



# THE MEMPHIS DEPOT TENNESSEE

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## ADMINISTRATIVE RECORD COVER SHEET

AR File Number 659

Part II of II

**SEVERN  
TRENT  
SERVICES**

STL Pittsburgh  
450 William Pitt Way  
Pittsburgh, PA 15238

Tel 412 820 8380  
Fax 412 820 2080  
[www.stl-inc.com](http://www.stl-inc.com)

**ANALYTICAL REPORT**

PROJECT NO. UXB 7512-060

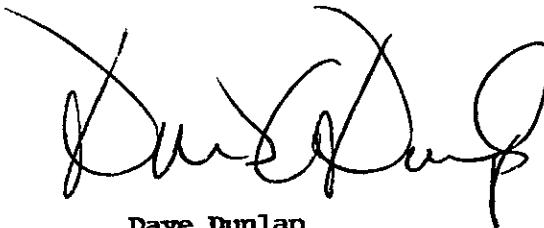
Dunn Field, Def Depot: Memphis

Lot #: C0E310132

Randy Reed

UXB International

SEVERN TRENT LABORATORIES, INC.

A handwritten signature in black ink, appearing to read 'Dave Dunlap', is written over a large, faint, stylized 'X' or 'D' shape.

Dave Dunlap  
Project Manager

June 12, 2000

**CASE NARRATIVE**  
**UXB International Inc.**  
**Dunn Field**

**LOT # C0E310132**

**Sample Receiving:**

One sample was received on May 31, 2000.

**Volatiles:**

There were no problems associated with the analyses.

**Semivolatiles:**

There were no problems associated with the analyses.

**Pesticides:**

The initial calibration on DB608 column had tetrachloro-m-xylene outside the 20% RSD criteria. The average of the compounds in the calibration mixes was 10% therefore the average response factor was used to calculate results.

Two of the calibration verification standards had compounds outside of the  $\pm 15\%$  difference criteria. The average % difference of all compounds in the calibration verification standards were within the  $\pm 15\%$  difference criteria. Compounds exceeding these criteria were not detected in the samples. The following table lists the calibration verifications and compounds outside of the  $\pm 15\%$  difference criteria.

| Column: DB608                            |                      |              |                                                         |
|------------------------------------------|----------------------|--------------|---------------------------------------------------------|
| Calibration Verification<br>Date & Times | Affected<br>Compound | % Difference | Average % Difference<br>of All Compounds in<br>Standard |
| 6/6/00 @ 08:03/08:30                     | 4,4-DDT              | -24.3        | 8                                                       |
|                                          | methoxychlor         | -18.6        |                                                         |
|                                          | decachlorobiphenyl   | -19.5        |                                                         |

**Herbicides:**

There were no problems associated with the analyses.

**Metals:**

There were no problems associated with the analyses.

**CASE NARRATIVE**  
**UXB International Inc.**  
**Dunn Field**

**LOT # C0E310132**

**TCLP Metals:**

There were no problems associated with the analyses.

**General Chemistry:**

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



## METHODS SUMMARY

COE310132

| <u>PARAMETER</u>                              | <u>ANALYTICAL<br/>METHOD</u> | <u>PREPARATION<br/>METHOD</u> |
|-----------------------------------------------|------------------------------|-------------------------------|
| 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.

**SAMPLE SUMMARY**

COE310132

| <u>WO #</u> | <u>SAMPLE#</u> | <u>CLIENT</u>      | <u>SAMPLE ID</u> | <u>DATE</u> | <u>TIME</u> |
|-------------|----------------|--------------------|------------------|-------------|-------------|
| DE022       | 001            | DF/S1/D151/SDC/005 |                  | 05/30/00    | 09:30       |

**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.

[illegible]

| Possible Hazard Identification                 |                                    |                                        |                                   | Sample Disposal                           |                                          |                                      |        |
|------------------------------------------------|------------------------------------|----------------------------------------|-----------------------------------|-------------------------------------------|------------------------------------------|--------------------------------------|--------|
| <input checked="" type="checkbox"/> Non-Hazard | <input type="checkbox"/> Flammable | <input type="checkbox"/> Skin Irritant | <input type="checkbox"/> Poison B | <input type="checkbox"/> Return To Client | <input type="checkbox"/> Disposal By Lab | <input type="checkbox"/> Archive For | Months |
| Turn Around Time Required                      |                                    |                                        |                                   | Project Specific (Specify)                |                                          |                                      |        |
| <input checked="" type="checkbox"/> Normal     | <input type="checkbox"/> Rush      | OC Level                               |                                   |                                           |                                          |                                      |        |
|                                                |                                    | <input type="checkbox"/> I.            | <input type="checkbox"/> II.      | <input type="checkbox"/> III.             |                                          |                                      |        |
| 1 Relinquished By <u>D. A. Hawk</u>            |                                    | Date                                   | Time                              | Received By <u>[Signature]</u>            |                                          | Date                                 | Time   |
|                                                |                                    | 5/30/00                                | 0930                              |                                           |                                          | 5/31/00                              | 0930   |
| 2 Relinquished By                              |                                    | Date                                   | Time                              | 2 Received By                             |                                          | Date                                 | Time   |
|                                                |                                    |                                        |                                   |                                           |                                          |                                      |        |
| 3 Relinquished By                              |                                    | Date                                   | Time                              | 3. Received By                            |                                          | Date                                 | Time   |
|                                                |                                    |                                        |                                   |                                           |                                          |                                      |        |
| Comments                                       |                                    |                                        |                                   |                                           |                                          |                                      |        |

**DISTRIBUTION: WHITE - Stays with Sample, CANARY - Returned to Client with Report, PINK - Field Copy**

STL Pittsburg

# Cooler Receipt Form

## STL Pittsburgh

Client: UXB Project: \_\_\_\_\_ Quote: \_\_\_\_\_

Cooler Rec'd & Opened for Temp. Check on: 5-31-00

Coolers Opened and Unpacked on: 5-31-00 By: [Signature]

(Signature)

STL Pittsburgh Lot Number: 005310132

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

Explain any discrepancies: \_\_\_\_\_

Level 2 Review \_\_\_\_\_

Was contacted on \_\_\_\_\_ by \_\_\_\_\_ to resolve discrepancies.



**FedEx** USA Airbill Tracking Number **821738764183**

1 **Estimate**  
Date **5/30/00**

Sender's Name **Jim Thayer** Phone **701 745-4999**

Company **UXFB Int'l. Inc.**

Address **6741 Old Poplar Ave**

City **Memphis** State **TN** ZIP **38119**

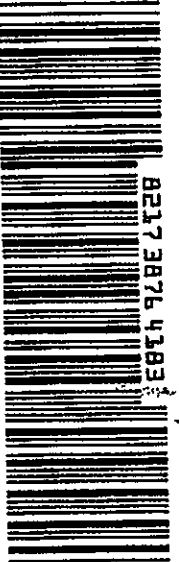
2 Your Internal Billing Reference

3 To Recipient's Name **Russell Vicine** Phone **412 820-8380**

Company **Sevens Trust**

Address **450 William Pittway**

City **Pittsburgh** State **PA** ZIP **15238**



**0200**

4a Express Package Service

☒ FedEx Priority Overnight ☐ FedEx Standard Overnight ☐ FedEx First Overnight

☐ FedEx 2Day\* ☐ FedEx Express Saver\* ☐ FedEx 1Day Freight\*

☐ FedEx 1Day Freight\* ☐ FedEx 2Day Freight ☐ FedEx 30 Day Freight

5 Packaging ☐ FedEx Letter\* ☐ FedEx Pak\* ☒ Other Pkg

6 Special Handling ☐ Sunday Delivery ☐ Sundry Delivery ☐ Hold Weekday ☐ Hold Saturday

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

8 Release Signature ☐ Signature ☐ Signature ☐ Signature

Total Packages **13** Total Weight **13** Total Declared Value\* **00**

By signing this document, I agree to the terms and conditions of the FedEx service. I understand that the service is provided by FedEx and that I am responsible for the accuracy of the information provided.



**SBCCOM**  
**Monitoring Branch Laboratory**

**CLEARANCE REPORT**

May-30, 2000

Dunn Field, Memphis Defense Depot

Results for CWM Soil Sample Analysis

Analyst: JOHN L SCHWARZ

| Sample#                    |  | 1,4-<br>Thioxane | 1,4-<br>Dithiane | TDG | Mustard | Lewisite |
|----------------------------|--|------------------|------------------|-----|---------|----------|
| DF/S1/01<br>51/SOC/0<br>05 |  | 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

DATA SUMMARY PACKAGE



659 700

## **GC/MS VOLATILE SUMMARY**

## UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E310132 001

Method: SW846 8260B

Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL

Date Received: 05/31/00

Work Order: DE022102

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/02/00

Moisture %: 14

QC Batch: 0151138

Client Sample Id: DF/S1/D151/SDC/005

|          |                      | 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           | 0.014                | 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 |

659 702

UXB INTERNATIONAL  
CHECK SAMPLE COMPOUNDS

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

Matrix: (soil/water) SOLID

Lab Sample ID: C0E300000 138

Method: SW846 8260B

Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL

Date Received: 05/26/00

Work Order: DDWCP102

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/02/00

Moisture %: NA

QC Batch: 0151138

Client Sample Id: CHECK SAMPLE

| CAS NO.  | COMPOUND             | CONCENTRATION UNITS: |   |
|----------|----------------------|----------------------|---|
|          |                      | (ug/L or ug/kg) mg/L | Q |
| 71-43-2  | Benzene              | 0.456                |   |
| 78-93-3  | 2-Butanone           | 0.475                |   |
| 56-23-5  | Carbon tetrachloride | 0.435                |   |
| 108-90-7 | Chlorobenzene        | 0.457                |   |
| 67-66-3  | Chloroform           | 0.445                |   |
| 107-06-2 | 1,2-Dichloroethane   | 0.442                |   |
| 75-35-4  | 1,1-Dichloroethene   | 0.455                |   |
| 127-18-4 | Tetrachloroethene    | 0.467                |   |
| 79-01-6  | Trichloroethene      | 0.450                |   |
| 75-01-4  | Vinyl chloride       | 0.490                |   |

## SW846 8260B SURROGATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT QESSDG:

Lot #: COE310132

|    | CLIENT ID.           | SRG01 | SRG02 | SRG03 | SRG04 | TOT OUT |
|----|----------------------|-------|-------|-------|-------|---------|
|    | =====                | ===== | ===== | ===== | ===== | =====   |
| 01 | INTRA-LAB QC         | 95    | 101   | 93    | 98    | 00      |
| 02 | DF/S1/D151/SDC/005   | 95    | 102   | 94    | 99    | 00      |
| 03 | METHOD BLK. DE38P101 | 92    | 104   | 95    | 95    | 00      |
| 04 | LCS DDWCP102         | 92    | 100   | 101   | 99    | 00      |
| 05 | LAB MS/MSD D         | 97    | 107   | 108   | 103   | 00      |
| 06 | LAB MS/MSD S         | 87    | 104   | 102   | 94    | 00      |

| <u>SURROGATES</u>             | <u>QC LIMITS</u> |
|-------------------------------|------------------|
| SRG01 = 1,2-Dichloroethane-d4 | ( 77-120)        |
| SRG02 = Toluene-d8            | ( 78-111)        |
| SRG03 = 4-Bromofluorobenzene  | ( 80-114)        |
| SRG04 = Dibromofluoromethane  | ( 78-110)        |

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

FORM II

659 704

## SW846 8260B CHECK SAMPLE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: C0E300000

WO #: DDWCP102

BATCH: 0151138

| COMPOUND             | SPIKE<br>ADDED<br>(mg/L ) | SAMPLE<br>CONCENT.<br>(mg/L ) | %<br>REC | QC<br>LIMITS<br>REC | QUAL  |
|----------------------|---------------------------|-------------------------------|----------|---------------------|-------|
| =====                | =====                     | =====                         | =====    | =====               | ===== |
| Benzene              | 0.500                     | 0.456                         | 91       | 79- 116             |       |
| 2-Butanone           | 0.500                     | 0.475                         | 95       | 35- 156             |       |
| Carbon tetrachloride | 0.500                     | 0.435                         | 87       | 72- 133             |       |
| Chlorobenzene        | 0.500                     | 0.457                         | 91       | 81- 115             |       |
| Chloroform           | 0.500                     | 0.445                         | 89       | 81- 122             |       |
| 1,2-Dichloroethane   | 0.500                     | 0.442                         | 88       | 73- 127             |       |
| 1,1-Dichloroethene   | 0.500                     | 0.455                         | 91       | 65- 119             |       |
| Tetrachloroethene    | 0.500                     | 0.467                         | 93       | 78- 131             |       |
| Trichloroethene      | 0.500                     | 0.450                         | 90       | 80- 122             |       |
| Vinyl chloride       | 0.500                     | 0.490                         | 98       | 53- 134             |       |

NOTES (S) :

\* Values outside of QC limits

Spike 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: LAB MS/MSD

Level: (low/med) LOW

Lot #: C0E260147

WO #: DDRMP11A

BATCH: 0151138

| COMPOUND             | SPIKE<br>ADDED<br>(mg/L ) | SAMPLE<br>CONCENT.<br>(mg/L ) | MS<br>CONCENT.<br>(mg/L ) | MS<br>%<br>REC | LIMITS<br>REC | QUAL  |
|----------------------|---------------------------|-------------------------------|---------------------------|----------------|---------------|-------|
| =====                | =====                     | =====                         | =====                     | =====          | =====         | ===== |
| Benzene              | 0.500                     | ND                            | 0.495                     | 99             | 73 - 123      |       |
| 2-Butanone           | 0.500                     | 0.015                         | 0.421                     | 81             | 10 - 151      |       |
| Carbon tetrachloride | 0.500                     | ND                            | 0.459                     | 92             | 61 - 143      |       |
| Chlorobenzene        | 0.500                     | ND                            | 0.517                     | 103            | 70 - 122      |       |
| Chloroform           | 0.500                     | ND                            | 0.471                     | 94             | 65 - 131      |       |
| 1,2-Dichloroethane   | 0.500                     | ND                            | 0.463                     | 93             | 67 - 132      |       |
| 1,1-Dichloroethene   | 0.500                     | ND                            | 0.467                     | 93             | 57 - 138      |       |
| Tetrachloroethene    | 0.500                     | ND                            | 0.550                     | 110            | 70 - 130      |       |
| Trichloroethene      | 0.500                     | ND                            | 0.488                     | 98             | 58 - 141      |       |
| Vinyl chloride       | 0.500                     | ND                            | 0.547                     | 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 limits  
 Spike Recovery: 0 out of 10 outside limits

## COMMENTS:

659 706 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: LAB MS/MSD

Level: (low/med) LOW

Lot #: C0E260147

WO #: DDRMP11C

BATCH: 0151138

| COMPOUND             | SPIKE<br>ADDED<br>(mg/L ) | MSD<br>CONCENT.<br>(mg/L ) | MSD<br>%<br>REC | %<br>RPD | QC LIMITS<br>RPD | REC      | QUAL  |
|----------------------|---------------------------|----------------------------|-----------------|----------|------------------|----------|-------|
| =====                | =====                     | =====                      | =====           | =====    | =====            | =====    | ===== |
| Benzene              | 0.500                     | 0.528                      | 106             | 6.6      | 20               | 73 - 123 |       |
| 2-Butanone           | 0.500                     | 0.512                      | 100             | 20       | 34               | 10 - 151 |       |
| Carbon tetrachloride | 0.500                     | 0.511                      | 102             | 11       | 20               | 61 - 143 |       |
| Chlorobenzene        | 0.500                     | 0.533                      | 107             | 2.9      | 20               | 70 - 122 |       |
| Chloroform           | 0.500                     | 0.519                      | 104             | 9.6      | 20               | 65 - 131 |       |
| 1,2-Dichloroethane   | 0.500                     | 0.505                      | 101             | 8.8      | 20               | 67 - 132 |       |
| 1,1-Dichloroethene   | 0.500                     | 0.537                      | 107             | 14       | 20               | 57 - 138 |       |
| Tetrachloroethene    | 0.500                     | 0.559                      | 112             | 1.7      | 20               | 70 - 130 |       |
| Trichloroethene      | 0.500                     | 0.520                      | 104             | 6.4      | 20               | 58 - 141 |       |
| Vinyl chloride       | 0.500                     | 0.606                      | 121             | 10       | 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:

FORM III

BLANK WORKORDER NO.

SW846 8260B METHOD BLANK SUMMARY

DE38P101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: pb50602.d

Lot Number: C0E310132

Date Analyzed: 06/02/00

Time Analyzed: 08:18

Matrix: SOLID

Date Extracted: 06/02/00

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<br>WORK ORDER # | LAB<br>FILE ID | DATE<br>ANALYZED | TIME<br>ANALYZED |
|-----------------------|------------------------|----------------|------------------|------------------|
| =====                 | =====                  | =====          | =====            | =====            |
| 01 INTRA-LAB QC       | DDRMP102               | 5060203.d      | 06/02/00         | 10:00            |
| 02 LAB MS/MSD         | DDRMP11A S             | 5060205.d      | 06/02/00         | 10:49            |
| 03 LAB MS/MSD         | DDRMP11C D             | 5060206.d      | 06/02/00         | 11:17            |
| 04 CHECK SAMPLE       | DDWCP102 C             | 5060201.d      | 06/02/00         | 09:07            |
| 05 DF/S1/D151/SDC/005 | DE022102               | 5060207.d      | 06/02/00         | 11:46            |
| 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



659 708

UXB INTERNATIONAL  
METHOD BLANK COMPOUNDS

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

Matrix: (soil/water) SOLID      Lab Sample ID: C0F020000 109

Method: SW846 8260B

Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL

Date Received: 05/26/00

Work Order: DE38P101

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/02/00

Moisture %: NA

QC Batch: 0151138

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 |

8A  
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

659 709

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.: 40325

SDG No.: C0E310132

Lab File ID (Standard): CC50602

Date Analyzed: 06/02/00

Instrument ID: HP5

Time Analyzed: 0744

GC Column: DB 624

ID: 0.20 (mm)

Heated Purge: (Y/N) N

|    |                   | IS1 (CBZ)<br>AREA # | RT #  | IS2 (DCB)<br>AREA # | RT #  | IS3<br>AREA # | RT #  |
|----|-------------------|---------------------|-------|---------------------|-------|---------------|-------|
|    | =====             | =====               | ===== | =====               | ===== | =====         | ===== |
|    | 12 HOUR STD       | 135516              | 9.98  | 214521              | 12.28 | 581044        | 6.87  |
|    | UPPER LIMIT       | 271032              | 10.18 | 429042              | 12.48 | 1162088       | 7.07  |
|    | LOWER LIMIT       | 67758               | 9.78  | 107260              | 12.08 | 290522        | 6.67  |
|    | =====             | =====               | ===== | =====               | ===== | =====         | ===== |
|    | EPA SAMPLE<br>NO. |                     |       |                     |       |               |       |
|    | =====             | =====               | ===== | =====               | ===== | =====         | ===== |
| 01 | INTRA-LAB BL      | 127868              | 9.97  | 182932              | 12.28 | 574524        | 6.88  |
| 02 | INTRA-LAB CH      | 135681              | 9.99  | 203783              | 12.28 | 564358        | 6.88  |
| 03 | DF/S1/D151/S      | 127645              | 9.97  | 175424              | 12.27 | 543078        | 6.88  |
| 04 |                   |                     |       |                     |       |               |       |
| 05 |                   |                     |       |                     |       |               |       |
| 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.

659 710

**GC/MS SEMIVOLATILE SUMMARY**

## UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E310132 001

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 05/31/00

Work Order: DE022103

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/06/00

Moisture %: 14

QC Batch: 0157330

Client Sample Id: DF/S1/D151/SDC/005

| 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 |

659 712

UXB INTERNATIONAL  
MATRIX SPIKE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E310132 001

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 05/31/00

Work Order: DE02211E

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/06/00

Moisture %: 14

QC Batch: 0157330

Client Sample Id: DF/S1/D151/SDC/005

| CAS NO.   | COMPOUND              | CONCENTRATION UNITS: |      | Q |
|-----------|-----------------------|----------------------|------|---|
|           |                       | (ug/L or ug/kg)      | mg/L |   |
| 106-46-7  | 1,4-Dichlorobenzene   | 0.158                |      |   |
| 121-14-2  | 2,4-Dinitrotoluene    | 0.171                |      |   |
| 118-74-1  | Hexachlorobenzene     | 0.193                |      |   |
| 87-68-3   | Hexachlorobutadiene   | 0.151                |      |   |
| 67-72-1   | Hexachloroethane      | 0.153                |      |   |
| 98-95-3   | Nitrobenzene          | 0.183                |      |   |
| 87-86-5   | Pentachlorophenol     | 0.185                |      |   |
| 110-86-1  | Pyridine              | 0.125                |      |   |
| 95-95-4   | 2,4,5-Trichlorophenol | 0.174                |      |   |
| 88-06-2   | 2,4,6-Trichlorophenol | 0.167                |      |   |
| 1319-77-3 | Cresols (total)       | 0.529                |      |   |

FORM I

UXB INTERNATIONAL  
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E310132 001

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 05/31/00

Work Order: DE02211F

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/06/00

Moisture %: 14

QC Batch: 0157330

Client Sample Id: DF/S1/D151/SDC/005

| CAS NO.   | COMPOUND              | CONCENTRATION UNITS: |   |
|-----------|-----------------------|----------------------|---|
|           |                       | (ug/L or ug/kg) mg/L | Q |
| 106-46-7  | 1,4-Dichlorobenzene   | 0.160                |   |
| 121-14-2  | 2,4-Dinitrotoluene    | 0.177                |   |
| 118-74-1  | Hexachlorobenzene     | 0.201                |   |
| 87-68-3   | Hexachlorobutadiene   | 0.155                |   |
| 67-72-1   | Hexachloroethane      | 0.157                |   |
| 98-95-3   | Nitrobenzene          | 0.188                |   |
| 87-86-5   | Pentachlorophenol     | 0.188                |   |
| 110-86-1  | Pyridine              | 0.109                |   |
| 95-95-4   | 2,4,5-Trichlorophenol | 0.179                |   |
| 88-06-2   | 2,4,6-Trichlorophenol | 0.173                |   |
| 1319-77-3 | Cresols (total)       | 0.548                |   |

659 714

UXB INTERNATIONAL  
CHECK SAMPLE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0F050000 330

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 05/31/00

Work Order: DE6Q3102

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/06/00

Moisture %: NA

QC Batch: 0157330

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    | 0.169                |   |
| 118-74-1  | Hexachlorobenzene     | 0.180                |   |
| 87-68-3   | Hexachlorobutadiene   | 0.179                |   |
| 67-72-1   | Hexachloroethane      | 0.184                |   |
| 98-95-3   | Nitrobenzene          | 0.195                |   |
| 87-86-5   | Pentachlorophenol     | 0.183                |   |
| 110-86-1  | Pyridine              | 0.153                |   |
| 95-95-4   | 2,4,5-Trichlorophenol | 0.176                |   |
| 88-06-2   | 2,4,6-Trichlorophenol | 0.171                |   |
| 1319-77-3 | Cresols (total)       | 0.575                |   |

FORM I

## SW846 8270C SURROGATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT QESSDG:

Lot #: COE310132

|    | CLIENT ID.           | SRG01 | SRG02 | SRG03 | SRG04 | SRG05 | SRG06 | TOT OUT |
|----|----------------------|-------|-------|-------|-------|-------|-------|---------|
|    | =====                | ===== | ===== | ===== | ===== | ===== | ===== | =====   |
| 01 | DF/S1/D151/SDC/005   | 82    | 71    | 88    | 66    | 78    | 75    | 00      |
| 02 | METHOD BLK. DE6Q3101 | 64    | 64    | 75    | 55    | 65    | 62    | 00      |
| 03 | LCS DE6Q3102         | 77    | 73    | 76    | 67    | 76    | 64    | 00      |
| 04 | DF/S1/D151/SDC/005 D | 75    | 69    | 84    | 58    | 72    | 72    | 00      |
| 05 | DF/S1/D151/SDC/005 S | 72    | 68    | 81    | 57    | 69    | 68    | 00      |

| <u>SURROGATES</u>            | <u>QC LIMITS</u> |
|------------------------------|------------------|
| SRG01 = Nitrobenzene-d5      | ( 32-112)        |
| SRG02 = 2-Fluorobiphenyl     | ( 30-110)        |
| SRG03 = Terphenyl-d14        | ( 10-144)        |
| SRG04 = 2-Fluorophenol       | ( 13-110)        |
| SRG05 = Phenol-d5            | ( 10-113)        |
| SRG06 = 2,4,6-Tribromophenol | ( 21-122)        |

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

FORM II



659 716 SW846 8270C CHECK SAMPLE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: C0F050000

WO #: DE6Q3102

BATCH: 0157330

| COMPOUND              | SPIKE<br>ADDED<br>(mg/L ) | SAMPLE<br>CONCENT.<br>(mg/L ) | %<br>REC | QC<br>LIMITS<br>REC | QUAL  |
|-----------------------|---------------------------|-------------------------------|----------|---------------------|-------|
| =====                 | =====                     | =====                         | =====    | =====               | ===== |
| Hexachlorobutadiene   | 0.250                     | 0.179                         | 72       | 36- 116             |       |
| Hexachloroethane      | 0.250                     | 0.184                         | 74       | 30- 110             |       |
| Nitrobenzene          | 0.250                     | 0.195                         | 78       | 45- 130             |       |
| Pentachlorophenol     | 0.250                     | 0.183                         | 73       | 10- 140             |       |
| Pyridine              | 0.250                     | 0.153                         | 61       | 10- 148             |       |
| 2,4,5-Trichlorophenol | 0.250                     | 0.176                         | 70       | 41- 125             |       |
| 2,4,6-Trichlorophenol | 0.250                     | 0.171                         | 68       | 46- 135             |       |
| Cresols (total)       | 0.750                     | 0.575                         | 77       | 29- 144             |       |
| 1,4-Dichlorobenzene   | 0.250                     | 0.184                         | 73       | 28- 110             |       |
| 2,4-Dinitrotoluene    | 0.250                     | 0.169                         | 68       | 47- 131             |       |
| Hexachlorobenzene     | 0.250                     | 0.180                         | 72       | 57- 128             |       |

NOTES (S) :

\* Values outside of QC 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/D151/SDC/005

Level: (low/med) LOW

Lot #: C0E310132

WO #: DE02211E

BATCH: 0157330

| COMPOUND              | SPIKE<br>ADDED<br>(mg/L ) | SAMPLE<br>CONCENT.<br>(mg/L ) | MS<br>CONCENT.<br>(mg/L ) | MS<br>%<br>REC | LIMITS<br>REC | QUAL  |
|-----------------------|---------------------------|-------------------------------|---------------------------|----------------|---------------|-------|
| =====                 | =====                     | =====                         | =====                     | =====          | =====         | ===== |
| 1,4-Dichlorobenzene   | 0.250                     | ND                            | 0.158                     | 63             | 18 - 110      |       |
| 2,4-Dinitrotoluene    | 0.250                     | ND                            | 0.171                     | 68             | 31 - 131      |       |
| Hexachlorobenzene     | 0.250                     | ND                            | 0.193                     | 77             | 36 - 132      |       |
| Hexachlorobutadiene   | 0.250                     | ND                            | 0.151                     | 61             | 18 - 116      |       |
| Hexachloroethane      | 0.250                     | ND                            | 0.153                     | 61             | 18 - 110      |       |
| Nitrobenzene          | 0.250                     | ND                            | 0.183                     | 73             | 10 - 211      |       |
| Pentachlorophenol     | 0.250                     | ND                            | 0.185                     | 74             | 10 - 140      |       |
| Pyridine              | 0.250                     | ND                            | 0.125                     | 50             | 10 - 148      |       |
| 2,4,5-Trichlorophenol | 0.250                     | ND                            | 0.174                     | 70             | 24 - 143      |       |
| 2,4,6-Trichlorophenol | 0.250                     | ND                            | 0.167                     | 67             | 36 - 135      |       |
| Cresols (total)       | 0.750                     | ND                            | 0.529                     | 71             | 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:

659 718 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/D151/SDC/005

Level: (low/med) LOW

Lot #: C0E310132

WO #: DE02211F

BATCH: 0157330

| COMPOUND              | SPIKE<br>ADDED<br>(mg/L ) | MSD<br>CONCENT.<br>(mg/L ) | MSD<br>%<br>REC | %<br>RPD | QC LIMITS<br>RPD | REC     | QUAL |
|-----------------------|---------------------------|----------------------------|-----------------|----------|------------------|---------|------|
| 1,4-Dichlorobenzene   | 0.250                     | 0.160                      | 64              | 1.4      | 36               | 18- 110 |      |
| 2,4-Dinitrotoluene    | 0.250                     | 0.177                      | 71              | 3.8      | 32               | 31- 131 |      |
| Hexachlorobenzene     | 0.250                     | 0.201                      | 80              | 3.8      | 22               | 36- 132 |      |
| Hexachlorobutadiene   | 0.250                     | 0.155                      | 62              | 2.1      | 32               | 18- 116 |      |
| Hexachloroethane      | 0.250                     | 0.157                      | 63              | 2.9      | 33               | 18- 110 |      |
| Nitrobenzene          | 0.250                     | 0.188                      | 75              | 2.8      | 50               | 10- 211 |      |
| Pentachlorophenol     | 0.250                     | 0.188                      | 75              | 1.6      | 56               | 10- 140 |      |
| Cresols (total)       | 0.750                     | 0.548                      | 73              | 3.5      | 33               | 25- 144 |      |
| Pyridine              | 0.250                     | 0.109                      | 44              | 13       | 65               | 10- 148 |      |
| 2,4,5-Trichlorophenol | 0.250                     | 0.179                      | 72              | 2.6      | 22               | 24- 143 |      |
| 2,4,6-Trichlorophenol | 0.250                     | 0.173                      | 69              | 3.4      | 27               | 36- 135 |      |

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:

FORM III

BLANK WORKORDER NO.

SW846 8270C METHOD BLANK SUMMARY

DE6Q3101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: S0606001.

Lot Number: C0E310132

Date Analyzed: 06/06/00

Time Analyzed: 08:51

Matrix: SOLID

Date Extracted: 06/02/00

GC Column: DB5MS

ID: .25

Extraction Method: 1311/3520C

Instrument ID: 71

Level: (low/med) LOW

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

|    | CLIENT ID.         | SAMPLE<br>WORK ORDER # | LAB<br>FILE ID | DATE<br>ANALYZED | TIME<br>ANALYZED |
|----|--------------------|------------------------|----------------|------------------|------------------|
| 01 | DF/S1/D151/SDC/005 | DE022103               | S0606003.      | 06/06/00         | 09:56            |
| 02 | DF/S1/D151/SDC/005 | DE02211E S             | S0606004.      | 06/06/00         | 10:28            |
| 03 | DF/S1/D151/SDC/005 | DE02211F D             | S0606005.      | 06/06/00         | 11:02            |
| 04 | CHECK SAMPLE       | DE6Q3102 C             | S0606002.      | 06/06/00         | 09:23            |
| 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

659 720

UXB INTERNATIONAL  
METHOD BLANK COMPOUNDS

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

Matrix: (soil/water) SOLID      Lab Sample ID: C0F050000 330

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 05/31/00

Work Order: DE6Q3101

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/06/00

Moisture %: NA

QC Batch: 0157330

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 I

FORM 8  
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

659 721

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT Case No.:

SAS No.:

SDG No.: C0E310132

Lab File ID (Standard): S0606CCC

Date Analyzed: 06/06/00

Instrument ID: 71

Time Analyzed: 0811

|                      | IS1 (DCB)<br>AREA # | RT #  | IS2 (NPT)<br>AREA # | RT #  | IS3 (ANT)<br>AREA # | RT #  |
|----------------------|---------------------|-------|---------------------|-------|---------------------|-------|
| =====                | =====               | ===== | =====               | ===== | =====               | ===== |
| 12 HOUR STD          | 73946               | 4.93  | 281731              | 6.45  | 150447              | 9.44  |
| UPPER LIMIT          | 147892              | 5.43  | 563462              | 6.95  | 300894              | 9.94  |
| LOWER LIMIT          | 36973               | 4.43  | 140866              | 5.95  | 75224               | 8.94  |
| =====                | =====               | ===== | =====               | ===== | =====               | ===== |
| CLIENT<br>SAMPLE NO. |                     |       |                     |       |                     |       |
| =====                | =====               | ===== | =====               | ===== | =====               | ===== |
| 01 INTRA-LAB BL      | 92694               | 4.94  | 358238              | 6.46  | 186965              | 9.45  |
| 02 INTRA-LAB CH      | 82459               | 4.95  | 321344              | 6.46  | 169306              | 9.46  |
| 03 DF/S1/D151/S      | 82361               | 4.94  | 320567              | 6.45  | 166903              | 9.44  |
| ms 04 DF/S1/D151/S   | 82877               | 4.95  | 319509              | 6.45  | 164276              | 9.45  |
| ms 05 DF/S1/D151/S   | 82445               | 4.95  | 320900              | 6.46  | 163646              | 9.46  |
| 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.

659 722

FORM 8  
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.:

SDG No.: C0E310132

Lab File ID (Standard): S0606CCC

Date Analyzed: 06/06/00

Instrument ID: 71

Time Analyzed: 0811

|       |              | IS4 (PHN) |       | IS5 (CRY) |       | IS6 (PRY) |       |
|-------|--------------|-----------|-------|-----------|-------|-----------|-------|
|       |              | AREA #    | RT #  | AREA #    | RT #  | AREA #    | RT #  |
|       | =====        | =====     | ===== | =====     | ===== | =====     | ===== |
|       | 12 HOUR STD  | 276309    | 12.73 | 314156    | 19.35 | 386487    | 22.70 |
|       | UPPER LIMIT  | 552618    | 13.23 | 628312    | 19.85 | 772974    | 23.20 |
|       | LOWER LIMIT  | 138155    | 12.23 | 157078    | 18.85 | 193244    | 22.20 |
|       | =====        | =====     | ===== | =====     | ===== | =====     | ===== |
|       | CLIENT       |           |       |           |       |           |       |
|       | SAMPLE NO.   |           |       |           |       |           |       |
|       | =====        | =====     | ===== | =====     | ===== | =====     | ===== |
| 01    | INTRA-LAB BL | 310619    | 12.74 | 286920    | 19.36 | 360511    | 22.71 |
| 02    | INTRA-LAB CH | 301329    | 12.74 | 304297    | 19.36 | 372210    | 22.72 |
| 03    | DF/S1/D151/S | 282661    | 12.73 | 292765    | 19.35 | 354228    | 22.71 |
| MS 04 | DF/S1/D151/S | 282782    | 12.73 | 295814    | 19.35 | 364207    | 22.71 |
| MS 05 | DF/S1/D151/S | 276545    | 12.74 | 280321    | 19.36 | 350563    | 22.72 |
| 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.

## PESTICIDE SUMMARY



659 724

## UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E310132 001

Method: SW846 8081A

Pesticides (8081A)

Sample WT/Vol: 100 / mL

Date Received: 05/31/00

Work Order: DE022104

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/05/00

Moisture %: 14

QC Batch: 0154358

Client Sample Id: DF/S1/D151/SDC/005

| 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 |

FORM I

UXB INTERNATIONAL  
MATRIX SPIKE COMPOUNDS

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

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

Lab Sample ID: C0E310132 001

Sample WT/Vol: 100 / mL  
Work Order: DE02210Q  
Dilution factor: 1  
Moisture %: 14

Date Received: 05/31/00  
Date Extracted: 06/02/00  
Date Analyzed: 06/05/00

QC Batch: 0154358

Client Sample Id: DF/S1/D151/SDC/005

| CAS NO.   | COMPOUND           | CONCENTRATION UNITS: |      | Q |
|-----------|--------------------|----------------------|------|---|
|           |                    | (ug/L or ug/kg)      | mg/L |   |
| 72-20-8   | Endrin             | 0.00220              |      |   |
| 76-44-8   | Heptachlor         | 0.00197              |      |   |
| 1024-57-3 | Heptachlor epoxide | 0.00200              |      |   |
| 58-89-9   | Lindane            | 0.00169              |      |   |
| 72-43-5   | Methoxychlor       | 0.00262              |      |   |

659 726

UXB INTERNATIONAL  
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E310132 001

Method: SW846 8081A

Pesticides (8081A)

Sample WT/Vol: 100 / mL

Date Received: 05/31/00

Work Order: DE02210R

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/06/00

Moisture %: 14

QC Batch: 0154358

Client Sample Id: DF/S1/D151/SDC/005

| CAS NO.   | COMPOUND           | CONCENTRATION UNITS: |   |
|-----------|--------------------|----------------------|---|
|           |                    | (ug/L or ug/kg) mg/L | Q |
| 72-20-8   | Endrin             | 0.00221              |   |
| 76-44-8   | Heptachlor         | 0.00199              |   |
| 1024-57-3 | Heptachlor epoxide | 0.00203              |   |
| 58-89-9   | Lindane            | 0.00172              |   |
| 72-43-5   | Methoxychlor       | 0.00269              |   |

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: C0F020000 358

Sample WT/Vol: 100 / mL  
Work Order: DE52F102  
Dilution factor: 1  
Moisture %: NA

Date Received: 05/31/00  
Date Extracted: 06/02/00  
Date Analyzed: 06/06/00

QC Batch: 0154358

Client Sample Id: CHECK SAMPLE

|           |                    | CONCENTRATION UNITS: |   |
|-----------|--------------------|----------------------|---|
| CAS NO.   | COMPOUND           | (ug/L or ug/kg) mg/L | Q |
| 72-20-8   | Endrin             | 0.00243              |   |
| 76-44-8   | Heptachlor         | 0.00228              |   |
| 1024-57-3 | Heptachlor epoxide | 0.00230              |   |
| 58-89-9   | Lindane            | 0.00202              |   |
| 72-43-5   | Methoxychlor       | 0.00282              |   |

659 728

## SW846 8081A SURROGATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

QESSDG:

Lot #: C0E310132

|    | CLIENT ID.           | SRG01 | SRG02 | TOT OUT |
|----|----------------------|-------|-------|---------|
|    | =====                | ===== | ===== | =====   |
| 01 | DF/S1/D151/SDC/005   | 104   | 88    | 00      |
| 02 | METHOD BLK. DE52F101 | 116   | 99    | 00      |
| 03 | LCS DE52F102         | 115   | 99    | 00      |
| 04 | DF/S1/D151/SDC/005 D | 108   | 86    | 00      |
| 05 | DF/S1/D151/SDC/005 S | 105   | 86    | 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

## SW846 8081A CHECK SAMPLE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: C0F020000

WO #: DE52F102

BATCH: 0154358

| COMPOUND           | SPIKE<br>ADDED<br>(mg/L ) | SAMPLE<br>CONCENT.<br>(mg/L ) | %<br>REC | QC<br>LIMITS<br>REC | QUAL  |
|--------------------|---------------------------|-------------------------------|----------|---------------------|-------|
| =====              | =====                     | =====                         | =====    | =====               | ===== |
| Lindane            | 0.00250                   | 0.00202                       | 81       | 49 - 137            |       |
| Heptachlor         | 0.00250                   | 0.00228                       | 91       | 57 - 124            |       |
| Heptachlor epoxide | 0.00250                   | 0.00230                       | 92       | 53 - 135            |       |
| Endrin             | 0.00250                   | 0.00243                       | 97       | 46 - 137            |       |
| Methoxychlor       | 0.00250                   | 0.00282                       | 113      | 12 - 154            |       |

NOTES (S) :

\* Values outside of QC limits

Spike Recovery:   0   out of   5   outside limits

COMMENTS:

FORM III

659 730 SW846 8081A 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/D151/SDC/005

Level: (low/med) LOW

Lot #: C0E310132

WO #: DE02210Q

BATCH: 0154358

| COMPOUND           | SPIKE<br>ADDED<br>(mg/L ) | SAMPLE<br>CONCENT.<br>(mg/L ) | MS<br>CONCENT.<br>(mg/L ) | MS<br>%<br>REC | LIMITS<br>REC | QUAL |
|--------------------|---------------------------|-------------------------------|---------------------------|----------------|---------------|------|
| Lindane            | 0.00250                   | ND                            | 0.00169                   | 68             | 30 - 148      |      |
| Heptachlor         | 0.00250                   | ND                            | 0.00197                   | 79             | 25 - 135      |      |
| Heptachlor epoxide | 0.00250                   | ND                            | 0.00200                   | 80             | 38 - 138      |      |
| Endrin             | 0.00250                   | ND                            | 0.00220                   | 88             | 28 - 148      |      |
| Methoxychlor       | 0.00250                   | ND                            | 0.00262                   | 105            | 13 - 154      |      |

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 5 outside limits

COMMENTS:

FORM III

## SW846 8081A 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/D151/SDC/005

Level: (low/med) LOW

Lot #: C0E310132

WO #: DE02210R

BATCH: 0154358

| COMPOUND           | SPIKE<br>ADDED<br>(mg/L ) | MSD<br>CONCENT.<br>(mg/L ) | MSD      |          | QC LIMITS |          |  | QUAL |
|--------------------|---------------------------|----------------------------|----------|----------|-----------|----------|--|------|
|                    |                           |                            | %<br>REC | %<br>RPD | RPD       | REC      |  |      |
| Endrin             | 0.00250                   | 0.00221                    | 88       | 0.32     | 40        | 28 - 148 |  |      |
| Lindane            | 0.00250                   | 0.00172                    | 69       | 2.0      | 22        | 30 - 148 |  |      |
| Heptachlor         | 0.00250                   | 0.00199                    | 80       | 1.1      | 32        | 25 - 135 |  |      |
| Heptachlor epoxide | 0.00250                   | 0.00203                    | 81       | 1.2      | 31        | 38 - 138 |  |      |
| Methoxychlor       | 0.00250                   | 0.00269                    | 108      | 2.4      | 29        | 13 - 154 |  |      |

## NOTES (S) :

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

RPD: 0 out of 5 outside limits  
 Spike Recovery: 0 out of 5 outside limits

COMMENTS:



659 732 SW846 8081A METHOD BLANK SUMMARY

BLANK WORKORDER NO.

DE52F101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID:

Lot Number: COE310132

Matrix: SOLID

Extraction Method: 1311/3510

Date Extracted: 06/02/00

Date Analyzed(1): 06/06/00

Date Analyzed(2): N/A

Time Analyzed(1): 00:00

Time Analyzed(2): N/A

Instrument ID(1): E/F

Instrument ID(2): N/A

GC Column(1): N/A

ID: N/A

GC Column(2): N/A

ID: N/A

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

|    | CLIENT ID.         | SAMPLE<br>WORK ORDER # | DATE<br>ANALYZED (1) | DATE<br>ANALYZED (2) |
|----|--------------------|------------------------|----------------------|----------------------|
| 01 | DF/S1/D151/SDC/005 | DE02210Q S             | 06/05/00             | N/A                  |
| 02 | DF/S1/D151/SDC/005 | DE02210R D             | 06/06/00             | N/A                  |
| 03 | DF/S1/D151/SDC/005 | DE022104               | 06/05/00             | N/A                  |
| 04 | CHECK SAMPLE       | DE52F102 C             | 06/06/00             | N/A                  |
| 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: C0F020000 358  
Method: SW846 8081A  
Pesticides (8081A)

Sample WT/Vol: 100 / mL      Date Received: 05/31/00  
Work Order: DE52F101      Date Extracted: 06/02/00  
Dilution factor: 1      Date Analyzed: 06/06/00  
Moisture %: NA

QC Batch: 0154358

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 |

659 734

## HERBICIDE SUMMARY

## UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E310132 001

Method: SW846 8151A

Herbicides (8151A)

Sample WT/Vol: 100 / mL

Date Received: 05/31/00

Work Order: DE022105

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/05/00

Moisture %: 14

QC Batch: 0154362

Client Sample Id: DF/S1/D151/SDC/005

|         |                   | 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 |

659 736

UXB INTERNATIONAL  
MATRIX SPIKE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E310132 001

Method: SW846 8151A

Herbicides (8151A)

Sample WT/Vol: 100 / mL

Date Received: 05/31/00

Work Order: DE02210T

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/05/00

Moisture %: 14

QC Batch: 0154362

Client Sample Id: DF/S1/D151/SDC/005

| CAS NO. | COMPOUND          | CONCENTRATION UNITS: |   |
|---------|-------------------|----------------------|---|
|         |                   | (ug/L or ug/kg) mg/L | Q |
| 94-75-7 | 2,4-D             | 0.157                |   |
| 93-72-1 | 2,4,5-TP (Silvex) | 0.0386               |   |

UXB INTERNATIONAL  
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E310132 001

Method: SW846 8151A

Herbicides (8151A)

Sample WT/Vol: 100 / mL

Date Received: 05/31/00

Work Order: DE02210U

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/05/00

Moisture %: 14

QC Batch: 0154362

Client Sample Id: DF/S1/D151/SDC/005

## CONCENTRATION UNITS:

| CAS NO. | COMPOUND          | (ug/L or ug/kg) mg/L | Q |
|---------|-------------------|----------------------|---|
| 94-75-7 | 2,4-D             | 0.162                |   |
| 93-72-1 | 2,4,5-TP (Silvex) | 0.0388               |   |

650 738

UXB INTERNATIONAL  
CHECK SAMPLE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0F020000 362

Method: SW846 8151A

Herbicides (8151A)

Sample WT/Vol: 100 / mL

Date Received: 05/31/00

Work Order: DE533102

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/05/00

Moisture %: NA

QC Batch: 0154362

Client Sample Id: CHECK SAMPLE

| CAS NO. | COMPOUND          | CONCENTRATION UNITS: |   |
|---------|-------------------|----------------------|---|
|         |                   | (ug/L or ug/kg) mg/L | Q |
| 94-75-7 | 2,4-D             | 0.154                |   |
| 93-72-1 | 2,4,5-TP (Silvex) | 0.0372               |   |

## SW846 8151A SURROGATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT QESSDG:

Lot #: C0E310132

|    | CLIENT ID.           | SRG01 | TOT OUT |
|----|----------------------|-------|---------|
|    | =====                | ===== | =====   |
| 01 | DF/S1/D151/SDC/005   | 69    | 00      |
| 02 | METHOD BLK. DE533101 | 93    | 00      |
| 03 | LCS DE533102         | 101   | 00      |
| 04 | DF/S1/D151/SDC/005 D | 56    | 00      |
| 05 | DF/S1/D151/SDC/005 S | 56    | 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



## SW846 8151A CHECK SAMPLE RECOVERY

659 740

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: C0F020000

WO #: DE533102

BATCH: 0154362

| COMPOUND          | SPIKE<br>ADDED<br>(mg/L ) | SAMPLE<br>CONCENT.<br>(mg/L ) | %<br>REC | QC<br>LIMITS<br>REC | QUAL  |
|-------------------|---------------------------|-------------------------------|----------|---------------------|-------|
| =====             | =====                     | =====                         | =====    | =====               | ===== |
| 2,4-D             | 0.160                     | 0.154                         | 96       | 28 - 136            |       |
| 2,4,5-TP (Silvex) | 0.0400                    | 0.0372                        | 93       | 50 - 128            |       |

NOTES(S) :

\* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS:

FORM III

## SW846 8151A 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/D151/SDC/005

Lot #: C0E310132

WO #: DE02210T

BATCH: 0154362

| COMPOUND          | SPIKE<br>ADDED<br>(mg/L ) | SAMPLE<br>CONCENT.<br>(mg/L ) | MS<br>CONCENT.<br>(mg/L ) | MS<br>%<br>REC | LIMITS<br>REC | QUAL  |
|-------------------|---------------------------|-------------------------------|---------------------------|----------------|---------------|-------|
| =====             | =====                     | =====                         | =====                     | =====          | =====         | ===== |
| 2,4,5-TP (Silvex) | 0.0400                    | ND                            | 0.0386                    | 97             | 50 - 131      |       |
| 2,4-D             | 0.160                     | ND                            | 0.157                     | 98             | 35 - 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 limits  
 Spike Recovery:   0   out of   2   outside limits

COMMENTS:

## 659 742 SW846 8151A 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/D151/SDC/005

Lot #: C0E310132

WO #: DE02210U

BATCH: 0154362

| COMPOUND          | SPIKE            | MSD                 | MSD      | QC LIMITS |     |          | QUAL |
|-------------------|------------------|---------------------|----------|-----------|-----|----------|------|
|                   | ADDED<br>(mg/L ) | CONCENT.<br>(mg/L ) | %<br>REC | %<br>RPD  | RPD | REC      |      |
| 2,4-D             | 0.160            | 0.162               | 101      | 3.4       | 20  | 35 - 133 |      |
| 2,4,5-TP (Silvex) | 0.0400           | 0.0388              | 97       | 0.51      | 20  | 50 - 131 |      |

## NOTES(S) :

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

RPD:   0   out of   2   outside limits  
Spike Recovery:   0   out of   2   outside limits

COMMENTS:

## SW846 8151A METHOD BLANK SUMMARY

BLANK WORKORDER NO.

DE533101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: a-a30147.

Lot Number: C0E310132

Matrix: SOLID

Extraction Method:

Date Extracted: 06/02/00

Date Analyzed(1): 06/05/00

Date Analyzed(2): N/A

Time Analyzed(1): 18:54

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<br>WORK ORDER # | DATE<br>ANALYZED (1) | DATE<br>ANALYZED (2) |
|----|--------------------|------------------------|----------------------|----------------------|
| 01 | DF/S1/D151/SDC/005 | DE02210T S             | 06/05/00             | N/A                  |
| 02 | DF/S1/D151/SDC/005 | DE02210U D             | 06/05/00             | N/A                  |
| 03 | DF/S1/D151/SDC/005 | DE022105               | 06/05/00             | N/A                  |
| 04 | CHECK SAMPLE       | DE533102 C             | 06/05/00             | N/A                  |
| 05 |                    |                        |                      |                      |
| 06 |                    |                        |                      |                      |
| 07 |                    |                        |                      |                      |
| 08 |                    |                        |                      |                      |
| 09 |                    |                        |                      |                      |
| 10 |                    |                        |                      |                      |
| 11 |                    |                        |                      |                      |
| 12 |                    |                        |                      |                      |
| 13 |                    |                        |                      |                      |
| 14 |                    |                        |                      |                      |
| 15 |                    |                        |                      |                      |
| 16 |                    |                        |                      |                      |
| 17 |                    |                        |                      |                      |
| 18 |                    |                        |                      |                      |
| 19 |                    |                        |                      |                      |
| 20 |                    |                        |                      |                      |

COMMENTS:

FORM IV

659 744

UXB INTERNATIONAL  
METHOD BLANK COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0F020000 362

Method: SW846 8151A

Herbicides (8151A)

Sample WT/Vol: 100 / mL

Date Received: 05/31/00

Work Order: DE533101

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/05/00

Moisture %: NA

QC Batch: 0154362

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 |

## METALS SUMMARY

659 746

## STL-Pittsburgh

## Metals Data Reporting Form

Sample Results

Lab Sample ID: DE022 Client ID: DF/S1/D151/SDC/005  
Matrix: Soil Units: mg/kg Prep Date: 6/2/00 Prep Batch: 0154244  
Weight: 1.00 Volume: 100 Percent Moisture: 85.54

| Element | WL/<br>Mass | MDL | Report<br>Limit | Conc | Q | DF | Instr | Anal<br>Date | Anal<br>Time |
|---------|-------------|-----|-----------------|------|---|----|-------|--------------|--------------|
| Arsenic | 189.04      | 1.8 | 6.9             | 56.7 |   | 1  | ICPST | 6/5/00       | 10:44        |

Comments: Lot #: C0E310132 Sample #: 1

Version 3.63 4

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

*Form 1 Equivalent*

## STL-Pittsburgh

## Metals Data Reporting Form

## Initial Calibration Blank Results

Instrument: ICPSTUnits: ug/LChart Number: T00605A.ARC

Standard Source: \_\_\_\_\_

Standard ID: \_\_\_\_\_

| Element | WL/<br>Mass | Report<br>Limit | ICB1<br>6/5/00<br>8:46 AM | Found    Q | Found    Q | Found    Q | Found    Q | Found    Q |
|---------|-------------|-----------------|---------------------------|------------|------------|------------|------------|------------|
|         |             |                 | Found    Q                |            |            |            |            |            |
| Arsenic | 189.042     | 10              | 2.6    U                  |            |            |            |            |            |



# STL-Pittsburgh

659 748

## Metals Data Reporting Form

### Continuing Calibration Blank Results

Instrument: ICPST

Units: ug/L

Chart Number: T00605A.ARC

Standard Source: \_\_\_\_\_

Standard ID: \_\_\_\_\_

| Element | WL/<br>Mass | Report<br>Limit | CCB1<br>6/5/00<br>9:38 AM | CCB2<br>6/5/00<br>10:27 AM | CCB3<br>6/5/00<br>11:17 AM |         |         |
|---------|-------------|-----------------|---------------------------|----------------------------|----------------------------|---------|---------|
|         |             |                 | Found Q                   | Found Q                    | Found Q                    | Found Q | Found Q |
| Arsenic | 189.042     | 10              | 2.6 U                     | 2.6 U                      | 2.6 U                      |         |         |

**STL-Pittsburgh**  
**Metals Data Reporting Form**

**Preparation Blank Results****Lab Sample ID:** DE3QGB**Matrix:** Soil      **Units:** mg/kg      **Prep Date:** 6/2/00      **Prep Batch:** 0154244**Weight:** 1.00      **Volume:** 100      **Percent Moisture:** NA

| Element | WL/<br>Mass | MDL  | Report<br>Limit | Conc | Q | DF | Instr | Anal<br>Date | Anal<br>Time |
|---------|-------------|------|-----------------|------|---|----|-------|--------------|--------------|
| Arsenic | 189.042     | 0.26 | 1.0             | 0.26 | U | 1  | ICPST | 6/5/00       | 10:36        |

**Comments:** Lot #: C0E310132

Version 3.63.4

U Result is less than the MDL  
B Result is between MDL and RL*Form 3 Equivalent*

# STL-Pittsburgh

659 750

## Metals Data Reporting Form

### Matrix Spike Sample Results

Spike Sample ID: DE022S  
 Original Sample ID: DE022 Client ID: DF/S1/D151/SDC/005S  
 Matrix: Soil Units: mg/kg Prep Date: 6/2/00 Prep Batch: 0154244  
 Weight: 1.00 Volume: 100 Percent Moisture: 85.54

| Element | WL/<br>Mass | OS<br>Conc | Q | MS<br>Conc | Q | Spike<br>Level | %<br>Rec | OS<br>DF | MS<br>DF | Instr | OS<br>Anal<br>Date | OS<br>Anal<br>Time | MS<br>Anal<br>Date | MS<br>Anal<br>Time |
|---------|-------------|------------|---|------------|---|----------------|----------|----------|----------|-------|--------------------|--------------------|--------------------|--------------------|
| Arsenic | 189.0       | 56.7       |   | 1320       |   | 1383.1         | 91.2     | 1        | 1        | ICPST | 6/5/00             | 10:44              | 6/5/00             | 10:52              |

Comments: Lot #: C0E310132 Sample #: 1

Version 3.63.4

- 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 Sample Results

Spike Sample ID: DE022D

Original Sample ID: DE022 Client ID: DF/S1/D151/SDC/005D

Matrix: Soil Units: mg/kg Prep Date: 6/2/00 Prep Batch: 0154244

Weight: 1.00 Volume: 100 Percent Moisture: 85.54

| Element | WL/<br>Mass | OS<br>Conc | Q | MSD<br>Conc | Q | Spike<br>Level | %<br>Rec | OS<br>DF | MSD<br>DF | Instr | OS<br>Anal<br>Date | OS<br>Anal<br>Time | MSD<br>Anal<br>Date | MSD<br>Anal<br>Time |
|---------|-------------|------------|---|-------------|---|----------------|----------|----------|-----------|-------|--------------------|--------------------|---------------------|---------------------|
| Arsenic | 189.0       | 56.7       |   | 1300        |   | 1383.1         | 89.9     | 1        | 1         | ICPST | 6/5/00             | 10:44              | 6/5/00              | 11:09               |

Comments: Lot #: C0E310132 Sample #: 1

Version 3.63.4

U Result is less than the MDL  
 B Result is between MDL and RL  
 N Spike recovery failed  
 NC Percent recovery was not calculated

Form 5A Equivalent

659 752

## STL-Pittsburgh

## Metals Data Reporting Form

## Matrix Spike Duplicate RPD Report

Matrix Spike Duplicate Sample ID: DE022DMatrix Spike Sample ID: DE022S Client ID: DF/S1/D151/SDC/005DMatrix: Soil Units: mg/kg Prep Date: 6/2/00 Prep Batch: 0154244Weight: 1.00 Volume: 100 Percent Moisture: 85.54

| Element | WL/<br>Mass | MS<br>Conc | Q | MSD<br>Conc | Q | RPD   | MS<br>DF | MSD<br>DF | Instr | MS<br>Anal<br>Date | MS<br>Anal<br>Time | MSD<br>Anal<br>Date | MSD<br>Anal<br>Time |
|---------|-------------|------------|---|-------------|---|-------|----------|-----------|-------|--------------------|--------------------|---------------------|---------------------|
| Arsenic | 189.042     | 1320       |   | 1300        |   | 1.4 % | 1        | 1         | ICPST | 6/5/00             | 10:52              | 6/5/00              | 11:09               |

Comments: Lot #: C0E310132 Sample # 1

Version 3.63.4

- 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

## STL-Pittsburgh

## Metals Data Reporting Form

## Laboratory Control Sample Results

Lab Sample ID: DE3QGCMatrix: Soil Units: mg/kg Prep Date: 6/2/00 Prep Batch: 0154244Weight: 1.00 Volume: 100 Percent Moisture: NA

| Element | WL/<br>Mass | Spike<br>Level | Conc | Percent<br>Recovery | Q | Range  | DF | Instr | Anal<br>Date | Anal<br>Time |
|---------|-------------|----------------|------|---------------------|---|--------|----|-------|--------------|--------------|
| Arsenic | 189.042     | 200            | 212  | 106.1               |   | 80-120 | 1  | ICPST | 6/5/00       | 10:40        |

Comments: Lot #: C0E310132

Version 3.63.4

STL Pittsburgh

U Result is less than the MDL

B Result is between MDL and RL

Form 7 Equivalent

659 754

**TCLP METALS SUMMARY**

## STL-Pittsburgh

## Metals Data Reporting Form

Sample Results

Lab Sample ID: DE022T Client ID: DF/S1/D151/SDC/005  
Matrix: Water Units: mg/L Prep Date: 6/3/00 Prep Batch: 0155091  
Weight: NA Volume: 100 Percent Moisture: NA

| Element | WL/<br>Mass | MDL      | Report<br>Limit | Conc     | Q | DF | Instr | Anal<br>Date | Anal<br>Time |
|---------|-------------|----------|-----------------|----------|---|----|-------|--------------|--------------|
| Mercury | 253.7       | 0.000045 | 0.00020         | 0.000045 | U | 1  | CVAA  | 6/3/00       | 8:20         |

Comments: \_\_\_\_\_

Version 3.63.4

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

*Form I Equivalent*



650 756

## STL-Pittsburgh

## Metals Data Reporting Form

Sample ResultsLab Sample ID: DE022TClient ID: DF/S1/D151/SDC/005Matrix: WaterUnits: mg/LPrep Date: 6/3/00Prep Batch: 0155096Weight: NAVolume: 50Percent Moisture: NA

| Element  | WL/<br>Mass | MDL     | Report<br>Limit | Conc   | Q | DF | Instr | Anal<br>Date | Anal<br>Time |
|----------|-------------|---------|-----------------|--------|---|----|-------|--------------|--------------|
| Arsenic  | 193.7       | 0.030   | 0.50            | 0.11   | B | 1  | ICP   | 6/4/00       | 21:07        |
| Barium   | 493.41      | 0.00041 | 10.0            | 1.2    | B | 1  | ICP   | 6/4/00       | 21:07        |
| Cadmium  | 228.80      | 0.0028  | 0.10            | 0.0028 | U | 1  | ICP   | 6/4/00       | 21:07        |
| Chromium | 267.72      | 0.0038  | 0.50            | 0.0055 | B | 1  | ICP   | 6/4/00       | 21:07        |
| Lead     | 220.35      | 0.025   | 0.50            | 0.025  | U | 1  | ICP   | 6/4/00       | 21:07        |
| Selenium | 196.03      | 0.067   | 0.25            | 0.067  | U | 1  | ICP   | 6/4/00       | 21:07        |
| Silver   | 328.07      | 0.0031  | 0.50            | 0.0031 | U | 1  | ICP   | 6/4/00       | 21:07        |

Comments. C0E310132001

Version 3.63.4

U Result is less than the MDL

B Result is between MDL and RL

Form 1 Equivalent

## STL-Pittsburgh

## Metals Data Reporting Form

## Initial Calibration Blank Results

Instrument: CVAAUnits: ug/LChart Number: 0603HGA.PRN

Standard Source: \_\_\_\_\_

Standard ID: \_\_\_\_\_

|         |             |                 | ICB1<br>6/3/00<br>7:25 AM |   |       |   |       |   |
|---------|-------------|-----------------|---------------------------|---|-------|---|-------|---|
| Element | WL/<br>Mass | Report<br>Limit | Found                     | Q | Found | Q | Found | Q |
| Mercury | 253.7       | 0.2             | 0.0                       | U |       |   |       |   |

659 758

## STL-Pittsburgh

## Metals Data Reporting Form

## Initial Calibration Blank Results

Instrument: ICPUnits: ug/LChart Number: J00604B.ARC

Standard Source: \_\_\_\_\_

Standard ID: \_\_\_\_\_

| Element  | WL/<br>Mass | Report<br>Limit | ICBI<br>6/4/00<br>6:55 PM |   |       |   |       |   |       |   |
|----------|-------------|-----------------|---------------------------|---|-------|---|-------|---|-------|---|
|          |             |                 | 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             | 24.6                      | U |       |   |       |   |       |   |
| Selenium | 196.026     | 250             | 67.4                      | U |       |   |       |   |       |   |
| Silver   | 328.068     | 500             | 3.1                       | U |       |   |       |   |       |   |

## STL-Pittsburgh

## Metals Data Reporting Form

## Continuing Calibration Blank Results

Instrument: CVAAUnits: ug/LChart Number: 0603HGA.PRN

Standard Source: \_\_\_\_\_

Standard ID: \_\_\_\_\_

| Element | WL/<br>Mass | Report<br>Limit | CCB1<br>6/3/00<br>7:32 AM |   | CCB2<br>6/3/00<br>7:58 AM |   | CCB3<br>6/3/00<br>8:26 AM |   | CCB4<br>6/3/00<br>8:51 AM |   |       |   |
|---------|-------------|-----------------|---------------------------|---|---------------------------|---|---------------------------|---|---------------------------|---|-------|---|
|         |             |                 | Found                     | Q | Found                     | Q | Found                     | Q | Found                     | Q | Found | Q |
| Mercury | 253.7       | 0.2             | 0.0                       | U | -0.1                      | B | 0.0                       | U | 0.0                       | U |       |   |

# STL-Pittsburgh

659 760

## Metals Data Reporting Form

### Continuing Calibration Blank Results

Instrument: ICP

Units: ug/L

Chart Number: J00604B.ARC

Standard Source: \_\_\_\_\_

Standard ID: \_\_\_\_\_

| Element  | WL/<br>Mass | Report<br>Limit | CCB1<br>6/4/00<br>7:33 PM | CCB2<br>6/4/00<br>8:11 PM | CCB3<br>6/4/00<br>8:48 PM | CCB4<br>6/4/00<br>9:22 PM |       |   |
|----------|-------------|-----------------|---------------------------|---------------------------|---------------------------|---------------------------|-------|---|
|          |             |                 | 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                    |       |   |
| Barium   | 493.409     | 10000           | 0.4 U                     | 0.4 U                     | 0.4 U                     | 0.8 B                     |       |   |
| Cadmium  | 228.802     | 100             | 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                     |       |   |
| Lead     | 220.353     | 500             | 24.6 U                    | 24.6 U                    | 24.6 U                    | 24.6 U                    |       |   |
| Selenium | 196.026     | 250             | 67.4 U                    | 67.4 U                    | 67.4 U                    | 67.4 U                    |       |   |
| Silver   | 328.068     | 500             | 3.1 U                     | 3.1 U                     | 3.1 U                     | 3.1 U                     |       |   |

**STL-Pittsburgh**  
**Metals Data Reporting Form**

**Preparation Blank Results****Lab Sample ID:** DE3GABT**Matrix:** Water      **Units:** mg/L      **Prep Date:** 6/3/00      **Prep Batch:** 0155091**Weight:** NA      **Volume:** 100      **Percent Moisture:** NA

| Element | WL/<br>Mass | MDL      | Report<br>Limit | Conc      | Q | DF | Instr | Anal<br>Date | Anal<br>Time |
|---------|-------------|----------|-----------------|-----------|---|----|-------|--------------|--------------|
| Mercury | 253.7       | 0.000045 | 0.00020         | -0.000054 | B | 1  | CVAA  | 6/3/00       | 7:38         |

**Comments:** \_\_\_\_\_

Version 3.63.4

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

*Form 3 Equivalent*

# STL-Pittsburgh

659 762

## Metals Data Reporting Form

### Preparation Blank Results

Lab Sample ID: DE58KBT

Matrix: Water Units: mg/L Prep Date: 6/3/00 Prep Batch: 0155091

Weight: NA Volume: 100 Percent Moisture: NA

| Element | WL/<br>Mass | MDL      | Report<br>Limit | Conc     | Q | DF | Instr | Anal<br>Date | Anal<br>Time |
|---------|-------------|----------|-----------------|----------|---|----|-------|--------------|--------------|
| Mercury | 253.7       | 0.000045 | 0.00020         | 0.000045 | U | 1  | CVAA  | 6/3/00       | 7:34         |

Comments: \_\_\_\_\_

Version 3.63.4

U Result is less than the MDL

Form 3 Equivalent

B Result is between MDL and RL

**STL-Pittsburgh**  
**Metals Data Reporting Form**

**Preparation Blank Results**
**Lab Sample ID:** DE3GABT
**Matrix:** Water      **Units:** mg/L      **Prep Date:** 6/3/00      **Prep Batch:** 0155096
**Weight:** NA      **Volume:** 50      **Percent Moisture:** NA

| Element  | WL/<br>Mass | MDL     | Report<br>Limit | Conc   | Q | DF | Instr | Anal<br>Date | Anal<br>Time |
|----------|-------------|---------|-----------------|--------|---|----|-------|--------------|--------------|
| Arsenic  | 193.696     | 0.030   | 0.50            | 0.12   | B | 1  | ICP   | 6/4/00       | 20:01        |
| Barium   | 493.409     | 0.00041 | 10.0            | 0.0040 | B | 1  | ICP   | 6/4/00       | 20:01        |
| Cadmium  | 228.802     | 0.0028  | 0.10            | 0.0028 | U | 1  | ICP   | 6/4/00       | 20:01        |
| Chromium | 267.716     | 0.0038  | 0.50            | 0.0038 | U | 1  | ICP   | 6/4/00       | 20:01        |
| Lead     | 220.353     | 0.025   | 0.50            | 0.025  | U | 1  | ICP   | 6/4/00       | 20:01        |
| Selenium | 196.026     | 0.067   | 0.25            | 0.067  | U | 1  | ICP   | 6/4/00       | 20:01        |
| Silver   | 328.068     | 0.0031  | 0.50            | 0.0031 | U | 1  | ICP   | 6/4/00       | 20:01        |

**Comments:** \_\_\_\_\_

Version 3.63.4

U Result is less than the MDL

B Result is between MDL and RL

*Form 3 Equivalent*



659 764

## STL-Pittsburgh

## Metals Data Reporting Form

## Preparation Blank Results

Lab Sample ID: DE58WBTMatrix: Water Units: mg/L Prep Date: 6/3/00 Prep Batch: 0155096Weight: NA Volume: 50 Percent Moisture: NA

| Element  | WL/<br>Mass | MDL     | Report<br>Limit | Conc    | Q | DF | Instr | Anal<br>Date | Anal<br>Time |
|----------|-------------|---------|-----------------|---------|---|----|-------|--------------|--------------|
| Arsenic  | 193.696     | 0.030   | 0.50            | 0.030   | U | 1  | ICP   | 6/4/00       | 19:55        |
| Barium   | 493.409     | 0.00041 | 10.0            | 0.00041 | U | 1  | ICP   | 6/4/00       | 19:55        |
| Cadmium  | 228.802     | 0.0028  | 0.10            | 0.0028  | U | 1  | ICP   | 6/4/00       | 19:55        |
| Chromium | 267.716     | 0.0038  | 0.50            | 0.0038  | U | 1  | ICP   | 6/4/00       | 19:55        |
| Lead     | 220.353     | 0.025   | 0.50            | 0.025   | U | 1  | ICP   | 6/4/00       | 19:55        |
| Selenium | 196.026     | 0.067   | 0.25            | 0.067   | U | 1  | ICP   | 6/4/00       | 19:55        |
| Silver   | 328.068     | 0.0031  | 0.50            | 0.0031  | U | 1  | ICP   | 6/4/00       | 19:55        |

Comments: \_\_\_\_\_

Version 3.63.4

U Result is less than the MDL

Form 3 Equivalent

B Result is between MDL and RL

## Metals Data Reporting Form

## Matrix Spike Sample Results

Spike Sample ID: DE022ST  
Original Sample ID: DE022T Client ID: DF/S1/D151/SDC/005S  
Matrix: Water Units: mg/L Prep Date: 6/3/00 Prep Batch: 0155091  
Weight: NA Volume: 100 Percent Moisture: NA

| Element | WL/<br>Mass | OS<br>Conc | Q | MS<br>Conc | Q | Spike<br>Level | %<br>Rec | OS<br>DF | MS<br>DF | Instr | OS<br>Anal<br>Date | OS<br>Anal<br>Time | MS<br>Anal<br>Date | MS<br>Anal<br>Time |
|---------|-------------|------------|---|------------|---|----------------|----------|----------|----------|-------|--------------------|--------------------|--------------------|--------------------|
| Mercury | 253.7       | 0.000045   | U | 0.0050     |   | 0.005          | 99.4     | 1        | 1        | CVAA  | 6/3/00             | 8:20               | 6/3/00             | 8:28               |

Comments. \_\_\_\_\_

Version 3.63.4

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

659 766

## STL-Pittsburgh

## Metals Data Reporting Form

## Matrix Spike Duplicate Sample Results

Spike Sample ID: DE022DT

Original Sample ID: DE022T Client ID: DF/S1/D151/SDC/005D

Matrix: Water Units: mg/L Prep Date: 6/3/00 Prep Batch: 0155091

Weight: NA Volume: 100 Percent Moisture: NA

| Element | WL/<br>Mass | OS<br>Conc | Q | MSD<br>Conc | Q | Spike<br>Level | %<br>Rec | OS<br>DF | MSD<br>DF | Instr | OS<br>Anal<br>Date | OS<br>Anal<br>Time | MSD<br>Anal<br>Date | MSD<br>Anal<br>Time |
|---------|-------------|------------|---|-------------|---|----------------|----------|----------|-----------|-------|--------------------|--------------------|---------------------|---------------------|
| Mercury | 253.7       | 0.000045   | U | 0.0050      |   | 0.005          | 99.8     | 1        | 1         | CVAA  | 6/3/00             | 8:20               | 6/3/00              | 8:30                |

Comments:

Version 3.63.4

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

## Metals Data Reporting Form

## Matrix Spike Sample Results

Spike Sample ID: DE022ST  
 Original Sample ID: DE022T Client ID: DF/S1/D151/SDC/005S  
 Matrix: Water Units: mg/L Prep Date: 6/3/00 Prep Batch: 0155096  
 Weight: NA Volume: 50 Percent Moisture: NA

| Element  | WL/<br>Mass | OS<br>Conc | Q | MS<br>Conc | Q | Spike<br>Level | %<br>Rec | OS<br>DF | MS<br>DF | Instr | OS<br>Anal<br>Date | OS<br>Anal<br>Time | MS<br>Anal<br>Date | MS<br>Anal<br>Time |
|----------|-------------|------------|---|------------|---|----------------|----------|----------|----------|-------|--------------------|--------------------|--------------------|--------------------|
| Arsenic  | 193.7       | 0.11       | B | 4.8        |   | 5              | 93.1     | 1        | 1        | ICP   | 6/4/00             | 21:07              | 6/4/00             | 21:13              |
| Barium   | 493.4       | 1.2        | B | 42.9       |   | 50             | 83.5     | 1        | 1        | ICP   | 6/4/00             | 21:07              | 6/4/00             | 21:13              |
| Cadmium  | 228.8       | 0.0028     | U | 0.96       |   | 1              | 95.9     | 1        | 1        | ICP   | 6/4/00             | 21:07              | 6/4/00             | 21:13              |
| Chromium | 267.7       | 0.0055     | B | 4.4        |   | 5              | 87.4     | 1        | 1        | ICP   | 6/4/00             | 21:07              | 6/4/00             | 21:13              |
| Lead     | 220.4       | 0.025      | U | 4.5        |   | 5              | 90.2     | 1        | 1        | ICP   | 6/4/00             | 21:07              | 6/4/00             | 21:13              |
| Selenium | 196.0       | 0.067      | U | 1.0        |   | 1              | 99.7     | 1        | 1        | ICP   | 6/4/00             | 21:07              | 6/4/00             | 21:13              |
| Silver   | 328.1       | 0.0031     | U | 0.92       |   | 1              | 91.9     | 1        | 1        | ICP   | 6/4/00             | 21:07              | 6/4/00             | 21:13              |

Comments: \_\_\_\_\_

Version 3.63.4

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

# STL-Pittsburgh

659 768

## Metals Data Reporting Form

### Matrix Spike Duplicate Sample Results

Spike Sample ID: DE022DT  
 Original Sample ID: DE022T Client ID: DF/S1/D151/SDC/005D  
 Matrix: Water Units: mg/L Prep Date: 6/3/00 Prep Batch: 0155096  
 Weight: NA Volume: 50 Percent Moisture: NA

| Element  | WL/<br>Mass | OS<br>Conc | Q | MSD<br>Conc | Q | Spike<br>Level | %<br>Rec | OS<br>DF | MSD<br>DF | Instr | OS<br>Anal<br>Date | OS<br>Anal<br>Time | MSD<br>Anal<br>Date | MSD<br>Anal<br>Time |
|----------|-------------|------------|---|-------------|---|----------------|----------|----------|-----------|-------|--------------------|--------------------|---------------------|---------------------|
| Arsenic  | 193.7       | 0.11       | B | 4.5         |   | 5              | 87.9     | 1        | 1         | ICP   | 6/4/00             | 21:07              | 6/4/00              | 21:16               |
| Barium   | 493.4       | 1.2        | B | 41.5        |   | 50             | 80.6     | 1        | 1         | ICP   | 6/4/00             | 21:07              | 6/4/00              | 21:16               |
| Cadmium  | 228.8       | 0.0028     | U | 0.90        |   | 1              | 89.5     | 1        | 1         | ICP   | 6/4/00             | 21:07              | 6/4/00              | 21:16               |
| Chromium | 267.7       | 0.0055     | B | 4.1         |   | 5              | 82.1     | 1        | 1         | ICP   | 6/4/00             | 21:07              | 6/4/00              | 21:16               |
| Lead     | 220.4       | 0.025      | U | 4.2         |   | 5              | 83.2     | 1        | 1         | ICP   | 6/4/00             | 21:07              | 6/4/00              | 21:16               |
| Selenium | 196.0       | 0.067      | U | 0.94        |   | 1              | 94.1     | 1        | 1         | ICP   | 6/4/00             | 21:07              | 6/4/00              | 21:16               |
| Silver   | 328.1       | 0.0031     | U | 0.86        |   | 1              | 86.3     | 1        | 1         | ICP   | 6/4/00             | 21:07              | 6/4/00              | 21:16               |

Comments: \_\_\_\_\_

Version 3.63.4

- 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: DE022DTMatrix Spike Sample ID: DE022ST Client ID: DF/S1/D151/SDC/005DMatrix: Water Units: mg/L Prep Date: 6/3/00 Prep Batch: 0155091Weight: NA Volume: 100 Percent Moisture: NA

| Element | WL/<br>Mass | MS<br>Conc | Q | MSD<br>Conc | Q | RPD   | MS<br>DF | MSD<br>DF | Instr | MS<br>Anal<br>Date | MS<br>Anal<br>Time | MSD<br>Anal<br>Date | MSD<br>Anal<br>Time |
|---------|-------------|------------|---|-------------|---|-------|----------|-----------|-------|--------------------|--------------------|---------------------|---------------------|
| Mercury | 253.7       | 0.0050     |   | 0.0050      |   | 0.4 % | 1        | 1         | CVAA  | 6/3/00             | 8:28               | 6/3/00              | 8:30                |

Comments: \_\_\_\_\_

Version 3.63.4

- 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

# STL-Pittsburgh

659 770

## Metals Data Reporting Form

### Matrix Spike Duplicate RPD Report

Matrix Spike Duplicate Sample ID: DE022DT

Matrix Spike Sample ID: DE022ST Client ID: DF/S1/D151/SDC/005D

Matrix: Water Units: mg/L Prep Date: 6/3/00 Prep Batch: 0155096

Weight: NA Volume: 50 Percent Moisture: NA

| Element  | WL/<br>Mass | MS<br>Conc | Q | MSD<br>Conc | Q | RPD   | MS<br>DF | MSD<br>DF | Instr | MS<br>Anal<br>Date | MS<br>Anal<br>Time | MSD<br>Anal<br>Date | MSD<br>Anal<br>Time |
|----------|-------------|------------|---|-------------|---|-------|----------|-----------|-------|--------------------|--------------------|---------------------|---------------------|
| Arsenic  | 193.696     | 4.8        |   | 4.5         |   | 5.8 % | 1        | 1         | ICP   | 6/4/00             | 21:13              | 6/4/00              | 21:16               |
| Barium   | 493.409     | 42.9       |   | 41.5        |   | 3.5 % | 1        | 1         | ICP   | 6/4/00             | 21:13              | 6/4/00              | 21:16               |
| Cadmium  | 228.802     | 0.96       |   | 0.90        |   | 6.9 % | 1        | 1         | ICP   | 6/4/00             | 21:13              | 6/4/00              | 21:16               |
| Chromium | 267.716     | 4.4        |   | 4.1         |   | 6.2 % | 1        | 1         | ICP   | 6/4/00             | 21:13              | 6/4/00              | 21:16               |
| Lead     | 220.353     | 4.5        |   | 4.2         |   | 8.1 % | 1        | 1         | ICP   | 6/4/00             | 21:13              | 6/4/00              | 21:16               |
| Selenium | 196.026     | 1.0        |   | 0.94        |   | 5.8 % | 1        | 1         | ICP   | 6/4/00             | 21:13              | 6/4/00              | 21:16               |
| Silver   | 328.068     | 0.92       |   | 0.86        |   | 6.3 % | 1        | 1         | ICP   | 6/4/00             | 21:13              | 6/4/00              | 21:16               |

Comments: \_\_\_\_\_

Version 3.63.4

- 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

## STL-Pittsburgh

## Metals Data Reporting Form

## Laboratory Control Sample Results

Lab Sample ID: DE58KCTMatrix: Water Units: mg/L Prep Date: 6/3/00 Prep Batch: 0155091Weight: NA Volume: 100 Percent Moisture: NA

| Element | WL/<br>Mass | Spike<br>Level | Conc   | Percent<br>Recovery | Q | Range  | DF | Instr | Anal<br>Date | Anal<br>Time |
|---------|-------------|----------------|--------|---------------------|---|--------|----|-------|--------------|--------------|
| Mercury | 253.7       | 0.0025         | 0.0027 | 106.4               |   | 80-120 | 1  | CVAA  | 6/3/00       | 7:36         |

Comments: \_\_\_\_\_

Version 3 63.4

STL Pittsburgh

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

Form 7 Equivalent



# STL-Pittsburgh

659 772

## Metals Data Reporting Form

### Laboratory Control Sample Results

Lab Sample ID: DE58WCT

Matrix: Water Units: mg/L Prep Date: 6/3/00 Prep Batch: 0155096

Weight: NA Volume: 50 Percent Moisture: NA

| Element  | WL/<br>Mass | Spike<br>Level | Conc  | Percent<br>Recovery | Q | Range  | DF | Instr | Anal<br>Date | Anal<br>Time |
|----------|-------------|----------------|-------|---------------------|---|--------|----|-------|--------------|--------------|
| Arsenic  | 193.696     | 2.0            | 1.9   | 95.9                |   | 80-120 | 1  | ICP   | 6/4/00       | 19:58        |
| Barium   | 493.409     | 2.0            | 1.7   | 82.6                | B | 80-120 | 1  | ICP   | 6/4/00       | 19:58        |
| Cadmium  | 228.802     | 0.050          | 0.047 | 94.6                | B | 80-120 | 1  | ICP   | 6/4/00       | 19:58        |
| Chromium | 267.716     | 0.20           | 0.18  | 88.7                | B | 80-120 | 1  | ICP   | 6/4/00       | 19:58        |
| Lead     | 220.353     | 0.50           | 0.47  | 93.0                | B | 80-120 | 1  | ICP   | 6/4/00       | 19:58        |
| Selenium | 196.026     | 2.0            | 2.0   | 100.2               |   | 80-120 | 1  | ICP   | 6/4/00       | 19:58        |
| Silver   | 328.068     | 0.050          | 0.044 | 88.8                | B | 80-120 | 1  | ICP   | 6/4/00       | 19:58        |

Comments: \_\_\_\_\_

Version 3.63.4

STL Pittsburgh

U Result is less than the MDL

B Result is between MDL and RL

Form 7 Equivalent

**GENERAL CHEMISTRY SUMMARY**

UXB INTERNATIONAL

Client Sample ID: DF/S1/D151/SDC/005

659 774

General Chemistry

Lot-Sample #....: COE310132-001    Work Order #....: DE022    Matrix.....: SOLID  
 Date Sampled...: 05/30/00    Date Received...: 05/31/00  
 % Moisture.....: 14

| PARAMETER        | RESULT             | RL  | UNITS                  | METHOD            | PREPARATION-<br>ANALYSIS DATE | PREP<br>BATCH # |
|------------------|--------------------|-----|------------------------|-------------------|-------------------------------|-----------------|
| pH               | 8.0                |     | No Units               | SW846 9045C       | 05/31/00                      | 0152242         |
|                  | Dilution Factor: 1 |     | MS Run #.....: 0152098 |                   |                               |                 |
| Ignitability     | NO                 | --  | No Units               | SW846 SECTION 7.1 | 06/02/00                      | 0154264         |
|                  | Dilution Factor: 1 |     | MS Run #.....: 0154101 |                   |                               |                 |
| Percent Solids   | 85.5               |     | %                      | MCAWW 160.3 MOD   | 05/31-06/01/00                | 0152172         |
|                  | Dilution Factor: 1 |     | MS Run #.....: 0152057 |                   |                               |                 |
| Reactive Cyanide | ND                 | 200 | mg/kg                  | SW846 7.3.3       | 06/06/00                      | 0158416         |
|                  | Dilution Factor: 1 |     | MS Run #.....: 0158205 |                   |                               |                 |
| Reactive Sulfide | ND                 | 200 | mg/kg                  | SW846 7.3.4       | 06/06/00                      | 0158410         |
|                  | Dilution Factor: 1 |     | MS Run #.....: 0158200 |                   |                               |                 |

## METHOD BLANK REPORT

## General Chemistry

Client Lot #...: C0E310132

Matrix.....: SOLID

| PARAMETER        | RESULT | REPORTING<br>LIMIT            | UNITS | METHOD                          | PREPARATION-<br>ANALYSIS DATE | PREP<br>BATCH # |
|------------------|--------|-------------------------------|-------|---------------------------------|-------------------------------|-----------------|
| Reactive Cyanide | ND     | Work Order #: DE924101<br>200 | mg/kg | MB Lot-Sample #:<br>SW846 7.3.3 | A0F060000-416<br>06/06/00     | 0158416         |
|                  |        | Dilution Factor: 1            |       |                                 |                               |                 |
| Reactive Sulfide | ND     | Work Order #: DE91W101<br>200 | mg/kg | MB Lot-Sample #:<br>SW846 7.3.4 | A0F060000-410<br>06/06/00     | 0158410         |
|                  |        | Dilution Factor: 1            |       |                                 |                               |                 |

**NOTE(S) :**

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

659 776

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: C0E310132

Matrix.....: SOLID

| <u>PARAMETER</u> | <u>PERCENT<br/>RECOVERY</u> | <u>RECOVERY<br/>LIMITS</u>           | <u>METHOD</u>                                 | <u>PREPARATION-<br/>ANALYSIS DATE</u> | <u>PREP<br/>BATCH #</u> |
|------------------|-----------------------------|--------------------------------------|-----------------------------------------------|---------------------------------------|-------------------------|
| pH               | 100                         | Work Order #: DE050101<br>(85 - 115) | LCS Lot-Sample#: C0E310000-242<br>SW846 9045C | 05/31/00                              | 0152242                 |
|                  |                             | Dilution Factor: 1                   |                                               |                                       |                         |

NOTE(S) :

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

## SAMPLE DUPLICATE EVALUATION REPORT

## General Chemistry

**Client Lot #...: C0E310132**

Work Order #...: DDNN7-SMP  
DDNN7-DUP

**Matrix.....: SOLID**

**Date Sampled...:** 05/24/00

**Date Received..:** 05/25/00

\* Moisture.....: 19

| PARAM                                                                | RESULT | DUPLICATE<br>RESULT | UNITS | RPD | RPD<br>LIMIT | METHOD                                            | PREPARATION-<br>ANALYSIS DATE | PREP<br>BATCH # |
|----------------------------------------------------------------------|--------|---------------------|-------|-----|--------------|---------------------------------------------------|-------------------------------|-----------------|
| Percent Solids                                                       | 81.0   | 82.2                | %     | 1.5 | (0-20)       | SD Lot-Sample #: C0E250129-019<br>MCAWW 160.3 MOD | 05/31-06/01/00                | 0152172         |
| Dilution Factor: 1                                                   |        |                     |       |     |              |                                                   |                               |                 |
| Prep Date.....: 0152057      Analysis Date...:      Prep Batch #...: |        |                     |       |     |              |                                                   |                               |                 |

**Dilution Factor: 1**

Prep Date.....: 0152057    Analysis Date...:                    Prep Batch #...:

659 778

|                             |                             |                    |
|-----------------------------|-----------------------------|--------------------|
| Client Lot #....: C0E310132 | Work Order #....: DE022-SMP | Matrix.....: SOLID |
|                             | DE022-DUP                   |                    |
| Date Sampled....: 05/30/00  | Date Received...: 05/31/00  |                    |
| % Moisture.....: 14         |                             |                    |

| PARAM            | RESULT | DUPLICATE<br>RESULT | UNITS                   | RPD  | RPD<br>LIMIT      | METHOD            | PREPARATION-<br>ANALYSIS DATE              | PREP<br>BATCH # |
|------------------|--------|---------------------|-------------------------|------|-------------------|-------------------|--------------------------------------------|-----------------|
| pH               | 8.0    | 8.1                 | No Units                | 0.75 | (0-20)            | SW846 9045C       | SD Lot-Sample #: C0E310132-001<br>05/31/00 | 0152242         |
|                  |        |                     | Dilution Factor: 1      |      |                   |                   |                                            |                 |
|                  |        |                     | Prep Date.....: 0152098 |      | Analysis Date...: |                   | Prep Batch #....:                          |                 |
| Ignitability     |        |                     | No Units                | 0    | (0-0.0)           | SW846 SECTION 7.1 | SD Lot-Sample #: C0E310132-001<br>06/02/00 | 0154264         |
|                  |        |                     | Dilution Factor: 1      |      |                   |                   |                                            |                 |
|                  |        |                     | Prep Date.....: 0154101 |      | Analysis Date...: |                   | Prep Batch #....:                          |                 |
| Reactive Cyanide |        |                     |                         |      |                   |                   | SD Lot-Sample #: C0E310132-001             |                 |
| ND               | ND     |                     | mg/kg                   | 0    | (0-20)            | SW846 7.3.3       | 06/06/00                                   | 0158416         |
|                  |        |                     | Dilution Factor: 1      |      |                   |                   |                                            |                 |
|                  |        |                     | Prep Date.....: 0158205 |      | Analysis Date...: |                   | Prep Batch #....:                          |                 |
| Reactive Sulfide |        |                     |                         |      |                   |                   | SD Lot-Sample #: C0E310132-001             |                 |
| ND               | ND     |                     | mg/kg                   | 0    | (0-20)            | SW846 7.3.4       | 06/06/00                                   | 0158410         |
|                  |        |                     | Dilution Factor: 1      |      |                   |                   |                                            |                 |
|                  |        |                     | Prep Date.....: 0158200 |      | Analysis Date...: |                   | Prep Batch #....:                          |                 |

# SAMPLE DUPLICATE EVALUATION REPORT

659 779

## General Chemistry

Client Lot #...: C0E310132      Work Order #...: DE7JG-SMP      Matrix.....: WATER  
 DE7JG-DUP  
 Date Sampled...: 06/01/00      Date Received...: 06/02/00

| PARAM                                                                | RESULT | DUPLICATE<br>RESULT | UNITS | RPD | RPD<br>LIMIT | METHOD                                        | PREPARATION-<br>ANALYSIS DATE | PREP<br>BATCH # |
|----------------------------------------------------------------------|--------|---------------------|-------|-----|--------------|-----------------------------------------------|-------------------------------|-----------------|
| Reactive Cyanide                                                     | ND     | ND                  | mg/kg | 0   | (0-20)       | SD Lot-Sample #: A0F060102-001<br>SW846 7.3.3 | 06/06/00                      | 0158416         |
| Dilution Factor: 1                                                   |        |                     |       |     |              |                                               |                               |                 |
| Prep Date.....: 0158205      Analysis Date...:      Prep Batch #...: |        |                     |       |     |              |                                               |                               |                 |
| Reactive Sulfide                                                     | ND     | ND                  | mg/kg | 0   | (0-20)       | SD Lot-Sample #: A0F060102-001<br>SW846 7.3.4 | 06/06/00                      | 0158410         |
| Dilution Factor: 1                                                   |        |                     |       |     |              |                                               |                               |                 |
| Prep Date.....: 0158200      Analysis Date...:      Prep Batch #...: |        |                     |       |     |              |                                               |                               |                 |



659 780

**GC/MS VOLATILE DATA**

**GC/MS VOLATILE  
QC SUMMARY**

659 782

## SW846 8260B SURROGATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

QESSDG:

Lot #: C0E310132

|    | CLIENT ID.           | SRG01 | SRG02 | SRG03 | SRG04 | TOT OUT |
|----|----------------------|-------|-------|-------|-------|---------|
|    | =====                | ===== | ===== | ===== | ===== | =====   |
| 01 | INTRA-LAB QC         | 95    | 101   | 93    | 98    | 00      |
| 02 | DF/S1/D151/SDC/005   | 95    | 102   | 94    | 99    | 00      |
| 03 | METHOD BLK. DE38P101 | 92    | 104   | 95    | 95    | 00      |
| 04 | LCS DDWCP102         | 92    | 100   | 101   | 99    | 00      |
| 05 | LAB MS/MSD D         | 97    | 107   | 108   | 103   | 00      |
| 06 | LAB MS/MSD S         | 87    | 104   | 102   | 94    | 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 #: C0E300000

WO #: DDWCP102

BATCH: 0151138

| COMPOUND             | SPIKE<br>ADDED<br>(mg/L ) | SAMPLE<br>CONCENT.<br>(mg/L ) | %<br>REC | QC<br>LIMITS<br>REC | QUAL  |
|----------------------|---------------------------|-------------------------------|----------|---------------------|-------|
| =====                | =====                     | =====                         | =====    | =====               | ===== |
| Benzene              | 0.500                     | 0.456                         | 91       | 79 - 116            |       |
| 2-Butanone           | 0.500                     | 0.475                         | 95       | 35 - 156            |       |
| Carbon tetrachloride | 0.500                     | 0.435                         | 87       | 72 - 133            |       |
| Chlorobenzene        | 0.500                     | 0.457                         | 91       | 81 - 115            |       |
| Chloroform           | 0.500                     | 0.445                         | 89       | 81 - 122            |       |
| 1,2-Dichloroethane   | 0.500                     | 0.442                         | 88       | 73 - 127            |       |
| 1,1-Dichloroethene   | 0.500                     | 0.455                         | 91       | 65 - 119            |       |
| Tetrachloroethene    | 0.500                     | 0.467                         | 93       | 78 - 131            |       |
| Trichloroethene      | 0.500                     | 0.450                         | 90       | 80 - 122            |       |
| Vinyl chloride       | 0.500                     | 0.490                         | 98       | 53 - 134            |       |

NOTES (S) :

\* Values outside of QC limits

Spike Recovery:   0   out of  10  outside limits

COMMENTS:

FORM III

659 784 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: LAB MS/MSD

Level: (low/med) LOW

Lot #: C0E260147

WO #: DDRMP11A

BATCH: 0151138

| COMPOUND             | SPIKE<br>ADDED<br>(mg/L ) | SAMPLE<br>CONCENT.<br>(mg/L ) | MS<br>CONCENT.<br>(mg/L ) | MS<br>%<br>REC | LIMITS<br>REC | QUAL  |
|----------------------|---------------------------|-------------------------------|---------------------------|----------------|---------------|-------|
| =====                | =====                     | =====                         | =====                     | =====          | =====         | ===== |
| Benzene              | 0.500                     | ND                            | 0.495                     | 99             | 73- 123       |       |
| 2-Butanone           | 0.500                     | 0.015                         | 0.421                     | 81             | 10- 151       |       |
| Carbon tetrachloride | 0.500                     | ND                            | 0.459                     | 92             | 61- 143       |       |
| Chlorobenzene        | 0.500                     | ND                            | 0.517                     | 103            | 70- 122       |       |
| Chloroform           | 0.500                     | ND                            | 0.471                     | 94             | 65- 131       |       |
| 1,2-Dichloroethane   | 0.500                     | ND                            | 0.463                     | 93             | 67- 132       |       |
| 1,1-Dichloroethene   | 0.500                     | ND                            | 0.467                     | 93             | 57- 138       |       |
| Tetrachloroethene    | 0.500                     | ND                            | 0.550                     | 110            | 70- 130       |       |
| Trichloroethene      | 0.500                     | ND                            | 0.488                     | 98             | 58- 141       |       |
| Vinyl chloride       | 0.500                     | ND                            | 0.547                     | 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 limits

Spike 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: LAB MS/MSD

Level: (low/med) LOW

Lot #: C0E260147

WO #: DDRMP11C

BATCH: 0151138

| COMPOUND             | SPIKE            | MSD                 | MSD      |          | QC LIMITS |          | QUAL |
|----------------------|------------------|---------------------|----------|----------|-----------|----------|------|
|                      | ADDED<br>(mg/L ) | CONCENT.<br>(mg/L ) | %<br>REC | %<br>RPD | RPD       | REC      |      |
| Benzene              | 0.500            | 0.528               | 106      | 6.6      | 20        | 73 - 123 |      |
| 2-Butanone           | 0.500            | 0.512               | 100      | 20       | 34        | 10 - 151 |      |
| Carbon tetrachloride | 0.500            | 0.511               | 102      | 11       | 20        | 61 - 143 |      |
| Chlorobenzene        | 0.500            | 0.533               | 107      | 2.9      | 20        | 70 - 122 |      |
| Chloroform           | 0.500            | 0.519               | 104      | 9.6      | 20        | 65 - 131 |      |
| 1,2-Dichloroethane   | 0.500            | 0.505               | 101      | 8.8      | 20        | 67 - 132 |      |
| 1,1-Dichloroethene   | 0.500            | 0.537               | 107      | 14       | 20        | 57 - 138 |      |
| Tetrachloroethene    | 0.500            | 0.559               | 112      | 1.7      | 20        | 70 - 130 |      |
| Trichloroethene      | 0.500            | 0.520               | 104      | 6.4      | 20        | 58 - 141 |      |
| Vinyl chloride       | 0.500            | 0.606               | 121      | 10       | 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 limitsSpike Recovery: 0 out of 10 outside limits

COMMENTS:

659 786 SW846 8260B METHOD BLANK SUMMARY

BLANK WORKORDER NO.

DE38P101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: pb50602.d

Lot Number: C0E310132

Date Analyzed: 06/02/00

Time Analyzed: 08:18

Matrix: SOLID

Date Extracted:06/02/00

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<br>WORK ORDER # | LAB<br>FILE ID | DATE<br>ANALYZED | TIME<br>ANALYZED |
|----|--------------------|------------------------|----------------|------------------|------------------|
|    | =====              | =====                  | =====          | =====            | =====            |
| 01 | INTRA-LAB QC       | DDRMP102               | 5060203.d      | 06/02/00         | 10:00            |
| 02 | LAB MS/MSD         | DDRMP11A S             | 5060205.d      | 06/02/00         | 10:49            |
| 03 | LAB MS/MSD         | DDRMP11C D             | 5060206.d      | 06/02/00         | 11:17            |
| 04 | CHECK SAMPLE       | DDWCP102 C             | 5060201.d      | 06/02/00         | 09:07            |
| 05 | DF/S1/D151/SDC/005 | DE022102               | 5060207.d      | 06/02/00         | 11:46            |
| 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

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.: 40325

SDG No.: 50515D

Lab File ID: BF50515

BFB Injection Date: 05/15/00

Instrument ID: HP5

BFB Injection Time: 0523

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            | 20.3                 |
| 75  | 30.0 - 60.0% of mass 95            | 48.7                 |
| 95  | Base Peak, 100% relative abundance | 100.0                |
| 96  | 5.0 - 9.0% of mass 95              | 6.9                  |
| 173 | Less than 2.0% of mass 174         | 0.5 ( 0.6)1          |
| 174 | 50.0 - 100.0% of mass 95           | 70.0                 |
| 175 | 5.0 - 9.0% of mass 174             | 4.9 ( 7.0)1          |
| 176 | 95.0 - 101.0% of mass 174          | 67.0 ( 95.7)1        |
| 177 | 5.0 - 9.0% of mass 176             | 4.4 ( 6.6)2          |

1-Value is % mass 174

2-Value is % mass 176

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

|    | EPA<br>SAMPLE NO. | LAB<br>SAMPLE ID | LAB<br>FILE ID | DATE<br>ANALYZED | TIME<br>ANALYZED |
|----|-------------------|------------------|----------------|------------------|------------------|
| 01 | VSTD50            | VSTD50           | 3C50515        | 05/15/00         | 0809             |
| 02 | VSTD5             | VSTD5            | 1A50515        | 05/15/00         | 0845             |
| 03 | VSTD20            | VSTD20           | 1B50515        | 05/15/00         | 0909             |
| 04 | VSTD100           | VSTD100          | 1D50515        | 05/15/00         | 0934             |
| 05 | VSTD200           | VSTD200          | 1E50515        | 05/15/00         | 0959             |
| 06 |                   |                  |                |                  |                  |
| 07 |                   |                  |                |                  |                  |
| 08 |                   |                  |                |                  |                  |
| 09 |                   |                  |                |                  |                  |
| 10 |                   |                  |                |                  |                  |
| 11 |                   |                  |                |                  |                  |
| 12 |                   |                  |                |                  |                  |
| 13 |                   |                  |                |                  |                  |
| 14 |                   |                  |                |                  |                  |
| 15 |                   |                  |                |                  |                  |
| 16 |                   |                  |                |                  |                  |
| 17 |                   |                  |                |                  |                  |
| 18 |                   |                  |                |                  |                  |
| 19 |                   |                  |                |                  |                  |
| 20 |                   |                  |                |                  |                  |
| 21 |                   |                  |                |                  |                  |
| 22 |                   |                  |                |                  |                  |



659 788 5A VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.: 40325

SDG No.: C0E310132

Lab File ID: BF50602

BFB Injection Date: 06/02/00

Instrument ID: HP5

BFB Injection Time: 0711

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            | 19.3                 |
| 75  | 30.0 - 60.0% of mass 95            | 47.0                 |
| 95  | Base Peak, 100% relative abundance | 100.0                |
| 96  | 5.0 - 9.0% of mass 95              | 6.9                  |
| 173 | Less than 2.0% of mass 174         | 0.0 ( 0.0)1          |
| 174 | 50.0 - 100.0% of mass 95           | 78.8                 |
| 175 | 5.0 - 9.0% of mass 174             | 5.9 ( 7.5)1          |
| 176 | 95.0 - 101.0% of mass 174          | 75.1 ( 95.3)1        |
| 177 | 5.0 - 9.0% of mass 176             | 4.9 ( 6.6)2          |

1-Value is % mass 174

2-Value is % mass 176

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

|    | EPA<br>SAMPLE NO. | LAB<br>SAMPLE ID | LAB<br>FILE ID | DATE<br>ANALYZED | TIME<br>ANALYZED |
|----|-------------------|------------------|----------------|------------------|------------------|
| 01 | VSTD50            | VSTD50           | CC50602        | 06/02/00         | 0744             |
| 02 | INTRA-LAB BL      | DE38P101         | PB50602        | 06/02/00         | 0818             |
| 03 | INTRA-LAB CH      | DDWCP102         | 5060201        | 06/02/00         | 0907             |
| 04 | DF/S1/D151/S      | DE022102         | 5060207        | 06/02/00         | 1146             |
| 05 |                   |                  |                |                  |                  |
| 06 |                   |                  |                |                  |                  |
| 07 |                   |                  |                |                  |                  |
| 08 |                   |                  |                |                  |                  |
| 09 |                   |                  |                |                  |                  |
| 10 |                   |                  |                |                  |                  |
| 11 |                   |                  |                |                  |                  |
| 12 |                   |                  |                |                  |                  |
| 13 |                   |                  |                |                  |                  |
| 14 |                   |                  |                |                  |                  |
| 15 |                   |                  |                |                  |                  |
| 16 |                   |                  |                |                  |                  |
| 17 |                   |                  |                |                  |                  |
| 18 |                   |                  |                |                  |                  |
| 19 |                   |                  |                |                  |                  |
| 20 |                   |                  |                |                  |                  |
| 21 |                   |                  |                |                  |                  |
| 22 |                   |                  |                |                  |                  |

8A  
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

659 789

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.: 40325

SDG No.: C0E310132

Lab File ID (Standard): CC50602

Date Analyzed: 06/02/00

Instrument ID: HP5

Time Analyzed: 0744

GC Column: DB 624 ID: 0.20 (mm)

Heated Purge: (Y/N) N

|                   | IS1 (CBZ)<br>AREA # | RT #  | IS2 (DCB)<br>AREA # | RT #  | IS3<br>AREA # | RT #  |
|-------------------|---------------------|-------|---------------------|-------|---------------|-------|
| =====             | =====               | ===== | =====               | ===== | =====         | ===== |
| 12 HOUR STD       | 135516              | 9.98  | 214521              | 12.28 | 581044        | 6.87  |
| UPPER LIMIT       | 271032              | 10.18 | 429042              | 12.48 | 1162088       | 7.07  |
| LOWER LIMIT       | 67758               | 9.78  | 107260              | 12.08 | 290522        | 6.67  |
| =====             | =====               | ===== | =====               | ===== | =====         | ===== |
| EPA SAMPLE<br>NO. |                     |       |                     |       |               |       |
| =====             | =====               | ===== | =====               | ===== | =====         | ===== |
| 01 INTRA-LAB BL   | 127868              | 9.97  | 182932              | 12.28 | 574524        | 6.88  |
| 02 INTRA-LAB CH   | 135681              | 9.99  | 203783              | 12.28 | 564358        | 6.88  |
| 03 DF/S1/D151/S   | 127645              | 9.97  | 175424              | 12.27 | 543078        | 6.88  |
| 04                |                     |       |                     |       |               |       |
| 05                |                     |       |                     |       |               |       |
| 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.

659 790

**GC/MS VOLATILE  
SAMPLE DATA**

## UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COE310132 001

Method: SW846 8260B

Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL

Date Received: 05/31/00

Work Order: DE022102

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/02/00

Moisture %: 14

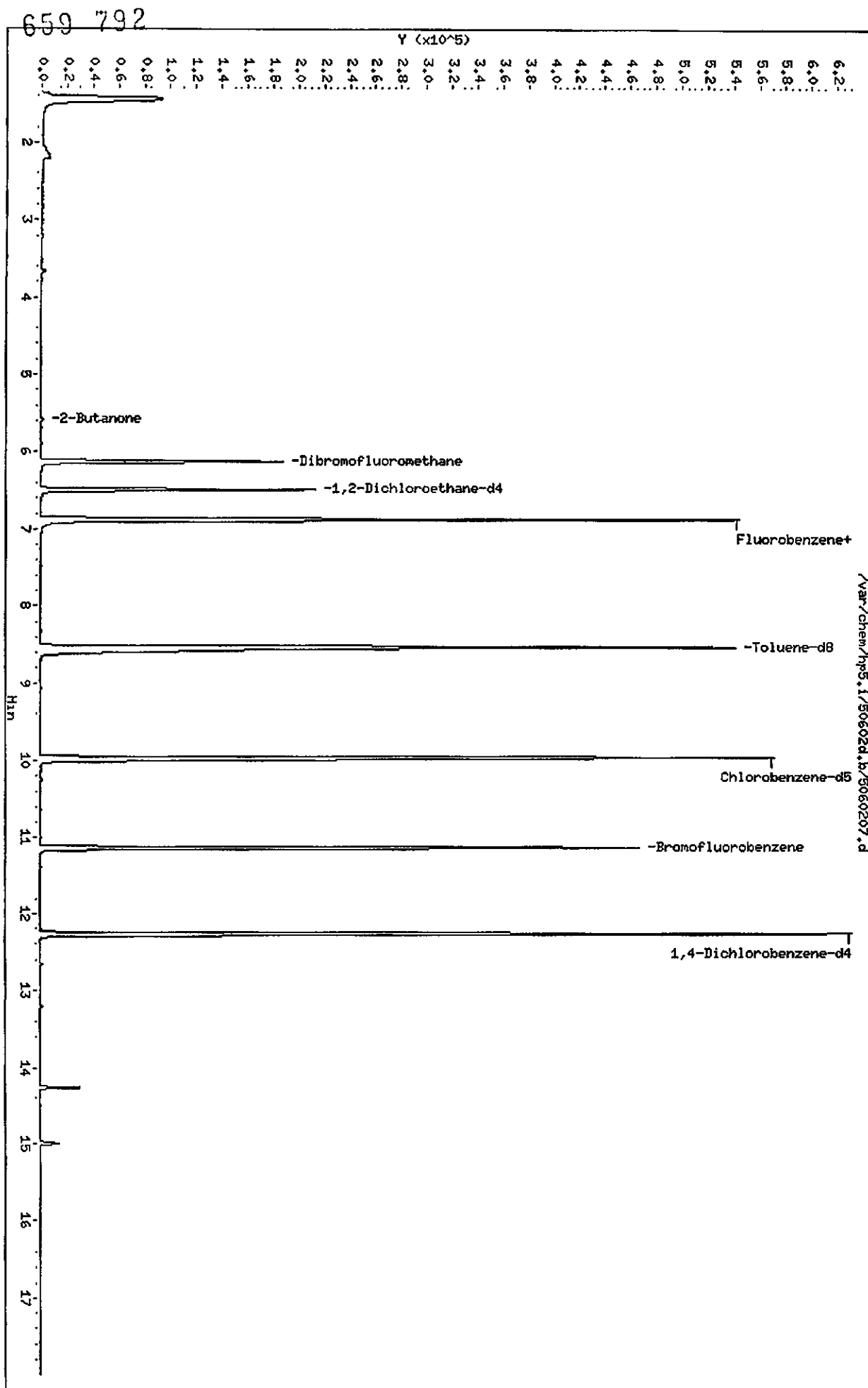
QC Batch: 0151138

Client Sample Id: DF/S1/D151/SDC/005

| 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           | 0.014                | 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: /var/chem/hp5.1/50602d.b/5060207.d  
 Date: 02-JUN-2000 11:46  
 Client ID: DF/SL/DLE/SDC/005  
 Sample Info: c0e3f0132-001 (1m1/10m1) SHL  
 Purge Volume: 5.0  
 Column phase: DB 624

Instrument: hp5.1  
 Operator: 007062  
 Column diameter: 0.20



Data File: /var/chem/hp5.i/50602d.b/5060207.d  
Report Date: 02-Jun-2000 12:15

Page 1

## STL-PITTSBURGH

## VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp5.i/50602d.b/5060207.d  
Lab Smp Id: DE022102 Client Smp ID: DF/S1/D151/SDC/005  
Inj Date : 02-JUN-2000 11:46  
Operator : 034635 Inst ID: hp5.i  
Smp Info : c0e310132-001 (1ml/10ml) 5ML  
Misc Info : de022102,50602d.b,8260bh2o.m,tclp.sub  
Comment :  
Method : /var/chem/hp5.i/50602d.b/8260bh2o.m  
Meth Date : 02-Jun-2000 08:36 journetp Quant Type: ISTD  
Cal Date : 15-MAY-2000 08:45 Cal File: 1a50515.d  
Als bottle: 1  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: tclp.sub  
Target Version: 3.40  
Processing Host: hpuxcs21

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

| 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        | 6.882                  | 6.873  | (1.000) | 543078   |                |         |
| * 69 Chlorobenzene-d5       | 119       | 9.967                  | 9.981  | (1.000) | 127645   |                |         |
| * 92 1,4-Dichlorobenzene-d4 | 152       | 12.272                 | 12.281 | (1.000) | 175424   |                |         |
| \$ 39 Dibromofluoromethane  | 113       | 6.128                  | 6.124  | (0.890) | 117088   | 247.453        | 49.49   |
| \$ 43 1,2-Dichloroethane-d4 | 65        | 6.493                  | 6.489  | (0.943) | 150025   | 237.726        | 47.54   |
| \$ 59 Toluene-d8            | 98        | 8.537                  | 8.533  | (0.857) | 527059   | 254.692        | 50.94   |
| \$ 80 Bromofluorobenzene    | 95        | 11.129                 | 11.143 | (1.117) | 183160   | 235.321        | 47.06   |
| 3 Vinyl Chloride            | 62.00     | Compound Not Detected. |        |         |          |                |         |
| 12 1,1-Dichloroethene       | 96.00     | Compound Not Detected. |        |         |          |                |         |
| 31 2-Butanone               | 43        | 5.587                  | 5.613  | (0.812) | 3780     | 6.84264        | 1.368   |
| 37 Chloroform               | 83.00     | Compound Not Detected. |        |         |          |                |         |
| 41 Carbon Tetrachloride     | 117.00    | Compound Not Detected. |        |         |          |                |         |
| 42 Benzene                  | 78.00     | Compound Not Detected. |        |         |          |                |         |
| 45 1,2-Dichloroethane       | 62.00     | Compound Not Detected. |        |         |          |                |         |
| 47 Trichloroethene          | 130.00    | Compound Not Detected. |        |         |          |                |         |
| 65 Tetrachloroethene        | 164.00    | Compound Not Detected. |        |         |          |                |         |

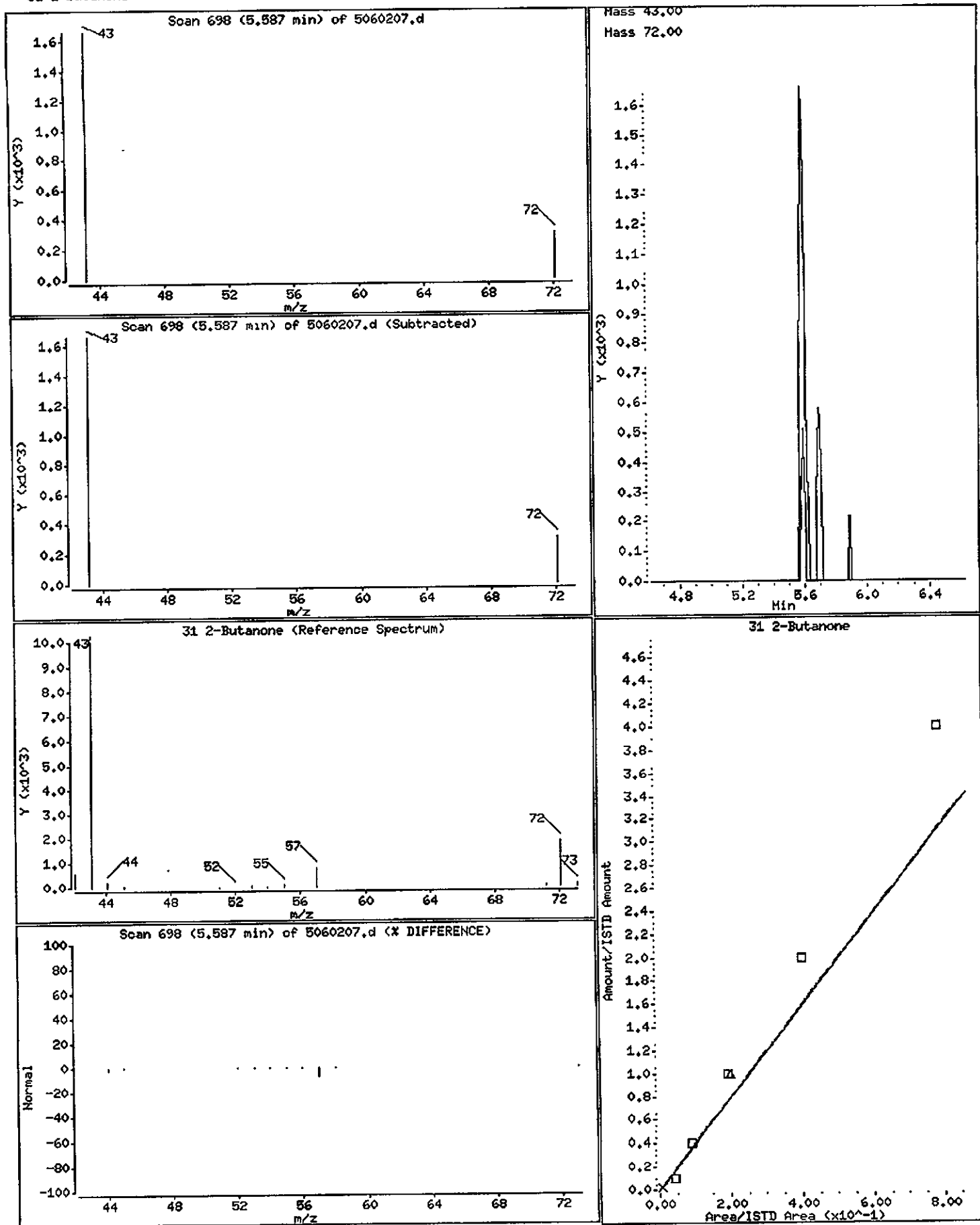
659 794

Data File: /var/chem/hp5.i/50602d.b/5060207.d  
 Report Date: 02-Jun-2000 12:15

Page 2

| Compounds        | QUANT SIG |    |       |       |       |       |                       | CONCENTRATIONS |         |
|------------------|-----------|----|-------|-------|-------|-------|-----------------------|----------------|---------|
|                  |           | RT | EXP   | RT    | REL   | RT    | RESPONSE              | ON-COLUMN      | FINAL   |
|                  | MASS      |    |       |       |       |       |                       | ( ng)          | ( UG/L) |
| =====            | ----      | -- | ----- | ----- | ----- | ----- | -----                 | -----          | -----   |
| 70 Chlorobenzene | 112 00    |    |       |       |       |       | Compound Not Detected |                |         |

## 31 2-Butanone





**GC/MS VOLATILE  
CALIBRATION DATA**

6A  
VOLATILE ORGANICS INITIAL CALIBRATION DATA

659 797

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.: 40325

SDG No.: 50515D

Instrument ID: HP5

Calibration Date(s): 05/15/00

05/15/00

Heated Purge: (Y/N) N

Calibration Time(s): 0809

0959

GC Column: DB 624

ID: 0.18 (mm)

| LAB FILE ID:              |         | RRF5 =1A50515  |       | RRF20 =1B50515 |        |       |       |
|---------------------------|---------|----------------|-------|----------------|--------|-------|-------|
| RRF50 =3C50515            |         | RRF100=1D50515 |       | RRF200=1E50515 |        |       |       |
| COMPOUND                  | RRF5    | RRF20          | RRF50 | RRF100         | RRF200 | RRF   | % RSD |
| Dichlorodifluoromethane   | 0.163   | 0.170          | 0.170 | 0.208          | 0.203  | 0.183 | 11.6  |
| Chloromethane             | * 0.210 | 0.208          | 0.215 | 0.255          | 0.253  | 0.228 | 10.3* |
| Vinyl Chloride            | 0.207   | 0.218          | 0.222 | 0.269          | 0.262  | 0.236 | 11.9  |
| Bromomethane              | 0.039   | 0.033          | 0.027 | 0.041          | 0.041  | 0.036 | 16.9  |
| Chloroethane              | 0.023   | 0.038          | 0.034 | 0.042          | 0.037  | 0.035 | 21.2  |
| Trichlorofluoromethane    | 0.057   | 0.064          | 0.058 | 0.074          | 0.052  | 0.061 | 13.6  |
| 1,1-Dichloroethene        | 0.219   | 0.215          | 0.220 | 0.268          | 0.261  | 0.237 | 10.9  |
| Methylene Chloride        | 0.260   | 0.229          | 0.240 | 0.269          | 0.282  | 0.256 | 8.4   |
| trans-1,2-Dichloroethene  | 0.224   | 0.227          | 0.224 | 0.281          | 0.270  | 0.245 | 11.4  |
| 1,1-Dichloroethane        | * 0.373 | 0.379          | 0.383 | 0.472          | 0.441  | 0.410 | 10.8* |
| cis-1,2-dichloroethene    | 0.227   | 0.232          | 0.232 | 0.291          | 0.279  | 0.252 | 12.1  |
| Chloroform                | 0.353   | 0.370          | 0.366 | 0.453          | 0.446  | 0.398 | 12.0  |
| Bromochloromethane        | 0.115   | 0.108          | 0.107 | 0.133          | 0.128  | 0.118 | 9.8   |
| 1,1,1-Trichloroethane     | 0.328   | 0.339          | 0.341 | 0.436          | 0.428  | 0.374 | 14.1  |
| Carbon Tetrachloride      | 0.257   | 0.280          | 0.288 | 0.373          | 0.366  | 0.313 | 17.0  |
| 1,2-Dichloroethane        | 0.305   | 0.322          | 0.318 | 0.396          | 0.393  | 0.347 | 12.7  |
| Benzene                   | 0.893   | 0.911          | 0.908 | 1.106          | 1.044  | 0.972 | 9.9   |
| Trichloroethene           | 0.226   | 0.229          | 0.233 | 0.286          | 0.272  | 0.249 | 11.1  |
| 1,2-Dichloropropane       | 0.210   | 0.213          | 0.215 | 0.262          | 0.260  | 0.232 | 11.3  |
| Bromodichloromethane      | 0.223   | 0.256          | 0.267 | 0.336          | 0.334  | 0.283 | 17.6  |
| cis-1,3-Dichloropropene   | 0.312   | 0.356          | 0.364 | 0.448          | 0.440  | 0.384 | 15.1  |
| Toluene                   | 4.245   | 4.358          | 4.244 | 5.167          | 5.056  | 4.614 | 9.9   |
| trans-1,3-Dichloropropene | 1.261   | 1.458          | 1.480 | 1.847          | 1.848  | 1.579 | 16.4  |
| 1,1,2-Trichloroethane     | 0.861   | 0.858          | 0.848 | 1.034          | 1.019  | 0.924 | 10.2  |
| Tetrachloroethene         | 0.802   | 0.810          | 0.817 | 0.998          | 0.974  | 0.880 | 11.0  |
| Dibromochloromethane      | 0.680   | 0.782          | 0.840 | 1.085          | 1.088  | 0.895 | 20.5  |
| Chlorobenzene             | * 2.756 | 2.768          | 2.760 | 3.332          | 3.225  | 2.968 | 9.6*  |
| Ethylbenzene              | 1.675   | 1.600          | 1.584 | 1.902          | 1.862  | 1.725 | 8.6   |
| Styrene                   | 2.751   | 2.822          | 2.944 | 3.603          | 3.694  | 3.163 | 14.2  |
| Bromoform                 | * 0.396 | 0.475          | 0.537 | 0.721          | 0.722  | 0.570 | 25.8* |
| 1,1,2,2-Tetrachloroethane | * 0.738 | 0.829          | 0.774 | 0.958          | 0.912  | 0.842 | 10.9* |
| 1,3-Dichlorobenzene       | 1.313   | 1.372          | 1.342 | 1.604          | 1.539  | 1.434 | 9.0   |
| 1,4-Dichlorobenzene       | 1.379   | 1.369          | 1.340 | 1.604          | 1.561  | 1.451 | 8.4   |
| 1,2-Dichlorobenzene       | 1.273   | 1.295          | 1.280 | 1.525          | 1.485  | 1.372 | 9.0   |
| Dibromomethane            | 0.125   | 0.128          | 0.129 | 0.160          | 0.156  | 0.140 | 12.2  |
| 1,2-Dibromoethane         | 0.830   | 0.874          | 0.871 | 1.075          | 1.061  | 0.942 | 12.3  |
| 1,1,1,2-Tetrachloroethane | 0.808   | 0.874          | 0.892 | 1.117          | 1.081  | 0.954 | 14.3  |

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

659 798

6A  
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.: 40325

SDG No.: 50515D

Instrument ID: HP5

Calibration Date(s): 05/15/00 05/15/00

Heated Purge: (Y/N) N

Calibration Time(s): 0809 0959

GC Column: DB 624 ID: 0.18 (mm)

| LAB FILE ID:                |       | RRF5 =1A50515  |       | RRF20 =1B50515 |        |       |          |
|-----------------------------|-------|----------------|-------|----------------|--------|-------|----------|
| RRF50 =3C50515              |       | RRF100=1D50515 |       | RRF200=1E50515 |        |       |          |
| COMPOUND                    | RRF5  | RRF20          | RRF50 | RRF100         | RRF200 | RRF   | %<br>RSD |
| 1,2,3-Trichloropropane      | 0.248 | 0.278          | 0.264 | 0.320          | 0.296  | 0.281 | 10.0     |
| 1,2-Dibromo-3-chloropropane | 0.093 | 0.113          | 0.120 | 0.156          | 0.161  | 0.129 | 22.7     |
| 2,2-Dichloropropane         | 0.324 | 0.340          | 0.346 | 0.441          | 0.437  | 0.378 | 14.9     |
| 1,1-Dichloropropene         | 0.299 | 0.304          | 0.300 | 0.378          | 0.365  | 0.329 | 11.8     |
| 1,3-Dichloropropane         | 1.495 | 1.558          | 1.528 | 1.884          | 1.843  | 1.662 | 11.2     |
| n-Propylbenzene             | 0.815 | 0.841          | 0.816 | 0.988          | 0.939  | 0.880 | 9.0      |
| Bromobenzene                | 0.732 | 0.787          | 0.760 | 0.908          | 0.835  | 0.804 | 8.6      |
| 1,3,5-Trimethylbenzene      | 2.132 | 2.251          | 2.186 | 2.754          | 2.678  | 2.400 | 12.2     |
| 2-Chlorotoluene             | 0.671 | 0.725          | 0.690 | 0.838          | 0.789  | 0.743 | 9.4      |
| 4-Chlorotoluene             | 0.708 | 0.722          | 0.687 | 0.842          | 0.824  | 0.757 | 9.4      |
| tert-Butylbenzene           | 2.106 | 2.112          | 2.067 | 2.451          | 2.357  | 2.219 | 7.8      |
| 1,2,4-Trimethylbenzene      | 2.129 | 2.176          | 2.092 | 2.626          | 2.578  | 2.320 | 11.2     |
| sec-Butylbenzene            | 3.126 | 3.125          | 3.036 | 3.603          | 3.471  | 3.272 | 7.6      |
| 4-Isopropyltoluene          | 2.349 | 2.328          | 2.306 | 2.776          | 2.752  | 2.502 | 9.6      |
| n-Butylbenzene              | 2.227 | 2.185          | 2.179 | 2.738          | 2.718  | 2.409 | 12.1     |
| 1,2,4-Trichlorobenzene      | 0.750 | 0.541          | 0.576 | 0.667          | 0.730  | 0.653 | 14.1     |
| Hexachlorobutadiene         | 0.664 | 0.462          | 0.483 | 0.558          | 0.574  | 0.548 | 14.6     |
| Naphthalene                 | 1.490 | 1.136          | 1.178 | 1.304          | 1.458  | 1.313 | 12.1     |
| 1,2,3-Trichlorobenzene      | 0.816 | 0.414          | 0.449 | 0.474          | 0.542  | 0.539 | 30.0     |
| Acetone                     | 0.223 | 0.146          | 0.131 | 0.142          | 0.141  | 0.157 | 23.9     |
| Carbon Disulfide            | 0.470 | 0.625          | 0.792 | 0.798          | 0.804  | 0.698 | 21.2     |
| 2-Butanone                  | 0.450 | 0.230          | 0.193 | 0.201          | 0.198  | 0.254 | 43.3     |
| 4-Methyl-2-Pentanone        | 1.307 | 1.240          | 1.211 | 1.408          | 1.429  | 1.319 | 7.4      |
| 2-Hexanone                  | 0.900 | 0.890          | 0.852 | 1.004          | 0.982  | 0.926 | 7.0      |
| Methyl tert-butyl ether     | 0.435 | 0.641          | 0.691 | 0.815          | 0.814  | 0.679 | 23.0     |
| Isopropylbenzene            | 4.579 | 4.517          | 4.547 | 5.493          | 5.369  | 4.901 | 9.9      |
| 1,2-Dichloroethene (total)  | 0.226 | 0.230          | 0.228 | 0.286          | 0.275  | 0.249 | 11.7     |
| Xylenes (total)             | 1.774 | 1.716          | 1.765 | 2.126          | 2.199  | 1.916 | 11.9     |
| Dibromofluoromethane        | 0.213 | 0.217          | 0.217 | 0.218          | 0.223  | 0.218 | 1.6      |
| 1,2-Dichloroethane-d4       | 0.304 | 0.288          | 0.279 | 0.287          | 0.295  | 0.291 | 3.2      |
| Toluene-d8                  | 4.193 | 4.068          | 3.971 | 3.940          | 4.093  | 4.053 | 2.5      |
| Bromofluorobenzene          | 1.609 | 1.479          | 1.494 | 1.498          | 1.541  | 1.524 | 3.5      |
|                             |       |                |       |                |        |       |          |
|                             |       |                |       |                |        |       |          |
|                             |       |                |       |                |        |       |          |
|                             |       |                |       |                |        |       |          |
|                             |       |                |       |                |        |       |          |
|                             |       |                |       |                |        |       |          |
|                             |       |                |       |                |        |       |          |

\* 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: 1e50515.d  
Analysis Type: WATER

Injection Date: 15-MAY-2000 09:59  
Lab Sample ID: vstd200  
Method File: /var/chem/hp5.i/50515d.b/8260bh2

| COMPOUND                   | %RSD |
|----------------------------|------|
| Xylenes (total)            | 11.9 |
| 1,2-Dichloroethene (total) | 11.7 |
| Dichlorodifluoromethane    | 11.6 |
| Chloromethane              | 10.3 |
| Vinyl Chloride             | 11.9 |
| Bromomethane               | 16.9 |
| Chloroethane               | 21.2 |
| Trichlorofluoromethane     | 13.6 |
| 1,1-Dichloroethene         | 10.9 |
| Acetone                    | 23.9 |
| Carbon Disulfide           | 21.2 |
| Methylene Chloride         | 8.4  |
| trans-1,2-Dichloroethene   | 11.4 |
| Methyl tert-butyl ether    | 23.0 |
| 1,1-Dichloroethane         | 10.8 |
| 2,2-Dichloropropane        | 14.9 |
| cis-1,2-dichloroethene     | 12.1 |
| 2-Butanone                 | 43.3 |
| Bromochloromethane         | 9.8  |
| Chloroform                 | 12.0 |
| 1,1,1-Trichloroethane      | 14.1 |
| Dibromofluoromethane       | 1.6  |
| Carbon Tetrachloride       | 17.0 |
| 1,1 Dichloropropene        | 11.8 |
| 1,2-Dichloroethane d4      | 3.2  |
| Benzene                    | 9.9  |
| 1,2-Dichloroethane         | 12.7 |
| Trichloroethene            | 11.1 |
| 1,2-Dichloropropane        | 11.3 |
| Dibromomethane             | 12.2 |
| Bromodichloromethane       | 17.6 |
| cis-1,3-Dichloropropene    | 15.1 |
| 4-Methyl-2-Pentanone       | 7.4  |
| Toluene-d8                 | 2.5  |
| Toluene                    | 9.9  |
| trans-1,3-Dichloropropene  | 16.4 |
| 1,1,2-Trichloroethane      | 10.2 |
| Tetrachloroethene          | 11.0 |
| 1,3-Dichloropropane        | 11.2 |

## INITIAL CALIBRATION REPORT

Instrument ID: hp5.1  
 Lab File ID: 1e50515.d  
 Analysis Type: WATER

Injection Date: 15-MAY-2000 09:59  
 Lab Sample ID: vstd200  
 Method File: /var/chem/hp5.1/50515d.b/8260bh2

| COMPOUND                    | %RSD |
|-----------------------------|------|
| 2-Hexanone                  | 7.0  |
| Dibromochloromethane        | 20.5 |
| 1,2-Dibromoethane           | 12.3 |
| Chlorobenzene               | 9.6  |
| Ethylbenzene                | 8.6  |
| 1,1,1,2-Tetrachloroethane   | 14.3 |
| m + p-Xylene                | 10.4 |
| Xylene-o                    | 11.9 |
| Styrene                     | 14.2 |
| Bromoform                   | 25.8 |
| Isopropylbenzene            | 9.9  |
| Bromofluorobenzene          | 3.5  |
| Bromobenzene                | 8.6  |
| 1,1,2,2-Tetrachloroethane   | 10.9 |
| 1,2,3-Trichloropropane      | 10.0 |
| n-Propylbenzene             | 9.0  |
| 2-Chlorotoluene             | 9.4  |
| 1,3,5-Trimethylbenzene      | 12.2 |
| 4-Chlorotoluene             | 9.4  |
| tert-Butylbenzene           | 7.8  |
| 1,2,4-Trimethylbenzene      | 11.2 |
| sec-Butylbenzene            | 7.6  |
| 1,3-Dichlorobenzene         | 9.0  |
| 4-Isopropyltoluene          | 9.6  |
| 1,4-Dichlorobenzene         | 8.4  |
| n-Butylbenzene              | 12.1 |
| 1,2-Dichlorobenzene         | 9.0  |
| 1,2-Dibromo-3-chloropropane | 22.7 |
| 1,2,4-Trichlorobenzene      | 14.1 |
| Hexachlorobutadiene         | 14.6 |
| Naphthalene                 | 12.1 |
| 1,2,3-Trichlorobenzene      | 30.0 |

The average of all %RSD's in the initial calibration is 12.7



## STL-PITTSBURGH

## VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp5.1/50515d.b/1a50515.d  
 Lab Smp Id: vstd5 Client Smp ID: vstd5  
 Inj Date : 15-MAY-2000 08:45  
 Operator : 10099 Inst ID: hp5.i  
 Smp Info : VSTD5 5ML  
 Misc Info : vstd5,50515d.b,8260bh2o.m,3-dwlist.sub  
 Comment :  
 Method : /var/chem/hp5.1/50515d.b/8260bh2o.m  
 Meth Date : 15-May-2000 09:51 h Quant Type: ISTD  
 Cal Date : 15-MAY-2000 08:45 Cal File: 1a50515.d  
 Als bottle: 6 Calibration Sample, Level: 1  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 3-dwlist.sub  
 Target Version: 3.40  
 Processing Host: hpuxcs21

*KLG*  
*slidw*

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<br>( ng) | ON-COL<br>( ng) |
| * 46 Fluorobenzene          | 96        | 6.861  | 6.861  | (1.000) | 650562   |                  |                 |
| * 69 Chlorobenzene-d5       | 119       | 9.963  | 9.963  | (1.000) | 151194   |                  |                 |
| * 92 1,4-Dichlorobenzene-d4 | 152       | 12.275 | 12.275 | (1.000) | 228984   |                  |                 |
| \$ 39 Dibromofluoromethane  | 113       | 6.119  | 6.119  | (0.892) | 13879    | 25.0000          | 24.77           |
| \$ 43 1,2-Dichloroethane-d4 | 65        | 6.478  | 6.478  | (0.944) | 19749    | 25.0000          | 26.04           |
| \$ 59 Toluene-d8            | 98        | 8.522  | 8.522  | (0.855) | 63398    | 25.0000          | 25.68           |
| \$ 80 Bromofluorobenzene    | 95        | 11.138 | 11.138 | (1.118) | 24332    | 25.0000          | 25.92           |
| 1 Dichlorodifluoromethane   | 85        | 1.580  | 1.580  | (0.230) | 10583    | 25.0000          | 24.48           |
| 2 Chloromethane             | 50        | 1.733  | 1.733  | (0.253) | 13690    | 25.0000          | 24.72           |
| 3 Vinyl Chloride            | 62        | 1.860  | 1.860  | (0.271) | 13481    | 25.0000          | 24.12           |
| 4 Bromomethane              | 94        | 2.140  | 2.140  | (0.312) | 2534     | 25.0000          | 29.48           |
| 5 Chloroethane              | 64        | 2.274  | 2.274  | (0.331) | 1478     | 25.0000          | 19.94           |
| 6 Trichlorofluoromethane    | 101       | 2.469  | 2.469  | (0.360) | 3693     | 25.0000          | 24.72           |
| 12 1,1-Dichloroethane       | 96        | 3.047  | 3.047  | (0.444) | 14236    | 25.0000          | 24.94           |
| 13 Acetone                  | 43        | 3.266  | 3.266  | (0.476) | 14501    | 25.0000          | 31.47           |
| 15 Carbon Disulfide         | 76        | 3.284  | 3.284  | (0.479) | 30578    | 25.0000          | 18.61           |

Data File: /var/chem/hp5.i/50515d.b/1a50515.d  
Report Date: 15-May-2000 09:52

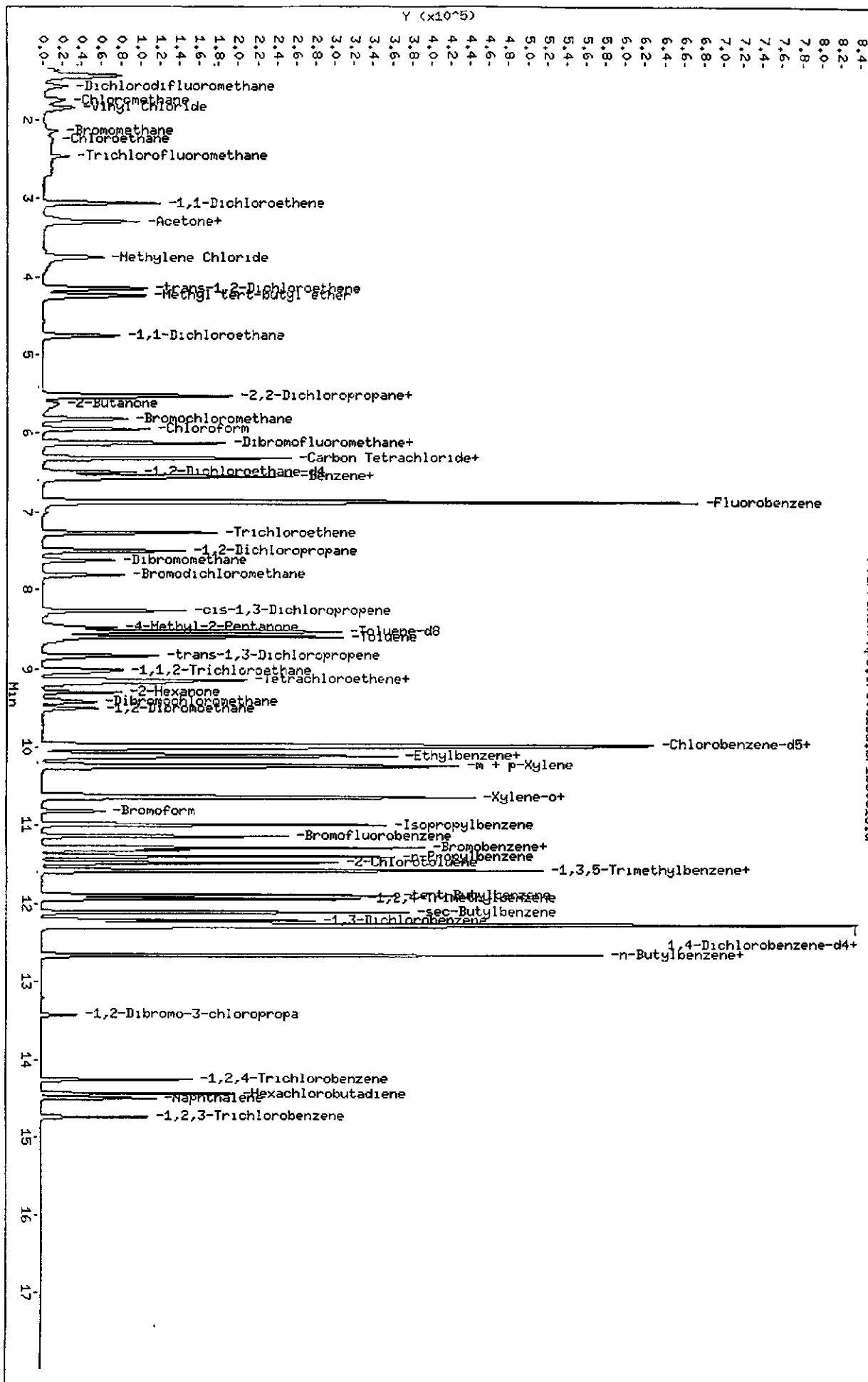
| Compounds                    | QUANT SIG |        |        |         | RESPONSE | AMOUNTS          |                 |
|------------------------------|-----------|--------|--------|---------|----------|------------------|-----------------|
|                              | MASS      | RT     | EXP RT | REL RT  |          | CAL-AMT<br>( ng) | ON COL<br>( ng) |
| =====                        | =====     | ==     | =====  | =====   | =====    | =====            | =====           |
| 18 Methylene Chloride        | 84        | 3.740  | 3.740  | (0.545) | 16946    | 25.0000          | 26.02           |
| 19 trans-1,2-Dichloroethene  | 96        | 4.142  | 4.142  | (0.604) | 14599    | 25.0000          | 25.04           |
| 20 Methyl tert-butyl ether   | 73        | 4.233  | 4.233  | (0.617) | 28297    | 25.0000          | 19.32           |
| 24 1,1-Dichloroethane        | 63        | 4.750  | 4.750  | (0.692) | 24258    | 25.0000          | 24.66           |
| 27 2,2-Dichloropropane       | 77        | 5.504  | 5.504  | (0.802) | 21114    | 25.0000          | 24.20           |
| 28 cis 1,2-dichloroethene    | 96        | 5.516  | 5.516  | (0.804) | 14754    | 25.0000          | 24.71           |
| 31 2-Butanone                | 43        | 5.626  | 5.626  | (0.820) | 29243    | 25.0000          | 34.96           |
| 30 Bromochloromethane        | 128       | 5.808  | 5.808  | (0.847) | 7479     | 25.0000          | 25.87           |
| 37 Chloroform                | 83        | 5.936  | 5.936  | (0.865) | 22993    | 25.0000          | 24.56           |
| 38 1,1,1-Trichloroethane     | 97        | 6.107  | 6.107  | (0.890) | 21371    | 25.0000          | 24.52           |
| 41 Carbon Tetrachloride      | 117       | 6.301  | 6.301  | (0.918) | 16745    | 25.0000          | 23.58           |
| 40 1,1-Dichloropropene       | 75        | 6.307  | 6.307  | (0.919) | 19482    | 25.0000          | 24.98           |
| 42 Benzene                   | 78        | 6.532  | 6.532  | (0.952) | 58126    | 25.0000          | 24.80           |
| 45 1,2-Dichloroethane        | 62        | 6.569  | 6.569  | (0.957) | 19874    | 25.0000          | 24.51           |
| 47 Trichloroethene           | 130       | 7.262  | 7.262  | (1.059) | 14733    | 25.0000          | 24.65           |
| 49 1,2-Dichloropropane       | 63        | 7.494  | 7.494  | (1.092) | 13689    | 25.0000          | 24.74           |
| 50 Dibromomethane            | 93        | 7.609  | 7.609  | (1.109) | 8163     | 25.0000          | 24.69           |
| 53 Bromodichloromethane      | 83        | 7.798  | 7.798  | (1.137) | 14519    | 25.0000          | 22.76           |
| 57 cis-1,3-Dichloropropene   | 75        | 8.260  | 8.260  | (1.204) | 20305    | 25.0000          | 23.08           |
| 58 4-Methyl 2 Pentanone      | 43        | 8.479  | 8.479  | (0.851) | 19766    | 25.0000          | 25.96           |
| 60 Toluene                   | 91        | 8.589  | 8.589  | (0.862) | 64189    | 25.0000          | 25.00           |
| 61 trans-1,3-Dichloropropene | 75        | 8.826  | 8.826  | (0.886) | 19071    | 25.0000          | 23.01           |
| 64 1,1,2-Trichloroethane     | 97        | 9.014  | 9.014  | (0.905) | 13018    | 25.0000          | 25.20           |
| 65 Tetrachloroethene         | 164       | 9.136  | 9.136  | (0.917) | 12130    | 25.0000          | 24.78           |
| 67 Dibromochloromethane      | 129       | 9.404  | 9.404  | (0.944) | 10287    | 25.0000          | 22.38           |
| 63 1,3 Dichloropropane       | 76        | 9.167  | 9.167  | (0.920) | 22608    | 25.0000          | 24.73           |
| 66 2-Hexanone                | 43        | 9.294  | 9.294  | (0.933) | 13605    | 25.0000          | 25.68           |
| 68 1,2-Dibromoethane         | 107       | 9.495  | 9.495  | (0.953) | 12551    | 25.0000          | 24.40           |
| 70 Chlorobenzene             | 112       | 9.988  | 9.988  | (1.002) | 41673    | 25.0000          | 24.98           |
| 72 Ethylbenzene              | 106       | 10.103 | 10.103 | (1.014) | 25325    | 25.0000          | 25.69           |
| 71 1,1,1,2-Tetrachloroethane | 131       | 10.085 | 10.085 | (1.012) | 12209    | 25.0000          | 23.76           |
| 73 m + p-Xylene              | 106       | 10.219 | 10.219 | (1.026) | 57697    | 50.0000          | 51.43           |
| 74 Xylene-o                  | 106       | 10.614 | 10.614 | (1.065) | 26824    | 25.0000          | 25.06           |
| 76 Styrene                   | 104       | 10.633 | 10.633 | (1.067) | 41599    | 25.0000          | 24.16           |
| 77 Bromoform                 | 173       | 10.815 | 10.815 | (1.085) | 5982     | 25.0000          | 21.21           |
| 78 Isopropylbenzene          | 105       | 10.985 | 10.985 | (1.103) | 69238    | 25.0000          | 25.09           |
| 79 Bromobenzene              | 156       | 11.277 | 11.277 | (0.919) | 16756    | 25.0000          | 24.53           |
| 83 1,1,2,2-Tetrachloroethane | 83        | 11.277 | 11.277 | (0.919) | 16908    | 25.0000          | 24.40           |
| 84 1,2,3-Trichloropropane    | 110       | 11.314 | 11.314 | (0.922) | 5674     | 25.0000          | 24.20           |
| 81 n-Propylbenzene           | 120       | 11.393 | 11.393 | (0.928) | 18663    | 25.0000          | 24.99           |
| 82 2-Chlorotoluene           | 126       | 11.472 | 11.472 | (0.935) | 15364    | 25.0000          | 24.65           |
| 86 1,3,5-Trimethylbenzene    | 105       | 11.569 | 11.569 | (0.943) | 48814    | 25.0000          | 24.68           |
| 85 4-Chlorotoluene           | 126       | 11.582 | 11.582 | (0.944) | 16224    | 25.0000          | 25.38           |
| 87 tert-Butylbenzene         | 119       | 11.892 | 11.892 | (0.969) | 48217    | 25.0000          | 25.23           |
| 88 1,2,4-Trimethylbenzene    | 105       | 11.934 | 11.934 | (0.972) | 48760    | 25.0000          | 25.22           |
| 89 sec-Butylbenzene          | 105       | 12.111 | 12.111 | (0.987) | 71587    | 25.0000          | 25.37           |
| 91 1,3-Dichlorobenzene       | 146       | 12.208 | 12.208 | (0.995) | 30073    | 25.0000          | 24.73           |



| Compounds                       | QUANT SIG |        |        |         |          | AMOUNTS          |                 |
|---------------------------------|-----------|--------|--------|---------|----------|------------------|-----------------|
|                                 | MASS      | RT     | EXP RT | REL RT  | RESPONSE | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| =====                           | ====      | ==     | =====  | =====   | =====    | =====            | =====           |
| 90 4-Isopropyltoluene           | 119       | 12 251 | 12 251 | (0.998) | 53790    | 25 0000          | 25 23           |
| 93 1,4-Dichlorobenzene          | 146       | 12 300 | 12 300 | (1.002) | 31579    | 25 0000          | 25 36           |
| 94 n-Butylbenzene               | 91        | 12 658 | 12 658 | (1.031) | 51000    | 25 0000          | 25 27           |
| 95 1,2-Dichlorobenzene          | 146       | 12 665 | 12 665 | (1.032) | 29151    | 25 0000          | 24 93           |
| 96 1,2-Dibromo-3-chloropropane  | 157       | 13 431 | 13 431 | (1.094) | 2122     | 25 0000          | 21 78           |
| 97 1,2,4-Trichlorobenzene       | 180       | 14 264 | 14 264 | (1.162) | 17165    | 25 0000          | 28 28           |
| 98 Hexachlorobutadiene          | 225       | 14 441 | 14 441 | (1.176) | 15197    | 25 0000          | 28 93           |
| 99 Naphthalene                  | 128       | 14 502 | 14 502 | (1.181) | 34108    | 25 0000          | 27 92           |
| 100 1,2,3-Trichlorobenzene      | 180       | 14 745 | 14 745 | (1.201) | 18692    | 25 0000          | 32 24           |
| M 29 1,2-Dichloroethene (total) | 96        |        |        |         | 29353    | 50 0000          | 49 75           |
| M 75 Xylenes (total)            | 106       |        |        |         | 84521    | 25 0000          | 78 97           |

Data File: /var/chem/hp5.1/50515d.b/1b50515.d  
 Date : 15-MAY-2000 09:09  
 Client ID: vsta20  
 Sample Info: VSTD20 SML  
 Purge Volume: 5.0  
 Column phase: DB 624

Instrument: hp5.1  
 Operator: 10099  
 Column diameter: 0.18



## STL-PITTSBURGH

## VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp5.i/50515d.b/1b50515.d  
 Lab Smp Id: vstd20 Client Smp ID: vstd20  
 Inj Date : 15-MAY-2000 09:09  
 Operator : 10099 Inst ID: hp5.i  
 Smp Info : VSTD20 5ML  
 Misc Info : vstd20,50515d.b,8260bh2o.m,3-dwlist.sub  
 Comment :  
 Method : /var/chem/hp5.i/50515d.b/8260bh2o.m  
 Meth Date : 15-May-2000 09:52 h Quant Type: ISTD  
 Cal Date : 15-MAY-2000 09:09 Cal File: 1b50515.d  
 Als bottle: 7 Calibration Sample, Level: 2  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 3-dwlist.sub  
 Target Version: 3.40  
 Processing Host: hpuxcs21

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 | MASS   | RT     | EXP RT  | RBL RT | RESPONSE | AMOUNTS          |                 |
|-----------------------------|-----------|--------|--------|---------|--------|----------|------------------|-----------------|
|                             |           |        |        |         |        |          | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| * 46 Fluorobenzene          | 96        | 6 870  | 6 870  | (1 000) | 634680 |          |                  |                 |
| * 69 Chlorobenzene-d5       | 119       | 9 973  | 9 973  | (1.000) | 149941 |          |                  |                 |
| * 92 1,4-Dichlorobenzene-d4 | 152       | 12 279 | 12.279 | (1 000) | 205692 |          |                  |                 |
| \$ 39 Dibromofluoromethane  | 113       | 6 128  | 6 128  | (0 892) | 55106  | 100 000  | 100 5            |                 |
| \$ 43 1,2-Dichloroethane-d4 | 65        | 6 487  | 6 487  | (0 944) | 73063  | 100.000  | 99 16            |                 |
| \$ 59 Toluene-d8            | 98        | 8 525  | 8 525  | (0 855) | 243981 | 100.000  | 99 77            |                 |
| \$ 80 Bromofluorobenzene    | 95        | 11.135 | 11 135 | (1.117, | 88711  | 100 000  | 96 82            |                 |
| 1 Dichlorodifluoromethane   | 85        | 1 566  | 1 566  | (0 228) | 43165  | 100 000  | 101 5            |                 |
| 2 Chloromethane             | 50        | 1 748  | 1 748  | (0 254) | 52924  | 100 000  | 98.64            |                 |
| 3 Vinyl Chloride            | 62        | 1 845  | 1 845  | (0 269) | 55301  | 100 000  | 100.9            |                 |
| 4 Bromomethane              | 94        | 2 138  | 2 138  | (0 311) | 8399   | 100 000  | 100.1            |                 |
| 5 Chloroethane              | 64        | 2 241  | 2 241  | (0 326) | 9627   | 100 000  | 119 9            |                 |
| 6 Trichlorofluoromethane    | 101       | 2 472  | 2 472  | (0 360) | 16280  | 100 000  | 107 5            |                 |
| 12 1,1-Dichloroethene       | 96        | 3 062  | 3 062  | (0.446) | 54490  | 100 000  | 98 56            |                 |
| 13 Acetone                  | 43        | 3 257  | 3 257  | (0 474) | 37001  | 100 000  | 87.46            |                 |
| 15 Carbon Disulfide         | 76        | 3 299  | 3 299  | (0 480) | 158762 | 100 000  | 99 37            |                 |

Data File: /var/chem/hp5.i/50515d.b/1b50515.d  
Report Date: 15-May-2000 09:52

| Compounds                    | QUANT SIG |        |        |         |          | AMOUNTS          |                 |
|------------------------------|-----------|--------|--------|---------|----------|------------------|-----------------|
|                              | MASS      | RT     | EXP RT | REL RT  | RESPONSE | CAL-AMT<br>( ng) | ON COL<br>( ng) |
| =====                        | =====     | ==     | =====  | =====   | =====    | =====            | =====           |
| 18 Methylene Chloride        | 84        | 3.744  | 3.744  | (0.545) | 58243    | 100.000          | 94.30           |
| 19 trans-1,2-Dichloroethene  | 96        | 4.151  | 4.151  | (0.604) | 57729    | 100.000          | 101.0           |
| 20 Methyl tert-butyl ether   | 73        | 4.248  | 4.248  | (0.618) | 162656   | 100.000          | 108.8           |
| 24 1,1-Dichloroethane        | 63        | 4.753  | 4.753  | (0.692) | 96258    | 100.000          | 100.2           |
| 27 2,2-Dichloropropane       | 77        | 5.508  | 5.508  | (0.802) | 86414    | 100.000          | 101.0           |
| 28 cis-1,2-dichloroethene    | 96        | 5.526  | 5.526  | (0.804) | 58940    | 100.000          | 100.8           |
| 31 2-Butanone                | 43        | 5.617  | 5.617  | (0.818) | 58274    | 100.000          | 78.94           |
| 30 Bromochloromethane        | 128       | 5.812  | 5.812  | (0.846) | 27483    | 100.000          | 98.27           |
| 37 Chloroform                | 83        | 5.946  | 5.946  | (0.865) | 93977    | 100.000          | 101.9           |
| 38 1,1,1-Trichloroethane     | 97        | 6.116  | 6.116  | (0.890) | 86010    | 100.000          | 100.8           |
| 41 Carbon Tetrachloride      | 117       | 6.311  | 6.311  | (0.919) | 70988    | 100.000          | 101.6           |
| 40 1,1-Dichloropropene       | 75        | 6.317  | 6.317  | (0.919) | 77169    | 100.000          | 101.0           |
| 42 Benzene                   | 78        | 6.542  | 6.542  | (0.952) | 231221   | 100.000          | 100.7           |
| 45 1,2-Dichloroethane        | 62        | 6.572  | 6.572  | (0.957) | 81644    | 100.000          | 102.1           |
| 47 Trichloroethene           | 130       | 7.266  | 7.266  | (1.058) | 58041    | 100.000          | 99.69           |
| 49 1,2-Dichloropropane       | 63        | 7.497  | 7.497  | (1.091) | 54176    | 100.000          | 100.2           |
| 50 Dibromomethane            | 93        | 7.619  | 7.619  | (1.109) | 32413    | 100.000          | 100.3           |
| 53 Bromodichloromethane      | 83        | 7.807  | 7.807  | (1.136) | 65108    | 100.000          | 103.0           |
| 57 cis-1,3-Dichloropropene   | 75        | 8.264  | 8.264  | (1.203) | 90526    | 100.000          | 103.6           |
| 58 4-Methyl-2-Pentanone      | 43        | 8.483  | 8.483  | (0.851) | 74361    | 100.000          | 98.97           |
| 60 Toluene                   | 91        | 8.592  | 8.592  | (0.862) | 261386   | 100.000          | 101.8           |
| 61 trans 1,3-Dichloropropene | 75        | 8.835  | 8.835  | (0.886) | 87453    | 100.000          | 104.2           |
| 64 1,1,2-Trichloroethane     | 97        | 9.012  | 9.012  | (0.904) | 51474    | 100.000          | 100.3           |
| 65 Tetrachloroethene         | 164       | 9.140  | 9.140  | (0.916) | 48600    | 100.000          | 100.1           |
| 67 Dibromochloromethane      | 129       | 9.419  | 9.419  | (0.944) | 46922    | 100.000          | 101.9           |
| 63 1,3-Dichloropropane       | 76        | 9.170  | 9.170  | (0.919) | 93438    | 100.000          | 102.0           |
| 66 2-Hexanone                | 43        | 9.298  | 9.298  | (0.932) | 53403    | 100.000          | 101.1           |
| 68 1,2-Dibromoethane         | 107       | 9.498  | 9.498  | (0.952) | 52404    | 100.000          | 101.8           |
| 70 Chlorobenzene             | 112       | 9.997  | 9.997  | (1.002) | 166005   | 100.000          | 100.2           |
| 72 Ethylbenzene              | 106       | 10.107 | 10.107 | (1.013) | 95986    | 100.000          | 98.79           |
| 71 1,1,1,2-Tetrachloroethane | 131       | 10.089 | 10.089 | (1.012) | 52449    | 100.000          | 101.9           |
| 73 m + p-Xylene              | 106       | 10.229 | 10.229 | (1.026) | 211353   | 200.000          | 193.2           |
| 74 Xylene-o                  | 106       | 10.624 | 10.624 | (1.065) | 102943   | 100.000          | 97.97           |
| 76 Styrene                   | 104       | 10.642 | 10.642 | (1.067) | 169285   | 100.000          | 99.41           |
| 77 Bromoform                 | 173       | 10.819 | 10.819 | (1.085) | 28475    | 100.000          | 101.2           |
| 78 Isopropylbenzene          | 105       | 10.989 | 10.989 | (1.102) | 270922   | 100.000          | 99.32           |
| 79 Bromobenzene              | 156       | 11.281 | 11.281 | (0.919) | 64721    | 100.000          | 103.6           |
| 83 1,1,2,2-Tetrachloroethane | 83        | 11.281 | 11.281 | (0.919) | 68223    | 100.000          | 106.2           |
| 84 1,2,3-Trichloropropane    | 110       | 11.317 | 11.317 | (0.922) | 22853    | 100.000          | 105.5           |
| 81 n Propylbenzene           | 120       | 11.397 | 11.397 | (0.928) | 69215    | 100.000          | 102.1           |
| 82 2-Chlorotoluene           | 126       | 11.476 | 11.476 | (0.935) | 59648    | 100.000          | 104.2           |
| 86 1,3,5-Trimethylbenzene    | 105       | 11.573 | 11.573 | (0.943) | 185182   | 100.000          | 102.8           |
| 85 4-Chlorotoluene           | 126       | 11.585 | 11.585 | (0.944) | 59439    | 100.000          | 102.3           |
| 87 tert-Butylbenzene         | 119       | 11.889 | 11.889 | (0.968) | 173738   | 100.000          | 100.8           |
| 88 1,2,4-Trimethylbenzene    | 105       | 11.938 | 11.938 | (0.972) | 179083   | 100.000          | 102.1           |
| 89 sec-Butylbenzene          | 105       | 12.108 | 12.108 | (0.986) | 257143   | 100.000          | 101.0           |
| 91 1,3-Dichlorobenzene       | 146       | 12.212 | 12.212 | (0.995) | 112931   | 100.000          | 102.2           |

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Data File: /var/chem/hp5.i/50515d.b/1b50515.d  
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| Compounds                       | QUANT SIG |        |        |         |          | AMOUNTS          |                 |
|---------------------------------|-----------|--------|--------|---------|----------|------------------|-----------------|
|                                 | MASS      | RT     | EXP RT | REL RT  | RESPONSE | CAL AMT<br>( ng) | ON-COL<br>( ng) |
| =====                           | =====     | ==     | =====  | =====   | =====    | =====            | =====           |
| 90 4-Isopropyltoluene           | 119       | 12.254 | 12.254 | (0.998) | 191579   | 100.000          | 100.0           |
| 93 1,4-Dichlorobenzene          | 146       | 12.303 | 12.303 | (1.002) | 112673   | 100.000          | 100.5           |
| 94 n-Butylbenzene               | 91        | 12.662 | 12.662 | (1.031) | 179780   | 100.000          | 99.45           |
| 95 1,2-Dichlorobenzene          | 146       | 12.668 | 12.668 | (1.032) | 106538   | 100.000          | 100.9           |
| 96 1,2-Dibromo-3-chloropropane  | 157       | 13.434 | 13.434 | (1.094) | 9316     | 100.000          | 104.2           |
| 97 1,2,4-Trichlorobenzene       | 180       | 14.262 | 14.262 | (1.162) | 44550    | 100.000          | 87.02           |
| 98 Hexachlorobutadiene          | 225       | 14.444 | 14.444 | (1.176) | 38019    | 100.000          | 86.14           |
| 99 Naphthalene                  | 128       | 14.505 | 14.505 | (1.181) | 93485    | 100.000          | 89.62           |
| 100 1,2,3-Trichlorobenzene      | 180       | 14.749 | 14.749 | (1.201) | 34032    | 100.000          | 73.89           |
| M 29 1,2-Dichloroethene (total) | 96        |        |        |         | 116669   | 200.000          | 201.8           |
| M 75 Xylenes (total)            | 106       |        |        |         | 314296   | 100.000          | 299.1           |

Instrument: hp5.1  
Operator: 10099  
Column diameter: 0.18



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Data File: /var/chem/hp5.i/50515d.b/3c50515.d  
Report Date: 15-May-2000 08:27

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## STL-PITTSBURGH

## VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp5.i/50515d.b/3c50515.d  
 Lab Smp Id: vstd50 Client Smp ID: vstd50  
 Inj Date : 15-MAY-2000 08:09  
 Operator : 10099 Inst ID: hp5.i  
 Smp Info : VSTD50 5ML  
 Misc Info : vstd50,50515d.b,8260bh2o.m,3-dwlist.sub  
 Comment :  
 Method : /var/chem/hp5.i/50515d.b/8260bh2o.m  
 Meth Date : 15-May-2000 08:27 h Quant Type: ISTD  
 Cal Date : 24-APR-2000 15:00 Cal File: 1a50424n.d  
 Als bottle: 5 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 3-dwlist.sub  
 Target Version: 3.40  
 Processing Host: hpuxcs21

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<br>MASS | RT     | EXP RT | REL RT  | RESPONSE | AMOUNTS          |                 |
|-----------------------------|-------------------|--------|--------|---------|----------|------------------|-----------------|
|                             |                   |        |        |         |          | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| * 46 Fluorobenzene          | 96                | 6.862  | 6.862  | (1.000) | 656862   |                  |                 |
| * 69 Chlorobenzene-d5       | 119               | 9.971  | 9.971  | (1.000) | 155636   |                  |                 |
| * 92 1,4-Dichlorobenzene-d4 | 152               | 12.276 | 12.276 | (1.000) | 226296   |                  |                 |
| \$ 39 Dibromofluoromethane  | 113               | 6.120  | 6.120  | (0.892) | 142778   | 250.000          | 219.0           |
| \$ 43 1,2-Dichloroethane-d4 | 65                | 6.485  | 6.485  | (0.945) | 183495   | 250.000          | 205.5           |
| \$ 59 Toluene-d8            | 98                | 8.523  | 8.523  | (0.855) | 618043   | 250.000          | 222.2           |
| \$ 80 Bromofluorobenzene    | 95                | 11.139 | 11.139 | (1.117) | 232609   | 250.000          | 212.5           |
| 1 Dichlorodifluoromethane   | 85                | 1.581  | 1.581  | (0.230) | 111433   | 250.000          | 335.5           |
| 2 Chloromethane             | 50                | 1.734  | 1.734  | (0.253) | 141315   | 250.000          | 258.3           |
| 3 Vinyl Chloride            | 62                | 1.855  | 1.855  | (0.270) | 146017   | 250.000          | 239.2           |
| 4 Bromomethane              | 94                | 2.135  | 2.135  | (0.311) | 17814    | 250.000          | 161.3           |
| 5 Chloroethane              | 64                | 2.257  | 2.257  | (0.329) | 22506    | 250.000          | 243.9           |
| 6 Trichlorofluoromethane    | 101               | 2.464  | 2.464  | (0.359) | 38118    | 250.000          | 54.03           |
| 12 1,1-Dichloroethene       | 96                | 3.048  | 3.048  | (0.444) | 144418   | 250.000          | 214.6           |
| 13 Acetone                  | 43                | 3.260  | 3.260  | (0.475) | 86229    | 250.000          | 244.6           |
| 15 Carbon Disulfide         | 76                | 3.279  | 3.279  | (0.478) | 520567   | 250.000          | 264.4           |

Data File: /var/chem/hp5.1/50515d.b/3c50515.d  
Report Date: 15-May-2000 08:27

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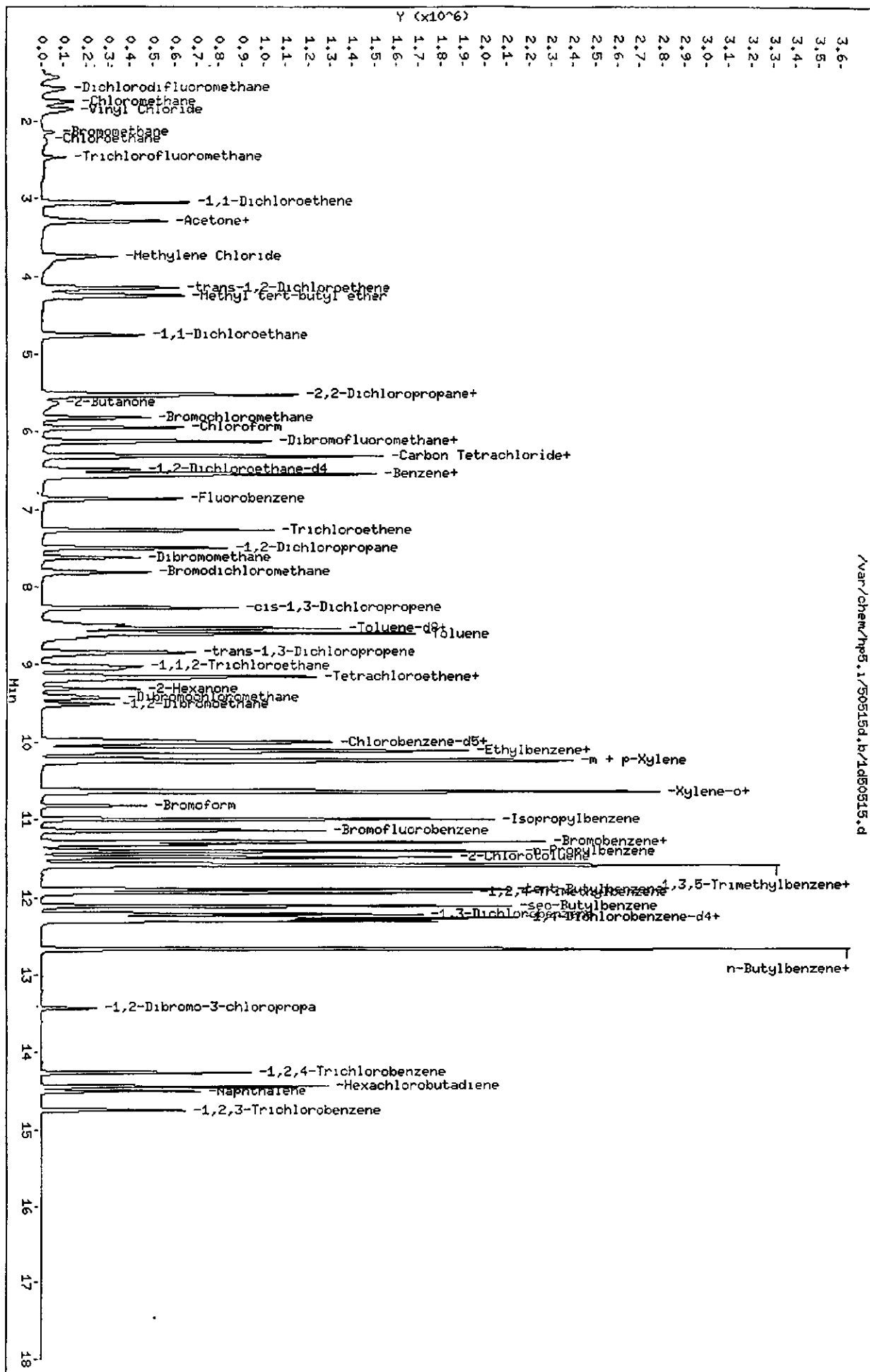
| Compounds                    | QUANT SIG |        |        |         | RESPONSE | AMOUNTS          |                 |
|------------------------------|-----------|--------|--------|---------|----------|------------------|-----------------|
|                              | MASS      | RT     | EXP RT | REL RT  |          | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| =====                        | ====      | ==     | =====  | =====   | =====    | =====            | =====           |
| 18 Methylene Chloride        | 84        | 3.741  | 3.741  | (0.545) | 157612   | 250.000          | 208.0           |
| 19 trans-1,2-Dichloroethene  | 96        | 4.136  | 4.136  | (0.603) | 146920   | 250.000          | 201.0           |
| 20 Methyl tert-butyl ether   | 73        | 4.246  | 4.246  | (0.619) | 453706   | 250.000          | 200.5           |
| 24 1,1-Dichloroethane        | 63        | 4.745  | 4.745  | (0.691) | 251573   | 250.000          | 202.6           |
| 27 2,2-Dichloropropane       | 77        | 5.499  | 5.499  | (0.801) | 227228   | 250.000          | 209.5           |
| 28 cis-1,2-dichloroethene    | 96        | 5.524  | 5.524  | (0.805) | 152478   | 250.000          | 191.1           |
| 31 2-Butanone                | 43        | 5.621  | 5.621  | (0.819) | 126985   | 250.000          | 228.4           |
| 30 Bromochloromethane        | 128       | 5.809  | 5.809  | (0.847) | 70454    | 250.000          | 175.5           |
| 37 Chloroform                | 83        | 5.937  | 5.937  | (0.865) | 240374   | 250.000          | 192.9           |
| 38 1,1,1-Trichloroethane     | 97        | 6.108  | 6.108  | (0.890) | 224214   | 250.000          | 206.8           |
| 41 Carbon Tetrachloride      | 117       | 6.302  | 6.302  | (0.918) | 189418   | 250.000          | 211.6           |
| 40 1,1-Dichloropropene       | 75        | 6.308  | 6.308  | (0.919) | 196960   | 250.000          | 209.5           |
| 42 Benzene                   | 78        | 6.539  | 6.539  | (0.953) | 596350   | 250.000          | 193.4           |
| 45 1,2-Dichloroethane        | 62        | 6.570  | 6.570  | (0.957) | 208667   | 250.000          | 189.4           |
| 47 Trichloroethene           | 130       | 7.263  | 7.263  | (1.058) | 152988   | 250.000          | 197.9           |
| 49 1,2-Dichloropropane       | 63        | 7.495  | 7.495  | (1.092) | 141176   | 250.000          | 193.2           |
| 50 Dibromomethane            | 93        | 7.616  | 7.616  | (1.110) | 84483    | 250.000          | 187.0           |
| 53 Bromodichloromethane      | 83        | 7.805  | 7.805  | (1.137) | 175399   | 250.000          | 191.1           |
| 57 cis-1,3-Dichloropropene   | 75        | 8.261  | 8.261  | (1.204) | 239133   | 250.000          | 192.4           |
| 58 4-Methyl-2-Pentanone      | 43        | 8.486  | 8.486  | (0.851) | 188490   | 250.000          | 224.7           |
| 60 Toluene                   | 91        | 8.590  | 8.590  | (0.861) | 660544   | 250.000          | 196.4           |
| 61 trans-1,3-Dichloropropene | 75        | 8.827  | 8.827  | (0.885) | 230335   | 250.000          | 200.0           |
| 64 1,1,2-Trichloroethane     | 97        | 9.015  | 9.015  | (0.904) | 131912   | 250.000          | 193.8           |
| 65 Tetrachloroethene         | 164       | 9.137  | 9.137  | (0.916) | 127115   | 250.000          | 216.1           |
| 67 Dibromochloromethane      | 129       | 9.423  | 9.423  | (0.945) | 130710   | 250.000          | 194.0           |
| 63 1,3-Dichloropropane       | 76        | 9.168  | 9.168  | (0.919) | 237743   | 250.000          | 198.4           |
| 66 2-Hexanone                | 43        | 9.295  | 9.295  | (0.932) | 132636   | 250.000          | 227.9           |
| 68 1,2-Dibromoethane         | 107       | 9.496  | 9.496  | (0.952) | 135555   | 250.000          | 198.8           |
| 70 Chlorobenzene             | 112       | 9.995  | 9.995  | (1.002) | 429532   | 250.000          | 194.0           |
| 72 Ethylbenzene              | 106       | 10.110 | 10.110 | (1.014) | 246620   | 250.000          | 210.8           |
| 71 1,1,1,2-Tetrachloroethane | 131       | 10.092 | 10.092 | (1.012) | 138755   | 250.000          | 199.5           |
| 73 m + p-Xylene              | 106       | 10.226 | 10.226 | (1.026) | 560869   | 500.000          | 417.6           |
| 74 Xylene-o                  | 106       | 10.621 | 10.621 | (1.065) | 274769   | 250.000          | 203.5           |
| 76 Styrene                   | 104       | 10.640 | 10.640 | (1.067) | 458150   | 250.000          | 199.1           |
| 77 Bromoform                 | 173       | 10.816 | 10.816 | (1.085) | 83591    | 250.000          | 202.7           |
| 78 Isopropylbenzene          | 105       | 10.986 | 10.986 | (1.102) | 707653   | 250.000          | 216.1           |
| 79 Bromobenzene              | 156       | 11.278 | 11.278 | (0.919) | 171878   | 250.000          | 203.2           |
| 83 1,1,2,2-Tetrachloroethane | 83        | 11.278 | 11.278 | (0.919) | 175243   | 250.000          | 212.8           |
| 84 1,2,3-Trichloropropane    | 110       | 11.321 | 11.321 | (0.922) | 59779    | 250.000          | 210.0           |
| 81 n-Propylbenzene           | 120       | 11.394 | 11.394 | (0.928) | 184606   | 250.000          | 215.1           |
| 82 2-Chlorotoluene           | 126       | 11.473 | 11.473 | (0.935) | 156193   | 250.000          | 204.0           |
| 86 1,3,5-Trimethylbenzene    | 105       | 11.570 | 11.570 | (0.943) | 494791   | 250.000          | 213.7           |
| 85 4-Chlorotoluene           | 126       | 11.583 | 11.583 | (0.944) | 155575   | 250.000          | 201.7           |
| 87 tert-Butylbenzene         | 119       | 11.893 | 11.893 | (0.969) | 467712   | 250.000          | 223.4           |
| 88 1,2,4-Trimethylbenzene    | 105       | 11.935 | 11.935 | (0.972) | 473359   | 250.000          | 212.3           |
| 89 sec-Butylbenzene          | 105       | 12.106 | 12.106 | (0.986) | 686995   | 250.000          | 231.9           |
| 91 1,3-Dichlorobenzene       | 146       | 12.209 | 12.209 | (0.995) | 303607   | 250.000          | 208.2           |



|                                 | QUANT SIG |        |        |         |          | AMOUNTS          |                  |
|---------------------------------|-----------|--------|--------|---------|----------|------------------|------------------|
| Compounds                       | MASS      | RT     | EXP RT | REL RT  | RESPONSE | CAL AMT<br>( ng) | ON- COL<br>( ng) |
| =====                           | =====     | ==     | =====  | =====   | =====    | =====            | =====            |
| 90 4-Isopropyltoluene           | 119       | 12 252 | 12 252 | (0 998) | 521926   | 250.000          | 231.2            |
| 93 1,4-Dichlorobenzene          | 146       | 12 300 | 12 300 | (1 002) | 303193   | 250 000          | 206 7            |
| 94 n-Butylbenzene               | 91        | 12.659 | 12 659 | (1 031) | 493131   | 250.000          | 247 8            |
| 95 1,2-Dichlorobenzene          | 146       | 12 665 | 12 665 | (1 032) | 289716   | 250 000          | 207 8            |
| 96 1,2-Dibromo-3-chloropropane  | 157       | 13 432 | 13.432 | (1 094) | 27179    | 250 000          | 232 7            |
| 97 1,2,4 Trichlorobenzene       | 180       | 14 265 | 14 265 | (1 162) | 130242   | 250 000          | 242 0            |
| 98 Hexachlorobutadiene          | 225       | 14 442 | 14 442 | (1 176) | 109401   | 250.000          | 290.1            |
| 99 Naphthalene                  | 128       | 14 503 | 14 503 | (1 181) | 266486   | 250.000          | 221 4            |
| 100 1,2,3-Trichlorobenzene      | 180       | 14 746 | 14.746 | (1 201) | 101711   | 250 000          | 228 5            |
| M 29 1,2-Dichloroethene (total) | 96        |        |        |         | 299398   | 500 000          | 391 7            |
| M 75 Xylenes (total)            | 106       |        |        |         | 835638   | 250.000          | 619.0            |

Data File: /var/chem/hp5.1/50515d.b/1d50515.d  
 Date: 15-MAY-2000 09:34  
 Client ID: vstd100  
 Sample Info: VSTD100 BHL  
 Purge Volume: 5.0  
 Column phase: DB 624

Instrument: hp5.1  
 Operator: 10099  
 Column diameter: 0.18



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Data File: /var/chem/hp5.i/50515d.b/1d50515.d

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Report Date: 15-May-2000 09:52

## STL-PITTSBURGH

## VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp5.i/50515d.b/1d50515.d  
 Lab Smp Id: vstd100 Client Smp ID: vstd100  
 Inj Date : 15-MAY-2000 09:34  
 Operator : 10099 Inst ID: hp5.i  
 Smp Info : VSTD100 5ML  
 Misc Info : vstd100,50515d.b,8260bh2o.m,3-dwlist.sub  
 Comment :  
 Method : /var/chem/hp5.i/50515d.b/8260bh2o.m  
 Meth Date : 15-May-2000 09:52 h Quant Type: ISTD  
 Cal Date : 15-MAY-2000 09:34 Cal File: 1d50515.d  
 Als bottle: 8 Calibration Sample, Level: 4  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 3-dwlist.sub  
 Target Version: 3.40  
 Processing Host: hpuxcs21

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 | MASS   | RT     | EXP RT  | REL RT  | RESPONSE | AMOUNTS          |                 |
|-----------------------------|-----------|--------|--------|---------|---------|----------|------------------|-----------------|
|                             |           |        |        |         |         |          | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| * 46 Fluorobenzene          | 96        | 6.870  | 6.870  | (1.000) | 598557  |          |                  |                 |
| * 69 Chlorobenzene-d5       | 119       | 9.985  | 9.985  | (1.000) | 142167  |          |                  |                 |
| * 92 1,4-Dichlorobenzene-d4 | 152       | 12.278 | 12.278 | (1.000) | 208871  |          |                  |                 |
| \$ 39 Dibromofluoromethane  | 113       | 6.128  | 6.128  | (0.892) | 261065  | 500.000  | 503.7            |                 |
| \$ 43 1,2-Dichloroethane-d4 | 65        | 6.487  | 6.487  | (0.944) | 343350  | 500.000  | 495.6            |                 |
| \$ 59 Toluene-d8            | 98        | 8.531  | 8.531  | (0.854) | 1120300 | 500.000  | 487.3            |                 |
| \$ 80 Bromofluorobenzene    | 95        | 11.140 | 11.140 | (1.116) | 426056  | 500.000  | 492.8            |                 |
| 1 Dichlorodifluoromethane   | 85        | 1.571  | 1.571  | (0.229) | 249210  | 500.000  | 586.0            |                 |
| 2 Chloromethane             | 50        | 1.748  | 1.748  | (0.254) | 305254  | 500.000  | 573.6            |                 |
| 3 Vinyl Chloride            | 62        | 1.857  | 1.857  | (0.270) | 322329  | 500.000  | 587.5            |                 |
| 4 Bromomethane              | 94        | 2.143  | 2.143  | (0.312) | 49217   | 500.000  | 586.2            |                 |
| 5 Chloroethane              | 64        | 2.234  | 2.234  | (0.325) | 50736   | 500.000  | 617.4            |                 |
| 6 Trichlorofluoromethane    | 101       | 2.471  | 2.471  | (0.360) | 88576   | 500.000  | 585.1            |                 |
| 12 1,1-Dichloroethene       | 96        | 3.062  | 3.062  | (0.446) | 321202  | 500.000  | 582.2            |                 |
| 13 Acetone                  | 43        | 3.256  | 3.256  | (0.474) | 170574  | 500.000  | 443.6            |                 |
| 15 Carbon Disulfide         | 76        | 3.299  | 3.299  | (0.480) | 955033  | 500.000  | 594.1            |                 |

| Compounds                    | QUANT SIG |        |        | REL RT  | RESPONSE | AMOUNTS          |                 |
|------------------------------|-----------|--------|--------|---------|----------|------------------|-----------------|
|                              | MASS      | RT     | EXP RT |         |          | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| =====                        | =====     | ==     | =====  | =====   | =====    | =====            | =====           |
| 18 Methylene Chloride        | 84        | 3.749  | 3.749  | (0.546) | 321896   | 500.000          | 538.5           |
| 19 trans-1,2-Dichloroethene  | 96        | 4.150  | 4.150  | (0.604) | 336689   | 500.000          | 587.9           |
| 20 Methyl tert-butyl ether   | 73        | 4.248  | 4.248  | (0.618) | 976036   | 500.000          | 631.6           |
| 24 1,1-Dichloroethane        | 63        | 4.759  | 4.759  | (0.693) | 564809   | 500.000          | 587.2           |
| 27 2,2-Dichloropropane       | 77        | 5.513  | 5.513  | (0.803) | 528131   | 500.000          | 607.6           |
| 28 cis-1,2-dichloroethene    | 96        | 5.531  | 5.531  | (0.805) | 348816   | 500.000          | 593.2           |
| 31 2-Butanone                | 43        | 5.629  | 5.629  | (0.819) | 241097   | 500.000          | 375.1           |
| 30 Bromochloromethane        | 128       | 5.811  | 5.811  | (0.846) | 158950   | 500.000          | 573.2           |
| 37 Chloroform                | 83        | 5.945  | 5.945  | (0.865) | 541844   | 500.000          | 587.0           |
| 38 1,1,1-Trichloroethane     | 97        | 6.122  | 6.122  | (0.891) | 522322   | 500.000          | 603.9           |
| 41 Carbon Tetrachloride      | 117       | 6.310  | 6.310  | (0.919) | 446757   | 500.000          | 622.7           |
| 40 1,1 Dichloropropene       | 75        | 6.316  | 6.316  | (0.919) | 451956   | 500.000          | 589.5           |
| 42 Benzene                   | 78        | 6.547  | 6.547  | (0.953) | 1324240  | 500.000          | 579.4           |
| 45 1,2-Dichloroethane        | 62        | 6.578  | 6.578  | (0.957) | 474228   | 500.000          | 590.9           |
| 47 Trichloroethene           | 130       | 7.271  | 7.271  | (1.058) | 341897   | 500.000          | 586.7           |
| 49 1,2-Dichloropropane       | 63        | 7.496  | 7.496  | (1.091) | 313445   | 500.000          | 581.5           |
| 50 Dibromomethane            | 93        | 7.618  | 7.618  | (1.109) | 191358   | 500.000          | 590.3           |
| 53 Bromodichloromethane      | 83        | 7.807  | 7.807  | (1.136) | 402454   | 500.000          | 620.9           |
| 57 cis-1,3-Dichloropropene   | 75        | 8.263  | 8.263  | (1.203) | 536432   | 500.000          | 605.2           |
| 58 4-Methyl-2-Pentanone      | 43        | 8.488  | 8.488  | (0.850) | 400404   | 500.000          | 545.1           |
| 60 Toluene                   | 91        | 8.598  | 8.598  | (0.861) | 1469165  | 500.000          | 573.6           |
| 61 trans-1,3-Dichloropropene | 75        | 8.835  | 8.835  | (0.885) | 525148   | 500.000          | 610.9           |
| 64 1,1,2-Trichloroethane     | 97        | 9.017  | 9.017  | (0.903) | 293999   | 500.000          | 574.3           |
| 65 Tetrachloroethene         | 164       | 9.145  | 9.145  | (0.916) | 283638   | 500.000          | 582.2           |
| 67 Dibromochloromethane      | 129       | 9.431  | 9.431  | (0.945) | 308416   | 500.000          | 640.4           |
| 63 1,3-Dichloropropane       | 76        | 9.175  | 9.175  | (0.919) | 535848   | 500.000          | 583.0           |
| 66 2 Hexanone                | 43        | 9.303  | 9.303  | (0.932) | 285485   | 500.000          | 550.7           |
| 68 1,2-Dibromoethane         | 107       | 9.498  | 9.498  | (0.951) | 305751   | 500.000          | 589.2           |
| 70 Chlorobenzene             | 112       | 10.009 | 10.009 | (1.002) | 947324   | 500.000          | 573.7           |
| 72 Ethylbenzene              | 106       | 10.112 | 10.112 | (1.013) | 540792   | 500.000          | 562.5           |
| 71 1,1,1,2-Tetrachloroethane | 131       | 10.094 | 10.094 | (1.011) | 317697   | 500.000          | 605.4           |
| 73 m + p-Xylene              | 106       | 10.234 | 10.234 | (1.025) | 1240401  | 1000.00          | 1140            |
| 74 Xylene-o                  | 106       | 10.629 | 10.629 | (1.065) | 604625   | 500.000          | 576.1           |
| 76 Styrene                   | 104       | 10.642 | 10.642 | (1.066) | 1024547  | 500.000          | 594.6           |
| 77 Bromoform                 | 173       | 10.818 | 10.818 | (1.083) | 204982   | 500.000          | 677.4           |
| 78 Isopropylbenzene          | 105       | 10.994 | 10.994 | (1.101) | 1561822  | 500.000          | 574.1           |
| 79 Bromobenzene              | 156       | 11.286 | 11.286 | (0.919) | 379178   | 500.000          | 569.9           |
| 83 1,1,2,2-Tetrachloroethane | 83        | 11.280 | 11.280 | (0.919) | 400206   | 500.000          | 580.6           |
| 84 1,2,3 Trichloropropane    | 110       | 11.323 | 11.323 | (0.922) | 133667   | 500.000          | 576.7           |
| 81 n-Propylbenzene           | 120       | 11.396 | 11.396 | (0.928) | 412539   | 500.000          | 570.9           |
| 82 2-Chlorotoluene           | 126       | 11.481 | 11.481 | (0.935) | 350254   | 500.000          | 573.4           |
| 86 1,3,5-Trimethylbenzene    | 105       | 11.572 | 11.572 | (0.943) | 1150272  | 500.000          | 590.7           |
| 85 4-Chlorotoluene           | 126       | 11.584 | 11.584 | (0.944) | 351861   | 500.000          | 569.0           |
| 87 tert Butylbenzene         | 119       | 11.895 | 11.895 | (0.969) | 1023921  | 500.000          | 561.2           |
| 88 1,2,4-Trimethylbenzene    | 105       | 11.937 | 11.937 | (0.972) | 1097232  | 500.000          | 582.1           |
| 89 sec-Butylbenzene          | 105       | 12.114 | 12.114 | (0.987) | 1505235  | 500.000          | 559.0           |
| 91 1,3-Dichlorobenzene       | 146       | 12.211 | 12.211 | (0.995) | 670258   | 500.000          | 569.8           |

659 816

Data File: /var/chem/hp5.i/50515d.b/1d50515.d

Report Date: 15-May-2000 09:52

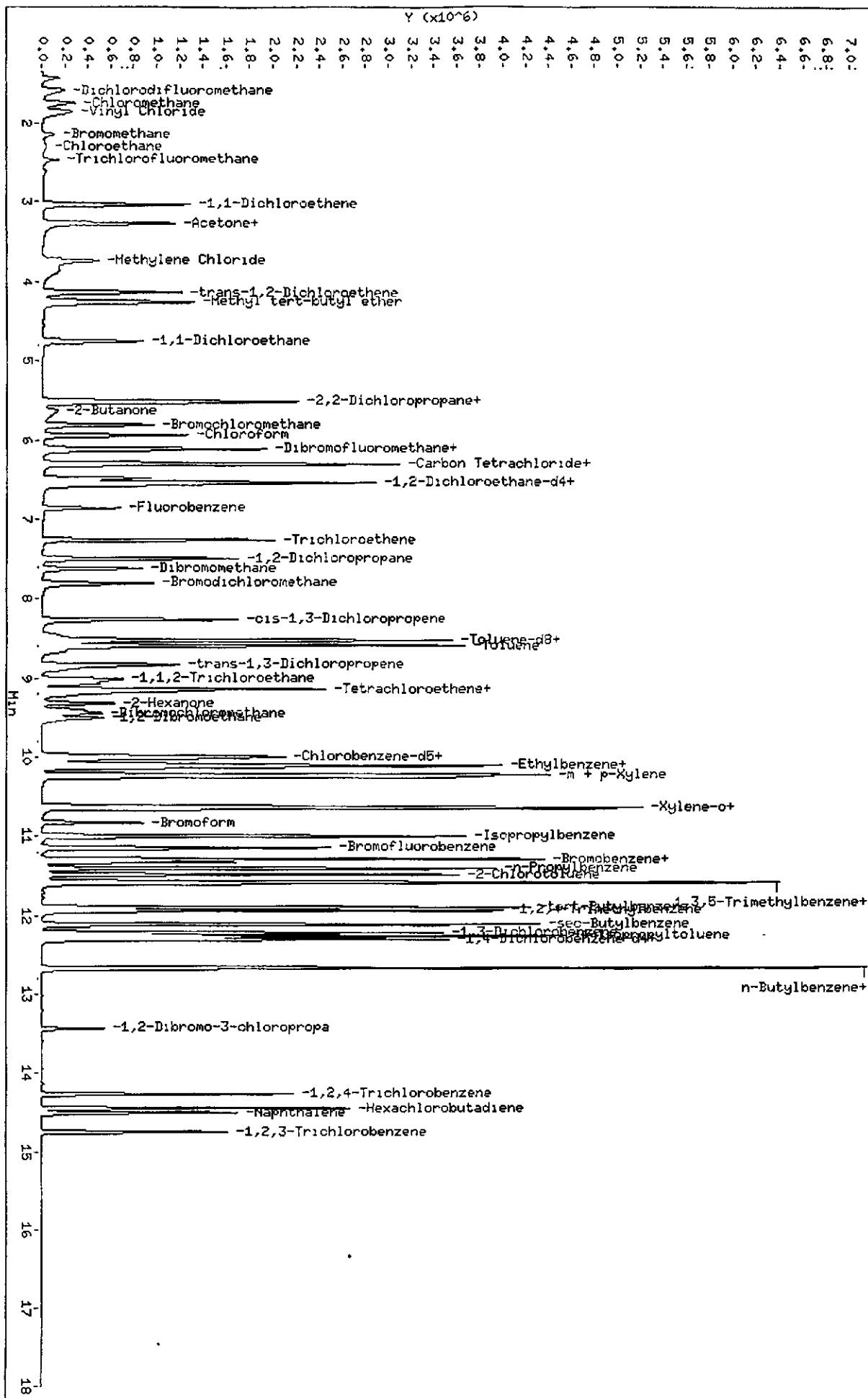
Page 3

| Compounds                       | QUANT SIG |        |                | RESPONSE | AMOUNTS          |                 |
|---------------------------------|-----------|--------|----------------|----------|------------------|-----------------|
|                                 | MASS      | RT     | EXP RT REL RT  |          | CAL-AMT<br>( ng) | ON COL<br>( ng) |
| =====                           | =====     | ==     | =====          | =====    | =====            | =====           |
| 90 4-Isopropyltoluene           | 119       | 12 254 | 12 254 (0 998) | 1159767  | 500 000          | 568 9           |
| 93 1,4-Dichlorobenzene          | 146       | 12.302 | 12 302 (1 002) | 669870   | 500 000          | 563 4           |
| 94 n-Butylbenzene               | 91        | 12 661 | 12 661 (1.031) | 1144016  | 500.000          | 587 0           |
| 95 1,2-Dichlorobenzene          | 146       | 12 667 | 12 667 (1 032) | 637132   | 500 000          | 567 7           |
| 96 1,2-Dibromo-3-chloropropane  | 157       | 13 434 | 13 434 (1 094) | 65217    | 500 000          | 647 6           |
| 97 1,2,4-Trichlorobenzene       | 180       | 14 261 | 14.261 (1.162) | 278515   | 500 000          | 526.4           |
| 98 Hexachlorobutadiene          | 225       | 14 444 | 14.444 (1 176) | 233212   | 500 000          | 515 1           |
| 99 Naphthalene                  | 128       | 14 505 | 14 505 (1 181) | 544974   | 500 000          | 510 8           |
| 100 1,2,3-Trichlorobenzene      | 180       | 14 748 | 14 748 (1 201) | 198001   | 500 000          | 440 2           |
| M 29 1,2-Dichloroethene (total) | 96        |        |                | 685505   | 1000 00          | 1181            |
| M 75 Xylenes (total)            | 106       |        |                | 1845026  | 500 000          | 1758            |

Data File: /var/chem/hp5.1/50515d.b/1e50515.d  
 Date: 15-MAY-2000 09:59  
 Client ID: vsta200  
 Sample Info: VSTD200 SHL  
 Purge Volume: 5.0  
 Column phase: DB 624

/var/chem/hp5.1/50515d.b/1e50515.d

Instrument: hp5.1  
 Operator: 10099  
 Column diameter: 0.18



659 818

Data File: /var/chem/hp5.i/50515d.b/1e50515.d  
Report Date: 15-May-2000 10:17

Page 1

## STL-PITTSBURGH

## VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp5.i/50515d.b/1e50515.d  
 Lab Smp Id: vstd200 Client Smp ID: vstd200  
 Inj Date : 15-MAY-2000 09:59  
 Operator : 10099 Inst ID: hp5.i  
 Smp Info : VSTD200 5ML  
 Misc Info : vstd200,50515d.b,8260bh2o.m,3-dwlist.sub  
 Comment :  
 Method : /var/chem/hp5.i/50515d.b/8260bh2o.m  
 Meth Date : 15-May-2000 10:17 h Quant Type: ISTD  
 Cal Date : 15-MAY-2000 09:59 Cal File: 1e50515.d  
 Als bottle: 9 Calibration Sample, Level: 5  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 3-dwlist.sub  
 Target Version: 3.40  
 Processing Host: hpuxcs21

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 | MASS   | RT     | EXP RT  | REL RT  | RESPONSE | AMOUNTS          |                 |
|-----------------------------|-------|-----|--------|--------|---------|---------|----------|------------------|-----------------|
|                             |       |     |        |        |         |         |          | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| * 46 Fluorobenzene          | 96    |     | 6 867  | 6 867  | (1 000) | 616507  |          |                  |                 |
| * 69 Chlorobenzene-d5       | 119   |     | 9 970  | 9 970  | (1 000) | 143792  |          |                  |                 |
| * 92 1,4 Dichlorobenzene-a4 | 152   |     | 12 282 | 12 282 | (1 000) | 219331  |          |                  |                 |
| \$ 39 Dibromofluoromethane  | 113   |     | 6 131  | 6 131  | (0 893) | 550556  | 1000.00  | 1025             |                 |
| \$ 43 1,2-Dichloroethane-d4 | 65    |     | 6 490  | 6 490  | (0.945) | 727558  | 1000 00  | 1016             |                 |
| \$ 59 Toluene-d8            | 98    |     | 8 528  | 8.528  | (0 855) | 2354095 | 1000.00  | 1010             |                 |
| \$ 80 Bromofluorobenzene    | 95    |     | 11 144 | 11 144 | (1 118) | 886152  | 1000 00  | 1011             |                 |
| 1 Dichlorodifluoromethane   | 85    |     | 1 587  | 1 587  | (0 231) | 500203  | 1000 00  | 1110             |                 |
| 2 Chloromethane             | 50    |     | 1 745  | 1 745  | (0 254) | 623348  | 1000.00  | 1107             |                 |
| 3 Vinyl Chloride            | 62    |     | 1 861  | 1 861  | (0.271) | 645907  | 1000.00  | 1111             |                 |
| 4 Bromomethane              | 94    |     | 2 140  | 2 140  | (0 312) | 102219  | 1000 00  | 1140             |                 |
| 5 Chloroethane              | 64    |     | 2 299  | 2 299  | (0 335) | 92306   | 1000 00  | 1071             |                 |
| 6 Trichlorofluoromethane    | 101   |     | 2 469  | 2 469  | (0 360) | 129699  | 1000 00  | 860 8            |                 |
| 12 1,1 Dichloroethene       | 96    |     | 3.035  | 3 035  | (0.442) | 643699  | 1000 00  | 1104             |                 |
| 13 Acetone                  | 43    |     | 3.272  | 3 272  | (0 476) | 347479  | 1000 00  | 899 4            |                 |
| 15 Carbon Disulfide         | 76    |     | 3 272  | 3 272  | (0 476) | 1982676 | 1000 00  | 1152             |                 |

Data File: /var/chem/hp5.i/50515d.b/1e50515.d  
Report Date: 15-May-2000 10:17

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| Compounds                    | QUANT SIG |        |        |         | RESPONSE | AMOUNTS          |                 |
|------------------------------|-----------|--------|--------|---------|----------|------------------|-----------------|
|                              | MASS      | RT     | EXP RT | REL RT  |          | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| 18 Methylene Chloride        | 84        | 3 740  | 3 740  | (0 545) | 696870   | 1000 00          | 1103            |
| 19 trans-1,2-Dichloroethene  | 96        | 4 142  | 4 142  | (0 603) | 665252   | 1000 00          | 1100            |
| 20 Methyl tert-butyl ether   | 73        | 4 258  | 4 258  | (0 620) | 2007762  | 1000 00          | 1199            |
| 24 1,1-Dichloroethane        | 63        | 4 756  | 4 756  | (0 693) | 1087929  | 1000 00          | 1077            |
| 27 2,2-Dichloropropane       | 77        | 5 511  | 5 511  | (0 802) | 1077092  | 1000 00          | 1156            |
| 28 cis-1,2-dichloroethene    | 96        | 5 529  | 5 529  | (0 805) | 689232   | 1000 00          | 1107            |
| 31 2-Butanone                | 43        | 5 638  | 5 638  | (0 821) | 487618   | 1000 00          | 777 6           |
| 30 Bromochloromethane        | 128       | 5 815  | 5 815  | (0 847) | 315522   | 1000 00          | 1082            |
| 37 Chloroform                | 83        | 5.943  | 5 943  | (0 865) | 1100507  | 1000.00          | 1122            |
| 38 1,1,1-Trichloroethane     | 97        | 6.113  | 6 113  | (0 890) | 1056296  | 1000 00          | 1143            |
| 41 Carbon Tetrachloride      | 117       | 6.308  | 6 308  | (0 918) | 903950   | 1000.00          | 1171            |
| 40 1,1-Dichloropropene       | 75        | 6 314  | 6 314  | (0 919) | 900865   | 1000 00          | 1110            |
| 42 Benzene                   | 78        | 6 545  | 6 545  | (0 953) | 2573689  | 1000 00          | 1073            |
| 45 1,2 Dichloroethane        | 62        | 6.575  | 6 575  | (0 957) | 970100   | 1000 00          | 1134            |
| 47 Trichloroethene           | 130       | 7 269  | 7 269  | (1.058) | 670348   | 1000 00          | 1091            |
| 49 1,2-Dichloropropane       | 63        | 7 500  | 7 500  | (1 092) | 640758   | 1000.00          | 1120            |
| 50 Dibromomethane            | 93        | 7 622  | 7 622  | (1 110) | 385659   | 1000 00          | 1120            |
| 53 Bromodichloromethane      | 83        | 7 810  | 7 810  | (1 137) | 823706   | 1000 00          | 1179            |
| 57 cis-1,3-Dichloropropene   | 75        | 8 260  | 8 260  | (1 203) | 1083881  | 1000 00          | 1144            |
| 58 4-Methyl-2-Pentanone      | 43        | 8 516  | 8 516  | (0 854) | 821956   | 1000.00          | 1083            |
| 60 Toluene                   | 91        | 8 595  | 8 595  | (0 862) | 2908272  | 1000.00          | 1096            |
| 61 trans 1,3-Dichloropropene | 75        | 8 832  | 8 832  | (0 886) | 1062835  | 1000 00          | 1170            |
| 64 1,1,2-Trichloroethane     | 97        | 9 015  | 9 015  | (0 904) | 586330   | 1000 00          | 1103            |
| 65 Tetrachloroethene         | 164       | 9 143  | 9 143  | (0 917) | 560323   | 1000.00          | 1107            |
| 67 Dibromochloromethane      | 129       | 9 447  | 9 447  | (0 948) | 625553   | 1000.00          | 1215            |
| 63 1,3-Dichloropropane       | 76        | 9 173  | 9 173  | (0 920) | 1059831  | 1000 00          | 1109            |
| 66 2-Hexanone                | 43        | 9 319  | 9 319  | (0 935) | 564915   | 1000 00          | 1061            |
| 68 1,2-Dibromoethane         | 107       | 9 502  | 9 502  | (0 953) | 610243   | 1000 00          | 1126            |
| 70 Chlorobenzene             | 112       | 10 000 | 10 000 | (1 003) | 1854731  | 1000 00          | 1086            |
| 72 Ethylbenzene              | 106       | 10 110 | 10 110 | (1 014) | 1070870  | 1000 00          | 1079            |
| 71 1,1,1,2-Tetrachloroethane | 131       | 10 110 | 10.110 | (1 014) | 621534   | 1000 00          | 1132            |
| 73 m + p-Xylene              | 106       | 10 232 | 10 232 | (1 026) | 2516383  | 2000 00          | 2223            |
| 74 Xylene-o                  | 106       | 10 633 | 10 633 | (1 067) | 1264733  | 1000 00          | 1147            |
| 76 Styrene                   | 104       | 10 651 | 10 651 | (1 068) | 2124828  | 1000 00          | 1168            |
| 77 Bromoform                 | 173       | 10 828 | 10.828 | (1.066) | 414984   | 1000 00          | 1266            |
| 78 Isopropylbenzene          | 105       | 10 998 | 10 998 | (1 103) | 3088349  | 1000 00          | 1096            |
| 79 Bromobenzene              | 156       | 11 290 | 11 290 | (0 919) | 732268   | 1000 00          | 1038            |
| 83 1,1,2,2-Tetrachloroethane | 83        | 11 290 | 11 290 | (0 919) | 800538   | 1000 00          | 1083            |
| 84 1,2,3-Trichloropropane    | 110       | 11 327 | 11.327 | (0.922) | 259538   | 1000 00          | 1052            |
| 81 n Propylbenzene           | 120       | 11 406 | 11.406 | (0 929) | 823600   | 1000 00          | 1067            |
| 82 2-Chlorotoluene           | 126       | 11 485 | 11 485 | (0 935) | 692491   | 1000 00          | 1063            |
| 86 1,3,5-Trimethylbenzene    | 105       | 11 576 | 11 576 | (0 943) | 2349656  | 1000 00          | 1116            |
| 85 4-Chlorotoluene           | 126       | 11 588 | 11 588 | (0.944) | 722494   | 1000.00          | 1088            |
| 87 tert-Butylbenzene         | 119       | 11.898 | 11 898 | (0.969) | 2067690  | 1000 00          | 1062            |
| 88 1,2,4-Trimethylbenzene    | 105       | 11 941 | 11.941 | (0 972) | 2262072  | 1000 00          | 1111            |
| 89 sec Butylbenzene          | 105       | 12 111 | 12 111 | (0 986) | 3045485  | 1000 00          | 1061            |
| 91 1,3-Dichlorobenzene       | 146       | 12 215 | 12.215 | (0 995) | 1350625  | 1000 00          | 1073            |



| Compounds                       | QUANT SIG |        |        |         |          | AMOUNTS          |                 |
|---------------------------------|-----------|--------|--------|---------|----------|------------------|-----------------|
|                                 | MASS      | RT     | EXP RT | REL RT  | RESPONSE | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| =====                           | ====      | ==     | =====  | =====   | =====    | =====            | =====           |
| 90 4-Isopropyltoluene           | 119       | 12 257 | 12 257 | (0.998) | 2414169  | 1000.00          | 1100            |
| 93 1,4-Dichlorobenzene          | 146       | 12 306 | 12 306 | (1.002) | 1369535  | 1000.00          | 1076            |
| 94 n-Butylbenzene               | 91        | 12 665 | 12 665 | (1.031) | 2384352  | 1000.00          | 1128            |
| 95 1,2-Dichlorobenzene          | 146       | 12 671 | 12.671 | (1.032) | 1302667  | 1000.00          | 1082            |
| 96 1,2-Dibromo-3-chloropropane  | 157       | 13 438 | 13 438 | (1.094) | 141543   | 1000.00          | 1254            |
| 97 1,2,4-Trichlorobenzene       | 180       | 14 265 | 14 265 | (1.161) | 640013   | 1000.00          | 1118            |
| 98 Hexachlorocyclopentadiene    | 225       | 14 447 | 14 447 | (1.176) | 503417   | 1000.00          | 1047            |
| 99 Naphthalene                  | 128       | 14 502 | 14 502 | (1.181) | 1278732  | 1000.00          | 1110            |
| 100 1,2,3-Trichlorobenzene      | 180       | 14 745 | 14.745 | (1.201) | 475528   | 1000.00          | 1005            |
| M 29 1,2-Dichloroethene (total) | 96        |        |        |         | 1354484  | 2000.00          | 2207            |
| M 75 Xylenes (total)            | 106       |        |        |         | 3781116  | 1000.00          | 3430            |

FORM 7  
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.: 40325

SDG No.: 50602D

Instrument ID: HP5

Calibration Date: 06/02/00 Time: 0744

Lab File ID: CC50602

Init. Calib. Date(s): 05/15/00 05/15/00

Heated Purge: (Y/N) N

Init. Calib. Times: 0809 0959

GC Column: DB 624 ID: 0.20 (mm)

| COMPOUND                   | RRF   | RRF50 | MIN<br>RRF | %D   | MAX<br>%D |
|----------------------------|-------|-------|------------|------|-----------|
| Chloromethane              | 0.228 | 0.218 | 0.1        | 4.4  | 50.0      |
| Vinyl Chloride             | 0.236 | 0.230 | 0.01       | 2.5  | 20.0      |
| Bromomethane               | 0.036 | 0.050 | 0.01       | 38.9 | 50.0      |
| Chloroethane               | 0.035 | 0.049 | 0.01       | 40.0 | 50.0      |
| 1,1-Dichloroethene         | 0.237 | 0.250 | 0.01       | 5.5  | 20.0      |
| Methylene Chloride         | 0.256 | 0.250 | 0.01       | 2.3  | 50.0      |
| trans-1,2-Dichloroethene   | 0.245 | 0.257 | 0.01       | 4.9  | 50.0      |
| 1,1-Dichloroethane         | 0.410 | 0.442 | 0.1        | 7.8  | 50.0      |
| cis-1,2-dichloroethene     | 0.252 | 0.269 | 0.01       | 6.7  | 50.0      |
| Chloroform                 | 0.398 | 0.411 | 0.01       | 3.3  | 20.0      |
| 1,1,1-Trichloroethane      | 0.374 | 0.377 | 0.01       | 0.8  | 50.0      |
| Carbon Tetrachloride       | 0.313 | 0.320 | 0.01       | 2.2  | 50.0      |
| 1,2-Dichloroethane         | 0.347 | 0.347 | 0.01       | 0.0  | 50.0      |
| Benzene                    | 0.972 | 1.020 | 0.01       | 4.9  | 50.0      |
| Trichloroethene            | 0.249 | 0.262 | 0.01       | 5.2  | 50.0      |
| 1,2-Dichloropropane        | 0.232 | 0.239 | 0.01       | 3.0  | 20.0      |
| Bromodichloromethane       | 0.283 | 0.296 | 0.01       | 4.6  | 50.0      |
| cis-1,3-Dichloropropene    | 0.384 | 0.390 | 0.01       | 1.6  | 50.0      |
| Toluene                    | 4.614 | 4.865 | 0.01       | 5.4  | 20.0      |
| trans-1,3-Dichloropropene  | 1.579 | 1.649 | 0.01       | 4.4  | 50.0      |
| 1,1,2-Trichloroethane      | 0.924 | 0.947 | 0.01       | 2.5  | 50.0      |
| Tetrachloroethene          | 0.880 | 0.935 | 0.01       | 6.2  | 50.0      |
| Dibromochloromethane       | 0.895 | 0.958 | 0.01       | 7.0  | 50.0      |
| Chlorobenzene              | 2.968 | 3.146 | 0.3        | 6.0  | 50.0      |
| Ethylbenzene               | 1.725 | 1.782 | 0.01       | 3.3  | 20.0      |
| Styrene                    | 3.163 | 3.599 | 0.01       | 13.8 | 50.0      |
| Bromoform                  | 0.570 | 0.642 | 0.1        | 12.6 | 50.0      |
| 1,1,2,2-Tetrachloroethane  | 0.842 | 0.811 | 0.3        | 3.7  | 50.0      |
| Acetone                    | 0.157 | 0.113 | 0.01       | 28.0 | 50.0      |
| Carbon Disulfide           | 0.698 | 0.893 | 0.01       | 27.9 | 50.0      |
| 2-Butanone                 | 0.254 | 0.201 | 0.01       | 20.9 | 50.0      |
| 4-Methyl-2-Pentanone       | 1.319 | 1.202 | 0.01       | 8.9  | 50.0      |
| 2-Hexanone                 | 0.926 | 0.856 | 0.01       | 7.6  | 50.0      |
| 1,2-Dichloroethene (total) | 0.249 | 0.263 | 0.01       | 5.6  | 50.0      |
| Xylenes (total)            | 1.916 | 2.093 | 0.01       | 9.2  | 50.0      |

659 822

FORM 7  
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.: 40325

SDG No.: 50602D

Instrument ID: HP5

Calibration Date: 06/02/00

Time: 0744

Lab File ID: CC50602

Init. Calib. Date(s): 05/15/00

05/15/00

Heated Purge: (Y/N) N

Init. Calib. Times: 0809

0959

GC Column: DB 624 ID: 0.20 (mm)

| COMPOUND              | RRF   | RRF50 | MIN<br>RRF | %D    | MAX<br>%D |
|-----------------------|-------|-------|------------|-------|-----------|
| =====                 | ===== | ===== | =====      | ===== | =====     |
| Dibromofluoromethane  | 0.218 | 0.222 | 0.01       | 1.8   | 50.0      |
| 1,2-Dichloroethane-d4 | 0.291 | 0.275 | 0.01       | 5.5   | 50.0      |
| Toluene-d8            | 4.053 | 4.140 | 0.01       | 2.1   | 50.0      |
| Bromofluorobenzene    | 1.524 | 1.607 | 0.01       | 5.4   | 50.0      |

Data File: /var/chem/hp5.i/50602d.b/cc50602.d  
Report Date: 06/02/2000

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: hp5.i  
Lab File ID: cc50602.d  
Analysis Type: WATER

Injection Date: 02-JUN-2000 07:44  
Lab Sample ID: vstd50  
Method File: /var/chem/hp5.i/50602d.b/8260bh2o.m

| COMPOUND                     | EXPECTED<br>CONC. | MEASURED<br>CONC. | %D   | MAX<br>%D |
|------------------------------|-------------------|-------------------|------|-----------|
| 0 Xylene-o                   | 250.0000          | 273.1191          | 9.2  | 50.0      |
| 0 m + p-Xylene               | 500.0000          | 530.1763          | 6.0  | 50.0      |
| 2 Chloromethane              | 250.0000          | 238.6565          | 4.5  | 50.0      |
| 3 Vinyl Chloride             | 250.0000          | 243.5421          | 2.6  | 20.0      |
| 4 Bromomethane               | 250.0000          | 347.5829          | 39.0 | 50.0      |
| 5 Chloroethane               | 250.0000          | 348.5858          | 39.4 | 50.0      |
| 9 1,1-Dichloroethene         | 250.0000          | 263.9923          | 5.6  | 20.0      |
| 10 Methylene Chloride        | 250.0000          | 244.1694          | 2.3  | 50.0      |
| 13 trans-1,2-Dichloroethene  | 250.0000          | 262.2176          | 4.9  | 50.0      |
| 15 1,1-Dichloroethane        | 250.0000          | 270.0148          | 8.0  | 50.0      |
| 17 cis-1,2-dichloroethene    | 250.0000          | 266.2814          | 6.5  | 50.0      |
| 18 Chloroform                | 250.0000          | 258.4328          | 3.4  | 20.0      |
| 20 1,1,1-Trichloroethane     | 250.0000          | 251.5619          | 0.6  | 50.0      |
| 21 Carbon Tetrachloride      | 250.0000          | 255.6797          | 2.3  | 50.0      |
| 23 1,2-Dichloroethane        | 250.0000          | 250.3358          | 0.1  | 50.0      |
| 24 Benzene                   | 250.0000          | 262.2039          | 4.9  | 50.0      |
| 26 Trichloroethene           | 250.0000          | 263.2333          | 5.3  | 50.0      |
| 27 1,2-Dichloropropane       | 250.0000          | 257.6310          | 3.1  | 20.0      |
| 28 Bromodichloromethane      | 250.0000          | 261.5701          | 4.6  | 50.0      |
| 31 cis-1,3-Dichloropropene   | 250.0000          | 254.1472          | 1.7  | 50.0      |
| 33 Toluene                   | 250.0000          | 263.5724          | 5.4  | 20.0      |
| 34 trans-1,3-Dichloropropene | 250.0000          | 261.1639          | 4.5  | 50.0      |
| 36 1,1,2-Trichloroethane     | 250.0000          | 256.1777          | 2.5  | 50.0      |
| 37 Tetrachloroethene         | 250.0000          | 265.4767          | 6.2  | 50.0      |
| 38 Dibromochloromethane      | 250.0000          | 267.5680          | 7.0  | 50.0      |
| 40 Chlorobenzene             | 250.0000          | 264.9513          | 6.0  | 50.0      |
| 41 Ethylbenzene              | 250.0000          | 258.2655          | 3.3  | 20.0      |
| 44 Styrene                   | 250.0000          | 284.4687          | 13.8 | 50.0      |
| 45 Bromoform                 | 250.0000          | 281.6105          | 12.6 | 50.0      |
| 46 1,1,2,2-Tetrachloroethane | 250.0000          | 240.7972          | 3.7  | 50.0      |
| 101 Chlorobenzene-d5         | 250.0000          | 250.0000          | 0.0  | 50.0      |
| 102 1,4-Dichlorobenzene-d4   | 250.0000          | 250.0000          | 0.0  | 50.0      |
| 106 Acetone                  | 250.0000          | 180.7246          | 27.7 | 50.0      |
| 107 Carbon Disulfide         | 250.0000          | 319.8992          | 28.0 | 50.0      |
| 108 2-Butanone               | 250.0000          | 197.5646          | 21.0 | 50.0      |
| 110 4-Methyl-2-Pentanone     | 250.0000          | 227.7545          | 8.9  | 50.0      |
| 111 2-Hexanone               | 250.0000          | 231.2179          | 7.5  | 50.0      |
| 121 Isobutanol               | 10000.0000        | 17896.8760        | 79.0 | 50.0      |
| 137 Fluorobenzene            | 250.0000          | 250.0000          | 0.0  | 50.0      |

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: hp5.i  
Lab File ID: cc50602.d  
Analysis Type: WATER

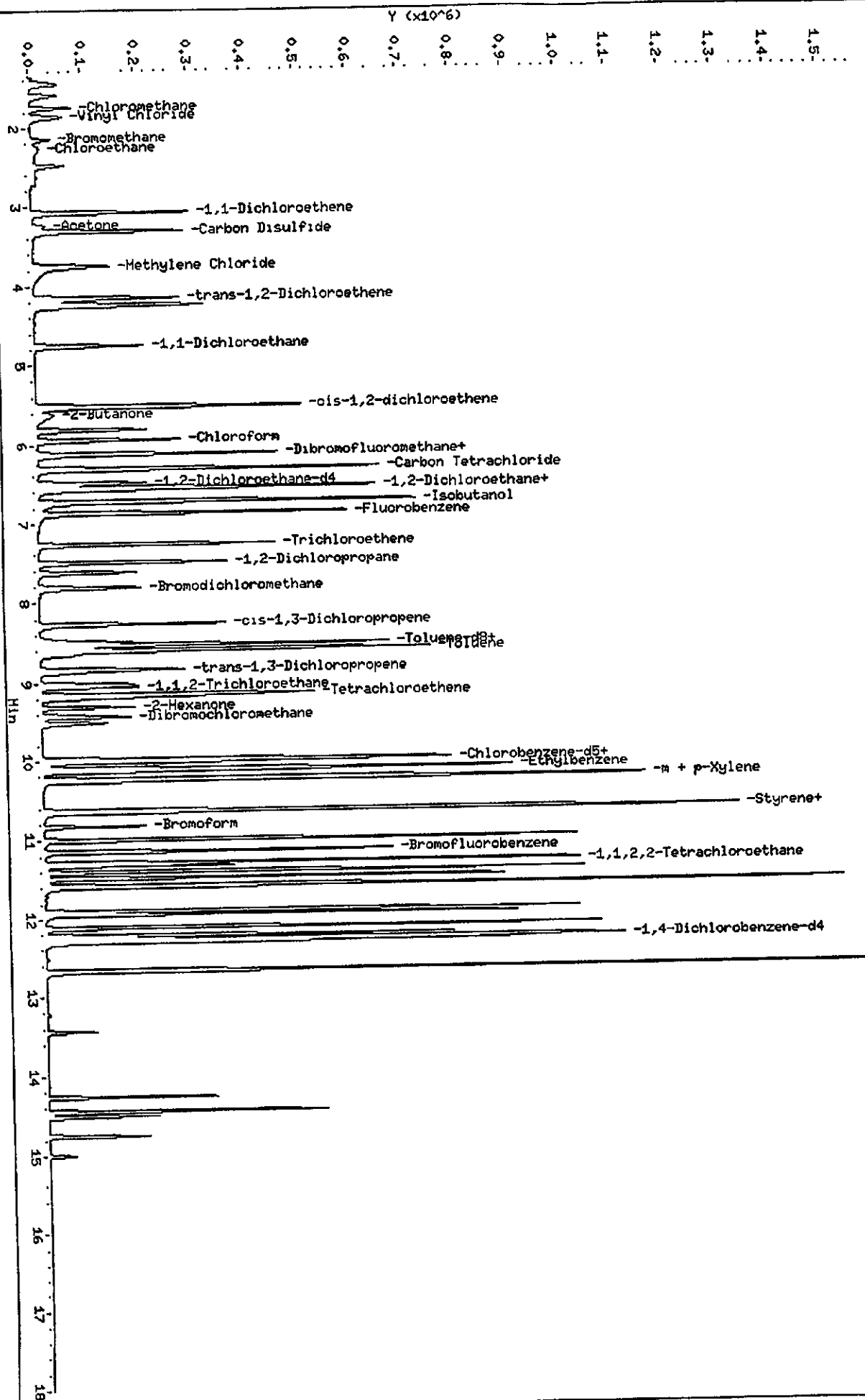
Injection Date: 02-JUN-2000 07:44  
Lab Sample ID: vstd50  
Method File: /var/chem/hp5.i/50602d.b/8260bh2

| COMPOUND                       | EXPECTED<br>CONC. | MEASURED<br>CONC. | %D  | MAX<br>%D |
|--------------------------------|-------------------|-------------------|-----|-----------|
| 153 1,2-Dichloroethene (total) | 500.0000          | 528.5570          | 5.7 | 50.0      |
| 154 Xylenes (total)            | 750.0000          | 817.6428          | 9.0 | 50.0      |
| 150 1,2-Dichloroethane-d4      | 250.0000          | 236.3398          | 5.5 | 50.0      |
| 151 Toluene-d8                 | 250.0000          | 255.3457          | 2.1 | 50.0      |
| 152 Bromofluorobenzene         | 250.0000          | 263.5640          | 5.4 | 50.0      |

Data File: /var/chem/hp5.1/50602d.b/cc50602.d  
 Date : 02-JUN-2000 07:44  
 Client ID: vsta60  
 Sample Info: VSTD50 SHL  
 Purge Volume: 5.0  
 Column phase: DB 624

/var/chem/hp5.1/50602d.b/cc50602.d

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



659 826

Data File: /var/chem/hp5.i/50602d.b/cc50602.d  
Report Date: 02-Jun-2000 08:36

Page 1

## STL-PITTSBURGH

## VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp5.i/50602d.b/cc50602.d  
Lab Smp Id: vstd50 Client Smp ID: vstd50  
Inj Date : 02-JUN-2000 07:44  
Operator : 034635 Inst ID: hp5.i  
Smp Info : VSTD50 5ML  
Misc Info : vstd50,50602d.b,8260bh2o.m,2-br.sub  
Comment :  
Method : /var/chem/hp5.i/50602d.b/8260bh2o.m  
Meth Date : 02-Jun-2000 08:36 journetp Quant Type: ISTD  
Cal Date : 15-MAY-2000 08:45 Cal File: 1a50515.d  
Als bottle: 1 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 2-br.sub  
Target Version: 3.40  
Processing Host: hpuxcs21

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

RW 6/2/00

| 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<br>( ng) | ON-COL<br>( ng) |
| *****                       | ----      | --     | -----  | -----   | -----    | -----            | -----           |
| * 46 Fluorobenzene          | 96        | 6.873  | 6.873  | (1.000) | 581044   |                  |                 |
| * 69 Chlorobenzene-d5       | 119       | 9.981  | 9.981  | (1.000) | 135516   |                  |                 |
| * 92 1,4-Dichlorobenzene-d4 | 152       | 12.281 | 12.281 | (1.000) | 214521   |                  |                 |
| \$ 39 Dibromofluoromethane  | 113       | 6.124  | 6.124  | (0.891) | 129141   | 250.000          | 255.1           |
| \$ 43 1,2-Dichloroethane-d4 | 65        | 6.489  | 6.489  | (0.944) | 159577   | 250.000          | 236.3           |
| \$ 59 Toluene-d8            | 98        | 8.533  | 8.533  | (0.855) | 560995   | 250.000          | 255.3           |
| \$ 80 Bromofluorobenzene    | 95        | 11.143 | 11.143 | (1.116) | 217792   | 250.000          | 263.6           |
| 2 Chloromethane             | 50        | 1.744  | 1.744  | (0.254) | 126667   | 250.000          | 238.6           |
| 4 Bromomethane              | 94        | 2.152  | 2.152  | (0.313) | 29360    | 250.000          | 347.6           |
| 3 Vinyl Chloride            | 62        | 1.860  | 1.860  | (0.271) | 133417   | 250.000          | 243.5           |
| 5 Chloroethane              | 64        | 2.261  | 2.261  | (0.329) | 28310    | 250.000          | 348.6           |
| 18 Methylene Chloride       | 84        | 3.752  | 3.752  | (0.546) | 145429   | 250.000          | 244.2           |
| 13 Acetone                  | 43        | 3.241  | 3.241  | (0.472) | 65804    | 250.000          | 180.7           |
| 15 Carbon Disulfide         | 76        | 3.308  | 3.308  | (0.481) | 518915   | 250.000          | 319.9           |
| 12 1,1-Dichloroethene       | 96        | 3.070  | 3.070  | (0.447) | 145128   | 250.000          | 264.0           |
| 24 1,1-Dichloroethane       | 63        | 4.756  | 4.756  | (0.692) | 257050   | 250.000          | 270.0           |

Data File: /var/chem/hp5.i/50602d.b/cc50602.d  
Report Date: 02-Jun-2000 08:36

| Compounds                       | QUANT SIG |        |                | RESPONSE | AMOUNTS          |                 |
|---------------------------------|-----------|--------|----------------|----------|------------------|-----------------|
|                                 | MASS      | RT     | EXP RT REL RT  |          | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| *****                           | ****      | **     | *****          | *****    | *****            | *****           |
| 19 trans-1,2-Dichloroethene     | 96        | 4.153  | 4.153 (0.604)  | 149494   | 250.000          | 262.2           |
| 28 cis-1,2-dichloroethene       | 96        | 5.528  | 5.528 (0.804)  | 156201   | 250.000          | 266.3           |
| 37 Chloroform                   | 83        | 5.942  | 5.942 (0.865)  | 238869   | 250.000          | 258.4           |
| 45 1,2-Dichloroethane           | 62        | 6.574  | 6.574 (0.957)  | 201810   | 250.000          | 250.3           |
| 31 2-Butanone                   | 43        | 5.613  | 5.613 (0.817)  | 116768   | 250.000          | 197.6           |
| 38 1,1,1-Trichloroethane        | 97        | 6.118  | 6.118 (0.890)  | 219053   | 250.000          | 251.6           |
| 41 Carbon Tetrachloride         | 117       | 6.313  | 6.313 (0.919)  | 186015   | 250.000          | 255.7           |
| 53 Bromodichloromethane         | 83        | 7.809  | 7.809 (1.136)  | 172273   | 250.000          | 261.6           |
| 49 1,2-Dichloropropane          | 63        | 7.499  | 7.499 (1.091)  | 138966   | 250.000          | 257.6           |
| 57 cis-1,3-Dichloropropene      | 75        | 8.266  | 8.266 (1.203)  | 226867   | 250.000          | 254.1           |
| 47 Trichloroethene              | 130       | 7.268  | 7.268 (1.058)  | 152391   | 250.000          | 263.2           |
| 67 Dibromochloromethane         | 129       | 9.434  | 9.434 (0.945)  | 129806   | 250.000          | 267.6           |
| 64 1,1,2-Trichloroethane        | 97        | 9.050  | 9.050 (0.907)  | 128317   | 250.000          | 256.2           |
| 42 Benzene                      | 78        | 6.544  | 6.544 (0.952)  | 592586   | 250.000          | 262.2           |
| 61 trans-1,3-Dichloropropene    | 75        | 8.838  | 8.838 (0.885)  | 223514   | 250.000          | 261.2           |
| 77 Bromoform                    | 173       | 10.821 | 10.821 (1.084) | 87009    | 250.000          | 281.6           |
| 58 4-Methyl-2-Pentanone         | 43        | 8.491  | 8.491 (0.851)  | 162854   | 250.000          | 227.8           |
| 66 2-Hexanone                   | 43        | 9.306  | 9.306 (0.932)  | 116027   | 250.000          | 231.2           |
| 65 Tetrachloroethene            | 164       | 9.148  | 9.148 (0.916)  | 126668   | 250.000          | 265.5           |
| 83 1,1,2,2-Tetrachloroethane    | 83        | 11.289 | 11.289 (0.919) | 174080   | 250.000          | 240.8           |
| 60 Toluene                      | 91        | 8.600  | 8.600 (0.862)  | 659251   | 250.000          | 263.6           |
| 70 Chlorobenzene                | 112       | 10.006 | 10.006 (1.002) | 426276   | 250.000          | 265.0           |
| 72 Ethylbenzene                 | 106       | 10.115 | 10.115 (1.013) | 241460   | 250.000          | 258.3           |
| 76 Styrene                      | 104       | 10.644 | 10.644 (1.066) | 487742   | 250.000          | 284.5           |
| M 75 Xylenes (total)            | 106       |        |                | 849319   | 250.000          | 817.6           |
| 73 m + p-Xylene                 | 106       | 10.237 | 10.237 (1.026) | 565619   | 500.000          | 530.2           |
| 74 Xylene-o                     | 106       | 10.632 | 10.632 (1.065) | 283700   | 250.000          | 273.1           |
| M 29 1,2-Dichloroethene (total) | 96        |        |                | 305695   | 500.000          | 528.6           |
| 44 Isobutanol                   | 41        | 6.727  | 6.727 (0.979)  | 348965   | 10000.0          | 17900           |



659 828

**GC/MS VOLATILE  
QC DATA**

Data File: /var/chem/hp5.1/50515d.b/bf50515.d

Date : 15-MAY-2000 05:23

Client ID: 50NGBFB

Instrument: hp5.1

Sample Info: BFB 192-180-11 50NG

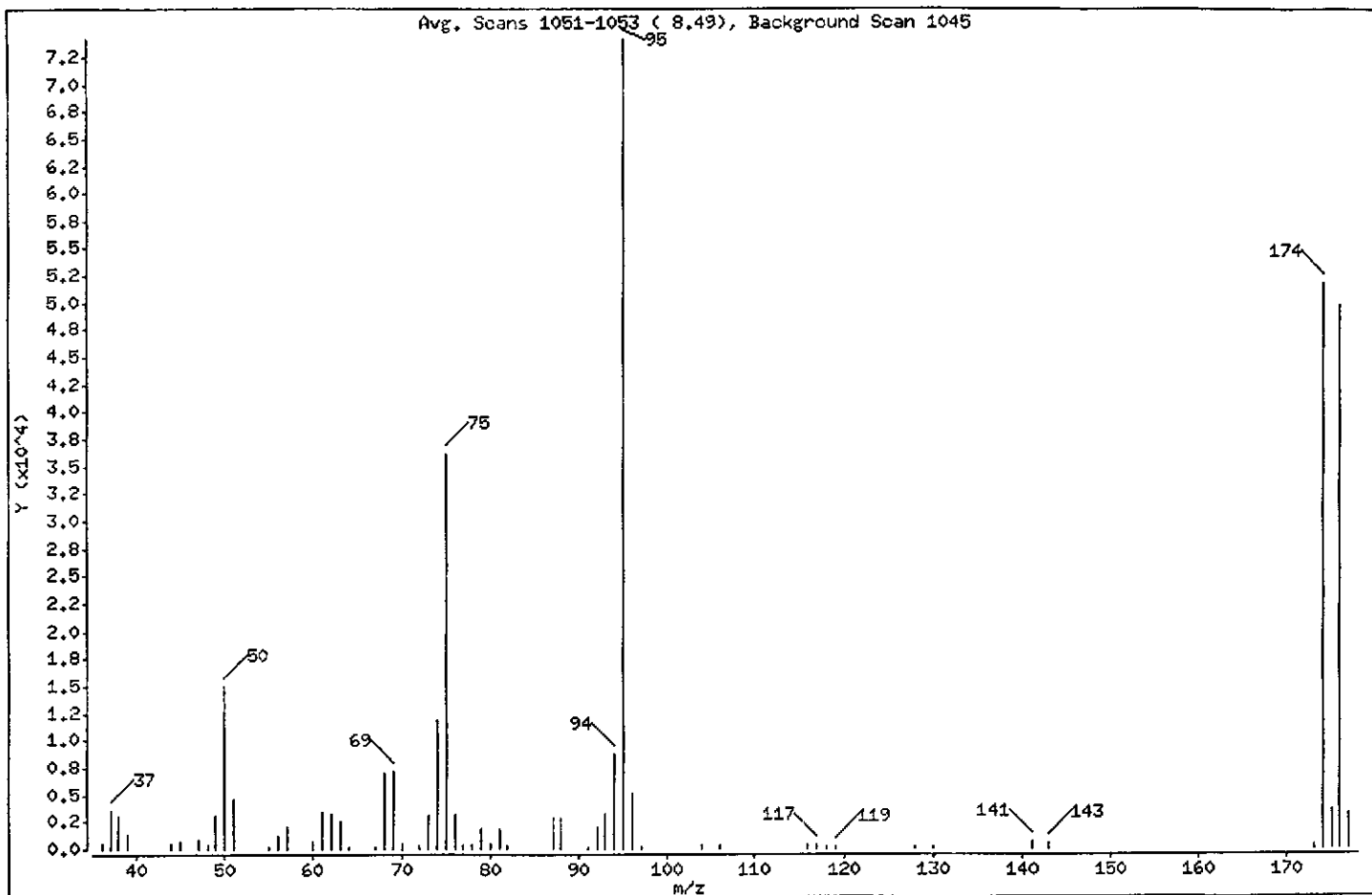
Volume Injected (uL): 1.0

Operator: 10099

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          | 20.28                |
| 75  | 30.00 - 60.00% of mass 95          | 48.72                |
| 96  | 5.00 - 9.00% of mass 95            | 6.92                 |
| 173 | Less than 2.00% of mass 174        | 0.45 ( 0.65)         |
| 174 | 50.00 - 100.00% of mass 95         | 70.00                |
| 175 | 5.00 - 9.00% of mass 174           | 4.93 ( 7.05)         |
| 176 | 95.00 - 101.00% of mass 174        | 67.01 ( 95.73)       |
| 177 | 5.00 - 9.00% of mass 176           | 4.40 ( 6.57)         |

Data File: /var/chem/hp5.1/50515d.b/bf50515.d

Page 3

Date : 15-MAY-2000 05:23

Client ID: 50HCBFB

Instrument: hp5.1

Sample Info: BFB 192-180-11 50NG

Volume Injected (uL): 1.0

Operator: 10099

Column phase: DB624 20m

Column diameter: 0.20

Data File: bf50515.d

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

Location of Maximum: 95.00

Number of points: 59

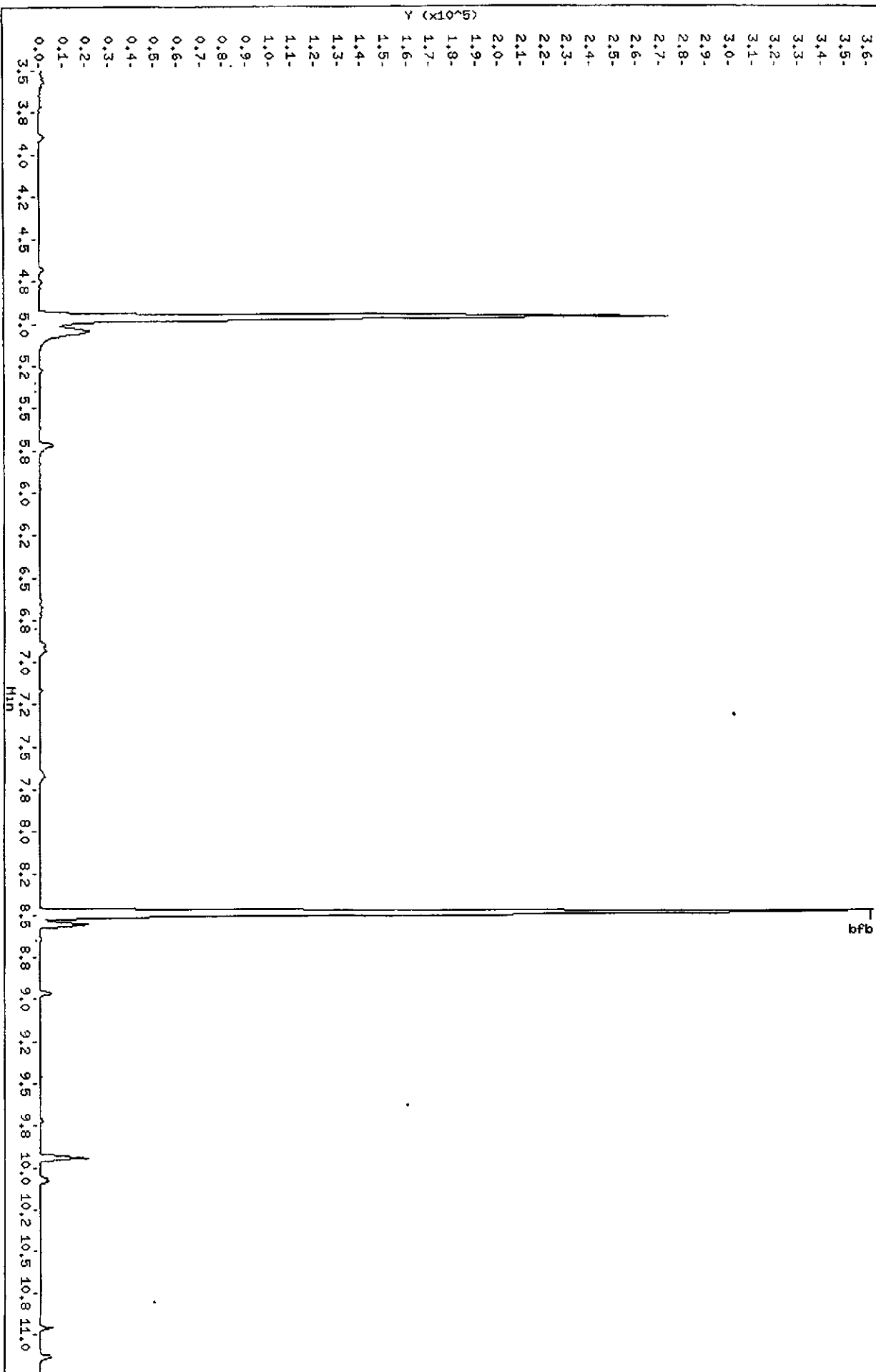
| m/z   | Y     | m/z   | Y     | m/z    | Y     | m/z    | Y     |
|-------|-------|-------|-------|--------|-------|--------|-------|
| 36.00 | 594   | 60.00 | 629   | 78.00  | 346   | 106.00 | 277   |
| 37.00 | 3589  | 61.00 | 3360  | 79.00  | 1877  | 116.00 | 301   |
| 38.00 | 3098  | 62.00 | 3231  | 80.00  | 479   | 117.00 | 377   |
| 39.00 | 1289  | 63.00 | 2624  | 81.00  | 1884  | 118.00 | 146   |
| 44.00 | 493   | 64.00 | 247   | 82.00  | 392   | 119.00 | 254   |
| 45.00 | 662   | 67.00 | 144   | 87.00  | 2916  | 128.00 | 224   |
| 47.00 | 894   | 68.00 | 6984  | 88.00  | 2823  | 130.00 | 233   |
| 48.00 | 368   | 69.00 | 7201  | 91.00  | 240   | 141.00 | 610   |
| 49.00 | 3085  | 70.00 | 537   | 92.00  | 1996  | 143.00 | 538   |
| 50.00 | 15046 | 72.00 | 390   | 93.00  | 3162  | 173.00 | 336   |
| 51.00 | 4568  | 73.00 | 3047  | 94.00  | 8621  | 174.00 | 51928 |
| 52.00 | 67    | 74.00 | 11940 | 95.00  | 74184 | 175.00 | 3659  |
| 55.00 | 157   | 75.00 | 36144 | 96.00  | 5135  | 176.00 | 49712 |
| 56.00 | 1228  | 76.00 | 3272  | 97.00  | 145   | 177.00 | 3264  |
| 57.00 | 2055  | 77.00 | 330   | 104.00 | 275   |        |       |

Data File: /var/chem/hp5.1/50515d.b/bf50515.d  
Date: 15-MAY-2000 05:23  
Client ID: 50NGBFB  
Sample Info: BFB 192-180-11 50NG  
Volume Injected (uL): 1.0  
Column phase: DB624 20m

Instrument: hp5.1  
Operator: 10099  
Column diameter: 0.20

/var/chem/hp5.1/50515d.b/bf50515.d

939



659 832

Data File: /var/chem/hp5.i/50602d.b/bf50602.d

Page 2

Date : 02-JUN-2000 07:11

Client ID: 50NGBFB

Instrument: hp5.i

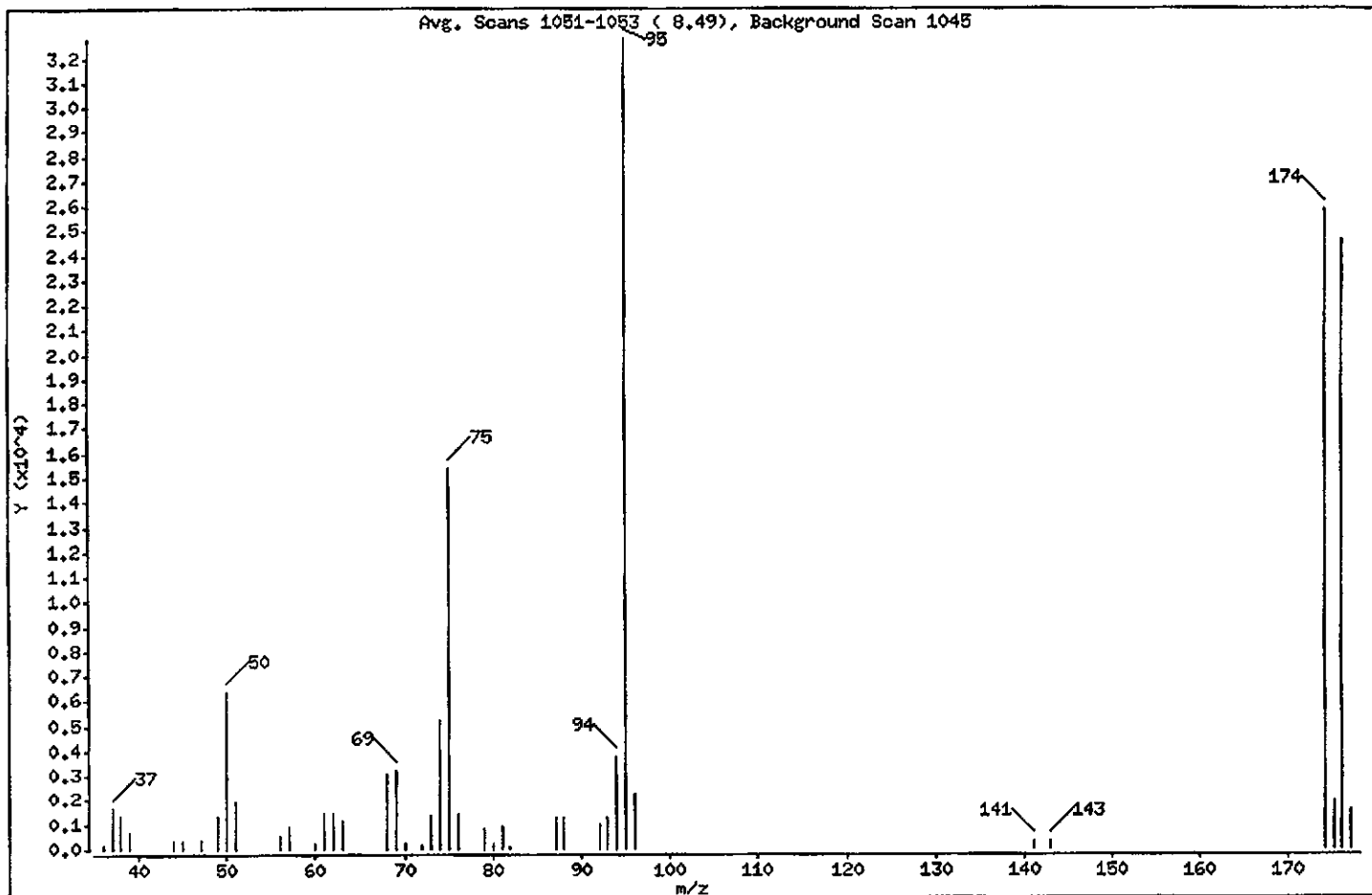
Sample Info: BFB 192-180-11 50NG

Operator: 0346354

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          | 19.33                |
| 75  | 30.00 - 60.00% of mass 95          | 47.00                |
| 96  | 5.00 - 9.00% of mass 95            | 6.89                 |
| 173 | Less than 2.00% of mass 174        | 0.00 ( 0.00)         |
| 174 | 50.00 - 100.00% of mass 95         | 78.84                |
| 175 | 5.00 - 9.00% of mass 174           | 5.94 ( 7.54)         |
| 176 | 95.00 - 101.00% of mass 174        | 75.12 ( 95.28)       |
| 177 | 5.00 - 9.00% of mass 176           | 4.94 ( 6.58)         |

Data File: /var/chem/hp5.i/50602d.b/bf50602.d

Date : 02-JUN-2000 07:11

Client ID: 50NCBFB

Instrument: hp5.i

Sample Info: BFB 192-180-11 50NC

Operator: 0346354

Column phase: DB624 20m

Column diameter: 0.20

Data File: bf50602.d

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

Location of Maximum: 95.00

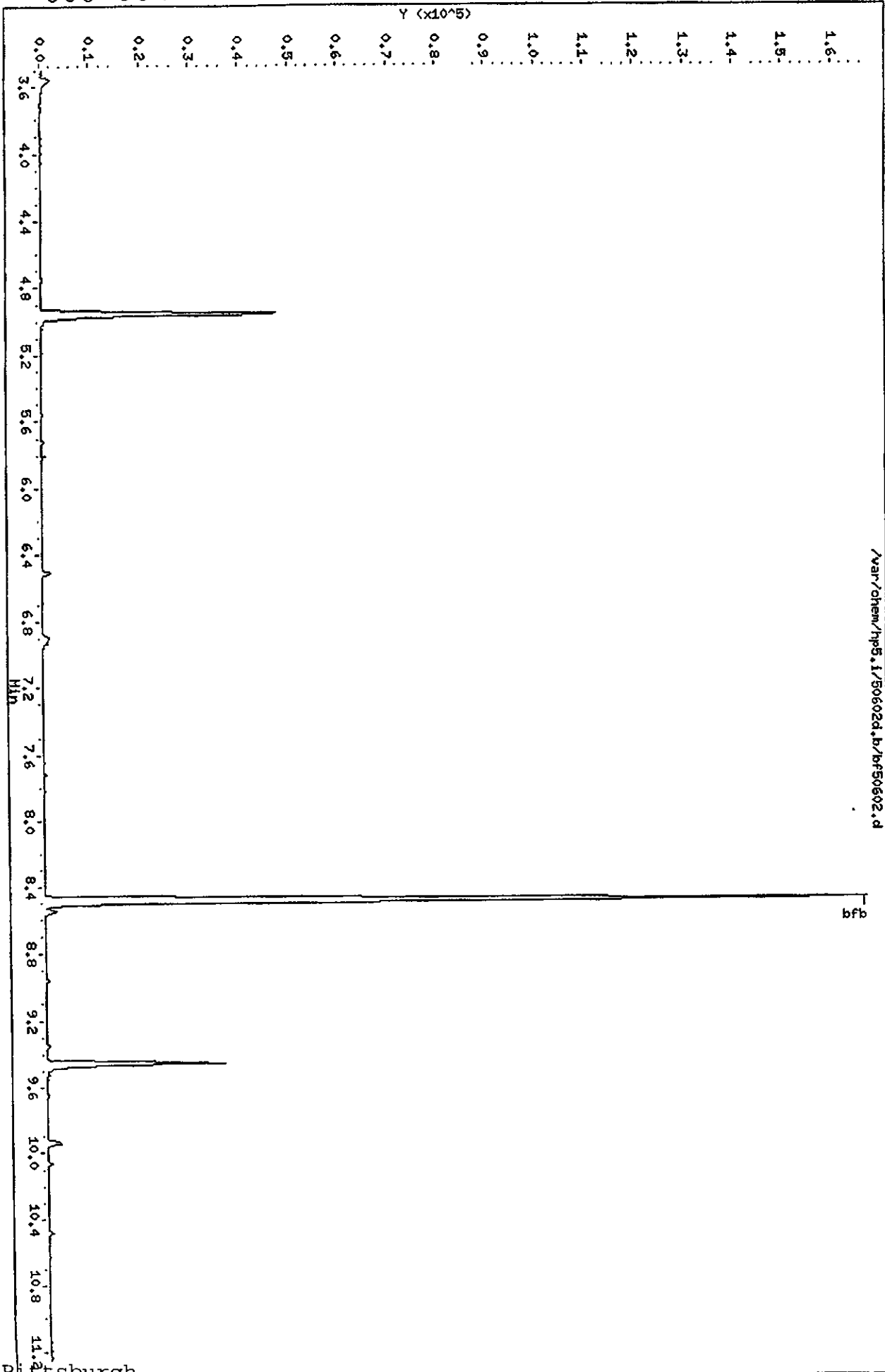
Number of points: 41

| m/z   | Y    | m/z   | Y    | m/z   | Y     | m/z    | Y     |
|-------|------|-------|------|-------|-------|--------|-------|
| 36.00 | 163  | 57.00 | 874  | 78.00 | 15411 | 95.00  | 32792 |
| 37.00 | 1657 | 60.00 | 222  | 76.00 | 1416  | 96.00  | 2261  |
| 38.00 | 1388 | 61.00 | 1401 | 79.00 | 820   | 141.00 | 287   |
| 39.00 | 643  | 62.00 | 1422 | 80.00 | 237   | 143.00 | 314   |
| 44.00 | 274  | 63.00 | 1102 | 81.00 | 874   | 174.00 | 25848 |
| 45.00 | 267  | 68.00 | 3061 | 82.00 | 66    | 175.00 | 1949  |
| 47.00 | 404  | 69.00 | 3276 | 87.00 | 1261  | 176.00 | 24632 |
| 49.00 | 1350 | 70.00 | 246  | 88.00 | 1291  | 177.00 | 1620  |
| 50.00 | 6339 | 72.00 | 151  | 92.00 | 958   |        |       |
| 51.00 | 1979 | 73.00 | 1331 | 93.00 | 1250  |        |       |
| 56.00 | 509  | 74.00 | 5217 | 94.00 | 3751  |        |       |

Data File: /var/chem/hp5.i/50602d.b/bf50602.d  
Date : 02-JUN-2000 07:11  
Client ID: 50NGBFB  
Sample Info: BFB 192-180-11 50NG

Column phase: DB624 20m

Instrument: hp5.i  
Operator: 0346354  
Column diameter: 0.20



UXB INTERNATIONAL  
METHOD BLANK COMPOUNDS

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

Matrix: (soil/water) SOLID      Lab Sample ID: C0F020000 109  
Method: SW846 8260B  
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL      Date Received: 05/26/00  
Work Order: DE38P101      Date Extracted: 06/02/00  
Dilution factor: 1      Date Analyzed: 06/02/00  
Moisture %: NA

QC Batch: 0151138

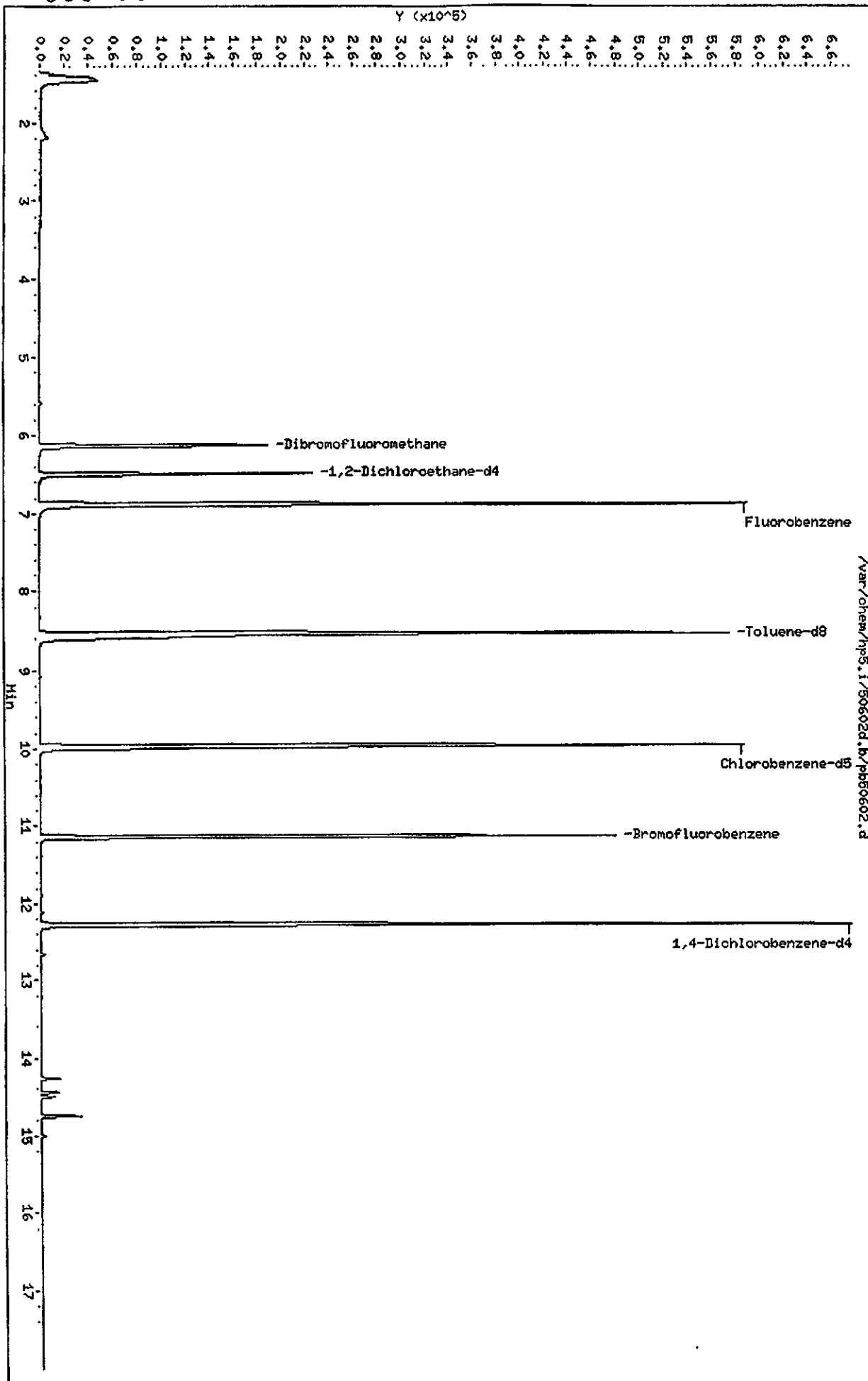
Client Sample Id: INTRA-LAB BLANK

| 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 |



Data File: /var/chem/hp5.i/50602d.b/pb50602.d  
Date: 02-JUN-2000 08:18  
Client ID: INTR-LAB BLANK  
Sample Info: Vol% (1ml/10ml) 5HL  
Purge Volume: 5.0  
Column phase: DB 624

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



Data File: /var/chem/hp5.i/50602d.b/pb50602.d  
Report Date: 02-Jun-2000 08:43

## STL-PITTSBURGH

## VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp5.i/50602d.b/pb50602.d  
Lab Smp Id: de38p101 Client Smp ID: INTRA-LAB BLANK  
Inj Date : 02-JUN-2000 08:18  
Operator : 034635 Inst ID: hp5.i  
Smp Info : Vblk (1ml/10ml) 5ML  
Misc Info : vblk,50602d.b,8260bh2o.m,tclp.sub  
Comment :  
Method : /var/chem/hp5.i/50602d.b/8260bh2o.m  
Meth Date : 02-Jun-2000 08:36 journetp Quant Type: ISTD  
Cal Date : 15-MAY-2000 08:45 Cal File: 1a50515.d  
Als bottle: 1 QC Sample: BLANK  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: tclp.sub  
Target Version: 3.40  
Processing Host: hpuxcs21

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

*Handwritten:* 6/2/00

| 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<br>MASS | RT                     | EXP RT | REL RT  | RESPONSE | CONCENTRATIONS     |                  |
|-----------------------------|-------------------|------------------------|--------|---------|----------|--------------------|------------------|
|                             |                   |                        |        |         |          | ON-COLUMN<br>( ng) | FINAL<br>( ug/L) |
| *****                       | ----              | --                     | -----  | -----   | -----    | -----              | -----            |
| * 46 Fluorobenzene          | 96                | 6.882                  | 6.873  | (1.000) | 574524   |                    |                  |
| * 69 Chlorobenzene-d5       | 119               | 9.966                  | 9.981  | (1.000) | 127868   |                    |                  |
| * 92 1,4-Dichlorobenzene-d4 | 152               | 12.278                 | 12.281 | (1.000) | 182932   |                    |                  |
| \$ 39 Dibromofluoromethane  | 113               | 6.134                  | 6.124  | (0.891) | 119372   | 238.472            | 47.69            |
| \$ 43 1,2-Dichloroethane-d4 | 65                | 6.492                  | 6.489  | (0.943) | 152897   | 229.016            | 45.80            |
| \$ 59 Toluene-d8            | 98                | 8.537                  | 8.533  | (0.857) | 536491   | 258.798            | 51.76            |
| \$ 80 Bromofluorobenzene    | 95                | 11.134                 | 11.143 | (1.117) | 185798   | 238.294            | 47.66            |
| 3 Vinyl Chloride            | 62.00             | Compound Not Detected. |        |         |          |                    |                  |
| 12 1,1-Dichloroethene       | 96.00             | Compound Not Detected. |        |         |          |                    |                  |
| 31 2-Butanone               | 43.00             | Compound Not Detected. |        |         |          |                    |                  |
| 37 Chloroform               | 83.00             | Compound Not Detected. |        |         |          |                    |                  |
| 41 Carbon Tetrachloride     | 117.00            | Compound Not Detected. |        |         |          |                    |                  |
| 42 Benzene                  | 78.00             | Compound Not Detected. |        |         |          |                    |                  |
| 45 1,2-Dichloroethane       | 62.00             | Compound Not Detected. |        |         |          |                    |                  |
| 47 Trichloroethene          | 130.00            | Compound Not Detected. |        |         |          |                    |                  |
| 65 Tetrachloroethene        | 164.00            | Compound Not Detected. |        |         |          |                    |                  |

659 838

Data File: /var/chem/hp5.i/50602d.b/pb50602.d  
Report Date: 02-Jun-2000 08:43

Page 2

| Compounds        | QUANT SIG<br>MASS | RT | EXP   | RT    | REL   | RT    | RESPONSE               | CONCENTRATIONS |         |
|------------------|-------------------|----|-------|-------|-------|-------|------------------------|----------------|---------|
|                  |                   |    |       |       |       |       |                        | ON-COLUMN      | FINAL   |
|                  |                   |    |       |       |       |       |                        | ( ng)          | ( UG/L) |
| *****            | ----              | -- | ----- | ----- | ----- | ----- | -----                  | -----          | -----   |
| 70 Chlorobenzene | 112.00            |    |       |       |       |       | Compound Not Detected. |                |         |

UXB INTERNATIONAL  
CHECK SAMPLE COMPOUNDS

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

Matrix: (soil/water) SOLID      Lab Sample ID: C0E300000 138

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

Sample WT/Vol: 5 / mL      Date Received: 05/26/00

Work Order: DDWCP102      Date Extracted: 06/02/00

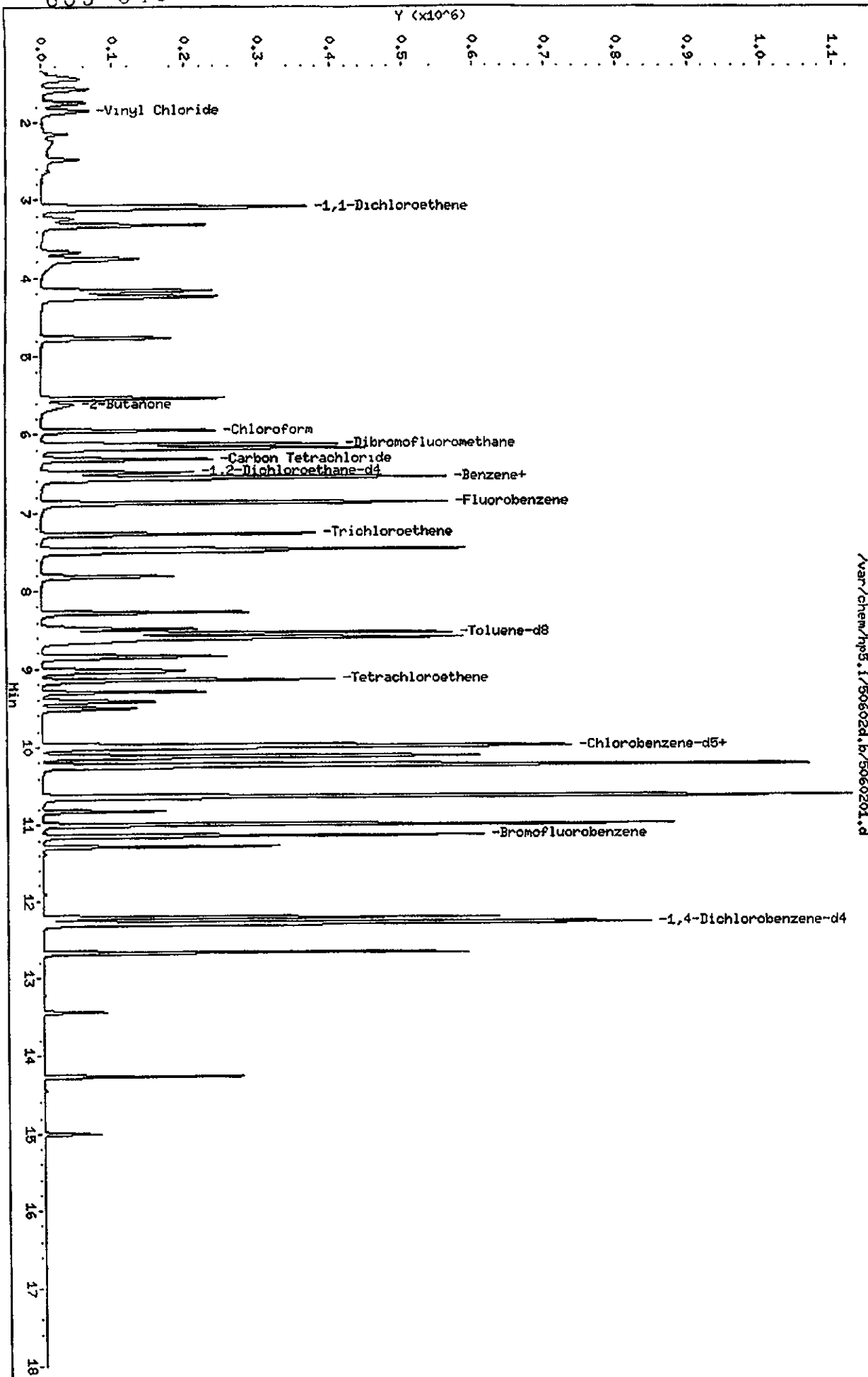
Dilution factor: 1      Date Analyzed: 06/02/00

Moisture %: NA      QC Batch: 0151138

Client Sample Id: CHECK SAMPLE

|          |                      | CONCENTRATION UNITS: |   |
|----------|----------------------|----------------------|---|
| CAS NO.  | COMPOUND             | (ug/L or ug/kg) mg/L | Q |
| 71-43-2  | Benzene              | 0.456                |   |
| 78-93-3  | 2-Butanone           | 0.475                |   |
| 56-23-5  | Carbon tetrachloride | 0.435                |   |
| 108-90-7 | Chlorobenzene        | 0.457                |   |
| 67-66-3  | Chloroform           | 0.445                |   |
| 107-06-2 | 1,2-Dichloroethane   | 0.442                |   |
| 75-35-4  | 1,1-Dichloroethene   | 0.455                |   |
| 127-18-4 | Tetrachloroethene    | 0.467                |   |
| 79-01-6  | Trichloroethene      | 0.450                |   |
| 75-01-4  | Vinyl chloride       | 0.490                |   |

659 840



Date File: /var/chem/hp5.i/50602d.b/5060201.d  
Date: 02-JUN-2000 09:07  
Client ID: INTRA-LAB CHECK  
Sample Info: b1kms (1ml/40ml) SML  
Purge Volume: 5.0  
Column phase: DB 624

Instrument: hp5.i  
Operator: 007062  
Column diameter: 0.20

Data File: /var/chem/hp5.i/50602d.b/5060201.d  
 Report Date: 02-Jun-2000 09:42

Page 1

## STL-PITTSBURGH

## VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp5.i/50602d.b/5060201.d  
 Lab Smp Id: DDWCP102 Client Smp ID: INTRA-LAB CHECK  
 Inj Date : 02-JUN-2000 09:07  
 Operator : 034635 Inst ID: hp5.i  
 Smp Info : blkms (1ml/10ml) 5ML  
 Misc Info : ddwcp102,50602d.b,8260bh2o.m,tclp.sub  
 Comment :  
 Method : /var/chem/hp5.i/50602d.b/8260bh2o.m  
 Meth Date : 02-Jun-2000 08:36 journetp Quant Type: ISTD  
 Cal Date : 15-MAY-2000 08:45 Cal File: 1a50515.d  
 Als bottle: 1 QC Sample: METHOD SPIKE  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: tclp.sub  
 Target Version: 3.40  
 Processing Host: hpuxcs21

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

011 6/2/00

| 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 | CONCENTRATIONS |        |         |        |          |           |         |
|-----------------------------|-----------|----------------|--------|---------|--------|----------|-----------|---------|
|                             |           | MASS           | RT     | EXP RT  | REL RT | RESPONSE | ON-COLUMN | FINAL   |
|                             |           |                |        |         |        |          | ( ng)     | ( UG/L) |
| -----                       | ----      | ---            | --     | -----   | -----  | -----    | -----     |         |
| * 46 Fluorobenzene          | 96        | 6.880          | 6.873  | (1.000) | 564358 |          |           |         |
| * 69 Chlorobenzene-d5       | 119       | 9.989          | 9.981  | (1.000) | 135681 |          |           |         |
| * 92 1,4-Dichlorobenzene-d4 | 152       | 12.282         | 12.281 | (1.000) | 203783 |          |           |         |
| \$ 39 Dibromofluoromethane  | 113       | 6.138          | 6.124  | (0.892) | 121513 | 247.122  | 49.42     |         |
| \$ 43 1,2-Dichloroethane-d4 | 65        | 6.497          | 6.489  | (0.944) | 151258 | 230.642  | 46.13     |         |
| \$ 59 Toluene-d8            | 98        | 8.541          | 8.533  | (0.855) | 548887 | 249.531  | 49.91     |         |
| \$ 80 Bromofluorobenzene    | 95        | 11.145         | 11.143 | (1.116) | 208912 | 252.510  | 50.50     |         |
| 3 Vinyl Chloride            | 62        | 1.855          | 1.860  | (0.270) | 130498 | 245.257  | 49.05     |         |
| 12 1,1-Dichloroethene       | 96        | 3.084          | 3.070  | (0.448) | 121430 | 227.416  | 45.48     |         |
| 31 2-Butanone               | 43        | 5.615          | 5.613  | (0.816) | 136422 | 237.642  | 47.53     |         |
| 37 Chloroform               | 83        | 5.949          | 5.942  | (0.865) | 199888 | 222.653  | 44.53     |         |
| 41 Carbon Tetrachloride     | 117       | 6.320          | 6.313  | (0.919) | 153696 | 217.503  | 43.50     |         |
| 42 Benzene                  | 78        | 6.558          | 6.544  | (0.953) | 500399 | 227.960  | 45.59     |         |
| 45 1,2-Dichloroethane       | 62        | 6.582          | 6.574  | (0.957) | 172964 | 220.897  | 44.18     |         |
| 47 Trichloroethene          | 130       | 7.275          | 7.268  | (1.057) | 126513 | 224.994  | 45.00     |         |
| 65 Tetrachloroethene        | 164       | 9.155          | 9.148  | (0.917) | 111654 | 233.725  | 46.74     |         |

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Data File: /var/chem/hp5.i/50602d.b/5060201.d  
Report Date: 02-Jun-2000 09:42

Page 2

| Compounds        | QUANT SIG |        |        |         |          |                    | CONCENTRATIONS   |  |
|------------------|-----------|--------|--------|---------|----------|--------------------|------------------|--|
|                  | MASS      | RT     | EXP RT | REL RT  | RESPONSE | ON-COLUMN<br>( ng) | FINAL<br>( UG/L) |  |
| 70 Chlorobenzene | 112       | 10.013 | 10 006 | (1.002) | 368283   | 228.627            | 45.72            |  |

**GC/MS VOLATILE  
MISCELLANEOUS**



## GCMS Volatile

## Run Log

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



Method: 8260B  
Inst. ID 4P5

Analyst KLG

Reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_

Std: 192-80-11BFB  
Std: 192-1759MS

Std: 192-178-9 SUM  
Std: 192-179-7MTBE

Std: 192-180-8 Ketones  
Std: \_\_\_\_\_

| Date    | File ID    | Lot No. / Sample No. | Vol. / Wt. | pH | Port# | Comments |
|---------|------------|----------------------|------------|----|-------|----------|
| 5/15/00 | 1. B50515  | BFB                  | 500g       |    |       | 0523     |
|         | 2. K50515  | V50150 Boous         | 5ml        |    |       |          |
|         | 3. 3030515 | V50150               | 5ml        |    |       |          |
|         | 4. 1A30515 | V5015                | 5ml        |    |       |          |
|         | 5. 1B30515 | V50120               | 5ml        |    |       |          |
|         | 6. 1D30515 | V50100               | 5ml        |    |       |          |
|         | 7. 1E30515 | V501200              | 5ml        |    |       | 7959     |
|         | 8.         |                      |            |    |       |          |
|         | 9          |                      |            |    |       |          |
|         | 10         |                      |            |    |       |          |
|         | 11.        |                      |            |    |       |          |
|         | 12.        |                      |            |    |       |          |
|         | 13.        |                      |            |    |       |          |
|         | 14.        |                      |            |    |       |          |
|         | 15.        |                      |            |    |       |          |
|         | 16         |                      |            |    |       |          |
|         | 17         |                      |            |    |       |          |
|         | 18         |                      |            |    |       |          |
|         | 19         |                      |            |    |       |          |
|         | 20         |                      |            |    |       | 0        |
|         | 21         |                      |            |    |       |          |
|         | 22.        |                      |            |    |       |          |

**GCMS Volatile**

**Run Log**

Method: SLABH

Inst. ID HP5



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

Analyst Arthur J. Jones

Reviewed by:

Date:

Std: 199-182-11 199-182-11 Std: 199-182-11 Std: 199-182-11

Std: 199-182-11 Std: 199-182-11 Std: 199-182-11

Std: 199-182-11 Std: 199-182-11 Std: 199-182-11

Std: 199-182-11 Std: 199-182-11 Std: 199-182-11

Std: 199-182-11 Std: 199-182-11 Std: 199-182-11

Std: 199-182-11 Std: 199-182-11 Std: 199-182-11

| Date     | File ID    | Lot No./Sample No. | Vol./Wt. | pH | Port# | Comments |
|----------|------------|--------------------|----------|----|-------|----------|
| 6/2/2002 | 1. 15L602  | 15L602             | 50mL     |    |       | 07:11    |
|          | 2. 15L602  | 15L602             | 50mL     |    |       |          |
|          | 3. 15L602  | 15L602             | 50mL     |    |       |          |
|          | 4. 15L602  | 15L602             | 50mL     |    |       |          |
|          | 5. 15L602  | 15L602             | 50mL     |    |       |          |
|          | 6. 15L602  | 15L602             | 50mL     |    |       |          |
|          | 7. 15L602  | 15L602             | 50mL     |    |       |          |
|          | 8. 15L602  | 15L602             | 50mL     |    |       |          |
|          | 9. 15L602  | 15L602             | 50mL     |    |       |          |
|          | 10. 15L602 | 15L602             | 50mL     |    |       |          |
|          | 11. 15L602 | 15L602             | 50mL     |    |       |          |
|          | 12. 15L602 | 15L602             | 50mL     |    |       |          |
|          | 13. 15L602 | 15L602             | 50mL     |    |       |          |
|          | 14. 15L602 | 15L602             | 50mL     |    |       |          |
|          | 15.        |                    |          |    |       |          |
|          | 16.        |                    |          |    |       |          |
|          | 17.        |                    |          |    |       |          |
|          | 18.        |                    |          |    |       |          |
|          | 19.        |                    |          |    |       |          |
|          | 20.        |                    |          |    |       |          |
|          | 21.        |                    |          |    |       |          |
|          | 22.        |                    |          |    |       |          |

# ZHE Leachate Worksheet

Quanterra Incorporated  
450 William Pitt Way  
Pittsburgh, PA 15238

(Method 1311)

Ph Buffer 4 4.00  
Ph Buffer 7 7.01  
Ph Buffer 10 10.04

P015401

Temp: 22

Quanterra  
Pittsburgh

| Lab Sample ID # | Client ID # | Weight (gm) | Vessel | Extraction Fluid No./Volume | On       |       | Off  |          |          |    |
|-----------------|-------------|-------------|--------|-----------------------------|----------|-------|------|----------|----------|----|
|                 |             |             |        |                             | Date     | Time  | Date | Time     | Initials |    |
| 1. COE260142    | 81K         | 4.90        | E      | TECP #1                     | 6/1/2000 | 10:10 | WT   | 6/2/2000 | 06:25    | WT |
| 2. COE260147    | 001         | 4.96        | XX     |                             |          |       |      |          |          |    |
| 3. COE260147    | 001         | 6.30        | F      |                             |          |       |      |          |          |    |
| 4. COE270126    | 007         | 5.28        | G      |                             |          |       |      |          |          |    |
| 5. COE310132    | 008         | 5.43        | JT     |                             |          |       |      |          |          |    |
| 6. COE310132    | 001         | 5.31        | AA     |                             |          |       |      |          |          |    |
| 7.              |             |             |        |                             |          |       |      |          |          |    |
| 8.              |             |             |        |                             |          |       |      |          |          |    |
| 9.              |             |             |        |                             |          |       |      |          |          |    |
| 10.             |             |             |        |                             |          |       |      |          |          |    |
| 11.             |             |             |        |                             |          |       |      |          |          |    |
| 12.             |             |             |        |                             |          |       |      |          |          |    |
| 13.             |             |             |        |                             |          |       |      |          |          |    |
| 14.             |             |             |        |                             |          |       |      |          |          |    |
| 15.             |             |             |        |                             |          |       |      |          |          |    |
| 16.             |             |             |        |                             |          |       |      |          |          |    |
| 17.             |             |             |        |                             |          |       |      |          |          |    |
| 18.             |             |             |        |                             |          |       |      |          |          |    |
| 19.             |             |             |        |                             |          |       |      |          |          |    |
| 20.             |             |             |        |                             |          |       |      |          |          |    |
| 21.             |             |             |        |                             |          |       |      |          |          |    |
| 22.             |             |             |        |                             |          |       |      |          |          |    |

| Extract(s)<br>(Record line number from above) | Date     | Time  | Extract(s) Received |          | Date     | Time  | Extract(s) Relinquished |          |
|-----------------------------------------------|----------|-------|---------------------|----------|----------|-------|-------------------------|----------|
|                                               |          |       | Analyst             | Location |          |       | Analyst                 | Location |
| All Above                                     | 5/8/2000 | 07:50 | B. Stewart          | Org Prep | 6/2/2000 | 07:55 | B. Stewart              | TECP-01  |
| See above.                                    | 5/2/2000 | 07:50 | Stewart             | Org Prep | 6/2/2000 | 14:50 | Stewart                 | TECP-01  |
| Reviewed by: <i>See above</i> Date: 6-2-00    |          |       |                     |          |          |       |                         |          |

C000082

PSR024 6/01/00 4:46:08 MT

## SAMPLE CUSTODIAN REMOVAL REQUEST

REQUESTED BY: TROUTB

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

| STORAGE LOCATION | WORK ORDER # | PICKED<br>CNTR# | CONTROL # | CLIENT # | ANALYSIS | LOTID     | SMP# | SFX | MATRIX<br>DESCRIPTION | QTY<br>RCVD | QTY<br>REQD |   |
|------------------|--------------|-----------------|-----------|----------|----------|-----------|------|-----|-----------------------|-------------|-------------|---|
| 6E CLP1          | DDRLV-1-02   | — — —           | 237516    | 375241   | A-58-QK  | COE260142 | 001  |     | SOLID                 | 0           | 5           | 1 |
| 6E CLP1          | DDRMP-1-02   | — — —           | 237517    | 399411   | A-58-QK  | COE260147 | 001  |     | SOLID                 | 0           | 3           | 1 |
| 7A CLP1          | DDVK9-1-01   | — — —           | 237513    | 039984   | A-58-QK  | COE270126 | 007  |     | SOLID                 | 0           | 2           | 1 |
| 7A CLP1          | DDVKA-1-01   | — — —           | 237514    | 039984   | A-58-QK  | COE270126 | 008  |     | SOLID                 | 0           | 2           | 1 |
| 7E CLP1          | DE022-1-02   | — — —           | 237515    | 399411   | A-58-QK  | COE310132 | 001  |     | SOLID                 | 0           | 3           | 1 |

## RELINQUISHED BY

## RECEIVED BY

## DATE/TIME

*William A. Doyle**B Trout**6/1/2000**02:15**B Trout**William A. Doyle**6/1/2000**10:00*

659 848

**GC/MS SEMIVOLATILE DATA**

**GC/MS SEMIVOLATILE  
QC SUMMARY**

## SW846 8270C SURROGATE RECOVERY

659 850

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

QESSDG:

Lot #: C0E310132

|    | CLIENT ID.           | SRG01 | SRG02 | SRG03 | SRG04 | SRG05 | SRG06 | TOT OUT |
|----|----------------------|-------|-------|-------|-------|-------|-------|---------|
|    | =====                | ===== | ===== | ===== | ===== | ===== | ===== | =====   |
| 01 | DF/S1/D151/SDC/005   | 82    | 71    | 88    | 66    | 78    | 75    | 00      |
| 02 | METHOD BLK. DE6Q3101 | 64    | 64    | 75    | 55    | 65    | 62    | 00      |
| 03 | LCS DE6Q3102         | 77    | 73    | 76    | 67    | 76    | 64    | 00      |
| 04 | DF/S1/D151/SDC/005 D | 75    | 69    | 84    | 58    | 72    | 72    | 00      |
| 05 | DF/S1/D151/SDC/005 S | 72    | 68    | 81    | 57    | 69    | 68    | 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 CHECK SAMPLE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: C0F050000

WO #: DE6Q3102

BATCH: 0157330

| COMPOUND              | SPIKE<br>ADDED<br>(mg/L ) | SAMPLE<br>CONCENT.<br>(mg/L ) | %<br>REC | QC<br>LIMITS<br>REC | QUAL |
|-----------------------|---------------------------|-------------------------------|----------|---------------------|------|
| Hexachlorobutadiene   | 0.250                     | 0.179                         | 72       | 36 - 116            |      |
| Hexachloroethane      | 0.250                     | 0.184                         | 74       | 30 - 110            |      |
| Nitrobenzene          | 0.250                     | 0.195                         | 78       | 45 - 130            |      |
| Pentachlorophenol     | 0.250                     | 0.183                         | 73       | 10 - 140            |      |
| Pyridine              | 0.250                     | 0.153                         | 61       | 10 - 148            |      |
| 1,4-Dichlorobenzene   | 0.250                     | 0.184                         | 73       | 28 - 110            |      |
| 2,4-Dinitrotoluene    | 0.250                     | 0.169                         | 68       | 47 - 131            |      |
| Hexachlorobenzene     | 0.250                     | 0.180                         | 72       | 57 - 128            |      |
| 2,4,5-Trichlorophenol | 0.250                     | 0.176                         | 70       | 41 - 125            |      |
| 2,4,6-Trichlorophenol | 0.250                     | 0.171                         | 68       | 46 - 135            |      |
| Cresols (total)       | 0.750                     | 0.575                         | 77       | 29 - 144            |      |

NOTES (S) :

\* Values outside of QC limits

Spike Recovery: 0 out of 11 outside limits

COMMENTS:

FORM III



659 852 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/D151/SDC/005

Level: (low/med) LOW

Lot #: C0E310132

WO #: DE02211E

BATCH: 0157330

| COMPOUND              | SPIKE<br>ADDED<br>(mg/L ) | SAMPLE<br>CONCENT.<br>(mg/L ) | MS<br>CONCENT.<br>(mg/L ) | MS<br>%<br>REC | LIMITS<br>REC | QUAL |
|-----------------------|---------------------------|-------------------------------|---------------------------|----------------|---------------|------|
| Hexachlorobenzene     | 0.250                     | ND                            | 0.193                     | 77             | 36 - 132      |      |
| Hexachlorobutadiene   | 0.250                     | ND                            | 0.151                     | 61             | 18 - 116      |      |
| Hexachloroethane      | 0.250                     | ND                            | 0.153                     | 61             | 18 - 110      |      |
| 1,4-Dichlorobenzene   | 0.250                     | ND                            | 0.158                     | 63             | 18 - 110      |      |
| 2,4-Dinitrotoluene    | 0.250                     | ND                            | 0.171                     | 68             | 31 - 131      |      |
| Nitrobenzene          | 0.250                     | ND                            | 0.183                     | 73             | 10 - 211      |      |
| Pentachlorophenol     | 0.250                     | ND                            | 0.185                     | 74             | 10 - 140      |      |
| Pyridine              | 0.250                     | ND                            | 0.125                     | 50             | 10 - 148      |      |
| 2,4,5-Trichlorophenol | 0.250                     | ND                            | 0.174                     | 70             | 24 - 143      |      |
| 2,4,6-Trichlorophenol | 0.250                     | ND                            | 0.167                     | 67             | 36 - 135      |      |
| Cresols (total)       | 0.750                     | ND                            | 0.529                     | 71             | 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/D151/SDC/005

Level: (low/med) LOW

Lot #: C0E310132

WO #: DE02211F

BATCH: 0157330

| COMPOUND              | SPIKE<br>ADDED<br>(mg/L ) | MSD<br>CONCENT.<br>(mg/L ) | MSD      |          | QC LIMITS |          | QUAL |
|-----------------------|---------------------------|----------------------------|----------|----------|-----------|----------|------|
|                       |                           |                            | %<br>REC | %<br>RPD | RPD       | REC      |      |
| 1,4-Dichlorobenzene   | 0.250                     | 0.160                      | 64       | 1.4      | 36        | 18 - 110 |      |
| 2,4-Dinitrotoluene    | 0.250                     | 0.177                      | 71       | 3.8      | 32        | 31 - 131 |      |
| Hexachlorobenzene     | 0.250                     | 0.201                      | 80       | 3.8      | 22        | 36 - 132 |      |
| Hexachlorobutadiene   | 0.250                     | 0.155                      | 62       | 2.1      | 32        | 18 - 116 |      |
| Hexachloroethane      | 0.250                     | 0.157                      | 63       | 2.9      | 33        | 18 - 110 |      |
| Nitrobenzene          | 0.250                     | 0.188                      | 75       | 2.8      | 50        | 10 - 211 |      |
| Pentachlorophenol     | 0.250                     | 0.188                      | 75       | 1.6      | 56        | 10 - 140 |      |
| Pyridine              | 0.250                     | 0.109                      | 44       | 13       | 65        | 10 - 148 |      |
| 2,4,5-Trichlorophenol | 0.250                     | 0.179                      | 72       | 2.6      | 22        | 24 - 143 |      |
| 2,4,6-Trichlorophenol | 0.250                     | 0.173                      | 69       | 3.4      | 27        | 36 - 135 |      |
| Cresols (total)       | 0.750                     | 0.548                      | 73       | 3.5      | 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:

659 854 SW846 8270C METHOD BLANK SUMMARY

BLANK WORKORDER NO.

DE6Q3101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: S0606001.

Lot Number: C0E310132

Date Analyzed: 06/06/00

Time Analyzed: 08:51

Matrix: SOLID

Date Extracted: 06/02/00

GC Column: DB5MS ID: .25

Extraction Method: 1311/3520C

Instrument ID: 71

Level: (low/med) LOW

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

|    | CLIENT ID.         | SAMPLE<br>WORK ORDER # | LAB<br>FILE ID | DATE<br>ANALYZED | TIME<br>ANALYZED |
|----|--------------------|------------------------|----------------|------------------|------------------|
| 01 | DF/S1/D151/SDC/005 | DE022103               | S0606003.      | 06/06/00         | 09:56            |
| 02 | DF/S1/D151/SDC/005 | DE02211E S             | S0606004.      | 06/06/00         | 10:28            |
| 03 | DF/S1/D151/SDC/005 | DE02211F D             | S0606005.      | 06/06/00         | 11:02            |
| 04 | CHECK SAMPLE       | DE6Q3102 C             | S0606002.      | 06/06/00         | 09:23            |
| 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

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

659 855

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.:

SDG No.:

Lab File ID: S0601DF3

DFTPP Injection Date: 06/01/00

Instrument ID: 71

DFTPP Injection Time: 0830

| m/e | ION ABUNDANCE CRITERIA             | % RELATIVE ABUNDANCE |
|-----|------------------------------------|----------------------|
| 51  | 30.0 - 60.0% of mass 198           | 41.0                 |
| 68  | Less than 2.0% of mass 69          | 0.0 ( 0.0)1          |
| 69  | Mass 69 relative abundance         | 42.9                 |
| 70  | Less than 2.0% of mass 69          | 0.0 ( 0.0)1          |
| 127 | 40.0 - 60.0% of mass 198           | 49.6                 |
| 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             | 6.8                  |
| 275 | 10.0 - 30.0% of mass 198           | 23.1                 |
| 365 | Greater than 1.0% of mass 198      | 3.5                  |
| 441 | Present, but less than mass 443    | 12.9                 |
| 442 | Greater than 40.0% of mass 198     | 77.9                 |
| 443 | 17.0 - 23.0% of mass 442           | 15.4 ( 19.8)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<br>SAMPLE NO. | LAB<br>SAMPLE ID | LAB<br>FILE ID | DATE<br>ANALYZED | TIME<br>ANALYZED |
|----|-------------------|------------------|----------------|------------------|------------------|
| 01 | SSTD050           | SSTD50           | S0601CCC       | 06/01/00         | 0938             |
| 02 | SSTD20            | SSTD20           | S0601CC2       | 06/01/00         | 1037             |
| 03 | SSTD80            | SSTD80           | S0601CC3       | 06/01/00         | 1110             |
| 04 | SSTD120           | SSTD120          | S0601CC4       | 06/01/00         | 1143             |
| 05 | SSTD160           | SSTD160          | S0601CC5       | 06/01/00         | 1215             |
| 06 |                   |                  |                |                  |                  |
| 07 |                   |                  |                |                  |                  |
| 08 |                   |                  |                |                  |                  |
| 09 |                   |                  |                |                  |                  |
| 10 |                   |                  |                |                  |                  |
| 11 |                   |                  |                |                  |                  |
| 12 |                   |                  |                |                  |                  |
| 13 |                   |                  |                |                  |                  |
| 14 |                   |                  |                |                  |                  |
| 15 |                   |                  |                |                  |                  |
| 16 |                   |                  |                |                  |                  |
| 17 |                   |                  |                |                  |                  |
| 18 |                   |                  |                |                  |                  |
| 19 |                   |                  |                |                  |                  |
| 20 |                   |                  |                |                  |                  |
| 21 |                   |                  |                |                  |                  |
| 22 |                   |                  |                |                  |                  |

659 856 SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

FORM 5

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT Case No.:

SAS No.:

SDG No.: C0E310132

Lab File ID: S0606DF2

DFTPP Injection Date: 06/06/00

Instrument ID: 71

DFTPP Injection Time: 0751

| m/e | ION ABUNDANCE CRITERIA             | % RELATIVE ABUNDANCE |
|-----|------------------------------------|----------------------|
| 51  | 30.0 - 60.0% of mass 198           | 49.7                 |
| 68  | Less than 2.0% of mass 69          | 0.0 ( 0.0)1          |
| 69  | Mass 69 relative abundance         | 47.8                 |
| 70  | Less than 2.0% of mass 69          | 0.0 ( 0.0)1          |
| 127 | 40.0 - 60.0% of mass 198           | 55.8                 |
| 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            | 6.6                  |
| 275 | 10.0 - 30.0% of mass 198           | 23.5                 |
| 365 | Greater than 1.0% of mass 198      | 4.06                 |
| 441 | Present, but less than mass 443    | 12.8                 |
| 442 | Greater than 40.0% of mass 198     | 76.3                 |
| 443 | 17.0 - 23.0% of mass 442           | 14.3 ( 18.8)2        |

1-Value is % mass 69

2-Value is % mass 442

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

|              | EPA<br>SAMPLE NO. | LAB<br>SAMPLE ID | LAB<br>FILE ID | DATE<br>ANALYZED | TIME<br>ANALYZED |
|--------------|-------------------|------------------|----------------|------------------|------------------|
| 01           | SSTD050           | SSTD50           | S0606CCC       | 06/06/00         | 0811             |
| 02           | INTRA-LAB BL      | DE6Q3101         | S0606001       | 06/06/00         | 0851             |
| 03           | INTRA-LAB CH      | DE6Q3102         | S0606002       | 06/06/00         | 0923             |
| 04           | DF/S1/D151/S      | DE022103         | S0606003       | 06/06/00         | 0956             |
| ms<br>msd 05 | DF/S1/D151/S      | DE02211E         | S0606004       | 06/06/00         | 1028             |
| 06           | DF/S1/D151/S      | DE02211F         | S0606005       | 06/06/00         | 1102             |
| 07           |                   |                  |                |                  |                  |
| 08           |                   |                  |                |                  |                  |
| 09           |                   |                  |                |                  |                  |
| 10           |                   |                  |                |                  |                  |
| 11           |                   |                  |                |                  |                  |
| 12           |                   |                  |                |                  |                  |
| 13           |                   |                  |                |                  |                  |
| 14           |                   |                  |                |                  |                  |
| 15           |                   |                  |                |                  |                  |
| 16           |                   |                  |                |                  |                  |
| 17           |                   |                  |                |                  |                  |
| 18           |                   |                  |                |                  |                  |
| 19           |                   |                  |                |                  |                  |
| 20           |                   |                  |                |                  |                  |
| 21           |                   |                  |                |                  |                  |
| 22           |                   |                  |                |                  |                  |

FORM 8  
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

659 857

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT Case No.:

SAS No.:

SDG No.: COE310132

Lab File ID (Standard): S0606CCC

Date Analyzed: 06/06/00

Instrument ID: 71

Time Analyzed: 0811

|                    | IS1 (DCB) |       | IS2 (NPT) |       | IS3 (ANT) |       |
|--------------------|-----------|-------|-----------|-------|-----------|-------|
|                    | AREA #    | RT #  | AREA #    | RT #  | AREA #    | RT #  |
| =====              | =====     | ===== | =====     | ===== | =====     | ===== |
| 12 HOUR STD        | 73946     | 4.93  | 281731    | 6.45  | 150447    | 9.44  |
| UPPER LIMIT        | 147892    | 5.43  | 563462    | 6.95  | 300894    | 9.94  |
| LOWER LIMIT        | 36973     | 4.43  | 140866    | 5.95  | 75224     | 8.94  |
| =====              | =====     | ===== | =====     | ===== | =====     | ===== |
| CLIENT             |           |       |           |       |           |       |
| SAMPLE NO.         |           |       |           |       |           |       |
| =====              | =====     | ===== | =====     | ===== | =====     | ===== |
| 01 INTRA-LAB BL    | 92694     | 4.94  | 358238    | 6.46  | 186965    | 9.45  |
| 02 INTRA-LAB CH    | 82459     | 4.95  | 321344    | 6.46  | 169306    | 9.46  |
| 03 DF/S1/D151/S    | 82361     | 4.94  | 320567    | 6.45  | 166903    | 9.44  |
| ms 04 DF/S1/D151/S | 82877     | 4.95  | 319509    | 6.45  | 164276    | 9.45  |
| ms 05 DF/S1/D151/S | 82445     | 4.95  | 320900    | 6.46  | 163646    | 9.46  |
| 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.

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

659 858

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT Case No.:

SAS No.:

SDG No.: C0E310132

Lab File ID (Standard): S0606CCC

Date Analyzed: 06/06/00

Instrument ID: 71

Time Analyzed: 0811

|       |                      | IS4 (PHN)<br>AREA # | RT #  | IS5 (CRY)<br>AREA # | RT #  | IS6 (PRY)<br>AREA # | RT #  |
|-------|----------------------|---------------------|-------|---------------------|-------|---------------------|-------|
|       | =====                | =====               | ===== | =====               | ===== | =====               | ===== |
|       | 12 HOUR STD          | 276309              | 12.73 | 314156              | 19.35 | 386487              | 22.70 |
|       | UPPER LIMIT          | 552618              | 13.23 | 628312              | 19.85 | 772974              | 23.20 |
|       | LOWER LIMIT          | 138155              | 12.23 | 157078              | 18.85 | 193244              | 22.20 |
|       | =====                | =====               | ===== | =====               | ===== | =====               | ===== |
|       | CLIENT<br>SAMPLE NO. |                     |       |                     |       |                     |       |
|       | =====                | =====               | ===== | =====               | ===== | =====               | ===== |
| 01    | INTRA-LAB BL         | 310619              | 12.74 | 286920              | 19.36 | 360511              | 22.71 |
| 02    | INTRA-LAB CH         | 301329              | 12.74 | 304297              | 19.36 | 372210              | 22.72 |
| 03    | DF/S1/D151/S         | 282661              | 12.73 | 292765              | 19.35 | 354228              | 22.71 |
| MS 04 | DF/S1/D151/S         | 282782              | 12.73 | 295814              | 19.35 | 364207              | 22.71 |
| MS 05 | DF/S1/D151/S         | 276545              | 12.74 | 280321              | 19.36 | 350563              | 22.72 |
| 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.

**GC/MS SEMIVOLATILE  
SAMPLE DATA**



659 860

## UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E310132 001

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 05/31/00

Work Order: DE022103

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/06/00

Moisture %: 14

QC Batch: 0157330

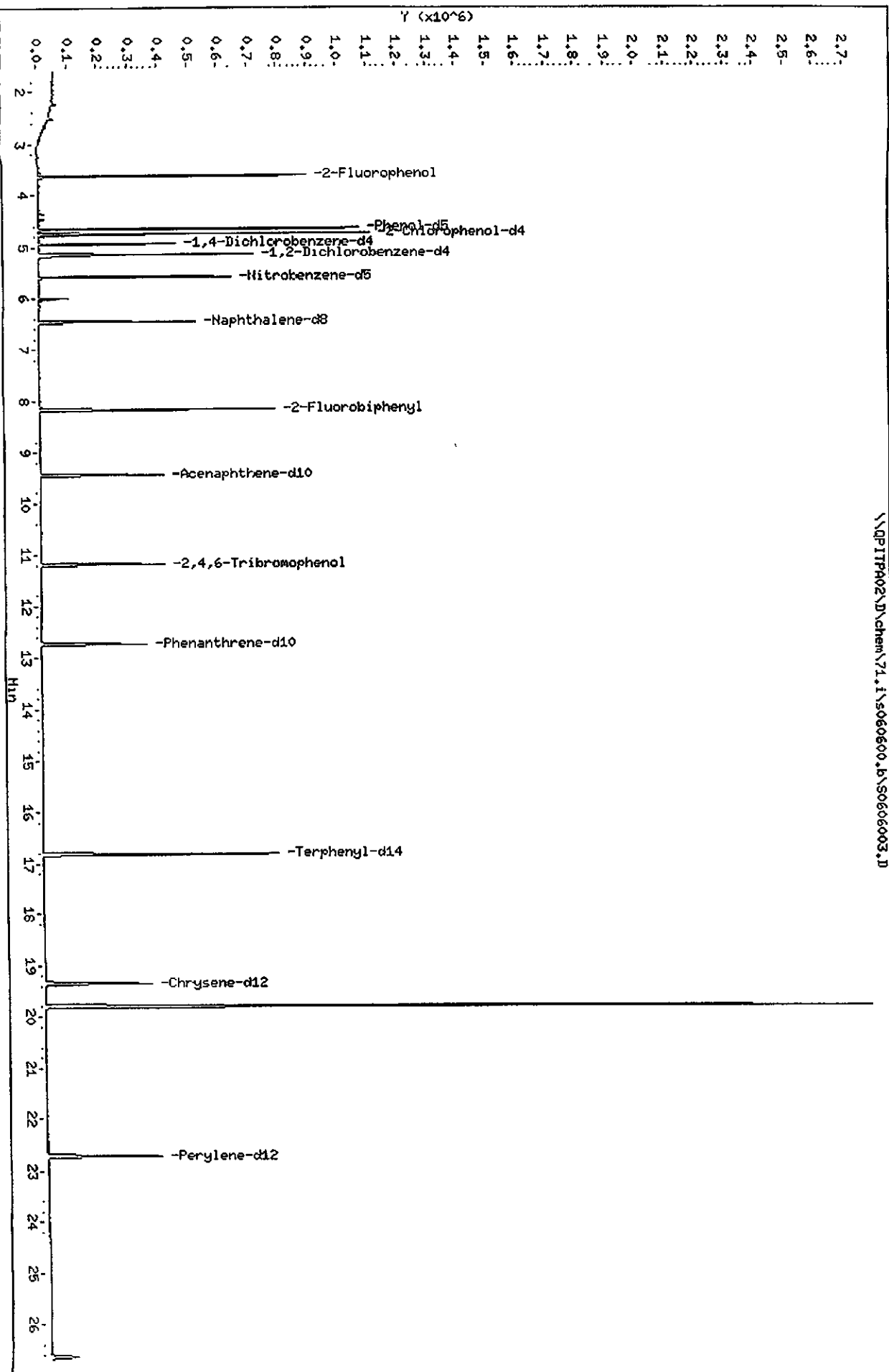
Client Sample Id: DF/S1/D151/SDC/005

| 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: \\NPITPA02\\chem\\71.1\\S060600.b\\S0606003.D  
Date : 06-JUN-2000 09:56  
Client ID: JF/SL/D151/SDC/005  
Sample Info: c0e310132-001 6/02/00 8270tc1p  
Volume Injected (uL): 2.0  
Column phase: Hp5-MS

Instrument: 71.1  
Operator: 045183  
Column diameter: 0.25

\\NPITPA02\\chem\\71.1\\S060600.b\\S0606003.D



## STL Pittsburgh

## Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\71.i\s060600.b\S0606003.D  
 Lab Smp Id: DE022103 Client Smp ID: DF/S1/D151/SDC/005  
 Inj Date : 06-JUN-2000 09:56  
 Operator : 045183 Inst ID: 71.i  
 Smp Info : c0e310132-001 6/02/00 8270tclp  
 Misc Info : de022103,s060600.b,8270clp.m,1-tclp.sub  
 Comment :  
 Method : \\QPITPA02\D\chem\71.i\s060600.b\8270clp.m  
 Meth Date : 06-Jun-2000 08:41 bachas Quant Type: ISTD  
 Cal Date : 01-JUN-2000 12:15 Cal File: S0601CC5.D  
 Als bottle: 5  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 1-tclp.sub  
 Target Version: 4.04  
 Processing Host: PITPC050

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

| 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)            |

*5/6/00*

| Compounds                  | QUANT SIG | CONCENTRATIONS        |                |        |          |                    |                  |
|----------------------------|-----------|-----------------------|----------------|--------|----------|--------------------|------------------|
|                            |           | RT                    | EXP RT         | REL RT | RESPONSE | ON-COLUMN<br>( ng) | FINAL<br>( mg/L) |
| * 1 1,4-Dichlorobenzene-d4 | 152       | 4.943                 | 4.934 (1.000)  |        | 82361    | 40.0000            | (a)              |
| * 2 Naphthalene-d8         | 136       | 6.449                 | 6.446 (1.000)  |        | 320567   | 40.0000            | (a)              |
| * 3 Acenaphthene-d10       | 164       | 9.441                 | 9.443 (1.000)  |        | 166903   | 40.0000            | (a)              |
| * 4 Phenanthrene-d10       | 188       | 12.726                | 12.728 (1.000) |        | 282661   | 40.0000            | (a)              |
| * 5 Chrysene-d12           | 240       | 19.345                | 19.347 (1.000) |        | 292765   | 40.0000            | (a)              |
| * 6 Perylene-d12           | 264       | 22.705                | 22.702 (1.000) |        | 354228   | 40.0000            | (a)              |
| 10 Pyridine                | 79        | Compound Not Detected |                |        |          |                    |                  |
| 28 1,4-Dichlorobenzene     | 146       | Compound Not Detected |                |        |          |                    |                  |
| M 34 Cresols, total        | 100       | Compound Not Detected |                |        |          |                    |                  |
| 31 2-Methylphenol          | 108       | Compound Not Detected |                |        |          |                    |                  |
| 35 4-Methylphenol          | 108       | Compound Not Detected |                |        |          |                    |                  |
| 38 Hexachloroethane        | 117       | Compound Not Detected |                |        |          |                    |                  |
| 39 Nitrobenzene            | 77        | Compound Not Detected |                |        |          |                    |                  |
| 59 Hexachlorobutadiene     | 224       | Compound Not Detected |                |        |          |                    |                  |

Data File: \\QPITPA02\D\chem\71.i\s060600.b\S0606003.D  
 Report Date: 06-Jun-2000 10:30

Page 2

| Compounds                     | QUANT SIG<br>MASS | RT     | EXP RT | REL RT  | RESPONSE               | CONCENTRATIONS     |                  |
|-------------------------------|-------------------|--------|--------|---------|------------------------|--------------------|------------------|
|                               |                   |        |        |         |                        | ON-COLUMN<br>( ng) | FINAL<br>( mg/L) |
| =====                         | =====             | ==     | =====  | =====   | =====                  | =====              | =====            |
| 69 2,4,6-Trichlorophenol      | 196               |        |        |         | Compound Not Detected. |                    |                  |
| 70 2,4,5-Trichlorophenol      | 196               |        |        |         | Compound Not Detected  |                    |                  |
| 91 2,4-Dinitrotoluene         | 165               |        |        |         | Compound Not Detected  |                    |                  |
| 113 Hexachlorobenzene         | 283               |        |        |         | Compound Not Detected. |                    |                  |
| 117 Pentachlorophenol         | 265               |        |        |         | Compound Not Detected. |                    |                  |
| \$ 172 Nitrobenzene-d5        | 82                | 5.589  | 5.586  | (0.867) | 265268                 | 81.8351            | 0.20459(a)       |
| \$ 173 2-Fluorobiphenyl       | 172               | 8.169  | 8.166  | (0.865) | 373173                 | 70.5706            | 0.17643(a)       |
| \$ 174 Terphenyl-d14          | 244               | 16.797 | 16.794 | (0.868) | 551730                 | 87.8376            | 0.21959(a)       |
| \$ 175 Phenol-d5              | 99                | 4.649  | 4.646  | (0.941) | 414704                 | 117.690            | 0.29422(a)       |
| \$ 176 2-Fluorophenol         | 112               | 3.634  | 3.625  | (0.735) | 277683                 | 98.6066            | 0.24652(a)       |
| \$ 177 2,4,6-Tribromophenol   | 330               | 11.177 | 11.174 | (0.878) | 81945                  | 112.522            | 0.28130(a)       |
| \$ 178 2-Chlorophenol-d4      | 132               | 4.745  | 4.742  | (0.960) | 310594                 | 120.412            | 0.30103(a)       |
| \$ 179 1,2-Dichlorobenzene-d4 | 152               | 5.146  | 5.137  | (1.041) | 117523                 | 67.3847            | 0.16846(a)       |

### QC Flag Legend

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

659 864

**GC/MS SEMIVOLATILE  
CALIBRATION DATA**

6B  
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

659 865

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.:

SDG No.:

Instrument ID: 71

Calibration Date(s): 06/01/00

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

Max %RSD for CCC(\*) = 30.0%

| LAB FILE ID:                |       | RRF1 =S0601CC2.D | RRF2 =S0601CCC.D |       |       |                  |          |
|-----------------------------|-------|------------------|------------------|-------|-------|------------------|----------|
| RRF3 =S0601CC3.D            |       | RRF4 =S0601CC4.D | RRF5 =S0601CC5.D |       |       |                  |          |
| COMPOUND                    | RRF1  | RRF2             | RRF3             | RRF4  | RRF5  | $\overline{RRF}$ | %<br>RSD |
| Phenol                      | 2.131 | 2.043            | 2.005            | 1.888 | 1.827 | 1.979            | 6.2*     |
| bis(2-Chloroethyl) ether    | 1.650 | 1.609            | 1.584            | 1.540 | 1.514 | 1.579            | 3.4      |
| 2-Chlorophenol              | 1.474 | 1.440            | 1.402            | 1.335 | 1.295 | 1.389            | 5.3      |
| 1,3-Dichlorobenzene         | 1.635 | 1.584            | 1.551            | 1.477 | 1.414 | 1.532            | 5.7      |
| 1,4-Dichlorobenzene         | 1.637 | 1.605            | 1.566            | 1.479 | 1.416 | 1.541            | 5.9*     |
| 1,2-Dichlorobenzene         | 1.537 | 1.470            | 1.420            | 1.334 | 1.264 | 1.405            | 7.7      |
| 2-Methylphenol              | 1.374 | 1.330            | 1.307            | 1.202 | 1.167 | 1.276            | 6.9      |
| 2,2'-oxybis(1-Chloropropane | 2.195 | 2.069            | 2.016            | 1.896 | 1.817 | 1.999            | 7.4      |
| 4-Methylphenol              | 1.471 | 1.389            | 1.360            | 1.275 | 1.237 | 1.346            | 6.9      |
| Hexachloroethane            | 0.629 | 0.620            | 0.617            | 0.594 | 0.586 | 0.609            | 3.0      |
| Nitrobenzene                | 0.440 | 0.442            | 0.442            | 0.431 | 0.431 | 0.437            | 1.4      |
| Isophorone                  | 0.704 | 0.700            | 0.693            | 0.672 | 0.678 | 0.689            | 2.0      |
| 2-Nitrophenol               | 0.195 | 0.198            | 0.200            | 0.194 | 0.196 | 0.197            | 1.2*     |
| 2,4-Dimethylphenol          | 0.347 | 0.356            | 0.354            | 0.342 | 0.346 | 0.349            | 1.7      |
| bis(2-Chloroethoxy) methane | 0.457 | 0.453            | 0.453            | 0.437 | 0.442 | 0.448            | 1.8      |
| N-Nitroso-di-n-propylamine  | 1.121 | 1.095            | 1.064            | 1.028 | 1.044 | 1.070            | 3.5#     |
| 2,4-Dichlorophenol          | 0.280 | 0.279            | 0.274            | 0.259 | 0.256 | 0.270            | 4.1*     |
| 1,2,4-Trichlorobenzene      | 0.303 | 0.298            | 0.295            | 0.280 | 0.274 | 0.290            | 4.3      |
| Naphthalene                 | 1.111 | 1.076            | 1.052            | 0.992 | 0.960 | 1.038            | 5.9      |
| 4-Chloroaniline             | 0.422 | 0.422            | 0.416            | 0.393 | 0.393 | 0.409            | 3.6      |
| Hexachlorobutadiene         | 0.159 | 0.155            | 0.154            | 0.147 | 0.143 | 0.152            | 4.3*     |
| 4-Chloro-3-Methylphenol     | 0.301 | 0.300            | 0.301            | 0.289 | 0.292 | 0.297            | 1.9*     |
| 2-Methylnaphthalene         | 0.707 | 0.688            | 0.669            | 0.630 | 0.617 | 0.662            | 5.7      |
| Hexachlorocyclopentadiene   | 0.300 | 0.328            | 0.338            | 0.339 | 0.341 | 0.329            | 5.2#     |
| 2,4,6-Trichlorophenol       | 0.340 | 0.345            | 0.347            | 0.339 | 0.339 | 0.342            | 1.2*     |
| 2,4,5-Trichlorophenol       | 0.360 | 0.364            | 0.367            | 0.359 | 0.353 | 0.361            | 1.5      |
| 2-Chloronaphthalene         | 1.168 | 1.125            | 1.111            | 1.056 | 1.019 | 1.096            | 5.4      |
| 2-Nitroaniline              | 0.370 | 0.382            | 0.397            | 0.399 | 0.406 | 0.391            | 3.8      |
| Dimethylphthalate           | 1.173 | 1.212            | 1.225            | 1.208 | 1.212 | 1.206            | 1.6      |
| Acenaphthylene              | 1.850 | 1.853            | 1.853            | 1.781 | 1.748 | 1.817            | 2.7      |
| 2,6-Dinitrotoluene          | 0.265 | 0.278            | 0.284            | 0.281 | 0.285 | 0.279            | 3.0      |
| 3-Nitroaniline              | 0.314 | 0.327            | 0.343            | 0.340 | 0.345 | 0.334            | 3.9      |
| Acenaphthene                | 1.165 | 1.148            | 1.139            | 1.104 | 1.091 | 1.129            | 2.7*     |
| 2,4-Dinitrophenol           | 0.062 | 0.112            | 0.140            | 0.161 | 0.172 | 0.129            | 34.1#    |
| 4-Nitrophenol               | 0.139 | 0.158            | 0.170            | 0.180 | 0.181 | 0.166            | 10.6#    |
| Dibenzofuran                | 1.621 | 1.593            | 1.577            | 1.521 | 1.494 | 1.561            | 3.3      |
| 2,4-Dinitrotoluene          | 0.341 | 0.361            | 0.380            | 0.387 | 0.386 | 0.371            | 5.4      |

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.:

SDG No.:

Instrument ID: 71

Calibration Date(s): 06/01/00

Min RRF for SPCC(#) = 0.050

Max %RSD for CCC(\*) = 30.0%

| LAB FILE ID:                | RRF1 =S0601CC2.D | RRF2 =S0601CCC.D |       |       |       |       |       |
|-----------------------------|------------------|------------------|-------|-------|-------|-------|-------|
| RRF3 =S0601CC3.D            | RRF4 =S0601CC4.D | RRF5 =S0601CC5.D |       |       |       |       |       |
| COMPOUND                    | RRF1             | RRF2             | RRF3  | RRF4  | RRF5  | RRF   | % RSD |
| Diethylphthalate            | 1.109            | 1.164            | 1.201 | 1.189 | 1.176 | 1.168 | 3.0   |
| 4-Chlorophenyl-phenylether  | 0.582            | 0.576            | 0.574 | 0.555 | 0.546 | 0.567 | 2.8   |
| Fluorene                    | 1.278            | 1.266            | 1.249 | 1.200 | 1.158 | 1.230 | 4.1   |
| 4-Nitroaniline              | 0.295            | 0.322            | 0.343 | 0.352 | 0.353 | 0.333 | 7.4   |
| 4,6-Dinitro-2-methylphenol  | 0.096            | 0.120            | 0.133 | 0.136 | 0.138 | 0.125 | 14.0  |
| N-Nitrosodiphenylamine (1)  | * 0.572          | 0.543            | 0.539 | 0.516 | 0.508 | 0.536 | 4.7*  |
| 4-Bromophenyl-phenylether   | 0.196            | 0.193            | 0.188 | 0.176 | 0.176 | 0.186 | 5.1   |
| Hexachlorobenzene           | 0.201            | 0.202            | 0.198 | 0.186 | 0.184 | 0.194 | 4.4   |
| Pentachlorophenol           | * 0.070          | 0.096            | 0.108 | 0.113 | 0.117 | 0.101 | 18.9* |
| Phenanthrene                | 1.057            | 1.041            | 1.029 | 0.964 | 0.936 | 1.005 | 5.2   |
| Anthracene                  | 1.074            | 1.070            | 1.058 | 0.994 | 0.970 | 1.033 | 4.6   |
| Carbazole                   | 0.964            | 0.990            | 0.995 | 0.964 | 0.939 | 0.970 | 2.3   |
| Di-n-Butylphthalate         | 1.139            | 1.234            | 1.246 | 1.207 | 1.174 | 1.200 | 3.6   |
| Fluoranthene                | * 0.994          | 1.039            | 1.056 | 1.029 | 0.987 | 1.021 | 2.9*  |
| Pyrene                      | 1.216            | 1.145            | 1.122 | 1.084 | 1.092 | 1.132 | 4.7   |
| Butylbenzylphthalate        | 0.697            | 0.690            | 0.681 | 0.659 | 0.660 | 0.677 | 2.6   |
| 3,3'-Dichlorobenzidine      | 0.461            | 0.478            | 0.468 | 0.461 | 0.458 | 0.465 | 1.7   |
| Benzo(a) Anthracene         | 1.123            | 1.147            | 1.148 | 1.139 | 1.142 | 1.140 | 0.9   |
| Chrysene                    | 1.089            | 1.092            | 1.082 | 1.060 | 1.055 | 1.076 | 1.6   |
| bis(2-ethylhexyl) Phthalate | 1.314            | 1.209            | 1.138 | 1.031 | 1.011 | 1.141 | 11.0  |
| Di-n-octylphthalate         | * 2.099          | 1.861            | 1.645 | 1.432 | 1.321 | 1.672 | 18.9* |
| Benzo(b) fluoranthene       | 1.098            | 1.054            | 1.050 | 1.055 | 1.119 | 1.075 | 2.9   |
| Benzo(k) fluoranthene       | 1.163            | 1.113            | 1.045 | 0.895 | 0.750 | 0.993 | 17.0  |
| Benzo(a) pyrene             | * 1.086          | 1.060            | 1.041 | 0.978 | 0.944 | 1.022 | 5.8*  |
| Indeno(1,2,3-cd)pyrene      | 1.594            | 1.523            | 1.496 | 1.413 | 1.390 | 1.483 | 5.6   |
| Dibenz(a,h)anthracene       | 1.401            | 1.330            | 1.287 | 1.192 | 1.140 | 1.270 | 8.2   |
| Benzo(g,h,i)perylene        | 1.360            | 1.321            | 1.306 | 1.244 | 1.237 | 1.294 | 4.0   |
| Pyridine                    | 1.676            | 1.616            | 1.645 | 1.634 | 1.546 | 1.623 | 3.0   |
| N-Nitrosodimethylamine      | 0.924            | 0.902            | 0.906 | 0.891 | 0.850 | 0.895 | 3.1   |
| Aniline                     | 2.622            | 2.464            | 2.402 | 2.304 | 2.224 | 2.403 | 6.4   |
| Benzyl Alcohol              | 1.063            | 1.049            | 1.004 | 0.964 | 0.932 | 1.002 | 5.5   |
| Benzoic Acid                | 0.096            | 0.148            | 0.165 | 0.171 | 0.181 | 0.152 | 22.2  |
| 1-Methylnaphthalene         | 0.666            | 0.648            | 0.617 | 0.587 | 0.575 | 0.619 | 6.3   |
| 2,3,4,6-Tetrachlorophenol   | 0.230            | 0.255            | 0.251 | 0.250 | 0.249 | 0.247 | 3.9   |
| 2,3,5,6-Tetrachlorophenol   | 0.215            | 0.250            | 0.252 | 0.259 | 0.260 | 0.247 | 7.5   |

Contract:

SDG No. :

Calibration Date(s): 06/01/00

Max %RSD for CCC(\*) = 30.0%

[illegible]



659 868

Data File: \\QPITPA02\D\chem\71.i\s060100.b/S0601CCC.D

Report Date: 06/01/2000

## INITIAL CALIBRATION REPORT

Instrument ID: 71.i  
Lab File ID: S0601CCC.D  
Analysis Type: NONE

Injection Date: 01-JUN-2000 09:38  
Lab Sample ID: sstd50  
Method File: \\QPITPA02\D\chem\71.i\s060100.b\

| COMPOUND                       | %RSD |
|--------------------------------|------|
| Benzo(b)fluoranthene           | 2.9  |
| Benzo(k)fluoranthene           | 17.0 |
| 1,12-dimethylbenz(a)anthracene | 9.9  |
| Benzo(a)pyrene                 | 5.8  |
| Indeno(1,2,3-cd)pyrene         | 5.6  |
| Dibenz(a,h)anthracene          | 8.2  |
| Benzo(g,h,i)perylene           | 4.0  |

The average of all %RSD's in the initial calibration is 5.6

# INITIAL CALIBRATION REPORT

Instrument ID: 71.i  
Lab File ID: S0601CCC.D  
Analysis Type: NONE

Injection Date: 01-JUN-2000 09:38  
Lab Sample ID: sstd50  
Method File: \\QPITPA02\D\chem\71.i\s060100.b\8270c1p

| COMPOUND                     | %RSD |
|------------------------------|------|
| N-Nitrosodimethylamine       | 3.1  |
| Pyridine                     | 3.0  |
| Methyl methanesulfonate      | 5.4  |
| 2-Fluorophenol               | 3.4  |
| Aniline                      | 6.4  |
| Phenol-d5                    | 8.2  |
| Phenol                       | 6.2  |
| bis(2-Chloroethyl)ether      | 3.4  |
| 2-Chlorophenol-a4            | 5.8  |
| 2-Chlorophenol               | 5.3  |
| 1,3-Dichlorobenzene          | 5.7  |
| 1,4-Dichlorobenzene          | 5.9  |
| Benzyl Alcohol               | 5.5  |
| 1,2-Dichlorobenzene-d4       | 7.6  |
| 1,2-Dichlorobenzene          | 7.7  |
| 2-Methylphenol               | 6.9  |
| 2,2'-oxybis(1-Chloropropane) | 7.4  |
| 4-Methylphenol               | 6.9  |
| N Nitroso-d1 n-propylamine   | 3.5  |
| Hexachloroethane             | 3.0  |
| Nitrobenzene-d5              | 1.2  |
| Nitrobenzene                 | 1.4  |
| Isophorone                   | 2.0  |
| 2-Nitrophenol                | 1.2  |
| 2,4-Dimethylphenol           | 1.7  |
| bis(2-Chloroethoxy)methane   | 1.8  |
| Benzoic Acid                 | 22.2 |
| 2,4-Dichlorophenol           | 4.1  |
| 1,2,4 Trichlorobenzene       | 4.3  |
| Naphtalene                   | 5.9  |
| 4-Chloroaniline              | 3.6  |
| Hexachlorobutadiene          | 4.3  |
| 4-Chloro-3-Methylphenol      | 1.9  |
| 2-Methylnaphthalene          | 5.7  |
| 1-Methylnaphthalene          | 6.3  |
| Hexachlorocyclopentadiene    | 5.2  |
| 2,4,6-Trichlorophenol        | 1.2  |
| 2,4,5-Trichlorophenol        | 1.5  |
| 2-Fluorobiphenyl             | 3.2  |

Data File: \\QPITPA02\D\chem\71.i\s060100.b/S0601CCC.D  
 Report Date: 06/01/2000

## INITIAL CALIBRATION REPORT

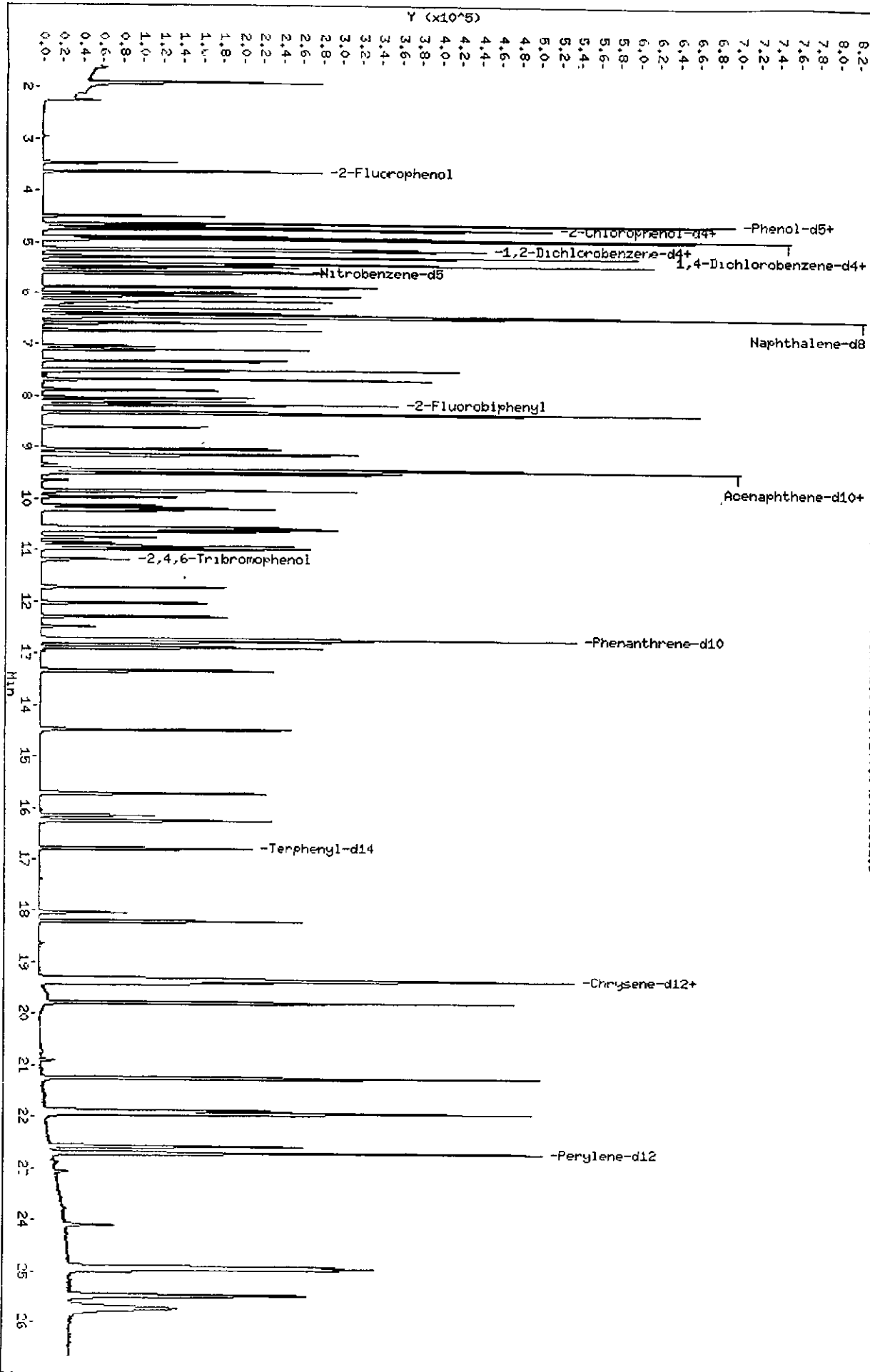
Instrument ID: 71.i  
 Lab File ID: S0601CCC.D  
 Analysis Type: NONE

Injection Date: 01-JUN-2000 09:38  
 Lab Sample ID: sstd50  
 Method File: \\QPITPA02\D\chem\71.i\s060100.b\

| COMPOUND                   | %RSD |
|----------------------------|------|
| 2-Chloronaphthalene        | 5.4  |
| 2-Nitroaniline             | 3.8  |
| Dimethylphthalate          | 1.6  |
| Acenaphthylene             | 2.7  |
| 2,6-Dinitrotoluene         | 3.0  |
| 3-Nitroaniline             | 3.9  |
| Acenaphthene               | 2.7  |
| 2,4-Dinitrophenol          | 34.1 |
| Dibenzofuran               | 3.3  |
| 4-Nitrophenol              | 10.6 |
| 2,4-Dinitrotoluene         | 5.4  |
| 2,3,5,6-Tetrachlorophenol  | 7.5  |
| 2-Naphthylamine            | 12.9 |
| 2,3,4,6-Tetrachlorophenol  | 3.9  |
| Diethylphthalate           | 3.0  |
| Fluorene                   | 4.1  |
| 4-Chlorophenyl-phenylether | 2.8  |
| 4-Nitroaniline             | 7.4  |
| 4,6-Dinitro-2-methylphenol | 14.0 |
| N-Nitrosodiphenylamine (1) | 4.7  |
| 1,2-Diphenylhydrazine      | 3.1  |
| 2,4,6-Tribromophenol       | 2.4  |
| 4-Bromophenyl-paenylether  | 5.1  |
| Hexachlorobenzene          | 4.4  |
| Pentachlorophenol          | 18.9 |
| Phenanthrene               | 5.2  |
| Anthracene                 | 4.6  |
| Carbazole                  | 2.3  |
| Di-n-Butylphthalate        | 3.6  |
| Fluoranthene               | 2.9  |
| Benzidine                  | 1.9  |
| Pyrene                     | 4.7  |
| Terphenyl-d14              | 3.0  |
| Butylbenzylphthalate       | 2.6  |
| Benzo(a)Anthracene         | 0.9  |
| 3,3'-Dichlorobenzidine     | 1.7  |
| Chrysene                   | 1.6  |
| bis(2-ethylhexyl)Phthalate | 11.0 |
| Di-n-octylphthalate        | 18.9 |

Data File: \\QPITPA02\N\chem\71.1\5060100.b\50601002.D  
Date: 01-JUN-2000 10:37  
Client ID: sstd20  
Sample Info: sstd20(10 ug/ml) 194-175-10 8270  
Column phase: Hp5-MS

Instrument: 71.1  
Operator: 045183  
Column diameter: 0.25



## STL Pittsburgh

## Semivolatiles REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\71.i\s060100.b\S0601CC2.D  
 Lab Smp Id: sstd20 Client Smp ID: sstd20  
 Inj Date : 01-JUN-2000 10:37  
 Operator : 045183 Inst ID: 71.i  
 Smp Info : sstd20(10 ug/ml) 194-175-10 8270  
 Misc Info : sstd20,s060100.b,8270clp.m,1-82701.sub,1,1  
 Comment :  
 Method : \\QPITPA02\D\chem\71.i\s060100.b\8270clp.m  
 Meth Date : 01-Jun-2000 11:09 bachas Quant Type: ISTD  
 Cal Date : 01-JUN-2000 10:37 Cal File: S0601CC2.D  
 Als bottle: 3 Calibration Sample, Level: 1  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 1-82701.sub  
 Target Version: 4.04  
 Processing Host: PITPC050

| QUANT SIG                       |      |        |        |         |          | AMOUNTS          |                 |
|---------------------------------|------|--------|--------|---------|----------|------------------|-----------------|
| Compounds                       | MASS | RT     | EXP RT | REL RT  | RESPONSE | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| *****                           | **** | ==     | =====  | =====   | =====    | =====            | =====           |
| * 1 1,4-Dichlorobenzene d4      | 152  | 4.939  | 4.939  | (1.000) | 135498   | 40.0000          |                 |
| * 2 Naphthalene-d8              | 136  | 6.451  | 6.451  | (1.000) | 536310   | 40.0000          |                 |
| * 3 Acenaphthene-d10            | 164  | 9.442  | 9.442  | (1.000) | 279989   | 40.0000          |                 |
| * 4 Phenanthrene-d10            | 188  | 12.728 | 12.728 | (1.000) | 443275   | 40.0000          |                 |
| * 5 Chrysene-d12                | 240  | 19.347 | 19.347 | (1.000) | 368928   | 40.0000          |                 |
| * 6 Perylene-d12                | 264  | 22.702 | 22.702 | (1.000) | 458368   | 40.0000          |                 |
| 13 N-Nitrosodimethylamine       | 74   | 1.899  | 1.899  | (0.385) | 62597    | 20.0000          | 28.336          |
| 10 Pyridine                     | 79   | 1.910  | 1.910  | (0.387) | 113585   | 20.0000          | 27.984 (M)      |
| 19 Methyl methanesulfonate      | 80   | 3.465  | 3.465  | (0.702) | 57970    | 20.0000          | 20.631          |
| 22 Aniline                      | 93   | 4.651  | 4.651  | (0.942) | 177655   | 20.0000          | 21.243          |
| 23 Phenol                       | 94   | 4.667  | 4.667  | (0.945) | 144404   | 20.0000          | 21.245          |
| 24 bis(2-(Chloroethyl) ether    | 93   | 4.715  | 4.715  | (0.955) | 111764   | 20.0000          | 20.426          |
| 25 2-Chlorophenol               | 128  | 4.768  | 4.768  | (0.965) | 99841    | 20.0000          | 20.929          |
| 27 1,3-Dichlorobenzene          | 146  | 4.902  | 4.902  | (0.992) | 110798   | 20.0000          | 21.111          |
| 28 1,4-Dichlorobenzene          | 146  | 4.960  | 4.960  | (1.004) | 110928   | 20.0000          | 20.922          |
| 29 1,2-Dichlorobenzene          | 146  | 5.163  | 5.163  | (1.045) | 104155   | 20.0000          | 21.375          |
| 30 Benzyl Alcohol               | 108  | 5.126  | 5.126  | (1.038) | 71997    | 20.0000          | 20.492 (M)      |
| 31 2-Methylphenol               | 108  | 5.286  | 5.286  | (1.070) | 93127    | 20.0000          | 20.406          |
| 32 2,2'-oxybis(1-Chloropropane) | 45   | 5.292  | 5.292  | (1.071) | 148724   | 20.0000          | 21.454          |
| 33 N-Nitroso-di-n-propylamine   | 70   | 5.447  | 5.447  | (1.103) | 75957    | 20.0000          | 19.828          |
| 35 4-Methylphenol               | 108  | 5.441  | 5.441  | (1.102) | 99666    | 20.0000          | 20.872          |
| 38 Hexachloroethane             | 117  | 5.500  | 5.500  | (1.114) | 42617    | 20.0000          | 20.582          |
| 39 Nitrobenzene                 | 77   | 5.607  | 5.607  | (0.869) | 118136   | 20.0000          | 20.128          |
| 44 Isophorone                   | 82   | 5.879  | 5.879  | (0.911) | 188718   | 20.0000          | 19.679          |
| 45 2-Nitrophenol                | 139  | 5.991  | 5.991  | (0.929) | 52342    | 20.0000          | 19.984          |
| 46 2,4-Dimethylphenol           | 107  | 6.056  | 6.056  | (0.939) | 93032    | 20.0000          | 19.712          |

Data File: \\QPITPA02\D\chem\71.i\s060100.b\S0601CC2.D  
Report Date: 01-Jun-2000 11:27

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| Compounds                       | QUANT SIG | AMOUNTS |        |         |        |          |            |        |
|---------------------------------|-----------|---------|--------|---------|--------|----------|------------|--------|
|                                 |           | MASS    | RT     | EXP RT  | REL RT | RESPONSE | CAL-AMT    | ON-COL |
|                                 |           |         |        |         |        |          | ( ng)      | ( ng)  |
| =====                           | ====      | ==      | =====  | =====   | =====  | =====    | =====      |        |
| 47 bis (2-Chloroethoxy)methane  | 93        | 6.162   | 6.162  | (0.955) | 122507 | 20.0000  | 19.914     |        |
| 51 2,4-Dichlorophenol           | 162       | 6.296   | 6.296  | (0.976) | 75154  | 20.0000  | 20.310     |        |
| 52 Benzoic Acid                 | 122       | 6.216   | 6.216  | (0.964) | 25675  | 20.0000  | 11.222 (M) |        |
| 53 1,2,4-Trichlorobenzene       | 180       | 6.397   | 6.397  | (0.992) | 81247  | 20.0000  | 20.838     |        |
| 54 Naphthalene                  | 128       | 6.478   | 6.478  | (1.004) | 297950 | 20.0000  | 20.996     |        |
| 55 4-Chloroaniline              | 127       | 6.590   | 6.590  | (1.022) | 113086 | 20.0000  | 19.765     |        |
| 59 Hexachlorobutadiene          | 225       | 6.729   | 6.729  | (1.043) | 42695  | 20.0000  | 21.281     |        |
| 62 4-Chloro-3-Methylphenol      | 107       | 7.322   | 7.322  | (1.135) | 80658  | 20.0000  | 19.171     |        |
| 65 2-Methylnaphthalene          | 142       | 7.498   | 7.498  | (1.162) | 189612 | 20.0000  | 20.426     |        |
| 66 1-Methylnaphthalene          | 142       | 7.674   | 7.674  | (1.190) | 178596 | 20.0000  | 20.526     |        |
| 67 Hexachlorocyclopentadiene    | 237       | 7.883   | 7.883  | (0.835) | 41970  | 20.0000  | 19.118     |        |
| 69 2,4,6-Trichlorophenol        | 136       | 8.037   | 8.037  | (0.851) | 47560  | 20.0000  | 20.353     |        |
| 70 2,4,5-Trichlorophenol        | 196       | 8.107   | 8.107  | (0.859) | 50442  | 20.0000  | 20.226     |        |
| 73 2-Chloronaphthalene          | 162       | 8.331   | 8.331  | (0.882) | 163509 | 20.0000  | 21.558     |        |
| 77 2-Nitroaniline               | 65        | 8.598   | 8.598  | (0.911) | 51744  | 20.0000  | 18.901     |        |
| 80 Dimethylphthalate            | 163       | 9.031   | 9.031  | (0.956) | 164181 | 20.0000  | 18.691     |        |
| 82 2,6-Dinitrotoluene           | 165       | 9.159   | 9.159  | (0.970) | 37054  | 20.0000  | 18.443     |        |
| 84 Acenaphthylene               | 152       | 9.127   | 9.127  | (0.967) | 259040 | 20.0000  | 20.320     |        |
| 85 3-Nitroaniline               | 138       | 9.421   | 9.421  | (0.998) | 44024  | 20.0000  | 17.848     |        |
| 86 Acenaphthene                 | 153       | 9.507   | 9.507  | (1.007) | 163052 | 20.0000  | 20.476     |        |
| 87 2,4-Dinitrophenol            | 184       | 9.640   | 9.640  | (1.021) | 8710   | 20.0000  | 8.9581     |        |
| 89 4-Nitrophenol                | 109       | 9.859   | 9.859  | (1.044) | 19439  | 20.0000  | 15.388     |        |
| 90 Dibenzofuran                 | 168       | 9.838   | 9.838  | (1.042) | 226889 | 20.0000  | 20.456     |        |
| 91 2,4-Dinitrotoluene           | 165       | 9.966   | 9.966  | (1.055) | 47689  | 20.0000  | 17.404     |        |
| 95 2,3,5,6-Tetrachlorophenol    | 232       | 10.126  | 10.126 | (1.072) | 30100  | 20.0000  | 16.744     |        |
| 97 2,3,4,6-Tetrachlorophenol    | 232       | 10.222  | 10.222 | (1.083) | 32282  | 20.0000  | 17.900     |        |
| 96 2-Naphthylamine              | 143       | 10.185  | 10.185 | (1.079) | 162729 | 20.0000  | 20.541     |        |
| 97 Diethylphthalate             | 149       | 10.548  | 10.548 | (1.117) | 155276 | 20.0000  | 17.802     |        |
| 98 Fluorene                     | 166       | 10.580  | 10.580 | (1.120) | 178911 | 20.0000  | 19.978     |        |
| 99 4-Chlorophenyl-pentenylether | 204       | 10.628  | 10.628 | (1.126) | 81519  | 20.0000  | 20.155     |        |
| 100 4-Nitroaniline              | 138       | 10.746  | 10.746 | (1.138) | 41278  | 20.0000  | 16.339     |        |
| 102 4,6-Dinitro-2-methylphenol  | 198       | 10.847  | 10.847 | (0.852) | 21265  | 20.0000  | 16.032     |        |
| 103 N-Nitrosodiphenylamine (1)  | 169       | 10.917  | 10.917 | (0.858) | 126818 | 20.0000  | 21.467     |        |
| 104 1,2-Diphenylhydrazine       | 177       | 10.970  | 10.970 | (0.862) | 212490 | 20.0000  | 21.096     |        |
| 112 4-Bromophenyl-phenylether   | 248       | 11.729  | 11.729 | (0.922) | 43398  | 20.0000  | 21.484     |        |
| 113 Hexachlorobenzene           | 284       | 12.023  | 12.023 | (0.945) | 44586  | 20.0000  | 20.884     |        |
| 117 Pentachlorophenol           | 266       | 12.482  | 12.482 | (0.981) | 15525  | 20.0000  | 13.338     |        |
| 122 Phenanthrene                | 178       | 12.781  | 12.781 | (1.004) | 234208 | 20.0000  | 20.705     |        |
| 123 Anthracene                  | 178       | 12.888  | 12.888 | (1.013) | 238121 | 20.0000  | 20.475     |        |
| 126 Carbazole                   | 167       | 13.337  | 13.337 | (1.048) | 213568 | 20.0000  | 19.274     |        |
| 130 Di-n-Butylphthalate         | 149       | 14.475  | 14.475 | (1.137) | 252553 | 20.0000  | 18.558     |        |
| 135 Fluoranthene                | 202       | 15.709  | 15.709 | (1.234) | 220380 | 20.0000  | 18.865     |        |
| 136 Benzidine                   | 184       | 16.147  | 16.147 | (0.835) | 112135 | 20.0000  | 21.201     |        |
| 137 Pyrene                      | 202       | 16.248  | 16.248 | (0.840) | 224405 | 20.0000  | 20.513     |        |
| 144 Butylbenzylphthalate        | 149       | 18.204  | 18.204 | (0.941) | 128583 | 20.0000  | 20.738     |        |
| 149 3,3'-Dichlorobenzidine      | 252       | 19.363  | 19.363 | (1.001) | 85098  | 20.0000  | 20.549     |        |
| 150 Benzo(a)Anthracene          | 228       | 19.304  | 19.304 | (0.998) | 207137 | 20.0000  | 19.767     |        |

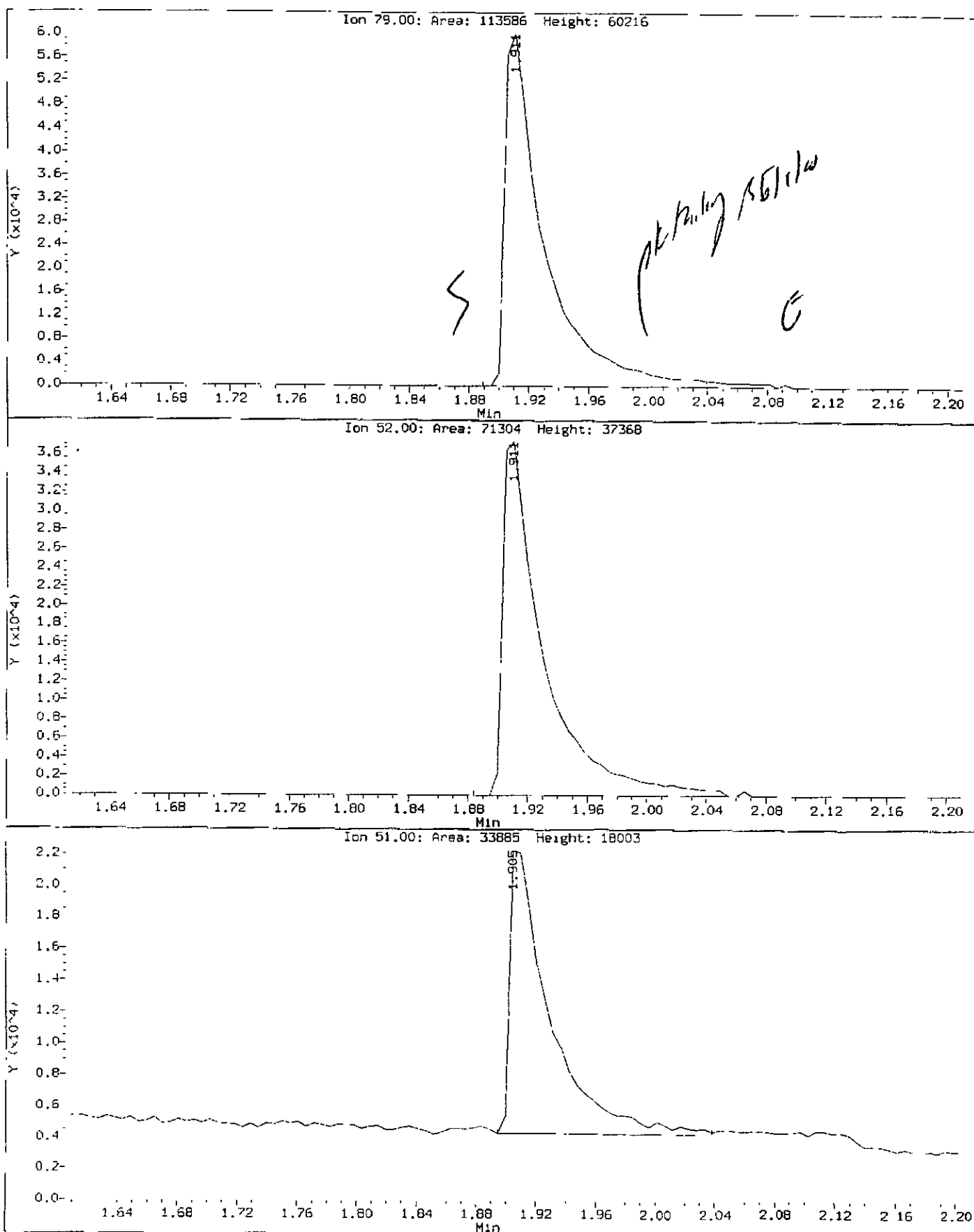
| Compounds                           | QUANT SIG |        |        |         | RESPONSE | AMOUNTS          |                 |
|-------------------------------------|-----------|--------|--------|---------|----------|------------------|-----------------|
|                                     | MASS      | RT     | EXP RT | REL RT  |          | CAL AMT<br>( ng) | ON-COL<br>( ng) |
| =====                               | =====     | ==     | =====  | =====   | =====    | =====            | =====           |
| 151 Chrysene                        | 228       | 19.406 | 19.406 | (1.003) | 200322   | 20.0000          | 20.053          |
| 153 bis(2-ethylhexyl)phthalate      | 149       | 19.779 | 19.779 | (1.022) | 242393   | 20.0000          | 24.871          |
| 155 Di-n-octylphthalate             | 149       | 21.243 | 21.243 | (0.936) | 481104   | 20.0000          | 26.820          |
| 157 Benzo(o)fluoranthene            | 252       | 21.879 | 21.879 | (0.964) | 251773   | 20.0000          | 20.601          |
| 158 Benzo(k)fluoranthene            | 252       | 21.938 | 21.938 | (0.966) | 266564   | 20.0000          | 21.922          |
| 159 7,12-dimethylbenzo(a)anthracene | 256       | 21.938 | 21.938 | (0.966) | 110701   | 20.0000          | 21.096          |
| 161 Benzo(a)pyrene                  | 252       | 22.573 | 22.573 | (0.994) | 248924   | 20.0000          | 20.973          |
| 169 Indeno(1,2,3-cd)pyrene          | 276       | 24.919 | 24.919 | (1.098) | 365212   | 20.0000          | 21.735          |
| 170 Dibenz(a,h)anthracene           | 278       | 24.961 | 24.961 | (1.100) | 320997   | 20.0000          | 22.138          |
| 171 Benzo(g,h,i)perylene            | 276       | 25.485 | 25.485 | (1.123) | 311666   | 20.0000          | 21.042          |
| \$ 172 Nitrobenzene-d5              | 82        | 5.585  | 5.585  | (0.866) | 107245   | 20.0000          | 19.740          |
| \$ 173 2-Fluorobiphenyl             | 172       | 8.166  | 8.166  | (0.865) | 182154   | 20.0000          | 21.044          |
| \$ 174 Terphenyl-d14                | 244       | 16.793 | 16.793 | (0.868) | 165295   | 20.0000          | 20.077          |
| \$ 175 Phenol-d5                    | 99        | 4.656  | 4.656  | (0.943) | 128451   | 20.0000          | 21.166          |
| \$ 176 2-Fluorophenol               | 112       | 3.641  | 3.641  | (0.737) | 95787    | 20.0000          | 20.763          |
| \$ 177 2,4,6-Tribromophenol         | 330       | 11.173 | 11.173 | (0.878) | 22264    | 20.0000          | 19.658          |
| \$ 178 2-Chlorophenol-d4            | 132       | 4.747  | 4.747  | (0.961) | 90126    | 20.0000          | 20.980          |
| \$ 179 1,2-Dichlorobenzene-d4       | 152       | 5.147  | 5.147  | (1.042) | 62150    | 20.0000          | 20.971          |

## QC Flag Legend

M - Compound response manually integrated.

Data File: \\QPITPA02\chem\71.1\s060100.b\s060100C2.D  
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Instrument: 71.1  
Client Sample ID: sstd20

Compound: Pyridine  
CAS Number: 110-86-1

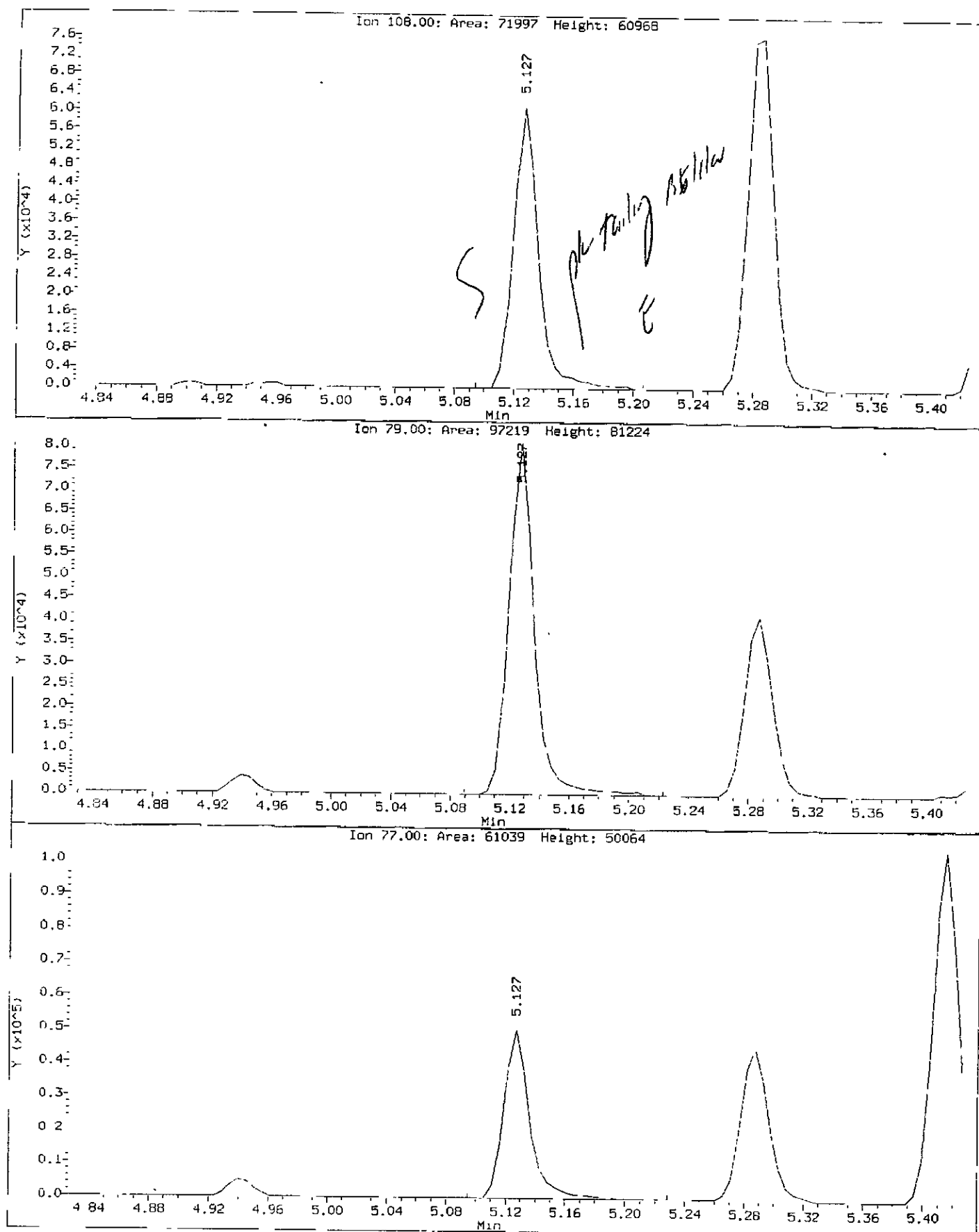




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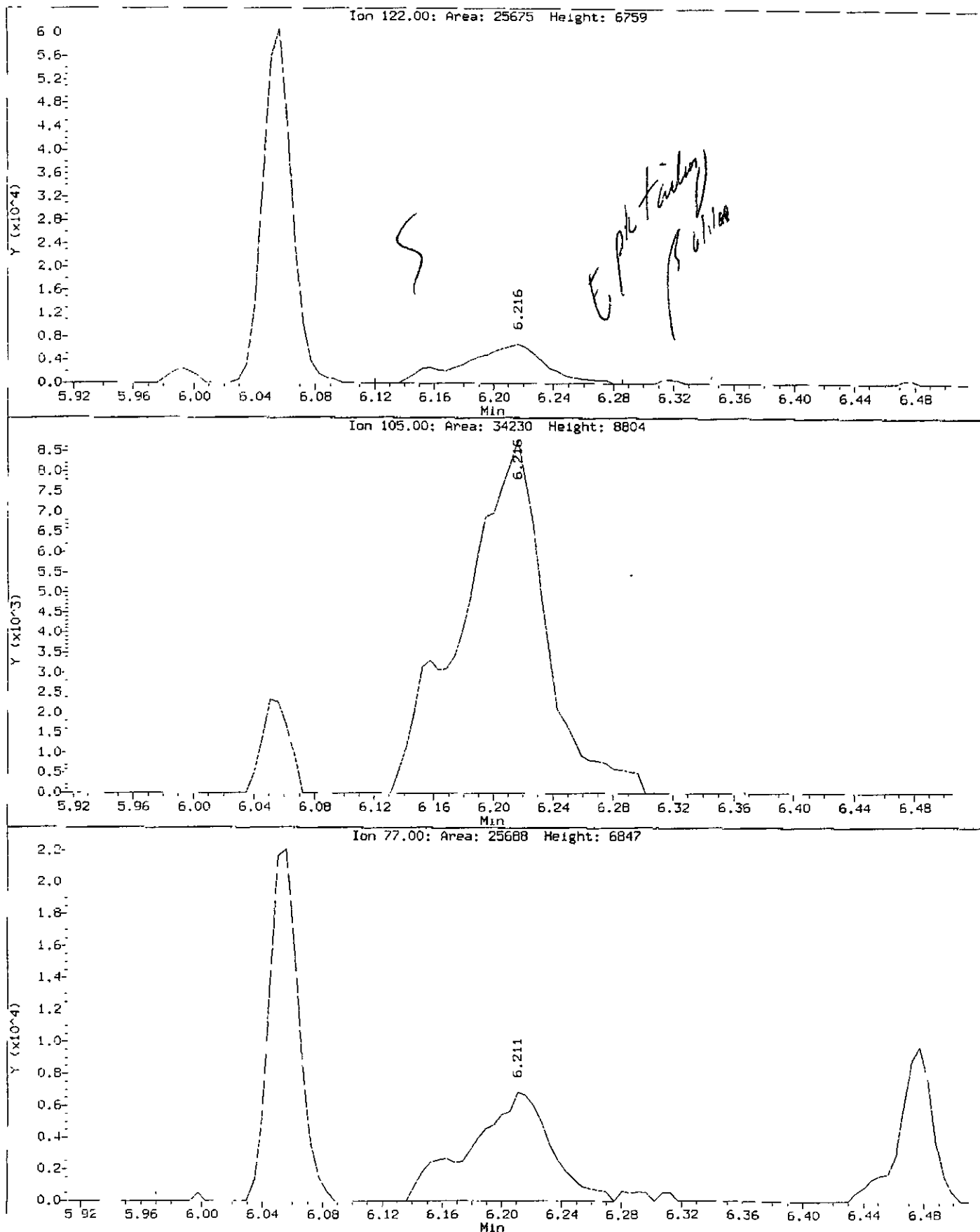
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Injection Date: 01-JUN-2000 10:37  
Instrument: 71.1  
Client Sample ID: sstd20

Compound: Benzyl Alcohol  
CAS Number: 100-51-6



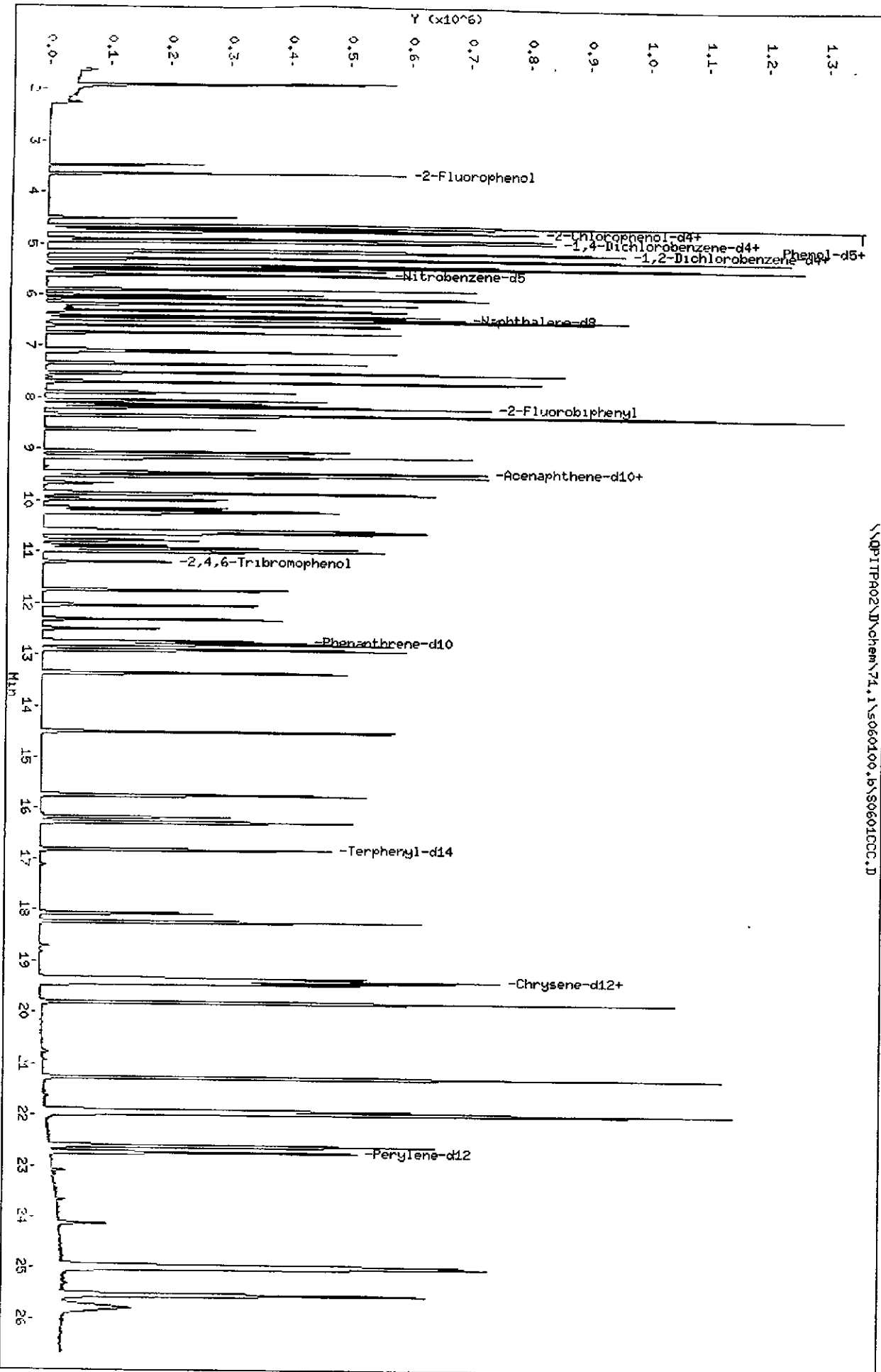
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Instrument: 71.1  
Client Sample ID: sstd20

Compound: Benzoic Acid  
CAS Number: 65-85-0



Data File: \\QPIITPA02\J\chem\71.1\5060100.b\50601000.D  
 Date: 01-JUN-2000 09:38  
 Client ID: sstd050  
 Sample Info: sstd050(25 ug/ml) 194-177-4 8270  
 Column phase: Hp5-MS

Instrument: 71.1  
 Operator: 045183  
 Column diameter: 0.25



Data File: \\QPITPA02\D\chem\71.i\s060100.b\S0601CCC.D  
Report Date: 01-Jun-2000 11:07

Page 1

## STL Pittsburgh

## Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\71.i\s060100.b\S0601CCC.D  
Lab Smp Id: sstd50 Client Smp ID: sstd050  
Inj Date : 01-JUN-2000 09:38  
Operator : 045183 Inst ID: 71.i  
Smp Info : sstd50(25 ug/ml) 194-177-4 8270  
Misc Info : sstd50,s060100.b,8270clp.m,1-82701.sub,1,2  
Comment :  
Method : \\QPITPA02\D\chem\71.i\s060100.b\8270clp.m  
Meth Date : 01-Jun-2000 10:46 bachas Quant Type: ISTD  
Cal Date : 01-JUN-2000 09:38 Cal File: S0601CCC.D  
Als bottle: 2 Calibration Sample, Level: 2  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 1-82701.sub  
Target Version: 4.04  
Processing Host: PITPC050

## AMOUNTS

| Compounds                       | QUANT SIG |        |        |         | RESPONSE | AMOUNTS          |                 |
|---------------------------------|-----------|--------|--------|---------|----------|------------------|-----------------|
|                                 | MASS      | RT     | EXP RT | REL RT  |          | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| *****                           | =====     | ==     | =====  | =====   | =====    | =====            | =====           |
| * 1 1,4-Dichlorobenzene d4      | 152       | 4.948  | 4.948  | (1.000) | 117736   | 40.0000          |                 |
| * 2 Naphthalene-d8              | 136       | 6.465  | 6.465  | (1.000) | 460372   | 40.0000          |                 |
| * 3 Acenaphthene-d10            | 164       | 9.462  | 9.462  | (1.000) | 238105   | 40.0000          |                 |
| * 4 Phenanthrene-d10            | 188       | 12.752 | 12.752 | (1.000) | 384400   | 40.0000          |                 |
| * 5 Chrysene-d12                | 240       | 19.377 | 19.377 | (1.000) | 358456   | 40.0000          |                 |
| * 6 Perylene-d12                | 264       | 22.732 | 22.732 | (1.000) | 469196   | 40.0000          |                 |
| 13 N-Nitrosodimethylamine       | 74        | 1.892  | 1.892  | (0.382) | 132734   | 50.0000          | 79.370          |
| 10 Pyridine                     | 79        | 1.897  | 1.897  | (0.384) | 237796   | 50.0000          | 76.564 (M)      |
| 19 Methyl methanesulfonate      | 80        | 3.468  | 3.468  | (0.701) | 108748   | 50.0000          | 44.474          |
| 72 Aniline                      | 93        | 4.659  | 4.659  | (0.942) | 362610   | 50.0000          | 49.930          |
| 23 Phenol                       | 94        | 4.675  | 4.675  | (0.945) | 300616   | 50.0000          | 51.099          |
| 24 bis(2-Chloroethyl)ether      | 93        | 4.723  | 4.723  | (0.955) | 236818   | 50.0000          | 49.879          |
| 25 2-Chlorophenol               | 128       | 4.777  | 4.777  | (0.965) | 211997   | 50.0000          | 51.647          |
| 27 1,3-Dichlorobenzene          | 146       | 4.910  | 4.910  | (0.992) | 233085   | 50.0000          | 51.538          |
| 28 1,4-Dichlorobenzene          | 146       | 4.969  | 4.969  | (1.004) | 236225   | 50.0000          | 51.441          |
| 29 1,2-Dichlorobenzene          | 146       | 5.172  | 5.172  | (1.045) | 216378   | 50.0000          | 51.293          |
| 30 Benzyl Alcohol               | 108       | 5.140  | 5.140  | (1.039) | 154381   | 50.0000          | 51.222          |
| 31 2-Methylphenol               | 108       | 5.295  | 5.295  | (1.070) | 195807   | 50.0000          | 49.451          |
| 32 2,2'-oxybis(1-Chloropropane) | 45        | 5.300  | 5.300  | (1.071) | 304448   | 50.0000          | 51.003          |
| 33 N-Nitroso-di-n-propylamine   | 70        | 5.460  | 5.460  | (1.104) | 161175   | 50.0000          | 48.417          |
| 35 4-Methylphenol               | 108       | 5.455  | 5.455  | (1.103) | 204420   | 50.0000          | 49.477          |
| 38 Hexachloroethane             | 117       | 5.509  | 5.509  | (1.113) | 91209    | 50.0000          | 51.018          |
| 39 Nitrobenzene                 | 77        | 5.621  | 5.621  | (0.869) | 254623   | 50.0000          | 50.746          |
| 44 Isophenone                   | 82        | 5.893  | 5.893  | (0.912) | 402573   | 50.0000          | 48.748          |
| 45 2-Nitrophenol                | 139       | 6.005  | 6.005  | (0.929) | 114166   | 50.0000          | 51.780          |
| 46 2,4-Dimethylphenol           | 107       | 6.069  | 6.069  | (0.939) | 204923   | 50.0000          | 50.862          |

| Compounds                      | QUANT SIG |        |        | REL RT  | RESPONSE | AMOUNTS          |                 |
|--------------------------------|-----------|--------|--------|---------|----------|------------------|-----------------|
|                                | MASS      | RT     | EXP RT |         |          | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| 41 bis (2-Chloroethoxy)ethane  | 93        | 6.182  | 6.182  | (0.956) | 260725   | 50.0000          | 49.182          |
| 51 2,4-Dichlorophenol          | 162       | 6.310  | 6.310  | (0.976) | 160625   | 50.0000          | 51.057          |
| 52 Benzoic Acid                | 122       | 6.203  | 6.203  | (0.960) | 85234    | 50.0000          | 42.711 (MH)     |
| 53 1,2,4-Trichlorobenzene      | 180       | 6.411  | 6.411  | (0.992) | 171435   | 50.0000          | 51.464          |
| 54 Naphthalene                 | 128       | 6.491  | 6.491  | (1.004) | 619149   | 50.0000          | 50.903          |
| 55 4-Chloroaniline             | 127       | 6.604  | 6.604  | (1.021) | 247866   | 50.0000          | 49.467          |
| 59 Hexachlorobutadiene         | 225       | 6.743  | 6.743  | (1.043) | 89289    | 50.0000          | 52.406          |
| 62 4-Chloro-3-Methylphenol     | 107       | 7.341  | 7.341  | (1.136) | 172626   | 50.0000          | 47.743          |
| 65 2-Methylnaphthalene         | 142       | 7.517  | 7.517  | (1.163) | 396050   | 50.0000          | 49.510          |
| 66 1-Methylnaphthalene         | 142       | 7.693  | 7.693  | (1.190) | 372903   | 50.0000          | 49.563          |
| 67 Hexachlorocyclopentadiene   | 237       | 7.896  | 7.896  | (0.835) | 97650    | 50.0000          | 53.201          |
| 69 2,4,6-Trichlorophenol       | 196       | 8.057  | 8.057  | (0.852) | 102751   | 50.0000          | 52.462          |
| 70 2,4,5-Trichlorophenol       | 196       | 8.132  | 8.132  | (0.859) | 108506   | 50.0000          | 52.052          |
| 73 2-Chloronaphthalene         | 162       | 8.351  | 8.351  | (0.883) | 334901   | 50.0000          | 52.422          |
| 77 2-Nitroaniline              | 65        | 8.618  | 8.618  | (0.911) | 113568   | 50.0000          | 49.205          |
| 80 Dimethylphthalate           | 163       | 9.056  | 9.056  | (0.957) | 360900   | 50.0000          | 47.473          |
| 82 2,6-Dinitrotoluene          | 165       | 9.179  | 9.179  | (0.970) | 82645    | 50.0000          | 48.362          |
| 83 Acenaphthylene              | 152       | 9.152  | 9.152  | (0.967) | 551439   | 50.0000          | 50.991          |
| 85 3-Nitroaniline              | 138       | 9.451  | 9.451  | (0.999) | 97339    | 50.0000          | 45.964          |
| 86 Acenaphthene                | 153       | 9.526  | 9.526  | (1.007) | 341662   | 50.0000          | 50.476          |
| 87 2,6-Dinitrophenol           | 184       | 9.665  | 9.665  | (1.021) | 33274    | 50.0000          | 38.457          |
| 89 4-Nitrophenol               | 109       | 9.884  | 9.884  | (1.045) | 47036    | 50.0000          | 42.940          |
| 90 Dibenzofuran                | 168       | 9.862  | 9.862  | (1.042) | 474135   | 50.0000          | 50.124          |
| 91 2,4-Dinitrotoluene          | 165       | 9.991  | 9.991  | (1.056) | 107561   | 50.0000          | 45.405          |
| 95 2,3,5,6-Tetrachlorophenol   | 232       | 10.151 | 10.151 | (1.073) | 74464    | 50.0000          | 47.444          |
| 92 2,3,4,6-Tetrachlorophenol   | 232       | 10.247 | 10.247 | (1.083) | 75943    | 50.0000          | 48.231          |
| 96 2-Naphthylamine             | 143       | 10.210 | 10.210 | (1.079) | 344759   | 50.0000          | 50.286          |
| 97 Diethylphthalate            | 149       | 10.578 | 10.578 | (1.118) | 346389   | 50.0000          | 45.304          |
| 98 Fluorene                    | 166       | 10.610 | 10.610 | (1.121) | 376764   | 50.0000          | 48.980          |
| 99 4-Chlorophenyl phenylether  | 204       | 10.648 | 10.648 | (1.125) | 171546   | 50.0000          | 49.611          |
| 100 4-Nitroaniline             | 138       | 10.781 | 10.781 | (1.139) | 95795    | 50.0000          | 43.281          |
| 102 4,6-Dinitro-2-methylphenol | 198       | 10.877 | 10.877 | (0.853) | 57571    | 50.0000          | 50.561          |
| 103 N-Nitrosodiphenylamine (1) | 169       | 10.941 | 10.941 | (0.858) | 260841   | 50.0000          | 51.328          |
| 104 1,2-Diphenyldrazine        | 77        | 10.995 | 10.995 | (0.862) | 455518   | 50.0000          | 52.974          |
| 112 4-Bromophenyl phenylether  | 248       | 11.754 | 11.754 | (0.922) | 92762    | 50.0000          | 53.846          |
| 113 Hexachlorobenzene          | 284       | 12.053 | 12.053 | (0.945) | 97005    | 50.0000          | 52.774          |
| 117 Pentachlorophenol          | 266       | 12.501 | 12.501 | (0.980) | 45909    | 50.0000          | 44.652          |
| 122 Phenanthrene               | 178       | 12.811 | 12.811 | (1.005) | 500343   | 50.0000          | 50.825          |
| 123 Anthracene                 | 178       | 12.913 | 12.913 | (1.013) | 514010   | 50.0000          | 50.839          |
| 126 Carbazole                  | 167       | 13.367 | 13.367 | (1.048) | 475888   | 50.0000          | 48.876          |
| 130 Di-n-Butylphthalate        | 149       | 14.499 | 14.499 | (1.137) | 592788   | 50.0000          | 49.704          |
| 135 Fluoranthene               | 202       | 15.739 | 15.739 | (1.234) | 499385   | 50.0000          | 48.352          |
| 136 Benzidine                  | 184       | 16.171 | 16.171 | (0.835) | 273072   | 50.0000          | 57.089          |
| 137 Pyrene                     | 202       | 16.284 | 16.284 | (0.840) | 512959   | 50.0000          | 48.564          |
| 144 Butylbenzylphthalate       | 149       | 18.228 | 18.228 | (0.941) | 309394   | 50.0000          | 53.259          |
| 149 3,3'-Dichlorobenzidine     | 252       | 19.393 | 19.393 | (1.001) | 214044   | 50.0000          | 55.378          |
| 150 Benzo(a)Anthracene         | 228       | 19.334 | 19.334 | (0.998) | 513846   | 50.0000          | 50.767          |

| Compounds                          | QUANT SIG<br>MASS | RT     | EXP RT | REL RT  | RESPONSE | AMOUNTS          |                 |
|------------------------------------|-------------------|--------|--------|---------|----------|------------------|-----------------|
|                                    |                   |        |        |         |          | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| =====                              | =====             | ==     | =====  | =====   | =====    | =====            | =====           |
| 151 Chrysene                       | 228               | 19.441 | 19.441 | (1.003) | 489541   | 50.0000          | 50.392          |
| 153 bis(2-ethylhexyl)phthalate     | 149               | 19.804 | 19.804 | (1.022) | 541871   | 50.0000          | 63.215          |
| 155 Di-n-octylphthalate            | 149               | 21.273 | 21.273 | (0.936) | 1091619  | 50.0000          | 66.906          |
| 157 Benzo(b)fluoranthene           | 252               | 21.914 | 21.914 | (0.964) | 618148   | 50.0000          | 49.970          |
| 158 Benzo(k)fluoranthene           | 252               | 21.968 | 21.968 | (0.966) | 652674   | 50.0000          | 51.558          |
| 159 7,12-dimethylbenz(a)anthracene | 256               | 21.973 | 21.973 | (0.967) | 281530   | 50.0000          | 52.252          |
| 167 Benzo(a)pyrene                 | 252               | 22.609 | 22.609 | (0.995) | 621684   | 50.0000          | 51.716          |
| 169 Indeno(1,2,3-cd)pyrene         | 276               | 24.965 | 24.965 | (1.098) | 893235   | 50.0000          | 53.228          |
| 170 Dibenz(a,h)anthracene          | 278               | 25.007 | 25.007 | (1.100) | 780054   | 50.0000          | 54.185          |
| 171 Benzo(g,h,i)perylene           | 276               | 25.536 | 25.536 | (1.123) | 774932   | 50.0000          | 52.140          |
| \$ 172 Nitrobenzene-d5             | 82                | 5.599  | 5.599  | (0.866) | 234948   | 50.0000          | 50.648          |
| \$ 173 2-Fluorobiphenyl            | 172               | 8.185  | 8.185  | (0.865) | 385604   | 50.0000          | 53.050          |
| \$ 174 Terphenyl d14               | 244               | 16.818 | 16.818 | (0.868) | 387742   | 50.0000          | 48.756          |
| \$ 175 Phenol-d5                   | 99                | 4.664  | 4.664  | (0.943) | 265626   | 50.0000          | 50.606          |
| \$ 176 2-Fluorophenol              | 112               | 3.644  | 3.644  | (0.737) | 207806   | 50.0000          | 52.359          |
| \$ 177 2,4,6-Tribromophenol        | 330               | 11.198 | 11.198 | (0.878) | 51139    | 50.0000          | 52.658          |
| \$ 178 2-Chlorophenol d4           | 132               | 4.755  | 4.755  | (0.961) | 193752   | 50.0000          | 52.242          |
| \$ 179 1,2-Dichlorobenzene-d4      | 152               | 5.156  | 5.156  | (1.042) | 130661   | 50.0000          | 50.914          |

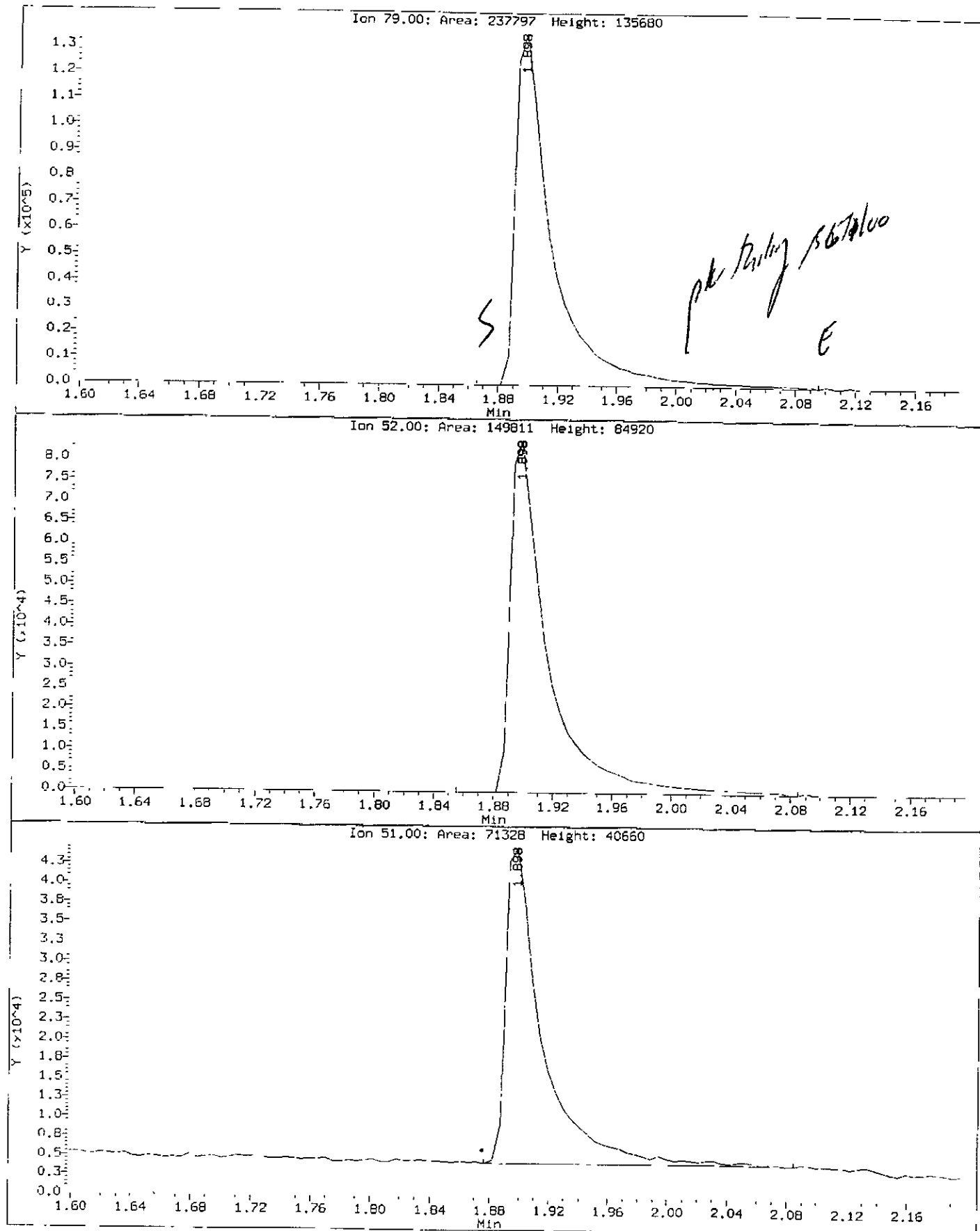
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M - Compound response manually integrated.  
H - Operator selected an alternate compound hit.

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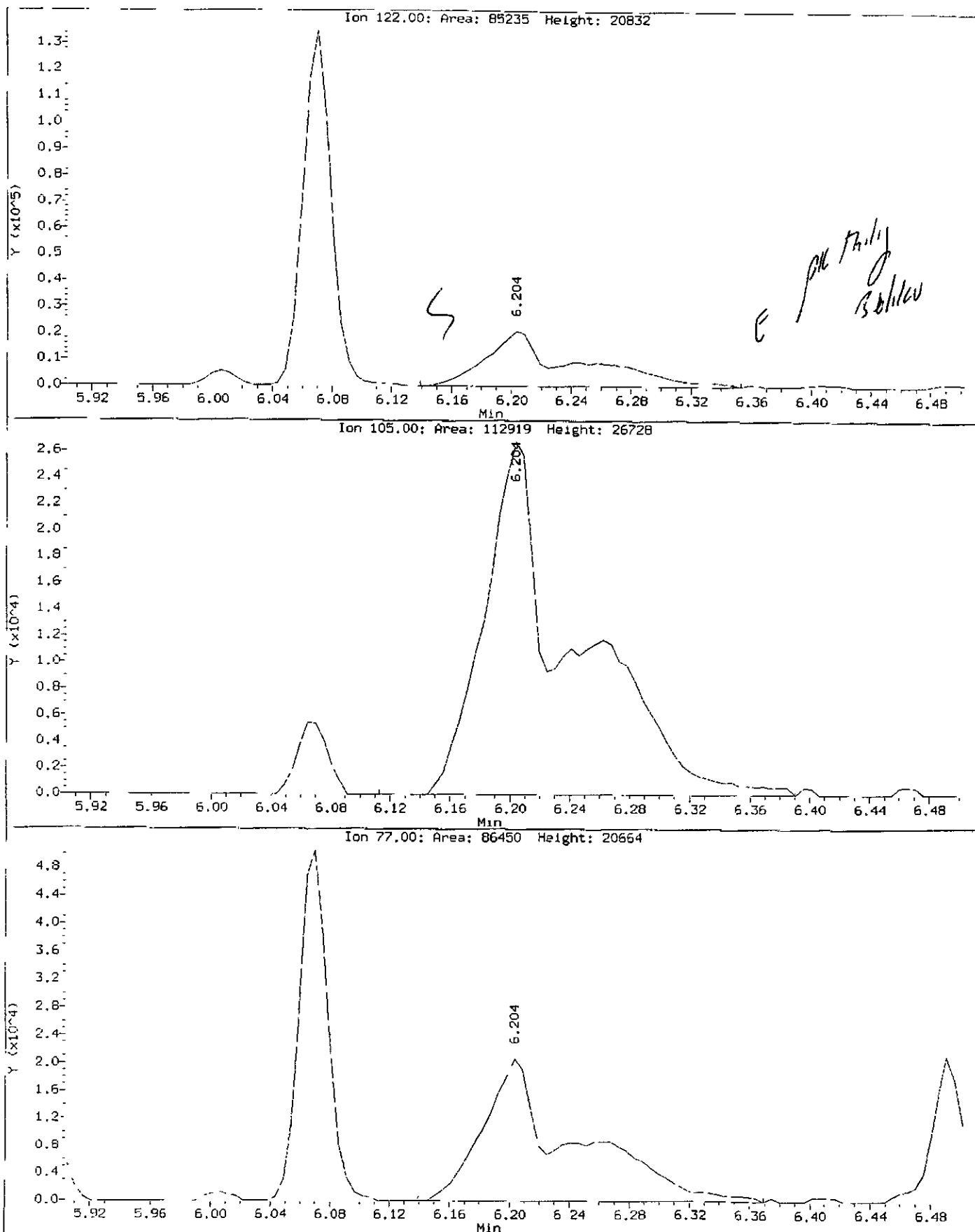
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Instrument: 71.1  
Client Sample ID: std050

Compound: Pyridine  
CAS Number: 110-86-1



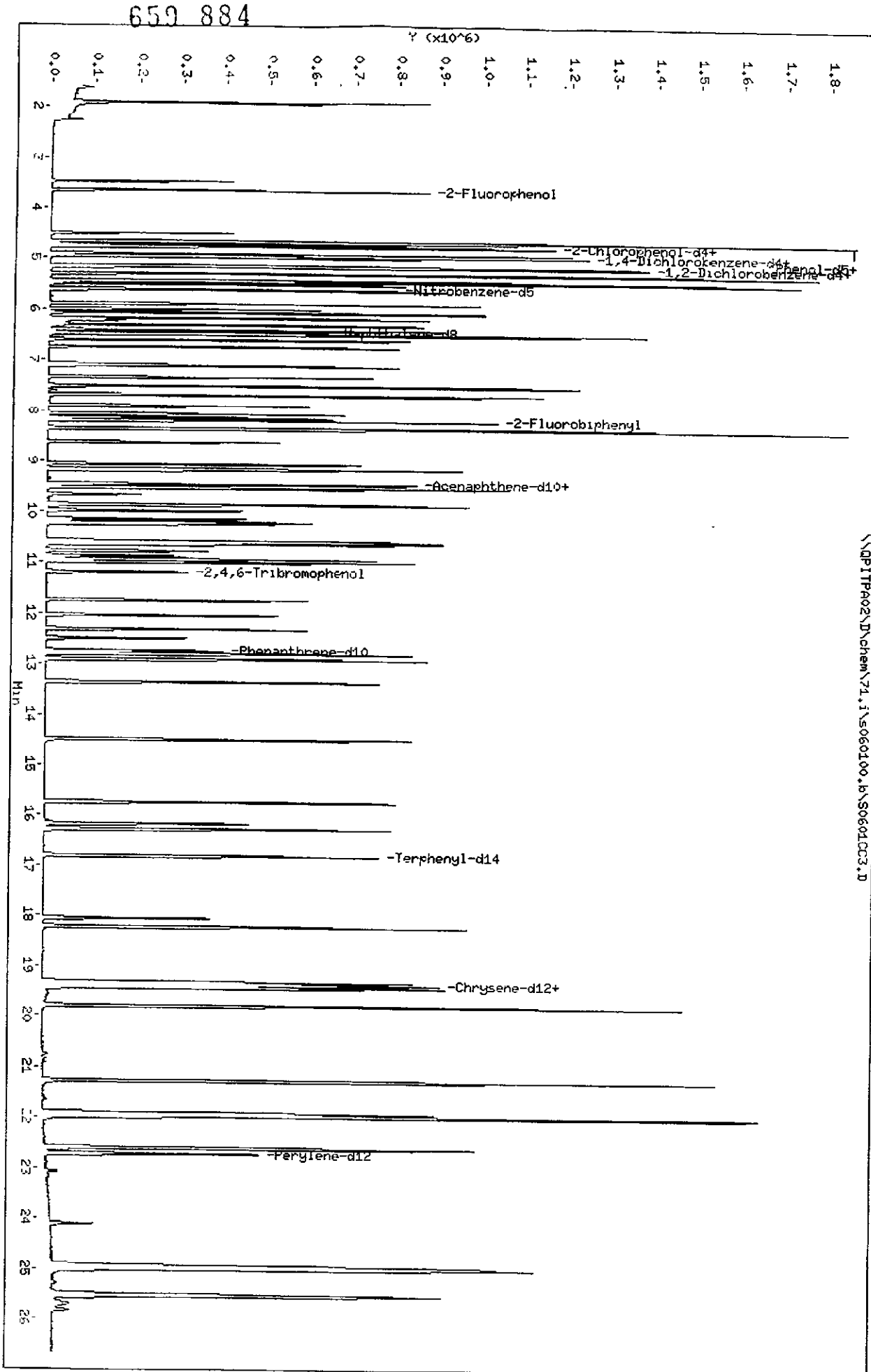
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Instrument: 71.1  
Client Sample ID: sstd050

Compound: Benzoic Acid  
CAS Number: 65-85-0





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Data File: \\QPITPA02\D\chem\71.i\s060100.b\S0601CC3.D  
Report Date: 01-Jun-2000 12:13

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## STL Pittsburgh

## Semivolatile REPORT SW-846 Method 8270

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Processing Host: PITPC050

| QUANT SIG                       |      |        |        |         | AMOUNTS  |                  |                 |
|---------------------------------|------|--------|--------|---------|----------|------------------|-----------------|
| Compounds                       | MASS | RT     | EXP RT | REL RT  | RESPONSE | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| *** *****                       | ***  | ==     | =====  | =====   | =====    | =====            | =====           |
| * 1 1,4-Dichlorobenzene-d4      | 152  | 4.950  | 4.950  | (1.000) | 109090   | 40.0000          |                 |
| * 2 Naphthalene-d8              | 136  | 6.468  | 6.468  | (1.000) | 419771   | 40.0000          |                 |
| * 3 Acenaphthene-d10            | 164  | 9.459  | 9.459  | (1.000) | 212705   | 40.0000          |                 |
| * 4 Phenanthrene-d10            | 188  | 12.750 | 12.750 | (1.000) | 354335   | 40.0000          |                 |
| * 5 Chrysene-d12                | 240  | 19.369 | 19.369 | (1.000) | 342987   | 40.0000          |                 |
| * 6 Perylene-d12                | 264  | 22.729 | 22.729 | (1.000) | 469072   | 40.0000          |                 |
| 13 N-Nitrosodimethylamine       | 74   | 1.895  | 1.895  | (0.383) | 197689   | 80.0000          | 79.599          |
| 16 Pyridine                     | 79   | 1.895  | 1.895  | (0.383) | 358939   | 80.0000          | 79.967 (M)      |
| 19 Methyl methanesulfonate      | 80   | 3.471  | 3.471  | (0.701) | 180664   | 80.0000          | 87.031          |
| 22 Aniline                      | 93   | 4.657  | 4.657  | (0.941) | 524039   | 80.0000          | 76.983          |
| 23 Phenol                       | 94   | 4.678  | 4.678  | (0.945) | 437451   | 80.0000          | 77.875          |
| 24 bis(2-Chloroethyl)ether      | 93   | 4.726  | 4.726  | (0.955) | 345704   | 80.0000          | 78.516          |
| 25 2-Chlorophenol               | 128  | 4.774  | 4.774  | (0.964) | 305889   | 80.0000          | 77.958          |
| 27 1,3-Dichlorobenzene          | 146  | 4.913  | 4.913  | (0.992) | 338421   | 80.0000          | 78.038          |
| 28 1,4-Dichlorobenzene          | 146  | 4.966  | 4.966  | (1.003) | 341760   | 80.0000          | 78.176          |
| 29 1,2-Dichlorobenzene          | 146  | 5.175  | 5.175  | (1.045) | 309843   | 80.0000          | 76.976          |
| 30 Benzyl Alcohol               | 108  | 5.137  | 5.137  | (1.038) | 218984   | 80.0000          | 77.321 (M)      |
| 31 2-Methylphenol               | 108  | 5.298  | 5.298  | (1.070) | 285202   | 80.0000          | 78.192          |
| 32 2,2'-oxybis(1-Chloropropane) | 45   | 5.303  | 5.303  | (1.071) | 439860   | 80.0000          | 77.047          |
| 33 N-Nitroso-di-n-propylamine   | 70   | 5.463  | 5.463  | (1.104) | 232141   | 80.0000          | 77.846          |
| 35 4-Methylphenol               | 108  | 5.458  | 5.458  | (1.103) | 296686   | 80.0000          | 77.337          |
| 38 Hexachlorocyclohexane        | 117  | 5.511  | 5.511  | (1.113) | 134684   | 80.0000          | 79.392          |
| 39 Nitrobenzene                 | 77   | 5.623  | 5.623  | (0.870) | 371113   | 80.0000          | 80.064          |
| 44 Isopropyl alcohol            | 82   | 5.896  | 5.896  | (0.912) | 581467   | 80.0000          | 79.308          |
| 45 2-Nitrophenol                | 139  | 6.008  | 6.008  | (0.929) | 167883   | 80.0000          | 80.857          |
| 46 2,4-Dimethylphenol           | 107  | 6.072  | 6.072  | (0.939) | 297362   | 80.0000          | 80.405          |

| Compounds                      | QUANT SIG<br>MASS | RT     | EXP RT | REL RT  | RESPONSE | AMOUNTS          |                 |
|--------------------------------|-------------------|--------|--------|---------|----------|------------------|-----------------|
|                                |                   |        |        |         |          | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| 47 bis(2-Chlorooctoxy)methane  | 93                | 6.179  | 6.179  | (0.955) | 380583   | 80.0000          | 79.808          |
| 51 2,4-Dichlorophenol          | 162               | 6.313  | 6.313  | (0.976) | 230054   | 80.0000          | 78.912          |
| 52 Benzoic Acid                | 122               | 6.227  | 6.227  | (0.963) | 138846   | 80.0000          | 96.989(M)       |
| 53 1,2,4-Trichlorobenzene      | 180               | 6.414  | 6.414  | (0.992) | 247872   | 80.0000          | 79.072          |
| 54 Naphthalene                 | 128               | 6.494  | 6.494  | (1.004) | 883293   | 80.0000          | 77.955          |
| 55 4-Chloroaniline             | 127               | 6.601  | 6.601  | (1.021) | 349089   | 80.0000          | 79.229          |
| 59 Hexachlorobutadiene         | 225               | 6.745  | 6.745  | (1.043) | 128958   | 80.0000          | 78.775          |
| 62 4-Chloro-3-Methylphenol     | 107               | 7.344  | 7.344  | (1.135) | 252497   | 80.0000          | 80.066          |
| 65 2-Methylnaphthalene         | 142               | 7.515  | 7.515  | (1.162) | 561364   | 80.0000          | 77.751          |
| 66 1-Methylnaphthalene         | 142               | 7.696  | 7.696  | (1.190) | 517767   | 80.0000          | 76.662          |
| 67 Hexachlorocyclopentadiene   | 237               | 7.894  | 7.894  | (0.835) | 143703   | 80.0000          | 83.952          |
| 69 2,4,6-Trichlorophenol       | 196               | 8.054  | 8.054  | (0.851) | 147811   | 80.0000          | 80.771          |
| 70 2,4,5-Trichlorophenol       | 196               | 8.129  | 8.129  | (0.859) | 156335   | 80.0000          | 80.740          |
| 73 2-Chloronaphthalene         | 162               | 8.353  | 8.353  | (0.883) | 472759   | 80.0000          | 78.341          |
| 77 2-Nitroaniline              | 65                | 8.620  | 8.620  | (0.911) | 168979   | 80.0000          | 83.012          |
| 80 Dimethylphthalate           | 163               | 9.053  | 9.053  | (0.957) | 521000   | 80.0000          | 81.420          |
| 82 2,6-Dinitrotoluene          | 165               | 9.181  | 9.181  | (0.971) | 120938   | 80.0000          | 82.537          |
| 83 Acenaphthylene              | 152               | 9.149  | 9.149  | (0.967) | 788479   | 80.0000          | 80.055          |
| 85 3-Nitroaniline              | 138               | 9.448  | 9.448  | (0.999) | 146108   | 80.0000          | 83.686          |
| 86 Acenaphthene                | 153               | 9.529  | 9.529  | (1.007) | 484484   | 80.0000          | 79.191          |
| 87 2,4-Dinitrophenol           | 184               | 9.662  | 9.662  | (1.021) | 59571    | 80.0000          | 107.02          |
| 89 4-Nitrophenol               | 109               | 9.881  | 9.881  | (1.045) | 72162    | 80.0000          | 87.265          |
| 90 Dibenzofuran                | 168               | 9.860  | 9.860  | (1.042) | 670788   | 80.0000          | 78.996          |
| 91 2,4-Dinitrotoluene          | 165               | 9.993  | 9.993  | (1.056) | 161498   | 80.0000          | 84.232          |
| 95 2,3,5,6-Tetrachlorophenol   | 232               | 10.148 | 10.148 | (1.073) | 107113   | 80.0000          | 84.282          |
| 92 2,3,4,6-Tetrachlorophenol   | 232               | 10.244 | 10.244 | (1.083) | 106880   | 80.0000          | 81.816          |
| 96 2-Naphthylamine             | 143               | 10.212 | 10.212 | (1.080) | 424237   | 80.0000          | 72.134          |
| 97 Diethylphthalate            | 149               | 10.576 | 10.576 | (1.118) | 510824   | 80.0000          | 82.961          |
| 98 Fluorene                    | 166               | 10.608 | 10.608 | (1.121) | 531310   | 80.0000          | 79.030          |
| 99 4-Chlorophenyl-phenylether  | 204               | 10.645 | 10.645 | (1.125) | 244365   | 80.0000          | 79.546          |
| 100 4-Nitroaniline             | 138               | 10.784 | 10.784 | (1.140) | 145859   | 80.0000          | 85.754          |
| 102 4,6-Dinitro-2-methylphenol | 198               | 10.880 | 10.880 | (0.853) | 94036    | 80.0000          | 91.394          |
| 103 N-Nitrosodiphenylamine (1) | 169               | 10.939 | 10.939 | (0.858) | 381971   | 80.0000          | 78.208          |
| 104 1,2-Diphenylhydrazine      | 77                | 10.998 | 10.998 | (0.863) | 663216   | 80.0000          | 79.014          |
| 112 4-Bromophenyl phenylether  | 248               | 11.751 | 11.751 | (0.922) | 133269   | 80.0000          | 78.232          |
| 113 Hexachlorobenzene          | 284               | 12.050 | 12.050 | (0.945) | 140273   | 80.0000          | 79.045          |
| 117 Pentachlorophenol          | 266               | 12.504 | 12.504 | (0.981) | 76336    | 80.0000          | 94.590(M)       |
| 122 Phenanthrene               | 178               | 12.809 | 12.809 | (1.005) | 729082   | 80.0000          | 78.966          |
| 123 Anthracene                 | 178               | 12.910 | 12.910 | (1.013) | 749931   | 80.0000          | 79.309          |
| 126 Carbazole                  | 167               | 13.364 | 13.364 | (1.048) | 701934   | 80.0000          | 80.962          |
| 130 Di-n-Butylphthalate        | 149               | 14.497 | 14.497 | (1.137) | 882919   | 80.0000          | 82.621          |
| 135 Fluoranthene               | 202               | 15.736 | 15.736 | (1.234) | 748153   | 80.0000          | 82.015          |
| 136 Benzidine                  | 184               | 16.169 | 16.169 | (0.835) | 433446   | 80.0000          | 82.007          |
| 137 Tyrene                     | 202               | 16.276 | 16.276 | (0.840) | 769829   | 80.0000          | 77.316          |
| 144 Butylbenzylphthalate       | 149               | 18.231 | 18.231 | (0.941) | 466875   | 80.0000          | 78.980          |
| 149 3,3'-Dichlorobenzidine     | 252               | 19.390 | 19.390 | (1.001) | 321098   | 80.0000          | 79.838          |
| 150 Benzo(a)Anthracene         | 228               | 19.331 | 19.331 | (0.998) | 787692   | 80.0000          | 80.628          |

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| Compounds                         | QUANT SIG<br>MASS | RT     | EXP RT | REL RT  | RESPONSE | AMOUNTS          |                 |
|-----------------------------------|-------------------|--------|--------|---------|----------|------------------|-----------------|
|                                   |                   |        |        |         |          | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| 151 Chrysene                      | 228               | 19.438 | 19.438 | (1.004) | 742589   | 80.0000          | 79.590          |
| 153 bis(2-ethylhexyl)Phtalate     | 149               | 19.801 | 19.801 | (1.022) | 780463   | 80.0000          | 74.583          |
| 155 Di-n-octylphthalate           | 149               | 21.271 | 21.271 | (0.936) | 1542925  | 80.0000          | 70.421          |
| 157 Benzo(b)fluoranthene          | 252               | 21.917 | 21.917 | (0.964) | 985329   | 80.0000          | 78.703          |
| 158 Benzo(k)fluoranthene          | 252               | 21.981 | 21.981 | (0.967) | 980280   | 80.0000          | 75.516          |
| 159 7,12-dimethylbenz[alanthracen | 256               | 21.976 | 21.976 | (0.967) | 410770   | 80.0000          | 75.012          |
| 160 Benzo(a)pyrene                | 252               | 22.611 | 22.611 | (0.995) | 976263   | 80.0000          | 78.372          |
| 169 Indeno(1,2,3-cd)pyrene        | 276               | 24.962 | 24.962 | (1.098) | 1403895  | 80.0000          | 77.856          |
| 170 Dibenz(a,h)anthracene         | 278               | 25.010 | 25.010 | (1.100) | 1207818  | 80.0000          | 76.900          |
| 171 Benzo(g,h,i)perylene          | 276               | 25.544 | 25.544 | (1.124) | 1224878  | 80.0000          | 78.597          |
| \$ 172 Nitrobenzene-d5            | 82                | 5.602  | 5.602  | (0.866) | 345341   | 80.0000          | 80.950          |
| \$ 173 2-Fluorobiphenyl           | 172               | 8.188  | 8.188  | (0.866) | 549061   | 80.0000          | 79.683          |
| \$ 174 Terphenyl-d14              | 244               | 16.815 | 16.815 | (0.868) | 590134   | 80.0000          | 78.753          |
| \$ 175 Phenol-d5                  | 99                | 4.667  | 4.667  | (0.943) | 369465   | 80.0000          | 75.342          |
| \$ 176 2-Fluorophenol             | 112               | 3.647  | 3.647  | (0.737) | 297729   | 80.0000          | 78.155          |
| \$ 177 2,4,6-Tribromophenol       | 330               | 11.201 | 11.201 | (0.878) | 74250    | 80.0000          | 80.684          |
| \$ 178 2-Chlorophenol-d4          | 132               | 4.758  | 4.758  | (0.961) | 273152   | 80.0000          | 77.068          |
| \$ 179 1,2-Dichlorobenzene-d4     | 152               | 5.159  | 5.159  | (1.042) | 189238   | 80.0000          | 77.890          |

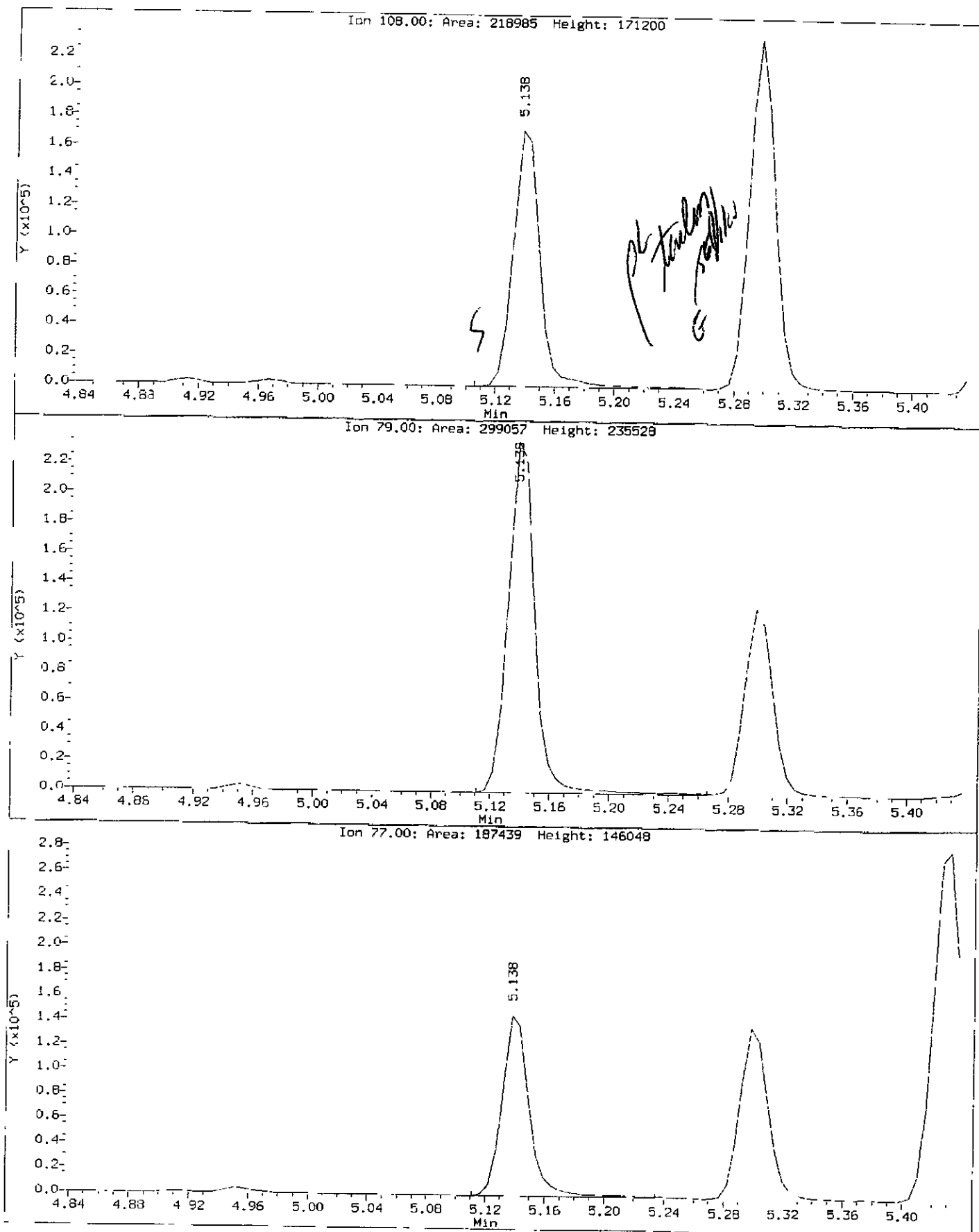
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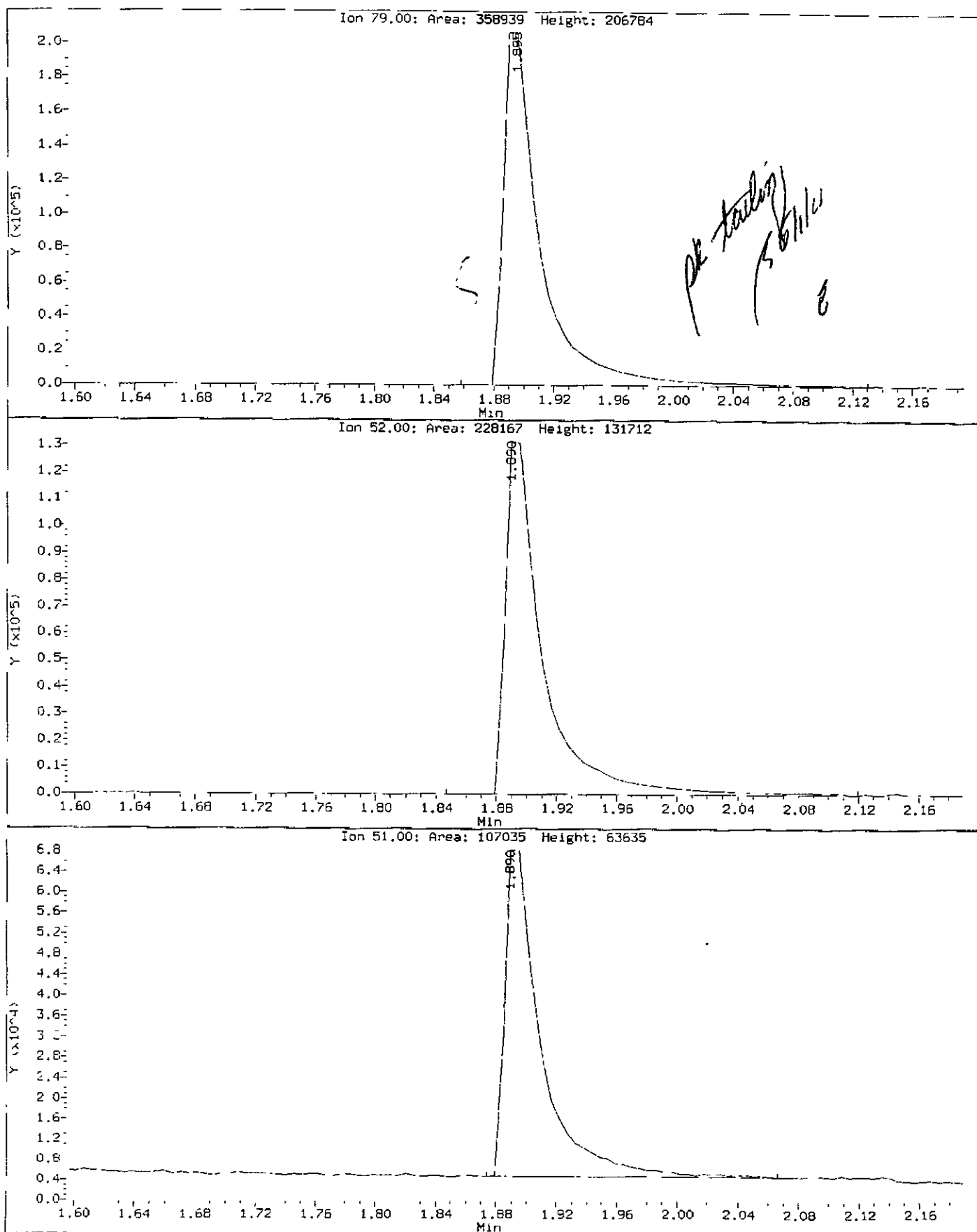
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Instrument: 71.1  
Client Sample ID: sstd80

Compound: Benzyl Alcohol  
CAS Number: 100-51-6



Data File: \\QPITPA02\B\chem\71.1\5060100 b\50601003.D  
Injection Date: 01-JUN-2000 11:10  
Instrument: 71.1  
Client Sample ID: sstd80

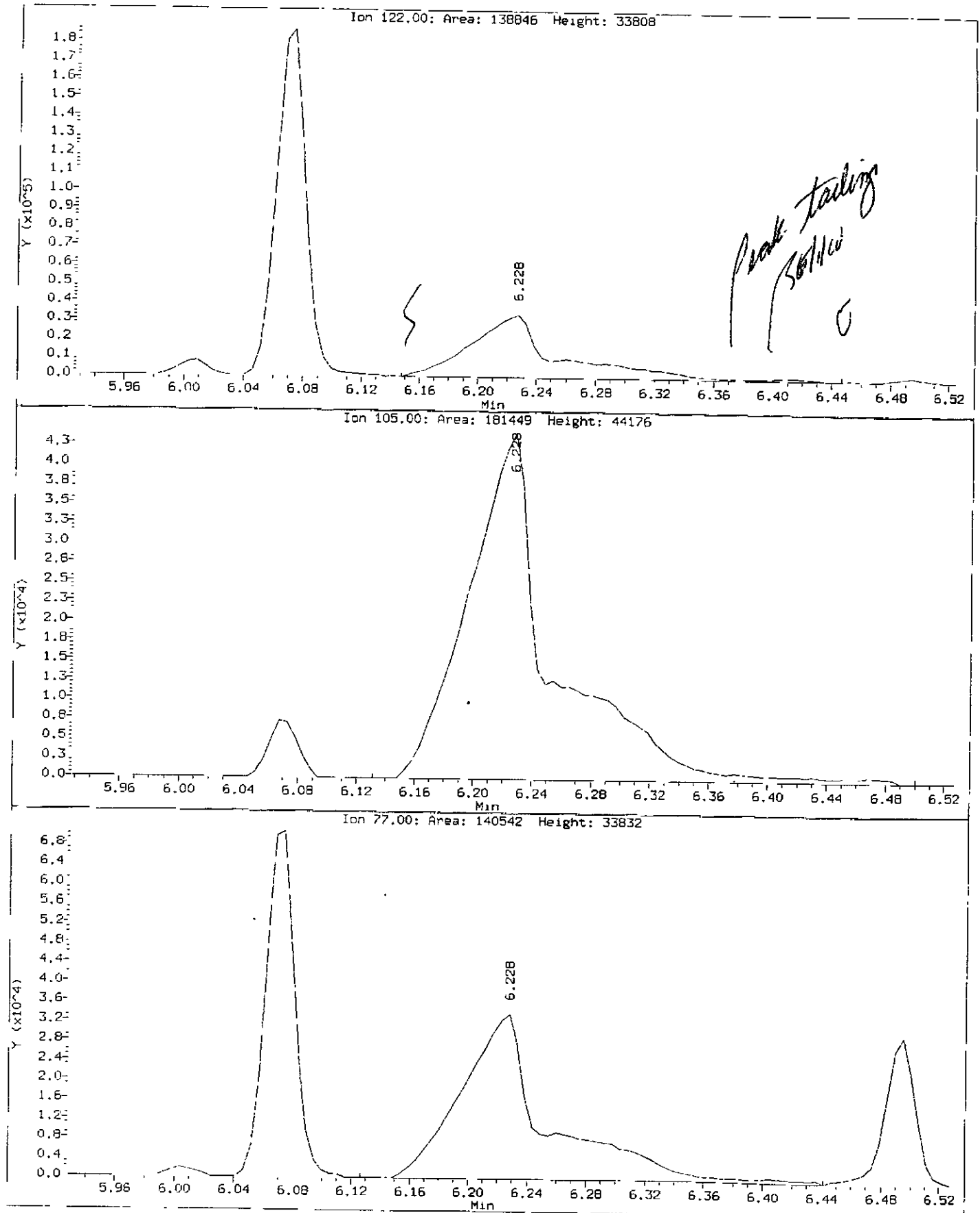
Compound: Pyridine  
CAS Number: 110-86-1



659 890

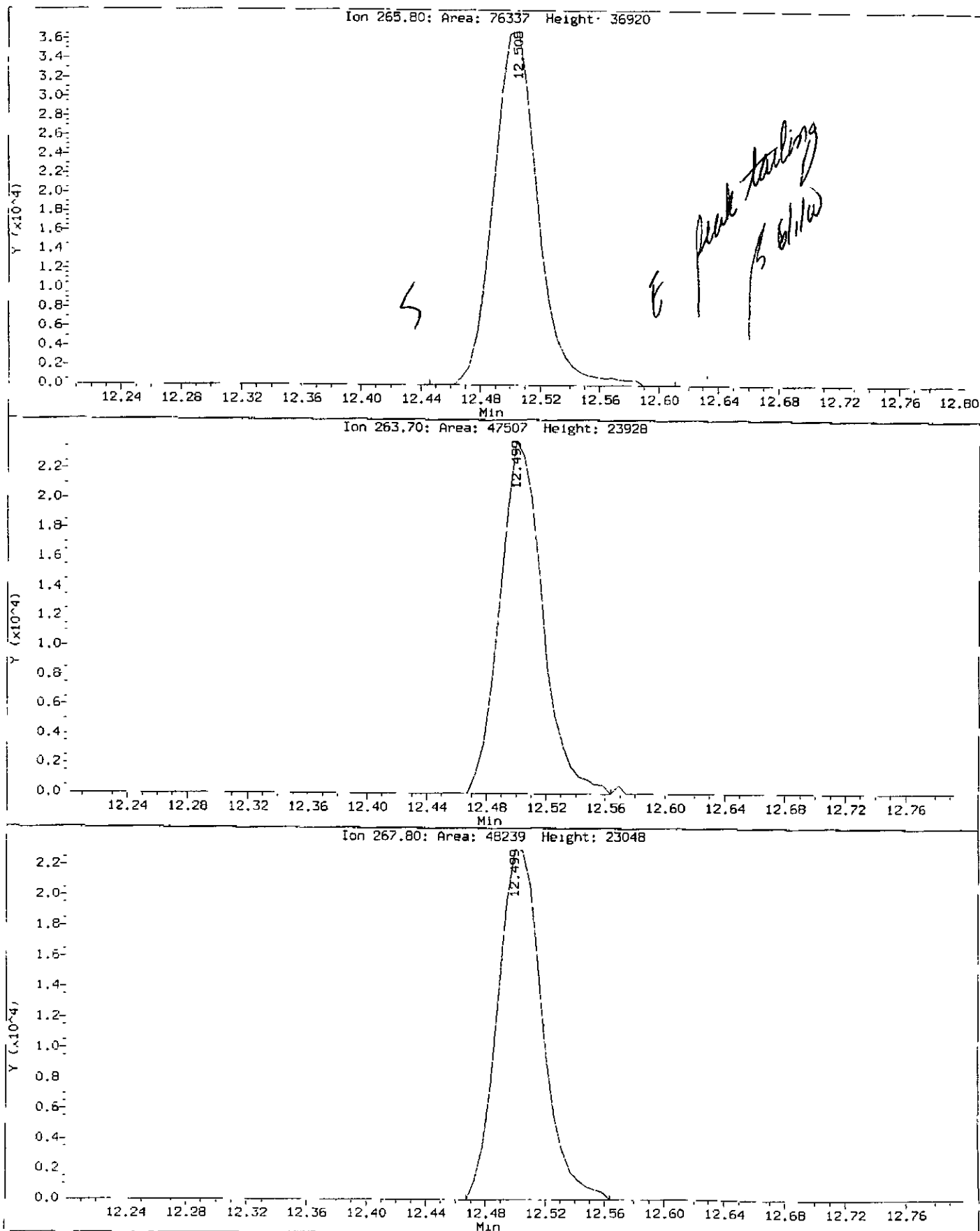
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Injection Date: 01-JUN-2000 11:10  
Instrument: 71.1  
Client Sample ID: sstd80

Compound: Benzoic Acid  
CAS Number: 65-85-0



Data File: \\QPITPA02\chem\71.1\6060100.b\50601003.D  
Injection Date: 01-JUN-2000 11:10  
Instrument: 71.1  
Client Sample ID: sstd80

Compound: Pentachlorophenol  
CAS Number: 87-86-5

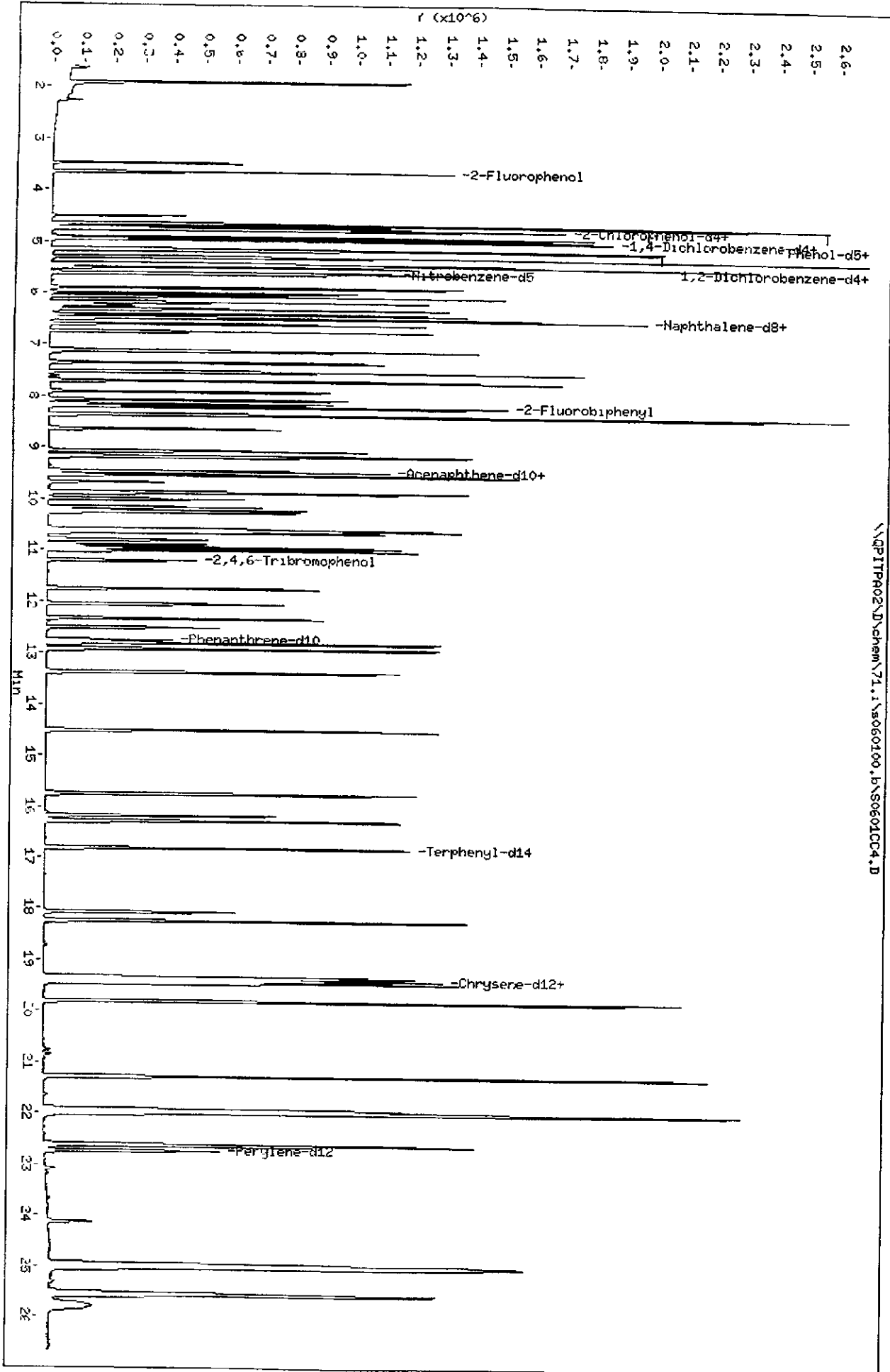




Data File: \\PITPA02\\chem\\71.1\\s060100.b\\s0601004.D  
Date: 01-JUN-2000 11:43  
Client ID: sstd120  
Sample Info: sstd120(60 ug/ml) 194-178-13 8270  
Column phase: Hp5-MS

Instrument: 71.1  
Operator: 045183  
Column diameter: 0.25

\\PITPA02\\chem\\71.1\\s060100.b\\s0601004.D



Data File: \\QPITPA02\D\chem\71.i\s060100.b\S0601CC4.D  
Report Date: 01-Jun-2000 12:37

## STL Pittsburgh

## Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\71.i\s060100.b\S0601CC4.D  
Lab Smp Id: sstd120 Client Smp ID: sstd120  
Inj Date : 01-JUN-2000 11:43  
Operator : 045183 Inst ID: 71.i  
Smp Info : sstd120(60 ug/ml) 194-175-13 8270  
Misc Info : sstd120,s060100.b,8270clp.m,1-82701.sub,1,4  
Comment :  
Method : \\QPITPA02\D\chem\71.i\s060100.b\8270clp.m  
Meth Date : 01-Jun-2000 12:32 bachas Quant Type: ISTD  
Cal Date : 01-JUN-2000 11:43 Cal File: S0601CC4.D  
Als bottle: 5 Calibration Sample, Level: 4  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 1-82701.sub  
Target Version: 4.04  
Processing Host: PITPC050

| Compounds                       | QUANT SIG | AMOUNTS |        |         |          |         |            |
|---------------------------------|-----------|---------|--------|---------|----------|---------|------------|
|                                 |           | CAL-AMT | ON-COL |         |          |         |            |
|                                 | MASS      | RT      | EXP RT | REL RT  | RESPONSE | ( ng)   | ( ng)      |
| ====                            | ====      | ==      | =====  | =====   | =====    | =====   | =====      |
| * 1 1,4-Dichlorobenzene-d4      | 152       | 4.959   | 4.959  | (1.000) | 114031   | 40.0000 |            |
| * 2 Naphthalene-d8              | 136       | 6.476   | 6.476  | (1.000) | 435733   | 40.0000 |            |
| * 3 Acenaphthene-d10            | 164       | 9.473   | 9.473  | (1.000) | 214583   | 40.0000 |            |
| * 4 Phenanthrene-d10            | 188       | 12.764  | 12.764 | (1.000) | 372608   | 40.0000 |            |
| * 5 Chrysene-d12                | 240       | 19.383  | 19.383 | (1.000) | 367889   | 40.0000 |            |
| * 6 Perylene-d12                | 264       | 22.743  | 22.743 | (1.000) | 518166   | 40.0000 |            |
| 13 N-Nitrosodimethylamine       | 74        | 1.909   | 1.909  | (0.385) | 304956   | 120.000 | 118.09     |
| 10 Pyridine                     | 79        | 1.898   | 1.898  | (0.383) | 559041   | 120.000 | 119.36 (M) |
| 9 Methyl methanesulfonate       | 80        | 3.479   | 3.479  | (0.702) | 282148   | 120.000 | 121.91     |
| 22 Aniline                      | 93        | 4.665   | 4.665  | (0.941) | 788223   | 120.000 | 112.94     |
| 23 Phenol                       | 94        | 4.687   | 4.687  | (0.945) | 646072   | 120.000 | 112.36     |
| 24 bis(2-Chloroethyl) ether     | 93        | 4.735   | 4.735  | (0.955) | 526736   | 120.000 | 115.79     |
| 25 2-Chlorophenol               | 128       | 4.783   | 4.783  | (0.964) | 456791   | 120.000 | 113.41     |
| 27 1,3-Dichlorobenzene          | 146       | 4.916   | 4.916  | (0.991) | 505407   | 120.000 | 113.50     |
| 28 1,4-Dichlorobenzene          | 146       | 4.975   | 4.975  | (1.003) | 505970   | 120.000 | 112.90     |
| 29 1,2-Dichlorobenzene          | 146       | 5.178   | 5.178  | (1.044) | 456435   | 120.000 | 111.15     |
| 30 Benzyl Alcohol               | 108       | 5.146   | 5.146  | (1.038) | 329647   | 120.000 | 113.39     |
| 31 2-Methylphenol               | 108       | 5.306   | 5.306  | (1.070) | 411082   | 120.000 | 110.63     |
| 32 2,2'-oxybis(1-Chloropropane) | 45        | 5.312   | 5.312  | (1.071) | 648650   | 120.000 | 111.32     |
| 33 N Nitroso di-n-propylamine   | 70        | 5.472   | 5.472  | (1.103) | 351660   | 120.000 | 114.53     |
| 35 4-Methylphenol               | 108       | 5.467   | 5.467  | (1.102) | 436166   | 120.000 | 111.37     |
| 38 Hexachloroethane             | 117       | 5.515   | 5.515  | (1.112) | 203169   | 120.000 | 115.88     |
| 39 Nitrobenzene                 | 77        | 5.632   | 5.632  | (0.870) | 562954   | 120.000 | 117.74     |
| 44 Isophorone                   | 82        | 5.905   | 5.905  | (0.912) | 878598   | 120.000 | 116.55     |
| 45 2-Nitrophenol                | 139       | 6.012   | 6.012  | (0.928) | 254229   | 120.000 | 118.46     |
| 46 2,4-Dimethylphenol           | 107       | 6.081   | 6.081  | (0.939) | 446645   | 120.000 | 117.24     |

| Compounds                      | QUANT SIG |        |        | REL RT  | RESPONSE | AMOUNTS          |                 |
|--------------------------------|-----------|--------|--------|---------|----------|------------------|-----------------|
|                                | MASS      | RT     | EXP RT |         |          | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| 41 Bis (2-Chloroethoxy)methane | 93        | 6.188  | 6.188  | (0.955) | 571659   | 120.000          | 116.58          |
| 51 2,4-Dichlorophenol          | 162       | 6.321  | 6.321  | (0.976) | 338926   | 120.000          | 113.90          |
| 52 Benzoic Acid                | 122       | 6.263  | 6.263  | (0.967) | 224020   | 120.000          | 141.68 (M)      |
| 53 1,2,4-Trichlorobenzene      | 180       | 6.418  | 6.418  | (0.991) | 365630   | 120.000          | 114.18          |
| 54 Naphthalene                 | 128       | 6.503  | 6.503  | (1.004) | 1296558  | 120.000          | 112.52          |
| 55 4-Chloroaniline             | 127       | 6.610  | 6.610  | (1.021) | 514046   | 120.000          | 114.20          |
| 59 Hexachlorobutadiene         | 225       | 6.749  | 6.749  | (1.042) | 192273   | 120.000          | 114.79          |
| 62 4-Chloro-3-Methylphenol     | 107       | 7.352  | 7.352  | (1.135) | 377639   | 120.000          | 116.49          |
| 65 2-Methylnaphthalene         | 142       | 7.523  | 7.523  | (1.162) | 823051   | 120.000          | 112.20          |
| 66 1-Methylnaphthalene         | 142       | 7.705  | 7.705  | (1.190) | 767485   | 120.000          | 111.93          |
| 67 Hexachlorocyclopentadiene   | 237       | 7.903  | 7.903  | (0.834) | 218149   | 120.000          | 124.68          |
| 69 2,4,6-Trichlorophenol       | 196       | 8.063  | 8.063  | (0.851) | 218186   | 120.000          | 118.63          |
| 70 2,4,5-Trichlorophenol       | 196       | 8.143  | 8.143  | (0.860) | 231381   | 120.000          | 118.84          |
| 73 2-Chloronaphthalene         | 162       | 8.362  | 8.362  | (0.883) | 679942   | 120.000          | 113.66          |
| 77 2-Nitroaniline              | 65        | 8.635  | 8.635  | (0.911) | 256897   | 120.000          | 123.78          |
| 80 Dimethylphthalate           | 163       | 9.067  | 9.067  | (0.957) | 777451   | 120.000          | 120.32          |
| 82 2,6-Dinitrotoluene          | 165       | 9.190  | 9.190  | (0.970) | 181131   | 120.000          | 121.89          |
| 83 Acenaphthylene              | 152       | 9.158  | 9.158  | (0.967) | 1146493  | 120.000          | 116.50          |
| 85 3-Nitroaniline              | 138       | 9.463  | 9.463  | (0.999) | 218646   | 120.000          | 123.08          |
| 86 Acenaphthene                | 153       | 9.537  | 9.537  | (1.007) | 711001   | 120.000          | 116.36          |
| 87 2,4-Dinitrophenol           | 184       | 9.676  | 9.676  | (1.021) | 103830   | 120.000          | 162.87 (A)      |
| 89 4-Nitrophenol               | 109       | 9.895  | 9.895  | (1.045) | 115694   | 120.000          | 133.49          |
| 90 Dibenzofuran                | 168       | 9.874  | 9.874  | (1.042) | 979105   | 120.000          | 115.67          |
| 91 2,4-Dinitrotoluene          | 165       | 10.007 | 10.007 | (1.056) | 249048   | 120.000          | 126.45          |
| 95 2,3,5,6-Tetrachlorophenol   | 232       | 10.162 | 10.162 | (1.073) | 166858   | 120.000          | 127.45          |
| 92 2,3,4,6-Tetrachlorophenol   | 232       | 10.259 | 10.259 | (1.083) | 161031   | 120.000          | 121.63          |
| 96 2-Naphthylamine             | 143       | 10.226 | 10.226 | (1.080) | 601129   | 120.000          | 105.42          |
| 97 Diethylphthalate            | 149       | 10.590 | 10.590 | (1.118) | 765279   | 120.000          | 122.38          |
| 98 Fluorene                    | 166       | 10.616 | 10.616 | (1.121) | 772305   | 120.000          | 115.34          |
| 99 4-Chlorophenyl-phenylether  | 204       | 10.659 | 10.659 | (1.125) | 357122   | 120.000          | 116.39          |
| 100 4-Nitroaniline             | 138       | 10.803 | 10.803 | (1.140) | 226495   | 120.000          | 128.78          |
| 102 4,6-Dinitro-2-methylphenol | 198       | 10.900 | 10.900 | (0.854) | 152129   | 120.000          | 134.82          |
| 103 N-Nitrosodiphenylamine (1) | 169       | 10.953 | 10.953 | (0.858) | 577052   | 120.000          | 114.17          |
| 104 1,2-Diphenylhydrazine      | 77        | 11.012 | 11.012 | (0.863) | 998874   | 120.000          | 114.80          |
| 112 4-Bromophenyl phenylether  | 248       | 11.760 | 11.760 | (0.921) | 196592   | 120.000          | 112.14          |
| 113 Hexachlorobenzene          | 284       | 12.059 | 12.059 | (0.945) | 207387   | 120.000          | 113.22          |
| 117 Pentachlorophenol          | 266       | 12.513 | 12.513 | (0.980) | 126610   | 120.000          | 140.64          |
| 122 Phenanthrene               | 178       | 12.817 | 12.817 | (1.004) | 1078042  | 120.000          | 113.15          |
| 123 Anthracene                 | 178       | 12.924 | 12.924 | (1.013) | 1110712  | 120.000          | 113.67          |
| 126 Carbazole                  | 167       | 13.378 | 13.378 | (1.048) | 1077397  | 120.000          | 118.24          |
| 130 Di-n-Butylphthalate        | 149       | 14.511 | 14.511 | (1.137) | 1349202  | 120.000          | 120.05          |
| 135 Fluoranthene               | 202       | 15.750 | 15.750 | (1.234) | 1150571  | 120.000          | 119.96          |
| 136 Benzidine                  | 184       | 16.183 | 16.183 | (0.835) | 670634   | 120.000          | 118.72          |
| 137 Pyrene                     | 202       | 16.295 | 16.295 | (0.841) | 1196361  | 120.000          | 113.91          |
| 144 Butylbenzylphthalate       | 149       | 18.240 | 18.240 | (0.941) | 727177   | 120.000          | 115.97          |
| 149 3,3'-Dichlorobenzidine     | 252       | 19.404 | 19.404 | (1.001) | 508456   | 120.000          | 118.39          |
| 150 Benzo(a)Anthracene         | 228       | 19.345 | 19.345 | (0.998) | 1256973  | 120.000          | 119.97          |

| Compounds                          | QUANT SIG |        |        |         | RESPONSE | AMOUNTS          |                 |
|------------------------------------|-----------|--------|--------|---------|----------|------------------|-----------------|
|                                    | MASS      | RT     | EXP RT | REL RT  |          | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| =====                              | =====     | ==     | =====  | =====   | =====    | =====            | =====           |
| 151 Chrysene                       | 228       | 19.458 | 19.458 | (1.004) | 1169411  | 120.000          | 117.62          |
| 153 Bis(2-ethylhexyl)Phthalate     | 149       | 19.816 | 19.816 | (1.022) | 1138200  | 120.000          | 105.49          |
| 155 Di-n-octylphthalate            | 149       | 21.285 | 21.285 | (0.936) | 2225349  | 120.000          | 97.652          |
| 157 Benzo(b)fluoranthene           | 252       | 21.936 | 21.936 | (0.965) | 1640333  | 120.000          | 118.95          |
| 158 Benzo(k)fluoranthene           | 252       | 22.006 | 22.006 | (0.968) | 1391539  | 120.000          | 101.92 (M)      |
| 159 7,12-dimethylbenz[a]anthracene | 256       | 22.001 | 22.001 | (0.967) | 630475   | 120.000          | 107.77          |
| 167 Benzo(a)pyrene                 | 252       | 22.626 | 22.626 | (0.995) | 1520370  | 120.000          | 112.72          |
| 169 Indeno(1,2,3-cd)pyrene         | 276       | 24.992 | 24.992 | (1.099) | 2196039  | 120.000          | 112.53          |
| 170 Dibenzo(a,h)anthracene         | 278       | 25.046 | 25.046 | (1.101) | 1853529  | 120.000          | 109.84          |
| 171 Benzo(g,h,i)perylene           | 276       | 25.585 | 25.585 | (1.125) | 1934015  | 120.000          | 114.16          |
| \$ 172 Nitrobenzene-d5             | 82        | 5.611  | 5.611  | (0.866) | 523858   | 120.000          | 118.72          |
| \$ 173 2-Fluorobiphenyl            | 172       | 8.196  | 8.196  | (0.865) | 796116   | 120.000          | 115.85          |
| \$ 174 Terphenyl-d14               | 244       | 16.829 | 16.829 | (0.868) | 912781   | 120.000          | 115.11          |
| \$ 175 Phenol-d5                   | 99        | 4.676  | 4.676  | (0.943) | 553021   | 120.000          | 110.68          |
| \$ 176 2-Fluorophenol              | 117       | 3.650  | 3.650  | (0.736) | 459821   | 120.000          | 116.57          |
| \$ 177 2,4,6-Trisubstituted phenol | 330       | 11.209 | 11.209 | (0.878) | 113748   | 120.000          | 118.15          |
| \$ 178 2-Chlorophenol-d4           | 132       | 4.767  | 4.767  | (0.961) | 412413   | 120.000          | 113.37          |
| \$ 179 1,2-Dichlorobenzene-d4      | 182       | 5.162  | 5.162  | (1.041) | 274709   | 120.000          | 110.90          |

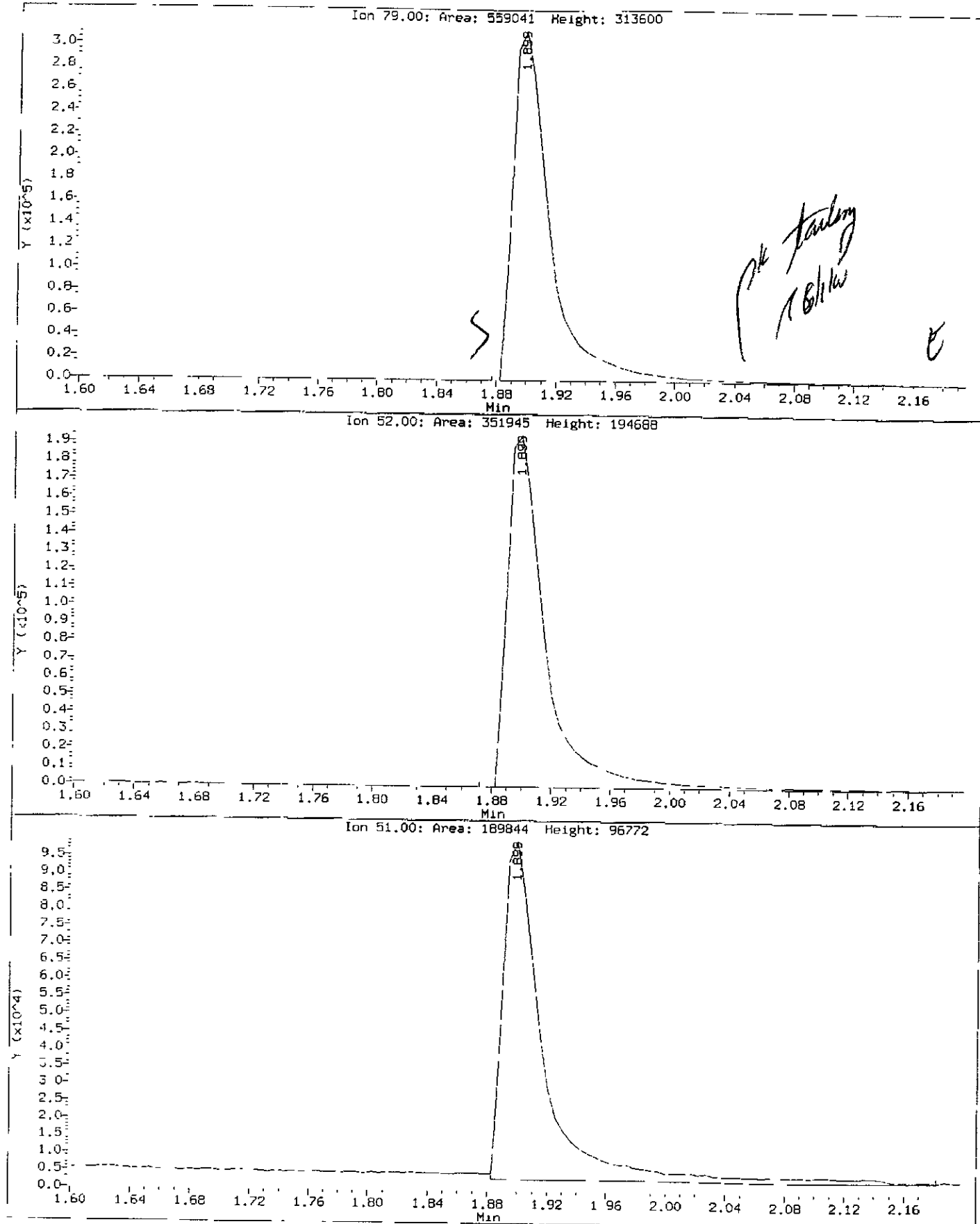
#### QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M - Compound response manually integrated.

659 896

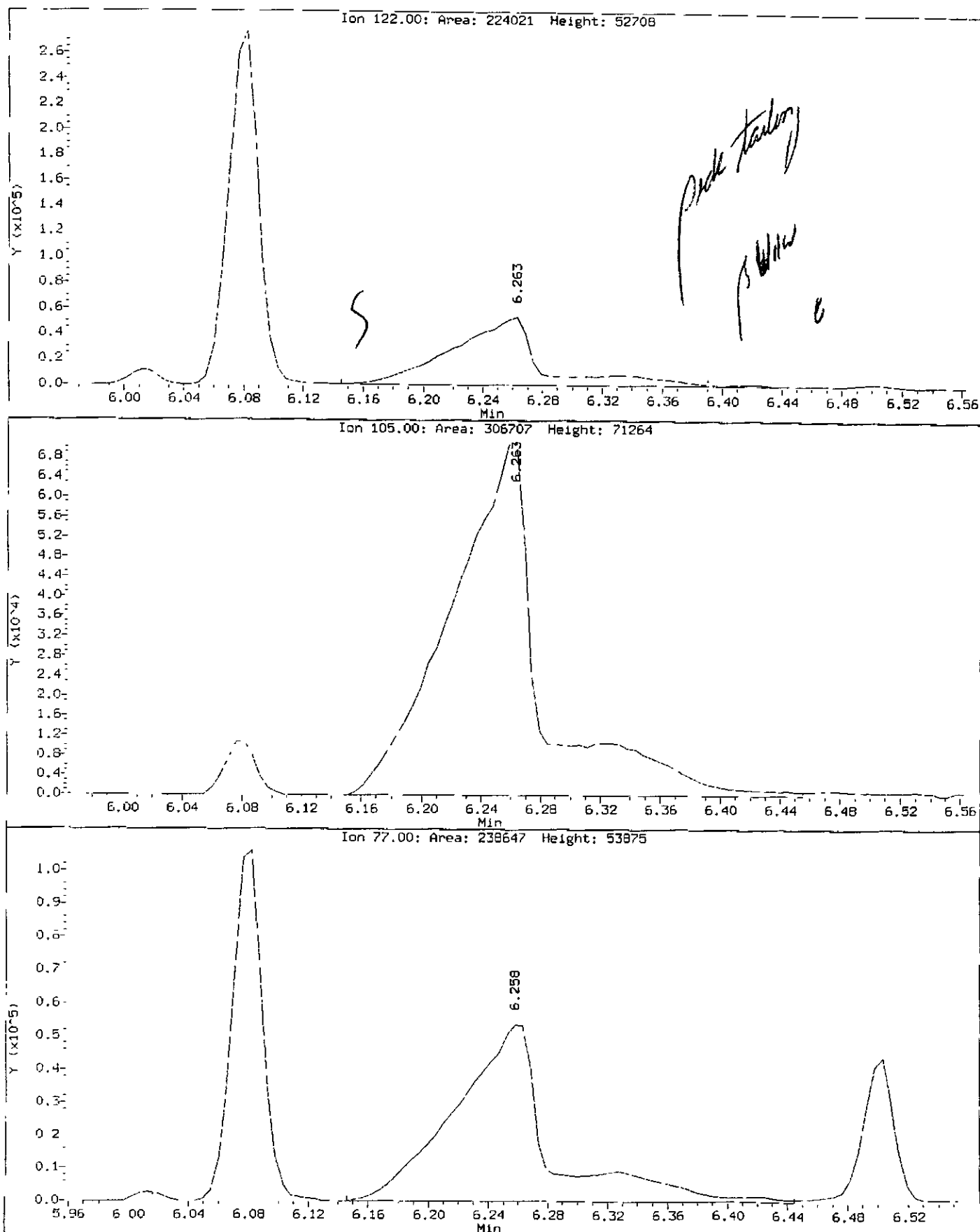
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Injection Date: 01-JUN-2000 11:43  
Instrument: 71 i  
Client Sample ID: sstd120

Compound: Pyridine  
CAS Number: 110-86-1



Data File: \\QPITPA02\B\chem\71.1\5060100.b\50601004.D  
Injection Date: 01-JUN-2000 11:43  
Instrument: 71.1  
Client Sample ID: sstd120

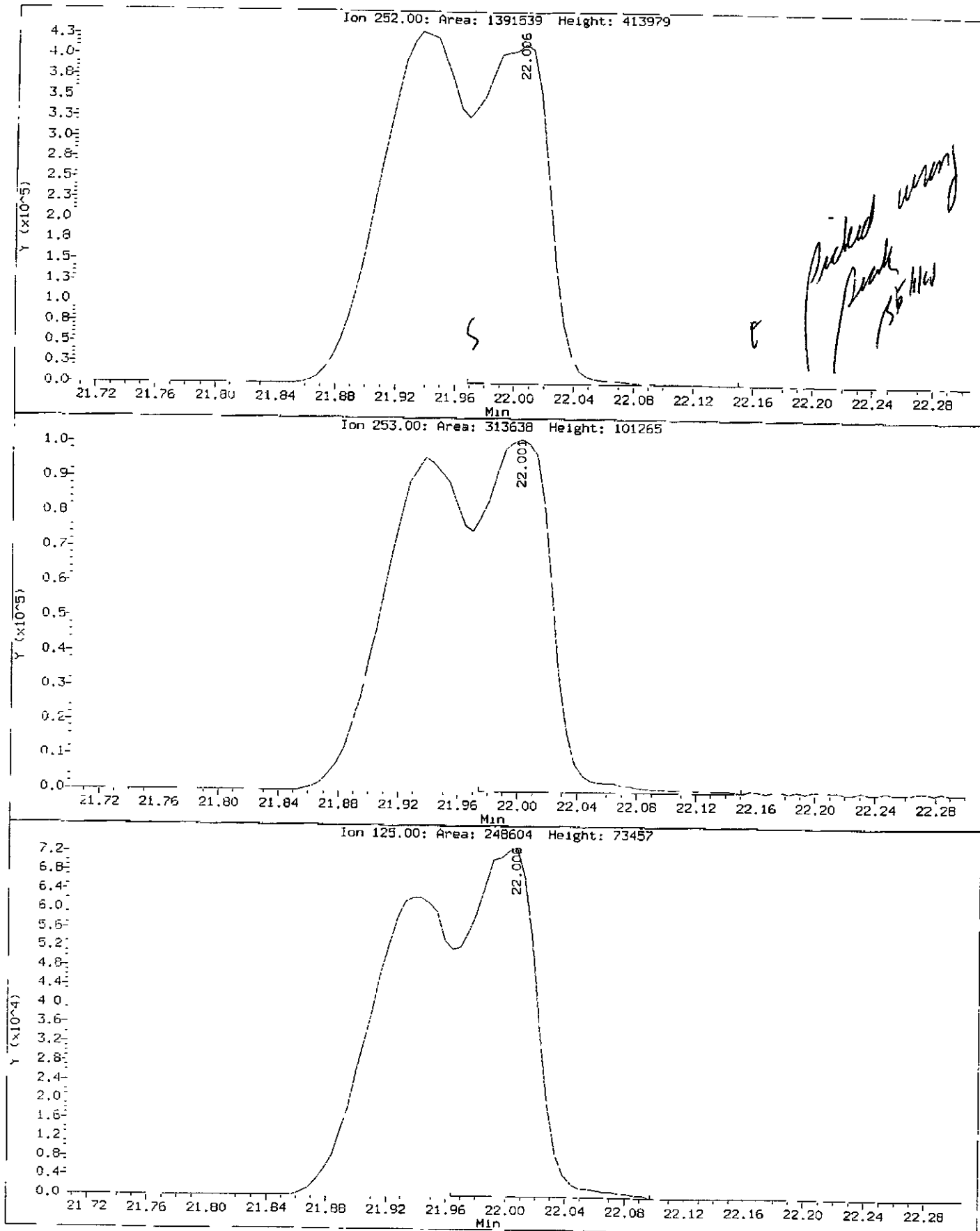
Compound: Benzoic Acid  
CAS Number: 65-85-0



659 898

Data File: \\NPITPA02\ID\chem\71.1\5060100.b\50601CC4.D  
Injection Date: 01-JUN-2000 11:43  
Instrument: 71.1  
Client Sample ID: sstd120

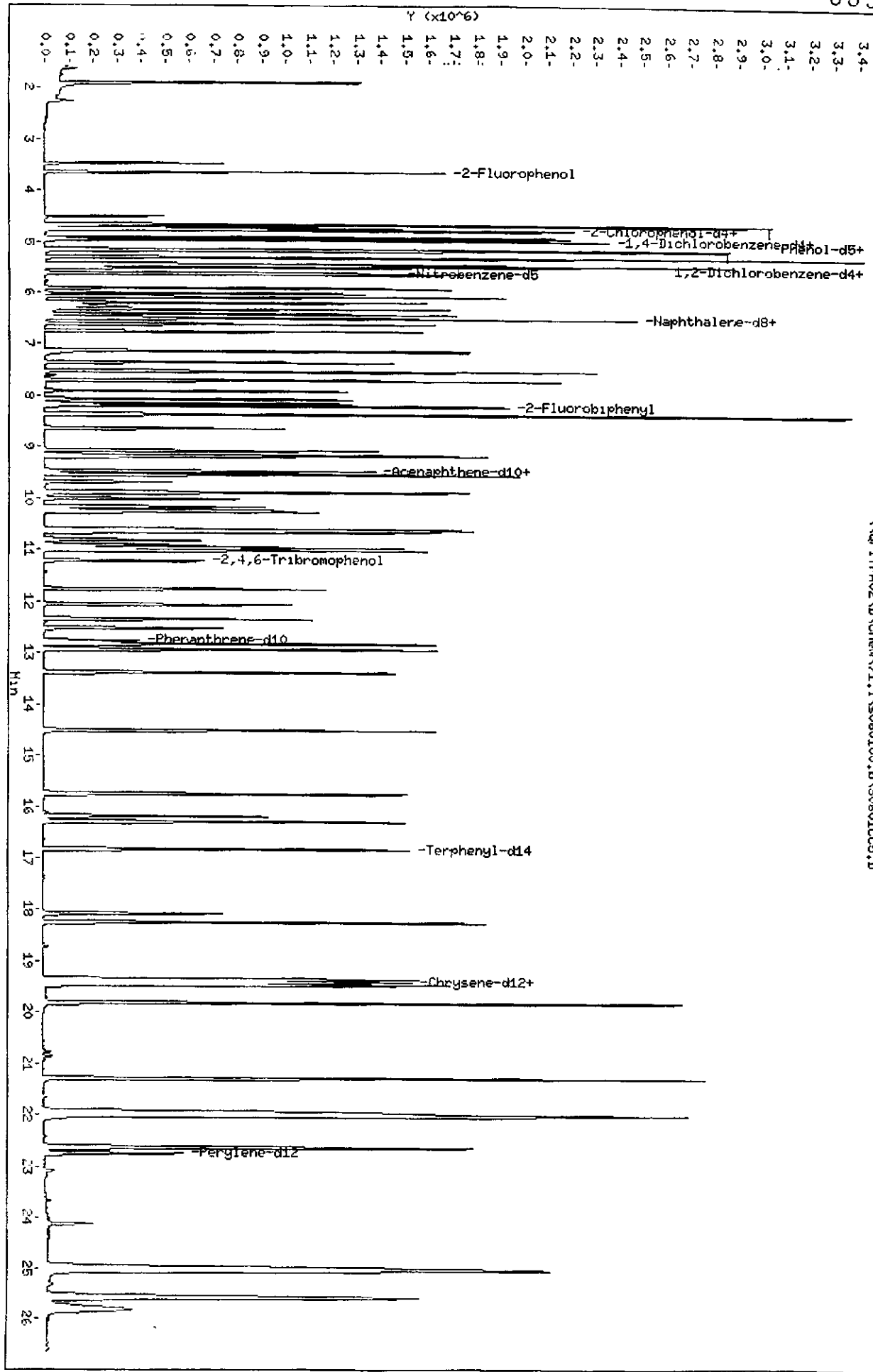
Compound: Benzo(k)fluoranthene  
CAS Number: 207-08-9



Data File: \NPI\PA02\Nchem\71.1\5060100.b\50601CC5.D  
 Date: 01-JUN-2000 12:15  
 Client ID: sstd160  
 Sample Info: sstd160(80 ug/ml) 194-175-14 8270  
 Column phase: Hp5-MS

Instrument: 71.1  
 Operator: 045183  
 Column diameter: 0.25

\NPI\PA02\Nchem\71.1\5060100.b\50601CC5.D

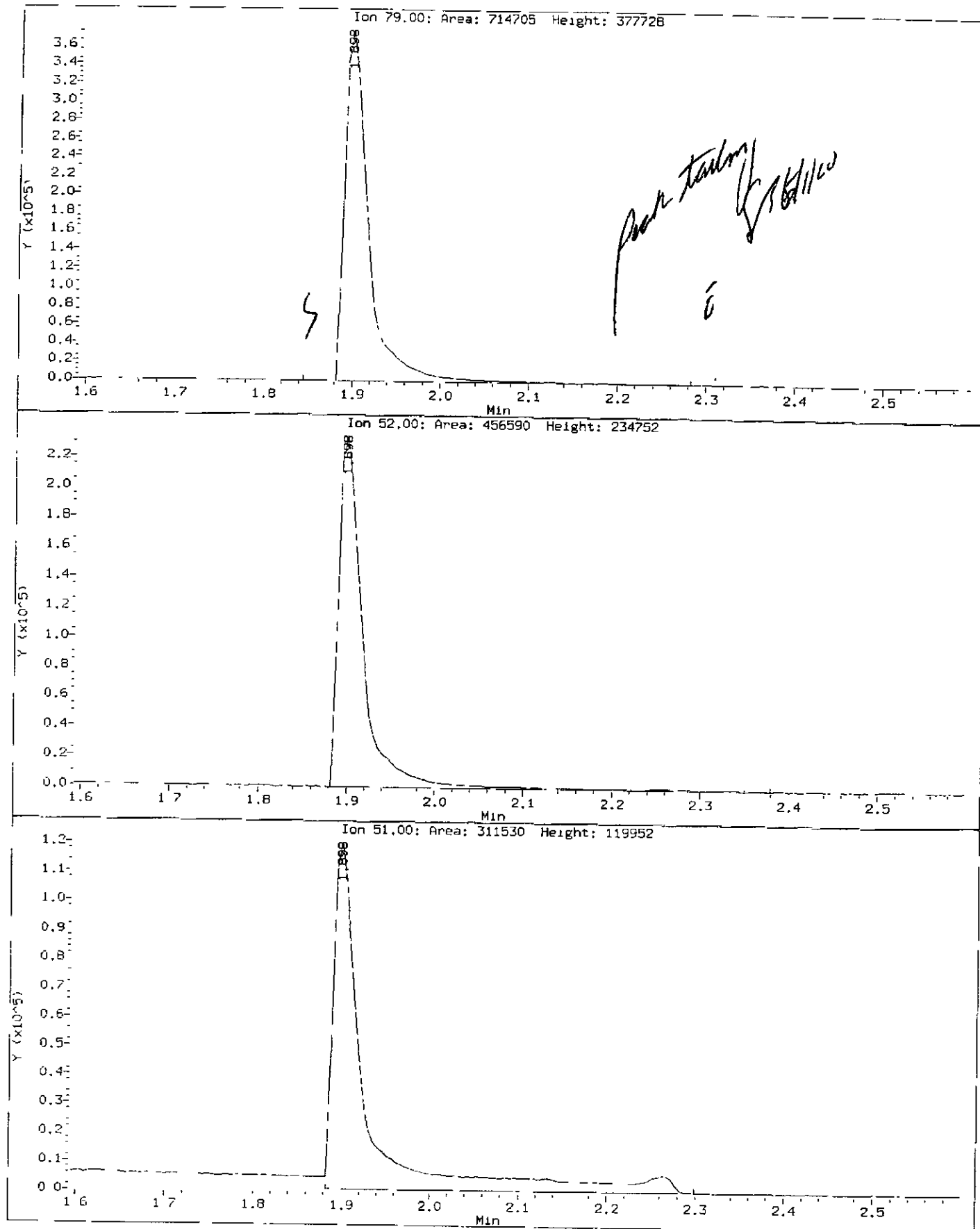




659 900

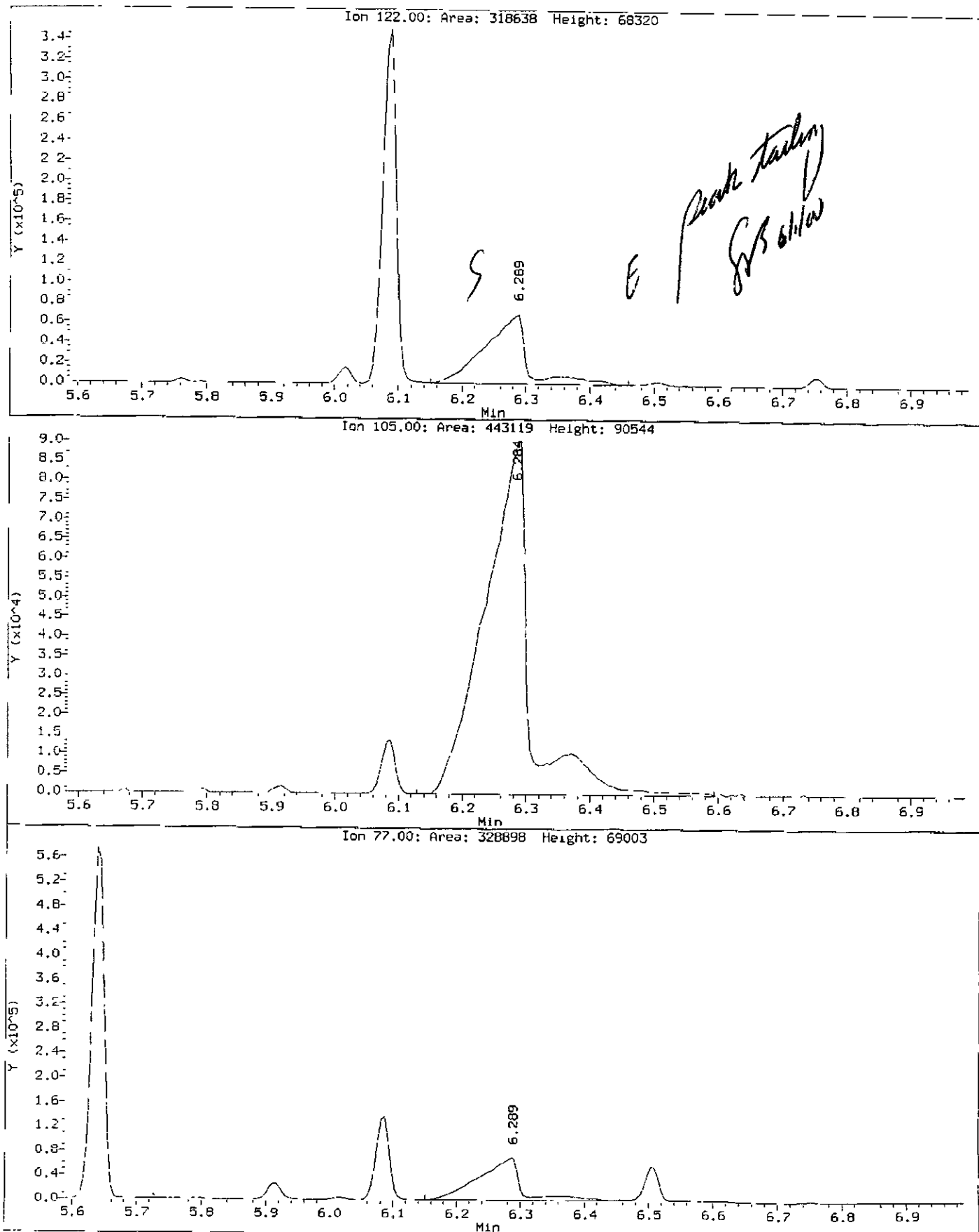
Data File: \\QP17PA02\chem\71.1\5060100.b\50601005.D  
Injection Date: 01-JUN-2000 12:15  
Instrument: 71  
Client Sample ID: sstd160

Compound: Pyridine  
CAS Number: 110-86-1



Data File: \\NPITPA02\\D\\chem\\71.1\\s060100.b\\S0601CC5.D  
Injection Date: 01-JUN-2000 12:15  
Instrument: 71.1  
Client Sample ID: sstd160

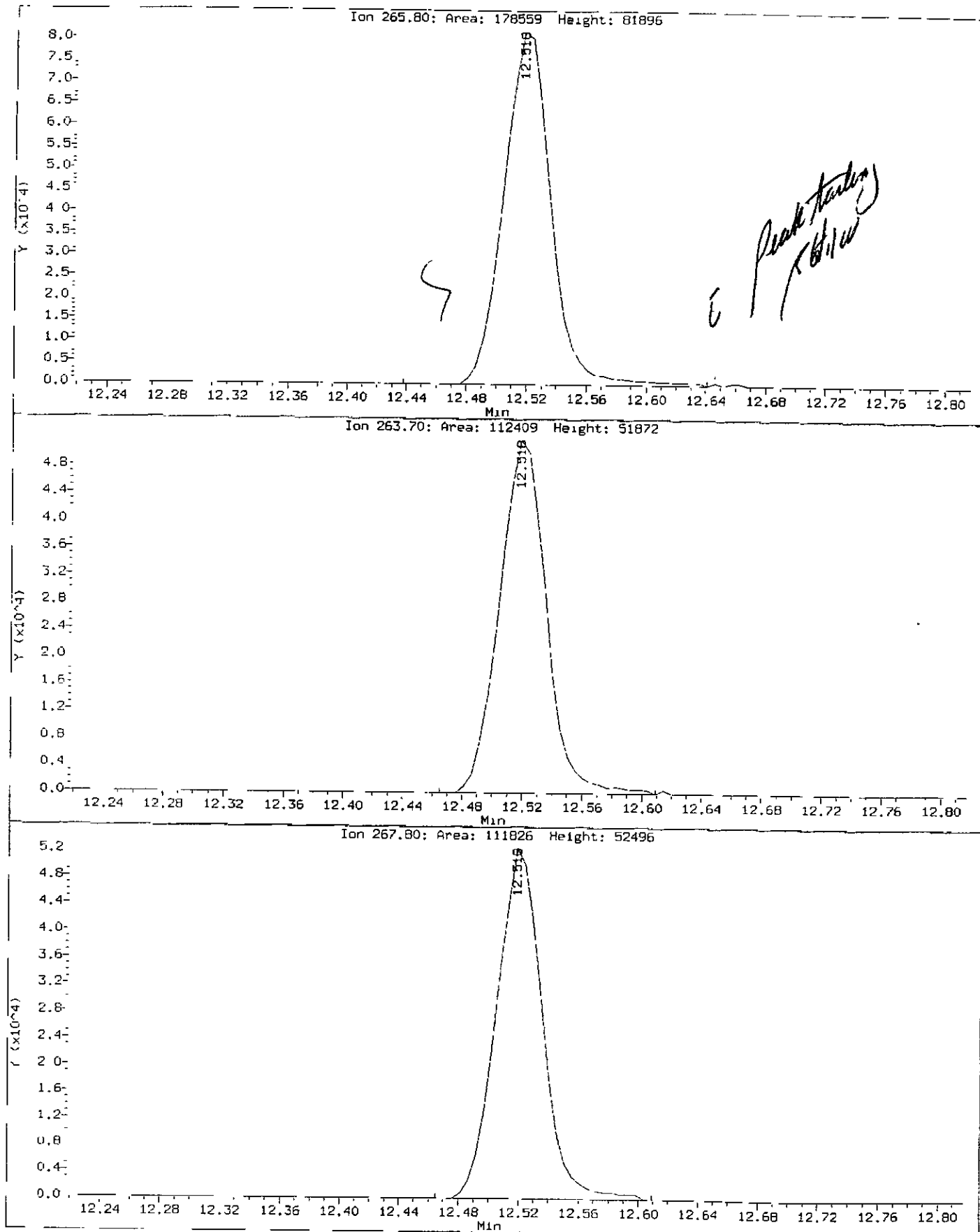
Compound: Benzoic Acid  
CAS Number: 65-65-0



659 902

Data File: \\QPITPA02\DI\chem\71.1\5060100.6\50601CC5.D  
Injection Date: 01-JUN-2000 12:15  
Instrument: 71.1  
Client Sample ID: sstd150

Compound: Pentachlorophenol  
CAS Number: 87-86-5



STL Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\71.i\s060100.b\S0601CC5.D  
Lab Smp Id: sstd160 Client Smp ID: sstd160  
Inj Date : 01-JUN-2000 12:15  
Operator : 045183 Inst ID: 71.i  
Smp Info : sstd160(80 ug/ml) 194-175-14 8270  
Misc Info : sstd160,s060100.b,8270clp.m,1-82701.sub,1,5  
Comment :  
Method : \\QPITPA02\D\chem\71.i\s060100.b\8270clp.m  
Meth Date : 01-Jun-2000 12:47 bachas Quant Type: ISTD  
Cal Date : 01-JUN-2000 12:15 Cal File: S0601CC5.D  
Als bottle: 6 Calibration Sample, Level: 5  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 1-82701.sub  
Target Version: 4.04  
Processing Host: PITPC050

| Compounds                       | QUANT SIG |        |        |         | RESPONSE | AMOUNTS          |                 |
|---------------------------------|-----------|--------|--------|---------|----------|------------------|-----------------|
|                                 | MASS      | RT     | EXP RT | REL RT  |          | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| =====                           | =====     | =====  | =====  | =====   | =====    | =====            | =====           |
| * 1 1,4-Dichlorobenzene-d4      | 152       | 4.959  | 4.959  | (1.000) | 115588   | 40.0000          |                 |
| * 2 Naphthalene-d8              | 136       | 6.476  | 6.476  | (1.000) | 440108   | 40.0000          |                 |
| * 3 Acenaphthene-d10            | 164       | 9.473  | 9.473  | (1.000) | 218624   | 40.0000          |                 |
| * 4 Phenanthrene-d10            | 188       | 12.764 | 12.764 | (1.000) | 379949   | 40.0000          |                 |
| * 5 Chrysene-d12                | 240       | 19.388 | 19.388 | (1.000) | 354342   | 40.0000          |                 |
| * 6 Perylene-d12                | 264       | 22.748 | 22.748 | (1.000) | 529049   | 40.0000          |                 |
| 11 N-Nitrosodimethylamine       | 74        | 1.914  | 1.914  | (0.386) | 393188   | 160.000          | 152.07          |
| 10 Pyridine                     | 79        | 1.898  | 1.898  | (0.383) | 714705   | 160.000          | 152.34 (M)      |
| 19 Methyl methanesulfonate      | 80        | 3.484  | 3.484  | (0.703) | 374116   | 160.000          | 159.58          |
| 22 Aniline                      | 93        | 4.670  | 4.670  | (0.942) | 1028121  | 160.000          | 148.05          |
| 23 Phenol                       | 94        | 4.692  | 4.692  | (0.946) | 844702   | 160.000          | 147.71          |
| 24 bis(2-Chloroethyl) ether     | 93        | 4.740  | 4.740  | (0.956) | 699974   | 160.000          | 153.37          |
| 25 2-Chlorophenol               | 128       | 4.788  | 4.788  | (0.966) | 598928   | 160.000          | 149.16          |
| 27 1,3-Dichlorobenzene          | 146       | 4.921  | 4.921  | (0.992) | 653917   | 160.000          | 147.67          |
| 28 1,4-Dichlorobenzene          | 146       | 4.975  | 4.975  | (1.003) | 654576   | 160.000          | 147.02          |
| 29 1,2-Dichlorobenzene          | 146       | 5.183  | 5.183  | (1.045) | 584640   | 160.000          | 143.97          |
| 30 Benzyl Alcohol               | 108       | 5.151  | 5.151  | (1.039) | 430875   | 160.000          | 148.78          |
| 31 2-Methylphenol               | 108       | 5.311  | 5.311  | (1.071) | 539719   | 160.000          | 146.35          |
| 32 2,2'-oxybis(1-Chloropropane) | 45        | 5.311  | 5.311  | (1.071) | 839980   | 160.000          | 145.44          |
| 33 N-Nitroso-di-n-propylamine   | 70        | 5.482  | 5.482  | (1.106) | 482798   | 160.000          | 156.07          |
| 35 4-Methylphenol               | 108       | 5.471  | 5.471  | (1.103) | 571833   | 160.000          | 146.98          |
| 38 Hexachloroethane             | 117       | 5.520  | 5.520  | (1.113) | 270817   | 160.000          | 153.85          |
| 39 Nitrobenzene                 | 77        | 5.637  | 5.637  | (0.870) | 759082   | 160.000          | 157.74          |
| 44 Isophorone                   | 82        | 5.915  | 5.915  | (0.913) | 1193639  | 160.000          | 157.40          |
| 45 2-Nitrophenol                | 139       | 6.016  | 6.016  | (0.929) | 344448   | 160.000          | 159.12          |
| 46 2,4-Dimethylphenol           | 107       | 6.086  | 6.086  | (0.940) | 608597   | 160.000          | 158.52          |

| Compounds                      | QUANT SIG |        |        |         | AMOUNTS  |                  |                 |
|--------------------------------|-----------|--------|--------|---------|----------|------------------|-----------------|
|                                | MASS      | RT     | EXP RT | REL RT  | RESPONSE | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| =====                          | =====     | =====  | =====  | =====   | =====    | =====            | =====           |
| 47 Bis(2-Chloroethoxy)methane  | 93        | 6.193  | 6.193  | (0.956) | 779120   | 160.000          | 157.84          |
| 51 2,4-Dichlorophenol          | 162       | 6.326  | 6.326  | (0.977) | 451658   | 160.000          | 152.12          |
| 52 Benzoic Acid                | 122       | 6.289  | 6.289  | (0.971) | 318637   | 160.000          | 190.12 (AM)     |
| 53 1,2,4-Trichlorobenzene      | 180       | 6.422  | 6.422  | (0.992) | 482721   | 160.000          | 151.28          |
| 54 Naphthalene                 | 128       | 6.508  | 6.508  | (1.005) | 1689353  | 160.000          | 147.90          |
| 55 4-Chloroaniline             | 127       | 6.615  | 6.615  | (1.021) | 691428   | 160.000          | 153.60          |
| 59 Hexachlorobutadiene         | 225       | 6.754  | 6.754  | (1.043) | 251923   | 160.000          | 151.00          |
| 62 4-Chloro-3-Methylphenol     | 107       | 7.357  | 7.357  | (1.136) | 514268   | 160.000          | 157.64          |
| 65 2-Methylnaphthalene         | 142       | 7.528  | 7.528  | (1.162) | 1087055  | 160.000          | 149.19          |
| 66 1-Methylnaphthalene         | 142       | 7.710  | 7.710  | (1.191) | 1011805  | 160.000          | 148.68          |
| 67 Hexachlorocyclopentadiene   | 237       | 7.908  | 7.908  | (0.835) | 298456   | 160.000          | 165.89 (A)      |
| 69 2,4,6-Trichlorophenol       | 196       | 8.068  | 8.068  | (0.852) | 296551   | 160.000          | 158.61          |
| 70 2,4,5-Trichlorophenol       | 196       | 8.148  | 8.148  | (0.860) | 309076   | 160.000          | 156.63          |
| 73 2-Chloronaphthalene         | 162       | 8.367  | 8.367  | (0.883) | 890924   | 160.000          | 148.74          |
| 77 2-Nitroaniline              | 65        | 8.639  | 8.639  | (0.912) | 354880   | 160.000          | 166.21 (A)      |
| 80 Dimethylphthalate           | 163       | 9.072  | 9.072  | (0.958) | 1050359  | 160.000          | 160.86 (A)      |
| 82 2,6-Dinitrotoluene          | 165       | 9.200  | 9.200  | (0.971) | 249056   | 160.000          | 163.58 (A)      |
| 83 Acenaphthylene              | 152       | 9.163  | 9.163  | (0.967) | 1528533  | 160.000          | 153.91          |
| 85 3-Nitroaniline              | 138       | 9.473  | 9.473  | (1.000) | 302084   | 160.000          | 165.47 (A)      |
| 86 Acenaphthene                | 153       | 9.542  | 9.542  | (1.007) | 953842   | 160.000          | 154.53          |
| 87 2,4-Dinitrophenol           | 184       | 9.686  | 9.686  | (1.023) | 150544   | 160.000          | 212.70 (A)      |
| 89 4-Nitrophenol               | 109       | 9.905  | 9.905  | (1.046) | 158604   | 160.000          | 175.32 (A)      |
| 90 Dibenzofuran                | 168       | 9.879  | 9.879  | (1.043) | 1306761  | 160.000          | 153.15          |
| 91 2,4-Dinitrotoluene          | 165       | 10.012 | 10.012 | (1.057) | 337926   | 160.000          | 166.66 (A)      |
| 95 2,3,5,6-Tetrachlorophenol   | 232       | 10.167 | 10.167 | (1.073) | 227278   | 160.000          | 168.21 (A)      |
| 92 2,3,4,6-Tetrachlorophenol   | 232       | 10.263 | 10.263 | (1.083) | 217874   | 160.000          | 161.22 (A)      |
| 96 2-Naphthylamine             | 143       | 10.231 | 10.231 | (1.080) | 759237   | 160.000          | 135.66          |
| 97 Diethylphthalate            | 149       | 10.595 | 10.595 | (1.118) | 1028659  | 160.000          | 161.17 (A)      |
| 98 Fluorene                    | 166       | 10.627 | 10.627 | (1.122) | 1012850  | 160.000          | 150.64          |
| 99 4-Chlorophenyl phenylether  | 204       | 10.664 | 10.664 | (1.126) | 477040   | 160.000          | 154.02          |
| 100 1-Nitroaniline             | 138       | 10.819 | 10.819 | (1.142) | 308609   | 160.000          | 169.63 (A)      |
| 102 4,6-Dinitro-2-methylphenol | 198       | 10.910 | 10.910 | (0.855) | 209287   | 160.000          | 177.04 (A)      |
| 103 N-Nitrosodiphenylamine (1) | 169       | 10.963 | 10.963 | (0.859) | 772207   | 160.000          | 151.76          |
| 104 1,2-Diphenylhydrazine      | 77        | 11.017 | 11.017 | (0.863) | 1369340  | 160.000          | 155.44          |
| 112 4-Bromophenyl phenylether  | 248       | 11.765 | 11.765 | (0.922) | 267175   | 160.000          | 151.45          |
| 113 Hexachlorobenzene          | 284       | 12.064 | 12.064 | (0.945) | 280389   | 160.000          | 152.00          |
| 117 Pentachlorophenol          | 266       | 12.518 | 12.518 | (0.981) | 178559   | 160.000          | 186.47 (AM)     |
| 122 Phenanthrene               | 178       | 12.828 | 12.828 | (1.005) | 1421853  | 160.000          | 148.89          |
| 123 Anthracene                 | 178       | 12.934 | 12.934 | (1.013) | 1474916  | 160.000          | 150.27          |
| 126 Carbazole                  | 167       | 13.383 | 13.383 | (1.049) | 1427014  | 160.000          | 154.83          |
| 130 Di-n-Butylphthalate        | 149       | 14.516 | 14.516 | (1.137) | 1784152  | 160.000          | 156.52          |
| 135 Fluoranthene               | 202       | 15.755 | 15.755 | (1.234) | 1500194  | 160.000          | 154.66          |
| 136 Benzidine                  | 184       | 16.188 | 16.188 | (0.835) | 853490   | 160.000          | 157.48          |
| 137 Pyrene                     | 202       | 16.295 | 16.295 | (0.840) | 1547924  | 160.000          | 154.37          |
| 144 Butylbenzylphthalate       | 149       | 18.245 | 18.245 | (0.941) | 935323   | 160.000          | 155.87          |
| 149 3,3'-Dichlorobenzidine     | 252       | 19.409 | 19.409 | (1.001) | 649262   | 160.000          | 157.56          |
| 150 Benzo(a)Anthracene         | 228       | 19.356 | 19.356 | (0.998) | 1618270  | 160.000          | 160.28 (A)      |

Data File: \\QPITPA02\D\chem\71.i\s060100.b\S0601CC5.D  
Report Date: 01-Jun-2000 13:11

Page 3

| Compounds                         | QUANT SIG<br>MASS | RT     | EXP RT | REL RT  | RESPONSE | AMOUNTS          |                 |
|-----------------------------------|-------------------|--------|--------|---------|----------|------------------|-----------------|
|                                   |                   |        |        |         |          | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| 151 Chrysene                      | 228               | 19.463 | 19.463 | (1.004) | 1495895  | 160.000          | 156.96          |
| 153 bis(2-ethylhexyl)Phthalate    | 149               | 19.815 | 19.815 | (1.022) | 1433439  | 160.000          | 141.85          |
| 155 Di-n-octylphthalate           | 149               | 21.295 | 21.295 | (0.936) | 2794665  | 160.000          | 126.42          |
| 157 Benzo(k)fluoranthene          | 252               | 21.957 | 21.957 | (0.965) | 2368727  | 160.000          | 166.52 (A)      |
| 158 Benzo(k)fluoranthene          | 252               | 22.027 | 22.027 | (0.968) | 1587317  | 160.000          | 120.83          |
| 159 7,12-dimethylbenz[a]anthracen | 256               | 22.016 | 22.016 | (0.968) | 816804   | 160.000          | 140.84          |
| 161 Benzo(a)pyrene                | 252               | 22.641 | 22.641 | (0.995) | 1998943  | 160.000          | 147.90          |
| 169 Indeno(1,2,3-cd)pyrene        | 276               | 25.008 | 25.008 | (1.099) | 2942439  | 160.000          | 149.99          |
| 170 Di-benz(a,h)anthracene        | 278               | 25.056 | 25.056 | (1.101) | 2413482  | 160.000          | 143.66          |
| 171 Benzo(g,h,i)perylene          | 276               | 25.601 | 25.601 | (1.125) | 2618062  | 160.000          | 153.02          |
| \$ 172 Nitrobenzene-d5            | 82                | 5.616  | 5.616  | (0.867) | 707773   | 160.000          | 159.04          |
| \$ 173 2-Fluorobiphenyl           | 172               | 8.201  | 8.201  | (0.866) | 1060286  | 160.000          | 153.07          |
| \$ 174 Tetraphenyl-d14            | 244               | 16.829 | 16.829 | (0.868) | 1193728  | 160.000          | 157.02          |
| \$ 175 Phenol-d5                  | 99                | 4.681  | 4.681  | (0.944) | 714692   | 160.000          | 144.52          |
| \$ 176 2-Fluorophenol             | 112               | 3.655  | 3.655  | (0.737) | 602765   | 160.000          | 152.52          |
| \$ 177 2,4,6-Tribromophenol       | 330               | 11.214 | 11.214 | (0.879) | 154830   | 160.000          | 158.16          |
| \$ 178 2-Chlorophenol-d4          | 132               | 4.766  | 4.766  | (0.961) | 536015   | 160.000          | 148.07          |
| \$ 179 1,2-Dichlorobenzene-d4     | 152               | 5.167  | 5.167  | (1.042) | 351196   | 160.000          | 143.48          |

## QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.  
M - Compound response manually integrated.

659 906

FORM 7  
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.:

SDG No.: C0E310132

Instrument ID: 71

Calibration Date: 06/06/00 Time: 0811

Lab File ID: S0606CCC

Init. Calib. Date(s): 06/01/00 06/01/00

Init. Calib. Times: 0938 1215

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

| COMPOUND                   | RRF   | RRF50 | MIN<br>RRF | %D   | MAX<br>%D |
|----------------------------|-------|-------|------------|------|-----------|
| Diethylphthalate           | 1.168 | 1.307 | 0.01       | 11.9 | 50.0      |
| 4-Chlorophenyl-phenylether | 0.567 | 0.590 | 0.01       | 4.0  | 50.0      |
| Fluorene                   | 1.230 | 1.322 | 0.01       | 7.5  | 50.0      |
| 4-Nitroaniline             | 0.333 | 0.344 | 0.01       | 3.3  | 50.0      |
| 4,6-Dinitro-2-methylphenol | 0.125 | 0.112 | 0.01       | 10.4 | 50.0      |
| N-Nitrosodiphenylamine (1) | 0.536 | 0.529 | 0.01       | 1.3  | 20.0      |
| 4-Bromophenyl-phenylether  | 0.186 | 0.173 | 0.01       | 7.0  | 50.0      |
| Hexachlorobenzene          | 0.194 | 0.186 | 0.01       | 4.1  | 50.0      |
| Pentachlorophenol          | 0.101 | 0.092 | 0.01       | 8.9  | 20.0      |
| Phenanthrene               | 1.005 | 1.055 | 0.01       | 5.0  | 50.0      |
| Anthracene                 | 1.033 | 1.074 | 0.01       | 4.0  | 50.0      |
| Carbazole                  | 0.970 | 1.051 | 0.01       | 8.4  | 50.0      |
| Di-n-Butylphthalate        | 1.200 | 1.254 | 0.01       | 4.5  | 50.0      |
| Fluoranthene               | 1.021 | 1.173 | 0.01       | 14.9 | 20.0      |
| Pyrene                     | 1.132 | 1.101 | 0.01       | 2.7  | 50.0      |
| Butylbenzylphthalate       | 0.677 | 0.602 | 0.01       | 11.1 | 50.0      |
| 3,3'-Dichlorobenzidine     | 0.465 | 0.446 | 0.01       | 4.1  | 50.0      |
| Benzo(a)Anthracene         | 1.140 | 1.118 | 0.01       | 1.9  | 50.0      |
| Chrysene                   | 1.076 | 1.086 | 0.01       | 0.9  | 50.0      |
| bis(2-ethylhexyl)Phthalate | 1.141 | 0.878 | 0.01       | 23.0 | 50.0      |
| Di-n-octylphthalate        | 1.672 | 1.354 | 0.01       | 19.0 | 20.0      |
| Benzo(b)fluoranthene       | 1.075 | 1.100 | 0.01       | 2.3  | 50.0      |
| Benzo(k)fluoranthene       | 0.993 | 1.121 | 0.01       | 12.9 | 50.0      |
| Benzo(a)pyrene             | 1.022 | 1.051 | 0.01       | 2.8  | 20.0      |
| Indeno(1,2,3-cd)pyrene     | 1.483 | 1.428 | 0.01       | 3.7  | 50.0      |
| Dibenz(a,h)anthracene      | 1.270 | 1.240 | 0.01       | 2.4  | 50.0      |
| Benzo(g,h,i)perylene       | 1.294 | 1.247 | 0.01       | 3.6  | 50.0      |
| Pyridine                   | 1.623 | 1.386 | 0.01       | 14.6 | 50.0      |
| N-Nitrosodimethylamine     | 0.895 | 0.771 | 0.01       | 13.8 | 50.0      |
| Aniline                    | 2.403 | 2.422 | 0.01       | 0.8  | 50.0      |
| Benzyl Alcohol             | 1.002 | 0.959 | 0.01       | 4.3  | 50.0      |
| Benzoic Acid               | 0.152 | 0.156 | 0.01       | 2.6  | 50.0      |
| 1-Methylnaphthalene        | 0.619 | 0.660 | 0.01       | 6.6  | 50.0      |
| 2,3,4,6-Tetrachlorophenol  | 0.247 | 0.268 | 0.01       | 8.5  | 50.0      |
| 2,3,5,6-Tetrachlorophenol  | 0.247 | 0.258 | 0.01       | 4.4  | 50.0      |
| 1,2-Diphenylhydrazine      | 0.928 | 0.941 | 0.01       | 1.4  | 50.0      |
| Benzidine                  | 0.612 | 0.536 | 0.01       | 12.4 | 50.0      |

FORM 7  
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL-PITTSBURGH Contract:

Lab Code: STLPIT Case No.: SAS No.: SDG No.: COE310132

Instrument ID: 71 Calibration Date: 06/06/00 Time: 0811

Lab File ID: S0606CCC Init. Calib. Date(s): 06/01/00 06/01/00

Init. Calib. Times: 0938 1215

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

| COMPOUND                       | RRF   | RRF50 | MIN<br>RRF | %D   | MAX<br>%D |
|--------------------------------|-------|-------|------------|------|-----------|
| Methyl methanesulfonate        | 0.811 | 0.768 | 0.01       | 5.3  | 50.0      |
| 2-Naphthylamine                | 1.024 | 1.124 | 0.01       | 9.8  | 50.0      |
| 7,12-dimethylbenz [a] anthrace | 0.439 | 0.489 | 0.01       | 11.4 | 50.0      |
| Nitrobenzene-d5                | 0.404 | 0.427 | 0.01       | 5.7  | 50.0      |
| 2-Fluorobiphenyl               | 1.267 | 1.274 | 0.01       | 0.6  | 50.0      |
| Terphenyl-d14                  | 0.858 | 0.831 | 0.01       | 3.1  | 50.0      |
| Phenol-d5                      | 1.711 | 1.778 | 0.01       | 3.9  | 50.0      |
| 2-Fluorophenol                 | 1.368 | 1.333 | 0.01       | 2.6  | 50.0      |
| 2,4,6-Tribromophenol           | 0.103 | 0.090 | 0.01       | 12.6 | 50.0      |
| 2-Chlorophenol-d4              | 1.253 | 1.260 | 0.01       | 0.6  | 50.0      |
| 1,2-Dichlorobenzene-d4         | 0.847 | 0.905 | 0.01       | 6.8  | 50.0      |



659 908

FORM 7  
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.:

SDG No.: C0E310132

Instrument ID: 71

Calibration Date: 06/06/00

Time: 0811

Lab File ID: S0606CCC

Init. Calib. Date(s): 06/01/00

06/01/00

Init. Calib. Times: 0938

1215

GC Column: HP5-MS

ID: 0.25 (mm)

| COMPOUND                     | RRF   | RRF50 | MIN<br>RRF | %D   | MAX<br>%D |
|------------------------------|-------|-------|------------|------|-----------|
| Phenol                       | 1.979 | 2.018 | 0.01       | 2.0  | 20.0      |
| bis(2-Chloroethyl) ether     | 1.579 | 1.578 | 0.01       | 0.1  | 50.0      |
| 2-Chlorophenol               | 1.389 | 1.378 | 0.01       | 0.8  | 50.0      |
| 1,3-Dichlorobenzene          | 1.532 | 1.571 | 0.01       | 2.5  | 50.0      |
| 1,4-Dichlorobenzene          | 1.541 | 1.600 | 0.01       | 3.8  | 20.0      |
| 1,2-Dichlorobenzene          | 1.405 | 1.474 | 0.01       | 4.9  | 50.0      |
| 2-Methylphenol               | 1.276 | 1.303 | 0.01       | 2.1  | 50.0      |
| 2,2'-oxybis(1-Chloropropane) | 1.999 | 2.376 | 0.01       | 18.8 | 50.0      |
| 4-Methylphenol               | 1.346 | 1.359 | 0.01       | 1.0  | 50.0      |
| Hexachloroethane             | 0.609 | 0.625 | 0.01       | 2.6  | 50.0      |
| Nitrobenzene                 | 0.437 | 0.468 | 0.01       | 7.1  | 50.0      |
| Isophorone                   | 0.689 | 0.705 | 0.01       | 2.3  | 50.0      |
| 2-Nitrophenol                | 0.197 | 0.183 | 0.01       | 7.1  | 20.0      |
| 2,4-Dimethylphenol           | 0.349 | 0.360 | 0.01       | 3.2  | 50.0      |
| bis(2-Chloroethoxy) methane  | 0.448 | 0.454 | 0.01       | 1.3  | 50.0      |
| N-Nitroso-di-n-propylamine   | 1.070 | 1.120 | 0.05       | 4.7  | 50.0      |
| 2,4-Dichlorophenol           | 0.270 | 0.270 | 0.01       | 0.0  | 20.0      |
| 1,2,4-Trichlorobenzene       | 0.290 | 0.298 | 0.01       | 2.8  | 50.0      |
| Naphthalene                  | 1.038 | 1.094 | 0.01       | 5.4  | 50.0      |
| 4-Chloroaniline              | 0.409 | 0.413 | 0.01       | 1.0  | 50.0      |
| Hexachlorobutadiene          | 0.152 | 0.158 | 0.01       | 3.9  | 20.0      |
| 4-Chloro-3-Methylphenol      | 0.297 | 0.298 | 0.01       | 0.3  | 20.0      |
| 2-Methylnaphthalene          | 0.662 | 0.692 | 0.01       | 4.5  | 50.0      |
| Hexachlorocyclopentadiene    | 0.329 | 0.286 | 0.05       | 13.1 | 50.0      |
| 2,4,6-Trichlorophenol        | 0.342 | 0.320 | 0.01       | 6.4  | 20.0      |
| 2,4,5-Trichlorophenol        | 0.361 | 0.341 | 0.01       | 5.5  | 50.0      |
| 2-Chloronaphthalene          | 1.096 | 1.132 | 0.01       | 3.3  | 50.0      |
| 2-Nitroaniline               | 0.391 | 0.400 | 0.01       | 2.3  | 50.0      |
| Dimethylphthalate            | 1.206 | 1.277 | 0.01       | 5.9  | 50.0      |
| Acenaphthylene               | 1.817 | 1.804 | 0.01       | 0.7  | 50.0      |
| 2,6-Dinitrotoluene           | 0.279 | 0.278 | 0.01       | 0.4  | 50.0      |
| 3-Nitroaniline               | 0.334 | 0.329 | 0.01       | 1.5  | 50.0      |
| Acenaphthene                 | 1.129 | 1.156 | 0.01       | 2.4  | 20.0      |
| 2,4-Dinitrophenol            | 0.129 | 0.131 | 0.05       | 1.6  | 50.0      |
| 4-Nitrophenol                | 0.166 | 0.179 | 0.05       | 7.8  | 50.0      |
| Dibenzofuran                 | 1.561 | 1.623 | 0.01       | 4.0  | 50.0      |
| 2,4-Dinitrotoluene           | 0.371 | 0.387 | 0.01       | 4.3  | 50.0      |

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: 71.i  
Lab File ID: S0606CCC.D  
Analysis Type: NONE

Injection Date: 06-JUN-2000 08:11  
Lab Sample ID: sstd50  
Method File: \\QPITPA02\D\chem\71.i\s060600.b\8270clp

| COMPOUND                       | EXPECTED<br>CONC. | MEASURED<br>CONC. | %D   | MAX<br>%D |
|--------------------------------|-------------------|-------------------|------|-----------|
| 67 N-Nitrosodimethylamine      | 50.0000           | 43.0706           | 13.9 | 50.0      |
| 66 Pyridine                    | 50.0000           | 42.6967           | 14.6 | 50.0      |
| 87 Methyl methanesulfonate     | 50.0000           | 47.3566           | 5.3  | 50.0      |
| 185 2-Fluorophenol             | 50.0000           | 48.7307           | 2.5  | 50.0      |
| 68 Aniline                     | 50.0000           | 50.3914           | 0.8  | 50.0      |
| 184 Phenol-d5                  | 50.0000           | 51.9474           | 3.9  | 50.0      |
| 1 Phenol                       | 50.0000           | 50.9995           | 2.0  | 20.0      |
| 2 bis(2-Chloroethyl)ether      | 50.0000           | 49.9463           | 0.1  | 50.0      |
| 187 2-Chlorophenol-d4          | 50.0000           | 50.2846           | 0.6  | 50.0      |
| 3 2-Chlorophenol               | 50.0000           | 49.5787           | 0.8  | 50.0      |
| 4 1,3-Dichlorobenzene          | 50.0000           | 51.2513           | 2.5  | 50.0      |
| 11 1,4-Dichlorobenzene-d4      | 40.0000           | 40.0000           | 0.0  | 50.0      |
| 5 1,4-Dichlorobenzene          | 50.0000           | 51.9072           | 3.8  | 20.0      |
| 69 Benzyl Alcohol              | 50.0000           | 47.8366           | 4.3  | 50.0      |
| 188 1,2-Dichlorobenzene-d4     | 50.0000           | 53.4512           | 6.9  | 50.0      |
| 6 1,2-Dichlorobenzene          | 50.0000           | 52.4392           | 4.9  | 50.0      |
| 7 2-Methylphenol               | 50.0000           | 51.0399           | 2.1  | 50.0      |
| 8 2,2'-oxybis(1-Chloropropane) | 50.0000           | 59.4536           | 18.9 | 50.0      |
| 9 4-Methylphenol               | 50.0000           | 50.4778           | 1.0  | 50.0      |
| 18 N-Nitroso-di-n-propylamine  | 50.0000           | 52.3377           | 4.7  | 50.0      |
| 12 Hexachloroethane            | 50.0000           | 51.2956           | 2.6  | 50.0      |
| 181 Nitrobenzene-d5            | 50.0000           | 52.8392           | 5.7  | 50.0      |
| 13 Nitrobenzene                | 50.0000           | 53.5478           | 7.1  | 50.0      |
| 14 Isophorone                  | 50.0000           | 51.1235           | 2.2  | 50.0      |
| 15 2-Nitrophenol               | 50.0000           | 46.4159           | 7.2  | 20.0      |
| 16 2,4-Dimethylphenol          | 50.0000           | 51.6336           | 3.3  | 50.0      |
| 17 bis(2-Chloroethoxy)methane  | 50.0000           | 50.6124           | 1.2  | 50.0      |
| 71 Benzoic Acid                | 50.0000           | 51.2168           | 2.4  | 50.0      |
| 18 2,4-Dichlorophenol          | 50.0000           | 49.9610           | 0.1  | 20.0      |
| 19 1,2,4-Trichlorobenzene      | 50.0000           | 51.4663           | 2.9  | 50.0      |
| 32 Naphthalene-d8              | 40.0000           | 40.0000           | 0.0  | 50.0      |
| 20 Naphthalene                 | 50.0000           | 52.6681           | 5.3  | 50.0      |
| 21 4-Chloroaniline             | 50.0000           | 50.4433           | 0.9  | 50.0      |
| 22 Hexachlorobutadiene         | 50.0000           | 52.2957           | 4.6  | 20.0      |
| 23 4-Chloro-3-Methylphenol     | 50.0000           | 50.3121           | 0.6  | 20.0      |
| 24 2-Methylnaphthalene         | 50.0000           | 52.2623           | 4.5  | 50.0      |
| 72 1-Methylnaphthalene         | 50.0000           | 53.3391           | 6.7  | 50.0      |
| 25 Hexachlorocyclopentadiene   | 50.0000           | 43.4404           | 13.1 | 50.0      |
| 26 2,4,6-Trichlorophenol       | 50.0000           | 46.8483           | 6.3  | 20.0      |

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: 71.i  
Lab File ID: S0606CCC.D  
Analysis Type: NONE

Injection Date: 06-JUN-2000 08:11  
Lab Sample ID: sstd50  
Method File: \\QPITPA02\D\chem\71.i\s060600.b\

| COMPOUND                      | EXPECTED<br>CONC | MEASURED<br>CONC | %D   | MAX<br>%D |
|-------------------------------|------------------|------------------|------|-----------|
| 27 2,4,5-Trichlorophenol      | 50.0000          | 47.2164          | 5.6  | 50.0      |
| 182 2-Fluorobiphenyl          | 50.0000          | 50.2645          | 0.5  | 50.0      |
| 28 2-Chloronaphthalene        | 50.0000          | 51.6392          | 3.3  | 50.0      |
| 29 2-Nitroaniline             | 50.0000          | 51.1324          | 2.3  | 50.0      |
| 30 Dimethylphthalate          | 50.0000          | 52.9364          | 5.9  | 50.0      |
| 31 Acenaphthylene             | 50.0000          | 49.6468          | 0.7  | 50.0      |
| 32 2,6-Dinitrotoluene         | 50.0000          | 49.8911          | 0.2  | 50.0      |
| 33 3-Nitroaniline             | 50.0000          | 49.3087          | 1.4  | 50.0      |
| 52 Acenaphthene-d10           | 40.0000          | 40.0000          | 0.0  | 50.0      |
| 34 Acenaphthene               | 50.0000          | 51.1869          | 2.4  | 20.0      |
| 35 2,4-Dinitrophenol          | 50.0000          | 50.6057          | 1.2  | 50.0      |
| 37 Dibenzofuran               | 50.0000          | 51.9795          | 4.0  | 50.0      |
| 36 4-Nitrophenol              | 50.0000          | 54.0468          | 8.1  | 50.0      |
| 38 2,4-Dinitrotoluene         | 50.0000          | 52.2185          | 4.4  | 50.0      |
| 77 2,3,5,6-Tetrachlorophenol  | 50.0000          | 52.1853          | 4.4  | 50.0      |
| 114 2-Naphthylamine           | 50.0000          | 54.8883          | 9.8  | 50.0      |
| 76 2,3,4,6-Tetrachlorophenol  | 50.0000          | 54.1101          | 8.2  | 50.0      |
| 39 Diethylphthalate           | 50.0000          | 55.9484          | 11.9 | 50.0      |
| 41 Fluorene                   | 50.0000          | 53.7471          | 7.5  | 50.0      |
| 40 4-Chlorophenyl-phenylether | 50.0000          | 52.0249          | 4.0  | 50.0      |
| 42 4-Nitroaniline             | 50.0000          | 51.6264          | 3.3  | 50.0      |
| 43 4,6-Dinitro-2-methylphenol | 50.0000          | 44.8822          | 10.2 | 50.0      |
| 44 N-Nitrosodiphenylamine (1) | 50.0000          | 49.3595          | 1.3  | 20.0      |
| 78 1,2-Diphenylhydrazine      | 50.0000          | 50.7428          | 1.5  | 50.0      |
| 186 2,4,6-Tribromophenol      | 50.0000          | 43.9447          | 12.1 | 50.0      |
| 45 4-Bromophenyl-phenylether  | 50.0000          | 46.6553          | 6.7  | 50.0      |
| 46 Hexachlorobenzene          | 50.0000          | 47.7723          | 4.5  | 50.0      |
| 47 Pentachlorophenol          | 50.0000          | 45.8612          | 8.3  | 20.0      |
| 78 Phenanthrene-d10           | 40.0000          | 40.0000          | 0.0  | 50.0      |
| 48 Phenanthrene               | 50.0000          | 52.4873          | 5.0  | 50.0      |
| 49 Anthracene                 | 50.0000          | 51.9786          | 4.0  | 50.0      |
| 50 Carbazole                  | 50.0000          | 54.1628          | 8.3  | 50.0      |
| 51 Di-n-Butylphthalate        | 50.0000          | 52.2301          | 4.5  | 50.0      |
| 52 Fluoranthene               | 50.0000          | 57.4169          | 14.8 | 20.0      |
| 79 Benzidine                  | 50.0000          | 43.7691          | 12.5 | 50.0      |
| 53 Pyrene                     | 50.0000          | 48.6460          | 2.7  | 50.0      |
| 183 Terphenyl-d14             | 50.0000          | 48.4247          | 3.2  | 50.0      |
| 54 Butylbenzylphthalate       | 50.0000          | 44.4757          | 11.0 | 50.0      |
| 56 Benzo(a)Anthracene         | 50.0000          | 49.0540          | 1.9  | 50.0      |

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: 71.i  
Lab File ID: S0606CCC.D  
Analysis Type: NONE

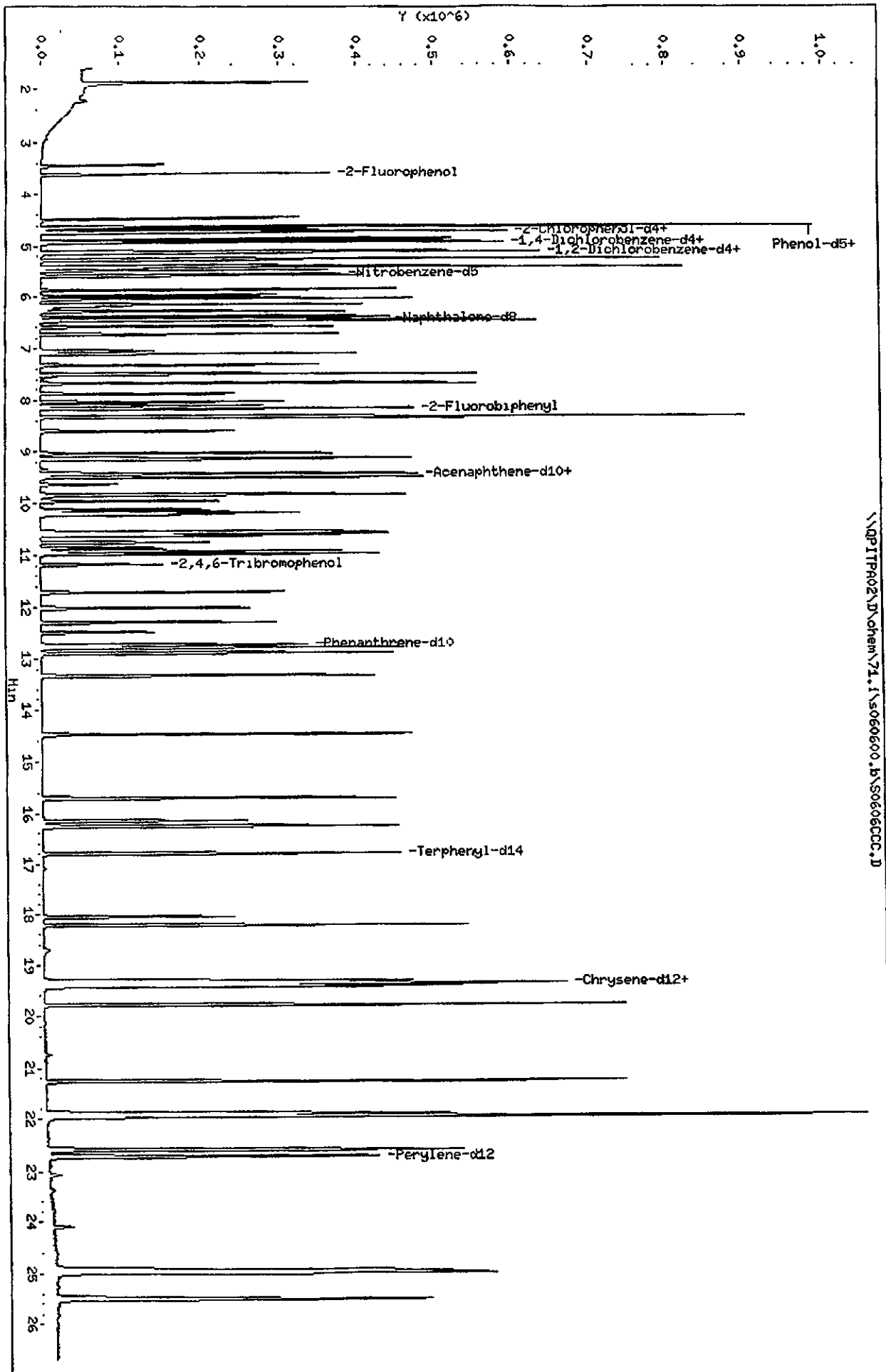
Injection Date: 06-JUN-2000 08:11  
Lab Sample ID: sstd50  
Method File: \\QPITPA02\D\chem\71.i\s060600.b\

| COMPOUND                           | EXPECTED<br>CONC. | MEASURED<br>CONC. | %D    | MAX<br>%D |
|------------------------------------|-------------------|-------------------|-------|-----------|
| -----                              | -----             | -----             | ----- | -----     |
| 90 Chrysene-d12                    | 40.0000           | 40.0000           | 0.0   | 50.0      |
| 55 3,3'-Dichlorobenzidine          | 50.0000           | 47.9252           | 4.1   | 50.0      |
| 57 Chrysene                        | 50.0000           | 50.4567           | 0.9   | 50.0      |
| 58 bis(2-ethylhexyl)Phthalate      | 50.0000           | 38.4741           | 23.1  | 50.0      |
| 59 Di-n-octylphthalate             | 50.0000           | 40.4936           | 19.0  | 20.0      |
| 60 Benzo(b)fluoranthene            | 50.0000           | 51.1613           | 2.3   | 50.0      |
| 61 Benzo(k)fluoranthene            | 50.0000           | 56.4358           | 12.9  | 50.0      |
| 143 7,12-dimethylbenz(a)anthracene | 50.0000           | 55.7416           | 11.5  | 50.0      |
| 62 Benzo(a)pyrene                  | 50.0000           | 51.4440           | 2.9   | 20.0      |
| 101 Perylene-d12                   | 40.0000           | 40.0000           | 0.0   | 50.0      |
| 63 Indeno(1,2,3-cd)pyrene          | 50.0000           | 48.1443           | 3.7   | 50.0      |
| 64 Dibenzo(a,h)anthracene          | 50.0000           | 48.8240           | 2.4   | 50.0      |
| 65 Benzo(g,h,i)perylene            | 50.0000           | 48.1855           | 3.6   | 50.0      |

216 659

Data File: \\QPITP02\J\chem\71.1\5060600.b\50606000.D  
Date : 06-JUN-2000 08:11  
Client ID: sstd050  
Sample Info: sstd050(25 ug/ml) 194-177-7 8270  
Column Phase: Hp5-MS

Instrument: 71.1  
Operator: 045183  
Column diameter: 0.25



Data File: \\QPITPA02\D\chem\71.i\s060600.b\S0606CCC.D  
Report Date: 06-Jun-2000 09:06

## STL Pittsburgh

## Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\71.i\s060600.b\S0606CCC.D  
Lab Smp Id: sstd50 Client Smp ID: sstd050  
Inj Date : 06-JUN-2000 08:11  
Operator : 045183 Inst ID: 71.i  
Smp Info : sstd50(25 ug/ml) 194-177-7 8270  
Misc Info : sstd50,s060600.b,8270clp.m,1-82701.sub,2,2  
Comment :  
Method : \\QPITPA02\D\chem\71.i\s060600.b\8270clp.m  
Meth Date : 06-Jun-2000 08:41 bachas Quant Type: ISTD  
Cal Date : 01-JUN-2000 12:15 Cal File: S0601CC5.D  
Als bottle: 2 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 1-82701.sub  
Target Version: 4.04  
Processing Host: PITPC050

## AMOUNTS

| Compounds                       | QUANT SIG | RT     | EXP RT | REL RT  | RESPONSE | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
|---------------------------------|-----------|--------|--------|---------|----------|------------------|-----------------|
| =====                           | ----      | ==     | =====  | =====   | =====    | =====            | =====           |
| * 1 1,4-Dichlorobenzene-d4      | 152       | 4.934  | 4.934  | (1.000) | 73946    | 40.0000          |                 |
| * 2 Naphthalene-d8              | 136       | 6.446  | 6.446  | (1.000) | 281731   | 40.0000          |                 |
| * 3 Acenaphthene-d10            | 164       | 9.443  | 9.443  | (1.000) | 150447   | 40.0000          |                 |
| * 4 Phenanthrene-d10            | 188       | 12.728 | 12.728 | (1.000) | 276309   | 40.0000          |                 |
| * 5 Chrysene-d12                | 240       | 19.347 | 19.347 | (1.000) | 314156   | 40.0000          |                 |
| * 6 Perylene-d12                | 264       | 22.702 | 22.702 | (1.000) | 386487   | 40.0000          |                 |
| 13 N-Nitrosodimethylamine       | 74        | 1.868  | 1.868  | (0.379) | 71243    | 50.0000          | 43.071          |
| 10 Pyridine                     | 79        | 1.868  | 1.868  | (0.379) | 128144   | 50.0000          | 42.697 (M)      |
| 19 Methyl methanesulfonate      | 80        | 3.449  | 3.449  | (0.699) | 71027    | 50.0000          | 47.356          |
| 22 Aniline                      | 93        | 4.640  | 4.640  | (0.940) | 223869   | 50.0000          | 50.391          |
| 23 Phenol                       | 94        | 4.656  | 4.656  | (0.944) | 186574   | 50.0000          | 50.999          |
| 24 bis(2-Chloroethyl)ether      | 93        | 4.710  | 4.710  | (0.955) | 145831   | 50.0000          | 49.946          |
| 25 2-Chlorophenol               | 128       | 4.758  | 4.758  | (0.964) | 127337   | 50.0000          | 49.579          |
| 27 1,3-Dichlorobenzene          | 146       | 4.891  | 4.891  | (0.991) | 145189   | 50.0000          | 51.251          |
| 28 1,4-Dichlorobenzene          | 146       | 4.950  | 4.950  | (1.003) | 147846   | 50.0000          | 51.907          |
| 29 1,2-Dichlorobenzene          | 146       | 5.153  | 5.153  | (1.044) | 136232   | 50.0000          | 52.439          |
| 30 Benzyl Alcohol               | 108       | 5.121  | 5.121  | (1.038) | 88626    | 50.0000          | 47.836 (M)      |
| 31 2-Methylphenol               | 108       | 5.276  | 5.276  | (1.069) | 120420   | 50.0000          | 51.040          |
| 32 2,2'-oxybis(1-Chloropropane) | 45        | 5.287  | 5.287  | (1.071) | 219660   | 50.0000          | 59.454          |
| 33 N-Nitroso-di-n-propylamine   | 70        | 5.442  | 5.442  | (1.103) | 103575   | 50.0000          | 52.338          |
| 35 4-Methylphenol               | 108       | 5.436  | 5.436  | (1.102) | 125635   | 50.0000          | 50.478          |
| 38 Hexachloroethane             | 117       | 5.495  | 5.495  | (1.114) | 57764    | 50.0000          | 51.296          |
| 39 Nitrobenzene                 | 77        | 5.602  | 5.602  | (0.869) | 164959   | 50.0000          | 53.548          |
| 44 Isophorone                   | 82        | 5.874  | 5.874  | (0.911) | 248171   | 50.0000          | 51.123          |
| 45 2-Nitrophenol                | 139       | 5.986  | 5.986  | (0.929) | 64318    | 50.0000          | 46.416          |
| 46 2,4-Dimethylphenol           | 107       | 6.051  | 6.051  | (0.939) | 126893   | 50.0000          | 51.634          |

| Compounds                      | QUANT SIG | AMOUNTS |        |         |        |          |                  |
|--------------------------------|-----------|---------|--------|---------|--------|----------|------------------|
|                                |           | MASS    | RT     | EXP RT  | REL RT | RESPONSE | CAL-AMT<br>( ng) |
| 47 bis (2-Chloroethoxy)methane | 93        | 6.163   | 6.163  | (0.956) | 159925 | 50.0000  | 50.612           |
| 51 2,4-Dichlorophenol          | 162       | 6.291   | 6.291  | (0.976) | 94957  | 50.0000  | 49.961           |
| 52 Benzoic Acid                | 122       | 6.200   | 6.200  | (0.962) | 54948  | 50.0000  | 51.217 (M)       |
| 53 1,2,4-Trichlorobenzene      | 180       | 6.392   | 6.392  | (0.992) | 105126 | 50.0000  | 51.466           |
| 54 Naphthalene                 | 128       | 6.473   | 6.473  | (1.004) | 385098 | 50.0000  | 52.668           |
| 55 4-Chloroaniline             | 127       | 6.585   | 6.585  | (1.022) | 145352 | 50.0000  | 50.443           |
| 59 Hexachlorobutadiene         | 225       | 6.729   | 6.729  | (1.044) | 55852  | 50.0000  | 52.296           |
| 62 4-Chloro-3-Methylphenol     | 107       | 7.317   | 7.317  | (1.135) | 105071 | 50.0000  | 50.312           |
| 65 2-Methylnaphthalene         | 142       | 7.498   | 7.498  | (1.163) | 243762 | 50.0000  | 52.262           |
| 66 1-Methylnaphthalene         | 142       | 7.675   | 7.675  | (1.191) | 232368 | 50.0000  | 53.339           |
| 67 Hexachlorocyclopentadiene   | 237       | 7.878   | 7.878  | (0.834) | 53782  | 50.0000  | 43.440           |
| 69 2,4,6-Trichlorophenol       | 196       | 8.032   | 8.032  | (0.851) | 60278  | 50.0000  | 46.848           |
| 70 2,4,5-Trichlorophenol       | 196       | 8.107   | 8.107  | (0.859) | 64118  | 50.0000  | 47.216           |
| 73 2-Chloronaphthalene         | 162       | 8.332   | 8.332  | (0.882) | 212850 | 50.0000  | 51.639           |
| 77 2-Nitroaniline              | 65        | 8.599   | 8.599  | (0.911) | 75130  | 50.0000  | 51.132           |
| 80 Dimethylphthalate           | 163       | 9.031   | 9.031  | (0.956) | 240129 | 50.0000  | 52.936           |
| 82 2,6-Dinitrotoluene          | 165       | 9.154   | 9.154  | (0.969) | 52272  | 50.0000  | 49.891           |
| 83 Acenaphthylene              | 152       | 9.128   | 9.128  | (0.967) | 339305 | 50.0000  | 49.647           |
| 85 3-Nitroaniline              | 138       | 9.427   | 9.427  | (0.998) | 61945  | 50.0000  | 49.309           |
| 86 Acenaphthene                | 153       | 9.502   | 9.502  | (1.006) | 217424 | 50.0000  | 51.187           |
| 87 2,4-Dinitrophenol           | 184       | 9.640   | 9.640  | (1.021) | 24648  | 50.0000  | 50.606           |
| 89 4-Nitrophenol               | 109       | 9.854   | 9.854  | (1.044) | 33647  | 50.0000  | 54.047           |
| 90 Dibenzofuran                | 168       | 9.838   | 9.838  | (1.042) | 305212 | 50.0000  | 51.979           |
| 91 2,4-Dinitrotoluene          | 165       | 9.966   | 9.966  | (1.055) | 72864  | 50.0000  | 52.218           |
| 95 2,3,5,6-Tetrachlorophenol   | 232       | 10.127  | 10.127 | (1.072) | 48523  | 50.0000  | 52.185           |
| 92 2,3,4,6-Tetrachlorophenol   | 232       | 10.223  | 10.223 | (1.083) | 50321  | 50.0000  | 54.110           |
| 96 2-Naphthylamine             | 143       | 10.185  | 10.185 | (1.079) | 211398 | 50.0000  | 54.888           |
| 97 Diethylphthalate            | 149       | 10.554  | 10.554 | (1.118) | 245735 | 50.0000  | 55.948           |
| 98 Fluorene                    | 166       | 10.581  | 10.581 | (1.120) | 248676 | 50.0000  | 53.747           |
| 99 4-Chlorophenyl-phenylether  | 204       | 10.623  | 10.623 | (1.125) | 110883 | 50.0000  | 52.025           |
| 100 4-Nitroaniline             | 138       | 10.752  | 10.752 | (1.139) | 64634  | 50.0000  | 51.626           |
| 102 4,6-Dinitro-2-methylphenol | 198       | 10.848  | 10.848 | (0.852) | 38584  | 50.0000  | 44.882           |
| 103 N-Nitrosodiphenylamine (1) | 169       | 10.917  | 10.917 | (0.858) | 182644 | 50.0000  | 49.360           |
| 104 1,2-Diphenylhydrazine      | 77        | 10.971  | 10.971 | (0.862) | 325083 | 50.0000  | 50.743           |
| 112 4-Bromophenyl-phenylether  | 248       | 11.724  | 11.724 | (0.921) | 59853  | 50.0000  | 46.655           |
| 113 Hexachlorobenzene          | 284       | 12.023  | 12.023 | (0.945) | 64086  | 50.0000  | 47.772           |
| 117 Pentachlorophenol          | 266       | 12.477  | 12.477 | (0.980) | 31937  | 50.0000  | 45.861           |
| 122 Phenanthrene               | 178       | 12.782  | 12.782 | (1.004) | 364510 | 50.0000  | 52.487           |
| 123 Anthracene                 | 178       | 12.888  | 12.888 | (1.013) | 371006 | 50.0000  | 51.978           |
| 126 Carbazole                  | 167       | 13.337  | 13.337 | (1.048) | 363030 | 50.0000  | 54.163           |
| 130 Di-n-Butylphthalate        | 149       | 14.475  | 14.475 | (1.137) | 432949 | 50.0000  | 52.230           |
| 135 Fluoranthene               | 202       | 15.714  | 15.714 | (1.235) | 405008 | 50.0000  | 57.417           |
| 136 Benzidine                  | 184       | 16.147  | 16.147 | (0.835) | 210312 | 50.0000  | 43.769           |
| 137 Pyrene                     | 202       | 16.254  | 16.254 | (0.840) | 432469 | 50.0000  | 48.646           |
| 144 Butylbenzylphthalate       | 149       | 18.204  | 18.204 | (0.941) | 236617 | 50.0000  | 44.476           |
| 149 3,3'-Dichlorobenzidine     | 252       | 19.368  | 19.368 | (1.001) | 175093 | 50.0000  | 47.925           |
| 150 Benzo(a)Anthracene         | 228       | 19.304  | 19.304 | (0.998) | 439098 | 50.0000  | 49.054           |

| Compounds                         | QUANT SIG |        |        |         | RESPONSE | AMOUNTS          |                 |
|-----------------------------------|-----------|--------|--------|---------|----------|------------------|-----------------|
|                                   | MASS      | RT     | EXP RT | REL RT  |          | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| -----                             | ----      | --     | -----  | -----   | -----    | -----            | -----           |
| 151 Chrysene                      | 228       | 19.411 | 19.411 | (1.003) | 426342   | 50.0000          | 50.457          |
| 153 bis(2-ethylhexyl)Phthalate    | 149       | 19.780 | 19.780 | (1.022) | 344703   | 50.0000          | 38.474          |
| 155 Di-n-octylphthalate           | 149       | 21.249 | 21.249 | (0.936) | 653968   | 50.0000          | 40.494          |
| 157 Benzo(b)fluoranthene          | 252       | 21.890 | 21.890 | (0.964) | 531639   | 50.0000          | 51.161          |
| 158 Benzo(k)fluoranthene          | 252       | 21.949 | 21.949 | (0.967) | 541596   | 50.0000          | 56.436          |
| 159 7,12-dimethylbenz(a)anthracen | 256       | 21.949 | 21.949 | (0.967) | 236165   | 50.0000          | 55.742          |
| 167 Benzo(a)pyrene                | 252       | 22.584 | 22.584 | (0.995) | 507937   | 50.0000          | 51.444          |
| 169 Indeno(1,2,3-cd)pyrene        | 276       | 24.930 | 24.930 | (1.098) | 689965   | 50.0000          | 48.144          |
| 170 Dibenz(a,h)anthracene         | 278       | 24.978 | 24.978 | (1.100) | 599206   | 50.0000          | 48.824          |
| 171 Benzo(g,h,i)perylene          | 276       | 25.501 | 25.501 | (1.123) | 602281   | 50.0000          | 48.185          |
| \$ 172 Nitrobenzene-d5            | 82        | 5.586  | 5.586  | (0.867) | 150528   | 50.0000          | 52.839          |
| \$ 173 2-Fluorobiphenyl           | 172       | 8.166  | 8.166  | (0.865) | 239589   | 50.0000          | 50.264          |
| \$ 174 Terphenyl-d14              | 244       | 16.794 | 16.794 | (0.868) | 326392   | 50.0000          | 48.425          |
| \$ 175 Phenol-d5                  | 99        | 4.646  | 4.646  | (0.942) | 164343   | 50.0000          | 51.947          |
| \$ 176 2-Fluorophenol             | 112       | 3.625  | 3.625  | (0.735) | 123207   | 50.0000          | 48.731          |
| \$ 177 2,4,6-Tribromophenol       | 330       | 11.174 | 11.174 | (0.878) | 31284    | 50.0000          | 43.945          |
| \$ 178 2-Chlorophenol-d4          | 132       | 4.742  | 4.742  | (0.961) | 116452   | 50.0000          | 50.284          |
| \$ 179 1,2-Dichlorobenzene-d4     | 152       | 5.137  | 5.137  | (1.041) | 83697    | 50.0000          | 53.451          |

#### QC Flag Legend

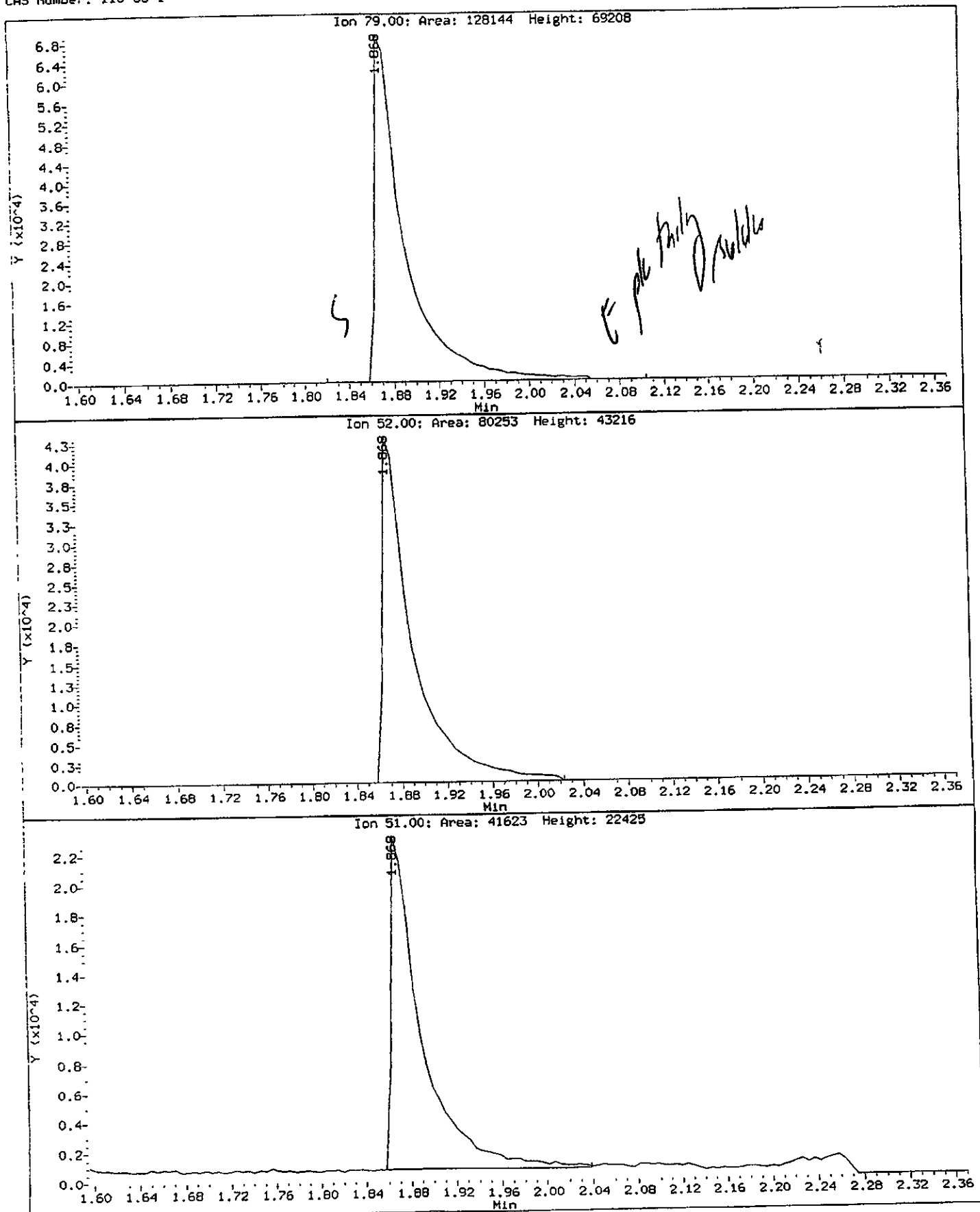
M - Compound response manually integrated.



659 916

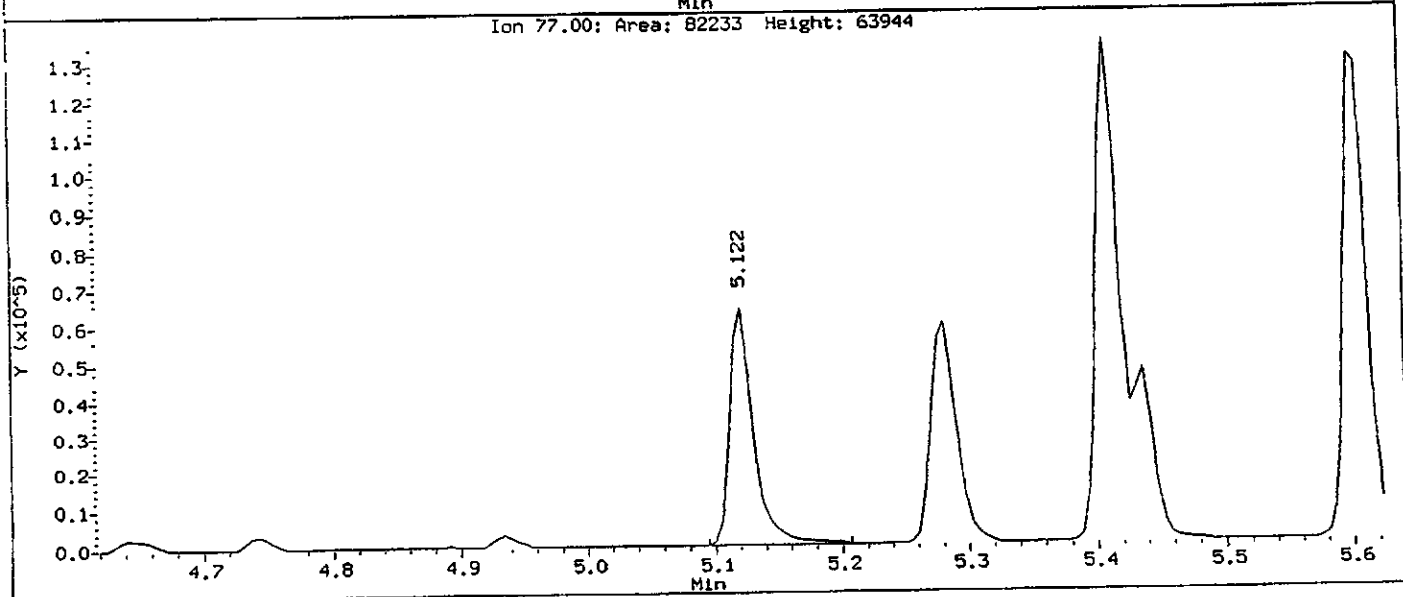
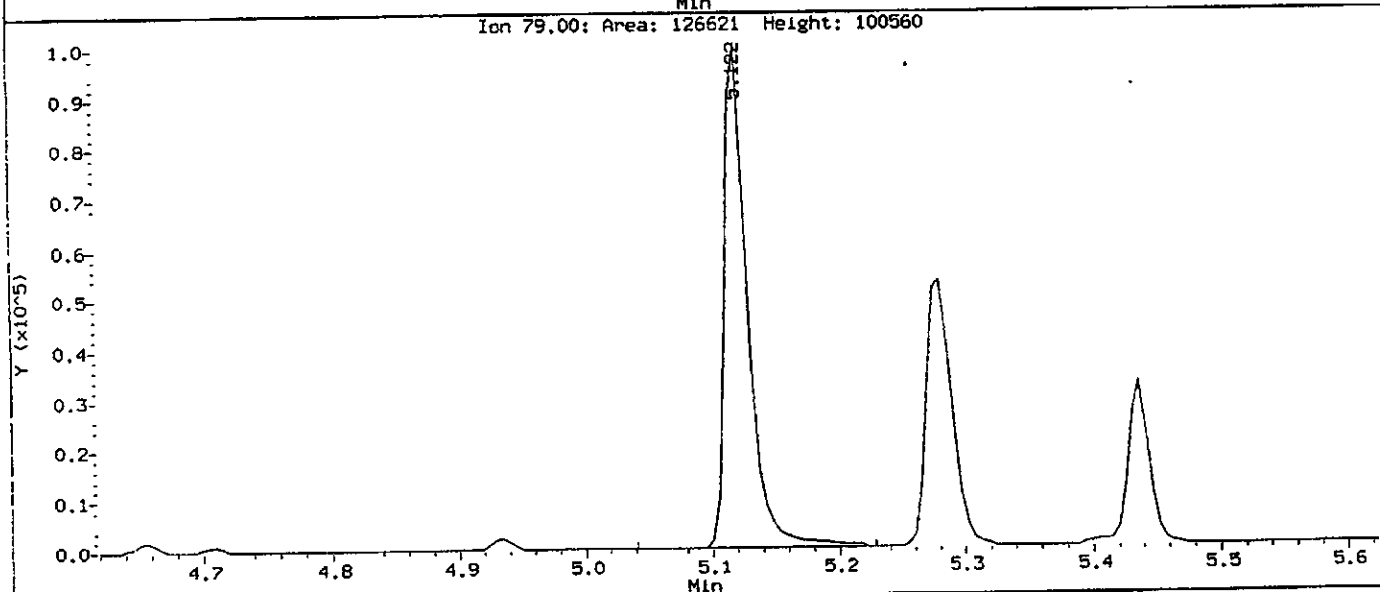
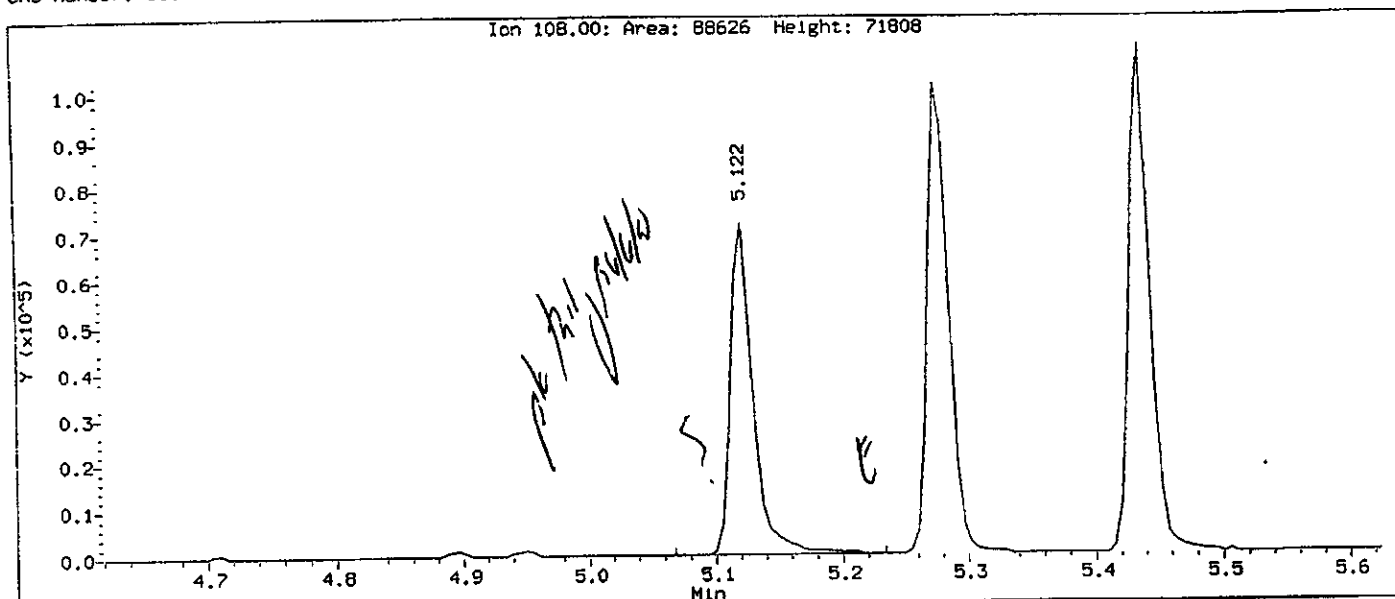
Data File: \\QPITPA02\chem\71.1\s060600.b\s0606000.D  
Injection Date: 06-JUN-2000 08:11  
Instrument: 71.1  
Client Sample ID: sstd050

Compound: Pyridine  
CAS Number: 110-86-1



Data File: \\QPITPA02\D\chem\71.1\s060600.b\S0606CCC.D  
Injection Date: 06-JUN-2000 08:11  
Instrument: 71.1  
Client Sample ID: sstd050

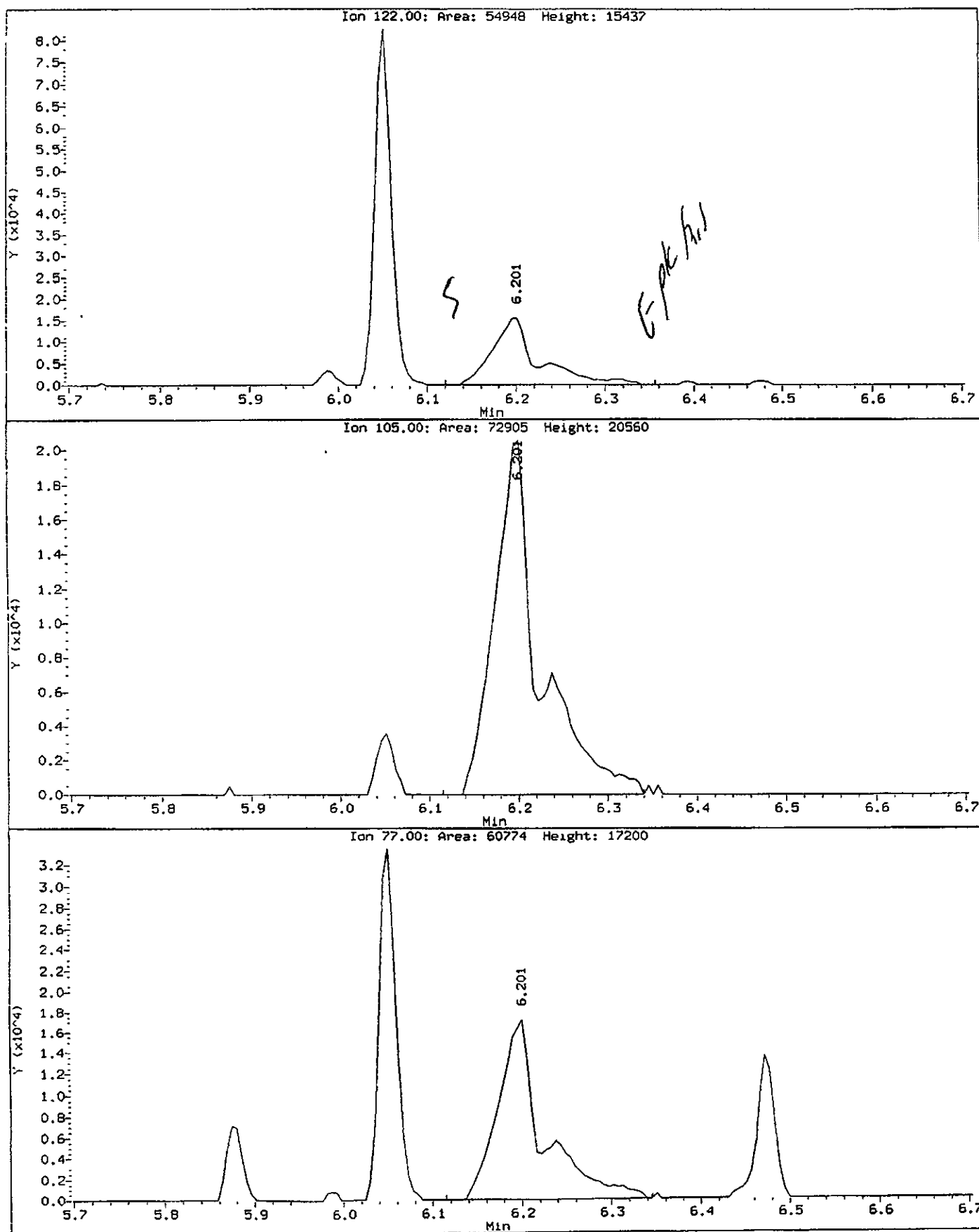
Compound: Benzyl Alcohol  
CAS Number: 100-51-6



659 918

Data File: \\QPIITPA02\J\chem\71.1\s060600.b\S0606CCC.D  
Injection Date: 06-JUN-2000 08:11  
Instrument: 71.1  
Client Sample ID: sstd050

Compound: Benzoic Acid  
CAS Number: 65-85-0



**GC/MS SEMIVOLATILE  
QC DATA**

659 920

Data File: \QPITPA02\chem\71.1\s060100.b\S0601DF3.D

Page 3

Date : 01-JUN-2000 08:30

Client ID: DFTPF02

Instrument: 71.1

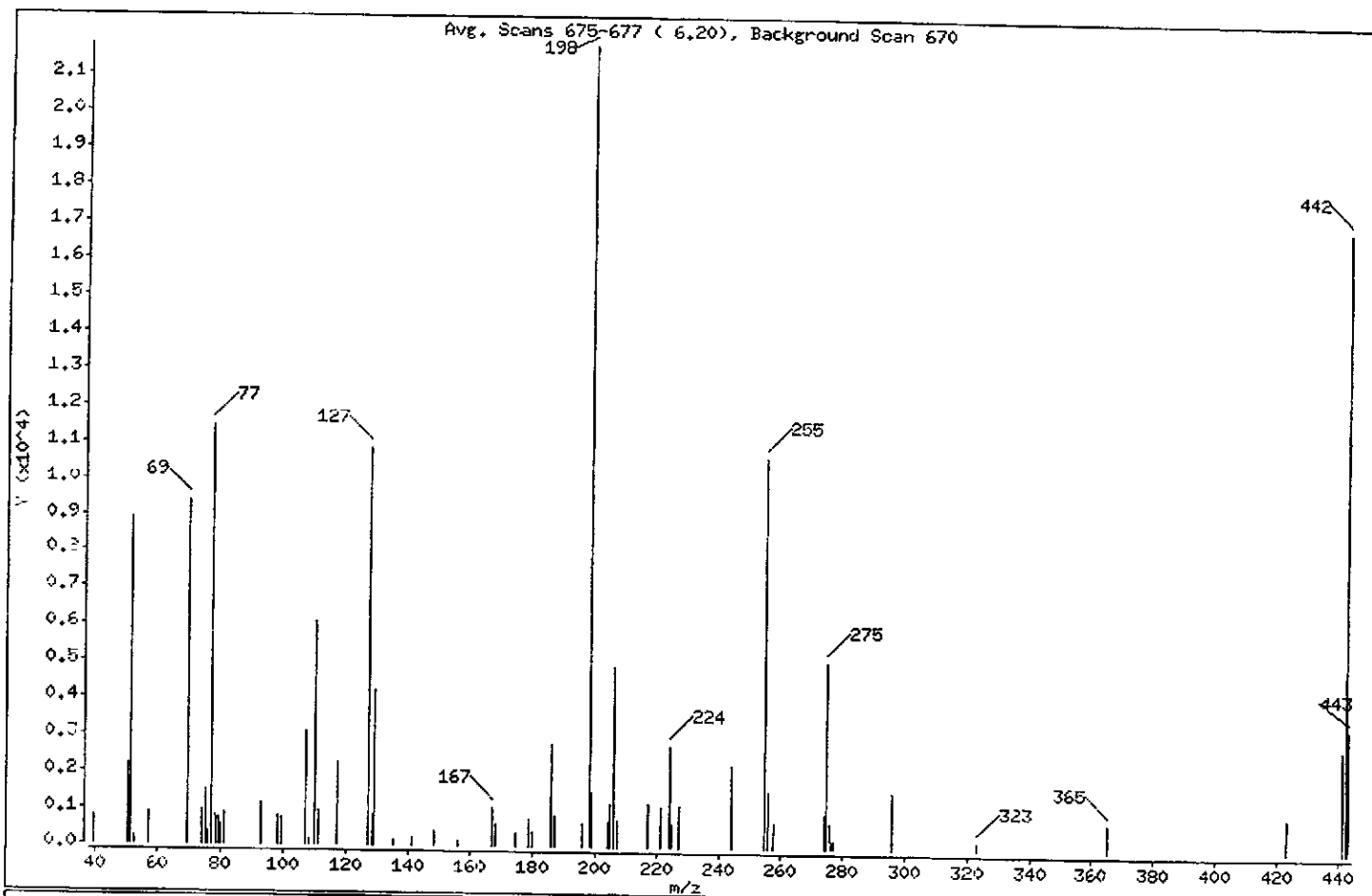
Sample Info: DFTPP050 (25ppb) 194-158-6

Operator: 045183

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         | 40.99                |
| 68  | Less than 2.00% of mass 69         | 0.00 ( 0.00)         |
| 69  | Mass 69 relative abundance         | 42.90                |
| 70  | Less than 2.00% of mass 69         | 0.00 ( 0.00)         |
| 127 | 40.00 - 60.00% of mass 198         | 49.59                |
| 197 | Less than 1.00% of mass 198        | 0.00                 |
| 199 | 5.00 - 9.00% of mass 198           | 6.84                 |
| 275 | 10.00 - 30.00% of mass 198         | 23.12                |
| 365 | Greater than 1.00% of mass 198     | 3.48                 |
| 441 | Present, but less than mass 443    | 12.92                |
| 442 | Greater than 40.00% of mass 198    | 77.94                |
| 443 | 17.00 - 23.00% of mass 442         | 15.40 ( 19.77)       |

Data File: \\QPITPA\2\chem\71.1\5060100.b\S0601DF3.D

Page 4

Date : 01-JUN-2000 08:30

Client ID: DFTPP02

Instrument: 71.1

Sample Info: DFTPP050 (25ppb) 194-158-6

Operator: 045183

Column phase:

Column diameter: 2.00

Data File: S0601DF3.D

Spectrum: Avg. Scans 675-677 ( 6.20), Background Scan 670

Location of Maximum: 196.00

Number of points: 63

| m/z   | Y     | m/z    | Y     | m/z    | Y     | m/z    | Y     |
|-------|-------|--------|-------|--------|-------|--------|-------|
| 39.00 | 790   | 99.00  | 742   | 179.00 | 733   | 244.00 | 2269  |
| 50.00 | 2203  | 107.00 | 3115  | 180.00 | 398   | 255.00 | 10619 |
| 51.00 | 8943  | 108.00 | 175   | 186.00 | 2820  | 256.00 | 1564  |
| 52.00 | 196   | 110.00 | 6058  | 187.00 | 852   | 258.00 | 696   |
| 57.00 | 878   | 111.00 | 951   | 196.00 | 648   | 274.00 | 937   |
| 69.00 | 9353  | 117.00 | 2265  | 198.00 | 21816 | 275.00 | 5044  |
| 74.00 | 936   | 127.00 | 10819 | 199.00 | 1492  | 276.00 | 680   |
| 75.00 | 1502  | 128.00 | 862   | 204.00 | 693   | 277.00 | 185   |
| 76.00 | 372   | 129.00 | 4233  | 205.00 | 1216  | 296.00 | 1569  |
| 77.00 | 11458 | 135.00 | 170   | 206.00 | 4933  | 323.00 | 194   |
| 78.00 | 927   | 141.00 | 214   | 207.00 | 752   | 365.00 | 759   |
| 79.00 | 739   | 148.00 | 410   | 217.00 | 1206  | 423.00 | 959   |
| 80.00 | 571   | 156.00 | 173   | 221.00 | 1081  | 441.00 | 2818  |
| 81.00 | 914   | 167.00 | 1045  | 224.00 | 2758  | 442.00 | 17000 |
| 93.00 | 1155  | 168.00 | 594   | 225.00 | 656   | 443.00 | 3361  |
| 98.00 | 811   | 175.00 | 368   | 227.00 | 1146  |        |       |

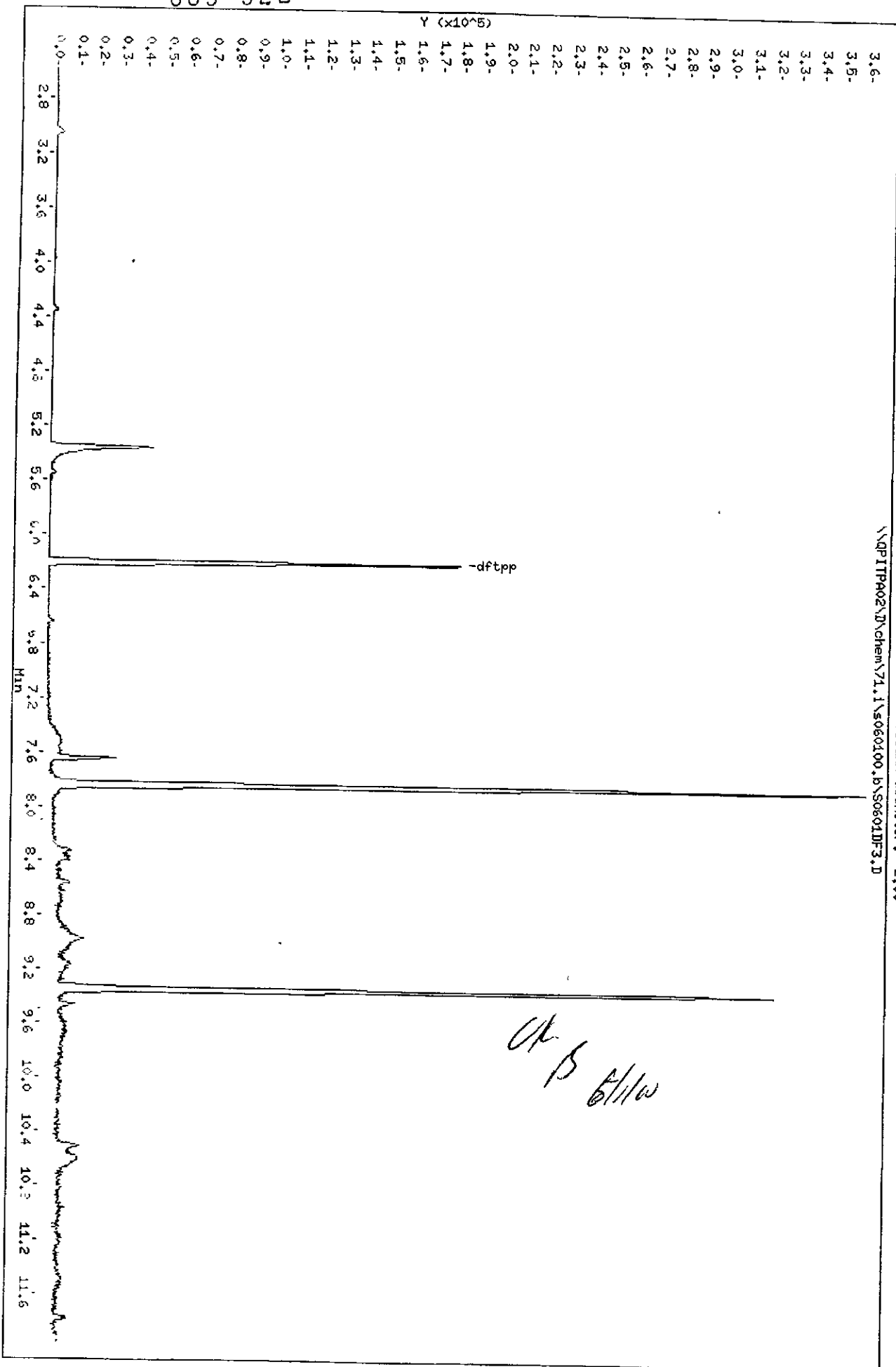
Data File: \NQPITPA02\chem\71.1\5060100.b\50601DF3.D  
 Date: 01-JUN-2000 09:30  
 Client ID: DFTPP02  
 Sample Info: DFTPP050 (25ppb) 194-158-6

Instrument: 71.1

Column phase:

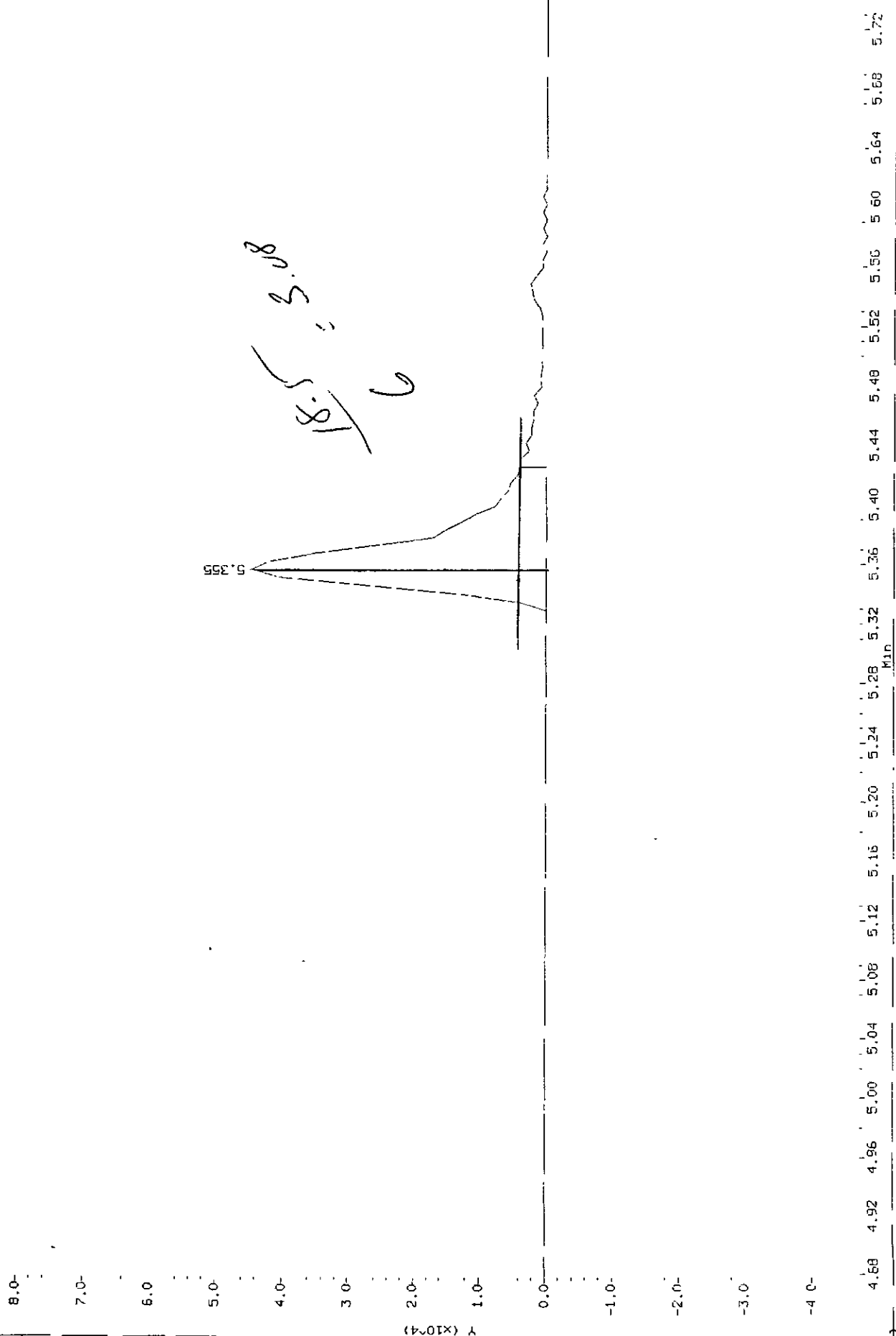
Operator: 045183  
 Column diameter: 2.00

\NQPITPA02\chem\71.1\5060100.b\50601DF3.D



Data File: \\QPIIPA02\ID\chem\71.1\5060100.b\50601DF3.D  
 Injection Date: 01-JUN-2000 08:30  
 Instrument: 71.1  
 Client Sample ID: DFTPP02

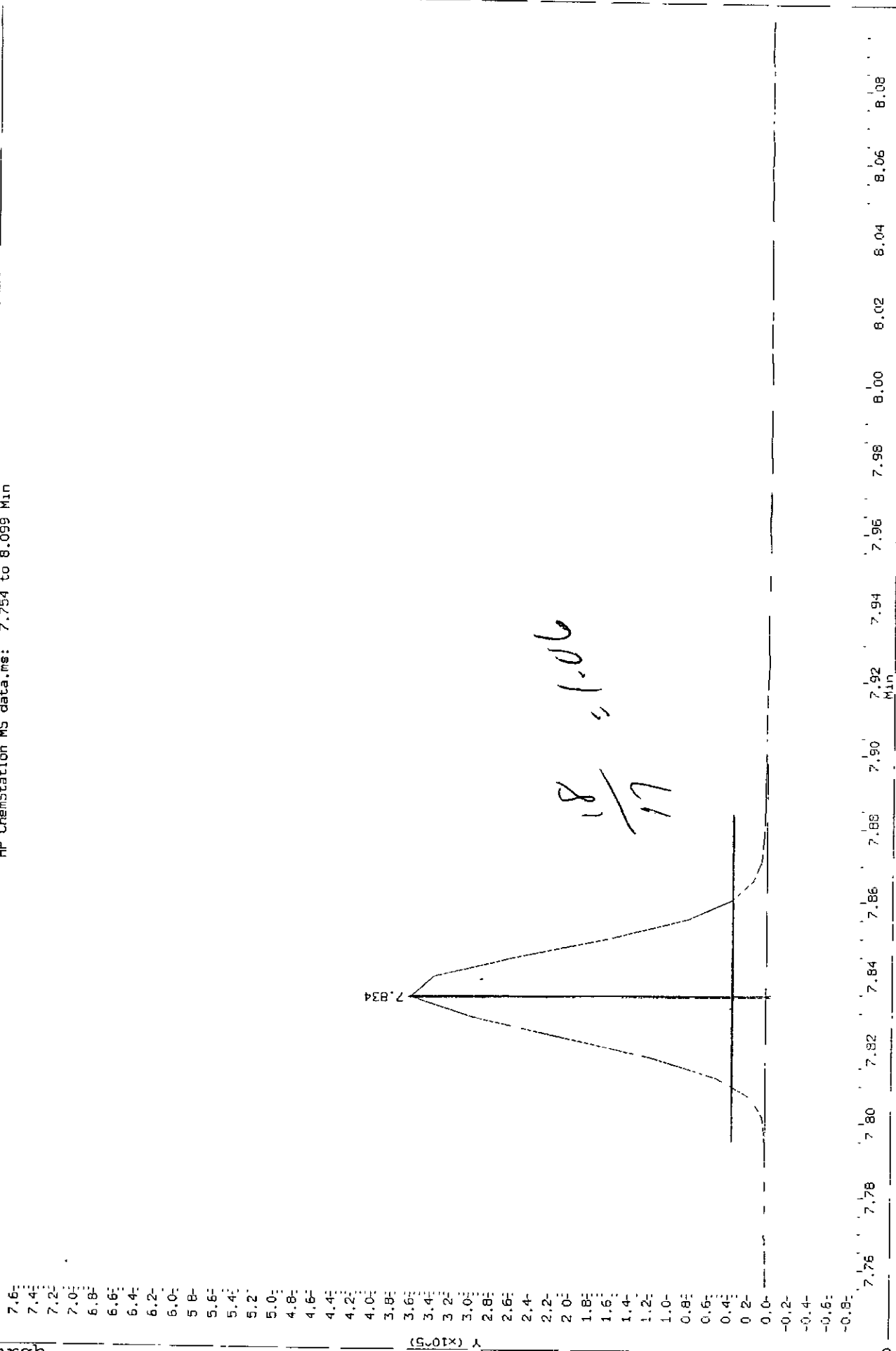
HP ChemStation MS data.ms: 4.879 to 5.753 Min





Data File: \\QPI\TFA02\chem\71.1\s060100.b\s0601DF3.D  
 Injection Date: 01-JUN-2000 08:30  
 Instrument: 71.1  
 Client Sample ID: DFTFP02

HP ChemStation MS data.ms: 7.754 to 8.099 Min



Data File: \\QPITPA02\J\chem\71.1\5060600.b\S0606DF2.D

Date : 06-JUN-2000 07:51

Client ID: DFTPP02

Instrument: 71.i

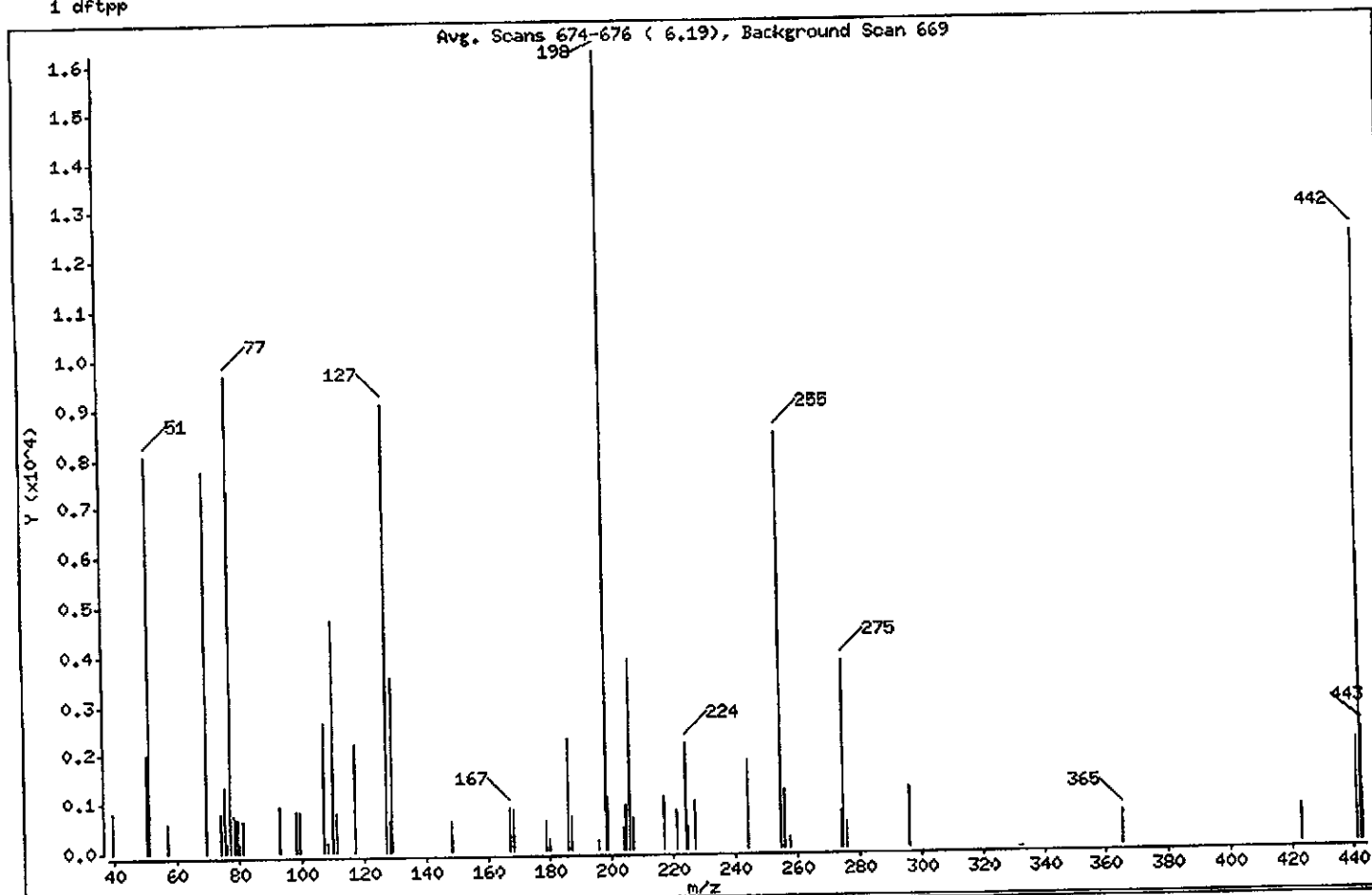
Sample Info: DFTPP050 (25ppb) 194-158-6

Operator: 045183

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         | 49.73                |
| 68  | Less than 2.00% of mass 69         | 0.00 ( 0.00)         |
| 69  | Mass 69 relative abundance         | 47.83                |
| 70  | Less than 2.00% of mass 69         | 0.00 ( 0.00)         |
| 127 | 40.00 - 60.00% of mass 198         | 55.82                |
| 197 | Less than 1.00% of mass 198        | 0.00                 |
| 199 | 5.00 - 9.00% of mass 198           | 6.58                 |
| 275 | 10.00 - 30.00% of mass 198         | 23.48                |
| 365 | Greater than 1.00% of mass 198     | 4.06                 |
| 441 | Present, but less than mass 443    | 12.84                |
| 442 | Greater than 40.00% of mass 198    | 76.27                |
| 443 | 17.00 - 23.00% of mass 442         | 14.32 ( 18.77)       |

Date : 06-JUN-2000 07:51

Client ID: DFTPP02

Instrument: 71.1

Sample Info: DFTPP050 (25ppb) 194-158-6

Operator: 045183

Column phase:

Column diameter: 2.00

Data File: S0606DF2.D

Spectrum: Avg. Scans 674-676 ( 6.19), Background Scan 669

Location of Maximum: 198.00

Number of points: 56

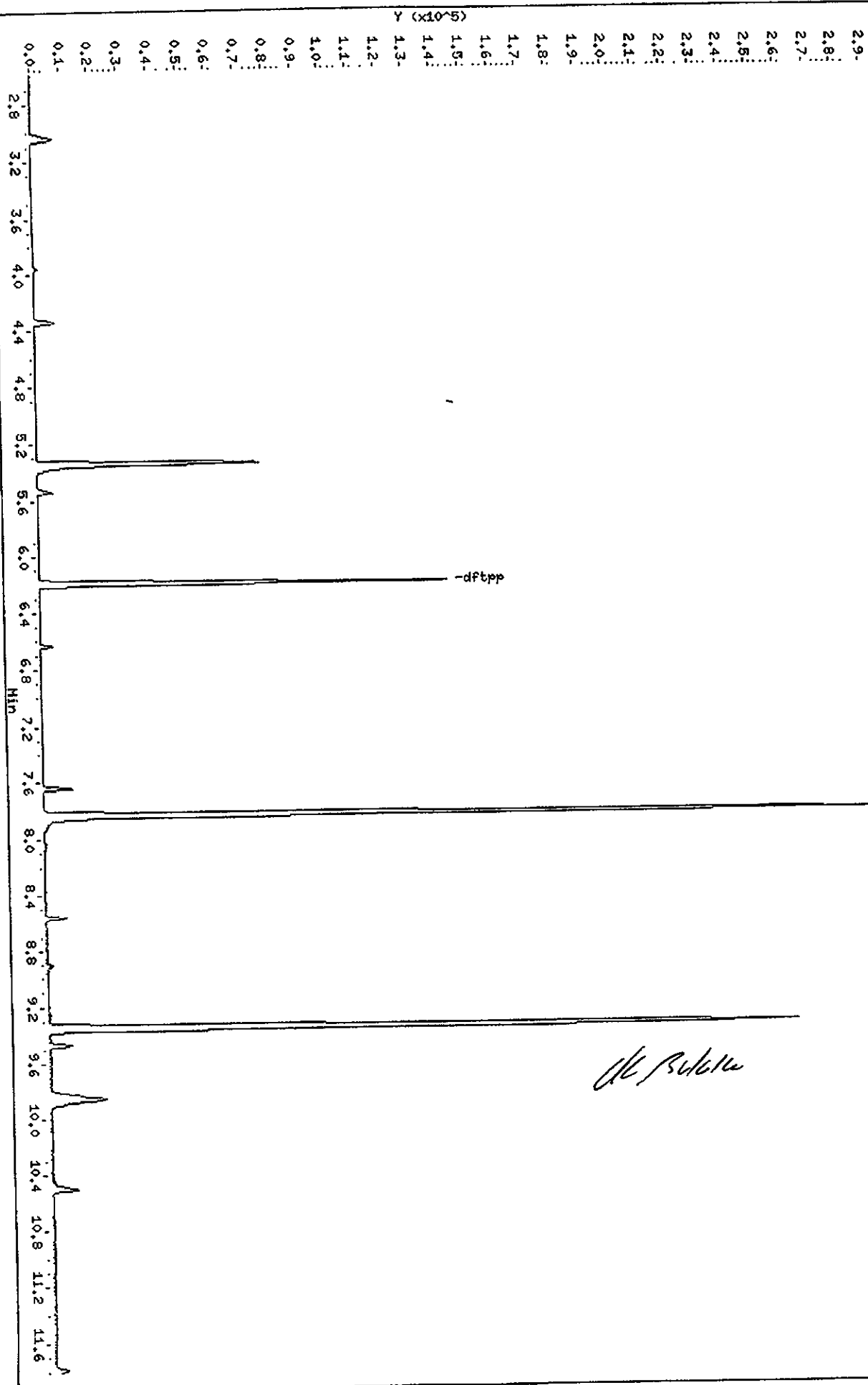
| m/z   | Y    | m/z    | Y    | m/z    | Y     | m/z    | Y     |
|-------|------|--------|------|--------|-------|--------|-------|
| 39.00 | 810  | 99.00  | 810  | 187.00 | 683   | 256.00 | 1180  |
| 50.00 | 1996 | 107.00 | 2659 | 196.00 | 169   | 258.00 | 207   |
| 51.00 | 8069 | 108.00 | 178  | 198.00 | 16225 | 274.00 | 755   |
| 57.00 | 604  | 110.00 | 4701 | 199.00 | 1067  | 275.00 | 3810  |
| 69.00 | 7761 | 111.00 | 780  | 204.00 | 438   | 276.00 | 536   |
| 74.00 | 778  | 117.00 | 2216 | 205.00 | 886   | 296.00 | 1221  |
| 75.00 | 1357 | 127.00 | 9056 | 206.00 | 3866  | 365.00 | 658   |
| 76.00 | 181  | 128.00 | 643  | 207.00 | 627   | 423.00 | 745   |
| 77.00 | 9659 | 129.00 | 3544 | 217.00 | 1067  | 441.00 | 2083  |
| 78.00 | 763  | 148.00 | 609  | 221.00 | 775   | 442.00 | 12375 |
| 79.00 | 657  | 167.00 | 861  | 224.00 | 2167  | 443.00 | 2323  |
| 80.00 | 186  | 168.00 | 806  | 225.00 | 459   |        |       |
| 81.00 | 651  | 179.00 | 608  | 227.00 | 977   |        |       |
| 93.00 | 943  | 180.00 | 210  | 244.00 | 1782  |        |       |
| 98.00 | 823  | 186.00 | 2266 | 255.00 | 8414  |        |       |

Data File: \\QP1TP002\chem\71.1\5060600.b\50606DF2.D  
Date: 06-JUN-2000 07:51  
Client ID: DFTPP02  
Sample Info: DFTPP050 (25ppb) 194-158-6

Instrument: 71.1  
Operator: 045183  
Column diameter: 2.00

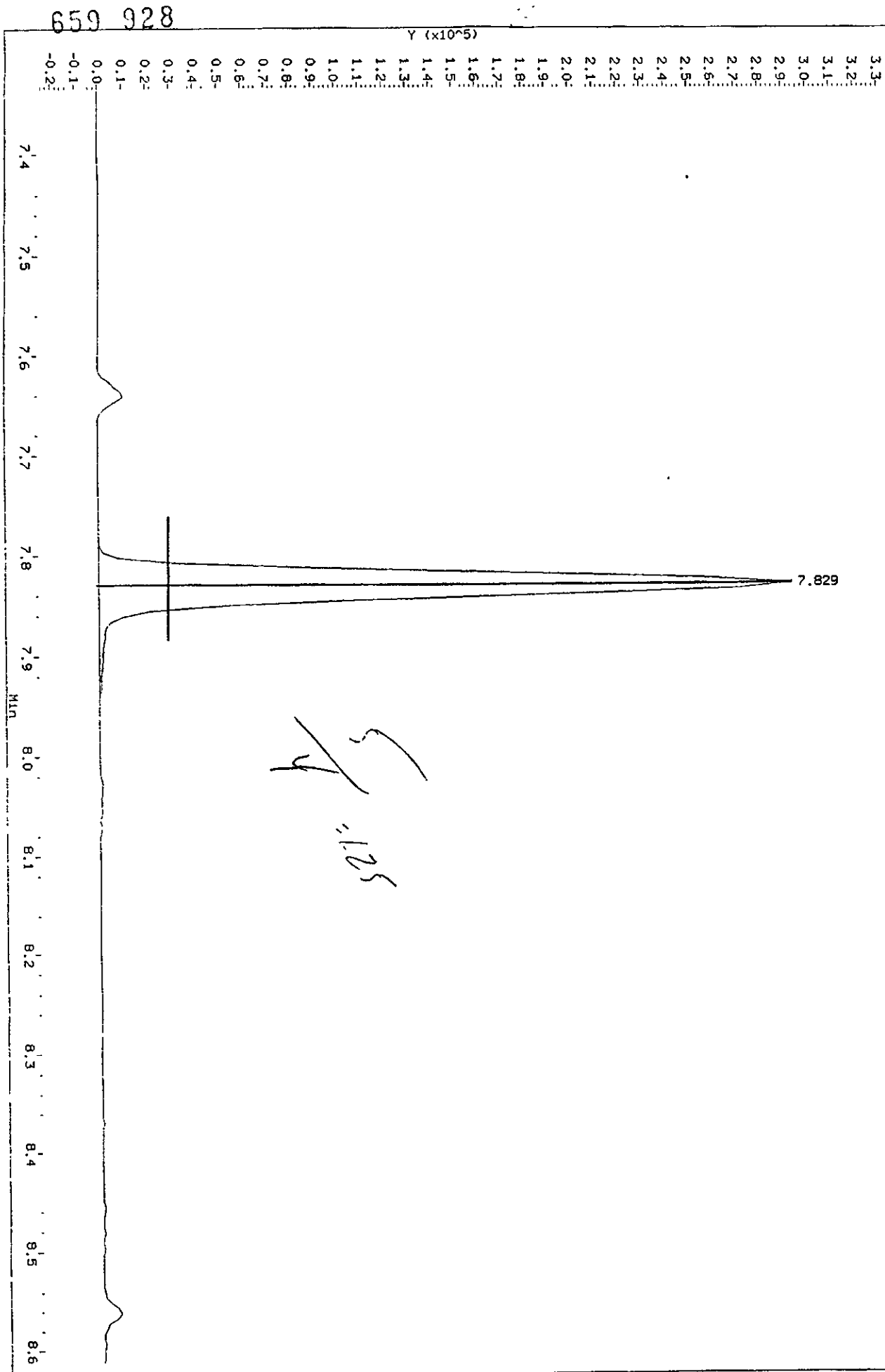
Column phase:

\\QP1TP002\chem\71.1\5060600.b\50606DF2.D



Data File: \\GPITPA02\N\chem\71.1\5060600.b\506060F2.D  
Injection Date: 06-JUN-2000 07:51  
Instrument: 71.1  
Client Sample ID: DFTFP02

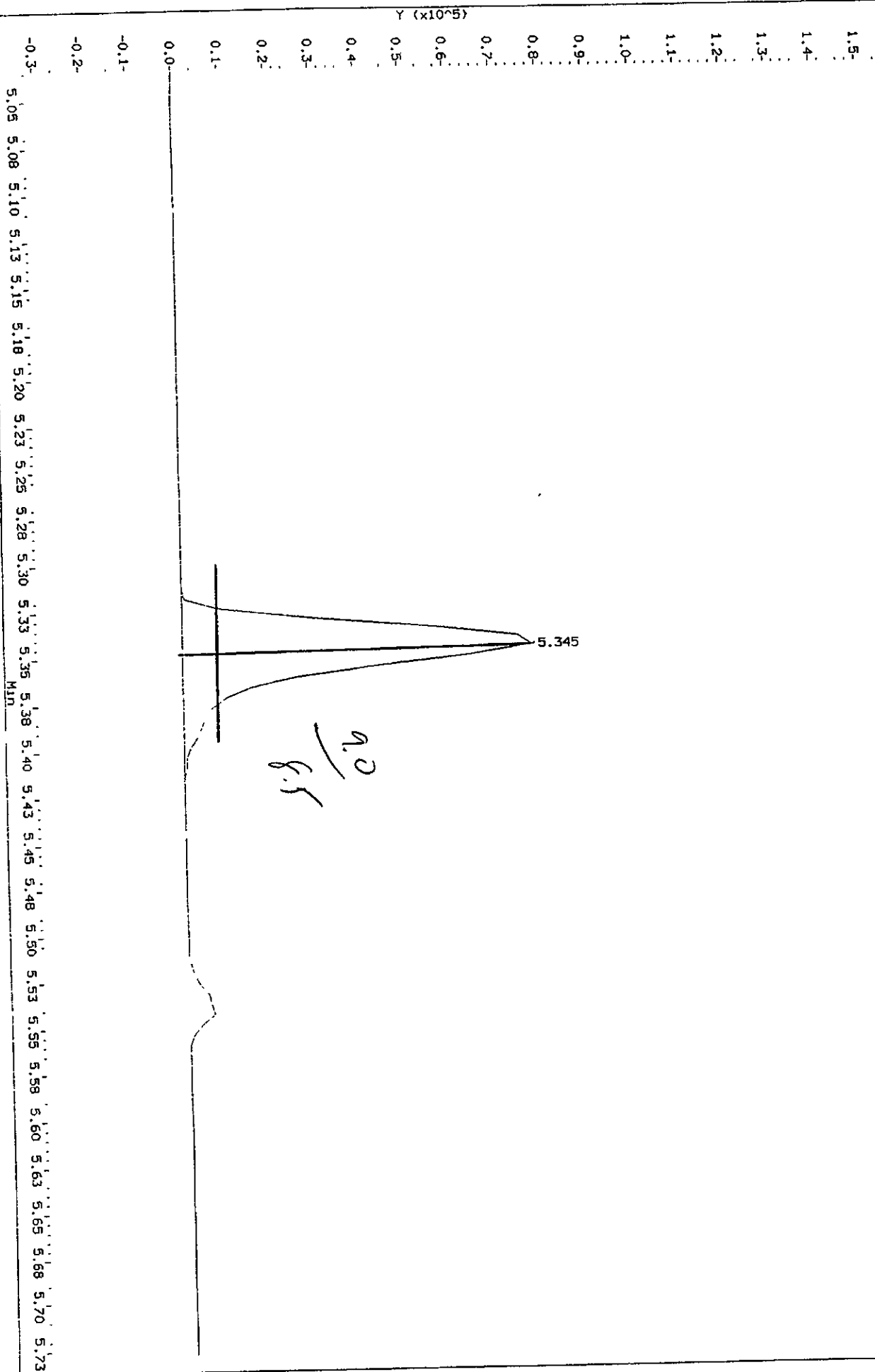
HP ChemStation MS data.ms: 7.336 to 8.612 Min



659 929

Data File: \\QIPPA02\DI\chem\71.1\5060600.b\506060DF2.D  
Injection Date: 06-JUN-2000 07:51  
Instrument: 71.1  
Client Sample ID: DFTPP02

HP ChemStation MS data.ms: 5.034 to 5.728 Min



659 930

UXB INTERNATIONAL  
METHOD BLANK COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0F050000 330

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 05/31/00

Work Order: DE6Q3101

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/06/00

Moisture %: NA

QC Batch: 0157330

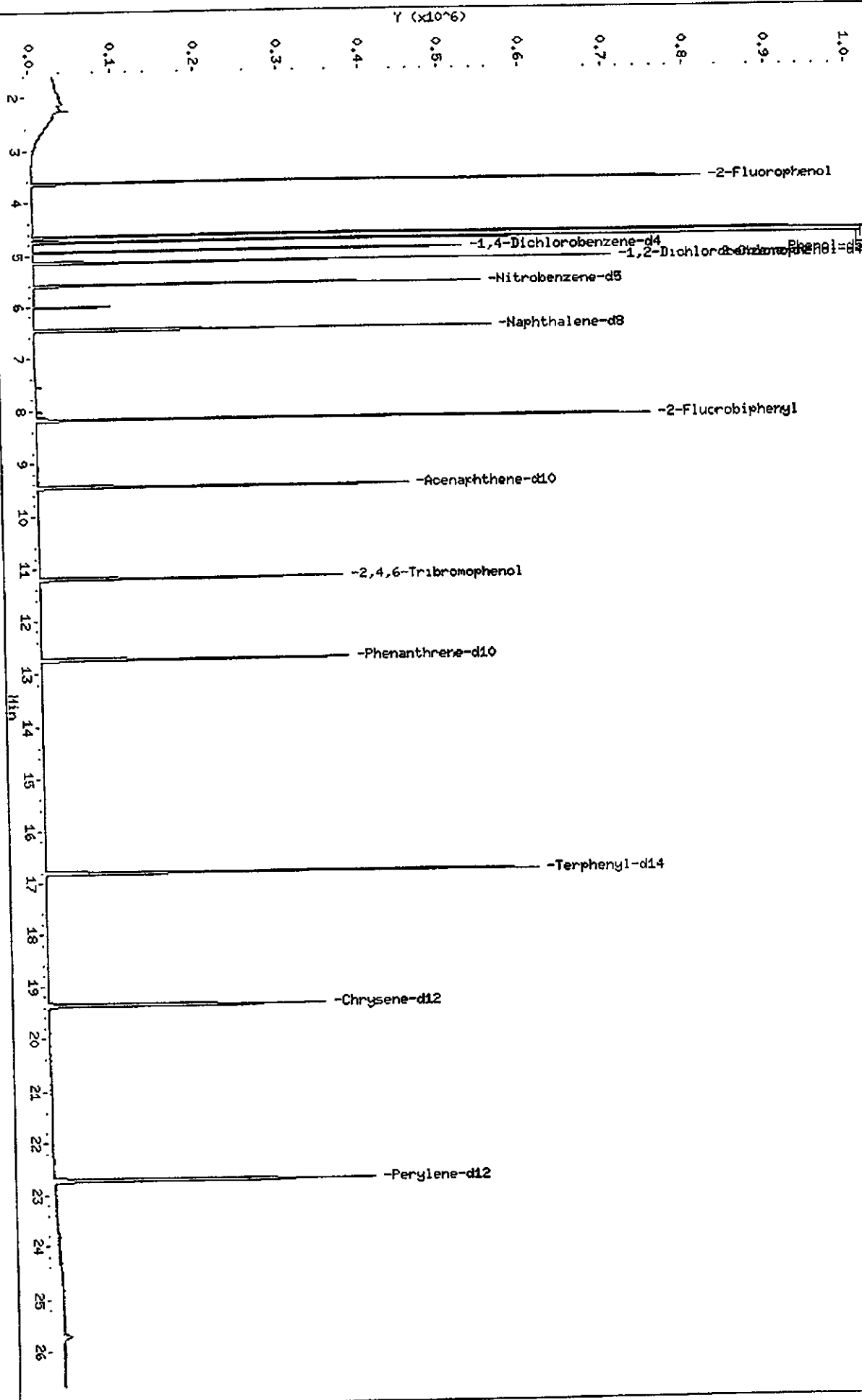
Client Sample Id: INTRA-LAB BLANK

| 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: \\QPIITPA02\chem\71.1\5060600.b\50606001.D  
 Date : 06-JUN-2000 08:51  
 Client ID: INTRA-LAB BLANK  
 Sample Info: 006310132-sblk 6/02/00 82700c1p  
 Volume Injected (uL): 2.0  
 Column phase: HPS-MS

\\QPIITPA02\chem\71.1\5060600.b\50606001.D

Instrument: 71.1  
 Operator: 045183  
 Column diameter: 0.25





## STL Pittsburgh

## Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\71.i\s060600.b\S0606001.D  
 Lab Smp Id: DE6Q3101 Client Smp ID: INTRA-LAB BLANK  
 Inj Date : 06-JUN-2000 08:51  
 Operator : 045183 Inst ID: 71.i  
 Smp Info : c0e310132-sblk 6/02/00 8270tclp  
 Misc Info : de6q3101,s060600.b,8270clp.m,1-tclp.sub  
 Comment :  
 Method : \\QPITPA02\D\chem\71.i\s060600.b\8270clp.m  
 Meth Date : 06-Jun-2000 08:41 bachas Quant Type: ISTD  
 Cal Date : 01-JUN-2000 12:15 Cal File: S0601CC5.D  
 Als bottle: 3 QC Sample: BLANK  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 1-tclp.sub  
 Target Version: 4.04  
 Processing Host: PITPC050

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vo} * \text{Vi})$ 

| 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)            |

| Compounds                  | QUANT SIG | RT                     | EXP RT | REL RT  | RESPONSE | CONCENTRATIONS |         |
|----------------------------|-----------|------------------------|--------|---------|----------|----------------|---------|
|                            |           |                        |        |         |          | ON-COLUMN      | FINAL   |
|                            | MASS      |                        |        |         |          | ( ng)          | ( mg/L) |
| * 1 1,4-Dichlorobenzene-d4 | 152       | 4.944                  | 4.934  | (1.000) | 92694    | 40.0000        | (a)     |
| * 2 Naphthalene-d8         | 136       | 6.455                  | 6.446  | (1.000) | 358238   | 40.0000        | (a)     |
| * 3 Acenaphthene-d10       | 164       | 9.447                  | 9.443  | (1.000) | 186965   | 40.0000        | (a)     |
| * 4 Phenanthrene-d10       | 188       | 12.738                 | 12.728 | (1.000) | 310619   | 40.0000        | (a)     |
| * 5 Chrysene-d12           | 240       | 19.357                 | 19.347 | (1.000) | 286920   | 40.0000        | (a)     |
| * 6 Perylene-d12           | 264       | 22.712                 | 22.702 | (1.000) | 360511   | 40.0000        | (a)     |
| 10 Pyridine                | 79        | Compound Not Detected. |        |         |          |                |         |
| 28 1,4-Dichlorobenzene     | 146       | Compound Not Detected. |        |         |          |                |         |
| M 34 Cresols, total        | 100       | Compound Not Detected. |        |         |          |                |         |
| 31 2-Methylphenol          | 108       | Compound Not Detected. |        |         |          |                |         |
| 35 4-Methylphenol          | 108       | Compound Not Detected. |        |         |          |                |         |
| 38 Hexachloroethane        | 117       | Compound Not Detected. |        |         |          |                |         |
| 39 Nitrobenzene            | 77        | Compound Not Detected. |        |         |          |                |         |
| 59 Hexachlorobutadiene     | 224       | Compound Not Detected. |        |         |          |                |         |

| Compounds                     | QUANT SIG<br>MASS | RT     | EXP RT | REL RT  | RESPONSE               | CONCENTRATIONS     |                  |
|-------------------------------|-------------------|--------|--------|---------|------------------------|--------------------|------------------|
|                               |                   |        |        |         |                        | ON-COLUMN<br>( ng) | FINAL<br>( mg/L) |
| =====                         | ====              | ==     | =====  | =====   | =====                  | =====              | =====            |
| 69 2,4,6-Trichlorophenol      | 196               |        |        |         | Compound Not Detected. |                    |                  |
| 70 2,4,5-Trichlorophenol      | 196               |        |        |         | Compound Not Detected. |                    |                  |
| 91 2,4-Dinitrotoluene         | 165               |        |        |         | Compound Not Detected. |                    |                  |
| 113 Hexachlorobenzene         | 283               |        |        |         | Compound Not Detected. |                    |                  |
| 117 Pentachlorophenol         | 265               |        |        |         | Compound Not Detected. |                    |                  |
| \$ 172 Nitrobenzene-d5        | 82                | 5.595  | 5.586  | (0.867) | 232995                 | 64 3203            | 0 16080(a)       |
| \$ 173 2-Fluorobiphenyl       | 172               | 8.176  | 8 166  | (0 865) | 376352                 | 63 5348            | 0 15884(a)       |
| \$ 174 Terphenyl-d14          | 244               | 16.803 | 16.794 | (0.868) | 463959                 | 75.3687            | 0.18842(a)       |
| \$ 175 Phenol-d5              | 99                | 4.655  | 4.646  | (0 942) | 386235                 | 97.3923            | 0 24348(a)       |
| \$ 176 2-Fluorophenol         | 112               | 3 640  | 3.625  | (0.736) | 262994                 | 82.9800            | 0.20745(a)       |
| \$ 177 2,4,6-Tribromophenol   | 330               | 11.183 | 11.174 | (0.878) | 74371                  | 92.9305            | 0 23233(a)       |
| \$ 178 2-Chlorophenol-d4      | 132               | 4.751  | 4.742  | (0.961) | 283755                 | 97 7444            | 0 24436(a)       |
| \$ 179 1,2-Dichlorobenzene-d4 | 152               | 5.152  | 5 137  | (1 042) | 124000                 | 63.1727            | 0.15793(a)       |

### QC Flag Legend

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

UXB INTERNATIONAL  
CHECK SAMPLE COMPOUNDS

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

Matrix: (soil/water) SOLID      Lab Sample ID: C0F050000 330

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 05/31/00

Work Order: DE6Q3102

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/06/00

Moisture %: NA

QC Batch: 0157330

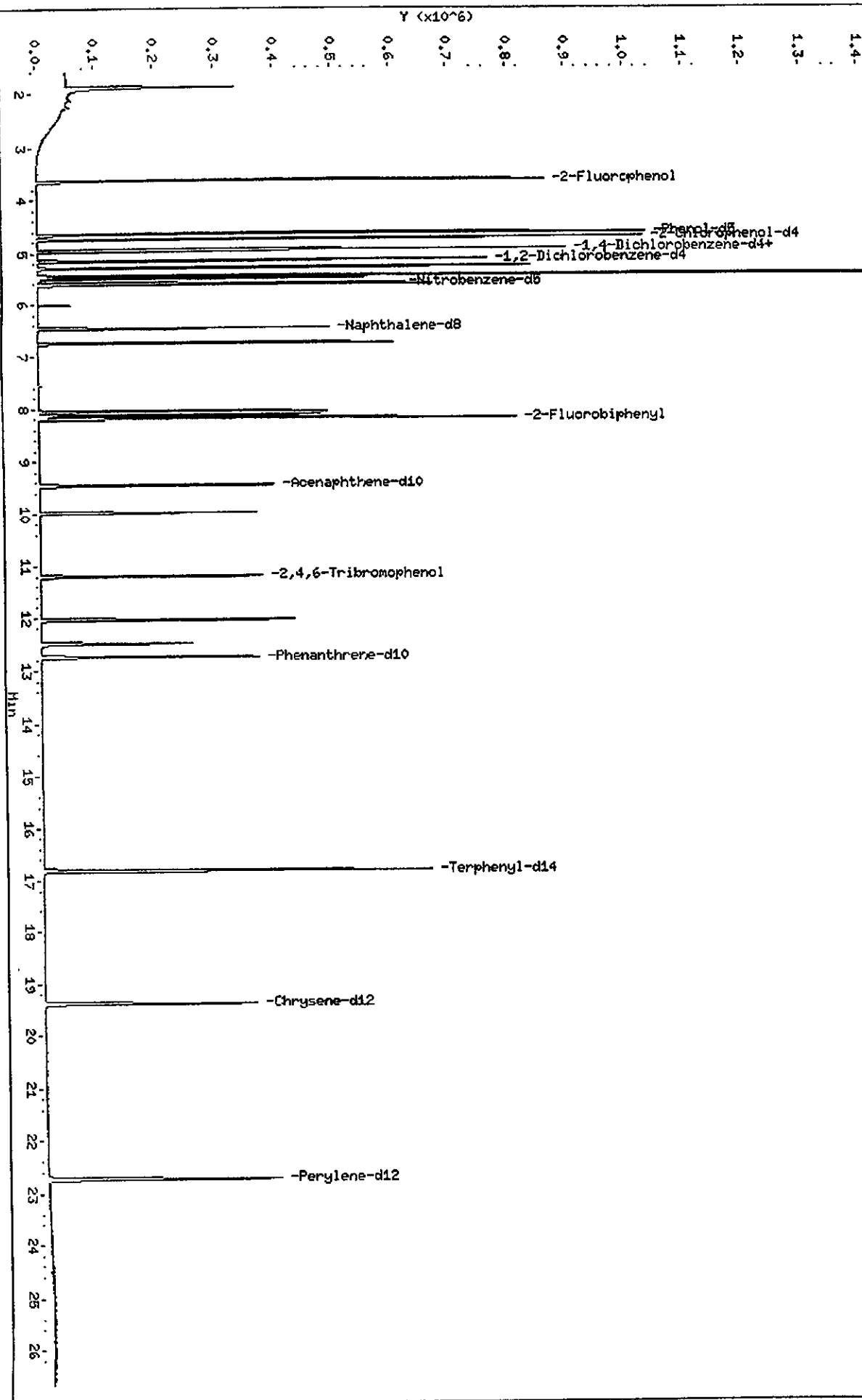
Client Sample Id: CHECK SAMPLE

| 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    | 0.169                |   |
| 118-74-1  | Hexachlorobenzene     | 0.180                |   |
| 87-68-3   | Hexachlorobutadiene   | 0.179                |   |
| 67-72-1   | Hexachloroethane      | 0.184                |   |
| 98-95-3   | Nitrobenzene          | 0.195                |   |
| 87-86-5   | Pentachlorophenol     | 0.183                |   |
| 110-86-1  | Pyridine              | 0.153                |   |
| 95-95-4   | 2,4,5-Trichlorophenol | 0.176                |   |
| 88-06-2   | 2,4,6-Trichlorophenol | 0.171                |   |
| 1319-77-3 | Cresols (total)       | 0.575                |   |

Data File: \\QPIPPA02\chem\71.1\5060600.b\50606002.D  
Date : 06-JUN-2000 09:23  
Client ID: INTRA-LAB CHECK  
Sample Info: c0e31032-1es 6/02/00 8270101p  
Volume Injected (uL): 2.0  
Column phase: Hp5-MS

Instrument: 71.1  
Operator: 045183  
Column diameter: 0.25

\\QPIPPA02\chem\71.1\5060600.b\50606002.D



## STL Pittsburgh

## Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\71.i\s060600.b\S0606002.D  
 Lab Smp Id: DE6Q3102 Client Smp ID: INTRA-LAB CHECK  
 Inj Date : 06-JUN-2000 09:23  
 Operator : 045183 Inst ID: 71.i  
 Smp Info : c0e310132-lcs 6/02/00 8270tclp  
 Misc Info : de6q3102,s060600.b,8270clp.m,1-tclp.sub  
 Comment :  
 Method : \\QPITPA02\D\chem\71.i\s060600.b\8270clp.m  
 Meth Date : 06-Jun-2000 08:41 bachas Quant Type: ISTD  
 Cal Date : 01-JUN-2000 12:15 Cal File: S0601CC5.D  
 Als bottle: 4 QC Sample: LCS  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 1-tclp.sub  
 Target Version: 4.04  
 Processing Host: PITPC050

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vo} * \text{Vi})$ 

| 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)            |

| Compounds                  | QUANT SIG | MASS | RT     | EXP RT | REL RT  | RESPONSE | CONCENTRATIONS |              |
|----------------------------|-----------|------|--------|--------|---------|----------|----------------|--------------|
|                            |           |      |        |        |         |          | ON-COLUMN      | FINAL        |
|                            |           |      |        |        |         |          | ( ng)          | ( mg/L)      |
| * 1 1,4-Dichlorobenzene-d4 |           | 152  | 4 948  | 4.934  | (1.000) | 82459    | 40.0000        | (a)          |
| * 2 Naphthalene-d8         |           | 136  | 6 460  | 6 446  | (1.000) | 321344   | 40.0000        | (a)          |
| * 3 Acenaphthene-d10       |           | 164  | 9 457  | 9 443  | (1.000) | 169306   | 40.0000        | (a)          |
| * 4 Phenanthrene-d10       |           | 188  | 12.742 | 12.728 | (1.000) | 301329   | 40.0000        | (a)          |
| * 5 Chrysene-d12           |           | 240  | 19 356 | 19 347 | (1.000) | 304297   | 40.0000        | (a)          |
| * 6 Perylene-d12           |           | 264  | 22 716 | 22 702 | (1.000) | 372210   | 40.0000        | (a)          |
| 10 Pyridine                |           | 79   | 1.882  | 1.868  | (0.380) | 204884   | 61.2181        | 0.15304 (aM) |
| 28 1,4-Dichlorobenzene     |           | 146  | 4 964  | 4.950  | (1.003) | 233295   | 73.4514        | 0.18363 (a)  |
| M 34 Cresols, total        |           | 100  |        |        |         | 627594   | 230.140        | 0.57535 (a)  |
| 31 2-Methylphenol          |           | 108  | 5 290  | 5 276  | (1.069) | 202992   | 77.1555        | 0.19289 (a)  |
| 35 4-Methylphenol          |           | 108  | 5.456  | 5 436  | (1 103) | 424602   | 152.985        | 0.38246 (a)  |
| 38 Hexachloroethane        |           | 117  | 5 504  | 5 495  | (1.112) | 92558    | 73.7077        | 0.18427 (a)  |
| 39 Nitrobenzene            |           | 77   | 5.621  | 5.602  | (0.870) | 274563   | 78.1397        | 0 19535 (a)  |
| 59 Hexachlorobutadiene     |           | 225  | 6 738  | 6 729  | (1.043) | 87403    | 71.7493        | 0.17937 (a)  |

Data File: \\QPITPA02\D\chem\71.i\s060600.b\S0606002.D  
Report Date: 06-Jun-2000 09:58

Page 2

| Compounds                     | QUANT SIG<br>MASS | RT     | EXP RT | REL RT  | RESPONSE | CONCENTRATIONS     |                  |
|-------------------------------|-------------------|--------|--------|---------|----------|--------------------|------------------|
|                               |                   |        |        |         |          | ON-COLUMN<br>( ng) | FINAL<br>( mg/L) |
| =====                         | =====             | ==     | =====  | =====   | =====    | =====              | =====            |
| 69 2,4,6-Trichlorophenol      | 196               | 8.047  | 8.032  | (0.851) | 98873    | 68.2848            | 0.17071(a)       |
| 70 2,4,5-Trichlorophenol      | 196               | 8.116  | 8.107  | (0.858) | 107529   | 70.3639            | 0.17591(a)       |
| 91 2,4-Dinitrotoluene         | 165               | 9.981  | 9.966  | (1.055) | 106148   | 67.5980            | 0.16900(a)       |
| 113 Hexachlorobenzene         | 284               | 12.043 | 12.023 | (0.945) | 105443   | 72.0750            | 0.18019(a)       |
| 117 Pentachlorophenol         | 266               | 12.491 | 12.477 | (0.980) | 55636    | 73.2602            | 0.18315(aM)      |
| \$ 172 Nitrobenzene-d5        | 82                | 5.600  | 5.586  | (0.867) | 249790   | 76.8738            | 0.19218(a)       |
| \$ 173 2-Fluorobiphenyl       | 172               | 8.180  | 8.166  | (0.865) | 390548   | 72.8082            | 0.18202(a)       |
| \$ 174 Terphenyl-d14          | 244               | 16.808 | 16.794 | (0.868) | 493992   | 75.6650            | 0.18916(a)       |
| \$ 175 Phenol-d5              | 99                | 4.654  | 4.646  | (0.941) | 399718   | 113.303            | 0.28326(a)       |
| \$ 176 2-Fluorophenol         | 112               | 3.639  | 3.625  | (0.736) | 282169   | 100.081            | 0.25020(a)       |
| \$ 177 2,4,6-Tribromophenol   | 330               | 11.188 | 11.174 | (0.878) | 74848    | 96.4092            | 0.24102(a)       |
| \$ 178 2-Chlorophenol-d4      | 132               | 4.751  | 4.742  | (0.960) | 300826   | 116.488            | 0.29122(a)       |
| \$ 179 1,2-Dichlorobenzene-d4 | 152               | 5.151  | 5.137  | (1.041) | 130442   | 74.7036            | 0.18676(a)       |

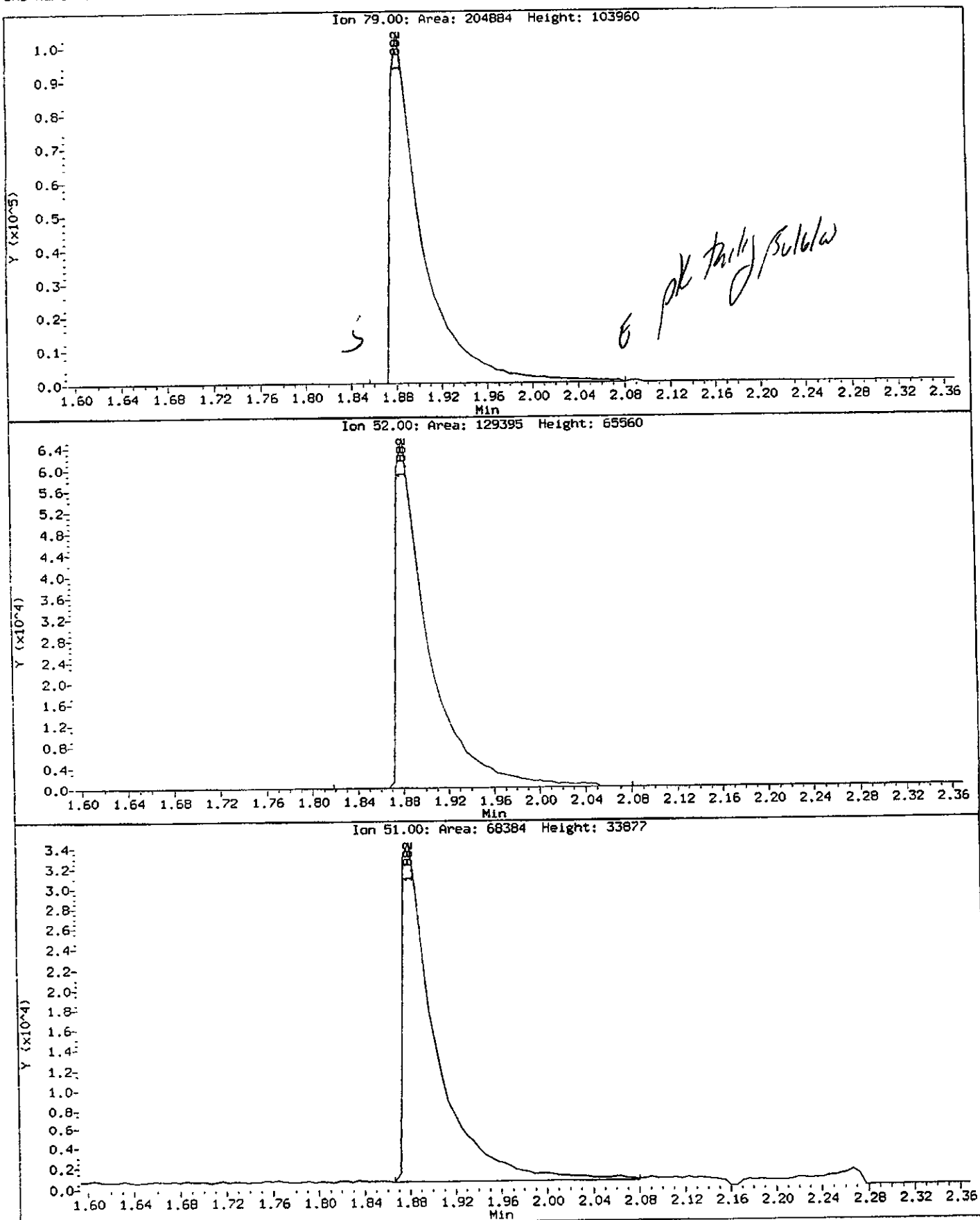
### QC Flag Legend

- a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).
- M - Compound response manually integrated.

659 938

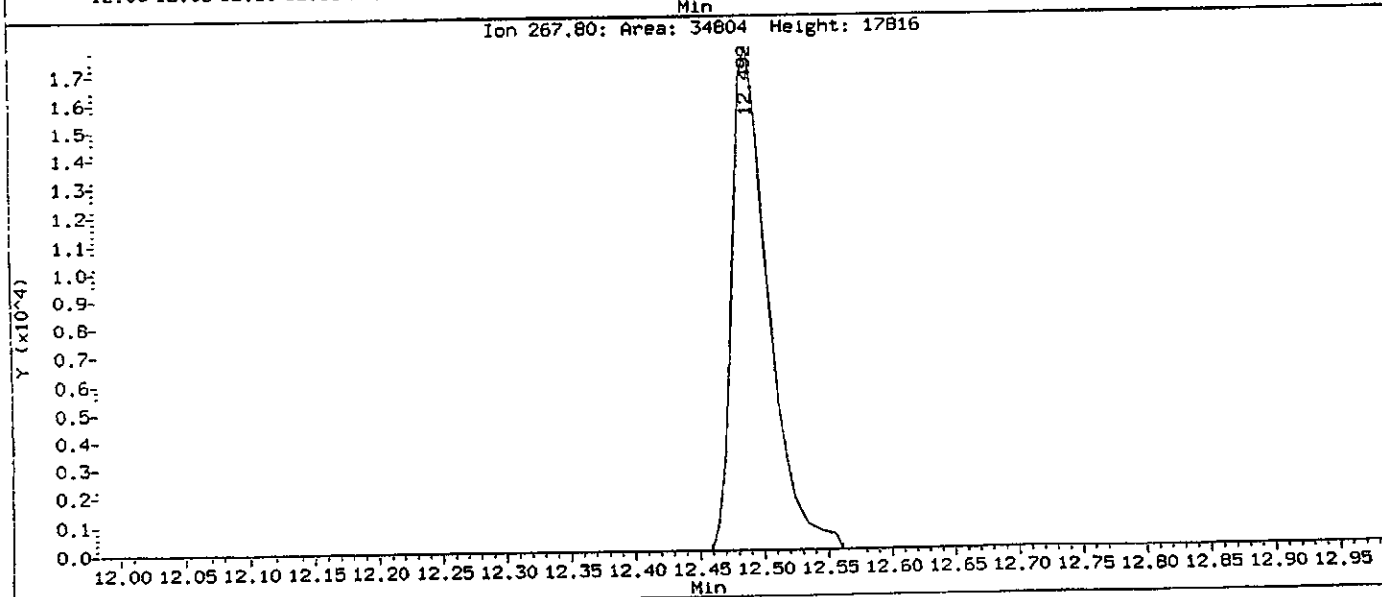
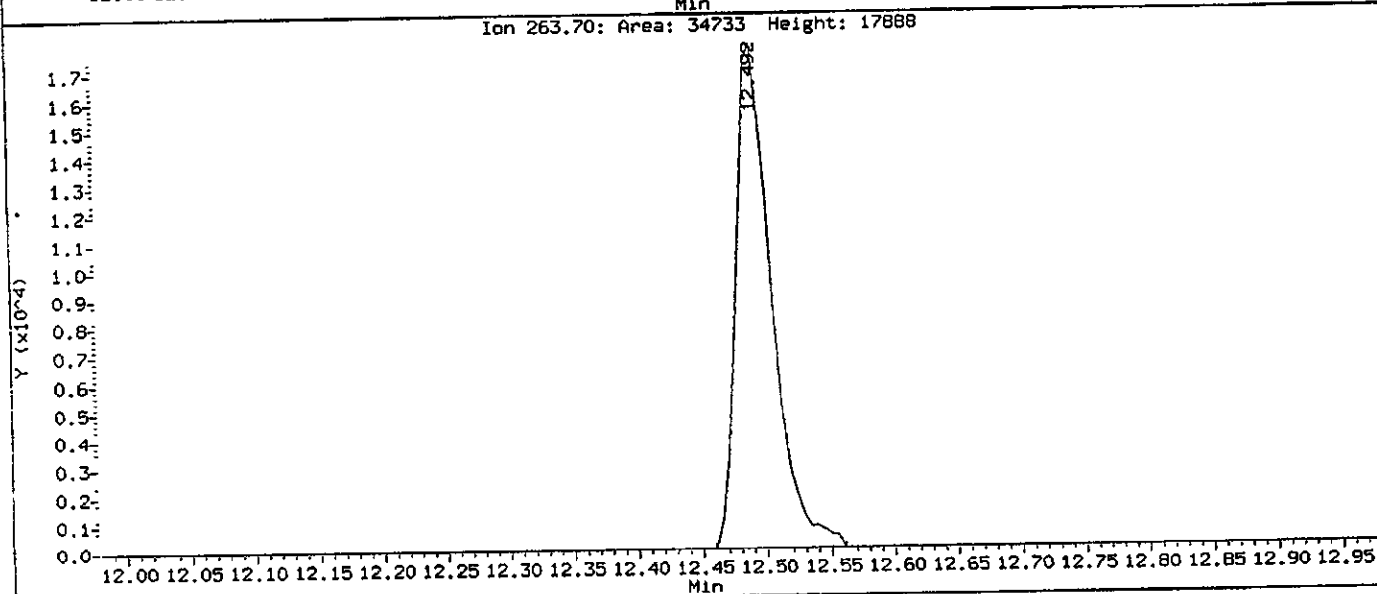
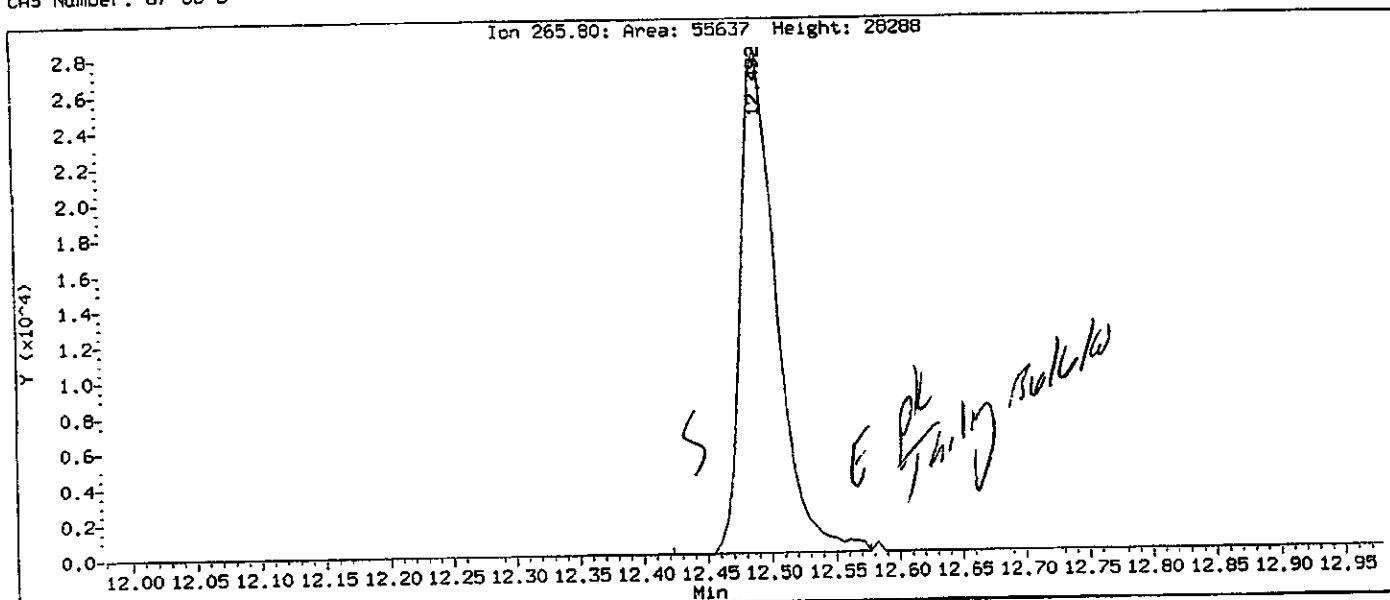
Data File: \\QPITPA02\D\chem\71.1\s060600.b\s0606002.D  
Injection Date: 06-JUN-2000 09:23  
Instrument: 71.1  
Client Sample ID: INTRA-LAB CHECK

Compound: Pyridine  
CAS Number: 110-86-1



Data File: \\QPITPA02\chem\71.1\s060600.b\S0606002.D  
Injection Date: 06-JUN-2000 09:23  
Instrument: 71.1  
Client Sample ID: INTRA-LAB CHECK

Compound: Pentachlorophenol  
CAS Number: 87-86-5





659 940

UXB INTERNATIONAL  
MATRIX SPIKE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E310132 001

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 05/31/00

Work Order: DE02211E

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/06/00

Moisture %: 14

QC Batch: 0157330

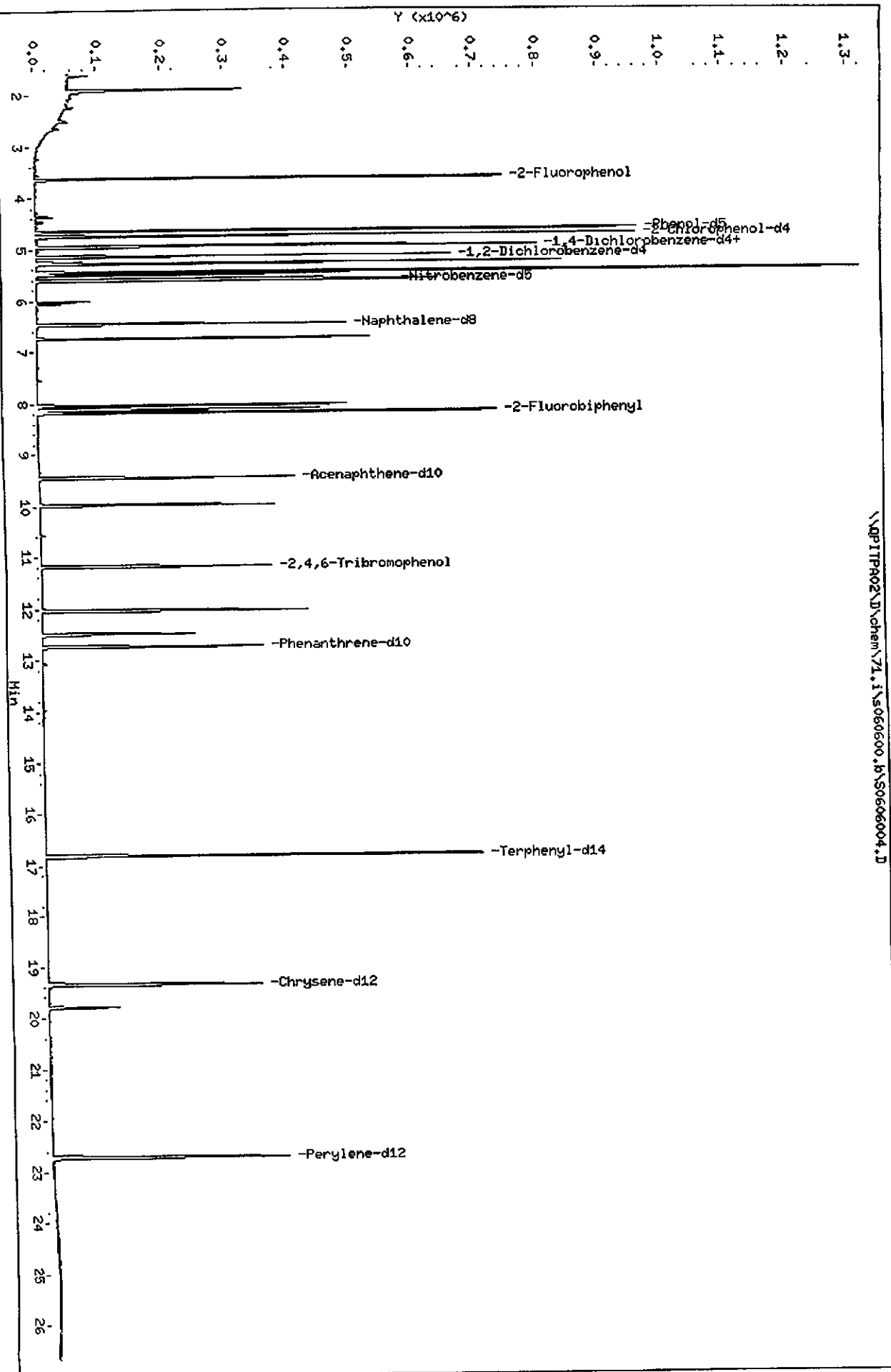
Client Sample Id: DF/S1/D151/SDC/005

| CAS NO.   | COMPOUND              | CONCENTRATION UNITS: |   |
|-----------|-----------------------|----------------------|---|
|           |                       | (ug/L or ug/kg) mg/L | Q |
| 106-46-7  | 1,4-Dichlorobenzene   | 0.158                |   |
| 121-14-2  | 2,4-Dinitrotoluene    | 0.171                |   |
| 118-74-1  | Hexachlorobenzene     | 0.193                |   |
| 87-68-3   | Hexachlorobutadiene   | 0.151                |   |
| 67-72-1   | Hexachloroethane      | 0.153                |   |
| 98-95-3   | Nitrobenzene          | 0.183                |   |
| 87-86-5   | Pentachlorophenol     | 0.185                |   |
| 110-86-1  | Pyridine              | 0.125                |   |
| 95-95-4   | 2,4,5-Trichlorophenol | 0.174                |   |
| 88-06-2   | 2,4,6-Trichlorophenol | 0.167                |   |
| 1319-77-3 | Cresols (total)       | 0.529                |   |

FORM I

Data File: \\QPI\PA02\chem\71.i\5060600.b\50606004.D  
 Date: 06-JUN-2000 10:28  
 Client ID: DF/S4/D154/SDC/005  
 Sample Info: 005310132-001ms 6/02/00 82705c1p  
 Volume Injected (uL): 2.0  
 Column phase: HeB-HS

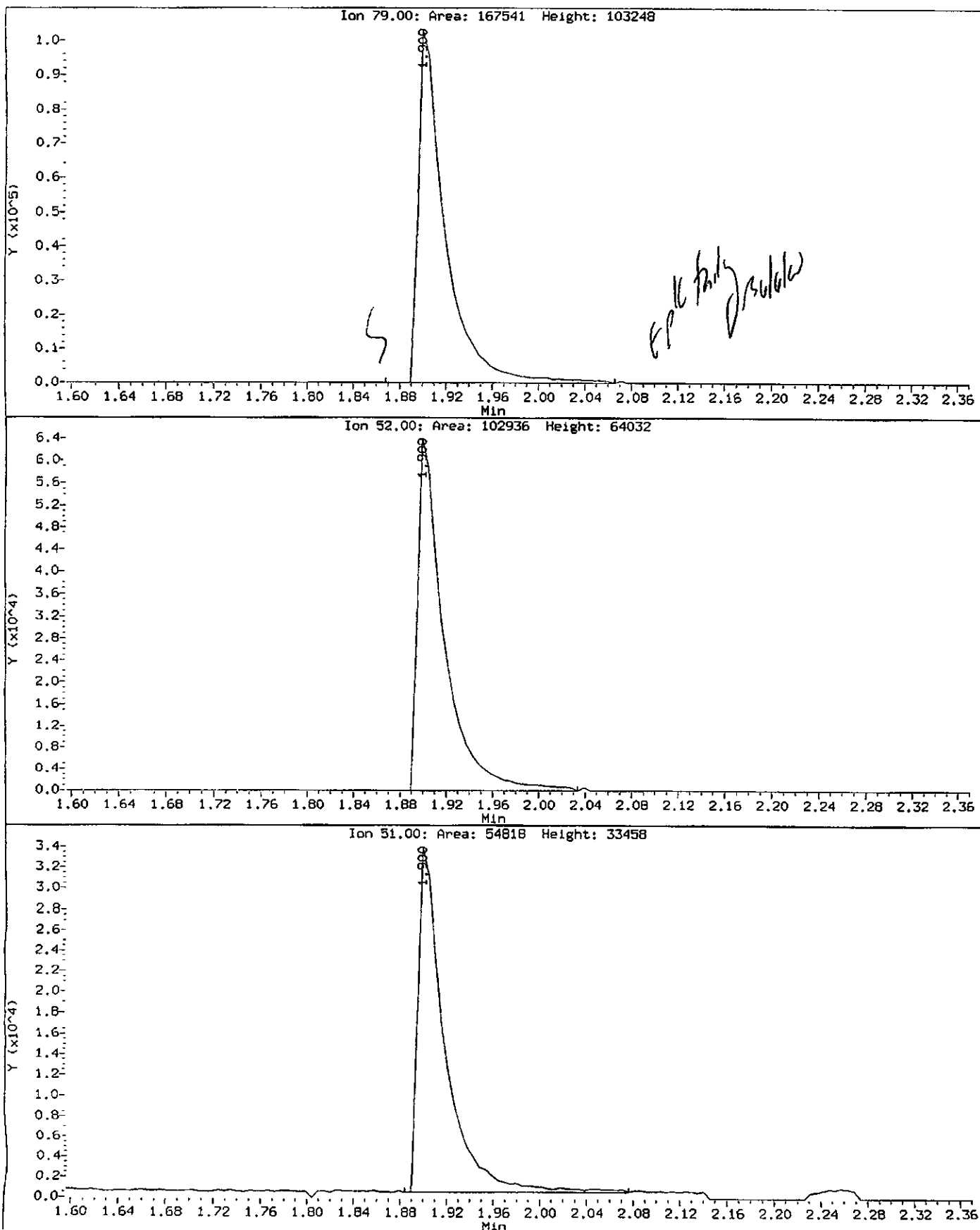
Instrument: 71.i  
 Operator: 045183  
 Column diameter: 0.25



659 942

Data File: \\QPITPA02\D\chem\71.1\s060600.b\S0606004.D  
Injection Date: 06-JUN-2000 10:28  
Instrument: 71.1  
Client Sample ID: DF/S1/D151/SDC/005

Compound: Pyridine  
CAS Number: 110-86-1



Data File: \\QPITPA02\D\chem\71.i\s060600.b\S0606004.D  
Report Date: 06-Jun-2000 11:13

Page 1

## STL Pittsburgh

## Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\71.i\s060600.b\S0606004.D  
Lab Smp Id: DE02211E Client Smp ID: DF/S1/D151/SDC/005  
Inj Date : 06-JUN-2000 10:28  
Operator : 045183 Inst ID: 71.i  
Smp Info : c0e310132-001ms 6/02/00 8270tclp  
Misc Info : de02211e,s060600.b,8270clp.m,1-tclp.sub  
Comment :  
Method : \\QPITPA02\D\chem\71.i\s060600.b\8270clp.m  
Meth Date : 06-Jun-2000 08:41 bachas Quant Type: ISTD  
Cal Date : 01-JUN-2000 12:15 Cal File: S0601CC5.D  
Als bottle: 6 QC Sample: MS  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 1-tclp.sub  
Target Version: 4.04  
Processing Host: PITPC050

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

| 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)            |

*AS 6/6/00*

| Compounds                  | QUANT SIG | RT     | EXP RT | REL RT  | RESPONSE | CONCENTRATIONS |              |
|----------------------------|-----------|--------|--------|---------|----------|----------------|--------------|
|                            |           |        |        |         |          | ON-COLUMN      | FINAL        |
|                            | MASS      |        |        |         |          | ( ng)          | ( mg/L)      |
| -----                      | ----      | --     | -----  | -----   | -----    | -----          | -----        |
| * 1 1,4-Dichlorobenzene-d4 | 152       | 4.945  | 4.934  | (1.000) | 82877    | 40.0000        | (a)          |
| * 2 Naphthalene-d8         | 136       | 6.451  | 6.446  | (1.000) | 319509   | 40.0000        | (a)          |
| * 3 Acenaphthene-d10       | 164       | 9.448  | 9.443  | (1.000) | 164276   | 40.0000        | (a)          |
| * 4 Phenanthrene-d10       | 188       | 12.734 | 12.728 | (1.000) | 282782   | 40.0000        | (a)          |
| * 5 Chrysene-d12           | 240       | 19.347 | 19.347 | (1.000) | 295814   | 40.0000        | (a)          |
| * 6 Perylene-d12           | 264       | 22.707 | 22.702 | (1.000) | 364207   | 40.0000        | (a)          |
| 10 Pyridine                | 79        | 1.900  | 1.868  | (0.384) | 167541   | 49.8077        | 0.12452 (aM) |
| 28 1,4-Dichlorobenzene     | 146       | 4.961  | 4.950  | (1.003) | 201665   | 63.1727        | 0.15793 (a)  |
| M 34 Cresols, total        | 100       |        |        |         | 580288   | 211.691        | 0.52923 (a)  |
| 31 2-Methylphenol          | 108       | 5.287  | 5.276  | (1.069) | 186229   | 70.4270        | 0.17607 (a)  |
| 35 4-Methylphenol          | 108       | 5.452  | 5.436  | (1.103) | 394059   | 141.264        | 0.35316 (a)  |
| 38 Hexachloroethane        | 117       | 5.500  | 5.495  | (1.112) | 77107    | 61.0938        | 0.15273 (a)  |
| 39 Nitrobenzene            | 77        | 5.613  | 5.602  | (0.870) | 255788   | 73.2145        | 0.18304 (a)  |
| 59 Hexachlorobutadiene     | 225       | 6.734  | 6.729  | (1.044) | 73307    | 60.5235        | 0.15131 (a)  |

| Compounds                     | QUANT SIG | MASS  | RT     | EXP RT | REL RT  | RESPONSE | CONCENTRATIONS |             |
|-------------------------------|-----------|-------|--------|--------|---------|----------|----------------|-------------|
|                               |           |       |        |        |         |          | ON-COLUMN      | FINAL       |
|                               |           |       |        |        |         |          | ( ng)          | ( mg/L)     |
| =====                         | =====     | ===== | =====  | =====  | =====   | =====    | =====          | =====       |
| 69 2,4,6-Trichlorophenol      |           | 196   | 8.038  | 8.032  | (0.851) | 93998    | 66 9057        | 0.16726 (a) |
| 70 2,4,5-Trichlorophenol      |           | 196   | 8.113  | 8.107  | (0.859) | 103376   | 69 7176        | 0.17429 (a) |
| 91 2,4-Dinitrotoluene         |           | 165   | 9.972  | 9.966  | (1.055) | 103949   | 68.2246        | 0.17056 (a) |
| 113 Hexachlorobenzene         |           | 284   | 12.034 | 12.023 | (0.945) | 106150   | 77.3172        | 0.19329 (a) |
| 117 Pentachlorophenol         |           | 266   | 12.483 | 12.477 | (0.980) | 52671    | 73 9037        | 0.18476 (a) |
| \$ 172 Nitrobenzene-d5        |           | 82    | 5.591  | 5.586  | (0.867) | 233673   | 72 3268        | 0.18082 (a) |
| \$ 173 2-Fluorobiphenyl       |           | 172   | 8.171  | 8.166  | (0.865) | 352662   | 67.7584        | 0.16940 (a) |
| \$ 174 Terphenyl-d14          |           | 244   | 16.804 | 16.794 | (0.869) | 512388   | 80.7333        | 0.20183 (a) |
| \$ 175 Phenol-d5              |           | 99    | 4.651  | 4.646  | (0.941) | 368344   | 103 884        | 0.25971 (a) |
| \$ 176 2-Fluorophenol         |           | 112   | 3.636  | 3.625  | (0.735) | 242264   | 85.4942        | 0.21374 (a) |
| \$ 177 2,4,6-Tribromophenol   |           | 330   | 11.179 | 11.174 | (0.878) | 74815    | 102.687        | 0.25672 (a) |
| \$ 178 2-Chlorophenol-d4      |           | 132   | 4.752  | 4.742  | (0.961) | 272074   | 104.823        | 0.26206 (a) |
| \$ 179 1,2-Dichlorobenzene-d4 |           | 152   | 5.148  | 5.137  | (1.041) | 110281   | 62.8390        | 0.15710 (a) |

## QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).  
M - Compound response manually integrated.

UXB INTERNATIONAL  
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COE310132 001

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 05/31/00

Work Order: DE02211F

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/06/00

Moisture %: 14

QC Batch: 0157330

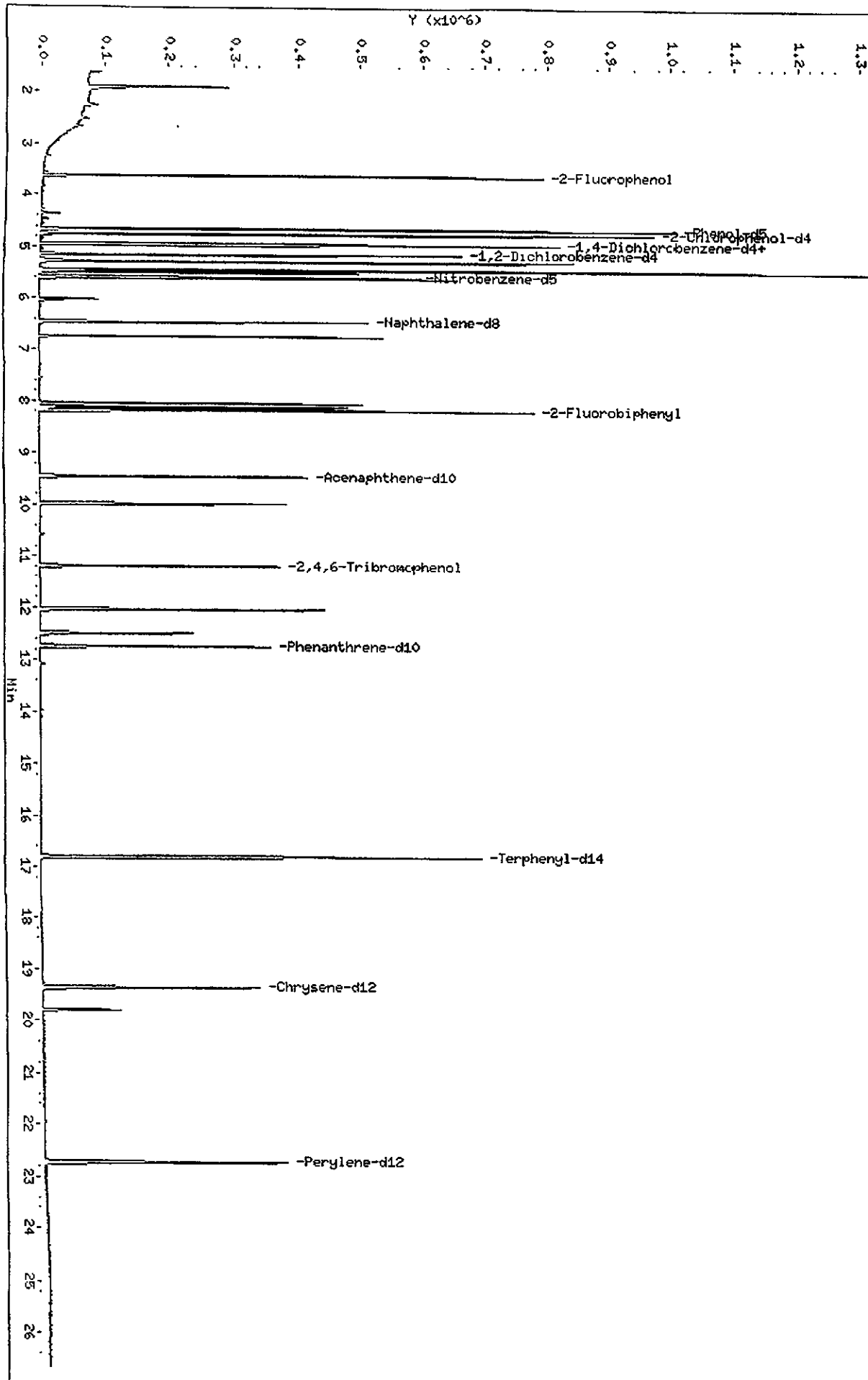
Client Sample Id: DF/S1/D151/SDC/005

| CAS NO.   | COMPOUND              | CONCENTRATION UNITS: |   |
|-----------|-----------------------|----------------------|---|
|           |                       | (ug/L or ug/kg) mg/L | Q |
| 106-46-7  | 1,4-Dichlorobenzene   | 0.160                |   |
| 121-14-2  | 2,4-Dinitrotoluene    | 0.177                |   |
| 118-74-1  | Hexachlorobenzene     | 0.201                |   |
| 87-68-3   | Hexachlorobutadiene   | 0.155                |   |
| 67-72-1   | Hexachloroethane      | 0.157                |   |
| 98-95-3   | Nitrobenzene          | 0.188                |   |
| 87-86-5   | Pentachlorophenol     | 0.188                |   |
| 110-86-1  | Pyridine              | 0.109                |   |
| 95-95-4   | 2,4,5-Trichlorophenol | 0.179                |   |
| 88-06-2   | 2,4,6-Trichlorophenol | 0.173                |   |
| 1319-77-3 | Cresols (total)       | 0.548                |   |

Data File: \\QPIITPA02\Jchem\71.1\5060600.b\50606005.D  
Date: 06-JUN-2000 11:02  
Client ID: DF/S1/DLS1/SHC/005  
Sample Info: c06210132-001msd 6/02/00 8270t01p  
Volume Injected (uL): 2.0  
Column phase: Hp5-MS

Instrument: 71.1  
Operator: 045183  
Column diameter: 0.25

\\QPIITPA02\Jchem\71.1\5060600.b\50606005.D



Data File: \\QPITPA02\D\chem\71.i\s060600.b\S0606005.D  
Report Date: 06-Jun-2000 11:40

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## STL Pittsburgh

## Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\71.i\s060600.b\S0606005.D  
Lab Smp Id: DE02211F Client Smp ID: DF/S1/D151/SDC/005  
Inj Date : 06-JUN-2000 11:02  
Operator : 045183 Inst ID: 71.i  
Smp Info : c0e310132-001msd 6/02/00 8270tclp  
Misc Info : de02211f,s060600.b,8270clp.m,1-tclp.sub  
Comment :  
Method : \\QPITPA02\D\chem\71.i\s060600.b\8270clp.m  
Meth Date : 06-Jun-2000 08:41 bachas Quant Type: ISTD  
Cal Date : 01-JUN-2000 12:15 Cal File: S0601CC5.D  
Als bottle: 7 QC Sample: MSD  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 1-tclp.sub  
Target Version: 4.04  
Processing Host: PITPC050

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

| 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)            |

| Compounds                  | QUANT | SIG |        |        |         |        |          | CONCENTRATIONS     |                  |
|----------------------------|-------|-----|--------|--------|---------|--------|----------|--------------------|------------------|
|                            |       |     | MASS   | RT     | EXP RT  | REL RT | RESPONSE | ON-COLUMN<br>( ng) | FINAL<br>( mg/L) |
| *****                      | ----  | --  | -----  | -----  | -----   | -----  | -----    | -----              | -----            |
| * 1 1,4-Dichlorobenzene-d4 | 152   |     | 4.948  | 4.934  | (1.000) |        | 82445    | 40.0000            | (a)              |
| * 2 Naphthalene-d8         | 136   |     | 6.460  | 6.446  | (1.000) |        | 320900   | 40.0000            | (a)              |
| * 3 Acenaphthene-d10       | 164   |     | 9.457  | 9.443  | (1.000) |        | 163646   | 40.0000            | (a)              |
| * 4 Phenanthrene-d10       | 188   |     | 12.743 | 12.728 | (1.000) |        | 276545   | 40.0000            | (a)              |
| * 5 Chrysene-d12           | 240   |     | 19.362 | 19.347 | (1.000) |        | 280321   | 40.0000            | (a)              |
| * 6 Perylene-d12           | 264   |     | 22.722 | 22.702 | (1.000) |        | 350563   | 40.0000            | (a)              |
| 10 Pyridine                | 79    |     | 1.903  | 1.868  | (0.385) |        | 146358   | 43.7382            | 0.10934 (aM)     |
| 28 1,4-Dichlorobenzene     | 146   |     | 4.964  | 4.950  | (1.003) |        | 203554   | 64.0985            | 0.16025 (a)      |
| M 34 Cresols, total        | 100   |     |        |        |         |        | 597695   | 219.168            | 0.54792 (a)      |
| 31 2-Methylphenol          | 108   |     | 5.290  | 5.276  | (1.069) |        | 191042   | 72.6257            | 0.18156 (a)      |
| 35 4-Methylphenol          | 108   |     | 5.461  | 5.436  | (1.104) |        | 406653   | 146.543            | 0.36636 (a)      |
| 38 Hexachloroethane        | 117   |     | 5.509  | 5.495  | (1.113) |        | 78974    | 62.9009            | 0.15725 (a)      |
| 39 Nitrobenzene            | 77    |     | 5.622  | 5.602  | (0.870) |        | 264264   | 75.3127            | 0.18828 (a)      |
| 59 Hexachlorobutadiene     | 225   |     | 6.738  | 6.729  | (1.043) |        | 75207    | 61.8230            | 0.15456 (a)      |



659 948

Data File: \\QPITPA02\D\chem\71.i\s060600.b\S0606005.D  
Report Date: 06-Jun-2000 11:40

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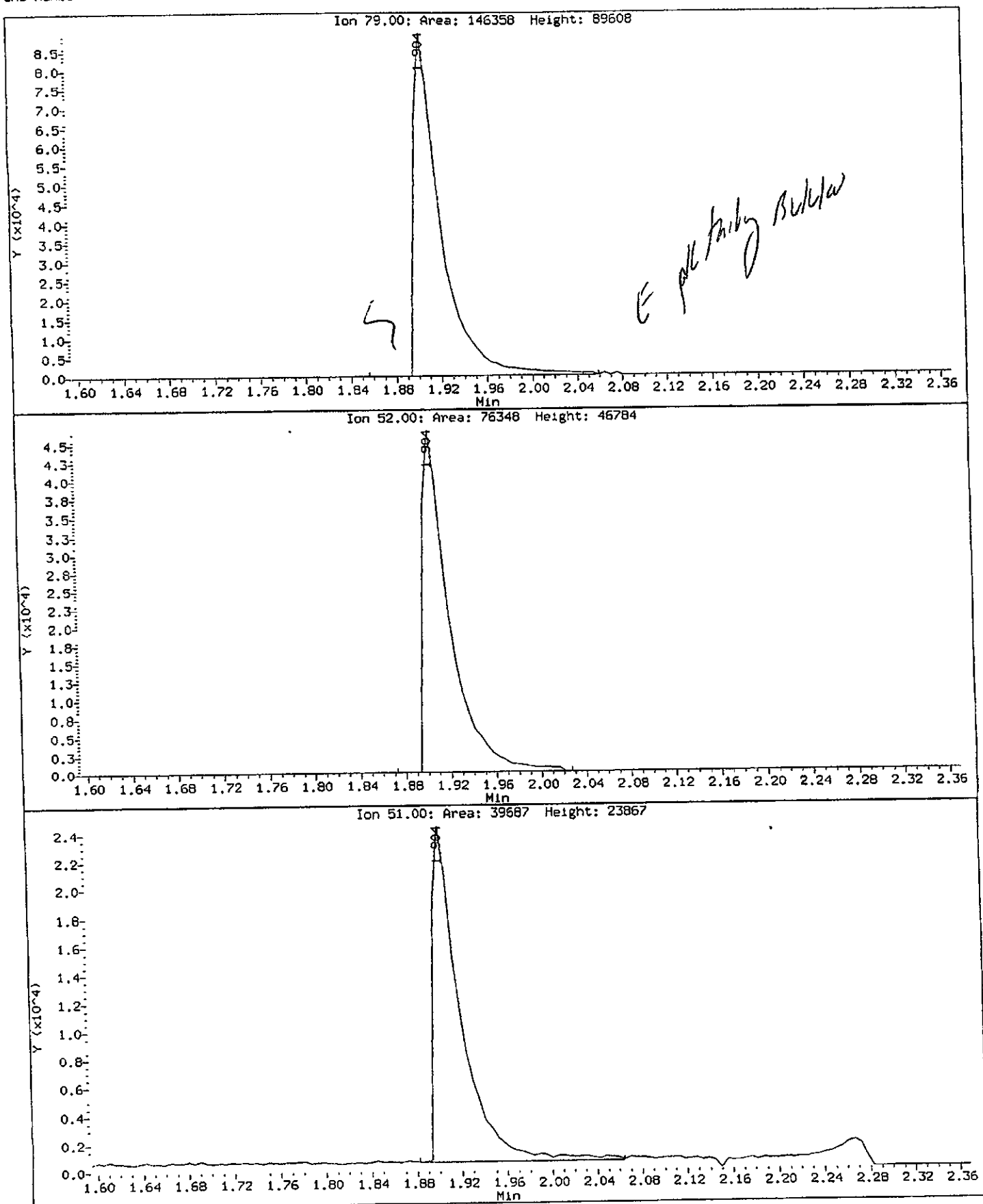
| Compounds                     | QUANT SIG |        |                |        |          |           | CONCENTRATIONS |       |
|-------------------------------|-----------|--------|----------------|--------|----------|-----------|----------------|-------|
|                               | MASS      | RT     | EXP RT         | REL RT | RESPONSE | ON-COLUMN | FINAL          |       |
|                               |           |        |                |        |          | ( ng)     | ( mg/L)        |       |
| -----                         | ----      | --     | -----          | -----  | -----    | -----     | -----          | ----- |
| 69 2,4,6-Trichlorophenol      | 196       | 8.047  | 8.032 (0.851)  |        | 96866    | 69.2125   | 0.17303(a)     |       |
| 70 2,4,5-Trichlorophenol      | 196       | 8.116  | 8.107 (0.858)  |        | 105673   | 71.5411   | 0.17885(a)     |       |
| 91 2,4-Dinitrotoluene         | 165       | 9.981  | 9.966 (1.055)  |        | 107589   | 70.8855   | 0.17721(a)     |       |
| 113 Hexachlorobenzene         | 284       | 12.043 | 12.023 (0.945) |        | 107879   | 80.3487   | 0.20087(a)     |       |
| 117 Pentachlorophenol         | 266       | 12.492 | 12.477 (0.980) |        | 52322    | 75.0705   | 0.18768(aM)    |       |
| \$ 172 Nitrobenzene-d5        | 82        | 5.600  | 5.586 (0.867)  |        | 241935   | 74.5595   | 0.18640(a)     |       |
| \$ 173 2-Fluorobiphenyl       | 172       | 8.180  | 8.166 (0.865)  |        | 359028   | 69.2471   | 0.17312(a)     |       |
| \$ 174 Terphenyl-d14          | 244       | 16.813 | 16.794 (0.868) |        | 504509   | 83.8853   | 0.20971(a)     |       |
| \$ 175 Phenol-d5              | 99        | 4.655  | 4.646 (0.941)  |        | 380577   | 107.896   | 0.26974(a)     |       |
| \$ 176 2-Fluorophenol         | 112       | 3.640  | 3.625 (0.736)  |        | 244559   | 86.7563   | 0.21689(a)     |       |
| \$ 177 2,4,6-Tribromophenol   | 330       | 11.193 | 11.174 (0.878) |        | 77300    | 108.491   | 0.27123(a)     |       |
| \$ 178 2-Chlorophenol-d4      | 132       | 4.756  | 4.742 (0.961)  |        | 277680   | 107.543   | 0.26886(a)     |       |
| \$ 179 1,2-Dichlorobenzene-d4 | 152       | 5.151  | 5.137 (1.041)  |        | 110961   | 63.5577   | 0.15889(a)     |       |

## QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).  
M - Compound response manually integrated.

Data File: \\QPITPA02\D\chem\71.i\s060600.b\S0606005.D  
Injection Date: 06-JUN-2000 11:02  
Instrument: 71.i  
Client Sample ID: DF/S1/D151/SDC/005

Compound: Pyridine  
CAS Number: 110-86-1



659 350

Data File: \\QFITPA02\D\chem\71.i\s060600.b\s0606005.D

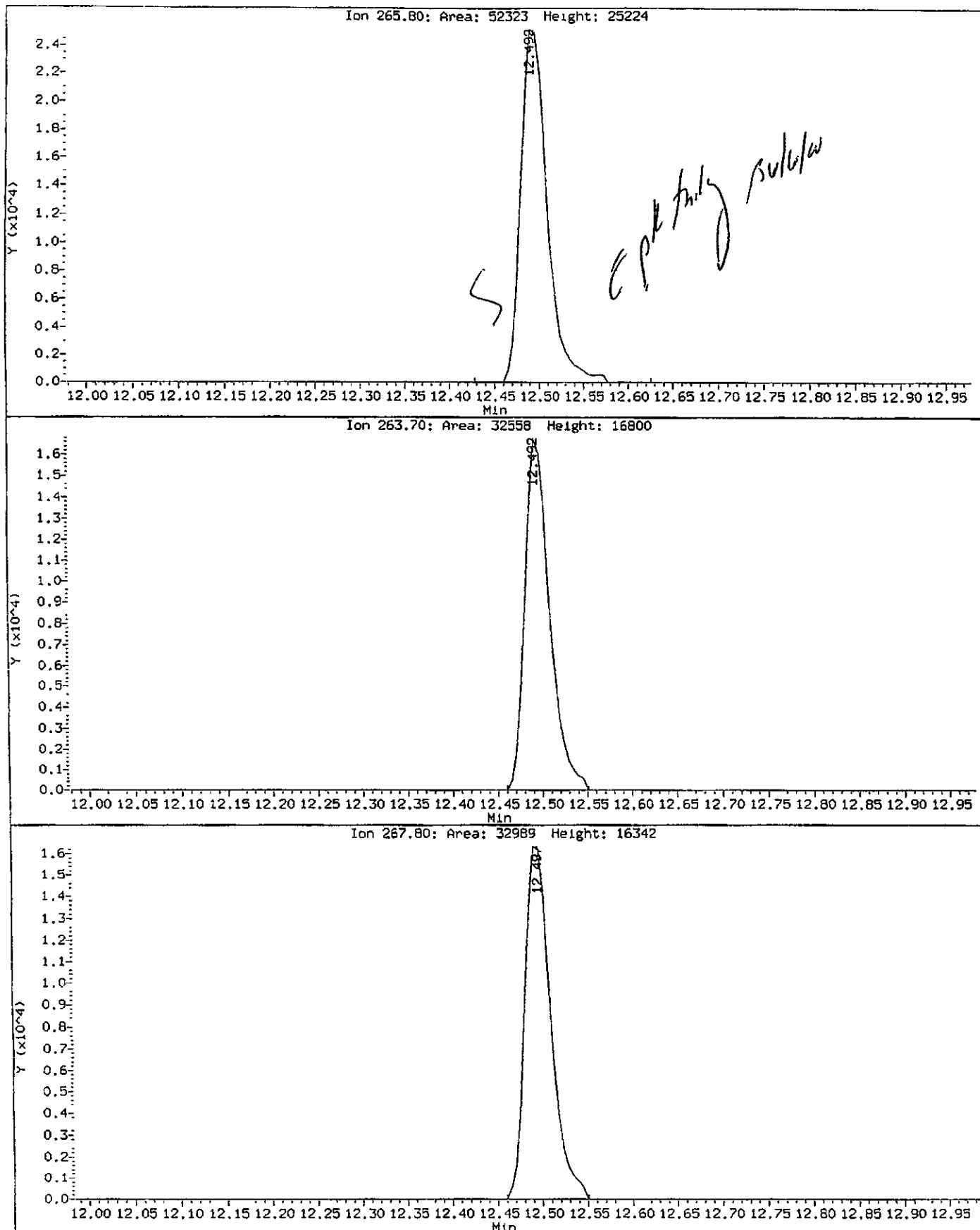
Injection Date: 06-JUN-2000 11:02

Instrument: 71.i

Client Sample ID: DF/S1/D151/SDC/005

Compound: Pentachlorophenol

CAS Number: 87-86-5



**GC/MS SEMIVOLATILE  
MISCELLANEOUS**

# Continuous L-L Extraction Worksheet

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

Submitted To Your Success

| Began 6/2/2000       |           | Time 19:05 | Prep Meth # 3530c |                  | H2SO4 186-15-12 | Solvent Mfg. Baker | Solvent Lot 108286 | NaSO4 Lot Number 713624 | Clean up Method NA |              |                   |
|----------------------|-----------|------------|-------------------|------------------|-----------------|--------------------|--------------------|-------------------------|--------------------|--------------|-------------------|
| Change over 6/5/2000 |           | Time 08:10 | Analysis 8270     |                  | NaOH. 0090-09   | Solvent Mfg. Baker | Solvent Lot 108286 | NaSO4 Lot Number 713624 | Clean up Method NA |              |                   |
| Completed 6-6-00     | Time 0500 | Sample ID  | Client ID         | Extract Vol (mL) | Final Volume mL | pH                 | Surrogate Lot #    | Surri Vol (mL)          | Matrix Spike Lot # | MS Vol. (mL) | Cleanup Inhibitor |
| 1. C0E310132         | BLK       |            | NA                | 200              | 1.0             | 5/2/11             | 194-176-5          | 0.5                     | 194-165-6          | 0.5          | NA                |
| 2. C0E310132         | LC5       |            |                   |                  |                 | 6/2/11             |                    |                         |                    |              |                   |
| 3. C0E310132         | MS (001)  |            |                   |                  |                 | 6/2/11             |                    |                         |                    |              |                   |
| 4. C0E310132         | MSD (001) |            |                   |                  |                 | 6/2/11             |                    |                         |                    |              |                   |
| 5. C0E310132         | MSD (001) |            |                   |                  |                 | 6/2/11             |                    |                         |                    |              |                   |
| 6. C0E310132         | MSD (001) |            |                   |                  |                 | 6/2/11             |                    |                         |                    |              |                   |
| 7. C0E310132         | MSD (001) |            |                   |                  |                 | 6/2/11             |                    |                         |                    |              |                   |
| 8. C0E310132         | MSD (001) |            |                   |                  |                 | 6/2/11             |                    |                         |                    |              |                   |
| 9. C0E310132         | MSD (001) |            |                   |                  |                 | 6/2/11             |                    |                         |                    |              |                   |
| 10. C0E310132        | MSD (001) |            |                   |                  |                 | 6/2/11             |                    |                         |                    |              |                   |
| 11. C0E310132        | MSD (001) |            |                   |                  |                 | 6/2/11             |                    |                         |                    |              |                   |
| 12. C0E310132        | MSD (001) |            |                   |                  |                 | 6/2/11             |                    |                         |                    |              |                   |
| 13. C0E310132        | MSD (001) |            |                   |                  |                 | 6/2/11             |                    |                         |                    |              |                   |
| 14. C0E310132        | MSD (001) |            |                   |                  |                 | 6/2/11             |                    |                         |                    |              |                   |
| 15. C0E310132        | MSD (001) |            |                   |                  |                 | 6/2/11             |                    |                         |                    |              |                   |
| 16. C0E310132        | MSD (001) |            |                   |                  |                 | 6/2/11             |                    |                         |                    |              |                   |
| 17. C0E310132        | MSD (001) |            |                   |                  |                 | 6/2/11             |                    |                         |                    |              |                   |
| 18. C0E310132        | MSD (001) |            |                   |                  |                 | 6/2/11             |                    |                         |                    |              |                   |
| 19. C0E310132        | MSD (001) |            |                   |                  |                 | 6/2/11             |                    |                         |                    |              |                   |
| 20. C0E310132        | MSD (001) |            |                   |                  |                 | 6/2/11             |                    |                         |                    |              |                   |
| 21. C0E310132        | MSD (001) |            |                   |                  |                 | 6/2/11             |                    |                         |                    |              |                   |
| 22. C0E310132        | MSD (001) |            |                   |                  |                 | 6/2/11             |                    |                         |                    |              |                   |
| 23. C0E310132        | MSD (001) |            |                   |                  |                 | 6/2/11             |                    |                         |                    |              |                   |

| Prep Analyst: NJT       | WT | WT | WT | KG | WT | SM | SM | SM | SM | WT |
|-------------------------|----|----|----|----|----|----|----|----|----|----|
| Extract(s)              |    |    |    |    |    |    |    |    |    |    |
| Extract(s) Received     |    |    |    |    |    |    |    |    |    |    |
| Extract(s) Relinquished |    |    |    |    |    |    |    |    |    |    |

| Batch Number: 0157330 | Record line number from above | Date   | Time | Analyst  | Location | Date   | Time | Analyst  | Location |
|-----------------------|-------------------------------|--------|------|----------|----------|--------|------|----------|----------|
|                       | 1                             | 6.6.00 | 0450 | Joe J... | Refill   | 6.6.00 | 0500 | Joe J... | Refill   |
|                       | 2                             | 6.6.00 | 0700 | Joe J... | Refill   | 6.6.00 | 0700 | Joe J... | Refill   |
|                       | 3                             | 6.6.00 | 0700 | Joe J... | Refill   | 6.6.00 | 0700 | Joe J... | Refill   |
|                       | 4                             | 6.6.00 | 0700 | Joe J... | Refill   | 6.6.00 | 0700 | Joe J... | Refill   |
|                       | 5                             | 6.6.00 | 0700 | Joe J... | Refill   | 6.6.00 | 0700 | Joe J... | Refill   |
|                       | 6                             | 6.6.00 | 0700 | Joe J... | Refill   | 6.6.00 | 0700 | Joe J... | Refill   |
|                       | 7                             | 6.6.00 | 0700 | Joe J... | Refill   | 6.6.00 | 0700 | Joe J... | Refill   |
|                       | 8                             | 6.6.00 | 0700 | Joe J... | Refill   | 6.6.00 | 0700 | Joe J... | Refill   |
|                       | 9                             | 6.6.00 | 0700 | Joe J... | Refill   | 6.6.00 | 0700 | Joe J... | Refill   |
|                       | 10                            | 6.6.00 | 0700 | Joe J... | Refill   | 6.6.00 | 0700 | Joe J... | Refill   |
|                       | 11                            | 6.6.00 | 0700 | Joe J... | Refill   | 6.6.00 | 0700 | Joe J... | Refill   |
|                       | 12                            | 6.6.00 | 0700 | Joe J... | Refill   | 6.6.00 | 0700 | Joe J... | Refill   |
|                       | 13                            | 6.6.00 | 0700 | Joe J... | Refill   | 6.6.00 | 0700 | Joe J... | Refill   |
|                       | 14                            | 6.6.00 | 0700 | Joe J... | Refill   | 6.6.00 | 0700 | Joe J... | Refill   |
|                       | 15                            | 6.6.00 | 0700 | Joe J... | Refill   | 6.6.00 | 0700 | Joe J... | Refill   |
|                       | 16                            | 6.6.00 | 0700 | Joe J... | Refill   | 6.6.00 | 0700 | Joe J... | Refill   |
|                       | 17                            | 6.6.00 | 0700 | Joe J... | Refill   | 6.6.00 | 0700 | Joe J... | Refill   |
|                       | 18                            | 6.6.00 | 0700 | Joe J... | Refill   | 6.6.00 | 0700 | Joe J... | Refill   |
|                       | 19                            | 6.6.00 | 0700 | Joe J... | Refill   | 6.6.00 | 0700 | Joe J... | Refill   |
|                       | 20                            | 6.6.00 | 0700 | Joe J... | Refill   | 6.6.00 | 0700 | Joe J... | Refill   |
|                       | 21                            | 6.6.00 | 0700 | Joe J... | Refill   | 6.6.00 | 0700 | Joe J... | Refill   |
|                       | 22                            | 6.6.00 | 0700 | Joe J... | Refill   | 6.6.00 | 0700 | Joe J... | Refill   |
|                       | 23                            | 6.6.00 | 0700 | Joe J... | Refill   | 6.6.00 | 0700 | Joe J... | Refill   |

Quanterra N-10ALOGBOOKS\_PDFC.LL\_EXT.DOC May-00

Log Book Number OP-00-0037

Page 32 of 100



# TCLP (Method 1311)

Quanterra Incorporated  
450 William Pitt Way  
Pittsburgh, Pennsylvania 15238  
412/826-5477 FAX: 412/826-5571



QUA-4181

By

*Jeffrey D. Gault*

Date

6-1-00

Checked by

*[Signature]*

Date

6-2-00

pH Instrument

Accumet MDS

Probe

SN909036

Balance

C94817

Project Number

00E330015 C0E310152

Client Codes

131369, 375241, 399411

Solution Number 1 - Log Book Number

995404-12

Solution Number 2 - Log Book Number

## Fluid Determination

## TCLP Extraction

| Sample ID | Wgt/Vol      | Init. pH | Final pH | Extract Fluid #1, or #2 | Conc. HNO <sub>3</sub> to Acidity (for Metals) | Sample ID | Wgt (g) Wet/Dry | Fluid Vol.   | Final pH After Mixing |
|-----------|--------------|----------|----------|-------------------------|------------------------------------------------|-----------|-----------------|--------------|-----------------------|
| DDK63     | 5.003/46.5.1 | 8.62     | 1.61     | Sol #1                  | 5mL                                            | 1. DDK63  | 100.00g         | 2000mL Glass | 5.32                  |
| DDK65     |              | 5.17     | 1.52     |                         |                                                | 2. DDK65  |                 |              | 5.32                  |
| DDKLV     |              | 8.61     | 1.59     |                         |                                                | 3. DDK65  |                 |              | 4.91                  |
| DE022     |              | 8.60     | 1.74     |                         |                                                | 4. DDKLV  |                 |              | 4.93                  |
|           |              |          |          |                         |                                                | 5. DE022  |                 |              | 5.40                  |
|           |              |          |          |                         |                                                | 6. DE022  |                 |              | 5.21                  |
|           |              |          |          |                         |                                                | 7.        |                 |              |                       |
|           |              |          |          |                         |                                                | 8.        |                 |              |                       |
|           |              |          |          |                         |                                                | 9.        |                 |              |                       |
|           |              |          |          |                         |                                                | 10.       |                 |              |                       |
|           |              |          |          |                         |                                                | 11.       |                 |              |                       |
|           |              |          |          |                         |                                                | 12.       |                 |              |                       |
|           |              |          |          |                         |                                                | 13.       |                 |              |                       |

## Extract(s)

## Extract(s) Received

## Extract(s) Relinquished

(Record line number from above)

Date

Time

Analyst

Location

Date

Time

Analyst

Location

All Above

6-2-00

1135

*Jeffrey D. Gault*

Metals Inc 6-2-00

140

*Jeffrey D. Gault*

30F

\* = Sample determined to have free-liquid, % solid determination was performed.

<5 = Extraction Fluid No. 1 5.7 mL Glacial Acetic Acid dil 500 mL + 64.3 mL of 1N Na OH dil to 1L (pH 4.93 + 0.05)

>5 = Extraction Fluid No. 2 5.7 mL Glacial Acetic Acid dil to 1L (pH 2.88 + 0.05)

Room Temp 23°

Date/Time On 6-1-00 1800 Date/Time Off 6-2-00 0415

pH Calibration

(4.0)

(7.0)

(10.0)

Date 6-1-00

Date 6-2-00

4.00

7.01

10.08

Date 6-2-00

Date 6-2-00

4.00

7.01

10.04

Comments

Sequence Name: D:\HPCHEM\1\SEQUENCE\S060100.S

Comment: STL PITT HP597371A LOG 2ul inj (100ul+1ul IS)

659 955

Operator: 045183

Data Path: D:\HPCHEM\1\DATA\s060100.b\

Pre-Seq Cmd:

Post-Seq Cmd:

*Handwritten signature*

*IS 144-174-1*  
*8270*

Method Sections To Run

(X) Full Method

( ) Reprocessing Only

On A Barcode Mismatch

(X) Inject Anyway

( ) Don't Inject

| Line            | Type   | Vial | DataFile | Method | Sample Name                   |
|-----------------|--------|------|----------|--------|-------------------------------|
| <i>Polite</i> 1 | Sample | 1    | S0601DF1 | DFTPP1 | DFTPP050 (25ppb) 194-158-6    |
| 2               | Sample | 1    | S0601DF2 | DFTPP1 | DFTPP050 (25ppb) 194-158-6    |
| 3               | Sample | 1    | S0601DF3 | DFTPP1 | DFTPP050 (25ppb) 194-158-6    |
| 4               | Sample | 2    | S0601CCC | EARLY  | sstd50(25 ug/ml) 194-177-4 82 |
| 5               | Sample | 3    | S0601CC2 | EARLY  | sstd20(10 ug/ml) 194-175-10 8 |
| 6               | Sample | 4    | S0601CC3 | EARLY  | sstd80(40 ug/ml) 194-175-12 8 |
| 7               | Sample | 5    | S0601CC4 | EARLY  | sstd120(60 ug/ml) 194-175-13  |
| 8               | Sample | 6    | S0601CC5 | EARLY  | sstd160(80 ug/ml) 194-175-14  |
| <i>6/1/00</i> 9 | Sample | 7    | S0601VER | EARLY  | sstd50(25 ug/ml) 194-175-7 ul |



659 956  
659 956

Sequence Name: D:\HPCHEM\1\SEQUENCE\S060600.S  
 Comment: STL PITT HP597371A LOG 2ul inj (100ul+1ul IS)  
 Operator: 045183  
 Data Path: D:\HPCHEM\1\DATA\s060600.b\  
 Pre-Seq Cmd:  
 Post-Seq Cmd:

*JS-144-174-1*  
*E270*

Method Sections To Run      On A Barcode Mismatch  
 (X) Full Method              (X) Inject Anyway  
 ( ) Reprocessing Only        ( ) Don't Inject

| Line | Type   | Vial | DataFile | Method | Sample Name                   |
|------|--------|------|----------|--------|-------------------------------|
| 1    | Sample | 1    | S0605DF1 | DFTPP1 | DFTPP050 (25ppb) 194-158-6    |
| 2    | Sample | 1    | S0606DF2 | DFTPP1 | DFTPP050 (25ppb) 194-158-6    |
| 3    | Sample | 2    | S0606CCC | EARLY  | sstd50(25 ug/ml) 194-177-7 82 |
| 4    | Sample | 3    | S0606001 | EARLY  | c0e310132-sblk 6/02/00 8270tc |
| 5    | Sample | 4    | S0606002 | EARLY  | c0e310132-lcs 6/02/00 8270tcl |
| 6    | Sample | 5    | S0606003 | EARLY  | c0e310132-001 6/02/00 8270tcl |
| 7    | Sample | 6    | S0606004 | EARLY  | c0e310132-001ms 6/02/00 8270t |
| 8    | Sample | 7    | S0606005 | EARLY  | c0e310132-001msd 6/02/00 8270 |
| 9    | Sample | 8    | S0606006 | EARLY  | c0e230215-009 6-516 6/02/00 8 |
| 10   | Sample | 9    | S0606007 | EARLY  | c0e230215-010 6-516 6/02/00 8 |
| 11   | Sample | 10   | S0606008 | EARLY  | c0e230215-011 6-516 6/02/00 8 |
| 12   | Sample | 11   | S0606009 | EARLY  | c0e230215-012 6-516 6/02/00 8 |
| 13   | Sample | 12   | S0606010 | EARLY  | c0e230215-013 6-516 6/02/00 8 |

*6/6/00*

*6/6/00*

*↓*

*Fluor*

6/02/00 7:20:09 MT

## SAMPLE CUSTODIAN REMOVAL REQUEST

REQUESTED BY: TROUTB

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

| STORAGE LOCATION | WORK ORDER # | PICKED<br>CNTR# | CONTROL # | CLIENT # | ANALYSIS          | LOTID | SMP# | SFX | MATRIX<br>DESCRIPTION | QTY<br>RCVD | QTY<br>REGD |
|------------------|--------------|-----------------|-----------|----------|-------------------|-------|------|-----|-----------------------|-------------|-------------|
| 6A               | DDKFG-1-02   | ___             | 237671    | 131369   | A-59-QL COE230215 | 009   |      |     | SOLID                 | 0           | 4 1         |
| 6A               | DDKFH-1-02   | ___             | 237672    | 131369   | A-59-QL COE230215 | 010   |      |     | SOLID                 | 0           | 4 1         |
| 6A               | DDKFJ-1-02   | ___             | 237673    | 131369   | A-59-QL COE230215 | 011   |      |     | SOLID                 | 0           | 4 1         |
| 6A               | DDKFK-1-02   | ___             | 237674    | 131369   | A-59-QL COE230215 | 012   |      |     | SOLID                 | 0           | 4 1         |
| 6A               | DDKFL-1-02   | ___             | 237675    | 131369   | A-59-QL COE230215 | 013   |      |     | SOLID                 | 0           | 4 1         |
| 6A               | DDKFM-1-02   | ___             | 237676    | 131369   | A-59-QL COE230215 | 014   |      |     | SOLID                 | 0           | 4 1         |
| 6A               | DDKFN-1-02   | ___             | 237677    | 131369   | A-59-QL COE230215 | 015   |      |     | SOLID                 | 0           | 4 1         |
| 6A               | DDKFP-1-01   | ___             | 237678    | 131369   | A-59-QL COE230215 | 016   |      |     | SOLID                 | 0           | 2 1         |
| 6A               | DDKFQ-1-01   | ___             | 237679    | 131369   | A-59-QL COE230215 | 017   |      |     | SOLID                 | 0           | 2 1         |
| 6A               | DDKFR-1-01   | ___             | 237680    | 131369   | A-59-QL COE230215 | 018   |      |     | SOLID                 | 0           | 2 1         |
| 6A               | DDKFV-1-01   | ___             | 237681    | 131369   | A-59-QL COE230215 | 019   |      |     | SOLID                 | 0           | 2 1         |
| 6A               | DDKFW-1-01   | ___             | 237682    | 131369   | A-59-QL COE230215 | 020   |      |     | SOLID                 | 0           | 2 1         |
| 6A               | DDKFX-1-01   | ___             | 237683    | 131369   | A-59-QL COE230215 | 021   |      |     | SOLID                 | 0           | 2 1         |
| 6A               | DDKG3-1-01   | ___             | 237684    | 131369   | A-59-QL COE230215 | 022   |      |     | SOLID                 | 0           | 2 1         |
| 6A               | DDKG5-1-01   | ___             | 237685    | 131369   | A-59-QL COE230215 | 023   |      |     | SOLID                 | 0           | 2 1         |
| 6D,E CLP1        | DDNW7-1-07   | ___             | 237668    | 416241   | A-59-QL COE250165 | 001   |      |     | SOLID                 | 0           | 8 1         |
| 6D,E CLP1        | DDNW1-1-07   | ___             | 237669    | 416241   | A-59-QL COE250172 | 001   |      |     | SOLID                 | 0           | 8 1         |
| 7E CLP1          | DE022-1-03   | ___             | 237670    | 399411   | A-59-QL COE310132 | 001   |      |     | SOLID                 | 0           | 3 1         |

659 958

PSR024 6/02/00 7:20:09 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 002

REQUESTED BY: TROUTB

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

| <u>STORAGE LOCATION</u> | <u>WORK ORDER #</u> | <u>PICKED</u><br><u>CNTR#</u> | <u>CONTROL #</u> | <u>CLIENT #</u> | <u>ANALYSIS</u> | <u>LOTID</u> | <u>SMP#</u> | <u>SFX</u> | <u>MATRIX</u><br><u>DESCRIPTION</u> | <u>QTY</u><br><u>RCVD</u> | <u>QTY</u><br><u>REQD</u> |
|-------------------------|---------------------|-------------------------------|------------------|-----------------|-----------------|--------------|-------------|------------|-------------------------------------|---------------------------|---------------------------|
|-------------------------|---------------------|-------------------------------|------------------|-----------------|-----------------|--------------|-------------|------------|-------------------------------------|---------------------------|---------------------------|

RELINQUISHED BY

RECEIVED BY

DATE/TIME

B Trout

B Trout

6/2/2000 11:15  
6/2/2000 13:55

**PESTICIDE DATA**

659 960

**PESTICIDE  
QC SUMMARY**

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

QESSDG:

Lot #: C0E310132

|    | CLIENT ID.           | SRG01 | SRG02 | TOT OUT |
|----|----------------------|-------|-------|---------|
|    | =====                | ===== | ===== | =====   |
| 01 | DF/S1/D151/SDC/005   | 104   | 88    | 00      |
| 02 | METHOD BLK. DE52F101 | 116   | 99    | 00      |
| 03 | LCS DE52F102         | 115   | 99    | 00      |
| 04 | DF/S1/D151/SDC/005 D | 108   | 86    | 00      |
| 05 | DF/S1/D151/SDC/005 S | 105   | 86    | 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

659 962 SW846 8081A CHECK SAMPLE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: C0F020000

WO #: DE52F102

BATCH: 0154358

| COMPOUND           | SPIKE<br>ADDED<br>(mg/L ) | SAMPLE<br>CONCENT.<br>(mg/L ) | %<br>REC | QC<br>LIMITS<br>REC | QUAL |
|--------------------|---------------------------|-------------------------------|----------|---------------------|------|
| Lindane            | 0.00250                   | 0.00202                       | 81       | 49 - 137            |      |
| Heptachlor         | 0.00250                   | 0.00228                       | 91       | 57 - 124            |      |
| Heptachlor epoxide | 0.00250                   | 0.00230                       | 92       | 53 - 135            |      |
| Endrin             | 0.00250                   | 0.00243                       | 97       | 46 - 137            |      |
| Methoxychlor       | 0.00250                   | 0.00282                       | 113      | 12 - 154            |      |

NOTES(S):

---

\* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS:

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FORM III

## SW846 8081A 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/D151/SDC/005

Level: (low/med) LOW

Lot #: C0E310132

WO #: DE02210Q

BATCH: 0154358

| COMPOUND           | SPIKE<br>ADDED<br>(mg/L ) | SAMPLE<br>CONCENT.<br>(mg/L ) | MS<br>CONCENT.<br>(mg/L ) | MS<br>%<br>REC | LIMITS<br>REC | QUAL  |
|--------------------|---------------------------|-------------------------------|---------------------------|----------------|---------------|-------|
| =====              | =====                     | =====                         | =====                     | =====          | =====         | ===== |
| Lindane            | 0.00250                   | ND                            | 0.00169                   | 68             | 30 - 148      |       |
| Heptachlor         | 0.00250                   | ND                            | 0.00197                   | 79             | 25 - 135      |       |
| Heptachlor epoxide | 0.00250                   | ND                            | 0.00200                   | 80             | 38 - 138      |       |
| Endrin             | 0.00250                   | ND                            | 0.00220                   | 88             | 28 - 148      |       |
| Methoxychlor       | 0.00250                   | ND                            | 0.00262                   | 105            | 13 - 154      |       |

## 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   5   outside limits

COMMENTS:

FORM III



659 964 SW846 8081A 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/D151/SDC/005

Level: (low/med) LOW

Lot #: COE310132

WO #: DE02210R

BATCH: 0154358

| COMPOUND           | SPIKE            | MSD                 | MSD      |          | QC LIMITS |          | QUAL |
|--------------------|------------------|---------------------|----------|----------|-----------|----------|------|
|                    | ADDED<br>(mg/L ) | CONCENT.<br>(mg/L ) | %<br>REC | %<br>RPD | RPD       | REC      |      |
| Endrin             | 0.00250          | 0.00221             | 88       | 0.32     | 40        | 28 - 148 |      |
| Lindane            | 0.00250          | 0.00172             | 69       | 2.0      | 22        | 30 - 148 |      |
| Heptachlor         | 0.00250          | 0.00199             | 80       | 1.1      | 32        | 25 - 135 |      |
| Heptachlor epoxide | 0.00250          | 0.00203             | 81       | 1.2      | 31        | 38 - 138 |      |
| Methoxychlor       | 0.00250          | 0.00269             | 108      | 2.4      | 29        | 13 - 154 |      |

NOTES (S) :

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

\* Values outside of QC limits

RPD: \_\_\_0\_\_\_ out of \_\_\_5\_\_\_ outside limits

Spike Recovery: \_\_\_0\_\_\_ out of \_\_\_5\_\_\_ outside limits

COMMENTS:

FORM III

BLANK WORKORDER NO.

## SW846 8081A METHOD BLANK SUMMARY

DE52F101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID:

Lot Number: C0E310132

Matrix: SOLID

Extraction Method: 1311/3510

Date Extracted: 06/02/00

Date Analyzed(1): 06/06/00

Date Analyzed(2): N/A

Time Analyzed(1): 00:00

Time Analyzed(2): N/A

Instrument ID(1): E/F

Instrument ID(2): N/A

GC Column(1): N/A ID: N/A GC Column(2): N/A ID: N/A

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

| CLIENT ID.            | SAMPLE<br>WORK ORDER # | DATE<br>ANALYZED (1) | DATE<br>ANALYZED (2) |
|-----------------------|------------------------|----------------------|----------------------|
| 01 DF/S1/D151/SDC/005 | DE02210Q S             | 06/05/00             | N/A                  |
| 02 DF/S1/D151/SDC/005 | DE02210R D             | 06/06/00             | N/A                  |
| 03 DF/S1/D151/SDC/005 | DE022104               | 06/05/00             | N/A                  |
| 04 CHECK SAMPLE       | DE52F102 C             | 06/06/00             | N/A                  |
| 05                    |                        |                      |                      |
| 06                    |                        |                      |                      |
| 07                    |                        |                      |                      |
| 08                    |                        |                      |                      |
| 09                    |                        |                      |                      |
| 10                    |                        |                      |                      |
| 11                    |                        |                      |                      |
| 12                    |                        |                      |                      |
| 13                    |                        |                      |                      |
| 14                    |                        |                      |                      |
| 15                    |                        |                      |                      |
| 16                    |                        |                      |                      |
| 17                    |                        |                      |                      |
| 18                    |                        |                      |                      |
| 19                    |                        |                      |                      |
| 20                    |                        |                      |                      |

COMMENTS:

FORM IV

659 966

**PESTICIDE  
SAMPLE DATA**

## UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E310132 001

Method: SW846 8081A

Pesticides (8081A)

Sample WT/Vol: 100 / mL

Date Received: 05/31/00

Work Order: DE022104

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/05/00

Moisture %: 14

QC Batch: 0154358

Client Sample Id: DF/S1/D151/SDC/005

| 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 |

659 968

Data File: /var/chem/gc3.i/3060-E.b/c-a3149.d  
 Report Date: 06-Jun-2000 07:18

## STL-PITTSBURGH

Data file : /var/chem/gc3.i/3060-E.b/c-a3149.d  
 Lab Smp Id: DE022104 Client Smp ID: DF/S1/D151/SDC/005  
 Inj Date : 05-JUN-2000 23:10  
 Operator : 1891 Inst ID: gc3.i  
 Smp Info : DE022104,3060-E.b,,all.sub,,,  
 Misc Info : E310132001  
 Comment :  
 Method : /var/chem/gc3.i/3060-E.b/PESTA.m  
 Meth Date : 06-Jun-2000 04:59 g Quant Type: ESTD  
 Cal Date : 05-JUN-2000 21:23 Cal File: c-a3145.d  
 Als bottle: 1  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: all.sub  
 Target Version: 3.40

Concentration Formula:  $\text{Amt} * \text{DF} * (\text{Vt}/\text{Vo})/\text{Vi}$

| Name | Value     | Description                     |
|------|-----------|---------------------------------|
| DF   | 1.000     | Dilution Factor                 |
| Vt   | 10000.000 | Volume of final extract (uL)    |
| Vo   | 100.000   | Volume of sample extracted (mL) |
| Vi   | 1.000     | Volume injected                 |

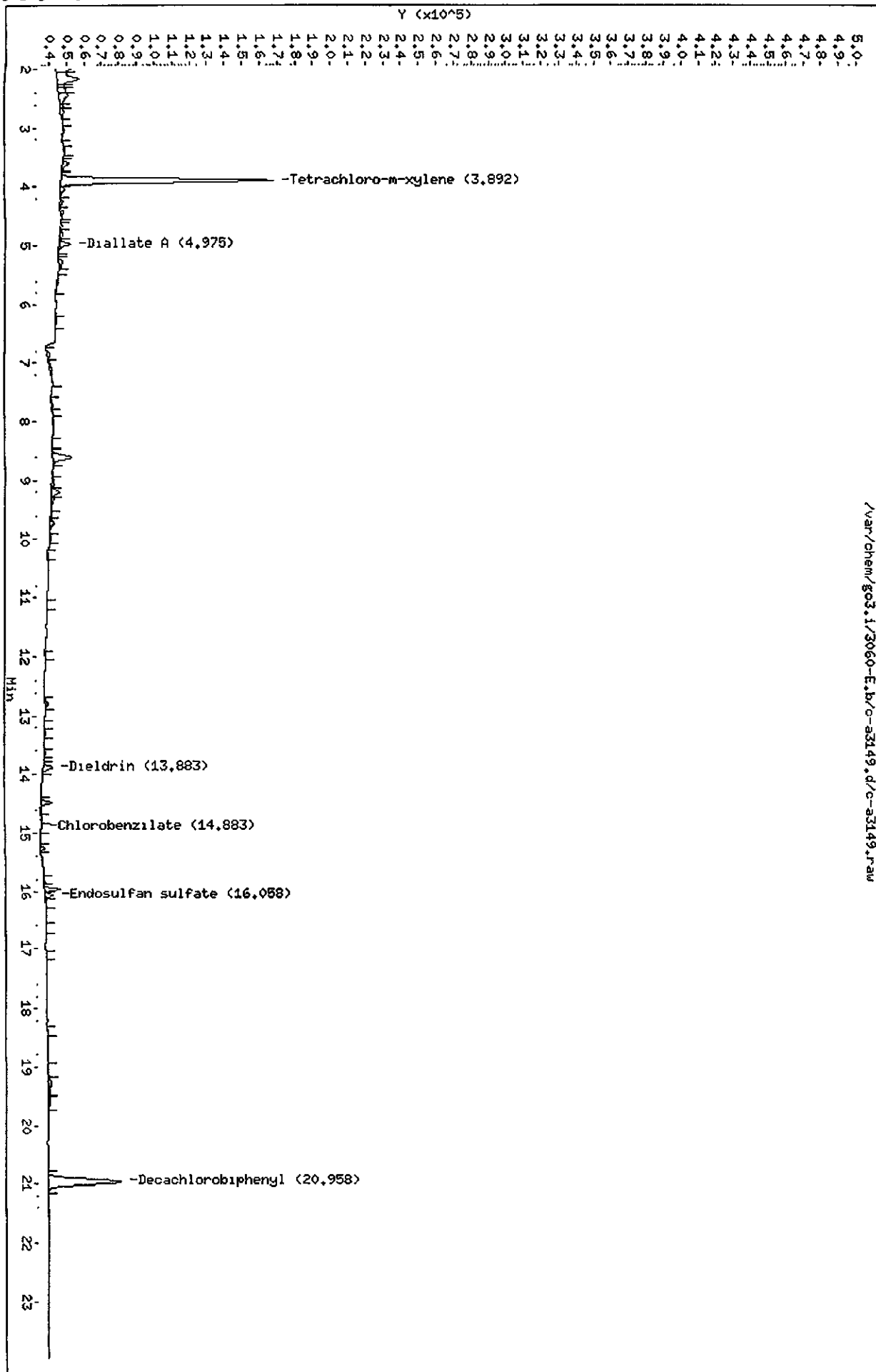
| Compounds                | RT    | EXP RT | DLT RT | RESPONSE               | CONCENTRATIONS     |                  |
|--------------------------|-------|--------|--------|------------------------|--------------------|------------------|
|                          |       |        |        |                        | ON-COLUMN<br>( ng) | FINAL<br>( ug/L) |
| § 1 Tetrachloro-m-xylene | 3.892 | 3.892  | 0.000  | 120291                 | 0.01754            | 1.75427(R)       |
| 2 Diallyl A              | 4.975 | 4.967  | 0.008  | 6345                   |                    | (a)              |
| 3 Diallyl B              |       |        |        | Compound Not Detected  |                    |                  |
| 4 MIREX                  |       |        |        | Compound Not Detected. |                    |                  |
| 5 alpha-BHC              |       |        |        | Compound Not Detected  |                    |                  |
| 6 gamma-BHC (Lindane)    |       |        |        | Compound Not Detected. |                    |                  |
| 7 beta-BHC               |       |        |        | Compound Not Detected. |                    |                  |
| 8 delta-BHC              |       |        |        | Compound Not Detected. |                    |                  |
| 9 Chlordane              |       |        |        | Compound Not Detected  |                    |                  |
| 10 Heptachlor            |       |        |        | Compound Not Detected  |                    |                  |
| 11 Aldrin                |       |        |        | Compound Not Detected. |                    |                  |
| 12 Heptachlor epoxide    |       |        |        | Compound Not Detected. |                    |                  |
| 13 gamma-Chlordane       |       |        |        | Compound Not Detected. |                    |                  |
| 14 alpha-Chlordane       |       |        |        | Compound Not Detected. |                    |                  |
| 15 Endosulfan I          |       |        |        | Compound Not Detected  |                    |                  |
| 16 4,4'-DDE              |       |        |        | Compound Not Detected  |                    |                  |

Data File: /var/chem/gc3.i/3060-E.b/c-a3149.d  
 Report Date: 06-Jun-2000 07:18

| Compounds                | RT                     | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS     |                  |
|--------------------------|------------------------|--------|--------|----------|--------------------|------------------|
|                          |                        |        |        |          | ON-COLUMN<br>( ng) | FINAL<br>( ug/L) |
| =====                    | ==                     | =====  | =====  | =====    | =====              | =====            |
| 17 Dieldrin              | 13.883                 | 13.883 | 0.000  | 5627     | 0.00123            | 0.122873         |
| 18 Toxaphene             | Compound Not Detected  |        |        |          |                    |                  |
| 19 Isodrin               | Compound Not Detected  |        |        |          |                    |                  |
| 20 Endrin                | 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    | 16.058                 | 16.042 | 0.016  | 5121     | 0.00167            | 0.166581         |
| 27 Endrin ketone         | Compound Not Detected. |        |        |          |                    |                  |
| 28 Chlorobenzilate       | 14.883                 | 14.875 | 0.008  | 367      |                    | (a)              |
| 29 Kepone                | Compound Not Detected  |        |        |          |                    |                  |
| \$ 30 Decachlorobiphenyl | 20.958                 | 20.975 | -0.017 | 41376    | 0.02078            | 2.07820(R)       |

#### QC Flag Legend

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



Data File: /var/chem/gc3.1/3060-E.b/c-a3149.d  
Date: 05-JUN-2000 23:10  
Client ID: WF/S1/MS1/SDC/005  
Sample Info: DE022104.3060-E.b/all.sub//  
Volume Injected (uL): 1.0  
Column phase: DB608

Instrument: gc3.i  
Operator: 1891  
Column diameter: 0.53

**PESTICIDE  
CALIBRATION DATA**



659 972

Report Date : 06-Jun-2000 04:57

HP903E  
DB000

STL-PITTSBURGH

## COMPOUND LISTING

Method file : /var/chem/gc3.i/3060-E.b/PESTA.m  
 Quant Method : ESTD Target Version : 3.40  
 Last Update : 06-Jun-2000 04:57 Number of Cpnds : 30  
 Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events Values

-----  
 Initial:Start Threshold 40.000000  
 Initial:End Threshold 20.000000  
 Initial:Area Threshold 1000.000000  
 Initial:P-P Resolution 1.000000  
 Initial:Bunch Factor 1.000000  
 Initial:Negative Peaks ON  
 Initial:Tension 0.000000

| Compound                  | RT     | RT Window     | RF        |
|---------------------------|--------|---------------|-----------|
| \$ 1 Tetrachloro-m-xylene | 3.892  | 3.842-3.942   | 6.857e+06 |
| 2 Diallate A              | 4.967  | 4.917-5.017   |           |
| 3 Diallate B              | 5.217  | 5.167-5.267   |           |
| 4 MIREX                   | 17.525 | 17.475-17.575 |           |
| 5 alpha-BHC               | 5.892  | 5.842-5.942   | 8.126e+06 |
| 6 gamma-BHC (Lindane)     | 7.200  | 7.150-7.250   | 7.181e+06 |
| 7 beta-BHC                | 7.492  | 7.442-7.542   | 3.778e+06 |
| 8 delta-BHC               | 8.783  | 8.733-8.833   | 6.740e+06 |
| 9 Chlordane               | 7.758  | 7.708-7.808   | 2.197e+05 |
|                           | 8.300  | 8.250-8.350   | 3.505e+05 |
|                           | 12.217 | 12.167-12.267 | 4.422e+05 |
|                           | 12.800 | 12.750-12.850 | 3.193e+05 |
| 10 Heptachlor             | 8.308  | 8.258-8.358   | 6.100e+06 |
| 11 Aldrin                 | 9.483  | 9.433-9.533   | 5.131e+06 |
| 12 Heptachlor epoxide     | 11.667 | 11.617-11.717 | 4.874e+06 |
| 13 gamma-Chlordane        | 12.225 | 12.175-12.275 | 4.858e+06 |
| 14 alpha-Chlordane        | 12.808 | 12.758-12.858 | 4.458e+06 |
| 15 Endosulfan I           | 12.858 | 12.808-12.908 | 3.907e+06 |
| 16 4,4'-DDE               | 13.775 | 13.725-13.825 | 4.924e+06 |
| 17 Dieldrin               | 13.883 | 13.833-13.933 | 4.580e+06 |
| 18 Toxaphene              | 15.042 | 14.992-15.092 | 6.298e+04 |
|                           | 15.233 | 15.183-15.283 | 8.223e+04 |
|                           | 15.675 | 15.625-15.725 | 6.540e+04 |
|                           | 16.767 | 16.717-16.817 | 6.002e+04 |

Report Date : 06-Jun-2000 04:57

STL-PITTSBURGH

COMPOUND LISTING

Method file : /var/chem/gc3.i/3060-E.b/PESTA.m

| Compound                 | RT     | RT Window     | RF        |
|--------------------------|--------|---------------|-----------|
| 19 Isodrin               | 11.167 | 11.117-11.217 |           |
| 20 Endrin                | 14.792 | 14.742-14.842 | 4.278e+06 |
| 21 4,4'-DDD              | 15.108 | 15.058-15.158 | 3.782e+06 |
| 22 Endosulfan II         | 15.192 | 15.142-15.242 | 4.215e+06 |
| 23 4,4'-DDT              | 15.667 | 15.617-15.717 | 3.393e+06 |
| 24 Endrin aldehyde       | 15.817 | 15.767-15.867 | 3.155e+06 |
| 25 Methoxychlor          | 17.350 | 17.300-17.400 | 1.465e+06 |
| 26 Endosulfan sulfate    | 16.042 | 15.992-16.092 | 3.074e+06 |
| 27 Endrin ketone         | 17.633 | 17.583-17.683 | 2.897e+06 |
| 28 Chlorobenzilate       | 14.875 | 14.825-14.925 |           |
| 29 Kepone                | 14.642 | 14.592-14.692 |           |
| \$ 30 Decachlorobiphenyl | 20.975 | 20.925-21.025 | 1.991e+06 |

659 974

66

Report Date : 06-Jun-2000 04:57

HP5003E  
D1000

STL-PITTSBURGH

## INITIAL CALIBRATION DATA

Start Cal Date : 05-JUN-2000 16:29  
 End Cal Date : 05-JUN-2000 21:23  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.40  
 Integrator : Falcon  
 Method file : /var/chem/gc3.i/3060-E.b/PESTA.m  
 Cal Date : 06-Jun-2000 04:57 g  
 Curve Type : Average

## Calibration File Names:

Level 1: /var/chem/gc3.i/3060-E.b/c-a3141.d  
 Level 2: /var/chem/gc3.i/3060-E.b/c-a3142.d  
 Level 3: /var/chem/gc3.i/3060-E.b/c-a3143.d  
 Level 4: /var/chem/gc3.i/3060-E.b/c-a3144.d  
 Level 5: /var/chem/gc3.i/3060-E.b/c-a3145.d

| Compound              | 0.00500 | 0.01000 | 0.02500 | 0.05000 | 0.10000 | RRF     | % RSD  |
|-----------------------|---------|---------|---------|---------|---------|---------|--------|
| Level 1               | Level 2 | Level 3 | Level 4 | Level 5 |         |         |        |
| 2 Diallylate A        | +++++   | +++++   | +++++   | +++++   | +++++   | +++++   | +++++  |
| 3 Diallylate B        | +++++   | +++++   | +++++   | +++++   | +++++   | +++++   | +++++  |
| 4 MIREX               | +++++   | +++++   | +++++   | +++++   | +++++   | +++++   | +++++  |
| 5 alpha-BHC           | 9496400 | 9067300 | 8254200 | 7097260 | 6714910 | 8126014 | 14.857 |
| 6 gamma-BHC (Lindane) | 8513000 | 8049100 | 7139200 | 6376120 | 5826410 | 7180766 | 15.589 |
| 7 beta-BHC            | 4561000 | 4358400 | 3667760 | 3379160 | 2925900 | 3778444 | 17.985 |
| 8 delta-BHC           | 7478800 | 7495700 | 6653560 | 6414280 | 5655590 | 6739586 | 11.509 |
| 9 Chlordane(1)        | +++++   | +++++   | 219712  | +++++   | +++++   | 219712  | 0.000  |
| (2)                   | +++++   | +++++   | 350532  | +++++   | +++++   | 350532  | 0.000  |
| (3)                   | +++++   | +++++   | 442160  | +++++   | +++++   | 442160  | 0.000  |
| (4)                   | +++++   | +++++   | 319272  | +++++   | +++++   | 319272  | 0.000  |
| 10 Heptachlor         | 7286400 | 6816600 | 6070440 | 5479440 | 4845060 | 6099588 | 16.151 |
| 11 Aldrin             | 5715000 | 5649100 | 5094600 | 4867420 | 4328740 | 5130972 | 11.212 |
| 12 Heptachlor epoxide | 5564200 | 5414300 | 4735320 | 4622960 | 4035390 | 4874434 | 12.786 |
| 13 gamma-Chlordane    | 5482400 | 5315300 | 4754800 | 4614460 | 4124130 | 4858218 | 11.309 |
| 14 alpha-Chlordane    | 5172600 | 4951100 | 4314360 | 4128900 | 3721870 | 4457766 | 13.388 |
| 15 Endosulfan I       | 4450200 | 4221800 | 3829600 | 3667800 | 3367870 | 3907454 | 11.067 |
| 16 4,4'-DDE           | 5307400 | 5268800 | 4866640 | 4765140 | 4413540 | 4924304 | 7.564  |
| 17 Dieldrin           | 4897400 | 4866300 | 4622560 | 4420080 | 4091200 | 4579508 | 7.316  |
| 18 Toxaphene(1)       | +++++   | +++++   | 62981   | +++++   | +++++   | 62981   | 0.000  |
| (2)                   | +++++   | +++++   | 82228   | +++++   | +++++   | 82228   | 0.000  |
| (3)                   | +++++   | +++++   | 65399   | +++++   | +++++   | 65399   | 0.000  |
| (4)                   | +++++   | +++++   | 60016   | +++++   | +++++   | 60016   | 0.000  |
| 19 Isodrin            | +++++   | +++++   | +++++   | +++++   | +++++   | +++++   | +++++  |
| 20 Endrin             | 4386000 | 4424500 | 4326440 | 4283100 | 3969590 | 4277926 | 4.224  |
| 21 4,4'-DDD           | 3837000 | 3731700 | 3861080 | 3799380 | 3679830 | 3781798 | 1.985  |

Report Date : 06-Jun-2000 04:57

STL-PITTSBURGH

# INITIAL CALIBRATION DATA

Start Cal Date : 05-JUN-2000 16:29  
 End Cal Date : 05-JUN-2000 21:23  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.40  
 Integrator : Falcon  
 Method file : /var/chem/gc3.i/3060-E.b/PESTA.m  
 Cal Date : 06-Jun-2000 04:57 g  
 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 |         |           |
| 22 Endosulfan II          | 4443600 | 4477900 | 4125160 | 4150580 | 3876670 | 4214782 | 5.908     |
| 23 4,4'-DDT               | 3438400 | 3175500 | 3350320 | 3505120 | 3497410 | 3393350 | 4.026     |
| 24 Endrin aldehyde        | 3281000 | 3345200 | 2899320 | 3215440 | 3032240 | 3154640 | 5.848     |
| 25 Methoxychlor           | 1610500 | 1414850 | 1466520 | 1443320 | 1389240 | 1464886 | 5.902     |
| 26 Endosulfan sulfate     | 3064000 | 3126900 | 2814640 | 3259200 | 3106160 | 3074180 | 5.283     |
| 27 Endrin ketone          | 2773400 | 2967200 | 2865920 | 2997560 | 2878980 | 2896612 | 3.069     |
| 28 Chlorobenzilate        | +++++   | +++++   | +++++   | +++++   | +++++   | +++++   | +++++     |
| 29 Kepone                 | +++++   | +++++   | +++++   | +++++   | +++++   | +++++   | +++++     |
| \$ 1 Tetrachloro-m-xylene | 8920000 | 8205900 | 6886520 | 5326960 | 4945830 | 6857042 | 25.333 <- |
| \$ 30 Decachlorobiphenyl  | 2290600 | 2131400 | 1972520 | 1853960 | 1706290 | 1990954 | 11.499    |

659 976

7D

## PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.: 40325

SDG No.: QQ

GC Column: DB608

ID: 0.53

(mm)

Init. Calib. Date(s): 06/05/00 06/05/00

EPA Sample No. (PIBLK): \_\_\_\_\_

Date Analyzed : \_\_\_\_\_

Lab Sample ID (PIBLK): \_\_\_\_\_

Time Analyzed : \_\_\_\_\_

EPA Sample No. (PEM): EVALB

Date Analyzed : 06/05/00

Lab Sample ID (PEM): EVALB

Time Analyzed : 1602

| PEM<br>COMPOUND | RT    | RT WINDOW<br>FROM TO |       | CALC<br>AMOUNT<br>(ng) | NOM<br>AMOUNT<br>(ng) | %D    |
|-----------------|-------|----------------------|-------|------------------------|-----------------------|-------|
| =====           | ===== | =====                | ===== | =====                  | =====                 | ===== |
| Endrin          | 14.78 | 14.74                | 14.84 | 0.022965               | 0.025000              | -8.1  |
| 4,4'-DDT        | 15.67 | 15.62                | 15.72 | 0.024921               | 0.025000              | -0.3  |
|                 |       |                      |       |                        |                       |       |
|                 |       |                      |       |                        |                       |       |
|                 |       |                      |       |                        |                       |       |
|                 |       |                      |       |                        |                       |       |
|                 |       |                      |       |                        |                       |       |

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

~~3.27~~ 3.7

Endrin % breakdown (1):

~~2.33~~ 1.7

Combined % breakdown (1):

~~5.60~~ 5.4

Jg/b/cw

7D

## PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.: 40325

SDG No.: QQ

GC Column: DB608

ID: 0.53

(mm)

Init. Calib. Date(s): 06/05/00 06/05/00

EPA Sample No. (PIBLK): \_\_\_\_\_

Date Analyzed : \_\_\_\_\_

Lab Sample ID (PIBLK): \_\_\_\_\_

Time Analyzed : \_\_\_\_\_

EPA Sample No. (PEM): EVALB

Date Analyzed : 06/05/00

Lab Sample ID (PEM): EVALB

Time Analyzed : 2243

| PEM<br>COMPOUND | RT    | RT WINDOW<br>FROM TO |       | CALC<br>AMOUNT<br>(ng) | NOM<br>AMOUNT<br>(ng) | %D    |
|-----------------|-------|----------------------|-------|------------------------|-----------------------|-------|
| =====           | ===== | =====                | ===== | =====                  | =====                 | ===== |
| Endrin          | 14.78 | 14.74                | 14.84 | 0.025561               | 0.025000              | 2.2   |
| 4,4'-DDT        | 15.67 | 15.62                | 15.72 | 0.028665               | 0.025000              | 14.7  |
|                 |       |                      |       |                        |                       |       |
|                 |       |                      |       |                        |                       |       |
|                 |       |                      |       |                        |                       |       |
|                 |       |                      |       |                        |                       |       |
|                 |       |                      |       |                        |                       |       |

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

4.0  
~~4.05~~

Endrin % breakdown (1):

1.9  
~~2.65~~

Combined % breakdown (1):

6705.9

659 978

7E

Data File: /var/chem/gc3.i/3060-E.b/c-a3169.d

HPC 903E

Report Date: 06-Jun-2000 08:57

Bloo

STL-PITTSBURGH

## CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc3.i  
 Lab File ID: c-a3169.d  
 Analysis Type:  
 Lab Sample ID: MEDA  
 Quant Type: ESTD

Injection Date: 06-JUN-2000 08:03  
 Init. Calibration Date(s): 06/05/0 06/05/0  
 Init. Calibration Times: 16:29 21:23  
 Method File: /var/chem/gc3.i/3060-E.b/PESTA.m

| COMPOUND               | RRF         | RFO         | MIN<br>RRF | %D    | MAX<br>%D |
|------------------------|-------------|-------------|------------|-------|-----------|
| 1 Tetrachloro-m-xylene | 6857042.000 | 7207880.000 | 0.000      | -5.1  | 15.0      |
| 5 alpha-BHC            | 8126014.000 | 8741760.000 | 0.010      | -7.6  | 15.0      |
| 6 gamma-BHC (Lindane)  | 7180766.000 | 7607000.000 | 0.010      | -5.9  | 15.0      |
| 10 Heptachlor          | 6099588.000 | 6307240.000 | 0.010      | -3.4  | 15.0      |
| 15 Endosulfan I        | 3907454.000 | 3813640.000 | 0.010      | 2.4   | 15.0      |
| 17 Dieldrin            | 4579508.000 | 4999840.000 | 0.010      | -9.2  | 15.0      |
| 20 Endrin              | 4277926.000 | 4692320.000 | 0.010      | -9.7  | 15.0      |
| 21 4,4'-DDD            | 3781798.000 | 4274640.000 | 0.010      | -13.0 | 15.0      |
| 23 4,4'-DDT            | 3393350.000 | 4216680.000 | 0.010      | -24.3 | 15.0      |
| 25 Methoxychlor        | 1464886.000 | 1737300.000 | 0.010      | -18.6 | 15.0      |
| 30 Decachlorobiphenyl  | 1990954.000 | 2379960.000 | 0.010      | -19.5 | 15.0      |

7c  
Data File: /var/chem/gc3.i/3060-E.b/c-a3170.d  
Report Date: 06-Jun-2000 08:57

659 979

HLSCB  
DBCE  
STL-PITTSBURGH

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc3.i  
Lab File ID: c-a3170.d  
Analysis Type:  
Lab Sample ID: MEDB  
Quant Type: ESTD

Injection Date: 06-JUN-2000 08:30  
Init. Calibration Date(s): 06/05/0 06/05/0  
Init. Calibration Times: 16:29 21:23  
Method File: /var/chem/gc3.i/3060-E.b/PESTA.m

| COMPOUND              | RRF         | RFO         | MIN   | MAX        |
|-----------------------|-------------|-------------|-------|------------|
| 11 Aldrin             | 5130972.000 | 5372480.000 | 0.010 | -4.7 15.0  |
| 7 beta-BHC            | 3778444.000 | 3833760.000 | 0.010 | -1.5 15.0  |
| 8 delta-BHC           | 6739586.000 | 6910720.000 | 0.010 | -2.5 15.0  |
| 12 Heptachlor epoxide | 4874434.000 | 5006320.000 | 0.010 | -2.7 15.0  |
| 13 gamma-Chlordane    | 4858218.000 | 4876480.000 | 0.010 | -0.4 15.0  |
| 14 alpha-Chlordane    | 4457766.000 | 4562200.000 | 0.010 | -2.3 15.0  |
| 16 4,4'-DDE           | 4924304.000 | 5181600.000 | 0.010 | -5.2 15.0  |
| 22 Endosulfan II      | 4214782.000 | 4407160.000 | 0.010 | -4.6 15.0  |
| 24 Endrin aldehyde    | 3154640.000 | 3546200.000 | 0.010 | -12.4 15.0 |
| 26 Endosulfan sulfate | 3074180.000 | 3520160.000 | 0.010 | -14.5 15.0 |
| 27 Endrin ketone      | 2896612.000 | 3234160.000 | 0.010 | -11.7 15.0 |

914-8.2



659 980

8D  
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.: 40325

SDG No.: C0E310132

GC Column: DB608

ID: 0.53 (mm) Init. Calib. Date(s): 06/05/00 06/05/00

Instrument ID: GC3

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

| MEAN SURROGATE RT FROM INITIAL CALIBRATION |                  |                  |                  |             |             |
|--------------------------------------------|------------------|------------------|------------------|-------------|-------------|
| TCX: 3.89                                  |                  |                  | DCB: 20.98       |             |             |
| EPA<br>SAMPLE NO.                          | LAB<br>SAMPLE ID | DATE<br>ANALYZED | TIME<br>ANALYZED | TCX<br>RT # | DCB<br>RT # |
| =====                                      | =====            | =====            | =====            | =====       | =====       |
| 01 EVALB                                   | EVALB            | 06/05/00         | 1602             | 3.88        | 20.98       |
| 02 MEDTOX                                  | MEDTOX           | 06/05/00         | 1629             | 3.90        | 20.98       |
| 03 MEDCHLOR                                | MEDCHLOR         | 06/05/00         | 1656             | 3.89        | 20.98       |
| 04 LOWA                                    | LOWA             | 06/05/00         | 1723             | 3.89        | 20.98       |
| 05 MLOWA                                   | MLOWA            | 06/05/00         | 1749             | 3.89        | 20.98       |
| 06 MEDA                                    | MEDA             | 06/05/00         | 1816             | 3.89        | 20.98       |
| 07 MHIGHA                                  | MHIGHA           | 06/05/00         | 1843             | 3.90        | 20.98       |
| 08 HIGHA                                   | HIGHA            | 06/05/00         | 1909             | 3.89        | 20.98       |
| 09 LOWB                                    | LOWB             | 06/05/00         | 1936             |             |             |
| 10 MLOWB                                   | MLOWB            | 06/05/00         | 2003             |             |             |
| 11 MEDB                                    | MEDB             | 06/05/00         | 2029             |             |             |
| 12 MHIGHB                                  | MHIGHB           | 06/05/00         | 2056             |             |             |
| 13 HIGHB                                   | HIGHB            | 06/05/00         | 2123             |             |             |
| 14 2ND A                                   | 2ND A            | 06/05/00         | 2149             | 3.90        | 20.97       |
| 15 2ND B                                   | 2ND B            | 06/05/00         | 2216             |             |             |
| 16 EVALB                                   | EVALB            | 06/05/00         | 2243             | 3.90        | 20.97       |
| 17 DF/S1/D151/S                            | DE022104         | 06/05/00         | 2310             | 3.89        | 20.96       |
| 18 DF/S1/D151/S                            | DE02210Q         | 06/05/00         | 2336             | 3.89        | 20.96       |
| 19 DF/S1/D151/S                            | DE02210R         | 06/06/00         | 0003             | 3.89        | 20.96       |
| 20 PBLK1                                   | DE52F101         | 06/06/00         | 0710             | 3.89        | 20.96       |
| 21 LCS1                                    | DE52F102         | 06/06/00         | 0736             | 3.90        | 20.96       |
| 22 MEDA                                    | MEDA             | 06/06/00         | 0803             | 3.90        | 20.96       |
| 23 MEDB                                    | MEDB             | 06/06/00         | 0830             |             |             |
| 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.

Data File: /var/chem/gc3.i/3060-E.b/c-a3133.d  
Report Date: 06-Jun-2000 05:01

## STL-PITTSBURGH

Data file : /var/chem/gc3.i/3060-E.b/c-a3133.d  
Lab Smp Id: EVALB Client Smp ID: EVALB  
Inj Date : 05-JUN-2000 16:02  
Operator : 1891 Inst ID: gc3.i  
Smp Info : EVALB,3060-E.b,,EVALBR.sub,,3,1  
Misc Info : 190-88-8  
Comment :  
Method : /var/chem/gc3.i/3060-E.b/PESTA.m  
Meth Date : 06-Jun-2000 04:59 g Quant Type: ESTD  
Cal Date : 05-JUN-2000 21:23 Cal File: c-a3145.d  
Als bottle: 1 QC Sample: PEM  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: EVALBR.sub  
Target Version: 3.40

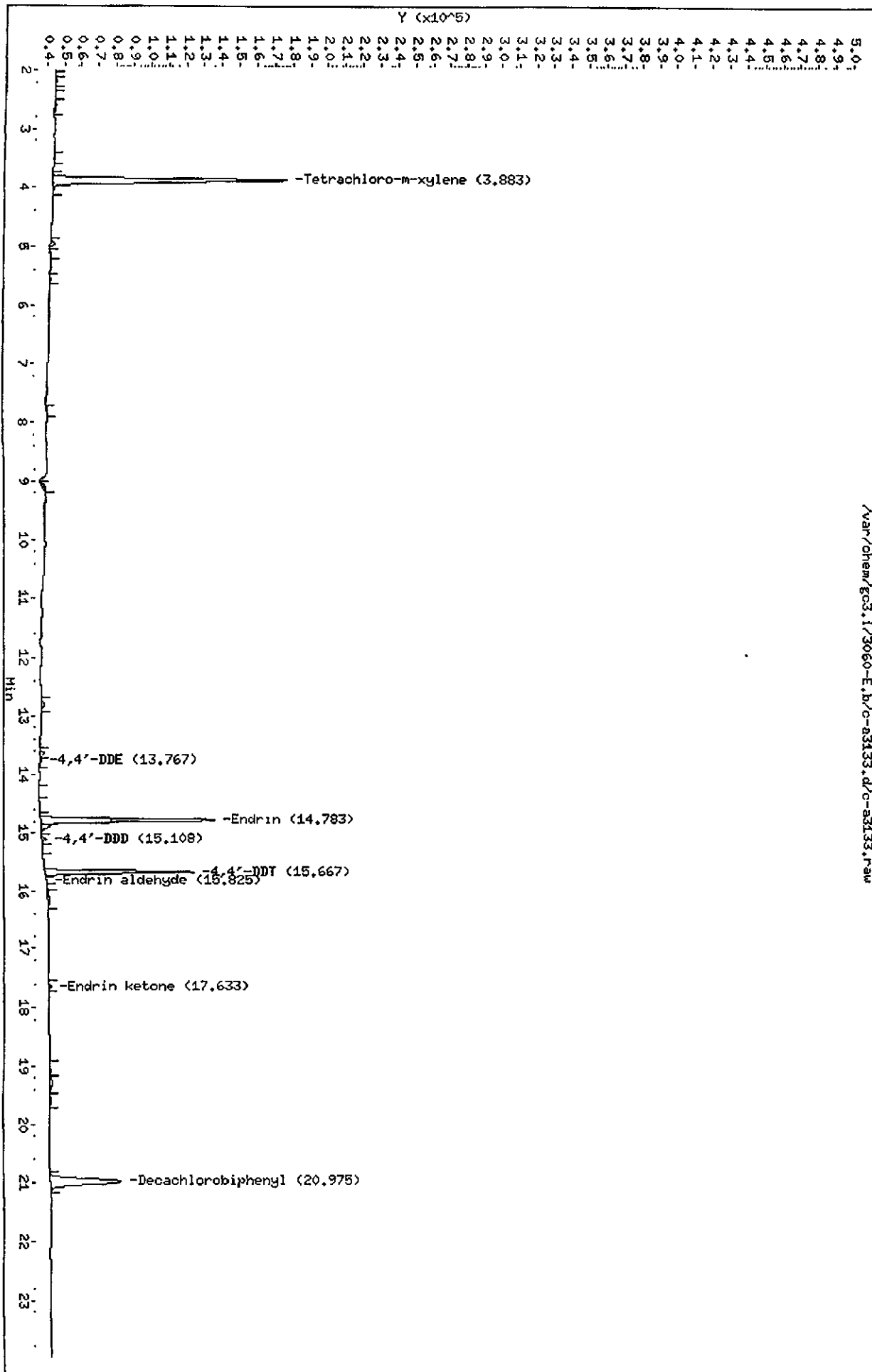
| Compounds                 | RT     | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS |                 |
|---------------------------|--------|--------|--------|----------|----------------|-----------------|
|                           |        |        |        |          | ON-COLUMN      | FINAL           |
|                           |        |        |        |          | ( ng)          | ( ng)           |
| =====                     | ==     | =====  | =====  | =====    | =====          | =====           |
| \$ 1 Tetrachloro-m-xylene | 3.883  | 3.892  | -0.009 | 132549   | 0.01933        | 0.0193303 (R)   |
| 16 4,4'-DDE               | 13.767 | 13.775 | -0.008 | 779      | 0.000158       | 0.000158195 (M) |
| 20 Endrin                 | 14.783 | 14.792 | -0.009 | 98244    | 0.02297        | 0.0229653       |
| 21 4,4'-DDD               | 15.108 | 15.108 | 0.000  | 2493     | 0.000659       | 0.000659210 (M) |
| 23 4,4'-DDT               | 15.667 | 15.667 | 0.000  | 84565    | 0.02492        | 0.0249208       |
| 24 Endrin aldehyde        | 15.825 | 15.817 | 0.008  | 638      | 0.000202       | 0.000202242 (M) |
| 27 Endrin ketone          | 17.633 | 17.633 | 0.000  | 1100     | 0.00038        | 0.000379754     |
| \$ 30 Decachlorobiphenyl  | 20.975 | 20.975 | 0.000  | 40076    | 0.02013        | 0.0201290 (R)   |

## QC Flag Legend

R - Spike/Surrogate failed recovery limits.  
M - Compound response manually integrated.

$$\text{Endrin Breakdown} = \frac{(639 + 1100)}{(639 + 1100 + 98244)} \times 100 = 1.7\%$$

$$\text{DDT Breakdown} = \frac{(779 + 2493)}{(779 + 2493 + 84565)} \times 100 = 3.7\%$$



Data File: /var/chem/gc3.i/3060-E.b/c-a3133.d  
Date: 05-JUN-2000 16:02  
Client ID: EVALB  
Sample Info: EVALB,3060-E.b,,EVALBR,sub,,3,1  
Column phase: DB608

Instrument: gc3.1  
Operator: 1891  
Column diameter: 0.53

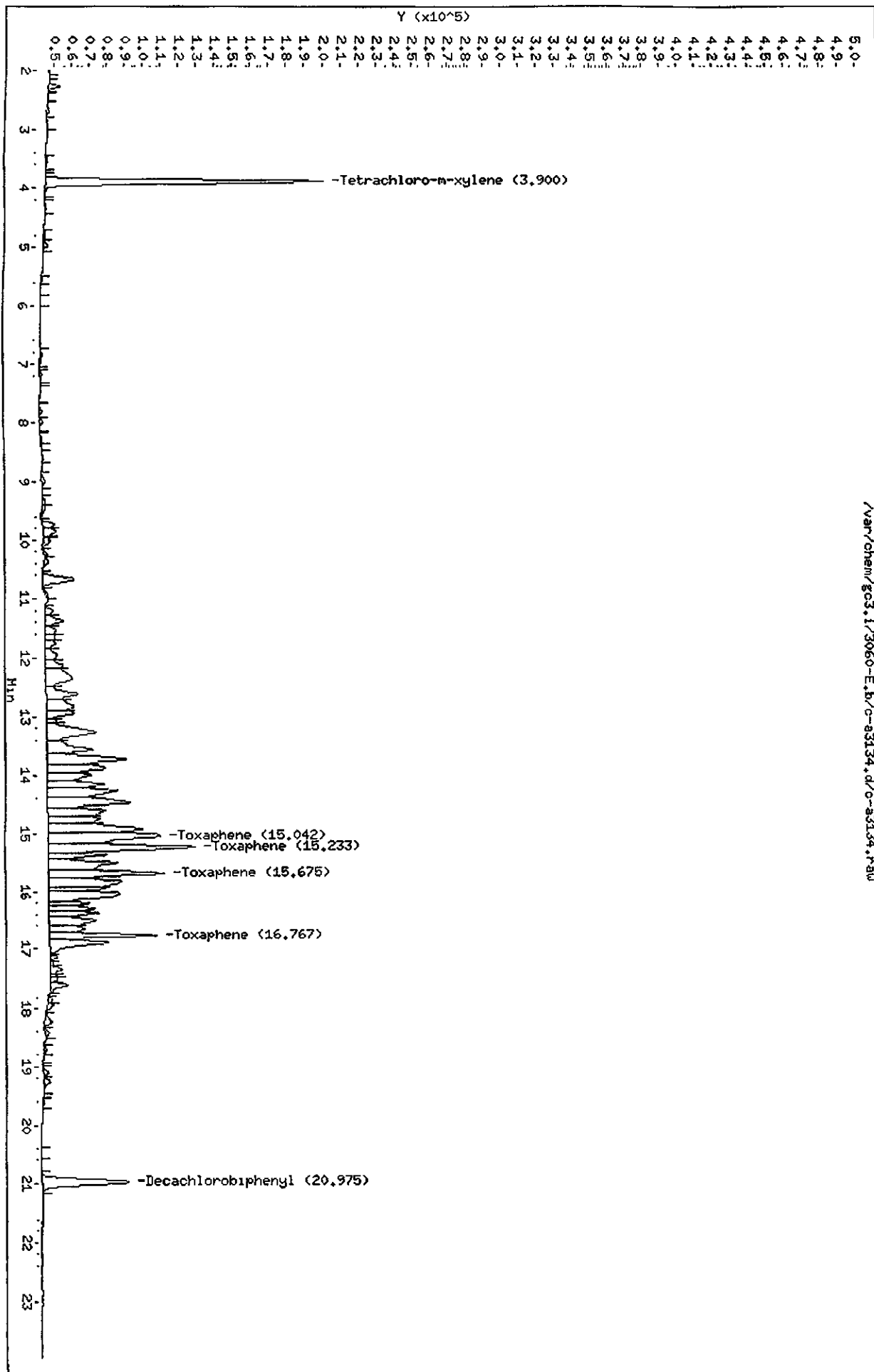
Data File: /var/chem/gc3.i/3060-E.b/c-a3134.d  
 Report Date: 06-Jun-2000 05:02

## STL-PITTSBURGH

Data file : /var/chem/gc3.i/3060-E.b/c-a3134.d  
 Lab Smp Id: MEDTOX Client Smp ID: MEDTOX  
 Inj Date : 05-JUN-2000 16:29  
 Operator : 1891 Inst ID: gc3.i  
 Smp Info : MEDTOX,3060-E.b,,1-TOX.sub,,1,3  
 Misc Info : 190-84-13  
 Comment :  
 Method : /var/chem/gc3.i/3060-E.b/PESTA.m  
 Meth Date : 06-Jun-2000 04:59 g Quant Type: ESTD  
 Cal Date : 05-JUN-2000 16:29 Cal File: c-a3134.d  
 Als bottle: 1 Calibration Sample, Level: 3  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 1-TOX.sub  
 Target Version: 3.40

| Compounds                 |        |        |        |          | AMOUNTS          |                 |
|---------------------------|--------|--------|--------|----------|------------------|-----------------|
|                           | RT     | EXP RT | DLT RT | RESPONSE | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| =====                     | ==     | =====  | =====  | =====    | =====            | =====           |
| 18 Toxaphene              | 15.042 | 15.042 | 0.000  | 62981    | 1.00000          | 1.00000         |
| \$ 1 Tetrachloro-m-xylene | 3.900  | 3.892  | 0.008  | 155992   | 0.02500          | 0.0250000       |
| \$ 30 Decachlorobiphenyl  | 20.975 | 20.975 | 0.000  | 48433    | 0.02500          | 0.0250000       |

659 984



Data File: /var/chem/gc3.1/3060-E.b/c-83134.d  
 Date: 05-JUN-2000 16:29  
 Client ID: HEDTOX  
 Sample Info: HEDTOX, 3060-E.b, 1-TOX, sub, 1, 3  
 Column Phase: DB608

Instrument: gc3.1  
 Operator: 1891  
 Column diameter: 0.53

/var/chem/gc3.1/3060-E.b/c-83134.d/c-83134.raw

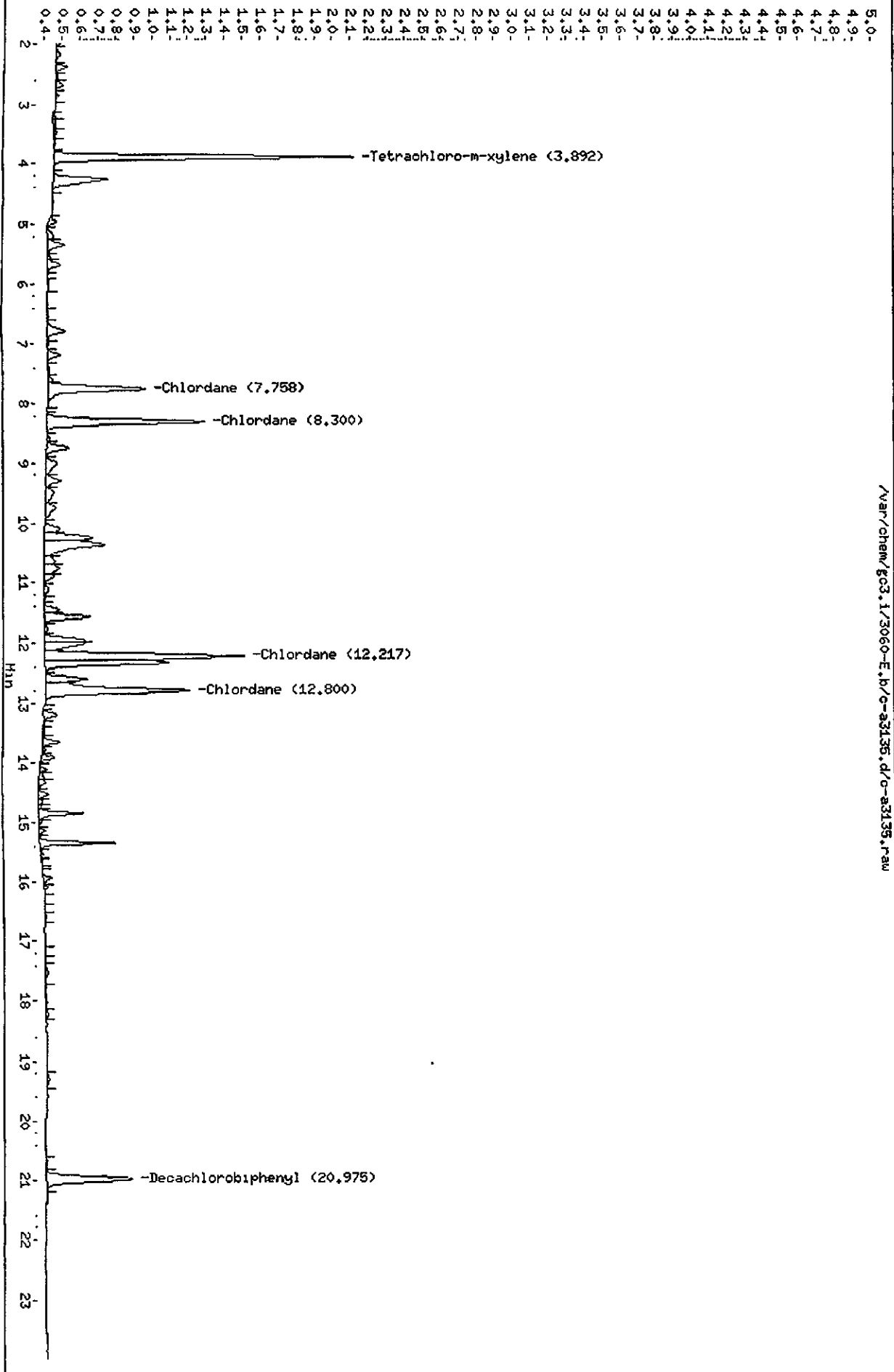
Data File: /var/chem/gc3.i/3060-E.b/c-a3135.d  
 Report Date: 06-Jun-2000 05:02

## STL-PITTSBURGH

Data file : /var/chem/gc3.i/3060-E.b/c-a3135.d  
 Lab Smp Id: MEDCHLOR Client Smp ID: MEDCHLOR  
 Inj Date : 05-JUN-2000 16:56  
 Operator : 1891 Inst ID: gc3.i  
 Smp Info : MEDCHLOR,3060-E.b,,2-CHLO.sub,,1,3  
 Misc Info : 190-85-10  
 Comment :  
 Method : /var/chem/gc3.i/3060-E.b/PESTA.m  
 Meth Date : 06-Jun-2000 04:59 g Quant Type: ESTD  
 Cal Date : 05-JUN-2000 16:56 Cal File: c-a3135.d  
 Als bottle: 1 Calibration Sample, Level: 3  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 2-CHLO.sub  
 Target Version: 3.40

| Compounds                 |        |        |        |          | AMOUNTS          |                 |
|---------------------------|--------|--------|--------|----------|------------------|-----------------|
|                           | RT     | EXP RT | DLT RT | RESPONSE | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| 9 Chlordane               | 7.758  | 7.758  | 0.000  | 54928    | 0.25000          | 0.250000        |
| \$ 1 Tetrachloro-m-xylene | 3.892  | 3.892  | 0.000  | 165951   | 0.02500          | 0.025000        |
| \$ 30 Decachlorobiphenyl  | 20.975 | 20.975 | 0.000  | 48021    | 0.02500          | 0.025000        |

659 986

Y (x10<sup>5</sup>)

/var/chem/gc3.1/3060-E,b/o-a3135.d/o-a3135.raw

Data File: /var/chem/gc3.1/3060-E,b/o-a3135.d  
Date: 05-JUN-2000 16:56  
Client ID: HEDCHLOR  
Sample Info: HEDCHLOR,3060-E,b,2-CHLO,sub,1,3  
Column phase: DB608

Instrument: gc3.1  
Operator: 1891  
Column diameter: 0.53

Data File: /var/chem/gc3.i/3060-E.b/c-a3136.d  
 Report Date: 06-Jun-2000 05:02

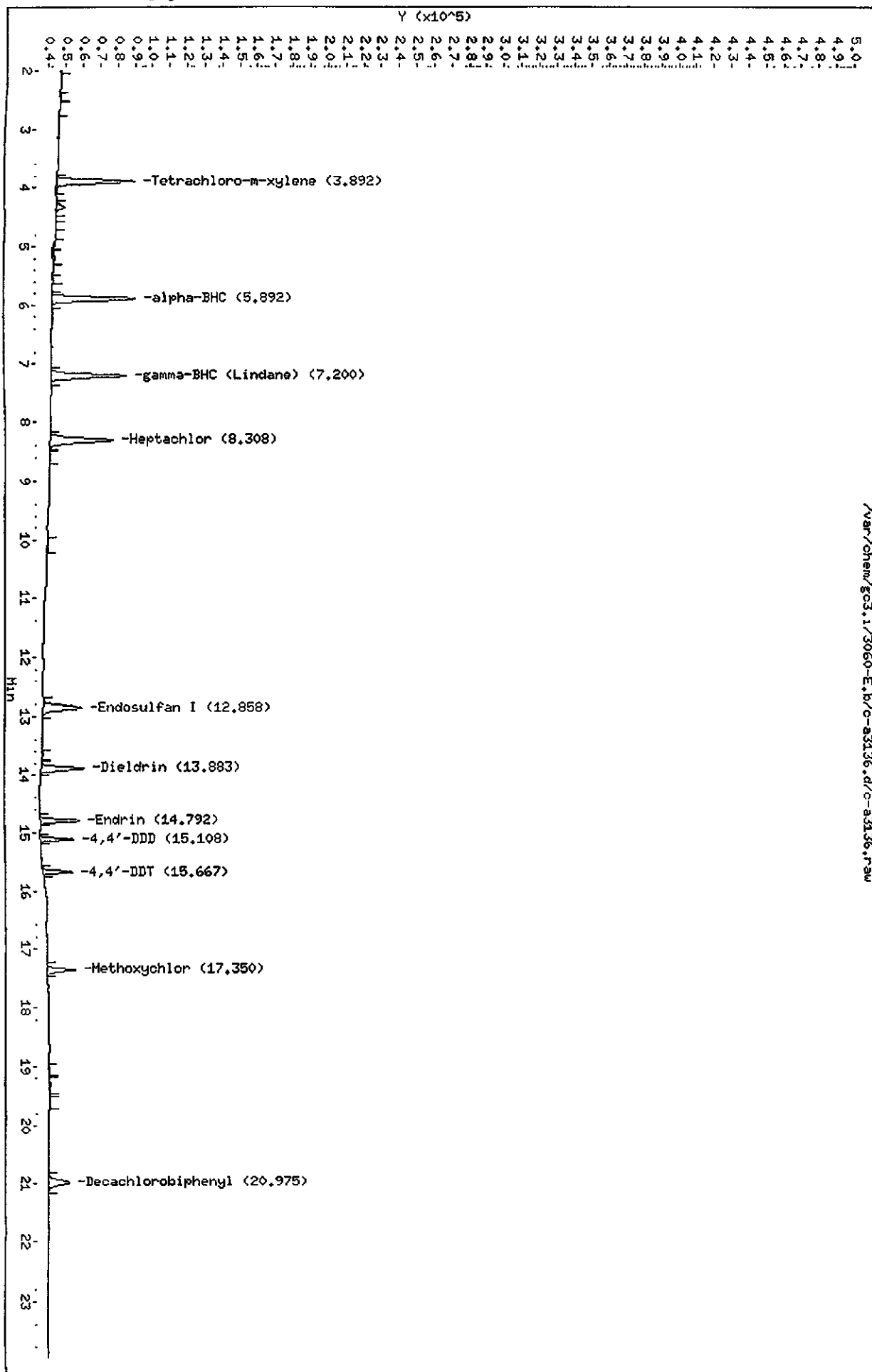
## STL-PITTSBURGH

Data file : /var/chem/gc3.i/3060-E.b/c-a3136.d  
 Lab Smp Id: LOWA Client Smp ID: LOWA  
 Inj Date : 05-JUN-2000 17:23  
 Operator : 1891 Inst ID: gc3.i  
 Smp Info : LOWA,3060-E.b,,3-INDA.sub,,1,1  
 Misc Info : 190-84-1  
 Comment :  
 Method : /var/chem/gc3.i/3060-E.b/PESTA.m  
 Meth Date : 06-Jun-2000 04:59 g Quant Type: ESTD  
 Cal Date : 05-JUN-2000 17:23 Cal File: c-a3136.d  
 Als bottle: 1 Calibration Sample, Level: 1  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 3-INDA.sub  
 Target Version: 3.40

| Compounds                 | RT     | EXP RT | DLT RT | RT    | RESPONSE | AMOUNTS |            |
|---------------------------|--------|--------|--------|-------|----------|---------|------------|
|                           |        |        |        |       |          | CAL-AMT | ON-COL     |
|                           |        |        |        |       |          | ( ng)   | ( ng)      |
| =====                     | ==     | =====  | =====  | ===== | =====    | =====   | =====      |
| \$ 1 Tetrachloro-m-xylene | 3.892  | 3.892  | 0.000  |       | 44600    | 0.00500 | 0.00573337 |
| 5 alpha-BHC               | 5.892  | 5.892  | 0.000  |       | 47482    | 0.00500 | 0.00500000 |
| 6 gamma-BHC (Lindane)     | 7.200  | 7.200  | 0.000  |       | 42565    | 0.00500 | 0.00500000 |
| 10 Heptachlor             | 8.308  | 8.308  | 0.000  |       | 36432    | 0.00500 | 0.00500000 |
| 15 Endosulfan I           | 12.858 | 12.858 | 0.000  |       | 22251    | 0.00500 | 0.00500000 |
| 17 Dieldrin               | 13.883 | 13.883 | 0.000  |       | 24487    | 0.00500 | 0.00500000 |
| 20 Endrin                 | 14.792 | 14.792 | 0.000  |       | 21930    | 0.00500 | 0.00500000 |
| 21 4,4'-DDD               | 15.108 | 15.108 | 0.000  |       | 19185    | 0.00500 | 0.00500000 |
| 23 4,4'-DDT               | 15.667 | 15.667 | 0.000  |       | 17192    | 0.00500 | 0.00500000 |
| 25 Methoxychlor           | 17.350 | 17.350 | 0.000  |       | 16105    | 0.01000 | 0.01000000 |
| \$ 30 Decachlorobiphenyl  | 20.975 | 20.975 | 0.000  |       | 11453    | 0.00500 | 0.00543899 |



659 988

Y (x10<sup>5</sup>)

/var/chem/gc3.1/3060-E.b/c-s3136.d/c-s3136.raw

Data File: /var/chem/gc3.1/3060-E.b/c-s3136.d  
Date: 05-JUN-2000 17:23  
Client ID: LONA  
Sample Info: LONA,3060-E.b/,3-INDA.sub/,1,1  
Column phase: DB608

Instrument: gc3.1  
Operator: 1891  
Column diameter: 0.53

Data File: /var/chem/gc3.i/3060-E.b/c-a3137.d  
 Report Date: 06-Jun-2000 05:02

## STL-PITTSBURGH

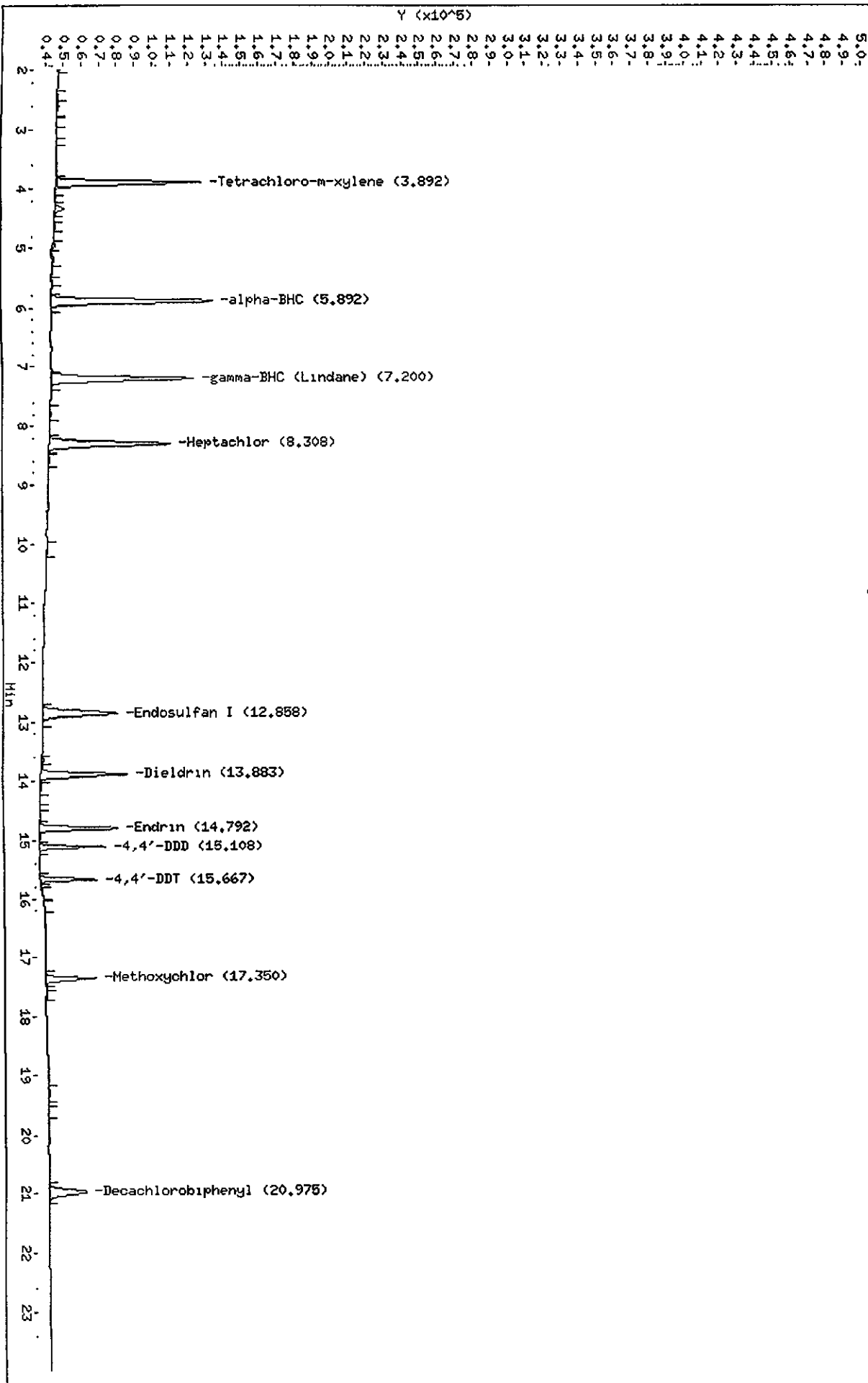
Data file : /var/chem/gc3.i/3060-E.b/c-a3137.d  
 Lab Smp Id: MLOWA Client Smp ID: MLOWA  
 Inj Date : 05-JUN-2000 17:49  
 Operator : 1891 Inst ID: gc3.i  
 Smp Info : MLOWA,3060-E.b,,3-INDA.sub,,1,2  
 Misc Info : 190-84-2  
 Comment :  
 Method : /var/chem/gc3.i/3060-E.b/PESTA.m  
 Meth Date : 06-Jun-2000 04:59 g Quant Type: ESTD  
 Cal Date : 05-JUN-2000 17:49 Cal File: c-a3137.d  
 Als bottle: 1 Calibration Sample, Level: 2  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 3-INDA.sub  
 Target Version: 3.40

| Compounds                 |        |        |        |          | AMOUNTS          |                 |
|---------------------------|--------|--------|--------|----------|------------------|-----------------|
|                           | RT     | EXP RT | DLT RT | RESPONSE | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| =====                     | ==     | =====  | =====  | =====    | =====            | =====           |
| \$ 1 Tetrachloro-m-xylene | 3.892  | 3.892  | 0.000  | 82059    | 0.01000          | 0.0103593       |
| 5 alpha-BHC               | 5.892  | 5.892  | 0.000  | 90673    | 0.01000          | 0.00976885      |
| 6 gamma-BHC (Lindane)     | 7.200  | 7.200  | 0.000  | 80491    | 0.01000          | 0.00971990      |
| 10 Heptachlor             | 8.308  | 8.308  | 0.000  | 68166    | 0.01000          | 0.00966688      |
| 15 Endosulfan I           | 12.858 | 12.858 | 0.000  | 42218    | 0.01000          | 0.00973662      |
| 17 Dieldrin               | 13.883 | 13.883 | 0.000  | 48663    | 0.01000          | 0.00996815      |
| 20 Endrin                 | 14.792 | 14.792 | 0.000  | 44245    | 0.01000          | 0.0100437       |
| 21 4,4'-DDD               | 15.108 | 15.108 | 0.000  | 37317    | 0.01000          | 0.00986087      |
| 23 4,4'-DDT               | 15.667 | 15.667 | 0.000  | 31755    | 0.01000          | 0.00960250      |
| 25 Methoxychlor           | 17.350 | 17.350 | 0.000  | 28297    | 0.02000          | 0.0187066       |
| \$ 30 Decachlorobiphenyl  | 20.975 | 20.975 | 0.000  | 21314    | 0.01000          | 0.0100810       |

Data File: /var/chem/gc3.1/3060-E,b/c-a3137.d  
Date : 05-JUN-2000 17:49  
Client ID: MLDON  
Sample Info: MLDON,3060-E,b,,3-INDA.sub,,1,2  
Column phase: DB608

Instrument: gc3.1  
Operator: 1891  
Column diameter: 0.53

/var/chem/gc3.1/3060-E,b/c-a3137.d/c-a3137.raw

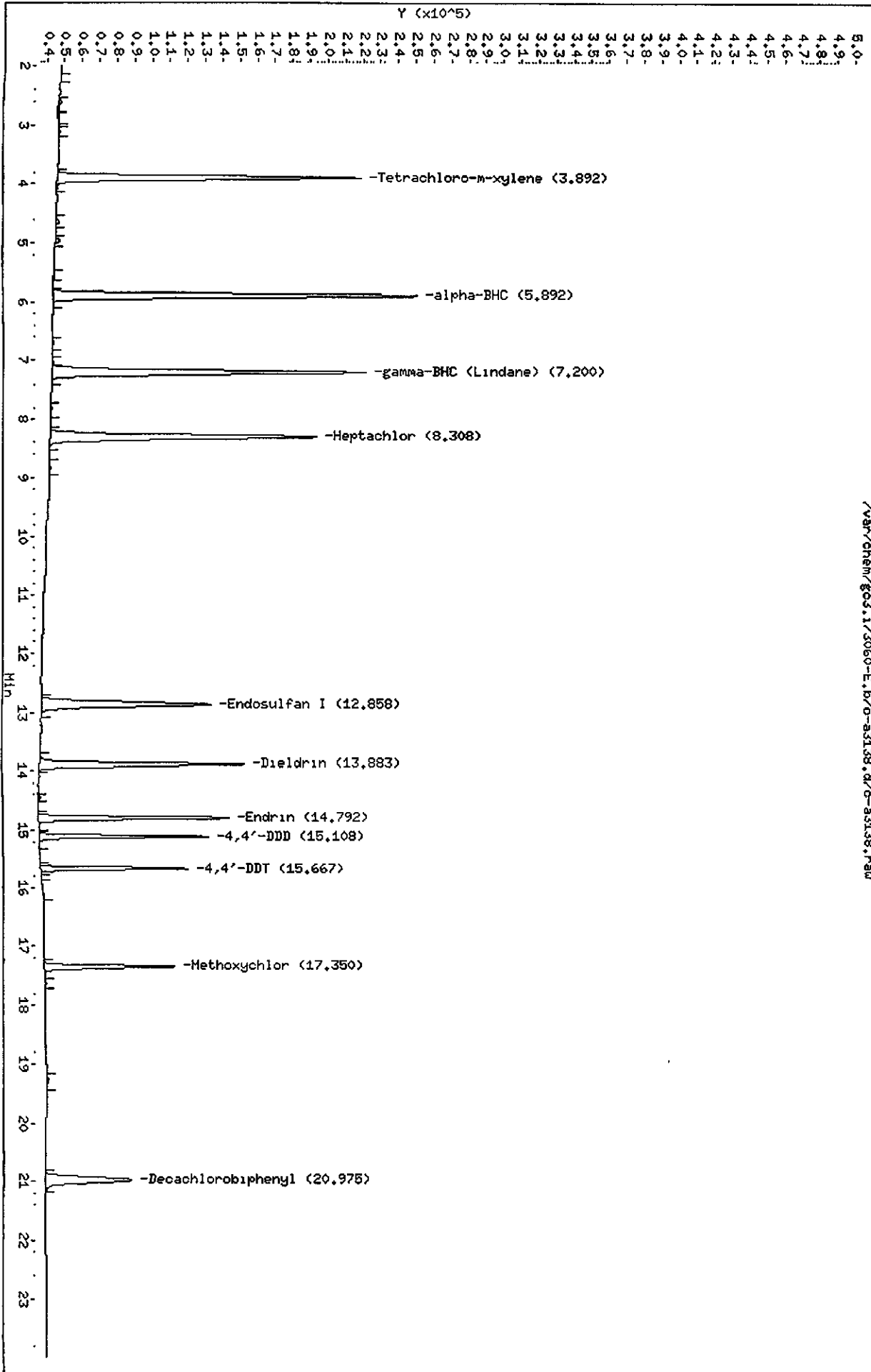


Data File: /var/chem/gc3.i/3060-E.b/c-a3138.d  
 Report Date: 06-Jun-2000 05:02

## STL-PITTSBURGH

Data file : /var/chem/gc3.i/3060-E.b/c-a3138.d  
 Lab Smp Id: MEDA Client Smp ID: MEDA  
 Inj Date : 05-JUN-2000 18:16  
 Operator : 1891 Inst ID: gc3.i  
 Smp Info : MEDA,3060-E.b,,3-INDA.sub,,1,3  
 Misc Info : 190-84-3  
 Comment :  
 Method : /var/chem/gc3.i/3060-E.b/PESTA.m  
 Meth Date : 06-Jun-2000 04:59 g Quant Type: ESTD  
 Cal Date : 05-JUN-2000 18:16 Cal File: c-a3138.d  
 Als bottle: 1 Calibration Sample, Level: 3  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 3-INDA.sub  
 Target Version: 3.40

| Compounds                 |        |        |        |          | AMOUNTS          |                 |
|---------------------------|--------|--------|--------|----------|------------------|-----------------|
|                           | RT     | EXP RT | DLT RT | RESPONSE | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| =====                     | ==     | =====  | =====  | =====    | =====            | =====           |
| \$ 1 Tetrachloro-m-xylene | 3.892  | 3.892  | 0.000  | 172163   | 0 02500          | 0.0215092       |
| 5 alpha-BHC               | 5.892  | 5.892  | 0.000  | 206355   | 0 02500          | 0.0230840       |
| 6 gamma-BHC (Lindane)     | 7.200  | 7.200  | 0.000  | 178480   | 0.02500          | 0.0225912       |
| 10 Heptachlor             | 8.308  | 8.308  | 0.000  | 151761   | 0.02500          | 0.0225684       |
| 15 Endosulfan I           | 12.858 | 12.858 | 0.000  | 95740    | 0 02500          | 0.0229746       |
| 17 Dieldrin               | 13.883 | 13.883 | 0.000  | 115564   | 0.02500          | 0.0240988       |
| 20 Dndrin                 | 14.792 | 14.792 | 0.000  | 108161   | 0 02500          | 0 0247000       |
| 21 4,4'-DDD               | 15.108 | 15.108 | 0.000  | 96527    | 0.02500          | 0.0253356       |
| 23 4,4'-DDT               | 15.667 | 15.667 | 0.000  | 83758    | 0.02500          | 0.0252176       |
| 25 Methoxychlor           | 17.350 | 17.350 | 0.000  | 73326    | 0.05000          | 0.0489725       |
| \$ 30 Decachlorobiphenyl  | 20.975 | 20.975 | 0.000  | 49313    | 0 02500          | 0 0231353       |



/var/chem/gc3.1/3060-E.b/o-a3138.d/o-a3138.raw

Data File: /var/chem/gc3.1/3060-E.b/o-a3138.d  
Date : 05-JUN-2000 18:16  
Client ID: MEDA  
Sample Info: MEDA,3060-E.b,3-INDA.sub,1,3  
Column phase: DB608

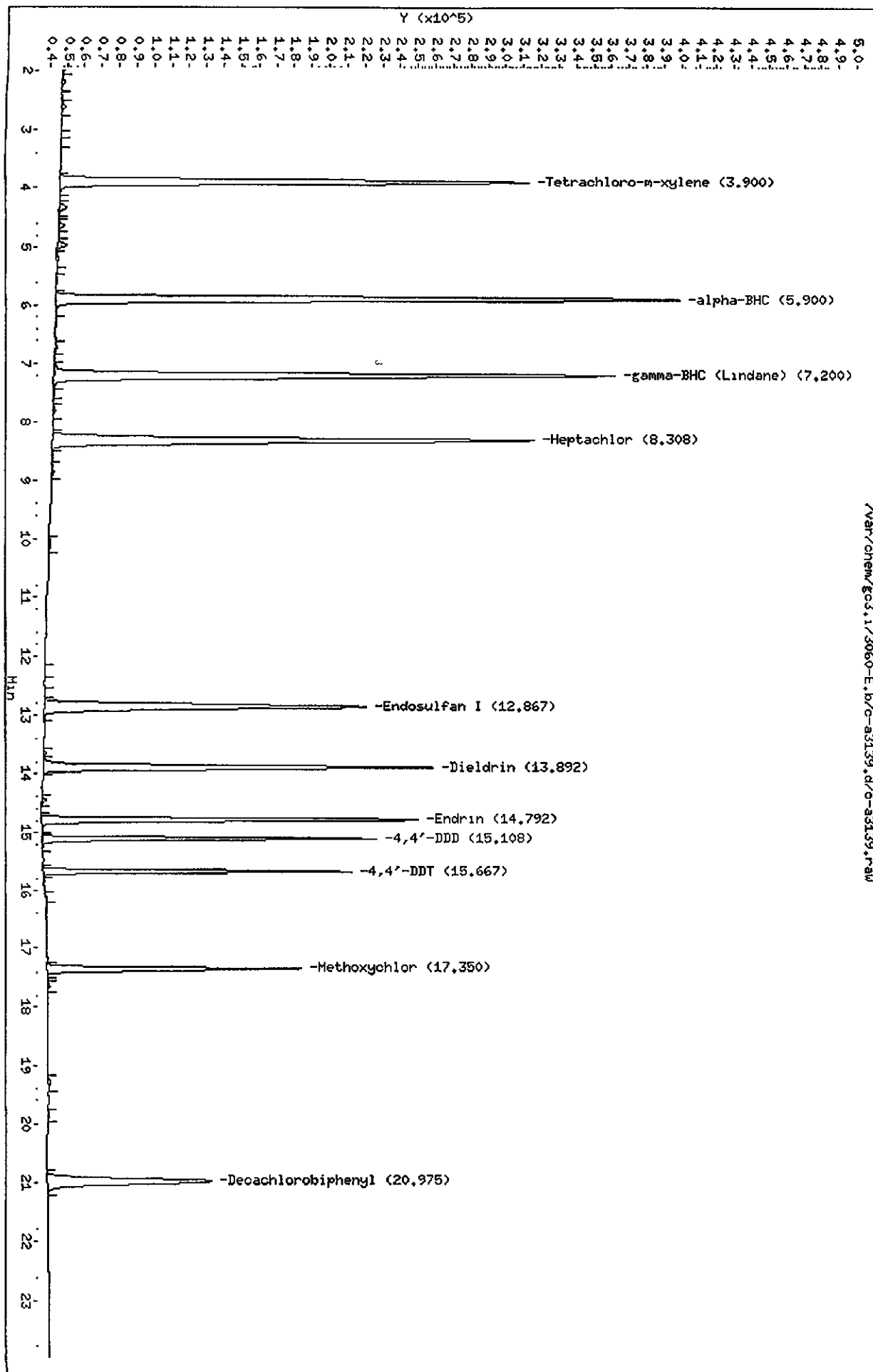
Instrument: gc3.1  
Operator: 1891  
Column diameter: 0.53

Data File: /var/chem/gc3.i/3060-E.b/c-a3139.d  
 Report Date: 06-Jun-2000 05:02

## STL-PITTSBURGH

Data file : /var/chem/gc3.i/3060-E.b/c-a3139.d  
 Lab Smp Id: MHIGHA Client Smp ID: MHIGHA  
 Inj Date : 05-JUN-2000 18:43  
 Operator : 1891 Inst ID: gc3.i  
 Smp Info : MHIGHA,3060-E.b,,3-INDA.sub,,1,4  
 Misc Info : 190-84-4  
 Comment :  
 Method : /var/chem/gc3.i/3060-E.b/PESTA.m  
 Meth Date : 06-Jun-2000 04:59 g Quant Type: ESTD  
 Cal Date : 05-JUN-2000 18:43 Cal File: c-a3139.d  
 Als bottle: 1 Calibration Sample, Level: 4  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 3-INDA.sub  
 Target Version: 3.40

| Compounds                 | AMOUNTS |        |        |          |                  | ON-COL<br>( ng) |
|---------------------------|---------|--------|--------|----------|------------------|-----------------|
|                           | RT      | EXP RT | DLT RT | RESPONSE | CAL-AMT<br>( ng) |                 |
| =====                     | ==      | =====  | =====  | =====    | =====            | =====           |
| \$ 1 Tetrachloro-m-xylene | 3.900   | 3.892  | 0.008  | 266348   | 0.05000          | 0.0363127       |
| 5 alpha-BHC               | 5.900   | 5.892  | 0.008  | 354863   | 0.05000          | 0.0418530       |
| 6 gamma-BHC (Lindane)     | 7.200   | 7.200  | 0.000  | 318806   | 0.05000          | 0.0423980       |
| 10 Heptachlor             | 8.308   | 8.308  | 0.000  | 273972   | 0.05000          | 0.0427199       |
| 15 Endosulfan I           | 12.867  | 12.858 | 0.009  | 183390   | 0.05000          | 0.0453672       |
| 17 Dieldrin               | 13.892  | 13.883 | 0.009  | 221004   | 0.05000          | 0.0470063       |
| 20 Endrin                 | 14.792  | 14.792 | 0.000  | 214155   | 0.05000          | 0.0491744       |
| 21 4,4'-DDD               | 15.108  | 15.108 | 0.000  | 189969   | 0.05000          | 0.0498961       |
| 23 4,4'-DDT               | 15.667  | 15.667 | 0.000  | 175256   | 0.05000          | 0.0520459       |
| 25 Methoxychlor           | 17.350  | 17.350 | 0.000  | 144332   | 0.10000          | 0.0972720       |
| \$ 30 Decachlorobiphenyl  | 20.975  | 20.975 | 0.000  | 92698    | 0.05000          | 0.0449528       |



/var/chem/gc3.1/3060-E.b/c-a3139.d\*raw

Data File: /var/chem/gc3.1/3060-E.b/c-a3139.d  
Date : 05-JUN-2000 18:43  
Client ID: HH1CHA  
Sample Info: HH1CHA,3060-E.b,,3-INDA.sub.,1.4  
Column Phase: DB608

Instrument: gc3.1  
Operator: 1891  
Column diameter: 0.53

Data File: /var/chem/gc3.i/3060-E.b/c-a3140.d  
 Report Date: 06-Jun-2000 05:02

## STL-PITTSBURGH

Data file : /var/chem/gc3.i/3060-E.b/c-a3140.d  
 Lab Smp Id: HIGHA Client Smp ID: HIGHA  
 Inj Date : 05-JUN-2000 19:09  
 Operator : 1891 Inst ID: gc3.i  
 Smp Info : HIGHA,3060-E.b,,3-INDA.sub,,1,5  
 Misc Info : 190-84-5  
 Comment :  
 Method : /var/chem/gc3.i/3060-E.b/PESTA.m  
 Meth Date : 06-Jun-2000 04:59 g Quant Type: ESTD  
 Cal Date : 05-JUN-2000 19:09 Cal File: c-a3140.d  
 Als bottle: 1 Calibration Sample, Level: 5  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 3-INDA.sub  
 Target Version: 3.40

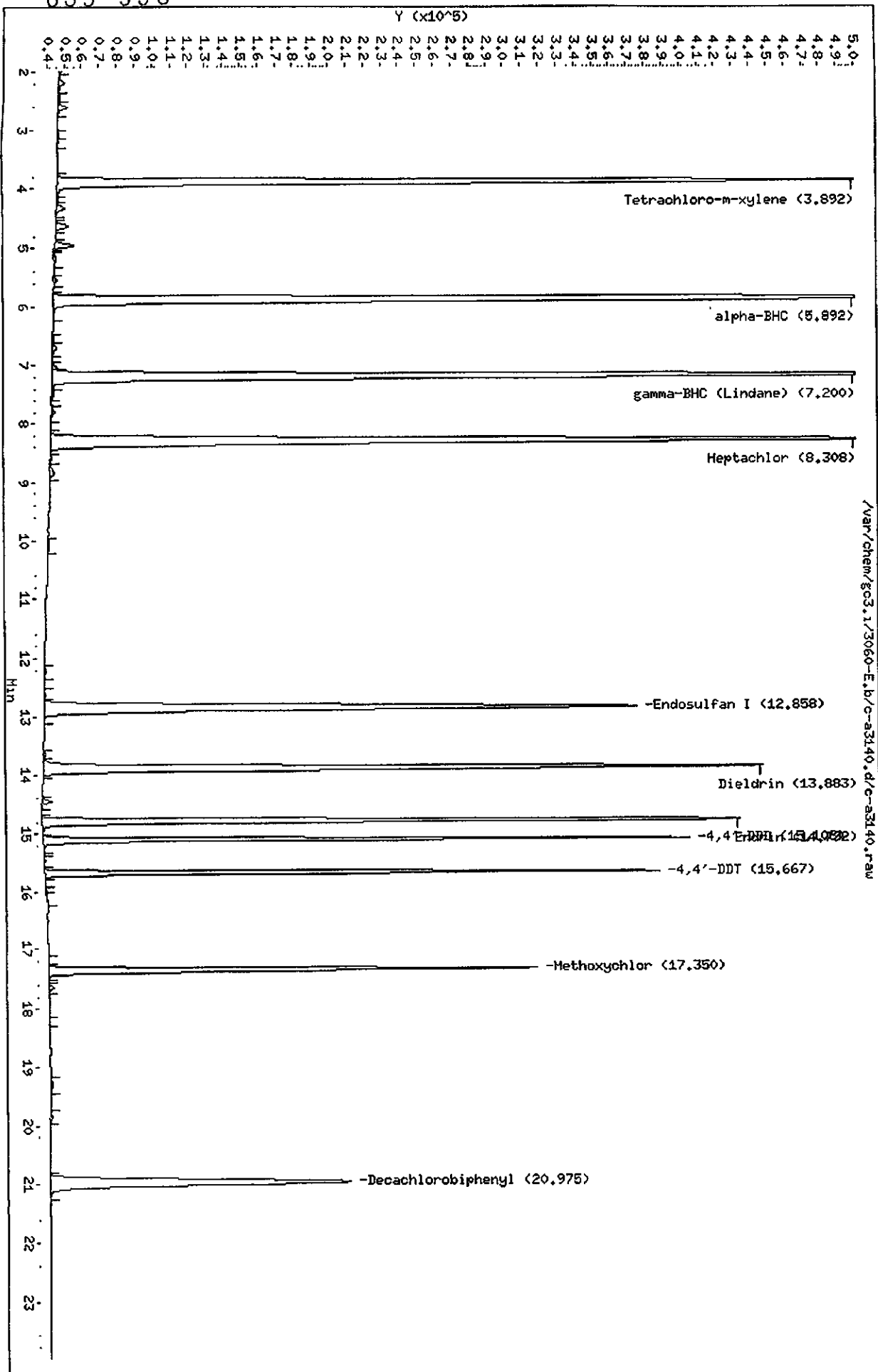
| Compounds                 | RT     | EXP RT | DLT RT | RESPONSE | AMOUNTS          |                 |
|---------------------------|--------|--------|--------|----------|------------------|-----------------|
|                           |        |        |        |          | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| =====                     | ==     | =====  | =====  | =====    | =====            | =====           |
| \$ 1 Tetrachloro-m-xylene | 3.892  | 3.892  | 0.000  | 494583   | 0.10000          | 0.0721277       |
| 5 alpha-BHC               | 5.892  | 5.892  | 0.000  | 671491   | 0.10000          | 0.0826347       |
| 6 gamma-BHC (Lindane)     | 7.200  | 7.200  | 0.000  | 582641   | 0.10000          | 0.0811391       |
| 10 Heptachlor             | 8.308  | 8.308  | 0.000  | 484506   | 0.10000          | 0.0794326       |
| 15 Endosulfan I           | 12.858 | 12.858 | 0.000  | 336787   | 0.10000          | 0.0861909       |
| 17 Dieldrin               | 13.883 | 13.883 | 0.000  | 409120   | 0.10000          | 0.0893371       |
| 20 Endrin                 | 14.792 | 14.792 | 0.000  | 396959   | 0.10000          | 0.0927924       |
| 21 4,4'-DDD               | 15.108 | 15.108 | 0.000  | 367983   | 0.10000          | 0.0973037       |
| 23 4,4'-DDT               | 15.667 | 15.667 | 0.000  | 349741   | 0.10000          | 0.103066 (A)    |
| 25 Methoxychlor           | 17.350 | 17.350 | 0.000  | 277848   | 0.20000          | 0.189672        |
| \$ 30 Decachlorobiphenyl  | 20.975 | 20.975 | 0.000  | 170629   | 0.10000          | 0.0857021       |

## QC Flag Legend

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



659 996

Y (x10<sup>5</sup>)

Data File: /var/chem/gc3.1/3060-E.b/c-a3140.d  
Date : 05-JUN-2000 19:09  
Client ID: HICHA  
Sample Info: HICHA,3060-E.b,,3-INDA,sub,,1,5  
Column phase: DB608

Instrument: gc3.1  
Operator: 1891  
Column diameter: 0.53

Data File: /var/chem/gc3.i/3060-E.b/c-a3141.d  
 Report Date: 06-Jun-2000 05:02

## STL-PITTSBURGH

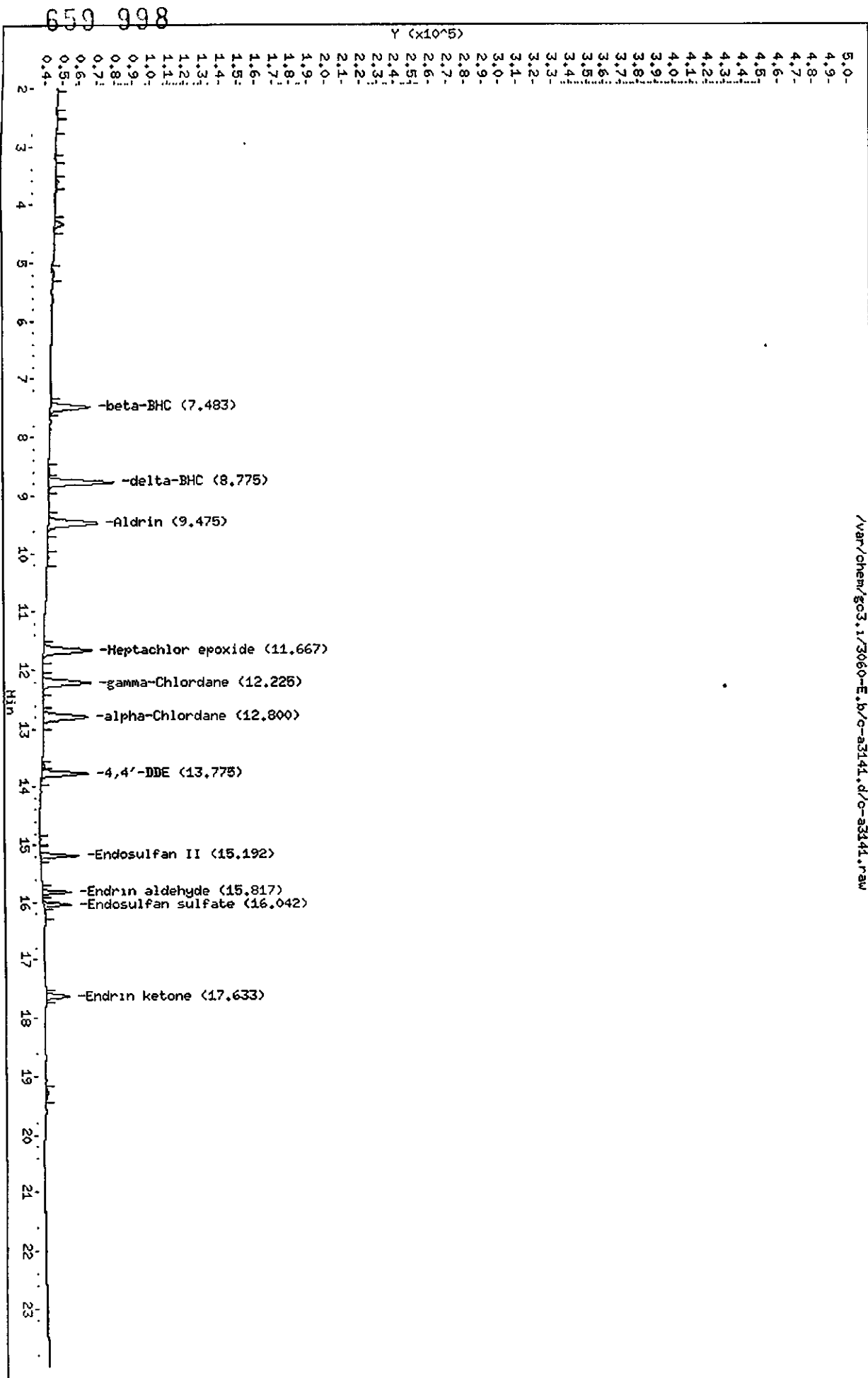
Data file : /var/chem/gc3.i/3060-E.b/c-a3141.d  
 Lab Smp Id: LOWB Client Smp ID: LOWB  
 Inj Date : 05-JUN-2000 19:36  
 Operator : 1891 Inst ID: gc3.i  
 Smp Info : LOWB,3060-E.b,,4-INDB.sub,,1,1  
 Misc Info : 190-84-7  
 Comment :  
 Method : /var/chem/gc3.i/3060-E.b/PESTA.m  
 Meth Date : 06-Jun-2000 04:59 g Quant Type: ESTD  
 Cal Date : 05-JUN-2000 19:36 Cal File: c-a3141.d  
 Als bottle: 1 Calibration Sample, Level: 1  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 4-INDB.sub  
 Target Version: 3.40

| Compounds             | AMOUNTS |        |        |          |                  |                 |
|-----------------------|---------|--------|--------|----------|------------------|-----------------|
|                       | RT      | EXP RT | DLT RT | RESPONSE | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| =====                 | ==      | =====  | =====  | =====    | =====            | =====           |
| 11 Aldrin             | 9.475   | 9.483  | -0.008 | 28575    | 0.00500          | 0.00500000      |
| 7 beta-BHC            | 7.483   | 7.492  | -0.009 | 22805    | 0.00500          | 0.00500000      |
| 8 delta-BHC           | 8.775   | 8.783  | -0.008 | 37394    | 0.00500          | 0.00500000      |
| 12 Heptachlor epoxide | 11.667  | 11.667 | 0.000  | 27821    | 0.00500          | 0.00500000      |
| 13 gamma-Chlordane    | 12.225  | 12.225 | 0.000  | 27412    | 0.00500          | 0.00500000      |
| 14 alpha-Chlordane    | 12.800  | 12.808 | -0.008 | 25863    | 0.00500          | 0.00500000      |
| 16 4,4'-DDE           | 13.775  | 13.775 | 0.000  | 26537    | 0.00500          | 0.00500000      |
| 22 Endosulfan II      | 15.192  | 15.192 | 0.000  | 22218    | 0.00500          | 0.00500000      |
| 24 Endrin aldehyde    | 15.817  | 15.817 | 0.000  | 16405    | 0.00500          | 0.00500000      |
| 26 Endosulfan sulfate | 16.042  | 16.042 | 0.000  | 15320    | 0.00500          | 0.00500000      |
| 27 Endrin ketone      | 17.633  | 17.633 | 0.000  | 13867    | 0.00500          | 0.00500000      |

Data File: /var/chem/gc3.1/3060-E.b/c-a3141.d  
 Date : 05-JUN-2000 19:36  
 Client ID: LOMB  
 Sample Info: LOMB,3060-E.b,4-INDB.sub,1,1

Column phase: DB608

Instrument: gc3.1  
 Operator: 1891  
 Column diameter: 0.53



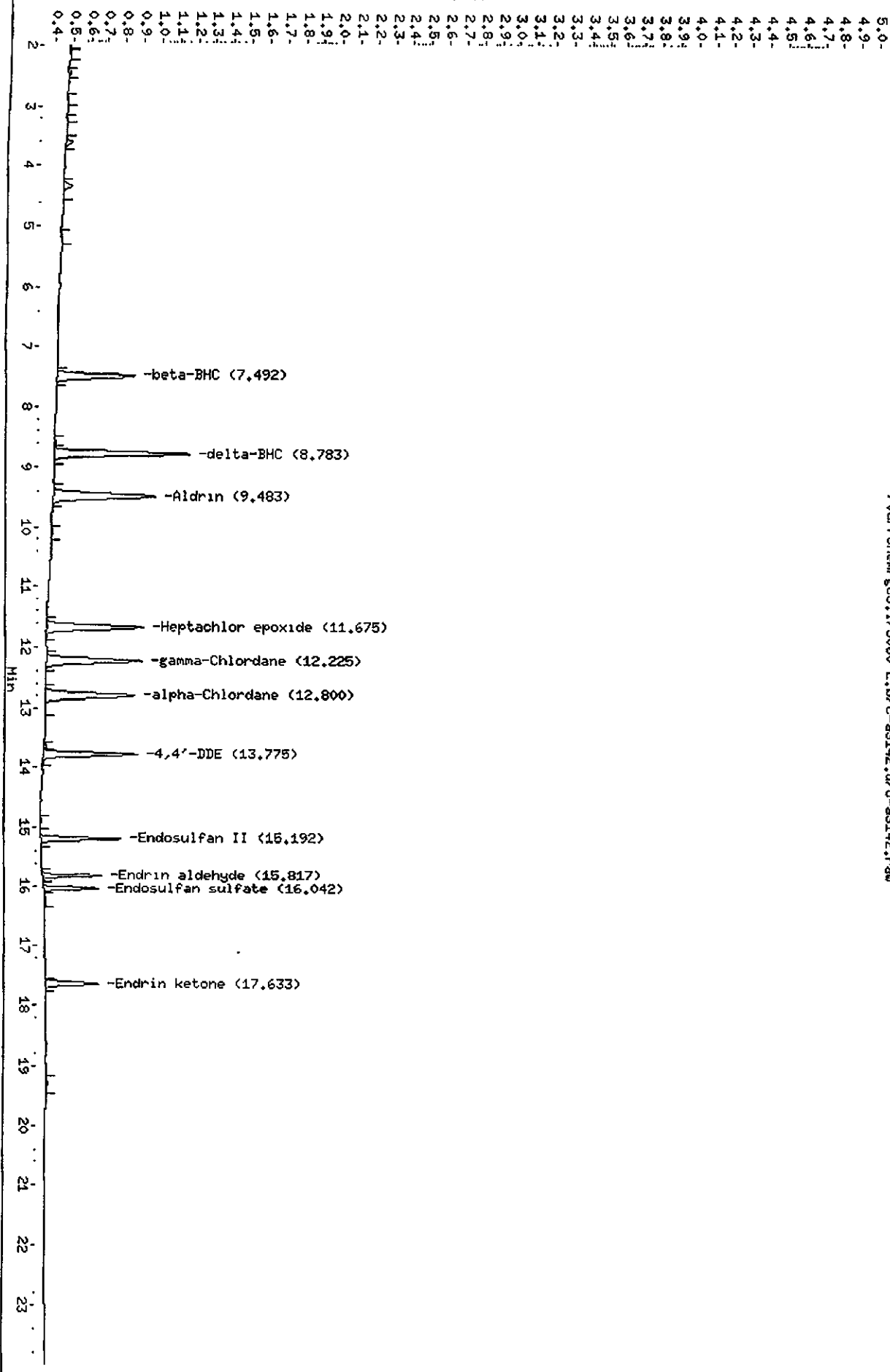
Data File: /var/chem/gc3.i/3060-E.b/c-a3142.d  
 Report Date: 06-Jun-2000 05:02

## STL-PITTSBURGH

Data file : /var/chem/gc3.i/3060-E.b/c-a3142.d  
 Lab Smp Id: MLOWB Client Smp ID: MLOWB  
 Inj Date : 05-JUN-2000 20:03  
 Operator : 1891 Inst ID: gc3.i  
 Smp Info : MLOWB,3060-E.b,,4-INDB.sub,,1,2  
 Misc Info : 190-84-8  
 Comment :  
 Method : /var/chem/gc3.i/3060-E.b/PESTA.m  
 Meth Date : 06-Jun-2000 04:59 g Quant Type: ESTD  
 Cal Date : 05-JUN-2000 20:03 Cal File: c-a3142.d  
 Als bottle: 1 Calibration Sample, Level: 2  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 4-INDB.sub  
 Target Version: 3.40

| Compounds             |        |        |        |          | AMOUNTS          |                 |
|-----------------------|--------|--------|--------|----------|------------------|-----------------|
|                       | RT     | EXP RT | DLT RT | RESPONSE | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| *****                 | ==     | =====  | =====  | =====    | =====            | =====           |
| 11 Aldrin             | 9.483  | 9.483  | 0.000  | 56491    | 0.01000          | 0.00994201      |
| 7 beta-BHC            | 7.492  | 7.492  | 0.000  | 43584    | 0.01000          | 0.00977285      |
| 8 delta-BHC           | 8.783  | 8.783  | 0.000  | 74957    | 0.01000          | 0.0100113       |
| 12 Heptachlor epoxide | 11.675 | 11.667 | 0.008  | 54143    | 0.01000          | 0.00986346      |
| 13 gamma-Chlordane    | 12.225 | 12.225 | 0.000  | 53153    | 0.01000          | 0.00984524      |
| 14 alpha-Chlordane    | 12.800 | 12.808 | -0.008 | 49511    | 0.01000          | 0.00978121      |
| 16 4,4'-DDE           | 13.775 | 13.775 | 0.000  | 52688    | 0.01000          | 0.00996350      |
| 22 Endosulfan II      | 15.192 | 15.192 | 0.000  | 44779    | 0.01000          | 0.0100384       |
| 24 Endrin aldehyde    | 15.817 | 15.817 | 0.000  | 33452    | 0.01000          | 0.0100969       |
| 26 Endosulfan sulfate | 16.042 | 16.042 | 0.000  | 31269    | 0.01000          | 0.0101016       |
| 27 Endrin ketone      | 17.633 | 17.633 | 0.000  | 29672    | 0.01000          | 0.0103376       |

6591000

Y (x10<sup>5</sup>)

/Var/chem/gc3.1/3060-E.b/c-a3142.d/c-a3142.raw

Data File: /Var/chem/gc3.1/3060-E.b/c-a3142.d  
Date: 05-JUN-2000 20:03  
Client ID: MLOMB  
Sample Info: MLOMB, 3060-E.b, 4-INDR.sub, 1,2  
Column phase: DB608

Instrument: gc3.1  
Operator: 1891  
Column diameter: 0.53

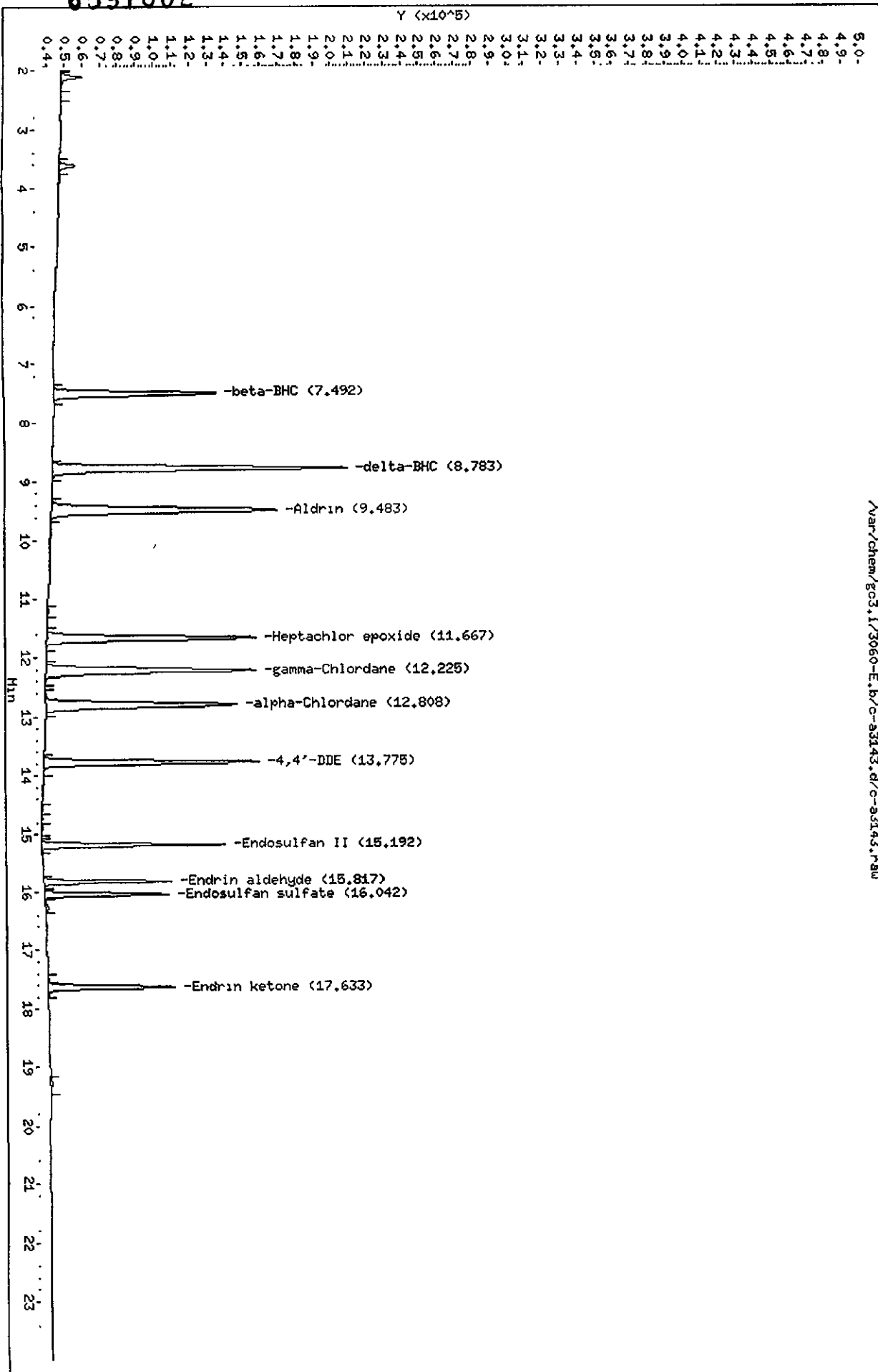
Data File: /var/chem/gc3.i/3060-E.b/c-a3143.d  
 Report Date: 06-Jun-2000 05:02

## STL-PITTSBURGH

Data file : /var/chem/gc3.i/3060-E.b/c-a3143.d  
 Lab Smp Id: MEDB Client Smp ID: MEDB  
 Inj Date : 05-JUN-2000 20:29  
 Operator : 1891 Inst ID: gc3.i  
 Smp Info : MEDB,3060-E.b,,4-INDB.sub,,1,3  
 Misc Info : 190-84-9  
 Comment :  
 Method : /var/chem/gc3.i/3060-E.b/PESTA.m  
 Meth Date : 06-Jun-2000 04:59 g Quant Type: ESTD  
 Cal Date : 05-JUN-2000 20:29 Cal File: c-a3143.d  
 Als bottle: 1 Calibration Sample, Level: 3  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 4-INDB.sub  
 Target Version: 3.40

| Compounds             | RT     | EXP RT | DLT RT | RESPONSE | AMOUNTS          |                 |
|-----------------------|--------|--------|--------|----------|------------------|-----------------|
|                       |        |        |        |          | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| =====                 | ==     | =====  | =====  | =====    | =====            | =====           |
| 11 Aldrin             | 9.483  | 9.483  | 0.000  | 127365   | 0.02500          | 0.0232154       |
| 7 beta-BHC            | 7.492  | 7.492  | 0.000  | 91694    | 0.02500          | 0.0218542       |
| 8 delta-BHC           | 8.783  | 8.783  | 0.000  | 166339   | 0.02500          | 0.0230727       |
| 12 Heptachlor epoxide | 11.667 | 11.667 | 0.000  | 118383   | 0.02500          | 0.0226011       |
| 13 gamma-Chlordane    | 12.225 | 12.225 | 0.000  | 118870   | 0.02500          | 0.0229294       |
| 14 alpha-Chlordane    | 12.808 | 12.808 | 0.000  | 107859   | 0.02500          | 0.0224114       |
| 16 4,4'-DDE           | 13.775 | 13.775 | 0.000  | 121666   | 0.02500          | 0.0236354       |
| 22 Endosulfan II      | 15.192 | 15.192 | 0.000  | 103129   | 0.02500          | 0.0237139       |
| 24 Endrin aldehyde    | 15.817 | 15.817 | 0.000  | 72483    | 0.02500          | 0.0228280       |
| 26 Endosulfan sulfate | 16.042 | 16.042 | 0.000  | 70366    | 0.02500          | 0.0234409       |
| 27 Endrin ketone      | 17.633 | 17.633 | 0.000  | 71648    | 0.02500          | 0.0249746       |

6591002



/var/chem/603.1/3060-E.b/c-a3143.d

Data File: /var/chem/603.1/3060-E.b/c-a3143.d  
Date : 05-JUN-2000 20:29  
Client ID: MEDB  
Sample Info: MEDB,3060-E.b,4-INDB.sub,1,3  
Column Phase: DB608

Instrument: 603.1  
Operator: 1891  
Column diameter: 0.53

Data File: /var/chem/gc3.i/3060-E.b/c-a3144.d  
 Report Date: 06-Jun-2000 05:02

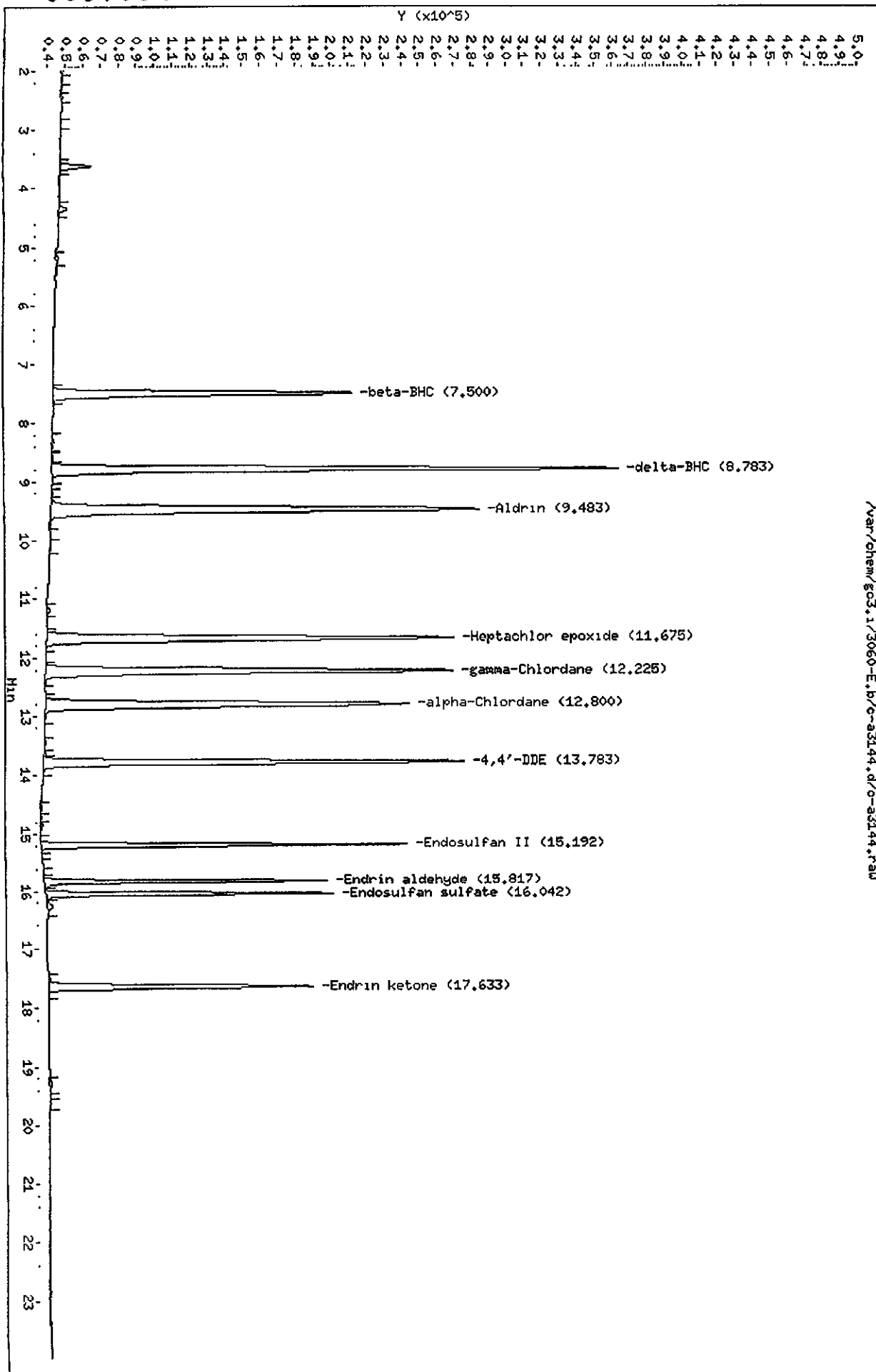
## STL-PITTSBURGH

Data file : /var/chem/gc3.i/3060-E.b/c-a3144.d  
 Lab Smp Id: MHIGHB Client Smp ID: MHIGHB  
 Inj Date : 05-JUN-2000 20:56  
 Operator : 1891 Inst ID: gc3.i  
 Smp Info : MHIGHB,3060-E.b,,4-INDB.sub,,1,4  
 Misc Info : 190-84-10  
 Comment :  
 Method : /var/chem/gc3.i/3060-E.b/PESTA.m  
 Meth Date : 06-Jun-2000 04:59 g Quant Type: ESTD  
 Cal Date : 05-JUN-2000 20:56 Cal File: c-a3144.d  
 Als bottle: 1 Calibration Sample, Level: 4  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 4-INDB.sub  
 Target Version: 3.40

| Compounds             |        |        |        |          | AMOUNTS          |                 |
|-----------------------|--------|--------|--------|----------|------------------|-----------------|
|                       | RT     | EXP RT | DLT RT | RESPONSE | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| =====                 | ==     | =====  | =====  | =====    | =====            | =====           |
| 11 Aldrin             | 9.483  | 9.483  | 0.000  | 243371   | 0.05000          | 0.0456475       |
| 7 beta-BHC            | 7.500  | 7.492  | 0.008  | 168958   | 0.05000          | 0.0423286       |
| 8 delta-BHC           | 8.783  | 8.783  | 0.000  | 320714   | 0.05000          | 0.0457471       |
| 12 Heptachlor epoxide | 11.675 | 11.667 | 0.008  | 231148   | 0.05000          | 0.0454640       |
| 13 gamma-Chlordane    | 12.225 | 12.225 | 0.000  | 230723   | 0.05000          | 0.0457626       |
| 14 alpha-Chlordane    | 12.800 | 12.808 | -0.008 | 206445   | 0.05000          | 0.0444758       |
| 16 4,4'-DDE           | 13.783 | 13.775 | 0.008  | 238257   | 0.05000          | 0.0471610       |
| 22 Endosulfan II      | 15.192 | 15.192 | 0.000  | 207529   | 0.05000          | 0.0482703       |
| 24 Endrin aldehyde    | 15.817 | 15.817 | 0.000  | 160772   | 0.05000          | 0.0504741       |
| 26 Endosulfan sulfate | 16.042 | 16.042 | 0.000  | 162960   | 0.05000          | 0.0531475       |
| 27 Endrin ketone      | 17.633 | 17.633 | 0.000  | 149878   | 0.05000          | 0.0516639       |



6591004



/var/chem/603.1/3060-E.b/c-a3144.d

Data File: /var/chem/603.1/3060-E.b/c-a3144.d  
Date: 05-JUN-2000 20:56  
Client ID: HHIGHB  
Sample Info: HHIGHB,3060-E.b,4-INDB,sub,1,4  
Column phase: DB608

Instrument: 603.1  
Operator: 1891  
Column diameter: 0.53

Data File: /var/chem/gc3.i/3060-E.b/c-a3145.d  
 Report Date: 06-Jun-2000 05:02

## STL-PITTSBURGH

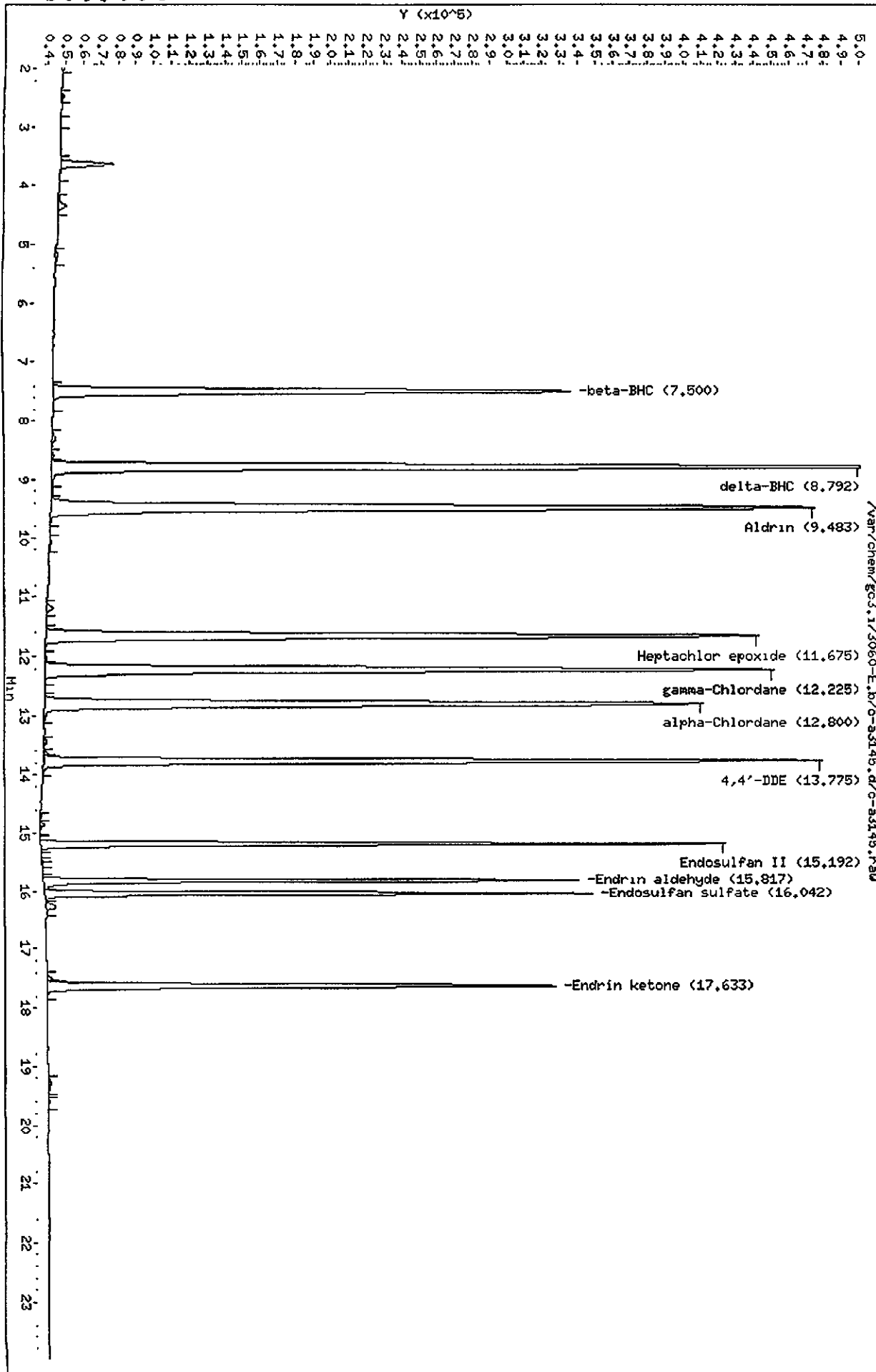
Data file : /var/chem/gc3.i/3060-E.b/c-a3145.d  
 Lab Smp Id: HIGHB Client Smp ID: HIGHB  
 Inj Date : 05-JUN-2000 21:23  
 Operator : 1891 Inst ID: gc3.i  
 Smp Info : HIGHB,3060-E.b,,4-INDB.sub,,1,5  
 Misc Info : 190-84-11  
 Comment :  
 Method : /var/chem/gc3.i/3060-E.b/PESTA.m  
 Meth Date : 06-Jun-2000 04:59 g Quant Type: ESTD  
 Cal Date : 05-JUN-2000 21:23 Cal File: c-a3145.d  
 Als bottle: 1 Calibration Sample, Level: 5  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 4-INDB.sub  
 Target Version: 3.40

| Compounds             | RT     | EXP RT | DLT RT | RESPONSE | AMOUNTS          |                 |
|-----------------------|--------|--------|--------|----------|------------------|-----------------|
|                       |        |        |        |          | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| =====                 | ==     | =====  | =====  | =====    | =====            | =====           |
| 11 Aldrin             | 9.483  | 9.483  | 0.000  | 432874   | 0.10000          | 0.0843649       |
| 7 beta-BHC            | 7.500  | 7.492  | 0.008  | 292590   | 0.10000          | 0.0774366       |
| 8 delta-BHC           | 8.792  | 8.783  | 0.009  | 565559   | 0.10000          | 0.0839160       |
| 12 Heptachlor epoxide | 11.675 | 11.667 | 0.008  | 403539   | 0.10000          | 0.0827868       |
| 13 gamma-Chlordane    | 12.225 | 12.225 | 0.000  | 412413   | 0.10000          | 0.0848898       |
| 14 alpha-Chlordane    | 12.800 | 12.808 | -0.008 | 372187   | 0.10000          | 0.0834918       |
| 16 4,4'-DDE           | 13.775 | 13.775 | 0.000  | 441354   | 0.10000          | 0.0896277       |
| 22 Endosulfan II      | 15.192 | 15.192 | 0.000  | 387667   | 0.10000          | 0.0919779       |
| 24 Endrin aldehyde    | 15.817 | 15.817 | 0.000  | 303224   | 0.10000          | 0.0961200       |
| 26 Endosulfan sulfate | 16.042 | 16.042 | 0.000  | 310616   | 0.10000          | 0.101040 (A)    |
| 27 Endrin ketone      | 17.633 | 17.633 | 0.000  | 287898   | 0.10000          | 0.0993913       |

## QC Flag Legend

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

6591006



Data File: /var/chem/eg3.1/3060-E.b/o-a3145.d  
Date: 05-JUN-2000 21:23  
Client ID: HIGHB  
Sample Info: HIGHB,3060-E.b,,4-INDB.sub,,1,5  
Column phase: DB608

Instrument: eg3.1  
Operator: 1891  
Column diameter: 0.53

Data File: /var/chem/gc3.i/3060-E.b/c-a3146.d  
 Report Date: 06-Jun-2000 05:03

## STL-PITTSBURGH

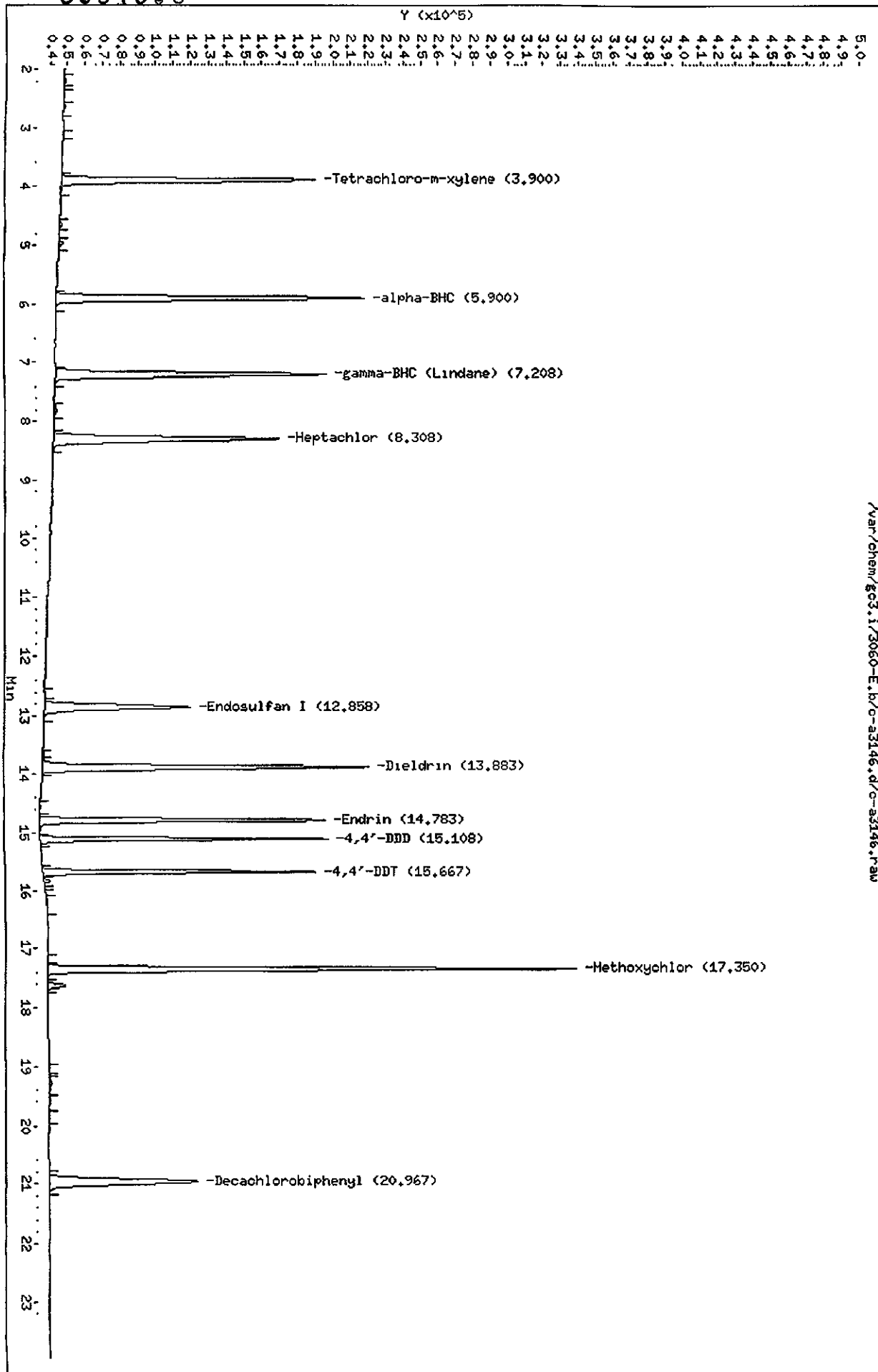
Data file : /var/chem/gc3.i/3060-E.b/c-a3146.d  
 Lab Smp Id: 2ND A Client Smp ID: 2ND A  
 Inj Date : 05-JUN-2000 21:49  
 Operator : 1891 Inst ID: gc3.i  
 Smp Info : 2ND A, 3060-E.b, , INDA.sub, , 2, 3  
 Misc Info : 190-82-2  
 Comment :  
 Method : /var/chem/gc3.i/3060-E.b/PESTA.m  
 Meth Date : 06-Jun-2000 04:59 g Quant Type: ESTD  
 Cal Date : 05-JUN-2000 21:23 Cal File: c-a3145.d  
 Als bottle: 1 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: INDA.sub  
 Target Version: 3.40

| Compounds                 |        |        |        |          | AMOUNTS          |                 |
|---------------------------|--------|--------|--------|----------|------------------|-----------------|
|                           | RT     | EXP RT | DLT RT | RESPONSE | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| =====                     | ==     | =====  | =====  | =====    | =====            | =====           |
| \$ 1 Tetrachloro-m-xylene | 3.900  | 3.892  | 0.008  | 143690   | 0.02500          | 0.0209551       |
| 5 alpha-BHC               | 5.900  | 5.892  | 0.008  | 174060   | 0.02500          | 0.0214201       |
| 6 gamma-BHC (Lindane)     | 7.208  | 7.200  | 0.008  | 152764   | 0.02500          | 0.0212740       |
| 10 Heptachlor             | 8.308  | 8.308  | 0.000  | 127474   | 0.02500          | 0.0208988       |
| 15 Endosulfan I           | 12.858 | 12.858 | 0.000  | 82334    | 0.02500          | 0.0210710       |
| 17 Dieldrin               | 13.883 | 13.883 | 0.000  | 184235   | 0.02500          | 0.0402303       |
| 20 Endrin                 | 14.783 | 14.792 | -0.009 | 160642   | 0.02500          | 0.0375514       |
| 21 4,4'-DDD               | 15.108 | 15.108 | 0.000  | 162097   | 0.02500          | 0.0428624       |
| 23 4,4'-DDT               | 15.667 | 15.667 | 0.000  | 154148   | 0.02500          | 0.0454265       |
| 25 Methoxychlor           | 17.350 | 17.350 | 0.000  | 300107   | 0.05000          | 0.204867 (A)    |
| \$ 30 Decachlorobiphenyl  | 20.967 | 20.975 | -0.008 | 83629    | 0.02500          | 0.0420045       |

## QC Flag Legend

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

6591008



/var/chem/gc3.1/3060-E.b/o-a3146.d/c-a3146.raw

Data File: /var/chem/gc3.1/3060-E.b/o-a3146.d  
Date: 05-JUN-2000 21:49  
Client ID: 2ND A  
Sample Info: 2ND A, 3060-E.b, 1INDA.sub, 2,3  
Column phase: DB608

Instrument: gc3.1  
Operator: 1891  
Column diameter: 0.53

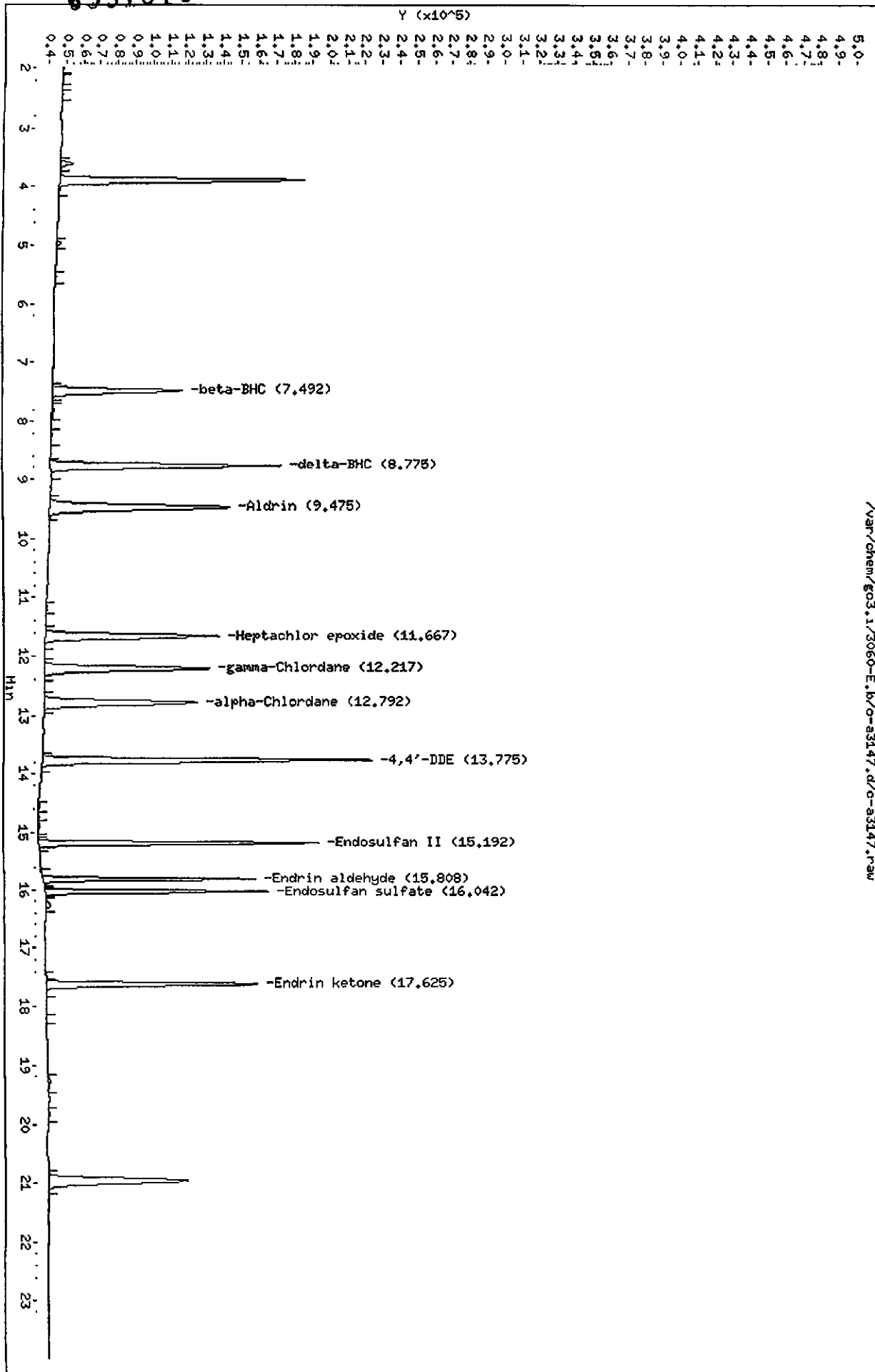
Data File: /var/chem/gc3.i/3060-E.b/c-a3147.d  
 Report Date: 06-Jun-2000 05:03

## STL-PITTSBURGH

Data file : /var/chem/gc3.i/3060-E.b/c-a3147.d  
 Lab Smp Id: 2ND B Client Smp ID: 2ND B  
 Inj Date : 05-JUN-2000 22:16  
 Operator : 1891 Inst ID: gc3.i  
 Smp Info : 2ND B, 3060-E.b, , INDB.sub, , 2, 3  
 Misc Info : 190-82-5  
 Comment :  
 Method : /var/chem/gc3.i/3060-E.b/PESTA.m  
 Meth Date : 06-Jun-2000 04:59 g Quant Type: ESTD  
 Cal Date : 05-JUN-2000 21:23 Cal File: c-a3145.d  
 Als bottle: 1 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: INDB.sub  
 Target Version: 3.40

| Compounds             |        |        |        |          | AMOUNTS          |                 |
|-----------------------|--------|--------|--------|----------|------------------|-----------------|
|                       | RT     | EXP RT | DLT RT | RESPONSE | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| =====                 | ==     | =====  | =====  | =====    | =====            | =====           |
| 11 Aldrin             | 9.475  | 9.483  | -0.008 | 101508   | 0.02500          | 0.0197834       |
| 7 beta-BHC            | 7.492  | 7.492  | 0.000  | 73364    | 0.02500          | 0.0194164       |
| 8 delta-BHC           | 8.775  | 8.783  | -0.008 | 129765   | 0.02500          | 0.0192542       |
| 12 Heptachlor epoxide | 11.667 | 11.667 | 0.000  | 98427    | 0.02500          | 0.0201925       |
| 13 gamma-Chlordane    | 12.217 | 12.225 | -0.008 | 94031    | 0.02500          | 0.0193550       |
| 14 alpha-Chlordane    | 12.792 | 12.808 | -0.016 | 86813    | 0.02500          | 0.0194746       |
| 16 4,4'-DDE           | 13.775 | 13.775 | 0.000  | 186972   | 0.02500          | 0.0379692       |
| 22 Endosulfan II      | 15.192 | 15.192 | 0.000  | 158456   | 0.02500          | 0.0375953       |
| 24 Endrin aldehyde    | 15.808 | 15.817 | -0.009 | 120114   | 0.02500          | 0.0380753       |
| 26 Endosulfan sulfate | 16.042 | 16.042 | 0.000  | 126456   | 0.02500          | 0.0411349       |
| 27 Endrin ketone      | 17.625 | 17.633 | -0.008 | 119850   | 0.02500          | 0.0413759       |

6591010



/var/chem/603.1/3060-E.b/o-a3147.raw

Data File: /var/chem/603.1/3060-E.b/o-a3147.d  
Date: 05-JUN-2000 22:16  
Client ID: 2ND B  
Sample Info: 2ND B, 3060-E.b, INDB.sub, 2,3  
Column phase: DB608

Instrument: 603.1  
Operator: 1891  
Column diameter: 0.53

Data File: /var/chem/gc3.i/3060-E.b/c-a3148.d  
Report Date: 06-Jun-2000 05:03

## STL-PITTSBURGH

Data file : /var/chem/gc3.i/3060-E.b/c-a3148.d  
Lab Smp Id: EVALB Client Smp ID: EVALB  
Inj Date : 05-JUN-2000 22:43  
Operator : 1891 Inst ID: gc3.i  
Smp Info : EVALB,3060-E.b,,EVALBR.sub,,3,1  
Misc Info : 190-88-8  
Comment :  
Method : /var/chem/gc3.i/3060-E.b/PESTA.m  
Meth Date : 06-Jun-2000 04:59 g Quant Type: ESTD  
Cal Date : 05-JUN-2000 21:23 Cal File: c-a3145.d  
Als bottle: 1 QC Sample: PEM  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: EVALBR.sub  
Target Version: 3.40

| Compounds                 | RT     | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS |                |
|---------------------------|--------|--------|--------|----------|----------------|----------------|
|                           |        |        |        |          | ON-COLUMN      | FINAL          |
|                           |        |        |        |          | ( ng)          | ( ng)          |
| =====                     | ==     | =====  | =====  | =====    | =====          | =====          |
| \$ 1 Tetrachloro-m-xylene | 3.900  | 3.892  | 0.008  | 142851   | 0.02083        | 0.0208327(R)   |
| 16 4,4'-DDB               | 13.775 | 13.775 | 0.000  | 1020     | 0.000207       | 0.000207136    |
| 20 Endrin                 | 14.783 | 14.792 | -0.009 | 109347   | 0.02556        | 0.0255608      |
| 21 4,4'-DDD               | 15.108 | 15.108 | 0.000  | 3050     | 0.000806       | 0.000806495    |
| 23 4,4'-DDT               | 15.667 | 15.667 | 0.000  | 97271    | 0.02867        | 0.0286652      |
| 24 Endrin aldehyde        | 15.817 | 15.817 | 0.000  | 686      | 0.000217       | 0.000217457(M) |
| 27 Endrin ketone          | 17.625 | 17.633 | -0.008 | 1288     | 0.000445       | 0.000444657    |
| \$ 30 Decachlorobiphenyl  | 20.967 | 20.975 | -0.008 | 45953    | 0.02308        | 0.0230809(R)   |

## QC Flag Legend

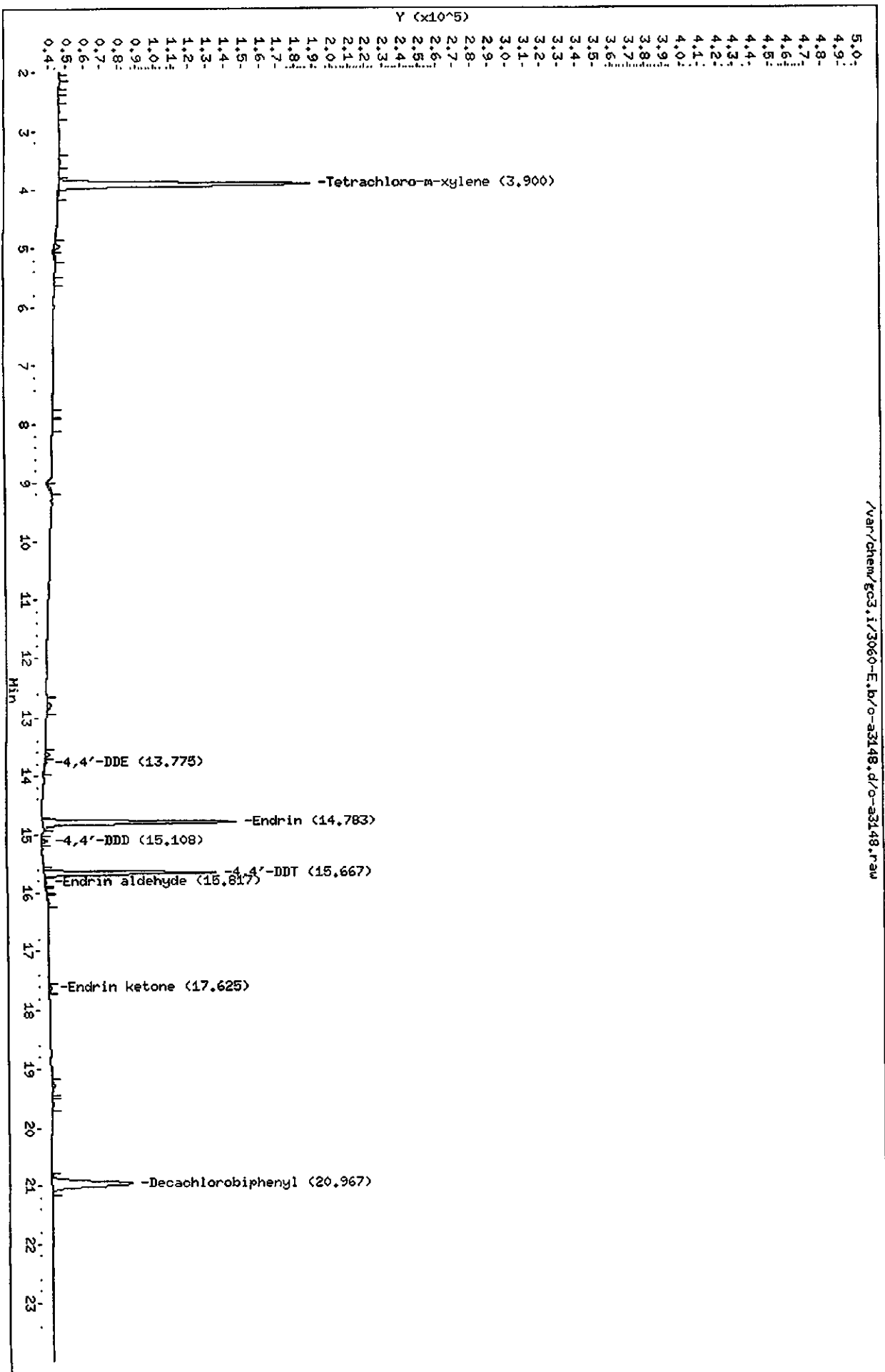
R - Spike/Surrogate failed recovery limits.  
M - Compound response manually integrated.

$$\text{Endrin Breakdown} = \frac{(696 + 1288)}{(696 + 1288 + 109347)} \times 100 = 1.99\%$$

$$\text{STL Breakdown} = \frac{(1020 + 3050)}{(1020 + 3050 + 97271)} \times 100 = 4.00\%$$



6591012



Data File: /var/chem/603.i/3060-E.b/o-a3148.d  
Date: 05-JUN-2000 22:43  
Client ID: EVALB  
Sample Info: EVALB,3060-E.b,EVALBR,sub,3,1  
Column Phase: DB608

Instrument: 603.1  
Operator: 1891  
Column diameter: 0.53

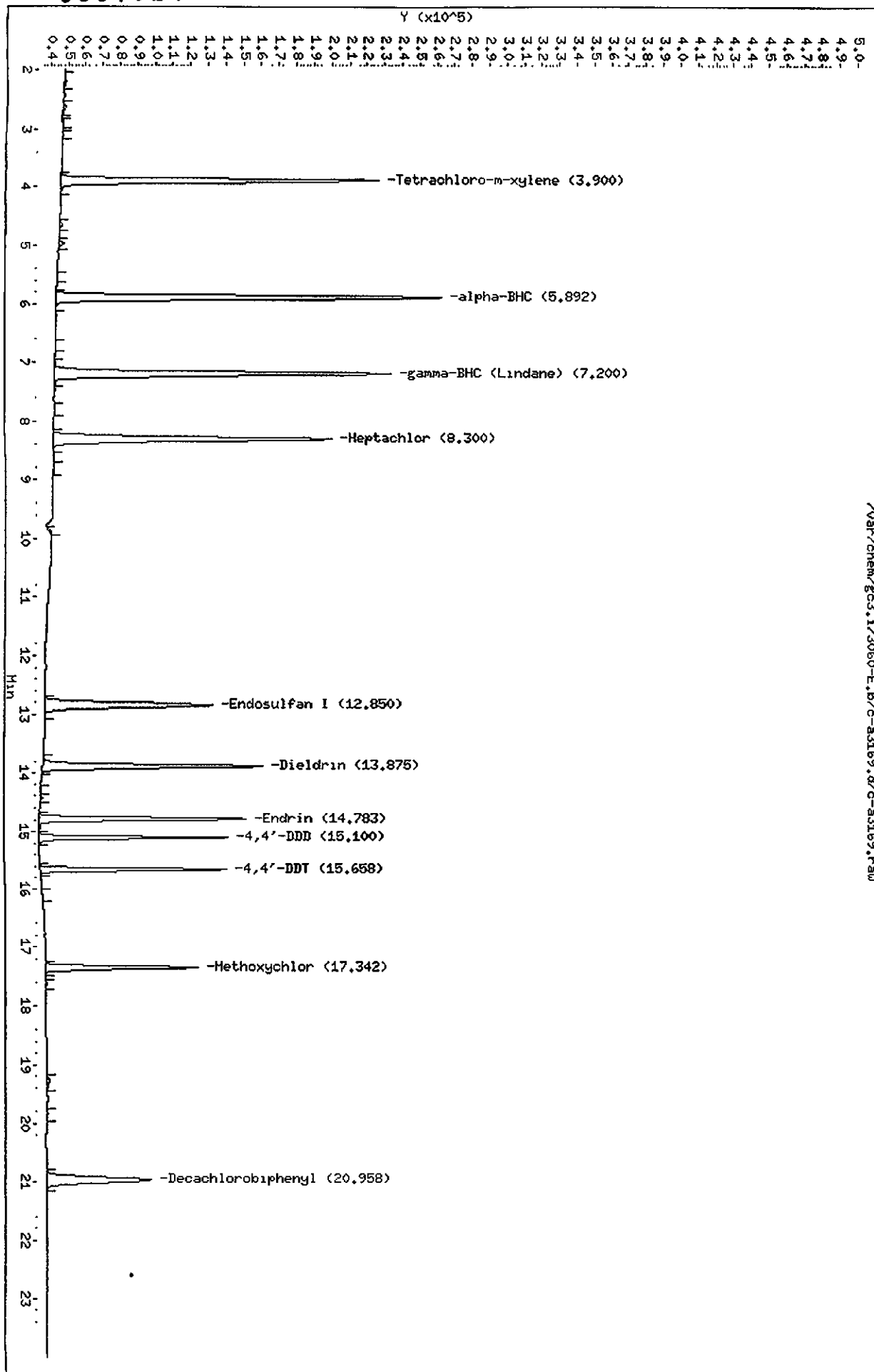
Data File: /var/chem/gc3.i/3060-E.b/c-a3169.d  
 Report Date: 06-Jun-2000 08:57

## STL-PITTSBURGH

Data file : /var/chem/gc3.i/3060-E.b/c-a3169.d  
 Lab Smp Id: MEDA Client Smp ID: MEDA  
 Inj Date : 06-JUN-2000 08:03  
 Operator : 1891 Inst ID: gc3.i  
 Smp Info : MEDA,3060-E.b,,INDA.sub,,2,3  
 Misc Info : 190-84-3  
 Comment :  
 Method : /var/chem/gc3.i/3060-E.b/PESTA.m  
 Meth Date : 06-Jun-2000 08:57 g Quant Type: ESTD  
 Cal Date : 05-JUN-2000 21:23 Cal File: c-a3145.d  
 Als bottle: 1 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: INDA.sub  
 Target Version: 3.40

| Compounds                 | RT     | EXP RT | DLT RT | RESPONSE | AMOUNTS          |                 |
|---------------------------|--------|--------|--------|----------|------------------|-----------------|
|                           |        |        |        |          | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| *****                     | ==     | =====  | =====  | =====    | =====            | =====           |
| \$ 1 Tetrachloro-m-xylene | 3.900  | 3.892  | 0.008  | 180197   | 0.02500          | 0.0262791       |
| 5 alpha-BHC               | 5.892  | 5.892  | 0.000  | 218544   | 0.02500          | 0.0268944       |
| 6 gamma-BHC (Lindane)     | 7.200  | 7.200  | 0.000  | 190175   | 0.02500          | 0.0264839       |
| 10 Heptachlor             | 8.300  | 8.308  | -0.008 | 157681   | 0.02500          | 0.0258511       |
| 15 Endosulfan I           | 12.850 | 12.858 | -0.008 | 95341    | 0.02500          | 0.0243998       |
| 17 Dieldrin               | 13.875 | 13.883 | -0.008 | 124996   | 0.02500          | 0.0272946       |
| 20 Endrin                 | 14.783 | 14.792 | -0.009 | 117308   | 0.02500          | 0.0274217       |
| 21 4,4'-DDD               | 15.100 | 15.108 | -0.008 | 106866   | 0.02500          | 0.0282580       |
| 23 4,4'-DDT               | 15.658 | 15.667 | -0.009 | 105417   | 0.02500          | 0.0310658       |
| 25 Methoxychlor           | 17.342 | 17.350 | -0.008 | 86865    | 0.05000          | 0.0592981       |
| \$ 30 Decachlorobiphenyl  | 20.958 | 20.975 | -0.017 | 59499    | 0.02500          | 0.0298847       |

6591014



/var/chem/gc3.1/3060-E.b/c-a3169.d

Data File: /var/chem/gc3.1/3060-E.b/c-a3169.d  
Date: 06-JUN-2000 08:03  
Client ID: HEDA  
Sample Info: HEDA,3060-E.b,INDA.sub,2,3  
Column phase: DB608

Instrument: gc3.1  
Operator: 1891  
Column diameter: 0.53

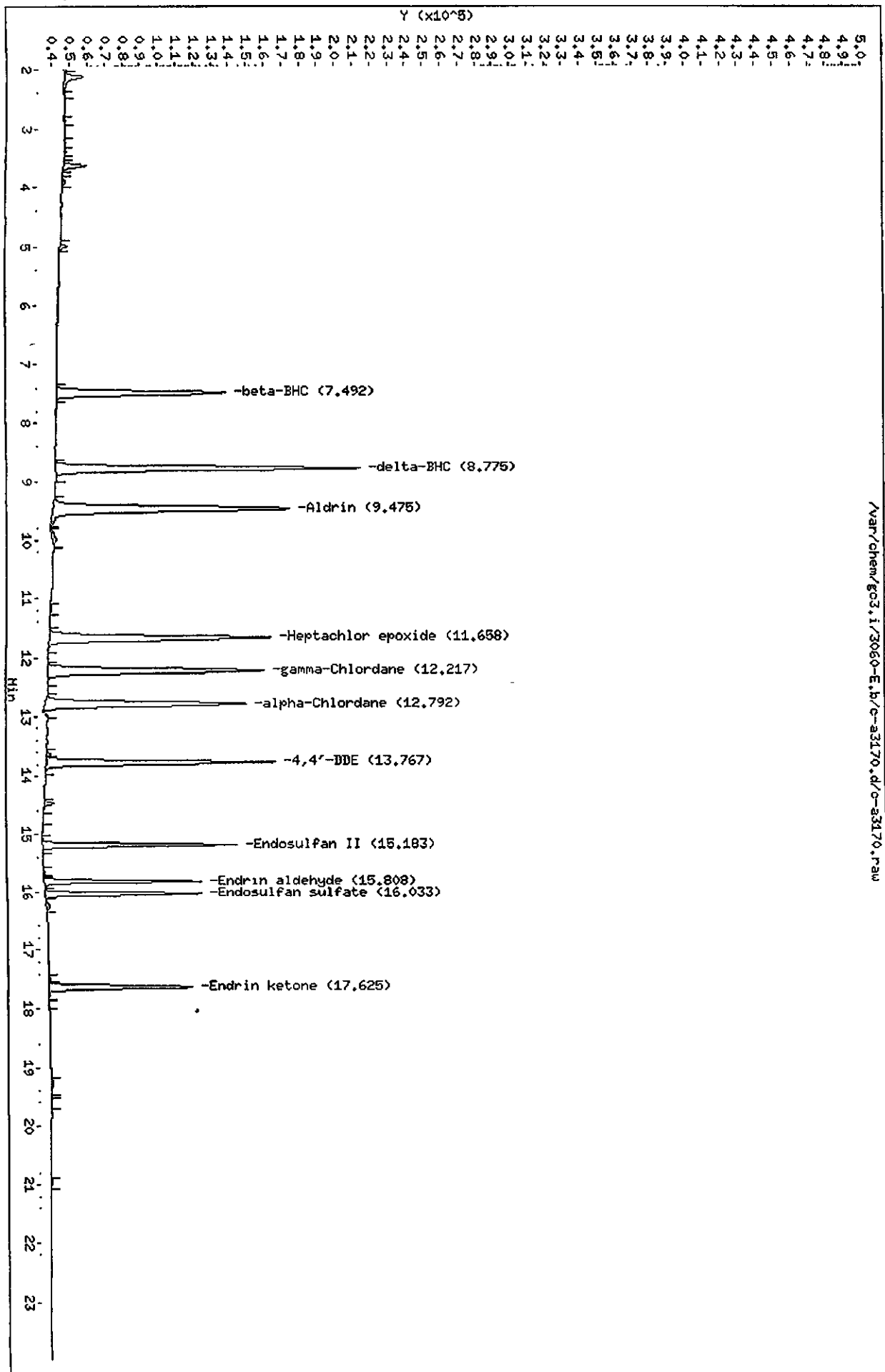
Data File: /var/chem/gc3.i/3060-E.b/c-a3170.d  
 Report Date: 06-Jun-2000 08:57

## STL-PITTSBURGH

Data file : /var/chem/gc3.i/3060-E.b/c-a3170.d  
 Lab Smp Id: MEDB Client Smp ID: MEDB  
 Inj Date : 06-JUN-2000 08:30  
 Operator : 1891 Inst ID: gc3.i  
 Smp Info : MEDB,3060-E.b,,INDB.sub,,2,3  
 Misc Info : 190-84-9  
 Comment :  
 Method : /var/chem/gc3.i/3060-E.b/PESTA.m  
 Meth Date : 06-Jun-2000 08:57 g Quant Type: ESTD  
 Cal Date : 05-JUN-2000 21:23 Cal File: c-a3145.d  
 Als bottle: 1 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: INDB.sub  
 Target Version: 3.40

| Compounds             |        |        |        |          | AMOUNTS          |                 |
|-----------------------|--------|--------|--------|----------|------------------|-----------------|
|                       | RT     | EXP RT | DLT RT | RESPONSE | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| =====                 | ==     | =====  | =====  | =====    | =====            | =====           |
| 11 Aldrin             | 9.475  | 9.483  | -0.008 | 134312   | 0.02500          | 0.0261767       |
| 7 beta-BHC            | 7.492  | 7.492  | 0.000  | 95844    | 0.02500          | 0.0253660       |
| 8 delta-BHC           | 8.775  | 8.783  | -0.008 | 172768   | 0.02500          | 0.0256348       |
| 12 Heptachlor epoxide | 11.658 | 11.667 | -0.009 | 125158   | 0.02500          | 0.0256764       |
| 13 gamma-Chlordane    | 12.217 | 12.225 | -0.008 | 121912   | 0.02500          | 0.0250940       |
| 14 alpha-Chlordane    | 12.792 | 12.808 | -0.016 | 114055   | 0.02500          | 0.0255857       |
| 16 4,4'-DDE           | 13.767 | 13.775 | -0.008 | 129540   | 0.02500          | 0.0263062       |
| 22 Endosulfan II      | 15.183 | 15.192 | -0.009 | 110179   | 0.02500          | 0.0261411       |
| 24 Endrin aldehyde    | 15.808 | 15.817 | -0.009 | 88655    | 0.02500          | 0.0281030       |
| 26 Endosulfan sulfate | 16.033 | 16.042 | -0.009 | 88004    | 0.02500          | 0.0286268       |
| 27 Endrin ketone      | 17.625 | 17.633 | -0.008 | 80854    | 0.02500          | 0.0279133       |

6591016



/var/chem/gc3.1/3060-E.b/c-a3170.raw

Data File: /var/chem/gc3.1/3060-E.b/c-a3170.d  
Date: 06-JUN-2000 08:30  
Client ID: MEDB  
Sample Info: MEDB, 3060-E.b, INDB.sub, 2,3  
Column phase: DB608

Instrument: gc3.i  
Operator: 1894  
Column diameter: 0.53

**PESTICIDE  
QC DATA**

6591018

UXB INTERNATIONAL  
METHOD BLANK COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0F020000 358

Method: SW846 8081A

Pesticides (8081A)

Sample WT/Vol: 100 / mL

Date Received: 05/31/00

Work Order: DE52F101

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/06/00

Moisture %: NA

QC Batch: 0154358

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 |

Data File: /var/chem/gc3.i/3060-E.b/c-a3167.d  
 Report Date: 06-Jun-2000 08:05

## STL-PITTSBURGH

Data file : /var/chem/gc3.i/3060-E.b/c-a3167.d  
 Lab Smp Id: DE52F101 Client Smp ID: PBLK1  
 Inj Date : 06-JUN-2000 07:10  
 Operator : 1891 Inst ID: gc3.i  
 Smp Info : DE52F101,3060-E.b,,all.sub,,3,  
 Misc Info : E310132BLK  
 Comment :  
 Method : /var/chem/gc3.i/3060-E.b/PESTA.m  
 Meth Date : 06-Jun-2000 04:59 g Quant Type: ESTD  
 Cal Date : 05-JUN-2000 21:23 Cal File: c-a3145.d  
 Als bottle: 1 QC Sample: BLANK  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: all.sub  
 Target Version: 3.40

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

| Name | Value     | Description                     |
|------|-----------|---------------------------------|
| DF   | 1.000     | Dilution Factor                 |
| Vt   | 10000.000 | 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<br>( ng) | FINAL<br>( ug/L) |
| \$ 1 Tetrachloro-m-xylene | 3.892 | 3.892 | 0.000 |     | 135913 | 0.01982  | 1.98209 (R)        |                  |
| 2 Diallylate A            | 4.967 | 4.967 | 0.000 |     | 2844   |          | (a)                |                  |
| 3 Diallylate B            |       |       |       |     |        |          |                    |                  |
| 4 MIREX                   |       |       |       |     |        |          |                    |                  |
| 5 alpha-BHC               |       |       |       |     |        |          |                    |                  |
| 6 gamma-BHC (Lindane)     |       |       |       |     |        |          |                    |                  |
| 7 beta-BHC                |       |       |       |     |        |          |                    |                  |
| 8 delta-BHC               |       |       |       |     |        |          |                    |                  |
| 9 Chlordane               |       |       |       |     |        |          |                    |                  |
| 10 Heptachlor             |       |       |       |     |        |          |                    |                  |
| 11 Aldrin                 |       |       |       |     |        |          |                    |                  |
| 12 Heptachlor epoxide     |       |       |       |     |        |          |                    |                  |
| 13 gamma-Chlordane        |       |       |       |     |        |          |                    |                  |
| 14 alpha-Chlordane        |       |       |       |     |        |          |                    |                  |
| 15 Endosulfan I           |       |       |       |     |        |          |                    |                  |
| 16 4,4'-DDE               |       |       |       |     |        |          |                    |                  |



6591020

Data File: /var/chem/gc3.i/3060-E.b/c-a3167.d

Report Date: 06-Jun-2000 08:05

| Compounds                | RT     | EXP    | RT     | DLT   | RT    | RESPONSE               | CONCENTRATIONS |         |
|--------------------------|--------|--------|--------|-------|-------|------------------------|----------------|---------|
|                          |        |        |        |       |       |                        | ON-COLUMN      | FINAL   |
|                          |        |        |        |       |       |                        | ( ng)          | ( ug/L) |
| =====                    | ==     | =====  | =====  | ===== | ===== | =====                  | =====          | =====   |
| 17 Dieldrin              |        |        |        |       |       | Compound Not Detected. |                |         |
| 18 Toxaphene             |        |        |        |       |       | Compound Not Detected. |                |         |
| 19 Isodrin               |        |        |        |       |       | Compound Not Detected. |                |         |
| 20 Endrin                |        |        |        |       |       | 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    | 16.058 | 16.042 | 0.016  |       | 2960  | 0.000963               | 0.0962858      |         |
| 27 Endrin ketone         |        |        |        |       |       | Compound Not Detected. |                |         |
| 28 Chlorobenzilate       |        |        |        |       |       | Compound Not Detected. |                |         |
| 29 Kepone                |        |        |        |       |       | Compound Not Detected. |                |         |
| \$ 30 Decachlorobiphenyl | 20.958 | 20.975 | -0.017 |       | 46079 | 0.02314                | 2.31442(R)     |         |

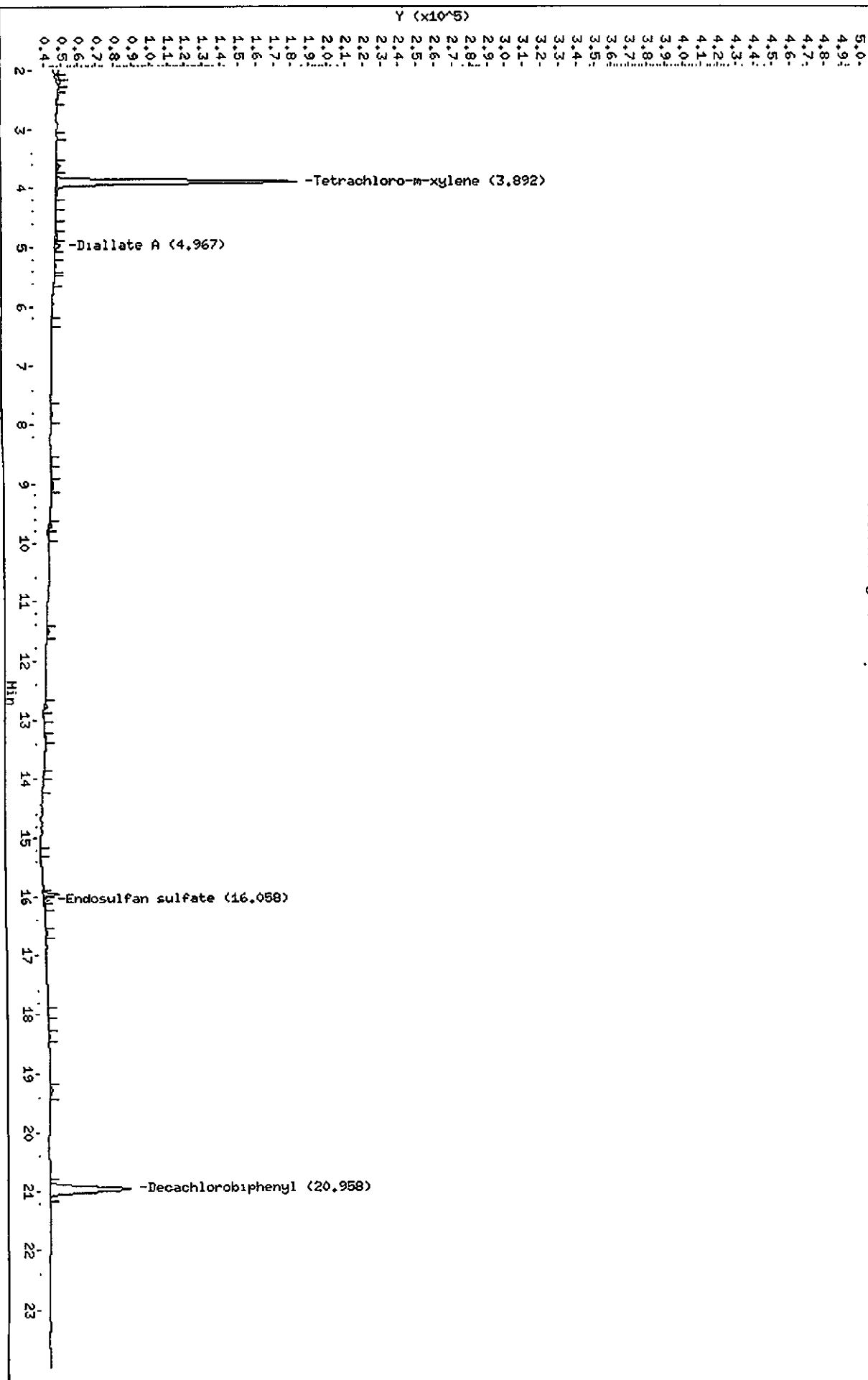
#### QC Flag Legend

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

Data File: /var/chem/gc3.1/3060-E.b/c-a3167.d  
Date : 06-JUN-2000 07:10  
Client ID: PBLK1  
Sample Info: DE52F101,3060-E.b,,all,sub,,3,  
Volume Injected (uL): 1.0  
Column phase: DB608

Instrument: gc3.1  
Operator: 1891  
Column diameter: 0.53

/var/chem/gc3.1/3060-E.b/c-a3167.d/c-a3167.raw



6591022

UXB INTERNATIONAL  
CHECK SAMPLE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0F020000 358

Method: SW846 8081A

Pesticides (8081A)

Sample WT/Vol: 100 / mL

Date Received: 05/31/00

Work Order: DE52F102

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/06/00

Moisture %: NA

QC Batch: 0154358

Client Sample Id: CHECK SAMPLE

|           |                    | CONCENTRATION UNITS: |   |
|-----------|--------------------|----------------------|---|
| CAS NO.   | COMPOUND           | (ug/L or ug/kg) mg/L | Q |
| 72-20-8   | Endrin             | 0.00243              |   |
| 76-44-8   | Heptachlor         | 0.00228              |   |
| 1024-57-3 | Heptachlor epoxide | 0.00230              |   |
| 58-89-9   | Lindane            | 0.00202              |   |
| 72-43-5   | Methoxychlor       | 0.00282              |   |

Data File: /var/chem/gc3.i/3060-E.b/c-a3168.d

Report Date: 06-Jun-2000 08:05

## STL-PITTSBURGH

Data file : /var/chem/gc3.i/3060-E.b/c-a3168.d  
 Lab Smp Id: DE52F102 Client Smp ID: LCS1  
 Inj Date : 06-JUN-2000 07:36  
 Operator : 1891 Inst ID: gc3.i  
 Smp Info : DE52F102,3060-E.b,,all.sub,,3,  
 Misc Info : E310132LCS  
 Comment :  
 Method : /var/chem/gc3.i/3060-E.b/PESTA.m  
 Meth Date : 06-Jun-2000 04:59 g Quant Type: ESTD  
 Cal Date : 05-JUN-2000 21:23 Cal File: c-a3145.d  
 Als bottle: 1 QC Sample: LCS  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: all.sub  
 Target Version: 3.40

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

| Name | Value     | Description                     |
|------|-----------|---------------------------------|
| DF   | 1.000     | Dilution Factor                 |
| Vt   | 10000.000 | 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<br>( ng) | FINAL<br>( ug/L) |
| \$ 1 Tetrachloro-m-xylene | 3.900  | 3.892  | 0.008  | 136272                 | 0.01987            | 1 98733 (R)      |
| 2 Diallate A              | 4.967  | 4.967  | 0.000  | 2678                   |                    | (a)              |
| 3 Diallate B              |        |        |        | Compound Not Detected. |                    |                  |
| 4 MIREX                   | 17.500 | 17.525 | -0.025 | 636                    |                    | (a)              |
| 5 alpha-BHC               | 5.900  | 5.892  | 0.008  | 143831                 | 0.01770            | 1.77001          |
| 6 gamma-BHC (Lindane)     | 7.200  | 7.200  | 0.000  | 144693                 | 0.02015            | 2.01501 (R)      |
| 7 beta-BHC                | 7.492  | 7.492  | 0.000  | 84478                  | 0.02236            | 2.23579          |
| 8 delta-BHC               | 8.775  | 8.783  | -0.008 | 14873                  | 0.00221            | 0.220681         |
| 9 Chlordane               |        |        |        | Compound Not Detected. |                    |                  |
| 10 Heptachlor             | 8.308  | 8.308  | 0.000  | 138960                 | 0.02278            | 2.27819 (R)      |
| 11 Aldrin                 | 9.475  | 9.483  | -0.008 | 115214                 | 0.02245            | 2.24546 (R)      |
| 12 Heptachlor epoxide     | 11.658 | 11.667 | -0.009 | 112194                 | 0.02302            | 2.30168          |
| 13 gamma-Chlordane        | 12.217 | 12.225 | -0.008 | 114448                 | 0.02356            | 2.35576          |
| 14 alpha-Chlordane        | 12.817 | 12.808 | 0.009  | 137302                 | 0.03080            | 3.08006          |
| 15 Endosulfan I           |        |        |        | Compound Not Detected. |                    |                  |
| 16 4,4'-DDE               | 13.767 | 13.775 | -0.008 | 120025                 | 0.02437            | 2.43740          |

6591024

Data File: /var/chem/gc3.i/3060-E.b/c-a3168.d

Report Date: 06-Jun-2000 08:05

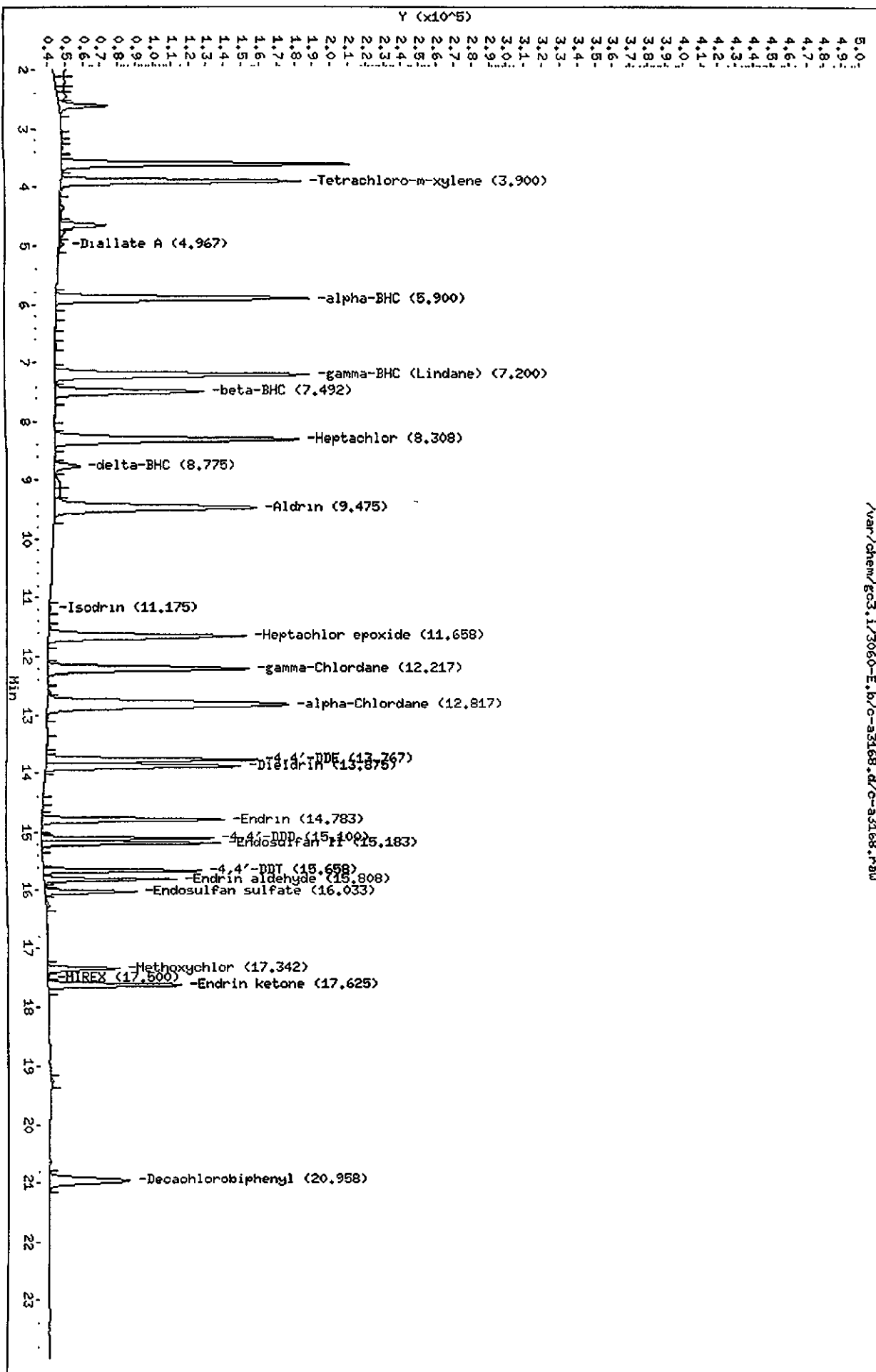
| Compounds                | RT                     | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS     |                  |
|--------------------------|------------------------|--------|--------|----------|--------------------|------------------|
|                          |                        |        |        |          | ON-COLUMN<br>( ng) | FINAL<br>( ug/L) |
| *****                    | **                     | *****  | *****  | *****    | *****              | *****            |
| 17 Dieldrin              | 13.875                 | 13.883 | -0.008 | 111383   | 0.02432            | 2.43220(R)       |
| 18 Toxaphene             | Compound Not Detected. |        |        |          |                    |                  |
| 19 Isodrin               | 11.175                 | 11.167 | 0.008  | 619      |                    | (a)              |
| 20 Endrin                | 14.783                 | 14.792 | -0.009 | 103940   | 0.02430            | 2.42968(R)       |
| 21 4,4'-DDD              | 15.100                 | 15.108 | -0.008 | 97247    | 0.02571            | 2.57145          |
| 22 Endosulfan II         | 15.183                 | 15.192 | -0.009 | 101510   | 0.02408            | 2.40843          |
| 23 4,4'-DDT              | 15.658                 | 15.667 | -0.009 | 89557    | 0.02639            | 2.63919(R)       |
| 24 Endrin aldehyde       | 15.808                 | 15.817 | -0.009 | 75540    | 0.02395            | 2.39457          |
| 25 Methoxychlor          | 17.342                 | 17.350 | -0.008 | 41255    | 0.02816            | 2.81626          |
| 26 Endosulfan sulfate    | 16.033                 | 16.042 | -0.009 | 51838    | 0.01686            | 1.68624          |
| 27 Endrin ketone         | 17.625                 | 17.633 | -0.008 | 76384    | 0.02637            | 2.63701          |
| 28 Chlorobenzilate       | Compound Not Detected. |        |        |          |                    |                  |
| 29 Kepone                | Compound Not Detected. |        |        |          |                    |                  |
| \$ 30 Decachlorobiphenyl | 20.958                 | 20.975 | -0.017 | 45720    | 0.02296            | 2.29639(R)       |

## QC Flag Legend

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

Data File: /var/chem/gc3.1/3060-E.b/c-a3168.d  
 Date : 06-JUN-2000 07:36  
 Client ID: LCS1  
 Sample Info: DES2F102,3060-E.b,all,sub,3,  
 Volume Injected (uL): 1.0  
 Column phase: DB608

Instrument: gc3.1  
 Operator: 1891  
 Column diameter: 0.53



6591026

UXB INTERNATIONAL  
MATRIX SPIKE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E310132 001

Method: SW846 8081A

Pesticides (8081A)

Sample WT/Vol: 100 / mL

Date Received: 05/31/00

Work Order: DE02210Q

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/05/00

Moisture %: 14

QC Batch: 0154358

Client Sample Id: DF/S1/D151/SDC/005

| CONCENTRATION UNITS: |                    |                      |   |
|----------------------|--------------------|----------------------|---|
| CAS NO.              | COMPOUND           | (ug/L or ug/kg) mg/L | Q |
| 72-20-8              | Endrin             | 0.00220              |   |
| 76-44-8              | Heptachlor         | 0.00197              |   |
| 1024-57-3            | Heptachlor epoxide | 0.00200              |   |
| 58-89-9              | Lindane            | 0.00169              |   |
| 72-43-5              | Methoxychlor       | 0.00262              |   |

Data File: /var/chem/gc3.i/3060-E.b/c-a3150.d  
 Report Date: 06-Jun-2000 07:18

## STL-PITTSBURGH

Data file : /var/chem/gc3.i/3060-E.b/c-a3150.d  
 Lab Smp Id: DE02210Q Client Smp ID: DF/S1/D151/SDC/005  
 Inj Date : 05-JUN-2000 23:36  
 Operator : 1891 Inst ID: gc3.i  
 Smp Info : DE02210Q,3060-E.b,,all.sub,,3,  
 Misc Info : 310132001S  
 Comment :  
 Method : /var/chem/gc3.i/3060-E.b/PESTA.m  
 Meth Date : 06-Jun-2000 04:59 g Quant Type: ESTD  
 Cal Date : 05-JUN-2000 21:23 Cal File: c-a3145.d  
 Als bottle: 1 QC Sample: MS  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: all.sub  
 Target Version: 3.40

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

| Name | Value     | Description                     |
|------|-----------|---------------------------------|
| DF   | 1.000     | Dilution Factor                 |
| Vt   | 10000.000 | 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<br>( ng) | FINAL<br>( ug/L) |
| 1 Tetrachloro-m-xylene | 3.892                  | 3.892  | 0.000  | 118434   | 0.01727            | 1.72719(R)       |
| 2 Diallate A           | 4.975                  | 4.967  | 0.008  | 6247     |                    | (a)              |
| 3 Diallate B           | Compound Not Detected. |        |        |          |                    |                  |
| 4 MIREX                | 17.500                 | 17.525 | -0.025 | 583      |                    | (a)              |
| 5 alpha-BHC            | 5.892                  | 5.892  | 0.000  | 122458   | 0.01507            | 1.50699          |
| 6 gamma-BHC (Lindane)  | 7.200                  | 7.200  | 0.000  | 121294   | 0.01689            | 1.68915(R)       |
| 7 beta-BHC             | 7.483                  | 7.492  | -0.009 | 71773    | 0.01900            | 1.89954          |
| 8 delta-BHC            | 8.775                  | 8.783  | -0.008 | 12925    | 0.00192            | 0.191777         |
| 9 Chlordane            | Compound Not Detected. |        |        |          |                    |                  |
| 10 Heptachlor          | 8.300                  | 8.308  | -0.008 | 120245   | 0.01971            | 1.97136(R)       |
| 11 Aldrin              | 9.475                  | 9.483  | -0.008 | 100437   | 0.01957            | 1.95746(R)       |
| 12 Heptachlor epoxide  | 11.658                 | 11.667 | -0.009 | 97710    | 0.02005            | 2.00454          |
| 13 gamma-Chlordane     | 12.217                 | 12.225 | -0.008 | 99512    | 0.02048            | 2.04832          |
| 14 alpha-Chlordane     | 12.817                 | 12.808 | 0.009  | 121505   | 0.02726            | 2.72569          |
| 15 Endosulfan I        | Compound Not Detected. |        |        |          |                    |                  |
| 16 4,4'-DDE            | 13.775                 | 13.775 | 0.000  | 109455   | 0.02223            | 2.22275          |



6591028

Data File: /var/chem/gc3.i/3060-E.b/c-a3150.d

Report Date: 06-Jun-2000 07:18

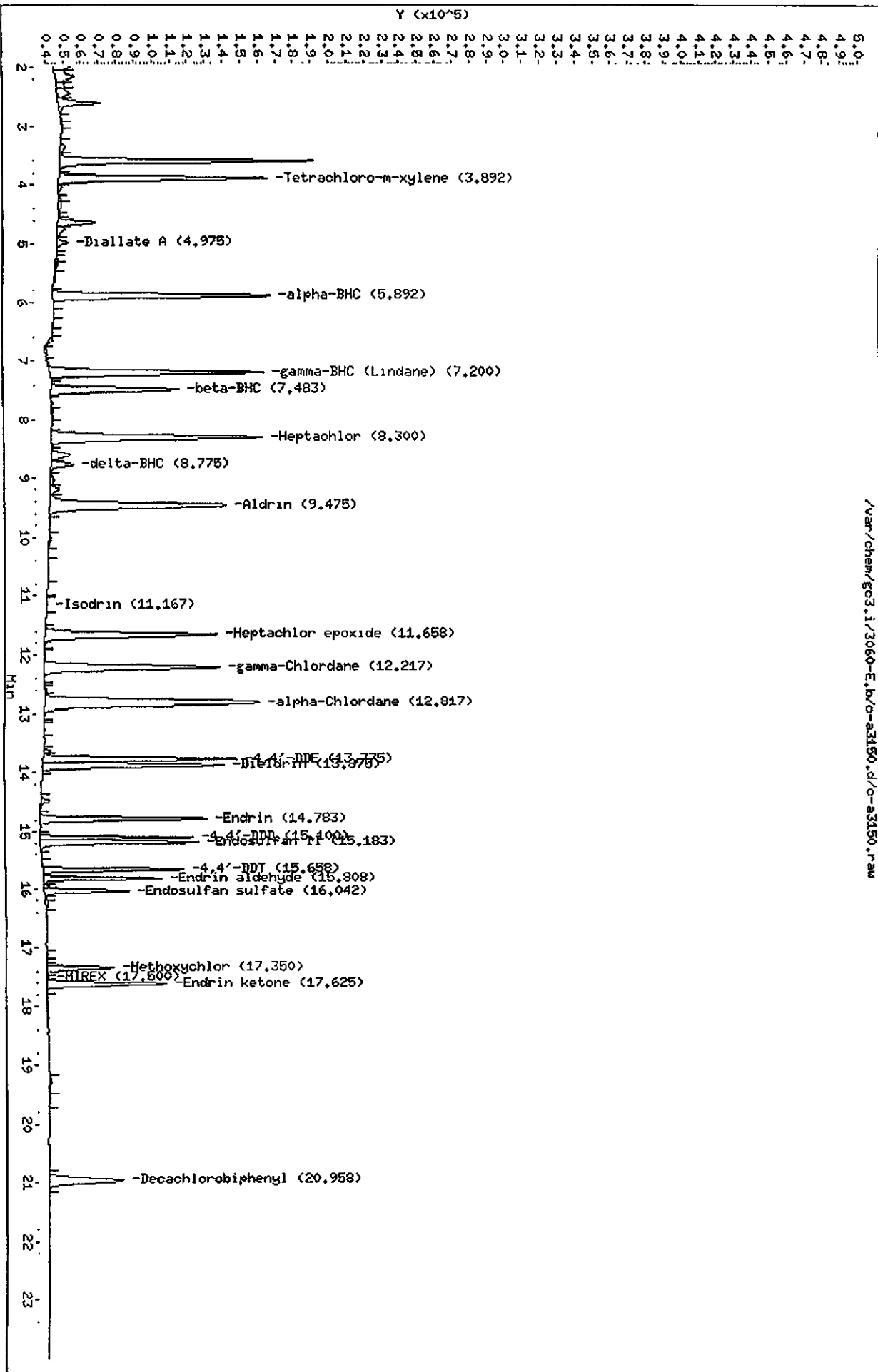
| Compounds                | RT                     | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS     |                  |
|--------------------------|------------------------|--------|--------|----------|--------------------|------------------|
|                          |                        |        |        |          | ON-COLUMN<br>( ng) | FINAL<br>( ug/L) |
| =====                    | ==                     | =====  | =====  | =====    | =====              | =====            |
| 17 Dieldrin              | 13.875                 | 13.883 | -0.008 | 102441   | 0.02237            | 2.23694(R)       |
| 18 Toxaphene             | Compound Not Detected. |        |        |          |                    |                  |
| 19 Iodrin                | 11.167                 | 11.167 | 0.000  | 592      |                    | (a)              |
| 20 Endrin                | 14.783                 | 14.792 | -0.009 | 94030    | 0.02198            | 2.19803(R)       |
| 21 4,4'-DDD              | 15.100                 | 15.108 | -0.008 | 86703    | 0.02293            | 2.29264          |
| 22 Endosulfan II         | 15.183                 | 15.192 | -0.009 | 89135    | 0.02115            | 2.11482          |
| 23 4,4'-DDT              | 15.658                 | 15.667 | -0.009 | 80248    | 0.02365            | 2.36486(R)       |
| 24 Endrin aldehyde       | 15.808                 | 15.817 | -0.009 | 67087    | 0.02127            | 2.12661          |
| 25 Methoxychlor          | 17.350                 | 17.350 | 0.000  | 38427    | 0.02623            | 2.62321          |
| 26 Endosulfan sulfate    | 16.042                 | 16.042 | 0.000  | 48076    | 0.01564            | 1.56386          |
| 27 Endrin ketone         | 17.625                 | 17.633 | -0.008 | 67971    | 0.02347            | 2.34657          |
| 28 Chlorobenzilate       | Compound Not Detected. |        |        |          |                    |                  |
| 29 Kepone                | Compound Not Detected. |        |        |          |                    |                  |
| \$ 30 Decachlorobiphenyl | 20.958                 | 20.975 | -0.017 | 41921    | 0.02106            | 2.10557(R)       |

## QC Flag Legend

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

Data File: /var/chem/gc3.1/3060-E.b/c-a3150.d  
 Date : 05-JUN-2000 23:36  
 Client ID: DF/SL/D151/SDC/005  
 Sample Info: DE02210Q,3060-E.b,,all,sub,,3,  
 Volume Injected (uL): 1.0  
 Column phase: DB608

Instrument: gc3.1  
 Operator: 1894  
 Column diameter: 0.53



6591030

UXB INTERNATIONAL  
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E310132 001

Method: SW846 8081A

Pesticides (8081A)

Sample WT/Vol: 100 / mL

Date Received: 05/31/00

Work Order: DE02210R

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/06/00

Moisture %: 14

QC Batch: 0154358

Client Sample Id: DF/S1/D151/SDC/005

|           |                    | CONCENTRATION UNITS: |   |
|-----------|--------------------|----------------------|---|
| CAS NO.   | COMPOUND           | (ug/L or ug/kg) mg/L | Q |
| 72-20-8   | Endrin             | 0.00221              |   |
| 76-44-8   | Heptachlor         | 0.00199              |   |
| 1024-57-3 | Heptachlor epoxide | 0.00203              |   |
| 58-89-9   | Lindane            | 0.00172              |   |
| 72-43-5   | Methoxychlor       | 0.00269              |   |

Data File: /var/chem/gc3.i/3060-E.b/c-a3151.d  
 Report Date: 06-Jun-2000 07:18

## STL-PITTSBURGH

Data file : /var/chem/gc3.i/3060-E.b/c-a3151.d  
 Lab Smp Id: DE02210R Client Smp ID: DF/S1/D151/SDC/005  
 Inj Date : 06-JUN-2000 00:03  
 Operator : 1891 Inst ID: gc3.i  
 Smp Info : DE02210R,3060-E.b,,all.sub,,3,  
 Misc Info : 310132001D  
 Comment :  
 Method : /var/chem/gc3.i/3060-E.b/PESTA.m  
 Meth Date : 06-Jun-2000 04:59 g Quant Type: ESTD  
 Cal Date : 05-JUN-2000 21:23 Cal File: c-a3145.d  
 Als bottle: 1 QC Sample: MSD  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: all.sub  
 Target Version: 3.40

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

| Name | Value     | Description                     |
|------|-----------|---------------------------------|
| DF   | 1.000     | Dilution Factor                 |
| Vt   | 10000.000 | 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<br>( ng) | FINAL<br>( ug/L) |
| \$ 1 Tetrachloro-m-xylene | 3.892  | 3.892  | 0.000  | 118529                 | 0.01729            | 1.72857 (R)      |
| 2 Diallylate A            | 4.975  | 4.967  | 0.008  | 6043                   |                    | (a)              |
| 3 Diallylate B            |        |        |        | Compound Not Detected. |                    |                  |
| 4 MIREX                   | 17.500 | 17.525 | -0.025 | 576                    |                    | (a)              |
| 5 alpha-BHC               | 5.892  | 5.892  | 0.000  | 124411                 | 0.01531            | 1.53102          |
| 6 gamma-BHC (Lindane)     | 7.200  | 7.200  | 0.000  | 123753                 | 0.01723            | 1.72340 (R)      |
| 7 beta-BHC                | 7.483  | 7.492  | -0.009 | 74157                  | 0.01963            | 1.96263          |
| 8 delta-BHC               | 8.775  | 8.783  | -0.008 | 13271                  | 0.00197            | 0.196911         |
| 9 Chlordane               |        |        |        | Compound Not Detected. |                    |                  |
| 10 Heptachlor             | 8.308  | 8.308  | 0.000  | 121527                 | 0.01992            | 1.99238 (R)      |
| 11 Aldrin                 | 9.475  | 9.483  | -0.008 | 100804                 | 0.01965            | 1.96462 (R)      |
| 12 Heptachlor epoxide     | 11.658 | 11.667 | -0.009 | 98918                  | 0.02029            | 2.02932          |
| 13 gamma-Chlordane        | 12.217 | 12.225 | -0.008 | 101649                 | 0.02092            | 2.09231          |
| 14 alpha-Chlordane        | 12.817 | 12.808 | 0.009  | 124491                 | 0.02793            | 2.79268          |
| 15 Endosulfan I           |        |        |        | Compound Not Detected. |                    |                  |
| 16 4,4'-DDE               | 13.767 | 13.775 | -0.008 | 109931                 | 0.02232            | 2.23242          |

6591032

Data File: /var/chem/gc3.i/3060-E.b/c-a3151.d

Report Date: 06-Jun-2000 07:18

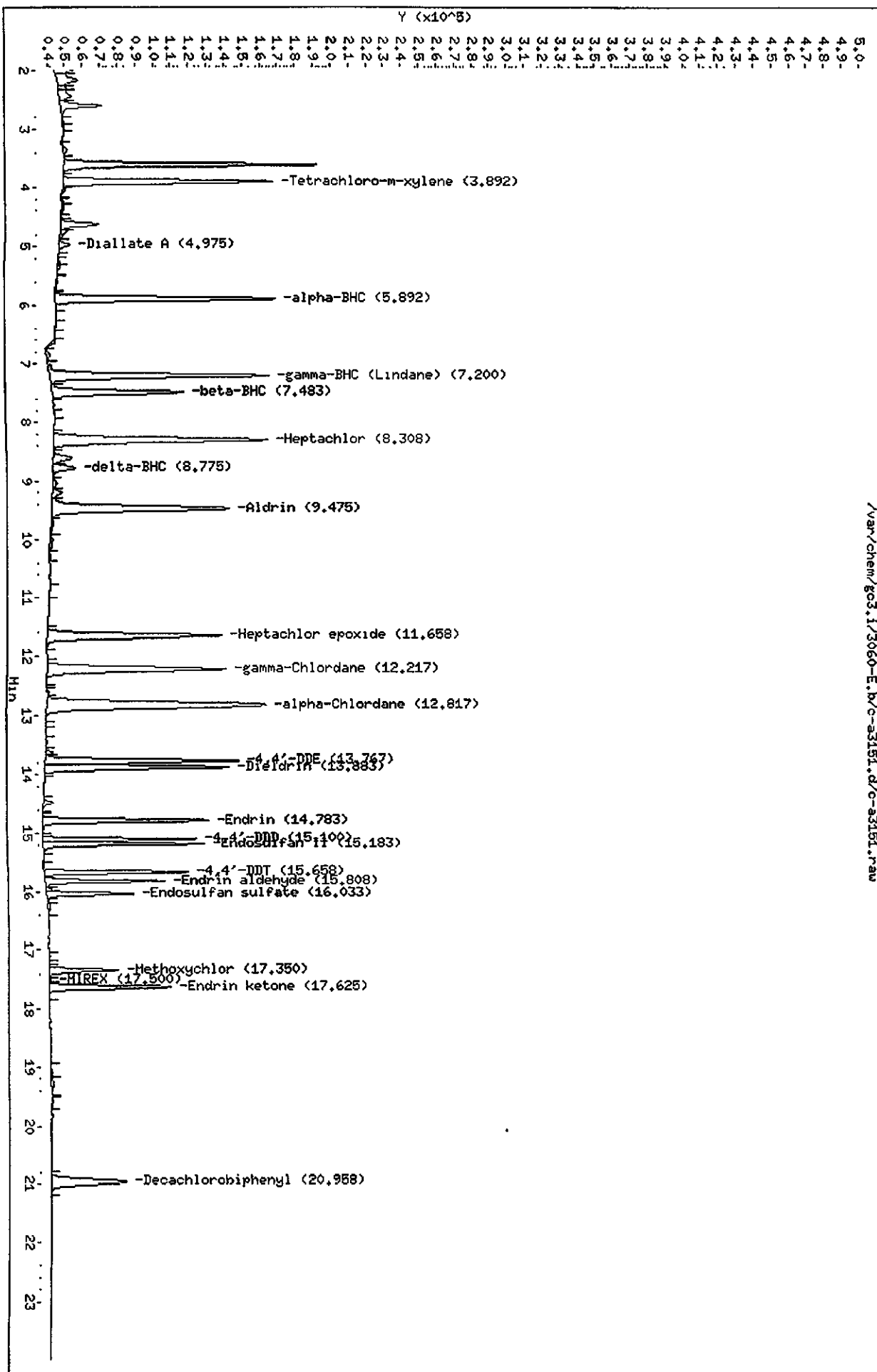
| Compounds                | RT                     | EXP RT | DLT RT | RT    | RESPONSE | CONCENTRATIONS |             |
|--------------------------|------------------------|--------|--------|-------|----------|----------------|-------------|
|                          |                        |        |        |       |          | ON-COLUMN      | FINAL       |
|                          |                        |        |        |       |          | ( ng)          | ( ug/L)     |
| =====                    | ==                     | =====  | =====  | ===== | =====    | =====          | =====       |
| 17 Dieldrin              | 13.883                 | 13.883 | 0.000  |       | 104379   | 0.02279        | 2.27926 (R) |
| 18 Toxaphene             | Compound Not Detected. |        |        |       |          |                |             |
| 19 Isodrin               | Compound Not Detected. |        |        |       |          |                |             |
| 20 Endrin                | 14.783                 | 14.792 | -0.009 |       | 94334    | 0.02205        | 2.20513 (R) |
| 21 4,4'-DDD              | 15.100                 | 15.108 | -0.008 |       | 87268    | 0.02308        | 2.30758     |
| 22 Endosulfan II         | 15.183                 | 15.192 | -0.009 |       | 91435    | 0.02169        | 2.16939     |
| 23 4,4'-DDT              | 15.658                 | 15.667 | -0.009 |       | 81483    | 0.02401        | 2.40126 (R) |
| 24 Endrin aldehyde       | 15.808                 | 15.817 | -0.009 |       | 68241    | 0.02163        | 2.16319     |
| 25 Methoxychlor          | 17.350                 | 17.350 | 0.000  |       | 39377    | 0.02688        | 2.68806     |
| 26 Endosulfan sulfate    | 16.033                 | 16.042 | -0.009 |       | 49573    | 0.01613        | 1.61256     |
| 27 Endrin ketone         | 17.625                 | 17.633 | -0.008 |       | 69466    | 0.02398        | 2.39818     |
| 28 Chlorobenzilate       | Compound Not Detected. |        |        |       |          |                |             |
| 29 Kepone                | Compound Not Detected. |        |        |       |          |                |             |
| \$ 30 Decachlorobiphenyl | 20.958                 | 20.975 | -0.017 |       | 43122    | 0.02166        | 2.16590 (R) |

## QC Flag Legend

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

Data File: /var/chem/gc3.i/3060-E.b/c-a3151.d  
 Date: 06-JUN-2000 00:03  
 Client ID: DF/SL/MSL/SDC/005  
 Sample Info: ME02210R,3060-E.b,,all,sub,,3,  
 Volume Injected (ul): 1.0  
 Column phase: DB608

Instrument: gc3.1  
 Operator: 1891  
 Column diameter: 0.53



6591034

**PESTICIDE  
MISCELLANEOUS**





Turbochrom Sequence File : H:\ACQUIRE\MET\_SEQ\3060-E.SEQ  
 Created by : DE11/02/98 on : 6/5/00 16:56  
 Edited by : JC06/06/00 on : 6/5/00 17:19  
 Description : STL PGH 8081 RUN ON GC#3 608/1701 COLUMNS  
 REVIEWED BY:

Number of Times Edited : 1

### Sequence File Header Information:

Number of Rows : 58  
 Instrument Type : 760 / 900 Series Intelligent Interface  
 Injection Type : SINGLE

| Row | Type        | Sample Name       | Sample Number | Sequence Sample Descriptions - Channel A |               | Sample Volume | Dil. Factor | Mult  | Divisor | Addend | Norm. factor |
|-----|-------------|-------------------|---------------|------------------------------------------|---------------|---------------|-------------|-------|---------|--------|--------------|
|     |             |                   |               | Study Name                               | Sample Amount |               |             |       |         |        |              |
| 1   | Std Check   | EVALB, 3060-E.b., | 190-88-8      |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 2   | Cal Replace | MEDTOX, 3060-E.b  | 190-84-13     |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 3   | Cal Replace | MEDCHLOR, 3060-E  | 190-85-10     |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 4   | Cal Replace | LOWA, 3060-E.b.,  | 190-84-1      |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 5   | Cal Replace | MLOWA, 3060-E.b., | 190-84-2      |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 6   | Cal Replace | MEDA, 3060-E.b.,  | 190-84-3      |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 7   | Cal Replace | MHIGHA, 3060-E.b  | 190-84-4      |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 8   | Cal Replace | HIGHA, 3060-E.b., | 190-84-5      |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 9   | Cal Replace | LOWB, 3060-E.b.,  | 190-84-7      |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 10  | Cal Replace | MLOWB, 3060-E.b., | 190-84-8      |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 11  | Cal Replace | MEDB, 3060-E.b.,  | 190-84-9      |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 12  | Cal Replace | MHIGHB, 3060-E.b  | 190-84-10     |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 13  | Cal Replace | HIGHB, 3060-E.b., | 190-84-11     |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 14  | Std Check   | 2ND A, 3060-E.b., | 190-82-2      |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 15  | Std Check   | 2ND B, 3060-E.b., | 190-82-5      |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 16  | Std Check   | EVALB, 3060-E.b., | 190-88-8      |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 17  | Sample      | DE022104, 3060-E  | E310132001    |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 18  | Sample      | DE02210Q, 3060-E  | E310132001S   |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 19  | Sample      | DE02210R, 3060-E  | E310132001D   |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 20  | Sample      | DDKFG103, 3060-E  | E230215009    |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 21  | Sample      | DDKFH103, 3060-E  | E230215010    |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 22  | Sample      | DDKFI103, 3060-E  | E230215011    |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 23  | Sample      | DDKFK103, 3060-E  | E230215012    |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 24  | Sample      | DDKFL103, 3060-E  | E230215013    |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 25  | Sample      | DDKFM103, 3060-E  | E230215014    |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 26  | Sample      | DDKEN103, 3060-E  | E230215015    |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 27  | Sample      | DDKFP102, 3060-E  | E230215016    |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 28  | Sample      | DDKFP102, 3060-E  | E230215017    |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 29  | Sample      | DDKFR102, 3060-E  | E230215018    |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 30  | Sample      | DDKEV102, 3060-E  | E230215019    |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 31  | Sample      | DDKEW102, 3060-E  | E230215020    |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 32  | Sample      | DDKFX102, 3060-E  | E230215021    |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 33  | Sample      | DDKG3102, 3060-E  | E230215022    |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 34  | Sample      | DDKG5102, 3060-E  | E230215023    |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 35  | Sample      | DE52F101, 3060-E  | E310132BLK    |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 36  | Sample      | DE52F102, 3060-E  | E310132LCS    |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 37  | Std Check   | MEDA, 3060-E.b.,  | 190-84-3      |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 38  | Std Check   | MEDB, 3060-E.b.,  | 190-84-9      |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 39  | Std Check   | EVALB, 3060-E.b., | 190-88-8      |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 40  | Sample      | DDR1V104, 3060-E  | E260142001    |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 41  | Sample      | DDLFF103, 3060-E  | E240137002    |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 42  | Sample      | DDNWP103, 3060-E  | E250168002    |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 43  | Sample      | DDNW4103, 3060-E  | E250162002    |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 44  | Sample      | DDLFR10R, 3060-E  | E240144001    |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 45  | Sample      | DD9NW113, 3060-E  | E170155001    |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 46  | Sample      | DDNW7113, 3060-E  | E250165001    |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 47  | Sample      | DD5VE113, 3060-E  | E130142001    |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 48  | Sample      | , 3060-E.b., all. | HEXANE        |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 49  | Sample      | DDNW113, 3060-E   | E250172001    |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 50  | Sample      | , 3060-E.b., all. | HEXANE        |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 51  | Sample      | DDKW0101, 3060-E  | E130142BLK    |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 52  | Sample      | DDKW0102, 3060-E  | E130142LCS    |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 53  | Sample      | DDKW0103, 3060-E  | E130142LCD    |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 54  | Sample      | DDNWK10Q, 3020-E  | E250167001    |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 55  | Sample      | DDNV3104, 3020-E  | E250165001    |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 56  | Sample      | DDNVQ10Q, 3020-E  | E250159001    |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 57  | Std Check   | MEDA, 3060-E.b.,  | 190-84-3      |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |
| 58  | Std Check   | MEDB, 3060-E.b.,  | 190-84-9      |                                          | 1.000         | 1.000         | 1.000       | 1.000 | 1.000   | 0.000  | 100.000      |

PSR024 6/02/00 11:44:58 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 001

REQUESTED BY: PINOB

METHOD: QJ Pesticides (8081A)

| <u>STORAGE LOCATION</u> | <u>WORK ORDER #</u> | <u>PICKED</u><br><u>CNTR#</u> | <u>CONTROL #</u> | <u>CLIENT #</u> | <u>ANALYSIS</u> | <u>LOTID</u> | <u>SMP#</u> | <u>SFX</u> | <u>MATRIX</u><br><u>DESCRIPTION</u> | <u>QTY</u><br><u>RCVD</u> | <u>QTY</u><br><u>REQD</u> |
|-------------------------|---------------------|-------------------------------|------------------|-----------------|-----------------|--------------|-------------|------------|-------------------------------------|---------------------------|---------------------------|
| 6A                      | DDKFG-1-03          | ___                           | 237741           | 131369          | A-36-QJ         | COE230215    | 009         |            | SOLID                               | 0                         | 4 1                       |
| 6A                      | DDKFH-1-03          | ___                           | 237742           | 131369          | A-36-QJ         | COE230215    | 010         |            | SOLID                               | 0                         | 4 1                       |
| 6A                      | DDKFJ-1-03          | ___                           | 237743           | 131369          | A-36-QJ         | COE230215    | 011         |            | SOLID                               | 0                         | 4 1                       |
| 6A                      | DDKFK-1-03          | ___                           | 237744           | 131369          | A-36-QJ         | COE230215    | 012         |            | SOLID                               | 0                         | 4 1                       |
| 6A                      | DDKFL-1-03          | ___                           | 237745           | 131369          | A-36-QJ         | COE230215    | 013         |            | SOLID                               | 0                         | 4 1                       |
| 6A                      | DDKFM-1-03          | ___                           | 237746           | 131369          | A-36-QJ         | COE230215    | 014         |            | SOLID                               | 0                         | 4 1                       |
| 6A                      | DDKFN-1-03          | ___                           | 237747           | 131369          | A-36-QJ         | COE230215    | 015         |            | SOLID                               | 0                         | 4 1                       |
| 6A                      | DDKFP-1-02          | ___                           | 237748           | 131369          | A-36-QJ         | COE230215    | 016         |            | SOLID                               | 0                         | 2 1                       |
| 6A                      | DDKFQ-1-02          | ___                           | 237749           | 131369          | A-36-QJ         | COE230215    | 017         |            | SOLID                               | 0                         | 2 1                       |
| 6A                      | DDKFR-1-02          | ___                           | 237750           | 131369          | A-36-QJ         | COE230215    | 018         |            | SOLID                               | 0                         | 2 1                       |
| 6A                      | DDKRV-1-02          | ___                           | 237751           | 131369          | A-36-QJ         | COE230215    | 019         |            | SOLID                               | 0                         | 2 1                       |
| 6A                      | DDKFW-1-02          | ___                           | 237752           | 131369          | A-36-QJ         | COE230215    | 020         |            | SOLID                               | 0                         | 2 1                       |
| 6A                      | DDKFX-1-02          | ___                           | 237753           | 131369          | A-36-QJ         | COE230215    | 021         |            | SOLID                               | 0                         | 2 1                       |
| 6A                      | DDKG3-1-02          | ___                           | 237754           | 131369          | A-36-QJ         | COE230215    | 022         |            | SOLID                               | 0                         | 2 1                       |
| 6A                      | DDKG5-1-02          | ___                           | 237755           | 131369          | A-36-QJ         | COE230215    | 023         |            | SOLID                               | 0                         | 2 1                       |
| 6E CLP1                 | DDRLV-1-04          | ___                           | 237756           | 375241          | A-36-QJ         | COE260142    | 001         |            | SOLID                               | 0                         | 5 1                       |
| 7E CLP1                 | DE022-1-04          | ___                           | 237757           | 399411          | A-36-QJ         | COE310132    | 001         | QC         | SOLID                               | 0                         | 3 1                       |

6591038

PSR024 6/02/00 11:44:58 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 002

REQUESTED BY: PINOB

METHOD: QJ Pesticides (8081A)

| <u>STORAGE LOCATION</u> | <u>WORK ORDER #</u> | <u>PICKED</u><br><u>CNTR#</u> | <u>CONTROL #</u> | <u>CLIENT #</u> | <u>ANALYSIS</u> | <u>LOTID</u> | <u>SMP#</u> | <u>SFX</u> | <u>MATRIX</u><br><u>DESCRIPTION</u> | <u>QTY</u><br><u>RCVD</u> | <u>QTY</u><br><u>REQD</u> |
|-------------------------|---------------------|-------------------------------|------------------|-----------------|-----------------|--------------|-------------|------------|-------------------------------------|---------------------------|---------------------------|
|-------------------------|---------------------|-------------------------------|------------------|-----------------|-----------------|--------------|-------------|------------|-------------------------------------|---------------------------|---------------------------|

RELINQUISHED BY

RECEIVED BY

DATE/TIME

Brian A. Piro

Brian A. Piro

6-2-00 1400

Brian A. Piro

Brian A. Piro

6-2-00 1700

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

**HERBICIDE DATA**

6591040

**HERBICIDE  
QC SUMMARY**

## SW846 8151A SURROGATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

QESSDG:

Lot #: C0E310132

|    | CLIENT ID.           | SRG01 | TOT OUT |
|----|----------------------|-------|---------|
|    | =====                | ===== | =====   |
| 01 | DF/S1/D151/SDC/005   | 69    | 00      |
| 02 | METHOD BLK. DE533101 | 93    | 00      |
| 03 | LCS DE533102         | 101   | 00      |
| 04 | DF/S1/D151/SDC/005 D | 56    | 00      |
| 05 | DF/S1/D151/SDC/005 S | 56    | 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

6591042 SW846 8151A CHECK SAMPLE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: C0F020000

WO #: DE533102

BATCH: 0154362

| COMPOUND          | SPIKE<br>ADDED<br>(mg/L ) | SAMPLE<br>CONCENT.<br>(mg/L ) | %<br>REC | QC<br>LIMITS<br>REC | QUAL  |
|-------------------|---------------------------|-------------------------------|----------|---------------------|-------|
| =====             | =====                     | =====                         | =====    | =====               | ===== |
| 2,4-D             | 0.160                     | 0.154                         | 96       | 28 - 136            |       |
| 2,4,5-TP (Silvex) | 0.0400                    | 0.0372                        | 93       | 50 - 128            |       |

NOTES (S) :

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\* Values outside of QC limits

Spike Recovery:   0   out of   2   outside limits

COMMENTS:

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FORM III

## SW846 8151A 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/D151/SDC/005

Lot #: C0E310132

WO #: DE02210T

BATCH: 0154362

| COMPOUND          | SPIKE<br>ADDED<br>(mg/L ) | SAMPLE<br>CONCENT.<br>(mg/L ) | MS<br>CONCENT.<br>(mg/L ) | MS<br>%<br>REC | LIMITS<br>REC | QUAL |
|-------------------|---------------------------|-------------------------------|---------------------------|----------------|---------------|------|
| 2,4,5-TP (Silvex) | 0.0400                    | ND                            | 0.0386                    | 97             | 50 - 131      |      |
| 2,4-D             | 0.160                     | ND                            | 0.157                     | 98             | 35 - 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 limits  
 Spike Recovery:   0   out of   2   outside limits

## COMMENTS:

FORM III



## 6591044 SW846 8151A 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/D151/SDC/005

Lot #: C0E310132

WO #: DE02210U

BATCH: 0154362

| COMPOUND          | SPIKE            | MSD                 | MSD      | QC LIMITS |     |          | QUAL |
|-------------------|------------------|---------------------|----------|-----------|-----|----------|------|
|                   | ADDED<br>(mg/L ) | CONCENT.<br>(mg/L ) | %<br>REC | %<br>RPD  | RPD | REC      |      |
| 2,4-D             | 0.160            | 0.162               | 101      | 3.4       | 20  | 35 - 133 |      |
| 2,4,5-TP (Silvex) | 0.0400           | 0.0388              | 97       | 0.51      | 20  | 50 - 131 |      |

## NOTES (S) :

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

RPD:   0   out of   2   outside limits  
Spike Recovery:   0   out of   2   outside limits

## COMMENTS:

## SW846 8151A METHOD BLANK SUMMARY

DE533101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: a-a30147.

Lot Number: C0E310132

Matrix: SOLID

Extraction Method:

Date Extracted: 06/02/00

Date Analyzed(1): 06/05/00

Date Analyzed(2): N/A

Time Analyzed(1): 18:54

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<br>WORK ORDER # | DATE<br>ANALYZED(1) | DATE<br>ANALYZED(2) |
|-----------------------|------------------------|---------------------|---------------------|
| 01 DF/S1/D151/SDC/005 | DE02210T S             | 06/05/00            | N/A                 |
| 02 DF/S1/D151/SDC/005 | DE02210U D             | 06/05/00            | N/A                 |
| 03 DF/S1/D151/SDC/005 | DE022105               | 06/05/00            | N/A                 |
| 04 CHECK SAMPLE       | DE533102 C             | 06/05/00            | N/A                 |
| 05                    |                        |                     |                     |
| 06                    |                        |                     |                     |
| 07                    |                        |                     |                     |
| 08                    |                        |                     |                     |
| 09                    |                        |                     |                     |
| 10                    |                        |                     |                     |
| 11                    |                        |                     |                     |
| 12                    |                        |                     |                     |
| 13                    |                        |                     |                     |
| 14                    |                        |                     |                     |
| 15                    |                        |                     |                     |
| 16                    |                        |                     |                     |
| 17                    |                        |                     |                     |
| 18                    |                        |                     |                     |
| 19                    |                        |                     |                     |
| 20                    |                        |                     |                     |

COMMENTS:

FORM IV

6591046

**HERBICIDE  
SAMPLE DATA**

## UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E310132 001

Method: SW846 8151A

Herbicides (8151A)

Sample WT/Vol: 100 / mL

Date Received: 05/31/00

Work Order: DE022105

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/05/00

Moisture %: 14

QC Batch: 0154362

Client Sample Id: DF/S1/D151/SDC/005

|         |                   | 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 |

6591048

Data File: /var/chem/gc1.i/3010c.b/a-a30138.d

Report Date: 05-Jun-2000 16:32

## STL-PITTSBURGH

Data file : /var/chem/gc1.i/3010c.b/a-a30138.d  
 Lab Smp Id: DE022105 Client Smp ID: DF/S1/D151/SDC/005  
 Inj Date : 05-JUN-2000 14:33  
 Operator : 01797 Inst ID: gc1.i  
 Smp Info : DE022105,3010c.b  
 Misc Info : 310132001  
 Comment :  
 Method : /var/chem/gc1.i/3010c.b/LONGH.m  
 Meth Date : 05-Jun-2000 12:06 eppinged Quant Type: ESTD  
 Cal Date : 31-MAY-2000 17:35 Cal File: a-a30099.d  
 Als bottle: 12  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: all.sub  
 Target Version: 3.40

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<br>( ng) | FINAL<br>( mg/L) |
| 1 DALAPON           |        |        |        |          |                    |                  |
| \$ 2 DCAA           | 10.598 | 10.594 | 0.004  | 9122087  | 0.03450            | 0.06901(a)       |
| 3 MCPP              |        |        |        |          |                    |                  |
| 4 DICAMBA           | 11.163 | 11.210 | -0.047 | 294778   | 0.00153            | 0.003065(a)      |
| 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           | 18.539 | 18.575 | -0.036 | 2297693  | 0.01445            | 0.02889(a)       |

Data File: /var/chem/gc1.i/3010c.b/a-a30138.d  
Report Date: 05-Jun-2000 16:32

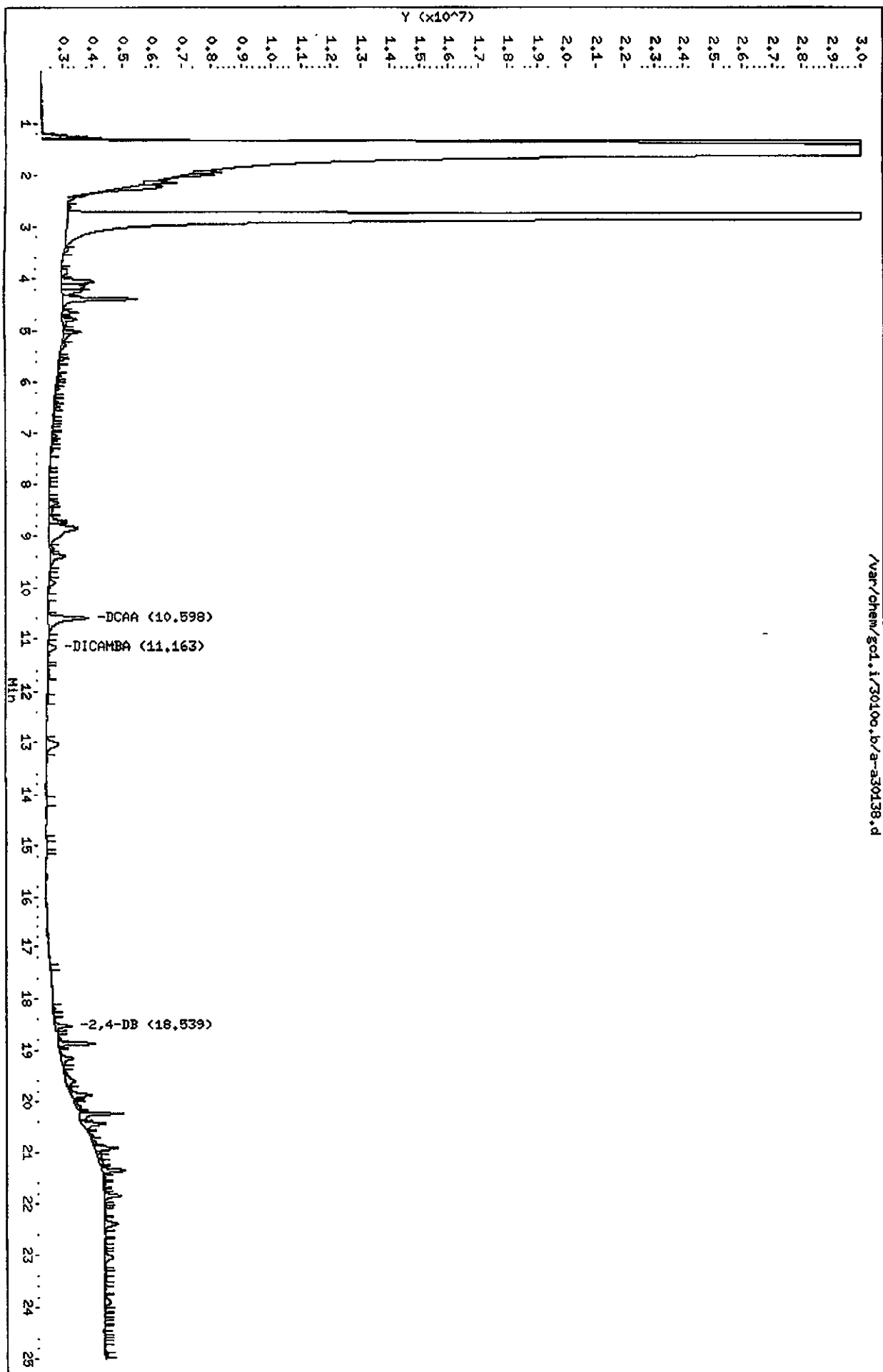
# QC Flag Legend

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

6591050

Data File: /var/chem/gc1.i/30100.b/a-a30138.d  
 Date: 05-JUN-2000 14:33  
 Client ID: DF/S1/D184/SDC/005  
 Sample Info: DE022405,30100.b  
 Volume Injected (uL): 1.0  
 Column phase: DB608

Instrument: gc1.i  
 Operator: 01797  
 Column diameter: 0.53



**HERBICIDE  
CALIBRATION DATA**



6591052

Report Date : 01-Jun-2000 09:40

68901A  
03608

## STL-PITTSBURGH

## COMPOUND LISTING

Method file : /var/chem/gc1.i/3010c.b/LONGH.m  
Quant Method : ESTD Target Version : 3.40  
Last Update : 01-Jun-2000 09:40 Number of Cpnds : 12  
Data Type : GC MULTI COMP

Global Integrator : Falcon

| Chromat Events          | Values       |
|-------------------------|--------------|
| Initial:Start Threshold | 3608.000000  |
| Initial:End Threshold   | 1804.000000  |
| Initial:Area Threshold  | 36080.000000 |
| Initial:P-P Resolution  | 1.000000     |
| Initial:Bunch Factor    | 10.000000    |
| Initial:Negative Peaks  | ON           |
| Initial:Tension         | 0.200000     |

| Compound            | RT     | RT Window     | RF        |
|---------------------|--------|---------------|-----------|
| 1 DALAPON           | 3.740  | 3.670-3.810   | 8.113e+07 |
| \$ 2 DCAA           | 10.596 | 10.526-10.666 | 2.644e+08 |
| 3 MCPP              | 11.036 | 10.966-11.106 | 3.795e+05 |
| 4 DICAMBA           | 11.212 | 11.142-11.282 | 1.923e+08 |
| 5 MCPA              | 12.001 | 11.931-12.071 | 4.459e+05 |
| 6 DICHLOROPROP      | 12.834 | 12.764-12.904 | 4.918e+07 |
| 7 2,4-D             | 14.347 | 14.277-14.417 | 3.176e+08 |
| 8 PENTACHLOROPHENOL | 15.577 | 15.507-15.647 | 4.766e+08 |
| 9 2,4,5-TP (SILVEX) | 16.795 | 16.725-16.865 | 1.450e+09 |
| 10 2,4,5-T          | 17.907 | 17.837-17.977 | 1.161e+09 |
| 11 DINOSEB          | 18.079 | 18.009-18.149 | 1.143e+09 |
| 12 2,4-DB           | 18.578 | 18.508-18.648 | 1.591e+08 |

Report Date : 05-Jun-2000 10:07

61  
HPLC8901A  
DB608

STL-PITTSBURGH

## COMPOUND LISTING

Method file : /var/chem/gc1.i/3010c.b/LONGH.m  
 Quant Method : ESTD Target Version : 3.40  
 Last Update : 05-Jun-2000 10:06 Number of Cpnds : 12  
 Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events Values

```

-----
Initial:Start Threshold 3608.000000
Initial:End Threshold   1804.000000
Initial:Area Threshold  36080.000000
Initial:P-P Resolution   1.000000
Initial:Bunch Factor     10.000000
Initial:Negative Peaks   ON
Initial:Tension          0.200000
  
```

| Compound            | RT     | RT Window     | RF        |
|---------------------|--------|---------------|-----------|
| 1 DALAPON           | 3.740  | 3.670-3.810   | 8.113e+07 |
| \$ 2 DCAA           | 10.594 | 10.524-10.664 | 2.644e+08 |
| 3 MCPP              | 11.035 | 10.965-11.105 | 3.795e+05 |
| 4 DICAMBA           | 11.210 | 11.140-11.280 | 1.923e+08 |
| 5 MCPA              | 12.000 | 11.930-12.070 | 4.459e+05 |
| 6 DICHLOROPROP      | 12.834 | 12.764-12.904 | 4.918e+07 |
| 7 2,4-D             | 14.345 | 14.275-14.415 | 3.176e+08 |
| 8 PENTACHLOROPHENOL | 15.574 | 15.504-15.644 | 4.766e+08 |
| 9 2,4,5-TP (SILVEX) | 16.792 | 16.722-16.862 | 1.450e+09 |
| 10 2,4,5-T          | 17.909 | 17.839-17.979 | 1.161e+09 |
| 11 DINOSEB          | 18.080 | 18.010-18.150 | 1.143e+09 |
| 12 2,4-DB           | 18.575 | 18.505-18.645 | 1.591e+08 |

6591054

Report Date : 01-Jun-2000 09:40

6E  
68901A  
D8608

## STL-PITTSBURGH

## INITIAL CALIBRATION DATA

Start Cal Date : 31-MAY-2000 15:39  
 End Cal Date : 31-MAY-2000 17:35  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.40  
 Integrator : Falcon  
 Method file : /var/chem/gc1.i/3010c.b/LONGH.m  
 Cal Date : 01-Jun-2000 09:40 g  
 Curve Type : Average

## Calibration File Names:

Level 1: /var/chem/gc1.i/3010c.b/a-a30095.d  
 Level 2: /var/chem/gc1.i/3010c.b/a-a30096.d  
 Level 3: /var/chem/gc1.i/3010c.b/a-a30097.d  
 Level 4: /var/chem/gc1.i/3010c.b/a-a30098.d  
 Level 5: /var/chem/gc1.i/3010c.b/a-a30099.d

|                     | 0.00500   | 0.01000   | 0.02500   | 0.05000   | 0.10000   |           |           |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Compound            | Level 1   | Level 2   | Level 3   | Level 4   | Level 5   | RRF       | % RSD     |
| 1 DALAPON           | 75123545  | 73457045  | 87657927  | 84486800  | 84919523  | 81128968  | 7.873     |
| 3 MCPP              | 478740    | 439600    | 420373    | 317835    | 240994    | 379508    | 25.722 <- |
| 4 DICAMBA           | 165590849 | 167983099 | 212810941 | 206767098 | 208554000 | 192341197 | 12.190    |
| 5 MCPA              | 557498    | 513916    | 485004    | 371683    | 301577    | 445936    | 23.771 <- |
| 6 DICHLOROPROP      | 43086745  | 44208538  | 54945153  | 53150694  | 50505395  | 49179305  | 10.789    |
| 7 2,4-D             | 286698910 | 290203906 | 351534771 | 338129788 | 321405621 | 317594599 | 9.034     |
| 8 PENTACHLOROPHENOL | 379116541 | 390910714 | 507677162 | 547355921 | 557836052 | 476579278 | 17.994    |
| 9 2,4,5-TP (SILVEX) | 1.258e+09 | 1.248e+09 | 1.566e+09 | 1.578e+09 | 1.602e+09 | 1.450e+09 | 12.450    |
| 10 2,4,5-T          | 955456926 | 1.035e+09 | 1.237e+09 | 1.281e+09 | 1.297e+09 | 1.161e+09 | 13.396    |
| 11 DINOSEB          | 1.035e+09 | 1.075e+09 | 1.244e+09 | 1.183e+09 | 1.178e+09 | 1.143e+09 | 7.470     |
| 12 2,4-DB           | 189281991 | 154931517 | 156059302 | 150202692 | 144834186 | 159061938 | 10.981    |
| \$ 2 DCAA           | 252824554 | 245658612 | 291601269 | 273605135 | 258217200 | 264381354 | 6.944     |

ANC = 13.2

Data File: /var/chem/gc1.i/3010c.b/a-a30128.d  
Report Date: 05-Jun-2000 10:06

7E HP68901A  
DB608

6591055

STL-PITTSBURGH

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc1.i  
Lab File ID: a-a30128.d  
Analysis Type:  
Lab Sample ID: Mherb  
Quant Type: ESTD

Injection Date: 05-JUN-2000 09:41  
Init. Calibration Date(s): 05/31/0 05/31/0  
Init. Calibration Times: 15:39 17:35  
Method File: /var/chem/gc1.i/3010c.b/LONGH.m

| COMPOUND            | RRF            | RFO            | MIN<br>RRF | MAX<br>RD | MAX<br>RD |
|---------------------|----------------|----------------|------------|-----------|-----------|
| 1 DALAPON           | 81128968.058   | 83197494.305   | 0.010      | -2.5      | 15.0      |
| 2 DCAA              | 264381354.029  | 266758437.133  | 0.010      | -0.9      | 15.0      |
| 3 MCPP              | 379508.258     | 395997.770     | 0.010      | -4.3      | 15.0      |
| 4 DICAMBA           | 192341197.271  | 192512870.588  | 0.010      | -0.1      | 15.0      |
| 5 MCPA              | 445935.512     | 460533.762     | 0.010      | -3.3      | 15.0      |
| 6 DICHLOROPROP      | 49179305.144   | 49396096.698   | 0.010      | -0.4      | 15.0      |
| 7 2,4-D             | 317594599.103  | 315029095.182  | 0.010      | 0.8       | 15.0      |
| 8 PENTACHLOROPHENOL | 476579278.010  | 472223966.165  | 0.010      | 0.9       | 15.0      |
| 9 2,4,5-TP(SILVEX)  | 1450398976.265 | 1424494786.730 | 0.010      | 1.8       | 15.0      |
| 10 2,4,5-T          | 1160890209.212 | 1097627061.611 | 0.010      | 5.4       | 15.0      |
| 11 DINOSEB          | 1142854655.953 | 1172846850.394 | 0.010      | -2.6      | 15.0      |
| 12 2,4-DB           | 159061937.516  | 135884355.030  | 0.010      | 14.6      | 15.0      |

6591056

7E HP68901A  
03608Data File: /var/chem/gcl.i/3010c.b/a-a30149.d  
Report Date: 06-Jun-2000 08:35

## STL-PITTSBURGH

## CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcl.i  
Lab File ID: a-a30149.d  
Analysis Type:  
Lab Sample ID: Mherb  
Quant Type: ESTDInjection Date: 05-JUN-2000 19:52  
Init. Calibration Date(s): 05/31/0 05/31/0  
Init. Calibration Times: 15:39 17:35  
Method File: /var/chem/gcl.i/3010c.b/LONGH.m

| COMPOUND            | RRF            | RFO            | MIN   | MAX   |
|---------------------|----------------|----------------|-------|-------|
| 1 DALAPON           | 81128968.058   | 89607266.515   | 0.010 | -10.5 |
| 2 DCAA              | 264381354.029  | 294247720.329  | 0.010 | -11.3 |
| 3 MCPP              | 379508.258     | 413698.709     | 0.010 | -9.0  |
| 4 DICAMBA           | 192341197.271  | 209506094.118  | 0.010 | -8.9  |
| 5 MCPA              | 445935.512     | 481786.916     | 0.010 | -8.0  |
| 6 DICHLOROPROP      | 49179305.144   | 54367452.830   | 0.010 | -10.5 |
| 7 2,4-D             | 317594599.103  | 354293372.503  | 0.010 | -11.6 |
| 8 PENTACHLOROPHENOL | 476579278.010  | 519745112.782  | 0.010 | -9.1  |
| 9 2,4,5-TP (SILVEX) | 1450398976.265 | 1592923933.649 | 0.010 | -9.8  |
| 10 2,4,5-T          | 1160890209.212 | 1223176208.531 | 0.010 | -5.4  |
| 11 DINOSEB          | 1142854655.953 | 1269296141.732 | 0.010 | -11.1 |
| 12 2,4-DB           | 159061937.516  | 151471088.757  | 0.010 | 4.8   |

8D  
PESTICIDE ANALYTICAL SEQUENCE

6591057

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT Case No.:

SAS No.: 40325

SDG No.: C0E310132

GC Column: DB608

ID: 0.53 (mm) Init. Calib. Date(s): 05/31/00 05/31/00

Instrument ID: GC1

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

| MEAN SURROGATE RT FROM INITIAL CALIBRATION<br>S1 : 10.59 |                  |                  |                  |            |       |
|----------------------------------------------------------|------------------|------------------|------------------|------------|-------|
| EPA<br>SAMPLE NO.                                        | LAB<br>SAMPLE ID | DATE<br>ANALYZED | TIME<br>ANALYZED | S1<br>RT # | RT #  |
| =====                                                    | =====            | =====            | =====            | =====      | ===== |
| 01                                                       | LHERB            | 05/31/00         | 1539             | 10.60      |       |
| 02                                                       | MLHERB           | 05/31/00         | 1608             | 10.60      |       |
| 03                                                       | MHERB            | 05/31/00         | 1637             | 10.60      |       |
| 04                                                       | MHERB            | 05/31/00         | 1706             | 10.59      |       |
| 05                                                       | HHERB            | 05/31/00         | 1735             | 10.59      |       |
| 06                                                       | MHERB            | 06/05/00         | 0941             | 10.59      |       |
| 07                                                       | DF/S1/D151/S     | 06/05/00         | 1433             | 10.60      |       |
| 08                                                       | DF/S1/D151/S     | 06/05/00         | 1502             | 10.59      |       |
| 09                                                       | DF/S1/D151/S     | 06/05/00         | 1531             | 10.60      |       |
| 10                                                       | PBLK             | 06/05/00         | 1854             | 10.60      |       |
| 11                                                       | LCS              | 06/05/00         | 1923             | 10.60      |       |
| 12                                                       | MHERB            | 06/05/00         | 1952             | 10.59      |       |
| 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.

6591058

Data File: /var/chem/gc1.i/3010c.b/a-a30095.d

Report Date: 01-Jun-2000 12:38

## STL-PITTSBURGH

Data file : /var/chem/gc1.i/3010c.b/a-a30095.d

Lab Smp Id: Lherb

Inj Date : 31-MAY-2000 15:39

Operator : 01797

Inst ID: gc1.i

Smp Info : Lherb,3010c.b

Misc Info : 190-80-1

Comment :

Method : /var/chem/gc1.i/3010c.b/LONGH.m

Meth Date : 01-Jun-2000 11:27 derubeij Quant Type: ESTD

Cal Date : 31-MAY-2000 15:39 Cal File: a-a30095.d

Als bottle: 2 Calibration Sample, Level: 1

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: all.sub

Target Version: 3.40

| Compounds           |        |        |        |          | AMOUNTS          |                 |
|---------------------|--------|--------|--------|----------|------------------|-----------------|
|                     | RT     | EXP RT | DLT RT | RESPONSE | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| 1 DALAPON           | 3.738  | 3.740  | -0.002 | 826359   | 0.01100          | 0.01015         |
| \$ 2 DCAA           | 10.597 | 10.596 | 0.001  | 5385163  | 0.02130          | 0.01978         |
| 3 MCPP              | 11.038 | 11.036 | 0.002  | 1014928  | 2.12000          | 2.258           |
| 4 DICAMBA           | 11.212 | 11.212 | 0.000  | 1755263  | 0.01060          | 0.009277        |
| 5 MCPA              | 12.004 | 12.001 | 0.003  | 1193046  | 2.14000          | 2.289           |
| 6 DICHLOROPROP      | 12.838 | 12.834 | 0.004  | 913439   | 0.02120          | 0.01864         |
| 7 2,4-D             | 14.353 | 14.347 | 0.006  | 6049347  | 0.02110          | 0.01896         |
| 8 PENTACHLOROPHENOL | 15.581 | 15.577 | 0.004  | 1008450  | 0.00266          | 0.002274        |
| 9 2,4,5-TP(SILVEX)  | 16.788 | 16.795 | -0.007 | 6603587  | 0.00525          | 0.004677        |
| 10 2,4,5-T          | 17.908 | 17.907 | 0.001  | 5035258  | 0.00527          | 0.004594        |
| 11 DINOSEB          | 18.080 | 18.079 | 0.001  | 3282480  | 0.00317          | 0.002880        |
| 12 2,4-DB           | 18.578 | 18.578 | 0.000  | 3993850  | 0.02110          | 0.02313         |

Data File: /var/chem/gc1.1/3010c.b/a-a30095.d

Date : 31-MAY-2000 15:39

Client ID:

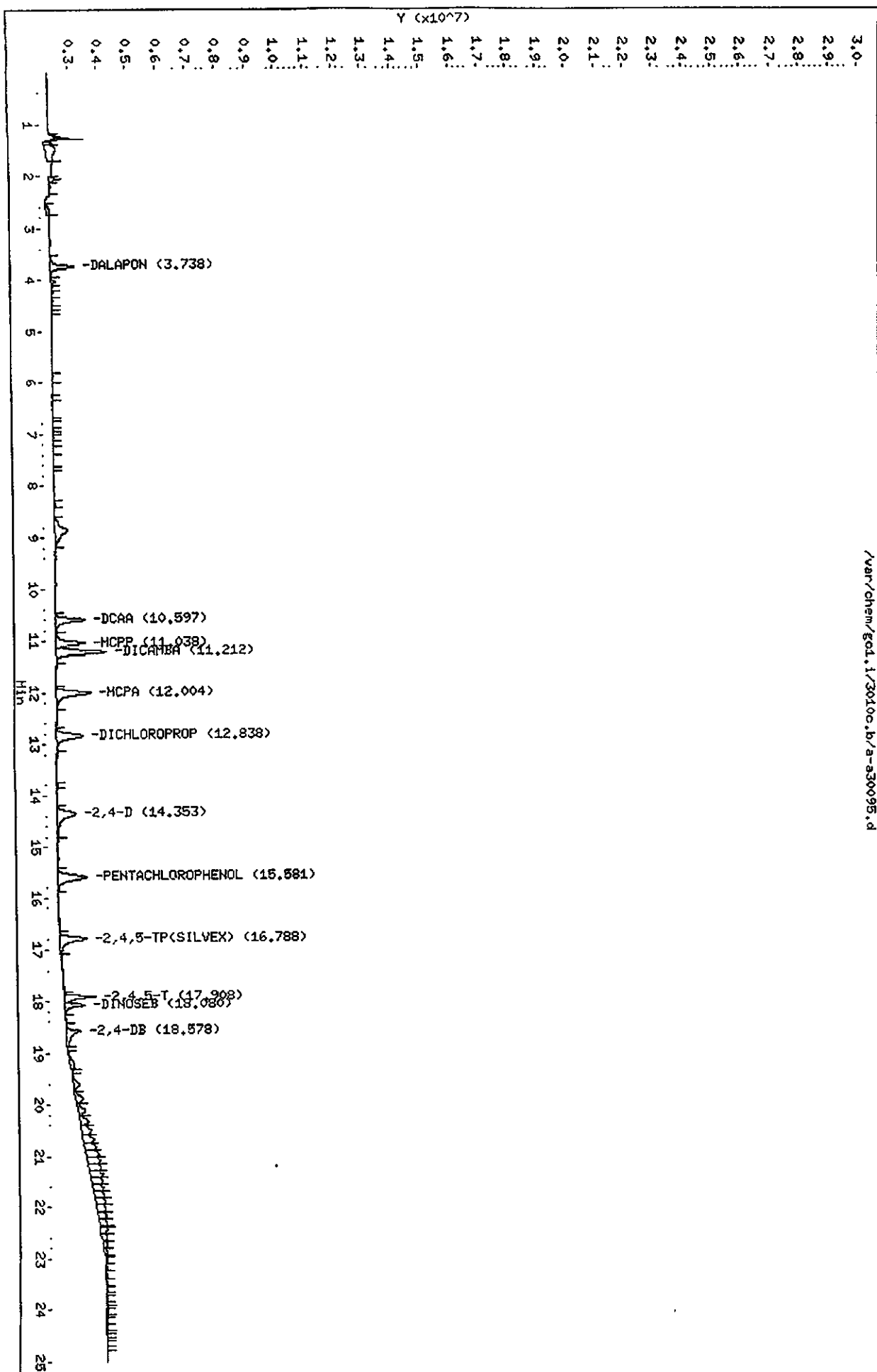
Sample Info: Lherb, 3010c.b

Column phase: DB608

Instrument: gc1.1

Operator: 01797

Column diameter: 0.53





6591060

Data File: /var/chem/gc1.i/3010c.b/a-a30096.d  
Report Date: 01-Jun-2000 12:38

## STL-PITTSBURGH

Data file : /var/chem/gc1.i/3010c.b/a-a30096.d  
Lab Smp Id: MLherb  
Inj Date : 31-MAY-2000 16:08  
Operator : 01797  
Smp Info : MLherb,3010c.b  
Misc Info : 190-80-2  
Comment :  
Method : /var/chem/gc1.i/3010c.b/LONGH.m  
Meth Date : 01-Jun-2000 11:27 derubeij  
Cal Date : 31-MAY-2000 15:39  
Als bottle: 3  
Dil Factor: 1.00000  
Integrator: Falcon  
Target Version: 3.40

Inst ID: gc1.i  
Quant Type: ESTD  
Cal File: a-a30095.d  
Calibration Sample, Level: 2  
Compound Sublist: all.sub

| Compounds           | RT     | EXP RT | DLT RT | RESPONSE | AMOUNTS          |                 |
|---------------------|--------|--------|--------|----------|------------------|-----------------|
|                     |        |        |        |          | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| =====               | ==     | =====  | =====  | =====    | =====            | =====           |
| 1 DALAPON           | 3.741  | 3.740  | 0.001  | 1616055  | 0.02200          | 0.02052         |
| \$ 2 DCAA           | 10.596 | 10.596 | 0.000  | 10440491 | 0.04250          | 0.03964         |
| 3 MCPP              | 11.037 | 11.036 | 0.001  | 1872698  | 4.26000          | 4.197           |
| 4 DICAMBA           | 11.212 | 11.212 | 0.000  | 3578040  | 0.02130          | 0.01964         |
| 5 MCPA              | 12.002 | 12.001 | 0.001  | 2199559  | 4.28000          | 4.240           |
| 6 DICHLOROPROP      | 12.836 | 12.834 | 0.002  | 1874442  | 0.04240          | 0.03953         |
| 7 2,4-D             | 14.347 | 14.347 | 0.000  | 12333666 | 0.04250          | 0.03985         |
| 8 PENTACHLOROPHENOL | 15.576 | 15.577 | -0.001 | 2079645  | 0.00532          | 0.004883        |
| 9 2,4,5-TP(SILVEX)  | 16.788 | 16.795 | -0.007 | 13108624 | 0.01050          | 0.009657        |
| 10 2,4,5-T          | 17.905 | 17.907 | -0.002 | 10864238 | 0.01050          | 0.01010         |
| 11 DINOSEB          | 18.082 | 18.079 | 0.003  | 6824911  | 0.00635          | 0.006104        |
| 12 2,4-DB           | 18.582 | 18.578 | 0.004  | 6538110  | 0.04220          | 0.03921         |

Data File: /var/chem/gcd.i/3010c.b/a-a30096.d

Date: 31-MAY-2000 16:08

Client ID:

Sample Info: HHerb,3010c.b

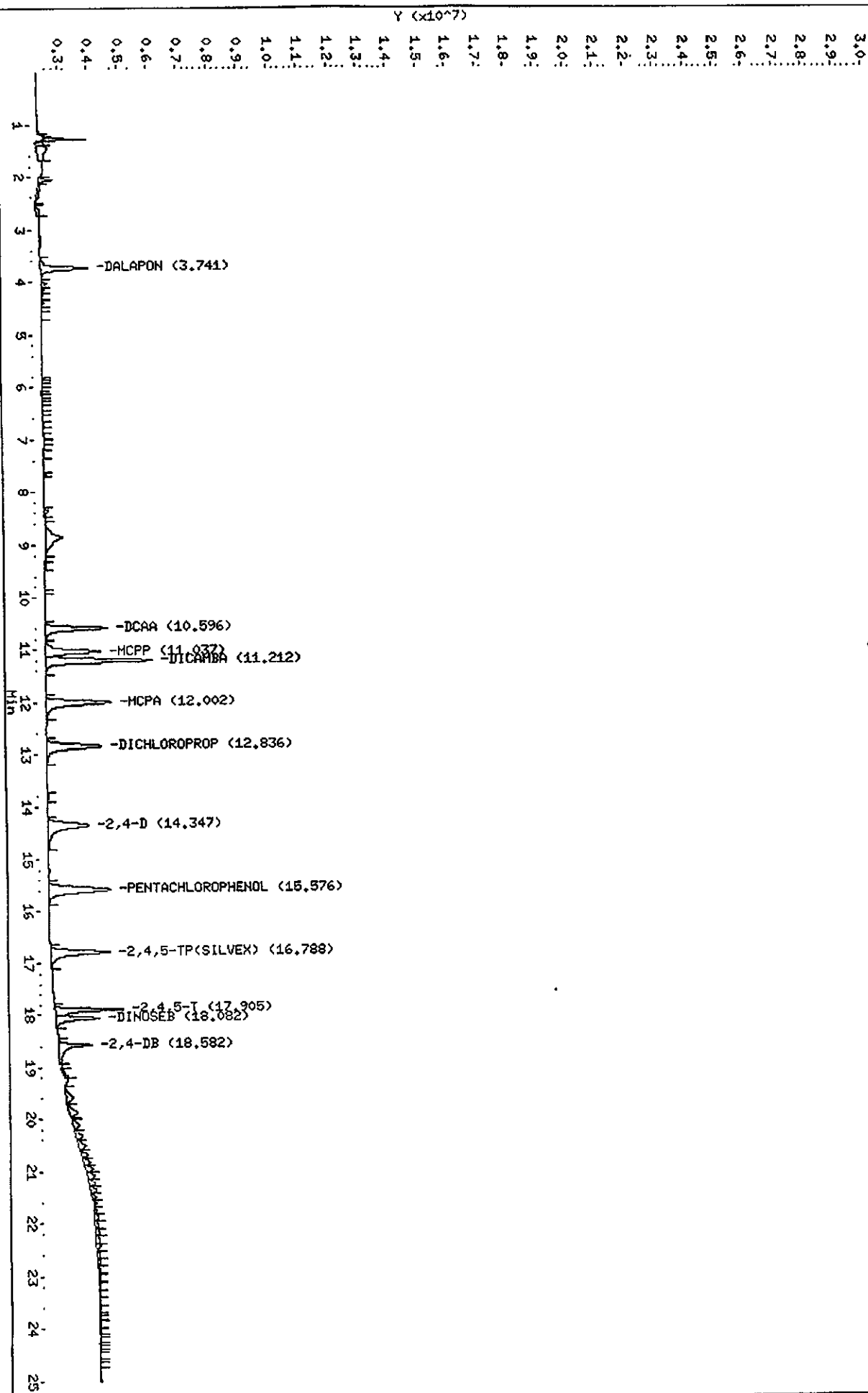
Column phase: DB608

Instrument: gcd.i

Operator: 01797

Column diameter: 0.53

/var/chem/gcd.i/3010c.b/a-a30096.d



6591062

Data File: /var/chem/gc1.i/3010c.b/a-a30097.d  
 Report Date: 01-Jun-2000 12:38

## STL-PITTSBURGH

Data file : /var/chem/gc1.i/3010c.b/a-a30097.d  
 Lab Smp Id: Mherb  
 Inj Date : 31-MAY-2000 16:37  
 Operator : 01797  
 Smp Info : Mherb,3010c.b  
 Misc Info : 190-80-3  
 Comment :  
 Method : /var/chem/gc1.i/3010c.b/LONGH.m  
 Meth Date : 01-Jun-2000 11:27 derubeij  
 Cal Date : 31-MAY-2000 16:37  
 Als bottle: 4  
 Dil Factor: 1.00000  
 Integrator: Falcon  
 Target Version: 3.40

Inst ID: gc1.i  
 Quant Type: ESTD  
 Cal File: a-a30097.d  
 Calibration Sample, Level: 3  
 Compound Sublist: all.sub

| Compounds           |        |        |        |          | AMOUNTS          |                 |
|---------------------|--------|--------|--------|----------|------------------|-----------------|
|                     | RT     | EXP RT | DLT RT | RESPONSE | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| =====               | ==     | =====  | =====  | =====    | =====            | =====           |
| 1 DALAPON           | 3.740  | 3.740  | 0.000  | 3848183  | 0.04390          | 0.04390         |
| \$ 2 DCAA           | 10.596 | 10.596 | 0.000  | 24815268 | 0.08510          | 0.08510         |
| 3 MCPP              | 11.036 | 11.036 | 0.000  | 3581575  | 8.52000          | 8.520           |
| 4 DICAMBA           | 11.212 | 11.212 | 0.000  | 9044465  | 0.04250          | 0.04250         |
| 5 MCPA              | 12.001 | 12.001 | 0.000  | 4151638  | 8.56000          | 8.560           |
| 6 DICHLOROPROP      | 12.834 | 12.834 | 0.000  | 4659349  | 0.08480          | 0.08480         |
| 7 2,4-D             | 14.347 | 14.347 | 0.000  | 29915609 | 0.08510          | 0.08510         |
| 8 PENTACHLOROPHENOL | 15.577 | 15.577 | 0.000  | 5401685  | 0.01064          | 0.01064         |
| 9 2,4,5-TP (SILVEX) | 16.795 | 16.795 | 0.000  | 33043773 | 0.02110          | 0.02110         |
| 10 2,4,5-T          | 17.907 | 17.907 | 0.000  | 26092633 | 0.02110          | 0.02110         |
| 11 DINOSEB          | 18.079 | 18.079 | 0.000  | 15797723 | 0.01270          | 0.01270         |
| 12 2,4-DB           | 18.578 | 18.578 | 0.000  | 13187011 | 0.08450          | 0.08450         |

Data File: /var/chem/gc1.i/3010c.b/a-a30097.d  
Date: 31-MAY-2000 16:37

Client ID:

Sample Info: Hinerb, 3010c.b

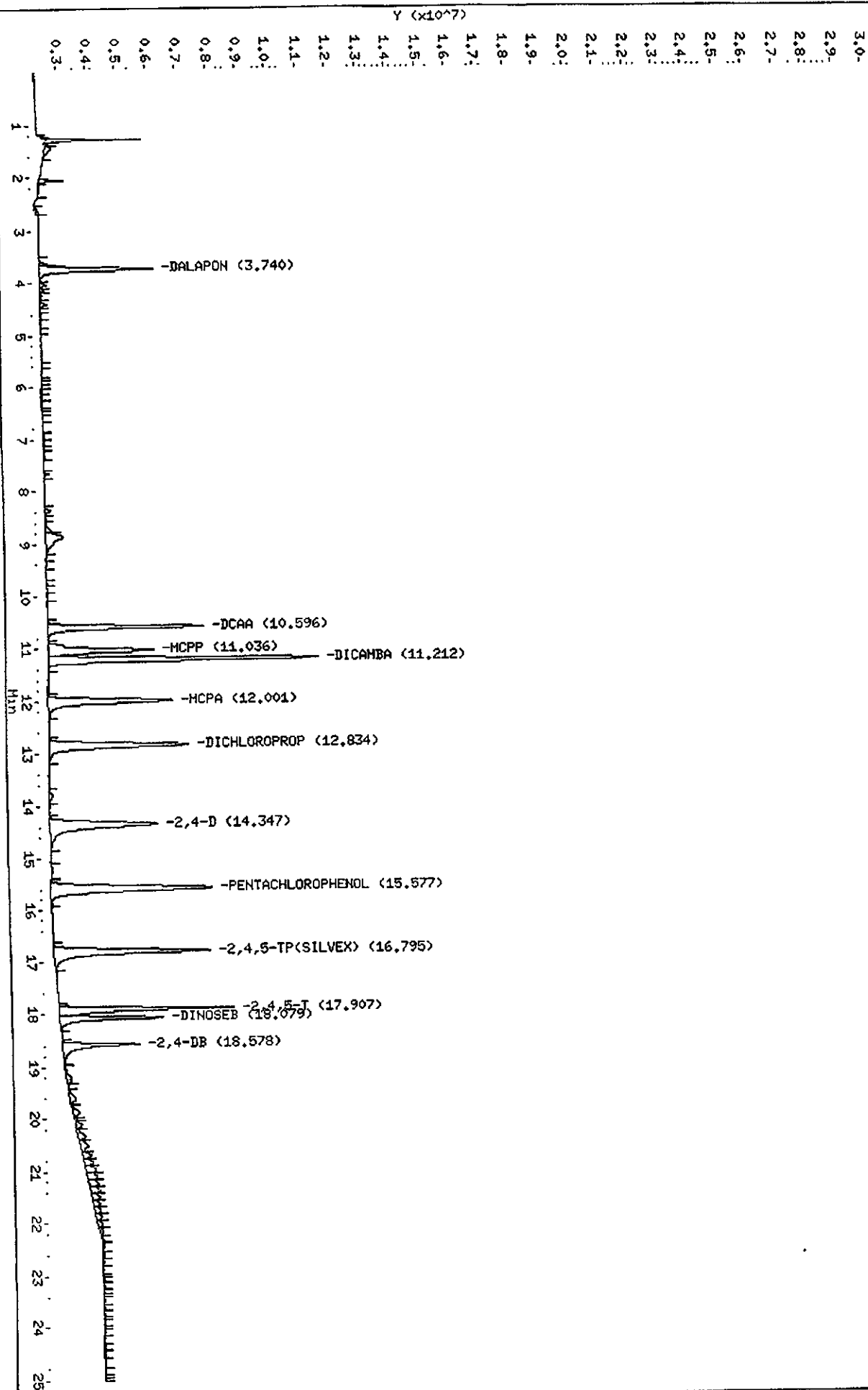
Column phase: HP608

Instrument: gc1.i

Operator: 01797

Column diameter: 0.53

/var/chem/gc1.i/3010c.b/a-a30097.d



6591064

Data File: /var/chem/gc1.i/3010c.b/a-a30098.d  
 Report Date: 01-Jun-2000 12:38

## STL-PITTSBURGH

Data file : /var/chem/gc1.i/3010c.b/a-a30098.d  
 Lab Smp Id: MHherb  
 Inj Date : 31-MAY-2000 17:06  
 Operator : 01797  
 Smp Info : MHherb,3010c.b  
 Misc Info : 190-80-4  
 Comment :  
 Method : /var/chem/gc1.i/3010c.b/LONGH.m  
 Meth Date : 01-Jun-2000 11:27 derubeij  
 Cal Date : 31-MAY-2000 17:06  
 Als bottle: 5  
 Dil Factor: 1.00000  
 Integrator: Falcon  
 Target Version: 3.40

Inst ID: gc1.i  
 Quant Type: ESTD  
 Cal File: a-a30098.d  
 Calibration Sample, Level: 4  
 Compound Sublist: all.sub

| Compounds           |        |        |        |          | AMOUNTS          |                 |
|---------------------|--------|--------|--------|----------|------------------|-----------------|
|                     | RT     | EXP RT | DLT RT | RESPONSE | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| =====               | ==     | =====  | =====  | =====    | =====            | =====           |
| 1 DALAPON           | 3.738  | 3.740  | -0.002 | 7417941  | 0.08780          | 0.09251         |
| \$ 2 DCAA           | 10.594 | 10.596 | -0.002 | 46512873 | 0.17000          | 0.1749          |
| 3 MCPP              | 11.035 | 11.036 | -0.001 | 5403191  | 17.0000          | 13.05           |
| 4 DICAMBA           | 11.210 | 11.212 | -0.002 | 17595880 | 0.08510          | 0.09345         |
| 5 MCPA              | 12.003 | 12.001 | 0.002  | 6355776  | 17.1000          | 13.18           |
| 6 DICHLOROPROP      | 12.834 | 12.834 | 0.000  | 9035618  | 0.17000          | 0.1850          |
| 7 2,4-D             | 14.345 | 14.347 | -0.002 | 57482064 | 0.17000          | 0.1815          |
| 8 PENTACHLOROPHSNOL | 15.577 | 15.577 | 0.000  | 11647734 | 0.02128          | 0.02553         |
| 9 2,4,5-TP(SILVEX)  | 16.795 | 16.795 | 0.000  | 66414167 | 0.04210          | 0.04702         |
| 10 2,4,5-T          | 17.905 | 17.907 | -0.002 | 54059197 | 0.04220          | 0.04797         |
| 11 DINOSEB          | 18.080 | 18.079 | 0.001  | 30036981 | 0.02540          | 0.02648         |
| 12 2,4-DB           | 18.576 | 18.578 | -0.002 | 25384255 | 0.16900          | 0.1561          |

Data File: /var/chem/gc1.1/3010c.b/a-a30098.d  
Date: 31-MAY-2000 17:06

Client ID:

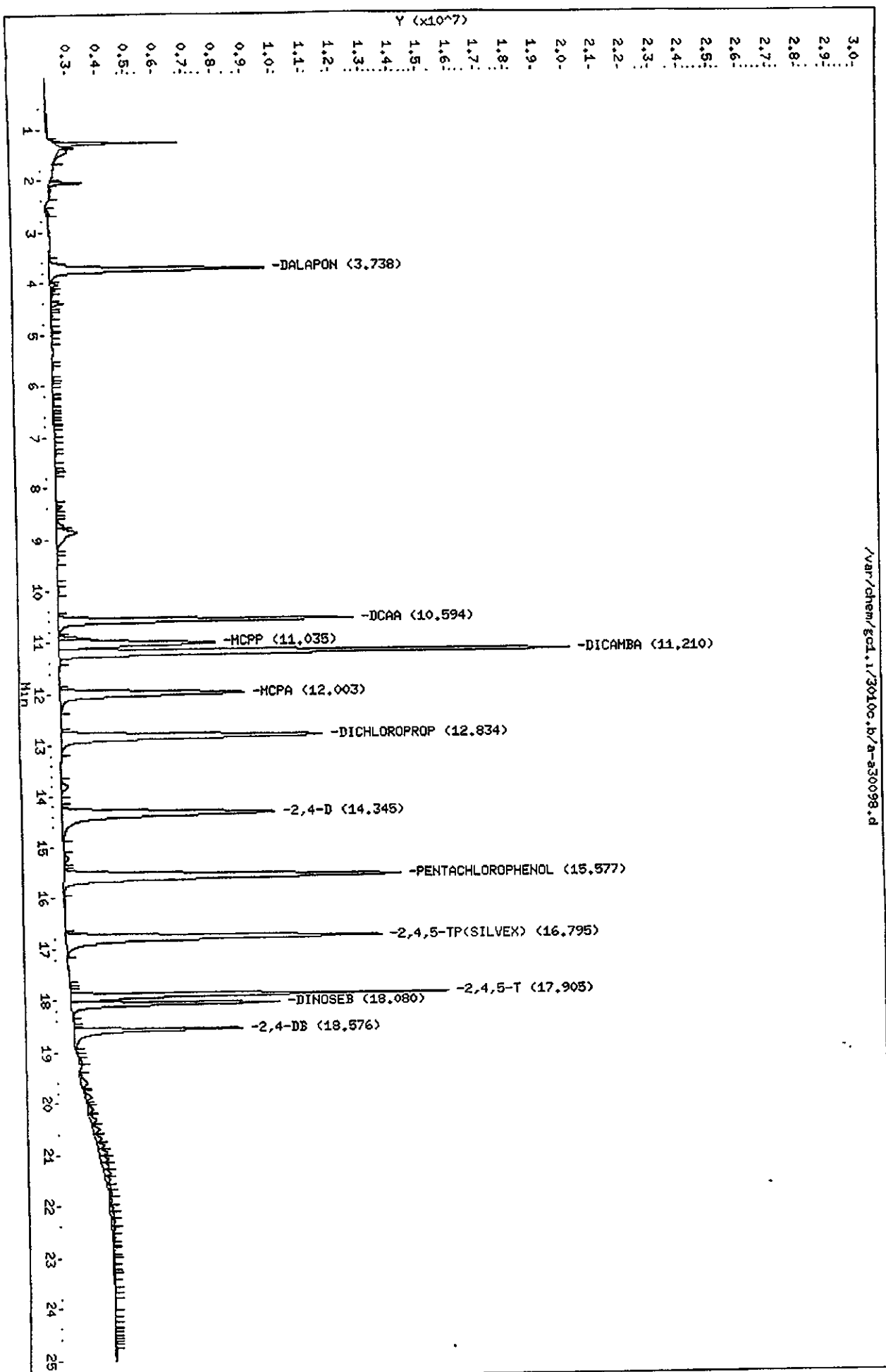
Sample Info: MHerb, 3010c.b

Column phase: DB608

Instrument: gc1.1

Operator: 01797

Column diameter: 0.53



6591066

Data File: /var/chem/gc1.i/3010c.b/a-a30099.d  
 Report Date: 01-Jun-2000 12:38

## STL-PITTSBURGH

Data file : /var/chem/gc1.i/3010c.b/a-a30099.d  
 Lab Smp Id: Hherb  
 Inj Date : 31-MAY-2000 17:35  
 Operator : 01797  
 Smp Info : Hherb,3010c.b  
 Misc Info : 190-80-5  
 Comment :  
 Method : /var/chem/gc1.i/3010c.b/LONGH.m  
 Meth Date : 01-Jun-2000 11:27 derubeij  
 Cal Date : 31-MAY-2000 17:35  
 Als bottle: 6  
 Dil Factor: 1.00000  
 Integrator: Falcon  
 Target Version: 3.40

Inst ID: gc1.i  
 Quant Type: ESTD  
 Cal File: a-a30099.d  
 Calibration Sample, Level: 5  
 Compound Sublist: all.sub

| Compounds           |        |        |        |           | AMOUNTS          |                 |
|---------------------|--------|--------|--------|-----------|------------------|-----------------|
|                     | RT     | EXP RT | DLT RT | RESPONSE  | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| =====               | ==     | =====  | =====  | =====     | =====            | =====           |
| 1 DALAPON           | 3.740  | 3.740  | 0.000  | 14945836  | 0.17600          | 0.1842          |
| \$ 2 DCAA           | 10.590 | 10.596 | -0.006 | 87793848  | 0.34000          | 0.3321          |
| 3 MCPP              | 11.035 | 11.036 | -0.001 | 8217888   | 34.1000          | 21.65           |
| 4 DICAMBA           | 11.209 | 11.212 | -0.003 | 35454180  | 0.17000          | 0.1843          |
| 5 MCPA              | 11.999 | 12.001 | -0.002 | 10253602  | 34.0000          | 22.99           |
| 6 DICHLOROPROP      | 12.830 | 12.834 | -0.004 | 17121329  | 0.33900          | 0.3481          |
| 7 2,4-D             | 14.342 | 14.347 | -0.005 | 109277911 | 0.34000          | 0.3441          |
| 8 PENTACHLOROPHENOL | 15.573 | 15.577 | -0.004 | 23735924  | 0.04255          | 0.04980         |
| 9 2,4,5-TP(SILVEX)  | 16.788 | 16.795 | -0.007 | 134579689 | 0.08400          | 0.09279         |
| 10 2,4,5-T          | 17.903 | 17.907 | -0.004 | 109438398 | 0.08440          | 0.09427         |
| 11 DINOSEB          | 18.081 | 18.079 | 0.002  | 59818422  | 0.05080          | 0.05234         |
| 12 2,4-DB           | 18.576 | 18.578 | -0.002 | 48953955  | 0.33800          | 0.3078          |

Data File: /var/chem/gcl.i/3010c.b/a-a30099.d

Date: 31-MAY-2000 17:35

Client ID:

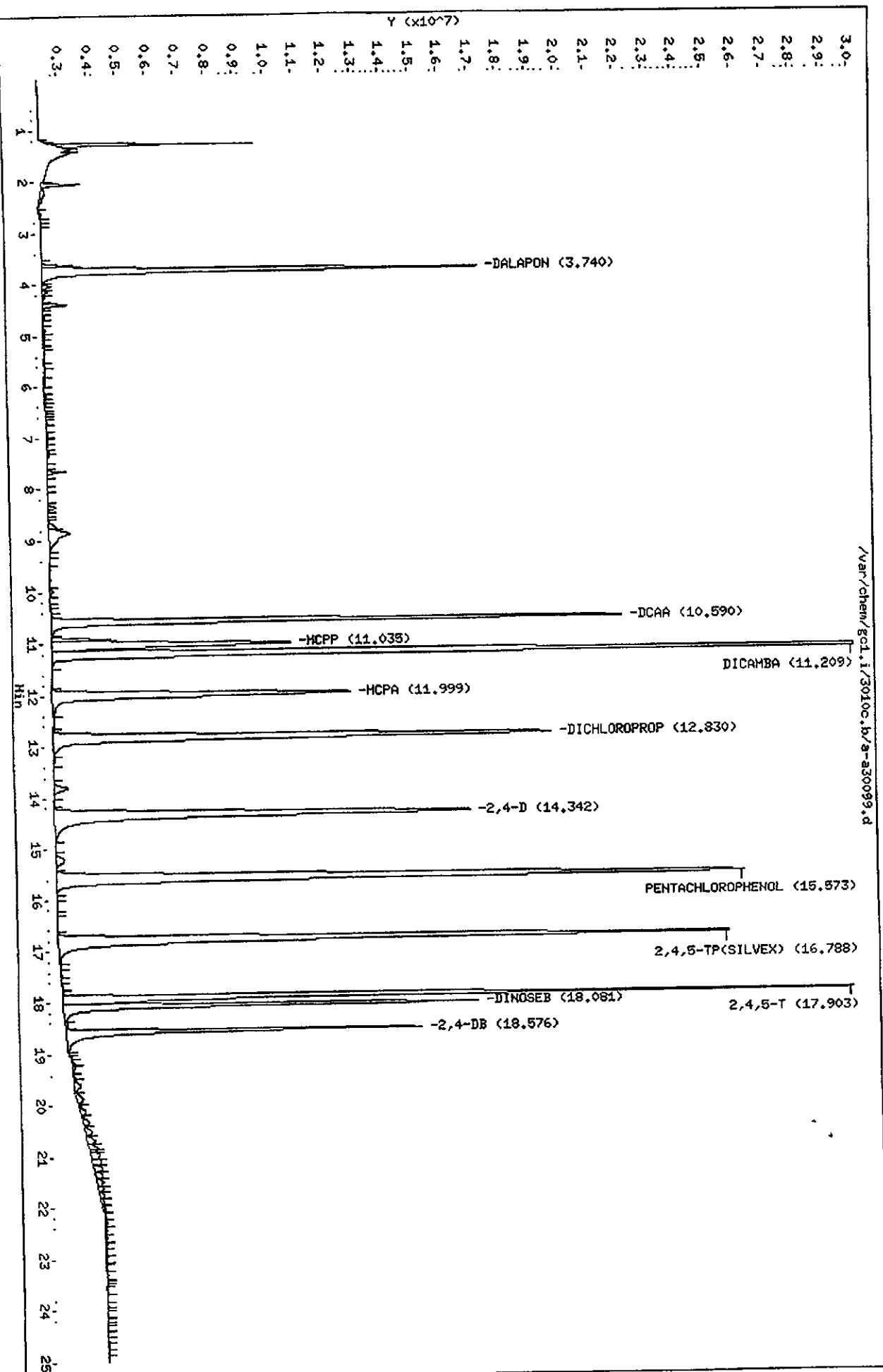
Sample Info: Hherb, 3010c.b

Column phase: DB608

Instrument: gcl.i

Operator: 01797

Column diameter: 0.53





6591068

Data File: /var/chem/gc1.i/3010c.b/a-a30128.d  
 Report Date: 05-Jun-2000 10:07

## STL-PITTSBURGH

Data file : /var/chem/gc1.i/3010c.b/a-a30128.d  
 Lab Smp Id: Mherb  
 Inj Date : 05-JUN-2000 09:41  
 Operator : 01797  
 Smp Info : Mherb,3010c.b  
 Misc Info : 190-80-3  
 Comment :  
 Method : /var/chem/gc1.i/3010c.b/LONGH.m  
 Meth Date : 05-Jun-2000 10:06 g  
 Cal Date : 31-MAY-2000 17:35  
 Als bottle: 2  
 Dil Factor: 1.00000  
 Integrator: Falcon  
 Target Version: 3.40

Inst ID: gc1.i  
 Quant Type: ESTD  
 Cal File: a-a30099.d  
 Continuing Calibration Sample  
 Compound Sublist: all.sub

| Compounds           |        |        |        |          | AMOUNTS          |                 |
|---------------------|--------|--------|--------|----------|------------------|-----------------|
|                     | RT     | EXP RT | DLT RT | RESPONSE | CAL-AMT<br>( ng) | ON-COL<br>( ng) |
| =====               | ==     | =====  | =====  | =====    | =====            | =====           |
| 1 DALAPON           | 3.740  | 3.740  | 0.000  | 3652370  | 0.04390          | 0.04502         |
| \$ 2 DCAA           | 10.594 | 10.594 | 0.000  | 22701143 | 0.08510          | 0.08586         |
| 3 MCPP              | 11.035 | 11.035 | 0.000  | 3373901  | 8.52000          | 8.890           |
| 4 DICAMBA           | 11.210 | 11.210 | 0.000  | 8181797  | 0.04250          | 0.04254         |
| 5 MCPA              | 12.000 | 12.000 | 0.000  | 3942169  | 8.56000          | 8.840           |
| 6 DICHLOROPROP      | 12.834 | 12.834 | 0.000  | 4188789  | 0.08480          | 0.08517         |
| 7 2,4-D             | 14.345 | 14.345 | 0.000  | 26808976 | 0.08510          | 0.08441         |
| 8 PENTACHLOROPHENOL | 15.574 | 15.574 | 0.000  | 5024463  | 0.01064          | 0.01054         |
| 9 2,4,5-TP(SILVEX)  | 16.792 | 16.792 | 0.000  | 30056840 | 0.02110          | 0.02072         |
| 10 2,4,5-T          | 17.909 | 17.909 | 0.000  | 23159931 | 0.02110          | 0.01995         |
| 11 DINOSEB          | 18.080 | 18.080 | 0.000  | 14895155 | 0.01270          | 0.01303         |
| 12 2,4-DB           | 18.575 | 18.575 | 0.000  | 11482228 | 0.08450          | 0.07219         |

Data File: /var/chem/gc1.1/3010c.b/a-s30128.d

Date: 05-JUN-2000 09:41

Client ID:

Sample Info: Hherb,3010c.b

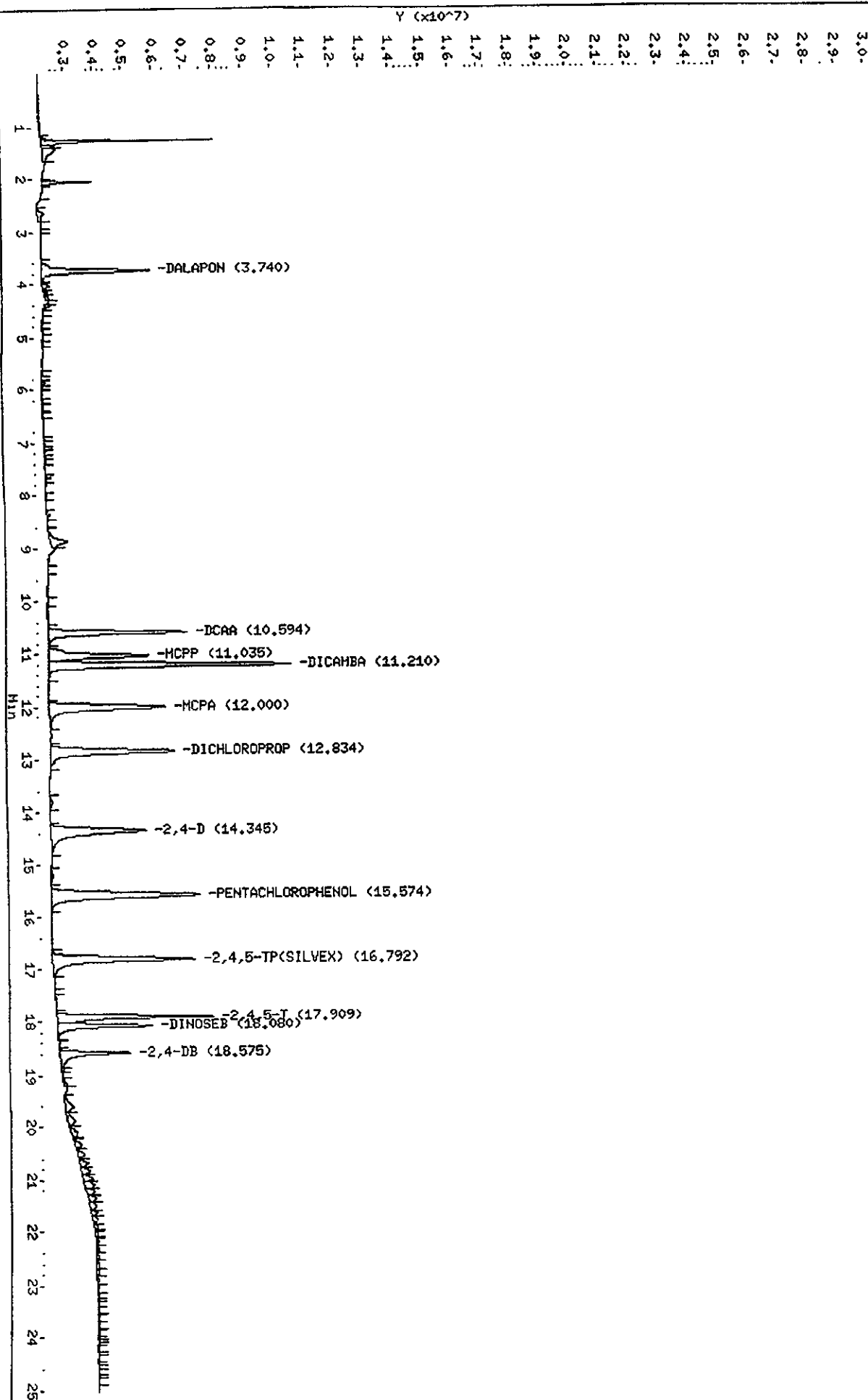
Column phase: DB608

Instrument: gc1.1

Operator: 01797

Column diameter: 0.53

/var/chem/gc1.1/3010c.b/a-s30128.d



6591070

Data File: /var/chem/gc1.i/3010c.b/a-a30149.d

Report Date: 06-Jun-2000 08:36

## STL-PITTSBURGH

Data file : /var/chem/gc1.i/3010c.b/a-a30149.d

Lab Smp Id: Mherb

Inj Date : 05-JUN-2000 19:52

Operator : 01797

Inst ID: gc1.i

Smp Info : Mherb,3010c.b

Misc Info : 190-83-3

Comment :

Method : /var/chem/gc1.i/3010c.b/LONGH.m

Meth Date : 06-Jun-2000 08:35 g

Quant Type: ESTD

Cal Date : 31-MAY-2000 17:35

Cal File: a-a30099.d

Als bottle: 23

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: all.sub

Target Version: 3.40

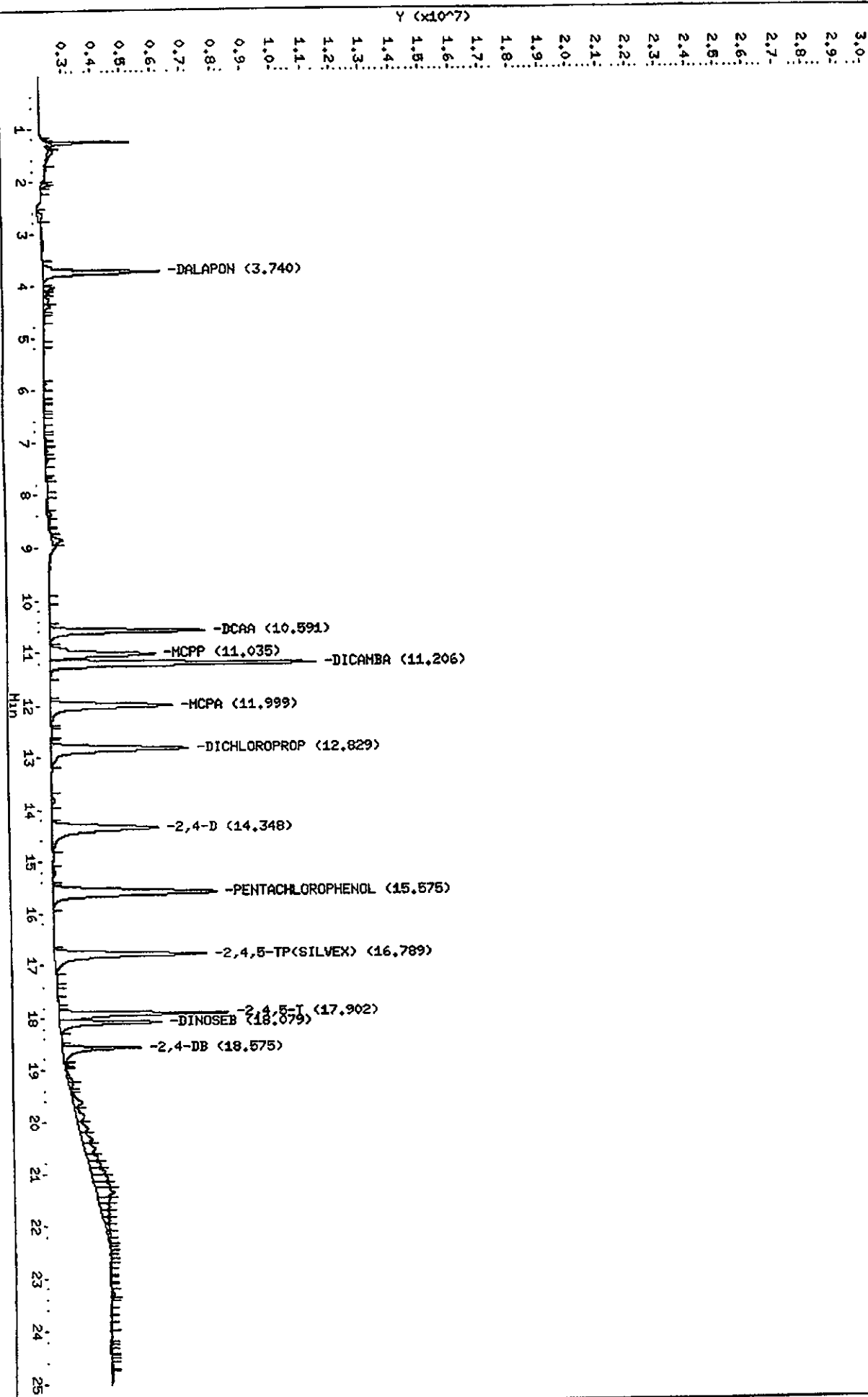
|                     |        |        |        |          |         | AMOUNTS |        |
|---------------------|--------|--------|--------|----------|---------|---------|--------|
|                     |        |        |        |          |         | CAL-AMT | ON-COL |
| Compounds           |        |        |        |          |         | ( ng)   | ( ng)  |
| =====               |        |        |        |          |         | =====   | =====  |
| RT                  | EXP RT | DLT    | RT     | RESPONSE |         |         |        |
| ==                  | =====  | =====  |        | =====    | =====   | =====   | =====  |
| 1 DALAPON           | 3.740  | 3.740  | 0.000  | 3933759  | 0.04390 | 0.04849 |        |
| \$ 2 DCAA           | 10.591 | 10.594 | -0.003 | 25040481 | 0.08510 | 0.09471 |        |
| 3 MCPP              | 11.035 | 11.035 | 0.000  | 3524713  | 8.52000 | 9.288   |        |
| 4 DICAMBA           | 11.206 | 11.210 | -0.004 | 8904009  | 0.04250 | 0.04629 |        |
| 5 MCPA              | 11.999 | 12.000 | -0.001 | 4124096  | 8.56000 | 9.248   |        |
| 6 DICHLOROPROP      | 12.829 | 12.834 | -0.005 | 4610360  | 0.08480 | 0.09374 |        |
| 7 2,4-D             | 14.348 | 14.345 | 0.003  | 30150366 | 0.08510 | 0.09493 |        |
| 8 PENTACHLOROPHENOL | 15.575 | 15.574 | 0.001  | 5530088  | 0.01064 | 0.01160 |        |
| 9 2,4,5-TP(SILVEX)  | 16.789 | 16.792 | -0.003 | 33610695 | 0.02110 | 0.02317 |        |
| 10 2,4,5-T          | 17.902 | 17.909 | -0.007 | 25809018 | 0.02110 | 0.02223 |        |
| 11 DINOSEB          | 18.079 | 18.080 | -0.001 | 16120061 | 0.01270 | 0.01410 |        |
| 12 2,4-DB           | 18.575 | 18.575 | 0.000  | 12799307 | 0.08450 | 0.08047 |        |

Data File: /var/chem/gc1.i/3010c.b/a-a30149.d  
Date: 05-JUN-2000 19:52  
Client ID:  
Sample Info: Mherb,3010c.b

Column Phase: DB608

Instrument: gc1.i  
Operator: 01797  
Column diameter: 0.53

/var/chem/gc1.i/3010c.b/a-a30149.d



6591072

**HERBICIDE  
QC DATA**

UXB INTERNATIONAL  
METHOD BLANK COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0F020000 362

Method: SW846 8151A

Herbicides (8151A)

Sample WT/Vol: 100 / mL

Date Received: 05/31/00

Work Order: DE533101

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/05/00

Moisture %: NA

QC Batch: 0154362

Client Sample Id: INTRA-LAB BLANK

| 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 |

6591074

Data File: /var/chem/gc1.i/3010c.b/a-a30147.d

Report Date: 06-Jun-2000 08:40

## STL-PITTSBURGH

Data file : /var/chem/gc1.i/3010c.b/a-a30147.d  
 Lab Smp Id: DE533101 Client Smp ID: PBLK  
 Inj Date : 05-JUN-2000 18:54  
 Operator : 01797 Inst ID: gc1.i  
 Smp Info : DE533101,3010c.b  
 Misc Info : 310132BLK  
 Comment :  
 Method : /var/chem/gc1.i/3010c.b/LONGH.m  
 Meth Date : 06-Jun-2000 08:35 g Quant Type: ESTD  
 Cal Date : 31-MAY-2000 17:35 Cal File: a-a30099.d  
 Als bottle: 21 QC Sample: BLANK  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: all.sub  
 Target Version: 3.40

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<br>( ng) | FINAL<br>( mg/L) |
| 1 DALAPON           |        |        |        |          |         |             |                    |                  |
| 2 DCAA              | 10.596 | 10.594 | 0.002  | 12277450 | 0 04644 | 0.09288(a)  |                    |                  |
| 3 MCPP              |        |        |        |          |         |             |                    |                  |
| 4 DICAMBA           | 11.156 | 11.210 | -0.054 | 279943   | 0 00146 | 0.002911(a) |                    |                  |
| 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           | 18.538 | 18.575 | -0.037 | 2125634  | 0.01336 | 0 02673(a)  |                    |                  |

Data File: /var/chem/gc1.i/3010c.b/a-a30147.d  
Report Date: 06-Jun-2000 08:40

QC Flag Legend

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

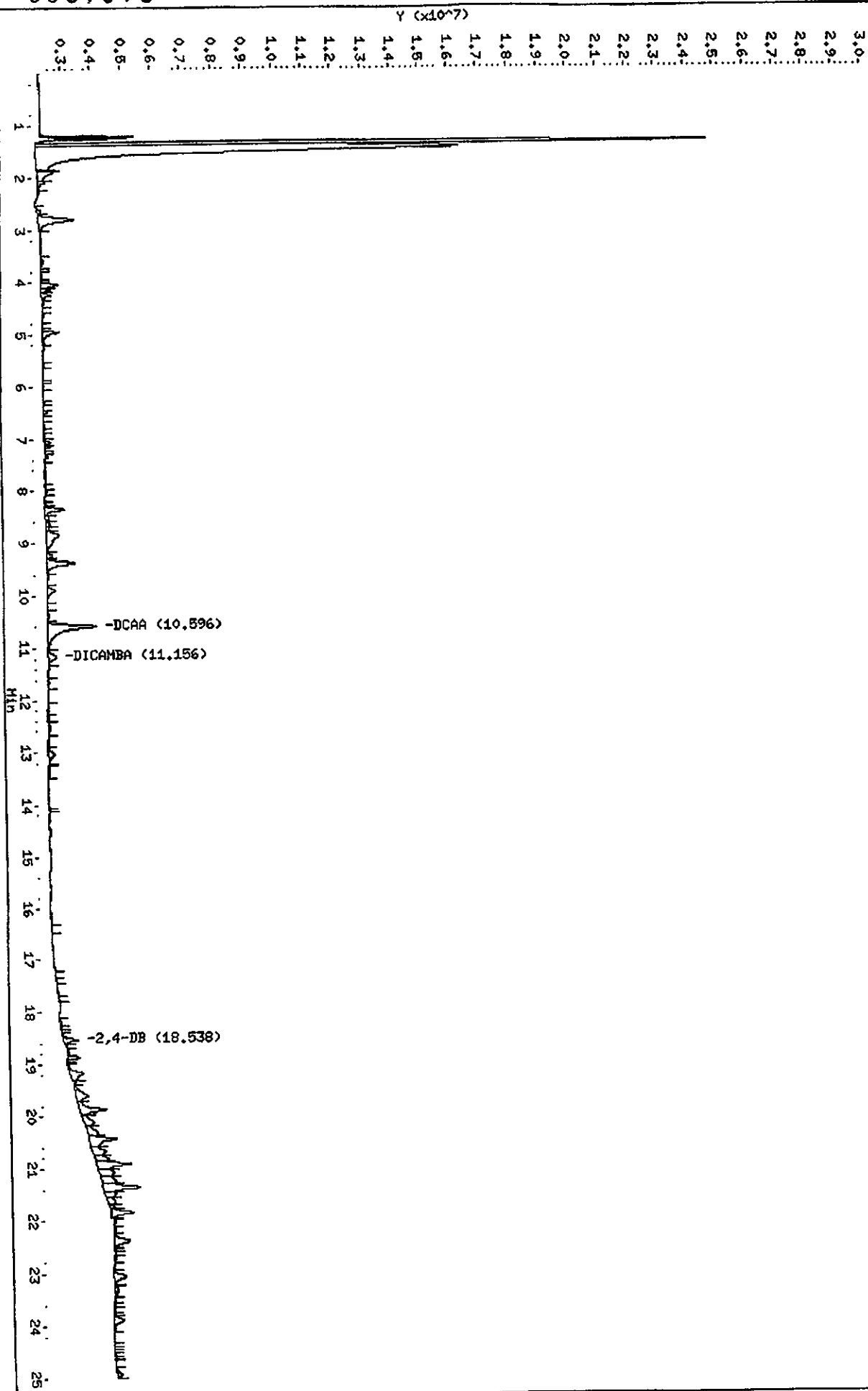


6591076

Data File: /var/chem/gc1.i/30100.b/a-a30147.d  
Date: 05-JUN-2000 18:54  
Client ID: PLK  
Sample Info: DES33101,30100.b  
Volume Injected (uL): 1.0  
Column phase: DB608

Instrument: gc1.i  
Operator: 01797  
Column diameter: 0.53

/var/chem/gc1.i/30100.b/a-a30147.d



UXB INTERNATIONAL  
CHECK SAMPLE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0F020000 362

Method: SW846 8151A

Herbicides (8151A)

Sample WT/Vol: 100 / mL

Date Received: 05/31/00

Work Order: DE533102

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/05/00

Moisture %: NA

QC Batch: 0154362

Client Sample Id: CHECK SAMPLE

|         |                   | CONCENTRATION UNITS: |   |
|---------|-------------------|----------------------|---|
| CAS NO. | COMPOUND          | (ug/L or ug/kg) mg/L | Q |
| 94-75-7 | 2,4-D             | 0.154                |   |
| 93-72-1 | 2,4,5-TP (Silvex) | 0.0372               |   |

6591078

Data File: /var/chem/gcl.i/3010c.b/a-a30148.d

Report Date: 06-Jun-2000 08:40

## STL-PITTSBURGH

Data file : /var/chem/gcl.i/3010c.b/a-a30148.d  
 Lab Smp Id: DE533102 Client Smp ID: LCS  
 Inj Date : 05-JUN-2000 19:23  
 Operator : 01797 Inst ID: gcl.i  
 Smp Info : DE533102,3010c.b  
 Misc Info : 310132LCS  
 Comment :  
 Method : /var/chem/gcl.i/3010c.b/LONGH.m  
 Meth Date : 06-Jun-2000 08:35 g Quant Type: ESTD  
 Cal Date : 31-MAY-2000 17:35 Cal File: a-a30099.d  
 Als bottle: 22 QC Sample: LCS  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: all.sub  
 Target Version: 3.40

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<br>( ng) | FINAL<br>( mg/L) |
| 1 DALAPON           | 3.743  | 3.740  | 0.003  | 2413825  | 0.02975            | 0.05950(aR)      |
| 2 DCAA              | 10.597 | 10.594 | 0.003  | 13405923 | 0.05071            | 0.1014(a)        |
| 3 MCPP              | 11.032 | 11.035 | -0.003 | 3081389  | 8.11943            | 16.24            |
| 4 DICAMBA           | 11.211 | 11.210 | 0.001  | 7126306  | 0.03705            | 0.07410(a)       |
| 5 MCPA              | 12.001 | 12.000 | 0.001  | 3536532  | 7.93059            | 15.86            |
| 6 DICHLOROPROP      | 12.835 | 12.834 | 0.001  | 3709446  | 0.07543            | 0.1508(a)        |
| 7 2,4-D             | 14.347 | 14.345 | 0.002  | 24427924 | 0.07692            | 0.1538(aR)       |
| 8 PENTACHLOROPHENOL | 15.573 | 15.574 | -0.001 | 4553520  | 0.00955            | 0.01911(a)       |
| 9 2,4,5-TP(SILVEX)  | 16.789 | 16.792 | -0.003 | 26961899 | 0.01859            | 0.03718(aR)      |
| 10 2,4,5-T          | 17.906 | 17.909 | -0.003 | 20533735 | 0.01769            | 0.03538(aR)      |
| 11 DINOSEB          | 18.077 | 18.080 | -0.003 | 6126587  | 0.00536            | 0.01072(a)       |
| 12 2,4-DB           | 18.576 | 18.575 | 0.001  | 11465518 | 0.07208            | 0.1442(a)        |

Data File: /var/chem/gc1.i/3010c.b/a-a30148.d  
Report Date: 06-Jun-2000 08:40

#### QC Flag Legend

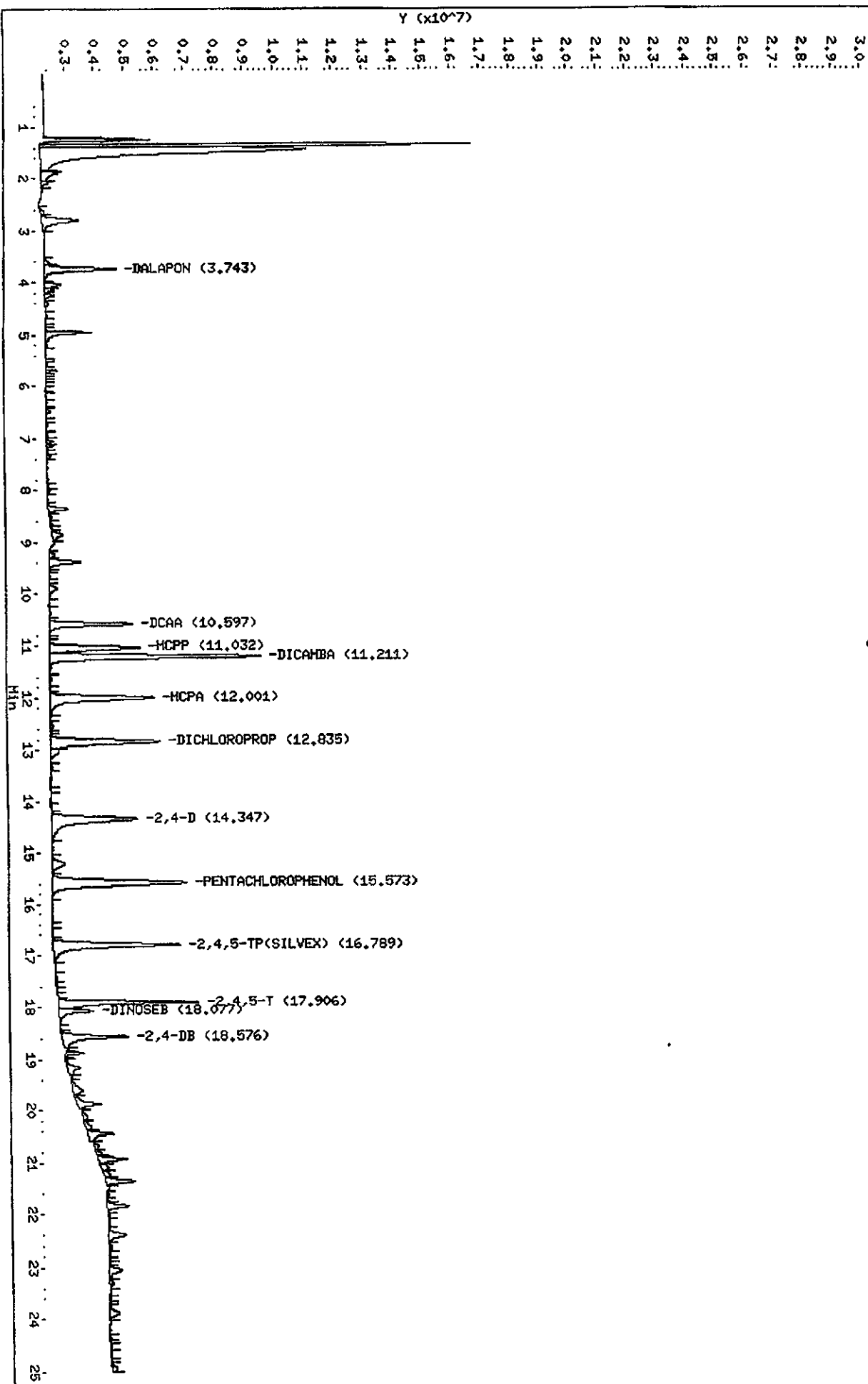
- a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).
- R - Spike/Surrogate failed recovery limits.

6591080

Data File: /var/chem/gcd.1/3010c.b/a-a30148.d  
Date: 05-JUN-2000 19:23  
Client ID: LCS  
Sample Info: DE33102,3010c.b  
Volume Injected (uL): 1.0  
Column phase: DB608

Instrument: gcd.1  
Operator: 01797  
Column diameter: 0.53

/var/chem/gcd.1/3010c.b/a-a30148.d



UXB INTERNATIONAL  
MATRIX SPIKE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E310132 001

Method: SW846 8151A

Herbicides (8151A)

Sample WT/Vol: 100 / mL

Date Received: 05/31/00

Work Order: DE02210T

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/05/00

Moisture %: 14

QC Batch: 0154362

Client Sample Id: DF/S1/D151/SDC/005

| CAS NO. | COMPOUND          | CONCENTRATION UNITS: |   |
|---------|-------------------|----------------------|---|
|         |                   | (ug/L or ug/kg) mg/L | Q |
| 94-75-7 | 2,4-D             | 0.157                |   |
| 93-72-1 | 2,4,5-TP (Silvex) | 0.0386               |   |

6591082

Data File: /var/chem/gc1.i/3010c.b/a-a30139.d

Report Date: 05-Jun-2000 16:32

## STL-PITTSBURGH

Data file : /var/chem/gc1.i/3010c.b/a-a30139.d  
 Lab Smp Id: DE02210T Client Smp ID: DF/S1/D151/SDC/MS  
 Inj Date : 05-JUN-2000 15:02  
 Operator : 01797 Inst ID: gc1.i  
 Smp Info : DE02210T,3010c.b  
 Misc Info : 310132001S  
 Comment :  
 Method : /var/chem/gc1.i/3010c.b/LONGH.m  
 Meth Date : 05-Jun-2000 12:06 eppinged Quant Type: ESTD  
 Cal Date : 31-MAY-2000 17:35 Cal File: a-a30099.d  
 Als bottle: 13 QC Sample: MS  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: all.sub  
 Target Version: 3.40

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<br>( ng) | FINAL<br>( mg/L) |
| 1 DALAPON           | 3.740  | 3.740  | 0.000  | 2509567                | 0.03093            | 0.06187(aR)      |
| \$ 2 DCAA           | 10.594 | 10.594 | 0.000  | 7400718                | 0.02799            | 0.05598(a)       |
| 3 MCPP              | 11.036 | 11.035 | 0.001  | 3087172                | 8.13466            | 16.27            |
| 4 DICAMBA           | 11.211 | 11.210 | 0.001  | 7755175                | 0.04032            | 0.08064(a)       |
| 5 MCPA              | 12.001 | 12.000 | 0.001  | 3581065                | 8.03045            | 16.06            |
| 6 DICHLOROPROP      | 12.837 | 12.834 | 0.003  | 3845947                | 0.07820            | 0.1564(a)        |
| 7 2,4-D             | 14.347 | 14.345 | 0.002  | 24876891               | 0.07833            | 0.1566(aR)       |
| 8 PENTACHLOROPHENOL | 15.578 | 15.574 | 0.004  | 683803                 | 0.00143            | 0.002870(a)      |
| 9 2,4,5-TP(SILVEX)  | 16.788 | 16.792 | -0.004 | 28004796               | 0.01931            | 0.03862(aR)      |
| 10 2,4,5-T          | 17.906 | 17.909 | -0.003 | 21878684               | 0.01885            | 0.03769(aR)      |
| 11 DINOSEB          |        |        |        | Compound Not Detected. |                    |                  |
| 12 2,4-DB           | 18.576 | 18.575 | 0.001  | 11759205               | 0.07393            | 0.1478(a)        |

Data File: /var/chem/gc1.i/3010c.b/a-a30139.d  
Report Date: 05-Jun-2000 16:32

#### QC Flag Legend

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

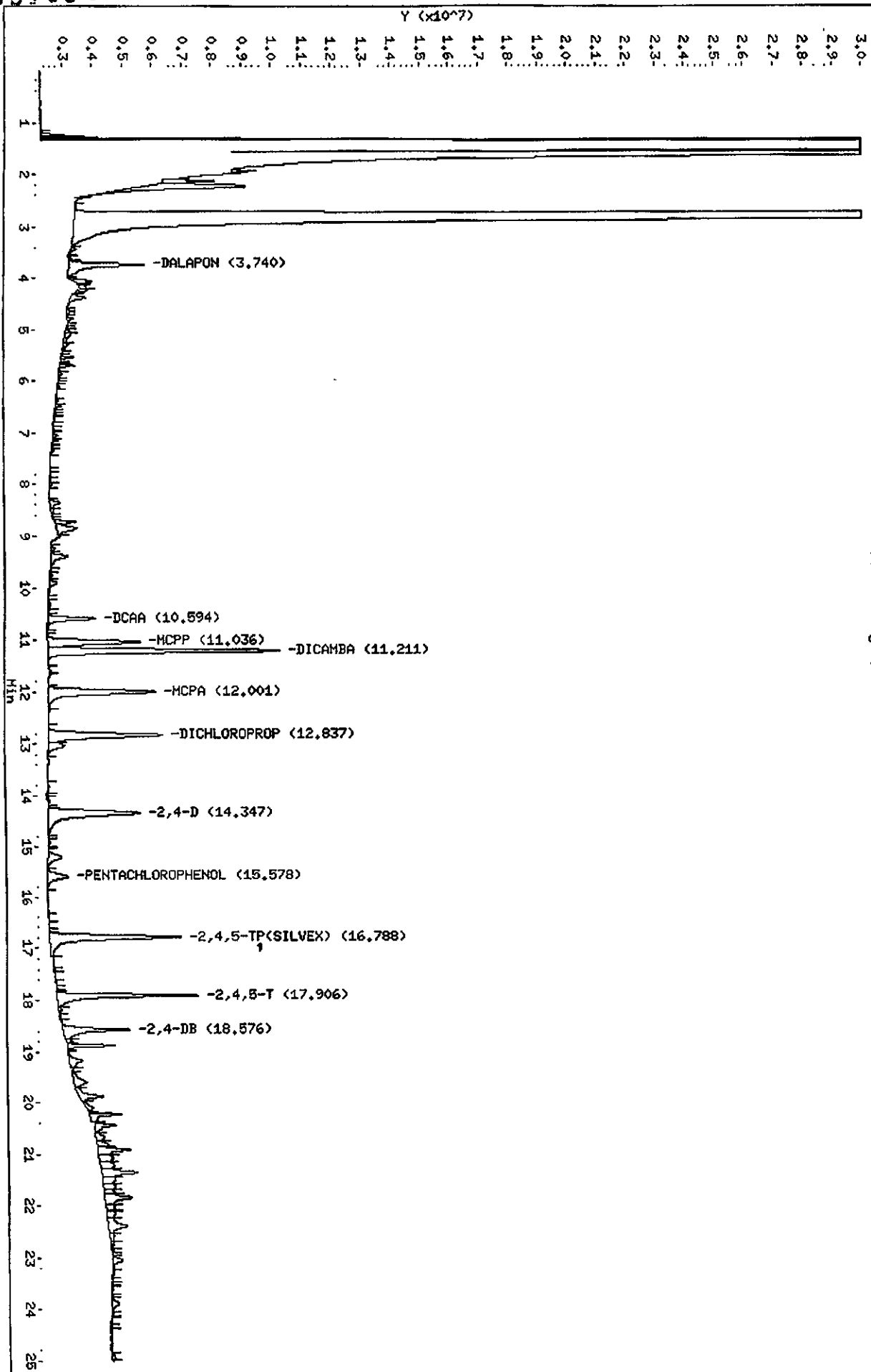


6591084

Date File: /var/chem/gc1.i/3010c.b/a-a30139.d  
Date : 05-JUN-2000 15:02  
Client ID: DF/S1/D1B1/SDC/MS  
Sample Info: DE02210T,3010c.b  
Volume Injected (uL): 1.0  
Column phase: DB608

Instrument: gc1.i  
Operator: 01797  
Column diameter: 0.53

/var/chem/gc1.i/3010c.b/a-a30139.d



UXB INTERNATIONAL  
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.      SDG Number:  
Matrix: (soil/water) SOLID      Lab Sample ID: C0E310132 001  
Method: SW846 8151A  
Herbicides (8151A)  
Sample WT/Vol: 100 / mL      Date Received: 05/31/00  
Work Order: DE02210U      Date Extracted: 06/02/00  
Dilution factor: 1      Date Analyzed: 06/05/00  
Moisture %: 14      QC Batch: 0154362  
Client Sample Id: DF/S1/D151/SDC/005

| CAS NO. | COMPOUND          | CONCENTRATION UNITS: |   |
|---------|-------------------|----------------------|---|
|         |                   | (ug/L or ug/kg) mg/L | Q |
| 94-75-7 | 2,4-D             | 0.162                |   |
| 93-72-1 | 2,4,5-TP (Silvex) | 0.0388               |   |

6591086

Data File: /var/chem/gc1.i/3010c.b/a-a30140.d

Report Date: 05-Jun-2000 16:32

## STL-PITTSBURGH

Data file : /var/chem/gc1.i/3010c.b/a-a30140.d  
 Lab Smp Id: DE02210U Client Smp ID: DF/S1/D151/SDC/MSD  
 Inj Date : 05-JUN-2000 15:31  
 Operator : 01797 Inst ID: gc1.i  
 Smp Info : DE02210U,3010c.b  
 Misc Info : 310132001D  
 Comment :  
 Method : /var/chem/gc1.i/3010c.b/LONGH.m  
 Meth Date : 05-Jun-2000 12:06 eppinged Quant Type: ESTD  
 Cal Date : 31-MAY-2000 17:35 Cal File: a-a30099.d  
 Als bottle: 14 QC Sample: MSD  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: all.sub  
 Target Version: 3.40

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<br>( ng) | FINAL<br>( mg/L) |
| 1 DALAPON           | 3.740  | 3.740  | 0.000  | 2469577                | 0.03044            | 0.06088(aR)      |
| 2 DCAA              | 10.595 | 10.594 | 0.001  | 7355286                | 0.02782            | 0.05564(a)       |
| 3 MCPP              | 11.038 | 11.035 | 0.003  | 3111406                | 8.19852            | 16.40            |
| 4 DICAMBA           | 11.210 | 11.210 | 0.000  | 7723583                | 0.04016            | 0.08031(a)       |
| 5 MCPA              | 12.002 | 12.000 | 0.002  | 3635691                | 8.15295            | 16.30            |
| 6 DICHLOROPROP      | 12.833 | 12.834 | -0.001 | 3937045                | 0.08005            | 0.1601(a)        |
| 7 2,4-D             | 14.343 | 14.345 | -0.002 | 25728832               | 0.08101            | 0.1620(aR)       |
| 8 PENTACHLOROPHENOL | 15.576 | 15.574 | 0.002  | 627241                 | 0.00132            | 0.002632(a)      |
| 9 2,4,5-TP(SILVEX)  | 16.784 | 16.792 | -0.008 | 28153193               | 0.01941            | 0.03882(aR)      |
| 10 2,4,5-T          | 17.904 | 17.909 | -0.005 | 22593129               | 0.01946            | 0.03892(aR)      |
| 11 DINOSEB          |        |        |        | Compound Not Detected. |                    |                  |
| 12 2,4-DB           | 18.574 | 18.575 | -0.001 | 12227752               | 0.07687            | 0.1537(a)        |

Data File: /var/chem/gc1.i/3010c.b/a-a30140.d  
Report Date: 05-Jun-2000 16:32

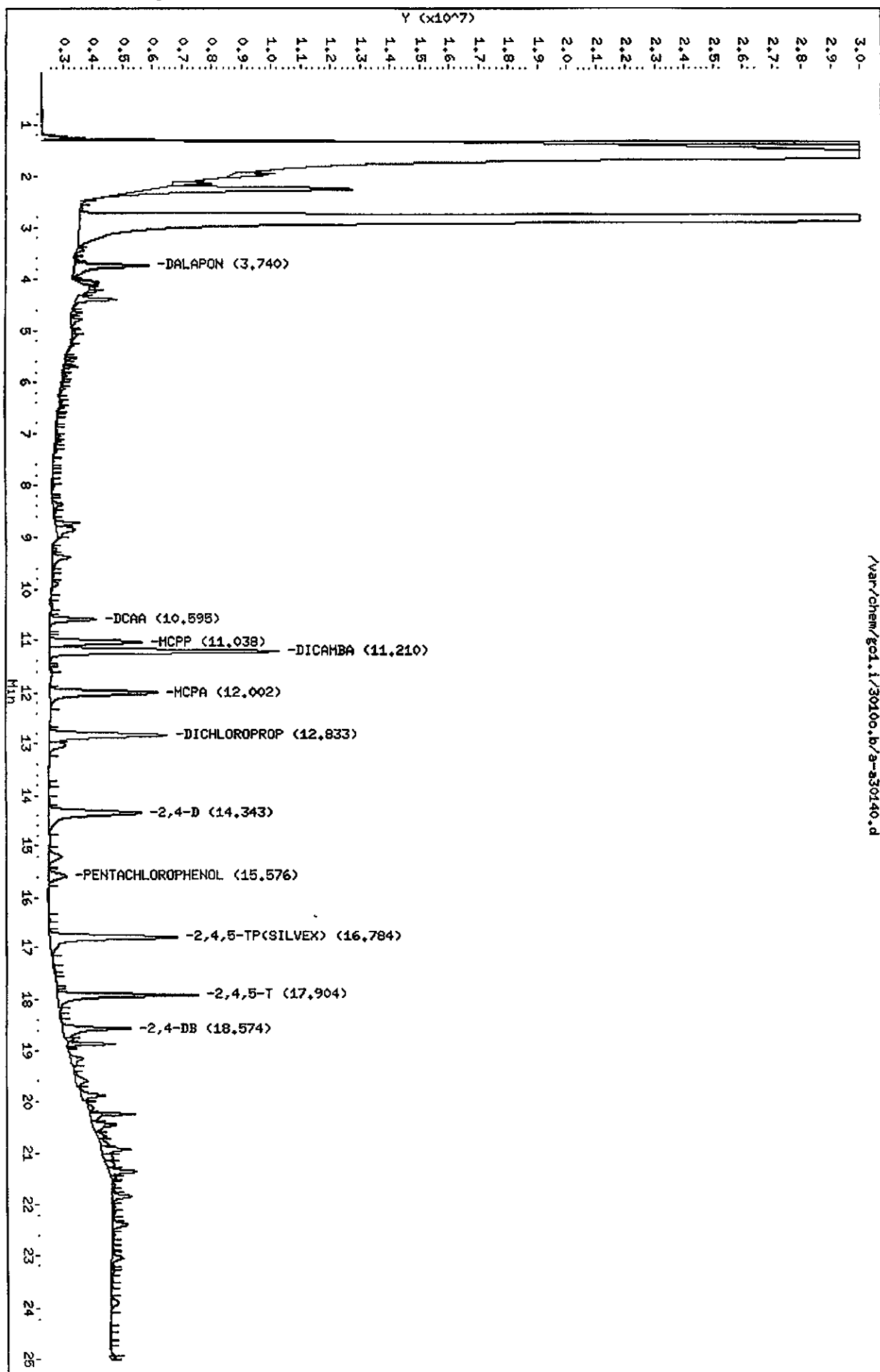
#### QC Flag Legend

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

6591088

Data File: /var/chem/gc1.1/30100.b/a-a30140.d  
Date: 05-JUN-2000 15:31  
Client ID: DF/SI/D1B1/SDC/HSD  
Sample Info: DE02210J,30100.b  
Volume Injected (uL): 1.0  
Column phase: DB608

Instrument: gc1.1  
Operator: Q1797  
Column diameter: 0.53



**HERBICIDE  
MISCELLANEOUS**

# Separatory Funnel Extraction Worksheet

204 VSCD  
STL  
TCLP

B# 0154362

HEXANE - 444279



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

| Date Extraction Began | Date Completed | Parameter | Method | Solvent            | Solvent Lot       | Solvent Mfg.          | Clear up Method  |                          |              |        |    |
|-----------------------|----------------|-----------|--------|--------------------|-------------------|-----------------------|------------------|--------------------------|--------------|--------|----|
| 6-2-00                | 6-5-00         | 8151A     | 3510C  | HEXANE             | 444279            | BAKER                 | 10-5             |                          |              |        |    |
| Lot Number            | Sample ID      | Client ID | pH     | Sample Volume (mL) | Final Volume (mL) | Surrogate Volume (mL) | Matrix Spike No. | Matrix Spike Volume (mL) | Cleanup Date |        |    |
| 1. COE 310132         | BLC            | NA        | 3/2/2  | 100 mL             | 10.0              | 190-91-4              | 1.0 mL           | NA                       | 190-91-3     | 1.0 mL | NA |
| 2.                    | LCS            |           | 5/2/2  |                    |                   |                       |                  |                          |              |        |    |
| 3.                    | 00/m5          |           |        |                    |                   |                       |                  |                          |              |        |    |
| 4.                    | 00/m50         |           |        |                    |                   |                       |                  |                          |              |        |    |
| 5.                    | 001            |           |        |                    |                   |                       |                  |                          |              |        |    |
| 6. COE 230215         | 009            |           | 6/2/2  |                    |                   |                       |                  |                          |              |        |    |
| 7.                    | 010            |           | 8/2/2  |                    |                   |                       |                  |                          |              |        |    |
| 8.                    | 011            |           | 7/2/2  |                    |                   |                       |                  |                          |              |        |    |
| 9.                    | 012            |           |        |                    |                   |                       |                  |                          |              |        |    |
| 10.                   | 013            |           |        |                    |                   |                       |                  |                          |              |        |    |
| 11.                   | 014            |           | 5/2/2  |                    |                   |                       |                  |                          |              |        |    |
| 12.                   | 015            |           |        |                    |                   |                       |                  |                          |              |        |    |
| 13.                   | 016            |           |        |                    |                   |                       |                  |                          |              |        |    |
| 14.                   | 017            |           |        |                    |                   |                       |                  |                          |              |        |    |
| 15.                   | 018            |           |        |                    |                   |                       |                  |                          |              |        |    |
| 16.                   | 019            |           |        |                    |                   |                       |                  |                          |              |        |    |
| 17.                   | 020            |           |        |                    |                   |                       |                  |                          |              |        |    |
| 18.                   | 021            |           |        |                    |                   |                       |                  |                          |              |        |    |
| 19.                   | 022            |           |        |                    |                   |                       |                  |                          |              |        |    |
| 20.                   | 023            |           |        |                    |                   |                       |                  |                          |              |        |    |
| 21. COE 260142        | 001            |           |        |                    |                   |                       |                  |                          |              |        |    |
| 22.                   |                |           |        |                    |                   |                       |                  |                          |              |        |    |
| 23.                   |                |           |        |                    |                   |                       |                  |                          |              |        |    |
| 24.                   |                |           |        |                    |                   |                       |                  |                          |              |        |    |

| Extraction(s)                   | Date   | Time | Analyst | Location  | Date   | Time | Analyst | Location |
|---------------------------------|--------|------|---------|-----------|--------|------|---------|----------|
| (Record line number from above) | 6-1-00 | 1930 | Baker   | 019 Prep. | 6-5-00 | 2050 | Baker   | RETRACT  |
| 24.1-00 ALK ALK                 | 6-5-00 | 0600 | Baker   | RETRACT   | 6-5-00 | 1130 | Baker   | RETRACT  |
| 24.1-00 ALK ALK                 | 6-5-00 | 1300 | Baker   | RETRACT   | 6-5-00 | 1330 | Baker   | RETRACT  |

## Sequence Table (Front Injector):

## Vial Information Part:

| Line | Vial | Vial Information            |
|------|------|-----------------------------|
| ==== | ==== | =====                       |
| 1    | 1    | RINSE                       |
| 2    | 2    | 190-80-1 95                 |
| 3    | 3    | 190-80-2 96                 |
| 4    | 4    | 190-80-3 97                 |
| 5    | 5    | 190-80-4 98                 |
| 6    | 6    | 190-80-5 99                 |
| 7    | 7    | <del>C0E240180001</del>     |
| 8    | 8    | <del>C0E240180002</del>     |
| 9    | 9    | <del>C0E240180MS 001</del>  |
| 10   | 10   | <del>C0E240180MSD 001</del> |
| 11   | 11   | <del>C0E240180LCS</del>     |
| 12   | 12   | <del>C0E240180BLK</del>     |
| 13   | 13   | <del>190-80-3</del>         |

## Method and Injection Info Part:

| Line | Vial | SampleName       | Method | Inj | SampleType | InjVolume | DataFile |
|------|------|------------------|--------|-----|------------|-----------|----------|
| ==== | ==== | =====            | =====  | === | =====      | =====     | =====    |
| 1    | 1    | HEXANE           | HERB   | 1   | Sample     |           |          |
| 2    | 2    | Lherb,3010c.b    | HERB   | 1   | Sample     |           |          |
| 3    | 3    | MLherb,3010c.b   | HERB   | 1   | Sample     |           |          |
| 4    | 4    | Mherb,3010c.b    | HERB   | 1   | Sample     |           |          |
| 5    | 5    | MHherb,3010c.b   | HERB   | 1   | Sample     |           |          |
| 6    | 6    | Hherb,3010c.b    | HERB   | 1   | Sample     |           |          |
| 7    | 7    | DDLX3105,3010c.b | HERB   | 1   | Sample     |           |          |
| 8    | 8    | DDLX6105,3010c.b | HERB   | 1   | Sample     |           |          |
| 9    | 9    | DDLX310P,3010c.b | HERB   | 1   | Sample     |           |          |
| 10   | 10   | DDLX310Q,3010c.b | HERB   | 1   | Sample     |           |          |
| 11   | 11   | DDTMQ102,3010c.b | HERB   | 1   | Sample     |           |          |
| 12   | 12   | DDTMQ101,3010c.b | HERB   | 1   | Sample     |           |          |
| 13   | 13   | Mherb,3010c.b    | HERB   | 1   | Sample     |           |          |

## Sequence Table (Back Injector):

## Vial Information Part:



6591092

## Sequence Table (Front Injector):

## Vial Information Part:

Line Vial Vial Information

| Line | Vial      | Vial Information |
|------|-----------|------------------|
| 1    | 1         | RINSE            |
| 2    | 2         | 190-80-3 128     |
| 3    | 3         | 010147001        |
| 4    | 4         | 010147001S 130   |
| 5    | 5         | 010147001D       |
| 6    | <u>6</u>  | 010147002        |
| 7    | 7         | 010146001        |
| 8    | 8         | 010149001        |
| 9    | <u>9</u>  | 010149002 135    |
| 10   | <u>10</u> | 010147BLK        |
| 11   | <u>11</u> | 010147LCS        |
| 12   | 12        | 310132001        |
| 13   | 13        | 310132001S       |
| 14   | 14        | 310132001D 140   |
| 15   | <u>15</u> | 230215009        |
| 16   | 16        | 230215010        |
| 17   | 17        | 230215011        |
| 18   | 18        | 230215012        |
| 19   | 19        | 230215013 145    |
| 20   | 20        | 230215014        |
| 21   | 21        | 310132BLK        |
| 22   | 22        | 310132LCS        |
| 23   | 23        | 190-80-3         |
| 24   | 24        | 230215015 150    |
| 25   | 25        | 230215016        |

A

2/26/00

| Line | Vial | Vial Information     |
|------|------|----------------------|
| 26   | 26   | 230215017            |
| 27   | 27   | 230215018            |
| 28   | 28   | 230215019            |
| 29   | 29   | 230215020 <i>155</i> |
| 30   | 30   | 230215021            |
| 31   | 31   | 230215022            |
| 32   | 32   | 230215023            |
| 33   | 33   | 260142001            |
| 34   | 34   | 190-80-3 <i>160</i>  |

## Method and Injection Info Part:

| Line | Vial | SampleName        | Method | Inj | SampleType | InjVolume | DataFile |
|------|------|-------------------|--------|-----|------------|-----------|----------|
| 1    | 1    | HEXANE            | HERB   | 1   | Sample     |           |          |
| 2    | 2    | Mherb,3010c.b     | HERB   | 1   | Sample     |           |          |
| 3    | 3    | DE1VN102,3010c.b  | HERB   | 1   | Sample     |           |          |
| 4    | 4    | DE1VN105,3010c.b  | HERB   | 1   | Sample     |           |          |
| 5    | 5    | DE1VN106,3010c.b  | HERB   | 1   | Sample     |           |          |
| 6    | 6    | DE1VP102,3010c.b  | HERB   | 1   | Sample     |           |          |
| 7    | 7    | DE1VJ102,3010c.b  | HERB   | 1   | Sample     |           |          |
| 8    | 8    | DE1VX101,3010c.b  | HERB   | 1   | Sample     |           |          |
| 9    | 9    | DE1W0101,3010c.b  | HERB   | 1   | Sample     |           |          |
| 10   | 10   | DE34L101,3010c.b  | HERB   | 1   | Sample     |           |          |
| 11   | 11   | DE34L102,3010c.b  | HERB   | 1   | Sample     |           |          |
| 12   | 12   | DE022105,3010c.b  | HERB   | 1   | Sample     |           |          |
| 13   | 13   | DE02210T,3010c.b  | HERB   | 1   | Sample     |           |          |
| 14   | 14   | DE02210U,3010c.b  | HERB   | 1   | Sample     |           |          |
| 15   | 15   | DDKFG104,3010c.b  | HERB   | 1   | Sample     |           |          |
| 16   | 16   | DDKFK104,3010c.b  | HERB   | 1   | Sample     |           |          |
| 17   | 17   | DDKFKJ104,3010c.b | HERB   | 1   | Sample     |           |          |
| 18   | 18   | DDKFK104,3010c.b  | HERB   | 1   | Sample     |           |          |
| 19   | 19   | DDKFL104,3010c.b  | HERB   | 1   | Sample     |           |          |
| 20   | 20   | DDKFM104,3010c.b  | HERB   | 1   | Sample     |           |          |
| 21   | 21   | DE533101,3010c.b  | HERB   | 1   | Sample     |           |          |
| 22   | 22   | DE533102,3010c.b  | HERB   | 1   | Sample     |           |          |
| 23   | 23   | Mherb,3010c.b     | HERB   | 1   | Sample     |           |          |
| 24   | 24   | DDKFN104,3010c.b  | HERB   | 1   | Sample     |           |          |
| 25   | 25   | DDKFP103,3010c.b  | HERB   | 1   | Sample     |           |          |
| 26   | 26   | DDKFQ103,3010c.b  | HERB   | 1   | Sample     |           |          |
| 27   | 27   | DDKFR103,3010c.b  | HERB   | 1   | Sample     |           |          |
| 28   | 28   | DDKFRV103,3010c.b | HERB   | 1   | Sample     |           |          |
| 29   | 29   | DDKFW103,3010c.b  | HERB   | 1   | Sample     |           |          |
| 30   | 30   | DDKFX103,3010c.b  | HERB   | 1   | Sample     |           |          |
| 31   | 31   | DDKG3103,3010c.b  | HERB   | 1   | Sample     |           |          |
| 32   | 32   | DDKG5103,3010c.b  | HERB   | 1   | Sample     |           |          |
| 33   | 33   | DDRLV105,3010c.b  | HERB   | 1   | Sample     |           |          |

| Line | Vial | SampleName    | Method | Inj | SampleType | InjVolume | DataFile |
|------|------|---------------|--------|-----|------------|-----------|----------|
| 34   | 34   | Mherb,3010c.b | HERB   | 1   | Sample     |           |          |

## Sequence Table (Back Injector):

## Vial Information Part:

| Line | Vial | Vial Information |
|------|------|------------------|
| 1    | 100  | RINSE            |
| 2    | 1    | RINSE            |
| 3    | 2    | 190-80-3         |
| 4    | 3    | 010147001        |
| 5    | 4    | 010147001S       |
| 6    | 5    | 010147001D       |
| 7    | 6    | 010147002        |
| 8    | 7    | 010146001        |
| 9    | 8    | 010149001        |
| 10   | 9    | 010149002        |
| 11   | 10   | 010147BLK        |
| 12   | 11   | 010147LCS        |
| 13   | 12   | 310132001        |
| 14   | 13   | 310132001S       |
| 15   | 14   | 310132001D       |
| 16   | 15   | 230215009        |
| 17   | 16   | 230215010        |
| 18   | 17   | 230215011        |
| 19   | 18   | 230215012        |
| 20   | 19   | 230215013        |
| 21   | 20   | 230215014        |
| 22   | 21   | 310132BLK        |
| 23   | 22   | 310132LCS        |

DE  
6500

PSR024 6/02/00 11:47:07 MT

## SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 001

REQUESTED BY: PINOB

METHOD: QS Herbicides (8151A)

| <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> |
|-------------------------|---------------------|---------------------|------------------|-----------------|-----------------|--------------|-------------|------------|---------------------------|-----------------|-----------------|
| 6A                      | DDKFG-1-04          | ___                 | 237758           | 131369          | A-64-QS         | COE230215    | 009         |            | SOLID                     | 0               | 4 1             |
| 6A                      | DDKFH-1-04          | ___                 | 237759           | 131369          | A-64-QS         | COE230215    | 010         |            | SOLID                     | 0               | 4 1             |
| 6A                      | DDKFJ-1-04          | ___                 | 237760           | 131369          | A-64-QS         | COE230215    | 011         |            | SOLID                     | 0               | 4 1             |
| 6A                      | DDKFK-1-04          | ___                 | 237761           | 131369          | A-64-QS         | COE230215    | 012         |            | SOLID                     | 0               | 4 1             |
| 6A                      | DDKFL-1-04          | ___                 | 237762           | 131369          | A-64-QS         | COE230215    | 013         |            | SOLID                     | 0               | 4 1             |
| 6A                      | DDKFM-1-04          | ___                 | 237763           | 131369          | A-64-QS         | COE230215    | 014         |            | SOLID                     | 0               | 4 1             |
| 6A                      | DDKFN-1-04          | ___                 | 237764           | 131369          | A-64-QS         | COE230215    | 015         |            | SOLID                     | 0               | 4 1             |
| 6A                      | DDKFP-1-03          | ___                 | 237765           | 131369          | A-64-QS         | COE230215    | 016         |            | SOLID                     | 0               | 2 1             |
| 6A                      | DDKFQ-1-03          | ___                 | 237766           | 131369          | A-64-QS         | COE230215    | 017         |            | SOLID                     | 0               | 2 1             |
| 6A                      | DDKFR-1-03          | ___                 | 237767           | 131369          | A-64-QS         | COE230215    | 018         |            | SOLID                     | 0               | 2 1             |
| 6A                      | DDKFS-1-03          | ___                 | 237768           | 131369          | A-64-QS         | COE230215    | 019         |            | SOLID                     | 0               | 2 1             |
| 6A                      | DDKFW-1-03          | ___                 | 237769           | 131369          | A-64-QS         | COE230215    | 020         |            | SOLID                     | 0               | 2 1             |
| 6A                      | DDKFX-1-03          | ___                 | 237770           | 131369          | A-64-QS         | COE230215    | 021         |            | SOLID                     | 0               | 2 1             |
| 6A                      | DDKG3-1-03          | ___                 | 237771           | 131369          | A-64-QS         | COE230215    | 022         |            | SOLID                     | 0               | 2 1             |
| 6A                      | DDKG5-1-03          | ___                 | 237772           | 131369          | A-64-QS         | COE230215    | 023         |            | SOLID                     | 0               | 2 1             |
| 6E CLP1                 | DDRLV-1-05          | ___                 | 237773           | 375241          | A-64-QS         | COE260142    | 001         |            | SOLID                     | 0               | 5 1             |
| 7E CLP1                 | DE022-1-05          | ___                 | 237774           | 399411          | A-64-QS         | COE310132    | 001         | DL         | SOLID                     | 0               | 3 1             |

6591096

PSR024 6/02/00 11:47:07 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 002

REQUESTED BY: PINOB

METHOD: QS Herbicides (8151A)

| <u>STORAGE LOCATION</u> | <u>WORK ORDER #</u> | <u>PICKED</u><br><u>CNTR#</u> | <u>CONTROL #</u> | <u>CLIENT #</u> | <u>ANALYSIS</u> | <u>LOTID</u> | <u>SMP#</u> | <u>SFX</u> | <u>MATRIX</u><br><u>DESCRIPTION</u> | <u>QTY</u><br><u>RCVD</u> | <u>QTY</u><br><u>REQD</u> |
|-------------------------|---------------------|-------------------------------|------------------|-----------------|-----------------|--------------|-------------|------------|-------------------------------------|---------------------------|---------------------------|
|-------------------------|---------------------|-------------------------------|------------------|-----------------|-----------------|--------------|-------------|------------|-------------------------------------|---------------------------|---------------------------|

RELINQUISHED BY

RECEIVED BY

DATE/TIME

*Brian A. Piro*

*Brian A. Piro*

6-2-00 1400

*Brian A. Piro*

*Brian A. Piro*

6-2-00 1700

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

**METALS DATA**

**STL-Pittsburgh****Cover Page - Inorganic Analysis Data Package**

| <u>Client ID</u>           | <u>Lab Sample ID:</u> |
|----------------------------|-----------------------|
| <u>DF/S1/D151/SDC/005</u>  | <u>DE022</u>          |
| <u>DF/S1/D151/SDC/005D</u> | <u>DE022D</u>         |
| <u>DF/S1/D151/SDC/005S</u> | <u>DE022S</u>         |

**Comments:** UXB DUNN FIELD  
C0E310132  
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: <u>mtw</u> |
| DATE: <u>6-6-00</u>     |

**METALS  
RESULTS**



6591100

## STL-Pittsburgh

## Metals Data Reporting Form

Sample Results

Lab Sample ID: DE022 Client ID: DF/S1/D151/SDC/005  
Matrix: Soil Units: mg/kg Prep Date: 6/2/00 Prep Batch: 0154244  
Weight: 1.00 Volume: 100 Percent Moisture: 85.54

| Element | WL/<br>Mass | MDL | Report<br>Limit | Conc | Q | DF | Instr | Anal<br>Date | Anal<br>Time |
|---------|-------------|-----|-----------------|------|---|----|-------|--------------|--------------|
| Arsenic | 189.04      | 1.8 | 6.9             | 56.7 |   | 1  | ICPST | 6/5/00       | 10:44        |

Comments: Lot #: C0E310132 Sample #: 1

Version 3.63.4

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: ICPSTUnits: ug/LChart Number: T00605A.ARCAcceptable Range: 90% - 110%Standard Source: Inorganic VenturesStandard ID: 0014-110-4

|         |             |              | ICV3-1<br>6/5/00<br>8:41 AM |          |       |          |       |          |       |          |
|---------|-------------|--------------|-----------------------------|----------|-------|----------|-------|----------|-------|----------|
| Element | WL/<br>Mass | True<br>Conc | Found                       | %<br>Rec | Found | %<br>Rec | Found | %<br>Rec | Found | %<br>Rec |
| Arsenic | 189.042     | 250.0        | 258.90                      | 103.6    |       |          |       |          |       |          |

# STL-Pittsburgh

6591102

## Metals Data Reporting Form

### Continuing Calibration Verification

Instrument: ICPST

Units: ug/L

Chart Number: T00605A.ARC

Acceptable Range: 90% - 110%

Standard Source: Inorganic Ventures

Standard ID: 0014-110-3

| Element | WL/<br>Mass | True<br>Conc | CCV3-1<br>6/5/00<br>9:33 AM |          | CCV3-2<br>6/5/00<br>10:23 AM |          | CCV3-3<br>6/5/00<br>11:13 AM |          |       |          |
|---------|-------------|--------------|-----------------------------|----------|------------------------------|----------|------------------------------|----------|-------|----------|
|         |             |              | Found                       | %<br>Rec | Found                        | %<br>Rec | Found                        | %<br>Rec | Found | %<br>Rec |
| Arsenic | 189.042     | 500.0        | 520.06                      | 104.0    | 521.51                       | 104.3    | 515.61                       | 103.1    |       |          |

## STL-Pittsburgh

## Metals Data Reporting Form

## Initial Calibration Blank Results

Instrument: ICPSTUnits: ug/LChart Number: T00605A.ARC

Standard Source: \_\_\_\_\_

Standard ID: \_\_\_\_\_

|         |             |                 | ICB1<br>6/5/00<br>8:46 AM |   |       |   |       |   |
|---------|-------------|-----------------|---------------------------|---|-------|---|-------|---|
| Element | WL/<br>Mass | Report<br>Limit | Found                     | Q | Found | Q | Found | Q |
| Arsenic | 189.042     | 10              | 2.6                       | U |       |   |       |   |

6591104

## STL-Pittsburgh

## Metals Data Reporting Form

## Continuing Calibration Blank Results

Instrument: ICPSTUnits: ug/LChart Number: T00605A.ARC

Standard Source: \_\_\_\_\_

Standard ID: \_\_\_\_\_

| Element | WL/<br>Mass | Report<br>Limit | CCB1<br>6/5/00<br>9:38 AM | CCB2<br>6/5/00<br>10:27 AM | CCB3<br>6/5/00<br>11:17 AM |            |            |
|---------|-------------|-----------------|---------------------------|----------------------------|----------------------------|------------|------------|
|         |             |                 | Found    Q                | Found    Q                 | Found    Q                 | Found    Q | Found    Q |
| Arsenic | 189.042     | 10              | 2.6    U                  | 2.6    U                   | 2.6    U                   |            |            |

**STL-Pittsburgh**  
**Metals Data Reporting Form**

**Preparation Blank Results****Lab Sample ID:** DE3QGB**Matrix:** Soil      **Units:** mg/kg      **Prep Date:** 6/2/00      **Prep Batch:** 0154244**Weight:** 1.00      **Volume:** 100      **Percent Moisture:** NA

| Element | WL/<br>Mass | MDL  | Report<br>Limit | Conc | Q | DF | Instr | Anal<br>Date | Anal<br>Time |
|---------|-------------|------|-----------------|------|---|----|-------|--------------|--------------|
| Arsenic | 189.042     | 0.26 | 1.0             | 0.26 | U | 1  | ICPST | 6/5/00       | 10:36        |

**Comments:** Lot #: C0E310132

Version 3.63.4

U Result is less than the MDL  
B Result is between MDL and RL*Form 3 Equivalent*

## STL-Pittsburgh

6591106

## Metals Data Reporting Form

## Interference Check Standard A

Instrument: ICPSTUnits: ug/LChart Number: T00605A.ARCAcceptable Range: 0% - 0%Standard Source: Inorganic VenturesStandard ID: 0014-088-12

| Element | WL/<br>Mass | Reporting<br>Limit | True<br>Conc | ICSA<br>6/5/00<br>8:50 AM |       |       |       |       |
|---------|-------------|--------------------|--------------|---------------------------|-------|-------|-------|-------|
|         |             |                    |              | Found                     | Found | Found | Found | Found |
| Arsenic | 189.042     | 10                 |              | 2                         |       |       |       |       |

## Metals Data Reporting Form

## Interference Check Standard AB

Instrument: ICPSTUnits: ug/LChart Number: T00605A.ARCAcceptable Range: 80% - 120%Standard Source: Inorganic VenturesStandard ID: 0014-075-12

|         |             |              | ICSAB<br>6/5/00<br>8:54 AM |          |       |          |       |          |       |          |
|---------|-------------|--------------|----------------------------|----------|-------|----------|-------|----------|-------|----------|
| Element | WL/<br>Mass | True<br>Conc | Found                      | %<br>Rec | Found | %<br>Rec | Found | %<br>Rec | Found | %<br>Rec |
| Arsenic | 189.042     | 1000         | 1026.8                     | 102.7    |       |          |       |          |       |          |



6591108

## STL-Pittsburgh

## Metals Data Reporting Form

## Matrix Spike Sample Results

Spike Sample ID: DE022S

Original Sample ID: DE022

Client ID: DF/S1/D151/SDC/005S

Matrix: Soil Units: mg/kg

Prep Date: 6/2/00

Prep Batch: 0154244

Weight: 1.00 Volume: 100

Percent Moisture: 85.54

| Element | WL/<br>Mass | OS<br>Conc | Q | MS<br>Conc | Q | Spike<br>Level | %<br>Rec | OS<br>DF | MS<br>DF | Instr | OS<br>Anal<br>Date | OS<br>Anal<br>Time | MS<br>Anal<br>Date | MS<br>Anal<br>Time |
|---------|-------------|------------|---|------------|---|----------------|----------|----------|----------|-------|--------------------|--------------------|--------------------|--------------------|
| Arsenic | 189.0       | 56.7       |   | 1320       |   | 1383.1         | 91.2     | 1        | 1        | ICPST | 6/5/00             | 10:44              | 6/5/00             | 10:52              |

Comments: Lot #: C0E310132 Sample #: 1

Version 3.63.4

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 Sample Results

Spike Sample ID: DE022D  
 Original Sample ID: DE022 Client ID: DF/S1/D151/SDC/005D  
 Matrix: Soil Units: mg/kg Prep Date: 6/2/00 Prep Batch: 0154244  
 Weight: 1.00 Volume: 100 Percent Moisture: 85.54

| Element | WL/<br>Mass | OS<br>Conc | Q | MSD<br>Conc | Q | Spike<br>Level | %<br>Rec | OS<br>DF | MSD<br>DF | Instr | OS<br>Anal<br>Date | OS<br>Anal<br>Time | MSD<br>Anal<br>Date | MSD<br>Anal<br>Time |
|---------|-------------|------------|---|-------------|---|----------------|----------|----------|-----------|-------|--------------------|--------------------|---------------------|---------------------|
| Arsenic | 189.0       | 56.7       |   | 1300        |   | 1383.1         | 89.9     | 1        | 1         | ICPST | 6/5/00             | 10:44              | 6/5/00              | 11:09               |

Comments: Lot #: C0E310132 Sample #: 1

Version 3.63.4

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 SA Equivalent

6591110

## STL-Pittsburgh

## Metals Data Reporting Form

## Matrix Spike Duplicate RPD Report

Matrix Spike Duplicate Sample ID: DE022DMatrix Spike Sample ID: DE022S Client ID: DF/S1/D151/SDC/005DMatrix: Soil Units: mg/kg Prep Date: 6/2/00 Prep Batch: 0154244Weight: 1.00 Volume: 100 Percent Moisture: 85.54

| Element | WL/<br>Mass | MS<br>Conc | Q | MSD<br>Conc | Q | RPD   | MS<br>DF | MSD<br>DF | Instr | MS<br>Anal<br>Date | MS<br>Anal<br>Time | MSD<br>Anal<br>Date | MSD<br>Anal<br>Time |
|---------|-------------|------------|---|-------------|---|-------|----------|-----------|-------|--------------------|--------------------|---------------------|---------------------|
| Arsenic | 189.042     | 1320       |   | 1300        |   | 1.4 % | 1        | 1         | ICPST | 6/5/00             | 10:52              | 6/5/00              | 11:09               |

Comments: Lot #: C0E310132 Sample #: 1

Version 3.63.4

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

## STL-Pittsburgh

## Metals Data Reporting Form

## Laboratory Control Sample Results

Lab Sample ID: DE3QGCMatrix: Soil Units: mg/kg Prep Date: 6/2/00 Prep Batch: 0154244Weight: 1.00 Volume: 100 Percent Moisture: NA

| Element | WL/<br>Mass | Spike<br>Level | Conc | Percent<br>Recovery | Q | Range  | DF | Instr | Anal<br>Date | Anal<br>Time |
|---------|-------------|----------------|------|---------------------|---|--------|----|-------|--------------|--------------|
| Arsenic | 189.042     | 200            | 212  | 106.1               |   | 80-120 | 1  | ICPST | 6/5/00       | 10:40        |

Comments: Lot #: C0E310132

Version 3.63.4

STL Pittsburgh

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

Form 7 Equivalent

5015

6591112

## STL-Pittsburgh

## Metals Data Reporting Form

## Serial Dilution RPD Report

Serial Dilution Sample ID: DE022POriginal Sample ID: DE022 Client ID: DF/S1/D151/SDC/005Matrix: Soil Units: mg/kg Prep Date: 6/2/00 Prep Batch: 0154244Weight: 1.00 Volume: 100 Percent Moisture: 85.54

| Element | WL/<br>Mass | OS<br>Conc | Q | Serial<br>Dilution<br>Conc | Q | Percent<br>Diff | OS<br>DF | Ser<br>Dil<br>DF | Instr | OS<br>Anal<br>Date | OS<br>Anal<br>Time | Ser Dil<br>Anal<br>Date | Ser Dil<br>Anal<br>Time |
|---------|-------------|------------|---|----------------------------|---|-----------------|----------|------------------|-------|--------------------|--------------------|-------------------------|-------------------------|
| Arsenic | 189.042     | 56.7       |   | 62.3                       |   |                 | 1        | 5                | ICPST | 6/5/00             | 10:44              | 6/5/00                  | 10:48                   |

Comments: \_\_\_\_\_

Version 3.63.4

U Result is less than the MDL

Form 9 Equivalent

B Result is between MDL and RL

E Serial dilution percent difference not within limits

## STL-Pittsburgh

## Metals Data Reporting Form

Instrument Detection Limits

---

Instrument: ICPSTUnits: ppb

| Element | Wavelength<br>/Mass | Reporting<br>Limit | MDL | Date of MDL |
|---------|---------------------|--------------------|-----|-------------|
| Arsenic | 189.04              | 10                 | 2.6 | 4/1/00      |

## STL-Pittsburgh

6591114

## Metals Data Reporting Form

Inter-Element Correction FactorsInstrument: ICPSTDate of IEC's: 5/30/00

| Interfering Element | Wavelength /Mass | Correction Factor(s)                                                                             |
|---------------------|------------------|--------------------------------------------------------------------------------------------------|
| Aluminum            | 308.215          | Pb(0.000457), Se(0.00001), Tl(-0.00002)                                                          |
| Aluminum            | 308.215          | Pb(-0.000157), Se(0.000011)                                                                      |
| Chromium            | 267.716          | Sb(0.006664)                                                                                     |
| Chromium            | 267.716          | As(-0.002441), Sb(0.010481)                                                                      |
| Cobalt              | 228.616          | Se(-0.000324)                                                                                    |
| Cobalt              | 228.616          | Cd(-0.000111), Fe(0.08869), Ni(-0.00066), Se(0.000351), Tl(0.002179)                             |
| Iron                | 271.441          | Cd(0.000111), Pb(0.000107), Sb(0.000019), Se(-0.000024), V(-0.000349), Zn(0.000127)              |
| Iron                | 271.441          | Pb(0.000054), Sb(0.000021), Se(-0.000313)                                                        |
| Magnesium           | 279.078          | Fe(-0.000306)                                                                                    |
| Manganese           | 257.61           | Tl(-0.006029)                                                                                    |
| Molybdenum          | 202.03           | Pb(-0.00068), Sb(-0.009237)                                                                      |
| Molybdenum          | 202.03           | Al(0.011136), As(-0.002441), Cr(-0.000312), Pb(-0.000307), Sb(-0.002657)                         |
| Nickel              | 231.604          | Pb(0.000247), Sb(-0.000886), Zn(0.004557)                                                        |
| Nickel              | 231.604          | Pb(0.000124)                                                                                     |
| Vanadium            | 292.402          | Al(0.02185), Be(-0.0083), Cr(-0.000183), Fe(0.007812), Sb(-0.007991), Se(0.000216), Tl(0.001386) |
| Vanadium            | 292.402          | Pb(-0.000475), Se(0.000099)                                                                      |

## STL-Pittsburgh

## Metals Data Reporting Form

Linear Dynamic Ranges

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Instrument: ICPSTUnits: ppb

| Element | Wavelength<br>/Mass | Linear<br>Range | Date of Linear<br>Range |
|---------|---------------------|-----------------|-------------------------|
| Arsenic | 189.04              | 10000           | 3/15/00                 |



6591116

**STL-Pittsburgh**  
**Metals Data Reporting Form**

Preparation Log

**Preparation Batch:** 0154244    **Instrument:** ICP    **Matrix:** Soil

| Sample ID | Prep Date | Weight (g) | Volume (ml) | % Moisture |
|-----------|-----------|------------|-------------|------------|
| DE3QGB    | 6/2/00    | 1.00       | 100         | NA         |
| DE3QGC    | 6/2/00    | 1.00       | 100         | NA         |
| DE022     | 6/2/00    | 1.00       | 100         | 85.54      |
| DE022D    | 6/2/00    | 1.00       | 100         | 85.54      |
| DE022S    | 6/2/00    | 1.00       | 100         | 85.54      |

## Metals Data Reporting Form

Instrument Runlog

Instrument: ICPSTChart Number: T00605A.ARC

| Sample Name | Date of Analysis | Time of Analysis |
|-------------|------------------|------------------|
| ZZZZZZ      | 6/5/00           | 7:52 AM          |
| ZZZZZZ      | 6/5/00           | 7:57 AM          |
| ZZZZZZ      | 6/5/00           | 8:01 AM          |
| ZZZZZZ      | 6/5/00           | 8:05 AM          |
| ZZZZZZ      | 6/5/00           | 8:09 AM          |
| ZZZZZZ      | 6/5/00           | 8:13 AM          |
| ZZZZZZ      | 6/5/00           | 8:17 AM          |
| STD1        | 6/5/00           | 8:29 AM          |
| STD6        | 6/5/00           | 8:34 AM          |
| STD7        | 6/5/00           | 8:38 AM          |
| ICV3-1      | 6/5/00           | 8:41 AM          |
| ICB1        | 6/5/00           | 8:46 AM          |
| ICSA        | 6/5/00           | 8:50 AM          |
| ICSAB       | 6/5/00           | 8:54 AM          |
| ZZZZZZ      | 6/5/00           | 9:00 AM          |
| ZZZZZZ      | 6/5/00           | 9:04 AM          |
| ZZZZZZ      | 6/5/00           | 9:09 AM          |
| ZZZZZZ      | 6/5/00           | 9:13 AM          |
| ZZZZZZ      | 6/5/00           | 9:17 AM          |
| ZZZZZZ      | 6/5/00           | 9:21 AM          |
| ZZZZZZ      | 6/5/00           | 9:25 AM          |
| ZZZZZZ      | 6/5/00           | 9:29 AM          |
| CCV3-1      | 6/5/00           | 9:33 AM          |
| CCB1        | 6/5/00           | 9:38 AM          |
| ZZZZZZ      | 6/5/00           | 9:42 AM          |
| ZZZZZZ      | 6/5/00           | 9:46 AM          |
| ZZZZZZ      | 6/5/00           | 9:50 AM          |
| ZZZZZZ      | 6/5/00           | 9:54 AM          |
| ZZZZZZ      | 6/5/00           | 9:58 AM          |
| ZZZZZZ      | 6/5/00           | 10:03 AM         |
| ZZZZZZ      | 6/5/00           | 10:07 AM         |
| ZZZZZZ      | 6/5/00           | 10:11 AM         |
| ZZZZZZ      | 6/5/00           | 10:15 AM         |
| ZZZZZZ      | 6/5/00           | 10:19 AM         |
| CCV3-2      | 6/5/00           | 10:23 AM         |
| CCB2        | 6/5/00           | 10:27 AM         |
| ZZZZZZ      | 6/5/00           | 10:32 AM         |
| DE3QGB      | 6/5/00           | 10:36 AM         |
| DE3QGC      | 6/5/00           | 10:40 AM         |
| DE022       | 6/5/00           | 10:44 AM         |
| DE022P      | 6/5/00           | 10:48 AM         |

6591118

**STL-Pittsburgh**  
**Metals Data Reporting Form**

Instrument Runlog

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Instrument: ICPSTChart Number: T00605A.ARC

| Sample Name | Date of Analysis | Time of Analysis |
|-------------|------------------|------------------|
| DE022S      | 6/5/00           | 10:52 AM         |
| ZZZZZZ      | 6/5/00           | 10:56 AM         |
| ZZZZZZ      | 6/5/00           | 11:01 AM         |
| DE022D      | 6/5/00           | 11:09 AM         |
| CCV3-3      | 6/5/00           | 11:13 AM         |
| CCB3        | 6/5/00           | 11:17 AM         |

**METALS  
RAW DATA**

# Sample Name *Remix 4 juv 6500* AS

|    |                   |                    |
|----|-------------------|--------------------|
| 1  | STD1              | -.01421            |
| 2  | STD6              | 6.31302            |
| 3  | STD7              |                    |
| 4  | ICV3-1 0014-110-4 | .25890             |
| 5  | ICB1              | .00087             |
| 6  | ICSA 0014-088-12  | .00229             |
| 7  | ICSAB 0014-075-12 | 1.0268             |
| 8  | DEQ1QB            | -.00031            |
| 9  | DEQ1QC            | 1.8388             |
| 10 | DDVK3             | .07060             |
| 11 | DDVK3P5           | .01491             |
| 12 | DDVK3S            | 1.8716             |
| 13 | DDVK3D            | 1.8990             |
| 14 | DDVK4             | .03701             |
| 15 | DDVK5             | .12089             |
| 16 | CCV3-1 0014-110-3 | .52006             |
| 17 | CCB1              | .00041             |
| 18 | DDVK6             | .04671             |
| 19 | DDVK7             | .11183             |
| 20 | DDVK8             | .03351             |
| 21 | DDVQC             | .17675             |
| 22 | DE5W2B            | .00111             |
| 23 | DE5W2C            | 2.0668             |
| 24 | DE44M             | .07527             |
| 25 | DE44MP5           | .01669             |
| 26 | DE44MS            | 1.8960             |
| 27 | DE44MD            | .07556             |
| 28 | CCV3-2            | .52151             |
| 29 | CCB2              | .00077             |
| 30 | DE44MD            | 1.8992             |
| 31 | DE3QGB            | .00030             |
| 32 | DE3QGC            | 2.1222             |
| 33 | DEQ22             | .08201             |
| 34 | DEQ22P5           | .01801             |
| 35 | DEQ22S            | 1.9056             |
| 36 | DEQ22D            | <del>.00219</del>  |
| 37 | CCV3-3            | <del>1.00196</del> |
| 38 | DEQ22D            | 1.8795             |
| 39 | CCV3-3            | .51561             |
| 40 | CCB3              | .00096             |

Note: samples DE44MD & DE44Q mislabeled during prep.  
 Review of data indicated mix-up and sample ID's  
 were corrected on run. Also, no samples were in autosampler  
 tray for analyses of seg # 30, & 31. Tray was loaded upon discovery,  
 and DEQ22D, CCV33, CCB3 were analyzed.  
*RB 6500*

PB 6500

| #  | Sample Name       | File    | Method | Date     | Time  | OpID | Type | Mode |
|----|-------------------|---------|--------|----------|-------|------|------|------|
| 1  | STD1              | T00605A | METTRA | 06/05/00 | 08:29 |      | X    | IR   |
| 2  | STD6              | T00605A | METTRA | 06/05/00 | 08:34 |      | X    | IR   |
| 3  | STD7              | T00605A | METTRA | 06/05/00 | 08:38 |      | X    | IR   |
| 4  | ICV3-1 0014-110-4 | T00605A | METTRA | 06/05/00 | 08:41 | RJG  | S    | CONC |
| 5  | ICB1              | T00605A | METTRA | 06/05/00 | 08:46 | RJG  | S    | CONC |
| 6  | ICSA 0014-088-12  | T00605A | METTRA | 06/05/00 | 08:50 | RJG  | Q    | CONC |
| 7  | ICSAB 0014-075-12 | T00605A | METTRA | 06/05/00 | 08:54 | RJG  | Q    | CONC |
| 8  | DEQ1QB            | T00605A | METTRA | 06/05/00 | 09:00 | RJG  | S    | CONC |
| 9  | DEQ1QC            | T00605A | METTRA | 06/05/00 | 09:04 | RJG  | S    | CONC |
| 10 | DDVK3             | T00605A | METTRA | 06/05/00 | 09:09 | RJG  | S    | CONC |
| 11 | DDVK3P5           | T00605A | METTRA | 06/05/00 | 09:13 | RJG  | S    | CONC |
| 12 | DDVK3S            | T00605A | METTRA | 06/05/00 | 09:17 | RJG  | S    | CONC |
| 13 | DDVK3D            | T00605A | METTRA | 06/05/00 | 09:21 | RJG  | S    | CONC |
| 14 | DDVK4             | T00605A | METTRA | 06/05/00 | 09:25 | RJG  | S    | CONC |
| 15 | DDVK5             | T00605A | METTRA | 06/05/00 | 09:29 | RJG  | S    | CONC |
| 16 | CCV3-1 0014-110-3 | T00605A | METTRA | 06/05/00 | 09:33 | RJG  | S    | CONC |
| 17 | CCB1              | T00605A | METTRA | 06/05/00 | 09:38 | RJG  | S    | CONC |
| 18 | DDVK6             | T00605A | METTRA | 06/05/00 | 09:42 | RJG  | S    | CONC |
| 19 | DDVK7             | T00605A | METTRA | 06/05/00 | 09:46 | RJG  | S    | CONC |
| 20 | DDVK8             | T00605A | METTRA | 06/05/00 | 09:50 | RJG  | S    | CONC |
| 21 | DDVQC             | T00605A | METTRA | 06/05/00 | 09:54 | RJG  | S    | CONC |
| 22 | DE5W2B            | T00605A | METTRA | 06/05/00 | 09:58 | RJG  | S    | CONC |
| 23 | DE5W2C            | T00605A | METTRA | 06/05/00 | 10:03 | RJG  | S    | CONC |
| 24 | DE44M             | T00605A | METTRA | 06/05/00 | 10:07 | RJG  | S    | CONC |
| 25 | DE44MP5           | T00605A | METTRA | 06/05/00 | 10:11 | RJG  | S    | CONC |
| 26 | DE44MS            | T00605A | METTRA | 06/05/00 | 10:15 | RJG  | S    | CONC |
| 27 | DE44MD Q          | T00605A | METTRA | 06/05/00 | 10:19 | RJG  | S    | CONC |
| 28 | CCV3-2            | T00605A | METTRA | 06/05/00 | 10:23 | RJG  | S    | CONC |
| 29 | CCB2              | T00605A | METTRA | 06/05/00 | 10:27 | RJG  | S    | CONC |
| 30 | DE44Q MD          | T00605A | METTRA | 06/05/00 | 10:32 | RJG  | S    | CONC |
| 31 | DE3QGB            | T00605A | METTRA | 06/05/00 | 10:36 | RJG  | S    | CONC |
| 32 | DE3QGC            | T00605A | METTRA | 06/05/00 | 10:40 | RJG  | S    | CONC |
| 33 | DE22              | T00605A | METTRA | 06/05/00 | 10:44 | RJG  | S    | CONC |
| 34 | DE22P5            | T00605A | METTRA | 06/05/00 | 10:48 | RJG  | S    | CONC |
| 35 | DE22S             | T00605A | METTRA | 06/05/00 | 10:52 | RJG  | S    | CONC |
| 36 | DE22D2            | T00605A | METTRA | 06/05/00 | 10:56 | RJG  | S    | CONC |
| 37 | CCV3-3            | T00605A | METTRA | 06/05/00 | 11:01 | RJG  | S    | CONC |
| 38 | DE22D             | T00605A | METTRA | 06/05/00 | 11:09 | RJG  | S    | CONC |
| 39 | CCV3-3            | T00605A | METTRA | 06/05/00 | 11:13 | RJG  | S    | CONC |
| 40 | CCB3              | T00605A | METTRA | 06/05/00 | 11:17 | RJG  | S    | CONC |

6591122

Standardization Rpt.

06/05/00 08:33:57 AM

page 1

Method: METTRA Standard: STD1

Run Time: 06/05/00 08:29:51

|      |         |         |          |         |         |         |        |
|------|---------|---------|----------|---------|---------|---------|--------|
| Elem | AG      | AL      | AS       | BA      | BE      | CA      | CD     |
| Avge | .00003  | .11121  | -.01421  | .00039  | -.06921 | .00413  | .00157 |
| SDev | .00214  | .00095  | .00958   | .00011  | .00012  | .00000  | .00078 |
| %RSD | 6956.5  | .85216  | 67.418   | 28.274  | .17802  | .01112  | 49.904 |
| #1   | .00154  | .11188  | -.00744  | .00046  | -.06930 | .00413  | .00213 |
| #2   | -.00148 | .11054  | -.02098  | .00031  | -.06913 | .00414  | .00102 |
| Elem | CO      | CR      | CU       | FE      | MG      | MN      | MO     |
| Avge | -.00117 | .00043  | .01381   | -.00105 | .00015  | .00123  | .00148 |
| SDev | .00035  | .00253  | .00011   | .00035  | .00039  | .00017  | .00052 |
| %RSD | 29.784  | 586.07  | .80119   | 33.286  | 254.58  | 14.131  | 35.345 |
| #1   | -.00093 | .00222  | .01373   | -.00080 | .00043  | .00136  | .00185 |
| #2   | -.00142 | -.00136 | .01389   | -.00130 | -.00012 | .00111  | .00111 |
| Elem | NI      | PB/1    | PB/2     | SB/1    | SB/2    | SE/1    | SE/2   |
| Avge | .00000  | .04372  | -.01429  | -.03635 | .00901  | -.10640 | .08720 |
| SDev | .00000  | .01121  | .00179   | .02941  | .00445  | .00726  | .00688 |
| %RSD | .00000  | 25.639  | 12.534   | 80.908  | 49.391  | 6.8197  | 7.8957 |
| #1   | .00000  | .05165  | -.01302  | -.05714 | .01216  | -.10127 | .09207 |
| #2   | .00000  | .03580  | -.01555  | -.01555 | .00586  | -.11153 | .08233 |
| Elem | TL      | V       | ZN       |         |         |         |        |
| Avge | -.04320 | .00000  | -.00000  |         |         |         |        |
| SDev | .00053  | .00000  | .00004   |         |         |         |        |
| %RSD | 1.2233  | .00000  | 1797000. |         |         |         |        |
| #1   | -.04283 | .00000  | .00003   |         |         |         |        |
| #2   | -.04357 | .00000  | -.00003  |         |         |         |        |

| IntStd | 1        | 2       | 3       | 4       | 5       | 6       | 7       |
|--------|----------|---------|---------|---------|---------|---------|---------|
| Mode   | Counts   | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem   | Y        | --      | --      | --      | --      | --      | --      |
| Wavlen | 371.030  | --      | --      | --      | --      | --      | --      |
| Avge   | 16204    | --      | --      | --      | --      | --      | --      |
| SDev   | 1.802984 | --      | --      | --      | --      | --      | --      |
| %RSD   | .0111270 | --      | --      | --      | --      | --      | --      |
| #1     | 16205    | --      | --      | --      | --      | --      | --      |
| #2     | 16202    | --      | --      | --      | --      | --      | --      |



6591124

Standardization Rpt.

06/05/00 08:38:07 AM

page 1 ✓

Method: METTRA Standard: STD6  
Run Time: 06/05/00 08:34:02

0014.087.8

| Elem | AG     | AS     | CD     | PB/1   | PB/2   | SB/1   | SB/2   |
|------|--------|--------|--------|--------|--------|--------|--------|
| Avge | 11.531 | 6.3130 | 15.954 | 6.4762 | 8.3345 | 10.965 | 7.1327 |
| SDev | .001   | .0122  | .032   | .0104  | .0392  | .093   | .0048  |
| %RSD | .01224 | .19330 | .19810 | .16014 | .47041 | .84616 | .06689 |

|    |        |        |        |        |        |        |        |
|----|--------|--------|--------|--------|--------|--------|--------|
| #1 | 11.532 | 6.3217 | 15.977 | 6.4835 | 8.3068 | 10.899 | 7.1361 |
| #2 | 11.530 | 6.3044 | 15.932 | 6.4689 | 8.3622 | 11.030 | 7.1293 |

| Elem | SE/1   | SE/2   | TL     |
|------|--------|--------|--------|
| Avge | 5.8211 | 5.8502 | 4.7126 |
| SDev | .0343  | .0277  | .0162  |
| %RSD | .58875 | .47272 | .34272 |

|    |        |        |        |
|----|--------|--------|--------|
| #1 | 5.7968 | 5.8307 | 4.7241 |
| #2 | 5.8453 | 5.8698 | 4.7012 |

| IntStd | 1        | 2       | 3       | 4       | 5       | 6       | 7       |
|--------|----------|---------|---------|---------|---------|---------|---------|
| Mode   | Counts   | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem   | Y        | --      | --      | --      | --      | --      | --      |
| Wavlen | 371.030  | --      | --      | --      | --      | --      | --      |
| Avge   | 16354    | --      | --      | --      | --      | --      | --      |
| SDev   | .5303301 | --      | --      | --      | --      | --      | --      |
| %RSD   | .0032428 | --      | --      | --      | --      | --      | --      |

|    |       |    |    |    |    |    |    |
|----|-------|----|----|----|----|----|----|
| #1 | 16354 | -- | -- | -- | -- | -- | -- |
| #2 | 16354 | -- | -- | -- | -- | -- | -- |

Method: METTRA Standard: STD7  
Run Time: 06/05/00 08:38:12

0014.087.9

| Elem | AL     | BA     | BE     | CA     | CO     | CR     | CU     |
|------|--------|--------|--------|--------|--------|--------|--------|
| Avge | 7.3686 | 13.984 | 14.069 | 5.6243 | 3.6073 | 14.000 | 3.6252 |
| SDev | .0100  | .003   | .008   | .0072  | .0077  | .016   | .0032  |
| %RSD | .13509 | .02118 | .05506 | .12750 | .21256 | .11706 | .08761 |

|    |        |        |        |        |        |        |        |
|----|--------|--------|--------|--------|--------|--------|--------|
| #1 | 7.3616 | 13.987 | 14.063 | 5.6192 | 3.6019 | 13.988 | 3.6230 |
| #2 | 7.3757 | 13.982 | 14.074 | 5.6294 | 3.6127 | 14.011 | 3.6275 |

| Elem | FE     | MG     | MN     | MO     | NI     | V      | ZN     |
|------|--------|--------|--------|--------|--------|--------|--------|
| Avge | 4.7106 | 15.965 | 11.816 | 2.5998 | 2.9007 | .94922 | 3.5117 |
| SDev | .0071  | .016   | .014   | .0154  | .0012  | .00071 | .0030  |
| %RSD | .15000 | .10007 | .11690 | .59183 | .04039 | .07508 | .08678 |

|    |        |        |        |        |        |        |        |
|----|--------|--------|--------|--------|--------|--------|--------|
| #1 | 4.7056 | 15.954 | 11.806 | 2.5889 | 2.9015 | .94872 | 3.5095 |
| #2 | 4.7156 | 15.977 | 11.825 | 2.6107 | 2.8998 | .94972 | 3.5138 |

| IntStd | 1        | 2       | 3       | 4       | 5       | 6       | 7       |
|--------|----------|---------|---------|---------|---------|---------|---------|
| Mode   | Counts   | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem   | Y        | --      | --      | --      | --      | --      | --      |
| Wavlen | 371.030  | --      | --      | --      | --      | --      | --      |
| Avge   | 15998    | --      | --      | --      | --      | --      | --      |
| SDev   | 14.99080 | --      | --      | --      | --      | --      | --      |
| %RSD   | .0937019 | --      | --      | --      | --      | --      | --      |

|    |       |    |    |    |    |    |    |
|----|-------|----|----|----|----|----|----|
| #1 | 16009 | -- | -- | -- | -- | -- | -- |
| #2 | 15988 | -- | -- | -- | -- | -- | -- |

Method: METTRA

Slope = Conc(SIR)/IR

| Element | Wavelen | High std | Low std | Slope   | Y-intercept | Date Standardized |
|---------|---------|----------|---------|---------|-------------|-------------------|
| AG      | 328.068 | STD6     | STD1    | .173444 | -.000005    | 06/05/00 08:38:12 |
| AL      | 308.215 | STD7     | STD1    | 6.90766 | -.768196    | 06/05/00 08:38:12 |
| AS      | 189.042 | STD6     | STD1    | .158047 | .002246     | 06/05/00 08:38:12 |
| BA      | 493.409 | STD7     | STD1    | .286039 | -.000110    | 06/05/00 08:38:12 |
| BE      | 313.042 | STD7     | STD1    | .280582 | .019420     | 06/05/00 08:38:12 |
| CA      | 317.933 | STD7     | STD1    | 17.7931 | -.073572    | 06/05/00 08:38:12 |
| CD      | 226.502 | STD6     | STD1    | .062685 | -.000099    | 06/05/00 08:38:12 |
| CO      | 228.616 | STD7     | STD1    | 1.10850 | .001300     | 06/05/00 08:38:12 |
| CR      | 267.716 | STD7     | STD1    | .285587 | -.000123    | 06/05/00 08:38:12 |
| CU      | 324.753 | STD7     | STD1    | 1.10760 | -.015294    | 06/05/00 08:38:12 |
| FE      | 271.441 | STD7     | STD1    | 10.6874 | .011213     | 06/05/00 08:38:12 |
| MG      | 279.078 | STD7     | STD1    | 6.26364 | -.000966    | 06/05/00 08:38:12 |
| MN      | 257.610 | STD7     | STD1    | .338572 | -.000418    | 06/05/00 08:38:12 |
| MO      | 202.030 | STD7     | STD1    | 1.53946 | -.002280    | 06/05/00 08:38:12 |
| NI      | 231.604 | STD7     | STD1    | 1.37808 | .000000     | 06/05/00 08:38:12 |
| PB/1    | 220.351 | STD6     | STD1    | .155461 | -.006797    | 06/05/00 08:38:12 |
| PB/2    | 220.352 | STD6     | STD1    | .119778 | .001711     | 06/05/00 08:38:12 |
| PB      | 220.353 | NONE     | NONE    | .000000 | .000000     | *NOT STANDARDIZED |
| SB/1    | 206.831 | STD6     | STD1    | .090901 | .003304     | 06/05/00 08:38:12 |
| SB/2    | 206.832 | STD6     | STD1    | .140377 | -.001265    | 06/05/00 08:38:12 |
| SB      | 220.353 | NONE     | NONE    | .000000 | .000000     | *NOT STANDARDIZED |
| SE/1    | 196.021 | STD6     | STD1    | .168706 | .017950     | 06/05/00 08:38:12 |
| SE/2    | 196.022 | STD6     | STD1    | .173520 | -.015131    | 06/05/00 08:38:12 |
| SE      | 220.353 | NONE     | NONE    | .000000 | .000000     | *NOT STANDARDIZED |
| TL      | 190.864 | STD6     | STD1    | .420536 | .018167     | 06/05/00 08:38:12 |
| V       | 292.402 | STD7     | STD1    | 4.19559 | .000000     | 06/05/00 08:38:12 |
| ZN      | 213.856 | STD7     | STD1    | 1.14606 | .000000     | 06/05/00 08:38:12 |

## Analysis Report

06/05/00 08:45:59 AM

6591127 ✓  
page 1

Method: METTRA Sample Name: ICV3-1 0014-110-4 Operator: RJG.  
 Run Time: 06/05/00 08:41:53  
 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     |
| Avg    | .51438  | 12.002  | .25890  | 1.0011  | .99775  | 25.210  | .25263  |
| SDev   | .00001  | .001    | .00002  | .0007   | .00357  | .092    | .00025  |
| %RSD   | .00220  | .00802  | .00690  | .07195  | .35799  | .36559  | .10046  |
| #1     | .51437  | 12.002  | .25891  | 1.0006  | 1.0003  | 25.275  | .25281  |
| #2     | .51438  | 12.001  | .25889  | 1.0016  | .99522  | 25.145  | .25245  |
| 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     |
| Avg    | 1.0193  | 1.0240  | .97274  | 12.519  | 24.222  | .99533  | 1.0225  |
| SDev   | .0006   | .0009   | .00040  | .005    | .021    | .00029  | .0026   |
| %RSD   | .05842  | .08641  | .04062  | .04251  | .08724  | .02916  | .25578  |
| #1     | 1.0197  | 1.0246  | .97246  | 12.515  | 24.237  | .99553  | 1.0207  |
| #2     | 1.0189  | 1.0233  | .97302  | 12.523  | 24.207  | .99512  | 1.0244  |
| 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     |
| Avg    | 1.0172  | .25632  | .25604  | .25613  | .25770  | .25587  | .25648  |
| SDev   | .0097   | .00123  | .00061  | .00081  | .00227  | .00135  | .00166  |
| %RSD   | .95181  | .47841  | .23705  | .31748  | .88019  | .52775  | .64567  |
| #1     | 1.0241  | .25719  | .25647  | .25671  | .25609  | .25492  | .25531  |
| #2     | 1.0104  | .25546  | .25561  | .25556  | .25930  | .25683  | .25765  |
| 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     |         |
| Avg    | .25892  | .26154  | .26067  | .51202  | 1.0055  | 1.0375  |         |
| SDev   | .00174  | .00026  | .00075  | .00231  | .0014   | .0038   |         |
| %RSD   | .67273  | .09932  | .28899  | .45136  | .13932  | .36282  |         |
| #1     | .25769  | .26136  | .26014  | .51039  | 1.0065  | 1.0401  |         |
| #2     | .26016  | .26173  | .26120  | .51366  | 1.0045  | 1.0348  |         |
| Errors | NOCHECK | NOCHECK | LC Pass | LC Pass | LC Pass | LC Pass |         |
| High   |         |         | .27500  | .55000  | 1.1000  | 1.1000  |         |
| Low    |         |         | .22500  | .45000  | .90000  | .90000  |         |

6591128

## Analysis Report

06/05/00 08:45:59 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   | 16178    | --      | --      | --      | --      | --      | --      |
| SDev   | 25.63262 | --      | --      | --      | --      | --      | --      |
| %RSD   | .1584390 | --      | --      | --      | --      | --      | --      |
| #1     | 16160    | --      | --      | --      | --      | --      | --      |
| #2     | 16196    | --      | --      | --      | --      | --      | --      |

## Analysis Report

06/05/00 08:50:08 AM

6591129  
page 1

Method: METTRA Sample Name: ICB1

Operator: RJG

Run Time: 06/05/00 08:46:02

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     |
| Avg    | -.00003 | .01623  | .00088  | .00042  | .00034  | .00044  | .00000  |
| SDev   | .00003  | .00121  | .00045  | .00018  | .00010  | .00355  | .00007  |
| %RSD   | 113.26  | 7.4420  | 51.381  | 44.239  | 28.965  | 807.59  | 12563.  |
| #1     | -.00005 | .01708  | .00120  | .00029  | .00041  | -.00207 | -.00005 |
| #2     | -.00001 | .01538  | .00056  | .00055  | .00027  | .00295  | .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     |
| Avg    | .00023  | .00001  | -.00032 | -.00638 | .00156  | .00034  | .00407  |
| SDev   | .00004  | .00026  | .00040  | .00130  | .00084  | .00015  | .00071  |
| %RSD   | 18.200  | 2262.1  | 125.06  | 20.394  | 53.692  | 45.111  | 17.347  |
| #1     | .00020  | -.00017 | -.00061 | -.00730 | .00097  | .00023  | .00457  |
| #2     | .00026  | .00020  | -.00004 | -.00546 | .00216  | .00045  | .00357  |
| 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     |
| Avg    | .00004  | -.00065 | .00010  | -.00014 | .00136  | -.00087 | -.00013 |
| SDev   | .00006  | .00021  | .00076  | .00044  | .00276  | .00132  | .00004  |
| %RSD   | 140.98  | 33.044  | 725.67  | 301.72  | 202.98  | 151.44  | 27.501  |
| #1     | .00000  | -.00080 | .00064  | .00016  | .00331  | -.00181 | -.00011 |
| #2     | .00009  | -.00049 | -.00043 | -.00045 | -.00059 | .00006  | -.00016 |
| 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     |         |
| Avg    | -.00232 | -.00008 | -.00083 | -.00026 | -.00000 | .00048  |         |
| SDev   | .00153  | .00056  | .00014  | .00041  | .00000  | .00013  |         |
| %RSD   | 65.773  | 680.57  | 16.307  | 158.24  | 20.394  | 26.622  |         |
| #1     | -.00340 | .00031  | -.00092 | -.00055 | -.00000 | .00039  |         |
| #2     | -.00124 | -.00048 | -.00073 | .00003  | -.00000 | .00057  |         |
| Errors | NOCHECK | NOCHECK | LC Pass | LC Pass | LC Pass | LC Pass |         |
| High   |         |         | .00500  | .01000  | .05000  | .02000  |         |
| Low    |         |         | -.00500 | -.01000 | -.05000 | -.02000 |         |

6591130

## Analysis Report

06/05/00 08:50:08 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   | 16110    | --      | --      | --      | --      | --      | --      |
| SDev   | 93.33810 | --      | --      | --      | --      | --      | --      |
| %RSD   | .5793942 | --      | --      | --      | --      | --      | --      |
| #1     | 16176    | --      | --      | --      | --      | --      | --      |
| #2     | 16044    | --      | --      | --      | --      | --      | --      |

Method: METTRA Sample Name: ICSA 0014-088-12 Operator: RJG  
 Run Time: 06/05/00 08:50:11  
 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   | .00039  | 526.51  | .00230  | .00202  | -.00091 | 489.82  | -.00288 |
| SDev   | .00060  | 3.53    | .00022  | .00006  | .00007  | 1.51    | .00021  |
| %RSD   | 155.88  | .67090  | 9.4045  | 3.0183  | 7.5420  | .30824  | 7.1196  |
| #1     | .00081  | 524.01  | .00215  | .00206  | -.00086 | 488.76  | -.00303 |
| #2     | -.00004 | 529.01  | .00245  | .00198  | -.00096 | 490.89  | -.00274 |
| 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   | .00095  | .00206  | -.00118 | 204.58  | 533.66  | .00810  | .00029  |
| SDev   | .00003  | .00083  | .00014  | 1.25    | 2.85    | .00017  | .00249  |
| %RSD   | 2.6055  | 40.289  | 11.694  | .61153  | .53480  | 2.0638  | 847.49  |
| #1     | .00094  | .00265  | -.00128 | 203.69  | 531.65  | .00821  | .00206  |
| #2     | .00097  | .00148  | -.00109 | 205.46  | 535.68  | .00798  | -.00147 |
| 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   | .00380  | .01973  | -.01596 | -.00407 | -.00547 | .00799  | .00351  |
| SDev   | .00076  | .01196  | .00840  | .00162  | .01439  | .00862  | .00096  |
| %RSD   | 19.951  | 60.604  | 52.635  | 39.777  | 263.23  | 107.90  | 27.309  |
| #1     | .00434  | .02819  | -.02190 | -.00522 | -.01564 | .01408  | .00419  |
| #2     | .00326  | .01128  | -.01002 | -.00293 | .00471  | .00189  | .00283  |
| 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   | .00667  | -.00981 | -.00432 | .00040  | .01219  | -.00052 |         |
| SDev   | .01266  | .01023  | .00261  | .00215  | .00205  | .00012  |         |
| %RSD   | 189.92  | 104.34  | 60.388  | 539.92  | 16.817  | 23.301  |         |
| #1     | .01562  | -.01704 | -.00617 | -.00112 | .01364  | -.00061 |         |
| #2     | -.00229 | -.00257 | -.00248 | .00192  | .01074  | -.00044 |         |
| 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   | 15229    | --      | --      | --      | --      | --      | --      |
| SDev   | 38.53732 | --      | --      | --      | --      | --      | --      |
| %RSD   | .2530497 | --      | --      | --      | --      | --      | --      |
| #1     | 15256    | --      | --      | --      | --      | --      | --      |
| #2     | 15202    | --      | --      | --      | --      | --      | --      |

Method: METTRA Sample Name: ICSAB 0014-075-12 Operator: RJG  
 Run Time: 06/05/00 08:54:21  
 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    | 1.1124  | 523.63  | 1.0268  | .52509  | .49051  | 486.67  | .93102  |
| SDev   | .0035   | 2.61    | .0089   | .00309  | .00241  | 2.61    | .00464  |
| %RSD   | .31733  | .49840  | .87133  | .58823  | .49134  | .53557  | .49811  |
| #1     | 1.1149  | 525.47  | 1.0332  | .52727  | .49222  | 488.52  | .93429  |
| #2     | 1.1099  | 521.78  | 1.0205  | .52291  | .48881  | 484.83  | .92774  |
| 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     |
| Avg    | .48883  | .50255  | .54448  | 203.87  | 530.11  | .50719  | .98495  |
| SDev   | .00146  | .00113  | .00350  | .77     | 1.70    | .00152  | .00258  |
| %RSD   | .29954  | .22451  | .64262  | .37618  | .32016  | .29913  | .26189  |
| #1     | .48986  | .50335  | .54695  | 204.41  | 531.31  | .50826  | .98677  |
| #2     | .48779  | .50175  | .54200  | 203.32  | 528.91  | .50611  | .98312  |
| 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     |
| Avg    | .98943  | 1.0486  | .97898  | 1.0022  | 1.0530  | 1.0513  | 1.0519  |
| SDev   | .00984  | .0058   | .01299  | .0067   | .0207   | .0064   | .0026   |
| %RSD   | .99506  | .55112  | 1.3268  | .67251  | 1.9654  | .60754  | .25018  |
| #1     | .99639  | 1.0526  | .96979  | .99738  | 1.0384  | 1.0559  | 1.0500  |
| #2     | .98247  | 1.0445  | .98816  | 1.0069  | 1.0677  | 1.0468  | 1.0538  |
| 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     |         |
| Avg    | 1.0288  | 1.0434  | 1.0386  | 1.0494  | .51439  | 1.0455  |         |
| SDev   | .0098   | .0124   | .0050   | .0082   | .00263  | .0063   |         |
| %RSD   | .95088  | 1.1875  | .48210  | .78206  | .51078  | .60566  |         |
| #1     | 1.0357  | 1.0347  | 1.0350  | 1.0552  | .51625  | 1.0500  |         |
| #2     | 1.0219  | 1.0522  | 1.0421  | 1.0436  | .51253  | 1.0410  |         |
| 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  |         |

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Analysis Report

QC Standard

06/05/00 08:58:27 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   | 15336    | --      | --      | --      | --      | --      | --      |
| SDev   | 14.70837 | --      | --      | --      | --      | --      | --      |
| %RSD   | .0959094 | --      | --      | --      | --      | --      | --      |
| #1     | 15325    | --      | --      | --      | --      | --      | --      |
| #2     | 15346    | --      | --      | --      | --      | --      | --      |

## Analysis Report

06/05/00 09:04:52 AM

6591135  
page 1

Method: METTRA Sample Name: DEQ1QB

Operator: RJG

Run Time: 06/05/00 09:00:47

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   | -.00011 | .06231  | -.00032 | .00119  | .00033  | .35882  | .00023  |
| SDev   | .00024  | .00483  | .00087  | .00006  | .00010  | .00672  | .00006  |
| %RSD   | 219.98  | 7.7433  | 274.38  | 5.2626  | 30.983  | 1.8731  | 24.115  |
| #1     | -.00027 | .05890  | -.00093 | .00114  | .00040  | .35406  | .00027  |
| #2     | .00006  | .06572  | .00030  | .00123  | .00026  | .36357  | .00019  |
| 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   | .00044  | .00058  | .00081  | .06091  | .06875  | .00112  | .00073  |
| SDev   | .00053  | .00064  | .00042  | .01050  | .00664  | .00002  | .00035  |
| %RSD   | 119.97  | 111.10  | 51.512  | 17.232  | 9.6644  | 1.9669  | 48.377  |
| #1     | .00007  | .00012  | .00051  | .05349  | .06405  | .00111  | .00048  |
| #2     | .00082  | .00103  | .00110  | .06833  | .07344  | .00114  | .00098  |
| 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   | .00179  | .00067  | .00179  | .00142  | .00102  | .00081  | .00088  |
| SDev   | .00047  | .00148  | .00128  | .00135  | .00128  | .00325  | .00174  |
| %RSD   | 26.458  | 220.36  | 71.700  | 95.229  | 125.04  | 402.21  | 197.72  |
| #1     | .00213  | -.00038 | .00088  | .00046  | .00193  | -.00149 | -.00035 |
| #2     | .00146  | .00172  | .00269  | .00237  | .00012  | .00310  | .00211  |
| 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   | -.00212 | -.00038 | -.00096 | .00148  | .00002  | .01343  |         |
| SDev   | .00048  | .00022  | .00031  | .00299  | .00000  | .00004  |         |
| %RSD   | 22.767  | 57.029  | 31.849  | 201.76  | 17.232  | .29174  |         |
| #1     | -.00246 | -.00054 | -.00118 | .00360  | .00002  | .01340  |         |
| #2     | -.00178 | -.00023 | -.00074 | -.00063 | .00002  | .01346  |         |
| 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   | 16132    | --      | --      | --      | --      | --      | --      |
| SDev   | 76.15485 | --      | --      | --      | --      | --      | --      |
| %RSD   | .4720820 | --      | --      | --      | --      | --      | --      |
| #1     | 16186    | --      | --      | --      | --      | --      | --      |
| #2     | 16078    | --      | --      | --      | --      | --      | --      |

## Analysis Report

06/05/00 09:09:01 AM

6591137  
page 1

Method: METTRA Sample Name: DEQ1QC

Operator: RJG

Run Time: 06/05/00 09:04:56

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   | .04581  | 1.6731  | 1.8388  | 1.7605  | .04574  | L.47034 | .04583  |
| SDev   | .00083  | .0166   | .0084   | .0036   | .00007  | .00682  | .00035  |
| %RSD   | 1.8183  | .98978  | .45606  | .20530  | .14671  | 1.4504  | .75981  |
| #1     | .04522  | 1.6613  | 1.8328  | 1.7579  | .04569  | L.46551 | .04558  |
| #2     | .04640  | 1.6848  | 1.8447  | 1.7630  | .04579  | L.47516 | .04608  |
| 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   | .46422  | .18429  | .21462  | .93908  | L.04728 | .45016  | L.00029 |
| SDev   | .00263  | .00153  | .00112  | .01245  | .00943  | .00283  | .00029  |
| %RSD   | .56721  | .83242  | .52311  | 1.3259  | 19.952  | .62874  | 99.989  |
| #1     | .46236  | .18321  | .21382  | .93027  | L.04061 | .44816  | L.00009 |
| #2     | .46608  | .18538  | .21541  | .94788  | L.05395 | .45216  | L.00050 |
| 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   | .46184  | .45515  | .45511  | .45512  | -.00176 | .00119  | L.00021 |
| SDev   | .00176  | .00459  | .00774  | .00669  | .00247  | .00100  | .00016  |
| %RSD   | .38162  | 1.0075  | 1.6998  | 1.4692  | 140.49  | 84.118  | 75.856  |
| #1     | .46060  | .45191  | .44964  | .45039  | -.00001 | .00048  | L.00032 |
| #2     | .46309  | .45839  | .46058  | .45985  | -.00350 | .00189  | L.00010 |
| 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   | 1.8579  | 1.8588  | 1.8585  | 1.8190  | .44537  | .48988  |         |
| SDev   | .0186   | .0281   | .0250   | .0062   | .00184  | .00287  |         |
| %RSD   | 1.0007  | 1.5142  | 1.3433  | .33901  | .41384  | .58672  |         |
| #1     | 1.8448  | 1.8389  | 1.8408  | 1.8146  | .44407  | .48784  |         |
| #2     | 1.8711  | 1.8787  | 1.8762  | 1.8234  | .44668  | .49191  |         |
| 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  |         |

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## Analysis Report

06/05/00 09:09:01 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   | 16178    | --      | --      | --      | --      | --      | --      |
| SDev   | 133.5016 | --      | --      | --      | --      | --      | --      |
| %RSD   | .8252251 | --      | --      | --      | --      | --      | --      |
| #1     | 16272    | --      | --      | --      | --      | --      | --      |
| #2     | 16083    | --      | --      | --      | --      | --      | --      |

## Analysis Report

06/05/00 09:13:09 AM

6591139  
page 1

Method: METTRA Sample Name: DDVK3

Operator: RJG

Run Time: 06/05/00 09:09:04

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    | .00049  | 74.848  | .07060  | .68777  | .00887  | 10.175  | -.00251 |
| SDev   | .00057  | .221    | .00042  | .00063  | .00001  | .007    | .00009  |
| %RSD   | 116.73  | .29587  | .59875  | .09194  | .08542  | .07231  | 3.6669  |
| #1     | .00009  | 74.691  | .07090  | .68733  | .00887  | 10.170  | -.00257 |
| #2     | .00089  | 75.005  | .07030  | .68822  | .00888  | 10.180  | -.00244 |
| 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    | .11633  | .17538  | .31579  | 312.24  | 29.925  | 4.7834  | .00588  |
| SDev   | .00042  | .00104  | .00139  | .69     | .068    | .0080   | .00006  |
| %RSD   | .35656  | .59129  | .44119  | .22009  | .22665  | .16728  | .98289  |
| #1     | .11604  | .17465  | .31480  | 311.75  | 29.877  | 4.7778  | .00592  |
| #2     | .11663  | .17611  | .31677  | 312.72  | 29.973  | 4.7891  | .00584  |
| 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    | .22386  | .27047  | .25809  | .26221  | .00417  | .00455  | .00442  |
| SDev   | .00194  | .00019  | .00141  | .00088  | .00056  | .00145  | .00115  |
| %RSD   | .86779  | .07128  | .54706  | .33467  | 13.422  | 31.779  | 26.021  |
| #1     | .22523  | .27061  | .25709  | .26159  | .00377  | .00353  | .00361  |
| #2     | .22248  | .27033  | .25909  | .26283  | .00456  | .00558  | .00524  |
| 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    | .00354  | .01090  | .00845  | .00460  | .17376  | .90487  |         |
| SDev   | .00143  | .00013  | .00039  | .00106  | .00092  | .00042  |         |
| %RSD   | 40.311  | 1.2053  | 4.5930  | 23.021  | .52982  | .04594  |         |
| #1     | .00456  | .01081  | .00873  | .00535  | .17441  | .90458  |         |
| #2     | .00253  | .01099  | .00818  | .00385  | .17311  | .90517  |         |
| 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   | 17271    | --      | --      | --      | --      | --      | --      |
| SDev   | 11.17146 | --      | --      | --      | --      | --      | --      |
| %RSD   | .0646845 | --      | --      | --      | --      | --      | --      |
| #1     | 17279    | --      | --      | --      | --      | --      | --      |
| #2     | 17263    | --      | --      | --      | --      | --      | --      |

## Analysis Report

06/05/00 09:17:18 AM

page 1

Method: METTRA Sample Name: DDVK3P5 Operator: RJG  
 Run Time: 06/05/00 09:13:13  
 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  | -.00000 | 15.082 | .01491 | .14460 | .00227 | 2.1749 | -.00061 |
| SDev  | .00061  | .089   | .00045 | .00079 | .00016 | .0079  | .00005  |
| %RSD  | 16410.  | .59184 | 3.0071 | .54778 | 7.2825 | .36329 | 8.5606  |

|    |         |        |        |        |        |        |         |
|----|---------|--------|--------|--------|--------|--------|---------|
| #1 | -.00044 | 15.019 | .01459 | .14404 | .00238 | 2.1693 | -.00065 |
| #2 | .00043  | 15.145 | .01523 | .14516 | .00215 | 2.1805 | -.00057 |

| Elem  | CO     | CR     | CU     | FE     | MG     | MN     | MO     |
|-------|--------|--------|--------|--------|--------|--------|--------|
| Units | ppm    | ppm    | ppm    | ppm    | ppm    | ppm    | ppm    |
| Avge  | .02557 | .03743 | .06257 | 66.342 | 6.2632 | 1.0028 | .00058 |
| SDev  | .00008 | .00058 | .00084 | .362   | .0327  | .0057  | .00021 |
| %RSD  | .30860 | 1.5423 | 1.3356 | .54535 | .52190 | .56712 | 36.837 |

|    |        |        |        |        |        |        |        |
|----|--------|--------|--------|--------|--------|--------|--------|
| #1 | .02552 | .03702 | .06197 | 66.086 | 6.2401 | .99882 | .00043 |
| #2 | .02563 | .03784 | .06316 | 66.597 | 6.2864 | 1.0069 | .00073 |

| Elem  | NI     | PB/1   | PB/2   | PB     | SB/1   | SB/2   | SB     |
|-------|--------|--------|--------|--------|--------|--------|--------|
| Units | ppm    | ppm    | ppm    | ppm    | ppm    | ppm    | ppm    |
| Avge  | .04866 | .05558 | .05612 | .05594 | .00220 | .00104 | .00143 |
| SDev  | .00008 | .00241 | .00013 | .00089 | .00214 | .00294 | .00125 |
| %RSD  | .15581 | 4.3333 | .23155 | 1.5886 | 97.213 | 282.76 | 87.690 |

|    |        |        |        |        |        |         |        |
|----|--------|--------|--------|--------|--------|---------|--------|
| #1 | .04861 | .05387 | .05603 | .05531 | .00371 | -.00104 | .00054 |
| #2 | .04872 | .05728 | .05621 | .05657 | .00069 | .00312  | .00231 |

| Elem  | SE/1    | SE/2   | SE     | TL      | V_     | ZN     |
|-------|---------|--------|--------|---------|--------|--------|
| Units | ppm     | ppm    | ppm    | ppm     | ppm    | ppm    |
| Avge  | -.00106 | .00277 | .00150 | -.00046 | .03569 | .19586 |
| SDev  | .00391  | .00037 | .00154 | .00009  | .00017 | .00060 |
| %RSD  | 370.03  | 13.239 | 103.10 | 18.856  | .47571 | .30699 |

|    |         |        |        |         |        |        |
|----|---------|--------|--------|---------|--------|--------|
| #1 | -.00382 | .00251 | .00041 | -.00053 | .03581 | .19543 |
| #2 | .00171  | .00303 | .00259 | -.00040 | .03557 | .19628 |

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6591142

## Analysis Report

06/05/00 09:17:18 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   | 16417    | --      | --      | --      | --      | --      | --      |
| SDev   | 85.66626 | --      | --      | --      | --      | --      | --      |
| %RSD   | .5218230 | --      | --      | --      | --      | --      | --      |
| #1     | 16477    | --      | --      | --      | --      | --      | --      |
| #2     | 16356    | --      | --      | --      | --      | --      | --      |

## Analysis Report

06/05/00 09:21:26 AM

6591143

page 1

Method: METTRA Sample Name: DDVK3S

Operator: RJG

Run Time: 06/05/00 09:17:21

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   | .04769  | 85.460  | 1.8716  | 2.6068  | .05432  | 15.962  | .04019  |
| SDev   | .00032  | .110    | .0019   | .0007   | .00015  | .032    | .00046  |
| %RSD   | .66145  | .12848  | .10229  | .02581  | .28588  | .20038  | 1.1541  |
| #1     | .04792  | 85.382  | 1.8729  | 2.6073  | .05443  | 15.985  | .03987  |
| #2     | .04747  | 85.537  | 1.8702  | 2.6063  | .05421  | 15.940  | .04052  |
| 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   | .58661  | .36867  | .51881  | 444.76  | 32.086  | 6.2835  | .00921  |
| SDev   | .00006  | .00030  | .00000  | .14     | .012    | .0001   | .00032  |
| %RSD   | .00936  | .08058  | .00045  | .03232  | .03681  | .00123  | 3.4158  |
| #1     | .58657  | .36846  | .51881  | 444.66  | 32.094  | 6.2835  | .00943  |
| #2     | .58665  | .36888  | .51881  | 444.86  | 32.077  | 6.2834  | .00899  |
| 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   | .73948  | .67807  | .66138  | .66694  | .00088  | .00418  | .00308  |
| SDev   | .00484  | .00479  | .00358  | .00079  | .00330  | .00204  | .00026  |
| %RSD   | .65456  | .70639  | .54118  | .11880  | 373.48  | 48.754  | 8.5066  |
| #1     | .74290  | .68146  | .65885  | .66638  | -.00145 | .00563  | .00327  |
| #2     | .73605  | .67468  | .66391  | .66750  | .00322  | .00274  | .00290  |
| 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   | 1.8782  | 1.9003  | 1.8930  | 1.8524  | .61814  | 1.2917  |         |
| SDev   | .0055   | .0108   | .0054   | .0007   | .00263  | .0015   |         |
| %RSD   | .29429  | .57029  | .28463  | .03743  | .42535  | .11430  |         |
| #1     | 1.8821  | 1.8927  | 1.8892  | 1.8519  | .62000  | 1.2928  |         |
| #2     | 1.8743  | 1.9080  | 1.8968  | 1.8528  | .61628  | 1.2907  |         |
| 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 |         |

6591144

## Analysis Report

06/05/00 09:21:26 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   | 17481    | --      | --      | --      | --      | --      | --      |
| SDev   | 5.054709 | --      | --      | --      | --      | --      | --      |
| %RSD   | .0289150 | --      | --      | --      | --      | --      | --      |
| #1     | 17478    | --      | --      | --      | --      | --      | --      |
| #2     | 17485    | --      | --      | --      | --      | --      | --      |

## Analysis Report

06/05/00 09:25:35 AM

Method: METTRA Sample Name: DDVK3D

Operator: RJG

Run Time: 06/05/00 09:21:30

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   | .04788  | 74.170  | 1.8990  | 2.3915  | .05454  | 10.773  | .04207  |
| SDev   | .00003  | .095    | .0031   | .0028   | .00022  | .024    | .00011  |
| %RSD   | .05312  | .12833  | .16115  | .11638  | .40411  | .22544  | .25448  |
| #1     | .04787  | 74.103  | 1.9012  | 2.3935  | .05470  | 10.790  | .04215  |
| #2     | .04790  | 74.237  | 1.8969  | 2.3896  | .05439  | 10.756  | .04200  |
| 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   | .58851  | .35105  | .45390  | 366.44  | 27.546  | 5.2312  | .00869  |
| SDev   | .00019  | .00076  | .00031  | .10     | .008    | .0012   | .00044  |
| %RSD   | .03291  | .21615  | .06826  | .02613  | .03075  | .02388  | 5.0732  |
| #1     | .58837  | .35051  | .45368  | 366.38  | 27.552  | 5.2303  | .00838  |
| #2     | .58864  | .35158  | .45412  | 366.51  | 27.540  | 5.2321  | .00901  |
| 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   | .73922  | .70921  | .69437  | .69931  | .00495  | .00518  | .00510  |
| SDev   | .00316  | .00163  | .00677  | .00397  | .00066  | .00184  | .00101  |
| %RSD   | .42797  | .22969  | .97487  | .56808  | 13.315  | 35.564  | 19.794  |
| #1     | .74146  | .71037  | .68958  | .69651  | .00448  | .00649  | .00582  |
| #2     | .73699  | .70806  | .69916  | .70212  | .00541  | .00388  | .00439  |
| 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   | 1.8760  | 1.8926  | 1.8870  | 1.8539  | .59992  | 1.3114  |         |
| SDev   | .0057   | .0162   | .0089   | .0037   | .00352  | .0027   |         |
| %RSD   | .30373  | .85356  | .47045  | .19744  | .58684  | .20545  |         |
| #1     | 1.8800  | 1.8812  | 1.8808  | 1.8564  | .60241  | 1.3133  |         |
| #2     | 1.8719  | 1.9040  | 1.8933  | 1.8513  | .59743  | 1.3095  |         |
| 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 |         |

6591146

## Analysis Report

06/05/00 09:25:35 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   | 17183    | --      | --      | --      | --      | --      | --      |
| SDev   | 3.676403 | --      | --      | --      | --      | --      | --      |
| %RSD   | .0213953 | --      | --      | --      | --      | --      | --      |
| #1     | 17181    | --      | --      | --      | --      | --      | --      |
| #2     | 17186    | --      | --      | --      | --      | --      | --      |

## Analysis Report

06/05/00 09:29:43 AM

6591147

page 1

Method: METTRA Sample Name: DDVK4

Operator: RJG

Run Time: 06/05/00 09:25:38

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   | .00033  | 68.454  | .03701  | 1.1623  | .01001  | 419.81  | -.00227 |
| SDev   | .00011  | .632    | .00145  | .0081   | .00011  | 2.17    | .00034  |
| %RSD   | 34.235  | .92325  | 3.9252  | .69936  | 1.0872  | .51742  | 15.091  |
| #1     | .00025  | 68.007  | .03598  | 1.1565  | .01009  | 418.27  | -.00251 |
| #2     | .00041  | 68.901  | .03804  | 1.1680  | .00994  | 421.35  | -.00203 |
| 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   | .10280  | .10276  | .27515  | 226.50  | 54.368  | H10.772 | -.00030 |
| SDev   | .00065  | .00049  | .00245  | 1.79    | .369    | .081    | .00057  |
| %RSD   | .63414  | .47760  | .89153  | .79068  | .67929  | .75298  | 191.71  |
| #1     | .10234  | .10241  | .27342  | 225.23  | 54.106  | H10.714 | -.00070 |
| #2     | .10326  | .10310  | .27689  | 227.76  | 54.629  | H10.829 | .00011  |
| 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   | .23421  | .14139  | .13600  | .13780  | .00220  | .00272  | .00255  |
| SDev   | .00076  | .00315  | .00402  | .00163  | .00088  | .00011  | .00037  |
| %RSD   | .32446  | 2.2317  | 2.9526  | 1.1812  | 40.148  | 4.1988  | 14.526  |
| #1     | .23368  | .14362  | .13316  | .13664  | .00158  | .00264  | .00229  |
| #2     | .23475  | .13916  | .13884  | .13895  | .00282  | .00281  | .00281  |
| 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   | .00702  | .00780  | .00754  | .00403  | .13081  | .51857  |         |
| SDev   | .00265  | .00422  | .00193  | .00213  | .00067  | .00199  |         |
| %RSD   | 37.710  | 54.101  | 25.641  | 52.898  | .51451  | .38412  |         |
| #1     | .00889  | .00482  | .00617  | .00554  | .13129  | .51716  |         |
| #2     | .00515  | .01078  | .00891  | .00252  | .13034  | .51998  |         |
| 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 |         |



6591148

## Analysis Report

06/05/00 09:29:43 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   | 17477    | --      | --      | --      | --      | --      | --      |
| SDev   | 77.50001 | --      | --      | --      | --      | --      | --      |
| %RSD   | .4434298 | --      | --      | --      | --      | --      | --      |
| #1     | 17532    | --      | --      | --      | --      | --      | --      |
| #2     | 17423    | --      | --      | --      | --      | --      | --      |

## Analysis Report

06/05/00 09:33:52 AM

page 1

Method: METTRA Sample Name: DDVK5

Operator: RJG

Run Time: 06/05/00 09:29:47

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   | .00233  | 72.981  | .12090  | .66224  | .00889  | 22.933  | .01138  |
| SDev   | .00018  | .305    | .00055  | .00158  | .00007  | .015    | .00040  |
| %RSD   | 7.6376  | .41795  | .45633  | .23872  | .75456  | .06707  | 3.4988  |
|        |         |         |         |         |         |         |         |
| #1     | .00245  | 72.765  | .12051  | .66113  | .00894  | 22.922  | .01109  |
| #2     | .00220  | 73.197  | .12129  | .66336  | .00884  | 22.944  | .01166  |
|        |         |         |         |         |         |         |         |
| 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   | .08113  | .23340  | .70866  | 369.58  | 15.012  | 2.8508  | .02446  |
| SDev   | .00017  | .00006  | .00148  | .81     | .035    | .0083   | .00026  |
| %RSD   | .20877  | .02592  | .20900  | .22025  | .23200  | .29170  | 1.0516  |
|        |         |         |         |         |         |         |         |
| #1     | .08125  | .23336  | .70761  | 369.00  | 14.988  | 2.8449  | .02428  |
| #2     | .08101  | .23344  | .70971  | 370.15  | 15.037  | 2.8567  | .02464  |
|        |         |         |         |         |         |         |         |
| 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   | 2.5671  | .94096  | .91660  | .92471  | .00432  | .00520  | .00491  |
| SDev   | .0115   | .00203  | .01068  | .00645  | .00197  | .00153  | .00036  |
| %RSD   | .44712  | .21539  | 1.1655  | .69756  | 45.552  | 29.398  | 7.4119  |
|        |         |         |         |         |         |         |         |
| #1     | 2.5752  | .94239  | .90905  | .92015  | .00293  | .00628  | .00517  |
| #2     | 2.5589  | .93953  | .92415  | .92927  | .00572  | .00412  | .00465  |
|        |         |         |         |         |         |         |         |
| 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   | .01029  | .01343  | .01238  | .00194  | .17475  | 1.6772  |         |
| SDev   | .00423  | .00212  | .00001  | .00205  | .00229  | .0003   |         |
| %RSD   | 41.087  | 15.787  | .05009  | 105.66  | 1.3127  | .01633  |         |
|        |         |         |         |         |         |         |         |
| #1     | .01328  | .01193  | .01238  | .00340  | .17637  | 1.6770  |         |
| #2     | .00730  | .01492  | .01239  | .00049  | .17312  | 1.6774  |         |
|        |         |         |         |         |         |         |         |
| 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 |         |

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## Analysis Report

06/05/00 09:33:52 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   | 17212    | --      | --      | --      | --      | --      | --      |
| SDev   | 2.757993 | --      | --      | --      | --      | --      | --      |
| %RSD   | .0160238 | --      | --      | --      | --      | --      | --      |
| #1     | 17214    | --      | --      | --      | --      | --      | --      |
| #2     | 17210    | --      | --      | --      | --      | --      | --      |

# Analysis Report

06/05/00 09:38:01 AM

Method: METTRA Sample Name: CCV3-1 0014-110-3 Operator: RJG  
Run Time: 06/05/00 09:33:55  
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   | 1.0495  | 24.147  | .52006  | 1.9869  | 2.0363  | 50.796  | .50110  |
| SDev   | .0018   | .059    | .00023  | .0011   | .0006   | .055    | .00014  |
| %RSD   | .17048  | .24591  | .04350  | .05427  | .02769  | .10891  | .02810  |
| #1     | 1.0483  | 24.105  | .52022  | 1.9862  | 2.0359  | 50.757  | .50100  |
| #2     | 1.0508  | 24.189  | .51990  | 1.9877  | 2.0367  | 50.835  | .50120  |
| 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   | 2.0334  | 2.0387  | 1.9708  | 25.123  | 49.720  | 1.9976  | 2.0487  |
| SDev   | .0050   | .0032   | .0005   | .086    | .076    | .0050   | .0133   |
| %RSD   | .24357  | .15559  | .02558  | .34152  | .15249  | .24922  | .65129  |
| #1     | 2.0299  | 2.0365  | 1.9704  | 25.063  | 49.666  | 1.9941  | 2.0393  |
| #2     | 2.0369  | 2.0410  | 1.9711  | 25.184  | 49.774  | 2.0011  | 2.0581  |
| 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   | 2.0347  | .51492  | .51436  | .51455  | .52460  | .51778  | .52005  |
| SDev   | .0021   | .00158  | .00387  | .00311  | .00639  | .00002  | .00214  |
| %RSD   | .10197  | .30724  | .75189  | .60371  | 1.2183  | .00437  | .41215  |
| #1     | 2.0362  | .51380  | .51163  | .51235  | .52008  | .51776  | .51853  |
| #2     | 2.0333  | .51604  | .51709  | .51674  | .52912  | .51779  | .52157  |
| 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   | .52339  | .52612  | .52521  | 1.0588  | 2.0176  | 2.0622  |         |
| SDev   | .00121  | .00522  | .00389  | .0029   | .0005   | .0008   |         |
| %RSD   | .23148  | .99264  | .74005  | .27833  | .02259  | .04122  |         |
| #1     | .52253  | .52242  | .52246  | 1.0609  | 2.0173  | 2.0628  |         |
| #2     | .52425  | .52981  | .52796  | 1.0568  | 2.0180  | 2.0616  |         |
| 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   | 16026    | --      | --      | --      | --      | --      | --      |
| SDev   | 16.68745 | --      | --      | --      | --      | --      | --      |
| %RSD   | .1041244 | --      | --      | --      | --      | --      | --      |
| #1     | 16038    | --      | --      | --      | --      | --      | --      |
| #2     | 16015    | --      | --      | --      | --      | --      | --      |

## Analysis Report

06/05/00 09:42:10 AM

page 1

Method: METTRA Sample Name: CCB1

Operator: RJG

Run Time: 06/05/00 09:38:04

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   | .00010  | .09276  | .00041  | .00055  | .00093  | .00964  | .00010  |
| SDev   | .00017  | .00070  | .00130  | .00010  | .00003  | .00319  | .00014  |
| %RSD   | 163.61  | .75859  | 314.34  | 18.426  | 3.8121  | 33.049  | 143.92  |
| #1     | -.00002 | .09326  | -.00051 | .00048  | .00095  | .00739  | .00019  |
| #2     | .00022  | .09226  | .00133  | .00062  | .00090  | .01189  | -.00000 |
| 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   | .00042  | .00054  | -.00264 | .02117  | .00216  | .00079  | .00501  |
| SDev   | .00007  | .00023  | .00028  | .00565  | .00055  | .00012  | .00190  |
| %RSD   | 17.395  | 42.153  | 10.455  | 26.703  | 25.673  | 15.292  | 37.816  |
| #1     | .00037  | .00038  | -.00283 | .01718  | .00177  | .00070  | .00636  |
| #2     | .00047  | .00070  | -.00244 | .02517  | .00255  | .00087  | .00367  |
| 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   | .00120  | .00030  | .00175  | .00127  | .00065  | .00171  | .00135  |
| SDev   | .00121  | .00070  | .00055  | .00013  | .00257  | .00068  | .00040  |
| %RSD   | 100.96  | 231.41  | 31.470  | 10.515  | 396.30  | 39.982  | 29.557  |
| #1     | .00206  | -.00019 | .00214  | .00136  | .00246  | .00122  | .00164  |
| #2     | .00034  | .00080  | .00136  | .00117  | -.00117 | .00219  | .00107  |
| 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   | .00041  | -.00040 | -.00013 | .00387  | .00001  | .00180  |         |
| SDev   | .00293  | .00001  | .00098  | .00158  | .00000  | .00013  |         |
| %RSD   | 709.83  | 1.2655  | 754.92  | 40.942  | 26.703  | 7.3584  |         |
| #1     | .00248  | -.00040 | .00056  | .00499  | .00001  | .00170  |         |
| #2     | -.00166 | -.00040 | -.00082 | .00275  | .00001  | .00189  |         |
| Errors | NOCHECK | NOCHECK | LC Pass | LC Pass | LC Pass | LC Pass |         |
| High   |         |         | .00500  | .01000  | .05000  | .02000  |         |
| Low    |         |         | -.00500 | -.01000 | -.05000 | -.02000 |         |

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## Analysis Report

06/05/00 09:42:10 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   | 16037    | --      | --      | --      | --      | --      | --      |
| SDev   | 9.192388 | --      | --      | --      | --      | --      | --      |
| %RSD   | .0573184 | --      | --      | --      | --      | --      | --      |
| #1     | 16044    | --      | --      | --      | --      | --      | --      |
| #2     | 16031    | --      | --      | --      | --      | --      | --      |

## Analysis Report

06/05/00 09:46:19 AM

page 1

Method: METTRA Sample Name: DDVK6 Operator: RJG  
 Run Time: 06/05/00 09:42:13  
 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    | -.00014 | 64.996  | .04671  | .66634  | .00990  | 134.02  | -.00180 |
| SDev   | .00017  | .116    | .00021  | .00057  | .00000  | .50     | .00016  |
| %RSD   | 125.40  | .17816  | .45216  | .08509  | .00868  | .37222  | 9.1410  |
| #1     | -.00002 | 64.914  | .04686  | .66674  | .00990  | 134.37  | -.00192 |
| #2     | -.00026 | 65.078  | .04657  | .66594  | .00990  | 133.66  | -.00168 |
| 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    | .09880  | .10763  | .23368  | 165.56  | 29.366  | 4.3624  | .00156  |
| SDev   | .00017  | .00071  | .00017  | .01     | .038    | .0034   | .00127  |
| %RSD   | .17600  | .65746  | .07342  | .00561  | .12937  | .07717  | 81.403  |
| #1     | .09892  | .10813  | .23380  | 165.55  | 29.393  | 4.3648  | .00246  |
| #2     | .09868  | .10713  | .23356  | 165.56  | 29.339  | 4.3600  | .00066  |
| 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    | .23833  | .11190  | .10470  | .10710  | .00321  | .00212  | .00248  |
| SDev   | .00280  | .00268  | .00179  | .00030  | .00274  | .00087  | .00033  |
| %RSD   | 1.1740  | 2.3972  | 1.7099  | .28087  | 85.329  | 41.168  | 13.340  |
| #1     | .24031  | .11380  | .10343  | .10689  | .00127  | .00274  | .00225  |
| #2     | .23635  | .11000  | .10597  | .10731  | .00515  | .00150  | .00272  |
| 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    | -.00016 | .00339  | .00221  | -.00091 | .12288  | .41664  |
| SDev   | .00440  | .00368  | .00099  | .00271  | .00040  | .00192  |
| %RSD   | 2812.7  | 108.50  | 44.828  | 298.90  | .32815  | .46135  |
| #1     | .00295  | .00079  | .00151  | .00101  | .12259  | .41800  |
| #2     | -.00326 | .00599  | .00291  | -.00282 | .12316  | .41528  |
| 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 |



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## Analysis Report

06/05/00 09:46:19 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   | 17247    | --      | --      | --      | --      | --      | --      |
| SDev   | 30.75915 | --      | --      | --      | --      | --      | --      |
| %RSD   | .1783408 | --      | --      | --      | --      | --      | --      |
| #1     | 17226    | --      | --      | --      | --      | --      | --      |
| #2     | 17269    | --      | --      | --      | --      | --      | --      |

## Analysis Report

06/05/00 09:50:28 AM

page 1

Method: METTRA Sample Name: DDVK7 Operator: RJG  
 Run Time: 06/05/00 09:46:23  
 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   | .00007  | 59.955  | .11183  | .48736  | .01011  | 2.4086  | -.00330 |
| SDev   | .00015  | .468    | .00031  | .00315  | .00010  | .0124   | .00015  |
| %RSD   | 208.75  | .78082  | .28074  | .64563  | .99668  | .51526  | 4.6313  |
| #1     | .00018  | 59.624  | .11161  | .48514  | .01018  | 2.3998  | -.00341 |
| #2     | -.00004 | 60.286  | .11205  | .48959  | .01004  | 2.4174  | -.00319 |
| 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   | .07028  | .16546  | .17005  | 223.51  | 16.417  | 2.0788  | .00534  |
| SDev   | .00033  | .00097  | .00156  | 1.48    | .087    | .0127   | .00123  |
| %RSD   | .47596  | .58568  | .91619  | .66316  | .53272  | .60940  | 22.969  |
| #1     | .07004  | .16478  | .16894  | 222.46  | 16.355  | 2.0699  | .00621  |
| #2     | .07051  | .16615  | .17115  | 224.56  | 16.479  | 2.0878  | .00447  |
| 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   | .14049  | .16935  | .15898  | .16243  | .00710  | .00261  | .00410  |
| SDev   | .00068  | .00153  | .00220  | .00096  | .00503  | .00209  | .00028  |
| %RSD   | .48428  | .90254  | 1.3841  | .59022  | 70.782  | 80.363  | 6.7620  |
| #1     | .14097  | .17043  | .15742  | .16175  | .00355  | .00409  | .00391  |
| #2     | .14001  | .16827  | .16054  | .16311  | .01066  | .00113  | .00430  |
| 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   | .02366  | .01492  | .01783  | .01088  | .19746  | .47770  |         |
| SDev   | .00340  | .00271  | .00067  | .00045  | .00196  | .00180  |         |
| %RSD   | 14.363  | 18.140  | 3.7797  | 4.1104  | .99396  | .37589  |         |
| #1     | .02606  | .01301  | .01736  | .01120  | .19885  | .47644  |         |
| #2     | .02126  | .01684  | .01831  | .01057  | .19607  | .47897  |         |
| 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 |         |

6591158

## Analysis Report

06/05/00 09:50:28 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   | 17373    | --      | --      | --      | --      | --      | --      |
| SDev   | 61.51829 | --      | --      | --      | --      | --      | --      |
| %RSD   | .3541090 | --      | --      | --      | --      | --      | --      |
| #1     | 17416    | --      | --      | --      | --      | --      | --      |
| #2     | 17329    | --      | --      | --      | --      | --      | --      |

## Analysis Report

06/05/00 09:54:38 AM

page 1

Method: METTRA Sample Name: DDVK8 Operator: RJG  
 Run Time: 06/05/00 09:50:32  
 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   | .00005  | 90.526  | .03352  | .88065  | .01018  | 10.732  | -.00104 |
| SDev   | .00005  | .061    | .00123  | .00193  | .00013  | .016    | .00002  |
| %RSD   | 99.871  | .06703  | 3.6749  | .21928  | 1.2990  | .14804  | 2.1863  |
| #1     | .00001  | 90.569  | .03439  | .88202  | .01027  | 10.721  | -.00102 |
| #2     | .00008  | 90.483  | .03265  | .87928  | .01008  | 10.743  | -.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   | .09835  | .16164  | .51449  | 263.43  | 28.683  | 5.4085  | .00604  |
| SDev   | .00012  | .00063  | .00101  | .61     | .061    | .0133   | .00008  |
| %RSD   | .12620  | .39165  | .19561  | .23001  | .21414  | .24592  | 1.3339  |
| #1     | .09826  | .16119  | .51520  | 263.00  | 28.640  | 5.3991  | .00599  |
| #2     | .09844  | .16209  | .51378  | 263.86  | 28.727  | 5.4179  | .00610  |
| 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   | .21700  | .33175  | .32027  | .32409  | .00495  | .00224  | .00314  |
| SDev   | .00242  | .00145  | .00343  | .00277  | .00086  | .00372  | .00219  |
| %RSD   | 1.1159  | .43829  | 1.0712  | .85543  | 17.454  | 166.13  | 69.808  |
| #1     | .21872  | .33072  | .31784  | .32213  | .00434  | .00487  | .00469  |
| #2     | .21529  | .33277  | .32269  | .32605  | .00556  | -.00039 | .00159  |
| 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   | .00585  | .00828  | .00747  | -.00229 | .19677  | 1.0076  |         |
| SDev   | .00400  | .00370  | .00113  | .00017  | .00346  | .0015   |         |
| %RSD   | 68.405  | 44.695  | 15.194  | 7.5315  | 1.7595  | .15226  |         |
| #1     | .00868  | .00566  | .00667  | -.00217 | .19922  | 1.0065  |         |
| #2     | .00302  | .01089  | .00827  | -.00241 | .19432  | 1.0087  |         |
| 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 |         |

6591160

## Analysis Report

06/05/00 09:54:38 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   | 17475    | --      | --      | --      | --      | --      | --      |
| SDev   | 38.50141 | --      | --      | --      | --      | --      | --      |
| %RSD   | .2203193 | --      | --      | --      | --      | --      | --      |
| #1     | 17502    | --      | --      | --      | --      | --      | --      |
| #2     | 17448    | --      | --      | --      | --      | --      | --      |

## Analysis Report

06/05/00 09:58:47 AM

page 1

Method: METTRA Sample Name: DDVQC

Operator: RJG

Run Time: 06/05/00 09:54:42

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   | -.00003 | 33.567  | .17675  | .52298  | .00526  | 2.6818  | -.00392 |
| SDev   | .00026  | 1.061   | .00488  | .01528  | .00047  | .0790   | .00024  |
| %RSD   | 927.17  | 3.1606  | 2.7610  | 2.9225  | 8.8728  | 2.9459  | 6.1326  |
| #1     | -.00021 | 32.817  | .17330  | .51217  | .00559  | 2.6259  | -.00409 |
| #2     | .00016  | 34.317  | .18020  | .53378  | .00493  | 2.7376  | -.00375 |
| 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   | .03801  | .12426  | .15198  | 258.26  | 11.472  | .70179  | .00445  |
| SDev   | .00090  | .00381  | .00507  | 7.82    | .331    | .02206  | .00059  |
| %RSD   | 2.3797  | 3.0699  | 3.3341  | 3.0268  | 2.8885  | 3.1440  | 13.147  |
| #1     | .03737  | .12156  | .14840  | 252.74  | 11.237  | .68619  | .00404  |
| #2     | .03865  | .12696  | .15557  | 263.79  | 11.706  | .71740  | .00487  |
| 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   | .07544  | .16187  | .15530  | .15749  | .00655  | .00477  | .00536  |
| SDev   | .00206  | .00329  | .00609  | .00516  | .00430  | .00071  | .00096  |
| %RSD   | 2.7266  | 2.0346  | 3.9234  | 3.2769  | 65.596  | 14.923  | 17.835  |
| #1     | .07399  | .15954  | .15099  | .15384  | .00351  | .00527  | .00468  |
| #2     | .07690  | .16420  | .15961  | .16114  | .00959  | .00426  | .00604  |
| 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   | .01262  | .01672  | .01535  | .00323  | .15839  | .28481  |         |
| SDev   | .00027  | .00083  | .00047  | .00268  | .00641  | .00797  |         |
| %RSD   | 2.1247  | 4.9733  | 3.0302  | 82.885  | 4.0502  | 2.7971  |         |
| #1     | .01243  | .01731  | .01568  | .00512  | .15385  | .27918  |         |
| #2     | .01281  | .01613  | .01503  | .00134  | .16292  | .29044  |         |
| 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 |         |

6591162

## Analysis Report

06/05/00 09:58:47 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   | 16251    | --      | --      | --      | --      | --      | --      |
| SDev   | 443.1094 | --      | --      | --      | --      | --      | --      |
| %RSD   | 2.726722 | --      | --      | --      | --      | --      | --      |
| #1     | 16564    | --      | --      | --      | --      | --      | --      |
| #2     | 15937    | --      | --      | --      | --      | --      | --      |

## Analysis Report

06/05/00 10:02:56 AM

page 1

Method: METTRA Sample Name: DE5W2B

Operator: RJG

Run Time: 06/05/00 09:58:51

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   | -.00006 | .13072  | .00111  | .00055  | .00061  | .01486  | -.00003 |
| SDev   | .00019  | .01382  | .00086  | .00003  | .00020  | .00006  | .00003  |
| %RSD   | 306.50  | 10.570  | 77.644  | 4.8398  | 32.411  | .42620  | 87.715  |
| #1     | -.00020 | .14049  | .00173  | .00054  | .00047  | .01482  | -.00005 |
| #2     | .00007  | .12095  | .00050  | .00057  | .00074  | .01491  | -.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   | -.00073 | .00014  | -.00340 | .07403  | .00064  | .00112  | .00004  |
| SDev   | .00022  | .00007  | .00010  | .00782  | .00056  | .00001  | .00051  |
| %RSD   | 29.995  | 47.109  | 2.9458  | 10.559  | 86.898  | 1.1534  | 1205.4  |
| #1     | -.00088 | .00019  | -.00333 | .07955  | .00025  | .00113  | .00040  |
| #2     | -.00057 | .00010  | -.00347 | .06850  | .00103  | .00111  | -.00032 |
| 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   | .00061  | .00758  | -.00028 | .00234  | -.00130 | .00114  | .00033  |
| SDev   | .00087  | .00065  | .00105  | .00048  | .00135  | .00270  | .00135  |
| %RSD   | 141.56  | 8.5770  | 371.65  | 20.599  | 104.12  | 236.84  | 412.71  |
| #1     | -.00000 | .00804  | -.00102 | .00200  | -.00226 | .00305  | .00128  |
| #2     | .00123  | .00712  | .00046  | .00268  | -.00034 | -.00077 | -.00063 |
| 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   | -.00872 | .00197  | -.00159 | -.00321 | .00003  | .00214  |         |
| SDev   | .00307  | .00169  | .00215  | .00317  | .00000  | .00005  |         |
| %RSD   | 35.166  | 85.776  | 134.99  | 98.882  | 10.559  | 2.1999  |         |
| #1     | -.00655 | .00316  | -.00007 | -.00545 | .00003  | .00217  |         |
| #2     | -.01089 | .00077  | -.00311 | -.00097 | .00002  | .00210  |         |
| Errors | NOCHECK | NOCHECK | LC Pass | LC Pass | LC Pass | LC Pass |         |
| High   |         |         | .00500  | .01000  | .05000  | .02000  |         |
| Low    |         |         | -.00500 | -.01000 | -.05000 | -.02000 |         |



6591164

## Analysis Report

06/05/00 10:02:56 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   | 15593    | --      | --      | --      | --      | --      | --      |
| SDev   | 131.0979 | --      | --      | --      | --      | --      | --      |
| %RSD   | .8407644 | --      | --      | --      | --      | --      | --      |
| #1     | 15500    | --      | --      | --      | --      | --      | --      |
| #2     | 15685    | --      | --      | --      | --      | --      | --      |

## Analysis Report

06/05/00 10:07:05 AM

6591165  
page 1

Method: METTRA Sample Name: DE5W2C

Operator: RJG

Run Time: 06/05/00 10:03:00

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      |
| Avg    | .05153  | 1.9404  | 2.0668  | 1.9664  | .05320   | L.02308 | .05207   |
| SDev   | .00054  | .0025   | .0014   | .0000   | .00034   | .00012  | .00003   |
| %RSD   | 1.0451  | .12938  | .06707  | .00046  | .63146   | .53402  | .06131   |
| #1     | .05115  | 1.9422  | 2.0678  | 1.9664  | .05344   | L.02316 | .05209   |
| #2     | .05191  | 1.9386  | 2.0658  | 1.9665  | .05296   | L.02299 | .05204   |
| 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      |
| Avg    | .52941  | .21144  | .24524  | 1.0414  | L-.00097 | .51124  | L-.00009 |
| SDev   | .00086  | .00010  | .00048  | .0038   | .00336   | .00072  | .00048   |
| %RSD   | .16270  | .04724  | .19736  | .36549  | 346.65   | .14154  | 525.83   |
| #1     | .52880  | .21137  | .24490  | 1.0387  | L-.00334 | .51072  | L.00025  |
| #2     | .53002  | .21151  | .24559  | 1.0441  | L.00141  | .51175  | L-.00043 |
| 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      |
| Avg    | .53086  | .52084  | .51567  | .51739  | .00112   | .00159  | L.00143  |
| SDev   | .00092  | .00221  | .00643  | .00503  | .00046   | .00179  | .00104   |
| %RSD   | .17370  | .42527  | 1.2473  | .97172  | 40.921   | 113.23  | 73.067   |
| #1     | .53152  | .51927  | .51112  | .51384  | .00144   | .00032  | L.00069  |
| #2     | .53021  | .52240  | .52022  | .52095  | .00080   | .00285  | L.00217  |
| 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     |          |
| Avg    | 2.0267  | 2.0356  | 2.0327  | 2.0781  | .50532   | .53658  |          |
| SDev   | .0024   | .0411   | .0282   | .0021   | .00120   | .00043  |          |
| %RSD   | .11601  | 2.0200  | 1.3878  | .10172  | .23839   | .07973  |          |
| #1     | 2.0250  | 2.0065  | 2.0127  | 2.0796  | .50617   | .53688  |          |
| #2     | 2.0283  | 2.0647  | 2.0526  | 2.0766  | .50446   | .53628  |          |
| 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  |          |

|        |          |         |         |         |         |         |         |
|--------|----------|---------|---------|---------|---------|---------|---------|
| IntStd | 1        | 2       | 3       | 4       | 5       | 6       | 7       |
| Mode   | Counts   | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem   | Y        | --      | --      | --      | --      | --      | --      |
| Wavlen | 371.030  | --      | --      | --      | --      | --      | --      |
| Avge   | 15833    | --      | --      | --      | --      | --      | --      |
| SDev   | 20.18776 | --      | --      | --      | --      | --      | --      |
| %RSD   | .1275073 | --      | --      | --      | --      | --      | --      |
| #1     | 15818    | --      | --      | --      | --      | --      | --      |
| #2     | 15847    | --      | --      | --      | --      | --      | --      |

## Analysis Report

06/05/00 10:11:14 AM

page 1

Method: METTRA Sample Name: DE44M

Operator: RJG

Run Time: 06/05/00 10:07:09

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     |
| Avg    | .00096  | 166.51  | .07528  | 2.6453  | .00791  | H707.21 | -.00133 |
| SDev   | .00014  | 1.36    | .00292  | .0145   | .00012  | 4.76    | .00013  |
| %RSD   | 14.545  | .81711  | 3.8829  | .54707  | 1.4882  | .67294  | 9.5877  |
| #1     | .00106  | 165.55  | .07734  | 2.6351  | .00799  | H703.85 | -.00142 |
| #2     | .00086  | 167.47  | .07321  | 2.6555  | .00782  | H710.58 | -.00124 |
| 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     |
| Avg    | .05333  | .19247  | .19398  | 137.90  | 19.727  | 4.1733  | .00640  |
| SDev   | .00021  | .00156  | .00180  | 1.19    | .127    | .0326   | .00053  |
| %RSD   | .39849  | .80971  | .93053  | .86582  | .64203  | .78181  | 8.2450  |
| #1     | .05318  | .19137  | .19270  | 137.05  | 19.638  | 4.1502  | .00677  |
| #2     | .05348  | .19357  | .19525  | 138.74  | 19.817  | 4.1964  | .00602  |
| 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    | .12740  | .43283  | .40626  | .41510  | .01109  | .01004  | .01039  |
| SDev   | .00035  | .00342  | .01493  | .00882  | .00512  | .00484  | .00153  |
| %RSD   | .27168  | .79047  | 3.6756  | 2.1249  | 46.194  | 48.255  | 14.685  |
| #1     | .12765  | .43525  | .39570  | .40887  | .00746  | .01346  | .01146  |
| #2     | .12716  | .43041  | .41681  | .42134  | .01471  | .00661  | .00931  |
| 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    | .00171  | .00451  | .00358  | .00596  | .29647  | .66599  |         |
| SDev   | .00815  | .00348  | .00039  | .00083  | .00275  | .00453  |         |
| %RSD   | 475.79  | 77.091  | 11.012  | 13.872  | .92711  | .68029  |         |
| #1     | .00747  | .00205  | .00386  | .00538  | .29453  | .66279  |         |
| #2     | -.00405 | .00697  | .00330  | .00654  | .29842  | .66920  |         |
| 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 |         |

6591168

## Analysis Report

06/05/00 10:11:14 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   | 16938    | --      | --      | --      | --      | --      | --      |
| SDev   | 99.31397 | --      | --      | --      | --      | --      | --      |
| %RSD   | .5863305 | --      | --      | --      | --      | --      | --      |
|        |          |         |         |         |         |         |         |
| #1     | 17008    | --      | --      | --      | --      | --      | --      |
| #2     | 16868    | --      | --      | --      | --      | --      | --      |

## Analysis Report

06/05/00 10:15:23 AM

page 1

Method: METTRA Sample Name: DE44MP5 Operator: RJG  
 Run Time: 06/05/00 10:11:18  
 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  | .00011 | 33.898 | .01670 | .56332 | .00274 | 161.94 | -.00029 |
| SDev  | .00015 | .105   | .00026 | .00188 | .00002 | .92    | .00016  |
| %RSD  | 134.62 | .31042 | 1.5696 | .33443 | .64597 | .56516 | 52.847  |

|    |        |        |        |        |        |        |         |
|----|--------|--------|--------|--------|--------|--------|---------|
| #1 | .00001 | 33.973 | .01651 | .56465 | .00275 | 162.59 | -.00040 |
| #2 | .00022 | 33.824 | .01688 | .56199 | .00273 | 161.29 | -.00018 |

| Elem  | CO     | CR     | CU     | FE     | MG     | MN     | MO     |
|-------|--------|--------|--------|--------|--------|--------|--------|
| Units | ppm    | ppm    | ppm    | ppm    | ppm    | ppm    | ppm    |
| Avge  | .01253 | .04251 | .03616 | 29.655 | 4.1956 | .89435 | .00028 |
| SDev  | .00046 | .00005 | .00002 | .098   | .0159  | .00311 | .00055 |
| %RSD  | 3.6896 | .11336 | .06493 | .32926 | .37823 | .34743 | 198.26 |

|    |        |        |        |        |        |        |         |
|----|--------|--------|--------|--------|--------|--------|---------|
| #1 | .01285 | .04248 | .03614 | 29.724 | 4.2068 | .89654 | .00066  |
| #2 | .01220 | .04254 | .03617 | 29.586 | 4.1844 | .89215 | -.00011 |

| Elem  | NI     | PB/1   | PB/2   | PB     | SB/1   | SB/2   | SB     |
|-------|--------|--------|--------|--------|--------|--------|--------|
| Units | ppm    | ppm    | ppm    | ppm    | ppm    | ppm    | ppm    |
| Avge  | .02868 | .09409 | .09170 | .09250 | .00414 | .00400 | .00405 |
| SDev  | .00055 | .00042 | .00188 | .00112 | .00027 | .00119 | .00070 |
| %RSD  | 1.9317 | .44753 | 2.0555 | 1.2076 | 6.4834 | 29.700 | 17.376 |

|    |        |        |        |        |        |        |        |
|----|--------|--------|--------|--------|--------|--------|--------|
| #1 | .02907 | .09439 | .09037 | .09171 | .00433 | .00316 | .00355 |
| #2 | .02829 | .09379 | .09304 | .09329 | .00395 | .00484 | .00454 |

| Elem  | SE/1    | SE/2   | SE     | TL      | V_     | ZN     |
|-------|---------|--------|--------|---------|--------|--------|
| Units | ppm     | ppm    | ppm    | ppm     | ppm    | ppm    |
| Avge  | -.00116 | .00068 | .00007 | -.00026 | .06438 | .14589 |
| SDev  | .00304  | .00094 | .00038 | .00189  | .00011 | .00069 |
| %RSD  | 262.86  | 137.70 | 544.93 | 726.63  | .16326 | .47127 |

|    |         |        |         |         |        |        |
|----|---------|--------|---------|---------|--------|--------|
| #1 | .00099  | .00002 | .00034  | -.00159 | .06446 | .14638 |
| #2 | -.00331 | .00135 | -.00020 | .00107  | .06431 | .14541 |

6591170

## Analysis Report

06/05/00 10:15:23 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   | 16269    | --      | --      | --      | --      | --      | --      |
| SDev   | 76.29641 | --      | --      | --      | --      | --      | --      |
| %RSD   | .4689651 | --      | --      | --      | --      | --      | --      |
| #1     | 16215    | --      | --      | --      | --      | --      | --      |
| #2     | 16323    | --      | --      | --      | --      | --      | --      |

## Analysis Report

06/05/00 10:19:32 AM

6591171  
page 1

Method: METTRA Sample Name: DE44MS

Operator: RJG

Run Time: 06/05/00 10:15:26

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   | .05027  | 182.00  | 1.8960  | 4.6904  | .05281  | H775.93 | .04043  |
| SDev   | .00002  | 1.01    | .0046   | .0172   | .00005  | 1.58    | .00014  |
| %RSD   | .03546  | .55736  | .24384  | .36678  | .09310  | .20408  | .34088  |
| #1     | .05028  | 181.29  | 1.8928  | 4.6783  | .05285  | H774.81 | .04053  |
| #2     | .05026  | 182.72  | 1.8993  | 4.7026  | .05278  | H777.05 | .04033  |
| 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   | .48811  | .36980  | .46405  | 151.40  | 20.826  | 3.7771  | .00905  |
| SDev   | .00108  | .00152  | .00155  | .77     | .069    | .0163   | .00014  |
| %RSD   | .22139  | .41220  | .33426  | .50821  | .33323  | .43026  | 1.5448  |
| #1     | .48734  | .36873  | .46295  | 150.86  | 20.777  | 3.7656  | .00915  |
| #2     | .48887  | .37088  | .46515  | 151.95  | 20.875  | 3.7886  | .00895  |
| 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   | .57505  | .99746  | .95375  | .96830  | .01968  | .01571  | .01703  |
| SDev   | .00146  | .00010  | .01589  | .01063  | .00602  | .00472  | .00114  |
| %RSD   | .25411  | .00948  | 1.6661  | 1.0979  | 30.621  | 30.040  | 6.7039  |
| #1     | .57609  | .99740  | .94251  | .96079  | .01542  | .01905  | .01784  |
| #2     | .57402  | .99753  | .96498  | .97582  | .02394  | .01238  | .01623  |
| 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   | 1.8075  | 1.8354  | 1.8261  | 1.9208  | .75482  | 1.0552  |         |
| SDev   | .0005   | .0267   | .0180   | .0128   | .00003  | .0021   |         |
| %RSD   | .02521  | 1.4541  | .98314  | .66813  | .00459  | .19687  |         |
| #1     | 1.8072  | 1.8166  | 1.8134  | 1.9118  | .75484  | 1.0537  |         |
| #2     | 1.8078  | 1.8543  | 1.8388  | 1.9299  | .75479  | 1.0566  |         |
| 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 |         |



6591172

## Analysis Report

06/05/00 10:19:32 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   | 16849    | --      | --      | --      | --      | --      | --      |
| SDev   | 15.73313 | --      | --      | --      | --      | --      | --      |
| %RSD   | .0933757 | --      | --      | --      | --      | --      | --      |
| #1     | 16838    | --      | --      | --      | --      | --      | --      |
| #2     | 16860    | --      | --      | --      | --      | --      | --      |

## Analysis Report

06/05/00 10:23:40 AM

page 1

Method: METTRA Sample Name: DE4405 Operator: RJG  
 Run Time: 06/05/00 10:19:35  
 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   | .00971  | 136.72  | .07557  | 1.7430  | .00765  | 394.44  | -.00071 |
| SDev   | .00037  | .39     | .00107  | .0031   | .00002  | .35     | .00010  |
| %RSD   | 3.8047  | .28484  | 1.4143  | .17909  | .27113  | .08833  | 14.216  |
| #1     | .00945  | 136.45  | .07481  | 1.7408  | .00763  | 394.19  | -.00064 |
| #2     | .00998  | 137.00  | .07633  | 1.7452  | .00766  | 394.69  | -.00078 |
| 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   | .05864  | .30599  | .56009  | 148.00  | 22.256  | 3.7069  | .00491  |
| SDev   | .00014  | .00038  | .00035  | .38     | .032    | .0084   | .00001  |
| %RSD   | .23244  | .12276  | .06237  | .25387  | .14390  | .22551  | .11142  |
| #1     | .05873  | .30572  | .55984  | 147.73  | 22.233  | 3.7010  | .00491  |
| #2     | .05854  | .30625  | .56033  | 148.26  | 22.278  | 3.7128  | .00491  |
| 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   | .14015  | .56826  | .54562  | .55316  | .01508  | .01220  | .01316  |
| SDev   | .00114  | .00186  | .00559  | .00311  | .00096  | .00221  | .00116  |
| %RSD   | .81591  | .32818  | 1.0253  | .56229  | 6.3812  | 18.146  | 8.7829  |
| #1     | .14096  | .56958  | .54167  | .55096  | .01440  | .01376  | .01397  |
| #2     | .13935  | .56694  | .54958  | .55536  | .01576  | .01063  | .01234  |
| 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   | -.00420 | .00223  | .00009  | .00748  | .28195  | .70103  |         |
| SDev   | .00605  | .00237  | .00044  | .00234  | .00162  | .00018  |         |
| %RSD   | 144.12  | 106.29  | 501.23  | 31.252  | .57539  | .02506  |         |
| #1     | .00008  | .00055  | .00040  | .00583  | .28310  | .70091  |         |
| #2     | -.00848 | .00390  | -.00022 | .00913  | .28081  | .70116  |         |
| 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 |         |

6591174

## Analysis Report

06/05/00 10:23:40 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   | 16917    | --      | --      | --      | --      | --      | --      |
| SDev   | 12.87017 | --      | --      | --      | --      | --      | --      |
| %RSD   | .0760790 | --      | --      | --      | --      | --      | --      |
| #1     | 16908    | --      | --      | --      | --      | --      | --      |
| #2     | 16926    | --      | --      | --      | --      | --      | --      |

## Analysis Report

06/05/00 10:27:49 AM

6591175 ✓  
page 1

Method: METTRA Sample Name: CCV3-2

Operator: RJG

Run Time: 06/05/00 10:23:44

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   | 1.0521  | 23.835  | .52152  | 1.9561  | 2.0405  | 50.995  | .50323  |
| SDev   | .0007   | .019    | .00318  | .0019   | .0018   | .024    | .00082  |
| %RSD   | .06284  | .08052  | .61066  | .09528  | .08765  | .04703  | .16325  |
| #1     | 1.0516  | 23.821  | .52377  | 1.9547  | 2.0417  | 51.012  | .50381  |
| #2     | 1.0525  | 23.848  | .51926  | 1.9574  | 2.0392  | 50.978  | .50265  |
| 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   | 2.0367  | 2.0465  | 1.9591  | 25.015  | 50.107  | 2.0039  | 2.0620  |
| SDev   | .0017   | .0008   | .0013   | .018    | .012    | .0010   | .0103   |
| %RSD   | .08285  | .03957  | .06812  | .07056  | .02412  | .05019  | .50133  |
| #1     | 2.0379  | 2.0459  | 1.9600  | 25.003  | 50.115  | 2.0032  | 2.0546  |
| #2     | 2.0355  | 2.0471  | 1.9581  | 25.028  | 50.098  | 2.0046  | 2.0693  |
| 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   | 2.0338  | .51928  | .52081  | .52030  | .53427  | .52168  | .52587  |
| SDev   | .0029   | .00154  | .00267  | .00229  | .00262  | .00098  | .00153  |
| %RSD   | .14428  | .29745  | .51184  | .44059  | .49041  | .18866  | .29075  |
| #1     | 2.0359  | .51818  | .51893  | .51868  | .53241  | .52099  | .52479  |
| #2     | 2.0317  | .52037  | .52269  | .52192  | .53612  | .52238  | .52695  |
| 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   | .52825  | .53699  | .53408  | 1.0653  | 2.0123  | 2.0674  |         |
| SDev   | .00074  | .00176  | .00093  | .0011   | .0032   | .0029   |         |
| %RSD   | .14000  | .32798  | .17384  | .10490  | .15817  | .14054  |         |
| #1     | .52773  | .53824  | .53474  | 1.0645  | 2.0145  | 2.0694  |         |
| #2     | .52877  | .53575  | .53343  | 1.0661  | 2.0100  | 2.0653  |         |
| 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  |         |

6591176

## Analysis Report

06/05/00 10:27:49 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   | 16052    | --      | --      | --      | --      | --      | --      |
| SDev   | 9.263514 | --      | --      | --      | --      | --      | --      |
| %RSD   | .0577090 | --      | --      | --      | --      | --      | --      |
| #1     | 16046    | --      | --      | --      | --      | --      | --      |
| #2     | 16059    | --      | --      | --      | --      | --      | --      |

## Analysis Report

06/05/00 10:31:58 AM

page 1

Method: METTRA Sample Name: CCB2

Operator: RJG

Run Time: 06/05/00 10:27:52

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   | .00080  | .14466  | .00078  | .00061  | .00184  | .03492  | .00017  |
| SDev   | .00020  | .00096  | .00054  | .00019  | .00003  | .00784  | .00018  |
| %RSD   | 24.568  | .66031  | 69.401  | 30.876  | 1.7575  | 22.442  | 105.26  |
| #1     | .00066  | .14533  | .00116  | .00048  | .00181  | .02938  | .00004  |
| #2     | .00094  | .14398  | .00039  | .00074  | .00186  | .04046  | .00031  |
| 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   | .00037  | .00064  | -.00393 | .01352  | .01002  | .00077  | .00561  |
| SDev   | .00034  | .00040  | .00072  | .00707  | .00562  | .00019  | .00158  |
| %RSD   | 92.107  | 61.995  | 18.192  | 52.297  | 56.045  | 24.460  | 28.150  |
| #1     | .00013  | .00036  | -.00444 | .00852  | .00605  | .00064  | .00672  |
| #2     | .00060  | .00092  | -.00343 | .01852  | .01399  | .00090  | .00449  |
| 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   | .00031  | .00140  | .00037  | .00071  | -.00115 | .00404  | .00231  |
| SDev   | .00104  | .00065  | .00057  | .00017  | .00035  | .00138  | .00081  |
| %RSD   | 339.88  | 46.237  | 156.24  | 23.357  | 30.546  | 34.309  | 34.931  |
| #1     | -.00043 | .00094  | .00077  | .00083  | -.00090 | .00306  | .00174  |
| #2     | .00104  | .00186  | -.00004 | .00059  | -.00139 | .00501  | .00288  |
| 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   | -.00041 | -.00101 | -.00081 | .00222  | .00368  | .00233  |         |
| SDev   | .00055  | .00000  | .00018  | .00316  | .00077  | .00036  |         |
| %RSD   | 134.02  | .10835  | 22.645  | 142.34  | 20.927  | 15.699  |         |
| #1     | -.00002 | -.00101 | -.00068 | -.00001 | .00314  | .00207  |         |
| #2     | -.00080 | -.00101 | -.00094 | .00445  | .00422  | .00259  |         |
| Errors | NOCHECK | NOCHECK | LC Pass | LC Pass | LC Pass | LC Pass |         |
| High   |         |         | .00500  | .01000  | .05000  | .02000  |         |
| Low    |         |         | -.00500 | -.01000 | -.05000 | -.02000 |         |

6591178

## Analysis Report

06/05/00 10:31:58 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   | 15994    | --      | --      | --      | --      | --      | --      |
| SDev   | 111.6518 | --      | --      | --      | --      | --      | --      |
| %RSD   | .6980721 | --      | --      | --      | --      | --      | --      |
| #1     | 16073    | --      | --      | --      | --      | --      | --      |
| #2     | 15915    | --      | --      | --      | --      | --      | --      |

## Analysis Report

06/05/00 10:36:06 AM

page 1

Method: METTRA Sample Name: DE442 <sup>MT</sup> Operator: RJG  
 Run Time: 06/05/00 10:32:01 <sup>DB 6510</sup>  
 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   | .04991  | 181.66  | 1.8992  | 4.3641  | .05344  | H689.33 | .04055  |
| SDev   | .00049  | 1.75    | .0120   | .0325   | .00019  | 5.06    | .00002  |
| %RSD   | .97736  | .96249  | .63191  | .74519  | .35924  | .73377  | .05207  |
| #1     | .04957  | 180.42  | 1.8907  | 4.3411  | .05331  | H685.75 | .04054  |
| #2     | .05026  | 182.90  | 1.9077  | 4.3871  | .05358  | H692.90 | .04057  |
| 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   | .49859  | .40494  | .43842  | 153.45  | 22.034  | 4.4629  | .01001  |
| SDev   | .00460  | .00305  | .00415  | 1.53    | .184    | .0418   | .00122  |
| %RSD   | .92347  | .75393  | .94659  | .99968  | .83646  | .93671  | 12.211  |
| #1     | .49533  | .40279  | .43549  | 152.36  | 21.903  | 4.4334  | .01087  |
| #2     | .50184  | .40710  | .44136  | 154.53  | 22.164  | 4.4925  | .00915  |
| 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   | .58760  | .81197  | .77283  | .78586  | .01217  | .01127  | .01157  |
| SDev   | .00047  | .00175  | .02046  | .01306  | .00419  | .00224  | .00009  |
| %RSD   | .08039  | .21554  | 2.6470  | 1.6621  | 34.457  | 19.835  | .81423  |
| #1     | .58793  | .81320  | .75837  | .77663  | .00920  | .01285  | .01163  |
| #2     | .58726  | .81073  | .78730  | .79510  | .01513  | .00969  | .01150  |
| 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   | 1.8078  | 1.8363  | 1.8268  | 1.9278  | .76592  | 1.1042  |         |
| SDev   | .0004   | .0473   | .0317   | .0218   | .00418  | .0075   |         |
| %RSD   | .02121  | 2.5740  | 1.7328  | 1.1327  | .54606  | .68256  |         |
| #1     | 1.8075  | 1.8029  | 1.8044  | 1.9123  | .76296  | 1.0989  |         |
| #2     | 1.8080  | 1.8698  | 1.8492  | 1.9432  | .76887  | 1.1095  |         |
| 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   | 16781    | --      | --      | --      | --      | --      | --      |
| SDev   | 102.5664 | --      | --      | --      | --      | --      | --      |
| %RSD   | .6112227 | --      | --      | --      | --      | --      | --      |
| #1     | 16853    | --      | --      | --      | --      | --      | --      |
| #2     | 16708    | --      | --      | --      | --      | --      | --      |

## Analysis Report

06/05/00 10:40:15 AM

page 1

Method: METTRA Sample Name: DE3QGB

Operator: RJG

Run Time: 06/05/00 10:36:10

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    | .00005  | .16436  | .00030  | .00189  | .00150  | .39689  | -.00011 |
| SDev   | .00014  | .00822  | .00109  | .00010  | .00004  | .00970  | .00009  |
| %RSD   | 284.39  | 5.0003  | 361.95  | 5.2822  | 2.6498  | 2.4428  | 83.180  |
| #1     | -.00015 | .17017  | .00108  | .00196  | .00153  | .40375  | -.00004 |
| #2     | .00005  | .15855  | -.00047 | .00182  | .00147  | .39004  | -.00017 |
| 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     |
| Avg    | .00050  | .00011  | -.00403 | .03337  | .05145  | .00125  | .00076  |
| SDev   | .00000  | .00021  | .00001  | .01006  | .00020  | .00007  | .00027  |
| %RSD   | .54666  | 181.68  | .19444  | 30.164  | .39333  | 5.8828  | 36.013  |
| #1     | -.00050 | -.00003 | -.00403 | .04049  | .05159  | .00130  | .00095  |
| #2     | -.00050 | .00026  | -.00404 | .02625  | .05131  | .00120  | .00056  |
| 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     |
| Avg    | .00114  | .00728  | .00017  | .00254  | -.00108 | .00077  | .00015  |
| SDev   | .00112  | .00386  | .00112  | .00054  | .00333  | .00126  | .00027  |
| %RSD   | 98.014  | 52.987  | 664.81  | 21.228  | 309.41  | 164.09  | 172.09  |
| #1     | .00035  | .00455  | .00096  | .00216  | .00128  | -.00012 | .00034  |
| #2     | .00193  | .01001  | -.00062 | .00292  | -.00343 | .00166  | -.00003 |
| 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     |         |
| Avg    | -.00590 | .00290  | -.00003 | .00010  | .00001  | .01804  |         |
| SDev   | .00384  | .00246  | .00036  | .00281  | .00000  | .00028  |         |
| %RSD   | 64.968  | 84.891  | 1067.9  | 2823.7  | 30.164  | 1.5598  |         |
| #1     | -.00862 | .00463  | .00022  | .00209  | .00001  | .01784  |         |
| #2     | -.00319 | .00116  | -.00029 | -.00189 | .00001  | .01824  |         |
| Errors | NOCHECK | NOCHECK | LC Pass | LC Pass | LC Pass | LC Pass |         |
| High   |         |         | .00500  | .01000  | .05000  | .02000  |         |
| Low    |         |         | -.00500 | -.01000 | -.05000 | -.02000 |         |

6591182

## Analysis Report

06/05/00 10:40:15 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   | 15714    | --      | --      | --      | --      | --      | --      |
| SDev   | 23.82964 | --      | --      | --      | --      | --      | --      |
| %RSD   | .1516444 | --      | --      | --      | --      | --      | --      |
| #1     | 15731    | --      | --      | --      | --      | --      | --      |
| #2     | 15697    | --      | --      | --      | --      | --      | --      |

1

## Analysis Report

Method: METTRA Sample Name: DE3QGC

Operator: RJG

Run Time: 06/05/00 10:40:19

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   | .05338  | 2.0127  | 2.1222  | 1.9822  | .05537  | L.55364 | .05385   |
| SDev   | .00012  | .0015   | .0007   | .0044   | .00000  | .00239  | .00042   |
| %RSD   | .21931  | .07536  | .03076  | .22429  | .00180  | .43232  | .78833   |
| #1     | .05330  | 2.0138  | 2.1218  | 1.9791  | .05537  | L.55195 | .05355   |
| #2     | .05346  | 2.0117  | 2.1227  | 1.9854  | .05537  | L.55533 | .05415   |
| 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   | .53915  | .21526  | .24864  | 1.0808  | L.06150 | .52308  | L.00010  |
| SDev   | .00090  | .00064  | .00124  | .0033   | .00391  | .00126  | .00034   |
| %RSD   | .16695  | .29789  | .49891  | .30231  | 6.3621  | .24156  | 342.09   |
| #1     | .53851  | .21481  | .24776  | 1.0785  | L.06426 | .52218  | L.00034  |
| #2     | .53979  | .21572  | .24952  | 1.0831  | L.05873 | .52397  | L-.00014 |
| 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   | .54010  | .53664  | .53988  | .53880  | .00021  | .00289  | L.00200  |
| SDev   | .00165  | .00113  | .00226  | .00113  | .00186  | .00065  | .00019   |
| %RSD   | .30557  | .21010  | .41768  | .20947  | 871.19  | 22.385  | 9.3456   |
| #1     | .54127  | .53744  | .53829  | .53801  | -.00110 | .00334  | L.00187  |
| #2     | .53894  | .53585  | .54148  | .53960  | .00152  | .00243  | L.00213  |
| 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   | 2.1184  | 2.1384  | 2.1317  | 2.1531  | .51768  | .57995  |          |
| SDev   | .0029   | .0176   | .0127   | .0078   | .00132  | .00024  |          |
| %RSD   | .13467  | .82466  | .59633  | .36195  | .25519  | .04108  |          |
| #1     | 2.1164  | 2.1259  | 2.1227  | 2.1476  | .51675  | .58012  |          |
| #2     | 2.1204  | 2.1508  | 2.1407  | 2.1586  | .51862  | .57978  |          |
| 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  |          |

|        |          |         |         |         |         |         |         |
|--------|----------|---------|---------|---------|---------|---------|---------|
| IntStd | 1        | 2       | 3       | 4       | 5       | 6       | 7       |
| Mode   | Counts   | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem   | Y        | --      | --      | --      | --      | --      | --      |
| Wavlen | 371.030  | --      | --      | --      | --      | --      | --      |
| Avge   | 15844    | --      | --      | --      | --      | --      | --      |
| SDev   | .2824284 | --      | --      | --      | --      | --      | --      |
| %RSD   | .0017826 | --      | --      | --      | --      | --      | --      |
| #1     | 15844    | --      | --      | --      | --      | --      | --      |
| #2     | 15844    | --      | --      | --      | --      | --      | --      |

## Analysis Report

06/05/00 10:48:33 AM

6591185  
page 1

Method: METTRA Sample Name: DE022 Operator: RJG  
 Run Time: 06/05/00 10:44:28  
 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     |
| Avge   | .00253  | 202.69  | .08201  | 3.2326  | .00907  | H955.41 | -.00130 |
| SDev   | .00013  | .34     | .00085  | .0062   | .00008  | 1.50    | .00005  |
| %RSD   | 5.0290  | .16983  | 1.0319  | .19222  | .89554  | .15708  | 3.4700  |
| #1     | .00262  | 202.45  | .08141  | 3.2282  | .00913  | H956.47 | -.00127 |
| #2     | .00244  | 202.93  | .08261  | 3.2370  | .00901  | H954.35 | -.00133 |
| 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   | .05255  | .26890  | .27164  | 142.61  | 20.532  | 3.7520  | .00748  |
| SDev   | .00016  | .00065  | .00090  | .28     | .014    | .0031   | .00050  |
| %RSD   | .30823  | .24149  | .33030  | .19407  | .06955  | .08294  | 6.7223  |
| #1     | .05243  | .26844  | .27101  | 142.42  | 20.522  | 3.7498  | .00784  |
| #2     | .05266  | .26935  | .27228  | 142.81  | 20.542  | 3.7542  | .00713  |
| 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   | .12283  | .55314  | .52224  | .53253  | .01655  | .01284  | .01408  |
| SDev   | .00174  | .00275  | .00813  | .00450  | .00683  | .00328  | .00008  |
| %RSD   | 1.4168  | .49767  | 1.5561  | .84572  | 41.239  | 25.568  | .58486  |
| #1     | .12406  | .55508  | .51649  | .52934  | .01172  | .01517  | .01402  |
| #2     | .12160  | .55119  | .52799  | .53571  | .02138  | .01052  | .01414  |
| 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   | .00789  | -.00014 | .00253  | .01162  | .31711  | .74730  |         |
| SDev   | .00459  | .00080  | .00100  | .00088  | .00060  | .00014  |         |
| %RSD   | 58.153  | 571.62  | 39.352  | 7.5791  | .18863  | .01877  |         |
| #1     | .01113  | -.00070 | .00324  | .01100  | .31753  | .74720  |         |
| #2     | .00464  | .00042  | .00183  | .01225  | .31669  | .74740  |         |
| 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 |         |

6591186

## Analysis Report

06/05/00 10:48:33 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   | 16872    | --      | --      | --      | --      | --      | --      |
| SDev   | 22.73376 | --      | --      | --      | --      | --      | --      |
| %RSD   | .1347387 | --      | --      | --      | --      | --      | --      |
| #1     | 16889    | --      | --      | --      | --      | --      | --      |
| #2     | 16856    | --      | --      | --      | --      | --      | --      |

## Analysis Report

06/05/00 10:52:42 AM

6591187  
page 1

Method: METTRA Sample Name: DE<sup>0</sup>22P5 Operator: RJG  
 Run Time: 06/05/00 10:48:37 PB 6500  
 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  | .00053 | 41.336 | .01802 | .69251 | .00314 | 224.98 | -.00034 |
| SDev  | .00011 | .180   | .00058 | .00334 | .00016 | 1.13   | .00000  |
| %RSD  | 20.266 | .43560 | 3.2256 | .48169 | 5.1177 | .50217 | 1.2280  |
| #1    | .00061 | 41.464 | .01843 | .69486 | .00326 | 225.78 | -.00034 |
| #2    | .00046 | 41.209 | .01761 | .69015 | .00303 | 224.18 | -.00034 |

| Elem  | CO     | CR     | CU     | FE     | MG     | MN     | MO     |
|-------|--------|--------|--------|--------|--------|--------|--------|
| Units | ppm    | ppm    | ppm    | ppm    | ppm    | ppm    | ppm    |
| Avge  | .01145 | .05972 | .05152 | 30.524 | 4.3566 | .80450 | .00107 |
| SDev  | .00063 | .00015 | .00021 | .113   | .0127  | .00234 | .00013 |
| %RSD  | 5.5062 | .25167 | .39988 | .37049 | .29094 | .29055 | 11.803 |
| #1    | .01100 | .05982 | .05167 | 30.604 | 4.3656 | .80615 | .00098 |
| #2    | .01189 | .05961 | .05137 | 30.444 | 4.3476 | .80285 | .00116 |

| Elem  | NI     | PB/1   | PB/2   | PB     | SB/1   | SB/2   | SB     |
|-------|--------|--------|--------|--------|--------|--------|--------|
| Units | ppm    | ppm    | ppm    | ppm    | ppm    | ppm    | ppm    |
| Avge  | .02730 | .12140 | .11472 | .11694 | .00437 | .00198 | .00278 |
| SDev  | .00074 | .00229 | .00219 | .00070 | .00202 | .00084 | .00011 |
| %RSD  | 2.7117 | 1.8859 | 1.9090 | .59718 | 46.333 | 42.404 | 4.0897 |
| #1    | .02782 | .12301 | .11317 | .11645 | .00294 | .00258 | .00270 |
| #2    | .02677 | .11978 | .11627 | .11744 | .00580 | .00139 | .00286 |

| Elem  | SE/1    | SE/2    | SE      | TL     | V_     | ZN     |
|-------|---------|---------|---------|--------|--------|--------|
| Units | ppm     | ppm     | ppm     | ppm    | ppm    | ppm    |
| Avge  | -.00026 | -.00055 | -.00045 | .00364 | .06922 | .16378 |
| SDev  | .00335  | .00176  | .00006  | .00196 | .00112 | .00132 |
| %RSD  | 1277.7  | 321.40  | 12.525  | 53.840 | 1.6194 | .80609 |
| #1    | .00211  | -.00179 | -.00049 | .00225 | .07001 | .16471 |
| #2    | -.00263 | .00070  | -.00041 | .00503 | .06843 | .16284 |



|        |          |         |         |         |         |         |         |
|--------|----------|---------|---------|---------|---------|---------|---------|
| IntStd | 1        | 2       | 3       | 4       | 5       | 6       | 7       |
| Mode   | Counts   | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED | NOTUSED |
| Elem   | Y        | --      | --      | --      | --      | --      | --      |
| Wavlen | 371.030  | --      | --      | --      | --      | --      | --      |
| Avge   | 16084    | --      | --      | --      | --      | --      | --      |
| SDev   | 43.73428 | --      | --      | --      | --      | --      | --      |
| %RSD   | .2719104 | --      | --      | --      | --      | --      | --      |
| #1     | 16053    | --      | --      | --      | --      | --      | --      |
| #2     | 16115    | --      | --      | --      | --      | --      | --      |

## Analysis Report

06/05/00 10:56:52 AM

page 1

Method: METTRA Sample Name: DE<sup>0</sup>222S Operator: RJG  
 Run Time: 06/05/00 10:52:46 *26650*  
 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    | .05020  | 168.23  | 1.9056  | 4.3129  | .05309  | H773.36 | .04051  |
| SDev   | .00010  | .83     | .0000   | .0116   | .00006  | .36     | .00010  |
| %RSD   | .20634  | .49045  | .00004  | .26997  | .10624  | .04623  | .25242  |
| #1     | .05027  | 167.64  | 1.9056  | 4.3047  | .05313  | H773.62 | .04044  |
| #2     | .05013  | 168.81  | 1.9056  | 4.3212  | .05305  | H773.11 | .04059  |
| 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     |
| Avg    | .48112  | .41391  | .53244  | 148.54  | 17.486  | 3.6845  | .00552  |
| SDev   | .00069  | .00011  | .00153  | .36     | .010    | .0045   | .00025  |
| %RSD   | .14369  | .02602  | .28672  | .23962  | .05676  | .12250  | 4.4522  |
| #1     | .48063  | .41398  | .53136  | 148.29  | 17.479  | 3.6813  | .00534  |
| #2     | .48161  | .41383  | .53352  | 148.80  | 17.493  | 3.6877  | .00569  |
| 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    | .55806  | .95401  | .92275  | .93316  | .01611  | .01289  | .01396  |
| SDev   | .00180  | .00990  | .00639  | .00096  | .00407  | .00428  | .00150  |
| %RSD   | .32271  | 1.0378  | .69195  | .10308  | 25.261  | 33.217  | 10.750  |
| #1     | .55934  | .96102  | .91824  | .93248  | .01323  | .01592  | .01502  |
| #2     | .55679  | .94701  | .92727  | .93384  | .01898  | .00986  | .01290  |
| 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    | 1.8697  | 1.9040  | 1.8926  | 1.9228  | .72036  | 1.4607  |         |
| SDev   | .0072   | .0069   | .0022   | .0021   | .00088  | .0005   |         |
| %RSD   | .38484  | .36055  | .11534  | .11001  | .12265  | .03588  |         |
| #1     | 1.8748  | 1.8991  | 1.8910  | 1.9213  | .72099  | 1.4603  |         |
| #2     | 1.8646  | 1.9089  | 1.8941  | 1.9243  | .71974  | 1.4610  |         |
| 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 |         |

6591190

## Analysis Report

06/05/00 10:56:52 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   | 16779    | --      | --      | --      | --      | --      | --      |
| SDev   | 29.73301 | --      | --      | --      | --      | --      | --      |
| %RSD   | .1772003 | --      | --      | --      | --      | --      | --      |
| #1     | 16758    | --      | --      | --      | --      | --      | --      |
| #2     | 16800    | --      | --      | --      | --      | --      | --      |

UAD no sample in autosampler position. 2665W

6591191

Analysis Report

06/05/00 11:01:01 AM

page 1

Method: METTRA Sample Name: DE022D Operator: RJG  
 Run Time: 06/05/00 10:56:56  
 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    | .00032  | L-.55070 | .00220  | .00020  | .01539  | .03016  | .00001  |
| SDev   | .00011  | .01077   | .00029  | .00007  | .00008  | .02739  | .00002  |
| %RSD   | 34.660  | 1.9552   | 13.184  | 33.534  | .53721  | 90.823  | 142.79  |
| #1     | .00024  | L-.54309 | .00199  | .00025  | .01533  | .04952  | -.00000 |
| #2     | .00040  | L-.55832 | .00240  | .00016  | .01545  | .01079  | .00003  |
| Errors | LC Pass | LC Low   | 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    | .00052  | .00015   | -.01339 | .02928  | .00159  | .00003  | -.00119 |
| SDev   | .00026  | .00014   | .00015  | .00211  | .00036  | .00010  | .00005  |
| %RSD   | 50.360  | 93.105   | 1.1153  | 7.2181  | 22.761  | 338.63  | 4.5145  |
| #1     | .00034  | .00005   | -.01349 | .03078  | .00133  | .00010  | -.00115 |
| #2     | .00071  | .00025   | -.01328 | .02779  | .00184  | -.00004 | -.00123 |
| 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    | .00028  | -.00104  | .00203  | .00101  | .00315  | -.00013 | .00097  |
| SDev   | .00006  | .00050   | .00003  | .00019  | .00013  | .00007  | .00009  |
| %RSD   | 22.537  | 48.169   | 1.3900  | 18.485  | 3.9839  | 59.207  | 9.4657  |
| #1     | .00024  | -.00069  | .00205  | .00114  | .00306  | -.00018 | .00090  |
| #2     | .00033  | -.00140  | .00201  | .00088  | .00324  | -.00007 | .00103  |
| 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    | .00519  | -.00703  | -.00296 | .00892  | .00001  | -.00071 |         |
| SDev   | .00017  | .00050   | .00027  | .00093  | .00000  | .00002  |         |
| %RSD   | 3.2833  | 7.0645   | 9.2706  | 10.445  | 7.2181  | 2.5041  |         |
| #1     | .00531  | -.00738  | -.00315 | .00958  | .00001  | -.00072 |         |
| #2     | .00507  | -.00668  | -.00277 | .00826  | .00001  | -.00069 |         |
| 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 |         |

6591192

## Analysis Report

06/05/00 11:01:01 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   | 41650    | --      | --      | --      | --      | --      | --      |
| SDev   | 1051.540 | --      | --      | --      | --      | --      | --      |
| %RSD   | 2.524684 | --      | --      | --      | --      | --      | --      |
| #1     | 40907    | --      | --      | --      | --      | --      | --      |
| #2     | 42394    | --      | --      | --      | --      | --      | --      |

Method: METTRA Sample Name: CCV3-3 Operator: RJG  
 Run Time: 06/05/00 11:01:05  
 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   | L-.00005 | L-.56160 | L.00197 | L-.00006 | L.01551 | L-.01523 | L-.00010 |
| SDev  | .00007   | .00795   | .00011  | .00001   | .00016  | .00143   | .00003   |
| %RSD  | 149.93   | 1.4163   | 5.3214  | 9.4088   | 1.0107  | 9.4054   | 28.027   |

|    |          |          |         |          |         |          |          |
|----|----------|----------|---------|----------|---------|----------|----------|
| #1 | L-.00009 | L-.55598 | L.00204 | L-.00006 | L.01540 | L-.01422 | L-.00012 |
| #2 | L.00000  | L-.56723 | L.00189 | L-.00007 | L.01562 | L-.01624 | L-.00008 |

|        |        |        |        |        |        |        |        |
|--------|--------|--------|--------|--------|--------|--------|--------|
| Errors | LC Low | LC Low | LC Low | LC Low | LC Low | LC Low | LC Low |
| 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      |
| Avg   | L.00054 | L-.00018 | L-.01358 | L.02347 | L-.00127 | L-.00020 | L-.00152 |
| SDev  | .00020  | .00012   | .00010   | .00325  | .00105   | .00001   | .00029   |
| %RSD  | 37.745  | 66.072   | .70992   | 13.822  | 82.542   | 5.8204   | 19.026   |

|    |         |          |          |         |          |          |          |
|----|---------|----------|----------|---------|----------|----------|----------|
| #1 | L.00040 | L-.00027 | L-.01365 | L.02118 | L-.00202 | L-.00021 | L-.00173 |
| #2 | L.00068 | L-.00010 | L-.01351 | L.02577 | L-.00053 | L-.00019 | L-.00132 |

|        |        |        |        |        |        |        |        |
|--------|--------|--------|--------|--------|--------|--------|--------|
| Errors | LC Low | LC Low | LC Low | LC Low | LC Low | LC Low | LC Low |
| 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     |
| Avg   | L.00007 | -.00069 | .00182 | L.00098 | .00232 | -.00041 | L.00050 |
| SDev  | .00000  | .00033  | .00064 | .00031  | .00054 | .00004  | .00015  |
| %RSD  | 2.2359  | 48.346  | 35.100 | 31.992  | 23.395 | 10.732  | 30.223  |

|    |         |         |        |         |        |         |         |
|----|---------|---------|--------|---------|--------|---------|---------|
| #1 | L.00007 | -.00093 | .00227 | L.00120 | .00271 | -.00044 | L.00061 |
| #2 | L.00006 | -.00045 | .00136 | L.00076 | .00194 | -.00038 | L.00040 |

|        |        |         |         |        |         |         |        |
|--------|--------|---------|---------|--------|---------|---------|--------|
| Errors | LC Low | NOCHECK | NOCHECK | LC Low | NOCHECK | NOCHECK | LC Low |
| 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      |
| Avg   | .00687 | -.00821 | L-.00319 | L.00919 | L.00011 | L-.00077 |
| SDev  | .00174 | .00114  | .00018   | .00040  | .00000  | .00000   |
| %RSD  | 25.340 | 13.897  | 5.6838   | 4.4033  | 1.2101  | .07869   |

|    |        |         |          |         |         |          |
|----|--------|---------|----------|---------|---------|----------|
| #1 | .00564 | -.00740 | L-.00306 | L.00947 | L.00011 | L-.00077 |
| #2 | .00810 | -.00901 | L-.00332 | L.00890 | L.00011 | L-.00077 |

|        |         |         |        |        |        |        |
|--------|---------|---------|--------|--------|--------|--------|
| Errors | NOCHECK | NOCHECK | LC Low | LC Low | LC Low | LC Low |
| High   |         |         | .55000 | 1.1000 | 2.2000 | 2.2000 |
| Low    |         |         | .45000 | .90000 | 1.8000 | 1.8000 |

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## Analysis Report

06/05/00 11:05:11 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   | 42403    | --      | --      | --      | --      | --      | --      |
| SDev   | 1040.933 | --      | --      | --      | --      | --      | --      |
| %RSD   | 2.454837 | --      | --      | --      | --      | --      | --      |
| #1     | 41667    | --      | --      | --      | --      | --      | --      |
| #2     | 43139    | --      | --      | --      | --      | --      | --      |

## Analysis Report

06/05/00 11:13:37 AM

6591195

page 1

Method: METTRA Sample Name: DE<sup>0</sup>222D Operator: RJG  
 Run Time: 06/05/00 11:09:31 <sup>266510</sup>  
 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   | .05049  | 192.46  | 1.8795  | 4.4997  | .05344  | H803.38 | .04009  |
| SDev   | .00039  | .61     | .0016   | .0078   | .00009  | .83     | .00031  |
| %RSD   | .77407  | .31699  | .08470  | .17238  | .17105  | .10314  | .77526  |
| #1     | .05076  | 192.03  | 1.8784  | 4.4942  | .05351  | H803.96 | .03987  |
| #2     | .05021  | 192.89  | 1.8807  | 4.5051  | .05338  | H802.79 | .04031  |
| 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   | .48139  | .42012  | .54523  | 144.68  | 19.965  | 4.4146  | .00737  |
| SDev   | .00083  | .00013  | .00150  | .19     | .013    | .0023   | .00149  |
| %RSD   | .17242  | .03015  | .27535  | .12928  | .06388  | .05275  | 20.287  |
| #1     | .48080  | .42003  | .54417  | 144.55  | 19.956  | 4.4130  | .00842  |
| #2     | .48197  | .42020  | .54629  | 144.81  | 19.974  | 4.4163  | .00631  |
| 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   | .55532  | .93846  | .89997  | .91279  | .01427  | .01271  | .01323  |
| SDev   | .00188  | .00812  | .00830  | .00283  | .00750  | .00449  | .00050  |
| %RSD   | .33876  | .86517  | .92175  | .30998  | 52.546  | 35.354  | 3.7887  |
| #1     | .55665  | .94420  | .89411  | .91079  | .00897  | .01589  | .01359  |
| #2     | .55399  | .93272  | .90584  | .91479  | .01957  | .00953  | .01288  |
| 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   | 1.8232  | 1.8655  | 1.8514  | 1.9194  | .75015  | 1.1320  |         |
| SDev   | .0092   | .0118   | .0048   | .0015   | .00157  | .0019   |         |
| %RSD   | .50242  | .62993  | .25859  | .07764  | .20908  | .17189  |         |
| #1     | 1.8297  | 1.8572  | 1.8481  | 1.9205  | .75126  | 1.1333  |         |
| #2     | 1.8168  | 1.8738  | 1.8548  | 1.9184  | .74904  | 1.1306  |         |
| 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 |         |



6591196

## Analysis Report

06/05/00 11:13:37 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   | 16605    | --      | --      | --      | --      | --      | --      |
| SDev   | 89.66031 | --      | --      | --      | --      | --      | --      |
| %RSD   | .5399483 | --      | --      | --      | --      | --      | --      |
| #1     | 16542    | --      | --      | --      | --      | --      | --      |
| #2     | 16669    | --      | --      | --      | --      | --      | --      |

## Analysis Report

06/05/00 11:17:46 AM

page 1

Method: METTRA Sample Name: CCV3-3 Operator: RJG  
 Run Time: 06/05/00 11:13:41  
 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   | 1.0474  | 23.439  | .51562  | 1.9340  | 2.0093  | 49.947  | .49314  |
| SDev   | .0102   | .284    | .00552  | .0183   | .0202   | .531    | .00557  |
| %RSD   | .97008  | 1.2099  | 1.0700  | .94704  | 1.0077  | 1.0625  | 1.1301  |
| #1     | 1.0402  | 23.238  | .51172  | 1.9210  | 1.9950  | 49.572  | .48920  |
| #2     | 1.0545  | 23.639  | .51952  | 1.9469  | 2.0236  | 50.322  | .49708  |
| 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   | 2.0015  | 2.0168  | 1.9506  | 24.502  | 49.639  | 1.9806  | 2.0427  |
| SDev   | .0206   | .0214   | .0189   | .272    | .516    | .0207   | .0343   |
| %RSD   | 1.0314  | 1.0605  | .97114  | 1.1096  | 1.0403  | 1.0444  | 1.6813  |
| #1     | 1.9869  | 2.0017  | 1.9372  | 24.310  | 49.274  | 1.9660  | 2.0184  |
| #2     | 2.0161  | 2.0320  | 1.9640  | 24.694  | 50.004  | 1.9952  | 2.0670  |
| 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   | 1.9994  | .50677  | .51117  | .50970  | .53250  | .52053  | .52452  |
| SDev   | .0136   | .00681  | .00579  | .00613  | .00930  | .00740  | .00803  |
| %RSD   | .67778  | 1.3428  | 1.1337  | 1.2029  | 1.7458  | 1.4217  | 1.5313  |
| #1     | 1.9898  | .50196  | .50707  | .50537  | .52593  | .51530  | .51884  |
| #2     | 2.0090  | .51158  | .51526  | .51404  | .53907  | .52576  | .53020  |
| 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   | .52653  | .53300  | .53085  | 1.0614  | 1.9832  | 2.0395  |         |
| SDev   | .00472  | .00887  | .00749  | .0165   | .0192   | .0212   |         |
| %RSD   | .89626  | 1.6644  | 1.4107  | 1.5510  | .97053  | 1.0413  |         |
| #1     | .52320  | .52673  | .52555  | 1.0498  | 1.9696  | 2.0245  |         |
| #2     | .52987  | .53927  | .53614  | 1.0731  | 1.9968  | 2.0545  |         |
| 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  |         |

6591198

## Analysis Report

06/05/00 11:17:46 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   | 15854    | --      | --      | --      | --      | --      | --      |
| SDev   | 134.2446 | --      | --      | --      | --      | --      | --      |
| %RSD   | .8467329 | --      | --      | --      | --      | --      | --      |
| #1     | 15949    | --      | --      | --      | --      | --      | --      |
| #2     | 15760    | --      | --      | --      | --      | --      | --      |

## Analysis Report

6591199

06/05/00 11:21:56 AM

page 1

Method: METTRA Sample Name: CCB3

Operator: RJG

Run Time: 06/05/00 11:17:50

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     |
| Avg    | .00015  | H.20943 | .00097  | .00048  | .00223  | .02496  | -.00001 |
| SDev   | .00011  | .00153  | .00125  | .00002  | .00002  | .00079  | .00008  |
| %RSD   | 73.255  | .73223  | 128.65  | 3.9839  | 1.0129  | 3.1755  | 634.72  |
| #1     | .00023  | H.20834 | .00009  | .00050  | .00222  | .02440  | -.00007 |
| #2     | .00007  | H.21051 | .00185  | .00047  | .00225  | .02552  | .00004  |
| Errors | LC Pass | LC High | 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     |
| Avg    | .00018  | .00052  | -.00571 | .00951  | .00538  | .00048  | .00551  |
| SDev   | .00020  | .00017  | .00037  | .00237  | .00280  | .00003  | .00152  |
| %RSD   | 111.82  | 32.056  | 6.5050  | 24.930  | 52.133  | 6.2793  | 27.492  |
| #1     | .00032  | .00064  | -.00597 | .01118  | .00339  | .00046  | .00659  |
| #2     | .00004  | .00040  | -.00545 | .00783  | .00736  | .00050  | .00444  |
| 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     |
| Avg    | .00022  | .00090  | .00090  | .00090  | -.00053 | -.00018 | -.00029 |
| SDev   | .00043  | .00077  | .00051  | .00008  | .00099  | .00119  | .00047  |
| %RSD   | 197.94  | 85.189  | 56.356  | 9.3128  | 187.17  | 670.28  | 158.83  |
| #1     | .00052  | .00144  | .00054  | .00084  | -.00123 | .00067  | .00004  |
| #2     | -.00009 | .00036  | .00126  | .00096  | .00017  | -.00102 | -.00063 |
| 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     |         |
| Avg    | .00090  | .00025  | .00047  | .00280  | .00027  | .00237  |         |
| SDev   | .00179  | .00193  | .00188  | .00088  | .00038  | .00008  |         |
| %RSD   | 198.33  | 777.32  | 404.18  | 31.479  | 139.98  | 3.3335  |         |
| #1     | -.00036 | -.00112 | -.00087 | .00343  | .00053  | .00232  |         |
| #2     | .00217  | .00161  | .00180  | .00218  | .00000  | .00243  |         |
| Errors | NOCHECK | NOCHECK | LC Pass | LC Pass | LC Pass | LC Pass |         |
| High   |         |         | .00500  | .01000  | .05000  | .02000  |         |
| Low    |         |         | -.00500 | -.01000 | -.05000 | -.02000 |         |

6591200

## Analysis Report

06/05/00 11:21:56 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   | 15802    | --      | --      | --      | --      | --      | --      |
| SDev   | .6007646 | --      | --      | --      | --      | --      | --      |
| %RSD   | .0038019 | --      | --      | --      | --      | --      | --      |
| #1     | 15801    | --      | --      | --      | --      | --      | --      |
| #2     | 15802    | --      | --      | --      | --      | --      | --      |

6591201

# Metals Preparation

og



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

|                          |               |                        |                                           |                 |                                                                                               |
|--------------------------|---------------|------------------------|-------------------------------------------|-----------------|-----------------------------------------------------------------------------------------------|
| Method: 3056B            | Matrix: 5011  | Start Time: 0955       | SDG: _____                                | Balance# C48417 | Reagents: 10ml 1% HCl, 2ml conc. HNO <sub>3</sub> , 10ml 95% H <sub>2</sub> O, 10ml conc. HCl |
| Analyst: [Signature]     | Date: 10/2/00 | Lot Number: C053101342 | Lab Lot No. (Book page, line): 0014-084-1 | MS              | 0014-110-5                                                                                    |
| Reviewed By: [Signature] | Date: 6-2-05  | MS-B1REV               |                                           |                 |                                                                                               |

| Sample ID | Init Wt/Vol<br>g/mL | Final Vol<br>mL | Comments       | Color |      | Clarity |      | Texture |      | Artifacts | Artifact Codes          |
|-----------|---------------------|-----------------|----------------|-------|------|---------|------|---------|------|-----------|-------------------------|
|           |                     |                 |                | Pre   | Post | Pre     | Post | Pre     | Post |           |                         |
| DE022     | 1.0g                | 100mL           | 1.0mL MS-B1REV |       |      |         |      |         |      |           | S=Stones                |
| DE022S    |                     |                 | 1.0mL MS-B1REV |       |      |         |      |         |      |           | O=Organic (plant mat)   |
| DE022D    |                     |                 | 1.0mL MS-B1REV |       |      |         |      |         |      |           | W=free H <sub>2</sub> O |
| DE306B    |                     |                 | 1.0mL MS-B1REV |       |      |         |      |         |      |           | G=Glass                 |
| DE306C    |                     |                 | 1.0mL MS-B1REV |       |      |         |      |         |      |           | M=Metal Fragments       |
|           |                     |                 |                |       |      |         |      |         |      |           | R=Rubber/Plastic        |
|           |                     |                 |                |       |      |         |      |         |      |           | C=Cloth                 |
|           |                     |                 |                |       |      |         |      |         |      |           | P=Paper                 |
|           |                     |                 |                |       |      |         |      |         |      |           | I=Insects               |

| Digestate(s) | Digestate(s) Received |      |             | Digestate(s) Relinquished |       |             | Hot plate /Block Temp | Correction Factor | Color                                                               |
|--------------|-----------------------|------|-------------|---------------------------|-------|-------------|-----------------------|-------------------|---------------------------------------------------------------------|
|              | Date                  | Time | Analyst     | Date                      | Time  | Analyst     |                       |                   |                                                                     |
| HL 131E      | 10/2/00               | 1555 | [Signature] | 10/2/00                   | 10:50 | [Signature] | 200°C                 |                   | R=Red<br>BL=Blue<br>BR=Brown<br>BLK=Black<br>Y=Yellow<br>O=Orange   |
| HL 131E      | 10/2/00               | 0120 | [Signature] | 10/2/00                   | 10:50 | [Signature] | 200°C                 |                   | V=Violet<br>P=Pink<br>W=White<br>GY=Gray<br>GN=Green<br>C=Colorless |

6591202

PSR024 6/02/00 6:08:02 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 001

REQUESTED BY: KRANCES

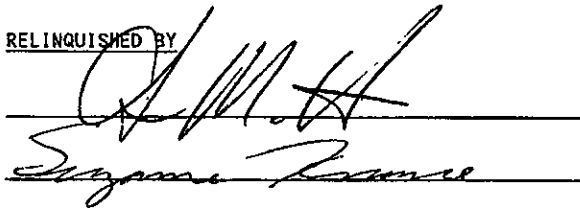
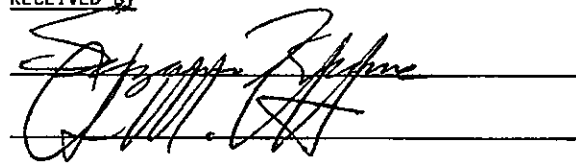
METHOD: QM Inductively Coupled Plasma (6010B Trace)

| <u>STORAGE LOCATION</u> | <u>WORK ORDER #</u> | <u>PICKED</u><br><u>CNTR#</u> | <u>CONTROL #</u> | <u>CLIENT #</u> | <u>ANALYSIS</u> | <u>LOTID</u> | <u>SMP#</u> | <u>SFX</u> | <u>MATRIX</u><br><u>DESCRIPTION</u> | <u>QTY</u><br><u>RCVD</u> | <u>QTY</u><br><u>REQD</u> |
|-------------------------|---------------------|-------------------------------|------------------|-----------------|-----------------|--------------|-------------|------------|-------------------------------------|---------------------------|---------------------------|
| 7E CLP1                 | DE022               | ___                           | 237659           | 399411          | A-46-QM         | C0E310132    | 001         |            | SOLID                               | 0                         | 3 1                       |

RELINQUISHED BY

RECEIVED BY

DATE/TIME

  
Suzanne Krances  
Suzanne Krances6/2/00 0925  
6/2/00 1040

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

**TCLP  
METALS DATA**



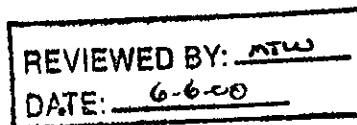
**STL-Pittsburgh****Cover Page - Inorganic Analysis Data Package**

| <u>Client ID</u>           | <u>Lab Sample ID:</u> |
|----------------------------|-----------------------|
| <u>DF/S1/D151/SDC/005</u>  | <u>DE022T</u>         |
| <u>DF/S1/D151/SDC/005D</u> | <u>DE022DT</u>        |
| <u>DF/S1/D151/SDC/005S</u> | <u>DE022ST</u>        |

**Comments:** UXB DUNN FIELD  
COE310132  
TCLP-6010B, 7470A

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: \_\_\_\_\_



**TCLP  
METALS  
RESULTS**

6591206

## STL-Pittsburgh

## Metals Data Reporting Form

Sample Results

Lab Sample ID: DE022T Client ID: DF/S1/D151/SDC/005  
Matrix: Water Units: mg/L Prep Date: 6/3/00 Prep Batch: 0155091  
Weight: NA Volume: 100 Percent Moisture: NA

| Element | WL/<br>Mass | MDL      | Report<br>Limit | Conc     | Q | DF | Instr | Anal<br>Date | Anal<br>Time |
|---------|-------------|----------|-----------------|----------|---|----|-------|--------------|--------------|
| Mercury | 253.7       | 0.000045 | 0.00020         | 0.000045 | U | 1  | CVAA  | 6/3/00       | 8:20         |

Comments: \_\_\_\_\_

Version 3.63.4

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: DE022T Client ID: DF/S1/D151/SDC/005  
 Matrix: Water Units: mg/L Prep Date: 6/3/00 Prep Batch: 0155096  
 Weight: NA Volume: 50 Percent Moisture: NA

| Element  | WL/<br>Mass | MDL     | Report<br>Limit | Conc   | Q | DF | Instr | Anal<br>Date | Anal<br>Time |
|----------|-------------|---------|-----------------|--------|---|----|-------|--------------|--------------|
| Arsenic  | 193.7       | 0.030   | 0.50            | 0.11   | B | 1  | ICP   | 6/4/00       | 21:07        |
| Barium   | 493.41      | 0.00041 | 10.0            | 1.2    | B | 1  | ICP   | 6/4/00       | 21:07        |
| Cadmium  | 228.80      | 0.0028  | 0.10            | 0.0028 | U | 1  | ICP   | 6/4/00       | 21:07        |
| Chromium | 267.72      | 0.0038  | 0.50            | 0.0055 | B | 1  | ICP   | 6/4/00       | 21:07        |
| Lead     | 220.35      | 0.025   | 0.50            | 0.025  | U | 1  | ICP   | 6/4/00       | 21:07        |
| Selenium | 196.03      | 0.067   | 0.25            | 0.067  | U | 1  | ICP   | 6/4/00       | 21:07        |
| Silver   | 328.07      | 0.0031  | 0.50            | 0.0031 | U | 1  | ICP   | 6/4/00       | 21:07        |

Comments: C0E310132001

Version 3.63.4

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

Form 1 Equivalent

## STL-Pittsburgh

6591208

## Metals Data Reporting Form

## Initial Calibration Verification Standard

Instrument: CVAAUnits: ug/LChart Number: 0603HGA.PRNAcceptable Range: 90% - 110%Standard Source: UltraStandard ID: 0014-122-9

| Element | WL/<br>Mass | True<br>Conc | ICV5-1<br>6/3/00<br>7:23 AM |          |       |          |       |          |       |          |       |          |
|---------|-------------|--------------|-----------------------------|----------|-------|----------|-------|----------|-------|----------|-------|----------|
|         |             |              | Found                       | %<br>Rec | Found | %<br>Rec | Found | %<br>Rec | Found | %<br>Rec | Found | %<br>Rec |
| Mercury | 253.7       | 2.5          | 2.63                        | 105.2    |       |          |       |          |       |          |       |          |

## Metals Data Reporting Form

## Initial Calibration Verification Standard

Instrument: ICPUnits: ug/LChart Number: J00604B.ARCAcceptable Range: 90% - 110%Standard Source: Inorganic VenturesStandard ID: 0014-119-2

| Element  | WL/<br>Mass | True<br>Conc | ICV2-1<br>6/4/00<br>6:52 PM |          |       |          |       |          |       |          |       |          |
|----------|-------------|--------------|-----------------------------|----------|-------|----------|-------|----------|-------|----------|-------|----------|
|          |             |              | Found                       | %<br>Rec | Found | %<br>Rec | Found | %<br>Rec | Found | %<br>Rec | Found | %<br>Rec |
| Arsenic  | 193.696     | 1000.0       | 978.54                      | 97.9     |       |          |       |          |       |          |       |          |
| Barium   | 493.409     | 1000.0       | 1004.29                     | 100.4    |       |          |       |          |       |          |       |          |
| Cadmium  | 228.802     | 1000.0       | 1016.21                     | 101.6    |       |          |       |          |       |          |       |          |
| Chromium | 267.716     | 1000.0       | 1014.45                     | 101.4    |       |          |       |          |       |          |       |          |
| Lead     | 220.353     | 1000.0       | 1023.50                     | 102.4    |       |          |       |          |       |          |       |          |
| Selenium | 196.026     | 1000.0       | 1046.70                     | 104.7    |       |          |       |          |       |          |       |          |
| Silver   | 328.068     | 500.0        | 509.72                      | 101.9    |       |          |       |          |       |          |       |          |

## STL-Pittsburgh

6591210

## Metals Data Reporting Form

## Continuing Calibration Verification

Instrument: CVAAUnits: ug/LChart Number: 0603HGA.PRNAcceptable Range: 80% - 120%Standard Source: Inorganic VenturesStandard ID: 0014-122-11

| Element | WL/<br>Mass | True<br>Conc | CCV5-1<br>6/3/00<br>7:29 AM |          | CCV5-2<br>6/3/00<br>7:56 AM |          | CCV5-3<br>6/3/00<br>8:22 AM |          | CCV5-4<br>6/3/00<br>8:48 AM |          |       |          |
|---------|-------------|--------------|-----------------------------|----------|-----------------------------|----------|-----------------------------|----------|-----------------------------|----------|-------|----------|
|         |             |              | Found                       | %<br>Rec | Found                       | %<br>Rec | Found                       | %<br>Rec | Found                       | %<br>Rec | Found | %<br>Rec |
| Mercury | 253.7       | 5.0          | 5.17                        | 103.4    | 5.11                        | 102.2    | 5.00                        | 100.0    | 4.97                        | 99.4     |       |          |

## Continuing Calibration Verification

Instrument: ICPUnits: ug/LChart Number: J00604B.ARCAcceptable Range: 90% - 110%Standard Source: Inorganic VenturesStandard ID: 0014-087-7

| Element  | WL/<br>Mass | True<br>Conc | CCV2-1<br>6/4/00<br>7:30 PM |          | CCV2-2<br>6/4/00<br>8:07 PM |          | CCV2-3<br>6/4/00<br>8:45 PM |          | CCV2-4<br>6/4/00<br>9:19 PM |          |       |          |
|----------|-------------|--------------|-----------------------------|----------|-----------------------------|----------|-----------------------------|----------|-----------------------------|----------|-------|----------|
|          |             |              | Found                       | %<br>Rec | Found                       | %<br>Rec | Found                       | %<br>Rec | Found                       | %<br>Rec | Found | %<br>Rec |
| Arsenic  | 193.696     | 5000.0       | 4892.85                     | 97.9     | 4778.32                     | 95.6     | 4796.22                     | 95.9     | 4768.08                     | 95.4     |       |          |
| Barium   | 493.409     | 5000.0       | 4699.40                     | 94.0     | 4597.19                     | 91.9     | 4603.08                     | 92.1     | 4509.63                     | 90.2     |       |          |
| Cadmium  | 228.802     | 5000.0       | 4993.79                     | 99.9     | 4965.21                     | 99.3     | 4959.49                     | 99.2     | 4897.48                     | 97.9     |       |          |
| Chromium | 267.716     | 5000.0       | 4869.84                     | 97.4     | 4841.10                     | 96.8     | 4845.77                     | 96.9     | 4762.32                     | 95.2     |       |          |
| Lead     | 220.353     | 5000.0       | 4891.87                     | 97.8     | 4889.25                     | 97.8     | 4880.28                     | 97.6     | 4834.04                     | 96.7     |       |          |
| Selenium | 196.026     | 5000.0       | 5023.57                     | 100.5    | 5001.83                     | 100.0    | 5014.10                     | 100.3    | 4898.46                     | 98.0     |       |          |
| Silver   | 328.068     | 1000.0       | 985.19                      | 98.5     | 976.84                      | 97.7     | 979.03                      | 97.9     | 967.21                      | 96.7     |       |          |



6591212

## STL-Pittsburgh

## Metals Data Reporting Form

## Initial Calibration Blank Results

Instrument: CVAAUnits: ug/LChart Number: 0603HGA.PRN

Standard Source: \_\_\_\_\_

Standard ID: \_\_\_\_\_

| Element | WL/<br>Mass | Report<br>Limit | ICB1<br>6/3/00<br>7:25 AM |         |         |         |         |
|---------|-------------|-----------------|---------------------------|---------|---------|---------|---------|
|         |             |                 | Found Q                   | Found Q | Found Q | Found Q | Found Q |
| Mercury | 253.7       | 0.2             | 0.0 U                     |         |         |         |         |

## STL-Pittsburgh

## Metals Data Reporting Form

## Initial Calibration Blank Results

Instrument: ICPUnits: ug/LChart Number: J00604B.ARC

Standard Source: \_\_\_\_\_

Standard ID: \_\_\_\_\_

| Element  | WL/<br>Mass | Report<br>Limit | ICB1<br>6/4/00<br>6:55 PM |   |       |   |       |   |       |   |
|----------|-------------|-----------------|---------------------------|---|-------|---|-------|---|-------|---|
|          |             |                 | 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             | 24.6                      | U |       |   |       |   |       |   |
| Selenium | 196.026     | 250             | 67.4                      | U |       |   |       |   |       |   |
| Silver   | 328.068     | 500             | 3.1                       | U |       |   |       |   |       |   |

6591214

## STL-Pittsburgh

## Metals Data Reporting Form

## Continuing Calibration Blank Results

Instrument: CVAAUnits: ug/LChart Number: 0603HGA.PRN

Standard Source: \_\_\_\_\_

Standard ID: \_\_\_\_\_

| Element | WL/<br>Mass | Report<br>Limit | CCB1<br>6/3/00<br>7:32 AM | CCB2<br>6/3/00<br>7:58 AM | CCB3<br>6/3/00<br>8:26 AM | CCB4<br>6/3/00<br>8:51 AM |       |   |
|---------|-------------|-----------------|---------------------------|---------------------------|---------------------------|---------------------------|-------|---|
|         |             |                 | Found    Q                | Found    Q                | Found    Q                | Found    Q                | Found | Q |
| Mercury | 253.7       | 0.2             | 0.0    U                  | -0.1    B                 | 0.0    U                  | 0.0    U                  |       |   |

## STL-Pittsburgh

## Metals Data Reporting Form

## Continuing Calibration Blank Results

Instrument: ICPUnits: ug/LChart Number: J00604B.ARC

Standard Source: \_\_\_\_\_

Standard ID: \_\_\_\_\_

| Element  | WL/<br>Mass | Report<br>Limit | CCB1<br>6/4/00<br>7:33 PM |   | CCB2<br>6/4/00<br>8:11 PM |   | CCB3<br>6/4/00<br>8:48 PM |   | CCB4<br>6/4/00<br>9:22 PM |   |       |   |
|----------|-------------|-----------------|---------------------------|---|---------------------------|---|---------------------------|---|---------------------------|---|-------|---|
|          |             |                 | 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 |       |   |
| Barium   | 493.409     | 10000           | 0.4                       | U | 0.4                       | U | 0.4                       | U | 0.8                       | B |       |   |
| Cadmium  | 228.802     | 100             | 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 |       |   |
| Lead     | 220.353     | 500             | 24.6                      | U | 24.6                      | U | 24.6                      | U | 24.6                      | U |       |   |
| Selenium | 196.026     | 250             | 67.4                      | U | 67.4                      | U | 67.4                      | U | 67.4                      | U |       |   |
| Silver   | 328.068     | 500             | 3.1                       | U | 3.1                       | U | 3.1                       | U | 3.1                       | U |       |   |

6591216

## STL-Pittsburgh

## Metals Data Reporting Form

## Preparation Blank Results

Lab Sample ID: DE3GABTMatrix: Water Units: mg/L Prep Date: 6/3/00 Prep Batch: 0155091Weight: NA Volume: 100 Percent Moisture: NA

| Element | WL/<br>Mass | MDL      | Report<br>Limit | Conc      | Q | DF | Instr | Anal<br>Date | Anal<br>Time |
|---------|-------------|----------|-----------------|-----------|---|----|-------|--------------|--------------|
| Mercury | 253.7       | 0.000045 | 0.00020         | -0.000054 | B | 1  | CVAA  | 6/3/00       | 7:38         |

Comments: \_\_\_\_\_

## STL-Pittsburgh

## Metals Data Reporting Form

## Preparation Blank Results

Lab Sample ID: DE58KBTMatrix: Water Units: mg/L Prep Date: 6/3/00 Prep Batch: 0155091Weight: NA Volume: 100 Percent Moisture: NA

| Element | WL/<br>Mass | MDL      | Report<br>Limit | Conc     | Q | DF | Instr | Anal<br>Date | Anal<br>Time |
|---------|-------------|----------|-----------------|----------|---|----|-------|--------------|--------------|
| Mercury | 253.7       | 0.000045 | 0.00020         | 0.000045 | U | 1  | CVAA  | 6/3/00       | 7:34         |

Comments: \_\_\_\_\_

6591218

## STL-Pittsburgh

## Metals Data Reporting Form

## Preparation Blank Results

Lab Sample ID: DE3GABTMatrix: Water Units: mg/L Prep Date: 6/3/00 Prep Batch: 0155096Weight: NA Volume: 50 Percent Moisture: NA

| Element  | WL/<br>Mass | MDL     | Report<br>Limit | Conc   | Q | DF | Instr | Anal<br>Date | Anal<br>Time |
|----------|-------------|---------|-----------------|--------|---|----|-------|--------------|--------------|
| Arsenic  | 193.696     | 0.030   | 0.50            | 0.12   | B | 1  | ICP   | 6/4/00       | 20:01        |
| Barium   | 493.409     | 0.00041 | 10.0            | 0.0040 | B | 1  | ICP   | 6/4/00       | 20:01        |
| Cadmium  | 228.802     | 0.0028  | 0.10            | 0.0028 | U | 1  | ICP   | 6/4/00       | 20:01        |
| Chromium | 267.716     | 0.0038  | 0.50            | 0.0038 | U | 1  | ICP   | 6/4/00       | 20:01        |
| Lead     | 220.353     | 0.025   | 0.50            | 0.025  | U | 1  | ICP   | 6/4/00       | 20:01        |
| Selenium | 196.026     | 0.067   | 0.25            | 0.067  | U | 1  | ICP   | 6/4/00       | 20:01        |
| Silver   | 328.068     | 0.0031  | 0.50            | 0.0031 | U | 1  | ICP   | 6/4/00       | 20:01        |

Comments: \_\_\_\_\_

Version 3.63.4

U Result is less than the MDL

Form 3 Equivalent

B Result is between MDL and RL

## STL-Pittsburgh

## Metals Data Reporting Form

## Preparation Blank Results

Lab Sample ID: DE58WBTMatrix: Water Units: mg/L Prep Date: 6/3/00 Prep Batch: 0155096Weight: NA Volume: 50 Percent Moisture: NA

| Element  | WL/<br>Mass | MDL     | Report<br>Limit | Conc    | Q | DF | Instr | Anal<br>Date | Anal<br>Time |
|----------|-------------|---------|-----------------|---------|---|----|-------|--------------|--------------|
| Arsenic  | 193.696     | 0.030   | 0.50            | 0.030   | U | 1  | ICP   | 6/4/00       | 19:55        |
| Barium   | 493.409     | 0.00041 | 10.0            | 0.00041 | U | 1  | ICP   | 6/4/00       | 19:55        |
| Cadmium  | 228.802     | 0.0028  | 0.10            | 0.0028  | U | 1  | ICP   | 6/4/00       | 19:55        |
| Chromium | 267.716     | 0.0038  | 0.50            | 0.0038  | U | 1  | ICP   | 6/4/00       | 19:55        |
| Lead     | 220.353     | 0.025   | 0.50            | 0.025   | U | 1  | ICP   | 6/4/00       | 19:55        |
| Selenium | 196.026     | 0.067   | 0.25            | 0.067   | U | 1  | ICP   | 6/4/00       | 19:55        |
| Silver   | 328.068     | 0.0031  | 0.50            | 0.0031  | U | 1  | ICP   | 6/4/00       | 19:55        |

Comments: \_\_\_\_\_

Version 3.63.4

U Result is less than the MDL

Form 3 Equivalent

B Result is between MDL and RL



## STL-Pittsburgh

6591220

## Metals Data Reporting Form

Interference Check Standard A

Instrument: ICPUnits: ug/LChart Number: J00604B.ARCAcceptable Range: 0% - 0%Standard Source: Inorganic VenturesStandard ID: 0014-088-12

| Element  | WL/<br>Mass | Reporting<br>Limit | True<br>Conc | ICSA<br>6/4/00<br>6:59 PM | Found | Found | Found | Found |
|----------|-------------|--------------------|--------------|---------------------------|-------|-------|-------|-------|
|          |             |                    |              | Found                     |       |       |       |       |
| Arsenic  | 193.696     | 500                |              | -160                      |       |       |       |       |
| Barium   | 493.409     | 10000              |              | 2                         |       |       |       |       |
| Cadmium  | 228.802     | 100                |              | -3                        |       |       |       |       |
| Chromium | 267.716     | 500                |              | 0                         |       |       |       |       |
| Lead     | 220.353     | 500                |              | 100                       |       |       |       |       |
| Selenium | 196.026     | 250                |              | 81                        |       |       |       |       |
| Silver   | 328.068     | 500                |              | -3                        |       |       |       |       |

## Metals Data Reporting Form

## Interference Check Standard AB

Instrument: ICPUnits: ug/LChart Number: J00604B.ARCAcceptable Range: 80% - 120%Standard Source: Inorganic VenturesStandard ID: 0014-104-1

| Element  | WL/<br>Mass | True<br>Conc | ICSAB<br>6/4/00<br>7:02 PM |          |       |          |       |          |       |          |       |          |
|----------|-------------|--------------|----------------------------|----------|-------|----------|-------|----------|-------|----------|-------|----------|
|          |             |              | Found                      | %<br>Rec | Found | %<br>Rec | Found | %<br>Rec | Found | %<br>Rec | Found | %<br>Rec |
| Arsenic  | 193.696     | 1000         | 867.4                      | 86.7     |       |          |       |          |       |          |       |          |
| Barium   | 493.409     | 500          | 465.6                      | 93.1     |       |          |       |          |       |          |       |          |
| Cadmium  | 228.802     | 1000         | 959.7                      | 96.0     |       |          |       |          |       |          |       |          |
| Chromium | 267.716     | 500          | 438.9                      | 87.8     |       |          |       |          |       |          |       |          |
| Lead     | 220.353     | 1000         | 1022.1                     | 102.2    |       |          |       |          |       |          |       |          |
| Selenium | 196.026     | 1000         | 1081.5                     | 108.1    |       |          |       |          |       |          |       |          |
| Silver   | 328.068     | 1000         | 962.3                      | 96.2     |       |          |       |          |       |          |       |          |

6591222

## STL-Pittsburgh

## Metals Data Reporting Form

## Matrix Spike Sample Results

Spike Sample ID: DE022ST  
Original Sample ID: DE022T Client ID: DF/S1/D151/SDC/005S  
Matrix: Water Units: mg/L Prep Date: 6/3/00 Prep Batch: 0155091  
Weight: NA Volume: 100 Percent Moisture: NA

| Element | WL/<br>Mass | OS<br>Conc | Q | MS<br>Conc | Q | Spike<br>Level | %<br>Rec | OS<br>DF | MS<br>DF | Instr | OS<br>Anal<br>Date | OS<br>Anal<br>Time | MS<br>Anal<br>Date | MS<br>Anal<br>Time |
|---------|-------------|------------|---|------------|---|----------------|----------|----------|----------|-------|--------------------|--------------------|--------------------|--------------------|
| Mercury | 253.7       | 0.000045   | U | 0.0050     |   | 0.005          | 99.4     | 1        | 1        | CVAA  | 6/3/00             | 8:20               | 6/3/00             | 8:28               |

Comments: \_\_\_\_\_

Version 3.63.4

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 Sample Results

Spike Sample ID: DE022DT  
 Original Sample ID: DE022T Client ID: DF/S1/D151/SDC/005D  
 Matrix: Water Units: mg/L Prep Date: 6/3/00 Prep Batch: 0155091  
 Weight: NA Volume: 100 Percent Moisture: NA

| Element | WL/<br>Mass | OS<br>Conc | Q | MSD<br>Conc | Q | Spike<br>Level | %<br>Rec | OS<br>DF | MSD<br>DF | Instr | OS<br>Anal<br>Date | OS<br>Anal<br>Time | MSD<br>Anal<br>Date | MSD<br>Anal<br>Time |
|---------|-------------|------------|---|-------------|---|----------------|----------|----------|-----------|-------|--------------------|--------------------|---------------------|---------------------|
| Mercury | 253.7       | 0.000045   | U | 0.0050      |   | 0.005          | 99.8     | 1        | 1         | CVAA  | 6/3/00             | 8:20               | 6/3/00              | 8:30                |

Comments: \_\_\_\_\_

Version 3.63.4

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

6591224

## STL-Pittsburgh

## Metals Data Reporting Form

## Matrix Spike Sample Results

Spike Sample ID: DE022ST

Original Sample ID: DE022T

Client ID: DF/S1/D151/SDC/005S

Matrix: Water Units: mg/L

Prep Date: 6/3/00

Prep Batch: 0155096

Weight: NA Volume: 50

Percent Moisture: NA

| Element  | WL/<br>Mass | OS<br>Conc | Q | MS<br>Conc | Q | Spike<br>Level | %<br>Rec | OS<br>DF | MS<br>DF | Instr | OS<br>Anal<br>Date | OS<br>Anal<br>Time | MS<br>Anal<br>Date | MS<br>Anal<br>Time |
|----------|-------------|------------|---|------------|---|----------------|----------|----------|----------|-------|--------------------|--------------------|--------------------|--------------------|
| Arsenic  | 193.7       | 0.11       | B | 4.8        |   | 5              | 93.1     | 1        | 1        | ICP   | 6/4/00             | 21:07              | 6/4/00             | 21:13              |
| Barium   | 493.4       | 1.2        | B | 42.9       |   | 50             | 83.5     | 1        | 1        | ICP   | 6/4/00             | 21:07              | 6/4/00             | 21:13              |
| Cadmium  | 228.8       | 0.0028     | U | 0.96       |   | 1              | 95.9     | 1        | 1        | ICP   | 6/4/00             | 21:07              | 6/4/00             | 21:13              |
| Chromium | 267.7       | 0.0055     | B | 4.4        |   | 5              | 87.4     | 1        | 1        | ICP   | 6/4/00             | 21:07              | 6/4/00             | 21:13              |
| Lead     | 220.4       | 0.025      | U | 4.5        |   | 5              | 90.2     | 1        | 1        | ICP   | 6/4/00             | 21:07              | 6/4/00             | 21:13              |
| Selenium | 196.0       | 0.067      | U | 1.0        |   | 1              | 99.7     | 1        | 1        | ICP   | 6/4/00             | 21:07              | 6/4/00             | 21:13              |
| Silver   | 328.1       | 0.0031     | U | 0.92       |   | 1              | 91.9     | 1        | 1        | ICP   | 6/4/00             | 21:07              | 6/4/00             | 21:13              |

Comments:

Version 3.63.4

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

## Metals Data Reporting Form

## Matrix Spike Duplicate Sample Results

Spike Sample ID: DE022DT

Original Sample ID: DE022T

Client ID: DF/S1/D151/SDC/005D

Matrix: Water Units: mg/L Prep Date: 6/3/00 Prep Batch: 0155096

Weight: NA Volume: 50 Percent Moisture: NA

| Element  | WL/<br>Mass | OS<br>Conc | Q | MSD<br>Conc | Q | Spike<br>Level | %<br>Rec | OS<br>DF | MSD<br>DF | Instr | OS<br>Anal<br>Date | OS<br>Anal<br>Time | MSD<br>Anal<br>Date | MSD<br>Anal<br>Time |
|----------|-------------|------------|---|-------------|---|----------------|----------|----------|-----------|-------|--------------------|--------------------|---------------------|---------------------|
| Arsenic  | 193.7       | 0.11       | B | 4.5         |   | 5              | 87.9     | 1        | 1         | ICP   | 6/4/00             | 21:07              | 6/4/00              | 21:16               |
| Barium   | 493.4       | 1.2        | B | 41.5        |   | 50             | 80.6     | 1        | 1         | ICP   | 6/4/00             | 21:07              | 6/4/00              | 21:16               |
| Cadmium  | 228.8       | 0.0028     | U | 0.90        |   | 1              | 89.5     | 1        | 1         | ICP   | 6/4/00             | 21:07              | 6/4/00              | 21:16               |
| Chromium | 267.7       | 0.0055     | B | 4.1         |   | 5              | 82.1     | 1        | 1         | ICP   | 6/4/00             | 21:07              | 6/4/00              | 21:16               |
| Lead     | 220.4       | 0.025      | U | 4.2         |   | 5              | 83.2     | 1        | 1         | ICP   | 6/4/00             | 21:07              | 6/4/00              | 21:16               |
| Selenium | 196.0       | 0.067      | U | 0.94        |   | 1              | 94.1     | 1        | 1         | ICP   | 6/4/00             | 21:07              | 6/4/00              | 21:16               |
| Silver   | 328.1       | 0.0031     | U | 0.86        |   | 1              | 86.3     | 1        | 1         | ICP   | 6/4/00             | 21:07              | 6/4/00              | 21:16               |

Comments:

Version 3.63.4

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

6591226

## STL-Pittsburgh

## Metals Data Reporting Form

## Matrix Spike Duplicate RPD Report

Matrix Spike Duplicate Sample ID: DE022DTMatrix Spike Sample ID: DE022ST Client ID: DF/S1/D151/SDC/005DMatrix: Water Units: mg/L Prep Date: 6/3/00 Prep Batch: 0155091Weight: NA Volume: 100 Percent Moisture: NA

| Element | WL/<br>Mass | MS<br>Conc | Q | MSD<br>Conc | Q | RPD   | MS<br>DF | MSD<br>DF | Instr | MS<br>Anal<br>Date | MS<br>Anal<br>Time | MSD<br>Anal<br>Date | MSD<br>Anal<br>Time |
|---------|-------------|------------|---|-------------|---|-------|----------|-----------|-------|--------------------|--------------------|---------------------|---------------------|
| Mercury | 253.7       | 0.0050     |   | 0.0050      |   | 0.4 % | 1        | 1         | CVAA  | 6/3/00             | 8:28               | 6/3/00              | 8:30                |

Comments: \_\_\_\_\_

Version 3.63.4

- 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

## STL-Pittsburgh

## Metals Data Reporting Form

## Matrix Spike Duplicate RPD Report

Matrix Spike Duplicate Sample ID: DE022DT

Matrix Spike Sample ID: DE022ST Client ID: DF/S1/D151/SDC/005D

Matrix: Water Units: mg/L Prep Date: 6/3/00 Prep Batch: 0155096

Weight: NA Volume: 50 Percent Moisture: NA

| Element  | WL/<br>Mass | MS<br>Conc | Q | MSD<br>Conc | Q | RPD   | MS<br>DF | MSD<br>DF | Instr | MS<br>Anal<br>Date | MS<br>Anal<br>Time | MSD<br>Anal<br>Date | MSD<br>Anal<br>Time |
|----------|-------------|------------|---|-------------|---|-------|----------|-----------|-------|--------------------|--------------------|---------------------|---------------------|
| Arsenic  | 193.696     | 4.8        |   | 4.5         |   | 5.8 % | 1        | 1         | ICP   | 6/4/00             | 21:13              | 6/4/00              | 21:16               |
| Barium   | 493.409     | 42.9       |   | 41.5        |   | 3.5 % | 1        | 1         | ICP   | 6/4/00             | 21:13              | 6/4/00              | 21:16               |
| Cadmium  | 228.802     | 0.96       |   | 0.90        |   | 6.9 % | 1        | 1         | ICP   | 6/4/00             | 21:13              | 6/4/00              | 21:16               |
| Chromium | 267.716     | 4.4        |   | 4.1         |   | 6.2 % | 1        | 1         | ICP   | 6/4/00             | 21:13              | 6/4/00              | 21:16               |
| Lead     | 220.353     | 4.5        |   | 4.2         |   | 8.1 % | 1        | 1         | ICP   | 6/4/00             | 21:13              | 6/4/00              | 21:16               |
| Selenium | 196.026     | 1.0        |   | 0.94        |   | 5.8 % | 1        | 1         | ICP   | 6/4/00             | 21:13              | 6/4/00              | 21:16               |
| Silver   | 328.068     | 0.92       |   | 0.86        |   | 6.3 % | 1        | 1         | ICP   | 6/4/00             | 21:13              | 6/4/00              | 21:16               |

Comments:

Version 3.63.4

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



6591228

## STL-Pittsburgh

## Metals Data Reporting Form

## Laboratory Control Sample Results

Lab Sample ID: DE58KCTMatrix: Water Units: mg/L Prep Date: 6/3/00 Prep Batch: 0155091Weight: NA Volume: 100 Percent Moisture: NA

| Element | WL/<br>Mass | Spike<br>Level | Conc   | Percent<br>Recovery | Q | Range  | DF | Instr | Anal<br>Date | Anal<br>Time |
|---------|-------------|----------------|--------|---------------------|---|--------|----|-------|--------------|--------------|
| Mercury | 253.7       | 0.0025         | 0.0027 | 106.4               |   | 80-120 | 1  | CVAA  | 6/3/00       | 7:36         |

Comments: \_\_\_\_\_

Version 3.63.4

STL Pittsburgh

U Result is less than the MDL

B Result is between MDL and RL

Form 7 Equivalent

6026

## STL-Pittsburgh

## Metals Data Reporting Form

## Laboratory Control Sample Results

Lab Sample ID: DES8WCTMatrix: Water Units: mg/L Prep Date: 6/3/00 Prep Batch: 0155096Weight: NA Volume: 50 Percent Moisture: NA

| Element  | WL/<br>Mass | Spike<br>Level | Conc  | Percent<br>Recovery | Q | Range  | DF | Instr | Anal<br>Date | Anal<br>Time |
|----------|-------------|----------------|-------|---------------------|---|--------|----|-------|--------------|--------------|
| Arsenic  | 193.696     | 2.0            | 1.9   | 95.9                |   | 80-120 | 1  | ICP   | 6/4/00       | 19:58        |
| Barium   | 493.409     | 2.0            | 1.7   | 82.6                | B | 80-120 | 1  | ICP   | 6/4/00       | 19:58        |
| Cadmium  | 228.802     | 0.050          | 0.047 | 94.6                | B | 80-120 | 1  | ICP   | 6/4/00       | 19:58        |
| Chromium | 267.716     | 0.20           | 0.18  | 88.7                | B | 80-120 | 1  | ICP   | 6/4/00       | 19:58        |
| Lead     | 220.353     | 0.50           | 0.47  | 93.0                | B | 80-120 | 1  | ICP   | 6/4/00       | 19:58        |
| Selenium | 196.026     | 2.0            | 2.0   | 100.2               |   | 80-120 | 1  | ICP   | 6/4/00       | 19:58        |
| Silver   | 328.068     | 0.050          | 0.044 | 88.8                | B | 80-120 | 1  | ICP   | 6/4/00       | 19:58        |

Comments: \_\_\_\_\_

Version 3.63.4

STL Pittsburgh

U Result is less than the MDL

B Result is between MDL and RL

Form 7 Equivalent

6027

6591230

## STL-Pittsburgh

## Metals Data Reporting Form

## Serial Dilution RPD Report

Serial Dilution Sample ID: DE022PTOriginal Sample ID: DE022T Client ID: DF/S1/D151/SDC/005Matrix: Water Units: mg/L Prep Date: 6/3/00 Prep Batch: 0155096Weight: NA Volume: 50 Percent Moisture: NA

| Element  | WL/<br>Mass | OS<br>Conc | Q | Serial<br>Dilution<br>Conc | Q | Percent<br>Diff | OS<br>DF | Ser<br>Dil<br>DF | Instr | OS<br>Anal<br>Date | OS<br>Anal<br>Time | Ser Dil<br>Anal<br>Date | Ser Dil<br>Anal<br>Time |
|----------|-------------|------------|---|----------------------------|---|-----------------|----------|------------------|-------|--------------------|--------------------|-------------------------|-------------------------|
| Arsenic  | 193.696     | 0.11       | B | 0.15                       | U |                 | 1        | 5                | ICP   | 6/4/00             | 21:07              | 6/4/00                  | 21:10                   |
| Barium   | 493.409     | 1.2        | B | 1.2                        | B | 2.4 %           | 1        | 5                | ICP   | 6/4/00             | 21:07              | 6/4/00                  | 21:10                   |
| Cadmium  | 228.802     | 0.0028     | U | 0.014                      | U |                 | 1        | 5                | ICP   | 6/4/00             | 21:07              | 6/4/00                  | 21:10                   |
| Chromium | 267.716     | 0.0055     | B | 0.019                      | U |                 | 1        | 5                | ICP   | 6/4/00             | 21:07              | 6/4/00                  | 21:10                   |
| Lead     | 220.353     | 0.025      | U | 0.12                       | U |                 | 1        | 5                | ICP   | 6/4/00             | 21:07              | 6/4/00                  | 21:10                   |
| Selenium | 196.026     | 0.067      | U | 0.34                       | U |                 | 1        | 5                | ICP   | 6/4/00             | 21:07              | 6/4/00                  | 21:10                   |
| Silver   | 328.068     | 0.0031     | U | 0.016                      | U |                 | 1        | 5                | ICP   | 6/4/00             | 21:07              | 6/4/00                  | 21:10                   |

Comments: \_\_\_\_\_

Version 3.63.4

U Result is less than the MDL

Form 9 Equivalent

B Result is between MDL and RL

E Serial dilution percent difference not within limits

**STL-Pittsburgh**  
**Metals Data Reporting Form**

**Instrument Detection Limits**

---

**Instrument:** CVAA

**Units:** ppb

| Element | Wavelength<br>/Mass | Reporting<br>Limit | MDL   | Date of MDL |
|---------|---------------------|--------------------|-------|-------------|
| Mercury | 253.70              | 0.2                | 0.045 | 3/20/00     |

6591232

## STL-Pittsburgh

## Metals Data Reporting Form

Instrument Detection Limits

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Instrument: ICPUnits: ppb

| Element  | Wavelength<br>/Mass | Reporting<br>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: 3/27/00

| Interfering Element | Wavelength /Mass | Correction Factor(s)                                                                                                                                                       |
|---------------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Aluminum            | 308.215          | As(0.008365), Mn(0.00002), Pb(0.000527)                                                                                                                                    |
| 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(0.001314), B(-0.001921), Cd(-0.000034), Cu(-0.00008), Mn(-0.000288), Mo(-0.00015), Pb(0.000225), Se(-0.003656), 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)                              |

6591234

**STL-Pittsburgh**  
**Metals Data Reporting Form**

Linear Dynamic Ranges

---

**Instrument:** CVAA

**Units:** ppb

| Element | Wavelength<br>/Mass | Linear<br>Range | Date of Linear<br>Range |
|---------|---------------------|-----------------|-------------------------|
| Mercury | 253.70              | 10              | 1/15/00                 |

## Metals Data Reporting Form

Linear Dynamic Ranges

---

Instrument: ICPUnits: ppb

| Element  | Wavelength<br>/Mass | Linear<br>Range | Date of Linear<br>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

6591236

## Metals Data Reporting Form

Preparation Log

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Preparation Batch: 0155091 Instrument: CVAA Matrix: Water

| Sample ID | Prep Date | Weight (g) | Volume (ml) | % Moisture |
|-----------|-----------|------------|-------------|------------|
| DE3GABT   | 6/3/00    | NA         | 100         | NA         |
| DE58KBT   | 6/3/00    | NA         | 100         | NA         |
| DE58KCT   | 6/3/00    | NA         | 100         | NA         |
| DE022DT   | 6/3/00    | NA         | 100         | NA         |
| DE022ST   | 6/3/00    | NA         | 100         | NA         |
| DE022T    | 6/3/00    | NA         | 100         | NA         |

**STL-Pittsburgh**  
**Metals Data Reporting Form**

6591237

**Preparation Log**

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**Preparation Batch:** 0155096    **Instrument:** ICP    **Matrix:** Water

| Sample ID | Prep Date | Weight (g) | Volume (ml) | % Moisture |
|-----------|-----------|------------|-------------|------------|
| DE3GABT   | 6/3/00    | NA         | 50          | NA         |
| DE58WBT   | 6/3/00    | NA         | 50          | NA         |
| DE58WCT   | 6/3/00    | NA         | 50          | NA         |
| DE022DT   | 6/3/00    | NA         | 50          | NA         |
| DE022ST   | 6/3/00    | NA         | 50          | NA         |
| DE022T    | 6/3/00    | NA         | 50          | NA         |

# STL-Pittsburgh

## Metals Data Reporting Form

6591238

Instrument Runlog

Instrument: CVAA

Chart Number: 0603HGA.PRN

| Sample Name | Date of Analysis | Time of Analysis |
|-------------|------------------|------------------|
| Std1Rep1    | 6/3/00           | 7:07 AM          |
| Std2Rep1    | 6/3/00           | 7:09 AM          |
| Std3Rep1    | 6/3/00           | 7:12 AM          |
| Std4Rep1    | 6/3/00           | 7:14 AM          |
| Std5Rep1    | 6/3/00           | 7:16 AM          |
| Std6Rep1    | 6/3/00           | 7:18 AM          |
| ICV5-1      | 6/3/00           | 7:23 AM          |
| ICB1        | 6/3/00           | 7:25 AM          |
| ZZZZZZ      | 6/3/00           | 7:27 AM          |
| CCV5-1      | 6/3/00           | 7 29 AM          |
| CCB1        | 6/3/00           | 7:32 AM          |
| DE58KBT     | 6/3/00           | 7:34 AM          |
| DE58KCT     | 6/3/00           | 7:36 AM          |
| DE3GABT     | 6/3/00           | 7:38 AM          |
| ZZZZZZ      | 6/3/00           | 7:40 AM          |
| ZZZZZZ      | 6/3/00           | 7:43 AM          |
| ZZZZZZ      | 6/3/00           | 7:45 AM          |
| ZZZZZZ      | 6/3/00           | 7:46 AM          |
| ZZZZZZ      | 6/3/00           | 7:48 AM          |
| ZZZZZZ      | 6/3/00           | 7:51 AM          |
| ZZZZZZ      | 6/3/00           | 7:54 AM          |
| CCV5-2      | 6/3/00           | 7:56 AM          |
| CCB2        | 6/3/00           | 7:58 AM          |
| ZZZZZZ      | 6/3/00           | 7:59 AM          |
| ZZZZZZ      | 6/3/00           | 8:03 AM          |
| ZZZZZZ      | 6/3/00           | 8:05 AM          |
| ZZZZZZ      | 6/3/00           | 8:07 AM          |
| ZZZZZZ      | 6/3/00           | 8:09 AM          |
| ZZZZZZ      | 6/3/00           | 8:11 AM          |
| ZZZZZZ      | 6/3/00           | 8:14 AM          |
| ZZZZZZ      | 6/3/00           | 8:16 AM          |
| ZZZZZZ      | 6/3/00           | 8:18 AM          |
| DE022T      | 6/3/00           | 8:20 AM          |
| CCV5-3      | 6/3/00           | 8:22 AM          |
| CCB3        | 6/3/00           | 8:26 AM          |
| DE022ST     | 6/3/00           | 8:28 AM          |
| DE022DT     | 6/3/00           | 8:30 AM          |
| ZZZZZZ      | 6/3/00           | 8:32 AM          |
| ZZZZZZ      | 6/3/00           | 8:34 AM          |
| ZZZZZZ      | 6/3/00           | 8 36 AM          |
| ZZZZZZ      | 6/3/00           | 8:38 AM          |

## Metals Data Reporting Form

## Instrument Runlog

Instrument: CVAAChart Number: 0603HGA.PRN

| Sample Name | Date of Analysis | Time of Analysis |
|-------------|------------------|------------------|
| ZZZZZZ      | 6/3/00           | 8:40 AM          |
| ZZZZZZ      | 6/3/00           | 8:42 AM          |
| ZZZZZZ      | 6/3/00           | 8:44 AM          |
| ZZZZZZ      | 6/3/00           | 8:46 AM          |
| CCV5-4      | 6/3/00           | 8:48 AM          |
| CCB4        | 6/3/00           | 8:51 AM          |
| ZZZZZZ      | 6/3/00           | 8:53 AM          |
| ZZZZZZ      | 6/3/00           | 8:56 AM          |
| ZZZZZZ      | 6/3/00           | 8:59 AM          |
| ZZZZZZ      | 6/3/00           | 9:01 AM          |
| ZZZZZZ      | 6/3/00           | 9:03 AM          |
| ZZZZZZ      | 6/3/00           | 9:05 AM          |
| ZZZZZZ      | 6/3/00           | 9:07 AM          |
| ZZZZZZ      | 6/3/00           | 9:09 AM          |
| ZZZZZZ      | 6/3/00           | 9:10 AM          |

# STL-Pittsburgh

6591240

## Metals Data Reporting Form

Instrument Runlog

Instrument: ICP

Chart Number: J00604B.ARC

| Sample Name | Date of Analysis | Time of Analysis |
|-------------|------------------|------------------|
| STD1        | 6/4/00           | 6:43 PM          |
| STD5A       | 6/4/00           | 6:46 PM          |
| STD5B       | 6/4/00           | 6:49 PM          |
| ICV2-1      | 6/4/00           | 6:52 PM          |
| ICB1        | 6/4/00           | 6:55 PM          |
| ICSA        | 6/4/00           | 6:59 PM          |
| ICSAB       | 6/4/00           | 7:02 PM          |
| ZZZZZZ      | 6/4/00           | 7:05 PM          |
| ZZZZZZ      | 6/4/00           | 7:08 PM          |
| ZZZZZZ      | 6/4/00           | 7:11 PM          |
| ZZZZZZ      | 6/4/00           | 7:14 PM          |
| ZZZZZZ      | 6/4/00           | 7:17 PM          |
| ZZZZZZ      | 6/4/00           | 7:21 PM          |
| ZZZZZZ      | 6/4/00           | 7:24 PM          |
| ZZZZZZ      | 6/4/00           | 7:27 PM          |
| CCV2-1      | 6/4/00           | 7:30 PM          |
| CCB1        | 6/4/00           | 7:33 PM          |
| ZZZZZZ      | 6/4/00           | 7:36 PM          |
| ZZZZZZ      | 6/4/00           | 7:39 PM          |
| ZZZZZZ      | 6/4/00           | 7:42 PM          |
| ZZZZZZ      | 6/4/00           | 7:46 PM          |
| ZZZZZZ      | 6/4/00           | 7:49 PM          |
| ZZZZZZ      | 6/4/00           | 7:52 PM          |
| DE58WBT     | 6/4/00           | 7:55 PM          |
| DE58WCT     | 6/4/00           | 7:58 PM          |
| DE3GABT     | 6/4/00           | 8:01 PM          |
| ZZZZZZ      | 6/4/00           | 8:04 PM          |
| CCV2-2      | 6/4/00           | 8:07 PM          |
| CCB2        | 6/4/00           | 8:11 PM          |
| ZZZZZZ      | 6/4/00           | 8:14 PM          |
| ZZZZZZ      | 6/4/00           | 8:17 PM          |
| ZZZZZZ      | 6/4/00           | 8:20 PM          |
| ZZZZZZ      | 6/4/00           | 8:23 PM          |
| ZZZZZZ      | 6/4/00           | 8:26 PM          |
| ZZZZZZ      | 6/4/00           | 8:29 PM          |
| ZZZZZZ      | 6/4/00           | 8:32 PM          |
| ZZZZZZ      | 6/4/00           | 8:36 PM          |
| ZZZZZZ      | 6/4/00           | 8:39 PM          |
| ZZZZZZ      | 6/4/00           | 8:42 PM          |
| CCV2-3      | 6/4/00           | 8:45 PM          |
| CCB3        | 6/4/00           | 8:48 PM          |

## Metals Data Reporting Form

## Instrument Runlog

Instrument: ICPChart Number: J00604B.ARC

| Sample Name | Date of Analysis | Time of Analysis |
|-------------|------------------|------------------|
| ZZZZZZ      | 6/4/00           | 8:51 PM          |
| ZZZZZZ      | 6/4/00           | 8:54 PM          |
| ZZZZZZ      | 6/4/00           | 8:57 PM          |
| ZZZZZZ      | 6/4/00           | 9:01 PM          |
| ZZZZZZ      | 6/4/00           | 9:04 PM          |
| DE022T      | 6/4/00           | 9:07 PM          |
| DE022PT     | 6/4/00           | 9:10 PM          |
| DE022ST     | 6/4/00           | 9:13 PM          |
| DE022DT     | 6/4/00           | 9:16 PM          |
| CCV2-4      | 6/4/00           | 9:19 PM          |
| CCB4        | 6/4/00           | 9:22 PM          |
| ZZZZZZ      | 6/4/00           | 9:26 PM          |
| ZZZZZZ      | 6/4/00           | 9:29 PM          |
| ZZZZZZ      | 6/4/00           | 9:32 PM          |
| ZZZZZZ      | 6/4/00           | 9:35 PM          |
| ZZZZZZ      | 6/4/00           | 9:38 PM          |
| ZZZZZZ      | 6/4/00           | 9:41 PM          |
| ZZZZZZ      | 6/4/00           | 9:44 PM          |
| ZZZZZZ      | 6/4/00           | 9:48 PM          |
| ZZZZZZ      | 6/4/00           | 9:51 PM          |

6591242

**TCLP  
METALS  
RAW DATA**

| #  | Sample Name       | AG      | AS      | BA      | CD      | CR      | PB      |
|----|-------------------|---------|---------|---------|---------|---------|---------|
| 1  | STD1              | -.00059 | .0002   | 0       | -.00007 | .0005   | .00024  |
| 2  | STD5A             | .26845  | .56695  | 4.36887 | .9199   | 3.7572  | .2623   |
| 3  | STD5B             |         |         |         |         |         |         |
| 4  | ICV2-1 0014-119-2 | .50972  | .97854  | 1.0043  | 1.0162  | 1.0145  | 1.0235  |
| 5  | ICB1              | -.00072 | -.02970 | .00006  | .00073  | -.00066 | .00548  |
| 6  | ICSA 0014-088-12  | -.00250 | -.16204 | .00194  | -.00259 | .00013  | .10008  |
| 7  | ICSAB 0014-104-1  | .96231  | .86743  | .46562  | .95973  | .43894  | 1.0221  |
| 8  | DE590BT           | .00001  | -.01106 | .00006  | .00187  | .00093  | .00367  |
| 9  | DE590CT           | .04522  | 2.1250  | 1.7691  | .04862  | .18639  | .47636  |
| 10 | DE3HEBT           | -.00072 | .15612  | .00068  | -.00059 | -.00013 | .00550  |
| 11 | DDM06T            | .00100  | .14730  | .26393  | .01054  | .00346  | .33863  |
| 12 | DDM06P5T          | -.00102 | .04367  | .05502  | .00185  | -.00066 | .07218  |
| 13 | DDM06ST           | -.00048 | .11405  | .23389  | .00813  | .00253  | .28494  |
| 14 | DDM06DT           | -.00010 | .14415  | .25770  | .00933  | .00413  | .32749  |
| 15 | DDM4GT            | .00194  | .13877  | .33198  | .01589  | .00493  | .99406  |
| 16 | CCV2-1 0014-087-7 | .98519  | 4.8929  | 4.6994  | 4.9938  | 4.8698  | 4.8919  |
| 17 | CCB1              | .00109  | .00986  | .00029  | -.00023 | -.00012 | .01485  |
| 18 | DDM4KT            | .00156  | .09590  | .31681  | .01969  | .00519  | 1.4567  |
| 19 | DDNVQT            | -.00197 | .14705  | .20802  | -.00006 | .00106  | .01371  |
| 20 | DDNW7T            | -.00072 | .01718  | .00704  | .00344  | .00239  | .03669  |
| 21 | DDNWKT            | -.00108 | .10128  | .08650  | -.00034 | .00292  | .01854  |
| 22 | DDNWT             | -.00035 | .05818  | .00356  | -.00032 | .00146  | .15741  |
| 23 | DE00ET            | -.00143 | .11265  | .04005  | .00159  | .00279  | .16111  |
| 24 | DE58WBT           | -.00143 | .01964  | .00018  | -.00077 | .00066  | .01480  |
| 25 | DE58WCT           | .04438  | 1.9190  | 1.6514  | .04732  | .17748  | .46482  |
| 26 | D3GABT            | -.00144 | .12124  | .00395  | -.00080 | -.00013 | .00370  |
| 27 | DDKFGT            | -.00503 | .15818  | .40041  | .01127  | -.00519 | .04807  |
| 28 | CCV2-2            | .97684  | 4.7783  | 4.5972  | 4.9652  | 4.8411  | 4.8892  |
| 29 | CCB2              | -.00108 | .00902  | .00002  | .00132  | .00040  | .01111  |
| 30 | DDKFHT            | -.00345 | .09484  | .32874  | .00489  | -.00146 | .05188  |
| 31 | DDKFJT            | -.00692 | .13352  | .53257  | .00122  | -.00146 | .06853  |
| 32 | DDKFKT            | -.00415 | .16746  | .19576  | .00254  | .00252  | .02592  |
| 33 | DDKFLT            | -.00473 | .17293  | .44330  | .00389  | -.00186 | .06865  |
| 34 | DDKFMT            | -.00450 | .12646  | .28712  | .00888  | -.00572 | .09625  |
| 35 | DDKFNT            | -.00325 | .12413  | .25530  | .01456  | -.00199 | .09998  |
| 36 | DDKFPT            | -.00456 | .15642  | .61389  | .01281  | -.00026 | .14632  |
| 37 | DDKFQT            | -.00326 | .17754  | .51566  | .03369  | -.00079 | .50578  |
| 38 | DDKFRT            | -.00204 | .18980  | .31083  | .00530  | -.00053 | .03694  |
| 39 | DDKFVT            | -.00391 | .10595  | .45374  | .00829  | -.00212 | .48689  |
| 40 | CCV2-3            | .97903  | 4.7962  | 4.6031  | 4.9595  | 4.8458  | 4.8803  |
| 41 | CCB3              | -.00217 | .00095  | .00006  | .00118  | .00000  | .00740  |
| 42 | DDKFWT            | -.00413 | .15502  | .31341  | .00430  | -.00066 | 1.3721  |
| 43 | DDKFXT            | -.00197 | .11926  | .23101  | .00443  | .00106  | .99616  |
| 44 | DDKG3T            | -.00372 | .11598  | .68304  | .01664  | .00133  | 5.8281  |
| 45 | DDKG5T            | -.00183 | .15045  | .11120  | .00085  | -.00080 | 3.8295  |
| 46 | DDRLVT            | -.00059 | .15315  | .17150  | .00985  | .01144  | .01820  |
| 47 | DE022T            | -.00323 | .11330  | 1.1629  | .00038  | .00545  | .00120  |
| 48 | DE022P5T          | -.00326 | .02333  | .23824  | .00000  | .00066  | -.00012 |
| 49 | DE022ST           | .91853  | 4.7690  | 42.911  | .95903  | 4.3747  | 4.5118  |
| 50 | DE022DT           | .86268  | 4.5082  | 41.462  | .89468  | 4.1119  | 4.1616  |
| 51 | CCV2-4            | .96721  | 4.7681  | 4.5096  | 4.8975  | 4.7623  | 4.8340  |
| 52 | CCB4              | -.00217 | .02068  | .00084  | .00128  | .00040  | -.00185 |
| 53 | DE3JCBT           | .00000  | .02967  | -.00009 | .00090  | .00106  | .00003  |

VOID: Samples were not  
 Spiked - will be  
 re-analyzed. Euf 6400

VOID: See  
 next page.  
 Euf 6400



| #  | Sample Name | AG      | AS      | BA      | CD      | CR     | PB     |
|----|-------------|---------|---------|---------|---------|--------|--------|
| 54 | DE3JCCT     | .04626  | 2.0448  | 1.7022  | .04905  | .18386 | .45959 |
| 55 | DE1M7BT     | -.00070 | .11752  | .00313  | -.00067 | .00079 | .01851 |
| 56 | DDLGI1T     | .00001  | .13147  | .07954  | .00162  | .00306 | .02031 |
| 57 | DDLGI1P5T   | -.00252 | -.01003 | .01663  | .00275  | .00239 | .04077 |
| 58 | DDLGI1ST    | .87863  | 4.9598  | 43.213  | .98475  | 4.6186 | 4.6606 |
| 59 | DDLGI1DT    | .86484  | 4.8234  | 42.611  | .95537  | 4.4412 | 4.4790 |
| 60 | CCV2-5      | .95354  | 4.6176  | 14.3870 | 4.8822  | 4.6927 | 4.7564 |
| 61 | CCB5        | .00147  | .02774  | .00052  | -.00031 | .00080 | .02225 |

VOID: Ba is out of 10% control limits  
in CCV2-5. Euf 6400

| #  | Sample Name       | SE      |
|----|-------------------|---------|
| 1  | STD1              | 0       |
| 2  | STD5A             | .54935  |
| 3  | STD5B             |         |
| 4  | ICV2-1 0014-119-2 | 1.0467  |
| 5  | ICB1              | .00731  |
| 6  | ICSA 0014-088-12  | .08094  |
| 7  | ICSAB 0014-104-1  | 1.0815  |
| 8  | DE590BT           | .00373  |
| 9  | DE590CT           | 2.1370  |
| 10 | DE3HEBT           | .01550  |
| 11 | DDM06T            | .00175  |
| 12 | DDM06P5T          | -.00141 |
| 13 | DDM06ST           | -.01092 |
| 14 | DDM06DT           | -.03234 |
| 15 | DDM4GT            | .00133  |
| 16 | CCV2-1 0014-087-7 | 5.0236  |
| 17 | CCB1              | -.00181 |
| 18 | DDM4KT            | .02522  |
| 19 | DDNVQT            | .00267  |
| 20 | DDNW7T            | -.01904 |
| 21 | DDNWKT            | -.00542 |
| 22 | DDNWWT            | -.00080 |
| 23 | DE00ET            | .00008  |
| 24 | DE58WBT           | -.00630 |
| 25 | DE58WCT           | 2.0048  |
| 26 | DD3GABT           | -.00180 |
| 27 | DDKFGT            | -.02892 |
| 28 | CCV2-2            | 5.0018  |
| 29 | CCB2              | -.01819 |
| 30 | DDKFHT            | -.01358 |
| 31 | DDKFJT            | .00463  |
| 32 | DDKFKT            | -.01538 |
| 33 | DDKFLT            | .01099  |
| 34 | DDKFMT            | .00188  |
| 35 | DDKFNT            | -.01723 |
| 36 | DDKFPT            | -.03905 |
| 37 | DDKFQT            | -.01814 |
| 38 | DDKFRT            | .02367  |
| 39 | DDKFVT            | -.01087 |
| 40 | CCV2-3            | 5.0141  |
| 41 | CCB3              | .00364  |
| 42 | DDKFWT            | .02925  |

VOID: Samples were not  
spiked - will be redspiked.  
Euf 6400

| #  | Sample Name | SE      |
|----|-------------|---------|
| 43 | DDKFXT      | -.01076 |
| 44 | DDKG3T      | -.00056 |
| 45 | DDKG5T      | -.01084 |
| 46 | DDRLVT      | -.01140 |
| 47 | DE022T      | -.03212 |
| 48 | DE022PST    | -.01989 |
| 49 | DE022ST     | .99724  |
| 50 | DE022DT     | .94079  |
| 51 | CCV2-4      | 4.8985  |
| 52 | CCB4        | .00547  |
| 53 | DE3JCBT     | .01097  |
| 54 | DE3JCCT     | 2.0432  |
| 55 | DE1M7BT     | -.00175 |
| 56 | DDLGT       | -.01343 |
| 57 | DDLGT1PST   | .03645  |
| 58 | DDLGT1ST    | .98771  |
| 59 | DDLGT1DT    | 1.0250  |
| 60 | CCV2-5      | 4.7599  |
| 61 | CCB5        | .02914  |

*Handwritten notes:*  
A bracket groups rows 47, 48, 49, and 50. To the right of the bracket is the word "ref" and the number "6400".

2UF6-400

| #  | Sample Name       | File    | Method  | Date     | Time  | OpID | Type | Mode |
|----|-------------------|---------|---------|----------|-------|------|------|------|
| 1  | STD1              | J00604B | QUANMET | 06/04/00 | 18:43 |      | X    | IR   |
| 2  | STD5A             | J00604B | QUANMET | 06/04/00 | 18:46 |      | X    | IR   |
| 3  | STD5B             | J00604B | QUANMET | 06/04/00 | 18:49 |      | X    | IR   |
| 4  | ICV2-1 0014-119-2 | J00604B | QUANMET | 06/04/00 | 18:52 | EMF  | S    | CONC |
| 5  | ICB1              | J00604B | QUANMET | 06/04/00 | 18:55 | EMF  | S    | CONC |
| 6  | ICSA 0014-088-12  | J00604B | QUANMET | 06/04/00 | 18:59 | EMF  | Q    | CONC |
| 7  | ICSA 0014-104-1   | J00604B | QUANMET | 06/04/00 | 19:02 | EMF  | Q    | CONC |
| 8  | DE590BT           | J00604B | QUANMET | 06/04/00 | 19:05 | EMF  | S    | CONC |
| 9  | DE590CT           | J00604B | QUANMET | 06/04/00 | 19:08 | EMF  | S    | CONC |
| 10 | DE3HEBT           | J00604B | QUANMET | 06/04/00 | 19:11 | EMF  | S    | CONC |
| 11 | DDM06T            | J00604B | QUANMET | 06/04/00 | 19:14 | EMF  | S    | CONC |
| 12 | DDM06P5T          | J00604B | QUANMET | 06/04/00 | 19:17 | EMF  | S    | CONC |
| 13 | DDM06ST           | J00604B | QUANMET | 06/04/00 | 19:21 | EMF  | S    | CONC |
| 14 | DDM06DT           | J00604B | QUANMET | 06/04/00 | 19:24 | EMF  | S    | CONC |
| 15 | DDM4GT            | J00604B | QUANMET | 06/04/00 | 19:27 | EMF  | S    | CONC |
| 16 | CCV2-1 0014-087-7 | J00604B | QUANMET | 06/04/00 | 19:30 | EMF  | S    | CONC |
| 17 | CCB1              | J00604B | QUANMET | 06/04/00 | 19:33 | EMF  | S    | CONC |
| 18 | DDM4KT            | J00604B | QUANMET | 06/04/00 | 19:36 | EMF  | S    | CONC |
| 19 | DDNVQT            | J00604B | QUANMET | 06/04/00 | 19:39 | EMF  | S    | CONC |
| 20 | DDNW7T            | J00604B | QUANMET | 06/04/00 | 19:42 | EMF  | S    | CONC |
| 21 | DDNWKT            | J00604B | QUANMET | 06/04/00 | 19:46 | EMF  | S    | CONC |
| 22 | DDNWT             | J00604B | QUANMET | 06/04/00 | 19:49 | EMF  | S    | CONC |
| 23 | DE02ET            | J00604B | QUANMET | 06/04/00 | 19:52 | EMF  | S    | CONC |
| 24 | DE58WBT           | J00604B | QUANMET | 06/04/00 | 19:55 | EMF  | S    | CONC |
| 25 | DE58WCT           | J00604B | QUANMET | 06/04/00 | 19:58 | EMF  | S    | CONC |
| 26 | DE3GABT           | J00604B | QUANMET | 06/04/00 | 20:01 | EMF  | S    | CONC |
| 27 | DDKFGT            | J00604B | QUANMET | 06/04/00 | 20:04 | EMF  | S    | CONC |
| 28 | CCV2-2            | J00604B | QUANMET | 06/04/00 | 20:07 | EMF  | S    | CONC |
| 29 | CCB2              | J00604B | QUANMET | 06/04/00 | 20:11 | EMF  | S    | CONC |
| 30 | DDKFHT            | J00604B | QUANMET | 06/04/00 | 20:14 | EMF  | S    | CONC |
| 31 | DDKFJT            | J00604B | QUANMET | 06/04/00 | 20:17 | EMF  | S    | CONC |
| 32 | DDKFKT            | J00604B | QUANMET | 06/04/00 | 20:20 | EMF  | S    | CONC |
| 33 | DDKFLT            | J00604B | QUANMET | 06/04/00 | 20:23 | EMF  | S    | CONC |
| 34 | DDKFMT            | J00604B | QUANMET | 06/04/00 | 20:26 | EMF  | S    | CONC |
| 35 | DDKFNT            | J00604B | QUANMET | 06/04/00 | 20:29 | EMF  | S    | CONC |
| 36 | DDKFPT            | J00604B | QUANMET | 06/04/00 | 20:32 | EMF  | S    | CONC |
| 37 | DDKFQT            | J00604B | QUANMET | 06/04/00 | 20:36 | EMF  | S    | CONC |
| 38 | DDKFRT            | J00604B | QUANMET | 06/04/00 | 20:39 | EMF  | S    | CONC |
| 39 | DDKFVT            | J00604B | QUANMET | 06/04/00 | 20:42 | EMF  | S    | CONC |
| 40 | CCV2-3            | J00604B | QUANMET | 06/04/00 | 20:45 | EMF  | S    | CONC |
| 41 | CCB3              | J00604B | QUANMET | 06/04/00 | 20:48 | EMF  | S    | CONC |
| 42 | DDKFWT            | J00604B | QUANMET | 06/04/00 | 20:51 | EMF  | S    | CONC |
| 43 | DDKFXT            | J00604B | QUANMET | 06/04/00 | 20:54 | EMF  | S    | CONC |
| 44 | DDKG3T            | J00604B | QUANMET | 06/04/00 | 20:57 | EMF  | S    | CONC |
| 45 | DDKG5T            | J00604B | QUANMET | 06/04/00 | 21:01 | EMF  | S    | CONC |
| 46 | DDRLVT            | J00604B | QUANMET | 06/04/00 | 21:04 | EMF  | S    | CONC |
| 47 | DE022T            | J00604B | QUANMET | 06/04/00 | 21:07 | EMF  | S    | CONC |
| 48 | DE022P5T          | J00604B | QUANMET | 06/04/00 | 21:10 | EMF  | S    | CONC |
| 49 | DE022ST           | J00604B | QUANMET | 06/04/00 | 21:13 | EMF  | S    | CONC |
| 50 | DE022DT           | J00604B | QUANMET | 06/04/00 | 21:16 | EMF  | S    | CONC |
| 51 | CCV2-4            | J00604B | QUANMET | 06/04/00 | 21:19 | EMF  | S    | CONC |
| 52 | CCB4              | J00604B | QUANMET | 06/04/00 | 21:22 | EMF  | S    | CONC |
| 53 | DE3JCBT           | J00604B | QUANMET | 06/04/00 | 21:26 | EMF  | S    | CONC |

| #  | Sample Name | File    | Method  | Date     | Time  | OpID | Type | Mode |
|----|-------------|---------|---------|----------|-------|------|------|------|
| 54 | DE3JCCT     | J00604B | QUANMET | 06/04/00 | 21:29 | EMF  | S    | CONC |
| 55 | DE1M7BT     | J00604B | QUANMET | 06/04/00 | 21:32 | EMF  | S    | CONC |
| 56 | DDLGI1T     | J00604B | QUANMET | 06/04/00 | 21:35 | EMF  | S    | CONC |
| 57 | DDLGI1P5T   | J00604B | QUANMET | 06/04/00 | 21:38 | EMF  | S    | CONC |
| 58 | DDLGI1ST    | J00604B | QUANMET | 06/04/00 | 21:41 | EMF  | S    | CONC |
| 59 | DDLGI1DT    | J00604B | QUANMET | 06/04/00 | 21:44 | EMF  | S    | CONC |
| 60 | CCV2-5      | J00604B | QUANMET | 06/04/00 | 21:48 | EMF  | S    | CONC |
| 61 | CCB5        | J00604B | QUANMET | 06/04/00 | 21:51 | EMF  | S    | CONC |

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Standardization Rpt.

06/04/00 06:46:29 PM

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Method: QUANMET Standard: STD1  
Run Time: 06/04/00 18:43:22

| Elem | AG      | AL     | AS     | B <sub>u</sub> | BA      | BE     | CA      |
|------|---------|--------|--------|----------------|---------|--------|---------|
| Avge | -.00060 | .01155 | .00020 | .00000         | -.00001 | .00290 | -.00119 |
| SDev | .00028  | .00087 | .00238 | .00000         | .00008  | .00012 | .00102  |
| %RSD | 47.140  | 7.5313 | 1191.6 | .00000         | 932.55  | 3.9817 | 86.123  |

|    |         |        |         |        |         |        |         |
|----|---------|--------|---------|--------|---------|--------|---------|
| #1 | -.00060 | .01080 | -.00320 | .00000 | .00000  | .00280 | -.00152 |
| #2 | -.00080 | .01120 | .00220  | .00000 | .00000  | .00300 | -.00188 |
| #3 | -.00020 | .01280 | .00040  | .00000 | .00008  | .00300 | .00033  |
| #4 | -.00080 | .01140 | .00140  | .00000 | -.00012 | .00280 | -.00167 |

| Elem | CD      | CO     | CR     | CU     | FE     | K <sub>u</sub> | LI      |
|------|---------|--------|--------|--------|--------|----------------|---------|
| Avge | -.00008 | .00020 | .00050 | .00015 | .00065 | -.02940        | -.00015 |
| SDev | .00010  | .00023 | .00132 | .00019 | .00053 | .00794         | .00019  |
| %RSD | 122.99  | 115.47 | 264.32 | 127.66 | 80.922 | 26.995         | 127.66  |

|    |         |        |         |        |        |         |         |
|----|---------|--------|---------|--------|--------|---------|---------|
| #1 | .00000  | .00040 | .00120  | .00000 | .00020 | -.03240 | -.00040 |
| #2 | -.00020 | .00000 | -.00040 | .00020 | .00020 | -.03280 | .00000  |
| #3 | .00000  | .00000 | .00200  | .00040 | .00120 | -.01760 | .00000  |
| #4 | -.00012 | .00040 | -.00080 | .00000 | .00100 | -.03480 | -.00020 |

| Elem | MG      | MN     | MO     | NA     | NI      | PB     | SB      |
|------|---------|--------|--------|--------|---------|--------|---------|
| Avge | -.00055 | .00000 | .00000 | .05095 | -.00022 | .00025 | -.00030 |
| SDev | .00030  | .00000 | .00016 | .00314 | .00033  | .00097 | .00020  |
| %RSD | 54.545  | .00000 | .00000 | 6.1682 | 148.62  | 388.50 | 66.667  |

|    |         |        |         |        |         |         |         |
|----|---------|--------|---------|--------|---------|---------|---------|
| #1 | -.00040 | .00000 | .00000  | .05020 | -.00004 | .00080  | -.00040 |
| #2 | -.00080 | .00000 | -.00020 | .05120 | -.00027 | -.00100 | -.00040 |
| #3 | -.00020 | .00000 | .00000  | .05500 | .00008  | .00120  | .00000  |
| #4 | -.00080 | .00000 | .00020  | .04740 | -.00067 | .00000  | -.00040 |

| Elem | SE      | SI     | SN     | SR     | TI     | TL     | V <sub>u</sub> |
|------|---------|--------|--------|--------|--------|--------|----------------|
| Avge | -.00000 | .00150 | .00010 | .00005 | .00195 | .00065 | .00000         |
| SDev | .00180  | .00101 | .00222 | .00010 | .00041 | .00044 | .00000         |
| %RSD | 4489e6  | 67.550 | 2218.1 | 200.00 | 21.144 | 68.226 | .00000         |

|    |         |        |         |        |        |        |        |
|----|---------|--------|---------|--------|--------|--------|--------|
| #1 | -.00020 | .00000 | -.00120 | .00000 | .00200 | .00080 | .00000 |
| #2 | .00080  | .00200 | .00300  | .00000 | .00200 | .00020 | .00000 |
| #3 | .00180  | .00220 | .00060  | .00020 | .00240 | .00040 | .00000 |
| #4 | -.00240 | .00180 | -.00200 | .00000 | .00140 | .00120 | .00000 |

| Elem | ZN     |
|------|--------|
| Avge | .00035 |
| SDev | .00021 |
| %RSD | 61.548 |

|    |        |
|----|--------|
| #1 | .00040 |
| #2 | .00052 |
| #3 | .00004 |
| #4 | .00044 |

Method: QUANMET Standard: STD5A  
Run Time: 06/04/00 18:46:33

004-072-2

| Elem | AG     | AS     | B      | BA     | BE     | CD     | CO     |
|------|--------|--------|--------|--------|--------|--------|--------|
| Avge | .26845 | .56695 | .61901 | 4.3689 | 16.186 | .91991 | 1.4875 |
| SDev | .00100 | .00769 | .00277 | .0326  | .101   | .00617 | .0053  |
| %RSD | .37189 | 1.3569 | .44816 | .74694 | .62090 | .67045 | .35851 |
| #1   | .26840 | .57840 | .62284 | 4.4114 | 16.315 | .91584 | 1.4870 |
| #2   | .26820 | .56400 | .61924 | 4.3773 | 16.216 | .91696 | 1.4882 |
| #3   | .26740 | .56360 | .61672 | 4.3470 | 16.096 | .91774 | 1.4808 |
| #4   | .26980 | .56180 | .61724 | 4.3398 | 16.118 | .92908 | 1.4938 |
| Elem | CR     | CU     | LI     | MN     | MO     | NI     | PB     |
| Avge | 3.7572 | 2.4545 | 4.8982 | 2.0613 | .42500 | 1.7825 | .26230 |
| SDev | .0193  | .0210  | .0496  | .0084  | .00251 | .0121  | .00123 |
| %RSD | .51380 | .85568 | 1.0128 | .40614 | .59152 | .67653 | .46796 |
| #1   | 3.7542 | 2.4788 | 4.9283 | 2.0626 | .42400 | 1.7893 | .26240 |
| #2   | 3.7572 | 2.4644 | 4.9521 | 2.0626 | .42460 | 1.7768 | .26080 |
| #3   | 3.7352 | 2.4424 | 4.8616 | 2.0500 | .42280 | 1.7687 | .26220 |
| #4   | 3.7822 | 2.4324 | 4.8509 | 2.0702 | .42860 | 1.7954 | .26380 |
| Elem | SB     | SE     | SI     | SN     | SR     | TI     | TL     |
| Avge | .20475 | .54935 | .35075 | .99955 | 8.3777 | 6.3147 | .36925 |
| SDev | .00133 | .00560 | .00187 | .00370 | .0571  | .0293  | .00150 |
| %RSD | .64977 | 1.0195 | .53363 | .36981 | .68140 | .46342 | .40623 |
| #1   | .20580 | .55500 | .34860 | 1.0044 | 8.4527 | 6.3500 | .36780 |
| #2   | .20520 | .54900 | .35200 | 1.0004 | 8.3914 | 6.3220 | .37120 |
| #3   | .20520 | .54180 | .34980 | .99720 | 8.3353 | 6.2800 | .36960 |
| #4   | .20280 | .55160 | .35260 | .99620 | 8.3312 | 6.3066 | .36840 |
| Elem | V      | ZN     |        |        |        |        |        |
| Avge | 1.6644 | 1.5749 |        |        |        |        |        |
| SDev | .0066  | .0055  |        |        |        |        |        |
| %RSD | .39624 | .34702 |        |        |        |        |        |
| #1   | 1.6688 | 1.5781 |        |        |        |        |        |
| #2   | 1.6666 | 1.5753 |        |        |        |        |        |
| #3   | 1.6546 | 1.5671 |        |        |        |        |        |
| #4   | 1.6676 | 1.5792 |        |        |        |        |        |

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Standardization Rpt.

06/04/00 06:52:47 PM

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Method: QUANMET Standard: STD5B

Run Time: 06/04/00 18:49:42

0014-072-3

| Elem | AL     | CA     | FE     | K      | MG     | NA     |
|------|--------|--------|--------|--------|--------|--------|
| Avge | 11.973 | 24.165 | 30.760 | 2.5861 | 8.0359 | 54.544 |
| SDev | .048   | .157   | .115   | .0305  | .0322  | .604   |
| %RSD | .40103 | .65028 | .37494 | 1.1777 | .40045 | 1.1074 |
| #1   | 11.997 | 24.305 | 30.877 | 2.5934 | 8.0616 | 54.701 |
| #2   | 11.901 | 24.199 | 30.689 | 2.5444 | 7.9910 | 53.774 |
| #3   | 11.998 | 24.218 | 30.837 | 2.5894 | 8.0566 | 54.472 |
| #4   | 11.995 | 23.940 | 30.636 | 2.6174 | 8.0346 | 55.231 |

Standardization

Report

06/04/00 06:52:48 PM

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Method: QUANMET

Slope = Conc(SIR)/IR

| Element | Wavelen | High std | Low std | Slope / | Y-intercept | Date Standardized |
|---------|---------|----------|---------|---------|-------------|-------------------|
| AG      | 328.068 | STD5A    | STD1    | 7.25264 | .004352     | 06/04/00 06:49:42 |
| AL      | 308.215 | STD5B    | STD1    | 8.36033 | -.096562    | 06/04/00 06:49:42 |
| AS      | 193.696 | STD5A    | STD1    | 17.9487 | -.003590    | 06/04/00 06:49:42 |
| B       | 249.600 | STD5A    | STD1    | 16.1874 | .000000     | 06/04/00 06:49:42 |
| BA      | 493.409 | STD5A    | STD1    | 2.28891 | .000020     | 06/04/00 06:49:42 |
| BE      | 313.042 | STD5A    | STD1    | .619559 | -.001797    | 06/04/00 06:49:42 |
| CA      | 317.933 | STD5B    | STD1    | 4.13794 | .004905     | 06/04/00 06:49:42 |
| CD      | 228.802 | STD5A    | STD1    | 11.0326 | .000876     | 06/04/00 06:49:42 |
| CO      | 228.616 | STD5A    | STD1    | 6.75593 | -.001351    | 06/04/00 06:49:42 |
| CR      | 267.716 | STD5A    | STD1    | 2.66265 | -.001331    | 06/04/00 06:49:42 |
| CU      | 324.754 | STD5A    | STD1    | 4.07069 | -.000611    | 06/04/00 06:49:42 |
| FE      | 259.940 | STD5B    | STD1    | 3.25108 | -.002113    | 06/04/00 06:49:42 |
| K       | 766.491 | STD5B    | STD1    | 38.2329 | 1.12405     | 06/04/00 06:49:42 |
| LI      | 670.789 | STD5A    | STD1    | 2.04149 | .000306     | 06/04/00 06:49:42 |
| MG      | 279.079 | STD5B    | STD1    | 12.4432 | .006844     | 06/04/00 06:49:42 |
| MN      | 257.610 | STD5A    | STD1    | 4.84959 | .000000     | 06/04/00 06:49:42 |
| MO      | 202.030 | STD5A    | STD1    | 23.5294 | .000000     | 06/04/00 06:49:42 |
| NA      | 588.995 | STD5B    | STD1    | 1.83508 | -.093497    | 06/04/00 06:49:42 |
| NI      | 231.604 | STD5A    | STD1    | 5.60673 | .001253     | 06/04/00 06:49:42 |
| PB      | 220.353 | STD5A    | STD1    | 37.0380 | -.009259    | 06/04/00 06:49:42 |
| SB      | 206.838 | STD5A    | STD1    | 48.8251 | .014648     | 06/04/00 06:49:42 |
| SE      | 196.026 | STD5A    | STD1    | 18.2033 | .000000     | 06/04/00 06:49:42 |
| SI      | 288.158 | STD5A    | STD1    | 28.2674 | -.042401    | 06/04/00 06:49:42 |
| SN      | 189.989 | STD5A    | STD1    | 9.99506 | -.001000    | 06/04/00 06:49:42 |
| SR      | 409.552 | STD5A    | STD1    | 1.19366 | -.000060    | 06/04/00 06:49:42 |
| TI      | 334.941 | STD5A    | STD1    | 1.58411 | -.003089    | 06/04/00 06:49:42 |
| TL      | 190.864 | STD5A    | STD1    | 54.5137 | -.035434    | 06/04/00 06:49:42 |
| V       | 292.402 | STD5A    | STD1    | 5.88022 | .000000     | 06/04/00 06:49:42 |
| ZN      | 213.856 | STD5A    | STD1    | 6.37274 | -.002212    | 06/04/00 06:49:42 |



Method: QUANMET Sample Name: ICV2-1 0014-119-2 Operator: EMF  
Run Time: 06/04/00 18:52:51  
Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP  
Mode: CONC Corr. Factor: 1

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| Elem   | AG      | AL      | AS      | B_      | BA      | BE      | CA      |
| Units  | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     |
| Avge   | .50972  | 25.013  | .97855  | 1.0234  | 1.0043  | .98641  | 25.577  |
| SDev   | .00464  | .196    | .03746  | .0191   | .0119   | .01009  | .185    |
| %RSD   | .91133  | .78490  | 3.8282  | 1.8632  | 1.1863  | 1.0233  | .72446  |
| #1     | .50284  | 25.208  | 1.0191  | 1.0429  | 1.0168  | .99540  | 25.356  |
| #2     | .51154  | 24.919  | .94253  | 1.0073  | .99761  | .98127  | 25.793  |
| #3     | .51304  | 25.143  | 1.0014  | 1.0367  | 1.0115  | .99427  | 25.641  |
| #4     | .51146  | 24.785  | .95119  | 1.0069  | .99120  | .97472  | 25.517  |
| 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   | 1.0162  | 1.0039  | 1.0145  | .99890  | 26.147  | 25.270  | 1.0080  |
| SDev   | .0102   | .0094   | .0056   | .01382  | .145    | .262    | .0215   |
| %RSD   | 1.0069  | .93381  | .55379  | 1.3838  | .55625  | 1.0384  | 2.1300  |
| #1     | 1.0225  | .99640  | 1.0086  | 1.0152  | 26.178  | 25.303  | 1.0386  |
| #2     | 1.0217  | 1.0126  | 1.0187  | .98914  | 26.161  | 25.616  | 1.0004  |
| #3     | 1.0197  | 1.0113  | 1.0198  | 1.0054  | 26.299  | 25.165  | 1.0047  |
| #4     | 1.0010  | .99514  | 1.0107  | .98585  | 25.949  | 24.997  | .98851  |
| 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   | 25.325  | 1.0102  | .98979  | 25.043  | 1.0028  | 1.0235  | 1.0363  |
| SDev   | .214    | .0059   | .00903  | .393    | .0154   | .0251   | .0093   |
| %RSD   | .84645  | .58528  | .91241  | 1.5696  | 1.5337  | 2.4564  | .89505  |
| #1     | 25.530  | 1.0093  | .99686  | 25.582  | .98039  | 1.0084  | 1.0483  |
| #2     | 25.217  | 1.0132  | .98744  | 24.961  | 1.0070  | 1.0608  | 1.0290  |
| #3     | 25.476  | 1.0161  | .99687  | 24.993  | 1.0152  | 1.0162  | 1.0290  |
| #4     | 25.077  | 1.0024  | .97800  | 24.638  | 1.0088  | 1.0086  | 1.0390  |
| 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   | 1.0467  | 1.0332  | 1.0122  | .99892  | .99316  | 4.9458  | .99960  |
| SDev   | .0358   | .0221   | .0274   | .01076  | .00652  | .0217   | .00400  |
| %RSD   | 3.4227  | 2.1436  | 2.7024  | 1.0775  | .65609  | .43792  | .39996  |
| #1     | 1.0532  | 1.0276  | .99676  | 1.0100  | .99712  | 4.9728  | .99972  |
| #2     | .99852  | 1.0049  | 1.0427  | .99372  | .99141  | 4.9402  | .99956  |

## Analysis Report

06/04/00 06:55:57 PM

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|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | 1.0500  | 1.0559  | 1.0267  | 1.0055  | .99933  | 4.9496  | 1.0044  |
| #4     | 1.0851  | 1.0445  | .98273  | .98646  | .98476  | 4.9207  | .99466  |
| 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  | 1.0037 |
| SDev  | .0023  |
| %RSD  | .22958 |

|    |        |
|----|--------|
| #1 | 1.0021 |
| #2 | 1.0070 |
| #3 | 1.0038 |
| #4 | 1.0021 |

|        |         |
|--------|---------|
| Errors | LC Pass |
| High   | 1.1000  |
| Low    | .90000  |

Method: QUANMET Sample Name: ICB1

Operator: EMF

Run Time: 06/04/00 18:55:59

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| Elem   | AG      | AL      | AS      | B_      | BA      | BE      | CA      |
| Units  | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     |
| Avge   | -.00072 | .00823  | -.02970 | .00812  | .00007  | .00025  | .16230  |
| SDev   | .00082  | .01088  | .02161  | .01620  | .00015  | .00006  | .00277  |
| %RSD   | 114.12  | 132.13  | 72.766  | 199.49  | 227.16  | 26.179  | 1.7075  |
| #1     | -.00143 | -.00642 | -.05747 | .00001  | .00029  | .00030  | .16439  |
| #2     | .00000  | .00700  | -.01084 | .00002  | .00002  | .00019  | .16035  |
| #3     | -.00145 | .01871  | -.03608 | .03241  | .00002  | .00031  | .16497  |
| #4     | -.00002 | .01363  | -.01441 | .00004  | -.00006 | .00020  | .15952  |
| 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   | .00074  | -.00304 | -.00066 | .00020  | .00975  | -.00956 | -.00035 |
| SDev   | .00334  | .00299  | .00266  | .00210  | .00532  | .75863  | .00077  |
| %RSD   | 452.75  | 98.275  | 400.58  | 1043.9  | 54.534  | 7936.9  | 217.05  |
| #1     | H.00502 | -.00001 | .00293  | .00265  | .00309  | .83348  | .00031  |
| #2     | -.00122 | -.00135 | -.00239 | -.00061 | .00829  | -.25234 | .00031  |
| #3     | .00165  | -.00406 | -.00026 | .00102  | .01544  | .31351  | -.00089 |
| #4     | -.00250 | -.00675 | -.00292 | -.00224 | .01219  | -.93288 | -.00113 |
| 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   | .00871  | .00073  | .00941  | .01312  | -.00253 | .00548  | .01458  |
| SDev   | .02320  | .00049  | .00384  | .00933  | .00404  | .04492  | .01590  |
| %RSD   | 266.37  | 66.155  | 40.816  | 71.150  | 159.33  | 818.95  | 109.04  |
| #1     | .02178  | .00097  | .00941  | .00193  | -.00421 | .02780  | .01457  |
| #2     | .01431  | .00098  | .00941  | .01184  | -.00724 | .02037  | .03407  |
| #3     | .02426  | .00001  | .00471  | .01404  | .00198  | .03505  | -.00487 |
| #4     | -.02551 | .00098  | .01412  | .02468  | -.00065 | -.06129 | .01455  |
| 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   | .00732  | .02403  | -.00743 | .00045  | .00040  | -.03823 | .00018  |
| SDev   | .03689  | .00283  | .00668  | .00007  | .00026  | .04486  | .00381  |
| %RSD   | 504.17  | 11.770  | 89.900  | 15.504  | 65.320  | 117.33  | 2109.9  |
| #1     | .03278  | .02550  | -.00893 | .00042  | .00008  | -.09001 | .00489  |
| #2     | -.04730 | .01979  | .00116  | .00042  | .00040  | -.03550 | .00018  |

## Analysis Report

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|    |        |        |         |        |        |         |         |
|----|--------|--------|---------|--------|--------|---------|---------|
| #3 | .02554 | .02544 | -.01501 | .00056 | .00040 | -.04646 | .00009  |
| #4 | .01825 | .02538 | -.00693 | .00042 | .00071 | .01904  | -.00444 |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| 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  | H.02887 |
| SDev  | .00112  |
| %RSD  | 3.8670  |

|    |         |
|----|---------|
| #1 | H.02885 |
| #2 | H.03043 |
| #3 | H.02784 |
| #4 | H.02837 |

|        |         |
|--------|---------|
| Errors | LC High |
| High   | .02000  |
| Low    | -.02000 |

Method: QUANMET Sample Name: ICESA 0014-088-12 Operator: EMF  
 Run Time: 06/04/00 18:59:07  
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP  
 Mode: CONC . Corr. Factor: 1

| Elem  | AG      | AL     | AS      | B_      | BA     | BE     | CA     |
|-------|---------|--------|---------|---------|--------|--------|--------|
| Units | ppm     | ppm    | ppm     | ppm     | ppm    | ppm    | ppm    |
| Avge  | -.00250 | 505.36 | -.16205 | -.02827 | .00195 | .00014 | 481.00 |
| SDev  | .00305  | 6.08   | .15211  | .02814  | .00011 | .00006 | .93    |
| %RSD  | 121.90  | 1.2027 | 93.870  | 99.566  | 5.5937 | 44.528 | .19394 |

|    |         |        |         |         |        |        |        |
|----|---------|--------|---------|---------|--------|--------|--------|
| #1 | .00017  | 497.11 | -.34578 | .00006  | .00185 | .00017 | 482.16 |
| #2 | -.00105 | 506.42 | -.19875 | -.03370 | .00204 | .00005 | 480.14 |
| #3 | -.00682 | 506.12 | .01894  | -.01439 | .00185 | .00017 | 481.34 |
| #4 | -.00230 | 511.77 | -.12260 | -.06503 | .00204 | .00019 | 480.36 |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| 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  | -.00259 | .01085 | .00014 | -.00522 | 183.98 | -.10896 | .00133 |
| SDev  | .00408  | .00191 | .00051 | .00101  | .78    | .35392  | .00035 |
| %RSD  | 157.61  | 17.608 | 376.14 | 19.413  | .42467 | 324.80  | 26.455 |

|    |         |        |         |         |        |         |        |
|----|---------|--------|---------|---------|--------|---------|--------|
| #1 | .00225  | .00949 | .00080  | -.00550 | 182.99 | -.19116 | .00165 |
| #2 | -.00766 | .00951 | -.00026 | -.00543 | 183.95 | -.32880 | .00083 |
| #3 | -.00178 | .01355 | -.00026 | -.00378 | 184.09 | .41292  | .00136 |
| #4 | -.00317 | .01085 | .00027  | -.00616 | 184.89 | -.32880 | .00148 |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| 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  | 485.98 | .00335 | .01575 | .00908 | .00117 | .10009 | .06609 |
| SDev  | 3.88   | .00051 | .00462 | .00579 | .02407 | .03007 | .05364 |
| %RSD  | .79865 | 15.154 | 29.310 | 63.756 | 2061.4 | 30.043 | 81.168 |

|    |        |        |        |        |         |        |        |
|----|--------|--------|--------|--------|---------|--------|--------|
| #1 | 480.65 | .00299 | .01795 | .01404 | -.00443 | .10283 | .11248 |
| #2 | 486.84 | .00308 | .01810 | .01404 | .03404  | .12720 | .01506 |
| #3 | 486.48 | .00409 | .01812 | .00303 | -.00120 | .11276 | .11238 |
| #4 | 489.95 | .00324 | .00882 | .00523 | -.02373 | .05755 | .02444 |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| 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  | .08095 | .05940 | -.07160 | .01388 | -.02249 | .52055 | .00383 |
| SDev  | .04836 | .01033 | .03197  | .00010 | .00070  | .12917 | .00244 |
| %RSD  | 59.746 | 17.393 | 44.655  | .70754 | 3.1230  | 24.815 | 63.692 |

|    |        |        |         |        |         |        |        |
|----|--------|--------|---------|--------|---------|--------|--------|
| #1 | .11918 | .07073 | -.10356 | .01377 | -.02210 | .62620 | .00505 |
| #2 | .03533 | .04811 | -.05186 | .01387 | -.02178 | .63807 | .00505 |

## Analysis Report

QC Standard

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|    |        |        |         |        |         |        |        |
|----|--------|--------|---------|--------|---------|--------|--------|
| #3 | .04313 | .06507 | -.03738 | .01387 | -.02337 | .41853 | .00505 |
| #4 | .12615 | .05371 | -.09361 | .01401 | -.02273 | .39940 | .00017 |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| Errors | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK |
| Value  |         |         |         |         |         |         |         |
| Range  |         |         |         |         |         |         |         |

|       |        |
|-------|--------|
| Elem  | ZN     |
| Units | ppm    |
| Avge  | .00055 |
| SDev  | .00240 |
| %RSD  | 435.74 |

|    |         |
|----|---------|
| #1 | .00099  |
| #2 | .00205  |
| #3 | -.00296 |
| #4 | .00212  |

|        |         |
|--------|---------|
| Errors | NOCHECK |
| Value  |         |
| Range  |         |

Method: QUANMET Sample Name: ICSAB 0014-104-1 Operator: EMF  
 Run Time: 06/04/00 19:02:15  
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP  
 Mode: CONC Corr. Factor: 1

| Elem   | AG      | AL      | AS      | B_      | BA      | BE      | CA      |
|--------|---------|---------|---------|---------|---------|---------|---------|
| Units  | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     |
| Avge   | .96232  | 494.37  | .86744  | .92527  | .46563  | .45188  | 471.49  |
| SDev   | .00491  | 3.77    | .13242  | .02068  | .00396  | .00220  | 3.00    |
| %RSD   | .51024  | .76184  | 15.265  | 2.2352  | .85009  | .48669  | .63523  |
| #1     | .96331  | 494.55  | .92481  | .92307  | .46572  | .45152  | 469.43  |
| #2     | .95606  | 496.10  | 1.0088  | .92059  | .46690  | .45164  | 468.57  |
| #3     | .96193  | 489.07  | .83738  | .95353  | .46023  | .44953  | 474.91  |
| #4     | .96798  | 497.76  | Q.69881 | .90388  | .46965  | .45485  | 473.05  |
| 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   | .95973  | .44979  | .43894  | .50088  | 180.32  | 10.464  | 1.0092  |
| SDev   | .00686  | .00156  | .00051  | .00601  | .58     | .271    | .0176   |
| %RSD   | .71501  | .34668  | .11628  | 1.1998  | .31903  | 2.5914  | 1.7453  |
| #1     | .95953  | .44844  | .43854  | .50186  | 179.95  | 10.606  | 1.0154  |
| #2     | .95017  | .45117  | .43855  | .50431  | 179.95  | 10.774  | 1.0232  |
| #3     | .96365  | .44844  | .43908  | .49212  | 180.24  | 10.277  | .98344  |
| #4     | .96559  | .45112  | .43961  | .50522  | 181.16  | 10.201  | 1.0149  |
| 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   | 474.26  | .44848  | .89520  | 10.054  | .87355  | 1.0221  | .97328  |
| SDev   | 2.03    | .00282  | .00821  | .152    | .00264  | .0397   | .03222  |
| %RSD   | .42851  | .62913  | .91685  | 1.5085  | .30199  | 3.8793  | 3.3107  |
| #1     | 473.61  | .44570  | .88338  | 10.109  | .87034  | 1.0073  | .97090  |
| #2     | 475.03  | .44664  | .89750  | 10.170  | .87247  | 1.0584  | 1.0196  |
| #3     | 471.81  | .44978  | .89754  | 9.8306  | .87547  | .97301  | .95144  |
| #4     | 476.58  | .45181  | .90238  | 10.105  | .87593  | 1.0498  | .95119  |
| 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   | 1.0815  | 1.0630  | .84421  | .93580  | .88195  | 9.5080  | .45212  |
| SDev   | .0797   | .0247   | .04674  | .00722  | .00434  | .2444   | .00245  |
| %RSD   | 7.3681  | 2.3193  | 5.5368  | .77191  | .49211  | 2.5702  | .54164  |
| #1     | 1.1566  | 1.0771  | .83214  | .93574  | .88053  | 9.3866  | .45072  |
| #2     | 1.0000  | 1.0262  | .87034  | .93846  | .88116  | 9.3211  | .45099  |

## Analysis Report

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|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | 1.0266  | 1.0714  | Q.78414 | .92595  | .87799  | 9.4599  | .45099  |
| #4     | 1.1428  | 1.0772  | .89022  | .94304  | .88813  | 9.8646  | .45579  |
| 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  | .93331 |
| SDev  | .00667 |
| %RSD  | .71473 |

|    |        |
|----|--------|
| #1 | .92369 |
| #2 | .93484 |
| #3 | .93561 |
| #4 | .93908 |

|        |         |
|--------|---------|
| Errors | QC Pass |
| Value  | 1.0000  |
| Range  | 20.000  |



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## Analysis Report

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Method: QUANMET Sample Name: DE590BT <sup>0</sup>  
 Run Time: 06/04/00 19:05:23 *auf 64w* Operator: EMF  
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP  
 Mode: CONC Corr. Factor: 1

| Elem   | AG      | AL      | AS      | B       | BA      | BE      | CA      |
|--------|---------|---------|---------|---------|---------|---------|---------|
| Units  | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     |
| Avge   | .00002  | .02665  | -.01107 | .01462  | .00007  | .00018  | .06992  |
| SDev   | .00119  | .01563  | .00787  | .01683  | .00009  | .00001  | .00705  |
| %RSD   | 6460.3  | 58.662  | 71.097  | 115.13  | 140.00  | 4.1697  | 10.080  |
| #1     | .00000  | .01875  | -.00736 | .00005  | .00021  | .00019  | .06006  |
| #2     | .00148  | .03706  | -.02197 | .02919  | .00002  | .00017  | .07637  |
| #3     | .00001  | .04212  | -.01116 | .02920  | .00002  | .00019  | .07311  |
| #4     | -.00142 | .00867  | -.00378 | .00004  | .00002  | .00017  | .07014  |
| 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   | .00187  | -.00136 | .00093  | .00143  | .02487  | .34027  | -.00030 |
| SDev   | .00227  | .00331  | .00181  | .00082  | .00377  | .28064  | .00069  |
| %RSD   | 121.30  | 243.79  | 194.45  | 57.241  | 15.167  | 82.475  | 231.44  |
| #1     | .00224  | -.00406 | -.00133 | .00020  | .02130  | .13764  | -.00113 |
| #2     | .00424  | -.00001 | .00027  | .00183  | .02780  | .48173  | -.00017 |
| #3     | -.00122 | -.00405 | .00240  | .00183  | .02845  | .07647  | .00055  |
| #4     | .00223  | .00270  | .00240  | .00184  | .02194  | .66525  | -.00044 |
| 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   | .03920  | .00049  | .00589  | .05083  | .00339  | .00368  | .02197  |
| SDev   | .01075  | .00056  | .00451  | .00372  | .00255  | .00375  | .02441  |
| %RSD   | 27.432  | 113.17  | 76.549  | 7.3248  | 75.340  | 101.99  | 111.09  |
| #1     | .02426  | .00098  | .00000  | .04744  | .00027  | -.00195 | .02444  |
| #2     | .04915  | .00001  | .00942  | .05441  | .00649  | .00560  | .05368  |
| #3     | .03920  | .00098  | .00471  | .05368  | .00303  | .00541  | -.00491 |
| #4     | .04417  | .00001  | .00942  | .04780  | .00377  | .00564  | .01468  |
| 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   | .00373  | .02830  | -.00339 | .00032  | .00032  | -.00026 | .00247  |
| SDev   | .02866  | .02863  | .01715  | .00008  | .00054  | .05293  | .00280  |
| %RSD   | 767.94  | 101.15  | 505.64  | 25.123  | 170.78  | 20278.  | 113.30  |
| #1     | .00372  | .03675  | -.01288 | .00032  | .00103  | -.01381 | -.00000 |
| #2     | -.02174 | .04812  | .02125  | .00022  | .00008  | .05147  | .00489  |

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|    |         |         |         |        |         |         |        |
|----|---------|---------|---------|--------|---------|---------|--------|
| #3 | -.01082 | .04240  | -.00502 | .00032 | .00040  | .02973  | .00010 |
| #4 | .04377  | -.01407 | -.01692 | .00042 | -.00024 | -.06842 | .00489 |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| Errors | LC Pass | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK |
| High   | .25000  |         |         |         |         |         |         |
| Low    | -.25000 |         |         |         |         |         |         |

|       |        |
|-------|--------|
| Elem  | ZN     |
| Units | ppm    |
| Avge  | .00745 |
| SDev  | .00164 |
| %RSD  | 22.083 |

|    |        |
|----|--------|
| #1 | .00543 |
| #2 | .00925 |
| #3 | .00819 |
| #4 | .00693 |

|        |         |
|--------|---------|
| Errors | NOCHECK |
| High   |         |
| Low    |         |

Method: QUANMET Sample Name: DE590CT <sup>0</sup>  
Run Time: 06/04/00 19:08:31 *auf 6400* Operator: EMF  
Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP  
Mode: CONC Corr. Factor: 1

| Elem  | AG     | AL     | AS     | B_     | BA     | BE     | CA      |
|-------|--------|--------|--------|--------|--------|--------|---------|
| Units | ppm    | ppm    | ppm    | ppm    | ppm    | ppm    | ppm     |
| Avge  | .04523 | 1.8206 | 2.1250 | .91657 | 1.7691 | .04412 | L.13972 |
| SDev  | .00496 | .0075  | .0698  | .01950 | .0303  | .00037 | .00611  |
| %RSD  | 10.979 | .41191 | 3.2849 | 2.1279 | 1.7124 | .84871 | 4.3706  |

|    |        |        |        |        |        |        |         |
|----|--------|--------|--------|--------|--------|--------|---------|
| #1 | .04304 | 1.8169 | 2.1727 | .91847 | 1.7815 | .04422 | L.13790 |
| #2 | .04594 | 1.8169 | 2.0865 | .92571 | 1.7527 | .04397 | L.14107 |
| #3 | .05177 | 1.8169 | 2.0469 | .88876 | 1.7371 | .04371 | L.14725 |
| #4 | .04014 | 1.8319 | 2.1941 | .93332 | 1.8052 | .04459 | L.13265 |

|        |         |         |         |         |         |         |        |
|--------|---------|---------|---------|---------|---------|---------|--------|
| 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  | .04863 | .45973 | .18640 | .23476 | .96524 | L.50659 | .88688 |
| SDev  | .00260 | .00398 | .00075 | .00508 | .00362 | .24432  | .03154 |
| %RSD  | 5.3359 | .86460 | .40337 | 2.1652 | .37472 | 48.229  | 3.5559 |

|    |        |        |        |        |        |         |        |
|----|--------|--------|--------|--------|--------|---------|--------|
| #1 | .04774 | .46108 | .18586 | .23599 | .96865 | L.27528 | .89309 |
| #2 | .04829 | .45434 | .18639 | .23354 | .96281 | L.54291 | .87563 |
| #3 | .05228 | .46379 | .18746 | .22866 | .96801 | L.83348 | .85195 |
| #4 | .04619 | .45972 | .18586 | .24087 | .96150 | L.37468 | .92686 |

|        |         |         |         |         |         |        |         |
|--------|---------|---------|---------|---------|---------|--------|---------|
| 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.02738 | .46289 | .00367 | S-.09350 | .45579 | .47637 | L-.00124 |
| SDev  | .01618  | .00177 | .00451 | .00000   | .00864 | .03028 | .01667   |
| %RSD  | 59.091  | .38267 | 122.63 | .00000   | 1.8951 | 6.3575 | 1339.2   |

|    |         |        |        |          |        |        |          |
|----|---------|--------|--------|----------|--------|--------|----------|
| #1 | L.03422 | .46386 | .00014 | S-.09350 | .45831 | .47644 | L.02079  |
| #2 | L.02924 | .46192 | .00014 | S-.09350 | .46218 | .47620 | L-.01827 |
| #3 | L.04168 | .46483 | .00485 | S-.09350 | .45961 | .51351 | L-.00852 |
| #4 | L.00436 | .46095 | .00956 | S-.09350 | .44306 | .43933 | L.00102  |

|        |        |         |         |        |         |         |        |
|--------|--------|---------|---------|--------|---------|---------|--------|
| 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  | 2.1370 | .07787 | .01817 | .89541 | -.00032 | 1.7711 | .45322 |
| SDev  | .0497  | .03707 | .00886 | .01256 | .00098  | .0541  | .00237 |
| %RSD  | 2.3277 | 47.603 | 48.748 | 1.4025 | 309.57  | 3.0537 | .52297 |

|    |        |        |        |        |         |        |        |
|----|--------|--------|--------|--------|---------|--------|--------|
| #1 | 2.1588 | .06513 | .01128 | .90094 | -.00087 | 1.7929 | .45197 |
| #2 | 2.0714 | .05948 | .01509 | .88881 | -.00024 | 1.7167 | .45197 |

## Analysis Report

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|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | 2.1297  | .13303  | .01513  | .88184  | .00103  | 1.8365  | .45677  |
| #4     | 2.1879  | .05382  | .03118  | .91007  | -.00119 | 1.7384  | .45215  |
| 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   | .48532  |         |         |         |         |         |         |
| SDev   | .00475  |         |         |         |         |         |         |
| %RSD   | .97953  |         |         |         |         |         |         |
| #1     | .48071  |         |         |         |         |         |         |
| #2     | .48783  |         |         |         |         |         |         |
| #3     | .49073  |         |         |         |         |         |         |
| #4     | .48201  |         |         |         |         |         |         |
| Errors | LC Pass |         |         |         |         |         |         |
| High   | .60000  |         |         |         |         |         |         |
| Low    | .40000  |         |         |         |         |         |         |

Method: QUANMET Sample Name: DE3HEBT Operator: EMF  
 Run Time: 06/04/00 19:11:38  
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP  
 Mode: CONC Corr. Factor: 1

| Elem   | AG      | AL      | AS      | B_       | BA      | BE      | CA      |
|--------|---------|---------|---------|----------|---------|---------|---------|
| Units  | ppm     | ppm     | ppm     | ppm      | ppm     | ppm     | ppm     |
| Avge   | -.00072 | .00203  | .15612  | .02754   | .00069  | .00003  | .12497  |
| SDev   | .00251  | .01309  | .04702  | .00895   | .00019  | .00006  | .00361  |
| %RSD   | 347.45  | 644.59  | 30.115  | 32.501   | 27.428  | 200.00  | 2.8854  |
| #1     | -.00290 | -.00133 | .19385  | .03240   | .00067  | -.00006 | .12262  |
| #2     | -.00290 | -.01469 | .19037  | .03563   | .00048  | .00006  | .12121  |
| #3     | .00145  | .01536  | .14704  | .02687   | .00067  | .00006  | .12860  |
| #4     | .00145  | .00878  | .09325  | .01526   | .00094  | .00006  | .12744  |
| 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   | -.00059 | -.00270 | -.00013 | .00163   | .00862  | .13955  | .00010  |
| SDev   | .00349  | .00110  | .00080  | .00041   | .00125  | .14727  | .00045  |
| %RSD   | 590.16  | 40.818  | 601.77  | 25.028   | 14.467  | 105.53  | 443.75  |
| #1     | -.00533 | -.00269 | -.00080 | .00102   | .00829  | .03059  | -.00051 |
| #2     | .00223  | -.00406 | .00027  | .00183   | .00699  | .02294  | .00031  |
| #3     | .00182  | -.00136 | -.00080 | .00183   | .00959  | .33645  | .00055  |
| #4     | -.00109 | -.00270 | .00080  | .00183   | .00959  | .16822  | .00007  |
| 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   | .01929  | .00097  | .00235  | S-.09350 | .00273  | .00550  | .01951  |
| SDev   | .00406  | .00000  | .00607  | .00000   | .00325  | .03144  | .02323  |
| %RSD   | 21.071  | .20255  | 258.06  | .00000   | 118.87  | 571.07  | 119.07  |
| #1     | .01929  | .00097  | .00471  | S-.09350 | .00185  | -.00933 | .00485  |
| #2     | .01929  | .00097  | .00000  | S-.09350 | .00747  | -.03153 | .04398  |
| #3     | .02426  | .00098  | .00941  | S-.09350 | .00015  | .03518  | .03408  |
| #4     | .01431  | .00097  | -.00470 | S-.09350 | .00145  | .02769  | -.00485 |
| 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   | .01550  | .07774  | .00809  | .00075   | .00040  | .03265  | .00005  |
| SDev   | .03446  | .03466  | .00908  | .00012   | .00052  | .07143  | .00012  |
| %RSD   | 222.28  | 44.586  | 112.28  | 15.517   | 130.64  | 218.81  | 256.26  |
| #1     | .00003  | .05371  | .00902  | .00066   | .00040  | .11714  | .00009  |
| #2     | -.02182 | .05371  | .00720  | .00080   | -.00024 | .04085  | .00000  |

## Analysis Report

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|    |        |        |         |        |        |         |         |
|----|--------|--------|---------|--------|--------|---------|---------|
| #3 | .02552 | .07632 | .01915  | .00066 | .00103 | .02990  | .00018  |
| #4 | .05829 | .12720 | -.00302 | .00090 | .00040 | -.05731 | -.00009 |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| Errors | LC Pass | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK |
| High   | .25000  |         |         |         |         |         |         |
| Low    | -.25000 |         |         |         |         |         |         |

|       |        |
|-------|--------|
| Elem  | ZN     |
| Units | ppm    |
| Avge  | .00324 |
| SDev  | .00154 |
| %RSD  | 47.567 |

|    |        |
|----|--------|
| #1 | .00490 |
| #2 | .00158 |
| #3 | .00415 |
| #4 | .00235 |

|        |         |
|--------|---------|
| Errors | NOCHECK |
| High   |         |
| Low    |         |

## Analysis Report

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Method: QUANMET Sample Name: DDMC<sup>6</sup>T *anl6-4w* Operator: EMF  
 Run Time: 06/04/00 19:14:46  
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP  
 Mode: CONC Corr. Factor: 1

| Elem   | AG      | AL      | AS      | B_       | BA      | BE      | CA      |
|--------|---------|---------|---------|----------|---------|---------|---------|
| Units  | ppm     | ppm     | ppm     | ppm      | ppm     | ppm     | ppm     |
| Avge   | .00100  | .46740  | .14730  | .26328   | .26393  | .00437  | 84.268  |
| SDev   | .00145  | .00833  | .02500  | .00068   | .00117  | .00006  | .662    |
| %RSD   | 144.46  | 1.7825  | 16.975  | .25620   | .44148  | 1.4676  | .78549  |
| #1     | .00173  | .47869  | .13372  | .26362   | .26327  | .00440  | 85.119  |
| #2     | .00171  | .45868  | .17346  | .26362   | .26491  | .00441  | 84.298  |
| #3     | -.00117 | .46698  | .11947  | .26227   | .26491  | .00440  | 83.511  |
| #4     | .00173  | .46524  | .16255  | .26363   | .26263  | .00427  | 84.143  |
| 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   | .01055  | .01268  | .00347  | H106.55  | 1.7239  | 3.6723  | .00446  |
| SDev   | .00144  | .00135  | .00157  | .44      | .0037   | .4942   | .00090  |
| %RSD   | 13.635  | 10.644  | 45.195  | .41202   | .21675  | 13.457  | 20.120  |
| #1     | .01190  | .01335  | .00347  | H106.05  | 1.7249  | 4.0450  | .00540  |
| #2     | .00925  | .01335  | .00187  | H106.72  | 1.7262  | 3.2498  | .00350  |
| #3     | .01168  | .01335  | .00560  | H107.07  | 1.7184  | 4.1521  | .00501  |
| #4     | .00936  | .01065  | .00293  | H106.37  | 1.7262  | 3.2421  | .00391  |
| Errors | LC Pass | LC Pass | LC Pass | LC High  | 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   | 9.7014  | .64815  | .01555  | S-.09350 | .27032  | .33863  | .01453  |
| SDev   | .0343   | .00340  | .00235  | .00000   | .00818  | .01047  | .01664  |
| %RSD   | .35391  | .52379  | 15.131  | .00000   | 3.0261  | 3.0910  | 114.50  |
| #1     | 9.7474  | .65228  | .01438  | S-.09350 | .26749  | .33867  | .03650  |
| #2     | 9.7076  | .64937  | .01438  | S-.09350 | .26589  | .34605  | .00713  |
| #3     | 9.6777  | .64452  | .01437  | S-.09350 | .28251  | .32382  | -.00243 |
| #4     | 9.6727  | .64646  | .01908  | S-.09350 | .26537  | .34599  | .01694  |
| 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   | .00175  | 6.9693  | .02538  | .67720   | -.00000 | .00756  | -.00087 |
| SDev   | .05380  | .0321   | .01547  | .00137   | .00040  | .06972  | .00237  |
| %RSD   | 3072.2  | .46058  | 60.949  | .20226   | 498e6   | 921.89  | 272.77  |
| #1     | -.03738 | 6.9792  | .02349  | .67702   | .00008  | .01574  | .00028  |
| #2     | .06456  | 6.9792  | .04734  | .67798   | .00008  | .04845  | -.00442 |

## Analysis Report

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|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | -.04833 | 6.9227  | .01931  | .67846  | -.00055 | -.09326 | .00029  |
| #4     | .02815  | 6.9962  | .01140  | .67535  | .00040  | .05933  | .00037  |
| 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  | 60.083 |
| SDev  | .169   |
| %RSD  | .28096 |

|    |        |
|----|--------|
| #1 | 60.249 |
| #2 | 60.143 |
| #3 | 59.850 |
| #4 | 60.089 |

|        |         |
|--------|---------|
| Errors | LC Pass |
| High   | 100.00  |
| Low    | -.02000 |



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## Analysis Report

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Method: QUANMET Sample Name: DDM06P5T Operator: EMF  
 Run Time: 06/04/00 19:17:54  
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP  
 Mode: CONC Corr. Factor: 1

| Elem  | AG      | AL     | AS     | B_     | BA     | BE     | CA     |
|-------|---------|--------|--------|--------|--------|--------|--------|
| Units | ppm     | ppm    | ppm    | ppm    | ppm    | ppm    | ppm    |
| Avge  | -.00103 | .08652 | .04367 | .05801 | .05503 | .00093 | 17.247 |
| SDev  | .00139  | .00989 | .03391 | .00326 | .00040 | .00010 | .112   |
| %RSD  | 134.93  | 11.427 | 77.649 | 5.6122 | .72294 | 10.887 | .65126 |

|    |         |        |         |        |        |        |        |
|----|---------|--------|---------|--------|--------|--------|--------|
| #1 | -.00139 | .09737 | .05256  | .05896 | .05541 | .00093 | 17.208 |
| #2 | .00006  | .09238 | -.00484 | .05573 | .05533 | .00105 | 17.410 |
| #3 | -.00284 | .07731 | .07426  | .06219 | .05468 | .00081 | 17.216 |
| #4 | .00006  | .07902 | .05272  | .05515 | .05468 | .00093 | 17.153 |

| Elem  | CD     | CO     | CR      | CU     | FE     | K_     | LI     |
|-------|--------|--------|---------|--------|--------|--------|--------|
| Units | ppm    | ppm    | ppm     | ppm    | ppm    | ppm    | ppm    |
| Avge  | .00185 | .00233 | -.00066 | 20.563 | .35973 | .76466 | .00031 |
| SDev  | .00154 | .00130 | .00126  | .148   | .00273 | .08116 | .00000 |
| %RSD  | 83.165 | 55.565 | 189.27  | .71824 | .75970 | 10.614 | .00000 |

|    |        |        |         |        |        |        |        |
|----|--------|--------|---------|--------|--------|--------|--------|
| #1 | .00382 | .00131 | -.00080 | 20.647 | .36006 | .76466 | .00031 |
| #2 | .00226 | .00267 | .00027  | 20.710 | .36331 | .76466 | .00031 |
| #3 | .00100 | .00402 | -.00239 | 20.519 | .35875 | .86406 | .00031 |
| #4 | .00032 | .00132 | .00027  | 20.376 | .35681 | .66525 | .00031 |

| Elem  | MG     | MN     | MO     | NA     | NI     | PB     | SB     |
|-------|--------|--------|--------|--------|--------|--------|--------|
| Units | ppm    | ppm    | ppm    | ppm    | ppm    | ppm    | ppm    |
| Avge  | 2.0394 | .13589 | .00476 | 258.99 | .05744 | .07219 | .02005 |
| SDev  | .0242  | .00137 | .00384 | 2.48   | .00549 | .02004 | .00980 |
| %RSD  | 1.1888 | 1.0095 | 80.729 | .95893 | 9.5520 | 27.754 | 48.897 |

|    |        |        |        |        |        |        |        |
|----|--------|--------|--------|--------|--------|--------|--------|
| #1 | 2.0450 | .13492 | .00476 | 259.83 | .05475 | .10178 | .01517 |
| #2 | 2.0699 | .13783 | .00476 | 261.40 | .05106 | .05737 | .01506 |
| #3 | 2.0301 | .13492 | .00947 | 259.18 | .06122 | .06482 | .01521 |
| #4 | 2.0127 | .13589 | .00005 | 255.53 | .06274 | .06478 | .03476 |

| Elem  | SE      | SI     | SN      | SR     | TI     | TL      | V_     |
|-------|---------|--------|---------|--------|--------|---------|--------|
| Units | ppm     | ppm    | ppm     | ppm    | ppm    | ppm     | ppm    |
| Avge  | -.00142 | 1.3794 | -.00484 | .14108 | .00008 | -.01387 | .00009 |
| SDev  | .03971  | .0118  | .01366  | .00117 | .00045 | .04742  | .00007 |
| %RSD  | 2805.2  | .85314 | 282.48  | .82703 | 565.69 | 341.88  | 79.542 |

|    |         |        |         |        |         |         |        |
|----|---------|--------|---------|--------|---------|---------|--------|
| #1 | -.00597 | 1.3653 | -.01885 | .14172 | .00040  | -.08201 | .00009 |
| #2 | .04138  | 1.3823 | .01313  | .14229 | .00008  | -.00572 | .00009 |
| #3 | -.05330 | 1.3936 | -.01085 | .14062 | -.00055 | .02701  | .00018 |
| #4 | .01223  | 1.3766 | -.00277 | .13967 | .00040  | .00525  | .00000 |

| Elem  | ZN     |
|-------|--------|
| Units | ppm    |
| Avge  | 12.220 |
| SDev  | .068   |
| %RSD  | .55415 |

|    |        |
|----|--------|
| #1 | 12.213 |
| #2 | 12.313 |
| #3 | 12.204 |

Analysis Report

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#4 12.150

Method: QUANMET Sample Name: DDM<sup>0</sup>6ST Operator: EMF  
 Run Time: 06/04/00 19:21:01  
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP  
 Mode: CONC Corr. Factor: 1

| Elem   | AG      | AL      | AS      | B_       | BA      | BE      | CA      |
|--------|---------|---------|---------|----------|---------|---------|---------|
| Units  | ppm     | ppm     | ppm     | ppm      | ppm     | ppm     | ppm     |
| Avge   | -.00048 | .39880  | .11405  | .21757   | .23390  | .00375  | 73.136  |
| SDev   | .00187  | .00606  | .02236  | .00450   | .00311  | .00006  | .584    |
| %RSD   | 388.68  | 1.5188  | 19.603  | 2.0684   | 1.3310  | 1.6529  | .79889  |
| #1     | .00024  | .40007  | .12752  | .21535   | .22967  | .00378  | 72.774  |
| #2     | -.00266 | .39332  | .08090  | .21271   | .23699  | .00378  | 72.816  |
| #3     | -.00121 | .39502  | .12036  | .22301   | .23516  | .00366  | 72.949  |
| #4     | .00170  | .40681  | .12744  | .21920   | .23379  | .00378  | 74.005  |
| 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   | .00814  | .01134  | .00253  | 92.591   | 1.4939  | 3.2498  | .00357  |
| SDev   | .00247  | .00321  | .00133  | 1.355    | .0092   | .4185   | .00000  |
| %RSD   | 30.323  | 28.322  | 52.517  | 1.4634   | .61387  | 12.878  | .00000  |
| #1     | .00975  | .01337  | .00293  | 90.922   | 1.4817  | 3.7698  | .00357  |
| #2     | .00454  | .00933  | .00080  | 93.881   | 1.4927  | 2.7986  | .00357  |
| #3     | .00851  | .00797  | .00240  | 93.483   | 1.4979  | 3.0586  | .00357  |
| #4     | .00975  | .01472  | .00400  | 92.079   | 1.5031  | 3.3721  | .00357  |
| 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   | 8.3942  | .56977  | .01669  | S2186.5  | .23276  | .28494  | -.01262 |
| SDev   | .0774   | .00363  | .00272  | 1457.7   | .00699  | .00709  | .03378  |
| %RSD   | .92252  | .63727  | 16.268  | 66.670   | 3.0026  | 2.4874  | 267.59  |
| #1     | 8.2791  | .56492  | .01905  | S2915.4  | .23744  | .29422  | -.04186 |
| #2     | 8.4434  | .57074  | .01905  | S2915.3  | .23771  | .27929  | -.04189 |
| #3     | 8.4359  | .56977  | .01434  | S-.09350 | .23311  | .28674  | .01666  |
| #4     | 8.4185  | .57365  | .01434  | S2915.3  | .22276  | .27951  | .01660  |
| 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   | -.01092 | 6.0365  | .00822  | .60043   | .00048  | -.02048 | .00033  |
| SDev   | .06895  | .0431   | .00782  | .00666   | .00030  | .05224  | .00005  |
| %RSD   | 631.31  | .71479  | 95.090  | 1.1093   | 63.828  | 255.01  | 15.569  |
| #1     | .05639  | 5.9842  | -.00092 | .59126   | .00071  | -.02585 | .00037  |
| #2     | .00182  | 6.0181  | .01108  | .60592   | .00008  | -.09132 | .00037  |

## Analysis Report

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|    |         |        |        |        |        |        |        |
|----|---------|--------|--------|--------|--------|--------|--------|
| #3 | .00548  | 6.0690 | .01735 | .60473 | .00040 | .00676 | .00028 |
| #4 | -.10737 | 6.0747 | .00536 | .59982 | .00071 | .02848 | .00028 |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| 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  | 52.155 |
| SDev  | .305   |
| %RSD  | .58500 |

|    |        |
|----|--------|
| #1 | 51.732 |
| #2 | 52.182 |
| #3 | 52.251 |
| #4 | 52.455 |

|        |         |
|--------|---------|
| Errors | LC Pass |
| High   | 100.00  |
| Low    | -.02000 |

Method: QUANMET Sample Name: DDM<sup>0</sup>6DT *auto 410* Operator: EMF  
 Run Time: 06/04/00 19:24:08  
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP  
 Mode: CONC Corr. Factor: 1

| Elem   | AG      | AL      | AS      | B_       | BA      | BE      | CA      |
|--------|---------|---------|---------|----------|---------|---------|---------|
| Units  | ppm     | ppm     | ppm     | ppm      | ppm     | ppm     | ppm     |
| Avge   | -.00011 | .43476  | .14415  | .25726   | .25770  | .00412  | 76.979  |
| SDev   | .00218  | .01581  | .04163  | .00243   | .00394  | .00011  | 1.188   |
| %RSD   | 1986.5  | 3.6375  | 28.878  | .94485   | 1.5270  | 2.7434  | 1.5436  |
| #1     | -.00121 | .43519  | .18099  | .25806   | .26308  | .00404  | 75.267  |
| #2     | -.00118 | .41680  | .13077  | .25635   | .25740  | .00427  | 77.618  |
| #3     | .00316  | .45523  | .17357  | .25446   | .25366  | .00403  | 77.917  |
| #4     | -.00121 | .43182  | .09127  | .26016   | .25667  | .00416  | 77.114  |
| 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   | .00933  | .01032  | .00413  | H103.78  | 1.6090  | 3.4715  | .00378  |
| SDev   | .00248  | .00231  | .00091  | 2.46     | .0035   | .5119   | .00020  |
| %RSD   | 26.551  | 22.366  | 21.968  | 2.3668   | .21999  | 14.746  | 5.2569  |
| #1     | .00602  | .00931  | .00294  | H107.26  | 1.6052  | 3.3721  | .00398  |
| #2     | .01102  | .01335  | .00506  | H103.10  | 1.6078  | 4.2209  | .00364  |
| #3     | .01143  | .00795  | .00400  | H101.50  | 1.6137  | 3.1045  | .00391  |
| #4     | .00885  | .01066  | .00454  | H103.26  | 1.6091  | 3.1886  | .00357  |
| Errors | LC Pass | LC Pass | LC Pass | LC High  | 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   | 9.1458  | .60763  | .01789  | S-.09350 | .25583  | .32749  | .00954  |
| SDev   | .0693   | .00396  | .00451  | .00000   | .00657  | .03062  | .03689  |
| %RSD   | .75813  | .65171  | 25.187  | .00000   | 2.5682  | 9.3514  | 386.90  |
| #1     | 9.2148  | .60181  | .01906  | S-.09350 | .24644  | .30155  | .01679  |
| #2     | 9.1850  | .60957  | .01436  | S-.09350 | .26143  | .34616  | .04625  |
| #3     | 9.0580  | .61054  | .01436  | S-.09350 | .25657  | .30142  | -.04174 |
| #4     | 9.1252  | .60860  | .02377  | S-.09350 | .25891  | .36085  | .01683  |
| 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   | -.03235 | 6.4930  | .00435  | .65759   | .00032  | .02217  | -.00170 |
| SDev   | .03813  | .0244   | .01077  | .00786   | .00098  | .04580  | .00331  |
| %RSD   | 117.88  | .37565  | 247.64  | 1.1951   | 309.57  | 206.55  | 194.11  |
| #1     | -.02326 | 6.4930  | -.00861 | .66843   | -.00024 | .00585  | -.00433 |
| #2     | -.02689 | 6.4704  | .00152  | .65602   | -.00055 | .08211  | .00264  |

## Analysis Report

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|    |         |        |        |        |        |         |         |
|----|---------|--------|--------|--------|--------|---------|---------|
| #3 | .00590  | 6.4817 | .01710 | .64961 | .00166 | .02761  | -.00089 |
| #4 | -.08513 | 6.5269 | .00738 | .65630 | .00040 | -.02687 | -.00424 |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| 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     55.921  
SDev     .100  
%RSD     .17954

#1       55.803  
#2       56.048  
#3       55.926  
#4       55.910

Errors    LC Pass  
High      100.00  
Low       -.02000

Method: QUANMET Sample Name: DDM4GT

Operator: EMF

Run Time: 06/04/00 19:27:16

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

| Elem   | AG      | AL      | AS      | B_       | BA      | BE      | CA      |
|--------|---------|---------|---------|----------|---------|---------|---------|
| Units  | ppm     | ppm     | ppm     | ppm      | ppm     | ppm     | ppm     |
| Avg    | .00194  | .59830  | .13878  | .31677   | .33199  | .00651  | 88.803  |
| SDev   | .00205  | .01010  | .03745  | .00130   | .00495  | .00010  | .213    |
| %RSD   | 105.27  | 1.6881  | 26.983  | .40944   | 1.4909  | 1.5340  | .23936  |
| #1     | .00338  | .59752  | .11731  | .31708   | .32919  | .00639  | 88.678  |
| #2     | .00341  | .61253  | .10988  | .31848   | .33579  | .00651  | 89.115  |
| #3     | .00193  | .58908  | .13531  | .31573   | .32645  | .00664  | 88.759  |
| #4     | -.00095 | .59406  | .19262  | .31579   | .33652  | .00651  | 88.660  |
| 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     |
| Avg    | .01589  | .01702  | .00493  | H112.37  | 2.6070  | 2.4966  | .00347  |
| SDev   | .00265  | .00256  | .00067  | 1.92     | .0179   | .4448   | .00020  |
| %RSD   | 16.662  | 15.051  | 13.597  | 1.7068   | .68713  | 17.814  | 5.8824  |
| #1     | .01627  | .01736  | .00507  | H111.30  | 2.5968  | 2.1946  | .00357  |
| #2     | .01765  | .01870  | .00560  | H113.97  | 2.6293  | 2.4010  | .00357  |
| #3     | .01204  | .01872  | .00507  | H110.21  | 2.5890  | 3.1504  | .00357  |
| #4     | .01761  | .01330  | .00400  | H114.00  | 2.6130  | 2.2404  | .00316  |
| Errors | LC Pass | LC Pass | LC Pass | LC High  | 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     |
| Avg    | 7.8000  | .59797  | .01686  | S-.09350 | .57090  | .99406  | .01973  |
| SDev   | .0987   | .00437  | .00470  | .00000   | .00979  | .02864  | .01599  |
| %RSD   | 1.2657  | .73058  | 27.900  | .00000   | 1.7156  | 2.8813  | 81.013  |
| #1     | 7.7416  | .59433  | .01451  | S-.09350 | .58160  | .95336  | .03936  |
| #2     | 7.8934  | .60307  | .01451  | S-.09350 | .57658  | .99780  | .01980  |
| #3     | 7.6918  | .59433  | .02392  | S-.09350 | .56081  | 1.0052  | .01957  |
| #4     | 7.8735  | .60015  | .01451  | S-.09350 | .56463  | 1.0199  | .00020  |
| 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     |
| Avg    | .00134  | 8.1325  | .01208  | .67977   | .00024  | -.04548 | -.00172 |
| SDev   | .03831  | .0709   | .01344  | .00934   | .00092  | .02855  | .00239  |
| %RSD   | 2861.2  | .87229  | 111.24  | 1.3739   | 384.90  | 62.786  | 138.68  |
| #1     | .05318  | 8.1099  | .01367  | .67517   | .00040  | -.05900 | -.00441 |
| #2     | -.03772 | 8.1891  | .01558  | .68735   | .00135  | -.00482 | .00029  |

## Analysis Report

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|    |         |        |         |        |         |         |         |
|----|---------|--------|---------|--------|---------|---------|---------|
| #3 | -.01238 | 8.0420 | .02557  | .66882 | .00008  | -.04804 | -.00306 |
| #4 | .00227  | 8.1891 | -.00650 | .68773 | -.00087 | -.07004 | .00029  |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| 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  | 66.140 |
| SDev  | .371   |
| %RSD  | .56122 |

|    |        |
|----|--------|
| #1 | 65.850 |
| #2 | 66.597 |
| #3 | 65.825 |
| #4 | 66.286 |

|        |         |
|--------|---------|
| Errors | LC Pass |
| High   | 100.00  |
| Low    | -.02000 |



Method: QUANMET Sample Name: CCV2-1 0014-087-7 Operator: EMF  
Run Time: 06/04/00 19:30:24  
Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP  
Mode: CONC Corr. Factor: 1

| Elem  | AG     | AL     | AS     | B_     | BA     | BE     | CA     |
|-------|--------|--------|--------|--------|--------|--------|--------|
| Units | ppm    | ppm    | ppm    | ppm    | ppm    | ppm    | ppm    |
| Avg   | .98520 | 47.719 | 4.8929 | 4.8166 | 4.6994 | 4.7388 | 50.655 |
| SDev  | .00506 | .702   | .0400  | .0698  | .0982  | .0728  | .186   |
| %RSD  | .51394 | 1.4711 | .81772 | 1.4491 | 2.0906 | 1.5354 | .36689 |

|    |        |        |        |        |        |        |        |
|----|--------|--------|--------|--------|--------|--------|--------|
| #1 | .99184 | 48.748 | 4.9263 | 4.9042 | 4.8414 | 4.8460 | 50.550 |
| #2 | .98399 | 47.407 | 4.8394 | 4.7604 | 4.6549 | 4.7111 | 50.786 |
| #3 | .98537 | 47.181 | 4.9206 | 4.7602 | 4.6185 | 4.6838 | 50.835 |
| #4 | .97960 | 47.540 | 4.8851 | 4.8414 | 4.6828 | 4.7144 | 50.447 |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| 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    |
| Avg   | 4.9938 | 4.8582 | 4.8698 | 4.6771 | 50.146 | 47.847 | 4.6235 |
| SDev  | .0212  | .0303  | .0189  | .1024  | .389   | .946   | .1352  |
| %RSD  | .42496 | .62277 | .38849 | 2.1892 | .77517 | 1.9781 | 2.9232 |

|    |        |        |        |        |        |        |         |
|----|--------|--------|--------|--------|--------|--------|---------|
| #1 | 5.0156 | 4.8988 | 4.8923 | 4.8227 | 50.724 | 49.076 | 4.7994  |
| #2 | 4.9656 | 4.8627 | 4.8710 | 4.6280 | 50.009 | 47.271 | 4.5465  |
| #3 | 5.0023 | 4.8410 | 4.8700 | 4.5889 | 49.883 | 46.958 | L4.4933 |
| #4 | 4.9917 | 4.8302 | 4.8460 | 4.6687 | 49.969 | 48.082 | 4.6550  |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| 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    |
| Avg   | 47.773 | 4.8605 | 4.8169 | 45.764 | 4.8428 | 4.8919 | 4.9086 |
| SDev  | .703   | .0248  | .0346  | 1.173  | .0289  | .0379  | .0246  |
| %RSD  | 1.4724 | .51102 | .71902 | 2.5632 | .59776 | .77482 | .50116 |

|    |        |        |        |         |        |        |        |
|----|--------|--------|--------|---------|--------|--------|--------|
| #1 | 48.792 | 4.8968 | 4.8641 | 47.316  | 4.8598 | 4.9127 | 4.9405 |
| #2 | 47.488 | 4.8559 | 4.7934 | 45.099  | 4.8703 | 4.9348 | 4.9016 |
| #3 | 47.187 | 4.8471 | 4.7886 | L44.656 | 4.8361 | 4.8603 | 4.9110 |
| #4 | 47.627 | 4.8423 | 4.8216 | 45.985  | 4.8050 | 4.8597 | 4.8813 |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| 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    |
| Avg   | 5.0236 | 4.8402 | 4.8882 | 4.7128 | 4.7699 | 9.4429 | 4.8292 |
| SDev  | .0397  | .0361  | .0545  | .0883  | .0584  | .0901  | .0455  |
| %RSD  | .78949 | .74655 | 1.1146 | 1.8739 | 1.2240 | .95452 | .94130 |

|    |        |        |        |        |        |        |        |
|----|--------|--------|--------|--------|--------|--------|--------|
| #1 | 5.0530 | 4.8934 | 4.8077 | 4.8409 | 4.8563 | 9.4908 | 4.8972 |
| #2 | 5.0540 | 4.8245 | 4.9217 | 4.6746 | 4.7480 | 9.4225 | 4.8111 |

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|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | 4.9698  | 4.8300  | 4.9019  | 4.6407  | 4.7277  | 9.3259  | 4.8028  |
| #4     | 5.0175  | 4.8131  | 4.9216  | 4.6950  | 4.7477  | 9.5322  | 4.8057  |
| 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 4.8864  
SDev .0199  
%RSD .40810

#1 4.9145  
#2 4.8850  
#3 4.8682  
#4 4.8781

Errors LC Pass  
High 5.5000  
Low 4.5000

Method: QUANMET Sample Name: CCB1

Operator: EMF

Run Time: 06/04/00 19:33:31

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

| Elem   | AG      | AL      | AS      | B_      | BA      | BE      | CA      |
|--------|---------|---------|---------|---------|---------|---------|---------|
| Units  | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     |
| Avge   | .00110  | -.00269 | .00987  | .03133  | .00030  | .00015  | .00150  |
| SDev   | .00073  | .00477  | .04414  | .00659  | .00036  | .00006  | .00417  |
| %RSD   | 66.614  | 177.15  | 447.29  | 21.044  | 122.73  | 39.627  | 278.82  |
| #1     | .00145  | .00023  | .06102  | .03562  | .00048  | .00019  | .00077  |
| #2     | .00145  | .00025  | -.00360 | .03561  | .00048  | .00019  | .00593  |
| #3     | .00000  | -.00974 | .02521  | .02171  | -.00025 | .00006  | -.00391 |
| #4     | .00148  | -.00151 | -.04315 | .03237  | .00048  | .00017  | .00320  |
| 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   | -.00024 | .00068  | -.00013 | .00122  | .00033  | .36130  | .00031  |
| SDev   | .00139  | .00174  | .00186  | .00103  | .00134  | .41510  | .00000  |
| %RSD   | 587.31  | 257.89  | 1454.6  | 83.887  | 410.35  | 114.89  | .00000  |
| #1     | -.00202 | -.00135 | -.00079 | .00102  | .00049  | .29822  | .00031  |
| #2     | .00002  | .00270  | .00187  | .00102  | .00179  | .76466  | .00031  |
| #3     | -.00031 | .00000  | -.00239 | .00020  | -.00146 | -.19116 | .00031  |
| #4     | .00136  | .00135  | .00080  | .00265  | .00049  | .57349  | .00031  |
| 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   | .00871  | .00025  | .02000  | .01652  | .00372  | .01485  | .01455  |
| SDev   | .02229  | .00049  | .00451  | .00215  | .00421  | .02453  | .01382  |
| %RSD   | 255.95  | 194.48  | 22.529  | 13.005  | 113.12  | 165.11  | 94.948  |
| #1     | -.00311 | .00098  | .01882  | .01881  | .00086  | -.01670 | .00478  |
| #2     | .03422  | .00001  | .02353  | .01404  | .00997  | .04269  | .01455  |
| #3     | -.01555 | .00000  | .01412  | .01551  | .00219  | .02042  | .03409  |
| #4     | .01929  | .00001  | .02353  | .01771  | .00185  | .01301  | .00479  |
| 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 | -.02118 | .00956  | .00009  | .00048  | .02451  | .00156  |
| SDev   | .01092  | .00284  | .01128  | .00016  | .00016  | .04838  | .00240  |
| %RSD   | 600.18  | 13.396  | 118.03  | 169.78  | 33.333  | 197.35  | 153.64  |
| #1     | .00728  | -.01979 | .00302  | .00004  | .00040  | .00819  | .00036  |
| #2     | -.01456 | -.01979 | .01906  | .00008  | .00071  | .00813  | .00046  |

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|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | .00728  | -.02544 | .01915  | -.00006 | .00040  | .09541  | .00027  |
| #4     | -.00728 | -.01972 | -.00298 | .00032  | .00040  | -.01368 | .00516  |
| 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     .00057  
SDev     .00062  
%RSD     108.36

#1       .00033  
#2       .00105  
#3       -.00019  
#4       .00109

Errors   LC Pass  
High     .02000  
Low      -.02000

Method: QUANMET Sample Name: DDM4KT

Operator: EMF

Run Time: 06/04/00 19:36:38

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

| Elem   | AG      | AL      | AS      | B_      | BA      | BE      | CA      |
|--------|---------|---------|---------|---------|---------|---------|---------|
| Units  | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     |
| Avg    | .00157  | .76053  | .09590  | .46039  | .31681  | .00877  | 60.900  |
| SDev   | .00188  | .01769  | .07049  | .00162  | .00358  | .00012  | .365    |
| %RSD   | 120.09  | 2.3263  | 73.505  | .35201  | 1.1292  | 1.3399  | .59884  |
| #1     | -.00061 | .75975  | .12822  | .46125  | .32187  | .00887  | 60.763  |
| #2     | .00083  | .75469  | -.00449 | .46115  | .31519  | .00862  | 60.593  |
| #3     | .00231  | .74283  | .15703  | .45796  | .31363  | .00874  | 61.428  |
| #4     | .00375  | .78484  | .10286  | .46120  | .31656  | .00886  | 60.817  |
| 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     |
| Avg    | .01969  | .02073  | .00520  | H108.41 | 4.1615  | 2.7031  | .00448  |
| SDev   | .00309  | .00078  | .00176  | 1.69    | .0212   | .1301   | .00099  |
| %RSD   | 15.712  | 3.7873  | 33.846  | 1.5556  | .51038  | 4.8146  | 22.010  |
| #1     | .02108  | .02005  | .00294  | H110.67 | 4.1879  | 2.5998  | .00357  |
| #2     | .02126  | .02005  | .00720  | H108.08 | 4.1359  | 2.7145  | .00561  |
| #3     | .01506  | .02142  | .00507  | H106.59 | 4.1612  | 2.6151  | .00499  |
| #4     | .02137  | .02140  | .00560  | H108.31 | 4.1612  | 2.8828  | .00374  |
| Errors | LC Pass | LC Pass | LC Pass | LC High | 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     |
| Avg    | 8.5354  | .69638  | .01945  | S-.09350 | .79925  | 1.4567  | .03647  |
| SDev   | .0577   | .00321  | .01017  | .00000   | .00972  | .0182   | .01263  |
| %RSD   | .67629  | .46112  | 52.275  | .00000   | 1.2157  | 1.2470  | 34.619  |
| #1     | 8.6076  | .69954  | .01474  | S-.09350 | .80388  | 1.4345  | .02187  |
| #2     | 8.4981  | .69273  | .01944  | S-.09350 | .78469  | 1.4715  | .04116  |
| #3     | 8.4807  | .69857  | .03356  | S-.09350 | .80369  | 1.4716  | .03157  |
| #4     | 8.5553  | .69468  | .01003  | S-.09350 | .80475  | 1.4493  | .05127  |
| 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     |
| Avg   | .02522 | 9.8285 | .00295 | .44052 | .00182 | -.02012 | -.00226 |
| SDev  | .04674 | .0670  | .01566 | .00432 | .00055 | .07621  | .00252  |
| %RSD  | 185.28 | .68209 | 530.26 | .98186 | 30.123 | 378.88  | 111.45  |
| #1    | .05172 | 9.9190 | .01389 | .44666 | .00166 | -.08577 | -.00441 |
| #2    | .07701 | 9.7776 | .01597 | .43878 | .00135 | .05647  | -.00431 |

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|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | -.02119 | 9.7777  | -.00007 | .43664  | .00166  | -.08554 | .00066  |
| #4     | -.00663 | 9.8399  | -.01797 | .43998  | .00261  | .03438  | -.00097 |
| 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      67.309  
SDev      .205  
%RSD      .30415

#1        67.583  
#2        67.112  
#3        67.335  
#4        67.205

Errors    LC Pass  
High      100.00  
Low        -.02000

Method: QUANMET Sample Name: DDNVQT

Operator: EMF

Run Time: 06/04/00 19:39:46

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

|        |         |         |         |          |         |         |         |
|--------|---------|---------|---------|----------|---------|---------|---------|
| Elem   | AG      | AL      | AS      | B_       | BA      | BE      | CA      |
| Units  | ppm     | ppm     | ppm     | ppm      | ppm     | ppm     | ppm     |
| Avg    | -.00198 | 2.0040  | .14705  | .06857   | .20803  | .00062  | 8.5769  |
| SDev   | .00188  | .0247   | .04213  | .00524   | .00233  | .00007  | .1054   |
| %RSD   | 95.065  | 1.2324  | 28.653  | 7.6427   | 1.1189  | 11.230  | 1.2292  |
| #1     | -.00416 | 1.9919  | .08975  | .07308   | .20842  | .00056  | 8.5228  |
| #2     | -.00271 | 1.9819  | .16162  | .06471   | .20640  | .00068  | 8.6668  |
| #3     | -.00124 | 2.0035  | .14700  | .07309   | .20613  | .00067  | 8.6631  |
| #4     | .00020  | 2.0386  | .18984  | .06340   | .21117  | .00055  | 8.4548  |
| 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     |
| Avg    | -.00007 | .00564  | .00107  | .00843   | .97938  | 4.3643  | .01816  |
| SDev   | .00272  | .00337  | .00141  | .00000   | .00465  | .2436   | .00135  |
| %RSD   | 4142.7  | 59.857  | 132.23  | .03535   | .47440  | 5.5817  | 7.4336  |
| #1     | -.00098 | .00666  | -.00080 | .00843   | .97450  | 4.1521  | .01681  |
| #2     | .00135  | .00935  | .00240  | .00843   | .98231  | 4.6415  | .01745  |
| #3     | .00279  | .00529  | .00186  | .00843   | .97646  | 4.4962  | .01846  |
| #4     | -.00342 | .00125  | .00080  | .00842   | .98426  | 4.1674  | .01990  |
| 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     |
| Avg    | 3.0953  | .21144  | .00485  | S-.09350 | .00464  | .01372  | .01709  |
| SDev   | .0287   | .00048  | .00384  | .00000   | .00231  | .02994  | .02016  |
| %RSD   | .92608  | .22864  | 79.198  | .00000   | 49.775  | 218.25  | 117.95  |
| #1     | 3.0704  | .21168  | .00015  | S-.09350 | .00145  | -.00295 | -.00486 |
| #2     | 3.1027  | .21169  | .00485  | S-.09350 | .00633  | .05641  | .00480  |
| #3     | 3.0753  | .21168  | .00485  | S-.09350 | .00635  | .01188  | .03426  |
| #4     | 3.1326  | .21072  | .00956  | S-.09350 | .00443  | -.01047 | .03418  |
| 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     |
| Avg    | .00267  | 6.2174  | .01276  | .14176   | -.00048 | -.00080 | .00157  |
| SDev   | .02683  | .0331   | .03014  | .00148   | .00095  | .05194  | .00224  |
| %RSD   | 1004.8  | .53194  | 236.15  | 1.0461   | 199.07  | 6490.6  | 143.33  |
| #1     | -.00736 | 6.1990  | .01316  | .14186   | -.00182 | .07557  | .00000  |
| #2     | .01451  | 6.2669  | .05518  | .14114   | -.00024 | -.01175 | .00010  |

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|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | -.02920 | 6.1991  | -.01065 | .14029  | -.00024 | -.03350 | .00480  |
| #4     | .03272  | 6.2047  | -.00665 | .14377  | .00040  | -.03353 | .00136  |
| 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  | .02904 |
| SDev  | .00160 |
| %RSD  | 5.5007 |

|    |        |
|----|--------|
| #1 | .03049 |
| #2 | .02822 |
| #3 | .02719 |
| #4 | .03026 |

|        |         |
|--------|---------|
| Errors | LC Pass |
| High   | 100.00  |
| Low    | -.02000 |



Method: QUANMET Sample Name: DDNW7T

Operator: EMF

Run Time: 06/04/00 19:42:54

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

| Elem   | AG      | AL      | AS      | B_      | BA      | BE      | CA      |
|--------|---------|---------|---------|---------|---------|---------|---------|
| Units  | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     |
| Avg    | -.00072 | .73234  | .01718  | .12558  | .00705  | .00009  | .58220  |
| SDev   | .00145  | .01170  | .00210  | .00862  | .00017  | .00006  | .00441  |
| %RSD   | 201.25  | 1.5969  | 12.197  | 6.8648  | 2.3551  | 66.667  | .75797  |
| #1     | .00146  | .74779  | .01525  | .11926  | .00681  | .00006  | .58845  |
| #2     | -.00145 | .73450  | .01896  | .12306  | .00708  | .00006  | .58173  |
| #3     | -.00145 | .72601  | .01903  | .13830  | .00716  | .00006  | .57823  |
| #4     | -.00145 | .72108  | .01548  | .12172  | .00716  | .00019  | .58037  |
| 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     |
| Avg    | .00345  | .00066  | .00240  | 1.9818  | .01967  | .42247  | .00026  |
| SDev   | .00173  | .00135  | .00130  | .0158   | .00136  | .30786  | .00083  |
| %RSD   | 50.320  | 204.54  | 54.388  | .79869  | 6.8940  | 72.870  | 313.37  |
| #1     | .00554  | -.00002 | .00400  | 1.9598  | .02130  | .01529  | .00131  |
| #2     | .00420  | -.00002 | .00240  | 1.9891  | .01935  | .58879  | .00031  |
| #3     | .00200  | -.00001 | .00080  | 1.9965  | .01999  | .36704  | -.00070 |
| #4     | .00205  | .00269  | .00240  | 1.9818  | .01804  | .71878  | .00014  |
| 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     |
| Avg    | .10017  | .00339  | .00353  | 8.1988  | .08498  | .03669  | .02019  |
| SDev   | .00920  | .00056  | .00592  | .0914   | .00409  | .01528  | .01692  |
| %RSD   | 9.1847  | 16.495  | 167.64  | 1.1151  | 4.8098  | 41.646  | 83.793  |
| #1     | .09146  | .00387  | .00471  | 8.0869  | .08695  | .02002  | .03484  |
| #2     | .10390  | .00387  | -.00470 | 8.1669  | .07989  | .02742  | .02506  |
| #3     | .09395  | .00290  | .00941  | 8.2954  | .08932  | .04965  | .02508  |
| #4     | .11137  | .00290  | .00471  | 8.2458  | .08377  | .04969  | -.00423 |
| 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     |
| Avg    | -.01904 | H88.406 | .03358  | .00173  | .00048  | -.05198 | .00007  |
| SDev   | .04843  | 3.473   | .00551  | .00005  | .00083  | .07887  | .00011  |
| %RSD   | 254.32  | 3.9280  | 16.408  | 2.8455  | 175.33  | 151.73  | 155.63  |
| #1     | -.01448 | H93.540 | .02715  | .00175  | .00166  | .01888  | .00010  |
| #2     | .02556  | H87.372 | .03910  | .00175  | .00040  | -.09012 | -.00009 |

# Analysis Report

06/04/00 07:46:00 PM

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|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | .00007  | H86.778 | .03710  | .00175  | .00008  | -.14465 | .00018  |
| #4     | -.08731 | H85.936 | .03097  | .00165  | -.00024 | .00799  | .00010  |
| 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  | .03822 |
| SDev  | .00163 |
| %RSD  | 4.2550 |

|    |        |
|----|--------|
| #1 | .03935 |
| #2 | .03946 |
| #3 | .03812 |
| #4 | .03596 |

|        |         |
|--------|---------|
| Errors | LC Pass |
| High   | 100.00  |
| Low    | -.02000 |

Method: QUANMET Sample Name: DDNWKT

Operator: EMF

Run Time: 06/04/00 19:46:02

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

|        |         |         |         |          |         |         |         |
|--------|---------|---------|---------|----------|---------|---------|---------|
| Elem   | AG      | AL      | AS      | B_       | BA      | BE      | CA      |
| Units  | ppm     | ppm     | ppm     | ppm      | ppm     | ppm     | ppm     |
| Avg    | -.00109 | .01337  | .10128  | .13090   | .08650  | .00012  | 2.4863  |
| SDev   | .00248  | .00857  | .01181  | .01305   | .00129  | .00007  | .0136   |
| %RSD   | 228.18  | 64.102  | 11.660  | 9.9712   | 1.4909  | 57.735  | .54833  |
| #1     | -.00145 | .01049  | .08605  | .12304   | .08517  | .00019  | 2.4816  |
| #2     | .00145  | .02552  | .11464  | .13181   | .08692  | .00019  | 2.4692  |
| #3     | .00000  | .01201  | .10398  | .14894   | .08581  | .00006  | 2.4963  |
| #4     | -.00435 | .00546  | .10046  | .11981   | .08810  | .00006  | 2.4982  |
| 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     |
| Avg    | -.00035 | .00097  | .00293  | .03643   | .01089  | 1.2846  | .00047  |
| SDev   | .00104  | .00170  | .00285  | .00081   | .00184  | .3817   | .00023  |
| %RSD   | 299.64  | 175.25  | 97.354  | 2.2349   | 16.907  | 29.714  | 48.357  |
| #1     | .00084  | .00266  | .00612  | .03603   | .01089  | 1.5675  | .00079  |
| #2     | -.00170 | .00131  | .00293  | .03603   | .01350  | 1.1546  | .00047  |
| #3     | -.00028 | .00131  | .00347  | .03766   | .00959  | 1.6134  | .00031  |
| #4     | -.00025 | -.00139 | -.00080 | .03603   | .00959  | .80289  | .00031  |
| 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     |
| Avg    | .23455  | .00437  | .00235  | S-.09350 | .01184  | .01854  | .00251  |
| SDev   | .01193  | .00056  | .00815  | .00000   | .00364  | .03279  | .01227  |
| %RSD   | 5.0884  | 12.863  | 346.17  | .00000   | 30.767  | 176.84  | 488.81  |
| #1     | .25073  | .00388  | .00000  | S-.09350 | .00917  | -.01659 | .00492  |
| #2     | .22833  | .00485  | .00000  | S-.09350 | .00825  | .05004  | .01471  |
| #3     | .23580  | .00486  | .01412  | S-.09350 | .01465  | .04263  | .00495  |
| #4     | .22336  | .00388  | -.00470 | S-.09350 | .01530  | -.00192 | -.01454 |
| 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     |
| Avg    | -.00542 | 13.298  | .00201  | .01314   | .00063  | .00808  | .00005  |
| SDev   | .03523  | 1.902   | .01991  | .00025   | .00091  | .00891  | .00016  |
| %RSD   | 649.89  | 14.300  | 990.51  | 1.9019   | 143.61  | 110.25  | 311.17  |
| #1     | .04009  | 16.019  | .00102  | .01307   | .00071  | .00807  | .00001  |
| #2     | -.04364 | 13.198  | -.00293 | .01327   | .00166  | .00805  | .00001  |

## Analysis Report

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | .00004  | 12.033  | -.01897 | .01283  | .00071  | -.00281 | .00028  |
| #4     | -.01817 | 11.943  | .02892  | .01341  | -.00055 | .01901  | -.00009 |
| 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  | .12903 |
| SDev  | .00091 |
| %RSD  | .70364 |

|    |        |
|----|--------|
| #1 | .12984 |
| #2 | .12782 |
| #3 | .12959 |
| #4 | .12885 |

|        |         |
|--------|---------|
| Errors | LC Pass |
| High   | 100.00  |
| Low    | -.02000 |

Method: QUANMET Sample Name: DDNWWT Operator: EMF  
Run Time: 06/04/00 19:49:10  
Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP  
Mode: CONC Corr. Factor: 1

| Elem  | AG      | AL     | AS     | B_     | BA     | BE      | CA     |
|-------|---------|--------|--------|--------|--------|---------|--------|
| Units | ppm     | ppm    | ppm    | ppm    | ppm    | ppm     | ppm    |
| Avg   | -.00035 | .01082 | .05818 | .11451 | .00357 | -.00000 | .51510 |
| SDev  | .00344  | .00628 | .01355 | .00980 | .00023 | .00007  | .00657 |
| %RSD  | 980.60  | 58.030 | 23.289 | 8.5623 | 6.4151 | 2142.3  | 1.2763 |

|    |         |        |        |        |        |         |        |
|----|---------|--------|--------|--------|--------|---------|--------|
| #1 | .00438  | .01871 | .06075 | .10880 | .00322 | .00005  | .52453 |
| #2 | -.00290 | .00372 | .07173 | .10366 | .00368 | .00006  | .50925 |
| #3 | .00001  | .01208 | .06089 | .12213 | .00368 | -.00006 | .51343 |
| #4 | -.00290 | .00878 | .03938 | .12345 | .00368 | -.00006 | .51319 |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| 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    |
| Avg   | -.00033 | -.00068 | .00146 | 4.3870 | .02796 | .42821 | .00010 |
| SDev  | .00113  | .00135  | .00091 | .0444  | .00144 | .26503 | .00024 |
| %RSD  | 345.39  | 199.35  | 62.157 | 1.0124 | 5.1603 | 61.893 | 230.94 |

|    |         |         |        |        |        |        |         |
|----|---------|---------|--------|--------|--------|--------|---------|
| #1 | -.00110 | -.00000 | .00026 | 4.3233 | .02910 | .80289 | .00031  |
| #2 | -.00084 | -.00270 | .00133 | 4.4096 | .02845 | .28292 | -.00010 |
| #3 | -.00071 | -.00000 | .00187 | 4.4234 | .02845 | .20646 | -.00010 |
| #4 | .00135  | -.00001 | .00240 | 4.3917 | .02585 | .42056 | .00031  |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| 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    |
| Avg   | .06968 | .00462 | .00236 | 4.6889 | .00662 | .15741 | .02196 |
| SDev  | .01209 | .00049 | .00272 | .1344  | .00185 | .02737 | .01464 |
| %RSD  | 17.344 | 10.514 | 115.27 | 2.8661 | 27.900 | 17.385 | 66.674 |

|    |        |        |        |        |        |        |        |
|----|--------|--------|--------|--------|--------|--------|--------|
| #1 | .07653 | .00486 | .00471 | 4.5749 | .00594 | .16853 | .01463 |
| #2 | .07404 | .00389 | .00000 | 4.8018 | .00653 | .16845 | .00488 |
| #3 | .05164 | .00486 | .00471 | 4.8087 | .00918 | .11670 | .03416 |
| #4 | .07653 | .00486 | .00000 | 4.5702 | .00483 | .17597 | .03415 |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| 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    |
| Avg   | -.00081 | H22.564 | .02210 | .00128 | .00048 | -.04115 | .00122 |
| SDev  | .05048  | .181    | .00386 | .00017 | .00040 | .02885  | .00238 |
| %RSD  | 6247.3  | .80353  | 17.485 | 13.380 | 83.887 | 70.107  | 194.47 |

|    |         |         |        |        |        |         |        |
|----|---------|---------|--------|--------|--------|---------|--------|
| #1 | -.01446 | H22.792 | .02506 | .00113 | .00103 | -.04664 | .00480 |
| #2 | -.06179 | H22.622 | .01702 | .00113 | .00040 | -.07930 | .00000 |

## Analysis Report

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|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | .01467  | H22.458 | .02515  | .00147  | .00040  | -.02480 | .00009  |
| #4     | .05835  | H22.385 | .02115  | .00137  | .00008  | -.01387 | .00000  |
| 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  | .03742 |
| SDev  | .00146 |
| %RSD  | 3.8938 |

|    |        |
|----|--------|
| #1 | .03754 |
| #2 | .03532 |
| #3 | .03832 |
| #4 | .03848 |

|        |         |
|--------|---------|
| Errors | LC Pass |
| High   | 100.00  |
| Low    | -.02000 |

Method: QUANMET Sample Name: DEDET <sup>00</sup>  
 Run Time: 06/04/00 19:52:18 <sup>Ref 6-400</sup>  
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP  
 Mode: CONC Corr. Factor: 1

| Elem  | AG      | AL     | AS     | B_     | BA     | BE     | CA     |
|-------|---------|--------|--------|--------|--------|--------|--------|
| Units | ppm     | ppm    | ppm    | ppm    | ppm    | ppm    | ppm    |
| Avge  | -.00143 | .04216 | .11265 | .07384 | .04006 | .00006 | 2.3568 |
| SDev  | .00001  | .00679 | .08105 | .00133 | .00030 | .00001 | .0271  |
| %RSD  | .98312  | 16.111 | 71.950 | 1.8062 | .76133 | 13.213 | 1.1485 |

|    |         |        |        |        |        |        |        |
|----|---------|--------|--------|--------|--------|--------|--------|
| #1 | -.00145 | .03547 | .03916 | .07450 | .04004 | .00006 | 2.3208 |
| #2 | -.00142 | .04715 | .05693 | .07451 | .03985 | .00005 | 2.3738 |
| #3 | -.00142 | .04880 | .13948 | .07184 | .04049 | .00005 | 2.3810 |
| #4 | -.00145 | .03720 | .21504 | .07451 | .03985 | .00006 | 2.3516 |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| 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  | .00160 | -.00003 | .00280 | .02280 | .02309 | 1.6956 | .00071 |
| SDev  | .00190 | .00110  | .00051 | .00078 | .00234 | .2592  | .00081 |
| %RSD  | 118.61 | 3686.7  | 18.235 | 3.4234 | 10.120 | 15.286 | 113.56 |

|    |         |         |        |        |        |        |        |
|----|---------|---------|--------|--------|--------|--------|--------|
| #1 | -.00086 | -.00137 | .00293 | .02219 | .02000 | 1.4605 | .00031 |
| #2 | .00375  | .00132  | .00346 | .02382 | .02456 | 2.0493 | .00192 |
| #3 | .00192  | -.00003 | .00240 | .02219 | .02261 | 1.5523 | .00031 |
| #4 | .00159  | -.00003 | .00240 | .02300 | .02521 | 1.7205 | .00031 |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| 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  | .24451 | .00704 | .00353 | S-.09350 | .01198 | .16111 | .01709 |
| SDev  | .01325 | .00049 | .00235 | .00000   | .00477 | .02178 | .01226 |
| %RSD  | 5.4177 | 6.8862 | 66.596 | .00000   | 39.833 | 13.516 | 71.696 |

|    |        |        |        |          |        |        |        |
|----|--------|--------|--------|----------|--------|--------|--------|
| #1 | .23082 | .00777 | .00471 | S-.09350 | .01135 | .16847 | .00490 |
| #2 | .25820 | .00680 | .00471 | S-.09350 | .00668 | .13154 | .03413 |
| #3 | .25322 | .00680 | .00471 | S-.09350 | .01828 | .16111 | .01466 |
| #4 | .23580 | .00680 | .00000 | S-.09350 | .01162 | .18333 | .01468 |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| 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  | .00008 | H36.093 | .02856 | .01235 | .00325 | -.01930 | .00243 |
| SDev  | .03853 | .089    | .01755 | .00000 | .00037 | .06509  | .00274 |
| %RSD  | 45638. | .24579  | 61.461 | .00000 | 11.265 | 337.34  | 113.06 |

|    |        |         |        |        |        |         |        |
|----|--------|---------|--------|--------|--------|---------|--------|
| #1 | .00735 | H36.191 | .00901 | .01235 | .00293 | -.03559 | .00010 |
| #2 | .05106 | H36.027 | .03114 | .01235 | .00356 | .05153  | .00480 |

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|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | -.02176 | H36.146 | .05103  | .01235  | .00356  | .00795  | .00480  |
| #4     | -.03631 | H36.010 | .02305  | .01235  | .00293  | -.10107 | .00000  |
| 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  | .98393 |
| SDev  | .00416 |
| %RSD  | .42251 |

|    |        |
|----|--------|
| #1 | .98257 |
| #2 | .98260 |
| #3 | .98999 |
| #4 | .98054 |

|        |         |
|--------|---------|
| Errors | LC Pass |
| High   | 100.00  |
| Low    | -.02000 |



Method: QUANMET Sample Name: DE58WBT Operator: EMF  
Run Time: 06/04/00 19:55:25  
Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP  
Mode: CONC Corr. Factor: 1

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| Elem   | AG      | AL      | AS      | B_      | BA      | BE      | CA      |
| Units  | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     |
| Avg    | -.00143 | .00328  | .01965  | .01032  | .00018  | .00006  | .04340  |
| SDev   | .00206  | .00889  | .05709  | .02287  | .00031  | .00001  | .00205  |
| %RSD   | 143.44  | 270.65  | 290.55  | 221.55  | 168.92  | 12.909  | 4.7204  |
| #1     | .00003  | .01373  | .08952  | -.01710 | .00040  | .00005  | .04244  |
| #2     | -.00142 | -.00137 | -.02881 | .02918  | .00002  | .00005  | .04117  |
| #3     | -.00435 | -.00629 | -.02510 | .00003  | -.00017 | .00006  | .04589  |
| #4     | .00000  | .00706  | .04299  | .02917  | .00048  | .00006  | .04409  |
| 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     |
| Avg    | -.00077 | -.00067 | .00066  | .00183  | .01918  | .25425  | .00031  |
| SDev   | .00168  | .00234  | .00277  | .00067  | .00082  | .32552  | .00000  |
| %RSD   | 216.84  | 347.35  | 415.76  | 36.355  | 4.2731  | 128.03  | .00000  |
| #1     | -.00272 | .00000  | -.00133 | .00183  | .02000  | .06882  | .00031  |
| #2     | .00118  | -.00406 | -.00133 | .00102  | .01804  | -.08411 | .00031  |
| #3     | -.00013 | .00135  | .00453  | .00183  | .01935  | .64231  | .00031  |
| #4     | -.00142 | .00000  | .00080  | .00265  | .01934  | .38998  | .00031  |
| 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     |
| Avg    | .01058  | .00098  | .00236  | .07450  | .00253  | .01480  | .00978  |
| SDev   | .01122  | .00000  | .00272  | .00949  | .00313  | .02803  | .02458  |
| %RSD   | 106.10  | .10538  | 115.33  | 12.734  | 123.92  | 189.33  | 251.39  |
| #1     | -.00311 | .00098  | .00000  | .08854  | .00061  | .04264  | .04397  |
| #2     | .01182  | .00098  | .00000  | .07203  | .00342  | -.00939 | -.01463 |
| #3     | .02426  | .00098  | .00471  | .06872  | -.00046 | .03523  | .00483  |
| #4     | .00933  | .00098  | .00471  | .06872  | .00653  | -.00926 | .00494  |
| 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     |
| Avg    | -.00630 | 1.5745  | -.00195 | -.00004 | .00048  | -.03019 | .00240  |
| SDev   | .00546  | .1326   | .01192  | .00019  | .00060  | .05522  | .00266  |
| %RSD   | 86.645  | 8.4224  | 610.61  | 552.69  | 126.20  | 182.94  | 110.84  |
| #1     | -.01085 | 1.7668  | .00120  | .00014  | .00135  | -.01386 | .00470  |
| #2     | -.00357 | 1.5576  | .01293  | -.00006 | .00008  | -.07923 | .00470  |

## Analysis Report

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|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | -.01085 | 1.4953  | -.00697 | .00008  | .00040  | .04068  | .00010  |
| #4     | .00007  | 1.4784  | -.01497 | -.00030 | .00008  | -.06834 | .00009  |
| Errors | LC Pass | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK |
| High   | .25000  |         |         |         |         |         |         |
| Low    | -.25000 |         |         |         |         |         |         |

|       |        |
|-------|--------|
| Elem  | ZN     |
| Units | ppm    |
| Avge  | .00108 |
| SDev  | .00002 |
| %RSD  | 1.8094 |

|    |        |
|----|--------|
| #1 | .00110 |
| #2 | .00109 |
| #3 | .00108 |
| #4 | .00105 |

|        |         |
|--------|---------|
| Errors | NOCHECK |
| High   |         |
| Low    |         |

Method: QUANMET Sample Name: DE58WCT Operator: EMF  
 Run Time: 06/04/00 19:58:33  
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP  
 Mode: CONC Corr. Factor: 1

| Elem  | AG     | AL     | AS     | B_     | BA     | BE     | CA      |
|-------|--------|--------|--------|--------|--------|--------|---------|
| Units | ppm    | ppm    | ppm    | ppm    | ppm    | ppm    | ppm     |
| Avg   | .04438 | 1.7262 | 1.9190 | .87483 | 1.6514 | .04161 | L.13278 |
| SDev  | .00270 | .0147  | .0410  | .00602 | .0204  | .00053 | .01148  |
| %RSD  | 6.0820 | .84995 | 2.1348 | .68780 | 1.2365 | 1.2850 | 8.6438  |

|    |        |        |        |        |        |        |         |
|----|--------|--------|--------|--------|--------|--------|---------|
| #1 | .04142 | 1.7333 | 1.8832 | .87063 | 1.6638 | .04121 | L.11906 |
| #2 | .04734 | 1.7433 | 1.9186 | .88360 | 1.6724 | .04238 | L.14029 |
| #3 | .04585 | 1.7166 | 1.9764 | .87388 | 1.6278 | .04154 | L.14399 |
| #4 | .04292 | 1.7117 | 1.8976 | .87120 | 1.6415 | .04130 | L.12778 |

|        |         |         |         |         |         |         |        |
|--------|---------|---------|---------|---------|---------|---------|--------|
| 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    |
| Avg   | .04733 | .44088 | .17749 | .21520 | .93013 | L.08602 | .81978 |
| SDev  | .00362 | .01140 | .00830 | .00336 | .01679 | .85665  | .02985 |
| %RSD  | 7.6401 | 2.5865 | 4.6739 | 1.5598 | 1.8055 | 995.83  | 3.6409 |

|    |        |        |        |        |        |          |        |
|----|--------|--------|--------|--------|--------|----------|--------|
| #1 | .04292 | .42602 | .16671 | .21722 | .91079 | L-.94053 | .85574 |
| #2 | .05147 | .45166 | .18427 | .21888 | .94720 | L.54291  | .83194 |
| #3 | .04860 | .44764 | .18374 | .21236 | .94070 | L.99405  | .78964 |
| #4 | .04632 | .43818 | .17522 | .21235 | .92184 | L-.25234 | .80180 |

|        |         |         |         |         |         |        |         |
|--------|---------|---------|---------|---------|---------|--------|---------|
| 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     |
| Avg   | L.00995 | .44737 | .00014 | S728.79 | .43441 | .46483 | L.02536 |
| SDev  | .02390  | .00731 | .00666 | 1457.8  | .01731 | .04451 | .00567  |
| %RSD  | 240.12  | 1.6334 | 4785.9 | 200.03  | 3.9839 | 9.5750 | 22.375  |

|    |          |        |         |          |        |        |         |
|----|----------|--------|---------|----------|--------|--------|---------|
| #1 | L-.01307 | .43863 | .00014  | S-.09350 | .41293 | .41626 | L.02029 |
| #2 | L.01929  | .45513 | .00485  | S-.09350 | .45501 | .47622 | L.02061 |
| #3 | L.03920  | .45125 | .00485  | S2915.4  | .43239 | .52058 | L.03019 |
| #4 | L-.00560 | .44445 | -.00927 | S-.09350 | .43734 | .44625 | L.03035 |

|        |        |         |         |         |         |         |        |
|--------|--------|---------|---------|---------|---------|---------|--------|
| Errors | LC Low | LC Pass | NOCHECK | LC High | 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    |
| Avg   | 2.0049 | 1.0839 | .01329 | .84043 | .00016 | L1.5291 | .43079 |
| SDev  | .0473  | .0552  | .01749 | .00898 | .00060 | .0412   | .00987 |
| %RSD  | 2.3584 | 5.0894 | 131.61 | 1.0685 | 378.59 | 2.6914  | 2.2904 |

|    |        |        |        |        |         |         |        |
|----|--------|--------|--------|--------|---------|---------|--------|
| #1 | 1.9584 | 1.0710 | .00527 | .84341 | -.00024 | L1.4995 | .41900 |
| #2 | 2.0641 | 1.1448 | .03925 | .85152 | .00103  | L1.5315 | .44265 |

## Analysis Report

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|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | 2.0204  | 1.1051  | .00732  | .83103  | .00008  | L1.4990 | .43324  |
| #4     | 1.9766  | 1.0146  | .00132  | .83577  | -.00024 | L1.5865 | .42825  |
| Errors | LC Pass | NOCHECK | NOCHECK | NOCHECK | NOCHECK | LC Low  | LC Pass |
| High   | 2.4000  |         |         |         |         | 2.4000  | .60000  |
| Low    | 1.6000  |         |         |         |         | 1.6000  | .40000  |

|       |        |
|-------|--------|
| Elem  | ZN     |
| Units | ppm    |
| Avge  | .47736 |
| SDev  | .00389 |
| %RSD  | .81444 |

|    |        |
|----|--------|
| #1 | .47443 |
| #2 | .48308 |
| #3 | .47572 |
| #4 | .47621 |

|        |         |
|--------|---------|
| Errors | LC Pass |
| High   | .60000  |
| Low    | .40000  |

Method: QUANMET Sample Name: D<sup>E</sup>3GABT  
Run Time: 06/04/00 20:01:40 *auf 640* Operator: EMF  
Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP  
Mode: CONC Corr. Factor: 1

|        |         |         |         |          |         |         |         |
|--------|---------|---------|---------|----------|---------|---------|---------|
| Elem   | AG      | AL      | AS      | B_       | BA      | BE      | CA      |
| Units  | ppm     | ppm     | ppm     | ppm      | ppm     | ppm     | ppm     |
| Avge   | -.00145 | -.01216 | .12125  | .02743   | .00396  | .00015  | .11558  |
| SDev   | .00203  | .01543  | .08081  | .00588   | .00028  | .00005  | .00336  |
| %RSD   | 140.38  | 126.89  | 66.649  | 21.450   | 7.0995  | 34.918  | 2.9100  |
| #1     | .00000  | .00378  | .07535  | .02171   | .00360  | .00019  | .11502  |
| #2     | -.00145 | -.00792 | .21544  | .02553   | .00414  | .00019  | .11600  |
| #3     | -.00002 | -.01133 | .15811  | .03563   | .00387  | .00007  | .11157  |
| #4     | -.00433 | -.03317 | .03609  | .02686   | .00422  | .00017  | .11974  |
| 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   | -.00081 | -.00034 | -.00013 | .00224   | .00504  | .34027  | .00010  |
| SDev   | .00318  | .00256  | .00191  | .00156   | .00192  | .49376  | .00042  |
| %RSD   | 393.38  | 758.25  | 1447.2  | 69.704   | 37.985  | 145.11  | 437.50  |
| #1     | -.00217 | .00135  | .00027  | .00346   | .00374  | .38998  | .00031  |
| #2     | -.00062 | .00135  | .00080  | .00183   | .00699  | .15293  | .00031  |
| #3     | .00350  | -.00407 | -.00292 | .00020   | .00634  | -.17587 | .00031  |
| #4     | -.00394 | .00001  | .00133  | .00346   | .00309  | .99405  | -.00053 |
| 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   | .02240  | .00122  | .00353  | S1458.3  | .00170  | .00370  | .00237  |
| SDev   | .01921  | .00049  | .00451  | 1684.0   | .00301  | .02666  | .01669  |
| %RSD   | 85.767  | 39.868  | 127.63  | 115.48   | 177.15  | 719.90  | 704.23  |
| #1     | .01431  | .00097  | .00000  | S-.09350 | -.00119 | -.00924 | -.01473 |
| #2     | .02178  | .00194  | .00000  | S2916.5  | .00403  | -.00178 | .02438  |
| #3     | .00436  | .00097  | .00471  | S-.09350 | .00455  | -.01678 | -.00494 |
| #4     | .04915  | .00097  | .00941  | S2916.7  | -.00059 | .04262  | .00477  |
| 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   | -.00180 | .86357  | .02900  | .00200   | .00032  | -.00549 | .00007  |
| SDev   | .01915  | .03730  | .00232  | .00022   | .00016  | .05443  | .00388  |
| %RSD   | 1063.0  | 4.3198  | 8.0096  | 11.238   | 50.000  | 990.61  | 5714.8  |
| #1     | -.01819 | .91304  | .03092  | .00185   | .00040  | -.05728 | .00000  |
| #2     | -.00362 | .86216  | .03110  | .00185   | .00040  | .05172  | .00000  |

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|    |         |        |        |        |        |         |         |
|----|---------|--------|--------|--------|--------|---------|---------|
| #3 | .02551  | .85644 | .02696 | .00233 | .00040 | .02999  | -.00462 |
| #4 | -.01091 | .82264 | .02701 | .00199 | .00008 | -.04640 | .00489  |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| Errors | LC Pass | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK |
| High   | .25000  |         |         |         |         |         |         |
| Low    | -.25000 |         |         |         |         |         |         |

|       |        |
|-------|--------|
| Elem  | ZN     |
| Units | ppm    |
| Avge  | .00609 |
| SDev  | .00127 |
| %RSD  | 20.887 |

|    |        |
|----|--------|
| #1 | .00797 |
| #2 | .00564 |
| #3 | .00562 |
| #4 | .00514 |

|        |         |
|--------|---------|
| Errors | NOCHECK |
| High   |         |
| Low    |         |

Method: QUANMET Sample Name: DDKFGT Operator: EMF  
Run Time: 06/04/00 20:04:47  
Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP  
Mode: CONC Corr. Factor: 1

|        |         |         |         |          |         |         |         |
|--------|---------|---------|---------|----------|---------|---------|---------|
| Elem   | AG      | AL      | AS      | B_       | BA      | BE      | CA      |
| Units  | ppm     | ppm     | ppm     | ppm      | ppm     | ppm     | ppm     |
| Avge   | -.00503 | .06513  | .15818  | .10371   | .40041  | .00009  | H609.08 |
| SDev   | .00206  | .01454  | .05143  | .00001   | .00623  | .00012  | 21.72   |
| %RSD   | 40.996  | 22.324  | 32.512  | .00755   | 1.5563  | 134.92  | 3.5663  |
| #1     | -.00503 | .06721  | .09261  | .10371   | .39942  | .00005  | H618.65 |
| #2     | -.00358 | .08057  | .20738  | .10370   | .40236  | .00017  | H624.81 |
| #3     | -.00795 | .04546  | .14312  | .10370   | .40739  | .00018  | H615.87 |
| #4     | -.00357 | .06727  | .18963  | .10372   | .39247  | -.00006 | 576.98  |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass  | LC Pass | LC Pass | LC High |
| 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   | .01127  | -.00186 | -.00519 | .45042   | .05351  | 3.3301  | .00603  |
| SDev   | .00290  | .00432  | .00425  | .00688   | .00228  | .4985   | .00094  |
| %RSD   | 25.734  | 232.41  | 81.799  | 1.5270   | 4.2545  | 14.969  | 15.546  |
| #1     | .01312  | .00118  | -.00772 | .44636   | .05628  | 3.1351  | .00516  |
| #2     | .00742  | -.00016 | -.00187 | .45205   | .05432  | 3.7315  | .00564  |
| #3     | .01385  | -.00018 | -.00133 | .45938   | .05107  | 3.7392  | .00600  |
| #4     | .01069  | -.00827 | -.00985 | .44391   | .05238  | 2.7145  | .00734  |
| 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   | 21.394  | 3.5075  | .00236  | S728.77  | .09155  | .04807  | .01802  |
| SDev   | .461    | .1011   | .00815  | 1457.7   | .00648  | .01414  | .01231  |
| %RSD   | 2.1545  | 2.8835  | 345.24  | 200.03   | 7.0806  | 29.422  | 68.329  |
| #1     | 21.461  | 3.5431  | .00471  | S-.09350 | .09222  | .05741  | .01560  |
| #2     | 21.698  | 3.5732  | .00471  | S2915.3  | .09770  | .05740  | .03511  |
| #3     | 21.693  | 3.5567  | .00942  | S-.09350 | .09380  | .04997  | .00574  |
| #4     | 20.722  | 3.3569  | -.00940 | S-.09350 | .08246  | .02752  | .01561  |
| 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   | -.02893 | 10.670  | -.00027 | .71716   | -.03731 | -.02986 | .00268  |
| SDev   | .01071  | .239    | .01527  | .01195   | .00082  | .04534  | .00251  |
| %RSD   | 37.032  | 2.2363  | 5648.9  | 1.6659   | 2.1928  | 151.85  | 93.666  |
| #1     | -.04348 | 10.744  | .00322  | .71576   | -.03699 | -.02700 | .00478  |
| #2     | -.01800 | 10.818  | .00931  | .72210   | -.03762 | -.09222 | .00479  |

## Analysis Report

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|    |         |        |         |        |         |         |         |
|----|---------|--------|---------|--------|---------|---------|---------|
| #3 | -.02530 | 10.801 | .00917  | .72946 | -.03826 | -.01593 | .00136  |
| #4 | -.02893 | 10.315 | -.02277 | .70133 | -.03636 | .01571  | -.00020 |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| 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  | 1.1850 |
| SDev  | .0301  |
| %RSD  | 2.5421 |

|    |        |
|----|--------|
| #1 | 1.2032 |
| #2 | 1.1975 |
| #3 | 1.1995 |
| #4 | 1.1400 |

|        |         |
|--------|---------|
| Errors | LC Pass |
| High   | 100.00  |
| Low    | -.02000 |



Method: QUANMET Sample Name: CCV2-2

Operator: EMF

Run Time: 06/04/00 20:07:55

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

| Elem   | AG      | AL      | AS      | B_      | BA      | BE      | CA      |
|--------|---------|---------|---------|---------|---------|---------|---------|
| Units  | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     |
| Avge   | .97684  | 47.005  | 4.7783  | 4.7653  | 4.5972  | 4.6640  | 50.435  |
| SDev   | .00305  | .215    | .0528   | .0239   | .0240   | .0160   | .261    |
| %RSD   | .31178  | .45710  | 1.1050  | .50104  | .52186  | .34374  | .51730  |
| #1     | .97354  | 46.953  | 4.8552  | 4.7426  | 4.6104  | 4.6804  | 50.047  |
| #2     | .97643  | 46.747  | 4.7349  | 4.7598  | 4.5635  | 4.6485  | 50.605  |
| #3     | .98092  | 47.263  | 4.7623  | 4.7990  | 4.6176  | 4.6748  | 50.559  |
| #4     | .97650  | 47.055  | 4.7608  | 4.7599  | 4.5973  | 4.6521  | 50.530  |
| 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   | 4.9652  | 4.8169  | 4.8411  | 4.6174  | 49.675  | 46.025  | 4.5239  |
| SDev   | .0287   | .0144   | .0134   | .0303   | .107    | .691    | .0527   |
| %RSD   | .57780  | .29793  | .27761  | .65614  | .21455  | 1.5005  | 1.1651  |
| #1     | 4.9238  | 4.7967  | 4.8231  | 4.6369  | 49.565  | 45.444  | 4.5191  |
| #2     | 4.9824  | 4.8169  | 4.8439  | 4.5759  | 49.629  | 45.413  | L4.4512 |
| #3     | 4.9863  | 4.8289  | 4.8556  | 4.6427  | 49.815  | 46.560  | 4.5656  |
| #4     | 4.9684  | 4.8250  | 4.8418  | 4.6141  | 49.690  | 46.682  | 4.5598  |
| 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   | 47.119  | 4.8185  | 4.7721  | L44.683 | 4.7680  | 4.8893  | 4.8324  |
| SDev   | .178    | .0115   | .0198   | .435    | .0316   | .0266   | .0228   |
| %RSD   | .37712  | .23907  | .41470  | .97270  | .66267  | .54316  | .47093  |
| #1     | 47.102  | 4.8044  | 4.7604  | L44.594 | 4.7788  | 4.8665  | 4.8521  |
| #2     | 46.898  | 4.8189  | 4.7510  | L44.108 | 4.7581  | 4.8746  | 4.8129  |
| #3     | 47.331  | 4.8326  | 4.7839  | 45.078  | 4.8048  | 4.8895  | 4.8522  |
| #4     | 47.144  | 4.8180  | 4.7933  | L44.953 | 4.7302  | 4.9265  | 4.8125  |
| Errors | LC Pass | LC Pass | LC Pass | LC Low  | 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   | 5.0018  | H7.0387 | 4.9135  | 4.6176  | 4.7056  | 9.1620  | 4.7757  |
| SDev   | .0868   | .2295   | .0272   | .0221   | .0127   | .0954   | .0084   |
| %RSD   | 1.7353  | 3.2603  | .55306  | .47914  | .26973  | 1.0415  | .17675  |
| #1     | 5.0633  | H6.7122 | 4.9536  | 4.6288  | 4.7049  | 9.1115  | 4.7716  |
| #2     | 5.0890  | H7.0514 | 4.9015  | 4.5871  | 4.6906  | 9.1216  | 4.7667  |

## Analysis Report

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|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | 4.9186  | H7.1647 | 4.9056  | 4.6378  | 4.7217  | 9.3049  | 4.7862  |
| #4     | 4.9364  | H7.2268 | 4.8934  | 4.6169  | 4.7052  | 9.1100  | 4.7781  |
| Errors | LC Pass | LC High | 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   | 4.8540  |         |         |         |         |         |         |
| SDev   | .0125   |         |         |         |         |         |         |
| %RSD   | .25702  |         |         |         |         |         |         |
| #1     | 4.8448  |         |         |         |         |         |         |
| #2     | 4.8426  |         |         |         |         |         |         |
| #3     | 4.8690  |         |         |         |         |         |         |
| #4     | 4.8594  |         |         |         |         |         |         |
| Errors | LC Pass |         |         |         |         |         |         |
| High   | 5.5000  |         |         |         |         |         |         |
| Low    | 4.5000  |         |         |         |         |         |         |

Method: QUANMET Sample Name: CCB2 Operator: EMF  
Run Time: 06/04/00 20:11:02  
Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP  
Mode: CONC Corr. Factor: 1

| Elem   | AG      | AL      | AS      | B_      | BA      | BE      | CA      |
|--------|---------|---------|---------|---------|---------|---------|---------|
| Units  | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     |
| Avge   | -.00109 | -.00687 | .00902  | .03019  | .00002  | .00019  | .00785  |
| SDev   | .00183  | .00475  | .01590  | .00672  | .00000  | .00000  | .00359  |
| %RSD   | 168.06  | 69.227  | 176.17  | 22.249  | .00000  | .00000  | 45.719  |
| #1     | -.00145 | -.00646 | -.01072 | .03561  | .00002  | .00019  | .00666  |
| #2     | .00145  | -.00148 | .02513  | .03239  | .00002  | .00019  | .00841  |
| #3     | -.00290 | -.00646 | .01799  | .02038  | .00002  | .00019  | .01245  |
| #4     | -.00145 | -.01307 | .00369  | .03238  | .00002  | .00019  | .00388  |
| 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   | .00132  | -.00068 | .00040  | .00122  | .00130  | .43585  | .00016  |
| SDev   | .00083  | .00259  | .00232  | .00078  | .00111  | .06753  | .00030  |
| %RSD   | 62.900  | 380.66  | 572.52  | 63.844  | 85.290  | 15.494  | 192.31  |
| #1     | .00228  | -.00136 | .00240  | .00020  | -.00016 | .50467  | -.00029 |
| #2     | .00057  | -.00406 | -.00186 | .00183  | .00244  | .34410  | .00031  |
| #3     | .00068  | .00135  | .00240  | .00183  | .00114  | .45879  | .00031  |
| #4     | .00175  | .00135  | -.00133 | .00102  | .00179  | .43585  | .00031  |
| 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   | .01058  | .00098  | .01882  | .01431  | .00274  | .01111  | .01210  |
| SDev   | .00747  | .00000  | .00384  | .00360  | .00533  | .03545  | .01467  |
| %RSD   | 70.588  | .12028  | 20.412  | 25.156  | 194.45  | 319.01  | 121.26  |
| #1     | .01680  | .00098  | .01882  | .01441  | -.00336 | .02775  | .00473  |
| #2     | .00187  | .00098  | .01882  | .01404  | .00001  | -.00193 | .02422  |
| #3     | .01680  | .00098  | .02353  | .01000  | .00805  | .05004  | -.00499 |
| #4     | .00684  | .00098  | .01412  | .01881  | .00628  | -.03141 | .02442  |
| 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   | -.01820 | H1.2127 | .00955  | .00021  | .00032  | .05178  | .00036  |
| SDev   | .02804  | .0807   | .01969  | .00013  | .00040  | .06779  | .00008  |
| %RSD   | 154.09  | 6.6587  | 206.14  | 62.782  | 125.83  | 130.92  | 21.215  |
| #1     | -.00000 | H1.2409 | -.00498 | .00032  | .00040  | -.02452 | .00037  |
| #2     | -.04732 | H1.2975 | .03509  | .00004  | .00040  | .12812  | .00036  |

## Analysis Report

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|    |         |         |         |        |         |        |        |
|----|---------|---------|---------|--------|---------|--------|--------|
| #3 | -.03640 | H1.2070 | .01497  | .00032 | .00071  | .01906 | .00046 |
| #4 | .01093  | H1.1053 | -.00688 | .00018 | -.00024 | .08447 | .00027 |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| Errors | LC Pass | LC High | 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  | .00051 |
| %RSD  | 117.19 |

|    |         |
|----|---------|
| #1 | -.00018 |
| #2 | .00056  |
| #3 | .00105  |
| #4 | .00031  |

|        |         |
|--------|---------|
| Errors | LC Pass |
| High   | .02000  |
| Low    | -.02000 |

Method: QUANMET Sample Name: DDKFHT

Operator: EMF

Run Time: 06/04/00 20:14:10

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

| Elem   | AG      | AL      | AS      | B_       | BA      | BE      | CA      |
|--------|---------|---------|---------|----------|---------|---------|---------|
| Units  | ppm     | ppm     | ppm     | ppm      | ppm     | ppm     | ppm     |
| Avge   | -.00345 | .01865  | .09484  | .09021   | .32874  | .00011  | H802.17 |
| SDev   | .00071  | .00492  | .02884  | .00249   | .00350  | .00007  | 2.38    |
| %RSD   | 20.653  | 26.380  | 30.411  | 2.7603   | 1.0641  | 62.963  | .29639  |
| #1     | -.00309 | .01198  | .12902  | .08879   | .32389  | .00005  | H804.52 |
| #2     | -.00309 | .01865  | .10384  | .09202   | .33003  | .00005  | H800.78 |
| #3     | -.00309 | .02370  | .06072  | .09259   | .33213  | .00017  | H803.81 |
| #4     | -.00452 | .02028  | .08579  | .08745   | .32892  | .00016  | H799.56 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass  | LC Pass | LC Pass | LC High |
| 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   | .00490  | -.00145 | -.00147 | .34662   | .01803  | 4.2591  | .00831  |
| SDev   | .00184  | .00247  | .00223  | .00379   | .00111  | .4957   | .00070  |
| %RSD   | 37.596  | 170.23  | 152.37  | 1.0937   | 6.1514  | 11.638  | 8.4572  |
| #1     | .00334  | -.00280 | -.00133 | .34133   | .01787  | 4.1062  | .00804  |
| #2     | .00595  | -.00416 | -.00453 | .34702   | .01657  | 3.6245  | .00744  |
| #3     | .00334  | .00126  | .00080  | .35029   | .01917  | 4.6721  | .00888  |
| #4     | .00695  | -.00010 | -.00080 | .34784   | .01852  | 4.6338  | .00888  |
| 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   | 11.207  | 1.1035  | .00706  | S728.96  | .06418  | .05189  | .06656  |
| SDev   | .066    | .0024   | .00272  | 1458.1   | .00412  | .03499  | .03228  |
| %RSD   | .58626  | .21974  | 38.477  | 200.03   | 6.4248  | 67.432  | 48.504  |
| #1     | 11.134  | 1.1028  | .00471  | S2916.1  | .06321  | .04997  | .04461  |
| #2     | 11.193  | 1.1038  | .00471  | S-.09350 | .06890  | .02776  | .08367  |
| #3     | 11.293  | 1.1067  | .00941  | S-.09350 | .06552  | .02784  | .03477  |
| #4     | 11.208  | 1.1009  | .00941  | S-.09350 | .05908  | .10197  | .10319  |
| 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   | -.01359 | 9.6393  | .00499  | .96261   | -.04934 | .03871  | .00601  |
| SDev   | .03693  | .0472   | .02210  | .00840   | .00068  | .04746  | .00238  |
| %RSD   | 271.83  | .48922  | 442.92  | .87282   | 1.3870  | 122.62  | 39.638  |
| #1     | -.02178 | 9.6590  | -.00661 | .95131   | -.04871 | .05780  | .00479  |
| #2     | .02190  | 9.6647  | .02556  | .96583   | -.04934 | .07964  | .00479  |

## Analysis Report

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|        |         |         |         |         |          |         |         |
|--------|---------|---------|---------|---------|----------|---------|---------|
| #3     | .00735  | 9.6647  | .02134  | .97118  | L-.05030 | .04688  | .00489  |
| #4     | -.06182 | 9.5686  | -.02033 | .96211  | -.04903  | -.02949 | .00959  |
| 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  | .45507 |
| SDev  | .00314 |
| %RSD  | .69073 |

|    |        |
|----|--------|
| #1 | .45305 |
| #2 | .45173 |
| #3 | .45787 |
| #4 | .45763 |

|        |         |
|--------|---------|
| Errors | LC Pass |
| High   | 100.00  |
| Low    | -.02000 |

Method: QUANMET Sample Name: DDKFJT Operator: EMF  
Run Time: 06/04/00 20:17:18  
Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP  
Mode: CONC Corr. Factor: 1

| Elem   | AG      | AL      | AS      | B_       | BA      | BE      | CA      |
|--------|---------|---------|---------|----------|---------|---------|---------|
| Units  | ppm     | ppm     | ppm     | ppm      | ppm     | ppm     | ppm     |
| Avge   | -.00692 | .01164  | .13352  | .05232   | .53258  | .00018  | H711.08 |
| SDev   | .00254  | .00456  | .07801  | .00094   | .00985  | .00013  | 6.93    |
| %RSD   | 36.639  | 39.207  | 58.423  | 1.8012   | 1.8491  | 74.767  | .97500  |
| #1     | -.00767 | .00703  | .07888  | .05186   | .54556  | .00006  | H719.98 |
| #2     | -.00763 | .01373  | .15052  | .05184   | .52432  | .00029  | H705.53 |
| #3     | -.00326 | .01701  | .06787  | .05374   | .52558  | .00028  | H705.62 |
| #4     | -.00912 | .00880  | .23682  | .05185   | .53484  | .00006  | H713.18 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass  | LC Pass | LC Pass | LC High |
| 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   | .00123  | -.00087 | -.00147 | .00387   | .02309  | 3.1695  | .01369  |
| SDev   | .00263  | .00500  | .00500  | .00216   | .00140  | .5455   | .00055  |
| %RSD   | 213.77  | 571.63  | 341.04  | 55.799   | 6.0809  | 17.212  | 4.0016  |
| #1     | .00257  | -.00561 | -.00559 | .00183   | .02504  | 2.5922  | .01354  |
| #2     | .00271  | .00115  | .00080  | .00428   | .02309  | 3.4257  | .01320  |
| #3     | .00234  | .00521  | .00452  | .00672   | .02179  | 3.8003  | .01448  |
| #4     | -.00270 | -.00424 | -.00559 | .00264   | .02243  | 2.8598  | .01354  |
| 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   | 20.739  | 2.0795  | .00000  | S728.75  | .00531  | .06853  | .03677  |
| SDev   | .261    | .0260   | .00768  | 1457.7   | .01097  | .04315  | .04660  |
| %RSD   | 1.2596  | 1.2521  | 222580. | 200.03   | 206.63  | 62.968  | 126.74  |
| #1     | 21.086  | 2.1125  | .00000  | S-.09350 | .00502  | .04245  | .01486  |
| #2     | 20.461  | 2.0582  | .00000  | S2915.3  | .02078  | .07965  | -.00463 |
| #3     | 20.655  | 2.0591  | .00942  | S-.09350 | -.00411 | .12435  | .10246  |
| #4     | 20.755  | 2.0882  | -.00941 | S-.09350 | -.00045 | .02769  | .03439  |
| 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   | .00464  | 7.2605  | -.00016 | .79436   | -.04531 | .03326  | .00382  |
| SDev   | .04122  | .0883   | .03076  | .01419   | .00070  | .07158  | .00478  |
| %RSD   | 889.39  | 1.2162  | 19276.  | 1.7864   | 1.5506  | 215.19  | 125.05  |
| #1     | -.03267 | 7.3750  | -.02875 | .81307   | -.04554 | .13979  | -.00001 |
| #2     | -.02540 | 7.1828  | .01514  | .78198   | -.04491 | .00858  | .00588  |

## Analysis Report

06/04/00 08:20:22 PM

|    |        |        |         |        |         |         |         |
|----|--------|--------|---------|--------|---------|---------|---------|
| #3 | .05469 | 7.1998 | .03563  | .78485 | -.04459 | -.01326 | .00960  |
| #4 | .02193 | 7.2845 | -.02266 | .79756 | -.04618 | -.00206 | -.00019 |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| 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  | .10386 |
| SDev  | .00150 |
| %RSD  | 1.4436 |

|    |        |
|----|--------|
| #1 | .10610 |
| #2 | .10299 |
| #3 | .10307 |
| #4 | .10326 |

|        |         |
|--------|---------|
| Errors | LC Pass |
| High   | 100.00  |
| Low    | -.02000 |



Method: QUANMET Sample Name: DDKFKT Operator: EMF  
Run Time: 06/04/00 20:20:25  
Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP  
Mode: CONC Corr. Factor: 1

| Elem   | AG      | AL      | AS      | B_       | BA      | BE      | CA      |
|--------|---------|---------|---------|----------|---------|---------|---------|
| Units  | ppm     | ppm     | ppm     | ppm      | ppm     | ppm     | ppm     |
| Avge   | -.00416 | .02665  | .16746  | .05280   | .19576  | .00026  | H669.06 |
| SDev   | .00184  | .00909  | .05034  | .00190   | .00257  | .00011  | 1.85    |
| %RSD   | 44.200  | 34.093  | 30.062  | 3.6026   | 1.3145  | 42.932  | .27693  |
| #1     | -.00160 | .03202  | .11082  | .05184   | .19514  | .00041  | H671.56 |
| #2     | -.00598 | .02713  | .13966  | .05185   | .19808  | .00017  | H667.09 |
| #3     | -.00452 | .01369  | .20438  | .05565   | .19743  | .00030  | H668.86 |
| #4     | -.00452 | .03376  | .21499  | .05185   | .19240  | .00017  | H668.71 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass  | LC Pass | LC Pass | LC High |
| 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   | .00254  | .00030  | .00253  | .01079   | .02440  | 5.3411  | .00633  |
| SDev   | .00199  | .00278  | .00273  | .00149   | .00140  | .3458   | .00061  |
| %RSD   | 78.471  | 927.86  | 107.99  | 13.799   | 5.7562  | 6.4752  | 9.5977  |
| #1     | .00147  | .00267  | .00559  | .01242   | .02440  | 5.4597  | .00684  |
| #2     | .00281  | -.00139 | .00079  | .00997   | .02245  | 5.1232  | .00684  |
| #3     | .00522  | .00266  | .00399  | .01161   | .02505  | 5.7732  | .00600  |
| #4     | .00066  | -.00273 | -.00027 | .00916   | .02570  | 5.0085  | .00564  |
| 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   | 19.602  | 1.0070  | .00353  | S728.77  | .01113  | .02592  | .00501  |
| SDev   | .155    | .0035   | .00706  | 1457.7   | .01056  | .01535  | .02649  |
| %RSD   | .78861  | .34627  | 199.80  | 200.03   | 94.881  | 59.201  | 528.94  |
| #1     | 19.565  | 1.0087  | .00942  | S-.09350 | .02382  | .02785  | .01490  |
| #2     | 19.714  | 1.0077  | -.00470 | S-.09350 | .00084  | .00545  | -.03413 |
| #3     | 19.729  | 1.0097  | .00942  | S-.09350 | .01564  | .04268  | .01477  |
| #4     | 19.398  | 1.0019  | .00000  | S2915.4  | .00423  | .02771  | .02449  |
| 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   | -.01538 | 6.3037  | .01267  | 1.7210   | -.04135 | .01083  | .00595  |
| SDev   | .01308  | .0286   | .01578  | .0202    | .00016  | .06445  | .00244  |
| %RSD   | 85.026  | .45446  | 124.54  | 1.1728   | .38314  | 595.17  | 40.895  |
| #1     | -.00719 | 6.3122  | -.00877 | 1.7134   | -.04111 | -.08461 | .00960  |
| #2     | -.00356 | 6.3178  | .02898  | 1.7396   | -.04142 | .03541  | .00461  |

## Analysis Report

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|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | -.01811 | 6.3235  | .01322  | 1.7349  | -.04142 | .03536  | .00489  |
| #4     | -.03267 | 6.2613  | .01726  | 1.6960  | -.04142 | .05716  | .00470  |
| 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  | .19075 |
| SDev  | .00153 |
| %RSD  | .80431 |

|    |        |
|----|--------|
| #1 | .19090 |
| #2 | .19276 |
| #3 | .18911 |
| #4 | .19021 |

|        |         |
|--------|---------|
| Errors | LC Pass |
| High   | 100.00  |
| Low    | -.02000 |

Method: QUANMET Sample Name: DDKFLT

Operator: EMF

Run Time: 06/04/00 20:23:33

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

| Elem   | AG      | AL      | AS      | B_       | BA      | BE      | CA      |
|--------|---------|---------|---------|----------|---------|---------|---------|
| Units  | ppm     | ppm     | ppm     | ppm      | ppm     | ppm     | ppm     |
| Avge   | -.00474 | .01836  | .17294  | .05217   | .44331  | .00014  | H733.31 |
| SDev   | .00205  | .00866  | .06054  | .00067   | .00356  | .00006  | 3.12    |
| %RSD   | 43.338  | 47.176  | 35.006  | 1.2847   | .80310  | 43.489  | .42578  |
| #1     | -.00619 | .02221  | .17561  | .05182   | .44585  | .00017  | H735.59 |
| #2     | -.00473 | .01043  | .09312  | .05184   | .44512  | .00017  | H728.85 |
| #3     | -.00184 | .02873  | .24016  | .05317   | .43806  | .00017  | H735.33 |
| #4     | -.00619 | .01206  | .18287  | .05184   | .44420  | .00005  | H733.46 |
| Errors | LC Pass | LC Pass | LC Pass | LC Pass  | LC Pass | LC Pass | LC High |
| 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   | .00390  | .00288  | -.00187 | .00957   | .02000  | 2.5234  | .00414  |
| SDev   | .00128  | .00170  | .00157  | .00047   | .00251  | .1598   | .00099  |
| %RSD   | 32.821  | 59.148  | 84.110  | 4.9135   | 12.566  | 6.3323  | 23.829  |
| #1     | .00245  | .00525  | -.00293 | .00998   | .01658  | 2.4163  | .00357  |
| #2     | .00556  | .00119  | -.00347 | .00998   | .01984  | 2.6992  | .00381  |
| #3     | .00392  | .00254  | -.00080 | .00916   | .02244  | 2.6151  | .00561  |
| #4     | .00366  | .00254  | -.00027 | .00916   | .02114  | 2.3628  | .00357  |
| 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   | 15.293  | 2.0679  | .00118  | S1457.6  | .03394  | .06865  | .05165  |
| SDev   | .083    | .0059   | .00706  | 1683.2   | .00492  | .01958  | .04246  |
| %RSD   | .54109  | .28392  | 598.51  | 115.48   | 14.483  | 28.527  | 82.196  |
| #1     | 15.364  | 2.0756  | -.00470 | S2915.3  | .03695  | .07237  | .01509  |
| #2     | 15.339  | 2.0650  | -.00470 | S-.09350 | .02673  | .05748  | .03454  |
| #3     | 15.178  | 2.0621  | .00942  | S2915.5  | .03719  | .05020  | .11268  |
| #4     | 15.292  | 2.0688  | .00471  | S-.09350 | .03491  | .09456  | .04430  |
| 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   | .01100  | 8.3135  | .01640  | .74032   | -.04523 | -.08401 | .00502  |
| SDev   | .01994  | .0383   | .00821  | .00582   | .00058  | .08087  | .00052  |
| %RSD   | 181.33  | .46120  | 50.062  | .78659   | 1.2790  | 96.258  | 10.425  |
| #1     | .03283  | 8.3700  | .02523  | .74402   | -.04586 | -.01308 | .00461  |
| #2     | -.01449 | 8.3022  | .01932  | .74426   | -.04554 | -.19850 | .00578  |

## Analysis Report

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|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | .01829  | 8.2965  | .00569  | .73185  | -.04459 | -.04591 | .00488  |
| #4     | .00736  | 8.2852  | .01537  | .74116  | -.04491 | -.07856 | .00479  |
| 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  | .21877 |
| SDev  | .00265 |
| %RSD  | 1.2106 |

|    |        |
|----|--------|
| #1 | .21709 |
| #2 | .22222 |
| #3 | .21942 |
| #4 | .21635 |

|        |         |
|--------|---------|
| Errors | LC Pass |
| High   | 100.00  |
| Low    | -.02000 |

Method: QUANMET Sample Name: DDKFMT Operator: EMF  
 Run Time: 06/04/00 20:26:40  
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP  
 Mode: CONC Corr. Factor: 1

| Elem  | AG      | AL     | AS     | B_     | BA     | BE     | CA     |
|-------|---------|--------|--------|--------|--------|--------|--------|
| Units | ppm     | ppm    | ppm    | ppm    | ppm    | ppm    | ppm    |
| Avg   | -.00451 | .11032 | .12647 | .09602 | .28712 | .00015 | 506.36 |
| SDev  | .00146  | .00487 | .05993 | .00557 | .01326 | .00022 | 30.89  |
| %RSD  | 32.341  | 4.4143 | 47.390 | 5.8020 | 4.6181 | 142.39 | 6.1000 |

|    |         |        |        |        |        |         |        |
|----|---------|--------|--------|--------|--------|---------|--------|
| #1 | -.00376 | .11075 | .16050 | .09068 | .27243 | .00017  | 516.39 |
| #2 | -.00378 | .11588 | .08533 | .09203 | .27994 | -.00016 | 460.97 |
| #3 | -.00669 | .10400 | .19287 | .09906 | .30127 | .00030  | 517.87 |
| #4 | -.00380 | .11065 | .06717 | .10230 | .29486 | .00030  | 530.22 |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| 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    |
| Avg   | .00889 | -.00079 | -.00573 | 6.9133 | .01761 | 3.6704 | .00812 |
| SDev  | .00218 | .00499  | .00755  | .3734  | .00288 | 1.2309 | .00123 |
| %RSD  | 24.536 | 630.46  | 131.82  | 5.4017 | 16.376 | 33.536 | 15.114 |

|    |        |         |          |        |        |        |        |
|----|--------|---------|----------|--------|--------|--------|--------|
| #1 | .01157 | .00258  | -.00346  | 6.4181 | .02054 | 3.9533 | .00890 |
| #2 | .00626 | -.00821 | L-.01677 | 6.8674 | .01403 | 1.8581 | .00657 |
| #3 | .00861 | .00123  | -.00293  | 7.2949 | .01663 | 4.3585 | .00773 |
| #4 | .00911 | .00123  | .00027   | 7.0726 | .01923 | 4.5115 | .00929 |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| 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    |
| Avg   | 17.335 | 4.4221 | .00118 | S728.90 | .36661 | .09625 | .03028 |
| SDev  | .761   | .2199  | .00804 | 1458.0  | .01791 | .06194 | .01471 |
| %RSD  | 4.3922 | 4.9720 | 681.63 | 200.03  | 4.8859 | 64.354 | 48.581 |

|    |        |        |         |          |        |        |        |
|----|--------|--------|---------|----------|--------|--------|--------|
| #1 | 16.780 | 4.4073 | .00000  | S2915.9  | .37336 | .13895 | .03766 |
| #2 | 16.586 | 4.1173 | -.00941 | S-.09350 | .34037 | .00528 | .01789 |
| #3 | 18.087 | 4.5615 | .00471  | S-.09350 | .38074 | .13148 | .01814 |
| #4 | 17.888 | 4.6023 | .00941  | S-.09350 | .37198 | .10930 | .04742 |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| 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     |
| Avg   | .00188  | 9.1332 | .00226 | .73084 | -.03224 | -.02161 | .00119  |
| SDev  | .05171  | .3849  | .02270 | .03332 | .00129  | .09200  | .00721  |
| %RSD  | 2743.7  | 4.2139 | 1004.3 | 4.5587 | 4.0123  | 425.81  | 606.96  |
| #1    | .01464  | 8.9636 | .00729 | .69727 | -.03097 | -.06538 | .00470  |
| #2    | -.06912 | 8.6695 | .01119 | .70774 | -.03129 | -.09947 | -.00962 |

## Analysis Report

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|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | .00734  | 9.4555  | .02120  | .76479  | -.03319 | .10998  | .00479  |
| #4     | .05468  | 9.4442  | -.03064 | .75357  | -.03350 | -.03155 | .00489  |
| 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     2.9254  
SDev     .1319  
%RSD     4.5095

#1       2.9035  
#2       2.7475  
#3       3.0174  
#4       3.0332

Errors    LC Pass  
High      100.00  
Low       -.02000

Method: QUANMET Sample Name: DDKFNT

Operator: EMF

Run Time: 06/04/00 20:29:48

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

| Elem   | AG      | AL      | AS      | B_       | BA      | BE      | CA      |
|--------|---------|---------|---------|----------|---------|---------|---------|
| Units  | ppm     | ppm     | ppm     | ppm      | ppm     | ppm     | ppm     |
| Avge   | -.00325 | .16755  | .12414  | .08663   | .25530  | .00024  | 434.46  |
| SDev   | .00362  | .00979  | .05284  | .00096   | .00276  | .00007  | 2.52    |
| %RSD   | 111.47  | 5.8433  | 42.566  | 1.1072   | 1.0793  | 30.350  | .57969  |
| #1     | -.00796 | .15412  | .18887  | .08744   | .25393  | .00017  | 433.86  |
| #2     | -.00216 | .16925  | .12412  | .08743   | .25420  | .00030  | 435.19  |
| #3     | -.00361 | .16919  | .12412  | .08554   | .25366  | .00030  | 431.38  |
| #4     | .00073  | .17764  | .05944  | .08611   | .25942  | .00017  | 437.40  |
| 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   | .01456  | .00055  | -.00200 | 5.0670   | .01486  | 5.1117  | .00880  |
| SDev   | .00346  | .00234  | .00191  | .0600    | .00240  | .4804   | .00142  |
| %RSD   | 23.782  | 425.61  | 95.764  | 1.1834   | 16.138  | 9.3979  | 16.163  |
| #1     | .01480  | -.00148 | -.00240 | 5.0479   | .01210  | 4.5268  | .00734  |
| #2     | .01205  | .00394  | .00080  | 5.0218   | .01470  | 5.6891  | .01011  |
| #3     | .01202  | -.00012 | -.00346 | 5.0430   | .01470  | 5.2073  | .00994  |
| #4     | .01938  | -.00014 | -.00293 | 5.1553   | .01796  | 5.0238  | .00782  |
| 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   | 17.705  | 3.6753  | .00236  | S728.64  | .52275  | .09999  | .04630  |
| SDev   | .148    | .0252   | .00471  | 1457.5   | .00992  | .03447  | .04086  |
| %RSD   | .83321  | .68456  | 199.80  | 200.03   | 1.8976  | 34.471  | 88.264  |
| #1     | 17.641  | 3.6702  | .00471  | S-.09350 | .51385  | .08695  | .02915  |
| #2     | 17.659  | 3.6682  | .00471  | S2914.8  | .53179  | .14634  | .01951  |
| #3     | 17.597  | 3.6517  | .00471  | S-.09350 | .51448  | .10190  | .10721  |
| #4     | 17.923  | 3.7109  | -.00470 | S-.09350 | .53087  | .06475  | .02932  |
| 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   | -.01724 | 11.065  | .01031  | .71705   | -.02606 | -.00947 | .00475  |
| SDev   | .03193  | .089    | .01498  | .00720   | .00075  | .08232  | .00009  |
| %RSD   | 185.21  | .80608  | 145.36  | 1.0047   | 2.8942  | 869.45  | 1.9429  |
| #1     | -.02908 | 11.027  | -.00676 | .71442   | -.02653 | .09412  | .00479  |
| #2     | .02918  | 11.038  | .00719  | .71251   | -.02622 | -.10221 | .00480  |

## Analysis Report

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|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | -.02543 | 10.999  | .02959  | .71347  | -.02653 | .00676  | .00479  |
| #4     | -.04362 | 11.197  | .01123  | .72779  | -.02495 | -.03655 | .00461  |
| 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  | 5.1925 |
| SDev  | .0338  |
| %RSD  | .65031 |

|    |        |
|----|--------|
| #1 | 5.1776 |
| #2 | 5.1687 |
| #3 | 5.1812 |
| #4 | 5.2425 |

|        |         |
|--------|---------|
| Errors | LC Pass |
| High   | 100.00  |
| Low    | -.02000 |



Method: QUANMET Sample Name: DDKFPT

Operator: EMF

Run Time: 06/04/00 20:32:56

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

| Elem   | AG       | AL      | AS      | B_       | BA      | BE      | CA      |
|--------|----------|---------|---------|----------|---------|---------|---------|
| Units  | ppm      | ppm     | ppm     | ppm      | ppm     | ppm     | ppm     |
| Avge   | -.00456  | .16883  | .15643  | .05184   | .61389  | .00030  | 271.16  |
| SDev   | .00479   | .01275  | .05814  | .00001   | .00717  | .00010  | 1.87    |
| %RSD   | 105.09   | 7.5506  | 37.167  | .01339   | 1.1679  | 34.074  | .68891  |
| #1     | L-.01073 | .15578  | .20680  | .05184   | .62384  | .00017  | 269.13  |
| #2     | .00088   | .18603  | .07730  | .05184   | .61003  | .00030  | 270.14  |
| #3     | -.00493  | .16425  | .19236  | .05184   | .61415  | .00042  | 273.23  |
| #4     | -.00347  | .16925  | .14925  | .05183   | .60755  | .00030  | 272.16  |
| 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   | .01281   | .00205  | -.00027 | 2.2625   | .02156  | 3.5365  | .00371  |
| SDev   | .00283   | .00355  | .00242  | .0310    | .00417  | .1991   | .00063  |
| %RSD   | 22.105   | 173.50  | 902.32  | 1.3696   | 19.327  | 5.6285  | 17.079  |
| #1     | .00960   | -.00301 | -.00346 | 2.3042   | .01798  | 3.2498  | .00292  |
| #2     | .01148   | .00509  | .00133  | 2.2472   | .02580  | 3.6856  | .00391  |
| #3     | .01419   | .00238  | -.00080 | 2.2660   | .02449  | 3.6551  | .00444  |
| #4     | .01598   | .00373  | .00186  | 2.2326   | .01799  | 3.5557  | .00357  |
| 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   | 25.642   | 2.9922  | .00236  | S-.09350 | .05134  | .14633  | .04692  |
| SDev   | .178     | .0141   | .00272  | .00000   | .00558  | .02504  | .03329  |
| %RSD   | .69427   | .47271  | 115.29  | .00000   | 10.865  | 17.111  | 70.948  |
| #1     | 25.832   | 2.9893  | .00471  | S-.09350 | .05549  | .10914  | .03475  |
| #2     | 25.498   | 2.9777  | .00000  | S-.09350 | .05400  | .16128  | .09340  |
| #3     | 25.757   | 3.0116  | .00000  | S-.09350 | .04315  | .16112  | .01513  |
| #4     | 25.483   | 2.9903  | .00471  | S-.09350 | .05272  | .15378  | .04441  |
| 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   | -.03906  | 5.5461  | -.01371 | .37361   | -.01584 | .04929  | .00475  |
| SDev   | .00862   | .0434   | .02033  | .00428   | .00145  | .01861  | .00005  |
| %RSD   | 22.058   | .78298  | 148.26  | 1.1459   | 9.1469  | 37.753  | 1.0837  |
| #1     | -.05090  | 5.5659  | -.01276 | .37905   | -.01766 | .06843  | .00479  |
| #2     | -.03267  | 5.5659  | -.03849 | .37069   | -.01418 | .05732  | .00471  |

## Analysis Report

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|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | -.03268 | 5.5716  | -.01486 | .37499  | -.01545 | .04664  | .00470  |
| #4     | -.03998 | 5.4811  | .01126  | .36974  | -.01608 | .02477  | .00480  |
| 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     1.7807  
SDev     .0067  
%RSD     .37644

#1       1.7815  
#2       1.7710  
#3       1.7857  
#4       1.7846

Errors   LC Pass  
High     100.00  
Low      -.02000

Method: QUANMET Sample Name: DDKFQT Operator: EMF  
 Run Time: 06/04/00 20:36:04  
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP  
 Mode: CONC Corr. Factor: 1

| Elem   | AG      | AL      | AS      | B        | BA      | BE      | CA      |
|--------|---------|---------|---------|----------|---------|---------|---------|
| Units  | ppm     | ppm     | ppm     | ppm      | ppm     | ppm     | ppm     |
| Avge   | -.00326 | .22417  | .17755  | .07737   | .51566  | .00030  | 262.29  |
| SDev   | .00250  | .01538  | .04312  | .01585   | .00678  | .00010  | 2.52    |
| %RSD   | 76.529  | 6.8604  | 24.283  | 20.490   | 1.3154  | 31.704  | .95984  |
| #1     | -.00252 | .22792  | .15953  | .08418   | .50619  | .00030  | 262.42  |
| #2     | -.00687 | .20288  | .15615  | .05370   | .51863  | .00042  | 258.70  |
| #3     | -.00111 | .22629  | .15244  | .08419   | .51589  | .00031  | 263.79  |
| #4     | -.00256 | .23959  | .24208  | .08743   | .52195  | .00019  | 264.26  |
| 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   | .03370  | .01183  | -.00080 | 25.313   | .01588  | 3.2842  | .00706  |
| SDev   | .00397  | .00332  | .00285  | .391     | .00098  | .5307   | .00044  |
| %RSD   | 11.778  | 28.055  | 356.43  | 1.5435   | 6.1529  | 16.161  | 6.2925  |
| #1     | .03320  | .01454  | -.00080 | 24.769   | .01669  | 3.4945  | .00684  |
| #2     | .02830  | .01455  | .00293  | 25.563   | .01474  | 3.9380  | .00773  |
| #3     | .03715  | .01047  | -.00133 | 25.292   | .01669  | 2.8445  | .00684  |
| #4     | .03613  | .00777  | -.00399 | 25.628   | .01539  | 2.8598  | .00684  |
| 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   | 18.021  | 5.4888  | .00236  | S728.48  | .08805  | .50579  | .01304  |
| SDev   | .178    | .0415   | .00272  | 1457.2   | .00317  | .01871  | .02915  |
| %RSD   | .98869  | .75525  | 115.35  | 200.03   | 3.5982  | 3.6996  | 223.55  |
| #1     | 17.763  | 5.4558  | .00471  | S2914.2  | .08826  | .50955  | .00573  |
| #2     | 18.072  | 5.4519  | .00000  | S-.09350 | .08939  | .52441  | .02525  |
| #3     | 18.074  | 5.5120  | .00000  | S-.09350 | .09095  | .50940  | -.02358 |
| #4     | 18.174  | 5.5353  | .00471  | S-.09350 | .08359  | .47978  | .04474  |
| 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   | -.01815 | 8.5947  | .01861  | .49319   | -.01442 | -.03204 | .00240  |
| SDev   | .03887  | .0855   | .00843  | .00581   | .00054  | .04512  | .00272  |
| %RSD   | 214.23  | .99485  | 45.279  | 1.1787   | 3.7535  | 140.81  | 113.55  |
| #1     | -.05819 | 8.4888  | .01507  | .48525   | -.01418 | -.02682 | .00479  |
| #2     | -.03999 | 8.5623  | .02117  | .49504   | -.01513 | -.09224 | .00471  |

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|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | .02919  | 8.6583  | .02893  | .49337  | -.01386 | .01717  | -.00000 |
| #4     | -.00358 | 8.6696  | .00926  | .49910  | -.01449 | -.02627 | .00008  |
| 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     4.3601  
SDev     .0317  
%RSD     .72794

#1       4.3366  
#2       4.3334  
#3       4.3696  
#4       4.4009

Errors    LC Pass  
High      100.00  
Low       -.02000

Method: QUANMET Sample Name: DDKFRT

Operator: EMF

Run Time: 06/04/00 20:39:11

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

| Elem  | AG      | AL     | AS     | B_     | BA     | BE     | CA     |
|-------|---------|--------|--------|--------|--------|--------|--------|
| Units | ppm     | ppm    | ppm    | ppm    | ppm    | ppm    | ppm    |
| Avg   | -.00205 | .15631 | .18981 | .06590 | .31083 | .00024 | 151.47 |
| SDev  | .00139  | .00939 | .06155 | .00153 | .00999 | .00007 | 2.51   |
| %RSD  | 68.098  | 6.0049 | 32.429 | 2.3267 | 3.2142 | 29.243 | 1.6544 |

|    |         |        |        |        |        |        |        |
|----|---------|--------|--------|--------|--------|--------|--------|
| #1 | -.00170 | .14419 | .13163 | .06610 | .30932 | .00019 | 148.34 |
| #2 | -.00022 | .16589 | .14212 | .06475 | .30035 | .00030 | 154.33 |
| #3 | -.00314 | .16094 | .24993 | .06476 | .30924 | .00031 | 152.25 |
| #4 | -.00312 | .15421 | .23555 | .06799 | .32443 | .00017 | 150.97 |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| 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    |
| Avg   | .00530 | -.00117 | -.00053 | 1.1563 | .00306 | 2.7394 | .00321 |
| SDev  | .00184 | .00338  | .00375  | .0471  | .00092 | .6799  | .00075 |
| %RSD  | 34.782 | 288.72  | 702.75  | 4.0744 | 30.077 | 24.818 | 23.246 |

|    |        |         |         |        |        |        |        |
|----|--------|---------|---------|--------|--------|--------|--------|
| #1 | .00693 | -.00556 | -.00453 | 1.1514 | .00241 | 1.9346 | .00213 |
| #2 | .00686 | .00255  | .00453  | 1.1074 | .00306 | 3.5939 | .00381 |
| #3 | .00383 | -.00015 | -.00080 | 1.1457 | .00436 | 2.6534 | .00333 |
| #4 | .00359 | -.00151 | -.00134 | 1.2206 | .00241 | 2.7757 | .00357 |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| 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    |
| Avg   | 11.850 | 1.2138 | -.00118 | S-.09350 | .08787 | .03694 | .01547 |
| SDev  | .254   | .0138  | .00451  | .00000   | .00910 | .03114 | .01591 |
| %RSD  | 2.1442 | 1.1347 | 383.13  | .00000   | 10.357 | 84.292 | 102.84 |

|    |        |        |         |          |        |         |         |
|----|--------|--------|---------|----------|--------|---------|---------|
| #1 | 11.716 | 1.1949 | -.00471 | S-.09350 | .07533 | -.00947 | .01538  |
| #2 | 11.669 | 1.2172 | .00471  | S-.09350 | .08846 | .05001  | .01540  |
| #3 | 11.793 | 1.2153 | .00000  | S-.09350 | .09698 | .05737  | .03505  |
| #4 | 12.224 | 1.2279 | -.00471 | S-.09350 | .09069 | .04987  | -.00393 |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| 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    |
| Avg   | .02368 | 6.8803 | .00110 | .32009 | -.00847 | .00953 | .00203 |
| SDev  | .03038 | .0901  | .01945 | .00887 | .00045  | .04221 | .00313 |
| %RSD  | 128.34 | 1.3090 | 1763.0 | 2.7698 | 5.2868  | 443.07 | 153.91 |

|    |        |        |        |        |         |         |         |
|----|--------|--------|--------|--------|---------|---------|---------|
| #1 | .04734 | 6.8379 | .00310 | .31845 | -.00879 | -.00687 | -.00128 |
| #2 | .00729 | 6.8153 | .01309 | .31105 | -.00784 | .06946  | .00480  |

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|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | -.01091 | 6.8548  | .01519  | .31855  | -.00847 | -.02863 | -.00000 |
| #4     | .05098  | 7.0132  | -.02697 | .33230  | -.00879 | .00415  | .00461  |
| 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  | 1.5859 |
| SDev  | .0157  |
| %RSD  | .98756 |

|    |        |
|----|--------|
| #1 | 1.5683 |
| #2 | 1.5837 |
| #3 | 1.5850 |
| #4 | 1.6064 |

|        |         |
|--------|---------|
| Errors | LC Pass |
| High   | 100.00  |
| Low    | -.02000 |

Method: QUANMET Sample Name: DDKFVT

Operator: EMF

Run Time: 06/04/00 20:42:19

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

|        |         |         |         |          |         |         |         |
|--------|---------|---------|---------|----------|---------|---------|---------|
| Elem   | AG      | AL      | AS      | B__      | BA      | BE      | CA      |
| Units  | ppm     | ppm     | ppm     | ppm      | ppm     | ppm     | ppm     |
| Avg    | -.00392 | .31139  | .10595  | .04359   | .45374  | .00018  | 283.74  |
| SDev   | .00384  | .01194  | .03920  | .00471   | .00628  | .00001  | 1.97    |
| %RSD   | 98.023  | 3.8338  | 36.996  | 10.818   | 1.3843  | 6.0916  | .69532  |
| #1     | -.00177 | .32146  | .08353  | .04021   | .45729  | .00020  | 281.59  |
| #2     | -.00900 | .30475  | .10154  | .03887   | .46004  | .00019  | 283.41  |
| #3     | -.00462 | .29792  | .16254  | .04725   | .45180  | .00017  | 283.60  |
| #4     | -.00028 | .32143  | .07620  | .04802   | .44585  | .00018  | 286.37  |
| 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     |
| Avg    | .00829  | -.00022 | -.00213 | .12273   | .01311  | 2.3074  | .00217  |
| SDev   | .00186  | .00156  | .00165  | .00141   | .00229  | .2574   | .00118  |
| %RSD   | 22.418  | 699.04  | 77.658  | 1.1489   | 17.446  | 11.155  | 54.052  |
| #1     | .01006  | -.00158 | -.00292 | .12395   | .01473  | 1.9575  | .00189  |
| #2     | .00857  | .00113  | -.00399 | .12395   | .01148  | 2.2710  | .00071  |
| #3     | .00568  | -.00157 | -.00133 | .12151   | .01083  | 2.4851  | .00259  |
| #4     | .00886  | .00113  | -.00027 | .12151   | .01539  | 2.5157  | .00350  |
| 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     |
| Avg    | 21.524  | 1.4774  | .00235  | S-.09350 | .01813  | .48689  | .01484  |
| SDev   | .124    | .0033   | .00272  | .00000   | .00785  | .02184  | .00008  |
| %RSD   | .57450  | .22337  | 115.37  | .00000   | 43.286  | 4.4856  | .53414  |
| #1     | 21.581  | 1.4743  | .00471  | S-.09350 | .01300  | .46463  | .01476  |
| #2     | 21.638  | 1.4820  | .00000  | S-.09350 | .01003  | .48693  | .01479  |
| #3     | 21.526  | 1.4762  | .00471  | S-.09350 | .02639  | .47946  | .01492  |
| #4     | 21.352  | 1.4772  | .00000  | S-.09350 | .02309  | .51656  | .01490  |
| 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     |
| Avg    | -.01087 | 4.4366  | .00313  | .29894   | -.01727 | -.00544 | .00092  |
| SDev   | .01572  | .0293   | .00490  | .00345   | .00105  | .05194  | .00422  |
| %RSD   | 144.60  | .66010  | 156.29  | 1.1550   | 6.0624  | 953.95  | 456.68  |
| #1     | -.03271 | 4.4803  | .00313  | .30116   | -.01735 | .04908  | -.00462 |
| #2     | .00368  | 4.4182  | .00913  | .30202   | -.01798 | .02730  | -.00001 |

## Analysis Report

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|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | -.00360 | 4.4239  | -.00286 | .29820  | -.01798 | -.03815 | .00479  |
| #4     | -.01087 | 4.4239  | .00313  | .29438  | -.01576 | -.06001 | .00353  |
| 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  | .54074 |
| SDev  | .00422 |
| %RSD  | .77981 |

|    |        |
|----|--------|
| #1 | .54033 |
| #2 | .54673 |
| #3 | .53884 |
| #4 | .53704 |

|        |         |
|--------|---------|
| Errors | LC Pass |
| High   | 100.00  |
| Low    | -.02000 |



Method: QUANMET Sample Name: CCV2-3

Operator: EMF

Run Time: 06/04/00 20:45:26

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

| Elem   | AG      | AL      | AS      | B_      | BA      | BE      | CA      |
|--------|---------|---------|---------|---------|---------|---------|---------|
| Units  | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     |
| Avge   | .97904  | 47.102  | 4.7962  | 4.7398  | 4.6031  | 4.6339  | 50.674  |
| SDev   | .00257  | .189    | .0209   | .0354   | .0206   | .0162   | .117    |
| %RSD   | .26285  | .40228  | .43610  | .74627  | .44736  | .34945  | .23020  |
| #1     | .97949  | 47.269  | 4.8196  | 4.7571  | 4.6233  | 4.6502  | 50.777  |
| #2     | .97643  | 46.907  | 4.7946  | 4.7285  | 4.5873  | 4.6251  | 50.543  |
| #3     | .98241  | 47.259  | 4.8017  | 4.7774  | 4.6183  | 4.6447  | 50.767  |
| #4     | .97782  | 46.972  | 4.7691  | 4.6960  | 4.5835  | 4.6158  | 50.608  |
| 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   | 4.9595  | 4.8287  | 4.8458  | 4.5879  | 49.796  | 46.508  | 4.5096  |
| SDev   | .0156   | .0171   | .0133   | .0173   | .134    | .379    | .0258   |
| %RSD   | .31403  | .35325  | .27398  | .37646  | .26890  | .81528  | .57241  |
| #1     | 4.9696  | 4.8371  | 4.8615  | 4.6020  | 49.934  | 46.690  | 4.5247  |
| #2     | 4.9527  | 4.8047  | 4.8460  | 4.5751  | 49.704  | 46.078  | L4.4896 |
| #3     | 4.9747  | 4.8438  | 4.8466  | 4.6036  | 49.886  | 46.935  | 4.5382  |
| #4     | 4.9409  | 4.8291  | 4.8290  | 4.5710  | 49.661  | 46.331  | L4.4861 |
| 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   | 46.928  | 4.8318  | 4.8051  | L44.720 | 4.7825  | 4.8803  | 4.8617  |
| SDev   | .194    | .0142   | .0259   | .247    | .0147   | .0299   | .0249   |
| %RSD   | .41331  | .29334  | .53979  | .55258  | .30814  | .61206  | .51143  |
| #1     | 47.132  | 4.8452  | 4.8310  | L44.883 | 4.7643  | 4.8378  | 4.8905  |
| #2     | 46.721  | 4.8238  | 4.7933  | L44.434 | 4.7848  | 4.8816  | 4.8520  |
| #3     | 47.050  | 4.8423  | 4.8216  | L44.964 | 4.8001  | 4.9046  | 4.8328  |
| #4     | 46.811  | 4.8160  | 4.7745  | L44.598 | 4.7808  | 4.8971  | 4.8717  |
| Errors | LC Pass | LC Pass | LC Pass | LC Low  | 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   | 5.0141  | 5.1519  | 4.8697  | 4.6139  | 4.7135  | 9.3761  | 4.7740  |
| SDev   | .0921   | .0380   | .0737   | .0197   | .0137   | .1360   | .0177   |
| %RSD   | 1.8362  | .73705  | 1.5135  | .42592  | .29006  | 1.4505  | .37160  |
| #1     | 5.1448  | 5.0955  | 4.9497  | 4.6329  | 4.7290  | 9.2274  | 4.7859  |
| #2     | 4.9364  | 5.1631  | 4.8377  | 4.5992  | 4.7030  | 9.3391  | 4.7640  |

## Analysis Report

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|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | 4.9662  | 5.1747  | 4.7836  | 4.6288  | 4.7210  | 9.5549  | 4.7916  |
| #4     | 5.0091  | 5.1742  | 4.9077  | 4.5949  | 4.7011  | 9.3830  | 4.7542  |
| 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  | 4.8630 |
| SDev  | .0129  |
| %RSD  | .26492 |

|    |        |
|----|--------|
| #1 | 4.8762 |
| #2 | 4.8532 |
| #3 | 4.8718 |
| #4 | 4.8507 |

|        |         |
|--------|---------|
| Errors | LC Pass |
| High   | 5.5000  |
| Low    | 4.5000  |

Method: QUANMET Sample Name: CCB3

Operator: EMF

Run Time: 06/04/00 20:48:34

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

| Elem   | AG      | AL      | AS      | B_      | BA      | BE      | CA      |
|--------|---------|---------|---------|---------|---------|---------|---------|
| Units  | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     |
| Avge   | -.00218 | -.00763 | .00096  | .03019  | .00007  | .00012  | .01373  |
| SDev   | .00084  | .00910  | .01904  | .00883  | .00030  | .00007  | .00246  |
| %RSD   | 38.513  | 119.35  | 1990.4  | 29.239  | 448.26  | 57.735  | 17.882  |
| #1     | -.00145 | -.00472 | .00003  | .03562  | -.00025 | .00006  | .01274  |
| #2     | -.00145 | -.01975 | -.02137 | .03561  | .00002  | .00006  | .01118  |
| #3     | -.00290 | -.00806 | .02519  | .01715  | .00002  | .00019  | .01401  |
| #4     | -.00290 | .00202  | -.00002 | .03237  | .00048  | .00019  | .01698  |
| 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   | .00119  | -.00068 | .00000  | .00081  | .00081  | .07838  | .00020  |
| SDev   | .00080  | .00322  | .00224  | .00078  | .00195  | .11123  | .00020  |
| %RSD   | 67.699  | 473.32  | 75347.  | 96.107  | 239.77  | 141.91  | 100.00  |
| #1     | .00086  | -.00271 | .00080  | .00020  | .00179  | .05353  | .00031  |
| #2     | .00020  | -.00135 | -.00293 | .00020  | -.00211 | .16058  | -.00010 |
| #3     | .00188  | -.00271 | -.00026 | .00102  | .00179  | .16822  | .00031  |
| #4     | .00180  | .00405  | .00240  | .00184  | .00179  | -.06882 | .00031  |
| 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   | .00311  | .00073  | .01059  | .02266  | -.00161 | .00740  | .00721  |
| SDev   | .00774  | .00049  | .00235  | .00502  | .00365  | .02125  | .00938  |
| %RSD   | 248.73  | 66.403  | 22.223  | 22.145  | 226.02  | 287.06  | 130.17  |
| #1     | -.00062 | .00097  | .00941  | .02395  | .00363  | -.00931 | .01458  |
| #2     | -.00311 | .00000  | .00941  | .01624  | -.00210 | .03518  | .01458  |
| #3     | .00187  | .00097  | .00941  | .02211  | -.00337 | .01289  | -.00501 |
| #4     | .01431  | .00098  | .01412  | .02835  | -.00462 | -.00914 | .00469  |
| 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   | .00364  | .24310  | .01552  | .00009  | .00040  | -.02726 | .00020  |
| SDev   | .03132  | .00979  | .00836  | .00019  | .00052  | .04481  | .00005  |
| %RSD   | 859.47  | 4.0280  | 53.868  | 197.65  | 130.64  | 164.40  | 23.817  |
| #1     | .03641  | .25158  | .01306  | .00018  | .00103  | -.03543 | .00018  |
| #2     | .01820  | .24593  | .00707  | -.00006 | -.00024 | -.07901 | .00018  |

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|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | -.00363 | .22897  | .01497  | -.00006 | .00040  | -.02452 | .00018  |
| #4     | -.03640 | .24593  | .02701  | .00032  | .00040  | .02994  | .00028  |
| 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  | .00165 |
| SDev  | .00088 |
| %RSD  | 53.290 |

|    |        |
|----|--------|
| #1 | .00130 |
| #2 | .00057 |
| #3 | .00237 |
| #4 | .00237 |

|        |         |
|--------|---------|
| Errors | LC Pass |
| High   | .02000  |
| Low    | -.02000 |

Method: QUANMET Sample Name: DDKFWT

Operator: EMF

Run Time: 06/04/00 20:51:41

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

| Elem   | AG      | AL      | AS      | B_       | BA      | BE      | CA      |
|--------|---------|---------|---------|----------|---------|---------|---------|
| Units  | ppm     | ppm     | ppm     | ppm      | ppm     | ppm     | ppm     |
| Avge   | -.00414 | .34692  | .15502  | .06529   | .31342  | .00013  | 92.491  |
| SDev   | .00073  | .00604  | .02056  | .00095   | .00245  | .00007  | .329    |
| %RSD   | 17.659  | 1.7404  | 13.260  | 1.4606   | .78005  | 52.686  | .35547  |
| #1     | -.00452 | .34819  | .15507  | .06672   | .31573  | .00007  | 92.486  |
| #2     | -.00304 | .35157  | .12624  | .06482   | .30997  | .00019  | 92.306  |
| #3     | -.00450 | .34983  | .16576  | .06482   | .31409  | .00006  | 92.955  |
| #4     | -.00449 | .33811  | .17302  | .06481   | .31390  | .00019  | 92.218  |
| 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   | .00430  | -.00050 | -.00066 | .16283   | .03493  | 1.4605  | .00181  |
| SDev   | .00115  | .00203  | .00406  | .00122   | .00150  | .3962   | .00175  |
| %RSD   | 26.620  | 407.00  | 612.44  | .75058   | 4.3025  | 27.128  | 96.640  |
| #1     | .00446  | -.00286 | -.00559 | .16222   | .03363  | 1.0093  | .00031  |
| #2     | .00428  | .00119  | .00080  | .16222   | .03623  | 1.7817  | .00357  |
| #3     | .00564  | -.00152 | -.00186 | .16222   | .03623  | 1.2464  | .00031  |
| #4     | .00284  | .00119  | .00400  | .16466   | .03363  | 1.8046  | .00307  |
| 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   | 10.436  | .74781  | .00471  | S2186.2  | .01501  | 1.3721  | .00498  |
| SDev   | .045    | .00286  | .00384  | 1457.5   | .00174  | .0274   | .00795  |
| %RSD   | .42851  | .38192  | 81.556  | 66.670   | 11.595  | 1.9935  | 159.68  |
| #1     | 10.442  | .74878  | .00471  | S2915.4  | .01643  | 1.3609  | .00497  |
| #2     | 10.375  | .74393  | .00001  | S2915.3  | .01287  | 1.3610  | .01474  |
| #3     | 10.482  | .75072  | .00471  | S-.09350 | .01431  | 1.4128  | -.00473 |
| #4     | 10.447  | .74781  | .00942  | S2914.4  | .01643  | 1.3536  | .00493  |
| 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   | .02925  | 3.7567  | .00954  | .13253   | -.00547 | .00114  | -.00138 |
| SDev   | .04064  | .0000   | .01771  | .00096   | .00041  | .05117  | .00223  |
| %RSD   | 138.94  | .00076  | 185.53  | .72614   | 7.4840  | 4486.5  | 161.90  |
| #1     | .06565  | 3.7567  | .02704  | .13331   | -.00562 | .04481  | -.00462 |
| #2     | -.01443 | 3.7567  | .01509  | .13116   | -.00499 | -.03163 | .00000  |

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|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | .00377  | 3.7567  | -.01499 | .13307  | -.00531 | .04476  | -.00109 |
| #4     | .06201  | 3.7567  | .01105  | .13259  | -.00594 | -.05338 | .00019  |
| 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 .31291  
SDev .00159  
%RSD .50844

#1 .31454  
#2 .31307  
#3 .31329  
#4 .31073

Errors LC Pass  
High 100.00  
Low -.02000

Method: QUANMET Sample Name: DDKFXT Operator: EMF  
Run Time: 06/04/00 20:54:49  
Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP  
Mode: CONC Corr. Factor: 1

| Elem   | AG      | AL      | AS      | B_      | BA      | BE      | CA      |
|--------|---------|---------|---------|---------|---------|---------|---------|
| Units  | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     |
| Avg    | -.00197 | .42888  | .11927  | .02031  | .23101  | .00018  | 62.701  |
| SDev   | .00247  | .01181  | .02036  | .00310  | .00216  | .00001  | .730    |
| %RSD   | 125.43  | 2.7545  | 17.075  | 15.259  | .93574  | 4.0526  | 1.1648  |
| #1     | .00128  | .44188  | .13984  | .02274  | .23287  | .00019  | 63.283  |
| #2     | -.00452 | .43185  | .13275  | .02273  | .23287  | .00019  | 62.210  |
| #3     | -.00160 | .42843  | .09679  | .01627  | .22948  | .00017  | 63.368  |
| #4     | -.00305 | .41337  | .10769  | .01950  | .22883  | .00017  | 61.943  |
| 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     |
| Avg    | .00444  | .00190  | .00106  | .46712  | .04160  | 2.2252  | .00145  |
| SDev   | .00231  | .00174  | .00255  | .00390  | .00098  | .1414   | .00088  |
| %RSD   | 51.937  | 91.546  | 240.07  | .83575  | 2.3457  | 6.3551  | 60.552  |
| #1     | .00374  | -.00012 | -.00133 | .47078  | .04209  | 2.2481  | .00112  |
| #2     | .00215  | .00258  | -.00027 | .46997  | .04014  | 2.0493  | .00095  |
| #3     | .00423  | .00123  | .00133  | .46264  | .04209  | 2.2099  | .00276  |
| #4     | .00763  | .00392  | .00453  | .46508  | .04209  | 2.3934  | .00095  |
| 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     |
| Avg    | 7.1797  | .89742  | .00001  | S1457.5  | .05103  | .99616  | .01756  |
| SDev   | .0320   | .00839  | .00384  | 1683.1   | .00128  | .02292  | .00932  |
| %RSD   | .44513  | .93532  | 61762.  | 115.48   | 2.5041  | 2.3009  | 53.063  |
| #1     | 7.2214  | .90687  | -.00470 | S2914.7  | .05060  | .98313  | .01517  |
| #2     | 7.1717  | .89427  | .00001  | S-.09350 | .05007  | 1.0276  | .00538  |
| #3     | 7.1443  | .90106  | .00001  | S-.09350 | .05291  | .99801  | .02488  |
| #4     | 7.1816  | .88748  | .00471  | S2915.7  | .05054  | .97587  | .02483  |
| 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     |
| Avg   | -.01077 | 4.1511 | .00110  | .10654 | -.00317 | -.01449 | .00235  |
| SDev  | .02927  | .0314  | .01203  | .00089 | .00054  | .02273  | .00277  |
| %RSD  | 271.82  | .75670 | 1093.0  | .83259 | 17.078  | 156.93  | 117.79  |
| #1    | .01108  | 4.1977 | -.00891 | .10729 | -.00246 | -.01985 | -.00009 |
| #2    | .01471  | 4.1412 | -.00895 | .10729 | -.00341 | .01278  | -.00000 |

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|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | -.04717 | 4.1356  | .01513  | .10609  | -.00309 | -.00903 | .00471  |
| #4     | -.02169 | 4.1299  | .00713  | .10552  | -.00372 | -.04184 | .00480  |
| 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  | .70384 |
| SDev  | .00952 |
| %RSD  | 1.3532 |

|    |        |
|----|--------|
| #1 | .71502 |
| #2 | .70715 |
| #3 | .70053 |
| #4 | .69265 |

|        |         |
|--------|---------|
| Errors | LC Pass |
| High   | 100.00  |
| Low    | -.02000 |



Method: QUANMET Sample Name: DDKG3T Operator: EMF  
Run Time: 06/04/00 20:57:57  
Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP  
Mode: CONC Corr. Factor: 1

|        |         |         |         |          |         |         |         |
|--------|---------|---------|---------|----------|---------|---------|---------|
| Elem   | AG      | AL      | AS      | B_       | BA      | BE      | CA      |
| Units  | ppm     | ppm     | ppm     | ppm      | ppm     | ppm     | ppm     |
| Avge   | -.00372 | .17356  | .11599  | .04692   | .68304  | .00019  | 315.04  |
| SDev   | .00167  | .00802  | .06911  | .00422   | .00363  | .00010  | 2.65    |
| %RSD   | 44.941  | 4.6241  | 59.587  | 8.9865   | .53196  | 54.433  | .84207  |
| #1     | -.00227 | .17770  | .17070  | .05063   | .67778  | .00019  | 315.87  |
| #2     | -.00517 | .16271  | .12415  | .04091   | .68602  | .00006  | 315.61  |
| #3     | -.00228 | .18115  | .15272  | .04872   | .68373  | .00031  | 317.44  |
| #4     | -.00517 | .17266  | .01638  | .04740   | .68465  | .00019  | 311.25  |
| 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   | .01664  | .00775  | .00133  | .30410   | .09340  | 3.6474  | .00450  |
| SDev   | .00261  | .00331  | .00257  | .00122   | .00159  | .3409   | .00078  |
| %RSD   | 15.664  | 42.784  | 193.08  | .40112   | 1.7052  | 9.3474  | 17.445  |
| #1     | .01891  | .00639  | .00506  | .30308   | .09210  | 4.0221  | .00564  |
| #2     | .01322  | .01046  | -.00080 | .30471   | .09405  | 3.4410  | .00398  |
| #3     | .01601  | .01045  | .00080  | .30308   | .09536  | 3.8386  | .00398  |
| #4     | .01842  | .00369  | .00027  | .30552   | .09210  | 3.2880  | .00439  |
| 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   | 15.063  | 4.1910  | .00354  | S1458.0  | .13799  | 5.8281  | .06232  |
| SDev   | .053    | .0243   | .00235  | 1683.6   | .00724  | .0303   | .02445  |
| %RSD   | .35214  | .58087  | 66.398  | 115.48   | 5.2475  | .51987  | 39.233  |
| #1     | 15.003  | 4.1881  | .00472  | S2915.9  | .13088  | 5.8206  | .02565  |
| #2     | 15.130  | 4.2046  | .00472  | S-.09350 | .14403  | 5.8134  | .07459  |
| #3     | 15.071  | 4.2133  | .00001  | S-.09350 | .13262  | 5.8727  | .07450  |
| #4     | 15.046  | 4.1581  | .00472  | S2916.1  | .14442  | 5.8058  | .07457  |
| 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   | -.00057 | 9.5685  | -.00362 | .41282   | -.01853 | -.05918 | .00007  |
| SDev   | .03394  | .0438   | .01439  | .00201   | .00030  | .03378  | .00005  |
| %RSD   | 5967.9  | .45767  | 397.21  | .48699   | 1.6366  | 57.068  | 65.312  |
| #1     | -.02515 | 9.5289  | -.02478 | .40990   | -.01861 | -.08916 | .00010  |
| #2     | -.02878 | 9.6307  | .00543  | .41443   | -.01893 | -.07822 | .00009  |

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|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | .00763  | 9.5629  | .00543  | .41372  | -.01830 | -.01276 | .00000  |
| #4     | .04402  | 9.5515  | -.00057 | .41324  | -.01830 | -.05660 | .00009  |
| 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 1.8726  
SDev .0155  
%RSD .82545

#1 1.8644  
#2 1.8870  
#3 1.8840  
#4 1.8549

Errors LC Pass  
High 100.00  
Low -.02000

Method: QUANMET Sample Name: DDKG5T

Operator: EMF

Run Time: 06/04/00 21:01:04

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

| Elem   | AG      | AL      | AS      | B_      | BA      | BE      | CA      |
|--------|---------|---------|---------|---------|---------|---------|---------|
| Units  | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     |
| Avge   | -.00184 | .56558  | .15046  | .02951  | .11120  | .00009  | 60.037  |
| SDev   | .00139  | .01078  | .07687  | .00923  | .00095  | .00006  | .511    |
| %RSD   | 75.761  | 1.9067  | 51.094  | 31.290  | .85236  | 67.124  | .85048  |
| #1     | -.00001 | .57889  | .12069  | .02270  | .11164  | .00005  | 60.172  |
| #2     | -.00149 | .56062  | .22502  | .02080  | .11191  | .00006  | 60.305  |
| #3     | -.00294 | .55391  | .05637  | .03984  | .11145  | .00006  | 60.387  |
| #4     | -.00291 | .56890  | .19975  | .03470  | .10981  | .00017  | 59.282  |
| 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   | .00086  | .00231  | -.00080 | .07348  | .02162  | 1.8696  | .00210  |
| SDev   | .00244  | .00068  | .00282  | .00115  | .00164  | .4546   | .00105  |
| %RSD   | 284.69  | 29.326  | 352.11  | 1.5670  | 7.5707  | 24.317  | 50.176  |
| #1     | .00304  | .00264  | .00293  | .07511  | .02129  | 2.5081  | .00055  |
| #2     | .00148  | .00129  | -.00240 | .07348  | .02389  | 1.8428  | .00276  |
| #3     | .00156  | .00264  | -.00346 | .07267  | .01999  | 1.4528  | .00276  |
| #4     | -.00265 | .00266  | -.00027 | .07267  | .02129  | 1.6746  | .00235  |
| 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   | 1.2910  | .21144  | .00000  | S2915.6 | .00451  | 3.8295  | .01713  |
| SDev   | .0200   | .00210  | .00384  | .8      | .00288  | .0365   | .01229  |
| %RSD   | 1.5502  | .99111  | 118860. | .02794  | 63.818  | .95280  | 71.723  |
| #1     | 1.3134  | .21338  | .00471  | S2914.4 | .00773  | 3.8721  | .03419  |
| #2     | 1.2985  | .21241  | -.00470 | S2915.8 | .00350  | 3.8276  | .01469  |
| #3     | 1.2860  | .21144  | .00000  | S2916.1 | .00106  | 3.8351  | .00486  |
| #4     | 1.2661  | .20853  | .00000  | S2916.0 | .00575  | 3.7832  | .01480  |
| 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   | -.01084 | 1.9420  | .00958  | .07350  | -.00103 | -.02087 | .00235  |
| SDev   | .04087  | .0113   | .02678  | .00057  | .00041  | .04742  | .00277  |
| %RSD   | 376.94  | .58120  | 279.47  | .77314  | 39.723  | 227.18  | 118.01  |
| #1     | -.01084 | 1.9477  | .01516  | .07386  | -.00055 | -.06721 | .00480  |
| #2     | .03285  | 1.9476  | .01907  | .07362  | -.00119 | .04183  | -.00010 |

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|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | -.06546 | 1.9476  | .03302  | .07386  | -.00150 | -.04537 | -.00001 |
| #4     | .00008  | 1.9251  | -.02891 | .07267  | -.00087 | -.01273 | .00470  |
| 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  | .08703 |
| SDev  | .00150 |
| %RSD  | 1.7253 |

|    |        |
|----|--------|
| #1 | .08920 |
| #2 | .08687 |
| #3 | .08614 |
| #4 | .08592 |

|        |         |
|--------|---------|
| Errors | LC Pass |
| High   | 100.00  |
| Low    | -.02000 |

Method: QUANMET Sample Name: DDRLVT

Operator: EMF

Run Time: 06/04/00 21:04:12

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

| Elem   | AG      | AL      | AS      | B_       | BA      | BE      | CA      |
|--------|---------|---------|---------|----------|---------|---------|---------|
| Units  | ppm     | ppm     | ppm     | ppm      | ppm     | ppm     | ppm     |
| Avge   | -.00060 | .64925  | .15315  | .07625   | .17150  | .00043  | 9.5065  |
| SDev   | .00188  | .01290  | .04364  | .00670   | .00168  | .00010  | .1108   |
| %RSD   | 316.06  | 1.9875  | 28.491  | 8.7806   | .97713  | 23.584  | 1.1651  |
| #1     | .00013  | .66769  | .10095  | .07230   | .16997  | .00043  | 9.6688  |
| #2     | .00160  | .64581  | .13339  | .07420   | .17015  | .00042  | 9.4692  |
| #3     | -.00133 | .63756  | .19096  | .08620   | .17317  | .00031  | 9.4690  |
| #4     | -.00278 | .64593  | .18731  | .07230   | .17271  | .00056  | 9.4190  |
| 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   | .00985  | .00697  | .01145  | .01046   | .86368  | 1.6670  | .00654  |
| SDev   | .00194  | .00170  | .00298  | .00047   | .00358  | .2514   | .00060  |
| %RSD   | 19.643  | 24.366  | 26.030  | 4.4925   | .41448  | 15.080  | 9.1827  |
| #1     | .00735  | .00664  | .01571  | .01086   | .86595  | 1.7817  | .00564  |
| #2     | .01010  | .00528  | .00879  | .01005   | .85945  | 1.5828  | .00684  |
| #3     | .01207  | .00933  | .01039  | .01005   | .86725  | 1.3611  | .00684  |
| #4     | .00989  | .00663  | .01092  | .01086   | .86205  | 1.9422  | .00684  |
| 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   | 2.0706  | .41779  | .00131  | S2186.8  | .05237  | .01821  | .01987  |
| SDev   | .0271   | .00257  | .00451  | 1457.9   | .00356  | .02210  | .00979  |
| %RSD   | 1.3070  | .61413  | 345.08  | 66.670   | 6.7956  | 121.36  | 49.281  |
| #1     | 2.0923  | .42118  | -.00458 | S2915.5  | .04789  | .01263  | .01487  |
| #2     | 2.0326  | .41536  | .00483  | S2915.7  | .05305  | .01263  | .03455  |
| #3     | 2.0874  | .41827  | .00484  | S2915.9  | .05198  | -.00210 | .01498  |
| #4     | 2.0699  | .41633  | .00013  | S-.09350 | .05654  | .04968  | .01506  |
| 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   | -.01141 | 2.3957  | .02622  | .26938   | .00776  | -.01753 | .00152  |
| SDev   | .03187  | .0054   | .01994  | .00277   | .00101  | .04018  | .00225  |
| %RSD   | 279.42  | .22676  | 76.054  | 1.0296   | 13.068  | 229.14  | 148.45  |
| #1     | -.05509 | 2.3999  | .05518  | .26754   | .00863  | .03426  | .00112  |
| #2     | .02135  | 2.4000  | .01529  | .26655   | .00863  | -.02024 | .00481  |

## Analysis Report

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|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | -.00411 | 2.3886  | .02320  | .27232  | .00673  | -.02030 | .00011  |
| #4     | -.00777 | 2.3942  | .01120  | .27113  | .00705  | -.06385 | .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  | .12875 |
| SDev  | .00312 |
| %RSD  | 2.4211 |

|    |        |
|----|--------|
| #1 | .13155 |
| #2 | .12646 |
| #3 | .13132 |
| #4 | .12567 |

|        |         |
|--------|---------|
| Errors | LC Pass |
| High   | 100.00  |
| Low    | -.02000 |

Method: QUANMET Sample Name: DE<sup>0</sup>22T Operator: EMF  
 Run Time: 06/04/00 21:07:20 *auF6420*  
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP  
 Mode: CONC Corr. Factor: 1

| Elem   | AG      | AL      | AS      | B_       | BA      | BE      | CA      |
|--------|---------|---------|---------|----------|---------|---------|---------|
| Units  | ppm     | ppm     | ppm     | ppm      | ppm     | ppm     | ppm     |
| Avge   | -.00324 | 1.1202  | .11331  | .01034   | 1.1629  | .00052  | 278.62  |
| SDev   | .00073  | .0080   | .06578  | .00266   | .0066   | .00006  | 1.23    |
| %RSD   | 22.631  | .71580  | 58.055  | 25.740   | .56699  | 11.173  | .44211  |
| #1     | -.00434 | 1.1139  | .05507  | .01063   | 1.1618  | .00043  | 279.38  |
| #2     | -.00286 | 1.1307  | .18049  | .01328   | 1.1638  | .00055  | 279.76  |
| #3     | -.00289 | 1.1140  | .05866  | .00682   | 1.1709  | .00056  | 278.34  |
| #4     | -.00286 | 1.1224  | .15902  | .01062   | 1.1549  | .00055  | 277.01  |
| 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   | .00038  | -.00158 | .00546  | .01528   | .17535  | 1.6459  | .00039  |
| SDev   | .00220  | .00231  | .00243  | .00105   | .00119  | .3713   | .00010  |
| %RSD   | 573.43  | 146.14  | 44.579  | 6.8933   | .67712  | 22.561  | 24.870  |
| #1     | .00336  | -.00463 | .00293  | .01405   | .17405  | 1.4605  | .00047  |
| #2     | .00068  | .00078  | .00665  | .01650   | .17470  | 2.2022  | .00031  |
| #3     | -.00160 | -.00192 | .00399  | .01487   | .17600  | 1.4376  | .00031  |
| #4     | -.00090 | -.00056 | .00825  | .01569   | .17665  | 1.4834  | .00047  |
| 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   | 12.035  | .14576  | -.00115 | S2186.3  | .00833  | .00120  | .01466  |
| SDev   | .033    | .00093  | .00592  | 1457.6   | .00529  | .01766  | .00007  |
| %RSD   | .27034  | .63784  | 514.78  | 66.670   | 63.456  | 1469.2  | .46390  |
| #1     | 12.044  | .14552  | .00473  | S2914.4  | .01030  | -.00999 | .01461  |
| #2     | 12.059  | .14649  | .00003  | S2915.6  | .00502  | -.00244 | .01461  |
| #3     | 12.049  | .14649  | .00003  | S2915.3  | .01485  | -.00992 | .01475  |
| #4     | 11.987  | .14454  | -.00939 | S-.09350 | .00317  | .02716  | .01468  |
| 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   | -.03212 | 5.1235  | .02114  | 1.8044   | -.01283 | .01809  | .00234  |
| SDev   | .03853  | .0408   | .01624  | .0097    | .00054  | .03446  | .00264  |
| %RSD   | 119.94  | .79716  | 76.825  | .53620   | 4.2169  | 190.54  | 112.92  |
| #1     | -.01029 | 5.1814  | .03713  | 1.8044   | -.01291 | -.02547 | .00010  |
| #2     | -.08310 | 5.1136  | .03313  | 1.8054   | -.01259 | .03987  | .00472  |

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|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | .00428  | 5.1136  | .00715  | 1.8157  | -.01354 | .05081  | .00001  |
| #4     | -.03940 | 5.0854  | .00714  | 1.7920  | -.01228 | .00714  | .00454  |
| 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  | .09140 |
| SDev  | .00153 |
| %RSD  | 1.6715 |

|    |        |
|----|--------|
| #1 | .09041 |
| #2 | .09149 |
| #3 | .09017 |
| #4 | .09352 |

|        |         |
|--------|---------|
| Errors | LC Pass |
| High   | 100.00  |
| Low    | -.02000 |



Method: QUANMET Sample Name: DE<sup>0</sup>22P5T Operator: EMF  
Run Time: 06/04/00 21:10:27 *Paul 640*  
Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP  
Mode: CONC Corr. Factor: 1

| Elem  | AG      | AL     | AS     | B      | BA     | BE     | CA     |
|-------|---------|--------|--------|--------|--------|--------|--------|
| Units | ppm     | ppm    | ppm    | ppm    | ppm    | ppm    | ppm    |
| Avge  | -.00326 | .20901 | .02333 | .01116 | .23825 | .00009 | 55.505 |
| SDev  | .00183  | .00970 | .05708 | .00582 | .00273 | .00012 | .360   |
| %RSD  | 55.982  | 4.6391 | 244.61 | 52.132 | 1.1474 | 127.66 | .64866 |

|    |         |        |         |        |        |         |        |
|----|---------|--------|---------|--------|--------|---------|--------|
| #1 | -.00290 | .20946 | .08077  | .00844 | .23543 | .00019  | 55.037 |
| #2 | -.00145 | .21946 | .03042  | .00845 | .23653 | .00019  | 55.635 |
| #3 | -.00580 | .19603 | -.05553 | .00788 | .23974 | -.00006 | 55.456 |
| #4 | -.00290 | .21108 | .03767  | .01988 | .24130 | .00006  | 55.893 |

| Elem  | CD      | CO      | CR      | CU     | FE     | K       | LI      |
|-------|---------|---------|---------|--------|--------|---------|---------|
| Units | ppm     | ppm     | ppm     | ppm    | ppm    | ppm     | ppm     |
| Avge  | -.00000 | -.00079 | .00067  | .00326 | .03526 | .30204  | .00035  |
| SDev  | .00145  | .00281  | .00329  | .00139 | .00268 | .49546  | .00184  |
| %RSD  | 35665.  | 354.96  | 495.07  | 42.744 | 7.6069 | 164.04  | 529.24  |
| #1    | .00180  | .00258  | .00506  | .00509 | .03299 | .82583  | .00216  |
| #2    | .00053  | -.00012 | .00133  | .00346 | .03689 | .58114  | .00055  |
| #3    | -.00112 | -.00417 | -.00187 | .00183 | .03299 | -.27528 | -.00222 |
| #4    | -.00124 | -.00147 | -.00186 | .00265 | .03819 | .07647  | .00091  |

| Elem  | MG     | MN     | MO      | NA     | NI      | PB      | SB      |
|-------|--------|--------|---------|--------|---------|---------|---------|
| Units | ppm    | ppm    | ppm     | ppm    | ppm     | ppm     | ppm     |
| Avge  | 2.4750 | .03007 | -.00117 | 218.09 | .00185  | -.00013 | .00733  |
| SDev  | .0179  | .00000 | .00235  | 4.25   | .00450  | .00930  | .00936  |
| %RSD  | .72219 | .00401 | 200.92  | 1.9475 | 243.09  | 7180.4  | 127.69  |
| #1    | 2.4681 | .03007 | .00000  | 214.05 | .00575  | -.00928 | .01465  |
| #2    | 2.4930 | .03007 | .00001  | 214.80 | -.00204 | .01284  | .00483  |
| #3    | 2.4532 | .03007 | -.00470 | 221.84 | -.00205 | -.00208 | -.00486 |
| #4    | 2.4855 | .03007 | .00001  | 221.68 | .00575  | -.00199 | .01471  |

| Elem  | SE      | SI     | SN      | SR     | TI      | TL      | V       |
|-------|---------|--------|---------|--------|---------|---------|---------|
| Units | ppm     | ppm    | ppm     | ppm    | ppm     | ppm     | ppm     |
| Avge  | -.01989 | 1.0841 | .00505  | .36892 | -.00269 | -.00837 | -.00002 |
| SDev  | .03574  | .0334  | .00713  | .00501 | .00054  | .05939  | .00005  |
| %RSD  | 179.65  | 3.0816 | 141.34  | 1.3576 | 20.092  | 709.91  | 230.50  |
| #1    | -.06177 | 1.0713 | .01108  | .36353 | -.00277 | .04069  | .00001  |
| #2    | .02198  | 1.0600 | .01103  | .36615 | -.00246 | -.09016 | .00000  |
| #3    | -.03265 | 1.0713 | -.00300 | .37141 | -.00341 | -.01377 | -.00009 |
| #4    | -.00714 | 1.1335 | .00108  | .37461 | -.00214 | .02977  | -.00000 |

| Elem  | ZN     |
|-------|--------|
| Units | ppm    |
| Avge  | .02101 |
| SDev  | .00086 |
| %RSD  | 4.0771 |

|    |        |
|----|--------|
| #1 | .02038 |
| #2 | .02199 |
| #3 | .02020 |

#4 .02145

Method: QUANMET Sample Name: DEQ22ST  
 Run Time: 06/04/00 21:13:35  
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP  
 Mode: CONC Corr. Factor: 1

| Elem   | AG      | AL      | AS      | B_      | BA      | BE      | CA      |
|--------|---------|---------|---------|---------|---------|---------|---------|
| Units  | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     |
| Avge   | .91853  | 1.0324  | 4.7690  | .01132  | 42.911  | .00055  | 247.77  |
| SDev   | .00724  | .0240   | .0921   | .00226  | .860    | .00010  | 1.10    |
| %RSD   | .78767  | 2.3252  | 1.9308  | 19.953  | 2.0048  | 17.478  | .44243  |
| #1     | .92395  | 1.0421  | 4.8911  | .01327  | 44.149  | .00044  | 246.18  |
| #2     | .91382  | 1.0053  | 4.7477  | .00927  | 42.421  | .00055  | 248.64  |
| #3     | .91092  | 1.0219  | 4.6686  | .00946  | 42.248  | .00055  | 248.28  |
| #4     | .92543  | 1.0605  | 4.7688  | .01328  | 42.826  | .00067  | 248.00  |
| 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   | .95904  | -.00123 | 4.3747  | .01487  | .16690  | 1.7396  | .00096  |
| SDev   | .01138  | .00310  | .0087   | .00094  | .00493  | .5465   | .00131  |
| %RSD   | 1.1870  | 251.64  | .19891  | 6.3349  | 2.9533  | 31.417  | 136.25  |
| #1     | .95137  | -.00454 | 4.3798  | .01405  | .16365  | .95582  | .00031  |
| #2     | .97595  | -.00103 | 4.3814  | .01406  | .16365  | 1.8352  | .00031  |
| #3     | .95516  | -.00224 | 4.3622  | .01568  | .16625  | 1.9499  | .00031  |
| #4     | .95367  | .00287  | 4.3755  | .01569  | .17407  | 2.2175  | .00292  |
| 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   | 11.101  | .13169  | .00120  | S2916.9 | .00778  | 4.5118  | .03004  |
| SDev   | .147    | .00093  | .00235  | .5      | .00632  | .0290   | .03506  |
| %RSD   | 1.3265  | .70533  | 195.84  | .01650  | 81.285  | .64195  | 116.71  |
| #1     | 11.288  | .13194  | .00002  | S2916.5 | .01393  | 4.5488  | .03727  |
| #2     | 10.987  | .13097  | .00002  | S2917.5 | -.00099 | 4.5192  | -.00176 |
| #3     | 10.979  | .13097  | .00473  | S2917.3 | .01003  | 4.4821  | .00825  |
| #4     | 11.149  | .13291  | .00003  | S2916.5 | .00815  | 4.4971  | .07641  |
| 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   | .99724  | 4.5807  | .01370  | 1.6638  | -.01093 | -.00917 | .00280  |
| SDev   | .05668  | .0588   | .03502  | .0289   | .00166  | .03147  | .00236  |
| %RSD   | 5.6835  | 1.2835  | 255.50  | 1.7369  | 15.223  | 343.22  | 84.345  |
| #1     | 1.0091  | 4.6612  | .05522  | 1.7054  | -.01196 | -.01453 | -.00074 |
| #2     | .91805  | 4.5199  | -.00893 | 1.6474  | -.01196 | .02901  | .00397  |

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|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | 1.0091  | 4.5708  | -.02088 | 1.6415  | -.01133 | -.04733 | .00402  |
| #4     | 1.0528  | 4.5708  | .02941  | 1.6608  | -.00847 | -.00383 | .00395  |
| 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  | .08338 |
| SDev  | .00261 |
| %RSD  | 3.1326 |

|    |        |
|----|--------|
| #1 | .08530 |
| #2 | .07952 |
| #3 | .08435 |
| #4 | .08436 |

|        |         |
|--------|---------|
| Errors | LC Pass |
| High   | 100.00  |
| Low    | -.02000 |

Method: QUANMET Sample Name: DEQ22DT <sup>0</sup>  
 Run Time: 06/04/00 21:16:43 *auf 6400* Operator: EMF  
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP  
 Mode: CONC Corr. Factor: 1

| Elem   | AG      | AL      | AS      | B_      | BA      | BE      | CA      |
|--------|---------|---------|---------|---------|---------|---------|---------|
| Units  | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     |
| Avge   | .86268  | 1.0019  | 4.5082  | .01427  | 41.462  | .00058  | 232.48  |
| SDev   | .00965  | .0142   | .0854   | .00066  | 1.038   | .00006  | 1.44    |
| %RSD   | 1.1190  | 1.4203  | 1.8953  | 4.6379  | 2.5046  | 10.026  | .61974  |
| #1     | .85723  | .99022  | 4.4320  | .01460  | 41.078  | .00056  | 231.28  |
| #2     | .85435  | .99360  | 4.6006  | .01459  | 40.813  | .00067  | 231.99  |
| #3     | .86304  | 1.0019  | 4.4391  | .01460  | 40.945  | .00056  | 232.06  |
| #4     | .87611  | 1.0220  | 4.5609  | .01327  | 43.011  | .00055  | 234.57  |
| 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   | .89468  | -.00337 | 4.1119  | .01426  | .16122  | 1.5656  | .00184  |
| SDev   | .01229  | .00354  | .0428   | .00122  | .00144  | .6124   | .00059  |
| %RSD   | 1.3737  | 104.85  | 1.0405  | 8.5879  | .89422  | 39.113  | 32.162  |
| #1     | .88550  | -.00552 | 4.0864  | .01324  | .15911  | 1.4605  | .00153  |
| #2     | .89156  | .00135  | 4.0896  | .01569  | .16236  | 2.3016  | .00273  |
| #3     | .88894  | -.00276 | 4.0960  | .01487  | .16171  | 1.6822  | .00153  |
| #4     | .91274  | -.00657 | 4.1758  | .01324  | .16170  | .81818  | .00158  |
| 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   | 10.471  | .12490  | .00002  | S2917.3 | .00774  | 4.1616  | .02003  |
| SDev   | .168    | .00093  | .00384  | .1      | .00458  | .0565   | .01982  |
| %RSD   | 1.6046  | .74294  | 15938.  | .00482  | 59.167  | 1.3570  | 98.979  |
| #1     | 10.384  | .12418  | .00002  | S2917.4 | .00384  | 4.1263  | .02997  |
| #2     | 10.384  | .12418  | .00002  | S2917.4 | .00832  | 4.1265  | .02997  |
| #3     | 10.392  | .12515  | .00473  | S2917.1 | .00483  | 4.1486  | .02986  |
| #4     | 10.723  | .12611  | -.00468 | S2917.4 | .01398  | 4.2448  | -.00971 |
| 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   | .94079  | 4.3743  | -.00434 | 1.6230  | -.00927 | -.01185 | .00137  |
| SDev   | .04113  | .0730   | .00999  | .0374   | .00098  | .07927  | .00243  |
| %RSD   | 4.3715  | 1.6699  | 230.26  | 2.3023  | 10.629  | 669.14  | 176.77  |
| #1     | .89254  | 4.3615  | -.01479 | 1.6084  | -.00911 | -.06903 | -.00132 |
| #2     | .95081  | 4.2994  | .00920  | 1.6005  | -.00879 | .06168  | .00339  |

## Analysis Report

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|    |        |        |         |        |         |         |         |
|----|--------|--------|---------|--------|---------|---------|---------|
| #3 | .92896 | 4.3616 | -.00480 | 1.6042 | -.00847 | .05085  | -.00004 |
| #4 | .99085 | 4.4747 | -.00697 | 1.6788 | -.01069 | -.09088 | .00347  |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| 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  | .08038 |
| SDev  | .00252 |
| %RSD  | 3.1322 |

|    |        |
|----|--------|
| #1 | .07671 |
| #2 | .08203 |
| #3 | .08076 |
| #4 | .08203 |

|        |         |
|--------|---------|
| Errors | LC Pass |
| High   | 100.00  |
| Low    | -.02000 |

Method: QUANMET Sample Name: CCV2-4

Operator: EMF

Run Time: 06/04/00 21:19:51

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

| Elem  | AG     | AL     | AS     | B_     | BA     | BE     | CA     |
|-------|--------|--------|--------|--------|--------|--------|--------|
| Units | ppm    | ppm    | ppm    | ppm    | ppm    | ppm    | ppm    |
| Avg   | .96722 | 46.461 | 4.7681 | 4.6894 | 4.5096 | 4.5342 | 49.938 |
| SDev  | .00495 | .124   | .0314  | .0235  | .0209  | .0199  | .293   |
| %RSD  | .51157 | .26712 | .65950 | .50094 | .46363 | .43843 | .58757 |

|    |        |        |        |        |         |        |        |
|----|--------|--------|--------|--------|---------|--------|--------|
| #1 | .97030 | 46.467 | 4.7745 | 4.7008 | 4.5065  | 4.5466 | 50.332 |
| #2 | .97014 | 46.603 | 4.8099 | 4.6950 | 4.5347  | 4.5509 | 49.785 |
| #3 | .96854 | 46.300 | 4.7412 | 4.6549 | L4.4839 | 4.5069 | 49.977 |
| #4 | .95989 | 46.474 | 4.7467 | 4.7068 | 4.5134  | 4.5322 | 49.658 |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| 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    |
| Avg   | 4.8975 | 4.7534 | 4.7623 | 4.5239 | 49.034 | 46.334 | 4.5025 |
| SDev  | .0272  | .0243  | .0172  | .0221  | .156   | .210   | .0461  |
| %RSD  | .55611 | .51131 | .36043 | .48849 | .31720 | .45266 | 1.0242 |

|    |        |        |        |         |        |        |         |
|----|--------|--------|--------|---------|--------|--------|---------|
| #1 | 4.9358 | 4.7833 | 4.7853 | 4.5148  | 49.237 | 46.055 | L4.4432 |
| #2 | 4.8788 | 4.7591 | 4.7609 | 4.5473  | 49.073 | 46.292 | 4.5212  |
| #3 | 4.8979 | 4.7456 | 4.7593 | L4.4976 | 48.893 | 46.514 | L4.4939 |
| #4 | 4.8773 | 4.7254 | 4.7438 | 4.5358  | 48.934 | 46.476 | 4.5519  |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| 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    |
| Avg   | 46.253 | 4.7574 | 4.7297 | L44.441 | 4.6735 | 4.8340 | 4.7273 |
| SDev  | .084   | .0191  | .0190  | .353    | .0136  | .0431  | .0786  |
| %RSD  | .18225 | .40201 | .40241 | .79479  | .29001 | .89203 | 1.6625 |

|    |        |        |        |         |        |        |        |
|----|--------|--------|--------|---------|--------|--------|--------|
| #1 | 46.338 | 4.7829 | 4.7556 | L43.970 | 4.6770 | 4.8961 | 4.8320 |
| #2 | 46.251 | 4.7596 | 4.7132 | L44.559 | 4.6565 | 4.8285 | 4.6955 |
| #3 | 46.139 | 4.7489 | 4.7320 | L44.420 | 4.6714 | 4.7987 | 4.6467 |
| #4 | 46.286 | 4.7382 | 4.7179 | L44.813 | 4.6892 | 4.8129 | 4.7350 |

|        |         |         |         |        |         |         |         |
|--------|---------|---------|---------|--------|---------|---------|---------|
| Errors | LC Pass | LC Pass | LC Pass | LC Low | 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    |
| Avg   | 4.8985 | 4.8964 | 4.7992 | 4.5225 | 4.6357 | 9.3411 | 4.6929 |
| SDev  | .0785  | .0169  | .0537  | .0188  | .0154  | .2113  | .0203  |
| %RSD  | 1.6022 | .34515 | 1.1197 | .41640 | .33236 | 2.2621 | .43184 |

|    |        |        |        |        |        |        |        |
|----|--------|--------|--------|--------|--------|--------|--------|
| #1 | 4.9529 | 4.9194 | 4.8657 | 4.5244 | 4.6482 | 9.5513 | 4.7208 |
| #2 | 4.9559 | 4.8965 | 4.8170 | 4.5443 | 4.6488 | 9.3352 | 4.6941 |

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|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | 4.8970  | 4.8792  | 4.7709  | L4.4984 | 4.6174  | 9.4245  | 4.6745  |
| #4     | 4.7880  | 4.8907  | 4.7433  | 4.5228  | 4.6285  | 9.0534  | 4.6824  |
| 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  | 4.8034 |
| SDev  | .0101  |
| %RSD  | .21091 |

|    |        |
|----|--------|
| #1 | 4.8186 |
| #2 | 4.7977 |
| #3 | 4.7976 |
| #4 | 4.7999 |

|        |         |
|--------|---------|
| Errors | LC Pass |
| High   | 5.5000  |
| Low    | 4.5000  |



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## Analysis Report

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Method: QUANMET Sample Name: CCB4

Operator: EMF

Run Time: 06/04/00 21:22:59

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

| Elem   | AG      | AL      | AS      | B_      | BA      | BE      | CA      |
|--------|---------|---------|---------|---------|---------|---------|---------|
| Units  | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     |
| Avge   | -.00217 | -.00729 | .02068  | .02648  | .00085  | .00043  | .01263  |
| SDev   | .00302  | .01041  | .01286  | .00765  | .00027  | .00010  | .00342  |
| %RSD   | 139.11  | 142.77  | 62.190  | 28.881  | 31.996  | 22.732  | 27.053  |
| #1     | -.00289 | -.00490 | .01434  | .03239  | .00112  | .00055  | .01123  |
| #2     | .00145  | .00361  | .03944  | .01524  | .00085  | .00043  | .01751  |
| #3     | -.00145 | -.00646 | .01081  | .02915  | .00094  | .00043  | .01216  |
| #4     | -.00580 | -.02143 | .01812  | .02914  | .00048  | .00031  | .00963  |
| 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   | .00129  | -.00068 | .00040  | .00061  | .00423  | .13190  | .00020  |
| SDev   | .00130  | .00259  | .00165  | .00081  | .00082  | .34426  | .00020  |
| %RSD   | 100.68  | 379.84  | 407.72  | 133.60  | 19.382  | 260.99  | 100.00  |
| #1     | -.00021 | -.00406 | -.00186 | .00020  | .00504  | -.32116 | .00031  |
| #2     | .00265  | .00134  | .00187  | .00183  | .00439  | .51232  | .00031  |
| #3     | .00205  | -.00136 | .00134  | .00020  | .00439  | .20646  | .00031  |
| #4     | .00068  | .00135  | .00027  | .00021  | .00309  | .12999  | -.00010 |
| 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   | .00809  | .00122  | .01882  | .03083  | .00423  | -.00185 | .01215  |
| SDev   | .00321  | .00049  | .00384  | .00345  | .00400  | .03207  | .01669  |
| %RSD   | 39.723  | 39.847  | 20.412  | 11.184  | 94.647  | 1732.5  | 137.29  |
| #1     | .00933  | .00195  | .02353  | .03166  | .00574  | -.04640 | .00481  |
| #2     | .01182  | .00098  | .01882  | .03239  | .00773  | .02786  | .03414  |
| #3     | .00684  | .00098  | .01882  | .03349  | .00494  | .01292  | -.00494 |
| #4     | .00436  | .00098  | .01412  | .02578  | -.00151 | -.00178 | .01460  |
| 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   | .00548  | .07633  | -.00994 | .00033  | .00079  | .00541  | .00095  |
| SDev   | .02154  | .00922  | .00809  | .00024  | .00054  | .02418  | .00123  |
| %RSD   | 393.31  | 12.076  | 81.354  | 71.040  | 68.313  | 446.61  | 129.61  |
| #1     | -.00726 | .06505  | -.00298 | .00004  | .00103  | .01905  | .00280  |
| #2     | .03642  | .08763  | -.00484 | .00028  | .00135  | -.00278 | .00037  |

## Analysis Report

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|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | .00366  | .07632  | -.01102 | .00042  | .00071  | -.02456 | .00037  |
| #4     | -.01091 | .07632  | -.02092 | .00060  | .00008  | .02994  | .00027  |
| 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  | .00107 |
| SDev  | .00076 |
| %RSD  | 70.787 |

|    |        |
|----|--------|
| #1 | .00183 |
| #2 | .00030 |
| #3 | .00055 |
| #4 | .00162 |

|        |         |
|--------|---------|
| Errors | LC Pass |
| High   | .02000  |
| Low    | -.02000 |

Method: QUANMET Sample Name: DE3JCBT

Operator: EMF

Run Time: 06/04/00 21:26:07

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

| Elem   | AG      | AL      | AS      | B_      | BA      | BE      | CA      |
|--------|---------|---------|---------|---------|---------|---------|---------|
| Units  | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     |
| Avge   | .00000  | -.01008 | .02968  | .01759  | -.00009 | .00003  | .05865  |
| SDev   | .00265  | .01224  | .04697  | .01422  | .00023  | .00006  | .00548  |
| %RSD   | 68391.  | 121.51  | 158.25  | 80.849  | 242.86  | 200.00  | 9.3426  |
| #1     | .00291  | .00210  | .04304  | .02916  | .00002  | .00006  | .06220  |
| #2     | -.00145 | -.01973 | .00014  | .01202  | .00002  | .00006  | .05865  |
| #3     | .00145  | -.00122 | -.01437 | .02916  | .00002  | .00006  | .06284  |
| #4     | -.00290 | -.02146 | .08990  | .00003  | -.00044 | -.00006 | .05091  |
| 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   | .00090  | .00067  | .00107  | .00122  | .01398  | .03823  | .00041  |
| SDev   | .00274  | .00357  | .00182  | .00103  | .00163  | .42839  | .00012  |
| %RSD   | 303.31  | 530.56  | 170.42  | 84.005  | 11.644  | 1120.5  | 29.753  |
| #1     | .00483  | .00404  | .00187  | .00265  | .01610  | .35939  | .00055  |
| #2     | -.00133 | .00000  | .00080  | .00102  | .01349  | .12999  | .00031  |
| #3     | .00066  | .00270  | .00293  | .00102  | .01414  | .25234  | .00031  |
| #4     | -.00054 | -.00405 | -.00133 | .00020  | .01219  | -.58879 | .00047  |
| 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   | .00995  | .00025  | .00588  | .05166  | -.00046 | .00004  | .01216  |
| SDev   | .01470  | .00048  | .00451  | .00658  | .00519  | .01407  | .01847  |
| %RSD   | 147.73  | 194.48  | 76.565  | 12.743  | 1138.1  | 37455.  | 151.81  |
| #1     | .02426  | .00001  | .00471  | .06028  | .00628  | .02051  | .02441  |
| #2     | .01431  | .00001  | .00941  | .04634  | -.00078 | -.00922 | .02432  |
| #3     | .01182  | .00097  | .00000  | .05331  | -.00093 | -.00921 | -.01466 |
| #4     | -.01058 | .00001  | .00941  | .04670  | -.00639 | -.00194 | .01459  |
| 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   | .01097  | .09187  | -.00144 | .00000  | .00040  | -.01378 | .00012  |
| SDev   | .03910  | .03143  | .01779  | .00036  | .00068  | .04081  | .00008  |
| %RSD   | 356.29  | 34.217  | 1234.3  | .00000  | 172.82  | 296.19  | 72.495  |
| #1     | -.00722 | .13851  | .01510  | .00018  | .00135  | -.02473 | .00009  |
| #2     | .06194  | .08198  | .00911  | .00018  | .00008  | .04074  | .00018  |

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|    |         |        |         |         |         |         |        |
|----|---------|--------|---------|---------|---------|---------|--------|
| #3 | -.02907 | .07632 | -.00506 | .00018  | .00040  | -.05740 | .00001 |
| #4 | .01825  | .07067 | -.02492 | -.00054 | -.00024 | -.01372 | .00018 |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| Errors | LC Pass | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK |
| High   | .25000  |         |         |         |         |         |         |
| Low    | -.25000 |         |         |         |         |         |         |

|       |        |
|-------|--------|
| Elem  | ZN     |
| Units | ppm    |
| Avge  | .00453 |
| SDev  | .00121 |
| %RSD  | 26.667 |

|    |        |
|----|--------|
| #1 | .00360 |
| #2 | .00618 |
| #3 | .00468 |
| #4 | .00366 |

|        |         |
|--------|---------|
| Errors | NOCHECK |
| High   |         |
| Low    |         |

Method: QUANMET Sample Name: DE3JCCT

Operator: EMF

Run Time: 06/04/00 21:29:14

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

| Elem  | AG     | AL     | AS     | B_     | BA     | BE     | CA      |
|-------|--------|--------|--------|--------|--------|--------|---------|
| Units | ppm    | ppm    | ppm    | ppm    | ppm    | ppm    | ppm     |
| Avge  | .04627 | 1.7814 | 2.0448 | .88606 | 1.7022 | .04250 | L.15756 |
| SDev  | .00216 | .0182  | .0592  | .00163 | .0240  | .00041 | .00485  |
| %RSD  | 4.6775 | 1.0224 | 2.8929 | .18366 | 1.4112 | .95554 | 3.0797  |

|    |        |        |        |        |        |        |         |
|----|--------|--------|--------|--------|--------|--------|---------|
| #1 | .04447 | 1.7700 | 2.0977 | .88689 | 1.7216 | .04262 | L.15061 |
| #2 | .04445 | 1.7753 | 2.0152 | .88362 | 1.6869 | .04238 | L.16059 |
| #3 | .04737 | 1.8086 | 2.0902 | .88689 | 1.7237 | .04299 | L.15786 |
| #4 | .04877 | 1.7719 | 1.9758 | .88686 | 1.6766 | .04202 | L.16117 |

|        |         |         |         |         |         |         |        |
|--------|---------|---------|---------|---------|---------|---------|--------|
| 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  | .04906 | .45436 | .18387 | .22092 | .96785 | L.18925 | .84705 |
| SDev  | .00291 | .00398 | .00186 | .00361 | .00505 | .29919  | .02012 |
| %RSD  | 5.9387 | .87678 | 1.0135 | 1.6337 | .52134 | 158.09  | 2.3753 |

|    |        |        |        |        |        |          |        |
|----|--------|--------|--------|--------|--------|----------|--------|
| #1 | .04945 | .44894 | .18160 | .22214 | .96866 | L.02294  | .86002 |
| #2 | .05262 | .45841 | .18587 | .21889 | .96541 | L.48173  | .83674 |
| #3 | .04864 | .45435 | .18480 | .22540 | .97451 | L-.14528 | .86736 |
| #4 | .04553 | .45573 | .18321 | .21726 | .96281 | L.39762  | .82409 |

|        |         |         |         |         |         |        |         |
|--------|---------|---------|---------|---------|---------|--------|---------|
| 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.01431 | .46192 | .00014 | S728.78 | .43891 | .45960 | L.01570 |
| SDev  | .01333  | .00274 | .00384 | 1457.7  | .01026 | .00942 | .01254  |
| %RSD  | 93.115  | .59413 | 2654.7 | 200.03  | 2.3364 | 2.0491 | 79.887  |

|    |          |        |         |          |        |        |         |
|----|----------|--------|---------|----------|--------|--------|---------|
| #1 | L.00684  | .46192 | .00014  | S2915.4  | .44860 | .44647 | L.00115 |
| #2 | L.02426  | .45998 | -.00456 | S-.09350 | .43153 | .46158 | L.03031 |
| #3 | L-.00062 | .46581 | .00015  | S-.09350 | .42869 | .46144 | L.02051 |
| #4 | L.02675  | .45998 | .00485  | S-.09350 | .44683 | .46889 | L.01084 |

|        |        |         |         |         |         |         |        |
|--------|--------|---------|---------|---------|---------|---------|--------|
| Errors | LC Low | LC Pass | NOCHECK | LC High | 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  | 2.0432 | .08340 | .00575 | .86245 | .00055 | 1.7276 | .44374 |
| SDev  | .0244  | .02667 | .00546 | .01134 | .00061 | .0236  | .00447 |
| %RSD  | 1.1947 | 31.984 | 94.973 | 1.3149 | 109.42 | 1.3657 | 1.0079 |

|    |        |        |        |        |         |        |        |
|----|--------|--------|--------|--------|---------|--------|--------|
| #1 | 2.0751 | .07638 | .00919 | .87101 | -.00024 | 1.7058 | .44726 |
| #2 | 2.0241 | .12154 | .00332 | .85506 | .00103  | 1.7276 | .44247 |

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|    |        |        |         |        |        |        |        |
|----|--------|--------|---------|--------|--------|--------|--------|
| #3 | 2.0496 | .07638 | -.00072 | .87321 | .00040 | 1.7166 | .44727 |
| #4 | 2.0241 | .05930 | .01122  | .85053 | .00103 | 1.7604 | .43794 |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| 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  | .48564 |
| SDev  | .00393 |
| %RSD  | .80974 |

|    |        |
|----|--------|
| #1 | .48663 |
| #2 | .48031 |
| #3 | .48975 |
| #4 | .48587 |

|        |         |
|--------|---------|
| Errors | LC Pass |
| High   | .60000  |
| Low    | .40000  |

Method: QUANMET Sample Name: DE1M7BT Operator: EMF  
Run Time: 06/04/00 21:32:22  
Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP  
Mode: CONC Corr. Factor: 1

|        |         |         |         |          |         |         |         |
|--------|---------|---------|---------|----------|---------|---------|---------|
| Elem   | AG      | AL      | AS      | B_       | BA      | BE      | CA      |
| Units  | ppm     | ppm     | ppm     | ppm      | ppm     | ppm     | ppm     |
| Avg    | -.00070 | -.00595 | .11753  | .02975   | .00314  | ..00002 | .12119  |
| SDev   | .00145  | .00762  | .05053  | .00764   | .00022  | .00006  | .00123  |
| %RSD   | 206.98  | 128.15  | 42.995  | 25.687   | 7.1258  | 258.74  | 1.0137  |
| #1     | .00148  | -.00468 | .15070  | .03242   | .00322  | .00005  | .11999  |
| #2     | -.00142 | -.00809 | .04303  | .03565   | .00296  | .00005  | .12223  |
| #3     | -.00142 | .00364  | .14704  | .01852   | .00341  | .00005  | .12228  |
| #4     | -.00145 | -.01467 | .12933  | .03241   | .00296  | -.00006 | .12028  |
| 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     |
| Avg    | -.00067 | -.00135 | .00080  | .00163   | .01886  | .30777  | .00031  |
| SDev   | .00107  | .00191  | .00044  | .00041   | .00154  | .20701  | .00000  |
| %RSD   | 159.74  | 141.33  | 54.705  | 24.953   | 8.1553  | 67.261  | .00000  |
| #1     | -.00211 | -.00135 | .00080  | .00183   | .02000  | .54291  | .00031  |
| #2     | .00039  | -.00000 | .00080  | .00183   | .01999  | .42056  | .00031  |
| #3     | -.00079 | -.00405 | .00026  | .00183   | .01870  | .12999  | .00031  |
| #4     | -.00018 | -.00000 | .00133  | .00102   | .01674  | .13764  | .00031  |
| 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     |
| Avg    | .01991  | .00098  | .00353  | S1457.8  | .00237  | .01851  | .02191  |
| SDev   | .00654  | .00000  | .00451  | 1683.4   | .00797  | .03217  | .02010  |
| %RSD   | 32.874  | .16778  | 127.56  | 115.48   | 336.64  | 173.77  | 91.731  |
| #1     | .01431  | .00098  | .00000  | S2915.6  | .01261  | -.00925 | .03417  |
| #2     | .01929  | .00098  | .00941  | S2915.6  | -.00156 | .00920  | .04381  |
| #3     | .01680  | .00098  | .00000  | S-.09350 | .00422  | .04989  | .00488  |
| #4     | .02924  | .00098  | .00471  | S-.09350 | -.00580 | .04260  | .00483  |
| 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     |
| Avg    | -.00175 | .07213  | .02609  | .00202   | .00048  | .04341  | .00360  |
| SDev   | .04686  | .00284  | .03018  | .00008   | .00070  | .03916  | .00234  |
| %RSD   | 2675.8  | 3.9326  | 115.68  | 4.0163   | 147.82  | 90.209  | 64.976  |
| #1     | -.01085 | .07073  | .05713  | .00209   | .00135  | .05156  | .00471  |
| #2     | .06196  | .07073  | .03519  | .00195   | .00008  | .09516  | .00489  |

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|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | -.00721 | .07638  | .02701  | .00195  | .00071  | .00799  | .00470  |
| #4     | -.05091 | .07067  | -.01497 | .00209  | -.00024 | .01891  | .00009  |
| Errors | LC Pass | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK | NOCHECK |
| High   | .25000  |         |         |         |         |         |         |
| Low    | -.25000 |         |         |         |         |         |         |
| Elem   | ZN      |         |         |         |         |         |         |
| Units  | ppm     |         |         |         |         |         |         |
| Avge   | .00611  |         |         |         |         |         |         |
| SDev   | .00085  |         |         |         |         |         |         |
| %RSD   | 13.948  |         |         |         |         |         |         |
| #1     | .00668  |         |         |         |         |         |         |
| #2     | .00695  |         |         |         |         |         |         |
| #3     | .00513  |         |         |         |         |         |         |
| #4     | .00567  |         |         |         |         |         |         |
| Errors | NOCHECK |         |         |         |         |         |         |
| High   |         |         |         |         |         |         |         |
| Low    |         |         |         |         |         |         |         |



Method: QUANMET Sample Name: DDLG1T Operator: EMF  
 Run Time: 06/04/00 21:35:30  
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP  
 Mode: CONC Corr. Factor: 1

| Elem  | AG     | AL     | AS     | B_     | BA     | BE     | CA     |
|-------|--------|--------|--------|--------|--------|--------|--------|
| Units | ppm    | ppm    | ppm    | ppm    | ppm    | ppm    | ppm    |
| Avg   | .00001 | .15132 | .13147 | .13747 | .07955 | .00003 | 8.6035 |
| SDev  | .00313 | .01536 | .06166 | .00899 | .00067 | .00006 | .1431  |
| %RSD  | 29591. | 10.151 | 46.898 | 6.5418 | .83718 | 200.00 | 1.6631 |

|    |         |        |        |        |        |         |        |
|----|---------|--------|--------|--------|--------|---------|--------|
| #1 | -.00144 | .13752 | .07775 | .14351 | .07914 | .00006  | 8.5973 |
| #2 | .00001  | .15589 | .15657 | .13838 | .07887 | -.00006 | 8.4043 |
| #3 | .00436  | .17101 | .08464 | .14352 | .07986 | .00006  | 8.7237 |
| #4 | -.00289 | .14087 | .20694 | .12448 | .08032 | .00006  | 8.6888 |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| 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    |
| Avg   | .00162 | -.00004 | .00306 | .36087 | .06063 | 2.3609 | .00157 |
| SDev  | .00286 | .00382  | .00232 | .00220 | .00312 | .2816  | .00137 |
| %RSD  | 176.14 | 8528.1  | 75.674 | .61088 | 5.1441 | 11.928 | 86.933 |

|    |         |         |         |        |        |        |        |
|----|---------|---------|---------|--------|--------|--------|--------|
| #1 | .00574  | .00265  | .00506  | .36006 | .05706 | 2.5463 | .00276 |
| #2 | -.00089 | -.00544 | -.00027 | .36005 | .05901 | 1.9422 | .00047 |
| #3 | .00086  | .00266  | .00346  | .35925 | .06356 | 2.4546 | .00276 |
| #4 | .00078  | -.00004 | .00399  | .36413 | .06291 | 2.5004 | .00031 |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| 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    |
| Avg   | .95937 | .01941 | .00001 | S1457.4 | .02658 | .02031 | .02460 |
| SDev  | .01668 | .00000 | .00384 | 1683.0  | .00513 | .01608 | .00797 |
| %RSD  | 1.7385 | .00731 | 42377. | 115.48  | 19.301 | 79.184 | 32.386 |

|    |        |        |         |          |        |         |        |
|----|--------|--------|---------|----------|--------|---------|--------|
| #1 | .95751 | .01941 | .00471  | S2914.4  | .01967 | .02780  | .02450 |
| #2 | .93760 | .01941 | -.00470 | S-.09350 | .03095 | -.00206 | .02471 |
| #3 | .96497 | .01941 | .00001  | S-.09350 | .02574 | .02039  | .03435 |
| #4 | .97742 | .01941 | .00001  | S2915.5  | .02995 | .03512  | .01484 |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| 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    |
| Avg   | -.01343 | 15.513 | .01312 | .04160 | .00016 | -.02232 | .00001 |
| SDev  | .04331  | .197   | .01142 | .00034 | .00070 | .03135  | .00008 |
| %RSD  | 322.49  | 1.2696 | 87.053 | .82516 | 443.47 | 140.46  | 1260.0 |

|    |         |        |         |        |         |         |         |
|----|---------|--------|---------|--------|---------|---------|---------|
| #1 | -.01435 | 15.341 | .01312  | .04186 | -.00024 | -.00323 | .00010  |
| #2 | .03662  | 15.346 | -.00287 | .04120 | .00040  | -.00318 | -.00009 |

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|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | -.06894 | 15.657  | .01916  | .04144  | .00103  | -.06871 | .00001  |
| #4     | -.00705 | 15.708  | .02307  | .04191  | -.00055 | -.01417 | .00001  |
| 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  | .40194 |
| SDev  | .00620 |
| %RSD  | 1.5422 |

|    |        |
|----|--------|
| #1 | .40742 |
| #2 | .39366 |
| #3 | .40081 |
| #4 | .40587 |

|        |         |
|--------|---------|
| Errors | LC Pass |
| High   | 100.00  |
| Low    | -.02000 |

Method: QUANMET Sample Name: DDLG1P5T Operator: EMF  
 Run Time: 06/04/00 21:38:38  
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP  
 Mode: CONC Corr. Factor: 1

| Elem  | AG      | AL     | AS      | B__    | BA     | BE     | CA     |
|-------|---------|--------|---------|--------|--------|--------|--------|
| Units | ppm     | ppm    | ppm     | ppm    | ppm    | ppm    | ppm    |
| Avge  | -.00252 | .01251 | -.01003 | .04801 | .01664 | .00009 | 1.7356 |
| SDev  | .00218  | .00482 | .05008  | .00566 | .00042 | .00015 | .0880  |
| %RSD  | 86.299  | 38.543 | 499.13  | 11.795 | 2.5390 | 174.21 | 5.0682 |

|    |         |        |         |        |        |         |        |
|----|---------|--------|---------|--------|--------|---------|--------|
| #1 | .00003  | .01877 | -.00385 | .03983 | .01604 | .00005  | 1.7797 |
| #2 | -.00145 | .00872 | -.08265 | .04859 | .01669 | -.00006 | 1.6304 |
| #3 | -.00432 | .00871 | .02136  | .05181 | .01704 | .00030  | 1.8307 |
| #4 | -.00435 | .01385 | .02500  | .05181 | .01677 | .00006  | 1.7016 |

| Elem  | CD     | CO     | CR     | CU     | FE     | K__    | LI     |
|-------|--------|--------|--------|--------|--------|--------|--------|
| Units | ppm    | ppm    | ppm    | ppm    | ppm    | ppm    | ppm    |
| Avge  | .00275 | .00167 | .00240 | .07531 | .01219 | .87171 | .00076 |
| SDev  | .00247 | .00418 | .00428 | .00277 | .00237 | .97499 | .00101 |
| %RSD  | 89.746 | 249.99 | 178.76 | 3.6821 | 19.486 | 111.85 | 132.06 |

|    |         |         |         |        |        |         |         |
|----|---------|---------|---------|--------|--------|---------|---------|
| #1 | -.00037 | .00134  | .00133  | .07185 | .01479 | .42056  | .00199  |
| #2 | .00490  | -.00407 | -.00293 | .07429 | .01089 | -.18352 | .00091  |
| #3 | .00456  | .00538  | .00719  | .07755 | .01349 | 2.0722  | -.00046 |
| #4 | .00192  | .00404  | .00399  | .07755 | .00959 | 1.1776  | .00062  |

| Elem  | MG     | MN     | MO     | NA     | NI     | PB     | SB      |
|-------|--------|--------|--------|--------|--------|--------|---------|
| Units | ppm    | ppm    | ppm    | ppm    | ppm    | ppm    | ppm     |
| Avge  | .22958 | .00437 | .00235 | 239.18 | .01202 | .04078 | -.00238 |
| SDev  | .03125 | .00056 | .00471 | 8.41   | .00260 | .03854 | .00489  |
| %RSD  | 13.611 | 12.802 | 199.85 | 3.5179 | 21.596 | 94.508 | 205.35  |

|    |        |        |        |        |        |        |         |
|----|--------|--------|--------|--------|--------|--------|---------|
| #1 | .21091 | .00485 | .00000 | 231.10 | .01504 | .01298 | -.00474 |
| #2 | .19847 | .00485 | .00000 | 248.84 | .00884 | .00543 | -.00482 |
| #3 | .26815 | .00389 | .00941 | 233.26 | .01141 | .08718 | -.00490 |
| #4 | .24078 | .00388 | .00000 | 243.51 | .01280 | .05752 | .00495  |

| Elem  | SE     | SI     | SN     | SR     | TI      | TL      | V__    |
|-------|--------|--------|--------|--------|---------|---------|--------|
| Units | ppm    | ppm    | ppm    | ppm    | ppm     | ppm     | ppm    |
| Avge  | .03645 | 3.5730 | .01349 | .00877 | -.00032 | -.02466 | .00240 |
| SDev  | .07141 | .0795  | .00755 | .00009 | .00040  | .05271  | .00277 |
| %RSD  | 195.90 | 2.2255 | 55.981 | 1.0408 | 125.83  | 213.74  | 115.47 |

|    |         |        |        |        |         |         |         |
|----|---------|--------|--------|--------|---------|---------|---------|
| #1 | .01462  | 3.6550 | .00498 | .00863 | .00008  | -.06831 | .00471  |
| #2 | -.04001 | 3.5136 | .01098 | .00882 | -.00024 | .05173  | -.00001 |
| #3 | .13111  | 3.6268 | .02297 | .00882 | -.00024 | -.03563 | .00490  |
| #4 | .04008  | 3.4967 | .01502 | .00882 | -.00087 | -.04645 | .00001  |

| Elem  | ZN     |
|-------|--------|
| Units | ppm    |
| Avge  | .08106 |
| SDev  | .00430 |
| %RSD  | 5.2996 |

|    |        |
|----|--------|
| #1 | .08027 |
| #2 | .07591 |
| #3 | .08633 |

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#4 .08173

Method: QUANMET Sample Name: DDLG1ST

Operator: EMF

Run Time: 06/04/00 21:41:45

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

| Elem   | AG      | AL      | AS      | B_      | BA      | BE      | CA      |
|--------|---------|---------|---------|---------|---------|---------|---------|
| Units  | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     |
| Avge   | .87864  | .13366  | 4.9598  | .12331  | 43.213  | .00005  | 7.9381  |
| SDev   | .01041  | .01490  | .0870   | .00093  | .750    | .00010  | .0944   |
| %RSD   | 1.1852  | 11.144  | 1.7540  | .75666  | 1.7358  | 180.85  | 1.1887  |
| #1     | .88336  | .13904  | 5.0351  | .12446  | 43.268  | .00005  | 8.0464  |
| #2     | .88336  | .15076  | 4.9488  | .12255  | 43.036  | .00005  | 7.9874  |
| #3     | .88478  | .12918  | 5.0137  | .12256  | 44.182  | -.00006 | 7.8666  |
| #4     | .86305  | .11566  | 4.8414  | .12368  | 42.367  | .00017  | 7.8519  |
| 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   | .98475  | -.00147 | 4.6186  | .33341  | .05056  | 2.5062  | .00077  |
| SDev   | .02050  | .00213  | .0438   | .00453  | .00265  | .4882   | .00024  |
| %RSD   | 2.0817  | 144.28  | .94922  | 1.3576  | 5.2522  | 19.480  | 30.644  |
| #1     | 1.0032  | -.00425 | 4.6615  | .33321  | .05121  | 2.6151  | .00047  |
| #2     | .97333  | -.00000 | 4.6370  | .33158  | .05251  | 2.5692  | .00088  |
| #3     | 1.0008  | -.00200 | 4.6173  | .33972  | .05186  | 1.8352  | .00071  |
| #4     | .96168  | .00037  | 4.5587  | .32914  | .04666  | 3.0051  | .00103  |
| 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   | .89218  | .01771  | .00471  | S2916.5 | .03106  | 4.6606  | .05264  |
| SDev   | .01618  | .00049  | .00666  | .8      | .00466  | .0528   | .01429  |
| %RSD   | 1.8131  | 2.7443  | 141.19  | .02723  | 14.998  | 1.1318  | 27.153  |
| #1     | .89031  | .01747  | .00471  | S2916.7 | .03717  | 4.6902  | .06448  |
| #2     | .91520  | .01844  | .00942  | S2916.7 | .02615  | 4.7200  | .06465  |
| #3     | .87787  | .01747  | -.00470 | S2915.4 | .03168  | 4.6162  | .04538  |
| #4     | .88534  | .01747  | .00942  | S2917.3 | .02924  | 4.6162  | .03604  |
| 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   | .98772  | 9.9076  | .00675  | .03885  | .00143  | -.01951 | .00335  |
| SDev   | .04081  | .0567   | .01787  | .00083  | .00047  | .05666  | .00248  |
| %RSD   | 4.1316  | .57235  | 264.87  | 2.1400  | 33.333  | 290.36  | 73.922  |
| #1     | .99409  | 9.8737  | .03329  | .03905  | .00166  | -.09038 | .00461  |
| #2     | 1.0196  | 9.9585  | -.00269 | .03881  | .00198  | -.03591 | .00465  |

## Analysis Report

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|    |        |        |         |        |        |        |         |
|----|--------|--------|---------|--------|--------|--------|---------|
| #3 | 1.0087 | 9.9528 | .00122  | .03977 | .00103 | .04047 | -.00036 |
| #4 | .92854 | 9.8455 | -.00482 | .03776 | .00103 | .00776 | .00450  |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| 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  | .37453 |
| SDev  | .00496 |
| %RSD  | 1.3248 |

|    |        |
|----|--------|
| #1 | .37797 |
| #2 | .37239 |
| #3 | .37921 |
| #4 | .36857 |

|        |         |
|--------|---------|
| Errors | LC Pass |
| High   | 100.00  |
| Low    | -.02000 |

Method: QUANMET Sample Name: DDLG1DT Operator: EMF  
Run Time: 06/04/00 21:44:53  
Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP  
Mode: CONC Corr. Factor: 1

| Elem   | AG      | AL      | AS      | B_       | BA      | BE      | CA      |
|--------|---------|---------|---------|----------|---------|---------|---------|
| Units  | ppm     | ppm     | ppm     | ppm      | ppm     | ppm     | ppm     |
| Avge   | .86485  | .13575  | 4.8234  | .12808   | 42.611  | .00006  | 7.7372  |
| SDev   | .01249  | .00547  | .1046   | .00686   | 1.503   | .00010  | .1104   |
| %RSD   | 1.4448  | 4.0325  | 2.1692  | 5.3593   | 3.5278  | 165.96  | 1.4274  |
| #1     | .84854  | .14245  | 4.6940  | .12445   | 40.411  | .00018  | 7.7894  |
| #2     | .86593  | .13575  | 4.7839  | .12504   | 42.969  | -.00006 | 7.7314  |
| #3     | .86593  | .13575  | 4.8952  | .13837   | 43.290  | .00006  | 7.5861  |
| #4     | .87900  | .12904  | 4.9203  | .12445   | 43.772  | .00005  | 7.8421  |
| 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   | .95538  | -.00413 | 4.4412  | .34094   | .04861  | 2.2060  | .00145  |
| SDev   | .01580  | .00344  | .0540   | .01345   | .00092  | .7809   | .00109  |
| %RSD   | 1.6543  | 83.329  | 1.2167  | 3.9451   | 1.8934  | 35.399  | 75.289  |
| #1     | .94217  | .00006  | 4.3963  | .32181   | .04926  | 3.0433  | .00071  |
| #2     | .95347  | -.00802 | 4.4559  | .34135   | .04861  | 1.1546  | .00040  |
| #3     | .94782  | -.00547 | 4.4011  | .34949   | .04926  | 2.3093  | .00276  |
| #4     | .97805  | -.00309 | 4.5113  | .35112   | .04731  | 2.3169  | .00192  |
| 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   | .88782  | .01747  | .00354  | S1458.3  | .02873  | 4.4790  | .04916  |
| SDev   | .02290  | .00000  | .00235  | 1684.0   | .00681  | .0486   | .00930  |
| %RSD   | 2.5792  | .00456  | 66.530  | 115.48   | 23.714  | 1.0847  | 18.914  |
| #1     | .88036  | .01747  | .00471  | S2917.2  | .02028  | 4.4383  | .05674  |
| #2     | .86294  | .01747  | .00001  | S2916.3  | .03168  | 4.5048  | .03688  |
| #3     | .89031  | .01747  | .00471  | S-.09350 | .02680  | 4.4382  | .04705  |
| #4     | .91769  | .01747  | .00471  | S-.09350 | .03617  | 4.5346  | .05599  |
| 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   | 1.0250  | 10.156  | .01523  | .03899   | .00095  | -.02491 | .00151  |
| SDev   | .0273   | .204    | .01675  | .00099   | .00047  | .03880  | .00246  |
| %RSD   | 2.6656  | 2.0094  | 110.00  | 2.5316   | 50.000  | 155.74  | 163.56  |
| #1     | 1.0050  | 9.8624  | -.03925 | .03766   | .00166  | -.04678 | .00409  |
| #2     | 1.0596  | 10.235  | .00718  | .03915   | .00071  | -.05758 | -.00059 |

## Analysis Report

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|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| #3     | 1.0014  | 10.196  | .00123  | .03909  | .00071  | -.02489 | -.00061 |
| #4     | 1.0341  | 10.332  | .01326  | .04005  | .00071  | .02959  | .00314  |
| 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  | .36724 |
| SDev  | .00503 |
| %RSD  | 1.3701 |

|    |        |
|----|--------|
| #1 | .36151 |
| #2 | .36825 |
| #3 | .36568 |
| #4 | .37353 |

|        |         |
|--------|---------|
| Errors | LC Pass |
| High   | 100.00  |
| Low    | -.02000 |



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## Analysis Report

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Method: QUANMET Sample Name: CCV2-5

Operator: EMF

Run Time: 06/04/00 21:48:01

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

| Elem  | AG     | AL     | AS     | B_     | BA      | BE      | CA     |
|-------|--------|--------|--------|--------|---------|---------|--------|
| Units | ppm    | ppm    | ppm    | ppm    | ppm     | ppm     | ppm    |
| Avge  | .95355 | 45.551 | 4.6176 | 4.5915 | L4.3870 | L4.4162 | 49.383 |
| SDev  | .00358 | .304   | .0500  | .0356  | .0388   | .0120   | .335   |
| %RSD  | .37522 | .66824 | 1.0834 | .77594 | .88426  | .27192  | .67816 |

|    |        |        |        |        |         |         |        |
|----|--------|--------|--------|--------|---------|---------|--------|
| #1 | .94915 | 45.607 | 4.6416 | 4.5792 | L4.4021 | L4.4106 | 49.098 |
| #2 | .95643 | 45.144 | 4.6561 | 4.5502 | L4.3356 | L4.4030 | 49.759 |
| #3 | .95211 | 45.881 | 4.6283 | 4.6344 | L4.4274 | L4.4306 | 49.103 |
| #4 | .95650 | 45.570 | 4.5445 | 4.6022 | L4.3828 | L4.4207 | 49.571 |

|        |         |         |         |         |        |        |         |
|--------|---------|---------|---------|---------|--------|--------|---------|
| Errors | LC Pass | LC Pass | LC Pass | LC Pass | LC Low | LC Low | 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  | 4.8822 | 4.6739 | 4.6927 | L4.4095 | 48.236 | 45.623 | L4.4216 |
| SDev  | .0350  | .0185  | .0205  | .0434   | .086   | 1.289  | .1316   |
| %RSD  | .71666 | .39549 | .43709 | .98512  | .17746 | 2.8255 | 2.9759  |

|    |        |        |        |         |        |         |         |
|----|--------|--------|--------|---------|--------|---------|---------|
| #1 | 4.8522 | 4.6500 | 4.6757 | L4.4217 | 48.122 | 46.751  | L4.4792 |
| #2 | 4.8890 | 4.6905 | 4.7178 | L4.3558 | 48.263 | L43.853 | L4.2505 |
| #3 | 4.8589 | 4.6688 | 4.6762 | L4.4600 | 48.230 | 46.376  | 4.5586  |
| #4 | 4.9289 | 4.6863 | 4.7012 | L4.4006 | 48.327 | 45.512  | L4.3980 |

|        |         |         |         |        |         |         |        |
|--------|---------|---------|---------|--------|---------|---------|--------|
| Errors | LC Pass | LC Pass | LC Pass | LC Low | 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  | 45.394 | 4.6893 | 4.6672 | L43.491 | 4.6116 | 4.7564 | 4.6345 |
| SDev  | .292   | .0136  | .0182  | 1.041   | .0284  | .0282  | .0567  |
| %RSD  | .64238 | .28943 | .38963 | 2.3947  | .61670 | .59367 | 1.2241 |

|    |         |        |        |         |        |        |        |
|----|---------|--------|--------|---------|--------|--------|--------|
| #1 | 45.614  | 4.6730 | 4.6566 | L44.056 | 4.5854 | 4.7744 | 4.6955 |
| #2 | L44.992 | 4.6973 | 4.6566 | L42.109 | 4.6520 | 4.7756 | 4.6470 |
| #3 | 45.604  | 4.6837 | 4.6613 | L44.488 | 4.6058 | 4.7154 | 4.6369 |
| #4 | 45.365  | 4.7031 | 4.6943 | L43.311 | 4.6033 | 4.7603 | 4.5585 |

|        |         |         |         |        |         |         |         |
|--------|---------|---------|---------|--------|---------|---------|---------|
| Errors | LC Pass | LC Pass | LC Pass | LC Low | 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  | 4.7599 | H9.6640 | 4.7600 | L4.4048 | 4.5393 | 9.2466 | 4.6060 |
| SDev  | .0572  | .5075   | .0381  | .0298   | .0137  | .0588  | .0053  |
| %RSD  | 1.2019 | 5.2512  | .80143 | .67756  | .30104 | .63611 | .11480 |

|    |        |         |        |         |        |        |        |
|----|--------|---------|--------|---------|--------|--------|--------|
| #1 | 4.7522 | H10.232 | 4.7113 | L4.4151 | 4.5344 | 9.2479 | 4.6023 |
| #2 | 4.7746 | H9.9042 | 4.7491 | L4.3651 | 4.5233 | 9.2572 | 4.6012 |

## Analysis Report

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|    |        |         |        |         |        |        |        |
|----|--------|---------|--------|---------|--------|--------|--------|
| #3 | 4.8254 | H9.4408 | 4.7969 | L4.4362 | 4.5553 | 9.3121 | 4.6083 |
| #4 | 4.6875 | H9.0790 | 4.7826 | L4.4027 | 4.5443 | 9.1693 | 4.6125 |

|        |         |         |         |        |         |         |         |
|--------|---------|---------|---------|--------|---------|---------|---------|
| Errors | LC Pass | LC High | LC Pass | LC Low | 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 4.7500  
SDev .0099  
%RSD .20859

|    |        |
|----|--------|
| #1 | 4.7508 |
| #2 | 4.7552 |
| #3 | 4.7358 |
| #4 | 4.7581 |

|        |         |
|--------|---------|
| Errors | LC Pass |
| High   | 5.5000  |
| Low    | 4.5000  |

Method: QUANMET Sample Name: CCB5

Operator: EMF

Run Time: 06/04/00 21:51:09

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

| Elem   | AG      | AL      | AS      | B_      | BA      | BE      | CA      |
|--------|---------|---------|---------|---------|---------|---------|---------|
| Units  | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     | ppm     |
| Avge   | .00147  | .00022  | .02775  | .02672  | .00053  | .00018  | .00910  |
| SDev   | .00001  | .00568  | .02800  | .00657  | .00030  | .00001  | .00296  |
| %RSD   | .82509  | 2587.6  | 100.92  | 24.585  | 57.469  | 3.8247  | 32.479  |
| #1     | .00148  | .00363  | .05014  | .02171  | .00048  | .00017  | .00953  |
| #2     | .00145  | .00354  | -.01081 | .03240  | .00021  | .00019  | .00563  |
| #3     | .00148  | -.00821 | .04664  | .02039  | .00048  | .00017  | .00846  |
| #4     | .00148  | .00192  | .02502  | .03237  | .00094  | .00017  | .01279  |
| 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   | -.00031 | .00034  | .00080  | .00204  | .00407  | .50467  | .00031  |
| SDev   | .00045  | .00510  | .00314  | .00122  | .00084  | .53693  | .00000  |
| %RSD   | 143.77  | 1518.5  | 391.10  | 60.087  | 20.615  | 106.39  | .00000  |
| #1     | -.00006 | .00405  | -.00133 | .00102  | .00309  | .27528  | .00031  |
| #2     | .00006  | -.00676 | -.00239 | .00101  | .00439  | -.13764 | .00031  |
| #3     | -.00094 | .00000  | .00293  | .00265  | .00504  | .84112  | .00031  |
| #4     | -.00030 | .00405  | .00400  | .00346  | .00374  | 1.0399  | .00031  |
| 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   | .02178  | .00098  | .01765  | .02661  | -.00003 | .02225  | .01697  |
| SDev   | .02895  | .00000  | .00451  | .00366  | .00380  | .02290  | .02016  |
| %RSD   | 132.95  | .18089  | 25.531  | 13.764  | 15000.  | 102.89  | 118.78  |
| #1     | .00933  | .00098  | .01412  | .03055  | -.00519 | -.00909 | .04384  |
| #2     | -.01307 | .00098  | .01412  | .02211  | -.00046 | .02020  | .01459  |
| #3     | .04168  | .00098  | .02353  | .02542  | .00344  | .03521  | .01451  |
| #4     | .04915  | .00098  | .01882  | .02835  | .00211  | .04270  | -.00506 |
| 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   | .02914  | H.94135 | .00957  | .00007  | .00150  | -.00279 | .00387  |
| SDev   | .01758  | .08499  | .02289  | .00023  | .00018  | .03450  | .00240  |
| %RSD   | 60.341  | 9.0282  | 239.15  | 323.47  | 12.155  | 1235.3  | 62.083  |
| #1     | .03642  | H1.0544 | .00720  | .00018  | .00166  | .02989  | .00497  |
| #2     | .03278  | H.95826 | -.01693 | -.00020 | .00135  | .01909  | .00027  |

|    |        |         |        |         |        |         |        |
|----|--------|---------|--------|---------|--------|---------|--------|
| #3 | .00366 | H.88483 | .00906 | -.00002 | .00135 | -.04642 | .00516 |
| #4 | .04370 | H.86787 | .03895 | .00032  | .00166 | -.01373 | .00508 |

|        |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|
| Errors | LC Pass | LC High | 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  | -.00057 |
| SDev  | .00104  |
| %RSD  | 180.55  |

|    |         |
|----|---------|
| #1 | -.00068 |
| #2 | -.00199 |
| #3 | .00034  |
| #4 | .00004  |

|        |         |
|--------|---------|
| Errors | LC Pass |
| High   | .02000  |
| Low    | -.02000 |

# Metals Preparation

Log



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

Submitted to Your Success

Pellet # 431609

|                             |                  |                       |                                            |                |                                                     |                  |           |                         |
|-----------------------------|------------------|-----------------------|--------------------------------------------|----------------|-----------------------------------------------------|------------------|-----------|-------------------------|
| Method: 3010A               | Matrix: Water    | Start Time: 0805      | SDG: C-516 (C-230215)                      | Balance#       | Reagents: 3ml conc. HNO <sub>3</sub><br>5ml 1:1 HCl |                  |           |                         |
| Analyst: Suzanne Thomas     | Date: 6/3/00     | Lot Number: COE230215 | Lab Lot No. (book, page, line): 0014-089-1 |                | 6623N3053 Mail back red +<br>0014-098-3             |                  |           |                         |
| Reviewed by: Suzanne Thomas | Date: 6-3-00     | COE230215             | MS# 0014-089-1                             |                |                                                     |                  |           |                         |
| Sample ID                   | Init Wt/Vol g/mL | Final Vol mL          | Comments                                   | Color Pre Post | Clarity Pre Post                                    | Texture Pre Post | Artifacts | Artifact Codes          |
| 1. DOK EG                   | 50ml             | 50ml                  |                                            |                |                                                     |                  |           | S=Stones                |
| 2. DOK FH                   |                  |                       |                                            |                |                                                     |                  |           | O=Organic               |
| 3. DOK FJ                   |                  |                       |                                            |                |                                                     |                  |           | (plant mat)             |
| 4. DOK FK                   |                  |                       |                                            |                |                                                     |                  |           | W=free H <sub>2</sub> O |
| 5. DOK EL                   |                  |                       |                                            |                |                                                     |                  |           | G=Glass                 |
| 6. DOK EM                   |                  |                       |                                            |                |                                                     |                  |           | M=Metal Fragments       |
| 7. DOK EN                   |                  |                       |                                            |                |                                                     |                  |           | R=Rubber/Plastic        |
| 8. DOK EP                   |                  |                       |                                            |                |                                                     |                  |           | C=Cloth                 |
| 9. DOK EQ                   |                  |                       |                                            |                |                                                     |                  |           | P=Paper                 |
| 10. DOK ER                  |                  |                       |                                            |                |                                                     |                  |           | I=Insects               |
| 11. DOK EV                  |                  |                       |                                            |                |                                                     |                  |           |                         |
| 12. DOK EW                  |                  |                       |                                            |                |                                                     |                  |           |                         |
| 13. DOK EX                  |                  |                       |                                            |                |                                                     |                  |           |                         |
| 14. DOK G3                  |                  |                       |                                            |                |                                                     |                  |           |                         |
| 15. DOK G5                  |                  |                       |                                            |                |                                                     |                  |           |                         |
| 16. DOK LV                  |                  |                       |                                            |                |                                                     |                  |           |                         |
| 17. DOK LZ                  |                  |                       |                                            |                |                                                     |                  |           |                         |
| 18. DOK LZ                  |                  |                       |                                            |                |                                                     |                  |           |                         |
| 19. DOK LZ                  |                  |                       |                                            |                |                                                     |                  |           |                         |
| 20. DOK LZ                  |                  |                       |                                            |                |                                                     |                  |           |                         |
| 21. DOK LZ                  |                  |                       |                                            |                |                                                     |                  |           |                         |
| 22. DOK LZ                  |                  |                       |                                            |                |                                                     |                  |           |                         |
| 23. DOK LZ                  |                  |                       |                                            |                |                                                     |                  |           |                         |
| 24. DOK LZ                  |                  |                       |                                            |                |                                                     |                  |           |                         |

REQUESTED BY: KRANCES

METHOD: QO Inductively Coupled Plasma (60108)

| STORAGE LOCATION | WORK ORDER # | PICKED<br>CNTR# | CONTROL # | CLIENT # | ANALYSIS | LOTID     | SMP# | SFX | MATRIX<br>DESCRIPTION | QTY<br>RCVD | QTY<br>REQD |
|------------------|--------------|-----------------|-----------|----------|----------|-----------|------|-----|-----------------------|-------------|-------------|
| 6A               | DDKFG        | ___             | 237799    | 131369   | A-34-QO  | C0E230215 | 009  |     | SOLID                 | 0           | 4 1         |
| 6A               | DDKFH        | ___             | 237800    | 131369   | A-34-QO  | C0E230215 | 010  |     | SOLID                 | 0           | 4 1         |
| 6A               | DDKFJ        | ___             | 237801    | 131369   | A-34-QO  | C0E230215 | 011  |     | SOLID                 | 0           | 4 1         |
| 6A               | DDKFK        | ___             | 237802    | 131369   | A-34-QO  | C0E230215 | 012  |     | SOLID                 | 0           | 4 1         |
| 6A               | DDKFL        | ___             | 237803    | 131369   | A-34-QO  | C0E230215 | 013  |     | SOLID                 | 0           | 4 1         |
| 6A               | DDKFM        | ___             | 237804    | 131369   | A-34-QO  | C0E230215 | 014  |     | SOLID                 | 0           | 4 1         |
| 6A               | DDKFN        | ___             | 237805    | 131369   | A-34-QO  | C0E230215 | 015  |     | SOLID                 | 0           | 4 1         |
| 6A               | DDKFP        | ___             | 237806    | 131369   | A-34-QO  | C0E230215 | 016  |     | SOLID                 | 0           | 2 1         |
| 6A               | DDKFQ        | ___             | 237807    | 131369   | A-34-QO  | C0E230215 | 017  |     | SOLID                 | 0           | 2 1         |
| 6A               | DDKFR        | ___             | 237808    | 131369   | A-34-QO  | C0E230215 | 018  |     | SOLID                 | 0           | 2 1         |
| 6A               | DDKFB        | ___             | 237809    | 131369   | A-34-QO  | C0E230215 | 019  |     | SOLID                 | 0           | 2 1         |
| 6A               | DDKFW        | ___             | 237810    | 131369   | A-34-QO  | C0E230215 | 020  |     | SOLID                 | 0           | 2 1         |
| 6A               | DDKFX        | ___             | 237811    | 131369   | A-34-QO  | C0E230215 | 021  |     | SOLID                 | 0           | 2 1         |
| 6A               | DDKG3        | ___             | 237812    | 131369   | A-34-QO  | C0E230215 | 022  |     | SOLID                 | 0           | 2 1         |
| 6A               | DDKG5        | ___             | 237813    | 131369   | A-34-QO  | C0E230215 | 023  |     | SOLID                 | 0           | 2 1         |
| 6E CLP1          | DDRLV        | ___             | 237814    | 375241   | A-34-QO  | C0E260142 | 001  |     | SOLID                 | 0           | 5 1         |
| 7E CLP1          | DE022        | ___             | 237815    | 399411   | A-34-QO  | C0E310132 | 001  |     | SOLID                 | 0           | 3 1         |

6591370

PSR024

6/03/00

5:46:13 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 002

REQUESTED BY: KRANCES

METHOD: QO Inductively Coupled Plasma (6010B)

| <u>STORAGE LOCATION</u> | <u>WORK ORDER #</u> | <u>PICKED</u><br><u>CNTR#</u> | <u>CONTROL #</u> | <u>CLIENT #</u> | <u>ANALYSIS</u> | <u>LOTID</u> | <u>SMP#</u> | <u>SFX</u> | <u>MATRIX</u><br><u>DESCRIPTION</u> | <u>QTY</u><br><u>RCVD</u> | <u>QTY</u><br><u>REQD</u> |
|-------------------------|---------------------|-------------------------------|------------------|-----------------|-----------------|--------------|-------------|------------|-------------------------------------|---------------------------|---------------------------|
|-------------------------|---------------------|-------------------------------|------------------|-----------------|-----------------|--------------|-------------|------------|-------------------------------------|---------------------------|---------------------------|

RELINQUISHED BY

RECEIVED BY

DATE/TIME

A Lee

Suzanne Krances

6/3/00 0800

Suzanne Krances

A Lee

6/3/00 0905

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

## STL-Pittsburgh Atomic Absorption Data for Mercury

Instrument: PS200HG

Analyst Name: William A. HoyleDate of Analysis: 6-3-00File ID: 0603HGAMatrix: WATER

Lot Number/SDG

Method

|                  |                               |                |
|------------------|-------------------------------|----------------|
| <u>COE230215</u> | <u>(TCLP)</u><br><u>6-516</u> | <u>7470A</u>   |
| <u>COE260142</u> | <u>TCLP</u>                   |                |
| <u>COE310133</u> |                               |                |
| <u>COE240192</u> |                               |                |
| <u>COE250165</u> |                               |                |
| <u>COE250172</u> |                               |                |
| <u>COE310125</u> |                               |                |
| <u>COF020118</u> |                               | <u>ILM04.0</u> |
|                  |                               |                |
|                  |                               |                |
|                  |                               |                |
|                  |                               |                |
|                  |                               |                |
|                  |                               |                |



6591372

William A. Hays 6-9-00

07:07:33 03 Jun 2000

Folder: 0603HGA  
Protocol: HGMET

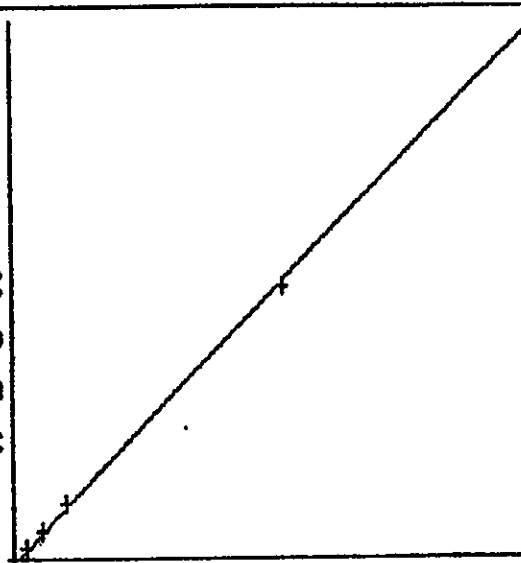
Page 939

| Line                   | Conc. | Units | SD/RSD  | 1      | 2          | 3                       | 4 | 5 |
|------------------------|-------|-------|---------|--------|------------|-------------------------|---|---|
| *** Standard: 1 Rep: 1 |       |       |         | Seq: 0 |            | 07:07:33 03 Jun 2000 HG |   |   |
| Hg                     | .000  | ppb   | 2190    |        |            |                         |   |   |
| *** Standard: 2 Rep: 1 |       |       |         | Seq: 1 |            | 07:09:56 03 Jun 2000 HG |   |   |
| Hg                     | .200  | ppb   | 62819   |        | 0014-122-4 |                         |   |   |
| *** Standard: 3 Rep: 1 |       |       |         | Seq: 2 |            | 07:12:15 03 Jun 2000 HG |   |   |
| Hg                     | .500  | ppb   | 130707  |        | 0014-122-5 |                         |   |   |
| *** Standard: 4 Rep: 1 |       |       |         | Seq: 3 |            | 07:14:33 03 Jun 2000 HG |   |   |
| Hg                     | 1.00  | ppb   | 240437  |        | 0014-122-6 |                         |   |   |
| *** Standard: 5 Rep: 1 |       |       |         | Seq: 4 |            | 07:16:38 03 Jun 2000 HG |   |   |
| Hg                     | 5.00  | ppb   | 1225447 |        | 0014-122-7 |                         |   |   |
| *** Standard: 6 Rep: 1 |       |       |         | Seq: 5 |            | 07:18:42 03 Jun 2000 HG |   |   |
| Hg                     | 10.0  | ppb   | 2343586 |        | 0014-122-8 |                         |   |   |

RunProt: HGMET STL-PITTSBURGH METALS ANALYSIS  
 RunFold: 0603MGA Seq: 6 Batch:  
 Prnt: R/T On Pump: On  
 Rev: 4.2 07:21:07 03 Jan 2000 Xmit: Off Gas: 0.30 LPM  
 State: Idle User: WWH A/S: On

CALIBRATION: Line proto: HGMET

|    | Hg         | Accepted            |
|----|------------|---------------------|
|    | Conc.      | Calc. Dev. ->linear |
| S1 | .000       | -.050 Quadratic     |
| S2 | .200       | .200 Wtdlinear      |
| S3 | .500       | .497 -.003 C        |
| S4 | 1.00       | .965 -.035 Accept o |
| S5 | 5.00       | 5.16 .159 n         |
| S6 | 10.0       | 9.92 -.000 c        |
| A  | .0000000   | r .999770           |
| B  | 4.25026e-6 | C -5.91870e-2       |



|    | Mean    | SD      |
|----|---------|---------|
| S1 | 2190    | 2190    |
| S2 | 62819   | 62819   |
| S3 | 130707  | 130707  |
| S4 | 240437  | 240437  |
| S5 | 1225447 | 1225447 |
| S6 | 2343506 | 2343506 |

New cal coefficients stored

6591374

Folder: 0603HGA  
Protocol: HGMET

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07:23:32 03 Jun 2000

| Line                   | Conc. | Units | SD/RSD  | 1           | 2                       | 3 | 4 | 5 |
|------------------------|-------|-------|---------|-------------|-------------------------|---|---|---|
| *** Sample ID: ICV5-1  |       |       |         | Seq: 6      | 07:23:32 03 Jun 2000 HG |   |   |   |
| Hg                     | 2.63  | ppb   | 630959  | 0014-122-9  |                         |   |   |   |
| *** Sample ID: ICB1    |       |       |         | Seq: 7      | 07:25:25 03 Jun 2000 HG |   |   |   |
| Hg                     | -.038 | ppb   | 5031    |             |                         |   |   |   |
| *** Sample ID: CRA-1   |       |       |         | Seq: 8      | 07:27:54 03 Jun 2000 HG |   |   |   |
| Hg                     | .197  | ppb   | 60251   | 0014-122-10 |                         |   |   |   |
| *** Sample ID: CCV5-1  |       |       |         | Seq: 9      | 07:29:44 03 Jun 2000 HG |   |   |   |
| Hg                     | 5.17  | ppb   | 1227173 | 0014-122-11 |                         |   |   |   |
| *** Sample ID: CCB1    |       |       |         | Seq: 10     | 07:32:17 03 Jun 2000 HG |   |   |   |
| Hg                     | -.030 | ppb   | 6833    |             |                         |   |   |   |
| *** Sample ID: DE58KBT |       |       |         | Seq: 11     | 07:34:21 03 Jun 2000 HG |   |   |   |
| Hg                     | -.043 | ppb   | 3816    |             |                         |   |   |   |
| *** Sample ID: DE58KCT |       |       |         | Seq: 12     | 07:36:31 03 Jun 2000 HG |   |   |   |
| Hg                     | 2.66  | ppb   | 638020  | 0014-122-12 |                         |   |   |   |
| *** Sample ID: DE36ABT |       |       |         | Seq: 13     | 07:38:22 03 Jun 2000 HG |   |   |   |
| Hg                     | -.054 | ppb   | 1110    |             |                         |   |   |   |
| *** Sample ID: DDKFGT  |       |       |         | Seq: 14     | 07:40:34 03 Jun 2000 HG |   |   |   |
| Hg                     | .002  | ppb   | 14353   |             |                         |   |   |   |
| *** Sample ID: DDKFHT  |       |       |         | Seq: 15     | 07:43:06 03 Jun 2000 HG |   |   |   |
| Hg                     | -.002 | ppb   | 13425   |             |                         |   |   |   |
| *** Sample ID: DDKFJT  |       |       |         | Seq: 16     | 07:45:01 03 Jun 2000 HG |   |   |   |
| Hg                     | -.002 | ppb   | 13489   |             |                         |   |   |   |
| *** Sample ID: DDKFKT  |       |       |         | Seq: 17     | 07:46:50 03 Jun 2000 HG |   |   |   |
| Hg                     | -.000 | ppb   | 13849   |             |                         |   |   |   |

07:48:37 03 Jun 2000

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Protocol: HGMET

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| Line                  | Conc. | Units | SD/RSD  | 1       | 2                       | 3 | 4 | 5 |
|-----------------------|-------|-------|---------|---------|-------------------------|---|---|---|
| *** Sample ID: DDKFLT |       |       |         | Seq: 18 | 07:48:37 03 Jun 2000 HG |   |   |   |
| Hg                    | -.038 | ppb   | 5053    |         |                         |   |   |   |
| *** Sample ID: DDKFMT |       |       |         | Seq: 19 | 07:51:27 03 Jun 2000 HG |   |   |   |
| Hg                    | -.019 | ppb   | 9404    |         |                         |   |   |   |
| *** Sample ID: DDKFNT |       |       |         | Seq: 20 | 07:54:10 03 Jun 2000 HG |   |   |   |
| Hg                    | -.037 | ppb   | 5217    |         |                         |   |   |   |
| *** Sample ID: CCV5-2 |       |       |         | Seq: 21 | 07:56:08 03 Jun 2000 HG |   |   |   |
| Hg                    | 5.11  | ppb   | 1215029 |         |                         |   |   |   |
| *** Sample ID: CCB2   |       |       |         | Seq: 22 | 07:58:09 03 Jun 2000 HG |   |   |   |
| Hg                    | -.051 | ppb   | 1816    |         |                         |   |   |   |
| *** Sample ID: DDKFPT |       |       |         | Seq: 23 | 07:59:57 03 Jun 2000 HG |   |   |   |
| Hg                    | .002  | ppb   | 14415   |         |                         |   |   |   |
| *** Sample ID: DDKFQT |       |       |         | Seq: 24 | 08:03:20 03 Jun 2000 HG |   |   |   |
| Hg                    | -.025 | ppb   | 8104    |         |                         |   |   |   |
| *** Sample ID: DDKFRT |       |       |         | Seq: 25 | 08:05:12 03 Jun 2000 HG |   |   |   |
| Hg                    | -.042 | ppb   | 4076    |         |                         |   |   |   |
| *** Sample ID: DDKFVT |       |       |         | Seq: 26 | 08:07:11 03 Jun 2000 HG |   |   |   |
| Hg                    | .022  | ppb   | 19137   |         |                         |   |   |   |
| *** Sample ID: DDKFWT |       |       |         | Seq: 27 | 08:09:03 03 Jun 2000 HG |   |   |   |
| Hg                    | -.030 | ppb   | 6934    |         |                         |   |   |   |
| *** Sample ID: DDKFXT |       |       |         | Seq: 28 | 08:11:17 03 Jun 2000 HG |   |   |   |
| Hg                    | -.009 | ppb   | 11803   |         |                         |   |   |   |
| *** Sample ID: DDKG3T |       |       |         | Seq: 29 | 08:14:31 03 Jun 2000 HG |   |   |   |
| Hg                    | -.021 | ppb   | 9007    |         |                         |   |   |   |

6591376

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Protocol: HGMET

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08:16:35 03 Jun 2000

| Line                    | Conc. | Units | SD/RSD  | 1           | 2                       | 3 | 4 | 5               |
|-------------------------|-------|-------|---------|-------------|-------------------------|---|---|-----------------|
| *** Sample ID: DDK65T   |       |       |         | Seq: 30     | 08:16:35 03 Jun 2000 HG |   |   |                 |
| Hg                      | .009  | ppb   | 16040   |             |                         |   |   |                 |
| *** Sample ID: DDRLVT   |       |       |         | Seq: 31     | 08:18:45 03 Jun 2000 HG |   |   |                 |
| Hg                      | -.018 | ppb   | 9660    |             |                         |   |   |                 |
| *** Sample ID: DE022T   |       |       |         | Seq: 32     | 08:20:56 03 Jun 2000 HG |   |   |                 |
| Hg                      | -.016 | ppb   | 10248   |             |                         |   |   |                 |
| *** Sample ID: CCV5-3   |       |       |         | Seq: 33     | 08:22:55 03 Jun 2000 HG |   |   |                 |
| Hg                      | 5.00  | ppb   | 1186987 |             |                         |   |   |                 |
| *** Sample ID: CCB3     |       |       |         | Seq: 34     | 08:26:09 03 Jun 2000 HG |   |   |                 |
| Hg                      | -.018 | ppb   | 9710    |             |                         |   |   |                 |
| *** Sample ID: DE022ST  |       |       |         | Seq: 35     | 08:28:08 03 Jun 2000 HG |   |   |                 |
| Hg                      | 4.97  | ppb   | 1180563 |             |                         |   |   | SP.REC.<br>99%  |
| *** Sample ID: DDE022DT |       |       |         | Seq: 36     | 08:30:01 03 Jun 2000 HG |   |   |                 |
| Hg                      | 4.99  | ppb   | 1185969 |             |                         |   |   | SP.REC.<br>100% |
| *** Sample ID: DE58MBT  |       |       |         | Seq: 37     | 08:32:30 03 Jun 2000 HG |   |   |                 |
| Hg                      | -.017 | ppb   | 9942    |             |                         |   |   |                 |
| *** Sample ID: DE58MCT  |       |       |         | Seq: 38     | 08:34:45 03 Jun 2000 HG |   |   |                 |
| Hg                      | 2.66  | ppb   | 639618  | 0014-122-13 |                         |   |   |                 |
| *** Sample ID: DE3HEBT  |       |       |         | Seq: 39     | 08:36:37 03 Jun 2000 HG |   |   |                 |
| Hg                      | .024  | ppb   | 19419   |             |                         |   |   |                 |
| *** Sample ID: DDM06T   |       |       |         | Seq: 40     | 08:38:42 03 Jun 2000 HG |   |   |                 |
| Hg                      | .054  | ppb   | 26518   |             |                         |   |   |                 |
| *** Sample ID: DDM06ST  |       |       |         | Seq: 41     | 08:40:48 03 Jun 2000 HG |   |   |                 |
| Hg                      | 5.14  | ppb   | 1220342 |             |                         |   |   | SP.REC.<br>102% |

08:42:38 03 Jun 2000

Folder: 0603HGA  
Protocol: HGMET

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| Line                   | Conc. | Units | SD/RSD  | 1       | 2                       | 3 | 4 | 5 |
|------------------------|-------|-------|---------|---------|-------------------------|---|---|---|
| *** Sample ID: DDM06DT |       |       |         | Seq: 42 | 08:42:38 03 Jun 2000 HG |   |   |   |
| Hg                     | 5.04  | ppb   | 1196823 |         |                         |   |   |   |
| *** Sample ID: DDM4GT  |       |       |         | Seq: 43 | 08:44:34 03 Jun 2000 HG |   |   |   |
| Hg                     | -.021 | ppb   | 9075    |         |                         |   |   |   |
| *** Sample ID: DDM4KT  |       |       |         | Seq: 44 | 08:46:30 03 Jun 2000 HG |   |   |   |
| Hg                     | .004  | ppb   | 14933   |         |                         |   |   |   |
| *** Sample ID: CCV5-4  |       |       |         | Seq: 45 | 08:48:45 03 Jun 2000 HG |   |   |   |
| Hg                     | 4.97  | ppb   | 1181161 |         |                         |   |   |   |
| *** Sample ID: CCB4    |       |       |         | Seq: 46 | 08:51:17 03 Jun 2000 HG |   |   |   |
| Hg                     | -.024 | ppb   | 8341    |         |                         |   |   |   |
| *** Sample ID: DDNW7T  |       |       |         | Seq: 47 | 08:53:11 03 Jun 2000 HG |   |   |   |
| Hg                     | -.019 | ppb   | 9515    |         |                         |   |   |   |
| *** Sample ID: DDNWT   |       |       |         | Seq: 48 | 08:56:36 03 Jun 2000 HG |   |   |   |
| Hg                     | .014  | ppb   | 17213   |         |                         |   |   |   |
| *** Sample ID: DE00ET  |       |       |         | Seq: 49 | 08:59:09 03 Jun 2000 HG |   |   |   |
| Hg                     | .012  | ppb   | 16619   |         |                         |   |   |   |
| *** Sample ID: DE58PB  |       |       |         | Seq: 50 | 09:01:07 03 Jun 2000 HG |   |   |   |
| Hg                     | -.025 | ppb   | 8052    |         |                         |   |   |   |
| *** Sample ID: DE58PC  |       |       |         | Seq: 51 | 09:03:19 03 Jun 2000 HG |   |   |   |
| Hg                     | 2.54  | ppb   | 610448  |         |                         |   |   |   |
| *** Sample ID: DE58PL  |       |       |         | Seq: 52 | 09:05:14 03 Jun 2000 HG |   |   |   |
| Hg                     | 2.47  | ppb   | 594366  |         |                         |   |   |   |
| *** Sample ID: DE367   |       |       |         | Seq: 53 | 09:07:06 03 Jun 2000 HG |   |   |   |
| Hg                     | -.048 | ppb   | 2593    |         |                         |   |   |   |

SP.REC.  
100%

0014-122-14

0014-122-15

6591378

09:09:00 03 Jun 2000

Folder: 0603HGA

Page 944

Protocol: HGMET

| Line | Conc. | Units | SD/RSD | 1 | 2 | 3 | 4 | 5 |
|------|-------|-------|--------|---|---|---|---|---|
|------|-------|-------|--------|---|---|---|---|---|

\*\*\* Sample ID: CCV5-5

Seq: 54

09:09:00 03 Jun 2000 HG

Hg 5.01 ppb 1190876

\*\*\* Sample ID: CCB5

Seq: 55

09:10:58 03 Jun 2000 HG

Hg -.030 ppb 6798

END OF ANALYSIS

WAH

6-3-00

|                  |                                |                |         |
|------------------|--------------------------------|----------------|---------|
| RunProt: HGMET   | STL-PITTSBURGH METALS ANALYSIS |                |         |
| RunFold: 0603HGA | Seq: 0                         | Batch:         |         |
|                  | Prnt: R/T On                   | Pump: Off      |         |
| Rev: 4.2         | 06:00:52 03 Jun 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      | CRA-1       | 1.0000 | 1.0000 |       |              |
| 4      | CCV5-1      | 1.0000 | 1.0000 |       |              |
| 5      | CCB1        | 1.0000 | 1.0000 |       |              |
| 6      | DE58KBT     | 1.0000 | 1.0000 |       |              |
| 7      | DE58KCT     | 1.0000 | 1.0000 |       |              |
| 8      | DE3GABT     | 1.0000 | 1.0000 |       |              |
| 9      | DDKFGT      | 1.0000 | 1.0000 |       |              |
| 10     | DDKFHT      | 1.0000 | 1.0000 |       |              |
| 11     | DDKFJT      | 1.0000 | 1.0000 |       |              |
| 12     | DDKFKT      | 1.0000 | 1.0000 |       |              |
| 13     | DDKFLT      | 1.0000 | 1.0000 |       |              |
| 14     | DDKFMT      | 1.0000 | 1.0000 |       |              |
| 15     | DDKFNT      | 1.0000 | 1.0000 |       |              |

PgDn

|                  |                              |
|------------------|------------------------------|
| Cup 1 ID: ICV5-1 | Cell down mode Ins to switch |
|------------------|------------------------------|



6591380

|                  |                                |                      |                    |
|------------------|--------------------------------|----------------------|--------------------|
| RunProt: HGMET   | STL-PITTSBURGH METALS ANALYSIS |                      |                    |
| RunFold: 0603HGA | Seq: 0                         | Batch:               |                    |
|                  | Prnt: R/T On                   | Pump: Off            |                    |
|                  | Rev: 4.2                       | 06:00:54 03 Jun 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     | CCV5-2      | 1.0000 | 1.0000 |       |              |
| 17     | CCB2        | 1.0000 | 1.0000 |       |              |
| 18     | DDKFPT      | 1.0000 | 1.0000 |       |              |
| 19     | DDKFQT      | 1.0000 | 1.0000 |       |              |
| 20     | DDKFRT      | 1.0000 | 1.0000 |       |              |
| 21     | DDKFVT      | 1.0000 | 1.0000 |       |              |
| 22     | DDKFWT      | 1.0000 | 1.0000 |       |              |
| 23     | DDKFXT      | 1.0000 | 1.0000 |       |              |
| 24     | DDKG3T      | 1.0000 | 1.0000 |       |              |
| 25     | DDKG5T      | 1.0000 | 1.0000 |       |              |
| 26     | DDRLVT      | 1.0000 | 1.0000 |       |              |
| 27     | DE022T      | 1.0000 | 1.0000 |       |              |
| 28     | CCV5-3      | 1.0000 | 1.0000 |       |              |
| 29     | CCB3        | 1.0000 | 1.0000 |       |              |
| 30     | DE022ST     | 1.0000 | 1.0000 |       |              |

PgDn

|                   |                              |
|-------------------|------------------------------|
| Cup 16 ID: CCV5-2 | Cell down mode Ins to switch |
|-------------------|------------------------------|

RunProt: HGMET STL-PITTSBURGH METALS ANALYSIS  
RunFold: 0603HGA Seq: 0 Batch:  
Prnt: R/T On Pump: Off  
Rev: 4.2 06:00:56 03 Jun 2000 Xmit: Off Gas: LPM  
State: Idle User: WAN A/S: On

AUTOSAMPLER: Rack Edit rack: RACK1 PgUp  
cup ID Extended id Weight Volume Macro check macros  
31 DDE022DT 1.0000 1.0000  
32 DES8MBF 1.0000 1.0000  
33 DES8MCT 1.0000 1.0000  
34 DE3HEBT 1.0000 1.0000  
35 DDM06T 1.0000 1.0000  
36 DDM06ST 1.0000 1.0000  
37 DDM06DT 1.0000 1.0000  
38 DDM48T 1.0000 1.0000  
39 DDM4KT 1.0000 1.0000  
40 CCV5-4 1.0000 1.0000  
41 CCB4 1.0000 1.0000  
42 DDNW7T 1.0000 1.0000  
43 DDNWT 1.0000 1.0000  
44 DE00ET 1.0000 1.0000

PgDn

Cup 31 ID: DDE022DT

Cell down mode Ins to switch

6591382

|                  |                                |                      |                    |
|------------------|--------------------------------|----------------------|--------------------|
| RunProt: HGMET   | STL-PITTSBURGH METALS ANALYSIS |                      |                    |
| RunFold: 0603HGA | Seq: 0                         | Batch:               |                    |
|                  | Prnt: R/T On                   | Pump: Off            |                    |
|                  | Rev: 4.2                       | 06:05:10 03 Jun 2000 | Xmit: Off Gas: LPM |
| State: Idle      |                                | User: WAH            | A/S: On            |

| AUTOSAMPLER: | Rack Edit   | rack: RACK2 | Range  | 1-44  | Clear se0 | Undo exit |
|--------------|-------------|-------------|--------|-------|-----------|-----------|
| cup ID       | Extended id | Weight      | Volume | Macro | check     | macros    |
| 1 DE58PB     |             | 1.0000      | 1.0000 |       |           |           |
| 2 DE58PC     |             | 1.0000      | 1.0000 |       |           |           |
| 3 DE58PL     |             | 1.0000      | 1.0000 |       |           |           |
| 4 DE3G7      |             | 1.0000      | 1.0000 |       |           |           |
| 5 CCV5-S     |             | 1.0000      | 1.0000 |       |           |           |
| 6 CCB5       |             | 1.0000      | 1.0000 |       |           |           |
| 7            |             | 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 9 ID: | Cell down mode Ins to switch |
|-----------|------------------------------|

**Quanterra**  
Environmental

|               |     |                 |           |            |             |
|---------------|-----|-----------------|-----------|------------|-------------|
| Serial Number | 089 | Log Book Number | 96-MT-576 | Start Time | 05:30-05:45 |
|---------------|-----|-----------------|-----------|------------|-------------|

STL, Pittsburgh

# Hg Digestion Log

Quanterra Incorporated  
450 William Pitt Way  
Pittsburgh, Pennsylvania 15238  
412/826-5477 FAX: 412/826-5571



QUA-4169

PIPEL # H31609

Serial Number 090 Log Book Number 96-MT-576 Start Time 05:30 705:45

| Sample ID                       | Date Rec'd | Prep Date | Prepared By         | Wt/Vol   | Sample Type             | Run Date | Comments                              |
|---------------------------------|------------|-----------|---------------------|----------|-------------------------|----------|---------------------------------------|
| 1. DDHFWT                       | 5-23-00    | 6-3-00    | W/AH                | 100ml    | WATER                   | 6-3-00   | N/A                                   |
| 2. DDHFWT                       |            |           |                     |          |                         |          |                                       |
| 3. DDHFWT                       |            |           |                     |          |                         |          |                                       |
| 4. DDHFWT                       |            |           |                     |          |                         |          |                                       |
| 5. DDHFWT                       | 5-26-00    |           |                     |          |                         |          |                                       |
| 6. DDHFWT                       | 5-31-00    |           |                     |          |                         |          | + 5ml 0014-122-2                      |
| 7. DDHFWT                       |            |           |                     |          |                         |          | + 5ml 0014-122-2                      |
| 8. DDHFWT                       |            |           |                     |          |                         |          | N/A                                   |
| 9. DDHFWT                       | N/A        |           |                     |          |                         |          | 0014-122-13                           |
| 10. DDHFWT                      |            |           |                     |          |                         |          | N/A                                   |
| 11. DDHFWT                      |            |           |                     |          |                         |          | N/A                                   |
| 12. DDHFWT                      | 5-24-00    |           |                     |          |                         |          | + 5ml 0014-122-2                      |
| 13. DDHFWT                      |            |           |                     |          |                         |          | + 5ml 0014-122-2                      |
| 14. DDHFWT                      |            |           |                     |          |                         |          | N/A                                   |
| 15. DDHFWT                      |            |           |                     |          |                         |          |                                       |
| 16. DDHFWT                      |            |           |                     |          |                         |          |                                       |
| 17. DDHFWT                      | 5-25-00    |           |                     |          |                         |          |                                       |
| 18. DDHFWT                      |            |           |                     |          |                         |          |                                       |
| 19. DDHFWT                      | 5-31-00    |           |                     |          |                         |          |                                       |
| 20. DDHFWT                      |            |           |                     |          |                         |          | 6014-122-14                           |
| 21. DDHFWT                      |            |           |                     |          |                         |          | 0014-122-15                           |
| 22. DDHFWT                      |            |           |                     |          |                         |          | N/A                                   |
| 23. DDHFWT                      | 6-3-00     |           |                     |          |                         |          |                                       |
| 24. DDHFWT                      |            |           |                     |          |                         |          |                                       |
| 25. DDHFWT                      |            |           |                     |          |                         |          |                                       |
| Reagents                        |            | Vol (mL)  |                     |          | Ref. Number             |          | Method                                |
| HNO3                            | 2.5ml      |           |                     |          | MAILICKROBT 6623 N35058 |          | 7470A/TECHNICAL AUTOCLAVE 15PSI 130°C |
| H2SO4                           | 5.0ml      |           |                     |          | MAILICKROBT 6557 N21913 |          | SNCL2 = 0014-118-2                    |
| KMNO4                           | 15.0ml     |           |                     |          | 0014-119-1              |          | 0014-120-3                            |
| K2S2O4                          | 8.0ml      |           |                     |          | 0014-118-2              |          | 0014-120-3                            |
| Extract(s)                      |            |           | Extract(s) Received |          |                         |          | Extract(s) Relinquished               |
| (Record line number from above) | Date       | Time      | Analyst             | Location | Date                    | Time     | Analyst                               |
|                                 |            |           | W/AH                | 6-3-00   |                         |          |                                       |

6591384

STL Pittsburgh

QUA-4181

By *D. Savat* Date *6-1-00*

Checked by *[Signature]*

Date *6-2-00*

pH Instrument *Accumet MK6*

Probe *SN908203D*

Balance *C94817*

Project Number *266330245* *CAF310152*

Client Code *133691375241, 399411*

Solution Number 1 - Log Book Number *995404-12*

Solution Number 2 - Log Book Number

**Fluid Determination**

**TCLP Extraction**

| Sample ID | Wgt/Vol      | Initial pH | Final pH | Extract Fluid #1, or #2 | Conc.: HNO <sub>3</sub> to Acidity (for Metals) | Sample ID          | Wgt (g) Wet/Dry | Fluid Vol. | Final pH After Tumbling |
|-----------|--------------|------------|----------|-------------------------|-------------------------------------------------|--------------------|-----------------|------------|-------------------------|
| DDKEG     | 5.00g/46.5.1 | 8.78       | 1.78     | 50 HF 1                 | 5 mL                                            | 1. DDKEG 6-1-00 #1 | 100.00g         | 200.01     | 4.91                    |
| DDKEH     | ✓            | 9.21       | 1.71     | ✓                       | ✓                                               | 2. DDKEH           | ✓               | ✓          | 5.87                    |
| DDKEJ     | ✓            | 9.13       | 1.70     | ✓                       | ✓                                               | 3. DDKEJ           | ✓               | ✓          | 6.39                    |
| DDKEK     | ✓            | 8.89       | 1.69     | ✓                       | ✓                                               | 4. DDKEK           | ✓               | ✓          | 6.21                    |
| DDKEL     | ✓            | 8.75       | 1.66     | ✓                       | ✓                                               | 5. DDKEL           | ✓               | ✓          | 6.14                    |
| DDKEF     | ✓            | 8.70       | 1.63     | ✓                       | ✓                                               | 6. DDKEF           | ✓               | ✓          | 6.23                    |
| DDKEG     | ✓            | 8.77       | 1.59     | ✓                       | ✓                                               | 7. DDKEG           | ✓               | ✓          | 5.70                    |
| DDKEH     | ✓            | 8.65       | 1.55     | ✓                       | ✓                                               | 8. DDKEH           | ✓               | ✓          | 5.47                    |
| DDKEI     | ✓            | 8.43       | 1.57     | ✓                       | ✓                                               | 9. DDKEI           | ✓               | ✓          | 5.32                    |
| DDKEJ     | ✓            | 8.58       | 1.59     | ✓                       | ✓                                               | 10. DDKEJ          | ✓               | ✓          | 5.27                    |
| DDKEK     | ✓            | 8.40       | 1.53     | ✓                       | ✓                                               | 11. DDKEK          | ✓               | ✓          | 5.12                    |
| DDKEW     | ✓            | 8.03       | 1.54     | ✓                       | ✓                                               | 12. DDKEW          | ✓               | ✓          | 5.27                    |
| DDKFX     | ✓            | ✓          | ✓        | ✓                       | ✓                                               | 13. DDKFW          | ✓               | ✓          | 5.02                    |

**Extract(s)**

**Extract(s) Received**

**Extract(s) Relinquished**

| (Record line number from above) | Date          | Time        | Analyst         | Location           | Date          | Time        | Analyst         | Location    |
|---------------------------------|---------------|-------------|-----------------|--------------------|---------------|-------------|-----------------|-------------|
| <i>A11 Above</i>                | <i>6-2-00</i> | <i>1135</i> | <i>D. Savat</i> | <i>Metals Recp</i> | <i>6-2-00</i> | <i>1140</i> | <i>D. Savat</i> | <i>30 F</i> |

\* = Sample determined to have free-liquid, % solid determination was performed.

<5 = Extraction Fluid No. 1 5.7 mL Glacial Acetic Acid dil 500 mL + 64.3 mL of 1N Na OH dil to 1L (pH 4.93 ± 0.05)

>5 = Extraction Fluid No. 2 5.7 mL Glacial Acetic Acid dil to 1L (pH 2.88 ± 0.05)

Room Temp 23.0

| Date/Time On       | Date/Time Off         | Agitation Apparatus RPMs |
|--------------------|-----------------------|--------------------------|
| <i>6-1-00 1200</i> | <i>6-2-00 0415</i>    | <i>30 ± 2</i>            |
| <i>6-1-00</i>      | <i>pH Calibration</i> | <i>(4.0)</i>             |
| <i>6-2-00</i>      | <i>4.00</i>           | <i>7.01</i>              |
| <i>6-2-00</i>      | <i>4.00</i>           | <i>7.01</i>              |
| <i>6-2-00</i>      | <i>4.00</i>           | <i>10.02</i>             |
| <i>6-2-00</i>      | <i>4.00</i>           | <i>10.04</i>             |

# TCLP (Method 1311)

Quanterra Incorporated  
450 William Pitt Way  
Pittsburgh, Pennsylvania 15238  
412/826-5477 FAX: 412/826-5571



QUA-4181

By Anthony O. Grant Date 6-1-00

Checked by [Signature]

Page 2 of 2 Filter Lot # 3207014

Serial Number 047 Log Book Number 96-MT-526

Project Number COE330915 COE310132

Client Codes 131369, 375241, 399411

Accumulator # 995404-12

Probe SN909203b Balance C94817

## Fluid Determination

## TCLP Extraction

| Sample ID | Wgt/Vol    | Init. pH | Final pH | Extract Fluid #1, or #2 | Conc. HNO3 to Acidity (for Metals) | Sample ID | Wgt (g) Wet/Dry | Fluid Vol. | Final pH After Tumbling |
|-----------|------------|----------|----------|-------------------------|------------------------------------|-----------|-----------------|------------|-------------------------|
| DDK63     | 5.00g/4.51 | 8.62     | 1.61     | Sol #1                  | 5mL                                | 1. DDK63  | 100.00g         | 3000mL     | 5.32                    |
| DDK65     | 5.17       | 1.52     |          |                         |                                    | 2 DDK65   |                 |            | 4.91                    |
| DDRLV     | 8.61       | 1.59     |          |                         |                                    | 3 DDK65   |                 |            | 4.93                    |
| DE022     | 8.60       | 1.74     |          |                         |                                    | 4 DDKLV   |                 |            | 5.40                    |
|           |            |          |          |                         |                                    | 5 DE022   |                 |            | 5.21                    |
|           |            |          |          |                         |                                    | 6 DE022   |                 |            |                         |
|           |            |          |          |                         |                                    | 7.        |                 |            |                         |
|           |            |          |          |                         |                                    | 8.        |                 |            |                         |
|           |            |          |          |                         |                                    | 9.        |                 |            |                         |
|           |            |          |          |                         |                                    | 10.       |                 |            |                         |
|           |            |          |          |                         |                                    | 11.       |                 |            |                         |
|           |            |          |          |                         |                                    | 12.       |                 |            |                         |
|           |            |          |          |                         |                                    | 13.       |                 |            |                         |

## Extract(s)

## Extract(s) Received

## Extract(s) Relinquished

(Record line number from above)

Date

Time

Analyst

Location

Date

Time

Analyst

Location

All Above

6-2-00

1135

Anthony O. Grant

Metals/eq 6-2-00

1140

Anthony O. Grant

30F

33 = Sample determined to have free-liquid, % solid determination was performed.

15 = Extraction Fluid No. 1 5.7 mL Glacial Acetic Acid dil 500 mL + 64.3 mL of 1N Na OH dil to 1L (pH 4.93 + 0.05)

15 = Extraction Fluid No 2 5.7 mL Glacial Acetic Acid dil to 1L (pH 2.88 + 0.05)

Date/Time On 6-1-00 1800 Date/Time Off 6-2-00 0415 Agitation Apparatus RPMs 30 ± 2

pH Calibration

Date 6-1-00

Time 1800

Analyst [Signature]

Location 30F

Date 6-2-00

Time 1800

Analyst [Signature]

Location 30F

Comments

Room Temp 23°

PSR024 6/02/00 11:16:06 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 001

REQUESTED BY: HOYLEW

METHOD: 08 Mercury (7470A, Cold Vapor) - Liquid

| STORAGE LOCATION | WORK ORDER #    | PICKED<br>CNTR# | CONTROL # | CLIENT # | ANALYSIS | LOTID     | SMP# | SFX | MATRIX<br>DESCRIPTION | QTY  |      |
|------------------|-----------------|-----------------|-----------|----------|----------|-----------|------|-----|-----------------------|------|------|
|                  |                 |                 |           |          |          |           |      |     |                       | RCVD | REQD |
| 6A               | DDKFG           | ___             | 237707    | 131369   | A-0M-08  | C0E230215 | 009  |     | SOLID                 | 0    | 4 1  |
| 6A               | DDKFH           | ___             | 237708    | 131369   | A-0M-08  | C0E230215 | 010  |     | SOLID                 | 0    | 4 1  |
| 6A               | DDKFJ           | ___             | 237709    | 131369   | A-0M-08  | C0E230215 | 011  |     | SOLID                 | 0    | 4 1  |
| 6A               | DDKFK           | ___             | 237710    | 131369   | A-0M-08  | C0E230215 | 012  |     | SOLID                 | 0    | 4 1  |
| 6A               | DDKFL           | ___             | 237711    | 131369   | A-0M-08  | C0E230215 | 013  |     | SOLID                 | 0    | 4 1  |
| 6A               | DDKFM           | ___             | 237712    | 131369   | A-0M-08  | C0E230215 | 014  |     | SOLID                 | 0    | 4 1  |
| 6A               | DDKFN           | ___             | 237713    | 131369   | A-0M-08  | C0E230215 | 015  |     | SOLID                 | 0    | 4 1  |
| 6A               | DDKFP           | ___             | 237714    | 131369   | A-0M-08  | C0E230215 | 016  |     | SOLID                 | 0    | 2 1  |
| 6A               | DDKFQ           | ___             | 237715    | 131369   | A-0M-08  | C0E230215 | 017  |     | SOLID                 | 0    | 2 1  |
| 6A               | DDKFR           | ___             | 237716    | 131369   | A-0M-08  | C0E230215 | 018  |     | SOLID                 | 0    | 2 1  |
| 6A               | DDKRV           | ___             | 237717    | 131369   | A-0M-08  | C0E230215 | 019  |     | SOLID                 | 0    | 2 1  |
| 6A               | DDKFW           | ___             | 237718    | 131369   | A-0M-08  | C0E230215 | 020  |     | SOLID                 | 0    | 2 1  |
| 6A               | DDKFX           | ___             | 237719    | 131369   | A-0M-08  | C0E230215 | 021  |     | SOLID                 | 0    | 2 1  |
| 6A               | DDKG3           | ___             | 237720    | 131369   | A-0M-08  | C0E230215 | 022  |     | SOLID                 | 0    | 2 1  |
| 6A               | DDKG5           | ___             | 237721    | 131369   | A-0M-08  | C0E230215 | 023  |     | SOLID                 | 0    | 2 1  |
| 6E CLP1          | DDRLV           | ___             | 237722    | 375241   | A-0M-08  | C0E260142 | 001  |     | SOLID                 | 0    | 5 1  |
| 7E CLP1          | DE022<br>DE3GAB | ___             | 237723    | 399411   | A-0M-08  | C0E310132 | 001  |     | SOLID                 | 0    | 3 1  |

TCLP  
LEACHATE



6591388

PSR024 6/02/00 11:16:06 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 001

REQUESTED BY: HOYLEW

METHOD: 08 Mercury (7470A, Cold Vapor) - Liquid

| STORAGE LOCATION | WORK ORDER #    | PICKED<br>CNTR# | CONTROL # | CLIENT # | ANALYSIS | LOTID     | SMP# | SFX | MATRIX<br>DESCRIPTION | QTY<br>RCVD | QTY<br>REQD |
|------------------|-----------------|-----------------|-----------|----------|----------|-----------|------|-----|-----------------------|-------------|-------------|
| 6A               | DDKFG           | ___             | 237707    | 131369   | A-OM-08  | C0E230215 | 009  |     | SOLID                 | 0           | 4 1         |
| 6A               | DDKFH           | ___             | 237708    | 131369   | A-OM-08  | C0E230215 | 010  |     | SOLID                 | 0           | 4 1         |
| 6A               | DDKFJ           | ___             | 237709    | 131369   | A-OM-08  | C0E230215 | 011  |     | SOLID                 | 0           | 4 1         |
| 6A               | DDKFK           | ___             | 237710    | 131369   | A-OM-08  | C0E230215 | 012  |     | SOLID                 | 0           | 4 1         |
| 6A               | DDKFL           | ___             | 237711    | 131369   | A-OM-08  | C0E230215 | 013  |     | SOLID                 | 0           | 4 1         |
| 6A               | DDKFM           | ___             | 237712    | 131369   | A-OM-08  | C0E230215 | 014  |     | SOLID                 | 0           | 4 1         |
| 6A               | DDKFN           | ___             | 237713    | 131369   | A-OM-08  | C0E230215 | 015  |     | SOLID                 | 0           | 4 1         |
| 6A               | DDKFP           | ___             | 237714    | 131369   | A-OM-08  | C0E230215 | 016  |     | SOLID                 | 0           | 2 1         |
| 6A               | DDKFQ           | ___             | 237715    | 131369   | A-OM-08  | C0E230215 | 017  |     | SOLID                 | 0           | 2 1         |
| 6A               | DDKFR           | ___             | 237716    | 131369   | A-OM-08  | C0E230215 | 018  |     | SOLID                 | 0           | 2 1         |
| 6A               | DDKFB           | ___             | 237717    | 131369   | A-OM-08  | C0E230215 | 019  |     | SOLID                 | 0           | 2 1         |
| 6A               | DDKFW           | ___             | 237718    | 131369   | A-OM-08  | C0E230215 | 020  |     | SOLID                 | 0           | 2 1         |
| 6A               | DDKFX           | ___             | 237719    | 131369   | A-OM-08  | C0E230215 | 021  |     | SOLID                 | 0           | 2 1         |
| 6A               | DDKG3           | ___             | 237720    | 131369   | A-OM-08  | C0E230215 | 022  |     | SOLID                 | 0           | 2 1         |
| 6A               | DDKG5           | ___             | 237721    | 131369   | A-OM-08  | C0E230215 | 023  |     | SOLID                 | 0           | 2 1         |
| 6E CLP1          | DDR LV          | ___             | 237722    | 375241   | A-OM-08  | C0E260142 | 001  |     | SOLID                 | 0           | 5 1         |
| 7E CLP1          | DE022<br>DE3GAB | ___             | 237723    | 399411   | A-OM-08  | C0E310132 | 001  |     | SOLID                 | 0           | 3 1         |

TCLP  
LEACHATE

6591389

PSR024 6/02/00 11:16:06 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 002

REQUESTED BY: HOYLEW

METHOD: 08 Mercury (7470A, Cold Vapor) - Liquid

| <u>STORAGE LOCATION</u> | <u>WORK ORDER #</u> | <u>PICKED</u><br><u>CNTR#</u> | <u>CONTROL #</u> | <u>CLIENT #</u> | <u>ANALYSIS</u> | <u>LOTID</u> | <u>SMP#</u> | <u>SFX</u> | <u>MATRIX</u><br><u>DESCRIPTION</u> | <u>QTY</u><br><u>RCVD</u> | <u>QTY</u><br><u>REQD</u> |
|-------------------------|---------------------|-------------------------------|------------------|-----------------|-----------------|--------------|-------------|------------|-------------------------------------|---------------------------|---------------------------|
|-------------------------|---------------------|-------------------------------|------------------|-----------------|-----------------|--------------|-------------|------------|-------------------------------------|---------------------------|---------------------------|

RELINQUISHED BYRECEIVED BYDATE/TIME

|                         |                         |               |              |
|-------------------------|-------------------------|---------------|--------------|
| <u>William A. Hoyle</u> | <u>William A. Hoyle</u> | <u>6-3-00</u> | <u>03:40</u> |
|-------------------------|-------------------------|---------------|--------------|

|                         |                         |               |              |
|-------------------------|-------------------------|---------------|--------------|
| <u>William A. Hoyle</u> | <u>William A. Hoyle</u> | <u>6-3-00</u> | <u>04:40</u> |
|-------------------------|-------------------------|---------------|--------------|

6591390

PSR024 5/31/00 19:08:11 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 002

REQUESTED BY: FAUSTG

METHOD: Q0 Inductively Coupled Plasma (6010B)

| <u>STORAGE LOCATION</u> | <u>WORK ORDER #</u> | <u>PICKED</u><br><u>CNTR#</u> | <u>CONTROL #</u> | <u>CLIENT #</u> | <u>ANALYSIS</u> | <u>LOTID</u> | <u>SMP#</u> | <u>SFX</u> | <u>MATRIX</u><br><u>DESCRIPTION</u> | <u>QTY</u><br><u>RCVD</u> | <u>QTY</u><br><u>REQD</u> |
|-------------------------|---------------------|-------------------------------|------------------|-----------------|-----------------|--------------|-------------|------------|-------------------------------------|---------------------------|---------------------------|
|-------------------------|---------------------|-------------------------------|------------------|-----------------|-----------------|--------------|-------------|------------|-------------------------------------|---------------------------|---------------------------|

RELINQUISHED BY

RECEIVED BY

DATE/TIME

Geoffrey D. Faust  
Geoffrey D. Faust

Geoffrey D. Faust  
Geoffrey D. Faust

5-31-00 1030  
5-31-00 655200  
1158

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

PSR024 5/31/00 19:08:11 MT

## SAMPLE CUSTODIAN REMOVAL REQUEST

REQUESTED BY: FAUSTG

METHOD: QO Inductively Coupled Plasma (6010B)

| STORAGE LOCATION | WORK ORDER # | PICKED | CONTROL # | CLIENT # | ANALYSIS | LOTID     | SMP# | SFX | MATRIX<br>DESCRIPTION | QTY  | QTY  |
|------------------|--------------|--------|-----------|----------|----------|-----------|------|-----|-----------------------|------|------|
|                  |              | CNTR#  |           |          |          |           |      |     |                       | RCVD | REQD |
| 6A               | DDKFG        | ___    | 237483    | 131369   | A-34-QO  | C0E230215 | 009  |     | SOLID                 | 0    | 4 1  |
| 6A               | DDKFH        | ___    | 237484    | 131369   | A-34-QO  | C0E230215 | 010  |     | SOLID                 | 0    | 4 1  |
| 6A               | DDKFJ        | ___    | 237485    | 131369   | A-34-QO  | C0E230215 | 011  |     | SOLID                 | 0    | 4 1  |
| 6A               | DDKFK        | ___    | 237486    | 131369   | A-34-QO  | C0E230215 | 012  |     | SOLID                 | 0    | 4 1  |
| 6A               | DDKFL        | ___    | 237487    | 131369   | A-34-QO  | C0E230215 | 013  |     | SOLID                 | 0    | 4 1  |
| 6A               | DDKFM        | ___    | 237488    | 131369   | A-34-QO  | C0E230215 | 014  |     | SOLID                 | 0    | 4 1  |
| 6A               | DDKFN        | ___    | 237489    | 131369   | A-34-QO  | C0E230215 | 015  |     | SOLID                 | 0    | 4 1  |
| 6A               | DDKFP        | ___    | 237490    | 131369   | A-34-QO  | C0E230215 | 016  |     | SOLID                 | 0    | 2 1  |
| 6A               | DDKFQ        | ___    | 237491    | 131369   | A-34-QO  | C0E230215 | 017  |     | SOLID                 | 0    | 2 1  |
| 6A               | DDKFR        | ___    | 237492    | 131369   | A-34-QO  | C0E230215 | 018  |     | SOLID                 | 0    | 2 1  |
| 6A               | DDKRV        | ___    | 237493    | 131369   | A-34-QO  | C0E230215 | 019  |     | SOLID                 | 0    | 2 1  |
| 6A               | DDKFW        | ___    | 237494    | 131369   | A-34-QO  | C0E230215 | 020  |     | SOLID                 | 0    | 2 1  |
| 6A               | DDKFX        | ___    | 237495    | 131369   | A-34-QO  | C0E230215 | 021  |     | SOLID                 | 0    | 2 1  |
| 6A               | DDKG3        | ___    | 237496    | 131369   | A-34-QO  | C0E230215 | 022  |     | SOLID                 | 0    | 2 1  |
| 6A               | DDKG5        | ___    | 237497    | 131369   | A-34-QO  | C0E230215 | 023  |     | SOLID                 | 0    | 2 1  |
| 6E CLP1          | DDRLV        | ___    | 237498    | 375241   | A-34-QO  | C0E260142 | 001  |     | SOLID                 | 0    | 5 1  |
| 7E CLP1          | DE022        | ___    | 237499    | 399411   | A-34-QO  | C0E310132 | 001  |     | SOLID                 | 0    | 3 1  |

6591392

## **GENERAL CHEMISTRY DATA**

Client Sample ID: DF/S1/D151/SDC/005

## General Chemistry

Lot-Sample #....: C0E310132-001    Work Order #....: DE022    Matrix.....: SOLID  
 Date Sampled....: 05/30/00    Date Received...: 05/31/00  
 % Moisture.....: 14

| PARAMETER        | RESULT             | RL  | UNITS                  | METHOD            | PREPARATION-<br>ANALYSIS DATE | PREP<br>BATCH # |
|------------------|--------------------|-----|------------------------|-------------------|-------------------------------|-----------------|
| pH               | 8.0                |     | No Units               | SW846 9045C       | 05/31/00                      | 0152242         |
|                  | Dilution Factor: 1 |     | MS Run #.....: 0152098 |                   |                               |                 |
| Ignitability     | NO                 | --  | No Units               | SW846 SECTION 7.1 | 06/02/00                      | 0154264         |
|                  | Dilution Factor: 1 |     | MS Run #.....: 0154101 |                   |                               |                 |
| Percent Solids   | 85.5               |     | %                      | MCANW 160.3 MOD   | 05/31-06/01/00                | 0152172         |
|                  | Dilution Factor: 1 |     | MS Run #.....: 0152057 |                   |                               |                 |
| Reactive Cyanide | ND                 | 200 | mg/kg                  | SW846 7.3.3       | 06/06/00                      | 0158416         |
|                  | Dilution Factor: 1 |     | MS Run #.....: 0158205 |                   |                               |                 |
| Reactive Sulfide | ND                 | 200 | mg/kg                  | SW846 7.3.4       | 06/06/00                      | 0158410         |
|                  | Dilution Factor: 1 |     | MS Run #.....: 0158200 |                   |                               |                 |

6591394

## METHOD BLANK REPORT

## General Chemistry

Client Lot #...: C0E310132

Matrix.....: SOLID

| <u>PARAMETER</u> | <u>RESULT</u> | <u>REPORTING</u><br><u>LIMIT</u> | <u>UNITS</u> | <u>METHOD</u>                                 | <u>PREPARATION-</u><br><u>ANALYSIS DATE</u> | <u>PREP</u><br><u>BATCH #</u> |
|------------------|---------------|----------------------------------|--------------|-----------------------------------------------|---------------------------------------------|-------------------------------|
| Reactive Cyanide | ND            | Work Order #: DE924101<br>200    | mg/kg        | MB Lot-Sample #: A0F060000-416<br>SW846 7.3.3 | 06/06/00                                    | 0158416                       |
|                  |               | Dilution Factor: 1               |              |                                               |                                             |                               |
| Reactive Sulfide | ND            | Work Order #: DE91W101<br>200    | mg/kg        | MB Lot-Sample #: A0F060000-410<br>SW846 7.3.4 | 06/06/00                                    | 0158410                       |
|                  |               | Dilution Factor: 1               |              |                                               |                                             |                               |

**NOTE(S) :**

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

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

## General Chemistry

Client Lot #...: C0E310132

Matrix.....: SOLID

| <u>PARAMETER</u> | <u>PERCENT<br/>RECOVERY</u> | <u>RECOVERY<br/>LIMITS</u>           | <u>METHOD</u>                                 | <u>PREPARATION-<br/>ANALYSIS DATE</u> | <u>PREP<br/>BATCH #</u> |
|------------------|-----------------------------|--------------------------------------|-----------------------------------------------|---------------------------------------|-------------------------|
| pH               | 100                         | Work Order #: DE050101<br>(85 - 115) | LCS Lot-Sample#: C0E310000-242<br>SW846 9045C | 05/31/00                              | 0152242                 |
|                  |                             | Dilution Factor: 1                   |                                               |                                       |                         |

NOTE(S) :

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



6591396

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #....: C0E310132

Work Order #....: DDNN7-SMP  
DDNN7-DUP

Matrix.....: SOLID

Date Sampled....: 05/24/00

Date Received...: 05/25/00

% Moisture.....: 19

| <u>PARAM</u>       | <u>RESULT</u> | <u>DUPLICATE</u><br><u>RESULT</u> | <u>UNITS</u>            | <u>RPD</u><br><u>RPD</u> | <u>LIMIT</u> | <u>METHOD</u>                  | <u>PREPARATION-</u><br><u>ANALYSIS DATE</u> | <u>PREP</u><br><u>BATCH #</u> |
|--------------------|---------------|-----------------------------------|-------------------------|--------------------------|--------------|--------------------------------|---------------------------------------------|-------------------------------|
| Percent Solids     |               |                                   |                         |                          |              | SD Lot-Sample #: C0E250129-019 |                                             |                               |
| 81.0               |               | 82.2                              | %                       | 1.5                      | (0-20)       | MCAWW 160.3 MOD                | 05/31-06/01/00                              | 0152172                       |
| Dilution Factor: 1 |               |                                   |                         |                          |              |                                |                                             |                               |
|                    |               |                                   | Prep Date.....: 0152057 | Analysis Date...:        |              | Prep Batch #....:              |                                             |                               |

## SAMPLE DUPLICATE EVALUATION REPORT

## General Chemistry

Client Lot #....: COE310132

Work Order #....: DE022-SMP

Matrix.....: SOLID

DE022-DUP

Date Sampled....: 05/30/00

Date Received...: 05/31/00

\* Moisture.....: 14

| PARAM | RESULT | DUPLICATE<br>RESULT | UNITS    | RPD  | RPD<br>LIMIT | METHOD                                        | PREPARATION-<br>ANALYSIS DATE | PREP<br>BATCH # |
|-------|--------|---------------------|----------|------|--------------|-----------------------------------------------|-------------------------------|-----------------|
| pH    | 8.0    | 8.1                 | No Units | 0.75 | (0-20)       | SD Lot-Sample #: COE310132-001<br>SW846 9045C | 05/31/00                      | 0152242         |

Dilution Factor: 1

Prep Date.....: 0152098

Analysis Date...:

Prep Batch #....:

Ignitability

No Units 0

(0-0.0)

SD Lot-Sample #: COE310132-001  
SW846 SECTION 7.1 06/02/00

0154264

Dilution Factor: 1

Prep Date.....: 0154101

Analysis Date...:

Prep Batch #....:

Reactive Cyanide

ND

ND

mg/kg 0

(0-20)

SD Lot-Sample #: COE310132-001  
SW846 7.3.3 06/06/00

0158416

Dilution Factor: 1

Prep Date.....: 0158205

Analysis Date...:

Prep Batch #....:

Reactive Sulfide

ND

ND

mg/kg 0

(0-20)

SD Lot-Sample #: COE310132-001  
SW846 7.3.4 06/06/00

0158410

Dilution Factor: 1

Prep Date.....: 0158200

Analysis Date...:

Prep Batch #....:

**SAMPLE DUPLICATE EVALUATION REPORT**

6591398

**General Chemistry**

**Client Lot #....:** C0E310132

**Work Order #....:** DE7JG-SMP  
DE7JG-DUP

**Matrix.....:** WATER

**Date Sampled....:** 06/01/00

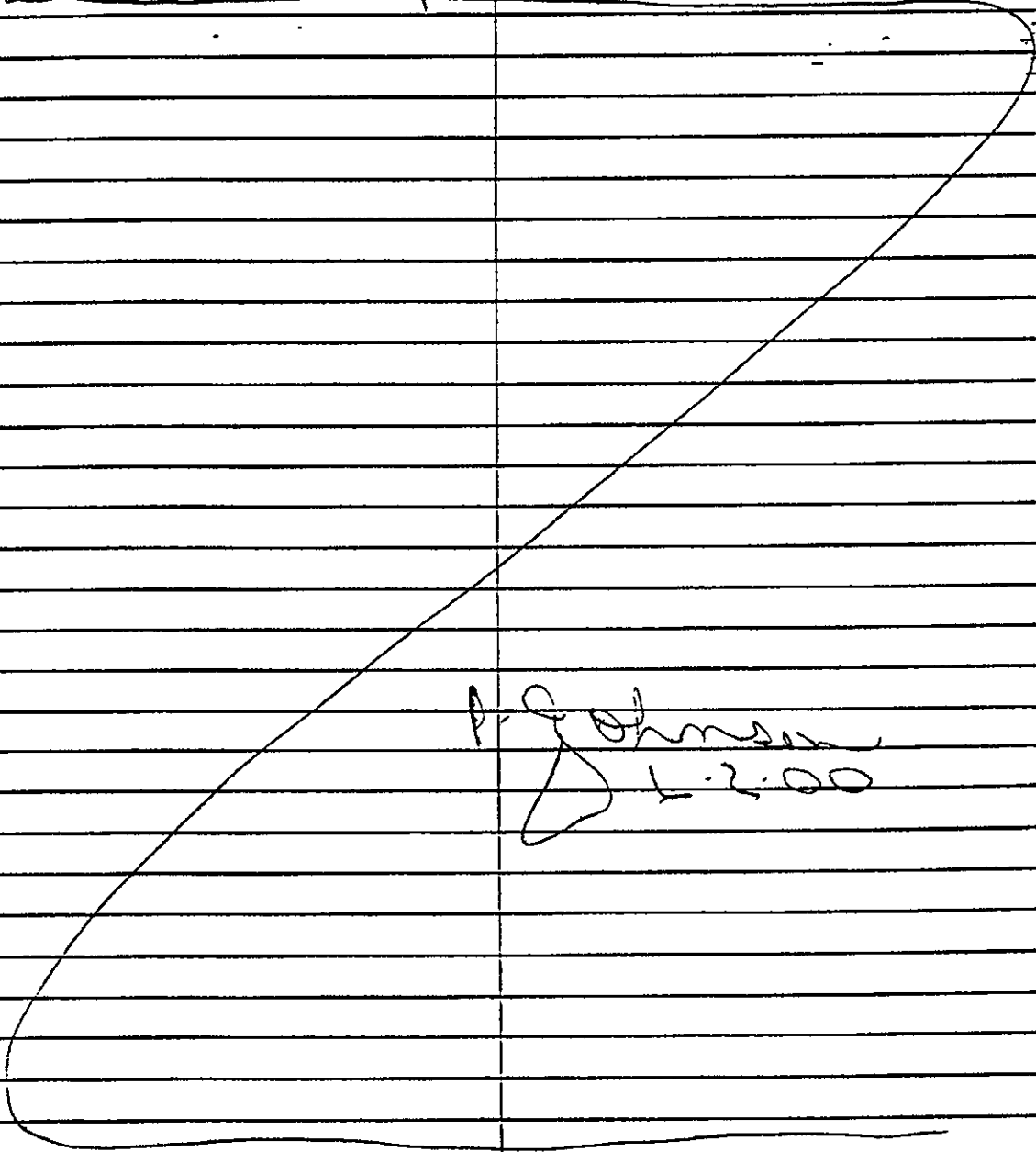
**Date Received...:** 06/02/00

| <u>PARAM</u>     | <u>RESULT</u> | <u>DUPLICATE<br/>RESULT</u> | <u>UNITS</u>            | <u>RPD</u> | <u>LIMIT</u>      | <u>METHOD</u>                                 | <u>PREPARATION-<br/>ANALYSIS DATE</u> | <u>PREP<br/>BATCH #</u> |
|------------------|---------------|-----------------------------|-------------------------|------------|-------------------|-----------------------------------------------|---------------------------------------|-------------------------|
| Reactive Cyanide | ND            | ND                          | mg/kg                   | 0          | (0-20)            | SD Lot-Sample #: A0F060102-001<br>SW846 7.3.3 | 06/06/00                              | 0158416                 |
|                  |               |                             | Dilution Factor: 1      |            |                   |                                               |                                       |                         |
|                  |               |                             | Prep Date.....: 0158205 |            | Analysis Date...: |                                               | Prep Batch #...:                      |                         |
|                  |               |                             |                         |            |                   |                                               |                                       |                         |
| Reactive Sulfide | ND            | ND                          | mg/kg                   | 0          | (0-20)            | SD Lot-Sample #: A0F060102-001<br>SW846 7.3.4 | 06/06/00                              | 0158410                 |
|                  |               |                             | Dilution Factor: 1      |            |                   |                                               |                                       |                         |
|                  |               |                             | Prep Date.....: 0158200 |            | Analysis Date...: |                                               | Prep Batch #...:                      |                         |

Method: Ignitability

Quanterra  
Incorporated

|                     |              |
|---------------------|--------------|
| ANALYST: P. Johnson | DATE: 6-2-00 |
| BATCH: 0154564      | TIME: 1330   |

| SAMPLE ID                                                                           | RESULT |
|-------------------------------------------------------------------------------------|--------|
| CoE.310132.001                                                                      | No     |
| 001 3p                                                                              | No     |
|  |        |
|                                                                                     |        |
|                                                                                     |        |
|                                                                                     |        |
|                                                                                     |        |
|                                                                                     |        |
|                                                                                     |        |
|                                                                                     |        |
|                                                                                     |        |
|                                                                                     |        |
|                                                                                     |        |
|                                                                                     |        |
|                                                                                     |        |
|                                                                                     |        |
|                                                                                     |        |
| P. Johnson<br>6-2-00                                                                |        |

Reviewed by Edu M. Faudt Date 6-2-00

**Quanterra Environmental Services**  
**pH LOG SHEET**

| Lot No.                    | Batch No. | SDG No. |
|----------------------------|-----------|---------|
| H <sub>2</sub> O 005300174 | 0152241   |         |
| Soil 005310132             | 0152242   | 5-31-00 |

Includes attachment(s) BALANCE # C94817  
Analyst: ERIC L. WESOLOSKI  
Date: 5-31-00  
Start Time: 12:45

| Reading | Buffer | Manf.<br>Lot No. | Rec'd   | Expire   |
|---------|--------|------------------|---------|----------|
| 7.00    | 7.0    | LACUM 9291-13    | 2-29-00 | 11-12-01 |
| 4.00    | 4.0    | 9167-08          | 5-9-00  | 6-25-01  |
| 10.00   | 10.0   | 0010-07          | 2-29-00 | 1-11-01  |

Relative Percent Difference =  $\frac{300174 - 300132}{300132} = .014\%$

$$\frac{|X_1 - X_2|}{\left(\frac{X_1 + X_2}{2}\right)} \times 100$$

$X_1$  = Original Result  
 $X_2$  = Duplicate

[illegible]

COE300175

COE250129(1-11)

COE250129(1-11)

COE260140-5

COE310132-1

0152170

0152172

TS

# QUANTERRA ENVIRONMENTAL SERVICES TOTAL SOLIDS/PERCENT MOISTURE LOG SHEET

6591401

3020

Oven Temperature: 103°C

COE310124

COE310128

20 Moisture

0152257

Calculations:

COE310118

0152260

1. A - C = D
2. B - C = E
3.  $\frac{D}{E} \times 100 = F$
4. 100 - F = G

BALANCE ID C94817 Page of

Includes attachment(s)

Analyst: CHLOEYDE

Date 5-31-00 Time in 0930/1100

Date 6-1-00 Time out 0430

Batch No(s):

| SAMPLE ID     | TARE NO. | (A)<br>DRIED<br>SAMPLE<br>+ TARE | (B)<br>SAMPLE<br>+ TARE | (C)<br>TARE | (D) WEIGHT<br>OF DRY<br>SAMPLE IN<br>GRAMS | (E) WEIGHT<br>OF SAMPLE<br>IN GRAMS | (F)<br>PERCENT<br>SOLIDS | (G)<br>PERCENT<br>MOISTURE |
|---------------|----------|----------------------------------|-------------------------|-------------|--------------------------------------------|-------------------------------------|--------------------------|----------------------------|
| COE300175-001 | 110B     | 5.97                             | 6.66                    | 1.14        |                                            |                                     |                          |                            |
| -002          | C        | 5.36                             | 6.26                    | 1.15        |                                            |                                     |                          |                            |
| -003          | 118      | 5.41                             | 6.12                    | 1.12        |                                            |                                     |                          |                            |
| -004          | 42       | 5.74                             | 6.68                    | 1.12        |                                            |                                     |                          |                            |
| -005          | 166      | 5.33                             | 6.10                    | 1.11        |                                            |                                     |                          |                            |
| COE250129-001 | 11B      | 5.92                             | 7.00                    | 1.14        |                                            |                                     |                          |                            |
| -002          | 123      | 5.23                             | 6.21                    | 1.12        |                                            |                                     |                          |                            |
| -003          | 40       | 5.51                             | 6.59                    | 1.14        |                                            |                                     |                          |                            |
| -004          | V        | 4.87                             | 6.05                    | 1.11        |                                            |                                     |                          |                            |
| -005          | 96       | 5.52                             | 6.57                    | 1.12        |                                            |                                     |                          |                            |
| -006          | AA       | 5.44                             | 6.50                    | 1.11        |                                            |                                     |                          |                            |
| -007          | 108      | 6.06                             | 7.13                    | 1.13        |                                            |                                     |                          |                            |
| -008          | AB       | 4.94                             | 6.03                    | 1.10        |                                            |                                     |                          |                            |
| -009          | 94       | 5.64                             | 6.69                    | 1.11        |                                            |                                     |                          |                            |
| -010          | 46       | 5.67                             | 6.89                    | 1.13        |                                            |                                     |                          |                            |
| -011          | 177      | 4.88                             | 6.09                    | 1.12        |                                            |                                     |                          |                            |
| -012          | 48       | 5.08                             | 6.22                    | 1.13        |                                            |                                     |                          |                            |
| -013          | 154      | 5.35                             | 6.46                    | 1.13        |                                            |                                     |                          |                            |
| -014          | 111      | 4.99                             | 6.01                    | 1.13        |                                            |                                     |                          |                            |
| -015          | 104      | 5.42                             | 6.78                    | 1.11        |                                            |                                     |                          |                            |
| -016          | 1151     | 5.33                             | 6.35                    | 1.10        |                                            |                                     |                          |                            |
| -017          | B        | 5.61                             | 6.64                    | 1.16        |                                            |                                     |                          |                            |
| -018          | 105      | 5.62                             | 6.59                    | 1.13        |                                            |                                     |                          |                            |
| -019          | 12       | 5.47                             | 6.55                    | 1.12        |                                            |                                     |                          |                            |
| -020          | 181      | 5.21                             | 6.17                    | 1.12        |                                            |                                     |                          |                            |
| -021          | 19D      | 5.50                             | 6.45                    | 1.12        |                                            |                                     |                          |                            |
| -022          | 28       | 6.08                             | 6.98                    | 1.11        |                                            |                                     |                          |                            |
| -023          | 158      | 5.28                             | 6.14                    | 1.14        |                                            |                                     |                          |                            |
| -024          | A        | 5.32                             | 6.26                    | 1.13        |                                            |                                     |                          |                            |
| -025          | 150      | 5.21                             | 6.04                    | 1.15        |                                            |                                     |                          |                            |
| -026          | 149      | 5.15                             | 6.17                    | 1.14        |                                            |                                     |                          |                            |
| -027          | 38       | 5.67                             | 6.85                    | 1.16        |                                            |                                     |                          |                            |
| -028          | 141      | 5.46                             | 6.57                    | 1.14        |                                            |                                     |                          |                            |

**QUANTERRA ENVIRONMENTAL SERVICES**  
**TOTAL SOLIDS/PERCENT MOISTURE LOG SHEET**

Oven Temperature: 103°C

Includes attachment(s) \_\_\_\_\_

**Calculations:**

Analyst: CLLOHIDE  
Date 5-31-00 Time in 0930/1100/1245

Date 6-1-00 Time out 0430 <sup>132</sup>

Batch No(s).: \_\_\_\_\_

1.  $A - C = D$
2.  $B - C = E$
3.  $\frac{D}{E} \times 100 = F$
4.  $100 - F = G$

STL Pittsburgh

6591403

## STL - Pittsburgh WATER CONTENT SHEET

SHEET NUM: 0005020

TESTED:

CLL

5/31/00

CHECKED:

ELW

6-1-00

CREATED: 5/31/00 10:10:45 AM

REVISED: 5/31/00 1:27:25 PM

COMMENTS:

C0E260140 C0E310132 C0E310124 C0E310128 C0E310118

| CLIENT SAMPLE<br>IDENTIFICATION | LAB SAMP<br>IDENT. | TARE<br>NO. | WEIGHT<br>TARE | WEIGHT<br>TARE +<br>WET SMP | WEIGHT<br>TARE +<br>DRY SAMP | TIME<br>IN | TIME<br>OUT | WEIGHT<br>WATER | WATER<br>CONTENT<br>CALC. | SOLIDS<br>CONTENT<br>CALC. |
|---------------------------------|--------------------|-------------|----------------|-----------------------------|------------------------------|------------|-------------|-----------------|---------------------------|----------------------------|
| C0E300175                       | 001                | SMP 1108    | 1.14           | 6.66                        | 5.97                         | 9:30       | 4:30        | 0.69            | 12.5                      | 87.5                       |
| C0E300175                       | 002                | SMP C       | 1.15           | 6.26                        | 5.36                         | 9:30       | 4:30        | 0.9             | 17.613                    | 82.387                     |
| C0E300175                       | 003                | SMP 118     | 1.12           | 6.12                        | 5.41                         | 9:30       | 4:30        | 0.71            | 14.2                      | 85.8                       |
| C0E300175                       | 004                | SMP 42      | 1.12           | 6.68                        | 5.74                         | 9:30       | 4:30        | 0.94            | 16.906                    | 83.094                     |
| C0E300175                       | 005                | SMP 166     | 1.11           | 6.1                         | 5.33                         | 9:30       | 4:30        | 0.77            | 15.431                    | 84.569                     |
| C0E250129                       | 001                | SMP 11B     | 1.14           | 7                           | 5.92                         | 9:30       | 4:30        | 1.08            | 18.43                     | 81.57                      |
| C0E250129                       | 002                | SMP 123     | 1.12           | 6.21                        | 5.23                         | 9:30       | 4:30        | 0.98            | 19.253                    | 80.747                     |
| C0E250129                       | 003                | SMP 40      | 1.14           | 6.59                        | 5.51                         | 9:30       | 4:30        | 1.08            | 19.817                    | 80.183                     |
| C0E250129                       | 004                | SMP V       | 1.11           | 6.05                        | 4.87                         | 9:30       | 4:30        | 1.18            | 23.887                    | 76.113                     |
| C0E250129                       | 005                | SMP 96      | 1.12           | 6.57                        | 5.52                         | 9:30       | 4:30        | 1.05            | 19.266                    | 80.734                     |
| C0E250129                       | 005D               | SMP AA      | 1.11           | 6.5                         | 5.44                         | 9:30       | 4:30        | 1.06            | 19.666                    | 80.334                     |
| C0E250129                       | 006                | SMP 108     | 1.13           | 7.13                        | 6.06                         | 9:30       | 4:30        | 1.07            | 17.833                    | 82.167                     |
| C0E250129                       | 007                | SMP AB      | 1.1            | 6.03                        | 4.94                         | 9:30       | 4:30        | 1.09            | 22.11                     | 77.89                      |
| C0E250129                       | 008                | SMP 94      | 1.11           | 6.69                        | 5.64                         | 9:30       | 4:30        | 1.05            | 18.817                    | 81.183                     |
| C0E250129                       | 009                | SMP 46      | 1.13           | 6.89                        | 5.67                         | 9:30       | 4:30        | 1.22            | 21.181                    | 78.819                     |
| C0E250129                       | 010                | SMP 177     | 1.12           | 6.09                        | 4.88                         | 9:30       | 4:30        | 1.21            | 24.346                    | 75.654                     |
| C0E250129                       | 011                | SMP 48      | 1.13           | 6.22                        | 5.08                         | 9:30       | 4:30        | 1.14            | 22.397                    | 77.603                     |
| C0E250129                       | 012                | SMP 157     | 1.13           | 6.46                        | 5.35                         | 9:30       | 4:30        | 1.11            | 20.826                    | 79.174                     |



6591404

## STL - Pittsburgh WATER CONTENT SHEET

SHEET NUM 0005020  
 LISTED: CLL 5/31/00  
 CHECKED: ELW 6-1-00

CREATED: 5/31/00 10:10:45 AM

REVISED: 5/31/00 1:27:25 PM

## COMMENTS:

C0E260140 C0E310132 C0E310124 C0E310128 C0E310118

| 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. |
|------------------------------|-----------------|-----|----------|-------------|-----------------------|------------------------|---------|----------|--------------|---------------------|----------------------|
| C0E250129                    | 013             | SMP | 111      | 1.13        | 6.01                  | 4.99                   | 9:30    | 4:30     | 1.02         | 20.902              | 79.098               |
| C0E250129                    | 014             | SMP | 104      | 1.11        | 6.78                  | 5.42                   | 9:30    | 4:30     | 1.36         | 23.986              | 76.014               |
| C0E250129                    | 015             | SMP | 1151     | 1.1         | 6.35                  | 5.33                   | 9:30    | 4:30     | 1.02         | 19.429              | 80.571               |
| C0E250129                    | 016             | SMP | B        | 1.16        | 6.64                  | 5.61                   | 9:30    | 4:30     | 1.03         | 18.796              | 81.204               |
| C0E250129                    | 017             | SMP | 105      | 1.13        | 6.59                  | 5.62                   | 9:30    | 4:30     | 0.97         | 17.766              | 82.234               |
| C0E250129                    | 018             | SMP | 12       | 1.12        | 6.55                  | 5.47                   | 9:30    | 4:30     | 1.08         | 19.89               | 80.11                |
| C0E250129                    | 019             | SMP | 181      | 1.12        | 6.17                  | 5.21                   | 9:30    | 4:30     | 0.96         | 19.01               | 80.99                |
| C0E250129                    | 019D            | SMP | 231      | 1.12        | 6.45                  | 5.5                    | 9:30    | 4:30     | 0.95         | 17.824              | 82.176               |
| C0E250129                    | 020             | SMP | 28       | 1.11        | 6.98                  | 6.08                   | 9:30    | 4:30     | 0.9          | 15.332              | 84.668               |
| C0E250129                    | 021             | SMP | 158      | 1.14        | 6.14                  | 5.28                   | 9:30    | 4:30     | 0.86         | 17.2                | 82.8                 |
| C0E250129                    | 022             | SMP | A        | 1.13        | 6.26                  | 5.32                   | 9:30    | 4:30     | 0.94         | 18.324              | 81.676               |
| C0E250129                    | 023             | SMP | 150      | 1.15        | 6.04                  | 5.21                   | 9:30    | 4:30     | 0.83         | 16.973              | 83.027               |
| C0E250129                    | 024             | SMP | 149      | 1.14        | 6.17                  | 5.15                   | 9:30    | 4:30     | 1.02         | 20.278              | 79.722               |
| C0E250129                    | 025             | SMP | 38       | 1.16        | 6.85                  | 5.67                   | 9:30    | 4:30     | 1.18         | 20.738              | 79.262               |
| C0E250129                    | 026             | SMP | 141      | 1.14        | 6.57                  | 5.46                   | 9:30    | 4:30     | 1.11         | 20.442              | 79.558               |
| C0E250129                    | 027             | SMP | 1581     | 1.13        | 6.15                  | 5.15                   | 9:30    | 4:30     | 1            | 19.92               | 80.08                |
| C0E250129                    | 028             | SMP | 36       | 1.1         | 6.38                  | 5.24                   | 9:30    | 4:30     | 1.14         | 21.591              | 78.409               |
| C0E250129                    | 029             | SMP | PU       | 1.14        | 6.32                  | 5.18                   | 9:30    | 4:30     | 1.14         | 22.008              | 77.992               |

## STL - Pittsburgh WATER CONTENT SHEET

SHEET NUM: 0005020  
 TESTED: CLL 5/31/00  
 CHECKED: ELW 6-1-00

CREATED: 5/31/00 10:10:45 AM  
 REVISED: 5/31/00 1:27:25 PM

## COMMENTS:

C0E260140 C0E310132 C0E310124 C0E310128 C0E310118

| 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. |
|------------------------------|-----------------|----------|-------------|-----------------------|------------------------|---------|----------|--------------|---------------------|----------------------|
| C0E260140                    | 005             | SMP 154  | 1.09        | 6.21                  | 1.23                   | 11:00   | 4:30     | 4.98         | 97.266              | 2.734                |
| C0E310132                    | 001             | SMP 1551 | 1.12        | 6.03                  | 5.32                   | 12:45   | 4:30     | 0.71         | 14.46               | 85.54                |
| C0E310124                    | 001             | SMP 152  | 1.14        | 6.36                  | 5.71                   | 12:45   | 4:30     | 0.65         | 12.452              | 87.548               |
| C0E310124                    | 001D            | SMP 47   | 1.13        | 6.48                  | 5.83                   | 12:45   | 4:30     | 0.65         | 12.15               | 87.85                |
| C0E310124                    | 002             | SMP 51   | 1.13        | 7.58                  | 6.84                   | 12:45   | 4:30     | 0.74         | 11.473              | 88.527               |
| C0E310124                    | 003             | SMP 1051 | 1.14        | 6.33                  | 5.77                   | 12:45   | 4:30     | 0.56         | 10.79               | 89.21                |
| C0E310128                    | 001             | SMP 82   | 1.12        | 6.68                  | 5.07                   | 12:45   | 4:30     | 1.61         | 28.957              | 71.043               |
| C0E310118                    | 001             | SMP 115  | 1.13        | 6.1                   | 5.51                   | 13:30   | 4:30     | 0.59         | 11.871              | 88.129               |
| C0E310118                    | 001D            | SMP 80   | 1.13        | 6.09                  | 5.54                   | 13:30   | 4:30     | 0.55         | 11.089              | 88.911               |
| C0E310118                    | 002             | SMP 129  | 1.13        | 6.46                  | 5.68                   | 13:30   | 4:30     | 0.78         | 14.634              | 85.366               |
| C0E310118                    | 003             | SMP 33   | 1.13        | 7.69                  | 6.8                    | 13:30   | 4:30     | 0.89         | 13.567              | 86.433               |
| C0E310118                    | 004             | SMP 66   | 1.13        | 7.93                  | 5.97                   | 13:30   | 4:30     | 1.96         | 28.824              | 71.176               |

6591406

PSR024 6/02/00 11:27:11 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

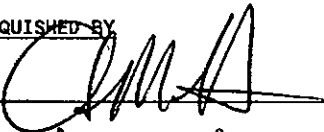
PAGE 001

REQUESTED BY: JOHNSONP

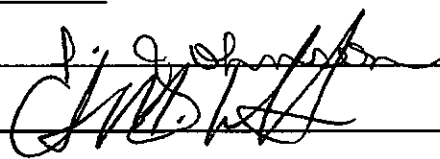
METHOD: IQ Ignitability (SW7.1.2)

| <u>STORAGE LOCATION</u> | <u>WORK ORDER #</u> | <u>PICKED</u><br><u>CNTR#</u> | <u>CONTROL #</u> | <u>CLIENT #</u> | <u>ANALYSIS</u> | <u>LOTID</u> | <u>SNP#</u> | <u>SFX</u> | <u>MATRIX</u><br><u>DESCRIPTION</u> | <u>QTY</u><br><u>RCVD</u> | <u>QTY</u><br><u>REQD</u> |
|-------------------------|---------------------|-------------------------------|------------------|-----------------|-----------------|--------------|-------------|------------|-------------------------------------|---------------------------|---------------------------|
| 7E CLP1                 | DE022-1-06          | — — —                         | 237724           | 399411          | A-88-IQ         | COE310132    | 001         |            | SOLID                               | 3                         | 1                         |

RELINQUISHED BY

  
P. G. Johnson

RECEIVED BY



DATE/TIME

6-2-00/1330  
6-2-00/1400

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

PSR024 5/31/00 10:36:40 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 001

REQUESTED BY: MESOLOSE

METHOD: OZ pH (9045C) - Non-Aqueous

| <u>STORAGE LOCATION</u> | <u>WORK ORDER #</u> | <u>PICKED</u><br><u>CNTR#</u> | <u>CONTROL #</u> | <u>CLIENT #</u> | <u>ANALYSIS</u> | <u>LOTID</u> | <u>SMP#</u> | <u>SFX</u> | <u>MATRIX</u><br><u>DESCRIPTION</u> | <u>QTY</u><br><u>RCVD</u> | <u>QTY</u><br><u>REQD</u> |
|-------------------------|---------------------|-------------------------------|------------------|-----------------|-----------------|--------------|-------------|------------|-------------------------------------|---------------------------|---------------------------|
| 7E CLP1                 | DE022-1-0F          | _____                         | 237412           | 399411          | A-88-OZ         | C0E310132    | 001         |            | SOLID                               | 3                         | 1                         |

RELINQUISHED BY

RECEIVED BY

DATE/TIME

*E. L. Walsh*  
*E. L. Walsh*

*E. L. Walsh*  
*E. L. Walsh*

*5/31/00 (12:40)*  
*5/31/00 (13:20)*

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

6591408

PSR024 5/31/00 10:18:15 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

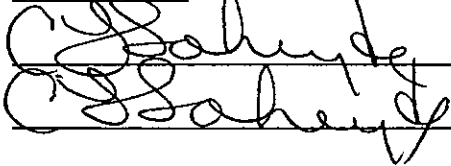
PAGE 001

REQUESTED BY: LOHEYDEC

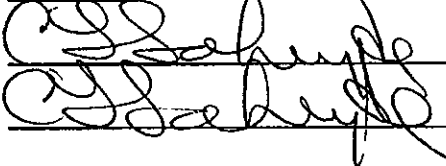
METHOD: SM Solids, Percent (as TS - 160.3 MOD) - Solids

| <u>STORAGE LOCATION</u> | <u>WORK ORDER #</u> | <u>PICKED</u><br><u>CNTR#</u> | <u>CONTROL #</u> | <u>CLIENT #</u> | <u>ANALYSIS</u> | <u>LOTID</u> | <u>SMP#</u> | <u>SFX</u> | <u>MATRIX</u><br><u>DESCRIPTION</u> | <u>QTY</u><br><u>RCVD</u> | <u>QTY</u><br><u>REQD</u> |
|-------------------------|---------------------|-------------------------------|------------------|-----------------|-----------------|--------------|-------------|------------|-------------------------------------|---------------------------|---------------------------|
| 7E CLP1                 | DE022-1-01          | — — —                         | 237401           | 399411          | A-88-SM         | COE310132    | 001         |            | SOLID                               | 3                         | 1                         |

RELINQUISHED BY



RECEIVED BY



DATE/TIME

5-31-00 1225  
5-31-00 1306

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

QUANTERRA- NORTH CANTON  
TITRIMETRIC LOGSHEET

6591409  
Pg 1 of 2

Analysis Reactive Cyanide  
Prep/ Anal. Date 6/6/00  
Analyst DLWAK

Batch Number 015846  
LCS Number         
LCS Prep Date         
RI Sample

Titrant Name Mercuric Nitrate  
Titrant Normality         
Titrant Standardization Date/ Initials       

| Sample Number | Sample Volume | Dil. | Titrant Vol (mL) | Final Conc. | Units | QC Calculations and Comments |
|---------------|---------------|------|------------------|-------------|-------|------------------------------|
| Blank         | 100           |      | 0.005            | ND          |       |                              |
| DE7JG         |               |      | 0.005            | ND          |       |                              |
| DE7JG Dup     |               |      | 0.005            | ND          |       |                              |
| DE022         |               |      | 0.005            | ND          |       |                              |
| DE022 Dup     |               |      | 0.005            | ND          |       |                              |
| DE3DT         |               |      | 0.005            | ND          |       |                              |
| DE3DN         |               |      | 0.005            | ND          |       |                              |
| DE3DX         |               |      | 0.005            | ND          |       |                              |
| DE3EO         |               |      | 0.005            | ND          |       |                              |
| DE3EI         |               |      | 0.005            | ND          |       |                              |
| DE3E2         |               |      | 0.005            | ND          |       |                              |
| DE3E5         |               |      | 0.005            | ND          |       |                              |
| DE3E6         |               |      | 0.005            | ND          |       |                              |
| DE3E9         |               |      | 0.005            | ND          |       |                              |
| DE3EC         |               |      | 0.005            | ND          |       |                              |
| DE3EE         |               |      | 0.005            | ND          |       |                              |
| DE3EG         |               |      | 0.005            | ND          |       |                              |
| DE3EH         |               |      | 0.005            | ND          |       |                              |
| DE3EJ         |               |      | 0.005            | ND          |       |                              |
| DE3EL         |               |      | 0.005            | ND          |       |                              |

Rev. 10/30/98  
N:Metals/Wet Log

6591410

QUANTERRA- NORTH CANTON  
TITRIMETRIC LOGSHEET

Pg 282

Analysis

Residue CV

Prep/ Anal. Date

6/6/00

Analyst

DEJAK

Batch Number

0158416

LCS Number

—

LCS Prep Date

—

RL

200mg/kg

Titrant Name

Silver Nitrate

Titrant Normality

Titrant Standardization Date/ Initials

—

| Sample Number                   | Sample Volume | Dil. | Titrant Vol (mL) | Final Conc. | Units | QC Calculations and Comments |
|---------------------------------|---------------|------|------------------|-------------|-------|------------------------------|
| DE3EM                           | 10g           |      | 0.005            | ND          |       |                              |
| DE3EP                           | 10g           |      | 0.005            | ND          |       |                              |
| DE3EQ                           | 10g           |      | 0.005            | ND          |       |                              |
| <div>AK</div> <div>6-6-00</div> |               |      |                  |             |       |                              |
|                                 |               |      |                  |             |       |                              |
|                                 |               |      |                  |             |       |                              |
|                                 |               |      |                  |             |       |                              |
|                                 |               |      |                  |             |       |                              |
|                                 |               |      |                  |             |       |                              |
|                                 |               |      |                  |             |       |                              |
|                                 |               |      |                  |             |       |                              |
|                                 |               |      |                  |             |       |                              |
|                                 |               |      |                  |             |       |                              |
|                                 |               |      |                  |             |       |                              |
|                                 |               |      |                  |             |       |                              |
|                                 |               |      |                  |             |       |                              |
|                                 |               |      |                  |             |       |                              |
|                                 |               |      |                  |             |       |                              |

QUANTERRA- NORTH CANTON  
TITRIMETRIC LOGSHEET

6591411

Pg 1 of 2

Analysis Reactive Sulfide

Prep/ Anal. Date 6/6/00

Analyst JAK DC

Batch Number 0158410

LCS Number       

LCS Prep Date       

RL 200mg/L

Titrant Name 0.02483 N Aqueous Iodine

Titrant Normality 0.02483

Titrant Standardization Date/ Initials JAK, 5-8-00

Iodine  
6/6/00 DC 0.0280

| Sample Number    | Sample Volume | Dil. | Titrant Vol (mL) | Final Conc. | Units | QC Calculations and Comments |
|------------------|---------------|------|------------------|-------------|-------|------------------------------|
| BLANK            | 10g           |      | 21.8             | ND          |       |                              |
| DE622            | 10g           |      | 22.4             | ND          |       |                              |
| DE622 Dup        | 10g           |      | 23.0             | ND          |       |                              |
| DE7J6            | 10g           |      | 23.4             | ND          |       |                              |
| DE7J6 Dup        | 10g           |      | 22.9             | ND          |       |                              |
| DE3DT            | 10g           |      | 21.6             | ND          |       |                              |
| DE3DW            | 10g           |      | 23.8             | ND          |       |                              |
| DE3DX            | 10g           |      | 25.0             | ND          |       |                              |
| DE3EO            | 10g           |      | 22.0             | ND          |       |                              |
| DE3FI            | 10g           |      | 21.1             | ND          |       |                              |
| DE3E2            | 10g           |      | 21.6             | ND          |       |                              |
| DE3E5            | 10g           |      | 22.3             | ND          |       |                              |
| DE3E6            | 10g           |      | 21.4             | ND          |       |                              |
| DE3E9            |               |      | 22.0             | ND          |       |                              |
| DE3EC            |               |      | 20.7             | 9.28 ND     |       |                              |
| <del>DE3E2</del> |               |      |                  |             |       |                              |
| DE3EE            | ✓             |      | 21.8             | ND          |       |                              |
| DE3EG            | ✓             |      | 22.5             | ND          |       |                              |
| DE3EH            | ✓             |      | 22.0             | ND          |       |                              |
| DE3EI            | ✓             |      | 21.0             | ND          |       |                              |

Rev. 10/30/98  
N: Metals Wet Log



QUANTERRA- NORTH CANTON  
TITRIMETRIC LOGSHEET

QUANTERRA- NORTH CANTON  
TITRIMETRIC LOGSHEET

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Analysis Reactive Sulfide  
Prep/ Anal. Date 6/6/00  
Analyst AK/DL

Batch Number 0158410  
LCS Number —  
LCS Prep Date —  
RL Looney

Titrant Name NATRO sulfite  
 Titrant Normality 0.02183  
 Titrant Standardization Date/ Initials June 15-8-00

[illegible]

**srivera**

---

**From:** Novak Robert J GS AFSPC/CEV <Robert.Novak@Peterson.af.mil>  
**To:** <alton.chavis@langley.af.mil>; Bednar, Bryon <Bryon.Bednar@Peterson.af.mil>; Bratlien, Michael <Michael.Bratlien@Peterson.af.mil>; Bush, Jack, Mr, AF/ILEVP <Jack.Bush@pentagon.af.mil>; Butlak, Diann <Diann.Butlak@Peterson.af.mil>; Carver, Terri <Terri.Carver@Peterson.af.mil>; Churchill, Paul, Maj, AF/ILEPB <Paul.Churchill@pentagon.af.mil>; <ed.lueninghoener@offutt.af.mil>; 'Gauger, George H, Mr, HQAFCEE' <George.Gauger@hqafcee.brooks.af.mil>; Nashold, Elizabeth A GS (CLF N4654A) <NasholdEA@clf.navy.mil>; Rammes, Jeffrey <Jeffrey.Rammes@Peterson.af.mil>; Schellhous, Robbin <Robbin.Schellhous@Peterson.af.mil>; srivera <srivera@labatomaha.com>  
**Sent:** Wednesday, May 01, 2002 2:23 PM  
**Attach:** NORTHCOM EA Schedule, 1 May 02.xls; DOPAA.doc  
**Subject:** FW: NORTHCOM -- Proposed DOPAA On-Board Review (7 May 02)

All - here is a rough draft of the DOPAA for the NORTHCOM EA. Please review and provide comment NLT noon Tomorrow. Air Staff is proposing a DOPAA review for next Tuesday at the Pentagon and they request our best product by Friday. I haven't had a chance to confirm the Tuesday review with Air Staff yet but once it is officially coordinated and approved within Air Staff and the Navy, you will be notified. Feel free to pass this along as appropriate for others to review. Thanks...Bob

Robert J. Novak  
 Program Manager, Environmental Impact Analysis Process  
 HQ AFSPC/CEVP  
 150 Vandenberg St, STE 1105  
 Peterson AFB, CO 80914-2370

Voice: (719) 554-6926  
 Fax: (719) 554-3849  
 DSN: 692

-----Original Message-----

From: Churchill, Paul, Maj, AF/ILEPB [<mailto:Paul.Churchill@pentagon.af.mil>]

Sent: Wednesday, May 01, 2002 12:13 PM  
 To: 'Novak Robert J GS AFSPC/CEV'  
 Cc: Churchill, Paul, Maj, AF/ILEPB; Bush, Jack, Mr, AF/ILEPB; Hannon, John, Mr., AF/ILEPB  
 Subject: NORTHCOM -- Proposed DOPAA On-Board Review (7 May 02)

Bob,

In accordance with the attached EA schedule you provided us, we're going to schedule an on-board review (all-day) of the DOPAA for next Tuesday, 7 May 02 here at the Pentagon. Of course, this review is predicated on the DOPAA being submitted by the contractor by this Friday, 3 May 02. Please let myself and/or Jack Bush know if anything pops up that would threaten the 3 May 02 submission of the DOPAA. I don't need to tell you the scrutiny

this whole issue is undergoing!

The on-board review (Pentagon location TBD) will include yourself & the contractor (let us know if you can make it in person or if you would be participating via conference call), Navy reps, and Air Staff reps -- XOH, GCN, ILEC, ILEPB, and JACE. We will be focusing on ensuring the scope is laid out correctly. We'll make corrections to the document right there at the meeting so it can be taken back with the contractor to carry on with the analysis.

IAW with the schedule, I envision another on-board review o/a 30 May 02 for review of the Draft EA. Same approach -- changes/revisions made right there at the meeting. We will need to ensure "decision-makers" attend. The revised Draft EA would then go out for 15-day public comment and result in the final EA & FONSI being submitted to us NLT 24 Jun 02.

Let Jack & I know your thoughts on the above plan of attack. I haven't notified the Navy or Air Staff folks yet. I want to hear from you first....Awaiting your thoughts...

Thanks,

Paul  
DSN

227-7356

**FINAL PAGE**

**ADMINISTRATIVE RECORD**

**FINAL PAGE**