.030	0.50	0.030	U	1	ICP	8/30/00	10:27
Barium	493.409	0.00041	10.0	0.00041	U	1	ICP	8/30/00	10:27
Cadmium	228.802	0.0028	0.10	0.0028	U	1	ICP	8/30/00	10:27
Chromium	267.716	0.0038	0.50	0.0038	U	1	ICP	8/30/00	10:27
Lead	220.353	0.025	0.50	0.025	U	1	ICP	8/30/00	10:27
Selenium	196.026	0.067	0.25	0.067	U	1	ICP	8/30/00	12:37
Silver	328.068	0.0031	0.50	0.0031	U	1	ICP	8/30/00	10:27

Comments: _____

Version 4.10.2

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

671 815

STL-Pittsburgh

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DJJH6BTMatrix: TCLP Units: mg/L Prep Date: 8/31/00 Prep Batch: 0243252Weight: NA Volume: 100 Percent Moisture: NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.000045	0.00020	0.00012	B	1	CVAA	8/31/00	9:05

Comments: _____

Version 4.10.2

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DJLLWBTMatrix: TCLP Units: mg/L Prep Date: 8/31/00 Prep Batch: 0243252Weight: NA Volume: 100 Percent Moisture: NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.000045	0.00020	0.000069	B	1	CVAA	8/31/00	9:02

Comments: _____

Version 4.10.2

U Result is less than the MDL

Form 3 Equivalent

B Result is between MDL and RL

671 817

STL-Pittsburgh

Metals Data Reporting Form

Laboratory Control Sample Results

Lab Sample ID: DJL29CTMatrix: TCLP Units: mg/L Prep Date: 8/30/00 Prep Batch: 0243115Weight: NA Volume: 50 Percent Moisture: NA

Element	WL/ Mass	Spike Level	Conc	Percent Recovery	Q	Range	DF	Instr	Anal Date	Anal Time
Arsenic	193.696	2.0	2.4	118.6		80-120	1	ICP	8/30/00	10:34
Barium	493.409	2.0	1.9	95.3	B	80-120	1	ICP	8/30/00	10:34
Cadmium	228.802	0.050	0.046	91.9	B	80-120	1	ICP	8/30/00	10:34
Chromium	267.716	0.20	0.20	100.8	B	80-120	1	ICP	8/30/00	10:34
Lead	220.353	0.50	0.50	99.5	B	80-120	1	ICP	8/30/00	10:34
Selenium	196.026	2.0	2.1	103.2		80-120	1	ICP	8/30/00	12:43
Silver	328.068	0.050	0.051	101.7	B	80-120	1	ICP	8/30/00	10:34

Comments: _____

Version 4.10.2

U Result is less than the MDL

Form 7 Equivalent

STL Pittsburgh

B Result is between MDL and RL

STL-Pittsburgh

Metals Data Reporting Form

Laboratory Control Sample Results

Lab Sample ID: DJLLWCTMatrix: TCLP Units: mg/L Prep Date: 8/31/00 Prep Batch: 0243252Weight: NA Volume: 100 Percent Moisture: NA

Element	WL/ Mass	Spike Level	Conc	Percent Recovery	Q	Range	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.0025	0.0027	107.2		80-120	1	CVAA	8/31/00	9:04

Comments: _____

Version 4.10.2

STL Pittsburgh

U Result is less than the MDL

B Result is between MDL and RL

Form 7 Equivalent

671 819

GENERAL CHEMISTRY SUMMARY

UXB INTERNATIONAL

Client Sample ID: DF/S1/0238/SDC/036

General Chemistry

Lot-Sample #...: C0H260118-001 Work Order #...: DJG82 Matrix.....: SOLID
 Date Sampled...: 08/25/00 Date Received...: 08/26/00
 % Moisture.....: 10

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH	7.9		No Units	SW846 9045C	08/28/00	0241285
				Dilution Factor: 1	MS Run #: 0241113	
Ignitability	NO	--	No Units	SW846 SECTION 7.1	08/28/00	0241124
				Dilution Factor: 1	MS Run #: 0241024	
Percent Solids	89.8		%	MCAWW 160.3 MOD	08/28-08/29/00	0241161
				Dilution Factor: 1	MS Run #: 0241036	
Reactive Cyanide	ND	200	mg/kg	SW846 7.3.3	08/30/00	0243365
				Dilution Factor: 1	MS Run #: 0243165	
Reactive Sulfide	ND	200	mg/kg	SW846 7.3.4	08/30/00	0243366
				Dilution Factor: 1	MS Run #: 0243164	

671 821

METHOD BLANK REPORT

General Chemistry

Client Lot #...: C0H260118

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>PREP</u> <u>BATCH #</u>
Reactive Cyanide	ND	Work Order #: DJM77101 200	mg/kg	MB Lot-Sample #: A0H300000-365 SW846 7.3.3	08/30/00	0243365
		Dilution Factor: 1				
Reactive Sulfide	ND	Work Order #: DJM73101 200	mg/kg	MB Lot-Sample #: A0H300000-366 SW846 7.3.4	08/30/00	0243366
		Dilution Factor: 1				

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: C0H260118

Matrix.....: SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
pH	100	Work Order #: DJHBL101 (85 - 115)	LCS Lot-Sample#: C0H280000-285 SW846 9045C	08/28/00	0241285
		Dilution Factor: 1			

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

١٠٤

General Chemistry

Matrix.....: SOLID

Date Received..: 08/25/00

Date Received..: 08/25/00

Prep Batch #...:

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: COH260118

Work Order #...: DJG82-SMP
DJG82-DUP

Matrix.....: SOLID

Date Sampled...: 08/25/00

Date Received...: 08/26/00

% Moisture.....: 10

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH	7.9	7.9	No Units	0.38	(0-20)	SW846 9045C	08/28/00	0241285

Dilution Factor: 1

Prep Date.....: 0241113

Analysis Date...

Prep Batch #....:

Ignitability

No Units	0	(0-0.0)	SW846 SECTION 7.1	08/28/00	0241124

Dilution Factor: 1

Prep Date.....: 0241024

Analysis Date...

Prep Batch #....:

Reactive Cyanide

ND

ND

mg/kg	183	(0-20)	SW846 7.3.3	08/30/00	0243365

Dilution Factor: 1

Prep Date.....: 0243165

Analysis Date...

Prep Batch #....:

Reactive Sulfide

ND

ND

mg/kg	0	(0-20)	SW846 7.3.4	08/30/00	0243366

Dilution Factor: 1

Prep Date.....: 0243164

Analysis Date...

Prep Batch #....:

671 825

GC/MS VOLATILE DATA

**GC/MS VOLATILE
QC SUMMARY**

671 827

SW846 8260B SURROGATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

QESSDG:

Lot #: C0H260118

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	TOT OUT
	=====	=====	=====	=====	=====	=====
01	DF/S1/0238/SDC/036 RE-1	83	92	89	90	00
02	METHOD BLK. DJQJ2101	87	98	92	95	00
03	LCS DJQJ2102	84	103	94	93	00
04	DF/S1/0238/SDC/036 D	79	97	91	88	00
05	DF/S1/0238/SDC/036 S	79	97	90	87	00

SURROGATES

SRG01 = 1,2-Dichloroethane-d4
SRG02 = Toluene-d8
SRG03 = 4-Bromofluorobenzene
SRG04 = Dibromofluoromethane

QC LIMITS

(77-120)
(78-111)
(80-114)
(78-110)

Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

SW846 8260B CHECK SAMPLE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: C0I010000

WO #: DJQJ2102

BATCH: 0245186

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====
Benzene	0.500	0.478	96	79 - 116	
2-Butanone	0.500	0.275	55	35 - 156	
Carbon tetrachloride	0.500	0.492	98	72 - 133	
Chlorobenzene	0.500	0.487	97	81 - 115	
Chloroform	0.500	0.459	92	81 - 122	
1,2-Dichloroethane	0.500	0.417	83	73 - 127	
1,1-Dichloroethene	0.500	0.442	88	65 - 119	
Tetrachloroethene	0.500	0.564	113	78 - 131	
Trichloroethene	0.500	0.509	102	80 - 122	
Vinyl chloride	0.500	0.542	108	53 - 134	

NOTES (S) :

* Values outside of QC limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS:

FORM III

671 829 SW846 8260B MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: DF/S1/0238/SDC/036

Level: (low/med) LOW

Lot #: COH260118

WO #: DJG8210X

BATCH: 0245186

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS % REC	LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====	=====
Benzene	0.500	ND	0.459	92	73 - 123	
2-Butanone	0.500	0.013	0.296	57	10 - 151	
Carbon tetrachloride	0.500	ND	0.465	93	61 - 143	
Chlorobenzene	0.500	ND	0.476	95	70 - 122	
Chloroform	0.500	ND	0.439	88	65 - 131	
1,2-Dichloroethane	0.500	ND	0.405	81	67 - 132	
1,1-Dichloroethene	0.500	ND	0.428	86	57 - 138	
Tetrachloroethene	0.500	ND	0.554	111	70 - 130	
Trichloroethene	0.500	ND	0.493	99	58 - 141	
Vinyl chloride	0.500	ND	0.545	109	51 - 133	

NOTES(S):

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 0 outside limitsSpike Recovery: 0 out of 10 outside limits

COMMENTS:

FORM III

SW846 8260B MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: DF/S1/0238/SDC/036

Level: (low/med) LOW

Lot #: C0H260118

WO #: DJG82110

BATCH: 0245186

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENT. (mg/L)	MSD % REC	% RPD	QC LIMITS		QUAL
					RPD	REC	
=====	=====	=====	=====	=====	=====	=====	=====
Benzene	0.500	0.426	85	7.5	20	73 - 123	
2-Butanone	0.500	0.265	50	11	34	10 - 151	
Carbon tetrachloride	0.500	0.430	86	7.7	20	61 - 143	
Chlorobenzene	0.500	0.434	87	9.2	20	70 - 122	
Chloroform	0.500	0.406	81	7.7	20	65 - 131	
1,2-Dichloroethane	0.500	0.370	74	9.1	20	67 - 132	
1,1-Dichloroethene	0.500	0.394	79	8.2	20	57 - 138	
Tetrachloroethene	0.500	0.507	101	8.9	20	70 - 130	
Trichloroethene	0.500	0.458	92	7.4	20	58 - 141	
Vinyl chloride	0.500	0.494	99	9.9	20	51 - 133	

NOTES (S) :

Column to be used to flag recovery and RPD values with an asterisk
 * Values outside of QC limits

RPD: 0 out of 10 outside limits
 Spike Recovery: 0 out of 10 outside limits

COMMENTS:

671 831

SW846 8260B METHOD BLANK SUMMARY

BLANK WORKORDER NO.

DJQJ2101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: 5090102.D

Lot Number: C0H260118

Date Analyzed: 09/01/00

Time Analyzed: 09:59

Matrix: SOLID

Date Extracted: 09/01/00

GC Column: HP624 ID: .20

Extraction Method: 1311/5030B

Instrument ID: HP5

Level: (low/med) LOW

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS, LCSD, MS , MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	=====	=====	=====	=====	=====
01	DF/S1/0238/SDC/036	DJG8210X S	5090105.D	09/01/00	11:14
02	DF/S1/0238/SDC/036	DJG82110 D	5090106.D	09/01/00	11:45
03	DF/S1/0238/SDC/036	DJG82202	5090103.D	09/01/00	10:25
04	CHECK SAMPLE	DJQJ2102 C	5090104.D	09/01/00	10:49
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
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29					
30					

COMMENTS:

FORM IV

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

671 832

Lab Name: STL PITTSBURGH

Contract:

Lab Code: STL

Case No.:

SAS No.:

SDG No.: METHODS

Lab File ID: BF50802K

BFB Injection Date: 08/02/00

Instrument ID: HP5

BFB Injection Time: 1308

GC Column: DB624 20M ID: 0.20 (mm)

Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.6
75	30.0 - 60.0% of mass 95	51.0
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.3
173	Less than 2.0% of mass 174	0.7 (0.9)1
174	50.0 - 100.0% of mass 95	81.9
175	5.0 - 9.0% of mass 174	5.6 (6.8)1
176	95.0 - 101.0% of mass 174	78.3 (95.6)1
177	5.0 - 9.0% of mass 176	5.1 (6.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSXD50	VSTD50	CC50802K	08/02/00	1338
02	VSTD100	VSTD100	1D50802K	08/02/00	2014
03	VSTD200	VSTD200	1E50803K	08/02/00	2041
04	VSTD5	VSTD5	2A50802K	08/02/00	2120
05	VSTD20	VSTD20	2B50802K	08/02/00	2147
06					
07					
08					
09					
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12					
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19					
20					
21					
22					

671 833 VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: STL PITTSBURGH

Contract:

Lab Code: STL

Case No.:

SAS No.:

SDG No.: C0H260118

Lab File ID: BF50901

BFB Injection Date: 09/01/00

Instrument ID: HP5

BFB Injection Time: 0722

GC Column: DB624 20M ID: 0.20 (mm)

Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.4
75	30.0 - 60.0% of mass 95	45.9
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.5 (0.7)1
174	50.0 - 100.0% of mass 95	72.6
175	5.0 - 9.0% of mass 174	5.2 (7.2)1
176	95.0 - 101.0% of mass 174	71.5 (98.5)1
177	5.0 - 9.0% of mass 176	4.8 (6.7)2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	VSTD50	CC50901	09/01/00	0754
02	INTRA-LAB BL	DJQJ2101	5090102	09/01/00	0959
03	DF/S1/0238/S	DJG82202	5090103	09/01/00	1025
04	INTRA-LAB CH	DJQJ2102	5090104	09/01/00	1049
05	DF/S1/0238/S	DJG8210X	5090105	09/01/00	1114
06	DF/S1/0238/S	DJG82110	5090106	09/01/00	1145
07					
08					
09					
10					
11					
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13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

671 834

Lab Name: STL PITTSBURGH Contract:
Lab Code: STL Case No.: SAS No.: SDG No.: COH260118
Lab File ID (Standard): CC50901 Date Analyzed: 09/01/00
Instrument ID: HP5 Time Analyzed: 0754
GC Column: DB 624 ID: 0.20 (mm) Heated Purge: (Y/N) N

	IS1 (CBZ) AREA #	RT #	IS2 (DCB) AREA #	RT #	IS3 AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	169459	9.97	235584	12.28	734364	6.87
UPPER LIMIT	338918	10.17	471168	12.48	1468728	7.07
LOWER LIMIT	84730	9.77	117792	12.08	367182	6.67
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 INTRA-LAB BL	164251	9.97	222971	12.27	707668	6.89
02 DF/S1/0238/S	159555	9.97	221467	12.28	689904	6.89
03 INTRA-LAB CH	168097	9.98	238877	12.28	812584	6.88
04 DF/S1/0238/S	168124	9.98	239242	12.28	775175	6.88
05 DF/S1/0238/S	166879	9.97	238948	12.28	803243	6.87
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS1 (CBZ) = Chlorobenzene-d5
IS2 (DCB) = 1,4-Dichlorobenzene-d4
IS3 = Fluorobenzene

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.20 minutes of internal standard RT
RT LOWER LIMIT = - 0.20 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

671 835

**GC/MS VOLATILE
SAMPLE DATA**

UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0H260118 001

Method: SW846 8260B

Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL

Date Received: 08/26/00

Work Order: DJG82202

Date Extracted: 09/01/00

Dilution factor: 1

Date Analyzed: 09/01/00

Moisture %: 10

QC Batch: 0245186

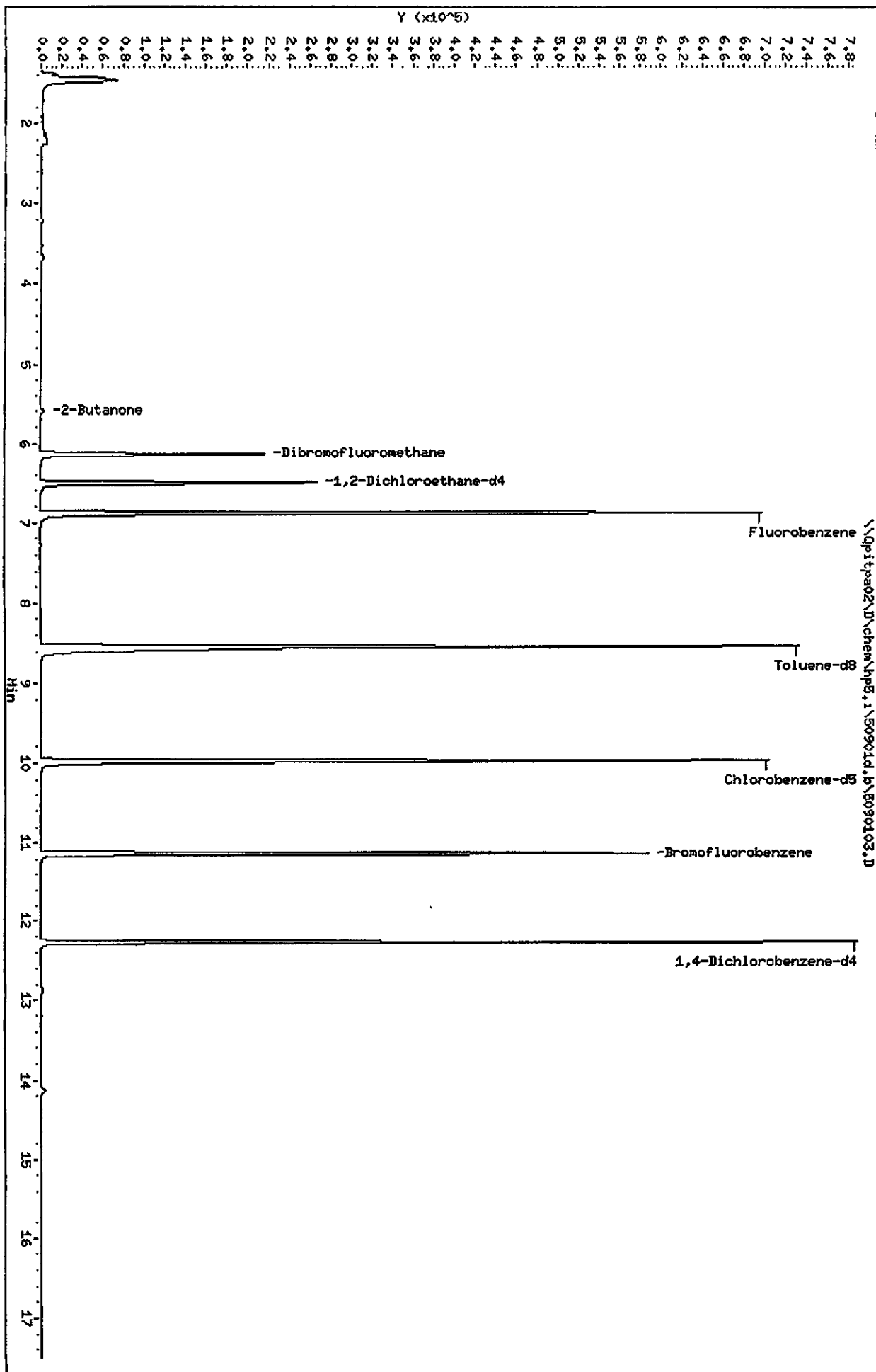
Client Sample Id: DF/S1/0238/SDC/036 -RE 1

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	0.050	U
78-93-3	2-Butanone	0.013	J
56-23-5	Carbon tetrachloride	0.050	U
108-90-7	Chlorobenzene	0.050	U
67-66-3	Chloroform	0.050	U
107-06-2	1,2-Dichloroethane	0.050	U
75-35-4	1,1-Dichloroethene	0.050	U
127-18-4	Tetrachloroethene	0.050	U
79-01-6	Trichloroethene	0.050	U
75-01-4	Vinyl chloride	0.050	U

Data File: \\qip02\chem\hp5.1\50901d.b\5090103.D
Date: 01-SEP-2000 10:25
Client ID: DF/S4/0238/SDC/036
Sample Info: 00426018-001 (4ml/10ml) SHL
Purge Volume: 5.0
Column phase: DB 624

Instrument: hp5.1
Operator: 034638
Column diameter: 0.20



Data File: \\Qpitpa02\D\chem\hp5.i\50901d.b\5090103.D
Report Date: 01-Sep-2000 11:38

STL - Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\Qpitpa02\D\chem\hp5.i\50901d.b\5090103.D
Lab Smp Id: DJG82202 Client Smp ID: DF/S1/0238/SDC/036
Inj Date : 01-SEP-2000 10:25 MS Autotune Date: 13-MAR-2000 09:53
Operator : 034635 Inst ID: hp5.i
Smp Info : c0h260118-001 (1ml/10ml) 5ML
Misc Info : djg82102,50901d.b,8260bh2o.m,tclp.sub
Comment :
Method : \\Qpitpa02\D\chem\hp5.i\50901d.b\8260bh2o.m
Meth Date : 01-Sep-2000 09:09 journetp Quant Type: ISTD
Cal Date : 02-AUG-2000 21:20 Cal File: 2A50802K.D
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: 4.04
Processing Host: PITPC076

97
9/1/00

Concentration Formula: Amt * DF * 1/Vo*Vt

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample Volume
Vt	1.000	mg/L conversion (1.0 if no conversion)

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN	FINAL
	MASS					(ng)	(UG/L)
*****	----	==	=====	=====	-----	-----	-----
* 46 Fluorobenzene	96	6.885	6.868	(1.000)	689904	250.000	
* 69 Chlorobenzene-d5	119	9.969	9.970	(1.000)	159555	250.000	
* 92 1,4-Dichlorobenzene-d4	152	12.275	12.276	(1.000)	221467	250.000	
\$ 39 Dibromofluoromethane	113	6.137	6.125	(0.891)	147105	223.804	
\$ 43 1,2-Dichloroethane-d4	65	6.496	6.484	(0.943)	174492	207.923	44.76
\$ 59 Toluene-d8	98	8.540	8.528	(0.857)	681298	230.388	41.58
\$ 80 Bromofluorobenzene	95	11.131	11.132	(1.117)	240955	221.371	46.08
3 Vinyl Chloride	62	Compound Not Detected					
12 1,1-Dichloroethene	96	Compound Not Detected.					
31 2-Butanone	43	5.595	5.608	(0.813)	6498	6.57065	1.314
37 Chloroform	83	Compound Not Detected.					
41 Carbon Tetrachloride	117	Compound Not Detected.					
42 Benzene	78	Compound Not Detected.					
45 1,2-Dichloroethane	62	Compound Not Detected.					
47 Trichloroethene	130	Compound Not Detected.					
65 Tetrachloroethene	164	Compound Not Detected.					

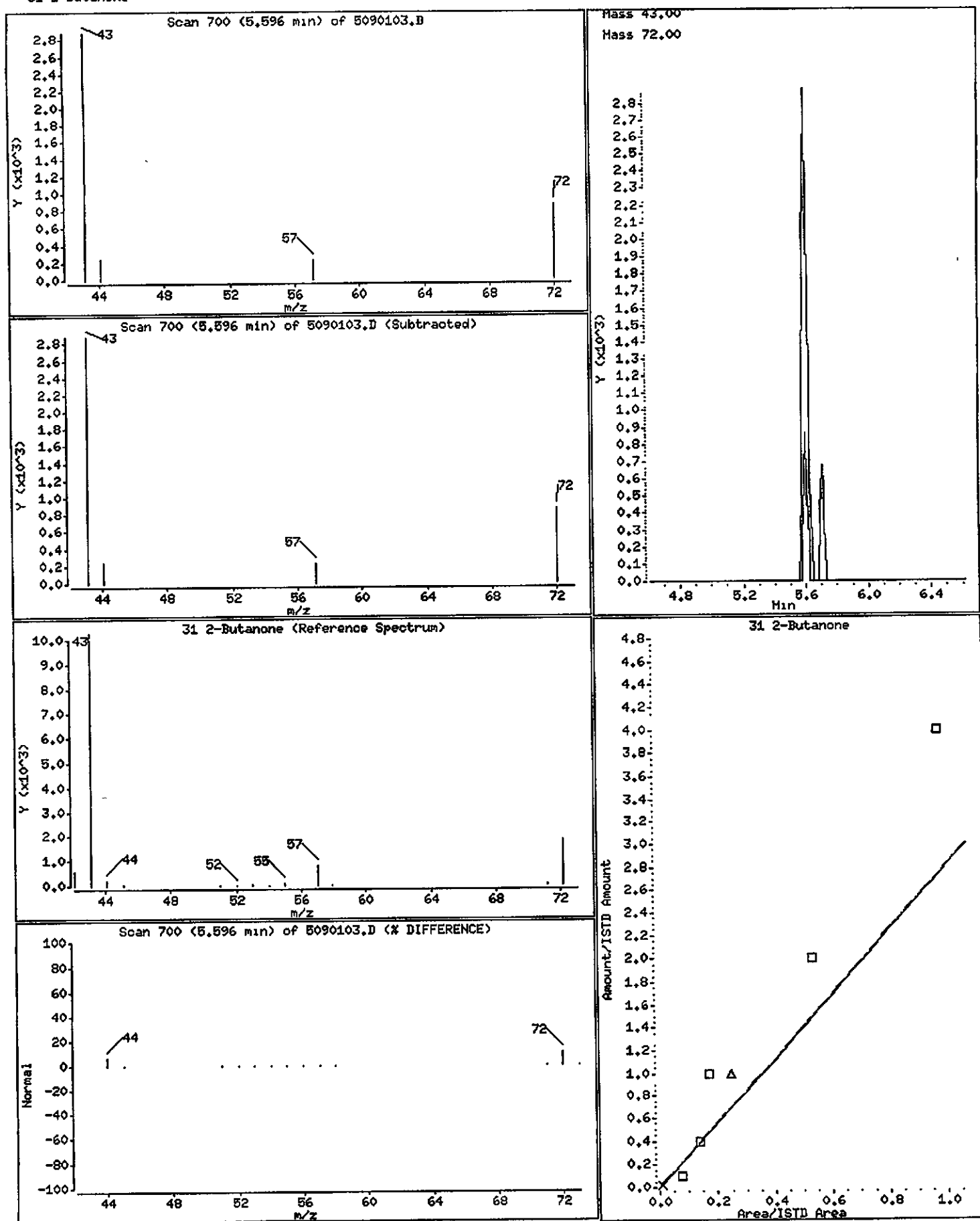
671 839

Data File: \\Qpitpa02\D\chem\hp5.i\50901d.b\5090103.D
Report Date: 01-Sep-2000 11:38

Page 2

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN	FINAL
	MASS					(ng)	(UG/L)
=====	====	==	=====	=====	=====	=====	=====
70 Chlorobenzene	112				Compound Not Detected.		

31 2-Butanone



671 841

**GC/MS VOLATILE
CALIBRATION DATA**

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

671 842

Lab Name: STL PITTSBURGH

Contract:

Lab Code: STL

Case No.:

SAS No.:

SDG No.: METHODS

Instrument ID: HP5

Calibration Date(s): 08/02/00 08/02/00

Heated Purge: (Y/N) N

Calibration Time(s): 1338

2147

GC Column: DB 624 ID: 0.20 (mm)

LAB FILE ID:		RRF5 =2A50802K		RRF20 =2B50802K			
RRF50 =CC50802K		RRF100=1D50802K		RRF200=1E50803K			
COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200	RRF	% RSD
Dichlorodifluoromethane	0.180	0.198	0.184	0.196	0.144	0.180	12.2
Chloromethane	0.261	0.295	0.261	0.295	0.274	0.277	6.1*
Vinyl Chloride	0.259	0.290	0.258	0.282	0.230	0.264	8.9
Bromomethane	0.050	0.036	0.031	0.038	0.029	0.037	22.5
Chloroethane	0.046	0.046	0.055	0.052	0.039	0.048	12.6
Trichlorofluoromethane	0.064	0.072	0.085	0.077	0.042	0.068	23.9
1,1-Dichloroethene	0.176	0.217	0.199	0.210	0.169	0.194	10.7
Methylene Chloride	0.191	0.240	0.229	0.280	0.270	0.242	14.6
trans-1,2-Dichloroethene	0.215	0.255	0.216	0.245	0.241	0.234	7.7
1,1-Dichloroethane	0.398	0.468	0.416	0.484	0.451	0.443	8.1*
cis-1,2-dichloroethene	0.238	0.285	0.245	0.300	0.295	0.273	10.6
Chloroform	0.350	0.405	0.362	0.436	0.439	0.398	10.3
Bromochloromethane	0.102	0.121	0.108	0.142	0.145	0.124	16.0
1,1,1-Trichloroethane	0.296	0.364	0.323	0.365	0.340	0.338	8.7
Carbon Tetrachloride	0.234	0.293	0.259	0.292	0.263	0.268	9.3
1,2-Dichloroethane	0.300	0.339	0.316	0.411	0.395	0.352	13.9
Benzene	0.940	1.116	0.988	1.143	1.125	1.062	8.6
Trichloroethene	0.225	0.260	0.234	0.263	0.257	0.248	6.9
1,2-Dichloropropane	0.242	0.274	0.258	0.314	0.308	0.279	11.2
Bromodichloromethane	0.240	0.273	0.270	0.343	0.338	0.293	15.6
cis-1,3-Dichloropropene	0.315	0.370	0.359	0.463	0.450	0.391	16.1
Toluene	4.806	5.192	5.014	5.077	4.766	4.971	3.6
trans-1,3-Dichloropropene	1.360	1.663	1.597	1.973	1.961	1.711	15.2
1,1,2-Trichloroethane	0.928	0.994	0.922	1.150	1.141	1.027	10.9
Tetrachloroethene	0.844	0.919	0.890	0.853	0.756	0.852	7.3
Dibromochloromethane	0.722	0.882	0.856	1.112	1.131	0.941	18.7
Chlorobenzene	3.084	3.344	3.045	3.322	3.274	3.214	4.3*
Ethylbenzene	1.657	1.880	1.730	1.839	1.729	1.767	5.1
Styrene	2.779	3.305	3.170	3.656	3.423	3.267	10.0
Bromoform	0.408	0.509	0.526	0.762	0.758	0.593	26.9*
1,1,2,2-Tetrachloroethane	0.921	0.985	0.888	1.148	1.051	0.999	10.4*
1,3-Dichlorobenzene	1.537	1.598	1.445	1.532	1.529	1.528	3.6
1,4-Dichlorobenzene	1.563	1.599	1.453	1.581	1.563	1.552	3.7
1,2-Dichlorobenzene	1.461	1.514	1.371	1.503	1.415	1.453	4.1
Dibromomethane	0.129	0.144	0.135	0.185	0.180	0.155	16.8
1,2-Dibromoethane	0.891	0.990	0.924	1.210	1.183	1.040	14.2
1,1,1,2-Tetrachloroethane	0.842	0.987	0.946	1.094	1.076	0.989	10.4

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

Lab Name: STL PITTSBURGH

Contract:

Lab Code: STL

Case No. :

SAS No.:

SDG No.: METHODS

Instrument ID: HP5

Calibration Date(s) : 08/02/00 08/02/00

Heated Purge: (Y/N) N

Calibration Time(s) : 1338

2147

GC Column: DB 624

ID: 0.20 (mm)

LAB FILE ID:		RRF5 =2A50802K		RRF20 =2B50802K			
RRF50 =CC50802K		RRF100=1D50802K		RRF200=1E50803K			
COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200	RRF	RSD
1,2,3-Trichloropropane	0.285	0.308	0.277	0.361	0.353	0.317	12.1
1,2-Dibromo-3-chloropropane	0.130	0.140	0.129	0.205	0.204	0.162	24.3
2,2-Dichloropropane	0.302	0.376	0.329	0.374	0.352	0.347	9.1
1,1-Dichloropropene	0.246	0.302	0.265	0.294	0.269	0.275	8.3
1,3-Dichloropropane	1.692	1.889	1.800	2.223	2.155	1.952	11.7
n-Propylbenzene	0.884	1.044	0.911	0.891	0.843	0.915	8.4
Bromobenzene	0.839	0.939	0.822	0.873	0.839	0.862	5.4
1,3,5-Trimethylbenzene	2.230	2.653	2.395	2.388	2.207	2.375	7.5
2-Chlorotoluene	0.781	0.893	0.803	0.816	0.808	0.820	5.2
4-Chlorotoluene	0.815	0.898	0.792	0.818	0.774	0.819	5.8
tert-Butylbenzene	2.218	2.523	2.238	2.124	1.955	2.212	9.4
1,2,4-Trimethylbenzene	2.171	2.488	2.245	2.314	2.272	2.298	5.2
sec-Butylbenzene	3.531	3.945	3.553	3.168	2.883	3.416	11.9
4-Isopropyltoluene	2.580	2.921	2.684	2.455	2.274	2.583	9.4
n-Butylbenzene	2.306	2.672	2.448	2.106	1.876	2.282	13.4
1,2,4-Trichlorobenzene	0.752	0.597	0.526	0.634	0.655	0.633	13.1
Hexachlorobutadiene	0.612	0.544	0.482	0.320	0.306	0.453	30.0
Naphthalene	2.634	1.334	1.026	1.574	1.574	1.628	37.2
1,2,3-Trichlorobenzene	1.158	0.514	0.422	0.538	0.555	0.637	46.3
Acetone	0.197	0.147	0.108	0.168	0.149	0.154	21.3
Carbon Disulfide	0.455	0.586	0.772	0.689	0.595	0.619	19.2
2-Butanone	0.762	0.343	0.173	0.268	0.244	0.358	65.3
4-Methyl-2-Pentanone	1.062	1.490	1.182	1.862	1.772	1.474	23.9
2-Hexanone	0.734	1.026	0.809	1.360	1.268	1.039	26.4
Methyl tert-butyl ether	0.502	0.589	0.682	0.850	0.904	0.705	24.1
Isopropylbenzene	4.619	5.363	5.059	5.147	4.568	4.951	7.0
1,2-Dichloroethene (total)	0.226	0.270	0.230	0.272	0.268	0.253	9.0
Xylenes (total)	1.702	2.012	1.856	2.109	1.981	1.932	8.1
Dibromofluoromethane	0.314	0.205	0.207	0.230	0.234	0.238	18.8
1,2-Dichloroethane-d4	0.403	0.255	0.260	0.301	0.300	0.304	19.6
Toluene-d8	6.743	4.105	4.379	4.041	3.899	4.633	25.7
Bromofluorobenzene	2.397	1.447	1.534	1.581	1.568	1.705	22.9

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

INITIAL CALIBRATION REPORT

Instrument ID: hp5.i
 Lab File ID: 2A50802K.D
 Analysis Type: WATER

Injection Date: 02-AUG-2000 21:20
 Lab Sample ID: vstd5
 Method File: \\QPITPA02\D\chem\hp5.i\50802d.b

COMPOUND	%RSD
=====	=====
Xylenes (total)	8.1
1,2-Dichloroethene (total)	9.0
Dichlorodifluoromethane	12.2
Chloromethane	6.1
Vinyl Chloride	8.9
Bromomethane	22.5
Chloroethane	12.6
Trichlorofluoromethane	23.9
1,1-Dichloroethene	10.7
Acetone	21.3
Carbon Disulfide	19.2
Methylene Chloride	14.6
trans-1,2-Dichloroethene	7.7
Methyl tert-butyl ether	24.1
1,1-Dichloroethane	8.1
2,2-Dichloropropane	9.1
cis-1,2-dichloroethene	10.6
2-Butanone	65.3
Bromochloromethane	16.0
Chloroform	10.3
1,1,1-Trichloroethane	8.7
Dibromofluoromethane	18.8
Carbon Tetrachloride	9.3
1,1-Dichloropropene	8.3
1,2-Dichloroethane-d4	19.6
Benzene	8.6
1,2-Dichloroethane	13.9
Trichloroethene	6.9
1,2-Dichloropropane	11.2
Dibromomethane	16.8
Bromodichloromethane	15.6
cis-1,3-Dichloropropene	16.1
4-Methyl-2-Pentanone	23.9
Toluene-d8	25.7
Toluene	3.6
trans-1,3-Dichloropropene	15.2
1,1,2-Trichloroethane	10.9
Tetrachloroethene	7.3
1,3-Dichloropropane	11.7

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Data File: \\QPITPA02\D\chem\hp5.i\50802d.b\2A50802K.D
 Report Date: 08/02/2000

INITIAL CALIBRATION REPORT

Instrument ID: hp5.i
 Lab File ID: 2A50802K.D
 Analysis Type: WATER

Injection Date: 02-AUG-2000 21:20
 Lab Sample ID: vstd5
 Method File: \\QPITPA02\D\chem\hp5.i\50802d.b

COMPOUND	%RSD
2-Hexanone	26.4
Dibromochloromethane	18.7
1,2-Dibromoethane	14.2
Chlorobenzene	4.3
1,1,1,2-Tetrachloroethane	10.4
Ethylbenzene	5.1
m + p-Xylene	4.6
Xylene-o	8.1
Styrene	10.0
Bromoform	26.9
Isopropylbenzene	7.0
Bromofluorobenzene	22.9
1,1,2,2-Tetrachloroethane	10.4
Bromobenzene	5.4
1,2,3-Trichloropropane	12.1
n-Propylbenzene	8.4
2-Chlorotoluene	5.2
1,3,5-Trimethylbenzene	7.5
4-Chlorotoluene	5.8
tert-Butylbenzene	9.4
1,2,4-Trimethylbenzene	5.2
sec-Butylbenzene	11.9
1,3-Dichlorobenzene	3.6
4-Isopropyltoluene	9.4
1,4-Dichlorobenzene	3.7
n-Butylbenzene	13.4
1,2-Dichlorobenzene	4.1
1,2-Dibromo-3-chloropropane	24.3
1,2,4-Trichlorobenzene	13.1
Hexachlorobutadiene	30.0
Naphthalene	37.2
1,2,3-Trichlorobenzene	46.3

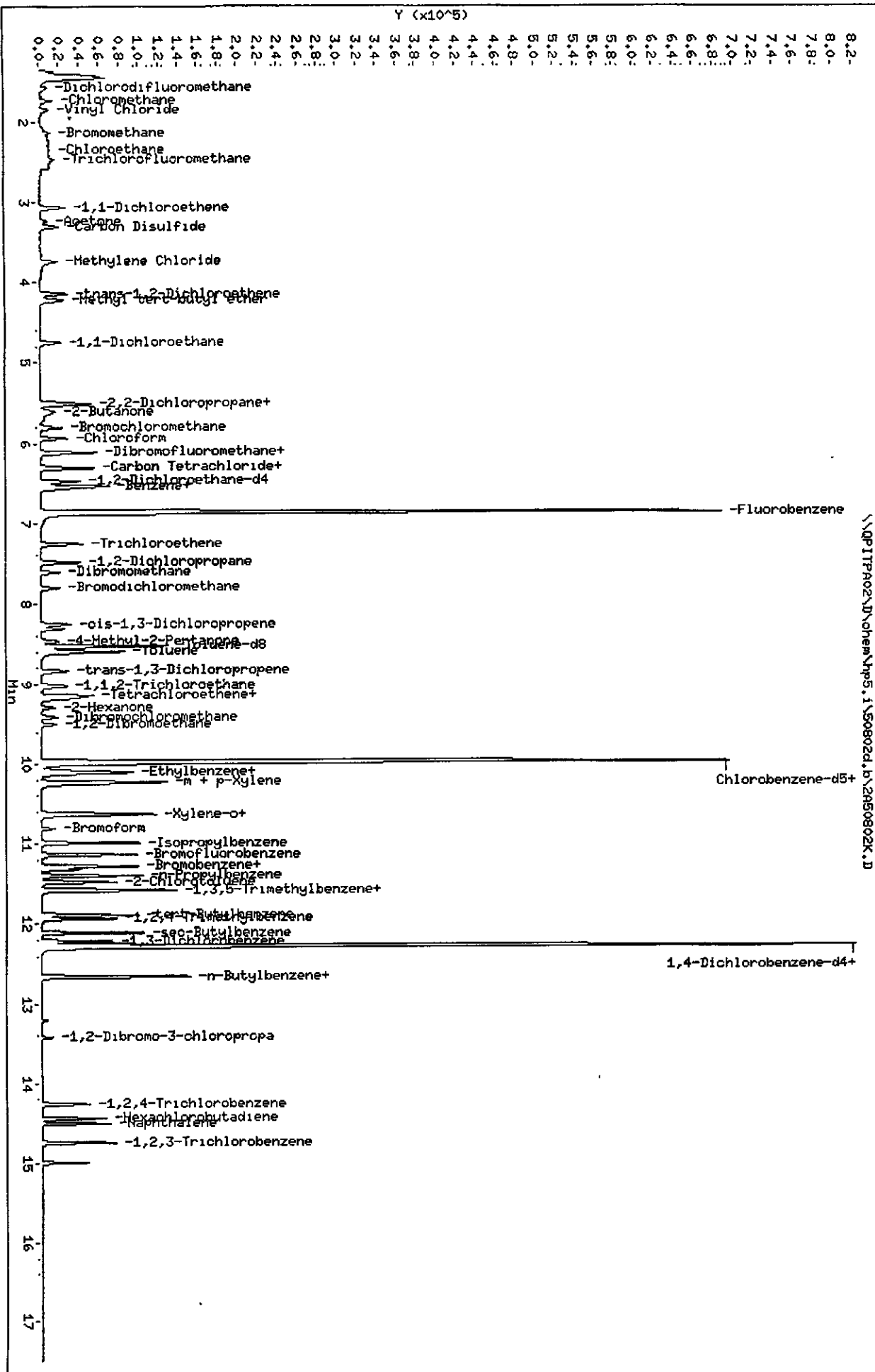
The average of all %RSD's in the initial calibration is 14.0

Data File: \AQITPA02\chem\hp5.1\50802d.b\2A50802K.D
Date: 02-AUG-2000 21:20

Client ID: vstd5
Sample Info: vstd5 SHL
Purge Volume: 5.0
Column phase: DB 624

Instrument: hp5.1

Operator: 034635
Column diameter: 0.20



671 847

STL Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\QPITPA02\D\chem\hp5.i\50802d.b\2A50802K.D
Lab Smp Id: vstd5 Client Smp ID: vstd5
Inj Date : 02-AUG-2000 21:20 MS Autotune Date: 13-MAR-2000 09:53
Operator : 034635 Inst ID: hp5.i
Smp Info : vstd5 5ML
Misc Info : vstd5,50802d.b,8260bh2o.m,3-dwlist.sub
Comment :
Method : \\QPITPA02\D\chem\hp5.i\50802d.b\8260bh2o.m
Meth Date : 02-Aug-2000 22:48 journetp Quant Type: ISTD
Cal Date : 02-AUG-2000 21:20 Cal File: 2A50802K.D
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3-dwlist.sub
Target Version: 4.04
Processing Host: PITPC076

Concentration Formula: Amt * DF * 1/Vo*Vt

p11 8/2/00

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample Volume
Vt	1.000	mg/L conversion (1.0 if no conversion)

Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
*****	----	--	-----	-----	-----	-----	-----
* 46 Fluorobenzene	96	6.863	6.863	(1.000)	687073	250.000	
* 69 Chlorobenzene-d5	119	9.966	9.966	(1.000)	157933	250.000	
* 92 1,4-Dichlorobenzene-d4	152	12.272	12.272	(1.000)	210625	250.000	
\$ 39 Dibromofluoromethane	113	6.121	6.121	(0.892)	21609	25.0000	33.01
\$ 43 1,2-Dichloroethane-d4	65	6.480	6.480	(0.944)	27715	25.0000	33.16
\$ 59 Toluene-d8	98	8.524	8.524	(0.855)	106488	25.0000	36.38
\$ 80 Bromofluorobenzene	95	11.134	11.134	(1.117)	37858	25.0000	35.14
1 Dichlorodifluoromethane	85	1.577	1.577	(0.230)	12365	25.0000	24.91
2 Chloromethane	50	1.735	1.735	(0.253)	17929	25.0000	23.53
3 Vinyl Chloride	62	1.851	1.851	(0.270)	17788	25.0000	24.52
4 Bromomethane	94	2.137	2.137	(0.311)	3428	25.0000	33.89
5 Chloroethane	64	2.240	2.240	(0.326)	3139	25.0000	24.00
6 Trichlorofluoromethane	101	2.465	2.465	(0.359)	4400	25.0000	23.48
12 1,1-Dichloroethene	96	3.067	3.067	(0.447)	12104	25.0000	22.66
13 Acetone	43	3.232	3.232	(0.471)	13554	25.0000	32.08
15 Carbon Disulfide	76	3.305	3.305	(0.482)	31287	25.0000	18.38

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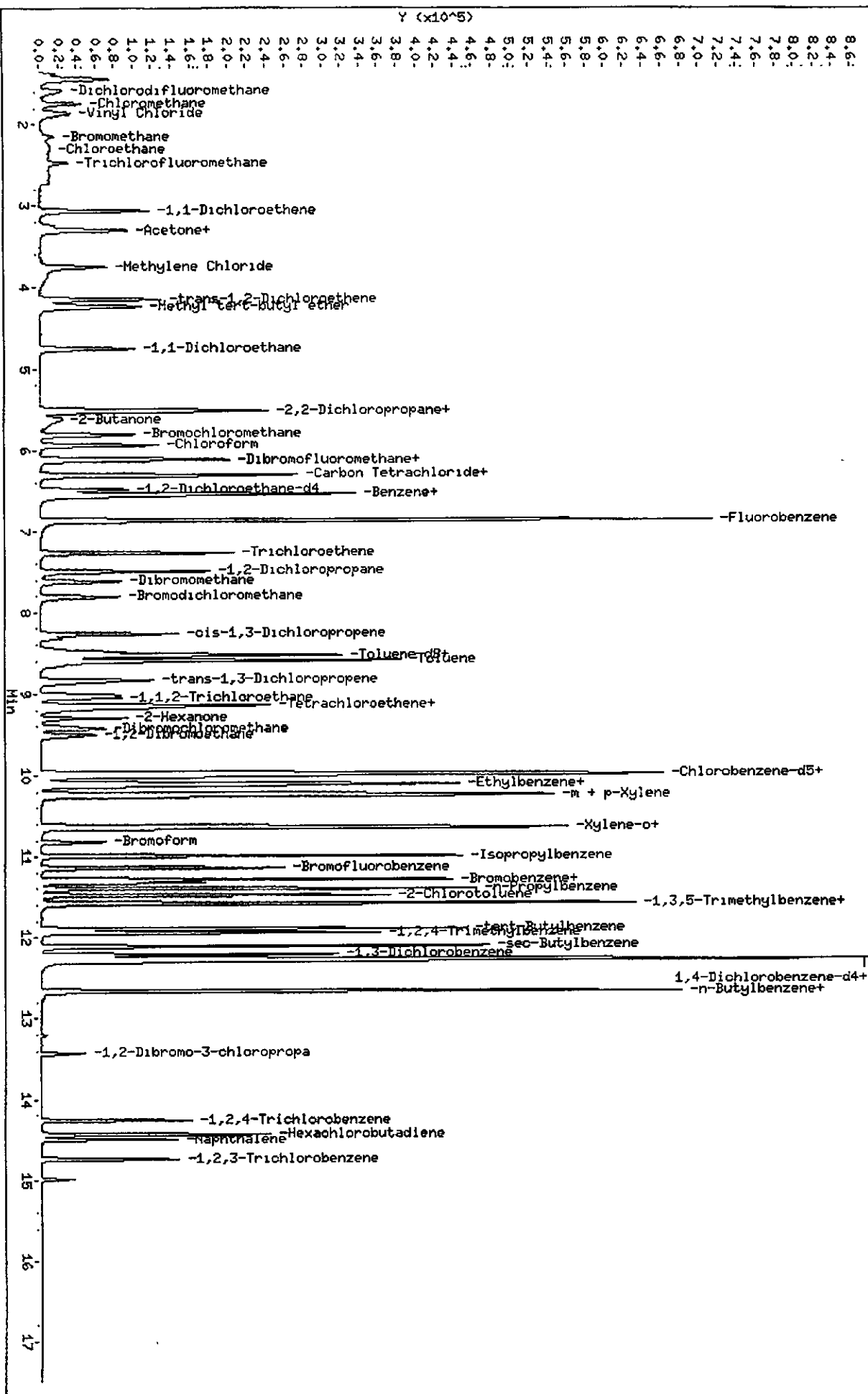
Compounds	QUANT SIG				RESPONSE	AMOUNTS	
	MASS	RT	EXP RT	REL RT		CAL-AMT (ng)	ON-COL (ng)
18 Methylene Chloride	84	3.743	3.743	(0.545)	13130	25.0000	19.74
19 trans-1,2-Dichloroethene	96	4.144	4.144	(0.604)	14780	25.0000	22.96
20 Methyl tert-butyl ether	73	4.223	4.223	(0.615)	34458	25.0000	17.77
24 1,1-Dichloroethane	63	4.746	4.746	(0.692)	27330	25.0000	22.42
27 2,2-Dichloropropane	77	5.501	5.501	(0.801)	20736	25.0000	21.77
28 cis-1,2-dichloroethene	96	5.519	5.519	(0.804)	16356	25.0000	21.82
31 2-Butanone	43	5.604	5.604	(0.817)	52392	25.0000	53.20
30 Bromochloromethane	128	5.805	5.805	(0.846)	6983	25.0000	20.55
37 Chloroform	83	5.933	5.933	(0.864)	24074	25.0000	21.98
38 1,1,1-Trichloroethane	97	6.115	6.115	(0.891)	20338	25.0000	21.92
41 Carbon Tetrachloride	117	6.304	6.304	(0.918)	16064	25.0000	21.78
40 1,1-Dichloropropene	75	6.310	6.310	(0.919)	16917	25.0000	22.34
42 Benzene	78	6.541	6.541	(0.953)	64620	25.0000	22.13
45 1,2-Dichloroethane	62	6.565	6.565	(0.957)	20623	25.0000	21.30
47 Trichloroethene	130	7.259	7.259	(1.058)	15438	25.0000	22.67
49 1,2-Dichloropropane	63	7.490	7.490	(1.091)	16660	25.0000	21.71
50 Dibromomethane	93	7.612	7.612	(1.109)	8888	25.0000	20.92
53 Bromodichloromethane	83	7.800	7.800	(1.136)	16507	25.0000	20.50
57 cis-1,3-Dichloropropene	75	8.257	8.257	(1.203)	21676	25.0000	20.15
58 4-Methyl-2-Pentanone	43	8.463	8.463	(0.849)	16780	25.0000	18.02
60 Toluene	91	8.591	8.591	(0.862)	75896	25.0000	24.17
61 trans-1,3-Dichloropropene	75	8.835	8.835	(0.886)	21475	25.0000	19.87
64 1,1,2-Trichloroethane	97	9.029	9.029	(0.906)	14660	25.0000	22.59
65 Tetrachloroethene	164	9.139	9.139	(0.917)	13323	25.0000	24.74
67 Dibromochloromethane	129	9.412	9.412	(0.944)	11404	25.0000	19.19
63 1,3-Dichloropropane	76	9.169	9.169	(0.920)	26724	25.0000	21.67
66 2-Hexanone	43	9.285	9.285	(0.932)	11592	25.0000	17.65
68 1,2-Dibromoethane	107	9.498	9.498	(0.953)	14069	25.0000	21.42
70 Chlorobenzene	112	9.996	9.996	(1.003)	48700	25.0000	23.99
72 Ethylbenzene	106	10.106	10.106	(1.014)	26166	25.0000	23.44
71 1,1,1,2-Tetrachloroethane	131	10.082	10.082	(1.012)	13304	25.0000	21.29
73 m + p-Xylene	106	10.228	10.228	(1.026)	60830	50.0000	47.75
74 Xylene-o	106	10.617	10.617	(1.065)	26874	25.0000	22.02
76 Styrene	104	10.635	10.635	(1.067)	43891	25.0000	21.27
77 Bromoform	173	10.806	10.806	(1.084)	6444	25.0000	17.22
78 Isopropylbenzene	105	10.988	10.988	(1.103)	72953	25.0000	23.32
79 Bromobenzene	156	11.280	11.280	(0.919)	17681	25.0000	24.33
83 1,1,2,2-Tetrachloroethane	83	11.274	11.274	(0.919)	19405	25.0000	23.06
84 1,2,3-Trichloropropane	110	11.310	11.310	(0.922)	6004	25.0000	22.50
81 n-Propylbenzene	120	11.390	11.390	(0.928)	18623	25.0000	24.17
82 2-Chlorotoluene	126	11.475	11.475	(0.935)	16447	25.0000	23.80
86 1,3,5-Trimethylbenzene	105	11.566	11.566	(0.942)	46969	25.0000	23.48
85 4-Chlorotoluene	126	11.578	11.578	(0.943)	17158	25.0000	24.85
87 tert-Butylbenzene	119	11.888	11.888	(0.969)	46716	25.0000	25.07
88 1,2,4-Trimethylbenzene	105	11.937	11.937	(0.973)	45721	25.0000	23.62
89 sec-Butylbenzene	105	12.107	12.107	(0.987)	74375	25.0000	25.84
91 1,3-Dichlorobenzene	146	12.211	12.211	(0.995)	32379	25.0000	25.15

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Compounds	QUANT SIG						AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE		CAL-AMT (ng)	ON-COL (ng)
=====	=====	==	=====	=====	=====		=====	=====
90 4-Isopropyltoluene	119	12.253	12.253	(0.999)	54348		25.0000	24.98
93 1,4-Dichlorobenzene	146	12.296	12.296	(1.002)	32914		25.0000	25.18
94 n-Butylbenzene	91	12.655	12.655	(1.031)	48569		25.0000	25.26
95 1,2-Dichlorobenzene	146	12.661	12.661	(1.032)	30767		25.0000	25.14
96 1,2-Dibromo-3-chloropropane	157	13.428	13.428	(1.094)	2741		25.0000	20.14
97 1,2,4-Trichlorobenzene	180	14.261	14.261	(1.162)	15831		25.0000	29.70
98 Hexachlorobutadiene	225	14.443	14.443	(1.177)	12896		25.0000	33.78
99 Naphthalene	128	14.504	14.504	(1.182)	55482		25.0000	40.44
100 1,2,3-Trichlorobenzene	180	14.748	14.748	(1.202)	24382		25.0000	45.40
M 29 1,2-Dichloroethene (total)	96				31136		50.0000	44.70
M 75 Xylenes (total)	106				87704		25.0000	71.86

Data File: \\QIPITPA02\J\chem\hp5.i\50802d.b\2B50802K.D
 Date: 02-AUG-2000 21:47
 Client ID: vstd20
 Sample Info: vstd20 5ML
 Purge Volume: 5.0
 Column phase: DB 624

Instrument: hp5.1
 Operator: 034635
 Column diameter: 0.20



STL Pittsburgh

VOLATILE REPORT SW-846 Method
Data file : \\QPITPA02\D\chem\hp5.i\50802d.b\2B50802K.D
Lab Smp Id: vstd20 Client Smp ID: vstd20
Inj Date : 02-AUG-2000 21:47 MS Autotune Date: 13-MAR-2000 09:53
Operator : 034635 Inst ID: hp5.i
Smp Info : vstd20 SML
Misc Info : vstd20,50802d.b,8260bh2o.m,3-dwlist.sub
Comment :
Method : \\QPITPA02\D\chem\hp5.i\50802d.b\8260bh2o.m
Meth Date : 02-Aug-2000 22:07 journetp Quant Type: ISTD
Cal Date : 02-AUG-2000 21:47 Cal File: 2B50802K.D
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3-dwlist.sub
Target Version: 4.04
Processing Host: PITPC076

Concentration Formula: Amt * DF * 1/Vo*Vt

pu/s/r/n

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample Volume
Vt	1.000	mg/L conversion (1.0 if no conversion)

Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
* 46 Fluorobenzene	96	6.867	6.867 (1.000)		698002	250.000	
* 69 Chlorobenzene-d5	119	9.975	9.975 (1.000)		161574	250.000	
* 92 1,4-Dichlorobenzene-d4	152	12.275	12.275 (1.000)		211681	250.000	
\$ 39 Dibromofluoromethane	113	6.125	6.125 (0.892)		57211	100.000	86.03
\$ 43 1,2-Dichloroethane-d4	65	6.483	6.483 (0.944)		71317	100.000	83.99
\$ 59 Toluene-d8	98	8.528	8.528 (0.855)		265317	100.000	88.60
\$ 80 Bromofluorobenzene	95	11.137	11.137 (1.116)		93538	100.000	84.86
1 Dichlorodifluoromethane	85	1.592	1.592 (0.232)		55421	100.000	109.9
2 Chloromethane	50	1.738	1.738 (0.253)		82302	100.000	106.3
3 Vinyl Chloride	62	1.860	1.860 (0.271)		81070	100.000	110.0
4 Bromomethane	94	2.146	2.146 (0.313)		10187	100.000	99.14
5 Chloroethane	64	2.274	2.274 (0.331)		12868	100.000	96.85
6 Trichlorofluoromethane	101	2.474	2.474 (0.360)		20188	100.000	106.0
12 1,1-Dichloroethene	96	3.065	3.065 (0.446)		60558	100.000	111.6
13 Acetone	43	3.241	3.241 (0.472)		41036	100.000	95.61
15 Carbon Disulfide	76	3.302	3.302 (0.481)		163761	100.000	94.67

Data File: \\QPITPA02\D\chem\hp5.i\50802d.b\2B50802K.D
Report Date: 02-Aug-2000 22:07

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT	ON-COL
	()	()	()	()	()	(ng)	(ng)
18 Methylene Chloride	84	3.746	3.746	(0.546)	67084	100.000	99.29
19 trans-1,2-Dichloroethene	96	4.147	4.147	(0.604)	71236	100.000	108.9
20 Methyl tert-butyl ether	73	4.233	4.233	(0.616)	164574	100.000	83.54
24 1,1-Dichloroethane	63	4.756	4.756	(0.693)	130791	100.000	105.6
27 2,2-Dichloropropane	77	5.510	5.510	(0.802)	104841	100.000	108.4
28 cis-1,2-dichloroethene	96	5.522	5.522	(0.804)	79538	100.000	104.5
31 2-Butanone	43	5.614	5.614	(0.818)	95899	100.000	95.85
30 Bromochloromethane	128	5.808	5.808	(0.846)	33835	100.000	98.00
37 Chloroform	83	5.942	5.942	(0.865)	113103	100.000	101.6
38 1,1,1-Trichloroethane	97	6.112	6.112	(0.890)	101784	100.000	108.0
41 Carbon Tetrachloride	117	6.307	6.307	(0.918)	81944	100.000	109.4
40 1,1-Dichloropropene	75	6.313	6.313	(0.919)	84476	100.000	109.8
42 Benzene	78	6.538	6.538	(0.952)	311636	100.000	105.0
45 1,2-Dichloroethane	62	6.569	6.569	(0.957)	94592	100.000	96.19
47 Trichloroethene	130	7.262	7.262	(1.058)	72516	100.000	104.8
49 1,2-Dichloropropane	63	7.493	7.493	(1.091)	76451	100.000	98.05
50 Dibromomethane	93	7.615	7.615	(1.109)	40139	100.000	93.01
53 Bromodichloromethane	83	7.804	7.804	(1.136)	76185	100.000	93.13
57 cis-1,3-Dichloropropene	75	8.260	8.260	(1.203)	103293	100.000	94.51
58 4-Methyl-2-Pentanone	43	8.491	8.491	(0.851)	96287	100.000	101.1
60 Toluene	91	8.594	8.594	(0.862)	335539	100.000	104.4
61 trans-1,3-Dichloropropene	75	8.832	8.832	(0.885)	107465	100.000	97.20
64 1,1,2-Trichloroethane	97	9.039	9.039	(0.906)	64253	100.000	96.78
65 Tetrachloroethene	164	9.142	9.142	(0.916)	59391	100.000	107.8
67 Dibromochloromethane	129	9.428	9.428	(0.945)	57018	100.000	93.79
63 1,3-Dichloropropane	76	9.172	9.172	(0.920)	122108	100.000	96.79
66 2-Hexanone	43	9.300	9.300	(0.932)	66302	100.000	98.70
68 1,2-Dibromoethane	107	9.495	9.495	(0.952)	64011	100.000	95.26
70 Chlorobenzene	112	10.006	10.006	(1.003)	216100	100.000	104.0
72 Ethylbenzene	106	10.109	10.109	(1.013)	121510	100.000	106.4
71 1,1,1,2-Tetrachloroethane	131	10.097	10.097	(1.012)	63793	100.000	99.80
73 m + p-Xylene	106	10.231	10.231	(1.026)	275041	200.000	211.0
74 Xylene-o	106	10.626	10.626	(1.065)	130035	100.000	104.1
76 Styrene	104	10.645	10.645	(1.067)	213585	100.000	101.2
77 Bromoform	173	10.815	10.815	(1.084)	32886	100.000	85.88
78 Isopropylbenzene	105	10.991	10.991	(1.102)	346609	100.000	108.3
79 Bromobenzene	156	11.283	11.283	(0.919)	79496	100.000	108.9
83 1,1,2,2-Tetrachloroethane	83	11.283	11.283	(0.919)	83410	100.000	98.64
84 1,2,3-Trichloropropane	110	11.320	11.320	(0.922)	26087	100.000	97.26
81 n-Propylbenzene	120	11.393	11.393	(0.928)	88410	100.000	114.2
82 2-Chlorotoluene	126	11.478	11.478	(0.935)	75639	100.000	108.9
86 1,3,5-Trimethylbenzene	105	11.569	11.569	(0.943)	224604	100.000	111.7
85 4-Chlorotoluene	126	11.581	11.581	(0.944)	76082	100.000	109.6
87 tert-Butylbenzene	119	11.892	11.892	(0.969)	213615	100.000	114.1
88 1,2,4-Trimethylbenzene	105	11.940	11.940	(0.973)	210714	100.000	108.3
89 sec-Butylbenzene	105	12.105	12.105	(0.986)	334061	100.000	115.5
91 1,3-Dichlorobenzene	146	12.214	12.214	(0.995)	135346	100.000	104.6

Compounds	QUANT SIG				RESPONSE	AMOUNTS	
	MASS	RT	EXP RT	REL RT		CAL-AMT (ng)	ON-COL (ng)
-----	----	--	-----	-----	-----	-----	-----
90 4-Isopropyltoluene	119	12.251	12.251	(0.998)	247366	100.000	113.1
93 1,4-Dichlorobenzene	146	12.299	12.299	(1.002)	135382	100.000	103.0
94 n-Butylbenzene	91	12.658	12.658	(1.031)	226282	100.000	117.1
95 1,2-Dichlorobenzene	146	12.664	12.664	(1.032)	128178	100.000	104.2
96 1,2-Dibromo-3-chloropropane	157	13.431	13.431	(1.094)	11885	100.000	86.90
97 1,2,4-Trichlorobenzene	180	14.264	14.264	(1.162)	50587	100.000	94.43
98 Hexachlorobutadiene	225	14.441	14.441	(1.176)	46110	100.000	120.2
99 Naphthalene	128	14.501	14.501	(1.181)	112957	100.000	81.91
100 1,2,3-Trichlorobenzene	180	14.745	14.745	(1.201)	43562	100.000	80.71
M 29 1,2-Dichloroethene (total)	96				150774	200.000	213.0
M 75 Xylenes (total)	106				405076	100.000	324.4

Instrument: hp5.i
Operator: 034635
Column diameter: 0.20



STL Pittsburgh

VOLATILE REPORT SW-846 Method
Data file : \\QPITPA02\D\chem\hp5.i\50802d.b\CC50802K.D
Lab Smp Id: vstd50 Client Smp ID: vsyd50
Inj Date : 02-AUG-2000 13:38 MS Autotune Date: 13-MAR-2000 09:53
Operator : 034635 Inst ID: hp5.i
Smp Info : vstd50 5ML
Misc Info : vstd50,50802d.b,8260bh2o.m,3-dwlist.sub
Comment :
Method : \\QPITPA02\D\chem\hp5.i\50802d.b\8260bh2o.m
Meth Date : 02-Aug-2000 20:58 journetp Quant Type: ISTD
Cal Date : 02-AUG-2000 13:38 Cal File: CC50802K.D
Als bottle: 2 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3-dwlist.sub
Target Version: 4.04
Processing Host: PITPC076

Concentration Formula: Amt * DF * 1/Vo*Vt

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample Volume
Vt	1.000	mg/L conversion (1.0 if no conversion)

Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
* 46 Fluorobenzene	96	6.869	6.869	(1.000)	570388	250.000	
* 69 Chlorobenzene-d5	119	9.972	9.972	(1.000)	129893	250.000	
* 92 1,4-Dichlorobenzene-d4	152	12.271	12.271	(1.000)	181026	250.000	
\$ 39 Dibromofluoromethane	113	6.121	6.121	(0.891)	117962	250.000	250.0
\$ 43 1,2-Dichloroethane-d4	65	6.480	6.480	(0.943)	148281	250.000	250.0
\$ 59 Toluene-d8	98	8.524	8.524	(0.855)	568822	250.000	250.0
\$ 80 Bromofluorobenzene	95	11.134	11.134	(1.117)	199246	250.000	250.0
1 Dichlorodifluoromethane	85	1.570	1.570	(0.229)	105289	250.000	250.0
2 Chloromethane	50	1.729	1.729	(0.252)	148897	250.000	250.0
3 Vinyl Chloride	62	1.844	1.844	(0.269)	147428	250.000	250.0
4 Bromomethane	94	2.136	2.136	(0.311)	17517	250.000	250.0
5 Chloroethane	64	2.240	2.240	(0.326)	31215	250.000	250.0
6 Trichlorofluoromethane	101	2.471	2.471	(0.360)	48624	250.000	250.0
12 1,1-Dichloroethene	96	3.073	3.073	(0.447)	113629	250.000	250.0
13 Acetone	43	3.225	3.225	(0.470)	61510	250.000	250.0
15 Carbon Disulfide	76	3.310	3.310	(0.482)	440078	250.000	250.0

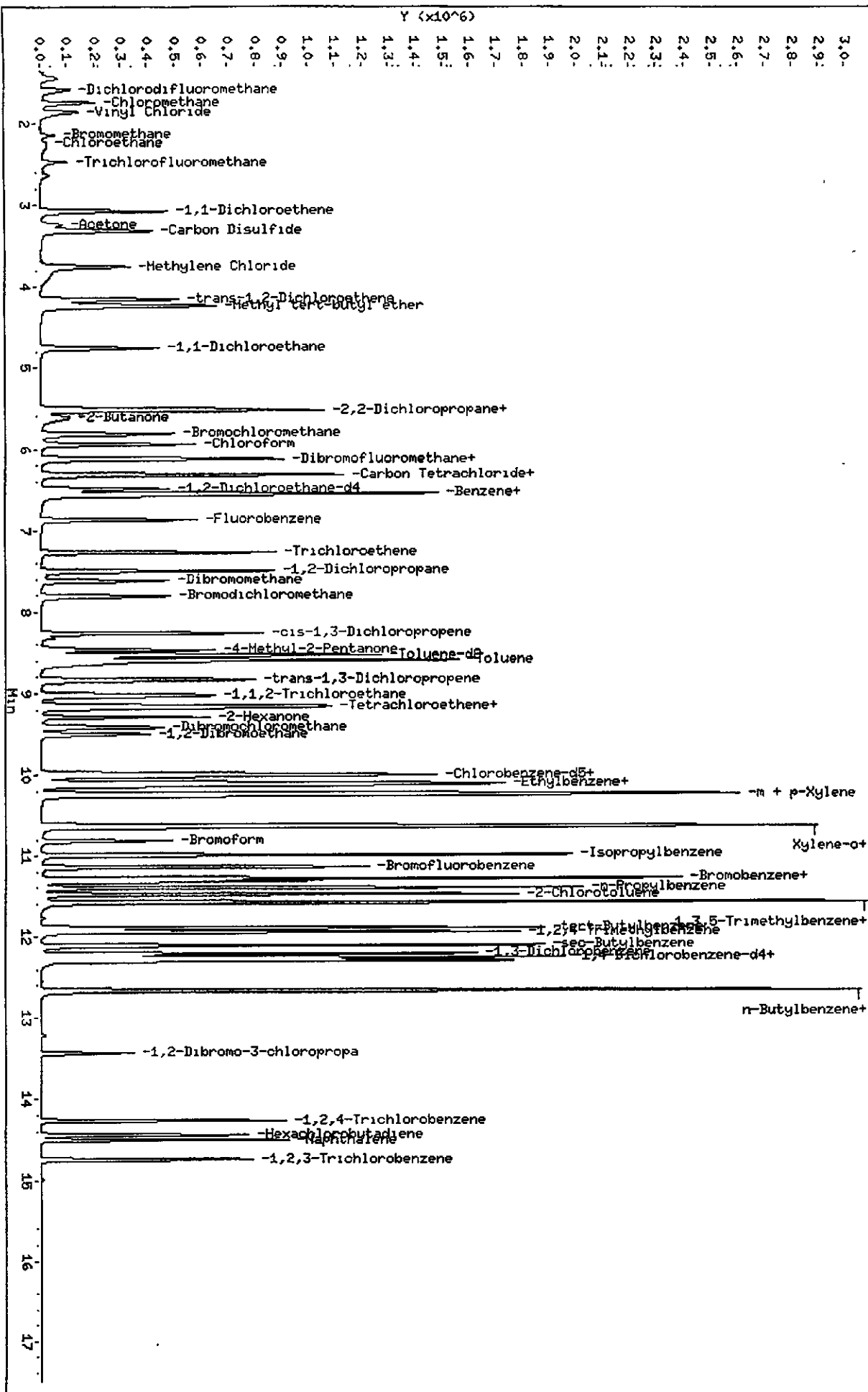
Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
=====	=====	==	=====	=====	=====	=====	=====
18 Methylene Chloride	84	3.742	3.742	(0.545)	130580	250.000	250.0
19 trans-1,2-Dichloroethene	96	4.150	4.150	(0.604)	122948	250.000	250.0
20 Methyl tert-butyl ether	73	4.217	4.217	(0.614)	389305	250.000	250.0
24 1,1-Dichloroethane	63	4.752	4.752	(0.692)	237305	250.000	250.0
27 2,2-Dichloropropane	77	5.506	5.506	(0.802)	187509	250.000	250.0
28 cis-1,2-dichloroethene	96	5.519	5.519	(0.803)	140023	250.000	250.0
31 2-Butanone	43	5.592	5.592	(0.814)	98604	250.000	250.0
30 Bromochloromethane	128	5.805	5.805	(0.845)	61479	250.000	250.0
37 Chloroform	83	5.932	5.932	(0.864)	206800	250.000	250.0
38 1,1,1-Trichloroethane	97	6.115	6.115	(0.890)	184054	250.000	250.0
41 Carbon Tetrachloride	117	6.303	6.303	(0.918)	147650	250.000	250.0
40 1,1-Dichloropropene	75	6.309	6.309	(0.919)	151377	250.000	250.0
42 Benzene	78	6.541	6.541	(0.952)	563383	250.000	250.0
45 1,2-Dichloroethane	62	6.565	6.565	(0.956)	179985	250.000	250.0
47 Trichloroethene	130	7.265	7.265	(1.058)	133551	250.000	250.0
49 1,2-Dichloropropane	63	7.490	7.490	(1.090)	146938	250.000	250.0
50 Dibromomethane	93	7.611	7.611	(1.108)	76981	250.000	250.0
53 Bromodichloromethane	83	7.800	7.800	(1.135)	153917	250.000	250.0
57 cis-1,3-Dichloropropene	75	8.262	8.262	(1.203)	204710	250.000	250.0
58 4-Methyl-2-Pentanone	43	8.469	8.469	(0.849)	153535	250.000	250.0
60 Toluene	91	8.591	8.591	(0.862)	651330	250.000	250.0
61 trans-1,3-Dichloropropene	75	8.828	8.828	(0.885)	207421	250.000	250.0
64 1,1,2-Trichloroethane	97	9.029	9.029	(0.905)	119781	250.000	250.0
65 Tetrachloroethene	164	9.138	9.138	(0.916)	115649	250.000	250.0
67 Dibromochloromethane	129	9.412	9.412	(0.944)	111124	250.000	250.0
63 1,3-Dichloropropane	76	9.169	9.169	(0.919)	233843	250.000	250.0
66 2-Hexanone	43	9.284	9.284	(0.931)	105074	250.000	250.0
68 1,2-Dibromoethane	107	9.497	9.497	(0.952)	120031	250.000	250.0
70 Chlorobenzene	112	10.002	10.002	(1.003)	395524	250.000	250.0
72 Ethylbenzene	106	10.112	10.112	(1.014)	224695	250.000	250.0
71 1,1,1,2-Tetrachloroethane	131	10.087	10.087	(1.012)	122838	250.000	250.0
73 m + p-Xylene	106	10.227	10.227	(1.026)	507137	500.000	500.0
74 Xylene-o	106	10.623	10.623	(1.065)	241036	250.000	250.0
76 Styrene	104	10.635	10.635	(1.066)	411700	250.000	250.0
77 Bromoform	173	10.811	10.811	(1.084)	68351	250.000	250.0
78 Isopropylbenzene	105	10.988	10.988	(1.102)	657185	250.000	250.0
79 Bromobenzene	156	11.280	11.280	(0.919)	148763	250.000	250.0
83 1,1,2,2-Tetrachloroethane	83	11.280	11.280	(0.919)	160831	250.000	250.0
84 1,2,3-Trichloropropane	110	11.316	11.316	(0.922)	50187	250.000	250.0
81 n-Propylbenzene	120	11.395	11.395	(0.929)	164882	250.000	250.0
82 2-Chlorotoluene	126	11.474	11.474	(0.935)	145382	250.000	250.0
86 1,3,5-Trimethylbenzene	105	11.572	11.572	(0.943)	433522	250.000	250.0
85 4-Chlorotoluene	126	11.578	11.578	(0.943)	143371	250.000	250.0
87 tert-Butylbenzene	119	11.888	11.888	(0.969)	405047	250.000	250.0
88 1,2,4-Trimethylbenzene	105	11.937	11.937	(0.973)	406389	250.000	250.0
89 sec-Butylbenzene	105	12.107	12.107	(0.987)	643172	250.000	250.0
91 1,3-Dichlorobenzene	146	12.210	12.210	(0.995)	261521	250.000	250.0

671 857

Compounds	QUANT SIG		RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
	MASS						CAL-AMT (ng)	ON-COL (ng)
-----	----	==	=====	=====	=====	=====	=====	=====
90 4-Isopropyltoluene	119		12 253	12.253	(0.999)	485794	250 000	250.0
93 1,4-Dichlorobenzene	146		12 296	12.296	(1.002)	263101	250 000	250.0
94 n-Butylbenzene	91		12 655	12 655	(1 031)	443246	250 000	250.0
95 1,2-Dichlorobenzene	146		12 667	12 667	(1 032)	248227	250 000	250.0
96 1,2-Dibromo-3-chloropropane	157		13.427	13 427	(1 094)	23282	250 000	250.0
97 1,2,4-Trichlorobenzene	180		14.261	14 261	(1 162)	95174	250.000	250.0
98 Hexachlorobutadiene	225		14 443	14 443	(1 177)	87330	250.000	250.0
99 Naphthalene	128		14 504	14 504	(1 182)	185770	250.000	250.0
100 1,2,3-Trichlorobenzene	180		14 747	14 747	(1 202)	76383	250 000	250.0
M 29 1,2-Dichloroethene (total)	96					262971	500.000	500.0
M 75 Xylenes (total)	106					748174	250.000	776.0

Data File: \\QPI1P02\Nchem\hp5.1\508024.b\1D50802K.D
 Date : 02-AUG-2000 20:14
 Client ID: vstd100
 Sample Info: vstd100 SHL
 Purge Volume: 5.0
 Column phase: DB 624

Instrument: hp5.1
 Operator: 034635
 Column diameter: 0.20



STL Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\QPITPA02\D\chem\hp5.i\50802d.b\1D50802K.D
Lab Smp Id: vstd100 Client Smp ID: vstd100
Inj Date : 02-AUG-2000 20:14 MS Autotune Date: 13-MAR-2000 09:53
Operator : 034635 Inst ID: hp5.i
Smp Info : vstd100 5ML
Misc Info : vstd100,50802d.b,8260bh2o.m,3-dwlist.sub
Comment :
Method : \\QPITPA02\D\chem\hp5.i\50802d.b\8260bh2o.m
Meth Date : 02-Aug-2000 21:01 journetp Quant Type: ISTD
Cal Date : 02-AUG-2000 20:14 Cal File: 1D50802K.D
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3-dwlist.sub
Target Version: 4.04
Processing Host: PITPC076

Concentration Formula: Amt * DF * 1/Vo*Vt

Handwritten: 8/2/00

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample Volume
Vt	1.000	mg/L conversion (1.0 if no conversion)

Compounds	QUANT SIG				RESPONSE	AMOUNTS	
	MASS	RT	EXP RT	REL RT		CAL-AMT (ng)	ON-COL (ng)
* 46 Fluorobenzene	96	6.867	6.867	(1.000)	570722	250.000	
* 69 Chlorobenzene-d5	119	9.976	9.976	(1.000)	146582	250.000	
* 92 1,4-Dichlorobenzene-d4	152	12.276	12.276	(1.000)	218584	250.000	
\$ 39 Dibromofluoromethane	113	6.125	6.125	(0.892)	262664	500.000	505.9
\$ 43 1,2-Dichloroethane-d4	65	6.484	6.484	(0.944)	343888	500.000	503.0
\$ 59 Toluene-d8	98	8.534	8.534	(0.855)	1184662	500.000	459.4
\$ 80 Bromofluorobenzene	95	11.138	11.138	(1.116)	463558	500.000	496.1
1 Dichlorodifluoromethane	85	1.581	1.581	(0.230)	224016	500.000	502.6
2 Chloromethane	50	1.739	1.739	(0.253)	336806	500.000	510.5
3 Vinyl Chloride	62	1.855	1.855	(0.270)	321536	500.000	510.8
4 Bromomethane	94	2.141	2.141	(0.312)	43437	500.000	501.8
5 Chloroethane	64	2.238	2.238	(0.326)	59428	500.000	462.7
6 Trichlorofluoromethane	101	2.475	2.475	(0.360)	87672	500.000	170.7
12 1,1-Dichloroethene	96	3.071	3.071	(0.447)	239887	500.000	501.1
13 Acetone	43	3.236	3.236	(0.471)	191463	500.000	488.0
15 Carbon Disulfide	76	3.309	3.309	(0.482)	786475	500.000	472.4

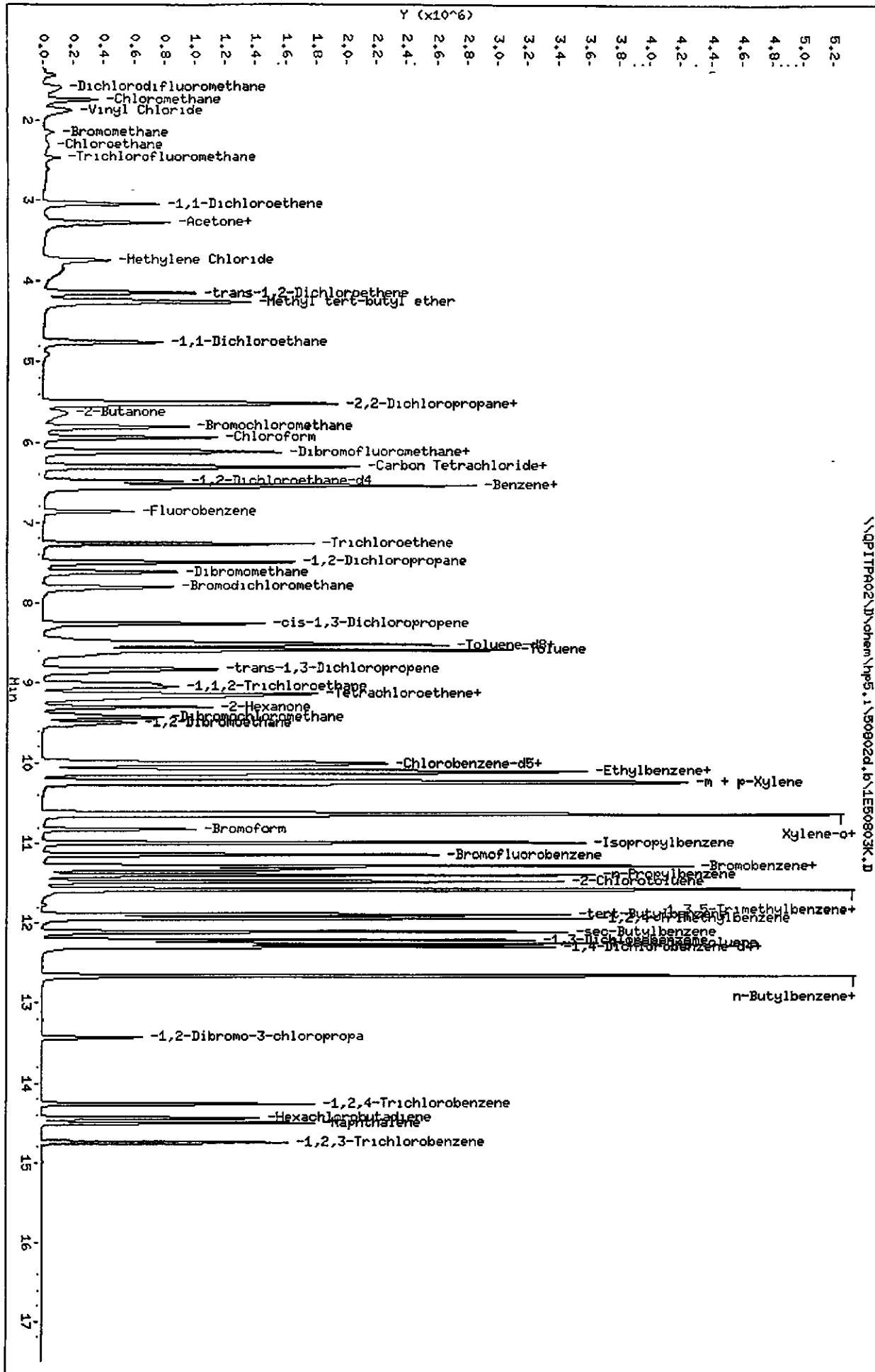
671 860

Compounds	QUANT SIG	AMOUNTS					
		MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)
18 Methylene Chloride	84	3.747	3.747	(0.546)	319075	500.000	542 0
19 trans-1,2-Dichloroethene	96	4.154	4.154	(0.605)	279203	500.000	520 5
20 Methyl tert-butyl ether	73	4.233	4.233	(0.616)	970330	500.000	547.7
24 1,1-Dichloroethane	63	4.756	4.756	(0.693)	552017	500.000	519.1
27 2,2-Dichloropropane	77	5.511	5.511	(0.802)	427004	500.000	532.7
28 cis-1,2-dichloroethene	96	5.523	5.523	(0.804)	342636	500.000	541.7
31 2-Butanone	43	5.608	5.608	(0.817)	306326	500.000	471 3
30 Bromochloromethane	128	5.809	5.809	(0.846)	162299	500.000	557.1
37 Chloroform	83	5.937	5.937	(0.864)	497815	500.000	530 0
38 1,1,1-Trichloroethane	97	6.119	6.119	(0.891)	416583	500.000	526.8
41 Carbon Tetrachloride	117	6.308	6.308	(0.919)	333315	500.000	535 2
40 1,1-Dichloropropene	75	6.314	6.314	(0.919)	336156	500.000	533 0
42 Benzene	78	6.545	6.545	(0.953)	1304308	500.000	525 7
45 1,2-Dichloroethane	62	6.569	6.569	(0.957)	469146	500.000	550.9
47 Trichloroethene	130	7.269	7.269	(1.058)	300367	500.000	521 6
49 1,2-Dichloropropane	63	7.494	7.494	(1.091)	358281	500.000	548.2
50 Dibromomethane	93	7.616	7.616	(1.109)	211356	500.000	578.0
53 Bromodichloromethane	83	7.804	7.804	(1.136)	392085	500.000	589.9
57 cis-1,3-Dichloropropene	75	8.261	8.261	(1.203)	528648	500.000	611 0
58 4-Methyl-2-Pentanone	43	8.473	8.473	(0.849)	545975	500.000	594 8
60 Toluene	91	8.595	8.595	(0.862)	1488525	500.000	493.8
61 trans-1,3-Dichloropropene	75	8.832	8.832	(0.885)	578506	500.000	571.6
64 1,1,2-Trichloroethane	97	9.021	9.021	(0.904)	337205	500.000	535.1
65 Tetrachloroethene	164	9.143	9.143	(0.916)	250091	500.000	483.4
67 Dibromochloromethane	129	9.416	9.416	(0.944)	326055	500.000	577.8
63 1,3-Dichloropropane	76	9.173	9.173	(0.920)	651695	500.000	549.9
66 2-Hexanone	43	9.289	9.289	(0.931)	398644	500.000	645 4
68 1,2-Dibromoethane	107	9.502	9.502	(0.952)	354797	500.000	569 8
70 Chlorobenzene	112	10.007	10.007	(1.003)	974066	500.000	506 3
72 Ethylbenzene	106	10.116	10.116	(1.014)	539176	500.000	520.0
71 1,1,1,2-Tetrachloroethane	131	10.092	10.092	(1.012)	320711	500.000	537 1
73 m + p-Xylene	106	10.232	10.232	(1.026)	1233624	1000.000	1037
74 Xylene-o	106	10.621	10.621	(1.065)	618270	500.000	541 5
76 Styrene	104	10.639	10.639	(1.066)	1071843	500.000	557 1
77 Bromoform	173	10.810	10.810	(1.084)	223415	500.000	621.8
78 Isopropylbenzene	105	10.986	10.986	(1.101)	1508889	500.000	522.2
79 Bromobenzene	156	11.278	11.278	(0.919)	381862	500.000	497.5
83 1,1,2,2-Tetrachloroethane	83	11.278	11.278	(0.919)	501781	500.000	530 0
84 1,2,3-Trichloropropane	110	11.314	11.314	(0.922)	157715	500.000	529 8
81 n-Propylbenzene	120	11.394	11.394	(0.928)	389368	500.000	503 3
82 2-Chlorotoluene	126	11.473	11.473	(0.935)	356543	500.000	499 5
86 1,3,5-Trimethylbenzene	105	11.570	11.570	(0.943)	1044090	500.000	513.5
85 4-Chlorotoluene	126	11.582	11.582	(0.944)	357535	500.000	499 0
87 tert-Butylbenzene	119	11.892	11.892	(0.969)	928481	500.000	503 3
88 1,2,4-Trimethylbenzene	105	11.935	11.935	(0.972)	1011500	500.000	519 3
89 sec-Butylbenzene	105	12.105	12.105	(0.986)	1384852	500.000	491 6
91 1,3-Dichlorobenzene	146	12.209	12.209	(0.995)	669672	500.000	503 9

Compounds	QUANT SIG				RESPONSE	AMOUNTS	
	MASS	RT	EXP RT	REL RT		CAL-AMT (ng)	ON-COL (ng)
=====	=====	==	=====	=====	=====	=====	=====
90 4-Isopropyltoluene	119	12.251	12.251	(0.998)	1073287	500.000	503.5
93 1,4-Dichlorobenzene	146	12.300	12.300	(1.002)	691021	500.000	506.0
94 n-Butylbenzene	91	12.659	12.659	(1.031)	920747	500.000	510.3
95 1,2-Dichlorobenzene	146	12.665	12.665	(1.032)	657247	500.000	508.9
96 1,2-Dibromo-3-chloropropane	157	13.431	13.431	(1.094)	89468	500.000	645.9
97 1,2,4-Trichlorobenzene	180	14.265	14.265	(1.162)	276982	500.000	571.0
98 Hexachlorobutadiene	225	14.441	14.441	(1.176)	140103	500.000	448.5
99 Naphthalene	128	14.502	14.502	(1.181)	688231	500.000	659.8
100 1,2,3-Trichlorobenzene	180	14.746	14.746	(1.201)	235110	500.000	585.4
M 29 1,2-Dichloroethene (total)	96				621839	1000.00	1064
M 75 Xylenes (total)	106				1851894	500.000	1622

Data File: \\QPITPA02\chem\hp5.1\50802d.b\1E50803K.D
 Date : 02-AUG-2000 20:41
 Client ID: vstd200
 Sample Info: vstd200 BHL
 Purge Volume: 5.0
 Column phase: DB 624

Instrument: hp5.1
 Operator: 034635
 Column diameter: 0.20



STL Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\QPITPA02\D\chem\hp5.i\50802d.b\1E50803K.D
Lab Smp Id: vstd200 Client Smp ID: vstd200
Inj Date : 02-AUG-2000 20:41 MS Autotune Date: 13-MAR-2000 09:53
Operator : 034635 Inst ID: hp5.i
Smp Info : vstd200 5ML
Misc Info : vstd200,50802d.b,8260bh2o.m,3-dwlist.sub
Comment :
Method : \\QPITPA02\D\chem\hp5.i\50802d.b\8260bh2o.m
Meth Date : 02-Aug-2000 21:13 journetp Quant Type: ISTD
Cal Date : 02-AUG-2000 20:41 Cal File: 1E50803K.D
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3-dwlist.sub
Target Version: 4.04
Processing Host: PITPC076

Concentration Formula: Amt * DF * 1/Vo*Vt

DI 8/2/00

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample Volume
Vt	1.000	mg/L conversion (1.0 if no conversion)

Compounds	QUANT SIG						AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE		CAL-AMT	ON-COL
							(ng)	(ng)
* 46 Fluorobenzene	96	6.867	6.867	(1.000)	603853		250.000	
* 69 Chlorobenzene-d5	119	9.988	9.988	(1.000)	150029		250.000	
* 92 1,4-Dichlorobenzene-d4	152	12.281	12.281	(1.000)	214236		250.000	
\$ 39 Dibromofluoromethane	113	6.131	6.131	(0.893)	566586	1000.00		1025
\$ 43 1,2-Dichloroethane-d4	65	6.490	6.490	(0.945)	725774	1000.00		1003
\$ 59 Toluene-d8	98	8.528	8.528	(0.854)	2340102	1000.00		907.3
\$ 80 Bromofluorobenzene	95	11.143	11.143	(1.116)	940882	1000.00		986.9
1 Dichlorodifluoromethane	85	1.592	1.592	(0.232)	347402	1000.00		777.6
2 Chloromethane	50	1.738	1.738	(0.253)	662850	1000.00		959.2
3 Vinyl Chloride	62	1.872	1.872	(0.273)	556401	1000.00		863.9
4 Bromomethane	94	2.146	2.146	(0.313)	69717	1000.00		799.4
5 Chloroethane	64	2.298	2.298	(0.335)	95098	1000.00		744.5
6 Trichlorofluoromethane	101	2.468	2.468	(0.360)	102662	1000.00		225.4
12 1,1-Dichloroethene	96	3.040	3.040	(0.443)	409087	1000.00		839.9
13 Acetone	43	3.265	3.265	(0.476)	359363	1000.00		889.6
15 Carbon Disulfide	76	3.278	3.278	(0.477)	1437563	1000.00		847.2

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Compounds	QUANT SIG				RESPONSE	AMOUNTS	
	MASS	RT	EXP RT	REL RT		CAL-AMT (ng)	ON-COL (ng)
=====	=====	==	=====	=====	=====	=====	=====
18 Methylene Chloride	84	3.740	3 740	(0.545)	652334	1000.00	1037
19 trans-1,2-Dichloroethene	96	4.141	4 141	(0.603)	581479	1000.00	1019
20 Methyl tert-butyl ether	73	4.251	4 251	(0.619)	2184256	1000.00	1128
24 1,1-Dichloroethane	63	4.750	4.750	(0.692)	1090091	1000.00	975.0
27 2,2-Dichloropropane	77	5.504	5.504	(0.802)	851118	1000.00	1003
28 cis-1,2-dichloroethene	96	5.522	5 522	(0.804)	712395	1000.00	1051
31 2-Butanone	43	5.632	5 632	(0.820)	590711	1000.00	883.9
30 Bromochloromethane	128	5.814	5 814	(0.847)	351353	1000.00	1109
37 Chloroform	83	5.942	5 942	(0.865)	1060147	1000.00	1053
38 1,1,1-Trichloroethane	97	6.112	6.112	(0.890)	820126	1000.00	984.2
41 Carbon Tetrachloride	117	6.301	6.301	(0.918)	636270	1000.00	972.3
40 1,1-Dichloropropene	75	6.313	6.313	(0.919)	650411	1000.00	979.6
42 Benzene	78	6.538	6 538	(0.952)	2717417	1000.00	1028
45 1,2-Dichloroethane	62	6.575	6 575	(0.957)	955280	1000.00	1048
47 Trichloroethene	130	7.262	7.262	(1.058)	620882	1000.00	1015
49 1,2-Dichloropropane	63	7.493	7 493	(1.091)	745225	1000.00	1061
50 Dibromomethane	93	7.615	7.615	(1.109)	433757	1000.00	1094
53 Bromodichloromethane	83	7.804	7.804	(1.136)	817806	1000.00	1126
57 cis-1,3-Dichloropropene	75	8.266	8.266	(1.204)	1086486	1000.00	1144
58 4-Methyl-2-Pentanone	43	8.497	8.497	(0.851)	1063448	1000.00	1103
60 Toluene	91	8.594	8 594	(0.861)	2860061	1000.00	940.7
61 trans-1,3-Dichloropropene	75	8.832	8 832	(0.884)	1176838	1000.00	1106
64 1,1,2-Trichloroethane	97	9.057	9.057	(0.907)	684924	1000.00	1049
65 Tetrachloroethene	164	9.142	9.142	(0.915)	453391	1000.00	881.5
67 Dibromochloromethane	129	9.434	9.434	(0.945)	678825	1000.00	1135
63 1,3-Dichloropropane	76	9.172	9.172	(0.918)	1293210	1000.00	1052
66 2-Hexanone	43	9.306	9.306	(0.932)	761090	1000.00	1157
68 1,2-Dibromoethane	107	9.501	9.501	(0.951)	709787	1000.00	1089
70 Chlorobenzene	112	10.018	10.018	(1.003)	1964708	1000.00	998.2
72 Ethylbenzene	106	10.115	10.115	(1.013)	1037389	1000.00	981.9
71 1,1,1,2-Tetrachloroethane	131	10.103	10 103	(1.012)	645820	1000.00	1045
73 m + p-Xylene	106	10.243	10.243	(1.026)	2367911	2000.00	1956
74 Xylene-o	106	10.632	10.632	(1.065)	1189067	1000.00	1014
76 Styrene	104	10.645	10.645	(1.066)	2054051	1000.00	1034
77 Bromoform	173	10.821	10 821	(1.083)	454593	1000.00	1180
78 Isopropylbenzene	105	10.991	10 991	(1.100)	2741223	1000.00	940.7
79 Bromobenzene	156	11.283	11 283	(0.919)	718687	1000.00	964.0
83 1,1,2,2-Tetrachloroethane	83	11.283	11 283	(0.919)	900446	1000.00	976.2
84 1,2,3-Trichloropropane	110	11.326	11 326	(0.922)	302202	1000.00	1028
81 n-Propylbenzene	120	11.399	11 399	(0.928)	722501	1000.00	961.9
82 2-Chlorotoluene	126	11.478	11.478	(0.935)	692131	1000.00	991.5
86 1,3,5-Trimethylbenzene	105	11.575	11.575	(0.943)	1891500	1000.00	958.9
85 4-Chlorotoluene	126	11.588	11 588	(0.944)	663760	1000.00	955.7
87 tert-Butylbenzene	119	11.892	11 892	(0.968)	1675429	1000.00	940.4
88 1,2,4-Trimethylbenzene	105	11.940	11 940	(0.972)	1946587	1000.00	1016
89 sec-Butylbenzene	105	12.111	12 111	(0.986)	2470570	1000.00	914.1
91 1,3-Dichlorobenzene	146	12.214	12 214	(0.995)	1310314	1000.00	1005

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Compounds	QUANT SIG						AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE		CAL-AMT	ON-COL
							(ng)	(ng)
=====	====	==	=====	=====	=====		=====	=====
90 4-Isopropyltoluene	119	12 257	12 257	(0 998)	1948505		1000 00	945.4
93 1,4-Dichlorobenzene	146	12 299	12.299	(1 001)	1339466		1000 00	1001
94 n-Butylbenzene	91	12 658	12.658	(1 031)	1607769		1000 00	926 0
95 1,2-Dichlorobenzene	146	12 670	12 670	(1 032)	1212606		1000.00	966 0
96 1,2-Dibromo-3-chloropropane	157	13.431	13 431	(1.094)	174706		1000 00	1217
97 1,2,4-Trichlorobenzene	180	14.264	14 264	(1 161)	561234		1000 00	1139
98 Hexachlorobutadiene	225	14 441	14 441	(1 176)	262011		1000 00	881.2
99 Naphthalene	128	14 502	14 502	(1 181)	1349093		1000 00	1240
100 1,2,3-Trichlorobenzene	180	14 745	14.745	(1 201)	475892		1000 00	1160
M 29 1,2-Dichloroethene (total)	96				1293874		2000.00	2073
M 75 Xylenes (total)	106				3556978		1000.00	3033

FORM 7
VOLATILE CONTINUING CALIBRATION CHECK

671 866

Lab Name: STL PITTSBURGH

Contract:

Lab Code: STL

Case No.:

SAS No.:

SDG No.: METHODS

Instrument ID: HP5

Calibration Date: 09/01/00

Time: 0754

Lab File ID: CC50901

Init. Calib. Date(s): 08/02/00

08/02/00

Heated Purge: (Y/N) N

Init. Calib. Times: 1338

2147

GC Column: DB 624

ID: 0.20 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.180	0.193	0.01	7.2	50.0
Chloromethane	0.277	0.260	0.1	6.1	50.0
Vinyl Chloride	0.264	0.261	0.01	1.1	20.0
Bromomethane	0.037	0.020	0.01	45.9	50.0
Chloroethane	0.048	0.032	0.01	33.3	50.0
Trichlorofluoromethane	0.068	0.052	0.01	23.5	50.0
1,1-Dichloroethene	0.194	0.163	0.01	16.0	20.0
Methylene Chloride	0.242	0.213	0.01	12.0	50.0
trans-1,2-Dichloroethene	0.234	0.209	0.01	10.7	50.0
1,1-Dichloroethane	0.443	0.373	0.1	15.8	50.0
cis-1,2-dichloroethene	0.273	0.232	0.01	15.0	50.0
Chloroform	0.398	0.328	0.01	17.6	20.0
Bromochloromethane	0.124	0.106	0.01	14.5	50.0
1,1,1-Trichloroethane	0.338	0.292	0.01	13.6	50.0
Carbon Tetrachloride	0.268	0.238	0.01	11.2	50.0
1,2-Dichloroethane	0.352	0.269	0.01	23.6	50.0
Benzene	1.062	0.994	0.01	6.4	50.0
Trichloroethene	0.248	0.248	0.01	0.0	50.0
1,2-Dichloropropane	0.279	0.237	0.01	15.0	20.0
Bromodichloromethane	0.293	0.250	0.01	14.7	50.0
cis-1,3-Dichloropropene	0.391	0.344	0.01	12.0	50.0
Toluene	4.971	5.044	0.01	1.5	20.0
trans-1,3-Dichloropropene	1.711	1.504	0.01	12.1	50.0
1,1,2-Trichloroethane	1.027	0.895	0.01	12.8	50.0
Tetrachloroethene	0.852	0.859	0.01	0.8	50.0
Dibromochloromethane	0.941	0.858	0.01	8.8	50.0
Chlorobenzene	3.214	3.104	0.3	3.4	50.0
Ethylbenzene	1.767	1.654	0.01	6.4	20.0
Styrene	3.267	3.002	0.01	8.1	50.0
Bromoform	0.593	0.543	0.1	8.4	50.0
1,1,2,2-Tetrachloroethane	0.999	0.831	0.3	16.8	50.0
1,3-Dichlorobenzene	1.528	1.386	0.01	9.3	50.0
1,4-Dichlorobenzene	1.552	1.388	0.01	10.6	50.0
1,2-Dichlorobenzene	1.453	1.284	0.01	11.6	50.0
Dibromomethane	0.155	0.130	0.01	16.1	50.0
1,2-Dibromoethane	1.040	0.929	0.01	10.7	50.0
1,1,1,2-Tetrachloroethane	0.989	0.894	0.01	9.6	50.0

Lab Name: STL PITTSBURGH

Contract:

Lab Code: STL

Case No.:

SAS No.:

SDG No.: METHODS

Instrument ID: HP5

Calibration Date: 09/01/00 Time: 0754

Lab File ID: CC50901

Init. Calib. Date(s): 08/02/00 08/02/00

Heated Purge: (Y/N) N

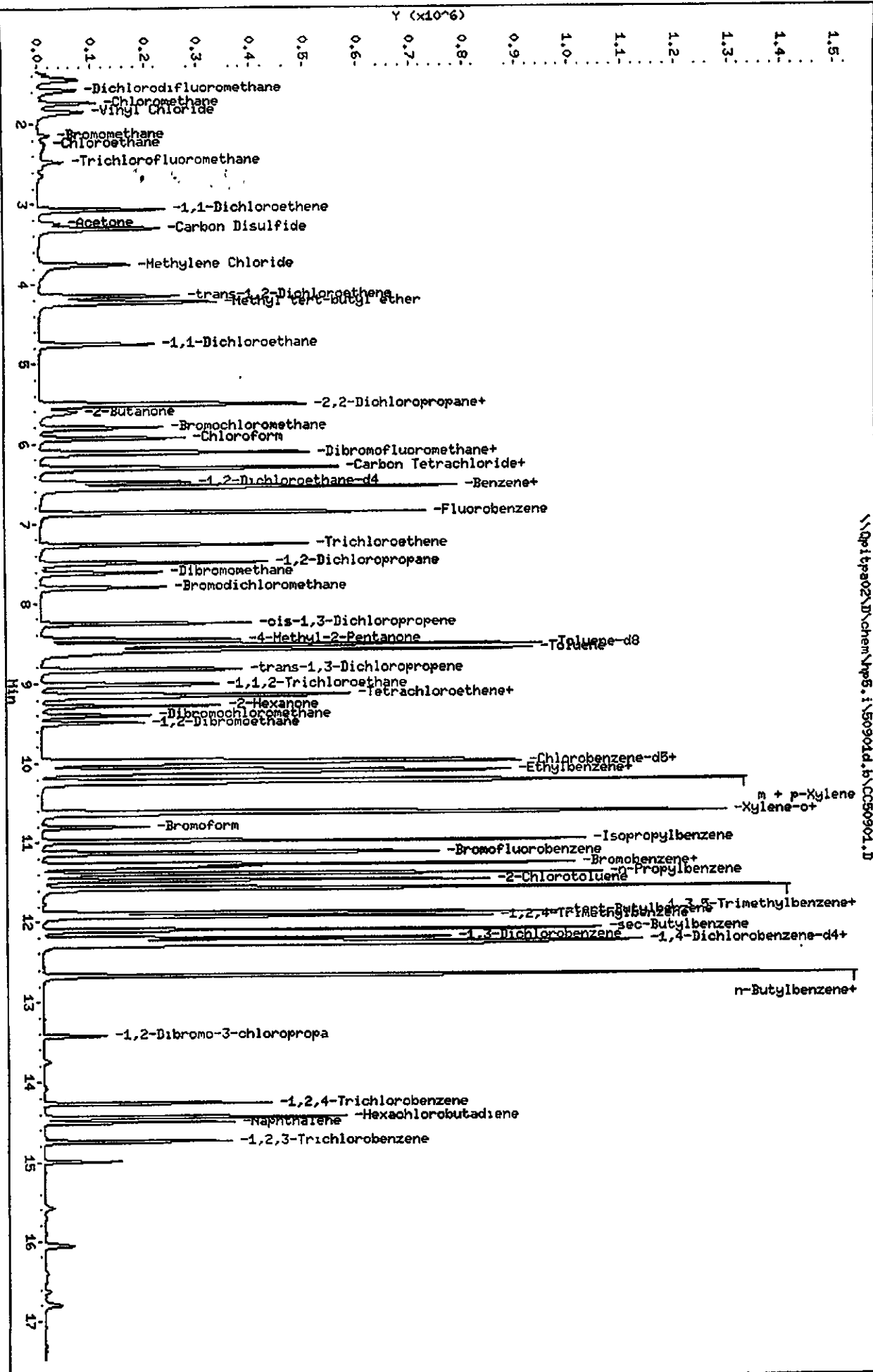
Init. Calib. Times: 1338 2147

GC Column: DB 624 ID: 0.20 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
1,2,3-Trichloropropane	0.317	0.268	0.01	15.4	50.0
1,2-Dibromo-3-chloropropane	0.162	0.142	0.01	12.3	50.0
2,2-Dichloropropane	0.347	0.299	0.01	13.8	50.0
1,1-Dichloropropene	0.275	0.244	0.01	11.3	50.0
1,3-Dichloropropane	1.952	1.671	0.01	14.4	50.0
n-Propylbenzene	0.915	0.888	0.01	3.0	50.0
Bromobenzene	0.862	0.770	0.01	10.7	50.0
1,3,5-Trimethylbenzene	2.375	2.226	0.01	6.3	50.0
2-Chlorotoluene	0.820	0.757	0.01	7.7	50.0
4-Chlorotoluene	0.819	0.753	0.01	8.0	50.0
tert-Butylbenzene	2.212	2.163	0.01	2.2	50.0
1,2,4-Trimethylbenzene	2.298	2.138	0.01	7.0	50.0
sec-Butylbenzene	3.416	3.361	0.01	1.6	50.0
4-Isopropyltoluene	2.583	2.496	0.01	3.4	50.0
n-Butylbenzene	2.282	2.211	0.01	3.1	50.0
1,2,4-Trichlorobenzene	0.633	0.576	0.01	9.0	50.0
Hexachlorobutadiene	0.453	0.468	0.01	3.3	50.0
Naphthalene	1.628	1.186	0.01	27.1	50.0
1,2,3-Trichlorobenzene	0.637	0.460	0.01	27.8	50.0
Acetone	0.154	0.121	0.01	21.4	50.0
Carbon Disulfide	0.619	0.567	0.01	8.4	50.0
2-Butanone	0.358	0.246	0.01	31.3	50.0
4-Methyl-2-Pentanone	1.474	1.791	0.01	21.5	50.0
2-Hexanone	1.039	1.266	0.01	21.8	50.0
Methyl tert-butyl ether	0.705	0.689	0.01	2.3	50.0
Isopropylbenzene	4.951	4.696	0.01	5.2	50.0
1,2-Dichloroethene (total)	0.253	0.221	0.01	12.6	50.0
Xylenes (total)	1.932	1.800	0.01	6.8	50.0
=====	=====	=====	=====	=====	=====
Dibromofluoromethane	0.238	0.233	0.01	2.1	50.0
1,2-Dichloroethane-d4	0.304	0.268	0.01	11.8	50.0
Toluene-d8	4.633	4.910	0.01	6.0	50.0
Bromofluorobenzene	1.705	1.704	0.01	0.0	50.0

Data File: \\Op1tpa02\N\chem\hp5.1\50901d.b\CC50901.D
 Date: 01-SEP-2000 07:54
 Client ID: vstd50
 Sample Info: vstd50 SHL
 Purge Volume: 5.0
 Column phase: DB 624

Instrument: hp5.1
 Operator: 034635
 Column diameter: 0.20



671 869

STL - Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\Qpitpa02\D\chem\hp5.i\50901d.b\CC50901.D
Lab Smp Id: vstd50 Client Smp ID: vstd50
Inj Date : 01-SEP-2000 07:54 MS Autotune Date: 13-MAR-2000 09:53
Operator : 034635 Inst ID: hp5.i
Smp Info : vstd50 5ML
Misc Info : vstd50,50901d.b,8260bh2o.m,3-dwlist.sub
Comment :
Method : \\Qpitpa02\D\chem\hp5.i\50901d.b\8260bh2o.m
Meth Date : 01-Sep-2000 09:09 journetp Quant Type: ISTD
Cal Date : 02-AUG-2000 21:20 Cal File: 2A50802K.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000 Compound Sublist: 3-dwlist.sub
Integrator: HP RTE
Target Version: 4.04
Processing Host: PITPC076

Concentration Formula: $\text{Amt} * \text{DF} * 1/\text{Vo} * \text{Vt}$

for 9/1/00

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample Volume
Vt	1.000	mg/L conversion (1.0 if no conversion)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng)	ON-COL (ng)
* 46 Fluorobenzene	96	6.868	6.868	(1.000)	734364	250.000	
* 69 Chlorobenzene-d5	119	9.970	9.970	(1.000)	169459	250.000	
* 92 1,4-Dichlorobenzene-d4	152	12.276	12.276	(1.000)	235584	250.000	
\$ 39 Dibromofluoromethane	113	6.125	6.125	(0.892)	171330	250.000	244.9
\$ 43 1,2-Dichloroethane-d4	65	6.484	6.484	(0.944)	196534	250.000	220.0
\$ 59 Toluene-d8	98	8.528	8.528	(0.855)	831982	250.000	264.9
\$ 80 Bromofluorobenzene	95	11.132	11.132	(1.117)	288763	250.000	249.8
1 Dichlorodifluoromethane	85	1.575	1.575	(0.229)	141607	250.000	266.9
2 Chloromethane	50	1.739	1.739	(0.253)	190793	250.000	234.3
3 Vinyl Chloride	62	1.849	1.849	(0.269)	191872	250.000	247.5
4 Bromomethane	94	2.141	2.141	(0.312)	14674	250.000	135.7
5 Chloroethane	64	2.232	2.232	(0.325)	23423	250.000	167.6
6 Trichlorofluoromethane	101	2.469	2.469	(0.360)	38473	250.000	192.1
12 1,1-Dichloroethene	96	3.072	3.072	(0.447)	119590	250.000	209.5
13 Acetone	43	3.242	3.242	(0.472)	89133	250.000	197.4
15 Carbon Disulfide	76	3.309	3.309	(0.482)	416151	250.000	228.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng)	ON-COL (ng)
18 Methylene Chloride	84	3.747	3.747	(0.546)	156151	250.000	219.7
19 trans-1,2-Dichloroethene	96	4.154	4.154	(0.605)	153609	250.000	223.2
20 Methyl tert-butyl ether	73	4.234	4.234	(0.616)	505989	250.000	244.1
24 1,1-Dichloroethane	63	4.757	4.757	(0.693)	274159	250.000	210.5
27 2,2-Dichloropropane	77	5.505	5.505	(0.802)	219496	250.000	215.6
28 cis-1,2-dichloroethene	96	5.523	5.523	(0.804)	170558	250.000	212.9
31 2-Butanone	43	5.608	5.608	(0.817)	180615	250.000	171.6
30 Bromochloromethane	128	5.809	5.809	(0.846)	78179	250.000	215.2
37 Chloroform	83	5.937	5.937	(0.864)	240814	250.000	205.7
38 1,1,1-Trichloroethane	97	6.119	6.119	(0.891)	214422	250.000	216.2
41 Carbon Tetrachloride	117	6.308	6.308	(0.919)	175021	250.000	222.0
40 1,1-Dichloropropene	75	6.314	6.314	(0.919)	178830	250.000	220.9
42 Benzene	78	6.545	6.545	(0.953)	729893	250.000	233.9
45 1,2-Dichloroethane	62	6.570	6.570	(0.957)	197542	250.000	190.9
47 Trichloroethene	130	7.269	7.269	(1.058)	182375	250.000	250.6
49 1,2-Dichloropropane	63	7.494	7.494	(1.091)	174208	250.000	212.4
50 Dibromomethane	93	7.616	7.616	(1.109)	95396	250.000	210.1
53 Bromodichloromethane	83	7.804	7.804	(1.136)	183798	250.000	213.5
57 cis-1,3-Dichloropropene	75	8.261	8.261	(1.203)	252817	250.000	219.9
58 4-Methyl-2-Pentanone	43	8.462	8.462	(0.849)	303436	250.000	303.8
60 Toluene	91	8.595	8.595	(0.862)	854733	250.000	253.7
61 trans-1,3-Dichloropropene	75	8.833	8.833	(0.886)	254939	250.000	219.8
64 1,1,2-Trichloroethane	97	9.015	9.015	(0.904)	151616	250.000	217.7
65 Tetrachloroethene	164	9.143	9.143	(0.917)	145599	250.000	252.0
67 Dibromochloromethane	129	9.404	9.404	(0.943)	145354	250.000	228.0
63 1,3-Dichloropropane	76	9.167	9.167	(0.919)	283099	250.000	214.0
66 2-Hexanone	43	9.283	9.283	(0.931)	214565	250.000	304.6
68 1,2-Dibromoethane	107	9.496	9.496	(0.952)	157375	250.000	223.3
70 Chlorobenzene	112	10.001	10.001	(1.003)	526002	250.000	241.5
72 Ethylbenzene	106	10.110	10.110	(1.014)	280256	250.000	234.0
71 1,1,1,2-Tetrachloroethane	131	10.086	10.086	(1.012)	151448	250.000	225.9
73 m + p-Xylene	106	10.232	10.232	(1.026)	638285	500.000	467.0
74 Xylene-o	106	10.621	10.621	(1.065)	304992	250.000	232.9
76 Styrene	104	10.639	10.639	(1.067)	508663	250.000	229.7
77 Bromoform	173	10.810	10.810	(1.084)	92099	250.000	229.3
78 Isopropylbenzene	105	10.986	10.986	(1.102)	795823	250.000	237.1
79 Bromobenzene	156	11.278	11.278	(0.919)	181525	250.000	223.4
83 1,1,2,2-Tetrachloroethane	83	11.278	11.278	(0.919)	195681	250.000	207.9
84 1,2,3-Trichloropropane	110	11.315	11.315	(0.922)	63271	250.000	212.0
81 n-Propylbenzene	120	11.394	11.394	(0.928)	209304	250.000	242.8
82 2-Chlorotoluene	126	11.473	11.473	(0.935)	178402	250.000	230.8
86 1,3,5-Trimethylbenzene	105	11.570	11.570	(0.943)	524533	250.000	234.4
85 4-Chlorotoluene	126	11.582	11.582	(0.944)	177360	250.000	229.7
87 tert-Butylbenzene	119	11.893	11.893	(0.969)	509614	250.000	244.5
88 1,2,4-Trimethylbenzene	105	11.935	11.935	(0.972)	503770	250.000	232.6
89 sec-Butylbenzene	105	12.106	12.106	(0.986)	791826	250.000	246.0
91 1,3-Dichlorobenzene	146	12.209	12.209	(0.995)	326631	250.000	226.8

671 871

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
90 4-Isopropyltoluene	119	12.252	12.252	(0.998)	588009	250.000	241.6
93 1,4-Dichlorobenzene	146	12.300	12.300	(1.002)	327035	250.000	223.6
94 n-Butylbenzene	91	12.659	12.659	(1.031)	520914	250.000	242.2
95 1,2-Dichlorobenzene	146	12.665	12.665	(1.032)	302413	250.000	220.9
96 1,2-Dibromo-3-chloropropane	157	13.432	13.432	(1.094)	33418	250.000	219.5
97 1,2,4-Trichlorobenzene	180	14.265	14.265	(1.162)	135644	250.000	227.5
98 Hexachlorobutadiene	225	14.442	14.442	(1.176)	110273	250.000	258.3
99 Naphthalene	128	14.502	14.502	(1.181)	279457	250.000	182.1
100 1,2,3-Trichlorobenzene	180	14.746	14.746	(1.201)	108448	250.000	180.5
M 29 1,2-Dichloroethene (total)	96				324167	500.000	435.4
M 75 Xylenes (total)	106				943277	250.000	720.3

GC/MS VOLATILE
QC DATA

Date : 02-AUG-2000 13:08

Client ID: 50NGBFB

Instrument: hp5.1

Sample Info: bfb 192-188-2 50ng

Volume Injected (uL): 2.0

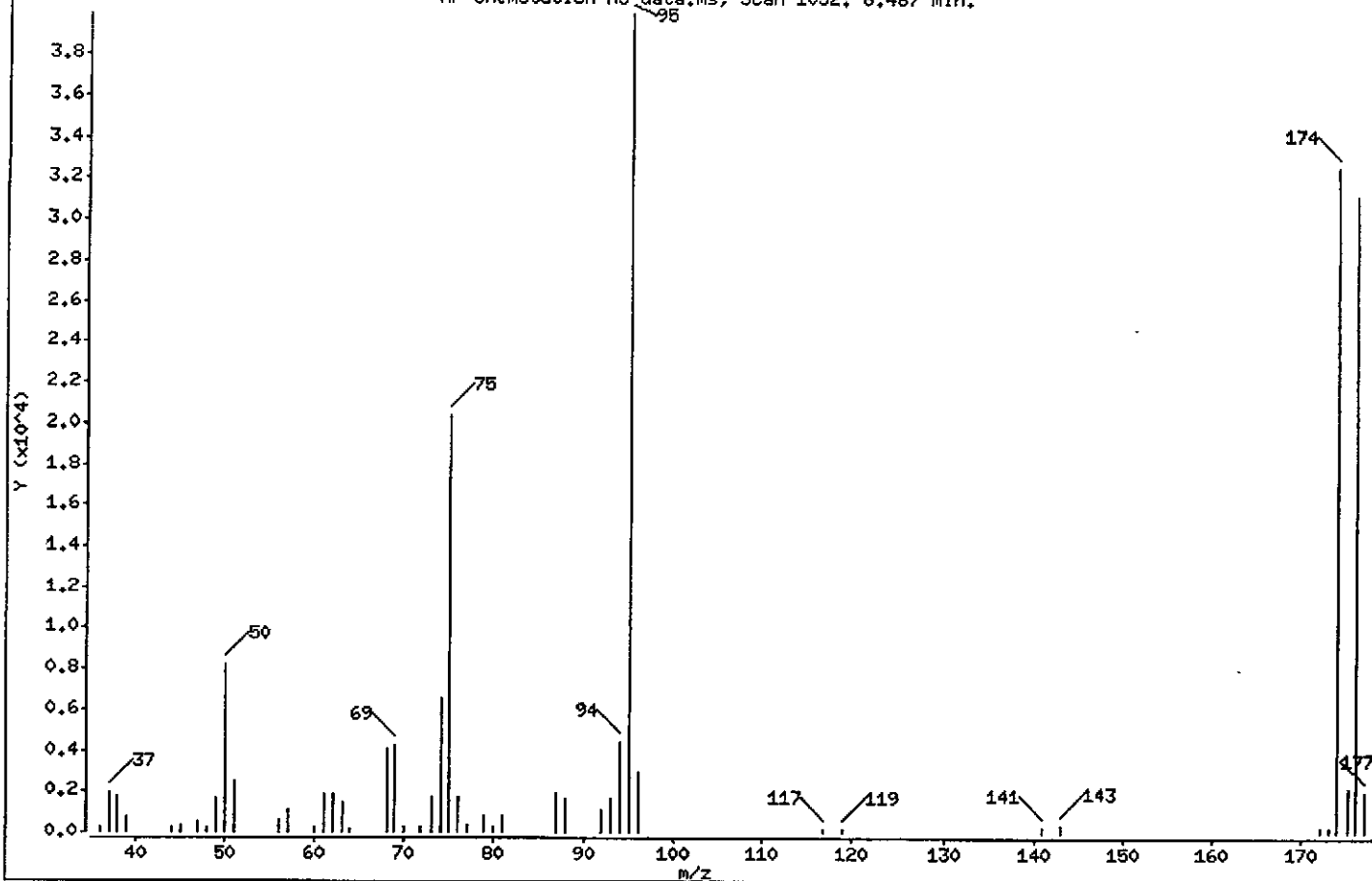
Operator: 034635

Column phase: DB624 20m

Column diameter: 0.20

1 bfb

HP ChemStation MS_data.ms, Scan 1052; 8.487 min.



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	20.61
75	30.00 - 60.00% of mass 95	50.99
96	5.00 - 9.00% of mass 95	7.31
173	Less than 2.00% of mass 174	0.72 (0.87)
174	50.00 - 100.00% of mass 95	81.90
175	5.00 - 9.00% of mass 174	5.60 (6.84)
176	95.00 - 101.00% of mass 174	78.34 (95.65)
177	5.00 - 9.00% of mass 176	5.11 (6.52)

Date : 02-AUG-2000 13:08

671 874

Client ID: 50NCBFB

Instrument: hp5.1

Sample Info: bfb 192-188-2 50ng

Volume Injected (uL): 2.0

Operator: 034635

Column phase: DB624 20m

Column diameter: 0.20

Data File: BF50802K.D

Spectrum: HP ChemStation MS data.ms, Scan 1052: 8.487 min.

Location of Maximum: 95.00

Number of points: 47

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.10	288	57.00	1130	75.00	20376	96.00	2922
37.10	1916	60.00	291	76.00	1706	116.90	205
38.10	1731	61.00	1834	77.00	336	118.90	221
39.10	704	62.00	1881	78.90	844	140.90	306
44.10	321	63.10	1469	79.90	300	142.90	379
45.00	358	64.00	225	81.00	872	171.90	244
47.00	573	68.00	4033	87.00	1965	173.10	286
48.00	286	69.00	4273	88.00	1695	173.90	32728
49.00	1672	70.00	312	92.00	1102	175.00	2239
50.00	8236	71.90	233	93.00	1620	176.00	31304
51.00	2485	73.00	1749	94.00	4379	177.00	2040
56.10	645	74.00	6496	95.00	39960		

Date File: \\p1tpa02\chem\hp5.1\50802d.b\BF50802K.D
Date : 02-AUG-2000 13:08

Client ID: 50NGBFB

Sample Info: bfb 192-188-2 50ng

Volume Injected (uL): 2.0

Column phase: DB624 20m

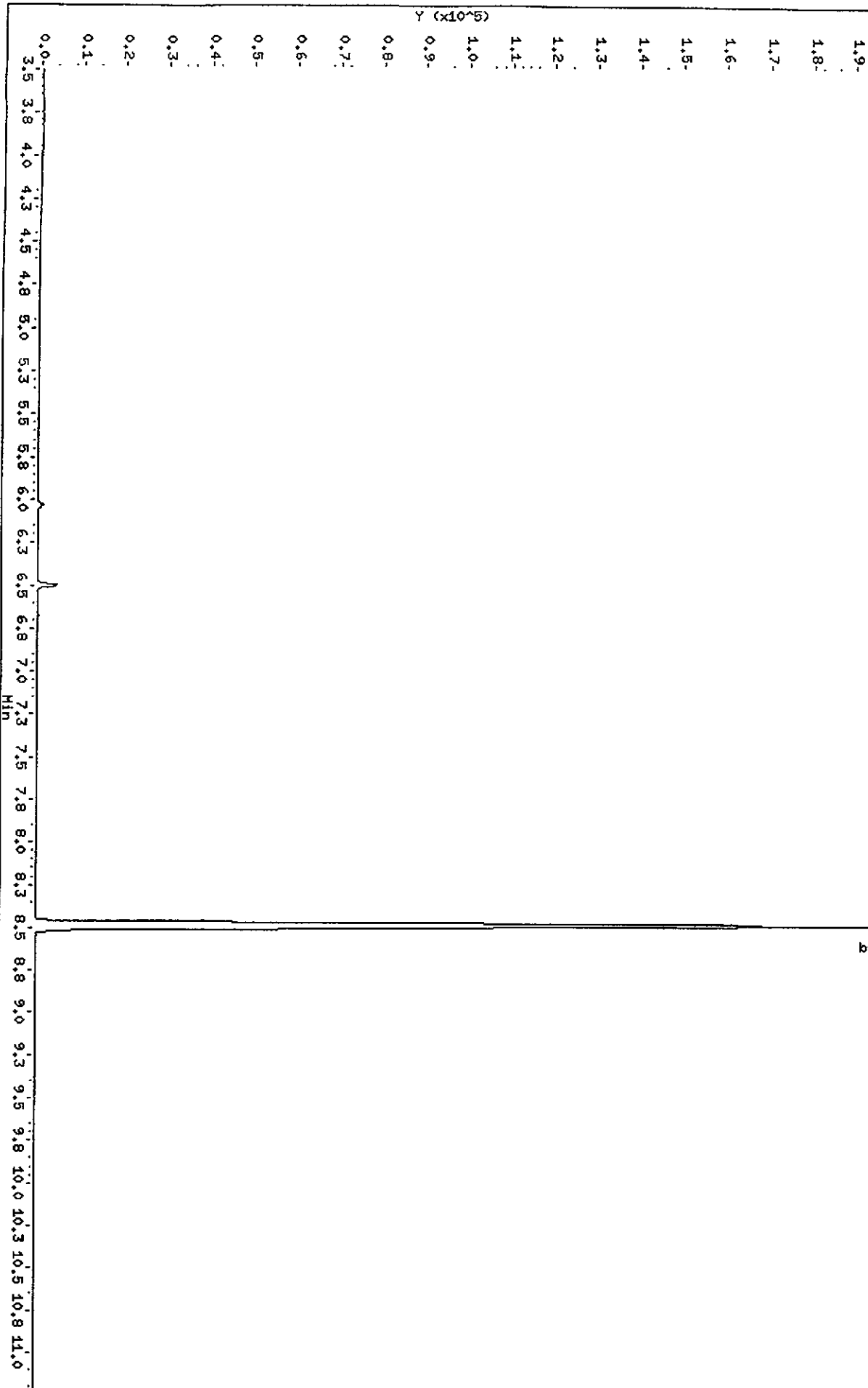
Instrument: hp5.i

Operator: 034635

Column diameter: 0.20

\\p1tpa02\chem\hp5.1\50802d.b\BF50802K.D

bfb



528 129

Data File: \\QPITPA02\D\chem\hp5.1\50901d.b\BF50901.D

Date : 01-SEP-2000 07:22

Client ID: 50NGBFB

Instrument: hp5.1

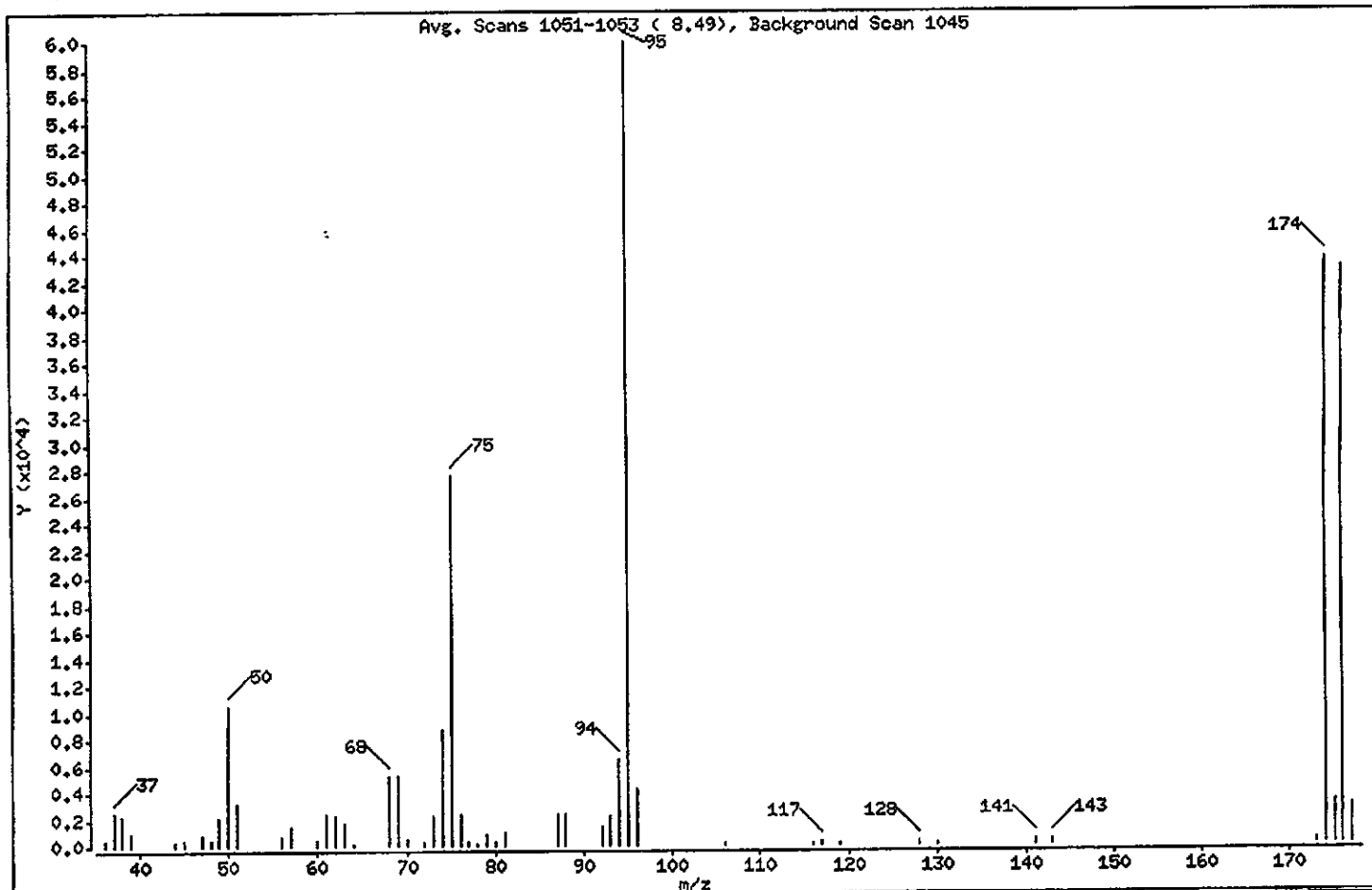
Sample Info: BFB 192-189-B 50NG

Operator: 034635

Column phase: DB624 20m

Column diameter: 0.20

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.43
75	30.00 - 60.00% of mass 95	45.91
96	5.00 - 9.00% of mass 95	7.07
173	Less than 2.00% of mass 174	0.53 (0.72)
174	50.00 - 100.00% of mass 95	72.59
175	5.00 - 9.00% of mass 174	5.21 (7.18)
176	95.00 - 101.00% of mass 174	71.49 (98.50)
177	5.00 - 9.00% of mass 176	4.78 (6.69)

671 877

Data File: \\QPITPA02\D\chem\hp5.i\50901d.b\BF50901.D

Page 3

Date : 01-SEP-2000 07:22

Client ID: 50NCBFB

Instrument: hp5.i

Sample Info: BFB 192-189-5 50NC

Operator: 034635

Column phase: DB624 20m

Column diameter: 0.20

Data File: BF50901.D

Spectrum: Avg. Scans 1051-1053 (8.49), Background Scan 1045

Location of Maximum: 95.00

Number of points: 51

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	420	60.00	438	77.00	336	116.00	72
37.00	2453	61.00	2295	78.00	148	117.00	260
38.00	2225	62.00	2235	79.00	822	119.00	156
39.00	992	63.00	1649	80.00	282	128.00	266
44.00	336	64.00	146	81.00	942	130.00	73
45.00	475	68.00	5247	87.00	2332	141.00	393
47.00	822	69.00	5192	88.00	2372	143.00	436
48.00	352	70.00	366	92.00	1409	173.00	316
49.00	2084	72.00	310	93.00	2276	174.00	43592
50.00	10469	73.00	2246	94.00	6526	175.00	3132
51.00	3116	74.00	8753	95.00	60056	176.00	42936
56.00	727	75.00	27568	96.00	4244	177.00	2872
57.00	1432	76.00	2355	106.00	144		

Data File: \NPI\TFA02\B\chem\hp5.1\50901d.b\BF50901.D

Date: 01-SEP-2000 07:22

Client ID: SONGCBFB

Sample Info: BFB 192-189-5 SONG

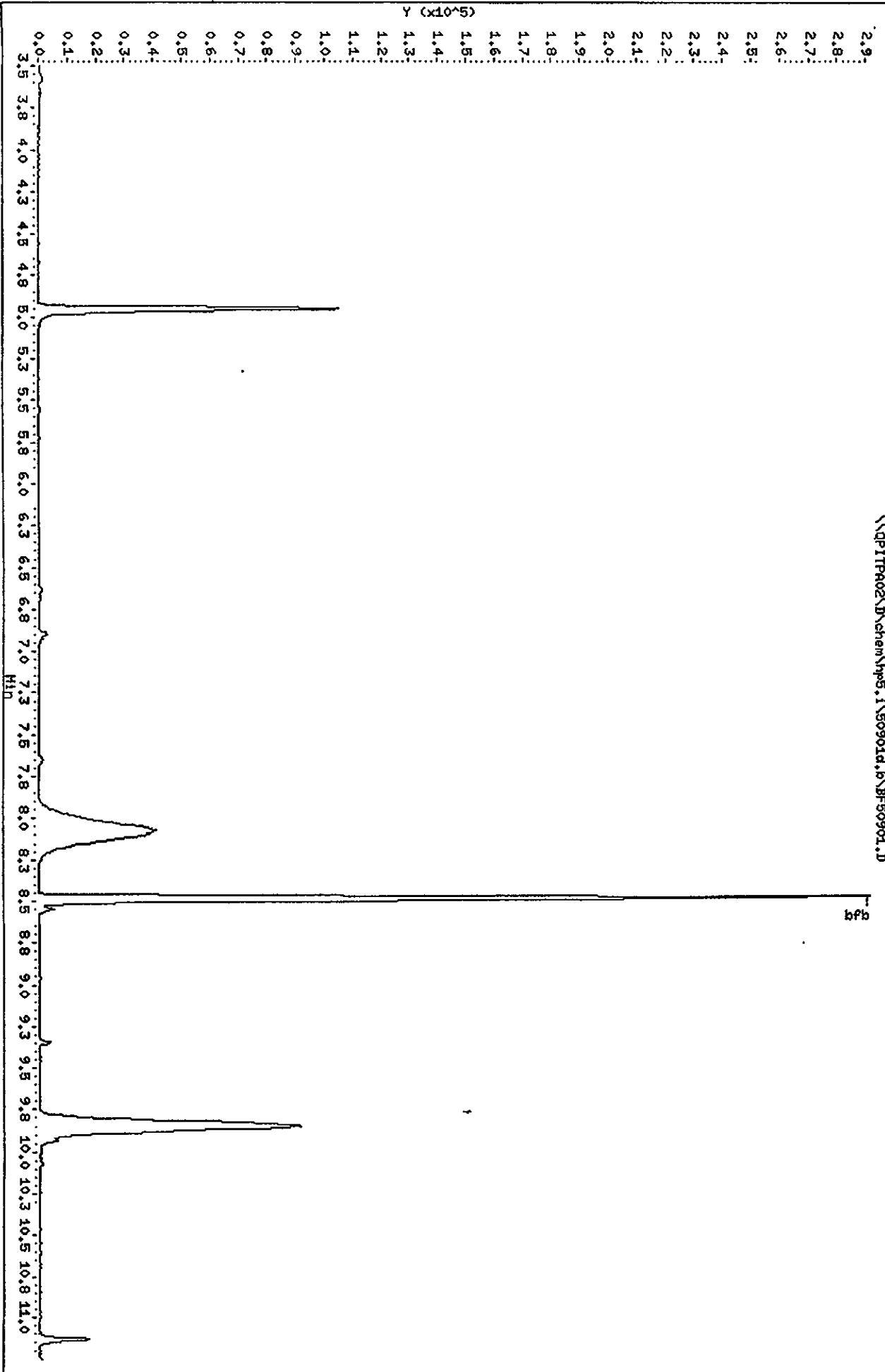
Instrument: hp5.1

Operator: 034635

Column diameter: 0.20

Column phase: DB624 20m

\NPI\TFA02\B\chem\hp5.1\50901d.b\BF50901.D



671 879

UXB INTERNATIONAL
METHOD BLANK COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0I010000 186

Method: SW846 8260B

Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL

Date Received: 08/26/00

Work Order: DJQJ2101

Date Extracted: 09/01/00

Dilution factor: 1

Date Analyzed: 09/01/00

Moisture %: NA

QC Batch: 0245186

Client Sample Id: INTRA-LAB BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	0.050	U
78-93-3	2-Butanone	0.050	U
56-23-5	Carbon tetrachloride	0.050	U
108-90-7	Chlorobenzene	0.050	U
67-66-3	Chloroform	0.050	U
107-06-2	1,2-Dichloroethane	0.050	U
75-35-4	1,1-Dichloroethene	0.050	U
127-18-4	Tetrachloroethene	0.050	U
79-01-6	Trichloroethene	0.050	U
75-01-4	Vinyl chloride	0.050	U

FORM I

Data File: \\Qp1tpa02\\chem\\hp5.1\\50901d.b\\5090102.D

Date: 01-SEP-2000 09:59

Client ID: INTRA-LAB BLANK

Sample Info: phik tolp (1ml/10ml) 5HL

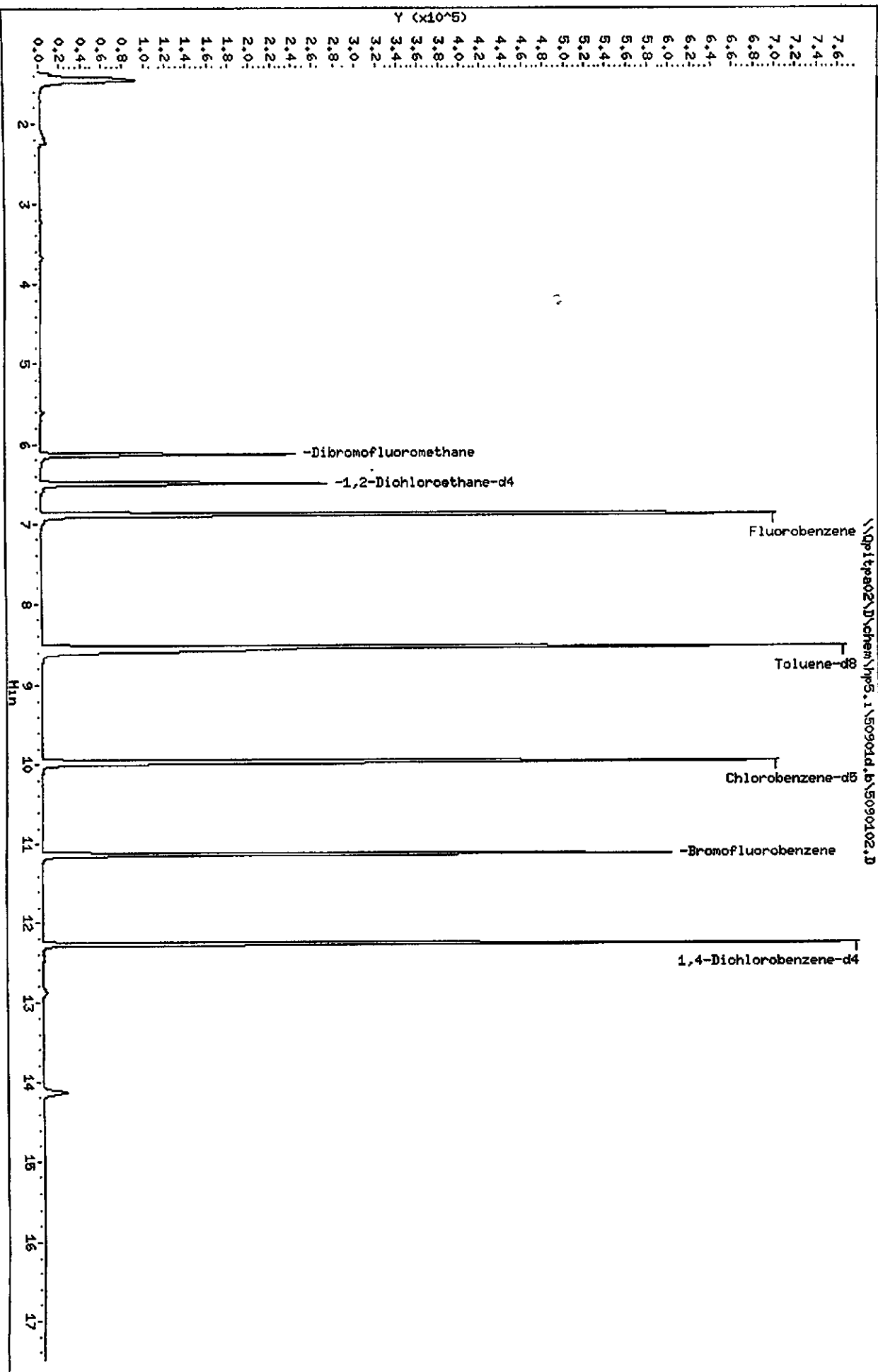
Purge Volume: 5.0

Column phase: DB 624

Instrument: hp5.1

Operator: 034635

Column diameter: 0.20



671 881

Data File: \\Qpitpa02\D\chem\hp5.i\50901d.b\5090102.D
 Report Date: 01-Sep-2000 11:38

Page 1

STL - Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\Qpitpa02\D\chem\hp5.i\50901d.b\5090102.D
 Lab Smp Id: djg2101 Client Smp ID: INTRA-LAB BLANK
 Inj Date : 01-SEP-2000 09:59 MS Autotune Date: 13-MAR-2000 09:53
 Operator : 034635 Inst ID: hp5.i
 Smp Info : pblk tclp (1ml/10ml) 5ML
 Misc Info : ,50901d.b,8260bh2o:m,tclp.sub
 Comment :
 Method : \\Qpitpa02\D\chem\hp5.i\50901d.b\8260bh2o.m
 Meth Date : 01-Sep-2000 09:09 journetp Quant Type: ISTD
 Cal Date : 02-AUG-2000 21:20 Cal File: 2A50802K.D
 Als bottle: 6
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: tclp.sub
 Target Version: 4.04
 Processing Host: PITPC076

Concentration Formula: Amt * DF * 1/Vo*Vt

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample Volume
Vt	1.000	mg/L conversion (1.0 if no conversion)

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng)	FINAL (UG/L)
* 46 Fluorobenzene	96	6.887	6.868	(1.000)	707668	250.000	
* 69 Chlorobenzene-d5	119	9.965	9.970	(1.000)	164251	250.000	
* 92 1,4-Dichlorobenzene-d4	152	12.271	12.276	(1.000)	222971	250.000	
\$ 39 Dibromofluoromethane	113	6.133	6.125	(0.890)	159464	236.517	47.30
\$ 43 1,2-Dichloroethane-d4	65	6.498	6.484	(0.943)	187821	218.188	43.64
\$ 59 Toluene-d8	98	8.536	8.528	(0.857)	743908	244.369	48.87
\$ 80 Bromofluorobenzene	95	11.127	11.132	(1.117)	259114	231.248	46.25
3 Vinyl Chloride	62	Compound Not Detected					
12 1,1-Dichloroethene	96	Compound Not Detected.					
31 2-Butanone	43	Compound Not Detected.					
37 Chloroform	83	Compound Not Detected.					
41 Carbon Tetrachloride	117	Compound Not Detected.					
42 Benzene	78	Compound Not Detected.					
45 1,2-Dichloroethane	62	Compound Not Detected.					
47 Trichloroethene	130	Compound Not Detected.					
65 Tetrachloroethene	164	Compound Not Detected.					

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN	FINAL
	MASS					(ng)	(UG/L)
=====	====	==	=====	=====	=====	=====	=====
70 Chlorobenzene	112				Compound Not Detected.		

671 883

UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0I010000 186

Method: SW846 8260B

Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL

Date Received: 08/26/00

Work Order: DJQJ2102

Date Extracted: 09/01/00

Dilution factor: 1

Date Analyzed: 09/01/00

Moisture %: NA

QC Batch: 0245186

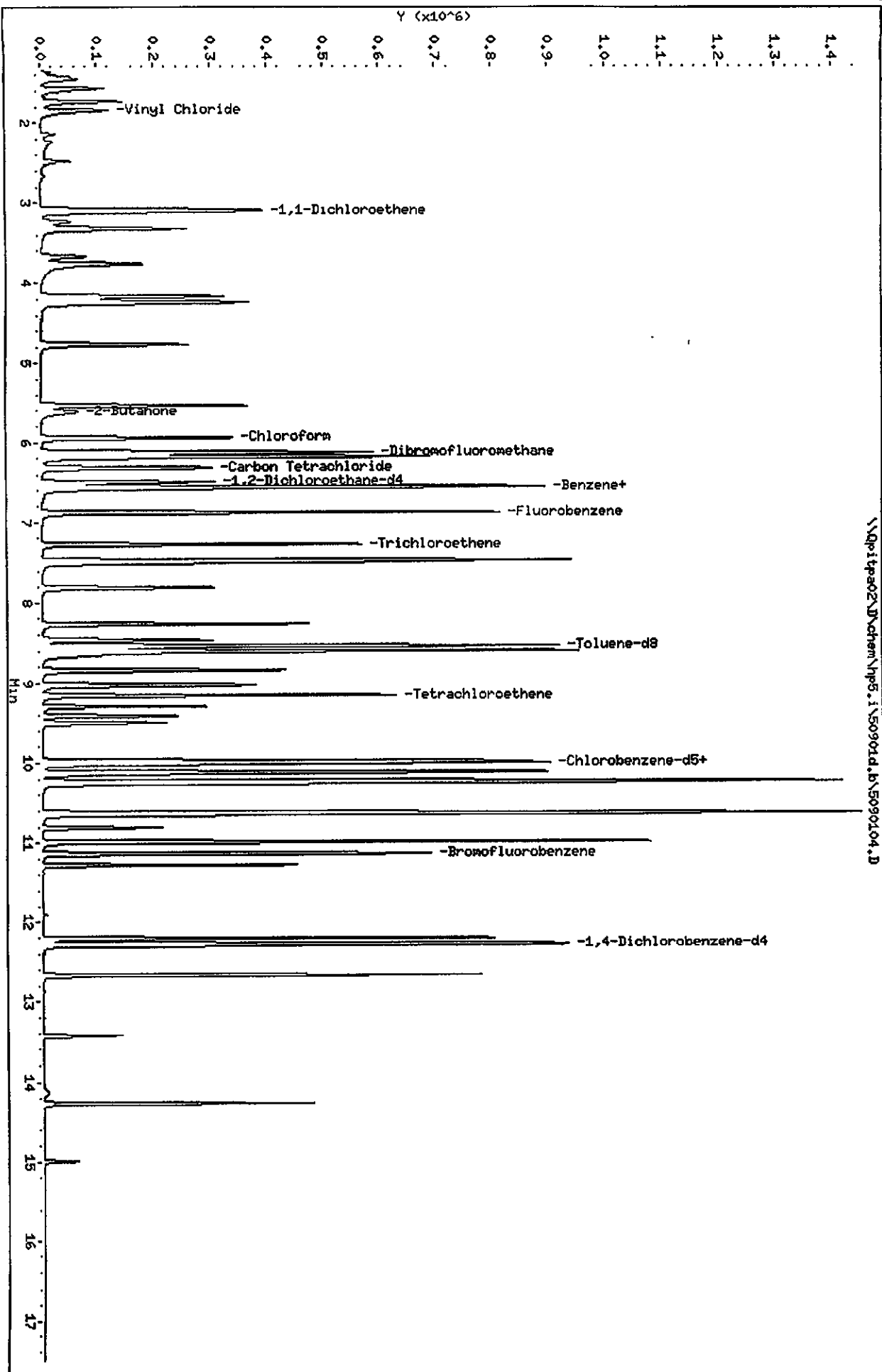
Client Sample Id: CHECK SAMPLE

CONCENTRATION UNITS:			
CAS NO.	COMPOUND	(ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	0.478	
78-93-3	2-Butanone	0.275	
56-23-5	Carbon tetrachloride	0.492	
108-90-7	Chlorobenzene	0.487	
67-66-3	Chloroform	0.459	
107-06-2	1,2-Dichloroethane	0.417	
75-35-4	1,1-Dichloroethene	0.442	
127-18-4	Tetrachloroethene	0.564	
79-01-6	Trichloroethene	0.509	
75-01-4	Vinyl chloride	0.542	

FORM I

Data File: \\qip202\chem\hp5.1\50901d.b\5090104.D
Date: 01-SEP-2000 10:49
Client ID: INTRA-LAB CHECK
Sample Info: b1kms (4ml/10ml) 5HL
Purge Volume: 5.0
Column phase: DB 624

Instrument: hp5.1
Operator: 034635
Column diameter: 0.20



671 885

Data File: \\Qpitpa02\D\chem\hp5.i\50901d.b\5090104.D
Report Date: 01-Sep-2000 11:39

Page 1

STL - Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\Qpitpa02\D\chem\hp5.i\50901d.b\5090104.D
Lab Smp Id: DJq2102 Client Smp ID: INTRA-LAB CHECK
Inj Date : 01-SEP-2000 10:49 MS Autotune Date: 13-MAR-2000 09:53
Operator : 034635 Inst ID: hp5.i
Smp Info : blkms (1ml/10ml) 5ML
Misc Info : djff1101,50901d.b,8260bh2o.m,tclp.sub
Comment :
Method : \\Qpitpa02\D\chem\hp5.i\50901d.b\8260bh2o.m
Meth Date : 01-Sep-2000 09:09 journetp Quant Type: ISTD
Cal Date : 02-AUG-2000 21:20 Cal File: 2A50802K.D
Als bottle: 8 QC Sample: METHOD SPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: 4.04
Processing Host: PITPC076

Data File: \\Opitpa02\D\chem\hp5.i\50901d.b\5090104.D
Report Date: 01-Sep-2000 11:39

Page 2

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
							(ng)	(UG/L)
=====		====	==	=====	=====	=====	=====	=====
70 Chlorobenzene		112	10.000	10 001	(1 002)	526323	243.568	48.71

671 887

UXB INTERNATIONAL
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COH260118 001

Method: SW846 8260B

Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL

Date Received: 08/26/00

Work Order: DJG82110

Date Extracted: 09/01/00

Dilution factor: 1

Date Analyzed: 09/01/00

Moisture %: 10

QC Batch: 0245186

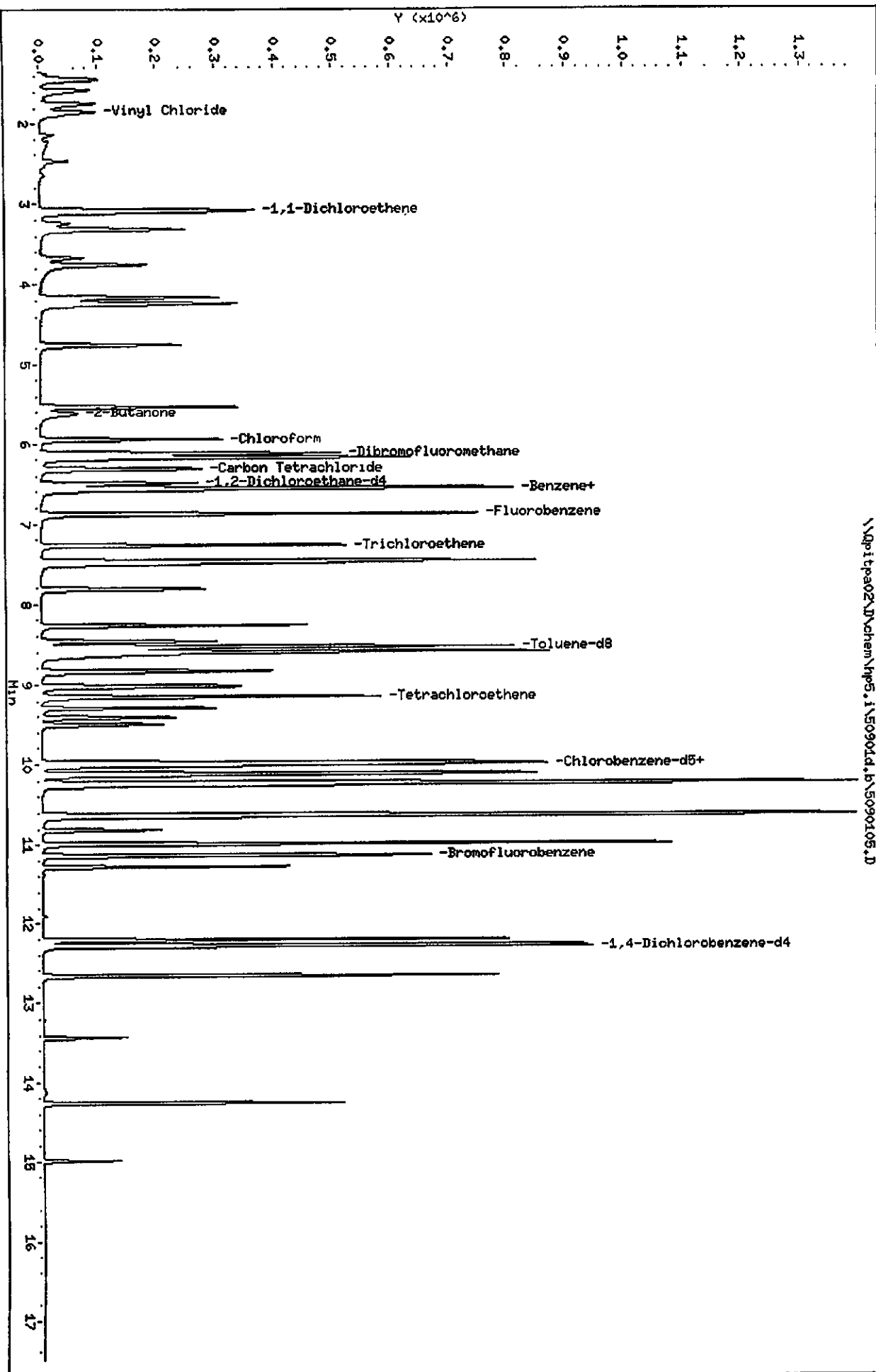
Client Sample Id: DF/S1/0238/SDC/036

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	0.426	
78-93-3	2-Butanone	0.265	
56-23-5	Carbon tetrachloride	0.430	
108-90-7	Chlorobenzene	0.434	
67-66-3	Chloroform	0.406	
107-06-2	1,2-Dichloroethane	0.370	
75-35-4	1,1-Dichloroethene	0.394	
127-18-4	Tetrachloroethene	0.507	
79-01-6	Trichloroethene	0.458	
75-01-4	Vinyl chloride	0.494	

FORM I

Data File: \\Apitpa02\chem\hp5.1\50901d.b\5090105.D
Date: 01-SEP-2000 11:14
Client ID: DF/S1/0238/SDC/036
Sample Info: c0h2c0148-001ms (1ml/10ml) SHL
Purge Volume: 5.0
Column phase: DB 624

Instrument: hp5.1
Operator: 034635
Column diameter: 0.20



STL - Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\Qpitpa02\D\chem\hp5.i\50901d.b\5090105.D
 Lab Smp Id: DJG8210x Client Smp ID: DF/S1/0238/SDC/036
 Inj Date : 01-SEP-2000 11:14 MS Autotune Date: 13-MAR-2000 09:53
 Operator : 034635 Inst ID: hp5.i
 Smp Info : c0h260118-001ms (1ml/10ml) 5ML
 Misc Info : djg8210n,50901d.b,8260bh2o.m,tclp.sub
 Comment :
 Method : \\Qpitpa02\D\chem\hp5.i\50901d.b\8260bh2o.m
 Meth Date : 01-Sep-2000 09:09 journetp Quant Type: ISTD
 Cal Date : 02-AUG-2000 21:20 Cal File: 2A50802K.D
 Als bottle: 9 QC Sample: MS
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: tclp.sub
 Target Version: 4.04
 Processing Host: PITPC076

Concentration Formula: Amt * DF * 1/Vo*Vt

Pi 8/1/00

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample Volume
Vt	1.000	mg/L conversion (1.0 if no conversion)

Compounds	QUANT SIG				CONCENTRATIONS		
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng)	FINAL (UG/L)
* 46 Fluorobenzene	96	6.879	6.868	(1.000)	775175	250.000	
* 69 Chlorobenzene-d5	119	9.975	9.970	(1.000)	168124	250.000	
* 92 1,4-Dichlorobenzene-d4	152	12.275	12.276	(1.000)	239242	250.000	
\$ 39 Dibromofluoromethane	113	6.131	6.125	(0.891)	160121	216.809	43.36
\$ 43 1,2-Dichloroethane-d4	65	6.489	6.484	(0.943)	185260	196.471	39.29
\$ 59 Toluene-d8	98	8.534	8.528	(0.855)	757452	243.086	48.62
\$ 80 Bromofluorobenzene	95	11.137	11.132	(1.116)	257420	224.444	44.89
3 Vinyl Chloride	62	1.848	1.849	(0.269)	222927	272.378	54.48
12 1,1-Dichloroethene	96	3.077	3.072	(0.447)	128857	213.815	42.76
31 2-Butanone	43	5.613	5.608	(0.816)	164267	147.832	29.57
37 Chloroform	83	5.948	5.937	(0.865)	271143	219.374	43.87
41 Carbon Tetrachloride	117	6.313	6.308	(0.918)	193284	232.320	46.46
42 Benzene	78	6.550	6.545	(0.952)	755717	229.404	45.88
45 1,2-Dichloroethane	62	6.575	6.570	(0.956)	220937	202.310	40.46
47 Trichloroethene	130	7.274	7.269	(1.057)	189312	246.435	49.29
65 Tetrachloroethene	164	9.148	9.143	(0.917)	158780	277.025	55.40

Data File: \\Qpitpa02\D\chem\hp5.i\50901d.b\5090105.D
Report Date: 01-Sep-2000 11:39

Page 2

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
							(ng)	(UG/L)
70 Chlorobenzene		112	10.006	10.001	(1.003)	514590	238.100	47.62

671 891

UXB INTERNATIONAL
MATRIX SPIKE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COH260118 001

Method: SW846 8260B

Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL

Date Received: 08/26/00

Work Order: DJG8210X

Date Extracted: 09/01/00

Dilution factor: 1

Date Analyzed: 09/01/00

Moisture %: 10

QC Batch: 0245186

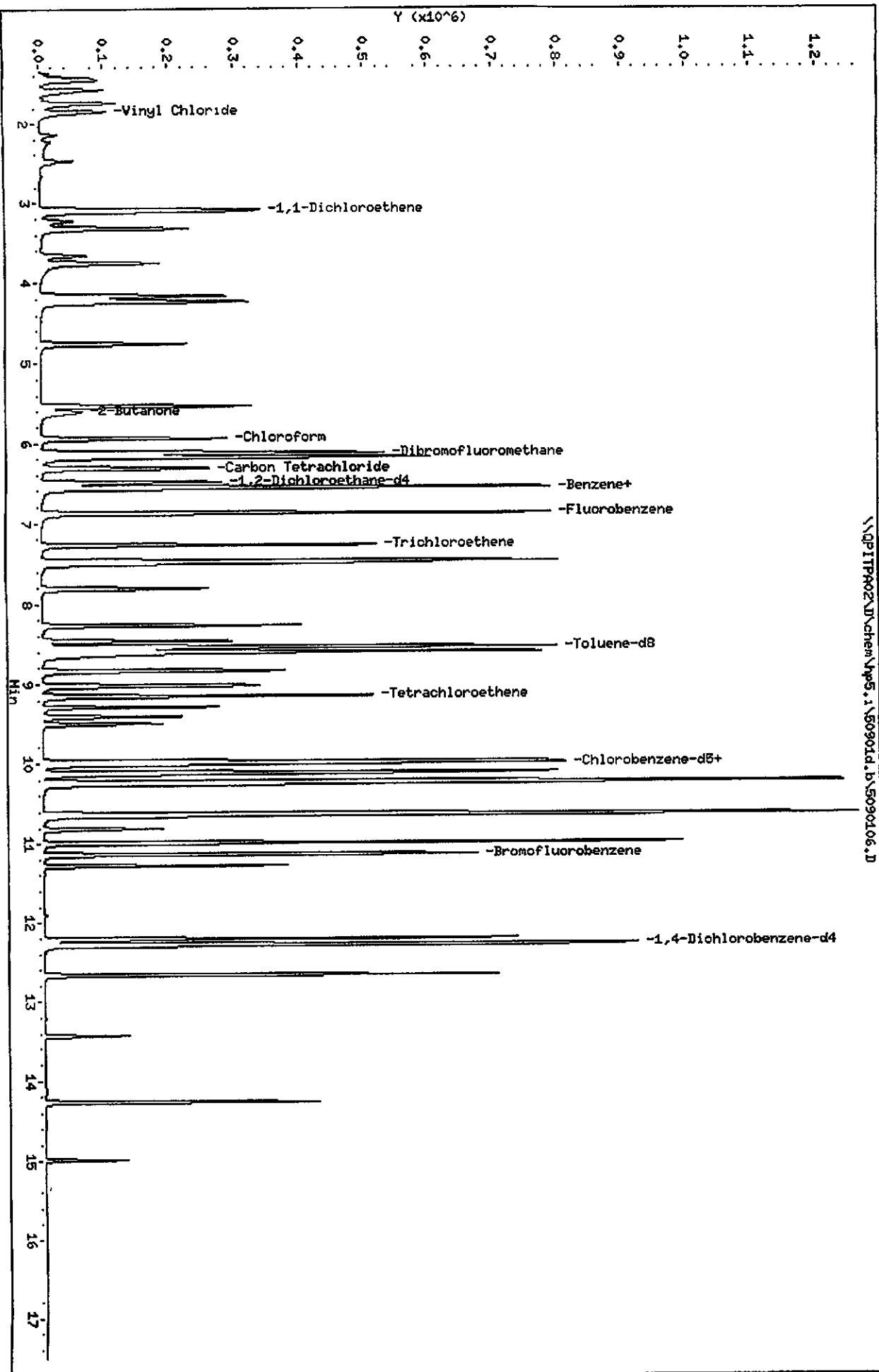
Client Sample Id: DF/S1/0238/SDC/036

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	0.459	
78-93-3	2-Butanone	0.296	
56-23-5	Carbon tetrachloride	0.465	
108-90-7	Chlorobenzene	0.476	
67-66-3	Chloroform	0.439	
107-06-2	1,2-Dichloroethane	0.405	
75-35-4	1,1-Dichloroethene	0.428	
127-18-4	Tetrachloroethene	0.554	
79-01-6	Trichloroethene	0.493	
75-01-4	Vinyl chloride	0.545	

FORM I

Data File: \\QPI1P002\chem\hp5.1\50901d.b\5090106.D
 Date: 04-SEP-2000 11:45
 Client ID: DF/SL/0238/SDC/036
 Sample Info: c0h260118-001msd (1mL/10mL) STL
 Purge Volume: 5.0
 Column Phase: DB 624

Instrument: hp5.1
 Operator: 034635
 Column diameter: 0.20



STL - Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\Qpitpa02\D\chem\hp5.i\50901d.b\5090106.D
 Lab Smp Id: DJG82110 Client Smp ID: DF/S1/0238/SDC/036
 Inj Date : 01-SEP-2000 11:45 MS Autotune Date: 13-MAR-2000 09:53
 Operator : 034635 Inst ID: hp5.i
 Smp Info : c0h260118-001msd (1ml/10ml) 5ML
 Misc Info : djg82110,50901d.b,8260bh2o.m,tclp.sub
 Comment :
 Method : \\QPITPA02\D\chem\hp5.i\50901d.b\8260bh2o.m
 Meth Date : 01-Sep-2000 09:09 journetp Quant Type: ISTD
 Cal Date : 02-AUG-2000 21:20 Cal File: 2A50802K.D
 Als bottle: 10 QC Sample: MSD
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: tclp.sub
 Target Version: 4.04
 Processing Host: PITPC076

Concentration Formula: Amt * DF * 1/Vo*Vt

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample Volume
Vt	1.000	mg/L conversion (1.0 if no conversion)

Compounds	QUANT SIG				CONCENTRATIONS		
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng)	FINAL (UG/L)
* 46 Fluorobenzene	96	6.873	6.868	(1.000)	803243	250.000	
* 69 Chlorobenzene-d5	119	9.969	9.970	(1.000)	166879	250.000	
* 92 1,4-Dichlorobenzene-d4	152	12.275	12.276	(1.000)	238948	250.000	
\$ 39 Dibromofluoromethane	113	6.125	6.125	(0.891)	168468	220.140	44.03
\$ 43 1,2-Dichloroethane-d4	65	6.484	6.484	(0.943)	191843	196.343	39.27
\$ 59 Toluene-d8	98	8.534	8.528	(0.856)	750954	242.798	48.56
\$ 80 Bromofluorobenzene	95	11.131	11.132	(1.117)	259107	227.600	45.52
3 Vinyl Chloride	62	1.842	1.849	(0.268)	209320	246.816	49.36
12 1,1-Dichloroethene	96	3.083	3.072	(0.449)	123015	196.989	39.40
31 2-Butanone	43	5.601	5.608	(0.815)	152388	132.349	26.47
37 Chloroform	83	5.936	5.937	(0.864)	260050	203.047	40.61
41 Carbon Tetrachloride	117	6.313	6.308	(0.919)	185476	215.145	43.03
42 Benzene	78	6.544	6.545	(0.952)	726530	212.838	42.57
45 1,2-Dichloroethane	62	6.569	6.570	(0.956)	209051	184.737	36.95
47 Trichloroethene	130	7.268	7.269	(1.058)	182135	228.808	45.76
65 Tetrachloroethene	164	9.148	9.143	(0.918)	144128	253.337	50.67

Data File: \\Opitpa02\D\chem\hp5.i\50901d.b\5090106.D
Report Date: 01-Sep-2000 12:14

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
							(ng)	(UG/L)
=====		=====	==	=====	=====	=====	=====	=====
70 Chlorobenzene		112	10.000	10.001	(1.003)	465963	217.209	43.44

671 895

**GC/MS VOLATILE
MISCELLANEOUS**

G S Volatile
Run Log

Method: 1.24

Inst. ID HP5



STL Pittsburgh
450 William Pitt Way
Pittsburgh, PA 15238
412-820-8380

Analyst KG & RJ

Reviewed by: _____

Date: _____

Std: 192.188.2 BFB Std: 192.187.11nt

Std: 192.187-2 sur Std: 192.187-8 VOA

Std: _____

Std: _____ Std: _____

Std: _____

Std: _____

Std: _____

Date	File ID	Lot No./Sample No.	Vol./Wt.	pH	Port#	Comments
8/2/00	1. BFB50802	BFB	500g			0820 6.24
	2. Q150802	QC Check 20ppb	5ml			6.24
	3. 1A50802	VSid5 Bonus	5ml			
	4. 1B50802	VSid100 Bonus	5ml			6.24
	5. 1C50802	VSid100 Bonus	5ml			
	6. 1D50802	VSid200 Bonus	5ml			
	7. 1E50802K	BFB	500g			8.60B 8.210B
	8. 1C50802K	VSid50	5ml			
	9. 1A50802K	VSid5	5ml			
	10. 1B50802K	VSid20	5ml			
	11. 1D50802K	VATD10	5ml			
	12. 1E50802K	VATD20	5ml			
	13. 2A50802K	VATD5	5ml			
	14. 2B50802K	VATD20	5ml			
	15. 3A50802K	VATD5	5ml			
	16.					
	17.					
	18.					
	19.					
	20.					
	21.					
	22.					

968 671

GC-MS Volatile Run Log

STL Pittsburgh
450 William Pitt Way
Pittsburgh, PA 15238
412-820-8380



Method: 8160B (H2)
Inst. ID: HP5

Analyst: Subudhakar

Reviewed by:

Date:

Std: 192-1815 Benz
Std: 192-1816 Benz

Std: 192-1816 Benz
Std: 192-1816 Benz

Date	File ID	Lot No. / Sample No.	Vol. / Wt.	pH	Port#	Comments
9/1/00	1. BF50901	BFB	1ul			
	2. CC50901	V5050	5 ml			
	3. IC50901	PMU050	5 ml			
	4. WB50901	IBLK	5 ml			
	5. 5090101	CDH3024901	5 ml	1		Q14310279-005
	6. 5090102	PBLK TOP	(1ml/10ml) 5ml	5		
	7. 5090103	CDH260118-001	(1ml/10ml) 5ml	7		
	8. 5090104	CDH BUKTOP 211911A	(1ml/10ml) 5ml	5		
	9. 5090105	CDH260118-001MS	(1ml/10ml) 5ml	7		
	10. 5090106	CDH260118-001MS2	(1ml/10ml) 5ml	7		
	11.					
	12.					
	13.					
	14.					
	15.					
	16.					
	17.					
	18.					
	19.					
	20.					
	21.					
	22.					

ZHE Leachate Worksheet
(Method 1311)

**STL Pittsburgh
450 William Pitt Way
Pittsburgh, PA 15238
412-820-8380**



PO24502

R/E

[illegible]

671-899

PSR024 8/28/00 4:19:38 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 001

REQUESTED BY: TROUTB

METHOD: QK Volatile Organics, GC/MS (8260B)

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED</u> <u>CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX</u> <u>DESCRIPTION</u>	<u>QTY</u> <u>RCVD</u>	<u>QTY</u> <u>REQD</u>
3E CLP1	DJG82-1-02	— — —	261498	399411	A-58-QK	COH260118	001	ZZ	SOLID	0	3 1

RELINQUISHED BY

C. Sahney
B Trout

RECEIVED BY

B Trout
C. Sahney

DATE/TIME

8/28/2000 08:20
8/28/2000 10:45

***** END OF REPORT *****

GC/MS SEMIVOLATILE DATA

671 901

**GC/MS SEMIVOLATILE
QC SUMMARY**

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

QESSDG:

Lot #: C0H260118

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	SRG05	SRG06	TOT OUT
	=====	=====	=====	=====	=====	=====	=====	=====
01	DF/S1/0238/SDC/036	67	64	90	58	71	75	00
02	METHOD BLK. DJK1G101	77	79	106	69	84	88	00
03	LCS DJK1G102	70	71	86	66	79	79	00
04	DF/S1/0238/SDC/036 D	64	64	98	53	68	81	00
05	DF/S1/0238/SDC/036 S	61	61	95	50	63	78	00

SURROGATES

SRG01 = Nitrobenzene-d5
 SRG02 = 2-Fluorobiphenyl
 SRG03 = Terphenyl-d14
 SRG04 = 2-Fluorophenol
 SRG05 = Phenol-d5
 SRG06 = 2,4,6-Tribromophenol

QC LIMITS

(32-112)
 (30-110)
 (10-144)
 (13-110)
 (10-113)
 (21-122)

Column to be used to flag recovery values
 * Values outside of required QC Limits
 D System monitoring Compound diluted out

FORM II

671.903

SW846 8270C MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: DF/S1/0238/SDC/036

Level: (low/med) LOW

Lot #: C0H260118

WO #: DJG8210Q

BATCH: 0242296

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS % REC	LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====	=====
1,4-Dichlorobenzene	0.250	ND	0.143	57	18 - 110	
2,4-Dinitrotoluene	0.250	ND	0.158	63	31 - 131	
Hexachlorobenzene	0.250	ND	0.198	79	36 - 132	
Hexachlorobutadiene	0.250	ND	0.138	55	18 - 116	
Hexachloroethane	0.250	ND	0.149	60	18 - 110	
Nitrobenzene	0.250	ND	0.154	62	10 - 211	
Pentachlorophenol	0.250	ND	0.204	82	10 - 140	
Pyridine	0.250	ND	0.151	60	10 - 148	
2,4,5-Trichlorophenol	0.250	ND	0.176	70	24 - 143	
2,4,6-Trichlorophenol	0.250	ND	0.170	68	36 - 135	
Cresols (total)	0.750	ND	0.547	73	25 - 144	

NOTES (S) :

Column to be used to flag recovery and RPD values with an asterisk
 * Values outside of QC limits

RPD: 0 out of 0 outside limits
 Spike Recovery: 0 out of 11 outside limits

COMMENTS:

FORM III

SW846 8270C MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: DF/S1/0238/SDC/036

Level: (low/med) LOW

Lot #: C0H260118

WO #: DJG8210R

BATCH: 0242296

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENT. (mg/L)	MSD		QC LIMITS		QUAL
			% REC	% RPD	RPD	REC	
1,4-Dichlorobenzene	0.250	0.150	60	4.8	36	18- 110	
2,4-Dinitrotoluene	0.250	0.166	66	4.9	32	31- 131	
Hexachlorobenzene	0.250	0.206	82	4.0	22	36- 132	
Hexachlorobutadiene	0.250	0.145	58	4.9	32	18- 116	
Hexachloroethane	0.250	0.160	64	7.1	33	18- 110	
Nitrobenzene	0.250	0.164	66	6.3	50	10- 211	
Pentachlorophenol	0.250	0.214	86	4.8	56	10- 140	
Pyridine	0.250	0.161	64	6.4	65	10- 148	
2,4,5-Trichlorophenol	0.250	0.185	74	5.0	22	24- 143	
2,4,6-Trichlorophenol	0.250	0.180	72	5.7	27	36- 135	
Cresols (total)	0.750	0.583	78	6.4	33	25- 144	

NOTES (S) :

Column to be used to flag recovery and RPD values with an asterisk
 * Values outside of QC limits

RPD: 0 out of 11 outside limits
 Spike Recovery: 0 out of 11 outside limits

COMMENTS:

671 905

SW846 8270C CHECK SAMPLE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: C0H290000

WO #: DJK1G102

BATCH: 0242296

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
1,4-Dichlorobenzene	0.250	0.184	74	28 - 110	
2,4-Dinitrotoluene	0.250	0.161	64	47 - 131	
Hexachlorobenzene	0.250	0.193	77	57 - 128	
Hexachlorobutadiene	0.250	0.175	70	36 - 116	
Hexachloroethane	0.250	0.197	79	30 - 110	
Nitrobenzene	0.250	0.177	71	45 - 130	
Pentachlorophenol	0.250	0.200	80	10 - 140	
Pyridine	0.250	0.191	76	10 - 148	
2,4,5-Trichlorophenol	0.250	0.176	70	41 - 125	
2,4,6-Trichlorophenol	0.250	0.179	72	46 - 135	
Cresols (total)	0.750	0.656	87	29 - 144	

NOTES (S) :

* Values outside of QC limits

Spike Recovery: 0 out of 11 outside limits

COMMENTS:

FORM III

SW846 8270C METHOD BLANK SUMMARY

DJK1G101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: F0901001. ; .

Lot Number: COH260118

Date Analyzed: 09/01/00

Time Analyzed: 08:19

Matrix: SOLID

Date Extracted: 08/29/00

GC Column: HP5MS ID: .25

Extraction Method: 1311/3520C

Instrument ID: 722

Level: (low/med) LOW

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS, LCSD, MS , MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	=====	=====	=====	=====	=====
01	DF/S1/0238/SDC/036	DJG8210Q S	F0901003.	09/01/00	09:27
02	DF/S1/0238/SDC/036	DJG8210R D	F0901004.	09/01/00	10:01
03	DF/S1/0238/SDC/036	DJG82103	F0901005.	09/01/00	10:35
04	CHECK SAMPLE	DJK1G102 C	F0901002.	09/01/00	08:53
05					
06					
07					
08					
09					
10					
11					
12					
13					
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16					
17					
18					
19					
20					
21					
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24					
25					
26					
27					
28					
29					
30					

COMMENTS:

5B
671 907 SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: STL PITTSBURGH

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.: _

Lab File ID: F0828DF2

DFTPP Injection Date: 08/28/00

Instrument ID: 722

DFTPP Injection Time: 1840

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	31.6
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	37.7
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	48.1
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 - 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	23.4
365	Greater than 1.0% of mass 198	4.3
441	Present, but less than mass 443	9.8
442	40.0 - 100.0% of mass 198	64.2
443	17.0 - 23.0% of mass 442	12.5 (19.4)2

1-Value is % of mass 69

2-Value is % of mass 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD020	SSTD020	F0828C01	08/28/00	1916
02	SSTD050	SSTD050	F0828C02	08/28/00	1950
03	SSTD080	SSTD080	F0828C03	08/28/00	2024
04	SSTD120	SSTD120	F0828C04	08/28/00	2057
05	SSTD160	SSTD160	F0828C05	08/28/00	2129
06					
07					
08					
09					
10					
11					
12					
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14					
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17					
18					
19					
20					
21					
22					

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

671 908.

Lab Name: STL PITTSBURGH

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.: _

Lab File ID: F0901DF1

DFTPP Injection Date: 09/01/00

Instrument ID: 722

DFTPP Injection Time: 0650

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	40.0
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	44.6
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	56.8
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.1
275	10.0 - 30.0% of mass 198	24.2
365	Greater than 1.0% of mass 198	5.79
441	Present, but less than mass 443	8.2
442	40.0 - 100.0% of mass 198	49.8
443	17.0 - 23.0% of mass 442	10.9 (21.9)2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD050	F09010C1	09/01/00	0744
02	INTRA-LAB BL	DJK1G101	F0901001	09/01/00	0819
03	INTRA-LAB CH	DJK1G102	F0901002	09/01/00	0853
04	DF/S1/0238/S	DJG8210Q	F0901003	09/01/00	0927
05	DF/S1/0238/S	DJG8210R	F0901004	09/01/00	1001
06	DF/S1/0238/S	DJG82103	F0901005	09/01/00	1035
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

671 909

FORM 8

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL PITTSBURGH

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.: _

Lab File ID (Standard): F09010C1

Date Analyzed: 09/01/00

Instrument ID: 722

Time Analyzed: 0744

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	99430	5.08	376269	6.63	223263	9.67
UPPER LIMIT	198860	5.58	752538	7.13	446526	10.17
LOWER LIMIT	49715	4.58	188135	6.13	111632	9.17
=====	=====	=====	=====	=====	=====	=====
CLIENT SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 INTRA-LAB BL	96493	5.08	399373	6.62	256077	9.66
02 INTRA-LAB CH	96247	5.09	398247	6.63	265528	9.67
03 DF/S1/0238/S	104462	5.08	419276	6.61	272033	9.65
04 DF/S1/0238/S	101304	5.09	405691	6.63	261766	9.67
05 DF/S1/0238/S	98882	5.08	409649	6.61	265632	9.65
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = + 0.50 minutes of internal standard RT

RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.

* Values outside of QC limits.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

671 910

Lab Name: STL PITTSBURGH

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.: _

Lab File ID (Standard): F09010C1

Date Analyzed: 09/01/00

Instrument ID: 722

Time Analyzed: 0744

	IS4 (PHN)	RT #	IS5 (CRY)	RT #	IS6 (PRY)	RT #
	AREA #		AREA #		AREA #	
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	389517	12.98	304295	19.62	183114	22.99
UPPER LIMIT	779034	13.48	608590	20.12	366228	23.49
LOWER LIMIT	194759	12.48	152148	19.12	91557	22.49
=====	=====	=====	=====	=====	=====	=====
CLIENT						
SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 INTRA-LAB BL	463192	12.97	317484	19.61	177547	22.98
02 INTRA-LAB CH	478322	12.98	412636	19.62	244917	22.99
03 DF/S1/0238/S	475274	12.97	363145	19.60	235880	22.97
04 DF/S1/0238/S	447239	12.98	348039	19.62	240402	22.99
05 DF/S1/0238/S	450725	12.97	356386	19.60	245718	22.97
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = + 0.50 minutes of internal standard RT

RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.

* Values outside of QC limits.

671 911

**GC/MS SEMIVOLATILE
SAMPLE DATA**

UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COH260118 001

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 08/26/00

Work Order: DJG82103

Date Extracted: 08/29/00

Dilution factor: 1

Date Analyzed: 09/01/00

Moisture %: 10

QC Batch: 0242296

Client Sample Id: DF/S1/0238/SDC/036

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
106-46-7	1,4-Dichlorobenzene	0.050	U
121-14-2	2,4-Dinitrotoluene	0.050	U
118-74-1	Hexachlorobenzene	0.050	U
87-68-3	Hexachlorobutadiene	0.050	U
67-72-1	Hexachloroethane	0.050	U
98-95-3	Nitrobenzene	0.050	U
87-86-5	Pentachlorophenol	0.25	U
110-86-1	Pyridine	0.10	U
95-95-4	2,4,5-Trichlorophenol	0.050	U
88-06-2	2,4,6-Trichlorophenol	0.050	U
1319-77-3	Cresols (total)	0.050	U

Date : 01-SEP-2000 10:35

Client ID: DF/SL/0238/SDC/036

Sample Info: COH260118-001 8/29/00 TCLP (0242296)

Volume Injected (uL): 2.0

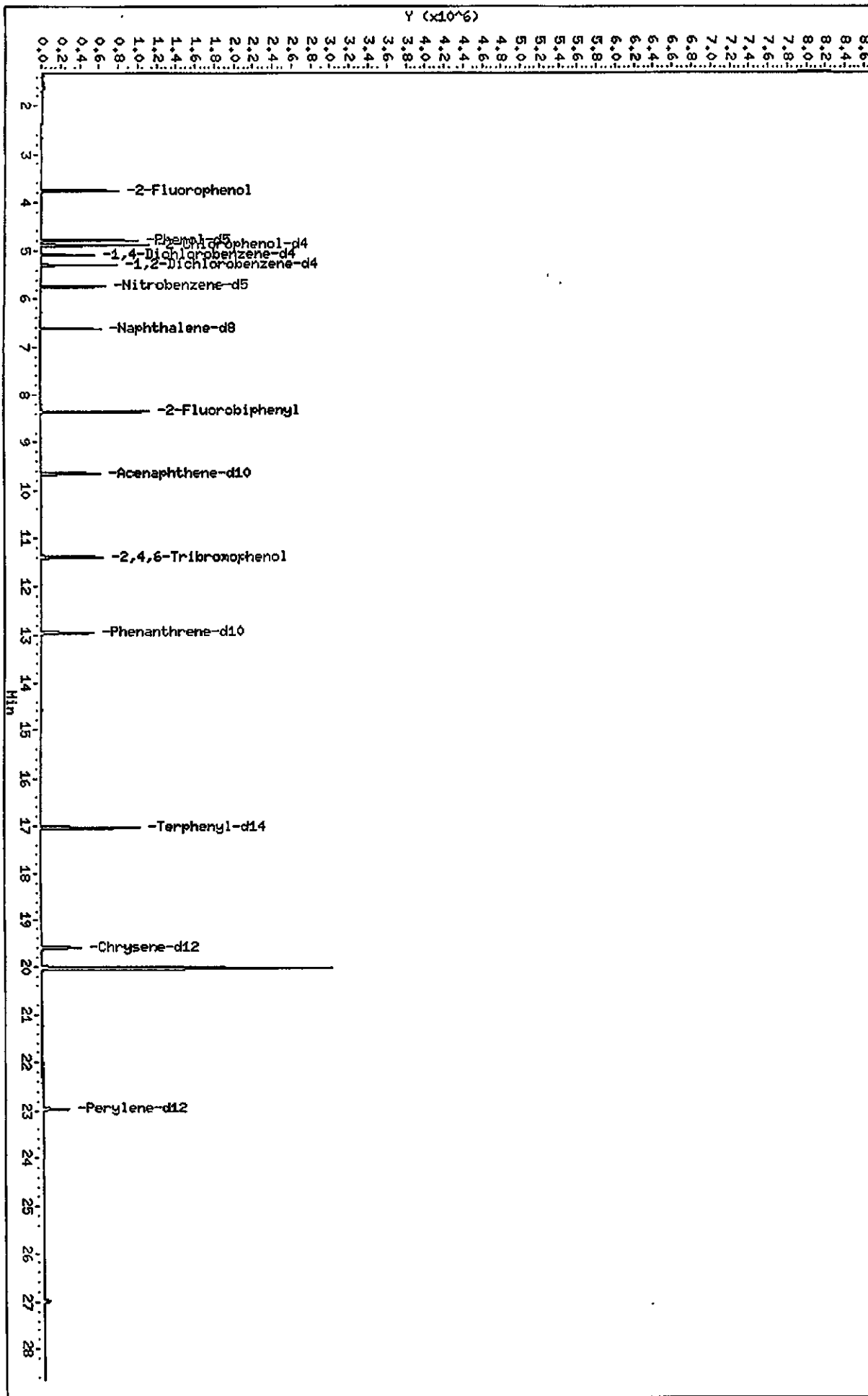
Column phase: Hp5-HS

Instrument: 722.1

Operator: 007062

Column diameter: 0.25

\\APITPA02\chem\722.1\090100.b\F0901005.D



CT6 129

Data File: \\QPITPA02\D\chem\722.i\090100.b\F0901005.D
Report Date: 01-Sep-2000 11:14

STL - Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\722.i\090100.b\F0901005.D
Lab Smp Id: DJG82103 Client Smp ID: DF/S1/0238/SDC/036
Inj Date : 01-SEP-2000 10:35
Operator : 007062 Inst ID: 722.i
Smp Info : COH260118-001 8/29/00 TCLP (0242296)
Misc Info : djg82103,090100.b,8270b.m,tclp.sub
Comment :
Method : \\QPITPA02\D\chem\722.i\090100.b\8270b.m
Meth Date : 01-Sep-2000 08:19 bungardf Quant Type: ISTD
Cal Date : 28-AUG-2000 21:29 Cal File: F0828C05.D
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: 4.04
Processing Host: PITPC083

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi)*gpc

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.001	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	200.000	Volume of sample extracted (mL)
Vi	2.000	Volume injected (uL)
gpc	1.000	gpc correction factor

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (NG)	FINAL (mg/L)
* 1 1,4-Dichlorobenzene-d4	152	5.075	5.083	(1.000)	98882	40.0000	
* 2 Naphthalene-d8	136	6.613	6.627	(1.000)	409649	40.0000	
* 3 Acenaphthene-d10	164	9.653	9.666	(1.000)	265632	40.0000	
* 4 Phenanthrene-d10	188	12.965	12.984	(1.000)	450725	40.0000	
* 5 Chrysene-d12	240	19.600	19.624	(1.000)	356386	40.0000	
* 6 Perylene-d12	264	22.966	22.990	(1.000)	245718	40.0000	
9 Pyridine	79	Compound Not Detected.					
27 1,4-Dichlorobenzene	146	Compound Not Detected.					
M 195 Cresols, total	100	Compound Not Detected.					
30 2-Methylphenol	108	Compound Not Detected.					
192 4-Methylphenol	108	Compound Not Detected.					
193 3-Methylphenol	108	Compound Not Detected.					
34 Hexachloroethane	117	Compound Not Detected.					

671 915

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (NG)	FINAL (mg/L)
=====	=====	==	=====	=====	=====	=====	=====
35 Nitrobenzene	77				Compound Not Detected.		
56 Hexachlorobutadiene	224				Compound Not Detected.		
66 2,4,6-Trichlorophenol	196				Compound Not Detected.		
67 2,4,5-Trichlorophenol	196				Compound Not Detected.		
87 2,4-Dinitrotoluene	165				Compound Not Detected.		
107 Hexachlorobenzene	283				Compound Not Detected.		
111 Pentachlorophenol	265				Compound Not Detected.		
\$ 154 Nitrobenzene-d5	82	5.737	5.745	{0.868}	259046	67.2461	0.168 (a)
\$ 155 2-Fluorobiphenyl	172	8.360	8.373	{0.866}	556173	63.6092	0.159 (a)
\$ 156 Terphenyl-d14	244	17.041	17.049	{0.869}	724278	89.7282	0.224 (a)
\$ 157 Phenol-d5	99	4.781	4.789	{0.942}	357360	106.602	0.266 (a)
\$ 158 2-Fluorophenol	112	3.761	3.758	{0.741}	236338	86.6162	0.216 (a)
\$ 159 2,4,6-Tribromophenol	330	11.400	11.413	{0.879}	123459	112.992	0.282 (a)
\$ 186 2-Chlorophenol-d4	132	4.882	4.885	{0.962}	343930	118.166	0.295 (a)
\$ 187 1,2-Dichlorobenzene-d4	152	5.288	5.291	{1.042}	135277	59.0670	0.148 (a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

**GC/MS SEMIVOLATILE
CALIBRATION DATA**

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

671 917

Lab Name: STL PITTSBURGH

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.: _

Instrument ID: 722

Calibration Date(s): 08/28/00

Min $\overline{RRF}$ for SPCC(#) = 0.050

Max %RSD for CCC(*) = 30.0%

LAB FILE ID:		RRF1	=F0828C01.D	RRF2	=F0828C02.D			
RRF3 =F0828C03.D		RRF4	=F0828C04.D	RRF5	=F0828C05.D			
COMPOUND		RRF1	RRF2	RRF3	RRF4	RRF5	$\overline{RRF}$	% RSD
Phenol	*	1.403	1.348	1.374	1.366	1.331	1.364	2.0*
bis(2-Chloroethyl) ether		1.094	1.058	1.068	1.062	1.094	1.075	1.6
2-Chlorophenol		1.290	1.232	1.231	1.244	1.292	1.258	2.4
1,3-Dichlorobenzene		1.550	1.510	1.512	1.500	1.547	1.524	1.5
1,4-Dichlorobenzene	*	1.625	1.569	1.558	1.549	1.580	1.576	1.9*
1,2-Dichlorobenzene		1.439	1.374	1.392	1.395	1.460	1.412	2.5
2-Methylphenol		1.051	1.011	1.025	1.015	1.067	1.034	2.3
2,2'-oxybis(1-Chloropropane		1.059	1.031	1.017	0.996	1.038	1.028	2.3
4-Methylphenol		1.077	1.020	1.041	1.042	1.112	1.058	3.4
Hexachloroethane		0.604	0.594	0.584	0.577	0.598	0.591	1.8
Nitrobenzene		0.372	0.367	0.380	0.378	0.387	0.377	2.1
Isophorone		0.563	0.560	0.589	0.581	0.607	0.580	3.4
2-Nitrophenol	*	0.189	0.191	0.197	0.198	0.206	0.196	3.4*
2,4-Dimethylphenol		0.355	0.344	0.363	0.362	0.381	0.361	3.7
bis(2-Chloroethoxy)methane		0.347	0.328	0.342	0.344	0.354	0.343	2.8
N-Nitroso-di-n-propylamine	#	0.751	0.730	0.746	0.754	0.805	0.757	3.8#
2,4-Dichlorophenol	*	0.296	0.285	0.297	0.295	0.308	0.296	2.7*
1,2,4-Trichlorobenzene		0.348	0.337	0.350	0.349	0.353	0.347	1.7
Naphthalene		1.074	1.033	1.077	1.075	1.088	1.069	2.0
4-Chloroaniline		0.400	0.372	0.394	0.395	0.414	0.395	3.8
Hexachlorobutadiene	*	0.221	0.219	0.234	0.235	0.238	0.229	3.8*
4-Chloro-3-Methylphenol	*	0.303	0.311	0.336	0.329	0.346	0.325	5.4*
2-Methylnaphthalene		0.731	0.730	0.764	0.750	0.777	0.750	2.8
Hexachlorocyclopentadiene	#	0.407	0.401	0.436	0.441	0.445	0.426	4.8#
2,4,6-Trichlorophenol	*	0.374	0.350	0.380	0.377	0.387	0.374	3.8*
2,4,5-Trichlorophenol		0.406	0.375	0.410	0.398	0.413	0.400	3.9
2-Chloronaphthalene		1.210	1.086	1.176	1.170	1.188	1.166	4.0
2-Nitroaniline		0.313	0.310	0.339	0.340	0.347	0.330	5.2
Dimethylphthalate		1.402	1.324	1.474	1.423	1.456	1.416	4.1
Acenaphthylene		1.817	1.723	1.844	1.804	1.817	1.801	2.6
2,6-Dinitrotoluene		0.292	0.288	0.309	0.314	0.321	0.305	4.6
3-Nitroaniline		0.314	0.307	0.336	0.341	0.352	0.330	5.7
Acenaphthene	*	1.129	1.067	1.168	1.147	1.165	1.135	3.6*
2,4-Dinitrophenol	#	0.099	0.157	0.195	0.205	0.225	0.176	28.3#
4-Nitrophenol	#	0.244	0.272	0.318	0.320	0.336	0.298	12.9#
Dibenzofuran		1.724	1.612	1.794	1.744	1.758	1.726	4.0
2,4-Dinitrotoluene		0.397	0.409	0.457	0.454	0.476	0.439	7.7

Lab Name: STL PITTSBURGH

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.: _

Instrument ID: 722

Calibration Date(s): 08/28/00

Min $\overline{RRF}$ for SPCC(#) = 0.050

Max %RSD for CCC(*) = 30.0%

LAB FILE ID:	RRF1 =F0828C01.D	RRF2 =F0828C02.D					
RRF3 =F0828C03.D	RRF4 =F0828C04.D	RRF5 =F0828C05.D					
COMPOUND	RRF1	RRF2	RRF3	RRF4	RRF5	$\overline{RRF}$	% RSD
Diethylphthalate	1.450	1.408	1.568	1.544	1.597	1.513	5.3
4-Chlorophenyl-phenylether	0.711	0.651	0.705	0.694	0.711	0.694	3.6
Fluorene	1.398	1.313	1.445	1.414	1.461	1.406	4.1
4-Nitroaniline	0.317	0.313	0.357	0.356	0.373	0.343	7.9
4,6-Dinitro-2-methylphenol	0.106	0.121	0.143	0.150	0.154	0.135	15.3
N-Nitrosodiphenylamine (1)*	0.507	0.478	0.516	0.521	0.527	0.510	3.8*
4-Bromophenyl-phenylether	0.207	0.194	0.212	0.209	0.211	0.207	3.5
Hexachlorobenzene	0.223	0.208	0.229	0.224	0.225	0.222	3.6
Pentachlorophenol	0.091	0.116	0.140	0.143	0.150	0.128	18.9#
Phenanthrene	1.121	1.028	1.120	1.110	1.119	1.100	3.7
Anthracene	1.081	1.019	1.126	1.113	1.121	1.092	4.1
Carbazole	0.952	0.929	1.041	1.031	1.049	1.000	5.6
Di-n-Butylphthalate	1.170	1.217	1.356	1.352	1.368	1.293	7.2
Fluoranthene	1.139	1.157	1.279	1.278	1.291	1.229	6.1*
Pyrene	1.220	1.043	1.118	1.092	1.118	1.118	5.8
Butylbenzylphthalate	0.520	0.507	0.553	0.550	0.564	0.539	4.5
3,3'-Dichlorobenzidine	0.409	0.404	0.460	0.462	0.461	0.439	6.8
Benzo(a) Anthracene	1.131	1.073	1.172	1.160	1.172	1.142	3.7
Chrysene	1.014	0.935	0.997	0.983	0.990	0.984	3.0
bis(2-ethylhexyl) Phthalate	0.698	0.643	0.693	0.683	0.686	0.681	3.2
Di-n-octylphthalate	1.872	1.772	1.884	1.919	1.895	1.868	3.0*
Benzo(b) fluoranthene	1.574	1.513	1.671	1.724	1.965	1.689	10.3
Benzo(k) fluoranthene	1.619	1.560	1.581	1.681	1.392	1.567	6.9
Benzo(a) pyrene	1.282	1.257	1.374	1.395	1.441	1.350	5.8*
Indeno(1,2,3-cd) pyrene	1.119	1.156	1.353	1.515	1.671	1.363	17.2
Dibenz(a,h) anthracene	0.933	0.976	1.147	1.310	1.481	1.169	19.6
Benzo(g,h,i) perylene	0.908	0.943	1.103	1.234	1.356	1.109	17.2
Pyridine	0.650	0.639	0.668	0.614	0.596	0.633	4.5
N-Nitrosodimethylamine	0.401	0.385	0.395	0.361	0.361	0.381	4.9
Aniline	1.381	1.340	1.414	1.367	1.448	1.390	3.0
Benzyl Alcohol	0.804	0.804	0.848	0.834	0.882	0.834	3.9
Benzoic Acid	0.164	0.149	0.193	0.203	0.223	0.186	16.0
2,3,4,6-Tetrachlorophenol	0.335	0.314	0.367	0.355	0.372	0.349	6.9
2,3,5,6-Tetrachlorophenol	0.326	0.332	0.383	0.377	0.391	0.362	8.4
1,2-Diphenylhydrazine	0.713	0.648	0.700	0.699	0.697	0.691	3.6

(1) Cannot be separated from Diphenylamine

671 913

Lab Name: STL PITTSBURGH

Contract:

Lab Code :

Case No. :

SAS No.:

SDG No. :

Instrument ID: 722

Calibration Date(s): 08/28/00

Min $\overline{\text{RRF}}$ for SPCC(♯) = 0.050

Max %RSD for CCC(*) = 30.0%

[illegible]

671 920

INITIAL CALIBRATION REPORT

Instrument ID: 722.i
Lab File ID: F0828C05.D
Analysis Type: NONE

Injection Date: 28-AUG-2000 21:29
Lab Sample ID: sstd160
Method File: \\QPITPA02\D\chem\722.i\082800N.b

COMPOUND	%RSD
7,12-dimethylbenz(a)anthracen	10.2
Benzo(k)fluoranthene	6.9
Benzo(a)pyrene	5.8
Indeno(1,2,3-cd)pyrene	17.2
Dibenz(a,h)anthracene	19.6
Benzo(g,h,i)perylene	17.2

The average of all %RSD's in the initial calibration is 5.4

671 921

INITIAL CALIBRATION REPORT

Instrument ID: 722.i
Lab File ID: F0828C05.D
Analysis Type: NONE

Injection Date: 28-AUG-2000 21:29
Lab Sample ID: sstd160
Method File: \\QPITPA02\D\chem\722.i\082800N.b

COMPOUND	%RSD
Pyridine	4.5
N-Nitrosodimethylamine	4.9
Methyl methanesulfonate	1.9
2-Fluorophenol	2.6
Aniline	3.0
Phenol-d5	2.7
Phenol	2.0
bis(2-Chloroethyl) ether	1.6
2-Chlorophenol-d4	2.0
2-Chlorophenol	2.4
1,3-Dichlorobenzene	1.5
1,4-Dichlorobenzene	1.9
Benzyl Alcohol	3.9
1,2-Dichlorobenzene-d4	3.0
1,2-Dichlorobenzene	2.5
2,2'-oxybis(1-Chloropropane)	2.3
2-Methylphenol	2.3
4-Methylphenol	3.4
N-Nitroso-di-n-propylamine	3.8
Hexachloroethane	1.8
Nitrobenzene-d5	2.7
Nitrobenzene	2.1
Isophorone	3.4
2-Nitrophenol	3.4
2,4-Dimethylphenol	3.7
bis(2-Chloroethoxy)methane	2.8
Benzoic Acid	16.0
2,4-Dichlorophenol	2.7
1,2,4-Trichlorobenzene	1.7
Naphthalene	2.0
4-Chloroaniline	3.8
Hexachlorobutadiene	3.8
4-Chloro-3-Methylphenol	5.4
2-Methylnaphthalene	2.8
1-Methylnaphthalene	4.6
Hexachlorocyclopentadiene	4.8
2,4,6-Trichlorophenol	3.8
2,4,5-Trichlorophenol	3.9
2-Fluorobiphenyl	3.5

INITIAL CALIBRATION REPORT

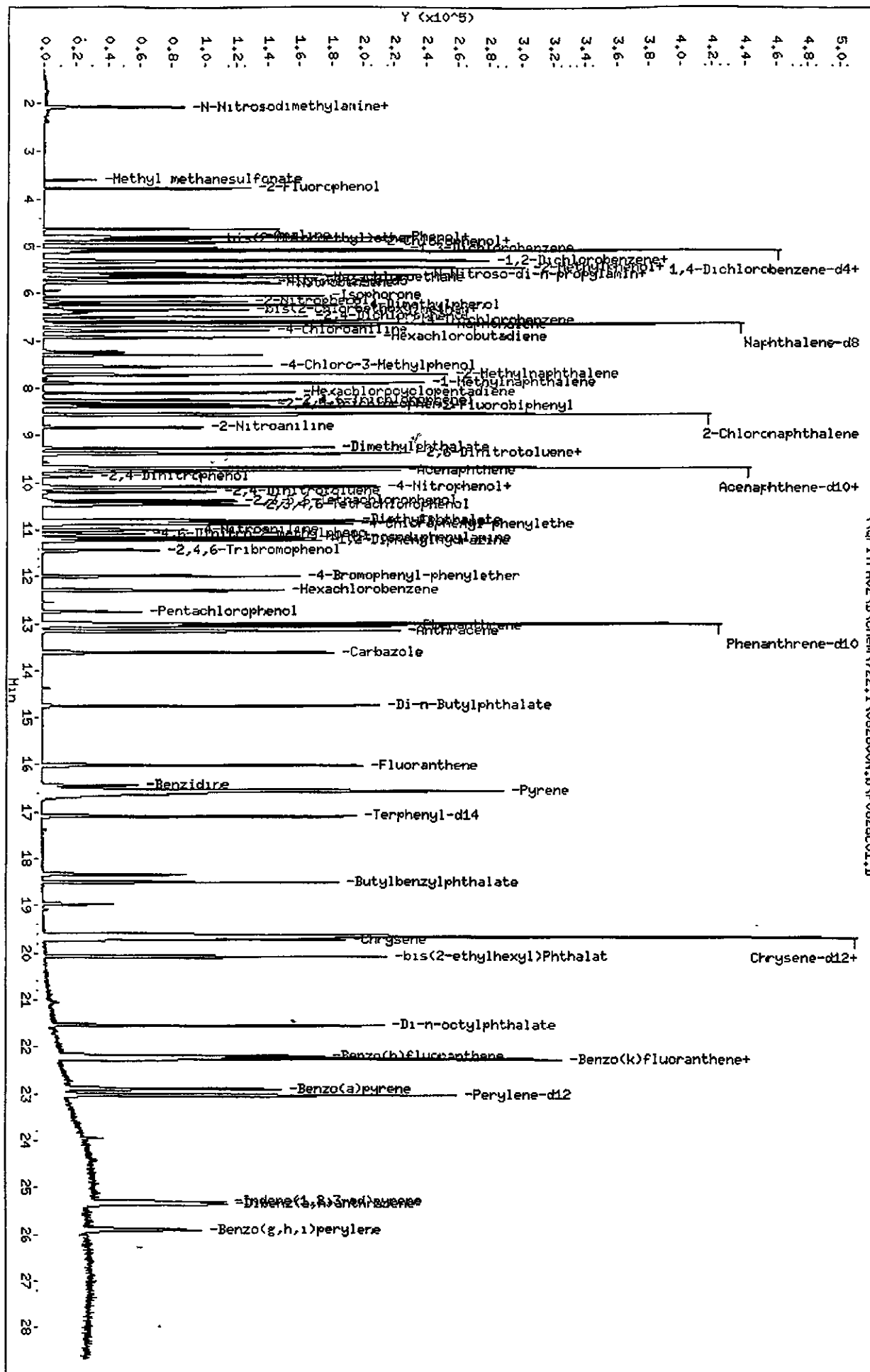
Instrument ID: 722.i
Lab File ID: F0828C05.D
Analysis Type: NONE

Injection Date: 28-AUG-2000 21:29
Lab Sample ID: sstd160
Method File: \\QPITPA02\D\chem\722.i\082800N.b

COMPOUND	%RSD
2-Chloronaphthalene	4.0
2-Nitroaniline	5.2
Dimethylphthalate	4.1
Acenaphthylene	2.6
2,6-Dinitrotoluene	4.6
3-Nitroaniline	5.7
Acenaphthene	3.6
2,4-Dinitrophenol	28.3
Dibenzofuran	4.0
4-Nitrophenol	12.9
2,4-Dinitrotoluene	7.7
2,3,5,6-Tetrachlorophenol	8.4
2,3,4,6-Tetrachlorophenol	6.9
Diethylphthalate	5.3
Fluorene	4.1
4-Chlorophenyl-phenylether	3.6
4-Nitroaniline	7.9
4,6-Dinitro-2-methylphenol	15.3
N-Nitrosodiphenylamine	3.8
1,2-Diphenylhydrazine	3.6
2,4,6-Tribromophenol	7.2
4-Bromophenyl-phenylether	3.5
Hexachlorobenzene	3.6
Pentachlorophenol	18.9
Phenanthrene	3.7
Anthracene	4.1
Carbazole	5.6
Di-n-Butylphthalate	7.2
Fluoranthene	6.1
Benzidine	2.2
Pyrene	5.8
Terphenyl-d14	3.4
Butylbenzylphthalate	4.5
Benzo(a)Anthracene	3.7
3,3'-Dichlorobenzidine	6.8
Chrysene	3.0
bis(2-ethylhexyl) Phthalate	3.2
Di-n-octylphthalate	3.0
Benzo(b) fluoranthene	10.3

Data File: \\AQITP0202D\\chem\\722.1\\082800N.6\\F08280C01.D
Date : 28-AUG-2000 19:16
Client ID: SST020
Sample Info: SST020 (10ppb) 194-188-3
Column phase: Hp5-MS

Instrument: 722.1
Operator: 007062
Column diameter: 0.25



671 924

STL - Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\722.i\082800N.b\F0828C01.D
Lab Smp Id: sstd020 Client Smp ID: SSTD020
Inj Date : 28-AUG-2000 19:16
Operator : 007062 Inst ID: 722.i
Smp Info : SSTD020 (10ppb) 194-188-3
Misc Info : sstd020,082800N.b,8270b.m,2-root.sub,1,1
Comment :
Method : \\QPITPA02\D\chem\722.i\082800N.b\8270b.m
Meth Date : 28-Aug-2000 19:55 bungardf Quant Type: ISTD
Cal Date : 28-AUG-2000 19:16 Cal File: F0828C01.D
Als bottle: 95 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-root.sub
Target Version: 4.04
Processing Host: PITPC083

*und
8/28/00*

Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (NG)	ON-COL (NG)
*****	****	**	*****	*****	*****	*****	*****
* 1 1,4-Dichlorobenzene-d4	152	5.092	5.092	(1.000)	82752	40.0000	
* 2 Naphthalene-d8	136	6.641	6.641	(1.000)	298178	40.0000	
* 3 Acenaphthene-d10	164	9.686	9.686	(1.000)	181478	40.0000	
* 4 Phenanthrene-d10	188	12.998	12.998	(1.000)	346769	40.0000	
* 5 Chrysene-d12	240	19.649	19.649	(1.000)	337310	40.0000	
* 6 Perylene-d12	264	23.015	23.015	(1.000)	216490	40.0000	
10 N-Nitrosodimethylamine	74	2.063	2.063	(0.405)	16603	20.0000	24.2
9 Pyridine	79	2.068	2.068	(0.406)	26877	20.0000	23.7
16 Methyl methanesulfonate	80	3.601	3.601	(0.707)	16647	20.0000	20.0
21 Aniline	93	4.793	4.793	(0.941)	57126	20.0000	19.9
22 Phenol	94	4.825	4.825	(0.948)	58044	20.0000	19.7
23 bis(2-Chloroethyl)ether	93	4.857	4.857	(0.954)	45255	20.0000	20.8
24 2-Chlorophenol	128	4.915	4.915	(0.965)	53364	20.0000	20.6
26 1,3-Dichlorobenzene	146	5.049	5.049	(0.992)	64147	20.0000	20.8
27 1,4-Dichlorobenzene	146	5.108	5.108	(1.003)	67233	20.0000	21.1
28 1,2-Dichlorobenzene	146	5.316	5.316	(1.044)	59534	20.0000	20.6
29 Benzyl Alcohol	108	5.284	5.284	(1.038)	33265	20.0000	19.7
30 2-Methylphenol	108	5.455	5.455	(1.071)	43474	20.0000	20.5
31 2,2'-oxybis(1-Chloropropane)	45	5.450	5.450	(1.070)	43817	20.0000	21.6
32 N-Nitroso-di-n-propylamine	70	5.605	5.605	(1.101)	31084	20.0000	20.3
192 4-Methylphenol	108	5.615	5.615	(1.103)	44557	20.0000	19.9
34 Hexachloroethane	117	5.663	5.663	(1.112)	24974	20.0000	20.6
35 Nitrobenzene	77	5.775	5.775	(0.870)	55505	20.0000	20.6
41 Isophorone	82	6.053	6.053	(0.912)	83932	20.0000	20.4
42 2-Nitrophenol	139	6.165	6.165	(0.928)	28214	20.0000	20.0
43 2,4-Dimethylphenol	107	6.240	6.240	(0.940)	52957	20.0000	20.3

671 925

Compounds	QUANT SIG				AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COL
=====	=====	==	=====	=====	=====	=====
44 bis(2-Chloroethoxy)methane	93	6.342	6.342	(0.955)	51728	21.2
48 2,4-Dichlorophenol	162	6.486	6.486	(0.977)	44144	20.7
49 Benzoic Acid	122	6.363	6.363	(0.958)	24427	19.9(M)
50 1,2,4-Trichlorobenzene	180	6.582	6.582	(0.991)	51895	20.6
51 Naphthalene	128	6.668	6.668	(1.004)	160048	20.8
52 4-Chloroaniline	127	6.780	6.780	(1.021)	59613	20.6
56 Hexachlorobutadiene	225	6.924	6.924	(1.043)	32983	19.8
59 4-Chloro-3-Methylphenol	107	7.533	7.533	(1.134)	45120	19.8
62 2-Methylnaphthalene	142	7.709	7.709	(1.161)	108997	20.4
205 1-Methylnaphthalene	142	7.891	7.891	(1.188)	100463	20.6
64 Hexachlorocyclopentadiene	237	8.099	8.099	(0.836)	36949	18.9
66 2,4,6-Trichlorophenol	196	8.260	8.260	(0.853)	33898	20.3
67 2,4,5-Trichlorophenol	196	8.340	8.340	(0.861)	36840	20.8
70 2-Chloronaphthalene	162	8.559	8.559	(0.884)	109830	20.9
73 2-Nitroaniline	65	8.826	8.826	(0.911)	28390	20.0
76 Dimethylphthalate	163	9.264	9.264	(0.956)	127199	20.9
78 2,6-Dinitrotoluene	165	9.387	9.387	(0.969)	26529	20.3
79 Acenaphthylene	152	9.371	9.371	(0.967)	164891	20.8
81 3-Nitroaniline	138	9.665	9.665	(0.998)	28540	20.6
82 Acenaphthene	153	9.750	9.750	(1.007)	102482	20.5
83 2,4-Dinitrophenol	184	9.868	9.868	(1.019)	8961	14.1
85 4-Nitrophenol	109	10.113	10.113	(1.044)	22166	18.1
86 Dibenzofuran	168	10.087	10.087	(1.041)	156447	20.8
87 2,4-Dinitrotoluene	165	10.199	10.199	(1.053)	36055	19.6
91 2,3,5,6-Tetrachlorophenol	232	10.375	10.375	(1.071)	29591	20.1
88 2,3,4,6-Tetrachlorophenol	232	10.471	10.471	(1.081)	30370	21.0
93 Diethylphthalate	149	10.797	10.797	(1.115)	131582	20.2
94 Fluorene	166	10.834	10.834	(1.119)	126875	20.8
95 4-Chlorophenyl-phenylether	204	10.877	10.877	(1.123)	64498	21.1
96 4-Nitroaniline	138	11.000	11.000	(1.136)	28728	20.1
98 4,6-Dinitro-2-methylphenol	198	11.086	11.086	(0.853)	10367	18.4
99 N-Nitrosodiphenylamine	169	11.166	11.166	(0.859)	87884	20.4
100 1,2-Diphenylhydrazine	77	11.224	11.224	(0.864)	123670	21.4
106 4-Bromophenyl-phenylether	248	11.988	11.988	(0.922)	35964	20.9
107 Hexachlorobenzene	284	12.288	12.288	(0.945)	38666	21.3
111 Pentachlorophenol	266	12.747	12.747	(0.981)	15821	19.4
115 Phenanthrene	178	13.051	13.051	(1.004)	194405	22.1
116 Anthracene	178	13.158	13.158	(1.012)	187500	21.4
119 Carbazole	167	13.612	13.612	(1.047)	164989	21.5
120 Di-n-Butylphthalate	149	14.745	14.745	(1.134)	202785	20.2
123 Fluoranthene	202	16.000	16.000	(1.231)	197447	21.4
124 Benzidine	184	16.428	16.428	(0.836)	60220	18.3
125 Pyrene	202	16.545	16.545	(0.842)	205806	20.5
131 Butylbenzylphthalate	149	18.490	18.490	(0.941)	87716	18.9
135 3,3'-Dichlorobenzidine	252	19.660	19.660	(1.001)	69054	18.8
136 Benzo(a)Anthracene	228	19.606	19.606	(0.998)	190807	20.0
137 Chrysene	228	19.702	19.702	(1.003)	170997	21.0

671 926

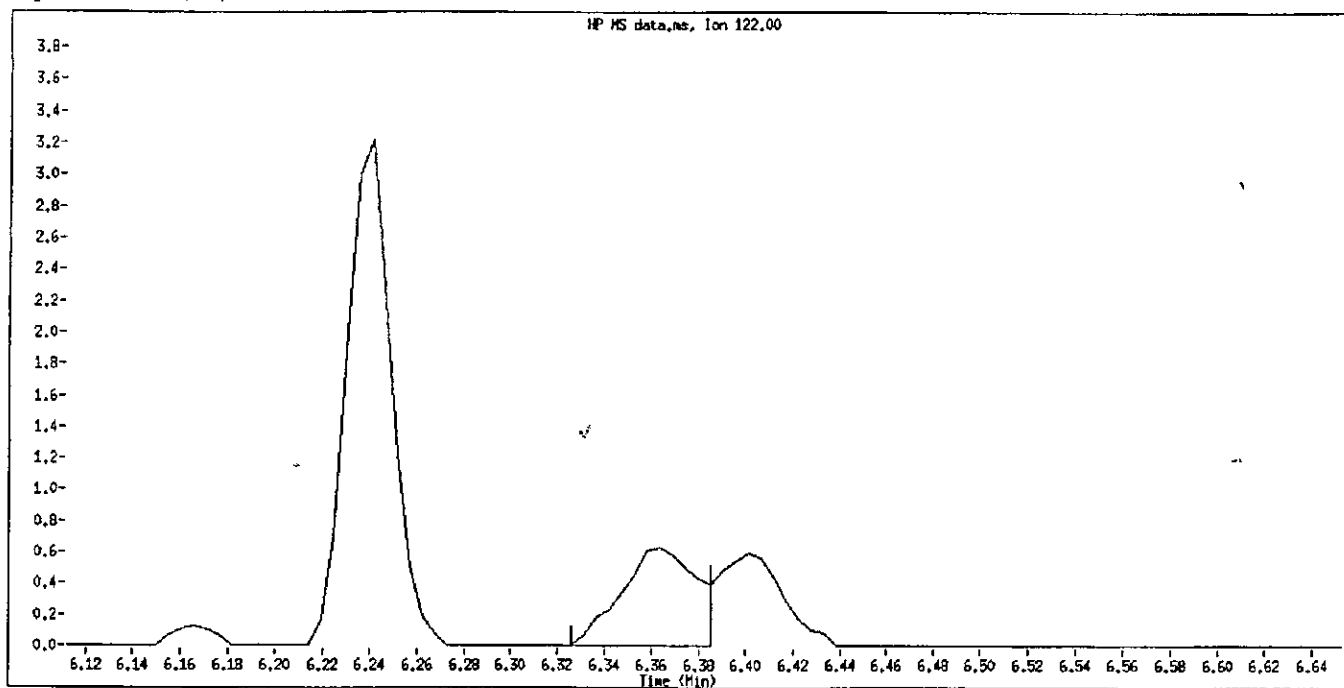
Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT	ON-COL
						(NG)	(NG)
139 bis(2-ethylhexyl)Phthalate	149	20.066	20.066	(1.021)	117700	20.0000	21.1
140 Di-n-octylphthalate	149	21.535	21.535	(0.936)	202640	20.0000	21.6
141 Benzo(b)fluoranthene	252	22.192	22.192	(0.964)	170420	20.0000	21.6
142 Benzo(k)fluoranthene	252	22.240	22.240	(0.966)	175239	20.0000	22.5
143 7,12-dimethylbenz[a]anthracen	256	22.245	22.245	(0.967)	74442	20.0000	20.2
146 Benzo(a)pyrene	252	22.886	22.886	(0.994)	138762	20.0000	20.2
149 Indeno(1,2,3-cd)pyrene	276	25.296	25.296	(1.099)	121106	20.0000	16.6
150 Dibenz(a,h)anthracene	278	25.349	25.349	(1.101)	100986	20.0000	15.8
151 Benzo(g,h,i)perylene	276	25.894	25.894	(1.125)	98244	20.0000	16.1
\$ 154 Nitrobenzene-d5	82	5.754	5.754	(0.866)	54807	20.0000	20.5
\$ 155 2-Fluorobiphenyl	172	8.388	8.388	(0.866)	122840	20.0000	20.9
\$ 156 Terphenyl-d14	244	17.074	17.074	(0.869)	151756	20.0000	19.0
\$ 157 Phenol-d5	99	4.809	4.809	(0.944)	56210	20.0000	20.3
\$ 158 2-Fluorophenol	112	3.783	3.783	(0.743)	44541	20.0000	20.6
\$ 159 2,4,6-Tribromophenol	330	11.433	11.433	(0.880)	15701	20.0000	20.1
\$ 186 2-Chlorophenol-d4	132	4.899	4.899	(0.962)	48279	20.0000	20.3
\$ 187 1,2-Dichlorobenzene-d4	152	5.305	5.305	(1.042)	37638	20.0000	20.1

QC Flag Legend

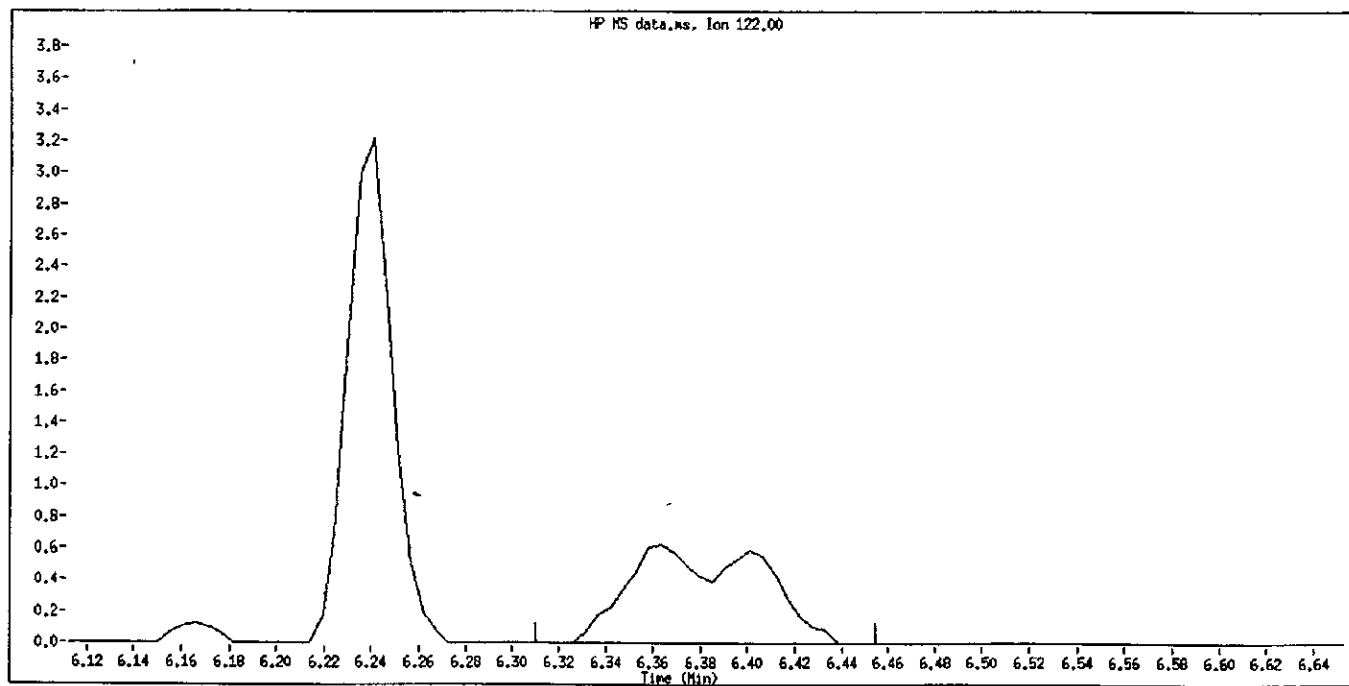
M - Compound response manually integrated.

671 927

Data File Name F0828C01.D
Inj Date and Time: 28-AUG-2000 19 16
Instrument ID 722.i
Client ID. SST0020
Compound Name: Benzoic Acid
CAS #: 65-85-0
Report Date 08/28/2000



Original Integration



Manual Integration

Manually Integrated By BungardF
Manual Integration Reason Unknown

Instrument: 722.1
Operator: 007062
Column diameter: 0.25



671 929

STL - Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\722.i\082800N.b\F0828C02.D
Lab Smp Id: sstd050 Client Smp ID: SSTD050
Inj Date : 28-AUG-2000 19:50
Operator : 007062 Inst ID: 722.i
Smp Info : SSTD050 (25ppb) 194-183-14
Misc Info : sstd050,082800N.b,8270b.m,2-root.sub,1,2
Comment :
Method : \\QPITPA02\D\chem\722.i\082800N.b\8270b.m
Meth Date : 28-Aug-2000 20:22 bungardf Quant Type: ISTD
Cal Date : 28-AUG-2000 19:50 Cal File: F0828C02.D
Als bottle: 96 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-root.sub
Target Version: 4.04
Processing Host: PITPC083

*inv
8/28/00*

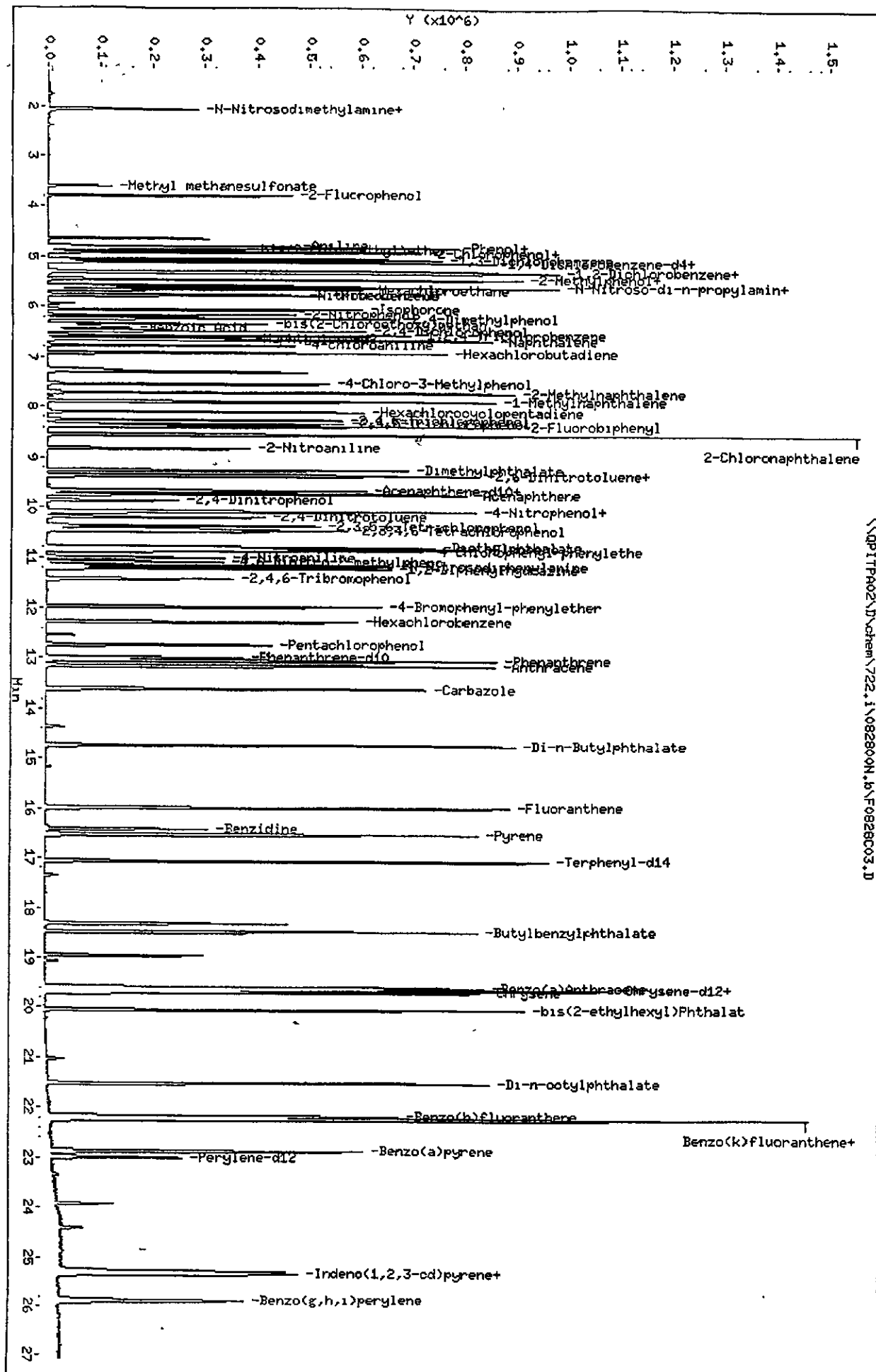
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (NG)	ON-COL (NG)
*****	----	==	=====	=====	-----	-----	-----
* 1 1,4-Dichlorobenzene-d4	152	5.093	5.093	(1.000)	78987	40.0000	
* 2 Naphthalene-d8	136	6.643	6.643	(1.000)	283039	40.0000	
* 3 Acenaphthene-d10	164	9.682	9.682	(1.000)	185314	40.0000	
* 4 Phenanthrene-d10	188	13.000	13.000	(1.000)	368597	40.0000	
* 5 Chrysene-d12	240	19.651	19.651	(1.000)	400266	40.0000	
* 6 Perylene-d12	264	23.016	23.016	(1.000)	240699	40.0000	
10 N-Nitrosodimethylamine	74	2.064	2.064	(0.405)	38011	50.0000	57.5
9 Pyridine	79	2.059	2.059	(0.404)	63136	50.0000	58.1
16 Methyl methanesulfonate	80	3.598	3.598	(0.706)	39777	50.0000	49.8
21 Aniline	93	4.794	4.794	(0.941)	132328	50.0000	48.9
22 Phenol	94	4.826	4.826	(0.948)	133114	50.0000	48.2
23 bis(2-Chloroethyl)ether	93	4.858	4.858	(0.954)	104496	50.0000	50.8
24 2-Chlorophenol	128	4.917	4.917	(0.965)	121670	50.0000	49.8
26 1,3-Dichlorobenzene	146	5.051	5.051	(0.992)	149053	50.0000	50.5
27 1,4-Dichlorobenzene	146	5.109	5.109	(1.003)	154877	50.0000	50.8
28 1,2-Dichlorobenzene	146	5.318	5.318	(1.044)	135684	50.0000	49.5
29 Benzyl Alcohol	108	5.286	5.286	(1.038)	79389	50.0000	49.8
30 2-Methylphenol	108	5.457	5.457	(1.071)	99866	50.0000	49.9
31 2,2'-oxybis(1-Chloropropane)	45	5.451	5.451	(1.070)	101825	50.0000	52.9
32 N-Nitroso-di-n-propylamine	70	5.612	5.612	(1.102)	72059	50.0000	50.2
192 4-Methylphenol	108	5.617	5.617	(1.103)	100753	50.0000	48.3
34 Hexachloroethane	117	5.665	5.665	(1.112)	58604	50.0000	50.7
35 Nitrobenzene	77	5.777	5.777	(0.870)	129826	50.0000	50.8
41 Isophorone	82	6.055	6.055	(0.912)	198042	50.0000	50.9
42 2-Nitrophenol	139	6.167	6.167	(0.928)	67519	50.0000	50.8
43 2,4-Dimethylphenol	107	6.242	6.242	(0.940)	121869	50.0000	49.6

671 930

Compounds	QUANT SIG						AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE		CAL-AMT (NG)	ON-COL (NG)
=====	----	==	-----	-----	-----		-----	-----
44 bis(2-Chloroethoxy)methane	93	6.343	6.343	(0.955)	116011		50.0000	50.4
48 2,4-Dichlorophenol	162	6.488	6.488	(0.977)	100905		50.0000	50.1
49 Benzoic Acid	122	6.402	6.402	(0.964)	52839		50.0000	45.1
50 1,2,4-Trichlorobenzene	180	6.584	6.584	(0.991)	119344		50.0000	50.0
51 Naphthalene	128	6.669	6.669	(1.004)	365606		50.0000	50.3
52 4-Chloroaniline	127	6.782	6.782	(1.021)	131774		50.0000	48.7
56 Hexachlorobutadiene	225	6.920	6.920	(1.042)	77547		50.0000	49.0
59 4-Chloro-3-Methylphenol	107	7.540	7.540	(1.135)	110171		50.0000	50.8
62 2-Methylnaphthalene	142	7.711	7.711	(1.161)	258246		50.0000	50.6
205 1-Methylnaphthalene	142	7.893	7.893	(1.188)	233766		50.0000	50.3
64 Hexachlorocyclopentadiene	237	8.101	8.101	(0.837)	92909		50.0000	47.5
66 2,4,6-Trichlorophenol	196	8.261	8.261	(0.853)	81086		50.0000	48.4
67 2,4,5-Trichlorophenol	196	8.341	8.341	(0.862)	86812		50.0000	48.8
70 2-Chloronaphthalene	162	8.560	8.560	(0.884)	251698		50.0000	47.9
73 2-Nitroaniline	65	8.828	8.828	(0.912)	71868		50.0000	49.9
76 Dimethylphthalate	163	9.266	9.266	(0.957)	306788		50.0000	49.7
78 2,6-Dinitrotoluene	165	9.394	9.394	(0.970)	66813		50.0000	50.3
79 Acenaphthylene	152	9.372	9.372	(0.968)	399067		50.0000	49.7
81 3-Nitroaniline	138	9.666	9.666	(0.998)	71054		50.0000	50.2
82 Acenaphthene	153	9.752	9.752	(1.007)	247213		50.0000	49.0
83 2,4-Dinitrophenol	184	9.869	9.869	(1.019)	36417		50.0000	53.1
85 4-Nitrophenol	109	10.115	10.115	(1.045)	63013		50.0000	50.1
86 Dibenzofuran	168	10.088	10.088	(1.042)	373459		50.0000	48.9
87 2,4-Dinitrotoluene	165	10.206	10.206	(1.054)	94820		50.0000	50.3
91 2,3,5,6-Tetrachlorophenol	232	10.377	10.377	(1.072)	76915		50.0000	50.4
88 2,3,4,6-Tetrachlorophenol	232	10.473	10.473	(1.082)	72833		50.0000	49.4
93 Diethylphthalate	149	10.799	10.799	(1.115)	326168		50.0000	49.3
94 Fluorene	166	10.836	10.836	(1.119)	304177		50.0000	49.0
95 4-Chlorophenyl-phenylether	204	10.879	10.879	(1.124)	150825		50.0000	48.7
96 4-Nitroaniline	138	11.012	11.012	(1.137)	72412		50.0000	49.7
98 4,6-Dinitro-2-methylphenol	198	11.098	11.098	(0.854)	55738		50.0000	51.7
99 N-Nitrosodiphenylamine	169	11.173	11.173	(0.859)	220087		50.0000	48.9
100 1,2-Diphenylhydrazine	77	11.226	11.226	(0.864)	298536		50.0000	49.4
106 4-Bromophenyl-phenylether	248	11.990	11.990	(0.922)	89496		50.0000	49.3
107 Hexachlorobenzene	284	12.289	12.289	(0.945)	96074		50.0000	50.0
111 Pentachlorophenol	266	12.743	12.743	(0.980)	53643		50.0000	57.0
115 Phenanthrene	178	13.053	13.053	(1.004)	473672		50.0000	50.6
116 Anthracene	178	13.160	13.160	(1.012)	469348		50.0000	50.6
119 Carbazole	167	13.614	13.614	(1.047)	427969		50.0000	51.9
120 Di-n-Butylphthalate	149	14.747	14.747	(1.134)	560618		50.0000	52.2
123 Fluoranthene	202	16.002	16.002	(1.231)	533115		50.0000	53.2
124 Benzidine	184	16.429	16.429	(0.836)	188090		50.0000	50.1
125 Pyrene	202	16.547	16.547	(0.842)	522067		50.0000	47.0
131 Butylbenzylphthalate	149	18.491	18.491	(0.941)	253573		50.0000	48.1
135 3,3'-Dichlorobenzidine	252	19.661	19.661	(1.001)	202297		50.0000	47.3
136 Benzo(a)Anthracene	228	19.608	19.608	(0.998)	536961		50.0000	47.9
137 Chrysene	228	19.715	19.715	(1.003)	467798		50.0000	48.9

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Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT	ON-COL
	(NG)	(NG)	(NG)	(NG)	(NG)	(NG)	(NG)
=====	=====	==	=====	=====	=====	=====	=====
139 bis(2-ethylhexyl)Phthalate	149	20.067	20.067	(1.021)	321604	50.0000	49.4
140 Di-n-octylphthalate	149	21.536	21.536	(0.936)	533094	50.0000	51.2
141 Benzo(b)fluoranthene	252	22.199	22.199	(0.964)	455184	50.0000	50.1
142 Benzo(k)fluoranthene	252	22.252	22.252	(0.967)	469354	50.0000	52.8
143 7,12-dimethylbenz[a]anthracene	256	22.252	22.252	(0.967)	206929	50.0000	49.2
146 Benzo(a)pyrene	252	22.888	22.888	(0.994)	378232	50.0000	49.2
149 Indeno(1,2,3-cd)pyrene	276	25.303	25.303	(1.099)	347783	50.0000	43.7
150 Dibenz(a,h)anthracene	278	25.361	25.361	(1.102)	293660	50.0000	42.6
151 Benzo(g,h,i)perylene	276	25.912	25.912	(1.126)	283744	50.0000	43.2
\$ 154 Nitrobenzene-d5	82	5.756	5.756	(0.867)	129618	50.0000	51.0
\$ 155 2-Fluorobiphenyl	172	8.389	8.389	(0.866)	287537	50.0000	48.7
\$ 156 Terphenyl-d14	244	17.081	17.081	(0.869)	428692	50.0000	48.1
\$ 157 Phenol-d5	99	4.816	4.816	(0.945)	129222	50.0000	49.2
\$ 158 2-Fluorophenol	112	3.785	3.785	(0.743)	106575	50.0000	51.5
\$ 159 2,4,6-Tribromophenol	330	11.435	11.435	(0.880)	40729	50.0000	49.5
\$ 186 2-Chlorophenol-d4	132	4.901	4.901	(0.962)	113382	50.0000	50.3
\$ 187 1,2-Dichlorobenzene-d4	152	5.302	5.302	(1.041)	89029	50.0000	50.0



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 Client ID: SST0080
 Sample Info: SST0080 (40ppb) 194-188-5
 Column phase: Hp5-MS

Instrument: 722.i
 Operator: 007062
 Column diameter: 0.25

671 933

STL - Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\722.i\082800N.b\F0828C03.D
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Inj Date : 28-AUG-2000 20:24
Operator : 007062 Inst ID: 722.i
Smp Info : SST080 (40ppb) 194-188-5
Misc Info : sstd080,082800N.b,8270b.m,2-root.sub,1,3
Comment :
Method : \\QPITPA02\D\chem\722.i\082800N.b\8270b.m
Meth Date : 28-Aug-2000 21:27 bungardf Quant Type: ISTD
Cal Date : 28-AUG-2000 20:57 Cal File: F0828C04.D
Als bottle: 97 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-root.sub
Target Version: 4.04
Processing Host: PITPC083

Handwritten:
194-188-5
8270b

						AMOUNTS	
QUANT SIG						CAL-AMT	ON-COL
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(NG)	(NG)
*****	====	==	=====	=====	=====	=====	=====
* 1 1,4-Dichlorobenzene-d4	152	5.089	5.089	(1.000)	73387	40.0000	
* 2 Naphthalene-d8	136	6.638	6.638	(1.000)	252123	40.0000	
* 3 Acenaphthene-d10	164	9.678	9.678	(1.000)	162143	40.0000	
* 4 Phenanthrene-d10	188	12.990	12.990	(1.000)	329532	40.0000	
* 5 Chrysene-d12	240	19.635	19.635	(1.000)	368940	40.0000	
* 6 Perylene-d12	264	22.996	22.996	(1.000)	223091	40.0000	
10 N-Nitrosodimethylamine	74	2.060	2.060	(0.405)	57927	80.0000	81.9
9 Pyridine	79	2.054	2.054	(0.404)	98115	80.0000	83.2
16 Methyl methanesulfonate	80	3.593	3.593	(0.706)	60470	80.0000	82.0
21 Aniline	93	4.790	4.790	(0.941)	207505	80.0000	82.2
22 Phenol	94	4.822	4.822	(0.948)	201703	80.0000	80.1
23 bis(2-Chloroethyl)ether	93	4.854	4.854	(0.954)	156716	80.0000	79.8
24 2-Chlorophenol	128	4.912	4.912	(0.965)	180721	80.0000	78.8
26 1,3-Dichlorobenzene	146	5.046	5.046	(0.992)	221912	80.0000	79.7
27 1,4-Dichlorobenzene	146	5.105	5.105	(1.003)	228616	80.0000	79.1
28 1,2-Dichlorobenzene	146	5.313	5.313	(1.044)	204383	80.0000	79.6
29 Benzyl Alcohol	108	5.286	5.286	(1.039)	124538	80.0000	82.5
30 2-Methylphenol	108	5.457	5.457	(1.072)	150407	80.0000	79.9
31 2,2'-oxybis(1-Chloropropane)	45	5.447	5.447	(1.070)	149274	80.0000	79.3
32 N-Nitroso-di-n-propylamine	70	5.612	5.612	(1.103)	109556	80.0000	80.1
192 4-Methylphenol	108	5.612	5.612	(1.103)	152856	80.0000	79.7
34 Hexachloroethane	117	5.660	5.660	(1.112)	85747	80.0000	79.3
35 Nitrobenzene	77	5.778	5.778	(0.870)	191660	80.0000	81.2
41 Isophorone	82	6.056	6.056	(0.912)	297240	80.0000	82.2
42 2-Nitrophenol	139	6.162	6.162	(0.928)	99545	80.0000	81.4
43 2,4-Dimethylphenol	107	6.237	6.237	(0.940)	183056	80.0000	81.6

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Compounds	QUANT SIG				RESPONSE	AMOUNTS	
	MASS	RT	EXP RT	REL RT		CAL-AMT (NG)	ON-COL (NG)
=====	=====	=====	=====	=====	=====	=====	=====
44 bis(2-Chloroethoxy)methane	93	6.339	6.339	(0.955)	172628	80.0000	80.5
48 2,4-Dichlorophenol	162	6.483	6.483	(0.977)	149875	80.0000	81.0
49 Benzoic Acid	122	6.419	6.419	(0.967)	97410	80.0000	87.1
50 1,2,4-Trichlorobenzene	180	6.579	6.579	(0.991)	176667	80.0000	81.0
51 Naphthalene	128	6.665	6.665	(1.004)	543157	80.0000	80.9
52 4-Chloroaniline	127	6.777	6.777	(1.021)	198443	80.0000	80.7
56 Hexachlorobutadiene	225	6.916	6.916	(1.042)	118290	80.0000	82.5
59 4-Chloro-3-Methylphenol	107	7.535	7.535	(1.135)	169580	80.0000	84.1
62 2-Methylnaphthalene	142	7.706	7.706	(1.161)	385419	80.0000	82.2
205 1-Methylnaphthalene	142	7.888	7.888	(1.188)	365058	80.0000	83.7
64 Hexachlorocyclopentadiene	237	8.091	8.091	(0.836)	141444	80.0000	82.8
66 2,4,6-Trichlorophenol	196	8.257	8.257	(0.853)	123416	80.0000	82.2
67 2,4,5-Trichlorophenol	196	8.337	8.337	(0.861)	132882	80.0000	82.6
70 2-Chloronaphthalene	162	8.556	8.556	(0.884)	381367	80.0000	81.0
73 2-Nitroaniline	65	8.828	8.828	(0.912)	110092	80.0000	83.4
76 Dimethylphthalate	163	9.261	9.261	(0.957)	478096	80.0000	83.9
78 2,6-Dinitrotoluene	165	9.389	9.389	(0.970)	100323	80.0000	82.2
79 Acenaphthylene	152	9.362	9.362	(0.967)	597908	80.0000	82.1
81 3-Nitroaniline	138	9.667	9.667	(0.999)	108963	80.0000	82.8
82 Acenaphthene	153	9.747	9.747	(1.007)	378727	80.0000	82.8
83 2,4-Dinitrophenol	184	9.865	9.865	(1.019)	63231	80.0000	95.1
85 4-Nitrophenol	109	10.110	10.110	(1.045)	103164	80.0000	88.2
86 Dibenzofuran	168	10.078	10.078	(1.041)	581840	80.0000	83.5
87 2,4-Dinitrotoluene	165	10.201	10.201	(1.054)	148341	80.0000	85.2
91 2,3,5,6-Tetrachlorophenol	232	10.372	10.372	(1.072)	124120	80.0000	86.4
88 2,3,4,6-Tetrachlorophenol	232	10.468	10.468	(1.082)	119087	80.0000	85.7
93 Diethylphthalate	149	10.794	10.794	(1.115)	508539	80.0000	84.0
94 Fluorene	166	10.831	10.831	(1.119)	468533	80.0000	83.0
95 4-Chlorophenyl-phenylether	204	10.874	10.874	(1.124)	228567	80.0000	81.7
96 4-Nitroaniline	138	11.013	11.013	(1.138)	115761	80.0000	85.1
98 4,6-Dinitro-2-methylphenol	198	11.093	11.093	(0.854)	94062	80.0000	87.9
99 N-Nitrosodiphenylamine	169	11.168	11.168	(0.860)	339827	80.0000	81.6
100 1,2-Diphenylhydrazine	77	11.221	11.221	(0.864)	461064	80.0000	81.1
106 4-Bromophenyl-phenylether	248	11.980	11.980	(0.922)	139660	80.0000	82.4
107 Hexachlorobenzene	284	12.285	12.285	(0.946)	151225	80.0000	83.0
111 Pentachlorophenol	266	12.739	12.739	(0.981)	91998	80.0000	91.1
115 Phenanthrene	178	13.048	13.048	(1.005)	738249	80.0000	81.8
116 Anthracene	178	13.155	13.155	(1.013)	742372	80.0000	83.1
119 Carbazole	167	13.609	13.609	(1.048)	686286	80.0000	84.3
120 Di-n-Butylphthalate	149	14.737	14.737	(1.134)	893438	80.0000	85.2
123 Fluoranthene	202	15.992	15.992	(1.231)	843254	80.0000	84.4
124 Benzdine	184	16.419	16.419	(0.836)	274091	80.0000	80.4
125 Pyrene	202	16.537	16.537	(0.842)	825193	80.0000	80.0
131 Butylbenzylphthalate	149	18.481	18.481	(0.941)	408024	80.0000	83.1
135 3,3'-Dichlorobenzidine	252	19.651	19.651	(1.001)	339398	80.0000	84.8
136 Benzo(a)Anthracene	228	19.593	19.593	(0.998)	864814	80.0000	82.7
137 Chrysene	228	19.699	19.699	(1.003)	735928	80.0000	81.2

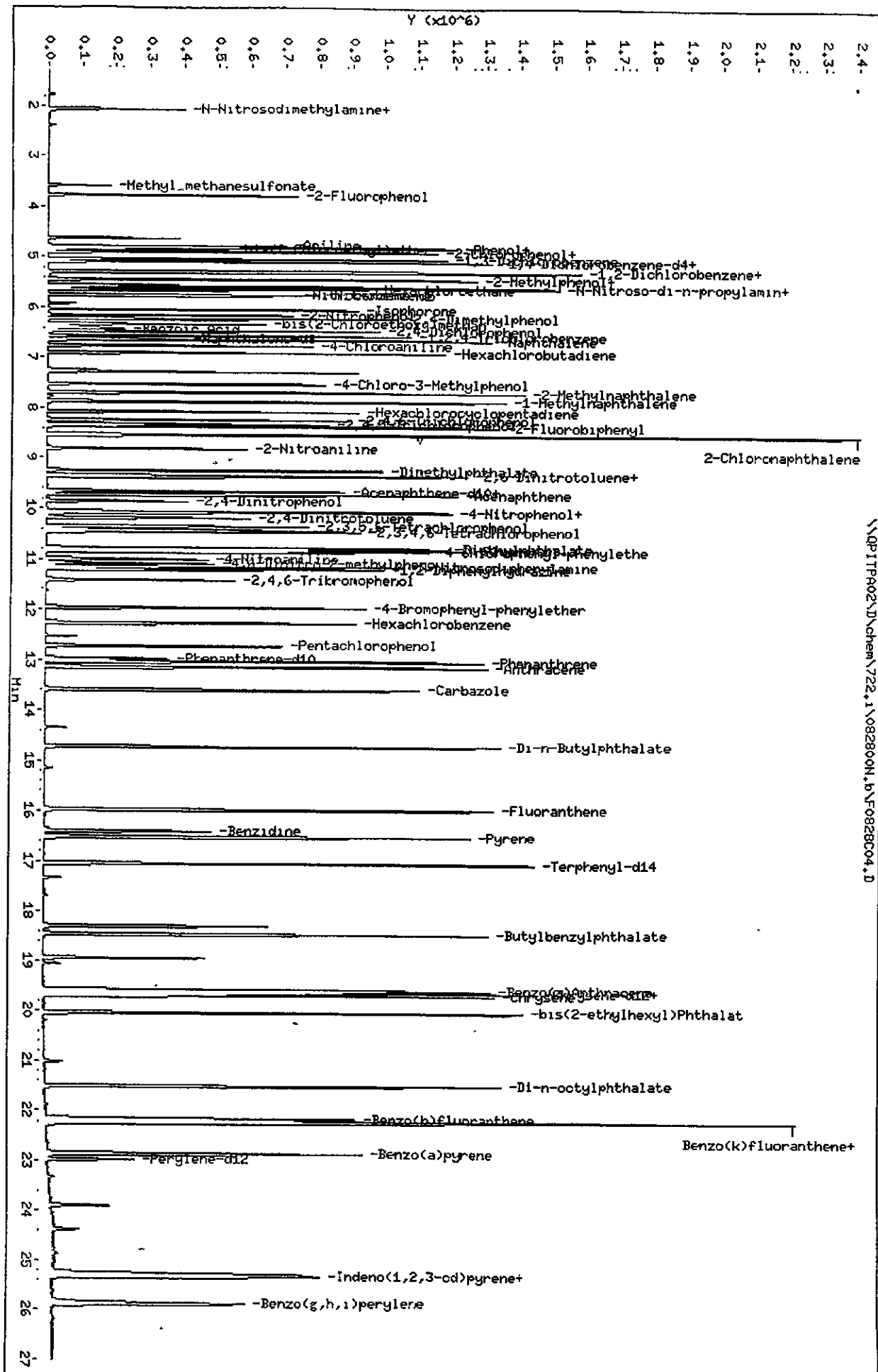
671 935

Compounds	QUANT SIG		RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
	MASS						CAL-AMT (NG)	ON-COL (NG)
=====	=====	=====	=====	=====	=====	=====	=====	=====
139 bis(2-ethylhexyl)Phthalate	149		20.052	20.052	(1.021)	511690	80.0000	81.7
140 Di-n-octylphthalate	149		21.521	21.521	(0.936)	840855	80.0000	81.0
141 Benzo(b)fluoranthene	252		22.184	22.184	(0.965)	745607	80.0000	82.5
142 Benzo(k)fluoranthene	252		22.248	22.248	(0.967)	705604	80.0000	78.6
143 7,12-dimethylbenz[a]anthracen	256		22.248	22.248	(0.967)	356662	80.0000	85.3
146 Benzo(a)pyrene	252		22.883	22.883	(0.995)	612872	80.0000	82.8
149 Indeno(1,2,3-cd)pyrene	276		25.293	25.293	(1.100)	603678	80.0000	84.2
150 Dibenz(a,h)anthracene	278		25.341	25.341	(1.102)	511797	80.0000	84.1
151 Benzo(g,h,i)perylene	276		25.891	25.891	(1.126)	492175	80.0000	84.3
\$ 154 Nitrobenzene-d5	82		5.751	5.751	(0.866)	191098	80.0000	81.4
\$ 155 2-Fluorobiphenyl	172		8.385	8.385	(0.866)	438779	80.0000	82.4
\$ 156 Terphenyl-d14	244		17.066	17.066	(0.869)	684603	80.0000	82.6
\$ 157 Phenol-d5	99		4.811	4.811	(0.945)	200987	80.0000	81.5
\$ 158 2-Fluorophenol	112		3.780	3.780	(0.743)	167865	80.0000	83.2
\$ 159 2,4,6-Tribromophenol	330		11.430	11.430	(0.880)	67291	80.0000	85.6
\$ 186 2-Chlorophenol-d4	132		4.896	4.896	(0.962)	174241	80.0000	81.2
\$ 187 1,2-Dichlorobenzene-d4	152		5.302	5.302	(1.042)	136049	80.0000	81.1

671 936

Data File: \NPITPA02\Nchem\722.1\082800N.b\F0828004.D
 Date : 28-AUG-2000 20:57
 Client ID: SSTDA20
 Sample Info: SSTDA20 (60ppb) 194-183-6
 Column phase: Hp5-MS

Instrument: 722.1
 Operator: 007062
 Column diameter: 0.25



671 937

STL - Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\722.i\082800N.b\F0828C04.D
Lab Smp Id: sstd120 Client Smp ID: SSTD120
Inj Date : 28-AUG-2000 20:57
Operator : 007062 Inst ID: 722.i
Smp Info : SSTD120 (60ppb) 194-188-6
Misc Info : sstd120,082800N.b,8270b.m,2-root.sub,1,4
Comment :
Method : \\QPITPA02\D\chem\722.i\082800N.b\8270b.m
Meth Date : 28-Aug-2000 21:28 bungardf Quant Type: ISTD
Cal Date : 28-AUG-2000 20:57 Cal File: F0828C04.D
Als bottle: 98 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-root.sub
Target Version: 4.04
Processing Host: PITPC083

*WJ
8/28/00*

						AMOUNTS	
QUANT SIG						CAL-AMT	ON-COL
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(NG)	(NG)
=====	=====	==	=====	=====	=====	=====	=====
* 1 1,4-Dichlorobenzene-d4	152	5.080	5.080	(1.000)	76850	40.0000	
* 2 Naphthalene-d8	136	6.624	6.624	(1.000)	263035	40.0000	
* 3 Acenaphthene-d10	164	9.664	9.664	(1.000)	168675	40.0000	
* 4 Phenanthrene-d10	188	12.976	12.976	(1.000)	336772	40.0000	
* 5 Chrysene-d12	240	19.621	19.621	(1.000)	384114	40.0000	
* 6 Perylene-d12	264	22.982	22.982	(1.000)	229890	40.0000	
10 N-Nitrosodimethylamine	74	2.062	2.062	(0.406)	83275	120.000	112
9 Pyridine	79	2.056	2.056	(0.405)	141444	120.000	114
16 Methyl methanesulfonate	80	3.590	3.590	(0.707)	90000	120.000	116
21 Aniline	93	4.781	4.781	(0.941)	315075	120.000	119
22 Phenol	94	4.818	4.818	(0.948)	314855	120.000	119
23 bis(2-Chloroethyl)ether	93	4.845	4.845	(0.954)	244771	120.000	119
24 2-Chlorophenol	128	4.909	4.909	(0.966)	286851	120.000	120
26 1,3-Dichlorobenzene	146	5.037	5.037	(0.992)	345790	120.000	118
27 1,4-Dichlorobenzene	146	5.096	5.096	(1.003)	357134	120.000	118
28 1,2-Dichlorobenzene	146	5.304	5.304	(1.044)	321685	120.000	120
29 Benzyl Alcohol	108	5.278	5.278	(1.039)	192311	120.000	122
30 2-Methylphenol	108	5.449	5.449	(1.073)	233988	120.000	119
31 2,2'-oxybis(1-Chloropropane)	45	5.438	5.438	(1.070)	229587	120.000	116
32 N-Nitroso-di-n-propylamine	70	5.609	5.609	(1.104)	173773	120.000	121
192 4-Methylphenol	108	5.609	5.609	(1.104)	240348	120.000	120
34 Hexachloroethane	117	5.652	5.652	(1.113)	132972	120.000	117
35 Nitrobenzene	77	5.769	5.769	(0.871)	298228	120.000	121
41 Isophorone	82	6.047	6.047	(0.913)	458640	120.000	122
42 2-Nitrophenol	139	6.154	6.154	(0.929)	156638	120.000	123
43 2,4-Dimethylphenol	107	6.229	6.229	(0.940)	285426	120.000	122

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Compounds	QUANT SIG						AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE		CAL-AMT (NG)	ON-COL (NG)
=====	=====	=====	=====	=====	=====		=====	=====
44 bis(2-Chloroethoxy)methane	93	6.330	6.330	(0.956)	271691		120.000	121
48 2,4-Dichlorophenol	162	6.474	6.474	(0.977)	233110		120.000	121
49 Benzoic Acid	122	6.426	6.426	(0.970)	160424		120.000	138
50 1,2,4-Trichlorobenzene	180	6.565	6.565	(0.991)	275495		120.000	121
51 Naphthalene	128	6.651	6.651	(1.004)	848109		120.000	121
52 4-Chloroaniline	127	6.763	6.763	(1.021)	311800		120.000	122
56 Hexachlorobutadiene	225	6.907	6.907	(1.043)	185547		120.000	124
59 4-Chloro-3-Methylphenol	107	7.527	7.527	(1.136)	259890		120.000	124
62 2-Methylnaphthalene	142	7.692	7.692	(1.161)	591813		120.000	121
205 1-Methylnaphthalene	142	7.874	7.874	(1.189)	559752		120.000	123
64 Hexachlorocyclopentadiene	237	8.077	8.077	(0.836)	223389		120.000	126
66 2,4,6-Trichlorophenol	196	8.243	8.243	(0.853)	190662		120.000	122
67 2,4,5-Trichlorophenol	196	8.328	8.328	(0.862)	201222		120.000	120
70 2-Chloronaphthalene	162	8.542	8.542	(0.884)	592183		120.000	121
73 2-Nitroaniline	65	8.814	8.814	(0.912)	171989		120.000	125
76 Dimethylphthalate	163	9.252	9.252	(0.957)	719915		120.000	121
78 2,6-Dinitrotoluene	165	9.375	9.375	(0.970)	158826		120.000	125
79 Acenaphthylene	152	9.348	9.348	(0.967)	913117		120.000	120
81 3-Nitroaniline	138	9.653	9.653	(0.999)	172531		120.000	126
82 Acenaphthene	153	9.733	9.733	(1.007)	580273		120.000	122
83 2,4-Dinitrophenol	184	9.856	9.856	(1.020)	103691		120.000	150
85 4-Nitrophenol	109	10.102	10.102	(1.045)	162097		120.000	133
86 Dibenzofuran	168	10.064	10.064	(1.041)	882673		120.000	122
87 2,4-Dinitrotoluene	165	10.192	10.192	(1.055)	229850		120.000	127
91 2,3,5,6-Tetrachlorophenol	232	10.358	10.358	(1.072)	190750		120.000	128
88 2,3,4,6-Tetrachlorophenol	232	10.460	10.460	(1.082)	179772		120.000	124
93 Diethylphthalate	149	10.785	10.785	(1.116)	781245		120.000	124
94 Fluorene	166	10.823	10.823	(1.120)	715698		120.000	122
95 4-Chlorophenyl-phenylether	204	10.855	10.855	(1.123)	351269		120.000	121
96 4-Nitroaniline	138	11.010	11.010	(1.139)	180309		120.000	127
98 4,6-Dinitro-2-methylphenol	198	11.090	11.090	(0.855)	151540		120.000	138
99 N-Nitrosodiphenylamine	169	11.154	11.154	(0.860)	525992		120.000	124
100 1,2-Diphenylhydrazine	77	11.213	11.213	(0.864)	706304		120.000	122
106 4-Bromophenyl-phenylether	248	11.966	11.966	(0.922)	211225		120.000	122
107 Hexachlorobenzene	284	12.265	12.265	(0.945)	226162		120.000	121
111 Pentachlorophenol	266	12.719	12.719	(0.980)	144549		120.000	140
115 Phenanthrene	178	13.034	13.034	(1.005)	1121832		120.000	122
116 Anthracene	178	13.141	13.141	(1.013)	1124298		120.000	123
119 Carbazole	167	13.590	13.590	(1.047)	1041727		120.000	125
120 Di-n-Butylphthalate	149	14.723	14.723	(1.135)	1366422		120.000	127
123 Fluoranthene	202	15.978	15.978	(1.231)	1290976		120.000	126
124 Benzidine	184	16.400	16.400	(0.836)	431777		120.000	122
125 Pyrene	202	16.523	16.523	(0.842)	1258849		120.000	117
131 Butylbenzylphthalate	149	18.462	18.462	(0.941)	633358		120.000	124
135 3,3'-Dichlorobenzidine	252	19.637	19.637	(1.001)	532404		120.000	128
136 Benzo(a)Anthracene	228	19.584	19.584	(0.998)	1336235		120.000	123
137 Chrysene	228	19.691	19.691	(1.004)	1132300		120.000	120

671 939

671 939

Compounds	QUANT SIG	AMOUNTS						
		MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT	ON-COL
							(NG)	(NG)
=====	=====	==	=====	=====	=====	=====	=====	
139 bis(2-ethylhexyl)Phthalate	149	20 033	20 033	(1.021)	786865	120.000	121	
140 Di-n-octylphthalate	149	21 507	21 507	(0.936)	1323334	120 000	124	
141 Benzo(b)fluoranthene	252	22.175	22 175	(0.965)	1188856	120 000	128	
142 Benzo(k)fluoranthene	252	22.239	22.239	(0.968)	1159271	120 000	125	
143 7,12-dimethylbenz[a]anthracen	256	22 239	22.239	(0.968)	568747	120 000	132	
146 Benzo(a)pyrene	252	22.869	22 869	(0.995)	962145	120 000	126	
149 Indeno(1,2,3-cd)pyrene	276	25 279	25 279	(1.100)	1045176	120.000	141	
150 Dibenz(a,h)anthracene	278	25 332	25 332	(1.102)	903172	120.000	144	
151 Benzo(g,h,i)perylene	276	25 888	25 888	(1.126)	850790	120 000	141	
\$ 154 Nitrobenzene-d5	82	5.748	5 748	(0.868)	297149	120 000	121	
\$ 155 2-Fluorobiphenyl	172	8 371	8.371	(0.866)	662528	120.000	120	
\$ 156 Terphenyl-d14	244	17 052	17.052	(0.869)	1047082	120 000	121	
\$ 157 Phenol-d5	99	4.802	4 802	(0.945)	308180	120.000	119	
\$ 158 2-Fluorophenol	112	3 771	3.771	(0.742)	252857	120.000	120	
\$ 159 2,4,6-Tribromophenol	330	11 416	11.416	(0.880)	101526	120 000	126	
\$ 186 2-Chlorophenol-d4	132	4 893	4 893	(0.963)	270372	120 000	120	
\$ 187 1,2-Dichlorobenzene-d4	152	5 294	5.294	(1.042)	212188	120 000	121	

671 940

Data File: \NPIITPA02\chem\722.1\082800N.b\F0828C05.D
Date: 28-AUG-2000 21:29

Client ID:

Sample Info: SSTJL60 (80ppb) 194-188-7

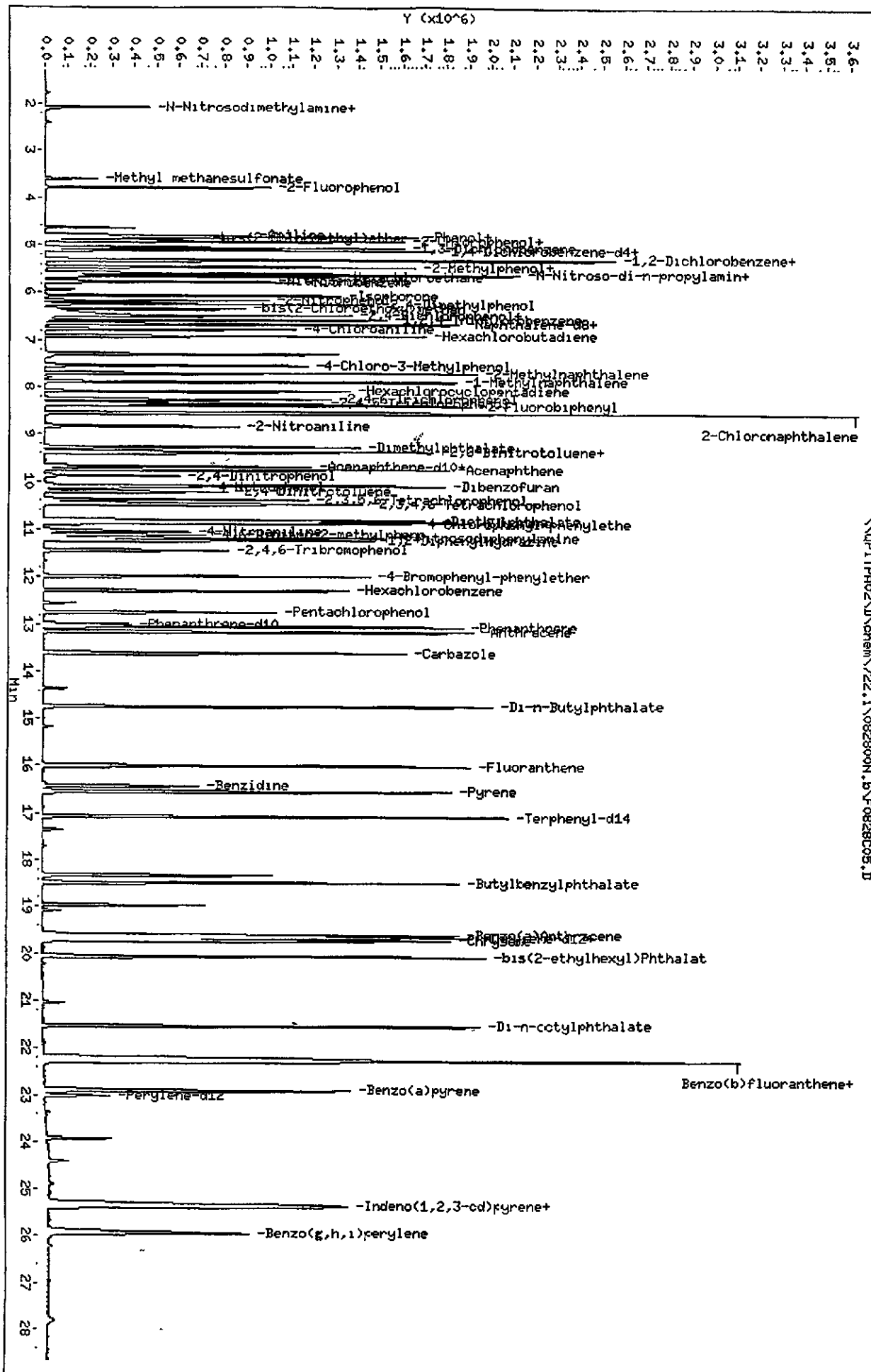
Volume Injected (uL): 2.0

Column phase: Hp5-MS

Instrument: 722.1

Operator: 007062

Column diameter: 0.25



671 941

STL - Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\722.i\082800N.b\F0828C05.D
Lab Smp Id: sstd160 Client Smp ID: SSTD160
Inj Date : 28-AUG-2000 21:29
Operator : 007062 Inst ID: 722.i
Smp Info : SSTD160 (80ppb) 194-188-7
Misc Info : sstd160,082800N.b,8270b.m,2-root.sub,1,5
Comment :
Method : \\QPITPA02\D\chem\722.i\082800N.b\8270b.m
Meth Date : 29-Aug-2000 05:28 bungardf Quant Type: ISTD
Cal Date : 28-AUG-2000 21:29 Cal File: F0828C05.D
Als bottle: 99 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-root.sub
Target Version: 4.04
Processing Host: PITPC083

Handwritten signature
8/29/00

Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (NG)	ON-COL (NG)
* 1 1,4-Dichlorobenzene-d4	152	5.093	5.093	(1.000)	78959	40.0000	
* 2 Naphthalene-d8	136	6.643	6.643	(1.000)	277615	40.0000	
* 3 Acenaphthene-d10	164	9.682	9.682	(1.000)	184260	40.0000	
* 4 Phenanthrene-d10	188	13.000	13.000	(1.000)	376004	40.0000	
* 5 Chrysene-d12	240	19.651	19.651	(1.000)	422810	40.0000	
* 6 Perylene-d12	264	23.011	23.011	(1.000)	260965	40.0000	
10 N-Nitrosodimethylamine	74	2.075	2.075	(0.407)	113999	160.000	152
9 Pyridine	79	2.059	2.059	(0.404)	188318	160.000	151
16 Methyl methanesulfonate	80	3.598	3.598	(0.706)	127348	160.000	160 (A)
21 Aniline	93	4.794	4.794	(0.941)	457377	160.000	167 (A)
22 Phenol	94	4.832	4.832	(0.949)	420517	160.000	156
23 bis(2-Chloroethyl)ether	93	4.864	4.864	(0.955)	345373	160.000	163 (A)
24 2-Chlorophenol	128	4.922	4.922	(0.966)	407945	160.000	164 (A)
26 1,3-Dichlorobenzene	146	5.056	5.056	(0.993)	488662	160.000	162 (A)
27 1,4-Dichlorobenzene	146	5.115	5.115	(1.004)	499086	160.000	160 (A)
28 1,2-Dichlorobenzene	146	5.323	5.323	(1.045)	461024	160.000	165 (A)
29 Benzyl Alcohol	108	5.296	5.296	(1.040)	278642	160.000	169 (A)
30 2-Methylphenol	108	5.467	5.467	(1.073)	337033	160.000	165 (A)
31 2,2'-oxybis(1-Chloropropane)	45	5.451	5.451	(1.070)	327757	160.000	161 (A)
32 N-Nitroso-di-n-propylamine	70	5.628	5.628	(1.105)	254362	160.000	170 (A)
192 4-Methylphenol	108	5.622	5.622	(1.104)	351319	160.000	168 (A)
34 Hexachloroethane	117	5.665	5.665	(1.112)	188746	160.000	162 (A)
35 Nitrobenzene	77	5.788	5.788	(0.871)	430141	160.000	164 (A)
41 Isophorone	82	6.066	6.066	(0.913)	674461	160.000	168 (A)
42 2-Nitrophenol	139	6.173	6.173	(0.929)	228362	160.000	168 (A)
43 2,4-Dimethylphenol	107	6.247	6.247	(0.940)	423440	160.000	169 (A)

Compounds	QUANT SIG				RESPONSE	AMOUNTS	
	MASS	RT	EXP RT	REL RT		CAL-AMT (NG)	ON-COL (NG)
=====	=====	==	=====	=====	=====	=====	=====
44 bis(2-Chloroethoxy)methane	93	6.349	6.349	(0.956)	393413	160.000	165 (A)
48 2,4-Dichlorophenol	162	6.493	6.493	(0.977)	341572	160.000	166 (A)
49 Benzoic Acid	122	6.472	6.472	(0.974)	248037	160.000	192 (A)
50 1,2,4-Trichlorobenzene	180	6.584	6.584	(0.991)	392027	160.000	162 (A)
51 Naphthalene	128	6.669	6.669	(1.004)	1208838	160.000	163 (A)
52 4-Chloroaniline	127	6.782	6.782	(1.021)	460103	160.000	168 (A)
56 Hexachlorobutadiene	225	6.920	6.920	(1.042)	264649	160.000	166 (A)
59 4-Chloro-3-Methylphenol	107	7.551	7.551	(1.137)	383686	160.000	170 (A)
62 2-Methylnaphthalene	142	7.711	7.711	(1.161)	863300	160.000	166 (A)
205 1-Methylnaphthalene	142	7.893	7.893	(1.188)	816309	160.000	168 (A)
64 Hexachlorocyclopentadiene	237	8.096	8.096	(0.836)	328236	160.000	167 (A)
66 2,4,6-Trichlorophenol	196	8.267	8.267	(0.854)	285442	160.000	166 (A)
67 2,4,5-Trichlorophenol	196	8.347	8.347	(0.862)	304678	160.000	165 (A)
70 2-Chloronaphthalene	162	8.566	8.566	(0.885)	875664	160.000	163 (A)
73 2-Nitroaniline	65	8.838	8.838	(0.913)	256038	160.000	168 (A)
76 Dimethylphthalate	163	9.276	9.276	(0.958)	1073086	160.000	164 (A)
78 2,6-Dinitrotoluene	165	9.405	9.405	(0.971)	236435	160.000	168 (A)
79 Acenaphthylene	152	9.372	9.372	(0.968)	1339169	160.000	161 (A)
81 3-Nitroaniline	138	9.682	9.682	(1.000)	259571	160.000	171 (A)
82 Acenaphthene	153	9.757	9.757	(1.008)	858999	160.000	164 (A)
83 2,4-Dinitrophenol	184	9.885	9.885	(1.021)	165768	160.000	204 (A)
85 4-Nitrophenol	109	10.131	10.131	(1.046)	247835	160.000	180 (A)
86 Dibenzofuran	168	10.094	10.094	(1.042)	1295648	160.000	163 (A)
87 2,4-Dinitrotoluene	165	10.222	10.222	(1.056)	351200	160.000	174 (A)
91 2,3,5,6-Tetrachlorophenol	232	10.382	10.382	(1.072)	288494	160.000	173 (A)
88 2,3,4,6-Tetrachlorophenol	232	10.484	10.484	(1.083)	274352	160.000	171 (A)
93 Diethylphthalate	149	10.809	10.809	(1.116)	1177280	160.000	169 (A)
94 Fluorene	166	10.847	10.847	(1.120)	1076986	160.000	166 (A)
95 4-Chlorophenyl-phenylether	204	10.884	10.884	(1.124)	523811	160.000	164 (A)
96 4-Nitroaniline	138	11.050	11.050	(1.141)	275140	160.000	174 (A)
98 4,6-Dinitro-2-methylphenol	198	11.125	11.125	(0.856)	231928	160.000	183 (A)
99 N-Nitrosodiphenylamine	169	11.183	11.183	(0.860)	792273	160.000	165 (A)
100 1,2-Diphenylhydrazine	77	11.237	11.237	(0.864)	1047815	160.000	161 (A)
106 4-Bromophenyl-phenylether	248	11.990	11.990	(0.922)	317451	160.000	163 (A)
107 Hexachlorobenzene	284	12.295	12.295	(0.946)	338672	160.000	162 (A)
111 Pentachlorophenol	266	12.754	12.754	(0.981)	226159	160.000	188 (A)
115 Phenanthrene	178	13.064	13.064	(1.005)	1683381	160.000	163 (A)
116 Anthracene	178	13.171	13.171	(1.013)	1686212	160.000	164 (A)
119 Carbazole	167	13.625	13.625	(1.048)	1577351	160.000	168 (A)
120 Di-n-Butylphthalate	149	14.747	14.747	(1.134)	2058050	160.000	169 (A)
123 Fluoranthene	202	16.007	16.007	(1.231)	1942189	160.000	168 (A)
124 Benzidine	184	16.429	16.429	(0.836)	636422	160.000	162 (A)
125 Pyrene	202	16.552	16.552	(0.842)	1891206	160.000	160
131 Butylbenzylphthalate	149	18.491	18.491	(0.941)	954656	160.000	168 (A)
135 3,3'-Dichlorobenzidine	252	19.667	19.667	(1.001)	780236	160.000	168 (A)
136 Benzo(a)Anthracene	228	19.613	19.613	(0.998)	1982423	160.000	164 (A)
137 Chrysene	228	19.726	19.726	(1.004)	1674864	160.000	161 (A)

671 943

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT	ON-COL
	(NG)	(NG)	(NG)	(NG)	(NG)	(NG)	(NG)
139 bis(2-ethylhexyl)Phthalate	149	20.062	20.062	(1.021)	1160656	160.000	161 (A)
140 Di-n-octylphthalate	149	21.536	21.536	(0.936)	1978421	160.000	162 (A)
141 Benzo(b)fluoranthene	252	22.215	22.215	(0.965)	2051224	160.000	186 (A)
142 Benzo(k)fluoranthene	252	22.284	22.284	(0.968)	1453379	160.000	142
143 7,12-dimethylbenz[a]anthracen	256	22.279	22.279	(0.968)	894721	160.000	178 (A)
146 Benzo(a)pyrene	252	22.909	22.909	(0.996)	1504455	160.000	171 (A)
149 Indeno(1,2,3-cd)pyrene	276	25.335	25.335	(1.101)	1744055	160.000	196 (A)
150 Dibenz(a,h)anthracene	278	25.388	25.388	(1.103)	1546375	160.000	203 (A)
151 Benzo(g,h,i)perylene	276	25.949	25.949	(1.128)	1415495	160.000	196 (A)
\$ 154 Nitrobenzene-d5	82	5.761	5.761	(0.867)	434435	160.000	166 (A)
\$ 155 2-Fluorobiphenyl	172	8.395	8.395	(0.867)	977185	160.000	161 (A)
\$ 156 Terphenyl-d14	244	17.081	17.081	(0.869)	1584356	160.000	165 (A)
\$ 157 Phenol-d5	99	4.821	4.821	(0.947)	444366	160.000	165 (A)
\$ 158 2-Fluorophenol	112	3.785	3.785	(0.743)	354516	160.000	163 (A)
\$ 159 2,4,6-Tribromophenol	330	11.440	11.440	(0.880)	155352	160.000	170 (A)
\$ 186 2-Chlorophenol-d4	132	4.906	4.906	(0.963)	382758	160.000	165 (A)
\$ 187 1,2-Dichlorobenzene-d4	152	5.307	5.307	(1.042)	307497	160.000	168 (A)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

671 944

Lab Name: STL PITTSBURGH

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.: _

Instrument ID: 722

Calibration Date: 09/01/00 Time: 0744

Lab File ID: F09010C1

Init. Calib. Date(s): 08/28/00 08/28/00

Init. Calib. Times: 1916 2129

GC Column: HP5-MS ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Phenol	1.364	1.406	0.01	3.1	20.0
bis(2-Chloroethyl) ether	1.075	1.070	0.01	0.5	50.0
2-Chlorophenol	1.258	1.264	0.01	0.5	50.0
1,3-Dichlorobenzene	1.524	1.491	0.01	2.2	50.0
1,4-Dichlorobenzene	1.576	1.522	0.01	3.4	20.0
1,2-Dichlorobenzene	1.412	1.419	0.01	0.5	50.0
2-Methylphenol	1.034	1.080	0.01	4.4	50.0
2,2'-oxybis(1-Chloropropane)	1.028	1.041	0.01	1.3	50.0
4-Methylphenol	1.058	1.122	0.01	6.0	50.0
Hexachloroethane	0.591	0.607	0.01	2.7	50.0
Nitrobenzene	0.377	0.361	0.01	4.2	50.0
Isophorone	0.580	0.553	0.01	4.6	50.0
2-Nitrophenol	0.196	0.192	0.01	2.0	20.0
2,4-Dimethylphenol	0.361	0.340	0.01	5.8	50.0
bis(2-Chloroethoxy)methane	0.343	0.334	0.01	2.6	50.0
N-Nitroso-di-n-propylamine	0.757	0.804	0.05	6.2	50.0
2,4-Dichlorophenol	0.296	0.289	0.01	2.4	20.0
1,2,4-Trichlorobenzene	0.347	0.334	0.01	3.7	50.0
Naphthalene	1.069	1.036	0.01	3.1	50.0
4-Chloroaniline	0.395	0.389	0.01	1.5	50.0
Hexachlorobutadiene	0.229	0.220	0.01	3.9	20.0
4-Chloro-3-Methylphenol	0.325	0.300	0.01	7.7	20.0
2-Methylnaphthalene	0.750	0.702	0.01	6.4	50.0
Hexachlorocyclopentadiene	0.426	0.427	0.05	0.2	50.0
2,4,6-Trichlorophenol	0.374	0.364	0.01	2.7	20.0
2,4,5-Trichlorophenol	0.400	0.383	0.01	4.2	50.0
2-Chloronaphthalene	1.166	1.152	0.01	1.2	50.0
2-Nitroaniline	0.330	0.307	0.01	7.0	50.0
Dimethylphthalate	1.416	1.296	0.01	8.5	50.0
Acenaphthylene	1.801	1.740	0.01	3.4	50.0
2,6-Dinitrotoluene	0.305	0.281	0.01	7.9	50.0
3-Nitroaniline	0.330	0.295	0.01	10.6	50.0
Acenaphthene	1.135	1.086	0.01	4.3	20.0
2,4-Dinitrophenol	0.176	0.160	0.05	9.1	50.0
4-Nitrophenol	0.298	0.242	0.05	18.8	50.0
Dibenzofuran	1.726	1.613	0.01	6.5	50.0
2,4-Dinitrotoluene	0.439	0.380	0.01	13.4	50.0

Lab Name: STL PITTSBURGH

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.: _

Instrument ID: 722

Calibration Date: 09/01/00 Time: 0744

Lab File ID: F09010C1

Init. Calib. Date(s): 08/28/00 08/28/00

Init. Calib. Times: 1916

2129

GC Column: HP5-MS ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Diethylphthalate	1.513	1.324	0.01	12.5	50.0
4-Chlorophenyl-phenylether	0.694	0.646	0.01	6.9	50.0
Fluorene	1.406	1.288	0.01	8.4	50.0
4-Nitroaniline	0.343	0.285	0.01	16.9	50.0
4,6-Dinitro-2-methylphenol	0.135	0.127	0.01	5.9	50.0
N-Nitrosodiphenylamine	0.510	0.510	0.01	0.0	20.0
4-Bromophenyl-phenylether	0.207	0.206	0.01	0.5	50.0
Hexachlorobenzene	0.222	0.215	0.01	3.2	50.0
Pentachlorophenol	0.128	0.114	0.05	10.9	20.0
Phenanthrene	1.100	1.026	0.01	6.7	50.0
Anthracene	1.092	1.034	0.01	5.3	50.0
Carbazole	1.000	0.892	0.01	10.8	50.0
Di-n-Butylphthalate	1.293	1.156	0.01	10.6	50.0
Fluoranthene	1.229	1.037	0.01	15.6	20.0
Pyrene	1.118	1.263	0.01	13.0	50.0
Butylbenzylphthalate	0.539	0.563	0.01	4.4	50.0
3,3'-Dichlorobenzidine	0.439	0.424	0.01	3.4	50.0
Benzo(a)Anthracene	1.142	1.092	0.01	4.4	50.0
Chrysene	0.984	0.928	0.01	5.7	50.0
bis(2-ethylhexyl)Phthalate	0.681	0.644	0.01	5.4	50.0
Di-n-octylphthalate	1.868	1.705	0.01	8.7	20.0
Benzo(b)fluoranthene	1.689	1.337	0.01	20.8	50.0
Benzo(k)fluoranthene	1.567	1.382	0.01	11.8	50.0
Benzo(a)pyrene	1.350	1.152	0.01	14.7	20.0
Indeno(1,2,3-cd)pyrene	1.363	1.258	0.01	7.7	50.0
Dibenz(a,h)anthracene	1.169	1.108	0.01	5.2	50.0
Benzo(g,h,i)perylene	1.109	1.062	0.01	4.2	50.0
Pyridine	0.633	0.543	0.01	14.2	50.0
N-Nitrosodimethylamine	0.381	0.338	0.01	11.3	50.0
Aniline	1.390	1.376	0.01	1.0	50.0
Benzyl Alcohol	0.834	0.814	0.01	2.4	50.0
Benzoic Acid	0.186	0.171	0.01	8.1	50.0
2,3,4,6-Tetrachlorophenol	0.349	0.306	0.01	12.3	50.0
2,3,5,6-Tetrachlorophenol	0.362	0.314	0.01	13.2	50.0
1,2-Diphenylhydrazine	0.691	0.712	0.01	3.0	50.0
Benzidine	0.371	0.388	0.01	4.6	50.0
Methyl methanesulfonate	0.402	0.347	0.01	13.7	50.0

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

671 946

Lab Name: STL PITTSBURGH

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.: _

Instrument ID: 722

Calibration Date: 09/01/00 Time: 0744

Lab File ID: F09010C1

Init. Calib. Date(s): 08/28/00 08/28/00

Init. Calib. Times: 1916

2129

GC Column: HP5-MS

ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
7,12-dimethylbenz[a]anthracene	0.771	0.645	0.01	16.3	50.0
1-Methylnaphthalene	0.701	0.643	0.01	8.3	50.0
Nitrobenzene-d5	0.376	0.355	0.01	5.6	50.0
2-Fluorobiphenyl	1.317	1.286	0.01	2.4	50.0
Terphenyl-d14	0.906	1.005	0.01	10.9	50.0
Phenol-d5	1.356	1.334	0.01	1.6	50.0
2-Fluorophenol	1.104	0.985	0.01	10.8	50.0
2,4,6-Tribromophenol	0.097	0.095	0.01	2.1	50.0
2-Chlorophenol-d4	1.177	1.158	0.01	1.6	50.0
1,2-Dichlorobenzene-d4	0.927	0.903	0.01	2.6	50.0

671 947

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: 722.i
Lab File ID: F09010C1.D
Analysis Type: NONE

Injection Date: 01-SEP-2000 07:44
Lab Sample ID: sstd050
Method File: \\QPITPA02\D\chem\722.i\090100.b\

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
66 Pyridine	50.0000	42.8354	14.3	50.0
67 N-Nitrosodimethylamine	50.0000	44.3648	11.3	50.0
87 Methyl methanesulfonate	50.0000	43.1187	13.8	50.0
185 2-Fluorophenol	50.0000	44.6366	10.7	50.0
68 Aniline	50.0000	49.4973	1.0	50.0
184 Phenol-d5	50.0000	49.1770	1.6	50.0
1 Phenol	50.0000	51.5393	3.1	20.0
2 bis(2-Chloroethyl)ether	50.0000	49.7783	0.4	50.0
187 2-Chlorophenol-d4	50.0000	49.1978	1.6	50.0
3 2-Chlorophenol	50.0000	50.2620	0.5	50.0
4 1,3-Dichlorobenzene	50.0000	48.9177	2.2	50.0
11 1,4-Dichlorobenzene-d4	40.0000	40.0000	0.0	50.0
5 1,4-Dichlorobenzene	50.0000	48.2800	3.4	20.0
69 Benzyl Alcohol	50.0000	48.8006	2.4	50.0
188 1,2-Dichlorobenzene-d4	50.0000	48.7581	2.5	50.0
6 1,2-Dichlorobenzene	50.0000	50.2600	0.5	50.0
7 2-Methylphenol	50.0000	52.2632	4.5	50.0
8 2,2'-oxybis(1-Chloropropane)	50.0000	50.6287	1.3	50.0
9 4-Methylphenol	50.0000	52.9931	6.0	50.0
18 N-Nitroso-di-n-propylamine	50.0000	53.0684	6.1	50.0
12 Hexachloroethane	50.0000	51.3653	2.7	50.0
181 Nitrobenzene-d5	50.0000	47.1651	5.7	50.0
13 Nitrobenzene	50.0000	47.8807	4.2	50.0
14 Isophorone	50.0000	47.6718	4.7	50.0
15 2-Nitrophenol	50.0000	49.0354	1.9	20.0
16 2,4-Dimethylphenol	50.0000	47.0422	5.9	50.0
17 bis(2-Chloroethoxy)methane	50.0000	48.7336	2.5	50.0
71 Benzoic Acid	50.0000	45.7247	8.6	50.0
18 2,4-Dichlorophenol	50.0000	48.7220	2.6	20.0
19 1,2,4-Trichlorobenzene	50.0000	48.0594	3.9	50.0
32 Naphthalene-d8	40.0000	40.0000	0.0	50.0
20 Naphthalene	50.0000	48.4254	3.1	50.0
21 4-Chloroaniline	50.0000	49.1881	1.6	50.0
22 Hexachlorobutadiene	50.0000	47.9628	4.1	20.0
23 4-Chloro-3-Methylphenol	50.0000	46.1978	7.6	20.0
24 2-Methylnaphthalene	50.0000	46.7416	6.5	50.0
205 1-Methylnaphthalene	50.0000	45.8908	8.2	50.0
25 Hexachlorocyclopentadiene	50.0000	50.1118	0.2	50.0
26 2,4,6-Trichlorophenol	50.0000	48.7669	2.5	20.0

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: 722.i
Lab File ID: F09010C1.D
Analysis Type: NONE

Injection Date: 01-SEP-2000 07:44
Lab Sample ID: sstd050
Method File: \\QPITPA02\D\chem\722.i\090100.b\

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
27 2,4,5-Trichlorophenol	50.0000	47.8746	4.3	50.0
182 2-Fluorobiphenyl	50.0000	48.8416	2.3	50.0
28 2-Chloronaphthalene	50.0000	49.3719	1.3	50.0
29 2-Nitroaniline	50.0000	46.5730	6.9	50.0
30 Dimethylphthalate	50.0000	45.7519	8.5	50.0
31 Acenaphthylene	50.0000	48.3033	3.4	50.0
32 2,6-Dinitrotoluene	50.0000	46.0262	7.9	50.0
33 3-Nitroaniline	50.0000	44.7177	10.6	50.0
52 Acenaphthene-d10	40.0000	40.0000	0.0	50.0
34 Acenaphthene	50.0000	47.8111	4.4	20.0
35 2,4-Dinitrophenol	50.0000	45.5156	9.0	50.0
37 Dibenzofuran	50.0000	46.7238	6.6	50.0
36 4-Nitrophenol	50.0000	40.6655	18.7	50.0
38 2,4-Dinitrotoluene	50.0000	43.2395	13.5	50.0
77 2,3,5,6-Tetrachlorophenol	50.0000	43.4638	13.1	50.0
76 2,3,4,6-Tetrachlorophenol	50.0000	43.8794	12.2	50.0
39 Diethylphthalate	50.0000	43.7349	12.5	50.0
41 Fluorene	50.0000	45.7744	8.5	50.0
40 4-Chlorophenyl-phenylether	50.0000	46.5444	6.9	50.0
42 4-Nitroaniline	50.0000	41.4843	17.0	50.0
43 4,6-Dinitro-2-methylphenol	50.0000	47.0407	5.9	50.0
44 N-Nitrosodiphenylamine	50.0000	50.0200	0.0	20.0
78 1,2-Diphenylhydrazine	50.0000	51.5099	3.0	50.0
186 2,4,6-Tribromophenol	50.0000	49.0766	1.8	50.0
45 4-Bromophenyl-phenylether	50.0000	49.8134	0.4	50.0
46 Hexachlorobenzene	50.0000	48.4222	3.2	50.0
47 Pentachlorophenol	50.0000	44.7088	10.6	20.0
78 Phenanthrene-d10	40.0000	40.0000	0.0	50.0
48 Phenanthrene	50.0000	46.6572	6.7	50.0
49 Anthracene	50.0000	47.3452	5.3	50.0
50 Carbazole	50.0000	44.5707	10.9	50.0
51 Di-n-Butylphthalate	50.0000	44.7214	10.6	50.0
52 Fluoranthene	50.0000	42.1864	15.6	20.0
79 Benzidine	50.0000	52.3592	4.7	50.0
53 Pyrene	50.0000	56.4513	12.9	50.0
183 Terphenyl-d14	50.0000	55.4898	11.0	50.0
54 Butylbenzylphthalate	50.0000	52.2121	4.4	50.0
56 Benzo(a)Anthracene	50.0000	47.8204	4.4	50.0
90 Chrysene-d12	40.0000	40.0000	0.0	50.0

671 949

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

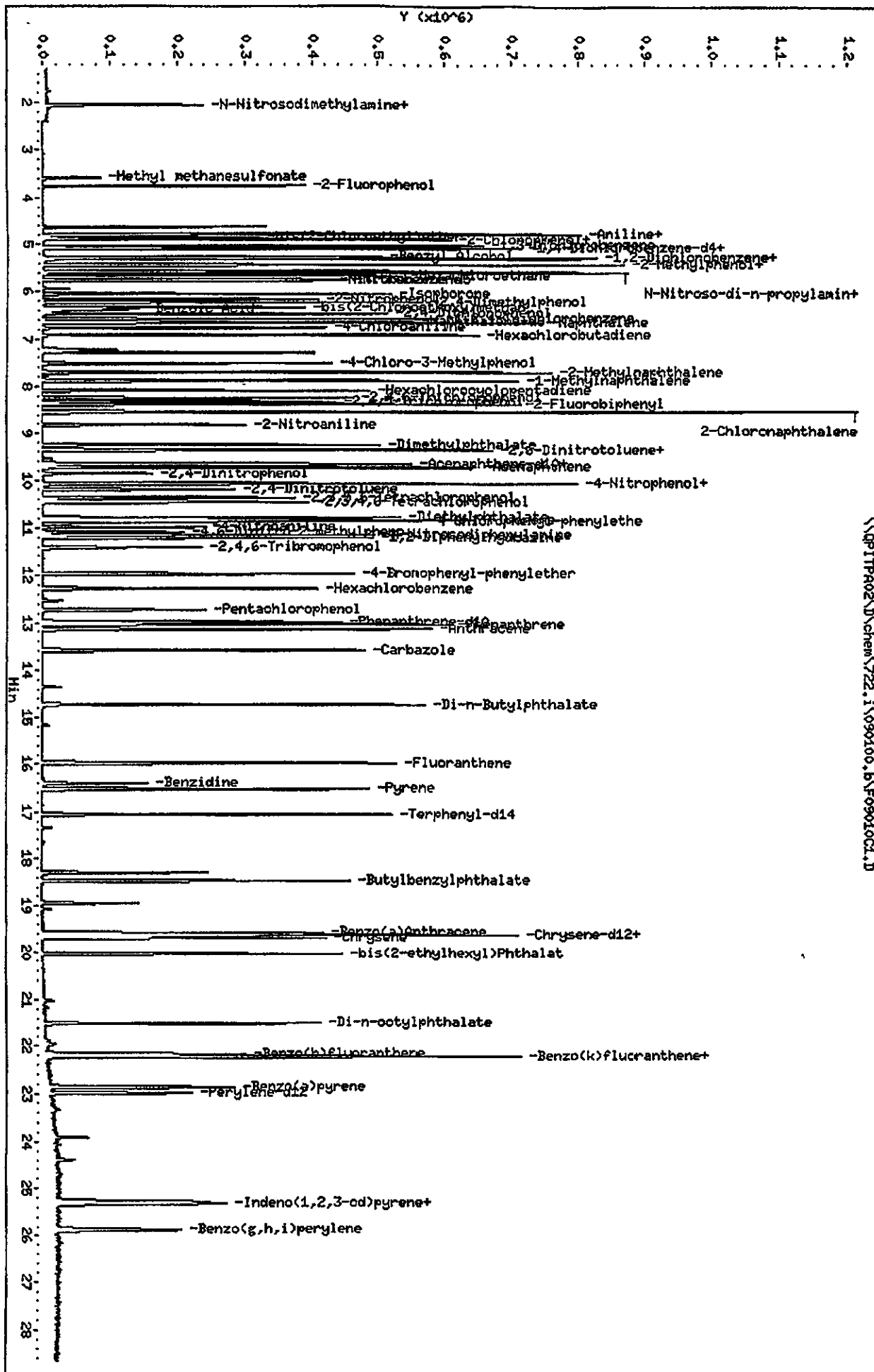
Instrument ID: 722.i
Lab File ID: F09010C1.D
Analysis Type: NONE

Injection Date: 01-SEP-2000 07:44
Lab Sample ID: sstd050
Method File: \\QPITPA02\D\chem\722.i\090100.b\

	EXPECTED	MEASURED		MAX
COMPOUND	CONC.	CONC.	%D	%D
-----	-----	-----	-----	-----
55 3,3'-Dichlorobenzidine	50.0000	48.2459	3.5	50.0
57 Chrysene	50.0000	47.1732	5.7	50.0
58 bis(2-ethylhexyl)Phthalate	50.0000	47.3334	5.3	50.0
59 Di-n-octylphthalate	50.0000	45.6262	8.7	20.0
60 Benzo(b)fluoranthene	50.0000	39.5796	20.8	50.0
61 Benzo(k)fluoranthene	50.0000	44.1020	11.8	50.0
143 7,12-dimethylbenz[a]anthracen	50.0000	41.8301	16.3	50.0
62 Benzo(a)pyrene	50.0000	42.6763	14.6	20.0
101 Perylene-d12	40.0000	40.0000	0.0	50.0
63 Indeno(1,2,3-cd)pyrene	50.0000	46.1420	7.7	50.0
64 Dibenz(a,h)anthracene	50.0000	47.4002	5.2	50.0
65 Benzo(g,h,i)perylene	50.0000	47.8815	4.2	50.0

Data File: \\QPITPA02\chem\722.1\090100.b\F0901001.D
 Date: 01-SEP-2000 07:44
 Client ID:
 Sample Info: STD050 (28ppb) 194-183-14
 Volume injected (uL): 2.0
 Column phase: HP5-MS

Instrument: 722.1
 Operator: 007062
 Column diameter: 0.25



671 951

STL - Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\722.i\090100.b\F09010C1.D
Lab Smp Id: sstd050 Client Smp ID: SSTD050
Inj Date : 01-SEP-2000 07:44
Operator : 007062 Inst ID: 722.i
Smp Info : SSTD050 (25ppb) 194-183-14
Misc Info : sstd050,090100.b,8270b.m,2-root.sub,2,2
Comment :
Method : \\QPITPA02\D\chem\722.i\090100.b\8270b.m
Meth Date : 01-Sep-2000 08:19 bungardf Quant Type: ISTD
Cal Date : 28-AUG-2000 21:29 Cal File: F0828C05.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-root.sub
Target Version: 4.04
Processing Host: PITPC083

Handwritten: 9/11/00

Compounds	QUANT SIG				RESPONSE	AMOUNTS	
	MASS	RT	EXP RT	REL RT		CAL-AMT (NG)	ON-COL (NG)
*****	----	--	-----	-----	-----	-----	-----
* 1 1,4-Dichlorobenzene-d4	152	5.083	5.083	(1.000)	99430	40.0000	
* 2 Naphthalene-d8	136	6.627	6.627	(1.000)	376269	40.0000	
* 3 Acenaphthene-d10	164	9.666	9.666	(1.000)	223263	40.0000	
* 4 Phenanthrene-d10	188	12.984	12.984	(1.000)	389517	40.0000	
* 5 Chrysene-d12	240	19.624	19.624	(1.000)	304295	40.0000	
* 6 Perylene-d12	264	22.990	22.990	(1.000)	183114	40.0000	
10 N-Nitrosodimethylamine	74	2.048	2.048	(0.403)	41974	50.0000	44.4
9 Pyridine	79	2.043	2.043	(0.402)	67449	50.0000	42.8
16 Methyl methanesulfonate	80	3.582	3.582	(0.705)	43104	50.0000	43.1
21 Aniline	93	4.778	4.778	(0.940)	171009	50.0000	49.5
22 Phenol	94	4.800	4.800	(0.944)	174809	50.0000	51.5
23 bis(2-Chloroethyl)ether	93	4.848	4.848	(0.954)	133018	50.0000	49.8
24 2-Chlorophenol	128	4.901	4.901	(0.964)	157152	50.0000	50.3
26 1,3-Dichlorobenzene	146	5.040	5.040	(0.992)	185289	50.0000	48.9
27 1,4-Dichlorobenzene	146	5.099	5.099	(1.003)	189149	50.0000	48.3
28 1,2-Dichlorobenzene	146	5.307	5.307	(1.044)	176421	50.0000	50.2
29 Benzyl Alcohol	108	5.270	5.270	(1.037)	101240	50.0000	48.8
30 2-Methylphenol	108	5.430	5.430	(1.068)	134303	50.0000	52.3
31 2,2'-oxybis(1-Chloropropane)	45	5.441	5.441	(1.070)	129397	50.0000	50.6
32 N-Nitroso-di-n-propylamine	70	5.601	5.601	(1.102)	99902	50.0000	53.1
192 4-Methylphenol	108	5.590	5.590	(1.100)	139463	50.0000	53.0
34 Hexachloroethane	117	5.654	5.654	(1.112)	75478	50.0000	51.4
35 Nitrobenzene	77	5.766	5.766	(0.870)	169767	50.0000	47.9
41 Isophorone	82	6.044	6.044	(0.912)	260163	50.0000	47.7
42 2-Nitrophenol	139	6.156	6.156	(0.929)	90559	50.0000	49.0
43 2,4-Dimethylphenol	107	6.221	6.221	(0.939)	159811	50.0000	47.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (NG)	ON-COL (NG)
44 bis(2-Chloroethoxy)methane	93	6.327	6.327	(0.955)	157312	50.0000	48.7
48 2,4-Dichlorophenol	162	6.466	6.466	(0.976)	135801	50.0000	48.7
49 Benzoic Acid	122	6.381	6.381	(0.963)	80263	50.0000	45.7
50 1,2,4-Trichlorobenzene	180	6.573	6.573	(0.992)	157136	50.0000	48.0
51 Naphthalene	128	6.653	6.653	(1.004)	487175	50.0000	48.4
52 4-Chloroaniline	127	6.765	6.765	(1.021)	182795	50.0000	49.2
56 Hexachlorobutadiene	225	6.910	6.910	(1.043)	103631	50.0000	48.0
59 4-Chloro-3-Methylphenol	107	7.513	7.513	(1.134)	141253	50.0000	46.2
62 2-Methylnaphthalene	142	7.695	7.695	(1.161)	330007	50.0000	46.7
205 1-Methylnaphthalene	142	7.877	7.877	(1.189)	302437	50.0000	45.9
64 Hexachlorocyclopentadiene	237	8.085	8.085	(0.836)	119224	50.0000	50.1
66 2,4,6-Trichlorophenol	196	8.240	8.240	(0.852)	101707	50.0000	48.8
67 2,4,5-Trichlorophenol	196	8.315	8.315	(0.860)	106970	50.0000	47.9
70 2-Chloronaphthalene	162	8.544	8.544	(0.884)	321392	50.0000	49.4
73 2-Nitroaniline	65	8.812	8.812	(0.912)	85778	50.0000	46.6
76 Dimethylphthalate	163	9.244	9.244	(0.956)	361557	50.0000	45.8
78 2,6-Dinitrotoluene	165	9.372	9.372	(0.970)	78345	50.0000	46.0
79 Acenaphthylene	152	9.351	9.351	(0.967)	485575	50.0000	48.3
81 3-Nitroaniline	138	9.645	9.645	(0.998)	82387	50.0000	44.7
82 Acenaphthene	153	9.730	9.730	(1.007)	302979	50.0000	47.8
83 2,4-Dinitrophenol	184	9.859	9.859	(1.020)	44752	50.0000	45.5
85 4-Nitrophenol	109	10.072	10.072	(1.042)	67686	50.0000	40.7
86 Dibenzofuran	168	10.067	10.067	(1.041)	450275	50.0000	46.7
87 2,4-Dinitrotoluene	165	10.190	10.190	(1.054)	105943	50.0000	43.2
91 2,3,5,6-Tetrachlorophenol	232	10.355	10.355	(1.071)	87785	50.0000	43.5
88 2,3,4,6-Tetrachlorophenol	232	10.452	10.452	(1.081)	85419	50.0000	43.9
93 Diethylphthalate	149	10.777	10.777	(1.115)	369463	50.0000	43.7
94 Fluorene	166	10.820	10.820	(1.119)	359314	50.0000	45.8
95 4-Chlorophenyl-phenylether	204	10.858	10.858	(1.123)	180379	50.0000	46.5
96 4-Nitroaniline	138	10.986	10.986	(1.136)	79458	50.0000	41.5
98 4,6-Dinitro-2-methylphenol	198	11.082	11.082	(0.854)	61733	50.0000	47.0
99 N-Nitrosodiphenylamine	169	11.151	11.151	(0.859)	248179	50.0000	50.0
100 1,2-Diphenylhydrazine	77	11.210	11.210	(0.863)	346761	50.0000	51.5
106 4-Bromophenyl-phenylether	248	11.969	11.969	(0.922)	100286	50.0000	49.8
107 Hexachlorobenzene	284	12.268	12.268	(0.945)	104681	50.0000	48.4
111 Pentachlorophenol	266	12.722	12.722	(0.980)	55789	50.0000	44.7
115 Phenanthrene	178	13.032	13.032	(1.004)	499694	50.0000	46.6
116 Anthracene	178	13.144	13.144	(1.012)	503501	50.0000	47.3
119 Carbazole	167	13.587	13.587	(1.046)	434164	50.0000	44.6
120 Di-n-Butylphthalate	149	14.720	14.720	(1.134)	562900	50.0000	44.7
123 Fluoranthene	202	15.981	15.981	(1.231)	504838	50.0000	42.2
124 Benzidine	184	16.403	16.403	(0.836)	147811	50.0000	52.4
125 Pyrene	202	16.520	16.520	(0.842)	480354	50.0000	56.4
131 Butylbenzylphthalate	149	18.465	18.465	(0.941)	214007	50.0000	52.2
135 3,3'-Dichlorobenzidine	252	19.635	19.635	(1.001)	161277	50.0000	48.2
136 Benzo(a)Anthracene	228	19.587	19.587	(0.998)	415324	50.0000	47.8
137 Chrysene	228	19.688	19.688	(1.003)	353061	50.0000	47.2

671 953

Compounds	QUANT SIG	AMOUNTS					
		MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (NG)
-----	----	--	-----	-----	-----	-----	-----
139 bis(2-ethylhexyl)Phthalate	149	20.041	20.041	(1.021)	245089	50.0000	47.3
140 Di-n-octylphthalate	149	21.504	21.504	(0.935)	390274	50.0000	45.6
141 Benzo(b)fluoranthene	252	22.172	22.172	(0.964)	306108	50.0000	39.6
142 Benzo(k)fluoranthene	252	22.226	22.226	(0.967)	316306	50.0000	44.1
143 7,12-dimethylbenz[a]anthracen	256	22.226	22.226	(0.967)	147703	50.0000	41.8
146 Benzo(a)pyrene	252	22.867	22.867	(0.995)	263703	50.0000	42.7
149 Indeno(1,2,3-cd)pyrene	276	25.276	25.276	(1.099)	287864	50.0000	46.1
150 Dibenz(a,h)anthracene	278	25.324	25.324	(1.102)	253749	50.0000	47.4
151 Benzo(g,h,i)perylene	276	25.880	25.880	(1.126)	243016	50.0000	47.9
\$ 154 Nitrobenzene-d5	82	5.745	5.745	(0.867)	166885	50.0000	47.2
\$ 155 2-Fluorobiphenyl	172	8.373	8.373	(0.866)	358935	50.0000	48.8
\$ 156 Terphenyl-d14	244	17.049	17.049	(0.869)	382440	50.0000	55.5
\$ 157 Phenol-d5	99	4.789	4.789	(0.942)	165768	50.0000	49.2
\$ 158 2-Fluorophenol	112	3.758	3.758	(0.739)	122469	50.0000	44.6
\$ 159 2,4,6-Tribromophenol	330	11.413	11.413	(0.879)	46341	50.0000	49.1
\$ 186 2-Chlorophenol-d4	132	4.885	4.885	(0.961)	143987	50.0000	49.2
\$ 187 1,2-Dichlorobenzene-d4	152	5.291	5.291	(1.041)	112286	50.0000	48.8

**GC/MS SEMIVOLATILE
QC DATA**

Date : 28-AUG-2000 18:40

Client ID: DFTPP02

Instrument: 722.1

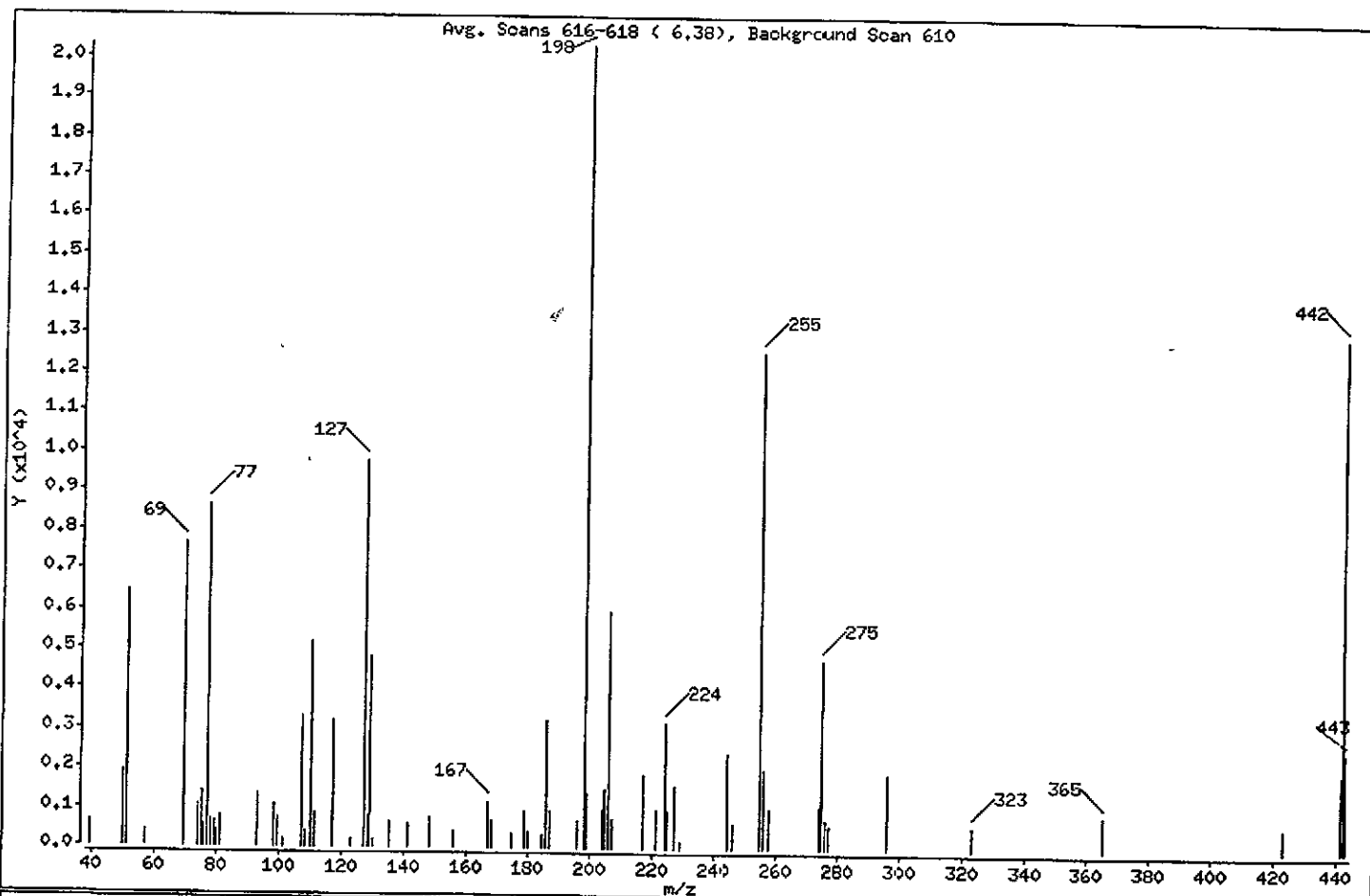
Sample Info: DFTPP050 (25ppb) 194-175-8

Operator: 007062

Column phase:

Column diameter: 2.00

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	31.64
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	37.71
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	48.10
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.94
275	10.00 - 30.00% of mass 198	23.39
365	Greater than 1.00% of mass 198	4.27
441	Present, but less than mass 443	9.77
442	40.00 - 100.00% of mass 198	64.20
443	17.00 - 23.00% of mass 442	12.47 (19.42)

Date : 28-AUG-2000 18:40

Client ID: DFTPP02

Instrument: 722.1

671 956

Sample Info: DFTPP050 (25ppb) 194-175-8

Operator: 007062

Column phase:

Column diameter: 2.00

Data File: F0828DF2.D

Spectrum: Avg. Scans 616-618 (6.38), Background Scan 610

Location of Maximum: 198.00

Number of points: 68

m/z	Y	m/z	Y	m/z	Y	m/z	Y
39.00	676	108.00	397	185.00	338	255.00	12552
50.00	1900	110.00	5184	186.00	3242	256.00	1986
51.00	6429	111.00	874	187.00	922	258.00	1027
57.00	397	117.00	3236	196.00	718	274.00	1057
69.00	7661	123.00	192	198.00	20312	275.00	4753
74.00	1065	127.00	9773	199.00	1409	276.00	725
75.00	1420	128.00	811	204.00	994	277.00	589
76.00	565	129.00	4821	205.00	1473	296.00	1925
77.00	8650	130.00	175	206.00	5983	323.00	606
78.00	709	135.00	648	207.00	761	365.00	868
79.00	655	141.00	627	217.00	1876	423.00	626
80.00	407	148.00	753	221.00	1003	441.00	1984
81.00	816	156.00	416	224.00	3168	442.00	13044
93.00	1362	167.00	1152	225.00	979	443.00	2533
98.00	1060	168.00	719	227.00	1569		
99.00	727	175.00	381	229.00	173		
101.00	176	179.00	940	244.00	2443		
107.00	3311	180.00	426	246.00	659		

Data File: \NPI\TPA02\chem\722.1\082800N.b\F0828DF2.D
Date : 28-AUG-2000 18:40

Client ID: DFTPP02

Sample Info: DFTPP050 (25ppb) 194-175-8

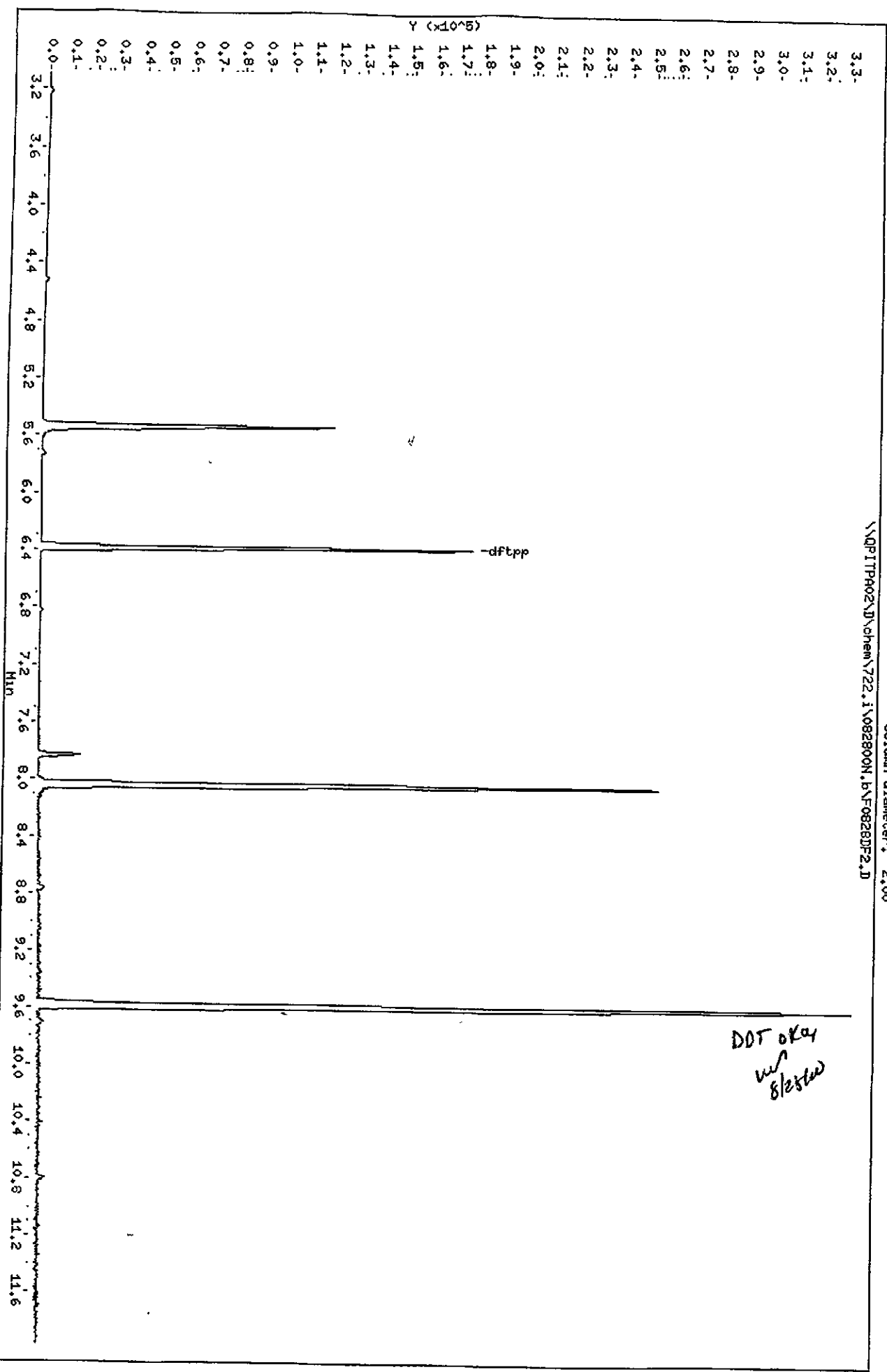
Instrument: 722.1

Column phase:

Operator: 007062

Column diameter: 2.00

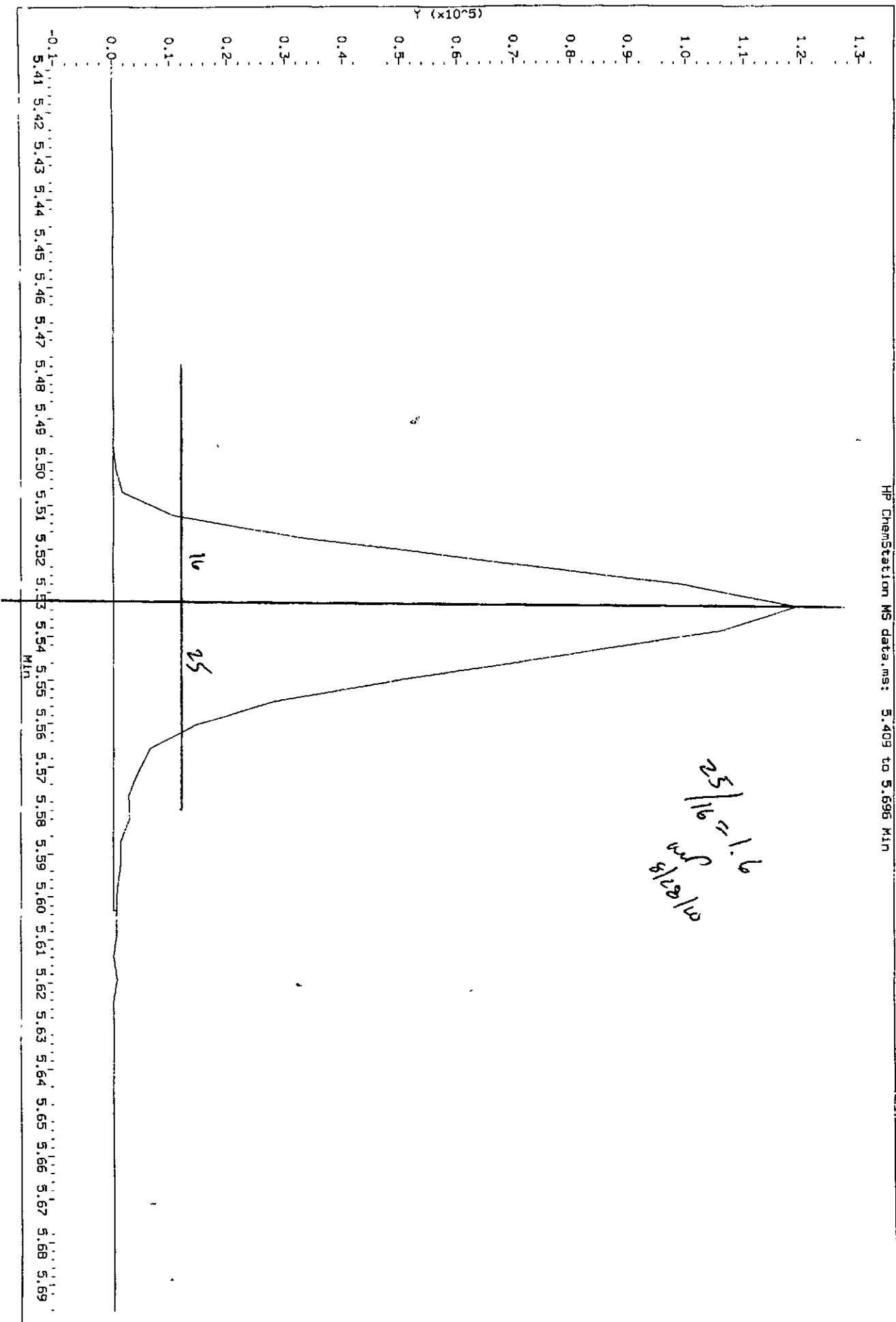
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556 129

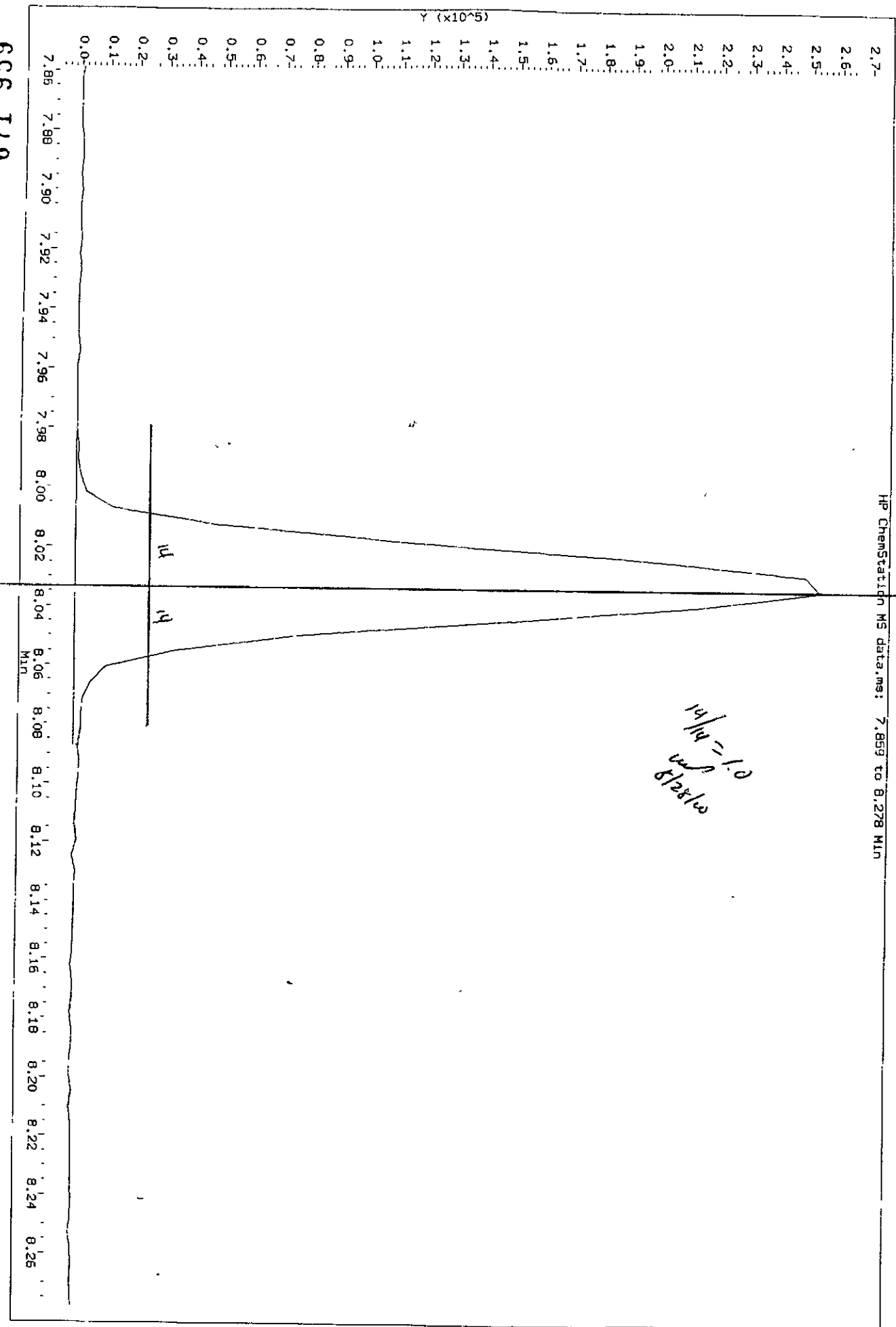
671 958

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Injection Date: 28-AUG-2000 18:40
Instrument: 722.1
Client Sample ID: DFTPF02



Data File: \\NPITPA02\1\chem\722.1\082800N.b\F0828DF2.D
 Injection Date: 28-AUG-2000 18:40
 Instrument: 722.1
 Client Sample ID: DFTPP02

HP ChemStation MS data.ms: 7.859 to 8.278 MIN



656 129

Data File: \\QPITPA02\chem\722.i\090100.b\F0901DF1.D

Date : 01-SEP-2000 06:50

Client ID: DFTPP02

Instrument: 722.1

671 960

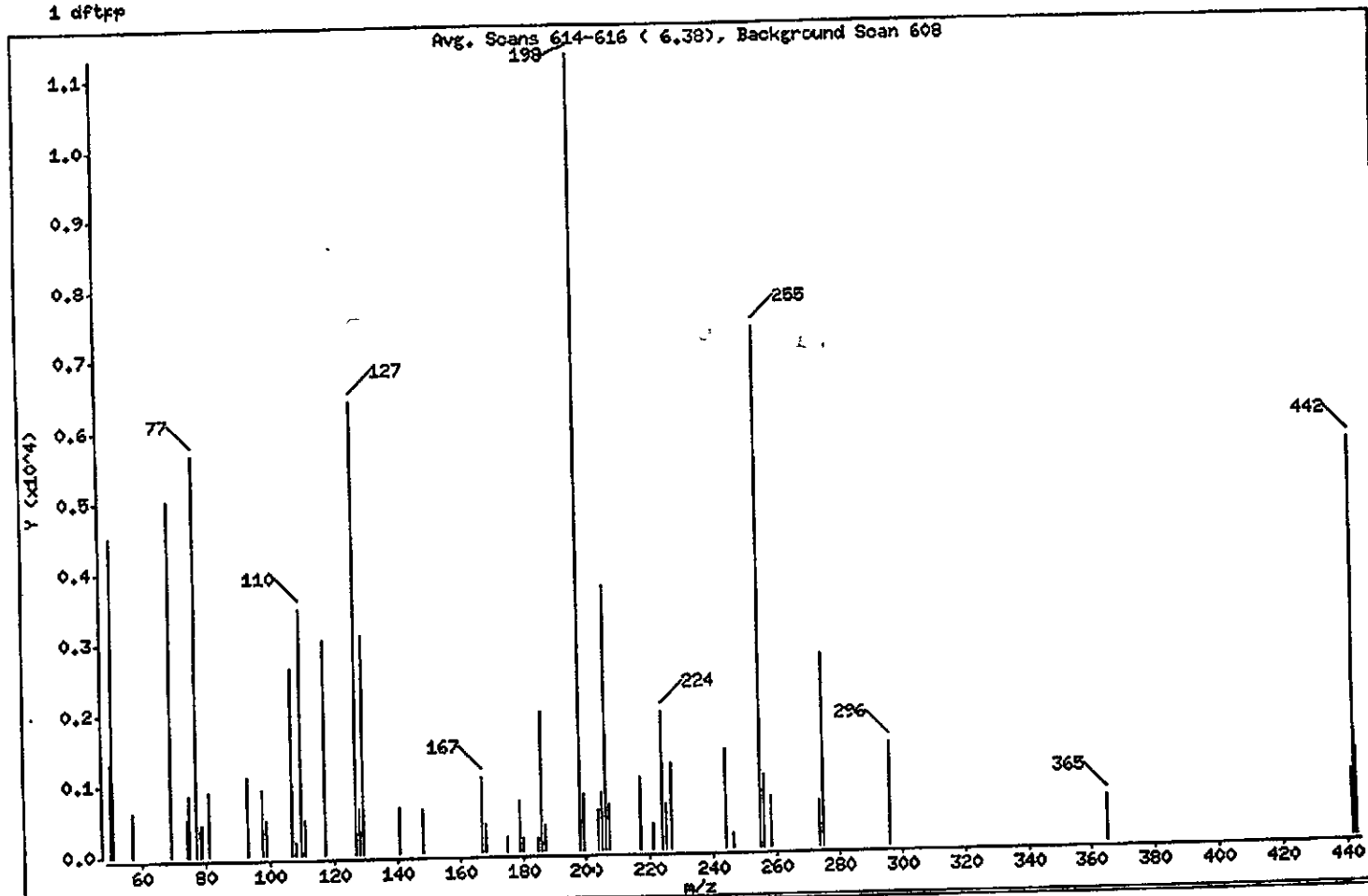
Sample Info: DFTPP050 (25ppb) 194-175-8

Operator: 007062

Column phase:

Column diameter: 2.00

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
81	30.00 - 60.00% of mass 198	40.01
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	44.62
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	56.80
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.12
278	10.00 - 30.00% of mass 198	24.17
365	Greater than 1.00% of mass 198	5.79
441	Present, but less than mass 443	8.18
442	40.00 - 100.00% of mass 198	49.78
443	17.00 - 23.00% of mass 442	10.92 (21.93)

Date : 01-SEP-2000 06:50

Client ID: DFTPP02

Instrument: 722.i

Sample Info: DFTPP050 (25ppb) 194-175-8

Operator: 007062

Column phase:

Column diameter: 2.00

Data File: F0901DF1.D

Spectrum: Avg. Scans 614-616 (6.38), Background Scan 608

Location of Maximum: 198.00

Number of points: 54

m/z	Y	m/z	Y	m/z	Y	m/z	Y
50.00	1325	108.00	188	185.00	188	244.00	1393
51.00	4515	110.00	3465	186.00	1966	246.00	215
57.00	620	111.00	485	187.00	373	255.00	7370
69.00	5036	117.00	3026	198.00	11286	256.00	1045
74.00	521	127.00	6410	199.00	803	258.00	717
75.00	850	128.00	636	204.00	558	274.00	652
77.00	5646	129.00	3076	205.00	830	275.00	2728
78.00	387	141.00	637	206.00	3727	296.00	1461
79.00	450	148.00	621	207.00	659	365.00	653
81.00	914	167.00	1072	217.00	1038	441.00	923
93.00	1108	168.00	384	221.00	367	442.00	5618
98.00	924	175.00	209	224.00	1946	443.00	1232
99.00	505	179.00	728	225.00	643		
107.00	2658	180.00	192	227.00	1213		

Date: 01-SEP-2000 06:50

Client ID: DFTPP02

Sample Info: DFTPP020 (25ppb) 194-175-8

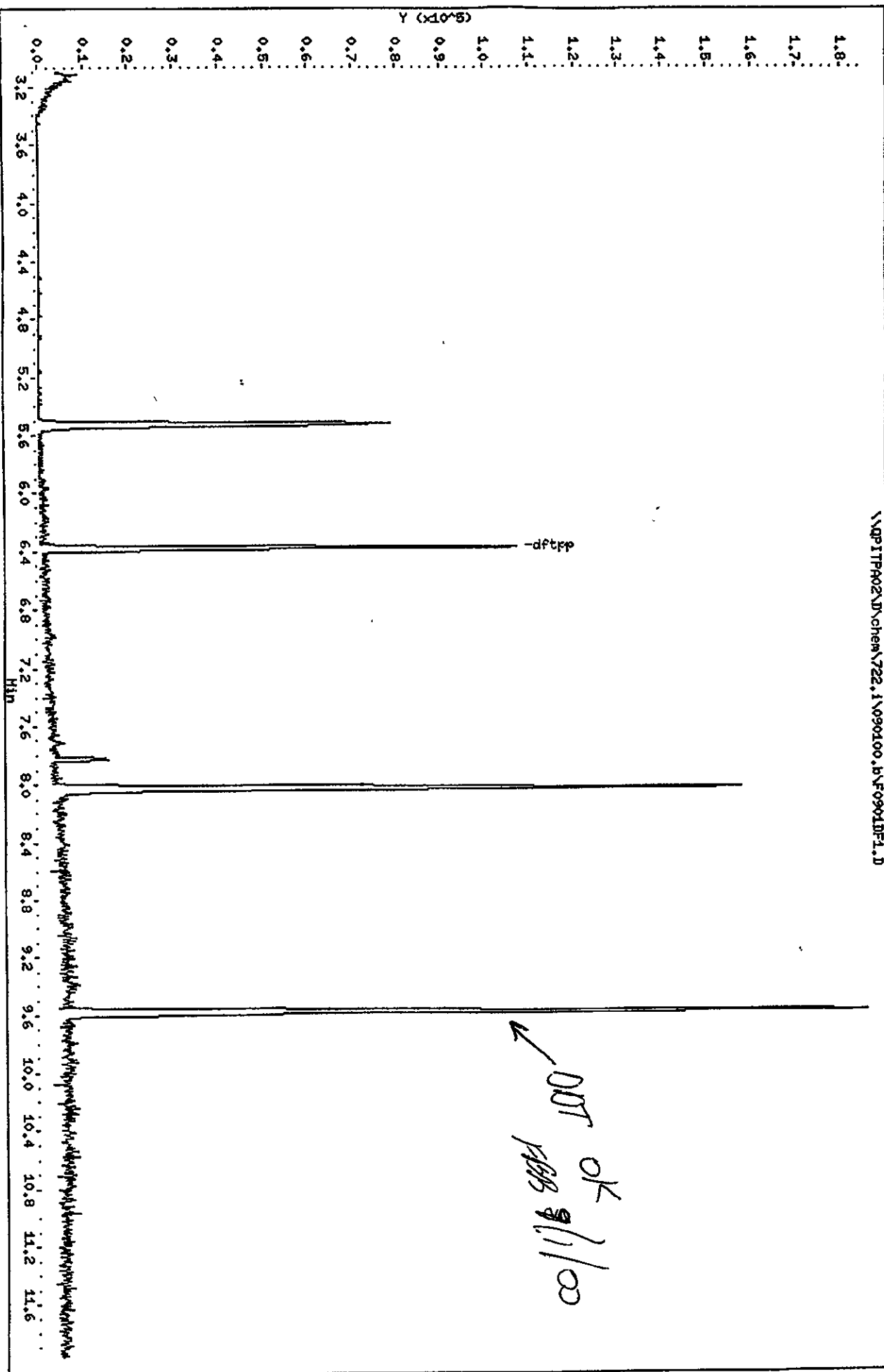
Instrument: 722.1

Operator: 007062

Column diameter: 2.00

Column phase:

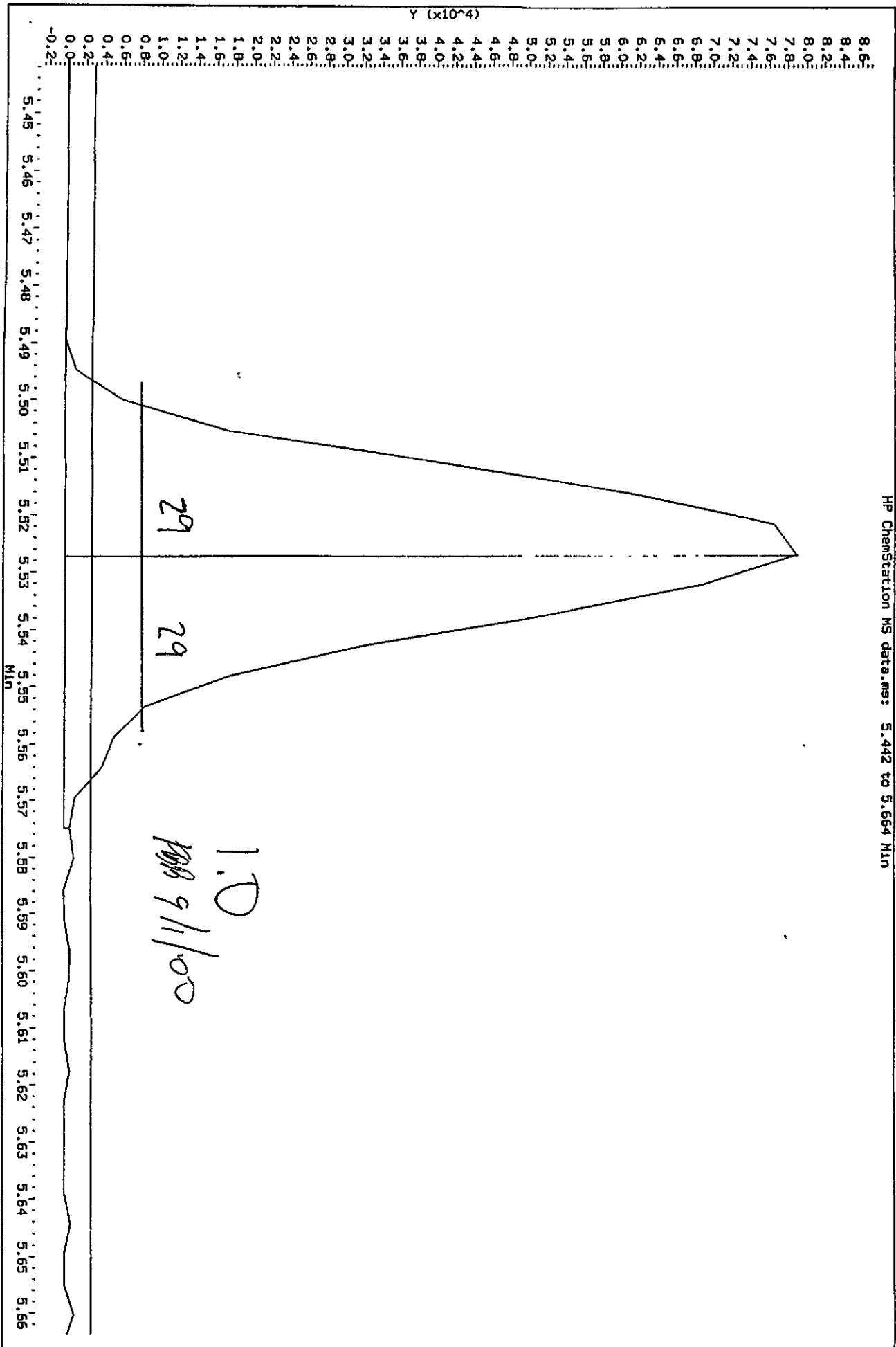
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296 1.73

Data File: \\QPIF002\\D\\chem\\722.1\\090100.b\\F0901DF1.D
 Injection Date: 01-SEP-2000 06:50
 Instrument: 722.1
 Client Sample ID: DFI002

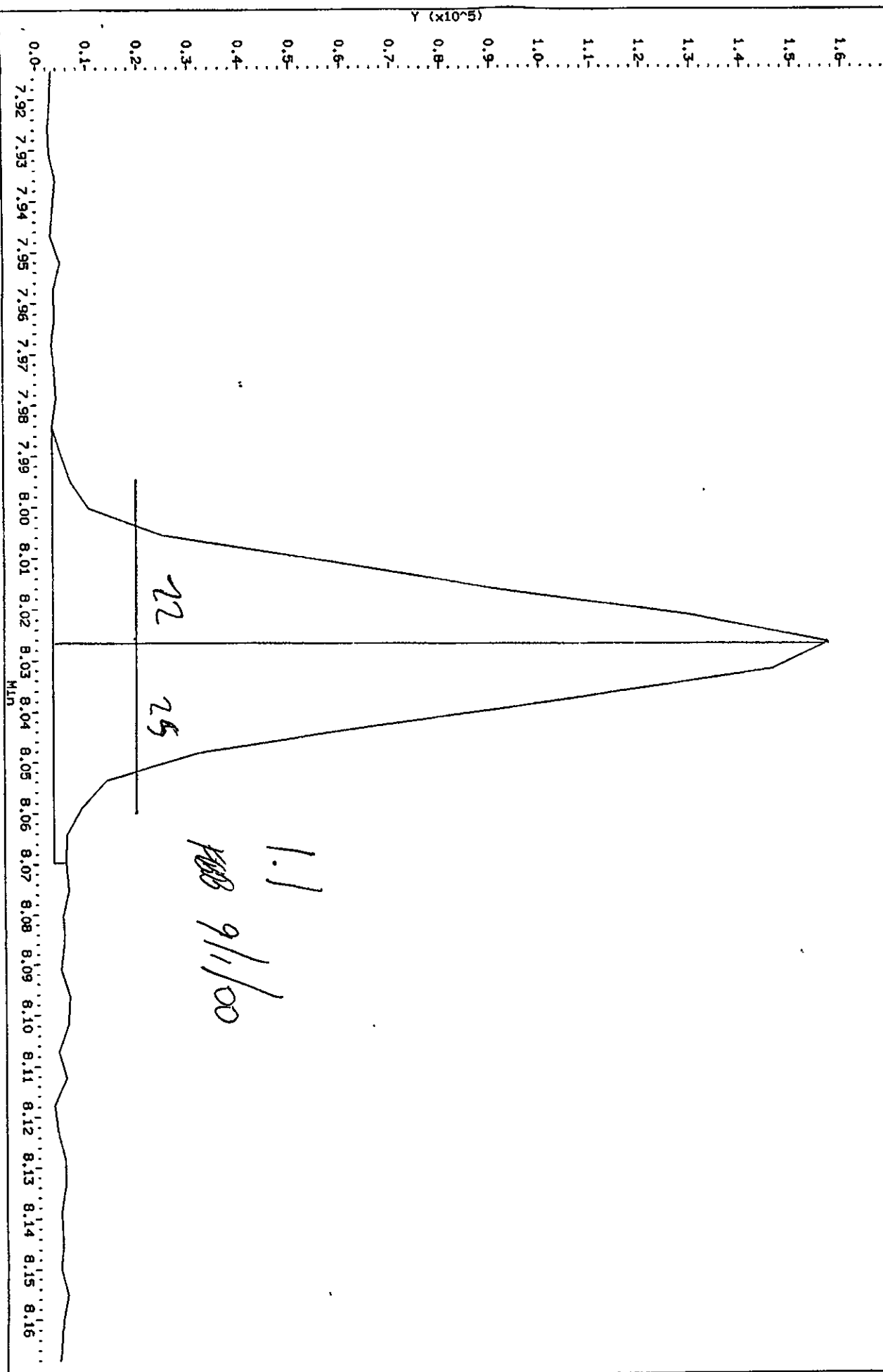
HP ChemStation MS data.ms: 5.442 to 5.664 Min



396 179

Data File: \\QPIFPO2\Nchem\722.1\090100.b\F0901DF1.D
Injection Date: 01-SEP-2000 06:50
Instrument: 722.1
Client Sample ID: DFTFPO2

HP ChemStation MS data.ms: 7.915 to 8.168 Min



456 169

UKB INTERNATIONAL
METHOD BLANK COMPOUNDS

671 965

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SOLID Lab Sample ID: COH290000 296
Method: SW846 8270C
Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL Date Received: 08/26/00
Work Order: DJK1G101 Date Extracted: 08/29/00
Dilution factor: 1 Date Analyzed: 09/01/00
Moisture %: NA

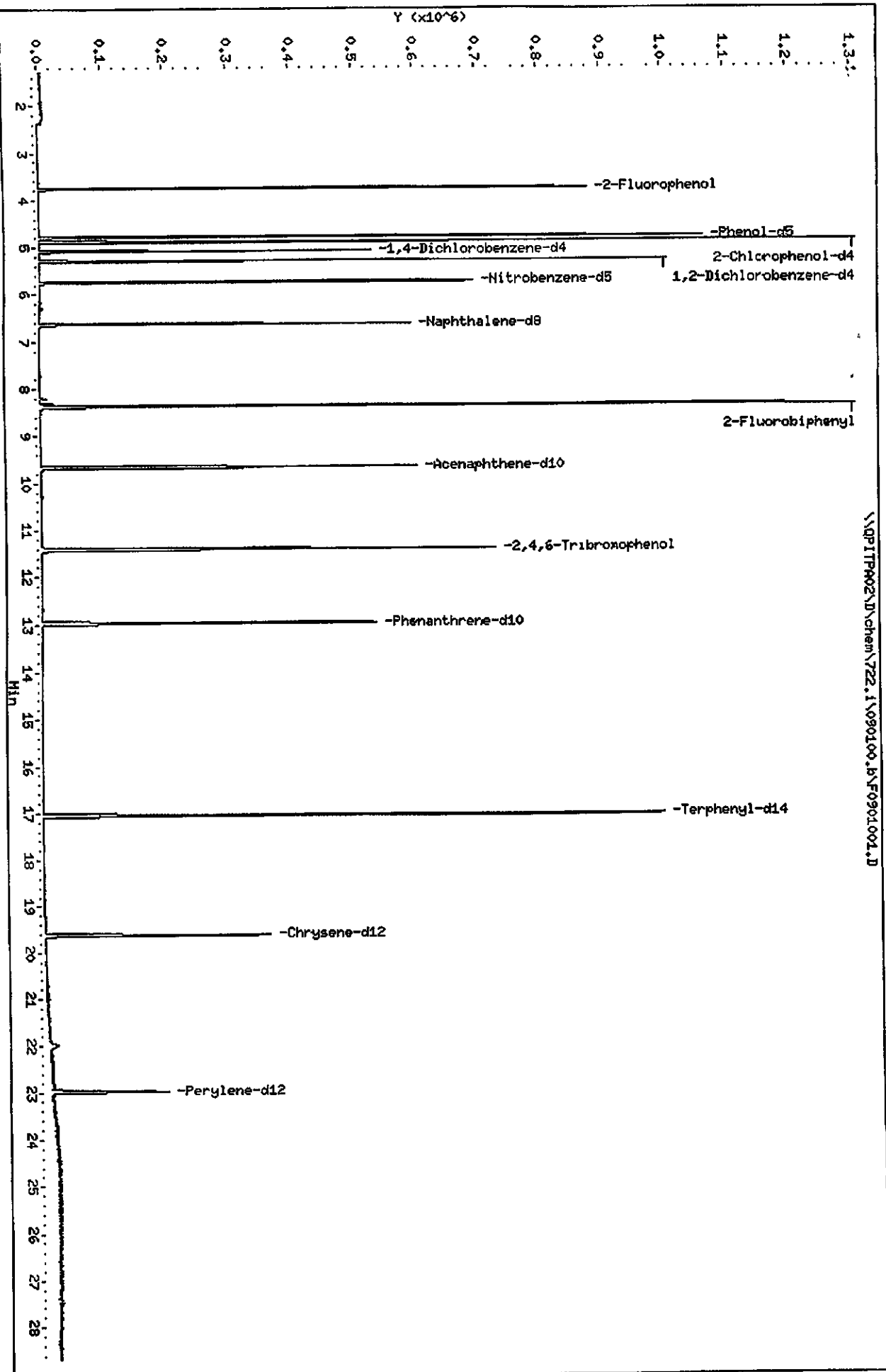
QC Batch: 0242296

Client Sample Id: INTRA-LAB BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
106-46-7	1,4-Dichlorobenzene	0.050	U
121-14-2	2,4-Dinitrotoluene	0.050	U
118-74-1	Hexachlorobenzene	0.050	U
87-68-3	Hexachlorobutadiene	0.050	U
67-72-1	Hexachloroethane	0.050	U
98-95-3	Nitrobenzene	0.050	U
87-86-5	Pentachlorophenol	0.25	U
110-86-1	Pyridine	0.10	U
95-95-4	2,4,5-Trichlorophenol	0.050	U
88-06-2	2,4,6-Trichlorophenol	0.050	U
1319-77-3	Cresols (total)	0.050	U

Data File: \\GPITPA02\chem\722.1\090100.b\F0901001.D
Date: 01-SEP-2000 08:19
Client ID: INTRA-LAB BLANK
Sample Info: COH260119-BLK 8/29/00 TCLP (0242296)
Volume Injected (uL): 2.0
Column phase: HP5-MS

Instrument: 722.1
Operator: 007062
Column diameter: 0.25



671 967

STL - Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\722.i\090100.b\F0901001.D
Lab Smp Id: DJK1G101 Client Smp ID: INTRA-LAB BLANK
Inj Date : 01-SEP-2000 08:19
Operator : 007062 Inst ID: 722.i
Smp Info : C0H260118-BLK 8/29/00 TCLP (0242296)
Misc Info : djklg101,090100.b,8270b.m,tclp.sub
Comment :
Method : \\QPITPA02\D\chem\722.i\090100.b\8270b.m
Meth Date : 01-Sep-2000 08:19 bungardf Quant Type: ISTD
Cal Date : 28-AUG-2000 21:29 Cal File: F0828C05.D
Als bottle: 3 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: 4.04
Processing Host: PITPC083

10/1/00

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi)*gpc

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.001	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	200.000	Volume of sample extracted (mL)
Vi	2.000	Volume injected (uL)
gpc	1.000	gpc correction factor

Compounds	QUANT SIG	CONCENTRATIONS					
		ON-COLUMN	FINAL				
	MASS	(NG)	(mg/L)	RT	EXP RT	REL RT	RESPONSE
* 1 1,4-Dichlorobenzene-d4	152	5.080	5.083 (1.000)	96493	40.0000		
* 2 Naphthalene-d8	136	6.618	6.627 (1.000)	399373	40.0000		
* 3 Acenaphthene-d10	164	9.658	9.666 (1.000)	256077	40.0000		
* 4 Phenanthrene-d10	188	12.970	12.984 (1.000)	463192	40.0000		
* 5 Chrysene-d12	240	19.611	19.624 (1.000)	317484	40.0000		
* 6 Perylene-d12	264	22.976	22.990 (1.000)	177547	40.0000		
9 Pyridine	79	Compound Not Detected.					
27 1,4-Dichlorobenzene	146	Compound Not Detected.					
M 195 Cresols, total	100	Compound Not Detected.					
30 2-Methylphenol	108	Compound Not Detected.					
192 4-Methylphenol	108	Compound Not Detected.					
193 3-Methylphenol	108	Compound Not Detected.					
34 Hexachloroethane	117	Compound Not Detected.					

Data File: \\QPITPA02\D\chem\722.i\090100.b\F0901001.D
 Report Date: 01-Sep-2000 08:50

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (NG)	FINAL (mg/L)
=====	=====	==	=====	=====	=====	=====	=====
35 Nitrobenzene	77				Compound Not Detected.		
56 Hexachlorobutadiene	224				Compound Not Detected.		
66 2,4,6-Trichlorophenol	196				Compound Not Detected.		
67 2,4,5-Trichlorophenol	196				Compound Not Detected.		
87 2,4-Dinitrotoluene	165				Compound Not Detected.		
107 Hexachlorobenzene	283				Compound Not Detected.		
111 Pentachlorophenol	265				Compound Not Detected.		
\$ 154 Nitrobenzene-d5	82	5.737	5.745	(0.867)	289075	76.9722	0.192 (a)
\$ 155 2-Fluorobiphenyl	172	8.365	8.373	(0.866)	666889	79.1177	0.198 (a)
\$ 156 Terphenyl-d14	244	17.052	17.049	(0.870)	765111	106.401	0.266 (a)
\$ 157 Phenol-d5	99	4.786	4.789	(0.942)	411610	125.825	0.314 (a)
\$ 158 2-Fluorophenol	112	3.760	3.758	(0.740)	273596	102.754	0.257 (a)
\$ 159 2,4,6-Tribromophenol	330	11.405	11.413	(0.879)	147842	131.666	0.329 (a)
\$ 186 2-Chlorophenol-d4	132	4.882	4.885	(0.961)	390615	137.529	0.344 (a)
\$ 187 1,2-Dichlorobenzene-d4	152	5.288	5.291	(1.041)	174920	78.2676	0.196 (a)

QC Flag Legend

a - Target compound detected but, quantitated amount
 Below Limit Of Quantitation (BLOQ).

671 969

UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COH290000 296

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 08/26/00

Work Order: DJK1G102

Date Extracted: 08/29/00

Dilution factor: 1

Date Analyzed: 09/01/00

Moisture %: NA

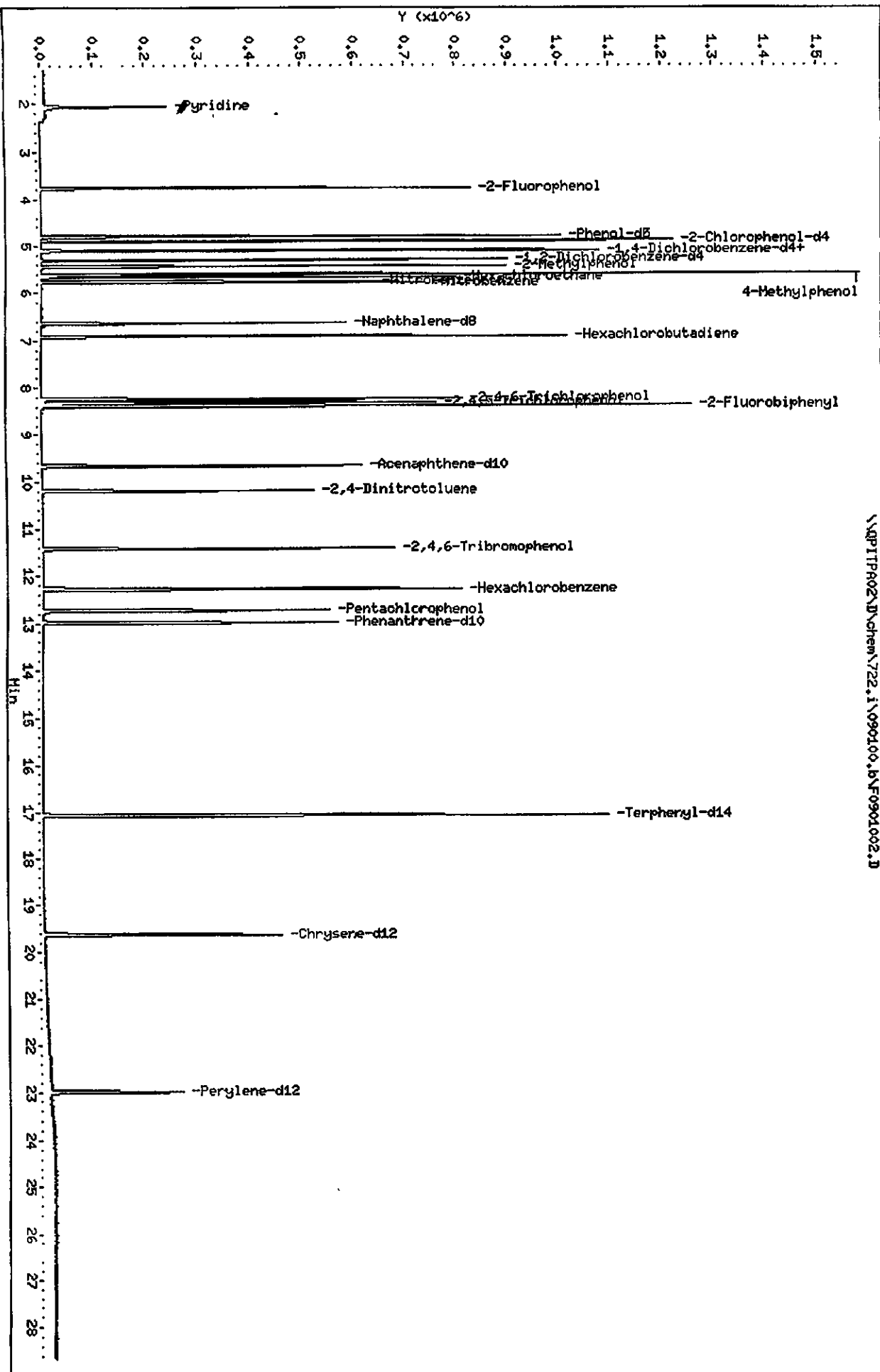
QC Batch: 0242296

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
106-46-7	1,4-Dichlorobenzene	0.184	
121-14-2	2,4-Dinitrotoluene	0.161	
118-74-1	Hexachlorobenzene	0.193	
87-68-3	Hexachlorobutadiene	0.175	
67-72-1	Hexachloroethane	0.197	
98-95-3	Nitrobenzene	0.177	
87-86-5	Pentachlorophenol	0.200	
110-86-1	Pyridine	0.191	
95-95-4	2,4,5-Trichlorophenol	0.176	
88-06-2	2,4,6-Trichlorophenol	0.179	
1319-77-3	Cresols (total)	0.656	

Data File: \\GPITPA02\Nchem\722.1\090100.b\F0901002.D
 Date: 01-SEP-2000 08:53
 Client ID: INTRA-LAB CHECK
 Sample Info: COH26018-LCS 8/29/00 TCLP (0242296)
 Volume Injected (uL): 2.0
 Column phase: Hp5-MS

Instrument: 722.1
 Operator: 007062
 Column diameter: 0.25



671 971

Data File: \\QPITPA02\D\chem\722.i\090100.b\F0901002.D
 Report Date: 01-Sep-2000 09:25

Page 1

STL - Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\722.i\090100.b\F0901002.D
 Lab Smp Id: DJK1G102 Client Smp ID: INTRA-LAB CHECK
 Inj Date : 01-SEP-2000 08:53
 Operator : 007062 Inst ID: 722.i
 Smp Info : C0H260118-LCS 8/29/00 TCLP (0242296)
 Misc Info : djklg102,090100.b,8270b.m,tclp.sub
 Comment :
 Method : \\QPITPA02\D\chem\722.i\090100.b\8270b.m
 Meth Date : 01-Sep-2000 08:19 bungardf Quant Type: ISTD
 Cal Date : 28-AUG-2000 21:29 Cal File: F0828C05.D
 Als bottle: 4 QC Sample: LCS
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: tclp.sub
 Target Version: 4.04
 Processing Host: PITPC083

10/1/00
 9/1/00

Concentration Formula: Amt * DF * Uf * Vt / (Vo * Vi) * gpc

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.001	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	200.000	Volume of sample extracted (mL)
Vi	2.000	Volume injected (uL)
gpc	1.000	gpc correction factor

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS		
						ON-COLUMN (NG)	FINAL (mg/L)	
* 1 1,4-Dichlorobenzene-d4	152	5.085	5.083	(1.000)	96247	40.0000		
* 2 Naphthalene-d8	136	6.629	6.627	(1.000)	398247	40.0000		
* 3 Acenaphthene-d10	164	9.669	9.666	(1.000)	265528	40.0000		
* 4 Phenanthrene-d10	188	12.981	12.984	(1.000)	478322	40.0000		
* 5 Chrysene-d12	240	19.621	19.624	(1.000)	412636	40.0000		
* 6 Perylene-d12	264	22.987	22.990	(1.000)	244917	40.0000		
9 Pyridine	79	2.051	2.043	(0.403)	116260	76.2760	0.191	
27 1,4-Dichlorobenzene	146	5.101	5.099	(1.003)	279998	73.8326	0.184	
M 195 Cresols, total	100				663622	262.496	0.656	
30 2-Methylphenol	108	5.432	5.430	(1.068)	210618	84.6712	0.212	
192 4-Methylphenol	108	5.603	5.590	(1.102)	453004	177.825	0.444 (A)	
193 3-Methylphenol	108	Compound Not Detected.						
34 Hexachloroethane	117	5.657	5.654	(1.112)	112054	78.7783	0.197	

Data File: \\QPITPA02\D\chem\722.i\090100.b\F0901002.D
Report Date: 01-Sep-2000 09:25

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
							(NG)	(mg/L)
35 Nitrobenzene		77	5.769	5.766 (0.870)		265701	70.8022	0.177
56 Hexachlorobutadiene		225	6.912	6.910 (1.043)		160244	70.0717	0.175
66 2,4,6-Trichlorophenol		196	8.237	8.240 (0.852)		177825	71.6924	0.179
67 2,4,5-Trichlorophenol		196	8.312	8.315 (0.860)		187389	70.5169	0.176
87 2,4-Dinitrotoluene		165	10.192	10.190 (1.054)		188062	64.5380	0.161
107 Hexachlorobenzene		284	12.276	12.268 (0.946)		205236	77.3100	0.193
111 Pentachlorophenol		266	12.719	12.722 (0.980)		122866	80.1830	0.200
\$ 154 Nitrobenzene-d5		82	5.748	5.745 (0.867)		262581	70.1153	0.175(a)
\$ 155 2-Fluorobiphenyl		172	8.376	8.373 (0.866)		620156	70.9547	0.177(a)
\$ 156 Terphenyl-d14		244	17.062	17.049 (0.870)		802829	85.9014	0.215(a)
\$ 157 Phenol-d5		99	4.791	4.789 (0.942)		384608	117.872	0.295(a)
\$ 158 2-Fluorophenol		112	3.766	3.758 (0.741)		263163	99.0878	0.248(a)
\$ 159 2,4,6-Tribromophenol		330	11.416	11.413 (0.879)		137018	118.166	0.295(a)
\$ 186 2-Chlorophenol-d4		132	4.888	4.885 (0.961)		369563	130.449	0.326(a)
\$ 187 1,2-Dichlorobenzene-d4		152	5.299	5.291 (1.042)		163118	73.1734	0.183(a)

QC Flag Legend

- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- A - Target compound detected but, quantitated amount exceeded maximum amount.

671 973

UXB INTERNATIONAL
MATRIX SPIKE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COH260118 001

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 08/26/00

Work Order: DJG8210Q

Date Extracted: 08/29/00

Dilution factor: 1

Date Analyzed: 09/01/00

Moisture %: 10

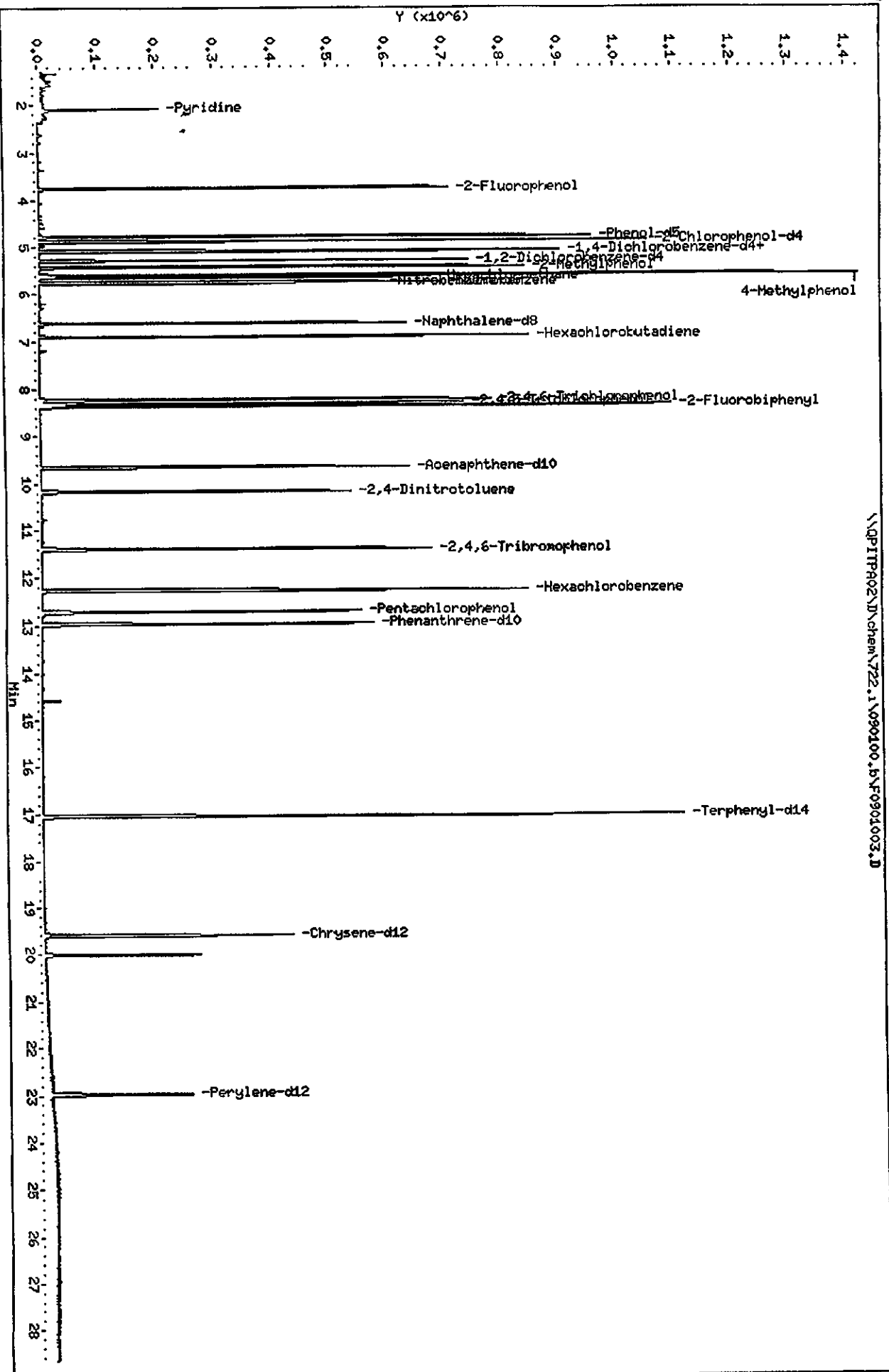
QC Batch: 0242296

Client Sample Id: DF/S1/0238/SDC/036

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
106-46-7	1,4-Dichlorobenzene	0.143	
121-14-2	2,4-Dinitrotoluene	0.158	
118-74-1	Hexachlorobenzene	0.198	
87-68-3	Hexachlorobutadiene	0.138	
67-72-1	Hexachloroethane	0.149	
98-95-3	Nitrobenzene	0.154	
87-86-5	Pentachlorophenol	0.204	
110-86-1	Pyridine	0.151	
95-95-4	2,4,5-Trichlorophenol	0.176	
88-06-2	2,4,6-Trichlorophenol	0.170	
1319-77-3	Cresols (total)	0.547	

Data File: \\QPIITPA02\\chem\\722.1\\090100.b\\F0901003.D
 Date: 01-SEP-2000 09:27
 Client ID: RF/SL/0238/SDC/036
 Sample Info: C0H260118-001S 8/29/00 TCLP (0242286)
 Volume Injected (uL): 2.0
 Column phase: Hp5-MS

Instrument: 722.1
 Operator: 007062
 Column diameter: 0.25



STL - Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\722.i\090100.b\F0901003.D
 Lab Smp Id: DJG8210Q Client Smp ID: DF/S1/0238/SDC/036
 Inj Date : 01-SEP-2000 09:27
 Operator : 007062 Inst ID: 722.i
 Smp Info : C0H260118-001S 8/29/00 TCLP (0242296)
 Misc Info : djg8210q,090100.b,8270b.m,tclp.sub
 Comment :
 Method : \\QPITPA02\D\chem\722.i\090100.b\8270b.m
 Meth Date : 01-Sep-2000 08:19 bungardf Quant Type: ISTD
 Cal Date : 28-AUG-2000 21:29 Cal File: F0828C05.D
 Als bottle: 5 QC Sample: MS
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: tclp.sub
 Target Version: 4.04
 Processing Host: PITPC083

FBP
9/1/00

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi)*gpc

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.001	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	200.000	Volume of sample extracted (mL)
Vi	2.000	Volume injected (uL)
gpc	1.000	gpc correction factor

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (NG)	FINAL (mg/L)
* 1 1,4-Dichlorobenzene-d4	----	152	5.075	5.083	(1.000)	104462	40.0000	
* 2 Naphthalene-d8	----	136	6.614	6.627	(1.000)	419276	40.0000	
* 3 Acenaphthene-d10	----	164	9.654	9.666	(1.000)	272033	40.0000	
* 4 Phenanthrene-d10	----	188	12.966	12.984	(1.000)	475274	40.0000	
* 5 Chrysene-d12	----	240	19.601	19.624	(1.000)	363145	40.0000	
* 6 Perylene-d12	----	264	22.966	22.990	(1.000)	235880	40.0000	
9 Pyridine		79	2.079	2.043	(0.410)	100175	60.5544	0.151
27 1,4-Dichlorobenzene		146	5.097	5.099	(1.004)	235447	57.2025	0.143
M 195 Cresols, total		100				600109	218.664	0.547
30 2-Methylphenol		108	5.423	5.430	(1.068)	185654	68.7660	0.172
192 4-Methylphenol		108	5.594	5.590	(1.102)	414455	149.898	0.375
193 3-Methylphenol		108	Compound Not Detected.					
34 Hexachloroethane		117	5.647	5.654	(1.113)	92303	59.7894	0.149

671 976

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (NG)	FINAL (mg/L)
-----	----	--	-----	-----	-----	-----	-----
35 Nitrobenzene	77	5.759	5.766	(0.871)	243710	61.6850	0.154
56 Hexachlorobutadiene	225	6.897	6.910	(1.043)	133030	55.2539	0.138
66 2,4,6-Trichlorophenol	196	8.227	8.240	(0.852)	172380	67.8354	0.170
67 2,4,5-Trichlorophenol	196	8.297	8.315	(0.859)	192313	70.6394	0.176
87 2,4-Dinitrotoluene	165	10.177	10.190	(1.054)	188784	63.2366	0.158
107 Hexachlorobenzene	284	12.261	12.268	(0.946)	208738	79.1335	0.198
111 Pentachlorophenol	266	12.704	12.722	(0.980)	123963	81.4177	0.204
\$ 154 Nitrobenzene-d5	82	5.738	5.745	(0.868)	241656	61.2914	0.153 (a)
\$ 155 2-Fluorobiphenyl	172	8.361	8.373	(0.866)	545745	60.9479	0.152 (a)
\$ 156 Terphenyl-d14	244	17.042	17.049	(0.869)	784019	95.3215	0.238 (a)
\$ 157 Phenol-d5	99	4.782	4.789	(0.942)	337781	95.3796	0.238 (a)
\$ 158 2-Fluorophenol	112	3.761	3.758	(0.741)	216250	75.0206	0.188 (a)
\$ 159 2,4,6-Tribromophenol	330	11.401	11.413	(0.879)	134978	117.153	0.293 (a)
\$ 186 2-Chlorophenol-d4	132	4.878	4.885	(0.961)	319804	104.008	0.260 (a)
\$ 187 1,2-Dichlorobenzene-d4	152	5.289	5.291	(1.042)	128759	53.2179	0.133 (a)

QC Flag Legend

a - Target compound detected but, quantitated amount
 Below Limit Of Quantitation(BLOQ).

671 977

UXB INTERNATIONAL
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COH260118 001

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 08/26/00

Work Order: DJG8210R

Date Extracted: 08/29/00

Dilution factor: 1

Date Analyzed: 09/01/00

Moisture %: 10

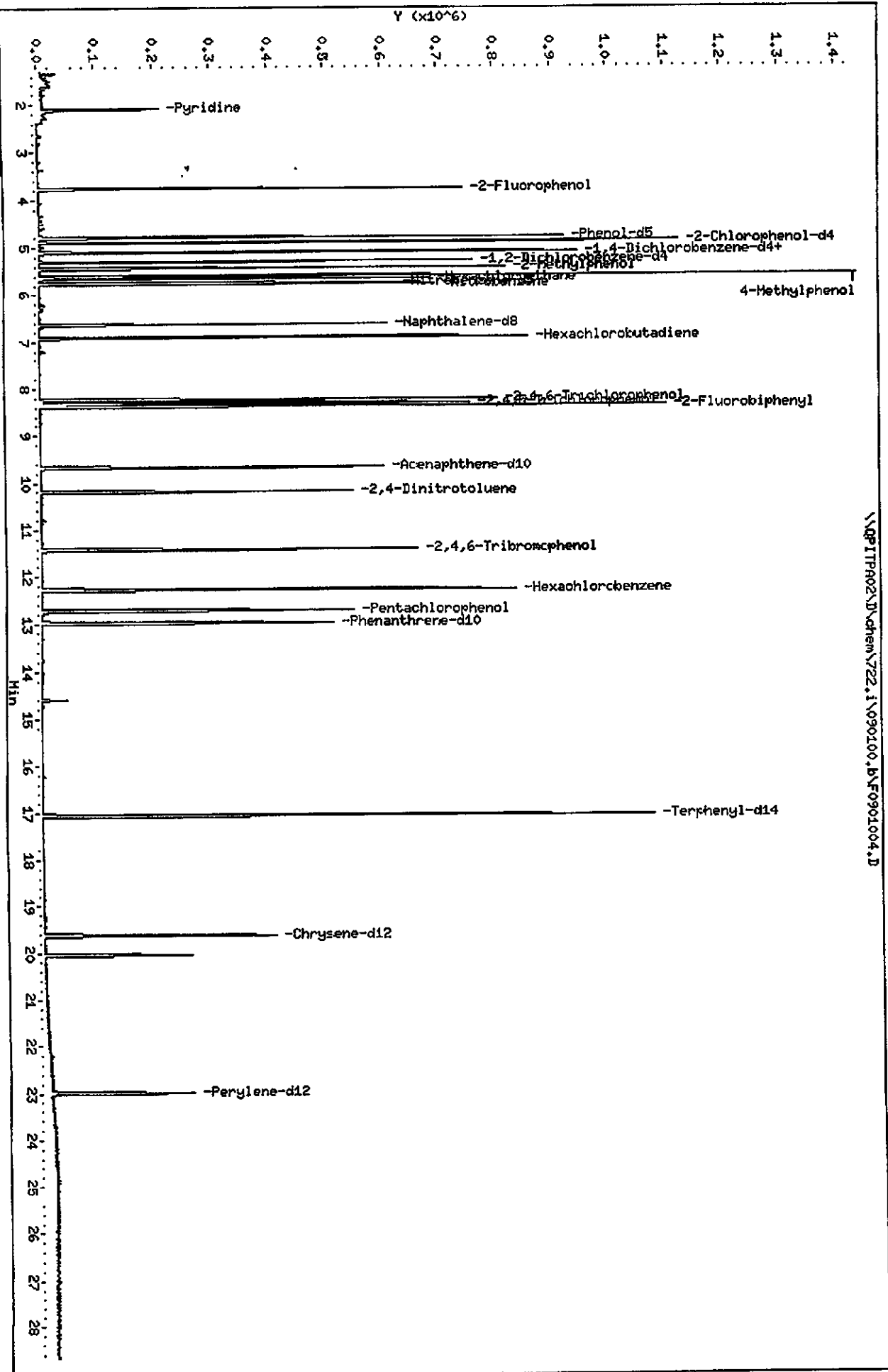
QC Batch: 0242296

Client Sample Id: DF/S1/0238/SDC/036

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
106-46-7	1,4-Dichlorobenzene	0.150	
121-14-2	2,4-Dinitrotoluene	0.166	
118-74-1	Hexachlorobenzene	0.206	
87-68-3	Hexachlorobutadiene	0.145	
67-72-1	Hexachloroethane	0.160	
98-95-3	Nitrobenzene	0.164	
87-86-5	Pentachlorophenol	0.214	
110-86-1	Pyridine	0.161	
95-95-4	2,4,5-Trichlorophenol	0.185	
88-06-2	2,4,6-Trichlorophenol	0.180	
1319-77-3	Cresols (total)	0.583	

Data File: \\QPIITPA02\J\chem\722.1\090100.b\F0901004.D
 Date : 01-SEP-2000 10:04
 Client ID: JF/SJ/0238/SDC/036
 Sample Info: C0H260118-001D 8/29/00 TCLP (0242296)
 Volume Injected (uL): 2.0
 Column phase: Hp5-MS

Instrument: 722.1
 Operator: 007062
 Column diameter: 0.25



671 979

Data File: \\QPITPA02\D\chem\722.i\090100.b\F0901004.D
 Report Date: 01-Sep-2000 10:35

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STL - Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\722.i\090100.b\F0901004.D
 Lab Smp Id: DJG8210R Client Smp ID: DF/S1/0238/SDC/036
 Inj Date : 01-SEP-2000 10:01
 Operator : 007062 Inst ID: 722.i
 Smp Info : C0H260118-001D 8/29/00 TCLP (0242296)
 Misc Info : djg8210r,090100.b,8270b.m,tclp.sub
 Comment :
 Method : \\QPITPA02\D\chem\722.i\090100.b\8270b.m
 Meth Date : 01-Sep-2000 08:19 bungardf Quant Type: ISTD
 Cal Date : 28-AUG-2000 21:29 Cal File: F0828C05.D
 Als bottle: 6 QC Sample: MSD
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: tclp.sub
 Target Version: 4.04
 Processing Host: PITPC083

BB
 9/1/00

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi)*gpc

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.001	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	200.000	Volume of sample extracted (mL)
Vi	2.000	Volume injected (uL)
gpc	1.000	gpc correction factor

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (NG)	FINAL (mg/L)
* 1 1,4-Dichlorobenzene-d4	152	5.088	5.083	(1.000)	101304	40.0000		
* 2 Naphthalene-d8	136	6.626	6.627	(1.000)	405691	40.0000		
* 3 Acenaphthene-d10	164	9.671	9.666	(1.000)	261766	40.0000		
* 4 Phenanthrene-d10	188	12.983	12.984	(1.000)	447239	40.0000		
* 5 Chrysene-d12	240	19.624	19.624	(1.000)	348039	40.0000		
* 6 Perylene-d12	264	22.989	22.990	(1.000)	240402	40.0000		
9 Pyridine	79	2.091	2.043	(0.411)	103543	64.5414	0.161	
27 1,4-Dichlorobenzene	146	5.104	5.099	(1.003)	239328	59.9580	0.150	
M 195 Cresols, total	100				620959	233.340	0.583	
30 2-Methylphenol	108	5.435	5.430	(1.068)	194947	74.4590	0.186	
192 4-Methylphenol	108	5.606	5.590	(1.102)	426012	158.881	0.397	
193 3-Methylphenol	108	Compound Not Detected.						
34 Hexachloroethane	117	5.659	5.654	(1.112)	95577	63.8401	0.160	

Data File: \\QPITPA02\D\chem\722.i\090100.b\F0901004.D
Report Date: 01-Sep-2000 10:35

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (NG)	FINAL (mg/L)
35 Nitrobenzene	77	5.772	5.766	(0.871)	251319	65.7409	0.164
56 Hexachlorobutadiene	225	6.915	6.910	(1.044)	134896	57.9051	0.145
66 2,4,6-Trichlorophenol	196	8.240	8.240	(0.852)	176000	71.9764	0.180
67 2,4,5-Trichlorophenol	196	8.314	8.315	(0.860)	193741	73.9551	0.185
87 2,4-Dinitrotoluene	165	10.190	10.190	(1.054)	190711	66.3876	0.166
107 Hexachlorobenzene	284	12.273	12.268	(0.945)	205091	82.6247	0.206
111 Pentachlorophenol	266	12.722	12.722	(0.980)	122559	85.5414	0.214
\$ 154 Nitrobenzene-d5	82	5.750	5.745	(0.868)	244766	64.1590	0.160 (a)
\$ 155 2-Fluorobiphenyl	172	8.379	8.373	(0.866)	548324	63.6377	0.159 (a)
\$ 156 Terphenyl-d14	244	17.060	17.049	(0.869)	775732	98.4075	0.246 (a)
\$ 157 Phenol-d5	99	4.789	4.789	(0.941)	349491	101.763	0.254 (a)
\$ 158 2-Fluorophenol	112	3.768	3.758	(0.741)	221761	79.3307	0.198 (a)
\$ 159 2,4,6-Tribromophenol	330	11.418	11.413	(0.879)	132439	122.155	0.305 (a)
\$ 186 2-Chlorophenol-d4	132	4.890	4.885	(0.961)	331246	111.087	0.278 (a)
\$ 187 1,2-Dichlorobenzene-d4	152	5.296	5.291	(1.041)	132281	56.3779	0.141 (a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

671 981

**GC/MS SEMIVOLATILE
MISCELLANEOUS**



STL Pittsburgh
450 William Pitt Way
Pittsburgh, PA 15238
412-820-8380

Continuous L-L Extraction Worksheet

TCLP

Lot Number	Sample ID	Prep Meth #3520c	Analysis 8270	Client ID	Extract Vol (mL)	Final Volume mL	pH	Surrogate Lot #	Surr Vol (mL)	Matrix Spike Lot #	MS Vol (mL)	Clean up Method
Began 8/29/2000	Time 11:10	Prep Meth #3520c	Analysis 8270	Client ID	Extract Vol (mL)	Final Volume mL	pH	Surrogate Lot #	Surr Vol (mL)	Matrix Spike Lot #	MS Vol (mL)	Clean up Method
Change over 8:30:00	Time 0930	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19
Completed 8:31:00	Time 0800	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19
1. COH260118	MS (001)	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19
2. LC5	MS (001)	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19
3. MS	MSD (001)	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19
4. MSD	MSD (001)	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19
5. 001	MSD (001)	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19
6.		NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19
7.		NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19
8.		NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19
9.		NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19
10.		NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19
11.		NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19
12.		NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19
13.		NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19
14.		NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19
15.		NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19
16.		NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19
17.		NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19
18.		NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19
19.		NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19
20.		NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19
21.		NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19
22.		NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19
23.		NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19	NaOH. 0166-19
Prep Analyst: WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT
Extract(s)	Extract(s)	Extract(s)	Extract(s)	Extract(s)	Extract(s)	Extract(s)	Extract(s)	Extract(s)	Extract(s)	Extract(s)	Extract(s)	Extract(s)
(Record line number from above)	(Record line number from above)	(Record line number from above)	(Record line number from above)	(Record line number from above)	(Record line number from above)	(Record line number from above)	(Record line number from above)	(Record line number from above)	(Record line number from above)	(Record line number from above)	(Record line number from above)	(Record line number from above)
All Above	All Above	All Above	All Above	All Above	All Above	All Above	All Above	All Above	All Above	All Above	All Above	All Above
Batch Number: 0242296	Batch Number: 0242296	Batch Number: 0242296	Batch Number: 0242296	Batch Number: 0242296	Batch Number: 0242296	Batch Number: 0242296	Batch Number: 0242296	Batch Number: 0242296	Batch Number: 0242296	Batch Number: 0242296	Batch Number: 0242296	Batch Number: 0242296

Instrument Name: GC/MS Instrument #1

671 983

Sequence File: C:\HPCHEM\1\SEQUENCE\082800N.S

Comment: STL- PITT HP5973-2 LOG 2ul inj 100ul+1ul int

Operator: 007062

Data Path: C:\HPCHEM\1\DATA\082800N.b\

Method Path: C:\HPCHEM\1\METHODS\

Line	Type	Vial	DataFile	Method	Sample Name
1)	Sample	1840 1	F0828DF2	DFTPP	DFTPP050 (25ppb) 194
2)	Sample	ABC 95	F0828C01	72EARLY	SSTD020 (10ppb) 194
3)	Sample	ABC 96	F0828C02	72EARLY	SSTD050 (25ppb) 194
4)	Sample	ABC 97	F0828C03	72EARLY	SSTD080 (40ppb) 194
5)	Sample	ABC 98	F0828C04	72EARLY	SSTD120 (60ppb) 194
6)	Sample	99	F0828C05	72EARLY	SSTD160 (80ppb) 194
7)	Sample	100	F0828VER	72EARLY	SSTD50 VER 194-183
8)	Sample	14	F0828050	72EARLY	COH180278-BLK 8/23/0
9)	Sample	15	F0828051	72EARLY	COH180278-LCS 8/23/0
10)	Sample	16	F0828052	72EARLY	COH180278-001S 8/23/0
11)	Sample	17	F0828053	72EARLY	COH180278-001D 8/23/0
12)	Sample	18	F0828054	72EARLY	COH180278-001 8/23/0
13)	Sample	19	F0828055	72EARLY	COH020218-BLK R/E 8/
14)	Sample	20	F0828056	72EARLY	COH020218-LCS R/E 8/
15)	Sample	21	F0828057	72EARLY	COH020218-003 R/E 8/
16)	Sample	22	F0828058	72EARLY	COH020218-003MS R/E
17)	Sample	23	F0828059	72EARLY	COH020218-003MSD R/E
18)	Sample	24	F0828060	72EARLY	COH100137-006 R/E 8/
19)	Sample	3	F0828061	72EARLY	COH180175-001 8/23/0
20)	Sample	4	F0828062	72EARLY	COH220137-001 8/23/0
21)	Sample	5	F0828063	72EARLY	COH220138-001 8/23/0
22)	Sample	25	F08020Z6	72EARLY	Clean out
23)	Sample	25	F08020Z7	72EARLY	Clean out
24)	Sample	25	F08020Z8	72EARLY	Clean out
25)	Sample	25	F08020Z9	72EARLY	Clean out
26)	Sample	25	F08020Z0	72EARLY	Clean out
27)	Sample	25	F08020Z1	72EARLY	Clean out

Bytes Needed: 1384127 Space on drive C: 883676160

Sequence Verification Done!

REQUESTED BY: **TROUTB**

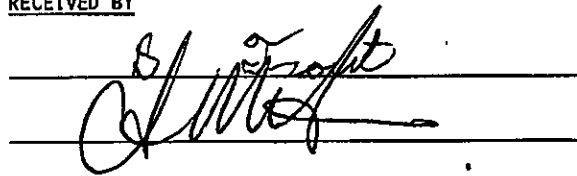
METHOD: QL Base/Neutrals and Acids (8270C)

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED</u> <u>CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX</u> <u>DESCRIPTION</u>	<u>QTY</u> <u>RCVD</u>	<u>QTY</u> <u>REQD</u>
3E CLP1	DJG82-1-03	_____	261647	399411	A-59-QL	COH260118	001		SOLID	0	3 1

RELINQUISHED BY

RECEIVED BY

DATE/TIME


B Trout

8/29/2000	10:20
8/29/2000	13:00

***** END OF REPORT *****

Instrument Name: GC/MS Instrument #1

Sequence File: C:\HPCHEM\1\SEQUENCE\090100.S

Comment: STL- PITT HP5973-2 LOG 2ul inj 100ul+1ul int

Operator: 007062

Data Path: C:\HPCHEM\1\DATA\090100.b\

Method Path: C:\HPCHEM\1\METHODS\

Line	Type	Vial	DataFile	Method	Sample Name
1)	Sample	(6:50) 1	F0901DF1	DFTPP	DFTPP050 (25ppb) 194-175-8
2)	Sample	2	F09010C1	72EARLY	SSTD050 (25ppb) 194-183-14
3)	Sample	3	F0901001	72EARLY	C0H260118-BLK 8/29/00 TCLP (0242
4)	Sample	4	F0901002	72EARLY	C0H260118-LCS 8/29/00 TCLP (0242
5)	Sample	5	F0901003	72EARLY	C0H260118-001S 8/29/00 TCLP (024
6)	Sample	6	F0901004	72EARLY	C0H260118-001D 8/29/00 TCLP (024
7)	Sample	7	F0901005	72EARLY	C0H260118-001 8/29/00 TCLP (0242
8)	Sample	8	F0901006	72EARLY	C0H230127-003 x5 8/24/00 Soil (0
9)	Sample	9	F0901007	72EARLY	C0H230127-004 x5 8/24/00 Soil (0
10)	Sample	10	F0901008	72EARLY	C0H230127-005 x5 8/24/00 Soil (0
11)	Sample	11	F0901009	72EARLY	C0H230205-001 x5 8/24/00 Soil (0
12)	Sample	12	F0901010	72EARLY	C0H230205-002 x2 8/24/00 Soil (0
13)	Sample	13	F0901011	72EARLY	C0H230205-003 x2 8/24/00 Soil (0
14)	Sample	14	F0901012	72EARLY	C0H230205-004 x2 8/24/00 Soil (0
15)	Sample	100	F08020Z6	72EARLY	Clean out
16)	Sample	100	F08020Z7	72EARLY	Clean out
17)	Sample	100	F08020Z8	72EARLY	Clean out
18)	Sample	100	F08020Z9	72EARLY	Clean out
19)	Sample	100	F08020Z0	72EARLY	Clean out
20)	Sample	100	F08020Z1	72EARLY	Clean out

Bytes Needed: 1000000 Space on drive C: 1023932928

Sequence Verification Done!

671 986

PESTICIDE DATA

671 987

**PESTICIDE
QC SUMMARY**

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT QESSDG:

Lot #: C0H260118

	CLIENT ID.	SRG01	SRG02	TOT OUT
	=====	=====	=====	=====
01	DF/S1/0238/SDC/036	95	80	00
02	METHOD BLK. DJKFP101	98	91	00
03	LCS DJKFP102	93	83	00
04	LCSD DJKFP103	95	82	00

SURROGATES

SRG01 = Decachlorobiphenyl
SRG02 = Tetrachloro-m-xylene

QC LIMITS

(10-147)
(39-130)

- # Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

671 989

SW846 8081A CHECK SAMPLE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: C0H290000

WO #: DJKFP102

BATCH: 0242401

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====
Lindane	0.00250	0.00145	58	49 - 137	
Heptachlor	0.00250	0.00220	88	57 - 124	
Heptachlor epoxide	0.00250	0.00221	89	53 - 135	
Endrin	0.00250	0.00223	89	46 - 137	
Methoxychlor	0.00250	0.00172	69	12 - 154	

NOTES(S) :

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS:

FORM III

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: C0H290000

WO #: DJKFP103

BATCH: 0242401

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
Lindane	0.00250	0.00147	59	49 - 137	
Heptachlor	0.00250	0.00216	87	57 - 124	
Heptachlor epoxide	0.00250	0.00226	90	53 - 135	
Endrin	0.00250	0.00236	95	46 - 137	
Methoxychlor	0.00250	0.00172	69	12 - 154	

NOTES (S) :

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS:

671 991

SW846 8081A METHOD BLANK SUMMARY

BLANK WORKORDER NO.

DJKFP101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: D-B5764.d

Lot Number: C0H260118

Matrix: SOLID

Extraction Method: 1311/3510

Date Extracted: 08/29/00

Date Analyzed(1): 08/30/00

Date Analyzed(2): N/A

Time Analyzed(1): 11:53

Time Analyzed(2): N/A

Instrument ID(1): G/H

Instrument ID(2): N/A

GC Column(1): DB608/1701 ID: 053 GC Column(2): N/A ID: N/A

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	DATE ANALYZED (1)	DATE ANALYZED (2)
01	DF/S1/0238/SDC/036	DJG82104	08/30/00	N/A
02	CHECK SAMPLE	DJKFP102 C	08/30/00	N/A
03	DUPLICATE CHECK	DJKFP103 L	08/30/00	N/A
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

COMMENTS:

FORM IV

671 992

**PESTICIDE
SAMPLE DATA**

671 993

UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COH260118 001

Method: SW846 8081A

Pesticides (8081A)

Sample WT/Vol: 100 / mL

Date Received: 08/26/00

Work Order: DJG82104

Date Extracted: 08/29/00

Dilution factor: 1

Date Analyzed: 08/30/00

Moisture %: 10

QC Batch: 0242401

Client Sample Id: DF/S1/0238/SDC/036

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
57-74-9	Chlordane (technical)	0.0050	U
72-20-8	Endrin	0.00050	U
76-44-8	Heptachlor	0.00050	U
1024-57-3	Heptachlor epoxide	0.00050	U
58-89-9	Lindane	0.00050	U
72-43-5	Methoxychlor	0.0010	U
8001-35-2	Toxaphene	0.020	U

Data File: \\qpitpa02\d\chem\gc4.i\5280-G.b\D-B5767.d
 Report Date: 31-Aug-2000 09:35

STL - Pittsburgh

Data file : \\qpitpa02\d\chem\gc4.i\5280-G.b\D-B5767.d
 Lab Smp Id: DJG82104 Client Smp ID: DF/S1/0238/SDC/036
 Inj Date : 30-AUG-2000 13:16
 Operator : 1891 Inst ID: gc4.i
 Smp Info : DJG82104,5280-G.b,,PEST.sub,,,
 Misc Info : 260118001
 Comment :
 Method : \\qpitpa02\d\chem\gc4.i\5280-G.b\PESTB.m
 Meth Date : 31-Aug-2000 09:24 matkol Quant Type: ESTD
 Cal Date : 08-AUG-2000 01:35 Cal File: D-B5173.d
 Als bottle: 1
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: PEST.sub
 Target Version: 4.04
 Processing Host: PITPC044

Concentration Formula: Amt * DF * (Vt/Vo)/Vi

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (mg/L)
\$ 1 Tetrachloro-m-xylene	5.620	5.620	0.000	36441	0.01594	0.001594(aR)
5 alpha-BHC				Compound Not Detected		
6 gamma-BHC (Lindane)				Compound Not Detected		
9 Chlordane				Compound Not Detected.		
10 Heptachlor				Compound Not Detected.		
11 Aldrin				Compound Not Detected		
7 beta-BHC				Compound Not Detected.		
8 delta-BHC				Compound Not Detected.		
12 Heptachlor epoxide				Compound Not Detected.		
15 Endosulfan I				Compound Not Detected.		
13 gamma-Chlordane				Compound Not Detected		
14 alpha-Chlordane				Compound Not Detected.		
16 4,4'-DDE				Compound Not Detected.		
17 Dieldrin	14.500	14.493	0.007	1525	<0.0	0.00004491(a)
20 Endrin				Compound Not Detected.		

671 995

Data File: \\qpitpa02\d\chem\gc4.i\5280-G.b\D-B5767.d
 Report Date: 31-Aug-2000 09:35

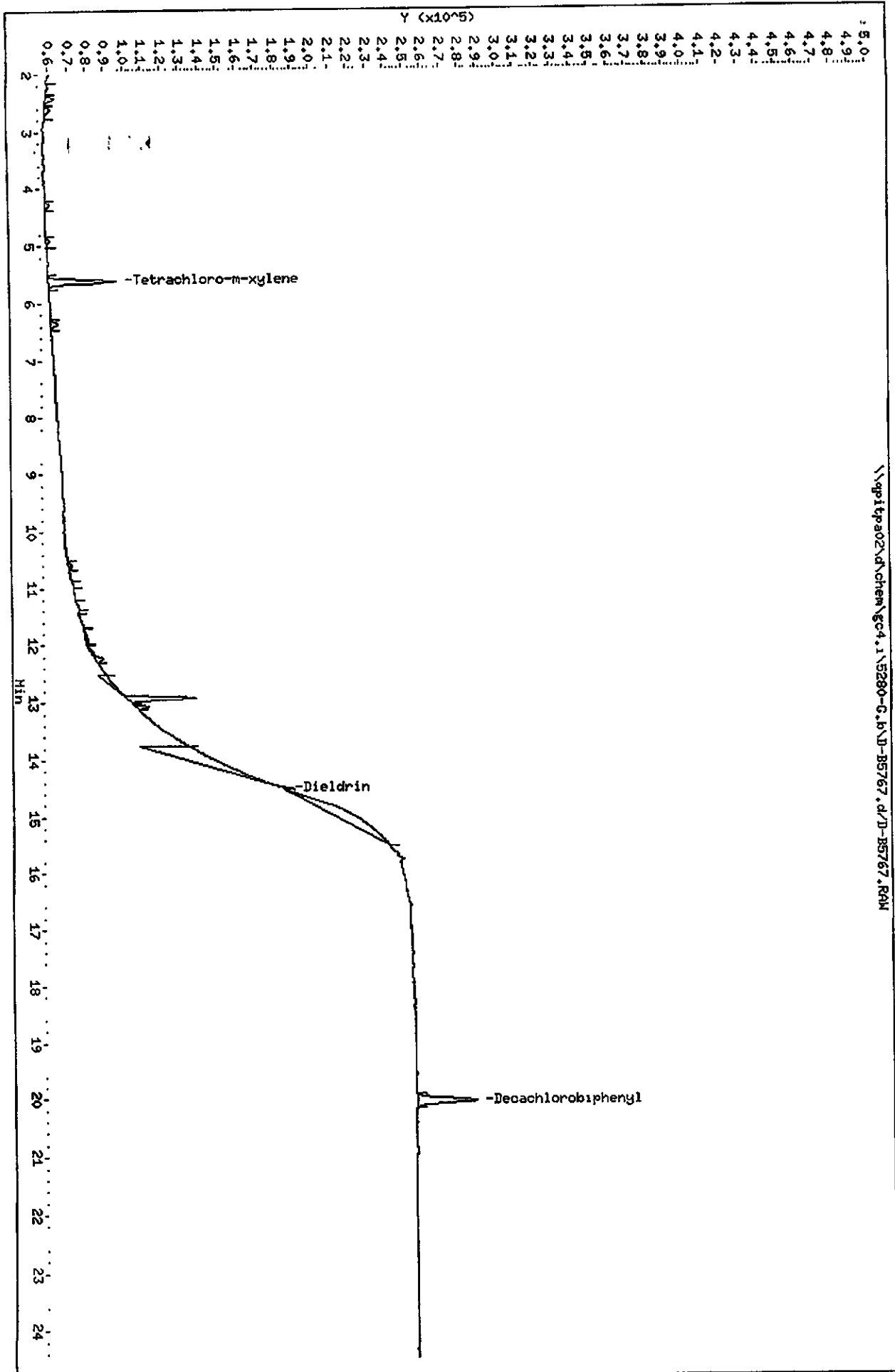
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (mg/L)
=====	==	=====	=====	=====	=====	=====
18 Toxaphene				Compound Not Detected		
21 4,4'-DDD				Compound Not Detected		
22 Endosulfan II				Compound Not Detected.		
23 4,4'-DDT				Compound Not Detected.		
24 Endrin aldehyde				Compound Not Detected		
25 Methoxychlor				Compound Not Detected		
26 Endosulfan sulfate				Compound Not Detected.		
58 MIREX				Compound Not Detected.		
29 Kepone				Compound Not Detected.		
27 Endrin ketone				Compound Not Detected.		
\$ 30 Decachlorobiphenyl	20.040	20.040	0.000	32134	0.01900	0.001900(aR)

QC Flag Legend

- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
- R - Spike/Surrogate failed recovery limits.

Data File: \\pittpa02\chem\gc4.1\5280-G.b.D-B5767.d
Date: 30-AUG-2000 13:16
Client ID: DF/S1/0238/SDC/036
Sample Info: DJG82104, 5280-G.b., PEST, sub,,
Volume Injected (uL): 1.0
Column phase: DB1701

Instrument: gc4.i
Operator: 1891
Column diameter: 0.53



671 997

**PESTICIDE
CALIBRATION DATA**

Report Date : 31-Aug-2000 09:06

61
589048
DB/701

671 998

STL - Pittsburgh

COMPOUND LISTING

Method file : \\qpitpa02\d\chem\gc4.i\5280-G.b\PESTB.m
Quant Method : ESTD Target Version : 4.04
Last Update : 31-Aug-2000 09:03 Number of Cpnds : 31
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
-----	-----
Initial:Start Threshold	90.000000
Initial:End Threshold	45.000000
Initial:Area Threshold	900.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	1.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000
15.000:Start Threshold	672.000000
15.000:End Threshold	336.000000
15.000:Area Threshold	6720.000000

Compound	RT	RT Window	RF
\$ 1 Tetrachloro-m-xylene	5.620	5.570-5.670	2.29e+006
58 MIREX	16.800	16.750-16.850	1.78e+006
2 Diallate A	7.060	7.010-7.110	9.30e+004
3 Diallate B	7.613	7.563-7.663	2.03e+004
4 HEXACHLORO BENZENE	6.960	6.910-7.010	4.59e+006
5 alpha-BHC	8.353	8.303-8.403	3.06e+006
6 gamma-BHC (Lindane)	9.733	9.683-9.783	2.65e+006
7 beta-BHC	12.153	12.103-12.203	1.66e+006
8 delta-BHC	12.833	12.783-12.883	3.44e+006
9 Chlordane	10.080	10.030-10.130	8.23e+004
	10.673	10.623-10.723	1.74e+005
	13.953	13.903-14.003	3.26e+005
	14.060	14.010-14.110	4.55e+005
10 Heptachlor	10.667	10.617-10.717	2.94e+006
11 Aldrin	11.647	11.597-11.697	2.85e+006
12 Heptachlor epoxide	13.340	13.290-13.390	3.31e+006
13 gamma-Chlordane	13.953	13.903-14.003	3.39e+006
14 alpha-Chlordane	14.053	14.003-14.103	3.31e+006
15 Endosulfan I	13.893	13.843-13.943	3.20e+006
16 4,4'-DDE	14.207	14.157-14.257	3.37e+006
17 Dieldrin	14.493	14.443-14.543	3.40e+006

Report Date : 31-Aug-2000 09:06

671 999

589048

JB/101

STL - Pittsburgh

COMPOUND LISTING

Method file : \\qpitpa02\d\chem\gc4.i\5280-G.b\PESTB.m

Compound	RT	RT Window	RF
18 Toxaphene	15.247	15.197-15.297	3.96e+004
	15.547	15.497-15.597	4.93e+004
	16.007	15.957-16.057	5.17e+004
	16.747	16.697-16.797	4.68e+004
19 Isodrin	12.767	12.717-12.817	3.02e+006
20 Endrin	14.813	14.763-14.863	3.16e+006
21 4,4'-DDD	15.353	15.303-15.403	2.46e+006
22 Endosulfan II	15.500	15.450-15.550	2.86e+006
23 4,4'-DDT	15.647	15.597-15.697	2.48e+006
24 Endrin aldehyde	16.160	16.110-16.210	1.34e+006
25 Methoxychlor	16.680	16.630-16.730	1.17e+006
26 Endosulfan sulfate	16.747	16.697-16.797	1.75e+006
27 Endrin ketone	17.707	17.657-17.757	2.06e+006
28 Chlorobenzilate	15.100	15.050-15.150	1.73e+005
29 Kepone	17.713	17.663-17.763	3.85e+003
\$ 30 Decachlorobiphenyl	20.040	19.990-20.090	1.69e+006

Report Date : 10-Aug-2000 10:15

6711000

STL Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 07-AUG-2000 15:52
 End Cal Date : 08-AUG-2000 01:35
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 4.04
 Integrator : Falcon
 Method file : \\QPITPA02\D\chem\gc4.i\5080-G.b\PESTB.m
 Cal Date : 10-Aug-2000 10:13 colussyj
 Curve Type : Average

Calibration File Names:

Level 1: \\QPITPA02\D\chem\gc4.i\5080-G.b\D-B5169.d
 Level 2: \\QPITPA02\D\chem\gc4.i\5080-G.b\D-B5170.d
 Level 3: \\QPITPA02\D\chem\gc4.i\5080-G.b\D-B5171.d
 Level 4: \\QPITPA02\D\chem\gc4.i\5080-G.b\D-B5172.d
 Level 5: \\QPITPA02\D\chem\gc4.i\5080-G.b\D-B5173.d

Compound	0.00500	0.01000	0.02500	0.05000	0.10000	RRF	% RSD
Level 1	Level 2	Level 3	Level 4	Level 5			
58 MIREX	1717200	1905900	1858960	1704380	1699680	1777224	5.496
2 Diallylate A	103950	93024	99998	82384	85644	93000	9.850
3 Diallylate B	20490	19356	22592	18885	20126	20290	7.062
4 HEXACHLOROBENZENE	4802600	5203200	4812200	4191820	3941180	4590200	11.162
5 alpha-BHC	2667000	2830800	3055520	3330260	3438180	3064352	10.612
6 gamma-BHC (Lindane)	2382000	2511200	2643320	2831260	2893030	2652162	8.065
7 beta-BHC	1626400	1702800	1618720	1725080	1640460	1662692	2.892
8 delta-BHC	2971800	3297300	3341200	3772520	3793980	3435360	10.137
9 Chlordane(1)	+++++	+++++	82268	+++++	+++++	82268	0.000
(2)	+++++	+++++	173988	+++++	+++++	173988	0.000
(3)	+++++	+++++	326140	+++++	+++++	326140	0.000
(4)	+++++	+++++	455048	+++++	+++++	455048	0.000
10 Heptachlor	2845000	2881500	2932480	3021840	3018560	2939876	2.709
11 Aldrin	2564400	2788000	2758080	3062260	3068470	2848242	7.584
12 Heptachlor epoxide	3088200	3294800	3215840	3521580	3447520	3313588	5.268
13 gamma-Chlordane	3213400	3424900	3273400	3491400	3557250	3392070	4.278
14 alpha-Chlordane	3213400	3331200	3185280	3357060	3451710	3307730	3.298
15 Endosulfan I	3116400	3197300	3153200	3268060	3244960	3195984	1.964
16 4,4'-DDE	3204200	3353600	3274240	3502640	3506290	3368194	4.013
17 Dieldrin	3261600	3314800	3365760	3501500	3534780	3395688	3.483
18 Toxaphene(1)	+++++	+++++	39627	+++++	+++++	39627	0.000
(2)	+++++	+++++	49318	+++++	+++++	49318	0.000
(3)	+++++	+++++	51662	+++++	+++++	51662	0.000
(4)	+++++	+++++	46756	+++++	+++++	46756	0.000
19 Isodrin	2860600	2804280	3396740	2897987	3140960	3020113	8.168
20 Endrin	3703000	3244100	2903400	2961360	2997380	3161848	10.414

Report Date : 10-Aug-2000 10:15

6711001

WDC
589046 8/10/00
10/10/01

STL Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 07-AUG-2000 15:52
End Cal Date : 08-AUG-2000 01:35
Quant Method : ESTD
Origin : Disabled
Target Version : 4.04
Integrator : Falcon
Method file : \\QPITPA02\D\chem\gc4.i\5080-G.b\PESTB.m
Cal Date : 10-Aug-2000 10:13 colussyj
Curve Type : Average

Compound	0.00500	0.01000	0.02500	0.05000	0.10000	RRF	% RSD
Level 1	Level 2	Level 3	Level 4	Level 5			
21 4,4'-DDD	2577600	2487900	2352760	2418220	2456840	2458664	3.394
22 Endosulfan II	2994400	2894500	2709280	2852400	2862900	2862696	3.579
23 4,4'-DDT	2456000	2464900	2422640	2537100	2542800	2484688	2.129
24 Endrin aldehyde	1240600	1334300	1306320	1402820	1418550	1340518	5.426
25 Methoxychlor	1159000	1166100	1155580	1186610	1171330	1167724	1.045
26 Endosulfan sulfate	1617000	1735800	1695280	1847580	1862520	1751636	5.923
27 Endrin ketone	1945000	2106500	2014480	2148860	2106920	2064352	4.014
28 Chlorobenzilate	4100	4240	3904	3315	3673	3846	9.511
29 Kepone	4100	4240	3904	3315	3673	3846	9.511
\$ 1 Tetrachloro-m-xylene	2408400	2410900	2242520	2218520	2151030	2286274	5.140
\$ 30 Decachlorobiphenyl	1669400	1747300	1676520	1702600	1659770	1691118	2.081

LM 8/10/00

7D
PESTICIDE CALIBRATION VERIFICATION SUMMARY

6711002

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.: 40325

SDG No.: 4140-G

GC Column: DB1701

ID: 0.53

(mm)

Init. Calib. Date(s): 08/07/00 08/08/00

EPA Sample No. (PIBLK): _____

Date Analyzed : _____

Lab Sample ID (PIBLK): _____

Time Analyzed : _____

EPA Sample No. (PEM):

Date Analyzed : 08/07/00

Lab Sample ID (PEM): EVALB

Time Analyzed : 1525

PEM COMPOUND	RT	RT WINDOW		CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
		FROM	TO			
Endrin	14.91	14.86	14.96	0.02243	0.02500	-10.3
4,4'-DDT	15.77	15.72	15.82	0.02457	0.02500	-1.7

4,4'-DDT % breakdown (1): 0.00

Endrin % breakdown (1): 0.00

Combined % breakdown (1): _____

FORM VII PEST-1

OLM03.0

6711003

7D
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.: 40325

SDG No.: 4140-G

GC Column: DB1701

ID: 0.53

(mm)

Init. Calib. Date(s): 08/07/00 08/08/00

EPA Sample No. (PIBLK): _____

Date Analyzed : _____

Lab Sample ID (PIBLK): _____

Time Analyzed : _____

EPA Sample No. (PEM):

Date Analyzed : 08/08/00

Lab Sample ID (PEM): EVALB

Time Analyzed : 0258

PEM COMPOUND	RT	RT WINDOW		CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
=====	=====	=====	=====	=====	=====	=====
Endrin	14.91	14.86	14.96	0.02216	0.02500	-11.4
4,4'-DDT	15.77	15.72	15.82	0.02475	0.02500	-1.0

4,4'-DDT % breakdown (1): 0.00

Endrin % breakdown (1): 0.00

Combined % breakdown (1): _____

FORM VII PEST-1

OLM03.0

7D
PESTICIDE CALIBRATION VERIFICATION SUMMARY

6711004

Lab Name: _____ Contract: _____
 Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 4140-G
 GC Column: DB1701 ID: 0.53 (mm) Init. Calib. Date(s): 08/07/00 08/08/00
 EPA Sample No. (PIBLK): _____ Date Analyzed : _____
 Lab Sample ID (PIBLK): _____ Time Analyzed : _____
 EPA Sample No. (PEM): _____ Date Analyzed : 08/30/00
 Lab Sample ID (PEM): EVALB Time Analyzed : 0907

PEM COMPOUND	RT	RT WINDOW FROM TO		CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Endrin	14.81	14.76	14.86	0.02305	0.02500	-7.8
4,4'-DDT	15.65	15.60	15.70	0.02415	0.02500	-3.4

4,4'-DDT % breakdown (1): ~~6.93~~ 7.4 Endrin % breakdown (1): 0.00
 Combined % breakdown (1): ~~6.93~~ 7.4

UM
8/31/00

PESTICIDE CALIBRATION VERIFICATION SUMMARY

6711005

Lab Name:

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.: 4140-G

GC Column: DB1701

ID: 0.53

(mm) Init. Calib. Date(s): 08/07/00 08/08/00

EPA Sample No. (PIBLK): _____

Date Analyzed : _____

Lab Sample ID (PIBLK): _____

Time Analyzed : _____

EPA Sample No. (PEM):

Date Analyzed : 08/30/00

Lab Sample ID (PEM): EVALB

Time Analyzed : 2231

PEM COMPOUND	RT	RT WINDOW FROM TO		CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
=====	=====	=====	=====	=====	=====	=====
Endrin	14.81	14.76	14.86	0.02502	0.02500	0.1
4,4'-DDT	15.65	15.60	15.70	0.02211	0.02500	-11.6

4,4'-DDT % breakdown (1): ~~10.36~~ 11.7 Endrin % breakdown (1): 0.00Combined % breakdown (1): ~~10.36~~ 11.7Lm
8/31/00

Data File: \\qpitpa02\d\chem\gc4.i\5280-G.b\D-B5760.d
Report Date: 31-Aug-2000 09:02

7E
589046
DB1701

6711006

STL - Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc4.i Injection Date: 30-AUG-2000 10:02
Lab File ID: D-B5760.d Init. Cal. Date(s): 07-AUG-2000 08-AUG-2000
Analysis Type: Init. Cal. Times: 15:52 01:35
Lab Sample ID: MEDF Quant Type: ESTD
Method: \\qpitpa02\d\chem\gc4.i\5280-G.b\PESTB.m

COMPOUND	RRF	RFO	MIN RRF	MAX RD	MAX RD
4 HEXACHLOROBENZENE	4590200	5229560	0.010	13.9	15.0
58 MIREX	1777224	2008320	0.010	13.0	15.0

72

589043

DB1701

Data File: \\qpitpa02\d\chem\gc4.i\5280-G.b\D-B5759.d
Report Date: 31-Aug-2000 09:05

6711007

STL - Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc4.i Injection Date: 30-AUG-2000 09:34
Lab File ID: D-B5759.d Init. Cal. Date(s): 07-AUG-2000 08-AUG-2000
Analysis Type: Init. Cal. Times: 15:52 01:35
Lab Sample ID: MEDIX Quant Type: ESTD
Method: \\qpitpa02\d\chem\gc4.i\5280-G.b\PESTB.m

COMPOUND	RRF	RFO	MIN	MAX
2 Diallate A	93000	56426	0.010	-39.3 15.0 <-
3 Diallate B	20290	12132	0.010	-40.2 15.0 <-
19 Isodrin	3020113	1697960	0.010	-43.8 15.0 <-
28 Chlorobenzilate	172748	100360	0.010	-41.9 15.0 <-
29 Kepone	3846	2648	0.010	-31.2 15.0 <-

Data File: \\qpitpa02\d\chem\gc4.i\5280-G.b\D-B5761.d
Report Date: 31-Aug-2000 09:03

7E
58904A
DB/70/

6711008

STL - Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc4.i Injection Date: 30-AUG-2000 10:30
Lab File ID: D-B5761.d Init. Cal. Date(s): 07-AUG-2000 08-AUG-2000
Analysis Type: Init. Cal. Times: 15:52 01:35
Lab Sample ID: MEDA Quant Type: ESTD
Method: \\qpitpa02\d\chem\gc4.i\5280-G.b\PESTB.m

COMPOUND	RRF	RPO	MIN	MAX
			RRF	%D
1 Tetrachloro-m-xylene	2286274	2445040	0.000	6.9
5 alpha-BHC	3064352	3253000	0.010	6.2
6 gamma-BHC (Lindane)	2652162	2870480	0.010	8.2
10 Heptachlor	2939876	3073240	0.010	4.5
15 Endosulfan I	1195984	3298640	0.010	3.2
17 Dieldrin	3395688	3645400	0.010	7.4
20 Endrin	3161848	2997480	0.010	-5.2
21 4,4'-DDD	2458664	2589880	0.010	5.3
23 4,4'-DDT	2484688	2485040	0.010	0.0
25 Methoxychlor	1167724	1187400	0.010	1.7
30 Decachlorobiphenyl	1691118	1832600	0.010	8.4

Data File: \\qpitpa02\d\chem\gc4.i\5280-G.b\D-B5762.d
Report Date: 31-Aug-2000 09:03

7L
589043
DB1707

6711009

STL - Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc4.i Injection Date: 30-AUG-2000 10:58
Lab File ID: D-B5762.d Init. Cal. Date(s): 07-AUG-2000 08-AUG-2000
Analysis Type: Init. Cal. Times: 15:52 01:35
Lab Sample ID: MEDB Quant Type: ESTD
Method: \\qpitpa02\d\chem\gc4.i\5280-G.b\PESTB.m

COMPOUND	RRF	RFO	MIN	MAX
			RRF	%D
11 Aldrin	2848242	2999000	0.010	5.3
7 beta-BHC	1662692	1658280	0.010	-0.3
8 delta-BHC	3435360	3181320	0.010	-7.4
12 Heptachlor epoxide	3313588	3469000	0.010	4.7
13 gamma-Chlordane	3392070	3501080	0.010	3.2
14 alpha-Chlordane	3307730	3476040	0.010	5.1
16 4,4'-DDE	3368194	3603280	0.010	7.0
22 Endosulfan II	2862696	2874120	0.010	0.4
24 Endrin aldehyde	1340518	1460880	0.010	9.0
26 Endosulfan sulfate	1751636	1657200	0.010	-5.4
27 Endrin ketone	2064352	2241240	0.010	8.6

AVE = 6.6

Data File: \\qpitpa02\d\chem\gc4.i\5280-G.b\D-B5783.d
Report Date: 31-Aug-2000 09:29

7E
5B9018
08/17/01

6711010

STL - Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc4.i Injection Date: 30-AUG-2000 20:40
Lab File ID: D-B5783.d Init. Cal. Date(s): 07-AUG-2000 08-AUG-2000
Analysis Type: Init. Cal. Times: 15:52 01:35
Lab Sample ID: MEDIX Quant Type: ESTD
Method: \\qpitpa02\d\chem\gc4.i\5280-G.b\PESTB.m

COMPOUND	RRF	RFO	MIN	RRF	%D	MAX
2 Diallate A	93000	53980	0.010	-42.0	15.0	<-
3 Diallate B	20290	11184	0.010	-44.9	15.0	<-
19 Isodrin	3020113	1678840	0.010	-44.4	15.0	<-
28 Chlorobenzilate	172748	104900	0.010	-39.3	15.0	<-
29 Kepone	3846	2630	0.010	-31.6	15.0	<-

Data File: \\qpitpa02\d\chem\gc4.i\5280-G.b\D-B5784.d
Report Date: 31-Aug-2000 09:21

7E
SP104B
DB1707

6711011

STL - Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc4.i Injection Date: 30-AUG-2000 21:08
Lab File ID: D-B5784.d Init. Cal. Date(s): 07-AUG-2000 08-AUG-2000
Analysis Type: Init. Cal. Times: 15:52 01:35
Lab Sample ID: MEDF Quant Type: ESTD
Method: \\qpitpa02\d\chem\gc4.i\5280-G.b\PESTB.m

COMPOUND	RRF	RFO	MIN	%D	MAX
4 HEXACHLOROBENZENE	4590200	5244240	0.010	14.2	15.0
58 MIREX	1777224	1985560	0.010	11.7	15.0

Data File: \\qpitpa02\d\chem\gc4.i\5280-G.b\D-B5785.d
Report Date: 31-Aug-2000 09:21

STL - Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc4.i Injection Date: 30-AUG-2000 21:35
Lab File ID: D-B5785.d Init. Cal. Date(s): 07-AUG-2000 08-AUG-2000
Analysis Type: Init. Cal. Times: 15:52 01:35
Lab Sample ID: MEDA Quant Type: ESTD
Method: \\qpitpa02\d\chem\gc4.i\5280-G.b\PESTB.m

COMPOUND	RRF	RFO	MIN	MAX
			RRF	%D
\$ 1 Tetrachloro-m-xylene	2286274	2471440	0.000	8.1
5 alpha-BHC	3064352	3082560	0.010	0.6
6 gamma-BHC (Lindane)	2652162	2713240	0.010	2.3
10 Heptachlor	2939876	3059080	0.010	4.1
15 Endosulfan I	3195984	3343160	0.010	4.6
17 Dieldrin	3395688	3664840	0.010	7.9
20 Endrin	3161848	3315920	0.010	4.9
21 4,4'-DDD	2458664	2656160	0.010	8.0
23 4,4'-DDT	2484688	2197800	0.010	-11.5
25 Methoxychlor	1167724	1186020	0.010	1.6
\$ 30 Decachlorobiphenyl	1691118	1837760	0.010	8.7

Data File: \\qpitpa02\d\chem\gc4.i\5280-G.b\D-B5786.d
Report Date: 31-Aug-2000 09:22

7E
58904B
DB1701

STL - Pittsburgh

6711013

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc4.i Injection Date: 30-AUG-2000 22:03
Lab File ID: D-B5786.d Init. Cal. Date(s): 07-AUG-2000 08-AUG-2000
Analysis Type: Init. Cal. Times: 15:52 01:35
Lab Sample ID: MEDB Quant Type: ESTD
Method: \\qpitpa02\d\chem\gc4.i\5280-G.b\PESTB.m

COMPOUND	RRF	RPO	MIN	MAX
11 Aldrin	2848242	3009880	0.010	5.7 15.0
7 beta-BHC	1662692	1646200	0.010	-1.0 15.0
8 delta-BHC	3435360	2248480	0.010	-34.5 15.0 <-
12 Heptachlor epoxide	3313588	3486160	0.010	5.2 15.0
13 gamma-Chlordane	3392070	3502200	0.010	3.2 15.0
14 alpha-Chlordane	3307730	3481040	0.010	5.2 15.0
16 4,4'-DDE	3368194	3624520	0.010	7.6 15.0
22 Endosulfan II	2862696	2970920	0.010	3.8 15.0
24 Endrin aldehyde	1340518	1465200	0.010	9.3 15.0
26 Endosulfan sulfate	1751636	1334040	0.010	-23.8 15.0 <-
27 Endrin ketone	2064352	2145440	0.010	3.9 15.0

AVE = 8.7

8D
PESTICIDE ANALYTICAL SEQUENCE

6711014

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.: 40325

SDG No.: C0H260118

GC Column: DB1701

ID: 0.53

(mm) Init. Calib. Date(s): 08/07/00 08/08/00

Instrument ID: GC4

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION					
TCX: 5.63			DCB: 20.06		
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
=====	=====	=====	=====	=====	=====
01	EVALB	08/07/00	1525	5.73*	20.28*
02	MEDTOX	08/07/00	1552	5.72*	20.28*
03	MEDCHLOR	08/07/00	1620	5.73*	20.29*
04	LOWIX	08/07/00	1648		
05	MLOWIX	08/07/00	1716		
06	MEDIX	08/07/00	1743		
07	MHIGHIX	08/07/00	1811		
08	HIGHIX	08/07/00	1839		
09	LOWF	08/07/00	1907		
10	MLOWF	08/07/00	1934		
11	MEDF	08/07/00	2002		
12	MHIGHF	08/07/00	2030		
13	HIGHF	08/07/00	2058		
14	LOWA	08/07/00	2125	5.73*	20.27*
15	MLOWA	08/07/00	2153	5.73*	20.27*
16	MEDA	08/07/00	2221	5.73*	20.27*
17	MHIGHA	08/07/00	2249	5.74*	20.27*
18	HIGHA	08/07/00	2316	5.73*	20.27*
19	LOWB	08/07/00	2344		
20	MLOWB	08/08/00	0012		
21	MEDB	08/08/00	0039		
22	MHIGHB	08/08/00	0107		
23	HIGHB	08/08/00	0135		
24	2ND A	08/08/00	0203	5.73*	20.26*
25	2ND B	08/08/00	0230		
26	EVALB	08/08/00	0258	5.75*	20.27*
27	EVALB	08/30/00	0907	5.63	20.04
28	MEDIX	08/30/00	0934		
29	MEDF	08/30/00	1002		
30	MEDA	08/30/00	1030	5.62	20.04
31	MEDB	08/30/00	1058		
32	PBLK1	08/30/00	1153	5.63	20.04

QC LIMITS

TCX = Tetrachloro-m-xylene (+/- 0.05 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.05 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

6711015

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.: 40325

SDG No.: C0H260118

GC Column: DB1701

ID: 0.53

(mm)

Init. Calib. Date(s): 08/07/00 08/08/00

Instrument ID: GC4

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION					
TCX: 5.63			DCB: 20.06		
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01 LCS1	DJKFP102	08/30/00	1221	5.63	20.04
02 LCD1	DJKFP103	08/30/00	1248	5.63	20.04
03 DF/S1/0238/S	DJG82104	08/30/00	1316	5.62	20.04
04	MEDIX	08/30/00	2040		
05	MEDF	08/30/00	2108		
06	MEDA	08/30/00	2135	5.62	20.03
07	MEDE	08/30/00	2203		
08	EVALB	08/30/00	2231	5.62	20.04
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					

QC LIMITS

TCX = Tetrachloro-m-xylene (+/- 0.05 MINUTES)

DCB = Decachlorobiphenyl (+/- 0.05 MINUTES)

Column used to flag retention time values with an asterisk.

* Values outside of QC limits.

STL Pittsburgh

Data file : \\QPITPA02\D\chem\gc4.i\5080-G.b\D-B5151.d
Lab Smp Id: EVALB
Inj Date : 07-AUG-2000 15:25
Operator : 1891 Inst ID: gc4.i
Smp Info : EVALB,5080-G.b,,EVALBR.sub,,3,1
Misc Info : 190-88-8
Comment :
Method : \\QPITPA02\D\chem\gc4.i\5080-G.b\PESTB.m
Meth Date : 10-Aug-2000 10:37 colussyj Quant Type: ESTD
Cal Date : 08-AUG-2000 01:35 Cal File: D-B5173.d
Als bottle: 1 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: EVALBR.sub
Target Version: 4.04
Processing Host: PITPC085

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN { ng}	FINAL { ng}
\$ 1 Tetrachloro-m-xylene	5.726	5.720	0.006	45388	0.01985	0.01985(R)
16 4,4'-DDE				Compound Not Detected		
20 Endrin	14.913	14.913	0.000	70927	0.02243	0.02243
21 4,4'-DDD				Compound Not Detected		
23 4,4'-DDT	15.766	15.766	0.000	61058	0.02457	0.02457
24 Endrin aldehyde				Compound Not Detected		
27 Endrin ketone				Compound Not Detected		
\$ 30 Decachlorobiphenyl	20.280	20.280	0.000	34261	0.02026	0.02026(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: \\QPI\TPA02\JN\chem\gc4.1\5080-G.b\D-B5151.d
Date : 07-AUG-2000 15:25

Client ID:

Sample Info: EVALB.5080-G.b., EVALBR.sub.,3,1

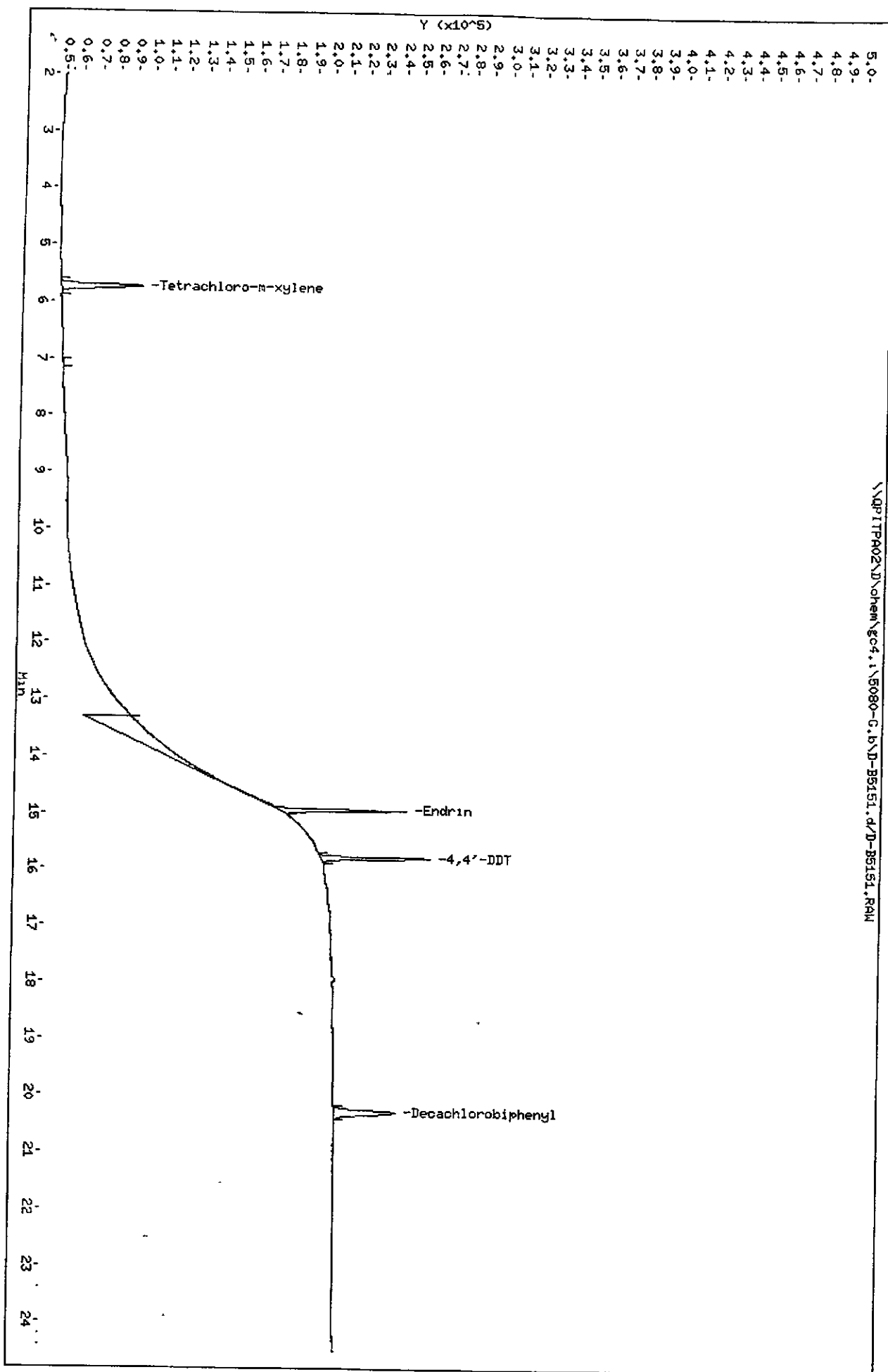
Column phase: DB1701

Instrument: gc4.1

Operator: 1891

Column diameter: 0.53

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2101129

Data File: \\QPITPA02\D\chem\gc4.i\5080-G.b\D-B5152.d
Report Date: 10-Aug-2000 10:41

6711018

STL Pittsburgh

Data file : \\QPITPA02\D\chem\gc4.i\5080-G.b\D-B5152.d
Lab Smp Id: MEDTOX
Inj Date : 07-AUG-2000 15:52
Operator : 1891 Inst ID: gc4.i
Smp Info : MEDTOX,5080-G.b,,1-TOX.sub,,1,3
Misc Info : 190-98-12
Comment :
Method : \\QPITPA02\D\chem\gc4.i\5080-G.b\PESTB.m
Meth Date : 10-Aug-2000 10:37 colussyj Quant Type: ESTD
Cal Date : 07-AUG-2000 15:52 Cal File: D-B5152.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1-TOX.sub
Target Version: 4.04
Processing Host: PITPC085

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (rg)
*****	RT	*****	*****	*****	*****	*****
18 Toxaphene	15 353	15 353	0 000	39627	1 00000	1 000 (M)
\$ 1 Tetrachloro-m-xylene	5.720	5.720	0 000	56063	0.02500	0.02500
\$ 30 Decachlorobiphenyl	20 280	20 280	0.000	41913	0 02500	0 02500

QC Flag Legend

M - Compound response manually integrated.

Data File: \\QPI17PA02\chem\gc4,1\5080-G,b\D-B5152.d
Date: 07-AUG-2000 15:52

Client ID:

Sample Info: MEDTOX, 5080-G, b, 1-TOX, sub, 1, 3

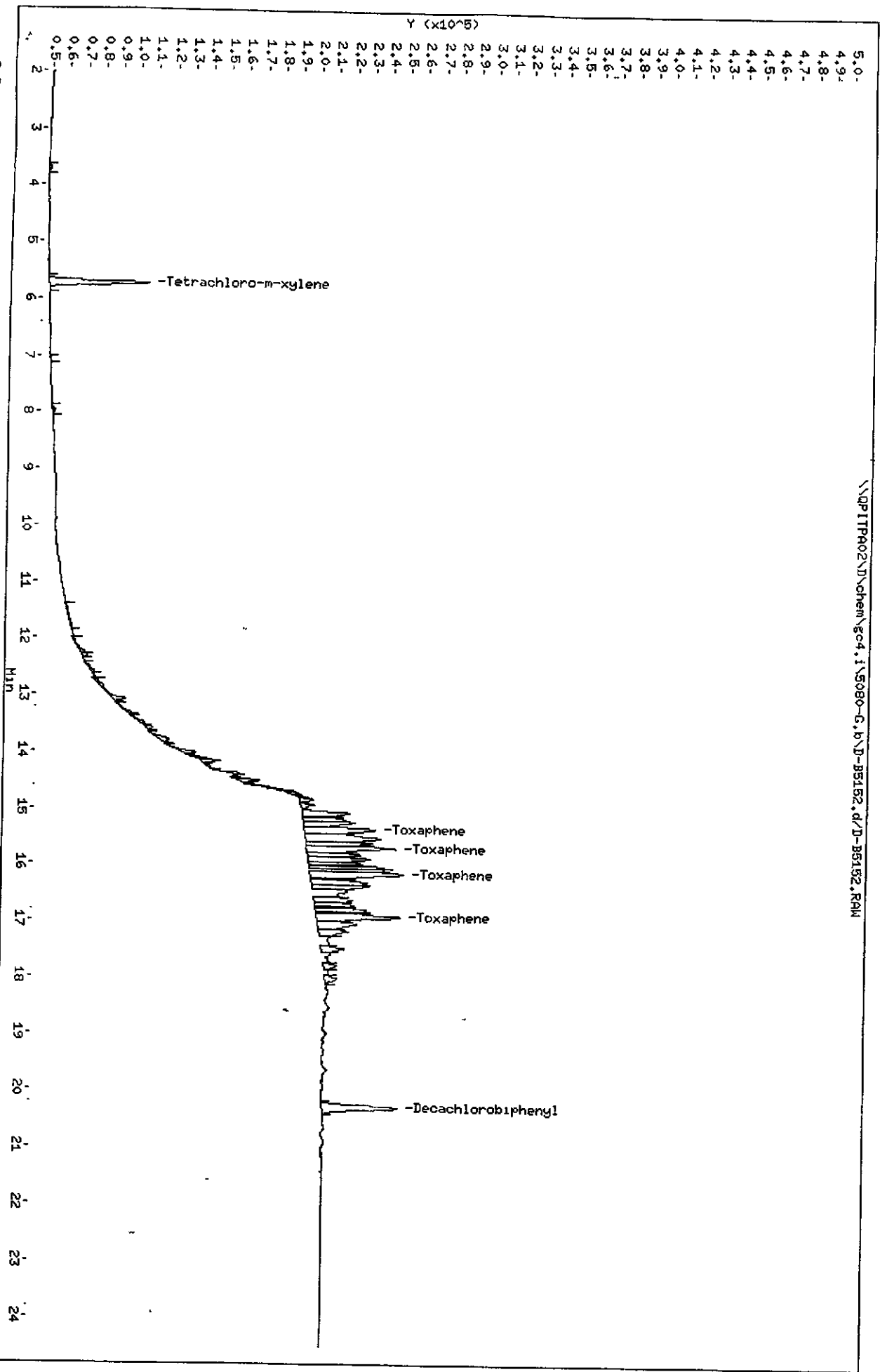
Column phase: DB1701

Instrument: gc4,1

Operator: 1891

Column diameter: 0.53

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6101129

Data File: \\QPITPA02\D\chem\gc4.i\5080-G.b\D-B5153.d
Report Date: 10-Aug-2000 10:41

6711020

STL Pittsburgh

Data file : \\QPITPA02\D\chem\gc4.i\5080-G.b\D-B5153.d
Lab Smp Id: MEDCHLOR
Inj Date : 07-AUG-2000 16:20
Operator : 1891 Inst ID: gc4.i
Smp Info : MEDCHLOR,5080-G.b,,2-CHLO.sub,,1,3
Misc Info : 190-85-10
Comment :
Method : \\QPITPA02\D\chem\gc4.i\5080-G.b\PESTB.m
Meth Date : 10-Aug-2000 10:37 colussyj Quant Type: ESTD
Cal Date : 07-AUG-2000 16:20 Cal File: D-B5153.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 2-CHLO.sub
Target Version: 4.04
Processing Host: PITPC085

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
9 Chlordane	10.280	10.280	0.000	20567	0.25000	0.2500
\$ 1 Tetrachloro-m xylene	5.726	5.720	0.006	61356	0.02500	0.02500
\$ 30 Decachlorobiphenyl	20.286	20.280	0.006	46912	0.02500	0.02500

Data File: \\QIPITPA02\IN\chem\g04.1\5080-G.b\D-B5153.d
Date : 07-AUG-2000 16:20

Client ID:

Sample Info: MEDICHLOR.5080-G.b,2-CHL.D.sub,1,3

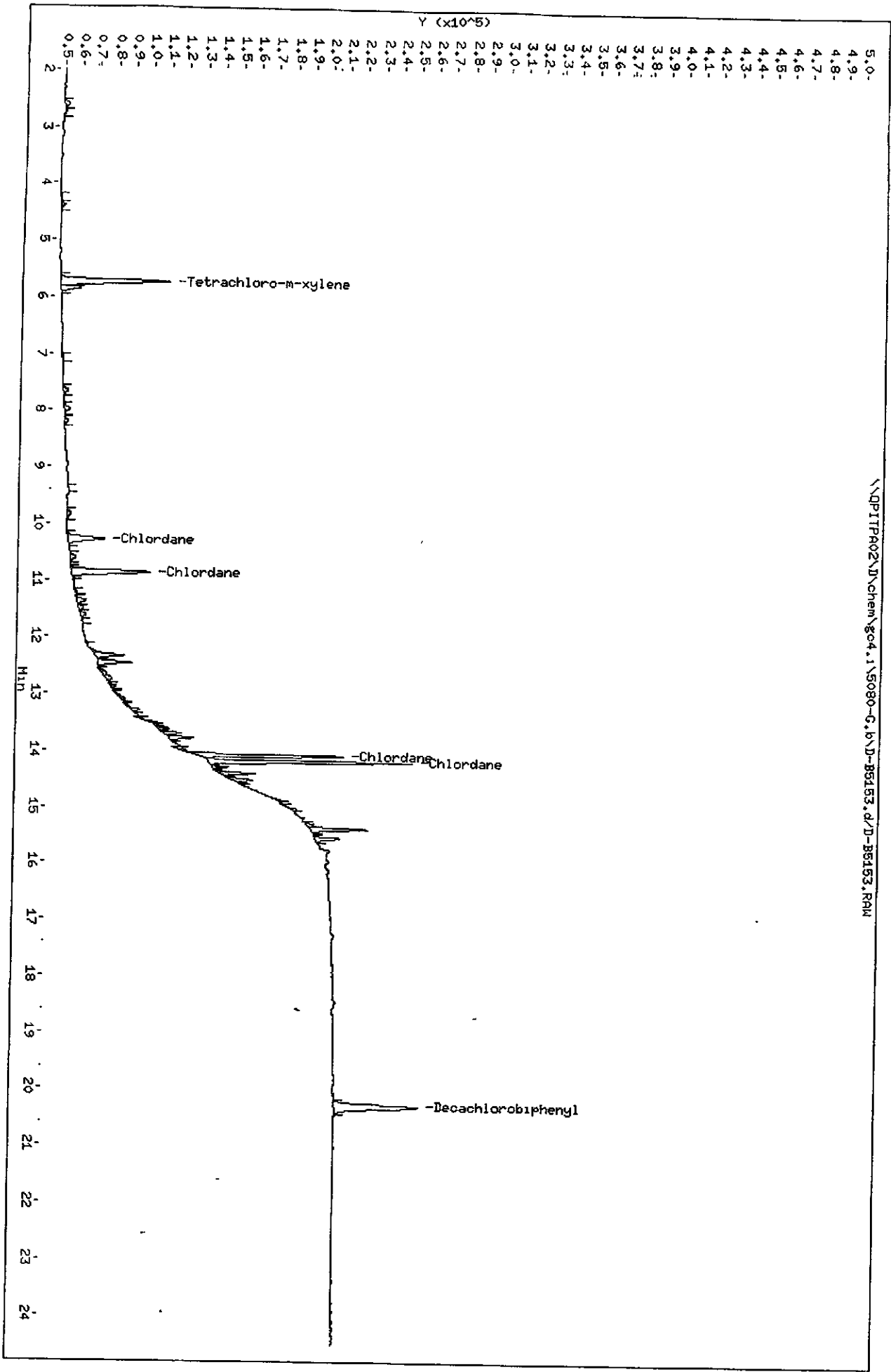
Column phase: DB1701

Instrument: g04.1

Operator: 1891

Column diameter: 0.53

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1201129

STL Pittsburgh

Data file : \\QPITPA02\D\chem\gc4.i\5080-G.b\D-B5164.d
 Lab Smp Id: LOWA
 Inj Date : 07-AUG-2000 21:25
 Operator : 1891 Inst ID: gc4.i
 Smp Info : LOWA,5080-G.b,,3-INDA.sub,,1,1
 Misc Info : 190-84-1
 Comment :
 Method : \\QPITPA02\D\chem\gc4.i\5080-G.b\PESTB.m
 Meth Date : 10-Aug-2000 10:37 colussyj Quant Type: ESTD
 Cal Date : 08-AUG-2000 00:39 Cal File: D-B5171.d
 Als bottle: 1 Calibration Sample, Level: 1
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: 3-INDA.sub
 Target Version: 4.04
 Processing Host: PITPC085

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
=====	==	=====	=====	=====	=====	=====
\$ 1 Tetrachloro m-xylene	5.733	5.720	0.013	12042	0.00500	0.005178
5 alpha-BHC	8.546	8.546	0.000	13335	0.00500	0.004660
6 gamma-BHC (Lindane)	9.966	9.960	0.006	11910	0.00500	0.004740
10 Heptachlor	10.860	10.860	0.000	14225	0.00500	0.004924
15 Endosulfan I	14.006	14.036	0.000	15582	0.00500	0.004971
17 Dieldrin	14.600	14.600	0.000	16308	0.00500	0.004921
20 Endrin	14.913	14.913	0.000	18515	0.00500	0.005605
21 4,4'-DDD	15.466	15.466	0.000	12888	0.00500	0.005228
23 4,4'-DDT	15.766	15.766	0.000	12280	0.00500	0.005034
25 Methoxychlor	16.833	16.833	0.000	11590	0.01000	0.010001
\$ 30 Decachlorobiphenyl	20.266	20.280	-0.014	8347	0.00500	0.004989

Data File: \\QPIPP02\\chem\\gc4.1\\5080-G.b\\D-B5164.d
Date : 07-AUG-2000 21:25

Client ID:

Sample Info: LOM, 5080-G.b, 3-INDA.sub, 1,1

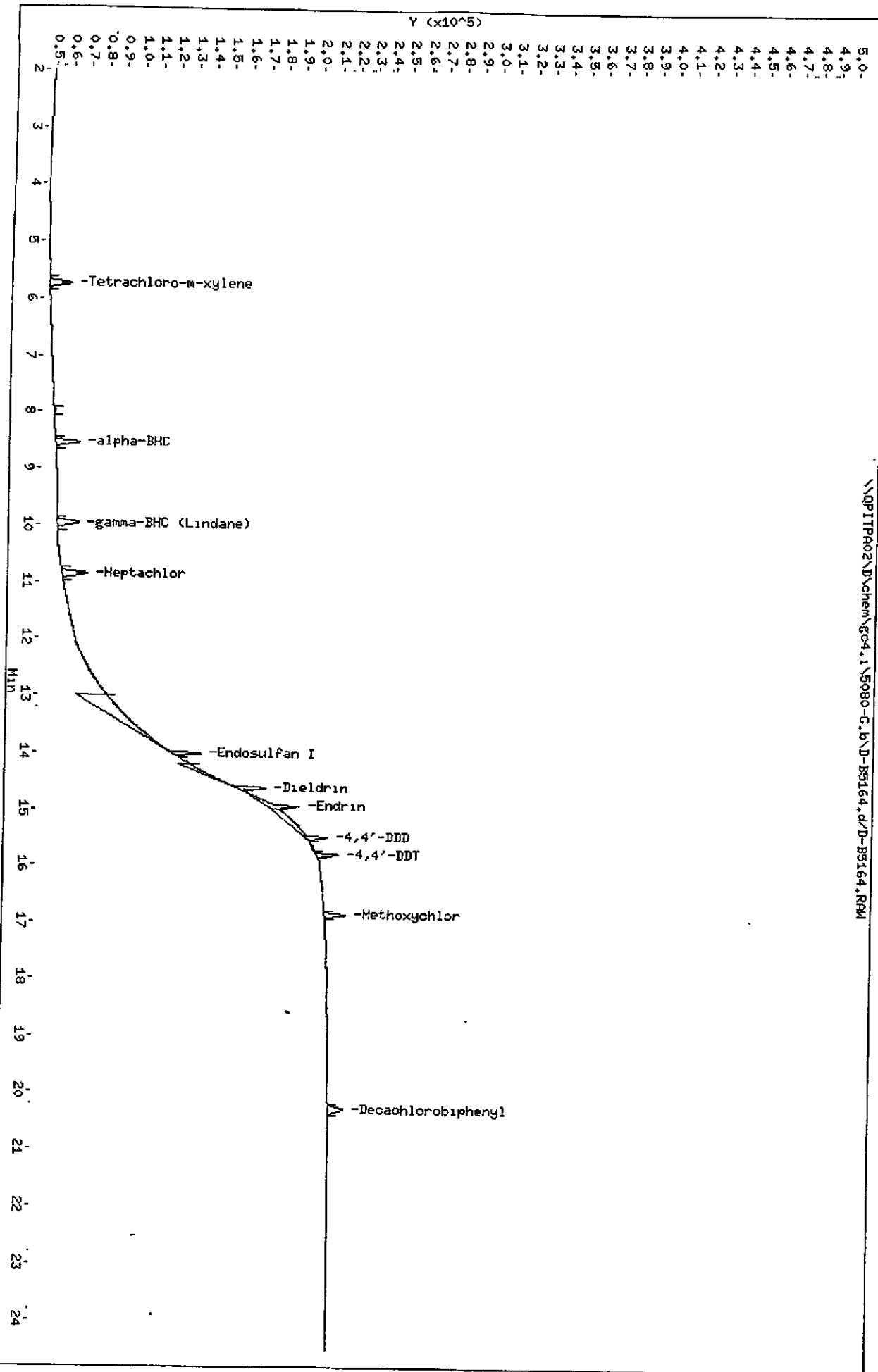
Column phase: DB1701

Instrument: gc4.1

Operator: 1891

Column diameter: 0.53

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6201129

STL Pittsburgh

Data file : \\QPITPA02\D\chem\gc4.i\5080-G.b\D-B5165.d
Lab Smp Id: MLOWA
Inj Date : 07-AUG-2000 21:53
Operator : 1891 Inst ID: gc4.i
Smp Info : MLOWA,5080-G.b,,3-INDA.sub,,1,2
Misc Info : 190-84-2
Comment :
Method : \\QPITPA02\D\chem\gc4.i\5080-G.b\PESTB.m
Meth Date : 10-Aug-2000 10:37 colussyj Quant Type: ESTD
Cal Date : 08-AUG-2000 00:39 Cal File: D-B5171.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3-INDA.sub
Target Version: 4.04
Processing Host: PITPC085

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
=====	==	=====	=====	=====	=====	=====
\$ 1 Tetrachloro-m-xylene	5.726	5.720	0.006	24109	0.01000	0.01024
5 alpha-BHC	8.540	8.546	-0.006	28308	0.01000	0.009929
6 gamma-BHC (Lindane)	9.960	9.960	0.000	25112	0.01000	0.009996
10 Heptachlor	10.860	10.860	0.000	28815	0.01000	0.009983
15 Endosulfan I	14.006	14.006	0.000	31973	0.01000	0.01013
17 Dieldrin	14.600	14.600	0.000	33148	0.01000	0.01000
20 Endrin	14.913	14.913	0.000	32441	0.01000	0.009880
21 4,4' DDD	15.466	15.466	0.000	24879	0.01000	0.01006
23 4,4'-DDT	15.766	15.766	0.000	24649	0.01000	0.01007
25 Methoxychlor	16.833	16.833	0.000	23322	0.02000	0.02010
\$ 30 Decachlorobiphenyl	20.266	20.280	-0.014	17473	0.01000	0.01029

Data File: \\QPITPA02\N\chem\gc04.1\5080-G,b\D-B5165.d
Date : 07-AUG-2000 21:53

Client ID:

Sample Info: HL040,5080-G,b,,3-INDR,sub,,1,2

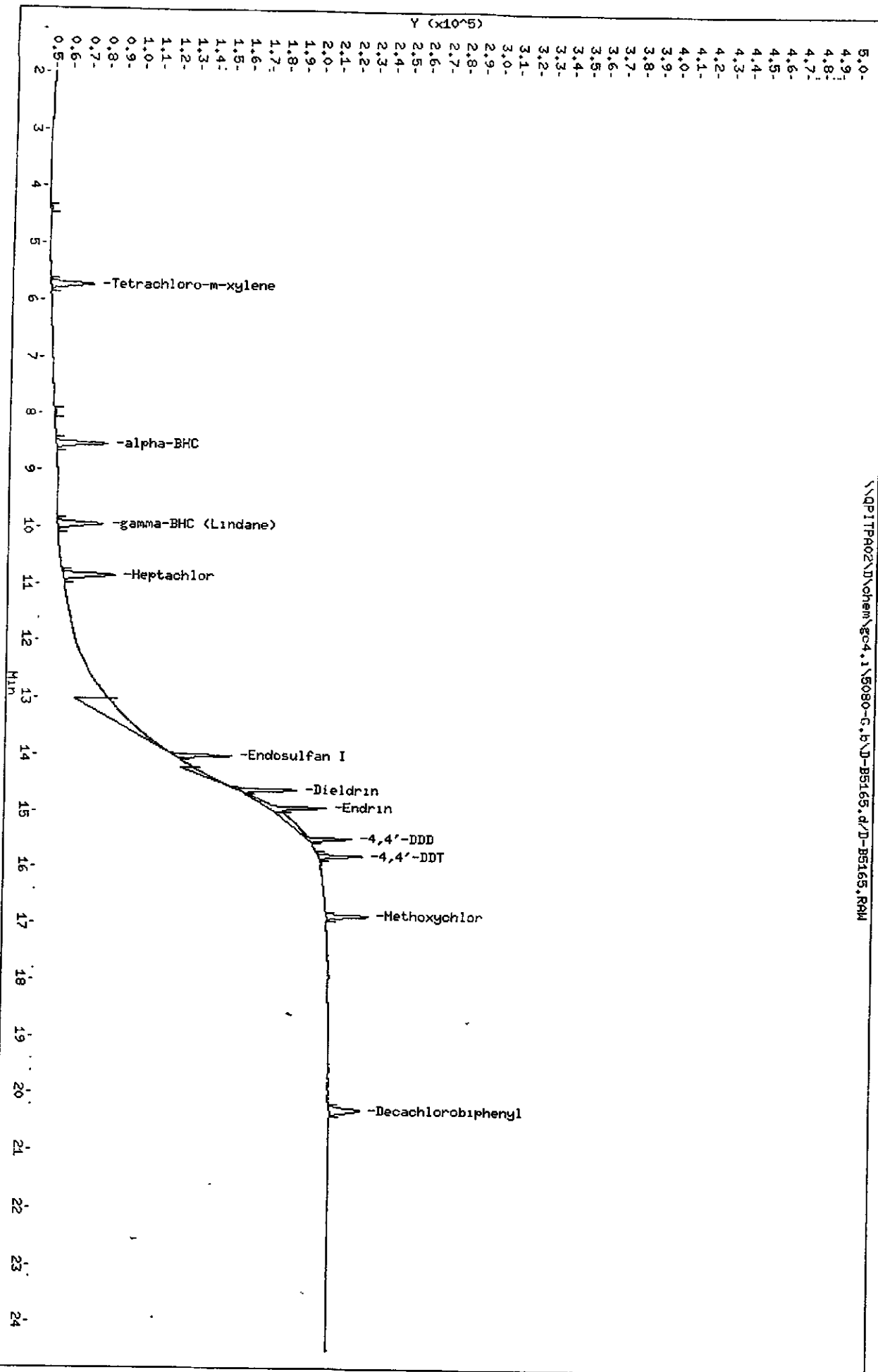
Column phase: DB1701

Instrument: gc04.1

Operator: 1891

Column diameter: 0.53

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5201129

STL Pittsburgh

Data file : \\QPITPA02\D\chem\gc4.i\5080-G.b\D-B5166.d
Lab Smp Id: MEDA
Inj Date : 07-AUG-2000 22:21
Operator : 1891 Inst ID: gc4.i
Smp Info : MEDA,5080-G.b,,3-INDA.sub,,1,3
Misc Info : 190-84-3
Comment :
Method : \\QPITPA02\D\chem\gc4.i\5080-G.b\PESTB.m
Meth Date : 10-Aug-2000 10:37 colussyj Quant Type: ESTD
Cal Date : 07-AUG-2000 22:21 Cal File: D-B5166.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3-INDA.sub
Target Version: 4.04
Processing Host: PITPC085

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON COL (ng)
\$ 1 Tetrachloro m xylene	5.733	5.720	0.013	57884	0.02500	0 02500
5 alpha-BHC	8 546	8.546	0.000	76388	0.02500	0 02500
6 gamma-BHC (Lindane)	9 960	9 960	0 000	66083	0 02500	0 02500
10 Heptachlor	10.860	10 860	0 000	73312	0 02500	0 02500
15 Endosulfan I	14.006	14.006	0 000	78830	0.02500	0.02500
17 Dieldrin	14 600	14.600	0.000	84144	0 02500	0 02500
20 Endrin	14 913	14 913	0 000	72585	0 02500	0 02500
21 4,4'-DDD	15 466	15 466	0 000	58819	0.02500	0 02500
23 4,4'-DDT	15 766	15 766	0 000	60566	0.02500	0 02500
25 Methoxychlor	16 833	16 833	0.000	57779	0 05000	0 05000
\$ 30 Decachlorobiphenyl	20.266	20 280	0 014	42252	0.02500	0 02500

Data File: \\NPITPA02\chem\gc4.1\5080-G.b\D-B5166.d
Date : 07-AUG-2000 22:21

Client ID:

Sample Info: HEDA, 5080-G.b, 3-INDA, sub, 1.3

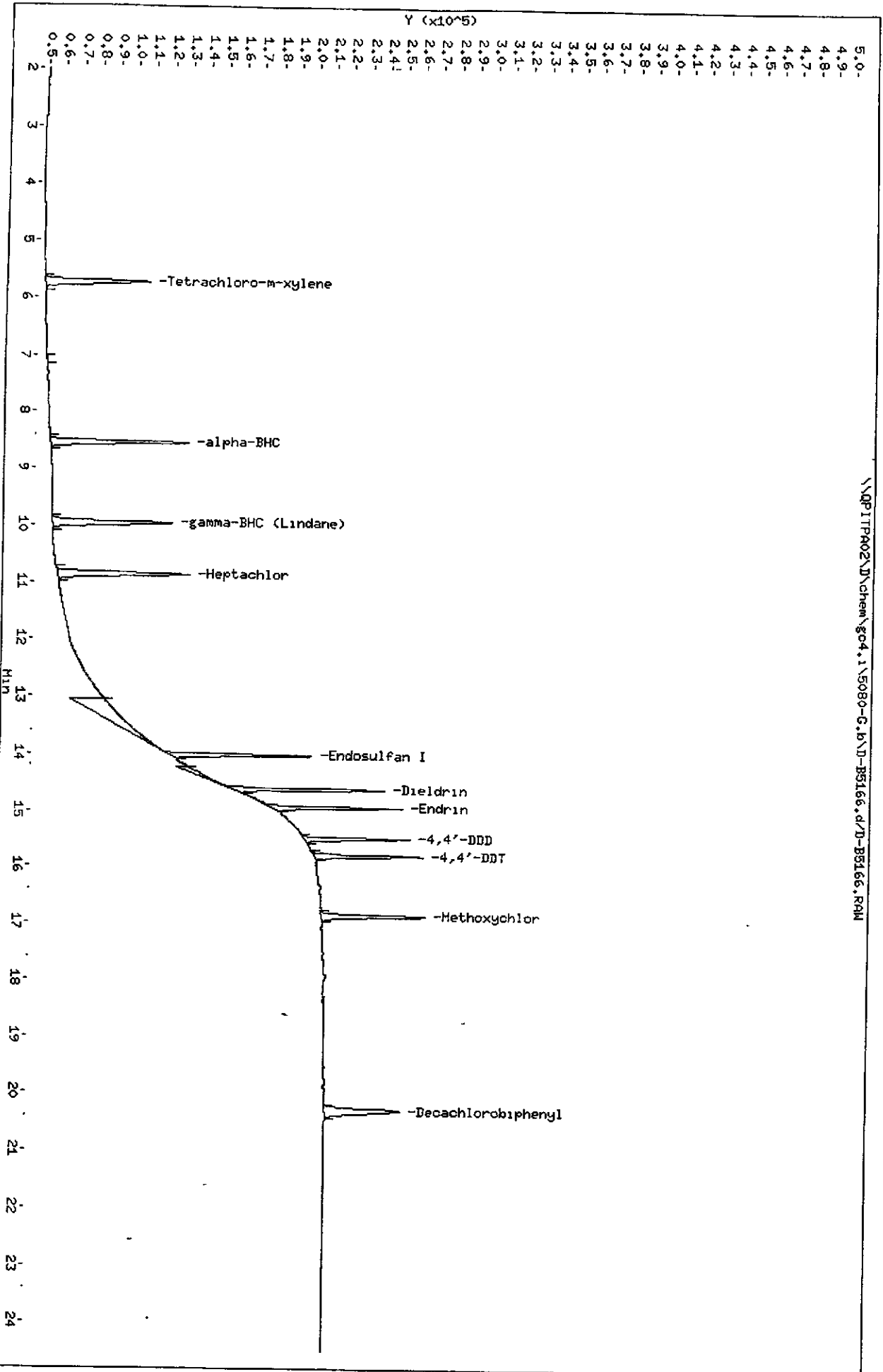
Column phase: DB1701

Instrument: gc4.1

Operator: 1891

Column diameter: 0.53

\\NPITPA02\chem\gc4.1\5080-G.b\D-B5166.d\D-B5166.RAW



4201169

6711028

STL Pittsburgh

Data file : \\QPITPA02\D\chem\gc4.i\5080-G.b\D-B5167.d
Lab Smp Id: MHIGHA
Inj Date : 07-AUG-2000 22:49
Operator : 1891 Inst ID: gc4.i
Smp Info : MHIGHA,5080-G.b,,3-INDA.sub,,1,4
Misc Info : 190-84-4
Comment :
Method : \\QPITPA02\D\chem\gc4.i\5080-G.b\PESTB.m
Meth Date : 10-Aug-2000 10:37 colussyj Quant Type: ESTD
Cal Date : 08-AUG-2000 00:39 Cal File: D-B5171.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3-INDA.sub
Target Version: 4.04
Processing Host: PITPC085

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
\$ 1 Tetrachloro-m-xylene	5 740	5 720	0.020	110926	0 05000	0.04781
5 alpha BHC	8 546	8 546	0 000	166513	0 05000	0 05605
6 gamma-BHC (Lindane)	9 966	9 960	0 006	141563	0.05000	0 05462
10 Heptachlor	10 866	10.860	0.006	151092	0.05000	0.05174
15 Endosulfan I	14 006	14 006	0 000	163403	0 05000	0 05132
17 Dieldrin	14 600	14 600	0 000	175075	0 05000	0 05209
20 Endrin	14.913	14 913	0 000	148068	0.05000	0 04623
21 4,4'-DDD	15 466	15 466	0 000	120911	0 05000	0.04917
23 4,4'-DDT	15 766	15 766	0 000	126855	0 05000	0 05135
25 Methoxychlor	16 833	16 833	0 000	118661	0 10000	0 1017
\$ 30 Decachlorobiphenyl	20 266	20.280	-0 014	85130	0 05000	0 05011

Data File: \\QIPITPA02\N\chem\gc4.1\5080-G.b\D-B5167.d
Date : 07-AUG-2000 22:49

Client ID:

Sample Info: MHIGH0,5080-G.b,,3-INDA,sub,1,4

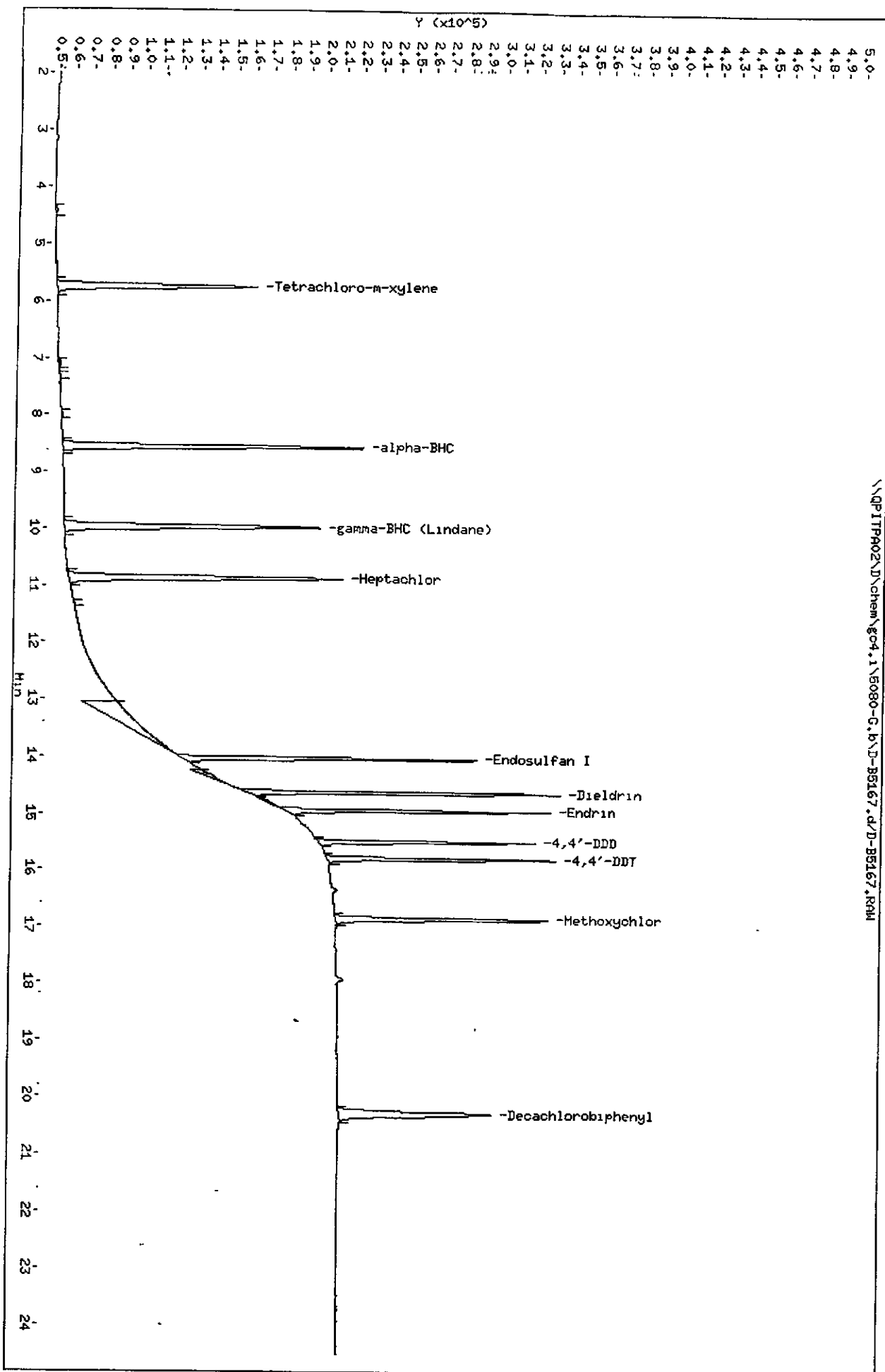
Column phase: DB1701

Instrument: gc4.1

Operator: 1891

Column diameter: 0.53

\\QIPITPA02\N\chem\gc4.1\5080-G.b\D-B5167.d\D-B5167.RAW



6201129

STL Pittsburgh

Data file : \\QPITPA02\D\chem\gc4.i\5080-G.b\D-B5168.d
Lab Smp Id: HIGHA
Inj Date : 07-AUG-2000 23:16
Operator : 1891 , Inst ID: gc4.i
Smp Info : HIGHA,5080-G.b,,3-INDA.sub,,1,5
Misc Info : 190-84-5
Comment :
Method : \\QPITPA02\D\chem\gc4.i\5080-G.b\PESTB.m
Meth Date : 10-Aug-2000 10:37 colussyj Quant Type: ESTD
Cal Date : 08-AUG-2000 00:39 Cal File: D-B5171.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3-INDA.sub
Target Version: 4.04
Processing Host: PITPC085

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
-----	==	=====	=====	=====	-----	-----
\$ 1 Tetrachloro-m-xylene	5.733	5.720	0.013	215103	0 10000	0 09408
5 alpha-BHC	8.546	8.546	0.000	343818	0 10000	0 1122(A)
6 gamma-BHC (Lindane)	9.966	9.960	0.006	289303	0 10000	0.1091(A)
10 Heptachlor	10.860	10.860	0.000	301856	0 10000	0.1027(A)
15 Endosulfan I	14.006	14.006	0.000	324496	0 10000	0 1015(A)
17 Dieldrin	14.600	14.600	0.000	353478	0.10000	0 1041(A)
20 Endrin	14.913	14.913	0.000	299738	0 10000	0 09480
21 4,4'-DDD	15.466	15.466	0.000	245684	0 10000	0 09992
23 4,4'-DDT	15.766	15.766	0.000	254280	0.10000	0 1023(A)
25 Methoxychlor	16.833	16.833	0.000	234266	0 20000	0 2006(A)
\$ 30 Decachlorobiphenyl	20.266	20.280	-0.014	165977	0 10000	0 09815

QC Flag Legend

A - Target compound detected but, quantitated amount
exceeded maximum amount.

Data File: \\QPI7PA02\\chem\\gc4.1\\5080-G.b\\D-B5168.d
Date : 07-AUG-2000 23:16

Client ID:

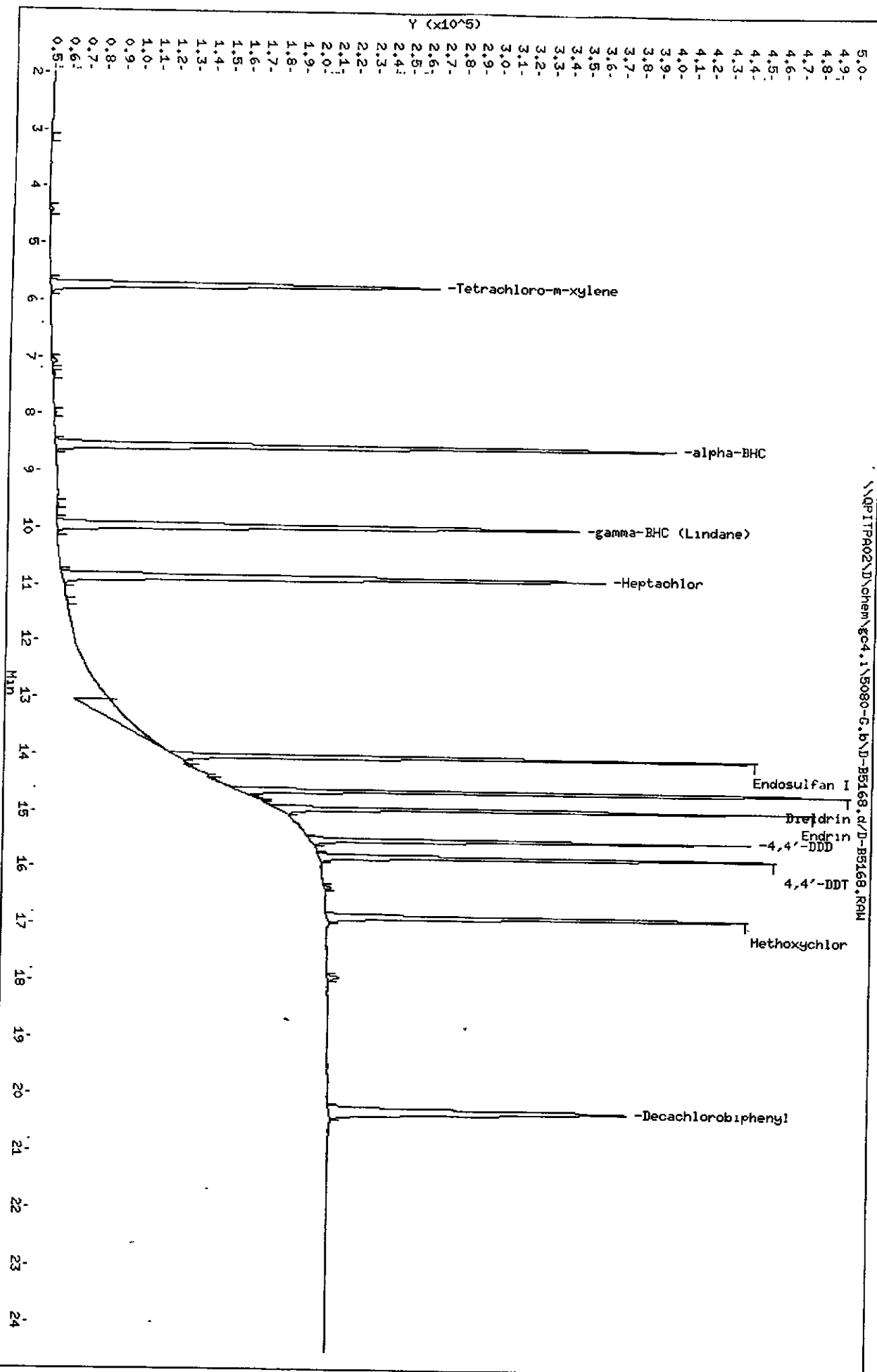
Sample Info: HIGH4,5080-G.b,3-INDR,sub,1,5

Column phase: DB1701

Instrument: gc4.1

Operator: 1891

Column diameter: 0.53



6711031

STL Pittsburgh

Data file : \\QPITPA02\D\chem\gc4.i\5080-G.b\D-B5169.d
Lab Smp Id: LOWB
Inj Date : 07-AUG-2000 23:44
Operator : 1891 Inst ID: gc4.i
Smp Info : LOWB,5080-G.b,,4-INDB.sub,,1,1
Misc Info : 190-84-7
Comment :
Method : \\QPITPA02\D\chem\gc4.i\5080-G.b\PESTB.m
Meth Date : 10-Aug-2000 10:37 colussyj Quant Type: ESTD
Cal Date : 08-AUG-2000 00:39 Cal File: D-B5171.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 4-INDB.sub
Target Version: 4.04
Processing Host: PITPC085

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
=====	==	=====	=====	=====	=====	=====
11 Aldrin	11 820	11 820	0 000	12822	0 00500	0 004818
7 beta-BHC	12.360	12 360	0 000	8132	0.00500	0 005012
8 delta-BHC	13 000	13.000	0.000	14859	0.00500	0.004707
12 Heptachlor epoxide	13 473	13.473	0.000	15441	0 00500	0.004899
13 gamma-Chlordane	14 066	14 066	0 000	16067	0 00500	0 004954
14 alpha-Chlordane	14 166	14 166	0 000	16067	0.00500	0 005022
16 4,4'-DDE	14 313	14.313	0.000	16021	0 00500	0 004946
22 Endosulfan II	15 626	15 626	0 000	14972	0 00500	0 005250
24 Endrin aldehyde	16 320	16 313	0 007	6203	0 00500	0 004871
26 Endosulfan sulfate	16.920	16.913	0 007	8085	0 00500	0 004882
27 Endrin ketone	17 913	17 906	0 007	9725	0 00500	0 004912

Data File: \\QPI\FA02\chem\gc4.1\5080-G.b\D-B5169.d
Date : 07-AUG-2000 23:44

Client ID:

Sample Info: LOHB,5080-G.b.,4-INDB,sub.,1,1

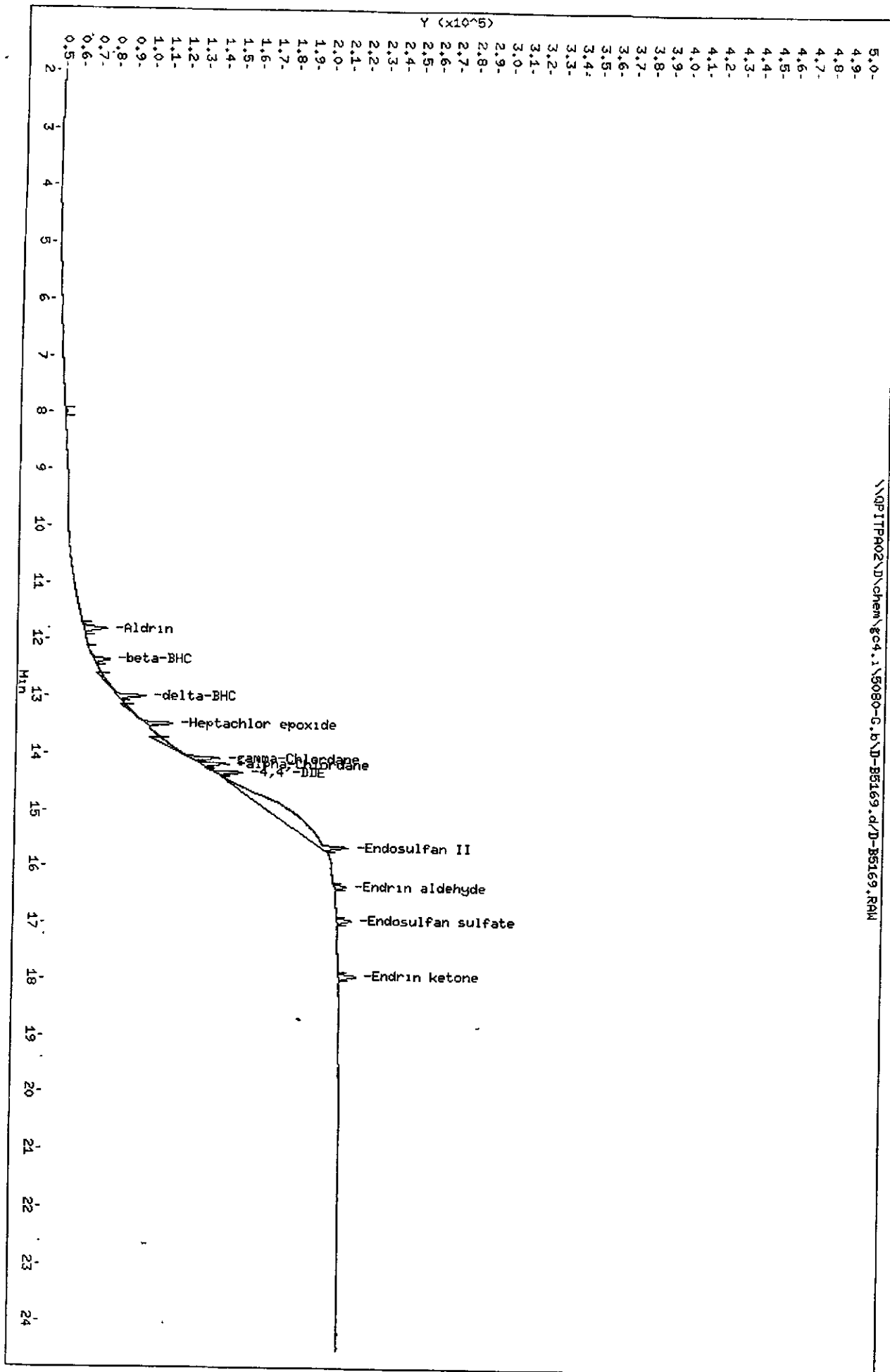
Column phase: DB1701

Instrument: gc4.1

Operator: 1891

Column diameter: 0.53

\\QPI\FA02\chem\gc4.1\5080-G.b\D-B5169.d\D-B5169.RAW



671033

STL Pittsburgh

Data file : \\QPITPA02\D\chem\gc4.i\5080-G.b\D-B5170.d
Lab Smp Id: MLOWB
Inj Date : 08-AUG-2000 00:12
Operator : 1891 Inst ID: gc4.i
Smp Info : MLOWB,5080-G.b,,4-INDB.sub,,1,2
Misc Info : 190-84-8
Comment :
Method : \\QPITPA02\D\chem\gc4.i\5080-G.b\PESTB.m
Meth Date : 10-Aug-2000 10:37 colussyj Quant Type: ESTD
Cal Date : 08-AUG-2000 00:39 Cal File: D-B5171.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 4-INDB.sub
Target Version: 4.04
Processing Host: PITPC085

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL AMT (ng)	ON COL (ng)
=====	==	=====	=====	=====	=====	=====
11 Aldrin	11 813	11 820	-0 007	27880	0 01000	0 01031
7 beta-BHC	12 360	12 360	0 000	17028	0 01000	0 01032
8 delta-BHC	13 000	13 000	0 000	32973	0 01000	0 01029
12 Heptachlor epoxide	13 473	13 473	0 000	32948	0 01000	0 01030
13 gamma Chlordane	14 066	14 066	0 000	34249	0 01000	0 01037
14 alpha-Chlordane	14 166	14 166	0 000	33312	0 01000	0 01027
16 4,4' DDE	14 313	14 313	0 000	33536	0 01000	0 01023
22 Endosulfan II	15 626	15 626	0 000	28945	0 01000	0 01010
24 Endrin aldehyde	16 313	16 313	0 000	13343	0 01000	0 01031
26 Endosulfan sulfate	16 920	16 913	0 007	17358	0 01000	0 01032
27 Endrin ketone	17 906	17 906	0 000	21065	0 01000	0 01042

Data File: \\QPIPPA02\Nchem\gc4.1\5080-G.b\B-BS170.d
Date : 08-AUG-2000 00:12

Client ID:

Sample Info: MLOUB, 5080-G.b, 4-INDB, sub, 1, 2

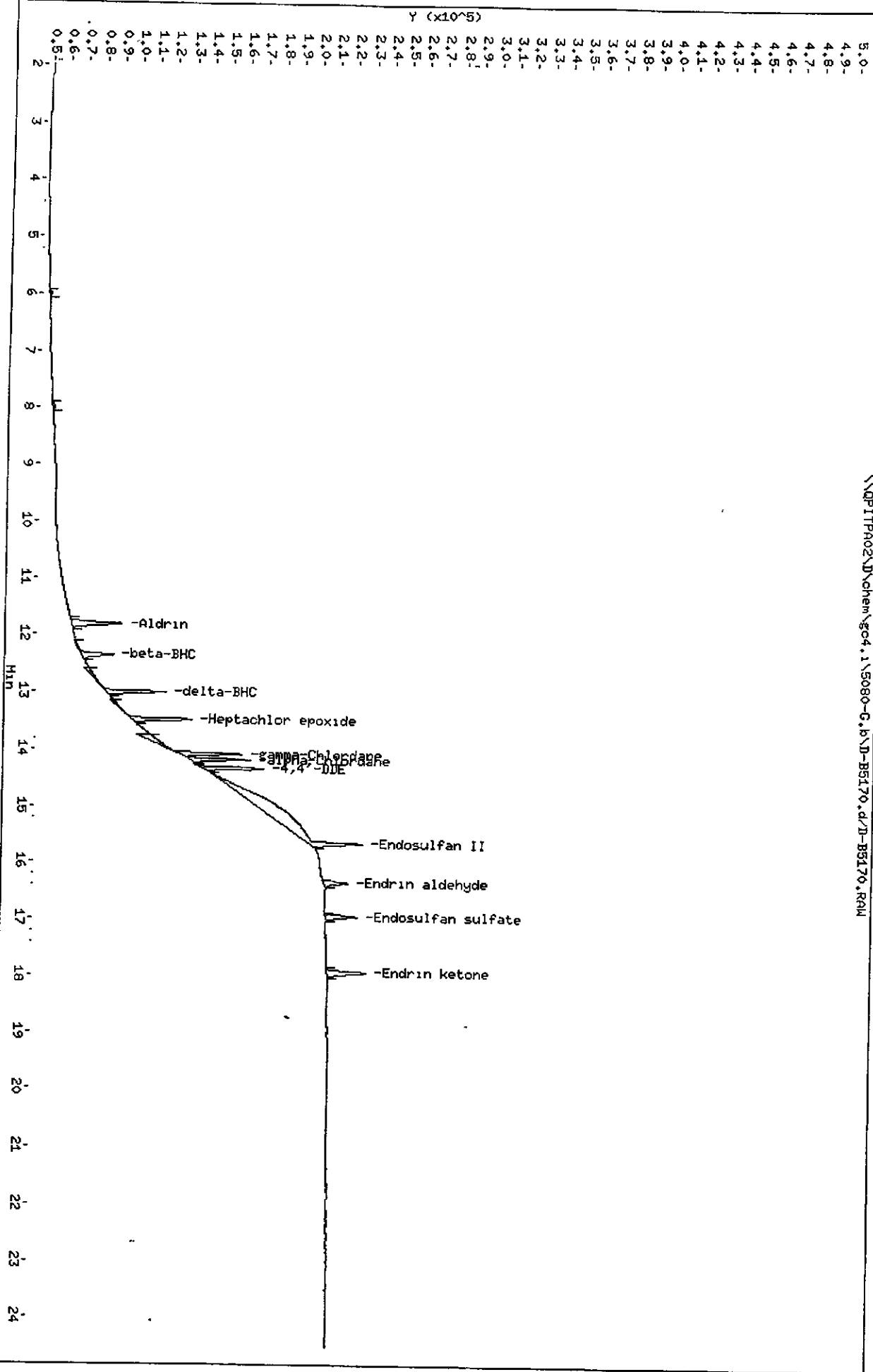
Column phase: DB1701

Instrument: gc4.1

Operator: 1891

Column diameter: 0.53

\\QPIPPA02\Nchem\gc4.1\5080-G.b\B-BS170.d\B-BS170.RAW



5301129

STL Pittsburgh

Data file : \\QPITPA02\D\chem\gc4.i\5080-G.b\D-B5171.d
Lab Smp Id: MEDB
Inj Date : 08-AUG-2000 00:39
Operator : 1891
Smp Info : MEDB,5080-G.b,,4-INDB.sub,,1,3
Misc Info : 190-84-9
Comment :
Method : \\QPITPA02\D\chem\gc4.i\5080-G.b\PESTB.m
Meth Date : 10-Aug-2000 10:37 colussyj
Cal Date : 08-AUG-2000 00:39
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 4.04
Processing Host: PITPC085

Inst ID: gc4.i
Quant Type: ESTD
Cal File: D-B5171.d
Calibration Sample, Level: 3
Compound Sublist: 4-INDB.sub

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL AMT (ng)	ON COL (ng)
=====	==	=====	=====	=====	=====	=====
11 Aldrin	11.820	11.820	0.000	68952	0.02500	0.02500
7 beta-BHC	12.360	12.360	0.000	40468	0.02500	0.02500
8 delta BHC	13.000	13.000	0.000	83530	0.02500	0.02500
12 Heptachlor epoxide	13.473	13.473	0.000	80396	0.02500	0.02500
13 gamma-Chlordane	14.066	14.066	0.000	81835	0.02500	0.02500
14 alpha-Chlordane	14.166	14.166	0.000	79632	0.02500	0.02500
16 4,4'-DDE	14.313	14.313	0.000	81856	0.02500	0.02500
22 Endosulfan II	15.626	15.626	0.000	67732	0.02500	0.02500
24 Endrin aldehyde	16.313	16.313	0.000	32658	0.02500	0.02500
26 Endosulfan sulfate	16.913	16.913	0.000	42382	0.02500	0.02500
27 Endrin ketone	17.906	17.906	0.000	50362	0.02500	0.02500

Data File: \\NPITPA02\N\chem\gc4.1\5080-G.b\D-B5171.d
Date : 08-AUG-2000 00:39

Client ID:

Sample Info: MEEDB,5080-G.b,,4-INDB.sub,1,3

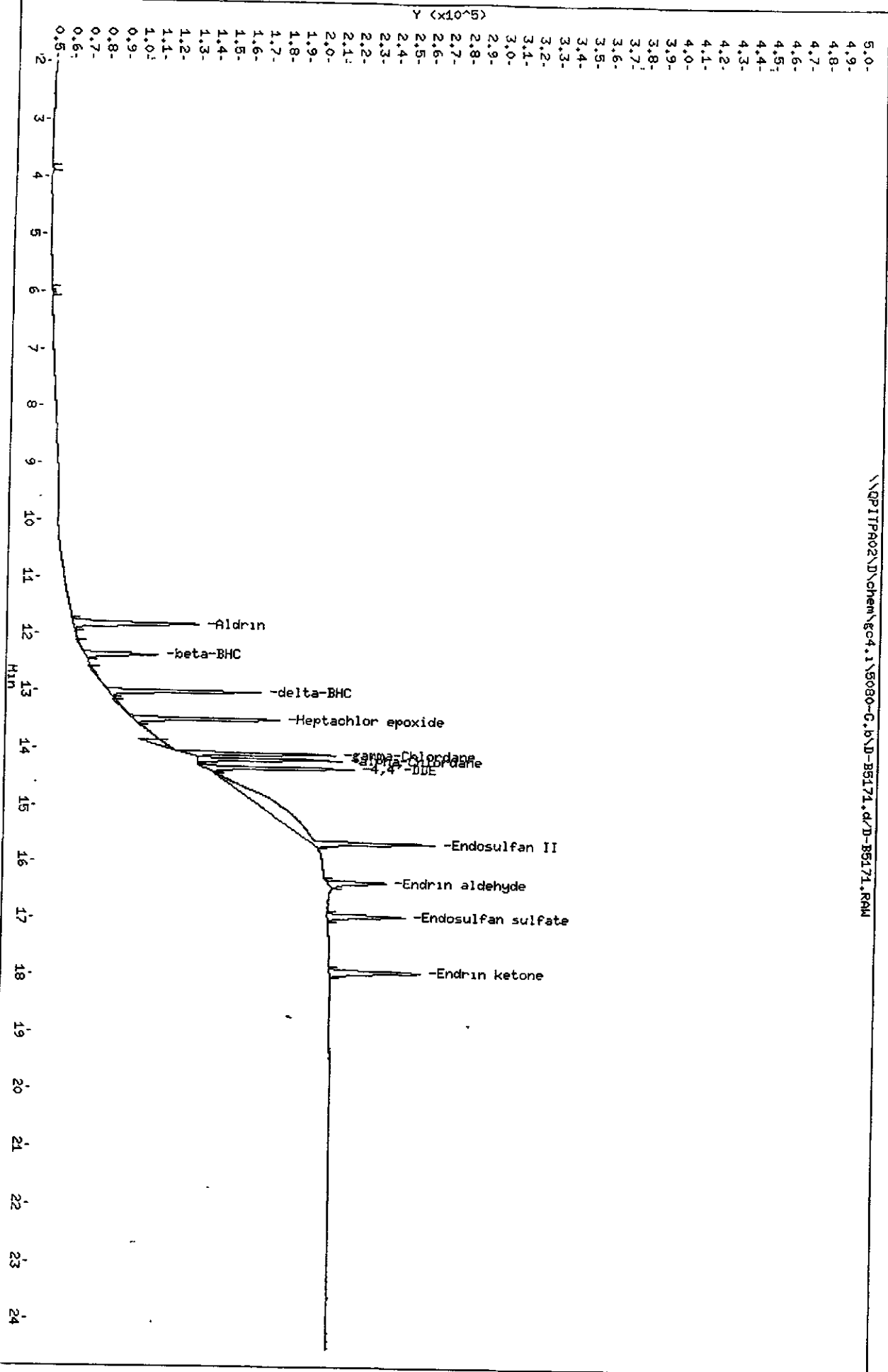
Column phase: DB1701

Instrument: gc4.1

Operator: 1891

Column diameter: 0.53

\\NPITPA02\N\chem\gc4.1\5080-G.b\D-B5171.d\B5171.RAW



6301129

STL Pittsburgh

Data file : \\QPITPA02\D\chem\gc4.i\5080-G.b\D-B5172.d
Lab Smp Id: MHIGHB
Inj Date : 08-AUG-2000 01:07
Operator : 1891
Smp Info : MHIGHB,5080-G.b,,4-INDB.sub,,1,4
Misc Info : 190-84-10
Comment :
Method : \\QPITPA02\D\chem\gc4.i\5080-G.b\PESTB.m
Meth Date : 10-Aug-2000 10:37 colussyj
Cal Date : 08-AUG-2000 01:07
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 4.04
Processing Host: PITPC085

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
=====	==	=====	=====	=====	=====	=====
11 Aldrin	11.820	11.820	0.000	153113	0.05000	0.05482
7 beta-BHC	12.360	12.360	0.000	86254	0.05000	0.05170
8 delta BHC	13.000	13.000	0.000	188626	0.05000	0.05638
12 Heptachlor epoxide	13.473	13.473	0.000	176079	0.05000	0.05368
13 gamma-Chlordane	14.066	14.066	0.000	174570	0.05000	0.05210
14 alpha-Chlordane	14.160	14.166	-0.006	167853	0.05000	0.05130
16 4,4'-DDE	14.313	14.313	0.000	175132	0.05000	0.05253
22 Endosulfan II	15.626	15.626	0.000	142620	0.05000	0.04982
24 Endrin aldehyde	16.313	16.313	0.000	70141	0.05000	0.05310
26 Endosulfan sulfate	16.920	16.913	0.007	92379	0.05000	0.05359
27 Endrin ketone	17.906	17.906	0.000	107443	0.05000	0.05232

Data File: \\QPI\FA02\chem\gc4,1\5080-G,b\D-B5172.d
Date : 08-AUG-2000 01:07

Client ID:

Sample Info: NHICHB,5080-G,b,,4-INDB,sub,,1,4

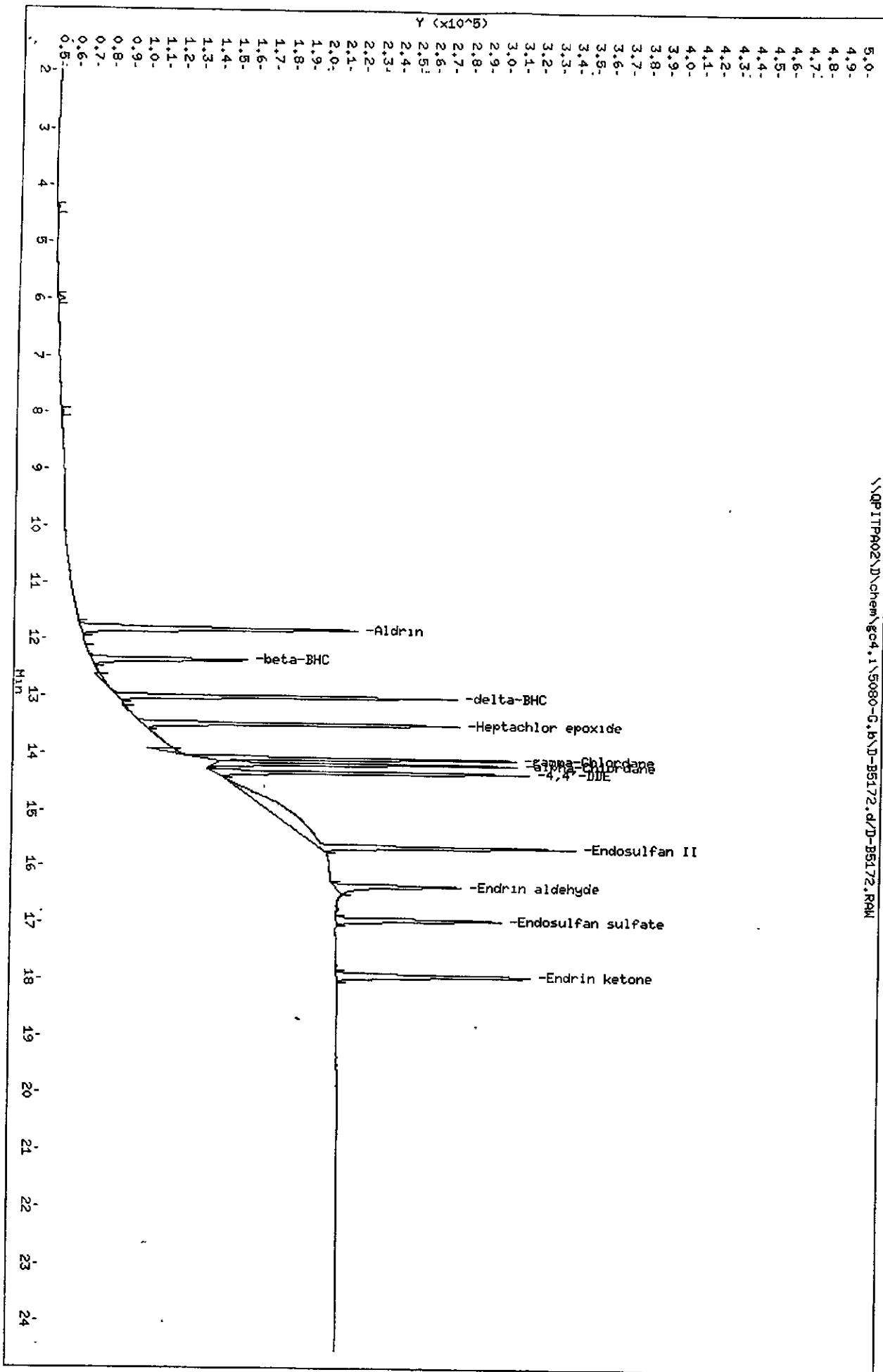
Column phase: DB1701

Instrument: gc4.1

Operator: 1891

Column diameter: 0.53

\\QPI\FA02\chem\gc4,1\5080-G,b\D-B5172.d\D-B5172.RAW



6301129

STL Pittsburgh

Data file : \\QPITPA02\D\chem\gc4.i\5080-G.b\D-B5173.d
Lab Smp Id: HIGHB
Inj Date : 08-AUG-2000 01:35
Operator : 1891 Inst ID: gc4.i
Smp Info : HIGHB,5080-G.b,,4-INDB.sub,,1,5
Misc Info : 190-84-11
Comment :
Method : \\QPITPA02\D\chem\gc4.i\5080-G.b\PESTB.m
Meth Date : 10-Aug-2000 10:37 colussyj Quant Type: ESTD
Cal Date : 08-AUG-2000 01:35 Cal File: D-B5173.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 4-INDB.sub
Target Version: 4.04
Processing Host: PITPC085

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL AMT (ng)	ON-COL (ng)
-----	==	=====	=====	=====	=====	=====
11 Aldrin	11.820	11.820	0.000	306847	0.10000	0.1077 (A)
7 beta-BHC	12.360	12.360	0.000	164046	0.10000	0.09866
8 delta-BHC	13.000	13.000	0.000	379398	0.10000	0.1104 (A)
12 Heptachlor epoxide	13.473	13.473	0.000	344752	0.10000	0.1040 (A)
13 gamma-Chlordane	14.066	14.066	0.000	355725	0.10000	0.1049 (A)
14 alpha-Chlordane	14.166	14.166	0.000	345171	0.10000	0.1044 (A)
16 4,4'-DDE	14.313	14.313	0.000	350629	0.10000	0.1041 (A)
22 Endosulfan II	15.626	15.626	0.000	286290	0.10000	0.1000 (A)
24 Endrin aldehyde	16.313	16.313	0.000	141855	0.10000	0.1058 (A)
26 Endosulfan sulfate	16.913	16.913	0.000	186252	0.10000	0.1063 (A)
27 Endrin ketone	17.906	17.906	0.000	210692	0.10000	0.1021 (A)

QC Flag Legend

A - Target compound detected but, quantitated amount
exceeded maximum amount.

Data File: \\NPITP02\chem\gc04.1\5080-G.b\D-B5173.d
Date : 08-AUG-2000 01:35

Client ID:

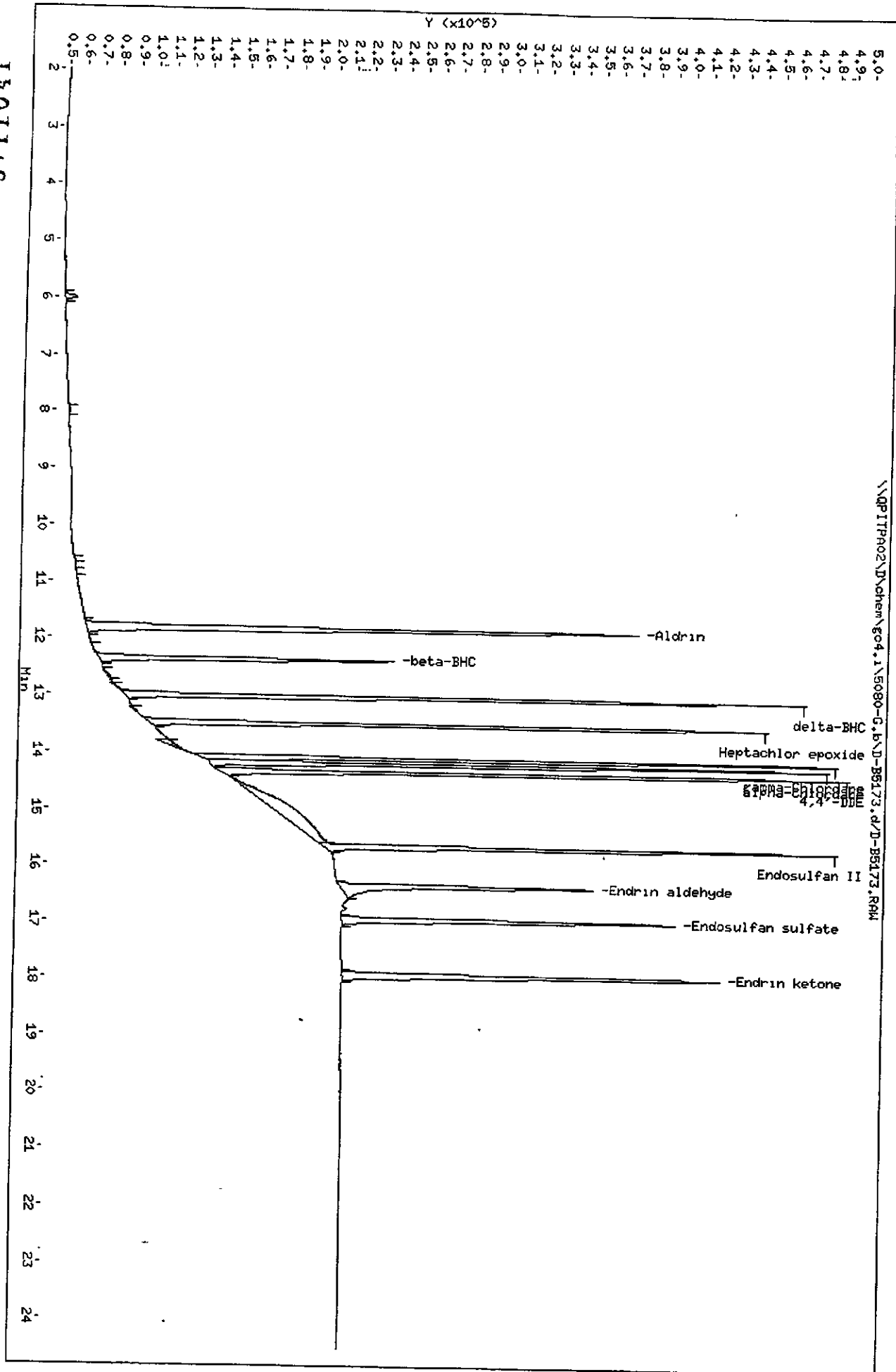
Sample Info: HICHB,5080-G.b,4-INDB.sub,1,5

Column phase: DB1701

Instrument: gc04.1

Operator: 189L

Column diameter: 0.53



14011169

STL Pittsburgh

Data file : \\QPITPA02\D\chem\gc4.i\5080-G.b\D-B5174.d
Lab Smp Id: 2ND A
Inj Date : 08-AUG-2000 02:03
Operator : 1891
Smp Info : 2ND A, 5080-G.b, , INDA.sub, , 2, 3
Misc Info : 190-82-2
Comment :
Method : \\QPITPA02\D\chem\gc4.i\5080-G.b\PESTB.m
Meth Date : 10-Aug-2000 10:37 colussyj
Cal Date : 08-AUG-2000 01:35
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 4.04
Processing Host: PITPC085

Inst ID: gc4.i
Quant Type: ESTD
Cal File: D-B5173.d
Continuing Calibration Sample
Compound Sublist: INDA.sub

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
\$ 1 Tetrachloro m-xylene	5 733	5 720	0.013	44383	0 02500	0 01941
5 alpha-BHC	8 546	8 546	0 000	58751	0 02500	0 01917
6 gamma-BHC (Lindane)	9 966	9.960	0 006	51828	0 02500	0 01954
10 Heptachlor	10 860	10 860	0.000	56981	0.02500	0 01938
15 Endosulfan I	14.006	14 006	0.000	63340	0.02500	0.01982
17 Dieldrin	14 593	14 600	-0 007	135880	0 02500	0 04002
20 Endrin	14 913	14.913	0 000	104632	0 02500	0 03309
21 4,4'-DDD	15 466	15 466	0 000	97158	0 02500	0.03952
23 4,4'-DDT	15 766	15 766	0 000	99074	0 02500	0 03987
25 Methoxychlor	16 826	16 833	-0 007	234483	0.05000	0 2008 (A)
\$ 30 Decachlorobiphenyl	20 260	20.280	-0.020	68326	0.02500	0 04040

QC Flag Legend

A - Target compound detected but, quantitated amount
exceeded maximum amount.

Data File: \\QP1TP0202\chem\ec4.1\5080-G.b\D-B5174.d
Date: 08-AUG-2000 02:03

Client ID:

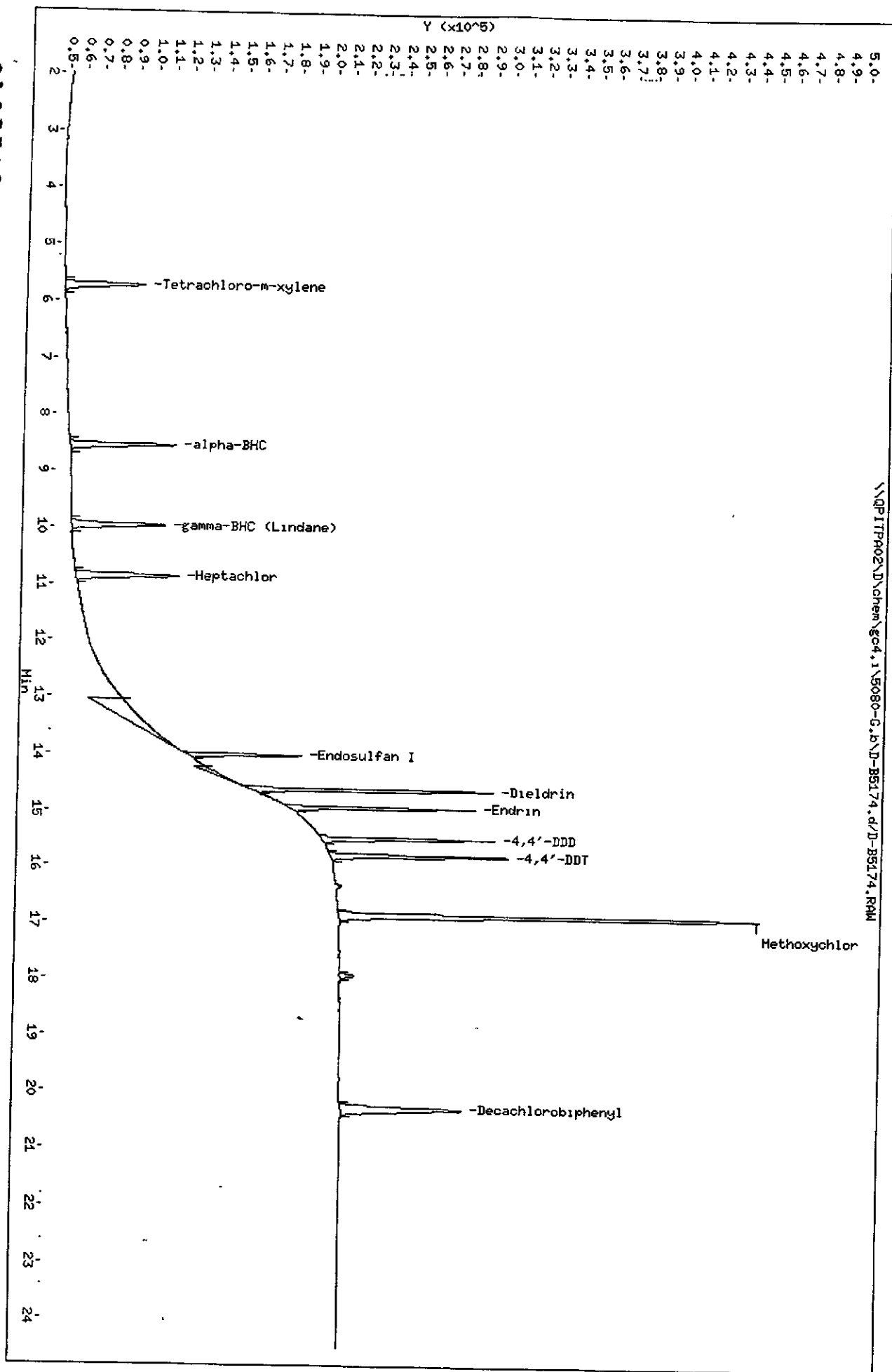
Sample Info: 2ND A,5080-G.b,,INDA,sub,2,3

Column phase: DB1701

Instrument: ec4.1

Operator: 1891

Column diameter: 0.53



6711043

STL Pittsburgh

Data file : \\QPITPA02\D\chem\gc4.i\5080-G.b\D-B5175.d
Lab Smp Id: 2ND B
Inj Date : 08-AUG-2000 02:30
Operator : 1891
Smp Info : 2ND B, 5080-G.b, , INDB.sub, , 2, 3
Misc Info : 190-82-5
Comment :
Method : \\QPITPA02\D\chem\gc4.i\5080-G.b\PESTB.m
Meth Date : 10-Aug-2000 10:37 colussyj
Cal Date : 08-AUG-2000 01:35
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 4.04
Processing Host: PITPC085

Inst ID: gc4.i
Quant Type: ESTD
Cal File: D-B5173.d
Continuing Calibration Sample
Compound Sublist: INDB.sub

Compounds	AMOUNTS					
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
11 Aldrin	11 820	11 820	0.000	53398	0 02500	0 01875
7 beta-BHC	12 360	12 360	0.000	31209	0.02500	0.01877
8 delta-BHC	13 000	13.000	0 000	63116	0 02500	0 01837
12 Heptachlor epoxide	13 473	13 473	0.000	65691	0.02500	0 01982
13 gamma-Chlordane	14 066	14 066	0 000	64462	0 02500	0.01900
14 alpha-Chlordane	14.166	14 166	0 000	63421	0 02500	0 01917
16 4,4'-DDE	14 313	14.313	0.000	131487	0 02500	0 03904
22 Endosulfan II	15 626	15 626	0 000	109592	0 02500	0 03828
24 Endrin aldehyde	16 313	16.313	0 000	50887	0 02500	0 03796
26 Endosulfan sulfate	16 920	16 913	0 007	69841	0 02500	0 03987
27 Endrin ketone	17 913	17.906	0 007	83392	0 02500	0.04040

Data File: \\QPI1PA02\N\chem\gc4.1\5080-G.b\B-BS175.d
Date : 08-AUG-2000 02:30

Client ID:

Sample Info: 2ND B,5080-G.b,INDB.sub,2,3

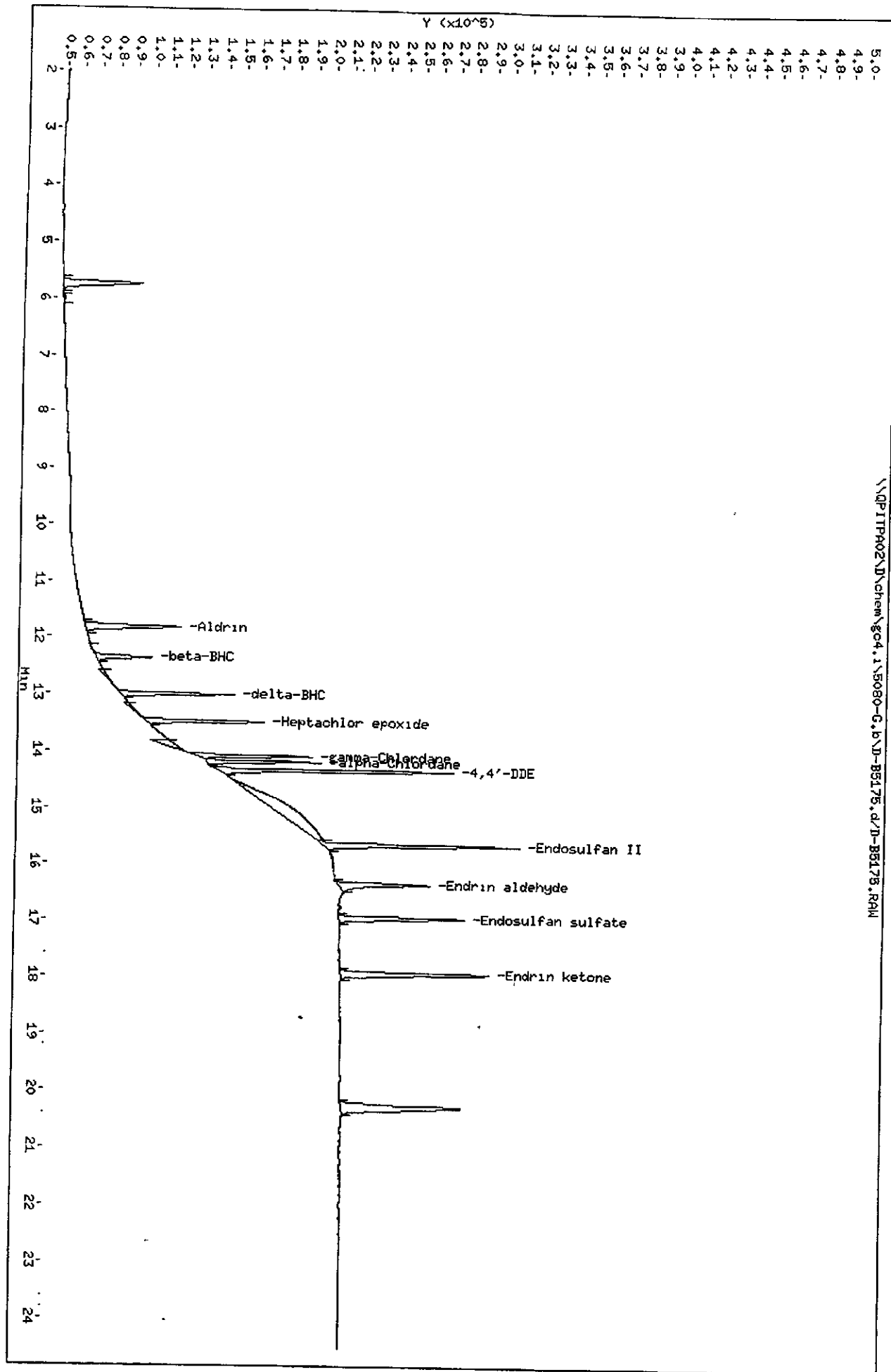
Column phase: DB1701

Instrument: gc4.1

Operator: 1891

Column diameter: 0.53

\\QPI1PA02\N\chem\gc4.1\5080-G.b\B-BS175.d\B-BS175.RAW



5101129

STL Pittsburgh

Data file : \\QPITPA02\D\chem\gc4.i\5080-G.b\D-B5176.d
Lab Smp Id: EVALB
Inj Date : 08-AUG-2000 02:58
Operator : 1891 Inst ID: gc4.i
Smp Info : EVALB,5080-G.b,,EVALBR.sub,,3,1
Misc Info : 190-88-8
Comment :
Method : \\QPITPA02\D\chem\gc4.i\5080-G.b\PESTB.m
Meth Date : 10-Aug-2000 10:37 colussyj Quant Type: ESTD
Cal Date : 08-AUG-2000 01:35 Cal File: D-B5173.d
Als bottle: 1 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: EVALBR.sub
Target Version: 4.04
Processing Host: PITPC085

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ng)
\$ 1 Tetrachloro-m-xylene	5.746	5.720	0.026	45881	0.02007	0.02007(R)
16 4,4'-DDE	Compound Not Detected					
20 Endrin	14.913	14.913	0.000	70054	0.02216	0.02216
21 4,4'-DDD	Compound Not Detected					
23 4,4' DDT	15.766	15.766	0.000	61493	0.02475	0.02475
24 Endrin aldehyde	Compound Not Detected.					
27 Endrin ketone	Compound Not Detected					
\$ 30 Decachlorobiphenyl	20.266	20.280	-0.014	34851	0.02061	0.02061(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: \\NPITPRO2\Nchem\gc4.1\5080-G.b\D-B5176.d
Date : 08-AUG-2000 02:58

Client ID:

Sample Info: EVALB,5080-C.b,EVALBR,sub,3,1

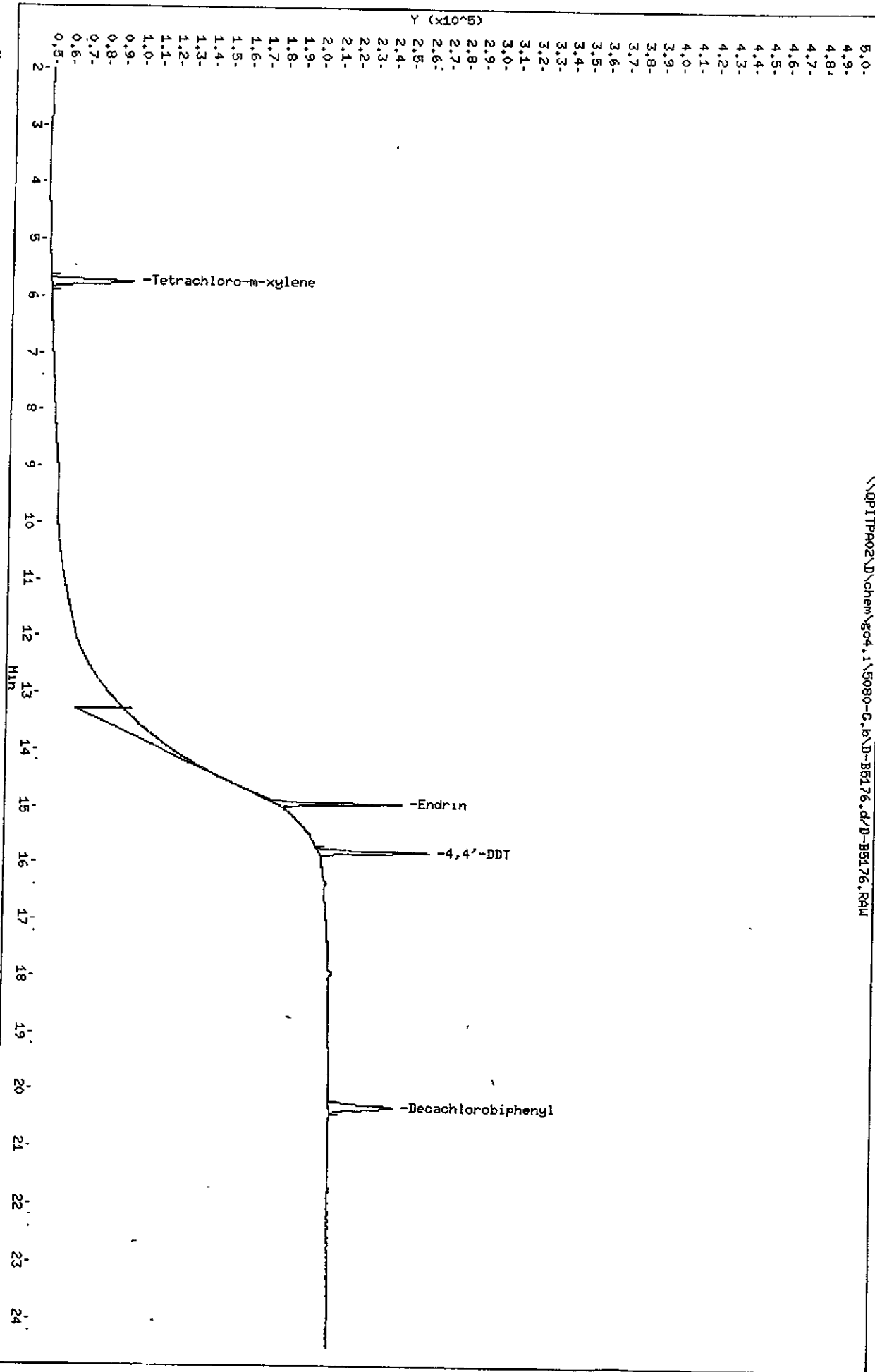
Column phase: DB1701

Instrument: gc4.1

Operator: 1891

Column diameter: 0.53

\\NPITPRO2\Nchem\gc4.1\5080-G.b\D-B5176.d\D-B5176.RAW



2401129

Data File: \\qpitpa02\d\chem\gc4.i\5280-G.b\D-B5758.d
Report Date: 31-Aug-2000 09:34

6711048

STL - Pittsburgh

Data file : \\qpitpa02\d\chem\gc4.i\5280-G.b\D-B5758.d
Lab Smp Id: EVALB
Inj Date : 30-AUG-2000 09:07
Operator : 1891 Inst ID: gc4.i
Smp Info : EVALB, 5280-G.b, , EVALBR.sub, , 3, 1
Misc Info : 190-88-8
Comment :
Method : \\qpitpa02\d\chem\gc4.i\5280-G.b\PESTB.m
Meth Date : 31-Aug-2000 09:24 matkol Quant Type: ESTD
Cal Date : 08-AUG-2000 01:35 Cal File: D-B5173.d
Als bottle: 1 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: EVALBR.sub
Target Version: 4.04
Processing Host: PITPC044

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ng)
\$ 1 Tetrachloro-m-xylene	5.626	5.620	0.006	49013	0.02144	0.02144 (R)
16 4,4'-DDE	14.220	14.206	0.014	2085	<0.0	0.0006190
20 Endrin	14.813	14.813	0.000	72892	0.02305	0.02305
21 4,4'-DDD	15.360	15.353	0.007	2740	0.00111	0.001114
23 4,4'-DDT	15.646	15.646	0.000	60011	0.02415	0.02415
24 Endrin aldehyde	Compound Not Detected.					
27 Endrin ketone	Compound Not Detected.					
\$ 30 Decachlorobiphenyl	20.040	20.040	0.000	36407	0.02153	0.02153 (R)

QC Flag Legend .

R - Spike/Surrogate failed recovery limits.

DDT = 7.4
Endrin = 0

Data File: \\pittpa02\chem\gc4.1\B280-G.b\B-B5758.d
Date: 30-AUG-2000 09:07

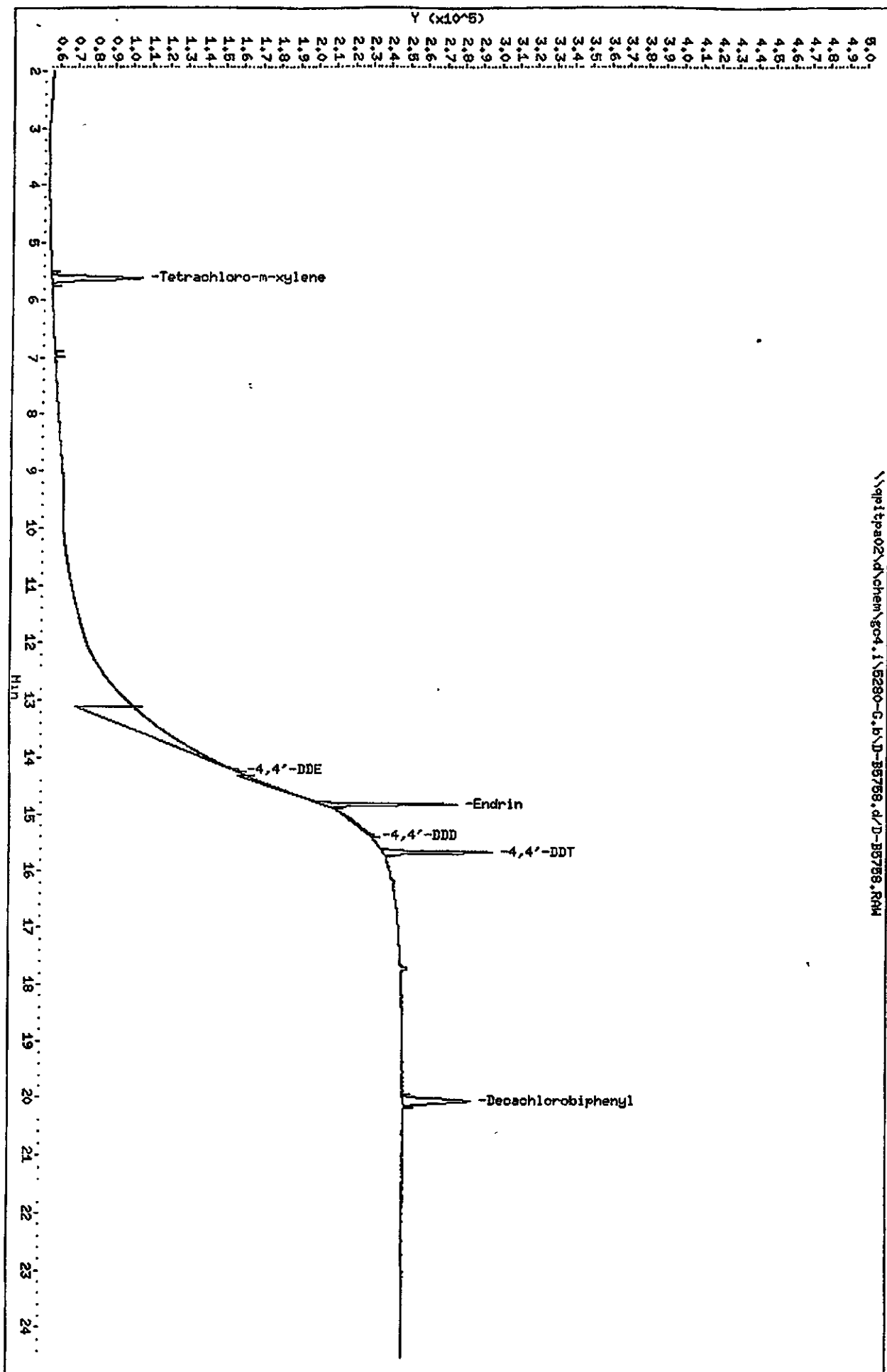
Client ID:
Sample Info: EVALB, B280-G.b, EVALBR, sub., 3,1

Column phase: DB1701

Instrument: gc4.1

Operator: 1891

Column diameter: 0.53



6711049

STL - Pittsburgh

Data file : \\qpitpa02\d\chem\gc4.i\5280-G.b\D-B5759.d
Lab Smp Id: MEDIX
Inj Date : 30-AUG-2000 09:34
Operator : 1891
Smp Info : MEDIX,5080-G.b,,APPX9.sub,,2,3
Misc Info : 190-80-8
Comment :
Method : \\qpitpa02\d\chem\gc4.i\5280-G.b\PESTB.m
Meth Date : 31-Aug-2000 09:24 matkol
Cal Date : 08-AUG-2000 01:35
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 4.04
Processing Host: PITPC044

Inst ID: gc4.i
Quant Type: ESTD
Cal File: D-B5173.d
Continuing Calibration Sample
Compound Sublist: APPX9.sub

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
-----	--	-----	-----	-----	-----	-----
2 Diallate A	7.060	7.060	0.000	28213	0.50000	0.3034
3 Diallate B	7.613	7.613	0.000	6066	0.50000	0.2990(M)
19 Isodrin	12.766	12.766	0.000	84898	0.05000	0.02811(M)
28 Chlorobenzilate	15.100	15.100	0.000	5018	0.05000	0.02905(M)
29 Kepone	17.713	17.706	0.007	1324	0.50000	0.3442(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\pptipa02\chem\gc4.1\5280-G.b\B-85759.d

Date: 30-AUG-2000 09:34

Client ID:

Sample Info: MEDIX, 5080-G.b, APPX9.sub, 2,3

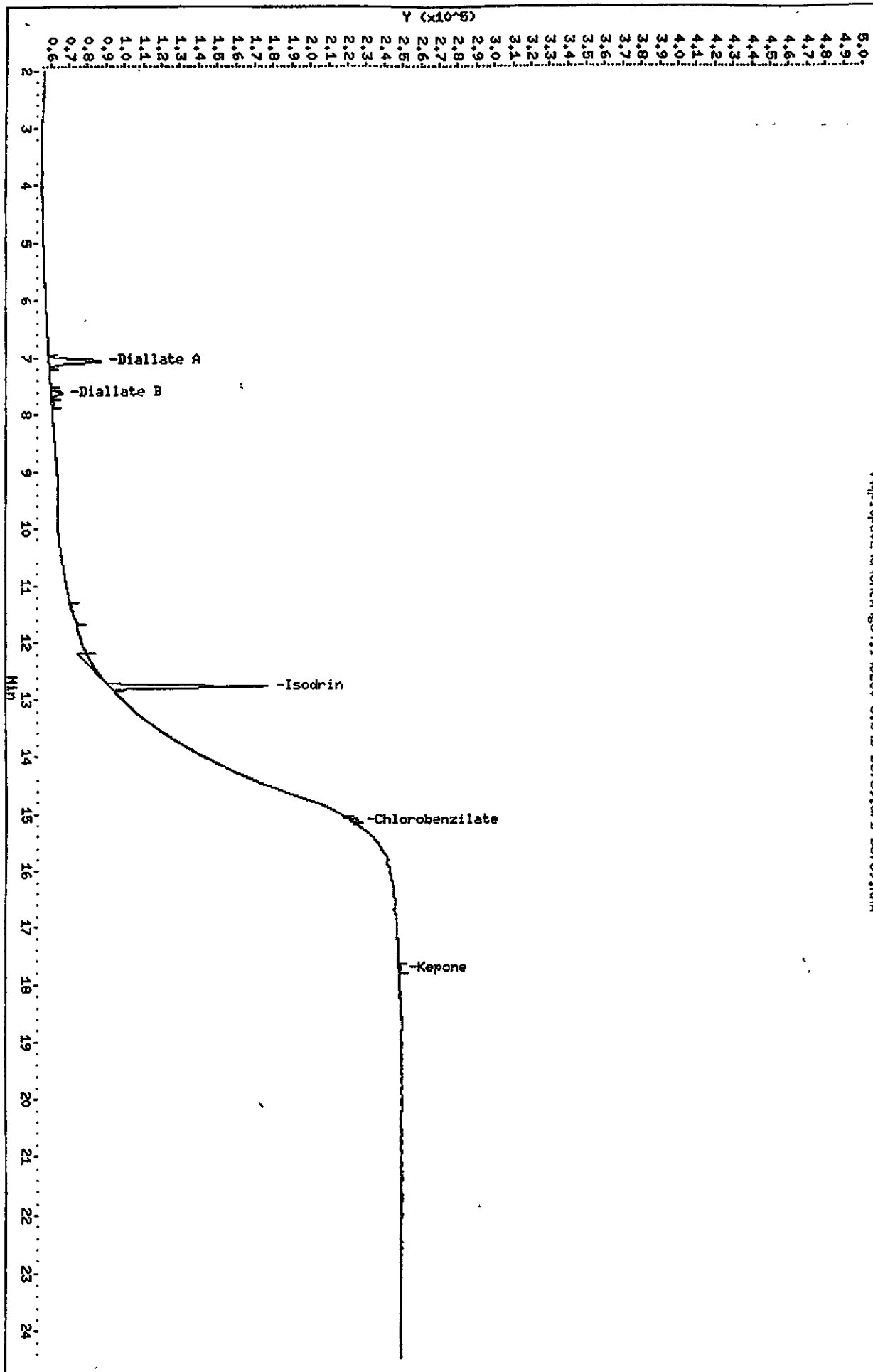
Column phase: DB1701

Instrument: gc4.1

Operator: 1891

Column diameter: 0.53

\\pptipa02\chem\gc4.1\5280-G.b\B-85759.d\B-85759.RAW



6711051

Data File: \\qpitpa02\d\chem\gc4.i\5280-G.b\D-B5760.d
Report Date: 31-Aug-2000 09:34

6711052

STL - Pittsburgh

Data file : \\qpitpa02\d\chem\gc4.i\5280-G.b\D-B5760.d
Lab Smp Id: MEDF
Inj Date : 30-AUG-2000 10:02
Operator : 1891
Smp Info : MEDF,5080-G.b,,HEX.sub,,2,3
Misc Info : 190-74-3
Comment :
Method : \\qpitpa02\d\chem\gc4.i\5280-G.b\PESTB.m
Meth Date : 31-Aug-2000 09:24 matkol
Cal Date : 08-AUG-2000 01:35
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 4.04
Processing Host: PITPC044

Inst ID: gc4.i
Quant Type: ESTD
Cal File: D-B5173.d
Continuing Calibration Sample
Compound Sublist: HEX!sub

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
-----	--	-----	-----	-----	-----	-----
4 HEXACHLOROBENZENE	6.960	6.960	0.000	130739	0.02500	0.02848
58 MIREX	16.800	16.800	0.000	50208	0.02500	0.02825

Date File: \\pp1tpa02\chem\gc4.1\5280-G.b.D-B5760.d
Date: 30-ALL-2000 10:02

Client ID:

Sample Info: MEUF, B080-G.b., HEX, sub, 2,3

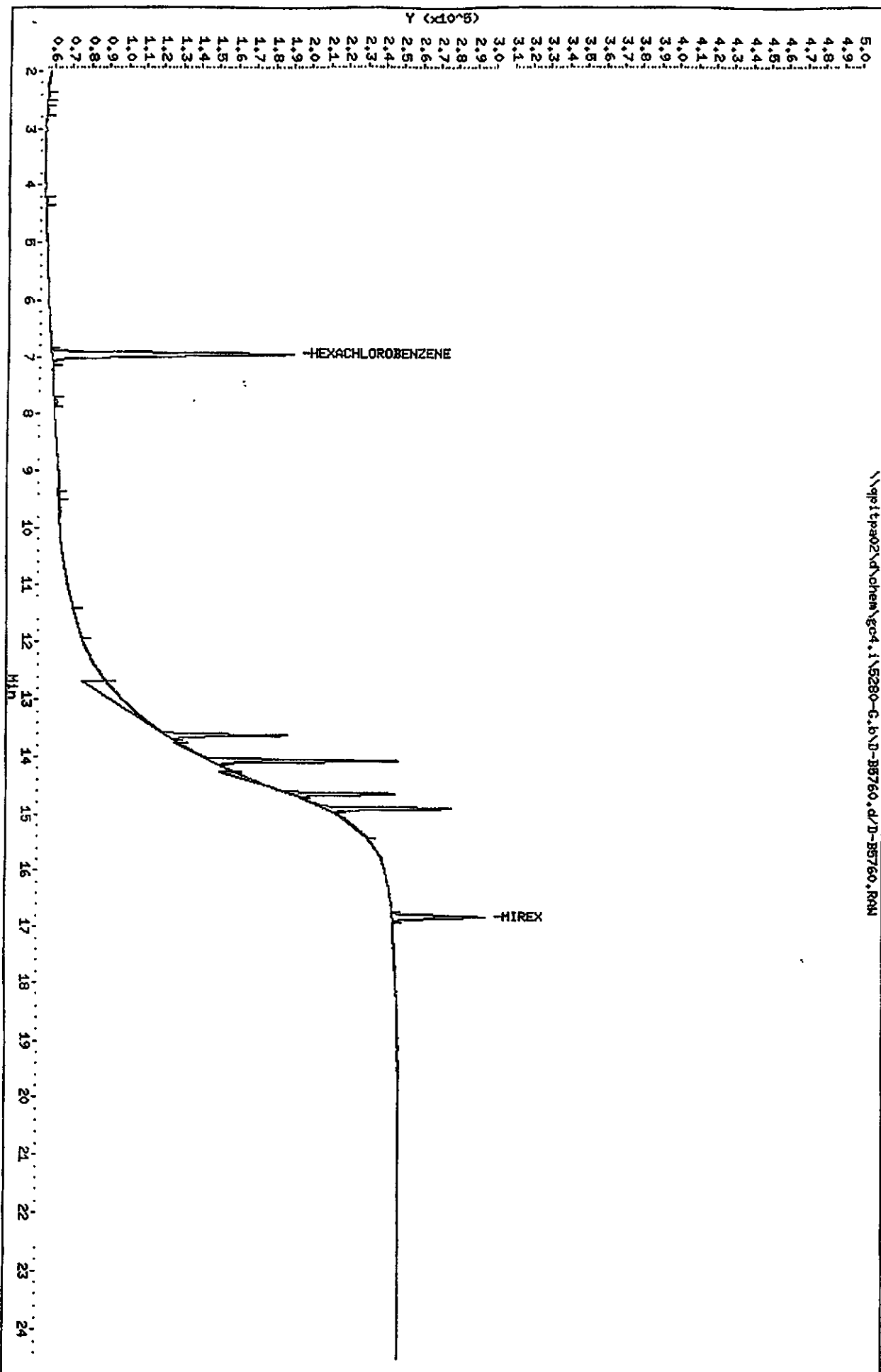
Column phase: DB1701

Instrument: gc4.1

Operator: 1891

Column diameter: 0.53

\\pp1tpa02\chem\gc4.1\5280-G.b.D-B5760.d\B5760.RAW



6501129

Data File: \\qpitpa02\d\chem\gc4.i\5280-G.b\D-B5761.d
Report Date: 31-Aug-2000 09:34

6711054

STL - Pittsburgh

Data file : \\qpitpa02\d\chem\gc4.i\5280-G.b\D-B5761.d
Lab Smp Id: MEDA
Inj Date : 30-AUG-2000 10:30
Operator : 1891
Smp Info : MEDA,5280-G.b,,3-INDA.sub,,2,3
Misc Info : 190-84-3
Comment :
Method : \\qpitpa02\d\chem\gc4.i\5280-G.b\PESTB.m
Meth Date : 31-Aug-2000 09:24 matkol
Cal Date : 08-AUG-2000 01:35
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 4.04
Processing Host: PITPC044

Inst ID: gc4.i
Quant Type: ESTD
Cal File: D-B5173.d
Continuing Calibration Sample
Compound Sublist: 3-INDA.sub

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
\$ 1 Tetrachloro-m-xylene	5.620	5.620	0.000	61126	0.02500	0.02674
5 alpha-BHC	8.353	8.353	0.000	81325	0.02500	0.02654
6 gamma-BHC (Lindane)	9.733	9.733	0.000	71762	0.02500	0.02706
10 Heptachlor	10.666	10.666	0.000	76831	0.02500	0.02613
15 Endosulfan I	13.893	13.893	0.000	82466	0.02500	0.02580
17 Dieldrin	14.493	14.493	0.000	91135	0.02500	0.02684
20 Endrin	14.813	14.813	0.000	74937	0.02500	0.02370
21 4,4'-DDD	15.353	15.353	0.000	64747	0.02500	0.02633
23 4,4'-DDT	15.646	15.646	0.000	62126	0.02500	0.02500
25 Methoxychlor	16.680	16.680	0.000	59370	0.05000	0.05084
\$ 30 Decachlorobiphenyl	20.040	20.040	0.000	45815	0.02500	0.02709

Data File: \\gpi02\chem\gc4.i\5280-G.b.D-B5761.d
Date: 30-AUG-2000 10:30

Client ID:

Sample Info: MEDA,5280-G.b.,3-INDA,sub.,2,3

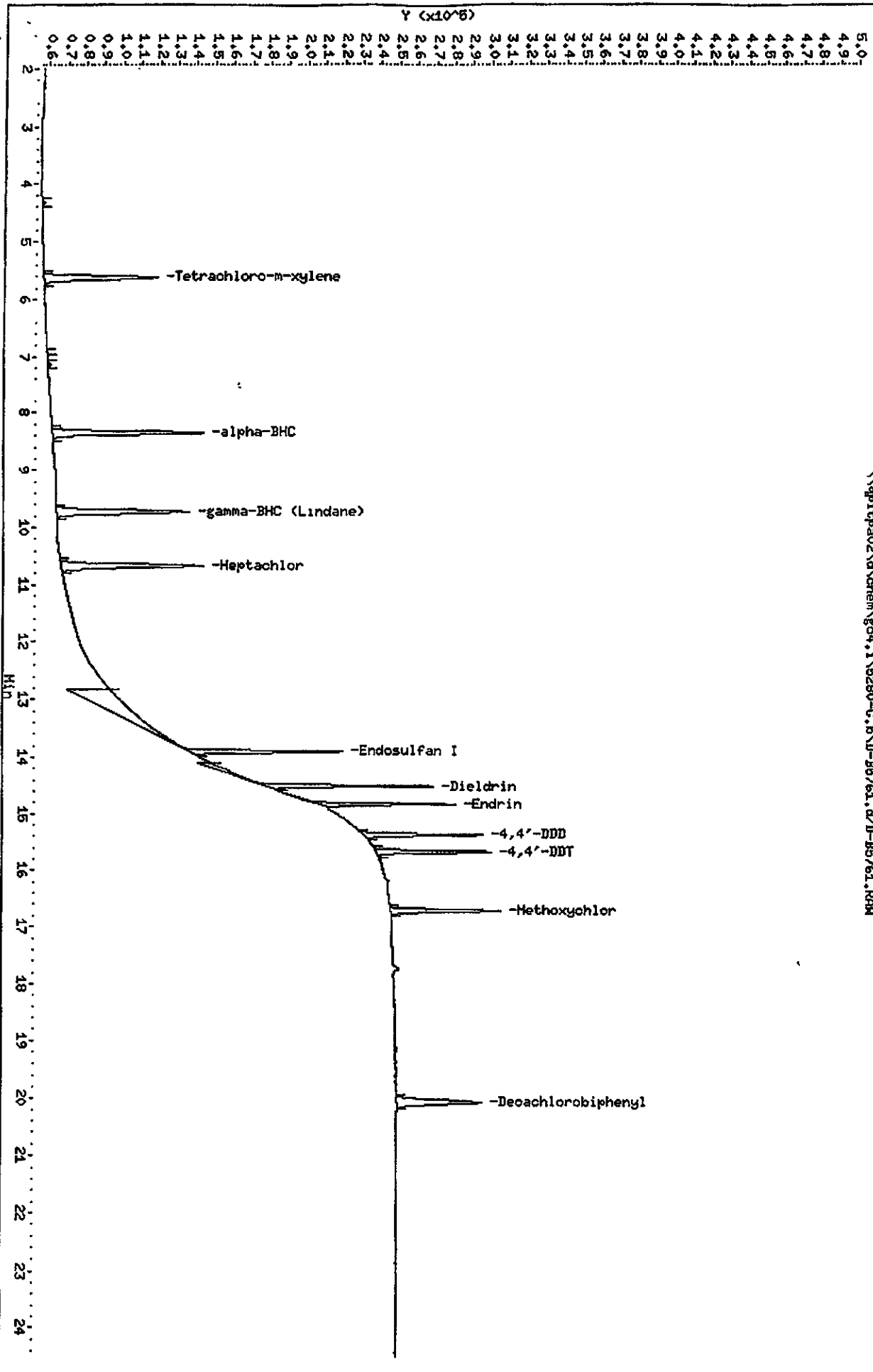
Column phase: DB1701

Instrument: gc4.i

Operator: 1891

Column diameter: 0.53

\\gpi02\chem\gc4.i\5280-G.b.D-B5761.d\B5761.RAW



67101129

STL - Pittsburgh

Data file : \\qpitpa02\d\chem\gc4.i\5280-G.b\D-B5762.d
Lab Smp Id: MEDB
Inj Date : 30-AUG-2000 10:58
Operator : 1891 Inst ID: gc4.i
Smp Info : MEDB,5280-G.b,,4-INDB.sub,,2,3
Misc Info : 190-84-9
Comment :
Method : \\qpitpa02\d\chem\gc4.i\5280-G.b\PESTB.m
Meth Date : 31-Aug-2000 09:24 matkol Quant Type: ESTD
Cal Date : 08-AUG-2000 01:35 Cal File: D-B5173.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 4-INDB.sub
Target Version: 4.04
Processing Host: PITPC044

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
-----	--	-----	-----	-----	-----	-----
11 Aldrin	11.646	11.646	0.000	74975	0.02500	0.02632
7 beta-BHC	12.153	12.153	0.000	41457	0.02500	0.02493
8 delta-BHC	12.833	12.833	0.000	79533	0.02500	0.02315
12 Heptachlor epoxide	13.340	13.340	0.000	86725	0.02500	0.02617
13 gamma-Chlordane	13.953	13.953	0.000	87527	0.02500	0.02580
14 alpha-Chlordane	14.053	14.053	0.000	86901	0.02500	0.02627
16 4,4'-DDE	14.206	14.206	0.000	90082	0.02500	0.02674
22 Endosulfan II	15.500	15.500	0.000	71853	0.02500	0.02510
24 Endrin aldehyde	16.160	16.160	0.000	36522	0.02500	0.02724
26 Endosulfan sulfate	16.746	16.746	0.000	41430	0.02500	0.02365
27 Endrin ketone	17.706	17.706	0.000	56031	0.02500	0.02714

Data File: \\pittpa02\chem\gc4.1\5280-G.b.D-B5762.d

Date: 30-JUL-2000 10:58

Client ID:

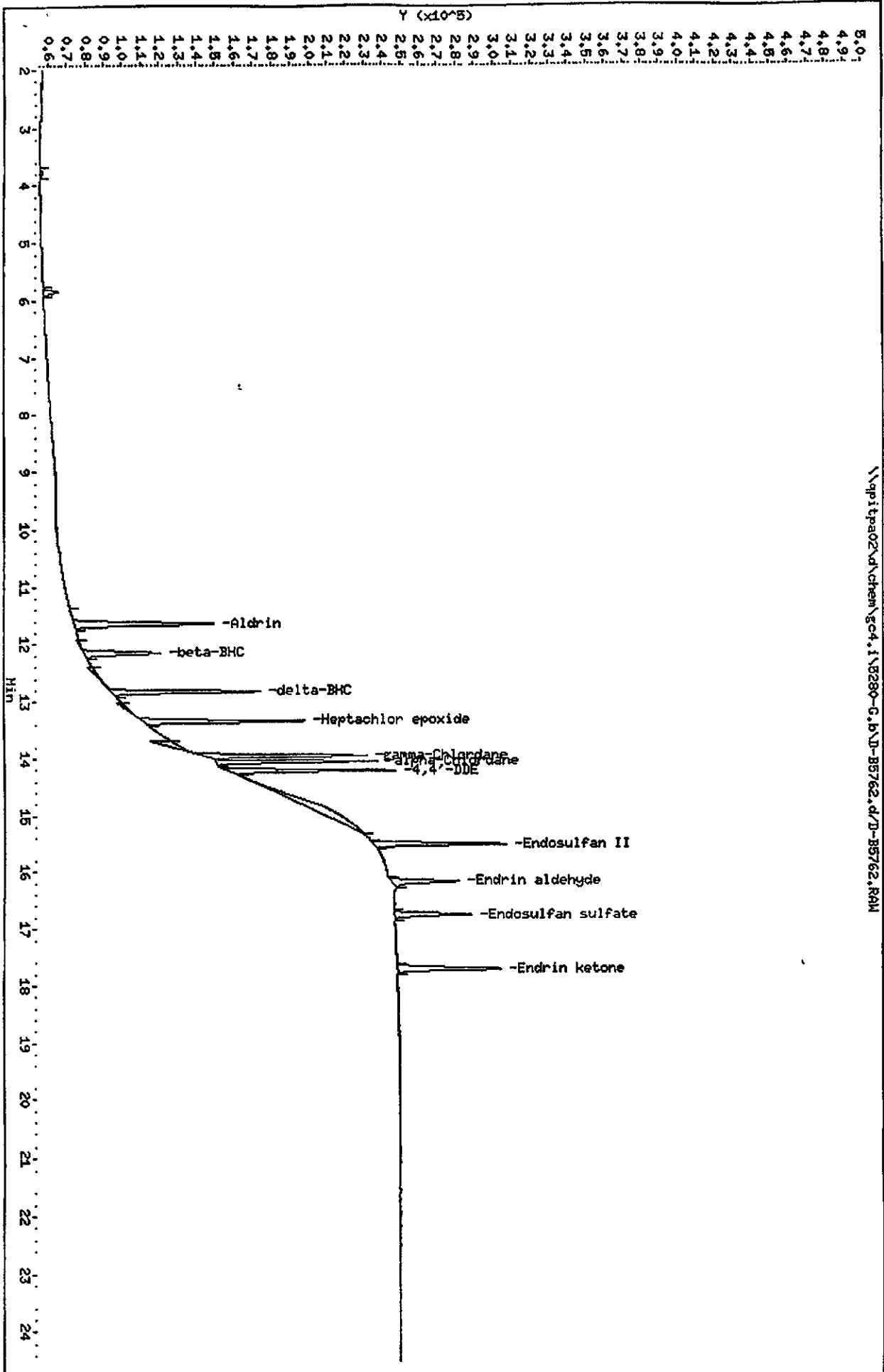
Sample Info: HEDB,5280-G.b.,4-INDB,sub.,2,3

Column phase: DB1701

Instrument: gc4.1

Operator: 1891

Column diameter: 0.53



4501129

STL - Pittsburgh

Data file : \\qpitpa02\d\chem\gc4.i\5280-G.b\D-B5783.d
Lab Smp Id: MEDIX
Inj Date : 30-AUG-2000 20:40
Operator : 1891
Smp Info : MEDIX,5080-G.b,,APPX9.sub,,2,3
Misc Info : 190-80-8
Comment :
Method : \\qpitpa02\d\chem\gc4.i\5280-G.b\PESTB.m
Meth Date : 31-Aug-2000 09:24 matkol
Cal Date : 08-AUG-2000 01:35
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 4.04
Processing Host: PITPC044

Inst ID: gc4.i
Quant Type: ESTD
Cal File: D-B5173.d
Continuing Calibration Sample
Compound Sublist: APPX9.sub

Compounds	AMOUNTS					
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
-----	--	-----	-----	-----	-----	-----
2 Diallylate A	7.060	7.060	0.000	26990	0.50000	0.2902
3 Diallylate B	7.606	7.613	-0.007	5592	0.50000	0.2756
19 Isodrin	12.760	12.766	-0.006	83942	0.05000	0.02779
28 Chlorobenzilate	15.093	15.100	-0.007	5245	0.05000	0.03036 (M)
29 Kepone	17.706	17.706	0.000	1315	0.50000	0.3419 (M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\ppitpa02\chem\gc4.1\5280-G.b\B-85783.d

Date: 30-AUG-2000 20:40

Client ID:

Sample Info: HEDIX, 5080-G.b, APPX9, sub, 2, 3

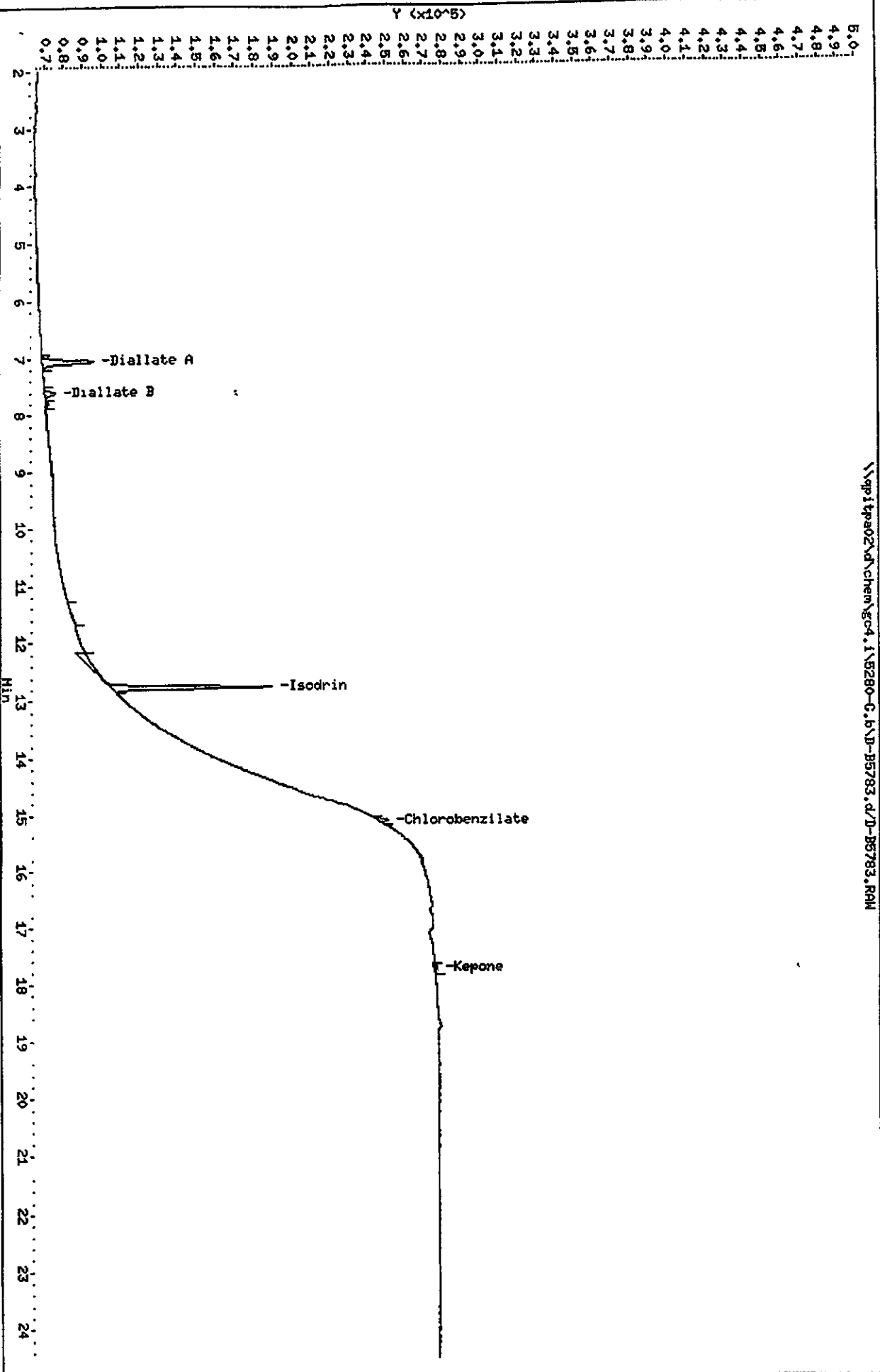
Column phase: DB1701

Instrument: gc4.1

Operator: 1891

Column diameter: 0.53

\\ppitpa02\chem\gc4.1\5280-G.b\B-85783.d\B-85783.RAW



6501129

STL - Pittsburgh

Data file : \\qpitpa02\d\chem\gc4.i\5280-G.b\D-B5784.d
Lab Smp Id: MEDF
Inj Date : 30-AUG-2000 21:08
Operator : 1891
Smp Info : MEDF,5080-G.b,,HEX.sub,,2,3
Misc Info : 190-74-3
Comment :
Method : \\qpitpa02\d\chem\gc4.i\5280-G.b\PESTB.m
Meth Date : 31-Aug-2000 09:24 matkol
Cal Date : 08-AUG-2000 01:35
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 4.04
Processing Host: PITPC044

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
4 HEXACHLOROBENZENE	6.960	6.960	0.000	131106	0.02500	0.02856
58 MIREX	16.800	16.800	0.000	49639	0.02500	0.02793

Data File: \\pp1tpa02\chem\gc4.1\5280-G.b\D-B5784.d

Date: 30-AUG-2000 21:08

Client ID:

Sample Info: HEDF, 5080-G.b, HEX, sub, 2,3

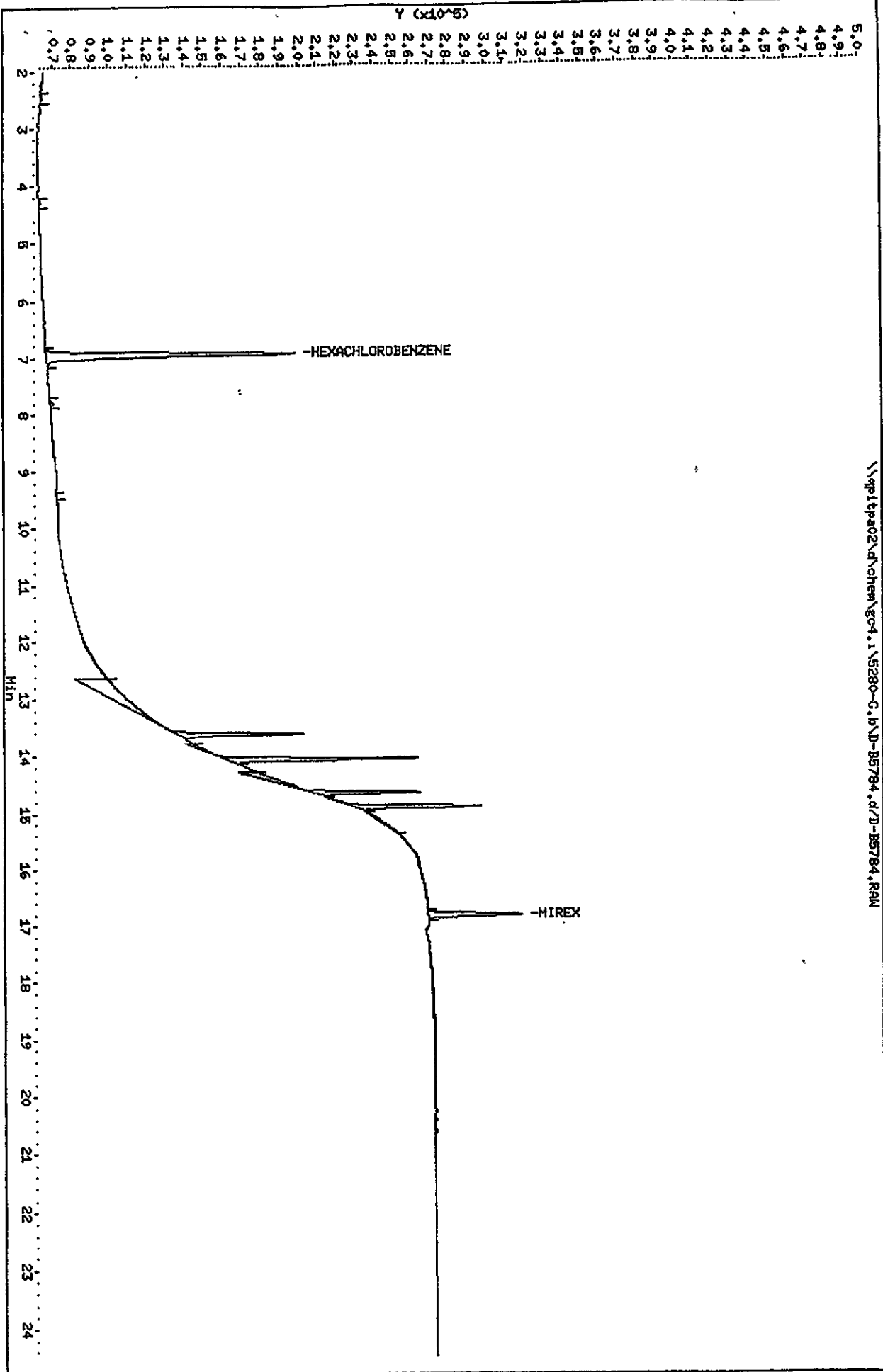
Column phase: DB1701

Instrument: gc4.1

Operator: 1891

Column diameter: 0.53

\\pp1tpa02\chem\gc4.1\5280-G.b\D-B5784.d\J-B5784.RAW



1901129

STL - Pittsburgh

Data file : \\qpitpa02\d\chem\gc4.i\5280-G.b\D-B5785.d
Lab Smp Id: MEDA
Inj Date : 30-AUG-2000 21:35
Operator : 1891
Smp Info : MEDA,5280-G.b,,INDA.sub,,2,3
Misc Info : 190-84-3
Comment :
Method : \\qpitpa02\d\chem\gc4.i\5280-G.b\PESTB.m
Meth Date : 31-Aug-2000 09:24 matkol
Cal Date : 08-AUG-2000 01:35
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 4.04
Processing Host: PITPC044

Inst ID: gc4.i
Quant Type: ESTD
Cal File: D-B5173.d
Continuing Calibration Sample
Compound Sublist: INDA.sub

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
\$ 1 Tetrachloro-m-xylene	5.620	5.620	0.000	61786	0.02500	0.02702
5 alpha-BHC	8.353	8.353	0.000	77064	0.02500	0.02515
6 gamma-BHC (Lindane)	9.733	9.733	0.000	67831	0.02500	0.02558
10 Heptachlor	10.666	10.666	0.000	76477	0.02500	0.02601
15 Endosulfan I	13.893	13.893	0.000	83579	0.02500	0.02615
17 Dieldrin	14.493	14.493	0.000	91621	0.02500	0.02698
20 Endrin	14.806	14.813	-0.007	82898	0.02500	0.02622
21 4,4'-DDD	15.346	15.353	-0.007	66404	0.02500	0.02701
23 4,4'-DDT	15.646	15.646	0.000	54945	0.02500	0.02211
25 Methoxychlor	16.680	16.680	0.000	59301	0.05000	0.05078
\$ 30 Decachlorobiphenyl	20.033	20.040	-0.007	45944	0.02500	0.02717

Data File: \\ppitpa02\chem\god.1\5280-G.b\U-85785.d

Date: 30-AUG-2000 21:35

Client ID:

Sample Info: HED9,5280-G.b.,IND9,sub,2,3

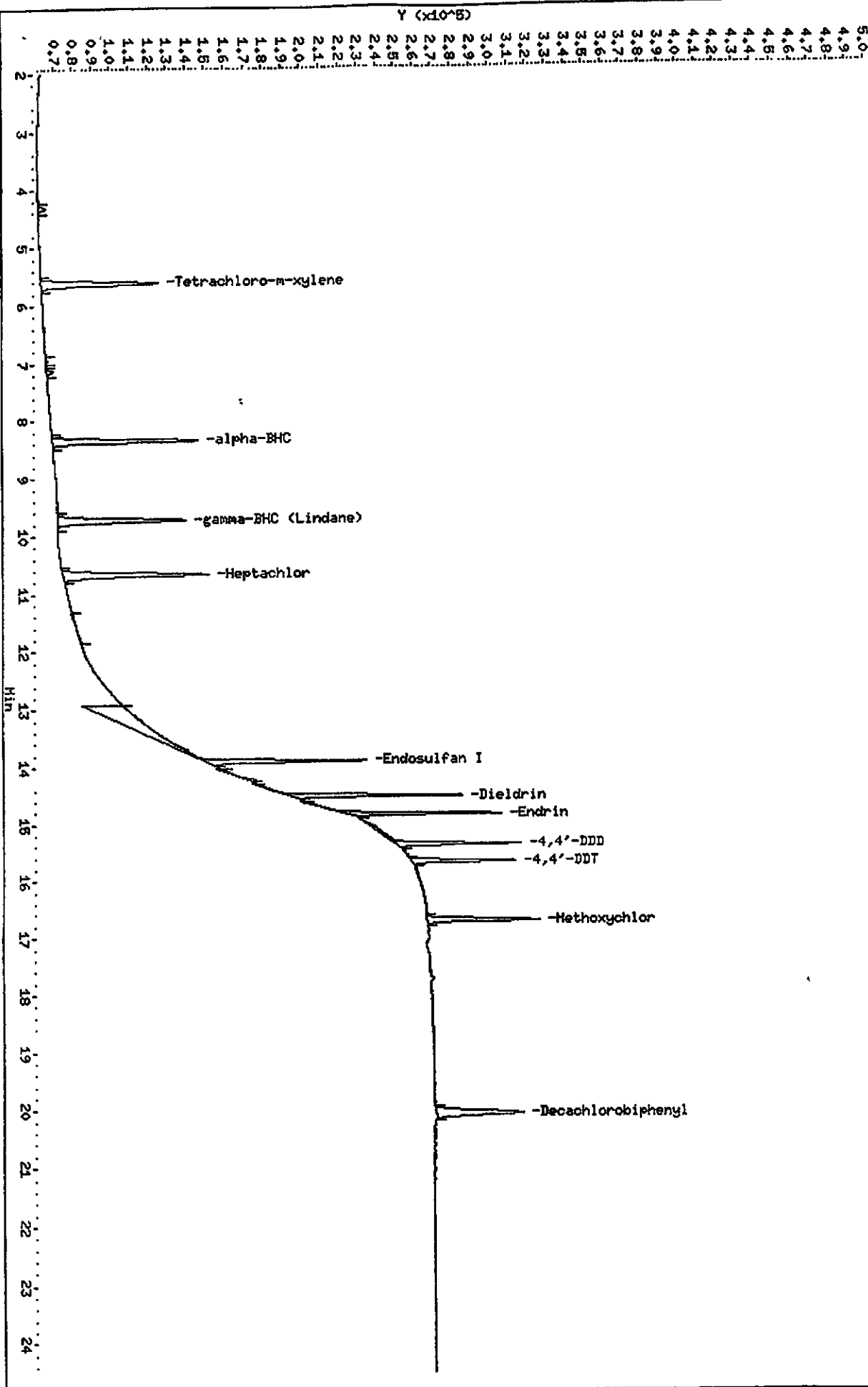
Column phase: DB1701

Instrument: god.1

Operator: 1891

Column diameter: 0.53

\\ppitpa02\chem\god.1\5280-G.b\U-85785.d\U-85785.RAW



6711063

STL - Pittsburgh

Data file : \\gpitpa02\d\chem\gc4.i\5280-G.b\D-B5786.d
Lab Smp Id: MEDB
Inj Date : 30-AUG-2000 22:03
Operator : 1891
Smp Info : MEDB, 5280-G.b,, INDB.sub,, 2, 3
Misc Info : 190-84-9
Comment :
Method : \\gpitpa02\d\chem\gc4.i\5280-G.b\PESTB.m
Meth Date : 31-Aug-2000 09:24 matkol
Cal Date : 08-AUG-2000 01:35
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 4.04
Processing Host: PITPC044

Inst ID: gc4.i
Quant Type: ESTD
Cal File: D-B5173.d
Continuing Calibration Sample
Compound Sublist: INDB.sub

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
-----	--	-----	-----	-----	-----	-----
11 Aldrin	11.640	11.646	-0.006	75247	0.02500	0.02642
7 beta-BHC	12.153	12.153	0.000	41155	0.02500	0.02475
8 delta-BHC	12.826	12.833	-0.007	56212	0.02500	0.01636
12 Heptachlor epoxide	13.340	13.340	0.000	87154	0.02500	0.02630
13 gamma-Chlordane	13.946	13.953	-0.007	87555	0.02500	0.02581
14 alpha-Chlordane	14.053	14.053	0.000	87026	0.02500	0.02631
16 4,4'-DDE	14.206	14.206	0.000	90613	0.02500	0.02690
22 Endosulfan II	15.500	15.500	0.000	74273	0.02500	0.02594
24 Endrin aldehyde	16.160	16.160	0.000	36630	0.02500	0.02732
26 Endosulfan sulfate	16.740	16.746	-0.006	33351	0.02500	0.01904
27 Endrin ketone	17.706	17.706	0.000	53636	0.02500	0.02598

Data File: \\ppitpa02\chem\gc4.1\5280-G.b.D-B5786.d

Date: 30-AUG-2000 22:03

Client ID:

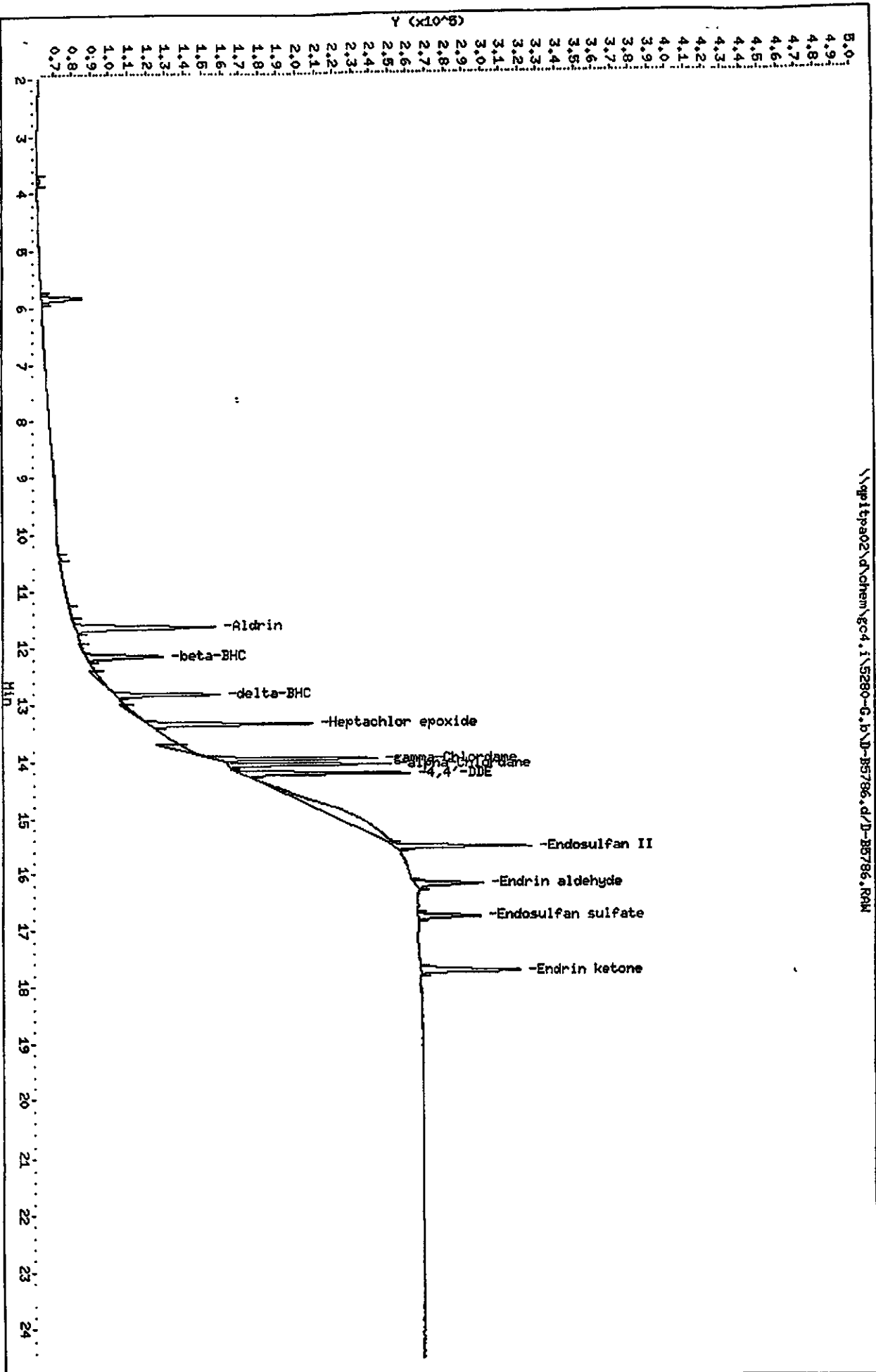
Sample Info: MEND, 5280-G.b., INDB.sub., 2,3

Column phase: DB1701

Instrument: gc4.1

Operator: 1891

Column diameter: 0.53



5901129

STL - Pittsburgh

Data file : \\qpitpa02\d\chem\gc4.i\5280-G.b\D-B5787.d
Lab Smp Id: EVALB
Inj Date : 30-AUG-2000 22:31
Operator : 1891
Smp Info : EVALB,5280-G.b,,EVALBR.sub,,3,1
Misc Info : 190-88-8
Comment :
Method : \\qpitpa02\d\chem\gc4.i\5280-G.b\PESTB.m
Meth Date : 31-Aug-2000 09:24 matkol
Cal Date : 08-AUG-2000 01:35
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 4.04
Processing Host: PITPC044
Inst ID: gc4.i
Quant Type: ESTD
Cal File: D-B5173.d
QC Sample: PEM
Compound Sublist: EVALBR.sub

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ng)
\$ 1 Tetrachloro-m-xylene	5.620	5.620	0.000	48607	0.02126	0.02126(R)
16 4,4'-DDE	14.213	14.206	0.007	3435	0.00102	0.001020
20 Endrin	14.806	14.813	-0.007	79100	0.02502	0.02502
21 4,4'-DDD	15.346	15.353	-0.007	3860	0.00157	0.001570
23 4,4'-DDT	15.646	15.646	0.000	54937	0.02211	0.02211
24 Endrin aldehyde	Compound Not Detected.					
27 Endrin ketone	Compound Not Detected.					
\$ 30 Decachlorobiphenyl	20.040	20.040	0.000	36608	0.02165	0.02165(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

DDF= 11.7
Edwards D

Data File: \\pptps02\chem\gc4.1\B280-G.b\B-B5787.d
Date: 30-AUG-2000 22:31

Client ID:

Sample Info: EVALB, B280-G.b, EVALBR.sub, 3.1

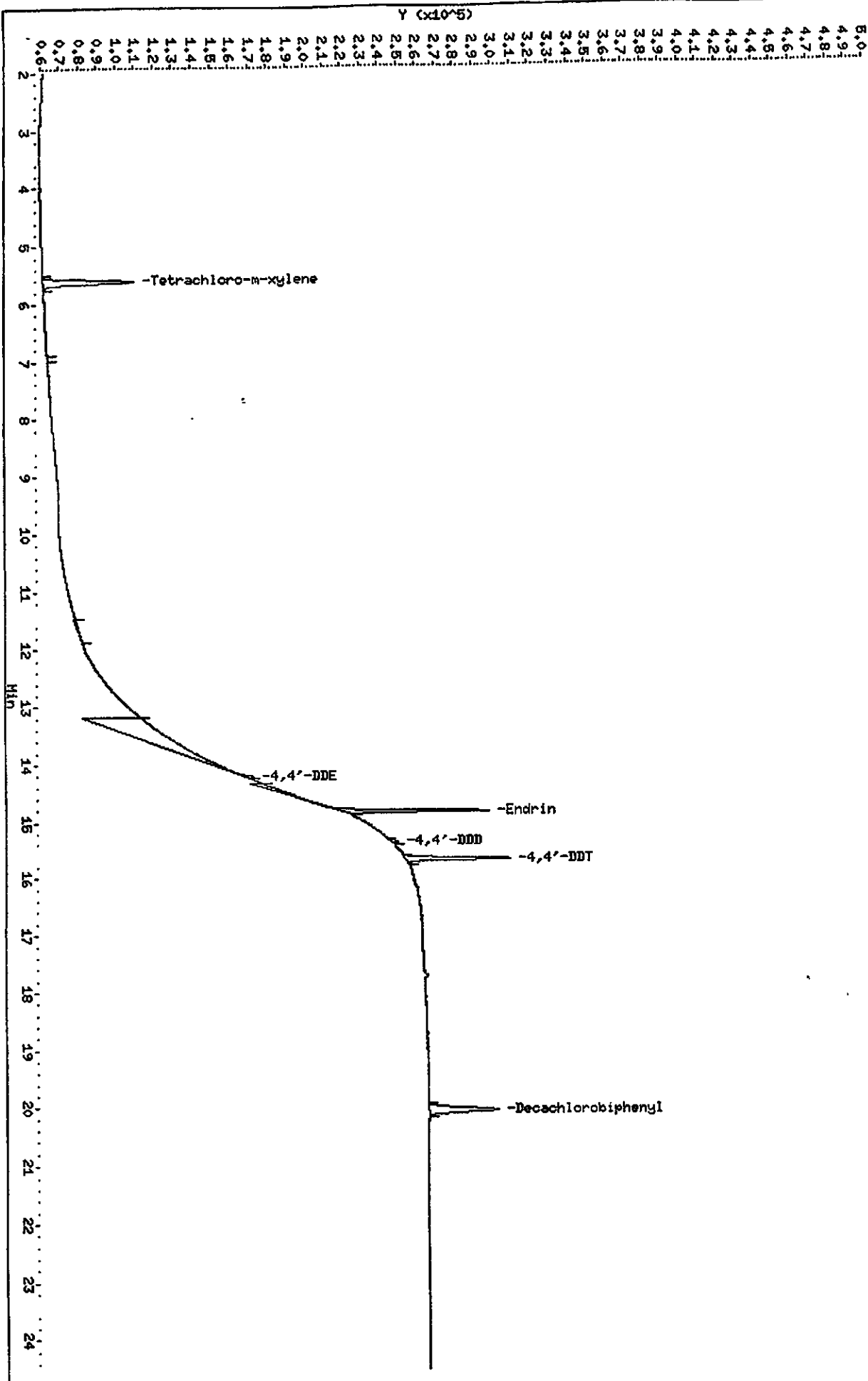
Column Phase: DB1701

Instrument: GC4.1

Operator: 1891

Column diameter: 0.53

\\pptps02\chem\gc4.1\B280-G.b\B-B5787.d\B-B5787.RM



2901729

6711068

**PESTICIDE
QC DATA**

6711069

UXB INTERNATIONAL
METHOD BLANK COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0H290000 401

Method: SW846 8081A

Pesticides (8081A)

Sample WT/Vol: 100 / mL

Date Received: 08/26/00

Work Order: DJKFP101

Date Extracted: 08/29/00

Dilution factor: 1

Date Analyzed: 08/30/00

Moisture %: NA

QC Batch: 0242401

Client Sample Id: INTRA-LAB BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
57-74-9	Chlordane (technical)	0.0050	U
72-20-8	Endrin	0.00050	U
76-44-8	Heptachlor	0.00050	U
1024-57-3	Heptachlor epoxide	0.00050	U
58-89-9	Lindane	0.00050	U
72-43-5	Methoxychlor	0.0010	U
8001-35-2	Toxaphene	0.020	U

STL - Pittsburgh

Data file : \\qpitpa02\d\chem\gc4.i\5280-G.b\D-B5764.d
 Lab Smp Id: DJKFP101 Client Smp ID: PBLK1
 Inj Date : 30-AUG-2000 11:53
 Operator : 1891 Inst ID: gc4.i
 Smp Info : DJKFP101,5280-G.b,,PEST.sub,,3,
 Misc Info : 260118BLK
 Comment :
 Method : \\qpitpa02\d\chem\gc4.i\5280-G.b\PESTB.m
 Meth Date : 31-Aug-2000 09:24 matkol Quant Type: ESTD
 Cal Date : 08-AUG-2000 01:35 Cal File: D-B5173.d
 Als bottle: 1 QC Sample: BLANK
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: PEST.sub
 Target Version: 4.04
 Processing Host: PITPC044

Concentration Formula: Amt * DF * (Vt/Vo)/Vi

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (mg/L)
\$ 1 Tetrachloro-m-xylene	5.626	5.620	0.006	41716	0.01825	0.001825 (aR)
5 alpha-BHC				Compound Not Detected.		
6 gamma-BHC (Lindane)				Compound Not Detected.		
9 Chlordane				Compound Not Detected.		
10 Heptachlor				Compound Not Detected.		
11 Aldrin				Compound Not Detected.		
7 beta-BHC				Compound Not Detected.		
8 delta-BHC				Compound Not Detected.		
12 Heptachlor epoxide				Compound Not Detected.		
15 Endosulfan I				Compound Not Detected.		
13 gamma-Chlordane				Compound Not Detected.		
14 alpha-Chlordane				Compound Not Detected.		
16 4,4'-DDE				Compound Not Detected.		
17 Dieldrin				Compound Not Detected.		
20 Endrin				Compound Not Detected.		

6711071

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (mg/L)
=====	==	=====	=====	=====	=====	=====
18 Toxaphene				Compound Not Detected		
21 4,4'-DDD				Compound Not Detected.		
22 Endosulfan II				Compound Not Detected.		
23 4,4'-DDT				Compound Not Detected.		
24 Endrin aldehyde				Compound Not Detected.		
25 Methoxychlor				Compound Not Detected		
26 Endosulfan sulfate				Compound Not Detected		
58 MIREX				Compound Not Detected.		
29 Kepone				Compound Not Detected.		
27 Endrin ketone				Compound Not Detected.		
\$ 30 Decachlorobiphenyl	20.040	20.040	0.000	33022	0.01953	0.001953 (aR)

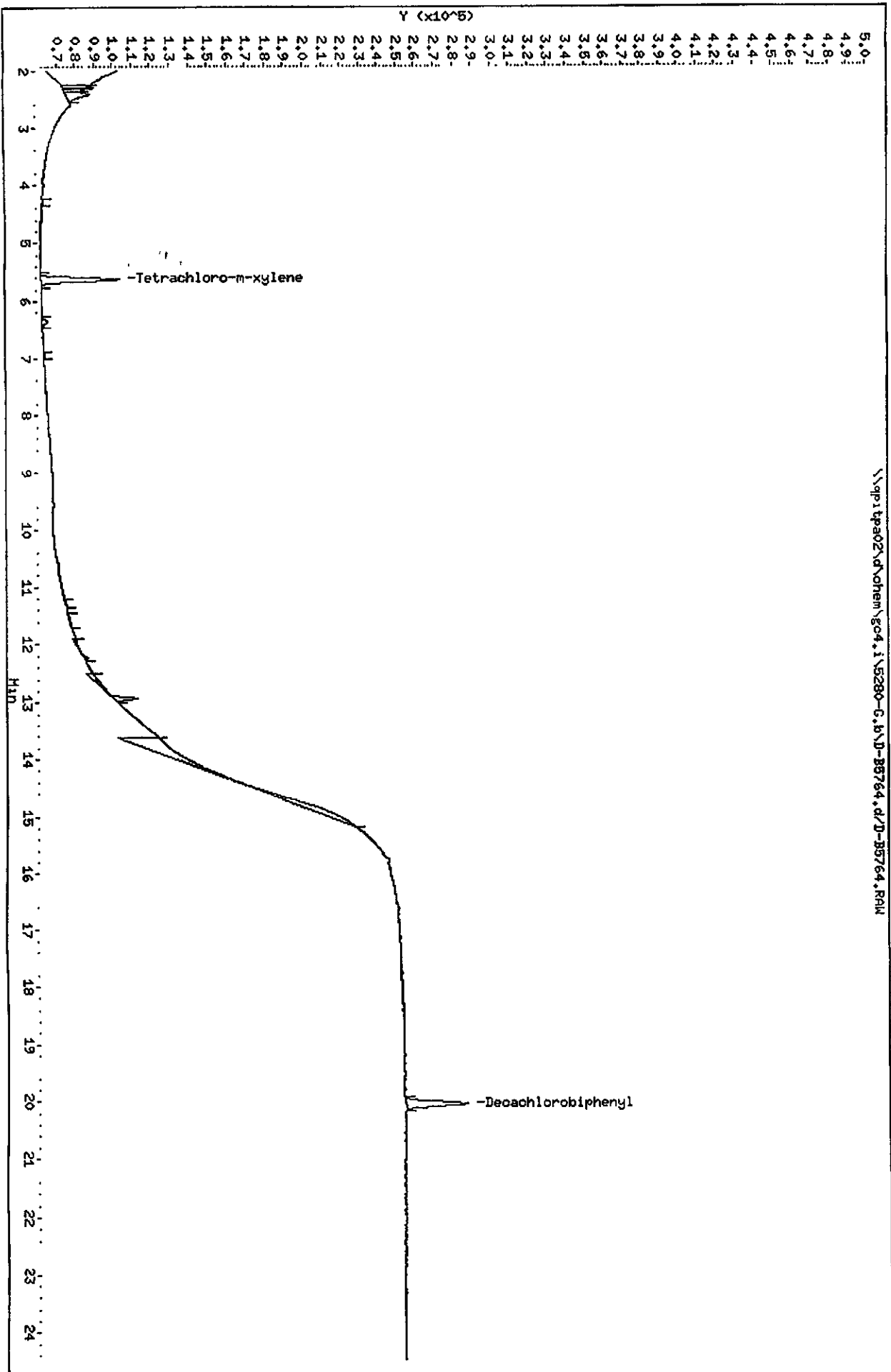
QC Flag Legend

- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation (BLOQ).
- R - Spike/Surrogate failed recovery limits.

6711072

Data File: \\pp1tpa02\chem\gc4.i\5280-G.b\D-85764.d
Date: 30-AUG-2000 11:53
Client ID: PBLK1
Sample Info: DJKFP101, 5280-G.b, PEST, sub., 3,
Volume Injected (uL): 1.0
Column phase: DB1701

Instrument: gc4.i
Operator: 1891
Column diameter: 0.53



6711073

UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0H290000 401

Method: SW846 8081A

Pesticides (8081A)

Sample WT/Vol: 100 / mL

Date Received: 08/26/00

Work Order: DJKFP102

Date Extracted: 08/29/00

Dilution factor: 1

Date Analyzed: 08/30/00

Moisture %: NA

QC Batch: 0242401

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
72-20-8	Endrin	0.00223	
76-44-8	Heptachlor	0.00220	
1024-57-3	Heptachlor epoxide	0.00221	
58-89-9	Lindane	0.00145	
72-43-5	Methoxychlor	0.00172	

STL - Pittsburgh

Data file : \\qpitpa02\d\chem\gc4.i\5280-G.b\D-B5765.d
Lab Smp Id: DJKFP102 Client Smp ID: LCS1
Inj Date : 30-AUG-2000 12:21
Operator : 1891 Inst ID: gc4.i
Smp Info : DJKFP102,5280-G.b,,PEST.sub,,3,
Misc Info : 260118LCS
Comment :
Method : \\qpitpa02\d\chem\gc4.i\5280-G.b\PESTB.m
Meth Date : 31-Aug-2000 09:24 matkol Quant Type: ESTD
Cal Date : 08-AUG-2000 01:35 Cal File: D-B5173.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEST.sub
Target Version: 4.04
Processing Host: PITPC044

Concentration Formula: Amt * DF * (Vt/Vo)/Vi

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (mg/L)
\$ 1 Tetrachloro-m-xylene	5.626	5.620	0.006	85700	0.03748	0.003748 (aR)
5 alpha-BHC	8.353	8.353	0.000	33545	0.01095	0.001095 (a)
6 gamma-BHC (Lindane)	9.733	9.733	0.000	38551	0.01454	0.001454 (aR)
9 Chlordane	Compound Not Detected.					
10 Heptachlor	10.666	10.666	0.000	64614	0.02198	0.002198 (aR)
11 Aldrin	11.640	11.646	-0.006	59917	0.02104	0.002104 (aR)
7 beta-BHC	12.153	12.153	0.000	35060	0.02109	0.002109 (a)
8 delta-BHC	Compound Not Detected.					
12 Heptachlor epoxide	13.340	13.340	0.000	73326	0.02213	0.002213 (a)
15 Endosulfan I	13.893	13.893	0.000	49093	0.01536	0.001536 (a)
13 gamma-Chlordane	13.953	13.953	0.000	57630	0.01699	0.001699 (a)
14 alpha-Chlordane	14.053	14.053	0.000	73320	0.02217	0.002217 (a)
16 4,4'-DDE	14.206	14.206	0.000	84043	0.02495	0.002495 (a)
17 Dieldrin	14.493	14.493	0.000	79295	0.02335	0.002335 (aR)
20 Endrin	14.813	14.813	0.000	70647	0.02234	0.002234 (aR)
18 Toxaphene	Compound Not Detected.					

6711075

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (mg/L)
-----	--	-----	-----	-----	-----	-----
21 4,4'-DDD	15.353	15.353	0.000	57132	0.02324	0.002324(a)
22 Endosulfan II	15.500	15.500	0.000	67440	0.02356	0.002356(a)
23 4,4'-DDT	15.646	15.646	0.000	51366	0.02067	0.002067(aR)
24 Endrin aldehyde	16.166	16.160	0.006	32258	0.02406	0.002406(a)
25 Methoxychlor	16.686	16.680	0.006	20073	0.01719	0.001719(a)
26 Endosulfan sulfate	Compound Not Detected					
58 MIREX	Compound Not Detected					
29 Kepone	17.713	17.706	0.007	50952	13.2469	1.325(aA)
27 Endrin ketone	Compound Not Detected.					
\$ 30 Decachlorobiphenyl	20.040	20.040	0.000	70593	0.04174	0.004174(aR)

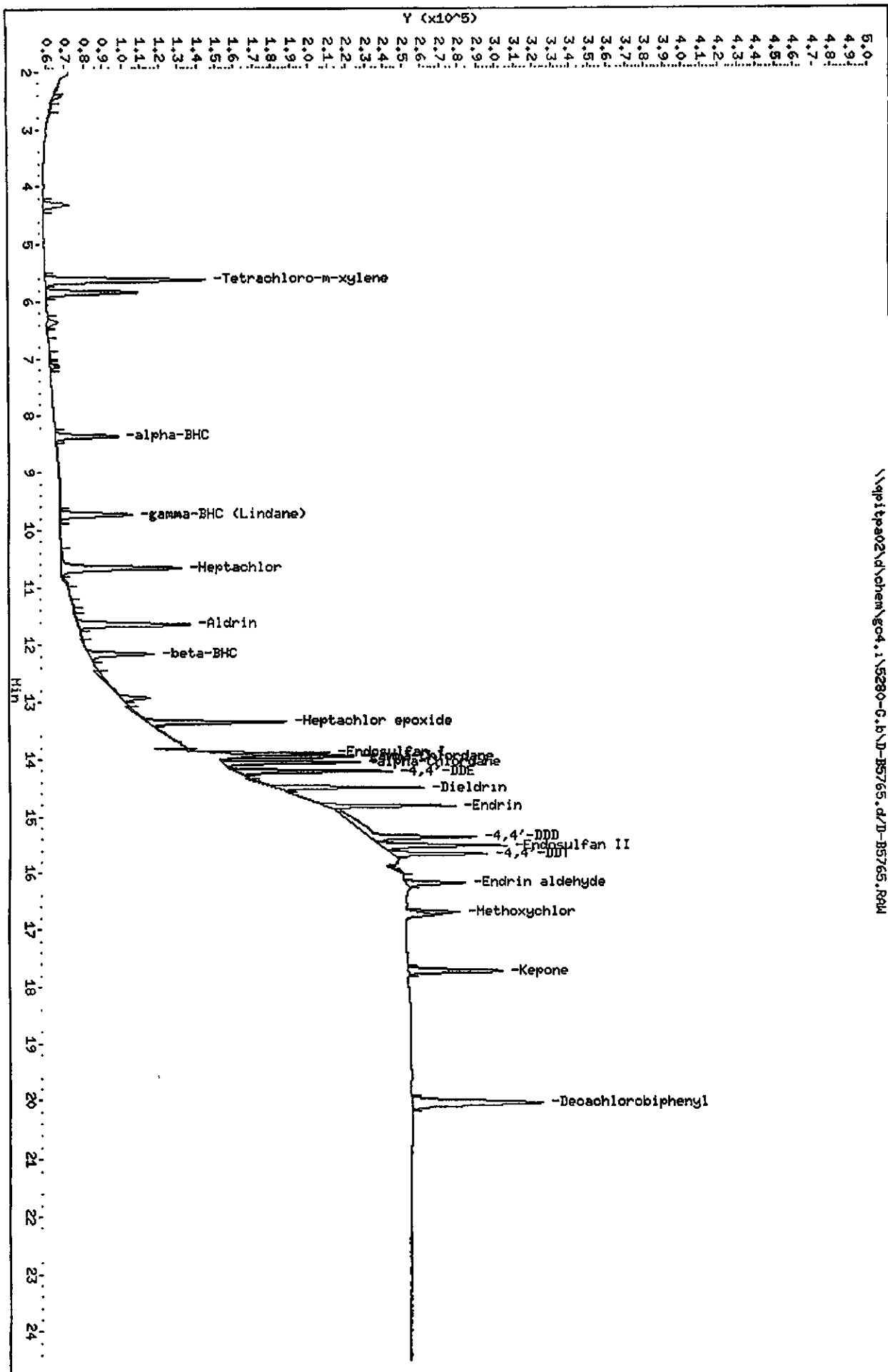
QC Flag Legend

- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
- A - Target compound detected but, quantitated amount
exceeded maximum amount.
- R - Spike/Surrogate failed recovery limits.

6711076

Data File: \\p1tpa02\chem\gc4.1\5280-G.b\B-5765.d
 Date: 30-AUG-2000 12:21
 Client ID: LC51
 Sample Info: DKKFP102,5280-G.b,PEST,sub,r3,
 Volume Injected (uL): 1.0
 Column phase: DB1701

Instrument: gc4.1
 Operator: 1891
 Column diameter: 0.53



6711077

UXB INTERNATIONAL
CHECK SAMPLE DUPLICATE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0H290000 401

Method: SW846 8081A

Pesticides (8081A)

Sample WT/Vol: 100 / mL

Date Received: 08/26/00

Work Order: DJKFP103

Date Extracted: 08/29/00

Dilution factor: 1

Date Analyzed: 08/30/00

Moisture %: NA

QC Batch: 0242401

Client Sample Id: DUPLICATE CHECK

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
72-20-8	Endrin	0.00236	
76-44-8	Heptachlor	0.00216	
1024-57-3	Heptachlor epoxide	0.00226	
58-89-9	Lindane	0.00147	
72-43-5	Methoxychlor	0.00172	

FORM I

STL - Pittsburgh

Data file : \\qpitpa02\d\chem\gc4.i\5280-G.b\D-B5766.d
Lab Smp Id: DJKFP103 Client Smp ID: LCD1
Inj Date : 30-AUG-2000 12:48
Operator : 1891 Inst ID: gc4.i
Smp Info : DJKFP103,5280-G.b,,PEST.sub,,3,
Misc Info : 260118LCD
Comment :
Method : \\qpitpa02\d\chem\gc4.i\5280-G.b\PESTB.m
Meth Date : 31-Aug-2000 09:24 matkol Quant Type: ESTD
Cal Date : 08-AUG-2000 01:35 Cal File: D-B5173.d
Als bottle: 1 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEST.sub
Target Version: 4.04
Processing Host: PITPC044

Concentration Formula: Amt * DF * (Vt/Vo)/Vi

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (mg/L)
\$ 1 Tetrachloro-m-xylene	5.626	5.620	0.006	84208	0.03683	0.003683 (aR)
5 alpha-BHC	8.353	8.353	0.000	33151	0.01082	0.001082 (a)
6 gamma-BHC (Lindane)	9.733	9.733	0.000	38923	0.01468	0.001468 (aR)
9 Chlordane	Compound Not Detected.					
10 Heptachlor	10.666	10.666	0.000	63628	0.02164	0.002164 (aR)
11 Aldrin	11.640	11.646	-0.006	60340	0.02118	0.002118 (aR)
7 beta-BHC	12.153	12.153	0.000	35520	0.02136	0.002136 (a)
8 delta-BHC	Compound Not Detected.					
12 Heptachlor epoxide	13.340	13.340	0.000	74793	0.02257	0.002257 (a)
15 Endosulfan I	13.893	13.893	0.000	56695	0.01774	0.001774 (a)
13 gamma-Chlordane	13.953	13.953	0.000	64788	0.01910	0.001910 (a)
14 alpha-Chlordane	14.053	14.053	0.000	75656	0.02287	0.002287 (a)
16 4,4'-DDE	14.213	14.206	0.007	84652	0.02513	0.002513 (a)
17 Dieldrin	14.493	14.493	0.000	80481	0.02370	0.002370 (aR)
20 Endrin	14.813	14.813	0.000	74728	0.02363	0.002363 (aR)
18 Toxaphene	Compound Not Detected.					

6711079

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (mg/L)
=====	==	=====	=====	=====	=====	=====
21 4,4'-DDD	15.353	15.353	0.000	60716	0.02469	0.002469(a)
22 Endosulfan II	15.500	15.500	0.000	70737	0.02471	0.002471(a)
23 4,4'-DDT	15.646	15.646	0.000	52470	0.02112	0.002112(aR)
24 Endrin aldehyde	16.166	16.160	0.006	32355	0.02414	0.002414(a)
25 Methoxychlor	16.686	16.680	0.006	20075	0.01719	0.001719(a)
26 Endosulfan sulfate	Compound Not Detected.					
58 MIREX	Compound Not Detected.					
29 Kepone	17.713	17.706	0.007	52622	13.6811	1.368(aA)
27 Endrin ketone	Compound Not Detected.					
\$ 30 Decachlorobiphenyl	20.040	20.040	0.000	72512	0.04288	0.004288(aR)

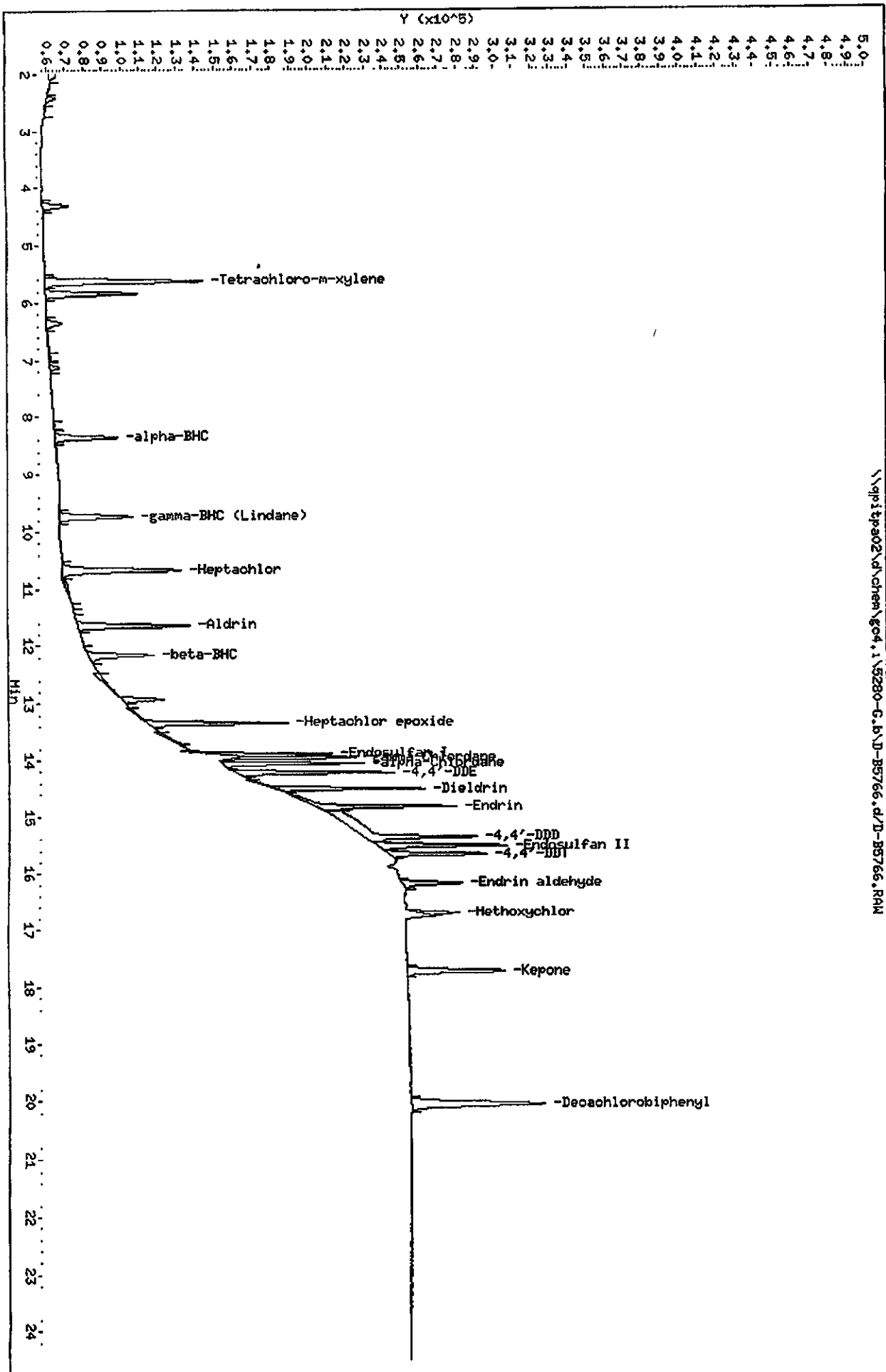
QC Flag Legend

- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
- A - Target compound detected but, quantitated amount
exceeded maximum amount.
- R - Spike/Surrogate failed recovery limits.

6711080

Data File: \\npitpa02\chem\gc04.1\5280-G.b\B5766.d
Date: 30-AUG-2000 12:48
Client ID: LCD1
Sample Info: DJKFF103,5280-G.b,,PEST,sub,,3,
Volume Injected (uL): 1.0
Column phase: DB1701

Instrument: gc04.i
Operator: 1891
Column diameter: 0.53



6711081

**PESTICIDE
MISCELLANEOUS**

Separatory Funnel Extraction Worksheet

STL Plusburgh
450 William Pitt Way
Plusburgh, PA 15238
412-820-8380

B#0242401

Extraction Worksheet

π -p

Nexant. T03268

[illegible]

6711083

✓ 04 81200

5080H.PDF
5080G1X.PDF

```
Number of Rows      : 54
Instrument Type     : 760 / 900 Series Intelligent Interface
Injection Type      : SINGLE
```

Row	Type	Sample Name	Sample Number	Sequence Sample Descriptions - Channel B								
				Study Name	Sample Amount	ISTD Amount	Sample Volume	Dil. Factor	Mult	Divisor	Addend	Norm. factor
1	Std Check	EVALB, 5080-G.b,	190-88-8		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
2	Cal:Replace	MEDTOX, 5080-G.b	190-98-12		1.000	1.000	1.000	1.000	333.000	1.000	0.000	100.000
3	Cal:Replace	MEDCHLOR, 5080-G	190-85-10		1.000	1.000	1.000	1.000	333.000	1.000	0.000	100.000
4	Cal:Replace	LOWIX, 5080-G.b,	190-80-6		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
5	Cal:Replace	MLOWIX, 5080-G.b	190-80-7		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
6	Cal:Replace	MEDIX, 5080-G.b,	190-80-8		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
7	Cal:Replace	MHIGHIX, 5080-G.	190-80-9		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
8	Cal:Replace	HIGHIX, 5080-G.b	190-80-10		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
9	Cal:Replace	LOWF, 5080-G.b,,	190-74-1		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
10	Cal:Replace	MLOWF, 5080-G.b,	190-74-2		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
11	Cal:Replace	MEDF, 5080-G.b.,	190-74-3		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
12	Cal:Replace	MHIGHF, 5080-G.b	190-74-4		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
13	Cal:Replace	HIGHF, 5080-G.b,	190-74-5		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
14	Cal:Replace	LOWA, 5080-G.b.,	190-84-1		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
15	Cal:Replace	MLOWA, 5080-G.b,	190-84-2		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
16	Cal:Replace	MEDA, 5080-G.b.,	190-84-3		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
17	Cal:Replace	MHIGHA, 5080-G.b	190-84-4		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
18	Cal:Replace	HIGHA, 5080-G.b,	190-84-5		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
19	Cal:Replace	LOWB, 5080-G.b.,	190-84-7		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
20	Cal:Replace	MLOWB, 5080-G.b,	190-84-8		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
21	Cal:Replace	MEDB, 5080-G.b.,	190-84-9		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
22	Cal:Replace	MHIGHB, 5080-G.b	190-84-10		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
23	Cal:Replace	HIGHB, 5080-G.b,	190-84-11		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
24	Std Check	2ND A, 5080-G.b,	190-82-2		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
25	Std Check	2ND B, 5080-G.b,	190-82-5		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
26	Std Check	EVALB, 5080-G.b,	190-88-8		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
27	Sample	DGRC1101, 5080-G	140198BLK		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
28	Sample	DGRC1102, 5080-G	140198LCS		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
29	Sample	DGRC1103, 5080-G	140198LCD		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
30	Sample	DG7T7101, 5080-G	140198018		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
31	Sample	DG7T7101, 5080-G	140198018		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
32	Sample	DG7T7101, 5080-G	140198018		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
33	Sample	DG7TA101, 5080-G	140198019		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
34	Sample	DG7TA101, 5080-G	140198019		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
35	Sample	DG7TA101, 5080-G	140198019		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
36	Sample	DG7TC101, 5080-G	140198020		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
37	Sample	DG7TC101, 5080-G	140198020		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
38	Sample	DG7TC101, 5080-G	140198020		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
39	Sample	DGD7P101, 5080-G	180137004S	189	1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
40	Sample	DGD7P101, 5080-G	180137004S		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
41	Sample	DGD7P101, 5080-G	180137004D		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
42	Sample	DGDM9M101, 5080-G	180137BLK		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
43	Sample	DGDM9M102, 5080-G	180137LCS		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
44	Sample	DHEH6101, 5080-G	030147BLK		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
45	Sample	DHEH6102, 5080-G	030147LCS		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
46	Sample	DHEH6103, 5080-G	030147LCD		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
47	Std Check	MEDA, 5080-G.b.,	190-84-3		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
48	Std Check	MEDB, 5080-G.b.,	190-84-9		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
49	Std Check	EVALB, 5080-G.b,	190-88-8		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
50	Sample	DH991102, 5080-G	030147019		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
51	Sample	DHA8R102, 5080-G	030241009		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
52	Sample	DHA9A102, 5080-G	030241012		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
53	Std Check	MEDA, 5080-G.b.,	190-84-3		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
54	Std Check	MEDB, 5080-G.b.,	190-84-9		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000

[illegible]

Turbochrom Sequence File : H:\ACQUIRE\MET_SEQ\5310-G.SEQ
Created by : DE11/02/98 on : 8/31/00 08:32
Edited by : LM08/31/00 on : 8/31/00 08:48
Description : QUANTERRA PGH 8081 RUN ON GC#4 DB608/DB1701
REVIEWED BY:

6711084

H

Number of Times Edited : 3

Sequence File Header Information:

Number of Rows : 42
Instrument Type : 760 / 900 Series Intelligent Interface
Injection Type : SINGLE

Sequence Sample Descriptions - Channel B												
Row	Type	Sample Name	Sample Number	Study Name	Sample Amount	ISTD Amount	Sample Volume	Dil. Factor	Mult	Divisor	Addend	Norm. factor
1	Std Check	EVALB, 5280-G.b.,	190-88-8		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
2	Cal:Replace	MEDIX, 5080-G.b.,	190-80-8		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
3	Cal:Replace	MEDF, 5080-G.b.,	190-74-3		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
4	Cal:Replace	MEDA, 5280-G.b.,	190-84-3		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
5	Cal:Replace	MEDB, 5280-G.b.,	190-84-9		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
6	Sample	DHGE103, 5280-G	070171021		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
7	Sample	DJKFP101, 5280-G	260118BLK		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
8	Sample	DJKFP102, 5280-G	260118LCS		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
9	Sample	DJKFP103, 5280-G	260118LCD		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
10	Sample	DJGB2104, 5280-G	260118001		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
11	Sample	DHK3L103, 5280-G	090146002		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
12	Sample	DHT7N101, 5280-G	090146BLK		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
13	Sample	DHT7N102, 5280-G	090146LCS		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
14	Sample	DHT7N103, 5280-G	090146LCD		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
15	Sample	DHK3610R, 5280-G	090142001		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
16	Sample	DHNM8101, 5280-G	090142BLK		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
17	Sample	DHNM8102, 5280-G	090142LCS		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
18	Sample	DHNM8103, 5280-G	090142LCD		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
19	Sample	DHK3E113, 5280-G	090145001		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
20	Sample	DHK3E12K, 5280-G	090145001S		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
21	Sample	DHK3E12L, 5280-G	090145001D		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
22	Sample	DHNG3101, 5280-G	090145BLK		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
23	Sample	DHNG3102, 5280-G	090145LCS		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
24	Sample	DJDR0101, 5280-G	230127BLK		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
25	Sample	DJDR0102, 5280-G	230127LCS		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
26	Cal:Replace	MEDIX, 5080-G.b.,	190-80-8		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
27	Cal:Replace	MEDF, 5080-G.b.,	190-74-3		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
28	Std Check	MEDA, 5280-G.b.,	190-84-3		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
29	Std Check	MEDB, 5280-G.b.,	190-84-9		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
30	Std Check	EVALB, 5280-G.b.,	190-88-8		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
31	Sample	DJ99512J, 5280-G	230127003		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
32	Sample				1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
33	Sample	DJ99512K, 5280-G	230127003S		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
34	Sample				1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
35	Sample	DJ99512L, 5280-G	230127003D		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
36	Sample				1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
37	Sample	DJ99D10V, 5280-G	230127004		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
38	Sample				1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
39	Sample	DJ99K10V, 5280-G	230127005		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
40	Sample				1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
41	Std Check	MEDA, 5280-G.b.,	190-84-3		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
42	Std Check	MEDB, 5280-G.b.,	190-84-9		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000

Sequence Process Information - Channel B															
Row	Site	Rack	Vial	Inst Method	Process Method	Calib Method	Report Format	Raw File	Result File	Baseline File	Modified Raw File	Cal Rpt	Level Name	Update RT	Out Dev
1	-	1	1	GEN4C	GEN4B	122190A	EVAL	D-B5758	D-B5758		D-B5758	-	-	-	LPT1:
2	-	1	11	GEN4C	GEN4B	122190A	INDA	D-B5759	D-B5759		D-B5759	N	MLOW	N	LPT1:
3	-	1	6	GEN4C	GEN4B	122190A	INDA	D-B5760	D-B5760		D-B5760	N	MLOW	N	LPT1:
4	-	1	6	GEN4C	GEN4B	122190A	INDA	D-B5761	D-B5761		D-B5761	N	MLOW	N	LPT1:
5	-	1	11	GEN4C	GEN4B	122190A	INDA	D-B5762	D-B5762		D-B5762	N	MLOW	N	LPT1:
6	-	1	1	GEN4C	GEN4B	122190A	EVAL	D-B5763	D-B5763		D-B5763	-	-	-	LPT1:
7	-	1	1	GEN4C	GEN4B	122190A	EVAL	D-B5764	D-B5764		D-B5764	-	-	-	LPT1:
8	-	1	1	GEN4C	GEN4B	122190A	EVAL	D-B5765	D-B5765		D-B5765	-	-	-	LPT1:
9	-	1	1	GEN4C	GEN4B	122190A	EVAL	D-B5766	D-B5766		D-B5766	-	-	-	LPT1:
10	-	1	1	GEN4C	GEN4B	122190A	EVAL	D-B5767	D-B5767		D-B5767	-	-	-	LPT1:

11	-	1	1	GEN4C	GEN4B	122190A	EVAL	D-B5768	D-B5768	D-B5768	-	-	-	LPT1:
12	-	1	1	GEN4C	GEN4B	122190A	EVAL	D-B5769	D-B5769	D-B5769	-	-	-	LPT1:
13	-	1	1	GEN4C	GEN4B	122190A	EVAL	D-B5770	D-B5770	D-B5770	-	-	-	LPT1:
14	-	1	1	GEN4C	GEN4B	122190A	EVAL	D-B5771	D-B5771	D-B5771	-	-	-	LPT1:
15	-	1	1	GEN4C	GEN4B	122190A	EVAL	D-B5772	D-B5772	D-B5772	-	-	-	LPT1:
16	-	1	1	GEN4C	GEN4B	122190A	EVAL	D-B5773	D-B5773	D-B5773	-	-	-	LPT1:
17	-	1	1	GEN4C	GEN4B	122190A	EVAL	D-B5774	D-B5774	D-B5774	-	-	-	LPT1:
18	-	1	1	GEN4C	GEN4B	122190A	EVAL	D-B5775	D-B5775	D-B5775	-	-	-	LPT1:
19	-	1	1	GEN4C	GEN4B	122190A	EVAL	D-B5776	D-B5776	D-B5776	-	-	-	LPT1:
20	-	1	1	GEN4C	GEN4B	122190A	EVAL	D-B5777	D-B5777	D-B5777	-	-	-	LPT1:
21	-	1	1	GEN4C	GEN4B	122190A	EVAL	D-B5778	D-B5778	D-B5778	-	-	-	LPT1:
22	-	1	1	GEN4C	GEN4B	122190A	EVAL	D-B5779	D-B5779	D-B5779	-	-	-	LPT1:
23	-	1	1	GEN4C	GEN4B	122190A	EVAL	D-B5780	D-B5780	D-B5780	-	-	-	LPT1:
24	-	1	1	GEN4C	GEN4B	122190A	EVAL	D-B5781	D-B5781	D-B5781	-	-	-	LPT1:
25	-	1	1	GEN4C	GEN4B	122190A	EVAL	D-B5782	D-B5782	D-B5782	-	-	-	LPT1:
26	-	1	11	GEN4C	GEN4B	122190A	INDA	D-B5783	D-B5783	D-B5783	N	MLOW	N	LPT1:
27	-	1	6	GEN4C	GEN4B	122190A	INDA	D-B5784	D-B5784	D-B5784	N	MLOW	N	LPT1:
28	-	1	6	GEN4C	GEN4B	122190A	INDA	D-B5785	D-B5785	D-B5785	-	-	-	LPT1:
29	-	1	11	GEN4C	GEN4B	122190A	INDA	D-B5786	D-B5786	D-B5786	-	-	-	LPT1:
30	-	1	1	GEN4C	GEN4B	122190A	EVAL	D-B5787	D-B5787	D-B5787	-	-	-	LPT1:
31	-	1	1	GEN4C	GEN4B	122190A	EVAL	D-B5788	D-B5788	D-B5788	-	-	-	LPT1:
32	-	1	1	GEN4C	GEN4B	122190A	EVAL	D-B5789	D-B5789	D-B5789	-	-	-	LPT1:
33	-	1	1	GEN4C	GEN4B	122190A	EVAL	D-B5790	D-B5790	D-B5790	-	-	-	LPT1:
34	-	1	1	GEN4C	GEN4B	122190A	EVAL	D-B5791	D-B5791	D-B5791	-	-	-	LPT1:
35	-	1	1	GEN4C	GEN4B	122190A	EVAL	D-B5792	D-B5792	D-B5792	-	-	-	LPT1:
36	-	1	1	GEN4C	GEN4B	122190A	EVAL	D-B5793	D-B5793	D-B5793	-	-	-	LPT1:
37	-	1	1	GEN4C	GEN4B	122190A	EVAL	D-B5794	D-B5794	D-B5794	-	-	-	LPT1:
38	-	1	1	GEN4C	GEN4B	122190A	EVAL	D-B5795	D-B5795	D-B5795	-	-	-	LPT1:
39	-	1	1	GEN4C	GEN4B	122190A	EVAL	D-B5796	D-B5796	D-B5796	-	-	-	LPT1:
40	-	1	1	GEN4C	GEN4B	122190A	EVAL	D-B5797	D-B5797	D-B5797	-	-	-	LPT1:
41	-	1	6	GEN4C	GEN4B	122190A	INDA	D-B5798	D-B5798	D-B5798	-	-	-	LPT1:
42	-	1	11	GEN4C	GEN4B	122190A	INDA	D-B5799	D-B5799	D-B5799	-	-	-	LPT1:

6711085

REQUESTED BY: PINOB

METHOD: QJ Pesticides (8081A)

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED</u> <u>CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX</u> <u>DESCRIPTION</u>	<u>QTY</u> <u>RCVD</u>	<u>QTY</u> <u>REQD</u>
3E CLP1	DJG82-1-04	___	261660	399411	A-36-QJ	COH260118	001		SOLID	0	3 1

RELINQUISHED BY

P. Yushinski
P. Yushinski

RECEIVED BY

P. Yushinski
P. Yushinski

DATE/TIME

8-29-00 153
8-29-00 1800

***** END OF REPORT *****

6711087

HERBICIDE DATA

**HERBICIDE
QC SUMMARY**

6711089

SW846 8151A, SURROGATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT QESSDG:

Lot #: C0H260118

	CLIENT ID.	SRG01	TOT OUT
	=====	=====	=====
01	DF/S1/0238/SDC/036	60	00
02	METHOD BLK. DJKFX101	76	00
03	LCS DJKFX102	94	00
04	LCSD DJKFX103	90	00

SURROGATES

SRG01 = DCAA

QC LIMITS

(42-125) '

- # Column to be used to flag recovery values
- * Values outside of required QC Limits
- D System monitoring Compound diluted out

FORM II

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

6711090

Lab Code: QESPIT

SDG No:

Lot #: C0H290000

WO #: DJKFX102

BATCH: 0242404

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
2,4-D	0.160	0.134	84	28 - 136	
2,4,5-TP (Silvex)	0.0400	0.0343	86	50 - 128	

NOTES(S) :

* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS:

FORM III

6711091

SW846 8151A CHECK SAMPLE DUPLICATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: C0H290000

WO #: DJKFX103

BATCH: 0242404

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====
2,4-D	0.160	0.128	80	28 - 136	
2,4,5-TP (Silvex)	0.0400	0.0330	83	50 - 128	

NOTES (S) :

* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS:

FORM III

SW846 8151A METHOD BLANK SUMMARY

BLANK WORKORDER NO.

DJKFX101

6711092

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: A-A50379.

Lot Number: C0H260118

Matrix: SOLID

Extraction Method:

Date Extracted: 08/29/00

Date Analyzed(1): 08/30/00

Date Analyzed(2): N/A

Time Analyzed(1): 15:34

Time Analyzed(2): N/A

Instrument ID(1): A/B

Instrument ID(2): N/A

GC Column(1): DB5/DB1701 ID: 053 GC Column(2): N/A ID: N/A

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	DATE ANALYZED (1)	DATE ANALYZED (2)
	=====	=====	=====	=====
01	DF/S1/0238/SDC/036	DJG82105	08/30/00	N/A
02	CHECK SAMPLE	DJKFX102 C	08/30/00	N/A
03	DUPLICATE CHECK	DJKFX103 L	08/30/00	N/A
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

COMMENTS:

FORM IV

6711093

**HERBICIDE
SAMPLE DATA**

UXB INTERNATIONAL

6711094

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COH260118 001

Method: SW846 8151A

Herbicides (8151A)

Sample WT/Vol: 100 / mL

Date Received: 08/26/00

Work Order: DJG82105

Date Extracted: 08/29/00

Dilution factor: 1

Date Analyzed: 08/30/00

Moisture %: 10

QC Batch: 0242404

Client Sample Id: DF/S1/0238/SDC/036

CAS NO.	COMPOUND	CONCENTRATION UNITS:		
		(ug/L or ug/kg)	mg/L	Q
94-75-7	2,4-D	0.040		U
93-72-1	2,4,5-TP (Silvex)	0.010		U

FORM I

6711095

STL - Pittsburgh

Data file : \\QPITPA02\D\chem\gc1.i\5240.b\A-A50376.D
 Lab Smp Id: DJG82105 Client Smp ID: DF/S1/0238/SDC/036
 Inj Date : 30-AUG-2000 14:07
 Operator : 01797 Inst ID: gc1.i
 Smp Info : DJG82105,5240.b
 Misc Info : 260118001
 Comment :
 Method : \\QPITPA02\D\chem\gc1.i\5240.b\LONGH.m
 Meth Date : 30-Aug-2000 13:00 colussyj Quant Type: ESTD
 Cal Date : 24-AUG-2000 09:10 Cal File: A-A50312.D
 Als bottle: 5
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: all.sub
 Target Version: 4.04
 Processing Host: PITPC085

Concentration Formula: Amt * DF * 20*Vt/Vo/Vi

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
1 DALAPON						
2 DCAA	10.588	10.570	0.018	956719	0.03010	0.06019 (aR)
3 MCPP						
4 DICAMBA						
5 MCPA						
6 DICHLOROPROP						
7 2,4-D						
8 PENTACHLOROPHENOL						
9 2,4,5-TP (SILVEX)						
10 2,4,5-T						
11 DINOSEB						
12 2,4-DB	18.523	18.563	-0.040	36776	0.00270	0.005394 (a)

Data File: \\QPITPA02\D\chem\gc1.i\5240.b\A-A50376.D
Report Date: 30-Aug-2000 14:48

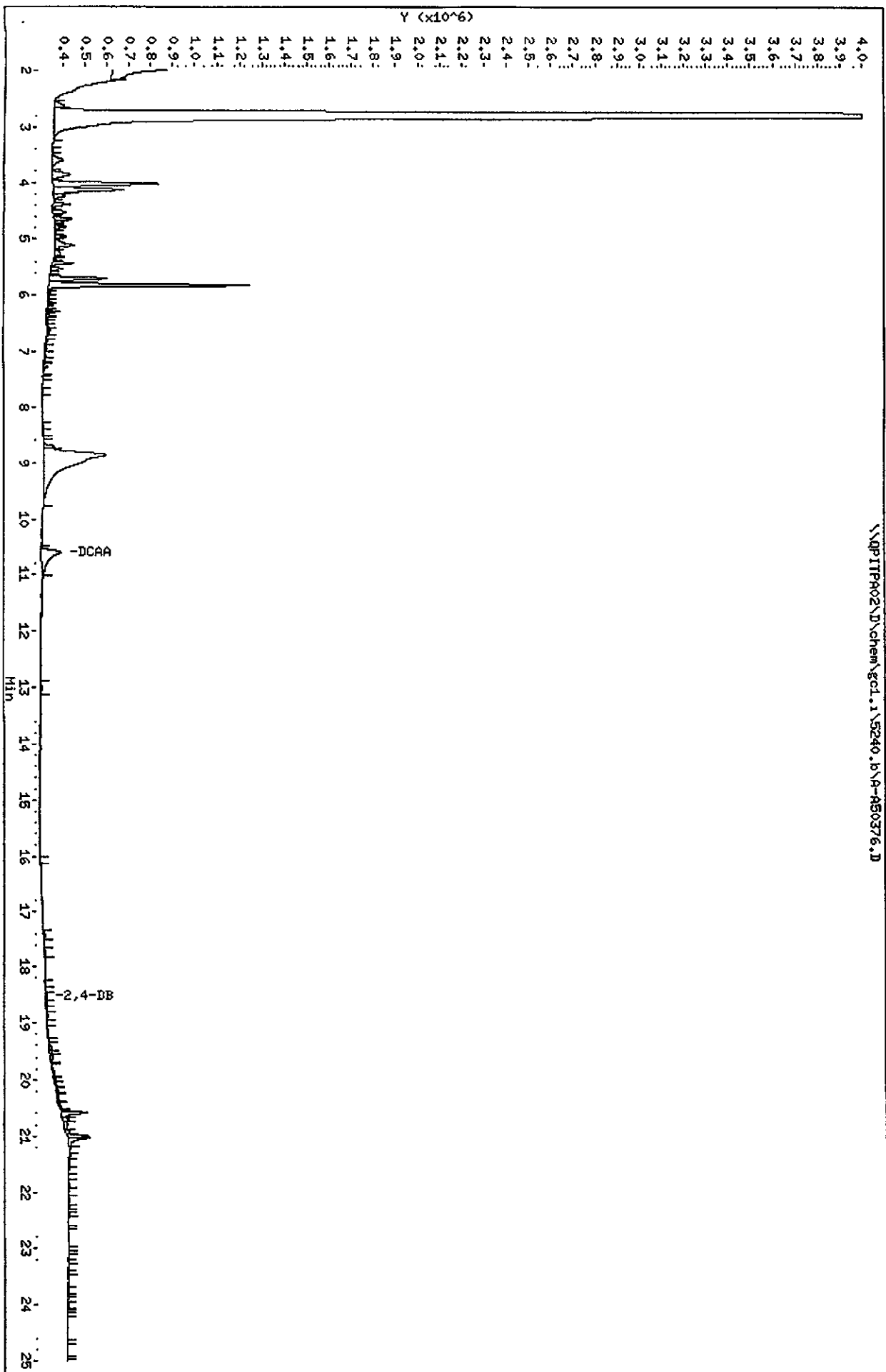
6711096

QC Flag Legend

- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
- R - Spike/Surrogate failed recovery limits.

Data File: \\QP1TPA02\1D\chem\gcl.1\5240.b\A-A50376.D
 Date : 30-JUN-2000 14:07
 Client ID: DF/S1/0238/SDC/036
 Sample Info: DUC82105,5240.b
 Volume Injected (uL): 1.0
 Column phase: DB608

Instrument: gcl.1
 Operator: 01797
 Column diameter: 0.53



601129

6711098

**HERBICIDE
CALIBRATION DATA**

Report Date : 30-Aug-2000 10:02

60/ 68961A DB608 7-100

6711099

STL - Pittsburgh

COMPOUND LISTING

Method file : \\QPITPA02\D\chem\gc1.i\5240.b\LONGH.m
Quant Method : ESTD Target Version : 4.04
Last Update : 30-Aug-2000 10:02 Number of Cpnds : 12
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	376.000000
Initial:End Threshold	188.000000
Initial:Area Threshold	3760.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	9.000000
Initial:Negative Peaks	ON
Initial:Tension	0.200000

Compound	RT	RT Window	RF
1 DALAPON	3.730	3.660-3.800	9.61e+006
\$ 2 DCAA	10.571	10.501-10.641	3.18e+007
3 MCPP	11.011	10.941-11.081	4.82e+004
4 DICAMBA	11.185	11.115-11.255	2.17e+007
5 MCPA	11.973	11.903-12.043	5.32e+004
6 DICHLOROPROP	12.797	12.727-12.867	4.46e+006
7 2,4-D	14.306	14.236-14.376	3.81e+006
8 PENTACHLOROPHENOL	15.529	15.459-15.599	5.32e+007
9 2,4,5-TP(SILVEX)	16.766	16.696-16.836	1.77e+008
10 2,4,5-T	17.888	17.818-17.958	1.14e+008
11 DINOSEB	18.061	17.991-18.131	1.59e+008
12 2,4-DB	18.564	18.494-18.634	1.36e+007

Report Date : 24-Aug-2000 14:35

65
68901A
DB608

6711100

STL - Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 24-AUG-2000 07:14
End Cal Date : 24-AUG-2000 09:10
Quant Method : ESTD
Origin : Disabled
Target Version : 4.04
Integrator : Falcon
Method file : \\qpitpa02\d\chem\gc1.i\5240.b\LONGH.m
Cal Date : 24-Aug-2000 14:34 gc
Curve Type : Average

Calibration File Names:

Level 1: \\qpitpa02\d\chem\gc1.i\5240.b\A-A50308.D
Level 2: \\qpitpa02\d\chem\gc1.i\5240.b\A-A50309.D
Level 3: \\qpitpa02\d\chem\gc1.i\5240.b\A-A50310.D
Level 4: \\qpitpa02\d\chem\gc1.i\5240.b\A-A50311.D
Level 5: \\qpitpa02\d\chem\gc1.i\5240.b\A-A50312.D

Compound	0.00500	0.01000	0.02500	0.05000	0.10000	RRF	% RSD
Level 1	Level 2	Level 3	Level 4	Level 5			
1 DALAPON	10507000	10144273	9662779	8981185	8768824	9612812	7.708
3 MCPP	60855	60905	51317	38760	29206	48209	28.988<-
4 DICAMBA	19703019	21195070	22430329	22312585	22877459	21703693	5.891
5 MCPA	66843	66168	56547	42890	33763	53242	27.372<-
6 DICHLOROPROP	4031038	4468160	4686050	4573912	4538761	4459584	5.654
7 2,4-D	3234739	3679741	3959330	4009324	4147626	3806152	9.508
8 PENTACHLOROPHENOL	43901128	49021053	54577820	56904840	61608790	53202726	12.963
9 2,4,5-TP(SILVEX)	176310857	177345619	180678199	174235107	178195393	177353035	1.339
10 2,4,5-T	103483302	112905143	113286635	115619692	126644704	114387895	7.236
11 DINOSEB	164995268	156852598	166286063	152838150	153477874	158889991	4.006
12 2,4-DB	10894171	13972820	14292509	13497722	15522456	13635935	12.510
\$ 2 DCAA	33862535	34516259	32770740	29724782	28063179	31787499	8.736

10.99%
RSD

6711101

STL - Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc1.i Injection Date: 30-AUG-2000 09:20
Lab File ID: A-A50370.D Init. Cal. Date(s): 24-AUG-2000 24-AUG-2000
Analysis Type: Init. Cal. Times: 07:14 09:10
Lab Sample ID: MHERB Quant Type: ESTD
Method: \\QPITPA02\D\chem\gc1.i\5240.b\LONGH.m

COMPOUND	RRF	RPO	MIN	MAX
-----	-----	-----	-----	-----
1 DALAPON	9612812	9840592	0.010	15.0
2 DCAA	31787499	33090646	0.010	15.0
3 MCPP	48209	52336	0.010	15.0
4 DICAMBA	21703693	22137882	0.010	15.0
5 MCPA	53242	57212	0.010	15.0
6 DICHLOROPROP	4459584	4610896	0.010	15.0
7 2,4-D	3806152	4022045	0.010	15.0
8 PENTACHLOROPHENOL	53202726	54123590	0.010	15.0
9 2,4,5-TP (SILVEX)	177353035	177877867	0.010	15.0
10 2,4,5-T	114387895	118617488	0.010	15.0
11 DINOSEB	158889991	168314331	0.010	15.0
12 2,4-DB	13635935	16327704	0.010	15.0

5.4%

Data File: \\QPITPA02\D\chem\gc1.i\5240.b\A-A50380.D
 Report Date: 30-Aug-2000 16:58

7E
 68901A.
 DB608

6711102

STL - Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc1.i Injection Date: 30-AUG-2000 16:02
 Lab File ID: A-A50380.D Init. Cal. Date(s): 24-AUG-2000 24-AUG-2000
 Analysis Type: Init. Cal. Times: 07:14 09:10
 Lab Sample ID: MHERB Quant Type: ESTD
 Method: \\QPITPA02\D\chem\gc1.i\5240.b\LONGH.m

COMPOUND	RRF	RPO	MIN	MAX
1 DALAPON	9612812	9729977	0.010	1.2 15.0
2 DCAA	31787499	33099906	0.010	4.1 15.0
3 MCPP	48209	51151	0.010	6.1 15.0
4 DICAMBA	21703693	21943129	0.010	1.1 15.0
5 MCPA	53242	56089	0.010	5.3 15.0
6 DICHLOROPROP	4459584	4669717	0.010	4.7 15.0
7 2,4-D	3806152	3979718	0.010	4.6 15.0
8 PENTACHLOROPHENOL	53202726	52877632	0.010	-0.6 15.0
9 2,4,5-TP(SILVEX)	177353035	177610758	0.010	0.1 15.0
10 2,4,5-T	214387895	119204739	0.010	4.2 15.0
11 DINOSBB	158889991	166138661	0.010	4.6 15.0
12 2,4-DB	13635935	15307231	0.010	12.3 15.0

6711103

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.: 40325

SDG No.: COH260118

GC Column: DB608

ID: 0.53

(mm)

Init. Calib. Date(s): 08/24/00 08/24/00

Instrument ID: GC1

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION S1 : 10.57					
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	LHERB	08/24/00	0714	10.58	
02	MLHERB	08/24/00	0743	10.58	
03	MHERB	08/24/00	0812	10.58	
04	MHHERB	08/24/00	0841	10.57	
05	HHERB	08/24/00	0910	10.57	
06	MHERB	08/30/00	0920	10.57	
07	DF/S1/0238/S	08/30/00	1407	10.59	
08	LCS	08/30/00	1436	10.57	
09	LCSD	08/30/00	1505	10.58	
10	BLK	08/30/00	1534	10.59	
11	MHERB	08/30/00	1602	10.58	
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					

S1 = DCAA

QC LIMITS
(+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

6711104

STL - Pittsburgh

Data file : \\QPITPA02\D\chem\gc1.i\5240.b\A-A50308.D
Lab Smp Id: Lherb
Inj Date : 24-AUG-2000 07:14
Operator : 01797
Smp Info : Lherb,5240.b
Misc Info : 190-94-1
Comment :
Method : \\qpitpa02\d\chem\gc1.i\5240.b\LONGH.m
Meth Date : 24-Aug-2000 14:35 gc
Cal Date : 24-AUG-2000 07:14
Als bottle: 2
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 4.04
Processing Host: PITPC043

Inst ID: gc1.i
Quant Type: ESTD
Cal File: A-A50308.D
Calibration Sample, Level: 1
Compound Sublist: 1-all.sub

AMOUNTS

Compounds	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
=====	==	=====	=====	=====	=====	=====
1 DALAPON	3.729	3.732	-0.003	115577	0.02100	0.001930
\$ 2 DCAA	10.576	10.576	0.000	721272	0.02130	0.003672
3 MCPP	11.014	11.016	-0.002	129012	2.12000	0.4630
4 DICAMBA	11.187	11.188	-0.001	208852	0.01060	0.001482
5 MCPA	11.975	11.977	-0.002	143045	2.14000	0.4608
6 DICHLOROPROP	12.803	12.807	-0.004	85458	0.02120	0.002957
7 2,4-D	14.323	14.315	0.008	68253	0.02110	0.002717
8 PENTACHLOROPHENOL	15.538	15.536	0.002	116777	0.00266	0.0003290
9 2,4,5-TP(SILVEX)	16.769	16.754	0.015	925632	0.00525	0.0008279
10 2,4,5-T	17.886	17.890	-0.004	545357	0.00527	0.0007215
11 DINOSEB	18.066	18.065	0.001	523035	0.00317	0.0005199
12 2,4-DB	18.566	18.567	-0.001	229867	0.02110	0.002463

Data File: \\QPITPA02\chem\col.1\5240.b\A-650308.D

Date : 24-AUG-2000 07:14

Client ID:

Sample Info: Herb, 5240.b

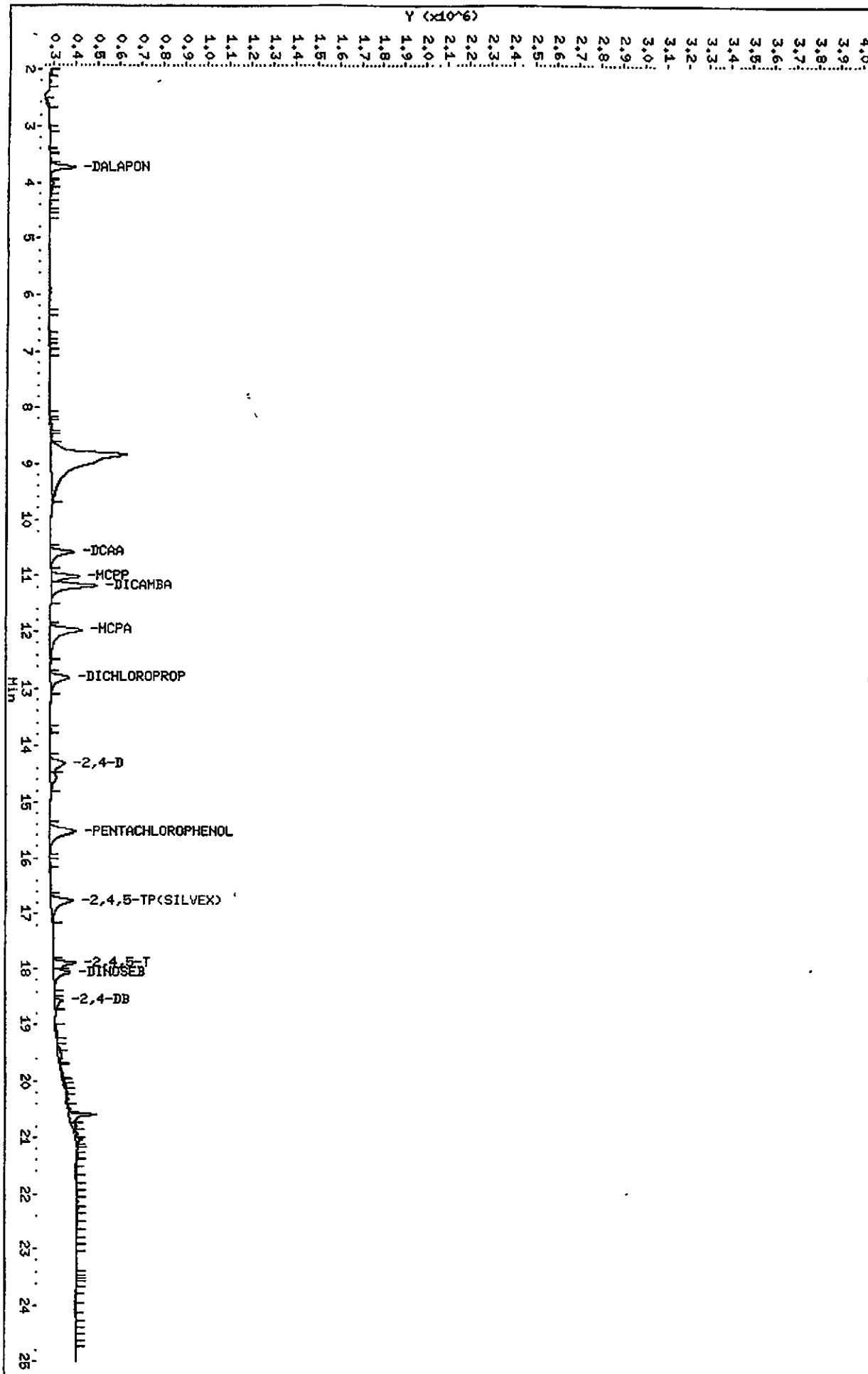
Column phase: DB608

Instrument: col.1

Operator: 01797

Column diameter: 0.53

\\QPITPA02\chem\col.1\5240.b\A-650308.D



6711105

STL - Pittsburgh

Data file : \\QPITPA02\D\chem\gc1.i\5240.b\A-A50309.D
Lab Smp Id: MLherb
Inj Date : 24-AUG-2000 07:43
Operator : 01797
Smp Info : MLherb, 5240.b
Misc Info : 190-94-2
Comment :
Method : \\qpitpa02\d\chem\gc1.i\5240.b\LONGH.m
Meth Date : 24-Aug-2000 14:35 gc
Cal Date : 24-AUG-2000 07:14
Als bottle: 3
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 4.04
Processing Host: PITPC043

Inst ID: gc1.i
Quant Type: ESTD
Cal File: A-A50308.D
Calibration Sample, Level: 2
Compound Sublist: 1-all.sub

Compounds	AMOUNTS					
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
=====	==	=====	=====	=====	=====	=====
1 DALAPON	3.728	3.732	-0.004	223174	0.02200	0.005373
\$ 2 DCAA	10.575	10.576	-0.001	1466941	0.04250	0.01080
3 MCPP	11.011	11.016	-0.005	259456	4.26000	1.521
4 DICAMBA	11.184	11.188	-0.004	451455	0.02130	0.004381
5 MCPA	11.975	11.977	-0.002	283197	4.28000	1.480
6 DICHLOROPROP	12.804	12.807	-0.003	189450	0.04240	0.009083
7 2,4-D	14.315	14.315	0.000	156389	0.04250	0.008454
8 PENTACHLOROPHENOL	15.535	15.536	-0.001	260792	0.00532	0.0009779
9 2,4,5-TP(SILVEX)	16.766	16.754	0.012	1862129	0.01050	0.002302
10 2,4,5-T	17.895	17.890	0.005	1185504	0.01050	0.002147
11 DINOSSES	18.064	18.065	-0.001	996014	0.00635	0.001379
12 2,4-DB	18.567	18.567	0.000	589653	0.04220	0.008583

Data File: \\QPI1P002\chem\col.i\B240.b\A-850309.D

Date : 24-AUG-2000 07:43

Client ID:

Sample Info: MLherb,B240.b

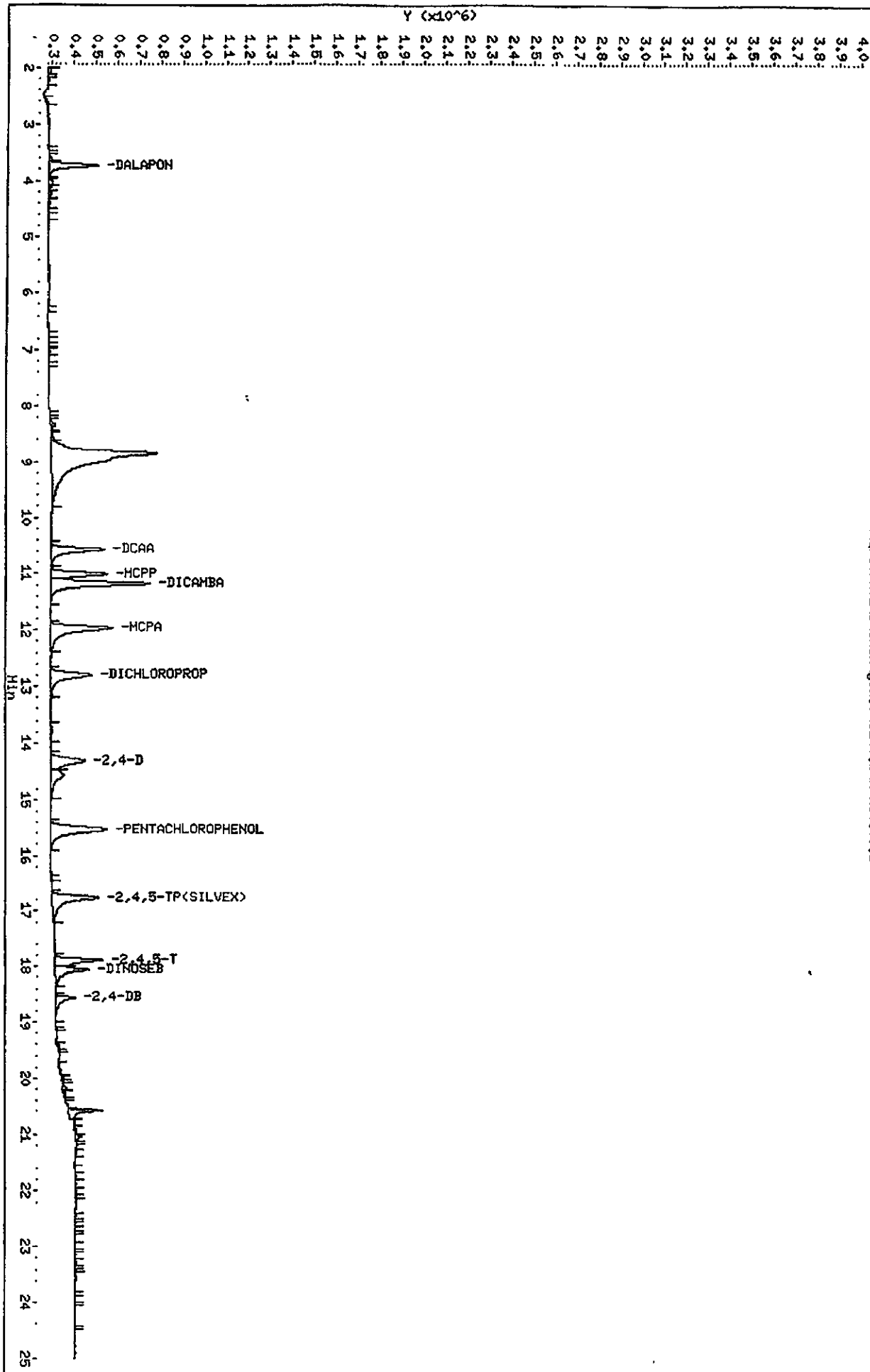
Column phase: DB608

Instrument: col.i

Operator: Q1797

Column diameter: 0.53

\\QPI1P002\chem\col.i\B240.b\A-850309.D



6011129

Data File: \\QPITPA02\D\chem\gc1.i\5240.b\A-A50310.D
Report Date: 24-Aug-2000 15:00

6711108

STL - Pittsburgh

Data file : \\QPITPA02\D\chem\gc1.i\5240.b\A-A50310.D
Lab Smp Id: Mherb
Inj Date : 24-AUG-2000 08:12
Operator : 01797
Smp Info : Mherb,5240.b
Misc Info : 190-94-3
Comment :
Method : \\QPITPA02\D\chem\gc1.i\5240.b\LONGH.m
Meth Date : 24-Aug-2000 14:35 gc
Cal Date : 24-AUG-2000 09:10
Als bottle: 4
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 4.04
Processing Host: PITPC085

Inst ID: gc1.i
Quant Type: ESTD
Cal File: A-A50312.D
Calibration Sample, Level: 3
Compound Sublist: 1-all.sub

Compounds	AMOUNTS					
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
1 DALAPON	3.732	3.732	0.000	424196	0.04390	0.005369
\$ 2 DCAA	10.576	10.576	0.000	2788790	0.08510	0.01083
3 MCPP	11.016	11.016	0.000	437225	8.52000	1.128
4 DICAMBA	11.188	11.188	0.000	953289	0.04250	0.005408
5 MCPA	11.977	11.977	0.000	484040	8.56000	1.124
6 DICHLOROPROP	12.807	12.807	0.000	397377	0.08480	0.01099
7 2,4-D	14.315	14.315	0.000	336939	0.08510	0.01089
8 PENTACHLOROPHENOL	15.536	15.536	0.000	580708	0.01064	0.001338
9 2,4,5-TP(SILVEX)	16.754	16.754	0.000	3812310	0.02110	0.002669
10 2,4,5-T	17.890	17.890	0.000	2390348	0.02110	0.002540
11 DINOSBB	18.065	18.065	0.000	2111833	0.01270	0.001640
12 2,4-DB	18.567	18.567	0.000	1207717	0.08450	0.01050

Data File: \NP17P02\chem\gc1.i\5240.b\A-050310.D

Date: 24-AUG-2000 08:12

Client ID:

Sample Info: Herb, 5240.b

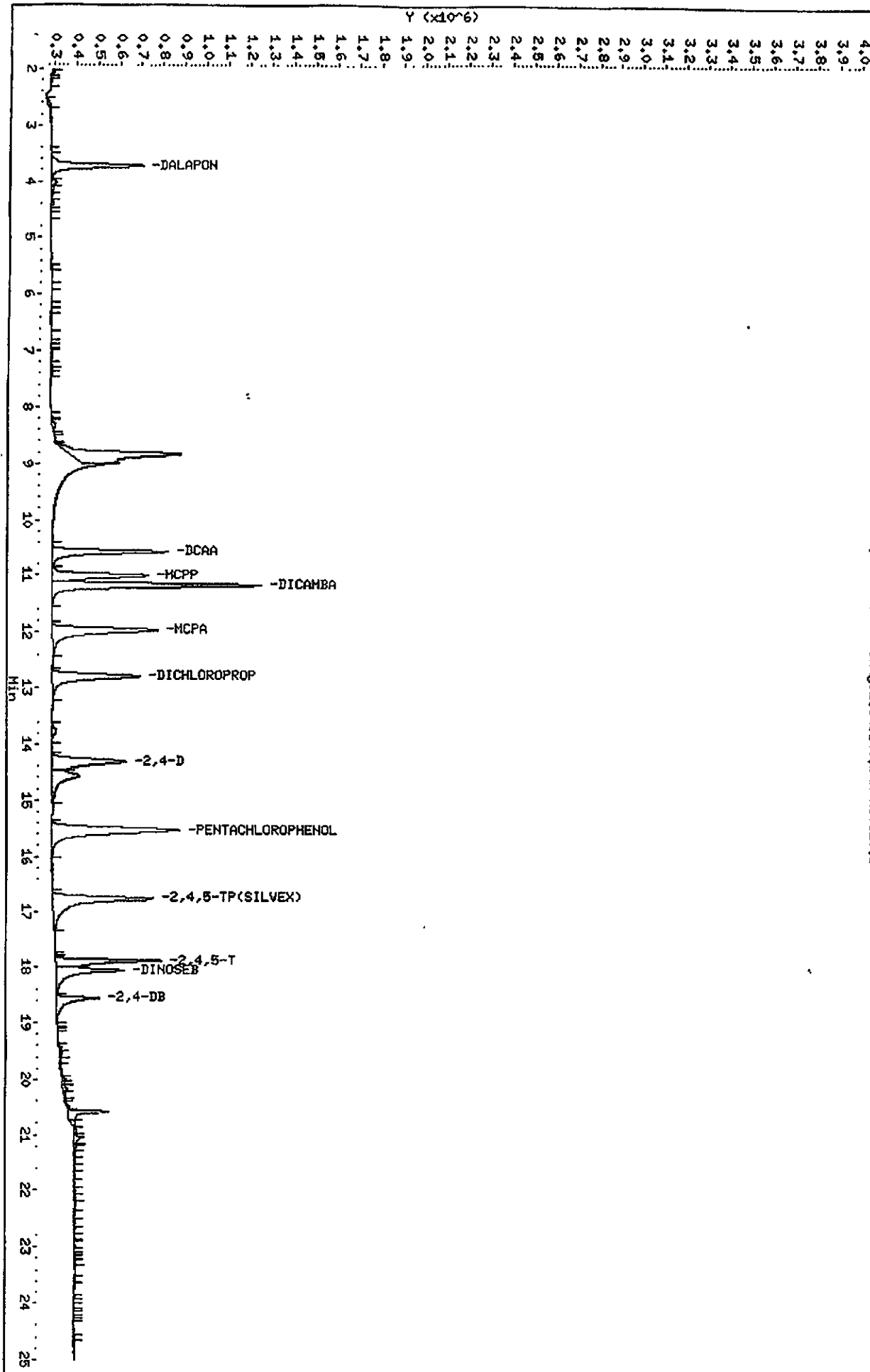
Column phase: DB608

Instrument: gc1.i

Operator: 01797

Column diameter: 0.53

\NP17P02\chem\gc1.i\5240.b\A-050310.D



6011129

STL - Pittsburgh

Data file : \\QPITPA02\D\chem\gc1.i\5240.b\A-A50311.D

Lab Smp Id: MHherb

Inj Date : 24-AUG-2000 08:41

Operator : 01797

Inst ID: gc1.i

Smp Info : MHherb,5240.b

Misc Info : 190-94-4

Comment :

Method : \\qpitpa02\d\chem\gc1.i\5240.b\LONGH.m

Meth Date : 24-Aug-2000 14:35 gc

Quant Type: ESTD

Cal Date : 24-AUG-2000 07:14

Cal File: A-A50308.D

Als bottle: 5

Calibration Sample, Level: 4

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: 1-all.sub

Target Version: 4.04

Processing Host: PITPC043

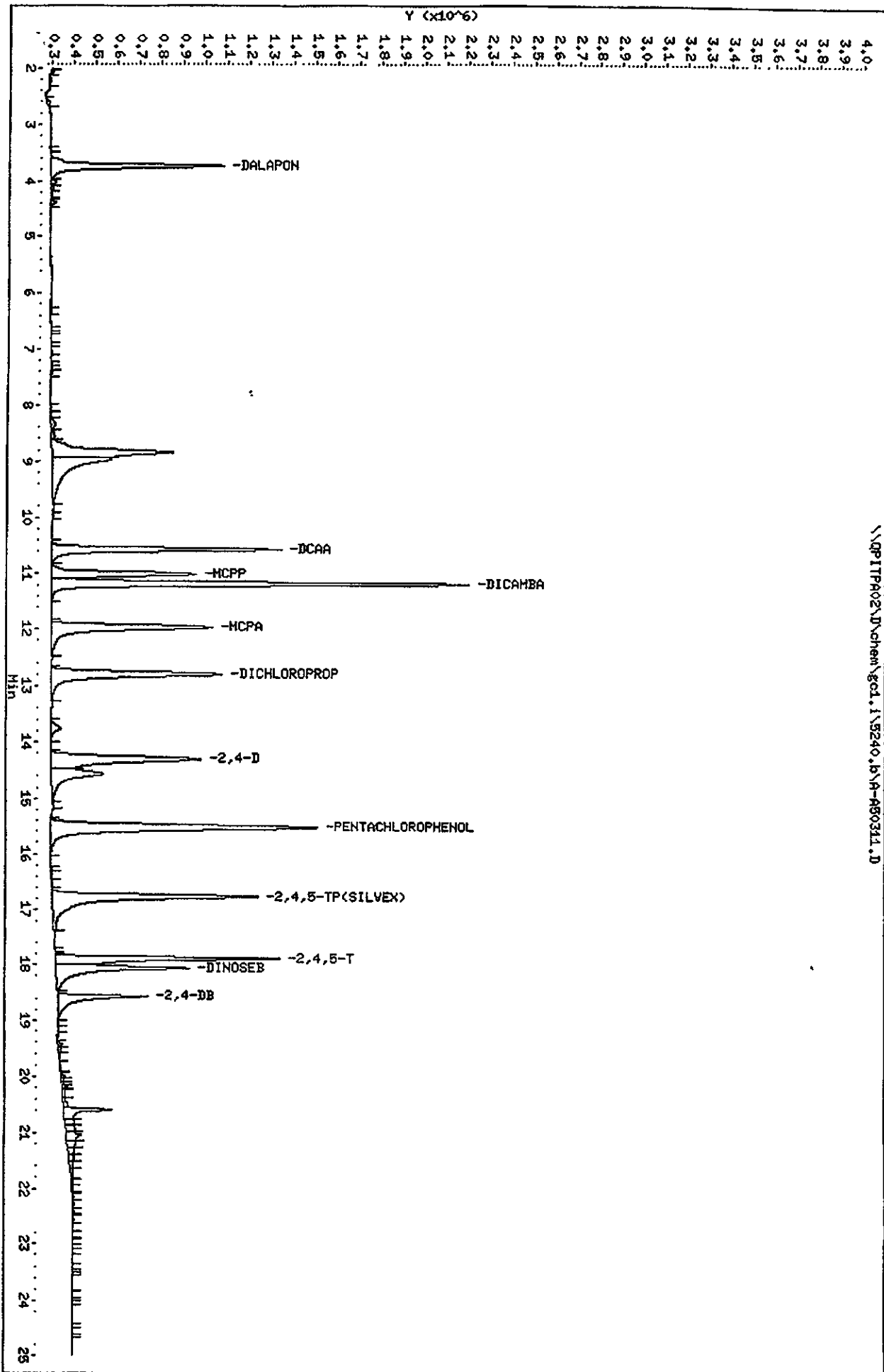
AMOUNTS

Compounds	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
*****	==	=====	=====	=====	=====	=====
1 DALAPON	3.731	3.732	-0.001	788548	0.08780	0.03109
\$ 2 DCAA	10.570	10.576	-0.006	5053213	0.17000	0.06140
3 MCPP	11.013	11.016	-0.003	658915	17.0000	6.538
4 DICAMBA	11.184	11.188	-0.004	1898801	0.08510	0.03020
5 MCPA	11.973	11.977	-0.004	733427	17.1000	6.431
6 DICHLOROPROP	12.803	12.807	-0.004	777565	0.17000	0.06158
7 2,4-D	14.303	14.315	-0.012	681585	0.17000	0.06042
8 PENTACHLOROPHENOL	15.528	15.536	-0.008	1210935	0.02128	0.007372
9 2,4,5-TP(SILVEX)	16.759	16.754	0.005	7335298	0.04210	0.01466
10 2,4,5-T	17.887	17.890	-0.003	4879151	0.04220	0.01424
11 DINOSEB	18.063	18.065	-0.002	3882089	0.02540	0.008895
12 2,4-DB	18.564	18.567	-0.003	2281115	0.16900	0.05450

Data File: \NPITP02\chem\gcl.i\5240.b\A-A50311.D
Date : 24-AUG-2000 08:41

Client ID:
Sample Info: HHerb,5240.b
Column phase: DB608

Instrument: gcl.i
Operator: 01797
Column diameter: 0.53



1111129

STL - Pittsburgh

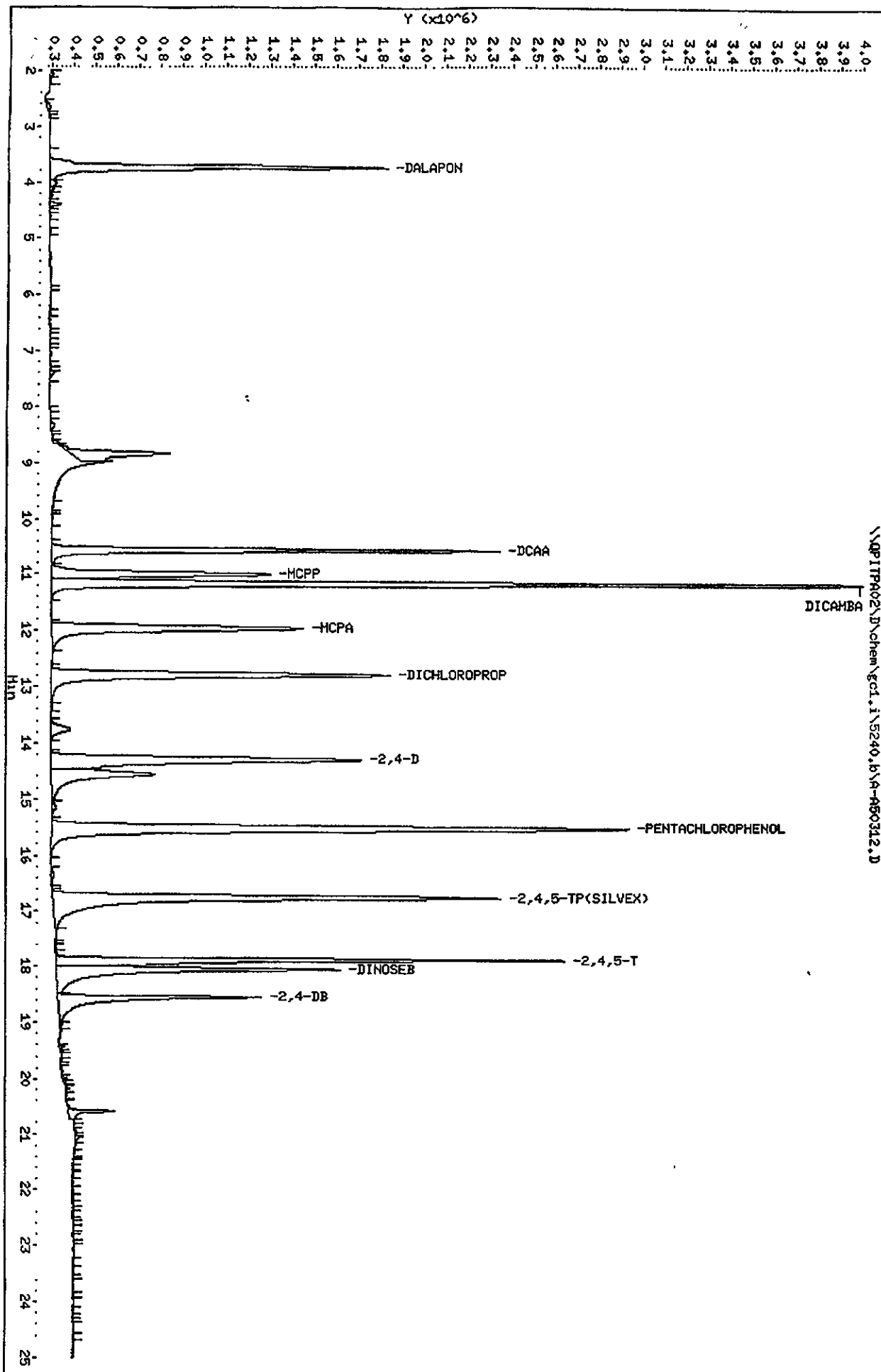
Data file : \\QPITPA02\D\chem\gc1.i\5240.b\A-A50312.D
Lab Smp Id: Hherb
Inj Date : 24-AUG-2000 09:10
Operator : 01797
Smp Info : Hherb,5240.b
Misc Info : 190-94-5
Comment :
Method : \\qpitpa02\d\chem\gc1.i\5240.b\LONGH.m
Meth Date : 24-Aug-2000 14:35 gc
Cal Date : 24-AUG-2000 09:10
Als bottle: 6
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 4.04
Processing Host: PITPC043

Inst ID: gc1.i
Quant Type: ESTD
Cal File: A-A50312.D
Calibration Sample, Level: 5
Compound Sublist: 1-all.sub

AMOUNTS						
Compounds	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT	ON-COL
					(ng)	(ng)
1 DALAPON	3.732	3.732	0.000	1543313	0.17600	0.1605
\$ 2 DCAA	10.573	10.576	-0.003	9541481	0.34000	0.3002
3 MCPP	11.011	11.016	-0.005	995927	34.1000	20.66
4 DICAMBA	11.185	11.188	-0.003	3889168	0.17000	0.1792
5 MCPA	11.970	11.977	-0.007	1147958	34.0000	21.56
6 DICHLOROPROP	12.797	12.807	-0.010	1538640	0.33900	0.3450
7 2,4-D	14.305	14.315	-0.010	1410193	0.34000	0.3705
8 PENTACHLOROPHENOL	15.530	15.536	-0.006	2621454	0.04255	0.04927
9 2,4,5-TP(SILVEX)	16.762	16.754	0.008	14968413	0.08400	0.08440
10 2,4,5-T	17.887	17.890	-0.003	10688813	0.08440	0.09344
11 DINOSBB	18.061	18.065	-0.004	7796676	0.05080	0.04907
12 2,4-DB	18.561	18.567	-0.006	5246590	0.33800	0.3848

Data File: \\QPITPA02\chem\col.i\5240.b\A-950312.D
 Date: 24-AUG-2000 09:10
 Client ID:
 Sample Info: Herb,5240.b
 Column phase: DB608

Instrument: col.i
 Operator: 04797
 Column diameter: 0.53



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STL - Pittsburgh

Data file : \\QPITPA02\D\chem\gc1.i\5240.b\A-A50370.D
Lab Smp Id: MHERB
Inj Date : 30-AUG-2000 09:20
Operator : 01797
Smp Info : MHERB,5240.b
Misc Info : 190-94-3
Comment :
Method : \\QPITPA02\D\chem\gc1.i\5240.b\LONGH.m
Meth Date : 30-Aug-2000 10:02 colussyj
Cal Date : 24-AUG-2000 09:10
Als bottle: 2
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 4.04
Processing Host: PITPC085

Inst ID: gc1.i
Quant Type: ESTD
Cal File: A-A50312.D
Continuing Calibration Sample
Compound Sublist: all.sub

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
1 DALAPON	3.729	3.729	0.000	432002	0.04390	0.04494
\$ 2 DCAA	10.570	10.570	0.000	2816014	0.08510	0.08859
3 MCPP	11.010	11.010	0.000	445904	8.52000	9.249
4 DICAMBA	11.184	11.184	0.000	940860	0.04250	0.04335
5 MCPA	11.973	11.973	0.000	489731	8.56000	9.198
6 DICHLOROPROP	12.797	12.797	0.000	391004	0.08480	0.08768
7 2,4-D	14.306	14.306	0.000	342276	0.08510	0.08993
8 PENTACHLOROPHENOL	15.528	15.528	0.000	575875	0.01064	0.01082
9 2,4,5-TP (SILVEX)	16.766	16.766	0.000	3753223	0.02110	0.02116
10 2,4,5-T	17.888	17.888	0.000	2502829	0.02110	0.02188
11 DINOSB	18.061	18.061	0.000	2137592	0.01270	0.01345
12 2,4-DB	18.563	18.563	0.000	1379691	0.08450	0.1012

Data File: \\QPITPA02\chem\gc1.1\5240.b\4-850370.D

Date: 30-AUG-2000 09:20

Client ID:

Sample Info: HHERB,5240.b

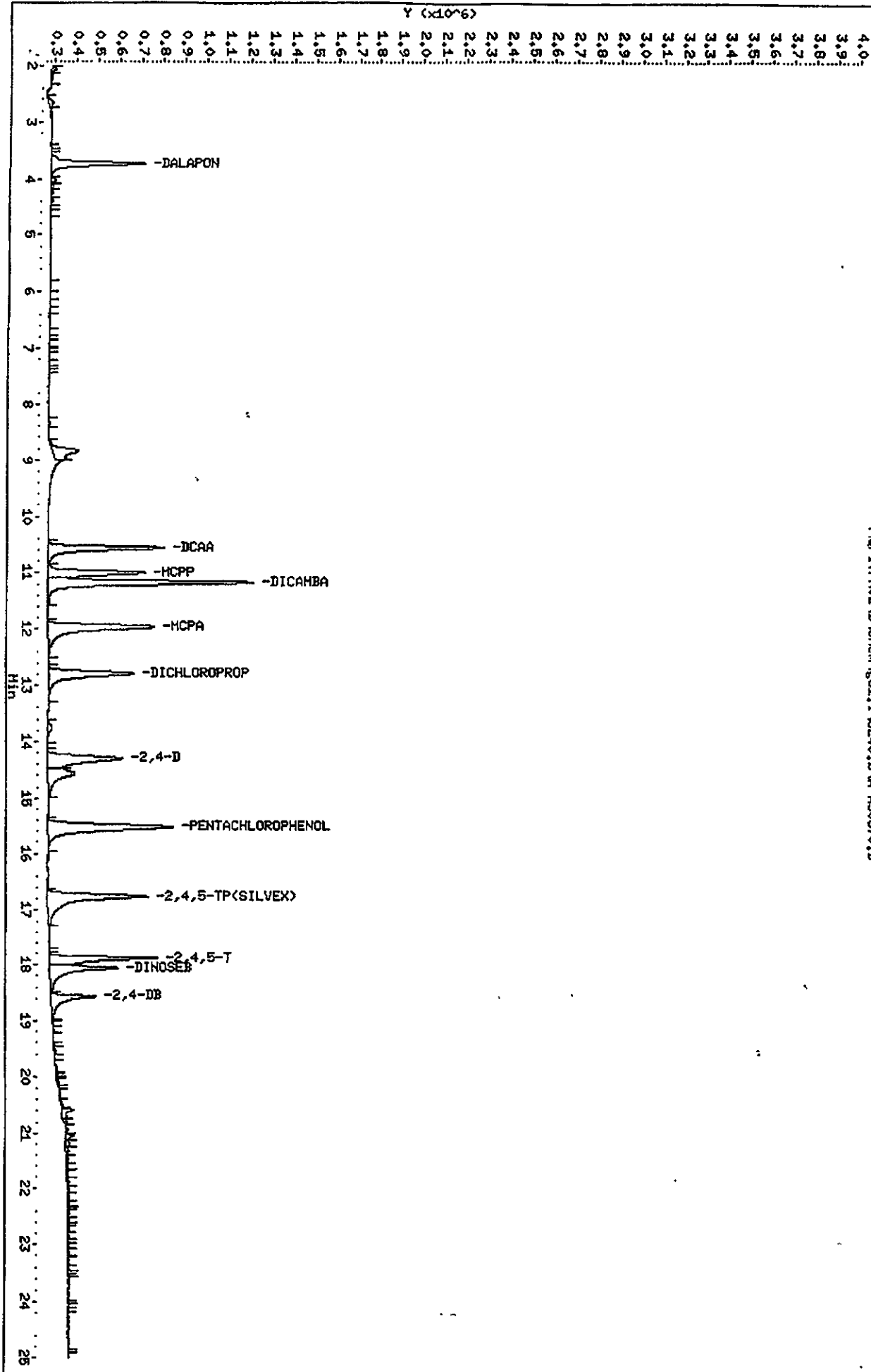
Column phase: DB608

Instrument: gc1.i

Operator: 01797

Column diameter: 0.53

\\QPITPA02\chem\gc1.1\5240.b\4-850370.D



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STL - Pittsburgh

Data file : \\QPITPA02\D\chem\gc1.i\5240.b\A-A50380.D
Lab Smp Id: MHERB
Inj Date : 30-AUG-2000 16:02
Operator : 01797
Smp Info : MHERB,5240.b
Misc Info : 190-94-3
Comment :
Method : \\QPITPA02\D\chem\gc1.i\5240.b\LONGH.m
Meth Date : 30-Aug-2000 16:58 colussyj
Cal Date : 24-AUG-2000 09:10
Als bottle: 9
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 4.04
Processing Host: PITPC085

Inst ID: gc1.i
Quant Type: ESTD
Cal File: A-A50312.D
Continuing Calibration Sample
Compound Sublist: all.sub

Compounds	AMOUNTS					
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
1 DALAPON	3.734	3.729	0.005	427146	0.04390	0.04444
2 DCAA	10.575	10.570	0.005	2816802	0.08510	0.08861
3 MCPP	11.015	11.010	0.005	435803	8.52000	9.040
4 DICAMBA	11.191	11.184	0.007	932583	0.04250	0.04297
5 MCPA	11.973	11.973	0.000	480119	8.56000	9.018
6 DICHLOROPROP	12.807	12.797	0.010	395992	0.08460	0.08880
7 2,4-D	14.315	14.306	0.009	338674	0.08510	0.08898
8 PENTACHLOROPHENOL	15.535	15.528	0.007	562618	0.01064	0.01057
9 2,4,5-TP (SILVEX)	16.760	16.766	-0.006	3747587	0.02110	0.02113
10 2,4,5-T	17.888	17.888	0.000	2515220	0.02110	0.02199
11 DINOSBB	18.065	18.061	0.004	2109961	0.01270	0.01328
12 2,4-DB	18.566	18.563	0.003	1293461	0.08450	0.09486

Data File: \\NPITPA02\chem\col.i\5240.b\A-050380.D

Date: 30-AUG-2000 16:02

Client ID:

Sample Info: HERB, 5240.b

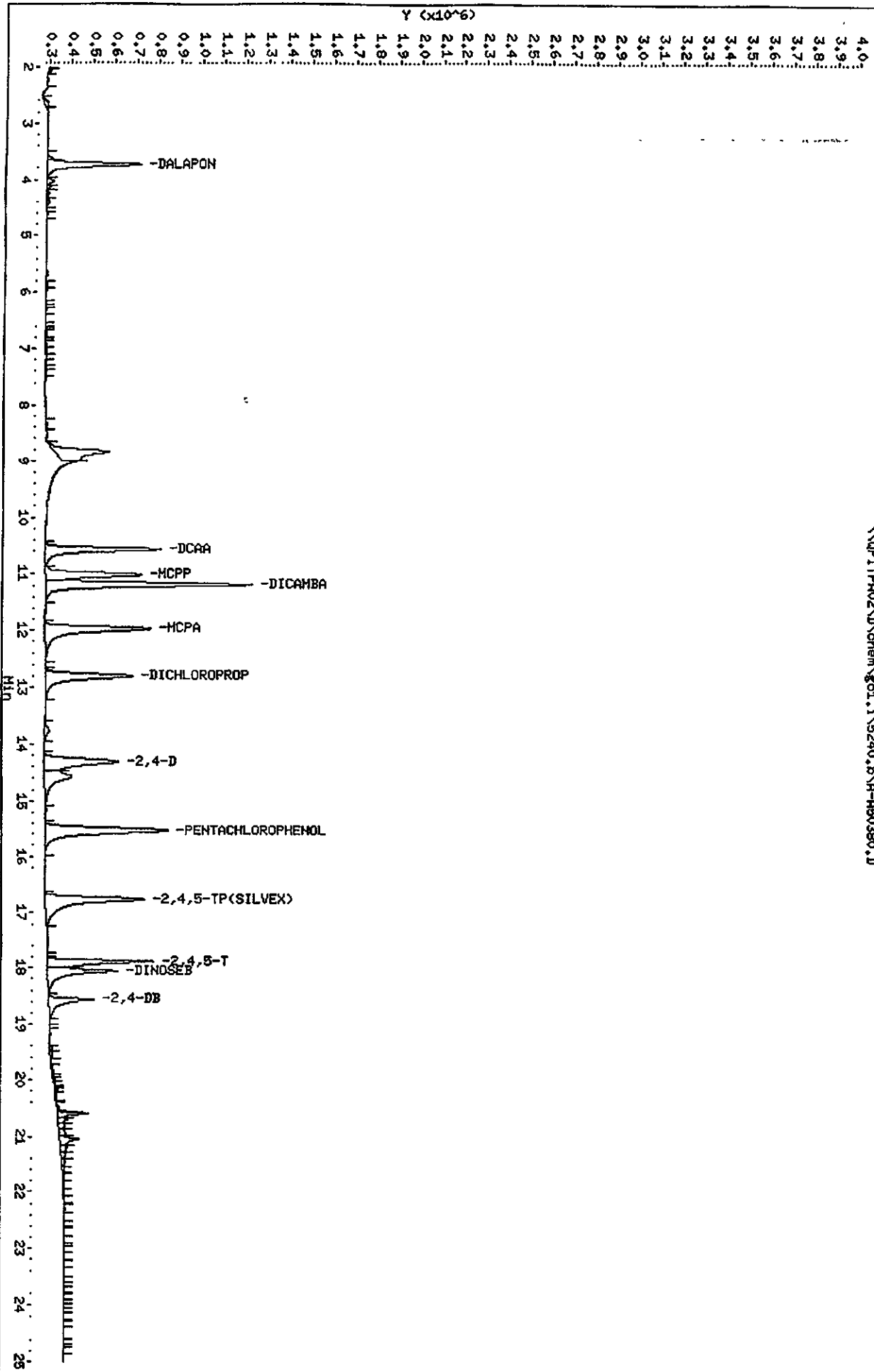
Column Phase: DB608

Instrument: col.i

Operator: 01797

Column diameter: 0.53

\\NPITPA02\chem\col.i\5240.b\A-050380.D



4111129

6711118

**HERBICIDE
QC DATA**

6711119

UXB INTERNATIONAL
METHOD BLANK COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COH290000 404

Method: SW846 8151A

Herbicides (8151A)

Sample WT/Vol: 100 / mL

Date Received: 08/26/00

Work Order: DJKFX101

Date Extracted: 08/29/00

Dilution factor: 1

Date Analyzed: 08/30/00

Moisture %: NA

QC Batch: 0242404

Client Sample Id: INTRA-LAB BLANK

CONCENTRATION UNITS:			
CAS NO.	COMPOUND	(ug/L or ug/kg) mg/L	Q
94-75-7	2,4-D	0.040	U
93-72-1	2,4,5-TP (Silvex)	0.010	U

FORM I

STL - Pittsburgh

Data file : \\QPITPA02\D\chem\gc1.i\5240.b\A-A50379.D
Lab Smp Id: DJKFX101 Client Smp ID: BLK
Inj Date : 30-AUG-2000 15:34
Operator : 01797 Inst ID: gc1.i
Smp Info : DJKFX101,5240.b
Misc Info : 260118BLK
Comment :
Method : \\QPITPA02\D\chem\gc1.i\5240.b\LONGH.m
Meth Date : 30-Aug-2000 13:00 colussyj Quant Type: ESTD
Cal Date : 24-AUG-2000 09:10 Cal File: A-A50312.D
Als bottle: 8 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.04
Processing Host: PITPC085

Concentration Formula: $\text{Amt} * \text{DF} * 20 * \text{Vt} / \text{Vo} / \text{Vi}$

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
1 DALAPON				Compound Not Detected.		
\$ 2 DCAA	10.587	10.570	0.017	1207327	0.03798	0.07596(aR)
3 MCPP				Compound Not Detected.		
4 DICAMBA				Compound Not Detected.		
5 MCPA				Compound Not Detected.		
6 DICHLOROPROP				Compound Not Detected.		
7 2,4-D				Compound Not Detected.		
8 PENTACHLOROPHENOL				Compound Not Detected.		
9 2,4,5-TP(SILVBX)				Compound Not Detected.		
10 2,4,5-T				Compound Not Detected.		
11 DINOSEB				Compound Not Detected.		
12 2,4-DB	18.531	18.563	-0.032	37385	0.00274	0.005483(a)

Data File: \\QPITPA02\D\chem\gc1.i\5240.b\A-A50379.D
Report Date: 30-Aug-2000 16:30

QC Flag Legend

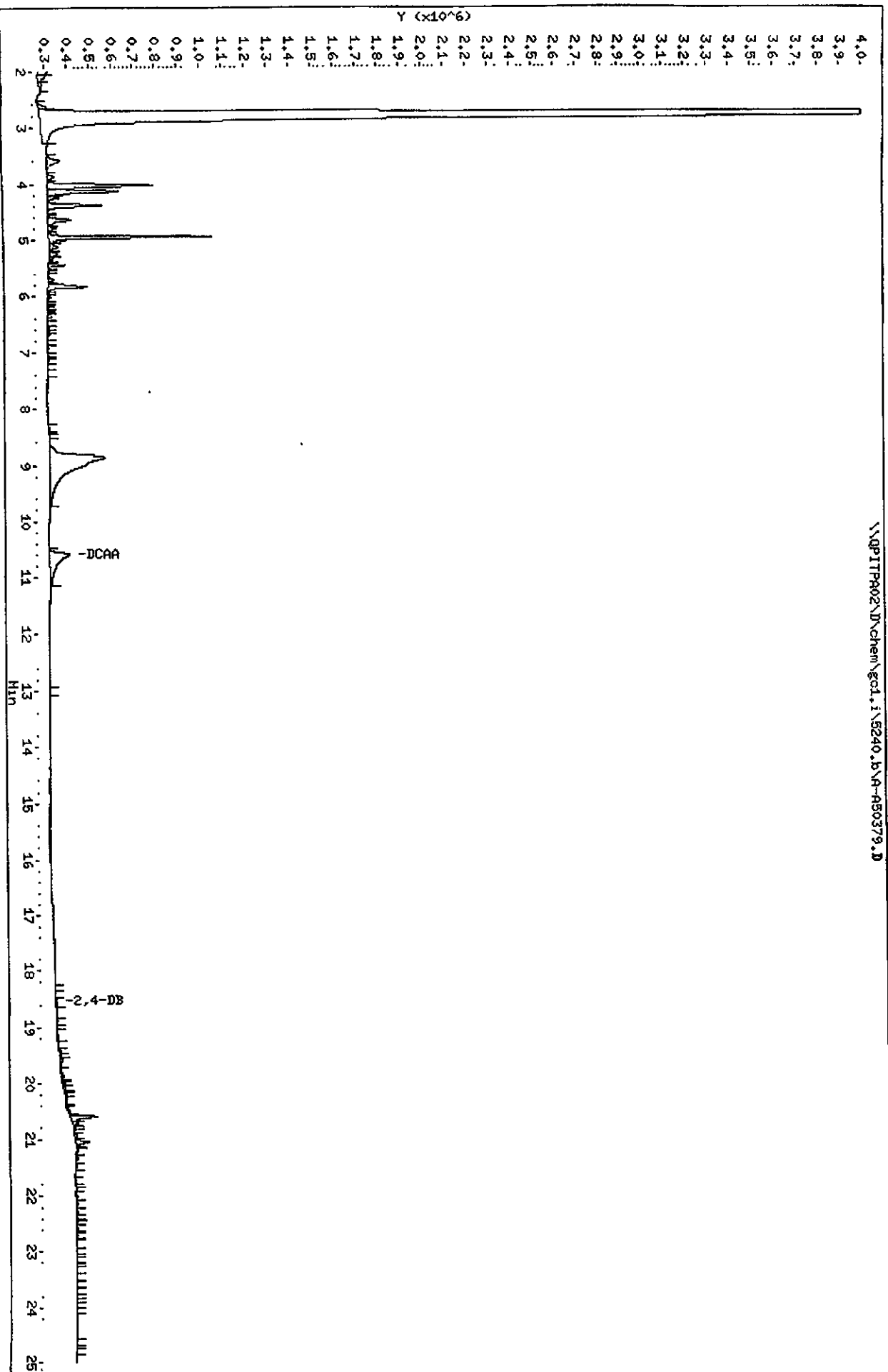
- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
- R - Spike/Surrogate failed recovery limits.

6711121

6711122

Data File: \\QPITPA02\J\chem\gcd.1\5240.b\A-A50379.D
Date: 30-DEC-2000 15:34
Client ID: BLK
Sample Info: DUKFX01,5240.b
Volume Injected (uL): 1.0
Column phase: DB608

Instrument: gcd.1
Operator: 01797
Column diameter: 0.53



6711123

UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0H290000 404

Method: SW846 8151A

Herbicides (8151A)

Sample WT/Vol: 100 / mL

Date Received: 08/26/00

Work Order: DJKFX102

Date Extracted: 08/29/00

Dilution factor: 1

Date Analyzed: 08/30/00

Moisture %: NA

QC Batch: 0242404

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
94-75-7	2,4-D	0.134	
93-72-1	2,4,5-TP (Silvex)	0.0343	

FORM I

STL - Pittsburgh

Data file : \\QPITPA02\D\chem\gc1.i\5240.b\A-A50377.D
 Lab Smp Id: DJKFX102 Client Smp ID: LCS
 Inj Date : 30-AUG-2000 14:36
 Operator : 01797 Inst ID: gc1.i
 Smp Info : DJKFX102,5240.b
 Misc Info : 260118LCS
 Comment :
 Method : \\QPITPA02\D\chem\gc1.i\5240.b\LONGH.m
 Meth Date : 30-Aug-2000 13:00 colussyj Quant Type: ESTD
 Cal Date : 24-AUG-2000 09:10 Cal File: A-A50312.D
 Als bottle: 6 QC Sample: LCS
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: all.sub
 Target Version: 4.04
 Processing Host: PITPC085

Concentration Formula: Amt * DF * 20*Vt/Vo/Vi

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
1 DALAPON	3.732	3.729	0.003	333376	0.03468	0.06936 (aR)
\$ 2 DCAA	10.573	10.570	0.003	1490418	0.04689	0.09377 (aR)
3 MCPP	11.014	11.010	0.004	392517	8.14205	16.28
4 DICAMBA	11.183	11.184	-0.001	777400	0.03582	0.07164 (a)
5 MCPA	11.978	11.973	0.005	426617	8.01274	16.02
6 DICHLOROPROP	12.804	12.797	0.007	321641	0.07212	0.1442 (a)
7 2,4-D	14.311	14.306	0.005	254814	0.06695	0.1339 (aR)
8 PENTACHLOROPHENOL	15.534	15.528	0.006	507188	0.00953	0.01907 (a)
9 2,4,5-TP (SILVEX)	16.752	16.766	-0.014	3040139	0.01714	0.03428 (aR)
10 2,4,5-T	17.884	17.888	-0.004	2417178	0.02113	0.04226 (aR)
11 DINOSEB				Compound Not Detected		
12 2,4-DB	18.564	18.563	0.001	1011633	0.07419	0.1484 (a)

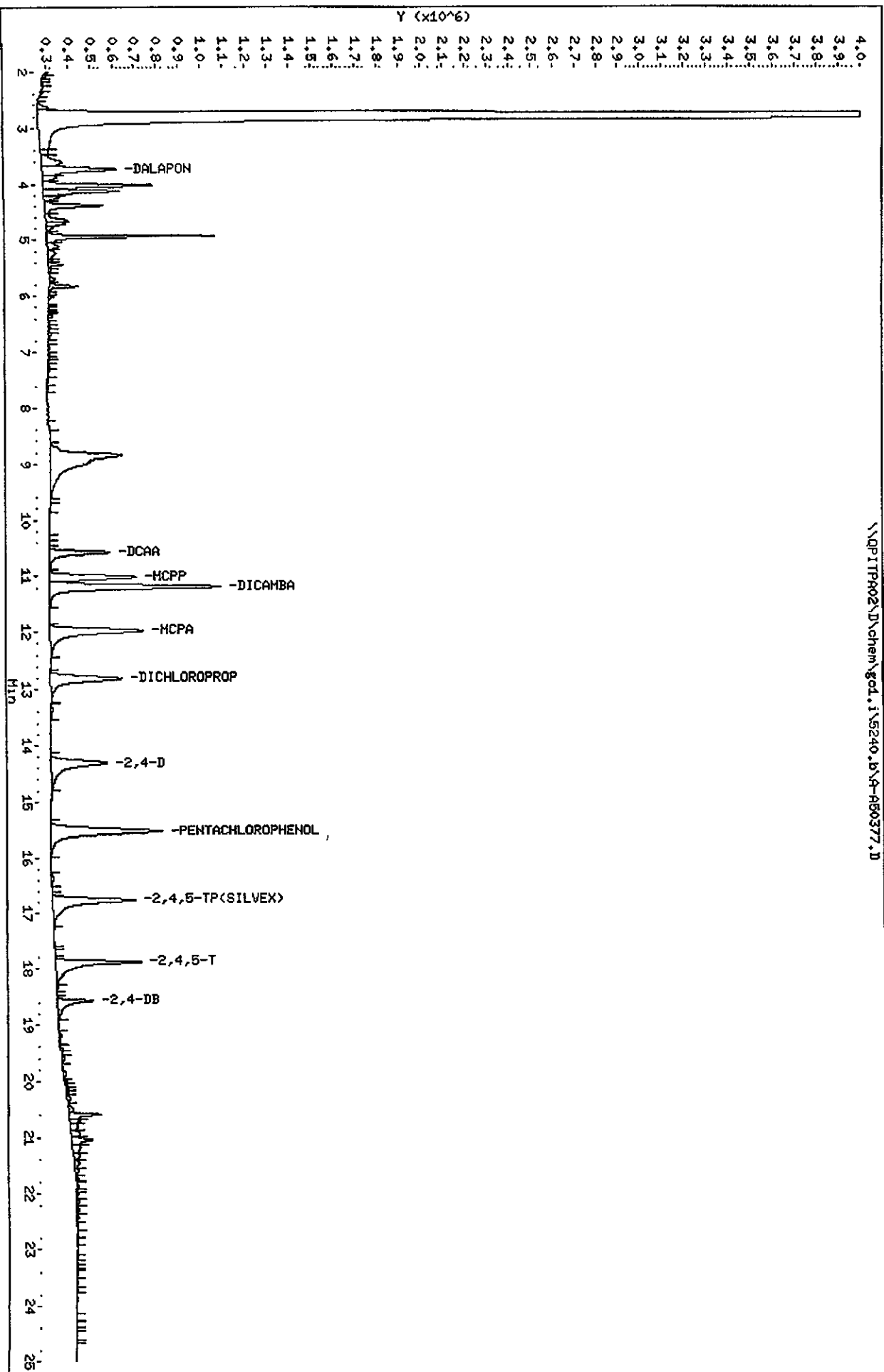
QC Flag Legend

- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
- R - Spike/Surrogate failed recovery limits.

6711126

Date file: \NPI\TPA02\chem\gcl.1\5240.b\A-850377.D
Date: 30-AUG-2000 14:36
Client ID: LCS
Sample Info: DUKEX102.5240.b
Volume Injected (uL): 1.0
Column phase: DB608

Instrument: gcl.i
Operator: 01797
Column diameter: 0.53



6711127

UXB INTERNATIONAL
CHECK SAMPLE DUPLICATE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0H290000 404

Method: SW846 8151A

Herbicides (8151A)

Sample WT/Vol: 100 / mL

Date Received: 08/26/00

Work Order: DJKFX103

Date Extracted: 08/29/00

Dilution factor: 1

Date Analyzed: 08/30/00

Moisture %: NA

QC Batch: 0242404

Client Sample Id: DUPLICATE CHECK

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
94-75-7	2,4-D	0.128	
93-72-1	2,4,5-TP (Silvex)	0.0330	

FORM I

STL - Pittsburgh

Data file : \\QPITPA02\D\chem\gc1.i\5240.b\A-A50378.D
Lab Smp Id: DJKFX103 Client Smp ID: LCSD
Inj Date : 30-AUG-2000 15:05
Operator : 01797 Inst ID: gc1.i
Smp Info : DJKFX103,5240.b
Misc Info : 260118LCSD
Comment : *
Method : \\QPITPA02\D\chem\gc1.i\5240.b\LONGH.m
Meth Date : 30-Aug-2000 13:00 colussyj Quant Type: ESTD
Cal Date : 24-AUG-2000 09:10 Cal File: A-A50312.D
Als bottle: 7 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.04
Processing Host: PITPC085

Concentration Formula: Amt * DF * 20*Vt/Vo/Vi

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
1 DALAPON	3.733	3.729	0.004	301680	0.03138	0.06277(aR)
2 DCAA	10.576	10.570	0.006	1433563	0.04510	0.09020(aR)
3 MCPP	11.017	11.010	0.007	381035	7.90388	15 81
4 DICAMBA	11.187	11.184	0.003	745777	0.03436	0.06872(a)
5 MCPA	11.977	11.973	0.004	413934	7.77453	15 55
6 DICHLOROPROP	12.803	12.797	0.006	304851	0.06836	0.1367(a)
7 2,4-D	14.313	14.306	0.007	242867	0.06381	0.1276(aR)
8 PENTACHLOROPHENOL	15.532	15.528	0.004	487847	0.00917	0.01834(a)
9 2,4,5-TP(SILVEX)	16.757	16.766	-0.009	2928436	0.01651	0.03302(aR)
10 2,4,5-T	17.886	17.888	-0.002	2031332	0.01776	0.03552(aR)
11 DINOSEB	Compound Not Detected.					
12 2,4-DB	18.564	18.563	0.001	950779	0.06973	0.1394(a)

6711129

Data File: \\QPITPA02\D\chem\gc1.i\5240.b\A-A50378.D
Report Date: 30-Aug-2000 15:40

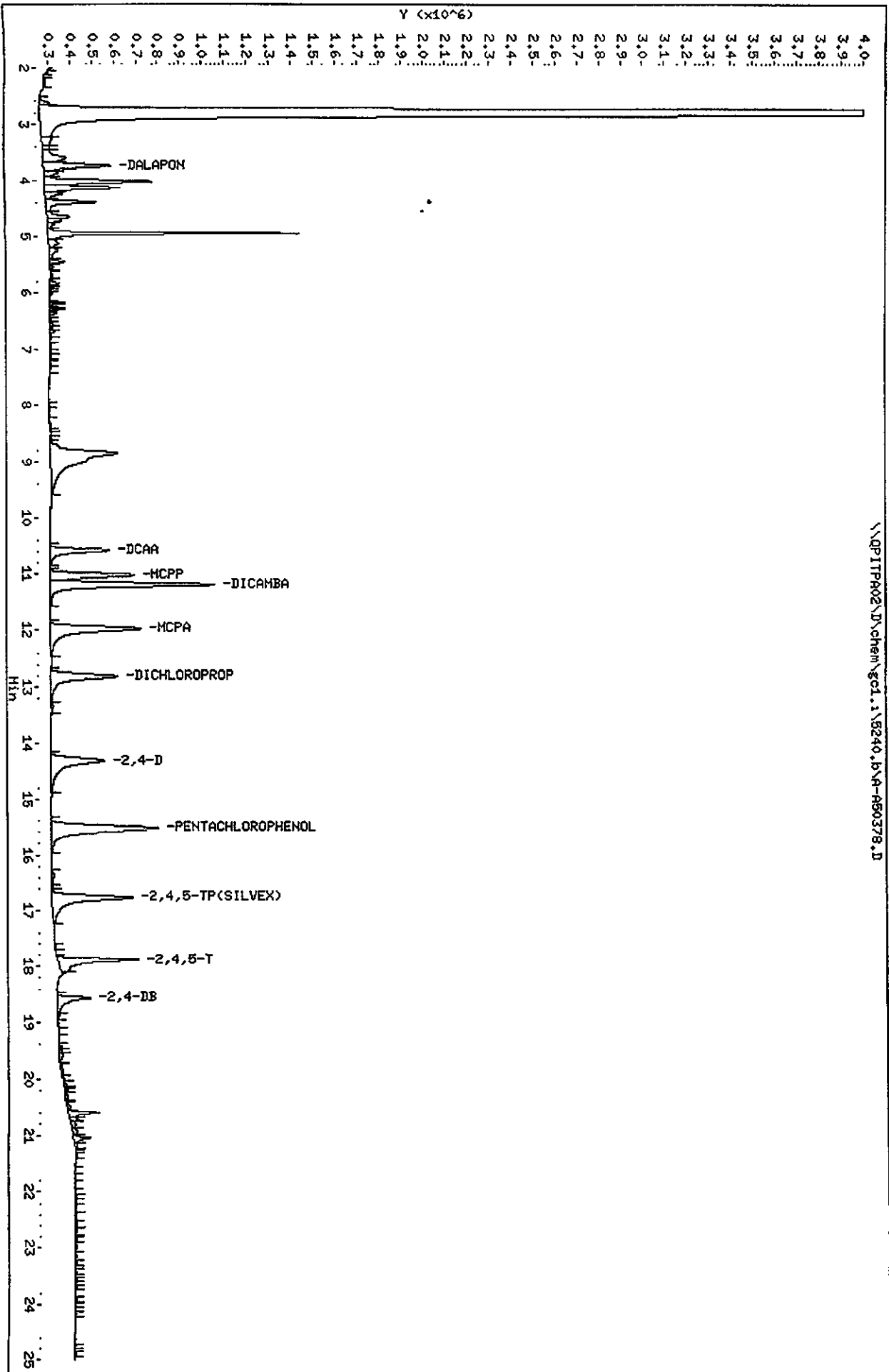
QC Flag Legend

- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
- R - Spike/Surrogate failed recovery limits.

6711130

Data File: \NPITPA02\chem\gc1.1\5240.b\A-450378.D
Date : 30-AUG-2000 15:05
Client ID: LCSD
Sample Info: DJKFX103,5240.b
Volume Injected (uL): 1.0
Column Phase: DB608

Instrument: gc1.1
Operator: 01797
Column diameter: 0.53



6711131

**HERBICIDE
MISCELLANEOUS**

6711133

Sequence Table (Front Injector):

Vial Information Part:

Line	Vial	Vial Information
1	1	8151 HERB ANALYSIS
2	2	190-94-1 308
3	3	190-94-2 309
4	4	190-94-3 310
5	5	190-94-4 311
6	6	190-94-5 312
~~7~~	~~7~~	~~220143001 313~~
~~8~~	~~8~~	~~220143002 314~~
~~9~~	~~9~~	~~220143002S 315~~
~~10~~	~~10~~	~~220143002D 316~~
~~11~~	~~11~~	~~220142001 317~~
~~12~~	~~12~~	~~220143BLK 318~~
~~13~~	~~13~~	~~220143LCS 319~~
14	14	09014201 320 ✓
15	15	03014201 10XDL 321 ✓
16	16	15014601 10XDL 322 A+B
~~17~~	~~17~~	~~09013304 4XDL 323~~
~~18~~	~~18~~	~~09013306 10XDL 324~~
~~19~~	~~19~~	~~150146LCS 325~~
~~20~~	~~20~~	~~150146LCSD 326~~
~~21~~	~~21~~	~~150146BLK 327~~
22	22	190-94-3 328 ✓
23	23	09013304 10XDL 329 A+B
24	24	09013306 20XDL 330 A+B (n)
25	25	190-94-3 331

Created: num 8-24-00

A

✓ DE
8-25-00

1 1 8151 HERB ANALYSIS
 2 2 190-94-1 308
 3 3 190-94-2 309
 4 4 190-94-3 310
 5 5 190-94-4 311
 6 6 190-94-5 312
~~7 7 220143001 313~~
~~8 8 220143002 314~~
~~9 9 220143002S 315~~
~~10 10 220143002D 316~~
~~11 11 220142001 317~~
~~12 12 220143BLK 318~~
~~13 13 220143LCS 319~~
 14 14 09014201 320 ✓
 15 15 03014201 10XDL 321 ✓
 16 16 15014601 10XDL 322 A+B
~~17 17 09013304 4XDL 323~~
~~18 18 09013306 10XDL 324~~
~~19 19 150146LCS 325~~
~~20 20 150146LCSD 326~~
~~21 21 150146BLK 327~~
 22 22 190-94-3 328 ✓
 23 23 09013304 10XDL 329 A+B
 24 24 09013306 20XDL 330 A+B (n)
 25 25 190-94-3 331
 num 8-25-00

Line Vial Vial Information

====

26	26	Rinse ~~09013306 20XDL~~ num 8-25-00	3	6711134

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	HEXANE	HERB	1	Sample		
2	2	Lherb,5240.b	HERB	1	Sample		
3	3	MLherb,5240.b	HERB	1	Sample		
4	4	Mherb,5240.b	HERB	1	Sample		
5	5	MHherb,5240.b	HERB	1	Sample		
6	6	Hherb,5240.b	HERB	1	Sample		
7	7	DJ7CX103,5240.b	HERB	1	Sample		
8	8	DJ7D2103,5240.b	HERB	1	Sample		
9	9	DJ7D2105,5240.b	HERB	1	Sample		
10	10	DJ7D2106,5240.b	HERB	1	Sample		
11	11	DJ7CM102,5240.b	HERB	1	Sample		
12	12	DJ831101,5240.b	HERB	1	Sample		
13	13	DJ831102,5240.b	HERB	1	Sample		
14	14	DHK3611D,5240.b	HERBA	1	Sample		
15	15	DH96H11D,5240.b	HERBA	1	Sample		
16	16	DHV7M112,5240.b	HERBA	1	Sample		
17	17	DHK1C101,5240.b	HERBA	1	Sample		
18	18	DHK1E101,5240.b	HERBA	1	Sample		
19	19	DJ0KL102,5240.b	HERBA	1	Sample		
20	20	DJ0KL103,5240.b	HERBA	1	Sample		
21	21	DJ0KL101,5240.b	HERBA	1	Sample		
22	22	MHERB,5240.b	HERBA	1	Sample		
23	23	DHK1C101,5240.b	HERB	1	Sample		
24	24	DHK1E101,5240.b	HERB	1	Sample		
25	25	MHERB,5240.b	HERB	1	Sample		
26	26	RINSE	HERB	1	Sample		

Sequence Table (Back Injector):

Vial Information Part:

Line	Vial	Vial Information
1	100	8151 HERB ANALYSIS
2	1	RINSE
3	2	190-94-1
4	3	190-94-2
5	4	190-94-3
6	5	190-94-4
7	6	190-94-5

6711135

Line Vial Vial Information

26 26 09013306 20XDL

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	HEXANE	HERB	1	Sample		
2	2	Lherb,5240.b	HERB	1	Sample		
3	3	MLherb,5240.b	HERB	1	Sample		
4	4	Mherb,5240.b	HERB	1	Sample		
5	5	MHherb,5240.b	HERB	1	Sample		
6	6	Hherb,5240.b	HERB	1	Sample		
7	7	DJ7CX103,5240.b	HERB	1	Sample		
8	8	DJ7D2103,5240.b	HERB	1	Sample		
9	9	DJ7D2105,5240.b	HERB	1	Sample		
10	10	DJ7D2106,5240.b	HERB	1	Sample		
11	11	DJ7CM102,5240.b	HERB	1	Sample		
12	12	DJ831101,5240.b	HERB	1	Sample		
13	13	DJ831102,5240.b	HERB	1	Sample		
14	14	DHK3611D,5240.b	HERBA	1	Sample		
15	15	DH96H11D,5240.b	HERBA	1	Sample		
16	16	DHV7M112,5240.b	HERBA	1	Sample		
17	17	DHK1C101,5240.b	HERBA	1	Sample		
18	18	DHK1E101,5240.b	HERBA	1	Sample		
19	19	DJ0KL102,5240.b	HERBA	1	Sample		
20	20	DJ0KL103,5240.b	HERBA	1	Sample		
21	21	DJ0KL101,5240.b	HERBA	1	Sample		
22	22	MHERB,5240.b	HERBA	1	Sample		
23	23	DHK1C101,5240.b	HERB	1	Sample		
24	24	DHK1E101,5240.b	HERB	1	Sample		
25	25	MHERB,5240.b	HERB	1	Sample		
26	26	RINSE	HERB	1	Sample		

Sequence Table (Back Injector):

Vial Information Part:

Line Vial Vial Information

1	100	8151 HERB ANALYSIS
2	1	RINSE
3	2	190-94-1 212
4	3	190-94-2 213
5	4	190-94-3 214
6	5	190-94-4 215
7	6	190-94-5 216

created: wwm 8-24-00

6711136

Sequence Table (Front Injector):

Vial Information Part:

Line	Vial	Vial Information	
1	1	8151 HERB ANALYSIS	
2	2	190-94-3	370 ✓
3	3	8151 HERB ANALYSIS	
4	1	25018301	372 ✓
5	2	250183LCS	373 ✓
6	3	250183LCSD	374 ✓
7	4	250183BLK	375 ✓
8	5	260118001	376 ✓
9	6	260118LCS	377 ✓
10	7	260118LCSD	378 ✓
11	8	260118BLK	379 ✓
12	9	190-94-3	380 ✓
~~13~~	~~10~~	~~230152003 20XDL~~	~~381~~ term 25x
~~14~~	~~11~~	~~230152004 20XDL~~	~~382~~ confirm
15	12	230152LCS	383 ✓
16	13	230152LCSD	384 ✓
17	14	230152BLK	385 ✓
18	15	190-94-3	386 ✓

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	HEXANE	HERB	1	Sample		
2	2	MHERB, 5240.b	HERB	1	Sample		
3	3	HEXANE	HERB	1	Sample		
4	1	DJEQC101, 5240.b	HERB	1	Sample		
5	2	DJJOM102, 5240.b	HERB	1	Sample		
6	3	DJJOM103, 5240.b	HERB	1	Sample		
7	4	DJJOM101, 5240.b	HERB	1	Sample		
8	5	DJG82105, 5240.b	HERB	1	Sample		
9	6	DJKFX102, 5240.b	HERB	1	Sample		

6711137

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
====	====	=====	=====	===	=====	=====	=====
10	7	DJKFX103,5240.b	HERB	1	Sample		
11	8	DJKFX101,5240.b	HERB	1	Sample		
12	9	MHERB,5240.b	HERB	1	Sample		
13	10	DJ9FR102,5240.b	HERB	1	Sample		
14	11	DJ9FW102,5240.b	HERB	1	Sample		
15	12	DJDV1102,5240.b	HERB	1	Sample		
16	13	DJDV1103,5240.b	HERB	1	Sample		
17	14	DJDV1101,5240.b	HERB	1	Sample		
18	15	MHERB,5240.b	HERB	1	Sample		

Sequence Table (Back Injector):

No entries - empty table!

REQUESTED BY: PINOB

METHOD: QS Herbicides (8151A)

STORAGE LOCATION	WORK ORDER #	PICKED	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SEX	MATRIX	QTY	QTY	
		CNTR#							DESCRIPTION	RCVD	REQD	
3E CLP1	DJG82-1-05	___	261659	399411	A-64-QS	COH260118	001		SOLID	0	3	1

RELINQUISHED BY

P. Yushinski
P. Yushinski

RECEIVED BY

P. Yushinski
P. Yushinski

DATE/TIME

8-29-00 1535
8-29-00 1800

***** END OF REPORT *****

6711139

METALS DATA

STL-Pittsburgh**Cover Page - Inorganic Analysis Data Package**

Client ID	Lab Sample ID:
DF/S1/0238/SDC/036	DJG82
DF/S1/0238/SDC/036D	DJG82D
DF/S1/0238/SDC/036S	DJG82S

Comments: UXB DUNN FIELD
C0H260118
6010B

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than conditions detailed above. Release of the data combined in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____

Name: _____

Date: _____

Title: _____

REVIEWED BY: MTW
DATE: 9-6-00

6711141

METALS
RESULTS

6711142

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: DJG82 Client ID: DF/S1/0238/SDC/036
Matrix: Soil Units: mg/kg Prep Date: 8/31/00 Prep Batch: 0244397
Weight: 1.00 Volume: 100 Percent Moisture: 10.23

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	189.04	0.29	1.1	11.7		1	ICPST	9/1/00	8:02

Comments: C0H260118001

Version 4.10.2

U Result is less than the MDL
B Result is between MDL and RL

Form 1 Equivalent

STL-Pittsburgh

6711143

Metals Data Reporting Form

Initial Calibration Verification Standard

Instrument: ICPST

Units: ug/L

Chart Number: T00901A.ARC

Acceptable Range: 90% - 110%

Standard Source: Inorganic Ventures

Standard ID: 0057-022-8

Element	WL/ Mass	True Conc	ICV3-1 9/1/00 7:34 AM									
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Arsenic	189 042	250.0	260.62	104.2								

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: ICPSTUnits: ug/LChart Number: T00901A.ARCAcceptable Range: 90% - 110%Standard Source: Inorganic VenturesStandard ID: 0057-040-1

			CCV3-1 9/1/00 8:18 AM							
Element	WL/ Mass	True Conc	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Arsenic	189.042	500.0	514.44	102.9						

6711145

STL-Pittsburgh

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DJPN0BMatrix: Soil Units: mg/kg Prep Date: 8/31/00 Prep Batch: 0244397Weight: 1.00 Volume: 100 Percent Moisture: NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	189.042	0.26	1.0	0.26	U	1	ICPST	9/1/00	7:53

Comments: _____

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICPSTUnits: ug/LChart Number: T00901A.ARC

Standard Source: _____

Standard ID: _____

			ICB1 9/1/00 7:39 AM				
Element	WL/ Mass	Report Limit	Found Q	Found Q	Found Q	Found Q	Found Q
Arsenic	189.042	10	2.6 U				

STL-Pittsburgh

6711147

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: ICPST

Units: ug/L

Chart Number: T00901A.ARC

Standard Source: _____

Standard ID: _____

			CCB1 9/1/00 8:22 AM					
Element	WL/ Mass	Report Limit	Found	Q	Found	Q	Found	Q
Arsenic	189.042	10	2.6	U				

STL-Pittsburgh
Metals Data Reporting Form

6711148

Interference Check Standard A

Instrument: ICPST

Units: ug/L

Chart Number: T00901A.ARC

Acceptable Range: 0% - 0%

Standard Source: Inorganic Ventures

Standard ID: 0057-011-1

				ICSA 9/1/00 7:43 AM				
Element	WL/ Mass	Reporting Limit	True Conc	Found	Found	Found	Found	Found
Arsenic	189.042	10		1				

6711149

STL-Pittsburgh

Metals Data Reporting Form

Interference Check Standard AB

Instrument: ICPSTUnits: ug/LChart Number: T00901A.ARCAcceptable Range: 80% - 120%Standard Source: Inorganic VenturesStandard ID: 0014-197-7

Element	WL/ Mass	True Conc	ICSAB 9/1/00 7:47 AM									
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Arsenic	189.042	1000	1076.6	107.7								

Metals Data Reporting Form

Matrix Spike Sample Results

Spike Sample ID: DJG82S

Original Sample ID: DJG82 Client ID: DF/S1/0238/SDC/036S

Matrix: Soil Units: mg/kg Prep Date: 8/31/00 Prep Batch: 0244397

Weight: 1.00 Volume: 100 Percent Moisture: 10.23

Element	WL/ Mass	OS Conc	Q	MS Conc	Q	Spike Level	% Rec	OS DF	MS DF	Instr	OS Anal Date	OS Anal Time	MS Anal Date	MS Anal Time
Arsenic	189.0	11.7		224		222.79	95.1	1	1	ICPST	9/1/00	8:02	9/1/00	8:10

Comments: _____

Version 4.10.2

U Result is less than the MDL

Form 5A Equivalent

B Result is between MDL and RL

N Spike recovery failed

NC Percent recovery was not calculated

* Duplicate analysis RPD was not within limits

6711151

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Duplicate Sample Results

Spike Sample ID: DJG82DOriginal Sample ID: DJG82 Client ID: DF/S1/0238/SDC/036DMatrix: Soil Units: mg/kg Prep Date: 8/31/00 Prep Batch: 0244397Weight: 1.00 Volume: 100 Percent Moisture: 10.23

Element	WL/ Mass	OS Conc	Q	MSD Conc	Q	Spike Level	% Rec	OS DF	MSD DF	Instr	OS Anal Date	OS Anal Time	MSD Anal Date	MSD Anal Time
Arsenic	189.0	11.7		230		222.79	98.1	1	1	ICPST	9/1/00	8:02	9/1/00	8:14

Comments: _____

Version 4.10.2

U Result is less than the MDL

B Result is between MDL and RL

N Spike recovery failed

NC Percent recovery was not calculated

* Duplicate analysis RPD was not within limits

Form 5A Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Duplicate RPD Report

Matrix Spike Duplicate Sample ID: DJG82DMatrix Spike Sample ID: DJG82S Client ID: DF/S1/0238/SDC/036DMatrix: Soil Units: mg/kg Prep Date: 8/31/00 Prep Batch: 0244397Weight: 1.00 Volume: 100 Percent Moisture: 10.23

Element	WL/ Mass	MS Conc	Q	MSD Conc	Q	RPD	MS DF	MSD DF	Instr	MS Anal Date	MS Anal Time	MSD Anal Date	MSD Anal Time
Arsenic	189.042	224		230		3.2 %	1	1	ICPST	9/1/00	8:10	9/1/00	8:14

Comments: _____

Version 4.10.2

- U Result is less than the MDL
- B Result is between MDL and RL
- N Spike recovery failed
- NC Percent recovery was not calculated
- * Duplicate analysis RPD was not within limits

Form 6 Equivalent

6711153

STL-Pittsburgh

Metals Data Reporting Form

Laboratory Control Sample Results

Lab Sample ID: DJPN0CMatrix: Soil Units: mg/kg Prep Date: 8/31/00 Prep Batch: 0244397Weight: 1.00 Volume: 100 Percent Moisture: NA

Element	WL/ Mass	Spike Level	Conc	Percent Recovery	Q	Range	DF	Instr	Anal Date	Anal Time
Arsenic	189.042	200	207	103.3		80-120	1	ICPST	9/1/00	7:57

Comments: _____

Version 4.10.2

U Result is less than the MDL

Form 7 Equivalent

B Result is between MDL and RL

Metals Data Reporting Form

Serial Dilution RPD Report

Serial Dilution Sample ID: DJG82POriginal Sample ID: DJG82 Client ID: DF/S1/0238/SDC/036Matrix: Soil Units: mg/kg Prep Date: 8/31/00 Prep Batch: 0244397Weight: 1.00 Volume: 100 Percent Moisture: 10.23

Element	WL/ Mass	OS Conc	Q	Serial Dilution Conc	Q	Percent Diff	OS DF	Ser Dil DF	Instr	OS Anal Date	OS Anal Time	Ser Dil Anal Date	Ser Dil Anal Time
Arsenic	189.042	11.7		12.6			1	5	ICPST	9/1/00	8:02	9/1/00	8:06

Comments: _____

6711155

STL-Pittsburgh
Metals Data Reporting Form

Instrument Detection Limits

Instrument: ICPST

Units: ppb

Element	Wavelength /Mass	Reporting Limit	MDL	Date of MDL
Arsenic	189.04	10	2.6	4/1/00

Metals Data Reporting Form

Inter-Element Correction Factors

Instrument: ICPST

Date of IEC's: 8/1/00

Interfering Element	Wavelength /Mass	Correction Factor(s)
Aluminum	308.215	Pb(0.00055), Se(0.00001), Tl(-0.00002)
Aluminum	308.215	Pb(-0.000197), Se(0.000011)
Chromium	267.716	Sb(0.007006)
Chromium	267.716	As(-0.002615), Sb(0.012173)
Cobalt	228.616	Se(-0.000381)
Cobalt	228.616	Cd(-0.00009), Fe(0.089705), Ni(-0.00066), Pb(0.000077), Se(0.000351), Tl(0.002179)
Iron	271.441	Cd(0.000088), Pb(0.000086), Sb(0.000019), Se(-0.000016), Tl(-0.000034), V(-0.000349), Zn(0.000127)
Iron	271.441	Pb(0.000047), Sb(0.000021), Se(-0.00029)
Magnesium	279.078	Fe(-0.000306)
Manganese	257.61	Se(0.000579), Tl(-0.004577)
Molybdenum	202.03	Pb(-0.00087), Sb(-0.010184)
Molybdenum	202.03	Al(0.011136), As(-0.000847), Cr(-0.000312), Pb(-0.000331), Sb(-0.003352)
Nickel	231.604	Pb(0.000274), Sb(-0.000886), Zn(0.004694)
Nickel	231.604	Pb(0.000086)
Vanadium	292.402	Al(0.019591), Be(-0.00787), Cr(-0.000183), Fe(0.007812), Sb(-0.008005), Se(0.000216), Tl(0.001386)
Vanadium	292.402	Pb(-0.000428), Se(0.000099)

6711157

STL-Pittsburgh
Metals Data Reporting Form

Linear Dynamic Ranges

Instrument: ICPST

Units: ppb

Element	Wavelength /Mass	Linear Range	Date of Linear Range
Arsenic	189.04	10000	6/15/00

STL-Pittsburgh
Metals Data Reporting Form

6711158

Preparation Log

Preparation Batch: 0244397 **Instrument:** ICP **Matrix:** Soil

Sample ID	Prep Date	Weight (g)	Volume (ml)	% Moisture
DJPN0B	8/31/00	1.00	100	NA
DJPN0C	8/31/00	1.00	100	NA
DJG82	8/31/00	1.00	100	10.23
DJG82D	8/31/00	1.00	100	10.23
DJG82S	8/31/00	1.00	100	10.23

STL-Pittsburgh

Metals Data Reporting Form

6711159

Instrument Runlog

Instrument: ICPST

Chart Number: T00901A.ARC

Lab Sample Name	Client Sample Name	Date of Analysis	Time of Analysis
STD1		9/1/00	7:22
STD6		9/1/00	7:26
STD7		9/1/00	7:31
ICV3-1		9/1/00	7:34
ICB1		9/1/00	7:39
ICSA		9/1/00	7:43
ICSAB		9/1/00	7:47
DJPN0B		9/1/00	7:53
DJPN0C		9/1/00	7:57
DJG82	DF/S1/0238/SDC/036	9/1/00	8:02
DJG82P	DF/S1/0238/SDC/036	9/1/00	8:06
DJG82S	DF/S1/0238/SDC/036S	9/1/00	8:10
DJG82D	DF/S1/0238/SDC/036D	9/1/00	8:14
CCV3-1		9/1/00	8:18
CCB1		9/1/00	8:22
ZZZZZZ		9/1/00	8:26
ZZZZZZ		9/1/00	8:31
ZZZZZZ		9/1/00	8:35
ZZZZZZ		9/1/00	8:39
ZZZZZZ		9/1/00	8:43
ZZZZZZ		9/1/00	8:47
ZZZZZZ		9/1/00	8:51
ZZZZZZ		9/1/00	8:55
ZZZZZZ		9/1/00	9:00
ZZZZZZ		9/1/00	9:04
ZZZZZZ		9/1/00	9:08
ZZZZZZ		9/1/00	9:12
ZZZZZZ		9/1/00	9:16
ZZZZZZ		9/1/00	9:20
ZZZZZZ		9/1/00	9:25
ZZZZZZ		9/1/00	9:29
ZZZZZZ		9/1/00	9:35
ZZZZZZ		9/1/00	9:39
ZZZZZZ		9/1/00	9:43
ZZZZZZ		9/1/00	9:47
ZZZZZZ		9/1/00	9:51
ZZZZZZ		9/1/00	9:56
ZZZZZZ		9/1/00	10:00
ZZZZZZ		9/1/00	10:04

STL-Pittsburgh
Metals Data Reporting Form

6711160

Instrument Runlog

Instrument: ICPST

Chart Number: T00901A.ARC

Lab Sample Name	Client Sample Name	Date of Analysis	Time of Analysis
ZZZZZZ		9/1/00	10:08
ZZZZZZ		9/1/00	10:12
ZZZZZZ		9/1/00	10:16
ZZZZZZ		9/1/00	10:21
ZZZZZZ		9/1/00	10:25
ZZZZZZ		9/1/00	10:29
ZZZZZZ		9/1/00	10:33
ZZZZZZ		9/1/00	10:37

6711161

**METALS
RAW DATA**

Reanalyzed 9:10
Sample Name AS

1	STD1	-.01397
2	STD6	4.88927
3	STD7	
4	ICV3-1 0057-022-8	.26062
5	ICB1	.00077
6	ICSA 0057-011-1	.00088
7	ICSAB 0014-197-7	1.0766
8	DJPN0B	.00149
9	DJPN0C	2.0663
10	DJG82	.10486
11	DJG82P5	.02258
12	DJG82S	2.0067
13	DJG82D	2.0678
14	CCV3-1 0057-040-1	.51444
15	CCB1	.00126
16	DJGQDB	.00124
17	DJGQDC	2.0968
18	DJ992	.06322
19	DJ994	.08782
20	DJ995	.10088
21	DJ995P5	.02231
22	DJ995S	1.9706
23	DJ995D	1.9251
24	DJ99D	.07491
25	DJ99K	.07044
26	CCV3-2	.51630
27	CCB2	.00044
28	DJA36	.13688
29	DJA3H	.10499
30	DJA3K	.09866
31	DJA3N	.08045
32	DJ992/2 Mn	.03410
33	DJ994/5 Mn	.01845
34	DJ995/5 Mn	.02223
35	DJ995P25 Mn	.00511
36	DJ995S/5 Mn	.41965
37	DJ995D/5 Mn	.40422
38	CCV3-3	.50973
39	CCB3	.00208
40	DJ99D/2 Mn	.03972
41	DJ99K/2 Mn	.03791
42	DJA36/2 Mn	.07146
43	DJA3H/2 Mn	.05298
44	DJA3K/5 Mn	.02153
45	DJA3N/5 Mn	.01864
46	CCV3-4	.51005
47	CCB4	.00089

6711163

269100

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	STD1	T00901A	METTRA	09/01/00	07:22		X	IR
2	STD6	T00901A	METTRA	09/01/00	07:26		X	IR
3	STD7	T00901A	METTRA	09/01/00	07:31		X	IR
4	ICV3-1 0057-022-8	T00901A	METTRA	09/01/00	07:34	RJG	S	CONC
5	ICB1	T00901A	METTRA	09/01/00	07:39	RJG	S	CONC
6	ICSA 0057-011-1	T00901A	METTRA	09/01/00	07:43	RJG	Q	CONC
7	ICSAB 0014-197-7	T00901A	METTRA	09/01/00	07:47	RJG	Q	CONC
8	DJPN0B	T00901A	METTRA	09/01/00	07:53	RJG	S	CONC
9	DJPN0C	T00901A	METTRA	09/01/00	07:57	RJG	S	CONC
10	DJG82	T00901A	METTRA	09/01/00	08:02	RJG	S	CONC
11	DJG82P5	T00901A	METTRA	09/01/00	08:06	RJG	S	CONC
12	DJG82S	T00901A	METTRA	09/01/00	08:10	RJG	S	CONC
13	DJG82D	T00901A	METTRA	09/01/00	08:14	RJG	S	CONC
14	CCV3-1 0057-040-1	T00901A	METTRA	09/01/00	08:18	RJG	S	CONC
15	CCB1	T00901A	METTRA	09/01/00	08:22	RJG	S	CONC
16	DJGQDB	T00901A	METTRA	09/01/00	08:26	RJG	S	CONC
17	DJGQDC	T00901A	METTRA	09/01/00	08:31	RJG	S	CONC
18	DJ992	T00901A	METTRA	09/01/00	08:35	RJG	S	CONC
19	DJ994	T00901A	METTRA	09/01/00	08:39	RJG	S	CONC
20	DJ995	T00901A	METTRA	09/01/00	08:43	RJG	S	CONC
21	DJ995P5	T00901A	METTRA	09/01/00	08:47	RJG	S	CONC
22	DJ995S	T00901A	METTRA	09/01/00	08:51	RJG	S	CONC
23	DJ995D	T00901A	METTRA	09/01/00	08:55	RJG	S	CONC
24	DJ99D	T00901A	METTRA	09/01/00	09:00	RJG	S	CONC
25	DJ99K	T00901A	METTRA	09/01/00	09:04	RJG	S	CONC
26	CCV3-2	T00901A	METTRA	09/01/00	09:08	RJG	S	CONC
27	CCB2	T00901A	METTRA	09/01/00	09:12	RJG	S	CONC
28	DJA36	T00901A	METTRA	09/01/00	09:16	RJG	S	CONC
29	DJA3H	T00901A	METTRA	09/01/00	09:20	RJG	S	CONC
30	DJA3K	T00901A	METTRA	09/01/00	09:25	RJG	S	CONC
31	DJA3N	T00901A	METTRA	09/01/00	09:29	RJG	S	CONC
32	DJ992/2 Mn	T00901A	METTRA	09/01/00	09:35	RJG	S	CONC
33	DJ994/5 Mn	T00901A	METTRA	09/01/00	09:39	RJG	S	CONC
34	DJ995/5 Mn	T00901A	METTRA	09/01/00	09:43	RJG	S	CONC
35	DJ995P25 Mn	T00901A	METTRA	09/01/00	09:47	RJG	S	CONC
36	DJ995S/5 Mn	T00901A	METTRA	09/01/00	09:51	RJG	S	CONC
37	DJ995D/5 Mn	T00901A	METTRA	09/01/00	09:56	RJG	S	CONC
38	CCV3-3	T00901A	METTRA	09/01/00	10:00	RJG	S	CONC
39	CCB3	T00901A	METTRA	09/01/00	10:04	RJG	S	CONC
40	DJ99D/2 Mn	T00901A	METTRA	09/01/00	10:08	RJG	S	CONC
41	DJ99K/2 Mn	T00901A	METTRA	09/01/00	10:12	RJG	S	CONC
42	DJA36/2 Mn	T00901A	METTRA	09/01/00	10:16	RJG	S	CONC
43	DJA3H/2 Mn	T00901A	METTRA	09/01/00	10:21	RJG	S	CONC
44	DJA3K/5 Mn	T00901A	METTRA	09/01/00	10:25	RJG	S	CONC
45	DJA3N/5 Mn	T00901A	METTRA	09/01/00	10:29	RJG	S	CONC
46	CCV3-4	T00901A	METTRA	09/01/00	10:33	RJG	S	CONC
47	CCB4	T00901A	METTRA	09/01/00	10:37	RJG	S	CONC

Method: METTRA Standard: STD1
Run Time: 09/01/00 07:22:46

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Elem	AG	AL	AS	BA	BE	CA	CD
Avge	-.00208	.08473	-.01397	.00053	-.05231	.00330	.00162
SDev	.00332	.00077	.00138	.00041	.00049	.00007	.00185
%RSD	159.53	.91269	9.9092	77.734	.94011	2.2130	113.58
#1	-.00442	.08527	-.01495	.00024	-.05196	.00325	.00032
#2	.00027	.08418	-.01299	.00083	-.05266	.00335	.00293
Elem	CO	CR	CU	FE	MG	MN	MO
Avge	-.00100	.00077	.00924	-.00112	-.00099	.00064	.00131
SDev	.00025	.00147	.00041	.00143	.00034	.00000	.00011
%RSD	24.579	190.24	4.4152	127.96	34.464	.06800	8.5907
#1	-.00117	-.00027	.00895	-.00213	-.00123	.00064	.00123
#2	-.00083	.00181	.00953	-.00011	-.00075	.00064	.00138
Elem	NI	PB/1	PB/2	SB/1	SB/2	SE/1	SE/2
Avge	.00011	.01835	-.00581	-.04344	.01830	-.11136	.08225
SDev	.00015	.00462	.00098	.00157	.00673	.00260	.00578
%RSD	141.42	25.181	16.800	3.6230	36.784	2.3342	7.0290
#1	.00000	.01508	-.00512	-.04456	.01354	-.11320	.08634
#2	.00021	.02162	-.00650	-.04233	.02306	-.10953	.07816
Elem	TL	V ₁	ZN				
Avge	-.04129	.00000	-.00077				
SDev	.00590	.00000	.00004				
%RSD	14.301	.00000	4.9445				
#1	-.04546	.00000	-.00080				
#2	-.03711	.00000	-.00075				

6711165

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18772	--	--	--	--	--	--
SDev	12.76383	--	--	--	--	--	--
%RSD	.0679943	--	--	--	--	--	--
#1	18763	--	--	--	--	--	--
#2	18781	--	--	--	--	--	--

Method: METTRA Standard: STD6
Run Time: 09/01/00 07:26:58

0057.023-10

6711166

Elem	AG	AS	CD	PB/1	PB/2	SB/1	SB/2
Avge	10.513	4.8893	12.059	5.1761	6.5281	9.1107	6.2018
SDev	.000	.0121	.015	.0128	.0405	.0504	.0260
%RSD	.00230	.24734	.12328	.24701	.62023	.55360	.41880

#1	10.513	4.8807	12.048	5.1670	6.5567	9.1464	6.1835
#2	10.513	4.8978	12.069	5.1851	6.4995	9.0751	6.2202

Elem	SE/1	SE/2	TL
Avge	4.8756	4.8837	3.8452
SDev	.0166	.0154	.0124
%RSD	.34101	.31434	.32205

#1	4.8639	4.8946	3.8365
#2	4.8874	4.8729	3.8540

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18723	--	--	--	--	--	--
SDev	24.25431	--	--	--	--	--	--
%RSD	.1295429	--	--	--	--	--	--
#1	18740	--	--	--	--	--	--
#2	18706	--	--	--	--	--	--

Method: METTRA Standard: STD7
Run Time: 09/01/00 07:31:10

0057.024-1

Elem	AL	BA	BE	CA	CO	CR	CU
Avge	7.4694	14.058	10.957	4.5184	2.8835	11.544	3.6015
SDev	.0416	.054	.012	.0126	.0043	.026	.0162
%RSD	.55703	.38643	.10813	.27850	.14787	.22658	.44921
#1	7.4400	14.019	10.949	4.5095	2.8805	11.525	3.5901
#2	7.4988	14.096	10.965	4.5273	2.8865	11.562	3.6130
Elem	FE	MG	MN	MO	NI	V	ZN
Avge	3.9834	13.619	10.062	2.0652	2.3774	.81781	2.7896
SDev	.0078	.042	.017	.0133	.0095	.00283	.0042
%RSD	.19552	.30638	.17195	.64197	.39885	.34632	.15109
#1	3.9779	13.589	10.050	2.0558	2.3707	.81580	2.7866
#2	3.9889	13.648	10.075	2.0746	2.3842	.81981	2.7926
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18119	--	--	--	--	--	--
SDev	58.30040	--	--	--	--	--	--
%RSD	.3217617	--	--	--	--	--	--
#1	18078	--	--	--	--	--	--
#2	18160	--	--	--	--	--	--

Method: METTRA

Slope = Conc(SIR)/IR

6711168

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
AG	328.068	STD6	STD1	.190208	.000395	09/01/00 07:31:10
AL	308.215	STD7	STD1	6.78744	-.575085	09/01/00 07:31:10
AS	189.042	STD6	STD1	.203947	.002849	09/01/00 07:31:10
BA	493.409	STD7	STD1	.284554	-.000152	09/01/00 07:31:10
BE	313.042	STD7	STD1	.360468	.018857	09/01/00 07:31:10
CA	317.933	STD7	STD1	22.1477	-.073149	09/01/00 07:31:10
CD	226.502	STD6	STD1	.082937	-.000135	09/01/00 07:31:10
CO	228.616	STD7	STD1	1.38671	.001385	09/01/00 07:31:10
CR	267.716	STD7	STD1	.346360	-.000267	09/01/00 07:31:10
CU	324.753	STD7	STD1	1.11350	-.010291	09/01/00 07:31:10
FE	271.441	STD7	STD1	12.6388	.014145	09/01/00 07:31:10
MG	279.078	STD7	STD1	7.34238	.007237	09/01/00 07:31:10
MN	257.610	STD7	STD1	.397549	-.000254	09/01/00 07:31:10
MO	202.030	STD7	STD1	1.93808	-.002529	09/01/00 07:31:10
NI	231.604	STD7	STD1	1.68144	-.000179	09/01/00 07:31:10
PB/1	220.351	STD6	STD1	.193884	-.003558	09/01/00 07:31:10
PB/2	220.352	STD6	STD1	.153048	.000889	09/01/00 07:31:10
PB	220.353	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
SB/1	206.831	STD6	STD1	.109240	.004746	09/01/00 07:31:10
SB/2	206.832	STD6	STD1	.161720	-.002959	09/01/00 07:31:10
SB	220.353	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
SE/1	196.021	STD6	STD1	.200521	.022331	09/01/00 07:31:10
SE/2	196.022	STD6	STD1	.208270	-.017131	09/01/00 07:31:10
SE	220.353	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
TL	190.864	STD6	STD1	.514600	.021246	09/01/00 07:31:10
V	292.402	STD7	STD1	4.86979	.000000	09/01/00 07:31:10
ZN	213.856	STD7	STD1	1.44252	.001114	09/01/00 07:31:10

Method: METTRA Sample Name: ICV3-1 0057-022-8 Operator: RJG
 Run Time: 09/01/00 07:34:50
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Revised 9/10/00

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51323	11.846	.26063	.99493	1.0014	25.210	.25435
SDev	.00428	.043	.00564	.00086	.0250	.771	.00444
%RSD	.83469	.36361	2.1647	.08664	2.4922	3.0584	1.7456
#1	.51626	11.876	.26462	.99432	1.0191	25.755	.25749
#2	.51020	11.815	.25664	.99554	.98378	24.665	.25121
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.55000	13.750	.27500	1.1000	1.1000	27.500	.27500
Low	.45000	11.250	.22500	.90000	.90000	22.500	.22500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0110	1.0169	.96634	12.382	24.220	.98774	1.0243
SDev	.0117	.0118	.00741	.043	.378	.00999	.0089
%RSD	1.1556	1.1582	.76635	.34467	1.5596	1.0109	.87152
#1	1.0193	1.0253	.97158	12.413	24.487	.99480	1.0306
#2	1.0028	1.0086	.96111	12.352	23.953	.98068	1.0180
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	1.1000	1.1000	13.750	27.500	1.1000	1.1000
Low	.90000	.90000	.90000	11.250	22.500	.90000	.90000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0196	.26280	.25882	.26014	.26218	.25998	.26072
SDev	.0422	.00017	.00527	.00346	.00958	.00143	.00224
%RSD	4.1417	.06391	2.0363	1.3298	3.6521	.54999	.85720
#1	1.0495	.26268	.26254	.26259	.26895	.25897	.26230
#2	.98976	.26292	.25509	.25770	.25541	.26099	.25914
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	1.1000			.27500			.27500
Low	.90000			.22500			.22500
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.25836	.26152	.26047	.53515	1.0127	1.0510	
SDev	.00172	.00459	.00364	.02019	.0290	.0250	
%RSD	.66746	1.7558	1.3963	3.7729	2.8677	2.3790	
#1	.25958	.26477	.26304	.54943	1.0332	1.0687	
#2	.25714	.25827	.25790	.52087	.99213	1.0334	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.27500	.55000	1.1000	1.1000	
Low			.22500	.45000	.90000	.90000	

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18498	--	--	--	--	--	--
SDev	40.69455	--	--	--	--	--	--
%RSD	.2199999	--	--	--	--	--	--
#1	18469	--	--	--	--	--	--
#2	18526	--	--	--	--	--	--

Method: METTRA Sample Name: ICB1

Operator: RJG

Run Time: 09/01/00 07:39:00

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00106	.00122	.00078	.00046	.00041	.01111	.00014
SDev	.00015	.00477	.00141	.00012	.00023	.00328	.00010
%RSD	14.112	391.74	180.80	26.469	57.138	29.540	72.206
#1	.00117	.00459	-.00022	.00037	.00024	.00879	.00022
#2	.00096	-.00215	.00178	.00055	.00058	.01343	.00007
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00078	.00084	.00063	.00905	.01249	.00045	.00377
SDev	.00018	.00012	.00007	.00231	.00354	.00013	.00123
%RSD	22.675	13.838	11.773	25.515	28.308	28.020	32.720
#1	.00090	.00092	.00057	.01068	.00999	.00036	.00464
#2	.00065	.00076	.00068	.00741	.01499	.00054	.00290
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00130	.00320	-.00114	.00031	-.00268	-.00075	-.00139
SDev	.00030	.00019	.00134	.00083	.00090	.00239	.00189
%RSD	23.200	5.8238	117.78	269.79	33.736	318.82	136.20
#1	.00108	.00307	-.00019	.00090	-.00204	.00094	-.00005
#2	.00151	.00334	-.00208	-.00028	-.00331	-.00244	-.00273
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	-.00156	.00033	-.00030	-.00019	.00000	.00116	
SDev	.00131	.00067	.00001	.00090	.00000	.00068	
%RSD	83.874	201.27	3.9237	468.24	25.515	58.298	
#1	-.00248	.00081	-.00029	.00044	.00000	.00068	
#2	-.00063	-.00014	-.00031	-.00083	.00000	.00164	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

Analysis Report

09/01/00 07:43:05 AM

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18791	--	--	--	--	--	--
SDev	197.5659	--	--	--	--	--	--
%RSD	1.051411	--	--	--	--	--	--
#1	18651	--	--	--	--	--	--
#2	18930	--	--	--	--	--	--

Method: METTRA Sample Name: ICSA 0057-011-1 Operator: RJG
 Run Time: 09/01/00 07:43:09
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00050	497.96	.00089	.00162	-.00150	467.25	.00304
SDev	.00054	2.47	.00387	.00004	.00014	1.85	.00006
%RSD	107.61	.49640	436.87	2.2764	9.5933	.39518	1.8845
#1	.00012	496.21	.00362	.00160	-.00140	465.95	.00308
#2	.00088	499.71	-.00185	.00165	-.00160	468.56	.00300
Errors	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass	NOCHECK
Value		500.00				500.00	
Range		20.000				20.000	
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00066	.00289	.00037	199.63	507.15	.00817	-.00123
SDev	.00057	.00033	.00007	1.23	2.10	.00005	.00023
%RSD	85.694	11.306	18.752	.61466	.41322	.55299	18.892
#1	.00026	.00266	.00032	198.76	505.67	.00820	-.00107
#2	.00106	.00312	.00042	200.49	508.63	.00813	-.00140
Errors	NOCHECK	NOCHECK	NOCHECK	QC Pass	QC Pass	NOCHECK	NOCHECK
Value				200.00	500.00		
Range				20.000	20.000		
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00197	-.04376	.02569	.00256	-.00199	.00212	.00075
SDev	.00082	.00088	.00032	.00008	.00830	.00060	.00237
%RSD	41.611	2.0145	1.2404	3.1592	416.34	28.078	316.43
#1	.00255	-.04438	.02592	.00251	-.00787	.00254	-.00093
#2	.00139	-.04314	.02547	.00262	.00388	.00170	.00242
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	-.00220	-.00656	-.00511	-.00096	.00420	.00544	
SDev	.00780	.00620	.00154	.00442	.00234	.00010	
%RSD	354.30	94.477	30.065	462.06	55.881	1.7499	
#1	.00331	-.01094	-.00619	-.00408	.00254	.00537	
#2	-.00772	-.00218	-.00402	.00217	.00586	.00551	
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	
Value							
Range							

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17209	--	--	--	--	--	--
SDev	74.63429	--	--	--	--	--	--
%RSD	.4336814	--	--	--	--	--	--
#1	17262	--	--	--	--	--	--
#2	17157	--	--	--	--	--	--

Method: METTRA Sample Name: ICSAB 0014-197-7 Operator: RJG
 Run Time: 09/01/00 07:47:19
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.1427	515.45	1.0766	.53323	.50159	484.92	.96853
SDev	.0045	3.30	.0026	.00258	.00003	.51	.00242
%RSD	.38995	.64081	.24214	.48324	.00542	.10599	.24969
#1	1.1396	513.12	1.0747	.53141	.50161	484.55	.96682
#2	1.1459	517.79	1.0784	.53506	.50157	485.28	.97024
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	500.00	1.0000	.50000	.50000	500.00	1.0000
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50502	.51340	.55352	207.48	524.24	.51686	1.0299
SDev	.00126	.00165	.00279	.99	1.15	.00132	.0059
%RSD	.24906	.32121	.50354	.47811	.21901	.25600	.57596
#1	.50413	.51223	.55155	206.78	523.42	.51592	1.0257
#2	.50591	.51456	.55549	208.18	525.05	.51780	1.0341
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	.50000	.50000	200.00	500.00	.50000	1.0000
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0041	1.0425	1.0620	1.0555	1.0960	1.1096	1.1051
SDev	.0030	.0014	.0050	.0038	.0183	.0005	.0057
%RSD	.29431	.13549	.47251	.36167	1.6704	.04773	.51968
#1	1.0062	1.0415	1.0585	1.0528	1.0830	1.1100	1.1010
#2	1.0021	1.0435	1.0656	1.0582	1.1089	1.1093	1.1092
Errors	QC Pass	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	QC Pass
Value	1.0000			1.0000			1.0000
Range	20.000			20.000			20.000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	1.0729	1.0852	1.0811	1.1480	.52281	1.0989	
SDev	.0080	.0077	.0025	.0102	.00010	.0013	
%RSD	.74098	.70753	.22885	.88934	.01915	.12115	
#1	1.0785	1.0798	1.0793	1.1408	.52288	1.0979	
#2	1.0672	1.0906	1.0828	1.1552	.52274	1.0998	
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass	
Value			1.0000	1.0000	.50000	1.0000	
Range			20.000	20.000	20.000	20.000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	16701	--	--	--	--	--	--
SDev	8.910650	--	--	--	--	--	--
%RSD	.0533551	--	--	--	--	--	--
#1	16694	--	--	--	--	--	--
#2	16707	--	--	--	--	--	--

Method: METTRA Sample Name: DJPN0B Operator: RJG
Run Time: 09/01/00 07:53:45
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00049	.03187	.00150	.00044	-.00052	.08286	-.00014
SDev	.00044	.01036	.00048	.00004	.00011	.00510	.00013
%RSD	90.918	32.518	32.242	9.5766	20.353	6.1565	90.326
#1	.00080	.03920	.00116	.00047	-.00060	.08647	-.00023
#2	.00017	.02454	.00184	.00041	-.00045	.07926	-.00005
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00004	.00032	.00071	.01699	.02218	.00041	.00217
SDev	.00016	.00056	.00005	.00796	.00672	.00003	.00025
%RSD	366.25	174.07	7.3263	46.872	30.304	8.4046	11.602
#1	.00007	.00072	.00075	.02262	.02693	.00043	.00234
#2	-.00015	-.00007	.00068	.01136	.01742	.00039	.00199
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00067	.00653	-.00061	.00177	-.00365	.00007	-.00117
SDev	.00093	.00014	.00060	.00045	.00191	.00075	.00113
%RSD	139.84	2.1535	99.430	25.364	52.393	1051.0	97.059
#1	.00132	.00663	-.00018	.00209	-.00500	-.00046	-.00197
#2	.00001	.00643	-.00103	.00145	-.00230	.00060	-.00037
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	-.00623	.00461	.00100	-.00355	.00001	.00436	
SDev	.00069	.00082	.00032	.00014	.00000	.00007	
%RSD	11.003	17.800	31.882	3.8820	46.872	1.5330	
#1	-.00574	.00403	.00078	-.00365	.00001	.00441	
#2	-.00671	.00519	.00123	-.00345	.00000	.00431	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17959	--	--	--	--	--	--
SDev	85.34862	--	--	--	--	--	--
%RSD	.4752296	--	--	--	--	--	--
#1	17899	--	--	--	--	--	--
#2	18020	--	--	--	--	--	--

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Analysis Report

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Method: METTRA Sample Name: DJPN0C

Operator: RJG

Run Time: 09/01/00 07:57:54

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05197	1.8608	2.0663	2.0196	.05097	L.03031	.05173
SDev	.00025	.0121	.0162	.0121	.00055	.00013	.00022
%RSD	.47444	.65066	.78388	.60040	1.0723	.43266	.42036
#1	.05180	1.8694	2.0778	2.0281	.05136	L.03040	.05188
#2	.05214	1.8522	2.0549	2.0110	.05059	L.03022	.05157
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass
High	.06000	2.4000	2.4000	2.4000	.06000	60.000	.06000
Low	.04000	1.6000	1.6000	1.6000	.04000	40.000	.04000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.52663	.21103	.24752	1.0242	L.01006	.51024	L.00095
SDev	.00333	.00133	.00116	.0079	.00342	.00327	.00034
%RSD	.63165	.63091	.46728	.76951	33.960	.64120	36.306
#1	.52898	.21197	.24834	1.0186	L.00765	.51255	L.00071
#2	.52428	.21008	.24671	1.0298	L.01248	.50793	L.00120
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Low
High	.60000	.24000	.30000	1.2000	60.000	.60000	1.2000
Low	.40000	.16000	.20000	.80000	40.000	.40000	.80000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.52245	.52536	.51499	.51844	-.00283	.00147	L.00004
SDev	.00576	.00007	.00487	.00323	.00231	.00056	.00040
%RSD	1.1021	.01290	.94649	.62275	81.531	37.802	1048.5
#1	.52652	.52531	.51843	.52072	-.00120	.00108	L.00032
#2	.51837	.52541	.51154	.51616	-.00447	.00186	L-.00024
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Low
High	.60000			.60000			.60000
Low	.40000			.40000			.40000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	1.9993	1.9870	1.9911	2.0756	.51038	.53633	
SDev	.0055	.0002	.0020	.0058	.00282	.00451	
%RSD	.27738	.01199	.10074	.27716	.55208	.84044	
#1	2.0032	1.9872	1.9925	2.0797	.51238	.53951	
#2	1.9954	1.9869	1.9897	2.0716	.50839	.53314	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			2.4000	2.4000	.60000	.60000	
Low			1.6000	1.6000	.40000	.40000	

Analysis Report

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18089	--	--	--	--	--	--
SDev	174.3018	--	--	--	--	--	--
%RSD	.9635578	--	--	--	--	--	--
#1	17966	--	--	--	--	--	--
#2	18213	--	--	--	--	--	--

6711181

Analysis Report

09/01/00 08:06:08 AM

page 1

Method: METTRA Sample Name: DJG82

Operator: RJG

Run Time: 09/01/00 08:02:03

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.10158	164.44	.10486	5.0415	.00618	434.07	.02293
SDev	.00036	1.21	.00032	.0340	.00003	1.45	.00012
%RSD	.35209	.73469	.29995	.67516	.55880	.33333	.53427
#1	.10133	163.58	.10464	5.0174	.00616	433.05	.02284
#2	.10184	165.29	.10509	5.0656	.00621	435.10	.02302
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.07342	1.4680	H10.920	305.18	28.227	4.7333	.02413
SDev	.00048	.0073	.082	2.18	.155	.0273	.00059
%RSD	.64776	.49454	.75237	.71304	.54809	.57742	2.4515
#1	.07308	1.4629	H10.862	303.64	28.118	4.7140	.02371
#2	.07375	1.4731	H10.978	306.72	28.337	4.7526	.02455
Errors	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.24052	14.650	14.080	H14.270	.29771	.30100	.29991
SDev	.00167	.077	.097	.090	.00085	.00017	.00017
%RSD	.69302	.52541	.68695	.63172	.28620	.05706	.05642
#1	.23934	14.596	14.011	H14.206	.29711	.30112	.29979
#2	.24169	14.705	14.148	H14.334	.29832	.30088	.30003
Errors	LC Pass	NOCHECK	NOCHECK	LC High	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	-.00482	.00415	.00116	.00572	.30020	H7.7314	
SDev	.00212	.00229	.00082	.00162	.00032	.0330	
%RSD	43.941	55.178	70.725	28.261	.10693	.42660	
#1	-.00333	.00253	.00058	.00686	.30043	H7.7081	
#2	-.00632	.00577	.00174	.00458	.29998	H7.7547	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC High	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18722	--	--	--	--	--	--
SDev	55.54379	--	--	--	--	--	--
%RSD	.2966706	--	--	--	--	--	--
#1	18762	--	--	--	--	--	--
#2	18683	--	--	--	--	--	--

6711183

Analysis Report

09/01/00 08:10:16 AM

page 1

Method: METTRA Sample Name: DJG82P5

Operator: RJG

Run Time: 09/01/00 08:06:11

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02098	33.171	.02258	1.0713	.00133	95.645	.00458
SDev	.00034	.017	.00049	.0004	.00005	.092	.00017
%RSD	1.6349	.05221	2.1548	.03523	3.4953	.09623	3.8228
#1	.02074	33.159	.02224	1.0711	.00137	95.710	.00445
#2	.02122	33.183	.02292	1.0716	.00130	95.580	.00470
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01510	.31192	2.1934	63.986	5.9097	.98193	.00598
SDev	.00014	.00031	.0006	.025	.0028	.00031	.00072
%RSD	.92979	.09829	.02929	.03928	.04743	.03200	11.965
#1	.01520	.31170	2.1938	64.003	5.9116	.98170	.00649
#2	.01501	.31214	2.1929	63.968	5.9077	.98215	.00547
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05147	3.0649	3.0227	3.0368	.06269	.06202	.06224
SDev	.00075	.0064	.0180	.0099	.00048	.00070	.00030
%RSD	1.4552	.21015	.59661	.32547	.76434	1.1223	.48957
#1	.05094	3.0604	3.0354	3.0437	.06303	.06153	.06203
#2	.05200	3.0695	3.0099	3.0298	.06235	.06251	.06246
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	-.00290	.00251	.00071	.00340	.06357	1.7979	
SDev	.00024	.00022	.00007	.00130	.00004	.0020	
%RSD	8.2228	8.9025	9.8314	38.342	.05802	.11396	
#1	-.00274	.00235	.00066	.00247	.06354	1.7993	
#2	-.00307	.00267	.00076	.00432	.06359	1.7964	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18901	--	--	--	--	--	--
SDev	20.93008	--	--	--	--	--	--
%RSD	.1107368	--	--	--	--	--	--
#1	18916	--	--	--	--	--	--
#2	18886	--	--	--	--	--	--

Method: METTRA Sample Name: DJG82S Operator: RJG
Run Time: 09/01/00 08:10:20
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.23274	182.73	2.0067	H14.603	.05309	377.92	.16097
SDev	.00003	.42	.0007	.020	.00014	1.21	.00025
%RSD	.01142	.23017	.03564	.13623	.25352	.31899	.15654
#1	.23275	182.44	2.0062	H14.589	.05318	378.77	.16079
#2	.23272	183.03	2.0072	H14.617	.05299	377.07	.16115
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.53795	2.0626	H13.714	325.77	30.310	6.2180	.03527
SDev	.00053	.0028	.025	.05	.002	.0042	.00033
%RSD	.09902	.13404	.17956	.01426	.00796	.06792	.94723
#1	.53832	2.0646	H13.697	325.74	30.312	6.2210	.03550
#2	.53757	2.0607	H13.732	325.80	30.309	6.2150	.03503
Errors	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.72215	14.490	13.970	H14.143	.29651	.29773	.29732
SDev	.00198	.004	.017	.010	.00084	.00210	.00112
%RSD	.27373	.02509	.11983	.07038	.28454	.70659	.37744
#1	.72355	14.493	13.958	H14.136	.29591	.29921	.29812
#2	.72076	14.488	13.982	H14.150	.29711	.29624	.29653
Errors	LC Pass	NOCHECK	NOCHECK	LC High	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	1.8601	1.8793	1.8729	2.0130	.77904	H23.979	
SDev	.0077	.0017	.0014	.0080	.00291	.162	
%RSD	.41495	.08970	.07720	.39640	.37291	.67688	
#1	1.8655	1.8781	1.8739	2.0074	.78110	H24.094	
#2	1.8546	1.8805	1.8719	2.0186	.77699	H23.864	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC High	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

Analysis Report

09/01/00 08:14:25 AM

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18640	--	--	--	--	--	--
SDev	55.96778	--	--	--	--	--	--
%RSD	.3002608	--	--	--	--	--	--
#1	18600	--	--	--	--	--	--
#2	18679	--	--	--	--	--	--

Method: METTRA Sample Name: DJG82D Operator: RJG
Run Time: 09/01/00 08:14:28
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.15629	231.13	2.0678	6.6193	.05324	403.15	.06331
SDev	.00011	.74	.0109	.0182	.00006	.76	.00039
%RSD	.07235	.32054	.52910	.27565	.10596	.18975	.62078
#1	.15637	230.61	2.0600	6.6064	.05328	403.69	.06303
#2	.15621	231.66	2.0755	6.6322	.05320	402.60	.06359
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.55870	1.6001	9.3104	267.39	30.970	5.6260	.02010
SDev	.00043	.0011	.0254	.44	.010	.0059	.00008
%RSD	.07716	.07061	.27238	.16322	.03330	.10546	.39606
#1	.55840	1.6009	9.2925	267.08	30.963	5.6218	.02004
#2	.55901	1.5993	9.3283	267.70	30.977	5.6302	.02015
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.71062	10.924	10.532	H10.663	.22460	.22518	.22498
SDev	.00021	.029	.018	.022	.00388	.00033	.00151
%RSD	.02893	.26219	.17196	.20274	1.7271	.14772	.67276
#1	.71076	10.904	10.519	H10.647	.22185	.22494	.22391
#2	.71047	10.944	10.545	H10.678	.22734	.22541	.22606
Errors	LC Pass	NOCHECK	NOCHECK	LC High	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	1.9029	1.9272	1.9191	2.0838	.85979	H7.6600	
SDev	.0134	.0059	.0006	.0043	.00281	.0010	
%RSD	.70539	.30441	.02901	.20531	.32699	.01348	
#1	1.8934	1.9314	1.9187	2.0808	.86177	H7.6607	
#2	1.9124	1.9231	1.9195	2.0869	.85780	H7.6593	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC High	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18544	--	--	--	--	--	--
SDev	4.668010	--	--	--	--	--	--
%RSD	.0251728	--	--	--	--	--	--
#1	18547	--	--	--	--	--	--
#2	18541	--	--	--	--	--	--

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Analysis Report

09/01/00 08:22:42 AM

page 1

Method: METTRA Sample Name: CCV3-1 0057-040-1 Operator: RJG
 Run Time: 09/01/00 08:18:37
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0249	24.034	.51444	1.9741	1.9932	50.063	.49479
SDev	.0008	.082	.00334	.0066	.0117	.240	.00176
%RSD	.07468	.34167	.65012	.33467	.58736	.48032	.35639
#1	1.0254	23.976	.51681	1.9694	2.0015	50.233	.49604
#2	1.0243	24.092	.51208	1.9788	1.9849	49.893	.49355
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9995	2.0017	1.9455	24.784	48.622	1.9662	1.9998
SDev	.0076	.0074	.0033	.057	.084	.0053	.0034
%RSD	.38227	.36797	.17186	.23104	.17295	.26785	.17227
#1	2.0049	2.0069	1.9431	24.824	48.681	1.9699	1.9974
#2	1.9941	1.9965	1.9479	24.743	48.562	1.9625	2.0022
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9978	.51602	.51544	.51563	.50985	.50997	.50993
SDev	.0129	.00122	.00248	.00206	.00613	.00371	.00451
%RSD	.64361	.23610	.48108	.39944	1.2012	.72753	.88525
#1	2.0069	.51688	.51719	.51709	.51418	.51259	.51312
#2	1.9888	.51516	.51368	.51417	.50552	.50735	.50674
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.51405	.51794	.51664	1.0547	1.9897	2.0300	
SDev	.00132	.00662	.00485	.0073	.0040	.0075	
%RSD	.25679	1.2772	.93911	.68853	.19857	.37018	
#1	.51498	.52262	.52008	1.0598	1.9925	2.0353	
#2	.51311	.51326	.51321	1.0495	1.9869	2.0247	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.55000	1.1000	2.2000	2.2000	
Low			.45000	.90000	1.8000	1.8000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18826	--	--	--	--	--	--
SDev	63.42831	--	--	--	--	--	--
%RSD	.3369196	--	--	--	--	--	--
#1	18781	--	--	--	--	--	--
#2	18871	--	--	--	--	--	--

Method: METTRA Sample Name: CCB1

Operator: RJG

Run Time: 09/01/00 08:22:46

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00073	.00176	.00126	.00085	.00071	.03158	-.00005
SDev	.00003	.00392	.00037	.00023	.00001	.00798	.00009
%RSD	4.1042	222.63	29.567	27.319	1.9248	25.268	167.83
#1	.00071	-.00101	.00100	.00068	.00072	.02594	-.00012
#2	.00075	.00453	.00153	.00101	.00070	.03723	.00001
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00081	.00090	.00086	.00782	.01511	.00075	.00587
SDev	.00011	.00017	.00025	.00604	.00249	.00020	.00153
%RSD	13.145	19.149	29.053	77.245	16.465	26.118	25.990
#1	.00088	.00078	.00069	.00355	.01335	.00061	.00695
#2	.00073	.00102	.00104	.01210	.01687	.00089	.00479
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00013	.00419	.00064	.00182	-.00138	-.00016	-.00057
SDev	.00056	.00221	.00081	.00020	.00046	.00086	.00073
%RSD	437.87	52.782	126.78	10.758	33.332	530.24	128.17
#1	.00052	.00263	.00121	.00168	-.00105	.00045	-.00005
#2	-.00027	.00576	.00007	.00196	-.00170	-.00077	-.00108
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	-.00038	-.00020	-.00026	.00328	.00000	.00192	
SDev	.00218	.00072	.00121	.00007	.00000	.00035	
%RSD	576.35	359.41	464.43	2.0316	77.245	18.348	
#1	-.00192	-.00071	-.00112	.00323	.00000	.00167	
#2	.00117	.00031	.00060	.00332	.00000	.00217	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	19142	--	--	--	--	--	--
SDev	112.8194	--	--	--	--	--	--
%RSD	.5893732	--	--	--	--	--	--
#1	19222	--	--	--	--	--	--
#2	19062	--	--	--	--	--	--

.6711193

Analysis Report

09/01/00 08:31:00 AM

page 1

Method: METTRA Sample Name: DJGQDB Operator: RJG
 Run Time: 09/01/00 08:26:54
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00046	.00335	.00124	.00041	-.00005	.02547	-.00019
SDev	.00001	.00407	.00028	.00004	.00003	.00041	.00017
%RSD	3.1183	121.62	22.392	8.6103	51.018	1.6261	91.624
#1	.00045	.00622	.00105	.00039	-.00003	.02517	-.00031
#2	.00047	.00047	.00144	.00044	-.00007	.02576	-.00007
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00019	-.00013	.00050	-.00050	.00308	.00048	.00166
SDev	.00022	.00007	.00021	.00333	.00026	.00000	.00120
%RSD	116.88	53.030	41.918	671.67	8.5172	.67088	72.511
#1	-.00034	-.00008	.00035	.00186	.00326	.00048	.00251
#2	-.00003	-.00017	.00064	-.00285	.00289	.00047	.00081
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00018	.00552	-.00102	.00116	-.00328	.00131	-.00021
SDev	.00180	.00110	.00089	.00096	.00240	.00236	.00078
%RSD	1025.2	19.850	87.548	82.551	73.189	179.75	362.93
#1	.00110	.00474	-.00164	.00048	-.00497	.00299	.00034
#2	-.00145	.00629	-.00039	.00184	-.00158	-.00036	-.00076
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	-.00677	.00201	-.00092	-.00325	-.00000	.00261	
SDev	.00160	.00047	.00022	.00048	.00000	.00008	
%RSD	23.696	23.618	23.811	14.869	671.67	3.0708	
#1	-.00790	.00234	-.00107	-.00291	.00000	.00267	
#2	-.00564	.00167	-.00076	-.00359	-.00000	.00256	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18528	--	--	--	--	--	--
SDev	80.99963	--	--	--	--	--	--
%RSD	.4371736	--	--	--	--	--	--
#1	18471	--	--	--	--	--	--
#2	18585	--	--	--	--	--	--

6711195

Analysis Report

09/01/00 08:35:09 AM

page 1

Method: METTRA Sample Name: DJGQDC

Operator: RJG

Run Time: 09/01/00 08:31:03

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05353	2.1200	2.0968	2.0273	.05111	51.790	.05076
SDev	.00142	.0602	.0378	.0461	.00038	.968	.00096
%RSD	2.6510	2.8409	1.8040	2.2740	.74818	1.8690	1.8861
#1	.05253	2.0774	2.0701	1.9947	.05084	51.106	.05008
#2	.05454	2.1625	2.1236	2.0599	.05138	52.475	.05144
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.06000	2.4000	2.4000	2.4000	.06000	60.000	.06000
Low	.04000	1.6000	1.6000	1.6000	.04000	40.000	.04000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.52044	.20878	.25262	.93847	49.866	.50822	1.0573
SDev	.01083	.00498	.00563	.02802	1.024	.01112	.0248
%RSD	2.0818	2.3838	2.2285	2.9853	2.0534	2.1882	2.3463
#1	.51278	.20526	.24863	.91866	49.142	.50036	1.0398
#2	.52810	.21230	.25660	.95828	50.590	.51609	1.0749
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.60000	.24000	.30000	1.2000	60.000	.60000	1.2000
Low	.40000	.16000	.20000	.80000	40.000	.40000	.80000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.52068	.54988	.52324	.53211	.51231	.52896	.52341
SDev	.00851	.00857	.01584	.01342	.01803	.00959	.01240
%RSD	1.6342	1.5586	3.0279	2.5223	3.5195	1.8126	2.3689
#1	.51466	.54382	.51204	.52262	.49956	.52218	.51465
#2	.52669	.55594	.53444	.54160	.52506	.53574	.53218
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.60000			.60000			.60000
Low	.40000			.40000			.40000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	2.0576	2.0470	2.0505	2.2405	.51646	.53923	
SDev	.0270	.0734	.0579	.0439	.00773	.01076	
%RSD	1.3112	3.5857	2.8257	1.9584	1.4971	1.9947	
#1	2.0385	1.9951	2.0096	2.2095	.51099	.53162	
#2	2.0767	2.0989	2.0915	2.2715	.52192	.54683	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			2.4000	2.4000	.60000	.60000	
Low			1.6000	1.6000	.40000	.40000	

Analysis Report

09/01/00 08:35:09 AM

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page 2

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18103	--	--	--	--	--	--
SDev	197.4596	--	--	--	--	--	--
%RSD	1.090761	--	--	--	--	--	--
#1	18243	--	--	--	--	--	--
#2	17963	--	--	--	--	--	--

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6711197

Analysis Report

09/01/00 08:39:18 AM

page 1

Method: METTRA Sample Name: DJ992

Operator: RJG

Run Time: 09/01/00 08:35:12

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00222	83.927	.06322	.80348	.01008	249.09	.00430
SDev	.00042	.085	.00067	.00109	.00010	.25	.00050
%RSD	18.680	.10093	1.0557	.13512	.95580	.10231	11.693
#1	.00193	83.867	.06370	.80425	.01015	248.91	.00395
#2	.00252	83.987	.06275	.80272	.01001	249.27	.00466
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10710	.76517	.38967	300.95	67.665	H18.209	.00967
SDev	.00026	.00072	.00026	.36	.031	.017	.00124
%RSD	.24460	.09452	.06696	.12069	.04613	.09498	12.870
#1	.10691	.76466	.38985	300.69	67.642	H18.196	.01055
#2	.10728	.76569	.38948	301.20	67.687	H18.221	.00879
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.29455	.22925	.23014	.22985	.00452	.00451	.00451
SDev	.00136	.00068	.00036	.00047	.00179	.00241	.00101
%RSD	.46187	.29863	.15518	.20283	39.716	53.530	22.438
#1	.29552	.22877	.22989	.22952	.00325	.00621	.00523
#2	.29359	.22974	.23039	.23018	.00579	.00280	.00380
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	-.00940	.01121	.00435	.01244	.30461	.76471	
SDev	.00231	.00279	.00263	.00087	.00233	.00022	
%RSD	24.542	24.920	60.505	6.9755	.76646	.02899	
#1	-.00777	.01319	.00621	.01305	.30626	.76487	
#2	-.01103	.00924	.00249	.01182	.30296	.76456	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18988	--	--	--	--	--	--
SDev	27.15318	--	--	--	--	--	--
%RSD	.1430021	--	--	--	--	--	--
#1	18969	--	--	--	--	--	--
#2	19007	--	--	--	--	--	--

6711199

Analysis Report

09/01/00 08:43:28 AM

page 1

Method: METTRA Sample Name: DJ994

Operator: RJG

Run Time: 09/01/00 08:39:22

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01588	97.081	.08783	1.0415	.01115	242.71	.01372
SDev	.00023	.590	.00043	.0041	.00012	.01	.00055
%RSD	1.4405	.60818	.49377	.38924	1.0385	.00316	3.9800
#1	.01604	96.664	.08752	1.0386	.01124	242.72	.01334
#2	.01572	97.499	.08813	1.0444	.01107	242.71	.01411
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.13070	1.3025	.58008	362.04	58.781	H23.371	.04122
SDev	.00083	.0019	.00240	1.30	.140	.052	.00116
%RSD	.63786	.14910	.41296	.35942	.23818	.22304	2.8219
#1	.13011	1.3011	.57839	361.12	58.682	H23.334	.04040
#2	.13129	1.3039	.58178	362.96	58.880	H23.408	.04205
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.31125	1.5913	1.5446	1.5602	.00632	.00772	.00725

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	19048	--	--	--	--	--	--
SDev	5.268774	--	--	--	--	--	--
%RSD	.0276609	--	--	--	--	--	--
#1	19051	--	--	--	--	--	--
#2	19044	--	--	--	--	--	--

6711201

Analysis Report

09/01/00 08:47:37 AM

page 1

Method: METTRA Sample Name: DJ995

Operator: RJG

Run Time: 09/01/00 08:43:31

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01233	106.79	.10088	2.0297	.01423	419.64	.01466
SDev	.00025	.01	.00259	.0013	.00018	2.82	.00026
%RSD	2.0181	.00675	2.5679	.06491	1.2329	.67233	1.7494
#1	.01251	106.78	.10272	2.0306	.01436	421.63	.01484
#2	.01215	106.79	.09905	2.0287	.01411	417.64	.01448
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.11422	.49573	.60066	378.43	66.827	H26.813	.01595
SDev	.00016	.00301	.00003	1.26	.159	.129	.00146
%RSD	.14391	.60636	.00567	.33416	.23765	.48275	9.1692
#1	.11433	.49785	.60068	379.33	66.939	H26.905	.01699
#2	.11410	.49360	.60063	377.54	66.715	H26.722	.01492
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.31398	3.1548	3.0535	3.0873	.00503	.00674	.00617
SDev	.00491	.0086	.0094	.0034	.00144	.00235	.00109
%RSD	1.5634	.27225	.30657	.10960	28.742	34.805	17.575
#1	.31745	3.1609	3.0469	3.0849	.00400	.00840	.00694
#2	.31051	3.1488	3.0602	3.0897	.00605	.00508	.00540
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	-.00657	.01337	.00673	.01965	.23339	1.7436	
SDev	.00261	.00237	.00071	.00302	.00316	.0075	
%RSD	39.776	17.750	10.587	15.350	1.3546	.42775	
#1	-.00472	.01169	.00622	.02179	.23563	1.7488	
#2	-.00842	.01505	.00723	.01752	.23116	1.7383	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	19142	--	--	--	--	--	--
SDev	106.1005	--	--	--	--	--	--
%RSD	.5542792	--	--	--	--	--	--
#1	19067	--	--	--	--	--	--
#2	19217	--	--	--	--	--	--

Method: METTRA Sample Name: DJ995P5 Operator: RJG
 Run Time: 09/01/00 08:47:41
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00251	20.977	.02232	.42314	.00306	92.202	.00273
SDev	.00016	.001	.00026	.00062	.00007	.124	.00006
%RSD	6.2621	.00595	1.1526	.14571	2.3048	.13432	2.3115

#1	.00240	20.978	.02250	.42358	.00311	92.114	.00277
#2	.00262	20.976	.02214	.42271	.00301	92.289	.00268

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02370	.10493	.11799	78.960	13.724	5.1906	.00356
SDev	.00023	.00046	.00011	.199	.024	.0089	.00003
%RSD	.98999	.43342	.09350	.25235	.17277	.17217	.76013

#1	.02387	.10461	.11807	78.819	13.708	5.1843	.00354
#2	.02354	.10525	.11792	79.101	13.741	5.1970	.00358

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06647	.65496	.64713	.64973	.00068	-.00009	.00017
SDev	.00123	.00183	.00244	.00224	.00225	.00039	.00049
%RSD	1.8508	.27917	.37728	.34435	328.80	452.82	287.31

#1	.06560	.65366	.64540	.64815	.00227	-.00036	.00052
#2	.06734	.65625	.64885	.65132	-.00091	.00019	-.00018

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00002	.00381	.00254	.00360	.04721	.37013
SDev	.00156	.00224	.00097	.00176	.00016	.00053
%RSD	9661.7	58.733	38.345	48.799	.33230	.14404

#1	-.00112	.00540	.00323	.00236	.04710	.36976
#2	.00109	.00223	.00185	.00484	.04732	.37051

Analysis Report

09/01/00 08:51:46 AM

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	19089	--	--	--	--	--	--
SDev	84.85281	--	--	--	--	--	--
%RSD	.4445081	--	--	--	--	--	--
#1	19149	--	--	--	--	--	--
#2	19029	--	--	--	--	--	--

Method: METTRA Sample Name: DJ995S Operator: RJG
 Run Time: 09/01/00 08:51:50
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06203	155.86	1.9706	4.3551	.06373	447.66	.05970
SDev	.00007	2.05	.0222	.0657	.00064	3.76	.00049
%RSD	.11171	1.3124	1.1241	1.5079	1.0019	.84053	.82308
#1	.06208	157.30	1.9863	4.4016	.06418	450.32	.06005
#2	.06198	154.41	1.9550	4.3087	.06328	445.00	.05936
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.59407	.64296	.76530	360.71	130.33	H26.108	.91683
SDev	.00575	.00548	.01161	3.41	1.46	.245	.00693
%RSD	.96862	.85211	1.5172	.94561	1.1230	.93849	.75607
#1	.59814	.64684	.77351	363.12	131.36	H26.281	.92173
#2	.59000	.63909	.75709	358.30	129.29	H25.935	.91193
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.77256	4.9695	4.7838	4.8457	.26851	.27107	.27022
SDev	.00631	.0330	.0231	.0264	.00259	.00417	.00364
%RSD	.81629	.66347	.48249	.54430	.96341	1.5383	1.3481
#1	.77702	4.9929	4.8001	4.8643	.27034	.27402	.27279
#2	.76810	4.9462	4.7675	4.8270	.26668	.26812	.26764
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	1.7988	1.8421	1.8277	1.9904	.72051	2.9749	
SDev	.0076	.0115	.0102	.0166	.01016	.0257	
%RSD	.42436	.62664	.56035	.83581	1.4103	.86453	
#1	1.8042	1.8502	1.8349	2.0021	.72769	2.9931	
#2	1.7934	1.8339	1.8204	1.9786	.71332	2.9568	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	19228	--	--	--	--	--	--
SDev	156.9073	--	--	--	--	--	--
%RSD	.8160162	--	--	--	--	--	--
#1	19118	--	--	--	--	--	--
#2	19339	--	--	--	--	--	--

6711207

Analysis Report

09/01/00 09:00:05 AM

page 1

Method: METTRA Sample Name: DJ995D Operator: RJG
 Run Time: 09/01/00 08:55:59
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06108	161.22	1.9251	4.1440	.06328	464.74	.05900
SDev	.00013	1.51	.0249	.0404	.00096	6.30	.00028
%RSD	.20856	.93389	1.2958	.97377	1.5117	1.3548	.46629
#1	.06099	162.28	1.9427	4.1725	.06396	469.19	.05920
#2	.06117	160.15	1.9075	4.1155	.06261	460.29	.05881
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.55986	.74421	.74188	436.41	135.78	H24.496	.88163
SDev	.00619	.00875	.00733	5.07	1.51	.308	.00887
%RSD	1.1062	1.1760	.98749	1.1624	1.1115	1.2577	1.0059
#1	.56424	.75040	.74706	440.00	136.85	H24.714	.88790
#2	.55548	.73802	.73670	432.82	134.71	H24.278	.87536
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.75575	4.0295	3.8748	3.9263	.24646	.25009	.24888
SDev	.00808	.0403	.0367	.0379	.00159	.00546	.00311
%RSD	1.0689	1.0004	.94617	.96471	.64664	2.1838	1.2505
#1	.76146	4.0580	3.9007	3.9531	.24533	.25395	.25108
#2	.75003	4.0010	3.8489	3.8995	.24758	.24623	.24668
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	1.7560	1.7867	1.7765	1.9370	.77029	3.2971	
SDev	.0181	.0122	.0142	.0242	.01158	.0427	
%RSD	1.0328	.68260	.79787	1.2479	1.5029	1.2963	
#1	1.7688	1.7954	1.7865	1.9541	.77847	3.3273	
#2	1.7432	1.7781	1.7665	1.9199	.76210	3.2669	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	19405	--	--	--	--	--	--
SDev	185.3324	--	--	--	--	--	--
%RSD	.9550952	--	--	--	--	--	--
#1	19274	--	--	--	--	--	--
#2	19536	--	--	--	--	--	--

6711209

Analysis Report

09/01/00 09:04:14 AM

page 1

Method: METTRA Sample Name: DJ99D

Operator: RJG

Run Time: 09/01/00 09:00:08

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00828	72.690	.07492	1.2773	.01037	192.60	.01532
SDev	.00000	.042	.00102	.0003	.00010	.42	.00004
%RSD	.04387	.05759	1.3620	.02199	.92977	.21796	.23281
#1	.00827	72.660	.07419	1.2772	.01030	192.89	.01529
#2	.00828	72.719	.07564	1.2775	.01044	192.30	.01534
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.11639	.34881	.78084	214.66	31.068	H10.513	.01596
SDev	.00068	.00076	.00020	.17	.008	.007	.00167
%RSD	.58396	.21727	.02559	.08058	.02692	.06813	10.452
#1	.11591	.34935	.78070	214.78	31.074	H10.518	.01714
#2	.11687	.34827	.78098	214.53	31.062	H10.508	.01478
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.25855	1.5225	1.4776	1.4925	.00429	.00493	.00471
SDev	.00017	.0007	.0048	.0030	.00287	.00036	.00120
%RSD	.06782	.04879	.32540	.19829	67.012	7.3575	25.439
#1	.25867	1.5219	1.4810	1.4946	.00632	.00518	.00556
#2	.25842	1.5230	1.4742	1.4905	.00226	.00467	.00387
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	-.00072	.01289	.00836	.00802	.19017	2.8766	
SDev	.00408	.00018	.00124	.00022	.00012	.0054	
%RSD	567.44	1.3900	14.831	2.7346	.06248	.18639	
#1	.00217	.01276	.00924	.00817	.19008	2.8804	
#2	-.00361	.01302	.00748	.00786	.19025	2.8728	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	19548	--	--	--	--	--	--
SDev	59.25472	--	--	--	--	--	--
%RSD	.3031211	--	--	--	--	--	--
#1	19506	--	--	--	--	--	--
#2	19590	--	--	--	--	--	--

6711211

Analysis Report

09/01/00 09:08:23 AM

page 1

Method: METTRA Sample Name: DJ99K

Operator: RJG

Run Time: 09/01/00 09:04:17

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00726	63.602	.07044	1.1630	.00907	163.20	.01499
SDev	.00014	.011	.00295	.0013	.00013	.58	.00007
%RSD	1.9026	.01672	4.1833	.11286	1.4406	.35264	.46759
#1	.00736	63.609	.06836	1.1639	.00898	163.61	.01504
#2	.00716	63.594	.07253	1.1620	.00916	162.79	.01494
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.12176	.31313	.81960	188.50	26.514	H10.110	.01744
SDev	.00089	.00147	.00182	.49	.099	.033	.00073
%RSD	.73143	.46808	.22194	.26038	.37153	.32943	4.1833
#1	.12239	.31416	.82088	188.85	26.584	H10.133	.01796
#2	.12113	.31209	.81831	188.16	26.445	H10.086	.01693
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.26121	1.4252	1.3840	1.3977	.00508	.00523	.00518
SDev	.00130	.0097	.0166	.0143	.00082	.00194	.00102
%RSD	.49727	.68389	1.2009	1.0253	16.156	36.989	19.650
#1	.26213	1.4321	1.3957	1.4079	.00566	.00387	.00446
#2	.26029	1.4184	1.3722	1.3876	.00450	.00660	.00590
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00078	.01306	.00897	.00779	.17102	2.9879	
SDev	.00196	.00168	.00177	.00374	.00045	.0135	
%RSD	250.05	12.879	19.761	48.076	.26104	.45345	
#1	-.00060	.01187	.00772	.00514	.17070	2.9974	
#2	.00216	.01425	.01022	.01043	.17133	2.9783	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

Analysis Report

09/01/00 09:08:23 AM

6711212

page 2

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	19118	--	--	--	--	--	--
SDev	149.5890	--	--	--	--	--	--
%RSD	.7824603	--	--	--	--	--	--
#1	19012	--	--	--	--	--	--
#2	19224	--	--	--	--	--	--

6711213

Analysis Report

09/01/00 09:12:32 AM

page 1

Method: METTRA Sample Name: CCV3-2

Operator: RJG

Run Time: 09/01/00 09:08:26

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0268	24.064	.51630	1.9803	2.0135	50.612	.49993
SDev	.0023	.008	.00496	.0032	.0116	.360	.00265
%RSD	.22804	.03191	.95990	.16344	.57368	.71098	.53025
#1	1.0285	24.070	.51980	1.9780	2.0217	50.866	.50181
#2	1.0252	24.059	.51280	1.9826	2.0054	50.358	.49806
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0176	2.0203	1.9402	24.922	48.891	1.9712	2.0170
SDev	.0115	.0115	.0018	.071	.125	.0072	.0054
%RSD	.56847	.56764	.09384	.28302	.25560	.36632	.26659
#1	2.0258	2.0284	1.9390	24.971	48.980	1.9763	2.0132
#2	2.0095	2.0122	1.9415	24.872	48.803	1.9661	2.0208
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0148	.51863	.51570	.51668	.51519	.51231	.51327
SDev	.0131	.00077	.00432	.00313	.00265	.00042	.00060
%RSD	.64990	.14765	.83667	.60635	.51381	.08251	.11682
#1	2.0241	.51917	.51875	.51889	.51706	.51201	.51369
#2	2.0056	.51809	.51265	.51446	.51332	.51261	.51285
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.51433	.52156	.51915	1.0640	2.0076	2.0443	
SDev	.00387	.00329	.00348	.0047	.0101	.0088	
%RSD	.75264	.63084	.67102	.44231	.50498	.43279	
#1	.51706	.52389	.52162	1.0606	2.0147	2.0505	
#2	.51159	.51924	.51669	1.0673	2.0004	2.0380	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.55000	1.1000	2.2000	2.2000	
Low			.45000	.90000	1.8000	1.8000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18887	--	--	--	--	--	--
SDev	31.81980	--	--	--	--	--	--
%RSD	.1684715	--	--	--	--	--	--
#1	18865	--	--	--	--	--	--
#2	18910	--	--	--	--	--	--

Method: METTRA Sample Name: CCB2

Operator: RJG

Run Time: 09/01/00 09:12:35

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00068	.00191	.00044	.00067	.00051	.02730	.00007
SDev	.00010	.00995	.00111	.00023	.00006	.00798	.00008
%RSD	14.094	521.45	252.52	34.075	11.549	29.240	117.95
#1	.00061	-.00513	.00123	.00051	.00056	.02166	.00001
#2	.00075	.00895	-.00035	.00083	.00047	.03295	.00012
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00073	.00062	.00057	.00550	.01675	.00133	.00609
SDev	.00011	.00057	.00044	.01496	.00478	.00033	.00140
%RSD	15.471	90.775	77.177	272.25	28.552	25.027	22.953
#1	.00081	.00022	.00026	-.00508	.01337	.00109	.00708
#2	.00065	.00103	.00088	.01608	.02013	.00157	.00510
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00098	.00428	-.00029	.00123	-.00035	.00006	-.00007
SDev	.00064	.00063	.00046	.00051	.00228	.00177	.00194
%RSD	65.696	14.667	157.14	41.762	658.62	2881.2	2618.1
#1	.00052	.00384	-.00061	.00087	.00127	.00132	.00130
#2	.00143	.00472	.00003	.00159	-.00196	-.00119	-.00145
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00155	-.00045	.00022	.00077	.00398	.00126	
SDev	.00022	.00106	.00063	.00118	.00060	.00037	
%RSD	14.043	236.66	288.04	152.95	15.169	29.562	
#1	.00171	-.00119	-.00023	.00161	.00356	.00100	
#2	.00140	.00030	.00067	-.00006	.00441	.00153	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18972	--	--	--	--	--	--
SDev	260.4970	--	--	--	--	--	--
%RSD	1.373068	--	--	--	--	--	--
#1	19156	--	--	--	--	--	--
#2	18788	--	--	--	--	--	--

Method: METTRA Sample Name: DJA36 Operator: RJG
Run Time: 09/01/00 09:16:44
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01081	67.850	.13689	2.3084	.00953	49.084	.05795
SDev	.00005	.174	.00170	.0028	.00008	.109	.00004
%RSD	.47260	.25674	1.2407	.12265	.86036	.22291	.06301
#1	.01078	67.727	.13569	2.3064	.00958	49.161	.05793
#2	.01085	67.974	.13809	2.3104	.00947	49.006	.05798
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.11352	.36980	.77070	294.81	16.710	H12.615	.01378
SDev	.00035	.00010	.00125	.17	.000	.006	.00016
%RSD	.31037	.02679	.16220	.05832	.00291	.05062	1.1916
#1	.11377	.36973	.76981	294.69	16.710	H12.620	.01390
#2	.11327	.36987	.77158	294.93	16.710	H12.611	.01366
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.25636	2.4454	2.3856	2.4055	.00521	.00767	.00685
SDev	.00137	.0024	.0015	.0018	.00059	.00079	.00072
%RSD	.53405	.09870	.06310	.07515	11.298	10.324	10.571
#1	.25733	2.4436	2.3846	2.4042	.00563	.00823	.00736
#2	.25539	2.4471	2.3867	2.4068	.00480	.00711	.00634
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00145	.01432	.01004	.01050	.20833	2.5910	
SDev	.00148	.00050	.00016	.00466	.00041	.0026	
%RSD	101.45	3.4830	1.5819	44.350	.19774	.10140	
#1	.00041	.01467	.00992	.00720	.20803	2.5929	
#2	.00250	.01397	.01015	.01379	.20862	2.5892	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	19846	--	--	--	--	--	--
SDev	31.74937	--	--	--	--	--	--
%RSD	.1599803	--	--	--	--	--	--
#1	19823	--	--	--	--	--	--
#2	19868	--	--	--	--	--	--

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Analysis Report

09/01/00 09:24:58 AM

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Method: METTRA Sample Name: DJA3H

Operator: RJG

Run Time: 09/01/00 09:20:53

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02711	80.290	.10499	1.6756	.01046	126.76	.02377
SDev	.00009	.451	.00003	.0121	.00004	.93	.00002
%RSD	.34083	.56132	.02610	.72390	.40555	.73576	.08040
#1	.02704	80.609	.10497	1.6842	.01049	127.42	.02376
#2	.02717	79.971	.10501	1.6671	.01043	126.10	.02379
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.11577	.39232	.69869	285.79	31.596	H12.964	.01387
SDev	.00074	.00299	.00476	1.59	.208	.076	.00032
%RSD	.64115	.76144	.68079	.55774	.65723	.58524	2.2670
#1	.11629	.39443	.70206	286.92	31.743	H13.017	.01410
#2	.11524	.39021	.69533	284.66	31.449	H12.910	.01365
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.28010	2.8181	2.7456	2.7698	.00639	.00613	.00622
SDev	.00331	.0064	.0148	.0120	.00252	.00013	.00092
%RSD	1.1827	.22799	.53727	.43249	39.425	2.0817	14.873
#1	.28244	2.8226	2.7561	2.7782	.00818	.00622	.00687
#2	.27776	2.8135	2.7352	2.7613	.00461	.00604	.00556
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	-.00243	.01597	.00984	.00830	.23045	2.3748	
SDev	.00337	.00012	.00120	.00103	.00135	.0180	
%RSD	138.91	.76189	12.240	12.419	.58396	.75827	
#1	-.00482	.01589	.00899	.00903	.23140	2.3876	
#2	-.00004	.01606	.01070	.00757	.22949	2.3621	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

Analysis Report

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	19083	--	--	--	--	--	--
SDev	115.2584	--	--	--	--	--	--
%RSD	.6039815	--	--	--	--	--	--
#1	19002	--	--	--	--	--	--
#2	19165	--	--	--	--	--	--

Method: METTRA Sample Name: DJA3K

Operator: RJG

Run Time: 09/01/00 09:25:02

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00541	90.709	.09867	1.4550	.01008	146.26	.01412
SDev	.00024	.263	.00057	.0024	.00013	.54	.00002
%RSD	4.4573	.28961	.58101	.16235	1.2542	.37207	.17127
#1	.00524	90.523	.09907	1.4533	.01017	146.64	.01413
#2	.00558	90.894	.09826	1.4567	.00999	145.87	.01410
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.10748	.80500	.33825	304.38	39.443	H43.271	.03210
SDev	.00020	.00044	.00038	.25	.079	.017	.00161
%RSD	.18423	.05464	.11217	.08244	.20134	.03835	5.0138
#1	.10762	.80469	.33799	304.20	39.499	H43.259	.03324
#2	.10734	.80531	.33852	304.56	39.387	H43.283	.03096
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.39209	2.7548	2.6469	2.6829	.00472	.00553	.00526
SDev	.00132	.0084	.0329	.0191	.00278	.00196	.00038
%RSD	.33737	.30514	1.2428	.71354	58.850	35.400	7.2598
#1	.39303	2.7608	2.6237	2.6693	.00275	.00692	.00553
#2	.39116	2.7489	2.6702	2.6964	.00668	.00415	.00499
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V__	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	-.00464	.01694	.00975	.05040	.56930	2.1135	
SDev	.00104	.00128	.00120	.00160	.00458	.0061	
%RSD	22.298	7.5472	12.280	3.1788	.80402	.28704	
#1	-.00391	.01784	.01060	.05154	.57254	2.1178	
#2	-.00538	.01603	.00891	.04927	.56606	2.1092	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	19563	--	--	--	--	--	--
SDev	78.10077	--	--	--	--	--	--
%RSD	.3992326	--	--	--	--	--	--
#1	19508	--	--	--	--	--	--
#2	19618	--	--	--	--	--	--

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Analysis Report

09/01/00 09:33:16 AM

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Method: METTRA Sample Name: DJA3N

Operator: RJG

Run Time: 09/01/00 09:29:11

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00451	171.91	.08046	1.7180	.02554	H822.64	.00511
SDev	.00001	.50	.00011	.0036	.00011	.25	.00053
%RSD	.14883	.29114	.13266	.20756	.42780	.03019	10.369
#1	.00451	171.56	.08038	1.7154	.02547	H822.46	.00473
#2	.00450	172.27	.08053	1.7205	.02562	H822.81	.00548
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04467	.55288	.22288	283.67	123.92	H36.976	.02665
SDev	.00007	.00095	.00039	.72	.08	.095	.00061
%RSD	.15809	.17259	.17310	.25529	.06303	.25660	2.2853
#1	.04472	.55221	.22261	283.16	123.87	H36.909	.02709
#2	.04462	.55356	.22315	284.18	123.98	H37.043	.02622
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.13807	.35950	.35230	.35470	.01230	.00466	.00720
SDev	.00071	.00223	.00093	.00013	.00253	.00147	.00182
%RSD	.51620	.62126	.26323	.03529	20.560	31.499	25.279
#1	.13858	.36108	.35164	.35478	.01409	.00570	.00849
#2	.13757	.35792	.35295	.35461	.01051	.00362	.00591
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	-.00575	.01353	.00711	.04540	.59177	.71214	
SDev	.00118	.00313	.00170	.00566	.00104	.00005	
%RSD	20.505	23.146	23.857	12.474	.17512	.00693	
#1	-.00659	.01574	.00831	.04140	.59104	.71210	
#2	-.00492	.01132	.00591	.04941	.59250	.71217	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	19525	--	--	--	--	--	--
SDev	31.85433	--	--	--	--	--	--
%RSD	.1631499	--	--	--	--	--	--
#1	19502	--	--	--	--	--	--
#2	19547	--	--	--	--	--	--

Method: METTRA Sample Name: DJ992/2 Mn Operator: RJG
 Run Time: 09/01/00 09:35:19
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00131	41.725	.03410	.41069	.00561	132.87	.00092
SDev	.00079	.064	.00005	.00025	.00067	3.23	.00185
%RSD	60.112	.15266	.13606	.06142	11.895	2.4279	200.76
#1	.00075	41.680	.03407	.41086	.00608	135.15	-.00039
#2	.00187	41.770	.03413	.41051	.00514	130.59	.00223
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05614	.39823	.19296	154.91	34.773	9.0550	.00290
SDev	.00042	.00155	.00020	.25	.363	.0399	.00093
%RSD	.75363	.38996	.10395	.16004	1.0426	.44080	32.143
#1	.05644	.39933	.19282	155.09	35.029	9.0833	.00224
#2	.05584	.39713	.19310	154.74	34.517	9.0268	.00356
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.15627	.12431	.11990	.12137	.00144	.00158	.00153
SDev	.00532	.00210	.00492	.00259	.00447	.00068	.00103
%RSD	3.4076	1.6915	4.1075	2.1295	311.08	43.230	67.640
#1	.16003	.12283	.12338	.12319	.00460	.00109	.00226
#2	.15250	.12580	.11641	.11954	-.00172	.00206	.00080
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00374	.00580	.00263	.00486	.15794	.39913
SDev	.00087	.00267	.00207	.00571	.00390	.00762
%RSD	23.369	45.962	78.818	117.39	2.4659	1.9090
#1	-.00312	.00769	.00409	.00890	.16069	.40452
#2	-.00435	.00392	.00116	.00083	.15518	.39374
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High			10.000	10.000	50.000	5.0000
Low			-.00500	-.01000	-.05000	-.02000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	19109	--	--	--	--	--	--
SDev	4.384891	--	--	--	--	--	--
%RSD	.0229471	--	--	--	--	--	--
#1	19106	--	--	--	--	--	--
#2	19112	--	--	--	--	--	--

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Analysis Report

09/01/00 09:43:34 AM

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Method: METTRA Sample Name: DJ994/5 Mn Operator: RJG
 Run Time: 09/01/00 09:39:29
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00336	18.817	.01845	.21394	.00240	51.951	.00288
SDev	.00049	.016	.00104	.00011	.00011	.450	.00008
%RSD	14.641	.08429	5.6194	.05289	4.7130	.86661	2.7465
#1	.00371	18.828	.01918	.21386	.00232	52.269	.00283
#2	.00301	18.805	.01772	.21402	.00248	51.632	.00294
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02729	.27444	.11307	74.960	11.948	4.5361	.00777
SDev	.00030	.00275	.00001	.384	.064	.0251	.00014
%RSD	1.1138	1.0009	.01036	.51292	.53638	.55394	1.8219
#1	.02750	.27638	.11307	75.231	11.994	4.5539	.00787
#2	.02707	.27249	.11306	74.688	11.903	4.5184	.00767
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06595	.32739	.32140	.32339	.00327	-.00004	.00106
SDev	.00082	.00351	.00226	.00267	.00135	.00004	.00042
%RSD	1.2461	1.0711	.70265	.82687	41.337	96.813	39.859
#1	.06653	.32987	.32300	.32528	.00231	-.00001	.00076
#2	.06537	.32491	.31980	.32150	.00422	-.00007	.00136
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00038	.00324	.00229	.00110	.09641	.55260	
SDev	.00031	.00141	.00084	.00231	.00043	.00551	
%RSD	80.497	43.478	36.541	208.91	.44609	.99792	
#1	.00017	.00424	.00288	.00274	.09672	.55650	
#2	.00060	.00224	.00170	-.00053	.09611	.54870	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

Analysis Report

09/01/00 09:43:34 AM

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	19100	--	--	--	--	--	--
SDev	129.4710	--	--	--	--	--	--
%RSD	.6778426	--	--	--	--	--	--
#1	19009	--	--	--	--	--	--
#2	19192	--	--	--	--	--	--

Method: METTRA Sample Name: DJ995/5 Mn Operator: RJG
 Run Time: 09/01/00 09:43:38
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00252	20.928	.02223	.42427	.00305	92.578	.00305
SDev	.00024	.054	.00124	.00022	.00008	.009	.00015
%RSD	9.6157	.25636	5.5785	.05139	2.5884	.00977	4.8201
#1	.00235	20.890	.02136	.42442	.00311	92.584	.00294
#2	.00269	20.966	.02311	.42411	.00299	92.572	.00315
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02319	.10528	.11774	79.088	13.742	5.1992	.00290
SDev	.00034	.00050	.00003	.067	.010	.0065	.00005
%RSD	1.4442	.47737	.02755	.08434	.07433	.12429	1.5827
#1	.02295	.10492	.11772	79.041	13.735	5.1946	.00293
#2	.02343	.10563	.11777	79.136	13.750	5.2038	.00287
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06659	.65756	.64554	.64954	.00017	.00040	.00032
SDev	.00055	.00290	.00433	.00385	.00009	.00001	.00002
%RSD	.83150	.44089	.67046	.59307	52.055	2.4497	7.1689
#1	.06698	.65551	.64248	.64682	.00023	.00039	.00034
#2	.06619	.65961	.64860	.65227	.00011	.00041	.00031
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00004	.00146	.00099	.00288	.04980	.37038	
SDev	.00134	.00057	.00007	.00186	.00023	.00017	
%RSD	3069.6	38.950	6.7040	64.374	.46528	.04666	
#1	-.00090	.00187	.00094	.00157	.04997	.37026	
#2	.00099	.00106	.00104	.00420	.04964	.37050	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	19094.11	--	--	--	--	--	--
SDev	90.93366	--	--	--	--	--	--
%RSD	.4762420	--	--	--	--	--	--
#1	19158	--	--	--	--	--	--
#2	19030	--	--	--	--	--	--

Method: METTRA Sample Name: DJ995P25 Mn Operator: RJG
 Run Time: 09/01/00 09:47:47
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00063	3.9999	.00511	.08543	.00074	18.724	.00059
SDev	.00003	.0622	.00056	.00110	.00028	.163	.00016
%RSD	4.0179	1.5555	10.894	1.2873	38.209	.87247	27.039

#1	.00065	3.9559	.00472	.08465	.00094	18.608	.00048
#2	.00062	4.0439	.00551	.08621	.00054	18.839	.00070

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00496	.02133	.02308	15.860	2.7154	1.0376	.00010
SDev	.00001	.00053	.00019	.234	.0310	.0115	.00054
%RSD	.28466	2.5066	.80671	1.4743	1.1400	1.1062	534.86

#1	.00495	.02095	.02295	15.695	2.6935	1.0295	.00049
#2	.00497	.02171	.02321	16.025	2.7373	1.0458	-.00028

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01296	.13343	.12743	.12943	-.00165	-.00123	-.00137
SDev	.00116	.00208	.00311	.00277	.00106	.00040	.00008
%RSD	8.9442	1.5561	2.4417	2.1377	64.179	32.782	6.1707

#1	.01378	.13197	.12523	.12747	-.00240	-.00094	-.00143
#2	.01214	.13490	.12963	.13139	-.00090	-.00151	-.00131

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00063	.00052	.00014	.00145	.00872	.07477
SDev	.00100	.00072	.00014	.00587	.00006	.00111
%RSD	159.42	138.39	105.84	404.18	.72206	1.4870

#1	.00008	.00001	.00003	-.00270	.00876	.07398
#2	-.00134	.00102	.00024	.00560	.00867	.07555

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	19130	--	--	--	--	--	--
SDev	212.9096	--	--	--	--	--	--
%RSD	1.112965	--	--	--	--	--	--
#1	19280	--	--	--	--	--	--
#2	18979	--	--	--	--	--	--

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Analysis Report

09/01/00 09:56:03 AM

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Method: METTRA Sample Name: DJ995S/5 Mn Operator: RJG
 Run Time: 09/01/00 09:51:57
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01301	31.309	.41966	.93328	.01359	101.30	.01306
SDev	.00034	.166	.00189	.00427	.00006	.40	.00022
%RSD	2.5876	.53109	.44950	.45788	.42895	.39572	1.6962
#1	.01325	31.191	.41832	.93026	.01363	101.01	.01290
#2	.01277	31.426	.42099	.93630	.01355	101.58	.01322
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.12927	.13964	.15278	76.691	27.215	5.1696	.19639
SDev	.00073	.00084	.00052	.478	.137	.0284	.00330
%RSD	.56754	.60283	.34206	.62307	.50349	.55032	1.6789
#1	.12875	.13905	.15241	76.353	27.118	5.1495	.19406
#2	.12979	.14024	.15315	77.028	27.312	5.1897	.19872
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.16921	1.0514	1.0261	1.0345	.05350	.05611	.05524
SDev	.00090	.0022	.0050	.0041	.00083	.00097	.00092
%RSD	.53120	.21300	.48886	.39550	1.5507	1.7315	1.6732
#1	.16984	1.0498	1.0226	1.0316	.05292	.05543	.05459
#2	.16857	1.0529	1.0297	1.0374	.05409	.05680	.05590
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.38963	.39566	.39365	.40846	.15434	.65274	
SDev	.00272	.00024	.00075	.00296	.00072	.00318	
%RSD	.69767	.05996	.18975	.72500	.46524	.48725	
#1	.38771	.39583	.39313	.40637	.15384	.65050	
#2	.39155	.39550	.39418	.41056	.15485	.65499	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

Analysis Report

09/01/00 09:56:03 AM

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	19068	--	--	--	--	--	--
SDev	109.3902	--	--	--	--	--	--
%RSD	.5736744	--	--	--	--	--	--
#1	19146	--	--	--	--	--	--
#2	18991	--	--	--	--	--	--

Method: METTRA Sample Name: DJ995D/5 Mn Operator: RJG
 Run Time: 09/01/00 09:56:06
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01266	31.860	.40423	.87797	.01359	104.71	.01275
SDev	.00028	.003	.00061	.00006	.00015	.21	.00025
%RSD	2.2421	.00813	.15062	.00669	1.0819	.19580	1.9440
#1	.01246	31.858	.40380	.87793	.01370	104.85	.01293
#2	.01286	31.862	.40466	.87802	.01349	104.56	.01257
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.12137	.16012	.14607	91.978	28.089	4.8344	.18769
SDev	.00047	.00028	.00011	.053	.008	.0027	.00057
%RSD	.39029	.17338	.07172	.05731	.02973	.05608	.30465
#1	.12171	.16031	.14599	92.015	28.095	4.8363	.18729
#2	.12104	.15992	.14614	91.941	28.083	4.8325	.18810
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.16336	.84768	.82842	.83483	.05234	.05072	.05126
SDev	.00037	.00515	.00113	.00247	.00141	.00301	.00154
%RSD	.22534	.60777	.13643	.29580	2.7018	5.9350	2.9984
#1	.16310	.84403	.82762	.83309	.05334	.04859	.05017
#2	.16362	.85132	.82922	.83658	.05134	.05285	.05235
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.37854	.38111	.38026	.39409	.16163	.71976	
SDev	.00280	.00214	.00050	.00052	.00032	.00001	
%RSD	.73939	.56163	.13035	.13116	.19949	.00067	
#1	.37656	.38263	.38061	.39446	.16140	.71977	
#2	.38052	.37960	.37991	.39373	.16186	.71976	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	19251	--	--	--	--	--	--
SDev	50.66448	--	--	--	--	--	--
%RSD	.2631774	--	--	--	--	--	--
#1	19287	--	--	--	--	--	--
#2	19215	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-3 Operator: RJG
Run Time: 09/01/00 10:00:15
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0098	23.659	.50973	1.9593	1.9932	49.990	.49464
SDev	.0048	.217	.00046	.0171	.0054	.071	.00032
%RSD	.47143	.91717	.08956	.87134	.27287	.14134	.06564
#1	1.0065	23.505	.51005	1.9472	1.9893	49.940	.49441
#2	1.0132	23.812	.50941	1.9713	1.9970	50.040	.49487
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9950	1.9967	1.9075	24.598	48.236	1.9471	1.9919
SDev	.0058	.0062	.0168	.174	.206	.0103	.0189
%RSD	.28981	.31244	.88200	.70802	.42679	.53148	.95103
#1	1.9909	1.9923	1.8956	24.475	48.090	1.9398	1.9785
#2	1.9991	2.0011	1.9194	24.721	48.381	1.9544	2.0053
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9842	.51330	.50490	.50770	.50547	.50631	.50603
SDev	.0012	.00266	.00335	.00135	.00825	.00221	.00422
%RSD	.06072	.51767	.66352	.26584	1.6313	.43661	.83400
#1	1.9851	.51518	.50253	.50675	.49964	.50474	.50304
#2	1.9834	.51143	.50727	.50866	.51130	.50787	.50901
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.51075	.51286	.51216	1.0428	1.9834	2.0140	
SDev	.00066	.00522	.00370	.0042	.0061	.0075	
%RSD	.12990	1.0180	.72307	.40573	.30960	.37261	
#1	.51028	.50917	.50954	1.0398	1.9791	2.0087	
#2	.51122	.51656	.51478	1.0458	1.9878	2.0193	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.55000	1.1000	2.2000	2.2000	
Low			.45000	.90000	1.8000	1.8000	

Analysis Report

09/01/00 10:04:21 AM

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	19051	--	--	--	--	--	--
SDev	81.31728	--	--	--	--	--	--
%RSD	.4268478	--	--	--	--	--	--
#1	19108	--	--	--	--	--	--
#2	18993	--	--	--	--	--	--

Method: METTRA Sample Name: CCB3

Operator: RJG

Run Time: 09/01/00 10:04:25

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00039	-.00006	.00208	.00065	.00063	.04944	.00005
SDev	.00027	.00003	.00036	.00018	.00011	.00904	.00004
%RSD	69.572	47.852	17.328	28.385	16.717	18.287	74.543
#1	.00058	-.00008	.00234	.00052	.00056	.04304	.00008
#2	.00020	-.00004	.00183	.00078	.00070	.05583	.00002
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00018	.00036	.00037	.01615	.01244	.00112	.00479
SDev	.00010	.00001	.00008	.00376	.00136	.00038	.00144
%RSD	57.514	3.6885	22.395	23.292	10.951	34.165	30.008
#1	-.00011	.00037	.00031	.01349	.01147	.00085	.00581
#2	-.00025	.00035	.00043	.01881	.01340	.00139	.00377
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00022	-.00073	.00158	.00081	.00176	-.00098	-.00007
SDev	.00044	.00101	.00061	.00007	.00148	.00207	.00188
%RSD	200.52	137.87	38.574	8.7749	84.118	211.87	2820.0
#1	.00053	-.00144	.00201	.00086	.00071	-.00244	-.00139
#2	-.00009	-.00002	.00115	.00076	.00281	.00049	.00126
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	-.00045	-.00065	-.00058	.00160	.00039	.00406	
SDev	.00226	.00102	.00143	.00065	.00018	.00022	
%RSD	508.04	157.06	246.67	40.748	46.117	5.3088	
#1	.00115	.00007	.00043	.00114	.00052	.00391	
#2	-.00204	-.00137	-.00159	.00206	.00026	.00422	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	19061	--	--	--	--	--	--
SDev	.3535534	--	--	--	--	--	--
%RSD	.0018548	--	--	--	--	--	--
#1	19061	--	--	--	--	--	--
#2	19061	--	--	--	--	--	--

Method: METTRA Sample Name: DJ99D/2 Mn Operator: RJG
 Run Time: 09/01/00 10:08:34
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00512	37.297	.03972	.67074	.00527	102.80	.00836
SDev	.00003	.199	.00060	.00422	.00002	.71	.00016
%RSD	.60895	.53356	1.5214	.62945	.31674	.69374	1.9553
#1	.00515	37.438	.03929	.67372	.00528	103.30	.00824
#2	.00510	37.156	.04015	.66775	.00526	102.30	.00848
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06102	.18472	.39723	112.73	16.290	5.4406	.00937
SDev	.00088	.00108	.00246	.68	.090	.0352	.00029
%RSD	1.4423	.58466	.62000	.60341	.54968	.64639	3.1308
#1	.06164	.18548	.39897	113.21	16.353	5.4654	.00957
#2	.06040	.18395	.39548	112.24	16.227	5.4157	.00916
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.13622	.80142	.77240	.78206	.00139	.00434	.00335
SDev	.00171	.00416	.00453	.00441	.00099	.00152	.00068
%RSD	1.2536	.51923	.58657	.56359	71.400	35.020	20.357
#1	.13743	.80436	.77560	.78518	.00209	.00326	.00287
#2	.13502	.79848	.76919	.77894	.00069	.00541	.00384
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00242	.00516	.00425	.00255	.10168	1.5430
SDev	.00012	.00156	.00108	.00201	.00065	.0102
%RSD	4.8353	30.179	25.378	78.944	.63800	.66311
#1	.00233	.00406	.00349	.00113	.10214	1.5502
#2	.00250	.00626	.00501	.00397	.10122	1.5358
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High			10.000	10.000	50.000	5.0000
Low			-.00500	-.01000	-.05000	-.02000

Analysis Report

09/01/00 10:12:39 AM

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	19144	--	--	--	--	--	--
SDev	126.3235	--	--	--	--	--	--
%RSD	.6598501	--	--	--	--	--	--
#1	19055	--	--	--	--	--	--
#2	19234	--	--	--	--	--	--

6711243.

Analysis Report

09/01/00 10:16:49 AM

page 1

Method: METTRA Sample Name: DJ99K/2 Mn Operator: RJG
 Run Time: 09/01/00 10:12:43
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00418	31.855	.03791	.59598	.00464	84.688	.00779
SDev	.00023	.062	.00143	.00073	.00007	.468	.00021
%RSD	5.4579	.19539	3.7825	.12247	1.5188	.55213	2.6405
#1	.00434	31.899	.03690	.59650	.00459	85.019	.00794
#2	.00402	31.811	.03893	.59547	.00469	84.357	.00764
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06324	.16178	.40713	96.659	13.545	5.1112	.00901
SDev	.00007	.00091	.00003	.194	.061	.0149	.00091
%RSD	.11607	.56460	.00792	.20060	.44867	.29176	10.121
#1	.06319	.16243	.40715	96.796	13.588	5.1218	.00966
#2	.06329	.16114	.40711	96.522	13.502	5.1007	.00837
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.13502	.73440	.71598	.72211	-.00050	.00435	.00274
SDev	.00112	.00124	.00459	.00347	.00015	.00017	.00016
%RSD	.82645	.16931	.64059	.48098	30.339	3.8157	5.9048
#1	.13424	.73528	.71922	.72457	-.00039	.00447	.00285
#2	.13581	.73352	.71274	.71966	-.00061	.00423	.00262
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00142	.00675	.00497	-.00049	.08831	1.5643	
SDev	.00051	.00079	.00036	.00171	.00022	.0074	
%RSD	36.236	11.685	7.1422	347.58	.24957	.46999	
#1	.00178	.00619	.00472	.00072	.08815	1.5695	
#2	.00105	.00731	.00522	-.00171	.08847	1.5591	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	19145	--	--	--	--	--	--
SDev	88.24610	--	--	--	--	--	--
%RSD	.4609331	--	--	--	--	--	--
#1	19083	--	--	--	--	--	--
#2	19208	--	--	--	--	--	--

Method: METTRA Sample Name: DJA36/2 Mn Operator: RJG
 Run Time: 09/01/00 10:16:52
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00588	34.337	.07146	1.1980	.00506	25.737	.03080
SDev	.00060	.201	.00052	.0056	.00010	.006	.00003
%RSD	10.193	.58615	.72358	.46992	1.9059	.02493	.10079
#1	.00630	34.194	.07110	1.1940	.00499	25.733	.03078
#2	.00546	34.479	.07183	1.2020	.00513	25.742	.03083
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06020	.19338	.38956	153.45	8.6816	6.4197	.00720
SDev	.00078	.00001	.00157	.47	.0209	.0151	.00077
%RSD	1.2937	.00441	.40267	.30399	.24028	.23523	10.736
#1	.06075	.19339	.38845	153.12	8.6668	6.4090	.00775
#2	.05965	.19337	.39067	153.78	8.6963	6.4303	.00666
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.13397	1.2763	1.2478	1.2573	.00199	.00328	.00285
SDev	.00146	.0043	.0027	.0003	.00218	.00239	.00087
%RSD	1.0904	.34020	.21463	.02709	109.47	73.019	30.601
#1	.13500	1.2793	1.2459	1.2570	.00045	.00497	.00347
#2	.13293	1.2732	1.2497	1.2575	.00353	.00159	.00223
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00203	.00874	.00651	.00526	.10943	1.3734
SDev	.00055	.00094	.00081	.00230	.00022	.0014
%RSD	27.039	10.745	12.436	43.625	.19719	.10134
#1	.00164	.00808	.00593	.00688	.10959	1.3724
#2	.00242	.00940	.00708	.00364	.10928	1.3744
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High			10.000	10.000	50.000	5.0000
Low			-.00500	-.01000	-.05000	-.02000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	19616	--	--	--	--	--	--
SDev	9.686810	--	--	--	--	--	--
%RSD	.0493821	--	--	--	--	--	--
#1	19609	--	--	--	--	--	--
#2	19623	--	--	--	--	--	--

6711247

Analysis Report

09/01/00 10:25:07 AM

page 1

Method: METTRA Sample Name: DJA3H/2 Mn Operator: RJG
 Run Time: 09/01/00 10:21:02
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01318	38.969	.05298	.83879	.00572	63.476	.01219
SDev	.00021	.174	.00068	.00315	.00014	.564	.00008
%RSD	1.6337	.44601	1.2749	.37560	2.4032	.88908	.66566
#1	.01333	39.092	.05346	.84102	.00562	63.875	.01213
#2	.01302	38.847	.05250	.83656	.00581	63.077	.01225
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05867	.19533	.33897	141.83	15.626	6.3021	.00702
SDev	.00065	.00153	.00156	.90	.116	.0450	.00099
%RSD	1.1041	.78152	.45919	.63674	.74345	.71463	14.077
#1	.05913	.19641	.34007	142.47	15.709	6.3340	.00771
#2	.05822	.19426	.33786	141.19	15.544	6.2703	.00632
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.13820	1.3979	1.3652	1.3761	.00340	.00201	.00247
SDev	.00314	.0081	.0134	.0116	.00297	.00030	.00119
%RSD	2.2748	.58057	.98035	.84511	87.497	14.702	47.989
#1	.14042	1.4036	1.3747	1.3843	.00550	.00222	.00331
#2	.13597	1.3922	1.3557	1.3679	.00129	.00180	.00163
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00155	.00949	.00685	.00352	.11448	1.1937	
SDev	.00103	.00034	.00012	.00241	.00108	.0108	
%RSD	66.520	3.5299	1.7485	68.567	.94429	.90497	
#1	.00082	.00973	.00676	.00522	.11372	1.2013	
#2	.00228	.00926	.00693	.00181	.11525	1.1860	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	19601	--	--	--	--	--	--
SDev	161.7507	--	--	--	--	--	--
%RSD	.8251985	--	--	--	--	--	--
#1	19487	--	--	--	--	--	--
#2	19716.	--	--	--	--	--	--

5711249

Analysis Report

09/01/00 10:29:16 AM

page 1

Method: METTRA Sample Name: DJA3K/5 Mn Operator: RJG
 Run Time: 09/01/00 10:25:11
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00128	17.865	.02154	.30357	.00236	30.868	.00306
SDev	.00004	.018	.00098	.00014	.00010	.031	.00001
%RSD	3.4273	.10068	4.5716	.04758	4.4204	.09911	.28334
#1	.00132	17.853	.02084	.30347	.00243	30.889	.00307
#2	.00125	17.878	.02223	.30367	.00228	30.846	.00306
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02244	.16974	.06702	63.292	8.1070	7.8278	.00618
SDev	.00014	.00025	.00054	.133	.0159	.0070	.00038
%RSD	.64242	.14587	.80971	.21016	.19668	.08995	6.1447
#1	.02254	.16956	.06664	63.198	8.0958	7.8228	.00644
#2	.02233	.16991	.06741	63.386	8.1183	7.8327	.00591
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.08161	.57214	.55872	.56319	-.00014	.00001	-.00004
SDev	.00117	.00122	.00412	.00315	.00012	.00025	.00020
%RSD	1.4369	.21328	.73688	.55975	87.837	1768.9	566.04
#1	.08244	.57128	.55581	.56096	-.00005	.00019	.00011
#2	.08079	.57300	.56164	.56542	-.00022	-.00016	-.00018
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	-.00033	.00546	.00353	.00411	.11701	.44769	
SDev	.00046	.00068	.00030	.00177	.00177	.00058	
%RSD	142.18	12.540	8.5524	42.977	1.5155	.12972	
#1	-.00065	.00594	.00375	.00536	.11827	.44728	
#2	.00000	.00498	.00332	.00286	.11576	.44810	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	19368	--	--	--	--	--	--
SDev	100.3028	--	--	--	--	--	--
%RSD	.5178878	--	--	--	--	--	--
#1	19439	--	--	--	--	--	--
#2	19297	--	--	--	--	--	--

Method: METTRA Sample Name: DJA3N/5 Mn Operator: RJG
 Run Time: 09/01/00 10:29:20
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00135	35.176	.01864	.36913	.00550	199.67	.00104
SDev	.00016	.416	.00005	.00409	.00020	.84	.00002
%RSD	11.598	1.1828	.29071	1.1068	3.5574	.41819	1.9853
#1	.00146	34.882	.01860	.36624	.00564	199.08	.00102
#2	.00124	35.471	.01868	.37202	.00536	200.26	.00105
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00997	.12141	.04511	61.027	26.216	7.1616	.00521
SDev	.00008	.00071	.00093	.589	.204	.0628	.00053
%RSD	.80548	.58339	2.0646	.96456	.77871	.87666	10.115
#1	.00991	.12091	.04445	60.611	26.072	7.1172	.00558
#2	.01003	.12191	.04577	61.443	26.360	7.2060	.00484
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03103	.07895	.07456	.07602	.00053	.00151	.00118
SDev	.00057	.00067	.00240	.00182	.00051	.00054	.00053
%RSD	1.8474	.84513	3.2131	2.3942	95.070	35.897	44.737
#1	.03062	.07848	.07287	.07474	.00017	.00113	.00081
#2	.03143	.07942	.07626	.07731	.00089	.00189	.00156
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00199	.00356	.00304	.00333	.12818	.15279
SDev	.00059	.00340	.00246	.00099	.00034	.00086
%RSD	29.403	95.427	81.017	29.754	.26633	.56004
#1	.00240	.00596	.00477	.00263	.12794	.15219
#2	.00158	.00116	.00130	.00403	.12842	.15340
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High			10.000	10.000	50.000	5.0000
Low			-.00500	-.01000	-.05000	-.02000

Analysis Report

09/01/00 10:33:25 AM

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	19024	--	--	--	--	--	--
SDev	120.8448	--	--	--	--	--	--
%RSD	.6352230	--	--	--	--	--	--
#1	19109	--	--	--	--	--	--
#2	18939	--	--	--	--	--	--

6711253

Analysis Report

09/01/00 10:37:34 AM

page 1

Method: METTRA Sample Name: CCV3-4

Operator: RJG

Run Time: 09/01/00 10:33:29

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0137	23.746	.51005	1.9711	2.0049	50.298	.49850
SDev	.0107	.293	.00201	.0213	.0198	.488	.00449
%RSD	1.0578	1.2353	.39358	1.0824	.98827	.97003	.90096
#1	1.0061	23.539	.50863	1.9561	1.9909	49.953	.49532
#2	1.0212	23.953	.51147	1.9862	2.0189	50.643	.50167
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0090	2.0101	1.9104	24.769	48.475	1.9631	2.0064
SDev	.0213	.0213	.0250	.284	.562	.0229	.0318
%RSD	1.0590	1.0572	1.3078	1.1483	1.1599	1.1654	1.5853
#1	1.9940	1.9951	1.8927	24.568	48.077	1.9470	1.9839
#2	2.0240	2.0252	1.9280	24.970	48.872	1.9793	2.0289
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9888	.51974	.50728	.51143	.51071	.50989	.51016
SDev	.0179	.00330	.00548	.00475	.00568	.00318	.00401
%RSD	.89910	.63577	1.0798	.92951	1.1115	.62314	.78594
#1	1.9762	.51740	.50341	.50807	.50669	.50764	.50733
#2	2.0014	.52207	.51115	.51479	.51472	.51214	.51300
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.51621	.51691	.51668	1.0400	1.9917	2.0180	
SDev	.00620	.00897	.00805	.0143	.0189	.0231	
%RSD	1.2005	1.7347	1.5570	1.3741	.94882	1.1461	
#1	.51183	.51057	.51099	1.0299	1.9783	2.0016	
#2	.52059	.52325	.52236	1.0501	2.0051	2.0343	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.55000	1.1000	2.2000	2.2000	
Low			.45000	.90000	1.8000	1.8000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	19024	--	--	--	--	--	--
SDev	244.5885	--	--	--	--	--	--
%RSD	1.285667	--	--	--	--	--	--
#1	19197	--	--	--	--	--	--
#2	18851	--	--	--	--	--	--

6711255

Analysis Report

09/01/00 10:41:43 AM

page 1

Method: METTRA Sample Name: CCB4

Operator: RJG

Run Time: 09/01/00 10:37:38

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00018	-.00686	.00090	.00053	.00055	.03568	-.00003
SDev	.00066	.00607	.00040	.00013	.00003	.01821	.00025
%RSD	372.47	88.573	44.083	23.927	5.6403	51.037	746.58
#1	-.00029	-.01115	.00062	.00044	.00057	.02280	-.00021
#2	.00064	-.00256	.00118	.00062	.00053	.04855	.00014
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00019	.00014	.00043	.01152	.01281	.00178	.00537
SDev	.00023	.00052	.00029	.00464	.00462	.00092	.00128
%RSD	119.27	369.38	66.575	40.299	36.103	51.302	23.736
#1	-.00035	-.00023	.00023	.00824	.00954	.00114	.00627
#2	-.00003	.00051	.00063	.01481	.01607	.00243	.00447
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00018	.00187	.00001	.00063	-.00056	-.00085	-.00075
SDev	.00000	.00064	.00026	.00004	.00098	.00158	.00073
%RSD	.08390	34.346	3404.2	6.9099	174.12	187.13	97.146
#1	-.00018	.00142	.00019	.00060	.00013	-.00197	-.00127
#2	-.00018	.00233	-.00017	.00066	-.00125	.00027	-.00024
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00081	.00034	.00049	.00049	.00051	.00096	
SDev	.00005	.00277	.00183	.00019	.00036	.00021	
%RSD	5.9091	827.35	372.00	39.333	70.610	22.052	
#1	.00084	-.00163	-.00080	.00035	.00026	.00081	
#2	.00078	.00230	.00179	.00063	.00077	.00111	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

Analysis Report

09/01/00 10:41:43 AM

page 2

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	19134	--	--	--	--	--	--
SDev	35.32081	--	--	--	--	--	--
%RSD	.1846012	--	--	--	--	--	--
#1	19159	--	--	--	--	--	--
#2	19109	--	--	--	--	--	--

Metals Preparation

Log



STL Pittsburgh
450 William Pitt Way
Pittsburgh, PA 15238
412-820-8380

Method: 3050B		Matrix: 50:1	Start Time: 17:00	SDG: —	Balance# 94817	Reagents:			
Analyst: [Signature]		Date: 8-31-00	Lot Number: CoH 26018	Lab Lot No. (book, page, line): 0057-033-1	MS	10ml 1:1 HCl/D ₂	0057-040-2		
Reviewed By: [Signature]		Date: 8-31-00	Final Vol mL: 100ml	Comments: PG 8-31-00 + Ind ASB1 Rev	MSB1 Rev	10ml 30% H ₂ O ₂	6627N 24021 Mod Insect		
Sample ID		Init Wt/Vol g/mL	Final Vol mL	Comments	Color	Clarity	Texture	Artifacts	Artifact Codes
1. DTG82	1.00g	100ml		PG 8-31-00	Pre	Post	Pre	Post	S=Stones
2. DTG82S	↓			PG 8-31-00	Pre	Post	Pre	Post	O=Organic (plant mat)
3. DTG82D	↓			PG 8-31-00	Pre	Post	Pre	Post	W=free H ₂ O
4. DTPNOB	↓			PG 8-31-00	Pre	Post	Pre	Post	G=Glass
5. DTPNOC	↓			PG 8-31-00	Pre	Post	Pre	Post	M=Metal Fgmts
6.					Pre	Post	Pre	Post	R=Rubber/Plastic
7.					Pre	Post	Pre	Post	C=Cloth
8.					Pre	Post	Pre	Post	P=Paper
9.					Pre	Post	Pre	Post	I=Insects
10.					Pre	Post	Pre	Post	
11.					Pre	Post	Pre	Post	
12.					Pre	Post	Pre	Post	
13.					Pre	Post	Pre	Post	
14.					Pre	Post	Pre	Post	
15.					Pre	Post	Pre	Post	
16.					Pre	Post	Pre	Post	
17.					Pre	Post	Pre	Post	
18.					Pre	Post	Pre	Post	
19.					Pre	Post	Pre	Post	
20.					Pre	Post	Pre	Post	
21.					Pre	Post	Pre	Post	
22.					Pre	Post	Pre	Post	
23.					Pre	Post	Pre	Post	
24.					Pre	Post	Pre	Post	

Digestate(s)	Date	Time	Analyst	Location	Date	Time	Analyst	Location	Hot plate /Black/Temp	Correction Factor	Color
PM 830J5	8-31-00	19:00	[Signature]	NOT REC	8-31-00	19:00	[Signature]	NOT REC	24/45°C	-0.7°C	R=Red BL=Blue BR=Brown BLK=Black Y=Yellow O=Orange
ALL WTR	8-31-00	07:00	[Signature]	MEMO	8-31-00	07:00	[Signature]	MEMO			V=Violet P=Pink W=White GY=Gray GN=Green C=Colorless
									Texture F=Fine M=Medium C=Coarse	Clarity C=Clear CL=Cloudy O=Opaque	

6711258

PSR024 8/31/00 15:17:51 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 001

REQUESTED BY: GROVEP

METHOD: QM Inductively Coupled Plasma (6010B Trace)

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED</u> <u>CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX</u> <u>DESCRIPTION</u>	<u>QTY</u> <u>RCVD</u>	<u>QTY</u> <u>REQD</u>
3E CLP1	DJG82		262043	399411	A-46-QM	COH260118	001		SOLID	0	3 1

RELINQUISHED BY

RECEIVED BY

DATE/TIME

8-31-00 17:20

8-31-00 17:30

***** END OF REPORT *****

6711259

**TCLP
METALS DATA**

STL-Pittsburgh**Cover Page - Inorganic Analysis Data Package****Client ID**DF/S1/0238/SDC/036**Lab Sample ID:**DJG82T

Comments: UXB DUNN FIELD
C0H260118
6010B, 7470A-TCLP

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than conditions detailed above. Release of the data combined in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____

Name: _____

Date: _____

Title: _____

REVIEWED BY: <u>mrw</u>
DATE: <u>9-1-00</u>

6711261

**TCLP
METALS
RESULTS**

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: DJG82T Client ID: DF/S1/0238/SDC/036
 Matrix: TCLP Units: mg/L Prep Date: 8/30/00 Prep Batch: 0243115
 Weight: NA Volume: 50 Percent Moisture: NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	193.7	0.030	0.50	0.19	B	1	ICP	8/30/00	10:53
Barium	493.41	0.00041	10.0	1.6	B	1	ICP	8/30/00	10:53
Cadmium	228.80	0.0028	0.10	0.031	B	1	ICP	8/30/00	10:53
Chromium	267.72	0.0038	0.50	0.0062	B	1	ICP	8/30/00	10:53
Lead	220.35	0.025	0.50	1.6		1	ICP	8/30/00	10:53
Selenium	196.03	0.067	0.25	0.067	U	1	ICP	8/30/00	13:02
Silver	328.07	0.0031	0.50	0.0031	U	1	ICP	8/30/00	10:53

Comments: COH260118001

Version 4.10.2

U Result is less than the MDL
 B Result is between MDL and RL

Form 1 Equivalent

6711263

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: DJG82T Client ID: DF/S1/0238/SDC/036
Matrix: TCLP Units: mg/L Prep Date: 8/31/00 Prep Batch: 0243252
Weight: NA Volume: 100 Percent Moisture: NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.000045	0.00020	0.00013	B	1	CVAA	8/31/00	9:14

Comments: _____

Version 4.10.2

U Result is less than the MDL

B Result is between MDL and RL

Form 1 Equivalent

Metals Data Reporting Form

Initial Calibration Verification Standard

Instrument: CVAAUnits: ug/LChart Number: 0831HGA.PRNAcceptable Range: 90% - 110%Standard Source: UltraStandard ID: 0057-051-9

Element	WL/ Mass	True Conc	ICV5-1 8/31/00 8:55 AM									
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	2.5	2.61	104.4								

STL-Pittsburgh

6711265

Metals Data Reporting Form

Initial Calibration Verification Standard

Instrument: ICP

Units: ug/L

Chart Number: J00830A.ARC

Acceptable Range: 90% - 110%

Standard Source: Inorganic Ventures

Standard ID: 0057-005-2

Element	WL/ Mass	True Conc	ICV2-1 8/30/00 7:50 AM		Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
			Found	% Rec								
Arsenic	193.696	1000.0	1031.97	103.2								
Barium	493.409	1000.0	1022.20	102.2								
Cadmium	228.802	1000.0	1009.54	101.0								
Chromium	267.716	1000.0	1022.77	102.3								
Lead	220.353	1000.0	1022.58	102.3								
Silver	328.068	500.0	512.42	102.5								

Metals Data Reporting Form

Initial Calibration Verification Standard

Instrument: ICPUnits: ug/LChart Number: J00830B.ARCAcceptable Range: 90% - 110%Standard Source: Inorganic VenturesStandard ID: 0057-005-2

Element	WL/ Mass	True Conc	ICV2-1 8/30/00 11:32 AM									
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Selenium	196.026	1000.0	1053.62	105.4								

STL-Pittsburgh

6711267

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: CVAA

Units: ug/L

Chart Number: 0831HGA.PRN

Acceptable Range: 80% - 120%

Standard Source: Inorganic Ventures

Standard ID: 0057-052-1

Element	WL/ Mass	True Conc	CCV5-1 8/31/00 8:59 AM		CCV5-2 8/31/00 9:18 AM					
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	5.0	5.14	102.8	5.15	103.0				

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: ICPUnits: ug/LChart Number: J00830A.ARCAcceptable Range: 90% - 110%Standard Source: Inorganic VenturesStandard ID: 0057-025-5

Element	WL/ Mass	True Conc	CCV2-1 8/30/00 8:30 AM		CCV2-2 8/30/00 9:08 AM		CCV2-3 8/30/00 9:17 AM		CCV2-4 8/30/00 9:28 AM		CCV2-5 8/30/00 10:56 AM	
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Arsenic	193.696	5000.0	5291.34	105.8	5350.47	107.0	5287.47	105.7	5347.83	107.0	5468.69	109.4
Barium	493.409	5000.0	5022.39	100.4	5092.93	101.9	5053.94	101.1	5059.96	101.2	5073.86	101.5
Cadmium	228.802	5000.0	5105.93	102.1	5181.33	103.6	5158.88	103.2	5100.37	102.0	5303.18	106.1
Chromium	267.716	5000.0	5075.54	101.5	5186.52	103.7	5134.86	102.7	5100.83	102.0	5252.16	105.0
Lead	220.353	5000.0	5144.54	102.9	5224.34	104.5	5180.90	103.6	5106.89	102.1	5222.70	104.5
Silver	328.068	1000.0	1020.93	102.1	1033.19	103.3	1022.74	102.3	1018.65	101.9	1025.36	102.5

STL-Pittsburgh

6711269

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: ICP

Units: ug/L

Chart Number: J00830B.ARC

Acceptable Range: 90% - 110%

Standard Source: Inorganic Ventures

Standard ID: 0057-025-5

Element	WL/ Mass	True Conc	CCV2-1 8/30/00 12:12 PM		CCV2-2 8/30/00 12:28 PM		CCV2-3 8/30/00 1:05 PM			
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Selenium	196.026	5000.0	5021.27	100.4	4765.16	95.3	4774.47	95.5		

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: CVAAUnits: ug/LChart Number: 0831HGA.PRN

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	ICB1 8/31/00 8:57 AM				
			Found Q	Found Q	Found Q	Found Q	Found Q
Mercury	253.7	0.2	0.1 B				

6711271

STL-Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICPUnits: ug/LChart Number: J00830A.ARC

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	ICB1 8/30/00 7:53 AM							
			Found	Q	Found	Q	Found	Q	Found	Q
Arsenic	193.696	500	30.3	U						
Barium	493.409	10000	0.4	U						
Cadmium	228.802	100	2.8	U						
Chromium	267.716	500	3.8	U						
Lead	220.353	500	-25.0	B						
Silver	328.068	500	3.1	U						

6711272

STL-Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICPUnits: ug/LChart Number: J00830B.ARC

Standard Source: _____

Standard ID: _____

			ICB1 8/30/00 11:36 AM					
Element	WL/ Mass	Report Limit	Found	Q	Found	Q	Found	Q
Selenium	196.026	250	67.4	U				

6711273

STL-Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: CVAAUnits: ug/LChart Number: 0831HGA.PRN

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	CCB1 8/31/00 9:01 AM	CCB2 8/31/00 9:20 AM				
			Found Q	Found Q	Found Q	Found Q	Found Q	Found Q
Mercury	253.7	0.2	0.1 B	0.0 U				

STL-Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: ICPUnits: ug/LChart Number: J00830A.ARC

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	CCB1 8/30/00 8:33 AM	CCB2 8/30/00 9:11 AM	CCB3 8/30/00 9:20 AM	CCB4 8/30/00 9:31 AM	CCB5 8/30/00 10:59 AM
			Found Q	Found Q	Found Q	Found Q	Found Q
Arsenic	193.696	500	30.3 U	30.3 U	30.3 U	30.3 U	63.3 B
Barium	493.409	10000	0.4 U	0.4 U	0.5 B	0.4 U	0.4 U
Cadmium	228.802	100	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U
Chromium	267.716	500	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U
Lead	220.353	500	24.6 U	24.6 U	24.6 U	24.6 U	24.6 U
Silver	328.068	500	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U

STL-Pittsburgh

6711275

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: ICP

Units: ug/L

Chart Number: J00830B.ARC

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	CCB1 8/30/00 12:16 PM	CCB2 8/30/00 12:31 PM	CCB3 8/30/00 1:09 PM		
			Found Q	Found Q	Found Q	Found Q	Found Q
Selenium	196.026	250	67.4 U	67.4 U	67.4 U		

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DJJH6BTMatrix: TCLP Units: mg/L Prep Date: 8/30/00 Prep Batch: 0243115Weight: NA Volume: 50 Percent Moisture: NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	193.696	0.030	0.50	0.19	B	1	ICP	8/30/00	10:30
Barium	493.409	0.00041	10.0	0.00078	B	1	ICP	8/30/00	10:30
Cadmium	228.802	0.0028	0.10	-0.0050	B	1	ICP	8/30/00	10:30
Chromium	267.716	0.0038	0.50	0.0038	U	1	ICP	8/30/00	10:30
Lead	220.353	0.025	0.50	-0.027	B	1	ICP	8/30/00	10:30
Selenium	196.026	0.067	0.25	0.067	U	1	ICP	8/30/00	12:40
Silver	328.068	0.0031	0.50	0.0031	U	1	ICP	8/30/00	10:30

9

Comments: _____

6711277

STL-Pittsburgh
Metals Data Reporting Form

Preparation Blank Results**Lab Sample ID:** DJL29BT**Matrix:** TCLP **Units:** mg/L **Prep Date:** 8/30/00 **Prep Batch:** 0243115**Weight:** NA **Volume:** 50 **Percent Moisture:** NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	193.696	0.030	0.50	0.030	U	1	ICP	8/30/00	10:27
Barium	493.409	0.00041	10.0	0.00041	U	1	ICP	8/30/00	10:27
Cadmium	228.802	0.0028	0.10	0.0028	U	1	ICP	8/30/00	10:27
Chromium	267.716	0.0038	0.50	0.0038	U	1	ICP	8/30/00	10:27
Lead	220.353	0.025	0.50	0.025	U	1	ICP	8/30/00	10:27
Selenium	196.026	0.067	0.25	0.067	U	1	ICP	8/30/00	12:37
Silver	328.068	0.0031	0.50	0.0031	U	1	ICP	8/30/00	10:27

Q

Comments: _____

STL-Pittsburgh

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DJJH6BTMatrix: TCLP Units: mg/L Prep Date: 8/31/00 Prep Batch: 0243252Weight: NA Volume: 100 Percent Moisture: NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.000045	0.00020	0.00012	B	1	CVAA	8/31/00	9:05

Comments: _____

6711279

STL-Pittsburgh

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DJLLWBTMatrix: TCLP Units: mg/L Prep Date: 8/31/00 Prep Batch: 0243252Weight: NA Volume: 100 Percent Moisture: NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.000045	0.00020	0.000069	B	1	CVAA	8/31/00	9:02

Comments: _____

STL-Pittsburgh
Metals Data Reporting Form

6711280

Interference Check Standard A

Instrument: ICP

Units: ug/L

Chart Number: J00830A.ARC

Acceptable Range: 0% - 0%

Standard Source: Inorganic Ventures

Standard ID: 0057-011-1

Element	WL/ Mass	Reporting Limit	True Conc	ICSA 8/30/00 7:57 AM	Found	Found	Found	Found	Found
				Found					
Arsenic	193.696	500		12					
Barium	493.409	10000		2					
Cadmium	228.802	100		-6					
Chromium	267.716	500		-1					
Lead	220.353	500		46					
Silver	328.068	500		-3					

STL-Pittsburgh

Metals Data Reporting Form

6711281

Interference Check Standard A

Instrument: ICP

Units: ug/L

Chart Number: J00830B.ARC

Acceptable Range: 0% - 0%

Standard Source: Inorganic Ventures

Standard ID: 0057-011-1

				ICSA 8/30/00 11:42 AM				
Element	WL/ Mass	Reporting Limit	True Conc	Found	Found	Found	Found	Found
Selenium	196.026	250		-85				

Metals Data Reporting Form

Interference Check Standard AB

Instrument: ICPUnits: ug/LChart Number: J00830A.ARCAcceptable Range: 80% - 120%Standard Source: Inorganic VenturesStandard ID: 0014-187-1

Element	WL/ Mass	True Conc	ICSAB 8/30/00 8:00 AM									
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Arsenic	193.696	1000	903.0	90.3								
Barium	493.409	500	470.9	94.2								
Cadmium	228.802	1000	966.1	96.6								
Chromium	267.716	500	444.9	89.0								
Lead	220.353	1000	973.6	97.4								
Silver	328.068	1000	962.7	96.3								

STL-Pittsburgh

6711283

Metals Data Reporting Form

Interference Check Standard AB

Instrument: ICP

Units: ug/L

Chart Number: J00830B.ARC

Acceptable Range: 80% - 120%

Standard Source: Inorganic Ventures

Standard ID: 0014-187-1

Element	WL/ Mass	True Conc	ICSAB 8/30/00 11:45 AM									
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Selenium	196.026	1000	945.1	94.5								

STL-Pittsburgh

Metals Data Reporting Form

Laboratory Control Sample Results

Lab Sample ID: DJL29CTMatrix: TCLP Units: mg/L Prep Date: 8/30/00 Prep Batch: 0243115Weight: NA Volume: 50 Percent Moisture: NA

Element	WL/ Mass	Spike Level	Conc	Percent Recovery	Q	Range	DF	Instr	Anal Date	Anal Time
Arsenic	193.696	2.0	2.4	118.6		80-120	1	ICP	8/30/00	10:34
Barium	493.409	2.0	1.9	95.3	B	80-120	1	ICP	8/30/00	10:34
Cadmium	228.802	0.050	0.046	91.9	B	80-120	1	ICP	8/30/00	10:34
Chromium	267.716	0.20	0.20	100.8	B	80-120	1	ICP	8/30/00	10:34
Lead	220.353	0.50	0.50	99.5	B	80-120	1	ICP	8/30/00	10:34
Selenium	196.026	2.0	2.1	103.2		80-120	1	ICP	8/30/00	12:43
Silver	328.068	0.050	0.051	101.7	B	80-120	1	ICP	8/30/00	10:34

Comments: _____

Version 4.10.2

U Result is less than the MDL

Form 7 Equivalent

B Result is between MDL and RL

6711285

STL-Pittsburgh

Metals Data Reporting Form

Laboratory Control Sample Results

Lab Sample ID: DJLLWCTMatrix: TCLP Units: mg/L Prep Date: 8/31/00 Prep Batch: 0243252Weight: NA Volume: 100 Percent Moisture: NA

Element	WL/ Mass	Spike Level	Conc	Percent Recovery	Q	Range	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.0025	0.0027	107.2		80-120	1	CVAA	8/31/00	9:04

Comments: _____

Version 4.10.2

STL Pittsburgh

U Result is less than the MDL
B Result is between MDL and RL

Form 7 Equivalent

6027

Metals Data Reporting Form

Instrument Detection Limits

Instrument: CVAAUnits: ppb

Element	Wavelength /Mass	Reporting Limit	MDL	Date of MDL
Mercury	253.70	0.2	0.045	3/20/00

6711287

STL-Pittsburgh
Metals Data Reporting Form

Instrument Detection Limits

Instrument: ICP**Units:** ppb

Element	Wavelength /Mass	Reporting Limit	MDL	Date of MDL
Arsenic	193.70	500	30.3	4/1/00
Barium	493.41	10000	0.41	4/1/00
Cadmium	228.80	100	2.8	4/1/00
Chromium	267.72	500	3.8	4/1/00
Lead	220.35	500	24.6	4/1/00
Selenium	196.03	250	67.4	4/1/00
Silver	328.07	500	3.1	4/1/00

Metals Data Reporting Form

Inter-Element Correction Factors

Instrument: ICPDate of IEC's: 6/22/00

Interfering Element	Wavelength /Mass	Correction Factor(s)
Aluminum	308.215	As(0.008043), Mn(0.00002), Pb(0.000607)
Antimony	206.838	Ni(-0.000449), Pb(-0.001338), Sn(-0.004668)
Arsenic	193.696	Cd(0.011196)
Barium	493.409	Co(0.000506)
Beryllium	313.042	Cd(0.008625)
Cadmium	228.802	Co(0.002633)
Chromium	267.716	Pb(-0.000686), Sb(0.008213), V(-0.001979)
Cobalt	228.616	Al(-0.014067), B(0.00201), Cd(-0.004523), Cu(-0.00091), Pb(-0.027395), Sb(-0.003935), Ti(0.007862)
Copper	324.754	Zn(0.00466)
Iron	259.94	Ag(-0.000239), As(0.001198), B(-0.001921), Cd(-0.000034), Cu(-0.00008), Mn(-0.000288), Mo(-0.00015), Pb(0.000239), Se(-0.002635), Sn(-0.00019), Ti(0.010326), Zn(0.000098)
Manganese	257.61	Ag(0.000201), Ti(-0.005634)
Molybdenum	202.03	Al(0.008699), Cr(-0.000292), Mn(-0.00033), Sb(0.005808), V(-0.019318)
Nickel	231.604	Cd(-0.000409), Sb(-0.009092), Zn(0.003263)
Tin	189.989	Sb(0.002262)
Titanium	334.941	Co(0.001637), Fe(-0.003475), Sb(0.001696), Sn(0.003624)
Vanadium	292.402	Ag(-0.005069), Al(0.012877), As(0.017242), Be(0.00265), Cd(0.000094), Cr(0.000568), Sb(-0.003793), Si(-0.012762), Ti(0.007148), Zn(-0.004494)

6711289

STL-Pittsburgh
Metals Data Reporting Form

Linear Dynamic Ranges

Instrument: CVAA

Units: ppb

Element	Wavelength /Mass	Linear Range	Date of Linear Range
Mercury	253.70	10	1/15/00

Metals Data Reporting Form

Linear Dynamic Ranges

Instrument: ICPUnits: ppb

Element	Wavelength /Mass	Linear Range	Date of Linear Range
Arsenic	193.70	100000	4/5/00
Barium	493.41	100000	4/5/00
Cadmium	228.80	100000	4/5/00
Chromium	267.72	100000	4/5/00
Lead	220.35	100000	4/5/00
Selenium	196.03	100000	4/5/00
Silver	328.07	2000	4/5/00

STL-Pittsburgh**Metals Data Reporting Form**

6711291

Preparation Log

Preparation Batch: 0243115 **Instrument:** ICP **Matrix:** TCLP

Sample ID	Prep Date	Weight (g)	Volume (ml)	% Moisture
DJJH6BT	8/30/00	NA	50	NA
DJL29BT	8/30/00	NA	50	NA
DJL29CT	8/30/00	NA	50	NA
DJG82T	8/30/00	NA	50	NA

STL-Pittsburgh
Metals Data Reporting Form

6711292

Preparation Log

Preparation Batch: 0243252 **Instrument:** CVAA **Matrix:** TCLP

Sample ID	Prep Date	Weight (g)	Volume (ml)	% Moisture
DJH6BT	8/31/00	NA	100	NA
DJLLWBT	8/31/00	NA	100	NA
DJLLWCT	8/31/00	NA	100	NA
DJG82T	8/31/00	NA	100	NA

STL-Pittsburgh

6711293

Metals Data Reporting Form

Instrument Runlog

Instrument: CVAAChart Number: 0831HGA.PRN

Lab Sample Name	Client Sample Name	Date of Analysis	Time of Analysis
Std1Rep1		8/31/00	8:44
Std2Rep1		8/31/00	8:45
Std3Rep1		8/31/00	8:47
Std4Rep1		8/31/00	8:50
Std5Rep1		8/31/00	8:51
Std6Rep1		8/31/00	8:53
ICV5-1		8/31/00	8:55
ICB1		8/31/00	8:57
CCV5-1		8/31/00	8:59
CCB1		8/31/00	9:01
DJLLWBT		8/31/00	9:02
DJLLWCT		8/31/00	9:04
DJH6BT		8/31/00	9:05
ZZZZZZ		8/31/00	9:07
ZZZZZZ		8/31/00	9:08
ZZZZZZ		8/31/00	9:10
ZZZZZZ		8/31/00	9:12
DJG82T	DF/S1/0238/SDC/036	8/31/00	9:14
ZZZZZZ		8/31/00	9:15
ZZZZZZ		8/31/00	9:17
CCV5-2		8/31/00	9:18
CCB2		8/31/00	9:20
ZZZZZZ		8/31/00	9:22
ZZZZZZ		8/31/00	9:23
ZZZZZZ		8/31/00	9:25
ZZZZZZ		8/31/00	9:26
ZZZZZZ		8/31/00	9:28
ZZZZZZ		8/31/00	9:29
ZZZZZZ		8/31/00	9:31
ZZZZZZ		8/31/00	9:32
ZZZZZZ		8/31/00	9:34
ZZZZZZ		8/31/00	9:36
ZZZZZZ		8/31/00	9:37
ZZZZZZ		8/31/00	9:39
ZZZZZZ		8/31/00	9:41
ZZZZZZ		8/31/00	9:43
ZZZZZZ		8/31/00	9:44
ZZZZZZ		8/31/00	9:46
ZZZZZZ		8/31/00	9:47

STL-Pittsburgh
Metals Data Reporting Form

6711294

Instrument Runlog

Instrument: CVAA

Chart Number: 0831HGA.PRN

Lab Sample Name	Client Sample Name	Date of Analysis	Time of Analysis
ZZZZZZ		8/31/00	9:49
ZZZZZZ		8/31/00	9:51
ZZZZZZ		8/31/00	9:52
ZZZZZZ		8/31/00	9:54
ZZZZZZ		8/31/00	9:55
ZZZZZZ		8/31/00	9:57
ZZZZZZ		8/31/00	9:59
ZZZZZZ		8/31/00	10:00
ZZZZZZ		8/31/00	10:01
ZZZZZZ		8/31/00	10:03
ZZZZZZ		8/31/00	10:05
ZZZZZZ		8/31/00	10:07
ZZZZZZ		8/31/00	10:09
ZZZZZZ		8/31/00	10:10
ZZZZZZ		8/31/00	10:12
ZZZZZZ		8/31/00	10:13
ZZZZZZ		8/31/00	10:17
ZZZZZZ		8/31/00	10:18

Metals Data Reporting Form

Instrument Runlog

Instrument: ICPChart Number: J00830A.ARC

Lab Sample Name	Client Sample Name	Date of Analysis	Time of Analysis
STD1		8/30/00	7:41
STD5A		8/30/00	7:44
STD5B		8/30/00	7:47
ICV2-1		8/30/00	7:50
ICB1		8/30/00	7:53
ICSA		8/30/00	7:57
ICSAB		8/30/00	8:00
ZZZZZZ		8/30/00	8:05
ZZZZZZ		8/30/00	8:08
ZZZZZZ		8/30/00	8:11
ZZZZZZ		8/30/00	8:15
ZZZZZZ		8/30/00	8:18
ZZZZZZ		8/30/00	8:21
ZZZZZZ		8/30/00	8:24
ZZZZZZ		8/30/00	8:27
CCV2-1		8/30/00	8:30
CCB1		8/30/00	8:33
ZZZZZZ		8/30/00	8:36
ZZZZZZ		8/30/00	8:40
ZZZZZZ		8/30/00	8:43
ZZZZZZ		8/30/00	8:46
ZZZZZZ		8/30/00	8:49
ZZZZZZ		8/30/00	8:52
ZZZZZZ		8/30/00	8:55
ZZZZZZ		8/30/00	8:58
ZZZZZZ		8/30/00	9:02
ZZZZZZ		8/30/00	9:05
CCV2-2		8/30/00	9:08
CCB2		8/30/00	9:11
ZZZZZZ		8/30/00	9:14
CCV2-3		8/30/00	9:17
CCB3		8/30/00	9:20
ZZZZZZ		8/30/00	9:25
CCV2-4		8/30/00	9:28
CCB4		8/30/00	9:31
DJL29BT		8/30/00	10:27
DJH6BT		8/30/00	10:30
DJL29CT		8/30/00	10:34
ZZZZZZ		8/30/00	10:37

STL-Pittsburgh
Metals Data Reporting Form

6711296

Instrument Runlog

Instrument: ICP

Chart Number: J00830A.ARC

Lab Sample Name	Client Sample Name	Date of Analysis	Time of Analysis
ZZZZZZ		8/30/00	10:40
ZZZZZZ		8/30/00	10:43
ZZZZZZ		8/30/00	10:46
ZZZZZZ		8/30/00	10:50
DJG82T	DF/S1/0238/SDC/036	8/30/00	10:53
CCV2-5		8/30/00	10:56
CCB5		8/30/00	10:59

STL-Pittsburgh

Metals Data Reporting Form

6711297

Instrument Runlog

Instrument: ICP

Chart Number: J00830B.ARC

Lab Sample Name	Client Sample Name	Date of Analysis	Time of Analysis
STD1		8/30/00	11:23
STD5A		8/30/00	11:26
STD5B		8/30/00	11:29
ICV2-1		8/30/00	11:32
ICB1		8/30/00	11:36
ZZZZZZ		8/30/00	11:39
ICSA		8/30/00	11:42
ICSAB		8/30/00	11:45
ZZZZZZ		8/30/00	11:50
ZZZZZZ		8/30/00	11:53
ZZZZZZ		8/30/00	11:57
ZZZZZZ		8/30/00	12:00
ZZZZZZ		8/30/00	12:03
ZZZZZZ		8/30/00	12:06
ZZZZZZ		8/30/00	12:09
CCV2-1		8/30/00	12:12
CCB1		8/30/00	12:16
ZZZZZZ		8/30/00	12:19
ZZZZZZ		8/30/00	12:22
ZZZZZZ		8/30/00	12:25
CCV2-2		8/30/00	12:28
CCB2		8/30/00	12:31
DJL29BT		8/30/00	12:37
DJJH6BT		8/30/00	12:40
DJL29CT		8/30/00	12:43
ZZZZZZ		8/30/00	12:46
ZZZZZZ		8/30/00	12:50
ZZZZZZ		8/30/00	12:53
ZZZZZZ		8/30/00	12:56
ZZZZZZ		8/30/00	12:59
DJG82T	DF/S1/0238/SDC/036	8/30/00	13:02
CCV2-3		8/30/00	13:05
CCB3		8/30/00	13:09

6711298

**TCLP
METALS
RAW DATA**

Michael W. Wosobin 8-30-00

#	Sample Name	AG	AS	BA	CD	CR	PB
1	STD1	-.00085	-.0002	-.00005	.00015	.0003	.00069
2	STD5A	.2703	.52139	4.1897	.90117	3.71714	.25279
3	STD5B						
4	ICV2-1 0057-005-2	.51242	1.0320	1.0222	1.0095	1.0228	1.0226
5	ICB1	.00000	.00195	-.00004	.00020	.00040	-.02503
6	ICSA 0057-011-1	-.00258	.01201	.00157	-.00575	-.00094	.04635
7	ICSAB 0014-187-1	.96266	.90301	.47086	.96614	.44486	.97362
8	DHM1KB	-.00108	-.02529	.00037	-.00161	-.00013	-.01159
9	DHM1KC	.05018	2.0391	2.0312	.04386	.19808	.48441
10	DGJNW	.00371	.03898	.47844	.00040	.13353	.20470
11	DGJNWP5	.00063	.02224	.09929	.00210	.02904	.03651
12	DGJNWS	.05135	2.0072	2.5697	.04964	.35095	.69752
13	DGJNWD	.04797	1.9088	2.5103	.04379	.33858	.67780
14	DGJP1	.00208	.02319	.28913	-.00046	.63438	.17141
15	DGLRR	.00077	.03389	.52268	.00191	.20160	.87406
16	CCV2-1 0057-025-5	1.0209	5.2913	5.0224	5.1059	5.0755	5.1445
17	CCB1	.00179	-.00977	.00032	-.00214	-.00040	-.02117
18	DHAXG	.00015	.02538	.63980	-.00201	.20590	.23810
19	DHAXL	.00113	.09456	.58574	-.00319	.19016	.28613
20	DHDJT	.00127	.10263	.65628	-.00446	.23590	.23096
21	DHK28	.00518	-.04008	.24917	-.00161	.05430	.08243
22	DHK2A	.01552	.03057	1.4744	.00042	.10918	.18979
23	DHK2C	.00188	.02346	.58856	.00018	.17737	.69762
24	DHK2D	.00501	.10939	.61558	-.00041	.16243	.70642
25	DHK2F	.00348	.02120	.19313	-.00386	.04112	.08026
26	DHK2G	.00132	.17337	.77694	.00212	.16888	.31713
27	DHK2H	.00062	.09872	.35835	.00008	.21450	.18716
28	CCV2-2	1.0332	5.3505	5.0929	5.1813	5.1865	5.2243
29	CCB2	.00035	.00877	.00021	-.00075	.00161	-.00958
30	DHK2K	.00438	.02587	.60913	.00045	.17978	.15502
31	CCV2-3	1.0227	5.2875	5.0539	5.1589	5.1349	5.1809
32	CCB3	.00215	-.00686	.00047	-.00168	.00013	-.00004
33	CRA TEST	.00820	.01089	.20642	.00101	.01127	-.03902
34	CCV2-4	1.0187	5.3478	5.0600	5.1004	5.1008	5.1069
35	CCB4	.00000	-.01162	.00018	-.00020	-.00094	-.01348
36	DJL29BT	.00216	-.00596	.00014	-.00128	.00013	-.00958
37	DJJH6BT	.00034	.18710	.00078	-.00500	.00013	-.02697
38	DJL29CT	.05084	2.3715	1.9067	.04595	.20156	.49746
39	DJEPMT	-.00079	.22658	.24146	.00544	.00013	.01719
40	DJEPPT	.00037	.18412	.30526	-.00296	.00982	.01601
41	DJEPPP5T	.00151	.04754	.06451	-.00242	.00094	-.00452
42	DJEPPST	.76627	5.3140	44.594	.97584	4.6860	4.6879
43	DJEPPDT	.83647	5.3917	44.817	.98928	4.6803	4.6896
44	DJG82T	-.00307	.18639	1.5783	.03109	.00618	1.5926
45	CCV2-5	1.0254	5.4687	5.0739	5.3032	5.2522	5.2227
46	CCB5	.00108	.06329	.00018	-.00147	.00013	.00189

OK V R L. m.w. 8-30-00

#	Sample Name	SE
1	STD1	.00015
2	STD5A	.50575
3	STD5B	
4	ICV2-1 0057-005-2	1.0407
5	ICB1	.02868
6	ICSA 0057-011-1	.03299
7	ICSAB 0014-187-1	.97484
8	DHM1KB	-.01186
9	DHM1KC	2.0311
10	DGJNW	.09113
11	DGJNWP5	.00430
12	DGJNWS	2.1033
13	DGJNWD	1.9377
14	DGJP1	.04867
15	DGLRR	.10345
16	CCV2-1 0057-025-5	5.2943
17	CCB1	.01385
18	DHAXG	.09586
19	DHAXL	-.00300
20	DHDJT	.14605
21	DHK28	.06548
22	DHK2A	.04066
23	DHK2C	.07418
24	DHK2D	.08804
25	DHK2F	.02718
26	DHK2G	.12743
27	DHK2H	.09662
28	CCV2-2	5.3483
29	CCB2	-.02075
30	DHK2K	.13734
31	CCV2-3	5.3410
32	CCB3	.03264
33	CRA TEST	-.00959
34	CCV2-4	5.3317
35	CCB4	-.02175
36	DJL29BT	-.01185
37	DJJH6BT	.00002
38	DJL29CT	2.3297
39	DJEPMT	-.00033
40	DJEPPT	-.00305
41	DJEPPP5T	-.01973
42	DJEPPST	1.0710
43	DJEPPDT	1.0794
44	DJG82T	-.01525
45	CCV2-5	<u>H5.5364</u>
46	CCB5	-.01384

VOID. MW 8.30.00

CCV2-5 IS OUT OF CONTACT FOR SE.

ALL ANALYSIS AFTER CCB4
WILL NEED REANALYZED.MW
8.30.00

6711301 MTW 8-30-00

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	STD1	J00830A	QUANMET	08/30/00	07:41		X	IR
2	STD5A	J00830A	QUANMET	08/30/00	07:44		X	IR
3	STD5B	J00830A	QUANMET	08/30/00	07:47		X	IR
4	ICV2-1 0057-005-2	J00830A	QUANMET	08/30/00	07:50	MTW	S	CONC
5	ICB1	J00830A	QUANMET	08/30/00	07:53	MTW	S	CONC
6	ICSA 0057-011-1	J00830A	QUANMET	08/30/00	07:57	MTW	Q	CONC
7	ICSAB 0014-187-1	J00830A	QUANMET	08/30/00	08:00	MTW	Q	CONC
8	DHM1KB	J00830A	QUANMET	08/30/00	08:05	MTW	S	CONC
9	DHM1KC	J00830A	QUANMET	08/30/00	08:08	MTW	S	CONC
10	DGJNW	J00830A	QUANMET	08/30/00	08:11	MTW	S	CONC
11	DGJNWP5	J00830A	QUANMET	08/30/00	08:15	MTW	S	CONC
12	DGJNWS	J00830A	QUANMET	08/30/00	08:18	MTW	S	CONC
13	DGJNWD	J00830A	QUANMET	08/30/00	08:21	MTW	S	CONC
14	DGJP1	J00830A	QUANMET	08/30/00	08:24	MTW	S	CONC
15	DGLRR	J00830A	QUANMET	08/30/00	08:27	MTW	S	CONC
16	CCV2-1 0057-025-5	J00830A	QUANMET	08/30/00	08:30	MTW	S	CONC
17	CCB1	J00830A	QUANMET	08/30/00	08:33	MTW	S	CONC
18	DHAXG	J00830A	QUANMET	08/30/00	08:36	MTW	S	CONC
19	DHAXL	J00830A	QUANMET	08/30/00	08:40	MTW	S	CONC
20	DHDJT	J00830A	QUANMET	08/30/00	08:43	MTW	S	CONC
21	DHK28	J00830A	QUANMET	08/30/00	08:46	MTW	S	CONC
22	DHK2A	J00830A	QUANMET	08/30/00	08:49	MTW	S	CONC
23	DHK2C	J00830A	QUANMET	08/30/00	08:52	MTW	S	CONC
24	DHK2D	J00830A	QUANMET	08/30/00	08:55	MTW	S	CONC
25	DHK2F	J00830A	QUANMET	08/30/00	08:58	MTW	S	CONC
26	DHK2G	J00830A	QUANMET	08/30/00	09:02	MTW	S	CONC
27	DHK2H	J00830A	QUANMET	08/30/00	09:05	MTW	S	CONC
28	CCV2-2	J00830A	QUANMET	08/30/00	09:08	MTW	S	CONC
29	CCB2	J00830A	QUANMET	08/30/00	09:11	MTW	S	CONC
30	DHK2K	J00830A	QUANMET	08/30/00	09:14	MTW	S	CONC
31	CCV2-3	J00830A	QUANMET	08/30/00	09:17	MTW	S	CONC
32	CCB3	J00830A	QUANMET	08/30/00	09:20	MTW	S	CONC
33	CRA TEST	J00830A	QUANMET	08/30/00	09:25	MTW	S	CONC
34	CCV2-4	J00830A	QUANMET	08/30/00	09:28	MTW	S	CONC
35	CCB4	J00830A	QUANMET	08/30/00	09:31	MTW	S	CONC
36	DJL29BT	J00830A	QUANMET	08/30/00	10:27	MTW	S	CONC
37	DJJH6BT	J00830A	QUANMET	08/30/00	10:30	MTW	S	CONC
38	DJL29CT	J00830A	QUANMET	08/30/00	10:34	MTW	S	CONC
39	DJEPMT	J00830A	QUANMET	08/30/00	10:37	MTW	S	CONC
40	DJEPPPT	J00830A	QUANMET	08/30/00	10:40	MTW	S	CONC
41	DJEPPP5T	J00830A	QUANMET	08/30/00	10:43	MTW	S	CONC
42	DJEPPST	J00830A	QUANMET	08/30/00	10:46	MTW	S	CONC
43	DJEPPDT	J00830A	QUANMET	08/30/00	10:50	MTW	S	CONC
44	DJG82T	J00830A	QUANMET	08/30/00	10:53	MTW	S	CONC
45	CCV2-5	J00830A	QUANMET	08/30/00	10:56	MTW	S	CONC
46	CCB5	J00830A	QUANMET	08/30/00	10:59	MTW	S	CONC

Method: QUANMET Standard: STD1
Run Time: 08/30/00 07:41:16

6711302

Elem	AG	AL	AS	B_	BA	BE	CA
Avge	-.00085	.00865	-.00020	.00000	-.00006	.00240	.00012
SDev	.00025	.00076	.00123	.00000	.00007	.00023	.00089
%RSD	29.607	8.7281	616.44	.00000	115.47	9.6225	734.04
#1	-.00080	.00880	-.00200	.00000	-.00012	.00220	-.00025
#2	-.00080	.00840	.00020	.00000	.00000	.00260	.00038
#3	-.00120	.00780	.00080	.00000	-.00012	.00220	-.00086
#4	-.00060	.00960	.00020	.00000	.00000	.00260	.00121
Elem	CD	CO	CR	CU	FE	K_	LI
Avge	.00016	.00000	.00030	.00015	.00035	-.03635	.00010
SDev	.00008	.00052	.00082	.00041	.00053	.01212	.00013
%RSD	51.852	.00000	274.87	274.87	150.28	33.348	126.16
#1	.00012	-.00020	-.00040	-.00020	.00080	-.04060	.00016
#2	.00028	.00060	.00120	.00040	.00000	-.02680	.00020
#3	.00012	-.00060	-.00040	-.00020	-.00020	-.05160	-.00008
#4	.00012	.00020	.00080	.00060	.00080	-.02640	.00012
Elem	MG	MN	MO	NA	NI	PB	SB
Avge	-.00015	.00015	.00010	.05720	.00000	.00070	.00010
SDev	.00098	.00010	.00020	.00177	.00041	.00084	.00026
%RSD	656.59	66.667	200.00	3.1012	14053.	120.09	258.20
#1	-.00100	.00020	.00000	.05660	.00032	.00020	.00020
#2	.00060	.00020	.00000	.05660	-.00060	.00120	.00040
#3	-.00100	.00000	.00000	.05580	.00021	-.00020	-.00020
#4	.00080	.00020	.00040	.05980	.00008	.00160	.00000
Elem	SE	SI	SN	SR	TI	TL	V_
Avge	.00015	.00040	.00095	-.00002	.00220	-.00020	.00020
SDev	.00186	.00033	.00115	.00004	.00028	.00052	.00040
%RSD	1243.1	81.650	120.79	200.00	12.856	258.20	200.00
#1	.00040	.00080	.00200	.00000	.00240	-.00040	.00000
#2	-.00180	.00040	.00040	.00000	.00220	.00000	.00000
#3	-.00060	.00000	-.00040	-.00008	.00180	.00040	.00000
#4	.00260	.00040	.00180	.00000	.00240	-.00080	.00080
Elem	ZN						
Avge	.00031						
SDev	.00018						
%RSD	60.161						
#1	.00032						
#2	.00024						
#3	.00012						
#4	.00055						

Method: QUANMET Standard: STD5A 0014-155-1
 Run Time: 08/30/00 07:44:27

Elem	AG	AS	B	BA	BE	CD	CO
Avge	.27030	.52140	.59112	4.1897	15.858	.90118	1.4290
SDev	.00111	.00638	.00719	.0592	.168	.00364	.0074
%RSD	.41197	1.2231	1.2161	1.4131	1.0600	.40447	.51655
#1	.26880	.51240	.58052	4.1054	15.615	.90092	1.4182
#2	.27140	.52740	.59372	4.1940	15.978	.90575	1.4344
#3	.27020	.52340	.59652	4.2396	15.964	.89684	1.4328
#4	.27080	.52240	.59372	4.2198	15.873	.90120	1.4308
Elem	CR	CU	LI	MN	MO	NI	PB
Avge	3.7171	2.3331	4.5689	2.0252	.40400	1.7034	.25280
SDev	.0151	.0334	.1000	.0107	.00307	.0064	.00118
%RSD	.40532	1.4337	2.1893	.53082	.76051	.37862	.46581
#1	3.6968	2.2852	4.4327	2.0094	.39940	1.6941	.25120
#2	3.7332	2.3378	4.5575	2.0334	.40540	1.7091	.25400
#3	3.7192	2.3622	4.6575	2.0300	.40580	1.7049	.25320
#4	3.7194	2.3470	4.6280	2.0278	.40540	1.7054	.25280
Elem	SB	SE	SI	SN	SR	TI	TL
Avge	.19140	.50575	.34355	.95580	8.0221	6.2097	.34400
SDev	.00177	.00444	.00357	.01116	.1000	.0550	.00433
%RSD	.92679	.87797	1.0385	1.1682	1.2469	.88547	1.2595
#1	.19200	.49920	.33820	.95940	7.8774	6.1282	.34240
#2	.19360	.50680	.34540	.95900	8.0385	6.2306	.34240
#3	.19040	.50840	.34520	.96520	8.1035	6.2488	.34080
#4	.18960	.50860	.34540	.93960	8.0690	6.2312	.35040
Elem	V	ZN					
Avge	1.6199	1.4985					
SDev	.0114	.0073					
%RSD	.70165	.48385					
#1	1.6034	1.4882					
#2	1.6290	1.5040					
#3	1.6252	1.5031					
#4	1.6220	1.4988					

Method: QUANMET Standard: STD5B 0014-155-2
Run Time: 08/30/00 07:47:37

6711304

Elem	AL	CA	FE	K	MG	NA
Avge	11.569	24.727	30.198	2.5008	7.6783	48.741
SDev	.033	.063	.085	.0089	.0228	.096
%RSD	.28537	.25597	.28212	.35685	.29736	.19781
#1	11.527	24.657	30.084	2.4948	7.6486	48.597
#2	11.568	24.705	30.190	2.4952	7.6720	48.773
#3	11.607	24.808	30.283	2.4992	7.6970	48.799
#4	11.576	24.738	30.236	2.5138	7.6954	48.795

Method: QUANMET

Slope = Conc(SIR)/IR

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
AG	328.068	STD5A	STD1	7.19648	.006117	08/30/00 07:47:37
AL	308.215	STD5B	STD1	8.64992	-.074822	08/30/00 07:47:37
AS	193.696	STD5A	STD1	19.5023	.003900	08/30/00 07:47:37
B	249.600	STD5A	STD1	16.9511	.000000	08/30/00 07:47:37
BA	493.409	STD5A	STD1	2.38677	.000140	08/30/00 07:47:37
BE	313.042	STD5A	STD1	.632373	-.001518	08/30/00 07:47:37
CA	317.933	STD5B	STD1	4.04419	-.000488	08/30/00 07:47:37
CD	228.802	STD5A	STD1	11.2649	-.001789	08/30/00 07:47:37
CO	228.616	STD5A	STD1	7.03108	.000000	08/30/00 07:47:37
CR	267.716	STD5A	STD1	2.69119	-.000807	08/30/00 07:47:37
CU	324.754	STD5A	STD1	4.28261	-.000642	08/30/00 07:47:37
FE	259.940	STD5B	STD1	3.31152	-.001159	08/30/00 07:47:37
K	766.491	STD5B	STD1	39.4151	1.43274	08/30/00 07:47:37
LI	670.789	STD5A	STD1	2.18874	-.000219	08/30/00 07:47:37
MG	279.079	STD5B	STD1	13.0235	.001954	08/30/00 07:47:37
MN	257.610	STD5A	STD1	4.93664	-.000740	08/30/00 07:47:37
MO	202.030	STD5A	STD1	24.7586	-.002476	08/30/00 07:47:37
NA	588.995	STD5B	STD1	2.05407	-.117493	08/30/00 07:47:37
NI	231.604	STD5A	STD1	5.86809	-.000017	08/30/00 07:47:37
PB	220.353	STD5A	STD1	38.4998	-.026950	08/30/00 07:47:37
SB	206.838	STD5A	STD1	52.3345	-.005233	08/30/00 07:47:37
SE	196.026	STD5A	STD1	19.7785	-.002967	08/30/00 07:47:37
SI	288.158	STD5A	STD1	28.7699	-.011508	08/30/00 07:47:37
SN	189.989	STD5A	STD1	10.4619	-.009939	08/30/00 07:47:37
SR	409.552	STD5A	STD1	1.24655	.000026	08/30/00 07:47:37
TI	334.941	STD5A	STD1	1.61095	-.003544	08/30/00 07:47:37
TL	190.864	STD5A	STD1	58.3781	.011676	08/30/00 07:47:37
V	292.402	STD5A	STD1	6.04250	-.001208	08/30/00 07:47:37
ZN	213.856	STD5A	STD1	6.69743	-.002049	08/30/00 07:47:37

Analysis Report

08/30/00 07:53:53 AM

page 1

Method: QUANMET Sample Name: ICV2-1 0057-005-2 Operator: MTW
 Run Time: 08/30/00 07:50:47
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
 Mode: CONC Corr. Factor: 1

6711306

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51243	25.393	1.0320	1.0392	1.0222	.99844	25.613
SDev	.00266	.069	.0287	.0052	.0038	.00357	.082
%RSD	.51949	.27001	2.7779	.50254	.37337	.35701	.31867
#1	.50948	25.298	1.0662	1.0392	1.0169	.99524	25.534
#2	.51101	25.456	1.0451	1.0454	1.0260	.99913	25.552
#3	.51533	25.428	1.0062	1.0395	1.0233	1.0032	25.678
#4	.51389	25.392	1.0105	1.0326	1.0226	.99622	25.689
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.55000	27.500	1.1000	1.1000	1.1000	1.1000	27.500
Low	.45000	22.500	.90000	.90000	.90000	.90000	22.500
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0095	1.0133	1.0228	1.0172	26.393	24.713	1.0346
SDev	.0113	.0047	.0027	.0057	.064	.272	.0054
%RSD	1.1151	.46509	.26240	.56484	.24392	1.1002	.52077
#1	1.0132	1.0119	1.0189	1.0097	26.313	24.569	1.0301
#2	1.0018	1.0077	1.0232	1.0216	26.394	24.680	1.0424
#3	1.0238	1.0189	1.0248	1.0217	26.471	24.498	1.0335
#4	.99941	1.0147	1.0243	1.0157	26.394	25.105	1.0324
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	1.1000	1.1000	1.1000	27.500	27.500	1.1000
Low	.90000	.90000	.90000	.90000	22.500	22.500	.90000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.620	1.0180	1.0067	25.148	1.0052	1.0226	1.0298
SDev	.089	.0022	.0081	.130	.0116	.0115	.0147
%RSD	.34720	.21669	.80372	.51855	1.1556	1.1282	1.4267
#1	25.502	1.0147	1.0067	25.039	.99643	1.0053	1.0192
#2	25.713	1.0187	.99677	25.327	1.0221	1.0282	1.0196
#3	25.653	1.0197	1.0166	25.162	.99906	1.0285	1.0505
#4	25.611	1.0187	1.0067	25.064	1.0031	1.0284	1.0298
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	27.500	1.1000	1.1000	27.500	1.1000	1.1000	1.1000
Low	22.500	.90000	.90000	22.500	.90000	.90000	.90000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0407	1.0227	.98227	1.0150	1.0061	5.0626	1.0067
SDev	.0497	.0100	.02910	.0029	.0024	.1096	.0068
%RSD	4.7730	.97432	2.9622	.28246	.23731	2.1649	.67904
#1	H1.1067	1.0197	1.0047	1.0110	1.0030	5.0197	.99672
#2	.98825	1.0141	.95032	1.0177	1.0062	5.0538	1.0110

#3	1.0438	1.0371	1.0091	1.0160	1.0088	5.2164	1.0078
#4	1.0239	1.0199	.96501	1.0155	1.0065	4.9603	1.0112
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	1.1000	1.1000	1.1000	1.1000	5.5000	1.1000
Low	.90000	.90000	.90000	.90000	.90000	4.5000	.90000

Elem ZN
Units ppm
Avge 1.0233
SDev .0051
%RSD .49977

#1 1.0188
#2 1.0212
#3 1.0306
#4 1.0226

Errors LC Pass
High 1.1000
Low .90000

Method: QUANMET Sample Name: ICB1

Operator: MTW

Run Time: 08/30/00 07:53:56

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

6711308

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00000	-.00087	.00196	.00713	-.00005	.00016	.01307
SDev	.00217	.00708	.02747	.02180	.00023	.00015	.00637
%RSD	529900.	814.16	1405.0	305.68	474.38	96.853	48.747
#1	.00179	.00129	.00781	.00000	.00014	.00013	.01364
#2	-.00109	-.00562	.03127	.01257	-.00034	.00013	.00860
#3	-.00252	-.00731	-.03502	-.01795	-.00014	.00000	.00817
#4	.00182	.00817	.00377	.03391	.00014	.00037	.02187
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00021	-.00035	.00040	.00086	.00149	-.05715	.00022
SDev	.00220	.00177	.00161	.00146	.00248	.36665	.00086
%RSD	1071.9	501.91	398.04	170.95	166.57	641.54	392.43
#1	.00037	-.00000	.00081	.00107	.00149	-.08868	.00091
#2	-.00216	-.00280	-.00135	.00021	-.00116	-.30941	-.00099
#3	.00311	-.00001	-.00027	-.00064	.00083	-.30153	.00022
#4	-.00050	.00141	.00242	.00279	.00480	.47101	.00073
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00456	-.00025	.00000	.00462	-.00459	-.02504	-.00267
SDev	.01450	.00057	.00286	.00410	.00525	.01313	.02470
%RSD	318.16	231.91	1281800.	88.703	114.25	52.440	926.55
#1	-.00326	.00025	.00248	.00904	-.01078	-.02693	.01557
#2	-.01107	-.00074	-.00248	-.00082	-.00549	-.01937	-.03666
#3	-.01888	-.00074	-.00248	.00452	-.00408	-.04232	.01567
#4	.01498	.00025	.00248	.00575	.00198	-.01152	-.00525
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02868	-.00288	.00156	.00003	-.00024	-.01169	.00000
SDev	.06643	.01000	.00534	.00000	.00081	.02863	.00245
%RSD	231.60	347.46	343.05	.00000	333.33	244.90	305330.
#1	.00495	-.00577	.00269	.00003	.00000	-.03503	-.00116
#2	.07614	-.01152	-.00592	.00003	-.00129	.00004	-.00126

#3	-.05439	-.00577	.00269	.00003	-.00032	.02335	-.00126
#4	.08803	.01155	.00677	.00003	.00064	-.03511	.00368

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem ZN
Units ppm
Avge -.00044
SDev .00145
%RSD 328.63

#1	.00010
#2	.00009
#3	-.00259
#4	.00063

Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET Sample Name: ICSA 0057-011-1

Operator: MTW

Run Time: 08/30/00 07:57:04

6711310

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00258	495.13	.01202	-.03243	.00157	-.00001	484.70
SDev	.00138	2.17	.11425	.00705	.00042	.00001	3.74
%RSD	53.620	.43809	950.52	21.749	26.806	97.314	.77139
#1	-.00176	492.72	-.15848	-.04011	.00138	-.00001	481.60
#2	-.00440	497.59	.07030	-.03605	.00110	.00000	482.24
#3	-.00288	496.16	.05409	-.02939	.00205	-.00001	485.18
#4	-.00129	494.03	.08217	-.02419	.00177	-.00001	489.80
Errors	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value		500.00					500.00
Range		20.000					20.000

Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00575	.01059	-.00094	-.00680	185.19	-.31729	.00140
SDev	.00325	.00081	.00217	.00080	.82	.14421	.00068
%RSD	56.551	7.6873	229.83	11.738	.44077	45.451	48.523
#1	-.00531	.00989	.00027	-.00561	184.10	-.12022	.00127
#2	-.00426	.00989	-.00403	-.00723	185.17	-.34094	.00153
#3	-.01042	.01131	-.00081	-.00721	185.42	-.46707	.00058
#4	-.00302	.01129	.00080	-.00716	186.05	-.34094	.00223
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK
Value					200.00		
Range					20.000		

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	481.56	.00245	.00170	.00585	.00400	.04635	.02120
SDev	1.36	.00112	.01098	.00144	.01192	.07504	.05233
%RSD	.28322	45.928	647.58	24.561	298.27	161.89	246.86
#1	479.59	.00094	-.00466	.00657	.00523	-.05400	-.00488
#2	482.74	.00313	.00541	.00370	-.00039	.12772	.09970
#3	482.00	.00225	.01535	.00657	-.00858	.05913	-.00516
#4	481.90	.00345	-.00932	.00657	.01973	.05257	-.00485
Errors	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	500.00						
Range	20.000						

Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03299	.11223	-.06455	.01359	-.01998	.78184	.00245
SDev	.06512	.02758	.02777	.00010	.00026	.22137	.00238
%RSD	197.38	24.577	43.012	.75489	1.3169	28.315	97.314
#1	-.06383	.08059	-.08581	.01358	-.02030	.48077	.00354
#2	.07746	.13232	-.08511	.01372	-.01998	.89001	-.00111

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#3	.05834	.13814	-.06045	.01347	-.01965	.99246	.00392
#4	.06000	.09785	-.02685	.01358	-.01998	.76411	.00345

Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	ZN
Units	ppm
Avge	.00263
SDev	.00260
%RSD	99.139

#1	-.00037
#2	.00355
#3	.00571
#4	.00161

Errors	NOCHECK
Value	
Range	

Method: QUANMET Sample Name: ICSAB 0014-187-1 Operator: MTW
 Run Time: 08/30/00 08:00:13
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
 Mode: CONC Corr. Factor: 1

6711312

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.96266	490.68	.90301	.94757	.47086	.45801	482.03
SDev	.00394	3.26	.14087	.01668	.00422	.00238	3.44
%RSD	.40886	.66385	15.600	1.7605	.89650	.51930	.71288
#1	.96330	490.55	.89677	.95521	.47115	.45813	479.77
#2	.95892	491.53	.90472	.95490	.47163	.45726	478.99
#3	.96053	486.40	1.0777	.92261	.46522	.45547	486.56
#4	.96791	494.26	Q.73283	.95754	.47544	.46117	482.79
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	500.00	1.0000	1.0000	.50000	.50000	500.00
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.96614	.45488	.44486	.49009	184.21	9.7552	1.0160
SDev	.00285	.00243	.00159	.00644	.62	.4109	.0161
%RSD	.29544	.53320	.35660	1.3140	.33561	4.2120	1.5847
#1	.96367	.45278	.44486	.49156	183.83	9.6153	1.0214
#2	.96398	.45278	.44271	.49069	183.67	9.2921	1.0246
#3	.96966	.45698	.44540	.48132	184.30	10.270	.99208
#4	.96727	.45697	.44648	.49680	185.05	9.8439	1.0262
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	.50000	.50000	.50000	200.00	10.000	1.0000
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	476.24	.45673	.91267	9.9497	.89918	.97363	1.0250
SDev	2.00	.00184	.01484	.1110	.01069	.02424	.0314
%RSD	.42039	.40218	1.6260	1.1155	1.1894	2.4895	3.0647
#1	475.99	.45637	.90642	9.9947	.88896	.93916	1.0721
#2	475.39	.45433	.89649	9.9733	.89107	.97701	1.0093
#3	474.48	.45857	.93125	9.7889	.90999	.99549	1.0092
#4	479.09	.45764	.91651	10.042	.90668	.98285	1.0094
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.00	.50000	1.0000	10.000	1.0000	1.0000	1.0000
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.97485	1.1035	.87035	.94361	.89819	9.7692	.46082
SDev	.07690	.0496	.03807	.00716	.00438	.0709	.00264
%RSD	7.8888	4.4958	4.3737	.75873	.48779	.72527	.57192
#1	.99956	1.0992	.83650	.94411	.89601	9.7498	.46191
#2	.86068	1.0415	.86756	.94535	.89666	9.8566	.45688

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#3	1.0127	1.1107	.92418	.93388	.89537	9.6865	.46239
#4	1.0265	1.1624	.85315	.95109	.90471	9.7839	.46211
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	10.000	.50000
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000

Elem ZN
Units ppm
Avge .94904
SDev .00547
%RSD .57672

#1 .94653
#2 .94282
#3 .95159
#4 .95523

Errors QC Pass
Value 1.0000
Range 20.000

Analysis Report

08/30/00 08:08:43 AM

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Method: QUANMET Sample Name: DHM1KB

Operator: MTW

Run Time: 08/30/00 08:05:37

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00109	-.00519	-.02529	.01526	.00038	.00007	.02118
SDev	.00118	.01178	.01212	.01762	.00028	.00007	.00247
%RSD	108.30	227.00	47.914	115.44	72.703	109.89	11.669
#1	.00035	.00648	-.03124	.03052	.00062	.00013	.02340
#2	-.00109	-.01248	-.01158	.00000	.00014	.00000	.02102
#3	-.00109	.00305	-.01951	.00000	.00062	.00013	.02254
#4	-.00252	-.01780	-.03884	.03052	.00014	.00000	.01778
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00161	-.00105	-.00013	.00043	.00132	-.08277	-.00031
SDev	.00322	.00070	.00212	.00082	.00100	.24956	.00037
%RSD	199.95	66.959	1587.2	191.96	75.210	301.51	120.47
#1	-.00184	.00000	.00242	.00107	.00281	.06898	.00022
#2	.00058	-.00141	-.00189	.00021	.00082	-.26211	-.00040
#3	L-.00608	-.00139	.00081	.00107	.00083	.18722	-.00040
#4	.00089	-.00141	-.00188	-.00064	.00083	-.32517	-.00066
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00130	-.00049	.00000	.00832	-.00251	-.01160	-.01575
SDev	.00685	.00050	.00639	.00551	.00245	.04447	.00856
%RSD	525.99	100.44	3223500.	66.300	97.470	383.49	54.370
#1	.00456	-.00074	.00248	.01602	-.00023	.04233	-.01577
#2	.00195	-.00074	-.00743	.00575	-.00597	-.06552	-.02622
#3	.00716	-.00074	-.00248	.00822	-.00168	-.00390	-.00525
#4	-.00847	.00025	.00743	.00329	-.00216	-.01930	-.01575
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01186	.00718	.00673	-.00016	-.00056	.02043	-.00121
SDev	.03252	.00863	.01022	.00012	.00041	.08331	.00012
%RSD	274.10	120.26	151.84	77.273	71.903	407.73	10.257
#1	-.03065	.01725	.01091	-.00022	.00000	.02333	-.00116
#2	.02473	-.00002	.01924	-.00022	-.00097	.04671	-.00136

#3	-.04648	.01149	-.00159	-.00022	-.00064	.10509	-.00125
#4	.00495	-.00001	-.00164	.00003	-.00064	-.09339	-.00107

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem . ZN
Units ppm
Avge .00262
SDev .00028
%RSD 10.679

#1 .00275
#2 .00277
#3 .00220
#4 .00276

Errors LC Pass
High .02000
Low -.02000

Analysis Report

08/30/00 08:11:51 AM

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Method: QUANMET Sample Name: DHM1KC

Operator: MTW

Run Time: 08/30/00 08:08:45

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

6711316

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05019	2.0293	2.0391	1.0346	2.0312	.05012	50.877
SDev	.00245	.0105	.0556	.0003	.0188	.00038	.198
%RSD	4.8768	.51956	2.7263	.02985	.92777	.75225	.38918
#1	.04911	2.0328	2.1034	1.0351	2.0482	.05053	50.655
#2	.05055	2.0137	1.9787	1.0345	2.0049	.04964	51.119
#3	.05341	2.0346	2.0098	1.0345	2.0310	.05003	50.936
#4	.04767	2.0363	2.0644	1.0345	2.0405	.05027	50.798
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Pass
High	.06000	2.4000	2.4000		2.4000	.06000	60.000
Low	.04000	1.6000	1.6000		1.6000	.04000	40.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04387	.49292	.19809	.25257	1.0606	49.261	1.0276
SDev	.00329	.00335	.00093	.00288	.0037	.600	.0136
%RSD	7.4937	.67977	.47043	1.1413	.35078	1.2181	1.3243
#1	.04648	.49079	.19889	.25599	1.0660	50.024	1.0417
#2	.04657	.49224	.19890	.24914	1.0573	48.620	1.0094
#3	.04265	.49785	.19728	.25171	1.0593	48.999	1.0267
#4	L.03977	.49082	.19728	.25342	1.0600	49.401	1.0325
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	.06000	.60000	.24000	.30000	1.2000	60.000	
Low	.04000	.40000	.16000	.20000	.80000	40.000	
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	49.792	.49747	.99422	49.979	.49541	.48441	.47366
SDev	.334	.00081	.00743	.594	.01167	.03518	.06126
%RSD	.67034	.16182	.74704	1.1877	2.3565	7.2622	12.932
#1	50.163	.49845	.98803	50.526	.49232	.47867	.54422
#2	49.359	.49648	1.0029	49.166	.50693	.44015	.49207
#3	49.765	.49747	.99793	49.935	.48045	.49407	L.39770
#4	49.880	.49746	.98803	50.289	.50195	.52476	.46065
Errors	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0311	1.1759	1.9709	1.0142	.99195	2.0335	.50058
SDev	.0377	.0109	.0292	.0085	.00501	.0518	.00237
%RSD	1.8579	.92645	1.4814	.84242	.50485	2.5465	.47428
#1	2.0212	1.1917	2.0063	1.0218	.99589	2.0042	.50167
#2	1.9895	1.1687	1.9579	1.0024	.98462	2.0510	.50196

#3	2.0331	1.1744	1.9386	1.0139	.99331	2.0977	.49703
#4	2.0805	1.1687	1.9808	1.0188	.99396	1.9809	.50167
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass
High	2.4000					2.4000	.60000
Low	1.6000					1.6000	.40000

Elem ZN
Units ppm
Avge .53119
SDev .00281
%RSD .52905

#1 .53073
#2 .53230
#3 .52754
#4 .53418

Errors LC Pass
High .60000
Low .40000

Method: QUANMET Sample Name: DGJNW

Operator: MTW

Run Time: 08/30/00 08:11:53

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00371	84.027	.03898	.02948	.47845	.00515	27.126
SDev	.00140	.154	.01770	.02172	.00148	.00016	.191
%RSD	37.790	.18306	45.408	73.697	.31048	3.0867	.70582
#1	.00317	83.926	.06221	.01204	.47954	.00518	26.891
#2	.00473	83.865	.03476	.04952	.47640	.00493	27.116
#3	.00199	84.158	.03951	.00938	.47954	.00518	27.137
#4	.00498	84.160	.01943	.04697	.47831	.00531	27.360
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00041	.08996	.13354	.24732	180.98	8.1353	.17092
SDev	.00158	.00494	.00217	.00116	.69	.2765	.00122
%RSD	388.36	5.4863	1.6253	.47024	.38078	3.3987	.71476
#1	-.00159	.08750	.13475	.24597	180.18	7.8732	.17241
#2	.00194	.09171	.13367	.24687	180.70	7.9205	.17102
#3	.00135	.08467	.13044	.24777	181.28	8.3540	.17084
#4	-.00008	.09596	.13529	.24867	181.76	8.3934	.16942
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	31.723	3.0667	.00726	.76720	.18505	.20470	.00057
SDev	.048	.0132	.00286	.01193	.01382	.01873	.01343
%RSD	.15177	.42969	39.396	1.5553	7.4699	9.1497	2364.4
#1	31.673	3.0500	.00961	.78383	.16954	.21261	.01614
#2	31.696	3.0639	.00474	.76083	.18569	.18952	.00575
#3	31.746	3.0720	.00483	.75672	.18196	.22748	-.01514
#4	31.779	3.0810	.00985	.76740	.20302	.18919	-.00448
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.09114	3.2327	-.00412	.27409	.52219	.27462	.14422
SDev	.05836	.0545	.02241	.00080	.00378	.09434	.00006
%RSD	64.035	1.6854	543.93	.29122	.72371	34.351	.04067
#1	.01683	3.1550	-.01936	.27440	.51841	.27992	.14426
#2	.08545	3.2816	.02881	.27290	.52130	.29793	.14417

#3	.15820	3.2413	-.00886	.27465	.52743	.37372	.14416
#4	.10407	3.2528	-.01707	.27440	.52163	.14692	.14427
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .79083
SDev .00415
%RSD .52434

#1 .78758
#2 .78724
#3 .79578
#4 .79274

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DGJNWP5 Operator: MTW
 Run Time: 08/30/00 08:15:02
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00063	17.462	.02224	.01065	.09930	.00116	5.7093
SDev	.00173	.303	.00853	.00125	.00195	.00006	.0812
%RSD	273.96	1.7367	38.357	11.759	1.9674	5.4431	1.4223
#1	-.00174	17.775	.02384	.01186	.10126	.00106	5.7607
#2	.00108	17.626	.00975	.01136	.10030	.00119	5.7611
#3	.00240	17.357	.02814	.01036	.09887	.00119	5.7251
#4	.00079	17.088	.02724	.00902	.09676	.00119	5.5901
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00210	.01981	.02905	.05130	38.793	1.7540	.03543
SDev	.00282	.00267	.00226	.00073	.652	.4067	.00085
%RSD	134.12	13.477	7.7917	1.4149	1.6804	23.187	2.3986
#1	.00389	.01804	.02663	.05135	39.421	1.1726	.03668
#2	.00404	.01945	.02932	.05133	39.161	1.7796	.03519
#3	-.00199	.02368	.02824	.05215	38.647	1.9924	.03483
#4	.00247	.01805	.03201	.05037	37.943	2.0713	.03501
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.6915	.64543	-.00163	.15447	.03583	.03652	.00795
SDev	.1140	.01004	.00395	.00309	.00334	.02329	.01319
%RSD	1.7034	1.5550	243.02	2.0021	9.3310	63.788	165.79
#1	6.7976	.65399	-.00648	.15693	.03381	.01495	.00540
#2	6.7638	.65195	-.00157	.15200	.03919	.03053	-.00516
#3	6.6596	.64390	-.00165	.15734	.03810	.03097	.02629
#4	6.5450	.63186	.00320	.15159	.03223	.06962	.00528
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00430	.68076	-.00292	.05729	.10842	.04638	.02782
SDev	.03237	.02632	.02115	.00105	.00062	.08292	.00008
%RSD	752.57	3.8657	723.47	1.8360	.56905	178.77	.29014
#1	-.03360	.67357	-.02374	.05836	.10922	-.06513	.02772
#2	.01714	.66781	.02010	.05787	.10858	.11268	.02782

#3	-.00795	.66206	.00969	.05697	.10793	.10623	.02782
#4	.04162	.71960	-.01774	.05597	.10793	.03175	.02792
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .16466
SDev .00215
%RSD 1.3049

#1 .16565
#2 .16613
#3 .16539
#4 .16147

Errors LC Pass
High 100.00
Low -.02000

Analysis Report

6711322

08/30/00 08:21:16 AM

page 1

Method: QUANMET Sample Name: DGJNWS Operator: MTW
 Run Time: 08/30/00 08:18:10
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05136	123.01	2.0072	.97189	2.5697	.05414	75.701
SDev	.00277	.58	.0484	.00675	.0149	.00019	.497
%RSD	5.3851	.46970	2.4136	.69475	.58113	.35007	.65677
#1	.05268	122.27	2.0488	.97183	2.5487	.05399	75.756
#2	.04831	123.08	2.0386	.97500	2.5783	.05425	75.032
#3	.04993	123.01	1.9993	.96255	2.5697	.05397	75.782
#4	.05450	123.68	1.9419	.97820	2.5821	.05435	76.235
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04965	.56238	.35096	.48607	178.22	60.480	1.2134
SDev	.00400	.00405	.00368	.00392	.76	.355	.0122
%RSD	8.0530	.72112	1.0493	.80746	.42641	.58701	1.0074
#1	.05098	.56170	.35109	.48089	177.75	59.980	1.1973
#2	.04524	.55746	.34572	.48859	177.63	60.477	1.2264
#3	.04787	.56731	.35378	.48522	178.21	60.745	1.2123
#4	.05450	.56305	.35325	.48958	179.30	60.721	1.2177
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	81.972	3.5453	.95138	48.817	.66616	.69752	.22373
SDev	.364	.0170	.01536	.345	.01815	.04004	.03465
%RSD	.44411	.47985	1.6148	.70769	2.7244	5.7407	15.488
#1	81.571	3.5375	.95008	48.325	.65842	.67307	.24192
#2	81.957	3.5306	.95996	49.103	.64915	.67241	.18950
#3	81.907	3.5436	.93034	48.836	.66565	.68800	.20037
#4	82.454	3.5695	.96516	49.001	.69143	.75661	.26315
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.1033	6.0000	1.8034	1.2495	1.3389	2.1635	.67680
SDev	.1329	.0662	.0247	.0066	.0063	.1020	.00403
%RSD	6.3170	1.1029	1.3717	.52789	.47341	4.7169	.59485
#1	2.0674	6.0445	1.8342	1.2403	1.3306	2.2968	.67526
#2	1.9365	5.9754	1.8109	1.2515	1.3393	2.1813	.67182

#3	2.1636	5.9180	1.7776	1.2500	1.3393	2.0584	.67972
#4	2.2455	6.0619	1.7906	1.2560	1.3461	2.1174	.68039
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge 1.3638
SDev .0078
%RSD .57485

#1 1.3668
#2 1.3547
#3 1.3608
#4 1.3730

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DGJNWD Operator: MTW
 Run Time: 08/30/00 08:21:18
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04798	117.90	1.9088	.91400	2.5103	.05347	73.319
SDev	.00185	.34	.0899	.00243	.0128	.00015	.882
%RSD	3.8616	.28745	4.7117	.26594	.50919	.28688	1.2026
#1	.04987	117.42	1.9423	.91631	2.5015	.05330	72.646
#2	.04569	118.20	1.9275	.91518	2.5285	.05342	72.623
#3	.04902	117.94	1.7792	.91382	2.5012	.05352	74.482
#4	.04734	118.05	1.9862	.91068	2.5100	.05366	73.526
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04380	.54550	.33859	.48346	167.19	58.019	1.2036
SDev	.00604	.00567	.00404	.00316	.98	.317	.0176
%RSD	13.792	1.0390	1.1924	.65352	.58439	.54679	1.4589
#1	.03671	.54061	.33818	.48252	166.16	57.662	1.2092
#2	.04102	.54620	.33334	.48771	166.72	58.419	1.2231
#3	.04993	.55322	.34303	.48014	168.41	57.915	1.1811
#4	.04753	.54198	.33980	.48348	167.49	58.080	1.2008
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	80.958	3.1001	.93364	48.268	.64616	.67781	.25248
SDev	.258	.0216	.01682	.395	.00716	.04034	.03512
%RSD	.31854	.69561	1.8010	.81755	1.1085	5.9520	13.909
#1	80.579	3.0791	.91368	48.246	.65234	.70899	.23189
#2	81.136	3.0862	.92862	48.728	.63888	.62384	.24196
#3	81.014	3.1262	.95363	47.767	.65227	.66998	.23141
#4	81.102	3.1091	.93864	48.333	.64112	.70842	.30465
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9377	7.9416	1.7416	1.2285	1.3685	2.0708	.65407
SDev	.0234	.0283	.0601	.0053	.0039	.0217	.00529
%RSD	1.2088	.35668	3.4534	.43445	.28415	1.0461	.80887
#1	1.9380	7.9775	1.6519	1.2231	1.3632	2.0757	.64916
#2	1.9671	7.9085	1.7630	1.2354	1.3690	2.0582	.65064

#3	1.9360	7.9432	1.7779	1.2256	1.3725	2.0992	.66081
#4	1.9098	7.9373	1.7739	1.2297	1.3693	2.0503	.65568
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge 1.3303
SDev .0103
%RSD .77413

#1 1.3158
#2 1.3324
#3 1.3328
#4 1.3402

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DGJPI

Operator: MTW

Run Time: 08/30/00 08:24:26

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00208	39.850	.02320	.06139	.28914	.00280	18.433
SDev	.00257	.107	.07655	.01193	.00073	.00007	.033
%RSD	123.25	.26772	330.00	19.440	.25263	2.4126	.17987
#1	.00346	39.736	-.08775	.06355	.28821	.00278	18.476
#2	.00067	39.891	.08613	.04432	.28992	.00277	18.396
#3	.00492	39.794	.05603	.06566	.28897	.00290	18.434
#4	-.00072	39.978	.03838	.07203	.28944	.00277	18.424
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00047	.07501	.63439	.44955	134.09	6.4424	.09665
SDev	.00220	.00352	.00161	.00223	.21	.1217	.00028
%RSD	472.26	4.6927	.25305	.49520	.15746	1.8890	.29217
#1	-.00245	.07958	.63587	.44697	133.89	6.6119	.09706
#2	-.00085	.07114	.63479	.45041	134.15	6.4385	.09655
#3	.00267	.07394	.63211	.44868	133.94	6.3912	.09652
#4	-.00123	.07536	.63480	.45214	134.35	6.3281	.09645
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	21.891	2.7125	.00767	.88654	.12700	.17141	-.01963
SDev	.078	.0025	.00906	.00970	.01072	.01160	.03317
%RSD	.35490	.09317	118.10	1.0946	8.4409	6.7695	168.94
#1	21.866	2.7097	-.00226	.89681	.13459	.16587	-.02995
#2	21.910	2.7127	.00273	.87339	.13709	.16552	.00142
#3	21.801	2.7117	.01260	.88777	.12198	.18882	.01170
#4	21.986	2.7158	.01762	.88818	.11435	.16545	L-.06169
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04868	3.2393	.01759	.20483	.27346	.11806	.09929
SDev	.03879	.0509	.00858	.00045	.00150	.05945	.00285
%RSD	79.682	1.5706	48.774	.21890	.54737	50.356	2.8727
#1	.00565	3.3155	.00810	.20464	.27161	.11418	.09669
#2	.02611	3.2120	.01666	.20470	.27290	.18161	.10161

#3	.08094	3.2177	.01666	.20449	.27483	.13705	.09697
#4	.08202	3.2120	.02895	.20549	.27451	.03939	.10190

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge 2.2657
SDev .0029
%RSD .12686

#1	2.2621
#2	2.2690
#3	2.2664
#4	2.2651

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DGLRR

Operator: MTW

Run Time: 08/30/00 08:27:34

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00078	112.43	.03390	.06036	.52268	.00602	176.26
SDev	.00140	.19	.09079	.01073	.00127	.00007	.29
%RSD	180.84	.17296	267.85	17.771	.24286	1.2216	.16546
#1	-.00028	112.62	.03910	.05138	.52366	.00595	176.18
#2	.00267	112.55	.15627	.07589	.52366	.00608	176.45
#3	.00100	112.19	-.05805	.05608	.52099	.00608	175.88
#4	-.00029	112.36	-.00175	.05808	.52242	.00595	176.52
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00191	.15653	.20160	.85230	312.15	12.893	.31082
SDev	.00090	.00513	.00193	.00249	.41	.193	.00173
%RSD	47.134	3.2793	.95868	.29275	.13154	1.4955	.55518
#1	.00236	.15091	.20254	.85530	312.25	12.950	.31339
#2	.00271	.16216	.20201	.85277	312.56	12.832	.31025
#3	.00065	.15373	.19878	.84925	311.58	12.666	.30991
#4	.00193	.15934	.20308	.85188	312.22	13.123	.30973
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	98.067	6.2081	.01573	1.1322	.35318	.87406	.02032
SDev	.199	.0107	.00618	.0071	.01929	.01078	.03224
%RSD	.20259	.17228	39.307	.62427	5.4607	1.2335	158.69
#1	98.220	6.2113	.01451	1.1396	.34843	.87380	.03864
#2	98.249	6.2163	.01455	1.1363	.37353	.88169	-.02403
#3	97.845	6.1924	.02431	1.1289	.32869	.85891	.04878
#4	97.955	6.2123	.00955	1.1240	.36209	.88186	.01788
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.10346	3.2117	.01489	.58456	.44648	.53658	.18802
SDev	.04459	.0029	.03575	.00148	.00124	.08374	.00012
%RSD	43.100	.08954	240.04	.25249	.27871	15.607	.06154
#1	.11954	3.2131	-.01691	.58614	.44656	.41595	.18800
#2	.07289	3.2131	.04981	.58539	.44591	.59951	.18800

#3	.06240	3.2074	.04160	.58290	.44527	.58619	.18818
#4	.15901	3.2131	-.01493	.58379	.44817	.54467	.18790
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge 4.8345
SDev .0190
%RSD .39263

#1 4.8422
#2 4.8540
#3 4.8092
#4 4.8326

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: CCV2-1 0057-025-5 Operator: MTW
 Run Time: 08/30/00 08:30:42
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0209	50.142	5.2913	5.0976	5.0224	5.0491	51.993
SDev	.0037	.126	.0800	.0105	.0149	.0161	.162
%RSD	.36280	.25098	1.5127	.20544	.29581	.31873	.31243
#1	1.0206	50.038	5.2239	5.0890	5.0092	5.0483	52.085
#2	1.0220	50.190	5.3944	5.1098	5.0312	5.0482	51.841
#3	1.0250	50.299	5.3149	5.1029	5.0387	5.0695	52.173
#4	1.0161	50.043	5.2322	5.0888	5.0104	5.0302	51.871
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.1059	5.0933	5.0755	5.0310	52.416	49.860	5.0194
SDev	.0136	.0200	.0156	.0166	.140	.195	.0310
%RSD	.26598	.39231	.30713	.32994	.26634	.39142	.61834
#1	5.1177	5.1000	5.0890	5.0163	52.400	49.945	4.9910
#2	5.1122	5.0902	5.0605	5.0462	52.349	49.882	5.0631
#3	5.1072	5.1155	5.0890	5.0446	52.617	50.032	5.0168
#4	5.0866	5.0678	5.0637	5.0171	52.300	49.582	5.0064
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	50.432	5.0729	5.0970	49.695	5.0560	5.1445	5.0834
SDev	.135	.0161	.0196	.241	.0373	.0473	.0378
%RSD	.26675	.31762	.38382	.48526	.73804	.92031	.74289
#1	50.346	5.0721	5.0809	49.463	5.0510	5.0851	5.0337
#2	50.390	5.0622	5.1056	49.920	5.1003	5.1695	5.1179
#3	50.632	5.0959	5.1205	49.886	5.0628	5.1932	5.1070
#4	50.361	5.0612	5.0809	49.512	5.0097	5.1304	5.0752
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.2943	5.2044	5.0753	5.0106	5.0415	10.234	5.0685
SDev	.0556	.0055	.0257	.0138	.0130	.213	.0161
%RSD	1.0509	.10590	.50633	.27520	.25873	2.0816	.31817
#1	5.2182	5.2030	5.0563	5.0009	5.0375	10.270	5.0691
#2	5.3486	5.1972	5.1006	5.0189	5.0423	10.457	5.0683

#3	5.3176	5.2090	5.0503	5.0256	5.0587	10.267	5.0880
#4	5.2931	5.2085	5.0941	4.9971	5.0275	9.9440	5.0485
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	5.5000	11.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	4.5000	9.0000	4.5000

Elem ZN
Units ppm
Avge 5.1096
SDev .0134
%RSD .26160

#1 5.0987
#2 5.1178
#3 5.1241
#4 5.0977

Errors LC Pass
High 5.5000
Low 4.5000

Analysis Report

08/30/00 08:36:56 AM

page 1

Method: QUANMET Sample Name: CCB1

Operator: MTW

Run Time: 08/30/00 08:33:50

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00179	.00474	-.00977	.03475	.00033	.00022	.02157
SDev	.00118	.01158	.03020	.00426	.00028	.00006	.00122
%RSD	65.497	244.32	309.00	12.258	85.778	28.156	5.6809
#1	.00179	.00475	-.03122	.04068	.00062	.00026	.02159
#2	.00179	.00129	.02341	.03390	-.00006	.00013	.01992
#3	.00323	.02032	-.03916	.03392	.00034	.00026	.02287
#4	.00036	-.00740	.00787	.03052	.00042	.00026	.02187
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00214	.00071	-.00040	.00064	.00315	-.06898	-.00005
SDev	.00304	.00140	.00178	.00049	.00365	.16741	.00046
%RSD	141.78	197.79	442.76	77.002	115.97	242.71	1012.9
#1	-.00010	.00281	.00081	.00107	.00083	.12416	-.00048
#2	.00020	.00000	-.00134	.00021	-.00050	-.15175	-.00040
#3	-.00228	.00001	.00135	.00107	.00745	-.25423	.00040
#4	L-.00638	.00002	-.00242	.00021	.00480	.00591	.00030
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00260	-.00074	.00495	.00555	.00141	-.02118	-.01308
SDev	.01283	.00000	.00286	.00685	.00297	.01705	.01003
%RSD	492.44	.18551	57.728	123.43	210.38	80.497	76.680
#1	.00716	-.00074	.00743	.00123	.00308	-.03460	-.01567
#2	.00716	-.00074	.00248	.00411	-.00299	-.02696	-.00524
#3	.01237	-.00074	.00248	.01561	.00226	-.02697	-.00522
#4	-.01628	-.00074	.00743	.00123	.00328	.00382	-.02618
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01385	-.01008	-.00843	.00009	-.00016	.01748	-.00111
SDev	.03301	.00288	.01197	.00013	.00062	.02432	.00005
%RSD	238.25	28.527	142.04	141.67	382.97	139.12	4.8860
#1	-.01483	-.01152	-.01838	.00003	.00032	-.01170	-.00106
#2	-.00297	-.00577	-.01415	.00003	-.00032	.04671	-.00116

#3	.06034	-.01152	-.00996	.00003	.00032	.02328	-.00116
#4	.01287	-.01152	.00877	.00027	-.00097	.01163	-.00107

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem ZN
Units ppm
Avge .00046
SDev .00034
%RSD 74.897

#1	.00006
#2	.00032
#3	.00061
#4	.00085

Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET Sample Name: DHAXG

Operator: MTW

Run Time: 08/30/00 08:36:58

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00015	122.24	.02539	.05817	.63981	.00695	159.13
SDev	.00243	.68	.12733	.01499	.00503	.00001	.17
%RSD	1579.1	.55291	501.56	25.766	.78605	.10546	.10776
#1	-.00069	121.54	.18678	.04591	.63480	.00694	159.32
#2	-.00045	122.87	.06561	.05426	.64482	.00695	158.93
#3	-.00191	122.77	-.09344	.05251	.64339	.00694	159.05
#4	.00367	121.79	-.05740	.07999	.63623	.00695	159.22
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00202	.17926	.20591	.40947	341.17	15.725	.35051
SDev	.00286	.00071	.00092	.00432	.53	.149	.00445
%RSD	141.92	.39413	.44619	1.0543	.15594	.95030	1.2707
#1	-.00401	.17892	.20685	.40535	340.58	15.646	.34609
#2	-.00275	.17890	.20631	.41400	341.71	15.685	.35513
#3	.00220	.17889	.20469	.41228	341.53	15.945	.35346
#4	-.00350	.18032	.20578	.40623	340.88	15.622	.34735
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	88.600	6.3404	.02255	.93902	.40030	.23810	.02859
SDev	.387	.0087	.00473	.00729	.01346	.03299	.03087
%RSD	.43707	.13701	20.977	.77637	3.3637	13.857	107.97
#1	88.140	6.3319	.01874	.92885	.39155	.25402	-.00271
#2	88.958	6.3509	.01891	.93912	.39606	.26839	.02850
#3	88.880	6.3440	.02384	.94569	.39329	.23767	.01796
#4	88.421	6.3349	.02869	.94241	.42031	.19233	.07062
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.09586	3.4232	-.00171	.59088	.49609	.63146	.19541
SDev	.06590	.0033	.04884	.00424	.00290	.15488	.00276
%RSD	68.742	.09707	2864.5	.71687	.58421	24.527	1.4144
#1	.04386	3.4261	-.06629	.58664	.49199	.64923	.19776
#2	.03497	3.4203	.02193	.59512	.49875	.46256	.19293

#3	.14129	3.4204	.04696	.59387	.49714	.58114	.19785
#4	.16333	3.4261	-.00941	.58789	.49650	.83293	.19311
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .94937
SDev .00455
%RSD .47953

#1 .94626
#2 .94473
#3 .95259
#4 .95391

Errors LC Pass
High 100.00
Low -.02000

Analysis Report

08/30/00 08:43:13 AM

page 1

Method: QUANMET Sample Name: DHAXL

Operator: MTW

Run Time: 08/30/00 08:40:07

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00114	118.61	.09457	.07133	.58575	.00745	126.47
SDev	.00193	.20	.06352	.00748	.00128	.00006	.46
%RSD	169.54	.16482	67.171	10.488	.21847	.82576	.36162
#1	.00153	118.47	.06243	.06802	.58543	.00747	126.85
#2	.00152	118.90	.12533	.06815	.58726	.00748	126.21
#3	.00305	118.58	.16641	.08251	.58420	.00748	126.86
#4	-.00154	118.50	.02411	.06666	.58611	.00736	125.96
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00319	.16700	.19017	.32251	325.04	17.577	.32388
SDev	.00278	.00269	.00288	.00145	.50	.148	.00222
%RSD	87.238	1.6124	1.5143	.44865	.15268	.84461	.68547
#1	-.00057	.16910	.19340	.32187	325.09	17.593	.32155
#2	-.00487	.16348	.18802	.32444	325.14	17.751	.32647
#3	L-.00622	.16911	.19178	.32106	325.57	17.577	.32261
#4	-.00110	.16629	.18748	.32267	324.37	17.388	.32490
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	84.395	5.2982	.02261	1.0901	.35431	.28614	.00464
SDev	.143	.0107	.00468	.0054	.00722	.02722	.02751
%RSD	.16997	.20127	20.717	.49759	2.0389	9.5119	593.07
#1	84.387	5.3026	.02138	1.0961	.34918	.31325	.02811
#2	84.592	5.2977	.02634	1.0928	.36476	.26657	-.01370
#3	84.350	5.3087	.01650	1.0837	.34980	.25917	.02825
#4	84.251	5.2836	.02622	1.0878	.35351	.30555	-.02410
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00300	3.4864	.01607	.52035	.48756	.40996	.18451
SDev	.07386	.0058	.03468	.00082	.00071	.09297	.00241
%RSD	2459.0	.16532	215.78	.15830	.14653	22.677	1.3045
#1	.08216	3.4893	.03345	.52016	.48715	.45327	.18811
#2	.01902	3.4777	.05628	.52141	.48844	.51111	.18336

#3	-.09458	3.4892	-.01667	.51941	.48780	.29658	.18318
#4	-.01862	3.4892	-.00877	.52041	.48683	.37887	.18336

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.68462
SDev	.00357
%RSD	.52100

#1	.68091
#2	.68350
#3	.68943
#4	.68464

Errors	LC Pass
High	100.00
Low	-.02000

Analysis Report

08/30/00 08:46:21 AM

page 1

Method: QUANMET Sample Name: DHDJT

Operator: MTW

Run Time: 08/30/00 08:43:15

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00127	133.44	.10264	.07481	.65628	.00735	170.67
SDev	.00234	.31	.03947	.00891	.00262	.00007	.52
%RSD	183.91	.23573	38.451	11.912	.39867	.94867	.30359
#1	.00364	132.98	.14896	.07106	.65237	.00729	171.13
#2	.00115	133.61	.10686	.06429	.65743	.00741	171.00
#3	.00219	133.48	.10218	.08437	.65743	.00741	169.98
#4	-.00189	133.68	.05255	.07952	.65791	.00728	170.58
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00447	.19894	.23590	.40743	377.12	15.445	.39594
SDev	.00108	.00177	.00288	.00309	.79	.169	.00282
%RSD	24.202	.88971	1.2219	.75844	.21066	1.0951	.71315
#1	-.00317	.20140	.23913	.40311	376.54	15.401	.39193
#2	L-.00545	.19858	.23752	.40923	378.10	15.228	.39615
#3	-.00399	.19858	.23321	.40738	376.41	15.614	.39834
#4	L-.00526	.19718	.23375	.41003	377.41	15.535	.39736
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	102.28	6.2412	.02173	5.7510	.43168	.23097	.03131
SDev	.28	.0109	.00648	.0351	.00955	.03856	.02620
%RSD	.27418	.17414	29.826	.60985	2.2117	16.696	83.678
#1	101.93	6.2353	.01917	5.7009	.43947	.17751	-.00272
#2	102.57	6.2536	.02435	5.7530	.41911	.23831	.02862
#3	102.18	6.2294	.01420	5.7719	.42940	.26961	.03917
#4	102.42	6.2464	.02920	5.7781	.43873	.23844	.06016
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.14606	3.3889	.02970	1.1435	.50326	.66815	.21147
SDev	.07690	.0573	.02886	.0042	.00190	.11110	.00185
%RSD	52.651	1.6897	97.192	.36877	.37694	16.628	.87272
#1	.05159	3.3457	.05977	1.1375	.50197	.74410	.20871
#2	.23766	3.4666	-.00257	1.1440	.50520	.77478	.21243

#3	.16199	3.3975	.04739	1.1457	.50133	.61701	.21222
#4	.13299	3.3458	.01419	1.1469	.50455	.53670	.21251

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .83488
SDev .00196
%RSD .23521

#1 .83203
#2 .83650
#3 .83561
#4 .83540

Errors LC Pass
High 100.00
Low -.02000

Analysis Report

08/30/00 08:49:29 AM

page 1

Method: QUANMET Sample Name: DHK28

Operator: MTW

Run Time: 08/30/00 08:46:24

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00519	46.819	-.04009	.02858	.24918	.00252	18.290
SDev	.00243	.194	.04481	.00328	.00111	.00010	.044
%RSD	46.910	.41350	111.78	11.489	.44679	3.8741	.24181
#1	.00767	46.660	.00720	.02877	.24820	.00252	18.298
#2	.00483	46.783	-.01350	.03307	.24887	.00264	18.333
#3	.00198	47.100	-.09030	.02548	.25078	.00240	18.228
#4	.00626	46.735	-.06375	.02700	.24887	.00252	18.300
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00162	.03755	.05431	.12036	96.172	3.4074	.06673
SDev	.00179	.00177	.00142	.00083	.152	.4676	.00000
%RSD	110.54	4.7017	2.6214	.68764	.15821	13.724	.00000
#1	-.00425	.03510	.05619	.12013	96.008	3.9553	.06673
#2	-.00122	.03931	.05296	.12100	96.177	3.6321	.06673
#3	-.00035	.03790	.05350	.12102	96.373	2.9620	.06673
#4	-.00066	.03791	.05457	.11929	96.128	3.0803	.06673
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	14.006	1.3485	.00819	.84166	.05565	.08244	-.01922
SDev	.053	.0006	.01170	.00273	.00625	.01926	.01983
%RSD	.37885	.04475	142.79	.32469	11.226	23.369	103.20
#1	14.036	1.3480	.01683	.84176	.06238	.07674	-.01668
#2	13.989	1.3490	.01686	.83929	.04960	.06129	-.04802
#3	14.060	1.3491	.00698	.84546	.05949	.08417	-.00609
#4	13.940	1.3480	-.00791	.84012	.05114	.10755	-.00610
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06548	3.9960	.01623	.21980	.82747	.06434	.09936
SDev	.00793	.0320	.02575	.00106	.00299	.07978	.00244
%RSD	12.117	.80056	158.63	.48123	.36161	124.01	2.4597
#1	.06406	4.0176	.04708	.21880	.82481	.08938	.10074
#2	.06451	4.0118	-.01371	.21955	.82578	.04091	.10074

#3	.05711	4.0060	.00742	.22130	.83157	-.03113	.09571
#4	.07625	3.9485	.02413	.21955	.82771	.15817	.10026
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .26062
SDev .00133
%RSD .51092

#1 .25917
#2 .26210
#3 .25990
#4 .26132

Errors LC Pass
High 100.00
Low -.02000

Analysis Report

08/30/00 08:52:38 AM

page 1

Method: QUANMET Sample Name: DHK2A

Operator: MTW

Run Time: 08/30/00 08:49:32

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01552	81.096	.03057	.08225	1.4744	.00430	54.776
SDev	.00125	.329	.02815	.00444	.0084	.00001	.378
%RSD	8.0698	.40571	92.086	5.3936	.56956	.15114	.68918
#1	.01408	81.537	.00753	.08771	1.4865	.00430	54.499
#2	.01544	80.871	.00556	.08203	1.4717	.00429	54.552
#3	.01544	80.821	.04883	.07685	1.4671	.00430	54.729
#4	.01714	81.158	.06037	.08240	1.4722	.00430	55.322
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00042	.08763	.10918	.36186	153.94	7.7234	.17921
SDev	.00259	.00240	.00342	.00178	.56	.4703	.00255
%RSD	610.40	2.7390	3.1306	.49140	.36191	6.0893	1.4234
#1	-.00055	.08657	.10568	.36378	153.95	7.0770	.18250
#2	-.00280	.08518	.10945	.36203	153.49	8.1333	.17995
#3	.00258	.09080	.11376	.35948	153.60	7.9993	.17707
#4	.00247	.08797	.10784	.36213	154.72	7.6840	.17733
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	29.824	3.5425	.00816	1.3677	.17320	.18980	.02112
SDev	.071	.0134	.00289	.0095	.00437	.02291	.05305
%RSD	.23847	.37792	35.376	.69600	2.5254	12.069	251.23
#1	29.907	3.5411	.00569	1.3803	.16829	.15866	-.00509
#2	29.769	3.5291	.01057	1.3655	.17189	.21306	.00542
#3	29.761	3.5390	.00564	1.3573	.17878	.19779	-.01552
#4	29.860	3.5610	.01076	1.3676	.17386	.18969	.09966
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04067	3.3348	.01136	1.1481	.77688	.15955	.14539
SDev	.04875	.0454	.01770	.0057	.00325	.06161	.00245
%RSD	119.87	1.3612	155.75	.49694	.41799	38.617	1.6842
#1	-.00479	3.3276	.02065	1.1559	.77938	.19154	.14413
#2	.00190	3.3277	.00179	1.1459	.77551	.10283	.14907

#3	.08526	3.2874	.03102	1.1425	.77294	.11342	.14415
#4	.08031	3.3967	-.00801	1.1479	.77970	.23040	.14423
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .60169
SDev .00127
%RSD .21085

#1 .60262
#2 .60244
#3 .60185
#4 .59985

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DHK2C

Operator: MTW

Run Time: 08/30/00 08:52:40

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00189	110.78	.02346	.04299	.58856	.00662	51.694
SDev	.00215	.32	.03775	.00331	.00409	.00007	.489
%RSD	113.82	.29293	160.91	7.7110	.69514	1.1094	.94632
#1	.00313	110.40	.05483	.04438	.58563	.00669	51.582
#2	-.00122	111.19	.00965	.03811	.59450	.00656	51.049
#3	.00217	110.80	.05307	.04548	.58802	.00656	52.056
#4	.00347	110.73	-.02370	.04399	.58611	.00669	52.091
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00019	.13731	.17738	.26526	278.90	11.371	.24116
SDev	.00265	.00532	.00265	.00175	1.08	.397	.00293
%RSD	1407.8	3.8761	1.4954	.65874	.38756	3.4922	1.2150
#1	-.00188	.13802	.17832	.26327	278.06	11.310	.24075
#2	-.00049	.12957	.17347	.26753	277.90	10.837	.24541
#3	.00406	.14081	.17940	.26515	280.09	11.610	.23895
#4	-.00094	.14083	.17832	.26510	279.53	11.728	.23954
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	48.684	6.2042	.01447	.52112	.24543	.69763	-.01999
SDev	.146	.0273	.00709	.00820	.01367	.01970	.02763
%RSD	.29964	.43990	48.974	1.5734	5.5682	2.8232	138.23
#1	48.473	6.1887	.01930	.52707	.23450	.67501	.00606
#2	48.783	6.1738	.00442	.52379	.24076	.68965	-.05652
#3	48.780	6.2297	.01960	.50900	.26542	.70515	-.00421
#4	48.700	6.2246	.01457	.52461	.24105	.72070	-.02528
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.07419	3.5815	.02465	.20538	.57640	.44221	.19762
SDev	.07158	.0094	.02757	.00116	.00193	.12165	.00014
%RSD	96.491	.26239	111.84	.56604	.33538	27.509	.07184
#1	.00969	3.5815	.02200	.20443	.57543	.31353	.19771
#2	.01718	3.5700	-.01180	.20707	.57543	.39689	.19741

#3	.11788	3.5815	.05371	.20508	.57930	.45626	.19772
#4	.15200	3.5930	.03469	.20493	.57543	.60217	.19762
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .90390
SDev .00500
%RSD .55354

#1 .90019
#2 .90182
#3 .90232
#4 .91128

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DHK2D

Operator: MTW

Run Time: 08/30/00 08:55:49

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00501	104.20	.10939	.02470	.61558	.00680	25.658
SDev	.00129	.18	.09448	.01202	.00098	.00001	.167
%RSD	25.691	.17127	86.369	48.683	.15986	.09683	.65242
#1	.00492	104.03	.17267	.04260	.61475	.00680	25.570
#2	.00484	104.06	.10257	.01742	.61475	.00681	25.577
#3	.00358	104.36	-.02163	.01803	.61618	.00680	25.576
#4	.00671	104.34	.18397	.02073	.61666	.00680	25.909
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00042	.11985	.16244	.23201	248.87	9.8124	.18513
SDev	.00267	.00239	.00280	.00040	.77	.5444	.00136
%RSD	638.60	1.9929	1.7212	.17104	.30740	5.5477	.73557
#1	-.00207	.12089	.16217	.23176	248.46	9.8991	.18364
#2	-.00262	.11949	.16056	.23260	248.22	10.285	.18575
#3	.00329	.11670	.16056	.23179	248.85	9.0320	.18670
#4	-.00027	.12229	.16647	.23188	249.95	10.033	.18443
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	37.667	5.2187	.01493	.57791	.18859	.70643	.00288
SDev	.085	.0225	.00704	.00304	.01707	.01157	.00531
%RSD	.22602	.43056	47.141	.52679	9.0502	1.6376	184.52
#1	37.705	5.2078	.00992	.57637	.17416	.70089	.00539
#2	37.541	5.2018	.00988	.57802	.17478	.71627	-.00509
#3	37.692	5.2138	.02483	.57514	.20889	.69277	.00564
#4	37.729	5.2516	.01509	.58212	.19653	.71578	.00557
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.08805	3.8174	.03850	.14840	.69553	.22139	.20122
SDev	.05863	.0373	.00828	.00039	.00183	.10302	.00249
%RSD	66.596	.97760	21.505	.26227	.26307	46.535	1.2361
#1	.00686	3.8175	.04314	.14853	.69690	.07668	.20233
#2	.10513	3.7656	.04724	.14782	.69529	.23094	.19749

#3	.14634	3.8347	.03486	.14863	.69303	.31791	.20262
#4	.09386	3.8520	.02878	.14863	.69690	.26002	.20244
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .81262
SDev .00705
%RSD .86740

#1 .80810
#2 .81613
#3 .80551
#4 .82073

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DHK2F

Operator: MTW

Run Time: 08/30/00 08:58:57

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00348	39.193	.02121	.04317	.19313	.00202	13.193
SDev	.00282	.192	.06182	.00253	.00146	.00012	.136
%RSD	80.882	.49053	291.48	5.8710	.75464	5.8094	1.0272
#1	.00569	39.128	.04980	.04247	.19330	.00205	13.303
#2	-.00023	39.143	.09335	.04678	.19330	.00194	13.047
#3	.00566	39.031	-.01559	.04085	.19119	.00217	13.314
#4	.00282	39.472	-.04273	.04257	.19473	.00192	13.109
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00386	.02796	.04113	.07757	75.253	2.4339	.04328
SDev	.00231	.00450	.00317	.00082	.279	.5276	.00091
%RSD	59.735	16.094	7.7091	1.0625	.37088	21.677	2.1088
#1	-.00266	.03253	.04328	.07822	75.412	2.5679	.04289
#2	L-.00732	.02411	.03898	.07732	74.847	2.1816	.04384
#3	-.00287	.03113	.04436	.07821	75.298	3.1039	.04420
#4	-.00260	.02408	.03790	.07651	75.456	1.8821	.04219
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	8.5832	.73621	.00506	.70054	.04454	.08026	-.00857
SDev	.0347	.00500	.00845	.00707	.00610	.04348	.01783
%RSD	.40373	.67929	166.92	1.0093	13.688	54.168	207.95
#1	8.5741	.73897	.00880	.69428	.05217	.11696	-.01638
#2	8.5428	.72893	.00376	.69551	.04410	.05529	.01494
#3	8.5897	.73993	.01374	.70290	.04465	.11702	-.00602
#4	8.6261	.73700	-.00605	.70948	.03725	.03179	-.02684
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02718	3.8548	.01176	.15608	.68836	.05231	.08477
SDev	.04451	.0073	.01602	.00110	.00394	.05411	.00244
%RSD	163.75	.18858	136.15	.70426	.57261	103.44	2.8810
#1	.08891	3.8620	.01647	.15592	.68691	-.00482	.08606
#2	-.01147	3.8447	.02698	.15557	.68433	.03609	.08112

#3	.02928	3.8563	.01440	.15517	.68852	.12481	.08616
#4	.00200	3.8563	-.01080	.15766	.69368	.05316	.08576
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .19726
SDev .00185
%RSD .93914

#1 .19649
#2 .19655
#3 .19597
#4 .20001

Errors LC Pass
High 100.00
Low -.02000

Analysis Report

08/30/00 09:05:10 AM

page 1

Method: QUANMET Sample Name: DHK2G

Operator: MTW

Run Time: 08/30/00 09:02:05

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00133	107.08	.17337	.05473	.77695	.00613	32.194
SDev	.00145	.33	.05418	.01727	.00431	.00001	.124
%RSD	109.47	.30811	31.252	31.554	.55452	.11438	.38529
#1	-.00065	106.74	.19451	.06578	.77477	.00613	32.124
#2	.00237	107.13	.14388	.04777	.77927	.00613	32.084
#3	.00112	107.51	.11649	.07161	.78165	.00612	32.204
#4	.00246	106.93	.23860	.03377	.77211	.00613	32.364
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00213	.13389	.16889	.28503	245.06	12.359	.23505
SDev	.00367	.00134	.00128	.00207	.55	.073	.00227
%RSD	172.44	1.0018	.75854	.72555	.22526	.59152	.96401
#1	.00253	.13354	.16808	.28284	244.34	12.256	.23323
#2	-.00232	.13213	.16808	.28631	244.93	12.422	.23629
#3	.00663	.13492	.16861	.28722	245.62	12.359	.23761
#4	.00168	.13495	.17077	.28377	245.33	12.398	.23305
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	43.421	6.9242	.01436	1.4586	.21843	.31714	.00594
SDev	.157	.0168	.00693	.0107	.01062	.03141	.01715
%RSD	.36230	.24332	48.278	.73030	4.8626	9.9057	288.43
#1	43.261	6.9037	.01921	1.4477	.21821	.27708	.00591
#2	43.435	6.9177	.01930	1.4658	.22775	.34599	.02695
#3	43.631	6.9337	.00454	1.4695	.20363	.33791	-.01505
#4	43.355	6.9415	.01440	1.4514	.22415	.30756	.00597
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.12744	3.6565	.02436	.21950	.64970	.37233	.21779
SDev	.04671	.0274	.00788	.00084	.00269	.05289	.00254
%RSD	36.655	.74932	32.360	.38059	.41392	14.205	1.1674
#1	.09886	3.6738	.02580	.21949	.64760	.31537	.21632
#2	.07667	3.6738	.01343	.21924	.65276	.42615	.21632

#3	.16551	3.6623	.02593	.22064	.65115	.40742	.22158
#4	.16871	3.6163	.03226	.21864	.64728	.34039	.21694
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00

Method: QUANMET Sample Name: DHK2H

Operator: MTW

Run Time: 08/30/00 09:05:13

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00063	133.22	.09873	.04621	.35836	.00889	12.518
SDev	.00159	.42	.05530	.02286	.00168	.00007	.079
%RSD	253.86	.31543	56.008	49.461	.46916	.74290	.63256
#1	-.00173	133.41	.07770	.04514	.36029	.00893	12.409
#2	.00105	132.59	.07309	.02747	.35619	.00892	12.510
#3	.00164	133.49	.06297	.03355	.35838	.00879	12.575
#4	.00154	133.40	.18116	.07868	.35858	.00891	12.577
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00008	.21173	.21451	.39416	385.00	9.5463	.33744
SDev	.00149	.00505	.00413	.00259	1.19	.2815	.00266
%RSD	1805.0	2.3840	1.9254	.65715	.30903	2.9485	.78864
#1	-.00024	.21279	.20845	.39688	384.24	9.1423	.34056
#2	-.00075	.20717	.21653	.39084	383.75	9.6232	.33420
#3	.00227	.21840	.21545	.39533	386.21	9.6232	.33821
#4	-.00096	.20858	.21760	.39358	385.81	9.7966	.33680
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	63.289	6.4039	.02415	.53098	.38566	.18717	.01022
SDev	.182	.0224	.00236	.00282	.01075	.01319	.02322
%RSD	.28690	.34933	9.7713	.53042	2.7876	7.0443	227.14
#1	63.406	6.3847	.02527	.52913	.37802	.17568	-.01333
#2	63.036	6.3845	.02520	.53118	.39634	.18391	.03906
#3	63.434	6.4257	.02061	.52872	.37493	.20616	.01799
#4	63.281	6.4207	.02551	.53488	.39335	.18292	-.00283
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.09663	3.9500	.01594	.26666	.50028	.49407	.21570
SDev	.06351	.0133	.01050	.00111	.00175	.05852	.00228
%RSD	65.724	.33697	65.908	.41625	.35028	11.844	1.0556
#1	.03627	3.9384	.00261	.26771	.49972	.42013	.21239
#2	.05872	3.9385	.01740	.26512	.50036	.54193	.21603

#3	.11265	3.9615	.02822	.26671	.50262	.54009	.21715
#4	.17886	3.9615	.01551	.26711	.49843	.47414	.21724
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge 1.0014
SDev .0033
%RSD .32531

#1 .99919
#2 .99844
#3 1.0055
#4 1.0026

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: CCV2-2

Operator: MTW

Run Time: 08/30/00 09:08:21

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0332	50.786	5.3505	5.2127	5.0929	5.1637	53.112
SDev	.0022	.199	.0621	.0411	.0309	.0381	.161
%RSD	.21537	.39208	1.1598	.78764	.60652	.73716	.30398

#1	1.0315	50.890	5.3968	5.2435	5.0999	5.2119	53.315
#2	1.0343	50.838	5.3354	5.2398	5.1077	5.1605	53.063
#3	1.0358	50.924	5.4007	5.2128	5.1165	5.1635	53.142
#4	1.0312	50.492	5.2689	5.1546	5.0477	5.1188	52.929

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.1813	5.2076	5.1865	5.1042	53.368	50.148	5.0336
SDev	.0078	.0234	.0156	.0315	.191	.411	.0321
%RSD	.15146	.44842	.30007	.61749	.35837	.81947	.63757

#1	5.1773	5.2220	5.2095	5.1244	53.565	49.898	5.0322
#2	5.1725	5.2150	5.1805	5.1132	53.359	50.173	5.0511
#3	5.1899	5.2205	5.1810	5.1218	53.437	50.717	5.0621
#4	5.1856	5.1728	5.1751	5.0575	53.111	49.803	4.9892

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	51.103	5.1744	5.1924	50.291	5.1697	5.2243	5.2405
SDev	.179	.0171	.0238	.331	.0317	.0377	.0709
%RSD	.35008	.33060	.45770	.65768	.61239	.72156	1.3538

#1	51.260	5.1949	5.1949	50.404	5.2040	5.2343	5.2850
#2	51.122	5.1721	5.1801	50.423	5.1380	5.1878	5.1485
#3	51.182	5.1771	5.2246	50.534	5.1886	5.2728	5.3062
#4	50.848	5.1533	5.1701	49.802	5.1481	5.2024	5.2221

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.3483	5.2820	5.1915	5.0925	5.1324	10.483	5.1751
SDev	.0858	.0232	.1034	.0286	.0245	.108	.0247
%RSD	1.6046	.43954	1.9912	.56132	.47703	1.0340	.47748

#1	5.4309	5.2506	5.2644	5.1024	5.1515	10.548	5.1948
#2	5.2286	5.2964	5.2952	5.1060	5.1373	10.480	5.1763

#3	5.3554	5.3023	5.0887	5.1117	5.1441	10.573	5.1893
#4	5.3783	5.2787	5.1177	5.0500	5.0967	10.332	5.1399
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	5.5000	11.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	4.5000	9.0000	4.5000

Elem ZN
Units ppm
Avge 5.2110
SDev .0246
%RSD .47142

#1 5.2399
#2 5.2206
#3 5.2000
#4 5.1834

Errors LC Pass
High 5.5000
Low 4.5000

Analysis Report

08/30/00 09:14:35 AM

page 1

Method: QUANMET Sample Name: CCB2

Operator: MTW

Run Time: 08/30/00 09:11:29

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00036	.00177	.00878	.02264	.00021	.00029	.03296
SDev	.00118	.00999	.05306	.01354	.00041	.00012	.00482
%RSD	330.79	562.86	604.60	59.816	196.71	42.052	14.614
#1	.00035	-.00731	-.05453	.01595	.00014	.00013	.02858
#2	.00035	.00650	.05067	.00678	-.00034	.00026	.03063
#3	-.00108	-.00565	-.01555	.03392	.00042	.00038	.03296
#4	.00180	.01356	.05451	.03390	.00062	.00038	.03967
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00075	.00282	.00162	.00086	.00546	-.00000	.00003
SDev	.00208	.00381	.00054	.00082	.00490	.18026	.00077
%RSD	276.37	135.34	33.269	95.386	89.685	484e6	2382.5
#1	.00200	-.00000	.00242	.00193	-.00050	.09263	-.00068
#2	-.00236	.00141	.00135	.00022	.00347	-.26999	.00004
#3	-.00028	.00141	.00135	.00022	.00877	.10051	-.00032
#4	-.00237	.00844	.00135	.00108	.01010	.07686	.00109
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00847	-.00024	.00124	.00185	-.00562	-.00958	-.02623
SDev	.01511	.00057	.00474	.01049	.00797	.01711	.01712
%RSD	178.53	233.49	382.74	567.28	141.87	178.49	65.255
#1	.01758	-.00074	-.00248	-.00205	-.00328	-.01931	-.04717
#2	-.01107	-.00074	.00248	-.01109	-.01038	.01155	-.02626
#3	.02279	.00025	.00743	.00863	.00453	-.02694	-.02624
#4	.00456	.00025	-.00247	.01191	-.01334	-.00364	-.00524
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.02075	-.01152	-.00117	.00015	-.00056	.00869	-.00118
SDev	.01047	.00000	.02741	.00025	.00081	.03856	.00009
%RSD	50.456	.01008	2351.4	165.85	142.86	443.96	7.7063
#1	-.02670	-.01152	.01286	.00003	-.00097	.03504	-.00125
#2	-.01878	-.01152	-.01006	.00003	-.00097	-.03507	-.00116

#3	-.03063	-.01152	.02761	.00003	-.00097	-.01177	-.00106
#4	-.00690	-.01152	-.03507	.00052	.00064	.04654	-.00125

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem	ZN
Units	ppm
Avge	.00176
SDev	.00076
%RSD	43.356

#1	.00063
#2	.00200
#3	.00218
#4	.00224

Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET Sample Name: DHK2K

Operator: MTW

Run Time: 08/30/00 09:14:37

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00438	125.33	.02588	.03895	.60914	.00737	36.861
SDev	.00150	.26	.04712	.00138	.00233	.00001	.207
%RSD	34.159	.20762	182.09	3.5557	.38242	.07384	.56229

#1	.00469	124.95	.03510	.03798	.60568	.00737	37.023
#2	.00327	125.52	.08886	.04028	.60997	.00738	36.689
#3	.00320	125.43	-.01144	.03755	.61073	.00737	36.674
#4	.00638	125.42	-.00901	.03998	.61017	.00737	37.056

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00045	.13899	.17979	.29138	297.61	9.6941	.30266
SDev	.00560	.00211	.00161	.00122	.56	.2610	.00228
%RSD	1237.6	1.5148	.89334	.41942	.18712	2.6921	.75402

#1	.00671	.14074	.18046	.29051	297.37	10.057	.29992
#2	L-.00649	.13792	.17777	.29309	297.53	9.4419	.30203
#3	-.00101	.13654	.17938	.29049	297.14	9.5995	.30536
#4	.00261	.14075	.18154	.29145	298.41	9.6784	.30335

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	51.464	7.7199	.02098	.58993	.28069	.15503	.00650
SDev	.033	.0184	.00749	.00529	.01176	.02547	.03999
%RSD	.06421	.23856	35.700	.89722	4.1909	16.432	615.28

#1	51.466	7.7233	.01723	.58911	.26847	.15346	.01679
#2	51.424	7.7135	.02716	.59527	.27691	.19155	.05879
#3	51.461	7.6996	.01225	.59239	.28081	.13765	-.02478
#4	51.505	7.7434	.02729	.58295	.29655	.13746	-.02480

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.13735	3.5833	.02088	.20096	.61289	.33316	.22472
SDev	.06412	.0029	.03069	.00079	.00048	.14951	.00246
%RSD	46.688	.08075	146.99	.39132	.07885	44.875	1.0967

#1	.16736	3.5818	.06116	.19980	.61313	.44950	.22547
#2	.15196	3.5818	.01117	.20129	.61248	.20269	.22117

#3	.18653	3.5818	-.01231	.20154	.61248	.47514	.22537
#4	.04353	3.5876	.02350	.20119	.61345	.20533	.22688
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .91248
SDev .00027
%RSD .02923

#1 .91245
#2 .91262
#3 .91212
#4 .91273

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: CCV2-3

Operator: MTW

Run Time: 08/30/00 09:17:45

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B__	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0227	50.321	5.2875	5.1448	5.0539	5.1092	52.559
SDev	.0025	.156	.0922	.0112	.0237	.0114	.126
%RSD	.24729	.30976	1.7440	.21713	.46927	.22262	.23972
#1	1.0238	50.380	5.1730	5.1372	5.0578	5.1142	52.559
#2	1.0225	50.402	5.3986	5.1578	5.0720	5.1182	52.672
#3	1.0194	50.088	5.2850	5.1504	5.0195	5.0926	52.384
#4	1.0253	50.413	5.2933	5.1340	5.0665	5.1118	52.623
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000
Elem	CD	CO	CR	CU	FE	K__	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.1589	5.1568	5.1349	5.0643	52.852	49.961	4.9902
SDev	.0216	.0137	.0171	.0164	.156	.217	.0244
%RSD	.41884	.26570	.33294	.32343	.29479	.43460	.48830
#1	5.1339	5.1561	5.1363	5.0678	52.844	50.142	4.9964
#2	5.1643	5.1644	5.1514	5.0798	52.977	50.079	5.0100
#3	5.1854	5.1378	5.1111	5.0412	52.635	49.968	4.9547
#4	5.1520	5.1687	5.1407	5.0686	52.952	49.653	4.9998
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	50.736	5.1256	5.1416	49.983	5.1043	5.1809	5.1855
SDev	.088	.0153	.0237	.202	.0261	.0653	.0676
%RSD	.17258	.29812	.46148	.40490	.51212	1.2598	1.3045
#1	50.718	5.1226	5.1354	50.028	5.1064	5.2713	5.1593
#2	50.830	5.1414	5.1602	50.172	5.1294	5.1330	5.2640
#3	50.624	5.1058	5.1106	49.696	5.0678	5.1862	5.1068
#4	50.773	5.1325	5.1602	50.036	5.1135	5.1331	5.2117
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000
Elem	SE	SI	SN	SR	TI	TL	V__
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.3410	5.2267	5.1301	5.0473	5.0821	10.188	5.1229
SDev	.0498	.0346	.0287	.0213	.0171	.205	.0118
%RSD	.93175	.66168	.55961	.42292	.33740	2.0097	.22953
#1	5.3815	5.2094	5.1258	5.0504	5.0858	10.124	5.1210
#2	5.3225	5.2096	5.1158	5.0648	5.0958	10.450	5.1336

#3	5.3810	5.2092	5.1717	5.0166	5.0571	10.220	5.1072
#4	5.2789	5.2786	5.1072	5.0576	5.0896	9.9596	5.1300
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	5.5000	11.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	4.5000	9.0000	4.5000

Elem ZN
Units ppm
Avge 5.1427
SDev .0059
%RSD .11394

#1 5.1443
#2 5.1485
#3 5.1346
#4 5.1433

Errors LC Pass
High 5.5000
Low 4.5000

Method: QUANMET Sample Name: CCB3

Operator: MTW

Run Time: 08/30/00 09:20:53

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00215	.00732	-.00687	.02932	.00048	.00029	.00124
SDev	.00072	.00435	.01507	.00751	.00016	.00016	.00061
%RSD	33.430	59.432	219.49	25.623	33.962	55.369	49.192
#1	.00179	.00817	-.01565	.02473	.00062	.00013	.00194
#2	.00179	.00821	-.02345	.03729	.00034	.00026	.00146
#3	.00323	.01165	.00382	.03391	.00062	.00026	.00103
#4	.00179	.00127	.00781	.02135	.00034	.00051	.00051
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00168	-.00070	.00014	-.00000	.00215	.07292	-.00000
SDev	.00242	.00082	.00092	.00146	.00242	.23776	.00097
%RSD	143.66	116.82	674.51	314630.	112.40	326.06	58e6
#1	-.00161	.00000	.00027	.00193	-.00050	.25029	.00040
#2	-.00458	.00001	.00135	.00021	.00083	.27393	.00091
#3	.00134	-.00141	-.00027	-.00150	.00480	-.00197	.00004
#4	-.00189	-.00140	-.00081	-.00064	.00348	-.23058	-.00135
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00977	-.00049	.00371	.00103	.00006	-.00005	-.01571
SDev	.00737	.00049	.00248	.00326	.00421	.02309	.02094
%RSD	75.425	100.36	66.654	317.49	6796.7	51301.	133.33
#1	.01498	-.00074	.00743	-.00041	.00142	.01921	-.02621
#2	.01498	-.00074	.00248	.00329	.00096	-.01153	.01571
#3	.00977	-.00074	.00248	.00411	.00384	.01917	-.02608
#4	-.00065	.00025	.00248	-.00288	-.00597	-.02703	-.02623
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03264	-.01008	-.01053	.00015	-.00008	.00291	-.00114
SDev	.03214	.00288	.01521	.00014	.00041	.02589	.00005
%RSD	98.472	28.528	144.43	95.756	503.32	890.53	4.2267
#1	.02077	-.01152	.00459	.00003	-.00064	.01168	-.00106
#2	-.00692	-.01152	-.01196	.00027	.00032	.02335	-.00116

#3	.06429	-.00577	-.03098	.00027	.00000	.01164	-.00116
#4	.05242	-.01152	-.00378	.00003	.00000	-.03504	-.00116

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem ZN
Units ppm
Avge -.00032
SDev .00064
%RSD 198.32

#1	-.00049
#2	.00062
#3	-.00072
#4	-.00069

Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET Sample Name: CRA TEST

Operator: MTW

Run Time: 08/30/00 09:25:15

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00821	.21239	.01089	.00419	.20643	.00536	5.3620
SDev	.00215	.01034	.01925	.00278	.00116	.00008	.0103
%RSD	26.142	4.8688	176.76	66.374	.56157	1.4389	.19208
#1	.00928	.21073	.01288	.00290	.20667	.00543	5.3518
#2	.00928	.21931	.03231	.00210	.20476	.00543	5.3736
#3	.00499	.19844	.01289	.00349	.20742	.00529	5.3551
#4	.00928	.22108	-.01451	.00828	.20686	.00530	5.3676
Errors	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High		.30000			.30000	.00750	7.5000
Low		.10000			.10000	.00250	2.5000
Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00102	.05368	.01127	.02640	.11110	4.9525	.00014
SDev	.00121	.00135	.00103	.00049	.00085	.1821	.00106
%RSD	119.34	2.5072	9.1473	1.8718	.76922	3.6771	745.69
#1	.00278	.05333	.00993	.02597	.11209	4.6963	.00050
#2	.00031	.05193	.01208	.02682	.11011	4.9486	.00084
#3	.00014	.05474	.01101	.02682	.11077	5.0826	.00066
#4	.00084	.05474	.01208	.02597	.11143	5.0826	-.00143
Errors	NOCHECK	LC Pass	NOCHECK	LC Pass	LC Pass	LC Pass	NOCHECK
High		.07500		.03750	.15000	7.5000	
Low		.02500		.01250	.05000	2.5000	
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.2277	.01558	.00373	5.0003	.03979	-.03902	.06084
SDev	.0337	.00057	.00623	.0447	.00184	.01921	.00522
%RSD	.64501	3.6507	167.03	.89438	4.6283	49.236	8.5758
#1	5.2114	.01607	-.00246	5.0132	.03950	-.03326	.05831
#2	5.1879	.01508	.00249	4.9347	.04233	-.01790	.05820
#3	5.2557	.01509	.01240	5.0349	.03943	-.04091	.05819
#4	5.2557	.01607	.00249	5.0185	.03791	-.06401	.06867
Errors	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	NOCHECK	NOCHECK
High	7.5000	.02250		7.5000	.06000		
Low	2.5000	.00750		2.5000	.02000		
Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00960	.05822	.00240	.00009	-.00040	.06235	.05327
SDev	.02127	.00003	.01483	.00013	.00055	.05436	.00253
%RSD	221.63	.05543	618.35	141.67	136.63	87.176	4.7471
#1	-.03432	.05820	-.01801	.00003	-.00097	.13825	.05194
#2	.01710	.05820	.01756	.00027	-.00032	.04487	.05204

#3	-.00663	.05827	.00500	.00003	-.00064	.00978	.05706
#4	-.01454	.05820	.00505	.00003	.00032	.05652	.05204
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass
High							.07500
Low							.02500

Elem	ZN
Units	ppm
Avge	.02377
SDev	.00110
%RSD	4.6387

#1	.02282
#2	.02281
#3	.02473
#4	.02472

Errors	LC Pass
High	.03000
Low	.01000

Method: QUANMET Sample Name: CCV2-4

Operator: MTW

Run Time: 08/30/00 09:28:24

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0187	50.275	5.3478	5.1527	5.0600	5.1041	52.063
SDev	.0043	.150	.0306	.0086	.0341	.0229	.348
%RSD	.41945	.29764	.57294	.16714	.67342	.44828	.66873

#1	1.0224	50.160	5.3034	5.1587	5.0250	5.1111	52.553
#2	1.0151	50.418	5.3526	5.1545	5.0973	5.1179	51.791
#3	1.0223	50.390	5.3719	5.1574	5.0796	5.1173	52.070
#4	1.0149	50.133	5.3634	5.1400	5.0380	5.0701	51.840

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.1004	5.1253	5.1008	5.0803	52.702	49.911	5.0148
SDev	.0396	.0252	.0237	.0368	.148	.217	.0681
%RSD	.77735	.49178	.46444	.72399	.28044	.43511	1.3587

#1	5.1445	5.1547	5.1331	5.0412	52.833	49.898	4.9271
#2	5.0758	5.1267	5.0831	5.1200	52.706	49.882	5.0856
#3	5.1220	5.1266	5.1041	5.1020	52.775	50.197	5.0465
#4	5.0592	5.0931	5.0831	5.0582	52.495	49.669	4.9999

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	50.685	5.0996	5.1280	50.267	5.0621	5.1069	5.1592
SDev	.233	.0182	.0183	.473	.0425	.0261	.0616
%RSD	.45988	.35628	.35735	.94057	.83868	.51028	1.1930

#1	50.632	5.1206	5.1503	49.708	5.1102	5.1329	5.2431
#2	50.877	5.0959	5.1156	50.778	5.0604	5.0933	5.0968
#3	50.854	5.1048	5.1354	50.510	5.0706	5.1241	5.1384
#4	50.377	5.0771	5.1106	50.072	5.0072	5.0773	5.1585

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.3317	5.1804	5.0871	5.0535	5.0689	10.383	5.1036
SDev	.0508	.0438	.0777	.0290	.0174	.237	.0218
%RSD	.95337	.84633	1.5279	.57297	.34258	2.2836	.42646

#1	5.3617	5.2094	5.1221	5.0263	5.0677	10.194	5.1213
#2	5.2743	5.1862	4.9916	5.0845	5.0829	10.371	5.1024

#3	5.3853	5.2094	5.0630	5.0717	5.0803	10.721	5.1173
#4	5.3054	5.1167	5.1719	5.0315	5.0449	10.245	5.0733
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	5.5000	11.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	4.5000	9.0000	4.5000

Elem ZN
Units ppm
Avge 5.1141
SDev .0062
%RSD .12192

#1 5.1227
#2 5.1088
#3 5.1143
#4 5.1104

Errors LC Pass
High 5.5000
Low 4.5000

Analysis Report

08/30/00 09:34:38 AM

page 1

Method: QUANMET Sample Name: CCB4

Operator: MTW

Run Time: 08/30/00 09:31:32

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00001	-.00651	-.01163	.02627	.00019	.00026	-.00084
SDev	.00138	.01361	.01966	.00907	.00025	.00023	.00231
%RSD	23164.	209.13	169.12	34.531	131.61	90.246	273.79

#1	-.00109	-.02472	-.01538	.03390	.00014	.00000	-.00425
#2	.00035	.00477	-.03122	.03389	.00034	.00013	-.00030
#3	.00179	.00300	-.01561	.01596	-.00014	.00038	.00037
#4	-.00109	-.00909	.01569	.02134	.00042	.00051	.00080

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00021	-.00035	-.00094	-.00000	-.00116	-.01577	-.00014
SDev	.00327	.00134	.00148	.00082	.00270	.11910	.00062
%RSD	1588.1	383.88	157.62	199450.	232.91	755.40	437.87

#1	-.00481	-.00139	-.00188	.00021	-.00381	-.06503	-.00058
#2	.00082	.00140	-.00027	.00107	-.00315	.02956	.00004
#3	.00288	-.00141	-.00242	-.00064	.00083	-.15175	.00066
#4	.00029	.00000	.00081	-.00064	.00149	.12416	-.00068

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00326	-.00049	.00371	-.00185	-.00197	-.01348	-.00002
SDev	.01105	.00049	.00248	.00336	.00684	.02543	.01821
%RSD	339.41	100.26	66.663	181.90	347.57	188.64	111300.

#1	-.01107	-.00074	.00743	-.00452	-.01066	-.04239	-.01585
#2	-.00326	-.00074	.00248	.00041	-.00236	-.01149	.01570
#3	-.01107	-.00074	.00248	.00164	-.00085	.01919	-.01573
#4	.01237	.00025	.00248	-.00493	.00600	-.01922	.01582

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.02176	-.00865	-.00889	.00009	-.00056	.03505	-.00114
SDev	.02651	.00332	.02223	.00013	.00041	.03163	.00005
%RSD	121.82	38.421	250.06	141.67	71.903	90.241	4.0977

#1	.01680	-.01152	.00882	.00003	-.00064	.04676	-.00107
#2	-.03462	-.00577	-.01196	.00003	-.00064	.05840	-.00116

#3	-.02670	-.00577	.00673	.00027	.00000	-.01167	-.00117
#4	-.04252	-.01152	-.03915	.00003	-.00097	.04670	-.00116

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem ZN
Units ppm
Avge -.00112
SDev .00027
%RSD 24.448

#1	-.00123
#2	-.00071
#3	-.00126
#4	-.00128

Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET Sample Name: DJL29BT Operator: MTW
 Run Time: 08/30/00 10:27:47
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00217	.01085	-.00596	-.00134	.00014	.00019	.01382
SDev	.00071	.00728	.01929	.01256	.00032	.00007	.00185
%RSD	32.851	67.065	323.47	935.32	230.94	39.320	13.354
#1	.00179	.00309	.01950	.01257	-.00014	.00013	.01122
#2	.00182	.00648	-.00792	.00001	.00042	.00012	.01555
#3	.00323	.01519	-.02741	.00001	-.00014	.00026	.01445
#4	.00182	.01863	-.00802	-.01795	.00042	.00024	.01407
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK
High	.50000		.50000		10.000		
Low	-.50000		-.50000		-10.000		
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00128	.00211	.00013	.00086	.00414	.27985	-.00059
SDev	.00150	.00141	.00188	.00082	.00187	.27424	.00073
%RSD	117.20	66.635	1414.2	95.621	45.267	97.996	124.71
#1	-.00068	.00141	-.00188	.00022	.00281	-.11233	-.00117
#2	.00056	.00141	-.00081	.00107	.00679	.36853	.00048
#3	-.00241	.00141	.00081	.00022	.00414	.33700	-.00073
#4	-.00261	.00423	.00242	.00193	.00281	.52619	-.00091
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.10000		.50000				
Low	-.10000		-.50000				
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00456	-.00025	-.00248	.00637	.00045	-.00958	-.00781
SDev	.00890	.00057	.00000	.00269	.00393	.01707	.01567
%RSD	195.18	230.94	.01132	42.306	883.02	178.13	200.49
#1	-.01628	-.00074	-.00248	.00493	.00377	-.02694	-.01561
#2	-.00586	-.00074	-.00247	.00863	.00225	.01155	-.02612
#3	-.00065	.00025	-.00248	.00863	.00095	-.01921	.00525
#4	.00456	.00025	-.00248	.00329	-.00519	-.00374	.00522
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	NOCHECK
High						.50000	
Low						-.50000	
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01186	-.00574	-.00213	.00003	-.00048	-.01758	.00116
SDev	.03772	.00004	.00842	.00000	.00019	.03989	.00279
%RSD	318.11	.62093	396.08	.00000	38.490	226.88	240.53
#1	.04451	-.00577	-.01210	.00003	-.00064	.03499	-.00126
#2	-.03064	-.00571	.00668	.00003	-.00064	-.03514	.00358

#3	-.02669	-.00577	.00264	.00003	-.00032	-.05842	-.00125
#4	-.03460	-.00571	-.00573	.00003	-.00032	-.01176	.00358

Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.25000						
Low	-.25000						

Elem	ZN
Units	ppm
Avge	.00343
SDev	.00065
%RSD	19.024

#1	.00329
#2	.00276
#3	.00432
#4	.00333

Errors	NOCHECK
High	
Low	

Method: QUANMET Sample Name: DJJH6BT Operator: MTW
 Run Time: 08/30/00 10:30:55
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00035	.01870	.18710	.02764	.00079	.00016	.09491
SDev	.00205	.00812	.02720	.00979	.00023	.00015	.00663
%RSD	588.08	43.419	14.535	35.422	28.720	89.879	6.9897
#1	-.00111	.01524	.18719	.03732	.00081	.00002	.08948
#2	.00033	.01526	.15599	.03391	.00062	.00014	.09196
#3	-.00108	.01347	.22223	.02336	.00062	.00013	.09367
#4	.00326	.03081	.18300	.01597	.00110	.00037	.10452
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK
High	.50000		.50000		10.000		
Low	-.50000		-.50000		-10.000		
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00501	.00001	.00013	.00236	.01010	.42174	-.00039
SDev	.00080	.00445	.00261	.00149	.00248	.37846	.00051
%RSD	15.895	33716.	1950.9	63.085	24.562	89.737	129.21
#1	-.00389	-.00280	-.00134	.00193	.01010	.22664	-.00055
#2	-.00578	.00142	-.00134	.00107	.00745	.17146	-.00040
#3	-.00522	-.00420	-.00081	.00192	.00944	.30547	-.00091
#4	-.00514	.00564	.00403	.00450	.01341	.98341	.00030
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.10000		.50000				
Low	-.10000		-.50000				
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01302	.00049	-.00743	S-.11749	.00372	-.02698	-.01042
SDev	.01006	.00049	.00404	.00000	.00268	.03217	.03257
%RSD	77.244	100.08	54.443	.00000	72.059	119.25	312.53
#1	-.00065	.00025	-.00743	S-.11749	.00514	-.06560	-.04710
#2	.01237	.00025	-.00247	S-.11749	.00102	-.03462	.00531
#3	.01758	.00025	-.01238	S-.11749	.00197	-.01941	-.02611
#4	.02279	.00123	-.00743	S-.11749	.00676	.01172	.02622
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	NOCHECK
High						.50000	
Low						-.50000	
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00003	.04744	.00885	.00115	-.00024	.05246	-.00256
SDev	.05320	.02506	.02586	.00014	.00081	.02229	.00460
%RSD	199950.	52.836	292.30	12.543	333.33	42.484	179.68
#1	-.05041	.05746	.03169	.00102	-.00064	.03499	-.00619
#2	.07221	.01143	-.02665	.00127	-.00064	.03498	-.00609

#3	.00497	.05177	.00668	.00127	-.00064	.05833	-.00145
#4	-.02667	.06909	.02366	.00102	.00097	.08153	.00349

Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.25000						
Low	-.25000						

Elem	ZN
Units	ppm
Avge	.00379
SDev	.00089
%RSD	23.393

#1	.00483
#2	.00406
#3	.00352
#4	.00273

Errors	NOCHECK
High	
Low	

Method: QUANMET Sample Name: DJL29CT Operator: MTW
 Run Time: 08/30/00 10:34:04
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05085	1.9461	2.3715	.97661	1.9067	.04895	L.10159
SDev	.00246	.0103	.0439	.00319	.0052	.00011	.00402
%RSD	4.8346	.52703	1.8501	.32719	.27421	.23310	3.9522

#1	.04762	1.9360	H2.4125	.97202	1.9073	.04891	L.09710
#2	.05338	1.9587	H2.4045	.97681	1.9046	.04903	L.10652
#3	.05192	1.9501	2.3461	.97880	1.9137	.04904	L.10276
#4	.05046	1.9397	2.3229	.97879	1.9013	.04880	L.10000

Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Low
High	.06000	2.4000	2.4000		2.4000	.06000	60.000
Low	.04000	1.6000	1.6000		1.6000	.04000	40.000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04595	.49918	.20156	.24722	1.0534	L.39415	.92625
SDev	.00262	.00404	.00324	.00043	.0050	.27985	.00448
%RSD	5.6914	.80907	1.6089	.17360	.47454	71.000	.48374

#1	.04848	.49390	.20021	.24743	1.0499	L.13992	.92868
#2	.04597	.50234	.20613	.24743	1.0592	L.76268	.91962
#3	.04701	.50233	.20129	.24743	1.0559	L.21875	.92922
#4	.04235	.49813	.19860	.24657	1.0486	L.45524	.92747

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	NOCHECK
High	.06000	.60000	.24000	.30000	1.2000	60.000	
Low	.04000	.40000	.16000	.20000	.80000	40.000	

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.00586	.49837	-.00232	S-.11749	.50113	.49746	L-.01157
SDev	.00689	.00187	.00000	.00000	.01217	.01614	.01987
%RSD	117.59	.37525	.03224	.00000	2.4290	3.2450	171.72

#1	L.00195	.49714	-.00232	S-.11749	.49171	.47803	L-.04047
#2	L.01498	.50109	-.00232	S-.11749	.51395	.51680	L-.00886
#3	L.00716	.49812	-.00232	S-.11749	.50905	.50141	L.00158
#4	L-.00065	.49714	-.00232	S-.11749	.48979	.49360	L.00145

Errors	LC Low	LC Pass	NOCHECK	LC Low	LC Pass	LC Pass	LC Low
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.3297	.06522	-.00456	.97416	-.00032	2.0423	.48919
SDev	.0420	.00726	.01255	.00257	.00070	.0348	.00401
%RSD	1.8021	11.136	275.23	.26361	216.02	1.7031	.82022

#1	2.3178	.06382	.00681	.97438	-.00097	2.0278	.49221
#2	2.2783	.07533	-.00350	.97333	.00064	2.0860	.49222

#3	2.3772	.05802	.00073	.97753	-.00032	2.0510	.48859
#4	2.3455	.06371	-.02228	.97138	-.00064	2.0045	.48375

Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass
High	2.4000					2.4000	.60000
Low	1.6000					1.6000	.40000

Elem	ZN
Units	ppm
Avge	.51064
SDev	.00504
%RSD	.98608

#1	.50339
#2	.51191
#3	.51506
#4	.51219

Errors	LC Pass
High	.60000
Low	.40000

Method: QUANMET Sample Name: DJEPMT Operator: MTW
 Run Time: 08/30/00 10:37:17
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00080	4.5199	.22658	.26910	.24146	.00066	412.11
SDev	.00272	.0621	.03980	.00325	.00315	.00006	4.67
%RSD	341.54	1.3736	17.567	1.2078	1.3042	9.3955	1.1324
#1	.00315	4.5411	.23231	.27165	.24255	.00063	414.46
#2	-.00259	4.4755	.24448	.26485	.23980	.00062	405.20
#3	-.00115	4.4650	.26016	.27163	.23817	.00075	413.45
#4	-.00259	4.5982	.16938	.26826	.24533	.00062	415.31
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.00545	.02630	.00013	.00518	.24778	10.530	.05302
SDev	.00376	.00312	.00068	.00043	.00329	.203	.00166
%RSD	69.086	11.880	511.63	8.2472	1.3281	1.9320	3.1211
#1	L-.00876	.02525	.00027	.00540	.24977	10.506	.05151
#2	L-.00796	.02807	.00080	.00454	.24314	10.530	.05538
#3	-.00455	.02946	-.00081	.00540	.24778	10.293	.05247
#4	-.00051	.02242	.00026	.00539	.25043	10.790	.05272
Errors	LC Low	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	85.548	.73677	-.00244	S-.11749	.04448	.01719	.01634
SDev	.791	.00773	.00700	.00000	.00584	.01080	.00014
%RSD	.92426	1.0496	287.15	.00000	13.135	62.818	.85231
#1	85.934	.74073	.00746	S-.11749	.03644	.00945	.01614
#2	84.840	.72690	-.00739	S-.11749	.04390	.01727	.01640
#3	84.944	.73480	-.00244	S-.11749	.04852	.00961	.01635
#4	86.476	.74467	-.00739	S-.11749	.04907	.03244	.01647
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00034	H31.253	-.02908	.51979	-.02433	.12980	.00267
SDev	.03038	.303	.02593	.00626	.00097	.04766	.00169
%RSD	9040.1	.97054	89.152	1.2042	3.9735	36.721	63.077
#1	.01747	H31.417	-.00764	.52141	-.02320	.17653	.00014
#2	.01350	H30.956	-.04111	.51592	-.02513	.08307	.00348

#3	-.04583	H31.043	-.00764	.51393	-.02384	.16478	.00358
#4	.01352	H31.595	-.05994	.52789	-.02513	.09481	.00348

Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .08167
SDev .00298
%RSD 3.6455

#1 .07815
#2 .08028
#3 .08372
#4 .08451

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DJEPPT Operator: MTW
 Run Time: 08/30/00 10:40:30
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00038	5.1944	.18412	.64397	.30527	.00081	154.18
SDev	.00216	.0322	.06313	.01772	.00234	.00007	1.14
%RSD	570.04	.62081	34.284	2.7519	.76556	8.9613	.74053
#1	-.00070	5.1532	.26833	.63647	.30233	.00088	153.61
#2	-.00214	5.1879	.17054	.63647	.30452	.00075	152.94
#3	.00218	5.2294	.18187	.63254	.30758	.00075	154.65
#4	.00218	5.2069	.11576	.67041	.30663	.00088	155.53
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00297	.01145	.00982	.00594	1.8440	5.6600	.02703
SDev	.00211	.00135	.00081	.00111	.0155	.3770	.00060
%RSD	70.945	11.765	8.2324	18.613	.83976	6.6604	2.2196
#1	-.00467	.01110	.01050	.00722	1.8301	5.6817	.02720
#2	-.00225	.01251	.00942	.00551	1.8321	5.5319	.02615
#3	-.00464	.00969	.00888	.00465	1.8619	5.2639	.02749
#4	-.00031	.01250	.01049	.00637	1.8520	6.1625	.02728
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	27.641	.39412	.00151	S815.41	.03355	.01601	.02643
SDev	.107	.00189	.00474	1631.0	.00127	.04492	.01477
%RSD	.38587	.48041	313.14	200.03	3.7988	280.51	55.893
#1	27.513	.39264	.00770	S3262.0	.03285	.00832	.01597
#2	27.594	.39264	-.00220	S-.11749	.03237	-.03017	.01602
#3	27.713	.39462	-.00220	S-.11749	.03527	.00824	.02641
#4	27.742	.39660	.00275	S-.11749	.03369	.07766	.04733
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00305	H20.658	.00098	.33441	.00443	.01517	.00367
SDev	.02403	.115	.01997	.00196	.00327	.05415	.00009
%RSD	787.23	.55491	2035.6	.58744	73.780	356.94	2.5301
#1	.02559	H20.513	-.01999	.33176	.00354	-.00512	.00380
#2	-.02979	H20.628	-.01161	.33410	.00129	-.04018	.00360

#3	.00589	H20.778	.02189	.33595	.00902	.01792	.00360
#4	-.01391	H20.714	.01364	.33585	.00387	.08807	.00370

Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .06762
SDev .00105
%RSD 1.5602

#1	.06675
#2	.06889
#3	.06809
#4	.06675

Errors	LC Pass
High	100.00
Low	-.02000

Analysis Report

6711380 08/30/00 10:46:49 AM

page 1

Method: QUANMET Sample Name: DJEPPP5T

Operator: MTW

Run Time: 08/30/00 10:43:44

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00152	1.0614	.04755	.12230	.06452	.00028	32.318
SDev	.00215	.0158	.03235	.00251	.00059	.00006	.185
%RSD	142.13	1.4883	68.044	2.0509	.90692	22.275	.57159
#1	.00475	1.0757	.02600	.12280	.06450	.00026	32.504
#2	.00044	1.0739	.01429	.12479	.06526	.00038	32.316
#3	.00043	1.0515	.06910	.11881	.06450	.00026	32.067
#4	.00045	1.0445	.08080	.12279	.06383	.00025	32.387
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00243	.00313	.00094	.00132	.39342	1.1056	.00635
SDev	.00184	.00177	.00161	.00082	.00164	.1791	.00036
%RSD	75.634	56.480	170.69	62.262	.41757	16.202	5.6310
#1	-.00204	.00560	.00135	.00196	.39556	1.0307	.00635
#2	-.00418	.00279	-.00081	.00110	.39357	1.2278	.00591
#3	-.00347	.00138	.00027	.00025	.39291	.88881	.00635
#4	-.00002	.00276	.00296	.00196	.39162	1.2751	.00679
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.9433	.08401	-.00118	266.57	.00514	-.00453	-.01825
SDev	.0625	.00094	.00248	3.49	.00617	.02742	.00999
%RSD	1.0512	1.1248	209.96	1.3092	120.20	605.83	54.739
#1	5.9407	.08525	-.00242	267.07	.00916	.02634	-.01559
#2	6.0319	.08426	-.00242	270.22	.01040	-.02765	-.02605
#3	5.9094	.08327	-.00242	267.18	-.00320	.01082	-.02613
#4	5.8912	.08328	.00253	261.82	.00419	-.02761	-.00523
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01973	4.2119	-.00525	.07082	.00282	-.02988	-.00002
SDev	.05636	.0124	.01165	.00050	.00502	.03353	.00176
%RSD	285.65	.29523	221.86	.70391	178.12	112.19	8397.4
#1	.03368	4.2176	-.00157	.07124	.00032	.00804	-.00125
#2	-.04149	4.2234	.00257	.07114	-.00032	-.07366	-.00005

#3	-.08896	4.1946	-.02254	.07074	.00097	-.02694	-.00125
#4	.01784	4.2119	.00054	.07014	.01031	-.02697	.00247

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .01381
SDev .00125
%RSD 9.0502

#1 .01394
#2 .01552
#3 .01289
#4 .01287

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DJEPPST Operator: MTW
 Run Time: 08/30/00 10:46:52
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.76628	4.4726	5.3140	.58438	44.594	.00078	141.78
SDev	.00118	.0125	.0952	.00982	.171	.00006	.62
%RSD	.15358	.27864	1.7922	1.6807	.38248	8.0531	.43623
#1	.76772	4.4751	5.2009	.59884	44.530	.00075	141.91
#2	.76628	4.4613	5.4155	.57690	44.395	.00088	142.38
#3	.76484	4.4891	5.2749	.58088	44.792	.00075	140.91
#4	.76628	4.4649	5.3648	.58089	44.660	.00075	141.93
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.97585	.01321	4.6860	.00481	1.1367	5.2599	.02473
SDev	.01111	.00143	.0181	.00082	.0042	.5153	.00038
%RSD	1.1386	10.794	.38719	17.060	.37178	9.7967	1.5385
#1	.96785	.01432	4.6862	.00546	1.1393	5.8472	.02440
#2	.97538	.01436	4.6991	.00546	1.1400	5.4846	.02502
#3	.96846	.01278	4.6603	.00374	1.1307	4.6648	.02440
#4	.99171	.01138	4.6986	.00460	1.1367	5.0432	.02509
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.292	.36185	-.00354	S3263.4	.03171	4.6880	.00638
SDev	.046	.00081	.01021	.1	.00530	.0341	.01973
%RSD	.18355	.22371	288.07	.00357	16.700	.72721	309.47
#1	25.226	.36185	.00760	S3263.3	.03506	4.6630	.01949
#2	25.296	.36284	.00265	S3263.3	.02912	4.7092	.00878
#3	25.330	.36085	-.01221	S3263.5	.02559	4.6552	-.02224
#4	25.317	.36184	-.01221	S3263.5	.03706	4.7245	.01947
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0710	18.390	.00130	.30797	-.00322	.07482	.00316
SDev	.0489	.024	.02117	.00100	.00095	.09109	.00021
%RSD	4.5669	.13275	1623.8	.32372	29.439	121.74	6.7254
#1	1.0918	18.401	-.02427	.30782	-.00258	.20030	.00338
#2	1.0048	18.372	.02171	.30662	-.00226	.08354	.00331

#3	1.0681	18.367	.01529	.30861	-.00387	.01359	.00294
#4	1.1195	18.418	-.00752	.30882	-.00419	.00187	.00302
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .05933
SDev .00107
%RSD 1.8077

#1 .05878
#2 .06069
#3 .05961
#4 .05822

Errors LC Pass
High 100.00
Low -.02000

Analysis Report

6711384 08/30/00 10:53:11 AM

page 1

Method: QUANMET Sample Name: DJEPPDT Operator: MTW
 Run Time: 08/30/00 10:50:05
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.83648	4.7364	5.3917	.62885	44.817	.00082	146.90
SDev	.00446	.0244	.0865	.00660	.293	.00008	.65
%RSD	.53348	.51513	1.6035	1.0502	.65380	9.2969	.44529
#1	.83684	4.7381	5.3195	.61987	44.576	.00075	147.20
#2	.83250	4.7260	5.3860	.62864	44.708	.00089	146.44
#3	.83396	4.7121	5.5148	.63145	44.740	.00075	146.28
#4	.84260	4.7693	5.3466	.63544	45.243	.00088	147.67
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.98929	.01164	4.6803	.00504	1.2922	5.1476	.02490
SDev	.00972	.00455	.0181	.00110	.0072	.2030	.00050
%RSD	.98219	39.060	.38566	21.907	.55763	3.9429	2.0061
#1	.99540	.01140	4.6835	.00632	1.2897	5.4452	.02484
#2	.98247	.01278	4.6679	.00375	1.2877	5.0826	.02527
#3	.97967	.00570	4.6652	.00546	1.2884	4.9880	.02422
#4	.99962	.01669	4.7045	.00462	1.3029	5.0747	.02527
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	26.315	.37472	.00019	S2446.8	.02553	4.6896	.00632
SDev	.149	.00140	.00286	1631.3	.00311	.0457	.01563
%RSD	.56516	.37293	1479.2	66.670	12.197	.97367	247.14
#1	26.237	.37472	.00267	S3262.5	.02940	4.7166	.01948
#2	26.208	.37373	.00267	S3262.3	.02656	4.6550	-.01191
#3	26.283	.37373	-.00228	S3262.6	.02380	4.6471	-.00149
#4	26.534	.37670	-.00228	S-.11749	.02236	4.7398	.01921
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0794	19.329	.00131	.32138	.00395	.07039	.00232
SDev	.0205	.117	.02191	.00216	.01102	.03443	.00180
%RSD	1.9019	.60295	1676.7	.67179	279.18	48.909	77.658
#1	1.0645	19.230	-.03053	.31979	.00064	.09376	.00328
#2	1.0606	19.322	.00700	.32058	-.00193	.10547	-.00038

#3	1.1041	19.270	.01952	.32058	.02030	.04711	.00314
#4	1.0883	19.494	.00924	.32457	-.00322	.03522	.00322
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .06135
SDev .00140
%RSD 2.2902

#1 .06201
#2 .06257
#3 .05935
#4 .06149

Errors LC Pass
High 100.00
Low -.02000

6711386

08/30/00 10:56:24 AM

page 1

Analysis Report

Method: QUANMET Sample Name: DJG82T

Operator: MTW

Run Time: 08/30/00 10:53:18

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00308	1.2217	.18640	.84265	1.5783	.00056	510.39
SDev	.00084	.0052	.02149	.01926	.0107	.00008	1.07
%RSD	27.337	.42330	11.529	2.2853	.67578	13.687	.20900
#1	-.00235	1.2182	.21176	.85536	1.5641	.00062	511.09
#2	-.00235	1.2164	.16497	.81467	1.5767	.00050	508.81
#3	-.00379	1.2252	.17270	.84519	1.5841	.00050	510.92
#4	-.00382	1.2270	.19616	.85538	1.5884	.00064	510.76
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03110	.05328	.00619	2.0881	.59089	6.7735	.00989
SDev	.00407	.00081	.00467	.0167	.00541	.1195	.00043
%RSD	13.096	1.5274	75.482	.79857	.91575	1.7637	4.3877
#1	.02635	.05401	.01157	2.0654	.58823	6.8720	.00941
#2	.02912	.05259	.00027	2.0868	.58691	6.6513	.01047
#3	.03393	.05257	.00565	2.0962	.58956	6.6907	.00985
#4	.03500	.05397	.00726	2.1039	.59884	6.8799	.00985
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	18.334	7.1126	-.00239	S-.11749	.07055	1.5926	.02698
SDev	.069	.0180	.00700	.00000	.00435	.0132	.00852
%RSD	.37535	.25280	293.29	.00000	6.1627	.82614	31.588
#1	18.287	7.0963	-.00239	S-.11749	.07691	1.5984	.03739
#2	18.269	7.0983	.00752	S-.11749	.06972	1.5752	.02699
#3	18.363	7.1240	-.00734	S-.11749	.06820	1.6060	.02701
#4	18.417	7.1319	-.00734	S-.11749	.06737	1.5907	.01652
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01525	H21.336	.01651	1.1165	-.01530	-.03068	.00238
SDev	.03788	.091	.02175	.0072	.00100	.06145	.00248
%RSD	248.33	.42519	131.72	.64154	6.5455	200.28	104.15
#1	.00254	H21.244	.04899	1.1073	-.01611	-.08330	.00360
#2	-.06867	H21.272	.00709	1.1148	-.01579	-.03656	.00377

#3	-.01328	H21.405	.00709	1.1198	-.01547	-.05979	.00349
#4	.01839	H21.422	.00286	1.1240	-.01385	.05693	-.00134

Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge 3.8759
SDev .0166
%RSD .42703

#1 3.8585
#2 3.8657
#3 3.8938
#4 3.8857

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: CCV2-5 Operator: MTW
 Run Time: 08/30/00 10:56:32
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0254	50.424	5.4687	5.1851	5.0739	5.3071	54.209
SDev	.0037	.059	.0767	.0394	.0132	.0098	.270
%RSD	.36107	.11644	1.4019	.76020	.26028	.18560	.49873
#1	1.0261	50.492	H5.5354	5.2405	5.0913	5.3198	54.098
#2	1.0290	50.451	5.3717	5.1517	5.0683	5.3099	54.408
#3	1.0261	50.362	H5.5245	5.1848	5.0602	5.3005	54.451
#4	1.0202	50.390	5.4431	5.1634	5.0757	5.2982	53.879
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.3032	5.2835	5.2522	5.0964	53.814	49.267	4.8932
SDev	.0077	.0198	.0236	.0141	.121	.186	.0284
%RSD	.14521	.37445	.44870	.27617	.22519	.37797	.58032
#1	5.3126	5.2793	5.2434	5.1082	53.836	49.023	4.9160
#2	5.3047	5.3046	5.2741	5.0842	53.902	49.472	4.8781
#3	5.2940	5.2920	5.2682	5.0842	53.882	49.314	4.8606
#4	5.3015	5.2582	5.2230	5.1090	53.637	49.259	4.9179
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	51.155	5.2202	5.2284	49.697	5.3458	5.2227	5.2181
SDev	.047	.0159	.0178	.227	.0432	.0372	.0746
%RSD	.09160	.30549	.34051	.45588	.80790	.71252	1.4294
#1	51.119	5.2197	5.2049	49.780	5.3596	5.2051	5.1085
#2	51.198	5.2335	5.2445	49.527	5.3296	5.2214	5.2437
#3	51.192	5.2296	5.2396	49.500	5.3977	5.2750	5.2446
#4	51.109	5.1979	5.2247	49.979	5.2963	5.1894	5.2757
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H5.5364	5.2397	5.2621	5.1579	5.1408	10.492	5.2433
SDev	.0615	.0095	.1120	.0112	.0073	.202	.0119
%RSD	1.1100	.18087	2.1283	.21739	.14176	1.9261	.22718
#1	H5.5661	5.2512	5.2783	5.1739	5.1470	10.381	5.2422
#2	H5.5860	5.2398	5.3794	5.1540	5.1467	10.579	5.2515

#3	5.4475	5.2399	5.2811	5.1478	5.1373	10.731	5.2526
#4	H5.5458	5.2280	5.1096	5.1558	5.1322	10.278	5.2268

Errors	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	5.5000	11.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	4.5000	9.0000	4.5000

Elem ZN
Units ppm
Avge 5.1813
SDev .0097
%RSD .18775

#1 5.1793
#2 5.1946
#3 5.1804
#4 5.1711

Errors LC Pass
High 5.5000
Low 4.5000

6711390

Analysis Report

08/30/00 11:02:50 AM

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Method: QUANMET Sample Name: CCB5

Operator: MTW

Run Time: 08/30/00 10:59:45

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00108	.00949	.06329	.01925	.00019	.00031	.00186
SDev	.00302	.01659	.03300	.01396	.00040	.00015	.00752
%RSD	278.46	174.87	52.136	72.522	212.07	49.427	405.09
#1	.00037	-.00393	.10531	.02811	.00014	.00037	.00199
#2	-.00255	-.00571	.03525	.00480	-.00034	.00014	-.00881
#3	.00470	.02549	.03873	.01017	.00034	.00024	.00689
#4	.00181	.02211	.07389	.03390	.00062	.00050	.00736
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00147	.00036	.00013	.00021	.00066	.11627	-.00072
SDev	.00155	.00505	.00221	.00185	.00288	.56914	.00067
%RSD	105.11	1418.4	1639.9	864.43	436.05	489.48	92.971
#1	-.00071	.00141	.00296	.00107	-.00315	.47101	-.00058
#2	-.00355	-.00702	-.00134	-.00236	.00016	-.72721	-.00169
#3	.00004	.00281	-.00189	.00193	.00215	.44736	-.00048
#4	-.00168	.00422	.00081	.00022	.00348	.27393	-.00014
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00000	-.00049	.00248	.01448	-.00508	.00190	-.02360
SDev	.01846	.00094	.00404	.01286	.00347	.03472	.03130
%RSD	6344e6	191.54	163.28	88.820	68.317	1829.9	132.66
#1	.01237	.00025	.00248	.00575	-.00506	.04237	-.01578
#2	-.02670	-.00173	.00743	.00123	-.00992	-.02722	-.05772
#3	.01237	-.00074	.00248	.02670	-.00187	-.02687	.01571
#4	.00195	.00025	-.00248	.02424	-.00349	.01930	-.03659
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01384	.00289	-.00534	.00009	-.00040	-.00877	.00065
SDev	.03813	.02880	.01066	.00013	.00081	.01119	.00441
%RSD	275.42	998.01	199.58	141.67	200.00	127.54	675.87
#1	.01285	-.01148	.00673	.00027	-.00064	.00001	.00247
#2	.00495	-.01158	-.00811	.00003	-.00129	-.01159	-.00590

#3	-.07021	.04608	-.00150	.00003	.00064	-.00007	.00367
#4	-.00296	-.01148	-.01848	.00003	-.00032	-.02344	.00237
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem ZN
Units ppm
Avge -.00110
SDev .00113
%RSD 102.28

#1 .00010
#2 -.00258
#3 -.00070
#4 -.00124

Errors LC Pass
High .02000
Low -.02000

Michael W. Smith 8-30-00

#	Sample Name	SE
1	STD1	-.0006
2	STD5A	.55149
3	STD5B	
4	ICV2-1 0057-005-2	1.0536
5	ICB1	-.02626
6	CRA-1 0057-047-1	.01567
7	ICSA 0057-011-1	-.08460
8	ICSAB 0014-187-1	.94510
9	DJC8HB	.00725
10	DJC8HC	1.9770
11	DJ54E	-.00086
12	DJ54EP5	-.01448
13	DJ54ES	1.8855
14	DJ54ED	1.9480
15	DJ54H	.01818
16	CCV2-1 0057-025-5	5.0213
17	CCB1	.01992
18	DJ54K	.01373
19	DJ54M	.01546
20	DJ54N	.02274
21	CCV2-2	4.7652
22	CCB2	.00453
23	DJL29BT	.02717
24	DJJH6BT	.02900
25	DJL29CT	2.0647
26	DJEPMT	.04226
27	DJEPPT	.00723
28	DJEPPP5T	.01542
29	DJEPPST	1.0244
30	DJEPPDT	1.0257
31	DJG82T	-.04662
32	CCV2-3	4.7745
33	CCB3	.00181

MTW 8-30-00

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	STD1	J00830B	QUANMET	08/30/00	11:23		X	IR
2	STD5A	J00830B	QUANMET	08/30/00	11:26		X	IR
3	STD5B	J00830B	QUANMET	08/30/00	11:29		X	IR
4	ICV2-1 0057-005-2	J00830B	QUANMET	08/30/00	11:32	MTW	S	CONC
5	ICB1	J00830B	QUANMET	08/30/00	11:36	MTW	S	CONC
6	CRA-1 0057-047-1	J00830B	QUANMET	08/30/00	11:39	MTW	S	CONC
7	ICSA 0057-011-1	J00830B	QUANMET	08/30/00	11:42	MTW	Q	CONC
8	ICSAB 0014-187-1	J00830B	QUANMET	08/30/00	11:45	MTW	Q	CONC
9	DJC8HB	J00830B	QUANMET	08/30/00	11:50	MTW	S	CONC
10	DJC8HC	J00830B	QUANMET	08/30/00	11:53	MTW	S	CONC
11	DJ54E	J00830B	QUANMET	08/30/00	11:57	MTW	S	CONC
12	DJ54EP5	J00830B	QUANMET	08/30/00	12:00	MTW	S	CONC
13	DJ54ES	J00830B	QUANMET	08/30/00	12:03	MTW	S	CONC
14	DJ54ED	J00830B	QUANMET	08/30/00	12:06	MTW	S	CONC
15	DJ54H	J00830B	QUANMET	08/30/00	12:09	MTW	S	CONC
16	CCV2-1 0057-025-5	J00830B	QUANMET	08/30/00	12:12	MTW	S	CONC
17	CCB1	J00830B	QUANMET	08/30/00	12:16	MTW	S	CONC
18	DJ54K	J00830B	QUANMET	08/30/00	12:19	MTW	S	CONC
19	DJ54M	J00830B	QUANMET	08/30/00	12:22	MTW	S	CONC
20	DJ54N	J00830B	QUANMET	08/30/00	12:25	MTW	S	CONC
21	CCV2-2	J00830B	QUANMET	08/30/00	12:28	MTW	S	CONC
22	CCB2	J00830B	QUANMET	08/30/00	12:31	MTW	S	CONC
23	DJL29BT	J00830B	QUANMET	08/30/00	12:37	MTW	S	CONC
24	DJJH6BT	J00830B	QUANMET	08/30/00	12:40	MTW	S	CONC
25	DJL29CT	J00830B	QUANMET	08/30/00	12:43	MTW	S	CONC
26	DJEPMT	J00830B	QUANMET	08/30/00	12:46	MTW	S	CONC
27	DJEPPT	J00830B	QUANMET	08/30/00	12:50	MTW	S	CONC
28	DJEPPP5T	J00830B	QUANMET	08/30/00	12:53	MTW	S	CONC
29	DJEPPST	J00830B	QUANMET	08/30/00	12:56	MTW	S	CONC
30	DJEPPDT	J00830B	QUANMET	08/30/00	12:59	MTW	S	CONC
31	DJG82T	J00830B	QUANMET	08/30/00	13:02	MTW	S	CONC
32	CCV2-3	J00830B	QUANMET	08/30/00	13:05	MTW	S	CONC
33	CCB3	J00830B	QUANMET	08/30/00	13:09	MTW	S	CONC

6711394

Method: QUANMET Standard: STD1

Run Time: 08/30/00 11:23:21

Elem	AG	AL	AS	B	BA	BE	CA
Avge	-.00055	.00955	-.00145	.00052	-.00011	.00265	-.00108
SDev	.00019	.00076	.00222	.00159	.00002	.00010	.00023
%RSD	34.816	7.9056	153.34	305.03	16.216	3.7736	21.605

#1	-.00040	.00900	-.00140	.00180	-.00012	.00260	-.00142
#2	-.00060	.00880	.00160	.00102	-.00008	.00260	-.00093
#3	-.00080	.01020	-.00360	.00106	-.00012	.00280	-.00094
#4	-.00040	.01020	-.00240	-.00180	-.00012	.00260	-.00102

Elem	CD	CO	CR	CU	FE	K	LI
Avge	-.00016	-.00020	-.00015	.00015	.00055	-.03855	-.00033
SDev	.00026	.00049	.00053	.00010	.00010	.00373	.00033
%RSD	166.02	244.95	350.66	66.667	18.182	9.6817	100.10

#1	-.00012	-.00020	-.00020	.00020	.00060	-.03820	-.00020
#2	.00012	.00040	.00060	.00020	.00040	-.03460	-.00044
#3	-.00012	-.00080	-.00040	.00020	.00060	-.03780	.00005
#4	-.00052	-.00020	-.00060	.00000	.00060	-.04360	-.00072

Elem	MG	MN	MO	NA	NI	PB	SB
Avge	-.00060	.00000	-.00005	.05680	-.00031	.00000	-.00025
SDev	.00043	.00000	.00030	.00107	.00082	.00028	.00053
%RSD	72.008	.00000	600.00	1.8853	264.40	.00000	210.40

#1	-.00060	.00000	.00020	.05580	-.00088	-.00040	.00020
#2	.00000	.00000	-.00020	.05740	-.00106	.00020	.00000
#3	-.00080	.00000	.00020	.05600	.00001	.00000	-.00100
#4	-.00100	.00000	-.00040	.05800	.00069	.00020	-.00020

Elem	SE	SI	SN	SR	TI	TL	V
Avge	-.00060	.00000	.00010	-.00002	.00180	.00030	.00000
SDev	.00190	.00000	.00116	.00004	.00023	.00042	.00065
%RSD	316.23	.00000	1160.5	200.00	12.830	138.78	.00000

#1	.00000	.00000	-.00100	.00000	.00160	.00040	-.00080
#2	.00180	.00000	.00040	-.00008	.00160	.00020	.00000
#3	-.00240	.00000	-.00060	.00000	.00200	.00080	.00080
#4	-.00180	.00000	.00160	.00000	.00200	-.00020	.00000

Elem	ZN
Avge	-.00004
SDev	.00017
%RSD	413.05

#1	-.00028
#2	.00000
#3	.00012
#4	.00000

Method: QUANMET Standard: STD5A 0014-155-1
Run Time: 08/30/00 11:26:32

Elem	AG	AS	B	BA	BE	CD	CO
Avge	.27940	.56840	.62956	4.3855	17.345	.94993	1.5546
SDev	.00091	.00410	.00264	.0067	.023	.00474	.0058
%RSD	.32542	.72054	.41903	.15332	.13335	.49875	.37335

#1	.27820	.56700	.62978	4.3821	17.312	.94452	1.5480
#2	.27920	.57280	.63314	4.3783	17.358	.94745	1.5516
#3	.28020	.56340	.62828	4.3877	17.364	.95445	1.5590
#4	.28000	.57040	.62704	4.3937	17.346	.95332	1.5600

Elem	CR	CU	LI	MN	MO	NI	PB
Avge	4.0205	2.4481	4.4811	2.1695	.43515	1.8689	.26765
SDev	.0162	.0012	.0178	.0075	.00175	.0095	.00182
%RSD	.40314	.05008	.39711	.34569	.40134	.50712	.68043

#1	3.9998	2.4468	4.5048	2.1614	.43380	1.8607	.26620
#2	4.0162	2.4496	4.4847	2.1650	.43360	1.8620	.26600
#3	4.0288	2.4474	4.4683	2.1766	.43600	1.8722	.26960
#4	4.0370	2.4484	4.4666	2.1752	.43720	1.8808	.26880

Elem	SB	SE	SI	SN	SR	TI	TL
Avge	.20485	.55150	.35995	1.0244	8.5237	6.5827	.37040
SDev	.00072	.00208	.00301	.0062	.0144	.0152	.00515
%RSD	.35089	.37629	.83699	.60471	.16910	.23167	1.3893

#1	.20440	.55340	.35600	1.0198	8.5156	6.5652	.36680
#2	.20580	.55060	.35920	1.0272	8.5085	6.5748	.37320
#3	.20420	.55300	.36220	1.0318	8.5301	6.5936	.36540
#4	.20500	.54900	.36240	1.0188	8.5406	6.5972	.37620

Elem	V	ZN
Avge	1.7456	1.5951
SDev	.0060	.0048
%RSD	.34537	.29961

#1	1.7392	1.5880
#2	1.7418	1.5965
#3	1.7516	1.5976
#4	1.7498	1.5983

Method: QUANMET Standard: STD5B 0014-155-2
Run Time: 08/30/00 11:29:42

Elem	AL	CA	FE	K	MG	NA
Avge	11.722	26.967	31.976	2.4790	7.9030	48.703
SDev	.029	.113	.075	.0068	.0156	.269
%RSD	.24756	.42038	.23500	.27450	.19704	.55184
#1	11.726	26.838	31.903	2.4850	7.8960	48.837
#2	11.700	26.932	31.920	2.4700	7.8858	48.581
#3	11.701	27.110	32.028	2.4774	7.9084	48.394
#4	11.762	26.986	32.052	2.4834	7.9218	49.000

Method: QUANMET

Slope = Conc(SIR)/IR

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
AG	328.068	STD5A	STD1	6.97026	.003834	08/30/00 11:29:42
AL	308.215	STD5B	STD1	8.53759	-.081534	08/30/00 11:29:42
AS	193.696	STD5A	STD1	17.8511	.025884	08/30/00 11:29:42
B_	249.600	STD5A	STD1	15.9292	-.008293	08/30/00 11:29:42
BA	493.409	STD5A	STD1	2.28020	.000248	08/30/00 11:29:42
BE	313.042	STD5A	STD1	.578141	-.001532	08/30/00 11:29:42
CA	317.933	STD5B	STD1	3.70816	.004003	08/30/00 11:29:42
CD	228.802	STD5A	STD1	10.6830	.001697	08/30/00 11:29:42
CO	228.616	STD5A	STD1	6.46221	.001292	08/30/00 11:29:42
CR	267.716	STD5A	STD1	2.48788	.000373	08/30/00 11:29:42
CU	324.754	STD5A	STD1	4.08141	-.000612	08/30/00 11:29:42
FE	259.940	STD5B	STD1	3.12742	-.001720	08/30/00 11:29:42
K_	766.491	STD5B	STD1	39.7219	1.53128	08/30/00 11:29:42
LI	670.789	STD5A	STD1	2.23144	.000729	08/30/00 11:29:42
MG	279.079	STD5B	STD1	12.6525	.007591	08/30/00 11:29:42
MN	257.610	STD5A	STD1	4.60773	.000000	08/30/00 11:29:42
MO	202.030	STD5A	STD1	22.9779	.001149	08/30/00 11:29:42
NA	588.995	STD5B	STD1	2.05566	-.116761	08/30/00 11:29:42
NI	231.604	STD5A	STD1	5.34739	.001651	08/30/00 11:29:42
PB	220.353	STD5A	STD1	36.2631	.000000	08/30/00 11:29:42
SB	206.838	STD5A	STD1	48.8132	.012203	08/30/00 11:29:42
SE	196.026	STD5A	STD1	18.1127	.010868	08/30/00 11:29:42
SI	288.158	STD5A	STD1	27.4271	.000000	08/30/00 11:29:42
SN	189.989	STD5A	STD1	9.75258	-.000975	08/30/00 11:29:42
SR	409.552	STD5A	STD1	1.17320	.000024	08/30/00 11:29:42
TI	334.941	STD5A	STD1	1.51955	-.002735	08/30/00 11:29:42
TL	190.864	STD5A	STD1	54.2928	-.016288	08/30/00 11:29:42
V_	292.402	STD5A	STD1	5.60669	.000000	08/30/00 11:29:42
ZN	213.856	STD5A	STD1	6.29042	.000259	08/30/00 11:29:42

Analysis Report

6711398

08/30/00 11:35:57 AM

Michael T. Wolski 8-30-00
page 1

Method: QUANMET Sample Name: ICV2-1 0057-005-2 Operator: MTW
 Run Time: 08/30/00 11:32:51
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51157	25.410	1.0171	1.0164	.99775	.97974	25.536
SDev	.00291	.048	.0700	.0070	.00279	.00196	.105
%RSD	.56896	.18706	6.8860	.68510	.28002	.20010	.41056
#1	.51408	25.451	1.0611	1.0139	1.0005	.98200	25.675
#2	.50839	25.341	1.0268	1.0104	.99460	.97730	25.432
#3	.50982	25.425	.91526	1.0150	.99962	.97937	25.485
#4	.51401	25.423	1.0652	1.0264	.99624	.98029	25.552
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.55000	27.500	1.1000	1.1000	1.1000	1.1000	27.500
Low	.45000	22.500	.90000	.90000	.90000	.90000	22.500
Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0221	1.0062	1.0209	.99194	26.267	25.124	.99969
SDev	.0073	.0063	.0042	.00236	.083	.224	.00353
%RSD	.71599	.62211	.40647	.23755	.31574	.89114	.35337
#1	1.0330	1.0123	1.0256	.99502	26.378	25.364	.99845
#2	1.0196	.99814	1.0157	.98928	26.179	25.245	.99745
#3	1.0187	1.0046	1.0201	.99174	26.243	24.864	1.0050
#4	1.0171	1.0098	1.0221	.99174	26.267	25.023	.99792
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	1.1000	1.1000	1.1000	27.500	27.500	1.1000
Low	.90000	.90000	.90000	.90000	22.500	22.500	.90000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.576	1.0107	.98968	25.262	1.0253	1.0414	1.0289
SDev	.085	.0042	.00229	.086	.0081	.0173	.0256
%RSD	.33161	.41243	.23129	.33939	.79393	1.6634	2.4926
#1	25.669	1.0156	.98855	25.253	1.0310	1.0597	1.0655
#2	25.464	1.0054	.99312	25.179	1.0259	1.0304	1.0265
#3	25.573	1.0109	.98853	25.381	1.0136	1.0522	1.0166
#4	25.596	1.0109	.98853	25.234	1.0307	1.0234	1.0071
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	27.500	1.1000	1.1000	27.500	1.1000	1.1000	1.1000
Low	22.500	.90000	.90000	22.500	.90000	.90000	.90000
Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0536	1.0590	1.0146	.99285	.98915	4.9858	.99558
SDev	.0469	.0104	.0294	.00287	.00360	.1042	.00562
%RSD	4.4550	.98264	2.8947	.28915	.36386	2.0894	.56475
#1	1.0693	1.0660	1.0528	.99636	.99348	5.1203	1.0034
#2	H1.1050	1.0603	1.0058	.98993	.98467	4.8728	.99003

#3	1.0472	1.0439	1.0175	.99391	.98923	4.9481	.99444
#4	.99295	1.0659	.98234	.99119	.98923	5.0021	.99444
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	1.1000	1.1000	1.1000	1.1000	5.5000	1.1000
Low	.90000	.90000	.90000	.90000	.90000	4.5000	.90000

Elem ZN
Units ppm
Avge 1.0121
SDev .0034
%RSD .34059

#1 1.0138
#2 1.0151
#3 1.0121
#4 1.0072

Errors LC Pass
High 1.1000
Low .90000

Method: QUANMET Sample Name: ICB1

Operator: MTW

Run Time: 08/30/00 11:36:00

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00174	-.00339	.00985	.00923	.00011	.00006	.00168
SDev	.00000	.00406	.03329	.01356	.00015	.00011	.00352
%RSD	.14071	119.97	337.90	146.89	135.85	189.56	209.47
#1	-.00174	.00220	.05086	.01494	.00025	-.00003	.00252
#2	-.00174	-.00637	-.00262	-.00829	-.00002	-.00003	-.00289
#3	-.00175	-.00642	.01881	.02357	-.00002	.00009	.00147
#4	-.00174	-.00296	-.02765	.00670	.00025	.00020	.00562
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00221	-.00033	.00137	-.00020	.00047	-.02781	-.00067
SDev	.00206	.00221	.00091	.00082	.00188	.28105	.00157
%RSD	92.887	672.34	66.490	400.20	400.14	1010.8	234.36
#1	.00114	.00258	.00236	.00021	-.00109	.26018	.00099
#2	.00423	-.00260	.00037	-.00143	-.00109	-.39921	-.00237
#3	.00362	-.00130	.00187	.00020	.00141	-.06554	.00028
#4	-.00013	.00000	.00087	.00020	.00266	.09335	-.00158
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00253	-.00000	-.00345	.00308	.00052	-.01813	.00489
SDev	.01691	.00000	.00375	.00578	.00341	.02813	.01225
%RSD	668.33	171.99	108.87	187.46	653.54	155.13	250.37
#1	.01771	-.00000	-.00345	.00493	-.00174	-.01443	.00246
#2	-.02024	-.00000	-.00804	-.00534	-.00300	-.05808	.00245
#3	.00000	.00000	.00115	.00493	.00391	-.00729	-.00727
#4	.01265	-.00000	-.00345	.00781	.00292	.00728	.02192
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.02626	-.00000	.00051	.00002	-.00008	.01086	-.00034
SDev	.04509	.00001	.02485	.00000	.00015	.08618	.00050
%RSD	171.70	146.04	4864.9	.00000	200.00	793.63	146.04
#1	-.03261	-.00000	-.01072	.00002	-.00000	-.08145	-.00006
#2	-.08332	-.00000	-.00291	.00002	-.00000	.01632	-.00015

#3	-.01449	-.00001	-.02051	.00002	-.00000	-.01628	-.00110
#4	.02536	-.00000	.03619	.00002	-.00030	.12485	-.00006

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem ZN
Units ppm
Avge .00157
SDev .00051
%RSD 32.320

#1 .00152
#2 .00101
#3 .00150
#4 .00225

Errors LC Pass
High .02000
Low -.02000

Method: QUANMET Sample Name: CRA-1 0057-047-1 Operator: MTW
 Run Time: 08/30/00 11:39:08
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00516	.20879	.04372	-.00627	.19867	.00512	5.0642
SDev	.00350	.00928	.02069	.00218	.00139	.00006	.0520
%RSD	67.856	4.4424	47.323	34.736	.70012	1.0759	1.0275
#1	.00972	.22065	.04798	-.00314	.19691	.00514	5.1115
#2	.00132	.20539	.01611	-.00688	.20010	.00504	4.9969
#3	.00411	.21049	.04463	-.00688	.19828	.00516	5.0983
#4	.00550	.19864	.06615	-.00819	.19938	.00516	5.0502
Errors	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High		.30000			.30000	.00750	7.5000
Low		.10000			.10000	.00250	2.5000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00409	.05320	.01341	.02638	.10680	5.5194	.00026
SDev	.00037	.00221	.00094	.00094	.00158	.2223	.00044
%RSD	9.0784	4.1486	7.0167	3.5793	1.4746	4.0285	169.19
#1	.00440	.05546	.01477	.02720	.10712	5.7736	.00091
#2	.00423	.05029	.01328	.02556	.10461	5.3843	.00018
#3	.00355	.05417	.01279	.02720	.10711	5.6306	-.00006
#4	.00419	.05288	.01278	.02557	.10837	5.2890	.00002
Errors	NOCHECK	LC Pass	NOCHECK	LC Pass	LC Pass	LC Pass	NOCHECK
High		.07500		.03750	.15000	7.5000	
Low		.02500		.01250	.05000	2.5000	
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.1698	.01546	.00461	5.0382	.04687	.02861	.07145
SDev	.0143	.00046	.00689	.0600	.00666	.01499	.01382
%RSD	.27689	2.9870	149.48	1.1908	14.202	52.386	19.344
#1	5.1496	.01570	.01036	4.9685	.04176	.03773	.07139
#2	5.1698	.01477	.00116	5.1038	.04372	.01586	.09102
#3	5.1799	.01570	.01036	5.0117	.04540	.04494	.06157
#4	5.1799	.01569	-.00343	5.0688	.05660	.01590	.06183
Errors	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	NOCHECK	NOCHECK
High	7.5000	.02250		7.5000	.06000		
Low	2.5000	.00750		2.5000	.02000		
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01568	.07197	.00816	.00020	.00023	-.00723	.05142
SDev	.02279	.00636	.02550	.00012	.00067	.05166	.00400
%RSD	145.40	8.8440	312.71	58.621	295.65	714.46	7.7834
#1	.02202	.07753	.00913	.00026	.00122	.06872	.05742
#2	-.01784	.06646	-.02199	.00002	-.00030	-.01803	.04939

#3	.03288	.07743	.04029	.00026	-.00000	-.03980	.04956
#4	.02564	.06645	.00519	.00026	-.00000	-.03980	.04930
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass
High							.07500
Low							.02500

Elem	ZN
Units	ppm
Avge	.02278
SDev	.00076
%RSD	3.3431

#1	.02363
#2	.02285
#3	.02284
#4	.02178

Errors	LC Pass
High	.03000
Low	.01000

Method: QUANMET

Sample Name: ICSA 0057-011-1

Operator: MTW

Run Time: 08/30/00 11:42:17

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00275	495.57	.04098	-.02884	.00192	.00013	483.90
SDev	.00218	1.11	.08981	.00659	.00040	.00007	3.38
%RSD	78.994	.22361	219.15	22.847	20.662	50.735	.69905
#1	-.00400	494.59	.11596	-.03285	.00154	.00007	479.11
#2	-.00101	494.65	.00729	-.03549	.00226	.00019	485.25
#3	-.00518	496.35	.11142	-.02604	.00162	.00019	484.25
#4	-.00083	496.69	-.07074	-.02096	.00226	.00007	486.97
Errors	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value		500.00					500.00
Range		20.000					20.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00417	.01199	.00174	-.00526	184.10	.40715	.00148
SDev	.00303	.00487	.00220	.00173	.66	.40996	.00053
%RSD	72.566	40.632	126.44	32.872	.35875	100.69	35.556
#1	-.00697	.00780	-.00062	-.00717	183.25	-.06554	.00073
#2	-.00519	.01555	.00386	-.00383	184.13	.93545	.00188
#3	-.00463	.00779	.00037	-.00628	184.16	.38729	.00152
#4	.00011	.01683	.00336	-.00377	184.86	.37140	.00180
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK
Value					200.00		
Range					20.000		
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	482.91	.00785	.01030	.01871	-.00447	.10708	.01718
SDev	1.24	.00049	.00655	.00394	.00328	.02715	.04325
%RSD	.25638	6.2674	63.616	21.042	73.204	25.352	251.67
#1	481.49	.00786	.01017	.02015	-.00518	.06975	.06102
#2	482.46	.00811	.00570	.01686	-.00881	.13486	-.03646
#3	483.29	.00716	.00571	.02343	-.00162	.11190	.00255
#4	484.40	.00828	.01960	.01439	-.00229	.11182	.04163
Errors	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	500.00						
Range	20.000						
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.08460	.15227	-.05314	.01367	-.01702	.50678	.00469
SDev	.07422	.01698	.03505	.00006	.00050	.23094	.00013
%RSD	87.728	11.153	65.962	.40812	2.9161	45.569	2.7265
#1	-.01711	.13719	-.01067	.01362	-.01702	.53461	.00468
#2	-.15246	.15364	-.08118	.01372	-.01763	.71008	.00460

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#3	-.14512	.14267	-.03808	.01362	-.01702	.17770	.00460
#4	-.02373	.17559	-.08263	.01372	-.01641	.60475	.00487

Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	ZN
Units	ppm
Avge	.00234
SDev	.00103
%RSD	43.946

#1	.00140
#2	.00160
#3	.00359
#4	.00277

Errors	NOCHECK
Value	
Range	

Method: QUANMET Sample Name: ICSAB 0014-187-1 Operator: MTW
 Run Time: 08/30/00 11:45:25
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.95326	493.91	.94380	.91271	.46296	.45055	476.54
SDev	.00293	.23	.08761	.00243	.00091	.00069	2.25
%RSD	.30708	.04579	9.2827	.26618	.19629	.15388	.47295
#1	.95136	494.01	.99287	.91319	.46372	.45041	473.24
#2	.95016	494.11	.96969	.91327	.46353	.45006	477.02
#3	.95573	493.59	.99888	.90931	.46171	.45017	477.71
#4	.95578	493.94	.81375	.91508	.46289	.45157	478.21
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	500.00	1.0000	1.0000	.50000	.50000	500.00
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.97169	.45005	.44384	.47804	182.38	9.9603	.99366
SDev	.00457	.00325	.00331	.00198	.42	.2578	.00546
%RSD	.47047	.72139	.74573	.41416	.23271	2.5886	.54942
#1	.96717	.44554	.44124	.47962	181.78	10.183	1.0015
#2	.97514	.45069	.44073	.47968	182.50	10.087	.99322
#3	.97608	.45069	.44671	.47560	182.49	9.9762	.98999
#4	.96836	.45329	.44671	.47725	182.76	9.5948	.98991
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	.50000	.50000	.50000	200.00	10.000	1.0000
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	478.52	.45464	.90388	10.107	.86708	.97975	1.0046
SDev	.35	.00145	.00589	.019	.01792	.01722	.0230
%RSD	.07399	.31983	.65115	.19232	2.0662	1.7576	2.2883
#1	478.05	.45285	.91068	10.131	.86913	1.0051	.98741
#2	478.60	.45582	.89701	10.099	.84153	.96878	1.0362
#3	478.52	.45583	.90620	10.085	.88272	.96903	.98777
#4	478.90	.45405	.90164	10.111	.87492	.97611	1.0071
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.00	.50000	1.0000	10.000	1.0000	1.0000	1.0000
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.94510	1.1015	.84268	.93074	.88369	9.4515	.45594
SDev	.02568	.0274	.03955	.00146	.00178	.2412	.00225
%RSD	2.7175	2.4843	4.6929	.15709	.20127	2.5516	.49355
#1	.93173	1.1413	.89515	.93114	.88164	9.1240	.45354
#2	.96625	1.0865	.83309	.93241	.88559	9.6919	.45776

6711407

#3	.91550	1.0974	Q.79971	.92889	.88286	9.4423	.45795
#4	.96694	1.0809	.84276	.93053	.88468	9.5480	.45450
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	10.000	.50000
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000

Elem ZN
Units ppm
Avge .93145
SDev .00465
%RSD .49944

#1 .93223
#2 .92849
#3 .93770
#4 .92739

Errors QC Pass
Value 1.0000
Range 20.000

Analysis Report

08/30/00 11:53:55 AM

6711408

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Method: QUANMET Sample Name: DJC8HB

Operator: MTW

Run Time: 08/30/00 11:50:49

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00070	.02047	.01320	.00216	.00013	.00005	.03585
SDev	.00135	.02080	.01201	.00508	.00023	.00006	.01446
%RSD	190.94	101.64	90.979	234.93	170.00	102.40	40.331

#1	.00105	.00903	.01153	-.00512	.00025	.00009	.02891
#2	-.00035	-.00302	.02948	.00352	-.00021	-.00003	.01962
#3	.00246	.03619	.00051	.00671	.00025	.00007	.04257
#4	-.00035	.03967	.01127	.00353	.00025	.00009	.05230

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00178	.00161	.00162	.00163	.00516	.44687	-.00032
SDev	.00181	.00267	.00321	.00103	.00571	.46638	.00069
%RSD	102.18	165.72	198.57	62.940	110.63	104.37	219.57

#1	-.00055	.00517	.00236	.00184	.00078	.63357	-.00098
#2	.00224	-.00130	-.00311	.00020	.00016	-.19265	-.00085
#3	.00383	.00128	.00386	.00265	.00767	.90367	.00028
#4	.00158	.00129	.00336	.00184	.01204	.44290	.00028

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01455	.00000	.00345	.01439	-.00013	.02722	-.00980
SDev	.02806	.00000	.00265	.00283	.00197	.02606	.00487
%RSD	192.81	94.375	76.986	19.657	1515.7	95.752	49.724

#1	.00506	.00000	.00115	.01398	.00114	.01463	-.00733
#2	-.02024	.00000	.00115	.01275	-.00307	.00721	-.00737
#3	.03037	.00000	.00575	.01850	.00083	.06528	-.00740
#4	.04302	.00000	.00575	.01233	.00057	.02175	-.01711

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00726	.01510	.00629	.00002	.00061	.02707	.00119
SDev	.02851	.02667	.01208	.00019	.00035	.04516	.00228
%RSD	392.85	176.61	192.05	793.17	57.735	166.82	191.05

#1	.02174	.00000	.00679	.00002	.00030	.03796	.00003
#2	.00725	.00000	.01264	-.00021	.00030	-.02714	.00002

#3	.03262	.05491	.01654	.00026	.00091	.08132	.00460
#4	-.03257	.00549	-.01081	.00002	.00091	.01615	.00012
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem ZN
Units ppm
Avge .00401
SDev .00096
%RSD 23.816

#1 .00372
#2 .00278
#3 .00478
#4 .00476

Errors LC Pass
High .02000
Low -.02000

Analysis Report

08/30/00 11:57:03 AM

6711410

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Method: QUANMET Sample Name: DJC8HC

Operator: MTW

Run Time: 08/30/00 11:53:57

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04723	1.9929	1.9647	.95963	1.9501	.04869	50.215
SDev	.00177	.0150	.0320	.00185	.0099	.00015	.291
%RSD	3.7387	.75427	1.6274	.19228	.50746	.30650	.57931
#1	.04686	1.9988	1.9246	.96124	1.9623	.04876	50.231
#2	.04689	1.9767	1.9996	.95803	1.9469	.04851	50.084
#3	.04548	1.9852	1.9568	.96121	1.9526	.04864	49.933
#4	.04968	2.0108	1.9779	.95803	1.9388	.04885	50.611
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Pass
High	.06000	2.4000	2.4000		2.4000	.06000	60.000
Low	.04000	1.6000	1.6000		1.6000	.04000	40.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05168	.48843	.19531	.24358	1.0398	49.084	.98021
SDev	.00437	.00460	.00351	.00047	.0064	.272	.00994
%RSD	8.4623	.94084	1.7951	.19267	.61662	.55415	1.0139
#1	.04960	.48454	.19444	.24398	1.0449	48.872	.98579
#2	.04841	.48844	.19245	.24398	1.0355	49.086	.98180
#3	.05063	.48584	.19394	.24317	1.0331	48.912	.98750
#4	.05810	.49488	.20042	.24317	1.0456	49.468	.96574
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	.06000	.60000	.24000	.30000	1.2000	60.000	
Low	.04000	.40000	.16000	.20000	.80000	40.000	
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	50.171	.48946	.97787	50.030	.49027	.52222	.50007
SDev	.132	.00177	.00796	.304	.00768	.03865	.02824
%RSD	.26238	.36108	.81405	.60820	1.5666	7.4010	5.6481
#1	50.362	.48993	.98476	50.241	.47929	.49125	.47547
#2	50.089	.48808	.96638	50.137	.49630	.49144	.52463
#3	50.157	.48808	.98016	50.165	.49074	.53482	.47575
#4	50.078	.49177	.98017	49.579	.49473	.57138	.52443
Errors	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9770	9.9047	1.9705	.97953	.96491	1.9094	.48687
SDev	.0327	.0114	.0315	.00417	.00200	.0240	.00346
%RSD	1.6528	.11505	1.5967	.42599	.20733	1.2590	.71020
#1	2.0024	9.9073	1.9816	.98475	.96734	1.9338	.48252
#2	1.9299	9.8910	1.9721	.97794	.96248	1.8795	.48889

#3	1.9951	9.9184	1.9270	.98053	.96461	1.9013	.48579
#4	1.9807	9.9020	2.0014	.97489	.96522	1.9228	.49029
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass
High	2.4000					2.4000	.60000
Low	1.6000					1.6000	.40000
Elem	ZN						
Units	ppm						
Avge	.49600						
SDev	.00141						
%RSD	.28461						
#1	.49531						
#2	.49454						
#3	.49781						
#4	.49633						
Errors	LC Pass						
High	.60000						
Low	.40000						

Method: QUANMET Sample Name: DJ54E

Operator: MTW

Run Time: 08/30/00 11:57:05

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00283	.16329	.02351	.32756	.02559	.00001	59.531
SDev	.00441	.01610	.03021	.02228	.00027	.00006	.886
%RSD	155.92	9.8570	128.51	6.8011	1.0710	476.84	1.4883
#1	-.00841	.14106	.00229	.31032	.02533	.00005	58.355
#2	.00135	.17016	-.00510	.34985	.02597	.00004	60.450
#3	-.00005	.17864	.05911	.30657	.02552	.00005	59.440
#4	-.00421	.16328	.03774	.34349	.02552	-.00008	59.878
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00122	.00193	.02933	.00102	.01422	45.098	.04933
SDev	.00296	.00308	.00103	.00094	.00195	.254	.00050
%RSD	242.75	159.92	3.5024	92.262	13.687	.56315	1.0139
#1	.00293	-.00001	.02921	.00021	.01203	45.241	.04859
#2	-.00287	.00646	.03070	.00184	.01516	45.273	.04958
#3	.00104	.00128	.02921	.00021	.01328	44.725	.04966
#4	.00378	-.00002	.02821	.00184	.01641	45.154	.04948
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.4190	.00139	.03562	93.513	.00307	.01812	.01449
SDev	.0138	.00092	.00460	.767	.00418	.04213	.01463
%RSD	.96996	66.038	12.902	.82073	136.10	232.48	100.97
#1	1.4044	.00001	.03792	94.347	.00693	.00717	-.00745
#2	1.4373	.00186	.03792	92.642	.00613	.04364	.02182
#3	1.4145	.00186	.03792	93.137	.00109	.05799	.02177
#4	1.4196	.00185	.02872	93.926	-.00186	-.03632	.02182
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00087	11.227	-.00918	.44039	-.00334	-.00873	.06046
SDev	.01197	.081	.00438	.00202	.00066	.04637	.00204
%RSD	1378.6	.72320	47.693	.45807	19.639	531.13	3.3672
#1	.01090	11.136	-.01465	.43999	-.00425	.00488	.05910
#2	-.00721	11.317	-.00476	.43971	-.00274	.04824	.06022

#3	-.01446	11.186	-.00671	.43858	-.00304	-.06028	.05910
#4	.00729	11.268	-.01061	.44327	-.00334	-.02776	.06341
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .00706
SDev .00092
%RSD 12.979

#1 .00605
#2 .00753
#3 .00659
#4 .00809

Errors LC Pass
High 100.00
Low -.02000

Analysis Report

08/30/00 12:03:19 PM

6711414

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Method: QUANMET Sample Name: DJ54EP5

Operator: MTW

Run Time: 08/30/00 12:00:13

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00133	.03007	.03076	.06166	.00520	.00002	12.153
SDev	.00133	.00769	.02261	.00239	.00013	.00006	.037
%RSD	100.58	25.567	73.499	3.8757	2.5806	262.77	.30550
#1	-.00167	.02415	.05045	.05992	.00526	.00005	12.118
#2	-.00307	.02574	.01116	.06499	.00500	-.00007	12.130
#3	-.00030	.02925	.01121	.05993	.00526	.00006	12.164
#4	-.00026	.04115	.05025	.06180	.00526	.00004	12.201
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00113	.00032	.00609	.00000	.00234	8.9156	.00875
SDev	.00121	.00266	.00238	.00140	.00130	.4056	.00041
%RSD	107.29	835.55	39.154	292930.	55.568	4.5497	4.6841
#1	.00113	-.00001	.00733	.00020	.00078	9.1658	.00902
#2	-.00058	-.00258	.00385	-.00143	.00203	8.3793	.00824
#3	.00195	-.00001	.00435	-.00061	.00266	8.8322	.00860
#4	.00203	.00387	.00883	.00184	.00391	9.2850	.00913
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.29227	.00023	.00804	18.439	-.00284	.02539	.00967
SDev	.01735	.00046	.00460	.224	.01136	.01921	.00937
%RSD	5.9356	197.94	57.142	1.2165	399.73	75.675	96.856
#1	.29860	.00000	.00115	18.475	-.01093	.02176	.01203
#2	.28088	.00000	.01034	18.690	-.01370	.03618	.00225
#3	.27582	.00000	.01034	18.447	.01015	-.00001	.00246
#4	.31378	.00093	.01034	18.144	.00311	.04363	.02194
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01448	2.2574	.01029	.08874	-.00061	.01345	.01334
SDev	.03074	.0351	.01107	.00090	.00043	.03692	.00322
%RSD	212.22	1.5545	107.63	1.0116	70.711	274.44	24.135
#1	-.02173	2.2273	.02639	.08910	-.00030	-.01639	.01349
#2	-.02173	2.2821	.00684	.08971	-.00122	.02705	.01366

#3	.02899	2.2930	.00684	.08854	-.00061	-.01638	.00918
#4	-.04346	2.2273	.00108	.08760	-.00030	.05953	.01704
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .00371
SDev .00199
%RSD 53.686

#1 .00391
#2 .00311
#3 .00153
#4 .00631

Errors LC Pass
High 100.00
Low -.02000

Analysis Report

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Method: QUANMET Sample Name: DJ54ES

Operator: MTW

Run Time: 08/30/00 12:03:21

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04568	2.0950	1.9445	1.2766	1.8807	.04677	108.63
SDev	.00114	.0099	.0564	.0191	.0080	.00024	.61
%RSD	2.4957	.47275	2.8988	1.4977	.42683	.50823	.55705
#1	.04428	2.0836	1.8625	1.2670	1.8706	.04645	107.89
#2	.04568	2.1005	1.9659	1.2670	1.8869	.04679	108.49
#3	.04707	2.0903	1.9588	1.3053	1.8875	.04679	108.81
#4	.04568	2.1056	1.9908	1.2670	1.8779	.04702	109.34
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04764	.46723	.21669	.23437	1.0058	93.265	.99117
SDev	.00204	.00341	.00188	.00103	.0063	.400	.00640
%RSD	4.2736	.73034	.86787	.43963	.62187	.42840	.64551
#1	.04895	.46401	.21482	.23335	.99659	92.828	.99272
#2	.04529	.46529	.21532	.23417	1.0085	93.321	.99719
#3	.04664	.46787	.21831	.23417	1.0104	93.782	.99267
#4	.04969	.47174	.21831	.23580	1.0079	93.130	.98212
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	49.958	.46894	.97212	141.08	.47508	.51250	.47324
SDev	.174	.00231	.01423	.59	.00955	.01572	.02804
%RSD	.34761	.49246	1.4635	.42140	2.0098	3.0674	5.9255
#1	49.712	.46594	.95258	140.54	.46153	.49061	.43664
#2	50.008	.46872	.98016	141.66	.48326	.52695	.47565
#3	50.119	.46964	.97097	141.54	.47566	.51982	.50498
#4	49.995	.47148	.98476	140.60	.47986	.51262	.47568
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.8855	H20.539	1.9042	1.3649	.91576	1.8362	.52605
SDev	.0480	.071	.0183	.0052	.00392	.0478	.00028
%RSD	2.5457	.34412	.96182	.38116	.42790	2.6009	.05264
#1	1.8972	H20.434	1.8997	1.3580	.90991	1.8580	.52567
#2	1.8248	H20.555	1.9311	1.3687	.91781	1.7819	.52621

Analysis Report

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#3	1.8791	H20.583	1.8961	1.3691	.91720	1.8144	.52603
#4	1.9407	H20.583	1.8901	1.3640	.91811	1.8905	.52630
Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .48384
SDev .00269
%RSD .55679

#1 .48178
#2 .48326
#3 .48254
#4 .48778

Errors LC Pass
High 100.00
Low -.02000

Analysis Report

6711418
08/30/00 12:09:39 PM

page 1

Method: QUANMET Sample Name: DJ54ED

Operator: MTW

Run Time: 08/30/00 12:06:34

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04714	2.1581	1.9857	1.2917	1.9358	.04792	109.32
SDev	.00001	.0053	.0242	.0169	.0089	.00013	.43
%RSD	.02873	.24595	1.2211	1.3108	.45793	.26935	.39206
#1	.04712	2.1586	1.9688	1.2989	1.9276	.04781	108.69
#2	.04715	2.1533	2.0116	1.3053	1.9386	.04803	109.46
#3	.04715	2.1551	1.9616	1.2671	1.9299	.04780	109.65
#4	.04715	2.1653	2.0008	1.2957	1.9471	.04803	109.48
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04755	.47943	.22204	.24214	1.0288	95.021	1.0190
SDev	.00293	.00279	.00155	.00169	.0044	.622	.0066
%RSD	6.1598	.58111	.69708	.69572	.42306	.65424	.64355
#1	.04567	.47557	.21980	.23989	1.0242	94.195	1.0177
#2	.05074	.47942	.22229	.24397	1.0261	95.553	1.0216
#3	.04453	.48203	.22328	.24235	1.0311	94.894	1.0105
#4	.04924	.48071	.22278	.24234	1.0336	95.442	1.0260
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	51.099	.47932	.98706	143.48	.48974	.53098	.51223
SDev	.218	.00220	.00796	.76	.01897	.00931	.02811
%RSD	.42696	.45837	.80645	.52815	3.8736	1.7538	5.4870
#1	50.827	.47609	.97557	143.04	.46440	.54174	.50476
#2	51.225	.48071	.99395	143.71	.49119	.52733	.49501
#3	51.027	.47978	.98935	142.74	.49302	.52015	.49532
#4	51.318	.48071	.98935	144.45	.51034	.53469	.55384
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9480	H20.827	1.9531	1.3948	.94159	1.9661	.53897
SDev	.0595	.058	.0502	.0063	.00301	.1810	.00264
%RSD	3.0554	.27682	2.5705	.44939	.31993	9.2074	.49032
#1	1.9697	H20.742	1.9467	1.3889	.93756	1.7708	.53510
#2	1.9371	H20.862	2.0032	1.3959	.94303	2.2051	.54106

#3	2.0132	H20.841	1.8862	1.3914	.94121	1.9118	.53985
#4	1.8719	H20.862	1.9762	1.4032	.94455	1.9769	.53985
Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .49300
SDev .00332
%RSD .67361

#1 .48962
#2 .49635
#3 .49531
#4 .49074

Errors LC Pass
High 100.00
Low -.02000

Analysis Report

6711420
08/30/00 12:12:53 PM

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Method: QUANMET Sample Name: DJ54H

Operator: MTW

Run Time: 08/30/00 12:09:47

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00131	.20313	.03913	.34923	.06146	.00005	109.90
SDev	.00177	.00539	.01464	.00425	.00043	.00010	.25
%RSD	134.92	2.6519	37.400	1.2182	.70596	211.55	.23131
#1	-.00165	.19969	.05250	.34352	.06155	.00004	109.64
#2	-.00308	.19806	.02052	.34857	.06082	.00006	109.73
#3	-.00167	.20482	.04895	.35308	.06173	.00016	110.16
#4	.00115	.20996	.03455	.35176	.06173	-.00008	110.07
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00072	-.00035	.00796	.00327	.02891	41.239	.07389
SDev	.00165	.00163	.00125	.00041	.00089	.267	.00039
%RSD	227.67	470.06	15.637	12.487	3.0651	.64631	.52775
#1	-.00141	-.00002	.00634	.00347	.02953	40.896	.07379
#2	.00059	.00127	.00834	.00347	.02765	41.349	.07353
#3	.00114	-.00261	.00933	.00347	.02953	41.523	.07444
#4	.00257	-.00003	.00783	.00266	.02891	41.190	.07381
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	13.355	.00577	.03332	114.26	.00293	.00531	.00469
SDev	.068	.00046	.00375	.72	.00521	.00363	.01229
%RSD	.50667	7.9806	11.260	.63144	177.85	68.261	262.24
#1	13.328	.00554	.03332	113.79	-.00073	.00716	.02174
#2	13.288	.00555	.03792	113.58	-.00156	.00716	-.00760
#3	13.447	.00647	.03332	115.15	.00429	.00706	.00226
#4	13.356	.00554	.02873	114.54	.00971	-.00013	.00235
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01819	7.9719	.01224	.66333	-.00600	-.01666	.01496
SDev	.02421	.0122	.00895	.00343	.00046	.05395	.00396
%RSD	133.11	.15269	73.135	.51696	7.5949	323.84	26.497
#1	.03630	7.9650	.02256	.66222	-.00577	-.08184	.01748
#2	-.01079	7.9759	.01462	.65917	-.00669	-.02748	.00972

#3	.00732	7.9595	.00101	.66714	-.00577	.04851	.01412
#4	.03992	7.9870	.01077	.66480	-.00577	-.00583	.01851
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .01639
SDev .00139
%RSD 8.4680

#1 .01564
#2 .01487
#3 .01716
#4 .01791

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: CCV2-1 0057-025-5 Operator: MTW
 Run Time: 08/30/00 12:12:55
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.99876	50.333	4.9837	4.9544	4.9248	4.9082	50.364
SDev	.00294	.136	.0838	.0283	.0192	.0175	.180
%RSD	.29404	.26932	1.6805	.57108	.39044	.35664	.35703
#1	.99620	50.148	5.0607	4.9289	4.9083	4.8822	50.191
#2	.99634	50.469	4.9469	4.9331	4.9502	4.9201	50.244
#3	1.0006	50.382	4.8832	4.9676	4.9289	4.9149	50.439
#4	1.0020	50.332	5.0442	4.9879	4.9117	4.9158	50.581
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.0528	4.9221	4.9267	4.9299	51.044	50.095	4.9570
SDev	.0250	.0154	.0110	.0216	.143	.386	.0260
%RSD	.49517	.31241	.22322	.43770	.27919	.77008	.52450
#1	5.0270	4.9018	4.9126	4.9113	50.834	50.230	4.9475
#2	5.0618	4.9249	4.9275	4.9603	51.080	50.572	4.9933
#3	5.0391	4.9224	4.9275	4.9293	51.122	49.706	4.9549
#4	5.0835	4.9391	4.9394	4.9187	51.141	49.873	4.9322
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	50.333	4.9087	4.8847	50.958	4.9725	5.0249	5.0251
SDev	.147	.0136	.0150	.264	.0069	.0248	.0210
%RSD	.29256	.27622	.30722	.51715	.13977	.49356	.41733
#1	50.116	4.8911	4.8847	50.676	4.9636	5.0263	5.0056
#2	50.423	4.9069	4.9031	51.291	4.9787	4.9905	5.0542
#3	50.428	4.9133	4.8663	51.026	4.9772	5.0339	5.0154
#4	50.367	4.9235	4.8847	50.841	4.9704	5.0489	5.0250
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.0213	5.0642	4.9844	4.9370	4.8841	9.7124	4.9284
SDev	.0507	.0425	.0512	.0165	.0107	.0519	.0104
%RSD	1.0093	.83871	1.0262	.33443	.21988	.53468	.21078
#1	4.9519	5.0051	4.9102	4.9201	4.8699	9.6849	4.9135
#2	5.0685	5.0656	5.0274	4.9576	4.8951	9.6821	4.9296

#3	5.0468	5.0821	5.0019	4.9424	4.8887	9.6926	4.9334
#4	5.0179	5.1041	4.9981	4.9280	4.8829	9.7900	4.9371
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	5.5000	11.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	4.5000	9.0000	4.5000

Elem ZN
Units ppm
Avge 4.9369
SDev .0160
%RSD .32376

#1 4.9146
#2 4.9468
#3 4.9362
#4 4.9499

Errors LC Pass
High 5.5000
Low 4.5000

Method: QUANMET Sample Name: CCB1

Operator: MTW

Run Time: 08/30/00 12:16:03

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00138	.00545	.03471	.00492	.00027	.00017	.04724
SDev	.00350	.02131	.02905	.00804	.00043	.00019	.00795
%RSD	253.50	390.75	83.685	163.66	156.50	116.55	16.835
#1	-.00593	-.02013	.01177	-.00455	-.00002	-.00003	.03738
#2	-.00172	.01055	.05430	.00126	-.00002	.00019	.04588
#3	-.00033	.00035	.00797	.00988	.00025	.00008	.04911
#4	.00246	.03105	.06482	.01307	.00089	.00042	.05657
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00163	.00226	.00162	.00041	.00016	.28997	-.00054
SDev	.00173	.00244	.00355	.00140	.00319	.49986	.00116
%RSD	105.77	108.18	219.52	340.30	2034.7	172.38	215.31
#1	-.00058	-.00129	-.00211	-.00143	-.00298	-.15293	-.00093
#2	.00110	.00387	.00038	.00021	.00016	-.12115	-.00195
#3	.00288	.00387	.00187	.00102	-.00109	.61768	-.00001
#4	.00312	.00257	.00634	.00184	.00454	.81629	.00073
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00633	.00000	.01034	.00956	.00318	.00914	.00971
SDev	.02698	.00106	.00375	.00759	.00582	.01911	.02566
%RSD	426.46	31789.	36.291	79.415	182.97	209.06	264.29
#1	-.02277	-.00092	.00574	-.00123	-.00169	-.00731	-.02687
#2	-.00506	-.00092	.01494	.01398	-.00054	.00014	.03164
#3	.01265	.00092	.01034	.00987	.00380	.00738	.01211
#4	.04049	.00093	.01034	.01562	.01116	.03635	.02196
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01992	.00004	.01321	.00014	.00015	-.02447	.00301
SDev	.01494	.00003	.01544	.00014	.00104	.02404	.00200
%RSD	74.972	66.531	116.90	95.756	683.13	98.222	66.531
#1	.03259	.00000	-.00305	.00002	-.00122	-.03797	.00011
#2	.00362	.00005	.01088	.00002	-.00000	-.01635	.00365

#3	.01086	.00005	.03419	.00026	.00061	-.04890	.00357
#4	.03261	.00006	.01083	.00026	.00122	.00533	.00470

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem	ZN
Units	ppm
Avge	.00307
SDev	.00143
%RSD	46.446

#1	.00301
#2	.00279
#3	.00152
#4	.00497

Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET Sample Name: DJ54K

Operator: MTW

Run Time: 08/30/00 12:19:12

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00203	.12640	.02374	.34863	.06953	.00006	129.00
SDev	.00070	.00720	.01184	.00001	.00056	.00000	.47
%RSD	34.432	5.6948	49.875	.00205	.80473	2.5574	.36322
#1	-.00168	.12629	.01749	.34864	.06975	.00006	128.36
#2	-.00168	.13151	.03173	.34863	.06903	.00006	129.43
#3	-.00168	.13155	.01029	.34862	.07021	.00006	129.26
#4	-.00308	.11626	.03543	.34862	.06911	.00006	128.94
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00292	.00191	.00473	.00490	.05752	37.778	.07513
SDev	.00125	.00342	.00110	.00103	.00172	.235	.00116
%RSD	42.734	179.54	23.314	20.999	2.9933	.62206	1.5465
#1	.00400	-.00262	.00535	.00347	.05643	37.702	.07576
#2	.00135	.00126	.00436	.00511	.05956	37.893	.07345
#3	.00249	.00514	.00336	.00511	.05830	38.028	.07602
#4	.00383	.00384	.00585	.00593	.05580	37.488	.07531
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	17.325	.01039	.03218	127.92	.00360	.01087	.02184
SDev	.098	.00046	.00578	1.06	.00298	.00939	.02637
%RSD	.56449	4.4395	17.971	.82687	82.987	86.375	120.75
#1	17.390	.01016	.03792	128.88	.00041	.00714	.03150
#2	17.301	.01108	.03333	127.45	.00318	-.00000	.04134
#3	17.412	.01016	.03333	128.69	.00318	.01460	.03162
#4	17.197	.01016	.02414	126.65	.00762	.02176	-.01711
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01374	7.9211	-.00377	.71616	-.00631	-.00876	.00988
SDev	.04764	.0224	.00767	.00416	.00123	.06536	.00058
%RSD	346.81	.28273	203.79	.58026	19.427	745.68	5.9111
#1	.01102	7.9320	-.00080	.71816	-.00456	-.02772	.00971
#2	.00740	7.9375	.00315	.71511	-.00638	.04823	.00962

#3	.07623	7.9266	-.00274	.72050	-.00699	.03734	.01074
#4	-.03970	7.8881	-.01467	.71088	-.00729	-.09291	.00945
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .01131
SDev .00056
%RSD 4.9352

#1 .01131
#2 .01158
#3 .01181
#4 .01053

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DJ54M

Operator: MTW

Run Time: 08/30/00 12:22:20

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00325	.92888	.03455	.26208	.04241	.00005	85.062
SDev	.00070	.00860	.02859	.00093	.00051	.00006	.420
%RSD	21.448	.92609	82.746	.35668	1.1916	109.84	.49328
#1	-.00429	.93866	.07106	.26255	.04312	.00008	85.480
#2	-.00290	.93186	.01757	.26068	.04239	.00008	85.167
#3	-.00290	.91825	.04267	.26255	.04194	.00008	85.122
#4	-.00290	.92675	.00690	.26256	.04220	-.00003	84.480
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00015	.00225	.03494	.00266	.02766	58.860	.08453
SDev	.00346	.00194	.00029	.00115	.00114	.905	.00256
%RSD	2246.0	86.199	.82010	43.467	4.1284	1.5373	3.0247
#1	-.00374	.00387	.03469	.00429	.02829	59.986	.08720
#2	-.00064	-.00001	.03519	.00266	.02704	59.184	.08623
#3	.00463	.00385	.03469	.00184	.02641	58.008	.08248
#4	.00036	.00128	.03519	.00184	.02891	58.262	.08222
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.08414	.00069	.03562	84.537	.00028	.03219	.02898
SDev	.01176	.00046	.00460	1.059	.00641	.01392	.01668
%RSD	13.972	66.653	12.902	1.2529	2286.3	43.241	57.567
#1	.08351	.00092	.04251	85.781	-.00526	.02859	.02160
#2	.08857	.00000	.03332	85.053	.00953	.01400	.03152
#3	.09616	.00092	.03332	83.714	-.00128	.04315	.05092
#4	.06832	.00092	.03332	83.601	-.00187	.04302	.01187
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01547	10.180	.00406	.80562	-.00471	-.00063	.04561
SDev	.01519	.082	.01136	.00967	.00018	.01403	.00009
%RSD	98.200	.80330	279.97	1.2008	3.7248	2242.5	.19393
#1	.03630	10.286	-.00670	.81723	-.00486	-.00607	.04574
#2	.01456	10.203	-.00276	.80972	-.00486	.00482	.04557

#3	.01094	10.121	.01879	.79940	-.00456	.01566	.04557
#4	.00008	10.110	.00690	.79611	-.00456	-.01692	.04557
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .00729
SDev .00098
%RSD 13.384

#1 .00875
#2 .00671
#3 .00697
#4 .00675

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DJ54N

Operator: MTW

Run Time: 08/30/00 12:25:29

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00269	.19583	-.00819	.34700	.05575	.00010	105.26
SDev	.00264	.01475	.02744	.00318	.00049	.00007	.34
%RSD	98.307	7.5308	334.94	.91761	.88637	70.345	.32357
#1	-.00443	.19451	-.02603	.34223	.05634	.00004	105.19
#2	-.00443	.18949	.02042	.34859	.05588	.00015	105.60
#3	-.00303	.18262	-.03664	.34859	.05516	.00015	104.82
#4	.00115	.21671	.00948	.34861	.05562	.00004	105.44
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00176	.00127	.01269	.00347	.04017	40.872	.06545
SDev	.00131	.00183	.00252	.00067	.00319	.277	.00047
%RSD	74.503	144.18	19.836	19.228	7.9454	.67836	.72082
#1	.00325	-.00003	.01132	.00266	.04017	41.166	.06523
#2	.00061	.00386	.01480	.00429	.03891	41.047	.06539
#3	.00249	.00127	.00983	.00347	.03704	40.681	.06505
#4	.00071	-.00002	.01480	.00347	.04455	40.594	.06612
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.313	.00555	.03562	113.56	.00588	.01986	-.00017
SDev	.074	.00000	.00265	.60	.00319	.01608	.01664
%RSD	.60056	.02573	7.4495	.53007	54.267	80.980	9557.2
#1	12.417	.00555	.03792	114.45	.00901	-.00012	.00229
#2	12.291	.00555	.03332	113.17	.00315	.01447	-.01729
#3	12.243	.00555	.03332	113.43	.00825	.02892	-.00740
#4	12.303	.00555	.03792	113.21	.00311	.03616	.02171
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02275	8.3723	.00100	.63203	-.00593	.00219	.01865
SDev	.00906	.0207	.01106	.00314	.00072	.02853	.00005
%RSD	39.849	.24733	1101.6	.49715	12.208	1304.2	.28061
#1	.02546	8.3765	.00102	.63672	-.00638	.01577	.01870
#2	.02184	8.3655	.00873	.63015	-.00638	.00490	.01861

#3	.01097	8.3490	-.01463	.63039	-.00608	-.03850	.01860
#4	.03272	8.3984	.00890	.63086	-.00486	.02658	.01870
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .00728
SDev .00174
%RSD 23.877

#1 .00607
#2 .00660
#3 .00659
#4 .00986

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: CCV2-2

Operator: MTW

Run Time: 08/30/00 12:28:37

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.98112	48.487	4.8309	4.7643	4.6855	4.7467	50.193
SDev	.00241	.147	.0931	.0272	.0217	.0123	.202
%RSD	.24558	.30306	1.9273	.57089	.46285	.25841	.40224
#1	.98007	48.515	4.8414	4.7445	4.6910	4.7427	50.137
#2	.98427	48.343	4.8927	4.7855	4.6605	4.7405	50.471
#3	.98153	48.680	4.8934	4.7898	4.7121	4.7650	49.989
#4	.97862	48.411	4.6961	4.7374	4.6783	4.7388	50.174
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.0419	4.8395	4.8524	4.6879	49.737	47.303	4.6181
SDev	.0211	.0128	.0128	.0248	.062	.382	.0467
%RSD	.41931	.26482	.26413	.53006	.12415	.80667	1.0113
#1	5.0205	4.8311	4.8444	4.6900	49.700	47.362	4.6384
#2	5.0708	4.8581	4.8708	4.6647	49.798	47.609	4.5583
#3	5.0352	4.8375	4.8429	4.7218	49.781	47.490	4.6676
#4	5.0413	4.8311	4.8514	4.6753	49.671	46.751	4.6080
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	48.689	4.8095	4.7742	48.149	4.9047	4.9132	4.8569
SDev	.126	.0095	.0145	.322	.0127	.0479	.0833
%RSD	.25873	.19781	.30439	.66834	.25806	.97533	1.7147
#1	48.661	4.8033	4.7558	48.243	4.9121	4.9165	4.7913
#2	48.611	4.8236	4.7696	47.784	4.9100	4.9682	4.9081
#3	48.874	4.8070	4.7834	48.542	4.8858	4.9167	4.9471
#4	48.608	4.8042	4.7880	48.029	4.9111	4.8513	4.7811
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.7652	4.9228	4.9498	4.7257	4.7177	9.5477	4.8058
SDev	.0550	.0473	.0289	.0202	.0095	.1912	.0082
%RSD	1.1543	.96027	.58457	.42650	.20087	2.0022	.17142
#1	4.8402	4.8940	4.9134	4.7310	4.7194	9.7952	4.8066
#2	4.7173	4.9927	4.9647	4.7039	4.7152	9.5335	4.8047

#3	4.7318	4.9106	4.9414	4.7510	4.7294	9.5336	4.8161
#4	4.7713	4.8939	4.9797	4.7171	4.7067	9.3286	4.7960

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	5.5000	11.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	4.5000	9.0000	4.5000

Elem ZN
Units ppm
Avge 4.8372
SDev .0144
%RSD .29795

#1	4.8208
#2	4.8559
#3	4.8346
#4	4.8377

Errors	LC Pass
High	5.5000
Low	4.5000

Analysis Report

08/30/00 12:34:51 PM

page 1

Method: QUANMET Sample Name: CCB2

Operator: MTW

Run Time: 08/30/00 12:31:46

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00138	.00378	.01688	-.00211	.00057	.00034	.11030
SDev	.00134	.00239	.02450	.00172	.00028	.00006	.00372
%RSD	96.899	63.103	145.13	81.689	49.950	18.236	3.3761
#1	-.00035	.00382	.04013	-.00137	.00070	.00043	.11036
#2	-.00033	.00040	.03294	-.00379	.00025	.00031	.11542
#3	-.00172	.00542	-.01352	-.00005	.00044	.00031	.10866
#4	-.00314	.00550	.00799	-.00322	.00089	.00032	.10674
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00054	.00161	.00100	.00143	.00219	.40715	.00068
SDev	.00152	.00323	.00209	.00106	.00079	.40563	.00115
%RSD	282.17	200.37	209.57	73.888	35.963	99.627	168.07
#1	.00127	.00517	.00187	.00266	.00141	.91162	.00018
#2	.00046	.00258	.00236	.00184	.00329	.41112	-.00043
#3	-.00154	.00130	.00187	.00102	.00203	.38729	.00225
#4	.00197	-.00259	-.00211	.00020	.00203	-.08143	.00073
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01265	.00046	.00574	.02066	.00167	.01093	.00978
SDev	.01187	.00053	.00531	.00308	.00605	.01732	.01468
%RSD	93.808	114.88	92.369	14.925	361.71	158.39	150.17
#1	.02024	.00093	.01034	.01891	.00064	.02189	-.00736
#2	.01771	.00092	.00115	.02261	.00971	.00010	.02211
#3	.01771	.00000	.01034	.02385	-.00494	.02907	.02192
#4	-.00506	.00000	.00115	.01727	.00128	-.00733	.00244
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00453	.06585	-.01215	.00066	.00053	.00538	.00236
SDev	.03364	.00003	.01377	.00005	.00029	.03656	.00259
%RSD	742.01	.05149	113.38	7.3684	54.710	679.57	110.13
#1	.03261	.06583	-.00686	.00063	.00030	.05967	.00020
#2	.00725	.06588	-.02428	.00063	.00091	-.01637	.00451

#3	.02174	.06588	-.02233	.00073	.00061	-.01635	.00469
#4	-.04347	.06583	.00489	.00063	.00030	-.00543	.00002
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem ZN
Units ppm
Avge .00459
SDev .00108
%RSD 23.571

#1 .00602
#2 .00475
#3 .00407
#4 .00351

Errors LC Pass
High .02000
Low -.02000

Method: QUANMET Sample Name: DJL29BT

Operator: MTW

Run Time: 08/30/00 12:37:17

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00035	.01280	.01149	.00136	.00020	.00012	.01886
SDev	.00114	.00658	.02106	.00606	.00009	.00006	.00174
%RSD	327.92	51.443	183.19	445.44	46.667	50.000	9.2317
#1	-.00035	.01915	.01144	.00989	.00025	.00009	.01914
#2	-.00174	.00555	.04011	-.00379	.00006	.00009	.02032
#3	-.00035	.00895	.00439	-.00192	.00025	.00009	.01635
#4	.00105	.01752	-.00996	.00126	.00025	.00020	.01962
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK
High	.50000		.50000		10.000		
Low	-.50000		-.50000		-10.000		
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00127	.00290	.00212	.00143	.00360	.74280	.00073
SDev	.00063	.00220	.00086	.00082	.00120	.29777	.00000
%RSD	49.598	75.940	40.770	57.155	33.297	40.088	.00000
#1	.00158	.00258	.00286	.00184	.00454	1.0785	.00073
#2	.00127	.00387	.00237	.00184	.00454	.73684	.00073
#3	.00039	-.00000	.00087	.00020	.00203	.35551	.00073
#4	.00183	.00516	.00237	.00184	.00329	.80040	.00073
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.10000		.50000				
Low	-.10000		-.50000				
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01961	.00000	.00575	.02343	.00285	.00735	.01706
SDev	.00783	.00000	.00375	.00150	.00689	.01448	.01877
%RSD	39.944	55.151	65.316	6.4061	241.34	197.12	110.00
#1	.02024	.00000	.01034	.02261	-.00609	.02907	.00224
#2	.01265	.00000	.00575	.02179	.00865	.00016	.04154
#3	.01518	.00000	.00115	.02426	.00097	.00002	.02200
#4	.03037	.00000	.00574	.02508	.00788	.00013	.00246
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	NOCHECK
High						.50000	
Low						-.50000	
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02718	.06994	.00447	.00001	.00038	.00537	.00012
SDev	.03770	.00525	.02157	.00017	.00038	.05534	.00007
%RSD	138.72	7.5092	482.72	1600.0	100.66	1030.9	64.341
#1	.01812	.06583	.03219	.00026	.00030	.02708	.00021
#2	-.01810	.07680	-.00468	-.00007	.00030	.05964	.00012

#3	.03623	.06583	-.01843	-.00007	-.00000	-.07060	.00002
#4	.07246	.07131	.00879	-.00007	.00091	.00535	.00012
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.25000						
Low	-.25000						

Elem ZN
Units ppm
Avge .00394
SDev .00057
%RSD 14.586

#1 .00353
#2 .00474
#3 .00351
#4 .00400

Errors NOCHECK
High
Low

Method: QUANMET Sample Name: DJJH6BT Operator: MTW
 Run Time: 08/30/00 12:40:26
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00104	.01366	.24085	-.00078	.00116	.00011	.08752
SDev	.00292	.01268	.07735	.00115	.00032	.00010	.00476
%RSD	281.06	92.813	32.115	147.79	27.938	89.082	5.4396
#1	.00247	.02942	.19335	-.00059	.00116	.00019	.09335
#2	-.00035	.01065	.15790	-.00247	.00089	.00009	.08445
#3	-.00455	-.00119	.29371	-.00003	.00097	-.00002	.08292
#4	-.00172	.01576	.31843	-.00003	.00162	.00019	.08938
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK
High	.50000		.50000		10.000		
Low	-.50000		-.50000		-10.000		
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00008	.00194	.00224	.00184	.00985	.87587	.00051
SDev	.00145	.00074	.00085	.00115	.00188	.32746	.00057
%RSD	1862.5	38.397	37.879	62.801	19.069	37.387	112.10
#1	.00168	.00258	.00236	.00266	.01267	.93545	.00057
#2	.00081	.00129	.00187	.00184	.00891	.78451	.00028
#3	-.00159	.00130	.00137	.00021	.00891	.49851	-.00009
#4	-.00060	.00259	.00336	.00266	.00891	1.2850	.00125
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.10000		.50000				
Low	-.10000		-.50000				
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02341	.00069	.00115	S-.11676	.00373	.02545	.01467
SDev	.02039	.00088	.00375	.00000	.00926	.01919	.01665
%RSD	87.104	127.23	326.18	.00000	248.09	75.403	113.49
#1	.03543	.00185	.00115	S-.11676	.00915	.00008	.02205
#2	.01012	.00093	.00575	S-.11676	-.00154	.04359	.03166
#3	.00253	.00000	-.00345	S-.11676	-.00634	.02178	-.00731
#4	.04555	.00000	.00115	S-.11676	.01367	.03634	.01229
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	NOCHECK
High						.50000	
Low						-.50000	
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02901	.08367	-.00432	.00138	.00023	-.03270	.00115
SDev	.05502	.00528	.01831	.00006	.00076	.04475	.00401
%RSD	189.69	6.3081	423.87	4.0314	333.33	136.87	349.27
#1	.08335	.08234	-.00087	.00143	.00122	.01611	.00451
#2	-.02533	.08775	.00112	.00143	.00030	-.00552	-.00101

#3	.06885	.07675	-.03026	.00134	-.00061	-.07066	-.00343
#4	-.01084	.08782	.01274	.00134	-.00000	-.07073	.00451

Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.25000						
Low	-.25000						

Elem	ZN
Units	ppm
Avge	.00601
SDev	.00089
%RSD	14.711

#1	.00527
#2	.00550
#3	.00603
#4	.00725

Errors	NOCHECK
High	
Low	

Method: QUANMET Sample Name: DJL29CT Operator: MTW
 Run Time: 08/30/00 12:43:35
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04707	1.8960	2.1598	.90334	1.7962	.04481	L.11134
SDev	.00528	.0066	.0522	.00877	.0186	.00006	.00863
%RSD	11.207	.34679	2.4159	.97086	1.0333	.12499	7.7515

#1	L.03973	1.9049	2.1044	.91149	1.8231	.04479	L.09924
#2	.05230	1.8964	2.1615	.91019	1.7908	.04489	L.11477
#3	.04812	1.8895	2.1437	.89425	1.7903	.04478	L.11198
#4	.04812	1.8930	2.2294	.89744	1.7805	.04478	L.11939

Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Low
High	.06000	2.4000	2.4000		2.4000	.06000	60.000
Low	.04000	1.6000	1.6000		1.6000	.04000	40.000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04643	.46328	.18820	.23334	.97966	L.75472	.89688
SDev	.00442	.00679	.00547	.00240	.01074	.54896	.02745
%RSD	9.5276	1.4645	2.9043	1.0271	1.0963	72.738	3.0603

#1	L.03980	.45391	.18073	.23660	.96527	L.10924	.93665
#2	.04828	.46683	.19019	.23090	.98905	L.72095	.88926
#3	.04884	.46295	.18820	.23334	.97779	L.73684	.88798
#4	.04879	.46942	.19367	.23253	.98655	L1.4518	.87362

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	NOCHECK
High	.06000	.60000	.24000	.30000	1.2000	60.000	
Low	.04000	.40000	.16000	.20000	.80000	40.000	

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.01708	.46171	.00244	S-.11676	.47301	.50643	L.00135
SDev	.01782	.00502	.00440	.00000	.01136	.02336	.02805
%RSD	104.32	1.0866	180.07	.00000	2.4023	4.6134	2076.0

#1	L-.00253	.45456	-.00330	S-.11676	.45731	.48259	L-.00119
#2	L.01771	.46563	.00589	S-.11676	.47975	.52643	L-.03027
#3	L.01265	.46194	.00130	S-.11676	.48274	.49015	L.03806
#4	L.04049	.46471	.00589	S-.11676	.47222	.52654	L-.00120

Errors	LC Low	LC Pass	NOCHECK	LC Low	LC Pass	LC Pass	LC Low
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0647	.08125	.02799	.91587	.00015	1.8261	.45680
SDev	.0318	.01446	.02475	.00708	.00107	.0152	.00233
%RSD	1.5386	17.790	88.433	.77322	702.38	.83438	.50940

#1	2.0746	.06064	.02846	.92626	-.00091	1.8046	.45331
#2	2.1001	.09361	-.00288	.91358	.00122	1.8260	.45800

#3	2.0602	.08264	.02865	.91335	-.00061	1.8370	.45790
#4	2.0240	.08813	.05772	.91030	.00091	1.8369	.45800
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass
High	2.4000					2.4000	.60000
Low	1.6000					1.6000	.40000
Elem	ZN						
Units	ppm						
Avge	.47949						
SDev	.00411						
%RSD	.85629						
#1	.47390						
#2	.48372						
#3	.47963						
#4	.48070						
Errors	LC Pass						
High	.60000						
Low	.40000						

Method: QUANMET Sample Name: DJEPMT Operator: MTW
 Run Time: 08/30/00 12:46:48
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00320	4.4184	.18010	.23606	.22815	.00059	385.84
SDev	.00197	.0242	.05069	.00526	.00121	.00007	1.53
%RSD	61.693	.54872	28.142	2.2281	.52885	11.232	.39624
#1	-.00041	4.4419	.14332	.23423	.22838	.00065	387.16
#2	-.00459	4.3975	.18295	.23423	.22701	.00054	384.62
#3	-.00320	4.3975	.25078	.24378	.22746	.00054	387.17
#4	-.00459	4.4368	.14336	.23198	.22974	.00065	384.42
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00087	.02318	.00174	.00535	.23073	10.580	.04575
SDev	.00418	.00184	.00238	.00103	.00194	.187	.00042
%RSD	479.07	7.9152	136.88	19.208	.83963	1.7642	.92167
#1	.00273	.02447	.00435	.00514	.23339	10.675	.04601
#2	.00191	.02318	.00286	.00677	.22901	10.771	.04512
#3	L-.00525	.02449	-.00112	.00433	.23088	10.532	.04593
#4	.00411	.02059	.00087	.00514	.22963	10.342	.04593
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	83.022	.68538	.00463	S-.11676	.04286	.04690	.03222
SDev	.277	.00174	.00230	.00000	.01134	.02740	.02118
%RSD	.33350	.25447	49.630	.00000	26.471	58.436	65.725
#1	83.322	.68653	.00578	S-.11676	.03255	.07773	.02235
#2	82.702	.68285	.00578	S-.11676	.03783	.04145	.01266
#3	82.896	.68561	.00578	S-.11676	.04224	.05601	.03224
#4	83.170	.68653	.00118	S-.11676	.05880	.01241	.06164
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04227	H29.752	.00076	.49094	-.02181	-.02860	.00458
SDev	.03759	.079	.01071	.00265	.00046	.08475	.00005
%RSD	88.936	.26393	1407.0	.53931	2.0906	296.37	.99971
#1	.04409	H29.802	-.00270	.49188	-.02158	-.09106	.00461
#2	.01509	H29.660	-.01054	.48930	-.02249	.09357	.00460

#3	.09479	H29.715	.00125	.48836	-.02158	-.03675	.00459
#4	.01510	H29.830	.01504	.49423	-.02158	-.08014	.00451
Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .07598
SDev .00264
%RSD 3.4745

#1 .07332
#2 .07958
#3 .07507
#4 .07597

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DJEPPT Operator: MTW
 Run Time: 08/30/00 12:50:01
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00280	5.0574	.20986	.60071	.28940	.00075	143.83
SDev	.00197	.0480	.08013	.02091	.00413	.00006	.57
%RSD	70.362	.94920	38.183	3.4806	1.4284	7.6923	.39858
#1	-.00141	5.0155	.26197	.58790	.28648	.00078	143.95
#2	-.00280	5.0326	.21898	.57799	.28629	.00078	144.38
#3	-.00141	5.0565	.09383	.61848	.28967	.00078	143.95
#4	-.00559	5.1248	.26465	.61848	.29514	.00066	143.02
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00183	.01020	.00448	.00423	1.7140	5.3227	.02098
SDev	.00102	.00211	.00216	.00103	.0048	.3807	.00360
%RSD	55.570	20.718	48.320	24.291	.28262	7.1521	17.158
#1	-.00199	.01278	.00485	.00443	1.7071	5.3049	.01895
#2	-.00316	.01020	.00634	.00525	1.7146	5.7180	.02635
#3	-.00139	.00761	.00535	.00443	1.7159	5.4558	.01966
#4	-.00078	.01019	.00137	.00280	1.7184	4.8123	.01895
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	26.874	.36602	.00255	S1631.3	.03025	.00407	.01246
SDev	.189	.00046	.00230	1883.8	.01064	.04277	.02109
%RSD	.70368	.12589	89.938	115.48	35.164	1050.1	169.19
#1	26.737	.36533	.00600	S-.11676	.04312	.04770	.02236
#2	26.745	.36625	.00141	S-.11676	.01708	.00412	.03189
#3	26.871	.36625	.00141	S3263.3	.03078	.01851	.01244
#4	27.142	.36625	.00141	S3262.3	.03002	-.05403	-.01684
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00723	19.580	.00136	.31685	.00061	.03315	.00006
SDev	.02481	.141	.01646	.00397	.00116	.04249	.00005
%RSD	343.07	.71808	1213.2	1.2518	191.49	128.20	77.437
#1	.01174	19.418	-.01420	.31382	.00091	.01148	.00013
#2	.01538	19.517	-.01025	.31382	-.00030	-.01029	.00004

#3	-.02808	19.649	.00915	.31757	.00213	.04401	.00004
#4	.02988	19.737	.02073	.32217	-.00030	.08740	.00003
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .06406
SDev .00154
%RSD 2.4108

#1 .06483
#2 .06188
#3 .06413
#4 .06540

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DJEPPP5T Operator: MTW
 Run Time: 08/30/00 12:53:14
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00078	1.0121	.05834	.10614	.05954	.00014	29.341
SDev	.00264	.0097	.02524	.00187	.00022	.00007	.177
%RSD	339.27	.96104	43.261	1.7614	.37403	47.512	.60435
#1	.00253	1.0164	.03505	.10333	.05927	.00019	29.517
#2	.00112	1.0233	.03865	.10707	.05972	.00020	29.432
#3	-.00305	1.0010	.08518	.10708	.05945	.00008	29.305
#4	.00251	1.0079	.07448	.10707	.05972	.00009	29.109
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00126	.00320	.00199	.00207	.35637	1.5929	.00518
SDev	.00439	.00166	.00164	.00078	.00242	.1559	.00030
%RSD	348.54	51.931	82.568	37.772	.67931	9.7852	5.8613
#1	.00434	.00254	.00385	.00268	.35919	1.7537	.00522
#2	.00381	.00513	.00037	.00269	.35544	1.4757	.00556
#3	.00203	.00384	.00286	.00187	.35731	1.6981	.00482
#4	L-.00515	.00127	.00087	.00105	.35356	1.4439	.00511
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.5880	.07611	.00120	257.51	.00178	.01935	.01460
SDev	.0104	.00053	.00000	1.29	.00503	.02804	.02168
%RSD	.18626	.69906	.03011	.50058	281.92	144.87	148.47
#1	5.5949	.07657	.00120	256.48	.00172	.05017	.02192
#2	5.5974	.07565	.00120	256.56	.00129	.03574	.03169
#3	5.5848	.07565	.00120	259.22	-.00408	-.00061	-.01718
#4	5.5747	.07657	.00120	257.80	.00820	-.00788	.02197
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01543	3.8960	.02452	.06512	.00046	-.02229	.00199
SDev	.04705	.0412	.00161	.00006	.00080	.09105	.00231
%RSD	304.94	1.0567	6.5773	.08566	176.38	408.44	116.36
#1	.06977	3.9441	.02260	.06507	.00030	-.05219	.00452
#2	.03716	3.8617	.02654	.06507	.00122	-.05215	.00002

#3	-.03528	3.9166	.02437	.06517	-.00061	-.09562	.00339
#4	-.00994	3.8617	.02455	.06517	.00091	.11079	.00002
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .01594
SDev .00106
%RSD 6.6603

#1 .01658
#2 .01708
#3 .01482
#4 .01529

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DJEPPST

Operator: MTW

Run Time: 08/30/00 12:56:22

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.74462	4.4304	4.8498	.54929	42.821	.00072	132.76
SDev	.00597	.0422	.0874	.02279	.313	.00007	1.04
%RSD	.80117	.95341	1.8020	4.1500	.73043	9.8863	.78028
#1	.73729	4.3822	4.7377	.53569	42.392	.00078	132.46
#2	.74287	4.4077	4.8518	.54263	42.785	.00078	132.72
#3	.75126	4.4675	4.9512	.58313	43.041	.00065	134.17
#4	.74705	4.4641	4.8584	.53570	43.064	.00066	131.69
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.94606	.01625	4.3925	.00459	1.0714	5.4499	.01996
SDev	.00910	.00195	.0301	.00103	.0066	.3784	.00346
%RSD	.96192	12.012	.68549	22.418	.61304	6.9436	17.348
#1	.94406	.01745	4.3751	.00439	1.0691	5.3764	.01779
#2	.93459	.01469	4.3880	.00438	1.0660	5.3605	.02512
#3	.95613	.01838	4.4363	.00602	1.0810	5.9801	.01876
#4	.94948	.01451	4.3706	.00357	1.0697	5.0824	.01816
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	24.784	.33820	.00016	S3265.1	.03332	4.5062	.01309
SDev	.155	.00204	.00230	.2	.00437	.0395	.01456
%RSD	.62581	.60473	1434.3	.00714	13.111	.87650	111.23
#1	24.627	.33751	.00131	S3265.4	.03870	4.4827	-.00385
#2	24.713	.33751	.00131	S3265.0	.02871	4.5044	.00574
#3	24.989	.34119	.00131	S3265.0	.03475	4.5625	.02497
#4	24.806	.33658	-.00329	S3264.9	.03110	4.4753	.02551
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0244	17.641	.00954	.29539	-.00349	-.02287	.00113
SDev	.0348	.103	.01541	.00248	.00039	.14467	.00218
%RSD	3.3933	.58519	161.47	.84090	11.226	632.66	193.86
#1	1.0207	17.531	.02848	.29194	-.00365	.00701	-.00029
#2	.97727	17.608	.01292	.29523	-.00334	-.22096	-.00026

#3	1.0570	17.778	.00521	.29734	-.00304	-.00399	.00432
#4	1.0425	17.646	-.00844	.29706	-.00395	.12646	.00073
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .05662
SDev .00161
%RSD 2.8337

#1 .05788
#2 .05762
#3 .05435
#4 .05665

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DJEPPDT

Operator: MTW

Run Time: 08/30/00 12:59:35

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.81750	4.7048	4.9304	.58588	43.237	.00077	138.04
SDev	.00290	.0296	.0527	.01429	.378	.00009	1.09
%RSD	.35495	.62968	1.0685	2.4389	.87446	12.206	.78733
#1	.82099	4.7389	4.9452	.60570	43.561	.00088	138.21
#2	.81402	4.7201	4.9704	.57571	43.543	.00065	136.51
#3	.81818	4.6828	4.8529	.58696	43.046	.00078	139.07
#4	.81681	4.6774	4.9529	.57515	42.797	.00077	138.37
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.95048	.01635	4.4118	.00542	1.2198	6.0179	.02240
SDev	.00849	.00220	.0266	.00078	.0031	.3609	.00489
%RSD	.89324	13.473	.60256	14.439	.25459	5.9979	21.847
#1	.94677	.01814	4.4253	.00603	1.2236	6.4568	.02724
#2	.95678	.01424	4.3761	.00440	1.2167	5.5750	.01832
#3	.95811	.01837	4.4373	.00522	1.2211	6.0516	.02598
#4	.94025	.01466	4.4084	.00603	1.2180	5.9881	.01805
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.889	.35183	.00478	S1632.0	.03268	4.5532	.02512
SDev	.092	.00119	.01019	1884.6	.01061	.0594	.01773
%RSD	.35408	.33811	213.27	115.48	32.469	1.3040	70.571
#1	26.019	.35229	.01512	S-.11676	.04294	4.5261	.04452
#2	25.874	.35044	.00133	S3263.6	.03745	4.5186	.01573
#3	25.859	.35321	-.00786	S-.11676	.03210	4.6421	.00548
#4	25.803	.35137	.01052	S3264.7	.01821	4.5260	.03474
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0257	18.585	.00718	.30913	-.00182	-.04334	.00350
SDev	.0565	.093	.01802	.00230	.00096	.07547	.00182
%RSD	5.5049	.49800	250.93	.74382	52.705	174.13	51.999
#1	1.0827	18.694	.03263	.31156	-.00152	-.00540	.00456
#2	.99940	18.601	-.00457	.31044	-.00061	-.14646	.00420

#3	.95957	18.574	-.00656	.30809	-.00274	-.04877	.00078
#4	1.0610	18.469	.00723	.30645	-.00243	.02726	.00444
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .05840
SDev .00053
%RSD .91155

#1 .05838
#2 .05915
#3 .05811
#4 .05794

Errors LC Pass
High 100.00
Low -.02000

Analysis Report

6711452

08/30/00 01:05:54 PM

page 1

Method: QUANMET Sample Name: DJG82T

Operator: MTW

Run Time: 08/30/00 13:02:48

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00566	1.1276	.11168	.74275	1.4395	.00032	450.74
SDev	.00732	.0592	.08546	.03279	.0322	.00030	49.78
%RSD	129.26	5.2479	76.522	4.4145	2.2381	93.683	11.044
#1	.00126	1.1707	.23352	.74040	1.4492	.00054	484.68
#2	L-.01534	1.0409	.03498	.70616	1.3942	-.00012	376.88
#3	-.00708	1.1587	.08011	.78592	1.4703	.00042	466.78
#4	-.00151	1.1400	.09810	.73851	1.4442	.00042	474.62
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03379	.04218	.00274	1.9094	.52004	6.0020	.00584
SDev	.00158	.01322	.01232	.0258	.04419	1.6862	.00041
%RSD	4.6822	31.336	450.27	1.3495	8.4981	28.093	7.0813
#1	.03389	.04702	.00982	1.8867	.54866	7.1162	.00530
#2	.03223	.02250	L-.01555	1.9046	.45420	3.5094	.00574
#3	.03310	.04830	.00634	1.9463	.53615	6.4409	.00616
#4	.03593	.05090	.01032	1.8998	.54115	6.9414	.00616
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	17.097	6.2754	-.00222	S-.11676	.05183	1.4382	.01776
SDev	.801	.5154	.00785	.00000	.01230	.1923	.02321
%RSD	4.6840	8.2137	353.77	.00000	23.731	13.374	130.70
#1	17.486	6.6039	-.00336	S-.11676	.05577	1.5743	.04208
#2	15.899	5.5063	-.01257	S-.11676	.03398	1.1530	-.00661
#3	17.577	6.4777	.00582	S-.11676	.05538	1.5090	.00310
#4	17.425	6.5136	.00123	S-.11676	.06219	1.5164	.03246
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.04663	19.469	-.00757	1.0135	-.01436	-.00021	.00108
SDev	.06501	1.034	.03674	.0319	.00158	.09281	.00689
%RSD	139.41	5.3094	485.48	3.1432	10.980	43257.	635.30
#1	.01231	H20.077	.03643	1.0256	-.01368	.06914	.00444
#2	-.13646	17.926	-.05352	.96657	-.01672	-.07693	-.00924

#3	-.04930	H20.033	-.00666	1.0376	-.01368	-.08347	.00461
#4	-.01306	19.841	-.00652	1.0242	-.01337	.09040	.00453
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	3.4701
SDev	.2426
%RSD	6.9906

#1	3.6205
#2	3.1076
#3	3.5814
#4	3.5708

Errors	LC Pass
High	100.00
Low	-.02000

Analysis Report

Method: QUANMET Sample Name: CCV2-3

Operator: MTW

Run Time: 08/30/00 13:05:56

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.96657	47.413	4.8019	4.6700	4.5476	4.6619	50.112
SDev	.00250	.342	.0451	.0237	.0533	.0353	.070
%RSD	.25919	.72150	.93875	.50789	1.1717	.75625	.14063
#1	.96391	46.978	4.8607	4.6375	L4.4741	4.6299	50.205
#2	.96568	47.699	4.7535	4.6833	4.5840	4.7069	50.072
#3	.96987	47.673	4.7858	4.6912	4.5897	4.6728	50.126
#4	.96684	47.303	4.8075	4.6682	4.5425	4.6382	50.045
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.0178	4.7696	4.7984	4.5570	48.802	46.091	L4.4041
SDev	.0066	.0081	.0111	.0551	.232	.395	.0787
%RSD	.13138	.16879	.23061	1.2091	.47511	.85640	1.7867
#1	5.0230	4.7604	4.7882	L4.4874	48.518	45.607	L4.2936
#2	5.0151	4.7757	4.7992	4.6099	49.005	46.401	L4.4626
#3	5.0235	4.7770	4.8136	4.5911	48.976	46.425	L4.4582
#4	5.0098	4.7655	4.7927	4.5396	48.708	45.932	L4.4022
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	47.583	4.7217	4.7051	46.373	4.8596	4.8685	4.7739
SDev	.381	.0177	.0314	.598	.0244	.0453	.0503
%RSD	.80041	.37431	.66792	1.2889	.50133	.92976	1.0537
#1	47.100	4.7006	4.6637	45.545	4.8343	4.8214	4.7521
#2	47.930	4.7349	4.7190	46.878	4.8810	4.9228	4.7424
#3	47.841	4.7376	4.7373	46.732	4.8432	4.8867	4.8491
#4	47.462	4.7136	4.7005	46.337	4.8799	4.8430	4.7521
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.7745	4.8559	4.9486	4.6370	4.6185	9.3843	4.7265
SDev	.0377	.0405	.0466	.0506	.0335	.0774	.0264
%RSD	.79013	.83353	.94261	1.0912	.72457	.82462	.55946
#1	4.7321	4.7993	4.9057	4.5686	4.5751	9.3304	4.6948
#2	4.8130	4.8877	4.9172	4.6744	4.6465	9.3576	4.7464

#3	4.7985	4.8823	5.0075	4.6762	4.6431	9.4991	4.7501
#4	4.7543	4.8544	4.9642	4.6286	4.6094	9.3500	4.7146
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	5.5000	11.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	4.5000	9.0000	4.5000

Elem ZN
Units ppm
Avge 4.7325
SDev .0130
%RSD .27572

#1 4.7254
#2 4.7390
#3 4.7472
#4 4.7183

Errors LC Pass
High 5.5000
Low 4.5000

Analysis Report

6711456

08/30/00 01:12:15 PM

page 1

Method: QUANMET Sample Name: CCB3

Operator: MTW

Run Time: 08/30/00 13:09:09

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00035	.00723	.04278	.00033	.00064	.00035	.38508
SDev	.00114	.01032	.03151	.00454	.00027	.00026	.00636
%RSD	327.79	142.71	73.668	1381.4	43.008	73.912	1.6506
#1	.00105	.00041	.00089	-.00380	.00070	.00020	.38524
#2	-.00174	-.00300	.04019	.00126	.00025	.00009	.37604
#3	-.00035	.01914	.07570	-.00248	.00070	.00043	.38943
#4	-.00035	.01238	.05434	.00633	.00089	.00066	.38961
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00145	.00258	.00373	.00164	.00297	.65740	.00043
SDev	.00225	.00105	.00188	.00103	.00309	.35682	.00075
%RSD	155.53	40.916	50.292	62.848	103.81	54.278	173.22
#1	.00044	.00258	.00585	.00266	.00141	1.1261	.00115
#2	-.00126	.00259	.00336	.00184	-.00047	.37934	-.00061
#3	.00336	.00128	.00137	.00021	.00454	.74479	.00047
#4	.00324	.00387	.00436	.00184	.00642	.37934	.00073
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02088	.00069	.00689	.04019	.00085	.00546	-.03668
SDev	.01297	.00088	.00230	.00588	.00764	.00360	.07219
%RSD	62.103	127.23	33.333	14.644	899.88	65.904	196.81
#1	.03543	.00000	.00574	.03330	.01127	.00006	-.00730
#2	.00759	.00000	.00574	.03741	-.00269	.00713	L-.14408
#3	.02784	.00093	.01034	.04399	-.00647	.00727	-.00749
#4	.01265	.00185	.00575	.04605	.00128	.00737	.01215
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00182	.02606	.00763	.00080	.00084	.02167	.00014
SDev	.03456	.00690	.00728	.00027	.00057	.07652	.00004
%RSD	1900.1	26.491	95.473	34.167	68.835	353.13	29.400
#1	-.02173	.02743	.00484	.00077	.00091	.12484	.00012
#2	-.03260	.01646	.00420	.00049	-.00000	-.05974	.00012

#3	.03986	.03291	.01849	.00077	.00122	.00538	.00020
#4	.02175	.02743	.00298	.00116	.00122	.01620	.00012
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem ZN
Units ppm
Avge .01029
SDev .00098
%RSD 9.5120

#1 .01050
#2 .00981
#3 .00931
#4 .01157

Errors LC Pass
High .02000
Low -.02000

6711458

STL-Pittsburgh Atomic Absorption Data for Mercury

Instrument: PS200HG

Analyst Name: William A. HyleDate of Analysis: 8-31-00File ID: 0831HGAMatrix: WATER

Lot Number/SDG

Method

<u>COH250174</u>	<u>TCIP</u>	<u>7470A</u>
<u>COH260118</u>	↓	
<u>COH170241</u>	<u>(DISSOLVED)</u>	
<u>COH250130</u>		
<u>COH300156</u>	<u>SWALE2</u>	

6711459

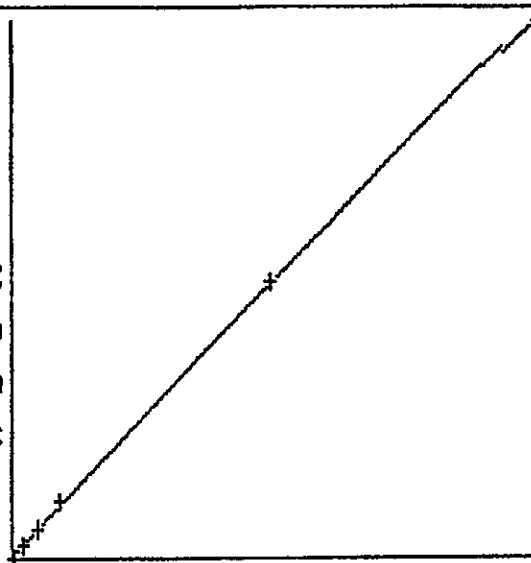
08:44:21 31 Aug 2000 Folder: 0831HGA Page 267
Protocol: HGMET

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Standard: 1 Rep: 1				Seq: 0		08:44:21 31 Aug 2000 HG		
Hg	.000	ppb	3993					
*** Standard: 2 Rep: 1				Seq: 1		08:45:49 31 Aug 2000 HG		
Hg	.200	ppb	25566		0057-051-4			
*** Standard: 3 Rep: 1				Seq: 2		08:47:25 31 Aug 2000 HG		
Hg	.500	ppb	59780		0057-051-5			
*** Standard: 4 Rep: 1				Seq: 3		08:50:16 31 Aug 2000 HG		
Hg	1.00	ppb	110000		0057-051-6			
*** Standard: 5 Rep: 1				Seq: 4		08:51:43 31 Aug 2000 HG		
Hg	5.00	ppb	573158		0057-051-7			
*** Standard: 6 Rep: 1				Seq: 5		08:53:29 31 Aug 2000 HG		
Hg	10.0	ppb	1163366		0057-051-8			

6711460

RunProt: HGMET STL-PITTSBURGH METALS ANALYSIS
 RunFold: 0031HGA Seq: 6 Batch:
 Prnt: R/T On Pump: On
 Rev: 4.2 00:53:44 31 Aug 2000 Xmit: Off Gas: 0.30 LPM
 State: Idle User: WAH A/S: On

CALIBRATION: Line proto: HGMET
 Hg Accepted
 Conc. Calc. Dev. ->linear
 S1 .000 .036 .036 Quadratic
 S2 .200 .222 .022 Wtdlinear
 S3 .500 .517 .017 C
 S4 1.00 .950 -.050 Accept o
 S5 5.00 4.94 -.057 n
 S6 10.0 10.0 .031 c
 A .0000000 r .999945
 B 8.62110e-6 C 1.70761e-3



Mean
 S1 3993 0 SD 3993
 S2 25566 0 %RSD 25566
 S3 59700 0 %RSD 59700
 S4 110000 0 %RSD 110000
 S5 573158 0 %RSD 573158
 S6 1163366 0 %RSD 1163366

New cal coefficients stored

08:55:54 31 Aug 2000 Folder: 0831HGA Page 268
Protocol: HGMET

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: ICV5-1				Seq: 6	08:55:54 31 Aug 2000 HG			
Hg	2.61	ppb	302381	0057-051-9				
*** Sample ID: ICB1				Seq: 7	08:57:18 31 Aug 2000 HG			
Hg	.051	ppb	5678					
*** Sample ID: CCV5-1				Seq: 8	08:59:24 31 Aug 2000 HG			
Hg	5.14	ppb	595756	0057-052-1				
*** Sample ID: CCB1				Seq: 9	09:01:01 31 Aug 2000 HG			
Hg	.064	ppb	7210					
*** Sample ID: DJLLWBT				Seq: 10	09:02:30 31 Aug 2000 HG			
Hg	.069	ppb	7816					
*** Sample ID: DJLLWCT				Seq: 11	09:04:05 31 Aug 2000 HG			
Hg	2.68	ppb	310813	0057-052-2				
*** Sample ID: DJJH6BT				Seq: 12	09:05:53 31 Aug 2000 HG			
Hg	.122	ppb	13897					
*** Sample ID: DJEPMT				Seq: 13	09:07:17 31 Aug 2000 HG			
Hg	.058	ppb	6508					
*** Sample ID: DJEPPT				Seq: 14	09:08:56 31 Aug 2000 HG			
Hg	.110	ppb	12515					
*** Sample ID: DJEPPST				Seq: 15	09:10:54 31 Aug 2000 HG			
Hg	4.64	ppb	538306	SP.REC. 91%				
*** Sample ID: DJEPPDT				Seq: 16	09:12:22 31 Aug 2000 HG			
Hg	4.59	ppb	531755	SP.REC. 90%				
*** Sample ID: DJG82T				Seq: 17	09:14:08 31 Aug 2000 HG			
Hg	.129	ppb	14721					

6711462

09:15:54 31 Aug 2000

Folder: 0831HGA
Protocol: HGMET

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Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: DJLM2BF				Seq: 18	09:15:54 31 Aug 2000 HG			
Hg	.059	ppb	6628					
*** Sample ID: DJLM2CF				Seq: 19	09:17:22 31 Aug 2000 HG			
Hg	2.57	ppb	297954		0057.052-3			
*** Sample ID: CCV5-2				Seq: 20	09:18:59 31 Aug 2000 HG			
Hg	5.15	ppb	597453					
*** Sample ID: CCB2				Seq: 21	09:20:23 31 Aug 2000 HG			
Hg	.039	ppb	4276					
*** Sample ID: DJ21GF				Seq: 22	09:22:02 31 Aug 2000 HG			
Hg	.095	ppb	10807					
*** Sample ID: DJ21GSF				Seq: 23	09:23:27 31 Aug 2000 HG			
Hg	1.10	ppb	127499					SP.REC. 101%
*** Sample ID: DJ21GDF				Seq: 24	09:25:02 31 Aug 2000 HG			
Hg	1.10	ppb	127649					SP.REC. 101%
*** Sample ID: DJ21QF				Seq: 25	09:26:50 31 Aug 2000 HG			
Hg	.033	ppb	3580					
*** Sample ID: DJ21VF				Seq: 26	09:28:16 31 Aug 2000 HG			
Hg	.067	ppb	7531					
*** Sample ID: DJ221F				Seq: 27	09:29:42 31 Aug 2000 HG			
Hg	.079	ppb	8993					
*** Sample ID: DJ223F				Seq: 28	09:31:10 31 Aug 2000 HG			
Hg	.077	ppb	8736					
*** Sample ID: DJ227F				Seq: 29	09:32:39 31 Aug 2000 HG			
Hg	.050	ppb	5635					

6711463

09:34:03 31 Aug 2000				Folder: 0831HGA	Page 270				
				Protocol: HGMET					
Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Sample ID: DJ22AF				Seq: 30	09:34:03 31 Aug 2000 HG				
Hg	.052	ppb	5798						
*** Sample ID: DJ22DF				Seq: 31	09:36:00 31 Aug 2000 HG				
Hg	.061	ppb	6834						
*** Sample ID: CCV5-3				Seq: 32	09:37:40 31 Aug 2000 HG				
Hg	5.14	ppb	595471						
*** Sample ID: CCB3				Seq: 33	09:39:05 31 Aug 2000 HG				
Hg	.071	ppb	7987						
*** Sample ID: DJ22FF				Seq: 34	09:41:05 31 Aug 2000 HG				
Hg	.068	ppb	7688						
*** Sample ID: DJ22HF				Seq: 35	09:43:01 31 Aug 2000 HG				
Hg	.042	ppb	4644						
*** Sample ID: DJ22NF				Seq: 36	09:44:46 31 Aug 2000 HG				
Hg	.069	ppb	7853						
*** Sample ID: DJ22RF				Seq: 37	09:46:12 31 Aug 2000 HG				
Hg	.088	ppb	9961						
*** Sample ID: DJ22VF				Seq: 38	09:47:40 31 Aug 2000 HG				
Hg	.058	ppb	6501						
*** Sample ID: DJ22XF				Seq: 39	09:49:50 31 Aug 2000 HG				
Hg	.059	ppb	6686						
*** Sample ID: DJ237F				Seq: 40	09:51:18 31 Aug 2000 HG				
Hg	.112	ppb	12754						
*** Sample ID: DJ23AF				Seq: 41	09:52:46 31 Aug 2000 HG				
Hg	.060	ppb	6789						

09:54:26 31 Aug 2000

Folder: 0831HGA
Protocol: HGMET

Page 271

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: DJ23DF				Seq: 42	09:54:26 31 Aug 2000 HG			
Hg	.093	ppb	10583					
*** Sample ID: DJN96B				Seq: 43	09:55:52 31 Aug 2000 HG			
Hg	.088	ppb	9980					
*** Sample ID: CCV5-4				Seq: 44	09:57:20 31 Aug 2000 HG			
Hg	5.13	ppb	595048					
*** Sample ID: CCB4				Seq: 45	09:59:01 31 Aug 2000 HG			
Hg	.033	ppb	3593					
*** Sample ID: DJN96C				Seq: 46	10:00:28 31 Aug 2000 HG			
Hg	2.57	ppb	297533		0057-052-4			
*** Sample ID: DJEC4				Seq: 47	10:01:58 31 Aug 2000 HG			
Hg	.082	ppb	9282					
*** Sample ID: DJEC4S				Seq: 48	10:03:24 31 Aug 2000 HG			
Hg	.898	ppb	103969					
*** Sample ID: DJEC4D				Seq: 49	10:05:32 31 Aug 2000 HG			
Hg	.871	ppb	100814					
*** Sample ID: DJEC7				Seq: 50	10:07:00 31 Aug 2000 HG			
Hg	.063	ppb	7152					
*** Sample ID: DJN98B				Seq: 51	10:09:07 31 Aug 2000 HG			
Hg	.040	ppb	4466					
*** Sample ID: DJN98C				Seq: 52	10:10:33 31 Aug 2000 HG			
Hg	2.49	ppb	288504		0057-052-5			
*** Sample ID: DJN98L				Seq: 53	10:12:21 31 Aug 2000 HG			
Hg	2.52	ppb	292654		0057-052-6			

SP.REC.
82%SP.REC.
79%

6711465

10:13:47 31 Aug 2000

Folder: 0831HGA
Protocol: HGMET

Page 272

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: DJLJ2				Seq: 54	10:13:47 31 Aug 2000 HG			
Hg	.064	ppb	7226					
*** Sample ID: CCV5-5				Seq: 55	10:17:06 31 Aug 2000 HG			
Hg	5.16	ppb	598738					
*** Sample ID: CCB5				Seq: 56	10:18:33 31 Aug 2000 HG			
Hg	.040	ppb	4412					

END OF ANALYSIS

WJH

8-31-00

6711466

RunProt: HGMET	STL-PITTSBURGH METALS ANALYSIS		
RunFold: 0831HGA	Seq: 0	Batch:	
	Prnt: R/T On	Pump: Off	
Rev: 4.2	08:02:37 31 Aug 2000	Xmit: Off Gas:	LPM
State: Idle	User: WAH	A/S: On ,	

AUTOSAMPLER: Rack Edit rack: RACK1

cup ID	Extended id	Weight	Volume	Macro	check macros
1	ICV5-1	1.0000	1.0000		
2	ICB1	1.0000	1.0000		
3	CCV5-1	1.0000	1.0000		
4	CCB1	1.0000	1.0000		
5	DJLLWBT	1.0000	1.0000		
6	DJLLWCT	1.0000	1.0000		
7	DJJH6BT	1.0000	1.0000		
8	DJEPMT	1.0000	1.0000		
9	DJEPPT	1.0000	1.0000		
10	DJEPPST	1.0000	1.0000		
11	DJEPPDT	1.0000	1.0000		
12	DJGB2T	1.0000	1.0000		
13	DJLM2BF	1.0000	1.0000		
14	DJLM2CF	1.0000	1.0000		
15	CCV5-2	1.0000	1.0000		

PgDn

Cup 1 ID: ICV5-1

Cell down mode Ins to switch

6711467

RunProt: HGMET STL-PITTSBURGH METALS ANALYSIS
RunFold: 0831HGA Seq: 0 Batch:
Prnt: R/T On Pump: Off
Rev: 4.2 08:02:39 31 Aug 2000 Xmit: Off Gas: LPM
State: Idle User: WAH A/S: On

AUTOSAMPLER: Rack Edit rack: RACK1 PgUp
cup ID Extended id Weight Volume Macro check macros
16 CCB2 1.0000 1.0000
17 DJ21GF 1.0000 1.0000
18 DJ21GSF 1.0000 1.0000
19 DJ21GDF 1.0000 1.0000
20 DJ21QF 1.0000 1.0000
21 DJ21VF 1.0000 1.0000
22 DJ221F 1.0000 1.0000
23 DJ223F 1.0000 1.0000
24 DJ227F 1.0000 1.0000
25 DJ22AF 1.0000 1.0000
26 DJ22DF 1.0000 1.0000
27 CCV5-3 1.0000 1.0000
28 CCB3 1.0000 1.0000
29 DJ22FF 1.0000 1.0000
30 DJ22HF 1.0000 1.0000

PgDn

Cup 16 ID: CCB2 Cell down mode Ins to switch

6711468

RunProt: HGMET	STL-PITTSBURGH METALS ANALYSIS		
RunFold: 0831HGA	Seq: 0	Batch:	
	Prnt: R/T On	Pump: Off	
	Rev: 4.2	08:02:40 31 Aug 2000	Xmit: Off Gas: LPM
State: Idle		User: WAH	A/S: On

AUTOSAMPLER: Rack Edit rack: RACK1				PgUp
cup ID	Extended id	Weight	Volume Macro	check macros
31 DJ22NF		1.0000	1.0000	
32 DJ22RF		1.0000	1.0000	
33 DJ22VF		1.0000	1.0000	
34 DJ22XF		1.0000	1.0000	
35 DJ237F		1.0000	1.0000	
36 DJ23AF		1.0000	1.0000	
37 DJ23DF		1.0000	1.0000	
38 DJN96B		1.0000	1.0000	
39 CCV5-4		1.0000	1.0000	
40 CCB4		1.0000	1.0000	
41 DJN96C		1.0000	1.0000	
42 DJEC4		1.0000	1.0000	
43 DJEC4S		1.0000	1.0000	
44 DJEC4D		1.0000	1.0000	

PgDn

Cup 31 ID: DJ22NF	Cell down mode Ins to switch

6711469

RunProt: HGMET STL-PITTSBURGH METALS ANALYSIS
RunFold: 0831HGA Seq: 0 Batch:
Prnt: R/T On Pump: Off
Rev: 4.2 08:06:41 31 Aug 2000 Xmit: Off Gas: LPM
State: Idle User: WAH A/S: On

AUTOSAMPLER: Rack Edit rack: RACK2 Range 1-44 Clear seQ Undo eXit
cup ID Extended id Weight Volume Macro check macros
1 DJEC7 1.0000 1.0000
2 DJN98B 1.0000 1.0000
3 DJN98C 1.0000 1.0000
4 DJN98L 1.0000 1.0000
5 DJLJ2 1.0000 1.0000
6 CCV5-5 1.0000 1.0000
7 CCB5 1.0000 1.0000
8 1.0000 1.0000
9 1.0000 1.0000
10 1.0000 1.0000
11 1.0000 1.0000
12 1.0000 1.0000
13 1.0000 1.0000
14 1.0000 1.0000
15 1.0000 1.0000

PgDn

Cup 12 ID: Cell down mode Ins to switch

6711470

Metals Preparation



STL Pittsburgh
450 William Pitt Way
Pittsburgh, PA 15238
412-820-8380

Method: 3010A

Matrix: WATER

Start Time: 05:45

SDC: TCLP

Balance#

Reagents:

Date: 8-30-00

Lot Number: COH260118

Lab Lot No. (book, page, line) 0057-033-1

3ml conc. HNO₃

400 mg/L methylmercury

Date: 8-30-00

Date: 8-30-00

MS

5ml 1:1 HCL

0057-033-3

Method: Preliminary

Date: 8-30-00

Date: 8-30-00

MS

5ml 1:1 HCL

0057-033-3

Sample ID

Init Wt/Vol

g/mL

Final Vol

mL

Comments

Color

Pre Post

Clarity

Pre Post

Texture

Pre Post

Artifacts

Artifact Codes

DIEPM

50mL

50mL

WASH 8-30-00

Pre

Post

Clarity

Pre

Post

Texture

Pre

Post

Artifacts

Artifact Codes

DIEPD

50mL

50mL

WASH 8-30-00

Pre

Post

Clarity

Pre

Post

Texture

Pre

Post

Artifacts

Artifact Codes

DIEPD

50mL

50mL

WASH 8-30-00

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Artifact Codes

DIEPD

50mL

50mL

WASH 8-30-00

Pre

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Clarity

Pre

Post

Texture

Pre

Post

Artifacts

Artifact Codes

DIEPD

50mL

50mL

WASH 8-30-00

Pre

Post

Clarity

Pre

Post

Texture

Pre

Post

Artifacts

Artifact Codes

DIEPD

50mL

50mL

Hg Digestion Log

Quanterra Incorporated
450 William Pitt Way
Pittsburgh, Pennsylvania 15238
412/826-5477 FAX: 412/826-5571



QUA-4169

Serial Number 075 Log Book Number 96-MT-580 Start Time 07:25 → 07:40

Sample ID	Date Rec'd	Prep Date	Prepared By	WVVol	Sample Type	Run Date	Comments
1. STD0	N/A	8-31-00	WAH	100ml	WATER	8-31-00	N/A
2. STD1							0057-051-4
3. STD2							0057-051-5
4. STD3							0057-051-6
5. STD4							0057-051-7
6. STD5							0057-051-8
7. TCV							0057-051-9
8. ICR							N/A
9. CCV							0057-052-1
10. CCB							N/A
11. DJLWBT							N/A
12. DJLWCT							0057-052-2
13. DJHLBT							N/A
14. DJEPMT	8-25-00						N/A
15. DJEPPT							+5ml 0057-051-2
16. DJEPPT							+5ml 0057-051-2
17. DJEPPT							+5ml 0057-051-2
18. DJGRT	8-26-00						N/A
19. DJLM26F	N/A						N/A
20. DJLM26F							0057-052-3
21. DJ216F	8-17-00						N/A
22. DJ216SF							+1ml 0057-051-2
23. DJ216DF							+1ml 0057-051-2
24. DJ216F							N/A
25. DJ216F							N/A
Reagents		Vol (ml)			Ref. Number		Method
HNO3	2.5ml				MAIL/ACKROBT 6623	7Y70A	AUTOCLAVE 15PSI 120°C
H2SO4	5.0ml				MAIL/ACKROBT 5557	N/A	NaCl2 = 0057-033-2
KMNO4	15.0ml				0057-043-1	NaCl-NH4OH = 0057-032-3	
K2S2O4	8.0ml				0057-037-6	WAH 8-31-00	
Extract(s)			Extract(s) Received				Extract(s) Relinquished
(Record line number from above)	Date	Time	Analyst	Location	Date	Time	Analyst
			WAH 8-31-00				

1641173

Hg Digestion Log

0711472

QUA-4169

Serial Number 076 Log Book Number 96-MI-580 Start Time 07:35-10:40

Sample ID	Date Rec'd	Prep Date	Prepared By	WVVol	Sample Type	Run Date	Comments
1. DJ221F	8-17-00	8-31-00	WAH	100ml	WATER	8-31-00	N/A
2. DJ223F							
3. DJ227F							
4. DJ228F							
5. DJ228F							
6. DJ228F							
7. DJ228F							
8. DJ228F							
9. DJ228F							
10. DJ228F							
11. DJ228F							
12. DJ228F							
13. DJ228F							
14. DJ228F							
15. DJ228F							
16. DJ228F							
17. DJ228F							
18. DJ228F							
19. DJ228F							
20. DJ228F							
21. DJ228F							
22. DJ228F							
23. DJ228F							
24. DJ228F							
25. DJ228F							
Reagents							
HNO3	2.5ml						
H2SO4	5.0ml						
KMNO4	15.0ml						
K2S2O4	8.0ml						
Extract(s)							
(Record line number from above)	Date	Time	Analyst	Location	Date	Time	Analyst
			WAH	8-31-00			

REQUESTED BY: MURPHYJ

6711473

METHOD: .QO

Inductively Coupled Plasma (6010B)

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX DESCRIPTION</u>	<u>QTY</u>	<u>QTY</u>
		<u>CNTR#</u>								<u>RCVD</u>	<u>REQD</u>
3C CLP1	DJEPM	___	261522	413462	A-34-QO	C0H250174	002		SOLID	0	3
3C CLP1	DJEPP	___	261523	413462	A-34-QO	C0H250174	003		SOLID	0	1
3E CLP1	DJG82	___	261524	399411	A-34-QO	C0H260118	001		SOLID	0	3

RELINQUISHED BY	RECEIVED BY	DATE/TIME
<i>Geoffrey O. Zant</i>	<i>James Murphy</i>	8-28-00 9:26
<i>James Murphy</i>	<i>Geoffrey O. Zant</i>	8-28-00 9:45

END OF REPORT

REQUESTED BY: HOYLEW

METHOD: QO Inductively Coupled Plasma (6010B)

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED</u> <u>CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX</u> <u>DESCRIPTION</u>	<u>QTY</u> <u>RCVD</u>	<u>QTY</u> <u>REQD</u>
3C CLP1	DJEPM	— — —	261665	413462	A-34-QO	CON250174	002		SOLID	0	3
									TCLP		1
3C CLP1	DJEPP	— — —	261666	413462	A-34-QO	CON250174	003		SOLID	0	1
									LEACHATE		1
3E CLP1	DJG82	— — —	261667	399411	A-34-QO	CON260118	001		SOLID	0	3
	DJJH6B										1

RELINQUISHED BYRECEIVED BYDATE/TIME

<u>William A. Hoyle</u>	<u>William A. Hoyle</u>	<u>8-30-00</u>	<u>05:25</u>
<u>William A. Hoyle</u>	<u>William A. Hoyle</u>	<u>8-30-00</u>	<u>06:35</u>

***** END OF REPORT *****

REQUESTED BY: HOYLEM

METHOD: 08 Mercury (7470A, Cold Vapor) - Liquid

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX DESCRIPTION</u>	<u>QTY RCVD</u>	<u>QTY REQD</u>
3C CLP1	DJEPH	— — —	261764	413462	A-0M-08	COH250174	002		SOLID TCLP	0	.3 1
3C CLP1	DJEPP	— — —	261765	413462	A-0M-08	COH250174	003		SOLID LEACHATE	0	1 1
3E CLP1	DJG82 DJTH68	— — —	261766	399411	A-0M-08	COH260118	001		SOLID	0	3 1

RELINQUISHED BYRECEIVED BYDATE/TIME

<u>William A Hoyle</u>	<u>William A Hoyle</u>	<u>8-31-00</u>	<u>05:20</u>
<u>William A Hoyle</u>	<u>William A Hoyle</u>	<u>8-31-00</u>	<u>06:20</u>

***** END OF REPORT *****

GENERAL CHEMISTRY DATA

6711477

UXB INTERNATIONAL

Client Sample ID: DF/S1/0238/SDC/036

General Chemistry

Lot-Sample #...: C0H260118-001 Work Order #...: DJG82 Matrix.....: SOLID
 Date Sampled...: 08/25/00 Date Received...: 08/26/00
 % Moisture.....: 10

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH	7.9		No Units	SW846 9045C	08/28/00	0241285
			Dilution Factor: 1	MS Run #.....: 0241113		
Ignitability	NO	--	No Units	SW846 SECTION 7.1	08/28/00	0241124
			Dilution Factor: 1	MS Run #.....: 0241024		
Percent Solids	89.8		%	MCAWW 160.3 MOD	08/28-08/29/00	0241161
			Dilution Factor: 1	MS Run #.....: 0241036		
Reactive Cyanide	ND	200	mg/kg	SW846 7.3.3	08/30/00	0243365
			Dilution Factor: 1	MS Run #.....: 0243165		
Reactive Sulfide	ND	200	mg/kg	SW846 7.3.4	08/30/00	0243366
			Dilution Factor: 1	MS Run #.....: 0243164		

6711478

METHOD BLANK REPORT

General Chemistry

Client Lot #...: C0H260118 . . .

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>PREP</u> <u>BATCH #</u>
Reactive Cyanide	ND	Work Order #: DJM77101 200	mg/kg	MB Lot-Sample #: A0H300000-365 SW846 7.3.3	08/30/00	0243365
		Dilution Factor: 1				
Reactive Sulfide	ND	Work Order #: DJM73101 200	mg/kg	MB Lot-Sample #: A0H300000-366 SW846 7.3.4	08/30/00	0243366
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

6711479

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: C0H260118

Matrix.....: SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
pH	100	Work Order #: DJHEL101 (85 - 115)	LCS Lot-Sample#: C0H280000-285 SW846 9045C	08/28/00	0241285
		Dilution Factor: 1			

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

6711480

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: C0H260118

Work Order #...: DJENL-SMP
DJENL-DUP

Matrix.....: SOLID

Date Sampled...: 08/24/00

Date Received...: 08/25/00

% Moisture.....: 27

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Percent Solids	73.4	70.8	%	3.6	(0-20)	MCAWW 160.3 MOD	08/28-08/29/00	0241161

Dilution Factor: 1

Prep Date.....: 0241036 Analysis Date...

Prep Batch #...:

6711481

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: C0H260118

Work Order #...: DJG82-SMP
DJG82-DUP

Matrix.....: SOLID

Date Sampled...: 08/25/00

Date Received..: 08/26/00

% Moisture.....: 10

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH	7.9	7.9	No Units	0.38	(0-20)	SD Lot-Sample #: C0H260118-001 SW846 9045C	08/28/00	0241285
			Dilution Factor: 1					
			Prep Date.....: 0241113		Analysis Date..:		Prep Batch #....:	

Ignitability

```

SD Lot-Sample #: C0H260118-001
No Units 0      (0-0.0) SW846 SECTION 7.1 08/28/00      0241124
Dilution Factor: 1
Prep Date.....: 0241024   Analysis Date...:           Prep Batch #....:

```

Reactive Cyanide

ND	ND	mg/kg	183	(0-20)	SW846 7.3.3	08/30/00	0243365
		Dilution Factor: 1					
		Prep Date.....: 0243165		Analysis Date..:		Prep Batch #....:	

Reactive Sulfide

ND	ND	mg/kg	0	(0-20)	SW846 7.3.4	08/30/00	0243366
		Dilution Factor: 1					
		Prep Date.....: 0243164		Analysis Date..:		Prep Batch #...:	

6711482

IgnitabilityMethod: IGNITABILITY (SW7.1, 2)STL Pittsburgh
450 William Pitt Way
Pittsburgh, PA 15238

ANALYST: <u>Eric L. Wesolowski</u>	DATE: <u>8-28-00</u>
BATCH: <u>0241124</u>	TIME: <u>08:15</u>

SAMPLE ID	RESULT
<u>COH260118 -001</u>	<u>NO</u>
<u>↓ -001 Dup</u>	<u>NO</u>
<u>EW</u> <u>8-28-00</u>	

Reviewed by f. Johnson Date 8-28-00

WC-00-0060

Page 10 of 100

E. L. Wesolowski 8/28/00

REQUESTED BY: MESOLOSE

6711483

MOD: IQ Ignitability (SW7.1.2)

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED</u> <u>CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX</u> <u>DESCRIPTION</u>	<u>QTY</u> <u>RCVD</u>	<u>QTY</u> <u>REQD</u>
3E CLP1	DJG82-1-0G	— — —	261521	399411	A-88-IQ	COH260118	001		SOLID	3	1

RELINQUISHED BY

RECEIVED BY

DATE/TIME

<i>E. T. W. [Signature]</i>	<i>E. T. W. [Signature]</i>	8/28/00 (08:10)
<i>E. T. W. [Signature]</i>	<i>E. T. W. [Signature]</i>	8/28/00 (08:25)

***** END OF REPORT *****

8015

STL Pittsburgh

Analyst: CLLOHE YDE

Out: Date 8-29-90 Time 0500

Balance ID #: C94817

Oven Temp: 103°C±2°C

SAMPLE ID	TARE NO.	TARE	SAMPLE + TARE	DRIED SAMPLE + TARE
C0H2D17A-001	28	1.11	6.46	6.13
-001D	P4	1.14	6.27	5.92
-002	29	1.12	6.81	6.29
-003	145	1.14	6.23	5.77
-004	101	1.11	6.21	5.70
C0H2D174-001	1551	1.20	6.50	5.83
-002	47	1.15	6.00	6.00
C0H2D172-001	231	1.12	6.53	5.09
-001D	119	1.13	6.09	4.64
-002	38	1.16	6.20	5.19
-003	141	1.18	6.86	5.63
C0H2D118-001	AA	1.13	6.51	5.96
C0H2D102-001	1.81	1.12	6.07	5.43
-002	1241	1.11	6.30	5.55

STL PT/Aug-00/96-003/TSLOG.DOC

STL Pittsburgh

407
7009

6711485

STL - Pittsburgh WATER CONTENT SHEET

HEET NUM 0008019
 TESTED CLL 8/28/00
 CHECKED PM 6 8-29-00

CREATED: 8/28/00 12:32 08 PM

REVISED: 8/28/00 12:37 53 PM

COMMENTS:

C0H250179 C0H250174 C0H250172 C0H260118 C0H250102

CLIENT SAMPLE IDENTIFICATION	LAB SAMP IDENT.	TARE NO.	WEIGHT TARE	WEIGHT TARE + WET SMP	WEIGHT TARE + DRY SAMP	TIME IN	TIME OUT	WEIGHT WATER	WATER CONTENT CALC.	SOLIDS CONTENT CALC
C0H250179	001	SMP	28	1.11	6.46	6.13	8:15	5:00	0.33	6.168 93.832
C0H250179	001D	SMP	PU	1.14	6.27	5.92	8:15	5:00	0.35	6.823 93.177
C0H250179	002	SMP	29	1.12	6.81	6.29	8:15	5:00	0.52	9.139 90.861
C0H250179	003	SMP	145	1.14	6.23	5.77	8:15	5:00	0.46	9.037 90.963
C0H250179	004	SMP	101	1.11	6.21	5.7	8:15	5:00	0.51	10 90
C0H250174	001	SMP	1551	1.2	6.5	5.83	8:15	5:00	0.67	12.642 87.358
250174	002	SMP	47	1.15	6	6	8:15	5:00	0	0 100
C0H250172	001	SMP	231	1.12	6.53	5.09	8:15	5:00	1.44	26.617 73.383
C0H250172	001D	SMP	119	1.13	6.09	4.64	8:15	5:00	1.45	29.234 70.766
C0H250172	002	SMP	38	1.16	6.2	5.19	8:15	5:00	1.01	20.04 79.96
C0H250172	003	SMP	141	1.18	6.86	5.63	8:15	5:00	1.23	21.655 78.345
C0H260118	001	SMP	AA	1.13	6.51	5.96	8:15	5:00	0.55	10.223 89.777
C0H250102	001	SMP	181	1.12	6.07	5.43	8:15	5:00	0.64	12.929 87.071
C0H250102	002	SMP	1241	1.11	6.3	5.55	8:15	5:00	0.75	14.451 85.549

REQUESTED BY: LOHEYDEC

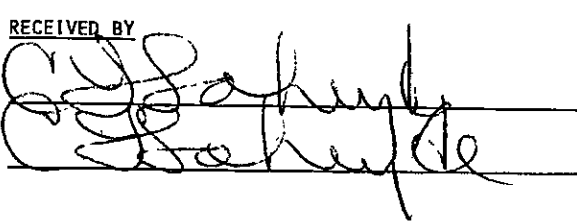
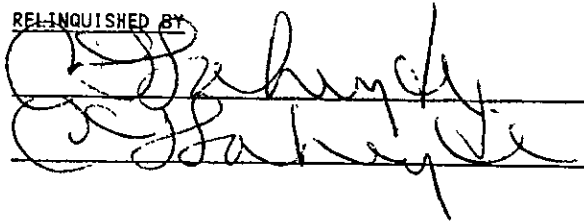
MOD: WM Moisture, Percent (160.3)

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED</u> <u>CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX</u> <u>DESCRIPTION</u>	<u>QTY</u> <u>RCVD</u>	<u>QTY</u> <u>REQD</u>
3C	DJEQ4-1-01	— — —	261509	413462	A-88-WM	COH250179	001		SOLID	1	1
3C	DJEQ6-1-01	— — —	261510	413462	A-88-WM	COH250179	002		SOLID	1	1
3C	DJEQ7-1-01	— — —	261511	413462	A-88-WM	COH250179	003		SOLID	1	1
3C	DJEQ8-1-01	— — —	261512	413462	A-88-WM	COH250179	004		SOLID	1	1
3C CLP1	DJEPM-1-01	— — —	261507	413462	A-88-WM	COH250174	001		SOLID	2	1
3C CLP1	DJEPM-1-0C	— — —	261508	413462	A-88-WM	COH250174	002		SOLID	3	1

RELINQUISHED BY

RECEIVED BY

DATE/TIME

8-28-00 0745
8-28-00 0930

***** END OF REPORT *****

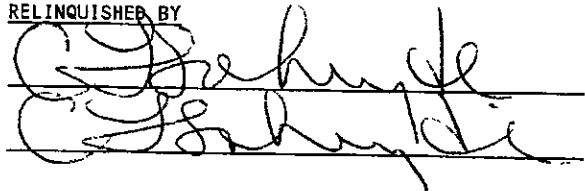
REQUESTED BY: LOHEYDEC

6711487

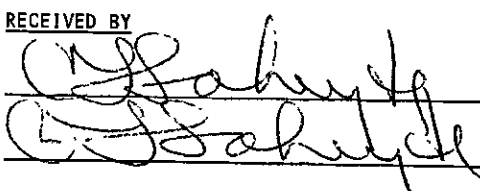
MOD: SM Solids, Percent (as TS - 160.3 MOD) - Solids

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED</u> <u>CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX</u> <u>DESCRIPTION</u>	<u>QTY</u> <u>RCVD</u>	<u>QTY</u> <u>REQD</u>
3C	DJENL-1-01	— — —	261513	001361	A-88-SM	COH250172	001		SOLID	1	1
3C	DJENX-1-01	— — —	261514	001361	A-88-SM	COH250172	002		SOLID	1	1
3C	DJEP5-1-01	— — —	261515	001361	A-88-SM	COH250172	003		SOLID	1	1
3C CLP1	DJE3G-1-01	— — —	261516	017267	A-88-SM	COH250102	001		SOLID	1	1
3C CLP1	DJE3H-1-01	— — —	261517	017267	A-88-SM	COH250102	002		SOLID	1	1
3E CLP1	DJG82-1-01	— — —	261518	399411	A-88-SM	COH260118	001		SOLID	3	1

RELINQUISHED BY



RECEIVED BY



DATE/TIME

8-28-00 0745
8-28-00 0930

***** END OF REPORT *****

6711488

Analyst: ERIC L. WESOLOSKI
Date: 8-28-00
Start Time: 08:45

Reading	Buffer	Manf. Lot No.	Rec'd	Expire
4.00	4.0	LARCHEM 9167-08	5-19-00	6-25-01
7.00	7.0	↓ 0062-04	5-19-00	3-1-02
10.01	10.0	↓ 0047-16	5-19-00	3-8-02

COH 260118 -001
Relative Percent Difference = .4%

$$\frac{|X_1 - X_2|}{\left(\frac{X_1 + X_2}{2}\right)} \times 100$$

X_1 = Original Result
 X_2 = Duplicate

Sample ID	pH Solid	pH Reading
LCS		7.03
CON260118-001		7.90 RD
↓ -001 Dup		7.93
LCS		7.04

~~CONFIDENTIAL~~
8-28-00

REQUESTED BY: MESOLOSE

6711489

OD: OZ pH (9045C) - Non-Aqueous

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED</u> <u>CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX</u> <u>DESCRIPTION</u>	<u>QTY</u> <u>RCVD</u>	<u>QTY</u> <u>REQD</u>
3E CLP1	DJG82-1-0F	_____	261500	399411	A-88-OZ	COH260118	001		SOLID	3	1

RELINQUISHED BY

RECEIVED BY

DATE/TIME

E. L. Whith
E. L. Whith

E. L. Whith
E. L. Whith

8/28/00 (06:30)

8/28/00 (67:00)

***** END OF REPORT *****

6711490

Batch Number D243365
LCS Number NA
LCS Prep Date NA
RL 200mg/kg

Titrant Normality 0.0192 N

Titrant Standardization Date/ Initials NA / 1

Rev. 10/30/98
N:MetalsWet Log

QUANTERRA- NORTH CANTON
TITRIMETRIC LOGSHEET

6711491

Analysis RxN Sulfol
Prep/ Anal. Date 8/30/00
Analyst SAM/RA/ml

Batch Number 0243366
LCS Number NA
LCS Prep Date NA
RL 200mg/kg

Titrant Name Sodium thiosulfate

Titrant Normality 0.025

Titrant Standardization Date/ Initials 8/22/00 / TAR

10D. DE
0.028
QW 8/25/00

Sample Number	Sample Volume	Dil.	Titrant Vol (mL)	Final Conc.	Units	QC Calculations and Comments
Blank	10g		22.3	mg/L	mg/L	
DJG82			21.9			
↓ Dup			22.2			
DJJKJ			22.3			
DJL33			22.2			
Std			22.3			
SAM 8/30/00						

FINAL PAGE

ADMINISTRATIVE RECORD

FINAL PAGE